

AGREEMENT
For
PROFESSIONAL ENGINEERING SERVICES
Between
THE CITY OF COLUMBIA, MISSOURI
And
GEOSYNTEC CONSULTANTS, INC.

THIS AGREEMENT by and between the City of Columbia, Missouri (hereinafter called "City"), and **Geosyntec Consultants, Inc.** (hereinafter called "Engineer"), is entered into on the date of the last signatory noted below (the "Effective Date").

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

Detailed Technical Reevaluation of the City of Columbia Wastewater Treatment Plant Local Limits: Geosyntec will assist the City with data collection, analyses and reporting to support the assessment and revisions to the City's local limits for industrial wastewater permitting.

(Description of Project)

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 Exhibit A - "Scope of Basic Services," dated **December 11, 2021** (hereinafter referred to as "Scope of Basic Services").

2.1.2 Engineer will designate the following listed individuals as its project team with responsibilities as assigned. 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 Engineer without the written approval of City.

<u>Name and Title</u>	<u>Assignment</u>
Nick Muenks	Project Director
Tom Wallace	Senior Advisor
Elizabeth Toot-Levy	Pretreatment & Local Limits Technical Lead
Kaylin Boeckmann	Local Limits Support

All of the services required hereunder will be performed by 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 City and any work or services so subcontracted shall be subject to the provisions of this Agreement.

2.2 Engineer shall furnish such periodic reports as 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 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 City to assure proper accounting for all project funds. These records must be available to 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 Scope of Basic Services. Engineer is prohibited from holding a retainage on any payment to a subcontractor that provides any services or work on this Project.
- 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 Scope of Basic 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 Engineer's 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 **Erin Keys, P.E., Engineering and Operation Manager**, 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. The City's designated representative may be changed during the duration of this Agreement by written notice from the City Manager, or City Manager's designee, to Engineer.

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 **548** 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 may be revised annually if the term of this Agreement exceeds one (1) year. To be effective, any revision in the Schedule of Hourly Labor Billing Rates shall be provided by Engineer to City as least thirty (30) days prior to work performed under this Agreement to which such rates apply.

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.

6.1.1.6 Total payment for Scope of Basic Services and all other expenses and costs to City under this Agreement and described herein **shall not exceed \$62,800.**

6.2 Payments

6.2.1 Engineer shall submit an invoice for services rendered to City not more than once every month. Upon receipt of the invoice and progress report, City will, as soon as practical, pay Engineer for the services rendered, provided City does not contest the invoice.

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, 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 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.

7.2 Professional Responsibility

7.2.1 Missouri Licensure & Certificate of Authority

Engineer certifies that it is currently in compliance, and agrees to maintain compliance for the duration of this Agreement, with all licensure requirements of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects (hereinafter "APEPLSPLA") to practice in Missouri as a professional engineer as provided under chapter 327 of the Missouri Revised Statutes. To the extent required by Section 327.401 of the Missouri Revised Statutes, Engineer understands and agrees that the person personally in charge and supervising the professional engineering services of Engineer under this Agreement shall be

licensed and authorized to practice engineering in Missouri, and that Engineer will keep and maintain a valid certificate of authority from APEPLSPLA.

7.2.2 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 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.

7.2.3 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.

7.2.4 Professional Oversight Indemnification

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 City from any and all claims, settlements and judgments whatsoever arising out of City's alleged negligence in hiring or failing to properly supervise Engineer. Engineer agrees to provide City with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements are maintained and in full force and effect.

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 and/or schedule,

upon execution of a mutually acceptable amendment or change order signed by an authorized representative of City and the President or any Vice President of 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 Engineer's 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 Engineer in the event of substantial failure to perform in accordance with the terms hereof by City through no fault of 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 this 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 City become its property.

Further, Engineer shall not be relieved of any liability to City for any damages sustained by City by virtue of any breach of this Agreement by Engineer and City may withhold any payments due Engineer for the purpose of set-off until such time as the exact amount of damages to 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, national origin, ancestry,

marital status, disability, sexual orientation, or gender identity. 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, national origin, ancestry, marital status, disability, sexual orientation, gender identity or expression, or any other protected category designated by local, state, or federal law. 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, national origin, ancestry, marital status, disability, sexual orientation, gender identity or expression, or any other protected category designated by local, state, or federal law.

7.9.3 Engineer shall comply with all provisions of local, 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 themselves and their 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 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 Missouri Anti-Discrimination Against Israel Act: To the extent required by Missouri Revised Statute Section 34.600, Engineer certifies it is not currently engaged in and shall not, for the duration of this Agreement, engage in a boycott of goods or services from the State of Israel; companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. If any provision of this paragraph, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby. This paragraph shall not apply to contracts with a total potential value of less than one hundred thousand dollars (\$100,000.00) or to contractors with fewer than ten (10) employees.

