

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES
FOR THE TUDOR ROAD PUMP STATION FACILITY PLAN (RFQ NO. 2023-020)**

THIS AGREEMENT made and entered into this ____ day of _____, 20____, by and between the City of Lee's Summit, Missouri (hereinafter "City"), and HDR Engineering, Inc. (hereinafter "Engineer").

WITNESSETH:

WHEREAS, City intends to have engineering services for the Tudor Road Pump Station Facility Plan (hereinafter "Project"); and

WHEREAS, Engineer has submitted a proposal for the Project and an estimate of engineering costs to perform the Project; and

WHEREAS, the City Manager is authorized and empowered by City to execute agreements providing for professional engineering services; and

WHEREAS, City desires to enter into an agreement with Engineer to perform the Project; and

WHEREAS, Engineer represents that the firm is equipped, competent, and able to undertake such an assignment.

NOW THEREFORE, in consideration of the mutual covenants and considerations herein contained, **IT IS HEREBY AGREED** by the parties hereto as follows:

**ARTICLE I
SCOPE OF BASIC SERVICES TO BE PROVIDED BY ENGINEER**

Engineer shall provide the following professional engineering services to City ("Basic Services"):

Tudor Road Pump Station Facility Plan as specifically detailed in Exhibit A, Scope of Services, attached and incorporated by reference.

**ARTICLE II
OPTIONAL SERVICES TO BE PROVIDED BY ENGINEER**

The following is a list of additional services which will be furnished by Engineer, if needed by City, upon receipt of written authorization by the Director of Water Utilities ("Optional Services"):

Not applicable.

**ARTICLE III
SCOPE OF SERVICES TO BE PROVIDED BY CITY**

City shall provide the following services to Engineer:

As specifically detailed in Exhibits A and B, Scope of Services and Fee schedule and Estimate, as attached and incorporated by reference.

**ARTICLE IV
PAYMENTS TO THE ENGINEER**

For the services performed by Engineer pursuant to this Agreement, and as full compensation therefore, and for all expenditures made and all expenses incurred by Engineer in connection with this Agreement, except as otherwise expressly provided herein, subject to and in conformance with all provisions of this Agreement, City will pay Engineer a maximum fee for Basic Services and Optional Services in the sum of One Hundred and Fifty Thousand Dollars (\$150,000.00), according to the following provisions:

- A. The cost of all Basic Services covered under Article I shall be billed hourly at the rates set forth in Exhibit B attached hereto and incorporated herein by reference. Expenses incurred to provide the Basic Services shall be billed as set forth in Exhibit B. The total fees (hourly fees and expenses) for the Basic Services shall not exceed the total sum of One Hundred and Fifty Thousand Dollars (\$150,000.00).
- B. If so requested by Engineer, City will make payment monthly for Basic Services and Optional Services that have been satisfactorily completed. The City shall make payment to Engineer within a period not to exceed thirty (30) days from the date an invoice is received by City. All invoices shall contain the following information:
 - 1. Project Name/Task Name/RFP Number/Description of Agreement.
 - 2. Invoice Number and Date.
 - 3. Purchase Order Number issued by City.
 - 4. Itemized statement for the previous month of Labor (including Personnel Description, Title or classification for each person on the Project, Hours Worked, Hourly Rate, and Amount), Itemized Reimbursable Expenses, and Invoice Total.
 - 5. Description of monthly progress detailing the amount of the services completed to date and projected completion time.
 - 6. Project Billing Summary containing the Agreement or Agreed Maximum Fee Amount, Cumulative Amount Previously Billed, Billing Amount this Invoice, Agreement or Agreed Amount Remaining, and Percent of Maximum Fee Billed to Date.

All moneys not paid when due as provided herein shall bear interest at a per annum rate equal to one percent (1%) plus the average *Consumer Price Index for All Urban Consumers (CPI-U)-U.S. City Average* for the time period in which payment is past due; provided, however, that in no event will the amount of interest to be paid by the City exceed 9% per annum.

ARTICLE V COMPLETION TIME

The Basic Services shall be completed in accordance with the following schedule:

Project Completion June 30, 2023.

The Director of Water Utilities may, with the mutual consent of the parties, amend the deadlines contained in this Article by written authorization upon a showing of cause for amendment by Engineer.

The Optional Services shall be completed in accordance with the deadlines set by the Director of Water Utilities and accepted by Engineer at the time said Optional Services are authorized by the Director of Water Utilities.

ARTICLE VI INSURANCE

A. GENERAL:

1. **Insurer Qualifications:** Without limiting any obligations or liabilities of Engineer, Engineer shall purchase and maintain, at its own expense, the insurance set forth in this Section with insurance companies authorized to do business in the State of Missouri, with an AM Best, Inc. rating of A or above, and with policies and forms satisfactory to the City. Failure to maintain insurance as specified herein may result in termination of this Agreement at the City's option.
2. **No Representation of Coverage Adequacy:** The City reserves the right to review any and all of the insurance policies and/or endorsements cited in this Agreement, but has no obligation to do so. Failure to demand such evidence of full compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency shall not relieve Engineer from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.
3. **Additional Insured:** All insurance coverage, except Workers' Compensation insurance and Professional Liability insurance, if applicable, shall name and endorse, to the fullest extent permitted by law for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, directors, officials and employees as Additional Insured as specified under the respective coverage sections of this Agreement.
4. **Coverage Term:** All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement are satisfactorily performed, completed and formally accepted by the City, unless specified otherwise in this Agreement.

5. Primary Insurance: Engineer's insurance shall be endorsed to indicate its primary, non-contributory insurance with respect to performance of this Agreement and in the protection of the City as an Additional Insured. Such coverage shall be at least as broad as ISO CG 20 01 04 13, or equivalent.
6. Claims Made: In the event any insurance policies required by this Agreement are written on a "claims made" basis, coverage shall extend, either by keeping coverage in force or purchasing an extended reporting option, for six (6) years past completion and acceptance of the services. Such continuing coverage shall be evidenced by submission of annual Certificates of Insurance citing the required coverage is in force and contains the provisions as required herein for the six-year period.
7. Waiver: To the fullest extent permitted by law, all policies required herein, except for Professional Liability, including Workers' Compensation insurance, shall contain a waiver of rights of recovery (subrogation) against the City, its agents, representatives, officials, officers and employees for any claims arising out of the work or services of Engineer. Engineer shall arrange to have such subrogation waivers incorporated into each policy via endorsement.
8. Policy Deductibles and/or Self-Insured Retentions: The policies set forth in these requirements may provide coverage that contains deductibles or self-insured retention amounts. Such deductibles or self-insured retention under the required general liability and automobile liability policies shall not erode the limit required by the City. Engineer shall be solely responsible for any such deductible or self-insured retention amount.
9. Automatic Escalator: The limits of liability for each policy coverage amount stated above shall be automatically adjusted upward as necessary to remain at all times not less than the maximum amount of liability set forth in Chapter 537.610 RSMo. applicable to political subdivisions pursuant to 537.600; provided that nothing herein or in any such policy shall be deemed to waive the City's sovereign immunity. The statutory waiver of sovereign immunity for 2021 is \$ 2,940,868.00 for all claims arising out of a single accident or occurrence.
10. Use of Subcontractors: If any work under this Agreement is subcontracted in any way, Engineer shall execute written agreements with its subcontractors containing the indemnification provisions set forth in this Section and insurance requirements set forth herein protecting the City and Engineer. Engineer shall be responsible for executing any agreements with its subcontractors and obtaining certificates of insurance verifying the insurance requirements.
11. Notice of Claim: Engineer shall upon receipt of notice of any claim in connection with this Agreement promptly notify the City, providing full details thereof, including an estimate of the amount of loss or liability. Engineer shall also promptly notify the City of any reduction in limits of protection afforded under any policy listed in the certificate(s) of insurance in an amount such that the policy aggregate becomes less than the current statutory waiver of sovereign immunity regardless of whether such impairment is a result of this Agreement. A breach of this provision is material breach of the Agreement.

12. Evidence of Insurance: Prior to commencing any work or services under this Agreement, Engineer will provide the City with suitable evidence of insurance in the form of certificates of insurance and, if requested by the City, a copy of the relevant endorsement for the insurance policies as required by these requirements, issued by Engineer's insurance insurer(s) as evidence that policies are placed with reasonably acceptable insurers as specified herein and provide the required coverages, conditions and limits of coverage specified in these requirements and that such coverage and provisions are in full force and effect. The City shall reasonably rely upon the certificates of insurance and endorsements for the insurance policies as evidence of coverage but such acceptance and reliance shall not waive or alter in any way these insurance requirements or obligations.

If any of the policies required by these requirements expire during the life of the Agreement, it shall be Engineer's responsibility to forward renewal certificates and relevant endorsements the City 30 days prior to the expiration date. All certificates of insurance and relevant endorsements shall be identified by referencing the Agreement; certificates of insurance and endorsement for the insurance policies submitted without referencing the Agreement, as applicable, will be subject to rejection and may be returned or discarded. Certificates of insurance shall specifically include the following provisions:

- a. The City, its agents, representatives, officers, directors, officials and employees are Additional Insureds as follows:
 - i. Commercial General Liability – Under Insurance Services Office, Inc., (“ISO”) Form CG 20 10 03 97 or equivalent.
 - ii. Auto Liability – Under ISO Form CA 20 48 or equivalent.
 - iii. Excess Liability – Follow Form to underlying insurance.
- b. Engineer's insurance under which City is included as an additional insured shall be primary, non-contributory insurance with respect to performance of the Agreement.
- c. All policies, except for Professional Liability, waive rights of recovery (subrogation) against City, its agents, representatives, officers, officials and employees for any claims arising out of work or services performed by Engineer under this Agreement.
- d. ACORD certificate of insurance form 25 (2014/01) is preferred.

13. All Certificates of Insurance shall name the City of Lee's Summit as the certificate holder and send the certificate and any endorsements to:

City of Lee's Summit
220 SE Green Street
Lee's Summit, MO 64063-2358

B. REQUIRED INSURANCE COVERAGE:

1. Commercial General Liability: Engineer shall maintain “occurrence” form Commercial General Liability insurance with an unimpaired limit of at least \$3,000,000 for each occurrence, \$3,000,000 Products and Completed Operations Annual

Aggregate and a \$3,000,000 General Aggregate Limit. The policy shall cover liability arising from premises, operations, independent contractors, products-completed operations, bodily injury, personal injury and advertising injury. Coverage under the policy will be at least as broad as ISO policy form CG 00 01 93 or equivalent thereof, including but not limited to, separation of insured's clause. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, officials and employees shall be endorsed as an Additional Insured under ISO, Commercial General Liability Additional Insured Endorsement forms CG 20 10 07 04 and CG 20 37 07 04, or their equivalents. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.

