City of Columbia

701 East Broadway, Columbia, Missouri 65201

Agenda Item Number: R 177-14
Department Source: Public Works
To: City Council
From: City Manager & Staff
Council Meeting Date: September 15, 2014
Re: Authorizing an Engineering Services Agreement with Engineering Surveys & Services for Flat Branch Watershed Relief Sewer Project No. 3 (Elm Street to Sixth Street)

Documents Included With This Agenda Item

Council memo, Resolution/Ordinance, Exhibits to Resolution/Ordinance
Supporting documentation includes: Map

Executive Summary

Authorizing the City Manager to execute an agreement with Engineering Surveys & Services of Columbia, Missouri in the amount of $368,500, to provide professional engineering services for the Flat Branch Watershed Relief Sewer Project No. 3 (Elm Street to Sixth Street). The consultant has been selected for this project in accordance with the City's professional consultant procurement guidelines.

Discussion

The scope of services for this engineering agreement involves providing the necessary professional surveying and civil engineering design services to develop bid-ready construction documents for the Flat Branch Watershed Relief Sewer Project No. 3. The project is anticipated to consist of approximately 3,540 linear feet of gravity sewer ranging in size from 18-inch to 12-inch in diameter. The work is located along Elm Street and Sixth Street, as shown on the attached diagram. The proposed project will provide increased sewer capacity for the downtown area and the upper portion of the Flat Branch Watershed.

The professional services shall include surveying, geotechnical engineering, public involvement, preliminary plans, utility coordination, environmental permitting, structural engineering, landscape design, easement preparation, final plans and as-built documentation.

Engineering Surveys & Services has been selected for this project in accordance with the City's professional consultant procurement guidelines based upon their understanding of the project requirements and their experience with similar projects. The total engineering contract not to exceed amount of $368,500.00 is within the usual and customary guidelines for this type of project.

Fiscal Impact

Short-Term Impact: The engineering contract is for a not-to-exceed amount of $368,500. To date, $1,677,180 has been appropriated to the Flat Branch Watershed Relief Sewer Project No. 3.
Long-Term Impact: The total project cost is estimated at $2,336,000.

City of Columbia

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Vision, Strategic & Comprehensive Plan Impact

Vision Impact: Environment, Downtown, Economic Development, Health
Strategic Plan Impact: Infrastructure
Comprehensive Plan Impact: Environmental Management, Infrastructure

Suggested Council Action

Authorize the City Manager to execute an agreement with Engineering Surveys & Services to provide professional engineering services for the Flat Branch Watershed Relief Sewer Project No. 3.

Legislative History

07/21/14 (Ord 22135) - Appropriate Funds for Flat Branch Watershed Relief Sewer Projects
06/16/14 (REP58-14) - Report on Downtown Sewer Funding Strategies

Department Approved

City Manager Approved

Introduced by _____ Council Bill No. _____R 177-14_____

A RESOLUTION

authorizing an agreement for professional engineering services with Engineering Surveys and Services for surveying and design of the Flat Branch Watershed Relief Sewer Project No. 3 (Elm Street and Sixth Street).

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 Engineering Surveys and Services for surveying and design of the Flat Branch Watershed Relief Sewer Project No. 3 (Elm Street and Sixth Street). The form and content of the agreement shall be substantially as set forth in "Exhibit A" attached hereto and made a part hereof.

ADOPTED this _____ day of _____, 2014.

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

Engineering Surveys and Services

THIS AGREEMENT made as of _____ day of _____, 20__, by and between the City of Columbia, Missouri, hereinafter called the CITY, and Engineering Surveys and Services/HDR hereinafter called the ENGINEER.

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

Flat Branch Watershed Relief Sewer Projects #3

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 Services," dated August 22, 2014 and Attachment B – "Request for Proposals and Engineering Services"

2.1.2 The ENGINEER will designate the following listed individuals as its project team 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 these individuals from the assigned tasks for any reason within the control of the ENGINEER without the written approval of the CITY.

Name and Title	Assignment
David Bennett, P.E. – VP Engineering	Principal in Charge/Quality Control
Ben Ross, P.E. – Assist. VP Engineering	Project Manager/Project 1 Task Manager
Aaron Bresette, P.E. – HDR Section Mgr.	Project 3 task 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 August 22, 2014, and Attachment B – "Request for Proposals and Engineering Services".

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 Steve Hunt, 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.

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 1,200 calendar days from the issuance of the Notice to Proceed. 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" (attached). Such rates include overhead and profit. The schedule is effective to January 1, 2015, 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 $368,500.**

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 contract 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 contract

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 contract. 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 contract, 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 contract, 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 contract 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 contract 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 an 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 contract 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 Contract 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 Contract Document, 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 contract 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 contract 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 No Waiver of Immunities

In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitutions or laws.

7.16 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:

_____
Nancy Thompson, City Counselor

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. C43257 555-6388-881.49-90, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor. C43257

_____
Director of Finance

ENGINEER

By: _____
Larry L. Hendren, P.E., R.G. / Principal

By: _____
Frederick E. Carroz III, PLS / V.P. Surveying

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.

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 Boone)
) ss.
State of Missouri)

My name is Larry L. Hendren. I am an authorized agent of Engineering Surveying Services (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.

Affiant

Larry L. Hendren
Printed Name

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

Joshua D. Lehmen
Notary Public

JOSHUA D. LEHMEN
Notary Public, Notary Seal
State of Missouri
Boone County
Commission # 11276028
My Commission Expires December 06, 2015

PROJECT #3 DESCRIPTION:
This project involves providing the necessary professional surveying and civil engineering design services to develop bid-ready construction documents for Projects #3 of the Flat Branch Watershed Relief Sewers for the City of Columbia, Missouri. The project is anticipated to consist of approximately 3,540 linear feet of gravity sanitary sewer ranging in size from 18-inch to 12-inch diameter. The work is located along Elm Street and 6th Street. The professional services shall include: surveying, geotechnical engineering, public involvement, preliminary plans, utility coordination, environmental permitting, structural engineering, landscape design, easement preparation, final plans and as-built document preparation. The professional services will be provided by a prime consultant, ***Engineering Surveys and Services*** (ES&S), and subconsultants including HDR Engineering, Inc. (HDR) and Environmental Research Center of Missouri (ERC). Funding for this project will be from the City of Columbia's Sanitary Sewer Utility funds.

