

## ENGINEERING SERVICES AGREEMENT

THIS IS AN AGREEMENT made as of \_\_\_\_\_, 2018, between the **LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**, an urban county government of the Commonwealth of Kentucky pursuant to KRS Chapter 67A (“**OWNER**”) and **TETRA TECH** with offices located at 424 Lewis Hargett Circle, Suite 110, Lexington, KY 40503 (“**CONSULTANT**”). **OWNER** intends to proceed with the Engineering Services for Investigation/Design Services for West Hickman WWTP Biological Phosphorus Removal (BPR) Improvements as described in the attached **EXHIBIT A**, Scope of Engineering Services and Related Matters RFP #15-2018 (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 West Hickman WWTP-4 BPR Improvements 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 #15-2018 (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 #15-2018).

5. ~~EXHIBIT D~~ Further Description of Basic Engineering Services and Related Matters. **NOT USED**

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 NOT USED~~, 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 #15-2018, **EXHIBIT C** Proposal of Engineering Services and Related Matters, and ~~Exhibit D Further Description of Basic Engineering Services and Related Matters~~ **NOT USED**. 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 #15-2018, attached **EXHIBIT C**, Proposal of Engineering Services and Related Matters, and ~~attached EXHIBIT D Further Description of Basic Engineering Services and Related Matters~~ **NOT USED 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 \$386,000.00. As defined in Exhibit C. (\$291,000.00 + \$15,000.00(Addendum #1) + \$80,000.00(Modeling, Page 10)

#### **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:

<b><u>Coverage</u></b>	<b><u>Limits</u></b>
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.



# **EXHIBIT A**

## **Scope of Engineering**

### **Services and Related Matters**

**RFP #15-2018**

**Investigation / Design Services for West Hickman WWTP  
Biological Phosphorus Removal Improvements Project**

**Lexington – Fayette Urban County Government (LFUCG) Division of Water Quality**

The Lexington-Fayette Urban County Government is accepting proposals from interested consulting engineering firms for the Investigation / Design Services for West Hickman Wastewater Treatment Plant (WWTP) Biological Phosphorus Removal (BPR) Improvements Project.

**1. General Project Description**

The CONSULTANT shall perform professional services as hereinafter stated which shall include but is not limited to customary civil, structural, geotechnical, mechanical, electrical engineering, and programming services as related to the Investigation / Design for West Hickman WWTP Biological Phosphorus Removal Improvements Project.

Per the *Group One Sanitary Sewer System and WWTP Remedial Measures Plan*, the intent of the West Hickman WWTP Biological Phosphorus Removal Improvements Project is to sustain current treatment reliability. The recommendations from this evaluation will address maintaining treatment reliability for a true peak capacity of 70 MGD. The recommendations will not provide for expansion capacity greater than 70 MGD. **Construction of the West Hickman WWTP Biological Phosphorus Removal Improvements Project must be complete by December 31, 2020.**

As stated in the *Group One Sanitary Sewer System and WWTP Remedial Measures Plan* the 2001 expansion included the installation of seven BPR Tanks designed for a limited hydraulic detention time based on influent flows. Until the West Hickman Wet Weather Storage Project (WH WWS) is complete, the West Hickman WWTP will be controlling flow to the BPR tanks with the automated "Leaping Weir". The current configuration presents issues with high flows. When the WH WWS Project is complete, in December 2018, a new splitter box will prevent the issues during high flow events and provide better control of the flow that is sent to the BPR tanks. The CONSULTANT selected will evaluate the BPR basins treatment capacity, influent raw/RAS mixing prior to the BPR basins, and mixing equipment in the basins. The current design and operation of the BPR tanks will be researched and addressed in a Preliminary Engineering Report (PER) with a standard operating procedure developed after final recommendations. Considerations for BPR expansion or addition of a denitrification tank should include the options of additional new basins or modifying the clarifiers that are out of service. The PER will also include updating the back-up phosphorus reducing chemical feed system and updating the Chem Scan monitoring system.

Funding for this project is 100% sewer fund revenue, no federal fund involvement is expected.

**2. Scope of Work: Biological Phosphorus Removal (BPR) Improvements Project**

The BPR Improvements Project will evaluate the design, operations and capacity of the BPR Tanks, chemical feed equipment, and replace equipment that has surpassed its useful life to

increase reliability while lowering operating cost by improving efficiency. Construction of the project must be completed by **December 31, 2020**.

The CONSULTANT will:

- Evaluate current BPR operations Standard Operating Procedures (SOP)
- Evaluate current BPR Effectiveness and Efficiency
- Evaluate BPR treatment capacity (capacities based on flows/bypassing to zone 2)
- Review new splitter box operations and make recommendations for new SOP
- Determine if there is a need for denitrification before BPR Tanks; design if needed
- Recommend equipment to be replaced for increased reliability
- Update Chem Scan Monitoring System
- Update phosphorus reducing chemical feed system

NOTE: This list is not meant to be all-inclusive.

A. Task 1: Existing Biological Phosphorus Removal Process (BPR) Review

- (1) Interview West Hickman Wastewater Treatment Plant Operations and Management staff for input regarding the current process equipment control and functionality related to the BPR Process.
- (2) Collect any other supporting data needed to evaluate current operations, past plant upsets and anything needed for design decisions.

B. Task 2: Develop Equipment/Process Replacement Concepts and Schedules

- (1) Prepare a conceptual layout for each concept evaluated along with design calculations.
- (2) Conduct a 20-year life cycle and present worth analysis for each conceptual design evaluated.
- (3) Prepare preliminary cost estimates and implementation schedules for all conceptual designs.
- (4) Present Preliminary Engineering Report to Treatment Plant Management Staff for a review of all conceptual designs and receive guidance for progress towards the final design.
- (5) LFUCG will respond in writing to the preliminary Engineering Report, providing authorization for work under Task 3.

C. Task 3: Detailed Design

- (1) Conduct detailed design progress meetings at 25%, 50%, and 90% completion. The dates for these progress meetings will be decided on during the first pre-design meeting. Progress reports and drawings will be submitted



one week before the Lexington-Fayette Urban County Government review and comment. (3 copies)

- (2) Conduct and present any related design calculations to support the new equipment/process.
- (3) Furnish detailed cost estimates for probable cost and revise the 20-year life cycle and present worth analysis for the 50% review and the final design.
- (4) Update project schedules at 25%, 50% and 90%?