2. Automobile Liability: Engineer shall maintain Business Automobile Liability insurance with an unimpaired limit of at least \$1,000,000 each occurrence on Engineer's owned, hired and non-owned vehicles assigned to or used in the performance of the Engineer's work or services under this Agreement. Coverage will be at least as broad as ISO coverage code "1" "any auto" policy form CA 00 01 12 93 or equivalent thereof. City, its agents, representatives, officers, directors, officials and employees shall be endorsed as an Additional Insured under ISO Business Auto policy Designated Insured Endorsement form CA 20 48 or equivalent. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.
3. Professional Liability: Engineer shall maintain Professional Liability insurance covering negligent errors and omissions arising out of the services performed by the Engineer, or anyone employed by the Engineer, or anyone for whose negligent acts, mistakes, errors and omissions the Engineer is legally liable, with an unimpaired liability insurance limit of at least \$3,000,000 each claim and \$3,000,000 annual aggregate. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.
4. Workers' Compensation Insurance: If Engineer employs anyone who is required by law to be covered by workers' compensation insurance, Engineer shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over Engineer's employees engaged in the performance of work or services under this Agreement and shall also maintain Employers Liability Insurance of \$500,000 for each accident, \$500,000 disease for each employee and \$1,000,000 disease policy limit.
5. Cyber Liability Insurance: If this Agreement is the subject of any services involving the City's information technology structure, or if the Engineer engages in any services in any way related to performing work involving the City's information technology structure under this Agreement, Engineer shall maintain Cyber Liability insurance with limits not less than \$3,000,000 per occurrence or claim, \$3,000,000 aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations as are undertaken by Engineer in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, infringement of copyright,

trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs, regulatory fines and penalties, and credit monitoring expenses with limits sufficient to respond to these obligations.

- C. CANCELLATION AND EXPIRATION NOTICE: Insurance required herein shall not expire, be canceled, or be materially changed without thirty (30) days' prior written notice to the City.

ARTICLE VII MISCELLANEOUS PROVISIONS

The following miscellaneous provisions are agreed to by both parties to this Agreement:

- A. COVENANT AGAINST CONTINGENT FEES: Engineer warrants that Engineer has not employed or retained, and will not employ or retain for the duration of this Agreement, any company or person, other than a bona fide employee working for the Engineer, to solicit or secure this Agreement, and that Engineer has not paid or agreed to pay any company or person, other than bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the City shall have the right to annul this Agreement without liability or, at its discretion, to deduct from the agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee. Engineer further covenants that in the performance of this Agreement no person having such interest shall be employed.
- B. OWNERSHIP OF ENGINEERING DOCUMENTS: Payment by City to Engineer as aforesaid in Article IV shall vest in City title to all drawings, sketches, studies, analyses, reports, models, and other paper, documents, computer files, and material produced by Engineer exclusively for the services performed pursuant to this Agreement up to the time of such payments, and the right to use the same without other or further compensation, provided that any use for another purpose shall be without liability to the Engineer. Any reuse without written verification or adaptation by Engineer for the specific purpose intended will be at City's risk and without liability or exposure to Engineer, and City shall indemnify and hold harmless, to the extent allowed by the Constitution and Laws of the State of Missouri, Engineer from all claims, damages, losses, expenses, including attorneys' fees arising out of or resulting therefrom.
- C. MODIFICATIONS TO SCOPE OF WORK: In the event of any changes in the scope of services contained in this Agreement, prior to commencing the services City and Engineer shall enter into a mutually executed written modification of this Agreement describing the changes in the services to be provided by Engineer and City, providing for compensation for any additional services to be performed by Engineer, and providing completion times for said services.
- D. EMERGENCY CHANGES IN SERVICES: The Director of Water Utilities, with the consent of the City Manager, is authorized to execute on behalf of the City modification agreements as provided for in subsection C. above where there is an emergency and the overall compensation authorized in Article IV above, and any supplements or modifications thereto, is not increased.

For purposes of this subsection, an “emergency” shall mean those unforeseen circumstances that present an immediate threat to public health, welfare, or safety; or when immediate response is necessary to prevent further damage to public property, machinery, or equipment; or when delay would result in significant financial impacts to the City as determined by the Director of Water Utilities and the City Manager.

In the event an emergency change in services is authorized by the Director of Water Utilities and the City Manager pursuant to this provision, the modification agreement shall be submitted to the City Council for ratification at its next available meeting.

- E. **TERMINATION:** In the event of termination by City, if there are any services hereunder in progress but not completed as of the date of termination, then said Agreement may be extended upon written approval of the City until said services are completed and accepted.
1. Termination for Convenience: The services called for by this Agreement or any supplements thereto may be terminated upon request and for the convenience of City upon thirty (30) days advance written notice. City shall pay Engineer for all services rendered up to the date of termination.
 2. Termination for Cause: This Agreement may also be terminated for cause by City or Engineer. Termination for cause shall be preceded by a fourteen-(14) day correction period effective upon delivery of written notice. City shall pay Engineer for all services rendered up to the date of termination. In the event of termination for cause by City, compensation for services rendered by Engineer up to the date of termination shall be offset by City’s cost to mitigate or correct the effects of such termination, including by not limited to damages resulting from breach or deficiencies in performance or breach of any obligation under this Agreement.
 3. Termination Due to Unavailability of Funds in Succeeding Fiscal Years: When funds are not appropriated or otherwise made available to support continuation of the Project in a subsequent fiscal year, this Agreement shall be terminated and Engineer shall be reimbursed for the services rendered up to the date of termination plus the reasonable value of any nonrecurring costs incurred by Engineer but not amortized in the price of the services delivered under this Agreement.
- F. **COMPLIANCE WITH LAWS:** Engineer shall comply with all Federal, State, and local laws, ordinances, and regulations applicable to the services. Engineer shall secure all licenses, permits, etc. from public and private sources necessary for the fulfillment of its obligations under this Agreement.
- G. **SUBLETTING ASSIGNMENT OR TRANSFER:** Engineer shall not subcontract, sublet, assign, or transfer any interest in the services covered by this Agreement, except as provided for herein and except with the prior written and signed consent of City. The use of subcontractors shall in no way relieve Engineer of his/her primary responsibility for the services. No approval will be necessary for non-professional services such as reproductions, printing, materials, and other services normally performed or provided by others.

- H. CONFERENCES, VISITS TO SITE, INSPECTION OF SERVICES: Upon reasonable advance notice and during normal business hours at Engineer's place of business, representatives of City shall have the privilege of inspecting and reviewing the services being performed by Engineer and consulting with him/her at such time. Conferences are to be held at the request of City or Engineer.
- I. ENGINEER'S ENDORSEMENT: Engineer shall endorse all plans, specifications, estimates, and engineering data furnished by him/her.
- J. INSPECTION OF DOCUMENTS: Engineer shall maintain all records pertaining to its services hereunder for inspection, upon reasonable advance notice and during normal business hours at Engineer's place of business, by a City representative during the Agreement period and for three (3) years from the date of final payment for each individual project performed pursuant to this Agreement.
- K. INDEMNIFICATION AND HOLD HARMLESS: Engineer shall indemnify, defend, and hold harmless City and its officers, employees, elected officials, and attorneys, each in their official and individual capacities (the City and any such person being herein called an "Indemnified Party"), for, from and against any and all judgments, damages, claims, fines, penalties, losses, costs, and expenses (including reasonable attorneys' fees, court costs and the costs of appellate proceedings) to which any such Indemnified Party may become subject, under any theory of liability whatsoever (collectively "Claims"), insofar as such Claims (or actions in respect thereof) relate to, arise out of, or are caused by or based upon the intentional, reckless, or negligent acts, directives, errors, omissions, or willful misconduct, in the performance of Engineer's duties and services under this Agreement, or any supplements or amendments thereto, of Engineer, or its employees, officers, agents, or any tier of subcontractor or person for which Engineer may be legally liable in the performance of this Agreement. Nothing contained in this Agreement is to be construed to waive the City's sovereign immunity or any other immunity or defense available to the City, its officers, employees, agents, or elected officials.
- L. LIMITATION OF LIABILITY: In no event will either Party be liable to other Party for indirect or consequential damages, and in no event will City's liability under this Agreement exceed the amount to be paid to Engineer pursuant to Article IV of this Agreement.
- M. PROFESSIONAL RESPONSIBILITY: Engineer warrants that the Services rendered will conform to the requirements of this Agreement and with the care and skill ordinarily used by members of the same profession practicing under similar circumstances at the same time and in the same locality.
- N. ENTIRE AGREEMENT: This Agreement constitutes the entire agreement between the parties with respect to its subject matter, and any prior agreements, understandings, or other matters, whether oral or written, are of no further force or effect. This Agreement may be amended, changed, or supplemented only by written agreement executed by both of the parties hereto.
- O. CONFLICT: In the event of any conflict, ambiguity, or inconsistency between this Agreement and any other document that may be annexed hereto, the terms of this Agreement shall govern.