TASK SUMMARY
The following is a summary of the tasks associated with the scope of services to be provided by the consultant team for this project.

A. Evaluate Alignment Options
B. Final Design
C. Permitting Assistance
D. Bid Phase Services
E. Construction Phase Services

DETAILED SCOPE
A) Evaluate Alignment Options

1) Project Kick-Off meeting. Engineer will attend a meeting with Public Works' Engineering and Operations staff prior to the start of preliminary design to review operational needs, design criteria, and approval requirements. Prior to or at the meeting the City will provide the engineer with available project data necessary to complete the design of the project. Information to be provided by the City shall include, but is not limited to:

   a) As-built drawings of existing sanitary sewers within the project limits.

   b) As-built drawings of other city projects within the project limits (water lines, storm sewer, street/sidewalk improvements) if available.

   c) DVD or flash drive of CCTV video of existing sanitary sewers within the project limits. Sanitary sewer inspection reports detailing sanitary lateral connection locations and pipe deficiencies shall be provided. Results of lateral investigations

(dye testing, smoke testing, lateral CCTV video or reports) determining active services shall be provided.

2) Evaluate possible alignment options for the proposed sewers using existing data including, but not limited to, the City's aerial topographic survey, utility maps, as-built record's, subdivision plats, roadway plans, etc. and field investigation. The evaluation will need to consider items such as:

a) alignment alternatives: including pull and replace, parallel to existing sewer, alternate alignments , or a combination of all three

b) construction methods, open cut versus trenchless

c) ease of construction, taking into consideration potential conflicts with existing utilities and disruption to properties,

d) existing in situ geotechnical conditions (e.g. bedrock, boulders, groundwater)

e) environmental impacts, such as tree removal, stream crossings, wetlands, etc.,

f) community disruptions to roadway and trail access

g) capital cost,

h) whether right-of-way is existing or must be acquired,

i) special permitting issues, such as construction in wetlands. Engineer will order an Environmental Data Resourses Inc. (EDR) report. The report will inclued a NEPA check, Sanborn Maps, and Radius Map highlighting high risk historical records.

3) Stakeholder Management

Schedule, conduct and prepare all displays and documents needed for targeted stakeholder outreach and open house type meeting with interested parties. Interested parties include property owners and utility providers and customers impacted by the projects; City of Columbia staff from appropriate departments; and all interested City Commissions, inclusive of, but not limited to, the Downtown Columbia Leadership Council, Environment and Energy Commission, the Planning and Zoning Commission, the Comprehensive Plan Task Force, Bicycle/Pedestrian Commission, Parks and Recreation Commission, and the Columbia Vision Commission, etc. Additionally, the project will have specific audiences to be involved, including:

PROJECT 3

Univ. of Missouri

Central Business District / Downtown
CID

Specific tasks proposed for this effort include:

a) Project 3: Selected members of the project team will attend the following meetings

   i) Combined Meeting with Stakeholder Representatives from University and Downtown Businesses: Engineer will prepare display materials, stakeholder input forms, etc.

   ii) Open House Interested Parties Meeting: Engineer will prepare materials to present preferred alternative package(s) for Open-Cut and Trenchless Installation

   iii) Public Hearing at City Council Meeting: Engineer will prepare presentation for City Council

b) Communications for Both Projects:

   i) Engineer will provide project graphic identity to be used on materials prepared for public communication and information-sharing.

   ii) Project Status Updates. Engineer will prepare up one project updates at milestone dates. Updates will be specific to the project being referenced (i.e., Project 3), and will be distributed to a stakeholder list maintained for that particular project.

   iii) Project Website: City will create and maintain any project-specific internet site. Engineer will provide information for upload to the site, including Project Status Updates, displays and information sheets presented at public meetings, etc.

4) Evaluate trenchless construction methods based upon:

a) Required connections with existing active sewers and building service laterals. Determination of active status will be by the City.
b) Geotechnical data.
c) ROW limits and data.
d) Site constraints and limitations that could impact construction and construction staging areas. This is a broad category that includes environmental factors such as threatened & endangered species, wetlands, environmentally sensitive areas, and areas of public, social, or usage impacts & concerns.
e) Site contamination data.
f) Existing pipe conditions.
g) Availability and costs of methods.

5) Prepare a report to summarize the alignment evaluation. The report is to include a concept plan showing the possible alignments, a summary of the evaluation, advantages and disadvantages of each alignment, the estimated cost for each alignment and a recommendation for the preferred alignment. A draft report is to be provided to Public Works staff for review and approval. Upon receipt of comments from Public Works, ES&S will finalize the report, prepare all needed displays and documents and present the report to the City Council as part of the project's Public Hearing.

B) Final Design

1) Conduct a project initiation meeting to review major design components; prepare meeting notes and distribute to all attendees.

2) Field Survey: Provide a boundary and topographical survey of the proposed sewer routes in accordance with the Request for Proposals requirements. The surveyor will obtain utility maps and coordinate with utility companies and the *Missouri One Call* field locate system to flag the locations of all existing utilities. The locations of the flagged utilities will then be surveyed and shown on the topographic survey. The survey is to be referenced to the State Plane Coordinate System with control points shown on the survey.

   a) Property Ownership Research, Boundary Survey: Research property ownership records and show property lines, existing and proposed right-of-way lines per the CATSO Major Roadway Plan and property ownership data on the survey.

   b) Geotechnical Investigation: Conduct a geotechnical investigation and prepare a geotechnical engineering report in accordance with the Request for Proposals requirements. Approximately 9 soil and rock borings will be drilled. Boring will be drilled at all bore pit locations and at appropriate intervals along the sewer route. The scope of the geotechnical investigation will include:

- Drill at least 6 auger sampling holes ranging from 10 to 20 feet deep
  - Measure relative strength of all soil materials encountered
  - Assess presence and consistency of cobles, boulders and any other obstructions encountered during drilling operations
  - Note groundwater presence and persistence during and following drilling operations
- Drill at least 3 auger and rock coring holes ranging from 10 to 20 feet deep
  - Holes will be cored a minimum of 5 feet into rock
  - Rock Quality Index and Mohs Relative Hardness will be determined by a geologist overseeing the drilling operations

Laboratory Investigation

- Classification, shear strength, grain-size, pH, resistivity, and chloride tests will be performed on sampled soil materials
- Unconfined compressive strength of rock cores will be measured

Engineering Evaluation

- Field and laboratory results will be evaluated for:
  - Types and quality of materials expected to be encountered during construction
  - Presence and quantification of groundwater

Geotechnical Report

- Summary of reconnaissance, subsurface/laboratory findings, and engineering evaluation
- Construction considerations
  - Any constructability challenges with regard to the subsurface materials that will be encountered during construction of the sewer line
  - Shoring and slope stability recommendations
  - Groundwater influence on construction activities

The soil borings will be staked by our survey crew and appropriate temporary traffic control plans will be submitted to the Columbia Public Works office for approval. This report shall be used to make engineering, design and construction recommendations.