D. Task 4: Bidding Services

- (1) Prepare final plans and specifications ready for bidding. Plans and specifications are to be provided in both hard copy and standard electronic format compatible with Lexington-Fayette Urban County Government equipment. The most recent plans and specifications have been submitted in PDF format. LFUCG would also like AutoCAD files. A minimum of 7 copies will be required.
- (2) Coordinate and submit plans, specifications, and permit application to the Kentucky Division of Water for the purposes of receiving a construction permit.
- (3) Provide customary bidding services including preparation of advertisement, conducting pre-bid meeting, issuing required addenda, evaluating bids and providing a recommendation of award.

E. Task 5: Construction Administration Services

- (1) Track, review and approve all shop drawings.
- (2) Track change orders, review requests, recommendation comments, and prepare the paper work to be submitted to council.
- (3) Track and answer all Request for Information (RFIs)
- (4) Coordinate and lead monthly construction progress meetings.
- (5) Conduct construction inspections and submit weekly reports once construction begins. Please submit estimated hours per week, total hours included for inspections and the hourly rate with your detailed cost estimate
- (6) Take before and after photos of all stages of construction.
- (7) Review and approve contractor's monthly payment applications.
- (8) Attend and maintain test reports for all equipment start-up for the project.
- (9) Coordinate final inspection of completed work and prepare the final punch list.

- (10) Transfer field notes from the contractor's drawings and submit final as-built drawings to the owner.

NOTE: This outline is not intended to be all inclusive but is intended to be a guide for prospective firms as to the general expectations of the Owner. The Lexington-Fayette Urban County Government will not compensate firms for the cost of proposal preparation.

### 3. Detailed Cost Estimates

The CONSULTANT shall prepare a detailed cost estimate for this proposal based on the Tasks defined in this Request for Proposal. The estimate shall show a preliminary schedule estimating the time necessary to complete the Tasks outlined with a unit price associated. The intent of this proposal is to show the number of hours associated with a lump sum fee for the Thickening Process Evaluation and Equipment Upgrades. If your firm has additional Tasks that would be recommended show the new Tasks as separate line items with the scope well defined.

### 4. Proposal Content

The proposal will contain the following components.

- A. Cover Letter
- B. Scope/fee (Detailed Cost Estimate) – No more than 8 pages. ***The attached Fee Schedule completed with your estimated cost will be the last page in this section.***
- C. Estimated Schedule – No more than 4 pages.
- D. Project Team with One-Page Resumes (Do not submit resumes for individuals contributing less than 10% of total man hours allocated)
- E. A list of 5 similar projects with owner contact information. This section shall be no more than 5 pages total.

### 5. Schedule and Completion

The proposed timeline for completion of the Scope of Services outlined in the proposal is as follows:

#### Aeration Improvements Project

Award Design Contract  
Meeting to Review Final Design – 90% Completion  
Bid Opening  
Award of GC Contract

August 2018  
February 2019  
April 2019  
June 2019

The CONSULTANT shall coordinate the exact time and location of all meetings with the Plant Engineer, Division of Water Quality.

NOTE: Schedule may be adjusted based on final negotiations. When submitting the schedule with your proposals please indicate if your firm could complete this project any sooner than the estimated time above.

## **6. Method of Invoice and Payment**

The CONSULTANT shall submit monthly for basic services or work rendered, based upon the CONSULTANT'S estimate of the portion of the total services actually completed during the billing cycle. Each invoice shall be accompanied by a breakdown of hours attributed to each task for both the billing cycle and the cumulative project period. Also include the percent Disadvantaged Business Enterprise (DBE) cost with each monthly invoice.

The Director of Water Quality or his designee shall respond to the invoice within thirty days of receipt, either denying or approving payment. Specific project time sheets and other payroll information may be subject to reviews and audits by the Lexington-Fayette Urban County Government.

## **7. Miscellaneous**

All plans, specifications and accompanying documents are subject to review by the Lexington-Fayette Urban County Government's Division of Water Quality, Division of Engineering, Division of Risk Management and Division of Building Inspection. The CONSULTANT shall be responsible for incorporating the comments and requirements of the divisions into all documents.

**Investigation/Design Services for West Hickman WWTP  
Biological Phosphorus Removal Improvements Project**

**Fee Schedule**

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

***Section 2***

**Scope of Work: Biological Phosphorus Removal Improvements Project**

- |    |  |                    |
|----|--|--------------------|
| 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.

\_\_\_\_\_/\_\_\_\_\_

Section 2 Total Cost:



**ADDENDUM #1**

RFP Number: #15-2018

Date: June 7, 2018

Subject: Investigation/Design Services for West Hickman WWTP Biological  
Phosphorus Removal Improvements Project

Address inquiries to:

Brian Marcum  
(859) 258-3320

**TO ALL PROSPECTIVE SUBMITTERS:**

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

The RFP states "Update Chem Scan Monitoring System." - Upon further review the system should be replaced with the latest equipment. Piping will not need to be replaced. New systems now have added grinder pumps at each of the sample locations.

When looking at the design of the BPR Tanks LFUCG would like to be able to maintain a true peak of 70MGD for 24 hours with all BPR Tanks in Service.

Vision for the Phosphorus Reducing Chemical feed System; the system will need new piping, new tanks will not be necessary, existing pumps will be replaced. We use Sodium Aluminate at a dosage rate of 250ml/minute.

There are currently 32 BPR mixers total. We want to replace the mixers with equipment that has proven to be more reliable. For new mixers considered the consultant will have to look at the location of the mixers in the tanks and the ease of maintenance.

Information on plant upsets has been included as Attachment #1.

The current SOP of the Leaping Weir/BPR Tanks has been included as Attachment #2.

If you would like to propose process modeling please describe your efforts and show Process Modeling as a separate price.



Base your detailed design fee on adding a tank for denitrification.

A Process Summary, General Site Plan, Site Piping Plan and Hydraulic Profile from 2001 have been added as Attachment #3. Please note the Screw Pumps referred to in the process summary and Hydraulic Profile were replaced with WEMCO Hydrostal Pumps in three phases beginning in 2006. The Hydraulic Profile has not been updated to show different pumps.

