

Introduced by \_\_\_\_\_ Council Bill No. R 88-13

**A RESOLUTION**

authorizing an agreement for professional engineering services with Carollo Engineers, Inc. for a best professional judgment study to identify alternatives for the disposal of potable water treatment residuals at the McBaine Water Treatment Plant.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Manager is hereby authorized to execute an agreement for professional engineering services with Carollo Engineers, Inc. for a best professional judgment study to identify alternatives for the disposal of potable water treatment residuals at the McBaine Water Treatment Plant. The form and content of the agreement shall be substantially as set forth in "Exhibit A" attached hereto and made a part hereof as fully as if set forth herein verbatim.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor and Presiding Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor

**AGREEMENT**  
**For**  
**PROFESSIONAL ENGINEERING SERVICES**  
**Between**  
**THE CITY OF COLUMBIA, MISSOURI**  
**And**  
**Carollo Engineers, Inc.**  
**903 East 104<sup>th</sup> Street, Suite 320**  
**Kansas City, MO 64131**

THIS AGREEMENT made as of 6<sup>th</sup> day of March, 2013, by and between the City of Columbia, Missouri, hereinafter called the CITY, and Carollo Engineers, Inc., corporation organized in the State of Delaware, with authority to transact business within the State of Missouri, hereinafter called the ENGINEER.

WITNESSETH, that whereas the CITY intends to make improvements as described below, hereinafter called the PROJECT, consisting of the following:

***A Best Professional Judgment Study to assess the economic, environmental, and social impact of various residuals handling and disposal alternatives at the McBain Water Treatment Plant. The PROJECT, as is more fully described in Attachment A which is incorporated herein by reference, shall include, a Best Professional Judgment Study utilizing existing available reports and studies to analyze the economic, environmental, and social impact of various residuals discharge alternatives including direct discharge to the Missouri River, landfilling, clean fill, land disposal, and monofilling. ENGINEER shall provide assistance with the development of a permit application for an NPDES permit to construct permanent facilities for the direct discharge of McBain WTP residuals to the Missouri River.***

NOW THEREFORE, in consideration of the mutual covenants set out herein the parties agree as follows:

ENGINEER shall serve as CITY's professional engineering contractor in those assignments to which this Agreement applies, and shall give consultation and advice to CITY during the performance of the services. All services shall be performed under the direction of a professional engineer registered in the State of Missouri and qualified in the particular field.

## SECTION 1 - AUTHORIZATION OF SERVICES

1.1 ENGINEER shall not undertake to begin any of the services contemplated by this Agreement until directed in writing to do so by CITY. CITY may elect to authorize the PROJECT as a whole or in parts.

1.2 Authorized work may include services described hereafter as Basic Services or as additional services of ENGINEER.

## SECTION 2 - BASIC SERVICES OF ENGINEER

2.1 General

2.1.1 Perform professional engineering services as set forth in Attachment A, "Scope of Basic Services," dated January 3, 2013.

2.1.2 The ENGINEER will designate the following listed individual as its project manager with responsibilities as assigned. The ENGINEER shall dedicate whatever additional resources are necessary to accomplish the PROJECT within the specified time frame but will not remove this individual from the assigned tasks for any reason within the control of the ENGINEER without the written approval of the CITY.

<u>Name and Title</u>	<u>Assignment</u>
Thomas Crowley, PE	Project Manager

All of the services required hereunder will be performed by the ENGINEER or under its supervision and all personnel engaged in the work shall be fully qualified and authorized or permitted under state and local law to perform such services.

None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of the CITY and any work or services so subcontracted shall be subject to the provisions of this Agreement.

2.2 The ENGINEER shall furnish such periodic reports as the CITY may request pertaining to the work or services undertaken pursuant to this Agreement, the costs and obligations incurred or to be incurred, and any other matters covered by this Agreement.

2.3 The ENGINEER shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Agreement and any other records as deemed necessary by the CITY to assure proper accounting for all project funds. These records must be available to the CITY or

its authorized representatives, for audit purposes, and must be retained for three (3) years after expiration or completion of this Agreement.

### SECTION 3 - ADDITIONAL SERVICES OF ENGINEER

#### 3.1 General

If authorized in writing by CITY, and agreed to in writing by ENGINEER, ENGINEER shall furnish or obtain from others additional services of the following types which are not considered normal or customary basic services. The scope of additional services may include:

##### 3.1.1 Financial Consultation

Consult with CITY's fiscal agents and bond attorneys and provide such engineering data as required for any bond prospectus or other financing requirements

##### 3.1.2 Property Procurement Assistance

Provide consultation and assistance on property procurement as related to professional engineering services being performed.

##### 3.1.3 Obtaining Services of Others

Provide through subcontract the services or data set forth in Attachment A.

##### 3.1.4 Preliminary or final engineering design of capital facilities except as specifically identified herein.

##### 3.1.5 Preparation of reports, data, application, etc., in connection with modifications to FEMA floodplain definition and/or mapping.

##### 3.1.6 Extra Services

Services not specifically defined heretofore that may be authorized in writing by CITY.

