

Kennedy/Jenks Consultants

Engineers & Scientists

32001 32nd Avenue South
Suite 100
Federal Way, Washington 98001
253-874-0555 (Seattle)
253-927-8688 (Tacoma)
FAX 253-952-3435

28 July 2008

Mr. James X. Kelly, P.E.
Utilities Manager
Public Works Utilities Division
City of Arlington
154 W. Cox
Arlington, WA 98223

Subject: Pay Request #6
Final Design for the Upgrade and Expansion of the WWTP
Invoice Period through 27 June 2008
K/J 0597002*02

Dear Jim:

Enclosed is Kennedy/Jenks Consultants' invoice 34166, dated 24 July 2008, for the period through 27 June 2008. Per your request, an Invoice Budget Summary Report is also attached with this letter. Work performed during this period included:

- Project management and QA/QC of project deliverables.
- Development of the Approval Set design package plans and specifications.
- Coordination with the MBR System supplier on shop drawing development and review, as well as adjustments to final Scope of Supply.
- Work performed by Kennedy/Jenks' subconsultant for permitting support (ESA/Adolfson).
- Various internal and external design progress meetings.
- Development of the WWTP Engineering Report Amendment Letter to Ecology.
- Direct expenses associated with travel and reproduction costs.

Issues:

1. *Budget/Task 4*25* – As we have discussed recently and I had noted in previous Invoice #5, we believe some efforts being undertaken by the Kennedy/Jenks design team fall outside of the current Scope of Work under our design contract Amendment No. 4. The Invoice Budget Summary Report that was included with Invoice #5 offered a re-distribution of contract budget based on changes that had occurred up to that point in the design, mainly the shifting of budget from the remaining BCF design task to cover additional MBR procurement and permitting support requirements. Those alterations resulted in an estimated total level of effort approximately \$8,000 in excess of the current Amendment No. 4 contract value. I also identified the likelihood of additional out-of-scope efforts that would need to be performed right away in order to maintain the project schedule. Over the current billing period, we have

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seen some of these additional efforts come to pass. Hence, you will note that I have opened a new Task 4*25 Additional Design Services within our billing system. The following describes the three subtasks for which I have asked our team to track their time:

1. ***Subtask 1, Engineering Report Letter Amendment:*** We have discussed the necessity for this amendment to the approved WWTP Engineering Report, in order to gain acceptance as an approved Facility Plan and allow the City full eligibility for Federal grant and loan programs administered by the Department of Ecology. The efforts undertaken on this subtask through this pay request period are relatively minor (\$990); to date, \$8,410 has been tracked against the subtask. The draft amendment letter has been submitted to Ecology on schedule, and we anticipate that some minor revisions/additions will be needed to address regulatory review comments and gain final approval.
2. ***Subtask 2, Contract Document Divisions 0 and 1 Preparation:*** We have also discussed the exclusion within the current Amendment No. 4 Scope of Work for preparation of Divisions 0 and 1 construction contract specifications, as requested by the City. The City intended to use their own front end documents and prepare these documents for inclusion in the bid package themselves. After collectively reviewing and discussing the City's existing front end documents, the City asked Kennedy/Jenks to prepare the front end documents based on Kennedy/Jenks' standard. The efforts undertaken on this subtask through this pay request period are again minor (\$360); to date, \$11,791 has been tracked against the subtask. A complete draft of Divisions 0 and 1 were submitted on schedule to both the City and Ecology with the Approval Set package. We would anticipate the receipt of review comments, primarily from the City, which will require some further work to accommodate requested revisions and incorporate them within the 100% contract documents.
3. ***Subtask 3, Other Out of Scope:*** Many of the tasks that go with design development are often difficult to define at the onset of a project. Although we included some flexibility in our initial budgeting and have made concerted efforts to accommodate these tasks, there are several design efforts that have become more involved and have necessitated unanticipated, higher levels of effort. These have become more apparent as we have developed the design to a more detailed level of completion.

I have asked our design team to designate their time associated with these efforts to this subtask, with a note indicating the specific effort that has become more entailed. These notes appear on the actual invoice (generated by our corporate accounting department) that is attached with this pay request. Through this pay request period, \$24,880 has been tracked on these items (with some additional efforts anticipated for design completion), which have included:

- o Lime stabilization system improvements. The Amendment No. 4 design contract originally assumed that the existing lime stabilization system would be reused without modification. As the design developed, expansion of the Solids Handling Building and associated dewatering equipment locations have necessitated major modifications to the existing

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system, including the addition of mixing, conveyance and injection facilities, as well as new control system equipment. These facilities have resulted in unanticipated additions to our plan set and specifications.

- Grit system design modifications. The Amendment No. 4 design contract originally assumed that the existing grit system would be reused without modification. As the design developed, significant efforts have been expended identifying failing mechanical components associated with the existing system, discussing necessary modifications with the grit system manufacturer, and incorporating modifications that will upgrade the grit system to accommodate influent flows and loadings through Phase 2. Modifications will include a new top-mounted pumping system with drive and accessory equipment, new control equipment, and other mechanical appurtenances. These facilities have resulted in unanticipated additions to our plan set and specifications.
- Extensive site drainage/storm design. Uncertainty associated with some existing storm drain collection system details and lack of record information has resulted in substantial effort by the City and Kennedy/Jenks to delineate the system, identify needed improvements, and perform some iterative design steps.
- Air gap requirement complicating the WWTP 2W system design. The recent Department of Health cross connection prevention requirement that necessitated design of an air gap for isolation of the 2W system from the City water supply was discovered at the 60% design level. Resulting unanticipated design efforts since that time have included the incorporation of holding tank, pumping, and hydropneumatic pressure tank facilities and appurtenances. These facilities have resulted in unanticipated additions to our plan set and specifications.

For the additional efforts detailed above, we would appreciate continued consideration of a budget augmentation. Our latest understanding from the City is that the easiest means of facilitating such a request might be through the incorporation of these Additional Design Service efforts as an initial task under an Amendment No. 5, which would also include Engineering Support and Construction Management services for the anticipated Phase 1 WWTP Upgrade and Expansion construction period.

2. *Schedule* – Schedule Update #5, attached with the previous Invoice #5, remains current. We believe that the design milestone necessitating the largest strain on our resources has now passed with the various materials submitted to the City and Ecology on July 15. The current schedule projecting design completion and bidding during October is attainable for our design team; however, we would appreciate being alerted to any City adjustments to this timetable, as completion of design might be more efficiently achieved by a smaller core group of our design team if a longer time period becomes available.
3. *Proposal for Engineering Support/Construction Management Services* – We are extremely pleased to be asked by the City to prepare an initial Scope of Work and Budget for an Amendment No. 5 Engineering Support/Construction Management Services under our

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current Master Services Agreement dated 21 March 2005. Please find the attached proposal, including the work efforts summarized below, for your review:

- **Task 4*25 Additional Design Services** - The costs associated with the efforts detailed in Item #1 that have been tracked to date, as well as anticipated efforts required for completion of these subtasks, has been included with the Engineering Support/Construction Management Contract proposal, as requested.
- **Phase 5 Engineering Support/Construction Management and Post Construction Services** - The work performed under this proposed phase is in accordance with the current work sequence and developed construction schedule for Phase 1, showing an approximate 25 month construction period from Notice to Proceed through Construction Closeout. Office support will be provided by the design team members during this period, with efforts including contract administration, as well as the processing of RFIs, submittals/shop drawings, Requests for Quotes, Clarifications and Change Orders. On-site construction oversight includes the time of both an inspector over a 24-month (103-week) duration and a half-time field engineer over a 22-month (95-week) duration (the balance of the field engineer's time will be office-based). Post construction services offered include assistance for startup and commissioning, operational training and troubleshooting assistance, and preparation of as-built documents and an electronic Operations Manual.

