

CH2M Portland, Oregon

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Mr. Jim Hodges City of Camas 616 NE 4th Avenue Camas, Washington 98607

February 7, 2017

Subject: Camas Project WS-709

Proposal for Design of Approximately 7,300 Feet of Treated Water Pipeline R2

Dear Jim,

CH2M is pleased to submit our proposal for design and construction phase services for approximately 7,300 feet of new treated water pipeline associated with the new Slow Sand Water Treatment Plant. The new pipeline will replace a section of old pipeline from the end of the new treated water pipelines at the Slow Sand Water Treatment Plant to connect to a new treated water pipeline at NE Ireland Way and NE 312th Avenue.

Proposed Scope of Work

Our proposal includes:

- Evaluation of construction alternatives and pipeline size CH2M will prepare draft and final
 technical memoranda addressing construction alternatives and pipeline size. The construction
 alternatives will include open cut replacement, pipe bursting, and horizontal directionally drilled
 undercrossings of the Little Washougal River. CH2M has budgeted for one meeting with the City
 to review the draft memorandum.
- 2. Surveying and brush clearing CH2M will subcontract with Centerline Surveying to clear brush from the easement and complete a design survey for the new pipeline. Centerline Surveying will subcontract brush clearing to Green Construction, Inc. The brush clearing is expected to require nine days of work using a bulldozer with brush rake. A small portion of the alignment will need to be cleared by hand at the Little Washougal River Crossing. CH2M HILL assumes that no additional permanent easements are needed to construct the pipelines. The survey work includes easement definition and right of way resolution does not include boundary or right of way delineation. CH2M HILL assumes that construction staking will be provided by the Construction Contractor.CH2M HILL assumes that no permits will be needed to conduct the survey.

CH2M HILL assumes that the City of Camas will obtain permission to enter the properties for the survey. The design survey will include:

a. A topographic survey for a corridor approximately 50 feet wide centered on the existing or proposed pipeline alignment.

- b. One-foot contours will be generated and the associated surface files will be provided.
- c. Existing driveways, gates, fences, and other features will be located.
- d. Existing utilities will be shown based upon surface structures, utility paint markings and as-builts.
- e. Trees, 6-inch diameter and larger will be depicted.
- f. If found, existing monuments will be located.
- g. Horizontal Datum will be Washington South Zone or other approved datum.
- h. Vertical Datum will be Clark County or other approved datum.
- i. Deliverables will include AutoCAD drawings and electronic plots and signed.
- 3. Permitting CH2M anticipates that the following permits will be needed:
 - a. Clark County Environmental
 - b. Clark County/Department of Ecology Shoreline Permit for Substantial Development
 - c. IARPA
 - d. Department of Fish and Wildlife (DFW) for a Hydraulic Project Approval (HPA) for crossing of the Little Washougal River
 - e. Cultural Resources
 - f. SEPA

CH2M will arrange for and attend one preapplication meeting with Clark County. CH2M will complete a wetland delineation and report. CH2M will complete a JARPA application for submission by the City of Camas. CH2M will negotiate on behalf of the City of Camas with DFW for a HPA and will complete an HPA application for submittal by the City of Camas. CH2M will complete draft and final Shoreline Permit applications. CH2M has budgeted for one review meeting with the City of Camas following submittal of the draft Shoreline Permit application. CH2M will conduct a cultural resources survey for the proposed alignment and will prepare a cultural resource report for submission to the Department of Health, Clark County, and the City of Camas (SEPA application). CH2M will prepare a SEPA application for submittal to the City of Camas as the lead permitting agency. After approval, the SEPA application will also accompany the other permit applications.

No application or permit fees are included in CH2M HILL's scope of work.

4. Preparation of bid documents – CH2M will prepare plans and specifications for the pipeline. CH2M anticipates that the plans will include seven plan profile sheets at a scale of 1 inch equals 50 feet, seven detail sheets (including erosion control details), three erosion control plan sheets, and three general sheets, for a total of 20 sheets.

During preparation of bid documents design, CH2M HILL will participate in three meetings with City of Camas staff at Camas City Hall and two field trips to the project site.

CH2M will update the specifications sections prepared for the earlier pipeline projects for this project. The specifications will be prepared as special conditions to be attached to City of Camas standard bidding documents. CH2M HILL will submit review drawings and specifications to the City of Camas at the approximate 60 percent completion point. After receiving written

comments, CH2M HILL will prepare final drawings and specifications for review by the City. Upon receiving written approval from the City, CH2M HILL will finalize the design drawings for bidding. CH2M HILL assumes that the City will assemble, publish, and distribute the bidding documents.