Please review attachments #1, 2, 3A, 3B, 3C



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: \_\_\_\_\_

ADDRESS: \_\_\_\_\_



SIGNATURE OF BIDDER: \_\_\_\_\_



## KY Department for Environmental Protection Electronic Submittals

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- ☐ Navigate Notification
- ☒ Report an Incident
  - ☐ Fill out a Form
  - ☐ Upload XML File

Type of Notification :	eNotification Wastewater ▼		
Incident Type: (*)	BYPASS - WET WEATHER ▼		
Incident Start Date-Time: (*)	02/03/2016 07:15 am		(mm/dd/yyyy hh:mm am/pm)
Incident End Date-Time:	02/03/2016 11:30 am		(mm/dd/yyyy hh:mm am/pm)
AI Name: (*)	Lexington West Hickman WWTP(2295) ▼		
Nature of Incident: (*)	Final Clarifier #1 was overwhelmed by high influent flow from rain event causing washout of solids. Washed out solids went to chlorine contacts and was chlorinated and then dechlorinated before going to West Hickman Creek.		
	Final Clarifier #1 next to Zone 2 aeration building.		
Incident Location: (*)			
Cause/Duration : (*)	High flow coming into plant from rain event, caused influent flow to increase to 51,263 gpm(73.82 mgd). The flow overwhelmed final clarifier #1. The washing out lasted 4.75 hours.		
Action Taken :	Closed down influent gate on #1 clarifier to 30%, shut off air in Zone 1 and Zone 2 aeration tanks. Increased Chlorine and Sulfur Dioxide feed rates to compensate for cloudy effluent, adjusted influent and return rates on other final clarifiers that were in service.		

Pollutant	CAS	Quantity	Units
Treated Water ▼	▼	7323	gallons/min ▼
▼	▼	▼	▼
▼	▼	▼	▼
▼	▼	▼	▼



[Search More Pollutant/CAS](#)Other Substance(s) : ☐

County of Release :	Jessamine	▼
Weather Conditions :	rain	▼
Receiving :	West Hickman Creek	▼
Release To :	Creek	▼

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## KY Department for Environmental Protection Electronic Submittals

[Home](#) **Notification** [My Page Use](#)[Report an Incident](#)[Fill out a Form](#)[Upload XML File](#)[Review History](#)[Print Version](#)

Incident Type: (*)	BYPASS - OTHER		
Incident Start Date-Time: (*)	06/24/2012 02:00 pm		(mm/dd/yyyy hh:mm am/pm)
Incident End Date-Time:	06/28/2012 04:00 pm		(mm/dd/yyyy hh:mm am/pm)
AI Name: (*)	Lexington West Hickman WWTP(2295)		
Nature of Incident: (*)	activated sludge denitrified in finals and washed out quicker than it could be pumped out causing it to release into chlorine contacts and creek #2012-2622 ID # rejected 27420		
Incident Location: (*)	West Hickman WWTP, 645 West Hickman Plt Rd., Nicholasville Ky. 40356		
Cause/Duration : (*)	Biological upset in plant, brought on by a combination of low flows, high temperatures, high influent concentrations an imbalance in food and microorganisms, operational changes made to help settling caused greater problem when flow increased. Duration 4 days		
Action Taken :	added final clarifier, added 2 additional chlorine contacts, increased chlorine feed rate and sulfur dioxide feed rate, added 2 BPR tanks, removed 1 large aeration tank, hauled in waste activated sludge to improve F/M ratio, added concentrated nitrifiers to aeration tanks, monitoring creek for changes, cleaned contaminated area of creek (7/6/2012)		
Pollutant	CAS	Quantity	Units
Sewage		1000000	gallons
<a href="#">Search More Pollutant/CAS</a>			
Other Substance(s) :			
County of Release :	Jessamine		
Weather Conditions :	calm		
Receiving :	West Hickman Creek		



## B.P.R. OPERATION

THE MAXIMUM FLOW THRU THE BPR WITH 8 TANKS IN SERVICE IS 39 MGD FORWARD FLOW AND A MAXIMUM RAS FLOW OF 23 MGD, FOR A TOTAL FLOW OF 62 MGD. WE FIGURE FORWARD FLOW AT 4.25 MGD PER TANK PLUS 5 MGD EXTRA. THE PLANT USUALLY OPERATES WITH 3 BPR TANKS IN SERVICE WITH A MAX OF 5 BPRS. DURING A PEAK FLOW EVENT WITH 3 BPR TANKS IN SERVICE THE TANKS SHOULD HANDLE 17.75 MGD FORWARD FLOW AND UPTO 23 MGD RAS FLOW FOR A TOTAL FLOW OF 40.75 MGD. IF WE HAVE FORWARD FLOW ABOVE 17.75 MGD THE LEAPING WEIR GATES ARE LOWERED TO ALLOW THE INFLUENT FLOW TO GO TO THE SECONDARY CHANNEL AND ZONE 2 AERATION. DURING A HIGH FLOW RAIN EVENT THE BPR MIXERS ARE SHUT OFF SO MORE SOLIDS CAN BE HELD IN THE BPR TANKS RATHER THAN WASHING THRU THE PLANT TO THE FINAL CLARIFIERS.

### BPR FLOWS

3 TANKS IN SERVICE:  $12.75 \text{ MGD} + 5 \text{ MGD} = 17.75 \text{ MGD}$

4 TANKS IN SERVICE:  $17.0 \text{ MGD} + 5 \text{ MGD} = 22.0 \text{ MGD}$

5 TANKS IN SERVICE:  $21.25 \text{ MGD} + 5 \text{ MGD} = 26.25 \text{ MGD}$

6 TANKS IN SERVICE:  $25.5 \text{ MGD} + 5 \text{ MGD} = 30.5 \text{ MGD}$

7 TANKS IN SERVICE:  $29.75 \text{ MGD} + 5 \text{ MGD} = 34.75 \text{ MGD}$

8 TANKS IN SERVICE:  $34.0 \text{ MGD} + 5 \text{ MGD} = 39.0 \text{ MGD}$

## CHAPTER 3

### PROCESS SUMMARY

#### TREATMENT PROCESS

The original facility was a 5 MGD modified Kraus process followed by 20 acres of polishing lagoons and was put into service in 1972. In 1982, the plant was expanded to 16.8 MGD Average Daily Flow/32 MGD Peak Daily Flow for a total cost of \$30 million. The facility was then converted to two-stage nitrification with primary clarification and anaerobic digestion. In 1992, the design capacity was increased to 22.3 MGD Average Daily Flow/32 MGD Peak Daily Flow; fine screens, raw sewage screw pumps, centrifuge for sludge thickening, dechlorination and computer monitoring system were added for a cost of \$20 million.

