

Shearer Dam Removal

Contract Documents



View of Shearer Dam

Prepared For

Calapooia Watershed Council
PO Box 844
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Prepared By

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1 INVITATION & INFORMATION FOR PROPOSERS

Sealed proposals for the construction of **Shearer Dam Removal and Restoration** will be received at River Design Group, Inc., 311 SW Jefferson Ave., Corvallis, Oregon, 97333, until 3:00 p.m. on **Monday, June 6, 2011**.

The work consists of, but is not limited to, the following items: removal and disposal of an existing concrete dam; excavation, clearing and grubbing for channel restoration; hauling and placement of materials for channel restoration; furnishing and placing materials for channel bank restoration; furnishing and placing materials for channel bed grade control; and installation of large wood habitat structures for fish habitat. The contractor will be required to comply with dewatering, erosion and sediment control measures throughout the duration of the project. The bidding documents for this project may be examined at River Design Group's office at 311 SW Jefferson Avenue, Corvallis, Oregon, 97333 or obtained at www.calapooia.org.

All proposals shall be submitted on the **Proposal Form** provided. No proposal for a construction contract shall be received or considered unless the Proposer is registered with the Construction Contractors Board as required by ORS Chapter 701.

The Calapooia Watershed Council reserves the right to accept the proposals and award a contract to a responsible and qualified Proposer; to postpone the acceptance of the Proposal and the award of the contract for a period not to exceed thirty (30) days; or to reject any and all proposals received and further advertise the project for proposals. **This project is required to comply with Prevailing Wage requirements.**

When the project is awarded, the successful Proposer shall promptly execute the Contract as stated on the Proposal Form. The in-water work period established for this project is from **July 15, 2011 to October 31, 2011**. Final completion of the project shall be by **October 31, 2011**. The Contracting Agency is responsible for obtaining all required permits and will add additional days to the project deadline as needed if permits are not in place by July 1, 2011, however, the established in-water work period will not change.

1.1 Definitions

PROPOSER – Any corporation or entity submitting a responsible proposal under the Contract Documents attached herein.

OWNER – The Oregon Parks and Recreation Department (OPRD) owns the rights to the dam and has legal access to the site where work will be performed.

CONTRACTING AGENCY (CA) – Calapooia Watershed Council (CWC) is authorized to enter into and administer this Contract on behalf of the Owner.

CONTRACTOR – The successful Proposer who enters into a Contract with the Contracting Agency to perform the work.

ENGINEER – River Design Group, Inc. (RDG) is the Contracting Agency's representative who is responsible for designing the project and will determine that the construction work conforms to the technical requirements and design intent as set forth in the Drawings and Specifications.

PROJECT INSPECTOR - River Design Group, Inc. (RDG) employee who is responsible for providing construction oversight and ensuring the construction work conforms to the technical requirements and design intent as set forth in the Drawings and Specifications.

PROJECT – Refers to the removal of Shearer Dam, reconstruction and restoration of the bifurcation area and Shearer Ditch, and revegetation of disturbed areas and cleanup of the site.

1.2 Mandatory Pre-Proposal Conference

A **mandatory pre-proposal conference** will be held on-site on **Wednesday, May 25, 2011 at 10:30 am**. We will meet at the intersection of the Knife River Quarry (Slate Quarry) and Linn-West Road. Proposals will not be accepted from contractors that do not attend the pre-proposal conference and site preview.

1.3 Minimum Contractor Qualifications

Dam removal and river channel restoration are unique construction processes that require specialized experience and expertise. In order to be eligible for proposing on this project, the contractor must be able to demonstrate, through past project experience and references, the following: 1) removal of at least one in-stream structure from an active river, 2) reconstruction or restoration of a river channel using natural techniques, and 3) dewatering with work area isolation in active rivers. References must be provided to validate this experience. Stabilizing an eroding stream bank does not qualify as adequate experience.

1.4 Interpretations and Addenda

All questions about the meaning or intent of the Plans and Specifications or other documents are to be submitted to the Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Request for Proposal Documents. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Addenda may be issued to clarify, correct, or change the Proposal Documents as deemed advisable by the Engineer.

1.5 Contractor's Proposal Format and Submittal

The Contractor's proposal shall be kept to the minimum number of pages while adequately demonstrating the required experience and proposed approach. The following items shall be submitted:

- 1) Proposal Form (provided)
- 2) Project technical approach
- 3) Organizational structure and personnel proposed for this project including all subcontractors and material suppliers
- 4) Documented experience and references that demonstrate minimum contractor qualifications

- 5) Experience working with private landowners on private lands
- 6) Acknowledgement of Addenda

1.6 Basis of Award

Submitted proposals may be withdrawn by written request of the Proposer provided the request is received prior to the time set for proposal opening. After that time, no proposal may be withdrawn for a period of sixty (60) working days and at no time after award of proposal.

Award will be made to the responsible, responsive Proposer (1) whose proposal is technically acceptable, (2) has proven the required experience with similar projects and (3) whose technical/cost relationship is the most advantageous to the Contracting Agency. While cost is secondary to Proposer's technical abilities, cost will be a factor in the award decision. The critical factor in making any technical/cost trade-off is not the spread between the technical scores, but rather what is the significance of that difference.

Awards may not necessarily be made to that Proposer submitting the lowest offer. Also, award may not necessarily be made for technical capabilities that would appear to exceed those needed for the successful performance of the work. The Contracting Agency reserves the right to make technical/cost trade-offs that are in the best interest and to the advantage of the Council. The Contracting Agency reserves the right to reject any or all proposals or to make award without conducting discussions. Discussions (oral or written) may be conducted as appropriate with all Proposers considered to be within the competitive range. For the purpose of this solicitation, discussion shall not be considered to have been initiated where the Contracting Agency requests additional information supplementing or clarifying a proposal without materially changing it. Discussion shall be considered to be open negotiation with a Proposer for the purpose of modifying or materially changing the proposal as submitted.

1.7 Performance and Payment Bond

The Contractor selected will be required to procure a Performance and Payment Bond in the amount of the signed Contract.

1.8 Confidentiality Statement

Contracting Agency abides by the public records laws of the State of Oregon. As such, proposal documents are generally considered to be a matter of public record after the contract for work has been awarded. Information in a proposal may or may not be considered to be exempt from public disclosure based on the following: 1) trade secrets as identified in ORS 192.501 and 2) information submitted in confidence as identified in ORS 192.502.

The Proposer should separate information considered to be confidential from the other information in the proposal. To the extent of the law, Contracting Agency will endeavor to keep information confidential if the Proposer marks the subject information as confidential.

2 PROPOSAL FORM

PROPOSER: _____

ADDRESS: _____

PHONE: _____ FAX: _____ DATE: _____

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

The Proposer further declares that he/she has carefully examined the Plans, Specifications, Permit Conditions, Contract and Contract Documents, hereinafter referred to as the Document, for the construction of the proposed project improvement; has personally inspected the site; is satisfied as to the type and quantities of materials, the types of equipment, the conditions of and the work involved, including the fact that the description of and the quantities of work and materials, the types of equipment, the conditions of and the work involved as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Document; and, that this Proposal is made in accordance with the provisions and the terms of the Contract and included in the Document.

The Proposer agrees that if this Proposal is accepted he/she will **within five (5) working days**, not including Saturdays, Sundays and legal holidays, after notification of acceptance execute the Contract with Contracting Agency in the form of the Contract included in the Document.

The Proposer further agrees, to the extent of this Proposal, to furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all of the materials necessary to complete the work in the manner, in the time, and according to the methods as specified in the Document and required by the Engineer.

The Proposer further agrees to begin work within ten (10) working days after the date of the written Notice to Proceed and to complete all in-water work and construction by **October 31, 2011**. Work will not be allowed to commence until a signed Contract is received by Contracting Agency.

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

The work descriptions given below are not comprehensive and only give a cursory description of work items for bidding purposes only; however, the total proposal shall be for all ancillary items to complete the stream structure modifications. The Contractor must include adequate provisions in each proposal item to account for incidentals, final cleanup, and other items required to complete the project and meet the intent of the project Specifications and Drawings.

