

This is **EXHIBIT K**, consisting of 7 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated July 5, 2012.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT**  
**Amendment No. 3**

1. *Background Data:*

- a. Effective Date of Owner-Engineer Agreement: July 5, 2012
- b. Owner: City of Bisbee
- c. Engineer: Pacific Advanced Civil Engineering, Inc. (PACE)
- d. Project: San Jose WWTP USDA-RD Preliminary Engineering Report (PER) and Environmental Report (ER) Professional Design Services

2. *Description of Modifications:*

- a. Engineer shall perform or furnish the following Additional Services:
- b. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:
  - 1. Additional scope to complete a two-phase ADEQ Clean Closure Application Process to include the following scope. Clean closure is required for three lagoons (North, South & Effluent) and the existing biosolids storage area. The need for two phases is because there is material existing on a portion of the northern lagoon and will need to be removed prior to the clean closure process, however, Phase I will begin immediately.

Phase 1: Includes complete closure plan and the application for ADEQ. It will include the sampling and initial testing of the following areas: background, biosolids storage area, effluent lagoon, and south lagoon. The samples will be tested for the thirteen priority pollutants and nitrogen in various forms. The results will be statically compared to the 95% obtained from the background samples and results will be submitted to ADEQ for review and approval. A labor breakdown of this additional scope is included with this amendment.

Phase 2: Includes the sampling and initial testing of the North Lagoon. The samples will be tested for the thirteen priority pollutants and nitrogen in various forms. The results will be statically compared to the 95% obtained from the background samples of Phase I. The results will be submitted to ADEQ for review and approval.

A Clean Closure Application must be filed with ADEQ in order to properly close out the lagoons. The application form for the clean closure can be found at: <http://www.azdeq.gov/enviro/water/permits/download/clean.pdf>. PACE will assist Bisbee with the clean closure application which will include:

- Gathering existing permits, maps, facility design plans, and other relevant documents
  - Initial site assessment
  - Identifying Points of Compliance (POC) if required
  - Attaining clean closure certification for clean closure
- 1) Attend ADEQ pre-application meeting with Bisbee
  - 2) Prepare Closure Plan
  - 3) Prepare Closure Application (The application fee for the ADEQ Clean closure proposal is \$2,000 and is included in the expenses of this proposal.
  - 4) Respond to ADEQ Comments and Revise Application (if necessary)
  - 5) Prepare grading plans for the re-grading of the basins after clean closure is obtained.
- a) Clean Closure Phase I (Boring, Sampling & Testing) for South Lagoon, Effluent Lagoon, Biosolids Storage Area and Background
- 1) Coordinate the geotechnical test borings. Approximately 10 borings will be required.

For the following borings, samples will be taken from 1' depth and 4' depth:

- Three (3) from the South Lagoon Borings
- One (1) from the Effluent Lagoon Borings
- Three (3) from the Biosolids Storage Area Borings

For the following borings, samples will be taken from 1', 4', and approximately 16' and 19' depths (these depths will depend on the actual depth of the bottom of the lagoons:

- Three (3) Background Borings
- 2) Coordinate with the lab for testing of samples. PACE will be adding the cost for this task as an allowance. This task includes budget for 14 sample tests at \$400/sample:
- Three (3) from the South Lagoon
  - One (1) from the Effluent Lagoon
  - Three (3) from the Biosolids Storage Area
  - One (1) duplicate testing of the Biosolids Storage Area Sample (ADEQ requires this "QAQC" test
  - Six (6) from the Background (both the 1' & 4' samples)

Initially, testing is only required for the 1' samples within the clean closure area and 1' and 4' samples from the background. If there is an issue with any of the test results, then the requirement will be to test the deeper sample. A "Hot Spot" budget for this possibility is included in this proposal. The samples will be tested for the following constituents:

- Antimony
- Arsenic
- Beryllium
- Cadmium
- Chromium
- Copper
- Lead
- Mercury
- Nickel
- Selenium
- Silver
- Thallium
- Zinc
- Nitrogen (Nitrites, Nitrates, Total, Total Kjeldahl Nitrogen (TKN))

- 3) Prepare and Submit Testing Results Memo to ADEQ

- 4) Respond to ADEQ Comments on Results Memo & Revise Memo if necessary.
  - 5) Hot Spot Testing & Determination. This has been added as an allowance. If at any point a test comes back over the ADEQ limits, ADEQ will require mitigation and additional hot spot testing to determine the extent of any ground contamination.
- b) Clean Closure Phase II (Boring, Sampling & Testing) for North Lagoon
- 1) Coordinate the geotechnical test borings. Approximately 2 borings will be required.

