

Professional

Engineering

Services

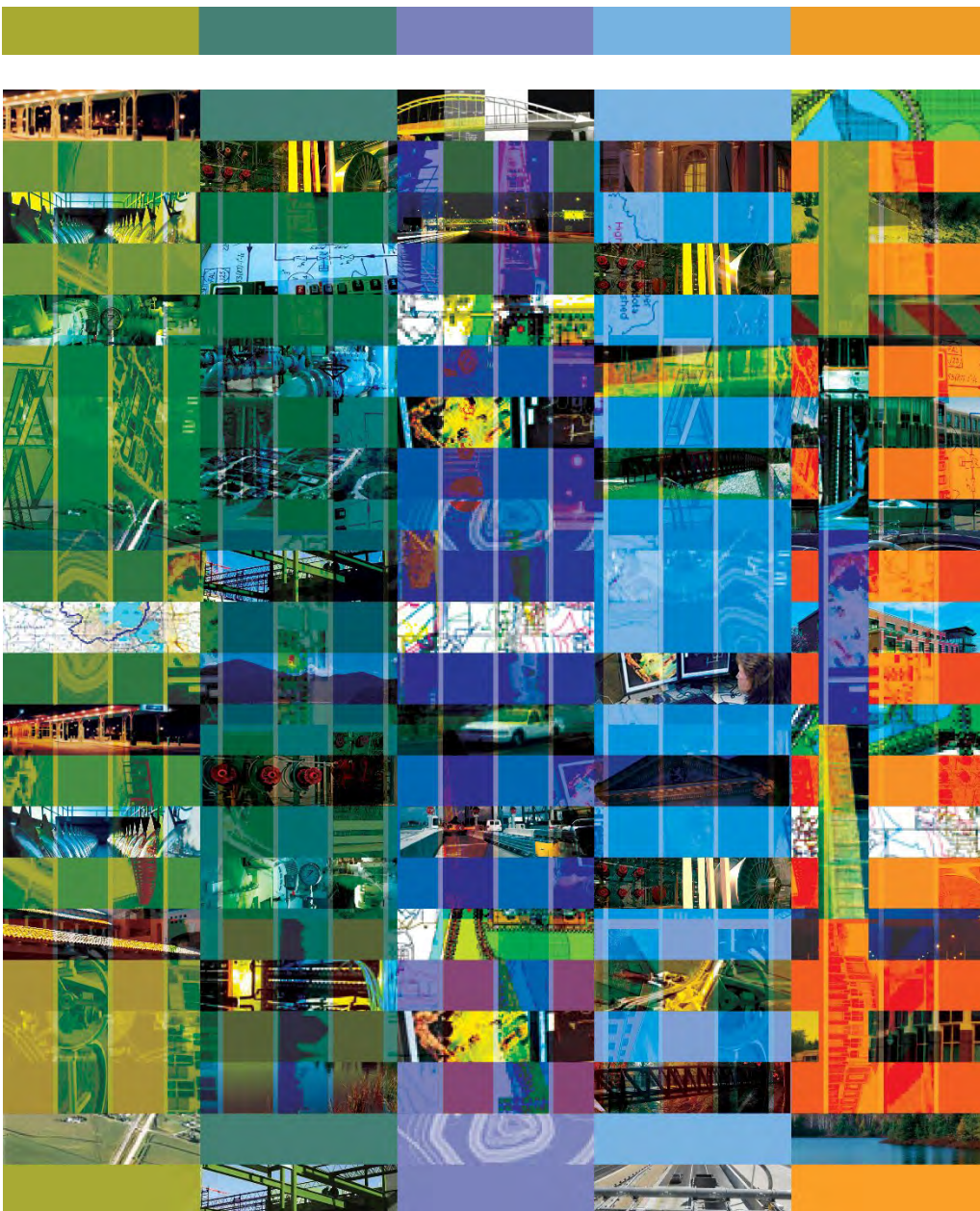
Investigation-
Design
Services for
Disinfection
Process
Replacement
Project

RFP #30-2022

Proposal

Lexington-Fayette
Urban County
Government

June 13, 2022





ADDENDUM #1

RFP Number: #30-2022

Date: May 26, 2022

Subject: Investigation-Design Services for Disinfection Process Replacement Project

Address inquiries to:
Brian Marcum
Brianm@lexingtonky.gov

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced RFP:

The deadline for submissions has been changed until June 13, 2022 at 2:00 PM EST.

Attached is a draft engineering services agreement.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME: Strand Associates, Inc.

ADDRESS: 651 Perimeter Drive, Suite 220, Lexington, KY 40517

SIGNATURE OF BIDDER:



ENGINEERING SERVICES AGREEMENT

THIS IS AN AGREEMENT made as of _____, 2022, between the **LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**, an urban county government of the Commonwealth of Kentucky pursuant to KRS Chapter 67A (“**OWNER**”) and _____ with offices located at _____ (“**CONSULTANT**”). **OWNER** intends to proceed with the _____ as described in the attached **EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #27-2022 (the “**PROJECT**”). The **CONSULTANT** shall perform professional engineering services and deliverables as described in **EXHIBIT A** which include customary master planning, civil, geotechnical, electrical, mechanical, structural, programming, water quality and sanitary engineering services as related to providing the deliverables specific to this agreement—that will assist the **OWNER** in successfully implementing the **PROJECT** and complying with any requirements which are related to the Consent Decree entered in a case styled *United States & Commonwealth of Kentucky v. Lexington Fayette Urban County Government*, United States District Court for the Eastern District of Kentucky, Civil Action No. 5:06-cv-386-KSF (the “**CONSENT DECREE**”). The services are hereinafter referred to as the **PROJECT**. **The primary goal of the PROJECT is to provide the OWNER with the technical support necessary to successfully meet the obligations and deadlines of the CONSENT DECREE.** **OWNER** and **CONSULTANT** in consideration of their mutual covenants herein agree in respect of the performance of professional engineering services by **CONSULTANT** and the payment for those services by **OWNER** as set forth below.

CONSULTANT shall provide professional consulting services for **OWNER** in all phases of the **PROJECT** to which this Agreement applies, serve as **OWNER'S** professional engineering representative for the **PROJECT** as set forth below and shall give professional consultation and advice to **OWNER** during the performance of services hereunder.

SECTION 1 - BASIC SERVICES OF CONSULTANT

1.1. General

CONSULTANT shall perform professional services as hereinafter stated that include customary civil, geotechnical, structural, mechanical, electrical and sanitary engineering services incidental thereto.

1.2. Incorporated Documents

The following documents are incorporated by reference as part of this Agreement:

1. The **CONSENT DECREE**, as may be amended, including all appendices.
2. **EXHIBIT A** – Scope of Engineering Services and Related Matters RFP #27-2022 (Including Addendums).
3. **EXHIBIT B** – Certificate of Insurance and Evidence of Insurability.
4. **EXHIBIT C** – Proposal of Engineering Services and Related Matters (the **CONSULTANT**'s response to RFP 27-2022).
5. **EXHIBIT D** – Further Description of Basic Engineering Services and Related Matters.

To the extent of any conflict among the provisions of these documents and/or this Agreement, the provisions of this Agreement shall control, followed by the provisions of **EXHIBIT A**, then **EXHIBIT D**, and then **EXHIBIT C**.

1.3 Project Phase

A complete description of the duties and responsibilities of the **CONSULTANT** are as indicated in **EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #27-2022, **EXHIBIT C** Proposal of Engineering Services and Related Matters, and **Exhibit D** Further Description of Basic Engineering Services and Related Matters. After written authorization to proceed from the **OWNER**, **CONSULTANT** shall:

- 1.3.1.** Notify the **OWNER** in writing of its authorized representative who shall act as Project Engineer and liaison representative between the **CONSULTANT** and the **OWNER**. **OWNER** has the right to approve the Project Engineer, or any change thereto, which approval shall not be unreasonably withheld.
- 1.3.2.** The **CONSULTANT** **must perform all duties** necessary to fully complete the deliverables as further described in attached **EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #27-2022, attached **EXHIBIT C**, Proposal of Engineering Services and Related Matters, and attached **EXHIBIT D** Further Description of Basic Engineering Services and Related Matters **unless otherwise agreed to in writing by the parties**.
- 1.3.3.** The **CONSULTANT** shall provide written documentation of all meetings and be responsible for incorporating all comments and changes resulting therefrom in final work product.
- 1.3.4.** The **CONSULTANT** shall submit five (5) copies (hardcover) of all initial draft final work products for this **PROJECT** unless otherwise described in Exhibit A. The copies of the initial draft final reports are submitted for review and comment by the **OWNER**, and should be presented in person to the **OWNER**.
- 1.3.5.** After the **OWNER'S** detailed review, the **CONSULTANT** will revise the initial draft final for all work products for this **PROJECT**, and the **CONSULTANT** shall submit five (5) copies (hardcover) unless otherwise described in Exhibit A. One electronic copy of the all work products for this **PROJECT**, including all appendices, shall be provided and prepared in such a manner that it can readily be converted to a quick-link accessible form for the **OWNER'S** Website. The **OWNER** shall have ten (10) business days within which to accept or deny each such final draft. If it is denied, the **OWNER** shall provide a detailed explanation in writing for the basis of such denial. Once the **OWNER** accepts the draft as final, a total of five (5) final copies (hardcover) are required in addition to an electronic copy unless otherwise described in Exhibit A.
- 1.3.6.** Immediately notify **OWNER** of any delay in the delivery of a work product or deliverable, regardless of cause. Give written notice to **OWNER** within five (5) business days whenever **CONSULTANT** observes or otherwise becomes aware of any development that affects the scope or timing of **CONSULTANT'S** services, or any defect in the work of Contractor(s).

SECTION 2 - EXTRA WORK BY CONSULTANT

- 2.1. The **OWNER** may desire to have the **CONSULTANT** perform work or render services in connection with this **PROJECT** other than provided by the expressed intent of this Agreement. Such work shall be considered as Extra Work, subject to a change order, supplemental to this Agreement, setting forth the character and scope thereof and the compensation therefore. Work under such change order shall not proceed until the **OWNER** gives written authorization. Should the **OWNER** find it desirable to have previously satisfactorily completed and accepted plans or parts thereof revised, the **CONSULTANT** shall make such revisions as directed, in writing, by the **OWNER**. This work shall be considered as Extra Work and shall be paid as such.
- 2.2. All Extra Work is subject to prior written authorization of **OWNER** and necessary appropriations made by the Urban County Council.

SECTION 3 - OWNER'S RESPONSIBILITIES

OWNER shall:

- 3.1. Provide criteria and information as to **OWNER'S** requirements for the **PROJECT**, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations.
- 3.2. Assist **CONSULTANT** by placing at his disposal available information pertinent to the Project.
- 3.3. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by **CONSULTANT**, and provide written approval or disapproval thereof within a reasonable time so as not to delay the services of **CONSULTANT**.
- 3.4. Designate in writing a person to act as **OWNER'S** representative agent with respect to the services to be rendered under this Agreement (see Section 8.1.1.). Such person shall have complete authority to transmit instructions, receive information, interpret, and define **OWNER'S** policies and decisions with respect to materials, equipment, elements, and systems pertinent to **CONSULTANT'S** services.
- 3.5. Give written notice to **CONSULTANT** whenever **OWNER** observes or otherwise becomes aware of any development that affects the scope or timing of **CONSULTANT'S** services, or any defect in the work of **CONSULTANT**.
- 3.6. Furnish or direct **CONSULTANT** to provide, Extra Work as stipulated in Section Two (2) of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICES

- 4.1. Time is of the essence in the performance of this Agreement. **CONSULTANT** is aware that the **OWNER** is subject to penalties for non-compliance with the **CONSENT DECREE** deadlines. See attached **EXHIBIT A** for the overall current project schedule.
- 4.2. The provisions of this Section Four (4) and the various rates of compensation for **CONSULTANT'S** services provided for elsewhere in this Agreement have been agreed to in anticipation of the orderly and continuous progress of the **PROJECT** through completion.
- 4.3. If a delay results from the acts of **OWNER** or another entity that is required to permit or

approve the work or services, an extension of time for such delay will be considered by **OWNER**.

- 4.3.1. If the above type of delay occurs and **CONSULTANT** wants an extension of time, it must, within ten (10) days from the date of the delay, apply in writing to **OWNER** for an extension of time for a reasonable period, which must be agreed upon by **OWNER**.
 - 4.3.2. If the extension of time is approved by **OWNER**, the **PROJECT** schedule shall be revised to reflect the extension. Such extension of time to the completion date shall in no way be construed to operate as a waiver on the part of **OWNER** of any of its other rights in the Agreement.
 - 4.3.3. If the above type of delay would prevent complete performance of the **PROJECT** within sixty (60) days of the time specified therein, **OWNER** shall have the option of cancelling the **PROJECT** or otherwise adjusting the scope of the services or work.
 - 4.3.4. If the parties cannot mutually agree to an extension of time or an adjustment, Section 6.5 under "DISPUTES" of this Agreement shall apply.
- 4.4. If delays result solely by reason of acts of the **CONSULTANT**, the **CONSULTANT** shall be held liable for any financial penalties incurred by the **OWNER** as a result of the delay, **including but not limited to those assessed pursuant to the CONSENT DECREE**. Section 6.5 of this Agreement (**Disputes**), shall apply in the event the parties cannot mutually agree upon the cause(s) associated with delays in completing project deliverables. The **CONSULTANT** must immediately notify the **OWNER** in the event of such delay, and provide the **OWNER** a written action plan within five (5) business days on how it will attempt to resolve the delay.

SECTION 5 - PAYMENTS TO CONSULTANT

5.1. Methods of Payment for Services of CONSULTANT.

5.1.1. For Basic Services

OWNER shall issue individual task orders for each work assignment performed under this Agreement by **CONSULTANT** or its sub-consultant/s. Each task order shall contain scope of work, fee, and schedule for performance of the work. Individual task orders shall be of the form included in **EXHIBIT D**.

- 5.1.1.a Fee payable to **CONSULTANT** under individual task order shall be developed using hourly rates included in **EXHIBIT D** or as amended in accordance with provisions therein.
- 5.1.1.b Terms of payment to **CONSULTANT** shall be specified in each task order. For assignments with defined scope, lump sum task orders shall be issued. Otherwise, task orders shall include time and materials payment terms.
- 5.1.1.c Each task order issued shall receive prior written approval of **OWNER** prior to **CONSULTANT** proceeding with said work. The **OWNER's** designated agent in Section 8.1.1. shall be the only person authorized to provide such approval.

5.1.2. For Extra Work

Extra Work shall be paid for by the **OWNER** on the basis of a fixed fee, the amount of which shall be determined by negotiation. The **OWNER** shall have the right to negotiate alternate methods of payment for Extra Work if the **OWNER** determines that the fixed fee basis is not feasible. In the event the **OWNER** and the **CONSULTANT** are unable to agree upon the amount of payment for Extra Work, then the amount of such payment shall be determined pursuant to Section 6.5 (**Disputes**).

5.2. Times of Payment

5.2.1 **CONSULTANT** shall submit to **OWNER** detailed monthly statements for Basic Services and Extra Work rendered. The Statements will be based upon **CONSULTANT'S** estimate of the proportion of the total services actually completed at the time of billing. **OWNER** shall respond to **CONSULTANT'S** monthly statements within thirty (30) days, either denying payment or making payment.

5.3. Other Provisions Concerning Payments

5.3.1. In the event the Agreement is terminated by the **OWNER** without fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid for the work performed or services rendered for which it has not already been paid in an amount bearing the same ratio to the total Agreement fee as the amount of work completed or partially completed and delivered to the **OWNER** is to the total amount of work provided for herein, as determined by mutual agreement between the **OWNER** and the **CONSULTANT**.

5.3.2. In the event the services of the **CONSULTANT** are terminated by the **OWNER** for fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid reasonable value of the work performed or services rendered and delivered for which it has not already been paid, and the amount to be paid shall be determined by the **OWNER**.

SECTION 6 - GENERAL CONSIDERATIONS

6.1. Termination

6.1.1. **CONSULTANT** may only terminate this Agreement due to **OWNER'S** material breach of the terms hereof which breach causes **CONSULTANT** to be unable to perform its duties and responsibilities under this Agreement and upon forty-five (45) days written advance notice to **OWNER**.

6.1.2. The **OWNER** may terminate this Agreement for cause upon seven (7) business days written advance notice to the **CONSULTANT**. The **OWNER** reserves the right to terminate the Agreement for any reason whatsoever, with or without cause, at any time upon thirty (30) days written advance notice to the **CONSULTANT**.

6.2. Ownership and Reuse of Documents

All documents, including raw data, reports, drawings and specifications, prepared by the **CONSULTANT** pursuant to this Agreement shall be delivered to and become the property of the **OWNER**. The **OWNER** shall have the right to reuse same without restriction or limitation, but without liability or legal exposure to **CONSULTANT**.

6.3. Legal Responsibilities and Legal Relations

- 6.3.1.** The **CONSULTANT** shall familiarize itself with and shall at all times comply with the **CONSENT DECREE** and all federal, state, and local laws, ordinances, and regulations that in any manner affect the services of this Agreement.
- 6.3.2.** In performing the services hereunder, the **CONSULTANT** and its consultants, employees, agents and representatives shall not be deemed or construed to be employees of **OWNER** in any manner whatsoever. Except as otherwise provided in this Agreement, the **CONSULTANT** shall be acting as an independent contractor. The **CONSULTANT** shall not hold itself out as, nor claim to be, an officer or employee of **OWNER** by reason hereof and shall not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of **OWNER**. The **CONSULTANT** shall be solely responsible for any claims for wages or compensation by **CONSULTANT'S** employees, agents and representatives, including consultants, and shall save and hold **OWNER** harmless therefrom.
- 6.3.3.** The parties hereto agree that causes of actions between the parties shall be governed by applicable provisions of the Kentucky Revised Statutes, and that venue of any legal action shall be a court of appropriate jurisdiction in Fayette County, Kentucky. The parties further agree that Kentucky law shall apply with respect to the interpretation of any provision of this Agreement.

6.4. Successors and Assigns

- 6.4.1.** **CONSULTANT** binds itself and its partners, successors, assigns and legal representatives to this Agreement. **CONSULTANT** shall not assign any interest in this Agreement without prior written consent of **OWNER**. **OWNER'S** consent shall not relieve the **CONSULTANT** of any responsibility for compliance with the provisions of this Agreement.
- 6.4.2.** **In no event shall** the **CONSULTANT** subcontract more than fifty percent (50%) of the work, based upon dollar value of the work.
- 6.4.3.** Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than **OWNER** and **CONSULTANT**.

6.5. Disputes

Except as otherwise provided in this Agreement, any dispute hereunder may be resolved by agreement of the **OWNER'S** Agent (Section 8.1.1) and the **CONSULTANT**. In the absence of such an agreement, the dispute shall be submitted to the **OWNER'S** Commissioner, Department of Environmental Quality, whose decision shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious,

arbitrary, or so grossly erroneous as necessarily to imply bad faith. Pending a final decision of a dispute hereunder, the **CONSULTANT** shall proceed diligently with the performance of the Agreement in accordance with the directions of the **OWNER**.