### SECTION 4 - RESPONSIBILITIES OF CITY

#### 4.1 Provide full information as to CITY's requirements for the PROJECT.

4.2 Assist ENGINEER by placing at ENGINEER's disposal available information pertinent to the assignment including previous reports and other data relative thereto, including the items outlined in Attachment A, "Scope of Basic Services," dated January 3, 2013. ENGINEER shall be entitled to use and rely upon all such information in the performance of the services required under this Agreement.

4.3 Guarantee access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform his services under this Agreement.

4.4 Examine all studies, reports, sketches, estimates, bid documents, drawings, proposals and other documents presented by ENGINEER and render in writing decisions pertaining thereto.

4.5 Provide such professional legal, accounting, financial and insurance counseling services as may be required for the PROJECT.

4.6 Designate David Storvick, PE, as CITY's representative with respect to the services to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define CITY's policies and decisions with respect to materials, equipment, elements and systems to be used in the PROJECT, and other matters pertinent to the services covered by this Agreement.

4.7 Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any defect in the PROJECT.

4.8 Furnish approvals and permits from all governmental authorities having jurisdiction over the PROJECT and such approvals and consents from others as may be necessary for completion of the PROJECT.

4.9 Furnish ENGINEER data such as probings and subsurface explorations, with appropriate professional interpretations; property, boundary, easement, right-of-way, topographic and utility surveys; zoning and deed restriction; and other special data or consultations, all of which ENGINEER may rely upon in performing his services under this Agreement.

#### SECTION 5 - PERIOD OF SERVICE

5.1 This Agreement will become effective upon the first written notice by CITY authorizing services hereunder.

5.2 This Agreement shall be applicable to all work assignments authorized by CITY subsequent to the date of its execution and shall be effective as to all assignments authorized.

5.3 Services shall be started within 10 calendar days of Notice to Proceed and completed within the time period specified in Attachment A, "Scope of Basic Services," dated January 3, 2013. CITY shall have the right to establish performance times for individual phases or elements of the PROJECT by delivering a written schedule setting out the performance times to the ENGINEER.

## SECTION 6 - PAYMENTS TO ENGINEER

### 6.1 Amount of Payment

6.1.1 For services performed, CITY shall pay ENGINEER the sum of amounts determined as follows:

6.1.1.1 For time spent by personnel, payment at the hourly rates indicated in the "Schedule of Hourly Labor Billing Rates" (Attachment B). Such rates include overhead and profit. The schedule is effective to March 1, 2013, and may be revised thereafter.

6.1.1.2 For outside expenses incurred by ENGINEER, such as authorized travel and subsistence, commercial services, and incidental expenses, the cost to ENGINEER.

6.1.1.3 For reproduction, printing, long-distance telephone calls, company vehicle usage, testing apparatus, computer services and computer-assisted drafting (CAD), amounts will be charged according to the ENGINEER's standard rates in effect at the time service is provided.

6.1.1.4 For professional services rendered by others as subcontractor(s) to ENGINEER such as surveying, real property descriptions, soil borings, subsurface investigations, laboratory testing, field quality control tests, progress photos, or other activities required or requested by CITY, will be billed at the cost to ENGINEER.

6.1.1.5 For time spent by outside individual professional consultants employed by ENGINEER in providing services to CITY, the cost to ENGINEER. Expenses incurred by such outside consultants in service to CITY shall be reimbursable in accordance with 6.1.1.2 above.

6.1.2 Total payment for Scope of Services and all other expenses and costs to the City under this Agreement and described herein **shall not exceed \$99,750.00 (ninety-nine thousand seven hundred-fifty dollars)** as described in Attachment A, "Scope of Basic Services," dated January 3, 2013.

## 6.2 Payments

6.2.1 The ENGINEER shall submit an invoice for services rendered to the CITY not more than once every month. Upon receipt of the invoice and progress report, the CITY will, as soon as practical, pay the ENGINEER for the services rendered, provided the CITY does not contest the invoice, to the extent of ninety-five percent (95%) of the uncontested amount earned. Upon completion and acceptance of the final plans by the CITY, the five percent (5%) of these services retained by the CITY will be paid to the ENGINEER.

## SECTION 7 - GENERAL CONSIDERATIONS

### 7.1 Insurance

7.1.1 **ENGINEER'S INSURANCE:** ENGINEER agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this Agreement the following insurance coverages, limits, including endorsements described herein. The requirements contained herein, as well as CITY's review or acceptance of insurance maintained by ENGINEER is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by ENGINEER under this Agreement.

**Commercial General Liability** ENGINEER agrees to maintain Commercial General Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death. Coverage shall not contain any endorsement(s) excluding nor limiting Contractual Liability or Cross Liability. If the contract involves any underground/digging operations, the general liability certificate shall include X, C and U (Explosion, Collapse and Underground) coverage.