For the following borings, samples will be taken from 1' depth and 4' depth:

- Two (2) from the North Lagoon
- 2) Coordinate with the lab for testing of samples. PACE will be adding the cost for this task as an allowance. This task includes budget for 2 sample tests at \$400/sample. Initially, testing is only required for the 1' samples within the clean closure area. If there is an issue with any of the test results, then the requirement will be to test the deeper sample. A "Hot Spot" budget for this possibility is included in this proposal. The samples will be tested for the following constituents:
    - Antimony
    - Arsenic
    - Beryllium
    - Cadmium
    - Chromium
    - Copper
    - Lead
    - Mercury
    - Nickel
    - Selenium
    - Silver
    - Thallium
    - Zinc
    - Nitrogen (Nitrites, Nitrates, Total, Total Kjeldahl Nitrogen (TKN))

- 3) Prepare and Submit Testing Results Memo to ADEQ
  - 4) Respond to ADEQ Comments on Results Memo & Revise Memo if necessary.
2. Additional scope to complete a feasibility study of the use of the North lagoon as a wet weather emergency storage basin. Currently, during heavier rains, there is an abundance of infiltration to the WWTP that brings the plant flows to approx. 1.8 MGD which is 600,000 gpd above the plant's capacity. This study would explore the use of the North Lagoon as an emergency storage basin for use during wet weather conditions. This task will include a final technical memo that will present findings and recommendations.
  3. Additional scope to complete the design of the conversion of the North Lagoon to a wet weather emergency storage basin (after its clean closure) if the feasibility study concludes this is an optimal solution and City approves this option. Potential design features would include an inlet structure to bring flows into the basin once the flows exceed plant capacity, an outlet structure to return the stored flows back to the plant for treatment. Depending on elevations of existing piping and basin, pumping may be required. These design features will be examined in the feasibility study mentioned above.
- c. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:
    1. Additional scope for ADEQ Clean Closure Phase I & Phase II and the Wet Weather Emergency Storage Basin Feasibility Study and Design is added in the amount of \$102,513.00.
3. Agreement Summary (Reference only)
 

a. Original Agreement amount:	\$89,437.00	PER/ER/Biosolids
b. Net change for prior amendments:	(\$14,523.90)	Environ Credit
c. This amendment amount:	\$102,513.00	ADEQ Clean Closure & Wet Weather Emergency Storage Basin
d. Adjusted Agreement amount:	\$177,426.10	

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is December 10, 2013.

OWNER:

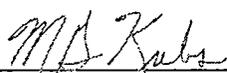
  
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By: Adriana Z. Badal

Title: Mayor

Date Signed: January 7, 2014

ENGINEER:

  
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By: Michael G. Krebs, PE

Title: VP of Environmental Water

Date Signed: December 10, 2013



City of Bisbee  
San Jose WWTP Renovations

Amendment #3 ADEQ Clean Closure Phase I & II  
and Wet Weather Emergency Storage Basin

