CITY OF SANTA ROSA
PROFESSIONAL SERVICES AGREEMENT
WITH HAZEN AND SAWYER
AGREEMENT NUMBER _____

This "Agreement" is made as of this ____day of_____, 2024 by and between the City of Santa Rosa, a municipal corporation ("City"), and Hazen and Sawyer, a New York Corporation ("Consultant").

R E C I T A L S

A. City desires to upgrade electrical infrastructure at the Laguna Treatment Plant to provide reliable services into the future, enhance redundancy to the electrical distribution system and replace high-risk electrical equipment as quickly as possible.

B. City desires to retain a qualified firm to conduct the services described above in accordance with the Scope of Services as more particularly set forth in Exhibit A to the Agreement.

C. Consultant represents to City that it is a firm composed of highly trained professionals and is fully qualified to conduct the services described above and render advice to City in connection with said services.

D. The parties have negotiated upon the terms pursuant to which Consultant will provide such services and have reduced such terms to writing.

AGREEMENT

NOW, THEREFORE, City and Consultant agree as follows:

1. SCOPE OF SERVICES

Consultant shall provide to City the services described in Exhibit A ("Scope of Services"). Consultant shall provide these services at the time, place, and in the manner specified in Exhibit A. Exhibit A is attached hereto for the purpose of defining the manner and scope of services to be provided by Consultant and is not intended to, and shall not be construed so as to, modify or expand the terms, conditions or provisions contained in this Agreement. In the event of any conflict between this Agreement and any terms or conditions of any document prepared or provided by Consultant and made a part of this Agreement, including without limitation any document relating to the scope of services or payment therefor, the terms of this Agreement shall control and prevail.

2. COMPENSATION

a. City shall pay Consultant for services rendered pursuant to this Agreement at the rates, times and in the manner set forth in Exhibit B. Consultant shall submit monthly statements to City which shall itemize the services performed as of the date of the statement and set forth a progress report, including work accomplished during the period, percent of each task completed, and planned effort for the next period. Invoices shall identify personnel who have worked on the services provided, the number of hours each worked during the period covered by the invoice, the hourly rate for each person, and the percent of the total project completed, consistent with the rates and amounts shown in Exhibit B.

b. The payments prescribed herein shall constitute all compensation to Consultant for all costs of services, including, but not limited to, direct costs of labor of employees engaged by Consultant, travel expenses, telephone charges, copying and reproduction, computer time, and any and all other costs, expenses and charges of Consultant, its agents and employees. In no event shall City be obligated to pay late fees or interest, whether or not such requirements are contained in Consultant's invoice.

c. Notwithstanding any other provision in this Agreement to the contrary, the total maximum compensation to be paid for the satisfactory accomplishment and completion of all services to be performed hereunder shall in no event exceed the sum of two million, five hundred fifty-two thousand, eight hundred forty-seven dollars and no cents **($2,552,847.00).** The City's Chief Financial Officer is authorized to pay all proper claims from **Charge Number 86572.**

3. DOCUMENTATION; RETENTION OF MATERIALS

a. Consultant shall maintain adequate documentation to substantiate all charges as required under Section 2 of this Agreement.

b. Consultant shall keep and maintain full and complete documentation and accounting records concerning all extra or special services performed by it that are compensable by other than an hourly or flat rate and shall make such documents and records available to authorized representatives of City for inspection at any reasonable time.

c. Consultant shall maintain the records and any other records related to the performance of this Agreement and shall allow City access to such records during the performance of this Agreement and for a period of four (4) years after completion of all services hereunder.

4. INDEMNITY

a. Consultant shall, to the fullest extent permitted by law, indemnify, protect, defend and hold harmless City, and its employees, officials and agents ("Indemnified Parties") from all claims, demands, costs or liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, interest, defense costs, and expert witness fees), that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant, its officers, employees, or agents, in said performance of professional services under this Agreement, excepting only liability arising from the sole negligence, active negligence or intentional misconduct of City.

b. The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City's rights under this Section 4, nor shall the limits of such insurance limit the liability of Consultant hereunder. This Section 4 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 17(b), below. The provisions of this Section 4 shall survive any expiration or termination of this Agreement.

5. INSURANCE

a. Consultant shall maintain in full force and effect all of the insurance coverage described in, and in accordance with, Attachment One, "Insurance Requirements." Maintenance of the insurance coverage set forth in Attachment One is a material element of this Agreement and a material part of the consideration provided by Consultant in exchange for City's agreement to make the payments prescribed hereunder. Failure by Consultant to (i) maintain or

renew coverage, (ii) provide City notice of any changes, modifications, or reductions in coverage, or (iii) provide evidence of renewal, may be treated by City as a material breach of this Agreement by Consultant, whereupon City shall be entitled to all rights and remedies at law or in equity, including but not limited to immediate termination of this Agreement. Notwithstanding the foregoing, any failure by Consultant to maintain required insurance coverage shall not excuse or alleviate Consultant from any of its other duties or obligations under this Agreement. In the event Consultant, with approval of City pursuant to Section 6 below, retains or utilizes any subcontractors or subconsultants in the provision of any services to City under this Agreement, Consultant shall assure that any such subcontractor has first obtained, and shall maintain, all of the insurance coverages set forth in the Insurance Requirements in Attachment One.

b. Consultant agrees that any available insurance proceeds broader than or in excess of the coverages set forth in the Insurance Requirements in Attachment One shall be available to the additional insureds identified therein.

c. Consultant agrees that the insurance coverages and limits provided under this Agreement are the greater of: (i) the coverages and limits specified in Attachment One, or (ii) the broader coverages and maximum limits of coverage of any insurance policy or proceeds available to the name insureds.

6. ASSIGNMENT

Consultant shall not assign any rights or duties under this Agreement to a third party without the express prior written consent of City, in City's sole and absolute discretion. Consultant agrees that the City shall have the right to approve any and all subcontractors and subconsultants to be used by Consultant in the performance of this Agreement before Consultant contracts with or otherwise engages any such subcontractors or subconsultants.

7. NOTICES

Except as otherwise provided in this Agreement, any notice, submittal or communication required or permitted to be served on a party, shall be in writing and may be served by personal delivery to the person or the office of the person identified below. Service may also be made by mail, by placing first-class postage, and addressed as indicated below, and depositing in the United States mail to:

City Representative:	Consultant Representative:
Greg Dwyer	Marc Solomon
69 Stony Circle	90 New Montgomery Street, Suite 333
Santa Rosa, CA 95401	San Francisco, CA 94105
Phone (707) 543-3838	Phone (707) 696-9318

8. INDEPENDENT CONTRACTOR

a. It is understood and agreed that Consultant (including Consultant's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither Consultant nor Consultant's assigned personnel shall be entitled to any benefits payable to employees of City. City is not required to make any deductions or withholdings from the compensation payable to Consultant under the provisions of this Agreement, and Consultant shall be issued a Form 1099 for its services hereunder. As an independent contractor, Consultant hereby agrees to indemnify and

hold City harmless from any and all claims that may be made against City based upon any contention by any of Consultant's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any services under this Agreement.

b. It is further understood and agreed by the parties hereto that Consultant, in the performance of Consultant's obligations hereunder, is subject to the control and direction of City as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by Consultant for accomplishing such results. To the extent that Consultant obtains permission to, and does, use City facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the Consultant's sole discretion based on the Consultant's determination that such use will promote Consultant's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the City does not require that Consultant use City facilities, equipment or support services or work in City locations in the performance of this Agreement.

c. If, in the performance of this Agreement, any third persons are employed by Consultant, such persons shall be entirely and exclusively under the direction, supervision, and control of Consultant. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by Consultant. It is further understood and agreed that Consultant shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of Consultant's assigned personnel and subcontractors.

d. The provisions of this Section 8 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between City and Consultant. Consultant may represent, perform services for, or be employed by such additional persons or companies as Consultant sees fit.

9. ADDITIONAL SERVICES

Changes to the Scope of Services shall be by written amendment to this Agreement and shall be paid on an hourly basis at the rates set forth in Exhibit B, or paid as otherwise agreed upon by the parties in writing prior to the provision of any such additional services.

10. SUCCESSORS AND ASSIGNS

City and Consultant each binds itself, its partners, successors, legal representatives and assigns to the other party to this Agreement and to the partners, successors, legal representatives and assigns of such other party in respect of all promises and agreements contained herein.

11. TERM, SUSPENSION, TERMINATION

a. This Agreement shall become effective on the date that it is made, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

b. City shall have the right at any time to temporarily suspend Consultant's

performance hereunder, in whole or in part, by giving a written notice of suspension to Consultant. If City gives such notice of suspension, Consultant shall immediately suspend its activities under this Agreement, as specified in such notice.

c. City shall have the right to terminate this Agreement for convenience at any time by giving a written notice of termination to Consultant. Upon such termination, Consultant shall submit to City an itemized statement of services performed as of the date of termination in accordance with Section 2 of this Agreement. These services may include both completed work and work in progress at the time of termination. City shall pay Consultant for any services for which compensation is owed; provided, however, City shall not in any manner be liable for lost profits that might have been made by Consultant had the Agreement not been terminated or had Consultant completed the services required by this Agreement. Consultant shall promptly deliver to City all documents related to the performance of this Agreement in its possession or control. All such documents shall be the property of City without additional compensation to Consultant.

12. TIME OF PERFORMANCE

The services described herein shall be provided during the period, or in accordance with the schedule, set forth in Exhibit A. Consultant shall complete all the required services and tasks and complete and tender all deliverables to the reasonable satisfaction of City, not later than **January 31, 2029**.

13. STANDARD OF PERFORMANCE

Consultant shall perform all services performed under this Agreement in the manner and according to the standards currently observed by a competent practitioner of Consultant's profession in California. All products of whatsoever nature that Consultant delivers to City shall be prepared in a professional manner and conform to the standards of quality normally observed by a person currently practicing in Consultant's profession, and shall be provided in accordance with any schedule of performance. Consultant shall assign only competent personnel to perform services under this Agreement. Consultant shall notify City in writing of any changes in Consultant's staff assigned to perform the services under this Agreement prior to any such performance. In the event that City, at any time, desires the removal of any person assigned by Consultant to perform services under this Agreement, because City, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, Consultant shall remove such person immediately upon receiving notice from City of the desire of City for the removal of such person.

14. CONFLICTS OF INTEREST

Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of City or that would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of City. Consultant agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City at all times during the performance of this Agreement.

15. CONFLICT OF INTEREST REQUIREMENTS

a. **Generally.** The City's Conflict of Interest Code requires that individuals who qualify as "consultants" under the Political Reform Act, California Government Code sections

87200 *et seq*., comply with the conflict of interest provisions of the Political Reform Act and the City's Conflict of Interest Code, which generally prohibit individuals from making or participating in the making of decisions that will have a material financial effect on their economic interests. The term "consultant" generally includes individuals who make governmental decisions or who serve in a staff capacity.

b. **Conflict of Interest Statements.** The individual(s) who will provide services or perform work pursuant to this Agreement are "consultants" within the meaning of the Political Reform Act and the City's Conflict of Interest Code:
__X__ yes ____ no *(check one)*

If "yes" is checked by the City, Consultant shall cause the following to occur within 30 days after execution of this Agreement:

(1) Identify the individuals who will provide services or perform work under this Agreement as "consultants"; and

(2) Cause these individuals to file with the City Clerk the assuming office statements of economic interests required by the City's Conflict of Interest Code.

Thereafter, throughout the term of the Agreement, Consultant shall cause these individuals to file with the City Clerk annual statements of economic interests, and "leaving office" statements of economic interests, as required by the City's Conflict of Interest Code.

The above statements of economic interests are public records subject to public disclosure under the California Public Records Act. The City may withhold all or a portion of any payment due under this Agreement until all required statements are filed.

16. CONFIDENTIALITY OF CITY INFORMATION

During performance of this Agreement, Consultant may gain access to and use City information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the City. Consultant agrees to protect all City Information and treat it as strictly confidential, and further agrees that Consultant shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of City. In addition, Consultant shall comply with all City policies governing the use of the City network and technology systems. A violation by Consultant of this Section 16 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

17. CONSULTANT INFORMATION

a. City shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by Consultant pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostatting, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. Consultant shall not be

responsible for any unauthorized modification or use of such information for other than its intended purpose by City.

b. Consultant shall fully defend, indemnify and hold harmless City, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by Consultant pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. City shall make reasonable efforts to notify Consultant not later than ten (10) days after City is served with any such claim, action, lawsuit or other proceeding, provided that City's failure to provide such notice within such time period shall not relieve Consultant of its obligations hereunder, which shall survive any termination or expiration of this Agreement.

c. All proprietary and other information received from Consultant by City, whether received in connection with Consultant's proposal, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to City, City shall give notice to Consultant of any request for the disclosure of such information. Consultant shall then have five (5) days from the date it receives such notice to enter into an agreement with the City, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorneys' fees) incurred by City in any legal action to compel the disclosure of such information under the California Public Records Act. Consultant shall have sole responsibility for defense of the actual "trade secret" designation of such information.

d. The parties understand and agree that any failure by Consultant to respond to the notice provided by City and/or to enter into an agreement with City, in accordance with the provisions of subsection c, above, shall constitute a complete waiver by Consultant of any rights regarding the information designated "trade secret" by Consultant, and such information shall be disclosed by City pursuant to applicable procedures required by the Public Records Act.