**Professional Liability** ENGINEER agrees to maintain Professional (Errors & Omissions) Liability at a limit of liability not less than **\$2,000,000** per claim and **\$2,000,000** aggregate. For policies written on a "claims-made" basis, ENGINEER agrees to maintain a retroactive date prior to or equal to the effective date of this Agreement. In the event the policy is canceled, non-renewed, switched to an occurrence form, retroactive date advanced, or any other event triggering the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of this Agreement, ENGINEER agrees to purchase a SERP with a minimum reporting period not less than two (2) years. The requirement to purchase a SERP shall not relieve ENGINEER of the obligation to provide replacement coverage.

**Business Automobile Liability** ENGINEER agrees to maintain Business Automobile Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence and not less than \$150,000 per individual, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the ENGINEER's own automobiles, and trucks; hired automobiles, and trucks; and automobiles both on and off the site of work. Coverage shall include liability for owned, non-owned & hired automobiles. In the event ENGINEER does not own automobiles, ENGINEER agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

**Workers' Compensation Insurance & Employers' Liability** ENGINEER agrees to take out and maintain during the life of this Agreement, Employers' Liability and Workers' Compensation Insurance for all of their employees employed at the site of the work, and in case any work is sublet, the ENGINEER shall require the subcontractor similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the ENGINEER. Workers' Compensation coverages shall meet Missouri statutory limits. Employers' Liability minimum limits shall be \$500,000 each employee, \$500,000 each accident and \$500,000 policy limit. In case any class of employees engaged in hazardous work under this Agreement is not protected under the Workers' Compensation Statute, the ENGINEER shall provide and shall cause each subcontractor to provide Employers' Liability Insurance for the protection of their employees not otherwise protected.

**Excess/Umbrella Liability** The above liability limits may be satisfied by any combination of primary and excess/umbrella liability policies.

**Additional Insured** ENGINEER agrees to endorse CITY as an Additional Insured with a CG 2026 Additional Insured – Designated Person or Organization endorsement, or similar endorsement, to the Commercial General Liability. The Additional Insured shall read "City of Columbia."

**Waiver of Subrogation** ENGINEER agrees by entering into this Agreement to a Waiver of Subrogation for each required policy herein except professional liability. When required by the insurer, or should a policy condition not permit ENGINEER to enter into a pre-loss agreement to waive subrogation without an endorsement, then ENGINEER agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should ENGINEER enter into such an agreement on a pre-loss basis.

**Certificate(s) of Insurance** ENGINEER agrees to provide CITY with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements required herein are



maintained and in full force and effect. Said Certificate(s) of Insurance shall include a minimum thirty (30) day endeavor to notify due to cancellation or non-renewal of coverage. The Certificate(s) of Insurance shall name the City as additional insured in an amount as required in this Agreement and contain a description of the project or work to be performed.

**Right to Revise or Reject** CITY reserves the right, but not the obligation, to review and revise any insurance requirement, not limited to limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work / specifications affecting the applicability of coverage. Additionally, the CITY reserves the right, but not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein or any insurer providing coverage due of its poor financial condition or failure to operating legally.

**7.1.2 HOLD HARMLESS AGREEMENT:** To the fullest extent not prohibited by law, ENGINEER shall indemnify and hold harmless the City of Columbia, its directors, officers, agents and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) arising by reason of any negligent act or failure to act, or willful misconduct, of ENGINEER, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with ENGINEER or a subcontractor for part of the services), of anyone directly or indirectly employed by ENGINEER or by any subcontractor, or of anyone for whose acts the ENGINEER or its subcontractor may be liable, in connection with providing these services except as provided in this Agreement. This provision does not, however, require ENGINEER to indemnify, hold harmless or defend the City of Columbia from its own negligence, except as set out herein.

**7.1.3 Professional Oversight Indemnification**

The ENGINEER understands and agrees that CITY has contracted with ENGINEER based upon ENGINEER's representations that ENGINEER is a skilled professional and fully able to provide the services set out in this Agreement. In addition to any other indemnification set out in this Agreement, ENGINEER agrees to defend, indemnify and hold and save harmless the CITY from any and all claims, settlements and judgments whatsoever arising out of the CITY's alleged negligence in hiring or failing to properly supervise the ENGINEER.

The insurance required by this Agreement shall include coverage which shall meet ENGINEER's obligations to indemnify the CITY as set out above and the CITY shall be named as co-insured for such insurance.

**7.2 Professional Responsibility**

7.2.1 ENGINEER will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted good professional engineering practices. If the ENGINEER fails to meet the foregoing standard, ENGINEER will perform at its own cost, and without reimbursement from CITY, the professional engineering services necessary to correct errors and omissions which are caused by ENGINEER's failure to comply with above standard, and which are reported to ENGINEER within one year from the completion of ENGINEER's services for the PROJECT.

7.2.2 In addition, ENGINEER will be responsible to CITY for damages caused by its negligent conduct during its activities at the PROJECT site or in the field.

### 7.3 Estimates and Projections

Estimates and projections prepared by ENGINEER relating to construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are based on ENGINEER's experience, qualifications and judgment as a design professional. Since ENGINEER has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, competitive bidding or market conditions and other factors affecting such estimates or projections, ENGINEER does not guarantee that actual rates, costs, performance, schedules, etc., will not vary from estimates and projections prepared by ENGINEER.

