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LAKE WHATCOM WATER AND SEWER DISTRICT SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT REQUEST FOR QUALIFICATIONS

Lake Whatcom Water and Sewer District is requesting qualifications from qualified engineering firms for the SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT located in Sudden Valley in Whatcom County, Washington. Professional services include surveying, easement acquisition, pre-design, permitting, design, bidding, inspection, and construction contract administration. The District intends to select the most qualified firm for the project. Submittal requirements and project information are available at https://wwsd.org/2316-C

Submittals shall be delivered by 2:00 pm, February 21, 2024 to Attn: Greg Nicoll, Lake Whatcom Water and Sewer District, 1220 Lakeway Drive, Bellingham, WA 98229. Questions should be directed to Greg Nicoll, at 360-734-9224.

Any firm failing to submit information in accordance with the procedures set forth in the Request for Qualifications may not be considered responsive and may therefore be subject to disqualification by the District.

LAKE WHATCOM WATER AND SEWER DISTRICT SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT REQUEST FOR QUALIFICATIONS

I. INTRODUCTION

- A. This Request for Qualifications ("RFQ") outlines the information necessary to understand the consultant selection process and the required documentation a Consultant must submit. After reviewing this RFQ, any firm that determines it has the necessary expertise and experience and could successfully perform the required services may submit its Submittal, addressing the items set forth herein. A general overview of the selection process is as follows:
 - Consultants shall deliver the Submittal to the District no later than 2:00 p.m. on February 21, 2024, after which time they will be reviewed and evaluated. The Submittal shall be delivered to:

Lake Whatcom Water and Sewer District 1220 Lakeway Drive Bellingham, WA 98229 Attn: Greg Nicoll, District Engineer

- 2. The District may, at its option, contact a Consultant and ask clarifying questions concerning the Consultant's Submittal.
- 3. At the District's option, the District may conduct interviews with Consultants qualifying as finalists.
- B. The purpose of this RFQ is to obtain a qualified consultant team to provide professional services to design replacement and/or improvements for the Sudden Valley Chlorine Contact Basin Replacement project. The scope of work includes professional services for topographic surveying, pre-design, permitting, design, bidding, inspection, and construction contract administration. The District intends to select the most qualified firm for the project.
- C. It is anticipated that Consultant services will be separated into three phases of work. The initial contract and first phase of work will cover topographic surveying, pre-design, and permitting. Phase two includes detailed design, specifications, cost estimates, and bidding. Phase three includes services during construction.

II. DISTRICT SUMMARY

A. The Lake Whatcom Water and Sewer District is a special purpose district operating under Title
57 Revised Code of Washington. Originally formed in 1968 as Whatcom County Water District
No. 10, the District provides water service to approximately 4,100 equivalent residential units

(ERUs) and sewer service to approximately 4,400 ERUs in an 18-square mile area encompassing Lake Whatcom. The District is operated by 18 full-time professionals, governed by a five-member board of commissioners elected from within the District, and has an annual budget of approximately \$8 million.

- 1. <u>Water System Summary</u>. The District owns and operates three Group A water systems and one Group B water system. In total, the District operates two water treatment plants, six pump stations, seven reservoirs, and approximately 70 miles of transmission and distribution mains. Additional information specific to the District's water system may be found in the 2018 Water System Comprehensive Plan, available on the District's website at <u>https://lwwsd.org/resources/water-system-comprehensive-plan/</u>.
- Sewer System Summary. The District owns and operates 28 sewer lift stations and over 75 miles of sewage collection and conveyance lines. The District does not treat the sewage it collects, instead delivering its wastewater to the city of Bellingham's treatment plant for treatment and disposal under terms of an interlocal agreement that expires in 2034. Additional information specific to the District's sewer system may be found in the 2020 Comprehensive Sewer Plan, available on the District's website at https://lwwsd.org/resources/comprehensive-sewer-plan/.

III. PROJECT BACKGROUND

The Lake Whatcom Water and Sewer District provides potable water to its South Shore water system, which is comprised of the Sudden Valley and Geneva communities (population approximately 10,000), wholly by water treated at its Sudden Valley Water Treatment Plant. The water treatment plant is a rapid-rate, direct filtration plant with a rated capacity of 2.0 million gallons per day (mgd). The treatment plant, whose water source is Lake Whatcom, is located at 22 Morning Beach Drive, adjacent to Lake Whatcom and the Sudden Valley Community Association's Morning Beach Park.

An essential component of the Sudden Valley Water Treatment Plant system is the chlorine contact basin (CCB). The CCB is a 40-foot diameter, 24-foot high welded-steel 225,000-gallon reservoir constructed in 1994. The reservoir is outfitted with internal baffling that provides filtered water with the necessary chlorine contact time, as regulated by the Washington State Department of Health (DOH), for adequate disinfection prior to conveyance to the public via the District's water distribution system.

In 2016, BHC Consultants performed a seismic vulnerability assessment of the District's reservoirs, including the existing CCB. The assessment included an analysis of the CCB's ability to withstand ground motion created by a Maximum Considered Earthquake (MCE). The Reservoir Seismic Vulnerability Assessment Technical Report that presented the assessment findings identifies two structural deficiencies (inadequate uplift resistance of the foundation and lack of piping flexibility) that would prohibit the existing CCB's ability to survive a MCE.

Subsequent assessments of the existing CCB were completed by the District related to the CCB's treatment capacity (performed by Gray & Osborne Engineers in 2017 and 2021) and the integrity of the CCB's interior and exterior coatings (Evergreen Coating Engineers in 2020). The chlorine contact

basin alternatives analysis completed in 2021 by Gray & Osborne recommends that the District construct a new CCB that can provide sufficient CT for the proposed design flow. Construction of the new tank would not require construction and operation of temporary CT facilities, can be completed with the WTP in operation, provides operational flexibility by providing a second redundant tank, and will allow the District to rehabilitate and repurpose the existing CCB as desired. The interior and exterior coatings assessment indicates that both the interior and exterior coatings are nearing the ends of their useful service lives.

When the assessments are considered in aggregate, replacement of the existing CCB with a new CCB remains the only viable option to the District.

IV. PROCUREMENT PROCESS

- A. General Information
 - 1. <u>Compliance with Legal Requirements</u>.
 - a. The procurement of these consultant services will be in accordance with applicable District, federal, state and local laws, regulations and procedures. The District reserves the right to reject any and all Submittals received. Any Consultant failing to submit information in accordance with the procedures set forth herein may not be considered responsive and may therefore be subject to disqualification by the District.
 - b. In accordance with the provisions of this RFQ, the District will evaluate the Submittals. The final selection, if any, will be that Consultant which, in the opinion of the District, best meets the requirements set forth in the RFQ and is determined to be the most highly qualified for the services requested.
 - 2. <u>Costs borne by Consultants</u>. All costs incurred in the preparation of a Submittal and participation in this RFQ and negotiation process shall be borne by the proposing firms.
 - 3. <u>Public Disclosure</u>. Once in the District's possession, Submittals shall become property of the District and considered public documents under applicable Washington State laws. All documentation that is provided to the District may be subject to disclosure in accordance with Washington State public disclosure laws.
- B. Protests
 - 1. <u>Time to File a Protest</u>.
 - a. Any prospective Consultant may file a protest challenging the requirements identified in the RFQ provided such protest is received no later than ten (10) calendar days prior to the date established for responding to this solicitation.
 - b. A financially interested Consultant may file a protest based on evaluation of Submittals provided such protest is received no later than five (5) calendar days

after the protesting party knows or should have known of the facts and circumstances upon which the protest is based.

- c. In no event shall a protest be considered if all Submittals are rejected or after execution of this contract.
- Form of Protest. A protest shall be in writing and addressed to: Lake Whatcom Water & Sewer District, 1220 Lakeway Drive, Bellingham, WA 98229, Attention: General Manager. The protest shall include the following:
 - a. The name, address and telephone number of the party protesting or their representative;
 - b. The RFQ number and contract title under which the protest is submitted;
 - c. A detailed description of the specific grounds for protest and any supporting documentation; and
 - d. The specific ruling or relief requested.
- 3. <u>Determination of Protest</u>. Upon receipt of a timely written protest, the District General Manager shall investigate the protest and shall prior to execution of the contract respond in writing to the protest. The District General Manager's decision shall be considered the final action by the District.
- 4. <u>Compliance with Protest Process</u>. Failure to comply with these protest procedures will render a protest untimely and inadequate and may result in rejection thereof by the District.
- 5. <u>Exhaustion of Administrative Remedies</u>: As a mandatory condition precedent to initiating a lawsuit against the District, a prospective Consultant or a Consultant shall comply with the Protest Procedures defined herein.
- 6. <u>Venue</u>: By responding to this RFQ and for the convenience of the parties, the prospective Consultant or a Consultant acknowledges and agrees that a lawsuit or action related to or arising out of this procurement shall be brought in the Superior Court of Whatcom County, Washington.

C. Schedule

1. <u>Anticipated Schedule</u>. The selection process is anticipated to proceed as outlined below and is subject to change:

<u>Date</u>	Selection Process
January 31, 2024	Public Announcement of the RFQ
February 21, 2024	Submittals Due
February 28, 2024	Recommendation to Board

Mid March 2024

Contract Execution

- 2. <u>Notification</u>. The District will notify appropriate firms of changes in the RFQ and Notice of Selection.
- 3. <u>Addenda</u>. In the event it becomes necessary to revise any part of the RFQ, addenda will be provided to all firms still under consideration at the time the addendum is issued. If any firm has reason to doubt whether the District is aware of the firm's interest, it is the responsibility of the firm to notify the District to be sure that addenda are received. Mail or call such notice to Greg Nicoll, 360-734-9224, Lake Whatcom Water and Sewer District, 1220 Lakeway Drive, Bellingham, WA 98229.

D. Negotiations

- 1. At the completion of the selection process, the selected Consultant will enter into contract negotiations with the District. Negotiation of a contract will be in conformance with applicable federal, state and local laws, regulations and procedures. The negotiated cost and pricing data, once agreed to by the District and the Consultant, shall form the basis for a billing/payment provision.
- 2. At the beginning of negotiations, the selected Consultant and District shall establish a Negotiation Schedule. Negotiations shall begin with the Work Plan identified in the Qualifications Statement submitted by the selected Consultant.
- 3. If the District and selected Consultant cannot come to terms on level of effort (LOE) and a scope of work (SOW) after three (3) revisions to the SOW and LOE, the District may discontinue negotiations and go to next highest ranked Consultant. Failure to reach agreement after three (3) revisions demonstrates an inability to reach agreement within a reasonable timeframe.
- 4. If the District and selected Consultant cannot come to terms on cost and pricing data after three (3) revisions, the District may discontinue negotiations and go to the next highest ranked Consultant. Failure to reach an agreement after three (3) revisions demonstrates an inability to reach agreement within a reasonable timeframe.
- E. Contract Terms and Conditions
 - 1. A copy of the draft agreement(s) for A/E professional services is included as an Attachment.
 - 2. By submitting qualifications, the Consultant represents that it has carefully read the terms and conditions of the Request for Qualifications and agrees to be bound by them. Agreement to be negotiated.
- F. Cost and Pricing Data
 - 1. <u>The selected consultant shall provide the following information within five (5) business days</u> <u>after Notice of Selection has been received</u>. Failure to provide such information in a timely manner may result in the District discontinuing negotiations with the selected Consultant

and starting negotiations with the next highest ranked Consultant.

- a. <u>Direct Salaries</u>. Selected consultant and its subconsultants shall submit the following information:
 - (1) List of employees, in alphabetical order (last name first), with job classification, rate of pay, and salary review date.
- b. <u>Overhead Rates</u>. Selected consultant and its subconsultants shall provide the following information:
 - (1) Provide current audited overhead schedule, audit report, and cost detail by general ledger account.
 - (2) Provide a listing of all personnel who will perform work on this Project whose salaries, in full or in part, are included in overhead for the current and previous year. For each person identify his or her title, classification, position in company and salary rate.
- c. <u>Billing Rates</u>. Submit only for certain qualifying small firms.
 - (1) Small firms that do not have an accounting system in place, that identifies direct and indirect costs separately, generally use billing rates. Fully burdened billing rates, which include labor, overhead costs and profit are allowed on a case-by-case basis for those firms that typically use this method for billing purposes.

d. Other Direct Cost(s).

- (1) Identify all Other Direct Cost(s) (ODC) for this project and the rationale used as a basis for this cost.
- (2) For each ODC, provide the unit prices and/or rates with supporting rationale, historical data and estimating methodology used to validate these rates.
- (3) Failure to identify ODC results in a presumption that there are no ODC.
- e. <u>Profit</u>. Selected consultant and its subconsultants shall provide the following:
 - (1) Proposed profit;
 - (2) Rationale and justification for the proposed profit rate.
- f. <u>Markup on Subconsultant Costs and ODC</u>. Selected consultant and its subconsultants shall provide the following:
 - (1) Proposed markup on subconsultant costs and ODC;

(2) Rationale and justification for the proposed markups.

