RESOLUTION NO. 20-1365

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND, KING COUNTY, WASHINGTON AUTHORIZING THE MAYOR TO EXECUTE AMENDMENT NO. 3 TO THE PROFESSIONAL SERVICES AGREEMENT WITH RH2 ENGINEERING, INC. FOR BRIDGE DESIGN FOR THE SPRINGS REHABILITATION PROJECT

WHEREAS, in November 2018, the City council approved a $662,000 contract with RH2 Engineering, Inc., to design the rehabilitation of the springs, pumping and transmission system by Resolution No.18-1278; and

WHEREAS, having determined the most practical, environmentally sensitive and reasonable concept to bring the water supply lines across the Green River, the City is now ready to design, permit, and bid the bridge component of Springs Rehabilitation Project; and

WHEREAS, RH2 has the capacity and structural expertise to design the bridge; and

WHEREAS, the additional scope of work caused the compensation limit set forth in the original contract to be exceeded by $244,300; and

WHEREAS, the project funding is provided by Palmer Coking Coal and Oakpointe under the Water Supply Facility Funding Agreement and is within the 2020 budget allocation; and

WHEREAS, a contract amendment is required to amend the scope of work, and increase the compensation limit to $1,117,700;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. The Mayor is hereby authorized to execute Amendment No. 3 to the Professional Services Agreement with RH2 Engineering, Inc. for the Black Diamond Springs Rehabilitation project, substantially in the form attached hereto.

PASSED BY THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND, WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 16TH DAY OF JULY, 2020.

CITY OF BLACK DIAMOND:

Carol Benson

Carol Benson, Mayor

Attest:

Brenda L Martinez

Brenda L. Martinez, City Clerk

City of Black Diamond
Contract Amendment No. 3
Black Diamond Springs Rehabilitation

Rh2 Project No. BD 518.179

In November 2018, the Black Diamond City Council approved a contract with RH2 Engineering, Inc. to design the rehabilitation of the springs, pumping and transmission system by Resolution 18-1278. In accordance with Sections 1 and 17 of the Professional Services Agreement for the **Black Diamond Springs Rehabilitation** ("Contract"), this is an authorization to add additional work to the Scope of Work as described in Exhibit A-1 referenced below ("Replacement Bridge Work"), and increase the authorized compensation under the Contract relating to the Replacement Bridge Work ("Amendment No. 3"). The Replacement Bridge Work will be invoiced pursuant to the methods and rates originally specified in the Contract.

Section 1 of the Contract is hereby repealed and replaced to read as follows:

1. Services by Consultant.

A. Consultant shall perform the services described in the Scopes of Work attached to this Agreement as Exhibit "A" and Exhibit "A-1". The services performed by the Consultant shall not exceed these Scopes of Work without prior written authorization from the City.

B. The City may from time to time require changes or modifications in the Scopes of Work. Such changes, including any decrease or increase in the amount of compensation, shall be agreed to by the parties and incorporated in written amendments to the Agreement.

Section 2.B.4 of the Contract is hereby repealed and replaced to read as follows:

4. Compensation.

TIME AND MATERIALS NOT TO EXCEED. Compensation for these services shall not exceed $1,117,700 without written authorization and will be based on the fee schedules Exhibit "B" and Exhibit "B-1" attached hereto and the billing rates and reimbursable expenses as attached hereto as Exhibit C.

All other terms of the Contract (including any amendments entered into prior to this Amendment No. 3) remain in full force and effect.

AGREED TO BY:

RH2 ENGINEERING, INC.

Signature

Geoffrey G. Dillard, Director
Print Name/Title

Date

RH2 Engineering, Inc. 22722 29th Dr. SE, Suite 210, Bothell, WA 98021

CITY OF BLACK DIAMOND

Carol Benson

Signature

Carol Benson, Mayor
Print Name/Title

07/16/2020
Date

EXHIBIT A-1
Scope of Work
City of Black Diamond
Black Diamond Springs Rehabilitation
Green River Bridge
July 2020

Background

The Black Diamond Springs are the City of Black Diamond's (City) major source of drinking water supply and are utilized year-round. Groundwater is collected in a series of collection boxes and pipes. Once captured, the piped spring water flows via gravity across the top of an embankment area and down a steep slope. It then crosses the Green River via a 6-inch-diameter pipe on a cable suspension bridge and is pumped to the City's water system via the North Bank Pump Station (NBPS).