Proposal Schedule – Shearer Dam Removal and Restoration

Item No.	Description	Estimated Quantity	Unit	Proposal Price
1.0	Performance and Payment Bond	1	Lump Sum	
2.0	Mobilization Equipment, materials, and labor to mobilize necessary equipment and facilities to the project site.	1	Lump Sum	
3.0	Site Preparation Develop access into dam site, clear areas that will require work access, equipment and materials staging.	1	Lump Sum	
4.0	Care and Diversion of Water Equipment, materials, and labor to divert water around work areas and maintain diversion and turbidity control measures.	1	Lump Sum	
5.0	Erosion Control Equipment, materials, and labor to install the necessary erosion control and maintain throughout duration of project.	1	Lump Sum	
6.0	Concrete Dam Removal Equipment, materials, and labor necessary to fully remove all concrete from the river and dispose of at an approved site. <i>Estimated quantity of concrete: 150 cubic yards</i>	1	Lump Sum	
7.0	Channel Excavation Equipment, materials, and labor to excavate and dispose of material from Shearer Dam in preparation of the channel restoration. Some of this material will be reused. <i>Estimated excavation: 530 cubic yards</i>	1	Lump Sum	
8.0	Riffle Equipment, materials, and labor to install a riffle. <i>Estimated Alluvium Matrix: 150 cubic yards</i>	1	Lump Sum	
9.0	Habitat Boulders Equipment, materials, and labor to install boulders as designated on the plans. <i>Estimated Habitat Boulders: 20 cubic yards</i>	1	Lump Sum	
10.0	Large Wood Structure Equipment and labor to install large wood structure as shown on the plans, large wood provided by Contracting Agency. <i>Estimated Number of Structures: 1structure</i>	1	Lump Sum	
11.0	Site Cleanup and Demobilization Includes all labor, materials, and equipment to replace salvaged vegetation, clean the site and remove all construction equipment and remaining construction debris.	1	Lump Sum	

Lump Sum Proposal Total:

(total amount written in words)

\$ _____

(total amount written in numbers)

After the Contractor is selected, a guaranteed maximum price will be established for the Project.

In addition to the Lump Sum proposal, typical equipment and labor rates are necessary if additional work arises on the project site. Please provide the following rates:

Item	Cost	Units
Excavator Track mounted excavator, 38,000 pounds GVW, includes operator, fuel, and insurance.		Per hour
Dump Truck Standard dump truck with 10-12 cubic yard capacity, includes operator, fuel, and insurance.		Per hour
Dump Truck - Off Road Standard off road dump truck with 10-12 cubic yard capacity, includes operator, fuel, and insurance.		Per hour
Site Supervisor On-site project supervisor able to direct labor and equipment.		Per hour
Laborer 1 Skilled laborer able to operate equipment.		Per hour

Proposer Certifications

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

The Proposer further declares that he/she has carefully examined the Plans, Specifications, and Contract Documents, hereinafter referred to as the Document, for the construction of the proposed project improvement; has personally inspected the site; is satisfied as to the type and quantities of materials, the conditions of and the work involved, including the fact that the description of and the quantities of work and materials, the types of equipment, the conditions of and the work involved as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Document; and, that this Proposal is made in accordance with the provisions and the terms of the Contract and included in the Document.

The Proposer further agrees that he/she has exercised his/her own judgment regarding the interpretation of subsurface information and has obtained and utilized all data which they believe pertinent from the Engineer, the Contracting Agency, the Owner, and such other sources of information as they determine appropriate in arriving at their conclusion.

The Proposer further declares that the provisions required by the Oregon Revised Statutes (ORS) 279C.800 to 279C.870 relating to Prevailing Wage Rates shall be included in and made a specific part of his/her Contract. The Proposer agrees to be bound by and will comply with the provisions of ORS 279C.840. The Proposer further declares that all other applicable sections relating to Public Contracts with Purchasing as set forth in ORS Chapter 279C have been complied with in making this Proposal and, as required, shall be made a part of the Document as completely as if the same were fully set forth herein. Prevailing wage rates and forms can be located at http://www.oregon.gov/boli.www.oregon.gov/BOLI/WHD/PWR/pwr_state.shtml.

The Proposer certifies that they have not and will not discriminate against minority, women, or emerging small businesses in the awarding of any subcontracts in accordance with ORS 279A.110 (4). The Proposer agrees not to discriminate on the basis of age, citizenship status, color, familial status, gender identity or expression, marital status, mental disability, national origin, physical disability, race, religion, religious observance, sex, sexual orientation, and source or level of income in the performance of this contract.

The Proposer agrees that if this Proposal is accepted he/she will within 10 working days, not including Saturdays, Sundays and legal holidays, after notification of acceptance execute the Contract with the Contracting Agency in the form of the Contract included in the Document, and shall at the time of the execution of the Contract, deliver to the Contracting Agency the Performance and Payment Bond required herein.

The Proposer further agrees, to the extent of this Proposal, to furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all of the materials necessary to complete the work in the manner, in the time, and according to the methods as specified in the Document and required by the Project Engineer.

If the Proposer is awarded a construction contract on this Proposal, the Surety who provides the Performance and Payment Bond will be:

whose address is

The name of the Proposer submitting this Proposal is:

doing business at _____

which is the address to which all communications concerned with the Proposal and with the Contract shall be sent.

(If Corporation)

In witness whereof the undersigned Corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this _____ day of _____, 2011.

NAME OF CORPORATION

By: _____

Title

Attest: _____
Secretary

(If Partnership)

In witness whereof the undersigned Partnership has caused this instrument to be executed by its duly authorized officer(s) this _____ day of _____, 2011.

NAME OF PARTNERSHIP

By: _____

Title

Attest: _____
Secretary

(If Sole Proprietor)

In witness whereof the undersigned has set his hand and caused this instrument to be executed this _____ day of _____, 2011.

SIGNATURE OF PROPOSER

Attest: _____

3 CONTRACT

THIS CONTRACT, made and entered into this ____ day of _____ 2011, by and between the Calapooia Watershed Council hereinafter called the "Contracting Agency" and _____ hereinafter called the "Contractor."

WITNESSETH:

Said Contractor, in consideration of the sums to be paid by Contracting Agency and of the covenants and agreements herein contained, hereby agrees, at their own proper cost and expense to do all the work and furnish all of the materials, tools, labor, and all machinery, and appurtenances, for the sum of _____ dollars (\$ _____) and doing such other work as is necessary to make an appropriate and complete project improvement, to the extent of the Proposal made by the Contractor, dated _____, all in full compliance with the Contract Documents referred to herein.

The Invitation and Information for Proposers, signed copy of the Proposal Form, fully executed Contract, Drawings, Special Provisions, and Technical Specifications document entitled Contract Documents for the Construction of **Shearer Dam Removal and Restoration**, dated May 2011, as if the same were fully set forth herein and are made mutually cooperative therewith. All work shall be done according to the terms, conditions, and requirements of the said Contract Documents and Specifications and Permit Conditions.

This Contract shall be effective from the date this Contract is fully executed by the parties through final completion as deemed by the Engineer. The Contractor agrees to complete the work within the time specified herein, or as said time shall be extended by mutual agreement between Contracting Agency and the Contractor, and to accept as full payment hereunder the amount computed as determined by the Contract Documents and based on the Proposal.

In addition, the Contractor agrees to indemnify and save harmless the Oregon Parks and Recreation Department, Contracting Agency, and River Design Group, Inc. from any and all defects appearing and developing in the materials furnished and the workmanship performed under the Contract for a period of one year after the date of acceptance of the work in the Contract by the Contracting Agency. The Contractor shall indemnify, protect, defend, and hold Contracting Agency, their officers, agents, volunteers and employees harmless against any actions, claim for injury or damage and all loss, liability, cost or expense, including court costs and attorney fees, growing out of or resulting directly or indirectly from the performance of this Contract, except for that resulting from the sole negligence of Contracting Agency.

In consideration of the faithful performance of the work herein embraced, as set forth in these Contract Documents, and in accordance with the direction of the Engineer, and to their satisfaction to the extent provided in the Contract Documents, Contracting Agency agrees to pay to the Contractor the amount proposal as adjusted in accordance with the Proposal Form as determined by the Contract Documents, or as otherwise herein provided, and based on said Proposal made by the Contractor, and to make such payments in a manner and at the times provided for in the Contract Documents.

IN WITNESS WHEREOF, we the parties hereto, each herewith subscribed the same this

_____ day of _____, 2011.

CONTRACTOR'S NAME

By: _____

Title: _____

CONTRACTING LOCAL ORGANIZATION

Contracting Agency

By: _____

Title: _____

4 GENERAL REQUIREMENTS

4.1 Scope of Work

The work includes furnishing all labor, equipment, and materials for removing and disposing of the concrete dam, and reconstructing a portion of the Calapooia River. Specific items of work include erosion control, site dewatering, work area isolation, temporary fish passage, installation of engineered structures, cleanup, and other items required to complete the project and provide a stable channel passable by fish. **All large wood for the project will be provided by the Contracting Agency at the job site.** No explosives or blasting are allowed under the permit conditions.

4.2 Governing Documents

Wherever the term Specifications occurs in the Document, the term shall signify all of the terms, provisions, and requirements contained therein. Wherever standard specifications, such as those of ASTM, AASHTO, etc., or the supplier's Standard Specifications have been referred to, the applicable portions of such standard specifications shall become a part of the Document as completely as if the same were fully set forth and bound therein.