In 2001, an upgrade of the West Hickman Creek WWTP was completed that increased the capacity to 33.8 MGD Average Daily Flow/64 MGD Peak Daily Flow. The modifications included: New Influent Fine Screens (3 @ 25 MGD each) with screenings conveyors and compactors; Influent Pump Station Odor Control System; Conversion of Primary Clarifiers to Biological Phosphorus Removal System; Conversion to Single Stage Nitrification to include the use of Panel Diffusers; High Flow Diversion System; the addition of two 125 ft. diameter final clarifiers; Conversion of Anaerobic Digester to Aerobic Sludge Holding Tanks; Replacement of three existing Belt Filter Presses with new 2 meter units to include new conveyance system; Replacement of Belt Filter Press Feed Pumps; Improvements to Chlorination Feed System and Expansion of Chlorine Contact Tank; installation of Chem Scan Processing Monitoring System (for nitrates, ammonia nitrogen and ortho-phosphate); and Channel Odor Control System. The total construction cost of these improvements was \$9.4 million.

The general flow pattern and main process units are presented as schematics in Exhibits 2 through 7. More detailed process flow diagrams showing the treatment process lines, valves, and pumps are shown on the record drawings. Later chapters will also describe the various processes used for wastewater treatment and will discuss procedures for effective operation. Table 3-1 summarizes the design criteria data for the treatment plant.

### Liquid Train

A 54-inch trunk sewer transports the raw wastewater to Manhole No.10 and continues to flow to Manholes 11 and 12 through a 66-inch reinforced concrete pipe. An 18-inch trunk sewer from Hartland subdivision discharges into Manhole No.12. A 3-inch chlorine solution line at Manhole No.12 allows chlorine solution to be applied to the raw wastewater for odor control and process control. A 78-inch reinforced concrete pipe transports the raw wastewater to the coarse bar racks.

The coarse bar racks are placed in series to remove the larger debris such as rags and sticks from the wastewater to help prevent clogging of pumps and pipes in downstream process units. A 9-inch flume is located at the downstream end of the coarse bar racks to accurately measure sidestream flows that are recycled to the head of the plant. The coarsely screened wastewater is directed to the mechanical bar screens by the screw pumps.

The mechanical bar screens remove debris from the wastewater flow that had been too small to be collected by the coarse bar racks. The screened material is collected and removed for disposal.

The screened wastewater flows by gravity to the grit removal system where grit, sand, silt, etc. is removed from the flow stream for disposal.

Flow from the grit tanks flows by gravity to the High Flow Diversion Box which is used to control flow to subsequent processing tanks. Normal operation would call for flows up to the normal diurnal peak (dry weather) to be completely processed through the Biological Phosphorus Removal (BPR) system while flows exceeding these levels would be diverted directly to the second zone of aeration. This allows for preservation of the fermentation zones needed for biological phosphorus removal during high flows to the facility.

Normal flows then are blended with Return Activated Sludge (RAS) and flow by gravity through the 7 BPR fermentation reactors. These basins allow the nitrates in the RAS to be stripped and for an anaerobic environment to be created for release of volatile acids which solublize the phosphorus. Each BPR reactor is mixed with submersible mechanical mixers to prevent settling yet to prevent aeration.

Should the plant not desire to remove phosphorus biologically, Tanks 1 and 2 have been designed to receive normal diurnal flows, thus allowing for the other tanks to be taken out of service.

The discharge from the BPR tanks flow by gravity to the first zone of nitrification where the phosphorus is metabolized and the nitrification reactions begin. Conditions are maintained with regard to sludge age, dissolved oxygen and alkalinity that are favorable for the conversion of ammonia nitrogen to nitrite and subsequently nitrate nitrogen. Zone 1 discharges to Zone 2 via gravity for additional treatment (nitrification). All tanks in Zone 1, due to the efficiency of its aeration devices, are normally in service while the number of tanks in Zone 2 which are placed in service are dictated by the normal diurnal peak flow.

Zone 2 discharges into the final clarifiers for settling. Eight clarifiers are provided for normal and peak flow conditions. Settled sludge is either returned to the head of the BPR tanks or wasted to either the sludge thickeners (2 units available) or to the Aerated Sludge Holding Tanks (4 available).

The effluent from the final clarifiers discharges to the chlorination contact tanks for disinfection and subsequent dechlorination with sulfur dioxide. The tanks have coarse bubble aeration diffusers for maintaining adequate dissolved oxygen in the plant effluent.

Sludge that is wasted to either the sludge thickeners or the ASH tanks is held until it is desirable for dewatering. The ASH tanks are aerated with positive displacement blowers and fine bubble diffusers. The sludge thickeners can be used for direct feed to the dewatering process or for thickening the sludge prior to use (or during the use) of the ASH tanks.

Sludge is pumped from the sludge thickeners or the ASH tanks to the 2-meter belt filter presses for dewatering. Dewatered sludge is discharged to trucks for disposal in landfill.

**TABLE 3-1**  
**WEST HICKMAN CREEK WWTP**  
**DESIGN CRITERIA**  
**YEAR 2001**

**INFLUENT WASTEWATER**

Dry Weather Flow	33.87 MGD
Total Recycle	64.0 mgd
Total Suspended Solids Loadings	
Average Influent	48,868 lbs./day
Total Recycle	14,125 lbs./day
Total	62,993 lbs./day
CBOD <sub>5</sub> Loadings	
Average Influent	50,846 lbs./day
NH <sub>3</sub> -N Average Influent	4,802 lbs./day
3-Day Maximum	
Influent	52,227 lbs./day
Total Recycle	12,752 lbs./day
Total	64,979 lbs./day
Total Kjeldahl Nitrogen Loading	
Average Influent	7,627 lbs./day
3-Day Maximum	
Influent	4,507 lbs./day
Total Recycle	2,610 lbs./day
Total	7,117 lbs./day

## KPDES EFFLUENT LIMITATIONS

PARAMETER	MONTHLY	WEEKLY	INSTANTANEOUS VALUE
BOD <sub>5</sub>	10 mg/l	15 mg/l	
Total Suspended Solids	30 mg/l	45 mg/l	
Fecal Coliform Bacteria	200/100 ml	400/100 ml	
NH <sub>3</sub> -N	4 mg/l *	6 mg/l *	
	10 mg/l **	15 mg/l **	
(1) Total Phosphorus (as P)	1 mg/l *	2.0 mg/l (*) (***)	
Chlorine Residual			
Dissolved Oxygen	--	--	Greater than or equal to 7.0 mg/l
pH	--	--	From 6.0 to 9.0 S.U.

