

**RESOLUTION NO. 10-675**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND, KING COUNTY, WASHINGTON AUTHORIZING AMENDMENT NO. 1 TO THE RH2 CONTRACT FOR TECHNICAL REVIEW SERVICES OF THE WASTEWATER STORAGE ALTERNATIVE.**

**WHEREAS**, King County must provide conveyance and treatment of sewage as the City of Black Diamond grows, they have come up with a preferred location along the core wetland just west of old downtown Black Diamond; and

**WHEREAS**, the City of Black Diamond has also been planning for an efficient way to collect sewage in the City and has proposed a location in the western portion of the City of Black Diamond that King County has found flaws with; and

**WHEREAS**, City Staff has selected RH2 to provide the City with this engineering and expertise in these type of facilities; and

**WHEREAS**, City Staff has reviewed King County's concerns with consultant Dan Ervin (RH2) and believes that they can be addressed by design features of the proposed western sewage storage facility; and

**WHEREAS**, Yarrow Bay has agreed to fund this work as a reimbursable cost through the Master Planned Development review,

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

**Section 1.** The Mayor is authorized to execute contract Amendment No. 1 with RH2 to provide Technical Review Services on the Wastewater Storage Alternative as attached hereto as Exhibit A.

**PASSED BY THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND, WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 4<sup>TH</sup> DAY OF MARCH, 2010.**

CITY OF BLACK DIAMOND:



Rebecca Olness, Mayor

Attest:



Brenda L. Martinez, City Clerk

**Amendment #1 to Professional Services Agreement between RH2 Engineering, Inc  
and the City of Black Diamond**

This Professional Services Agreement Amendment is dated March 4, 2010 and is entered into by and between:

CITY OF BLACK DIAMOND, WASHINGTON (the "City")  
24301 Roberts Drive  
Black Diamond, WA 98010  
Contact: Seth Boettcher, Public Works Director  
Phone: 360-886-2560 Fax : 360-886-2592

and

RH2 Engineering, Inc. ("Consultant")  
12100 NE 195<sup>th</sup> Street, Suite 100  
Bothell, WA 98011  
Contact: Dan, Ervin, P.E.  
Phone: 425-951-5400 Fax: 425-398-2774

The City and Consultant agree to amend the Agreement as follows:

1. The services set forth in Attachment A hereto are added to the Scope of Work under the Agreement. Consultant shall satisfactorily perform the services set forth in Attachment A in accordance with the terms of the attachment and the Agreement.
2. Consultant shall be compensated for timely and satisfactory completion of the services set forth in Attachment A in accordance with Attachment B and C. Compensation for these services shall not exceed \$24,886.
3. Except as expressly modified by this amendment, all other terms and conditions of the Agreement remain unchanged.

CITY OF BLACK DIAMOND

By: Rebecca Olness

Rebecca Olness

Its: Mayor

Date: 3-5-10

Attest:

By: Rachel Martinez  
Brenda L. Martinez  
City Clerk

RH2 Consulting Engineering, Inc.

By: Dan Ervin

Printed Name: DAN ERVIN

Its: VICE PRESIDENT

Date: 3-5-10

City of Black Diamond

**Attachment A – Scope of Work**  
Wastewater Storage Alternative – Revised Pre-Design Report

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**Background:**

King County is responsible for providing sewage conveyance and treatment in Black Diamond. King County also operates a lift station and sewage transmission pipelines in Black Diamond to meet their responsibility. The lift station and force main do not have sufficient capacity to meet the long term growth in the City and King County has proposed a series of projects to provide both short term and long term capacity. The project that provides short term capacity includes the construction of underground storage facilities near existing Lift Station G.

Black Diamond does not currently support the County's plan to provide storage at Lift Station G and proposed an alternative storage location (and an alternative storage configuration known as "West Alternative"). The alternative was developed in conjunction with staff at Pacific West Engineering and that alternative was described in a predesign report that was transmitted to King County.

King County does not believe the West Alternative proposed by the City is a viable solution and offered feedback describing several fatal flaws via letter on January 22, 2010.