4.3 Work Coordination and Scheduling

Project Schedule. The selected Contractor shall submit a proposed schedule as part of their proposal. A detailed work schedule that shows the dates at which the Contractor will start and complete the various parts of the Contract shall be submitted at the pre-construction conference. The scheduled completion date must be the same as the contractual completion date. Should the Contractor show a completion date earlier than the Contractual completion date, the resulting "float" shall belong to both the Contracting Agency and the Contractor. The Engineer will review schedules and if required, Contractor shall resubmit revised schedules within two (2) working days after return of review copy. **The in-water work period established for the project is July 15 – October 31.**

Schedules shall be of the Gantt chart type prepared using a computer program such as Microsoft Project or Primavera. Schedules shall show critical path with logical ties between tasks and as a minimum, the start date, finish date, and planned duration of each task. Schedules shall be updated biweekly and resubmitted.

No work shall commence at the beginning of each work week until an on-site meeting is completed between Contractor and Project Inspector. An updated schedule will be on-hand for the meeting. Work will not commence until an updated schedule is submitted on a biweekly basis. During the contract period, the Contractor shall also coordinate daily activities with the Project Inspector.

4.4 Reasonably Implied Work and Incidental Items

Any part of the work that is not mentioned in these Specifications, but is shown on the Plans, or any part not shown on the Plans, but described in these Specifications, or any part not shown in the Plans nor described in the Specifications which is necessary or normally required as a part

of such work, or is necessary or required to make each installation satisfactorily operable; shall be performed by the Contractor as incidental work without extra cost to the Contracting Agency.

4.5 Payment For Extra Work Based on Time and Materials

Any work required to carry out the intent of this contract document by changes not clearly indicated in the document, or which cannot be reasonably implied from the intent and meaning of the Contract Documents and which cannot be classified under any of the items for which a lump sum price is listed in the Contractor's proposal shall be paid for on a unit price account basis based on the Proposal Form rates provided. All extra work must be approved in writing by the Engineer prior to executing the work. If the method of payment cannot be agreed upon prior to beginning work, and the Engineer directs that the work be done, then the Contractor shall furnish labor, equipment and materials necessary to complete the work in a satisfactory manner and within a reasonable period of time. For the work performed, payment will be made for the documented actual cost of labor, materials, rental expenses, and additional insurance expenses.

Materials: The cost of materials reported shall be at invoice or the lowest current price at which materials are locally available and delivered to the job in the quantities involved, plus the cost of freight, delivery and storage. If, in the opinion of the Engineer, the cost of materials is excessive or the Contractor does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the work site less trade discount.

Equipment: The Contractor will be paid for the use of equipment at the rate listed on the Proposal Form or for such equipment not listed, rates shall be as specified in the current edition of the following reference publication: "Rental Rate Blue Book" as published by Dataquest (a company of Dunn and Bradstreet Corporation, 1290 Ridder Park Drive, San Jose, CA 95131). The rental time to be paid for equipment on the work site shall be the time the equipment is in productive operation on the extra work being performed and, in addition, shall include the time required to move the equipment to the work site and return it to its original location if the equipment is used solely for the extra work.

Work Report: In order to be paid for extra work, the Contractor must submit a work report in a format approved by the Engineer. Failure to complete the form and submit the form for appropriate signatures by the next working day after extra cost work from the previous day was completed will result in the Contractor's costs for extra work being disallowed.

4.6 Spill Prevention, Equipment Fluids, and Cleaning Requirements

All equipment that will be in or around active water shall utilize a biodegradable hydraulic oil for all mechanical fluids. The fluids shall be manufactured with a vegetable oil blend to meet U.S. Federal bio-based procurement guidelines as defined in Section 9002 of the Farm Security and Rural Investment Act of 2002 (FSRIA).

Prevention of Oil Spills. The Contractor shall not maintain storage facilities for oil or oil products on site. If a spill of petroleum product should occur in water, the Contractor shall take

immediate action to clean up or contain the spill, then immediately notify the Engineer and the Oregon Emergency Response System (OERS), telephone 1-800-452-0311 or 1-503-378-4124, and then immediately notify the Contracting Agency. Contractor shall have a SPILL RESPONSE KIT on the project whenever equipment is operating. The spill kit shall be sufficient to absorb 34 gallons of oil, designed to float on the surface, while absorbing oil and repelling water. The KIT shall meet or exceed the physical properties of "New Pig Products Spill Kit #408".

Oil absorbing mats are required under all stationary equipment, or equipment being serviced within the project area to prevent leaking or spills. Such material will be furnished by Contactor and approved by Engineer.

Servicing of all equipment shall be done only in the areas approved by the Engineer at least 150' from the water.

All earth moving equipment (loaders, excavators, dump trucks, etc.) moved to the job site shall be cleaned of weeds and their seeds prior to each entrance onto the project. Cleaning shall consist of the removal of all dirt, grease, debris, and materials that may harbor noxious weeds and their seeds. This may require the use of a pressure hose.

Equipment shall be made available for visual inspection by the Project Inspector prior to entering the project area. The Contractor shall advise of a proposed date for mobilization. Inspections will take place at mutually agreeable en-route locations in advance of entry into the project area. Special attention shall be paid to remove seeds and propagules of the following species:

- | | |
|---|--|
| spotted knapweed (<i>Centaurea maculosa</i>) | diffuse knapweed (<i>C. diffusa</i>) |
| yellow starthistle (<i>C. solstitialis</i>) | gorse (<i>Ulex europaeus</i>) |
| rush skeletonweed (<i>Chondrilla juncea</i>) | tansy ragwort (<i>Senecio jacobaea</i>) |
| purple loosestrife (<i>Lythrum salicaria</i>) | distaff thistle (<i>Carthamus lanatus</i>) |
| false brome (<i>Brachypodium sylvaticum</i>) | Japanese knotweed (<i>Fallopia japonica</i>) |

The Contractor shall take special care under this contract to prevent contamination of water at the work sites with any petroleum residues from mechanical equipment operations. This shall include daily inspection and cleaning as appropriate.

4.7 Site Investigation and Representation

The Contractor acknowledges satisfaction as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the sites, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, ground water elevation, or similar physical conditions at the site and all other matters that can in any way affect the work or the cost thereof under this contract.

The Contractor further acknowledges satisfaction as to character, quality, and quantity of surface and subsurface materials to be encountered from their inspection of the site and from reviewing any available records included in these documents. Failure by the Contractor to

become acquainted with the physical conditions of the site and all the available information shall not relieve the Contractor from the responsibility for properly estimating the difficulty or cost of successfully performing the work. Proposers and Contractors are responsible for making their own determination of subsurface conditions.

The Contractor warrants that as a result of examination and investigation of all the aforesaid data, the Contractor can perform the work in a good and workmanlike manner and to the satisfaction of the Engineer.

Any information obtained by the Engineer regarding site conditions, subsurface information, groundwater elevation, existing construction of site facilities as applicable, and similar data will be available for inspection upon request. Such information is offered as supplementary information only.

4.8 Easements and Access

The Contracting Agency has secured access to the project site through a shared gravel access road with other property owners. The Contractor shall confine construction operations to within the limits of this construction access, construction site, rights-of-way, and access areas as shown on the Plans, or make special arrangements with the property owners or appropriate public agency for additional area required. Any damage to property shall be the responsibility of the Contractor. If additional access is necessary to complete the project, the Contracting Agency will assist the Contractor to the fullest extent practicable, however, all damages and claims by private parties will be the responsibility of the Contractor.

4.9 Vegetation Preservation

(a) The Contractor shall not remove, deface, injure, or destroy trees, shrubs, or similar natural features not designated for treatment. The Contractor shall confine operations to within the clearing limits or other areas designated in the contract documents, and prevent the depositing of rocks, excavated materials, stumps, or other debris outside of these limits. Material which falls outside of these limits shall be retrieved, disposed of, or incorporated in the work as directed by the Engineer.

(c) No objectionable material shall be allowed to enter any stream, river, lake, or other body of water. Material which falls in these areas shall be retrieved and disposed of, or incorporated in the work as directed by the Engineer, and damage to vegetation or structures outside the project limits shall be repaired as directed by the Engineer.

(d) The Contractor shall not operate equipment or otherwise disturb the natural vegetation and soil beyond the areas flagged on the ground or beyond two feet from edge of channel restoration, top of cuts, or toe of fills.

(e) The Contractor will make every reasonable attempt to preserve the scenic and natural environment along this construction project.

(f) Prior to the start of construction the Contractor shall submit to the Engineer for approval a schedule and plan for temporary pollution control measures.

4.10 Traffic Control and Public Roads

The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs, and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the public. Suitable warning signs shall be provided to properly control and direct traffic. **The Contractor shall coordinate any road closures or times of limited access, if required, with Knife River. Likewise, the Contractor is responsible for all permits associated with ingress/egress and construction activity on Linn County roads.**

4.11 Control of Material

Rights In and Use of Materials - The Contractor may use on the project suitable stone, gravel, or sand encountered in the excavation that meets specific project specifications.

Excavation - Rocks and mineral soil excavated within the normal excavation shall be conserved and used as needed if it meets the material specification.

Storage and Stockpiling of Materials - Materials shall be stored to assure the preservation of quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection.