### 7.4 On-Site Services

PROJECT site visits by ENGINEER during construction shall not make ENGINEER responsible for construction means, methods, techniques, sequences or procedures; for construction safety precautions or programs; or for any construction contractor(s) failure to perform its work in accordance with the plans and specifications.

### 7.5 Changes

CITY shall have the right to make changes within the general scope of ENGINEER's services, with an appropriate change in compensation, upon execution of a mutually acceptable amendment or change order signed by an authorized representative of the CITY and the President or any Vice President of the ENGINEER.

### 7.6 Suspension of Services

Should CITY fail to fulfill its responsibilities as provided under Section 4 to the extent that ENGINEER is unduly hindered in his services or if CITY fails to make any payment to ENGINEER on account of its services and expenses within ninety (90)

days after receipt of ENGINEER's bill therefor, ENGINEER may, after giving seven (7) days written notice to CITY, suspend services under this Agreement until CITY has satisfied his obligations under this Agreement.

#### 7.7 Termination

Services may be terminated by the CITY at any time and for any reason, and by the ENGINEER in the event of substantial failure to perform in accordance with the terms hereof by the CITY through no fault of the ENGINEER, by ten (10) days notice. If so terminated, CITY shall pay ENGINEER all uncontested amounts due ENGINEER for all services properly rendered and expenses incurred to the date of receipt of notice of termination.

7.7.1 In the event of CITY's termination of the Agreement pursuant to the above section, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared under this Agreement, shall at the option of the CITY become its property.

Further, the ENGINEER shall not be relieved of any liability to the CITY for any damages sustained by the CITY by virtue of any breach of this Agreement by ENGINEER and the CITY may withhold any payments due the ENGINEER for the purpose of set-off until such time as the exact amount of damages to the CITY, if any, is determined.

#### 7.8 Publications

Recognizing the importance of professional development on the part of ENGINEER's employees and the importance of ENGINEER's public relations, ENGINEER may prepare publications, such as technical papers, articles for periodicals, and press releases, pertaining to ENGINEER's services for the PROJECT. Such publications will be provided to CITY in draft form for CITY's advance review. CITY will review such drafts promptly and will provide comments to ENGINEER. CITY may require deletion of proprietary data or confidential information from such publications but otherwise will not unreasonably withhold its approval. The cost of ENGINEER's activities pertaining to any such publication shall be paid entirely by ENGINEER.

#### 7.9 Nondiscrimination

During the performance of this Agreement, ENGINEER agrees to the following:

7.9.1. ENGINEER shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, handicap, or national origin.

ENGINEER shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, age, handicap, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. ENGINEER agrees to post notices in conspicuous places, available to employees and applicants for employment.

7.9.2 ENGINEER shall, in all solicitation or advertisements for employees placed by or on behalf of ENGINEER, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, handicap, or national origin.

7.9.3 ENGINEER shall comply with all provisions of State and Federal Laws governing the regulation of Equal Employment Opportunity including Title VI of the Civil Rights Act of 1964.

7.10 Successor and Assigns

CITY and ENGINEER each binds himself and his successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement; except as above, neither CITY nor ENGINEER shall assign, sublet or transfer his interest in the Agreement without the written consent of the other.

7.11 Rights and Benefits

ENGINEER's services will be performed solely for the benefit of the CITY and not for the benefit of any other persons or entities.

7.12 Compliance with Local Laws

ENGINEER shall comply with all applicable laws, ordinances and codes of the state and city.

7.13 Law; Submission to Jurisdiction Governing.

This Agreement shall be governed by, interpreted and enforced in accordance with the laws of the State of Missouri and/or the laws of the United States, as applicable. The venue for all litigation arising out of, or relating to this Agreement, shall be Boone County, Missouri or the United States Western District of Missouri. The parties hereto irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of Missouri and waive any defense of forum non conveniens

7.14 Employment of Unauthorized Aliens Prohibited

7.14.1 ENGINEER agrees to comply with Missouri State Statute section 285.530

in that they shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

7.14.2 As a condition for the award of this Agreement ENGINEER shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. ENGINEER shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

7.14.3 ENGINEER shall require each subcontractor to affirmatively state in its Agreement with ENGINEER that the subcontractor shall not knowingly employ, hire for employment or continue to employ an unauthorized alien to perform work within the state of Missouri. ENGINEER shall also require each subcontractor to provide ENGINEER with a sworn affidavit under the penalty of perjury attesting to the fact that the subcontractor's employees are lawfully present in the United States.

7.15 Entire Agreement

This Agreement represents the entire and integrated Agreement between ENGINEER and CITY relative to the Scope of Services herein. All previous or contemporaneous agreements, representations, promises and conditions relating to ENGINEER's services described herein are superseded.