- P. **GOVERNING LAW:** This Agreement shall be governed by and construed in accordance with the laws of the State of Missouri, and any suit pertaining to this Agreement may be brought only in courts in eastern Jackson County, Missouri. The Parties expressly and irrevocably consent to the exclusive jurisdiction and venue of such courts and expressly waive the right to transfer or remove any such action.
- Q. **OPINION OF PROBABLE CONSTRUCTION COST AND SCHEDULE:** Since Engineer has no control over the cost of labor, materials, or equipment, or over contractor's(s') methods of determining prices, or over competitive bidding or market conditions, the estimate of construction cost and schedule provided for herein is to be made on the basis of Engineer's experience and qualifications and represents Engineer's best judgment as a professional engineer familiar with the construction industry, but Engineer cannot and does not guarantee that the bids or the Project construction cost or schedule will not vary from the opinion of probable construction cost and schedule prepared by Engineer.
- R. **TAX EXEMPT:** City and its agencies are exempt from State and local sales taxes. Sites of all transactions derived from this Agreement shall be deemed to have been accomplished within the State of Missouri.
- S. **SAFETY:** In the performance of its services, Engineer shall comply with the applicable provisions of the Federal Occupational Safety and Health Act, as well as any pertinent Federal, State and/or local safety or environmental laws and regulations.
- T. **ANTI-DISCRIMINATION CLAUSE:** Engineer and its agents, employees, or subcontractors shall not in any way, directly or indirectly, discriminate against any person because of age, race, color, handicap, sex, national origin, or religious creed.
- U. **DELAY IN PERFORMANCE:** Neither City nor Engineer shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the nonperforming party. For purposes of this Agreement, such circumstances include, but are not limited to, abnormal weather conditions, floods, earthquakes, fire, epidemics, war, riots, and other civil disturbances, strikes, lockouts, work slowdowns, and other labor disturbances, sabotage, judicial restraint, and delay in or inability to procure permits, licenses, or authorizations from any local, State, or Federal agency for any of the supplies, materials, accesses, or services required to be provided by either City or Engineer under this Agreement. Engineer and City shall be granted a reasonable extension of time for any delay in its performance caused by any such circumstances. Should such circumstances occur, the nonperforming party shall within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of the Agreement.
- V. **NON-EXCLUSIVE AGREEMENT.** This Agreement is entered into with the understanding and agreement that it is for the sole convenience of the City. The City reserves the right to obtain like goods and services from another source when necessary.
- W. **TIME OF THE ESSENCE.** Time is of the essence in this Agreement. Unless otherwise specifically provided, any consent to delay in Engineer's performance of its obligation is

applicable only to the particular transaction to which it relates, and is not applicable to any other obligation or transaction.

- X. SIGNATORY AUTHORITY. Each person signing this Agreement represents that such person has the requisite authority to execute this Agreement on behalf of the entity the person represents and that all necessary formalities have been met.
- Y. IMMIGRATION REQUIREMENTS. Pursuant to Section 258.530, RSMo. if Agreement exceeds five thousand dollars (\$5,000.00), Engineer warrants and affirms to the City that (i) Engineer is enrolled and participates in a federal work authorization program with respect to the employees working in connection with the contracted services and (ii) Engineer does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

Engineer shall swear to and sign an affidavit declaring such affirmation, and provide the City with supporting documentation of its enrollment and participation in a federal work authorization program with respect to the employees working in connection with this Agreement. The required documentation must be from the federal work authorization program provider (e.g. the electronic signature page from the E-Verify program's Memorandum of Understanding); a letter from Engineer reciting compliance is not sufficient.

- Z. RIGHTS AND REMEDIES. No provision in this Agreement shall be construed, expressly or by implication, as waiver by the City of any existing or future right and/or remedy available by law in the event of any claim of default or breach of this Agreement. The failure of the City to insist upon the strict performance of any term or condition of this Agreement or to exercise or delay the exercise of any right or remedy provided in this Agreement, or by law, or the City's acceptance of and payment for services, shall not release the Engineer from any responsibilities or obligations imposed by this Agreement or by law, and shall not be deemed a waiver of any right of the City to insist upon the strict performance of this Agreement.
- AA. NO THIRD-PARTY RIGHTS: The services provided for in this Agreement are for the sole use and benefit of City and Engineer. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Engineer.
- BB. CONFIDENTIALITY OF RECORDS. The Engineer shall establish and maintain procedures and controls that are acceptable to the City for the purpose of ensuring that information contained in its records or obtained from the City or from others in carrying out its obligations under this Agreement shall not be used or disclosed by it, its agents, officers, or employees, except as required to perform Engineer's duties under this Agreement. Persons requesting such information should be referred to the City. Engineer also agrees that any information pertaining to individual persons shall not be divulged other than to employees or officers of Engineer as needed for the performance of duties under this Agreement.
- CC. ANTI-DISCRIMINATION AGAINST ISRAEL ACT. If this Agreement has a total potential value of \$100,000 or more and Engineer has 10 or more employees, the following applies. Pursuant to Section 34.600, RSMo. and to the fullest extent permitted by law, Engineer certifies that Engineer is not engaged in a boycott of Israel as of the Effective Date of this

Agreement, and agrees for the duration of this Agreement to not engage in a boycott of Israel as defined in Section 34.600, RSMo.

DD. PROVISIONS REQUIRED BY LAW. Each and every provision of law and any clause required by law to be in the Agreement will be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either Party, the Agreement will promptly be physically amended to make such insertion or correction.

EE. SEVERABILITY. The provisions of this Agreement are severable to the extent that any provision or application held to be invalid by a Court of competent jurisdiction shall not affect any other provision or application of the Agreement which may remain in effect without the invalid provision or application.

FF. NOTICE: Whenever any notice is required by this Agreement to be made, given or transmitted to any party, it shall be enclosed in an envelope with sufficient postage attached to ensure delivery and deposited in the United States Mail, first class, with notices to City addressed to:

City Engineer
City of Lee's Summit
220 SE Green Street
Lee's Summit, MO 64063

Director of Water Utilities
City of Lee's Summit
220 SE Green Street
Lee's Summit, MO 64063

and notices to Engineer shall be addressed to:

HDR Engineering, Inc.
ATTN: Patrick Young
10450 Holmes Rd, Suite 600
Kansas City, MO 64131

or such place as either party shall designate by written notice to the other. Said notices may also be personally hand delivered by each party to the other, at the respective addresses listed above. If hand delivered, the date of actual completion of delivery shall be considered the date of receipt. If mailed, the notice shall be considered received the third day after the date of postage.

GG. E-SIGNATURE AND COUNTERPARTS. The Parties agree that this Agreement may be signed in two or more counterparts and/or signed electronically, and all such counterparts together shall constitute one and the same agreement; such signatures shall bind the signing party in the same manner as if a handwritten signature had been delivered.

ARTICLE VIII EXHIBITS

The following Exhibits are attached to and made a part of this Agreement:

Exhibit A – Scope of Services
Exhibit B – Fee schedule and Estimate

City and Engineer, by signing this Agreement, acknowledges that they have independently assured themselves and confirms that they individually have examined all Exhibits, and agrees that all of the aforesaid Exhibits shall be considered a part of this Agreement and agrees to be bound to the terms, provisions, and other requirements thereof, unless specifically excluded.


THIS AGREEMENT shall be binding on the parties thereto only after it has been duly executed and approved by City and Engineer.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the ___ day of _____, 20 ____.

CITY OF LEE'S SUMMIT, MISSOURI

ENGINEER: HDR Engineering, Inc.

Mark Dunning, City Manager



Joseph Drimmel (Dec 27, 2022 16:38 CST)

BY: _____
Joseph E. Drimmel

ATTEST:

TITLE: _____
Sr. Vice President

City Clerk Trisha Fowler Arcuri

ATTEST:



Patrick Young (Dec 30, 2022 08:10 CST)

APPROVED AS TO FORM:

Patrick Young, Sr. Vice President

Scott Ison,
Chief Counsel of Infrastructure and Recreation

Exhibit A
City of Lee's Summit
Tudor Road Pump Station Facility Planning Study
Scope of Services
Dec 2022

OVERVIEW

Background

The Tudor Road Pump Station facility is a 24.5-MGD pump station with dedicated dry weather and wet weather pumps which utilize a common force main. These are extended shaft centrifugal pumps originally put into service in 1993. Pumps 1, 3, 4, and 6 are wet weather pumps while 2 and 5 are dry weather pumps. Pump 6 is the only motor/pump combo that has not been replaced with the remaining motors and pumps all being replaced at some point between 2000 and 2016. City staff input will be used to confirm rebuild history of pumps in addition to the replacement history.

The Tudor Road Pump Station receives flow from The Mist, Scruggs Road Pump Station, and the West Prairie Lee watershed and conveys flow to the Rice Road Valve Vault through a 30-inch ductile iron force main. At the Rice Road Valve Vault, flow can be split between a 30-inch force main, which continues north to the Maybrook Interceptor, and a 20-inch interceptor, which conveys flow west to the Little Cedar Creek Watershed and eventually the Little Cedar Creek Interceptor. A condition assessment of both reaches of the force main was conducted in 2020 through the Collection System Asset Management Program (CSAMP). The CSAMP condition assessment report serves as justification that a condition assessment of the force mains is not required for this study.

A 1 MG concrete detention basin is on the Tudor Road Pump Station site, however, current wet weather management strategies strive to only utilize this basin if other available excess flow holding basins upstream have been utilized at their maximum levels. A Ferric Chloride tank and two feed pumps are operated at this site. The underground FeCL storage tank volume is 10,000 gallons. Finally, a new SCADA system was installed at the Tudor Road Pump Station in 2020. The automation of the pump station and connected facilities; as documented in the Draft Standard Operating Procedure for Wet Weather Event Sewer System Operations (Draft SOP), will need to be factored into the recommendations for all alternatives of the facility to mitigate unintended consequences which would limit Water Utilities (WU) ability to convey or store the 10-year storm peak flow of the upstream watersheds as determined by WU's collection system hydraulic model.

An asset inventory for the Tudor Road Pump Station was developed through the Facilities Asset Management Program (FAMP) and will be used to guide the inspection list and to help forecast future R&R needs.

Project Description

This facility plan shall evaluate the sizing and operation of the pump station on a dry weather basis as a start to confirm suitability of the existing pumps for these flow conditions. This evaluation will be used to identify suitable alternative types or configurations of pumps to meet these conditions. Wet weather analysis for max capacity and EFHB storage conditions were documented in the 2021 Waste Water Master Plan Update.

A vulnerability assessment shall be completed for the existing pump type and configuration as well as the proposed alternative configurations or pump types evaluated. Wetwell analysis shall be completed to confirm conformance with HI standards for any pump considered. Screening equipment currently at the site has not addressed rags to the extent desired by WU so an evaluation of the current screening technology along with recommendations for repairing, replacing, or changing the type of screening for this station will be evaluated with this Facility Plan.

The on-site facility condition assessment completed under the FAMP was conducted in January 2018 and the report recommended a re-inspection of the Tudor Road Pump Station at three (3) years due to its overall consequence score and condition findings. Excerpts of that report are provided as Attachment 1. Upon completion of the recommended full condition assessment under this scope, a review of the equipment replacement plan that was developed by the City and updated in the FAMP report shall be completed as applicable. Some known areas of focus for these inspections, which were listed as “Unknown” under “Condition Based % of Life” OR have a “Scheduled Intervention Year” prior to 2023, include (but are not limited to):

- Rock box w/ grinder, bar screen
- 1.0 MG concrete excess flow holding basin (EHFB)
- Generator Upgrades
- Motor Control Center
- Control equipment / instrumentation assets
- Header isolation valve between the sets of 3 pumps
- Header relief valve assembly
- Cranes (main floor and pump level)
- Roof and Roof HVAC
- Building
- Ferric Chloride Feed System

Facility improvements needs for the Tudor Road Pump Station will be evaluated for four points in time. The intent of this is to establish the sensitivity of the timing of these improvements.