6.6. Accuracy of Consultant's Work

CONSULTANT shall be required to perform this Agreement in accordance with the degree of ordinary and reasonable skill and care usually exercised by professional engineers prevailing at the time, place and under similar conditions as the services hereunder are rendered. **CONSULTANT** shall be responsible for the accuracy of all work, even though raw data, reports, Drawings and Specifications have been accepted by **OWNER**, and it shall make any necessary revisions or corrections resulting from its errors and/or omissions for no additional compensation. By submission of reports, soils and subsurface information, quantities estimates, calculations and Drawings and Specifications to **OWNER**, **CONSULTANT** has made an incontrovertible representation that the information is accurate within the appropriate standard of skill and care. Failure on the part of **CONSULTANT** to provide the expected level of accuracy may be grounds for **OWNER** to terminate this Agreement

6.7. Security Clause

The **CONSULTANT** certifies that he shall not at any time release or divulge any information concerning the services covered by this Agreement to any person or any public or private organization without prior approval of the **OWNER** unless otherwise required by law

6.8. Access to Records

The **CONSULTANT** and its sub-consultants shall maintain all books, documents, papers, and accounting records, and make such materials available at their respective offices at all reasonable times during the Agreement period and for three (3) years from the date of final payment under the Agreement for inspection by the **OWNER**, and copies thereof shall be furnished if requested. Failure to maintain such records for three (3) years after the date of final payment may be grounds for the **OWNER** to disqualify the **CONSULTANT** from consideration for future consultant engineering Agreements.

6.9. Risk Management Provisions, Insurance and Indemnification

6.9.1. DEFINITIONS

The **CONSULTANT** understands and agrees that the Risk Management Provisions of this Agreement define the responsibilities of the **CONSULTANT** to the **OWNER**.

As used in these Risk Management Provisions, the terms "**CONSULTANT**" and "**OWNER**" shall be defined as follows:

- a.** **CONSULTANT** means the consultant and its employees, agents, servants, owners, principals, licensees, assigns and subcontractors of any tier.

- b. **OWNER** means the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, boards, assigns, volunteers, and successors in interest.

6.9.2. INDEMNIFICATION AND HOLD HARMLESS PROVISION

- a. It is understood and agreed by the parties that **CONSULTANT** hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of **CONSULTANT** or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "**CONSULTANT**") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- b. **CONSULTANT** shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "**OWNER**") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by **CONSULTANT**'s performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the **CONSULTANT**; and (b) not caused solely by the active negligence or willful misconduct of **OWNER**.
- c. Notwithstanding, the foregoing, with respect to any professional services performed by **CONSULTANT** hereunder (and to the fullest extent permitted by law), **CONSULTANT** shall indemnify, save, hold harmless and defend **OWNER** from and against any and all liability, damages and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees, for any damage due to death or injury to any person or injury to any property (including the loss of use resulting therefrom) to the extent arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of **CONSULTANT** in the performance of this agreement.
- d. In the event **OWNER** is alleged to be liable based upon the above, **CONSULTANT** shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and

expenses, using attorneys approved in writing by **OWNER**, which approval shall not be unreasonably withheld.

- e. These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- f. **OWNER** is a political subdivision of the Commonwealth of Kentucky. **CONSULTANT** acknowledges and agrees that **OWNER** is unable to provide indemnity or otherwise save, hold harmless, or defend the **CONSULTANT** in any manner.

6.9.3. DAMAGES RELATED TO NONPERFORMANCE OR DELAY BY CONSULTANT

In the event that **CONSULTANT'S** delay or other nonperformance of its obligations hereunder results in the imposition of penalties against the **OWNER** pursuant to the **CONSENT DECREE**, or the **OWNER** otherwise suffers damage as a result of such delay or nonperformance, **CONSULTANT** shall be solely liable to **OWNER** for any and all such damages, including any costs and attorney's fees.

6.9.4. FINANCIAL RESPONSIBILITY

The **CONSULTANT** understands and agrees that the **CONSULTANT** shall, prior to final acceptance of the **CONSULTANT'S** proposal and the commencement of any work; demonstrate the ability to assure compliance with the Indemnity Agreement and other provisions of this Agreement.

6.9.5. INSURANCE REQUIREMENTS

6.9.5.1. Required Insurance Coverage

CONSULTANT shall procure and maintain for the duration of this Agreement the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to **OWNER** in order to protect **OWNER** against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by **CONSULTANT**. The cost of such insurance shall be included in any proposal:

<u>Coverage</u>	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Professional Liability	\$1 million per occurrence, \$ 2 million aggregate
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. **OWNER** shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by **OWNER**.
- c. The General Liability Policy shall include Business Interruption coverage.
- d. The Contractor shall carry Builders Risk coverage at a level sufficient to cover the replacement cost of any equipment or machinery used at the work site, if applicable.
- e. The General Liability Policy shall include a Pollution Liability endorsement and/or Environmental Casualty coverage unless it is deemed not to apply by **OWNER**.
- f. The General Liability Policy shall have a Professional Liability endorsement (including Errors and Omissions), which shall include Business interruption coverage and this policy or endorsement shall include Environmental Casualty coverage for any services performed pursuant to the contract, and/or a separate Professional Liability Policy shall be obtained unless it is deemed not to apply by **OWNER**. (**OWNER** does not need to be named as additional insured).
- g. **OWNER** shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- h. The Professional Liability policy shall be maintained for a minimum of three years beyond the completion date of the project, to the extent commercially available. If not commercially available, **CONSULTANT** shall notify **OWNER** and obtain similar insurance that is commercially available and acceptable to **OWNER**.
- i. Said coverage shall be written by insurers acceptable to **OWNER** and shall be in a

form acceptable to **OWNER**. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

6.9.5.2. Renewals

After insurance has been approved by **OWNER**, evidence of renewal of an expiring policy must be submitted to **OWNER**, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

6.9.5.3. Right to Review, Audit and Inspect

CONSULTANT understands and agrees that **OWNER** may review, audit and inspect any and all of **CONSULTANT'S** records and operations to insure compliance with these Insurance Requirements.

6.9.6. SAFETY AND LOSS CONTROL

CONSULTANT shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and **OWNER**.

6.9.7. DEFINITION OF DEFAULT

CONSULTANT understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default under this Agreement. **CONSULTANT** also agrees that **OWNER** may elect as its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging **CONSULTANT** for any such insurance premiums purchased, or suspending or terminating this Agreement.

SECTION 7 - EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Agreement, the **CONSULTANT** agrees as follows:

- 7.1. The **CONSULTANT** will not discriminate against any employee or application for employment because of race, color, religion, national origin, sex, age, or handicap. The **CONSULTANT** will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, national origin, sex, age, or handicap. 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 apprenticeships. The **CONSULTANT** agrees to post in conspicuous

places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.

- 7.2. The **CONSULTANT** will, in all solicitations or advertisements for employees placed by or on behalf of the **CONSULTANT**, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age (between forty and seventy), or handicap.

SECTION 8 - SPECIAL PROVISIONS, EXHIBITS, AND SCHEDULES

- 8.1. This Agreement is subject to the following provisions.
 - 8.1.1. Pursuant to subparagraph 3.4 of this Agreement, **OWNER** has assigned Charles H. Martin, P.E., Director of the Division of Water Quality (the "**OWNER'S** Agent"), as the authorized agent of **OWNER**, to monitor, direct and review the performance of work of the **CONSULTANT**. Documents, data, reports, and all matters associated with carrying out this Agreement shall be addressed to the **OWNER'S** Agent or his designee. Questions by the **CONSULTANT** regarding interpretations of the terms, provisions and requirements under this Agreement shall be addressed to the **OWNER'S** Agent or his designee. The **CONSULTANT** shall look only to the **OWNER'S** Agent or his designee for direction in its performance under this Agreement; no other direction shall be binding upon **OWNER**. **OWNER** shall respond to written requests by **CONSULTANT** within thirty (30) days.
- 8.2. This Agreement, together with the Incorporated Documents (Section 1.2) constitutes the entire Agreement between **OWNER** and **CONSULTANT** and supersedes all prior written or oral understandings. This Agreement and **EXHIBITS A, B, C and D** and any related schedules or documents may only be amended, supplemented, modified or canceled by a duly executed written instrument.
- 8.3. **NO THIRD PARTY RIGHTS.** This agreement does not create a contractual relationship with or right of action in favor of a third party against either **OWNER** or **CONSULTANT**.
- 8.4. **UNENFORCEABLE TERMS/SURVIVABILITY.** If any term or provision of this Agreement shall be found to be illegal or unenforceable, this Agreement shall remain in full force and such term or provision shall be deemed stricken. The provisions of Section 6 of this Agreement shall survive its termination.
- 8.5. **NON-WAIVER.** The failure of either party to enforce any right reserved to it in this Agreement shall not be a waiver of any such right to which the party is entitled.



ADDENDUM #2

RFP Number: #30-2022

Date: June 3, 2022

Subject: Investigation-Design Services for Disinfection Process Replacement Project

Address inquiries to:
Brian Marcum
Brianm@lexingtonky.gov

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced RFP:

Attached are questions submitted and answers.

Attached is a revised fee schedule.

Attached is a draft UV Engineering Services Agreement.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME: Strand Associates, Inc.

ADDRESS: 651 Perimeter Drive, Suite 220, Lexington, KY 40517

SIGNATURE OF BIDDER:



6/2/2022 – Questions received for UV Bid for Design

1. Will LFUCG please provide a copy of the most recent referenced USDA Rural Development Utility Program Fee Guide the selection committee will be referencing?

Answer – USDA Rural Development Utility Program Fee Guide information can be obtained by contacting:

Rhonda G. Logan
Community Programs Loan Specialist
Kentucky State Office, Rural Development
United States Department of Agriculture
Phone: 859-224-7415 Cell: 502-257-2849
www.rd.usda.gov/ky

It is the proposer's responsibility to determine the fee amount limitation required by the grant conditions.

2. Can you provide a copy of the engineering services (Owner-Engineer) contract for RFP #30-2022?

Answer – LFUCG has attached a DRAFT Engineering Services Agreement (ESA) for RFP 30-2022.

3. The USDA Rural Development Utility Program Fee Guide is associated with the Rural Development, EJCDC, E-Series, Form E-500 engineering contract. Will LFUCG be utilizing this EJCDC Contract for this RFP #30-2022?

Answer – LFUCG will be using their standard ESA for this design. See attached ESA referred to in #2.

4. The USDA Rural Development Utility Program Fee Guide references, Table I – BASIC DESIGN. Specifically, what design services are included under 'BASIC DESIGN'? What design services are NOT included under BASIC DESIGN?

Answer – LFUCG cannot provide an interpretation of USDA guidance, proposers are encouraged to contact the USDA contact for clarification. The design services requested by LFUCG are contained in the RFP.

5. Are there any environmental (Fish and Wildlife, Threatened and Endangered Species), historic preservation, and archaeological surveys and/or documentation requirements for this project?

Answer – Grant conditions require LFUCG to provide documentation of Kentucky eClearinghouse Endorsement and eClearinghouse comments. Proposers are encouraged to consider the likely effort needed in documenting the required endorsement and comments for a project that is located within the perimeters of two active wastewater treatment facilities that are more than 50 years old.

6. Is there any CWP grant, or funding administration fees included in this project? or will all this effort/work be handled by LFUCG? There is no Task or fee section associated with grant administration, but Item 1: General Project Description describes several technical and administration tasks associated with grant documentation being the requirement of the CONSULTANT. Are these fees/hours excluded from the BASIC DESIGN fee percentage?

Answer – The RFP includes the paragraph shown below.

“This project is funded 100% by a grant from the Kentucky Cleaner Water Program (CWP). The Kentucky Infrastructure Authority (KIA) approved the grant request through the American Rescue Plan Act 2021. The funds must be obligated by December 31, 2024 and fully expended by December 31, 2026. See APPENDIX A for the KIA grant documents already received by LFUCG. The CONSULTANT will be responsible for completing the technical and administrative tasks necessary to prepare all required grant documentation submittals at the direction of LFUCG’s Department of Housing Advocacy and Community Development (Grants), beginning with, the grant obligations described in March 17, 2022 Conditional Commitment Letter and attachments included in Appendix A.”

The responsibilities of the CONSULTANT are outlined in the Conditional Commitment Letter. A line has been added to the Fee Schedule. A new Fee Schedule is attached.

LFUCG cannot provide an interpretation of USDA guidance regarding BASIC DESIGN, proposers are encouraged to contact the USDA contact for clarification.

7. Is full time RPR inspection during construction required on the project? Task 5 states, 'weekly reports, final inspection and prepare the final punch list'. The USDA Rural Development Utility Program Fee Guide references, Table II – INSPECTION COSTS and states that this includes 'The RPR will maintain a daily log meeting USDA/RD....requirements.

Answer – Full time RPR from the consultants is not required, we ask for an hourly cost for the recommended RPR hours. The Plant Engineering Group can do daily reports.

8. Will the USDA Rural Development Utility Program Fee Guide, Table II – INSPECTION COSTS, 'NOTE: Add two percent to the above Table II percentages for treatment facilities' be approve/included for this proposal/project?

Answer – LFUCG cannot provide an interpretation of USDA guidance regarding BASIC DESIGN, proposers are encouraged to contact the USDA contact for clarification.

9. What RPR tasks are included in the Table II – INSPECTION COSTS fee guide?

Answer – LFUCG cannot provide an interpretation of USDA guidance regarding BASIC DESIGN, proposers are encouraged to contact the USDA contact for clarification.

Price Construction Administration services as described in the RFP.

10. Should the Construction and Equipment costs total listed in the KIA-SRF Project Profile SX21067064 be used to determine TABLE I – BASIC DESIGN and TABLE II – INSPECTION COSTS percentage fees? If not, is the CONSULTANT responsible for providing an Opinion of Probable Construction Cost their 'Fee Guide' percentage is based on?

Answer – LFUCG estimated the construction and equipment costs to be \$9,575,050. In LFUCG's view, CONSULTANT fees based on Construction Costs should use this figure. Proposers are strongly encouraged to contact USDA to get specific information regarding their interpretations of the Fee Guide. Proposers who are unable to meet the fee percentages contained in USDA guidance can submit a different fee along with a justification for that fee for consideration but should recognize that the Grant Conditions currently limit the Grantee's (LFUCG's) reimbursement of fees to USDA guidance.

**Investigation/Design Services for Town Branch (TB) and West Hickman (WH) WWTP
Disinfection Improvements Project**

Fee Schedule

(For a description of task refer to Section 1 and 2 of the RFP)

Section 1

The CONSULTANT will be responsible for completing the technical and administrative tasks necessary to prepare all required grant documentation submittals at the direction of LFUCG's Department of Housing Advocacy and Community Development (Grants), beginning with the obligations described in March 17, 2022 Conditional Commitment Letter and attachments included in Appendix A.

Grant Documentation (TB & WH) Submittals Cost: _____

Section 2

Scope of Work: Disinfection Improvements Project

TOWN BRANCH WWTP

- A. Task 1: Existing Process Performance Review
Cost Task 1: _____

- B. Task 2: Develop Equipment/Process Replacement Concepts
Cost Task 2: _____

- C. Task 3: Detailed Design
Cost Task 3: _____

- D. Task 4: Bidding Services
Cost Task 4: _____

- E. Task 5: Construction Administration Services
Cost Task 5: _____

Details for Task 5.5 - The total cost should be included in Cost Task 5. Please provide the following breakdown. Estimated Weekly Inspection Hrs/Estimated Total Inspection Hrs/Hourly Rate.

_____ / _____

Town Branch Total Cost:

WEST HICKMAN WWTP

- A. Task 1: Existing Process Performance Review
Cost Task 1: _____

- B. Task 2: Develop Equipment/Process Replacement Concepts
Cost Task 2: _____

- C. Task 3: Detailed Design
Cost Task 3: _____

- D. Task 4: Bidding Services
Cost Task 4: _____

- E. Task 5: Construction Administration Services
Cost Task 5: _____

Details for Task 5.5 - The total cost should be included in Cost Task 5. Please provide the following breakdown. Estimated Weekly Inspection Hrs/Estimated Total Inspection Hrs/Hourly Rate.

_____ / _____

West Hickman Total Cost:

TOTAL FEE:

ENGINEERING SERVICES AGREEMENT

THIS IS AN AGREEMENT made as of _____, 2017, between the **LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**, an urban county government of the Commonwealth of Kentucky pursuant to KRS Chapter 67A (“**OWNER**”) and _____ with offices located at _____ (“**CONSULTANT**”). **OWNER** intends to proceed with the Engineering Services for Investigation/Design Services for Town Branch and West Hickman WWTP Disinfection Process Replacement Project as described in the attached **EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #30-2022 (the “**PROJECT**”). The **CONSULTANT** shall perform professional engineering services and deliverables as described in **EXHIBIT A** which include customary master planning, civil, geotechnical, electrical, mechanical, structural, programming, water quality and sanitary engineering services as related to providing the deliverables specific to this agreement—that will assist the **OWNER** in successfully implementing the **PROJECT** and complying with any requirements which are related to the Consent Decree entered in a case styled *United States & Commonwealth of Kentucky v. Lexington Fayette Urban County Government*, United States District Court for the Eastern District of Kentucky, Civil Action No. 5:06-cv-386-KSF (the “**CONSENT DECREE**”). The services are hereinafter referred to as the **PROJECT**. The primary goal of the **PROJECT** is to provide the **OWNER** with the technical support necessary to successfully meet the RMP Implementation Plan-WWTP Reliability Upgrade Town Branch (TB) WWTP-8, TB WWTP-9, West Hickman (WH) WWTP-8, and WH WWTP-9, obligations and deadlines of the CONSENT DECREE. **OWNER** and **CONSULTANT** in consideration of their mutual covenants herein agree in respect of the performance of professional engineering services by **CONSULTANT** and the payment for those services by **OWNER** as set forth below.

CONSULTANT shall provide professional consulting services for **OWNER** in all phases of the **PROJECT** to which this Agreement applies, serve as **OWNER'S** professional engineering representative for the **PROJECT** as set forth below and shall give professional consultation and advice to **OWNER** during the performance of services hereunder.

SECTION 1 - BASIC SERVICES OF CONSULTANT

1.1. General

CONSULTANT shall perform professional services as hereinafter stated that include customary civil, geotechnical, structural, mechanical, electrical and sanitary engineering services incidental thereto.

1.2. Incorporated Documents

The following documents are incorporated by reference as part of this Agreement:

1. The **CONSENT DECREE**, as may be amended, including all appendices.
2. **EXHIBIT A** – Scope of Engineering Services and Related Matters RFP # 30-2022 (Including Addendums).
3. **EXHIBIT B** – Certificate of Insurance and Evidence of Insurability.
4. **EXHIBIT C** – Proposal of Engineering Services and Related Matters (the **CONSULTANT**'s response to RFP #30-2022).

5. **EXHIBIT D** – Further Description of Basic Engineering Services and Related Matters.

To the extent of any conflict among the provisions of these documents and/or this Agreement, the provisions of this Agreement shall control, followed by the provisions of **EXHIBIT A**, then **EXHIBIT D**, and then **EXHIBIT C**.

