



ATTACHMENT 1

Task Order 2.1

SCOPE OF SERVICES

Mill Creek Dam Improvements Project
Initial Geotechnical, Environmental, and Survey Services

Prepared by:

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Scope of Services

City of Cosmopolis

Mill Creek Dam Improvements Project

Overview

This Project is envisioned to be implemented in several phases using Task Orders. Brief descriptions of the task orders are provided below:

- **Task Order 1 – Data Acquisition and Site Visit (Completed 2012)**
Task Order 1 involved data collection and organization, field visit, identification and confirmation of alternatives to be evaluated, and development of a strategic plan that identified the overall “road map” for advancing this project forward.
- **Task Order 2 – Initial Regulatory Consultation and Preliminary Design Criteria (In Progress)**
Meetings will be held with regulatory agencies to identify project requirements, and identification of activities that will be required to complete the design and environmental compliance. Preliminary design criteria will be developed. The findings will be submitted in a written technical memorandum.
- **Task Order 2.1 – Initial Geotechnical, Environmental, and Survey Services (Current)**
To maintain project schedule and obtain information to bridge gaps between Task Orders 2 and 3, one day field visits with associated reporting will be conducted focusing on geotechnical data near the dam, initial wetland identification, and base survey control and mapping. The data will be used to complete Task Order 2 and will serve as the basis for additional related services under Task Order 3.
- **Task Order 3 – Field Data Collection and Engineer’s Report (Future)**
Field data will be collected including geotechnical and environmental baseline data. An Engineer’s Report will be prepared that evaluates how to restore the function and value of the dam. The report will address each of the criteria developed in Task Order 2 and recommend the final configuration (type, size and location) of the dam repair.
- **Task Order 4 - Final Design and Permitting (Future)**
The dam and footbridge replacement elements will be developed into plans and specifications for bidding from construction contractors. Required permit applications will be prepared and submitted.
- **Task Order 5 – Services During Bidding & Construction (Future)**
Bid documents will be developed for the public construction contracting process and services will be provided to assist, as needed, during bidding and construction management/observation. Tasks may include assistance in

answering bidder questions, preparing addenda, tabulating bids, and checking contractor references. Assistance may also be provided in managing construction by performing on site observations, reviewing contractor submittals, managing contractor's requests for information, reviewing progress pay requests, and other construction related engineering services.

HDR Engineering, Inc. (HDR) offers the following scope of services for the City of Cosmopolis (CITY) Mill Creek Dam Improvements Project (Project), for Task Order 2.1.

Task 210 – Task Order Management

Objective: Administer the project and coordinate with the CITY to facilitate project progress and timely completion.

HDR Responsibilities:

1. Prepare and submit monthly invoices and status reports, outlining the work completed during that month, project status, and an outline of issues to be resolved.
2. Perform internal project management reviews and Quality Assurance/Quality Control reviews for project deliverables.

CITY Responsibilities:

1. Payment of progress invoices within periods established in the agreement.

Assumptions:

1. Duration of this task order is estimated to be two (2) months.

Deliverables:

1. Monthly status reports with invoices.

Task 211 – Initial Geotechnical Field Services

Objectives: Observe and document existing geotechnical soil conditions near the dam.

HDR Services:

1. One HDR geotechnical engineer and one HDR water resource engineer will conduct a one day site visit to the dam site to observe geotechnical soils conditions at selected test pit locations near the dam.
2. The geotechnical engineer will document findings in a brief field report.

CITY Responsibilities:

1. City will provide one backhoe with operator for one day to excavate soils in test pits near the dam and to investigate the left abutment.

Assumptions:

1. Up to five (5) test pits are envisioned to be approximately three (3) feet wide by ten (10) feet long and up to ten (10) feet deep, in order to reach bedrock in the vicinity of the dam.
2. HDR assumes permitting for this activity is not required.
3. HDR geotechnical engineer will provide one half day in preparation for field work, one day labor in the field and one day labor documenting observations.
4. Geotechnical observations will be documented in a technical memorandum. The task technical memorandum will be up to three pages (8.5"x11") plus test pit logs and photos.

Deliverables:

1. One final technical memorandum (.pdf)

Task 212 – Initial Environmental Field Services

Objectives: Observe and document existing wetland conditions in the Mill Creek pond behind the dam.

HDR Services:

1. One HDR environmental scientist will conduct one-half day site visit to Mill Creek Park to observe wetland conditions at the pond site behind the dam.
2. The environmental scientist will document findings in a brief field report.

CITY Responsibilities:

1. None

Assumptions:

1. Existing vegetation species will be observed and documented.
2. Preliminary and generalized wetland boundaries will be identified. A wetland delineation will not be conducted.
3. HDR environmental scientist will provide one-half day labor in the field and one day labor documenting observations.
4. Environmental observations will be documented in a technical memorandum. The task technical memorandum will be up to three pages (8.5"x11") plus up to two site sketches (11"x17") and photographs in .pdf format.

Deliverables:

1. One final technical memorandum (.pdf)

Task 213 – Initial Survey Services

Objective: Develop survey control for the Mill Creek Park site and perform preliminary surveying in select locations to initiate development of base mapping.

HDR Responsibilities:

1. HDR will subconsult with Berglund Schmidt and Associates of Hoquiam (surveyor).
2. Surveyor will conduct office research to develop control, datum, and associated baseline survey data.
3. Surveyor will establish and field survey long term control points that tie into existing local control monuments/benchmarks for the project.
4. Surveyor will conduct a site visit to Mill Creek Park to field survey elevations and surface features of
 - reservoir elevations 20 to 50 feet upstream of dam location,
 - profile along the axis of the dam (extending out across the ecology block wall),
 - profile in the bed of the stream starting approximately 100 feet up from the dam and extending 200 feet below dam,
 - elevation of the spillway in the middle of the dam,
 - elevation from the apparent historic high water line near dam and along wall,
 - topography around the dam, and
 - staked geotechnical test pit locations.

CITY Responsibilities:

1. None

Assumptions:

1. Horizontal Datum will be NAD 83/91, Washington State Plane Coordinates, south zone.
2. Vertical Datum will be NAVD 88 based upon benchmarks in the vicinity of Mill Creek Park.

3. Survey mapping will follow APWA standard layers, line types, and symbols in AutoCAD 2010 format.
4. Survey base map will be stamped by Registered Professional Land Surveyor (PLS) to meet State of Washington Standards for topographic mapping.

Deliverables:

1. Stamped survey base map (.pdf)
2. 1"=40' scale site Model in AutoCAD format depicting topographic, surface features, test pits, wetland and utilities information.
3. PDF files of survey field books and sketches.

Fee Estimate for Professional Services

The estimated amount to complete the professional services identified in this Scope of Services is offered on a **time-and-materials basis not-to-exceed** the amount shown below. Following are estimated professional services costs for the tasks provided in this scope of services. The following table is provided only to show the CITY an approximate breakdown of estimated costs.

Task	Estimated Task Cost
Task 210 – Task Order Management	\$2,400
Task 211 – Initial Geotechnical Services	\$8,700
Task 212 – Initial Environmental Services	\$4,900
Task 213 – Initial Survey Services	\$11,500
Total	\$27,500

Professional services rendered in connection with this scope of services will be billed on a time and materials basis based upon the actual hours worked and expenses incurred by HDR and its subconsultant(s) (if applicable) to the estimated total contract amount in accordance with the terms and conditions outlined in the signed Agreement. HDR will not apply a markup to subconsultant invoices and direct expenses associated with this project.