

SPECIFICATIONS
AND
CONTRACT DOCUMENTS FOR

SUNSET AND TANGLEWOOD WELL PROJECT

SOUTH TAHOE PUBLIC UTILITY DISTRICT
SOUTH LAKE TAHOE, CALIFORNIA

(May 2026)

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SOUTH TAHOE PUBLIC UTILITY DISTRICT

Project Name

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Technical Specifications

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DIVISION 00

**SECTION 00 10 00
SOLICITATION**

INVITATION TO BID

The South Tahoe Public Utility District (STPUD or District) invites sealed bids by electronic submission only for the construction of the **SUNSET AND TANGLEWOOD WELL PROJECT** ("Project").

Electronic Bids will be received until 2 P.M., June 8, 2026. Hard copy original Bid Bond (or other acceptable form of bid security) MUST be delivered to District in advance of the Bid deadline. Bids submitted after this time will not be accepted by the electronic bidding system. All bids that have been timely received will be publicly opened and the content read aloud at the STPUD offices, Board Room, located at 1275 Meadow Crest Drive, South Lake Tahoe, California. All interested parties are invited to attend. Bids shall be valid for 60 calendar days after the bid opening date, as required in the Bid Form.

The site of the work is located on DISTRICT property (APN 031-313-016) at 942 Tanglewood Dr. and on a DISTRICT easement (APN 031-290-011) at 885 Sunset Dr., both located within established residential neighborhoods in the City of South Lake Tahoe, El Dorado County, California.

The work to be performed consists of:

Drilling and installing production wells at the Tanglewood and Sunset well sites, including site preparation, installation of temporary perimeter sound walls, reverse rotary drilling, lithologic sampling, geophysical logging, installation of casing and screen, installation of gravel pack and intermediate seals, installation of sanitary seal, well development, pump testing, and installation of surface completion.

A copy of the Contract Documents are on file and may be examined at the South Tahoe Public Utility District Offices, 1275 Meadow Crest Drive, South Lake Tahoe, California.

In order to download the Contract Documents and receive addendums and notifications when issued, Bidders must register as a vendor at the District's Vendor Portal:

<http://www.planetbids.com/portal/portal.cfm?CompanyID=21516>

Electronic bids will also be submitted through this website. Paper bids will not be accepted.

Contract Documents are available for free download on the District's Vendor Portal. For assistance in downloading these documents or registering as a vendor contact Star Glaze, Contracts Administrator at (530) 543-6205.

All bids are to be submitted electronically as required in Section 00 20 00 Instructions for Procurement. **Paper bids will NOT be accepted. Hard copy original Bid Bond must be delivered to the District in advance of the bid deadline.** After electronic bidding, each bidder shall submit their original Bid Forms to South Tahoe Public Utility District at 1275 Meadow Crest Drive, South Lake Tahoe, California by **June 10, 2026, at 2 P.M.**

Questions or comments regarding this Project must be submitted electronically via our electronic bidding system and must be received by the District no later than **May 29, 2026, at 5 P.M.** Questions received after the date indicated will not be accepted. Questions submitted via telephone call, email or faxes will not be accepted. Responses from the District will be communicated via the electronic bidding system.

A mandatory Pre-Bid Conference will be held at the South Tahoe Public Utility District, Board Room, 1275 Meadow Crest Drive, South Lake Tahoe, California on May 27, 2026 at 2 P.M. Any bidder absent from the Pre-Bid Conference shall have their bid disqualified as non-responsive. A tour of the site of work will be conducted as part of the Pre-Bid Conference.

In accordance with the provisions of California Public Contract Code section 3300, the South Tahoe Public Utility District has determined that bidders shall possess a valid class C57 contractor license at the time of bid opening, the Contract is awarded and for the duration of the Contract. Failure to possess the specified license shall render the bid as non-responsive and shall act as a bar to awarding the contract to any bidder not possessing said license at the time of award.

This project is subject to prevailing wage requirements. Pursuant to Labor Code section 1773, the District has obtained the prevailing rate of per diem wages and the prevailing rate for holiday and overtime work in the locality in which the work will be performed for each craft, classification, or type of worker needed. Not less than the determined rates shall be paid to all workers employed in the performance of the contract. Such rates of wages are on file with the Department of Industrial Relations and in the office of the District and are available to any interested party upon request.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the Bidder's and its subcontractors' current registration with the Department of Industrial Relations to perform public work. Bidder shall certify that Bidder and all listed subcontractors are currently and validly registered with the Department of Industrial Relations and shall include its registration number on its bid. If awarded a Contract, the Bidder and its subcontractors of every tier shall maintain active registration with the Department of Industrial Relations for the duration of the Project. It shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements.

The California Air Resources Board ("CARB") implemented amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulations ("Regulation") which are effective on January 1, 2024 and apply broadly to all self-propelled off road diesel vehicles 25 horsepower or greater and other forms of equipment used in California. A copy of the Regulation is available at <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/off-roaddiesel/appa-1.pdf>. Bidders are required to comply with all CARB and Regulation requirements, including, without limitation, all applicable sections of the Regulation, as codified in Title 13 of the California Code of Regulations section 2449 et seq. throughout the duration of the Project. Bidders must provide, with their Bid, a completed and signed copy of the Fleet Compliance Certification included in Section 00 41 00 Bid Forms. At the District's request, within 48 hours after the Bid Opening, Bidder must submit copies of Bidder's and all listed subcontractors' most recent, valid Certificate of Reported Compliance ("CRC") issued by CARB. Failure to provide valid CRCs as required herein may render the Bid non-responsive.

Pursuant to the provisions in Section 6707 of the California Labor Code, each Bid submitted in response to this Invitation to Bid shall contain adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders for the State of California.

Pursuant to Section 22300 of the California Public Contract Code, the successful bidder may substitute securities for any moneys withheld by the District to ensure performance under the Contract as specified in Section 00 20 00.

Each bid shall be accompanied by cash, a certified or cashier's check, or bid bond secured from a surety company satisfactory to the District, the amount of which shall not be less than ten percent (10%) of the submitted bid price or as detailed in Section 00 20 00, Bid Security, Part 2.05, made payable to the South Tahoe Public Utility District as bid security.

The successful bidder will be required to furnish the District with a faithful performance bond and a labor and material payment bond each in an amount equal to 100% of the Contract Price, prior to execution of the Contract. All bonds are to be in the forms set forth herein, secured from a surety that meets all of the State of California bonding requirements, as defined in Code of Civil Procedure Section 995.120, and that is a California admitted surety insurer.

Pursuant to Public Contract Code §3400(b), if the District has made any findings designating certain materials products, things, or services by specific brand or trade name without alternative, such findings and the materials, products, things, or services and their specific brand or trade names will be set forth in Section 01 60 00, Product Requirements, of the Contract Documents.

The South Tahoe Public Utility District reserves the right to reject any or all bids, to waive any informality in a bid, and to make awards to the lowest responsive, responsible bidder in the best interest of the District.

Megan Colvey, P.E.
Engineering Department Manager/District Engineer
SOUTH TAHOE PUBLIC UTILITY DISTRICT

END OF SECTION

**SECTION 00 20 00
INSTRUCTIONS FOR PROCUREMENT**

INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Conditions affecting award of Contract and procedures with which bidders and proposers must comply.

1.02 DEFINITIONS

- A. Terms used in these Instructions to Bidders and defined in Section 00 71 00, Contracting Definitions, shall have the meaning stipulated in such Section 00 71 00, Contracting Definitions.
- B. The electronic Bid Schedule consists of the table in the “Line Items” tab for the project on the electronic bidding system.
- C. The following additional terms used in these Instructions to Bidders shall have the meaning stipulated:
 - 1. Award: The formal acceptance of the Bid and other executed Bid Forms by the District.
 - 2. Bid: The price proposed by Bidder in the appropriate electronic Bid Schedule, completed on the electronic bidding system, for performance of the Work.
 - 3. Bidder: A person, firm, or corporation who having purchased a set of Contract Documents intends to submit a Bid and other Bid Forms to the District, or one who submits a Bid and other executed Bid Forms to the District.
 - 4. Successful Bidder: The Bidder to whom the District makes the award of the Contract for performance of the Work.

PART 2 PROCEDURES

2.01 EXAMINATION OF DOCUMENTS, SITE AND CONDITIONS

- A. Before submitting a Bid, Bidders shall carefully examine and be thoroughly familiar with the Contract Documents, visit the site of work, fully inform themselves as to all existing conditions and limitations, review those documents identified in Section 00 30 00, Information Available to Bidders, and shall include sums in the bid covering the cost of each item included in the Contract.
- B. Only the Contract Documents shall be relied upon for execution of Bids and other Bid Forms.
 - 1. Unless corroborated by the Contract Documents, statements or representations regarding the Work made prior, during, or after bidding by the District, Design Engineer, or Engineer will not be binding and shall not be considered by Bidders for preparation of Bids.

2. The District, Design Engineer, and Engineer will not be responsible for explanations or interpretations of the Contract Documents other than those issued by Addenda.
- C. Complete sets of Contract Documents shall be used by Bidders (and their respective subcontractors) to prepare Bids.
1. The District, Design Engineer, and Engineer assume no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.
- D. Submission of a Bid shall be considered prima facie evidence that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of Contract Documents. The failure or neglect of a Bidder to make such examinations shall in no way relieve the Bidder from any obligations with respect to its bid or to the Contract Documents. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any provision of the Contract Documents.

2.02 PRE-BID CONFERENCE

- A. Time and Place: A mandatory pre-bid conference will be held at the time and place specified in the Section 00 10 00, Solicitation – Invitation to Bid.

2.03 ELECTRONIC BIDDING

- A. Plans and specifications may be obtained by visiting the District's website at <http://www.planetbids.com/portal/portal.cfm?CompanyID=21516> which can be reached by selecting "NOTICE INVITING BIDS (PlanetBid-Portal)" on the STPUD website <https://www.stpud.us/current-bids>. Prime Bidders are advised that proposed subcontractors should obtain their own sets of Contract Documents from the District website so that they will be placed on the District's email list for addenda. The District will not be responsible for sending addenda to any person not listed on the prospective bidder list.
- B. For a Bid to be considered responsive it must include the following parts, all submitted electronically through the online bidding system prior to the exact date and time set forth in Section 00 10 00. Forms may be submitted as a single electronic file, or separate files, at the Bidder's discretion within the constraints of the electronic bidding system, but all parts must be present. In addition to the electronic bid, a hard copy of the bid security must be received by the District prior to the bid time and date as described in section 2.05, Bid Security.
1. Electronic Bid Schedule consisting of the table in the "Line Items" tab for the project on the electronic bidding system. A copy of the Bid Schedule is included in Section 00 41 00, Bid Forms, for reference only and need not be filled out.
 2. Section 00 41 00, Bid Forms- all forms provided (excepting the sample bid schedule) shall be completed in their entirety, including the Bid Security and long-hand signature of Bidder. Bid Forms may be printed, completed and scanned for submission, but shall not be altered or modified from their original form.

- C. Bidders are responsible for submitting and having their Bids accepted by the electronic bidding system before the closing time set forth in Section 00 10 00, Solicitation-Invitation to Bid or as changed by addenda. NOTE: Pushing the submit button on the electronic bid system may not be instantaneous; it may take time for the Bidder's documents to upload and transmit before the Bid is accepted. It is the Bidder's sole responsibility to ensure their documents are uploaded, transmitted, and arrive in time electronically. The District will have no responsibility for bids that do not arrive in a timely manner, no matter what the reason. The electronic bid system will close exactly at the date and time set forth in Section 00 10 00, Solicitation - Invitation to Bid or as changed by addenda.
- D. The three lowest Bidders (at a minimum) will be required to submit the original Bid Forms within the time stated in Section 00 10 00, Solicitation – Invitation to Bid. Failure to do so may result in rejection of the Bid. The District reserves the right to request original Bid Forms from any or all Bidders.
- E. In the case of a discrepancy between the electronic bid amount and the original Bid Forms, the electronic bid amount will be the accepted Bid.
- F. For Bids to receive consideration, they shall be made in accordance with the following instructions:
 - 1. Bidder will be required to download all contract documents, including but not limited to the Bid Forms, Specifications, Plans, and any addenda, prior to submitting a Bid.
 - 2. All notations in the Bid must be in ink or typewritten. No erasures will be permitted. Mistakes may be crossed out and corrections typed or written in with ink adjacent thereto, and must be initialed in ink by the person or persons signing the Bid.
- G. All Bids shall be made in accordance with applicable statutes of the State of California including, but not limited to, the California Government, Labor and Public Contract Codes, applicable local laws, and as specified in these Contract Documents.
- H. Bid prices shall include everything necessary for the completion of the Project and fulfillment of the Contract including, but not limited to, furnishing all materials, equipment, tools, and other facilities and all management, superintendents, labor and services, except as may be provided otherwise in the Contract Documents. Bid prices shall include all applicable federal, state, and local sales and use taxes.
- I. The District is a Public Works Awarding Body, as defined under Title 13 California Code of Regulations section 2449(c)(46). Accordingly, Bidders must submit at the District's request, within 48 hours after the Bid Opening, the most recent, valid Certificates of Reported Compliance ("CRC") for the Bidder's fleet and for the fleet(s) of its listed subcontractors (including any applicable leased equipment or vehicles). Bidder must additionally complete and submit the Fleet Compliance Certification, included in the Bid Documents. Failure to provide a CRC for the Bidder, and for all listed subcontractors, or failure to complete the Fleet Compliance Certification, may render the Bid non-responsive.

2.04 SIGNING THE BID FORM

- A. The Bid shall:
 - 1. Include the legal name of the Bidder.
 - 2. Identify the Bidder as a sole proprietor, a partnership, a corporation, or any other legal entity.
 - 3. Be signed by the person or persons legally authorized to bind the Bidder to a contract for the execution of the Work.
 - 4. Include a list of subcontractors.
- B. A Bid submitted by an agent shall have a valid Power of Attorney (Bid Certificate) attached certifying the agent's authority to bind the Bidder.
- C. The signature of all persons signing shall be in longhand.

2.05 BID SECURITY

- A. Each Bid shall be accompanied by a bid security in the form of: (a) cash, (b) certified check made payable to the District; (c) a cashier's check made payable to the District; or (d) a bid bond payable to the District, executed by the Bidder as principal and surety as obligor, in an amount not less than ten percent (10%) of the maximum amount of the Bid. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be a California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. The bid security shall be given as a guarantee that the Bidder, if awarded the Contract, will promptly execute such Contract in accordance with the Bid and in manner and form required by these Contract Documents and will timely furnish the specified bonds. **The hard copy original bid security must be delivered to the District prior to the bid date/time for the bid to be considered responsive.**
- B. In the event a bond is submitted, the bond shall be signed by the Bidder and a corporate surety, or by the Bidder and two sureties who shall justify before any officer competent to administer an oath, in double said amount and over and above all statutory exemptions. The amount so posted shall be forfeited to said District in case the Bidder depositing the same does not, within fifteen (15) days after written notice that the contract has been awarded to him execute the agreement, provide the required insurance submittals, secure payment of workman's compensation insurance, furnish a satisfactory faithful performance bond and a labor and material payment bond each in an amount equal to one hundred percent (100%) of the Contract price.
- C. Retention of bid security:
 - 1. The bid securities of the three lowest Bidders will be retained until the Contract is awarded and signed and satisfactory bonds furnished, or other requirements completed to the reasonable satisfaction of the District.
 - 2. The bid securities of all Bidders will be returned within sixty (60) days upon award.
- D. Each Bidder shall be required to submit a copy of their bid security when submitting their electronic Bid. **The hard copy original bid security (in the acceptable forms listed in Part 2.05.A, above) MUST be delivered to the District Office in**

advance of the Bid Submission deadline specified in Section 00 10 00, Solicitation – Invitation to Bid. Additionally, an electronic Bid not accompanied by a copy of (a) cash, (b) certified check made payable to the District; (c) a cashier's check made payable to the District; or (d) a bid bond payable to the District may be rejected.

2.06 AWARD OR REJECTION OF BIDS

- A. The District reserves the right to accept or reject any or all Bids when deemed best for the public good, and to waive any Bid informality, irregularity, and nonconformity when deemed best for the public good.
 - 1. Bids shall be evaluated, in part, based on meeting the requirements of the Plans and Specifications. Bids that do not meet the requirements of the Plans and Specifications may be deemed non-responsive and rejected by the District.
- B. When Bids are not rejected, the Contract will be awarded to the lowest responsible Bidder submitting a responsive Bid.
 - 1. The low Bid will be the Bid with the lowest net total arrived at by combining the Bid lump sum prices and unit prices for the Bid Items on the electronic Bid Schedule.
 - 2. If alternate bid items are called for in the Contract Documents, then consideration for alternatives in determining the low Bid shall be as set forth in Section 00 10 00.
 - 3. When award is made, Notice of Award will be sent to the selected Bidder by certified mail.
- C. The award, when made, will be made within the time stipulated for Bids to remain subject to acceptance in Section 00 41 00.

2.07 NOTICE OF AWARD

- A. Acceptance of Award: The acceptance of the Notice of Award must be executed and returned to the District within five (5) business days of the date of the Notice of Award.
- B. Required Bonds: The successful Bidder, upon issuance of the Notice of Award, is required to execute the contract and furnish the required Payment and Performance Bonds, in the form required by the District, and evidence of insurance, stipulated below, within fifteen (15) calendar days from the date of the Notice of Award.
- C. The surety insurer shall be a California admitted surety insurer, as defined in the Code of Civil Procedure Section 995.120. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- D. Insurance Documents: Insurance requirements are stipulated in Section 00 73 00, Supplementary Conditions. Successful Bidder shall furnish the insurance documents required in that Section. The Contract shall not become effective until such insurance documents have been supplied to and accepted by the District. No other insurance documents shall be accepted in substitution of, nor in addition to, those specified above.

- E. Examination of Forms: The forms of Contract, which the successful Bidder as Contractor will be required to execute, and the forms of bonds which the successful Bidder will be required to furnish, shall be carefully examined by the Bidder.
 - 1. Such forms are included in these Contract Documents.
- F. Number of Copies: The Contract and the Bonds will be executed in two (2) original counterparts.

2.08 EXECUTION OF CONTRACT

- A. The Notice of Award will be issued by the District to the successful bidder and will indicate the time schedule for execution of the Contract.
 - 1. The Contract package will be mailed with the Notice of Award.
 - 2. The Contract and all required related documents including the Performance Bond, Payment Bond, Corporate Resolution, insurance submittals and other required documents, as described in the Contract Documents shall be executed, completed, and delivered to the South Tahoe Public Utility District, not later than 4:30 PM on the fifteenth (15th) calendar day following the Notice of Award of the Contract.
- B. In the event the documents submitted do not meet the requirements of the District, District staff will notify the Bidder, by telephone followed by confirmation in writing, as to how the documents are insufficient, or incomplete, and the Bidder shall have five (5) business days, from the written notification to remedy such insufficient or incomplete documents.
- C. In the event the Bidder fails to remedy insufficient or incomplete documents within five (5) business days or the Bidder fails to submit the documents within the time limitation described in preceding Paragraph B, then the Bidder may be considered to have defaulted and would thus have no further rights under and by virtue of the award of the contract. If the Bidder is found to have defaulted, then:
 - 1. The District may award the contract to the next lowest, responsible Bidder submitting a responsive Bid or rebid the project as determined by the District in its sole discretion; and
 - 2. Upon default of the Bidder the District shall have the right to collect the bid security.

2.09 NOTICE TO PROCEED

- A. Upon providing the District the executed contract, evidence of insurance and the required bonds, in compliance with the Contract Documents, the District will issue a Notice to Proceed. Notice to Proceed shall be signed within fifteen (15) calendar days from the date of the Notice to Proceed and returned to the District. No work shall proceed until said acceptance is signed and timely received by the District. All commitments, subcontracts, and materials ordered until the acceptance is received shall be at risk of Bidder.

PART 3 CONDITIONS AND INSTRUCTIONS

3.01 EXPERIENCE AND BUSINESS STANDING

- A. Qualification of Bidders: Each Bidder shall possess a contractor's license for the type of work required on this Contract, issued by the California Contractors State License Board, valid at the time of bid and time of award of Contract and for the duration of the Contract. Likewise, specialty subcontractors may also be required to possess a contractor's license for the type(s) of work required on this Contract. The class of license shall be as specified in Section 00 10 00, Solicitation - Invitation to Bid. Each Bidder shall also have no less than five (5) years experience in the magnitude and character of the work being bid. Each Bidder shall have successfully completed no less than five (5) similar type projects of the same or larger capacity and list the projects on the bid forms as required per Section 00 41 00, Bid Forms.
- B. Debarred Contractors: In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or 1777.7 of the Labor Code.
- C. Experience Statement: The District may require that Bidders under consideration for award of the Contract submit a statement setting forth that Bidder's experience.
 - 1. Along with this statement, each Bidder shall list similarly constructed projects showing total project costs, when constructed, and the names, addresses, and phone numbers of the owners.
- D. Financial Statement: Bidders may be requested to submit a financial statement, references, and other information sufficiently comprehensive to permit an appraisal of the Bidder's current financial condition. Such statement shall be in a form and substance similar to or equal to the form for that purpose developed and published by the Associated General Contractors of America
 - 1. The financial statement shall be submitted within five (5) days of receipt of the request from the District.
 - 2. If Bidder fails to timely submit a requested financial statement, or if the financial statement is not satisfactory to the District, the Bid of such Bidder may be considered non-responsive, and such Bid may be rejected by the District.
- E. Resume Statement: Bidders may be requested to submit the experience resume of the person who will be designated chief construction superintendent or onsite construction manager
 - 1. The experience resume shall be submitted within five (5) days of receipt of the request from the District.
 - 2. Where Bidder fails to timely submit a requested experience resume, or where the experience resume is not satisfactory to the District, the Bid of such Bidder may be considered non-responsive, and such Bid may be rejected by the District.

3.02 COPIES AND USE OF BIDDING DOCUMENTS

- A. Contract Documents may be obtained as stipulated in Section 00 10 00, Solicitation - Invitation to Bid.
- B. Contract Documents are made available to Bidders for the purpose of obtaining Bids for performance of the Work. No license or grant is given for other uses of the Contract Documents.

3.03 INTERPRETATION OF CONTRACT DOCUMENTS

- A. Questions: If any Bidder contemplating submitting a Bid does not understand any part of the Contract Documents, or finds discrepancies in or omissions from the Contract Documents, that Bidder shall submit to the District a written request for an interpretation or correction by the means specified in 00 10 00, Solicitation – Invitation to Bid.
- B. Interpretations or Corrections: Interpretation or correction of the Contract Documents will be made only by Addendum duly issued and a copy of such Addendum will be distributed via the electronic bidding system.
 - 1. The District will not be responsible for any other explanations or interpretations of the Contract Documents.
- C. Documents to Rely Upon: Only the Contract Documents and Addenda shall be relied upon for preparation of Bids. Statements or representations made by or on behalf of the District regarding the Project prior, during, or after the bidding will not be binding upon the District.

3.04 QUESTIONS DURING BID PERIOD

- A. Questions regarding the Contract Documents and bidding procedures shall be submitted electronically to our electronic bidding system within the time limit specified in Section 00 10 00, Invitation to Bid.
- B. The request for clarification or interpretation shall be dated and shall identify (1) the Work, (2) the statement or the drawing that is in question, (3) the documents in which they occur, (4) the reasons for which the clarification or interpretation is necessary, and (5) the name and title of the person submitting the request.
- C. Clarifications, interpretation, and correction to Contract Documents will be issued only by Addendum, as set forth in Part 3.5, below.
- D. Questions regarding the Bid Documents should be submitted to the District in sufficient time for the District to prepare a response prior to bid opening.

3.05 ADDENDA

- A. A notice that an addendum has been issued will be distributed via email to persons, firms and corporations registered as Vendors and perspective bidders for the project on our electronic bidding system. Copies of all addenda must be downloaded from our electronic bidding system before a Bidder can submit a Bid.

- B. Addenda issued during the time of bidding shall be covered in the Bid and shall become a part of the Contract Documents.
- C. Bidders shall acknowledge receipt of any and all addenda in their Bid.
- D. In accordance with Public Contract Code §4014.5, if an addendum includes material change to the project and is issued less than 72 hours before the bid date, the District must extend the deadline for the submission of bids. The District reserves the right to determine in its sole discretion whether an addendum includes material changes to the project.
- E. It is the Bidder's responsibility to determine it has received any and all Addenda prior to bidding. The Bidder is advised to contact the District prior to the Bid opening to confirm that all Addenda have been received.

3.06 BIDDERS INTERESTED IN MORE THAN ONE BID

- A. Interest in More Than One Bid: No person, firm, or corporation, under the same or different name, shall make, file, or be interested in more than one Bid for the same work unless alternate bids are called for.
 - 1. A person, firm, or corporation who has submitted a sub-bid to a bidder, or who has quoted prices on materials to a Bidder, is not disqualified from submitting a sub-bid or quoting prices to other Bidders.
- B. Rejection in Case of Collusion:
 - 1. Reasonable grounds for believing that any Bidder is interested in more than one Bid for the same work, will cause the rejection of all bids for the Work in which such a Bidder is interested.
 - 2. Any or all bids will be rejected, in the sole discretion of the District, if there is reasonable grounds for believing that collusion exists among any of the bidders.
- C. Noncollusion Declaration: Pursuant to Public Contract Code Section 7106, Bidders shall submit with their Bids the Noncollusion Declaration executed in the form included with the bid documents.

3.07 SUBSTITUTION OF SECURITIES

- A. Section 01 20 00 calls for progress payments based upon the percentage of the work completed. The District will retain a portion of each progress payment as retention as provided by the Contract Documents. At the request and expense of the successful Bidder, the District will substitute securities for the amount so retained in accordance with Public Contract Code Section 22300.
- B. Securities may be deposited with the District, or with a state or federally chartered bank as the escrow agent, who shall pay such monies to the contractor upon satisfactory completion of the contract. Securities eligible for investment shall include those listed in Section 16430 of the California Government Code, or bank or savings and loan certificates of deposit. The contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

3.08 SUBCONTRACTORS

- A. Bidders shall list, in Section 00 41 00, Bid Forms, the name, location of place of business, contractor's license number, DIR registration number, and the portion of the Work which will be performed by each Subcontractor who will furnish work or labor or render services to Bidder, as Contractor, in or about the Work, in an amount in excess of 0.5 percent of Bidder's total Bid.
- B. Circumventing by Bidder of the requirement to list subcontractors by the device of listing one subcontractor who will in turn sublet portions constituting the majority of the work covered by this Contract shall be considered a violation of the California Subletting and Subcontracting Fair Practices Act, Division 2, Part 1, Chapter 4 of the California Public Contract Code and shall subject Contractor to the penalties set forth in Sections 4110 and 4111 of said Code.
- C. Substitutions of subcontractors identified in the List of Subcontractors shall be granted only for those reasons allowed by Public Contract Code §4107.5. The procedures for substitution shall be as provided therein.
- D. Debarred subcontractors may not bid on the Project as defined in Part 3.01.B. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the District. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.
- E. The District and the Engineer reserve the right to approve all subcontractors. Such approval shall be a consideration to the awarding of the Contract and unless notification to the contrary is given to the Contractor prior to the signing of the Contract, the list of subcontractors which is submitted with the Bid will be deemed to be acceptable.

3.09 MATERIALS AND EQUIPMENT LIST

- A. Bidders shall prepare, using the form provided in Section 00 41 00, Bid Forms, and submit with the Bid a complete list of materials and equipment, indicating manufacturer, identifying at a minimum the components included on the Materials and Equipment List in Section 00 41 00, Bid Forms.

3.10 NONRESTRICTIVE SPECIFICATION

- A. Materials and Equipment Identified by Brand or Trade Names
 - 1. Pursuant to Public Contract Code Section 3400(b) the District may make a finding that designates certain products, things, or services by specific brand or trade name. Such materials and equipment may not be substituted and are identified in the Contract Documents.
 - 2. Pursuant to Public Contract Code §3400, all brand or trade names shall be considered to be followed by the words "or equal" unless required findings have been made and noted in Section 00 10 00 – Solicitation, Invitation to Bid.

3.11 WORKERS' COMPENSATION REQUIREMENTS

- A. The Bidder should be aware that in accordance with Section 3700 of the California Labor Code, the Bidder will, if awarded a Contract, be required to secure the payment of compensation to its employees and execute the workers' compensation certificate in the form contained in these Contract Documents.

3.12 SHEETING, SHORING, AND BRACING

- A. Bidders shall state in the appropriate space on the electronic Bid Schedule, the price for sheeting, shoring, and bracing, or equivalent method meeting regulatory requirements, for the protection of life and limb in trenches and open excavation, in accordance with the requirements defined in Section 00 10 00, Solicitation – Invitation to Bid.

3.13 CONFINED SPACE ENTRY

- A. Pursuant to the provisions in General Industry Safety Orders, Article 108 (Title 8, CCR, Section 5156 et seq.) (CALOSHA), each bid submitted in response to Section 00 10 00, Solicitation - Invitation to Bid, shall contain adequate procedures, methods and personnel to complete confined space entry.

3.14 IRREGULAR BIDS

- A. Bids may be considered irregular and may be rejected as non-responsive by the District if they show any alterations of form, unauthorized additions, unauthorized conditional or alternate bids, incomplete bids, recapitulations, unbalanced prices, erasures, or irregularities of any kind.
- B. No bid will be considered unless accompanied by the Bid Security in the required type and amount.
- C. No oral, telegraphic, telephonic, or modified bid will be considered.