1.3 Project Phase

A complete description of the duties and responsibilities of the **CONSULTANT** are as indicated in **EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #30-2022, **EXHIBIT C** Proposal of Engineering Services and Related Matters, and **Exhibit D** Further Description of Basic Engineering Services and Related Matters. After written authorization to proceed from the **OWNER**, **CONSULTANT** shall:

- 1.3.1. Notify the **OWNER** in writing of its authorized representative who shall act as Project Engineer and liaison representative between the **CONSULTANT** and the **OWNER**. **OWNER** has the right to approve the Project Engineer, or any change thereto, which approval shall not be unreasonably withheld.
- 1.3.2. The **CONSULTANT** **must perform all duties necessary to fully complete the deliverables as further described in attached EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #30-2022, attached **EXHIBIT C**, Proposal of Engineering Services and Related Matters, and attached **EXHIBIT D** Further Description of Basic Engineering Services and Related Matters **unless otherwise agreed to in writing by the parties**.
- 1.3.3. The **CONSULTANT** shall provide written documentation of all meetings and be responsible for incorporating all comments and changes resulting therefrom in final work product.
- 1.3.4. The **CONSULTANT** shall submit five (5) copies (hardcover) of all initial draft final work products for this **PROJECT** unless otherwise described in Exhibit A. The copies of the initial draft final reports are submitted for review and comment by the **OWNER**, and should be presented in person to the **OWNER**.
- 1.3.5. After the **OWNER'S** detailed review, the **CONSULTANT** will revise the initial draft final for all work products for this **PROJECT**, and the **CONSULTANT** shall submit five (5) copies (hardcover) unless otherwise described in Exhibit A. One electronic copy of the all work products for this **PROJECT**, including all appendices, shall be provided and prepared in such a manner that it can readily be converted to a quick-link accessible form for the **OWNER'S** Website. The **OWNER** shall have ten (10) business days within which to accept or deny each such final draft. If it is denied, the **OWNER** shall provide a detailed explanation in writing for the basis of such denial. Once the **OWNER** accepts the draft as final, a total of ten (10) final copies (hardcover) are required in addition to an electronic copy unless otherwise described in Exhibit A.
- 1.3.6. Immediately notify **OWNER** of any delay in the delivery of a work product or deliverable, regardless of cause. Give written notice to **OWNER** within five (5) business days whenever **CONSULTANT** observes or otherwise becomes aware of

any development that affects the scope or timing of **CONSULTANT'S** services, or any defect in the work of Contractor(s).

SECTION 2 - EXTRA WORK BY CONSULTANT

- 2.1. The **OWNER** may desire to have the **CONSULTANT** perform work or render services in connection with this **PROJECT** other than provided by the expressed intent of this Agreement. Such work shall be considered as Extra Work, subject to a change order, supplemental to this Agreement, setting forth the character and scope thereof and the compensation therefore. Work under such change order shall not proceed until the **OWNER** gives written authorization. Should the **OWNER** find it desirable to have previously satisfactorily completed and accepted plans or parts thereof revised, the **CONSULTANT** shall make such revisions as directed, in writing, by the **OWNER**. This work shall be considered as Extra Work and shall be paid as such.
- 2.2. All Extra Work is subject to prior written authorization of **OWNER** and necessary appropriations made by the Urban County Council.

SECTION 3 - OWNER'S RESPONSIBILITIES

OWNER shall:

- 3.1. Provide criteria and information as to **OWNER'S** requirements for the **PROJECT**, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations.
- 3.2. Assist **CONSULTANT** by placing at his disposal available information pertinent to the Project.
- 3.3. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by **CONSULTANT**, and provide written approval or disapproval thereof within a reasonable time so as not to delay the services of **CONSULTANT**.
- 3.4. Designate in writing a person to act as **OWNER'S** representative agent with respect to the services to be rendered under this Agreement (see Section 8.1.1.). Such person shall have complete authority to transmit instructions, receive information, interpret, and define **OWNER'S** policies and decisions with respect to materials, equipment, elements, and systems pertinent to **CONSULTANT'S** services.
- 3.5. Give written notice to **CONSULTANT** whenever **OWNER** observes or otherwise becomes aware of any development that affects the scope or timing of **CONSULTANT'S** services, or any defect in the work of **CONSULTANT**.
- 3.6. Furnish or direct **CONSULTANT** to provide, Extra Work as stipulated in Section Two (2) of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICES

- 4.1. Time is of the essence in the performance of this Agreement. **CONSULTANT** is aware that the **OWNER** is subject to penalties for non-compliance with the **CONSENT DECREE** deadlines. See attached **EXHIBIT A** for the overall current project schedule.

- 4.2. The provisions of this Section Four (4) and the various rates of compensation for **CONSULTANT'S** services provided for elsewhere in this Agreement have been agreed to in anticipation of the orderly and continuous progress of the **PROJECT** through completion.
- 4.3. If a delay results from the acts of **OWNER** or another entity that is required to permit or approve the work or services, an extension of time for such delay will be considered by **OWNER**.
- 4.3.1. If the above type of delay occurs and **CONSULTANT** wants an extension of time, it must, within ten (10) days from the date of the delay, apply in writing to **OWNER** for an extension of time for a reasonable period, which must be agreed upon by **OWNER**.
- 4.3.2. If the extension of time is approved by **OWNER**, the **PROJECT** schedule shall be revised to reflect the extension. Such extension of time to the completion date shall in no way be construed to operate as a waiver on the part of **OWNER** of any of its other rights in the Agreement.
- 4.3.3. If the above type of delay would prevent complete performance of the **PROJECT** within sixty (60) days of the time specified therein, **OWNER** shall have the option of cancelling the **PROJECT** or otherwise adjusting the scope of the services or work.
- 4.3.4. If the parties cannot mutually agree to an extension of time or an adjustment, Section 6.5 under "DISPUTES" of this Agreement shall apply.
- 4.4. If delays result solely by reason of acts of the **CONSULTANT**, the **CONSULTANT** shall be held liable for any financial penalties incurred by the **OWNER** as a result of the delay, **including but not limited to those assessed pursuant to the CONSENT DECREE**. Section 6.5 of this Agreement (**Disputes**), shall apply in the event the parties cannot mutually agree upon the cause(s) associated with delays in completing project deliverables. The **CONSULTANT** must immediately notify the **OWNER** in the event of such delay, and provide the **OWNER** a written action plan within five (5) business days on how it will attempt to resolve the delay.

SECTION 5 - PAYMENTS TO CONSULTANT

5.1. Methods of Payment for Services of CONSULTANT.

5.1.1. For Basic Services

OWNER shall pay **CONSULTANT** a lump sum amount not to exceed \$_____. As defined in Exhibit D.

5.1.2. For Extra Work

Extra Work shall be paid for by the **OWNER** on the basis of a fixed fee, the amount of which shall be determined by negotiation. The **OWNER** shall have the right to negotiate alternate methods of payment for Extra Work if the **OWNER** determines that the fixed fee basis is not feasible. In the event the **OWNER** and the **CONSULTANT** are unable to agree upon the amount of payment for Extra Work, then the amount of such payment shall be determined pursuant to Section 6.5 (**Disputes**).

5.2. Times of Payment

5.2.1 **CONSULTANT** shall submit to **OWNER** detailed monthly statements for Basic Services and Extra Work rendered. The Statements will be based upon **CONSULTANT'S** estimate of the proportion of the total services actually completed at the time of billing. **OWNER** shall respond to **CONSULTANT'S** monthly statements within thirty (30) days, either denying payment or making payment.

5.3. Other Provisions Concerning Payments

5.3.1. In the event the Agreement is terminated by the **OWNER** without fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid for the work performed or services rendered for which it has not already been paid in an amount bearing the same ratio to the total Agreement fee as the amount of work completed or partially completed and delivered to the **OWNER** is to the total amount of work provided for herein, as determined by mutual agreement between the **OWNER** and the **CONSULTANT**.

5.3.2. In the event the services of the **CONSULTANT** are terminated by the **OWNER** for fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid reasonable value of the work performed or services rendered and delivered for which it has not already been paid, and the amount to be paid shall be determined by the **OWNER**.

SECTION 6 - GENERAL CONSIDERATIONS

6.1. Termination

6.1.1. **CONSULTANT** may only terminate this Agreement due to **OWNER'S** material breach of the terms hereof which breach causes **CONSULTANT** to be unable to perform its duties and responsibilities under this Agreement and upon forty-five (45) days written advance notice to **OWNER**.

6.1.2. The **OWNER** may terminate this Agreement for cause upon seven (7) business days written advance notice to the **CONSULTANT**. The **OWNER** reserves the right to terminate the Agreement for any reason whatsoever, with or without cause, at any time upon thirty (30) days written advance notice to the **CONSULTANT**.

6.2. Ownership and Reuse of Documents

All documents, including raw data, reports, drawings and specifications, prepared by the **CONSULTANT** pursuant to this Agreement shall be delivered to and become the property of the **OWNER**. The **OWNER** shall have the right to reuse same without restriction or limitation, but without liability or legal exposure to **CONSULTANT**.

6.3. Legal Responsibilities and Legal Relations

- 6.3.1.** The **CONSULTANT** shall familiarize itself with and shall at all times comply with the **CONSENT DECREE** and all federal, state, and local laws, ordinances, and regulations that in any manner affect the services of this Agreement.
- 6.3.2.** In performing the services hereunder, the **CONSULTANT** and its consultants, employees, agents and representatives shall not be deemed or construed to be employees of **OWNER** in any manner whatsoever. Except as otherwise provided in this Agreement, the **CONSULTANT** shall be acting as an independent contractor. The **CONSULTANT** shall not hold itself out as, nor claim to be, an officer or employee of **OWNER** by reason hereof and shall not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of **OWNER**. The **CONSULTANT** shall be solely responsible for any claims for wages or compensation by **CONSULTANT'S** employees, agents and representatives, including consultants, and shall save and hold **OWNER** harmless therefrom.
- 6.3.3.** The parties hereto agree that causes of actions between the parties shall be governed by applicable provisions of the Kentucky Revised Statutes, and that venue of any legal action shall be a court of appropriate jurisdiction in Fayette County, Kentucky. The parties further agree that Kentucky law shall apply with respect to the interpretation of any provision of this Agreement.

6.4. Successors and Assigns

- 6.4.1.** **CONSULTANT** binds itself and its partners, successors, assigns and legal representatives to this Agreement. **CONSULTANT** shall not assign any interest in this Agreement without prior written consent of **OWNER**. **OWNER'S** consent shall not relieve the **CONSULTANT** of any responsibility for compliance with the provisions of this Agreement.
- 6.4.2.** **In no event shall** the **CONSULTANT** subcontract more than fifty percent (50%) of the work, based upon dollar value of the work.
- 6.4.3.** Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than **OWNER** and **CONSULTANT**.

6.5. Disputes

Except as otherwise provided in this Agreement, any dispute hereunder may be resolved by agreement of the **OWNER'S** Agent (Section 8.1.1) and the **CONSULTANT**. In the absence of such an agreement, the dispute shall be submitted to the **OWNER'S** Commissioner, Department of Environmental Quality, whose decision shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary, or so grossly erroneous as necessarily to imply bad faith. Pending a final decision of a dispute hereunder, the **CONSULTANT** shall proceed diligently with the performance of the Agreement in accordance with the directions of the **OWNER**.

6.6. Accuracy of Consultant's Work

CONSULTANT shall be required to perform this Agreement in accordance with the degree of ordinary and reasonable skill and care usually exercised by professional engineers prevailing at the time, place and under similar conditions as the services hereunder are rendered. **CONSULTANT** shall be responsible for the accuracy of all work, even though raw data, reports, Drawings and Specifications have been accepted by **OWNER**, and it shall make any necessary revisions or corrections resulting from its errors and/or omissions for no additional compensation. By submission of reports, soils and subsurface information, quantities estimates, calculations and Drawings and Specifications to **OWNER**, **CONSULTANT** has made an incontrovertible representation that the information is accurate within the appropriate standard of skill and care. Failure on the part of **CONSULTANT** to provide the expected level of accuracy may be grounds for **OWNER** to terminate this Agreement

6.7. Security Clause

The **CONSULTANT** certifies that he shall not at any time release or divulge any information concerning the services covered by this Agreement to any person or any public or private organization without prior approval of the **OWNER** unless otherwise required by law

6.8. Access to Records

The **CONSULTANT** and its sub-consultants shall maintain all books, documents, papers, and accounting records, and make such materials available at their respective offices at all reasonable times during the Agreement period and for three (3) years from the date of final payment under the Agreement for inspection by the **OWNER**, and copies thereof shall be furnished if requested. Failure to maintain such records for three (3) years after the date of final payment may be grounds for the **OWNER** to disqualify the **CONSULTANT** from consideration for future consultant engineering Agreements.

6.9. Risk Management Provisions, Insurance and Indemnification

6.9.1. DEFINITIONS

The **CONSULTANT** understands and agrees that the Risk Management Provisions of this Agreement define the responsibilities of the **CONSULTANT** to the **OWNER**.

As used in these Risk Management Provisions, the terms "**CONSULTANT**" and "**OWNER**" shall be defined as follows:

- a. **CONSULTANT** means the consultant and its employees, agents, servants, owners, principals, licensees, assigns and subcontractors of any tier.
- b. **OWNER** means the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, boards, assigns, volunteers, and successors in interest.

6.9.2. INDEMNIFICATION AND HOLD HARMLESS PROVISION

- a. It is understood and agreed by the parties that **CONSULTANT** hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of **CONSULTANT** or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "**CONSULTANT**") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- b. **CONSULTANT** shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "**OWNER**") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by **CONSULTANT**'s performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the **CONSULTANT**; and (b) not caused solely by the active negligence or willful misconduct of **OWNER**.
- c. Notwithstanding, the foregoing, with respect to any professional services performed by **CONSULTANT** hereunder (and to the fullest extent permitted by law), **CONSULTANT** shall indemnify, save, hold harmless and defend **OWNER** from and against any and all liability, damages and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees, for any damage due to death or injury to any person or injury to any property (including the loss of use resulting therefrom) to the extent arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of **CONSULTANT** in the performance of this agreement.
- d. In the event **OWNER** is alleged to be liable based upon the above, **CONSULTANT** shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by **OWNER**, which approval shall not be unreasonably withheld.
- e. These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- f. **OWNER** is a political subdivision of the Commonwealth of Kentucky. **CONSULTANT** acknowledges and agrees that **OWNER** is unable to provide

indemnity or otherwise save, hold harmless, or defend the **CONSULTANT** in any manner.

6.9.3. DAMAGES RELATED TO NONPERFORMANCE OR DELAY BY CONSULTANT

In the event that **CONSULTANT'S** delay or other nonperformance of its obligations hereunder results in the imposition of penalties against the **OWNER** pursuant to the **CONSENT DECREE**, or the **OWNER** otherwise suffers damage as a result of such delay or nonperformance, **CONSULTANT** shall be solely liable to **OWNER** for any and all such damages, including any costs and attorney's fees.

6.9.4. FINANCIAL RESPONSIBILITY

The **CONSULTANT** understands and agrees that the **CONSULTANT** shall, prior to final acceptance of the **CONSULTANT'S** proposal and the commencement of any work; demonstrate the ability to assure compliance with the Indemnity Agreement and other provisions of this Agreement.

6.9.5. INSURANCE REQUIREMENTS

6.9.5.1. Required Insurance Coverage

CONSULTANT shall procure and maintain for the duration of this Agreement the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to **OWNER** in order to protect **OWNER** against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by **CONSULTANT**. The cost of such insurance shall be included in any proposal:

<u>Coverage</u>	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Professional Liability	\$1 million per occurrence, \$ 2 million aggregate
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. **OWNER** shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by **OWNER**.
- c. The General Liability Policy shall include Business Interruption coverage.
- d. The Contractor shall carry Builders Risk coverage at a level sufficient to cover the replacement cost of any equipment or machinery used at the work site, if applicable.
- e. The General Liability Policy shall include a Pollution Liability endorsement and/or Environmental Casualty coverage unless it is deemed not to apply by **OWNER**.
- f. The General Liability Policy shall have a Professional Liability endorsement (including Errors and Omissions), which shall include Business interruption coverage and this policy or endorsement shall include Environmental Casualty coverage for any services performed pursuant to the contract, and/or a separate Professional Liability Policy shall be obtained unless it is deemed not to apply by **OWNER**. (**OWNER** does not need to be named as additional insured).
- g. **OWNER** shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- h. The Professional Liability policy shall be maintained for a minimum of three years beyond the completion date of the project, to the extent commercially available. If not commercially available, **CONSULTANT** shall notify **OWNER** and obtain similar insurance that is commercially available and acceptable to **OWNER**.
- i. Said coverage shall be written by insurers acceptable to **OWNER** and shall be in a form acceptable to **OWNER**. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

6.9.5.2. Renewals

After insurance has been approved by **OWNER**, evidence of renewal of an expiring policy must be submitted to **OWNER**, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new

evidence of coverage must be submitted in accordance with these Insurance Requirements.

6.9.5.3. Right to Review, Audit and Inspect

CONSULTANT understands and agrees that **OWNER** may review, audit and inspect any and all of **CONSULTANT'S** records and operations to insure compliance with these Insurance Requirements.

6.9.6. SAFETY AND LOSS CONTROL

CONSULTANT shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and **OWNER**.

6.9.7. DEFINITION OF DEFAULT

CONSULTANT understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default under this Agreement.

CONSULTANT also agrees that **OWNER** may elect as its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging **CONSULTANT** for any such insurance premiums purchased, or suspending or terminating this Agreement.

SECTION 7 - EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Agreement, the **CONSULTANT** agrees as follows:

- 7.1. The **CONSULTANT** will not discriminate against any employee or application for employment because of race, color, religion, national origin, sex, age, or handicap. The **CONSULTANT** will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, national origin, sex, age, or handicap. 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 apprenticeships. The **CONSULTANT** agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.
- 7.2. The **CONSULTANT** will, in all solicitations or advertisements for employees placed by or on behalf of the **CONSULTANT**, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age (between forty and seventy), or handicap.

SECTION 8 - SPECIAL PROVISIONS, EXHIBITS, AND SCHEDULES

- 8.1.** This Agreement is subject to the following provisions.
- 8.1.1.** Pursuant to subparagraph 3.4 of this Agreement, **OWNER** has assigned Charles H. Martin, P.E., Director of the Division of Water Quality (the "**OWNER'S** Agent"), as the authorized agent of **OWNER**, to monitor, direct and review the performance of work of the **CONSULTANT**. Documents, data, reports, and all matters associated with carrying out this Agreement shall be addressed to the **OWNER'S** Agent or his designee. Questions by the **CONSULTANT** regarding interpretations of the terms, provisions and requirements under this Agreement shall be addressed to the **OWNER'S** Agent or his designee. The **CONSULTANT** shall look only to the **OWNER'S** Agent or his designee for direction in its performance under this Agreement; no other direction shall be binding upon **OWNER**. **OWNER** shall respond to written requests by **CONSULTANT** within thirty (30) days.
- 8.2.** This Agreement, together with the Incorporated Documents (Section 1.2) constitutes the entire Agreement between **OWNER** and **CONSULTANT** and supersedes all prior written or oral understandings. This Agreement and **EXHIBITS A, B, C and D** and any related schedules or documents may only be amended, supplemented, modified or canceled by a duly executed written instrument.
- 8.3. NO THIRD PARTY RIGHTS.** This agreement does not create a contractual relationship with or right of action in favor of a third party against either **OWNER** or **CONSULTANT**.
- 8.4 UNENFORCEABLE TERMS/SURVIVABILITY.** If any term or provision of this Agreement shall be found to be illegal or unenforceable, this Agreement shall remain in full force and such term or provision shall be deemed stricken. The provisions of Section 6 of this Agreement shall survive its termination.
- 8.5. NON-WAIVER.** The failure of either party to enforce any right reserved to it in this Agreement shall not be a waiver of any such right to which the party is entitled.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

OWNER:
LEXINGTON-FAYETTE URBAN
COUNTY GOVERNMENT

CONSULTANT:

BY: _____
JIM GRAY, MAYOR

BY: _____

ATTEST:

URBAN COUNTY COUNCIL CLERK

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF FAYETTE)

The foregoing Agreement was subscribed, sworn to and acknowledged before me by _____, as the duly authorized representative for and on behalf of _____, on this the ____ day of _____, 2017.

