TOWN COUNCIL WORK SESSION

Monday, November 17, 2014 @ 7:00pm
Front Royal Administration Building

Town/Staff Related Issues:

1. Presentation from GHD:
    a. Recommendation of Contractor to build WWTP Upgrade
    b. GHD Contract Amendment for construction phase engineering and inspection services
2. VRA Bond Update *(no backup information) – Director of Finance*
3. Future Power Block Purchases for 2017-2020 – *Director of Energy Services*

Council/Mayor Related Items

4. Corner Lots Discussion – *Councilman Tewalt*
5. Discussion of Revising Liaison Committee Mission Statement/Polices
6. Council Discussion/Goals *(time permitting)*
7. CLOSED MEETING – Prospective Business or Industry

Motion to Go Into Closed Meeting

I move that Council convene and go into Closed Meeting for the purpose of discussion concerning a prospective business or industry or the expansion of an existing business or industry where no previous announcement has been made of the business' or industry's interest in locating or expanding its facilities in the community, pursuant to Section 2.2-3711. A. 5. of the Code of Virginia.

Motion to Certify Closed Meeting at its Conclusion *[At the conclusion of the Closed Meeting, immediately re-convene in open meeting and take a roll call vote on the following:]*

I move that Council certify that to the best of each member's knowledge, as recognized by each Council member's affirmative vote, that only such public business matters lawfully exempted from Open Meeting requirements under the Virginia Freedom of Information Action as were identified in the motion by which the Closed Meeting was convened were heard, discussed or considered in the Closed Meeting by Council, and that the vote of each individual member of Council be taken by roll call and recorded and included in the minutes of the meeting of Town Council.

Item No. 1

Town of Front Royal, Virginia
Work Session Agenda Form

Date: November 17, 2014

Agenda Item: Presentation from GHD

Summary: a. Recommendation of Contractor to build WWTP Upgrade
b. GHD Contract Amendment for Construction Phase Engineering and Inspection Services

Council Discussion: Council takes desired Action

Staff Evaluation: Staff will be available

Budget/Funding: Director of Financing will be available

Legal Evaluation: Town Attorney will be available

Staff Recommendations: Staff will be available

Town Manager Recommendation: Town Manager will be available

Work Session

Council Recommendation:

□ Additional Work Session □ Regular Meeting □ No Action

Consensus Poll on Action: ___(Aye) ___(Nay)

November 6, 2014

Mr. Walter Gills
Environmental Quality
Clean Water Financing & Assistance Program
P.O. Box 1105
Richmond, Virginia 23218

Re: Town of Front Royal WWTP Upgrade and Expansion
GHD No. 8614629

Dear Mr. Gills:

This Procurement Package for the Town of Front Royal WWTP Upgrade and Expansion Project is submitted for your review per Virginia DEQ's requirements for projects financed by the Clean Water Revolving Loan Fund. The attached information is organized as follows:

1. Canvass of Bids

   Please see the attached Canvass of Bids, indicating the bid tabulations from all six (6) general contractors for each bid item. The Total Bid Price is the last line in the sheet, which is used to determine the apparent low bidder. Per the Canvass of Bids, the apparent low-bidder is Adams Robinson for a Total Bid Price of $44,471,000.

2. Project Cost Summary

   Please see the attached cost estimate summary sheet. The construction costs reflect the actual bid costs provided by the apparent low bidder, Adams Robinson Enterprises.

3. Anticipated Construction Schedule

   A copy of the updated project schedule is attached. Assumptions were made for Notice of Award (11/18/14) and Notice to Proceed (01/12/15).

4. Bid Proposal of Low Bidder

   a. A copy of Adam Robinson Enterprises' Bid Proposal is attached, which includes:

      - Acknowledged Addenda Numbers 1 through 6 in their bid package
      - Submitted Major Products Schedule
      - Submitted the required Bid Bond
      - Submitted Virginia Clean Water Revolving Loan Bidder Compliance Statement/Certification Regarding Equal Employment Opportunity
      - Submitted Virginia State Contractor's license

GHD Inc. 16701 Melford Boulevard Suite 330 Bowie Maryland 20715 USA
T 1 240 206 6810 **F** 1 240 206 6811 **E** BowMail@ghd.com **W** www.ghd.com

5. Backup Documents of Low Bidder

After the bid, the Low Bidder, Adams Robinson Provided the following information:

a. DBE/MBE/WBE Solicitation Efforts

Please see attached package for DBE/MBE/WBE documentation submitted by the low bidder Adams Robinson Enterprises, which includes the following:

- Fifty (50) Solicitation letters
- Record of Advertisement in three (3) Local Publications
- List of contacted DBE/WBE/MBE Firms

From the responses Adams Robinson received, they can commit to the following supplier:

JSA Door Systems, LLC – SWaM certified - $116,026.00

Adams Robinson continues to make an effort to contract DBE/WBE/MBE suppliers and subcontractors for additional scopes of work that may evolve after the Award of the Contract.

b. List of references

GHD contacted several of the references as summarized in the letter of recommendation found in attachment 7.

c. American Iron and Steel (AIS) Certification Statement

6. Evidence of Bid Advertisement

Please see the following attachments that summarize the Owner's efforts in soliciting interest in the project prior to bid:

- Copy of Advertisement
- Notification of Bid Advertisement Letter
- List of Contractors Receiving Notification of Bid Advertisement Letter
- Pre-Bid Meeting Sign-In Sheet

The project was also advertised in the local newspapers and the Town's website.

7. Recommendation of Award

A copy of GHD's letter to the Town of Front Royal regarding the recommendation of award is attached. The letter includes summary of reference surveys completed to date by GHD.

Please contact me if you have any questions or require additional information.

Sincerely,

GHD INC.

John Revette, P.E.
Project Manager

JOR/kab

Attachments:
Canvass of Bids
Project Cost Summary
Anticipated Construction Schedule
Bid Proposal of Low Bidder
Backup Documents of Low Bidder
Evidence of Bid Advertisement
Recommendation of Award