18. MISCELLANEOUS

a. Entire Agreement. This Agreement contains the entire agreement between the parties. Any and all verbal or written agreements made prior to the date of this Agreement are superseded by this Agreement and shall have no further effect.

b. Modification. No modification or change to the terms of this Agreement will be binding on a party unless in writing and signed by an authorized representative of that party.

c. Compliance with Laws. Consultant shall perform all services described herein in compliance with all applicable federal, state and local laws, rules, regulations, and ordinances, including but not limited to, (i) the Americans with Disabilities Act of 1990 (42 U.S.C. 12101, et seq.) ("ADA"), and any regulations and guidelines issued pursuant to the ADA; and (ii) Labor Code sections 1720, *et seq.*, which require prevailing wages (in accordance with DIR determinations at www.dir.ca.gov) be paid to any employee performing work covered by Labor Code sections 1720 *et seq*. Consultant shall pay to the City when due all business taxes payable by Consultant under the provisions of Chapter 6-04 of the Santa Rosa City Code. The City may deduct any delinquent business taxes, and any penalties and interest added to the delinquent taxes, from its payments to Consultant.

d. Discrimination Prohibited. With respect to the provision of services under this Agreement, Consultant agrees not to discriminate against any person because of the race,

religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status of that person.

e. Governing Law; Venue. This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court in Sonoma County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such court, and consent to service of process issued by such court.

f. Waiver of Rights. Neither City acceptance of, or payment for, any service or performed by Consultant, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.

g. Incorporation of Attachments and Exhibits. The attachments and exhibits to this Agreement are incorporated and made part of this Agreement, subject to terms and provisions herein contained.

19. AUTHORITY; SIGNATURES REQUIRED FOR CORPORATIONS

Consultant hereby represents and warrants to City that it is (a) a duly organized and validly existing corporation, formed and in good standing under the laws of the State of New York, (b) has the power and authority and the legal right to conduct the business in which it is currently engaged, and (c) has all requisite power and authority and the legal right to consummate the transactions contemplated in this Agreement. Consultant hereby further represents and warrants that this Agreement has been duly authorized, and when executed by the signatory or signatories listed below, shall constitute a valid agreement binding on Consultant in accordance with the terms hereof.

If this Agreement is entered into by a corporation, it shall be signed by two corporate officers, one from each of the following two groups: a) the chairman of the board, president or any vice-president; b) the secretary, any assistant secretary, chief financial officer, or any assistant treasurer. The title of the corporate officer shall be listed under the signature.

20. COUNTERPARTS AND ELECTRONIC SIGNATURES

This Agreement and future documents relating thereto may be executed in two or more counterparts, each of which will be deemed an original and all of which together constitute one Agreement. Counterparts and/or signatures delivered by facsimile, pdf or City-approved electronic means have the same force and effect as the use of a manual signature. Both City and Consultant wish to permit this Agreement and future documents relating thereto to be electronically signed in accordance with applicable federal and California law. Either Party to this Agreement may revoke its permission to use electronic signatures at any time for future documents by providing notice pursuant to the Agreement. The Parties agree that electronic signatures, by their respective signatories are intended to authenticate such signatures and to give rise to a valid, enforceable, and fully effective Agreement. The City reserves the right to reject any signature that cannot be positively verified by the City as an authentic electronic signature.

Executed as of the day and year first above stated.

CONSULTANT:

Name of Firm: Hazen and Sawyer

TYPE OF BUSINESS ENTITY *(check one)*:

_____ Individual/Sole Proprietor
_____Partnership
__X__Corporation
_____ Limited Liability Company
_____ Other (please specify: _____)

Signatures of Authorized Persons:

By: Marc Solomon
Marc Solomon (Feb 28, 2024 17:54 PST)

Print Name: Marc Solomon

Title: Vice President

By: _____

Print Name: Gary Haubner

Title: Corporate Secretary

City of Santa Rosa Business Tax Cert. No.

344103

CITY OF SANTA ROSA
a Municipal Corporation

By: _____

Print Name: Daniel J. Galvin III

Title: Chair, Board of Public Utilities

APPROVED AS TO FORM:

Jessica Mullan (Mar 5, 2024 15:07 PST)
Office of the City Attorney

Attachments:
Attachment One - Insurance Requirements
Exhibit A - Scope of Services
Exhibit B – Compensation

ATTACHMENT ONE
INSURANCE REQUIREMENTS FOR
PROFESSIONAL SERVICES AGREEMENTS

A. Insurance Policies: Consultant shall, at all times during the terms of this Agreement, maintain and keep in full force and effect, the following policies of insurance with minimum coverage as indicated below and issued by insurers with AM Best ratings of no less than A-:VI or otherwise acceptable to the City.

	Insurance	Minimum Coverage Limits	Additional Coverage Requirements
1.	Commercial general liability	$ 1 million per occurrence $ 2 million aggregate	Coverage must be at least as broad as ISO CG 00 01 and must include completed operations coverage. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. **Coverage may be met by a combination of primary and umbrella or excess insurance but umbrella and excess shall provide coverage at least as broad as specified for underlying coverage. Coverage shall not exclude subsidence.**
2.	Business auto coverage	$ 1 million	ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than $ 1 million per accident for bodily injury and property damage.
3.	Professional liability (E&O)	$ 1 million per claim $ 1 million aggregate	Consultant shall provide on a policy form appropriate to profession. If on a claims made basis, Insurance must show coverage date prior to start of work and it must be maintained for three years after completion of work.
4.	Workers' compensation and employer's liability	$ 1 million	As required by the State of California, with Statutory Limits and Employer's Liability Insurance with limit of no less than $ 1 million per accident for bodily injury or disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Consultant, its employees, agents and subcontractors.

B. Endorsements:

1. All policies shall provide or be endorsed to provide that coverage shall not be canceled, except after prior written notice has been provided to the City in accordance with the policy provisions.
2. Liability, umbrella and excess policies shall provide or be endorsed to provide the following:

a. For any claims related to this project, Consultant's insurance coverage shall be primary and any insurance or self-insurance maintained by City shall be excess of the Consultant's insurance and shall not contribute with it; and,

b. **The City of Santa Rosa, its officers, agents, employees and volunteers are to be covered as additional insureds on the CGL policy.** General liability coverage can be provided in the form of an endorsement to Consultant's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used.

C. Verification of Coverage and Certificates of Insurance: Consultant shall furnish City with original certificates and endorsements effecting coverage required above. Certificates and endorsements shall make reference to policy numbers. All certificates and endorsements are to be received and approved by the City before work commences and must be in effect for the duration of the Agreement. The City reserves the right to require complete copies of all required policies and endorsements.

D. Other Insurance Provisions:

1. No policy required by this Agreement shall prohibit Consultant from waiving any right of recovery prior to loss. Consultant hereby waives such right with regard to the indemnitees.

2. All insurance coverage amounts provided by Consultant and available or applicable to this Agreement are intended to apply to the full extent of the policies. Nothing contained in this Agreement limits the application of such insurance coverage. Defense costs must be paid in addition to coverage amounts.

3. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either Consultant or City. Self-insured retentions above $10,000 must be approved by City. At City's option, Consultant may be required to provide financial guarantees.

4. Sole Proprietors must provide a representation of their Workers' Compensation Insurance exempt status.

5. City reserves the right to modify these insurance requirements while this Agreement is in effect, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Section No. 5

Exhibit A - Scope of Services

Scope of Services

Our approach to delivering the LTP electrical infrastructure project leverages our electrical expertise in a collaborative manner to enable the City to confidently make decisions. Our Scope of Services is detailed below.

Task 1 – Preliminary Project Design Memo

a. Kick-off Meeting - Hazen will attend a meeting to review the project scope, schedule, and establish line of communication.

b. Record Document Review and Site Visits - Hazen will review electrical infrastructure record drawings provided by the City and conduct site visits to field verify existing conditions.

c. Preliminary Design Workshop – Hazen will attend a workshop with the City to:

- Evaluate cost saving alternatives based on the Power Master Plan.
- Discuss alternative project delivery methods such as construction manager at risk (CMAR) to accelerate project schedule.
- Discuss issues and concerns with the electrical infrastructure to be upgraded.

d. Preliminary Project Design Memorandum – Hazen will provide a memorandum summarizing project information such as design criteria, project implementation, and environmental concerns as part of the 40% Design Submittal.

Task 2 – Detailed Design

a. 40% Design

- Develop 40% drawings, list of specifications, pothole plan, construction sequencing plan, major equipment cutsheets, Class 4 cost estimate, and construction schedule.
- Conduct 40% review meeting and incorporate City comments.

b. 75% Design

- Develop 75% drawings, specifications, Class 2 cost estimate, pre-procurement documents, and construction schedule.
- Conduct 75% review meeting incorporate City comments.

c. 90% Design

- Develop 90% drawings, specifications, Class 1 cost estimate, construction schedule, and proposal for engineering services during construction.
- Conduct 90% review meeting incorporate City comments.

d. 100% Design

- Finalize contract documents, Class 1 cost estimate, and provide signed and sealed bid set.

e. Secondary Clarifier Electrical Improvements

- Replacement of MCC-6Q (in poor condition based on the condition assessment conducted in 2022) with a new MCC in the original location as part of the detailed design. The new MCC will have an integrated 25kVA 480-120/240V single phase transformer feeding an integrated panelboard similar to the existing MCC. The existing line side feeders and the load side branch circuit conductors connecting to the MCC will also be replaced. Existing conduits will remain and evaluated to ensure they are adequately sized for the new conductors.
- The existing VFD's for the RAS Pumps No.10 and No.12 will be replaced with new units while preserving the existing VFD control functionality. The existing line side feeders from the

upstream MCC, load side motor feeders, and all control/instrumentation conductors will also be replaced. All VFD monitoring and controls will remain hardwired to the plant control system. Existing conduits will remain and evaluated to ensure they are adequately sized for the new conductors.

Task 3 - Utility Investigation

a. Pothole Plan Development - Provide pothole plan as part of 40% design prior to potholing work.

b. Potholing – Conduct potholing and other site utility investigation (e.g., electric detection and ground penetration radar).

c. Site Survey Coordination – Coordinate with City's surveyor to complete the topographic survey.

d. Geotechnical Investigation – Conduct geotechnical borings and provide geotechnical recommendations in TM.

Task 4 - Project Coordination

a. Construction Sequencing Plan – Prepare construction sequencing plan as part of 40% design to minimize the impact plant operations and ongoing and planned construction project.

- Conduct a workshop to discuss and review the construction sequencing plan.

b. Plan Coordination and Research - Coordinate with and obtain approval from all affected local agencies and companies, including City Departments of Community Development, Transportation and Public Works, Water, SCWA, Sonoma County, California RWQCB, PG&E, Comcast, and AT&T. Coordination shall include preparation and processing of all correspondences, check prints, forms, applications, permits, diagrams, viewfoils, and any other necessary items as determined by the City Engineer. This coordination shall continue until the project plans are approved by the City. Hazen will assist the City in obtaining review and approval from any affected County, State, and Federal agencies. This assistance shall include applying for public funds and supplying check prints of project plans, special provisions, estimates, and right of way plats and descriptions as directed by the City.

Task 5 - Procurement

a. Procurement Documents Development

- Prepare pre-procurement documents (including anticipated equipment delivery schedule) and Class 2 cost estimate as part of 75% design.

b. Equipment Inspection – Attend factory/field acceptance testing and inspect all pre-procured electrical equipment at time of delivery to confirm condition and conformance.

c. Equipment Inspection – Inspect all pre-procured electrical equipment at time of delivery to confirm condition and conformance.

Task 6 – Bidding Services

a. Prepare and issue two addenda during the bidding period, attend two pre-bid meetings, and respond to bidder's RFIs.

b. Prepare conformed documents.

Task 7 – Environmental Permitting

a. Environmental Document Preparation– Hazen will prepare California Environmental Quality Act (CEQA)- compliant environmental documents including an Initial Study and Mitigated Negative Declaration (IS/MND), Biological Assessment report, and, as appropriate, a Mitigation, Monitoring and Reporting Plan, as appropriate. Hazen will also prepare documents to support public participation and public noticing, including a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration, Notice of Completion (NOC), and Notice of Determination. It is not anticipated that a public hearing would be held.

b. Permitting Coordination - Hazen will assist with environmental document processing, consultation, and permit applications. The potential permits and consultations required include:

- United States Army Corps of Engineers 404 Nationwide Permit
- North Coast Regional Water Quality Control Board 401 Water Quality Certification

- California Department of Fish and Wildlife Incidental Take Permit
- United States Fish and Wildlife Service Endangered Species Act Section 7 Formal Consultation

c. Wetlands Delineation – A wetland delineation will be performed within the project area and a report of findings will be prepared and submitted to the United States Army Corps of Engineers (USACE) for jurisdictional confirmation. It is expected that the project will impact and/or fill federally jurisdictional waters, which will provide a federal nexus in order to formally consult with the United States Fish and Wildlife Service.

d. Pre-con Survey, CTS Relocation Plan, & Worker Education Document Preparation– Conduct pre-construction biological survey, provide CTS relocation plan, and worker education program document. Refer to Task 10 - Optional Services for CTS exclusion fence installation.

e. CTS Exclusion Fence Installation

- Install exclusion fencing for CTS. It is anticipated that the USFWS and CDFW will require the installation of a California tiger salamander exclusion/passive relocation fence as a minimization measure. It is estimated that 7,000 linear feet of fence will be required. However, the final linear feet of fence will be based on negotiations with USFWS and CDFW.

f. Biological Construction Monitoring and Reporting and Worker Education

- A qualified biologist will monitor the installation of the California tiger salamander exclusion/passive relocation fence, daily monitoring of grubbing and initial grading and trenching, daily morning inspections for additional dirt work, including grading, trenching and backfilling and weekly inspections throughout the duration of the project, and perform several worker education training events for all workers on the project.