V. INSURANCE REQUIREMENTS

- A. Prior to execution of the Agreement, the Selected Consultant shall file with the District certificates of insurance and endorsements from the insurer(s) certifying to the coverage of all insurance required in accordance with the District's standard agreement. All evidences of insurance must be certified by a properly authorized officer, agent, general agent or qualified representative of the insurer(s) and shall certify the name of the insured, the type and amount of insurance, the location and operations to which the insurance applies, the expiration date, and provides that the District receives notice at least thirty (30) calendar days prior to the effective date of any policy limit or cancellation of required coverages. The Consultant shall notify the District at least thirty (30) calendar days prior to the effective date of any cancellation or reduction in coverage in the policy. The Consultant shall maintain during the entire Contract period, insurance coverage at least as broad as the limits and coverage outlined in the District's standard agreement. The Consultant shall, upon demand of the District, make available to the District at Consultant's local office in all such policies of insurance and the receipts of payment of premiums thereon. Failure to provide such policies of insurance within a time acceptable to the District shall entitle the District to suspend or terminate the Consultant's work hereunder. Suspension or termination of the Consultant Agreement shall not relieve the Consultant from its insurance obligation hereunder.
- B. The Consultant shall obtain and maintain at a minimum the limits of insurance set forth in the Consultant Agreement. By requiring such minimum insurance, the District shall not be deemed or construed to have assessed the risks that may be applicable to the Consultant under the Agreement. The Consultant shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.
- C. Each insurance policy shall be written on an "occurrence" form; excepting that insurance for professional liability, errors and omissions when required, is acceptable on a "claims made" form.
- D. If coverage is approved and purchased on a "claims made" basis, the Consultant shall continue coverage either through (1) policy renewals for not less than three years from the date of completion of the work which is the subject of this Agreement or (2) the purchase of an extended discovery period for not less than three years from the date of completion of the work which is the subject of extended coverage is available.
- E. If, in order to meet the insurance requirements the Consultant must rely on the insurance to be provided by one or more subconsultant, then such subconsultant(s) shall be required to meet all of the requirements herein applicable to the insurance they are providing, and shall include District and Consultant as additional insureds on all liability policies except Professional Liability/Errors & Omissions and Workers Compensation. The District will not make any payments on work performed by subconsultants until all insurance documentation from such subconsultants have been received and accepted by the District.
- F. Provided the affected insurance policies permit the following waiver, without voiding coverage,

Consultant and District waive all rights against each other to subrogation for damages covered by property insurance.

VI. EVALUATION AND SELECTION CRITERIA

- A. All Submittals will be evaluated by a Consultant Selection Panel ("Panel"), which will be responsible for ranking of the Submittals. The criteria outlined below will be used in evaluating the Submittals and determining the most qualified Consultant. A total of 100 points (excluding a potential interview) has been assigned to the Evaluation Criteria. The maximum points possible will follow each criterion listed. The points indicate relative weight or importance given to each criterion.
- B. The District may determine that the ranking is close and an interview with the top ranked firms is necessary. Interviews will have a maximum of 50 points. The number of Consultants to participate in interviews, if any, will be determined by the District based on the recommendation of the evaluation. The District may choose to use different criteria for the interview, in which case the finalists will be so notified in writing. The interview process may or may not include a Consultant presentation and the Consultants will not be given questions to prepare for in advance of the interview.
- C. Following the review of the submittals and the interviews (if conducted) the evaluators will use the points to score each Submittal. Each evaluator will put the scores in rank order, with the highest scored Consultant 1st, the second-highest scored Consultant 2nd, etc. This ranking will then be totaled. From the ranking, the District intends to recommend the most qualified Consultant to the Board of Commissioners for approval to begin negotiations.

VII. DOCUMENTATION

- A. The prime Consultant shall submit five (2) bound copies and a USB with the electronic PDF file of the Submittal.
- B. Consultants are discouraged from submitting lengthy Submittals. The District requests that Submittals be concise and clearly written containing only essential information. Submittals should be 25 pages or less, including any resumes and cover letter.
 - Submittals should be minimum of 11 font.
 - Sheets with double sided printing will be counted as 2 pages.
 - Sketches, maps and charts printed on 11x17 count as 1 page.

The Submittal shall consist of the following parts:

- 1. Letter of Interest: The Letter of Interest shall contain the following information:
 - RFQ Title: Sudden Valley Water Treatment Plant Chlorine Contact Basin Replacement;
 - Consultant's name, mailing address, contact person, telephone and fax numbers;
 - UBI and federal tax ID numbers; and
 - Stipulation that Consultant accepts all terms of the RFQ, especially the terms and conditions of the attached sample contract(s).

- 2. <u>Qualifications Statement</u>. The submittal shall include Key Personnel's:
 - General statement of the understanding of the scope of services.
 - Project Team including proposed subconsultants.
 - The Project Team's experience with water conveyance and treatment infrastructure, maintenance, design, construction management and inspection services.
 - Experience with District's water infrastructure.
 - Permitting experience with Whatcom County, including experience in the County's shoreline permitting process and requirements.
 - Approach to managing and completing projects.
 - Approach to communicating with the District.
 - Approach to ensure cost efficient execution and quality control.
 - Experience with FEMA Hazard Mitigation Grant projects and associated federal and state funding requirements.

The submittal shall be presented in a clear, comprehensive and concise manner and shall be submitted in a complete package by the prime Consultant.

VIII. EVALUATION CRITERIA AND SUBMITTAL INFORMATION

A. Experience and Technical Competence - 40 Points.

The District will evaluate the experience and technical competence of the Consultant's Key Personnel to complete the project. Emphasis will be placed on recent experience and expertise in performing the required services on projects with a scope of work similar in size and complexity to this Project.

B. Work Plan - 30 points.

The District will evaluate the proposed Work Plan to determine the Consultant's understanding of the scope of work, allocation of skilled personnel to specified tasks, appropriate utilization of subconsultants, and overall project approach.

1. The Work Plan is an opportunity for the Consultant to demonstrate its understanding of scope and propose ideas for the Project.

C. Record of Past Performance & References - 30 Points.

- 1. The District will evaluate the project team's record of performance and references on previous and/or ongoing projects with consideration given to quality of work, ability to meet schedules and budgets, cooperation, responsiveness, performance on other District projects and other managerial considerations.
- 2. The District will evaluate the project examples provided with respect to Key Personnel's experience with similar projects and the amount of involvement they had with the project examples. The project examples provided should demonstrate Key Personnel's experience in providing services similar in scope to this Project.

D. Interviews - 50 Points (if conducted)

- 1. The District may or may not conduct interviews. If the District determines that interviews are necessary, the District will conduct interviews with the short-listed Consultants (finalists).
- 2. Consultants will be notified in writing of the request and provided the date, place, and time of the interview. The interview process may or may not include a Consultant presentation and the Consultants will not be given questions to prepare for in advance of the interview. The District may choose to use different criteria for the interview, in which case the Finalists will be so notified in writing.
- 3. Failure to participate in the interview process shall result in a Consultant's disqualification from further consideration.

AGREEMENT FOR A/E PROFESSIONAL SERVICES FOR SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

THIS AGREEMENT, made and entered into by and between Lake Whatcom Water and Sewer District, Whatcom County, Washington, hereinafter referred to as "District", and <u>[[[FIRM NAME</u>]]] ("Consultant"), a corporation with a place of business at <u>[[[FIRM ADDRESS]]]</u>, collectively referred to as "Parties", shall be effective upon the authorized signatures of both Parties to this Agreement ("Effective Date").

WHEREAS, the District, a special purpose municipal corporation, provides water and sewer service to its constituents; and

WHEREAS, the District desires to retain the Consultant to perform certain professional services, including engineering services necessary to perform Sudden Valley Water Treatment Plant Chlorine Contact Basin Replacement ("Project"); and

WHEREAS, the District solicited for professional services as required by RCW 39.80; and

WHEREAS, the Consultant represents it has available and offers to provide qualified personnel and facilities necessary to accomplish such services required for the Project within the required time.

The Parties enter into this Agreement. The term Agreement and Contract shall be used interchangeably and refer to this Agreement.

SECTION 1: PERIOD OF PERFORMANCE

- 1.1. All required work and services specified in the terms and conditions of this Agreement for <u>Phase 1, Design and Permitting Services per Exhibit A SCOPE OF WORK</u>, shall be completed by <u>[[[December 31, 2023]]]</u> unless extended or terminated earlier by the District pursuant to the terms and conditions of this Agreement. The District reserves the right to amend this Agreement to add <u>Phase 2, Services During</u> <u>Construction per Exhibit A SCOPE OF WORK</u>. The District also reserves the right to let the Agreement expire at the completion of Phase 1 and to select another consultant to perform the additional study and/or phases.
- 1.2. Time is a material consideration in the performance by the Consultant under this Agreement. The Consultant shall complete its work and services within the Project schedule, including any established milestones and task completion dates, and the Period of Performance, set forth in the Scope of Work. The completion dates for tasks may be modified by a written directive; however, the Period of Performance for the Agreement may only be modified through an amendment. No completion dates shall be extended because of any unwarranted delays attributable to the Consultant. Completion dates may be extended in the event of a delay caused by the District which results in a delay in the performance of an affected task, or because of unavoidable delay caused by any governmental action or other conditions beyond the control of the Consultant, which could not be reasonably anticipated and which results in a delay in the performance of an affected task.

1.3. Time Extensions. The Total Price, Period of Performance and task budgets shall not be increased because of any unwarranted delays or costs attributable to the Consultant. In the event of a delay not attributable to the Consultant which (1) delay could not be reasonably anticipated and (2) results in an increase in costs to perform the work, the District may, through the execution of an amendment, increase the Total Price, Period of Performance and/or task budget.

SECTION 2: ADMINISTRATION AND SUPERVISION

- 2.1. **DISTRICT**. An employee of the District, hereinafter called the "Project Manager," who shall be designated in writing by the District, shall perform day-to-day management of this Contract. Unless otherwise indicated in writing by the General Manager or its designee, the Project Manager will issue notices to proceed, approve all requests for payment, authorize termination or modification of tasks, and approve in writing changes to the task budgets outlined in the Cost Summary, Exhibit B attached hereto and incorporated by reference, provided the changes do not impact the Total Price, Period of Performance, and the Fixed Professional Fee. The Project Manager will also be responsible for determining when the Consultant has satisfactorily performed all work and for ensuring that the Consultant complies with all provisions of this Agreement.
- 2.2. **CONSULTANT**. The Consultant represents that it has, or will obtain, all personnel necessary to perform the services required under this Agreement and that such personnel shall be qualified, experienced and licensed as may be necessary or required by laws and regulations to perform such services. All services required under this Agreement shall be performed by the Consultant, its employees, or by subconsultants whose selection has been authorized by the District; provided, that the District's authorization shall not relieve the Consultant or its subconsultants from any duties or obligations under this Agreement or at law to perform in a satisfactory and competent manner. All contractual duties, requirements and obligations that the Consultants retained to perform the work pursuant to this Agreement. The term "Consultant" shall refer to **[[FIRM NAME]]].** and all of its subconsultants.
 - A. <u>Authorized Subconsultants</u>. The Contract shall identify in the Cost Summary, Exhibit B, the subconsultants who are authorized to perform work under this Contract.
 - B. <u>Process for Adding or Removing Subconsultants</u>. If during the term of this Contract, the Consultant wishes to add or remove a subconsultant, the Consultant shall provide the Project Manager with a written request identifying the proposed change. The written request shall include the following information:
 - 1. Identity of the subconsultant and the work to be performed;
 - 2. Resumes and documentation outlining the subconsultant's experience;
 - 3. If the subconsultant is to perform work of the consultant or another subconsultant already identified in Exhibit B, an explanation of why the work is going to be transferred to a new subconsultant.
 - C. <u>District Approval of Subconsultants</u>. The District has sole discretion in approving or rejecting proposed subconsultants. Each subcontract shall be available for review and the cost summary subject to review by the Project Manager prior to

the subconsultant proceeding with the work. Before any subconsultant not already identified in the Contract can perform any work under this Contract, the District shall provide written authorization to the Consultant.

- D. <u>Substitution of Personnel</u>. The Consultant recognizes and agrees that if a change is made substituting or changing assigned key personnel, the Consultant shall be responsible for any and all costs associated with "Transfer of Knowledge and Information". The Transfer of Knowledge and Information shall be defined to include the labor hours spent reviewing project documentation, participating in meetings with Project personnel, and participating in site visits to familiarize oneself with the Project and project location(s). The District shall not pay for any time spent for the "Transfer of Knowledge and Information".
 - The Consultant shall provide sufficient advance notice of any intention to remove or reassign key personnel. The Consultant shall not remove or reassign the key personnel assigned to this Project without written consent from the District. Exhibit F, Key Personnel, is a listing of key individuals for this work. Notice for the substitution of individuals and positions identified as Key Personnel shall include the following:
 - a. An explanation of the reason for the reassignment or removal;
 - b. The name of the person proposed to replace the individual; and
 - c. Identification of the experience and qualifications of the individual proposed.
 - 2. For individuals who are not identified as "Key Personnel" in Exhibit F, the Consultant shall provide documentation supporting the labor rate for the substituted personnel prior to submitting an invoice and the labor rate shall not exceed 110 percent of the originally assigned personnel's labor rate.
 - 3. <u>District Request Removal Personnel</u>. The Consultant shall remove from the Project any personnel or subconsultant if, after the matter has been thoroughly considered by the District and the Consultant, the District considers such removal necessary and in the best interests of the Project and so advises the Consultant in writing. In this case, the District will compensate the consultant for Transfer of Knowledge costs associated with the removal of any personnel or subconsultant.

SECTION 3: SCOPE OF WORK

- 3.1. The District hereby retains the Consultant upon the terms and conditions contained herein to perform certain work and services on the Project. The work and services for the Project to be performed by the Consultant are set forth in Exhibit A, Scope of Work, attached hereto, and incorporated herein by this reference. The general Project Schedule is set forth in Exhibit C, attached hereto and incorporated herein by reference.
- 3.2. The District shall make available to the Consultant, without cost, copies of as-built plans, drawings, survey notes, studies, soil reports, maintenance and performance records, and other relevant data, and property descriptions of various District facilities related to the Project, which are readily available, and on file at the District. These documents are available solely as additional Information to the Consultant and do not relieve the

Consultant of its duties and obligations under this Agreement nor constitute any representation or warranty by the District as to conditions or other matters related to the Project.