Canvass of Bids

Canvass of Bids

PROJECT NAME: Town of Front Royal WWTP Upgrade and Expansion
GHD JOB NO: 8614629

BIDS OPENED: October 16, 2014 3:00pm

Item No.	Bid Item Description	Est. Qty.	Units	ENGINEER'S ESTIMATE		Adams Robinson Enterprises		English Construction Company		Allen A. Myers, LP		Pro-Con Construction Company		PC Construction Company		MEE General Contractors	
				Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
SCHEDULE A - LUMP SUM BID ITEMS (A1-A3)																	
A-1	All Work in the Contract Documents except Items specifically identified in Bid Items A-2 and A-3, as Unit Price Work, Contingent Unit Price Work, Additive Alternates, and Allowances.	1	Lump Sum			$ 34,494,800.00	$ 34,494,800.00	$ 35,525,000.00	$ 35,525,000.00	$ 36,641,750.00	$ 36,641,750.00	$ 35,415,950.00	$ 35,415,950.00	$ 35,703,350.00	$ 35,703,350.00	$ 37,849,800.00	$ 37,849,800.00
A-2	Provide magnetite ballasted settling equipment in accordance with pre-negotiated scope of supply (refer to Appendix D).	1	Stipulated Price	$ 44,400,000.00	$ 44,400,000.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00	$ 4,619,300.00
A-3	Provide Autothermal, Thermophilic, Aerobic Digestion Equipment with pre-negotiated scope of supply (refer to Appendix E).	1	Stipulated Price			$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00	$ 2,209,900.00
	SUBTOTAL				$ 44,400,000		$ 41,324,000		$ 42,355,200		$ 43,470,950		$ 43,245,150		$ 42,532,550		$ 44,479,000
SCHEDULE B - UNIT PRICE WORK																	
B-1	SLUDGE AND GRIT REMOVAL AND DISPOSAL	500	Dry Ton	$ 125	$ 62,500	$ 300.00	$ 150,000.00	$ 1,500.00	$ 750,000.00	$ 100.00	50000	$ 300.00	$ 150,000.00	$ 250.00	$ 125,000.00	$ 500.00	$ 250,000.00
B-2	CONCRETE REPAIR OF SPALLS (UP TO 3 INCH)	2000	SF/IN	$ 40	$ 80,000	$ 25.00	$ 50,000.00	$ 65.00	$ 130,000.00	$ 23.00	46000	$ 43.75	$ 87,500.00	$ 28.00	$ 56,000.00	$ 85.00	$ 170,000.00
B-3	CONCRETE REPAIR OF SPALLS (OVER 3 INCH)	300	SF/IN	$ 20	$ 6,000	$ 25.00	$ 7,500.00	$ 80.00	$ 24,000.00	$ 32.00	9600	$ 35.00	$ 10,500.00	$ 50.00	$ 15,000.00	$ 80.00	$ 24,000.00
B-4	CONCRETE STRUCTURAL CRACKS (EPOXY INJECTION)	100	LF	$ 100	$ 10,000	$ 80.00	$ 8,000.00	$ 60.00	$ 6,000.00	$ 40.00	4000	$ 49.00	$ 4,900.00	$ 20.00	$ 2,000.00	$ 55.00	$ 5,500.00
B-5	CONCRETE CRACKS, ACTIVE/WET	100	LF	$ 100	$ 10,000	$ 80.00	$ 8,000.00	$ 60.00	$ 6,000.00	$ 50.00	5000	$ 61.00	$ 6,100.00	$ 20.00	$ 2,000.00	$ 100.00	$ 10,000.00
B-6	CONCRETE PROTECTIVE COATING	1500	SF	$ 12	$ 18,000	$ 5.00	$ 7,500.00	$ 20.00	$ 30,000.00	$ 9.00	13500	$ 2.80	$ 4,200.00	$ 22.00	$ 33,000.00	$ 35.00	$ 52,500.00
B-7	RAIL POST EMBEDDMENTS	40	EA	$ 250	$ 10,000	$ 15.00	$ 600.00	$ 100.00	$ 4,000.00	$ 100.00	4000	$ 27.50	$ 1,100.00	$ 35.00	$ 1,400.00	$ 150.00	$ 6,000.00
B-8	RESEAL EXISTING CONCRETE JOINTS	1000	LF	$ 10	$ 10,000	$ 15.00	$ 15,000.00	$ 5.00	$ 5,000.00	$ 10.00	10000	$ 13.00	$ 13,000.00	$ 5.00	$ 5,000.00	$ 15.00	$ 15,000.00
	SUBTOTAL				$ 206,500		$ 246,600		$ 965,000		$ 142,100		$ 276,300		$ 239,400		$ 533,000
SCHEDULE C - CONTINGENT UNIT PRICE WORK																	
C-1	TEST PIT IN PAVED AREAS	50	CY	$ 100	$ 5,000	$ 30.00	$ 1,500.00	$ 225.00	$ 11,250.00	$ 145.00	$ 7,250.00	$ 140.00	$ 7,000.00	$ 30.00	$ 1,500.00	$ 120.00	$ 6,000.00
C-2	TEST PIT IN NON-PAVED AREAS	50	CY	$ 85	$ 3,250	$ 20.00	$ 1,000.00	$ 125.00	$ 6,250.00	$ 70.00	$ 3,500.00	$ 45.00	$ 2,250.00	$ 20.00	$ 1,000.00	$ 60.00	$ 3,000.00
C-3	SILT FENCE IN ACCORDANCE WITH STANDARD DETAILS	300	LF	$ 5	$ 1,500	$ 5.00	$ 1,500.00	$ 4.00	$ 1,200.00	$ 5.00	$ 1,500.00	$ 2.50	$ 750.00	$ 3.00	$ 900.00	$ 5.00	$ 1,500.00
C-4	SUPER SILT FENCE IN ACCORDANCE WITH STANDARD DETAILS	300	LF	$ 10	$ 3,000	$ 8.00	$ 2,400.00	$ 7.00	$ 2,100.00	$ 10.00	$ 3,000.00	$ 9.00	$ 2,700.00	$ 8.00	$ 2,400.00	$ 10.00	$ 3,000.00
C-5	MISCELLANEOUS EXCAVATION AND STONE BELOW SUBGRADE	100	CY	$ 65	$ 6,500	$ 50.00	$ 5,000.00	$ 55.00	$ 5,500.00	$ 60.00	$ 6,000.00	$ 55.00	$ 5,500.00	$ 55.00	$ 5,500.00	$ 70.00	$ 7,000.00
C-6	MISCELLANEOUS EXCAVATION AND SELECT BACKFILL BELOW SUBGRADE	100	CY	$ 60	$ 6,000	$ 50.00	$ 5,000.00	$ 55.00	$ 5,500.00	$ 45.00	$ 4,500.00	$ 45.00	$ 4,500.00	$ 55.00	$ 5,500.00	$ 60.00	$ 6,000.00
C-7	MISCELLANEOUS EXCAVATION AND REPLACEMENT OF TOP SOIL	100	CY	$ 11	$ 1,100	$ 50.00	$ 5,000.00	$ 35.00	$ 3,500.00	$ 65.00	$ 6,500.00	$ 43.00	$ 4,300.00	$ 55.00	$ 5,500.00	$ 50.00	$ 5,000.00
C-8	FURNISH AND PLACING MISCELLANEOUS MIX A CONCRETE	50	CY	$ 400	$ 20,000	$ 200.00	$ 10,000.00	$ 625.00	$ 31,250.00	$ 650.00	$ 32,500.00	$ 150.00	$ 7,500.00	$ 200.00	$ 10,000.00	$ 300.00	$ 15,000.00
C-9	FURNISH AND PREPARE PAVEMENT SUBGRADE	100	CY	$ 20	$ 2,000	$ 75.00	$ 7,500.00	$ 55.00	$ 5,500.00	$ 50.00	$ 5,000.00	$ 50.00	$ 5,000.00	$ 45.00	$ 4,500.00	$ 60.00	$ 6,000.00
C-10	FURNISH AND INSTALL NEW ASPHALT CONCRETE PAVEMENT	100	SY	$ 35	$ 3,500	$ 65.00	$ 6,500.00	$ 30.00	$ 3,000.00	$ 34.00	$ 3,400.00	$ 40.00	$ 4,000.00	$ 25.00	$ 2,500.00	$ 40.00	$ 4,000.00