\* May 1 - October 31

\*\* November 1 - April 30

\*\*\* Daily Maximum Limit

- (1) Limits for Phosphorous will take effect May 2004.  
Until then monitor only.

## **COARSE BAR RACK**

Number	2, in series
Type	Manual with electric hoist lift
Width	6.5 feet
Opening Size	3 inches

## **RAW SEWAGE PUMP STATION**

Number of Pumps	3
Pump Type	Enclosed Screw
Pump Capacities	25.2 MGD
Two with one standby	50.4 MGD
Hydraulic Lift	34.1 Feet

## **PRELIMINARY SCREEN SYSTEM**

Number of Units	3
Type	Mechanical- 6mm Opening
Channel Width	4.0 Feet
Water Depth	5.04 Feet
Capacity, Each	25.2 MGD

## **GRIT REMOVAL SYSTEM**

Number of Units	2
Type	Forced Vortex
Dimensions	
Diameter	19 feet
Sidewater Depth	4.75 feet
Center Depth	9.00 feet
Volume	
Each	4,450 gallons
Total	8,900 gallons
Peak Hourly Flow	52.731 MGD
Detention Time	14.6 seconds

**Grit Pumps**

Number of Pumps	2
Pump Type	Torque-flow
Capacity, each	210 gpm

**Cyclones**

Number	2
Size	10"

**Grit Classifiers**

Number	2
Screw Size	12 inches
Area, each	6 sq. ft.

**BIOLOGICAL PHOSPHORUS REMOVAL TANKS (BPR)**

Number	7
Type	Rectangular

**Tank Dimensions**

BPR (Nos. 1, 2, 4, 5, 6, 7)	
Length	137 feet
Width	20 feet
Average Water Depth	10 feet

**BPR (No. 3)**

Length	137 feet
Width	41 feet
Average Water Depth	10 feet

**Area**

BPR, each	2,740 square feet
(Nos. 1,2,4,5,6 and 7)	
Clarifier (No. 3)	5,617 square feet
Total	22,057 square feet

**Volume**

BPR, each	205,500 gallons
(Nos. 1,2,4,5,6, and 7)	
Clarifier (No. 3)	421,500 gallons
Total	1.655 MGD



Flow	
Design Flow	33.87 MGD
RAS Flow	16.935 MGD

Detention Time	
Design Flow	.78 Hours

## **FIRST STAGE AERATION TANKS**

Zone One	
Number of Tanks	8
Type	Rectangular with fine bubble aeration

Tanks Dimensions	
Smaller Tanks (Nos. 1&2)	
Length	120 feet
Width	24 feet
Average Water Depth	11.2 feet

Larger Tanks (Nos. 3,4,5,6,7,8)	
Length	120 feet
Width	24 feet
Average Water Depth	13 feet

Volume	
Smaller Tanks (Nos. 1&2)	32,256 cubic feet 241,000 gallons
Larger Tanks (Nos. 3,4,5,6,7 and 8)	37,440 cubic feet 280,000 gallons
Total	289,152 cubic feet 2,162,000 gallons

Detention time Design Q 33.87 MGD + 50% Return	1.02 hours
--	------------

Design MLVSS	Summer	2,000 mg/l
MLVSS	Winter	3,000 mg/l

## **ZONE TWO AERATION TANKS**

Number of Tanks	6
Type	Rectangular with fine bubble aeration

#### Tanks Dimensions

Length	152 feet
Width	40 feet
Average Water Depth	20 feet

#### Volume

Each	121,600 cubic feet 910,000 gallons
Total	729,600 cubic feet 5,460,000 gallons

Detention Time Design Q 33.87 + 50% Return 2.6 hours

Design MLVSS	Summer	2,000 mg/l
MLVSS	Winter	3,000 mg/l

#### Return Sludge Pumps

Number	5
Type	Horizontal Centrifugal
Capacity, each	9,000 gpm
Total Capacity with 2 Standby	27,000 gpm

### FINAL CLARIFIERS

Number	8
Type	Circular with rapid sludge removal mechanism

#### Tank Dimensions

Small Clarifiers (4)	
Diameter	115 feet
Sidewater Depth	12.5 feet
Large Clarifiers (4)	
Diameter	125 feet
Sidewater Depth	12.5 feet

#### Area

Small Clarifiers, each (Nos. 1, 2, 3 and 4)	10,387 sq. ft.
Large Clarifiers, each (Nos. 5, 6, 7 and 8)	12,272 sq. ft.
Total	90,636 sq. ft.

Volume	
Small Clarifiers, each (Nos. 1, 2, 3 and 4)	974,000 gallons
Large Clarifiers, each (Nos. 5,6, 7 and 8)	1,150,000 gallons
Total	8,496,000 gallons
Flow (w/o return sludge)	
Design	33.87 mgd
Peak Hourly	64.00 mgd
Surface Overflow Rate	
Design	560 gpd/sq.ft.
Peak Hourly	893 gpd/sq.ft.
Solids Loading Rate	
Design Flow	18.7 lbs./day/sq.ft.
Peak Hourly Flow	29.8 lbs./day/sq.ft.
Detention Time (without/return sludge)	
Design Flow	6.02 hours
Peak Hourly Flow	3.19 hours
Waste Sludge Pumps	
Number	2
Type	Horizontal Centrifugal
Capacity	450 gpm
Sludge Production	
Design Flow	540,000 gpd
Design Pounds	45,036 Lbs/Day

## DISINFECTION FACILITIES

Chlorine Contact Tank	
Number	4
Tank Dimensions	
Effective Length	93 feet
Width	41 feet
Average Depth	6.5 feet
Volume, each	185,400 gallons
Volume, total	741,600 gallons