My commission expires: _____.

NOTARY PUBLIC

EXHIBIT A

Scope of Engineering

Services and Related Matters

RFP # _____

EXHIBIT B

Certificate of Insurance

and

Evidence of Insurability

EXHIBIT C

Proposal of Engineering Services

and

Related Matters

EXHIBIT D

Further Description of Basic Engineering Services

and

Related Services

A. COVER

LETTER



Strand Associates, Inc.®
651 Perimeter Drive, Suite 220
Lexington, KY 40517
(P) 859.225.8500

June 13, 2022

Mr. Brian Marcum, Senior Buyer
Lexington-Fayette Urban County Government
Room 338, Government Center
200 East Main Street
Lexington, KY 40507

Re: Proposal for RFP #30-2022 Investigation / Design Services for Disinfection Process Replacement Project

Dear Mr. Marcum:

Thank you for the opportunity to submit this proposal for the above referenced project. **Selecting Strand Associates, Inc.® for the Disinfection Process Replacement Project Results in Comprehensive Solutions to Address Individual Wastewater Treatment Plant Needs.** Listed below are major factors that demonstrate our Team's ability to meet your specific needs.

- **Strand's Unmatched Knowledge of Both Town Branch and West Hickman Wastewater Treatment Facilities Helps Us Tailor Solutions to Address Each Plant's Unique Needs**
- **Our Project Team's Extensive Understanding of LFUCG's Operations Streamlines the Design, Bidding and Contract Administration Phases**
- **Our Diverse UV Disinfection Experience, Including Retrofitting Existing Wastewater Facilities, Provides the Basis for Cost-Effective and Efficient UV Improvements**
- **Strand's Proven Service and Commitment to LFUCG Demonstrates Our Ability to Serve LFUCG Effectively on this Project**
- **Our Project Team's Direct Experience Helping LFUCG and Other Clients Administer KIA Grant Funding Results in Efficient Preparation of Grant Documentation Submittals and Incorporation of Key Funding Agency Requirements into the Contract Documents**
- **Strand's Proposed Fee Complies with Grant Fund Requirements**

We look forward to the opportunity to continue our service on behalf of the Lexington-Fayette Urban County Government.

Sincerely,

STRAND ASSOCIATES, INC.®

A handwritten signature in blue ink that reads "Michael L. Davis".

Michael L. Davis, P.E.
Senior Associate

P220.465/MLD/adg



Scope/Fee

Strand’s Understanding of the West Hickman and Town Branch Disinfection Process Replacement Results in Efficiently Designed Improvements to Meet Current and Future Needs

Strand has over 30 years of experience working at both the West Hickman and Town Branch WWTPs. Our Project Team includes individuals familiar with the treatment process, electrical/SCADA system, and the disinfection processes at both plants. Our project team also has recent experience completing design for similar UV installations at four Kentucky treatment plants and dozens of others across the Midwest.

This project is being funded by an ARPA Kentucky Cleaner Water Program grant administered by KIA. The grant funding requires all funds be obligated by December 31, 2024 and fully expended by December 31, 2026. These dates will drive the project schedule to make sure LFUCG capitalizes on the full grant amount. LFUCG is asking the design engineer to complete the technical and administrative documents required for the grant funding. The ultimate objective of the project is to help LFUCG select the best fit UV system for each plant at the most economical cost. Preference will be given to using the same system, however that is not a forgone conclusion.

Our approach to the disinfection process replacement is based on our knowledge of existing facilities, familiarity with key equipment offerings and plant operational needs. Our project approach, scope and fee are described below.

BACKGROUND – EXISTING FACILITIES

West Hickman WWTP

The West Hickman plant includes gas chlorine disinfection and gas sulfur dioxide dechlorination. All forward flow is directed to two junction boxes that then divide the flow into two separate contact tanks. Thus, four parallel contact tanks are available for use. Each tank has a four-pass serpentine arrangement and each tank can be taken out of service through gates and valving. The last two passes include diffused aeration equipment to increase the effluent dissolved oxygen. At the end of the contact tank, there is an underflow baffle and tip pipe for scum removal. Then the flow goes over a weir and down a cascade aeration ladder. Sulfur dioxide solution is added at the end of the common cascade effluent channel before flow exits to West Hickman Creek.

The chlorination storage and feed equipment is installed in a building constructed over the two western-most contact tanks. Sulfur dioxide cylinders and feeders are in a standalone building to the east of the contact tanks. The NPW system draws final clarifier effluent from a manhole prior to chlorine injection. Pumps are located in the basement of the NRAS pump station building and the Nitrification Gallery. Improvements are desired.

The hydraulic profile at West Hickman is quite tight. The profile includes only 0.51 feet of hydraulic head between the influent box water surface and the contact tank effluent weir at a peak flow of 75.3 mgd. This limited head will require significant changes be made to the contact tank effluent weir and may require loss of several of the cascade steps. This modification will make the diffused aeration process even more critical to meeting permit limits for dissolved oxygen.

West Hickman Creek has been known to flood, even to the point where there has been up to 8-inches of water in the Chlorination Building, or 1-foot 9-inches over the contact tank walls! The risk of flooding the UV equipment will have to be mitigated and may require raising the tank walls, including an isolation gate and adding effluent pumps within the cascade chamber.

Strand’s approach relies on long-term experience at West Hickman and Town Branch WWTPs coupled with our Project Team’s understanding of LFUCG’s treatment goals.

Preference will be given for using the same UV system at both plants; however that is not a forgone conclusion.



Town Branch WWTP

The Town Branch plant includes gas chlorine disinfection and gas sulfur dioxide dechlorination. All forward flow from the clarifiers flows through an effluent Parshall flume before being divided between two parallel contact tanks. Each tank has a five-pass serpentine arrangement before flowing below a tipping scum pipe and into a final pass that acts as reservoir for the non-potable water pumps. Each contact tank can be taken out of service for maintenance through gates and valving. Finally flow goes over a weir and into a sampler channel, then over another weir and down an outfall cascade. The cascade can be bypassed for maintenance. Sulfur dioxide solution is added before discharge.

At Town Branch, potential primary effluent bypass flow should be considered.

Town Branch includes a non-potable water (NPW) system with a feed well to the north of the contact tanks and a small building housing three vertical turbine pumps and a backwash strainer. Motor control and supervisory control equipment are housed in the same space. The NPW system currently pumps disinfected effluent through the plant.

The hydraulic profile at Town Branch will represent a challenge to be addressed in design. The profile includes only 0.52 feet of hydraulic head between the flume discharge and the contact tank effluent weir at a peak flow of 64 mgd. This limited head will require either changes be made to the contact tank effluent weir and cascade steps or allow the effluent flume to be surcharged. Flume surcharging appears to be possible and will still allow accurate flow measurement if the backwater submergence is less than 70% of the upstream flume depth. Based on initial calculations, up to 2 feet of head may be available for the UV system. This concept will have to be checked carefully against a wide range of flows during design.

Considerations In Designing UV Disinfection Systems

Strand Associates has designed dozens of facilities with UV disinfection. Through the past 30 years, while UV disinfection has gained popularity, we have maintained an excellent working knowledge of the technology and new developments. We have installed equipment from a variety of manufacturers and employed different orientations, from horizontal to vertical to inclined. Through our experience, we have identified the following critical design considerations for every UV system:

Peak flow at Town Branch is approximately 64 mgd, but UV manufacturers have considered a 70 mgd peak flow.

Required Effluent Limits – In Kentucky, effluent pathogen indicator limits require the *E. Coli* monthly geometric mean concentration to be less than 130 counts per 100 mL and the weekly geometric mean concentration to be less than 240 counts per 100 mL.

Effluent Transmittance – Numerous upstream treatment factors can affect the UV transmittance in the effluent wastewater and thus affect the UV disinfection process. Treatment plants with higher transmittance in wastewater effluent will increase the effectiveness of the UV disinfection system and thus reduce the cost of power usage. We understand that LFUCG has started to collect some real-time transmissivity data and your effluent transmissivity is better than most other plants. This is great news. The potential for primary effluent to bypass secondary treatment at Town Branch may reduce transmissivity and will be considered in the PER.

Effluent TSS – The concentration of TSS in the UV influent is an important design parameter. The higher the TSS concentration the higher the dose required to sterilize microorganisms in the effluent. Working with potential manufacturers to evaluate performance under various effluent TSS concentrations usually provides the most informed design. Sometimes solids may be lost during peak flow periods, straining the effectiveness of the UV system.

Flow Rates – UV disinfection systems are sized for peak flow rates since that represents the most critical time to achieve disinfection due to lower contact time with the light and possibly higher effluent TSS. Also important is the average and low flows since the selected UV system must offer adequate turn down to provide efficient and effective disinfection when conditions are more typical.

Strand understands the many considerations for implementing a UV disinfection project.



Algae Control – Algae, especially long stringy masses, can wreak havoc on UV systems. Algae can often propagate in final clarifiers since clarifiers expose nutrient rich wastewater to sunlight. Additional algae control may be achieved by including flow distribution baffles, essentially perforated plates that also serve to capture masses of algae. In our Owensboro RWRA plants, these baffles were included and are effective at reducing UV system maintenance.

Power Supply – UV disinfection takes significant power supply to energize lamp ballasts. Electrical improvements will be required at both plants to support new UV equipment installation.

Back-Up Power Supply – Because of the critical nature of maintaining disinfection, back-up power supply is required. Most treatment plants that retrofit by adding a UV process do not usually have adequate generator capacity. You are correct in planning for new dedicated emergency generator equipment for the new UV systems.

Covered UV Channels – We advocate covering UV channels and equipment with superstructures to prevent sunlight penetration (algae control) and to provide a more convenient space for staff to check, adjust and maintain the UV equipment.

Equipment Redundancy – KDOW requires at least two modules be installed to provide a degree of redundancy. Since your peak flows are high, you may be looking at multiple channels with redundant modules. Providing adequate disinfection during times of maintenance is accomplished by a redundant installation.

Controls – Automated operation of the UV equipment is recommended. If you have multiple units, controls and motorized gates can be provided to engage idle systems upon rising flows and idle operating systems during decreasing flows. This will provide for the most efficient disinfection performance since UV systems transfer the most efficient dose when at full power. Also, the lamp output is typically varied based on transmittance and flow. A flow signal is supplied, usually from your effluent flow meter, and a channel mounted transmissivity meter are typically provided. We can work with you and selected equipment providers to optimize system efficiency in real time basis.

AS Chlorination – Activated sludge plants should have a supply of chlorine available for application to the RAS flow as a method of filamentous control. If your facilities convert to UV disinfection, we will help you size a feed pump for sodium hypochlorite to maintain the ability to apply chlorine solution to your return activated sludge.

Proper Submergence of Lamps – For effective UV disinfection, the wastewater must flow within a certain distance of the lamps. This becomes a challenge when flows vary widely from diurnal low flows to peak flows. Many suppliers employ counter weighted gates, modulating weir gates, or a long serpentine weir to maintain a nearly constant hydraulic elevation at all flow conditions. Our preference is to have a fixed weir and we will pursue that as our ideal solution for LFUCG.

Equipment Removal/Cleaning – Each manufactured system utilizes a unique approach to cleaning sleeves, replacing lamps and removing modules. Selecting a convenient approach that is tailored to your staff and fitting it with the necessary engineering design layout will make long-term operation and maintenance easier.

Cost of Power – The cost of power will still be one factor in the overall economic evaluation.

Economic Evaluation – Labor, power, efficiency, lamp life, and lamp replacement costs are amongst the many variables that can be considered in an economic evaluation to compare multiple systems. We have completed such evaluations as a means of helping to select among two or more offerings. For instance, in Jeffersonville, IN we took bids on two separate systems and considered capital cost as only one economic factor in selecting the preferred system.

Lamp Variations – Some systems come with different intensity of lamps and different pressures of mercury vapor within the lamp. These factors all impact the efficiency of the system and the replacement costs for lamps.

When switching to UV disinfection, we recommend keeping a small sodium hypochlorite feed system for non-potable water systems.

Together, we will select the UV system that is the best fit for LFUCG.



Other considerations will be identified through collaborative PER meetings between LFUCG and Strand.

PROJECT OVERVIEW AND SCOPE OF ENGINEERING SERVICES

Strand's scope of services was developed with LFUCG's RFP as the basis and tailored with our understanding of specific West Hickman and Town Branch needs.

Project Goals

Strand's approach addresses the following project goals.

1. Comply with Remedial Measures Plan scope and project schedule as mandated by the LFUCG Consent Decree.
2. Eliminate ton cylinders of chlorine and sulfur dioxide from the sites.
3. Install an Ultraviolet Light disinfection process with related process, mechanical, structural, and electrical improvements.
4. Convert to the new disinfection process while maintaining continuous treatment and protecting LFUCG operations and permit compliance.
5. Address SCADA modifications to reflect changes in disinfection.
6. Meet funding requirements and streamline LFUCG's access to CWP funding.

We have prepared our scope around the basic project LFUCG requested and then offered some additional services for LFUCG to consider.

Section 1 Services – Grant Documentation Submittals

Strand will prepare grant documentation submittals required by the Conditional Commitment letter and support LFUCG's administration of grant funding through project implementation. Strand regularly assists clients with these tasks and understands the funding agency requirements for Kentucky Infrastructure Authority and the Cleaner Water program. Documentation is required at key points in project development, including execution of the grant assistance agreement; design completion and approvals; bidding; authorization to award (ATA) construction contract; reporting during construction; and project close-out.

Strand recently assisted LFUCG's administration of grant funding for the Midland Avenue Trunk Sewer project.

Section 2 Services – Basic Approach

Task 1 – Understanding the Existing Disinfection Systems

The process and facilities review will build upon Strand's current knowledge and understanding of disinfection at West Hickman and Town Branch WWTPs. Through several recent projects, the project team has an excellent understanding of the WWTPs. Our expertise in all areas of wastewater treatment will provide a basis for evaluating the specific needs and challenges related to making improvements to the disinfection process.

Strand will work with LFUCG to determine the continued needs for chlorine.

Strand will conduct a kick-off meeting followed by an interview with WWTP operations and maintenance staff regarding the existing disinfection and NPW pumping systems. Our kick-off meeting will be attended by Mike Davis, Mark Sneve, Liz Dienst, and Marisa Grubb. We will review operating data and dialogue with LFUCG about any questions we have.

Task 2 – Develop Disinfection Process Replacement Concepts and Schedules

Strand will complete a PER to consider up to three disinfection alternatives. Life cycle costs, present worth analyses, preliminary cost estimates, and implementation schedules will be determined for proposed improvements and equipment replacement.

For the basic approach, the PER will select one UV equipment system as the basis for design.

Alternatives for disinfection replacement at both plants will be laid out based on input from UV manufacturers and LFUCG. Additional mechanical, structural and electrical improvements required for each conceptual layout will be identified and costed to



complete a 20-year life cycle evaluation. Construction sequencing will be considered to minimize construction impact on day-to-day plant operation.

In preparing our proposal, we have visited the plants, carefully studied the existing plans and communicated with two UV manufacturers. Figure 1 shows a potential layout for new UV equipment at the West Hickman plant. We initially tried to get the new equipment into two channels but believe a four-channel arrangement will be required due to hydraulic and flow distribution concerns. We have performed preliminary hydraulic calculations and believe that a series of effluent weir troughs can be installed for level control. We have also considered improvements to the post aeration system that will be compromised by the new UV construction. We look forward to considering this and other options with LFUCG and equipment manufacturers during the PER development. The existing NPW source will be evaluated with potential modification to take water from the disinfection facility.

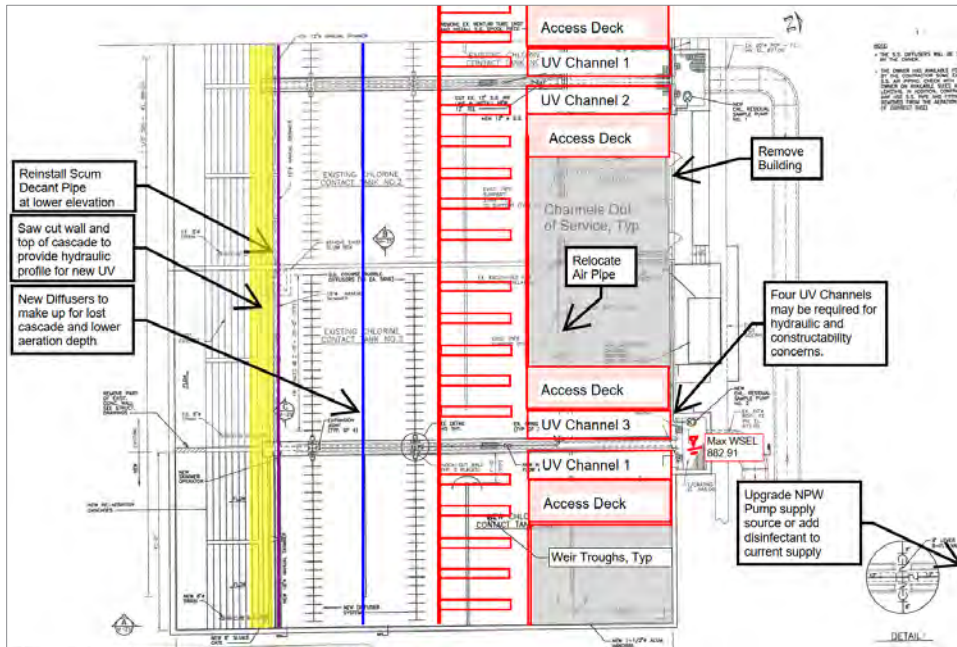


Figure 1 – West Hickman UV Concept

Similarly, Figure 2 shows a potential layout for new UV equipment at Town Branch. The facility lays out well for a two-channel arrangement. We have performed preliminary hydraulic calculations and believe that a series of effluent weir troughs can be installed for level control and the UV equipment will fit into the existing profile by allowing a partial submergence of the effluent Parshall flume. We have also considered maintenance of the NPW system and foam control pump in laying out the new UV system. We look forward to considering this and other options with LFUCG and equipment manufacturers during the PER development. The project includes replacement of NPW pumps and MCC. The configuration of replacement pumps will be evaluated and may include replacement with similar pumps, or replacement with submersible pumps.

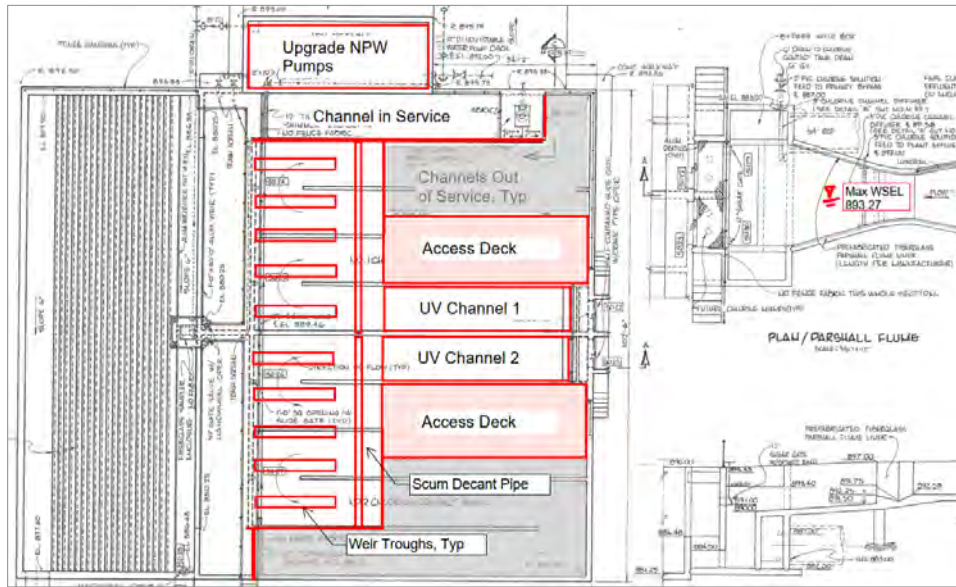


Figure 2 – Town Branch UV Concept

Task 3 – Detailed Design

Design will be based on results from the PER. Detailed drawings and specifications will be provided for bidding and construction. In the basic approach, we will complete the design around one single supplier.