C-11	FURNISH AND INSTALL CONCRETE WALKS	100	LF	$ 55	$ 5,500	$ 40.00	$ 4,000.00	$ 15.00	$ 1,500.00	$ 40.00	$ 4,000.00	$ 38.00	$ 3,800.00	$ 35.00	$ 3,500.00	$ 30.00	$ 3,000.00
C-12	FURNISH AND INSTALL ALUMINUM GUARDRAIL	100	LF	$ 75	$ 7,500	$ 55.00	$ 5,500.00	$ 50.00	$ 5,000.00	$ 65.00	$ 6,500.00	$ 60.00	$ 6,000.00	$ 55.00	$ 5,500.00	$ 75.00	$ 7,500.00
C-13	FURNISH AND INSTALL ALUMINUM GRATING	100	SF	$ 60	$ 6,000	$ 55.00	$ 5,500.00	$ 40.00	$ 4,000.00	$ 40.00	$ 4,000.00	$ 50.00	$ 5,000.00	$ 55.00	$ 5,500.00	$ 55.00	$ 5,500.00
C-14	FURNISH AND INSTALL ALUMINUM CHECKERED PLATE	100	SF	$ 55	$ 5,500	$ 45.00	$ 4,500.00	$ 60.00	$ 6,000.00	$ 80.00	$ 8,000.00	$ 50.00	$ 5,000.00	$ 55.00	$ 5,500.00	$ 60.00	$ 6,000.00
C-15	FURNISH AND INSTALL 3/4-INCH RIGID STEEL (TYPE A-1) CONDUIT	2000	LF	$ 9	$ 18,000	$ 7.50	$ 15,000.00	$ 8.00	$ 16,000.00	$ 10.00	$ 20,000.00	$ 6.00	$ 12,000.00	$ 6.00	$ 12,000.00	$ 10.00	$ 20,000.00
C-16	FURNISH AND INSTALL BELOW-GRADE 4-INCH DUCTBANK	500	LF	$ 5	$ 2,500	$ 52.00	$ 26,000.00	$ 57.00	$ 28,500.00	$ 70.00	$ 35,000.00	$ 25.00	$ 12,500.00	$ 30.00	$ 15,000.00	$ 70.00	$ 35,000.00
C-17	FURNISH AND INSTALL 3/4-INCH TYPE E-1 CONDUIT	2000	LF	$ 12	$ 24,000	$ 16.00	$ 32,000.00	$ 17.50	$ 35,000.00	$ 15.00	$ 30,000.00	$ 10.00	$ 20,000.00	$ 6.00	$ 12,000.00	$ 15.00	$ 30,000.00
C-18	FURNISH AND INSTALL NO. 12 AWG, TYPE THWN CONDUCTOR	2000	LF	$ 1	$ 2,000	$ 1.00	$ 2,000.00	$ 1.10	$ 2,200.00	$ 1.00	$ 2,000.00	$ 1.00	$ 2,000.00	$ 1.00	$ 2,000.00	$ 2.00	$ 4,000.00
C-19	FURNISH AND INSTALL NO. 14 AWG, TYPE THWN CONDUCTOR	5000	LF	$ 1	$ 5,000	$ 1.00	$ 5,000.00	$ 1.00	$ 5,000.00	$ 0.85	$ 4,250.00	$ 0.75	$ 3,750.00	$ 1.00	$ 5,000.00	$ 2.00	$ 10,000.00
C-20	FURNISH AND INSTALL NO. 10 AWG, TYPE THWN CONDUCTOR	2000	LF	$ 1	$ 2,000	$ 2.00	$ 4,000.00	$ 1.40	$ 2,800.00	$ 1.20	$ 2,400.00	$ 0.75	$ 1,500.00	$ 1.00	$ 2,000.00	$ 2.00	$ 4,000.00
C-21	FURNISH AND INSTALL NO. 16 TSP INSTRUMENTATION CABLE	2000	LF	$ 1	$ 2,000	$ 2.00	$ 4,000.00	$ 2.00	$ 4,000.00	$ 1.70	$ 3,400.00	$ 1.00	$ 2,000.00	$ 1.00	$ 2,000.00	$ 2.00	$ 4,000.00
C-22	FURNISH AND INSTALL BELOW GRADE 2-INCH DUCTBACK	500	LF	$ 35	$ 17,500	$ 48.00	$ 24,000.00	$ 53.00	$ 26,500.00	$ 65.00	$ 32,500.00	$ 20.00	$ 10,000.00	$ 20.00	$ 10,000.00	$ 80.00	$ 40,000.00
C-23	FURNISH AND INSTALL COMPLETE HEAT TRACE SYSTEM	2	EA	$ 5,000	$ 10,000	$ 8,000.00	$ 16,000.00	$ 12,100.00	$ 24,200.00	$ 3,000.00	$ 6,000.00	$ 10,000.00	$ 20,000.00	$ 5,500.00	$ 11,000.00	$ 12,000.00	$ 24,000.00
C-24	FURNISH AND INSTALL 12 INCH DIP PLANT DRAIN PIPING	100	LF	$ 100	$ 10,000	$ 75.00	$ 7,500.00	$ 126.00	$ 12,600.00	$ 95.00	$ 9,500.00	$ 100.00	$ 10,000.00	$ 70.00	$ 7,000.00	$ 120.00	$ 12,000.00
C-25	FURNISH AND INSTALL 8 INCH DIP PLANT DRAIN PIPING	50	LF	$ 75	$ 3,750	$ 150.00	$ 7,500.00	$ 114.00	$ 5,700.00	$ 75.00	$ 3,750.00	$ 80.00	$ 4,000.00	$ 65.00	$ 3,250.00	$ 100.00	$ 5,000.00
	SUBTOTAL				$ 172,100		$ 207,900		$ 254,050		$ 244,450		$ 161,050		$ 140,550		$ 266,500
Part D: Add Alternate Lump Sum Items																	
D-1	SEPTAGE RECEIVING STATION	1	LS	$ 2,590,000	$ 2,590,000.00	$ 2,250,000.00	$ 2,250,000.00	$ 1,608,000.00	$ 1,608,000.00	$ 1,400,000.00	$ 1,400,000.00	$ 1,700,000.00	$ 1,700,000.00	$ 3,050,000.00	$ 3,050,000.00	$ 2,587,000.00	$ 2,587,000.00
	SUBTOTAL				$ 2,590,000.00		$ 2,250,000		$ 1,608,000		$ 1,400,000		$ 1,700,000		$ 3,050,000		$ 2,587,000
SCHEDULE E - ALLOWANCES																	
E-1	DESKTOP COMPUTERS AND DATA HISTORIAN SERVER			$ 50,000	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00
E-2	SUPERVISORY SOFTWARE, SOFTWARE AUTODIALER, REPORTING SOFTWARE FOR PLANT SCADA SYSTEM			$ 75,000	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00
E-3	ENGINEER'S FIELD OFFICE COMPUTER EQUIPMENT			$ 7,500	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00	$ 7,500.00
E-4	TOOLS AND MISCELLANEOUS EQUIPMENT ABOVE AND BEYOND SECTION 11501			$ 10,000	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00
E-5	NEW ELECTRICAL POWER FEED			$ 50,000	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00
E-6	FRONT END LOADER			$ 250,000	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00	$ 250,000.00
	SUBTOTAL			$ 442,500	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00	$ 442,500.00
SCHEDULE F - TOTAL BID PRICE																	
F-1	SCHEDULE A TOTAL			$ 44,400,000	$ 41,324,000	$ 42,355,200	$ 43,470,950	$ 43,245,150	$ 42,532,550	$ 44,479,000							
F-2	SCHEDULE B TOTAL			$ 206,500	$ 246,600	$ 965,000	$ 142,100	$ 276,300	$ 239,400	$ 533,000							
F-3	SCHEDULE C TOTAL			$ 172,100	$ 207,900	$ 254,050	$ 244,450	$ 161,050	$ 140,550	$ 266,500							
F-4	SCHEDULE D TOTAL			$ 2,590,000	$ 2,250,000	$ 1,608,000	$ 1,400,000	$ 1,700,000	$ 3,050,000	$ 2,587,000							
F-4	SCHEDULE E TOTAL			$ 442,500	$ 442,500	$ 442,500	$ 442,500	$ 442,500	$ 442,500	$ 442,500							
	TOTAL BID PRICE			$ 47,811,100	$ 44,471,000	$ 45,614,750	$ 45,700,000	$ 45,825,000	$ 46,406,000	$ 48,308,000							