1. Alternative analysis and planning for replacement of the pump type
2. Near term R&R for next 5-years.

3. 10-Year R&R Term items
4. 20-Year R&R Term items

An implementation plan will then be developed for the chosen alternative. The implementation plan will include schedule and cost estimates for the recommended improvements at the Tudor Road PS Facility.

Assumptions

1. A 20-year planning period will be used as the basis for the pump station.
2. Condition assessment report recommendations (FAMP and CSAMP) will be the basis for the background information of the facility. Note that the FAMP findings will be updated and modified in the alternatives analysis to align with the re-inspection.
3. WU staff will provide input on their knowledge of existing condition of the pump station equipment, screening, force main, and collection system issues relevant to the project if there have been any changes since the latest reports.
4. Physical Modeling of the wetwell(s) is included in Task 2.
5. The Draft SOP's related to this facility and the connected facilities will be provided by WU.

PROJECT TASKS

Task 1- Project Management

- Conduct Project Kickoff Meeting
- Prepare Project Instructions for project team.
- Conduct quality control reviews of deliverables.
- Prepare monthly progress reports and invoices.

Task 2 - Facility Condition Assessment

1. Conduct project kickoff meeting with WU staff to review project approach, confirm information request, and site visit to familiarize project team with the facility.
2. Gather and review existing construction plans, facility reports, and collection system modeling reports that are relevant to this effort, and other documentation provided by WU.
3. Identify any findings or gaps in the existing information that need to be updated.
4. Gather available information on the operation of the force main surge protection device, and what triggers activation of the device.
5. Gather and review readily available pump station equipment information and condition ratings previous reports. Conduct workshop with WU staff to review information. Interview staff to verify accuracy of data, and identify and compile known equipment issues. Identify scope of condition assessment, and any equipment that will not be included in assessment.

6. Conduct site visit to complete condition assessment of the pump station. The condition assessment will include an evaluation of process, electrical, and HVAC equipment (including codes review), as well as a structural evaluation.
 - a. Assessment will document compliance with MDNR standards (10 CSR Division 20, Chapter 8) and the implementation plan shall incorporate any deficiencies found.
7. Characterize condition assessment findings per WU's agreed upon rating criteria with any revisions from the criteria of the FAMP Program.
8. Develop list of recommended R&R items and improvements needed to keep the pump station in service for the project planning period. The needs will be defined for the 3 timing scenarios:
 - a. 5-Year Improvements, Year 2027.
 - b. 10-Year Improvements, Year 2032.
 - c. 20-Year Improvements, Year 2042 (end of planning period). This scenario assumes continued operation of the Tudor Road Pump Station, including enhancements to keep the station in service long term beyond Year 2042.
9. Operations and Standard Operating Procedures (SOP) Review: Conduct a one-day site visit to meet with operators of the facility to gather feedback on current operational challenges, safety protocols, and discuss equipment needed and placement of equipment to improve operator use of the equipment during the emergency operations and/or during construction phasing. Review Draft SOP for the Tudor Road PS facility and discuss findings for recommended changes to this document.
10. Conduct a workshop with WU staff to review the condition ratings and recommended improvements. Update condition ratings and improvements to incorporate WU comments.
11. Develop improvement alternatives for the identified needs for the Tudor Road Pump Station. Estimate R & R costs and recommended timing of improvements needed to continue use of the current equipment over course of planning period.
12. Develop replacement alternatives for the recommended pump type and configuration of both the dry weather and wet weather pumps resulting from the vulnerability analysis.
13. Identify potential construction constraints that may impact the pump station rehabilitation cost estimates.
14. Conduct Facility Improvements Workshop with WU. Review and discuss recommended facility improvements.
15. Refine improvement alternatives based on WU input.
16. Develop Draft TM No. 1 Pump Station Facility Evaluation and submit to WU for review and comment.
17. Conduct review meeting with WU to discuss comments.

18. Incorporate WU comments and maintain as Draft until alternative analysis Task is complete. Results of Facility Evaluation Plan and Alternatives Analysis will be combined into a final TM No. 1.

Task 3 – Pump Configuration and Alternatives Analysis

The alternatives analysis is assumed to include the following alternatives:

1. Alternative 1 - Replace Tudor Road Pump Station pumps in kind, or as needed to keep it in service for the 20-year planning period.
2. Alternative 2 – Replace pumps in the Tudor Road Pump Station with a different style or configuration. Two implementation scenarios will be evaluated for this alternative:
 - a. Alternative 2A – Replace only the dry weather pumps. (i.e. match or balance dry weather pump capacities to wet weather capacities)
 - b. Alternative 2B – Replace both the dry and wet weather pumps.
3. Evaluate screening, develop conceptual screening channel modifications and recommend replacement equipment for improved screening.
4. Evaluate yard piping configurations, complete a resiliency assessment of the discharge forcemain for the length between the Tudor Road pump station and the Rice Road valve vault.

Specific tasks for the two alternatives are as follows:

1. Evaluate wetwell regarding suitability of geometry within existing wetwell and up to two modified geometries.
 - a. Discuss initial findings of compliance with HI standards for wetwell and pump type being considered. Utilize physical modeling to evaluate 4 flow rates and up to two geometries (existing conditions and proposed improvements). The model is anticipated to be a scaled representation of the existing intake conditions and one single bay of the dual wetwell configuration of the existing station. Both intake conditions for the individual wetwells can be accommodated in the scenarios run during physical modeling. Summarize analysis and findings in tech memo to describe methodology, sensitivity analysis and findings.
2. Develop capital cost estimates for each alternative.
3. Develop O&M costs for each alternative.
4. Evaluate alternatives including technical characteristics, vulnerabilities analysis, configuration, and cost, as well as net present value (NPV) and triple bottom line (TBL) where applicable.
5. Conduct Alternatives Analysis workshop with WU to review the results of the analysis and receive WU input. Recommend final facility alternative.
6. Develop Draft section for Tudor Road Pump Station Alternatives Analysis within TM No. 1 and submit to WU for review and comment.
7. Conduct review meeting with WU to discuss comments.

8. Incorporate WU comments and finalize TM No. 1, complete with previous final draft of the Facility Evaluation section.

Task 4 – Implementation Plan and Final Report

1. Develop preliminary project packaging plan and schedule for implementing the recommended pump station facility improvements for the selected alternative.
 - a. Include up to 3 alternative alignments for achieving forcemain resiliency.
 - b. Include review of Contract delivery mechanisms (alternative delivery) in the project packaging plan
2. Conduct Implementation Plan workshop with WU to review the results of the analysis and receive WU input. Finalize Implementation Plan.
3. Develop Draft Final Report: “Tudor Road Pump Station Implementation Plan” and submit to WU for review and comment.
4. Conduct review meeting with WU to discuss comments.
5. Incorporate WU comments.
6. Develop an Executive Summary to include key steps performed/ outcome from TM No. 1.
7. Compile Executive Summary of TM No. 1 with Implementation Plan into Final Report.

ATTACHMENTS

See Attachment 1 for initial background information

DATA REQUEST

To Be Determined

DELIVERABLES

TM No. 1 Tudor Road Pump Station Facility Evaluation & Alternatives Analysis
Draft Tudor Road Pump Station Facility Implementation Plan
Final Report: Executive Summary of Evaluation & Alternatives Analysis and Final Implementation Plan

Attachment 1
EXCERPTS FROM FAMP REPORT



Facilities Asset Management Program

Final Report

City of Lee's Summit

March 2019

4 Risk Assessment Approach and Findings

4.1 Facility Prioritization by Consequence of Failure (COF)

4.1.1 Approach

Data was collected from the City on the facilities and assets to be evaluated. The information was compiled from CityWorks and other information provided by the City and included information on location, equipment type, installation year, and a general asset description. The assets included mechanical and electrical equipment, pumps, structures, odor control, and control equipment.

At the December workshops, the team and staff worked together to develop the Consequence of Failure (COF) rating system. This rating system is shown in the table below.

Table 4-1 Facility Consequence of Failure Criticality Rating System

Example Facility Consequence of Failure Criticality Rating System Categories						
CATEGORY	Wt.%	Negligible = 1	Low = 3	Moderate = 5	Severe = 7	Catastrophic = 10
Service Impact	25%	No impact	Minor impact to system/facility performance or out of service less than 24 hours. No loss of water service or <u>SSO's</u> .	Minor impact to performance, out of service < 24 hours. Requires minimal adjustment to normal <u>Q&M</u> procedures. No loss of water service or <u>SSO's</u> .	Major impact to performance, out of service > 24 hours. Major mitigation effort to maintain service. Potential loss of water service or <u>SSO's</u> .	Major impact to process <u>hydraulic throughput</u> ; out of service >24 hours. Outside services required. Loss of water service and <u>SSO's</u> .
Time to Rectify (to original design condition)	5%	Hours	Days	Weeks	Months	Requires engineering and/or construction.
Regulatory Compliance and Environmental Impacts	20%	No violations and no environmental impact.	Possible technical violation; non-reportable event. No environmental impact.	Violation of regulation, permit, or code <u>without</u> enforcement action; potentially a reportable event. Environmental impact minimal.	Violation of permit, code, or regulation <u>potentially</u> resulting in an enforcement action; a reportable event.	Violation of permit, code, or regulation resulting in major enforcement action due to <u>significant</u> environmental impact; a reportable event.
Financial Impact	10%	Can be repaired within <\$3,000	Can be repaired between \$3,000 and \$9,999	Can be repaired between \$10,000 to <\$49,999	Greater than \$50,000 and < \$250,000	Greater than \$250,000.
Safety of public and employees	30%	No health or safety hazards identified	Health and safety risks minimal; health and safety injury likely limited to on-site first aid.	Moderate health and safety risks; simple personal protection equipment (<u>PPE</u>) possibly required	Medical attention required; advanced <u>PPE</u> required; enforcement action likely.	Loss of life or widespread outbreak of illness
Public Confidence	10%	Any media coverage is a result of proactive announcements by Utility. No complaints.	Minor disruption (e.g., traffic, dust, noise). No adverse media coverage. Some complaints.	An undesirable community condition requiring immediate attention; public complaints expected.	Substantial but short-term (days) disruption. Adverse local media coverage.	Long-term impact (months). Area-wide disruption. Adverse regional media coverage.

