

State of Washington
Capital Projects Advisory Review Board (CPARB)
Project Review Committee (PRC)

APPLICATION FOR PROJECT APPROVAL
TO USE THE
DESIGN-BUILD (D-B) ALTERNATIVE
CONTRACTING PROCEDURE

The CPARB PRC will only consider complete applications: Incomplete applications may result in delay of action on your application. Responses to Questions 1-8 and 10 should not exceed 20 pages (font size 11 or larger). Provide no more than six sketches, diagrams or drawings under Question 9. A Public Body that is certified to use the DB procedure and is seeking approval to use this procedure on a DB project with a total project cost of less than \$10 million is not required to submit information for Questions 7 or 8.

1. Identification of Applicant

- (a) *Legal name of Public Body (your organization):* Public Utility District No. 1 of Okanogan County (Hereinafter abbreviated to "District")
- (b) *Address:* 1331 2nd Avenue N. (PO Box 912), Okanogan, WA 98840
- (c) *Contact Person Name:* John Grubich *Title:* General Manager
- (d) *Phone Number:* 509 422 3310 *Fax:* N/A *E-mail:* johngrubich@okpud.org

2. Brief Description of Proposed Project

*Please describe the project in no more than two short paragraphs.
(See Attachment A for an example.)*

The purpose of the Enloe Hydroelectric Project is to restore power generation at Enloe Dam, which is located on the Similkameen River near Oroville. Enloe Dam and its 3.6-MW hydroelectric power plant were constructed in the early 1920s and supplied power until 1958, when the power plant was shut down due to the availability of lower cost electric power from the Bonneville system. In 2013, the District received a license from the Federal Energy Regulatory Commission (FERC) to construct a new power plant at the Dam. Electric energy generated by the new facility will be delivered to the District's customers via its existing electric distribution system

New facilities to be constructed include the following: a river intake upstream of the existing dam, intake channel, penstock intake structure and steel penstocks that will divert water available for power generation to the new power plant; a new 9-MW hydroelectric power plant, a tailrace channel that will return flow to the river downstream of the dam; a new electric substation and a short transmission interconnection to the District's existing 13.2-kV electric power distribution system. Improvements to public recreation facilities and development of new fish rearing facilities are also part of the project. Estimated average annual generation of the licensed project is 45 GWh/year which is equivalent to the typical annual electric energy consumption of about 3600 homes.

3. Projected Total Cost for the Project:

A. Project Budget

Item	Cost (\$)
Costs of Professional Services (A/E, CM, Environmental, Regulatory Compliance, Legal, Admin etc.)	\$5,807,000
Estimated Design and Construction Costs	\$15,050,000
Equipment and Furnishing Costs	\$9,879,000
Contingencies (Prof services, construction, equipment, Owner)	\$4,415,000
Other Related Project Costs (Environmental protection and enhancement measures, Interest during construction)	\$5,653,000
Use Tax (7.7% - Excluding professional services)	\$2,696,000
TOTAL	\$42,500,000

Note: This budget estimate in year 2016 dollars is based on the project configuration approved in the FERC license issued on July 9, 2013.

B. Funding Status

Please describe the funding status for the whole project.

Note: If funding is not available, please explain how and when funding is anticipated.

Planning and permitting costs of the project have been funded from the District's operating budget. Funds required for design and construction of the project will be financed with short term credit from commercial banks. When the project is complete, short term credit financing will be replaced by long term financing in the form of municipal revenue bonds that are secured by the power generation revenue.

4. Anticipated Project Design and Construction Schedule

The proposed D-B procurement, project design and construction schedule is summarized on the following table and shown as a Gantt Chart on Attachment A.

Activity	Scheduled Dates
D-B Project management consultant	Completed
PRC Approval	12/01/2016
Issue D-B RFQ	12/02/2016
D-B SOQ due	12/22/2016
Short List Firms/Issue D-B RFP	01/11/2017
Proposals due	02/22/2017
Award D-B Contract	03/08/2017
Permitting	03/22/2017 thru 03/22/2019
Engineering and Design	03/09/2017 thru 10/27/2020
Equipment Procurement	02/28/2019 thru 08/20/2020
Construction and commissioning	06/03/2019 thru 10/27/2020

Note: This preliminary schedule information excludes possible delays due to institutional, permitting, legal or other causes beyond control of the District.

5. Why the D-B Contracting Procedure is Appropriate for this Project

Please provide a detailed explanation of why use of the contracting procedure is appropriate for the proposed project. Please address the following, as appropriate:

- *If the construction activities are highly specialized and a D-B approach is critical in developing the construction methodology (1) What are these highly specialized activities, and (2) Why is D-B critical in the development of them.?*
- *If the project provides opportunity for greater innovation and efficiencies between designer and builder, describe these opportunities for innovation and efficiencies.*
- *If significant savings in project delivery time would be realized, explain how D-B can achieve time savings on this project.*

Design -build project delivery is most appropriate for the Enloe Hydroelectric Project for the following reasons:

1. Hydropower project development is a highly specialized field which requires early contractor involvement to address constructability issues, develop practical construction plans and to address environmental plans and protection measures.
2. Integration of design, procurement and construction of power facilities is beneficial since the final design of the powerhouse cannot be completed until the hydraulic configuration of the turbine and generator of the most favorable generating equipment bid are determined.
3. D-B offers greater innovation and efficiencies through value engineering executed by the design engineer, generating equipment supplier and construction contractor working as a team.
4. D-B has risk management benefits for the owner in allocating project design, project coordination and project performance risk to the D-B constructor.
5. The District has limited resources and experience to assume the role of project integrator for conventional design/bid/build project development.

6. Public Benefit

In addition to the above information, please provide information on how use of the D-B contracting procedure will serve the public interest. For example, your description must address, but is not limited to:

- *How this contracting method provides a substantial fiscal benefit; or*
- *How the use of the traditional method of awarding contracts in a lump sum (the "design-bid-build method") is not practical for meeting desired quality standards or delivery schedules.*

Design -build project delivery will support the public interest as follows:

1. D-B project delivery will enable the District to make better risk-informed decisions in finalizing the engineering design and implementation plan for the

- project with early contractor input regarding project design configuration, equipment procurement, cost, schedule and construction planning.
2. The District plans to benefit its customers by gaining valuable engineering input from the Contractor to reduce construction costs and address construction issues.
 3. To manage cost risk, the District will implement a contract that requires robust reporting and cost controls. In addition, the District will develop the budget and scope collaboratively with the design-build team and the District's experts. Studies have shown that early collaboration between the owner and the design-build team results in greater cost and schedule certainty.
 4. The District plans to realize the success of other design build hydro projects by selecting a Design-Build team with an established record in successful construction of similar hydroelectric projects.

7. Public Body Qualifications

Please provide:

7.1 *A description of your organization's qualifications to use the D-B contracting procedure.*

The District has done a thorough job of gathering a team of consultants with significant design-build experience to assist it with the procurement and management of this project. Christensen Associates, Inc., team of specialist hydropower engineering and construction management consultants, will provide project management, technical oversight, quality assurance, construction management and contract administration support for the Enloe Project. The District has also hired Robynne Parkinson and Thaxton Parkinson PLLC to assist in the development of the procurement documents and the contract, and to provide consultation throughout the project. The experience of the individuals with these entities is outlined in detail below.

7.2 *A project organizational chart, showing all existing or planned staff and consultant roles.*

Note: The organizational chart must show the level of involvement and main responsibilities anticipated for each position throughout the project (for example, full-time project manager). If acronyms are used, a key should be provided. (See Attachment C for an example.)

Please refer to Attachment B for the Organizational Chart.

7.3 *Staff and consultant short biographies that demonstrate experience with D-B contracting and projects (not complete résumés).*

John P. Christensen P.E. DBIA – Hydropower Project Manager, Christensen Associates Inc. - Mr. Christensen will assist the District with project management, technical oversight and contract administration of the Enloe Project. He is a Civil Engineer with over 40 years of experience in managing development of hydroelectric and water resources projects. His recent experience includes D-B project delivery of hydropower projects that are similar to the Enloe Project.