3.3. It shall be the responsibility of the Consultant to gather and become familiar with all site information including existing improvements.

SECTION 4: CHANGES IN WORK

- 4.1. Any direction from the District to perform work that results in an increase or decrease in scope, changes to the Total Price or Period of Performance, or changes impacting the Scope and Budget for the project shall be made only by an amendment prior to the work being performed. A member of the Board of Commissioners for the District is the only authorized District representative who may sign amendments.
- 4.2. In the event the Consultant identifies something that may impact the scope of work, Project Schedule and/or cost, Consultant shall inform the Project Manager within five (5) business days of the event and possible impacts to scope, schedule and cost. If appropriate, the parties shall execute an amendment.
- 4.3. The District may, at any time, by written amendment direct the Consultant to make additions within the general scope of the services or work to be performed under this Agreement, delete portions of the Project, or revise portions of the work. Any changes within the general scope of work, which result in an increase or decrease in time of performance or cost, shall only be made by amendment.

SECTION 5: RESPONSIBILITY OF THE CONSULTANT

- 5.1. <u>Standard of Care</u>
 - A. The Consultant shall be responsible for the professional quality, technical adequacy and accuracy, timely completion and coordination of all plans, designs, drawings, specifications, reports and other services prepared or performed pursuant to this Agreement. The Consultant shall perform its work to conform to generally accepted professional standards applicable to the types of services and work provided hereunder. The Consultant shall be responsible for the professional standards, performance and actions of all persons and firms performing work pursuant to this Agreement. The Consultant shall, without additional compensation, correct or revise any errors, omissions or specific breaches of a contractual obligation in such plans, designs, drawings, specifications, reports and other services.
 - B. The District's approval of plans, drawings, designs, specifications, reports and other products of the professional services rendered hereunder shall not in any way relieve the Consultant of responsibility for the technical adequacy or accuracy thereof. Neither the District's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

- C. The Consultant shall be knowledgeable and familiar with the District's Construction General Conditions and any District provided Division 0 (which includes General and Supplemental conditions and Bidding Provisions) and Division 1 (General Construction Requirements). Any technical specifications drafted by the Consultant shall be consistent with these Divisions and such technical specifications should not create any ambiguity or conflict with these Divisions.
- D. Consistent with generally accepted professional standards, the Consultant shall promptly bring to the District's attention any concerns that the Consultant has regarding the design, or any finding, conclusions, or final decisions made by the District. The Consultant shall, at the District's request, provide the District with a written evaluation of its concerns, along with proposed solutions to any identified problems.

5.2. <u>Maintenance of Project Documentation</u>

- A. Upon written request by the Project Manager, the Consultant shall provide the District with access to all documents and correspondence, including e-mail communications, memoranda, and all other written materials prepared or used in performance of work on this Project.
- B. The Consultant is cautioned that information and documentation submitted to the District may become a public record in accordance with the Revised Code of Washington and may not be exempt from disclosure under the Washington State Public Disclosure Act.
- C. The Consultant acknowledges that unauthorized disclosure of information or documentation concerning this Project may cause substantial economic loss or harm to the District. Except as otherwise required by Court Order or subpoena, the Consultant shall not without prior written authorization by the Project Manager allow the release, dissemination, distribution, sharing, or otherwise publication or disclosure of information or documentation obtained, discovered, shared or produced pursuant to this Agreement.

SECTION 6: PRODUCTS

- 6.1. In the performance of this Agreement, the Consultant shall, to the extent practicable, design and draft specifications that provide for maximum use of structures, machines, products, materials, construction methods, and equipment which are readily available through competitive procurement, or through standard or proven production techniques, methods and processes.
- 6.2. The Consultant shall not, in the performance of the work under this Agreement, produce a design or specification which would require the use of structures, machines, products, materials, construction methods, equipment, or processes which the Consultant knows to be available only from a single source, unless the Consultant has provided a written justification for the use of a single source in writing and the District concurs.
- 6.3. The Consultant shall not, in the performance of the work under this Agreement, produce a design or specification which would be restrictive or written in such a manner as to

contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing, or to provide for necessary interchangeability of parts and equipment. The Consultant shall report to the District any single source or restrictive design or specification giving the reason(s) why, in the Consultant's professional judgment, it is necessary to restrict the design or a particular specification. The Consultant shall substantiate in writing, and to the District's satisfaction, the basis for the single source or restrictive design or specification.

6.4. When one or more brand names or trade names of comparable quality or utility are listed, the words "or approved equal" shall follow the brand name(s) and the salient characteristics shall be identified.

SECTION 7: COMMENCEMENT AND MONTHLY REPORTS

- 7.1. <u>Notice to Proceed</u>. After execution of this Agreement by the District and the Consultant, the District will issue a written notice to proceed on the Project or specific tasks thereof. Such notices to proceed will be provided for specific tasks identified as necessary to produce specified work products and shall set forth the date of commencement of the work, a description of the work to be performed, the schedule for the work authorized, and the budgets for such tasks. Upon receipt of a notice to proceed, the Consultant shall promptly commence work.
- 7.2. <u>Monthly Reports</u>. Unless otherwise stated in the Scope of Work, not later than the 10th day of each calendar month during the performance of the Project, the Consultant shall submit to the Project Manager, a monthly report, in a format approved by the Project Manager, sufficient to show the activities completed and the Project progress as measured against the Project Schedule and Exhibit B, Cost Summary. At a minimum the monthly report shall identify work completed, costs incurred, budget status (budget vs. estimated balance to complete), amendments, project schedule, any variance between planned vs. actual project performance, all issues that may result in completion of any task beyond the established schedule or task budget, and all issues that may result in an increase in Total Price.

SECTION 8: COMPENSATION

- 8.1. Subject to the provisions set forth in this Agreement, the District will pay the <u>[[[FIRM NAME]]].</u> for authorized and satisfactorily completed work and services rendered under this Agreement. No more than monthly progress payments shall be full compensation for work performed and services rendered, for all supervision, labor, supplies, materials, equipment or use thereof, taxes, and for all other necessary incidentals, but in no case shall the total progress payment exceed the Total Price as defined herein. The amount to be paid to the Consultant shall be computed as hereinafter set forth; provided, that such payment shall not exceed a maximum amount of <u>[[[CONTRACT AMOUNT]]]</u> DOLLARS (<u>\$?????</u>) ("Total Price"). In the event the Consultant incurs costs in excess of the Total Price, the Consultant shall pay such excess from its own funds and the District shall not be required to pay any part of such excess and the Consultant shall have no claim against the District on account thereof.
- 8.2. Compensation for work and services shall be on a cost plus fixed fee basis but not to exceed the Total Price. Compensation and the Total Price shall be the sum of Direct

Labor Costs, Indirect Costs, a Fixed Professional Fee, and Other Direct Costs as described and defined below. Costs to be paid are identified in the Cost Summary, which is attached hereto as Exhibit B and incorporated herein by this reference, and comprise the following:

- A. **Direct Labor Costs**. Direct Labor Costs shall be the total number of allowable hours worked on the Project by each individual multiplied by the Labor Rate identified in the Costs Summary (Exhibit B) for such individual.
 - 1. A Labor Rate shall not exceed \$65.00 per hour, except in exceptional and rare circumstances when the District, in its sole discretion, agrees to pay over \$65.00 per hour.
 - 2. The District shall only pay the Labor Rate and shall not pay any premium associated with overtime.
 - 3. The parties agree to the Labor Rates as set forth in Exhibit B, which rates shall be used during the entire term of this Agreement, including all amendments; provided however, Labor Rates may be subject to reasonable adjustments but only in accordance with paragraph 8.4 below.
- B. Indirect Costs. Indirect Costs shall be calculated as follows:
 - 1. Indirect Costs shall be the Overhead Rate identified in the Cost Summary (Exhibit B) multiplied by the Direct Labor Rates for every allowable hour worked on the Project and billed by the individual.
 - 2. The Consultant agrees to the Overhead Rates as set forth in Exhibit B, which rates shall be used during the term of this Agreement, including all amendments.
- C. **Fixed Professional Fee (Profit).** The District shall pay a Professional Fee which shall be calculated as set forth below.
 - 1. The Professional Fee shall be <u>?.?%</u>, or otherwise represented as a multiplier of <u>0.???</u>, of the total of the Direct Labor Costs plus the Indirect Costs, as identified in the Cost Summary (Exhibit B).
 - 2. The Consultant acknowledges and agrees that the Fixed Professional Fee is only due and payable for Project work for which the District has given notice to proceed and which the Consultant has satisfactorily completed. The Fixed Professional Fee will not be paid for any tasks in the Scope of Work and Cost Summary that the District does not authorize the Consultant to perform. The District is entitled to a deductive amendment for any unperformed tasks.
 - 3. The Consultant acknowledges and agrees that the amount of the Fixed Professional Fee may be adjusted by the District to:
 - a. Reduce the Fixed Professional Fee associated with Scope of Work that was not authorized, or was not performed by the Consultant;

- b. Reduce the Fixed Professional Fee associated with deletions in the Scope of Work;
- c. Increase the Fixed Professional Fee for additional work included in the Scope of Work through an amendment.
- 4. The Fixed Professional Fee shall be paid as follows:
 - a. The Fixed Professional Fee will be paid monthly in proportion to the Project work satisfactorily completed. The proportion of work completed shall be determined by earned value of the Project work satisfactorily completed. The Cost Summary shall identify the Project work for payment of the Fixed Professional Fee.
 - b. A payment for an individual month shall include that portion of the Fixed Professional Fee allocable to the Project work satisfactorily completed during said month and not previously paid; and
 - c. Any portion of the Fixed Professional Fee not previously paid in the monthly payments shall be included in the final payment provided that the Consultant satisfactorily completed the entire scope of work subject to the limitations set forth above.
 - d. The Consultant acknowledges and agrees that the Fixed Professional Fee does not and shall not include any profit or other markup on subconsulting costs or Other Direct Costs.
- D. Other Direct Costs. Other Direct Costs ("ODC") are those costs which can be specifically identified with the Contract objectives, are required for performance of the Contract, are approved in advance in writing by the Project Manager, and are actually incurred. Markup on ODC's shall be billed at <u>???% for subconsultants and at fixed rates as listed in Exhibit E ALLOWABLE ODC'S</u>.
- 8.3. <u>Unallowable Costs</u>. The District shall not pay for any costs or direct charges associated with or relating to the following activities:
 - A. Any resubmission, changes to or adjustments in the invoices, and fixing improper invoices and the preparation and submission of monthly invoices if this cost is not included In the Consultant's overhead.
 - B. Preparation of, discussion and/or negotiation of a request for adjustments in any Labor Rate, Overhead Rate and/or Labor Escalation percentage; and
 - C. Changing or reassigning personnel or subconsultants, including but not limited to preparing requests concerning Transfer of Knowledge for Key Personnel. Exception, the District will pay for costs associated with the change or reassignment resulting from a written request from the District requesting the specific personnel or subconsultant change.
 - D. Preparation of any documentation related to, discussion of, or negotiation of equitable adjustment, disputes, claims or Section 16, Disputes and Remedies.

- E. Meals, except when in Travel Status.
- 8.4. Limitations on Changes to Labor Rates.
 - A. Any changes Labor Rates shall have no impact on the Total Price.
 - B. Overhead Rates.
 - C. The Overhead Rates are identified in the Cost Summary, Exhibit B. The Overhead Rates shall not be subject to modification.
 - D. Labor Rates
 - The Consultant agrees that all Labor Rates identified in this Agreement (Exhibit B) shall be effective for the entire Contract duration, including all amendments; provided however, Labor Rates may be increased at the sole discretion of the District on an annual basis.
 - 2. A Labor Rate shall not exceed \$65.00 per hour except in exceptional and rare circumstances when the District, in its sole discretion, agrees to a Labor Rate over \$65.00.
 - 3. Labor rate increases must be based on actual and verifiable increases in labor costs.
 - 4. Should the Consultant seek an adjustment in Labor Rate(s), Consultant must notify the District in writing of its request to modify the existing labor rate. Consultant shall submit only one request per year that must include all individual rate increase requests. This request shall include the amount of the increase in the rate for each rate increase.
 - E. Other Direct Costs. Other Direct Costs ("ODC") are those costs which can be specifically identified with the Contract objectives, are required for performance of the Contract, are approved in advance in writing by the Project Manager, and are actually incurred. Allowable ODC are as included in Exhibit E to this Contract.
- 8.5. <u>Approval of Increases by District</u>; Adjustments in Labor Rates, and the amount of any rate increase require the approval of the Project Manager. The Consultant shall provide additional information as requested by the District. The District shall review the Consultant's request for a rate increase and respond in writing to the request within sixty (60) calendar days of receipt of such request.
- 8.6. <u>Effective Period</u>. Any change to the Labor shall not be effective until the date the Project Manager approves, in writing, the increase. Labor rates shall not be retroactive. Only services performed after the date the Project Representative approves the rate increase shall be billed at the new labor Rate. The written approval is considered a part of the Contract documents and shall be incorporated into the Contract in the next amendment.
- 8.7. <u>Invoice Process</u>. The Consultant shall submit to the Project Manager an invoice for payment for Project work completed to the end of the previous month. Such invoices

shall be for work performed subsequent to that work covered by all previously submitted invoices and shall be computed pursuant to the rates and limitations set forth hereinabove.