The team and staff then worked together to apply a COF rating to all water and sewer facilities. A summary of the COF ratings for the water facilities are contained in Table 4-2 and the sewer facilities are contained in Table 4-3.

The Mist Project Descriptions:

- New facility
- Repair – 2020 install traffic bollard to protect electrical control cabinet

5.4.17 Timber Hills LPSS

Table 5-32 Timber Hills LPSS Capital Project Summary

	2019 - 2023	2024 - 2028	2029 - 2038
Pumps and Motors	\$0	\$0	\$0
Valves and piping	\$0	\$0	\$0
Standby Generator	\$0	\$0	\$0
Instrumentation	\$0	\$0	\$0
Other	\$14,400	\$0	\$0
Subtotal	\$14,400	\$0	\$0
Contingency (20%)	\$2,880	\$0	\$0
Total	\$17,000	\$0	\$0

Timber Hills LPSS Project Descriptions:

- Replace – Bioxide system in 2022

5.4.18 Tudor Road

Table 5-33 Tudor Road Capital Project Summary

	2019 - 2023	2024 - 2028	2029 - 2038
Pumps and Motors	\$80,000	\$0	\$737,200
Valves and piping	\$156,000	\$67,200	\$128,600
Standby Generator	\$0	\$0	\$306,000
Instrumentation	\$47,500	\$0	\$0
Other	\$173,791	\$0	\$58,650
Subtotal	\$457,291	\$67,200	\$1,230,450
Contingency (20%)	\$91,458	\$13,440	\$246,090
Total	\$549,000	\$81,000	\$1,477,000

Tudor Road Project Descriptions:

- Replace – HVAC project (various equipment scheduled in 2020 – 2022) in 2022, consider small HVAC evaluation in 2020 to determine scope
- Replace – Pump 1 and motor in 2044 (pump scheduled in 2048 / motor scheduled in 2040)
- Replace – Pump 2 and motor in 2037 (pump scheduled in 2040 / motor scheduled in 2033)
- Replace – Pump 3 and motor in 2033
- Replace – Pump 4 and motor in 2030

- Replace – Pump 5 and motor in 2027 (Pump scheduled in 2030 / motor scheduled in 2023)
- Replace – Pump 6 and motor in 2033
- Rehabilitate – Group 1 lift station pump valves in 2022
- Replace – Instrumentation upgrades in 2020
- Rehabilitate – Building roof in 2019
- Rehabilitate – Group 1 valves: six sluice gates (replacement of hardware and rehab of channels/seating) in 2023
- Rehabilitate – Group 2: lift station pump valves and header isolation valves in 2027
- Rehabilitate – Header relief valve modification to accommodate for 20 inch FM operations, scheduled in 2020, consider duplex assembly due to criticality of equipment
- Repair – EFHB basin floor in 2023

5.4.19 Woodland Shores

Table 5-34 Woodland Shores Capital Project Summary

	2019 - 2023	2024 - 2028	2029 - 2038
Pumps and Motors	\$0	\$0	\$112,000
Valves and piping	\$0	\$0	\$9,000
Standby Generator	\$0	\$0	\$65,000
Instrumentation	\$12,000	\$0	\$0
Other	\$51,000	\$0	\$15,000
Subtotal	\$63,000	\$0	\$201,000
Contingency (20%)	\$12,600	\$0	\$40,200
Total	\$76,000	\$0	\$241,000

Woodland Shores Project Descriptions:

- Rehabilitate – Odor Control System in 2019
- Replace – Instrumentation in 2023
- Replace – Schedule standby power upgrade in 2035
 - Generator replacement scheduled for 2033
 - ATS replacement scheduled for 2039
 - Main Feed / Switchgear for 2033

Appendix B
Tudor Road Pump Station
Consequence of Failure Scoring

Consequence of Failure (CoF)

	Service Impact	Time to Rectify	Regulatory Compliance and Environmental Impacts	Financial Impact	Safety of public and employees	Public Confidence	Consequence Score
	25%	5%	20%	10%	30%	10%	1
Asset Description							
Tudor Road Pump Station	10	10	10	10	7	7	8.8
Tudor - Wet Well	10	10	10	7	7	7	8.5
Tudor - Building							0.0
Tudor - Generator 1	10	5	7	7	5	7	7.1
Tudor - Generator 2	10	5	7	7	5	7	7.1
Tudor - Generator 4	7	5	5	7	5	5	5.7
Tudor Road - Pump 1 - 500 hp w	5	7	1	7	3	1	3.5
Tudor Road - Pump 2 - 350 hp	7	7	1	7	3	1	4.0
Tudor Road - Pump 3 - 500 hp w	5	7	1	7	3	1	3.5
Tudor Road - Pump 4 - 500 hp w	5	7	1	7	3	1	3.5
Tudor Road - Pump 5 - 350 hp	7	7	1	7	3	1	4.0
Tudor Road - Pump 6 - 500 hp w	5	7	1	7	3	1	3.5
Tudor Road - Main Feed / Switchgear	10	10	10	7	7	7	8.5

Appendix C
Lee's Summit Facilities Asset Management Plan - Equipment Renewal Forecast Detailed Schedule