Project Cost Summary

SUMMARY OF CONSTRUCTION COSTS

Adams Robinson Enterprises

Project Component	Project Costs
Influent Pumping Station Modifications, Headworks/Screening, Grit Removal	$2,890,000
UV System, Plant Water, Post Aeration, Control Building Modifications	$1,556,000
Flow Equalization Distribution Box	$61,000
Process Building	$3,057,000
Reactor and Reactor Equipment	$2,364,000
BioMag Reactor Equipment	$5,060,000
New Primary Clarifier and Pump Station	$1,293,000
Existing Primary Clarifier Modifications	$265,000
63' Final Clarifiers and Distribution Box	$2,411,000
Existing Final Clarifier Modifications	$159,000
Return Sludge Pumping Station	$508,000
Solids Handling Building Modification, ATAD Digestion Process, New Cake Storage Building	$7,203,000
Alum/Caustic/Methanol Feed Systems	$375,000
Subtotal Construction Costs	$27,202,000
Yard Piping	$4,612,000
Site Work	$1,510,000
Electrical	$8,000,000
Septage Receiving Station (Bid Item D)	$2,250,000
Bid Items Schedules B, C and E	$897,000
Total Construction Costs	$44,471,000

SUMMARY OF ESTIMATED WQIF GRANT ELIGIBILITY

Status of Cost Estimate: 100% Design

Grant Funding Eligibility Estimate

Project Components	As-Bid Construction Costs	% Grant Eligible	Grant Eligible Project Costs
Influent pumping Station Mods, Headworks/Screening, Grit Removal	$ 2,890,000	0%	$ -
UV System, Plant Water, Post Aeration, Control Building Mods (See Note 1)	$ 1,556,000	0%	$ -
Flow EQ Distribution Box	$ 61,000	50%	$ 80,000
Process Building	$ 3,057,000	80%	$ 1,984,000
Reactor and Reactor Equipment	$ 2,364,000	55%	$ 2,816,000
BioMag Reactor Equipment	$ 5,060,000	100%	$ 5,060,000
New Primary Clarifier and Pump Station	$ 1,293,000	20%	$ 346,000
Primary Clarifier Mods	$ 265,000	0%	$ -
63' Final Clarifiers, Dist Box, Biomag Mods	$ 2,411,000	50%	$ 1,010,000
Existing Final Clarifier Mods	$ 159,000	0%	$ -
Return Sludge PS	$ 508,000	50%	$ 335,000
Solids Handling Building Mods, ATAD Digestion Process, New Cake Storage Building	$ 7,203,000	15%	$ 1,354,500
Alum/Caustic/Methanol Feed Systems	$ 375,000	100%	$ 964,000
Construction Subtotal	**$ 27,202,000**	**51.28%**	**$ 13,949,500**
Yard Piping	$ 4,612,000	51.28%	$ 1,384,591
Site Work	$ 1,510,000	51.28%	$ 1,066,648
Electrical	$ 8,000,000	51.28%	$ 3,360,454
Septage Receiving Station (Bid Item D, See Note 1)	$ 2,250,000	0.00%	$ -
Dewatering Fan Press (See Note 2)	$ 300,000	15.00%	$ 45,000
Bid Items Schedules B,C, and E	$ 897,000	51.28%	$ 459,992
Total Construction Costs	**$ 44,771,000**		**$ 20,266,185**
Design Engineering	$ 2,644,000	51.28%	$ 1,351,771
Construction Administration	$ 3,739,232	51.28%	$ 1,928,171
Contingency (10% Construction)	$ 4,477,100	51.28%	$ 2,471,906
Total Project Costs	**$ 55,631,332**		**$ 26,018,033.63**
Grant Percentage		60%	
Proration		88%	
		Grant Amount	**$ 13,737,521.76**

1) Septage receiving station moved to a separate line item as it was bid as an Additive Alternate.

2) Dewatering fan press to be completed as a separate project by the Town.

Anticipated Construction Schedule

Front Royal Construction Schedule

	Date
Bid Opening	Thursday, October 16, 2014
Notice of Award	Tuesday, November 18, 2014
Notice to Proceed	Monday, January 12, 2015
Construction Substantial Completion	Monday, July 10, 2017
Construction Final Completion	Friday, September 08, 2017

SUMMARY OF ESTIMATED WQIF GRANT ELIGIBILITY

Status of Cost Estimate: 100% Design

Grant Funding Eligibility Estimate

Project Components	As-Bid Construction Costs	% Grant Eligible	Grant Eligible Project Costs
Influent pumping Station Mods, Headworks/Screening, Grit Removal	$ 2,890,000	0%	$ -
UV System, Plant Water, Post Aeration, Control Building Mods (See Note 1)	$ 1,556,000	0%	$ -
Flow EQ Distribution Box	$ 61,000	50%	$ 30,500
Process Building	$ 3,057,000	80%	$ 2,445,600
Reactor and Reactor Equipment	$ 2,364,000	55%	$ 1,300,200
BioMag Reactor Equipment	$ 5,060,000	100%	$ 5,060,000
New Primary Clarifier and Pump Station	$ 1,293,000	20%	$ 258,600
Primary Clarifier Mods	$ 265,000	0%	$ -
63' Final Clarifiers, Dist Box, Biomag Mods	$ 2,411,000	50%	$ 1,205,500
Existing Final Clarifier Mods	$ 159,000	0%	$ -
Return Sludge PS	$ 508,000	50%	$ 254,000
Solids Handling Building Mods, ATAD Digestion Process, New Cake Storage Building	$ 7,203,000	15%	$ 1,080,450
Alum/Caustic/Methanol Feed Systems	$ 375,000	100%	$ 375,000
Construction Subtotal	**$ 27,202,000**	**44.15%**	**$ 12,009,850**
Yard Piping	$ 4,612,000	44.15%	$ 2,036,226
Site Work	$ 1,510,000	44.15%	$ 666,674
Electrical	$ 8,000,000	44.15%	$ 3,532,049
Septage Receiving Station (Bid Item D, See Note 1)	$ 2,250,000	0.00%	$ -
Dewatering Fan Press (See Note 2)	$ 300,000	15.00%	$ 45,000
Bid Items Schedules B,C, and E	$ 897,000	44.15%	$ 396,031
Total Construction Costs	**$ 44,771,000**		**$ 18,685,831**
Design Engineering	$ 2,636,000	44.15%	$ 1,163,810
Construction Administration	$ 3,739,232	44.15%	$ 1,650,894
Contingency (5% Construction)	$ 2,238,550	44.15%	$ 988,334
Total Project Costs	**$ 53,384,782**		**$ 22,488,868.34**
Grant Percentage		60%	
Proration		88%	
		Grant Amount	**$ 11,874,122.48**

1) Septage receiving station moved to a separate line item as it was bid as an Additive Alternate.