7.16 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.

7.17 Agreement Documents
This Agreement includes the following exhibits, which are incorporated herein by reference:

<u>Exhibit</u>	<u>Description</u>
A	Scope of Work
B	Hourly Fee Schedule
C	Work Authorization Affidavit

In the event of a conflict between the terms and conditions of this Agreement and any exhibit hereto, the terms contained in this Agreement shall prevail and the terms contained in any exhibit shall subsequently prevail in the order attached hereto.

7.18 Entire Agreement

This Agreement represents the entire and integrated Agreement between Engineer and City relative to the Scope of Basic 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: _____
City Manager

Date: _____

ATTESTED BY:

Sheela Amin, City Clerk

APPROVED AS TO FORM:

Nancy Thompson, City Counselor *JM*

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. **55506315-504023**, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: _____
Director of Finance

GEOSYNTEC CONSULTANTS, INC.

By: MATT BAIRDOL *MBA*

Date: 1-5-21

ATTEST:

By: Terri Eder

Name: Terri Eder

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.



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PH 573.443.4100
www.geosyntec.com

December 11, 2020

Erin Keys, P.E.
Engineering & Operations Manager
City of Columbia Utilities Department
Sewer, Storm Water and Solid Waste Divisions
P.O. Box 6015
Columbia, MO 65205

Subject: Proposal for Detailed Technical Reevaluation of the City of Columbia Wastewater Treatment Plant Local Limits

Dear Ms. Keys:

The Missouri Department of Natural Resources (MDNR) renewed the Columbia Wastewater Treatment Plant (CWWTP) National Pollutant Discharge Elimination System (NPDES) permit in July 2020. Special Condition 17(b) of the renewed Permit required that the City of Columbia (City) submit a technical evaluation of the need to revise the City's industrial discharge local limits under 40 CFR 403.5(c)(1). MDNR's local limits technical evaluation guidance requires a local limits review followed by a detailed technical reevaluation, if determined necessary by MDNR. Geosyntec prepared a local limits review report that the City submitted to MDNR in late October 2020. After reviewing the report, MDNR provided a response letter on December 3, 2020 that requires the City to proceed with a detailed technical reevaluation of local limits. Geosyntec has prepared this proposal to conduct the detailed technical reevaluation of local limits as delineated in MDNR's guidance and comment letter. MDNR requested that the City propose a timeframe for sampling and analysis and the submittal of the detailed technical reevaluation of local limits.

SCOPE OF WORK

The tasks, level of effort, and schedule estimated to conduct the detailed technical reevaluation are provided in this Scope of Work.

Task 1: Data Assembly and Evaluation

Geosyntec will assemble existing monitoring data applicable to the evaluation of Maximum Allowable Headworks Loadings (MAHLs) for pollutants of concern (POCs). These data include domestic (non-industrial) collection system wastewater analyses, sludge production rates and analyses, significant industrial user (SIU) discharge data, CWWTP sampling data, and possibly stormwater data. The City has already provided much of these data to Geosyntec during the local limits review evaluation.

Geosyntec will assess how the data was collected and what quality assurance measures were applied. For example, assurance would be needed to confirm that domestic wastewater samples to establish background wastewater concentrations were collected during dry conditions to prevent underestimating POC concentrations from rainfall infiltration. Also, Geosyntec will assess data variability and determine if past domestic sampling locations selected in 2011 remain representative of present-day background conditions.

Geosyntec will evaluate the sufficiency of recent CWWTP influent, effluent, and sludge sampling data to characterize present-day treatment conditions following the CWWTP upgrade in 2014. The CWWTP upgrade included an expansion of the activated sludge liquid train in addition to a new sludge dewatering system. Geosyntec will assess the influent metals partitioning between sludge and final effluent which are key aspects of local limits calculations. Sludge production rates and SIU flow rates were already evaluated in the local limits review and will be further reviewed to confirm the latest values are included.

As requested by MDNR, Geosyntec will review existing data to assess:

- the unique aspects of the CWWTP wetlands sampling points,
- how stormwater events may affect CWWTP flow and may possibly need to be included in MAHL calculations,
- oil and grease exceedances and the potential need to measure industrial sources of oil and grease, and
- pH excursions and potential relationships with SIU discharges.

Geosyntec will evaluate SIU permits, parameters, and flows to identify any additional parameters that could cause interference or pass through concerns and assess what additional data may be needed regarding these SIU discharges.

The number of hours for completing the task are estimated to be 32 hours.

Task 2: Sampling Plan(s) Preparation

Geosyntec will review the data compiled in Task 1 and recommend the necessary monitoring the City will need to conduct to develop MAHL calculation inputs. With the extensive plant upgrade changes in 2014 and the age of the existing data, Geosyntec anticipates that sampling will be needed to reevaluate CWWTP metals removal rates. The most recent domestic samples were collected nine years ago; therefore, additional monitoring will also be needed to update the collection system sampling data.