Task 8 - Project Management

a. Hazen will provide coordination of the project team, development of project scope, budget, and Quality Control (QC) plan, and monthly invoicing and status reports. This includes monthly coordination calls to discuss project related issues. Hazen will provide weekly email updates to keep the City informed and manage our weekly progress. The emails will include accomplishments from the previous week, anticipated work for the coming week, and any issues or concerns that need resolution.

Task 9 - Llano Pump Station Standby Power Study

a. Hazen will evaluate and confirm the capacity of the existing standby power and cogeneration system to support the Llano PS as well as all other connected loads. A technical memorandum (TM) will be prepared to summarize the results of the study and provide alterantives to increase standby power reliability.

- The Llano Pump Station is currently connected to the LTP's existing standby power and cogeneration systems. As part of the Project, the power distribution system to the pump station will be reconfigured and connected to Switchgears M2 and M3 Circuit Breakers (in lieu of the existing Outdoor 15 kV Load Break Fused Switches). It will continue to be connected to the existing standby power and cogeneration systems to supply power to the pump station in an event of utility power outage. The existing standby power system consists of two 2 Mega Watt (MW) generators with a total output of 4 MW. The existing cogeneration system consists of four 1.1 MW generators with a total output of 4.4 MW. The existing Llano Pump Station consists of two 4.16-kV medium voltage MCC's powering two 1,250 HP and four 800 HP pumps fed from two 5,000 kVA 12-4.16kV stepdown transformers.

Task 10 - Staffing Analysis

b. Hazen will conduct a review of the workforce level for the plant electrical staff to assess the need for staffing improvements. This study is based on the need to make sure proper staffing is maintained for the upgraded system.

- Site visit - Hazen will conduct an onsite and in-person review of electrical workforce staffing roles, responsibilities, workload expectations, and capacity.
- Hazen will prepare a technical memorandum (TM) to summarize findings from on-site observations, provide benchmarking comparisons to 3 similar operations and/or publications from professional industry associations, and considerations for the City's electrical workforce staffing levels.

Hazen and Sawyer
90 New Montgomery Street, Suite 333
San Francisco, CA 94105 • 628.242.0042

November 14, 2023

Mr. Greg Dwyer
City of Santa Rosa
Transportation and Public Works Department
69 Stony Circle
Santa Rosa, CA 95401

emailed to: *GDwyer@srcity.org*

Re: Proposal for Laguna Treatment Plant Electrical Infrastructure Improvements Project

Dear Mr. Dwyer:

As the owner and operator of the Laguna Treatment Plant (LTP), the City of Santa Rosa engages in capital improvement projects (CIP) to improve reliability and upgrade existing infrastructure. An important part of the treatment facilities is LTP's electrical distribution system that includes an on-site 69-kV to 12-kV electrical service substation as well as 12-kV and 480-V distribution and utilization systems, combined heat and power (CHP), and solar array. The facilities require regular maintenance, occasional rehabilitation, and replacement when systems reach the end of their useful life. The City has always taken a proactive approach to maintain reliability and improve safety; this project is an example of the City's proactive approach to managing the plant.

The City is seeking proposals from qualified consultants to provide engineering and design services to upgrade the electrical infrastructure at the LTP. Although numerous criteria need to be considered in the selection process, the following are key benefits the Hazen Team provides.

- **Our Team Combines 100+ Years of Electrical Experience.** Hazen is committed to providing the City with our most qualified team. Our core electrical team—Shishir Doctor, Jack Yao, and Chris Thunhorst— combine for over 100 years of electrical engineering experience at similar facilities. More importantly, this same core team worked on the Power Master Plan and the UV Disinfection and Diversion facilities. Through these projects, we have gained a good understanding of the LTP's electrical system and where improvements are needed.

Our Team Brings
Over 25 years Experience Working on the LTP Electrical System

- **A Team with Recent, Relevant Experience Working Together.** Our team collectively has a strong working relationship. This long history provides seamless integration and cohesiveness. This same team just completed two nearly identical projects—the electrical equipment procurement for the Union Sanitary District WWTP and the 12-kV power and distribution system upgrade for Eastern Municipal Water District.

- **A Project Manager Who Produces Results.** Marc Solomon, our proposed project manager, has been working on electrical projects at LTP for nearly 25 years. He is known as a hands-on project manager, who brings a collaborative and collegial approach to working with O&M and engineering staff. Marc is the right project manager for this assignment since he has a strong electrical background and a wealth of familiarity with the LTP having managed the following projects:
    - The design of the 69-kV substation, 12-kV overhead distribution, and M2 Switchgear;
    - The design of the CHP facility;

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Hazen

- The development of the Microgrid project;
- The recent 12-kV pole replacement;
- The UV/Diversion project which consists of extending the plant-wide electrical distribution system.
- The Power Master Plan project.

- **A Local Team Who Knows Your Plant.** Our team will work with the City to develop a project approach that minimizes impact to plant operations and current ongoing construction projects. In our proposal we have developed an initial construction sequencing plan that will allow LTP to maintain electrical power throughout construction.

  Given our team's familiarity with LTP, we have developed a number of potential value-added concepts that are discussed in detail in our proposal. One example is the idea of setting up M3 for a future new load center to feed the potential future headworks at the north end of LTP. This will provide future flexibility for the City depending on decisions surrounding the headworks.

  Our experience at LTP also provides us with a unique understanding of the environmental and permitting challenges that may be encountered at the north portion of LTP. Undergrounding the existing 15-kV overhead power line is important to improve LTP electrical reliability. However, the north area of LTP is known California Tiger Salamander (CTS) habitat and there are potential wetlands. For this reason, we have partnered with local biologist, Darren Wiemeyer, who brings 30+ years of CTS and wetlands experience.

Hazen offers exceptional electrical strength, intimate familiarity with the LTP electrical system, and proven client service that makes us an outstanding choice for this project. This Proposal is signed by Marc Solomon, who is authorized as Vice President to bind Hazen. This proposal is valid for 90 days from the date of this letter.

Sincerely,
HAZEN

Marc Solomon, PE, BCEE, D.WRE
Project Manager and Vice President

Chris Thunhorst, PE
Project Director

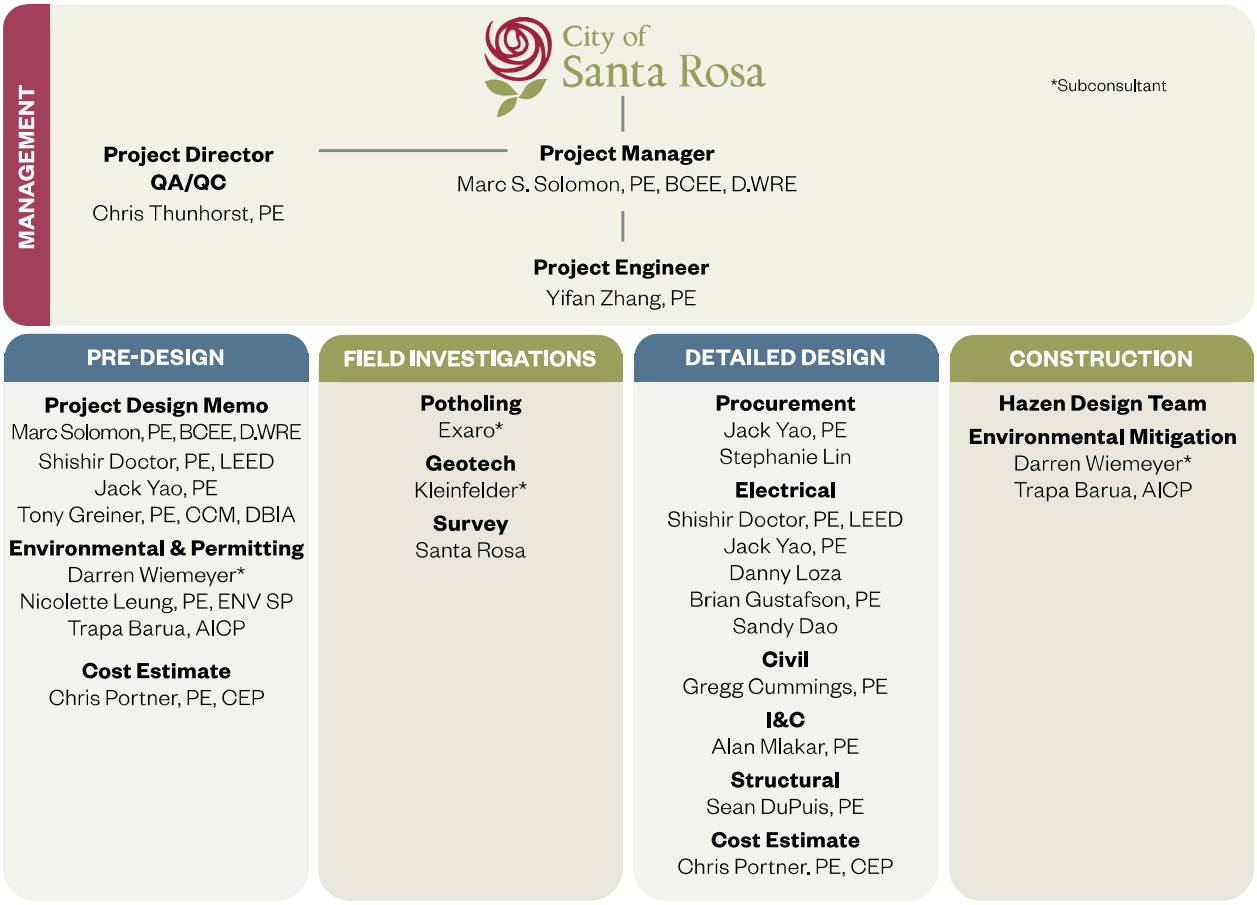
Contact Information:
msolomon@hazenandsawyer.com
(707) 696-9318
90 New Montgomery Street, Suite 333,
San Francisco, CA 94105

Section No. 1

Project Team

Hazen's core team includes the same individuals who recently completed, similar electrical system designs for multiple wastewater districts including the design of electrical distribution for the LTP UV Disinfection and Diversion Facilities. The City will be able to leverage the efficiency of an experienced electrical team to meet your goals.

Our team members have been selected based on their electrical experience, seamless long-term relationships, and familiarity with the Laguna Treatment Plant. Based on our team member selection, we are committing our team for the duration of the project and will not make any changes without prior City approval. Per the requirements of the RFP, our proposed organizational structure is shown below, followed by our Project Manager's availability.



PROJECT MANAGER AVAILABILITY

Marc S. Solomon,
PE, BCEE, D.WRE
PROJECT MANAGER
50% Availability

Current Projects	Availability to Santa Rosa
LTP UV Disinfection and Diversion	20 Hrs/wk
Union Sanitary District WWTP Upgrade	

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Section No. 3

Work Plan

We will leverage our institutional knowledge of LTP's electrical system, and our experience with complex construction sequencing to develop early action tasks allowing the City to meet the project timeline.

Project Understanding

The LTP's electrical framework is designed for resilience, ensuring plant operations persist uninterrupted even during utility power losses. Key elements of this system include:

- **Multiple Power Sources:** A comprehensive mix that includes a primary PG&E feeder, units, and a standby power system.
- **Efficient Power Distribution:** A 69 kV PG&E line feeds into the Laguna Power Substation, which steps the power down to 12kV and utilizes redundant 15 kV feeders to supply power to essential switchgears and load centers.
- **Redundancy and Recovery:** Each load center is configured with Bus A and Bus B, set up to keep the plant running if one bus fails, with quick recovery options via tie circuit breakers.

Despite the system's current effectiveness, the aging infrastructure—much of it installed in 1988—is due for an overhaul. Acknowledging this, the City's action plan includes:

- Upgrades and Maintenance: Implementing the Power Master Plan's suggestions to replace outdated components.
- Future-Proofing: Enhancing capacity to not just maintain safety and reliability but also to allow for the plant's anticipated growth.

This proactive approach positions the LTP for sustained operational excellence well into the future.

We Understand the Primary Project Goals Are:

- ☑ Enhance Reliability
- ☑ Improve Safety
- ☑ Incorporate Future Needs

To achieve the primary project goals, our team will:

Identify the Project Challenges Early
(see page 8)

Develop a Sequencing Plan to Maintain Plant Operations and Minimize Impact
(see page 12)

Using the Power Master Plan as a basis, our team has developed an approach focusing on:

1 PRE-DESIGN
- Review alternatives and document decisions in project design memo.
- Initiate permitting coordination and environmental document preparation.

2 FIELD INVESTIGATIONS
- Conduct potholing, survey, and geotechnical field investigations to prepare for detailed design.

3 DETAILED DESIGN
- Develop 40%, 75%, 90%, and 100% design submittals.
- Prepare pre-procurement documents and construction sequencing plan.
- Obtain permits prior to construction

4 CONSTRUCTION
- Provide services during construction including engineering, environmental mitigation, and compliance monitoring.