We will meet with LFUCG at the 25%, 50%, and 90% stages of completion to review the design, solicit input, and discuss costs, schedule and sequence. We anticipate the drawing set will include approximately 35 sheets per plant, addressing demolition and new construction for process, mechanical, structural/architectural, electrical, and instrumentation disciplines.

Specifications will also be developed during the design phase. Strand will provide technical specifications, including Divisions 1 through 46. Division 0, including Parts I through IX will be based on LFUCG standard specifications. Strand is familiar with LFUCG specification requirements and understands how these documents are interfaced with the technical specifications.

A Kentucky Division of Water construction permit will be required for the UV upgrade. We will make application, meet with the review staff and shepherd the process of obtaining the construction permit.

Task 4 – Bidding Services

Strand will assist LFUCG during the bidding phase of this project. Strand understands LFUCG’s requirements and is experienced in providing these types of services for LFUCG projects. Bidding-phase services include all items contained in the RFP. We anticipate the improvements will be bid as a single project.

Task 5 – Contract Administration Services

Strand will support LFUCG during the construction phase of this project. Strand has recent experience providing these services to LFUCG on other wastewater improvement projects and has developed good working relationships with staff that complement our ability to provide these services. Construction-phase services include all items contained in the RFP.

We will provide regular site visits during construction. The actual number of hours at the site will vary during construction depending on the contractor’s activities. We anticipate being on site at each plant an average of 4 hours per week during the 18-month duration

Strand will help LFUCG apply for the associated KPDES permit revisions.

Strand’s construction-related services will be provided through our Lexington office.



of construction, in addition to monthly progress meetings. The proximity of our office to both plants makes these visits very efficient and flexible.

The *Kentucky USDA/Rural Development Utility Program Fee Guide* contains a guide for Professional Engineering Services Basic Design (Table I) and Resident Project Representatives (Table II).

Basic Design Services include customary design, bidding and construction contract administration services. Basic Design Services do not include funding coordination or preliminary engineering reports. Basic Design Services include Fee Schedule Tasks 3, 4 and 5, excluding the RPR component in Task 5. Addendum 2 to the Request for Proposals indicates LFUCG’s total estimated construction cost is \$9,575,050. The fee curve recommends a Basic Design Services fee of 6.4% for construction costs of \$9,000,000 or greater assuming the improvements are bid as one project or \$612,000. Strand’s proposed Basic Design Services fee is within the USDA/RD fee guide.

Resident Project Representative (RPR) Services include on-site personnel during construction. These services are typically full time. The fee curve recommends an RPR fee of 3.05% for construction costs of \$9,000,000 or greater assuming the improvements are bid as one project. For treatment plant projects this percentage is increased by 2% for costs up to \$1 million, and increased by 1% for costs in excess of \$1 million. This results in an RPR fee of \$397,790. Strand’s RPR services are part-time, and are within the USDA/RD fee guide.

Fee Component	USDA/RD Fee Guide	Strand Proposed Fee	Is Proposed Fee within Guide?
RD Basic Design Services	\$612,000	\$587,760	Yes
RD RPR Services	\$397,790	\$84,240	Yes
RD “Additional Services” not in Fee Curve	–	\$84,000	Yes

Alternative Scopes for LFUCG Consideration

Option 1 – Preselect Equipment Through Bidding

Strand can help LFUCG preselect equipment by taking equipment bids. Once bids are in hand, Strand can help LFUCG evaluate the most advantageous equipment package for each plant. Including 20-years life cycle cost and non-mandatory considerations. If LFUCG opts for this approach, the cost to complete these bidding efforts is \$35,000.

Option 2 – Design Around Two Vendors and Take Competitive Bids

This option mirrors the approach we took for the West Hickman Blowers, where we designed around a Type 1 and Type 2 blower. Separate specifications were prepared and separate plan sheets were produced to allow Contractors to submit lump sum bid pricing for both options. LFUCG can then evaluate the bids to consider capital and lifecycle costs, as done for the West Hickman blowers. If LFUCG opts for this approach, the basic approach would increase by \$110,000.

Option 3 – Address Operation During Flood Conditions at West Hickman

Based on history, the West Hickman disinfection equipment has been prone to flooding. This addition to the basic approach mitigates flood risk. The perimeter walls of the contact tank and nearby junction manholes will need to be raised about 2 feet. Effluent pumps will be installed within the cascade outfall channel to raise the effluent to above the creek. Gates will be required to isolate the current outfall in lieu of the flood pumps discharge. This design will include process, electrical, structural, and controls engineering. Back-up power will be required for the effluent pumps which can be provided through upsizing the proposed generator. This added scope will increase the basic approach by \$130,000.

Strand has employed this approach for our Madison Wisconsin, Davenport Iowa, Manhattan Illinois, and New Lenox Illinois projects.

**Investigation/Design Services for Town Branch (TB) and West Hickman (WH) WWTP
Disinfection Improvements Project**

Fee Schedule

(For a description of task refer to Section 1 and 2 of the RFP)

Section 1

The CONSULTANT will be responsible for completing the technical and administrative tasks necessary to prepare all required grant documentation submittals at the direction of LFUCG's Department of Housing Advocacy and Community Development (Grants), beginning with the obligations described in March 17, 2022 Conditional Commitment Letter and attachments included in Appendix A.

Grant Documentation (TB & WH) Submittals Cost: _____

Section 2

Scope of Work: Disinfection Improvements Project

TOWN BRANCH WWTP

A. Task 1: Existing Process Performance Review
Cost Task 1: _____

B. Task 2: Develop Equipment/Process Replacement Concepts
Cost Task 2: _____

C. Task 3: Detailed Design
Cost Task 3: _____

D. Task 4: Bidding Services
Cost Task 4: _____

E. Task 5: Construction Administration Services
Cost Task 5: _____

Details for Task 5.5 - The total cost should be included in Cost Task 5. Please provide the following breakdown. Estimated Weekly Inspection Hrs/Estimated Total Inspection Hrs/Hourly Rate.

_____ / _____

Town Branch Total Cost:

WEST HICKMAN WWTP

A. Task 1: Existing Process Performance Review
Cost Task 1: _____

B. Task 2: Develop Equipment/Process Replacement Concepts
Cost Task 2: _____

C. Task 3: Detailed Design
Cost Task 3: _____

D. Task 4: Bidding Services
Cost Task 4: _____

E. Task 5: Construction Administration Services
Cost Task 5: _____

Details for Task 5.5 - The total cost should be included in Cost Task 5. Please provide the following breakdown. Estimated Weekly Inspection Hrs/Estimated Total Inspection Hrs/Hourly Rate.

_____ / _____

West Hickman Total Cost:

TOTAL FEE:

C. ESTIMATED

SCHEDULE



Estimated Schedule

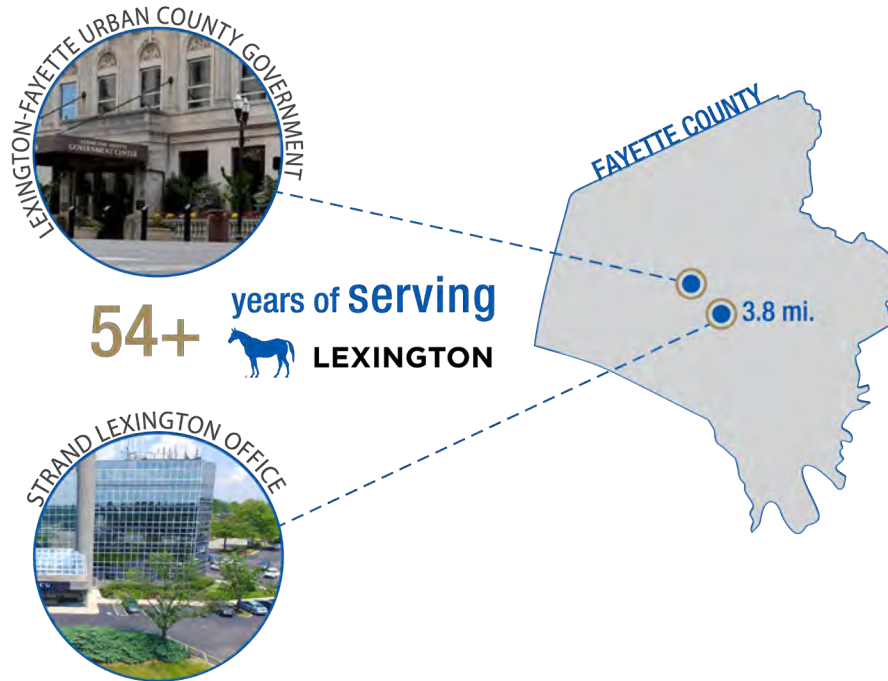
Strand’s Project Schedule and Staffing Plan Provide Engineering Support to Meet Funding Agency Schedule Requirements and LFUCG’s October 2025 Completion Date

DEGREE OF LOCAL EMPLOYMENT

Our Lexington-Based Project Team Will Maximize Local Employment

Selection of Strand for this project will maximize local employment utilizing our Lexington office staff to manage and deliver the project. We anticipate approximately 94% of total staff hours expended, will be staff permanently located in our Lexington office. Our Project Team is local and invested in many aspects of our community. We have established working relationships with LFUCG DWQ engineering and plant operations personnel. The following illustrates that our Lexington office and Project Team is local with team members that live in Lexington and have supported LFUCG initiatives for over 54+ years.

Strand project schedule meets LFUCG’s completion schedule.

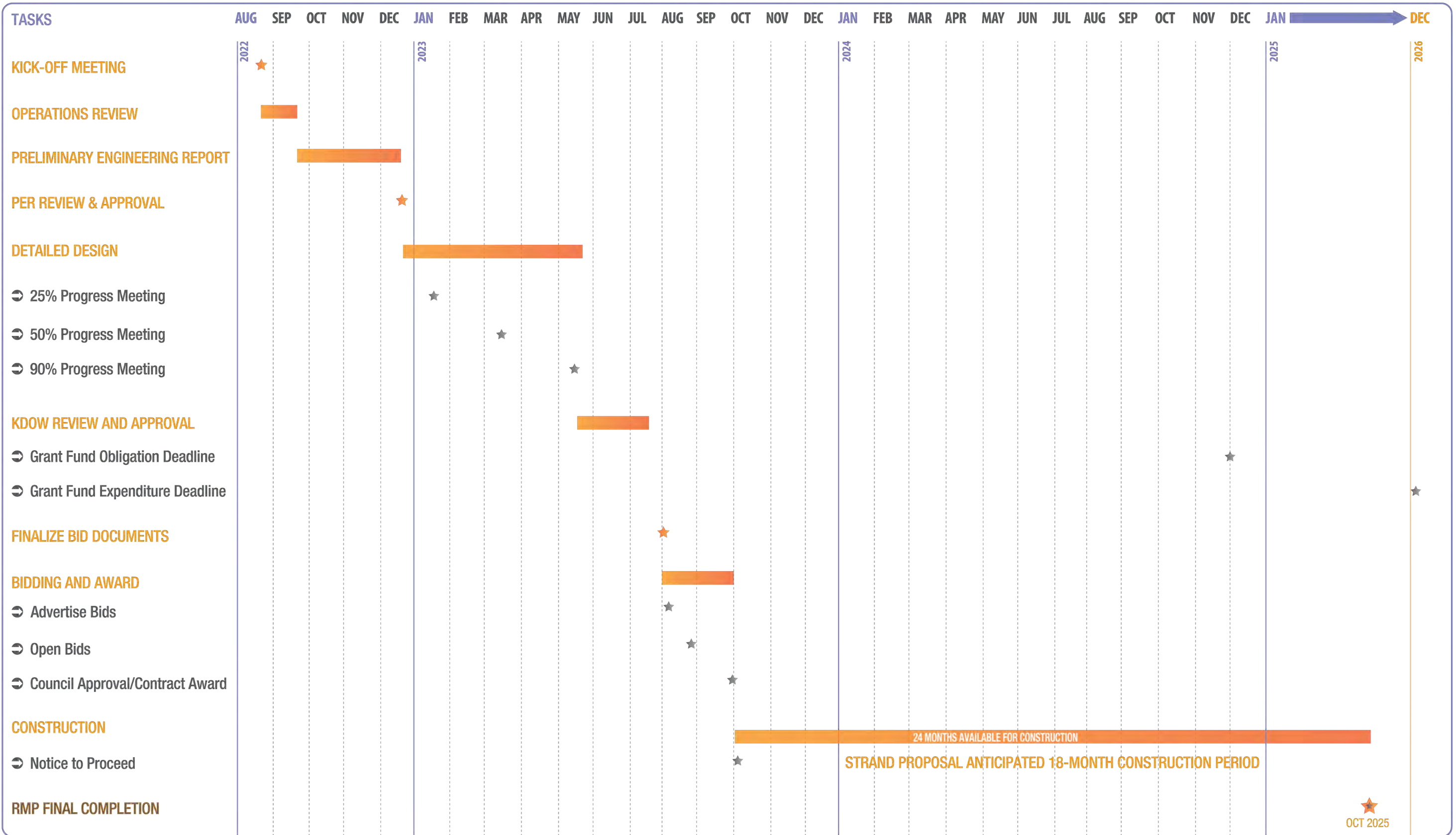


Our Lexington Office is Local

- Founded in 1968 (Six Years before Lexington and Fayette County Governments merged).
- Provided continuous record of service to Lexington since 1968.
- Local Design Team members have over 39 years of project experience serving LFUCG on major wastewater treatment projects.

The schedule on the following page shows project final completion prior to October 2025, with engineering evaluation beginning in August 2022. The schedule allows four months to complete the operations review and the preliminary engineering report. The schedule allows five months for design. Our recent experience with KDOW indicates the review process will take approximately 6 weeks. Bid documents will be issued to solicit bids from contractors. The bid process will take approximately two months to receive bids and obtain LFUCG Council approval. Once awarded, the construction contract duration is expected to be 18-24 months. The construction duration will be impacted by actual equipment delivery times, and may need to be adjusted during design.

We have prepared a project Gantt chart showing reasonable schedules for each schedule task, including reasonable durations for equipment fabrication and delivery. The schedule meets LFUCG’s completion timeline and meets the Funding Agency’s requirements to obligate funds by December 31, 2024 and expend funds by December 31, 2026.





Strand’s Project Approach Seeks to Engage MWDBE/VOB Participation

As a firm that supports initiatives of our local government, we endeavor where practical to incorporate MWDBE/VOB participation goals in our contracting opportunities. Based on defined project scope, we have included Vector Engineers, Inc. (Subsidiary of CTL Engineering, Inc.) to provide geotechnical services to support design activities.

CAPACITY TO PERFORM WORK

Our Team is Available to Start Work Immediately and has Capacity to Meet LFUCG’s Schedule

Strand coordinates staff assignments corporate-wide through a scheduling system. This allows us to make sure the right staff are available at the right time for each of our projects. The following table shows staff availability and project requirements for the next 12 months beginning in August 2022.

Our Project Team can start work immediately and has the capacity to complete this important project on time.

CAPACITY (12 MONTHS)	*MIKE DAVIS		MARK SNEVE		*LIZ DIENST		* MARISA GRUBB	
	REQ'D	AVL	REQ'D	AVL	REQ'D	AVL	REQ'D	AVL
AUGUST-22	●	38	●	27	●	-12**	●	94
SEPTEMBER-22		39		13		-11**		86
OCTOBER-22		34		25		13		134
NOVEMBER-22		12		81		28		118
DECEMBER-22		16		90		27		118
JANUARY-23		41		116		54		124
FEBRUARY-23		42		123		56		140
MARCH-23		82		142		89		116
APRIL-23		72		143		92		92
MAY-23		81		163		89		148
JUNE-23		89		174		112		156
JULY-23	↓	87	↓	165	↓	94	↓	148
TOTAL		468		1,262		631		1,474

**workload will be adjusted for this month to prove required time.

Lexington-based staff are noted with an asterisk in the table above. Based on these projected hours, we anticipate Strand’s Lexington-based staff will provide approximately 94% of required services through project completion. For bidding, contract administration and RFP, we anticipate Lexington staff will provide 100% of these services.

D. PROJECT

TEAM



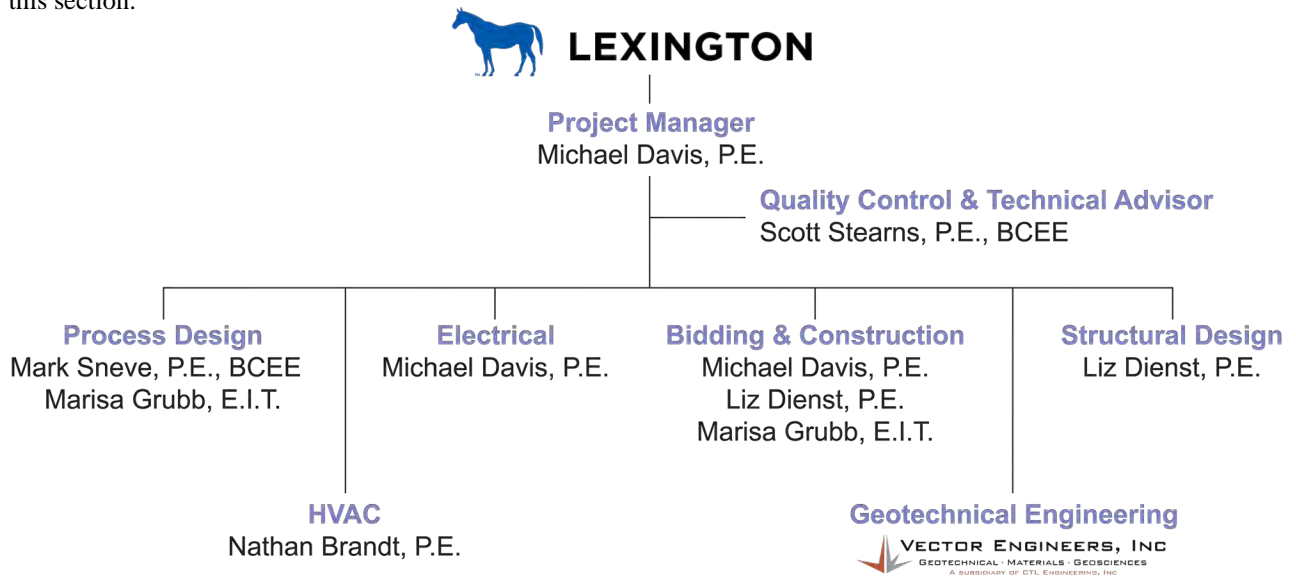
Project Team

Strand’s Understanding of Both the West Hickman and the Town Branch WWTP’s Results in Tailored Solutions to Meet Unique Needs

Our Project Team is assembled to provide all the technical expertise necessary to successfully replace the disinfection processes at both the West Hickman and Town Branch WWTP facilities. Due to our familiarity with both plants, during planning and design, the project team will evaluate existing conditions and potential impacts from other on-going and future treatment plant construction projects. Our Team includes a combination of individuals who have extensive wastewater treatment experience, familiarity with both the West Hickman and Town Branch Wastewater Treatment Plants (WWTP), and lengthy professional careers successfully providing wastewater treatment design services for Lexington-Fayette Urban County Government (LFUCG) and other municipal utilities.