5. Bidding and Construction Phase Services - CH2M HILL will provide support for up to two addenda during the bidding process and participate in one pre-bid meeting. CH2M HILL assumes that the City will manage the construction contracts and provide construction inspection using City staff. CH2M HILL will provide up to 80 hours of support during the construction phase for the pipeline project.

CH2M HILL assumes that the City will mark up drawings to show changes during construction. After construction is completed, CH2M HILL will use these markups to prepare construction record drawings. CH2M HILL assumes that the construction record drawings will not require review and revision.

CH2M HILL has assumed that the City of Camas will be responsible for utility applications.

Proposed Schedule

CH2M understands that construction of the pipeline needs to be completed by the end of August 2017 to allow sufficient time for commissioning before the City's water right becomes available on November 1, 2017. Our proposed schedule is:

- 1. Receive notice to proceed from the City of Camas by March 7
- 2. Met with City staff to review construction alternatives and pipeline size by March 14
- Prepare submittal materials for Clark County preapplication meeting and make application by March 14
- 4. Start brush clearing for surveying on March 13
- 5. Start wetlands delineation and cultural resources survey March 13
- Start surveying on March 20
- 7. Clark County preapplication meeting March 28
- 8. Complete SEPA March 28
- 9. Complete Shoreline Permit application April 7
- 10. Complete surveying and provide survey files April 14
- 11. Develop bid package with review meetings with City staff
- 12. Complete bid package May 19
- 13. Advertise and receive bids June 6
- 14. Construction notice to proceed June 20
- 15. Receive approved Shoreline Permit July 7
- 16. Construction July 1 to August 31
- 17. Critical work window for instream work first two weeks in August (confirm with discussions with DFW)

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CH2M proposed to provide this scope of work on a time and materials basis with a not to exceed budget of \$217,769. Table 1 itemizes the proposed budget.

Regards,

CH2M HILL Engineers, Inc.

Joe Broberg, PE, P.Eng. PMP, PMI-ACP

Project Manager



Table 1

Camas Treated Water Pipeline Estimate 7 Feb 2017

Camas	Treated	Water Pipeline Estimate	7 Feb 201	.7														
											4440	Subconsultants (subtask values do not include markup)			Markup on subconsultants	-	Line totals	
		Hourly rate (Average rate	\$248	\$236	\$167	\$112	\$121	\$145	\$125	\$101	\$110	U	1.00	1.00	1.00	1.00		
Task No.	Subtask No	Task name	Rick Attanasio	JSB	Brittany Hughes	Kelli Walters	Forrest Parsons	David Sheldon	Kim Larson (CADD)	Accounting	Clerical	Total CH2M Hill hours by task	Centerline Concepts Land Surveying	Brush Clearing	Markup on subconsultants		Line total (with subconsultant markup)	Notes
1		Evaluation of route, construction alternatives, and pipeline size		6	8	32					3	49				\$80	\$6,742	Includes draft and final technical memoranda and one meeting at City of Cama
2 8	э	Surveying			8	8					2	18	\$19,000		\$950	\$80	\$22,480	From Centerline Survey proposal
)	Brush clearing										0	, 	\$11,200	\$560	\$80		Assumes 8 days at \$1400/day
3 a	a	Clark Co Environmental Permit (includes preapplication meeting)			6	40	12				2	60				\$80	\$7,236	Wetland delineation included in DFW and JARPA application
		Shoreline Permit		2	6	56	12				3	79				\$80	\$9,609	Includes draft and final application and one review meeting at City of Camas
k	o	Wetlands delineation and discussions with DFW; JARPA application			6	8	72		8		4	98				\$80	\$12,143	
C		Cultural resources survey and report			6	8		64			3	81				\$80	\$11,587	Field survey by archeologist
(dt	SEPA			6	40					3	49				\$80		Assumes City of Camas is lead agency
4 á		Pipeline drawings		6	75	225			305		16	627				\$100		20 sheets, 7 at 50 hours/sheet, 13 at 20 hours per sheet
5 a	D	Bidding and construction phase services		2	40	40 96		16			8	90				\$80		Revise specifications from previous pipeline project Includes attending pre-bid and preconstruction meeting, two addenda, and 80 hours of support for submittal review and questions during construction; Includes cultural resource report; Assumes City of Camas provides construction observation
ł)	Construction record drawings			4	6			28		2	40				\$0		Update based on marked up drawings provided by City of Camas
6		Project management	2	16	24	24				16	2	84				\$80	\$12,872	
F	Project sul	ototals (hours)	2	32	229	583	96	80	0.1	16	56	1435						
F	Project sul	ototals (dollars)	\$496	\$7,540	\$38,198	\$65,296			\$42,536	\$1,614	\$6,160	1435	\$19,000	\$11,200	\$1,510	\$980	\$217,769	
		Subtotals																
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