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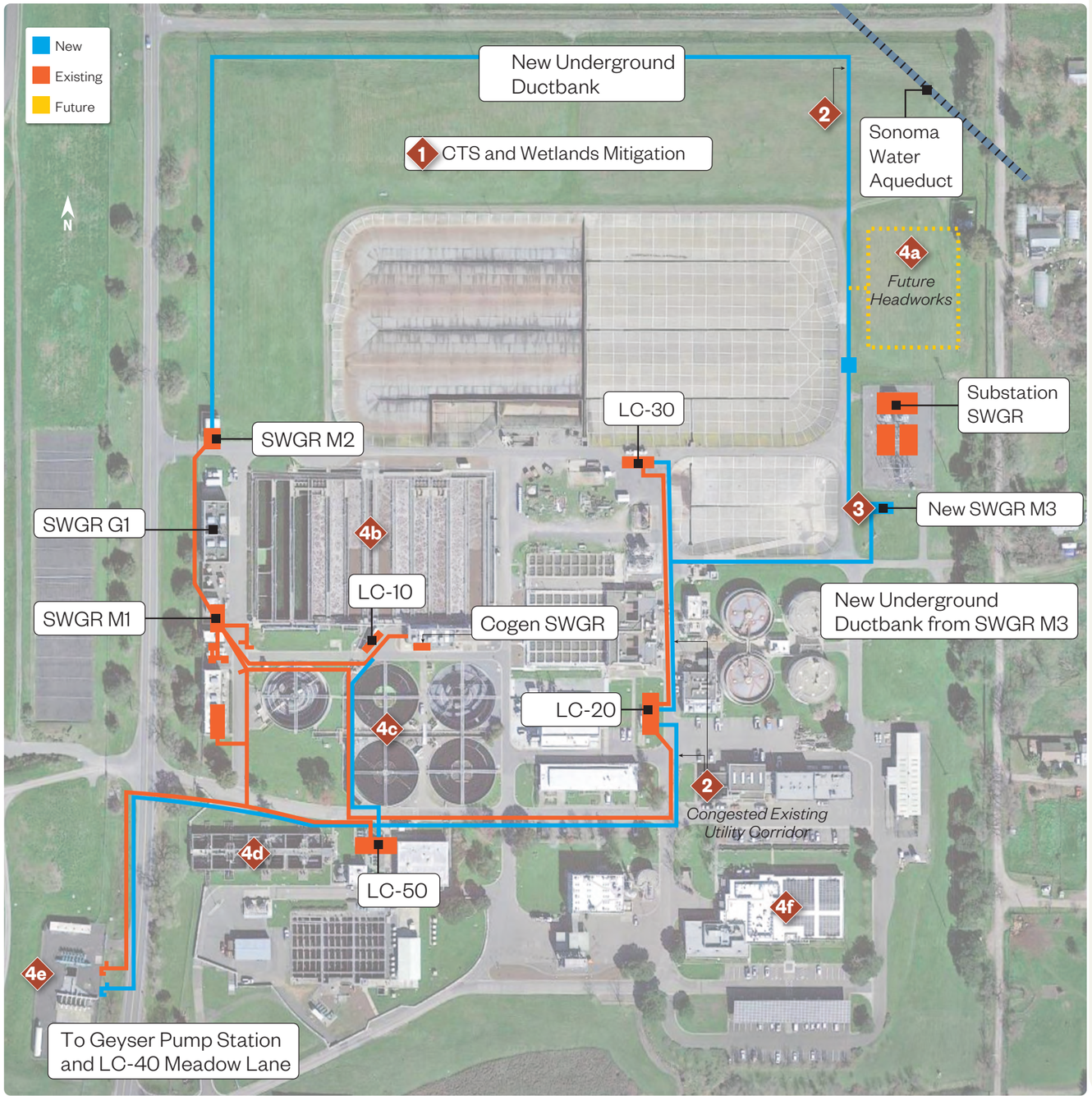
Identifying project challenges early is critical to maintaining project schedule and budget

The map below provides an overview of key project challenges and some ideas that could be incorporated early into the project to improve the project schedule and cost. The following pages include detailed discussions of selected challenges to provide the City an understanding of our proposed approach.



KEY PROJECT CHALLENGES

1 Environmental Permitting (CTS and Wetlands Mitigation)
There are potential California Tiger Salamander (CTS) habitat and wetlands where new utilities are proposed. Hazen is teamed with experienced local ecologist Darren Wiemeyer to assist with CTS and wetlands mitigation, if necessary.

EARLY ACTION IDEA
- Leverage previous program level documents (e.g., the City's IRWP Program environmental document) to develop the appropriate environmental document.

2 Existing Utility Conflict
Installing new ductbanks require thorough field investigation of existing utilities and understanding of existing equipment condition. Hazen will conduct extensive potholing and testing to reduce the risk of delay due to utility conflict during construction.

EARLY ACTION IDEA
- Pothole existing utilities and map them via 3D BIM model. The existing SCWA Aqueduct will be delineated and protected from construction.
- The new ductbank system, from the new Switchgear M3 to the downstream load centers, will be routed to minimize conflict with existing underground utilities.
- We will utilize the potholing data recently developed for the UV Disinfection project.

3 Equipment Procurement
We share your concern about equipment lead time and will start developing procurement documents as soon as the project begins. We will also work with the City to ensure the equipment is manufactured, tested, delivered, and inspected as specified.

EARLY ACTION IDEA
- Identify list of long lead electrical equipment and prepare early procurement packages to accelerate project schedule.
- Explore alternative project delivery methods (e.g., CMAR).

4 Project Coordination
We understand there are both ongoing and future projects planned at LTP. Hazen will coordinate with stakeholders from these projects and adapt to the needs of the plant.

EARLY ACTION IDEA
- (4a) Future Headworks
  Plan for new Load Center and conduct field investigations and plan for future headworks load center as part of M3.
- (4b) Aeration Basin
  Coordinate with the Aeration Basin project team to incorporate potential electrical needs for aeration equipment (e.g., blowers upgrade).
- (4c) Secondary Clarifier
  Include MCC 6Q (poor condition) replacement to provide infrastructure for the Secondary Clarifier rehabilitation project.
- (4d) UV Disinfection
  Coordinate with the UV project team to minimize impact to the ongoing construction.
- (4e) Llano Pump Station
  Assess the condition of pump station to provide additional reliability to the electrical system.
- (4f) Staffing Analysis
  While not a specific task in the City's RFP, there is value in conducting a review of the electrical O&M workforce to determine if staffing levels are adequate for safety needs.

5 Construction Sequencing (Page 12)
Keeping the plant in operation during the construction phase of a major electrical infrastructure replacement project is a top priority. Hazen will work closely with the City staff to determine acceptable power outage duration and operation criticality for each load system and then coordinate the equipment replacement sequencing.

EARLY ACTION IDEA
- Break out SWGR G (Emergency Generator) repair and modification as a separate project to accelerate project schedule.
- Assess the condition of the load side branch conductors at each LC and plan for replacement if needed to eliminate potential delays caused by such testing during construction.

Project Approach

Having successfully executed multiple feasibility studies and detailed design projects at the Laguna Treatment Plant, Hazen will leverage our intimate familiarity with the plant's electrical system to provide a design that aligns with the City's goal to improve the plant's electrical reliability, safety, and resiliency.

Begin with the end in mind	Define the Critical Path	Use project objectives to guide the design	Achieve the desired outcome
1. What equipment will take the longest to procure before construction begins?	1. Develop construction sequencing and phasing plan to minimize impact to plant operations, ongoing construction, and environmentally sensitive species.	1. **System Level:** Provide adequate level of redundancy to ensure continuous plant operation and minimize unplanned power outages.	
2. What existing asset can be reused?	2. Structure bid packages and criteria to accommodate a compressed construction schedule.	2. **Equipment Level:** Select each major piece of electrical distribution equipment to meet the current and anticipated future load, be reliable and easy to operate and maintain.	
3. How to keep the LTP in operation while replacing the electrical infrastructure?	3. Ensure timely development of project details to inform environmental compliance and permitting agencies.	3. **Project Level:** Complete the electrical improvements on time and within budget constraints.	
4. What permits / approvals will take the longest to obtain?			

The proposed distribution system will be fully redundant with dual feeders (Busses A and B) connecting each load center, generators and other equipment. The new equipment will be specified with the latest technological upgrades such as power quality monitoring, appropriate arc flash mitigation, and provisions for connecting future plant SCADA system. These features will make it easier for the staff to operate, troubleshoot and maintain the various equipment.

Preliminary Design Memo

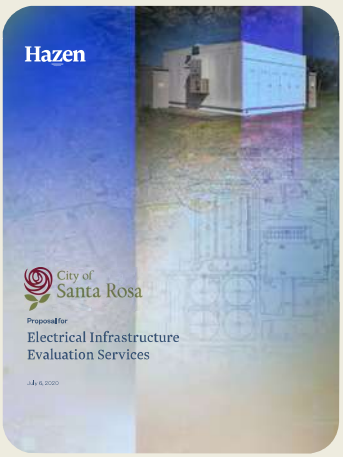
Confirm Power Master Plan Alternatives

The Power Master Plan identified and evaluated several potential improvements and alternatives to increase the safety, reliability, and redundancy of the electrical system at the LTP. During the preliminary design memo development, Hazen will review these alternatives with the City Staff (potential cost savings and value engineering) and then document the decisions in the Preliminary Design Memo to be used for the detailed design phase.

Evaluate and Implement Early Action Ideas

Based on our undersanding of the LTP and its electrical system, here are some "Early Action Ideas" that could be considered and incorporated during the preliminary design phase to provide added value to the project.

- Leverage previous program level environmental documents
- Pothole and model existing utilities in 3D to avoid conflicts with new ductbanks
- Utilize the potholing data recently developed for the UV Disinfection project.
- Identify long lead electrical equipment to procure early
- Explore alternative project delivery methods (e.g., CMAR)
- Coordinate ongoing and future projects such as Headworks, Aeration Basin, Secondary Clarifiers, UV Disinfection, and Llano PS
- Conduct a review of the electrical O&M workforce to determine if staffing levels are adequate for safety needs
- Break out emergency generator repair and modification as a separate project to address a safety issue
- Assess the condition of Load Side conductors and replace if needed to eliminate potential delays during Construction



1 Environmental Permitting

We are keenly aware of the effort and coordination required to manage the breadth of work related to environmental analyses in accordance with CEQA, specifically development of an Initial Study and Mitigated Negative Declaration. Our staff are well-versed in analyzing the potential for environmental impacts that frequently arise on sites with sensitive habitats and protected species, like the California Tiger Salamanders.

California Tiger Salamander (CTS)

Based on best practices established through our experience working with Santa Rosa and similar projects throughout California, we anticipate that in-depth analysis may be required to assess the potential for temporary impacts relating to construction. Our approach to the environmental review will follow these steps:

EARLY ACTION IDEA

Leverage previous program level documents (e.g., IRWP program environmental document) or prepare an IS/MND

- Meet with City CIP and environmental staff to determine the level of environmental document (per the RFP we are assuming an MND), establish anticipated analysis areas, outline a targeted review schedule, and identify critical path items that require the most lead time.
- Obtain and review relevant existing design documentation and data, as well as any previous environmental review documentation such as the IRWP program document.
- Conduct field work necessary to prepare environmental analyses, including wetland delineations and biological assessments. Initiate and advance any consultation processes, including AB52. Wetlands delineation may not be required if we can design the duct bank to avoid roadside swales.
- Complete required analyses as appropriate. Present potential adverse impact determinations in a workshop-style approach and work with the City staff and relevant stakeholders to reduce or avoid impacts to the greatest extent possible.

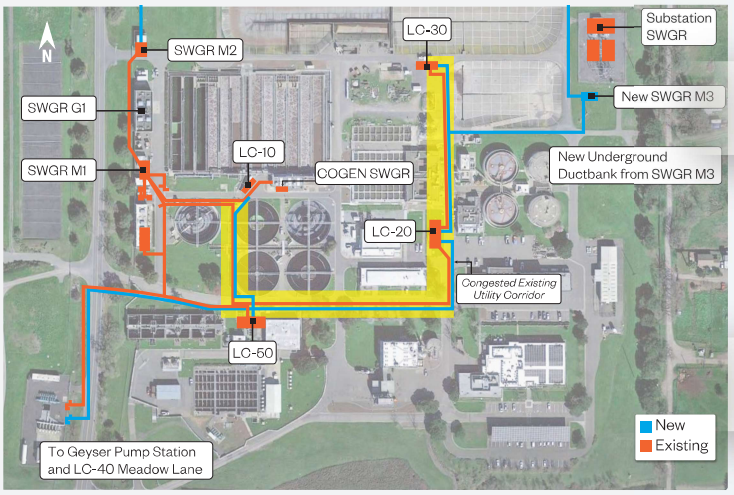
In parallel to development of CEQA documentation, Hazen will also support permitting requirements for the project. We have the technical experts to assist in obtaining permit approvals and will continue to build on existing relationships with regulators to streamline the process. We have a long history of experience at LTP to know which agencies are likely to be involved including CDFW and RWQCB, as well as federal agencies such as USACE and USFWS. Working in collaboration with the City's environmental staff, we will manage the process of obtaining the permits in a timely manner.

