

**AMENDMENT NUMBER 2**  
**CONTRACT NUMBER 30004334**  
**FOR**  
**CLOMR Analysis and Application for Crystal Springs Creek**

This contract was made and entered by and between Otak, Inc., hereinafter called "Consultant", and the City of Portland, a municipal corporation of the State of Oregon, by and through its duly authorized representative, hereinafter called "City".

1. The contract term is hereby extended through October 1, 2017.
2. Additional compensation is necessary and shall not exceed \$52,880. The amended not-to-exceed total contract amount is \$85,000.
3. Additional work is necessary. The SCOPE OF WORK is revised as follows:

Task 1: No change

Task 2: No change

Task 3: The title is changed to read: **Technical Review for CLOMR**

**Task 4. CLOMR Application** is deleted.

**Task 4.1. Hydraulic Modeling and Mapping** is added as follows:

The purpose of this task is to complete the hydraulic modeling and mapping necessary to obtain a Letter of Map Revision (LOMR) that would revise the floodplain and floodway boundaries for the entire reach of Crystal Springs Creek extending from Johnson Creek to Reed College. Completion of this task requires the Consultant to provide an engineer stamp to the model and mapping sufficient for the LOMR application. The revised modeling and mapping will be based on an updated hydrology recently completed by USGS and certified survey data collected by both the Portland Bureau of Transportation (PBOT) and Consultant to reflect the current configuration of the channel, floodplain, and hydraulic structures (bridges and culverts) within the reach. Consultant is expected to review the USGS hydrology report to ensure it is sufficient to incorporate into the hydraulic modeling and mapping. The work will include the following:

1. Hydraulic models (HEC-RAS) for the following:
  - Duplicate effective model
  - Corrected effective model
  - Existing conditions model

2. Topographic work map of existing conditions.
3. Annotated FIRM showing the revised floodplain and floodway boundaries.

Assumptions:

1. Hydrology will be based on the recent flow estimates from the USGS and documented in a report that can be referenced.
2. All necessary survey data will be provided and certified by the City. This includes surveyed cross sections of the channel and near floodplain of sufficient density to meet FEMA mapping standards and surveys or certified as-built drawings of all bridges in the reach. All survey data must be certified by a registered professional land surveyor or by a registered professional engineer.
3. As necessary survey data will be supplemented with the certified 2015 LiDAR mapping.
4. Corrected Effective Model will consist of the Duplicate Effective Model with the flows updated with the USGS revised estimates.
5. No survey or revisions to the hydraulic model geometry will be required in reaches with no physical changes since the date of the Effective Model.

This task shall be completed in two phases to allow Union Labor Retirement Association ("Union Manor") to proceed expediently with an additional LOMR application. The phases to be completed are as follows:

*Phase 1 - Pre-Construction of SE Bybee and SE Glenwood:* Consultant shall only complete the Hydraulic Modeling for the following sections which have been previously altered by BES projects: Johnson Creek to SE Bybee Blvd. and UPRR to Reed College. Any additional floodway analysis and mapping from SE Bybee Blvd. to Reed College shall be completed under a separate contract between Consultant and a third party, Union Manor. The purpose of this is to allow Union Manor to submit a LOMR application in a timely manner for their private development.

*Phase 2 - Post Construction of SE Bybee and SE Glenwood:* Upon completion of the SE Bybee and SE Glenwood construction projects, estimated to be completed by November, 2016, Consultant shall revise any Hydraulic Model and Mapping to reflect the structural changes and make any changes to the floodway. The updated Hydraulic Model and Mapping shall form the basis of the LOMR application on behalf of the City.

**Task 4.2. LOMR Application** is added as follows:

Using the data, analyses and mapping from Task 4.1, prepare the LOMR application for submittal to FEMA. It is anticipated that the following MT-2 Forms will be required:

1. Form 1 – Overview and Concurrence Form
2. Form 2 – Riverine Hydrology & Hydraulics Form
3. Form 3 – Riverine Structures Form

Completion of the application will require filling out the FEMA forms, providing additional text and descriptions to supplement the information on the forms, and attaching all the necessary technical backup data (models, calculations, maps, drawings, etc.) and providing required certification by Consultant as the engineer of record. Preparation of the application will require close coordination with the City to obtain all the necessary information. In addition to the technical data described under Task 4.1, information likely required from the City includes the following:

1. Form 1: Signatures from the City for the Revision Requestor and the Community Official and the application fee, including certification for any survey work completed by PBOT.
2. Form 2: Documentation of individual legal notice to all affected property owners and documentation of regulatory floodway revision notification. A draft application package will be submitted to the City for review and comment prior to the final submittal to FEMA.
3. Community Acknowledgement Form or other applicable Endangered Species Act (ESA) compliance authorization: City provided documentation that the projects have received all applicable ESA authorizations.