Additionally, the City's water right from the Black Diamond Springs allows for a water allotment for power generation. The City owns a power generation site on the south bank of the river that needs periodic inspection. Thus, the cable suspension bridge supports the water main across the river and provides pedestrian access to the power generating facility. This facility is an asset that the City would like to maintain.

The existing conveyance pipe from the Black Diamond Springs' junction box to the NBPS is undersized and the existing cable suspension bridge was built approximately 100 years ago. In 2017, the City had a pre-application meeting with King County (County) to address permit requirements for replacement of the bridge and waterline crossing of the Green River. At that time, the County requested an evaluation of the bridges structural soundness and integrity to support the new main; however, the City has not been able to provide one. The City retained Parametrix (PMX), a structural engineering consultant, to inspect the bridge, provide rehabilitation or replacement alternatives, and prepare a conceptual design.

PMX evaluated the bridge and prepared a report with rehabilitation and replacement alternatives. The report presented four alternatives based on ease of construction, ease of permitting, ease of access for inspection/maintenance, and structure cost. Of the four alternatives presented in the report, replacement in kind was recommended as the best alternative to be pursued.

The City is committed to the rehabilitation of the entire Black Diamond Springs source of supply. RH2 Engineering, Inc., (RH2) is currently under contract for the Design Phase Nos. 1 through 4. These Design Phases include the following.

- Phase 1 – NBPS
- Phase 2 – Transmission Main
- Phase 3 – Springs Conveyance System
- Phase 4 – Springs Groundwater Under the Influence of Surface Water (GWI) Protection

These Design Phases did not include services to replace the water main crossing of the Green River as the City was evaluating alternatives for this phase of the project.

The City has asked that RH2 prepare a proposal for the design of a new cable suspension bridge to support the new water main and provide pedestrian access to the south bank. This Scope of Work outlines the approach and effort needed to accomplish the City's request.

Task 1 – Project Initiation

Objective: The objective of the Project Initiation task is to prepare the engineering environment for success in completing the construction documents for the replacement bridge and waterline crossing of the Green River. Create the Project Delivery Team (PDT) to transition from the concept level design to the construction document level of design.

Approach:

1.1 Draft and Distribute Project Management Plan – A Project Management Plan (PMP) will be prepared to: communicate the makeup of the Project Team, including the City's representatives and the PDT members; communicate the anticipated deliverable documents and proposed schedule of delivery; provide the framework for managing the effort of the PDT; provide the communication protocol between members of the PDT; and provide protocol for communication of the PDT budget and schedule performance to the City and RH2 management.

1.2 Subcontract Geotechnical Engineering Firm – Enter into a contract with PanGEO Inc., (PanGEO) to perform the geotechnical design.

1.3 Conduct Project Kickoff Meeting – Conduct a project kickoff meeting with the City to present the PDT configuration, project objectives, project deliverables, deliverable schedule, communication protocol, and PDT member responsibilities.

1.4 Check Preliminary Calculations – Perform a check of the preliminary calculations already prepared by RH2 to determine if the concept level design is appropriate for use in the engineering of the contract documents.

1.5 Complete Structural Design Checklist – The Structural Design Checklist is a tool used to define the applicable design Codes and Standards, to identify and quantify the environmental and project loads and load combinations, and to identify the structural and geo-materials to be used. It is the basis of design.

Assumptions:

- *RH2 assumes that the geotechnical engineering firm from the concept level design, PanGEO, will be retained for the preparation of the construction documents.*

Provided by the City:

- As-built or record drawings of the bridge, waterline, and other constructed infrastructure in the vicinity of the project.