- A. Invoices shall detail the work by task, hours and employee name and level for which payment is being requested; include copies of all invoices from authorized subconsultants for which payment is being requested; and shall itemize, and include copies of, receipts and invoices for the Other Direct Costs.
- B. At no time shall the total cumulative amounts paid for Project work exceed the total which would be due upon the completion of all Project work multiplied by the percentage of the required work satisfactorily completed, as determined by the District.
- C. In the event of a disputed invoice, the District shall pay the undisputed amounts and withhold from payment the disputed portion of the invoice.
- 8.8. <u>Prompt Payment of Subconsultants</u>. Within ten (10) business calendar days of receipt of a progress payment from the District that includes dollars for work performed by subconsultants, Consultant shall pay such subconsultants out of such amounts as are paid by the District, for all work satisfactorily completed by the subconsultant.
- 8.9. <u>Final Payment</u>. Final payment of any balance earned by and payment to the Consultant for Project work will be made within sixty (60) calendar days after all of the following:
 - A. Satisfactory completion of all work required by this Agreement;
 - B. Receipt by the District of the plans, studies, surveys, photographs, maps, calculations, notes, reports and all other documents and/or deliverables which are required to be prepared and submitted by the Consultant under this Agreement;
 - C. Delivery of all equipment/materials purchased specifically for the Project where the District has reimbursed the Consultant for such costs;
 - D. Receipt by the District of a fully executed final statement of amounts Invoiced by and paid to each subconsultant under this Agreement; and,
 - E. Execution and delivery by the Consultant of a release of all claims against the District arising under or by virtue of this Agreement, other than such claims, if any, as may be specifically exempted by the Consultant from the operation of the release in stated amounts to be set forth therein.
 - F. No payment, whether monthly or final, to the Consultant for any Project work shall constitute a waiver or release by the District of any claims, right or remedy it may have against the Consultant under this Agreement or by law; nor shall such payment constitute a waiver, remission or discharge by the District of any failure or fault of the Consultant to satisfactorily perform the Project work as required under this Agreement.

SECTION 9: TERMINATION OF AGREEMENT

9.1. Termination for Default

- A. The District may terminate this Agreement, in whole or in part, in writing if the Consultant substantially fails to fulfill any or all of its material obligations under this Agreement through no fault of the District.
- Β. If the District terminates all or part of this Contract for default, the District shall determine the amount of work satisfactorily performed to the date of termination and the amount owing to the Consultant using the criteria set forth below; provided, that (a) no amount shall be allowed for anticipated profit on unperformed services or other work and (b) any payment due to the Consultant at the time of termination may be adjusted to the extent of any additional costs the District incurs because of the Consultant's default. In such event, the District shall consider the actual costs incurred by the Consultant in performing the Project work to the date of termination, the amount of work originally required which was satisfactorily completed to the date of termination, whether that work is in a form or of a type which is usable and suitable to the District at the date of termination, the cost to the District of completing the work itself or of employing another firm to complete it and the inconvenience and time which may be required to do so, and other factors which affect the value to the District of the Project work performed to the date of termination. Under no circumstances shall payments made under this provision exceed the Total Price set forth in this Agreement. This provision shall not preclude the District from filing claims and/or commencing litigation to secure compensation for damages incurred beyond that covered by withheld payments.
- C. Upon receipt of a termination notice the Consultant shall at no additional cost to the District:
 - 1. Promptly discontinue all services affected (unless the notice directs otherwise);
 - 2. Terminate all subcontracts to the extent they relate to the work terminated; and
 - 3. No later than thirty (30) calendar days after receipt of termination, promptly deliver or otherwise make available to the District all data, drawings, electronic drawing files, specifications, calculations, reports, estimates, summaries, Official Project Documentation and other Project documentation, such other information and materials as the Consultant or subconsultants may have accumulated in performing this Agreement, whether completed or in progress and all equipment/materials purchased specifically for the Project where the District has paid the Consultant for such items.
- D. Termination for Convenience.
 - 1. The District may terminate this Agreement, in whole or in part, for the convenience of the District. The District shall terminate by delivery to the Consultant a Notice of Termination specifying the extent of the termination and the effective date.

- 2. If the District terminates this Contract for convenience, the District shall pay the Consultant only for the following items:
 - a. An amount for Direct Labor Costs and Indirect Costs in accordance with the Contract and Exhibit B for services satisfactorily performed to the date of termination;
 - b. Actual and reasonable Other Direct Costs incurred before the termination; and
 - c. Actual and Reasonable termination settlement costs the Consultant reasonably incurs relating to commitments which had become firm before the termination, unless the District determines to assume said commitments. Reasonable termination settlement costs include settlement costs for subconsultants and actual reasonable accounting and clerical costs related to preparing Termination Settlement Proposal.
- 3. Upon receipt of a termination notice the Consultant shall at no additional cost to the District:
 - a. Promptly discontinue all services affected (unless the notice directs otherwise);
 - b. Terminate all subcontracts to the extent they relate to the work terminated;
 - c. No later than thirty (30) calendar days after receipt of termination, promptly deliver or otherwise make available to the District all data, drawings, specifications, calculations, reports, estimates, summaries, Official Project Documentation, other Project documentation, and such other information and materials as the Consultant may have accumulated in performing this Agreement, whether completed or in progress and all equipment/materials purchased specifically for the Project where the District has reimbursed the Consultant for such costs;
 - d. Take any action necessary, or that the District may direct, for the protection and preservation of property related to this Agreement that is in the possession of the Consultant and in which the District has or may acquire an interest.

SECTION 10: OWNERSHIP AND USE OF DOCUMENTS

10.1. Reports, studies, drawings, specifications, calculations or other information developed under the terms of this Agreement shall become the property of the District after full payment to Consultant for their preparation. Any reuse of drawings/plans, specifications and/or calculations for another project without written verification or adaptation by Consultant will be at the District's sole risk and without liability or legal exposure to Consultant. District shall defend, indemnify and hold Consultant harmless from all claims, damages, losses, and expenses, including attorney's fees, arising out of or resulting therefor. The District further acknowledges that it may receive certain materials from Consultant by way of electronic file and agrees that should it modify such materials

in connection with their subsequent use, that Consultant shall bear no responsibility for the contents thereof.

SECTION 11: THIRD-PARTY CLAIMS AND DISPUTES

11.1. At the District's request, Consultant will assist the District in review and evaluation claims and disputes, preparing information for the District's legal counsel, providing services as witness in litigation or arbitration to which the District is a party and providing other services in connection with actual or potential claims or disputes arising out of the work, regardless of whether or not consultant is named in such legal action. The parties shall cooperate to agree on the compensation for such services. If Consultant is determined to be responsible for the claim, dispute or litigation due to its negligence or breach of the contract herein, it shall remit back to the District the amounts paid under this section to the extent of such negligence or breach.

SECTION 12: AUDIT AND ACCESS TO RECORDS

- 12.1. The Consultant, including its subconsultants, shall maintain books, records, documents, and other evidence directly pertinent to performance of the work under this Agreement in accordance with generally accepted accounting principles and practices consistently applied. The District, or any of its duly authorized representatives, shall, for the purpose of audit and examination, have access to and be permitted to inspect such books, records, documents, and other evidence for inspection, audit and copying for a period of six years after completion of the Project. The District shall also have access to such books, overhead data, records and documents during the performance of Project work if deemed necessary by the District to verify work performed and Invoices, to assist in negotiations for amendments to the Agreement or modifications to tasks, and to resolve claims and disputes.
- 12.2. Audits conducted under this Section shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or audit agency(ies).

SECTION 13: LEGAL RELATIONS

- 13.1. The Consultant shall comply, and shall ensure its subconsultants comply, with all the terms of this Agreement and the District resolutions and federal, state and local laws, regulations and ordinances applicable to the work and services to be performed under this Agreement.
- 13.2. In performing work and services hereunder, the Consultant and its subconsultants, employees, agents and representatives shall be acting as independent contractors and shall not be deemed or construed to be employees or agents of the District in any manner whatsoever. The Consultant shall not hold itself out as, nor claim to be, an officer or employee of the District by reason hereof and will not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the District. The Consultant shall be solely responsible for any claims/costs and/or losses arising from the Consultant's failure to pay wages, compensation, benefits or taxes and/or pay for services, supplies and/or materials provided by Consultant employees, agents and representatives, including subconsultants, and will protect, defend, indemnify and hold the District harmless there from.

- 13.3. To the maximum extent permitted by law, the Consultant agrees to indemnify and save harmless the District, its officers, agents and employees, from and against any and all suits, claims, actions, losses, costs, reasonable attorney fees and expenses, penalties, judgments, settlements and damages of whatsoever kind or nature arising out of, in connection with, or incident to errors or omissions in the performance of contractual obligations, and/or the negligent performance of work or services provided by or on behalf of the Consultant, except to the extent caused by the negligence of the District. The Consultant's Indemnity obligation includes an obligation to (a) satisfy any judgment or other final decision of a court or other tribunal; (b) pay any reasonable settlement negotiated by the District with respect to claims that are within the scope of the indemnity obligation; and (c) pay all claims against the District by an employee or former employee of the Consultant or its subconsultants, and for this purpose, by mutual negotiation, the Consultant expressly waives, as respects the District only, all Immunity and limitation on liability under any industrial insurance act, including Title 51 RCW. other worker's compensation act, disability benefit act, or other employee benefit act of any jurisdiction which would otherwise be applicable in the case of such claim, The Consultant further agrees to defend all claims against the District and its officers, agents, and employees which, if proven, could result in liability of the District, its officers, agents, or employees for loss or damage caused by any such errors, omissions, or negligent work or services performed by the Consultant. The Consultant's obligation to defend shall include timely payment of all reasonable attorney fees, costs and expenses incurred in the defense of such claims. In the event of litigation between the parties to enforce the rights under this paragraph, reasonable attorney fees and expenses shall be allowed to the prevailing party.
- 13.4. The District's rights and remedies in this Agreement are in addition to any other rights and remedies provided by law.
- 13.5. The indemnification, protection, defense and save harmless obligations contained herein shall survive the expiration, abandonment or termination of this Agreement.

SECTION 14: INSURANCE

Prior to execution of the Agreement, the Consultant shall file with the District certificates 14.1. of insurance and endorsements from the insurer(s) certifying to the coverage of all insurance required herein. All evidences of insurance must be certified by a properly authorized officer, agent, general agent or gualified representative of the insurer(s) and shall certify the name of the insured, the type and amount of insurance, the location and operations to which the insurance applies, the expiration date, and provides that the District receives notice at least thirty (30) calendar days prior to the effective date of any policy limit or cancellation of required coverages. The Consultant shall notify the District at least thirty (30) calendar days prior to the effective date of any cancellation or reduction in coverage in the policy. Documentation of coverage shall be provided on each insurance renewal date. The Consultant shall, upon demand of The District, make available to The District at Consultant's local office in The District all such policies of insurance and the receipts of payment of premiums thereon. Failure to provide such policies of insurance within a time acceptable to The District shall entitle The District to suspend or terminate the Consultant's work hereunder, Suspension or termination of this Agreement shall not relieve the Consultant from its insurance obligation hereunder.

- 14.2. The Consultant shall obtain and maintain at a minimum the limits of insurance set forth below. By requiring such minimum insurance, the District shall not be deemed or construed to have assessed the risks that may be applicable to the Consultant under this Agreement. The Consultant shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.
- 14.3. Each insurance policy shall be written on an "occurrence" form; excepting that insurance for professional liability, errors and omissions when required, is acceptable on a "claims made" form.
- 14.4. If coverage is approved and purchased on a "claims made" basis, the Consultant shall continue coverage either through (1) policy renewals for not less than seven years from the date of completion of the work which is the subject of this Agreement or (2) the purchase of an extended discovery period for not less than seven years from the date of completion of the work which is the subject of this Agreement, if such extended coverage is available.
- 14.5. If, in order to meet the requirements of this Section, the Consultant must rely on the insurance to be provided by one or more subconsultant, then such subconsultant(s) shall be required to meet all of the requirements herein applicable to the insurance they are providing, and shall include District and Consultant as additional insureds on all liability policies except Professional Liability/Errors & Omissions and Workers Compensation. The District will not make any payments on work performed by subconsultants until all insurance documentation from such subconsultants has been received and accepted by the District.
- 14.6. Provided the affected insurance policies permit the following waiver, without voiding coverage, Consultant and District waive all rights against each other to subrogation for damages covered by property insurance.
- 14.7. The Consultant shall maintain limits no less than, for:
 - A. General Liability. \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage, and for those policies with aggregate limits, a \$1,000,000 aggregate limit. Coverage shall be at least as broad as Insurance Services Office form number (CG 00 01) covering COMMERCIAL GENERAL LIABILITY.
 - B. Professional Liability Errors and Omissions. \$2,000,000 per claim and in the aggregate.
 - C. Automobile Liability. \$1,000,000 combined single limit per accident for bodily injury and property damage. Coverage shall be at least as broad as Insurance Services Office form number (CA 00 01) covering BUSINESS AUTO COVERAGE, symbol 1 "any auto"; or the combination of symbols 2, 8, and 9.
 - D. Workers' Compensation. Statutory requirements of the State of residency. Coverage shall be at least as broad as Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, as well as any similar coverage required for this work by applicable Federal or "other States" State Law.