2 Existing Utility Conflict

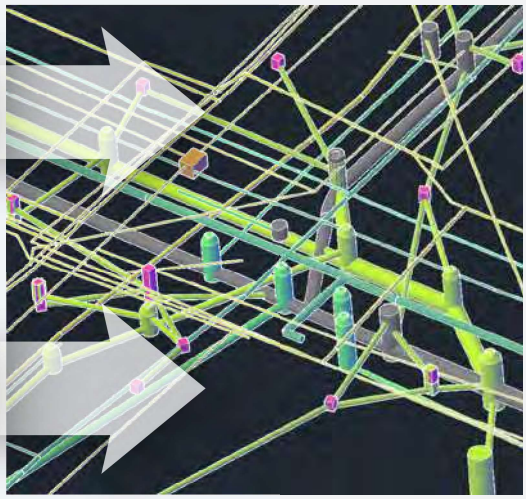
There is a complex network of existing electrical and water utilities a the LTP. Installing new ductbanks through those existing utility corridors will require thorough field investigation and understanding of existing equipment condition.

EARLY ACTION IDEA

- Pothole existing utilities and map them via 3D BIM model. The existing Sonoma Water Aqueduct will be delineated and protected from construction.
- The new ductbank system, from the new Switchgear M3 to the downstream load centers, will be routed to minimize conflict with existing underground utilities and constructed to facilitate connection to new switchgear M3.
- We will utilize the potholing data recently developed for the UV Disinfection project.



Hazen will work closely with the City and the potholing sub-consultant to come up with a comprehensive plan to field locate existing utilities underground.



Hazen will incorporate pothole data and leverage 3D BIM Tools to provide optimized ductbank routing and resolve potential conflict with existing utilities.

3 Equipment Procurement

In recent years, supply chain issues have caused significant delays in the delivery of many major electrical equipment, with lead times approaching upwards of two to three years. In order to determine the anticipated construction timeline and prevent delays, we will gather budgetary cost estimates at the project's start. Additionally, we'll obtain delivery lead times for all major electrical equipment from vendors. As such, we will develop a pre-procurement bid package. The equipment arrive-on-site time will be coordinated to match the construction sequencing requirements.

The equipment procurement process will be initiated after the design parameters are well defined. Hazen will coordinate equipment delivery closely with the suggested construction sequencing plan and construction schedule, to ensure that each equipment is delivered on site when scheduled for installation.

Hazen will work closely with the selected supplier to ensure the committed equipment delivery time is strictly adhered to. Any required equipment design changes after the purchase orders are placed will be carefully managed to avoid unnecessary delays.

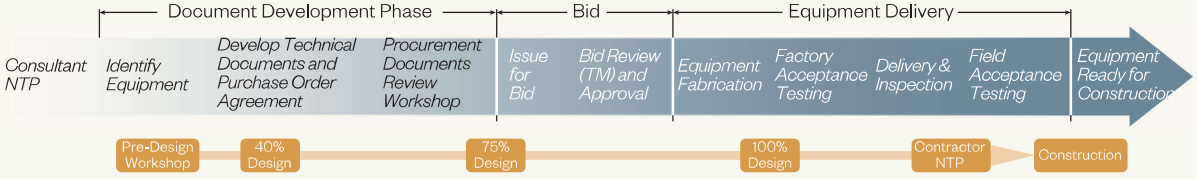
Equipment	Est. Lead-time (weeks)
Low voltage switchgear	100
Low voltage switchboard	50-85
Medium voltage switchgear	88
Medium voltage switchboard	48
Liquid-filled substation transformer	150
Dry-type power transformer	62

EARLY ACTION IDEA

Identify list of long lead electrical equipment and prepare early procurement packages to accelerate project schedule.

Explore alternative project delivery methods (e.g., CMAR)

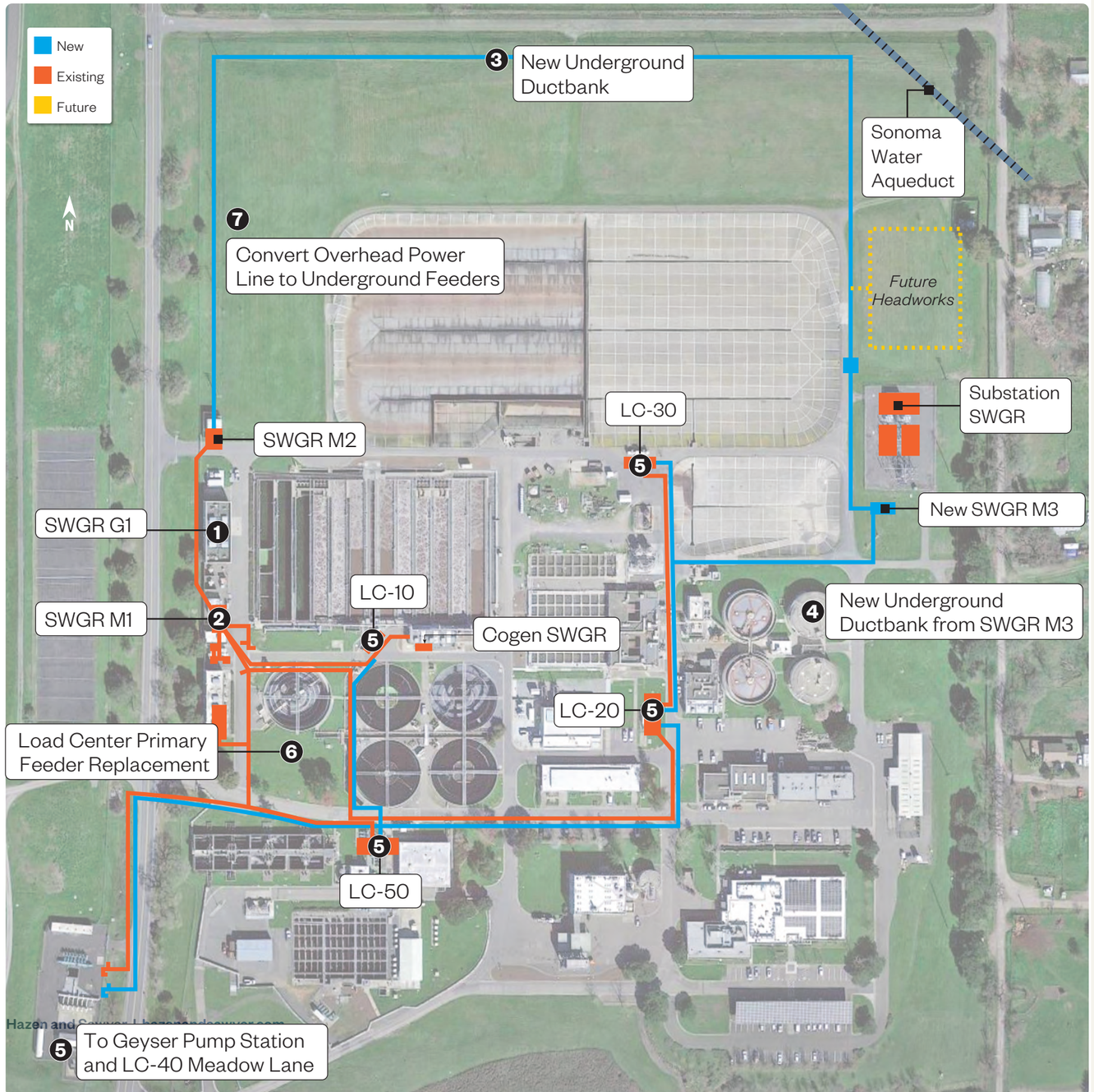
EQUIPMENT PROCUREMENT TIMELINE



Hazen will work closely with the City throughout the procurement process to expedite project delivery ahead of construction.

Develop a sequencing plan to keep the plant in operation during construction is a top priority

The map below shows our initial thoughts on how to sequence the project to minimize impact to plant operation. Key issues and proposed solutions for selected steps are described in the following page.



STEP 1 **IMPROVE STANDBY GENERATION SYSTEM**

Repair SWGR G1 breaker and add a new feeder to create a redundant connection from the plant distribution system to the standby power system. This improvement can be performed in advance of other infrastructure improvements to provide a reliable standby power system.

STEP 2 **INSTALL NEW SWGR M3**

Ultimately, SWGR M1 will be replaced by SWGR M3, which will improve reliability in the plant distribution system. New SWGR M3 will be installed at the start of the construction to provide alternate utility power to the downstream plant loads before existing SWGR M2 is taken out of service for modification. Hazen proposes to locate SWGR M3 in the vicinity of LPS. The 12kV feeder (Bus B) from LPS will be intercepted at the riser pole and rerouted to SWGR M3. Cogeneration and standby power circuits will also be routed to new SWGR M3. SWGR M1 will remain in service until after all loads have been transfered to SWGR M3.

STEP 3 **INSTALL NEW UNDERGROUND DUCTBANK FROM LPS TO SWGR**

New underground duct bank will be installed to prepare for the overhead to underground main feeder conversion. The existing overhead power line will remain as the main plant power until SWGR M3 is energized and powering the downstream plant load centers.

STEP 4 **INSTALL REDUNDANT 12kV DISTRIBUTION DUCTBANKS**

New redundant underground duct banks will be routed and constructed between SWGR M3 located near LPS, to supply redundant power (Bus B) to the LC-10, LC-20, LC-30, LC-40, LC-50, Biosolids Facility Unit Substation, LC-80, and the new UV Disinfection and Diversion Facility.

STEP 5 **REPLACE LOAD CENTERS**

Load centers LC-10, LC-20, LC-30, LC-40, and LC-50 will be replaced. Provisions will be made for critical plant loads to be powered by either temporary portable generator(s) or from another available power source. Hazen will evaluate the possibility of replacing half of the load center lineup at a time (keeping Bus A energized while Bus B is being replaced) to further optimize the construction sequence. Load side branch conductors at each load center will be reused if verified and tested to be in good condition. Existing conductors will be replaced with new if determined to be in poor condition.

After all of the load centers and other systems are connected to SWGR M3 (Bus B) and made operational, the Bus B load feeders that are connected to SWGR M1 and SWGR M2 are now transferred to SWGR M3 (Bus B)and the entire plant can be powered from SWGR M3. After the plant is operating on SWGR M3, SWGR M1 and M2 can be taken offline and SWGR M2 can be reconfigured to supply all Bus A loads. After all of the loads on SWGR M1 are transferred, this switchgear can then be demolished.

STEP 6 **REPLACE BUS A 12kV FEEDER FROM SWGR M1/M2**

As each load center is replaced, the existing Bus A 12kV feeder from SWGR M1/M2 will be replaced. The SWGR M1 underground vault will remain and serve as a cable box (man hole) for all of the Bus A feeder circuits to the new load centers. Existing duct bank from SWGR M1 vault to each load center will be reused after proven to be in good condition. Prior to reuse, each conduit in the existing duct bank will be mandrel tested and checked for breakage. Damaged conduits will be abandoned, labeled as usable, and another conduit will selected.

STEP 7 **CONVERT 12kV OVERHEAD POWER LINE TO UNDERGROUND FEEDERS**

The existing 12kV overhead power lines will be converted to underground feeders. New conductors will be routed in the newly construction duct bank around the north perimeter of the plant to connect LPS to the modified SWGR M2 to serve as the redundant main plant power. Existing power lines and poles will be demolished. With all new electrical infrastructure replaced and reconfigured, the plant can be put back into normal operation.

Detailed Design Considerations

Given our experience at the LTP, we understand that the proposed distribution system must provide solutions to the issues below to improve reliability, redundancy, and safety.

1 Improve Standby Generation System

ISSUE: The frame of the Switchgear G1 feeder breaker is out of alignment. The 15 kV rated circuit breaker cannot be easily removed and inserted into the switchgear compartment. Since this is the only standby power feed for the entire plant, it is critical to ensure the breaker is functional, well-maintained, and regularly tested.

SOLUTION: The breaker frame will be realigned to ensure safe and reliable operation of the standby power system. This repair work can be expedited and corrected to prevent loss of standby power to the plant.

ISSUE: The two incoming standby feeders at M2 are spliced and share the same out-of-alignment feeder breaker as the common power source.

SOLUTION: To maximize the reliability of the standby system and eliminate single point of failure, Switchgear G1 will be reconfigured to have two independent feeders supplying standby power to the plant. The new redundant feeder will be supplied by a new breaker installed in a new compartment of Switchgear G1 and supply power to the new Switchgear M3.

2 Install New SWGR M3

ISSUE: Switchgear M1 is at the end of its useful life and needs replacement to maintain plant power reliability.

SOLUTION: The new Switchgear M3 will be located on the opposite side of the plant near the LPS to allow physical separation of distribution buses and feeder circuits to maximize resiliency and redundancy. Similar to existing Switchgears M1 and M2, Switchgear M3 will be installed on a concrete pad in a pre-fabricated walk-in aisle weatherproof enclosure.

4 Install Redundant 12KV Distribution Ductbanks

ISSUE: The existing 12KV Distribution Duct bank lacks redundancy.

SOLUTION: New underground duct banks will be routed and constructed between Switchgear M3 to supply redundant power (Bus B) to all Load Centers, Biosolids Facility Unit Substation, and the new UV Disinfection and Diversion Facility. These new duct banks will be physically separated from the M2 (Bus A) duct banks, thus providing improved resiliency and redundancy by eliminating failures that could potentially compromise both Bus A and Bus B feeder circuits.

3 Install New Underground Ductbank From LPS to SWGR M2

ISSUE: The existing 12 kV overhead wooden power poles is vulnerable to damage during inclement weather or natural hazards. In addition, the City has limited resources to maintain the overhead power lines.