60" Pipe	
Length	310 Feet
Volume	45,500 gallons
Total Chlorine Contact Volume	787,100 gallons
Flow	
Design	33.87 mgd
Peak Hourly Flow	64.00 mgd
Detention Time	
Design Flow	33.5 minutes
Peak Hourly Flow	17.7 minutes
Chlorinators (for Effluent Chlorination Only)	
Number	5
Capacity	3000 lbs./day
Sulfonators	
Number	2
Capacity (with one standby)	1,500 lbs./day
<b>GRAVITY THICKENER</b>	
Number	2
Type	Circular, Mechanical Picket collector
Tank Dimensions	
Diameter	45 feet
Sidewater Depth	12 feet
Surface Area, each	1,590 sq. ft.
Volume, each	160,500 gallons
Volume, total	160,500 gallons
<b>AERATED SLUDGE HOLDING TANKS (ASHT)</b>	
Number	4
Type	Circular with fine bubble diffused air

## Dimensions

### Small Units

Number	3
Diameter	50 feet
Sidewater Depth Maximum	32.2 feet
No. Diffusers (each)	312

### Large Unit

Number	1
Diameter	80 feet
Sidewater Depth Maximum	30.3 feet
No. Diffusers	812

## Liquid Volume (Maximum)

63,193 cu. ft.

### Small Unit (Each)

473,948 gallons

### Large Unit

193,920 cu. ft.

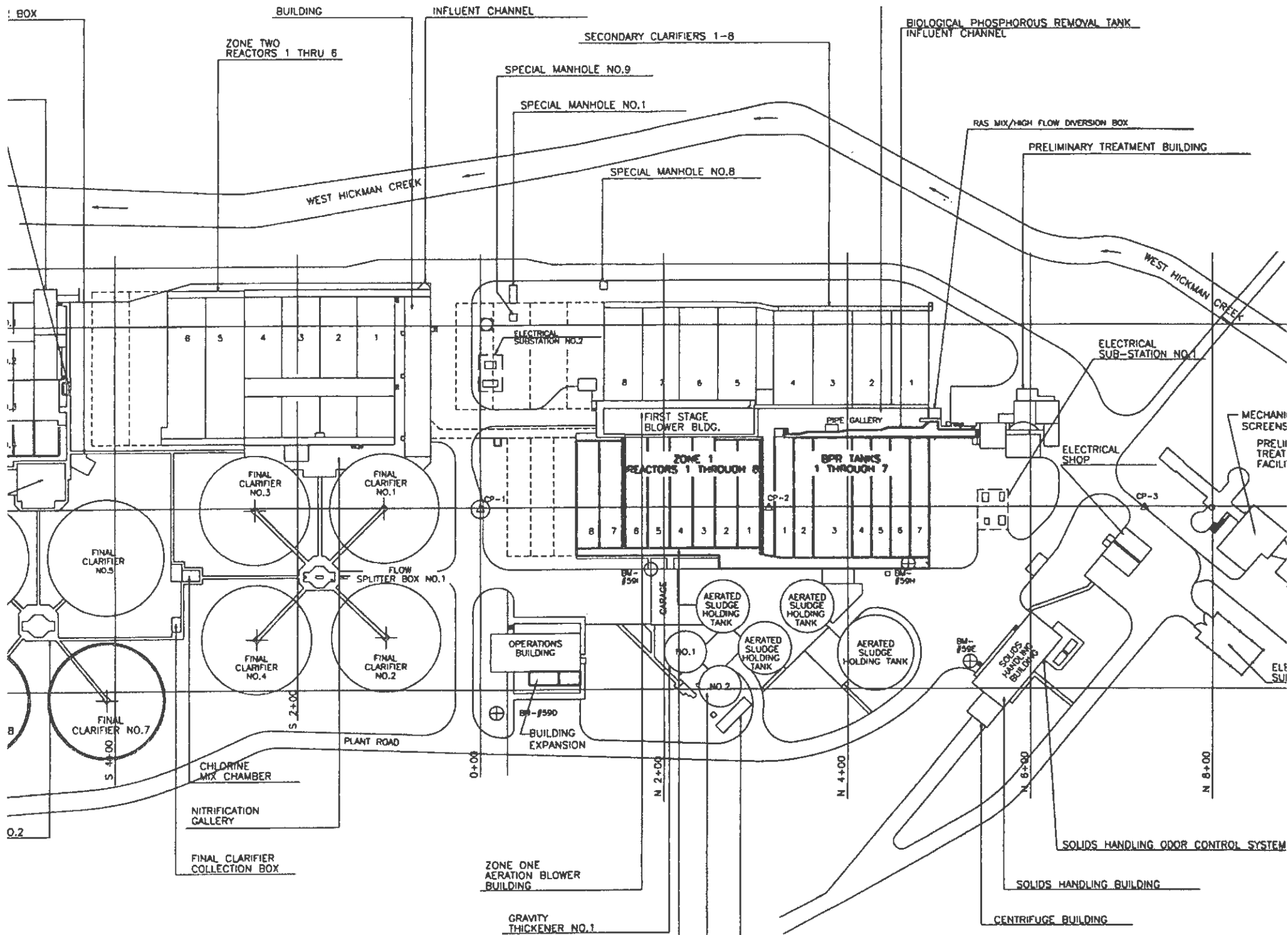
1,454,400 gallons

### Total

2,876,244 gallons

## BELT FILTER PRESSES

Number	3
Belt Width	2.0 meters
Design Feed Solid	2.0 to 3.0 %
Capacity, each	1500 lbs/hr.
Capacity, total (2 operating)	3000 lbs./hr.