Mr. Christensen was project manager for restoration of generation at Hawaii Electric Light Company's 3-MW Puueo hydro facility in Hilo, Hawaii. This work involved bridging designs, generation equipment procurement, contract negotiation and D-B engineering and construction for this \$6-million project. This remote and logistically complex project was successfully completed on time and on budget with no contractor claims or disputes.

Mr. Christensen served as project manager for the \$16-million Narrows 2 Bypass Project which involved bridging design, and D-B construction of flow bypass tunnels, penstocks, valves and equipment at a 55-MW hydro plant on the Yuba River in California. This challenging project, constructed on anadromous fish habitat similar to that of the Similkameen River, received the National Hydropower Association's award for outstanding environmental stewardship.

Thomas McCreedy – Construction Management Consultant - Mr. McCreedy will assist the District in the role of construction management expert with review of the design/build contract and oversight of the D-B contractor. He is a construction management expert with over 40 years of experience in construction planning, bidding, contract administration and construction management of hydropower and major infrastructure projects.

His wealth of project delivery experience includes design-bid-build projects, design-build projects, owner-contractor partnering projects from the perspective of both working for the owner and working in senior management for a major contractor, negotiation of contracts, contract administration, management of construction personnel, construction claims and dispute resolution.

Paul Carson, P.E. - Hydropower Engineering Consultant - Mr. Carson will assist the District with development of technical requirements, procurement of D-B services, quality assurance and administration of D-B contracts. He is a Mechanical Engineer with 39 years of experience in design and construction management of hydroelectric and water resource projects in the Northwest. Based in Seattle, he is familiar with design-build and GC/CM project delivery in the State of Washington. He has worked with Owners in planning and implementing design/build project delivery. He also has valuable experience through working with Constructors as part of the design-build team.

Mr. Carson's experience includes successful design and construction or rehabilitation of 35 hydroelectric and fish passage projects. His responsibilities included; development of design criteria, plans, specifications, construction cost estimates, shop drawing review, contract administration, field testing, performance testing, and operation-maintenance manual preparation. More than 15 of these projects included rehabilitation or expansion of small hydro developments at existing dams primarily located in the Northwest.

Daniel Hertel P.E. - Construction and Cost Engineering Consultant - Mr. Hertel will support the District with cost engineering and controls, value engineering, constructability review and construction management services. He is a Construction

Engineer with over 34 years of experience in hydropower and water resource projects. His experience includes working with owners in planning dam and power plant construction, cost estimating, value engineering and construction management. His previous role as Operations Manager and Chief Estimator for Barnard Construction, a major northwest-based construction firm specializing in water resources construction work, provides the District with unique expertise and practical experience in bidding construction work, risk management and project delivery from the D-B Constructor's perspective.

Robynne Parkinson, JD, DBIA: D-B Legal Counsel, Thaxton Parkinson PLLC - Ms. Parkinson is a nationally recognized expert in design-build delivery and procurement and has significant experience with the Washington state design-build statutes. She has over 27 years as an attorney with over 25 years in construction law and over 20 years of design-build construction experience. Recent projects in Washington include the Port of Seattle International Arrivals Facility, the City of Richland City Hall project, the Grant County Public Utilities District Substation Reliability Project, the Port of Seattle's Alternative Utility Facility project, the City of Spokane's Nelson Service Center, the City of Tacoma's Cheney Stadium Renovation, the Spokane Public Facilities District Convention Center Renovation and the Arena renovation. Ms. Parkinson has been on the Design-Build Institute of America's National Board for the last seven years. She has chaired its National Legal and Legislation Committee and is currently the Vice-Chair of its Educational Resources Committee. She is also one of the primary drafters of the DBIA National Contract Forms, including the recently approved Form Request for Qualifications and Request for Proposals. Ms. Parkinson will be assisting the District with the development of the procurement documents and the contract with the design-builder.

7.4 Provide the ***experience and role on previous D-B projects*** delivered under RCW 39.10 or equivalent experience for each staff member or consultant in key positions on the proposed project.

Please refer to Attachment C.

7.5 The qualifications of the existing or planned project manager and consultants.

Please refer to Section 7.3 and Attachment C.

7.6 If the project manager is interim until your organization has employed staff or hired a consultant as the project manager indicate whether sufficient funds are available for this purpose and how long it is anticipated the interim project manager will serve.

Not Applicable.

7.7 A brief summary of the construction experience of your organization's project management team that is relevant to the project.

Tim DeVries, P.E. - Director of Engineering and Operations, Okanogan PUD
Tim DeVries is an Electrical Engineer and has 36 years of Electric Utility T,D&G design, construction and project management experience. He has had direct design and project management responsibility for hundreds of projects with multiple simultaneously ongoing projects exceeding \$3 million in value. Project experience includes transmission lines, transmission substations, distribution substations, switching substations, Static VAR compensators (SVC), battery energy storage system (BESS), generation integration, vehicle shop, data centers, communication systems, SCADA implementation (master and subs), electrical system modeling, system improvements, long range planning, construction work plan creation, system asset inventory, asset life evaluation and GIS implementation with document integration.

Dan Boettger - Director of Regulatory and Environmental Affairs, Okanogan PUD
Dan Boettger joined the District in 1986 and currently manages both the Generation and Environmental departments. Boettger has led many large scale energy projects including two FERC hydropower projects, multiple non hydro generation plants and transmission line projects. In addition, he manages departmental staff involved with Environmental permitting and compliance. Prior to joining Okanogan PUD, Boettger was instrumental in permitting and siting sewer and water projects and a large regional landfill.

7.8 A description of the controls your organization will have in place to ensure that the project is adequately managed.

Project Management and Decision Making. Tim DeVries with assistance from Dan Boettger will oversee the management of the Project with the assistance of its team of consultants. Mr. DeVries will have day to day authority and decision making authority, reporting to John Grubich, General Manager and ultimately the District's Commission.

Procurement. The District will select and train the procurement evaluation committee and Robynne Parkinson will facilitate the development and evaluation of the proposers and finalists submitting statements of qualifications ("SOQs") and proposals. Christensen Associates' staff will provide technical expertise in evaluating the SOQs and proposals.

They will also assist in developing the project controls as well as evaluating the cost proposals from the design-build team during the procurement and the development of the project budget.

The construction contract requires robust communication and open book development of the project budget and scope. It also implements a system of design management that includes design and trend logs to track the development of the design from the basis of design documents through the approval and implementation of the construction documents. Christensen Associates will be responsible for reviewing the design submissions and to monitor the quality assurance and commissioning of the project.

7.9 *A brief description of your planned D-B procurement process.*

The District will select the design-build team using a “progressive design-build” approach fully consistent with RCW 39.10. The District will first issue a Request for Qualifications to solicit design-build teams with the appropriate experience to perform the work. The District will then evaluate the responsible proposers submitting responsive SOQs and create a short list of no more than five finalists. The District intends to conduct one or more confidential meetings with the finalists prior to the submission of the proposal to allow finalists to ask questions, submit alternative technical ideas, and provide feedback on the draft contract. The finalists will submit proposals in response to the RFP, and the District will reserve the right to conduct interviews to allow finalists to explain their proposals and the evaluation team to ask questions regarding the proposals. The District will then evaluate the finalists strictly in accordance with the criteria established in the procurement documents. The District will then select the finalist with the highest score.

The District will base its evaluative criteria primarily on the qualifications of the individuals and companies on the design-build team, including their successful completion of projects that are of similar scope and complexity as the Enloe Project. The District will pay particular attention to the finalists’ management plans, project controls plans, design management and construction scheduling plans and experience. The District is in the process of determining the appropriate “cost or price-related factor” for this project; however, the District has decided that it does not intend to request a full project price during the procurement. Based on the complexity of the project, the District has determined that the Design-Builder will work collaboratively with the District to develop a Guaranteed Maximum Price after the award of the Project.