Earthwork Tolerances - Unless working tolerances are specified, all work performed and materials furnished shall be in reasonably close conformity with lines, grades, cross sections, dimensions, and material requirements shown on the Plans, indicated in the specifications, or designated on the ground. "Reasonably close conformity" is in compliance with reasonable and customary construction tolerances for restoration projects, typically within three inches of design grade.

4.12 Items Furnished By Contracting Agency

The Contracting Agency will provide all large wood for the project and will deliver it to the site and place it in a staging area. It is the Contractor's responsibility to sort and move the large wood into place for final installation.

4.13 Fish Salvage

The Contracting Agency and Engineer shall provide adequate staff and equipment to perform fish salvage in area that will be isolated from running water. The Contractor must notify the Engineer at least seven (7) days before a fish salvage will be required at the site. Advanced notification is necessary to coordinate with ODFW and other necessary parties prior to the fish salvage efforts.

4.14 Construction Stakes, Lines, and Grades

(a) The Engineer has marked with flagging and/or wire flags the project layout. The flags, wire flags, hubs, and stakes constitute the field control from which the Contractor shall execute the work, and shall be left in place until the Engineer approves their removal.

(b) The Contractor shall do all further surveying, and reference staking to establish the horizontal and vertical control necessary to result in having the finished work comply with the lines and grades shown on the Plans or stated in the specifications. This work is incidental to the pay items.

(c) If any construction control points have been destroyed or displaced, or are erroneous, the Contractor shall promptly notify the Engineer. If these points are destroyed or displaced due to Contractor's negligence or operation, the cost for replacing them will be charged to the Contractor.

4.15 Sanitation Requirements

Unless substitute measures or equipment are authorized in writing by the Contracting Agency, protection of air and water quality will include the use of approved chemical toilets by all persons engaged in construction under this contract while they are within the boundaries of the Project area. Such facilities shall be furnished by Contractor in quantities and at locations approved by the Engineer. No habitation or overnight dwelling by employees of Contractor will be permitted without advance written approval from the Contracting Agency.

4.16 Final Cleanup

Contractor shall remove and dispose all of its own trash and refuse from the contract area. Material to be removed includes, but is not limited to garbage, used engine oil, oil filters, oil cans, grease cartridges, etc. The Contractor shall also remove and dispose of upon completion of Project, all stakes, sediment and turbidity control devices, flagging, wood debris, rock chips, and similar debris within the project area. This cleanup is a subsidiary item for which no special payment will be made. All debris shall be disposed off the job site and in accordance with State and Local disposal requirements.

4.17 Protection of Cultural Resources

The project site is a known area of archeological significance with known cultural resources that must be protected. Prior to any ground disturbance activities the Contractor shall notify the Engineer and Contracting Agency at least 5 days in advance to allow time for coordinating a Tribal spotter to view activities. Locations of known historic or prehistoric sites, buildings, objects, and properties related to American history, architecture, archaeology and culture, such as settler or Indian artifacts, protected by American Antiquities Act of 1906 (16 U.S.C. 431-433), National Historic Preservation Act of 1966 (16 U.S.C. 470) and the Archaeological Resources Protection Act of 1979 (PL 96-95 and 36 CFR 261.9(e)) will be identified on the ground by the Contracting Agency. In addition, an Inadvertent Discoveries Plan is in place for the project area.

Due to the unique nature of this culturally significant area, the Contracting Agency may unilaterally modify or cancel this contract to protect an area, object of antiquity, artifact, or similar object which is or may be entitled to protection under these Acts regardless of when the area, object or artifact is discovered or identified. Discovery of such areas or objects by either party shall be promptly reported to the other party.

Contractor shall protect all known and identified historic or prehistoric sites, buildings, objects and properties related to American history, architecture, archaeology and culture against destruction, obliteration, removal or damage during Contractor's Operations. In accordance with 36 CFR 296.14(c), Contractor shall bear costs of restoration, provided that such payment shall not relieve Contractor from civil or criminal remedies otherwise provided by law.

Wheeled or track-laying equipment shall not be operated within such areas except on roads. Unless agreed otherwise, trees will not be felled from or into such areas.

4.18 Protection of Habitat Of Endangered, Threatened, and Sensitive Species

Location of areas needing special measures for protection of plants or animals listed as threatened or endangered under the Endangered Species Act of 1973, as amended are shown on the Plans and identified on the ground. Measures needed to protect such areas are as follows:

- 1) No blasting allowed.
- 2) Between April 1st and September 15th, heavy equipment or power tool use is restricted to one hour after sunrise to one hour before sunset.
- 3) To minimize the risk of attracting predators to activity areas, all garbage (especially food products) shall be contained or removed daily from the vicinity of any activity.

4.19 Existing Utilities

The locations of existing utilities shown on the Plans are based on available information and are not guaranteed to be accurate or complete. The Contractor is responsible for verifying the locations of all existing utilities. For locates call 1-800-332-2344 a minimum of 48 hours in advance. The Contractor must notify all utility offices that will be affected by the construction cooperation at least 48 hours in advance. Under no circumstances shall the Contractor expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, the Contractor may locate, expose, and provide temporary support for all existing underground utilities. The Contractor shall reschedule his/her work to allow relocation of any conflicting utility. The Contractor shall not be entitled to additional compensation for delays in the project attributed to the relocation of utilities.

4.20 Existing Structures

Necessary precautions should be taken to prevent damage to existing structures whether on the surface or underground. An attempt has been made to show major structures on the drawings. The completeness and accuracy of information shown cannot be guaranteed, and it is presented simply as a guide to avoid known possible difficulties.

It is the Contractor's responsibility to protect underground and above ground structures from damage, whether or not they lie within the limits of the rights-of-way or easements obtained by the owner. Where such existing structures must be removed in order to carry out the construction, or are damaged during construction, restoration shall be made to their original condition to the satisfaction of the property owner involved, at the Contractor's expense. The

Engineer shall be notified of any damaged underground structure and repairs or replacements shall be made before backfilling.

4.21 Insurance/Responsibility for Damages/Hold Harmless

1. Contractor shall be responsible for all damage to property, injury to persons and loss, expense, inconvenience and delay that may be caused by or result from the carrying out of the work to be done under this contract, or from any act, omission or neglect of Contractor, its subcontractors, personnel or agents, and the Contract shall defend, indemnify and hold harmless the Owner and the Contracting Agency against any claims arising from said damage, injury, loss or expense.
2. Contractor shall indemnify, defend, and hold harmless the Oregon Parks and Recreation Department, Contracting Agency, River Design Group, Inc. and its officers, divisions, and employees and members from all claims, suits or actions of any nature out of or relating to the acts or omissions of Contractor, its officers, subcontractors, agents or employees under this contract.
3. Primary Coverage. Insurance carried by Contractor under this contract shall be the primary coverage.
4. Comprehensive or Commercial General Liability. Contractor shall obtain at Contractor's expense and maintain comprehensive or commercial general liability insurance covering bodily injury and property damage. This insurance shall include personal injury coverage, contractual liability coverage for the indemnity provided for under this contract, and products/completed operations liability. Combined single limit per occurrence shall not be less than two million dollars or the equivalent. Each annual aggregate limit shall not be less than two million dollars when applicable.
5. Automobile liability. Contractor shall obtain at Contractor's expense and keep in effect during the term of this contract, automobile liability insurance. This coverage may be written in combination with the comprehensive or commercial general liability insurance. Combined single limits per occurrence shall not be less than one million dollars or the equivalent.
6. Worker's Compensation. The Contractor, its subcontractors, if any, and all employers providing work, labor or materials under this contract are subject employers under the Oregon Worker's Compensation law and shall comply with ORS 656.017, which requires them to provide worker's compensation coverage that satisfies Oregon law for all their subject workers. This shall include employer's liability insurance with coverage of not less than \$100,000 each accident. Contractors who perform the work without the assistance of labor of any employee need not obtain such coverage.
7. "Tail" Coverage. If any of the aforementioned liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this contract for the duration of 24 months. Contractor will be responsible for furnishing certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 months following contract completion. Continuous "claims made" coverage will be

acceptable in lieu of open “tail” coverage, providing its retroactive date is on or before the effective date of this contract. This will be a condition of the final acceptance of work or services and the related warranties, if any.

8. Additional Insured. The liability insurance coverages required for performance of this contract shall include the Oregon Parks and Recreation Department, Contracting Agency, River Design Group, Inc., but only with respect to the Contractor’s activities to be performed under this contract.
9. Notice of Cancellation or Change. There shall be no cancellation, material change, potential exhaustion of aggregate limits or intent not to renew the insurance coverage without 30 days written notice from the Contractor or its insurer to the Contracting Agency. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Additional Insured.
10. Certificates of Insurance. As evidence of the insurance coverages required by this contract, the Contractor shall furnish certificate(s) to the Contracting Agency prior to issuance of a notice to proceed. The certificate(s) will specify all of the parties who are additional insureds (or loss payees). Insurance coverages required under this contract shall be obtained from acceptable insurance companies or entities as deductibles, self-insured retentions and/or self-insurance included hereunder. **Certificates of insurance shall list the Contracting Agency, River Design Group, Inc., and the Oregon Parks and Recreation Department as additional insured.**

4.22 Contracting Agency’s Right To Terminate Contract

The Contracting Agency, after providing Contractor opportunity for remedy, may without prejudice to any other right or remedy and after giving Contractor and Contractor’s surety seven days written notice, terminate the contract under the conditions including but not limited to those listed below.