Pending approval by the City, Geosyntec will prepare the necessary sampling plans to delineate parameters, monitoring sites, sampling and analysis methods, quality assurance measures, and type and frequency of samples to be collected and analyzed. The plans will include the schedule required for data collection, laboratory analysis, and subsequent evaluation. The draft sampling plans will be provided to the City for review and concurrence that the data collected will be sufficient for MAHL calculations. Geosyntec will coordinate with City staff to select monitoring locations and confirm that the proposed sampling level of effort is reasonable and cost-effective. Geosyntec plans to submit draft sampling plans to MDNR for review to confirm that MDNR agrees that the data collected will be sufficient for MAHL recalculations.

The number of hours for completing the task are estimated to be 65 hours.

Task 3: Data Collection and Evaluation

This proposal anticipates that the City will conduct all sample collection and laboratory analyses. For planning purposes, it is assumed that the sample collection and laboratory analyses will be completed over a year-long period. Geosyntec will review the data after the first sampling events, mid-period, and at the end of the sampling period to determine if there are any anomalies that need to be addressed. After all of the sampling is completed, Geosyntec will prepare a short summary of the sampling results.

The number of hours for completing the task are estimated to be 24 hours.

Task 4: MAHL and MAIL Evaluation and Revision of Existing Parameters

Geosyntec will assimilate the data findings in Tasks 1, 2, and 3 and develop the necessary MAHL calculation inputs. Geosyntec will use the US EPA Region 7 local limits spreadsheet for the MAHL calculations. As requested by MDNR, Geosyntec will review the City's sludge disposal

methods to confirm the most conservative disposal method will be used in the revised MAHL calculations.

Geosyntec will conduct a sludge metals data mass balance review to confirm how metals removal rates based on sludge metals data compare to predictions derived from the revised MAHL calculations. Once MAHLs have been revised, Geosyntec will calculate Maximum Allowable Industrial Loadings (MAILs) including application of any appropriate safety factors. The City's most recent local limits did not apply safety factors to any of the local limits parameters.

The number of hours for completing the task are estimated to be 58 hours.

Task 5: MAHL and MAIL Evaluation and Development for BOD, TSS and Ammonia

As requested by MDNR, Geosyntec will develop MAHLs and MAILs for biochemical oxygen demand (BOD), total suspended solids (TSS), and ammonia. These MAHLs and MAILs will take into consideration treatment plant loadings and removal capacities for these parameters. Geosyntec will work with the City to confirm accurate treatment design assumptions and CWTP effluent discharge limits to use in the calculations.

The number of hours for completing the task are estimated to be 48 hours.

Task 6: Assessment of Impact of Revised Local Limits on Existing SIUs

After the MAILs are revised, Geosyntec will evaluate potential impacts of the recommended local limits revision on existing SIUs discharging to the City sewer system. This evaluation will require recalculating SIU discharge limits using the combined wastestream formula and comparing categorical limits to local limits as delineated in the City's SIU permit fact sheets for categorical industries.

Geosyntec will summarize findings from this task in a PowerPoint presentation to be discussed with City staff in a conference call. In this conference call, Geosyntec will address which local limits would change, the rationale for the changes, and the implications to the City's SIUs.

The number of hours for completing the task are estimated to be 35 hours.

Task 7: MAIL Allocation Methods Evaluation and Calculation of Revised Local Limits

Once the MAIL mass loadings have been established, the City will have the option to establish uniform concentration local limits or express the local limits as a daily mass loading that can be

assigned to SIUs that may have higher discharge levels of a specific POC. Uniform concentrations limits are the simplest option and requires that all SIUs comply with the same discharge limit. This approach offers less flexibility for SIUs that may have discharge concentrations greater than a uniform concentration. Geosyntec will compare the benefits of apportioning the MAIL using these options.

The number of hours for completing the task are estimated to be 44 hours.

Task 8: Detailed Technical Reevaluation Report

Geosyntec will describe the findings and recommendations of the Detailed Technical Reevaluation findings in a report. The report will provide the data and basis for any recommended local limits modifications as well as the data and methodology used to derive modified local limits. The report will address specific items requested in MDNR's local limits technical evaluation guidance and MDNR's local limits review report comment letter from December 3.

Geosyntec will submit a draft report to the City for review and comments. Geosyntec will incorporate the comments and submit a draft version of the report to MDNR for review and comments. This task assumes that comments from the City and MDNR will require minimal revisions to the report. Once the report is finalized, the City will submit the report to MDNR and US EPA for approval. Along with the report, the City may also need to submit a modified sewer use ordinance that reflects the new local limits. The report will likely be placed on public notice.