3) Utility Coordination: Engineer will contact utility owners to collect available utility records. Individual meetings with the utility owners will be performed to gain an understanding of the age, condition, depth and size of the utilities along the project corridor and to compare the topographic survey with the utility records. A utility coordination meeting will be held to identify utilities to be potholed for precise location and to minimize conflicts with existing utilities. PDF copies of the preliminary plans will be provided to the utility companies as the projects progress.

4) Prepare construction documents, in accordance with the Request for Proposals requirements, based on the alignment and/or construction techniques approved by City Council at the Public Hearing.

   a) Submit 50-percent and 90-percent design documents to Public Works for review. Formal design reviews are to be conducted with Public Works at the 50-percent and 90-percent design stages.

   b) The proposed manholes shall be staked in the field for review by the City Staff and City Council members at the 50-percent plan stage.

   c) The Engineer's Opinion of Probable Construction Cost is to be provided at the 50-, 90- and 100-percent completion stage.

   d) Prepare final design bid packages for construction. Final design bid package is to include drawings, technical specifications and Public Works' adapted front-end bid documents.

   e) AutoCAD 2014 will be used for all contract drawings. Drawings will be on 24 x 36 inch sheets.

   f) Final plans are to include all supplemental plans required by applicable regulatory agencies to assure compliance with regulations. This is anticipated to include, but not limited to, items such as tree clearing plans, construction phasing, temporary traffic control plans for both the trail and public roadways, and storm water pollution prevention plans, and water quality improvement plans.

   g) Final plans will consider storm water drainage enhancement opportunities. It is anticipated that pervious pavement, landscaped bio-retention cells or urban rain

gardens will be considered in curb lanes on 6th Street or between the curb and sidewalk on Elm Street.

5) Easement Descriptions

   a) The surveyor will prepare legal descriptions and display drawings for all needed permanent, temporary construction, and temporary access easements and prepare easement display drawings and easement documents using the City's standard easement forms.

C) Permitting Assistance

Submit plans, specifications and permit applications to all applicable regulatory agencies and modify the plans and specification as required for permit approval. Applicable agencies include, but are not limited to, U.S. Department of the Interior (Rails to Trails program), U.S. Army Corps of Engineers, Missouri Department of Natural Resources, Missouri Department of Transportation, U.S. Fish and Wildlife Service, Missouri Department of Conservation, and City of Columbia Public Works Department.

D) Bid Phase Services

1) Assist Public Works with scheduling and conducting a prebid conference. Prepare minutes of the meeting and submit to Public Works.
2) Print one (1) set of the bid documents.
3) Respond to bidder's questions during the bidding period.
4) Prepare bid addenda, as needed.
5) Attend bid opening and assist with bid evaluation/recommendation.

Public Works will provide the administration of bid documents, including distribution of bid documents, maintaining a bidders list, collection of money and distribution of addenda.

E) Construction Phase Services

1) Shop drawing review.
2) Perform post construction survey and prepare As-Built Plans/CAD file: Receive the construction contractor's certified record drawing revisions. Field survey the tops and flowlines of all new sanitary sewer manholes and storm sewer/water quality features. Supply Public Works with full-size reproducible record drawings and an AutoCAD digital version of the record drawings.

Attachment B

City of Columbia

PUBLIC WORKS DEPARTMENT

REQUEST FOR PROPOSALS
FOR
ENGINEERING SERVICES

FOR

FLAT BRANCH WATERSHED RELIEF SEWERS

John Glascock, P.E.
Director of Public Works
P.O. Box 6015
Columbia, MO 65205
(573)874-7250

REQUEST FOR PROPOSALS
FOR
ENGINEERING SERVICES

The City of Columbia's Sanitary Sewer Utility is seeking proposals for engineering services for the purpose of providing construction documents for the Flat Branch Watershed Relief Sewers.

A more detailed description of the scope of engineering services for this project is contained later in the Request for Proposal. Funding for this project is from Sanitary Sewer Utility funds.

PROPOSAL

Five (5) copies of the proposal marked "Engineering Services Proposal" should be delivered to the Director of Public Works, 701 East Broadway, Third Floor, or addressed to Post Office Box 6015, Columbia, MO 65205, to the attention of the Director of Public Works. Proposals will be accepted until 5:00 pm, June 27th, 2014.

Proposals submitted shall include the following:

1. A brief description of the firm.
2. The qualifications and background of the firm.
3. A summary of any arrangements that will be made with any other firm for assistance on the work.
4. A list of key personnel to be involved in the work.
5. A list of similar work performed for other municipalities or agencies, including a result of the work. A list of references should be included.
6. Discussion explaining why you think the City of Columbia would benefit from selecting your firm to do the work.
7. A description of the approach the firm will take to complete the work, including an estimate of the total time needed for the firm to complete the work.

An important element of the consultant submittal will be a reasonable and realistic time frame in which the consulting services can be performed. The consultant should include in this submittal such a schedule with the understanding that the time frame with completion dates will be included as part of the contract between the City and the consultant.

Key individuals identified in the proposal will be expected to be available for the project and perform the work described. These people will be specific in the contract and any changes in personnel must be approved by the City.

SELECTION PROCESS

Proposals received will be screened by a review committee for adequacy of content and experience. The committee will select no more than four firms to be interviewed. The City will reserve the right to reject any or all proposals, and to accept the proposal(s) considered to be in the best interest of the City.

The final selection will be based on the following criteria.