Our Team has the commitment and requisite design experience to successfully complete this project.

In addition to technical expertise, our Team Members have availability to provide the level of service required in the available project time schedule. Our organization chart is structured to take advantage not only of expertise, but available time. Our Project Team is organized to share tasks in an efficient manner, resulting in project delivery to meet the Consent Decree deadline. One-page resumes of key team members follow at the end of this section.



Qualifications of Key Project Team Members



Michael Davis, P.E.

Project Manager/ Electrical/Bidding and Construction

Mike has over 39 years of experience serving LFUCG on numerous wastewater treatment projects. He has served as Project Manager for many of these projects, including the Town Branch/West Hickman WWTP Electrical/SCADA Improvements project and the Town Branch and West Hickman WWTP RAS/WAS pump station improvements project. He provides a historical understanding of operations and improvements at both plants. Mike will lead the project team and he will also provide electrical design services as he has on many LFUCG projects since the late 1980s.

Mike has served as Project Manager for many LFUCG projects at both the Town Branch and West Hickman WWTPs.



Scott Stearns, P.E., BCEE
Quality Control and Technical Advisor

Scott has more than 29 years of wastewater engineering experience – all with our firm – and is the coordinator of our wastewater group. He has been responsible for facilities plans, designs, and construction projects for wastewater treatment and conveyance facilities throughout Wisconsin, Illinois, Ohio, Kentucky, and West Virginia, serving populations of up to 300,000 and resulting in construction projects ranging to \$84 million. Scott will utilize his vast experience to provide useful and comprehensive feedback when reviewing the various elements of this project.

Scott will draw on his experience to provide QC and advise the design team.



Mark Sneve, P.E., BCEE
Process Design

Mark will serve as lead process designer during all phases of the project. Mark is a licensed professional engineer, with 33 years of project experience. Mark has extensive experience providing engineering services for major wastewater plant expansions. He is very familiar with both the Town Branch WWTP and West Hickman WWTP from previous studies and projects and has significant design experience of UV systems.

Mark is very familiar with the processes at the West Hickman and Town Branch WWTPs from previous projects.



Marisa Grubb
Process Design/Bidding and Construction

Marisa will assist with process design and **bidding** and **construction** efforts on this project. Marisa is located in our Lexington, KY office and she has assisted with a wide variety of projects that involve concept design, engineering design, field work, and cost estimating. She has been a part of four projects at the LFUCG treatment plants.

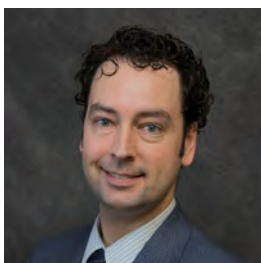
Marisa's experience includes engineering support for the Town Branch and West Hickman RAS pumping improvements projects.



Liz Dienst, P.E.
Structural Design/Bidding and Construction

Liz will be the **Structural Engineer** on this project. Liz will also assist Mike Davis with **Bidding and Contract Administration** for this project. Liz is a graduate of the University of Dayton and is a licensed professional engineer with 20 years of experience. From our Lexington, KY office, Liz has a variety of project management experiences covering municipal, water, wastewater, and structural design and construction contract administration projects. Liz's design capabilities include structural design, waterline and sanitary sewer line design.

Liz has served LFUCG on major wastewater projects for 20 years.



Nathan Brandt, P.E.
HVAC

Nathan will be the lead HVAC engineer on the project. He has 18 years of experience in the design of plumbing, fire protection, and plant utilities systems, including industrial piping, refrigeration systems, boiler systems, chiller systems, process heating and cooling systems, commercial and industrial ventilation, and other mechanical systems.

Nathan is regularly engaged in plant utility system design.



CHARACTER, INTEGRITY, REPUTATION, JUDGMENT, EXPERIENCE AND EFFICIENCY

Strand’s History of Success is Fostered by Helping Our Clients Succeed through Excellence in Engineering

We are proud of our reputation for quality work, technical expertise, and efficiency of production, which is complemented by the character and integrity of our respective employees. Strict adherence to an attitude of professionalism and objectivity toward all our clients has brought us success over the years, as evidenced by the longstanding history of our firm. Our record of success is firmly supported by this history and the volume of work we have been entrusted to administer on behalf of our clientele, many of whom we have maintained continuous relationships spanning decades.

Our work experience includes a wide variety of engineering projects, including wastewater treatment, stormwater management, environmental regulatory compliance, water supply projects, municipal engineering, transportation, structural, electrical, surveying and mechanical projects. As a full-service engineering firm, it is our practice to follow our projects through to construction completion and beyond, providing the necessary staff to perform office and field activities alike.

The table below highlights the volume of construction projects designed and bid by Strand. In addition, Strand provides a large volume of client service that does not result in construction for studies and other related field activities. We remain firm believers that the growth of this volume is indicative of our commitment to meeting client needs. ***For calendar year 2021, Strand was ranked in the Engineering News Record as 178th of the Top 500 Design Firms nationally and ranked 19th in the Nation as a Wastewater Design Firm by Engineering News Record Midwest.***

The list below shows, for our designs, the annual value and number of our construction contracts in each of the last 10 years. Strand has been a part of the Lexington community for more than 54 years. During this time, we have served LFUCG on numerous major wastewater treatment projects. Our ***Character, Integrity, Reputation, Judgment, Experience and Efficiency*** are demonstrated by our long-standing working relationship with LFUCG, and the interaction of our Project Team members with DWQ and West Hickman and Town Branch WWTP staff.

Our Character, Integrity, Reputation, Judgment, Experience and Efficiency are demonstrated by our years of consistent services to LFUCG.



Strand-Designed Construction Contracts		
Year	No. of Contracts	Bid Amount
2021*	252	\$222,600,000
2020	257	\$353,500,000
2019	218	\$382,500,000
2018	129	\$220,000,000
2017	169	\$320,000,000
2016	125	\$365,000,000
2015	128	\$320,900,000
2014	84	\$144,900,000
2013	120	\$193,000,000
2012	126	\$161,900,000

****Total still pending***

Michael L. Davis, P.E.

Senior Associate

AREAS OF EXPERTISE

- Wastewater Collection and Conveyance
- Wastewater Treatment
- Electrical Distribution
- Instrumentation and Control
- Contract Administration
- Site Utilities

PROFESSIONAL EXPERIENCE

Mike is a licensed professional engineer who serves as Project Manager and Senior Engineer for a variety of project types. His experience includes serving a broad range of municipal, institutional and private clients.

Wastewater Treatment Facilities

experience includes project management and design for treatment plants up to 30 mgd. Responsibilities include management during the design, bidding, and construction administration phases of the project.

Sanitary Sewer experience includes project management for study and modeling of sanitary sewers within three major water sheds within Fayette County. Activities include setting modeling guidelines, developing field investigation techniques, and reviewing results to make recommendations for system improvements.

Site Utilities experience includes design and construction-phase services in support of municipal and commercial projects. Municipal project responsibilities included design and coordination with utility companies to provide appropriate services for water, sanitary sewer, natural gas, and electric services.

Sewer System Rehabilitation experience includes project management and design to rehabilitate sewer systems using a variety of rehabilitation methods including pipe bursting, slip-lining, and cured-in-place lining, in addition to traditional excavation types of repairs. Responsibilities include project planning, evaluation of existing pipe conditions, applying the different rehabilitation strategies and construction administration.

Electrical Instrumentation and Control

experience includes design and construction-phase services for numerous projects including water and wastewater treatment plants,

pumping stations, commercial office buildings, signals and lighting. Projects include distribution systems with voltages ranging from 120/240 volts to 12,470 volts. Instrumentation control experience includes PC-based SCADA systems with up to 60 remote sites, and PLC-based control systems and treatment process monitoring/control equipment to provide plant automatic control.

Pumping Station experience includes project management and design experience for wastewater pumping stations and force mains. Pump station sizes range from 35 to 15,000 gpm. Force mains range in diameter up to 30 inches, and lengths up to 24,000 feet.

Lexington-Fayette Urban County Government – Town Branch RAS/WAS Pumping Improvements, Lexington, Kentucky – Project Manager and Electrical Engineer for RAS pumping station improvements at Town Branch WWTP.

Lexington-Fayette Urban County Government Town Branch/West Hickman WWTP Electrical, SCADA and Blower Improvements, Lexington, Kentucky – Project Manager and Electrical Engineer for \$17 Million major electrical and SCADA improvements project. Project included SCADA replacement of Town Branch and West Hickman treatment facilities, and major electrical renovation at West Hickman.

Lexington-Fayette Urban County Government Town Branch and West Hickman WWTP Redundant Power, Lexington, Kentucky – Project Manager and Electrical Engineer for \$500,000 electrical upgrade to provide dual electrical services to both wastewater treatment plants.

YEARS OF EXPERIENCE

39

YEARS WITH FIRM

39

EDUCATION

B. S. Electrical Engineering – University of Kentucky, Lexington, 1984

REGISTRATION

Professional Engineer in Kentucky, Alabama, and Mississippi

Scott W. Stearns, P.E., BCEE

Senior Associate

AREAS OF EXPERTISE

- Water and Wastewater Treatment Unit Processes
- Membrane Systems and Odor Control
- Project and Construction Management
- Biosolids Digestion, Thickening and Handling System
- Conveyance System Evaluations

PROFESSIONAL EXPERIENCE

Water and Wastewater Treatment experience includes facility planning, design, construction, and project management ranging from small plant expansions to a multimillion Greenfield projects. Scott has served as Project Manager for the following:

- 10 MGD (\$25 million) – Logan Todd Regional Water Treatment Plant
- 10 MGD (\$42.3 million) WWP Expansion – Parkersburg Utility Board, West Virginia
- 25 MGD (\$65 million) WWTP Expansion – Kankakee River Metropolitan Agency, Illinois
- 14 MGD (\$41 million) Plant Expansion – Waukesha, Wisconsin
- 22 MGD (\$85 million) Plant Expansion – Morgantown Utility Board, West Virginia

Specific areas of process expertise include membrane systems for water and wastewater treatment, wastewater treatment processes such as screening, grit removal, sedimentation, activated sludge, digestion, sludge thickening and dewatering. Water treatment expertise includes surface water treatment processes, including membrane filtration piloting and design, flocculation, sedimentation, lime softening, water treatment residuals management.

Additional experience in process instrumentation, control strategies, and system commissioning and start-up. Experience in permit and regulatory issues, user-charge development, sludge regulations, operator training and system startup, planning, design and startup for water and wastewater plants. Research experience includes radium and radon fate and transport in water distribution systems.

CSO/SSO Systems experience includes project management, quality control, peak excess flow treatment, and high rate wet weather treatment.

AWARDS

- Commissioned as a Kentucky Colonel by the Governor of Kentucky for the outstanding service provided during planning, design and construction of the Logan Todd Regional Water Commission WTP. This award honors those who have made significant contributions to the betterment of the Commonwealth of Kentucky.
- The American Council of Engineering Companies of Wisconsin “Best in State” Award for the Logan Todd Regional Water Treatment Plant in the 2004 Engineering Excellence Award Competition.

PRESENTATIONS/PUBLICATIONS

- *No Space, No Problem – Membrane Bioreactors and Silo Digester Expand Capacity*, presented at Ohio One Water Joint Conference, 2018, Columbus, Ohio
- *Options for Meeting Stricter, New Ammonia Limits* – Presented at Illinois Association of Wastewater Agencies Technical meeting, 2015, Utica, Illinois
- *An Aging Treatment Plant and New Neighbors and Challenges* – Presented at the South East Ohio Water Environment Federation meeting, 2015, Athens, Ohio
- *Evaluating Equipment with the End in Mind – How Do We Get the Equipment We Want for an Affordable Price?* – Presented at WATERCON Total Water Conference 2014, Springfield, Illinois

PROFESSIONAL AFFILIATIONS (PARTIAL LIST)

- Water Environment Federation/Central States Water Environment Association
- American Academy of Environmental Engineers

YEARS OF EXPERIENCE

29

YEARS WITH FIRM

29

EDUCATION

M.S. Civil/Environmental Engineering – University of Iowa, Iowa City, 1993

B.S. Civil/Environmental Engineering – University of Iowa, Iowa City, 1991

REGISTRATION

Professional Engineer in Iowa, Wisconsin, Illinois, West Virginia, and Ohio

Mark A. Sneve, P.E., BCEE

Senior Associate

AREAS OF EXPERTISE

- Wastewater Treatment Plant Planning and Design
- CSO Long-Term Control Planning
- Wastewater Collection
- Regulatory Coordination
- Pumping Stations and Force Mains Design
- Solids Handling Processes

PROFESSIONAL EXPERIENCE

Wastewater Treatment experience includes serving as Project Engineer, Assistant Project Manager, or Project Manager for efforts in facilities planning of major additions and upgrades for municipal wastewater treatment plants (WWTP), process design for wastewater treatment facilities, additions to WWTPs with high industrial flows, coordinator of construction efforts. Mark has provided planning or design for over a dozen treatment plants with UV upgrades.

- **Project Manager for Owensboro (RWRA) Max Rhoads (15 MGD ADF) and David Hawes (4.6 MGD ADF) WWTPs** – Projects at each plant include new UV systems for effluent disinfection; and electrical improvements, new flow measurement and influent screening at the David Hawes WWTP.
- **Principal-in-Charge for Shepherdsville WWTP Improvements** – The project included many upgrades to the existing 5 MGD facility and included the replacement of the existing, antiquated 18 MGD UV system with a new state of the art UV installation.
- **Principal-in-Charge for Louisville MSD Hite Creek WQTC Expansion Project** – This project includes improvements to expand the average daily treatment capacity from 6.0 MGD to 9.0 MGD. These improvements include replacement of two mechanical bar screens, constructing two new additional aeration tanks and construction of structures to introduce biological nutrient removal to the treatment train, new high-speed turbo blowers, new disc tertiary filtration system, expansion and upgrade for existing UV system, and a new dewatering building with a new centrifuge. Coordinated work of Magna Engineers and four other subconsultants.
- **Assistant Project Manager for New WWTP, Columbus, Indiana** – The project

included planning, design and construction of a new 14 MGD (ADF), 40 MGD (PHF) WWTP for a CSO community. Mark coordinated all subconsultants and led the quality control process. Project included new 39 MGD UV system.

- **Project Manager and Lead Project Engineer for the following projects for Lexington Fayette Urban County Government**
 - **201 Facilities Plan for the county.**
 - **Town Branch WWTP (30 MGD ADF)** – Phosphorus removal study; chlorination equipment replacement; aeration and blower improvements; odor control improvements; Primary Digester upgrade, Scum and hauled waste, RAS pump replacement, and other on-call needs.
 - **West Hickman Creek WWTP (33 MGD ADF)** – Screening improvements; gravity thickener improvements; scum control improvements; odor control improvements; blower and aeration improvements; RAS and WAS pump replacement, phosphorus removal process troubleshooting; and other on-call needs.

PUBLICATIONS/PRESENTATION (Partial Listing)

- *RWRA - UV Enhancements to Both Owensboro WWTPs*, presented at KSPE and CKWOWA Conferences, 2018
- *Distillery Pretreatment Strategies*, presented at Ohio WEA pretreatment conference, February 2018
- *West Hickman Creek WWTP Blower Upgrade Reduces Power Consumption*, with Tiffany Rank, Jim Worten, and Mike Davis, presented at the KY-TN Water Professional Conference, July 2013

YEARS OF EXPERIENCE
33

YEARS WITH FIRM
33

EDUCATION

M.S. Civil/Environmental Engineering – University of Iowa, 1989

B.S. Civil/Environmental Engineering – University of Iowa, 1987

REGISTRATION

Professional Engineer in Alabama, Indiana, Kentucky, Mississippi, Ohio, and Wisconsin

Board Certified Environmental Engineer, American Academy of Environmental Engineers and Scientists

Marisa E. Grubb, E.I.T.

AREAS OF EXPERTISE

- Wastewater Treatment
- RAS/WAS Systems
- Biological Nutrient Removal
- AutoCad Drafting
- Wastewater Filtration
- Sanitary Sewer

PROFESSIONAL EXPERIENCE

As Project Engineer, Marisa has assisted with a wide variety of projects that involve concept design, engineering design, field work, and cost estimating. Following are descriptions of that experience.

Hite Creek WQTC O&M Manual and SOP Manual Development, Louisville, KY

Developed Operation and Maintenance Manuals as well as Standard Operating Procedure Manuals to serve as a guide for personnel in the operation and maintenance of the various processes and items of equipment which comprise Hite Creek WQTC. Produced manuals discussing processes including influent pumping, preliminary treatment, biological nutrient removal, clarification, return sludge pumping, UV disinfection, sludge holding tanks, chemical phosphorus removal, and biosolids dewatering.

Town Branch WWTP RAS/WAS Pump Station Improvements, Lexington, KY

Participated in concept design of the pump station improvements by determining feasibility of various valve arrangements for the RAS system piping. Performed pump hydraulic calculations and drafted pump curves for existing and potential pumps for the RAS system. Additionally, determined each pump's estimated annual utility costs to aid in deciding the most cost-effective product.

Cedar Creek WQTC Sludge Dewatering

Evaluation, Louisville, KY – Performed RAS pump hydraulics calculations to generate pump curve for the existing RAS pumps at Cedar Creek WQTC. The calculations and pump curves aided in evaluating and determining the efficiency of the existing RAS pumps.

Town Branch WWTP Aeration

Improvements, Lexington, KY – Observed construction efforts and progress on aeration system improvements. Documented construction progress to compare to and confirm accuracy of contractor's pay requests.

Kentucky State Parks Wastewater System

Improvements, Western KY – Surveyed and flagged sanitary sewer system manholes in preparation for sewer line video inspection for Lake Barkley and Kentucky Dam Village State Resort Parks. The project includes identifying and evaluating inflow and infiltration as well as rehabilitating the existing system and designing new force mains and pump stations.

RELEVANT INTERNSHIP EXPERIENCE

Biological sludge nutrient removal

experience:

- Conducted research to evaluate and compare aerobic granular sludge performance and robustness to that of conventional activated sludge.

Tertiary treatment system design

experience:

- Design and sized tertiary filtration systems for individual customer projects based on design flows, organic loadings, and effluent limitations.

Biofouling of water treatment filters

experience includes:

- Modifying carbon cloth microfilters to compact biological fouling via laser ablation and silver nanoparticle adhesion.

Publications

- "Laser Functionalization of Carbon Membranes for Effective Immobilization of Antimicrobial Silver Nanoparticles", Journal of Environmental Chemical Engineering, 2020

YEARS OF EXPERIENCE

1

YEARS WITH FIRM

1

EDUCATION

B.SE Chemical Engineering – Purdue University, West Lafayette, Indiana, 2021

REGISTRATION

Engineer-In-Training

Elizabeth A. Dienst, P.E.