1. If Contractor should voluntarily or involuntarily seek protection under the United States Bankruptcy code and its Debtor in Possession or Trustee for the Estate fail to assume the contract within a reasonable time.
2. If Contractor should make a general assignment for the benefit of Contractor’s creditors.
3. If a receiver should be appointed on account of Contractor’s insolvency.
4. In Contractor should repeatedly refuse or fail to supply an adequate number of skilled workers or proper materials to carry on the Work as required by the contract documents, or otherwise fail to pursue the Work in a timely manner.
5. If Contractor should repeatedly fail to make prompt payment to subcontractors or for material or labor, or should disregard the instructions of the Engineer or its representatives.
6. If Contractor is otherwise in material breach of any part of the contract.

At any time that the above occurs, the Owner may take possession of the project site and premises and of all materials, and finish the work by whatever method the Contracting Agency deems expedient.

In such case, the Contractor shall not be entitled to receive further payment until the Work is completed. If the unpaid balance of the contract price shall exceed the Owner's cost of finishing the work, such excess shall be paid to the Contractor. If the Owner's cost of finishing the work exceeds the unpaid balance of the contract price, Contractor shall promptly pay the difference to Owner.

4.23 Suspensions Of Work for Other than Owner's Convenience

The Engineering Representative may issue orders to suspend the work wholly or in part for such period of time as deemed necessary because of: (1) weather or ground conditions when further prosecution of the work might cause environmental or resource damage to the project, access roads to the project, or adjacent property. Such action would include but not be limited to instances such as siltation of streams, damage to access roads, rutting of project roads which causes otherwise suitable soils to be muddy or unsuitable; or (2) failure of the Contractor to comply with specifications such as but not limited to performing work prior to prerequisite approvals, operating equipment not meeting fire requirements, or when conditions exist which do not meet safety requirements.

4.24 Contracting Agency's Right to Terminate for Convenience

Contracting Agency may terminate the contract in whole or in part if the Contracting Agency determines that Termination of the contract is in his best interest.

Contracting Agency will provide the Contractor and the Contractor's surety seven (7) days prior, written notice of a termination for public convenience. After such notice, the Contractor and the Contractor's surety shall provide the Contracting Agency with immediate and peaceful possession of 1) the project site and premises; and 2) materials located on and off the project site and premises for which the Contractor received progress payment, if any. Compensation for work terminated by the Contracting Agency under this provision shall be made according to the terms of these General Requirements. In no circumstances shall Contractor be entitled to lost profits due to termination.

Action Upon Termination: Upon receiving a notice of termination and except as directed otherwise by the Contracting Agency, Contractor shall immediately cease placing further subcontracts or orders for materials, services, or facilities. In addition, Contractor shall terminate all subcontracts or orders to the extent that they relate to the work terminated, and with the prior approval of the Contracting Agency, settle all outstanding liabilities and termination settlement proposals arising from the termination of said constructs and orders.

As directed by the Contracting Agency, Contractor shall, upon termination, transfer and deliver to the Contracting Agency all project documents, information and other property that, if the contract had been completed, would be required to be furnished to the Contracting Agency. Upon termination, Contractor shall take any action necessary or that the Contracting Agency may direct for the protection and preservation of the work and any other property related to

the contract that is in the possession of Contractor and in which the Contracting Agency has any interest.

4.25 Payment, Retainage and Schedule Of Values

The Contractor shall provide, at the pre-construction conference, a detailed Schedule of Values for each part of the work. The value assigned to each part of the work shall consist of labor, equipment, and materials costs, and a pro rata contribution to overhead and profit. The sum of all values shall be equal to the total contract price. Upon acceptance of the schedule of values by the Engineer, it shall become the basis for the Contractor's requests for partial payment.

An unbalanced schedule of values providing for overpayment on items of Work which would be performed first will not be accepted. The schedule of values shall be revised and resubmitted until acceptable to the Engineer. Final acceptance by the Engineer shall indicate consent to the schedule of values as a basis for preparation of applications for progress payments, and shall not constitute an agreement as to the value of each indicated item.

Request for payment shall be submitted by the Contractor at the end of each month to the Contracting Agency and a copy to the Engineer. The payment request shall include enough detailed information to be confirmed by the Engineer that the payment request matches the actual work performed and meets the Schedule of Values. Once the payment request is agreed to by the Contracting Agency and Engineer, the payment will be processed and the payment shall be made within 30 calendar days. **A 10% retainage will be held back on each payment** until final approval of the project and all requirements have been met by the Contractor.

4.26 Watershed Council Not Personally Liable

a) CONTRACTING AGENCY - There shall be no personal liability upon the Contracting Agency or officer in charge, their agents or employees, for any act performed in the discharge of any duty imposed or the exercise of any power or authority conferred upon them by, or within the scope of the contract, it being understood that in all such matters they act solely as agents and representatives of the Contracting Agency.

4.27 Permit Conditions

Permits have been issued by federal (U.S. Army Corps of Engineers, NOAA-Fisheries), state (Oregon Department of State Lands, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, State Historical Preservation Office), and county (Linn County) regulatory agencies. Contractor shall review the provisions of the individual permits located on the Contracting Agency website (www.calapooia.org).

4.28 TECHNICAL SPECIFICATIONS

The technical specifications that follow are included in and considered a part of these General Requirements.

Section 01300	Submittals
Section 01505	Mobilization/Demobilization
Section 01560	Environmental Controls
Section 01600	Protection of Materials
Section 01720	Record Drawings
Section 02140	Dewatering
Section 02160	Site Preparation
Section 02180	Structure Removal
Section 02200	Earthwork
Section 05000	Large Wood Structure (ELWS)
Section 05001	Engineered Streambed Fill

SECTION 01300

SUBMITTALS

PART 1 – GENERAL

1.01 SCOPE

Submittals covered by these requirements include manufacturers' information, test procedures, test results, samples, requests for substitutions, and miscellaneous work-related submittals. Submittals shall also include, but not be limited to, rock sources, coir fabric sources, and fabricated items. The Contractor shall furnish all drawings, specifications, descriptive data, certificates, samples, tests, methods, and schedules and other instructions as specifically required in the contract documents to demonstrate fully that the materials and equipment to be furnished and the methods of work comply with the provisions and intent of the contract documents.

1.02 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. The Contractor shall verify that all features of all products conform to the specified requirements. Submittal documents shall be clearly edited to indicate only those items which are being submitted for review. All extraneous materials shall be crossed out or otherwise obliterated. The Contractor shall ensure that there is no conflict with other submittals and notify the Engineer in each case where his submittal may affect the work of another contractor. The Contractor shall coordinate submittals among his subcontractors and suppliers including those submittals complying with unit responsibility requirements specified in applicable technical sections.

The Contractor shall coordinate submittals with the work so that work will not be delayed. He shall coordinate and schedule different categories of submittals, so that one will not be delayed for lack of coordination with another. No extension of time will be allowed because of failure to properly schedule submittals. The Contractor shall not proceed with work related to a submittal until the submittal process is complete. This requires that submittals for review and comment shall be returned to the Contractor stamped "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

The Contractor shall certify on each submittal document that he has reviewed the submittal, verified field conditions, and complied with the contract documents.

The Contractor may authorize in writing a material or equipment supplier to deal directly with the Engineer with regard to a submittal. These dealings shall be limited to contract interpretations to clarify and expedite the work.

1.03 STANDARD COMPLIANCE

- A. When materials or equipment must conform to the standards of organizations such as, but not limited to, the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL) documents showing, or proving, conformance shall be submitted.
- B. If an organization uses a label or listing to indicate compliance with a particular standard, the label or listing will be acceptable evidence, unless otherwise specified in the individual Sections. In lieu of the label or listing, the Contractor shall submit a certificate from an independent testing organization, which is competent to perform acceptable tests, and is approved by the Engineer. The certificate shall state that the item has been tested in accordance with the specified organization's standard. For materials and equipment whose compliance with organizational standards or specifications is not regulated by an organization using its own listing or label as proof of compliance, a certificate of compliance from the manufacturer shall be submitted for approval. The certificate shall identify the manufacturer, the product, and the referenced standard and shall state that the manufacturer certifies that the product conforms to all requirements of the project Specification and of the referenced standards listed.

1.04 REVIEW OF CONTRACTOR'S INFORMATION

- A. When review and checking for acceptance is required of any drawing, or information regarding materials and equipment, the Contractor shall prepare or secure, and submit for review, two (2) copies. The Engineer, after taking appropriate action, will return (1) marked copies to the Contractor.