1. Evaluation of Proposals
2. Proven background and experience in large municipal gravity sewer design projects.
3. Reputation of the firm with respect to design and construction of major public improvement projects.
4. Availability of the firm for participation at public hearings and Council meetings.
5. References provided.
6. Ability to complete the work in the time required.
7. Specific background and experience of the key people who will be involved in providing these services.
8. Preference is given to firms in which the Principle Engineer and Project Engineers work location is located in Missouri or within three hours travel time of the project site.
9. The Consultant's key personnel identified in the proposal shall be dedicated to the project for the entire duration. The City shall allow substitutions only in the event the employee leaves the firm, or is otherwise unable to perform the job duties.
10. Consultant shall be capable of producing construction drawings in the most current version of AutoCAD and preparing the project specifications in the most current version of Windows Microsoft Word.

PROJECT DESCRIPTION

This project involves providing the necessary professional survey and design services to develop bid ready construction documents for the Flat Branch Relief Sewer Projects.

The Flat Branch Watershed contains approximately 2,450 acres and is located in the central portion of Columbia. The Central Business District (also referred to as the Downtown Area) and a large portion of the University of Missouri Campus are located in the Flat Branch Watershed.

PRELIMINARY TIMELINE

RFP Due	June 27, 2014 @ 5:00 pm
Consultant Interviews	July, 2014
Negotiate Final Scope and Fee	August, 2014
City Council Approval	September, 2014
Notice To Proceed	September, 2014
Preliminary Construction Plans Due	February, 2015
Right of Way Plans Due	April, 2015

Easement Descriptions	May, 2015
Easement Acquisition (By City)	June, 2015 to October, 2015
Final Construction Plans Due	December, 2015
Bid	January, 2016
Construction	March 2016 to March 2017

PROJECT BACKGROUND

The sanitary sewers in the Flat Branch Watershed (FBW) are some of the oldest sewers in Columbia, with the majority of the system built prior to 1950.

Over the past few years, the downtown area has seen a sharp increase in residential developments. The recently completed residential developments have absorbed the vast majority of the available FBW sewer system capacity. Several additional large scale residential developments have been proposed in the downtown area, but the area lacks adequate sewer capacity.

SCOPE OF SERVICES

The professional services will consist of full engineering and design services including all phases of design, review and environmental assessments. Preparation of preliminary plans, final plans and specifications (construction documents), easement descriptions, flow capacity analysis, geotechnical investigations, surveying, utility coordination as well as other related studies and reports required for approval and permitting of the project. The Consultant shall provide the services for all necessary design engineering disciplines including without limitation, structural, geotechnical, landscape architecture and civil engineering. The construction documents shall be complete and fully integrated to allow for construction bidding in accordance with the City of Columbia ordinances.

Engineering and design support services for bidding, construction and post-construction, may also be required. A complete description of the Scope and deliverables is outlined below.

SECTION 1 – GENERAL

1.1 The Flat Branch Relief Sewer project consists of four (4) separate projects as generally shown on the attached diagram. Project #2 is currently being designed under separate contract and is not a part of this proposal.

1.2 Under this request for proposals, the City is requesting design proposals for Project #1, 3 & 4. It is anticipated that the initial design contract will include the complete design of Project #1 & Project #3. Upon the successful completion of Projects #1 & 3, the City may elect to negotiate a new design contract for Project #4.

1.3 City currently has a consultant under contract to flow monitor and develop an INFO SWMM model of the FBW collection system. City anticipates that the flow monitoring

and hydraulic model will be complete in mid July 2014. The City staff will use the model and future growth to determine the pipe diameters for the proposed relief sewers. The City will provide all this information to the selected consultant. Consultant shall conduct an independent review of the information and provide the City with pipe sizing recommendations.

1.4 Consultant shall meet with Engineering and Operations staff prior to the start of preliminary design work in order to review operational needs and approval requirements.

1.5 The Consultant shall be responsible for reviewing, coordinating, integrating and preparing all construction documents of all Sub-Consultants (such as the surveyor, geotechnical, landscape architect and other appropriate consultants). Consultant shall obtain the stamp and signature on the plans of those consultants and incorporate into each set of plans and each submittal to the City those plans, calculations, reports and other documents prepared by the Sub-Consultants.

1.6 Consultant shall provide complete coordination of all public and private utilities that are located within the project area for proper location, clearance and space requirements, in order to eliminate conflicts between these systems and the proposed sewers.

1.7 Consultant shall provide complete set of contract documents with performance specifications. Consultant shall neatly list all submittals required in the construction documents, organized in reasonable categories, on a spreadsheet, indicating; the item, the estimated quantity, at least on acceptable manufacturer or material supplier, and references to the item mentioned in the contract documents, other pertinent comments or information. Systems or products that are proprietary, licensed, or require periodic payments for continued use are not desired and shall be avoided if possible. Exceptions may be allowed for certain items where the Consultant has provided reasonable information that indicates the use is necessary and cost-effective to the City.

1.8 All work shall be done in electronic format, appropriate to the work product, including (AutoCAD) drawings, plans, elevations, sections, diagrams, details etc., (Word) specifications, reports, easement descriptions and other narrative, (PowerPoint) presentations (Excel) spreadsheets, schedules and other appropriate digital electronic formats. City reserves the right to request electronic submittals of all listed information at any time during the course of the project.

1.9 Consultant shall be responsible to design the Project to the approved construction budget. The Consultant shall provide an estimate of probable construction costs at every major design submittal, to demonstrate the design in within the approved construction budget.

1.10 All design work shall be done in accordance with all City standards. City standard specifications and requirements are available on the City's website http://www.gocolumbiamo.com.

SECTION 2 – PRELIMINARY ENGINEERING REPORT

Not Applicable

SECTION 3 – GENERAL DESIGN

3.1 Survey Information

3.1.1. Horizontal Control Points:

a. Horizontal Control Points shall be established based on the Missouri State Plane Coordinate System, Central Zone.
b. Horizontal control points shall be established within 500 feet of each end of the sewer project. Horizontal control points shall be established along the entire length of the sewer project. Horizontal control points shall be intervisible, spaced at intervals no greater than 1,000 feet and be established outside the construction area.
c. City shall provide list and description of City control points nearest to project area.

3.1.2. Vertical Control Points:

a. Temporary benchmarks shall be established for the project for vertical control. Elevation of temporary benchmarks shall be set based upon the City of Columbia's benchmark system.
b. Temporary benchmarks shall be established within 500 feet of each end of the sewer project. Temporary benchmarks shall be established along the entire length of the sewer project. The temporary benchmarks must be intervisible, spaced at intervals no greater that 1,000 feet and be established outside the construction area.
c. Objects of a semi permanent nature such as existing sanitary sewer manholes, fire hydrants, power poles and small concrete structures shall not be utilized as benchmarks unless approved by City. It is preferred that benchmarks shall consist of chiseled squares in large concrete structures or similar permanent structures.
d. City shall provide list and description of City benchmarks nearest to project area.