**Task 5. City Representation** is amended as follows: replace the word "CLOMR" with "LOMR".

**Task 6. Response to CLOMR Review** is amended as follows: replace the word "CLOMR" with "LOMR".

**Task 7. Assistance with Public Notices and Involvement** is amended as follows:

Delete sentence "For example, FEMA regulations as outlined on MT-2 Form 2 requires individual legal notice to all affected property owners for any increased flood elevations that would result from an encroachment in the floodway."

Replace with "For example, FEMA regulations as outlined on MT-2 Form 2 require individual legal notice to all affected property owners for any increases in BFEs or mapped SFHAs."

**Deliverables and Schedule** under Scope of Work is amended as follows:

Task		Deliverables	Expected Completion Date
1	Project Management	Work Plan, Project Schedule, progress reports and invoices	October 1, 2017
2	Preliminary Review of USGS Studies and other Relevant Information	Documentation of missing information	Completed
3	Technical Review	Written review comments on hydrologic and hydraulic modeling and analysis	Completed
4.1	Hydraulic Modeling and Mapping	Certified model and maps for both Phase 1 and Phase 2.	Phase 1: June 30, 2016 Phase 2: Jan.31, 2017
4.2	LOMR Application	A completed application to FEMA	March 1, 2017
5	City Representation	Minutes from phone conversations and meetings	October 1, 2017
6	Response to LOMR Review	Written responses to any necessary revisions to the LOMR application	Two weeks following comments from FEMA
7	Assistance with Public Notices and Involvement	Any necessary technical data for public notices	July 31, 2017

**WORK PERFORMED BY THE CITY** is amended as follows:

- Under c.: replace "CLOMR" with "LOMR"
- Add "f. Provide documentation of certification of any survey data, as built, and LiDAR."

**HOURLY RATES** are amended as follows.

Position	Billing Rate
Principal-in-Charge/Sr. Project Manager	\$184/hr
Principal-in-Charge/Scientist	\$180/hr
Environmental Specialist	\$115/hr
Scientist IV	\$123/hr
Scientist III	\$112/hr
Scientist II	\$75/hr
Scientist I	\$62/hr
Civil Engineer X	\$169/hr
Civil Engineer IX	\$159/hr
Civil Engineer VIII	\$145/hr
Civil Engineer VII	\$135/hr
Civil Engineer VI	\$126/hr
Civil Engineer V	\$119/hr
Civil Engineer IV	\$108/hr
Civil Engineer III	\$102/hr
Civil Engineer II	\$90/hr
Civil Engineer I	\$83/hr
Engineering Designer IV	\$95/hr
Engineering Designer III	\$83/hr
Engineering Designer II	\$78/hr
Engineering Designer I	\$69/hr
Engineering Tech VI	\$107/hr
Engineering Tech V	\$94/hr
Engineering Tech IV	\$82/hr
Engineering Tech III	\$72/hr
Engineering Tech II	\$64/hr
Engineering Tech I	\$56/hr
Project Administrative Assistant	\$68/hr

**Project Budget** is amended as follows:

Task		Original Budget Amounts	Amendment No. 2 Amounts	Adjusted Budget Amounts
1.	Project Management	\$3,540	\$7,000	\$10,540
2.	Preliminary Review of USGS Studies and other Relevant Information	\$1,340	\$0	\$1,340
3.	Technical Review for CLOMR	\$6,700	\$0	\$6,700
4.	CLOMR Application ( <i>deleted</i> )	\$8,192	<\$8,192>	--
4.1.	Hydraulic Modeling and Mapping	--	\$36,224	\$36,224
4.2.	LOMR Application	--	\$8,440	\$8,440
5.	City Representation	\$3,056	\$2,728	\$5,784
6.	Response to LOMR Review	\$4,208	\$4,176	\$8,384
7.	Assistance with Public Notices and Involvement	\$2,792	\$2,408	\$5,200
Total Labor Cost		\$29,828	\$53,084	\$82,612
Allowance for Reimbursable Expenses		\$2,088	\$300	\$2,388
<b>TOTALS</b>		<b>\$31,916</b>	<b>\$52,880</b>	<b>\$85,000</b>

All other terms and conditions shall remain unchanged and in full force and effect.

#### CONSULTANT SIGNATURE

This contract amendment may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same contract amendment.

The parties agree the City and Consultant may conduct this transaction by electronic means, including the use of electronic signatures.

**OTAK, INC.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Contract Number: 30003334 Amendment Number: 2

Contract Title: CLOMR Analysis and Application for Crystal Springs Creek

**CITY OF PORTLAND SIGNATURES**

By: N/A Date: \_\_\_\_\_  
Chief Procurement Officer

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Elected Official

Approved:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Office of City Auditor

Approved as to Form:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Office of City Attorney