AREAS OF EXPERTISE

- Project Management
- Construction Administration
- Wastewater Collection and Conveyance Systems
- Structural Engineering
- Water Supply Systems
- Grant/Funding Administration

PROFESSIONAL EXPERIENCE

Elizabeth has a variety of project management experience covering municipal, water, wastewater, and structural design and construction administration projects. Her project management experience has ranged from small, short-term projects up to multiyear construction administration projects with construction budgets up to \$26 million. She has excelled in managing both large and small design teams on site-civil, facilities, and water/wastewater design projects. She is also an effective manager for construction administration roles involving projects of all types and disciplines. She routinely takes projects from the concept study phase through design, construction completion and startup.

Municipal Wastewater experience includes study, design and construction project management and resident observation experience for wastewater treatment facilities and sanitary sewer collection, conveyance, and pump stations in Kentucky. Also, structural design of wastewater treatment facilities utilizing cast-in-place concrete, precast concrete, reinforced masonry, and structural steel for both new facilities and modifications to existing facilities.

Chillicothe WWTP, Chillicothe, OH - Strand designed a full upgrade to the Chillicothe WWTP. Liz was the lead structural engineer on the project which included renovating an existing chlorine contact clearwell into a UV disinfection structure with pumping station. The project also included upgrades to and an addition on the Headworks Building; Clarifier upgrades; Biosolids Dewatering Building; Aeration Tanks and more.

Town Branch WWTP Scum Facilities Improvement Project, Lexington, KY - Liz is currently managing the Scum Facility Improvement project at Town Branch WWTP. The project includes a new Hauled Waste Receiving structure and equipment as well as

replacement of the Scum Chain and Rake system and a pump station. Liz is managing the project through construction.

Town Branch WWTP Screw Pump Replacement Project, Lexington, KY - Liz was both the structural engineer and Project Manager on the screw pump replacement project at the Town Branch WWTP. Structural upgrades were required to the structure in order to replace the screw pumps with submersible pumps. Liz managed the project through design and construction.

Greenup County Environmental Commission WWTP, Greenup County, Kentucky – Greenup Co. Environmental Commission hired Strand to design an upgrade to their existing WWTP. Liz was the structural engineer and project manager. This upgrade included a new final clarifier, a new RAS Pump Station, a new splitter box built onto the existing oxidation ditch, as well as modifications to effluent channels, all of which were reinforced concrete structures.

Western Racine Wastewater Treatment Plant – A new treatment plant was designed in Western Racine County, WI. Duties on this project include design of an Oxidation Ditch, Clarifier, Preliminary Treatment Building, Splitter Box Structure, UV Structure, Grit Chamber. All of the designed structures were cast in place, reinforced concrete, masonry, and precast.

CONTINUING EDUCATION AND SEMINARS

- Leadership PE Graduate, Class of 2008 – 2009

PROFESSIONAL AFFILIATIONS

- Kentucky Society of Professional Engineers
- National Society of Professional Engineers

YEARS OF EXPERIENCE

20

YEARS WITH FIRM

20

EDUCATION

B.C.E. Civil Engineering – University of Dayton, Ohio, 2002

REGISTRATION

Professional Engineer in Kentucky

Nathaniel L. Brandt, P.E.

AREAS OF EXPERTISE

- Design Engineering for Plumbing and Fire Protection
- Design Engineering for Process Heating and Cooling
- Design Engineering for Industrial Piping and all Plant Utilities
- Commercial and Industrial Ventilation and Air Conditioning
- Design Engineering for Industrial Refrigeration Systems

PROFESSIONAL EXPERIENCE

Nathaniel has 18 years of experience in the design of plumbing, fire protection, and plant utilities systems, including industrial piping, refrigeration systems, boiler systems, chiller systems, process heating and cooling systems, commercial and industrial ventilation, and other mechanical systems.

Plumbing Systems – Design of plumbing systems for educational, municipal, commercial, industrial, food processing, water treatment, and wastewater treatment facilities.

Fire Protection Systems – Design of fire protection systems for wastewater treatment, water treatment, industrial, food processing, and commercial facilities. Systems include wet, dry, fire pumps, clean agent fire suppression, and foam suppression.

Ammonia Refrigeration – Design of industrial refrigeration systems for food processing plants.

Boiler and Steam Systems – Design of boiler replacements and additions, and steam distribution systems, including steam, feed water and condensate systems, natural gas piping, and boiler controls.

Process Heating and Cooling Systems – Design of high-temperature glycol, high-temperature water, chilled water, and chilled glycol systems for industrial facilities.

Commercial and Industrial Ventilation and Air-Conditioning – Design of make-up air systems, plant clean-up air systems, process air cooling systems, and engine room and boiler room ventilation systems for industrial facilities. Design of HVAC systems and controls for commercial, municipal, and educational facilities.

Solar Domestic Water Heating experience includes – Design of solar domestic hot water

systems for commercial and governmental facilities.

Select Projects include private and public facility design, fire station design, water and wastewater treatment facility design, and green building design. Projects also include International Food Processor boiler replacements, chiller replacements, production line installations, facility expansions, utility mapping, capacity calculations, energy recovery, and ventilation upgrades and replacements.

- Water Treatment Plant and Facility Improvements – Fond du Lac, Wisconsin
- Water Treatment Plant Expansion Special Hazard Fire Protection – Morgantown, West Virginia
- WWTP and Sewer Project – Magnolia, Texas
- DuPont, Combustible Liquid Storage Fire Protection – Madison, Wisconsin
- Winnetka Water & Electric, Transformer Yard and Generation Plant Fire Assessment – Winnetka, Illinois
- Winnetka Water & Electric, Combustible Liquid Fire Protection – Winnetka, Illinois
- Grand Chute, Administrative Fire Station – Grand Chute, Wisconsin
- Addison Public Library, Fire Protection – Addison, Illinois
- Confidential Food Processor Projects – Wisconsin, Iowa, Texas, Michigan, South Carolina, Kentucky, Missouri, Ohio, Pennsylvania, Illinois, California, Arkansas, Virginia, Indiana

PROFESSIONAL AFFILIATIONS

- International Institute of Ammonia Refrigeration (IIAR)

YEARS OF EXPERIENCE

18

YEARS WITH FIRM

18

EDUCATION

B.S. Mechanical Engineering – University of Wisconsin-Madison, 2003

REGISTRATION

Professional Engineer in California, Illinois, Iowa, Kentucky, Missouri, Ohio, Pennsylvania, South Carolina, Texas, and Wisconsin

E. SIMILAR

PROJECTS

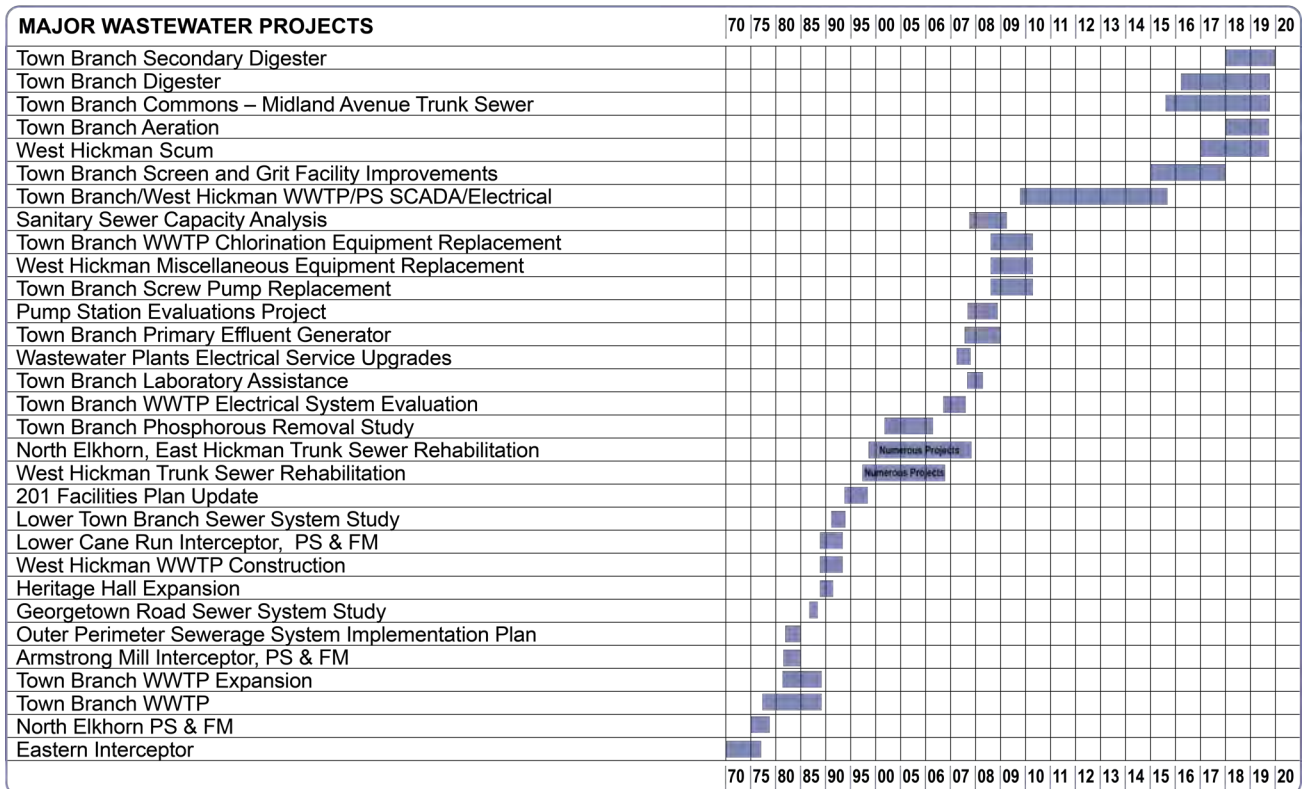


Similar Projects

Strand’s Proven Service and Commitment to LFUCG Demonstrates Our Ability to Serve LFUCG Effectively on this Project

Strand has served LFUCG continuously and successfully since 1968. We are proud of our record of performance and the privilege to be of service to the Urban County Government and to the community. Strand has provided a broad range of wastewater engineering services from initial planning through design and construction.

Strand has provided engineering services for LFUCG WWTP projects for over 42 years.



UV DISINFECTION PAST RECORD OF PERFORMANCE

Our first UV system was designed in 1992 and commissioned in 1994 and was one of the first operating UV systems treating wastewater in the Midwest. The technology became commonplace over the next decade, and our experience with a wide variety of manufacturers and system layouts includes an impressive list of more than 50 successful projects since then. These systems include all types of bulb pressure and intensity and includes systems for large and small facilities in both new and existing tankage. In addition, we have excellent experience with Trojan, Wedeco, and Ozonia UV systems of all varieties, and we have evaluated many more systems.

Strand has designed more than 50 successful UV systems. Our first system was designed more than 30 years ago.

The table below provides a list of our UV project experience since 2000. **Detailed descriptions of a few of these projects, along with the reference information requested in the RFP, are included on the following pages.**



Strand Associates, Inc.® Representative UV Disinfection Experience Since 2000

Client	Effluent Type	Peak Hourly Design Flow (mgd)	UV System	Year Bid
Huntington, WV	Secondary Effluent	69	Wedeco or Trojan	In planning
New Lenox, IL	Secondary Effluent	16	Wedeco or Trojan	In design
Manhattan, IL	Secondary Effluent	7	Wedeco or Trojan	In design
Greensburg, IN	Secondary Treatment	15	Trojan	In design
Shepherdsville, KY	Secondary Treatment	18	Wedeco	In design
Chillicothe, OH	Secondary Treatment	14	Trojan	Ready to bid
Crest Hill, IL	Tertiary Treatment	5.5	Wedeco	Out to bid
Madison MSD, WI	Secondary Treatment	100	Trojan	2020
Davenport, IA	Secondary Treatment	75	Wedeco	2020
Central City, KY	Secondary Treatment	12	Trojan	2019
Louisville MSD Hite Creek, KY	Tertiary Treatment	24	Trojan	2019
Bartlett, IL	Secondary Treatment with Blended Excess Flow	15	Trojan or Wedeco	2018
Owensboro, KY (David Hawes Plant)	Secondary Treatment	14.7	Wedeco	2018
Owensboro, KY (Max Rhoads Plant)	Secondary Treatment	38.9	Wedeco	2017
Cary, IL	Secondary Treatment	3.9	Wedeco	2017
Algoma, WI	Secondary Treatment	2.5	Trojan	2016
Morgantown, WV	Secondary Treatment	27	Trojan	2016
South Dearborn Regional, IN	Secondary Treatment	15	Trojan	2016
Waukesha, WI	Secondary Treatment	39	Trojan	2015
Louisville MSD Hite Creek, KY	Secondary Treatment	24	Trojan	2014
Illinois American (Santa Fe, IL)	Secondary Treatment	2.5	Wedeco	2014
Tipton, IN	Secondary Treatment	4	Wedeco	2014
Garrett, IN	Secondary Treatment	6.5	Wedeco	2013
Athens, OH	Secondary Treatment	14	Trojan	2013
Clay Township Regional, IN	Secondary Treatment	15.3	Trojan	2013
Mount Morris, IL	Secondary Treatment	2.7	Trojan	2013
Superior, WI	Secondary Treatment	15	Trojan	2012
Seymour IN	Secondary Treatment	30	Trojan	2011
West Portsmouth, OH	Secondary Treatment	1.5	Trojan	2011
Braidwood, IL	Secondary Treatment	7.8	Trojan	2011
Lindenhurst, IL	Secondary Treatment	5.7	Wedeco	2011
Dubuque, IA	Secondary Treatment	41	Ozonias	2010
Deerfield, IL	Secondary Treatment with Blended Primary Effluent	28	Trojan	2010
Rib Mountain Metro. Sewerage District, WI	Secondary Treatment	13	Trojan	2009
Fontana/Walworth, WI	Secondary Treatment	6.3	Trojan	2009
New Glarus, WI	Secondary Treatment	2.5	Trojan	2009
Whitewater, WI	Secondary Treatment	12	Trojan	2009
LaGrange, KY	Secondary Treatment	7.5	Trojan	2008
Columbus, IN	Secondary Treatment	39	Trojan	2008
Ashippun, WI	Secondary Treatment	0.7	Trojan	2008
Stevens Point, WI	Secondary Treatment	12	Trojan	2007, 1992
Jeffersonville, IN	Secondary Treatment	25	Trojan	2007
Sandwich, IL	Secondary Treatment	3.8	Trojan	2007
Illinois American (Oak Valley Homer Glen)	Secondary Treatment with Blended Excess Flow	6.3	Trojan	2007
Sussex, WI	Secondary Treatment	17	Trojan	2006
Fond du Lac, WI	Secondary Treatment with Blended Primary Effluent	68	Trojan	2005
Joliet, IL (Aux Sable)	Secondary Treatment	7.8	Wedeco	2004
Stoughton, WI	Secondary Treatment	6.2	Wedeco	2004
Western Racine County, WI	Secondary Treatment	7.6	Trojan	2004
Westby, WI	Secondary Treatment	0.8	Trojan	2004
Bayfield, WI	Secondary Treatment	1.3	Wedeco	2004
Channahon, IL	Secondary Treatment	8.5	Trojan	2002
Galena, IL	Secondary Treatment	4.7	Trojan	2001
Dixon, IL	Secondary Treatment	18	Trojan	2000



WWTPs UV Disinfection and Screen Improvements – Owensboro, KY

The Regional Water Resource Agency (RWRA) of Owensboro, Kentucky, hired us to design new UV disinfection facilities for its Max Rhoads WWTP (MRP) and its David Hawes WWTP (DHP). RWRA had previously used sodium hypochlorite and sodium bisulfite for chlorination and dechlorination but wished to move away from the maintenance and operation demands of that method of disinfection. The project was designed on an expedited schedule to meet Kentucky State Revolving Fund (SRF) requirements.

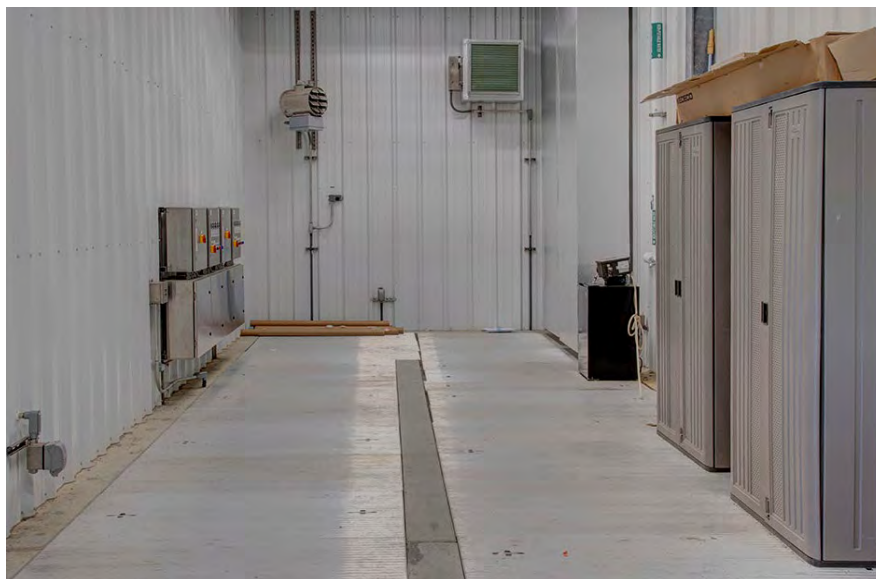
Client/Contact:

Regional Water
Resource Agency of
Owensboro
Victor Cernius, Director
of Operations
(270) 687-8452
cerniusvj@rwra.org

As part of a process for increasing the WWTP's capacity, the new UV disinfection system was designed to treat a peak-hourly flow of 38.9 mgd and 14.7 mgd at MRP and DHP, respectively. The plants' average-daily flows are 9.2 mgd and 4.4 mgd, but multiple banks of UV lamps allow for modulation with variable flows. The UV channel is enclosed in a new structure, providing weather protection for the equipment and operators.

RWRA elected to use WEDECO Duron UV equipment, a low-pressure high-output (LPHO) system with vertically inclined banks. We reviewed the plant hydraulic profile and accounted for the impacts the added head loss would cause to surrounding processes. Water levels in the MRP UV channel will be maintained by downward opening modulating weirs. A series of weir troughs were considered; however, the total weir length required for a 38.9 mgd peak flow required a much larger structure footprint and was found to be cost prohibitive. At DHP, the shorter weir length required for 14.7 mgd enabled the use of weir troughs for level control.

At DHP, we designed a retrofit of the plant's rapid mix basin to hold new screening and grit removal facilities. This included two mechanical fine screens, screening washing, conveying equipment, and a manually cleaned bypass screen. Improvements to the plant NPW system were also incorporated in the UV channel design. All of this was enclosed in a new building around the existing rapid mix basin.



DHP UV installation with fixed weir trough level control.



MRP UV Installation with modulating weir level control.

We successfully met the tight schedule for this project, which included three draft submittals and the final submittal in a period of 5 months. We were able to meet these deadlines with well-organized and thoughtful project management, a committed team, and frequent communication with RWRA. During the design period, our close coordination with KDOW resulted in a speedy approval of the project's construction permit.



Hite Creek Regional Water Quality Treatment Center – Louisville, KY

The Louisville and Jefferson County MSD has been aggressively eliminating overflows from their separate sanitary sewer system and consolidating treatment at select regional WQTCs. To address these initiatives, five small WQTCs in the Prospect area are being decommissioned with their flow pumped directly to the Hite Creek Regional WQTC. The delivery of this new flow resulted in an increase in the peak hourly flow from 16 mgd to 24 mgd. We completed planning, design and construction of two phases of improvements to the WQTC. The first phase increased the peak hourly flow to 24 mgd and included an expansion of the UV system. The second project expanded the average daily flow treatment capacity from 6 to 9 mgd and replaced the channels of original UV equipment with new equipment.