Black Diamond does not think that the West Alternative is fatally flawed and believes the facility can be modified to meet King

County criteria and provide a facility that meets the needs of King County.

This Scope of Work includes the work necessary to re-conceptualize the West Alternative to provide a facility that is equivalent or superior to the County's preferred facility at Lift Station G. It also includes the preparation of a revised pre-design report addressing the items in the County's January 22 letter and the work necessary to support the pre-design report to County staff and to Yarrow Bay Development.

**Objectives:**

Develop an alternative plan for an underground wastewater storage facility that maintains a preset peak flow rate in the regional trunk main leaving Black Diamond and meets the O&M requirements identified by King County in their January 22<sup>nd</sup> letter to Black Diamond. The storage facility not only prevents off-site flow in excess of the preset amount but allows additional development within Black Diamond.

Prepare a predesign report that describes the hydraulics, the mechanics and the operation of the alternative facility. The predesign report will include sufficient detail to address each of the concerns described by King County and to show that the alternative facility is equal to or superior to the facility preferred by King County at Lift Station G.

Meet with King County staff as necessary to describe the proposed alternative facilities. Prepare additional technical information as necessary to support the alternative facility and obtain King County endorsement. Meet with Yarrow Bay Development as necessary to describe the facility and ensure that the proposed sewer system expansion is compatible with the design and the County's operating requirements.

### **Task 1 – Orientation**

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Obtain copies of reports, memos and letters prepared by King County in conjunction with expanding wastewater capacity in Black Diamond. Obtain copies of the predesign report prepared by Pac West Engineering for the West Alternative. Obtain copies of the most current development plans by Yarrow Bay Communities including land ownership maps, preferred land use plans and proposed facility improvements.

Review these materials in order to develop a detailed understanding of the geography, geology and hydraulics regarding wastewater flows and potential locations for future facilities.

Deliverables:

- None

### **Task 2 – Develop Alternative**

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Develop a hydraulic schematic of the County's preferred alternative at Lift Station G. Transpose this schematic to the proposed West Alternative site and develop a list of operating features that are 1) the same, 2)

different but equivalent and 3) different and not equivalent. Compare the list with the fatal flaw items listed in the County's January 22<sup>nd</sup> letter and develop a matrix of items that can be addressed by reconfiguring the facility and those that must be addressed off site.

Develop a site plan and facility schematic incorporating the revisions necessary for hydraulic compliance or equivalency. The alternative will specifically address the following County concerns:

- Orifice details designed to prevent excess flows yet be stable and easy to maintain (including odor abatement features),
- A storage structure that is off-line and that receives wastewater only on the same frequency as the County's preferred alternative,
- A storage structure that is as easy to access and maintain as the County's preferred alternative following a storage event,
- A preferred site and site plan that meets County land use standards, is an asset to the surrounding neighborhoods, is an asset to the Black Diamond community and that has joint-use opportunities,
- At least one alternative site and site plan within the Black Diamond UGA that meets Black Diamond land use requirements and that would be available for construction within the next 6 months.
- Odor related to long-residence times and septic conditions. Alternatives

for mitigating and eliminating odor and a recommended alternative.

Develop a plan that describes the design and operation of the future wastewater collection system and pumping system to support growth in the City, using the alternative facility as the discharge location. The pumping system will be designed and constrained to have the same reliability (and no more complexity) as though the County had completed their preferred storage facility at Lift Station G. This will include the potential for overflows, the impacts of “slug flows” from pump cycles, the configuration and complexity of the telemetry and control system and the operating constraints. Develop a plan that ensures future flows into Lift Station G do not exceed existing lift station capacity. *The city will provide a sewer flow model of the City’s sewer system*

Deliverables:

- Map of potential alternative sites
- Hydraulic schematic of preferred alternative
- Site plan at preferred alternative site
- Standard detail for future lift stations
- Map of collection system showing methods for preventing excess flows to LSG
- Backup calculations and correspondence to support the above

### **Task 3 – Prepare Report**

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Prepare and produce a predesign report that addresses the concerns raised in the County letter of January 22<sup>nd</sup>. It is assumed that the report will replace the previous report

prepared by Pac West and will not rely on the Pac West report. The report will include figures, maps and preliminary plans designed to describe a facility that meets or exceeds all of the criteria established by the County for operation, maintenance and community impacts.