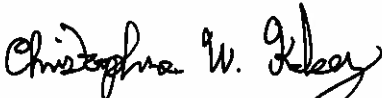
We look forward to your review of this proposal, future discussions concerning its scope of services, and to the continued partnership with the City that we so greatly value as the City-Kennedy/Jenks team sees this future award-winning project through to its conclusion!

The final date of this billing invoice represents completion of the 54th week out of a projected 72-week contract schedule that concludes with award of the WWTP construction contract. The schedule is 75 percent complete. Our total project expenditures through this billing period represent 79 percent of the total contract value.

If you have any questions or concerns regarding the project progress, please contact me at (253) 874-0555.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Christopher W. Kelsey, P.E.
Project Manager

Enclosure

Kennedy/Jenks Consultants**Engineers & Scientists**622 Folsom Street
San Francisco, CA 94107

Phone: 415-243-2150

Fax: 415-543-8061

City of Arlington
238 North Olympic Avenue
Arlington WA 98223

Attention: James X. Kelly

Invoice # : 34166
Invoice Date : 7/24/2008
Project : 0597002*02
Project Name : Arlington WWTP/BCF Final

For Professional Services Rendered through: 6/27/2008

Professional Engineering Services to provide final design of improvements to, and expansion of, the City of Arlington, Washington Wastewater Treatment Plant (WWTP) and Biosolids Composting Facility (BCF) in accordance with the Professional Services Agreement dated 21 March 2005 and Kennedy/Jenks Amendment No. 4 dated 19 June 2007.

Current Billings**Phase : 0 -- ODC**

Other Direct Expenses 228.22

Phase : 4*14 -- Project Management - QA/QC

Labor 17,622.50

Phase : 4*19 -- Permitting and Funding Assistance

Labor 3,510.00

Subconsultant 4,251.84

Phase : 4*21 -- Project Meetings

Labor 9,505.00

Phase : 4*22 -- Final Design Documents

Labor 253,826.25

Phase : 4*23 -- Other Design Documents

Labor 8,055.00

Phase : 4*25 -- Additional Design Services

Labor 26,230.00

Current Invoice 323,228.81Fee : 1,727,825.00
Prior Billings : 1,046,636.03
Current Billings : 323,228.81
Total Billings : 1,369,864.84Billing Amount 323,228.81
Total Current Invoice 323,228.81
Amount Due This Invoice: 323,228.81

Phase : 0 -- ODC

Task : ** -- All Expense Charges**

<u>Vendor</u>	<u>Cost</u>	<u>Multiplier</u>	<u>Amount</u>
Direct-Travel & Subsistence			
Kelsey, Christopher W.	28.16	1.10	30.98
Direct-Mileage			
deMontigny, Eric A.	63.50	1.00	63.50
Direct-Communication & Delivery			
United Parcel Service-894820	23.33	1.10	25.66
<u>Vendor / Employee Name</u>	<u>Units</u>	<u>Rate</u>	<u>Amount</u>
ODC-Equipment Charges (UP)			
CopyClr			
eUnit Equipment/Materials/Mileage	296.00	0.25	74.00
KJcar			
eUnit Equipment/Materials/Mileage	71.00	0.48	34.08
Total : Other Direct Expenses			228.22
Total Task : **** -- All Expense Charges			228.22
Total Phase : 0 -- ODC			228.22

Phase : 4*14 -- Project Management - QA/QC

Task : 01 -- Project Management

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Administrative Assistant			
Cosgrove, Sandra L. (H)	5.50	70.00	385.00
Engineer/Scientist/Specialist 6			
Kelsey, Christopher W.	46.50	180.00	8,370.00
Engineer/Scientist/Specialist 8			
Malady, John E	13.00	220.00	2,860.00
deMontigny, Eric A.	5.75	220.00	1,265.00
Total: Engineer/Scientist/Specialist 8			4,125.00
Total : Labor			12,880.00
Total Task : 01 -- Project Management			12,880.00

Task : 02 -- QA/QC

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Aide			
Andersen, Constance E. (H)	0.50	55.00	27.50
Engineer/Scientist/Specialist 8			
deMontigny, Eric A.	17.75	220.00	3,905.00
Total : Labor			3,932.50
Total Task : 02 -- QA/QC			3,932.50

Task : 04 -- Value Engineering Support

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 6			
Kelsey, Christopher W.	4.50	180.00	810.00
Total : Labor			810.00
Total Task : 04 -- Value Engineering Support			810.00
Total Phase : 4*14 -- Project Management - QA/QC			17,622.50

Phase : 4*19 -- Permitting and Funding Assistance

Task : 01 -- All Work

Phase : 4*19 -- Permitting and Funding Assistance**Task : 01 -- All Work**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 6			
Kelsey, Christopher W.	19.50	180.00	3,510.00
Total : Labor			3,510.00
<u>Vendor</u>		<u>Cost</u>	<u>Multiplier</u>
Direct-Subconsultant Costs			
ESA Adolfson		3,865.31	1.10
Total : Subconsultant			4,251.84
Total Task : 01 -- All Work			7,761.84
Total Phase : 4*19 -- Permitting and Funding Assistance			7,761.84

Phase : 4*21 -- Project Meetings**Task : 01 -- All Work**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Administrative Assistant			
Conner, Cathy P. (H)	5.50	70.00	385.00
Engineer/Scientist/Specialist 2			
Collins, Jacob V.	1.00	115.00	115.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	18.75	180.00	3,375.00
Kelsey, Christopher W.	21.50	180.00	3,870.00
Total: Engineer/Scientist/Specialist 6	40.25		7,245.00
Engineer/Scientist/Specialist 8			
deMontigny, Eric A.	8.00	220.00	1,760.00
Total : Labor			9,505.00
Total Task : 01 -- All Work			9,505.00
Total Phase : 4*21 -- Project Meetings			9,505.00

Phase : 4*22 -- Final Design Documents**Task : 01 -- WWTP General**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
CAD/Technician			
Ronderos, Mark A. (H)	6.00	95.00	570.00
Lakin, Evan R. (pH)	5.00	95.00	475.00
Total: CAD/Technician	11.00		1,045.00
Designer/Senior Technician			
Marx, Larry M. (H)	8.00	120.00	960.00
Engineer/Scientist/Specialist 3			
Kim, Eun-Woong - 9/80	11.00	130.00	1,430.00
Engineer/Scientist/Specialist 4			
Moeller, Ronald L. (WA)	4.00	145.00	580.00
Engineer/Scientist/Specialist 5			
Lyons, Raymond J.	3.00	160.00	480.00
Engineer/Scientist/Specialist 6			
Huang, Sunny S.	22.00	180.00	3,960.00
Engineer/Scientist/Specialist 8			
deMontigny, Eric A.	5.75	220.00	1,265.00
Total : Labor			9,720.00
Total Task : 01 -- WWTP General			9,720.00

Phase : 4*22 -- Final Design Documents**Task : 02 -- WWTP Civil**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
CAD/Technician			
Lakin, Evan R. (pH)	6.00	95.00	570.00
Designer/Senior Technician			
Marx, Larry M. (H)	9.50	120.00	1,140.00
Engineer/Scientist/Specialist 3			
Kim, Eun-Woong - 9/80	20.00	130.00	2,600.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	7.00	180.00	1,260.00
Kelsey, Christopher W.	7.50	180.00	1,350.00
Total: Engineer/Scientist/Specialist 6	14.50		2,610.00
Engineer/Scientist/Specialist 8			
deMontigny, Eric A.	1.00	220.00	220.00
Total : Labor			7,140.00
Total Task : 02 -- WWTP Civil			7,140.00

Task : 03 -- WWTP Demolition

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Aide			
Norton, Linda M. (H)	0.50	55.00	27.50
CAD/Technician			
Lakin, Evan R. (pH)	4.00	95.00	380.00
Engineer/Scientist/Specialist 5			
Hoffman, Janet L. (pH)	4.50	160.00	720.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	3.25	180.00	585.00
Kelsey, Christopher W.	1.50	180.00	270.00
Total: Engineer/Scientist/Specialist 6	4.75		855.00
Engineer/Scientist/Specialist 8			
deMontigny, Eric A.	1.75	220.00	385.00
Total : Labor			2,367.50
Total Task : 03 -- WWTP Demolition			2,367.50