- E. Employer's Liability or "Stop Gap". Coverage shall be at least as broad as the protection provided by the Workers Compensation policy Part 2 (Employers Liability) or, in states with monopolistic state funds, the protection provided by the "Stop Gap" endorsement to the general liability policy.
- 14.8. Any deductibles or self-insured retentions must be declared to, and approved by, the District. The deductible and/or self-insured retention of the policies shall not limit or apply to the Consultant's liability to the District and shall be the sole responsibility of the Consultant.
- 14.9. The insurance policies required in this Agreement are to contain, or be endorsed to contain the following provisions:
 - A. Liability Policies except Professional Liability & Errors and Omissions and Workers Compensation:
 - 1. The District, its officers, officials, employees and agents are to be covered as additional insured as respects liability arising out of activities performed by or on behalf of the Consultant in connection with this Agreement. Such additional insured status shall include Products-Completed Operations.
 - 2. To the extent of the Consultant's negligence, the Consultant's insurance coverage shall be primary insurance as respects the District, its officers, officials, employees and agents. Any insurance and/or self-insurance maintained by the District, its officers, officials, employees or agents shall not contribute with the Consultant's insurance or benefit the Consultant in any way.
 - 3. The Consultant's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.
 - 4. The Consultant's Protection and Indemnity (to include Jones Act) policy shall waive rights of subrogation against the District.
- 14.10. If at any time of the foregoing policies shall fail to meet the minimum standards above, the Consultant shall, upon notice to that effect from the District, promptly obtain a new policy, and shall submit the same to the District, with the appropriate certificates and endorsements, for approval.

SECTION 15: DISPUTES AND REMEDIES

- 15.1. Choice of Law. This Agreement and all provisions hereof shall be interpreted in accordance with the laws of the State of Washington in effect on the Effective Date.
- 15.2. General Manager Review. All claims, counter-claims, disputes and other matters in question between the District and the Consultant arising out of or relating to this Agreement or the breach of it shall be referred to the General Manager or a designee for determination, together with all facts, data, contentions and so forth which relate thereto. The General Manager shall make a determination within thirty (30) calendar days of such referral.

- 15.3. <u>Mediation and Arbitration</u>. The parties will first attempt to mediate any dispute arising under or in connection with this Agreement, in accordance with the provisions of the Washington Uniform Mediation Act, Ch. 7.07 RCW. In the event such mediation is unsuccessful, any such dispute will be settled by arbitration as set forth in this Section 15.3. No legal right of action may arise out of any such dispute until arbitration has been completed. Each party, however, will have full access to the courts to complet compliance with these arbitration provisions, to enforce an arbitration award or to seek injunctive relief, whether or not arbitration is available or under way. The arbitration will take place as follows:
 - A. <u>Notice</u>. The party demanding arbitration must give the other parties a written notice. The written notice must contain, in addition to the demand for arbitration, a clear statement of the issue or issues to be resolved by arbitration, an appropriate reference to the provision of the Agreement which is involved, the relief the party requests through arbitration, and the name and address of the arbitrator requested by the demanding party.
 - B. <u>Response</u>. The party receiving the notice of the demand for arbitration must provide a written response to the demand within fifteen (15) days following receipt of the notice. The response must contain a clear statement of the respondent's position concerning the issue or issues in dispute and the name and address of the arbitrator it selects as the arbitrator to hear the dispute. If the parties fail to agree upon an arbitrator within five (5) days following the time allowed for this response to the demand for arbitration, the demanding party may apply to the presiding department of the Superior Court for Whatcom County, Washington to designate the arbitrator.
 - C. <u>Arbitration</u>. The arbitrator will meet in Bellingham, Washington, within twenty (20) days after the selection of the arbitrator and will allow each party an opportunity to submit oral and written evidence and argument concerning the issue in dispute. The arbitrator may resolve only the question or questions submitted to arbitration and must include as part of his consideration a full review of the Agreement and all material incorporated in the Agreement by reference.
 - D. <u>Decision</u>. The decision of the arbitrator will be final and will bind the parties.
 - E. <u>Consent to Change</u>. By consent of all parties to any dispute under this Agreement, the method of selection of an arbitrator or arbitrators, or even the arbitrator(s) selected, may be changed at any time.
 - F. <u>Payment of Costs</u>. Subject to the provisions of Section 13.3, in any arbitration, each party will pay its own costs, witness fees and attorneys' fees. The fees charged by the arbitrator and the costs of the proceeding shall be borne equally.
 - G. <u>State Law</u>. Except to the extent inconsistent with the terms of this Agreement, the terms and provisions of Chapter 7.04A RCW are incorporated in and made a part of this Agreement.

- 15.4. Exhaustion of Administrative Remedies. Referral to and determination by the General Manager or a designee and mediation and arbitration shall be a condition precedent to the commencement of a civil action to adjudicate such dispute.
- 15.5. Jurisdiction & Venue. Subject to these provisions herein, the Superior Court of Whatcom County, Washington, shall have exclusive jurisdiction and venue over any legal action arising under this Agreement and the laws of the state of Washington shall apply.

SECTION 16: NOTICE

16.1. Any notice required to be given under the terms of this Agreement shall be in writing and directed to the party at the address set forth below. Notice shall be considered issued and effective upon receipt thereof by the addressee-party. Facsimile notice shall be considered effective with proof of confirmation that the addressee has received the facsimile. Such proof would be a confirmation sheet evidencing such receipt at the fax number listed below.

[[[NAME OF FIRM]]] Attn: ????????? [[[ADDRESS]]]

Fax No.: ?????????? Phone: ??????????? Lake Whatcom Water and Sewer District Attn: Justin Clary PE, General Manager 1220 Lakeway Drive Bellingham, WA 98229 Fax No.: 360-738-8250 Phone: 360-734-9224

SECTION 17: ENTIRETY, AMENDMENT AND EXECUTION OF AGREEMENT

- 17.1. This Agreement merges and supersedes all prior negotiations, representations and agreements between the Parties relating to the subject matter hereof and constitutes the entire agreement between the Parties.
- 17.2. The Contract documents included in the Agreement are identified below. Any inconsistency or conflict between the Contract documents shall be resolved by giving precedence in the following descending order of importance:
 - A. Agreement for Professional Services for <u>Sudden Valley Water Treatment Plant</u> <u>Chlorine Contact Basin Replacement</u>, as modified by the latest amendment;
 - B. Exhibit A, Scope of Work, as modified by the latest amendment;
 - C. Exhibit B, Cost Summary, as modified by the latest amendment;
 - D. Exhibit C, Project Schedule, as modified by the latest amendment;
 - E. Exhibit D, Insurance;
 - F. Exhibit E, Allowable ODC's;
 - G. Exhibit F, Key Personnel List; and
 - H. Other
- 17.3. This Agreement shall be executed in two (2) counterpart copies, any of which shall be considered for all purposes as the original.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective authorized officers or representatives as of the day and year written below.

Lake Whatcom Water and Sewer District	Consultant
By: (Justin Clary, General Manager)	By: Printed Name: Title:
Dated:	Dated:
	APPROVED AS TO FORM: By: (Robert Carmichael, Attorney for Lake Whatcom Water and Sewer District) Dated:

<u>EXHIBIT A</u>

SCOPE OF SERVICES

Lake Whatcom Water and Sewer District SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

Funding for this project is through a FEMA Hazard Mitigation Grant. The Consultant and its subconsultants agree to include clauses and conditions in the contract scope of work as required by the FEMA Hazard Mitigation Grant.

- A1. Project Management
 - Organize, manage, and coordinate the disciplines required to accomplish the services required for this project. Perform quality assurance/quality control of all final documents. Maintain and enforce the project schedule and budget. Consultant will provide backup documentation of work products as appropriate to adequately record the Consultant's work, including assumptions made, regulation interpretations, methodology used, calculations, rationale supporting recommendations, and meeting or conversation records. Standards for the design deliverables will be provided to the selected consultant during negotiations.

A2. Permitting

The Consultant shall:

- 1. Identify all temporary and permanent permits for required construction,
- 2. Prepare permit applications,
- 3. Schedule and conduct meetings with permitting agencies, and
- 4. Assist District with discussions and negotiations with permitting agencies.
- A3. Design and Bidding

The Consultant shall:

- 1. Develop the design into detailed construction contract documents consisting of plans, specifications, and engineer's cost estimate.
- 2. The Consultant shall maintain a Plan Holder's List,
- 3. Conduct a pre-bid conference,
- 4. Respond to bidder inquiries,
- 5. Prepare and distribute addenda, and
- 6. Attend bid opening.

A4. Services During Construction

The Consultant shall fully perform or assist with:

- 1. Construction support services including providing an experienced and qualified project representative to monitor the on-site progress and quality of the executed work,
- 2. Attend progress meetings,
- 3. Prepare agenda and meeting notes,
- 4. Review contractor submittals and shop drawings for conformance to the contract documents,
- 5. Review and respond to contractor's requests for information and issue design clarifications as necessary,
- 6. Prepare change orders,
- 7. Review and approve contractor's payment requests,
- 8. Coordinate and evaluate specialized testing,
- 9. Prepare record drawings, and
- 10. Prepare project close-out documentation.

EXHIBIT B

BILLING RATES Lake Whatcom Water and Sewer District SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

All work shall be billed per the attached Billing Rate schedule.

EXHIBIT C

PROJECT SCHEDULE SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

Project Schedule

Permitting and Design	Completion by December 31, 2024
Bidding	Completion by March 1, 2025
Services During Construction	Completion by December 31, 2025

EXHIBIT D

INSURANCE

Lake Whatcom Water and Sewer District SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

[Attach Insurance Certificate and Endorsements]

EXHIBIT E

ALLOWABLE OTHER DIRECT COSTS (ODC's) Lake Whatcom Water and Sewer District SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

Allowable ODC's include Subconsultants and Reimbursables as listed in Exhibit B – Billing Rates:

Subconsultants:

• List Subconsultants.

Reimbursables:

- Publication charges
- Project application fees, project permit fees
- Reproduction of drawings and construction documents
- Direct expenses for travel, meal and lodging outside of Whatcom and Skagit Counties
- Mileage at project-current IRS mileage rates
- Specialized equipment rental, at rental rate

EXHIBIT F

KEY PERSONNEL LIST Lake Whatcom Water and Sewer District SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