2) Dewatering fan press to be completed as a separate project by the Town.

AMENDMENT NO. 4

TO AGREEMENT BETWEEN
TOWN OF FRONT ROYAL, VIRGINIA
AND
GHD INC.

WHEREAS, GHD Inc. (ENGINEER) and the Town of Front Royal, Virginia (OWNER) entered into an Agreement dated September 17, 2007 to perform Design and Bidding of the Town of Front Royal Wastewater Treatment Plant Upgrade and/or Expansion Project; and

WHEREAS, the OWNER has requested ENGINEER to perform the Scope of Services outlined below; and

NOW, THEREFORE, ENGINEER and OWNER agree to amend the Agreement as follows.

SCOPE OF SERVICES

TASK 1: CONSTRUCTION PHASE ENGINEERING SERVICES

A. Contract Coordination and Project Management: Contract coordination will involve routine communication with the OWNER, OWNER's Authorized Representative, and Contractor to discuss overall project issues, help resolve conflicts or discrepancies, make contract interpretations, and assist in resolution of certain field-related construction issues. Project management tasks include contract administration, invoicing, resource scheduling, and communications.

B. Construction Meetings: Attend pre-construction meeting (1), monthly construction progress meetings (32), pre-final inspection meeting (1), and final inspection meeting (1) with the Contractor and Owner. Prepare agenda and minutes.

C. Preliminary Submittals: Review the Contractor's required preliminary submittals (including the progress schedule, shop drawing schedule, and schedule of values) for conformance with Contract Documents. Request modifications, where required.

D. Shop Drawings and Submittals: Review shop drawings and submittals for conformance with Contract Documents. Request modifications, where required. Submittals will be stored and tracked using a software database hosted by ENGINEER, which will be accessible via the World Wide Web.

E. Requests for Information (RFI): Respond to Contractor's written requests for clarification in a written format. RFI's will also be stored and tracked using a software database hosted by ENGINEER, which will be accessible via the World Wide Web.

F. Operations & Maintenance (O&M) Submittals: Review operations and maintenance submittals furnished by the Contractor for conformance with Contract Documents. Request modifications, where required. Three separate stages of O&M manuals are required including Preliminary O&M manuals, Final Draft O&M manual, and Final O&M manual.

G. Materials Testing Results: ENGINEER will review and analyze the results of field and materials testing results. The field testing requirements will be coordinated with the ENGINEER's Resident Project Representative.

H. Proposed Change Orders and Change Orders: Review proposed change order (PCO) requests. Provide written response to the PCOs including recommendations for the OWNER to approve or reject. When the amount of PCOs reaches an agreed upon amount, ENGINEER will issue a formal change order to the OWNER for review and approval. The project price will be adjusted per the General Conditions.

I. Training: Provide five (5) days of interactive on-site training for OWNER operations staff on the operation of the facility including overviews of each process, training sessions on biological nitrogen removal and advanced aerobic digestion, and review of recommended field data collection procedures.

J. Record Drawings: Modify bid drawings at the completion of the project and produce a Record Drawing set for the OWNER's use based on red-line drawings provided by the Contractor . Three (3) sets of Record Drawings will be provided to the OWNER along with electronic AutoCAD files.

K. Witness Factory Acceptance Test for Process Control Systems: ENGINEER will witness Factory Acceptance Testing of critical Process Control Systems at the Control System Integrator's panel

fabrication facility. The Factory Acceptance Test shall be successfully completed when all of the required functions have been demonstrated to ENGINEER and ENGINEER will sign off the acceptance documents for system delivery to project site.

L. DEQ Coordination: Coordination with VADEQ for grant and loan funding requirements.

TASK 2: OWNER'S AUTHORIZED REPRESENTATIVE

A. OWNER's Authorized Representative (Resident Project Representative): ENGINEER will provide two full time Resident Project Representatives (RPRs) to serve as the OWNER's Authorized Representative during construction activities. The lead RPR shall work out of the ENGINEER's field trailer and shall be onsite for 40 hours per week (except for Town holidays) for 32 months following Notice to Proceed. The assistant RPR shall also work out of the ENGINEER's field trailer and shall be onsite for 40 hours per week (except for Town holidays) for 29 months beginning 3 months after Notice to Proceed. In addition, ENGINEER will also provide one part time electrical RPR who will specialize in the review of electrical and instrumentation systems. The electrical RPR will be onsite an average of one day per week for the last 24 months of construction. The RPR responsibilities shall be as outlined in Article 2 of the General Conditions of the Contract Documents for Construction and as described below:

1. RPR will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The RPR shall:
   a. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with ENGINEER concerning acceptability.
   b. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and circulate copies of minutes thereof.
   c. *Liaison:*
      1) Serve as ENGINEER's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.
      2) Assist ENGINEER in serving as Owner's liaison with Contractor when Contractor's operations affect OWNER's on-site operations.
      3) Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.
   d. *Interpretation of Contract Documents:* Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by ENGINEER.
   e. *Shop Drawings and Samples*:
      1) Record date of receipt of Samples and approved Shop Drawings.
      2) Receive Samples which are furnished at the Site by Contractor, and notify ENGINEER of availability of Samples for examination.
   f. *Modifications*: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to ENGINEER. Transmit to Contractor in writing decisions as issued by Engineer.
   g. *Review of Work and Rejection of Defective Work*:
      1) Conduct on-site observations of Contractor's work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
      2) Report to ENGINEER whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract

Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

3) Inspections, Tests, and System Startups:
   a) Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate OWNER's personnel, and that Contractor maintains adequate records thereof.
   b) Observe, record, and report to ENGINEER appropriate details relative to the test procedures and systems start-ups.

8. *Records:*
   1) Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
   2) Maintain records for use in preparing Project documentation.
9. *Reports:*
   1) Furnish to ENGINEER periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
   2) Draft and recommend to ENGINEER proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
   3) Immediately notify ENGINEER of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition.
10. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
11. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to ENGINEER for review and forwarding to OWNER prior to payment for that part of the Work.
12. *Completion:*
   1) Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
   2) Participate in a final inspection in the company of ENGINEER, OWNER, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
   3) Observe whether all items on the final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance and issuance of the Notice of Acceptability of the Work.