- Topographic mapping of the vicinity of the project in a format that can be imported as a 3D surface in AutoCAD.
- Planimetric mapping of the vicinity of the project in a format that can be imported as 3D elements in AutoCAD.
- Project records related to the elements of design, including reports, studies, operations records, maintenance records, and other documents the City has which are relevant to the project.
- Access to the site for the PDT staff.
- Attendance at one (1) Project Kickoff Meeting.

RH2 Deliverables:

- Attendance at one (1) Project Kickoff Meeting.
- Meeting agenda and minutes in electronic format.
- Project Management Plan in electronic format (PDF).
- Structural Design Checklist in electronic format.

Task 2 – Front-End Engineering and Design (30-Percent)

Objective: The objective of this Task is to perform the Front-End Engineering and Design (FEED) to ground truth the bridge crossing configuration and estimated construction cost. The FEED effort also develops the project information for use in pre-application permitting. The general approach is to develop the project documents, drawings, technical specifications, construction cost estimate, and permits at a 30-percent level of development. These documents will be prepared as draft documents for submittal to the City and review Agencies. The current list of deliverable documents is delineated in the following subtask definitions and will be revised as necessary throughout the development of the project's construction documents.

Approach:

2.1 Prepare Project Drawings – The objective of this subtask is to provide a set of drawings necessary and sufficient to define the major elements of the project.

2.1.1 Create drawing C01 – Grading Plan. This sheet illustrates the earthwork.

2.1.2 Create drawings C02 through C04 – Piping Plan and Details. These sheets illustrate the new piping and appurtenances, including tie-in to the Springs Conveyance System (Phase 3), and transition to the new bridge.

2.1.3 Create drawing S01 – Notes. This drawing communicates the design data, materials, general notes, structural notes, and special inspection tables.

2.1.4 Create drawing S02 – Plan and Elevation. This drawing shows the plan configuration of the existing and new bridges and the elevation of the new bridge.

2.1.5 Create drawing S03 – North Abutment, Sections and Details. This drawing shows the Plan Detail and the Sections of the North Abutment. This drawing will show the cable anchors. *It is anticipated that the abutment will be a cast-in-place concrete deadman and that the cable anchors will be anchor rods cast into the deadman.*

2.1.6 Create drawing S04 – South Abutment, Sections, and Details. This drawing shows the Plan Detail and the Sections of the South Abutment. *It is anticipated that the abutment will be a cast-in-place concrete retaining wall that acts as a sill for the bridge cables and retains the geo-materials which comprise the access pathway. It is also anticipated that the cable anchors will be anchor rods grouted into the exposed sandstone rock face.*

2.1.7 Create drawing S05 – Tower Framing and Foundation. This drawing shows the cast-in-place concrete shallow foundation and the structural steel framing which comprise the Tower. The Tower is the structural element that supports the north end of the cables as they transition to the backspan.

2.1.8 Create drawing S06 – Bridge Span. This drawing shows the configuration of the guard rails, walking surface, stringers, cable connections, pipe supports, and conduit supports. It also shows the ramp and security fence on the north bank of the river.

2.2 Prepare Technical Specifications – The objective of this subtask is to list the technical specification sections anticipated to be necessary to solicit construction bids.

2.2.1 Prepare Section 03 30 53 Miscellaneous Cast-in-Place Concrete. This section delineates the requirements for the materials, formwork, placement, curing, repair of the cast-in-place concrete, reinforcing steel, and accessories.

2.2.2 Prepare Section 05 16 33 Bridge Cabling. This section delineates the requirements for the bridge cable and connector materials and installation.

2.2.3 Prepare Section 05 51 36 Miscellaneous Metal. This section delineates the requirements for the bridge railing, walking surface, stringers, pipe supports, and conduit supports. This section also includes the requirements for the materials, fabrication, coating, and installation of the structural steel for the Tower.

2.2.4 Prepare Section 31 11 00 Clearing and Grubbing. This section delineates the requirements for clearing and preparing the site for the construction activities.

2.2.5 Prepare Section 31 22 00 Grading. This section delineates the requirements for establishing the final topographic configuration of the site.