7.10 *Verification that your organization has already developed (or provide your plan to develop) specific D-B contract terms.*

Robynne Parkinson will work with the District to develop the design-build contract and general conditions and will use as a basis contracts that she has used with many past clients as well as national form contracts. The District has not decided whether to start with the DBIA or the EJCDC form documents; however, either form provides a solid basis of best practices on which Ms. Parkinson will assist the District in creating a fair contract consistent with design-build best practices. The contract will provide the District will flexibility to establish commercially fair contract terms. Ms. Parkinson has decades of experience drafting design-build contracts across the country.

8. Public Body (your organization) Construction History:

Provide a matrix summary of your organization’s construction activity for the past six years outlining project data in content and format per the attached sample provided: (See Attachment E. The applicant shall use the abbreviations as identified in the example in the attachment.)

- *Project Number, Name, and Description*

- *Contracting method used*
- *Planned start and finish dates*
- *Actual start and finish dates*
- *Planned and actual budget amounts*
- *Reasons for budget or schedule overruns*

Please refer to Attachment D.

9. Preliminary Concepts, sketches or plans depicting the project

To assist the PRC with understanding your proposed project, please provide a combination of up to six concepts, drawings, sketches, diagrams, or plan/section documents which best depict your project. In electronic submissions these documents must be provided in a PDF or JPEG format for easy distribution. Some examples are included in attachments E1 thru E6. At a minimum, please try to include the following:

- *An overview site plan (indicating existing structure and new structures)*
- *Plan or section views which show existing vs. renovation plans particularly for areas that will remain occupied during construction.*

Please refer to Attachment E.

10. Resolution of Audit Findings On Previous Public Works Projects

If your organization had audit findings on any project identified in your response to Question 8, please specify the project, briefly state those findings, and describe how your organization resolved them.

Okanogan County PUD has received no audit findings on any of the public works projects listed in response to Question 8 from the State Auditor; however, the District's independent auditor noted that the District did not meet a requirement for the FEMA projects. The District has developed procedures to ensure, prior to entering into a contract with a vendor, that a review will be performed to determine that the vendor is not suspended or debarred.

Caution to Applicants

The definition of the project is at the applicant's discretion. The entire project, including all components, must meet the criteria to be approved.

Signature of Authorized Representative

In submitting this application, you, as the authorized representative of your organization, understand that: (1) the PRC may request additional information about your organization, its construction history, and the proposed project; and (2) your organization is required to submit the information requested by the PRC. You agree to submit this information in a timely manner and understand that failure to do so shall render your application incomplete.

Should the PRC approve your request to use the D-B contracting procedure, you also understand that: (1) your organization is required to participate in brief, state-sponsored surveys at the beginning and the end of your approved project; and (2) the data collected in these surveys will be used in a study by the state to evaluate the effectiveness of the D-B process. You also agree that your organization will complete these surveys within the time required by CPARB.

I have carefully reviewed the information provided and attest that this is a complete, correct and true application.

Signature: _____

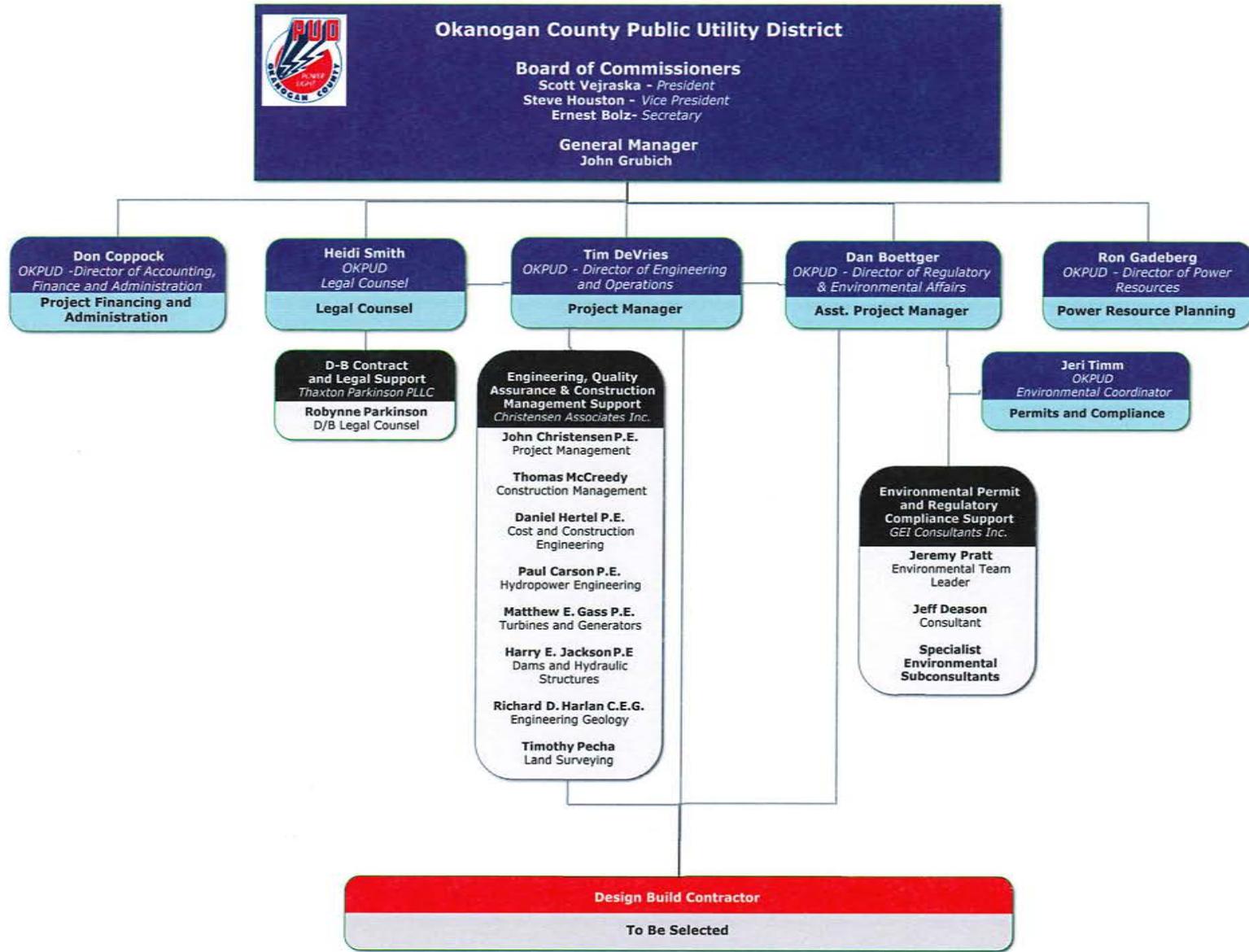


Name: John R. Grubich

Title: General Manager

Date: October 31, 2016

Okanogan County Public Utility District D-B Project Application
Attachment B
Project Organization Chart