3.1.3. Property Monuments:

a. Consultant shall locate all property monuments within the construction corridor during design survey.
b. Consultant shall identify all property monuments that have the potential to be disturbed during construction activities. Consultant shall establish offsets for each of these property monuments that can be used to re-establish the property monuments upon completion of the project.
c. Upon completion of all construction activities, the Consultant shall re-

establish all property monuments that were disturbed during construction activities.

3.2 Geotechnical Engineering Report

3.2.1. Consultant shall coordinate and provide geotechnical engineering report for this sewer project.

3.2.2. Engineering Report Requirements

3.2.2.1. Soil Borings

a. The intent of soil borings is to determine the depth of bed rock, classify the nature and properties of the over burden soil and determine the depth of ground water.
b. Soil borings shall be provided within 500 feet of each end of the sewer project and shall be provided at intervals no greater than 1,000 feet for the entire length of the project.

3.2.2.2. Rock Cores

a. At least one rock core shall be provided for each potential road bore and at intervals no greater than 2,000 linear feet of along the project length.

3.3 Utility Coordination

Consultant shall coordinate with all public and privately owned utilities locate all existing and proposed utilities in the construction corridor. Consultant shall design the relief sewer to minimize conflicts with existing utilities.

Prior to submitting preliminary plans to the City, the Consultant shall meet with each utility company to get a clear understanding of the age, condition, depth and size of the utilities. Consultant shall also host utility coordination meetings to give the utility companies a chance to ask questions about any potential utility conflicts that may result from the proposed project.

SECTION 4 – CONSTRUCTION DOCUMENT FORMAT

4.1 Construction Plans

4.1.1. General

The construction plans should be prepared in the following order and format

a. Cover Sheet
b. Plan View Sheet(s)
c. Gravity Sewer Plan & Profile Sheet(s)

d. Gravity Sewer & Force Main Detail Sheet(s)
e. Storm Water Pollution Prevention Plan Sheet(s)

4.1.2. Cover Sheet:

A Cover Sheet shall be provided for the sewer project. The cover sheet shall include the following:

a. Project name
b. Project number (if applicable)
c. Location map
d. List, contact name, address and phone number for all utility companies that have facilities in within the project area.
e. Legend of symbols
f. Index of sheets
g. Project quantities table
h. Any necessary notes
i. Title block that provides a signature line for City approval of the plans.

If requested, a sample cover sheet will be provided by the City.

4.1.3. Plan View Sheet:

A plan view sheet must be provided for the sewer project. The plan view sheet shall include the following:

a. Overall plan view of the entire project that clearly depicts the proposed location of all gravity sewer line and manholes, The background of the plan view shall consist of an aerial photograph that will be provided by the City. Plan view should be drawn to an easily readable scale such as 1"=50', 100', 200', 300', etc. Multiple plan view sheets may be necessary.
b. Property lines
c. Property owner name
d. Road right-of-ways
e. Topographic features (trees or tree lines, ponds, streams etc.)
f. Location of all existing utilities
g. Existing buildings
h. Fences
i. Private roads and driveways
j. Temporary construction and temporary access easements
k. Location of horizontal control points
l. Location of benchmarks
m. Location of soil borings and rock cores
n. List of horizontal control points
o. List of benchmarks

If requested, a sample cover sheet will be provided by the City.

4.1.4. Gravity Sewer Plan & Profile Sheet(s):

Plan and profiles shall be provided for all the gravity sewer lines that are to be constructed as a part of the project. The plan and profile sheets shall include the following:

a. Plan View

i. The background of the plan view shall consist of an aerial photo provided by the City.
ii. Location of proposed sewer
iii. Property lines
iv. Property owners name
v. Road rights-of-ways
vi. Location of existing utilities
vii. Existing buildings
viii. Location of improvements (gardens, landscaping items, basketball goals, fences, patios, decks etc.)
ix. Private roads and driveways
x. Appropriate notes and hatching to clearly show the rip-rap placement requires at stream crossings.
xi. All easements obtained for the project along with all existing easements.

b. Profile View

i. Profile of existing ground
ii. Location of proposed manholes and sewer line
iii. Location & depth of existing utilities along with necessary notes.
iv. Diameter of proposed sewer
v. Slope and length of proposed sewer
vi. Pipe material
vii. Identify areas where the sewer pipe will be encased in concrete.
viii. Appropriate notes for stream crossing requirements.

4.1.5. Gravity Sewer Detail Sheet(s):

Gravity sewer and force main detail sheet(s) shall be provided for the project. The detail sheet(s) shall include all applicable City of Columbia standard sewer details plus any additional details as necessary. Consultant may not alter standard City standard details without City authorization.

If requested, a sample cover sheet will be provided by the City.

4.1.6. Storm Water Pollution Prevention Sheet(s):

A Storm Water Pollution Prevention (SWPPP) sheet(s) must be provided for the sewer project. The SWPPP sheet(s) shall include the following:

a. Overall SWPPP for the entire project site that clearly depicts the proposed location of all necessary erosion control devices and best management practices. The background of the plan view shall consist of a topographic map or an aerial photograph that is provided by the City. SWPPP should be drawn to an easily readable scale such as 1"=50' or 100'. Multiple SWPPP sheets may be necessary.
b. Property lines
c. Road right-of-ways
d. Topographic features (trees or tree lines, ponds, streams etc.)
e. Location of existing utilities
f. Location of proposed sewer improvements
g. Existing buildings
h. Fences
i. Private roads and driveways
j. Temporary construction and temporary access easements

If requested, a sample cover sheet will be provided by the City

4.2 As-Built Plans

4.2.1. General:

After the sewer project has been constructed, the City shall return the "Final" construction plans to the Consultant and direct the Consultant to prepare the as-built construction plans.

4.2.2. Post Construction Survey:

The consultant shall perform a post-construction survey of the sewer project to determine the following as-built information:

a. Horizontal location of manholes, cleanouts and other appurtenances.
b. Vertical elevation of manhole and cleanout lids and the top of other appurtenances.
c. Sanitary sewer flow lines.
d. Location and elevations of all pump station components.