3.15 WITHDRAWAL OF BID

- A. Prior to Bid Opening: Any bidder may withdraw its bid via the online bidding system or by written request to the District prior to the scheduled closing time for receipt of bids.
- B. After Bid Opening:
 - 1. A bidder may withdraw its bid after the opening of bids providing the bidder can establish to the District's satisfaction that a mistake was made in preparing the bid as provided in the California Public Contracts Code.
 - a. A bidder desiring to withdraw its bid shall give written notice to the District within five (5) business days after opening of bids specifying in detail how the mistake occurred and how the mistake made the bid materially different than it was intended.
 - b. Withdrawal will be permitted for mistakes made in filling out the bid and will not be permitted for mistakes resulting from errors in judgment or

carelessness in inspecting the site of Work or in reading the Contract Documents.

3.16 BIDDING PROTEST PROCEDURES

- A. Time for Submitting Protests: .A protest regarding Bid opening procedures, Bids, or the selection of the Successful Bidder shall be submitted in writing, by the protesting Bidder to the District, so that the protest is received by the District within 7 calendar days after Bid opening.
- B. Protests shall include a clear detail of the reason for the protest and the remedies sought by the Bidder submitting the protest.
- C. The District will issue a response within 7 calendar days after receipt of a protest.
- D. As condition precedent for litigation on matters covered under this Part 3.16, Bidder shall have filed a protest and allowed time for the District's response in accordance with preceding paragraphs A. through C.
- E. These bidding protest procedures are also posted on the District's website at the following address <http://stpud.us/doing-business/construction-projects/construction-project-bids/>

3.17 CONSTRUCTION SCHEDULE AND SCHEDULE OF VALUES

- A. The bidder selected by the District shall be required to prepare and submit a construction schedule in accordance with Section 01 32 00, Construction Progress Documentation.
- B. Likewise, if the Basis for the Bid was Lump Sum, as defined in Part 2.07 herein, then the successful bidder may be required by the District to submit a schedule of values for the lump sum bid items, providing a breakdown of costs of which the lump sum bid items are comprised.

3.18 CONTRACT DOCUMENTS TO SUCCESSFUL BIDDER

- A. Sets Free of Charge: The bidder to whom award is made may obtain five (5) sets of Contract Documents for the Work at no extra cost.
- B. Additional Sets: Additional sets may be purchased at the cost of reproduction.
- C. The Contractor shall have no claim for excusable delay on account of the failure of the Engineer to deliver such Contract Documents unless the Engineer shall have failed to deliver the same within two weeks after receipt of the Notice of Award.

END OF SECTION

SECTION 00 30 00

INFORMATION AVAILABLE TO BIDDERS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: This Section references site information shown in the Contract Documents (i.e. existing utility locations) prepared for the District's purposes and made available to the Bidders and the Contractor for his information. Such site data is not a part of the Contract Documents notwithstanding its being bound with them or listed as among their contents.

PART 2 REQUIREMENTS

2.01 RESPONSIBILITY FOR ACCURACY OF SITE DATA

- A. Except as indicated in Section 01 73 00, Part 2.05, the Contractor is responsible for accuracy of site data; the District and Design Engineer do not guarantee their accuracy, nor their adequacy, nor their correctness, nor that data is representative of all conditions the Contractor may encounter on the project site and makes no representation as to their correctness.
- B. The Bidders and Contractor shall assume responsibility for results of acting on conclusions he draws from this data. If they choose not to accept such responsibility, they shall employ their own experts to determine additional information and they shall be responsible for results of acting on conclusions they draw from information obtained on their own initiative.

2.02 REPORTS

- A. Tanglewood Test Well Completion Report: An 8-inch diameter long-screened test well was installed in Summer 2025 by Gregg Drilling, Inc.
- B. Sunset Well No. 1 Well Completion Report: A well completion report completed for the existing Sunset Well No. 1 is included as an attachment to these Contract Documents.

END OF SECTION

SECTION 00 41 00

BID FORMS

BID TO

**SOUTH TAHOE PUBLIC UTILITY DISTRICT
for the Construction of
SUNSET AND TANGLEWOOD WELL PROJECT**

DOCUMENTS IN THIS SECTION CONSTITUTE THE BID FORMS. BIDDERS ARE TO COMPLETE AND ATTACH THE DOCUMENTS CONTAINED IN THIS SECTION AS INSTRUCTED IN SECTION 00 20 00, INSTRUCTIONS FOR BIDDERS, AND SUBMIT THE COMPLETED BID PROPOSAL PACKAGE IN ITS ENTIRETY ELECTRONICALLY PRIOR TO THE BID DEADLINE. BIDDER IS REQUIRED TO SUBMIT THE ORIGINAL DOCUMENTS CONTAINED IN THIS SECTION WITHIN THE TIME STATED IN SECTION 00 10 00, SOLICITATION – INVITATION TO BID (SEE SECTION 00 20 00, INSTRUCTIONS FOR BIDDERS, PART 2.03)

Name of Bidder: _____

Business Address: _____

Phone No: _____

To South Tahoe Public Utility District:

Pursuant to and in compliance with the Notice Inviting Bids and the other documents relating thereto, the undersigned, Bidder, being fully familiar with the terms of the Contract Documents, local conditions affecting the performance of the Contract, the character, quality, quantities, and the Scope of the Work, the cost of the Work at the place where the Work is to be done, hereby proposes and agrees to perform within the time stipulated in the Contract, including all of its component parts and everything required to be performed, and to furnish any and all of the labor, material, tools, equipment, transportation, services, permits, utilities, and all other items necessary to perform the Contract and complete in a workmanlike manner, all of the Work required in connection with the construction of said Work, all in strict conformity with the Specifications and other Contract Documents, including Addenda Nos. _____, for the prices hereinafter set forth.

Bids that are submitted via the District's electronic bidding system at the time set for opening of Bids shall be irrevocable, and may not be withdrawn for a period of sixty (60) days after the date set for the opening of the bids except as noted in Section 00 20 00, Part 3.14.

ELECTRONIC BID SCHEDULE PRICES:

All applicable sales taxes, State and/or Federal and any other special taxes, patent rights, or royalties are included in the prices quoted in this Bid.

The quantities specified are the DISTRICT's estimates and are approximate only, being given as a basis for the comparison of Bids. The DISTRICT does not, expressly or by implication, agree that the actual amount of work will correspond therewith. The total amount bid will be used to determine the lowest, responsive, responsible, Bidder.

Payment for each item will be based on the actual quantity of work performed times the item unit contract price. Determinations of the actual quantities and classifications of unit price work performed by the CONTRACTOR will be made by the DISTRICT and may be more or less than the specified, estimated quantities. Unless otherwise indicated in the Bid Item Descriptions, the unit price shall be valid for actual quantities up to 25% more than or less than the bid quantity.

All representations made by Bidder in this Bid are made under penalty of perjury.

DATED: _____

BIDDER: _____

SIGNATURE

BY: _____

TITLE: _____

INFORMATION REQUIRED OF BIDDER

DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION:

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Contractor DIR Registration Number: _____

LIST OF SUBCONTRACTORS:

In compliance with the Subletting and Subcontracting Fair Practices Act Chapter 4 (commencing at Section 4100), Part 1, Division 2 of the Public Contract Code of the State of California and any amendments thereof, Bidder shall set forth below: (a) the name and the location of the place of business, (b) the California contractor license number, (c) the DIR public works contractor registration number unless exempt pursuant to Labor Code Sections 1725.5 and 1771.1, and (d) the portion of the work which will be done by each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the work or improvement to be performed under this Contract in an amount in excess of one-half of one percent (0.5%) of the Bidder's Total Bid Price. Notwithstanding the foregoing, if the work involves the construction of streets and highways, then the Bidder shall list each subcontractor who will perform work or labor or render service to the Bidder in or about the work in an amount in excess of one-half of one percent (0.5%) of the Bidder's Total Bid Price or \$10,000, whichever is greater. No additional time shall be granted to provide the below requested information.

If a Bidder fails to specify a subcontractor or if a contractor specifies more than one subcontractor for the same portion of work, then the Bidder shall be deemed to have agreed that it is fully qualified to perform that portion of work and that it shall perform that portion itself.

ATTACH ADDITIONAL PAGES, IF NECESSARY

	Work to be Performed	Subcontractor's CSLB License #	Subcontractor's DIR Registration #	Percent of Total Contract	Subcontractor's Name and Location of Business
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

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BIDDER'S GENERAL INFORMATION:

The Bidder shall furnish the following information. Additional sheets shall be attached as required. Failure to complete Item Nos. 1 through 7, at the time of bid submittal will cause the bid to be non-responsive and may cause its rejection. Bidders shall submit Item Nos. 8 and 9 if requested by the OWNER prior to award of contract. No award will be made until all of the Bidder's General Information (i.e., Items 1 through 7, inclusive and Items 8 and 9, if requested) is delivered to and accepted by the OWNER.

(1) Bidder's Name and Address:

(2) Bidder's Telephone Number: _____

(3) Bidder's Preferred Email Address: _____

(4) Bidder's CSLB License: Primary Classification _____

State License No. _____

Expiration Date: _____

Supplemental Classifications held, if any: _____

Name of Licensee, if different from (1) above:

(5) Name of person who inspected site or proposed Work for your firm:

Name: _____ Date of Inspection: _____

(6) Name, address, and telephone number of surety company and agent who will provide the required bonds on this contract:

(7) Complete and sign the forms:

- a) Noncollusion Declaration
- b) Iran Contracting Act Certification
- c) Public Works Contractor Registration Certification
- d) Contractor's Certificate Regarding Workers' Compensation

- e) Fleet Compliance Certification
- f) Bid Bond
- g) Acknowledgement of Insurance Requirements
- h) Certification by Contractor's Insurance Broker

(8) List five (5) projects completed as of recent date involving work of similar type and complexity:

Project	Contract Price	Name, address, telephone # of Owner	Description of Bidder's Work	Completion Date
1.				
2.				
3.				
4.				
5.				

- (8) The experience resume of the person who will be designated chief construction superintendent or on-site construction manager.
- (9) A financial statement, references, and other information, sufficiently comprehensive to permit an appraisal of Bidder's current financial condition. The financial statement shall be in accordance with Section 00 20 00, Part 3.01.D.

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**NONCOLLUSION DECLARATION TO BE EXECUTED
BY
BIDDER AND SUBMITTED WITH BID**

The undersigned declares:

I am the _____ (Position) of _____ (Firm), the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Name of Bidder _____

Signature _____

Name _____

Title _____

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IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code section 2200 et seq.)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 *et seq.*) is true and correct:

The Contractor is not:

(1) identified on the current list of person and entities engaged in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(2) a financial instruction that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

The City has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the City will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

The amount of the Contract payable to the Contractor for the Project does not exceed \$1,000,000.

Signature: _____

Printed Name: _____

Title: _____

Firm Name: _____

Date: _____

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of \$250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

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PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <http://www.dir.ca.gov/PublicWorks/PublicWorks.html> for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.¹

Name of Bidder: _____

DIR Registration Number: _____

DIR Registration Expiration: _____

Small Project Exemption: _____ Yes or _____ No

Unless Bidder is exempt pursuant to the small project exemption, Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

¹ If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

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CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract.

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

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FLEET COMPLIANCE CERTIFICATION

Bidder hereby acknowledges that they have reviewed the California Air Resources Board's policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the "Regulation"). Bidder hereby certifies, subject to penalty for perjury, that the option checked below relating to the Bidder's fleet, and/or that of their subcontractor(s) ("Fleet") is true and correct:

- The Fleet is subject to the requirements of the Regulation. At the District's request, within 48 hours after the Bid Opening, the Bidder must submit the most recent, valid Certificates of Reported Compliance ("CRC") for the Bidder's fleet and for the fleet(s) of its listed subcontractors (including any applicable leased equipment or vehicles).
- The Fleet is exempt from the Regulation under section 2449.1(f)(2), and a signed description of the subject vehicles, and reasoning for exemption has been attached hereto.
- Bidder and/or their subcontractor is unable to procure R99 or R100 renewable diesel fuel as defined in the Regulation pursuant to section 2449.1(f)(3). Bidder shall keep detailed records describing the normal refueling methods, their attempts to procure renewable diesel fuel and proof that shows they were not able to procure renewable diesel (i.e. third party correspondence or vendor bids).
- The Fleet is exempt from the requirements of the Regulation pursuant to section 2449(i)(4) because this Project has been deemed an Emergency, as defined under section 2449(c)(18). Bidder shall only operate the exempted vehicles in the emergency situation and records of the exempted vehicles must be maintained, pursuant to section 2449(i)(4).
- The Fleet does not fall under the Regulation or are otherwise exempted and a detailed reasoning is attached hereto.

Name of Bidder: _____

Signature: _____

Name: _____

Title: _____

Date: _____

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BID BOND

KNOW ALL MEN BY THESE PRESENTS,

The makers of this bond are, _____ as Principal, and _____ as Surety, are held and firmly bound unto **SOUTH TAHOE PUBLIC UTILITY DISTRICT**, hereinafter called "Owner," in the penal sum TEN PERCENT (10%) OF THE TOTAL BID PRICE of the Principal submitted to Owner for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated _____, 20____ for **SUNSET AND TANGLEWOOD WELL PROJECT**.

If the Principal does not withdraw its bid within the time specified in the Contract Documents; and if the Principal is awarded the Contract and provides all documents to the Owner as required by the Contract Documents; then this obligation shall be null and void. Otherwise, this bond will remain in full force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents shall affect its obligation under this bond, and Surety does hereby waive notice of such changes.

In the event a lawsuit is brought upon this bond by said Owner and judgment is recovered, the Surety shall pay all litigation expenses incurred by the Owner in such suit, including reasonable attorney's fees, court costs, expert witness fees and expenses.

By their signature hereunder, Surety and Principal hereby confirm under penalty of perjury that Surety is an admitted surety insurer authorized to do business in the State of California.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporation.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
 COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory

Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

 Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- Individual
- Corporate Officer

DESCRIPTION OF ATTACHED DOCUMENT

- | | Title(s) | Title or Type of Document |
|---|--|---------------------------|
| <input type="checkbox"/> Partner(s) | <input type="checkbox"/> Limited
<input type="checkbox"/> General | Number of Pages |
| <input type="checkbox"/> Attorney-In-Fact | | |
| <input type="checkbox"/> Trustee(s) | | |
| <input type="checkbox"/> Guardian/Conservator | | Date of Document |
| <input type="checkbox"/> Other: | | |

Signer is representing:
 Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- Individual
- Corporate Officer

Title(s)

- Partner(s) Limited
 General
- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

DESCRIPTION OF ATTACHED DOCUMENT

Title or Type of Document

Number of Pages

Date of Document

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of-Attorney to local representatives of the bonding company must also be attached.

END OF BID BOND

ACKNOWLEDGMENT OF INSURANCE REQUIREMENTS

This Document Must Be Fully Executed By Contractor
and Submitted With The Bid

The following insurance requirements have been adopted by The South Tahoe Public Utility District hereinafter designated the "OWNER," and shall be applicable to this Contract.

Insurance Requirement Summary

The CONTRACTOR shall furnish, prior to Notice to Proceed, Insurance Certificates and Endorsements as set forth in Section 00 20 00, Part 2.08.D and Section 00 73 00, Supplementary Conditions, Part 2.01. No other insurance documents shall be accepted in substitution of, nor in addition to, those set forth in Section 00 20 00, Instructions for Procurement. Insurance requirements and coverage will be in accordance with Section 00 73 00, Supplementary Conditions, Part 2.01.

The CONTRACTOR shall not commence work under this Contract until all insurance required under this heading is obtained in a form acceptable to OWNER, nor shall the CONTRACTOR allow any Subcontractor to commence work on a subcontract until all insurance required of the Subcontractor has been obtained.

I, _____, the _____
(Insert Title)
of _____
(Name of Company or Corporation or Owner)

certify that the Insurance Requirements Summary has been read and understood and that as a material consideration of our bid, we are able to provide the document and coverage specified.

Signature of President, Secretary,
Manager, Owner, or Representative

Date: _____

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CERTIFICATION BY CONTRACTOR'S INSURANCE BROKER

This Document Must be Fully Executed By Contractor's
Insurance Broker and Submitted With the Bid

I, _____, am an authorized representative of
(Individual's name and brokerage name)

_____. This company is the insurance broker
(Insurance Company)

for _____ ("Contractor").
(Contractor)

By my signature below, I hereby attest to the following:

1. I have reviewed the insurance requirements for the South Tahoe Public Utility District's **SUNSET AND TANGLEWOOD WELL PROJECT** ("Project"), including the requirements set forth in Section 00 73 00, Supplementary Conditions, Part 2.01 of the Contract Documents.
2. The Contractor is eligible to be insured for the policies necessary to satisfy the insurance requirements for the Project.

This certification is not intended to be binding of coverage and does not modify and/or alter the terms and conditions of the insurance policies issued to Contractor.

Date: _____

(Signature of authorized representative)
for _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss.
County of _____)

On _____ before me, _____, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public

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DESCRIPTION OF BID ITEMS

The Bid Schedule includes the work to construct the SUNSET NO. 2 AND TANGLEWOOD PRODUCTION WELLS including the one year warranty period on parts, labor, and materials.

The costs for any Work shown or required in the Contract Documents, but not specifically identified as a line item are to be included in the related line items and no additional compensation shall be due to Contractor for the performance of the Work.

The estimated quantities for Unit Price items are for purposes of comparing Bids only and the District makes no representation that the actual quantities of work performed will not vary from the estimates. Final payment shall be determined by the Engineer from measured quantities of work performed based upon the Unit Price.

General Note: Distances and measurements, except elevations and structural dimensions, shall be made on horizontal planes.

Bid Schedule items 1 through 43 are presented to indicate major categories of work for the purpose of comparative bid analysis and payment breakdown for monthly progress payments. Bid Items are not intended to be exclusive descriptions of the work categories. The CONTRACTOR shall determine and include in his pricing all materials, labor, and equipment necessary to complete each Bid Item (work phase) as shown and specified in the Contract Documents whether specifically described in the following or not.

Bid Schedule A: Sunset Well No. 2

Bid Item 1 - Mobilization and Demobilization: includes, but is not limited to: obtaining of bonds, insurance and financing, movement of equipment, materials and personnel to and from the job site, supervision, certificates, permits, submittals and RFIs, utilities, site maintenance, cleanup, dust control and work incidentals to the contract not specifically identified under the remaining items or costs incurred prior to beginning work and after completion of work on the various contract items. The cost for this item shall not exceed 10 percent (10%) of the total bid schedule without documented justification, nor shall the CONTRACTOR submit for payment of all of the funds under this item until demobilization has been completed.

The CONTRACTOR's payment for this item shall be by the lump sum.

Bid Item 2 – Site Preparation: includes, but is not limited to: completing necessary site grubbing and tree removal; installing, protecting, and removal of specified BMPs and other BMPs determined necessary by the Contractor, Engineer, or regulatory agencies; inspecting and maintaining BMPs on a regular basis during the course of the work; and placing stockpiled materials in areas that are not subjected to washout, flooding, or natural drainage areas.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 3 – Noise Control Barrier Walls: includes, but is not limited to: furnishing all labor, materials, and equipment to design, install, and maintain noise control barrier walls as specified. The Noise Control Barrier Wall design must be stamped by a structural engineer currently registered in the state of California.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 4 – Pumped Groundwater Management System: Install, maintain, and operate pumped groundwater management system as specified, including two (2) 20,000-gallon settling tanks, one (1) BF-200 Bag filtration Unit, and all specified piping, valves, meters, gauges, sampling ports, equipment, and appurtenances.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 5 – Conductor Casing and Sanitary Seal: includes, but is not limited to: installation of 40" mild steel conductor casing and 10.3 sack sand cement sanitary seal to a depth of 55 feet below ground surface.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 6 – Borehole Drilling: includes, but is not limited to: using flooded reverse-rotary methods to drill a maximum 17.5-inch diameter pilot borehole from the bottom of the conductor casing to a total depth of 500 feet below ground surface.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole drilling completed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 7 – Geophysical Surveys: Includes, but is not limited to, furnishing all labor, materials, and equipment required to complete point, short and long normal resistivity, gamma ray, spontaneous potential; and professional log analyses performed by one or more acceptable, qualified and accredited geophysicists/log analysts.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 8 – Temporary Backfill: Includes, but is not limited to, installation of temporary backfill sand in the pilot borehole to the bottom of the conductor casing to stabilize the borehole while awaiting final well design decisions, as described in the technical specifications.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole filled. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 9 – Well Installation Supplies: Includes, but is not limited to, furnishing 304L stainless steel well casing, screen(s), cellar and cap, centralizers, and feed tube; and furnishing gravel pack as described in the technical specifications.

The CONTRACTOR'S payment for this item shall be by the linear foot of well installed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 10 – Ream Pilot Borehole: Includes, but is not limited to, reaming the pilot borehole to the diameter and depths specified in the final well design.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole reamed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 11 – Caliper Survey: Includes, but is not limited to, furnishing all labor, materials, and

equipment required to complete a borehole caliper survey and professional log analyses performed by one or more acceptable, qualified and accredited geophysicists/log analysts.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 12 – Well Installation: Includes, but is not limited to, furnishing all labor, materials, and equipment required to install the production well as designed and specified by the Hydrogeologist.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole installed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 13 – Transition Sands and Annular Seal: Includes, but is not limited to, furnishing all labor, materials, and equipment required to install the 10.3 sack sand cement annular seal and transition sand to the depths specified in the final well design.

The CONTRACTOR'S payment for this item shall be by the linear foot of annular seal installed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 14 – Mechanical and Chemical Development: Includes, but is not limited to, developing the well using a combination of open-ended airlifting, swabbing and airlifting, and chemical swabbing.

The CONTRACTOR'S payment for this item shall be by the hour of development completed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 15 – Test Pump and Discharge System: Includes, but is not limited to, furnishing and installing the test pump, equipment, and discharge system necessary to conduct pumping development and well testing as described in the specifications.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 16 – Pumping Development: Includes, but is not limited to, developing the well using a combination of pumping, overpumping, and surging as described in the specifications.

The CONTRACTOR'S payment for this item shall be by the hour of development completed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 17 – Pumping Tests: Includes, but is not limited to, furnishing all labor, materials, and equipment required to conduct a 10-hour step drawdown test, 24-hour constant rate test, and recovery monitoring as described in the technical specifications. This item includes water quality sampling and analysis by a laboratory carrying ELAP accreditation and conducting the required spinner log.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 18 – Plumbness and Alignment Survey: Includes, but is not limited to, furnishing all labor, materials, and equipment required to complete a gyroscopic plumbness and alignment survey on the completed well to its total depth.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 19 – Video Survey: Includes, but is not limited to, furnishing all labor, materials, and equipment necessary to complete a depth-referenced, full-color downhole video survey of the completed well providing continuous, high-resolution footage of the entire borehole.

The CONTRACTOR'S payment for this item shall be by the lump sum

Bid Item 20 – Final Disinfection and Capping: Includes, but is not limited to, furnishing all labor, materials, and equipment necessary to complete final disinfection to a minimum of 100 ppm and install a welded cap as described in the specifications.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 21 – Standby Time: CONTRACTOR's rate for standby time if requested by the Engineer or Hydrogeologist. No payment will be made for standby time included in other bid items or as specified elsewhere in the Contract Documents.

The CONTRACTOR'S payment for this item shall be by the hour.

Bid Schedule B: Tanglewood Well

Bid Item 22 - Mobilization and Demobilization: includes, but is not limited to: obtaining of bonds, insurance and financing, movement of equipment, materials and personnel to and from the job site, supervision, certificates, permits, submittals and RFIs, utilities, site maintenance, cleanup, dust control and work incidentals to the contract not specifically identified under the remaining items or costs incurred prior to beginning work and after completion of work on the various contract items. The cost for this item shall not exceed 10 percent (10%) of the total bid schedule without documented justification, nor shall the CONTRACTOR submit for payment of all of the funds under this item until demobilization has been completed.

The CONTRACTOR's payment for this item shall be by the lump sum.

Bid Item 23 – Site Preparation: includes, but is not limited to: completing necessary site grubbing and tree removal; installing, protecting, and removal of specified BMPs and other BMPs determined necessary by the Contractor, Engineer, or regulatory agencies; inspecting and maintaining BMPs on a regular basis during the course of the work; and placing stockpiled materials in areas that are not subjected to washout, flooding, or natural drainage areas.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 24 – Existing Well Destruction: includes, but is not limited to: furnishing all labor, materials, and equipment to destroy the Tanglewood Long-Screened Test Well in compliance with California Well Standards.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 25 – Noise Control Barrier Walls: includes, but is not limited to: furnishing all labor, materials, and equipment to design, install, and maintain noise control barrier walls as specified. The Noise Control Barrier Wall design must be stamped by a structural engineer currently registered in the state of California.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 26 – Pumped Groundwater Management System: Install, maintain, and operate pumped groundwater management system as specified, including two (2) 20,000-gallon settling tanks, one (1) BF-200 Bag filtration Unit, and all specified piping, valves, meters, gauges, sampling ports, equipment, and appurtenances.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 27 – Conductor Casing and Sanitary Seal: includes, but is not limited to: installation of 40" mild steel conductor casing and 10.3 sack sand cement sanitary seal to a depth of 55 feet below ground surface.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 28 – Borehole Drilling: includes, but is not limited to: using flooded reverse-rotary methods to drill a maximum 17.5-inch diameter pilot borehole from the bottom of the conductor casing to a total depth of 500 feet below ground surface.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole drilling completed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 29 – Geophysical Surveys: Includes, but is not limited to, furnishing all labor, materials, and equipment required to complete point, short and long normal resistivity, gamma ray, spontaneous potential; and professional log analyses performed by one or more acceptable, qualified and accredited geophysicists/log analysts.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 30 – Temporary Backfill: Includes, but is not limited to, installation of temporary backfill sand in the pilot borehole to the bottom of the conductor casing to stabilize the borehole while awaiting final well design decisions, as described in the technical specifications.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole filled. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 31 – Well Installation Supplies: Includes, but is not limited to, furnishing 304L stainless steel well casing, screen(s), cellar and cap, centralizers, and feed tube; and furnishing gravel pack as described in the technical specifications.

The CONTRACTOR'S payment for this item shall be by the linear foot of well installed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 32 – Ream Pilot Borehole: Includes, but is not limited to, reaming the pilot borehole to the diameter and depths specified in the final well design.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole reamed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 33 – Caliper Survey: Includes, but is not limited to, furnishing all labor, materials, and equipment required to complete a borehole caliper survey and professional log analyses performed by one or more acceptable, qualified and accredited geophysicists/log analysts.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 34 – Well Installation: Includes, but is not limited to, furnishing all labor, materials, and equipment required to install the production well as designed and specified by the Hydrogeologist.

The CONTRACTOR'S payment for this item shall be by the linear foot of borehole installed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 35 – Transition Sands and Annular Seal: Includes, but is not limited to, furnishing all labor, materials, and equipment required to install the 10.3 sack sand cement annular seal and transition sand to the depths specified in the final well design.

The CONTRACTOR'S payment for this item shall be by the linear foot of annular seal installed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 36 – Mechanical and Chemical Development: Includes, but is not limited to, developing the well using a combination of open-ended airlifting, swabbing and airlifting, and chemical swabbing.

The CONTRACTOR'S payment for this item shall be by the hour of development completed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 37 – Test Pump and Discharge System: Includes, but is not limited to, furnishing and installing the test pump, equipment, and discharge system necessary to conduct pumping development and well testing as described in the specifications.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 38 – Pumping Development: Includes, but is not limited to, developing the well using a combination of pumping, overpumping, and surging as described in the specifications.

The CONTRACTOR'S payment for this item shall be by the hour of development completed. The CONTRACTOR'S unit price shall be valid for an actual quantity plus or minus 100% of the estimated quantity indicated on the bid schedule.

Bid Item 39 – Pumping Tests: Includes, but is not limited to, furnishing all labor, materials, and equipment required to conduct a 10-hour step drawdown test, 24-hour constant rate test, and recovery monitoring as described in the technical specifications. This item includes water quality sampling and analysis by a laboratory carrying ELAP accreditation and conducting the required spinner log.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 40 – Plumbness and Alignment Survey: Includes, but is not limited to, furnishing all labor, materials, and equipment required to complete a gyroscopic plumbness and alignment survey on the completed well to its total depth.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 41 – Video Survey: Includes, but is not limited to, furnishing all labor, materials, and equipment necessary to complete a depth-referenced, full-color downhole video survey of the completed well providing continuous, high-resolution footage of the entire borehole.

The CONTRACTOR'S payment for this item shall be by the lump sum

Bid Item 42 – Final Disinfection and Capping: Includes, but is not limited to, furnishing all labor, materials, and equipment necessary to complete final disinfection to a minimum of 100 ppm and install a welded cap as described in the specifications.

The CONTRACTOR'S payment for this item shall be by the lump sum.

Bid Item 43 – Standby Time: CONTRACTOR's rate for standby time if requested by the Engineer or Hydrogeologist. No payment will be made for standby time included in other bid items or as specified elsewhere in the Contract Documents.

The CONTRACTOR'S payment for this item shall be by the hour.

END OF SECTION

**CONSTRUCTION OF
SUNSET AND TANGLEWOOD WELL PROJECT
FOR
SOUTH LAKE TAHOE PUBLIC UTILITY DISTRICT**

THE BID SCHEDULE IS TO BE COMPLETED ELECTRONICALLY IN THE ELECTRONIC BIDDING SYSTEM AND IS INCLUDED HERE FOR INFORMATION PURPOSES ONLY.