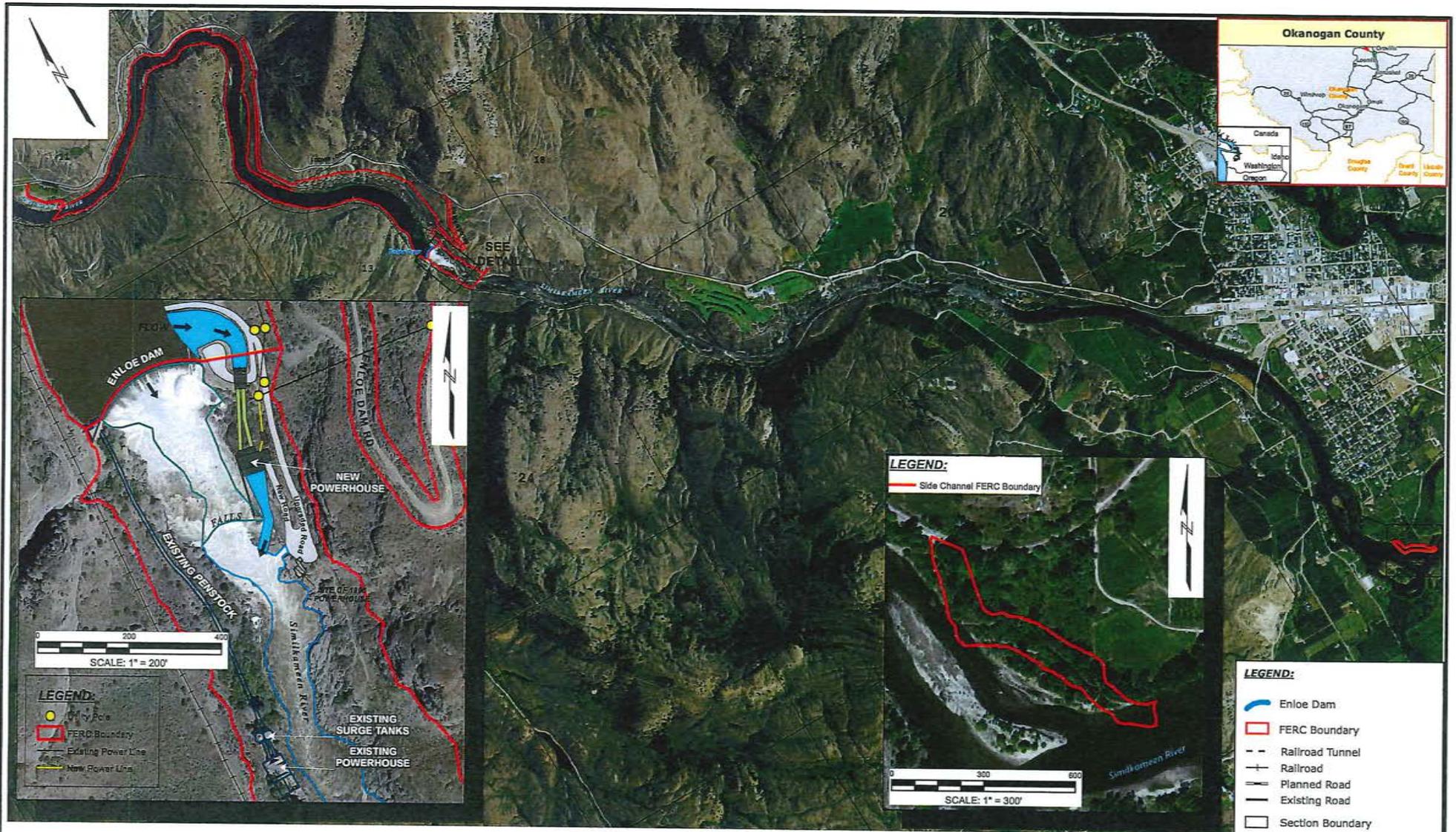
**Okanogan County Public Utility District
Design-Build Project Approval Application
Attachment C**

OKANOGAN COUNTY PUBLIC UTILITY DISTRICT - ENLOE HYDROELECTRIC PROJECT - MANAGEMENT TEAM ALTERNATIVE CONTRACT EXPERIENCE									
Name	Qualifications Summary	Project Name	Project Cost	Project Type	Role During Project Phases				
					Planning	Design	Construction	Role Start	Role Finish
Robynne Parkinson J.D. DBIA Attorney Thaxton Parkinson PLLC.	Over 20 years of experience drafting design-build procurement and contract documents and conducting classes in design-build contracts and risk management	Seattle Tacoma Airport - Int. Arrivals Facility	\$650M	D/B	Legal Counsel	Legal Counsel	Legal Counsel	Jun-15	Mar-16
		Grant County PUD -Substation	\$13M	D/B	Legal Counsel	Legal Counsel	Legal Counsel	Jul-15	on-going
		Port of Seattle, Alternative Utility Facility	\$30M	D/B	Legal Counsel	Legal Counsel	Legal Counsel	Dec-15	on-going
		City of Spokane-Nelson Service Center	\$13M	D/B	Legal Counsel			Feb-15	May-15
John Christensen P.E. DBIA Project Manager Christensen Associates Inc.	40 years experience in hydropower project management, engineering and construction management.	Spokane Public Facilities District Arena Renovations	\$55M	D/B	Legal Counsel			Oct-12	Feb-13
		Puueo Hydropower Project	\$6M	D/B	PM	PM	PM	Oct-02	Dec-05
		Narrows 2 Power Plant Flow Bypass Facility	\$16M	D/B	PM	PM	PM	Oct-01	Mar-07
Thomas McCreedy Construction Management Expert Christensen Associates Inc.	Over 40 years experience in construction management of hydropower project development and rehabilitation.	Colgate Power Plant Penstock Shutoff Valve	\$5M	D/B	PM	PM	PM	Mar-04	Nov-12
		Arrowrock Hydropower Project	\$41M	D/B	PM	PM	PM	Jan-08	Apr-10
		Tieton Hydropower Project	\$50M	D/B/B	CM	PM	PM	Jan-05	Jan-07
		Tennessee Valley Authority Hydropower Upgrades	\$100M	D/B	PM	PM	PM	Jan-94	Jan-96
Paul Carson P.E. Hydropower Engineer Christensen Associates Inc.	39 years experience in hydropower project development and rehabilitation.	Navajo Dam Hydro Rehab	\$28M	D/B/B	PM	PM	PM	Jan-87	May-91
		Blue Lake Hydro Expansion	\$140M	D/B/B	Asst PM	Asst PM	Asst PM	Sep-98	May-16
		Carmen Smith Hydro Rehab	\$40M	CM/GC	Mech Engr	Mech Engr	Mech Engr	Aug-07	on-going
Dan Hertel, P.E. Cost/Construction Engineer Christensen Associates Inc.	34 years experience in construction management, cost estimating, dam, water resource, and hydropower projects	Snoqualmie Falls Hydro Rehab	\$100M	CM/GC	Cost Est.	N/A	N/A	Jul-09	May-10
		Battle Creek Hydro	\$30M	DBB	Cost/const. Rev.	Cost/const. Rev.	Cost/const. Rev.	Aug-14	Present
		Dalles Dam Fish Facilities	\$25M	DBB	Cost/const. Rev.	Cost/const. Rev.	Cost/const. Rev.	Jul-16	Ongoing

ATTACHMENT D

No.	Project Name	Description	Contract Method	Proposed Start Date	Proposed Finish Date	Actual Start Date	Actual Finish Date	Budget	Actual	Reason for Budget Schedule Overrun
1	PUD Headquarters	Construction of New District office	DBB	Sep-09			Aug-11	\$5,948,262	\$6,643,925	Addition of parking lot area.
2	Pine Creek Substation	New 115kv/13.8kv Substation	GC/Internal	Jul-10	Jul-11	Jul-10	Sep-11	\$800,000	\$862,303	Added concrete apron at gate locations, drainage recontouring, changed wiring configuration for control building
3	AMI Substation, Server, Comms	Install AMI meters	Internal	Apr-09	Oct-10	Apr-09	Oct-10	\$1,150,487	\$1,156,477	Replacement of damaged meters
4	ARRA Broadband	Install 187 Wi-Fi sites and connected fiber	DBB	Jan-13	Dec-13	Jan-13	Jan-14	\$9,169,637	\$9,006,600	
5	Carlton Complex Fire Restoration	Replace 1,200 poles and 300+ services	Internal	Jul-14	Nov-16	Jul-14	Nov-16	\$14,106,308	\$11,322,743	
6	Okanogan Complex Fire Restoration	Replace 1,100 poles and 150+ services	Internal	Aug-15	Dec-17	Aug-15	TBD	\$4,206,918		In-progress, waiting for consumer construction. On schedule and budget
7	CCF Ophir-Brewster Transmission 115KV	Replace 3 miles damaged by CCF	DBB	Jul-15	Oct-15	Jul-15	Sep-15	\$186,435	\$258,080	Re-drill steel poles mfg'd incorrectly, water for fire watch and dust control, additional anchoring in rock
8	Power Transformer Rebuild	Rebuild 115kv/13.8kv Power Transformer	DBB	Dec-08	Oct-09	Dec-08	Dec-09	\$574,598	\$576,199	Shipping company damaged transformer and had to be re-stested
9	Pole Testing, Treatment and Inspection	2015 Transmission Pole Testing	GC	May-15	Dec-15	May-15	Aug-15	\$145,000	\$140,105	
10	2015 Tree Trimming	2015 Tree Trimming	GC	Feb-15	Dec-15	Feb-15	Dec-15	\$695,000	\$599,321	
11	PT 115kv Transmission Line	Construct 27 mile 115kv Transmssion Line	DBB	Apr-16	Dec-16	Apr-16	TBD	\$8,575,000		Project is in progress, about 63% complete. Delayed for environmental restrictions and material delays.