Task : 04 -- WWTP Structural

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Designer/Senior Technician			
Leipzig, Jean (H)	11.00	120.00	1,320.00
Engineer/Scientist/Specialist 2			
Tam, Eric	1.00	115.00	115.00
Engineer/Scientist/Specialist 3			
Cleary, David E. - 9/80	77.50	130.00	10,075.00
Engineer/Scientist/Specialist 4			
Symonds, Peter D.	99.00	145.00	14,355.00
Salter, Jake D.	159.00	145.00	23,055.00
Total: Engineer/Scientist/Specialist 4	258.00		37,410.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	7.50	180.00	1,350.00
Kelsey, Christopher W.	3.00	180.00	540.00
Total: Engineer/Scientist/Specialist 6	10.50		1,890.00
Total : Labor			50,810.00
Total Task : 04 -- WWTP Structural			50,810.00

Task : 05 -- WWTP Architectural

Phase : 4*22 -- Final Design Documents**Task : 05 -- WWTP Architectural**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 5			
Vincent, Heidi - 9/80	56.00	160.00	8,960.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	4.00	180.00	720.00
Kelsey, Christopher W.	3.50	180.00	630.00
Defferding, Chris F. (OR)	7.50	180.00	1,350.00
Total: Engineer/Scientist/Specialist 6	15.00		2,700.00
Engineer/Scientist/Specialist 8			
Wright, Daniel J. - 9/80	58.00	220.00	12,760.00
Total : Labor			24,420.00
Total Task : 05 -- WWTP Architectural			24,420.00

Task : 06 -- WWTP Mechanical

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Administrative Assistant			
Conner, Cathy P. (H)	1.50	70.00	105.00
CAD/Technician			
Hoffer, Bryan B. (H)	5.00	95.00	475.00
Lakin, Evan R. (pH)	4.50	95.00	427.50
Total: CAD/Technician	9.50		902.50
Designer/Senior Technician			
Marx, Larry M. (H)	27.00	120.00	3,240.00
Engineer/Scientist/Specialist 2			
Campbell, Renee C.	28.00	115.00	3,220.00
Tinnell, Dylan B.	110.00	115.00	12,650.00
Total: Engineer/Scientist/Specialist 2	138.00		15,870.00
Engineer/Scientist/Specialist 3			
McClung, David W. (H)	30.00	130.00	3,900.00
Womack, Thomas W. (H)	63.50	130.00	8,255.00
Kim, Eun-Woong - 9/80	218.00	130.00	28,340.00
Total: Engineer/Scientist/Specialist 3	311.50		40,495.00
Engineer/Scientist/Specialist 4			
Ray, Ryan P.	37.00	145.00	5,365.00
Engineer/Scientist/Specialist 5			
Hoffman, Janet L. (pH)	16.00	160.00	2,560.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	28.75	180.00	5,175.00
Kelsey, Christopher W.	2.00	180.00	360.00
Total: Engineer/Scientist/Specialist 6	30.75		5,535.00
Total : Labor			74,072.50
Total Task : 06 -- WWTP Mechanical			74,072.50

Task : 07 -- WWTP Electrical

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
CAD/Technician			
Hoffer, Bryan B. (H)	31.50	95.00	2,992.50
Wethered-McClung, P. (pH)	7.00	95.00	665.00
Wiltse, Rebecca R. (H)	6.00	95.00	570.00
Total: CAD/Technician	44.50		4,227.50
Designer/Senior Technician			
Marx, Larry M. (H)	4.50	120.00	540.00

Phase : 4*22 -- Final Design Documents**Task : 07 -- WWTP Electrical**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 3			
Womack, Thomas W. (H)	3.00	130.00	390.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	23.25	180.00	4,185.00
Kelsey, Christopher W.	2.50	180.00	450.00
Bogomolov, Vladimir A. - 9/80	96.00	180.00	17,280.00
Total: Engineer/Scientist/Specialist 6	121.75		21,915.00
Engineer/Scientist/Specialist 7			
Reardon, Paul A.	8.50	200.00	1,700.00
Total : Labor			28,772.50
Total Task : 07 -- WWTP Electrical			28,772.50

Task : 08 -- WWTP Instrumentation

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
CAD/Technician			
Hoffer, Bryan B. (H)	32.50	95.00	3,087.50
Designer/Senior Technician			
Marx, Larry M. (H)	17.00	120.00	2,040.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	5.25	180.00	945.00
Kelsey, Christopher W.	1.50	180.00	270.00
Total: Engineer/Scientist/Specialist 6	6.75		1,215.00
Engineer/Scientist/Specialist 7			
Woracek, David L. - 9/80	55.00	200.00	11,000.00
Reardon, Paul A.	11.50	200.00	2,300.00
Total: Engineer/Scientist/Specialist 7	66.50		13,300.00
Total : Labor			19,642.50
Total Task : 08 -- WWTP Instrumentation			19,642.50

Task : 21 -- Specifications

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Administrative Assistant			
Aihara, Jill Y. (H)	3.50	70.00	245.00
Conner, Cathy P. (H)	1.00	70.00	70.00
Total: Administrative Assistant	4.50		315.00
Engineer/Scientist/Specialist 2			
Collins, Jacob V.	80.75	115.00	9,286.25
Stewart, Andrew D. - 9/80	7.00	115.00	805.00
Total: Engineer/Scientist/Specialist 2	87.75		10,091.25
Engineer/Scientist/Specialist 3			
Huang, Tian H.	39.00	130.00	5,070.00
Engineer/Scientist/Specialist 5			
Hoffman, Janet L. (pH)	1.00	160.00	160.00
Robley, Greg A.	37.00	160.00	5,920.00
Total: Engineer/Scientist/Specialist 5	38.00		6,080.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	38.75	180.00	6,975.00
Kelsey, Christopher W.	9.00	180.00	1,620.00
Nicolls, James B.	15.00	180.00	2,700.00
Total: Engineer/Scientist/Specialist 6	62.75		11,295.00
Engineer/Scientist/Specialist 8			

Phase : 4*22 -- Final Design Documents**Task : 21 -- Specifications**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 8			
Malady, John E	3.75	220.00	825.00
deMontigny, Eric A.	1.00	220.00	220.00
Total: Engineer/Scientist/Specialist 8	4.75		1,045.00
Total : Labor			33,896.25
Total Task : 21 -- Specifications			33,896.25

Task : 23 -- Construction Schedules

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 5			
Hoffman, Janet L. (pH)	2.00	160.00	320.00
Engineer/Scientist/Specialist 6			
Kelsey, Christopher W.	5.00	180.00	900.00
Engineer/Scientist/Specialist 8			
deMontigny, Eric A.	0.75	220.00	165.00
Total : Labor			1,385.00
Total Task : 23 -- Construction Schedules			1,385.00

Task : 24 -- Site Visits

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 3			
Kim, Eun-Woong - 9/80	4.00	130.00	520.00
Engineer/Scientist/Specialist 6			
Bogomolov, Vladimir A. - 9/80	6.00	180.00	1,080.00
Total : Labor			1,600.00
Total Task : 24 -- Site Visits			1,600.00
Total Phase : 4*22 -- Final Design Documents			253,826.25

Phase : 4*23 -- Other Design Documents**Task : 01 -- Control Strategy**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	43.25	180.00	7,785.00
Kelsey, Christopher W.	1.50	180.00	270.00
Total: Engineer/Scientist/Specialist 6	44.75		8,055.00
Total : Labor			8,055.00
Total Task : 01 -- Control Strategy			8,055.00
Total Phase : 4*23 -- Other Design Documents			8,055.00