SOLUTION: Converting the overhead power lines to underground will add resiliency to the power distribution system and eliminate the need for specialized overhead line work crew. The new duct bank can be installed in parallel with Switchgear M3 and will be designed to accommodate new feeders.

5 Replace Load Centers and Primary Feeders

ISSUE: The existing double-ended Load Centers are at the end of useful life. The interior components have deteriorated and getting replacement parts is difficult.

SOLUTION: Due to space limitations, these load centers should be replaced in the same location. A phased sequence of construction and cut-over plan will be prepared for each load center to minimize power interruption to the loads and allow for replacing the Load Centers in the same locations. As each load center is replaced, the existing 12 kV feeder (Bus A feeder) from M1/M2 will be replaced. The existing primary loop system will be converted to radial feed by powering each load center with independent feeder breakers from Switchgear M2.

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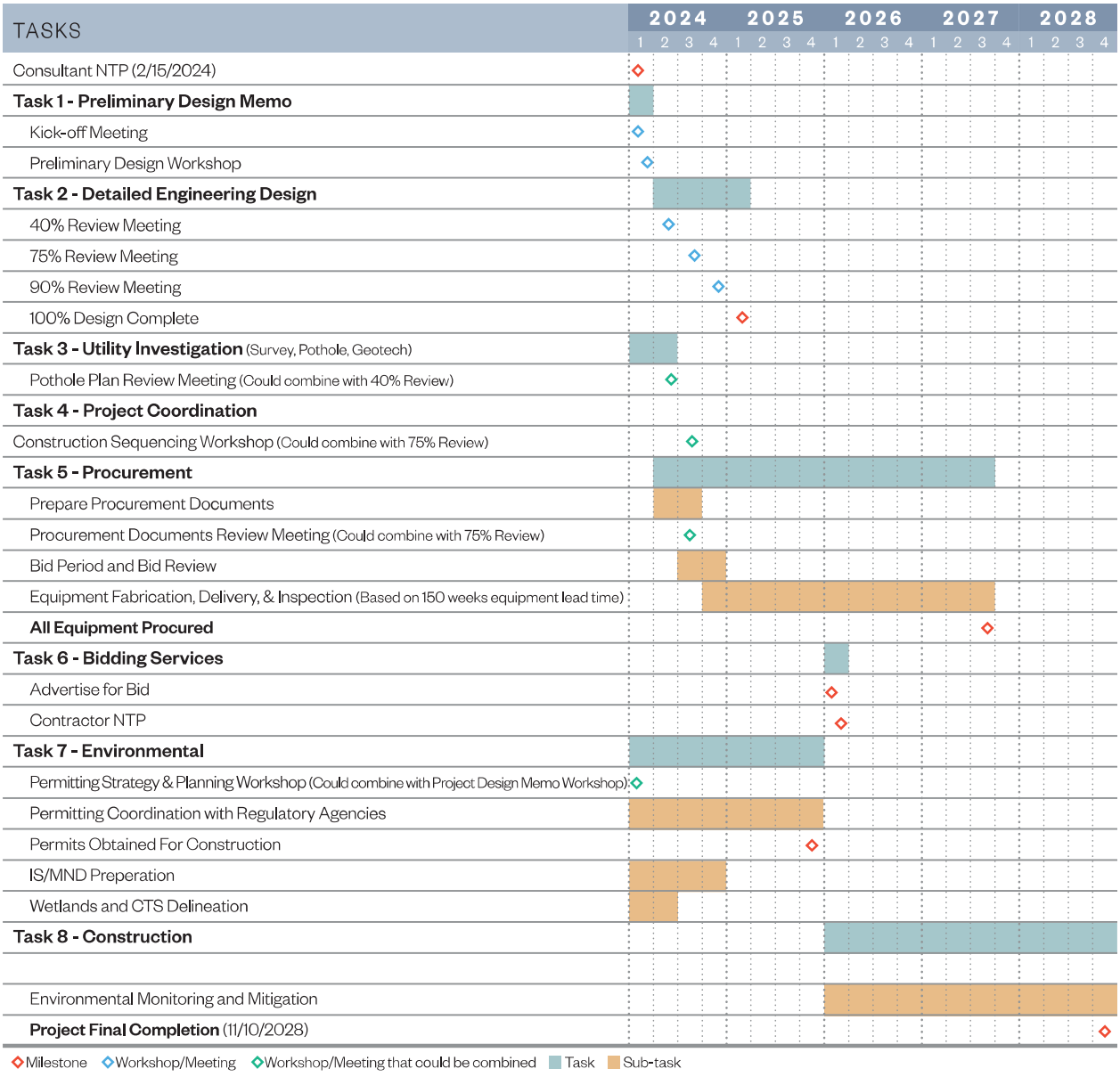
Schedule

Our schedule is informed by our previous experience with similar projects. We have structured it to ensure that the City has opportunities to collaborate at every stage.

Additionally, we understand that the City is limited in resources and identified meetings (indicated by ◇) that could be combined with others (indicated by ◇). We have verified that our team has the availability and ability to meet the proposed schedule.



1014-678

Exhibit B - Compensation

Fee Schedule
City of Santa Rosa
Electrical Infrastructure Improvements Project

Hazen	PIC	PM	QAQC	Tech Advisor	Project Engineer	Senior Electrical	Principal Electrical	Assistant Electrical	Senior I&C	Senior Civil	Assistant Civil	Senior Structural	Assistant Structural	Construction/ Sequencing Lead	Procurement Lead	Cost Estimator	Permitting Lead	Permitting Assistant	CAD Lead	Assistant CAD	Project Admin	Assistant Engineer	Hazen				Subconsultant	Subconsultant	
	Chris Thunhorst	Marc Solomon	Chris Thunhorst	Shishir Doctor	Yifan Zhang	Jack Yao	Danny Loza	Sandy Dao	Alan Mlakar	Gregg Cummings	Nadia Maher	Sean DuPuis	Andrew Hill	Tony Greiner	Jack Yao	Chris Portner	Nicolette Leung	Trapa Barua	Josh Coppola	David Turner	Vanessa Avila	Sergio Jimenez	Labor Hours	Labor Cost	ODC's	Subtotal	Sub Subtotal	Sub Markup Subtotal	Grand Total
	$325	$360	$325	$315	$255	$315	$255	$160	$255	$315	$160	$255	$160	$360	$315	$315	$255	$195	$255	$150	$170	$160							
Task 1: Preliminary Design																													
1.1 Kick-off Meeting	8	8		4	8	8	8	20						4								4	72	$18,620	$ 1,200	$19,820	$ -	$ -	$19,820
1.2 Record Document Review and Site Visits				4	8	20	20	40	2	4	8	4					4	8					122	$27,750	$ 5,000	$32,750	$ -	$ -	$32,750
1.3 Pre-Design Workshop	8	8		4	4	4	8	20						8								4	68	$17,780	$ 1,200	$18,980	$ -	$ -	$18,980
1.4 Pre-Design Project Memo	8	8		8	8	8	36	20	8	4	8	4	8	8		8	8	8				8	168	$42,100		$42,100	$ -	$ -	$42,100
TASK 1 - SUBTOTAL	**24**	**24**	**0**	**20**	**28**	**40**	**72**	**100**	**10**	**8**	**16**	**8**	**8**	**20**	**0**	**8**	**12**	**16**	**0**	**0**	**0**	**16**	**430**	**$ 106,250**	**$ 7,400**	**$ 113,650**	**$ -**	**$ -**	**$ 113,650**
Task 2: Detailed Design																													
2.1 40% Design			82	8	31	264	200	726	10	7	110	10	43			24			10	227	24		1776	$367,266		$367,266	$ -	$ -	$367,266
40% Review Meeting	4	4		4	4	4	4			4		4		4									36	$11,020	$ 1,200	$12,220	$ -	$ -	$12,220
2.2 75% Design			103	8	39	264	200	726	10	7	110	10	43			24			10	227	24	164	1968	$402,209		$402,209	$ -	$ -	$402,209
70% Review Meeting	4	4		4	4	4	4			4		4		4									36	$11,020	$ 1,200	$12,220	$ -	$ -	$12,220
2.3 90% Design			49	8	20	99	75	272	4	3	41	4	16			8			4	85	24	148	859	$173,187		$173,187	$ -	$ -	$173,187
90% Review Meeting	4	4		4	4	4	4			4		4		4									36	$11,020	$ 1,200	$12,220	$ -	$ -	$12,220
2.4 100% Design			12	8	12	33	25	91	1	1	14	1	5			4			1	28	12	16	265	$55,289		$55,289	$ -	$ -	$55,289
2.5 Secondary Clarifier Electrical Improvements			22	4	8	116	84	296				4	8										542	$118,070		$118,070	$ -	$ -	$118,070
TASK2 - SUBTOTAL	**12**	**12**	**268**	**48**	**122**	**788**	**596**	**2112**	**24**	**29**	**274**	**40**	**116**	**12**	**0**	**60**	**0**	**0**	**25**	**568**	**84**	**328**	**5518**	**$ 1,149,080**	**$ 3,600**	**$ 1,152,680**	**$ -**	**$ -**	**$ 1,152,680**
Task 3: Utility Investigation																													
3.1 Potholing Plan Development			2		8	4		16		8	40												78	$15,430		$15,430		$ -	$15,430
Potholing Plan Review Workshop		4		4	4	4		4		4	4												28	$7,520	$ 1,200	$8,720		$ -	$8,720
3.2 Potholing					8																	8	16	$3,320	$ 400	$3,720	$ 100,000	$ 5,000	$108,720
3.3 Site Survey Coordination					8	4		8		24	40												84	$18,540	$ 400	$18,940		$ -	$18,940
3.4 Geotech Investigation					4					4	8	16	8										40	$8,920	$ 400	$9,320	$ 27,000	$ 1,350	$37,670
TASK 3 - SUBTOTAL	**0**	**4**	**2**	**4**	**32**	**12**		**28**	**0**	**40**	**92**	**16**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**246**	**$ 53,730**	**$ 2,400**	**$ 56,130**	**$ 127,000**	**$ 6,350**	**$ 189,480**
Task 4: Project Coordination																													
4.1 Construction Sequencing Plan		4	2	8	16	8	8	8						4									58	$15,970		$15,970		$ -	$15,970
Construction Sequencing Workshop	8	8		8	8	8	8	16						4									68	$18,600	$ 1,200	$19,800		$ -	$19,800
4.2 Plan Coordination & Research					40												8	20			20	40	128	$25,940	$ 1,200	$27,140			$27,140
TASK 4 - SUBTOTAL	**8**	**12**	**2**	**16**	**64**	**16**	**16**	**24**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**8**	**20**	**0**	**0**	**20**	**40**	**254**	**$ 60,510**	**$ 2,400**	**$ 62,910**	**$ -**	**$ -**	**$ 62,910**
Task 5: Procurement																													
5.1 Procurement Documents Development		4	4	4	40		8	40	8						16	8					24		156	$36,320		$36,320	$ -	$ -	$36,320
5.2 Bid Review TM		4	2	4	4		80	200	8						8	8							318	$63,850		$63,850	$ -	$ -	$63,850
Procurement Workshop	4	4		4	8	8	8							4	8							4	52	$15,200	$ 1,200	$16,400	$ -	$ -	$16,400
5.3 Equipment Inspection					4		80	80															164	$34,220	$ 1,200	$35,420	$ -	$ -	$35,420
TASK 5 - SUBTOTAL	**4**	**12**	**6**	**12**	**56**	**8**	**176**	**320**	**16**	**0**	**0**	**0**	**0**	**4**	**32**	**16**	**0**	**0**	**0**	**0**	**24**	**4**	**690**	**$ 149,590**	**$ 2,400**	**$ 151,990**	**$ -**	**$ -**	**$ 151,990**
Task 6: Bidding Services																													
6.1 Addenda Preparation & Bid Meetings		8	2		8	8		32		4	8	4	8	4					4	32	24		146	$29,390	$ 1,200	$30,590	$ -	$ -	$30,590
6.2 Conformed Documents Preperation		4	2		8	8		32		4	8	4	8	4					4	40	24		150	$29,150		$29,150	$ -	$ -	$29,150
TASK 6 - SUBTOTAL	**0**	**12**	**4**	**0**	**16**	**16**		**64**	**0**	**8**	**16**	**8**	**16**	**8**	**0**	**0**	**0**	**0**	**8**	**72**		**0**	**296**	**$ 58,540**	**$ 1,200**	**$ 59,740**	**$ -**	**$ -**	**$ 59,740**
Task 7: Environmental																													
7.1 Environmental Document Preperation		8			40												80	160					288	$64,680		$64,680	$ 8,100	$ 405	$73,185
7.2 Permitting Coordination		8			40												20	40					108	$25,980	$ 5,000	$30,980	$ 23,700	$ 1,185	$55,865
7.3 Wetlands Delineation		8			8												8	20					44	$10,860		$10,860	$ 6,300	$ 315	$17,475
7.4 Pre-con Survey, CTS Relocation Plan, & Worker Education Document		8			8												8	20					44	$10,860		$10,860	$ 8,250	$ 413	$19,523
7.5 CTS Exclusion Fence Installation					8												8	40					56	$11,880	$ 400	$12,280	$ 73,000	$ 3,650	$88,930
7.6 Biological Construction Monitoring, Reporting, & Worker Education					8												8	40					56	$11,880		$11,880	$ 8,250	$ 413	$20,543
TASK 7 - SUBTOTAL	**0**	**32**	**0**	**0**	**112**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**132**	**320**	**0**	**0**	**0**	**0**	**596**	**$ 136,140**	**$ 5,400**	**$ 141,540**	**$ 127,600**	**$ 6,380**	**$ 275,520**
Task 8 Project Management																													
8.1 Project Management	20	250			600																		870	$249,500		$249,500			$249,500
TASK 8 - SUBTOTAL	**20**	**250**	**0**	**0**	**600**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**870**	**$ 249,500**	**$ -**	**$ 249,500**	**$ -**	**$ -**	**$ 249,500**
Task 9 LLano Pump Station Standby Power Study																													
9.1 Llano Pump Station Improvements				12	4	12	60	60															148	$33,480	$ 1,200	$34,680			$34,680
TASK 9 - SUBTOTAL	**0**	**0**	**0**	**12**	**4**	**12**	**60**	**60**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**148**	**$ 33,480**	**$ 1,200**	**$ 34,680**	**$ -**	**$ -**	**$ 34,680**
TASK 10 Staffing Analysis																													
10.1 Staffing Analysis	8	8		12	12	12	24	40															116	$28,620	$ 2,000	$30,620			$30,620
TASK 10 - SUBTOTAL	**8**	**8**	**0**	**12**	**12**	**12**	**24**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**116**	**$ 28,620**	**$ 2,000**	**$ 30,620**	**$ -**	**$ -**	**$ 30,620**
TOTAL FEE (TASK 1-10)	**76**	**366**	**282**	**124**	**1046**	**904**	**944**	**2748**	**50**	**85**	**398**	**72**	**148**	**52**	**32**	**84**	**152**	**356**	**33**	**640**	**128**	**396**	**9164**	**$ 2,025,440**	**$ 28,000**	**$ 2,053,440**	**$ 254,600**	**$ 12,730**	**$ 2,320,770**
TASK 11 Contingency (10% of Total Fee)																													**$ 232,077**
TOTAL FEE INCLUDING CONTINGENCY (TASK 1-11)																													**$ 2,552,847**