ATTACHMENT E



SOURCE:
 1. Image sources: 2013 USDA National Agriculture Imagery Program and May 2006 Okanogan County PUD.

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 SCALE: 1" = 2000'

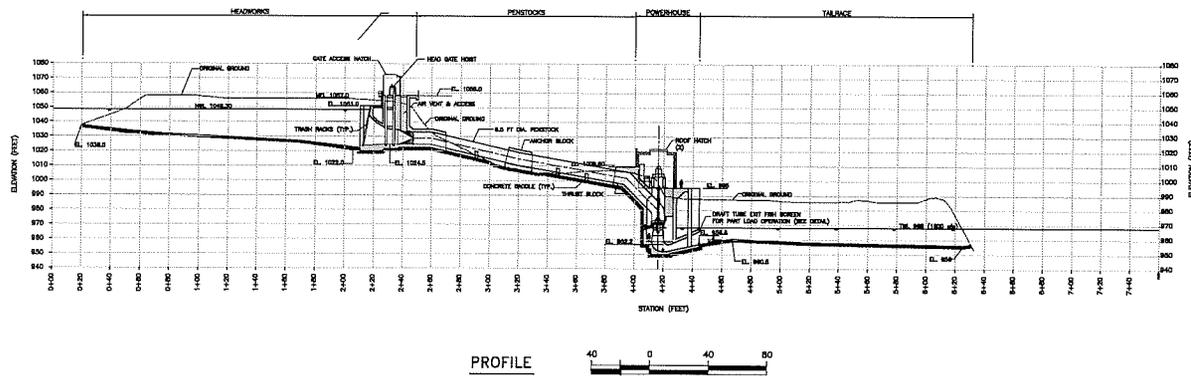
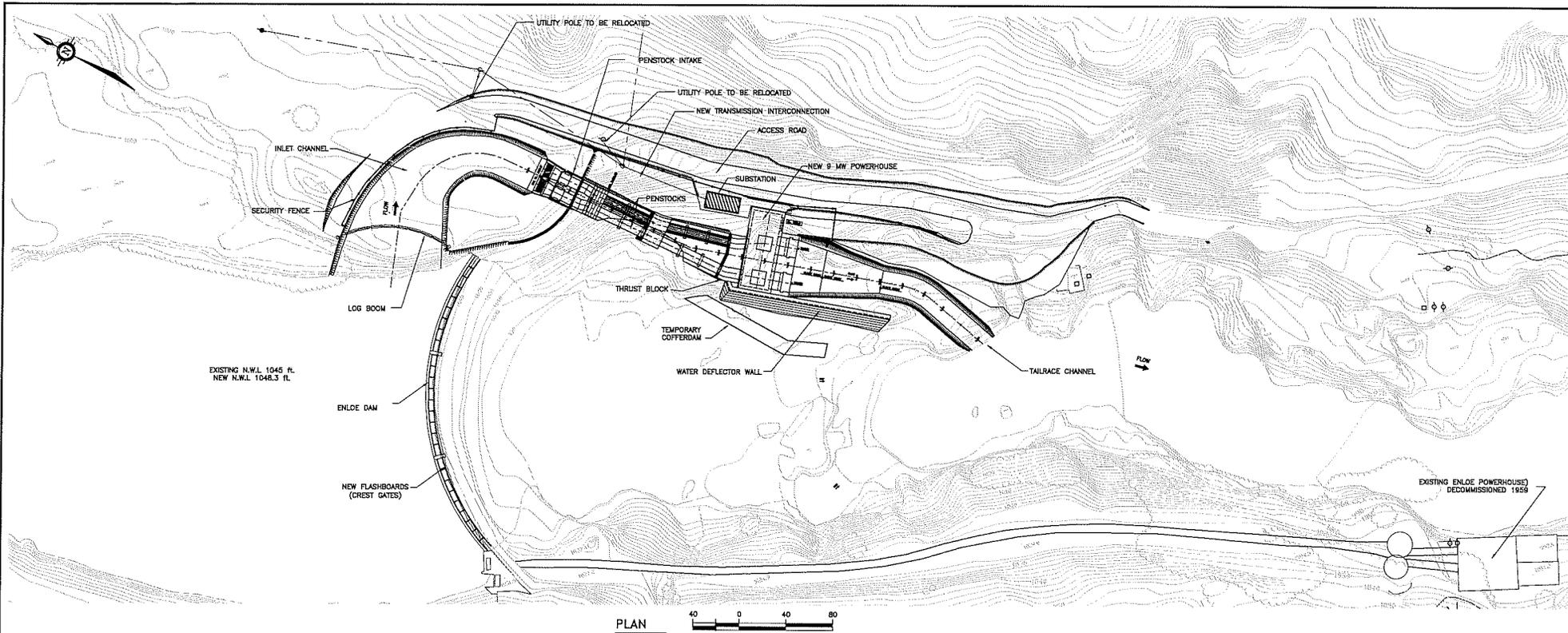
Enloe Dam Licensing Project
 Okanogan County
 Oroville, Washington

