



November 21, 2016

PND 162089.01

Chris Cotta
Assistant Public Works Director
Petersburg Borough
P.O. Box 329
Petersburg, AK 99833

Subject: Upper Petersburg Dam Concrete Spillway Rehabilitation
Engineering Services Fee Proposal

Dear Chris,

PND Engineers Inc. is pleased to submit this proposal to furnish engineering services to the Borough to rehabilitate the Upper Petersburg Dam Concrete Spillway. We understand the Borough is seeking the least cost solution to significantly extend the service life of the existing structure.

General Approach

The general sequence contemplated by PND for the rehabilitation effort can be described in the following short outline:

1. Survey the existing spillway contours between the crest and elevation 312±. This task will be completed by local surveyor Rick Braun, PLS. PND will prepare a basemap of the existing conditions to be used in the design. The contours along with detailed site photographs will establish the condition of the spillway surface prior to final repairs.
2. Prepare the design/bid documents for a cast in place concrete overlay consistent with the results of the spillway contour survey. Design documents will address existing spillway cleaning, surface preparation, concrete overlay reinforcing and anchoring, and mixture composition for high strength low permeability concrete. Concrete repair work for the spillway will be designed in accordance with Alaska DNR Dam Safety requirements and the technical guidance from the American Concrete Institute (ACI) for structure rehabilitation. To the degree possible the design/construction method will reflect locally available equipment and services. Two design review submittals will be prepared for Borough review followed by preparation of stamped bid ready documents.
3. Issue the design for bids, and select a contractor based on established Borough administrative process.
4. Mobilize necessary equipment to the site. Equipment is anticipated to include excavators, tooling for large area concrete scarifying, sawing/cutting equipment, air compressors, small batch concrete placing equipment, and small tools.
5. Furnish and temporarily install a system to redirect creek discharge away from roughly 1/3 of the spillway such that repair work can proceed in-the-dry. The dry area would extend

from the crest of the spillway to point 2-feet upstream from the existing 30-inch bypass discharge pipe outlet (Elevation +309.5 ±)

6. Saw cut the area to be repaired, and scarify the spillway surface using excavator mounted tooling. Place concrete spillway reinforcement, anchoring devices and the concrete/grout overlay.
7. Other items of work shall be addressed separately by the Borough, including: repair of the mechanical and electrical systems to lift the spillway stop logs, repair of damaged structural beams, repair of bypass trash rack/intake screens, coatings and other miscellaneous items.
8. PND will prepare the ADNR Dam Safety Modifications Permit Application. Other permit applications will be prepared by the Borough.
9. PND will provide bid phase assistance including a site visit with bidders to review the work and answer questions. We will chair the prebid conference and prepare formal responses via addenda.
10. Construction phase services are not included in this fee proposal however can be provided at a later date following a successful bid outcome and selection of a contractor.

Schedule

We anticipate that permits and final design will be completed by late March 2017. The intent is to allow two months for bidding and contract award, then two months for contractor mobilization and construction to complete the work during summer 2017, consistent with established fish habitat permits.

Fee Proposal

PND proposes to provide engineering services on a Time and Expenses reimbursable basis using our 2015 Standard Billing rates, enclosed. The attached spreadsheet provides a detailed breakdown of the services and fees we have anticipated for this project. We recommend a T&E budget of \$56,090 for the described scope.

If you have any questions, desire modifications to the proposed scope and fees or need any further information please do not hesitate to call me. We look forward to hearing from you soon and to the opportunity to work for you on this project.

Sincerely,
PND Engineers Inc.



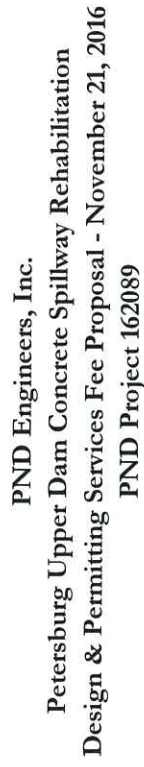
Dick Somerville, P.E.
Vice President

Enclosures



**PND ENGINEERS, INC.
STANDARD RATE SCHEDULE
EFFECTIVE MAY 2015**

		<i>Hourly Rate</i>
<u>Professional:</u>	Senior Engineer VII	\$180.00
	Senior Engineer VI	\$165.00
	Senior Engineer V	\$155.00
	Senior Engineer IV	\$145.00
	Senior Engineer III	\$135.00
	Senior Engineer II	\$125.00
	Senior Engineer I	\$115.00
	Staff Engineer V	\$110.00
	Staff Engineer IV	\$105.00
	Staff Engineer III	\$100.00
	Staff Engineer II	\$90.00
	Staff Engineer I	\$85.00
	Environmental Scientist VI	\$165.00
	Environmental Scientist V	\$150.00
	Environmental Scientist IV	\$135.00
	Environmental Scientist III	\$120.00
	Environmental Scientist II	\$105.00
	Environmental Scientist I	\$90.00
	GIS Specialist	\$90.00
<u>Surveyors:</u>	Senior Land Surveyor III	\$120.00
	Senior Land Surveyor II	\$110.00
	Senior Land Surveyor I	\$100.00
<u>Technicians:</u>		
	Technician VI	\$125.00
	Technician V	\$110.00
	Technician IV	\$90.00
	Technician III	\$80.00
	Technician II	\$70.00
	Technician I	\$45.00
	CAD Designer VI	\$110.00
	CAD Designer V	\$100.00
	CAD Designer IV	\$85.00
	CAD Designer III	\$70.00



8	4							8	\$2,980
4				18	8				\$3,490
2			4				8		\$1,820
32	4	24	16		36			8	\$16,100
16								2	\$3,100
24	4	16	12		32			4	\$12,320
12	2	8	8		8			4	\$5,730
16		4	4		4			2	\$4,500
114	14	52	44	18	88			28	\$50,040

Rick Braun	Topographic survey allowance	\$4,500
Travel	2 RT Airfares & Misc Field Expenses	\$1,000
Administrative	10% markup on third party expenses	\$550
TOTAL ESTIMATED FEE (T&E)		\$6,050
		\$56,090