2.2.6 Prepare Section 31 23 00 Excavation and Fill. This section delineates the requirements for the earthwork associated with the waterline piping and the North Abutment deadman anchor.

2.2.7 Prepare Section 31 68 13 Rock Foundation Anchors. This section delineates the requirements for the components, materials, and installation of the rock foundation anchors.

2.2.8 Prepare Section 33 05 33 Polyethylene Utility Pipe. This section delineates the requirements for the materials and installation of the High-Density Polyethylene (HDPE) waterline, fittings, thrust blocking, valving, and appurtenances.

2.3 Prepare OPCC – The objective of this subtask is to develop an Association for the Advancement of Cost Engineering International (AACE) Class 5 construction cost estimate.

2.3.1 Perform a quantity take-off of the elements of construction.

2.3.2 Develop unit prices for the elements of construction.

2.3.3 Develop Opinion of Probable Construction Cost (OPCC) comprised of the product of the quantities and the unit prices and applicable taxes and permits.

2.4 Prepare and Deliver 30-Percent Submittal – The objective of this subtask is to review the deliverable documents, compile and seal the deliverable documents, and transmit the deliverable documents for Agency review.

2.4.1 Review drawings per RH2 Quality Control Plan (QCP).

2.4.2 Review specifications per RH2 QCP.

2.4.3 Review OPCC per RH2 QCP.

2.4.4 Compile and seal the deliverable documents.

2.4.5 Transmit 30-percent documents to the City for review. *Review comments will be provided in Task 3.*

Assumptions:

- *RH2 assumes that sufficient capacity can be developed in the geo-materials on the north and south sides of the Green River to resist the loads applied by the bridge components.*
- *The City acknowledges that the OPCC prepared by RH2 is based on professional experience and qualifications and represents RH2's best judgement as an experienced and qualified professional. It is recognized that RH2 does not have control over the cost of labor, materials, equipment, or services furnished by others, or over market conditions. RH2 does not guarantee that actual costs will not vary from the OPCC developed.*

RH2 Deliverables:

- One (1) copy of 30-percent drawings C01 through C04, S01 through S06, and others deemed necessary during the FEED effort in electronic format (PDF).
- One (1) copy of 30-percent technical specification sections prepared during the FEED effort in electronic format (PDF).
- One (1) copy of 30-percent OPCC in electronic format (PDF).

Task 3 – Design Development (60-Percent)

Objective: Develop the design to a level where all major elements of the work have been configured and engineered and that the 30-percent City and review Agency comments have been addressed. The general approach is to develop the project documents, drawings, technical specifications, construction cost estimate, and permits at a 60-percent level of development. The documents will be revised to incorporate the design development and to address review comments. These documents will be prepared as draft documents for City review. The current list of deliverable documents is delineated in the following subtask definitions and will be revised as necessary throughout the development of the project's construction documents.

Approach:

3.1 Revise Drawings – The objective of this subtask is to complete the analysis, design, and engineering of the project features and to show the features on a set of the drawings to be used for soliciting construction bids. The drawings will show all major elements in their final configuration.

3.1.1 Revise drawing C01 – Grading Plan. This sheet illustrates the earthwork.

3.1.2 Revise drawings C02 through C04 – Piping Plan and Details. These sheets illustrate the new piping and appurtenances, including tie-in to the Springs Conveyance System (Phase 3), and transition to the new bridge.

3.1.3 Revise drawing S01 – Notes. This drawing communicates the design data, materials, general notes, structural notes, and special inspection tables.

3.1.4 Revise drawing S02 – Plan and Elevation. This drawing shows the plan configuration of the existing and new bridges and the elevation of the new bridge.