Client/Contact:

Louisville and Jefferson County MSD
 Alex Novak, P.E., Senior Regulatory Engineer
 (502) 540-6000
alex.novak@louisvillemtd.org

One consequence of the increased peak flow was a required expansion of the existing UV disinfection system. The facility employed a low-pressure UV system manufactured by Trojan (Series 3000 and 3000+). We designed an upgrade of the process by including another channel with new Trojan 3000+ equipment. Controls to operate the three UV systems were upgraded to enable the systems to be called on-line as peak flows increase and be placed off-line as peak flows decrease. Integration of the UV system and motor operated gate controls into a single new panel and their SCADA system was required.

The project also included construction of a new open sided building to shade the UV equipment. The new structure improved the conditions for the operators when performing maintenance, extended the life of the equipment, and reduced the growth of algae on the submerged UV equipment.

Madison Metropolitan Sewerage District UV Disinfection – Madison, WI

As part of a larger facilities planning project, we evaluated replacement alternatives for the existing 100 mgd UV disinfection facility. MMSD has utilized UV disinfection since the 1980s. The first system was replaced relatively quickly with a second UV system in the mid-1990s. The second UV system has been used successfully since then, though it is operating beyond its useful life and needed replacement within the next 5 years. We evaluated UV and other disinfection technologies to replace the system. Based on monetary and nonmonetary comparisons, we recommended replacement of the system with an inclined UV system from Trojan or Wedeco. The Wedeco system would only require minor modification of the existing channels, whereas the Trojan system would require lowering of the channels by approximately 1 foot to accommodate the longer 1,000-watt bulbs. Both UV manufacturers were specified, and two designs were completed to allow MMSD to competitively bid the project. The Trojan system was selected for construction, with the UV system completed and started up in April 2021.

Client/Contact:

Madison Metropolitan Sewerage District
 Cathy Wunderlich, Director of Engineering
 (608) 221-1201
cathyw@madsewer.org



New Trojan UV Disinfection System – Madison Metropolitan Sewerage District.



Davenport WPCP UV Disinfection – Davenport, IA

We designed a UV disinfection system for the City of Davenport Water Pollution Control Plant (WPCP) to meet new E. coli limits. The WPCP currently treats a maximum of 55 MGD through secondary clarification and blends primary clarification effluent flows exceeding 55 MGD up to 75 MGD. We worked closely with the City as they conducted pilot testing of the UV disinfection equipment and provided assistance as the City conducted permit negotiations relating to the disinfection limit. The UV system is housed in a new building located above the existing 96-inch plant effluent pipe and is designed to disinfect the secondary effluent down to permit limits. Furthermore, the system has a hydraulic capacity of 75 MGD, which will allow blended effluent to be disinfected during wet weather events. As part of design, two UV manufacturers, Wedeco and Trojan, were specified and the building was designed to easily accommodate either system, allowing the City to competitively bid the project in May 2020. The project included the installation of a Wedeco UV disinfection system and was substantially complete in December 2021. The UV disinfection system has been in use to meet limits since April 2022.

Client/Contact:

City of Davenport, IA
 Dan Miers, WPCP Manager
 (563) 326-7877
 dan.miers@davenportiowa.com



New Wedeco UV Disinfection System – City of Davenport WPCP.

Wastewater Treatment Facility – Columbus, IN

We provided planning, design and construction services for a new wastewater treatment facility (WWTF) for the Columbus City Utilities (CCU). The facility included the installation of a new Trojan UV3000+ system to disinfect secondary effluent from the facility’s secondary clarifiers. The UV system was designed to treat peak flows of up to 39 mgd, with provisions for expansion to 60 mgd. The UV system was installed in a new tank that also included pumping facilities for effluent reuse, a Parshall flume for flow metering and cascade aeration structure. The UV system was fully integrated into the WWTP’s systemwide SCADA system.

Client/Contact:

Columbus City Utilities
 Ashley Getz, Utilities Engineer
 (812) 372-8861
 agetz@columbusutilities.org



UV Disinfection Process at the CCU WWTF.

AFFIDAVIT

Comes the Affiant, Joseph M. Bunker, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Joseph M. Bunker and he/she is the individual submitting the proposal or is the authorized representative of Strand Associates, Inc.[®], the entity submitting the proposal (hereinafter referred to as "Proposer").

2. Proposer will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.

3. Proposer will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.

4. Proposer has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.

5. Proposer has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Proposer will not violate any provision of the campaign finance laws of the Commonwealth.

6. Proposer has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

Continued on next page

7. Proposer acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

Joseph M. Bunker

STATE OF Wisconsin

COUNTY OF Dane

The foregoing instrument was subscribed, sworn to and acknowledged before me by Joseph M. Bunker on this the 26 day of May, 2022

My Commission expires: July 4, 2025

Laura Elizabeth Roberts
NOTARY PUBLIC, STATE AT LARGE



GENERAL PROVISIONS

1. Each Respondent shall comply with all Federal, State & Local regulations concerning this type of service or good.

The Respondent agrees to comply with all statutes, rules, and regulations governing safe and healthful working conditions, including the Occupational Health and Safety Act of 1970, *29 U.S.C. 650 et. seq.*, as amended, and KRS Chapter 338. The Respondent also agrees to notify the LFUCG in writing immediately upon detection of any unsafe and/or unhealthful working conditions at the job site. The Respondent agrees to indemnify, defend and hold the LFUCG harmless from all penalties, fines or other expenses arising out of the alleged violation of said laws.

2. Failure to submit ALL forms and information required in this RFP may be grounds for disqualification.
3. Addenda: All addenda, if any, shall be considered in making the proposal, and such addenda shall be made a part of this RFP. Before submitting a proposal, it is incumbent upon each proposer to be informed as to whether any addenda have been issued, and the failure to cover in the bid any such addenda may result in disqualification of that proposal.
4. Proposal Reservations: LFUCG reserves the right to reject any or all proposals, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
5. Liability: LFUCG is not responsible for any cost incurred by a Respondent in the preparation of proposals.
6. Changes/Alterations: Respondent may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the proposal, and received by LFUCG prior to the scheduled closing time for receipt of proposals, will be accepted. The proposal, when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of proposal".
7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from a Respondent.
8. Bribery Clause: By his/her signature on the bid, Respondent certifies that no employee of his/hers, any affiliate or Subcontractor, has bribed or attempted

to bribe an officer or employee of the LFUCG.

9. Additional Information: While not necessary, the Respondent may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the Respondent's response. Additional documentation shall not serve as a substitute for other documentation which is required by this RFP to be submitted with the proposal,
10. Ambiguity, Conflict or other Errors in RFP: If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
11. Agreement to Bid Terms: In submitting this proposal, the Respondent agrees that it has carefully examined the specifications and all provisions relating to the work to be done attached hereto and made part of this proposal. By acceptance of a Contract under this RFP, proposer states that it understands the meaning, intent and requirements of the RFP and agrees to the same. The successful Respondent shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to Respondent shall be authorized for services or expenses reasonably covered under these provisions that the proposer omits from its Proposal.
12. Cancellation: If the services to be performed hereunder by the Respondent are not performed in an acceptable manner to the LFUCG, the LFUCG may cancel this contract for cause by providing written notice to the proposer, giving at least thirty (30) days notice of the proposed cancellation and the reasons for same. During that time period, the proposer may seek to bring the performance of services hereunder to a level that is acceptable to the LFUCG, and the LFUCG may rescind the cancellation if such action is in its best interest.

A. Termination for Cause

- (1) LFUCG may terminate a contract because of the contractor's failure to perform its contractual duties
- (2) If a contractor is determined to be in default, LFUCG shall notify the contractor of the determination in writing, and may include a specified date by which the contractor shall cure the identified deficiencies. LFUCG may proceed with termination if the contractor fails to cure the deficiencies within the specified time.

- (3) A default in performance by a contractor for which a contract may be terminated shall include, but shall not necessarily be limited to:
 - (a) Failure to perform the contract according to its terms, conditions and specifications;
 - (b) Failure to make delivery within the time specified or according to a delivery schedule fixed by the contract;
 - (c) Late payment or nonpayment of bills for labor, materials, supplies, or equipment furnished in connection with a contract for construction services as evidenced by mechanics' liens filed pursuant to the provisions of KRS Chapter 376, or letters of indebtedness received from creditors by the purchasing agency;
 - (d) Failure to diligently advance the work under a contract for construction services;
 - (e) The filing of a bankruptcy petition by or against the contractor; or
 - (f) Actions that endanger the health, safety or welfare of the LFUCG or its citizens.

B. At Will Termination

Notwithstanding the above provisions, the LFUCG may terminate this contract at will in accordance with the law upon providing thirty (30) days written notice of that intent, Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

13. Assignment of Contract: The contractor shall not assign or subcontract any portion of the Contract without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this Contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
15. Authority to do Business: The Respondent must be a duly organized and

authorized to do business under the laws of Kentucky. Respondent must be in good standing and have full legal capacity to provide the services specified under this Contract. The Respondent must have all necessary right and lawful authority to enter into this Contract for the full term hereof and that proper corporate or other action has been duly taken authorizing the Respondent to enter into this Contract. The Respondent will provide LFUCG with a copy of a corporate resolution authorizing this action and a letter from an attorney confirming that the proposer is authorized to do business in the State of Kentucky if requested. All proposals must be signed by a duly authorized officer, agent or employee of the Respondent.

16. **Governing Law:** This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this Contract, the Parties agree that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division. All parties expressly consent to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to this Contract or any rights or obligations arising thereunder. Service of process may be accomplished by following the procedures prescribed by law.
17. **Ability to Meet Obligations:** Respondent affirmatively states that there are no actions, suits or proceedings of any kind pending against Respondent or, to the knowledge of the Respondent, threatened against the Respondent before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of Respondent to perform its obligations under this Contract, or which question the legality, validity or enforceability hereof or thereof.
18. Contractor understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Contractor is an independent contractor at all times during the performance of the services specified.
19. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.

20. If any term or provision of this Contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.


Signature


Date

EQUAL OPPORTUNITY AGREEMENT

The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability.

- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.


Signature

Strand Associates, Inc.®
Name of Business



Strand Associates, Inc.®
651 Perimeter Drive, Suite 220
Lexington, KY 40517
(P) 859-225-8500

Equal Employment Opportunity Policy Statement

Strand Associates, Inc.® is committed to a policy of equal opportunity for all employees. It is our policy to seek and employ the best qualified personnel in all positions, to provide equal opportunity for advancement to all employees, including upgrading, promotion and training, and to administer these activities in a manner which will not discriminate against or give preference to any person because of race, color, religion, age, sex, national origin, handicap, marital status, or any other discriminatory basis prohibited by state or federal law.

Strand is further committed to providing a work environment in which employees are treated with courtesy, respect, and dignity. As part of this commitment, we will not tolerate any form of harassment, verbal or physical, with regard to an individual's race, sex, national origin, or any other protected characteristics. Therefore, all employees are encouraged to bring forth any concerns or complaints in this regard to the attention of management by contacting Human Resources, Shawn Cannon, or Matthew Richards.

All complaints of sexual harassment, or harassment of any kind, will be investigated promptly and, where necessary, immediate and appropriate action will be taken to stop and remedy any such conduct. Any employee found in violation of this policy will be subject to disciplinary action which could include discharge.



LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # RFP #30-2022 Investigation-Design Services for Disinfection Process Replacement Project

The MWDBE subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately.

MWDBE Company, Name, Address, Phone, Email	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Wayne Karem, Ph.D., P.E., D. GE Vector Engineers, Inc./ CTL Engineering 1535 Old Finchville Rd. Shelbyville, KY 40065 (502) 633-7585 wayne.karem@vectorky.com	DBE	Geotechnical Engineering	*see note below
2.			
3.			
4.			

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Strand Associates, Inc.
Company


Company Representative

6/6/22
Date

Corporate Secretary
Title

* Note: Strand strives to achieve LFUCG's DBE and VOB participation goals. We regularly utilize DBE and VOB subconsultants as part of our project team. One MWDBE firm was identified to provide engineering services specified in LFUCG's Request for Proposals. We did not identify a VOB for inclusion on the project team. Strand is committed to identifying opportunities for DBE and VOB businesses as the project scope is finalized. The total dollar value of MWDBE contracts will be determined based on the actual project scope.

LFUCG STATEMENT OF GOOD FAITH EFFORTS

Bid/RFP/Quote # RFP #30-2022 Investigation-Design Services for
Disinfection Process Replacement Project

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE business enterprises on the project and can supply the appropriate documentation.

_____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms to participate.

_____ Included documentation of advertising in the above publications with the bidders good faith efforts package

_____ Attended LFUCG Central Purchasing Economic Inclusion Outreach event

_____ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs of subcontracting opportunities

_____ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms

Requested a list of MWDBE subcontractors or suppliers from LFUCG Economic Engine and showed evidence of contacting the companies on the list(s). **(*SEE NOTE)**

_____ Contacted organizations that work with MWDBE companies for assistance in finding certified MWDBE firms to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

- Followed up initial solicitations by contacting MWDBEs to determine their level of interest.
- Provided the interested MWDBE firm with adequate and timely information about the plans, specifications, and requirements of the contract.
- Selected portions of the work to be performed by MWDBE firms in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE participation, even when the prime contractor may otherwise perform these work items with its own workforce
- Negotiated in good faith with interested MWDBE firms not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.
- Included documentation of quotations received from interested MWDBE firms which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.
- Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE goals.
- Made an effort to offer assistance to or refer interested MWDBE firms to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal
- Made efforts to expand the search for MWDBE firms beyond the usual geographic boundaries.

_____ Other - any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE participation.

Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement. Documentation of Good Faith Efforts are to be submitted with the Bid, if the participation Goal is not met.

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Strand Associates, Inc.
Company


Company Representative

6/6/22
Date

Corporate Secretary
Title

* Note: Strand strives to achieve LFUCG's DBE and VOB participation goals. We regularly utilize DBE and VOB subconsultants as part of our project team. One MWDBE firm was identified to provide engineering services specified in LFUCG's Request for Proposals. We did not identify a VOB for inclusion on the project team. Strand is committed to identifying opportunities for DBE and VOB businesses as the project scope is finalized. The total dollar value of MWDBE contracts will be determined based on the actual project scope.

**AMENDMENT 1 —
CERTIFICATION OF COMPLIANCE FOR AMERICAN RESCUE PLAN ACT
EXPENDITURES**

The Lexington-Fayette Urban County Government (“LFUCG”) may classify the subject matter of this bid as an expenditure under the American Rescue Plan Act of 2021. Expenditures under the American Rescue Plan Act of 2021 require evidence of the contractor’s compliance with Federal law. Therefore, by the signature below of an authorized company representative, you certify that the information below is understood, agreed, and correct. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

The bidder agrees and understands that in addition to all conditions stated within the attached bid documents, the following conditions will also apply to any Agreement entered between bidder and LFUCG, if LFUCG classifies the subject matter of this bid as an expenditure under the American Rescue Plan Act. The bidder further certifies that it can and will comply with these conditions, if this bid is accepted and an Agreement is executed:

1. Any Agreement executed as a result of acceptance of this bid may be governed in accordance with 2 CFR Part 200 and all other applicable Federal law and regulations and guidance issued by the U.S. Department of the Treasury.

2. Pursuant to 24 CFR 85.43, any Agreement executed as a result of acceptance of this bid can be terminated if the contractor fails to comply with any term of the award. This Agreement may be terminated for convenience in accordance with 24 CFR 85.44 upon written notice by LFUCG. Either party may terminate this Agreement with thirty (30) days written notice to the other party, in which case the Agreement shall terminate on the thirtieth day. In the event of termination, the contractor shall be entitled to that portion of total compensation due under this Agreement as the services rendered bears to the services required. Either party may terminate this Agreement for good cause shown with forty-five (45) days written notice, which shall explain the party’s cause for the termination. If the parties do not reach a settlement before the end of the 45 days, then the Agreement shall terminate on the forty-fifth day.

3. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

- (1) 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. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- (4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event a contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering

agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

4. If fulfillment of the contract requires the contractor to employ mechanic's or laborers, the contractor further agrees that it can and will comply with the following:

- (1) Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.
- (2) Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. LFUCG shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

5. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

6. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.

7. The contractor shall include these requirements in numerical paragraphs 5 and 6 in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funding.

8. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

9. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.

10. The contractor shall include these requirements in numerical paragraphs 8 and 9 in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.

11. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

12. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency regional office.

13. The contractor shall include these requirements in numerical paragraphs 11 and 12 in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.

14. The contractor shall include this language in any subcontract it executes to fulfill the terms of this bid: "the sub-grantee, contractor, subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this contract (or agreement). Title VI also includes protection to persons with 'Limited English Proficiency' in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this contract or agreement."

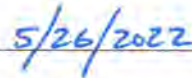
15. Contractors who apply or bid for an award of \$100,000 or more shall file the required certification that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such

disclosures are forwarded from tier to tier, up to the recipient. The required certification is included here:

- a. The undersigned certifies, to the best of his or her knowledge and belief, that:
 - (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
 - (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
- b. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.



Signature



Date

WORKFORCE ANALYSIS FORM

Name of Organization: Strand Associates, Inc.

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Administrators	10	8	1						1							8	2
Professionals	356	276	54	6	2	2	1			8	2			3	2	295	61
Superintendents	-															-	-
Supervisors	-															-	-
Foremen	-															-	-
Technicians	90	75	12	1						2						78	12
Protective Service	-															-	-
Para-Professionals	-															-	-
Office/Clerical	56	11	38	1	2		1		1	1	1					13	43
Skilled Craft	-															-	-
Service/Maintenance	3	1				2										3	-
Total:	515	371	105	8	4	4	2	-	2	11	3	-	-	3	2	397	118

Prepared By: Audra Wells, H/R Coordinator Date: 6/1/22
(Name and Title) *Revised 2015-Dec-15*



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/12/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Ansay & Associates, LLC. 2901 W. Beltline Hwy. Suite 202 Madison WI 53713	CONTACT NAME: Joe Keal PHONE (A/C, No. Ext): 800-643-6133 E-MAIL ADDRESS: joe.keal@ansay.com		FAX (A/C, No): 608-831-4777
	INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED Strand Associates, Inc 910 W. Wingra Drive Madison WI 53715	STRAASS-01	INSURER A : CNA Insurance Companies	35289
		INSURER B :	
		INSURER C :	
		INSURER D :	
		INSURER E :	
		INSURER F :	

COVERAGES

CERTIFICATE NUMBER: 130199209

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> 1,000 <input checked="" type="checkbox"/> Blkt.Contractual GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC			5099170076	1/1/2021	1/1/2022	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 900,000
							MED EXP (Any one person)	\$ 15,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			5099170062	1/1/2021	1/1/2022	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			5099170059	1/1/2021	1/1/2022	EACH OCCURRENCE	\$ 2,000,000
							AGGREGATE	\$ 2,000,000
								\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WC595126844	1/1/2021	1/1/2022	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER	
							E.L. EACH ACCIDENT	\$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
A	Professional Liability Full Prior Acts			AEH113974097	7/11/2021	7/11/2022	Each Claim Aggregate Full Prior Acts	2,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

Blank Certificate

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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