Phase : 4*25 -- Additional Design Services**Task : 01 -- Engineering Report Letter Amendment**

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 6			
Giese, Thomas P.	4.00	180.00	720.00
Kelsey, Christopher W.	1.50	180.00	270.00
Total: Engineer/Scientist/Specialist 6	5.50		990.00
Total : Labor			990.00
Total Task : 01 -- Engineering Report Letter Amendment			990.00

Phase : 4*25 -- Additional Design Services

Task 02 -- Const. Doc. Div. 0 & 1 Preparation

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer/Scientist/Specialist 6			
Kelsey, Christopher W.	2.00	180.00	360.00
Total : Labor			360.00
Total Task : 02 -- Const. Doc. Div. 0 & 1 Preparation			360.00

Task 03 -- Other Out of Scope

<u>Class / Employee Name</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Designer/Senior Technician			
Marx, Larry M. (H) grit system design	16.00	120.00	1,920.00
Marx, Larry M. (H) additional drainage/storm design	12.00	120.00	1,440.00
Marx, Larry M. (H) lime stabilization system improvements design	24.00	120.00	2,880.00
Total: Engineer/Scientist/Specialist 2	52.00		6,240.00
Engineer/Scientist/Specialist 3			
Kim, Eun-Woong - 9/80 grit system design	12.00	130.00	1,560.00
Kim, Eun-Woong - 9/80 additional drainage/storm design	12.00	130.00	1,560.00
Kim, Eun-Woong - 9/80 lime stabilization system improvements design	16.00	130.00	2,080.00
Total: Engineer/Scientist/Specialist 3	40.00		5,200.00
Engineer/Scientist/Specialist 4			
Ray, Ryan P. 2W system design	12.00	145.00	1,740.00
Engineer/Scientist/Specialist 6			
Giese, Thomas P. grit system design	16.00	180.00	2,880.00
Giese, Thomas P. additional drainage/storm design	6.00	180.00	1,080.00
Giese, Thomas P. lime stabilization system improvements design	12.00	180.00	2,160.00
Giese, Thomas P. 2W system design	3.00	180.00	540.00
Bogomolov, Vladimir A. - 9/80 grit system design	12.00	180.00	2,160.00
Bogomolov, Vladimir A. - 9/80 lime stabilization system improvements design	12.00	180.00	2,160.00
Bogomolov, Vladimir A. - 9/80 2W system design	4.00	180.00	720.00
Total: Engineer/Scientist/Specialist 6	65.00		11,700.00
Total : Labor			24,880.00
Total Task : 03 -- Other Out of Scope			24,880.00
Total Phase : 4*25 -- Additional Design Services			26,230.00

Total This Invoice

323,228.81

Chris Kelsey
 Kennedy/Jenks Consultants
 711 Third Avenue, Suite #790
 Seattle, WA 98104

April 29, 2008
 Invoice No: 80384
 Project Manager: Karmen Martin

Project D207323.00 Arlington Wastewater Treatment Plant Expansion
 K/J#0597002*02
Professional Services from July 30, 2007 to April 25, 2008

Task 0000001 Shoreline Permit Application		Hours	Rate	Amount
Professional Personnel				
Project Manager				
Martin, Karmen		9.00	33.41	300.69
Project Administrator				
Clark, Ara		.50	22.12	11.06
	Totals	9.50		311.75
	Total Labor			311.75
Additional Items				
	195.80% Overhead			610.41
	24% Fee			74.82
				685.23
			Total this Task	\$996.98

Task 0000002 HPA JARPA Application		Hours	Rate	Amount
Professional Personnel				
Project Manager				
Martin, Karmen		20.00	33.41	668.20
Senior Scientist				
Krueger, Steven		1.00	35.10	35.10
Staff Scientist				
Nelson, Benjamin		8.00	19.81	158.48
Graphics/GIS Specialist				
Sullivan, Brooke		.75	21.97	16.48
	Totals	29.75		878.26
	Total Labor			878.26

ESA Adolfson

Project D207323.00

Arlington Wastewater Treatment Plant Expansion

Invoice 80384

Additional Items

195.80% Overhead		1,719.63	
24% Fee		210.78	
		1,930.41	1,930.41

In-House Reimbursable Billing

Vehicle per mile			
Seattle Blue Car	123.0 Miles @ 0.485	59.66	
Total In-House Reimbursables		59.66	59.66

Total this Task \$2,868.33

TOTAL INVOICE AMOUNT: \$3,865.31

	Current	Prior	Total
Billings to Date	3,865.31	0.00	3,865.31

Remit to:

ESA
P.O. Box 92170
Elk Grove, IL 60009

TIN #: 94-1698350

RECEIVING REPORT	
REC'D/APPROVED BY <u>Chris Kelsey</u>	DATE <u>5/16/08</u>
PROJECT # <u>0597867*02</u>	PHASE <u>4*19</u>
TASK <u>01</u>	ORG <u>1097</u> BILLABLE: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
NEW VENDOR: Y/N IF YES, TAX I.D. # _____	
<input type="checkbox"/> CORP	<input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> INDIV / SOLE PROP <input type="checkbox"/> NP / GA
ACCOUNT # _____	ACCOUNTING APPROVAL _____

PAYMENT TERMS

Pay after K/J paid

_____ Days

RECEIVED
MAY 14 2008
K/J Federal Way

Project Name: City of Arlington WWTP Expansion and Upgrade
KJ Project Manager: Chris Kelsey
City Project Manager: James Kelly
Report Type: Invoice Budget Summary Report
Period Start Date: 5/3/2008
Period End Date: 6/27/2008

Task	Description	Original Budget	Budget Adjustment	Revised Budget	Previous Billing	Current Billing	Balance
	Other Direct Costs	\$ 23,870.00	\$ (900.00)	\$ 22,970.00	\$ 6,990.70	\$ 228.22	\$ 15,751.08
4.14	Project Management, Coordination, QA/QC	\$ 170,230.00	\$ (12,000.00)	\$ 158,230.00	\$ 109,356.50	\$ 17,622.50	\$ 31,251.00
4.15	Membrane Equipment Selection	\$ 42,380.00	\$ 56,397.50	\$ 98,777.50	\$ 98,777.50	\$ -	\$ -
4.16	Treatment Process Modeling	\$ 23,650.00	\$ -	\$ 23,650.00	\$ 26,830.00	\$ -	\$ (3,180.00)
4.17	Schematic Design	\$ 81,760.00	\$ -	\$ 81,760.00	\$ 83,006.25	\$ -	\$ (1,246.25)
4.18	Site Investigation	\$ 50,640.00	\$ -	\$ 50,640.00	\$ 47,997.58	\$ -	\$ 2,642.42
4.19	Permitting and Funding Assistance	\$ 41,000.00	\$ 29,912.00	\$ 70,912.00	\$ 4,305.00	\$ 7,761.84	\$ 58,845.16
4.20	Public Education and Outreach	\$ 3,600.00	\$ -	\$ 3,600.00	\$ 1,110.00	\$ -	\$ 2,490.00
4.21	Project Meetings	\$ 55,810.00	\$ (1,800.00)	\$ 54,010.00	\$ 41,026.25	\$ 9,505.00	\$ 3,478.75
4.22	Final Design Documents	\$ 76,554.00	\$ (7,000.00)	\$ 69,554.00	\$ 36,811.25	\$ 36,881.25	\$ (4,138.50)
4.22A	WWTP Design Drawings	\$ 913,269.00	\$ -	\$ 913,269.00	\$ 430,330.00	\$ 216,945.00	\$ 265,994.00
4.22B	BCF Design Drawings	\$ 193,212.00	\$ (44,115.75)	\$ 149,096.25	\$ 149,096.25	\$ -	\$ -
4.23	Other Design Documents	\$ 34,590.00	\$ (7,900.00)	\$ 26,690.00	\$ 7,827.50	\$ 8,055.00	\$ 10,807.50
4.24	Bidding Services	\$ 17,260.00	\$ (4,800.00)	\$ 12,460.00	\$ 3,171.25	\$ -	\$ 9,288.75
4.25	Additional Design Services: (01) Engineering Report Letter Amendment \$990.00 (02) Const. Doc. Div. 0 & 1 Preparation \$360.00 (03) Other Out of Scope \$24,880.00	\$ -	\$ -	\$ -	\$ -	\$ 26,230.00	\$ (26,230.00)
	Total	\$ 1,727,825.00	\$ 7,793.75	\$ 1,735,618.75	\$ 1,046,636.03	\$ 323,228.81	\$ 365,753.91

Project Understanding

Amendment No. 5 expands the Scope of Services described in the Agreement dated 21 March 2005 to include professional services for additional design work elements required for completion of the Phase 1 Wastewater Treatment Plant (WWTP) Upgrade and Expansion contract documents, engineering support/construction management during Phase 1 construction, and post-construction services.