B. The RPR shall not:
   1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
   2. Exceed limitations of ENGINEER's authority as set forth in the Contract Documents.
   3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's superintendent.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of OWNER or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by ENGINEER.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize OWNER to occupy the Project in whole or in part.

TASK 3: MATERIALS TESTING AND SPECIAL INSPECTIONS

A. ENGINEER will contract Triad Engineering to complete concrete testing, soils testing, and Special Inspections as necessary to meet the requirements of the Contract Documents.
B. Field and laboratory services performed by Triad Engineering will be billed to the OWNER at direct cost under an Allowance for this item.
C. Final allowance will be adjusted up or down by Addendum to reflect actual final cost of field and laboratory services.

TASK 4: PLC PROGRAMMING/PROCESS CONTROL SYSTEM DEVELOPMENT

A. *Deliverables*: ENGINEER will provide the following deliverables for the control systems:
   1. Complete and Annotated PLC Logic
   2. Complete and Annotated Supervisory Software Development
   3. Specific Ancillary Software Programming
   4. Preliminary Testing
   5. Startup/Commissioning
   6. Software Training
B. *PLC Logic Development*: ENGINEER will develop the PLC programs for the complete control system as shown on the Contract Documents. These PLC's include:
   1. PLC-IPS (Influent Pumping Station PLC)
   2. PLC-CLB (Control Building PLC)
   3. PLC-HWB (Headworks Facility PLC)
   4. PLC-PRB (Process Building PLC)
   5. PLC-RPS2 (Recirculation Pumping Station 2 PLC)
   6. PLC-RPS3 (Recirculation Pumping Station 3 PLC)
   7. PLC-SPR (Septage Receiving Building PLC)
   8. PLC-CB (Chemical Building PLC)
   9. PLC-SDT (ATAD Building PLC)
   10. PLC-BLB (Blower Building PLC)
   11. PLC-SHB (Solids Handling Building PLC)

   The above PLCs will be programmed by ENGINEER. The logic will be based on the control system descriptions developed by the project team. ENGINEER will continue modifications of the control logic during the startup period based on information provided by the project team. The programming effort will be a dynamic effort, which expands to provide the facility a control system to satisfy the requirements necessary for plant automation.
C. *Packaged Control Systems*: This project includes multiple PLC-based control systems that are specified in the Contract Documents to be performance-based systems. The supplying manufacturer, or OEM, is responsible for programming the supplied PLCs and Operator Interface Terminals (OITs) accompanying the respective packaged control system. While the respective OEM is responsible for the performance and extent of automation of their system, ENGINEER will integrate data obtained from each OEM system into the plant's new supervisory application.
   1. Tablet Chlorination System
   2. Rotary Drum Thickener
   3. UV Disinfection System

4. Fine Screens 1 and 2 Control Panels
5. Screenings Conveyor/Wash Press Control Panel
6. Grit Removal System 1 Control Panel
7. ATAD System
8. BASP System

D. *Supervisory Software Development*: ENGINEER will configure the supervisory software, which includes database development, graphics development, alarming, data logging/historization, and report development for the facility. The supervisory software program shall be Wonderware System Platform or GE iFIX and shall be furnished by the Contractor under a software allowance specified in the Contract Documents. As with the PLC program, a preliminary configuration will be developed for review and approval by the project team. Revisions will be implemented into the supervisory configuration, based on the preliminary review comments, and a final configuration will be developed. Also, as with the PLC programming, a close relationship with the OWNER and ENGINEER will be necessary to provide configuration of the supervisory system during this phase.

E. *Ancillary Software*: One (1) licensed copy of reporting software and one (1) licensed copy of a software-based autodialer program will be supplied by the Contractor under a software allowance specified in the Contract Documents. ENGINEER will configure the reporting software to generate up to ten (10) reports. Report content and format will be coordinated with the OWNER during construction. Reporting software shall be SyTech XLReporter. ENGINEER will configure the software-based autodialer program to notify the OWNER personnel of up to 200 alarms via cell phone, text messaging, and email notification, as selected by the OWNER. Alarms, contact information, alarm priority, and alarm voice message will be coordinated with the OWNER during construction. Dialer software shall be Specter Instruments, WIN-911.

F. *Preliminary Testing*: ENGINEER will perform in-house simulation of PLC and supervisory programs to validate programs are ready for onsite deployment. Upon confirmation by the Construction Manager that all point-to-point testing required in the Contract Documents has been fully and successfully demonstrated by the Contractor, ENGINEER will commit to a startup schedule for the confirmed system(s).

G. *Startup/Commissioning*: ENGINEER will perform the field testing of the control system for each process. Site visits will be based on the progress of construction and the needs of individual systems. ENGINEER will assist the project team in verification and startup of the PLCs and supervisory software programmed by the ENGINEER. ENGINEER will provide the programming necessary to facilitate monitoring and control as designed, which includes tuning of the programs to resolve nuisance operation incurred by the PLC or supervisory programs.

H. *Training*: ENGINEER will provide the operations staff training on use of the supervisory software, reporting software, and software-based dialer software. The final, comprehensive training session will be video recorded and stored on the SCADA computer for future viewing by the OWNER. Training will be provided in multiple sessions as distinct milestones are accomplished during construction. Four days of training are budgeted followed up by one, final comprehensive training session. Training on use of the OEM systems will be provided by the respective OEM.

TASK 5: PLANT ELECTRONIC OPERATIONS AND MAINTENANCE INFORMATION SYSTEM

A. Provide a Plant Electronic Operations and Maintenance Information System (EOMIS) that would integrate plant operational data and procedures developed by ENGINEER, vendor O&M manuals, record drawings, training videos, and OWNER and regulatory documents into a single, electronic, web-based user-friendly tool. The EOMIS will include all major unit processes and major equipment at the Front Royal WWTP including new processes and equipment provided under the Upgrade and Expansion Contractor as well as existing processes and equipment to be retained following the Upgrade and Expansion project. Plant Operations and Maintenance personnel will be engaged to discuss and review standard operating procedures (SOPs). The EOMIS will be designed to allow for future modifications and additions of components and equipment to the treatment plant. Information on existing equipment will be limited to that which can be provided by the OWNER. Linked documents such as permits shall be in a format which is easily replaceable with updated versions by OWNER staff. Training will be provided for plant operations and maintenance staff regarding use of the EOMIS and how to replace linked documents with updated

versions. The EOMIS shall be provided in an electronic format which can be loaded into the OWNER's server or local computer hard drives. The EOMIS shall include the following features:

1. Plant operational data and procedures accessed via a graphical navigator and drop down menus.
2. Photographs of actual plant processes and equipment with call-outs to identify major components.
3. Links to video-taped vendor-provided equipment training sessions conducted as part of the construction contract.
4. Links to PDF versions of all manufacturer pump and blower curves.
5. Links to PDF versions of final "As-Built" drawings produced by ENGINEER and scanned versions of available "As-Built" drawings from prior construction contracts.
6. Links to PDF versions of manufacturer provided operations and maintenance manuals for each equipment.
7. Links to PDF version of MCC and control panel layout diagrams.
8. Links to PDF version of ladder logic diagrams for PLCs.
9. Links to standard worksheets, sampling schedules, laboratory procedures, or safety manuals developed by plant operations staff.
10. Links to effluent permit, generator permit, sludge hauling permit, and other applicable permits provided by the OWNER.