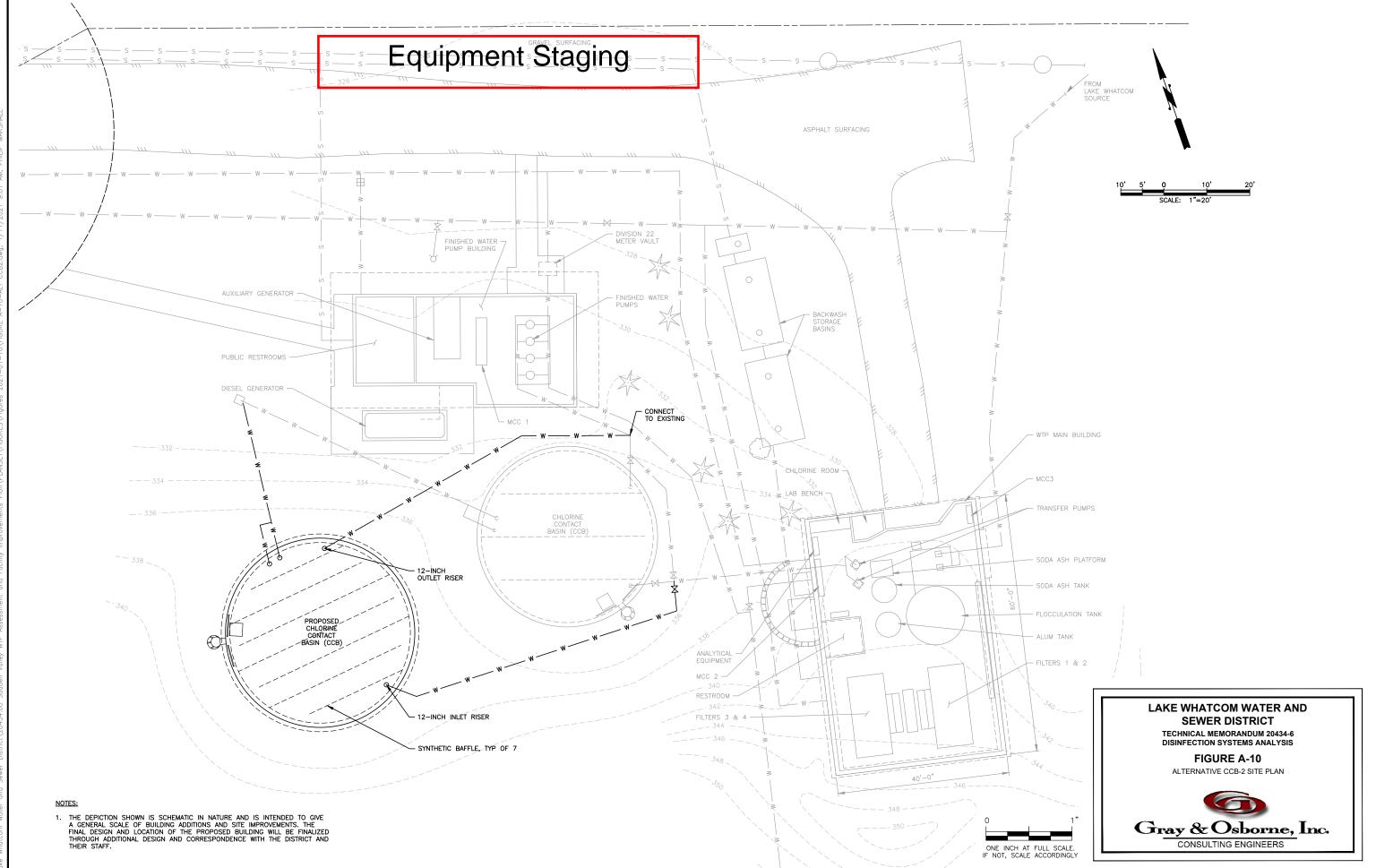
Key Personnel List

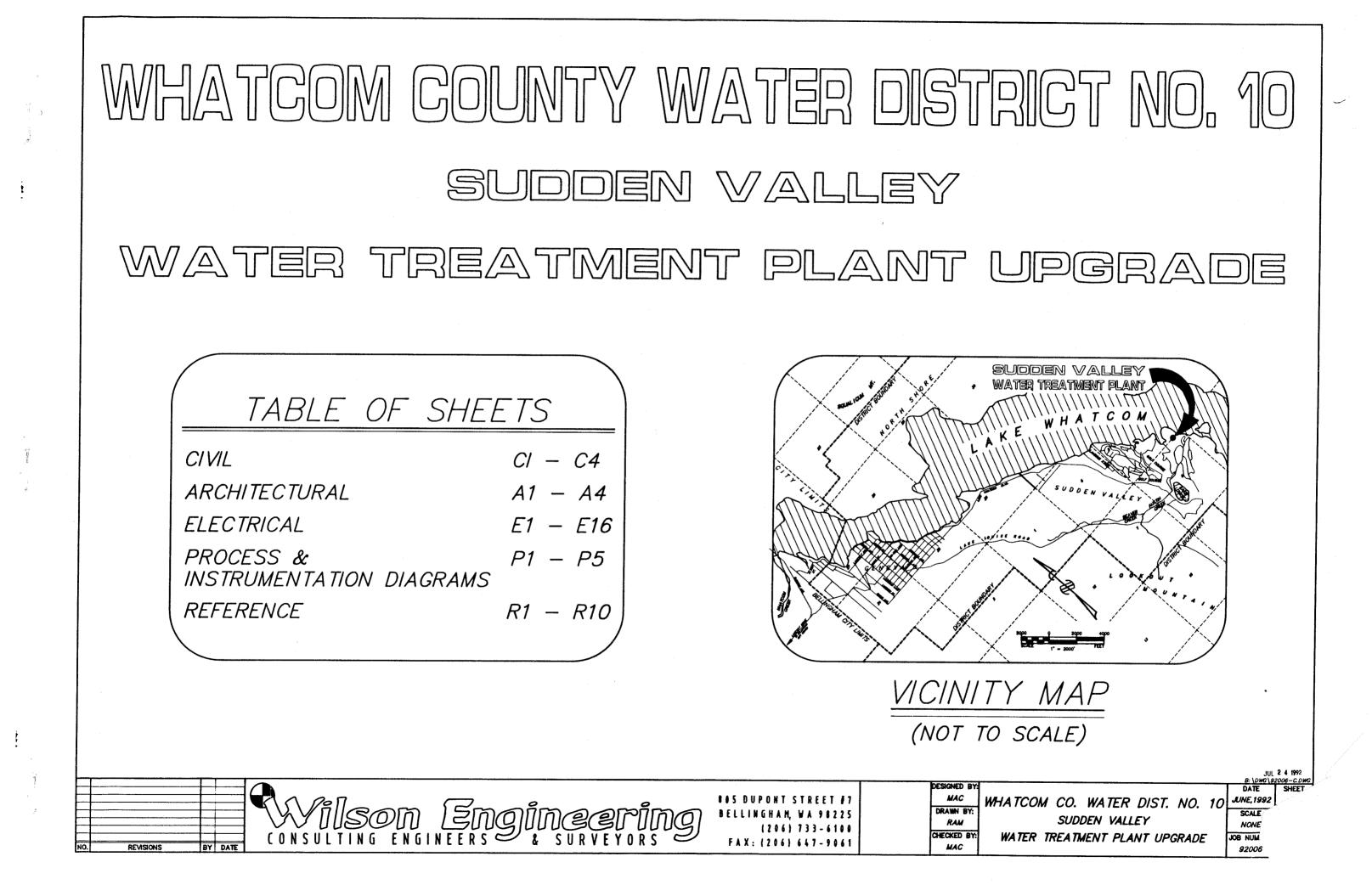
- Name?
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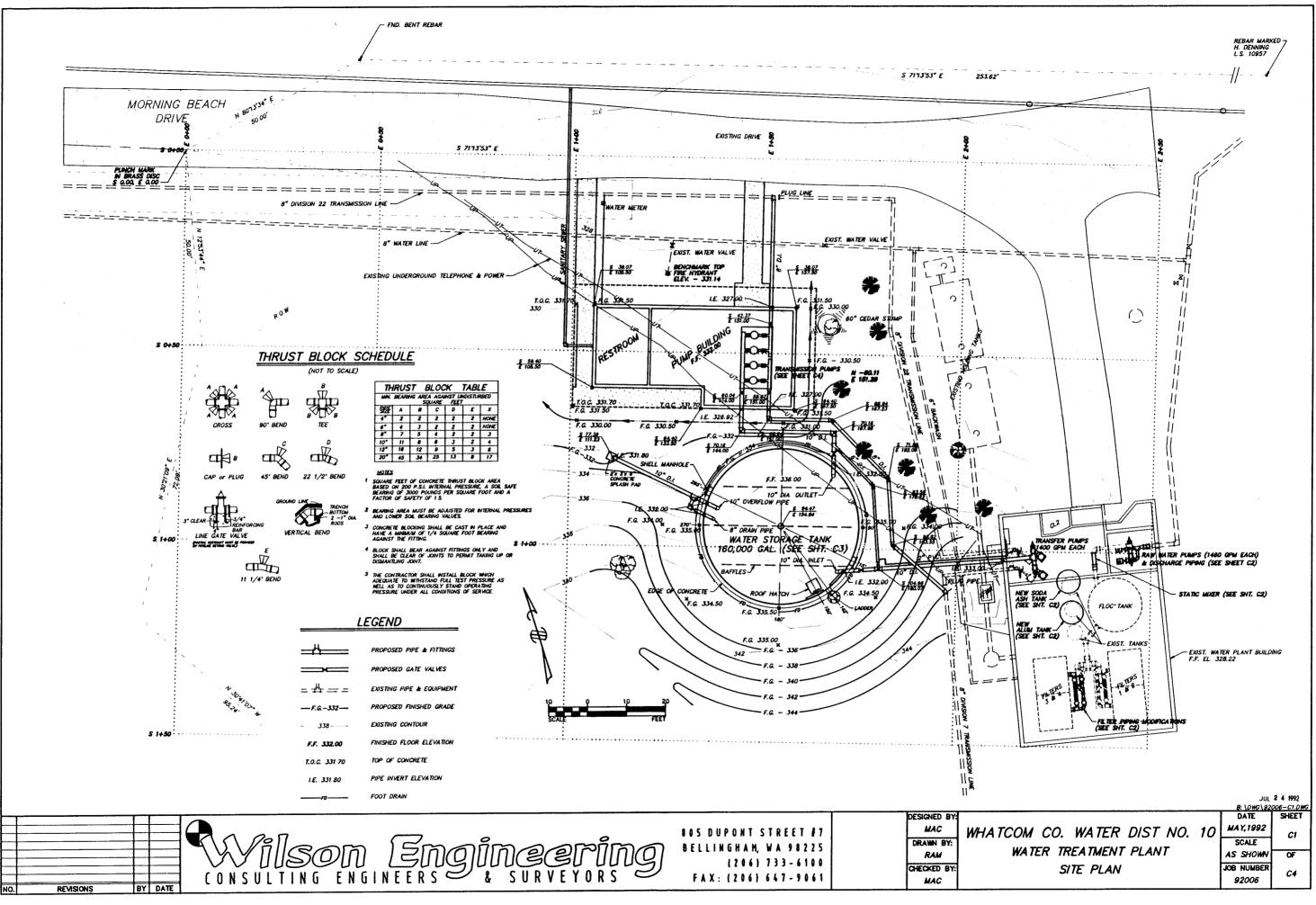
Exhibit F – Key Personnel List Sudden Valley Water Treatment Plant Chlorine Contact Basin Replacement Page 1 of 1