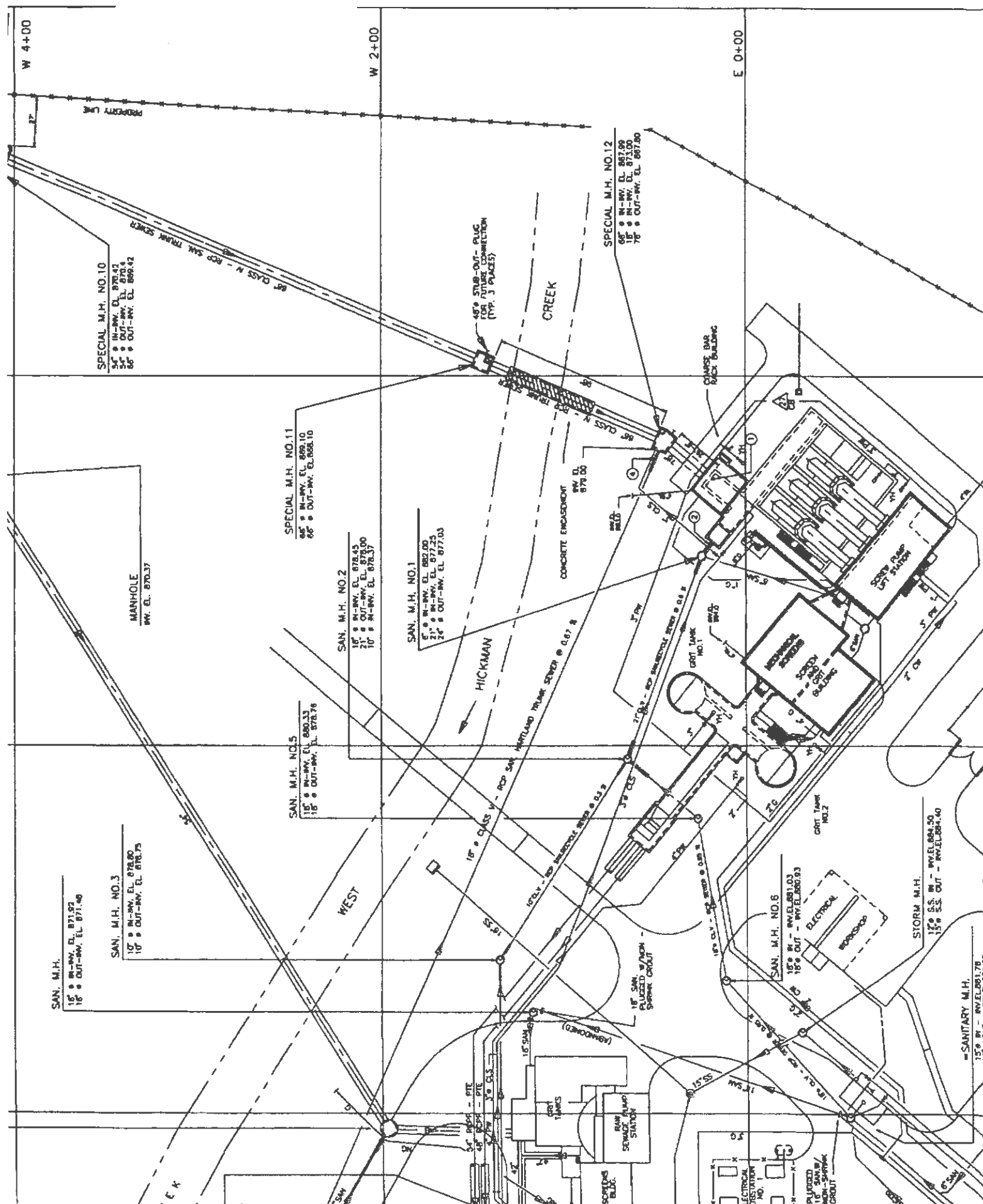
# BENCH MARK DESCRIPTIONS

BM-1000 - BENCHMARK SW CORNER OF CONCRETE SLAB OF SPECIAL M.H.









## **EXHIBIT B**

**Certificate of Insurance**

**and**

**Evidence of Insurability**



# CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)  
07/25/2018

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 have ADDITIONAL INSURED provisions or 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).

<b>PRODUCER</b> Aon Risk Insurance Services West, Inc. Los Angeles CA Office 707 Wilshire Boulevard Suite 2600 Los Angeles CA 90017-0460 USA	<b>CONTACT NAME:</b>		
	<b>PHONE (A/C. No. Ext):</b> (866) 283-7122	<b>FAX (A/C. No.):</b> (800) 363-0105	
	<b>E-MAIL ADDRESS:</b>		
<b>INSURED</b> Tetra Tech, Inc. 424 Lewis Hargett Circle Suite 110 Lexington KY 40503 USA	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
	INSURER A: National Union Fire Ins Co of Pittsburgh		19445
	INSURER B: AIG Europe Limited		AA1120841
	INSURER C: The Insurance Co of the State of PA		19429
	INSURER D: American Home Assurance Co.		19380
	INSURER E: Lexington Insurance Company		19437
	INSURER F:		

**COVERAGES**

CERTIFICATE NUMBER: 570072372973

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. Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> X,C,U Coverage GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:			GL7468716	10/01/2017	10/01/2018	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			CA 428-80-55	10/01/2017	10/01/2018	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$100,000			CSUSA1702199	10/01/2017	10/01/2018	EACH OCCURRENCE \$10,000,000 AGGREGATE \$10,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WC014629496 WC014629497 WC014629498 WC014629499	10/01/2017 10/01/2017 10/01/2017 10/01/2017	10/01/2018 10/01/2018 10/01/2018 10/01/2018	<input checked="" type="checkbox"/> PER STATUTE <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
E	Env Contr Prof			028182375 Prof/Poll Liab SIR applies per policy terms & conditions	10/01/2017	10/01/2019	Each Claim \$1,000,000 Aggregate \$2,000,000

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

RE: Job Description: RFP Number: 15-2018 Investigation/Design Services for West Hickman WWTP Biological Phosphorus Removal Improvements Project. Lexington-Fayette Urban County Government is included as Additional Insured in accordance with the policy provisions of the General Liability and Automobile Liability policies as required by written contract. General Liability policy evidenced herein is Primary to other insurance available to an Additional Insured, but only in accordance with the policy's provisions as required by written contract. Stop Gap Coverage for the following states: OH, ND, WA, WY.

**CERTIFICATE HOLDER****CANCELLATION**

Lexington-Fayette Urban County Government 200 East Main Street Lexington KY 40507 USA	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  <i>Aon Risk Insurance Services West, Inc.</i>

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## ENDORSEMENT

This endorsement, effective 12:01 AM 10/01/2017

Forms a part of policy no.: 028182375

Issued to: TETRA TECH, INC., ET AL

By: LEXINGTON INSURANCE COMPANY

### ADVICE OF CANCELLATION TO ENTITIES OTHER THAN THE NAMED INSURED LIMITED TO E-MAIL NOTIFICATION

This policy is amended as follows:

In the event that the Insurer cancels this policy for any reason other than non payment of premium, and

1. The cancellation effective date is prior to this policy's expiration date;
2. The First Named Insured is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)"); and has provided to the Insurer, either directly or through its broker of record, the email address of the contact at such entity,

and the Insurer received this information after the First Named Insured receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the Insurer,

the Insurer will provide advice of cancellation (the "Advice") via e-mail to such Certificate Holders.