**[SIGNATURES ON FOLLOWING PAGE]**

CITY OF COLUMBIA, MISSOURI

By: \_\_\_\_\_  
Mike Matthes, City Manager

ATTESTED BY:

\_\_\_\_\_  
Sheela Amin, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. 550-7120-881.49-90 and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor. *THIS IS TIED TO PROJECT NO. W20234.*

\_\_\_\_\_  
Director of Finance

ENGINEER

By: *Thomas O. Crowley*  
~~Thomas O. Crowley~~, P.E.  
Vice President

By: *Patrick McGee*  
*Brian Clow*  
~~Patrick McGee~~, PE  
Vice President

## **NOTICE TO VENDORS**

### **Section 285.525 – 285.550 RSMo Effective January 1, 2009**

Effective January 1, 2009 and pursuant to RSMo 285.530 (1), No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)]

An employer may enroll and participate in a federal work authorization program and shall verify the employment eligibility of every employee in the employer's hire whose employment commences after the employer enrolls in a federal work authorization program. The employer shall retain a copy of the dated verification report received from the federal government. Any business entity that participates in such program shall have an affirmative defense that such business entity has not violated subsection 1 of this section. [RSMO 285.530 (4)]

For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is an example of this type of program. Information regarding E-Verify is available at:  
[http://www.dhs.gov/xprevprot/programs/gc\\_1185221678150.shtm](http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm).

**CITY OF COLUMBIA, MISSOURI  
WORK AUTHORIZATION AFFIDAVIT  
PURSUANT TO 285.530 RSMo  
(FOR ALL BIDS IN EXCESS OF \$5,000.00)**

**Effective 1/1/2009**

County of Jackson )  
 ) ss.  
State of MO )

My name is Thomas O. Crowley. I am an authorized agent of \_\_\_\_\_  
Carello Engineers, Inc. (Bidder). This business is enrolled and participates in a federal  
work authorization program for all employees working in connection with services  
provided to the City of Columbia. This business does not knowingly employ any person  
who is an unauthorized alien in connection with the services being provided.

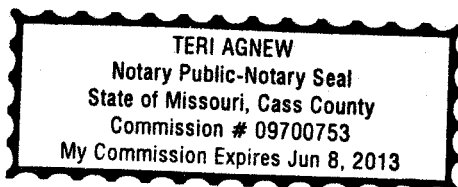
**Documentation of participation in a federal work authorization program is  
attached to this affidavit.**

Furthermore, all subcontractors working on this contract shall affirmatively state  
in writing in their contracts that they are not in violation of Section 285.530.1 RSMo and  
shall not thereafter be in violation. Alternatively, a subcontractor may submit a sworn  
affidavit under penalty of perjury that all employees are lawfully present in the United  
States.

Thomas O. Crowley  
Affiant

Thomas O. Crowley  
Printed Name

Subscribed and sworn to before me this 12th day of March, 2013.



Teri Agnew  
Notary Public



## **Attachment A**

### **Scope of Basic Services City of Columbia Water and Light Department Water Treatment Residuals Best Professional Judgment Study**

#### **EXECUTIVE SUMMARY**

The purpose of this work proposal is to provide a best professional judgment study of the potential residuals handling alternatives at the McBaine WTP to obtain approval for the discharge of water treatment plant residuals to the Missouri River under a new NPDES permit under the Clean Water Act. When there are no national effluent limitations, effluent limitation for direct discharge of residuals must be established on a "case-by-case" basis following a Best Professional Judgment (BPJ) evaluation prior to a preparation of a NPDES permit.

#### **DETAILED SCOPE:**

#### **TASK 1 - PROJECT MANAGEMENT/ PROJECT INCEPTION**

##### **1.1 Prepare Project Management Plan:**

ENGINEER will prepare project work plan. The work plan will include the project purpose and objectives, scope of work, an organization chart, project delivery schedule, and project flow chart.

##### **1.2 Prepare Project Status Reports:**

1.2.1. Project Schedule. ENGINEER will maintain a project schedule for the management of the report. Each task identified in the scope of work will be included in the project schedule. The project schedule will be updated monthly and delivered to City as part of the monthly progress payment request.

1.2.2. Maintain Action Item and Decision Logs. ENGINEER will create and maintain throughout the project an action item and decision log. These will be updated monthly and delivered to the status as part of the monthly status report.

1.2.3. Monthly Progress Reports: ENGINEER will provide the City with monthly progress reports that identify what work has been performed during the month and an itemized listing of work that will be anticipated in the upcoming month. These reports will be delivered as part of the monthly progress payment request.

##### **1.3 Agency Coordination:**

ENGINEER will be responsible for the coordination of the finding and recommendations of the BPJ study with the Missouri Department of Natural Resources, US Army Corps of Engineers (USACE) Kansas City District, and the EPA Region VII. ENGINEER will meet with the State, USACE and EPA personnel during the preparation of the BPJ study to gather and address comments prior to the preparation of the final document.

#### **1.4 Project Workshops:**

ENGINEER will conduct project management meetings and workshops to inform the City of the progress of the study.

WS-1 - BPJ Study Kickoff.

WS-2 - Mo DNR and EPA BPJ Study workshop.