3.1.5 Revise drawing S03 – North Abutment, Sections, and Details. This drawing shows the Plan Detail and the Sections of the North Abutment. This drawing will show the cable anchors. *It is anticipated that the abutment will be a cast-in-place concrete deadman and that the cable anchors will be anchor rods cast into the deadman.*

3.1.6 Revise drawing S04 – South Abutment, Sections and Details. This drawing shows the Plan Detail and the Sections of the South Abutment. *It is anticipated that the abutment will be a cast-in-place concrete retaining wall that acts as a sill for the bridge cables and retains the geo-materials which comprise the access pathway. It is also anticipated that the cable anchors will be anchor rods grouted into the exposed sandstone rock face.*

3.1.7 Revise drawing S05 – Tower Framing and Foundation. This drawing shows the cast-in-place concrete shallow foundation and the structural steel framing which comprise the Tower. The Tower is the structural element that supports the north end of the cables as they transition to the backspan.

3.1.8 Revise drawing S06 – Bridge Span. This drawing shows the configuration of the guard rails, walking surface, stringers, cable connections, pipe supports, and conduit supports. It also shows the ramp and security fence on the north bank of the river.

3.2 Revise Technical Specifications – The objective of this subtask is to provide a set of the unedited technical specification sections to be used for soliciting construction bids.

3.2.1 Create section 03 30 53 Miscellaneous Cast-in-Place Concrete. This section delineates the requirements for the materials, formwork, placement, curing, repair of the cast-in-place concrete, reinforcing steel, and accessories.

3.2.2 Create section 05 16 33 Bridge Cabling. This section delineates the requirements for the bridge cable and connector materials and installation.

3.2.3 Create section 05 51 36 Miscellaneous Metal. This section delineates the requirements for the bridge railing, walking surface, stringers, pipe supports, and conduit supports. This section also includes the requirements for the materials, fabrication, coating, and installation of the structural steel for the Tower.

3.2.4 Create section 31 11 00 Clearing and Grubbing. This section delineates the requirements for clearing and preparing the site for the construction activities.

3.2.5 Create section 31 22 00 Grading. This section delineates the requirements for establishing the final topographic configuration of the site.

3.2.6 Create section 31 23 00 Excavation and Fill. This section delineates the requirements for the earthwork associated with the waterline piping and the North Abutment deadman anchor.

3.2.7 Create section 31 68 13 Rock Foundation Anchors. This section delineates the requirements for the components, materials, and installation of the rock foundation anchors.

3.2.8 Create Section 33 05 33 Polyethylene Utility Pipe. This section delineates the requirements for the materials and installation of the HDPE waterline, fittings, thrust blocking, valving, and appurtenances.

3.3 Prepare 60-Percent OPCC – The objective of this subtask is to develop an AACE Class 3 construction cost estimate as a draft document for City review.

3.3.1 Perform a quantity take-off of the elements of construction.

3.3.2 Develop unit prices for the elements of construction.

3.3.3 Develop Opinion of Probable Construction Cost (OPCC) comprised of the product of the quantities and the unit prices and applicable taxes and permits.

3.4 Prepare and Deliver 60-Percent Submittal – The objective of this subtask is to review the deliverable documents, compile and seal the deliverable documents, and transmit the deliverable documents for City review.

3.4.1 Review drawings per RH2 QCP.

3.4.2 Review specifications per RH2 QCP.

3.4.3 Review cost estimate per RH2 QCP.

3.4.4 Compile and seal the deliverable documents.

3.4.5 Transmit 60-percent documents to the City for review. *Review comments will be provided in Task 4.*

Assumptions:

- *RH2 assumes that the design will not be reconceptualized in the review process.*
- *The comments developed during the 30-percent review process will be addressed. It is anticipated that 60-percent review comments will be constrained to details that were developed subsequent to the 30-percent review submittal, or that were revised or unresolved during the 30-percent review process.*

Provided by the City:

- Review comments on the 30-Percent Submittal coordinated between all City shareholders within fifteen (15) working days of receipt of 30-Percent Submittal package.

RH2 Deliverables:

- One (1) copy of 60-percent drawings C01 through C04, S01 through S06, and others deemed necessary during the 30-percent design in electronic format (PDF).
- One (1) copy of 60-percent technical specification sections deemed necessary during the 30-percent design in electronic format (PDF).
- One (1) copy of 60-percent OPCC in electronic format (PDF).