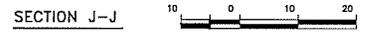
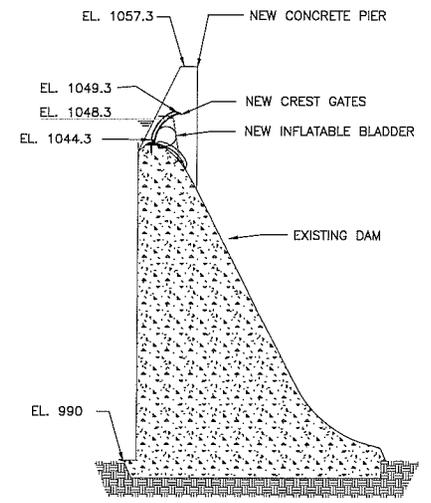
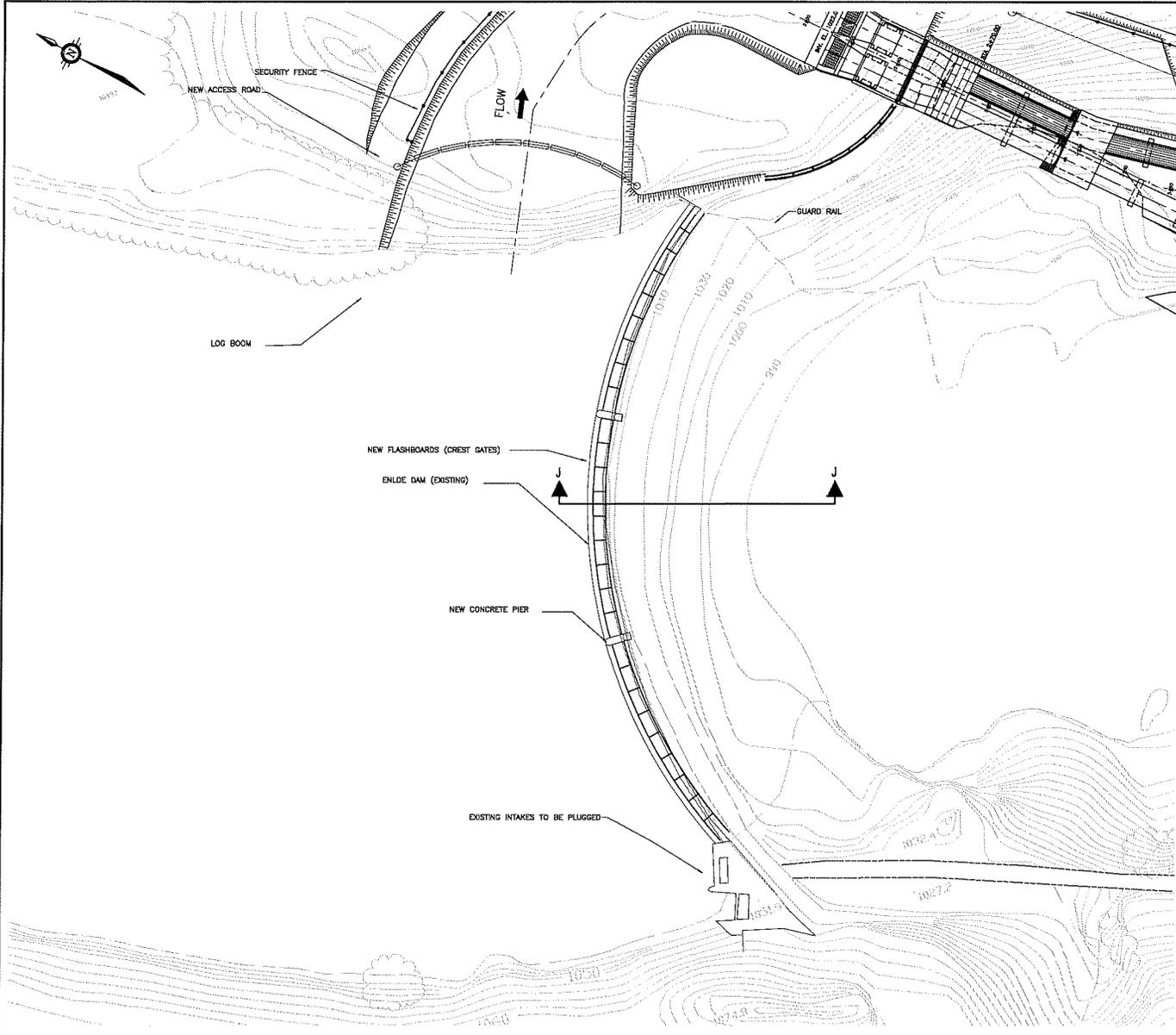
Enloe Hydroelectric Project



PROJECT BOUNDARY

FERC Project 12569-01 December 2015 Fig. 1





Enloe Hydroelectric Project - FERC Project No. 12569

Figure No. F.2

Dam and Headworks

DRAFT

NO.	DATE	DESCRIPTION	BY	CHK.	APPD.
REVISIONS					



DESIGNED:	ENBL/PC	06/2007
DRAWN:	CLW	06/2007
CHECKED:		
SUBMITTED:		
RECOMMENDED:		
APPROVED:		



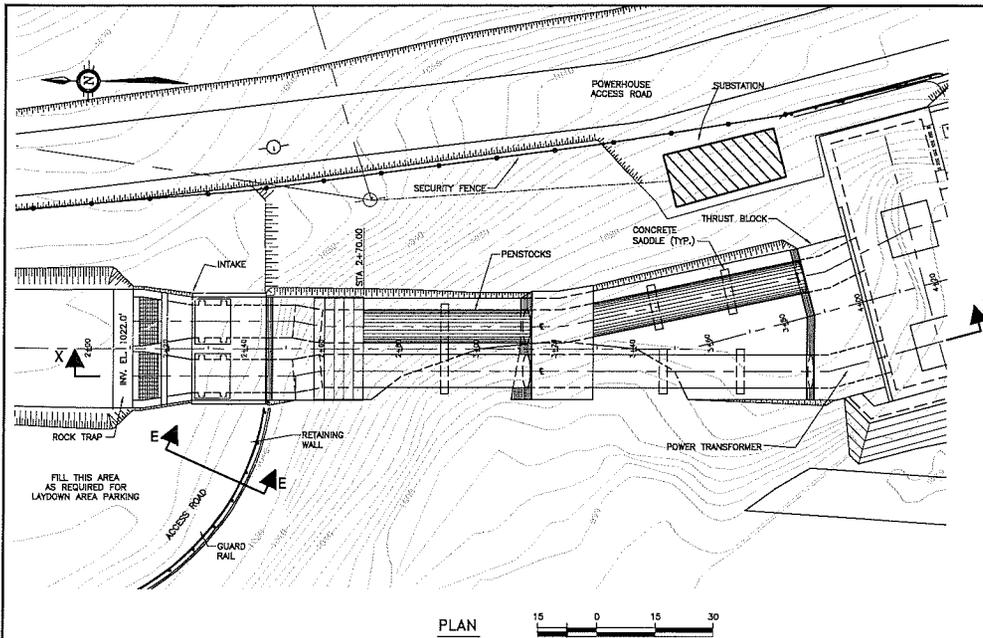
PUBLIC UTILITY DISTRICT No.1 of OKANOGAN COUNTY

ENLOE HYDROELECTRIC PROJECT

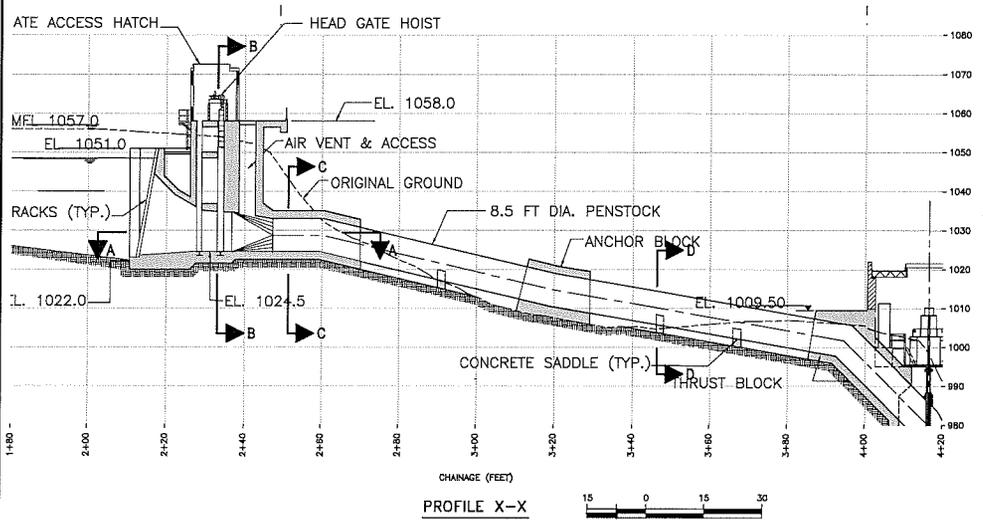
APPLICATION FOR LICENSE

FERC Project No. 12569

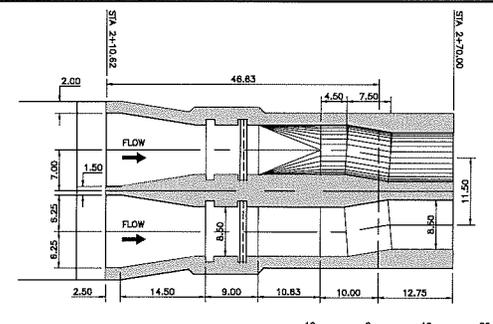
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SHEET NO.	
REVISION	