WS-3- Workshop with Sustainability Director and other City designated stakeholders.

#### **1.5 Project Presentations:**

ENGINEER will develop and deliver presentation materials for the purpose of providing status report updates to Council, Board, and other agencies deemed appropriate by the City.

**TASK 1 DELIVERABLES:** Unless otherwise indicated, six (6) copies of each deliverable will be provided:

- Meeting Minutes from Workshops draft and Final Project Management Plan.
- Monthly Project Status Reports.
- PowerPoint Presentations to City Council and Water and Light Advisory Boards.

### **TASK 2 – BEST PROFESSIONAL JUDGMENT STUDY**

**2.1 Data Needs Memorandum:** ENGINEER will prepare memorandum to City staff detailing the data required to complete the study.

#### **2.2 Classify Nature of the Discharge:**

2.2.1. Columbia Water and Light will be responsible for conducting laboratory testing of the water treatment plant residuals from the solids contact clarifier for the parameters requested by the ENGINEER in the data needs memorandum.

2.2.2. ENGINEER will be responsible for conducting a mass balance analysis of the current source water to quantify the range of composition of the residuals discharged.

2.2.3. ENGINEER will be responsible for calculating residuals production on a peak day and annual average basis based for the next 20 years based upon the projected peak and annual average.

**2.3 Establish Potential Locations for Discharge Near the Missouri River:** Using GIS and LIDAR data, ENGINEER will create a base map of the land adjacent to the Missouri River near the McBaine Water Treatment plant.

Using the base map, ENGINEER will establish the most likely locations for the points of discharge to the Missouri River.

## **2.4 Characterize the Missouri River Near the Proposed Discharge**

### **Location:**

2.4.1. General Description of the Missouri River.

2.4.2. Summarize available data on the mid-Missouri river including daily flow records, water quality, sediment samples, USACE environmental impact statements, US fish and wildlife and USGS report on aquatic habitat and diversity, and previous national and regional studies on the impacts of softening water treatment plant residuals on the Missouri River.

2.4.3. Bank Stabilization and Channel Maintenance.

2.4.4. Average and Low Rates of the Missouri River.

2.4.5. Ambient Water Quality.

2.4.6. Bed Sediment Characteristics.

2.4.7. Biological Diversity.

## **2.5 Characterize Environmental Impacts of the Discharge:**

2.5.1. Quantify the mass of residuals discharge to the Missouri River.

2.5.2. Transport and Deposition – This will be a review based upon theoretical transport principles only and not based upon construction of a specific model for the anticipated discharge.

2.5.3. Impact on Biological community in the River: This will be limited to a literature review of the impact of channelization on the general population of the river. It will include site specific studies other plants currently discharging softening plant residuals to the River.

2.5.4. Potential Impact to Threatened and Endangered Species: Using existing data available from the USACE, US Fish and Wildlife, and other government agencies, ENGINEER will characterize the potential environmental impact of the discharge on threatened and endangered species. No site specific studies will be conducted. This will merely consist of a review of existing documents and characterization of the potential local impact on the Missouri river quality downstream of the discharge point.

## **2.6 Establish Residuals Disposal Alternatives:**

2.6.1. Residuals Projections: ENGINEER will project the residuals discharge production for the next 20 years based upon the projected peak and average day water demands.

2.6.2. Establish solids handling equipment criteria.

2.6.3. Define Candidate Residuals Disposal Alternatives. ENGINEER will establish capital, operation and maintenance costs and the present value of the following disposal alternatives:

2.6.3.1. Direct discharge to river under best management plans.

2.6.3.2. Mono fill disposal.

2.6.3.3. Clean fill disposal.

- 2.6.3.4. Landfill disposal.
- 2.6.3.5. Beneficial use:
  - a. Land application.
  - b. Mine reclamation.
  - c. Power plant emission control.
  - d. Recalcination.

## **2.7 Evaluation Residuals Disposal Alternatives:**

2.7.1. Develop Best Practicable Control Technology (BPCT). Each of the established alternatives will be compared based upon the following parameters to determine the BPCT for residuals disposal:

- 2.7.1.1. Total cost.
- 2.7.1.2. Age of the equipment and facilities.
- 2.7.1.3. Employed process.
- 2.7.1.4. Engineering aspect of the application of various types of control techniques.
- 2.7.1.5. Process changes.
- 2.7.1.6. Non-Water quality environmental impact (Energy efficiency and Carbon footprint)

2.7.2. Develop Best Control Technology. Each of the established alternatives and the parameters in task 2.7.1 will be compared based upon the following:

- 2.7.2.1. Reasonableness of the relationship between cost of attaining a reduction in the effluent and the effluent benefits derived.
- 2.7.2.2. Greenhouse gas emissions

## **2.8 Conclusions and Recommendations**

### **TASK 2 DELIVERABLES**

The ENGINEER will provide the OWNER with a BPJ study report for the McBaine WTP. This report will include the findings from this study and identify recommended modifications and their corresponding capital costs and life cycle costs.