Due to the compressed delivery schedule, the report will not include hydraulic models of the existing or proposed collection system. Rather, in order to address the County’s concerns, the new facility will replicate the inlet conditions at Lift Station G in order to provide an “equivalent” facility. Further, the predesign report will not include qualitative analysis of the potential odor impacts but will instead replicate the frequency, volume and duration of storage events with the County’s preferred alternative. This will ensure that the City’s alternative is equivalent to the County’s alternative.

The report will include construction cost estimates using the same basis as the County alternative. In addition, it will include a project/construction schedule that is compatible with the MPD application currently under consideration by the City.

Deliverables:

- 10 copies of draft of the pre-design report for comment and editing
- 50 copies of the completed report for distribution

### **Task 4 – Agency Support**

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This task is intended to provide the technical support necessary to ensure that King County and Yarrow Bay Development gain

an unambiguous understanding of the City's preferred alternative. It includes work that cannot be anticipated until the report is completed and the County has been engaged in a review effort.

This task also includes the work necessary to ensure that the alternative meets City requirements and standards. This includes meetings with staff, the administration (as requested by staff) and the Council and public (as requested by staff).

Deliverables:

- Attendance at two presentation meetings
- Presentation materials as necessary to describe and support the predesign report

## **Schedule**

Time is of the essence as this project impacts the current MPD application which is currently under review. For this reason, the consultant intends to rely on a strategy that compares and equates the City's preferred alternative with the County's preferred alternative. Although this strategy may eliminate some hydraulic options that might prove beneficial, it has the potential to be completed quickly.

The draft predesign report will be completed and ready for City review and comment within three weeks of receiving the information necessary for Task 1. The delivery of final documents will depend on the magnitude of changes requested by the City but is generally expected to be completed within a week of receiving comments.



**ATTACHMENT C**  
**RH2 Engineering**  
**SCHEDULE OF RATES AND CHARGES**

**2010 HOURLY RATES**

CLASSIFICATION		RATE	CLASSIFICATION		RATE
Professional	IX	\$188.00	Technician	IV	\$120.00
Professional	VIII	\$188.00	Technician	III	\$112.00
Professional	VII	\$180.00	Technician	II	\$83.00
			Technician	I	\$78.00
Professional	VI	\$167.00			
Professional	V	\$159.00	Administrative	V	\$111.00
Professional	IV	\$149.00	Administrative	IV	\$93.00
			Administrative	III	\$79.00
Professional	III	\$139.00	Administrative	II	\$64.00
Professional	II	\$130.00	Administrative	I	\$54.00
Professional	I	\$118.00			

**IN-HOUSE SERVICES**

In-house copies (each)	8 1/2" X 11"	\$0.07	CAD Plots	Large	\$10.00
In-house copies (each)	8 1/2" X 14"	\$0.08	CAD Plots	Full Size	\$5.00
In-house copies (each)	11" X 17"	\$0.14	CAD Plots	Half Size	\$2.00
In-house copies (color) (each)	8 1/2" X 11"	\$0.85	GIS System	Per Hour	\$10.00
In-house copies (color) (each)	8 1/2" X 14"	\$1.50	GIS Plots	Per Plot	\$5.00
In-house copies (color) (each)	11 X 17"	\$1.70	In-house Computer	Per Hour	\$9.00
FAX (each sheet)		\$1.00	Mileage	Per Mile	\$0.50
In-house CAD System	Per Hour	\$25.00	Digital Camera	Per Day	\$10.00
			Digital Camera	Per Week	\$30.00
			Digital Camera	Per Month	\$90.00

\*Note: At project completion all digital photos can be supplied to the client on CD, upon request.

**PURCHASED SERVICES**

All subconsultant services are billed at cost plus 15%.

**CHANGES IN RATES**

Rates listed here are adjusted annually. The current, most recent schedule of hourly rates are used for billing purposes. Payment for work accomplished shall be on the basis of hourly rates in effect at the time of billing plus direct expenses and outside services as stated in this Exhibit.