Utility	Facility Name	Asset Name	Asset Class	Estimated Service Life	Install Year	Age Based Replacement Year	Condition Based Remaining Life	Condition Based Service Life	Condition Based Replacement Year	Scheduled Intervention Year	Condition Based % of Life	Condition Rating Score	Asset_COF	Facility_COF_Score	Asset Risk Score	Intervention Type	Funding Source	Estimated Cost \$	Estimated Eng. Cost \$	Total Estimated Cost \$	Class Grouping		
WATER	South Terminal	south terminal - system piping (above ground)	Pipe-above ground	50	2000	2050	38	56	2056	2056	75% Life Remaining	3	3.7	7.1	11.1	Rehabilitate	Capital	\$ 150,000		\$ 150,000	Valves and piping		
WATER	South Terminal	south terminal - system valves	Valve	30	2000	2030	22	40	2040	2040	75% Life Remaining	3		7.1		Replace	Capital	\$ 35,000	\$ 7,000	\$ 42,000	Valves and piping		
WATER	South Terminal	south terminal - valve vault	Structure	50	2001	2051	37	54	2055	2055	75% Life Remaining	3		7.1		Rehabilitate	Capital	\$ 60,000		\$ 60,000	Other		
WATER	South Terminal	south terminal - reservoir	Water Reservoir	75	2001	2076	56	73	2074	2074	75% Life Remaining	3		7.1						\$ -		\$ -	Other
WATER	South Terminal	south terminal - dewatering pump	Pump	30	2001	2031	15	32	2033	2033	50% Life Remaining	5	3.2	7.1	16	Rehabilitate	Capital	\$ 15,000		\$ 15,000	Pumps and Motors		
WATER	South Terminal	south terminal - system mov valves	Actuator Valve	30	2001	2031	7	24	2025	2025	25% Life Remaining	7		7.1		Replace	Capital	\$ 12,000	\$ 2,400	\$ 14,400	Valves and piping		
WATER	South Terminal	south terminal - security / intrusion alarming	Instrumentation	20	2000	2020	8	26	2026	2026	50% Life Remaining	5		7.1		Replace	Capital	\$ 1,500		\$ 1,500	Instrumentation		
WATER	South Terminal	south terminal - ai - chlorine analyzer	Instrumentation	15	2015	2031	15	17	2033	2033	100% Life Remaining	1		7.1		Replace	Capital	\$ 3,500		\$ 3,500	Instrumentation		
WATER	South Terminal	south terminal - ai - flow south	Instrumentation	20	2000	2020	10	26	2028	2026	50% Life Remaining	5		7.1		Replace	Capital	\$ 15,000		\$ 15,000	Instrumentation		
WATER	South Terminal	south terminal - ai - flow ward	Instrumentation	20	2000	2020	10	26	2028	2020	50% Life Remaining	0		7.1		Replace	Capital	\$ 15,000		\$ 15,000	Instrumentation		
WATER	South Terminal	south terminal - ai - high tank level	Instrumentation	20	2000	2020				2020	Unknown	0	4.8	7.1		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
WATER	South Terminal	south terminal - ai - inter flowmeter	Instrumentation	20	2000	2020				2020	Unknown	0		7.1		Replace	Capital	\$ 15,000		\$ 15,000	Instrumentation		
WATER	South Terminal	south terminal - ai - jackson-cass psi tx	Instrumentation	20	2000	2020				2020	Unknown	0		7.1		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
WATER	South Terminal	south terminal - ai - temperature tx	Instrumentation	20	2000	2020				2020	Unknown	0		7.1		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
WATER	South Terminal	south terminal - discharge psi tx	Instrumentation	20	2000	2020				2020	Unknown	0		7.1		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
WATER	South Terminal	south terminal - PLC	Instrumentation	15	2000	2015				2019	Unknown	0		7.1		Rehabilitate	Capital	\$ 1,000		\$ 1,000	Instrumentation		
WATER	South Terminal	south terminal - rtu & ups	Instrumentation	15	2000	2015				2019	Unknown	0		7.1		Rehabilitate	Capital	\$ 10,000		\$ 10,000	Instrumentation		
WATER	South Terminal	south terminal - HMI panel	Instrumentation	15	2000	2033	1		2018	2019	.05% Life	10		7.1				\$ -		\$ -	Instrumentation		
WATER	South Terminal	south terminal - intertie flow meter	Instrumentation	25	2000	2025	19	37	2037	2037	75% Life Remaining	3		7.1		Replace	Capital	\$ 15,000		\$ 15,000	Instrumentation		
WATER	Velie	velie - ai - psi transmitter	Instrumentation	15	2000	2015				2020	Unknown	0				Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
WATER	Velie	velie - PLC	Instrumentation	15	2000	2015				2020	Unknown	0								\$ -		\$ -	Instrumentation
WATER	Velie	velie - rtu & ups	Instrumentation	15	2000	2015				2020	Unknown	0								\$ -		\$ -	Instrumentation
WATER	Velie	velie - facility	Civil / Site	50	1972	2022	38	84	2056	2056	75% Life Remaining	3				Maintain	OM	\$ 2,500		\$ 2,500	Other		
SEWER	Station 6	6 - efbh level transmitter	Instrumentation	20	2000	2020				2020	Unknown	0		1.2		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
SEWER	Station 6	6 - efbh	Structure	50	1994	2044	26	50	2044	2044	Unknown	0		1.2		Rehabilitate	Capital	\$ 60,000		\$ 60,000	Other		
SEWER	Station 6	6 - facility	Structure	50	1994	2044	26	50	2044	2044	Unknown	0		1.2		Repair	OM	\$ 5,000		\$ 5,000	Other		
SEWER	Station 6	6 - fencing	Civil / Site	25	1994	2019	1	25	2019	2019	Unknown	0		1.2		Replace	Capital	\$ 31,000		\$ 31,000	Other		
SEWER	Station 6	6 - mov	Actuator Valve	25	2018	2043	12.5	25	2030	2030	25% Life Remaining	7		1.2		Replace	Capital	\$ 8,500		\$ 8,500	Valves and piping		
SEWER	The Mist	mist lift at tudor - ai - level tx	Instrumentation	20	2014	2034				2034	Unknown	0		3.1		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation		
SEWER	The Mist	mist lift at tudor - control cabinet	Panel- local control	25	2014	2039	21	25	2039	2039	Unknown	0		3.1				\$ 15,000		\$ 15,000	Other		
SEWER	The Mist	mist lift at tudor - PLC	Instrumentation	20	2014	2034				2034	Unknown	0		3.1				\$ -		\$ -	Instrumentation		
SEWER	The Mist	mist lift at tudor - rtu & ups	Instrumentation	20	2014	2034				2034	Unknown	0		3.1						\$ -		\$ -	Instrumentation
SEWER	The Mist	mist lift at tudor - facility - elect & light	Electrical	30	2014	2044				2044	Unknown	0		3.1		Rehabilitate	Capital	\$ 10,000		\$ 10,000	Other		
SEWER	The Mist	mist lift at tudor - pump 1	Submersible Pump	30	2014	2044	22	26	2040	2040	75% Life Remaining	3		3.1		Rehabilitate	OM	\$ 6,500		\$ 6,500	Pumps and Motors		
SEWER	The Mist	mist lift at tudor - pump unit 1 - disch valve	Valve	30	2014	2044				2044	Unknown	0		3.1		Replace	Capital	\$ 3,000		\$ 3,000	Valves and piping		
SEWER	The Mist	mist lift at tudor - pump 2	Submersible Pump	30	2014	2044	22	26	2040	2040	75% Life Remaining	3		3.1		Rehabilitate	OM	\$ 6,500		\$ 6,500	Pumps and Motors		
SEWER	The Mist	mist lift at tudor - pump unit 2 - disch valve	Valve	30	2014	2044				2044	Unknown	0		3.1		Replace	Capital	\$ 3,000		\$ 3,000	Valves and piping		
SEWER	The Mist	mist lift at tudor - wet well	Wet Wells	30	2014	2044				2044	100% Life Remaining	1		3.1		Rehabilitate	OM	\$ 6,000		\$ 6,000	Other		
SEWER	Timber Hills LPSS	timber hills lpss - odor control	Odor Control	15	2005	2018	4	19	2022	2022	25% Life Remaining	7				Rehabilitate	Capital	\$ 12,000	\$ 2,400	\$ 14,400	Other		
SEWER	Tudor Road	tudor - underground storage tank	Tank	75	1993	2068				2068	Unknown	0		8.8						\$ -		\$ -	Other
SEWER	Tudor Road	tudor road - air compressor 1 blue	Compressor	25	2015	2040	13	16	2031	2031	50% Life Remaining	5		8.8		Replace	Capital	\$ 20,000		\$ 20,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - air compressor 2 brown	Compressor	25	1992	2017	0	26	2018	2019	Replace Immediately	10		8.8		Replace	Capital	\$ 20,000		\$ 20,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - basement sump pump 1	Submersible Pump	10	2000	2010	2	20	2026	2026	100% Life Remaining	7	3.4	8.8	23.8	Replace	OM	\$ 3,000		\$ 3,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - basement sump pump 2	Submersible Pump	10	2000	2010	2	20	2026	2026	100% Life Remaining	7	3.4	8.8	23.8	Replace	OM	\$ 3,000		\$ 3,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - basement sump pump (elevator)	Submersible Pump	10	2016	2026	10	12	2026	2026	100% Life Remaining	1	4	8.8	4	Replace	OM	\$ 3,000		\$ 3,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - building	Building	50	1993	2043				2043	Unknown	0		0	8.8	Rehabilitate	Capital	\$ 100,000		\$ 100,000	Other		
SEWER	Tudor Road	tudor road - hvac	HVAC	20	2014	2034				2034	Unknown	0		8.8		Replace	Capital	\$ 8,650		\$ 8,650	Other		
SEWER	Tudor Road	tudor road - HVAC 2- roof	HVAC	20	1993	2013				2020	Unknown	0		8.8		Replace	Capital	\$ 8,650	\$ 1,730	\$ 10,380	Other		
SEWER	Tudor Road	tudor road - HVAC 1 - roof	HVAC	20	1993	2013				2020	Unknown	0		8.8		Replace	Capital	\$ 8,650	\$ 1,730	\$ 10,380	Other		
SEWER	Tudor Road	tudor road - heat only (2) - roof	HVAC	20	1993	2013				2020	Unknown	0		8.8		Replace	Capital	\$ 8,000	\$ 1,600	\$ 9,600	Other		
SEWER	Tudor Road	tudor road - roof	Roof	25	2007	2032				2019	Unknown	0		8.8		Rehabilitate	Capital	\$ 40,000	\$ 8,000	\$ 48,000	Other		
SEWER	Tudor Road	tudor road - crane - main floor	Crane	40	1993	2033	20	45	2038	2038	50% Life Remaining	5		8.8						\$ -		\$ -	Other
SEWER	Tudor Road	tudor road - crane - pump level crane 1	Crane	40	1993	2033	20	45	2038	2038	50% Life Remaining	5		8.8						\$ -		\$ -	Other
SEWER	Tudor Road	tudor road - crane - pump level crane 2	Crane	40	1993	2033	20	45	2038	2038	50% Life Remaining	5		8.8						\$ -		\$ -	Other
SEWER	Tudor Road	tudor road - facility - elect & light	Electrical	30	2016	2046	15	17	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 50,000		\$ 50,000	Other		
SEWER	Tudor Road	tudor road - wood fence	Civil / Site	20	1993	2013	5	30	2023	2023	25% Life Remaining	7		8.8		Replace	Capital	\$ 17,831		\$ 17,831	Other		
SEWER	Tudor Road	tudor road - generator 1 - 450 kw	Generator	30	2015	2045	30	33	2048	2048	100% Life Remaining	1	7.1	8.8	7.1	Replace	Capital	\$ 306,000		\$ 306,000	Standby Generator		
SEWER	Tudor Road	tudor road - generator 1 - transfer sw	Automatic Transfer Switch	25	2015	2040	25	28	2043	2048	100% Life Remaining	1	7.1	8.8	7.1	Replace	Capital	\$ 40,000		\$ 40,000	Other		
SEWER	Tudor Road	tudor road - load bank	Power Distribution	30	2015	2045	30	33	2048	2048	100% Life Remaining	1		8.8		Replace	Capital	\$ 50,000		\$ 50,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - generator 2 - 450 kw	Generator	30	2015	2045	30	33	2048	2048	100% Life Remaining	1	7.1	8.8	7.1	Replace	Capital	\$ 306,000		\$ 306,000	Standby Generator		
SEWER	Tudor Road	tudor road - generator 2 - transfer sw	Automatic Transfer Switch	25	2015	2040	25	28	2043	2048	100% Life Remaining	1	7.1	8.8	7.1	Replace	Capital	\$ 40,000		\$ 40,000	Other		
SEWER	Tudor Road	tudor road - generator 4 - 480 kw	Generator	30	2000	2030	15	33	2033	2033	50% Life Remaining	5	5.7	8.8	28.5	Replace	Capital	\$ 306,000		\$ 306,000	Standby Generator		
SEWER	Tudor Road	tudor road - rvs 1 - 500 hp	Power Distribution	30	2001	2031	15	32	2033	2033	50% Life Remaining	5		8.8		Replace	OM	\$ 5,000		\$ 5,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - pump 1 - suction valve	Valve	30	1993	2023	15	40	2033	2033	50% Life Remaining	5	3.5	8.8	17.5	Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping		
SEWER	Tudor Road	tudor road - pump 1 - valve with actuator	Actuator Valve	25	2000	2025	1	18	2019	2019	Replace Immediately	10	3.5	8.8	35	Replace	Capital	\$ 18,000		\$ 18,000	Valves and piping		
SEWER	Tudor Road	tudor road - pump 1 - driveshaft	Pump	30	1993	2023	15	40	2033	2033	50% Life Remaining	5	3.5	8.8	17.5	Replace	Capital	\$ 4,000	\$ 800	\$ 4,800	Pumps and Motors		
SEWER	Tudor Road	tudor road - motor 2 - 350 hp	Motor	30	2000	2030	15	33	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 45,000	\$ 9,000	\$ 54,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - pump 2 - 350 hp	Pump	30	2016	2046	22	24	2040	2040	75% Life Remaining	3	4	8.8	12	Rehabilitate	Capital	\$ 50,000	\$ 10,000	\$ 60,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - pump unit 2 - disch valve	Valve	30	1993	2023	7	32	2025	2025	25% Life Remaining	7		8.8		Replace	Capital	\$ 5,500	\$ 1,100	\$ 6,600	Valves and piping		
SEWER	Tudor Road	tudor road - rvs 3 - 500 hp	Power Distribution	30	2011	2041	23	30	2041	2041	75% Life Remaining	3		8.8		Replace	OM	\$ 5,000		\$ 5,000	Pumps and Motors		
SEWER	Tudor Road	tudor road - pump 3 - suction valve	Valve	30																			

Appendix C
Lee's Summit Facilities Asset Management Plan - Equipment Renewal Forecast Detailed Schedule