BID SCHEDULE: (Refer to Bid Descriptions for a more detailed description for each of the following bid items)

Bid Schedule A: Sunset Well Site

Item No.	Description	Unit	Approx. Quantity	Unit Price	Amount
1	Mobilization and demobilization including bonds, insurance, permits, submittals, and cleanup	LS	1		
2	Site preparation including grubbing, BMP installation and maintenance, and stockpile management	LS	1		
3	Noise control barrier wall design, installation, and maintenance (engineer stamped)	LS	1		
4	Pumped groundwater management system including tanks, filtration unit, piping, and appurtenances	LS	1		
5	40-inch conductor casing and 10.3 sack cement sanitary seal installation to 55 ft	LS	1		
6	Reverse-rotary pilot borehole drilling	LF	500		
7	Geophysical logging and analysis (resistivity, gamma, SP, etc.)	LS	1		
8	Temporary sand backfill to stabilize borehole	LF	445		
9	Well installation materials including casing, screen, gravel pack, and accessories	LF	500		
10	Reaming pilot borehole to final design diameter and depth	LF	500		
11	Caliper survey and analysis	LS	1		
12	Production well installation per hydrogeologist design	LF	500		
13	Transition sand and annular cement seal installation	LF	205		
14	Mechanical and chemical well development	HR	48		
15	Test pump and discharge system installation	LS	1		
16	Pumping and overpumping well development	HR	48		
17	Pumping tests including step drawdown, constant rate, recovery, and sampling	LS	1		
18	Gyroscopic plumbness and alignment survey of completed well	LS	1		
19	Downhole video survey of completed well	LS	1		

20	Final disinfection and welded cap installation	LS	1		
21	Standby time when directed by Engineer or Hydrogeologist	HR	0		

Bid Schedule B: Tanglewood Well Site

Item No.	Description	Unit	Approx. Quantity	Unit Price	Amount
22	Mobilization and demobilization for Tanglewood Well including bonds and cleanup	LS	1		
23	Site preparation including BMPs, clearing, and protection of work area	LS	1		
24	Destruction of existing Tanglewood test well per California standards	LS	1		
25	Noise control barrier wall design, installation, and maintenance	LS	1		
26	Pumped groundwater management system including tanks and filtration unit	LS	1		
27	Conductor casing and sanitary seal installation to 55 ft	LS	1		
28	Pilot borehole drilling to 500 ft depth	LF	500		
29	Geophysical logging and analysis of borehole	LS	1		
30	Temporary sand backfill of borehole	LF	445		
31	Well installation materials including casing, screen, gravel pack	LF	500		
32	Reaming pilot borehole to design dimensions	LF	500		
33	Caliper survey and borehole logging	LS	1		
34	Production well installation per design specifications	LF	500		
35	Transition sand and annular cement seal installation	LF	205		
36	Mechanical and chemical well development	HR	48		
37	Test pump and discharge system installation	LS	1		
38	Pumping and overpumping well development	HR	48		
39	Pumping tests including drawdown, recovery, and sampling	LS	1		
40	Gyroscopic plumbness and alignment survey	LS	1		
41	Downhole video survey	LS	1		
42	Final disinfection and capping	LS	1		
43	Standby time when directed by Engineer or Hydrogeologist	HR	0		

THE BID SCHEDULE IS TO BE COMPLETED ELECTRONICALLY IN THE ELECTRONIC BIDDING SYSTEM AND IS INCLUDED HERE FOR INFORMATION PURPOSES ONLY.

END OF BID SCHEDULE

SECTION 00 52 00

CONTRACT

THIS Contract, is made and entered into this _____ day of _____, 2026, by and between _____ hereinafter referred to as "Contractor," and South Tahoe Public Utility District, El Dorado County, California, hereinafter referred to as "District".

WITNESSETH

That for and in consideration of the promises and agreements hereinafter made and exchanged, the District and the Contractor agree as follows:

1. That the Contractor will furnish all labor, materials, equipment, tools, transportation, services, appliances, and appurtenances for the construction of **SUNSET AND TANGLEWOOD WELL PROJECT, (the "Project")** in accordance with the Contract Documents therefore, adopted by the Board of Directors of the above District, as prepared in part by Montgomery and Associates.
2. That the District will pay the Contractor progress payments and the final payment in accordance with the method set forth in the Contract Documents with warrants drawn on the appropriate fund or funds as required, according to the prices as bid and accepted, based upon the Contract Documents, as follows:

Total Bid - \$ _____ Dollars and _____ Cents.

3. Contractor agrees to complete said work within **130 calendar days**, following the issuance of the Notice to Proceed (or approved extensions thereof) and to the entire satisfaction of the District before final payment is made. Contractor also agrees that all construction activities requiring excavation, earthwork or soil material removal shall occur between May 1, 2026 and October 15, 2026, 167 calendar days) in accordance

with requirements of the Tahoe Regional Planning Agency (TRPA) and to the entire satisfaction of the DISTRICT before final payment is made.

Time is of the essence for this Contract. By its signature hereunder, Contractor agrees the time for completion set forth above is adequate and reasonable to complete the Work.

4. In accordance with Government Code section 53069.85, Contractor will pay the DISTRICT the sum set forth in Part 2.04, Contract Time, and Liquidated Damages, of Section 00 72 00, General Conditions, of these Contract Documents, for each and every calendar day of delay beyond the time prescribed in the Contract Documents for finishing the Work, as Liquidated Damages and not as a penalty or forfeiture. In the event this is not paid, the Contractor agrees the DISTRICT may deduct that amount from any money due or that may become due the Contractor under the Contract. This Article does not exclude recovery of other damages specified in the Contract Documents.
5. Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code which such rates shall be made available at the District's offices or may be obtained online at <http://www.dir.ca.gov> and which must be posted at the job site.
6. That the Contractor shall carry California Worker's Compensation Insurance and require all Subcontractors to carry California Worker's Compensation Insurance as required by the Labor Code of the State of California.
7. The Contractor shall, prior to the execution of the Contract, furnish certificates and endorsements evidencing all required insurance policies as required in Section 00 73 00, Supplemental Conditions, Part 2.01, and furnish the labor and material payment bond and faithful performance bond. If required bonds and insurance are not provided to the District, this can be considered a breach of contract.
- 8 This Formal Contract reference includes the Contract Documents, which includes the following:
Solicitation – Notice Inviting Bids

Instructions to Bidders
Information Available to Bidders
Electronic Bid Schedule
Bid Form
Formal Contract
Faithful Performance Bond
Payment (Labor and Materials) Bond
Project Definitions
General Conditions
Supplementary Conditions
General Requirements
Technical Specifications
Addenda
Plans and Drawings
Approved and fully executed Change Orders
Any other documents contained in or incorporated into the Contract, except as otherwise indicated.

The Contractor shall complete the Work in strict accordance with all of the Contract Documents, following the intent and coordination of said documents set forth in Section 00 72 00, General Conditions. All of the Contract Documents are intended to be complementary. Work required by one of the Contract Documents and not by others shall be done as if required by all. This Contract shall supersede any prior agreement of the parties. Each and every provision of law required to be included in these Contract Documents shall be deemed to be included in these Contract Documents.

IN WITNESS WHEREOF, the said CONTRACTOR and the South Tahoe Public Utility District, have caused the names of said parties to be affixed hereto, each in duplicate, the day and year first above written.

Contractor
By _____
Title

SOUTH TAHOE PUBLIC UTILITY DISTRICT

By _____

Address for Giving Notice:

Address for Giving Notice:

SOUTH TAHOE PUBLIC UTILITY DISTRICT
1275 MEADOW CREST DRIVE
SOUTH LAKE TAHOE, CA 96150

ATTEST:

Melonie Guttry, Clerk of Board
South Tahoe Public Utility District

CONTRACTOR'S LICENSE NO:

CONTRACTOR'S LICENSE EXPIRATION

DATE: _____

CONTRACTOR'S FEDERAL I.D.#:

WORKER'S COMPENSATION CERTIFICATE

(AS REQUIRED BY SECTION 1861 OF THE CALIFORNIA LABOR CODE)

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

CONTRACTOR: _____
BY: _____
TITLE: _____

END OF SECTION

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SECTION 00 61 00

BOND FORMS

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the South Tahoe Public Utility District, a public agency located in El Dorado County, California, (hereinafter designated the "Owner") has, on _____, 20__ awarded to _____, (hereinafter designated as the "Principal") a contract for the construction of **SUNSET AND TANGLEWOOD WELL PROJECT**, (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, said Principal is required under the terms of said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, WE, the Principal, and _____, as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the Owner in the penal sum of _____ dollars (\$ _____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bound Principal, or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions, and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one (1) year guarantee of all materials and workmanship; and shall indemnify and save harmless, Owner, its officials, officers, employees, and authorized volunteers, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees including reasonable attorney's fees, incurred by the Owner in enforcing such obligation.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the Work by the Owner, during which time the Principal shall fail to make full, complete, and satisfactory repair and replacements and totally protect the Owner

from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of the Contractor remains. Nothing herein shall limit the Owner's rights or the Principal or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the Owner to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly at the Owner's option:

- i. Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- ii. Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the Owner, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Principal by the Owner under the Contract and any modification thereto, less any amount previously paid by the Owner to the Principal and any other set offs pursuant to the Contract Documents; or
- iii. Permit the Owner to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Principal by the Owner under the Contract and any modification thereto, less any amount previously paid by the Owner to the Principal and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the Owner may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal.

Surety shall not utilize Principal in completing the Project nor shall Surety accept a bid from Principal for completion of the Project if the Owner, when declaring the Contractor in default, notifies Surety of the Owner's objection to Principal's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Project.

By their signatures hereunder, Surety and Principal hereby confirm under penalty of perjury that Surety is an admitted surety insurer authorized to do business in the State of California.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate) Title _____

The rate of premium on this bond is _____ per thousand. The total amount of premium charges is \$ _____.
(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

(Name and Address of Agent or Representative for service of process in California, if different from above) _____

(Telephone number of Surety and Agent or Representative for service of process in California) _____

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- General

Number of Pages

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

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END OF PERFORMANCE BOND

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PAYMENT BOND (LABOR AND MATERIALS)

KNOW ALL PERSONS BY THESE PRESENTS THAT

WHEREAS, the South Tahoe Public Utility District, a public agency located in El Dorado County, California (hereinafter designated the "Owner") has, on _____, _____, awarded to _____, hereinafter designated as the "Principal," a contract for the construction of **SUNSET AND TANGLEWOOD WELL PROJECT**, (the "Project"); and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal, or any of its Subcontractors, shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety of this bond will pay for the same to the extent hereinafter set forth:

NOW, THEREFORE, WE, the Principal, and _____, as Surety, are held and firmly bound unto the Owner in the penal sum of _____ dollars (\$_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in California Civil Code Section 9100, fail to pay for any materials, provisions or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of employees of the Principal and his subcontractors pursuant to Revenue and Taxation Code §18663, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by Owner in such suit, including reasonable attorney's fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of all persons named in California Civil Code Section 9100 so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration, or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefor, nor by any change or modification of any terms of payment or extension of time for any payment pertaining or relating to any scheme or work

of improvement herein above described, nor by any rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the Owner and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Civil Code Section 9100, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

By their signatures hereunder, Surety and Principal hereby confirm under penalty of perjury that surety is an admitted surety insurer authorized to do business in the State of California.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

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END OF PAYMENT BOND

END OF SECTION

SECTION 00 71 00

CONTRACTING DEFINITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. Wherever the following abbreviations and terms, or pronouns in place of them, are used in the Contract Documents but not otherwise defined therein, the intent and meaning shall be interpreted as provided below.
- B. If an abbreviation on a drawing is not explained in the Contract Documents, it shall be as explained in ANSI Y1.1.
- C. The interpretation of abbreviations shall consider the context or discipline in which they are used, for example:
 - 1. FF usually means "finish floor" when referring to a floor slab.
 - 2. FF usually means "flat face" when referring to a pipe flange.
- D. Titles of Sections and Parts: Captions accompanying specification sections and parts are for convenience of reference only, and do not form a part of the Specifications.

PART 2 ABBREVIATIONS

The following abbreviations may be used in the Contract Documents:

"Bureau" - United States Bureau of Reclamation

"State" - State of California

"State Standard Specifications" - Standard Specifications issued by Caltrans. Dated January 1984, and as amended, unless a specific edition is referenced.

"TRPA" – Tahoe Regional Planning Agency

"RWQCB" – Regional Water Quality Control Board, Lahontan Region

PART 3 DEFINITIONS

Acceptance - The formal written acceptance by the District of the entire Contract which has been completed in all respects in accordance with the Specifications and any approved modifications. The formal written acceptance will be entitled "Notice of Completion and Release of Claims" (standard form will be provided by the District).

As Approved - The words "as approved", unless otherwise qualified, shall be understood to be followed by the words "by the Engineer".

As Shown, and as Indicated - The words "as shown" and "as indicated" shall be understood to be followed by the words "on the Plans".

Bid - The offer of the bidder for the work when made out and submitted on the prescribed bid form, properly signed and guaranteed.

Bid Bond - The cash, cashier's check, certified check, or bidder's bond accompanying the bid submitted by the bidder, as a guarantee that the bidder will enter into a Contract with the District for the performance of work herein described (may also be referred to as bidders security).

Bidder - Any individual, firm, partnership or corporation submitting a bid for the work contemplated, and acting directly or through a duly authorized representative.

Board of Directors or Board - The Board of Directors of the South Tahoe Public Utility District.

Claim - A separate demand by the Contractor for (i) a time extension, (ii) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (iii) an amount the payment of which is disputed by the District.

Contract - The written agreement covering the performance of the work and the furnishing of labor, materials, tools and equipment in the construction of the work. The Contract shall include all Contract Documents and supplemental agreements amending or extending the work contemplated which may be required to complete the work in a substantial and acceptable manner. Supplemental agreements are written agreements covering alterations, amendments or extensions to the Contract and include Addenda and Contract Change Orders. Said Contract shall also contain obligatory language to compensate the Contractor in an amount and times set forth herein.

Contract Documents - The Contract Documents are any or all of the documents listed in Item 12 of the Contract.

Contractor - The person or persons, firm, partnership or corporation or other entity who has entered into the Contract with the District to perform the work.

County - County of El Dorado, California.

Date of Execution of the Contract - The date on which the Contract is signed by the DISTRICT's authorized representative. Notice of Award shall be issued pursuant to the provisions of the Contract. Acceptance of Award and compliance with provisions of Notice of Award shall be completed by Contractor no later than the fifteenth day after notice.

Datum - The figures given in the Specifications or upon the drawings after the word "Elevation" or an abbreviation of it shall mean District provided information.

Days - Unless otherwise designated, days as used in the Contract Documents shall mean calendar days, and is defined as every day appearing on the calendar.

Design Engineer - The person, firm or corporation, including its principals, agents, and employees, designated by the District to prepare drawings and specifications for the work. MONTGOMERY AND ASSOCIATES is the design engineer for the preparation of the **SUNSET AND TANGLEWOOD WELL PROJECT**.

District - The South Tahoe Public Utility District, may also be referred to as the Owner and/or STPUD.

Engineer - Person or firm retained by the District, or the person designated by the District, as its Architectural or Engineering representative during the course of

construction, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

His - "His" shall include "her" and "its".

Or Equal - The term "or equal" shall be understood to indicate that the "equal" product be the same or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the Engineer.

OWNER - The South Tahoe Public Utility District, may also be referred to as the DISTRICT and/or STPUD.

Plans or Specification Drawings - The term "Plans or Specification Drawings" refers to the official Plans, profiles, cross sections, elevations, details, and other working drawings and supplementary drawings, or reproductions thereof, signed by the Engineer, which show the location, character, dimensions, and details of the work to be performed. Plans may either be bound in the same book as the balance of the Contract Documents or bound in separate sets, and are a part of the Contract Documents, regardless of the method of binding.

Specifications - The term "specifications" refers to the terms, provisions, and requirements contained herein. Where standard specifications, such as those of "ASTM", "AASHTO", etc. have been referred to, the applicable portions of such standard specifications shall become a part of these Contract Documents.

STPUD - The South Tahoe Public Utility District (STPUD), may also be referred to as the District and/or Owner.

Substantial completion - the stage in the progress of the Work when the Work (or a portion thereof designated by the Contract Documents or in writing by the Owner) is sufficiently **complete** in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. Substantial completion does not constitute Acceptance.

Subcontractors - The term "Subcontractor", as employed herein, includes only those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design according to the Plans or Specifications of this work, but does not include one who merely furnishes material not so worked and would be considered a supplier only.

Work - All the work specified, indicated, shown or contemplated in the Contract Documents to construct the improvements, including all alterations, amendments or extensions thereto made by Contract Change Order or other written orders of the Engineer.

Written Notice - "Written Notice" shall be deemed to have been duly served when delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered mail, then it shall be deemed to have been duly served two days after mailing to the last business address known to him who gives the notice.

Definitions - Whenever in the Specifications or upon the drawings the words DIRECTED, REQUIRED, PERMITTED, ORDERED, DESIGNATED, PRESCRIBED, or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer is intended, and similarly the words APPROVED, ACCEPTABLE, SATISFACTORY,

or words of like import, shall mean approved or acceptable to, or satisfactory to the Engineer, unless otherwise expressly stated.

END OF SECTION

SECTION 00 72 00

GENERAL CONDITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: General clauses that establish the basic rights, responsibilities and relationships of the parties to the Contract.

PART 2 DESCRIPTION

2.01 INTENT OF CONTRACT DOCUMENTS

- A. The intent of the Contract Documents is to describe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Contract. Where the Contract Documents describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment, and incidentals and do all the work involved in performing the Contract in a satisfactory and workmanlike manner.
- B. The technical provisions are presented in sections for convenience. However, this presentation does not necessarily delineate trades or limits of responsibility. All sections of the Contract Documents are interdependent and applicable to the project as a whole.
- C. The Contract Documents are complementary, and what is called for in any one portion shall be binding as if called for in all other applicable portions of the Contract Documents.

2.02 CONTRACTOR'S UNDERSTANDING

- A. It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent or employee of the District, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

2.03 COORDINATION AND INTERPRETATION OF CONTRACT DOCUMENTS

- A. In the event of conflict between the Plans and the Specifications, the Specifications shall govern, except that, where items are shown on the Plans and are not specifically included in the Specifications, the Plans shall govern.
- B. Notwithstanding the order of precedence established above, in the event of conflicts the higher standard shall always apply.
- C. Should it appear that the work to be done or any of the relative matters are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the Contract. In the event of any doubt or question arising respecting the true meaning of the Contract Documents, reference shall be made to the Engineer, whose written decision thereon shall be final and conclusive.
- D. If the Contractor, in the course of the work, finds any discrepancy between the Contract Documents and the physical condition of the locality, or any errors or omissions in the Contract Documents, or in the layout as given by points and instructions, it shall be his duty to inform the Engineer in writing, and the Engineer will promptly verify the same in writing.
- E. The Contractor shall not, nor allow its subcontractors to, proceed with work with respect to which there is any uncertainty without obtaining written clarification. If Contractor performs, permits, or causes the performance of any Work which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, it shall bear any and all costs, including, without limitation, the cost of correction as required in Parts 2.16 of this Section.
- F. Upon authorization of a change to the Work by the Engineer, the Contractor shall record such changes on the project record documents as required in Section 01 77 00, Part 2.06, and, where applicable, the changes shall be surveyed by a California Registered Land Surveyor.
- G. In the event of any discrepancy between any Plans and the figures written thereon, the figures shall be taken as correct. Detailed drawings shall prevail over general drawings.
- H. Any reference made in these Specifications or on the Plans to any specification, standard, method, or publication of any scientific or technical society or other organization shall, in the absence of a specific designation to the contrary, be understood to refer to the Specification, standard, method, or publication in effect as of the date that the work is advertised for Bids with the exception of prevailing wages, which can change after the project has been bid and awarded if updates have been published at the time of bid.

2.04 CONTRACT TIME AND LIQUIDATED DAMAGES

- A. The Contract Time shall be one hundred thirty (130) calendar days from the date specified in the Notice to Proceed. All excavation or work that would disturb existing ground shall not commence until May 1, 2026 and shall be completed by October 15, of the year in which the excavation or work occurs, in accordance with requirements of the Tahoe Regional Planning Agency.
- B. In addition, for timely completion of the Project, the District requires that the Contractor meet intermediate contract deadlines to assure that the Project complies with permit requirements.
 - 1. Intermediate Milestone 1: Complete Sunset Well No. 2 drilling and installation prior to September 1, 2026.
 - 2. Intermediate Milestone 2: Complete Tanglewood Well drilling and installation prior to October 1, 2026.
- C. Extensions to the Contract Time may be allowed in accordance with these Contract Documents. The Contractor is hereby notified that the availability of contract extensions is dependent upon the weather (after October 15 in any year). Extensions are granted by the Tahoe Regional Planning Agency and the Lahontan Regional Water Quality Control Board.
- D. Pursuant to the provisions under Liquidated Damages in Section 01 35 00, Special Procedures, of these Contract Documents, five hundred dollars (\$500) shall be the amount of liquidated damages for every day of delay in the completion of earthwork-related activities. Five hundred dollars (\$500) shall be the amount of liquidated damages for every day of delay in the completion of the Work.

2.05 MEASUREMENT OF QUANTITIES

- A. Where the Contract provides for payment on a lump sum price basis, no measurement of quantity will be made. Where the Contract provides for payment on a unit price basis, the quantities of work performed will be computed by the Engineer on the basis of measurements taken by the Engineer, and these measurements shall be final and conclusive.
- B. All quantities of work computed under the Contract shall be based upon measurements by the Engineer according to United States Measurements and Weights.
- C. Methods of measurement are specified in these Specifications.

2.06 SCOPE OF PAYMENT

- A. The Contractor shall accept the compensation provided in the Contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the

prosecution of the work until the acceptance by the District and for all risks of every description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the Contract; and for completing the work according to the Specifications and Plans. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

- B. No compensation will be made in any case for loss of anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as provided in such agreements.

2.07 PAYMENT OF TAXES

- A. The Contract prices paid for the work shall include full compensation for all taxes which the Contractor is required to pay, whether imposed by Federal, State, or local governments.

2.08 PATENTS

- A. The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated into the work, and agrees to indemnify and hold harmless the District, the Engineer, and their duly authorized representatives, from all action at law or in equity, actions of every nature for, or on account of, the use of any patented materials, equipment, devices, or processes.

2.09 CHANGES IN THE WORK

- A. The District may, at any time, by written order make changes in the work as deemed necessary by the Engineer. If such changes cause an increase or decrease in the Contractor's cost of, or time required for, performance of the Contract an equitable adjustment will be made to the Contract and the Contract modified in writing accordingly. Such modifications are subject to approval by the Board, in accordance with Public Contract Code §20206.2 and 20206.3.
- B. Such modification will be in the form of a Contract Change Order which will describe the work to be done or the method by which the change and cost and/or time adjustment, if any, will be determined, and the time of completion of the work.
- C. The compensation to be paid for any extra work or change shall be determined in one or more of the following ways:
 - 1. By agreed unit prices;
 - 2. By estimate and acceptance of an agreed upon lump sum; or
 - 3. By cost plus.The unit prices established in the Bid for a particular item shall be valid for deviations in the bid quantity within the range established in the Bid Form (Section 00 41 00).

- D. Until one of the above methods is agreed on, or if the work is to be paid for on cost plus basis, the Contractor shall keep full and complete records of the cost of such work in the form and manner prescribed by the Engineer and shall permit the Engineer to have access to such records as may be necessary to assist in the determination of the compensation payable for such work. Contractor must obtain the Engineer's permission, on a daily basis, as to the size of the crew, hours worked, and material to be used.
- E. Upon receipt of a Contract Change Order, the Contractor shall proceed with the ordered work. If ordered in writing by the Engineer, the Contractor shall proceed with the work so ordered prior to actual receipt of a Contract Change Order. A Contract Change Order executed by the Contractor and approved by the Engineer is an executed Contract Change Order as that term is used throughout this Section.
- F. A Contract Change Order may be issued to the Contractor at any time. Should the Contractor disagree with any terms or conditions set forth in a Contract Change Order which has not been executed, the Contractor shall submit a written protest to the Engineer within ten (10) days after the receipt of such Contract Change Order. The protest shall state the points of disagreement, and, if possible, the quantities and cost involved. If a written protest is not submitted, payment will be made as provided in the Contract Change Order and such payment will constitute full compensation for all work included therein or required thereby. Such unprotested Contract Change Orders will be considered as executed Contract Change Orders. Contractor's disagreement with any Change Order does not relieve the Contractor from performance of the work, including extra work, promptly and expeditiously.
- G. Where the protest concerning a Contract Change Order relates to compensation, the compensation payable for all work specified or required by said Contract Change Order to which such protest relates will be determined in the same manner as provided in Part 2.10 for claims for extra work. The contractor shall keep full and complete records of the cost of such work and shall permit the Engineer to have such access thereto as may be necessary to assist in the determination of the compensation payable for such work.
- H. Where the protest concerning a Contract Change Order relates to the adjustment of time and the completion of the work, the time to be allowed therefore will be determined as provided in this Section.
- I. The consent of the Contractor's sureties shall not be required as to any change or extra work, and the liability of the Contractor's Bonds shall be increased or decreased accordingly without notice to the sureties.

2.10 EXTRA WORK

- A. If, during the performance of the Contract, it shall, in the opinion of the District or the Engineer, become necessary or desirable for the proper completion of the Contract to order work done or materials or equipment

furnished which in the opinion of the Engineer are not susceptible of classification under the unit-price items in the Bidding Schedule and are not included in any item for which a lump sum is bid, the Contractor shall do and perform such work and furnish such materials and equipment. Such labor, materials and/or equipment will be classed as extra work, and shall be ordered in writing before such work is started. No extra work will be paid for unless ordered in writing. Extra work and materials will ordinarily be paid for at a lump sum or unit-price agreed on in writing by the Engineer and Contractor prior to the time when the Engineer ordered the extra work to be done. The performance of any extra work or the furnishing of extra material which, in the judgment of the Engineer, is of like character to and susceptible of classification under the unit-price items of the Contract as specified shall, if the order of the Engineer shall so provide, be paid for at the unit-price named for such work in the Bidding Schedule. Whenever, in the judgment of the Engineer, such extra work or such extra material as the case may be, is not of like character to and susceptible of classification under the unit-price items of the Contract as specified, and it is impracticable because of the nature of the work, or for any other reason, to fix the price before order for the extra work shall be issued, the Contractor shall be entitled to be paid the sum of the following costs for doing the extra work, which shall be known as the cost plus basis of payment:

1. Direct Labor Cost - Charges for all of the labor furnished and used by the Contractor shall be as identified in the California Prevailing Wage Determination. Under no circumstances shall the Contractor be allowed to pay for labor, any amount that is less than the California prevailing Wage Determination. The Contractor shall be allowed to add to actual wages paid the labor surcharge set forth in the California Department of Transportation publication entitled Labor Surcharge and Equipment Rental Rates, which is in effect on the date upon which the work is performed. The surcharge shall constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workers, other than actual wages as defined in Section 9-1.04B1 of the California Department of Transportation Standard Specifications.
2. Equipment Cost - Charges for the rental and operation of the equipment furnished and used by the Contractor shall be made for all prime construction and automotive equipment. It shall not include charges for listed equipment or major tools with a new cost of \$500.00 or less. Equipment time charges shall be subject to the daily approval of the Engineer and evidence of such daily approval submitted with the billing. The equipment rental and operation rates used shall be at the established CalTrans rental rates. No time or charges will be allowed except when equipment is actually being used for the proper and efficient performance or completion of the extra work as authorized. A fifteen percent (15%) markup to the equipment rental and operation rates will be allowed.
3. Material Costs - Charges for the cost of materials furnished by the Contractor shall be made provided such furnishing was specifically authorized in the extra work order and the actual use verified by the Engineer. Charges shall be net cost to the Contractor delivered at the

job, including all applicable sales taxes and vendor's invoice must accompany the billing along with verification of use of such materials by the Engineer. A fifteen percent (15%) markup to the materials cost will be allowed.

4. Tools, Supplies, Supervision, Overhead and Profit - A charge for major tools, supplies, home office overhead, field overhead, labor liability insurance, additional bond costs, other fixed or administrative costs that are not costs of labor used in the direct performance of the work, supervision, and profit will be allowed in the amount of thirty five percent (35%) of the total direct labor costs as defined above.
 5. Work by Subcontractor - When all or any part of extra work is performed by any of the Contractor's Subcontractors, the markups for tools, supplies, additional bond costs, supervision, overhead and profit applied to the Subcontractor's actual cost of such work (determined as above) will be allowed in the amount of ten percent (10%) of the total direct labor costs, equipment costs and material costs, as defined above, to which a markup of five percent (5%) on the subcontracted portion of the extra work may be added by the Contractor.
- B. The Contractor agrees that he shall not be entitled to claim damages for anticipated profits on any portion of work that may be deleted. The amount of any adjustment for work deleted shall be estimated at the time deletion of work is ordered and the estimated adjustment will be deducted from the Contract amount by Contract Change Order.
- C. The District reserves the right to contract with any person or firm other than the Contractor for any or all extra work.

2.11 CLAIMS FOR EXTRA COSTS

- A. The Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the Engineer, or the happening of any event, thing, or occurrence, unless he shall have given the Engineer written notice of claims specified in Part 2.20 below, provided, however, that compliance with this section shall not be a prerequisite as to matters within the scope of the protest provisions in Part 2.09.
- B. Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the change order for work. No claims shall be allowed of impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. The Contractor may not change or modify the District's change order form in an attempt to reserve additional rights.
- C. The District's liability to Contractor for delays for which the District is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall the District be liable for any costs which are borne by the Contractor in the regular course of business, including, but not limited to, home office overhead and other

ongoing costs. Damages caused by unreasonable District delay, including delays caused by items that are the responsibility of the District pursuant to Government Code section 4215, shall be based on actual costs only, no proportions or formulas shall be used to calculate any delay damages. In the event of an emergency endangering life or property, the Contractor shall act as stated in Section 01 35 00, Special Procedures, Part 2.01, and after execution of the emergency work shall present an accounting of labor, materials, and equipment. The procedure for any payment that may be due for emergency work will be as specified in Part 2.09 above.