Task 4 – Design Completion (90-Percent)

Objective: The objective of this Task is to complete the design to a level that all major elements of the work have been detailed and that the 60-percent City review comments have been addressed. The general approach is to complete the drawings, technical specifications, construction cost estimate, and permit documents. The documents will be revised to incorporate the design development and to address the 60-percent City review comments. These documents will be prepared for 90-percent City and Agency review.

Approach:

4.1 Prepare 90-Percent Drawings – The objective of this subtask is to complete the detailing of the project features and to show the features on a set of the drawings to be used for soliciting construction bids. The drawings will show all major elements in their final configuration.

4.1.1 Revise drawing C01 – Grading Plan. This sheet illustrates the earthwork.

4.1.2 Revise drawings C02 through C04 – Piping Plan and Details. These sheets illustrate the new piping and appurtenances, including tie-in to the Springs Conveyance System (Phase 3), and transition to the new bridge.

4.1.3 Revise drawing S01 – Notes. This drawing communicates the design data, materials, general notes, structural notes, and special inspection tables.

4.1.4 Revise drawing S02 – Plan and Elevation. This drawing shows the plan configuration of the existing and new bridges and the elevation of the new bridge.

4.1.5 Revise drawing S03 – North Abutment, Sections and Details. This drawing shows the Plan Detail and the Sections of the North Abutment. This drawing will show the cable anchors. *It is anticipated that the abutment will be a cast-in-place concrete deadman and that the cable anchors will be anchor rods cast into the deadman.*

4.1.6 Revise drawing S04 – South Abutment, Sections and Details. This drawing shows the Plan Detail and the Sections of the South Abutment. *It is anticipated that the abutment will be a cast-in-place concrete retaining wall that acts as a sill for the bridge cables and retains the geo-materials which comprise the access pathway. It is also anticipated that the cable anchors will be anchor rods grouted into the exposed sandstone rock face.*

4.1.7 Revise drawing S05 – Tower Framing and Foundation. This drawing shows the cast-in-place concrete shallow foundation and the structural steel framing which comprise the Tower. The Tower is the structural element that supports the north end of the cables as they transition to the backspan.

4.1.8 Revise drawing S06 – Bridge Span. This drawing shows the configuration of the guard rails, walking surface, stringers, cable connections, pipe supports, and conduit supports. It also shows the ramp and security fence on the north bank of the river.

4.2 Prepare 90-Percent Technical Specifications – The objective of this subtask is to complete the technical specification sections by editing each to reflect the project's requirements and to incorporate the 60-percent review comments.

4.2.1 Edit section 03 30 53 Miscellaneous Cast-in-Place Concrete. This section delineates the requirements for the materials, formwork, placement, curing, repair of the cast-in-place concrete, reinforcing steel, and accessories.

4.2.2 Edit section 05 16 33 Bridge Cabling. This section delineates the requirements for the bridge cable and connector materials and installation.

4.2.3 Edit section 05 51 36 Miscellaneous Metal. This section delineates the requirements for the bridge railing, walking surface, stringers, pipe supports, and conduit supports. This section also includes the requirements for the materials, fabrication, coating, and installation of the structural steel for the Tower.

4.2.4 Edit section 31 11 00 Clearing and Grubbing. This section delineates the requirements for clearing and preparing the site for the construction activities.

4.2.5 Edit section 31 22 00 Grading. This section delineates the requirements for establishing the final topographic configuration of the site.

4.2.6 Edit section 31 23 00 Excavation and Fill. This section delineates the requirements for the earthwork associated with the waterline piping and the North Abutment deadman anchor.

4.2.7 Edit section 31 68 13 Rock Foundation Anchors. This section delineates the requirements for the components, materials, and installation of the rock foundation anchors.

4.2.8 Edit Section 33 05 33 Polyethylene Utility Pipe. This section delineates the requirements for the materials and installation of the HDPE waterline, fittings, thrust blocking, valving, and appurtenances.

4.3 Prepare 90-Percent OPCC – The objective of this subtask is to develop an AACE Class 2 construction cost estimate as a draft document for City review.