Utility	Facility Name	Asset Name	Asset Class	Estimated Service Life	Install Year	Age Based Replacement Year	Condition Based Remaining Life	Condition Based Service Life	Condition Based Replacement Year	Scheduled Intervention Year	Condition Based % of Life	Condition Rating Score	Asset_COF	Facility_COF_Score	Asset Risk Score	Intervention Type	Funding Source	Estimated Cost \$	Estimated Eng. Cost \$	Total Estimated Cost \$	Class Grouping
SEWER	Tudor Road	tudor road - pump 5 - drive shaft	Pump	30	2000	2030	15	33	2033	2033	50% Life Remaining	5	4	8.8	20	Replace	Capital	\$ 4,000	\$ 800	\$ 4,800	Pumps and Motors
SEWER	Tudor Road	tudor road - motor 6 - 500 hp	Motor	30	1993	2023	15	40	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 45,000	\$ 9,000	\$ 54,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 6 - 500 hp	Pump	30	1993	2023	15	40	2033	2033	50% Life Remaining	5	3.5	8.8	17.5	Rehabilitate	Capital	\$ 50,000	\$ 10,000	\$ 60,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump unit 6 - disch valve	Valve	30	1993	2023	15	40	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 5,500	\$ 1,100	\$ 6,600	Valves and piping
SEWER	Tudor Road	tudor road - rvs 6 - 500 hp	Power Distribution	30	2000	2030	22	40	2040	2040	75% Life Remaining	3		8.8		Replace	Capital	\$ 9,000		\$ 9,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 6 - suction valve	Valve	30	1993	2023	15	40	2033	2033	50% Life Remaining	5	3.5	8.8	17.5	Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 6 - valve with actuator	Actuator Valve	25	2000	2018	6	31	2030	2024	25% Life Remaining	7	3.5	8.8	24.5	Replace	Capital	\$ 18,000		\$ 18,000	Valves and piping
SEWER	Tudor Road	tudor road - header relief valve assembly	Valve	30	1993	2023	2	17	2020	2023	Replace Immediately	10		8.8		Replace	Capital	\$ 55,000	\$ 11,000	\$ 66,000	Valves and piping
SEWER	Tudor Road	tudor road - header isolation valve between pumps	Valve	30	1993	2023			2023	2023	Unknown	0		8.8		Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - header isolation valves (2)	Valve	30	1993	2023			2023	2023	Unknown	0		8.8		Replace	Capital	\$ 15,000	\$ 3,000	\$ 18,000	Valves and piping
SEWER	Tudor Road	tudor road - metal fence	Civil / Site	50	2018	2068			2068	2068	Unknown	0		8.8		Replace	Capital	\$ 15,000		\$ 15,000	Other
SEWER	Tudor Road	tudor road - parking lot	Civil / Site	50	2018	2068			2068	2068	Unknown	0		8.8		Replace	Capital	\$ 9,000		\$ 9,000	Other
SEWER	Tudor Road	tudor road - mcc	Power Distribution	30	2018	2048			2048	2048	Unknown	0		8.8						\$ -	Pumps and Motors
SEWER	Tudor Road	tudor road - ventilation - rock box	HVAC	20	2000	2020			2022	2022	25% Life Remaining	7		8.8		Replace	Capital	\$ 5,000		\$ 5,000	Other
SEWER	Tudor Road	tudor road - ventilation - near air relief	HVAC	20	2000	2020			2022	2022	25% Life Remaining	7		8.8		Replace	Capital	\$ 5,000		\$ 5,000	Other
SEWER	Tudor Road	tudor road - ventilation - grease pit	HVAC	20	2000	2020			2022	2022	25% Life Remaining	7		8.8		Replace	Capital	\$ 5,000		\$ 5,000	Other
SEWER	Tudor Road	tudor road - deluge guns (3)	Pipe-above ground	15	2018	2033			2033	2033	Unknown	0		8.8						\$ -	Valves and piping
SEWER	Tudor Road	tudor road - ferric feed system	Chemical System	15	1993	2008			2019	2019	Unknown	0		8.8						\$ -	Other
SEWER	Tudor Road	tudor road - ferric ust	Tank	30	2000	2030			2030	2030	Unknown	0		8.8						\$ -	Other
SEWER	Tudor Road	tudor road - efbh - structure	Structure	50	1992	2042			2042	2042	Unknown	0	3.2	8.8		Rehabilitate	Capital	\$ 250,000		\$ 250,000	Other
SEWER	Tudor Road	tudor road - generator 4 - transfer sw	Automatic Transfer Switch	25	2015	2040	25	28	2043	2043	100% Life Remaining	1	5.7	8.8	5.7	Replace	Capital	\$ 40,000		\$ 40,000	Other
SEWER	Tudor Road	tudor road - main feed / switchgear	Power Distribution	30	2000	2030	15	33	2033	2033	50% Life Remaining	5	8.5	8.8	42.5	Replace	Capital	\$ 150,000		\$ 150,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pigging station	Pipe-above ground	50	2000	2050	38	56	2056	2056	75% Life Remaining	3		8.8		Rehabilitate	Capital	\$ 25,000		\$ 25,000	Valves and piping
SEWER	Tudor Road	tudor road - vfd 1 500 hp	VFD	20	2017	2038	20	20	2037	2037	100% Life Remaining	1		8.8		Replace	Capital	\$ 45,000		\$ 45,000	Pumps and Motors
SEWER	Tudor Road	tudor road - motor 1 - 500 hp	Motor	30	2012	2042	22	28	2040	2040	75% Life Remaining	3		8.8		Replace	Capital	\$ 45,000	\$ 9,000	\$ 54,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 1 - 500 hp	Pump	30	2016	2046	30	32	2048	2048	100% Life Remaining	1	3.5	8.8	3.5	Rehabilitate	Capital	\$ 50,000	\$ 10,000	\$ 60,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump unit 1 - disch valve	Valve	30	1993	2023	15	40	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - vfd 2 - 350 hp	VFD	20	2016	2036	20	22	2036	2036	100% Life Remaining	1		8.8		Replace	Capital	\$ 17,000		\$ 17,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 2 - suction valve	Valve	30	1993	2023	7	32	2025	2025	25% Life Remaining	7	4	8.8	28	Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 2 - valve with actuator	Actuator Valve	25	2000	2025	12	30	2030	2030	50% Life Remaining	5	4	8.8	20	Replace	Capital	\$ 18,000		\$ 18,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 2 - driveshaft	Pump	30	2000	2030	15	33	2033	2033	50% Life Remaining	5	4	8.8	20	Replace	Capital	\$ 4,000	\$ 800	\$ 4,800	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 2 - soft start	Power Distribution	30	2000	2030	12	30	2030	2030	Unknown	0	4	8.8		Replace	Capital	\$ 9,000	\$ 1,800	\$ 10,800	Pumps and Motors
SEWER	Tudor Road	tudor road - motor 3 - 500 hp	Motor	30	2000	2030	15	33	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 45,000	\$ 9,000	\$ 54,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 3 - 500 hp	Pump	30	2001	2031	15	32	2033	2033	50% Life Remaining	5	3.5	8.8	17.5	Rehabilitate	Capital	\$ 50,000	\$ 10,000	\$ 60,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump unit 3 - disch valve	Valve	30	1993	2023	15	40	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 4 - valve with actuator	Actuator Valve	25	1993	2018	6	31	2024	2024	25% Life Remaining	7	3.5	8.8	24.5	Replace	Capital	\$ 18,000		\$ 18,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 4 - driveshaft	Pump	30	2016	2046	30	30	2048	2046	Unknown	0	3.5	8.8		Replace	Capital	\$ 4,000	\$ 800	\$ 4,800	Pumps and Motors
SEWER	Tudor Road	tudor road - motor 5 - 350 hp	Motor	30	2000	2030			2030	2030	Unknown	0		8.8		Replace	Capital	\$ 45,000	\$ 9,000	\$ 54,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 5 - 350 hp	Pump	30	1993	2023			2033	2033	Unknown	0	4	8.8		Rehabilitate	Capital	\$ 50,000	\$ 10,000	\$ 60,000	Pumps and Motors
SEWER	Tudor Road	tudor road - pump unit 5 - disch valve	Valve	30	1993	2023	15	40	2033	2033	50% Life Remaining	5		8.8		Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - vfd 5 - 350 hp	VFD	20	2016	2036	20	22	2036	2036	100% Life Remaining	1		8.8		Replace	Capital	\$ 17,000	\$ 3,400	\$ 20,400	Pumps and Motors
SEWER	Tudor Road	tudor road - pump 5 - suction valve	Valve	30	1993	2023	7	32	2025	2025	25% Life Remaining	7	4	8.8	28	Replace	Capital	\$ 7,500	\$ 1,500	\$ 9,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 5 - valve with actuator	Actuator Valve	25	2000	2025	0	18	2018	2019	Replace Immediately	10	4	8.8	40	Replace	Capital	\$ 18,000		\$ 18,000	Valves and piping
SEWER	Tudor Road	tudor road - pump 6 - driveshaft	Pump	30	2000	2030	15	33	2033	2033	50% Life Remaining	5	3.5	8.8	17.5	Replace	Capital	\$ 4,000	\$ 800	\$ 4,800	Pumps and Motors
SEWER	Tudor Road	tudor road - system piping (above ground)	Pipe-above ground	50	1993	2043	13	38	2031	2031	25% Life Remaining	7		8.8		Rehabilitate	Capital	\$ 50,000		\$ 50,000	Valves and piping
SEWER	Tudor Road	tudor road - wet well	Wet Wells	50	1993	2043			2043	2043	25% Life Remaining	3	8.5	8.8	25.5	Rehabilitate	Capital	\$ 15,000		\$ 15,000	Other
SEWER	Tudor Road	tudor road - wet well 2 sump pump	Submersible Pump	10	1993	2003			2020	2020	Unknown	0	8.5	8.8		Replace	OM	\$ 3,000		\$ 3,000	Pumps and Motors
SEWER	Tudor Road	tudor road - crane - clamshell	Crane	40	1993	2033			2033	2033	Unknown	0		8.8						\$ -	Other
SEWER	Tudor Road	tudor road - grinder	Grinder	25	2013	2030			2030	2030	Unknown	0		8.8						\$ -	Other
SEWER	Tudor Road	tudor road - rock box	Barscreen	25	1993	2018			2019	2019	Unknown	0		8.8						\$ -	Other
SEWER	Tudor Road	tudor road - sluice gates (6)	Gate	30	1993	2023			2023	2023	Unknown	0		8.8		Rehabilitate	Capital	\$ 48,000	\$ 9,600	\$ 57,600	Other
SEWER	Tudor Road	tudor road - influent wet well - structure	Structure	50	1993	2043			2043	2043	Unknown	0	8.5	8.8		Rehabilitate	Capital	\$ 100,000		\$ 100,000	Other
SEWER	Tudor Road	tudor road - ventilation - grease pit	HVAC	20	2000	2038			2020	2020	Unknown	0		8.8		Replace	Capital	\$ 5,000		\$ 5,000	Other
SEWER	Tudor Road	tudor road - cellular dialer	Instrumentation	15	1993	2008			2019	2019	Unknown	0		8.8		Replace	Capital	\$ 2,000		\$ 2,000	Instrumentation
SEWER	Tudor Road	tudor road - digital inputs	Instrumentation	15	1993	2008			2019	2019	Unknown	0		8.8						\$ -	Instrumentation
SEWER	Tudor Road	tudor road - facility - intrusion\omni	Instrumentation	15	1993	2008			2019	2019	Unknown	0		8.8		Rehabilitate	Capital	\$ 1,500		\$ 1,500	Instrumentation
SEWER	Tudor Road	tudor road - plc	Instrumentation	15	2011	2026			2019	2019	Unknown	0		8.8		Replace	Capital	\$ 6,000		\$ 6,000	Instrumentation
SEWER	Tudor Road	tudor road - rtu & ups	Instrumentation	15	1993	2008			2019	2019	Unknown	0		8.8		Rehabilitate	Capital	\$ 15,000		\$ 15,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - temperature tx	Instrumentation	20	2000	2008			2021	2021	Unknown	0		8.8		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - wetwell 1 level tx 1	Instrumentation	20	2000	2008			2019	2019	Unknown	0	8.5	8.8		Replace	Capital	\$ 2,000		\$ 2,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - db level tx	Instrumentation	20	2000	2008			2020	2020	Unknown	0		8.8		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - mag flow tx	Instrumentation	20	2000	2008			2020	2020	Unknown	0		8.8		Replace	Capital	\$ 15,000		\$ 15,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - screen level tx	Instrumentation	20	2000	2008			2020	2020	Unknown	0		8.8		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - wetwell 1 level tx 2	Instrumentation	20	2000	2008			2020	2020	Unknown	0	8.5	8.8		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - wetwell 2 level tx 1	Instrumentation	20	2000	2008			2020	2020	Unknown	0	8.5	8.8		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation
SEWER	Tudor Road	tudor road - ai - wetwell 2 level tx 2	Instrumentation	20	2000	2008			2020	2020	Unknown	0	8.5	8.8		Replace	Capital	\$ 1,000		\$ 1,000	Instrumentation
WATER	Woods Chapel	woods chapel - asphalt pavement	Civil / Site	50	1999	2049			2049	2049	Unknown	0		4.3						\$ -	Other
SEWER	Woodland Shores	woodland shores - facility - elect & light	Electrical	30	2002	2032			2032	2032	Unknown	0		5.7		Rehabilitate	Capital	\$ 15,000		\$ 15,000	Other
SEWER	Woodland Shores	woodland shores - fencing & landscape	Civil / Site	50	2002	2052			2052	2052	Unknown	0		5.7		Replace	Capital	\$ 15,000			