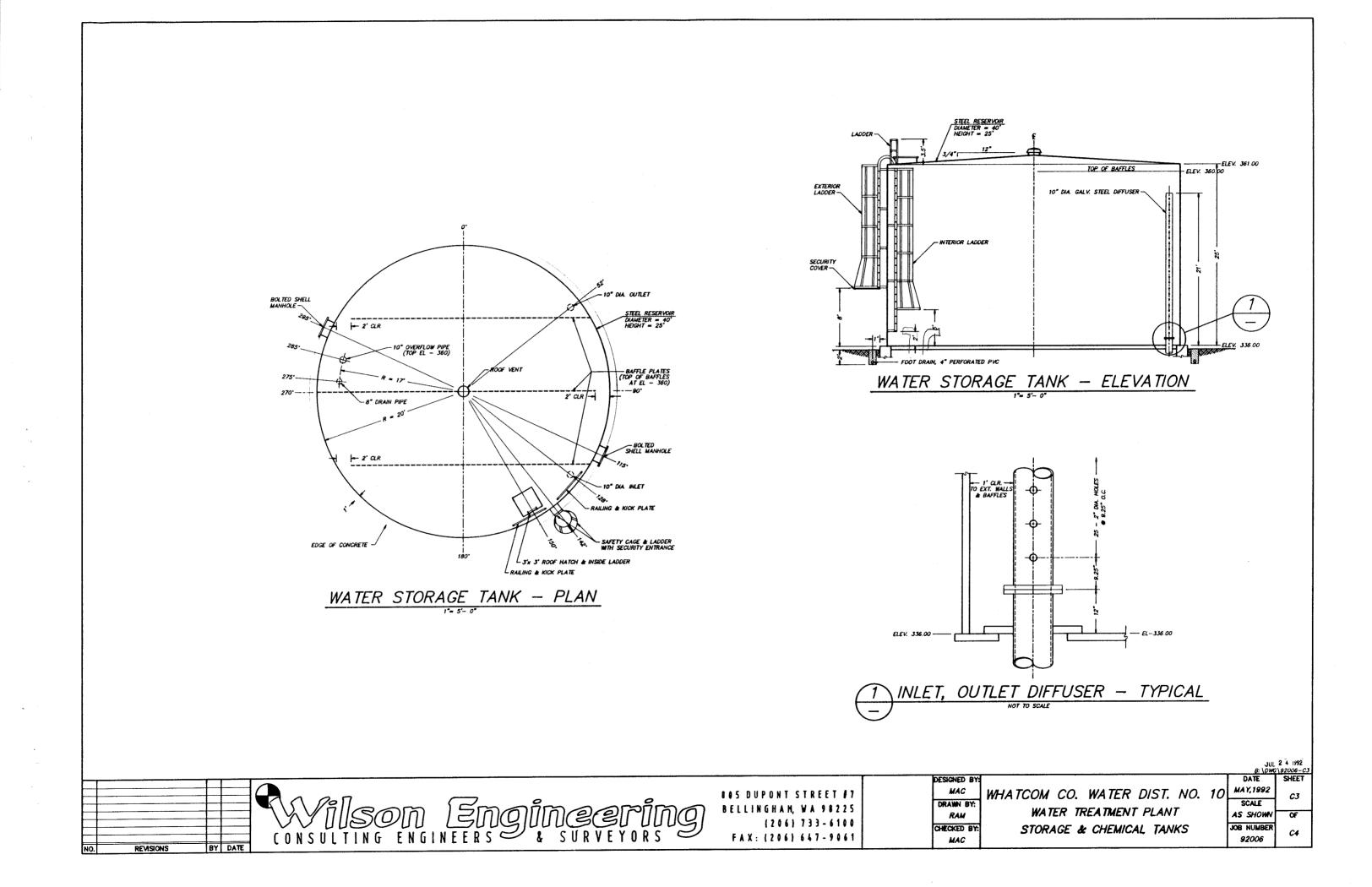
SUDDEN VALLEY WATER TREATMENT PLANT CHLORINE CONTACT BASIN REPLACEMENT

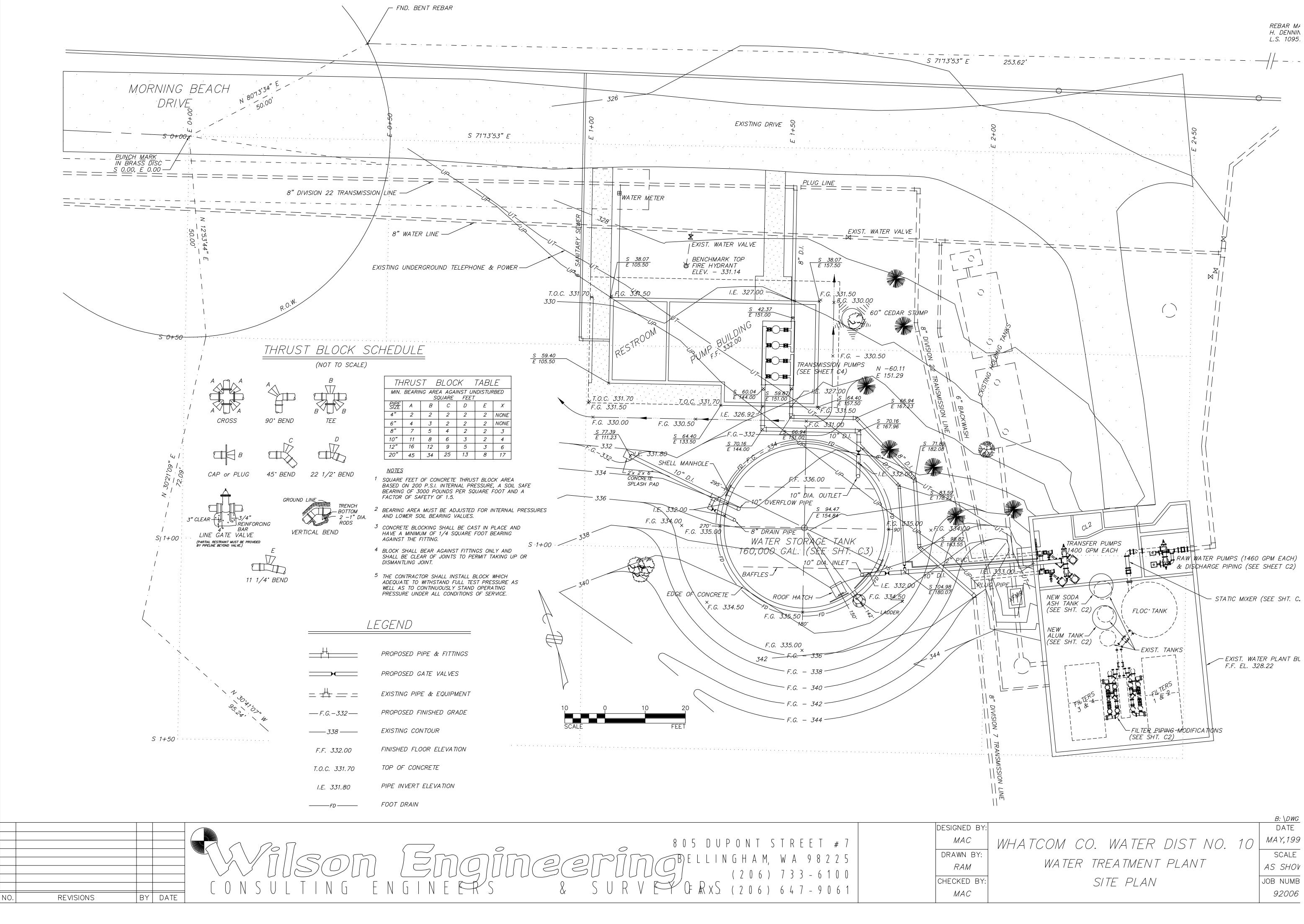
ATTACHMENT A PROJECT INFORMATION













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EASEMENT FOR WATER TREATMENT PLANT WATER PIPELINE AND ACCESS

SUDDEN VALLEY, INC. a Washington corporation for and in consideration of One Dollar (\$1.00) and other good and valuable consideration to it in hand paid, does hereby grant unto WATER DISTRICT #10 of Whatcom county, Washington, an easement for the uses and purposes hereinafter set forth, upon the following described real property, to-wit: See Schedule "A" hereto attached for a complete description.

The land affected by this grant of easement is located in Whatcom County, State of Washington and covers a portion of property now occupied by a water treatment plant owned by Sudden Valley Water Company, together with surrounding area needed for servicing and access to the plant and including all existing pipelines running from the said water treatment plant and connecting with the water pipeline system serving all of Sudden Valley.

This conveyance is without warranty as to title and is a release of any and all interest of Grantor to Grantee.

Grantor does further acknowledge that the easement hereby granted is for the exclusive use of the Grantee and that said easement is perpetual. The Grantee agrees that the easement granted is for the exclusive purpose of maintaining a water treatment plant or related facility and distribution of into the existing water pipeline serving Sudden Valley.

IN WITNESS WHEREOF the parties have hereto set their hands and seals this 25 day of January, 1977.

SUDDEN VALLEY, INC.

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WATER DISTRICT # 10, a Municipal corporation

Dehme D. Ochler BY:

STATE OF WASHINGTON)) ss COUNTY OF WHATCOM)

On this day personally appeared before me WALTER GRIBBEN, Executive Officer of Sudden Valley, Inc., to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this $\frac{2\delta}{2\delta}$ day of January, 1977.

no 2 NOTARY PUBLIC in and for the State of Washington, residing at Bellingham Medine.

	PARCEL I
	A TRACT OF LAND IN THOSE PORTIONS OF THE SOUTHEAST QUARTER OF SECTION 5 AND NORTHEAST QUARTER OF SECTION 8, ALL TOWNSHIP 37 NORTH, RANGE 4 EAST, W.M. DESCRIBED AS A WHOLE AS FOLLOWS:
	BEGINNING AT THE CENTER OF THE CUL-DE-SAC AT THE EASTERLY END OF MORNING BEACH DRIVE IN SUDDEN VALLEY DIVISION 18, AS RECORDED IN VOLUME 11 OF PLATS, PAGES 37 AND 38, RECORDS OF WHATCOM COUNTY, WASHINGTON, FROM WHENCE THE CENTERLINE OF SAID ROAD BEARS NORTH 69°35'37" WEST; THENCE NORTH 80°13'34" EAST 50.00 FEET TO THE EASTERLY BOUNDARY OF SAID DIVISION 18 AND THE TRUE POINT OF BEGINNING;
- 37 - 4 - 37 - 4	THENCE SOUTH 71°13'53" EAST 253.62 FEET; THENCE SOUTH 11°48'12" WEST 168.73 FEET; THENCE SOUTH 61°27'14" WEST 107.11 FEET; THENCE NORTH 21°09'42" WEST 203.73 FEET; THENCE NORTH 18°46'07" EAST 60.00 FEET; THENCE NORTH 18°46'07" EAST 65.00 FEET TO A POINT ON SAID EASTERLY BOUNDARY THENCE NORTH 71°13'53" WEST 65.00 FEET TO A POINT ON SAID EASTERLY BOUNDARY OF DIVISION 18, SAID POINT BEING ON A CURVE FROM WHENCE THE CENTER BEARS NORTH 64°12'48" WEST 50.00 FEET; THENCE NORTHEASTERLY ALONG SAID BOUNDARY AND SAID CURVE 31.03 FEET TO THE TRUE POINT OF BEGINNING. SITUATE IN WHATCOM COUNTY, WASHINGTON.
	SUBJECT TO AND TOGETHER WITH EASEMENTS FOR UTILITIES.
	PARCEL II
	A TRACT OF LAND IN THOSE PORTIONS OF THE SOUTHEAST QUARTER OF SECTION 5 AND THE NORTHEAST QUARTER OF SECTION 8, ALL TOWNSHIP 37 NORTH, RANGE 4 EAST, W.M. DESCRIBED AS A WHOLE AS FOLLOWS:
VOL 320 PAGE 948	BEGINNING AT THE CENTER OF THE CUL-DE-SAC AT THE EASTERLY END OF MORNING BEACH DRIVE IN SUDDEN VALLEY DIVISION 18, AS RECORDED IN VOLUME 11 OF PLATS, PAGES 37 AND 38, RECORDS OF WHATCOM COUNTY, WASHINGTON, FROM WHENCE THE CENTERLINE OF SAID ROAD BEARS NORTH 69°35'37" WEST; THENCE SOUTH 64°12'48" EAST 50.00 FEET TO THE EASTERLY BOUNDARY OF SAID DIVISION 18 AND THE TRUE POINT OF BEGINNING;
F9 48	

PARCEL II

A TRACT OF LAND IN THOSE PORTIONS OF THE SOUTHEAST QUARTER OF SECTION 5 AND THE NORTHEAST QUARTER OF SECTION 8, ALL TOWNSHIP 37 NORTH, RANGE 4 EAST, W.M. DESCRIBED AS A WHOLE AS FOLLOWS:

BEGINNING AT THE CENTER OF THE CUL-DE-SAC AT THE EASTERLY END OF MORNING BEACH DRIVE IN SUDDEN VALLEY DIVISION 18, AS RECORDED IN VOLUME 11 OF PLATS, PAGES 37 AND 38, RECORDS OF WHATCOM COUNTY, WASHINGTON, FROM WHENCE THE CENTERLINE OF SAID ROAD BEARS NORTH 69°35'37" WEST; THENCE SOUTH 64°12'48" EAST 50.00 FEET TO THE EASTERLY BOUNDARY OF SAID DIVISION 18 AND THE TRUE POINT OF BEGINNING;

THENCE SOUTH 71°13'53" EAST 65.00 FEET; THENCE SOUTH 18°46'07" WEST 60.00 FEET; THENCE SOUTH 21°09'42" EAST 203.73 FEET; THENCE SOUTH 61°27'14" WEST 50.00 FEET; THENCE NORTH 43°52'36" WEST 167.17 FEET; THENCE NORTH 30°41'07" WEST 95.24 FEET; THENCE NORTH 30°21'09" EAST 72.09 FEET TO A POINT ON SAID EASTERLY BOUNDARY OF DIVISION 18, SAID POINT BEING ON A CURVE FROM WHENCE THE CENTER BEARS NORTH 12°53'44" EAST 50.00 FEET; THENCE NORTHEASTERLY ALONG SAID BOUNDARY AND SAID CURVE 67.29 FEET TO THE TRUE POINT OF BEGINNING. SITUATE IN WHATCOM COUNTY, WASHINGTON.

SUBJECT TO AND TOGETHER WITH EASEMENTS FOR UTILITIES.

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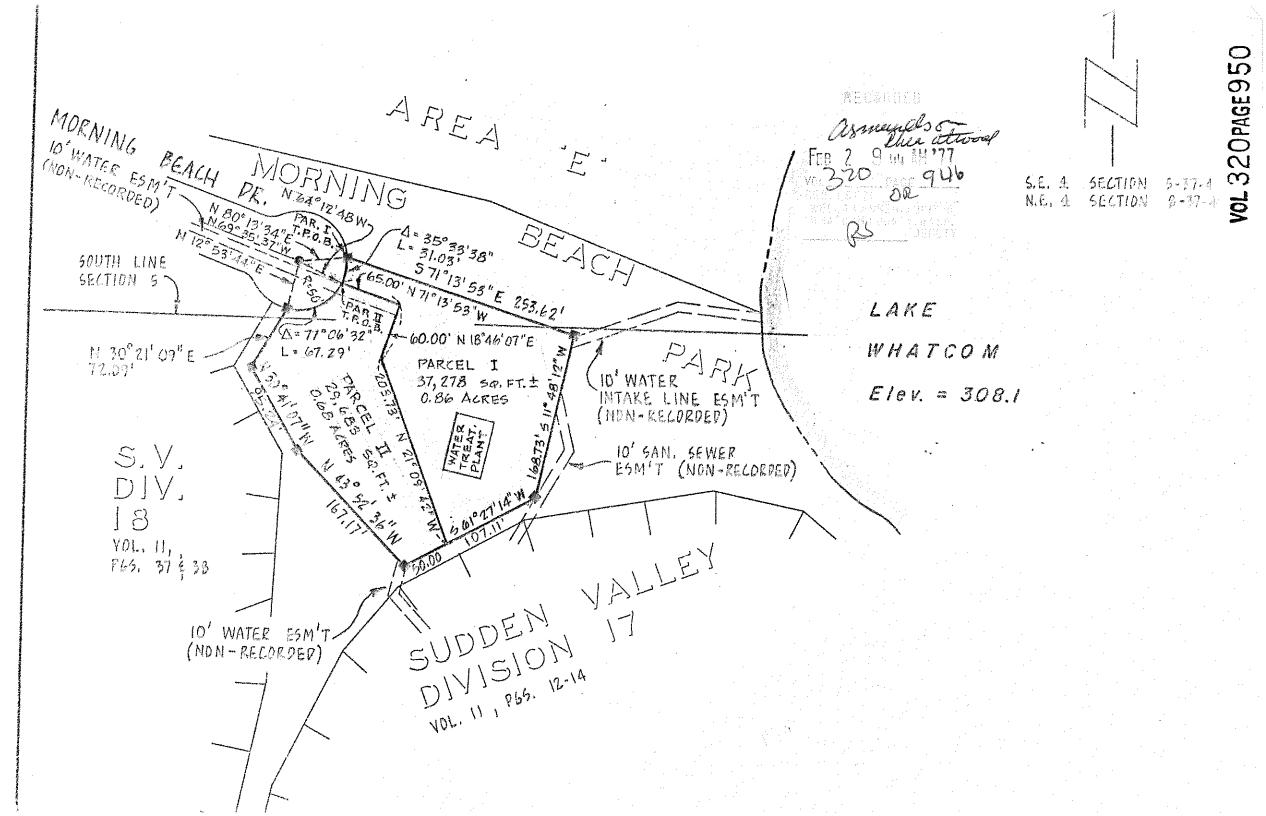
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AUDITOR'S CERTIFICATE

CERTIFICATE NO.



SUDDEN VALLEY WATER TREATMENT PLANT WATER STORAGE TANK NEAR THE TERMINUS OF MORNING BEACH DRIVE WHATCOM COUNTY, WASHINGTON JOB NO. 9204-18G

PURPOSE AND SCOPE

The purpose of this study was to investigate surface and subsurface soil conditions at the above site in order to formulate geotechnical conclusions and provide recommendations for the placement of a water storage tank.

The scope of work for this study included a field investigation, soil sampling, and the preparation of this geotechnical report. The field investigation consisted of a site reconnaissance and the logging of three (3) test pits near and within the proposed tank foundation perimeter. Geotechnical recommendations for the construction of the proposed control building are not included in our scope of work for this study.

PROJECT DESCRIPTION

We were provided with an undated site plan, Figure 1, prepared by Wilson Engineering for the proposed project. The site plan shows the location of the proposed tank, control building, and water lines as well as the existing water lines and water treatment facility. The existing topography in two (2) foot contour intervals is also shown on the site plan. Wilson Engineering also provided an undated and unreferenced section of the proposed tank foundation perimeter.