The ENGINEER will assist City with the preparation of the transmittal letter for the BPJ study report and the permit application form for a permit to discharge under the State and Federal NPDES system. This assumes that no specific mixing studies, models, or bench top studies will be necessary in preparation of the permit application.

The ENGINEER will conduct a meeting with the Missouri Department of Natural Resources and EPA Region VII to present the findings of the BPJ study for the McBaine WTP.

### **Time of Completion -**

ENGINEER agrees to complete the Draft BPJ Study no later than 5 months following the Notice to Proceed.

ENGINEER agrees to complete the Final BPJ study within 14 calendar days following receipt of comments from CITY on the draft report.

### **Compensation**

The aggregate total compensation for all engineering services under this Contract shall not exceed a total fee of \$99,750 based upon the following task breakdowns:

	<b>Fee</b>	<b>Hours(est)</b>
Task 1 – Project Management/Project Inception:	\$5,000	25
Task 2 – Prepare BPJ Study:		
Subtask 2.1 Data Needs Memo	\$2,500	18
Subtask 2.2 Classify Nature of Discharge	\$6,500	35
Subtask 2.3 Establish Potential Locations	\$7,250	38
Subtask 2.4 Characterize Mo River	\$25,000	170
Subtask 2.5 Characterize Environmental	\$22,500	150
Subtask 2.6 Establish Residuals Disposal Alt	\$2,500	16
Subtask 2.7 Evaluate Residuals Disposal Alt	\$15,000	100
Subtask 2.8 Conclusions and Recommendations	\$3,500	18
Subtask 2.9 Draft and Final BPJ Report	\$10,000	60
Total	\$99,750	

**Attachment B**  
**Fee Schedule as of September 1, 2012**  
**Engineering Services**

**City of Columbia Water and Light Department**  
**Water Treatment Residuals Best Professional Judgment Study**

<b><u>Category</u></b>	<b><u>Hourly Rate</u></b>
<b><u>Engineers/Scientists</u></b>	
Engineer II	\$125.00
Engineer III	\$145.00
Engineer IV	\$160.00
Engineer V	\$175.00
Project Manager	\$230.00
Senior Professional/Technical Advisor	\$220.00
Quality Assurance/Quality Control	\$225.00
 <b><u>Technicians</u></b>	
Technician I	\$95.00
Technician II	\$120.00
Senior Technician	\$139.00
 <b><u>Support Staff</u></b>	
Word Processing	\$80.00
Clerical	\$90.00
 <b>Project Equipment and Communication Expenses</b>	
<b>(PECE) Charge Per Direct Labor Hour</b>	\$9.50
 <b>Other Direct Expenses</b>	
Travel and Subsistence	at Cost
Mileage Charge Per Mile	\$0.555
Subconsultant	Cost +10%
Other Direct Costs	at Cost
Expert Witness	Rate x 2.0

This fee schedule is revised in March and September of every year. Invoice for each month will be prepared based on the fee schedule in effect during the month.

TASK ORDER NO. 1

COLUMBIA WATER AND LIGHT

CITY

AND

**CAROLLO ENGINEERS, INC.**

This Task Order is issued by the CITY and accepted by ENGINEER pursuant to the mutual promises, covenants and conditions contained in the Agreement between the above named parties dated the \_\_\_\_\_ day of \_\_\_\_\_, 2013, in connection with:

Water Treatment Plant Residuals Best Professional Judgment Study

PURPOSE

The purpose of this Task Order is to authorize ENGINEER to proceed with the preparation of the Best Professional Judgment Study for the residuals at the McBaine WTP. The main goals of the BPJ Study are to:

- Determine the economic, environmental, and social benefits of discharge of residuals to the Missouri River.
- Develop a report summarizing this alternative in comparison with several other residuals handling and disposal alternatives.
- Coordinate with regulatory and permitting agencies to keep them informed of the progress and conclusions of the BPJ Study.
- Prepare and conduct presentations to CITY and stakeholders to inform of progress and conclusions of BPJ Study.
- Assist with the preparation of a cover letter and permit application of a residuals discharge permit.

ENGINEER'S SERVICES

See Attachment A – Scope of Services

TIME OF PERFORMANCE

See Attachment A – Scope of Services

PAYMENT

See Attachment B – Fee Schedule

EFFECTIVE DATE

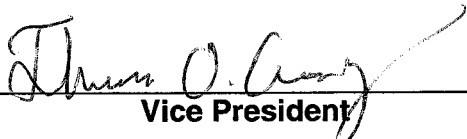
This Task Order No. \_\_\_\_ is effective as of the \_\_\_\_ day of \_\_\_\_\_, 2013.

IN WITNESS WHEREOF, duly authorized representatives of the CITY and of the ENGINEER have executed this Task Order No. 1 evidencing its issuance by CITY and acceptance by ENGINEER.

**CAROLLO ENGINEERS, INC.**

**CITY**

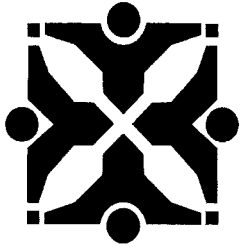
Accepted this \_\_\_\_ day of \_\_\_\_\_, 2013.