Scope of Services

The Scope of Services for Amendment No. 5 consists of the following work: 1) Additional Design Services that have been necessary for completion of the Phase 1 Arlington WWTP Upgrade and Expansion contract documents which were not previously defined under the Scope of Services for Amendment No. 4; and 2) Engineering Support/Construction Management Services for the Phase 1 construction period that is anticipated during 2009 and 2010, as well as post-construction services.

The engineering services to be performed during the construction period are in accordance with the current work sequence and preliminary construction schedule for Phase 1, attached with this Scope of Services. The estimated construction duration is approximately 25 months from Notice to Proceed through Project Closeout. Office support will be provided by the design team members during this period, including contract administration, as well as the processing and review of Requests for Information (RFIs), submittals/shop drawings, and preparation of Requests for Quotation, Clarifications, and Change Orders. Construction oversight includes the time for one construction inspector and one field engineer over a 22-month (95-week) duration. Post construction services to be provided include startup and commissioning, operational training and troubleshooting, and preparation of record documents and electronic Operations Manual.

Phase 4B – Final Design

Task 4.25 – Additional Design Services

- A) Amendment No. 4 originally included design task elements to provide the City of Arlington (City) with construction Contract Documents and bidding services for the upgrade and expansion of both the WWTP and Biosolids Composting Facility (BCF). Following completion of the 60% design level documents for the BCF, the City performed an internal evaluation of solids disposal alternatives and determined that it would pursue other disposal options, rather than expand the BCF. The City subsequently elected to stop further design work for the BCF expansion. During the design development for the WWTP upgrade and expansion, additional efforts were required for preparation of the MBR System Equipment Request for Proposal and the subsequent selection and pre-purchase process. Additional effort was required for K/J's permitting subconsultant to assist the City with completion of the State Environmental Review Process (SERP) and public review comment period. The balance of these efforts (approximately \$79,000 in BCF design savings against \$56,400 in MBR system procurement additional efforts and \$30,400 in additional permitting) has been itemized in communications to the City and resulted in an increase of approximately \$7,800 to the anticipated level of effort under Amendment No. 4.
- B) WWTP Engineering Report Letter Amendment: Kennedy/Jenks prepared and submitted a draft Letter Amendment to the June 2007 Engineering Report to Ecology. This letter addresses issues identified by Ecology staff and includes requested changes to the engineering report such that the document is approvable as a Facility Plan. The approved Facility Plan will allow the City to become fully eligible for critical funding programs administered by Ecology. Incorporation of Ecology review comments and finalization of the document for approval are anticipated.
- C) Preparation of Contract Document Divisions 0 and 1: Kennedy/Jenks has prepared and submitted a complete draft of Divisions 0 and 1 of the Phase 1 WWTP Upgrade and Expansion Project Manual to the City and to Ecology. Amendment No. 4 originally excluded these divisions at the request of the City. Kennedy/Jenks will incorporate City and Ecology review comments in the 100% design submittal.

- D) Lime stabilization system improvements: The Amendment No. 4 design contract originally assumed that the existing lime stabilization system would be reused without modification. As the design developed, expansion of the Solids Handling Building and associated dewatering equipment locations have necessitated major modifications to the existing system, including the addition of mixing, conveyance and injection facilities, as well as new control system equipment. These additional facilities have required the development of additional drawings and specifications.
- E) Grit system design modifications: The Amendment No. 4 design contract originally assumed that the existing grit system would be reused without modification. As the design developed, significant efforts have been expended identifying failing mechanical components associated with the existing system, discussing necessary modifications with the grit system manufacturer, and incorporating modifications that will upgrade the grit system to accommodate influent flows and loadings through Phase 2. Modifications will include a new top-mounted pumping system with drive and accessory equipment, new control equipment, and other mechanical appurtenances. These additional facilities have required the development of additional drawings and specifications.
- F) Extensive site drainage/storm design: Uncertainty associated with some existing storm drain collection system details and lack of as-built information has resulted in substantial effort by the City and Kennedy/Jenks to delineate the system, identify needed improvements, and perform some iterative design steps.
- G) Air gap requirement complicating the WWTP 2W system design: The recent Department of Health cross connection prevention requirement that necessitated design of an air gap for isolation of the 2W system from the City water supply was discovered at the 60% design level. Resulting unanticipated design efforts since that time have included the incorporation of holding tank, pumping, and hydropneumatic pressure tank and appurtenances. These additional facilities have required the development of additional drawings and specifications.

Phase 5 – Engineering Support/Construction Management

Task 5.01 – Construction Services

- A) Pre-construction conference: Kennedy/Jenks will conduct a pre-construction conference to include the City, field engineer, inspector, Project Manager, Design Engineer, cultural resources specialist, Contractor's project manager and superintendent, major subcontractors, major suppliers, and other parties, as appropriate. Kennedy/Jenks will prepare an agenda and meeting minutes. A 6-hour meeting is assumed, with four persons from Kennedy/Jenks attending.
- B) Conformed documents: Kennedy/Jenks will prepare conformed construction documents based on addenda and clarifications. Conformed documents will be prepared by hand marking the Issue for Bid Plans and Specifications. Ten sets of documents will be prepared, two for distribution to the City.
- C) Quality Assurance/Quality Control (QA/QC) Plan and Hazard Appraisal and Recognition Plan (HARP): Kennedy/Jenks will prepare a QA/QC Plan and a HARP for use by Kennedy/Jenks field personnel.
- D) Requests for information (RFIs), shop drawings, and submittals: Kennedy/Jenks will respond to Contractor's RFIs and will review and return shop drawings and submittals to the Contractor. The budget assumes a total of 200 submittals (including resubmittals) and 300 RFIs (including follow-up responses) for the Phase 1 WWTP Upgrade and Expansion construction project. It is assumed that the shop drawing re-submittal rate will be about 25% of the total number of shop drawings. Kennedy/Jenks will maintain logs of RFIs and shop drawings/submittals using appropriate numbering systems, such as the Contractor's submittal number and the specification section. Each log will track the number of days taken to review or respond to each shop drawing/submittal and RFI and the action that was taken.
- E) Requests for Quotation, clarifications, and change orders: Kennedy/Jenks will prepare Requests for Quotation (RFQs) when work outside the contract is deemed necessary and will issue clarifications if specific

items having no impact on the contracted work, schedule, or price need to be brought to the Contractor's attention. When changes in price, work, and/or schedule are agreed upon between the Contractor and City, Kennedy/Jenks will prepare change orders. Logs of RFQs, clarifications, and change orders will be maintained, including the number of days since action has been taken. The budget assumes a total of 15 change orders, 60 clarifications and 40 RFQs for the Phase 1 WWTP Upgrade and Expansion construction project.