We understand from conversations with you and from a review of the provided site plan and foundation section that the proposed project will consist of the construction of a cylindrical, forty (40) foot diameter, twenty-five (25) foot high steel water storage tank. The capacity of the

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storage tank will be approximately 60,000 gallons. The tank will be constructed adjacent to and west of the existing water treatment plant. The elevation of the bottom of the tank will be at approximately 335 feet.

It appears from a review of the foundation section that the perimeter tank loads will be supported by utilizing a one and one-half (1 ½) foot wide, reinforced concrete ringwall foundation footing. The steel tank walls will be attached in the field to a steel plate embedded within the ringwall footing. Water column loads will be transferred through a steel plate (tank bottom) placed over an unspecified thickness of a synthetic, oiled base material.

SITE DESCRIPTION

The site is located near the terminus of Morning Beach Drive, near the western shore of Lake Whatcom, east of Bellingham, in Whatcom County, Washington. The site is bounded on the north by Morning Beach Drive and a grassy area. Undeveloped property bounds the site on the west, east, and south. At the time of our site visit, the location of the water tank was indicated by ground stakes, which marked the proposed tank center and perimeter locations.

The existing water treatment facility is located approximately forty (40) feet southeast of the proposed tank location. The existing treatment facility is a subterranean structure with concrete walls and a concrete and glass front which daylights to a drive area. West of and adjacent to the treatment facility is a small area containing two (2) voltage boxes. The area is enclosed by a three (3) to five (5) foot high retaining wall constructed of concrete slabs.

At the time of our site visit, the vegetation consisted of lawn at and to the north of the proposed tank location. The property located to the east, south and west of the site was forested with variably-sized deciduous trees and conifers. Occasional large diameter stumps were also noted

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in the vicinity of the proposed tank location. The understory consisted primarily of ferns and shrubs.

The proposed tank location is within an area which sloped to the north at an angle of three (3) to five (5) degrees. East of the proposed tank location, we observed a five (5) to ten (10) degree, approximately thirty (30) foot long, east-facing slope which led to the driveway for the existing water treatment facility. An approximately twelve (12) foot high, sixty (60) degree, north-facing slope was located approximately twenty (20) feet south of the proposed location of the tank's southern perimeter. At the top of this slope is a fifteen (15) foot wide bench area with a trail which led to the top of the buried water treatment facility. West of the site, we noted a steep, approximately forty (40) foot high slope with a single-family residence located at its top.

We observed an east-west trending, approximately two (2) foot deep and three (3) foot wide, dry drainage swale located south of and adjacent to the bench area. The swale drained westward into a small north-south trending creek which drained from a steep-sided gully located to the south of the site. The creek turned westward at the trail and flowed to a culvert approximately 100 yards west of the proposed tank location.

SUBSURFACE CONDITIONS

The site subsurface conditions were investigated by logging three (3) backhoe test pits on April 29, 1992. The test pit termination depths ranged between nine (9) feet in Test Pit #2 and fifteen (15) feet in Test Pit #1.

The test pit locations were jointly located in the field by a representative from Wilson Engineering and a geological engineer from our office by utilizing the provided site plan and measuring with a tape relative to ground stakes and other site features. As you requested, one of the test pits was located in the area of the proposed underground water pumps, in order to

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assist the contractor with excavation estimation. Representative soil samples were obtained from the test pits and returned to our office for further review.

The locations of the test pits are shown on the site plan presented in Appendix A. Depths referred to in this report are relative to the existing ground surface at the time of our investigation. The surface and subsurface conditions are based on observations made at the site at the time of our visit. Detailed test pit logs are presented in Appendix B. The soils we observed in the test pits were classified using the Unified Soils Classification System. A copy of this classification system is presented in Appendix C.

Soil Conditions

The soil conditions at the site generally consisted of uncontrolled fill overlying old colluvium. The uncontrolled fill appeared to be soil that had been disturbed, possibly during past logging operations.

Uncontrolled fill/disturbed soils were observed to a depth of two and one-half (2 ½) feet in Test Pit #3 and three (3) feet within Test Pits #1 and #2. The uncontrolled fill consisted of brown silty sand/sandy silt with roots and minor to some gravel, that was moist to wet. We observed pockets of blue clay and clasts of sandstone within the fill in Test Pit #2.

In each of the test pits, we observed old preconsolidated colluvium underlying the uncontrolled fill. The colluvium consisted of light brown, mottled, fractured silty sand/sandy silt with minor clay and trace gravel, that was medium dense to dense and exhibited variable moisture content. The colluvium was encountered to the total test pit depths of Test Pits #2 and #3.

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A brown silty sand with some gravel and occasional cobbles that was medium dense and saturated was found underlying the colluvium in Test Pit #1. The silty sand was encountered to the total test pit depth of fifteen (15) feet.

Ground Water Conditions

Minor ground water seepage was encountered within Test Pits #1 and #2 at depths of twelve (12) feet and nine (9) feet, respectively. No ground water seepage was observed within Test Pit #3.

The site lies in an area which Easterbrook $(1976)^1$ has geologically mapped as rocks of the Chuckanut Formation. The soils encountered during our field investigation do not correlate with the published description of this geologic unit, although we observed rock outcrops of similar material in the bottom of a nearby erosion channel.

METHOD OF ANALYSIS

Our soil/foundation interaction analysis is based on our understanding of the proposed project and information obtained from a review of our files. In addition, our analysis utilized conservatively chosen soil properties and strength parameters.

The following assumptions were incorporated in our analysis:

• The analysis is based on the above described dimensions of the proposed structure.

¹Easterbrook, D.J., 1976, Geologic Map of Western Whatcom County, Washington: USGS Miscellaneous Investigations Map I-854-B, Scale 1:62,500.

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- The tank foundation is approximated as a rigid disk in order to simplify the analysis.
- The tank foundation pad is backfilled to a minimum depth of four (4) feet around its entire perimeter.
- The design loads are based on the tank being full of water.
- The placement of the foundation on bearing soil is according to our recommendations outlined in this soils report.
- The response of the subgrade soil to static and dynamic loads is elastic.

The horizontal force and corresponding overturning moment at the proposed foundation are based on a 0.27g horizontal ground acceleration value. This value represents the expected ground motion during an earthquake for which there is a 90% probability of its magnitude not being exceeded within fifty (50) years. The value is indicated for northwestern Washington by Algermissen et al $(1990)^2$.

CONCLUSIONS

We conclude that the native light brown to brown, medium dense to dense silty sand/sandy silt with minor clay and trace gravel (old colluvium) or the brown, medium dense silty sand with some gravel are suitable for maximum safe bearing of static tank and water column design loads

²Algermissen, S.T., Perkins, D.M., Thenhaus, P.C., Hanson, S.L., and Bender, B.L., 1990, Probabalistic Earthquake and Acceleration Maps for the United States and Puerto Rico: USGS Miscellaneous Field Studies Map MF-2120, Scale 1:7,500,000.

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up to 2,500 psf and temporary dynamic design loads of 5,500 psf, provided the foundation is placed in accordance with the recommendations outlined in this soils report. The uncontrolled fill encountered in the test pits is not suitable for the support of the tank and water column loads during static or dynamic conditions and should be removed from the foundation area prior to foundation placement.

We conclude that the risk of failure of the foundation in a general shearing mode, a local shearing (punching) mode, or due to basal sliding is minimal.

We conclude the site is suitable for the proposed tank construction, provided our recommendations regarding geotechnical concerns are carefully followed.

RECOMMENDATIONS

Site Preparation and Grading

We recommend removing vegetation and unsuitable uncontrolled fill soil prior to placement of the tank foundation. The uncontrolled fill, if temporarily stockpiled on the site, should not be stockpiled near the tank foundation excavation and should be covered with securely-anchored and well-maintained plastic sheeting.

The soils at the site are moisture-sensitive and will deteriorate under wet weather conditions. We recommend that site work be done during an extended period of dry weather. Additional costs during construction could be expected if construction is done during wet weather.

It may be necessary to use wide track or light weight equipment to avoid overly disturbing the on-site soils. In addition, the construction of a temporary construction entrance using a combination of quarry spalls, compacted crushed rock, or geotextile fabric such as Mirafi 500X[®]

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or equivalent, may be necessary to minimize the disturbance of the on-site soils and provide a working surface for construction traffic.

We recommend that the walls of the temporary tank foundation excavation above a depth of four (4) feet be sloped to 1(H):1(V) or flatter. We recommend that all final excavations as well as cut or graded slopes be sloped to 2(H):1(V) or flatter.

Soil/Foundation Interaction

A summary of the results of our analysis is presented below:

Static foundation contact pressure	2,460 psf
Maximum foundation contact pressure at edge	
of foundation disk from static plus seismic	
overturning loads	5,100 psf
Factor of safety against basal sliding	1.37
Passive lateral earth pressure on tank	
foundation (equivalent fluid pressure)	330 pcf
Estimated average subgrade modulus ³	40,600 pcf

³Zeevaert, L., 1972, Foundation Engineering for Difficult Subsoil Conditions: Van Nostrand Reinhold Company, 652 pp.

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Estimated average elastic (immediate) settlement from static loads

0.75 inch

The above estimate of elastic settlement is based on our estimated subgrade modulus. Due to the size of the foundation area and the resulting deep stress influence of the foundation loads, estimates of total, time-rate, or differential settlement would require additional soil sampling and analysis. In our judgment, this analytical refinement is unnecessary for this structure. We would be pleased to work with you in this regard should you require this information.

Foundation Placement

In order to strengthen the foundation under the tank bottom and to minimize the potential for differential settlement, we recommend that the tank bottom be placed on a foundation pad placed within the ringwall footing area. The excavation for the fill pad should consist of a level subgrade surface excavated into bearing soil to an elevation equivalent to the base of the ringwall footing.

Based on the depth of unsuitable soil within the test pits, and the proposed tank location and tank bottom elevation, it appears the base of the ringwall footing will be near an elevation of 330 feet. In addition, it appears a maximum cut into existing grade of approximately ten (10) feet will be required for the tank foundation placement near its southern perimeter. At the northern tank perimeter, the tank bottom elevation will be higher than the existing grade, indicating a need for excavation to bearing soil and backfilling above existing grade to the tank bottom elevation.

We recommend that the interior foundation pad consist of controlled density fill (CDF). A suitable but less desirable alternative would be to utilize coarse, $1^{1/4}$ " minus, clean, angular crushed rock or 2" to 4" diameter quarry spalls, which has been placed on a firm, horizontal

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surface of native bearing soil. The rock should be placed in maximum twelve (12) inch thick loose lifts and mechanically compacted. If quarry spalls are utilized, a minimum one (1) foot compacted thickness of the 1 ¹/₄" minus crushed rock should be placed between the quarry spalls and the proposed synthetic oiled base.

We recommend placing the tank ringwall footing and interior crushed rock, quarry spall, or CDF foundation pad directly on the native light brown to brown, medium dense to dense silty sand/sandy silt with minor clay and trace gravel (old colluvium) or the brown, medium dense silty sand with some gravel. Prior to foundation placement, the bearing soil should be firm, undisturbed, and free of organic material, standing water, and loose soil.

We recommend that we be engaged to observe all excavations, confirm bearing soils for the proposed structure foundation subgrade, and to monitor the placement of the controlled density fill or crushed rock fill to confirm that it is being placed in accordance with our recommendations.

<u>Drainage</u>

The presence of fine-grained soils at the proposed water tank foundation footprint indicates that drainage should be provided for the foundation pad. We recommend that a footing drain be placed around the perimeter of the foundation. The foundation drain should consist of a four (4) inch diameter, perforated flexible pipe that is bedded in several inches of pea gravel and backfilled with at least eighteen (18) inches of pea gravel. The footing drain should be tightlined to a storm sewer system or other suitable outlet.

We recommend that the site be graded so that standing water on the ground surface is allowed to drain off the site. Grading for favorable drainage should be done during the initial stages of construction.

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The presence of ground water seepage within Test Pits #1 and #2 indicates temporary drainage during construction may be required. Drainage may consist of an open ditch excavated around the excavation perimeter, which captures water and routes it around the construction area to sumps where it may be pumped out of the excavation and away from the site.

GENERAL

The recommendations provided here are based on our understanding of the project at this time. We should be engaged to work with you in developing the final plans in order to provide additional, augmented, and/or more detailed recommendations.

We recommend that we be engaged to monitor all excavations so that we can provide on-site recommendations, should any adverse soil and/or ground water conditions be encountered. We recommend that we be engaged to observe site preparation and earthwork to verify subgrade conditions and confirm bearing soils. These recommendations are for engineering review, and go beyond any testing agency involvement which may be required.

We expect the on-site soil conditions to reflect our findings; however, some variations may occur. Should soil conditions be encountered that cause concern and/or are not discussed herein, Cascade Geotechnical, Inc., should be contacted immediately to determine if additional or alternate recommendations are required.

This report has been prepared for the exclusive use of Wilson Engineering, for specific application to the proposed Sudden Valley Water Treatment Plant Storage Tank project, in Whatcom County, Washington, in accordance with generally accepted soils and foundation engineering practices. No other warranty, expressed or implied, is made.

May 18, 1992

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We trust that this provides sufficient information for your needs. Should you have any additional questions, feel free to contact us at any time.

hSincerely,

CASCADE GEOTECHN George E. Lamb, P.E President 5.04R.18 11-21-93

Kevin P. Roberts, E.I.T. Geological Engineer

KPR:pg