Within 7 calendar days after receipt of said submittal copies, the Engineer will return the marked copies indicating one of the following four (4) actions:

1. If review and checking indicates no exceptions, copies will be returned marked "NO EXCEPTIONS TAKEN" and work may begin immediately on incorporating the material and equipment covered by the submittal into the work.
2. If review and checking indicates limited corrections are required, copies will be returned marked "MAKE CORRECTIONS NOTED". Work may begin immediately on incorporating into the work the material and equipment covered by the corrected submittal.
3. If review and checking indicates insufficient, or incorrect data, has been submitted, copies will be returned marked, "AMEND AND RESUBMIT". No work may begin on incorporating the material and equipment covered by this submittal into the work until the submittal is revised, resubmitted,

and returned marked either “NO EXCEPTIONS TAKEN” or “MAKE CORRECTIONS NOTED”.

4. If review and checking indicates the material and equipment submittal is unacceptable, copies will be returned marked “REJECTED-RESUBMIT”. No work may begin on incorporating the material and equipment into the work until a new submittal is made and returned marked either “NO EXCEPTIONS TAKEN” or “MAKE CORRECTIONS NOTED”.
- B. Approval by the Engineer shall not relieve Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with requirements of this Contract.

1.05 EFFECT OF REVIEW OF CONTRACTOR’S SUBMITTALS

Review of contract drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or the Contracting Agency (CA), or by any officer or employee thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. A mark of “NO EXCEPTIONS TAKEN or MAKE CORRECTIONS NOTED” shall mean that the Owner has no objection to the Contractor, upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

PART 2 – PRODUCTS

2.01 MANUFACTURER’S DATA

Submittals for each manufactured item shall be comprised of manufacturer’s descriptive literature, drawings, diagrams, performance and characteristic curves, and catalog cuts. Manufacturer’s name, trade name, model or catalog number, nameplate data, size, layout dimensions, capacity, project specification references, and any other additional information necessary to establish contract compliance shall be clearly indicated.

PART 3 – EXECUTION

3.01 SUBMITTAL PROCEDURE

- A. At least 7 calendar days prior to the Contractors need for approval, contractor shall forward to the Engineer all submittals required by the individual Sections of the Specifications.
- B. All submittals shall be identified by submittal number and specification section number on the letter of transmittal. Submittals shall be numbered consecutively and resubmittals shall have a letter suffix. For example:
 1. 1st submittal: 2

2. 1st submittal: 2A
3. 2nd resubmittal: 2B, *etc.*

3.02 CONTRACTOR SUBMITTALS

Items to be submitted are specified in individual Sections of these Specifications. Submittals for each Section shall be bound together in one book. Book shall have numbered tab dividers for each item. Submittals that are related to, or affect, each other shall be forwarded simultaneously as a package to facilitate coordinated review. Uncoordinated submittals will be rejected. Do not combine unrelated materials in the same submittal. Submittals shall be arranged in same order as they appear in the Specification Section. Items shall be clearly marked with the same identification number as indicated on the drawings. The Contractor shall include submittal time appropriate within each item of work on the Construction Schedule. The Engineer will receive submittals at the preconstruction meeting.

END OF SECTION

SECTION 01505

MOBILIZATION AND DEMOBILIZATION

PART 1 – GENERAL

1.01 MOBILIZATION

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the site; for the establishment of all facilities necessary for work on the project; and for all other work and operations which must be performed, or costs incurred prior to beginning work, on the various items on the project site.

Mobilization shall also include the construction of temporary ramps and access ways, temporary roads, grading, temporary fencing, and the necessary preparatory work required to allow for the safe and stable movement of all vehicles that are required to construct the improvements outlined in the Contract Documents.

1.02 DEMOBILIZATION

Demobilization shall consist of work and operations necessary to disband all mobilized items and clean up the site. The removal of all temporary ramps, access ways, roads, signs, temporary fencing, construction debris including rock chips, wood debris, construction stakes, and other construction-related refuse, and temporary facilities or works and the restoration of surfaces to an equal or better than existing condition shall also be included as part of demobilization.

*****END OF SECTION*****

SECTION 01560

ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

1.01 SITE MAINTENANCE

The Contractor shall keep the work site, staging areas, and Contractor's facilities clean and free from rubbish and debris. The Contractor staging area is noted on the drawings. Materials and equipment shall be removed from the site when they are no longer necessary. Equipment removed as part of demolition shall not be stored on site. Upon completion of the work and before final acceptance, the work site shall be cleared of equipment, unused materials, and rubbish to present a clean and neat appearance.

A. CLEAN-UP:

1. Waste material of any kind will not be permitted to remain on the site of the work or on adjacent roads. Immediately upon such materials becoming unfit for use in the work, they shall be collected, carried off the site, and properly disposed of by the Contractor.
2. The Contractor shall provide temporary restroom and cleanup facilities for Contractor's employees and keep these areas clear of all refuse, rubbish, and debris that may accumulate from any source and shall keep them in a neat condition to the satisfaction of the Contracting Agency.
3. In the event that waste material, refuse, debris, and/or rubbish are not so removed from the work by the Contractor, the Owner reserves the right to have the waste material, refuse, debris, and/or rubbish removed and the expense of the removal and disposal charged to the Contractor.

1.02 AIR POLLUTION CONTROL

The Contractor shall not discharge smoke, dust, and other contaminants into the atmosphere that violate the air pollution regulations for the area. The Contractor shall maintain construction vehicles and equipment in good repair. Exhaust emissions that are determined to be excessive by the Engineer shall be repaired or replaced. If determined to be necessary by the Project Inspector, Contractor shall provide a water truck to manage Project area dust.

1.03 NOISE CONTROL

- A. The Contractor shall comply with all local controls and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the Contract. If the requirements of this Section are more restrictive than those of the local regulations, the requirements of this Section shall govern.
- B. Each internal combustion engine, used for any purpose related to this Contract, shall be enclosed and be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler and enclosure.

1.04 DEWATERING AND WORK AREA ISOLATION PLAN

- A. Before starting work on the project, the Contractor shall submit, for acceptance by the Engineer, a “Dewatering and Work Area Isolation Plan”. The plan shall be implemented during construction of the project to control water and aquatic organism access to the project site.
- B. The Contractor shall not perform any excavation, or earthwork of any type on the project until a written acceptance of the “Dewatering and Work Area Isolation Plan” has been received from the Engineer. If in the opinion of the Engineer, the plan does not sufficiently address the objectives outlined in this Section, the Contractor shall revise the plan accordingly to the satisfaction of the Engineer.
- C. Full compensation for conforming to the requirements of this Section shall be considered as included in the lump sum price paid for the various items of work, and no additional compensation will be allowed therefore.

END OF SECTION

SECTION 01600

PROTECTION OF MATERIALS

PART 1 – GENERAL

Contractor furnished materials shall be shipped, handled, stored, and installed in ways that will prevent damage to the items. Damaged items will not be permitted as part of the work, except in cases of minor damage that have been satisfactorily repaired and are acceptable to the Engineer.

PART 2 – NOT USED

PART 3 – EXECUTION

3.01 DELIVERY OF MATERIAL

CA and Engineer's personnel will not accept material deliveries for the Contractor.

*****END OF SECTION*****

SECTION 01720

RECORD DRAWINGS

PART 1 – GENERAL

1.01 SCOPE

This section describes requirements for the preparation and maintenance of the project record plans.

PART 2 – PRODUCTS

2.01 PROJECT RECORD DRAWINGS

The Contractor shall maintain a neatly and accurately marked set of record Plans showing the final locations and layout of all structures and other facilities. Plans shall be kept current weekly, with all work instructions and change orders; and construction adjustments. Plans shall be subject to the inspection of the Contracting Agency, Engineer, or Project Inspector at all times, and progress payments, or portions thereof, may be withheld if Plans are not accurate and current. Prior to acceptance of the work, the Contractor shall deliver to the Engineer or Project Inspector one (1) set of neatly marked record Plans, accurately showing all the information required above. The record Plans shall include the final locations and details of the installation of each piece of mechanical equipment.

*****END OF SECTION*****

SECTION 02140

DEWATERING

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Scope: This section provides specifications for dewatering systems and appurtenances to be used during construction.
- B. The Contractor shall comply with all federal, state, and local laws and regulations concerning environmental pollution arising from construction activities.

1.02 SUBMITTALS

Before dewatering is commenced, the Contractor shall obtain the acceptance of the Engineer for the method, installation, and details of the dewatering system he proposes to use. To that end, the Contractor shall submit plans setting forth the details of the proposed dewatering systems. The dewatering system plans shall indicate at least the following:

- A. Sizes of pumps, discharge piping, and piping appurtenances.
- B. The personnel responsible for monitoring the dewatering system and dewatered excavations.
- C. Provisions to confine fuel and oil spills in the event of their occurrence.
- D. Plans to segregate construction water (contaminated with form oils, concrete residues, etc.) from clean water.
- E. Plans to dispose of the construction water and residue solids.