- F) Contract administration: The Project Manager will assist the City to administer the construction contract providing technical support for City's decisions and the required administrative, technical, and information support. The Project Manager will also manage the subconsultants and coordinate their efforts on shop drawing review and scope of work changes, as appropriate. The Project Manager will provide input for RFIs, clarifications, RFQs, change orders and other construction documentation. The Project Manager will assist the field engineer in evaluating and responding to Contractor's requests for substitutions and change by determining the need and impact on schedule and cost.
- G) Construction oversight: Kennedy/Jenks will provide one full-time construction inspector and one full-time field engineer during construction of the WWTP improvements. The field engineer's time will be divided between the field and office. The field engineer and construction inspector will be responsible for the day-to-day observation of construction activities, including coordination of construction and construction support activities, verification that the work is completed in conformance with contract documents, and compliance with project schedules and budgets. The field engineer will verify compliance with contract terms through performance measurements, progress pay assessment, coordination, and progress meetings. The field engineer and construction inspector will monitor the Contractor's progress of work and compare the progress of work against the approved baseline schedule. This task will also include:

- Onsite observations of work performed by the Contractor.
- Prepare daily reports supplemented by photographs of the Contractor's actual progress. Daily reports will include a record of Contractor hours, personnel and equipment on the job site; weather conditions; data relative to questions of work directive changes, change orders, or changed conditions; list of job site visitors; daily activities; decisions; observations in general; and specific observations in more detail, as in the case of observing test procedures. Work performed by the Contractor on a cost accounting basis will be tracked to include the number of personnel by craft along with the equipment in use. The field engineer will also furnish to the City a weekly synopsis of the progress of the work.

Prepare a monthly summary including: original contract amount, total number of change orders, total dollar value of all change orders, current total contract cost, total progress payment requests to date, percent of contract complete on a dollar basis, total number of days of the contract, total number of days added by change order, current total number of days of contract, and percent of contract time elapsed. Each monthly report will also include a narrative covering the work completed during the previous month, the work expected to be completed during the following month, the status of all pending claims, and an evaluation of the Contractor's performance. In addition, the monthly report will also indicate the percentage completion for each activity as indicated on the Contractor's schedule, a comparison of the actual construction dates with scheduled completion dates, a discussion of the Contractor's plans to recover any schedule delays, and a discussion of why the schedule cannot be met if the Contractor cannot mitigate work currently behind schedule.

- Review the Contractor's baseline schedule and monthly updates for conformance to the Contract Documents. Report deviations from the submitted schedules to the City.
- Reporting work that is unsatisfactory, faulty or defective or that does not conform to the Contract Documents, or that has been damaged, or does not meet the requirements of observations, tests or approvals required.

City of Arlington and Kennedy/Jenks Consultants, Inc.

Agreement

Exhibit 1G – DRAFT Amendment No. 5: Scope of Services and Schedule

- Instructing the Contractor to correct or replace, or uncover for observation or testing, work that does not meet the requirements of the Contract Documents.
- Checking that tests, equipment and system startups are scheduled and conducted in the presence of appropriate personnel and that the Contractor maintains appropriate records thereof, and observe, record and report appropriate details relative to the test procedures and startups.
- Monitoring collection of soil samples, casting of concrete cylinders, observation of in situ soil testing, other materials sample collection (as required) and reviewing testing results.
- Monitoring the survey of structure corner locations prior to major concrete pours.
- Consult with the City and WWTP staff in advance of scheduled major tests, observations or start of important phases of the work, or interruption of services.
- Report to the City upon the observation or notification of the occurrence of any job site accident.
- Provide a monthly observation by a Certified Erosion and Sediment Control Lead (CESCL) from Kennedy/Jenks to review the Contractor's adherence to the Stormwater Pollution Prevention Plan (SWPPP). Witness of substandard practices by the Contractor will be documented and reported to the City.
- Providing photographic documentation of existing conditions and construction progress. Photographs taken will have the date, description, and number recorded. Daily reports will record the numbers of any photos taken. Digital photographs will be copied onto appropriate media and one copy given to the City at the completion of construction.
- During the course of the work, verifying that certificates, operation and maintenance (O&M) manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed and are in accordance with the Contract Documents.
- Maintaining files at the job site for correspondence and field memoranda; reports of job conferences and meetings; shop drawings and samples; reproductions of original Contract Documents including work directive changes, addenda, change orders, field orders, additional drawings issued subsequent to the execution of the Contract, clarifications, and interpretations of the Contract Documents; progress reports; daily reports; and other project related documents. Upon completion of the project, these records will be turned over to the City.

A summary of the recommended level of day-to-day construction observation as included in this scope of work is shown in the following table. No allowances have been made for overtime or extended construction duration. The assumed construction period does not include post-construction services, which are included in a separate Task.

Personnel	Level of Involvement	Duration of Involvement
Field Engineer	20 hrs per week (field portion)	95 weeks
Construction Inspector	40 hrs per week	103 weeks
Geotechnical Engineer	10 visits for major facility excavations	25 months

City of Arlington and Kennedy/Jenks Consultants, Inc.

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Exhibit 1G – DRAFT Amendment No. 5: Scope of Services and Schedule

H) Progress Meetings: Kennedy/Jenks will conduct weekly progress meetings. At a minimum, the Contractor, his subcontractors (as applicable), field engineer, construction inspector, and the City's project manager are anticipated to participate in the progress meetings. The Design Engineer will attend as necessary. These meetings will provide a forum to review construction progress, methods, and other project-related issues with the City and will provide a forum for the discussion and, if necessary, resolution of topics such as:

- Scheduling issues such as planned shutdowns and connections
- Progress of construction
- Construction difficulties
- Other issues affecting the performance of the Contractor and successful completion of the project

The field engineer will prepare a combination agenda and minutes of the previous meeting and distribute this document to participants prior to each meeting. The agenda will consist of at least the following items:

- Unfinished business
- New business
- Schedule
- Submittals
- Safety
- Environmental mitigation

The contractor will prepare an updated 4-week look ahead schedule prior to each progress meeting.

Items to be discussed will be numbered by date and item number. Items will not be removed from the agenda until they are fully resolved.

Time is also included in this task for site visits by the design disciplines at appropriate times to attend meetings and observe site conditions. The assumed level of effort for disciplines' site visits is 4 hrs every two weeks for a duration of 95 weeks.

I) Substantial and final completion: Kennedy/Jenks will review the work with the Contractor upon reaching substantial and final completion and prepare a punch list of items to be completed or corrected. We anticipate that these reviews will also include the City's project manager and WWTP staff.

J) Final project review and closeout report: Upon notification of final completion by the Contractor, Kennedy/Jenks will:

- Arrange for and assist with the testing of facility and equipment to assure compliance with the Contract Documents.
- Conduct a final review of the work with the Contractor, City's project manager and WWTP staff, to confirm that all items on the punch list have been completed or corrected and make recommendations to the City concerning acceptance.
- Prepare the final pay estimate and close out and deliver the project files, including all Contractor submitted shop drawings and submittals, to the City.
- Assist the City with preparation of a certificate of Final Completion, and other completion documentation required by the County and State agencies.
- Prepare closeout reports for the WWTP project that includes: a brief project description of what was constructed, a construction timeline summary by month, summary of consultants involved, summary of

project costs, discussion of contractor and subcontractors performance, recommendations for future work, and an accounting of project materials (shop drawings, correspondence, record drawings, etc.).