By: \_\_\_\_\_  
Vice President

By: \_\_\_\_\_  
Officer

By: \_\_\_\_\_  
Vice President





Source: Water & Light *Tal*

Agenda Item No:

To: **City Council**

From: **City Manager and Staff** *MM*

**Council Meeting Date:** May 6, 2013

**Re:** Engineering Services Agreement with Carollo Engineers for a Best Professional Judgement Study

**EXECUTIVE SUMMARY:**

Staff has prepared for Council consideration a resolution authorizing the City Manager to execute an agreement with Carollo Engineers, Inc. of Kansas City, Missouri in an amount not to exceed \$99,750.00 for professional engineering services required for the preparation of a Best Professional Judgment (BPJ) Study pertaining to various options for the disposal of potable water treatment residuals at the McBaine Water Treatment Plant. This study is a required first step in obtaining a National Pollutant Discharge Elimination System (NPDES) permit from the Environmental Protection Agency (EPA) to allow the discharge of potable water treatment residuals directly to the Missouri River.

**DISCUSSION:**

The purpose of this best professional judgment study is to identify alternatives for the disposal of the waste residuals from the water treatment processes at the McBaine Water Treatment Plant. This is a required first step in obtaining a new National Pollutant Discharge Elimination System (NPDES) permit from the Environmental Protection Agency (EPA) for the discharge of potable water treatment residuals directly to the Missouri River. The current Water Treatment Plant operating permit requires that the waste residuals generated from the lime softening and coagulation treatment process be land applied in an agriculturally beneficial manner. This operational condition requires the lime treatment residuals to be transported to northern and eastern Boone County where lime amendments to acidic soils are agriculturally beneficial.

Section 10 CSR 20-7 of the current state regulations allows for the solids removed from potable water withdrawn from wells located in the alluvial valleys of the Missouri and Mississippi River to be returned to the same body of water from which they were taken. The EPA has since suspended the issuance of new, or renewing existing, NPDES permits for the discharge of water treatment residuals to the Missouri or Mississippi River for plants operating within the river alluvium, however; several Missouri water utilities continue to discharge water treatment residuals to the waters of the state. Recently, the EPA has been reconsidering issuance of new NPDES permits for discharges to the Missouri River. A requirement for the EPA to consider the issuance of a new NPDES permit is that the petitioner must perform a Best Professional Judgment Study to show that the permit would allow the petitioner to operate in the most environmentally sound, economically feasible, and sustainable manner.

The current operational costs to the water utility under the present operating permit conditions for the transportation and land application of the water treatment residuals are in excess of \$500,000 annually. It is anticipated that construction of the facilities to allow for the direct discharge of the water treatment residuals to the Missouri River would cost approximately \$2,000,000. Therefore, the direct savings anticipated if this permit is approved, and construction of a discharge facility is completed, is in excess of \$500,000 annually after four years of operation.

The proposed scope of services, as defined within attachment "A" of the Engineering Services Agreement with Carollo Engineers shall include the following:

1. Determination of the economic, environmental, and social benefits of discharge of water treatment residuals to the Missouri River.

2. Develop a report summarizing the direct discharge of water treatment residuals to the Missouri River in comparison with several other potential lime residual handling and disposal alternatives.
3. Provide the environmental studies necessary to characterize the environmental impacts of the residual discharge to the Missouri River
4. Coordinate with various regulatory and permitting agencies to keep them informed of the progress and conclusions of the Best Professional Judgment Study.
5. Prepare and conduct presentations to the CITY and stakeholders to inform of progress and conclusions of Best Professional Judgment Study.
6. Assist with the preparation of the permit application for an NPDES permit for water treatment residuals discharge permit.

Carollo Engineers Inc. is pre-qualified to perform engineering services with the City of Columbia and has historically displayed their expertise in producing quality products and services for the Columbia Water and Light Department.

**FISCAL IMPACT:**

The Engineering Services Agreement with Carollo Engineers is not to exceed \$99,750.00 for the preparation of a Best Professional Judgment study. If this BPJ study is approved and a NPDES permit is issued by the EPA for water treatment residual discharges directly to the Missouri River, annual saving are expected to exceed \$500,000 after four years of initial operation. Funding for this project has already been appropriated in Capital Improvement Project Number WT0234 for the construction of lime residuals discharge pipe to the Missouri River.

**VISION IMPACT:**

**<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>**

In order to maintain a well-planned and reliable water utility, studies must occasionally be performed to address current and changing regulations. Studies can be used to aid in meeting these regulations and providing reliable water service in the future.

**SUGGESTED COUNCIL ACTIONS:**

**Staff requests council approve this resolution allowing the City Manager to execute an Engineering Services Agreement with Carollo Engineers Inc. for the preparation of the Best Professional Judgment Study.**

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$99,750.00	New Program/ Agency?	No	Federal or State mandated?	No
Amount of funds already appropriated	\$100,000.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	5.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	