4.3.1 Perform a quantity take-off of the elements of construction.

4.3.2 Develop unit prices for the elements of construction.

4.3.3 Develop Opinion of Probable Construction Cost (OPCC) comprised of the product of the quantities and the unit prices and applicable taxes and permits.

4.4 Prepare Deliverables for 90-Percent Submittal – The objective of this subtask is to review the deliverable documents, compile and seal the deliverable documents, and transmit the deliverable documents for City review.

4.4.1 Review drawings per RH2 QCP.

4.4.2 Review specifications per RH2 QCP.

4.4.3 Review cost estimate per RH2 QCP.

4.4.4 Compile and seal the deliverable documents.

4.4.5 Transmit 90-percent documents to the City and other Agencies for review.

Assumptions:

- *The comments developed during the 60-percent review process will be addressed. It is anticipated that 90-percent review comments will be constrained to details that were developed subsequent to the 60-percent review submittal, or that were revised or unresolved during the 60-percent review process.*

Provided by the City:

- Review comments on the 60-Percent Submittal coordinated between all City shareholders within fifteen (15) working days of receipt of the 60-Percent Submittal package.

RH2 Deliverables:

- One (1) copy of 90-percent drawings C01 through C04, S01 through S06, and others deemed necessary during the 60-percent design in electronic format (PDF).
- One (1) copy of 90-percent technical specification sections deemed necessary during the 60-percent design in electronic format (PDF).
- One (1) copy of 90-percent OPCC in electronic format (PDF).

Task 5 – Bid Documents

Objective: The objective of this Task is to receive, evaluate, and incorporate the review comments into the 90-Percent documents and issue the construction documents for bid solicitation. These are the Issued for Bid (IFB) documents. The general approach is to incorporate all City and Agency comments and issue the construction document package.

Approach:

5.1 Receive and process review comments from City and Agency.

5.2 Incorporate City and Agency review comments in the drawings.

5.3 Incorporate City and Agency review comments in the technical specifications.

5.4 Incorporate City and Agency review comments in the OPCC.

5.5 Review drawings per RH2 QCP.

5.6 Review specifications per RH2 QCP.

5.7 Review cost estimate per RH2 QCP.

5.8 Compile and seal the deliverable documents.

5.9 Transmit the IFB documents to the City to issue for construction bid solicitation.

Assumptions:

- *RH2 will perform services described up to the amounts included in the attached Fee Estimate. If additional effort is needed, that extra work will be mutually determined by the City and RH2.*

Provided by the City:

- Review comments on the 90-Percent Submittal coordinated between all City shareholders within fifteen (15) working days of receipt of 90-Percent Submittal.

Provided by other Agencies:

- Review comments on the 90-Percent Submittal coordinated between all Agency shareholders within fifteen (15) working days of receipt of 90-Percent Submittal.

RH2 Deliverables:

- One (1) copy of IFB drawings, technical specifications, and OPCC in electronic format (PDF).
- One (1) copy of IFB drawings in AutoCAD native format.

- One (1) copy of IFB technical specification sections, individually, in Word Document format.
- One (1) copy of IFB OPCC elements in native file format (expected to be Excel, Word, PDF, and JPEG).

Task 6 – Services During Bidding (SDB)

Objective: The objective of this Task is to provide the City services during the bidding process.

Approach:

6.1 Receive contractor Requests for Information (RFIs) and prepare bid addenda for the City to issue.

6.2 Receive the contractors' bids and prepare the bid tabulation.

6.3 Check the Apparent Low Bidders' references.

6.4 Prepare a Contract Award Recommendation.

Assumptions:

- *There will be five (5) or fewer RFIs received by the City and routed to RH2 for review.*
- *There will be two (2) or fewer addendum prepared.*
- *The City will coordinate advertisement of the project and will pay any applicable fees.*
- *City is responsible for construction contract award and execution.*

Provided by the City:

- Contractor RFIs.
- Contractors' bids.

RH2 Deliverables:

- Up to two (2) bid addenda in Word format.
- One (1) copy of bid tabulation in Excel format.
- One (1) copy results of the Apparent Low Bidder's reference check in Word format.
- One (1) copy of Contract Award Recommendation in Word format.