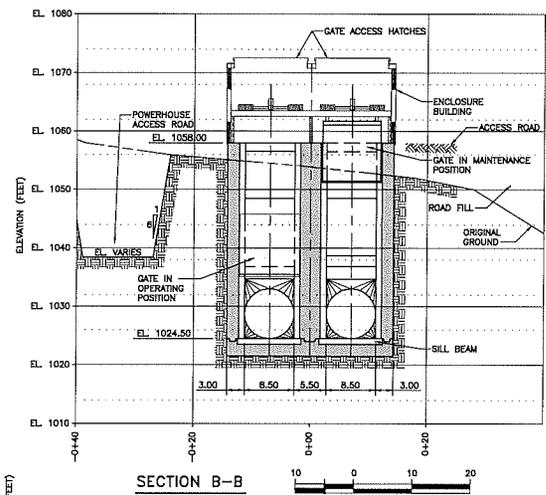
PLAN



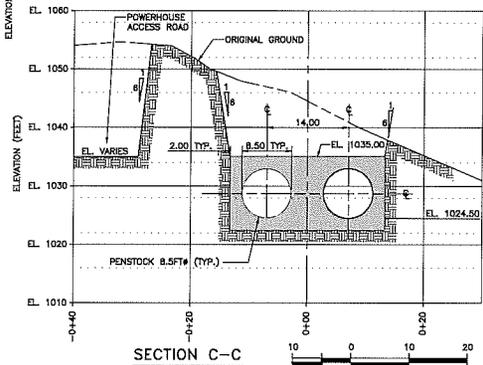
PROFILE X-X



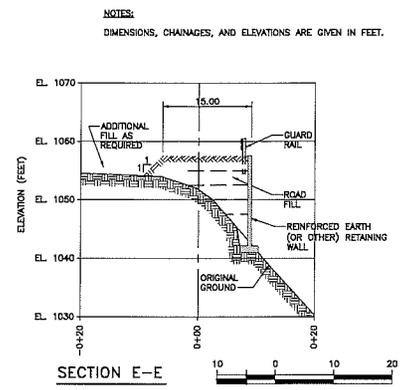
SECTION A-A @ EL. 1028.75



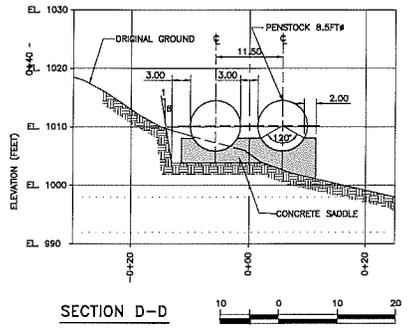
SECTION B-B



SECTION C-C



SECTION E-E



SECTION D-D

NO.	DATE	DESCRIPTION	BY	CHK.	APPL.
REVISIONS					

DESIGNED:	DH/UPC	06/2007
DRAWN:	CLW	06/2007
CHECKED:		
SUBMITTED:		
RECOMMENDED:		
APPROVED:		

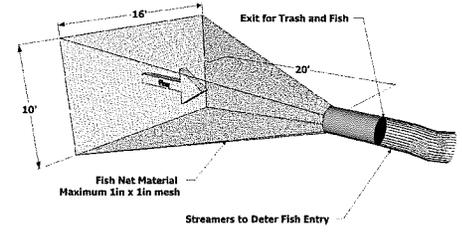
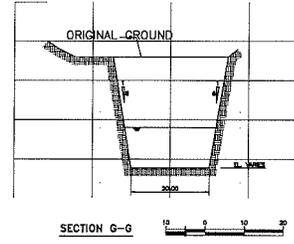
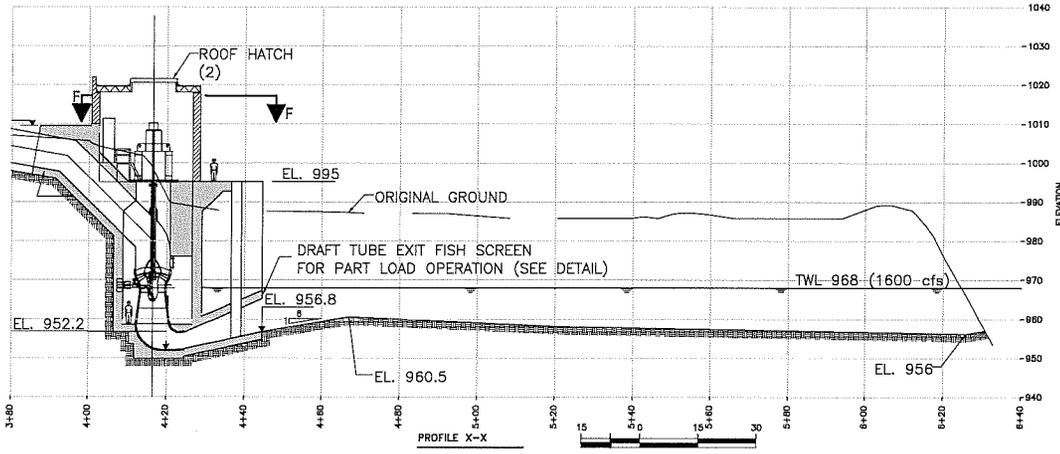
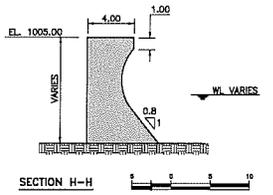
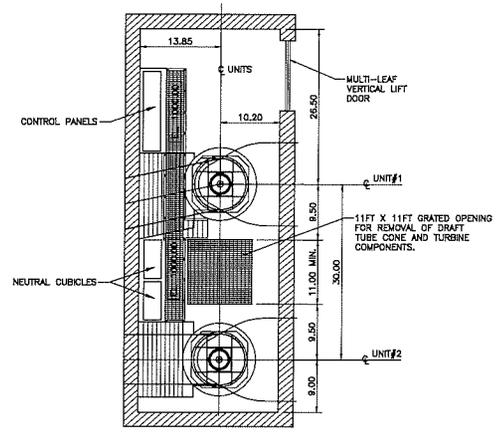
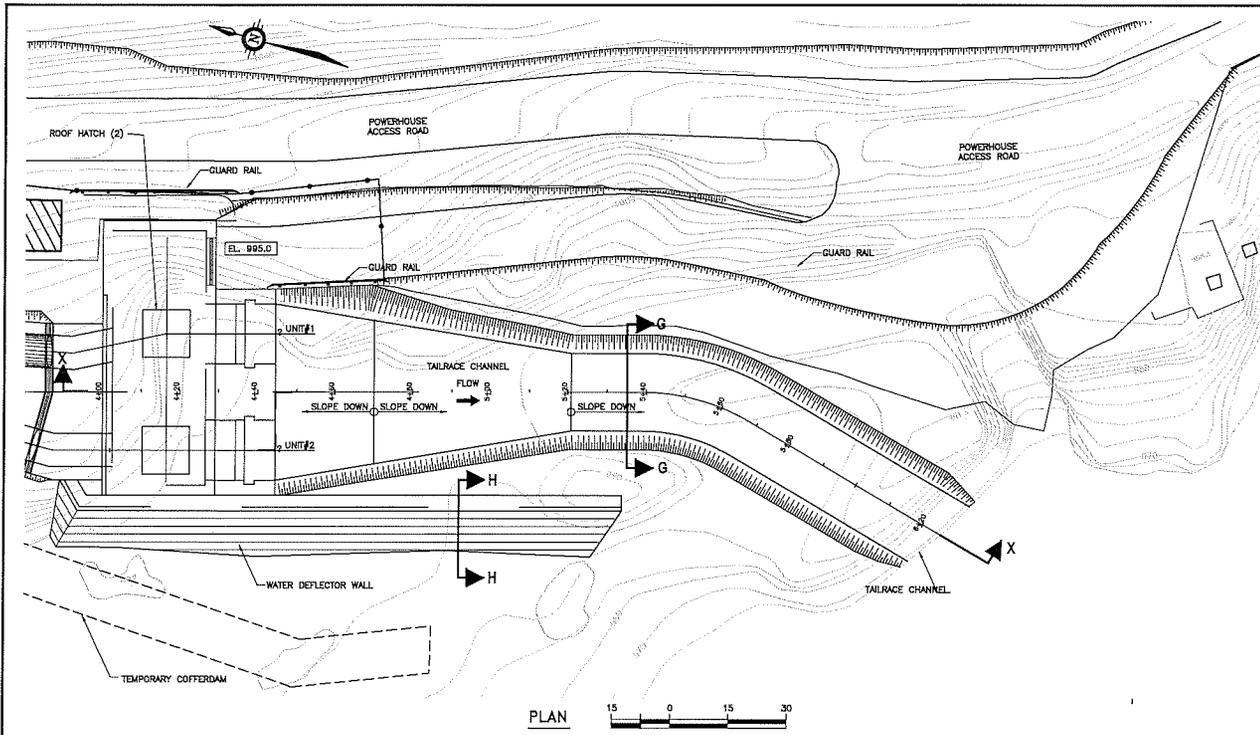