The post construction survey information shall be used to prepare the as-built plans. The post construction survey information shall be carefully handwritten onto the "Final" construction plans.

4.2.3. Submittal:

The as-built construction plans shall be submitted and approved by the City prior to the City accepting the sanitary sewer line for operation and maintenance.

4.3 Contract Documents and Construction Specifications:

Consultant shall provide complete set of "bid ready" contract documents with performance specifications and specific examples of material, products, fixtures and equipment that meet the performance specification. Consultant shall neatly list all submittals required in the construction documents, organized in reasonable categories, on a spreadsheet, indicating; the item, the estimated quantity, at least on acceptable manufacturer or material supplier, and references to the item mentioned in the contract documents, other pertinent comments or information. Systems or products that are proprietary, licensed, or require periodic payments for continued use are not desired and shall be avoided if possible. Exceptions may be allowed for certain items where the Consultant has provided reasonable information that indicates the use is necessary and cost-effective to the City

It is anticipated that MDNR State Revolving Fund program will be utilized to finance this project. Therefore, the Consultant shall prepare the contract documents and technical specifications in accordance with SRF requirements.

City shall supply consultant with the following documents that are to be utilized in the contract document. Consultant shall not change the City documents without written authorization from the City.

- Standard Bid Proposal Form
- Bidders Bond Form
- Insurance Requirements
- Standard Contract Agreement
- Labor and Material Payment Bond Form
- Performance Bond Form

4.4 Easement Documents:

Consultant shall perform all necessary property ownership research to prepare all the necessary easement descriptions for this project. All easement documents shall be prepared in the City's standard format. City will provide the consultant electronic copies of the City's standard easement formats. Consultant shall not make any changes to the City's standard easement format without written permission from the City.

This Sanitary sewer project may require but not limited to the following types of easements. Permanent Sewer Easement, Temporary Construction easement and Temporary Access Easement.

Consultant shall verify with the City as to the desired width of the permanent sewer easements. Typically the permanent sewer easement width will be a minimum of 16 feet.

Consultant shall consider the size and depth of sewer, severity of topography and other factors and make recommendations to the City as to the width all necessary temporary construction and temporary access easements.

After City staff has approved the preliminary construction plans, Consultant shall be available to meet and walk project area with City staff.

SECTION 5 – SUBMITTALS

6.1 General:

Design and construction documents shall be prepared and submitted to the City of Columbia in the following order and format:

6.2 Preliminary construction plan and specification submittal:

Consultant shall stake the proposed locations of all gravity sewer manholes. Consultant will need to obtain permission from each private property owner prior to staking. Consultant shall note, on the preliminary plans, which items have and have not been staked due to lack of private property owner permission.

Once the items have been staked, the Consultant shall submit the following information to the City:

a. 2 sets of "Preliminary" plans and specifications.
b. Construction cost estimate.
c. List of all property owners and addresses that will be effected by the project
d. List of all horizontal control points established for this project with the point number, northing, easting, description and a sketch showing ties. Each horizontal control point shall have a minimum of three ties.
e. List of all vertical control points established for this project with the point number, northing, easting, elevation, description and a sketch showing ties. Each vertical control point shall have a minimum of three ties.
f. List of all property monuments in construction area with the point number, northing, easting and description.

The purpose of the "Preliminary" plan and specification submittal is to allow City staff the opportunity to review the proposed sewer improvements and request input from the effected property owners.

"Preliminary" construction plans and specifications shall be prepared for the project and submitted to the City for review and comment. "Preliminary" construction plans and

specifications shall be in accordance with and contain all the required information as listed in these standards. Permanent sewer and temporary construction easement legal descriptions are not required at this time.

After City staff has reviewed the "Preliminary" construction plans and specifications and has received input from the effected property owners, the City will prepare a list of comments that the Consultant shall address.

6.3 Easement Legal Description Submittal:

Once the City has approved the "Preliminary construction plans and specifications, the City will direct the Consultant to prepare and submit the necessary legal descriptions for all the sanitary sewer easements.

The easement legal description submittal shall consist of:

a. Legal descriptions for all necessary easements (permanent sewer, temporary construction, temporary access, permanent trail and etc).
b. Property owner research information for each property. Property owner research information shall at a minimum consist of the warranty deed(s) and/or quit claim deeds.

After City staff has reviewed the easement legal descriptions, the City will prepare a list of comments that the Consultant shall address.

6.4 Easement Submittal:

Once the City has approved the easement legal descriptions, the City will direct the Consultant to prepare the necessary easements.

The easement documents shall be prepared in accordance with and contain all the required information as listed in these standards. The easement documents shall be submitted to the City in paper and electronic format.

6.5 Easement Acquisition:

City staff will acquire all necessary easements for the sanitary sewer project. City will inform the consultant if any revisions to the plans and easement documents are necessary. Consultant will make the requested plan and easement revisions. Consultant shall be available to meet with property owners during easement acquisition negotiations if requested by City staff.

6.6 Final construction plan and specification submittal:

Once the City has obtained all the necessary easements, the City will direct the Consultant to prepare and submit the "Final" construction plans and specifications. The

"Final" construction plans must reflect all requested changes that occurred during the easement acquisition period and shall be in accordance with and contain all the required information as listed in these standards.

6.7 As-built construction plan submittal:

Once the sewer project has been constructed, the City shall notify the Consultant to prepare the as-built construction plans. The consultant shall perform a post-construction survey of the sewer project to determine as-built condition and prepare the as-built plans accordingly. The as-built construction plans shall be submitted and approved by the City prior to the City making final payment to Consultant and accepting the sanitary sewer line for operation and maintenance.

6.8 Re-monumentation:

Once the sewer project has been constructed, the City shall notify the Consultant to re-establish all property monuments that were disturbed during construction activities. Consultant shall notify the City in writing once all the property monuments have been re-established. City shall not accept the sanitary sewer or make final payment to Consultant until all property monuments have been re-established.

SECTION 6 – PERMITS

The Consultant shall be responsible for completing the necessary applications and forms and obtaining the following federal, state and local permits.