The following Table of Contents is anticipated for the EOMIS.

1. Overview
   - Project Background
   - Liquid Process Flow Diagram
   - Solids Process Flow Diagram
   - Design Criteria
   - Operating Procedures Overview
2. Preliminary Treatment
   - Influent Pumping
   - Screening
   - Grit Removal
3. Flow Equalization
   - Flow Equalization
4. Primary Treatment
   - Primary Clarifiers
   - Primary Sludge Pumping
   - Primary Scum Pumping
5. Secondary Treatment
   - Biological Reactors and Equipment
   - Biological Aeration System
   - Magnetite Recovery System
   - Secondary Clarifiers
   - Return Sludge Pumping
   - Waste Activated Sludge Pumping
   - Secondary Scum Removal
6. Tertiary Treatment
   - UV Disinfection
   - Post Aeration
7. Auxiliary/Ancillary Systems
   - Supplemental Carbon
   - PAC Feed System
   - Soda Ash Feed System
   - Sodium Hypochlorite Feed System
   - Polymer Feed System

- Plant Water System

8. Solids Treatment
   - Gravity Thickening
   - WAS Thickening
   - ATAD
   - Dewatering
9. Power Distribution
   - Primary Power Distribution
   - Secondary Power Distribution
   - Emergency Power Generation
10. Plant Process Control
    - PCS/SCADA

Each individual process section will generally contain the following components:

- Simplified Process & Instrumentation Diagram
- Process Description
- Design Criteria
- Major System Components
- Instrumentation
- Operational Overview
- Standard Operating Procedures
  - Manual Operation
  - Automatic Operation
  - Emergency/Maintenance Operation
- Controls and Interlocks
- Manufacturer/supplier contact information for major equipment

TASK 6: BALLASTED ACTIVATED SLUDGE PROCESS SECOND EFFLUENT WARRANTY TEST COORDINATION AND REVIEW

A. Assist with the coordination and review of the Second Effluent Warranty Test defined in the Process Performance Guarantee for the Ballasted Activated Sludge Process. This task shall include the following:
   1. Hold two preliminary meetings with the OWNER and Evoqua to review and discuss planning for the Second Warranty Test. The purpose of the meetings will be to obtain agreement from all parties on the testing schedule and procedures for the test. ENGINEER will run the meetings and will distribute meeting minutes to all parties for comment. The first meeting shall be held approximately one month prior to the start of the Second Effluent Warranty Test. The second meeting shall be held the week before commencing the Second Effluent Warranty Testing period.
   2. Hold weekly update meetings on-site with the OWNER and Evoqua (total of 4 meetings). The results of the prior week's testing shall be reviewed and procedures for the following week discussed. Any identified issues from the previous week will be discussed and a plan for resolution developed. Minutes from each meeting shall be prepared.
   3. Review data collected and analyzed by the OWNER during the 30 day testing period to analyze performance and determine whether the performance demonstrated during the Second Effluent Performance Test meets standards defined in the Process Performance Guarantee.
   4. Provide five (5) copies of a written summary report to the OWNER and Evoqua for the Second Effluent Warranty Test. Provide recommendations to the OWNER for acceptance or failure of the test. If necessary, make recommendations for additional testing.

PROJECT COSTS

ENGINEER will complete the services outlined above as follows:

A.	Task 1: Construction Phase Engineering Services	$1,845,345	LUMP SUM
B.	Task 2: Owner's Authorized Representative	$1,172,633	LUMP SUM
C.	Task 3: Materials Testing and Special Inspections	$ 125,000	ALLOWANCE
D.	Task 4: PLC Programming/Process Control System Development	$ 296,834	LUMP SUM
E.	Task 5: Plant Electronic Operations and Maintenance Information System	$ 249,204	LUMP SUM
F.	Task 6: Second Effluent Warranty Test	$ 50,216	LUMP SUM
	TOTAL	**$3,739,232**	

PROJECT SCHEDULE

A. This Amendment is based on a construction contract duration of 30 months from Notice to Proceed to Substantial Completion and two (2) additional months to Final Completion. The scope of services and price will have to be adjusted by Amendment if the construction contract duration varies from this assumption.

B. This Amendment is based on the two Owner's Authorized Representatives on site an average of 40 hours per week each (except for Town holidays). The two Owner's Authorized Representatives will stagger work hours to provide extended on-site coverage if the Contractors normal work hours are greater than 40 hours per week. Contract Documents for Construction require the Contractor to reimburse the Owner by Change Order should Contractor's working hours extend outside normal working hours including all costs for weekend, holiday, and/or overtime services of Owner's Authorized Representative. Engineering cost for providing these additional Owner's Authorized Representative services will be adjusted by Amendment.

C. Preparation of As-Built drawings based on red-line drawings provided by the General Contractor: As-Built drawings will be provided eight (8) weeks following receipt of all red-line drawings from the Contractor.

D. Plant Electronic Operations and Maintenance Information System (EOMIS) will be provided for Town review 12 weeks after Contractor's final completion and the receipt of all input documents (final O&M manuals, as-built drawings, training videos, etc.). Final EOMIS will be provided in 12 weeks following receipt of Town comments on the draft EOMIS.

AUTHORIZATION

The return of one signed copy of this Amendment No. 4 constitutes acceptance of this Amendment and shall be written authorization for ENGINEER to proceed with the Scope of Service outlined above.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment No. 4 as of the last date entered below.

ENGINEER:

GHD INC.

By:_____
Thor Young

Title: Principal

Date: 11/4/14

OWNER:

TOWN OF FRONT ROYAL, VIRGINIA

By:_____

Title:_____

Date:_____

TAY/kab

Item No. 3

Town of Front Royal, Virginia
Work Session Agenda Form

Date: November 17, 2014

Agenda Item: Future power block purchases for 2017-2020

Summary: Staff continues to evaluate and monitor the wholesale market along with new generation assets to fill the needs of energy supply to the community. Currently the Town has unsecured energy needs beyond the years of 2017.

Council Discussion:

Staff Evaluation: Staff has been evaluating over the past months on procuring additional blocks of power for years beyond 2017 and with the current wholesale market, its advantageous to secure our needs through 2020 to control cost and reduce risk due to upcoming changes in the PJM transmission network.

Budget/Funding:

Legal Evaluation:

Staff Recommendations: Staff is currently finalizing term sheets (i.e. prices) and will supply detailed information at the work session along with recommendations to Council.

Town Manager Recommendation:

Council Recommendation:

□ Additional Work Session □ Regular Meeting □ No Action

Consensus Poll on Action: ___(Aye) ___(Nay)

Work Session

Item No. 4

Town of Front Royal, Virginia
Work Session Agenda Form

Date: November 17, 2014

Agenda Item: Discussion to Consider Corner Lots

Summary: On October 27, 2014, Councilman Tewalt requested that corner lots be a topic of discussion at a future work session

Council Discussion: Council takes desired action

Staff Evaluation: Town Code Sections have been provided

Budget/Funding: None

Legal Evaluation: Town Attorney will be available

Staff Recommendations: None

Town Manager Recommendation: Town Manager will be available

Council Recommendation:

□ Additional Work Session □ Regular Meeting □ No Action

Consensus Poll on Action: ___(Aye) ___(Nay)

Work Session

TOWN CODE SECTIONS THAT REFER TO CORNER LOTS

175-10.20 CORNER LOTS (R-E)
A. Of the two (2) sides of a corner lot, the front shall be deemed to be either of the two (2) sides fronting on streets.
B. The side yard on the side facing the side street shall be one hundred (100) feet or more for both main and accessory buildings.
C. Each corner lot shall have a minimum width at the setback line of two hundred twenty-five (225) feet.