2.12 CHANGES IN CHARACTER OF WORK

- A. If an ordered change in the Contract Documents materially changes the character of the work of a Contract item from that upon which the Contractor based its Bid price, and if the change increases or decreases the actual unit costs of such changed item as compared to the actual or estimated unit cost of performing the work of said item in accordance with the Contract Documents originally applicable thereto, in the absence of an executed Contract Change Order specifying the compensation payable, an adjustment in compensation therefore will be made in accordance with the following:
1. The basis of such adjustment in compensation will be the difference between the Contract unit-price to perform the work of said item or portion thereof involved in the change as originally planned and the actual unit cost of performing the work of said item or portion thereof involved in the change, as changed. Actual unit costs will be as agreed upon by the Contractor and the Engineer. If they cannot agree or if there is no unit price for the subject work, then the costs of the work will be determined by the Engineer in the same manner as if the work were to be paid for on the cost plus basis as provided in Part 2.10. Any such adjustment will apply only to the portion of the work of said item actually changed in character.
 2. Failure of the Engineer to recognize the change in character of the work at the time the Contract Change Order is issued shall not be construed as relieving the Contractor of its duties and responsibility of filing a written protest within the ten (10) day limit as hereinabove provided.

2.13 RIGHT TO WITHHOLD PAYMENTS

- A. In addition to all other rights and remedies of the District hereunder and by virtue of the law, the District may withhold or nullify the whole or any part of any partial or final payment to such extent as may reasonably be necessary to protect the District from loss on account of:
1. Stop Notice Claims
 2. Defective work not remedied, irrespective of when any such work was found to be defective;
 3. Claims or liens filed or reasonable evidence indicating probable filing of claims or liens including, but not limited to claims under Sections 1775, 1776, or 1777.7 of the Labor Code;

4. Failure of the Contractor to make payments properly for labor, materials, equipment, or other facilities, or to subcontractors and/or suppliers;
5. A reasonable doubt that the work can be completed for the balance then unearned;
6. A reasonable doubt that the Contractor will complete the work within the agreed time limits;
7. Liquidated Damages;
8. Costs to the District resulting from failure of the Contractor to complete the work within the proper time, liquidated and identified in Section 01 35 00, Part 2.06;
9. Damage to the District, work or property;
10. Damage to another contractor or third party;
11. Persistent failure to carry out the work in accordance with the Contract Documents;
12. Site clean-up;
13. Failure of Contractor to keep the project schedule and/or record ("as-built") drawings up to date;
14. Legally permitted penalties, including governmental and regulatory fines incurred by the District as a result of delays resulting from Contractor's performance of the work as set forth in Section 01 35 00, Part 2.06; and
15. Damages and costs incurred by the District as a result of Contractor's performance of the work, including, but not limited to, legal, engineering, inspection, superintendence, regulatory fines, and other expenses.

- B. Whenever the District shall, in accordance herewith, withhold any monies otherwise due the Contractor, written notice of the amount withheld and the reasons therefore will be given the Contractor. After the Contractor has corrected the enumerated deficiencies, the District will promptly pay to the Contractor the amount so withheld. When monies are withheld to protect the District against claims or liens of mechanics, materialmen, Subcontractors, etc., the District may at its discretion permit the Contractor to deliver a surety bond in terms and amount satisfactory to the District, indemnifying the District against any loss or expense, and upon acceptance thereof by the District, the District shall release to the Contractor monies so withheld. The surety providing the stop notice bond shall be a separate legal entity from the surety on the performance and/or payment bonds provided for the Project.
- C. If insufficient funds have been withheld, Contractor shall promptly reimburse the District for any of the items set forth above that occur.

2.14 SECURITIES FOR MONEY WITHHELD

- A. Pursuant to section 22300 of the Public Contract Code of the State of California, Contractor may request the District to make retention payments directly to an escrow agent or may substitute securities for any money withheld by the District to ensure performance under the contract. At the request and expense of Contractor, securities equivalent to the amount

withheld shall be deposited with the District or with a state or federally chartered bank as the escrow agent who shall return such securities to Contractor upon satisfactory completion of the contract. Deposit of securities with an escrow agent shall be subject to a written agreement substantially in the form provided in section 22300 of the Public Contract Code.

2.15 GUARANTEE

- A. In addition to warranties, representations and guarantees stated in the Contract Documents, the Contractor unconditionally guarantees all materials and workmanship furnished hereunder, and agrees to replace at his sole cost and expense, and to the satisfaction of the Engineer and the District, any and all materials and/or equipment which may be defective or improperly installed.
- B. The Contractor shall repair or replace to the satisfaction of the Engineer any or all such work that may prove defective in workmanship or materials, ordinary wear and tear excepted, together with any other work which may be damaged or displaced in so doing.
- C. All work or materials which have been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner and no additional compensation will be allowed for such removal, replacement, or remedial work.
- D. Any work done beyond the lines and grades shown on the Plans or established by the Engineer or any extra work done without written authority will be considered as unauthorized work and will not be paid. Upon order of the Engineer, unauthorized work shall be remedied, removed, or replaced at the Contractor's expense.
- E. Upon failure of the Contractor to comply with any order of the Engineer, the District may cause rejected or unauthorized work to be remedied, removed or replaced, and may deduct the costs from any monies due or to become due the Contractor in the form of a Change Order.
- F. If deemed necessary by the District to maintain uninterrupted operation of District facilities while the defective or improperly installed materials and/or equipment is repaired or replaced, the Contractor shall provide temporary replacement materials and/or equipment at no additional cost to the District.
- G. The Contractor must commence warranty repairs within ten (10) days after receiving written notice from the District. In the event of failure to complete such repairs within a reasonable time, the District is authorized to have the defect repaired and corrected at the expense of the Contractor who will pay the costs and charges therefor immediately upon demand, including any reasonable management and administrative costs, engineering, legal and other consultant fees incurred to enforce this section.
- H. If the Engineer deems it inexpedient for the Contractor to correct work damaged or not done in accordance with the Contract, an equitable

deduction from the Contract price shall be made therefore, and such sum may be withheld by District from Contractor's payment.

- I. The Contractor must obtain and enforce on the District's behalf all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work and materials provided under the Contract.
- J. The signing of the Contract by the Contractor shall constitute execution of the above guarantees. Except as otherwise provided in this Contract, the guarantees and warranties shall remain in effect through the one-year maintenance warranty period without any expense to the District, ordinary wear and tear and unusual abuse and neglect excepted.
- K. Nothing herein shall be construed to limit the rights and remedies available to the District at law or in equity, including, but not limited to, Code of Civil Procedure section 337.15.

2.16 FINAL ACCEPTANCE AND PAYMENT

- A. The acceptance of the Work on behalf of the District will be made by the Engineer. Such acceptance by the District shall not constitute a waiver of defects. When the Work has been accepted there shall be paid to Contractor a sum equal to the contract price less any amounts previously paid Contractor and less any amounts withheld by the District from Contractor under the terms of the contract. The final five percent (5%), or the percentage specified in the notice inviting bids where the District has adopted a finding of substantially complete, shall not become due and payable until five (5) calendar days shall have elapsed after the expiration of the period within which all claims may be filed under the provisions of Civil Code section 9356. If the Contractor has placed securities with the District as described herein, the Contractor shall be paid a sum equal to one hundred percent (100%) of the contract price less any amounts due the District under the terms of the Contract.
- B. Unless Contractor advises the District in writing prior to acceptance of the final five percent (5%) or the percentage specified in the notice inviting bids where the District has adopted a finding of substantially complete, or the return of securities held as described herein, said acceptance shall operate as a release to the District of all claims and all liability to Contractor for all things done or furnished in connection with this work and for every act of negligence of the District and for all other claims relating to or arising out of this work. If Contractor advises the District in writing prior to acceptance of final payment or return of the securities that there is a dispute regarding the amount due the Contractor, the District may pay the undisputed amount contingent upon the Contractor furnishing a release of all undisputed claims against the District with the disputed claims in stated amounts being specifically excluded by Contractor from the operation of the release. No payments, however, final or otherwise, shall operate to release Contractor or its sureties from the Faithful Performance Bond, Labor and Material Payment Bond, or from any other obligation under this contract.

- C. In case of suspension of the contract any unpaid balance shall be and become the sole and absolute property of the District to the extent necessary to repay the District any excess in the cost of the Work above the contract price.
- D. Final payment shall be made no later than 60 days after the date of acceptance of the Work by the District or the date of occupation, beneficial use and enjoyment of the Work by the District including any operation only for testing, start-up or commissioning accompanied by cessation of labor on the Work, provided that a release of liens and claims has been received from the Contractor pursuant to Civil Code section 8136. In the event of a dispute between the District and the Contractor, the District may withhold from the final payment an amount not to exceed 150% of the disputed amount.
- E. Within ten (10) calendar days from the time that all or any portion of the retention proceeds are received by Contractor, Contractor shall pay each of its subcontractors from whom retention has been withheld each subcontractor's share of the retention received. However, if a retention payment received by Contractor is specifically designated for a particular subcontractor, payment of the retention shall be made to the designated subcontractor if the payment is consistent with the terms of the subcontract.

2.17 OCCUPANCY

- A. The District reserves the right to occupy or utilize any portion of the Work at any time before completion, and such occupancy or use shall not constitute acceptance of any part of Work covered by this Contract. This use shall not relieve the Contractor of its responsibilities under the Contract.

2.18 INDEMNIFICATION

- A. To the fullest extent permitted by law, Contractor shall immediately defend (with counsel of the District's choosing), indemnify and hold harmless the District, officials, officers, agents, employees, and representatives, and each of them from and against:
 - 1. Any and all claims, demands, causes of action, costs, expenses, injuries, losses or liabilities, in law or in equity, of every kind or nature whatsoever, but not limited to, injury to or death, including wrongful death, of any person, and damages to or destruction of property of any person, arising out of, related to, or in any manner directly or indirectly connected with the Work or this Contract, including claims made by subcontractors for nonpayment, including without limitation the payment of all consequential damages and attorney's fees and other related costs and expenses, however caused, regardless of whether the allegations are false, fraudulent, or groundless, and regardless of any negligence of the District or its officers, employees, or authorized volunteers (including passive negligence), except the sole negligence or willful misconduct or active negligence of the District or its officials, officers, employees, or authorized volunteers.

2. Contractor's defense and indemnity obligation herein includes, but is not limited to damages, fines, penalties, attorney's fees and costs arising from claims under the Americans with Disabilities Act (ADA) or other federal or state disability access or discrimination laws arising from Contractor's Work during the course of construction of the improvements or after the Work is complete, as the result of defects or negligence in Contractor's construction of the improvements.
 3. Any and all actions, proceedings, damages, costs, expenses, fines, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of Contractor.
 4. Any and all losses, expenses, damages (including damages to the Work itself), attorney's fees, and other costs, including all costs of defense which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the Work and all of Contractor's obligations under the agreement. Such costs, expenses, and damages shall include all costs, including attorney's fees, incurred by the indemnified parties in any lawsuit to which they are a party.
- B. Contractor shall immediately defend, at Contractor's own cost, expense and risk, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against the District, its officials, officers, agents, employees and representatives. Contractor shall pay and satisfy any judgment, award or decree that may be rendered against the District, its officials, officers, employees, agents, employees and representatives, in any such suit, action or other legal proceeding. Contractor shall reimburse the District, its officials, officers, agents, employees and representatives for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. The only limitations on this provision shall be those imposed by Civil Code section 2782.

2.19 NO PERSONAL LIABILITY

- A. Neither the District, the Engineer, nor any of their other officers, agents, or employees shall be personally responsible for any liability arising under the Contract, except such obligations as are specifically set forth herein..

2.20 DISPUTES

- A. Except as otherwise specifically provided in the Contract Documents, the Engineer will initially decide all disputes arising under and by virtue of the Contract. A dispute will be processed and decided by the Engineer as soon as practicable after its submission and the submission or availability of any additional information necessary to its decision. If the Contractor is dissatisfied with the Engineer's decision, the Contractor may, within fifteen (15) days from the date of the Engineer's decision, file a claim following the procedures in Part 2.19 of this Section. If the Contractor fails to follow the

procedures in Part 2.19 of this Section within the fifteen (15) day period, then the Engineer's decision shall be final, conclusive, and binding on the Contractor.

2.21 PROCEDURE FOR RESOLVING DISPUTES

- A. Contractor shall timely comply with all notices and requests for changes to the Contract Time or Contract Price, including but not limited to all requirements of Section 00 72 00, Changes and Extra Work, as a prerequisite to filing any claim governed by this Article. The failure to timely submit a notice of delay or notice of change, or to timely request a change to the Contract Price or Contract Time, or to timely provide any other notice or request required herein shall constitute a waiver of the right to further pursue the claim under the Contract or at law.
- B. Intent. Effective January 1, 1991, Section 20104 et seq., of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial supervised mediation, and judicial arbitration to resolve disputes on construction claims of \$375,000 or less. Effective January 1, 2017, Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims. The intent of this Article is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Article shall be construed to be consistent with said statutes.
- C. Claims. For purposes of this Article, "Claim" means a separate demand by the Contractor, after a change order duly requested in accordance with Section 00 72 00 "Changes and Extra Work" has been denied by the District, for (A) a time extension, (B) payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract, or (C) an amount the payment of which is disputed by the District. Claims governed by this Article may not be filed unless and until the Contractor completes all procedures for giving notice of delay or change and for the requesting of a time extension or change order, including but not necessarily limited to the procedures contained in Section 00 72 00, Changes and Extra Work, and Contractor's request for a change has been denied in whole or in part. Claims governed by this Article must be filed no later than the date of final payment. The claim shall be submitted in writing to the District and shall include on its first page the following in 16 point capital font: "THIS IS A CLAIM." Furthermore, the claim shall include the documents necessary to substantiate the claim. Nothing herein is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims, including all requirements pertaining to compensation or payment for extra Work, disputed Work, and/or changed conditions. Failure to follow such contractual requirements shall bar any claims or subsequent lawsuits for compensation or payment thereon.
- D. Supporting Documentation. The Contractor shall submit all claims in the following format:
 - 1. Summary of claim merit and price, reference Contract Document provisions pursuant to which the claim is made

2. List of documents relating to claim:
 - a. Specifications
 - b. Drawings
 - c. Clarifications (Requests for Information)
 - d. Schedules
 - e. Other
3. Chronology of events and correspondence
4. Analysis of claim merit
5. Analysis of claim cost
6. Time impact analysis in CPM format
7. If Contractor's claim is based in whole or in part on an allegation of errors or omissions in the Drawings or Specifications for the Project, Contractor shall provide a summary of the percentage of the claim subject to design errors or omissions and shall obtain a certificate of merit in support of the claim of design errors and omissions.

E. District's Response. Upon receipt of a claim pursuant to this Article, District shall conduct a reasonable review of the claim and, within a period not to exceed 45 Days, shall provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Any payment due on an undisputed portion of the claim will be processed and made within 60 Days after the District issues its written statement.

1. If the District needs approval from its governing body to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the claim, and the District's governing body does not meet within the 45 Days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the District shall have up to three Days following the next duly publicly noticed meeting of the District's governing body after the 45-Day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.
2. Within 30 Days of receipt of a claim, the District may request in writing additional documentation supporting the claim or relating to defenses or claims the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of District and the Contractor. The District's written response to the claim, as further documented, shall be submitted to the Contractor within 30 Days (if the claim is less than \$15,000, within 15 Days) after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

F. Meet and Confer. If the Contractor disputes the District's written response, or the District fails to respond within the time prescribed, the Contractor may so notify the District, in writing, either within 15 Days of receipt of the District's response or within 15 Days of the District's failure to respond within the time prescribed, respectively, and demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon

receipt of a demand, the District shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

- G. Mediation. Within 10 business Days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the District shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 Days after the District issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the District and the Contractor sharing the associated costs equally. The District and Contractor shall mutually agree to a mediator within 10 business Days after the disputed portion of the claim has been identified in writing, unless the parties agree to select a mediator at a later time.
1. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.
 2. For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
 3. Unless otherwise agreed to by the District and the Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has been commenced.
 4. The mediation shall be held no earlier than the date the Contractor completes the Work or the date that the Contractor last performs Work, whichever is earlier. All unresolved claims shall be considered jointly in a single mediation, unless a new unrelated claim arises after mediation is completed.
- H. Procedures After Mediation. If following the mediation, the claim or any portion remains in dispute, the Contractor must file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code prior to initiating litigation. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the Contractor submits his or her written claim pursuant to subdivision (a) until the time the claim is denied, including any period of time utilized by the meet and confer conference.
- I. Civil Actions. The following procedures are established for all civil actions filed to resolve claims of \$375,000 or less:
1. Within 60 Days, but no earlier than 30 Days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both parties or unless

mediation was held prior to commencement of the action in accordance with Public Contract Code section 9204 and the terms of this Contract. The mediation process shall provide for the selection within 15 Days by both parties of a disinterested third person as mediator, shall be commenced within 30 Days of the submittal, and shall be concluded within 15 Days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court.

2. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1114.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.

- J. Government Code Claims. In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra Work, disputed Work, construction claims and/or changed conditions, the Contractor must comply with the claim procedures set forth in Government Code Sections 900, et seq. prior to filing any lawsuit against the District. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra Work, disputed Work, construction claims, and/or changed conditions have been followed by Contractor. If no such Government Code claim is submitted, or if the prerequisite contractual requirements are not satisfied, no action against the District may be filed. A Government Code claim must be filed no earlier than the date the Work is completed or the date the Contractor last performs Work on the Project, whichever occurs first. A Government Code claim shall be inclusive of all unresolved claims unless a new unrelated claim arises after the Government Code claim is submitted.
- K. Non-Waiver. The District's failure to respond to a claim from the Contractor within the time periods described in this Article or to otherwise meet the time requirements of this Article shall result in the claim being deemed rejected in its entirety.

2.22 AUTHORITY OF THE ENGINEER

- A. The Engineer is the representative of the District and has full authority to interpret the Contract Documents, to conduct the construction review and inspection of the Contractor's performance, and to decide questions which arise during the course of the work and the Engineer's decisions on these matters shall be final and conclusive. The Engineer has the authority to

reject all work and materials which do not conform to the Contract Documents, and has the authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract. To prevent disputes, oral modifications will not be permitted.

- B. If at any time the Contractor is on force account and the Contractor's work force, tools, plant, or equipment appear to the Engineer to be insufficient or inappropriate to secure the required quality of work or the proper rate of progress, the Engineer may order the Contractor to increase their efficiency, improve their character, to augment their number or to substitute other personnel, new tools, plant, or equipment, as the case may be, and the Contractor shall comply with such order. Neither the failure of the Engineer to demand such increase of efficiency, number, or improvement, nor the compliance by the Contractor with the demand, shall relieve the Contractor of its obligation to provide quality work at the rate of progress necessary to complete the work within the specified time.
- C. The Engineer shall have the authority to make minor changes in the work, not involving extra costs, and not inconsistent with the purposes of the work.
- D. Any order given by the Engineer, not otherwise required by the Contract Documents to be in writing shall, on request of the Contractor, be given or confirmed by the Engineer in writing.
- E. Whenever work, methods of procedure, or any other matters are made subject to direction or approval, such direction or approval will be given by the Engineer.

2.23 HOURS OF WORK

- A. As provided in Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code, Contractor stipulates that eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the Contractor or by any subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract is limited and restricted to eight (8) hours during any one calendar day and 40 hours during any one calendar week, except as hereinafter provided. Notwithstanding the provisions herein above set forth, work performed by employees of Contractor in excess of eight (8) hours per day, and 40 hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.
- B. The Contractor and every subcontractor shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of the District and to the Division of Labor Law Enforcement, Department of Industrial Relations of the State of California.

- C. The Contractor shall pay to District a penalty of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and 40 hours in any one calendar week in violation of the provisions of Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code.
- D. Any work necessary to be performed after regular working hours, or on Saturdays and Sundays or other holidays, shall be performed without additional expense to the District.
- E. District will provide inspection during normal working hours from 8:00 a.m. to 5:00 p.m. Monday through Friday. Inspection before or after this time will be charged to the Contractor as reimbursable inspection time. Inspections on weekends requires three days' notice for review and approval. Upon written request and approval the 8 hour working day may be changed to other limits subject to city/county ordinance.
- F. It shall be unlawful for any person to operate, permit, use, or cause to operate any of the following at the Project site, other than between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, with no Work allowed on the District-observed holidays, unless otherwise approved by the District:
 - 1. Powered Vehicles
 - 2. Construction Equipment
 - 3. Loading and Unloading Vehicles
 - 4. Domestic Power Tools

2.24 PAYROLL RECORDS; LABOR COMPLIANCE

- A. Pursuant to Labor Code section 1776, Contractor and all subcontractors shall maintain weekly certified payroll records, showing the names, addresses, Social Security numbers, work classifications, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by them in connection with the Work under this Contract. Contractor shall certify under penalty of perjury that records maintained and submitted by Contractor are true and accurate. Contractor shall also require subcontractor(s) to certify weekly payroll records under penalty of perjury.
- B. In accordance with Labor Code section 1771.4, the Contractor and each subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations ("DIR") on the specified interval and format prescribed by the DIR, which may include electronic submission. Contractor shall comply with all requirements and regulations from the DIR relating to labor compliance monitoring and enforcement. The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

- C. Any stop orders issued by the Department of Industrial Relations against Contractor or any subcontractor that affect Contractor's performance of Work, including any delay, shall be Contractor's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Contractor caused delay subject to any applicable liquidated damages and shall not be compensable by the District. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against Contractor or any subcontractor.
- D. The payroll records described herein shall be certified and submitted by the Contractor at a time designated by the District. The Contractor shall also provide the following:
 - 1. A certified copy of the employee's payroll records shall be made available for inspection or furnished to such employee or his or her authorized representative on request.
 - 2. A certified copy of all payroll records described herein shall be made available for inspection or furnished upon request of the DIR.
- E. Unless submitted electronically, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement ("DLSE") of the DIR or shall contain the same information as the forms provided by the DLSE.
- F. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency, the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or performing the contract shall not be marked or obliterated.
- G. In the event of noncompliance with the requirements of this Article, the Contractor shall have ten (10) calendar days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Article. Should noncompliance still be evident after such 10-day period, the Contractor shall pay a penalty of one hundred dollars (\$100.00) to the District for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payment then due.
- H. The responsibility for compliance with this Article shall rest upon the Contractor.

2.25 PREVAILING RATES OF WAGES

- A. The Contractor is aware of the requirements of Labor Code sections 1720 *et seq.* and 1770 *et seq.*, as well as California Code of Regulations, Title 8, Section 16000 *et seq.* ("Prevailing Wage Laws"), which require the payment

of prevailing wage rates and the performance of other requirements on certain “public works” and “maintenance” projects. Since this Project involves an applicable “public works” or “maintenance” project, as defined by the Prevailing Wage Laws, and since the total compensation is \$1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Contract from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov. In the alternative, the Contractor may view a copy of the prevailing rate of per diem wages which are on file at the District’s Administration Office and shall be made available to interested parties upon request. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor’s principal place of business and at the Project site. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

- B. The Contractor shall forfeit as a penalty to the District not more than Two Hundred Dollars (\$200.00), pursuant to Labor Code section 1775, for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate as determined by the Director of the Department of Industrial Relations for such work or craft in which such worker is employed for any public work done under the Contract by it or by any subcontractor under it. The difference between such prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof, for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by the Contractor.
- C. Contractor shall post, at appropriate conspicuous points on the Project site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

2.26 PUBLIC WORKS CONTRACTOR REGISTRATION

- A. Pursuant to Labor Code sections 1725.5 and 1771.1, the Contractor and its subcontractors must be registered with the Department of Industrial Relations prior to the execution of a contract to perform public works. By entering into this Contract, Contractor represents that it is aware of the registration requirement and is currently registered with the DIR. Contractor shall maintain a current registration for the duration of the Project. Contractor shall further include the requirements of Labor Code sections 1725.5 and 1771.1 in any subcontract and ensure that all subcontractors are registered at the time this Contract is entered into and maintain registration for the duration of the Project. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1

2.27 EMPLOYMENT OF APPRENTICES

- A. Contractor and all subcontractors shall comply with the requirements of Labor Code sections 1777.5 and 1777.6 in the employment of apprentices.
- B. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.
- C. Knowing violations of Labor Code section 1777.5 will result in forfeiture not to exceed one hundred dollars (\$100.00) for each calendar day of non-compliance pursuant to Labor Code section 1777.7.
- D. The responsibility for compliance with this Article shall rest upon the Contractor.

2.28 NONDISCRIMINATION/EQUAL EMPLOYMENT OPPORTUNITY

- A. Pursuant to Labor Code section 1735 and other applicable provisions of law, the Contractor and its subcontractors shall not discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, sexual orientation, or any other classifications protected by law on this Project. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, sexual orientation, or any other classifications protected by law.
- B. Employment Eligibility; Contractor. By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time. Such requirements and restrictions include, but are not limited to, examination and retention of documentation confirming the identity and immigration status of each employee of the Contractor. Contractor also verifies that it has not committed a violation of any such law within the five (5) years immediately preceding the date of execution of this Contract, and shall not violate any such law at any time during the term of the Contract. Contractor shall avoid any violation of any such law during the term of this Contract by participating in an electronic verification of work authorization program operated by the United States Department of Homeland Security, by participating in an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, or by some other legally acceptable method. Contractor shall maintain records of each such verification, and shall make them available to the District or its representatives for inspection and copy at any time during normal business hours. The District shall not be responsible for any costs or expenses

related to Contractor's compliance with the requirements provided for or referred to herein.

- C. Employment Eligibility; Subcontractors, Sub-subcontractors and Consultants. To the same extent and under the same conditions as Contractor, Contractor shall require all of its subcontractors, sub-subcontractors and consultants performing any part of the Work or of this Contract to make the same verifications and comply with all requirements and restrictions provided for herein.
- D. Employment Eligibility; Failure to Comply. Each person executing this Contract on behalf of Contractor verifies that he or she is a duly authorized officer of Contractor, and understands that any of the following shall be grounds for the District to terminate the Contract for cause: (1) failure of Contractor or its subcontractors, sub-subcontractors or consultants to meet any of the requirements provided for herein; (2) any misrepresentation or material omission concerning compliance with such requirements; or (3) failure to immediately remove from the Work any person found not to be in compliance with such requirements.

2.29 DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

- A. Contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code section 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid, or may have been paid to a debarred subcontractor by a contractor on the project shall be returned to the District. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the project.

2.30 LABOR/EMPLOYMENT SAFETY

- A. General - The Contractor shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to all applicable Federal, State, and local laws, ordinances, and codes, and to the rules and regulations established by the California Occupational Safety and Health Administration, and to other rules of law applicable to the work.
- B. The services of the Engineer in conducting construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing or scaffolding or safety measures, in, on, or near the construction site, and shall not be construed as supervision of the actual construction nor make the Engineer or the District responsible for providing a safe place for the performance of

work by the Contractor, Subcontractors, or suppliers, or for access, visits, use work, travel, or occupancy by any person.

- C. All work and materials shall be in strict accordance with all applicable State, Federal, and local laws, rules, regulations, and codes.
- D. Nothing in this Contract is to be construed to permit work not conforming to governing law. When Contract Documents differ from governing law, the Contractor shall furnish and install the higher standards called for without extra charge. All equipment furnished shall be grounded and provided with guards and protection as required by safety codes. Where vapor-tight or explosion-proof electrical installation is required by law, this shall be provided.
- E. The Contractor shall comply with all applicable laws and regulations of the federal, state, and local government, including Cal/OSHA requirements and requirements for verification of employees' legal right to work in the United States.
- F. The Contractor shall maintain emergency first aid treatment for his employees which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 *et seq.*), and California Code of Regulations, Title 8, Industrial Relations Division 1, Department of Industrial Relations, Chapter 4. The Contractor shall ensure the availability of emergency medical services for its employees in accordance with California Code of Regulations, Title 8, Section 1512.
- G. The Contractor shall submit the Illness and Injury Prevention Program and a Project site specific safety program to the District prior to beginning Work at the Project site. Contractor shall maintain a confined space program that meets or exceeds the District Standards. Contractor shall adhere to the District's lock out tag out program.
- H. The Contractor shall be aware of and comply with the District's safety program requirements of Contractors. A copy of the program is available from the District upon request.

2.31 DISTRICT'S RIGHT TO TERMINATE CONTRACT

- A. **Termination for Cause by the District:**
 - 1. In the sole estimation of the District, if the Contractor refuses or fails to prosecute the Work or any separable part thereof with such diligence as will insure its completion within the time specified by the Contract Documents, or any extension thereof, or fails to complete such Work within such time, or if the Contractor should be adjudged a bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or the Contractor or any of its subcontractors should violate any of the provisions of this Contract, the District may serve written notice upon the Contractor and its Surety of the District's intention to terminate this Contract. This notice of intent to terminate shall contain the reasons for such intention to terminate this Contract, and a statement to the

effect that the Contractor's right to perform this Contract shall cease and terminate upon the expiration of ten (10) calendar days unless such violations have ceased and arrangements satisfactory to the District have been made for correction of said violations.