Labor Categories

Billing Rates											
MAJOR TASKS	LABOR SUB-TASK	ACTIVITY (Please Specify) PACE Billing Rates	Principal \$225.00	Sr. Proj. Mgr \$187.00	Sr. Project Engineer \$177.00	Proj. Engineer \$136.00	Design Engineer \$112.00	Sr CAD Designer \$117.00	CAD Designer \$91.00	Admin. Support \$70.00	Total Labor Hours/Cost
<b>16 ADEQ CLEAN CLOSURES</b>											
	16.1	ADEQ Pre-Application Meeting		3		3					\$969.00
	16.2	Prepare Closure Plan		8	16	8	16			16	\$8,328.00
	16.3	Prepare & Submit Closure Application		8	8	12	16			16	\$7,456.00
	16.4	Response to ADEQ Comments & Application Rev		4	4	4	8			8	\$3,456.00
	16.5	Phase I - Prepare & Submit Testing Results Memo to ADEQ		8	4	8	8			6	\$4,608.00
	16.6	Phase I - Respond to ADEQ Comments on Results Memo		4	4	4	4			4	\$2,728.00
	16.7	Phase I - Prepare Grading Plans for Basin Re-grade		2	8	32	32	16	24		\$13,782.00
		Total Phase Hours	0	37	44	71	84	16	24	50	326
		Total Phase Cost	\$0.00	\$6,919.00	\$7,788.00	\$9,656.00	\$9,408.00	\$1,872.00	\$2,184.00	\$3,500.00	\$41,327.00
<b>17 PHASE I BORING &amp; SAMPLING</b>											
	17.1	Geotechnical Test Borings (7)									\$3,871.00
	17.2	Sample Testing (8 at \$400/sample)									\$3,200.00
	17.3	Background Sampling - Geotechnical Test Borings (3)									\$1,659.00
	17.4	Background Sampling - Sample Testing (6 at \$400/sample)									\$2,400.00
	17.5	Hot Spot Testing - Additional Determination (if necessary)									\$7,500.00
		Total Phase Hours	0	0	0	0	0	0	0	0	0
		Total Phase Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18,630.00
<b>18 PHASE II BORING &amp; SAMPLING</b>											
	18.1	Phase II - Geotechnical Test Borings (2)									\$2,456.00
	18.2	Phase II - Sample Testing (2 at \$400/sample)									\$800.00
	18.3	Phase II - Prepare & Submit Testing Results Memo to ADEQ		4	4	4	8			4	\$3,176.00
	18.4	Phase II - Respond to ADEQ Comments on Results Memo		4	4	4	4			2	\$2,588.00
		Total Phase Hours	0	8	8	8	12	0	0	6	42
		Total Phase Cost	\$0.00	\$1,496.00	\$1,416.00	\$1,088.00	\$1,344.00	\$0.00	\$0.00	\$420.00	\$9,020.00
<b>19 FEASIBILITY STUDY - WET WEATHER EMERGENCY STORAGE BASIN</b>											
	19.1	Feasibility Study - Wet Weather Equalization Basin		8	16	10	8	8		4	\$7,800.00
		Total Phase Hours	0	8	16	10	8	8	0	4	54
		Total Phase Cost	\$0.00	\$1,496.00	\$2,832.00	\$1,360.00	\$896.00	\$936.00	\$0.00	\$280.00	\$7,800.00
<b>20 WET WEATHER EMERGENCY STORAGE BASIN DESIGN</b>											
	20.1	Wet Weather Equalization Basin Design		4	24	32	24	32	16		\$17,236.00
		Total Phase Hours	0	4	24	32	24	32	16	0	132
		Total Phase Cost	\$0.00	\$748.00	\$4,248.00	\$4,352.00	\$2,688.00	\$3,744.00	\$1,456.00	\$0.00	\$17,236.00
		<b>TOTAL LABOR HOURS</b>	0	57	92	121	128	56	40	60	554
		<b>TOTAL LABOR COST</b>	\$0	\$10,659	\$16,284	\$16,456	\$14,336	\$6,552	\$3,640	\$4,200	\$94,013

Estimated Expenses (Specify)

Travel (Mileage & Meals)	\$4,000
Reproduction - Draft & Final Reports	\$2,500
Clean Closure Application Fee	\$2,000
<b>Total Expenses</b>	<b>\$8,500</b>

Estimated Expenses (Billed at Cost +10%)	\$8,500
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<b>TOTAL PROJECT AMOUNT</b>	<b>\$102,513</b>
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Subconsultants Allowance Summary

Geotechnical Drilling	\$7,986
Lab Testing	\$6,400
Additional Hot Spot Drilling/Testing	\$7,500
<b>Total Subconsultants</b>	<b>\$21,886</b>