175-10.30 CORNER LOTS (R-S)
A. Of the two (2) sides of a corner lot, the front shall be deemed to be the shortest of the two (2) sides fronting on streets.
B. The side yard on the side facing the side street shall be fifty (50) feet or more for both main and accessory buildings.
C. Each corner lot shall have a minimum width at the setback line of two hundred (200) feet.

175-18 CORNER LOTS (R-1)
A. Of the two (2) sides of a corner lot, the front shall be deemed to be the shortest of the two (2) sides fronting on streets. The side yard on the side facing the side street shall be thirty (30) feet or more for both main and accessory buildings.
C. Each corner lot shall have a minimum width at the setback line of one hundred (100) feet.

175-27 CORNER LOTS (R-2)
A. Of the two (2) sides of a corner lot, the front shall be deemed to be the shortest of the two (2) sides fronting on streets.
B. The side yard on the side facing the side street shall be twenty-five (25) feet or more for both main and accessory buildings.

175-37 CORNER LOTS (R-3)
A. Of the two (2) sides of a corner lot, the front shall be deemed to be the shortest of the two (2) sides fronting on streets.
B. The side yard on the side facing the side street shall be twenty (20) feet or more for both main and accessory buildings.
C. Each corner lot shall have a minimum width at the setback line of seventy-five (75) feet.

175-62 CORNER LOTS (I-1)
A. Of the two (2) sides of a corner lot, the front shall be deemed to be the shortest of the two (2) sides fronting on streets.
B. The side yard facing on the side street shall be twenty (20) feet.

Item No. 5

Town of Front Royal, Virginia
Work Session Agenda Form

Date: November 17, 2014

Agenda Item: Revision of Liaison Committee Mission Statement and Policies

Summary: At the September 18, 2014 Liaison Committee Meeting, Warren County requested that the Town consider modifying the meeting schedule for Liaison Meetings to be conducted quarterly rather than every two months. On October 21, 2014, The Warren County Board of Supervisors adopted a revised Liaison Committee Mission Statement and Policies effective January 1, 2015.

Council Discussion: Council takes desired action

Staff Evaluation: None

Budget/Funding: None

Legal Evaluation: Town Attorney will be available

Staff Recommendations: None

Town Manager Recommendation: Town Manager will be available.

Work Session

Council Recommendation:

□ Additional Work Session □ Regular Meeting □ No Action

Consensus Poll on Action: ___(Aye) ___(Nay)

COUNTY OF WARREN

County Administrator's Office
Warren County Government Center
220 North Commerce Avenue, Suite 100
Front Royal, Virginia 22630

Phone: (540) 636-4600
FAX: (540) 636-6066
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Douglas P. Stanley
County Administrator

October 23, 2014

Mr. Steve Burke
Town Manager
Town of Front Royal
P. O. Box 1560
Front Royal, Virginia 22630

Dear Steve:

The Warren County Board of Supervisors, at its regular meeting of October 21, 2014, adopted the enclosed revised Liaison Committee Mission Statement and Policies effective January 1, 2015.

We would respectfully ask that the Council consider the revised Mission Statement and Policies so that they can be in place for the start of the year.

Sincerely,

Douglas P. Stanley
County Administrator

Enclosure

JCS

RECEIVED
OCT 23 2014
TOWN OF FRONT ROYAL
TOWN MANAGER'S OFFICE

FRONT ROYAL - WARREN COUNTY

Liaison Committee Mission Statement and Policies

PURPOSE OF THE LIAISON COMMITTEE

The purpose of the Front Royal-Warren County Liaison Committee is to offer a venue whereby the leadership of the Town of Front Royal and the County of Warren can discuss issues of mutual interest and inform each other of positions taken and decisions made by each public body that may affect both localities. The Committee is NOT designed to be an environment where decisions are made, but one where issues are discussed and Board and Council members take them back to their respective bodies for further discussion and recommendation.

MEMBERSHIP

The Liaison Committee shall include the Mayor of the Town of Front Royal, the Chairman of the Warren County Board of Supervisors, the Front Royal Town Manager, the Warren County Administrator, one (1) Front Royal Town Council member and one (1) Warren County Board of Supervisors member. The latter two (2) members shall rotate between its various members alphabetically from meeting to meeting.

MEETING SCHEDULE

Meetings shall be held on the third Thursday ~~of every other month~~ of **February, May, August and November** at 6:00 p.m. unless otherwise agreed upon by the Town and County. The meetings shall be rotated every six months between the Town and County. Wherever the meetings are held, the host shall be responsible for the preparation of the agenda will provide a person who will take formal minutes of the meeting.

MEETING AGENDA

- Meetings of the Liaison Committee shall at all times be subject to the terms of the Virginia Freedom of Information Act.
- Meeting agendas shall be provided by the Town Manager and County Administrator upon consultation with the Mayor and Board Chairman respectively.
- Any request to place an item on the agenda shall be made by 1:00 p.m. on the first Tuesday of the month prior to the month before the Liaison meeting.
- All requests to place an item on the agenda must be accompanied by a written summary of the request which can be placed in the agenda packet.
- The agendas shall be distributed on the Friday prior to the Liaison Committee meeting to be held on the following Thursday.

- In order for an item to be formally discussed on the Liaison agenda, it must be first approved by a majority vote of the Town Council or Board of Supervisors.

MEETING POLICY and PROCEDURES

- The Mayor of the Town shall be Chairman of the Committee when the meetings are hosted by the Town, and the Chairman of the Board of Supervisors shall be Chairman of the Committee when the meeting is hosted by the County.
- The Chairman shall make procedural or parliamentary decisions which may be overruled by a majority vote of the Committee.
- The Town and/or County may invite any of their staff personnel, including attorneys, to attend meetings that either feels would be helpful for the issues and items scheduled to be addressed.
- This mission statement and policies shall be adopted by a majority of the Board of Supervisors and the Town Council. They may be amended by a majority vote of the Town Council and Board of Supervisors.

MANAGER and ADMINISTRATOR REPORTS

Quarterly, at a regular meeting of the Front Royal Town Council, the Warren County Administrator shall give an oral report of the County to the Council, and regular meeting of the Warren County Board of Supervisors, the Front Royal Town Manager shall give an oral report of the Town to the Board; this will not be a question and answer period.

Approved by the Warren County Board of Supervisors: September 7, 2010
Approved by the Front Royal Town Council: September 13, 2010

Amended by the Warren County Board of Supervisors: October ___, 2014
Amended by the Front Royal Town Council: _____, 2014

Language proposed to be deleted is ~~lined through~~.
Language proposed to be added is **underlined**.