2. In the event that the District serves such written notice of termination upon the Contractor and the Surety, the Surety shall have the right to take over and perform the Contract. If the Surety does not: (1) give the District written notice of Surety's intention to take over and commence performance of the Contract within 15 calendar days of the District's service of said notice of intent to terminate upon Surety; and (2) actually commence performance of the Contract within 30 calendar days of the District's service of said notice upon Surety; then the District may take over the Work and prosecute the same to completion by separate contract or by any other method it may deem advisable for the account and at the expense of the Contractor.
3. In the event that the District elects to obtain an alternative performance of the Contract as specified above: (1) the District may, without liability for so doing, take possession of and utilize in completion of the Work such materials, appliances, plants and other property belonging to the Contractor that are on the site and reasonably necessary for such completion (A special lien to secure the claims of the District in the event of such suspension is hereby created against any property of Contractor taken into the possession of the District under the terms hereof and such lien may be enforced by sale of such property under the direction of the District without notice to Contractor. The proceeds of the sale after deducting all expenses thereof and connected therewith shall be credited to Contractor. If the net credits shall be in excess of the claims of the District against Contractor, the balance will be paid to Contractor or Contractor's legal representatives.); and (2) Surety shall be liable to the District for any cost or other damage to the District necessitated by the District securing an alternate performance pursuant to this Article.

B. Termination for Convenience by the District:

1. The District may terminate performance of the Work called for by the Contract Documents in whole or, from time to time, in part, if the District determines that a termination is in the District's interest.
2. The Contractor shall terminate all or any part of the Work upon delivery to the Contractor of a Notice of Termination specifying that the termination is for the convenience of the District, the extent of termination, and the Effective Date of such termination.
3. After receipt of Notice of Termination, and except as directed by the District, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this Termination for Convenience clause, immediately proceed with the following obligations:
 - a. Stop Work as specified in the Notice.
 - b. Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality called for under the Contract Documents.
 - c. Leave the property upon which the Contractor was working and upon which the facility (or facilities) forming the basis of the

- Contract Document is situated in a safe and sanitary manner such that it does not pose any threat to the public health or safety.
- d. Terminate all subcontracts to the extent that they relate to the portions of the Work terminated.
 - e. Place no further subcontracts or orders, except as necessary to complete the continued portion of the Contract.
 - f. Submit to the District, within ten (10) calendar days from the Effective Date of the Notice of Termination, all of the usual documentation called for by the Contract Documents to substantiate all costs incurred by the Contractor for labor, materials and equipment through the Effective Date of the Notice of Termination. Any documentation substantiating costs incurred by the Contractor solely as a result of the District's exercise of its right to terminate this Contract pursuant to this clause, which costs the contractor is authorized under the Contract documents to incur, shall: (1) be submitted to and received by the Engineer no later than 30 calendar days after the Effective Date of the Notice of Termination; (2) describe the costs incurred with particularity; and (3) be conspicuously identified as "Termination Costs occasioned by the District's Termination for Convenience."
4. Termination of the Contract shall not relieve Surety of its obligation for any just claims arising out of or relating to the Work performed.
 5. In the event that the District exercises its right to terminate this Contract pursuant to this clause, the District shall pay the Contractor, upon the Contractor's submission of the documentation required by this clause and other applicable provisions of the Contract Documents, the following amounts:
 - a. All actual reimbursable costs incurred according to the provisions of this Contract.
 - b. A reasonable allowance for profit on the cost of the Work performed, provided Contractor establishes to the satisfaction of the District that it is reasonably probable that Contractor would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed fifteen (15%) percent of the costs.
 - c. A reasonable allowance for Contractor's administrative costs in determining the amount payable due to termination of the Contract under this Article.
- C. Notwithstanding any other provision of this Article, when immediate action is necessary to protect life and safety or to reduce significant exposure or liability, the District may immediately order Contractor to cease Work on the Project until such safety or liability issues are addressed to the satisfaction of the District or the Contract is terminated.

2.32 STATE LICENSE BOARD NOTICE

- A. Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A

complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

2.33 THIRD PARTY CLAIMS

- A. Pursuant to Public Contract Code section 9201, the District shall provide the Contractor with timely notification of the receipt of any third-party claims relating to the Contract. The District is entitled to recover reasonable costs incurred in providing such notification.

2.34 DOCUMENT RETENTION & EXAMINATION

- A. In accordance with Government Code section 8546.7, records of both the District and the Contractor shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment.
- B. Contractor shall make available to the District any of the Contractor's other documents related to the Project immediately upon request of the District.
- C. In addition to the State Auditor rights above, the District shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the District, for a period of four (4) years after final payment.

2.35 INTEGRATION

- A. **Oral Modifications Ineffective.** No oral order, objection, direction, claim or notice by any party or person shall affect or modify any of the terms or obligations contained in the Contract Documents.
- B. **Contract Documents Represent Entire Contract.** The Contract Documents represent the entire agreement of the District and Contractor.

2.36 ASSIGNMENT OF CONTRACT

- A. Contractor shall not assign, transfer, convey, sublet or otherwise dispose of the rights or title of interest of any or all of this contract without the prior written consent of the District. Any assignment or change of Contractor's name of legal entity without the written consent of the District shall be void. Any assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or material supplied for performance of Work called for under the Contract Documents in favor of all persons, firms, or corporations rendering such services or supplying such Materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure or the Government Code.

2.37 ASSIGNMENT OF ANTITRUST ACTIONS

- A. Pursuant to Public Contract Code section 7103.5, in entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, Contractor or subcontractor offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 USC, Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to this contract or any subcontract. This assignment shall be made and become effective at the time the District tenders final payment to the Contractor, without further acknowledgment by the parties.

2.38 NOTICE OF TAXABLE POSSESSORY INTEREST

- A. In accordance with Revenue and Taxation Code section 107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which Contractor will be responsible.

2.39 CONTROLLING LAW

- A. Notwithstanding any subcontract or other contract with any subcontractor, supplier, or other person or organization performing any part of the Work, this Contract shall be governed by the law of the State of California excluding any choice of law provisions.

2.40 JURISDICTION; VENUE

- A. Contractor and any subcontractor, supplier, or other person or organization performing any part of the Work agrees that any action or suits at law or in equity arising out of or related to the bidding, award, or performance of the Work shall be maintained in the Superior Court of El Dorado County, California, and expressly consent to the jurisdiction of said court, regardless of residence or domicile, and agree that said court shall be a proper venue for any such action.

2.41 SURVIVAL OF OBLIGATIONS

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

2.42 CALIFORNIA AIR RESOURCES BOARD

- A. Contractor shall comply, and shall ensure all subcontractors comply, with all applicable requirements of the most current version of the regulations imposed by California Air Resources Board ("CARB") including, without limitation, all applicable terms of Title 13, California Code of Regulations Division 3, Chapter 9 and all pending amendments ("Regulation").

- B. Throughout the Project, and for three (3) years thereafter, Contractor shall make available for inspection and copying any and all documents or information associated with Contractor's and its subcontractors' fleets including, without limitation, the Certificates of Reported Compliance ("CRCs"), fuel/refueling records, maintenance records, emissions records, and any other information the Contractor is required to produce, keep or maintain pursuant to the Regulation upon two (2) calendar days' notice from the District.

- C. Contractor shall be solely liable for any and all costs associated with compliance with the Regulation as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the Regulation. Contractor shall defend, indemnify and hold harmless the District, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Regulation.

END OF SECTION

SECTION 00 73 00

SUPPLEMENTARY CONDITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Modifications and supplements to the general conditions for basic rights, responsibilities and relationships of the parties unique to the Contract.

PART 2 DESCRIPTION

2.01 INSURANCE

- A. The Contractor shall not commence any work until all required insurance has been obtained at its own expense, required submittals delivered to the District, and the submittals reviewed and approved by the District for general conformance with the Contract. The Contractor shall procure and maintain the insurance required under this section for the duration of the Contract, except as otherwise indicated in this Section. The procurement and maintenance of the insurance required by this section is a material element of the Contract and failure to timely procure and/or maintain such insurance shall be a material breach of the Contract.
- B. Prior to execution of the Contract, the Contractor shall deliver to the District the following:
 - 1. Certificate(s) of Insurance, issued in duplicate, covering all policies. Such certificates shall make explicit reference to each of the provisions and endorsements required in this Section, and shall be signed on behalf of the insurer by an authorized representative;
 - 2. Original endorsements for each policy of insurance required by this section and signed on behalf of the insurer by an authorized representative;
 - 3. Upon request, the District may obtain the policies of insurance.
- C. The provisions of Section 00 20 00, Part 2.07 B, shall be strictly enforced with regard to the fifteen (15) calendar days limit for furnishing evidence of insurance.
- D. The Contractor shall not permit any Subcontractor to commence work on this project unless all Subcontractors are included as named Additional Insureds under its insurance policies required by this section or until each Subcontractor has satisfied the Contractor that the Subcontractor has the required insurance in effect. The Contractor shall receive and maintain satisfactory evidence from its Subcontractors that verifies that they are in compliance with these requirements. The Contractor shall continuously maintain such evidence and, upon request, provide copies to the District for review. If the Contractor fails to assure that a Subcontractor has and maintains the required insurance, the Contractor shall be liable for any loss arising out of work under the Contract that would be covered by

the required insurance of the subcontractor if the Contractor had assured that the subcontractor had maintained the required insurance.

- E. All insurance required by this section shall be placed with insurance companies authorized by the State of California to transact insurance business in the State of California for the types of insurance required by the Contract. Each insurance company shall have a current A. M. Best Insurance Guide rating of not less than A-/VI unless prior written approval is secured from the District as to the use of such insurer, with the following exceptions:
 - 1) Underwriters at Lloyd's of London, which are not rated by A.M. Best.
 - 2) Workers' Compensation which is provided through a State Compensation Insurance Fund or a qualified self-insurer for Workers' Compensation under California law.
 - 3) For liability insurance required under Section 2.01.O.6. (Environmental Liability insurance), insurance requirements shall be placed with insurance companies with a current A.M. Best rating of at least B+:VII.
- F. The requirements as to the types, limits, deductibles and the District's review and/or approval of insurance coverages to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under the Contract. Further, the District's review and approval of any deviation, unless specifically stated in writing and signed by the District, shall not release or relieve the Contractor or its Subcontractors from complying with the requirements of this section.
- G. If any policy of insurance required by this Section includes an "aggregate" limit, the aggregate limit shall be a project-specific limit applicable to work under this Contract only.
- H. Any policy of insurance required by this Section shall be an "occurrences" policy.
- I. In addition to any other remedy the District may have, if the Contractor or any of the subcontractors fail to maintain the insurance coverage as required in this Section, the District may obtain such insurance coverage as is not being maintained, in form and amount substantially the same as required herein, and the District may deduct the cost of such insurance from any amounts due or which may become due the Contractor under this Contract.
- J. In the event the Contractor changes any insurance company(ies) providing the insurance coverage required by this section, the Contractor shall timely resubmit to the District for review and approval, the insurance documents required by this section for each new insurance company providing insurance coverage. The Contractor shall submit such documents at least thirty (30) days prior to the change in any required insurance to enable the District to timely review and approve the insurance coverages provided by such new insurance company(ies).
- K. Insurance policies providing coverage which contains self-insured retention shall not be acceptable except with the prior written approval of the District regardless of the amount of the self-insured retention.

- L. The premiums paid by the Contractor and/or Subcontractor(s) for the insurance required by this section shall be considered as included in the Contract price for the project and no additional allowance will be made for payment of premiums which may be required to be paid by the Contractor and/or its Subcontractors in order to procure and maintain the requisite insurance coverage.
- M. (Not Used)
- N. (Not Used)
- O. The Contractor shall, at its expense, maintain in effect at all times during the performance or work under the Contract not less than the following coverage and limits of insurance, which shall be maintained with insurers and under forms of policy satisfactory to the District:
 - 1. Worker's Compensation:
 - a. California Workers' Compensation - Insurance to protect the Contractor or its Subcontractor(s) from all claims under California Worker's Compensation and Employer's Liability Acts). Such coverage shall be maintained, in type and amount, in strict compliance with all applicable State and Federal statutes and regulations. The Contractor shall execute a certificate in compliance with Labor Code Section 1861, on the form provided in the Contract Documents.
 - b. The Worker's Compensation policy shall also include the provisions and/or endorsements required in Other Provisions, Part 2.01.O.6.a of this Section.
 - c. Claims Against District - If an injury occurs to any employee of the Contractor or any of the Subcontractors for which the employee or his dependents, in the event of his death, may be entitled to compensation from the District under the provisions of the Acts, or for which compensation is claimed from the District, there will be retained out of the sums due the Contractor under this Contract, an amount sufficient to cover such compensation as fixed by the Acts, until such compensation is paid or it is determined that no compensation is due. If the District is required to pay such compensation, the amount paid will be deducted and retained from such sums due, or to become due the Contractor.
 - d. In the event the Contractor is self-insured, the Contractor shall furnish a Certificate of Permission to Self-Insure by the Department of Industrial Relations Administration of Self-Insurance, Sacramento.
 - 2. General Liability: The insurance shall include, but shall not be limited to, protection against claims arising from death, bodily or personal injury, or damage to property resulting from actions, failures to act, operations or equipment of the insured, or by its employees, agents, consultants, or by anyone directly or indirectly employed by the insured. Coverage shall be at least as broad as "Insurance Services Office (ISO) Commercial General Liability Coverage Form CG 0001" (occurrence). The amount of insurance shall not be less than \$5,000,000 combined single limit per occurrence coverage applying to bodily and personal injury and property damage. If the policy contains a general aggregate limit, such limit must be amended to apply separately to the project/location. The general liability insurance coverage shall also include the provisions and/or endorsements required in Other Provisions, Part 2.01.O.6.b of this Section.

3. Automobile Liability: The insurance shall include, but shall not be limited to, protection against claims arising from death, bodily or personal injury, or damage to property resulting from actions, failures to act, operations, maintenance or use of equipment of the insured, or by its employees, agents, consultants, or by anyone directly or indirectly employed by the insured. Coverage shall be at least as broad as "Insurance Services Office Business Auto Coverage Form CA 0001," symbol 1 (any auto). Use of any symbols other than symbol 1 for liability for corporate/business owned vehicles must be declared to and approved by the District. If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply. Personal automobile insurance shall apply if vehicles are individually owned. The amount of insurance shall not be less than \$5,000,000 combined single limit per accident coverage for corporate-/business-owned or commercially insured vehicles, including non-owned and hired, applying to bodily and personal injury and property damage. The amount of insurance shall not be less than \$500,000 combined single limit per accident coverage for individually-owned vehicles, applying to bodily and personal injury and property damage, or if split limits are used, \$250,000 per person, \$500,000 each accident, \$100,000 property damage. Deductible shall not exceed \$20,000. The contractor shall request the District's approval in writing for any deductible exceeding that stated. The automobile liability insurance coverage shall also include the provisions and/or endorsements required in Other Provisions, Part 2.01.O.6.c of this Section.
4. Excess/Umbrella Liability: If the Contractor's primary General Liability and/or Automobile Liability insurance coverage limits requirements are insufficient, the Contractor may provide additional limits with an excess liability and/or umbrella liability insurance policy. This form of insurance will be acceptable only if the primary and excess liability and/or umbrella liability policies provide the required coverages and include the provisions and/or endorsements required for the policies that it supplements, and those required in Other Provisions, Part 2.01.O.6.d of this Section..
5. Builder's Risk: NOT USED
6. Other Provisions:
 - a. The Contractor's Workers Compensation policy shall provide that:
 - 1) Not Used
 - b. The Contractor's General Liability policy shall contain the following provisions:
 - 1) The South Tahoe Public Utility District, the design engineer(s), any independent engineer and its consultants, City of South Lake Tahoe, County of El Dorado and each of their officers, elected officials, and employees (including, without limitation permanent, temporary and contract employees) shall be covered as additional insureds as respects liability arising out of the acts or omissions by or on behalf of the Contractor, or premises owned, occupied, or used by the Contractor. The policy shall contain no special limitations on the scope of coverage afforded to the additional insureds.
 - 2) The Contractor's General Liability policy shall be specifically endorsed to name the parties identified in 1) as additional insureds utilizing ISO form CG 20 10 11 85, or both CG 20 10 10 01 and CG 20 37 10 01, or equivalent approved by the District, to provide

- additional insured coverage. Other versions of ISO forms CG 20 10 and CG 20 37 alone will not be considered equivalent.
- 3) The Contractor's General Liability policy shall be endorsed to include a waiver of subrogation in favor of the parties named on the "Additional Insured" endorsement. Such waiver of subrogation shall be on ISO Form CG 24 04 10 93 "Waiver of Transfer of Rights of Recovery Against Others to Us" or its equivalent approved by the District.
 - 4) For any claims related to this Contract, the Contractor's insurance coverage shall be primary insurance as respects the parties named on the additional insured endorsement. Any insurance or self-insurance maintained by the additional insureds shall be excess of the Contractor's insurance and shall not contribute with it. The contractor shall supply either an endorsement or policy language demonstrating compliance with this requirement.
 - 5) The Contractor's General Liability insurance policies shall contain an endorsement stating that any aggregate limits shall apply separately to the Work.
 - 6) The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - 7) Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage under the policy applicable to the Additional Insureds.
- c. The Contractor's Automobile Liability policy shall contain the following provisions:
- 1) The South Tahoe Public Utility District, the design engineer(s), any independent engineer and its consultants, City of South Lake Tahoe, County of El Dorado and each of their officers, elected officials, and employees (including, without limitation permanent, temporary and contract employees) shall be covered as additional insureds, utilizing ISO form CA 20 48 02/99 Designated Insured, or its equivalent approved by the District.
 - 2) This insurance shall be primary as respects the additional insureds and any other insurance maintained by the additional insureds named above shall be in excess of this insurance and shall not be called upon to contribute in the event of a loss.
 - 3) This insurance includes cross-liability and/or severability of interest and shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - 4) This insurance, subject to all other terms and conditions, applies to the liability assumed by the Contractor under the terms of the Contract.
 - 5) The insurer waives any and all transfer rights of recovery (subrogation) it may have against the additional insureds named above or any other additional insureds.
 - 6) Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage under the policy applicable to the Additional Insureds.

- d. The Contractor's Excess or Umbrella Liability policy shall provide the following provisions:
 - 1) Any insurance maintained by the Additional Insureds, whether primary, excess or otherwise, shall be in excess of the insurance provided by this policy.
 - 2) The policy shall include a Schedule of Underlying Insurance which matches the actual policy numbers and coverage limits in the actual underlying policies, and a total underlying coverage limit plus excess/umbrella limit equal to or greater than the required coverage limit for each type of coverage. The contractor shall request the District's approval in writing for any deductible.
 - 3) Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage under the policy applicable to the Additional Insureds.
- e. The Contractor's Builders Risk policy shall contain the following provisions:
 - 1) Coverage is amended to include the South Tahoe Public Utility District as an additional insured and as the loss payee.
 - 2) For any claims related to this Contract, the Contractor's insurance coverage shall be primary insurance as respects the District. Any insurance or self-insurance maintained by the District shall be excess of the Contractor's insurance and shall not contribute with it.
 - 3) The insurer waives any and all transfer rights of recovery (subrogation) it may have against the South Tahoe Public Utility District.
 - 4) Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage under the policy applicable to the Additional Insureds.
- f. Each insurance policy shall state that coverage shall not be cancelled by the Contractor or the District, reduced in scope of coverage or in limits, non-renewed, or otherwise materially changed unless the insurer(s) provide thirty (30) days written notice to the District prior to such change. Ten (10) days prior written notice shall be given to the District in the event of cancellation due to nonpayment of premium.

P. Tracking and Reporting Job-Related Incidents

- 1. The Contractor shall report by telephone to the District within twenty-four (24) hours and also provide a written report to the District within fifteen (15) days after the Contractor or any subcontractors or agents have knowledge of any incident involving death of or injury to any person or persons, or damage in excess of ten thousand dollars (\$10,000) to the Work, property of the District or others, arising out of any work done by or on behalf of the Contractor as part of the Contract. Such report shall contain:
 - a. the date and time of the incident,
 - b. the names and addresses of all persons involved, and
 - c. a description of the incident and the nature and extent of injuries and/or damages.
- 2. The Contractor and all Subcontractors shall cooperate with the District's independent investigatory efforts and provide the District with related documentation when requested (excluding confidential information restricted by law).

3. If requested, the Contractor shall report to the District their Recordable Incidence Rate (RIR) and Lost Time Incidence Rate (LTIR) at the end of each project. The Contractors' incidence rates shall be calculated in accordance with the following:
 - a. Recordable Incidence Rate (RIR)

$$\frac{\text{Number of OSHA Recordable Cases X 200,000*}}{\text{Total hours worked by all employees for the Contract}}$$
 - b. Lost Time Incidence Rate (LTIR)

$$\frac{\text{Number of Lost Time injuries and illnesses X 200,000*}}{\text{Total hours worked by all employees for the Contract}}$$

Note: A fatality shall not be considered a Lost Time Case (LTC) and shall not be included in the rate. Furthermore, all work-related fatalities, and all other serious injuries meeting the legal criteria for "reporting", shall be reported immediately to Cal/OSHA as required by law and reported immediately to the District as indicated above.

** 200,000 is equivalent to the number of work hours worked by 100 full time employees at 40 hours per week/50 weeks per year.*

2.02 SUBCONTRACTS

- A. The attention of the Contractor is directed to the provisions of Public Contract Code section 4100 et seq. regarding subcontracting.
- B. Each Subcontract shall contain a suitable provision for the suspension or termination should the work be suspended or terminated or should the Subcontractor neglect or fail to conform to every provision of the Contract Documents insofar as such provisions are relevant. No Subcontractor or supplier will be recognized as such, and all persons engaged in work will be considered as employees of the Contractor, and the Contractor will be held responsible for their work, which shall be subject to the provisions of the Contract Documents. The Contractor shall be fully responsible to the District for the acts or omissions of its Subcontractors and of the persons either directly or indirectly employed by the Contractor. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the District. If a legal action, including arbitration and litigation, against the District is initiated by a Subcontractor or Supplier, the Contractor shall reimburse the District for the amount of legal, engineering, and all other expenses incurred by the District in defending itself in said action.
- C. In addition to reviewing certified payroll records, the District and the Engineer reserve the right to audit the Contractor's employment and subcontractor agreements and related documents in order to verify the Contractor's compliance with the provisions of the California Labor Code and the Public Contract Code.
- D. The Contractor shall bind every subcontractor to the terms of the Contract Document as far as such terms are applicable to subcontractor's portion of the Work, and Contractor shall be responsible to the District for the acts and omissions of its subcontractors.

- E. Contractor shall perform not less than thirty percent (30%) of the total value of the Work excluding the value of materials and equipment with its own forces (i.e., without subcontracting). The 30 percent requirement shall be understood to refer to monetary value of the Work performed by Contractor, the value of which totals not less than 30 percent of the Contract Price excluding the value of materials and equipment.

END OF SECTION

DIVISION 01

SECTION 01 10 00

GENERAL PROJECT REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Description of construction delivered under Contract, separate Contracts and restrictions affecting construction activities.

PART 2 SUMMARY OF WORK

2.01 PROJECT DESCRIPTION

- A. It is the District's intent to: drill, construct, develop, and test two groundwater production wells identified as the Tanglewood Well (942 Tanglewood Drive) and Sunset Well No. 2 (885 Sunset Drive), located in the City of South Lake Tahoe, California. Additionally, the Contractor shall destroy the existing long-screened test well located at 942 Tanglewood Drive. The Work includes all labor, materials, equipment, and incidentals necessary to complete the wells in accordance with these Specifications.

2.02 DEFINITION OF WORK

- A. The Work to be performed under the Contract Documents shall include the furnishings of all labor, materials, equipment, tools, transportation, and incidentals necessary for the completion of all Work for the SUNSET AND TANGLEWOOD WELL PROJECT.

2.03 LOCATION OF PROJECT

- A. The Work is located within the District boundaries at or near South Lake Tahoe, California.

PART 3 WORK RESTRICTIONS

3.01 CONTRACTOR'S USE OF PREMISES

- A. Contractor access during construction shall be limited to those areas of the site indicated on the Plans. Access to additional areas of the site may be granted to Contractor with approval of the Engineer.
- B. Contractor access ways, staging areas and materials storage are shown on the Plans.

- C. Safety and security of the Contractor's equipment and materials on District property is the responsibility of the Contractor.
- D. Contractor's use of premises shall be limited to those activities that are necessary for the completion of the Work, and shall be limited to the Work Hours defined in Part 3.02
- E. Overnight storage of equipment and materials on road shoulder within the Right of Way will be allowed if the following requirements are met:
 - 1. Driveways and other entrances or exits from properties are not to be obstructed.
 - 2. A 24 hour contact number is provided to the District in the event that equipment must be moved for any reason.
 - 3. Areas for proposed overnight storage of equipment are digitally photographed in advance by the Contractor and the photographs are provided to the District.
 - 4. Any damage or land disturbance caused by storing of equipment overnight will be repaired on a daily basis by the Contractor at the Contractor's expense.
 - 5. Area's used for overnight storage of equipment will be brought back to conditions equivalent to the pre-project conditions at the contractor's expense.
 - 6. The safety and security of equipment and storage area is the sole responsibility of the Contractor.
 - 7. The Contractor obtains all necessary permits and authorizations.

3.02 WORK HOURS

- A. On-site work hours shall be as indicated on the Plans.

3.03 WORK BY OTHERS

- A. The District, utility companies, and others may be working within the project area while the Work is in progress. If so, the Contractor shall schedule its work, in conjunction with these other persons to minimize mutual interference, to the extent reasonably possible within the time constraints of this Project.
- B. Others working on associated facilities and probably interfacing with the Contractor at some time during the execution of the work include:
 - 1. Operations and Maintenance personnel of the South Tahoe Public Utility District;
 - 2. Other utilities and/or agencies including, but not limited to, Caltrans, City of South Lake Tahoe, El Dorado County, Southwest Gas, Sierra Pacific Power, AT&T/SBC and Cable TV suppliers.
- C. The Contractor shall cooperate to make the necessary connections at a minimum cost and time delay for all involved. In the event of lack of agreement, the Engineer will determine how and where the interface shall be made and his decision shall be final.

3.04 USE OF COMPLETED PORTIONS, RIGHT TO OPERATE UNSATISFACTORY EQUIPMENT OR FACILITIES

- A. The District may, at any time, and from time to time, during the performance of the work, enter the work site for the purpose of installing any necessary work by the District labor or other contracts, and for any other purpose in connection with the installation of facilities. In doing so, the District shall endeavor not to interfere with the Contractor and the Contractor shall not interfere with other work being done by or on behalf of the District.
- B. If, prior to completion and final acceptance of all the work, the District takes possession of any structure or facility (whether completed or otherwise) comprising a portion of the work with the intent to retain possession (as distinguished from temporary possession contemplating the return to the Contractor) then, while the District is in possession of the same, the Contractor shall be relieved of liability for loss or damage to such structure other than that resulting from the Contractor's fault or negligence. Such taking of possession by the District shall not relieve the Contractor from any provisions of this Contract respecting such structure, other than to the extent specified in the preceding sentence, nor constitute a final acceptance of such structure or facility.
- C. If, following installation of any equipment or facilities furnished by the Contractor, defects requiring correction by the Contractor are found, the District shall have the right to operate such unsatisfactory equipment or facilities and make reasonable use thereof until the equipment or facilities can be shut down for correction of defects without injury to the District.

3.05 PUBLIC CONVENIENCE

- A. This section defines the Contractor's responsibility with regard to convenience of the public and public traffic in connection with his operations.
- B. The Contractor shall so conduct its operations as to offer the least possible obstruction and inconvenience to the public and shall have under construction no greater length or amount of work than can be prosecuted properly with due regard to the rights of the public.
- C. Unless otherwise provided in the Contract Documents, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.
- D. Spillage resulting from hauling operations along or across any publicly traveled way shall be removed immediately by the Contractor at its expense.
- E. Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.
- F. Convenient access to driveways, houses, and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition. When

the abutting property owner's access across the right-of-way line is to be eliminated, or to be replaced under the Contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

- G. Water shall be supplied if ordered by the Engineer for the alleviation or prevention of dust nuisance affecting the public and traffic, as provided in Section 01 50 00, Part 2.06.

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for cash and quantity allowances for products, installation, testing and contingencies.

PART 2 PRICE AND PAYMENT PROCEDURES

2.01 PROGRESS PAYMENT

- A. Progress Payment Spreadsheet. By the first Monday of the month, the District will provide the Contractor a Progress Payment Spreadsheet (Spreadsheet). In consultation with the Engineer (or Engineer's designee), the parties will work collaboratively to determine the estimated bid item quantities (or percentage of work) completed by the Contractor through the end of the previous month. By close of business on Friday of that week, the Contractor will submit the Spreadsheet, along with such supporting documentation and calculations required by the Contract Documents, to the District. The Engineer will review the Spreadsheet and determine whether the estimated quantities are correct. If the estimated quantities are not correct in the opinion of the District, the Engineer and Contractor will attempt to resolve differences in the estimated quantities. If an agreement cannot be reached for a particular item quantity, the proposed Pay Estimate Package provided to the Contractor will be based on the District's estimated quantity for the item.
- B. Pay Estimate Package. The District will prepare the proposed Pay Estimate Package and distribute it to the Contractor. Within three (3) calendar days of receiving the proposed Pay Estimate Package, the Contractor shall review the proposed Pay Estimate Package and submit an executed Pay Estimate Package to the District pursuant to Public Contract Code section 20104.50. The Contractor is responsible for the accuracy of the submitted Pay Estimate Package and by submitting the Pay Estimate Package to the District, the Contractor verifies the accuracy of the pay quantities. Upon receipt, the District shall review the Pay Estimate Package to determine whether it is undisputed and suitable for payment. If the Pay Estimate Package is unsuitable for payment, it shall be returned to Contractor as soon as practicable, but not later than seven (7) calendar days after receipt, accompanied by a document setting forth in writing the reasons why the Pay Estimate Package is not proper. The Contractor shall make the necessary corrections and resubmit the Pay Estimate Package within three (3) days of receiving the Pay Estimate Package unsuitable for payment. After receipt of a Pay Estimate Package that is determined by the District to be undisputed and suitable for payment, the Pay Estimate Package will be presented to the District Board of

Directors for approval at a future Board meeting. The District shall have the right to adjust any estimate of quantity and to subsequently correct any error made in any estimate for payment. Nothing in this section waives any rights or remedies reserved for the District, including, but not limited to, withholding payment of encumbered funds, under this Contract or allowed by law..