The Contractor's dewatering plan shall be approved, and those provisions in place, prior to in-water excavation.

PART 2 – NOT USED

PART 3 – EXECUTION

3.01 GENERAL

The Contractor shall furnish, install, operate, and maintain all machinery, appliances, and equipment to maintain all excavations free from water during construction, and shall dewater and dispose of the water so as not to cause injury to public or private property, or to cause a nuisance or menace to the public.

The control of groundwater shall be such that softening of the bottom of excavations, or formation of "quick" conditions or "boils," does not occur. Dewatering systems shall be designed and operated so as to prevent removal of the natural soils.

Dewatering systems shall operate continuously until project construction has been completed, or at a minimum, construction within a reach has been completed.

The Contractor shall be fully responsible and liable for all damages, including flotation of structures, which may result from failure to adequately keep excavations dewatered.

3.02 DISPOSAL OF WATER

The Contractor shall dispose of water resulting from the dewatering operation in a suitable manner without damage to adjacent property and in accordance with all federal, state, and local laws and regulations. Sediment-laden water should be discharged to adjacent ground and not allowed to return to the stream until sediments have been removed from the sediment-laden water.

Clean, uncontaminated water resulting from dewatering operations must be returned to the stream.

END OF SECTION

SECTION 02160

SITE PREPARATION

PART 1 – GENERAL

1.01 SCOPE

This section specifies site preparation which consists of clearing, grubbing, and disposal of materials.

1.02 JOB CONDITIONS

A. Existing Conditions

The Contractor shall determine the actual condition of the site as it affects this portion of work.

B. Protection of Existing Facilities

Site preparation shall not damage existing concrete structures, landscaping or vegetation adjacent to the areas designated for site preparation. The Contractor shall repair or replace any damaged property.

PART 2 – NOT USED

PART 3 – EXECUTION

3.01 CLEARING AND GRUBBING

A. General

All areas comprising the work shall be cleared and grubbed in accordance with the requirements of this section.

B. Clearing and Grubbing

Preservation of existing vegetation and trees is of utmost importance. The Project Inspector will flag and walk the entire site with the Contractor's representative to clearly mark the clearing limits and vegetation to be saved or salvaged. Within the limits of clearing, the areas below the natural ground surface shall be grubbed to a depth necessary to remove all stumps, roots, buried logs and all other objectionable material of any kind.

3.02 PROTECTION

The Contractor shall provide protection devices or demarcation of areas outside the project site to be avoided and protected.

3.03 CLEANUP

Debris, rubbish, and excess material resulting from the clearing and grubbing process shall be removed from the site in a manner that will prevent spillage on streets or adjacent areas. Spillage shall be removed from streets and adjacent areas. Federal, State, and local hauling

disposal regulations shall be complied with. Cleanup shall be an on-going activity throughout the contract period.

3.04 DISPOSAL OF MATERIALS

All debris, rubbish, and excess material removed during clearing and grubbing work shall become the property of the Contractor and shall be removed from the project site at the Contractor's cost. Contractor shall make his own arrangements for disposing of these materials outside the project site and he shall pay all costs involved. Arrangements shall include, but not be limited to, entering into agreements with property owners and obtaining necessary permits, licenses, and environmental clearances.

END OF SECTION

SECTION 02180 STRUCTURE REMOVAL

PART 1 - GENERAL

1.1 DESCRIPTION:

This section describes wholly or partially removing existing structures, disposing of the resulting materials, or if required, salvaging and storing designated materials.

1.2 RELATED WORK:

- A. Section 01300, Submittals
- B. Section 01600, Protection of Materials
- C. Section 02200, Earthwork
- D. Section 02350, Sheeting, Shoring, and Bracing

1.3 SUBMITTALS:

- A. Submit in accordance with Section 01300, Submittals.
- B. Submit the following as one package:
 - 1. Written permits or permission for concrete disposal.

PART 2 – OWNERSHIP AND SALVAGE

2.1 Ownership of Materials

Upon removal, disassembled materials become the property of the Contractor, unless designated in the contract as salvageable.

Structures designated to be salvaged shall be carefully removed, disassembled and neatly placed in the storage area shown on the drawings or other selected areas approved by the Engineer or Project Inspector. All salvaged materials are the property of the Owner, unless otherwise specified.

2.2 Salvage Provisions

Remove concrete structures in a manner that permits recapture of materials. Concrete shall be rubbelized using mechanical means and segregated from other materials. Reinforcing steel shall be removed from the rubbelized concrete and disposed of separately.

PART 3 - EXECUTION

3.1 EXCAVATION AND REMOVAL

Excavation and removal shall be governed by Section 02200, Excavation.

3.3 STORAGE AND TRANSPORT

Measures for “hauling” and “protection of roadways” contained in Section 02200, Excavation, shall also apply to staging and transport of materials for disposal.

3.4 DISPOSAL

Disposal is to conform to all regulations governing solid waste disposal. Obtain written permits for this disposal from the owner of the property where placing the material, unless disposing of the material at a licensed waste disposal operation. Furnish permits, or copies of permits, to the Engineer before disposal begins.

END OF SECTION

SECTION 02200

EARTHWORK

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

The Contractor shall furnish all labor, materials, equipment, and incidentals necessary to perform all excavation, backfill, grading, and compaction required to complete the work shown on the drawings, and specified herein. The work shall include, but not necessarily be limited to excavation for structures, backfilling and fill; embankment and grading; disposal of surplus and unsuitable materials; and all incidental related work.

1.02 QUALITY ASSURANCE

A. Reference Specifications, Codes, and Standards

No Reference specifications.

PART 2 – PRODUCTS

2.01 MATERIALS

All fill materials are shown on the Plans and should be referenced as such.

PART 3 – EXECUTION

3.01 GENERAL

A. Control of Water

The Contractor shall keep excavations free from water during construction. Additional requirements for dewatering are specified in Section 02140, Dewatering.

B. Surplus Material

Unless otherwise specified, surplus excavated material shall be disposed of at the Contractor's expense.

The Contractor shall satisfy himself that there is sufficient material available for the completion of the work before disposing of any material inside or outside the site. Shortage of material, caused by premature disposal of any material by the Contractor, shall be replaced by the Contractor at his expense.

C. Hauling

When hauling is done over highways or streets, the loads shall be trimmed and the vehicle shelf areas shall be cleaned to avoid spillage.

D. Maintenance of Roadways

All earthwork operations shall be performed in a manner which does not disrupt the continuous flow of traffic on existing roadways. All public streets shall be swept clean daily where dirt and debris result from Contractor's operations.

E. Finish Grading

Finish grades and existing or natural grades in the area of work are indicated on the plans. The Contractor shall do all grading. Filling or excavating as required to completely grade the site to lines and grades shown. Where finished grade corresponds practically with existing grade, the ground shall be worked up and graded off evenly with existing grade. Filled areas shall be compacted so as to prevent settlements and the Contractor shall be responsible for a period of one year after final acceptance of the project to provide additional fill as necessary to bring to grade any areas which settle below the indicated grades and to replace or repair any planting or work damaged by such settlement.

G. Tolerances

Finished grade shall be to the line and grade shown on the plans to within a tolerance of plus or minus 0.1 ft. Allowance for topsoil and grass cover, and sub-base and pavement thickness shall be made so that the specified thickness can be applied to attain the finished grade.

H. Control of Erosion

The Contractor shall maintain earthwork surfaces true and smooth and protected from erosion.

I. Overexcavation

Where organic materials, yielding subgrade, or other deleterious materials are encountered during excavations, they shall be removed, as directed by the Engineer. The resulting excavation shall be backfilled with a 6-inch minus quarry rock material as specified in paragraph 2.01 A in this specification. The Contractor shall promptly notify the Engineer if these materials are encountered and overexcavation shall not proceed without approval of the Engineer.

3.02 EXCAVATION

A. General

Excavation shall be in accordance with the grading plan indicated on the drawings and as required for construction. Excavations shall be kept free from water while construction is in progress. The Engineer shall be notified immediately in writing in the event that it becomes necessary to remove soft, weak, or wet material.

Soil disturbed or weakened by the Contractor's operations and soils permitted to soften from exposure to weather shall be excavated to firm foundation and refilled with 6-inch minus quarry rock. All work of this nature will be at the Contractor's expense.

3.03 SUBGRADE PREPARATION

Ground surfaces receiving engineered fill shall be prepared by clearing and grubbing as specified in Section 02160, Site Preparation, and by removing soil which is high in organic content and other deleterious material.

3.04 FILLING OPERATIONS

A. General

Filling operations must comply with criteria specified in the plans as shown on the "Engineered Fill" detail drawing.

3.05 COMPACTION

A. General

Compaction operations are specified on the drawings set under "Engineered Fill" detail drawing.