6.1 United States Army Corps of Engineers Permit
6.2 Missouri Department of Natural Resources Sewer Extension Permit
6.3 Missouri Department of Transportation Utility Excavation Permit (if necessary)
6.4 Boone County Public Works Utility Excavation Permit (if necessary)
6.5 Boone County Flood Plain Development Permit
6.6 City of Columbia Flood Plain Development Permit

SECTION 7 – INFORMATION FURNISHED BY THE CITY

7.1 Sanitary sewer sizing requirements and design criteria from the City's Sewer Utility Master Plan.
7.2 Digital aerial photography for the project area.
7.3 Digital 2-foot interval contour maps for the project area.
7.4 City horizontal control point and bench mark data.
7.5 Sample construction plan documents.
7.6 Standard City construction standards and details.
7.7 Standard Easement Forms

SECTION 8 – BIDDING /AWARD & SHOP DRAWING REVIEW

8.1 Consultant shall assist City during bid solicitation process.

8.2 Consultant shall prepare one reproducible bid package for City, and make available to City an electronic version of the Construction Documents.

8.3 Consultant shall provide bid phase services, as requested by City, through award of the Contract for Construction for the following:

- 8.3.1. Responses to bidder's inquiries.
- 8.3.2. Preparation of addenda.
- 8.3.3. Consultant shall conduct a pre-bid meeting in City building.
- 8.3.4. Evaluation of bids and bidder qualifications.

8.4 Consultant shall review and approve or take other appropriate action upon the Contractors submittals such as shop drawings, product mock up and samples for the purpose of checking for conformance with the contract documents.

SECTION 9 – CONSTRUCTION MANAGEMENT

The scope of this project shall not include construction management. However, the reserves the right to negotiate a separate agreement or an amendment to this agreement for the Consultant to provide full time field inspection of construction activities and preparation of monthly estimates to ensure that the Contractor's work is in accordance with the contract documents.

Consultant shall include a section in the proposal that outlines the Consultants experience and qualifications in construction management. Consultant shall also prepare an estimated fee range for providing these services.

INQUIRIES

Questions regarding the scope of services or other items related to this request for proposals may be directed to:

Steve Hunt, P.E.
Sanitary Sewer Engineer
City of Columbia
Public Works Department
P.O. Box 6015
Columbia, MO 65205-6015
(573)874-7250

Schedule of Hourly Labor Billing Rates

Engineering Surveys and Services

Consulting Engineers, Scientists, and Land Surveyors
Analytical and Materials Laboratories

1113 Fay Street
Columbia, Missouri 65201
Telephone 573-449-2646
Facsimile 573-499-1499

E-Mail ess@ESS-Inc.com
http://www.ESS-Inc.com

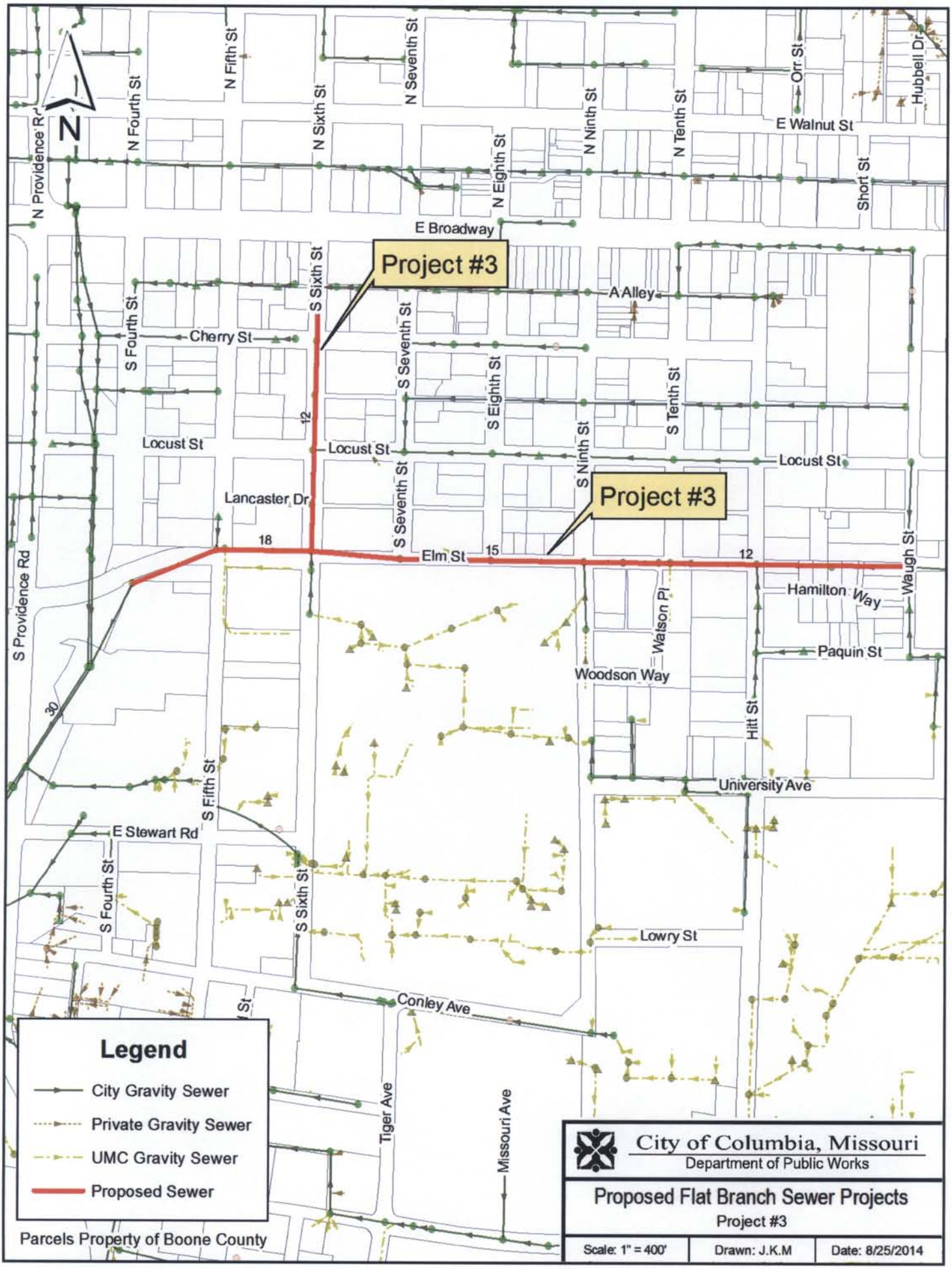
HOURLY FEE SCHEDULE

January 1, 2014

Services of:	Rate:
Firm Principal	$120-160 /hour
Registered Professional Engineer	$ 110-140 /hour
Registered Professional Land Surveyor	$ 100-130 /hour
Project Surveyor	$ 70-90 /hour
Engineer In Training	$ 80-100 /hour
Senior Engineering Technician	$ 60-70 /hour
Engineering Technician	$ 50-60 /hour
CAD Operator	$ 65-90 /hour
Chemist	$ 70-80 /hour
Administrative Assistant	$ 50-55 /hour
Computer	$ 50 /day
EDM Equipment	$ 100 /day
Global Positioning System Equipment	$ 200 /day
Drill Rig	$ 150-$250 /hour
Large Format Copies	$ 3.50-$ 5.50 each
Photocopies	$ 0.20 each
Travel	$ 0.60/mile