- C. The payment request may, under separate line item, give consideration to materials on hand as a convenience to the Contractor. Consideration shall only be upon Contractor's request, and shall be presented in a form that is acceptable to the Engineer for counting and tracking materials. Materials on hand will be paid only for materials delivered to the work site, and for which the Contractor provides paid invoices. The Contractor shall be responsible for updating the summary on a monthly basis to zero out items that have been installed in the prior month.
- D. In reviewing the payment request, the Engineer shall deduct from the amount of the request:
 - 1. amounts due to the District for equipment or materials furnished or services rendered;
 - 2. amounts due to the District under the terms of the Contract; and
 - 3. amounts required to be deducted by federal, state or local governmental authority.
- E. The Contractor shall submit with each payment request the Contractor's conditional waiver of lien for the entire amount covered by such payment request, in the forms prescribed by California Civil Code §3262.
- F. The District has found this project to be "substantially complex" in accordance with the provisions of the Public Contract Code Section 7201 (b) (3) based on the following criteria:

NOT USED

The District will pay the Contractor ninety (95%) percent of the amount of each payment request. Five percent (5%) of the amount of each payment request shall be retained by the District until final completion and acceptance of all work under the Contract.

- G. The Contractor may, in accordance with the provisions of Public Contract Code section 22300, substitute securities for any monies which the District may withhold to insure performance under the Contract.
- H. When, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract, no pay payment request will be prepared and no payment will be made.
- I. No payment request or payment shall be considered to be an approval or acceptance of any work, materials, or equipment. Estimated amounts and values of work done and materials and equipment furnished will be conformed with actual amounts and values as they become available in subsequent payment requests, progress payments and the final estimate and payment. All requests and payments will be subject to correction in subsequent and final payment requests and payment.

- J. No payments made under the Contract, including progress payments and the final payment, shall be evidence of the performance of the Contract, either wholly or in part, and no payment shall be construed to be an acceptance of any defective or incomplete work or improper materials.
- K. If the validity of a properly filed request for payment by the Contractor is not disputed, payment of the request by the District shall include interest at the rate provided in Subdivision (a) of Section 685.010 of the Code of Civil Procedures if payment has not been made within thirty (30) days after the proper submission of the claim to the District. The District shall review each payment request as soon as practicable after receipt for the purpose of determining whether the payment request is a proper payment request. Any payment request determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. A request returned pursuant to this subsection shall be accompanied by a written explanation of the reasons why the payment request is not proper. The number of days available to the District to make a payment without incurring interest pursuant to this subsection shall be reduced by the number of days by which the District exceeds the seven (7) day return requirement set forth above.

2.02 FINAL PAYMENT

- A. Final Payment shall be in conformance with the terms set forth Section 01 77 00, Closeout Procedures.

END OF SECTION

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SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for the management and coordination of subcontractors and coordination with other Contractors and the District.

PART 2 PROJECT MANAGEMENT AND COORDINATION

2.01 RESPONSIBILITY OF CONTRACTOR

- A. If any part of the Work depends on proper execution or results of the work of others, the Contractor shall inspect and promptly report to the Engineer any apparent discrepancies or defects in such work of others that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report constitutes acceptance of the work of others as fit and proper except as to defects which may develop in the work of others after execution of the Work by the Contractor.

2.02 CONTRACT DOCUMENTS

- A. The Contractor shall keep one copy of the Contract Documents, Shop Drawings, Change Orders and other modifications in good order, available to the Engineer and his representatives, and convenient to the work site. This set of Contract Documents shall be marked as the project progresses to record the details of all changes made during construction. Contract Drawings shall include schematic depictions of changes, and Specifications shall include redline strikeout of changes to language; showing only reference to related Requests for Information, Shop Drawings or written directive will not suffice.
- B. During the progress meetings, defined in Part 3.02 below, such documents shall be reviewed to ascertain that all changes have been recorded.
- C. If the Contractor, in the course of the work, finds any discrepancy between the Contract Documents and the physical condition of the locality, or any errors or omissions in the Contract Documents, or in the layout as given by points and instructions, the Contractor shall follow the procedures outlined in Section 00 72 00, General Conditions.

2.03 SEPARATE CONTRACTS

- A. The District reserves the right to let other contracts in connection with this work. The Contractor shall afford such other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with the other contractor's work.
- B. To insure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the Engineer any discrepancy between the executed work and the drawings.

2.04 COOPERATION OF CONTRACTORS

- A. Should construction be under way by other forces or by other Contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to said limits, the Contractor shall cooperate with all such other contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.
- B. When two or more contractors are employed on related or adjacent work, each shall conduct its operation in such a manner as not to cause any unnecessary delay or hindrance to the other. Each contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by his operations, and for loss caused the other due to its unnecessary delays or failure to finish the work within the time specified for completion.

2.05 COORDINATION OF WORK

- A. The Contractor shall maintain overall coordination for the execution of the Work. Based on the Construction Schedule prepared in accordance with the Contract Documents, the Contractor shall obtain from each of its subcontractors a similar schedule which shall be integrated into the construction schedule. The Contractor shall then be responsible for all parties maintaining these schedules and coordinating required modifications as approved by the District.

2.06 SUPERINTENDENCE

- A. Contractor's Representative: The Contractor shall designate in writing before starting work an individual as authorized representative who shall have the authority to represent and act for the Contractor. This authorized representative shall be present at the site of the work at all times while work is actually in progress on the Contract. The Contractor shall not change representatives without the written approval of the Engineer.

- B. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for the performance and supervision of any emergency work which may be required.
- C. It is the intent of this section that the Contractor (1) supervise all work, including that of subcontractors, (2) be responsible for the quality and conformance with contract provisions of all work, and (3) maintain responsibility for the actions of subcontractors and suppliers at the job site. The Contractor is solely responsible, at all times, for the superintendence of the work and for its safety and progress.
- D. Whenever the Contractor or its authorized representative is not present on any particular part of the work where it may be desired to give direction, such direction will be given by the Engineer, which shall be received and obeyed by the superintendent or foreman who may have charge of the particular work in reference to which the orders are given.
- E. Any order given by the Engineer, not otherwise required by the Contract Documents to be in writing, will on request of the Contractor, be given or confirmed by the Engineer in writing.
- F. The Contractor shall place on record at the District, and keep current, the name of the Contractor's representative and the phone number at which he can be contacted at such times that he is not at the work site (such as after working hours and on holidays and weekends) to respond to District requests to correct safety and other problems that may arise in connection with the work.

2.07 CHARACTER OF WORKERS

- A. If any Subcontractor, or person employed by the Contractor or any Subcontractor shall fail or refuse to carry out the directions of the District or its agents or shall appear to the District or its agents to be incompetent or to act in a disorderly, unsafe, or improper manner, that person shall be removed from the project work immediately on the request of the District or its agents, and such person shall not again be employed on the work. Such discharge shall not be the basis for any claim for compensation or damages against the District, or any of its officers or agents.

2.08 SAFETY

- A. The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to potential dangers and shall provide such necessary safety equipment and instruction as is necessary to prevent injury to personnel and damage to property. Special care shall be exercised relative to electrical work, work involving excavation, and in work involving confined spaces.
- B. The Contractor shall provide its personnel with additional training to address the following:

- C. Contractor shall be required to comply with the District's Lockout/Tagout program and procedures. A copy of the program will be provided to the Contractor prior to the start of work.
- D. Refer to Section 01 33 00, Submittals Process, for submittals requirements pertaining to project safety.

PART 3 PROJECT MEETINGS

3.01 PRECONSTRUCTION CONFERENCE

- A. Upon receipt of the Notice to Proceed, or at an earlier time if mutually agreeable, the Engineer will arrange a pre-construction conference to be attended by the Contractor's superintendent, the District, the Engineer, or his representative, and representatives of utilities, major subcontractors, and others involved in the execution of the Work.
- B. The purpose of this conference shall be to establish a working understanding between the parties and to discuss the Construction Schedule prepared in accordance with Section 01 32 00, Part 2.01, shop drawing submittals preparation and processing in accordance with Section 01 33 00, Part 2.02, cost breakdown of major lump sum items, applications for payments and their processing, and such other subjects as may be pertinent for the execution of the Work.

3.02 PROGRESS MEETINGS

- A. The Contractor shall arrange and conduct progress meetings. These meetings shall be conducted at least once every two (2) weeks and shall be attended by the Contractor's superintendent and representatives of all subcontractors, utilities, and others, that are active in the execution of the Work. The purpose of these meetings shall be to expedite the work of any subcontractor or other organization that is behind schedule, resolve conflicts, and in general coordinate and expedite the execution of the Work.
- B. The agenda of progress meetings shall include review of progress and schedule, review of payment requests at monthly intervals, review of narrative report, review of the latest Construction Schedule update, and review of the record documents if necessary.

END OF SECTION

SECTION 01 32 00

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for scheduling, recording and reporting progress.

PART 2 SCHEDULING

2.01 PROGRESS SCHEDULE

- A. The Contractor shall submit within ten (10) days after execution of the Contract a schedule or schedules which shall show the dates at which the Contractor will start and complete several parts. This schedule shall conform to the completion time specified in the Contract.
- B. The Contractor shall review and, if necessary, revise the progress schedule at least once a month and in any event shall submit a current schedule to the Engineer at his request at any time during the contract period.

2.02 SCHEDULE REVIEW

- A. The Work and the Construction Schedule shall be reviewed to verify that:
 - 1. Start and finish dates of activities fall within the Contract Time.
 - 2. Durations and progress of all activities are reasonable.
- B. Items that shall be included (but not limited to) in the schedule:
 - 1. All critical material delivery dates;
 - 2. All critical shop drawings submittal dates;
 - 3. Any system shut-downs required to perform the work, in accordance with, but not limited to, the requirements of Section 01 73 00, Execution, Part 2.02;
 - 4. Any requested exceptions from the work restrictions defined in Section 01 10 00, General Project Requirements; and
 - 5. Compliance with the work sequence and constraints set forth in Section 01 73 00, Execution, Part 2.06.
- C. The CONTRACTOR, in his submitted construction schedule, shall specifically address the requirement to have all work completed by the project completion deadline enforced by TRPA. The submitted schedule will be rejected if it does not establish how the CONTRACTOR proposes to meet this condition. A schedule submitted by the CONTRACTOR and received by the District that calls for the completion of the project before the

stipulated project completion deadline, does not change the Contract Time as listed in Part 2.04 of Section 00 72 00. No compensation will be allowed for required schedule extensions that do not cause the Contract Time as originally stated to change.

- D. All other scheduling aspects of the installation of the Project shall be addressed by the CONTRACTOR, especially those aspects considered by the CONTRACTOR and/or the OWNER to be critical to the completion of the Project within the stipulated Contract Time as identified in Section 00 72 00, General Conditions, Part 2.04.
- E. **Inclement Weather:** In conformance with regulatory requirements and safe working practices, the District has recognized that adverse weather conditions may affect the Contractor’s ability to proceed with certain portions of the Work on a given day if, for example, the site is wet or snow covered, or winds are high. The Contract Time established in the contract documents takes into consideration adverse weather conditions, including but not limited to precipitation, wind, and thunderstorms, within the average climatic range. The Contractor’s schedule shall allow enough time for these inclement weather events, and shall reflect the following number of weather delay days per month for activities that are potentially impacted by adverse weather conditions:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4	4	4	4	3	2	2	2	2	3	4	4

The District does not consider cold temperatures/weather (temperatures below 40 degrees Fahrenheit) to be an inclement weather event, and cautions the Contractor that cold weather may occur at any time of year. It is the responsibility of the Contractor to account for extended periods of cold weather in the project schedule, and to implement controls to allow work to continue during periods of cold weather at no additional cost to the District. The District will not consider claims for additional cost due to delays caused by cold weather, because of a failure by the Contractor to implement necessary controls.

- F. The receipt or approval of any schedules by the District shall not in any way relieve the Contractor of its obligations under the Contract.

2.03 REVISIONS TO CONSTRUCTION SCHEDULE

- A. The Contractor shall submit a revised Construction Schedule within five (5) days of the occurrence of any of the following:
 - 1. When delay in completion of any activity or group of activities indicates an overrun of the Contract time or control point requirement, by thirty (30) working days or ten percent (10 percent) of the remaining duration, whichever is less.

2. Delays in submittals, deliveries, or work stoppages are encountered which make replanning or rescheduling of the work necessary.
 3. The Schedule does not represent the actual prosecution and progress of the project as being performed in the field.
- B. Acceptance of the revised Construction Schedule and all supporting data is contingent upon compliance with other related requirements in the Contract Documents and any other prior agreements or requirements with or by the Engineer.
 - C. The cost of revisions to the Construction Schedule resulting from Contract changes will be included in the cost for the change in the Work, and will be based on the complexity of the revision or Change Order, hours expended in analyzing the change, and the total cost of the change.
 - D. The cost of revision to the Construction Schedule not resulting from authorized changes in the Work shall be the responsibility of the Contractor.

END OF SECTION

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SECTION 01 32 20

WEB-BASED CONSTRUCTION DOCUMENT MANAGEMENT

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Procedures and requirements for managing construction documentation and submittals for the Work.
 - 2. Responsibilities of the Contractor and the District for the management of construction documentation and submittals.

- B. The District and Contractor shall utilize Procore Technologies, Procore Construction Software (Procore) system for electronic submittal and tracking of all data and documents (unless specified otherwise by the District's representative) throughout the duration of the Contract.
 - 1. Procore is a web-based electronic media service hosted by Procore Technologies utilizing their Procore web solution.
 - 2. Procore will be paid for by the District, and the District will maintain the Service Agreement with Procore.
 - 3. Procore will be made available to the Contractor, their personnel, subcontractor personnel, suppliers, and consultants.
 - 4. The joint use of this system is to facilitate electronic exchange of information, automation of key processes, and overall management of Contract Documentation.
 - 5. Procore shall be the primary means of project information submission and management for the project.

- C. The intent of utilizing a web based construction management application is to reduce cost and schedule risk, improve quality and safety, and maintain a healthy team dynamic by improving information flow, reducing non-productive activities, reducing rework and decreasing turnaround times.

1.02 DEFINITIONS

- A. "Copy" or "Copies" shall refer to electronic copies unless a hard copy is specified. Where a hard copy is specified, both electronic and paper versions shall be submitted.

1.03 USER ACCESS LIMITATIONS

- A. The Engineer will control the Contractor's access to Procore by allowing access and assigning user profiles to accept Contractor personnel.

- B. User profiles will define levels of access into the system and determine assigned function-based authorizations and user privileges.

- C. Subcontractors and suppliers will be given access to Procore by and through the Contractor. Entry of information exchanged and transferred on Procore between the Contractor and its subcontractors, suppliers and consultants shall be the responsibility of the Contractor.

1.04 JOINT OWNERSHIP OF DATA

- A. Data entered in a collaborative mode (ie., entered with the intent to share as determined by permissions and workflows within the Procore system) by the District and the Contractor shall be jointly owned.

1.05 AUTOMATED SYSTEM NOTIFICATION AND AUDIT LOG TRACKING

- A. Review comments made (or lack thereof) by the District on Contractor-submitted documentation shall not be interpreted as changes to the Contract nor shall they relieve the Contractor from compliance with the Contract Documents.
- B. As discussed elsewhere in these Contract Documents, the Contractor is responsible for managing, tracking and documenting the Work to comply with the requirements of the Contract Documents.
- C. The District's acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation, and does not constitute validation of the Contractor's submitted documentation.
- D. In compliance with Public Contract Code §1601, Procore provides both (1) automatic transmission of receipts confirming that documents submitted by Contractor have been received by the District, and (2) an electronic online record of the history of transmission and receipt of each document submitted by the Contractor.

1.06 SUBMITTALS

- A. See Section 01 33 00 for submittal requirements.
- B. Preconstruction submittals:
 - 1. Contractor shall provide a list of personnel responsible for Procore administration within one week following the Notice to Proceed.
 - 2. The list shall include key personnel's roles and responsibilities, including email addresses. Contractor should also identify the corporations' system administrator on the list.

1.07 COMPUTER SYSTEM REQUIREMENTS

- A. The Contractor shall use computer hardware and software that meets the requirements of the Procore system, as recommended by Procore Technologies, to access and utilize Procore. As recommendations are modified by Procore, the Contractor shall upgrade their system(s) to meet or exceed the recommendations. The cost to procure or upgrade the Contractor's computer systems to meet Procore requirements shall be the

responsibility of the Contractor, and will not be considered a justifiable basis for cost or time modification to the Contract.

- B. The Contractor shall be responsible for providing connectivity to the Procore system through DSL, cable, T-1 or wireless communication systems at no additional cost to the District. If connectivity is to be established at the Site, the means of connection shall be acceptable to the District. The minimum bandwidth requirement for using the system is 25 mb/s. It is recommended that a faster connection be used when uploading pictures and files into the system.
- C. Procore is web based and supports the current versions of Google Chrome, Mozilla Firefox, Microsoft Edge, and Apple Safari. Older versions may be supported, however the newest versions will provide the best experience.
- D. Procore provides a mobile application (app) for both iOS and Android devices.
 - 1. The mobile app is expected to be utilized by District and Contractor representatives on-site. The iOS app currently supports iOS 17.1 and 18 and iOS or iPad OS devices which support these software versions. The Android app supports Android 13 and newer versions.
 - 2. While compatibility is based on software requirements, the user experience will be impacted by the mobile hardware being utilized. Procore recommends devices be replaced every 2-3 years to keep up with the demands of up-to-date software requirements. Procore also recommends a minimum of 64 GB of free storage including 5-10 GB of free storage per project on each device.
 - 3. Devices may not be Jailbroken or Rooted as these processes significantly compromise the security of the data on the device.
- E. The Contractor shall ensure that PDF files are compatible with Adobe Acrobat 9.0 or later. Vector PDF shall be used for all drawing files and as often as possible for all PDF files.

1.08 CONTRACTOR RESPONSIBILITY

- A. The Contractor shall be responsible for the validity of their information placed in Procore and for the abilities of their personnel.
- B. Accepted users shall be knowledgeable in the use of computers, including internet browsers, email programs, CAD drawing applications, and Portable Document Format (pdf) document distribution program.
- C. The Contractor shall utilize the existing forms in Procore to the maximum extent possible. If a required form does not exist in Procore, the Contractor must include a form of their own or provided by the District as an attachment to a submittal or other document.
- D. PDF documents will be created through electronic conversion rather than optically scanned, whenever possible. If optically scanned, the document shall be converted through an OCR (Optical Character Reader) so that all

documents are searchable. The Contractor is responsible for the training of their personnel in the use of Procore and the other programs indicated above, as needed. Lack of training will not be considered a justifiable basis for cost or time modification to the Contract.

- E. User Access Administration
 - 1. The Contractor shall provide a list of key project personnel for the District's review and acceptance.
 - 2. Each user must have a unique email address.
 - 3. The Contractor is responsible for adding users to the project directory, as appropriate. The Contractor will be given permission to add personnel to Procore. The Contractor will be responsible for managing the permissions of each user they add to the Directory.
 - 4. The District reserves the right to perform a security check on all potential users.
 - 5. There is no limit to the number of users which may be added to the Directory and given access to Procore.
 - 6. The Contractor may add Subcontractor companies to the project directory and provide access to Procore tools for subcontractor use. The Contractor is responsible for managing the workflow of their Subcontractors.

1.09 CONNECTIVITY PROBLEMS

- A. Procore is a web-based environment and, therefore, subject to the inherent speed and connectivity problems of the internet. The Contractor is responsible for its own connectivity to the internet. Procore response time is dependent on the Contractor's equipment, including processor speed, internet access speed, etc., and current traffic on the internet. The District will not be liable for any delays associated from the usage of Procore including, but not limited: slow response time, down time periods, connectivity problems, or loss of information. The Contractor will ensure that they maintain connectivity to the Procore system (whether at the home office or project site). Under no circumstances shall the usage of Procore be grounds for a time extension or cost adjustment to the Contract.

1.10 TRAINING

- A. Procore training is provided at no cost at <https://learn.procore.com/>. The training is self-paced learning through videos and interactive web pages. The Contractor Project Manager is expected to complete the Project Management Certification at a minimum; this course is approximately 3 hours. The Quality & Safety (1-2 hours) and Financial Management (3-4 hours) are also recommended for complex projects. Contractor Superintendents are expected to complete the Superintendent Certification at a minimum; this course is approximately 3.5 hours. Specific Procore tool trainings are also available.
- B. Contractor shall arrange and pay for the facilities and hardware/software required to facilitate all training.

PART 2 PRODUCTS

2.01 DESCRIPTION

- A. Procore project management application (no equal) provided by Procore Technologies at:

<https://www.procore.com/>

2.02 SOFTWARE CAPABILITIES

- A. It is intended that the contractor utilize the following capabilities of the Procore Software. Some functions will be initiated by District staff or their representatives, other functions will be initiated by the Contractor and/or their Subcontractors.
- B. Directory
 - 1. Provides a directory of all team member's contact information that is accessible from web and mobile.
- C. Dashboards
 - 1. Provides a dashboard that shows the status of all currently assigned items with drill down capability to see the subject, assignee and due date of each item.
- D. Drawings
 - 1. Provides access to a system maintained current set of drawings on web and mobile, with access to all previous revisions as well.
 - 2. Provides automatic hyperlinking capability for detail callouts.
 - 3. Provides drawing markup capabilities on web and mobile.
 - 4. Provides ability to link RFIs, Submittals, Punchlist Items, Photos and Project Documents to the drawings.
 - 5. Drawing Markups are carried forward when new revisions are uploaded.
 - 6. Markups and linked documentation are able to be public or private.
- E. Specifications
 - 1. Provides ability to upload project specifications and manage them at the individual specification level.
 - 2. Provides ability to view and search specifications on web and mobile.
 - 3. Provides ability to upload revisions to individual specifications and maintain all revision history.
 - 4. Provides an auto-generated current specification log that provides access to the current version of each specification.
 - 5. Provides ability to link specifications to submittals and view the specification from the submittal.
- F. Schedule
 - 1. Provides ability to display schedules from typical scheduling software such as Microsoft Project, Primavera P3, Primavera P6 or Asta Powerproject.

- G. Requests for Information (RFIs)
 - 1. Provides ability to create RFIs with assignees, due dates and attachments.
 - 2. Provides ability for assignees to respond to RFIs both via the software and by responding to the system generated email.
 - 3. Provides an auto-generated log of all RFIs.

- H. Submittals
 - 1. Provides ability to upload a submittal register of all expected submittals.
 - 2. Provides ability to create multi-step approval workflows for submittals, with reminder notifications for the current assignee.
 - 3. Provides the ability to upload any file type without size restrictions.
 - 4. Provides an auto-generated submittal log.

- I. Documents
 - 1. Provides a storage location for miscellaneous project documents.
 - 2. There is no file size storage limit.
 - 3. Provides download tracking.
 - 4. Provides the ability to revise and check out files, with access to all previous revisions.

- J. Financial Management
 - 1. Provides ability to manage contracts, payment applications, change events, and change orders through the software.

- K. Meetings
 - 1. Provides ability to create, edit and view meeting minutes from web and mobile.
 - 2. Provides ability to create action items with assignees and due dates from a meeting item.

- L. Daily Log
 - 1. Provides daily log entry from web and mobile with automatic capture of daily weather conditions.
 - 2. Provides ability to attach photographs to entries directly from mobile.

- M. Photos
 - 1. Provides ability to upload and view photos from web and mobile.
 - 2. Provides ability to markup photos from mobile to clarify anything important in the photo.
 - 3. Provides ability to link photos to specific locations on drawings.

- N. Inspections
 - 1. Provides ability to create inspections from web and mobile.
 - 2. Provides ability to create a deficiency item from an inspection that can be assigned and tracked to completion.

- O. Deficiency Tracking

1. Provides a means for recording, assigning and confirming completion of any deficiency or observation noted during the course of construction.
- P. Punchlist
1. Provides ability to create punchlist items from web and mobile and link them to specific locations on the drawings.
 2. Provides ability to distribute punchlist items to all contractors, for contractors to mark them as resolved with photographic proof of resolution via mobile, and for the items to be marked as complete via mobile or web.

PART 3 EXECUTION

3.01 PROCORE UTILIZATION

- A. Procore shall be utilized in connection with all document and information management required by these Contract Documents. Documents and information to be submitted electronically include, but are not limited to, the documents described in Part 3.02 below.
- B. Procore shall be utilized for on-site documentation of construction activities including, but not limited to, the activities described in Part 3.03 below.
- C. Procore shall be utilized for Schedule and Meetings management including, but not limited to, the activities described in Part 3.04 below.
- D. Procore shall be utilized for all financial documentation required by the contract including, but not limited to, the activities described in Part 3.05 below.

3.02 SUBMITTALS

- A. Shop Drawings
 1. Shop drawing and design data documents shall be submitted as PDF attachments to the Procore submittal workflow process and form. Examples of shop drawings include, but are not limited to:
 - a. All shop drawings identified in Section 01 33 00, Part 2.03.
 - b. Standard manufacturer installation drawings.
 - c. Drawings prepared to illustrate portions of the work designed or developed by the Contractor.
 - d. Steel fabrication, piece, and erection drawings.
 - e. Electrical interconnection drawings.
- B. Product Data
 1. Product data shall be submitted as PDF attachment to the Procore submittal workflow process and form. Examples of product data include, but are not limited to:
 - a. All product data identified in Section 01 33 00, Part 2.03.
 - b. Manufacturer's printed literature.

- c. Preprinted product specification data and installation instructions.
- d. Made in America Certification, if required by Contract.

C. Samples

- 1. Sample submittals shall be physically submitted as specified in Section 01 33 00, Part 2.04. Contractor shall enter submittal data information into Procore with a copy of the submittal form(s) attached to the sample. Photographs of the samples shall be attached to the submittal in Procore. Examples of samples include, but are not limited to:
 - a. Product finishes and color selection samples.
 - b. Product finishes and color verification samples.
 - c. Finish/color boards.
 - d. Physical samples of materials, including soil samples.

D. Administrative Submittals

- 1. All correspondence and pre-construction submittals shall be submitted using Procore. Examples of administrative submittals include, but are not limited to:
 - a. Permits
 - b. Lists of project personnel and contact information
 - c. Project schedule and progress schedules, as required in Section 01 32 00 and Part 3.02.D.2, below.
 - d. Requests for Information (RFI)
 - e. Shut-down Requests and Demolition Requests
 - f. Evidence of qualifications
- 2. Network Analysis Schedules and associated reports and updates. Each schedule submittal specified in these Contract Documents shall be submitted as a native backed-up file of the scheduling program being used. The schedule shall also be posted as a PDF file.
- 3. Plans for safety, demolition, environmental protection, and similar activities, as identified in Section 01 33 00, Part 2.06, and elsewhere in these Contract Documents.
- 4. Any general correspondence submitted.

E. Compliance Submittals

- 1. Test reports, certificates and manufacturer field report submittals shall be submitted on Procore as PDF attachments. Examples of compliance submittals include, but are not limited to:
 - a. Certificates of Compliance, as identified in Section 01 33 00, Part 2.05
 - b. Field test reports
 - c. Quality control certifications
 - d. Manufacturers documentation and certifications for quality of products and materials provided

F. Record and Closeout Submittals

- 1. Operations and maintenance data closeout submittals shall be submitted on Procore as PDF documents during the approval and review stage as specified, with hard copy sets of documents submitted for final. Examples of record submittals include, but are not limited to:
 - a. Preventive Maintenance Forms

- b. O&M Manuals, as identified in Section 01 33 00, Part 2.07
 - c. Extra materials, Spare Stock, etc.: Submittal forms shall indicate when actual materials are submitted. Photos of spare parts shall be attached to the submittal in Procore.
2. Other Closeout submittals
- a. Contractor red-line markups (in both pdf and editable form).
 - b. Contractor photographs.
 - c. Survey data (in both pdf and editable form).

3.03 CONSTRUCTION ACTIVITY DOCUMENTATION

- A. Daily Logs
- 1. Daily Logs will be utilized by District staff and their assignees to record daily construction activities. These logs will be available for the Contractor to view, but will be owned by the District.
- B. Photos
- 1. The Photos tool can be utilized by both District and Contractor staff. This tool is intended to document the work in progress.
 - 2. Contractor shall coordinate with District representatives to classify photos into Albums and tag Locations and Trades as appropriate.
 - 3. Photos can be taken directly in the Procore mobile application.
- C. Observations
- 1. District representative will utilize the Observations tool to track specific events, quality, safety, warranty, or environmental concerns.
 - 2. District representatives may assign observations to Contractor staff to address. Contractor shall address identified issues and respond in Procore with comments as appropriate, and update the Status to Ready to Review once addressed.
- D. Punch List
- 1. District representative or Contractor will add items to the Pump List and add Assignees.
 - 2. District representative will typically assign items to the Contractor and it will be the responsibility of the Contractor to add Subcontractor Assignees when needed.
 - 3. Contractor shall mark items as Ready for Review once completed and District representative will Resolve and Close each item.