Each lift of rock shall not exceed 12 inches of unconsolidated thickness. Thinner lifts may be required depending on the equipment used to achieve the required compaction.

3.06 CLEAN UP

After completing all earthwork, the Contractor shall leave the site in a neat and clean condition, doing such grading as is required by the plans. Any existing features, structures, and other facilities damaged or affected by the work shall be replaced, repaired, or restored to their original condition or better.

END OF SECTION

SECTION 05000

LARGE WOOD STRUCTURE (LWS)

PART 1 - GENERAL

1.1 DESCRIPTION:

This section specifies construction of stabilized large wood structures (LWS) along streambanks for toe stability, energy dissipation, and fish habitat.

1.2 RELATED WORK:

- A. Section 01300, Submittals
- B. Section 01600, Protection of Materials
- C. Section 02140, Dewatering
- D. Section 05007, Vegetated Soil Lift (VSL)

1.3 QUALITY ASSURANCE:

- A. Large wood will be provided by the Contracting Agency.
- B. Boulder ballast sourcing and selection shall be approved by the Engineer prior to delivery.
- C. The Engineer shall be notified at least 48 hours in advance of LWS construction.
- D. The Engineer or representative shall be present during LWS construction.

1.4 SUBMITTALS:

- A. Submit in accordance with Section 01300, Submittals.
- B. Supplier information and Materials Data: Submit the following as one package to Engineer:
 - 1. Rock source, size, description, and gradation.
 - 2. Rock density and absorption tests results.

1.5 APPLICABLE PUBLICATIONS:

ASTM Method C-127.....Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate

PART 2 - PRODUCTS

2.1 Rock

Individual rocks shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering.

The rock shall have the following properties:

- a. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.

- b. Absorption not more than 2 percent by weight.

The bulk specific gravity and absorption shall be determined by ASTM Method C-127.

The rock sizes shall conform to the size limits shown on the plans.

2.2 REBAR ANCHORS

Rebar anchor pins are used to secure wood members at locations specified on the plans or as indicated in the field by the construction manager.

Rebar shall meet ASTM A706, and sizes of anchor pins shall comply with dimensions listed on the plans. At the Contractor's discretion, it is permissible to sharpen one end of the anchor pins for ease in driving pins through wood members.

PART 3 - EXECUTION

3.1 DELIVERY AND STORAGE

Materials shall be delivered to the site and stored in a manner that preserves the size, type, and integrity of each material to be incorporated into the work.

3.2 WOOD MEMBER END TREATMENT

Exposed butt ends of all large wood shall be roughened and broken. Exposed sawed butt ends are not acceptable.

3.3 SITE PREPARATION

Excavate full footprint of LWS prior to placement of individual members. Unless shown otherwise on the drawings, the side slopes for foundations shall be 1:1, or flatter, and shall comply with OSHA requirements. Excavation for structure installation and handling of excess material are incidental to the Work under this Bid item and no separate payment shall be made.

Excavated soils shall be stockpiled adjacent to LWS site and sorted to segregate topsoil from mineral soils. Trees and shrubs shall be removed with rootball intact and stockpiled for re-planting during backfill.

3.4 PLACEMENT

Log placement and orientation shall be in general conformance with orientation shown on the plans. Wood placement is subject to the direction of the Project Inspector. Base member and key member placement must overlap and allow interlocking of members. The most upstream rootwad shall not project into the channel and shall be flush with the finished bank line. The most downstream rootwad shall project into the channel at the distance specified in the plans or as directed by the Engineer.

3.5 ANCHORING

Contractor shall pin connection points between key member and base member as shown on plans using rebar. Contractor shall place rebar such that a complete pass through of adjoining logs is achieved. Pre-drilling to create pilot holes is permissible at the discretion of the Contractor, provided that the pilot hole diameter is less than 75% of the diameter of the rebar pin. Contractor shall cut exposed rebar flush with logs and shall create a smooth surface that will not harm wildlife or aquatic species.

3.6 BALLAST AND BACKFILL

Boulder ballast shall be placed to rest on base member and key members to interlock structure. Boulder ballast placement will be supervised by the Project Inspector. Boulders must remain below grade and exposed boulders will not be accepted unless approved by the Project Inspector for each structure. Project Inspector shall inspect log and rock placement for each deck prior to backfilling. Contractor shall backfill logs to finished elevations with stockpiled material. Except for brush, all logs shall be keyed into the bank a minimum of half the length of the log or as designated on the plans.

Backfill should use retained alluvium and stockpiled mineral soils below grade, with topsoil placed at the ground surface to permit establishment of vegetation.

3.7 VEGETATION AND SLASH TREATMENT

During backfill, retained shrubs shall be replanted into the log matrix during backfill with the rootball at sufficient depth to contact moist soils. Slash and tops shall be incorporated into the LWS matrix at the direction of the Project Inspector.

END OF SECTION

SECTION 05001

ENGINEERED STREAMBED FILL

PART 1 - GENERAL

1.1 DESCRIPTION:

This section specifies construction of native or imported channel substrate and boulders used to create a stable river channel bed and banks. The construction of channel bed features such as engineered riffles, submerged boulder grade control, submerged boulder energy dissipaters, and all channel bed features shall comply with this section.

1.2 RELATED WORK:

- A. Section 01600, Protection of Materials
- B. Section 02200, Earthwork

1.3 QUALITY ASSURANCE:

- A. Rock material sourcing and selection shall be approved by the Engineer prior to delivery.
- B. The Engineer shall be notified at least 48 hours in advance of streambed placement, at least 48 hours in advance of streambed sealing, and at least 48 hours in advance of boulder placement.

1.4 SUBMITTALS:

- A. Submit in accordance with Section 01300, Submittals.
- B. Supplier information and Materials Data: Submit the following as one package to the Engineer:
 - 1. Rock source, size, description, and gradation.
 - 2. Rock density and absorption tests results.
 - 3. Borrow area location(s) for natural gradation materials

1.5 APPLICABLE PUBLICATIONS:

ASTM Method C-127.....Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate

PART 2 - PRODUCTS

2.1 Rock - General

Individual rock fragments shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering.

The rock shall have the following properties:

- a. Bulk specific gravity (saturated surface-dry basis) not less than 2.6.
- b. Absorption not more than 2 percent by weight.

2.2 ALLUVIUM MATRIX ROCK (ROUND)

The "Alluvium Matrix Rock" is primarily natural round river rock. The least dimension of an individual rock fragment shall be approximately one-third the greatest dimension of the fragment. The Alluvium Matrix Rock is placed below grade and at the surface of the streambed at depths, extents, and grades indicated on the plans. The Alluvium Matrix Rock gradation shall conform to the following gradation:

Alluvium Matrix Rock Gradation	
% Passing by Weight	Rock Diameter (inches)
100	18
85	12
50	8
30	6
15	4

2.3 NATURAL RIVER ROCK (ROUND / SUB-ROUNDED)

Natural River Rock encountered during excavation shall be stockpiled and retained for use in sealing the Riffle. Natural River Rock shall consist of small gravels and sediment fines in the form of silt and sand passing the #200 sieve. Borrow areas for salvage material shall be approved by the Engineer prior to stockpiling material in accordance with Section 01300, Submittals. The intent of this material is to fill interstitial spaces in the Engineered Riffle Matrix to create a dense mix with fully interlocked rock and gravels.

Natural River Rock shall be stored separately from other rock mixtures and incorporated as described below in Section 3.4 "Streambed Sealing". Natural River Rock gradation will be based on gravels excavated from the channel and approved by the Engineer.

2.4 HABITAT BOULDER (ROUNDED / SUB-ROUNDED)

Habitat Boulders shall be rounded to sub-rounded in shape and approximately cuboidal. These rocks shall be placed with approximately 50% or more of the individual rock height embedded into the streambed channel. Habitat Boulder sizes shall conform to the limits shown on the plans. The size listed on the plans is the intermediate rock dimension.

PART 3 - EXECUTION

3.1 DELIVERY AND STORAGE

Materials shall be delivered to the site and stored in a manner that preserves the gradation and identity of each material to be incorporated into the work.

3.2 MIXING

If rocks originate from different sources or different size classes, rock materials of varying gradations and angularity shall be mixed to create mixture specific to that rock type in conformance with rock material gradations shown on plans prior to placement. Fines shall be kept separate from matrix fill materials.

3.3 HABITAT BOULDER PLACEMENT

Habitat boulders will be placed to provide velocity breaks in the constructed riffle. Boulders are to be embedded to 50% of the boulder diameter.

3.5 STREAMBED SEALING

During placement of the Alluvium Riffle Matrix mixtures, the streambed shall be sealed with fines as each lift is constructed. Small gravels and sand from the Natural River Rock mixture should be broadcast over the lift surface and “washed-in” with water to allow the fines to fill open spaces in the matrix. Sand shall be added until the streambed is “sealed” and wash water flows on top of the matrix. Continue washing sand into the matrix until voids in the rock matrix are completely filled with sand.

END OF SECTION