This task does not include addressing any comments from the public notice. Additionally, sewer use ordinance modification assistance services are not included in this task. These services can be added in a subsequent amendment after the scope of work for these services can be clearly defined.

The number of hours for completing the task are estimated to be 86 hours.

Please note that this proposal does not include time for in-person meetings with MDNR or the City.

SCHEDULE

Figure 1 provides the anticipated schedule. The City needs to submit the sampling plans within 90 days and complete the study in 18 months.

	2021												2022											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Task 1 - Data Assembly and Evaluation	█																							
Task 2 - Sampling Plan Preparation		█	█																					
Task 3 - Data Collection and Evaluation				█	█	█	█	█	█	█	█	█	█	█										
Task 4 - MAHL Evaluation and Revision of Existing Parameters															█									
Task 5 - MAHL Evaluation and Development for BOD, TSS and Ammonia																█								
Task 6 - Evaluate MAHL Apportioning Methods and Calculate Revised Local Limits																	█							
Task 7 - Assessment of Impact of Revised Local Limits on Existing SIU's																		█						
Task 8 - Detailed Technical Reevaluation Report																			█					

Figure 1. Proposed Schedule for the City of Columbia’s Detailed Technical Reevaluation Report

Erin Keys, P.E.
December 11, 2020
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COST ESTIMATE

Geosyntec will provide the services described above on a time and materials basis with a total projected budget of \$62,804 as summarized in Table 1 (Attachment A).

Sincerely,



Nick Muenks
Senior Scientist



Tom Wallace
Senior Consultant

Attachment A: Table 1 Cost Estimate

Attachment A

Table 1

Cost Estimate

Professional Costs:	Rate (\$/unit)	Unit	Number of Units per each Scope of Work								Total Units	Total Cost	
			Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8			
Senior Principal	250	hour											
Principal	230	hour				2	2	2	2	2	10	\$2,300	
Senior Professional	210	hour	6	18	1	6	15	10	15	20	91	\$19,110	
Project Professional	186	hour	4	12	3	10	8	10	10	20	77	\$14,322	
Professional	164	hour											
Senior Staff Professional	143	hour	10	18		24	12	12	16	18	110	\$15,730	
Staff Professional	123	hour	10	16	12	15	10			16	79	\$9,717	
Project Administrator	65	hour	2	1	8	1	1	1	1	10	25	\$1,625	
Subtotal			32	65	24	58	48	35	44	86	392	\$62,804	
<i>Non-Professional Direct Costs:</i>													
Per Diem	40	day											
Mileage	0.58	mile											
Monitoring Equipment Rental		day											
Communications Fee	3%												
Laboratory Analyses	Direct+15%												
Subtotal												\$0	
Total			4,794	10,619	2,764	8,922	8,109	6,201	7,823	13,572	62,804	\$62,804	

- Task 1 - Data Assembly and Evaluation
- Task 2 - Sampling Plan Preparation
- Task 3 - Data Collection and Evaluation
- Task 4 - MAHL Evaluation and Revision of Existing Parameters
- Task 5 - MAHL Evaluation and Development for BOD, TSS and Ammonia
- Task 6 - Evaluate MAHL Apportioning Methods and Calculate Revised Local Limits
- Task 7 - Assessment of Impact of Revised Local Limits on Existing SIU's
- Task 8 - Detailed Technical Reevaluation Report

Exhibit B**GEOSYNTEC CONSULTANTS
RATE SCHEDULE**

	<u>Rate/Hour</u>
Staff Professional	\$123
Senior Staff Professional	\$143
Professional	\$164
Project Professional	\$186
Senior Professional	\$210
Principal	\$230
Senior Principal	\$250
Technician I	\$ 62
Technician II	\$ 67
Senior Technician I	\$ 72
Senior Technician II	\$ 80
Site Manager I	\$ 89
Site Manager II	\$ 99
Construction Manager I	\$113
Construction Manager II	\$120
Designer	\$130
Senior Drafter/Senior CADD Operator	\$116
Drafter/CADD Operator/Artist	\$102
Project Administrator	\$ 67
Clerical	\$ 53
Direct Expenses	Cost plus 10%
Subcontract Services	Cost plus 12%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	\$ 12
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	\$.08

Rates are provided on a confidential basis and are client and project specific.

Unless otherwise agreed, rates will be adjusted annually based on a minimum of the Producer Price Index for Engineering Services (PPI).

Rates for field equipment, health and safety equipment, and graphical supplies presented upon request.

Construction management fee presented upon request.

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

County of DuPage)
State of Illinois) ss.
)

My name is MATT BAROOL. I am an authorized agent of _____
Geosyntec Consultants (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.

M. Barool
Affiant

MATT BAROOL
Printed Name

Subscribed and sworn to before me this 5 day of January, 2021

TERRI EDER
Notary Public