Exhibit B
HDR Engineering, Inc.
2023 Hourly Billing Rates

Effective 1/1/2023 through 12/30/2023

Enclosed are the 2023 Hourly Billable Rates for HDR Engineering, Inc. These billing rates shall be adjusted annually to reflect any salary adjustments incurred by employees. The rates listed below do not include reimbursable direct expenses as defined below.

Description	Billing Rate/Hour
Senior Technical Specialist/Senior Project Manager III	\$290
Technical Specialist/Senior Project Manager II	\$260
Senior Project Manager I	\$230
Project Manager III	\$200
Project Manager II	\$175
Project Manager I	\$135
Engineer VI	\$230
Engineer V	\$200
Engineer IV	\$175
Engineer III	\$150
Engineer II	\$135
Engineer I	\$120
Cadd/BIM Manager	\$195
Model Manager	\$185
Cadd/GIS Technician V	\$170
Cadd/GIS Technician IV	\$150
Cadd/GIS Technician III	\$130
Cadd/GIS Technician II	\$110
Cadd/GIS Technician I	\$95
Environmental/Water Quality Scientist IV	\$230
Environmental/Water Quality Scientist III	\$200
Environmental/Water Quality Scientist II	\$175
Environmental/Water Quality Scientist I	\$155
Senior Land Surveyor	\$175
Survey Technician III	\$130
Survey Technician II	\$90
Survey Technician I	\$70
Construction Manager III	\$200
Construction Manager II	\$175
Construction Manager I	\$150
Construction Inspector II	\$125
Construction Inspector	\$110
Senior Support Staff	\$125
Support Staff	\$100
Admin Assistant	\$85
Direct Expenses	
Mileage	CURRENT IRS RATE
Printing	AT COST
Travel	AT COST
Subconsultants	AT COST

**City of Lee's Summit, MO - Tudor Road Facility Plan
Scope and Fee**



Staff Name	Young, P	Carter, M	Sims, K	Brandsgaard, P	Williams, D	Eisele, R	Wiseman, D	Allaben, C	Williams, S	Sandmeyer, T	Witte, N	Boyd, T	Shumpert, M	Robinson, H	Malinowski, C	Kuntz, J	Campbell, J	Davies, A			
Project Role	PIC	PM	Sr. Process/Screening & Pumping	Process/ Screening & Pumping	Process/ Screening & Pumping	QC	Structural	QC	Surge Eval	Mechanical	Electrical	I&C	FLS	Operations Review	Operations QC	BIM Technician	Sr. Support Staff	Sr. Support Staff			
Billing Rate	\$290.00	\$230.00	\$260.00	\$135.00	\$135.00	\$290.00	\$290.00	\$290.00	\$290.00	\$200.00	\$175.00	\$175.00	\$200.00	\$230.00	\$290.00	\$130.00	\$125.00	\$125.00			
TASKS																					
A. Task 1 - Project Management																					
1 Project Kickoff Meeting	1	2	1		1		1			1	1	1		1	1						\$2,505
2 Prepare Project Instructions for Team	1	3	1														1				\$1,365
3 Conduct Quality Control Reviews of Deliverables	2	1															1				\$935
4 Prepare Monthly Progress and Invoices		5															2	7			\$2,275
																					\$0
Subtotal Hours	4	11	2	0	1	0	1	0	0	1	1	1	0	1	1	0	4	7			
Subtotal Dollars	\$1,160	\$2,530	\$520	\$0	\$135	\$0	\$290	\$0	\$0	\$200	\$175	\$175	\$0	\$230	\$290	\$0	\$500	\$875	\$0	\$0	\$7,080
Total Task 1																					\$7,080
B. Task 2 - Facility Condition Assessment																					
1 Review Existing As-builts, facility reports, collection system modeling reports		2	4		8		1			2	2	1									\$3,795
2 Site Visit for execution of Condition Assessment		4	2		4		2			2	2	2								\$300	\$3,960
3 Document recommended replacement actions, identify construction constraints, and provide cost estimate of recommendations in a draft Memorandum	1	4	12		10	4	3			8	12	7	4			6	2				\$14,465
4 Conduct workshop to review Facility Condition Assessment Memorandum		2	2		2		1			1	1	1									\$2,090
5 Finalize Facility Condition Assessment Memorandum		1	2		4		1			1	1	1	1								\$2,330
																					\$0
6 Operations/SOPs Review		2												32	4					\$1,750	\$10,730
Subtotal Hours	1	15	22	0	28	4	8	0	0	14	18	12	5	32	4	6	2	0			
Subtotal Dollars	\$290	\$3,450	\$5,720	\$0	\$3,780	\$1,160	\$2,320	\$0	\$0	\$2,800	\$3,150	\$2,100	\$1,000	\$7,360	\$1,160	\$780	\$250	\$0	\$2,050	\$0	\$37,370
Total Task 2																					\$37,370
C. Task 3 - Pump Configuration and Alternative Analysis																					
1 Alternatives analysis for pump station replacement	1	1	8	20	20						8	6									\$10,450
2 Pump selection, conceptual pump room and discharge modifications		4	14	12	12		6	2		2						16					\$12,600
3 Evaluate screening, develop conceptual screening channel modifications			8		18											14					\$6,330
4 Evaluate yard piping configurations, resiliency assessment		6	8						1												\$3,750
																					\$0
5 Evaluate wetwell for suitable geometries (Physical Modeling)			8		24					2	8	6	0	0	0	30	0	0		\$40,000	\$45,320
Subtotal Hours	1	11	46	32	74	0	6	2	1	2	8	6	0	0	0	30	0	0			
Subtotal Dollars	\$290	\$2,530	\$11,960	\$4,320	\$9,990	\$0	\$1,740	\$580	\$290	\$400	\$1,400	\$1,050	\$0	\$0	\$0	\$3,900	\$0	\$0	\$0	\$40,000	\$78,450
Total Task 3																					\$78,450
D. Task 4 - Implementation Plan & Final Report																					
1 Include up to 3 alternative alignment options for achieving forcemain resiliency		9	4		6				2												\$4,500
2 Develop Implementation Plan to include Facility Condition Assessment Findings and Process Components Modifications Alternatives Analysis Findings	1	12	26		40	1	2	2	1	2	4	4	2			2	2				\$19,660
3 Workshop on Implementation Plan & Final Report	1	2	2		4		1			1	1	1									\$2,650
4 Finalize Documents for Submittal	1																				\$290
																					\$0
Subtotal Hours	3	23	32	0	50	1	3	2	3	3	5	5	2	0	0	2	2	0			
Subtotal Dollars	\$870	\$5,290	\$8,320	\$0	\$6,750	\$290	\$870	\$580	\$870	\$600	\$875	\$875	\$400	\$0	\$0	\$260	\$250	\$0	\$0	\$0	\$27,100
Total Task 4																					\$27,100
Total Hours	9	60	102	32	153	5	18	4	4	20	32	24	7	33	5	38	8	7			561
Total Billing Amount	\$2,610	\$13,800	\$26,520	\$4,320	\$20,655	\$1,450	\$5,220	\$1,160	\$1,160	\$4,000	\$5,600	\$4,200	\$1,400	\$7,590	\$1,450	\$4,940	\$1,000	\$875	\$2,050	\$40,000	\$150,000

Estimated Project Fee \$150,000