PUBLIC UTILITY DISTRICT No. 1 of OKANOGAN COUNTY
 ENLOE HYDROELECTRIC PROJECT
 APPLICATION FOR LICENSE
 FERC Project No. 12569

DRAWING NO.	
SHEET NO.	
REVISION	

Enloe Hydroelectric Project - FERC Project No. 12569
Figure No. F.3
 Intake and Penstock

DRAFT



Isometric View Of Draft Tube Exit Fish Screen

Enloe Hydroelectric Project - FERC Project No. 12569

Figure No. F.4
Powerhouse and Tailrace

NO.	DATE	DESCRIPTION	BY	CHK.	APPL.
REVISIONS					



DESIGNED:	DHBJ/PC	09/2007
DRAWN:	CLW	09/2007
CHECKED:		
SUBMITTED:		
RECOMMENDED:		
APPROVED:		



PUBLIC UTILITY DISTRICT No.1 of OKANOGAN COUNTY
ENLOE HYDROELECTRIC PROJECT
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DRAWING NO.	
SHEET NO.	
REVISION	

DRAFT

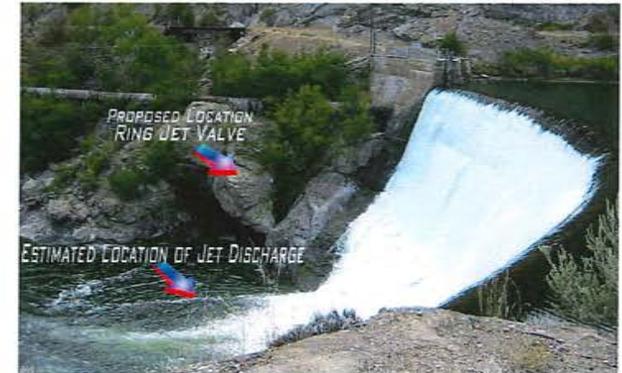
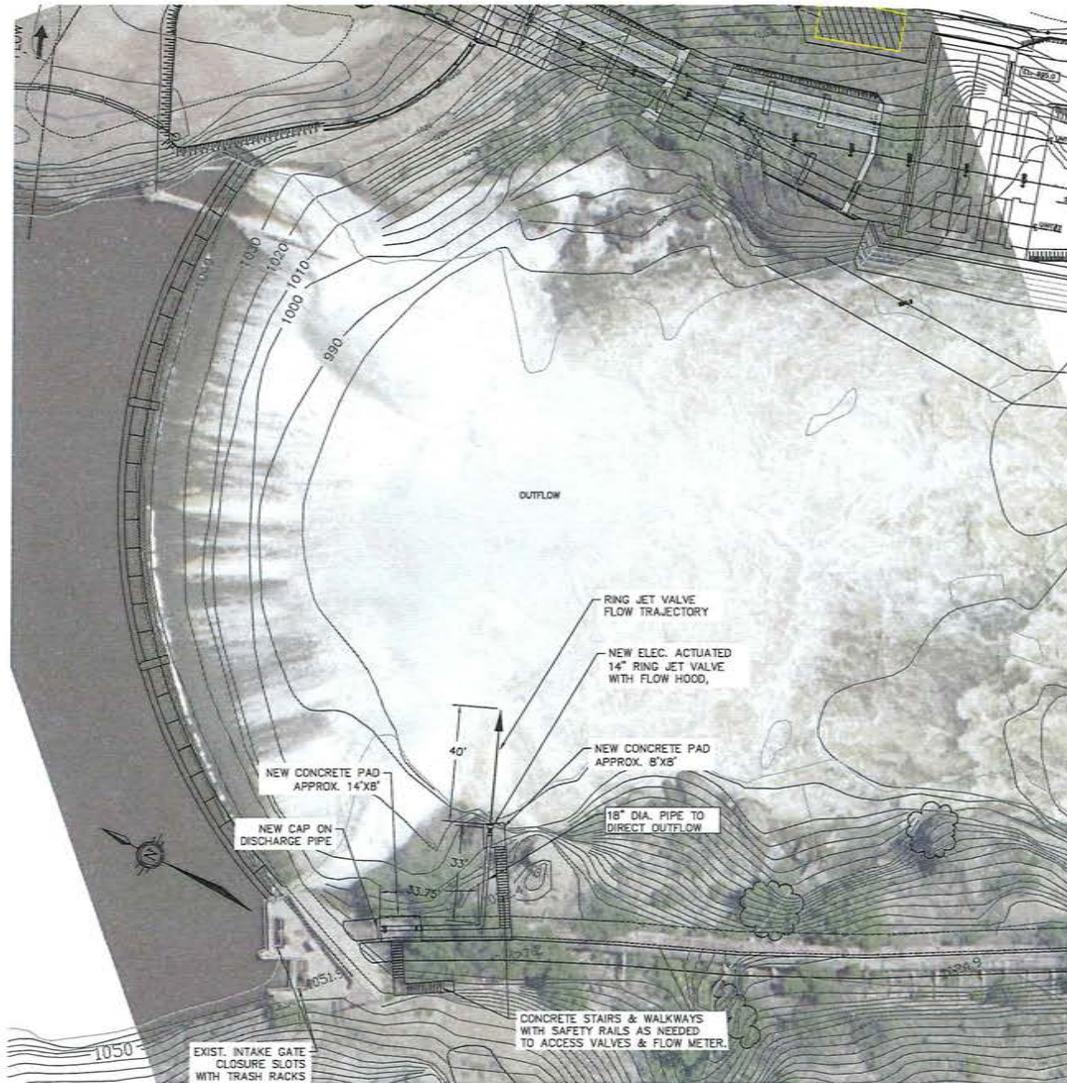


IMAGE OF PROPOSED RING JET VALVE SITE
N.T.S.

Enloe Hydroelectric Project - FERC Project No. 12569

Enloe Dam
Proposed Instream Flow Outlet
Ring Jet Valve

DRAFT

NO.	DATE	DESCRIPTION	BY	CHK.	APPR.
1	8/5/11	WAS 16" RING VALVE IS 14" RING VALVE	TMS		



DESIGNED:	DHS/JPC	01/2011
DRAWN:	CLW	01/2011
CHECKED:		
SUBMITTED:		
RECOMMENDED:		
APPROVED:		



PUBLIC UTILITY DISTRICT No.1 of OKANOGAN COUNTY
ENLOE HYDROELECTRIC PROJECT
APPLICATION FOR LICENSE
FERC Project No. 12569

DRAWING NO.	20110204
SHEET NO.	SHEET 1 OF 2 SHEETS
REASON	