3.04 SCHEDULING AND MEETINGS

- A. Schedule
- 1. The Contractor shall utilize Procore's Schedule tool to provide and update the Master Schedule in accordance with specification section 01 32 00 – Construction Progress Documentation.
 - 2. Procore supports importing MPP, MPX, XER, PP, XML, PPX, and other files. Visit <https://support.procore.com/> for additional details.
 - 1) The Master Schedule will be a Read-Only project schedule.
 - 2) Updating the Master Schedule requires updates be made in an external application and imported into Procore.

3. Lookahead Schedules shall be prepared to show a detailed schedule encompassing the upcoming three-to-six-week period.
 - a. Lookahead Schedules will be generated from the Master Schedule.
 - b. Lookahead schedules shall be prepared at a minimum interval of every two weeks during periods of active construction activity.

B. Meetings

1. The Meetings tool shall be used to schedule construction progress meetings in accordance with specification section 01 31 00 – Project Management and Coordination.
2. The Meetings tool shall be used to create agenda items which may be assigned to Procore users.
3. Meeting Minutes shall be recorded within this tool.

3.05 FINANCIAL MANAGEMENT

A. Commitments

1. The District's Contract Specialist will create the Project Commitment for the Contract.
 - a. For Lump Sum contracts (contracts where the majority of bid items are Lump Sum as opposed to Unit Price), the Contractor will be required to enter a Schedule of Values to further break down each Lump Sum bid item.
 - b. For Unit Price contracts, the unit prices provided in the bid will be utilized for tracking progress and payment.
2. Change Events, Change Orders, RFQs (Requests for Quotations), and Invoices will be tied to the Commitment

B. Change Events

1. Change Events shall be used to track all changes to the contract including, but not limited to, no-cost changes, contract change requests, additional work tracked on a time and material basis, and requests for changes to the Contract Time.
2. Change Events may be initiated by the District or the Contractor.
3. Additional or reduced costs shall be provided by the Contractor using the RFQ (Request for Quote) tool.

C. Change Orders

1. Upon review and approval of Change Events, the District will create a Change Order including one or more Change Events. The District will route the Change Order to the Contractor for review and approval within the Procore Workflow. Upon Contractor approval, the District will route for internal review prior to finalizing.
2. Once the Change Order has been approved by the District's internal staff, it will be presented to the District's Board of Directors for approval.
3. Once the Board of Directors has approved a Change Order, the PDF document will be routed for electronic signature using Adobe Sign.
4. Once the Change Order Document is fully executed, the document will be copied into Procore and the Change Order will be Approved and

added to the Commitment, allowing for payment to be requested on Invoices.

- D. Invoicing
 - 1. Applications for Payment will be submitted by the Contractor by utilizing the Invoicing Tool.
 - 2. The District's Contract Specialist will create the monthly Billing Periods.
 - 3. The Contractor will create and submit invoices for approval in accordance with specification section 01 20 00 – Price and Payment Procedures.
 - 4. District representatives will review and Return or Approve the submitted invoice. Comments will be tracked using the associated Workflow.
 - 5. The PDF document will be prepared by the District's Contracts Specialist routed for electronic signature using Adobe Sign and the executed document will be copied into Procore.

3.06 CORRESPONDENCE

- A. The Correspondence tool allows for custom tools to be created for common project correspondence items when an existing Procore tool is not available.
- B. Certified Payroll Reports
 - 1. When Certified Payroll Reports (CPR) are required to be submitted to the District, the Contractor shall utilize the Correspondence tool.
 - 2. Each CPR shall include the Start and End date of the week being submitted.
 - 3. For each CPR Correspondence, there is a separate attachment area for General Contractor reports and Subcontractor reports.
 - a. The attachment filename shall include the contractor or subcontractor company name as well as any unique identifiers such as CPR number and/or date.
 - b. Multiple subcontractor reports can be submitted on the same Correspondence item but must be separate file attachments.
 - 4. CPRs may be returned to the Contractor if revisions and resubmittal are required.

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SECTION 01 33 00
SUBMITTALS PROCESS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for processing of submittals during the construction stage.
 - 2. The requirements of this Section are in addition to the requirements for individual materials and equipment stated elsewhere in these Contract Documents.

PART 2 SUBMITTAL PROCEDURES

2.01 GENERAL INSTRUCTIONS FOR SUBMITTALS

- A. The Contractor shall submit to the Engineer such schedules, reports, drawings, lists, literature samples, instructions, directions, and guarantees as are specified or reasonably required for construction, operation, and maintenance of the Work in ample time for each to serve its purpose and function. All submittals shall be provided to the District within the time necessary to allow District review, to allow resubmittal and second review, if necessary, and to avoid delays in the work.
- B. Further, the Contractor must submit to the District for approval, any land use agreements between the Contractor and private property owners that affect the project.
- C. Each type of product shall have a separate submittal. For example, waterline pipe, sewer pipe, valves, aggregate base, and manholes will each require a submittal.
- D. NOT USED
- E. Where product data from a manufacturer is submitted, clearly mark which model is proposed, with all pertinent data, capacities, clearances, diagrams, controls, connections, anchorage, and supports. Present a sufficient level of detail for assessment of compliance with contract documents.
- F. Each submittal shall be assigned a unique number. Submittals shall be numbered sequentially. The submittal numbers shall be clearly noted on the transmittal. Original submittals shall be assigned a numeric submittal number.
- G. Resubmittals of submittals will be reviewed and returned in the same review period as for the original submittal. It is considered reasonable that the Contractor shall make a complete and acceptable submittal by the second submission of a submittal item. The District reserves the right to withhold monies due to the Contractor to cover additional costs of any review beyond the second submittal.

- H. The drawings, lists, prints, specifications, samples, and other data required as project submittals and described herein shall become a part of the Contract Documents, and a copy of the same shall be kept with the job site Contract Documents, and the fabrications furnished shall be in conformance with the same. However, the Engineer's review of the above drawings, lists, prints, specifications, samples, or other data shall in no way release the Contractor from its responsibility for the proper completion of the requirements of this Contract nor for fulfilling the purpose of the installation nor from Contractor's liability to replace the same, should it prove defective or fail to meet the specified requirements.

2.02 CRITICAL ITEM SUBMITTALS

- A. The Contractor shall make shop drawing submittals to the Engineer in a timely manner for the Work to be completed within the specified Contract time. No contract extensions will be granted based solely on submittal review time.
- B. Critical items requiring early submittal for completion of the project include (but are not limited to):
 - 1. Project Schedule
 - 2. Site Layout
 - 3. Engineered Noise Control Barrier Design
 - 4. El Dorado County Well Permits
 - 5. City of South Lake Tahoe Road Obstruction Permits
 - 6. Drilling Fluid Program
 - 7. Groundwater Management Systems
- C. Requests for substitution of critical equipment shall be made within 14 days after the Contract is signed.

2.03 SHOP DRAWINGS

- A. The Plans & Specifications shall be supplemented by such shop drawings prepared by the Contractor as are necessary to adequately control the work. Shop Drawings, layout diagrams, catalog data, test reports and information in sufficient detail to show complete compliance with all specified requirements shall be furnished to the Engineer covering, without limitation, the items included in the Materials and Equipment List.
- B. The Contractor, at its own expense, shall make such changes in the required drawings as may be necessary to conform to the Contract Documents. After completion of such review, verification, and revising, the Contractor shall stamp and sign the drawings indicating his approval and submit the Shop Drawings and pertinent data to the Engineer for review.
- C. In addition, if the Contractor submits shop drawings of equipment by manufacturers other than those listed in the specifications, provide the following information with the submittal:
 - 1. The name and address of at least three companies or agencies that are currently using the equipment.
 - 2. The name and telephone number of at least one person at each of the above companies or agencies whom the Engineer may contact.

3. A description of the equipment that was installed at the above locations. The description shall be in sufficient detail to allow the Engineer to compare it with the equipment that is proposed to be installed with this project.
- D. Prior to the Engineer's review of such drawings, any work which the Contractor may perform on the fabrications covered by the drawings shall be at Contractor's own risk and the District will not be responsible for any expenses or delays incurred by the Contractor for changes to make the drawings conform to the Contract Documents.
- E. Unless otherwise indicated elsewhere in these Contract Documents, Shop drawings and data shall be submitted to the Engineer with sufficient number as will allow the Engineer to retain four (4) copies of each submittal. The submittal shall clearly indicate the specific area of the Contract Documents for which the submittal is made. Any additional copies received by the Engineer will be returned to the Contractor's representative at the job site. The Engineer's notations of the actions taken will be noted on the returned copies
- F. Unless otherwise stated, the ENGINEER shall have fourteen (14) days from the date of receipt of shop drawings for review. No changes shall be made by the CONTRACTOR in any shop drawings after they have been reviewed and accepted by the ENGINEER.
- H. CONTRACTOR agrees that shop drawings processed by the ENGINEER are not Contract Change Orders; that the purpose of shop drawings submitted by the CONTRACTOR is to demonstrate to the ENGINEER that the CONTRACTOR understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and by detailing the fabrication methods he intends to use. It is expressly understood, however, that favorable review of the CONTRACTOR's shop drawings shall not relieve the CONTRACTOR of any responsibility for accuracy of dimensions and details, or for mutual agreements of dimensions and details. It is mutually agreed that the CONTRACTOR shall be responsible for agreement and conformity of his shop drawings with the Specifications. CONTRACTOR further agrees that if deviations, discrepancies, or conflicts between shop drawings and Specifications are discovered either prior to or after shop drawings are processed by the ENGINEER, the Specifications shall control and shall be followed.
- I. Full compensation for furnishing all shop drawings shall be considered as included in the prices paid for the Contract items of work to which such drawings relate and no additional compensation will be allowed therefor. Any cost related to the ENGINEER's review of any particular set of shop drawings more than twice, due to incompleteness or unacceptability, shall be borne by the CONTRACTOR, and the DISTRICT reserves the right to withhold such costs from payments due the CONTRACTOR.

2.04 SAMPLES

- A. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or supplier in sufficient quantities or amounts for testing or examination, without additional charge.

- B. No material shall be used until the Engineer has had the opportunity to test or examine such materials. Samples will be secured and tested whenever necessary to determine the quality of the material. Samples and test specimens prepared at the job site, such as concrete test cylinders, shall be taken or prepared by the Engineer in the presence and with the assistance of the Contractor.
- C. Testing of samples shall be in conformance with the requirements of Part 2.04 of Section 01 43 00, Quality Assurance.

2.05 CERTIFICATE OF COMPLIANCE

- A. A Certificate of Compliance shall be furnished prior to the use of any materials for which the Contract Documents require that such a certificate be furnished. In addition, when so authorized in the Contract Documents, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The Certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Contract. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the Certificate. The Certificate of Compliance shall be in a form approved and prepared by the District.
- B. All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the Contract Documents and any such material not conforming to such requirements will be subject to rejection, whether in place or not. In the event of rejection, the Contractor shall remove the rejected materials, at its cost, and replace them with conforming materials.
- C. The District reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.
- D. The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

2.06 SAFETY SUBMITTALS

- A. NOT USED
- B. In accordance with General Industry Safety Orders, Article 108 (Title 8, California Code of Regulations, Section 5156 et seq.), the Contractor shall submit to the District their program plan for controlling, and, where appropriate, for protecting employees from, confined space hazards and for regulating employee entry into confined spaces.

2.07 OPERATIONS AND MAINTENANCE MANUALS

- A. Submit electronic copies of completed Preventive Maintenance and Operating Requirement form **only**, summarizing the manufacturer's maintenance instructions and recommendations for the following equipment/materials supplied for the project:
 - 1. NOT USED
- B. Submit four paper copies and one electronic copy of all manufacturer's operation and maintenance (O&M) manuals and data for the following equipment:
 - 1. NOT USEDPrepare and organize the material in three-ring binders with divider tabs and labels. Include a table of contents.
- C. O&M manuals shall include:
 - 1. NOT USED
- D. O&M Manuals specified herein are in addition to any operation, maintenance or installation instructions required by the Contractor to install, test and start up equipment.

2.08 PROJECT REDLINES

- A. Periodically during the project, the Contractor shall submit to the District for review and comment, a copy of the Contract Documents, or relevant portions thereof, marked to identify all changes made during construction, as directed in Section 013100, Part 2.02. The Contract Documents shall be marked to show in explicit detail all modifications and changes to the Contract requirements. It will not be sufficient for the Contractor to simply reference a separate written document; the details of the change must be shown on the working set of the Contract Documents. The Contractor shall submit these documents in the manner directed in Part 2.03 of this Section.
- B. The District may require the Contractor to submit redlines for review within five (5) business days when any of the following occur:
 - 1. At the completion of a particular phase of work;
 - 2. At the completion of a particular discipline of work;
 - 3. At the completion of a particular structure; and
 - 4. Any time it is requested by the Engineer.Project-specific requirements for timing of redline submittals will be established at the pre-construction meeting.
- C. At the completion of the Project the redlines, with review comments provided by the District, shall be submitted as the Contract Record Documents in accordance with Section 017700, Part 2.06 within fifteen (15) days of completion of the Work.

SECTION 01 35 00

SPECIAL PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for special project situations.

PART 2 SPECIAL PROCEDURES

2.01 EMERGENCY WORK

- A. In an emergency affecting the safety of life, or of the work, or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is required to act at its discretion to prevent such threatened loss or injury. Any compensation claimed by the Contractor on account of emergency work shall be determined as specified under Part 2.11 of Section 00 72 00, General Conditions.
- B. Should the Engineer deem an emergency condition to exist, the Contractor shall immediately do those things and take those steps ordered by the Engineer. The decision of the Engineer in this respect shall be final and conclusive. Any claims for compensation made by the Contractor on account of emergency work shall be determined as specified under Part 2.11 of Section 00 72 00, General Conditions.

2.02 ARCHAEOLOGICAL ARTIFACTS

- A. If the Contractor encounter items of suspected archaeological significance are during excavation, the Contractor shall immediately stop excavation and inform the Engineer. The Contractor can resume excavation upon approval of the Engineer after consultation with the District's consulting archaeologist.

2.03 SUSPENSION OF WORK

- A. The Engineer may at any time, by notice in writing to the Contractor, suspend any part of the work for such period of time as may be necessary to prevent improper execution of the work on the project by the Contractor, its Subcontractors or agents, and the Contractor shall have no claim for damages or additional compensation on account of any such suspension.
- B. The District may at any time suspend any part or all of the work upon ten (10) days written notice to the Contractor, who shall immediately discontinue all work suspended except for all operations to prevent loss or damage to work already executed as may be directed by the Engineer. In the event a part of the work is suspended, the Contractor, if the suspension is not through his

fault or the fault of its Subcontractors or agents, shall be paid on the same basis as Extra Work for costs of work performed in accordance with such orders of the Engineer during such suspension, provided that this shall not include any cost pertaining to work not suspended by said notice. Work shall be resumed by the Contractor after such suspension on written notice from the District. In the event of suspension of the entire work by the District, the Contractor, if the suspension is not through fault of the Contractor or the fault of his Subcontractors or agents, shall be paid the sum of \$500.00 for each calendar day during which the entire work shall have been suspended. This amount is fixed as liquidated damages in full settlement of all costs and expenses, losses, and damages resulting to the Contractor from such suspension. The parties expressly agree that it is impractical to determine the actual amount of damage to Contractor by reason of such delay and that this liquidated damages clause is reasonable under the circumstances existing at the time the Contract was made. Work shall be resumed by the Contractor after such suspension on written notice from the District.

- C. In the event of any suspension of the work in whole or in part B above, the Contractor shall be entitled to an extension of time to complete the work to the extent of the delay caused to the Contractor.
- D. In the event the entire work shall be suspended by order of the District, as provided above, and remains suspended for a period of sixty (60) consecutive days, through no fault of the Contractor, and notice to resume the work shall not have been served on the Contractor, the Contractor may, at its option, by written notice to the District, terminate the Contract in the same manner as if the termination had been initiated by the District, and the District shall have no claim for damages because of such termination of the Contract.
- E. In the event the District or the Engineer receives or obtains notice of any termination, suspension, voiding, cancellation, or lack of existence of, or of any material reduction of coverage in, any policy of insurance required to be maintained by the Contractor or any subcontractor, the District or the Engineer, without any prior notice and without prejudice to any other remedy of the District, may immediately suspend work under the contract and order the Contractor and/or subcontractor(s) off the work site immediately, until the required insurance is reinstated or obtained. In the event of suspension under this paragraph, Contractor shall not be responsible for payment of liquidated damages established under Subpart B (above).

2.04 TERMINATION FOR DEFAULT - DAMAGES FOR DELAY - TIMELY EXTENSION

- A. The District may, without prejudice to any other right or remedy, service written notice upon Contractor of its intention to terminate this Contract if the Contractor: (1) refuses or fails to diligently prosecute the work as defined in Subpart B (below), (2) fails to complete the Work within the required times defined in Section 00 72 00, (3) files a bankruptcy petition or is adjudged a bankrupt; (iv) should make a general assignment for the benefit of its creditors; (v) should have a receiver appointed, or (vi) violates any requirements of law or the Contract Documents.

- B. The Contractor shall at all times employ such force, labor plant, materials, and tools as will be sufficient, in the opinion of the Engineer, to prosecute the work at not less than the rate provided in the progress schedule and to complete the work within the time limits fixed by the Contract.
- C. The District may, after giving ten (10) days written notice to the Contractor, terminate its right to proceed with the work or such part of the work as to which there has been delay. The notice of intent to terminate shall contain the reasons for such intention to terminate.
- D. The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:
 - 1. The delay in the completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to Acts of God, acts of the public enemy, acts of the District, acts of another contractor in the performance of a Contract with the District, fires, floods, excluding site flooding due to groundwater, epidemics, quarantine restrictions, strikes, lockouts, freight embargoes, unusually severe weather, or delays of subcontractors and suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of either the Contractor or such subcontractors and suppliers; and
 - 2. The Contractor, within ten (10) days from the beginning of any such delay (unless the Engineer grants further period of time before the date of final payment under the Contract), notifies the Engineer in writing of the causes of delay and requests an extension of time.
- E. The Engineer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in the Engineer's judgment, the findings of fact justify such an extension, and the findings of fact shall be final and conclusive on the parties.
- F. A request for an extension of time, or the granting of an extension of time, shall not constitute a basis for any claim against the District for additional compensation or damages unless caused by the District or another contractor employed by the District.
- G. If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of creditors, or if a receiver should be appointed for the Contractor on account of insolvency and not be discharged within ten (10) days after his appointment, or if the Contractor fails to make prompt payments to subcontractors or suppliers, or should he persistently disregard laws, ordinances, or the instructions of the Engineer, or otherwise commit a material breach of any provisions of the Contract, the District may, after giving ten (10) days written notice to the Contractor, terminate the Contract and the Contractor's right to proceed with the work.
- H. The rights and remedies of the District provided in this section are in addition to any of the rights and remedies provided by law or under this Contract.

- I. In addition to the District's rights under this section, if at any time before completion of the work under the Contract, it shall be determined by the District that reasons beyond the control of the parties render it impossible or against the interests of the District to complete the work, or if the work shall be stopped by an injunction of a court of competent jurisdiction or by order of any competent authority, the District may, upon ten (10) days written notice to the Contractor, discontinue the work and terminate the Contract. Upon service of such notice of termination, the Contractor shall discontinue the work in such manner, sequence, and at such times as the Engineer may direct. The Contractor shall have no claim for damages for such discontinuance or termination, nor any claim for anticipated profits on the work thus dispensed with, nor any other claim except for the work actually performed up to the time of discontinuance, including the cost of materials and equipment on hand, in transit, or on definite commitment and any extra work ordered by the Engineer to be done, nor for any claim for liquidated damages in accordance with the provisions of Part 2.03. The value of the work performed and the cost of materials and equipment delivered to the site will be determined by the Engineer in accordance with the procedure prescribed for the making of the final application for payment. The Contractor shall assign to the District, as directed by the Engineer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the District shall have the right to settle or to pay any termination settlement proposal arising out of those terminations. As directed by the Engineer, the Contractor shall transfer title and deliver to the District:
 1. the fabricated or unfabricated parts, work-in-progress, completed work, supplies, and other materials produced or acquired for the work terminated; and
 2. the completed or partially completed plans, drawings, information, and other property that, if the Contract had been completed, would be required to be furnished to the District.

2.05 RIGHTS OF DISTRICT UPON TERMINATION

- A. In the event the right of the Contractor to proceed with the work, or any portion thereof, has been terminated because of the fault of the Contractor and the Contractor has been given ten (10) days notice to cure such fault and has not done so, the District may issue a notice of termination to the Contractor and the Contractor's surety.
- B. Upon termination the Contractor shall not be entitled to receive any further payment until the work is finished. If upon completion of the work the total cost to the District, including engineering, legal, and other consultant fees, costs of managerial and administrative services, construction costs, and liquidated damages shall be less than the amount which would have been paid if the work had been completed by the Contractor in accordance with the terms of the Contract, then the difference shall be paid to the Contractor in the same manner as the final payment under the Contract. If the total cost incurred by the District on account of termination of the Contract and subsequent completion of the work by the District by whatever method the District may deem expedient shall exceed said amount which the Contractor

would otherwise have been paid, the Contractor and his sureties shall be liable to the District for the full amount of such excess expense.

- C. Upon termination, if the District takes over the Work, the District may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plant, and other property belonging to the Contractor as may be left on the Project site.
- D. The rights and remedies of the District provided in this Section are in addition to any of the rights and remedies provided by law or under this Contract.

2.06 FAILURE TO COMPLETE THE WORK IN THE TIME AGREED UPON; LIQUIDATED DAMAGES

- A. Liquidated Damages -In case all the work is not completed before or upon the expiration of the time limit as set in the Bid, Contract, and Progress Schedule, or within any time extensions that may have been granted, substantial damage will be sustained by the District; it is impracticable to determine the actual amount of damage by reason of such delay. It is, therefore, agreed that the Contractor and its Surety shall be liable for and pay to the District as damages, and not as a penalty, the amount specified in Section 00 72 00, General Conditions, for each and every day's delay in finishing the work in excess of the number of days specified. The parties expressly agree that this liquidated damage clause is reasonable under the circumstances existing at the time the Contract was made.
- B. In addition to liquidated damages for delay, if the delay results in the imposition of regulatory fines for late performance, it is agreed that the Contractor and its Surety shall be liable for and pay to the District as damages, and not as a penalty, the liquidated amount specified in Section 00 72 00.
- C. Exclusions - Notwithstanding the provisions above, the Contractor shall not be liable for liquidated damages or delays caused by the removal or relocation of utilities when such removal or relocation is the responsibility of the District or the owner of the utility under Government Code Section 4215.

2.07 RESPONSIBILITY FOR REPAIR OF FACILITIES

- A. All public or private facilities, including but not limited to gravel surfacing at existing canals, structures, telephone cables, roadways, curbs, gutters, parking lots, private drives, levees, and embankments for creeks, ponds, and reservoirs disturbed during construction of the work shall be repaired and/or replaced by the Contractor to match facilities existing prior to construction. In addition, the Contractor shall be responsible for any settlement damage to such facilities or adjoining areas for a period of one year after acceptance of such required facilities.

2.08 DISTRICT'S REPAIR

- A. In the event the Contractor refuses or neglects to make good any loss or damage for which it is responsible under this Contract, the District may, or by the employment of others, remedy any such loss or damage, and the cost and expense of doing so, including any reasonable engineering, legal, and other consultant fees, and any costs of administrative and managerial services, shall be charged to the Contractor. Such costs and expenses may be deducted by the District from claims for payment made by the Contractor for work completed or remaining to be completed as provided for in Part 2.04 of Section 01 20 00, Price and Payment Procedures.

END OF SECTION

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: permits, licenses, restrictions, lands, easements and right-of-ways required for the project.

PART 2 REQUIREMENTS

2.01 GENERAL COMPLIANCE WITH LAWS - PERMITS, REGULATIONS, TAXES

- A. Contractors and subcontractors will comply with all applicable federal and state laws, rules, guidelines, regulations, and requirements.
- B. Contractor is an independent contractor and shall at his sole cost and expense comply with all laws, rules, ordinances, and regulations of all governing bodies having jurisdiction over the work, obtain all necessary permits and licenses, pay all manufacturers' taxes, sales taxes, use taxes, processing taxes, and all federal and state taxes, insurance, and contributions for social security and unemployment which are measured by wages, salaries, or any remuneration paid to Contractor's employees, whether levied under existing or subsequently enacted laws, rules, or regulations. Contractor shall also pay all property tax assessments on materials or equipment used until acceptance by the District.
- C. If any discrepancy or inconsistency is discovered in the Contract Documents, or in this Contract in relation to any such law, rule, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Engineer in writing.
- D. Without limitation, materials furnished and performance by the Contractor shall comply with Safety Orders of the Division of Industrial Safety, State of California, Federal Safety regulations of the Bureau of Labor, Department of Labor, and any other applicable Federal regulations.
- E. The Contractor, upon request, shall furnish evidence satisfactory to the District and Engineer that any or all of the foregoing obligations have been or are being fulfilled. The Contractor warrants to the District that it is licensed by all applicable governmental bodies to perform this Contract and will remain so licensed throughout the progress of the work, and that it has, and will have, throughout the progress of the work, the necessary experience, skill and financial resources to enable him to perform this Contract.
- F. Contractor shall be responsible for familiarity with the Americans with Disabilities Act (ADA) (42 USC§12101 et seq.) and California Government Code 11135(b). The Work shall be performed in compliance with ADA regulations.

- G. The Contractor shall be responsible for familiarity with local requirements for the diversion of recyclable waste materials. The Work shall be performed in compliance with these requirements. Upon request, the Contractor will be required to present weight tickets and written proof of diversion. All costs incurred for these waste diversion efforts shall be the responsibility of the Contractor.
- H. In accordance with Revenue and Taxation Code §107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which Contractor will be responsible at no additional cost to the District.

2.02 ENVIRONMENTAL AND CULTURAL COMPLIANCE

- A. In addition to the requirements set forth in Part 2.01, above, for general compliance with laws, permits, regulations and taxes, the Contractor, by entering into this Contract, shall be obligated to abide by the requirements of any project-specific environmental and cultural resource documents prepared for and adopted by the District, notwithstanding specific rules and requirements not being specifically identified within these Specifications and Plans.
- B. NOT USED

2.03 PERMITS AND LICENSES

- A. Procurement of Permits and Licenses:
 - 1. Permits and licenses, of a temporary nature, necessary for the prosecution of the work shall be secured and paid for by the Contractor. The Contractor shall obtain and pay the fees for the following permits.

Name or Type of Permit	Permitting Agency
Construction water permit for water obtained from District-owned fire hydrants (fee waived)	South Tahoe PUD
Road Obstruction Permits	City of South Lake Tahoe
Well Permits	El Dorado County

- 2. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the District unless otherwise specified. The following permits for the permanent work have been obtained by the District:
 - a. California Environmental Quality Act Notice of Exemption
 - b. Tahoe Regional Planning Agency Permits
 - c. Lahontan Regional Water Quality Control Board Basin Plan Prohibition Exemptions
 - d. California Tahoe Conservancy License Agreements
- B. The Contractor shall procure all permits and licenses, as described in Part 2.02.A.1, pay all charges, fees, and taxes and give all notices necessary and incidental to the due and lawful prosecution of work.
- C. The Contractor shall be aware of and abide by the conditions and restrictions of the TRPA permit for this project. The standard conditions of approval applicable to this

project (Attachment Q – Standard Conditions for Grading) are available from the TRPA website (www.trpa.org) for review by the Contractor.

- D. The Contractor shall be aware of and abide by the conditions and restrictions of the Lahontan Regional Water Quality Control Board permits for this project, including conditions of the Basin Plan Prohibition Exemptions obtained by the District for well discharges to surface waters.
- E. California Contractor's License: the Contractor shall have a valid California contractor's license for the type of work required on this Contract, as specified in Sections 00 10 00, Solicitation, and 00 20 00, Instructions for Procurement.
- F. The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work as shown on the Plans and described in the Specifications. The Contractor shall promptly notify the Engineer in writing of any variance and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations and without such notice to the Engineer, Contractor shall bear all related costs.

2.04 LANDS FOR WORK, RIGHT-OF-WAY CONSTRUCTION ROADS

- A. The District will provide the lands, easements, right-of-ways, and/or encroachment permits necessary or other rights to enter and work on lands necessary for the performance of the work. Other permits and licenses are addressed by Part 2.02. Should the Contractor find it advantageous to use any additional land for any purpose whatever, the Contractor shall provide for the use of such land at its risk and expense. The Engineer shall be furnished with a copy of written agreements or otherwise be notified in writing of additional working space which is acquired. Nothing herein contained and nothing marked on the Plans shall be interpreted as giving the Contractor exclusive occupancy of the territory provided by the District. When two or more contracts are being executed at one time on the same or adjacent land in such a manner that work on one contract may interfere with that on another, the Engineer shall decide which contractor shall cease work, and which shall continue, or whether the work on both contracts shall progress at the same time and in what manner, and the decision of the Engineer shall be final and binding. When the territory of one contract is the necessary or convenient means of access for the performance of another contract, such privilege of access or any other reasonable privilege may be granted by the Engineer to the contractor so desiring, to the extent, amount, in the manner, and at the time permitted. No such decision as to the method or time of conducting the work or the use of territory shall be the basis of any claim for delay or damage.
- B. Lands, easements, or right-of-ways to be furnished by the District for construction operations will be specifically shown on the Plans.

END OF SECTION

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SECTION 01 42 00

REFERENCES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. List of reference standards used in the Contract Documents.

1.02 ABBREVIATIONS AND DEFINITIONS

- A. Terms used in these Contract Documents shall have the meaning stipulated in Section 00 71 00, Contracting Definitions.