Task 5.02 – Post-Construction Services

- A) Startup and commissioning assistance: To the extent requested by the City and included in the budget, Kennedy/Jenks' personnel (including operations specialists as appropriate) will assist with startup and commissioning of plant upgrades. 160 hours of time is budgeted for time on site, with 32 hours of engineering support.
- B) Operations Manual: Kennedy/Jenks will produce an Operations Manual for the WWTP. An electronic manual is assumed. This task will consist of:
 - a) Hold a kickoff meeting with operations staff
 - b) Collect data needed for the manual
 - c) Produce a draft layout and linkage architecture
 - d) Prepare text, graphics, and photos for the manual
 - e) Prepare and submit a draft manual
 - f) Incorporate comments and produce a final manual
 - g) Provide project management/administration
- C) Operator training: Kennedy/Jenks will provide operator training for the updated Operations Manual. Two 16-hour training sessions with two Kennedy/Jenks operations specialists are assumed.
- D) Record drawings: Using information provided by the Field Engineer and Contractor, Kennedy/Jenks will update the design drawings to produce record drawings. One set of full-size reproducible drawings and 4 sets of 11" X 17" drawings will be provided to the City.
- E) Kennedy/Jenks' operations specialists and design engineers will be available to assist the City with optimization of the WWTP following startup. 80 hours of time is budgeted.
- F) Kennedy/Jenks will assist the City with completing the documentation and testing necessary to obtain the one-year certification for the upgraded and expanded WWTP. 60 hours of time is budgeted. Preparation of SRF/Centennial post construction report is not included.

Changes

Any change in scope of services and schedule from that defined in this Exhibit shall be undertaken only upon authorization from City.

Responsibilities

The following items establish responsibilities as they relate to the scope of work described above:

1. Kennedy/Jenks will review and take appropriate action on shop drawings, product data, samples, and other submittals required by the construction contract documents. Such review shall be only for conformance with the design concepts and general compliance with the construction contract documents. Kennedy/Jenks shall not include review of quantities, dimensions, weights or gauges, fabrication processes, construction methods, coordination with the work of other trades, or construction safety precautions, all of which are the sole responsibility of the construction contractor. Kennedy/Jenks's review will be conducted with the reasonable promptness consistent with sound professional practice. Review of a specific item shall not indicate acceptance of an assembly of which the item is a component. Kennedy/Jenks will not be required to review and will not be responsible for any deviations from the construction contract documents not clearly noted by the construction contractor, nor will Kennedy/Jenks be required to review

City of Arlington and Kennedy/Jenks Consultants, Inc.

Agreement

Exhibit 1G – DRAFT Amendment No. 5: Scope of Services and Schedule

partial submissions or those for which submissions for correlated items have not been received. Acceptance of construction contractor's designs of sheeting and shoring by Kennedy/Jenks on behalf of City will not include review or approval of designs.

2. Kennedy/Jenks will provide review of construction for the purposes of determining compliance with the technical and functional provisions of the construction contract documents only. This review service is not in any way an assumption on the part of City or Kennedy/Jenks of responsibility for methods or appliances used by the construction contractor; for the sufficiency of design or installation of scaffolding, sheeting, or shoring; for the safety of the job; or for compliance by the construction contractor with laws and regulations.
3. Kennedy/Jenks construction review or testing is for the purpose of determining compliance by contractors with the technical and functional provisions of the construction contract documents only. City agrees that Kennedy/Jenks will have no review or testing responsibilities at the project site except to the extent specifically provided for in the agreed upon scope of services. Kennedy/Jenks shall not be held in any way to guarantee any contractor's work, nor to assume responsibility for means, methods or appliances used by any contractor nor to assume responsibility for a contractor's compliance with laws and regulations or for contractor's errors, omissions, or defective work.
4. City agrees that in accordance with generally accepted construction practices, the construction contractor will be required to assume sole and complete responsibility for jobsite conditions during the course of the project, including safety of all persons and property and that this responsibility shall be continuous and not be limited to normal working hours. City agrees to require in all construction contracts for the project, provisions that City and Kennedy/Jenks (and their officers, directors, employees and subconsultants) shall be defended and indemnified by the contractor and its subcontractors and named additional insureds on contractor's and subcontractors' insurance.
5. Any statements of estimated construction costs furnished by Kennedy/Jenks are based on professional opinions and judgment, and Kennedy/Jenks will not be responsible for fluctuations in construction costs.
6. City may provide personnel to assist Kennedy/Jenks in construction review, will provide legal and insurance services, if necessary, and will process progress pay estimates and contract change orders.

Assumptions

In preparing the Scope of Services for Amendment No. 5, it is assumed that:

1. City personnel will be available for onsite meetings.
2. The City will be responsible for coordination with the Contractor and the utilities for utility disconnects and connections, and is responsible for payment of all connection fees.
3. Responsibilities related to MBR assignment will be as defined in the MBR procurement contract.
4. Amendment No. 5 level of effort estimates are based on a 25-month construction period, with one full time construction inspector (40 hours per week) and one part-time field engineer (20 hours per week). The level and duration of effort required for construction period activities often varies depending on a number of factors (i.e., contractor cooperation, unexpected construction issues, weather related complications, cultural artifact discovery, etc.). Because this project is budgeted on a time and materials basis, it is possible that the level of effort expended could be less than or greater than budgeted. This is particularly true if the contractor does not complete construction on time. It is understood that augmentation or modification of the scope, budget, and schedule for any of the work proposed in this contract will require notification, discussion, and approval by both parties.
5. The City will handle reproduction costs for conformed documents, record drawings, etc.
6. The contractor will provide a field office for use by the construction inspector and field engineer. The scope of the field office will be specified in the Contract Documents.
7. The contractor will provide field survey services for construction staking and locations of structures.
8. The contractor will be responsible for preparing the Stormwater Pollution Prevention Plan (SWPPP).

City of Arlington and Kennedy/Jenks Consultants, Inc.

Agreement

Exhibit 1G – DRAFT Amendment No. 5: Scope of Services and Schedule

9. The contractor will be responsible for preparing the commissioning plan and conducting the commissioning, in accordance with the provisions specified in the Contract Documents.
10. Conformed documents will be prepared for internal use only and not for issue to the Contractor.
11. The Contractor will provide all equipment O&M manuals and commissioning worksheets as specified in the Contract Documents.
12. New isometric drawings or plans will not be provided for the O&M manual.
13. Engineering calculations will not be included in the O&M manual.

Deliverables

- Task 5.01 Shop drawing/submittal logs and review comments, RFI log and responses, RFQs, change orders, clarifications, photos, and other project records.
- Task 5.02 O&M manual and record drawings.

Exclusions: Additional Engineering Services (not included in current scope of services)

The following work is currently not included in this Scope of Services, but could be added if determined to be appropriate:

1. Meetings and site visits beyond the budgeted amount.
2. Review and processing of submittals, RFIs, change orders, RFQs, and clarifications beyond the budgeted amount.
3. Locating/potholing/mapping existing utilities.
4. Submittal of permit applications, including fees.
5. Environmental mitigation monitoring.
6. Construction scheduling.
7. Startup and commissioning assistance beyond the budgeted amount.
8. Field verification of constructed conditions for preparation of the Record Drawings.
9. Field and laboratory testing services such as testing of soil compaction, concrete slump, concrete compressive strength, concrete air entrainment, etc.
10. Special inspections as required during the construction period.
11. Processing and review of claims beyond the total effort budgeted for Subtask 5.01-E.
12. Expert witness and depositions.
13. Processing of prevailing wage certificates.
14. Preparation of SRF/Centennial post construction report.
15. PLC programming (*Kennedy/Jenks could provide this service, or it could be left to the Contractor*).

Schedule

We understand that the City wishes to proceed with the construction of the Phase 1 WWTP improvements as soon as possible. Kennedy/Jenks will proceed with engineering support and construction management services as soon as we receive authorization from the City. For estimating level of effort and project budgeting, a contract duration of 600 business days has been assumed and is included within the general contract terms.