NOTES

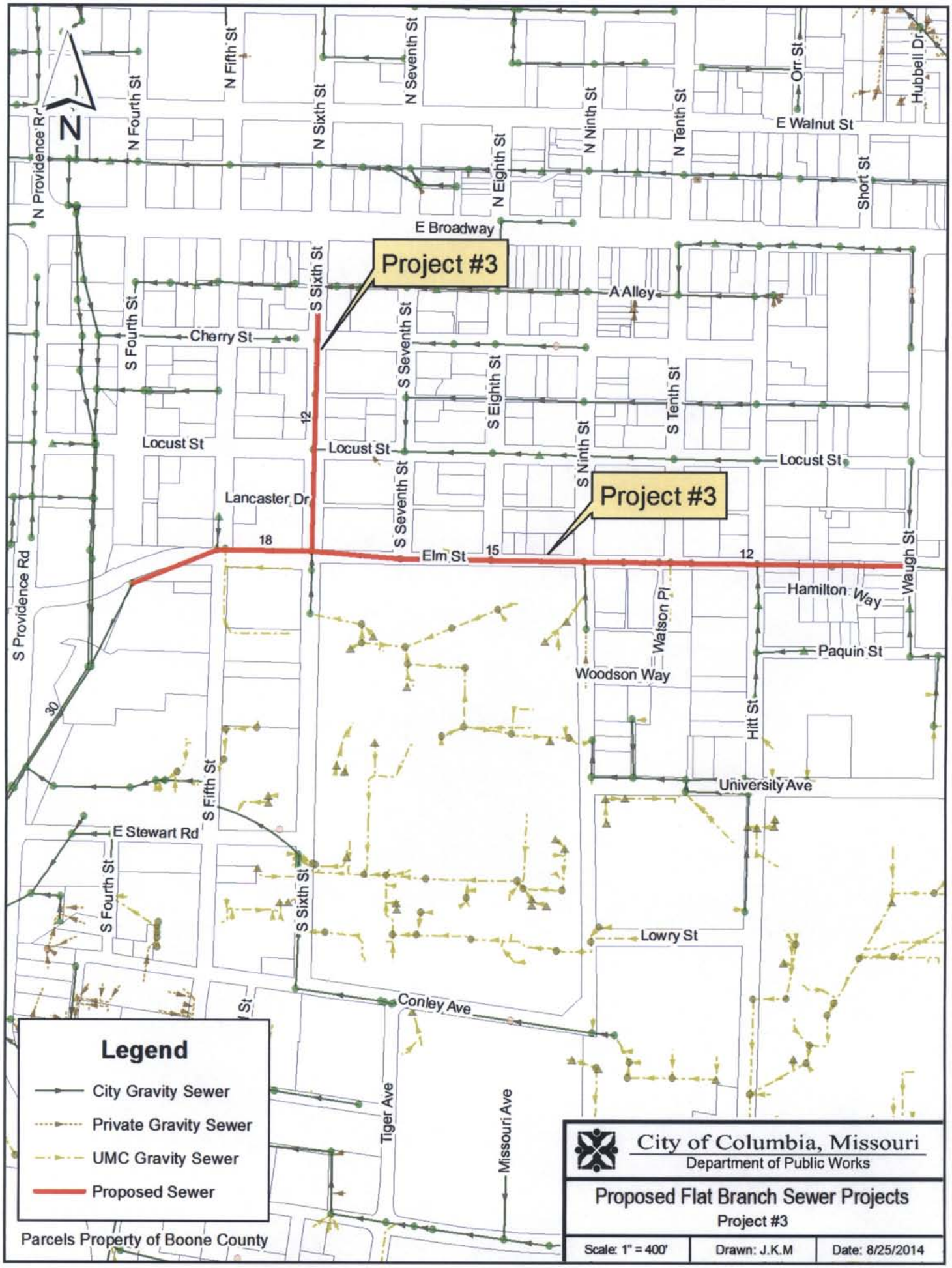
1. Since charges are based on salary multiplier, all rates are subject to minor fluctuations as salaries change.
2. Overtime charges at 1.4 times above rates.


N
N Providence Rd
N Fourth St
N Fifth St
N Sixth St
N Seventh St
N Eighth St
N Ninth St
N Tenth St
Orr St
Hubbell Dr
E Walnut St
Short St
E Broadway
Project #3
S Sixth St
A Alley
S Fourth St
Cherry St
S Seventh St
S Eighth St
S Tenth St
S Ninth St
Locust St
12
Lancaster Dr
18
Elm St
15
12
Project #3
Waugh St
Hamilton Way
Watson Pl
Woodson Way
Paquin St
Hitt St
University Ave
S Providence Rd
30
S Fifth St
E Stewart Rd
S Fourth St
S Sixth St
Lowry St
Conley Ave
Tiger Ave
Missouri Ave
Legend
City Gravity Sewer
Private Gravity Sewer
UMC Gravity Sewer
Proposed Sewer
Parcels Property of Boone County
City of Columbia, Missouri
Department of Public Works
Proposed Flat Branch Sewer Projects
Project #3
Scale: 1" = 400'
Drawn: J.K.M
Date: 8/25/2014

City of Columbia
701 East Broadway, Columbia, Missouri 65201

SUPPORTING DOCUMENTS INCLUDED WITH THIS AGENDA ITEM ARE AS FOLLOWS:

Map


N
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N Fifth St
N Sixth St
N Seventh St
N Eighth St
N Ninth St
N Tenth St
Orr St
Hubbell Dr
E Walnut St
Short St
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