Preliminary Drawing List - Santa Rosa Electrical Infrastructure Improvements Project

NO.	DRAWING NUMBER	DISCIPLINE	DRAWING DESCRIPTION
GENERAL			
1	G-01	GENERAL	TITLE SHEET
2	G-02	GENERAL	DRAWING INDEX
3	G-03	GENERAL	ABBREVIATIONS, LEGEND, AND SYMBOLS
4	G-04	GENERAL	MASTER SHEET PLAN, KEY MAP, CONTROL POINTS, AND BORINGS
5	G-05	GENERAL	CONTRACTOR STAGING, ACCESS, AND CONSTRUCTION SEQUENCING PLAN
CIVIL			
6	C-01	CIVIL	CIVIL OVERALL SITE AND UTILITIES PLAN
7	C-02	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 1
8	C-03	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 2
9	C-04	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 3
10	C-05	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 4
11	C-06	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 5
12	C-07	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 6
13	C-08	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 7
14	C-09	CIVIL	CIVIL UTILITIES PLAN AND PROFILE 8
15	C-10	CIVIL	CIVIL PARTIAL PAVING AND GRADING PLAN 1
16	C-11	CIVIL	CIVIL PARTIAL PAVING AND GRADING PLAN 2
17	C-12	CIVIL	SWITCHGEAR M3 PLAN
18	C-13	CIVIL	SWITCHGEAR M3 SECTIONS AND DETAILS
19	C-14	CIVIL	CIVIL DETAILS 1
20	C-15	CIVIL	CIVIL DETAILS 2
21	C-16	CIVIL	CIVIL DETAILS 3
22	C-17	CIVIL	CIVIL DETAILS 4
ELECTRICAL			
23	E-01	ELECTRICAL	ELECTRICAL SYMBOLS AND LEGENDS
24	E-02	ELECTRICAL	ELECTRICAL ABBREVIATIONS AND GENERAL NOTES
25	E-03	ELECTRICAL	ELECTRICAL OVERALL SITE PLAN - DEMOLITION
26	E-04	ELECTRICAL	ELECTRICAL OVERALL SITE PLAN - PROPOSED
27	E-05	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 1 - DEMOLITION
28	E-06	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 1 - PROPOSED
29	E-07	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 2 - DEMOLITION
30	E-08	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 2 - PROPOSED
31	E-09	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 3 - DEMOLITION
32	E-10	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 3 - PROPOSED
33	E-11	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 4 - DEMOLITION
34	E-12	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 4 - PROPOSED
35	E-13	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 5 - DEMOLITION
36	E-14	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 5 - PROPOSED
37	E-15	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 6 - DEMOLITION
38	E-16	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 6 - PROPOSED
39	E-17	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 7 - DEMOLITION
40	E-18	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 7 - PROPOSED
41	E-19	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 8 - DEMOLITION
42	E-20	ELECTRICAL	ELECTRICAL PARTIAL SITE PLAN 8 - PROPOSED
43	E-21	ELECTRICAL	ELECTRICAL DUCT BANK SCHEDULE 1
44	E-22	ELECTRICAL	ELECTRICAL DUCT BANK SCHEDULE 2
45	E-23	ELECTRICAL	ELECTRICAL OVERALL SINGLE LINE DIAGRAM 1- DEMOLITION
46	E-24	ELECTRICAL	ELECTRICAL OVERALL SINGLE LINE DIAGRAM 1- PROPOSED
47	E-25	ELECTRICAL	ELECTRICAL OVERALL SINGLE LINE DIAGRAM 2- DEMOLITION
48	E-26	ELECTRICAL	ELECTRICAL OVERALL SINGLE LINE DIAGRAM 2- PROPOSED
49	E-27	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - SWITCHGEAR G1 - MODIFICATION
50	E-28	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - SWITCHGEAR M1 - DEMOLITION
51	E-29	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - SWITCHGEAR M2 - DEMOLITION
52	E-30	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - SWITCHGEAR M2 - MODIFICATION
53	E-31	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM - SWITCHGEAR M3 - PROPOSED
54	E-32	ELECTRICAL	ELECTRICAL ELEVATION - SWITCHGEAR M3 - PROPOSED
55	E-33	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC10 - DEMOLITION
56	E-34	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC10 - PROPOSED
57	E-35	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC20 - DEMOLITION
58	E-36	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC20 - PROPOSED
59	E-37	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC30 - DEMOLITION
60	E-38	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC30 - PROPOSED
61	E-39	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC40 - DEMOLITION
62	E-40	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC40 - PROPOSED
63	E-41	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC50 - DEMOLITION
64	E-42	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - LC50 - PROPOSED
65	E-43	ELECTRICAL	ELECTRICAL POWER PLAN - GENERATOR BUILDING - MODIFICATION
66	E-44	ELECTRICAL	ELECTRICAL DETAILS AND PHOTOS - GENERATOR BUILDING
67	E-45	ELECTRICAL	ELECTRICAL POWER PLAN - SWITCHGEAR M1 - DEMOLITION
68	E-46	ELECTRICAL	ELECTRICAL POWER PLAN - SWITCHGEAR M2 - DEMOLITION
69	E-47	ELECTRICAL	ELECTRICAL POWER PLAN - SWITCHGEAR M2 - MODIFICATION
70	E-48	ELECTRICAL	ELECTRICAL DETAILS AND PHOTOS (SWITCHGEAR M2)
71	E-49	ELECTRICAL	ELECTRICAL POWER PLAN - SWITCHGEAR M3 - NEW
72	E-50	ELECTRICAL	ELECTRICAL LIGHTING AND GROUNDING PLAN - SWITCHGEAR M3
73	E-51	ELECTRICAL	ELECTRICAL PANEL SCHEDULE AND RISER DIAGRAM - SWITCHGEAR M3
74	E-52	ELECTRICAL	ELECTRICAL CONTROL ONE LINE DIAGRAM - SWITCHGEAR M3
75	E-53	ELECTRICAL	ELECTRICAL POWER PLAN - LC10 - DEMOLITION
76	E-54	ELECTRICAL	ELECTRICAL POWER AND GROUNDING PLAN - LC10 - NEW
77	E-55	ELECTRICAL	ELECTRICAL POWER PLAN - LC20 - DEMOLITION
78	E-56	ELECTRICAL	ELECTRICAL POWER AND GROUNDING PLAN - LC20 - NEW
79	E-57	ELECTRICAL	ELECTRICAL POWER PLAN - LC30 - DEMOLITION
80	E-58	ELECTRICAL	ELECTRICAL POWER AND GROUNDING PLAN - LC30 - NEW
81	E-59	ELECTRICAL	ELECTRICAL POWER PLAN - LC40 - DEMOLITION
82	E-60	ELECTRICAL	ELECTRICAL POWER AND GROUNDING PLAN - LC40 - NEW
83	E-61	ELECTRICAL	ELECTRICAL POWER PLAN - LC50 - DEMOLITION
84	E-62	ELECTRICAL	ELECTRICAL POWER AND GROUNDING PLAN - LC50 - NEW
85	E-63	ELECTRICAL	ELECTRICAL POWER PLAN - BLOWER BUILDING 12KV RECONNECTION
86	E-64	ELECTRICAL	ELECTRICAL POWER PLAN - BIOSOLIDS FACILITY UNIT SUBSTATION
87	E-65	ELECTRICAL	ELECTRICAL POWER PLAN - COGEN BUILDING 12KV RECONNECTION
88	E-66	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE 1
89	E-67	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE 2
90	E-68	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE 3
91	E-69	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE 4
92	E-70	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE 5
93	E-71	ELECTRICAL	ELECTRICAL DETAILS 1
94	E-72	ELECTRICAL	ELECTRICAL DETAILS 2
95	E-73	ELECTRICAL	ELECTRICAL DETAILS 3
96	E-74	ELECTRICAL	ELECTRICAL DETAILS 4
97	E-75	ELECTRICAL	ELECTRICAL DETAILS 5
98	E-76	ELECTRICAL	ELECTRICAL MCC-6Q AND VFD POWER PLAN - DEMOLITION
99	E-77	ELECTRICAL	ELECTRICAL MCC-6Q POWER AND GROUNDING PLAN - NEW
100	E-78	ELECTRICAL	ELECTRICAL SCS RAS PUMP 10 AND 12 VFD POWER AND GROUNDING PLAN - NEW
101	E-79	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - MCC-6Q - DEMOLITION
102	E-80	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - MCC-6Q - PROPOSED
103	E-81	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - MCC-6I - DEMOLITION
104	E-82	ELECTRICAL	ELECTRICAL SINGLE LINE DIAGRAM AND ELEVATION - MCC-6I - PROPOSED
105	E-83	ELECTRICAL	ELECTRICAL PANEL SCHEDULE AND RISER DIAGRAM - MCC-6Q - NEW
106	E-84	ELECTRICAL	ELECTRICAL CONTROL SCHEMATIC DIAGRAM - RAS PUMP VFDS - NEW
107	E-85	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE - MCC-6Q - NEW
108	E-86	ELECTRICAL	ELECTRICAL CONDUIT AND WIRE SCHEDULE - RAS PUMP VFDS - NEW
109	E-87	ELECTRICAL	ELECTRICAL DETAILS 1
110	E-88	ELECTRICAL	ELECTRICAL DETAILS 2
INSTRUMENTATION AND CONTROLS			
111	I-01	I&C	GENERAL INSTRUMENTATION AND CONTROL NOTES
112	I-02	I&C	NETWORK ARCHITECTURE DIAGRAM
113	I-03	I&C	SWITCHGEAR M3 CONTROL P&ID
STRUCTURAL			
114	S-01	STRUCTURAL	GENERAL STRUCTURAL NOTES
115	S-02	STRUCTURAL	SWITCHGEAR M3 PLAN
116	S-03	STRUCTURAL	SWITCHGEAR M3 SECTION AND DETAILS
117	S-04	STRUCTURAL	STRUCTURAL DETAILS 1
118	S-05	STRUCTURAL	STRUCTURAL DETAILS 2
119	S-06	STRUCTURAL	STRUCTURAL DETAILS 3

Hazen and Sawyer
90 New Montgomery Street, Suite 333
San Francisco, CA 94105 • 628.242.0042

November 14, 2023

Mr. Greg Dwyer
City of Santa Rosa
Transportation and Public Works Department
69 Stony Circle
Santa Rosa, CA 95401

emailed to: GDwyer@srcity.org

Re: Fee Estimate for Laguna Treatment Plant Electrical Infrastructure Improvements Project

Dear Mr. Dwyer:

Attached is Hazen's fee proposal for the LTP Electrical Infrastructure Improvements project. Our fee includes the following:

- Billing rates for each team member
- Hours by individual and task
- Reimbursable expenses
- A time-and-material not-to-exceed fee

Our base fee is based on the requirements in the RFP, our discussions with City staff, the draft scope of services and preliminary list of drawings, and our experience on similar projects in the Bay Area.

Because there are different levels of detail that could be used to perform some of the work, we were required to make some assumptions to develop our fee. This is the case especially for the level of effort required for the environmental and permitting effort, which is dependent on whether CTS or wetland habitats are found during the initial site delineation. Therefore, if selected we are open to discussing our assumptions for the attached fee estimate and in particular working with you to better define the appropriate level of effort.

We appreciate this opportunity to submit our proposal.