Proof of the Insurer emailing the Advice, using the information provided by the First Named Insured, will serve as proof that the Insurer has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following Definitions apply to this endorsement:

1. First Named Insured means the Named Insured shown on the Declarations Page of this policy.
2. Insurer means the insurance company shown in the header on the Declarations Page of this policy.

All other terms, conditions and exclusions shall remain the same.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 10/01/2017 forms a part of Policy No. WC 014-62-9498

**LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL  
TO ENTITIES OTHER THAN THE NAMED INSURED  
(WORKERS' COMPENSATION ONLY)**

This policy is amended as follows:

In the event that the **Insurer** cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **Named Insured** or, if applicable, any other employers named in Item 1 of the Information Page is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and the **Named Insured** has provided to the **Insurer**, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the **Insurer** received this information after the **Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the **Insurer**,

the **Insurer** will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 30 days after the **Named Insured** provides such information to the **Insurer**; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **Named Insured** provides such information to the **Insurer**.

Proof of the **Insurer** emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the **Insurer** has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following definitions apply to this endorsement:

1. **Named Insured** means the insured first named employer in Item 1 of the Information Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Information Page of this policy.

All other terms, conditions and exclusions shall remain the same.

  
\_\_\_\_\_  
AUTHORIZED REPRESENTATIVE

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 10/01/2017 forms a part of Policy No. WC 014-62-9497

**LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL  
TO ENTITIES OTHER THAN THE NAMED INSURED  
(WORKERS' COMPENSATION ONLY)**

This policy is amended as follows:

In the event that the **Insurer** cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **Named Insured** or, if applicable, any other employers named in Item 1 of the Information Page is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and the **Named Insured** has provided to the **Insurer**, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the **Insurer** received this information after the **Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the **Insurer**,

the **Insurer** will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 30 days after the **Named Insured** provides such information to the **Insurer**; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **Named Insured** provides such information to the **Insurer**.

Proof of the **Insurer** emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the **Insurer** has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following definitions apply to this endorsement:

1. **Named Insured** means the insured first named employer in Item 1 of the Information Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Information Page of this policy.

All other terms, conditions and exclusions shall remain the same.

  
\_\_\_\_\_  
AUTHORIZED REPRESENTATIVE

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 10/01/2017 forms a part of Policy No. WC 014-62-9496

**LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL  
TO ENTITIES OTHER THAN THE NAMED INSURED  
(WORKERS' COMPENSATION ONLY)**

This policy is amended as follows:

In the event that the **Insurer** cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **Named Insured** or, if applicable, any other employers named in Item 1 of the Information Page is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and the **Named Insured** has provided to the **Insurer**, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the **Insurer** received this information after the **Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the **Insurer**,

the **Insurer** will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 30 days after the **Named Insured** provides such information to the **Insurer**; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **Named Insured** provides such information to the **Insurer**.

Proof of the **Insurer** emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the **Insurer** has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following definitions apply to this endorsement:

1. **Named Insured** means the insured first named employer in Item 1 of the Information Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Information Page of this policy.

All other terms, conditions and exclusions shall remain the same.



**AUTHORIZED REPRESENTATIVE**

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ENDORSEMENT

This endorsement, effective 12:01 A.M. 10/01/2017

forms a part of

Policy No. CA 428-80-55

LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL  
TO ENTITIES OTHER THAN THE FIRST NAMED INSURED

This policy is amended as follows:

In the event that the **Insurer** cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **First Named Insured** is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and has provided to the **Insurer**, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the **Insurer** received this information after the **First Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the **Insurer**,

the **Insurer** will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within [ 30 ] days after the **First Named Insured** provides such information to the **Insurer**; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **First Named Insured** provides such information to the **Insurer**.

Proof of the **Insurer** emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the **Insurer** has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following Definitions apply to this endorsement:

1. **First Named Insured** means the Named Insured shown on the Declarations Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Declarations page of this policy.

All other terms, conditions and exclusions shall remain the same.



THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ENDORSEMENT

This endorsement, effective 12:01 A.M. 10/01/2017

forms a part of

Policy No. GL 746-87-16

LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL  
TO ENTITIES OTHER THAN THE FIRST NAMED INSURED

This policy is amended as follows:

In the event that the Insurer cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **First Named Insured** is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and has provided to the Insurer, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the Insurer received this information after the **First Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the Insurer,

the Insurer will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within [ 30 ] days after the **First Named Insured** provides such information to the Insurer; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **First Named Insured** provides such information to the Insurer.

Proof of the Insurer emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the Insurer has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following Definitions apply to this endorsement:

1. **First Named Insured** means the Named Insured shown on the Declarations Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Declarations page of this policy.

All other terms, conditions and exclusions shall remain the same.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 10/01/2017 forms a part of Policy No. WC 014-62-9499

**LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL  
TO ENTITIES OTHER THAN THE NAMED INSURED  
(WORKERS' COMPENSATION ONLY)**

This policy is amended as follows:

In the event that the **Insurer** cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **Named Insured** or, if applicable, any other employers named in Item 1 of the Information Page is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and the **Named Insured** has provided to the **Insurer**, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the **Insurer** received this information after the **Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the **Insurer**,

the **Insurer** will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 30 days after the **Named Insured** provides such information to the **Insurer**; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **Named Insured** provides such information to the **Insurer**.

Proof of the **Insurer** emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the **Insurer** has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following definitions apply to this endorsement:

1. **Named Insured** means the insured first named employer in Item 1 of the Information Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Information Page of this policy.

All other terms, conditions and exclusions shall remain the same.



**AUTHORIZED REPRESENTATIVE**

# **EXHIBIT C**

**Proposal of Engineering Services**

**and**

**Related Matters**

**~~EXHIBIT D~~ *NOT USED***

**Further Description of Basic Engineering Services**

**and**

**Related Services**