Task 7 – Permitting

Objective: Determine regulatory requirements for bridge design and construction and review updated regulations as related to critical areas (aquatic areas, steep slope hazards, coal mine hazards, erosion hazards, seismic hazards, and landslide hazards). Coordinate with agencies. Prepare and submit additional permit applications and associated documents.

Approach:

7.1 Prepare a County pre-application meeting request package. Attend a pre-application meeting with the County. An additional pre-application is required by the County due to the change in project scope and the amount of time that has passed since the prior pre-application meeting between the City and County (September 2017).

7.2 Define the area of potential effect (APE) and prepare an exhibit to delineate the APE. Prepare an EZ1 form and submit it to the Washington State Department of Archeological and Historic Preservation (DAHP). Prepare a cultural resources survey, if required by DAHP. Cultural Resource Consultants will provide this service as a subconsultant to RH2. It is assumed that no cultural materials will be discovered.

7.3 Prepare a County Commercial Building Permit application and supporting materials.

7.4 Finalize and produce County permit applications. Attend County permit submittal appointment. Coordinate with the County to answer questions as needed. Prepare up to two (2) resubmittals per permit and attend up to two (2) additional resubmittal appointments.

7.5 Support the City and coordinate with DOH and submit construction plans for approval. This will include efforts for all phases of the project. These efforts were not reflected in previous scopes of work.

Assumptions:

- *The proposed bridge structure will not require fill below the Ordinary High-Water Mark of the Green River; therefore, neither US Army Corps of Engineers Section 404 permitting nor Endangered Species Act compliance will be required.*
- *Acceptance or rejection of the submittal is beyond the control of RH2 and the City, and no date is warranted or implied for agency response or approval.*

Provided by the City:

- Permitting fees.

RH2 Deliverables:

- One (1) hard copy of all permit application materials submitted to the County.
- One (1) hard copy and one (1) electronic copy of Washington State Department of Health (DOH) construction plans submittal.

Task 8 – Project Management

Objective: Manage RH2's project team and maintain frequent client communications, including phone calls, emails, and progress meetings.

Approach:

8.1 Organize, manage, communicate, and coordinate technical disciplines as described herein, and RH2 QCP processes to execute this Scope of Work in close coordination with City staff. Provide direction, coordination, and oversight to the PDT.

8.2 Prepare monthly invoices and budget status summaries.

8.3 Create, maintain, and update an internal project schedule. Monitor, modify, and update the project schedule throughout the design phase to determine potential impacts of proposed changes. Adjust the schedule to reflect the status of the project and revisions made to this Scope of Work.

RH2 Deliverables:

- Electronic monthly invoices submitted each month (PDF).
- Electronic project schedule submitted each month (PDF).

EXHIBIT B1

Fee Estimate
City of Black Diamond
Black Diamond Springs Rehabilitation
Green River Bridge
7/2/20

Description / Classification		Total Hours	Total Labor	Total Subconsultant	Total Expense	Total Cost
Task 1	Project Initiation	32	$ 5,918	$ 12,737	$ 409	$ 19,064
Task 2	Front-End Engineering and Design (30-Percent)	264	$ 43,249	$ -	$ 6,039	$ 49,288
Task 3	Design Development (60-Percent)	348	$ 56,263	$ -	$ 8,098	$ 64,361
Task 4	Design Completion (90-Percent)	144	$ 24,206	$ -	$ 2,868	$ 27,074
Task 5	Bid Documents	59	$ 9,688	$ -	$ 1,359	$ 11,047
Task 6	Services During Bid (SDB)	57	$ 9,926	$ -	$ 949	$ 10,875
Task 7	Additional Permitting	279	$ 47,723	$ 4,025	$ 3,693	$ 55,441
Task 8	Project Management	33	$ 6,905	$ -	$ 246	$ 7,151
	PROJECT TOTAL	**1,215**	**$ 203,878**	**$ 16,762**	**$ 23,660**	**$ 244,300**