Sincerely,
HAZEN

Marc Solomon, PE, BCEE, D.WRE
Project Manager and Vice President

Chris Thunhorst, PE
Project Director

Contact Information:
msolomon@hazenandsawyer.com
(707) 696-9318

1014-678

Appendix B

Design Services Terms for Capital Improvement Projects

Hazen agrees to the Design Services Terms for Capital Improvements Projects as outlined in the RFP.

City of Santa Rosa
Design Services Terms for
Capital Improvement Projects

Consultant shall:

I. Deliverables

1. Provide design memo summarizing project information such as environmental concerns, required right of way, water quality impacts, any non-standard conditions, and modification of City's pre-design information.

2. Provide a 40% submittal that includes: A PDF, 8 sets of project plans on 22" x 34" white bond paper (typical 40, 75, 90 submittals), and 3 copies of the preliminary engineer's estimate created using the City supplied Microsoft (MS) Excel spreadsheet template. The primary scale of the drawings shall be 1 inch = 20 feet unless otherwise approved by the City. Show the plan-view alignment on the topo. Identify utility conflicts. Determine the right of way needs, and indicate the status of environmental permits. Allow for a 4-week City review time.

3. Provide a 75% submittal that includes: A PDF, 8 sets of project plans, 3 copies of draft Technical Specifications (based on City's MS Word "boilerplate" templates), and 3 updated engineer's estimates. Incorporate 40% review comments in project plans. Send copies of project plans to utility companies for their review. Allow for a 4-week City review time.

4. Provide a 90% submittal that includes: A PDF, 8 sets of project plans, 3 copies of 90% Technical Specifications, proposed edits to "front end" general specifications, and 3 copies of updated engineer's estimate. Incorporate all remaining comments into the project plans and technical specifications. Allow for a 4-week City review time.

5. Provide a 100% submittal that includes: final stamped and signed mylar project plans, final Technical Specifications in electronic MS Word format, stamped and signed Technical Specifications cover sheet in PDF format (City provides MS Word format cover sheet template), an itemized Bid Sheet (MS Excel format), and proposed edits to "front end" general specifications. Final project plans shall be on archival quality white mylars (durable, dimensionally stable polyester) that are 22" x 34" and made with archival quality permanent ink that does not smear even if wet. Pencil originals and sticky backs are not acceptable.

6. Provide final approved project plans in electronic AutoCAD format, and all related files in MS Word, MS Excel, and PDF formats as appropriate.

7. Complete Consultant/City evaluations upon completion of project.

II. Software

1. Prepare project plans using Autodesk AutoCAD Civil 3D 2011 to 2016. Obtain prior written approval from the City's project manager to use a different product version of AutoCAD. Provide final approved electronic project plans to the City in AutoCAD (*.dwg) format and all related files on CD or DVD with instructions to the City regarding how to access and use the files and the interrelationships among them. These instructions shall include a list describing what is contained in each drawing (.dwg) file.

2. Prepare most other documents using Microsoft (MS) Word and Excel 2007 or more recent versions.

III. Plans

1. Submit project plans that conform to the City's drafting standards manual and contain the original unedited topographic and control layers along with the design layers. Coordinates shall be based on City's coordinate system. Consultant shall use the same coordinates provided in the topographic survey and shall not modify any value.

2. Utilize the City established plan, profile, and cover sheet templates in AutoCAD. Each plan and/or profile sheet submitted by Consultant shall include the following:

   A. Location and coordinates of control points, point number, elevation and description.
   B. Graphic scale.
   C. North arrow.
   D. Mapping showing streets (edge of pavement, face of curb).
   E. Elevations of all existing features, structures, or utilities.
   F. Match lines with appropriate sheet numbers.

3. Use City established title blocks and layer convention.

4. Indicate the plan completion percentage (40%/75%/90%) near the project title area of the border on sheet one of the plans.

IV. Special Provisions/Technical Specifications

1. Prepare Technical Specifications of the Special Provisions utilizing the City CIP supplied "boilerplate" templates. Modify only as necessary. All changes shall be highlighted by developing the technical specifications with MS Word "track changes" activated, or through a similar process.

2. Review 'front end' general specifications of the special provisions (white pages), Sections 1-9 (to be provided by City), especially Order of Work, Number of Working Days, and Liquidated Damages. Consultant shall propose changes to Sections 1-9 as necessary. However, the changes to Sections 1-9 shall be made by City Staff only.

3. Verify that all items in the engineer's estimate are covered in the special provisions and that it is clear how all work is paid for. List items in the same order and with the same title as on the special provisions. Do not add headers or footers to the technical specifications.

4. Stamp and sign final Technical Specifications cover page (utilizing the City supplied template) and submit to City in PDF format. Provide camera-ready final approved technical specifications in Microsoft Word format to City via email and/or on CD, DVD, or other format designated by City.

5. Include Order of Work or any other process-related provisions, as required.

6. Include any required environmental permits, applicable regulations, and mitigation monitoring requirements in the special provisions.

7. Identify any supplementary reports used for design and indicate they are available for contractor viewing during bidding. Also indicate that such reports are not part of the contract.

8. Include any project specific provisions relating to the public outreach process in the special provisions.

9. Verify that the project plans and special provisions reference the same project name.

V. Design information for Pipeline Improvements

The following shall not be construed as all inclusive. It is the responsibility of the consultant design engineer in responsible charge of the project to adhere to local standards of care and commonly accepted design principles.

1. City will provide Consultant with water, sewer, and storm drain base maps, available record plans for existing water and sewer system, as well as underground utility base maps from Pacific Gas & Electric, Comcast, and ATT. Utility base maps are schematic and should not be used for determining locations of existing underground utilities. After reviewing maps, advise City where utility markout requests should be made to PG&E, Comcast, and ATT before proceeding with design.

2. Detail project plans sufficiently with enough survey information so that the project can be completed from the project plans. The project plans should stand alone, without the need for additional information.

3. "X-Ref" the topographic survey into the design drawing.

4. Show survey control points and their coordinates on the project plans.

5. Show centerline or control line stations and coordinates at all beginning and ending points, BCs, PRCs, ECs, angle points, and tees (when control line is the pipeline alignment). Table format is acceptable.

6. Include curve data for each curve: (delta, radius & length) and tangent data: (bearing and length).

7. Show enough information on the project plans so that the centerline (or control line) is locatable in the field from the information on the plans. This can be accomplished in several ways:
    1. Show coordinates of entire centerline. A table showing BCs, PIs, ECs, etc. is the preferred format, or;
    2. Show ties to existing monuments at beginning and ending of centerline or control line, or;
    3. Show coordinates and basis of bearings at beginning and end of centerline or control line.

8. Reference the locations of improvements on the project plans using one of three acceptable methods:
    1. Where a single pipeline, such as a sewer, water, or storm drain is to be installed Consultant may show station runs along the alignment of the pipeline. Alignment shall contain all information listed under Items 5 & 6 of this section.
    2. Where multiple improvements (sewer, water, storm drain, curb and gutter, etc.) are to be referenced by station and offset to a single centerline or a control line, all centerline information listed under Items 5 & 6 of this section shall be shown on the plans. If project includes reconstruction of the roadway structural section position centerline at appropriate location to establish the street crown line.
    3. Coordinates - This method uses coordinates to locate and control the layout of all planned improvements. All BCs, PIs, PRCs, ECs, angle points, beginnings, endings, etc. of all improvements are indicated individually on each plan sheet or listed in a table.

9. Locate and accurately depict (including drawing to scale) all underground utilities on the project plans.

10. Check for potential utility conflicts. Provide pothole map along with the 40% design submittal to be reviewed and approved by City prior to performing potholing work. Consultant shall provide a pothole subcontractor to perform this work. Potholing work shall be scheduled 2 weeks in advance to allow time for City Survey staff to schedule their work.

11. Complete the profile and details after the City approves the alignment.

12. Assess the potential for rocky soil conditions and advise the City as to the need for geotechnical borings during design.

13. Evaluate potential curb & gutter, sidewalk, and valley gutter replacement needs. If areas of potential replacement are significantly greater than would normally be required for completion of the utility work, the City may elect to include additional replacement of these features in the construction contract.

14. Show pavement rehabilitation details on project plans per City Materials Engineering input.

15. Consultant shall prepare all necessary technical documents needed to solicit bids with estimated costs for the purchase order procurement along with the 75% design plan, specification and estimate submittal package. Consultant shall review subsequent bids for technical conformance with design requirements and provide a technical memorandum summarizing the findings. Project specifications shall include the anticipated electrical equipment delivery schedule and related order of work to facilitate project delivery. Consultant shall inspect all electrical equipment at time of delivery to confirm equipment conformance and condition.

16. Consultant shall be flexible to the needs of the plant and provide and order of work in the project specifications that bests facilitates this objective.

VI. Construction Contract Assistance

1. Promptly respond to questions, inquiries, and correspondences concerning the project until the Notice of Completion is filed. Display Consultant's name and telephone number on the project plans and in the special provisions. Answer all questions and resolve problems regarding the design of the project. Prepare and make City Council presentations when required. Prepare any necessary addenda to the Special provisions. Assist City in obtaining approval of the addenda. Prepare the final Engineer's estimate. Attend a pre-bid conference for the prospective bidders at City facilities or at the project site. Coordinate with the City's construction management team to solve field-related problems. Consultant shall provide engineering services during construction including submittal reviews, responses to requests for information, site visits as needed and attending 1-hour weekly construction meetings.

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The following options will be included in Consultant's proposal, as directed by City.

VII. Environmental (Consultant)

1. Assist City with environmental document processing including, but not limited to, meetings, exhibits, studies, and postings. Obtain permits necessary for construction of the project. Any provisions relating to environmental permits, regulations, and mitigation requirements shall be included in the project special provisions.

2. Contractor shall prepare an IS/MND.

3. Determine if any permits are required for project construction such as from the Army Corps of Engineers, The California Department of Fish and Wildlife, and the RWQCB. Initiate permit process as soon as possible. Consultant shall secure all required permits and conduct rare wetland plant survey (2-years) if project is determined to impact wetlands or ditches. This includes application, agency correspondence and subsequent revisions.
4. Perform required CTS monitoring and CTS inspections as needed during construction. Perform all work to facilitate the acquisition of CTS mitigation credits. Install CTS fencing in advance of construction per any permit requirements.
5. City will investigate underground contamination and obtain a one-time discharge permit from the City's Environmental Compliance Section of the Water Department.

VIII. ***Surveying (City)***

1. City will provide a topographic map.

2. Potholing work shall be scheduled 2 weeks in advance to allow time for City Survey staff to schedule their work.

3. Vertical control shall be based on the City Bench Mark datum and set to an accuracy ratio of 0.04 feet times the square root of the distance in miles. The basis for horizontal control point coordinates shall be the City's coordinate system with a minimum accuracy ratio of 1: 20,000. The engineer shall verify that all existing utilities have been marked-out in the field prior to surveying or have been plotted on the drawings.

4. Perform all topographical surveys required to prepare the project plans (1"=20') and right of way documents. The surveys shall generally include the street right of way from the back of sidewalk on one side of the street to the back of sidewalk on the other side of the street and shall include existing features, structures and utilities such as water services, cleanouts, valves, storm drain inlets/manholes, trees, etc. Dip all sewer and storm drain manholes and determine distance to top of valve nut at all critical water main locations.

5. Set control and monuments. Use the City bench mark datum and coordinate system. Show approximate right of way and property addresses on base maps.

6. Include pavement markings and complete street cross sections in survey scope of work for street-based projects. A complete street cross section includes, at a minimum: backs of sidewalks, faces of curbs, lips of gutters, and crown. Where a sidewalk does not exist, the edge of pavement and any adjacent drainage ways (top + flow line) should be surveyed for road reconstruction purposes.

IX. Right of Way (N/A)

1. Prepare and coordinate all necessary right of way descriptions and individual plats (R-sheets). Deliver original completed R sheets to the City. Obtain preliminary title reports for all affected parcels within the right of way. Provide aerial photography or field data as needed for right of way, property line, and easement determination in the field. Locate any required right of way lines, property lines, or easements for right of way purposes in the field.

X. Soils Report (N/A)

1. Develop safety and disposal plans for excavated contaminated soil in accordance with any applicable permit requirements.

2. Provide boring logs when unstable or deep excavations are anticipated.

3. Provide all documents in printed and electronic formats.

XI. Plan Coordination and Research (Consultant)

1. Coordinate with and obtain approval from all affected local agencies and companies, including but not limited to the City Departments of Community Development, Transportation and Public Works, Water, Sonoma County Water Agency, Sonoma County Road Department, California Regional Water Quality Control Board, Pacific Gas and Electric Company, Comcast, and AT&T. Coordination shall include preparation and processing of all correspondences, check prints, forms, applications, permits, diagrams, viewfoils, and any other necessary items as determined by the City Engineer. This coordination shall continue until the project plans are approved by the City. The Consultant shall also be responsible for assisting the City in obtaining review and approval from any affected County, State, and Federal agencies. This assistance shall include but not be limited to applying for public funds and supplying check prints of project plans, special provisions, estimates, and right of way plats and descriptions as directed by the City. Copies of all correspondence shall be transmitted to the City.

XII. Public Outreach (N/A)

1. Assist City with all public outreach, including but not limited to correspondence, mailings, exhibits, and meetings.

PSA LTP Electrical Infrastructure Improvements

Final Audit Report 2024-03-01

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PSA LTP Electrical Infrastructure Improvements

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