PRELIMINARY DRAFT Budget Breakdown

<p align="center">CITY OF ARLINGTON WASTEWATER TREATMENT PLANT UPGRADE Amendment No. 5 Additional Design Services (Phase 4B) and Engineering Support/Construction Management and Post Construction Services (Phase 5)</p>							
Task No.	Task Description	Total	Total Labor	K/J Direct	Sub-contractor	Total	
		Hours	Costs	Costs	Costs	Cost	
4.25	<u>Additional Design Services</u>						
	A) Amendment No. 4 BCF, MBR and permitting scope modifications		\$ (22,600)		\$ 30,400	\$ 7,800	
	B) WWTP engineering report amendment letter	62	\$ 9,920			\$ 9,920	
	C) Contract documents Division 0 and 1 preparation	108	\$ 18,200			\$ 18,200	
	D) Lime stabilization system design improvements	106	\$ 15,060			\$ 15,060	
	E) Grit removal system design improvements	76	\$ 11,240			\$ 11,240	
	F) Additional site drainage/storm design	52	\$ 7,200			\$ 7,200	
	G) Air gap / 2W additional facility design	48	\$ 6,860			\$ 6,860	
	<i>Task 4.24 - Subtotal</i>	452	\$ 45,880	\$ -	\$ 30,400	\$ 76,280	
5.01	<u>Construction Services</u>						
	A) Pre-construction conference	64	\$ 10,720	\$ 200		\$ 10,920	
	B) Conformed Documents (Internal Use)	84	\$ 10,200	\$ 3,000		\$ 13,200	
	C) QA/QC Plan and HARP	68	\$ 11,200			\$ 11,200	
	D) RFIs, shop drawings, and submittals	1600	\$ 219,150	\$ 3,000		\$ 222,150	
	E) RFQs, clarifications, and change orders	660	\$ 97,350	\$ 250		\$ 97,600	
	F) Contract administration	568	\$ 97,670	\$ 500		\$ 98,170	
	G) Construction oversight	6020	\$ 811,100	\$ 40,000	\$ 7,200	\$ 858,300	
	H) Weekly progress and construction meetings	1392	\$ 217,520	\$ 2,000		\$ 219,520	
	I) Substantial and final completion inspections and punch lists	120	\$ 18,220	\$ 300		\$ 18,520	
	J) Final review and closeout report	108	\$ 16,320	\$ 300		\$ 16,620	
	<i>Task 4.25 - Subtotal</i>	10684	\$ 1,509,450	\$ 49,550	\$ 7,200	\$ 1,566,200	
5.02	<u>Post-Construction Services</u>						
	A) Startup and commissioning assistance	192	\$ 33,360	\$ 600		\$ 33,960	
	B) Operations manual	1032	\$ 147,240	\$ 6,000		\$ 153,240	
	C) Operator training	92	\$ 16,620	\$ 1,500		\$ 18,120	
	D) Record drawings	392	\$ 46,970	\$ 2,500		\$ 49,470	
	E) Optimization assistance	80	\$ 11,600			\$ 11,600	
	F) WWTP One-Year Certification	60	\$ 9,300			\$ 9,300	
	<i>Task 4.26 - Subtotal</i>	1848	\$ 265,090	\$ 10,600	\$ -	\$ 275,690	
Add'l Design, Construction, Post-Construction Subtotal (Tasks 4.25 - 5.02)		12984					
TOTAL ALL SERVICES (TASK 4.25 - 5.02)			12984	\$ 1,820,420	\$ 60,150	\$ 37,600	\$ 1,918,170
				5 % Escalation (Midpt Const)			\$ 95,909
				10 % K/J Markup:	\$ 6,015	\$ 3,760	\$ 9,775
				GRAND TOTAL			\$ 2,023,854
				CITY MANAGEMENT RESERVE			TBD

ID	Task Name	Duration	Start	Finish	4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter	
					Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	Bidding / Contracting	114 days	Tue 10/14/08	Fri 3/20/09																													
2	Advertise	30 days	Tue 10/14/08	Mon 11/24/08																													
3	Bid	10 days	Tue 11/25/08	Mon 12/8/08																													
4	Award Contract	20 days	Tue 12/9/08	Mon 1/5/09																													
5	Notice to Proceed	1 day	Tue 1/6/09	Tue 1/6/09																													
6	Initial Submittals	20 days	Wed 1/7/09	Tue 2/3/09																													
7	Review Initial Submittals	23 days	Wed 2/4/09	Fri 3/6/09																													
8	Mobilization	10 days	Mon 3/9/09	Fri 3/20/09																													
9	Site Work	325 days	Mon 3/23/09	Fri 6/18/10																													
10	Relocation of Yard Piping	10 days	Mon 3/23/09	Fri 4/3/09																													
11	36" RAS Piping from MBR Tank to Aeration Basin	10 days	Mon 6/8/09	Fri 6/19/09																													
12	48" ML Piping from Aeration Basin to MBR Tank	10 days	Mon 6/8/09	Fri 6/19/09																													
13	WAS piping from new 36" RAS to Existing SBR Support Building	10 days	Mon 6/22/09	Fri 7/3/09																													
14	Chem Piping from MBR Support Bldg to Ex Support Bldg	10 days	Mon 3/23/09	Fri 4/3/09																													
15	24" PER from MBR Support Bldg to Ex Support Bldg	10 days	Mon 8/17/09	Fri 8/28/09																													
16	4"/6" DS Digester to Solids Handling Bldg	10 days	Mon 6/7/10	Fri 6/18/10																													
17	10" AA to Digesters	10 days	Mon 6/7/10	Fri 6/18/10																													
18	30" FA to Biofilters	10 days	Mon 6/7/10	Fri 6/18/10																													
19	Demo Ex Chlorination Bldg	5 days	Mon 12/21/09	Fri 12/25/09																													
20	Electrical Site Work	60 days	Mon 3/23/09	Fri 6/12/09																													
21	Relocation of Yard Electrical	10 days	Mon 3/23/09	Fri 4/3/09																													
22	Electrical Service Modifications	30 days	Mon 4/6/09	Fri 5/15/09																													
23	Electrical Feed to MCC-1	20 days	Mon 5/18/09	Fri 6/12/09																													
24	Electrical Feed to MCC-2	20 days	Mon 5/18/09	Fri 6/12/09																													
25	Electrical Feed to MCC-3	20 days	Mon 5/18/09	Fri 6/12/09																													
26	Headworks	74 days?	Mon 3/23/09	Thu 7/2/09																													
27	Isolate existing channel	1 day?	Mon 3/23/09	Mon 3/23/09																													
28	Construct new channel for Fine Screen 3	30 days	Tue 3/24/09	Mon 5/4/09																													
29	Install Fine Screen 3	5 days	Tue 5/5/09	Mon 5/11/09																													
30	Construct new inlet Piping and install new Trash Rack	5 days	Tue 5/12/09	Mon 5/18/09																													
31	Construct temp bulkheads and tie ins	10 days	Tue 5/19/09	Mon 6/1/09																													
32	Startup Fine Screen 3	3 days	Tue 6/2/09	Thu 6/4/09																													
33	Demo existing screens	5 days	Fri 6/5/09	Thu 6/11/09																													
34	Construct channels for Fine Screen 1 & 2	10 days	Fri 6/12/09	Thu 6/25/09																													
35	Install Fine Screen 1 & 2	5 days	Fri 6/26/09	Thu 7/2/09																													
36	Replace grit removal system	5 days	Fri 6/5/09	Thu 6/11/09																													
37	MBR Tanks	175 days	Mon 3/23/09	Fri 11/20/09																													
38	Excavate/ Compact for MBR Tanks	15 days	Mon 3/23/09	Fri 4/10/09																													
39	Foundation for MBR Tanks	40 days	Mon 4/13/09	Fri 6/5/09																													
40	Walls for MBR Tanks	40 days	Mon 5/11/09	Fri 7/3/09																													
41	Backfill MBR Tanks	5 days	Mon 7/6/09	Fri 7/10/09																													
42	Cure MBR Tanks	20 days	Mon 7/13/09	Fri 8/7/09																													
43	MBR Tank Crane	10 days	Mon 8/10/09	Fri 8/21/09																													
44	Install Mechanical Equipment in MBR Tanks	40 days	Mon 8/24/09	Fri 10/16/09																													

Project: Const schedule1.mpp
Date: Fri 7/18/08

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