PART 2 REFERENCES

2.01 GENERAL

- A. Applicable Publications: Whenever in these Specifications references are made to published specifications, codes, standards or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards or requirement so the respective issuing agencies which have been published as of the date of execution of the Contract, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances or governing codes. No requirements set forth herein or indicated in the Contract shall be waived because of any provision of, or omission from, said standard or requirements.

2.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Without limiting the generality of other requirements of the Specifications, all Work specified herein shall conform to or exceed the requirements of applicable codes and the applicable requirements of the following documents.
- B. References herein to "California Well Standards" shall mean Department of Water Resources California Well Standards Bulletins 74-81 and 74-90. These standards are available from the Department of Water Resources at the following URL: <https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards>.
- C. In case of conflict between codes, reference standards, drawing and the Contract, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the District for clarification and direction prior to ordering or providing any materials or furnishing labor.

- D. The Contractor shall construct the Work indicated herein in accordance with the requirements of the Contract and the referenced portions of those referenced codes, standards and specifications listed herein.

END OF SECTION

SECTION 01 43 00

QUALITY ASSURANCE

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for reactive activities to evaluate completed activities and elements for conformance with the requirements.
 - 2. The requirements of this Section are in addition to the requirements for individual materials and equipment stated elsewhere in these Contract Documents.

PART 2 REQUIREMENTS

2.01 CONFORMITY WITH CONTRACT DOCUMENTS AND ALLOWABLE DEVIATIONS

- A. Work and materials shall conform to the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on Contract Documents.
- B. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the Contract Documents, and the Engineer's decision as to any allowable deviations shall be final and conclusive, as set forth in Section 00 72 00, General Conditions.

2.02 QUALITY CONTROL

- A. All materials and equipment shall be new and of the specified quality and, if samples have been submitted, equal to the samples found to be acceptable by the Engineer.
- B. The Work shall be performed and completed in a thorough, workmanlike manner, notwithstanding any omission in the Contract Documents; and it shall be the duty of the Contractor to call the Engineer's attention to apparent errors or omissions and request instructions before proceeding with the Work. The Engineer may, by appropriate instructions provided in conformance with Section 00 72 00, Part 2.03, correct errors and omissions, which instructions shall be as binding upon the Contractor as though contained in the original Contract Documents.

2.03 INSPECTION OF WORK

- A. Unless otherwise provided, all equipment, materials, and work shall be subject to inspection and testing by the Engineer. The Engineer will observe the progress and quality of the work and determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. The Engineer shall not be

required to make comprehensive or continuous inspections to check the quality of the work, and shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the Engineer shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work and to furnish proper materials, labor, equipment, and tools, and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

- B. Whenever the Contractor varies the period during which work is carried on each day, prior notice shall be given to the Engineer so that proper inspection may be provided. Any work done in the absence of the Engineer shall be subject to rejection. Proper facilities for safe access for inspection to all parts of the work shall at all times be maintained for the necessary use of the Engineer and other agents of the District, and agents of the Federal, State, or local governments at all times.
- C. One or more inspectors may be assigned to observe the work and to act in matters of construction under this Contract. It is understood that inspectors shall have the power to issue instructions and make decisions within the limitations of the authority of the Engineer. Such inspection shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work, to furnish proper materials, labor, equipment, and tools, and perform acceptable work, and to provide adequate safety precautions in conformance with the intent of the Contract.
- D. The Engineer and its representatives shall at all times have access to the Work wherever it is in progress, to the shops where the Work is in preparation, and to all warehouses and storage yards where materials and equipment are stored, and the Contractor shall provide safe and convenient facilities for such access and for inspection. If the Contract Documents, the Engineer's instructions, laws, ordinances, or any public authority require any material, equipment or work to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the District, of the time fixed for inspection. Inspections by the Engineer will be made promptly and, where practicable, at the source of supply.
- E. Work performed without inspection may be required to be removed and replaced under proper inspection and the entire cost of removal and replacing, including the cost of District furnished materials used in the work, shall be borne by the Contractor, regardless of whether or not the work exposed is found to be defective. Examination of questioned work, other than that installed without inspection, may be ordered by the Engineer and, if so ordered, the work must be uncovered by Contractor. If such work is found to be in accordance with the Contract Documents, the District will pay the cost of re-examination and replacement. If such work is found to be not in accordance with the Contract Documents, the Contractor shall pay such cost unless he can show that the defect in the work was caused by another Contractor, and in that event the District will pay such costs.
- F. The inspection of the work shall not relieve the Contractor of its obligation to fulfill the Contract as prescribed, or in any way alter the standard of performance provided by the Contractor, and defective work shall be corrected and

nonconforming materials may be rejected, notwithstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the work or any part shall be found defective, Contractor shall, within ten (10) calendar days, correct such defect in a manner satisfactory to the Engineer. If the Contractor shall fail or neglect to make ordered repairs of defective work or to remove the condemned materials from the work within ten (10) calendar days after direction by the Engineer in writing, the District may make the ordered repairs, or remove the nonconforming materials, and deduct the cost from any monies due the Contractor.

- G. The Contractor shall furnish promptly without additional charge all facilities, labor, and materials reasonably needed by the Engineer for performing all inspection and tests. Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.
- H. Where any part of the work is being done under an encroachment permit or building permit, or is subject to Federal, State, County or City codes, laws, ordinances, rules or regulations, representatives of the government agency shall have full access to the work and shall be allowed to make any inspection or tests in accordance with such permits, codes, laws, ordinances, rules, or regulations. If advance notice of the readiness of the work for inspection by the governing agency is required, the Contractor shall furnish such notice to the appropriate agency.
- I. The Engineer may inspect the production of the material, or the manufacture of products at the source of supply. Plant inspection, however, will not be undertaken until the Engineer is assured of the cooperation and assistance of both the Contractor and the material producer. The Engineer or its authorized representative shall have free entry at all times to such parts of the plant as concerns the manufacture or production of the materials. Adequate facilities shall be furnished free of charge to make the necessary inspection.
- J. Materials, equipment, and workmanship shall be subject to the inspection of, and rejection by, the Engineer, if not in conformance with the Contract Documents. Defective materials, equipment, or Work shall be removed from the premises by the Contractor, whether in place or not, and shall be replaced with new and acceptable materials, equipment, or work. Repair of defective materials, equipment, or work shall be subject to the Engineer's acceptance.
- K. The District assumes no obligation to inspect materials at the source of supply.
- L. On all questions concerning the acceptability of materials or equipment, classification of materials, or equipment, execution of the Work, and the determination of costs, the decision of the Engineer shall be final and binding upon all parties.

2.04 SAMPLING AND TESTING

- A. Unless specified otherwise, the Contractor shall perform at its expense all tests specified or required by the Technical Specifications. The Engineer will perform such tests as he deems necessary to determine the quality of work or compliance

with Contract Documents. The Contractor shall furnish promptly without additional charge all facilities, labor, and material reasonably required for performing safe and convenient tests as may be required by the Engineer. All tests by the Engineer will be performed in such a manner as will not unnecessarily delay the work.

- B. At the option of the Engineer, the source of material supplies for the Work shall be subject to tests and inspection before delivery is started and before such materials are used in the Work.
- C. In the event the Contractor protests a failing test of material in place or to be used, he shall take additional samples as specified in the Contract Documents and have additional tests run at his own expense. In the event the original test proves to have been in error, the Contractor shall be reimbursed for his direct costs of additional sampling and testing.
- D. For materials originating outside of the United States for which tests are required, provide recertification and retesting by an independent domestic testing laboratory.
- E. All sampling, specimen preparation, and testing of materials shall be in accordance with the standards of nationally recognized technical organizations.
- F. The physical characteristics of all materials not particularly specified shall conform to the latest standards published by the American Society for Testing Materials, where applicable.

2.05 MILL TESTS

- A. The Contractor, at his own expense, shall submit, in triplicate, certified copies of all required factory and mill test reports to verify material quality and composition. Any materials shipped by the Contractor from a factory or mill prior to having satisfactorily passed testing and inspection shall not be incorporated in the Work, unless the Engineer shall have notified the Contractor in writing that such testing and inspection will not be required. The cost of performing all mill and factory tests shall be paid by the Contractor unless otherwise provided in the Contract Documents.

2.06 COMPACTION TESTING

- A. The District's laboratory may perform soil compaction testing during this project. The testing completed by the District's laboratory shall be used to determine if the degree of compaction required in the specifications for earthwork has been reached in the field by the Contractor for Quality Control and payment purposes. The Contractor may wish to complete his own compaction tests in addition to or ahead of District tests to enhance his operations and for Quality Assurance purposes.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Procedures and requirements for utilities and facilities used on site during construction.
 - 2. Procedures and requirements for temporary access facilities required to accommodate construction or the District's operations.

PART 2 TEMPORARY CONTROLS

2.01 PROTECTION OF WORK

- A. The Contractor shall be responsible for the care of all work until its completion and final acceptance; and, at its own expense, replace damaged or lost material and repair damaged parts of the work or the same may be done at its expense by the District and the Contractor and its sureties shall be liable therefore. The Contractor shall make its own provisions for properly storing and protecting all material and equipment against theft, injury, or damage from any and all causes. Damaged material and equipment shall not be used in the work. The Contractor shall take all risks from floods and casualties except as provided by law, and shall make no charge for the restoration of such portions of the work as may be destroyed or damaged by flood or other casualties or because of danger from flood or other casualties or for delays from such causes. The Contractor may, however, be allowed a reasonable extension of time on account of such delays, subject to the conditions of these Contract Documents. The Contractor shall not be responsible for the cost, in excess of five percent (5%) of the contracted amount, of repairing or restoring damage to the work, if the damage was proximately caused by an earthquake in excess of a magnitude of 3.5 on the Richter Scale, or by tidal waves; provided that the work damaged was built in accordance with accepted and applicable standards, and the Plans and Specifications of the District.
- B. The Contractor shall use extreme care during construction to prevent damage from dust to adjacent property. The Contractor, at its own expense, shall provide adequate dust control for the right-of-way and take other preventative measures as directed by the Engineer.
- C. The Contractor shall be responsible for all damage to any property resulting from trespass by the Contractor or its subcontractors, whether such trespass was committed with or without the consent or knowledge of the Contractor.

- D. The Contractor shall see that the work site is kept drained and free of all ground water and any other water which may impede the progress or execution of the Contract work.
- E. The Contractor shall be responsible for any damage caused by drainage or water runoff from construction areas and from construction plant areas.
- F. Subject to the provisions of this Section, where the work to be performed under the Contract crosses or otherwise interferes with existing streams, watercourses, canals, farm ditches, pipelines, drainage channels, or water supplies, the Contractor shall provide for such watercourse or pipelines and shall perform such construction during the progress of the work so that no damage will result to either public or private interests, and the Contractor shall be liable for all damage that may result from failure to so provide during the progress of the work.

2.02 PROTECTION OF PERSON AND PROPERTY

- A. The Contractor shall take whatever precautions are necessary to prevent damage to all existing improvements, including above ground and underground utilities, trees, shrubbery that is not specifically shown to be removed, fences, signs, mailboxes, survey markers and monuments, buildings, structures, the District's property, adjacent property, and any other improvements or facilities within or adjacent to the work. If such improvements or property are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored, at the Contractor's expense, to a condition at least as good as the condition they were in prior to the start of the Contractor's operations.
- B. The Contractor shall adopt all practical means to minimize interference to traffic and public inconvenience, discomfort or damage. The Contractor shall protect against injury any pipes, conduits, or other structures, crossing the trenching or encountered in the work and shall be responsible for any injury done to such pipes or structures, or damage to property resulting there from. The Contractor shall support or replace any such structures without delay and without any additional compensation to the entire satisfaction of the Engineer. All obstructions to traffic shall be guarded by barriers illuminated at night. The Contractor shall be responsible for all damage to persons and property directly or indirectly caused by its operations and, under all circumstances, must comply with the laws and regulations of the County and the State of California relative to safety of persons and property and the interruption of traffic and the convenience of the public within the respective jurisdictions.
- C. The Contractor is cautioned that it must replace all improvements in right-of-ways and within the public streets to a condition equal to what existed prior to entry onto the job or in compliance with current laws, regulations, ordinances and codes, whichever is most restrictive.
- D. Type and time of construction required at any road subject to interference by Contract work will be determined by those authorities responsible for maintenance of said road. It shall be the responsibility of the Contractor to

determine the nature and extent of all such requirements, including provision of temporary detours as required; however, the construction right-of-way obtained by the District at affected roadways will be adequate for provision of all required detours. As required at any road crossing, the Contractor shall provide all necessary flagpersons, guardrails, barricades, signals, warning signs, and lighting to provide for the safety of existing roads and detours. Immediately after the need for temporary detours ceases, or when directed, the Contractor shall remove such detours and perform all necessary cleanup work, including replacement of fences, and removal of pavement. Included shall be all necessary replacement of existing roadway appurtenances, grading work, soil stabilization, and dust control measures, as required and directed. The cost of all work specified under this Section shall be borne by the Contractor.

- E. The Contractor shall examine all bridges, culverts, and other structures over which he will move his materials and equipment, and before using them, I shall properly strengthen such structures where necessary. The Contractor shall be responsible for any and all injury or damage to such structures caused by reason of its operations.

2.03 ACCIDENT PREVENTION AND RESPONSE

- A. Precaution shall be exercised by the Contractor at all times for the protection of persons (including employees) and property. The safety provisions of all applicable laws, and of building and construction codes shall be observed. Machinery, equipment, and other hazards shall be guarded or eliminated.
- B. The Contractor shall promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work, whether on or adjacent to the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injury or serious damage are caused, the accident shall be reported immediately by telephone or messenger to the District and the Engineer.
- C. The Contractor shall make all reports as are, or may be, required by any governmental entity having jurisdiction, and permit all safety inspections of the Work being performed under this Contract. Before proceeding with any construction work, the Contractor shall take all necessary actions to comply with all provisions for safety and accident prevention.
- D. If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

2.04 HAZARDS IN PROTECTED AREAS

- A. Excavation on project sites from which the public is excluded shall be marked or guarded in a manner appropriate to the degree of hazard.

2.05 PROJECT SECURITY

- A. The Contractor shall make adequate provision for the protection of the Work area against fire, theft, and vandalism, and for the protection of the public against exposure to injury.

2.06 DUST AND EMISSIONS CONTROL

- A. The Contractor shall take any necessary steps, procedures, or means as required to prevent its operations in connection with the execution of the Work from causing abnormal dust conditions. The Contractor shall prevent dust from construction activities from being produced in amounts that may be harmful or cause a nuisance to persons living nearby or occupying buildings in the vicinity of the Work.
- B. Dust control measures shall be applied, as needed to control particulate emissions from all unpaved parts of the site, including but not limited to any unpaved road which the Contractor or any of his Subcontractors are using, excavation or fill areas, demolition areas, and stockpile and staging areas.
- C. Dust control shall be conducted by sprinkling of water, use of dust palliatives or non-toxic stabilizers, modification of operations, reducing traffic speed, covering of stockpiles, installing temporary erosion controls or any other means acceptable to governmental entities having jurisdiction, as needed to control emissions.
- D. The Contractor shall cover or wet soil and other excavated material leaving and arriving at the Work site to prevent blowing dust.
- E. All paved areas of the site, including public access roads into and out of the site, shall be kept clean by sweeping.
- F. To ensure that emissions from construction equipment exhaust will be reduced, the following measures will be implemented:
 - 1. Use alternative fuel construction equipment to the fullest extent possible.
 - 2. Minimize idling time (e.g., 5 minute maximum).
 - 3. Maintain properly tuned equipment according to equipment manufacturer's guidelines.
 - 4. Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use as specified for noise mitigation purposes.

2.07 SPECIAL CONTROLS

- A. The Contractor shall take all reasonable means to minimize inconvenience and injury to the public by dust, diversion of storm water, or other individuals or entities under its control.

2.08 NOISE ABATEMENT

- A. In inhabited areas, particularly residential, Contractor's operations shall be performed in a manner to minimize unnecessary noise. In residential areas, special measures shall be taken to suppress noise generated by repair and service activities during the night hours. The more stringent of either Cal-OSHA limits or the limits established by local ordinance shall control. The contractor must comply with noise abatement and mitigation terms and conditions of any required permits received by the Contractor or the District.

2.09 ODOR CONTROL

- A. The Contractor shall take any necessary steps, procedures, or means as are required to prevent abnormal odors being caused by its operations.

2.10 DRAINAGE CONTROL

- A. In performing excavation, fill, and grading operations, care shall be taken to disturb the pre-existing drainage pattern as little as possible. Particular care shall be taken not to direct drainage water onto private property or into streets or drainage ways which are inadequate for the increased flow. Adequate drainage shall be provided to protect the Work.

2.11 EROSION CONTROL

- A. All excavated and disturbed areas, including trench excavation at the site, shall be provided with temporary erosion control. The temporary erosion control shall be by means of:
 - 1. Filter fabric fences or sediment control barriers placed to completely circumvent the down slope side of the excavation and stockpiled material;
 - 2. All spoils, waste material, or stockpiled material shall not be placed in areas subject to washout, flooding, or natural drainage areas;
 - 3. All stockpiled materials on site during or after hours shall be completely encircled with temporary erosion control devices as described in Item 1 above and covered with plastic sheeting during threat of inclement weather;
 - 4. Construction equipment and vehicles shall be restricted to approved access roads only;
 - 5. Any dewatering of trenches shall be done to avoid causing erosion or runoff from the construction site;
 - 6. Protected areas shall be regularly inspected and maintained by the Contractor during the course of the work.
- B. Adequate erosion containment as described above shall be subject to the approval of the Engineer and the TRPA representative.
- C. Adequate erosion mitigation and containment shall be subject to the approval of the California Tahoe Conservancy for work completed on their land.

2.12 WATER POLLUTION

- A. The Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, and canals from pollution with fuels, oils, bitumens, calcium chloride, and other harmful materials and shall conduct and schedule his operations so as to avoid or minimize muddying and silting of said streams, lakes, reservoirs, and canals. Care shall be exercised to preserve vegetation beyond the limits of construction. The Contractor shall comply with Section 5650 of the California Fish and Game Code and all other applicable statutes and regulations relating to the prevention and abatement of water pollution. The Contractor shall comply with the terms and conditions of Basin Plan Prohibition Exemptions and discharge permits.

2.13 TRAFFIC CONTROLS

- A. The Contractor shall implement those traffic controls required by the Plans and by project permits and applicable regulations.
- B. In order to expedite the passage of public traffic through or around the work and where ordered by the Engineer, the Contractor shall install signs, lights, flares, barricades, and other facilities for the sole convenience and direction of public traffic. Also, where directed by the Engineer, the Contractor shall provide and station competent flagpersons whose sole duties shall consist of directing the movement of public traffic through or around the work. The cost of furnishing and installing such signs, lights, flares, barricades, and other facilities, and the cost of providing and stationing such flagpersons, all for the convenience and direction of public traffic, will be considered as included in the Contract price and no additional compensation will be allowed.
- C. Flagpersons and guards, while assigned to traffic control, shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Instructions to Flagmen" of the California Department of Transportation. The equipment shall be furnished and kept clean and in good repair by the Contractor at his expense.
- D. The Contractor shall prepare a detailed plan describing the method by which Contractor will provide for the convenience of the public and public traffic for submission to the appropriate governmental entity with jurisdiction over the streets, highways, roads or other property upon which work pursuant to the Contract will proceed. Contractor's plan shall be approved by such governmental entity no less than ten (10) working days prior to commencement of the work. Contractor shall amend and revise its plan in accordance with any changes directed or required by such governmental entity.

2.14 TEMPORARY PAVING

- A. NOT USED

PART 3 TEMPORARY FACILITIES

3.01 GENERAL REQUIREMENTS

- A. The Contractor shall provide all temporary facilities and utilities required for prosecution of the work, protection of employees and the public, protection of the work from damage by fire, weather or vandalism, and such other facilities as may be specified or required by any applicable law, ordinance, rule, regulation, or permit, at no additional cost to the District.

3.02 ELECTRICAL SERVICE

- A. The Contractor shall be responsible, if required, for obtaining adequate temporary electrical service. The Contractor shall then provide adequate job site distribution facilities conforming to applicable codes and safety regulations.
- B. The cost of temporary electrical service shall be included in the appropriate bid items to which it is appurtenant and shall include full compensation for furnishing all labor, materials, tools, and equipment required to obtain and distribute power for construction purposes.

3.03 TEMPORARY LIGHTING

- A. The Contractor shall provide temporary lighting in all work areas sufficient to maintain during working hours a lighting level not less than the lighting level required by California OSHA standards.

3.04 HEATING AND VENTILATION

- A. The Contractor shall provide means for heating and ventilating all work areas as may be required to protect the Work from damage due to freezing, high temperatures or weather, or to provide a safe environment for workers.
- B. Unvented, direct fired heaters shall not be used in areas where freshly placed concrete will be exposed to combustible gases until at least two hours after the concrete has attained its initial set.

3.05 WATER

- A. The Contractor shall construct all facilities necessary to furnish water for its use during construction. Water used for human consumption shall be kept free from contamination and shall conform to the requirements established by State and local authorities for potable water.
- B. The Contractor shall be responsible for providing the water necessary for the project. The source shall have prior approval of the District. Construction water is available from the District potable supply. An approved backflow preventer shall be installed by the Contractor at the District's fire hydrant in accordance with District Ordinance No. 405. The water sources shall be approved prior to use by owner of the water source.

- C. The Contractor shall include the cost of construction water in the appropriate bid item to which it is appurtenant. The cost shall include full compensation for furnishing all labor, materials, tools, and equipment and doing all the work necessary to develop a sufficient water supply and furnishing the necessary equipment for applying the water as described in these Specifications.

3.06 SANITARY CONVENIENCES

- A. The Contractor shall provide suitable and adequate sanitary conveniences for the use of all persons at the site of the Work. Such conveniences shall include chemical toilets or water closets and shall be located at appropriate locations at the site of the Work. All sanitary conveniences shall conform to the regulations of the governmental entities having jurisdiction over such matters. At the completion of the Work, all such sanitary conveniences shall be removed and the site left in a sanitary condition.

3.07 FIRST-AID

- A. First-Aid facilities and information posters conforming, at a minimum, to the requirements of the Occupational Safety and Health Administration shall be provided in a readily accessible location or locations.

3.08 CONSTRUCTION FACILITIES

- A. Construction hoists, elevators, scaffolds, stages, shoring and similar temporary facilities shall be of ample size and capacity to adequately support and move the loads to which they will be subjected. Railings, enclosures, safety devices, and controls required by law or for adequate protection of life and property shall be provided.

3.09 SHEETING, SHORING, AND BRACING

- A. Temporary supports shall be designed with sufficient safety considerations to assure adequate load bearing capability. The Contractor shall submit design calculations by a professional registered engineer for sheeting, shoring and bracing prior to application of loads.
- B. Acceptance of design calculations does not in any way relieve the Contractor from being solely responsible for the installation of adequate sheeting and shoring for the work being undertaken. The District assumes no liability for the Contractor's operations.

3.10 TEMPORARY ENCLOSURES

- A. When sandblasting, spray painting, spraying insulation, or performing other activities which are inconvenient or dangerous to property or the health of employees or the public, the area of activity shall be enclosed adequately to contain the dust, spray, or other hazard. In the event there are no permanent enclosures of the area, or such enclosures are incomplete or inadequate, the Contractor shall provide suitable temporary enclosures.

3.11 WARNING DEVICES AND BARRICADES

- A. The Contractor shall adequately identify and guard all hazardous areas and conditions by visual warning devices and, where necessary, physical barriers. Such devices shall, at a minimum, conform to the requirements of Cal/OSHA.

3.12 FIRE SUPPRESSION

- A. Minimize fire danger in the vicinity of and adjacent to the construction site.
- B. A sufficient number of fire extinguishers of the type and capacity required to protect the Work and ancillary facilities shall be provided in readily accessible locations.
- C. Provide labor and equipment to protect the surrounding property from fire damage resulting from construction operations.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Procedures and requirements for products used in construction.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Unless otherwise specifically stated in the Contract Documents, the Contractor shall furnish all materials necessary for the execution and completion of the work. Unless otherwise specified, all materials shall be new and shall be manufactured, handled, and installed in a workmanlike manner to insure completion of the work in accordance with the Contract Documents. The Contractor shall, upon request of the Engineer, furnish satisfactory evidence as to the kind and quality of materials.
- B. Where materials are to be furnished by the District, the type, size, quantity, and location at which they are available will be stated in the Contract Documents.
- C. Manufacturers' warranties, guarantees, instruction sheets and parts listed, which are furnished with certain articles or materials incorporated in the work, shall be delivered to the Engineer before acceptance of the Contract.

2.02 STORAGE OF MATERIALS

- A. Articles or materials to be incorporated in the work shall be stored in such a manner as to insure the preservation of their quality and fitness for the work, and to facilitate inspection.

2.03 EQUIPMENT AND PLANTS

- A. Only equipment and plants suitable to produce the quality of work and materials required will be permitted to operate on the Project.
- B. Plants will be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity to insure the production of sufficient material to carry the work to completion within the time limit and met all Federal, State, County, & Local requirements.
- C. The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements, and when ordered by the Engineer, shall

remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

- D. The Contractor shall identify each piece of its equipment, other than hand tools, by means of an identifying number plainly stenciled or stamped on the equipment at a conspicuous location, and shall furnish to the Engineer a list giving the description of each piece of equipment and its identifying number. In addition, the make, model number and empty gross weight of each unit of compacting equipment shall be plainly stamped or stenciled in a conspicuous place on the unit. The gross weight shall be either the manufacturer's rated weight or the scale weight.
- E. In the case of termination of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the District, shall promptly remove any part or all of his equipment and supplies from the property of the District. If the Contractor fails to do so, the District shall have the right to remove such equipment and supplies at the expense of the Contractor.

2.04 TRADE NAMES AND ALTERNATIVES

- A. For convenience in designation in the Contract Documents, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and its catalog information. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:
 - 1. The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor who shall furnish all information necessary as required by the Engineer. The Engineer shall be the sole judge as to the quality and suitability of alternative articles or materials and his decision shall be final.
 - 2. Whenever the Contract Documents permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material or article will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the material or article proposed. Such request by the Contractor must be made within thirty-five (35) days after award of Contract, unless otherwise noted in Section 01 33 00, Submittals Process, Part 2.02, Critical Equipment Submittals. Contractor must provide back-up materials to substantiate a request for substitution, including Contractor's affidavit stating that, and describing how, the substituted "or equal" material, process or article is equivalent to that specified in every way except as listed on the affidavit.
 - 3. The District's approval or denial of any substitution shall not entitle the Contractor to any adjustment to the Contract amount or schedule, even if the Contractor based its bid upon obtaining such substitution.
- B. As approved by the District's Board of Directors and as is allowed by the California Public Contract Code (PCC) §3400 and supported by case law, the District has made findings that certain products shall be used for this

project without alternative. Exceptions to the prohibition on sole-branding or sole-sourcing are as follows:

1. Field Test or Experiment: To make a field test or experiment to determine the product's suitability for future use.
2. Match Existing Products: To match other products already in use on a particular public improvement, either completed or in progress.
3. Only Available from One Source: To obtain a necessary item that is available only from one source.
4. Emergency Response:
 - a. To respond to a local agency emergency declared with a four-fifths vote of the governing board, or
 - b. To respond to a state or political subdivision emergency, if the emergency reasons are documented in the public records of the authority.

C. Following is a list of sole-branded or sole-sourced products that has been approved in advance by the District, and the basis for the sole-source determination identified by reference to the findings listed in Part 2.04.B (above).

1. NOT USED

END OF SECTION

SECTION 01 73 00
PROJECT EXECUTION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Procedures and requirements for determining acceptable conditions for construction.
 - 2. Procedures and requirements for working in coordination with the existing system.
 - 3. Administrative and procedural requirements for executing the work.

PART 2 EXECUTION

2.01 COMMENCEMENT AND PROGRESS OF THE WORK AND TIME OF COMPLETION

- A. The Contractor shall begin work within ten (10) days after receiving the Notice to Proceed and shall diligently prosecute the work to completion as specified in the Contract Documents.

2.02 WORK INVOLVING EXISTING SYSTEM

- A. NOT USED
- B. The Contractor shall request shutdowns of any portion or all of the existing system by the District at least 48 hours (two working days) in advance of the scheduled shutdown. Likewise, the Contractor shall notify the District of pending demolition of any structure at least 48 hours (two working days) in advance of the scheduled demolition. No shutdown or demolition shall occur without obtaining prior District approval.
- C. NOT USED
- D. NOT USED

2.03 CONSTRUCTION STAKES, LINES, AND GRADES

- A. The Work shall be executed in accordance with the lines and grades indicated in the Contract Documents. Distances and measurements, except elevations and structural dimensions, shall be made on horizontal planes.
- B. The Engineer will provide the Contractor with drawings showing benchmarks and reference points as it deems necessary to establish lines and grades required for the completion of the site work specified in the Contract Documents. The District will provide field stakes for precise well locations.

- C. Stakes and marks set by the District or Engineer, if any, shall be carefully preserved by the Contractor. The Contractor shall be charged for the cost of replacing or restoring the stakes and marks which are destroyed or damaged by his operation. This charge will be deducted from any monies due or to become due to the Contractor under the Contract Change Order.

2.04 SITE WORK

- A. The Contractor shall establish such control and reference points as it may need and as will be required to properly lay out the Work. Monuments for principal control points shall be set by the Contractor and shall be protected by the Contractor from disturbance. If the monuments are disturbed, any work that is governed by these monuments shall be held in abeyance until the monuments are re-established by the Contractor. The accuracy of all the Contractor's stakes, alignments, and grades is the responsibility of the Contractor. However, the Engineer has the discretionary right to check the Contractor's stakes, alignments and grades at any time. Where such discretion is to be exercised by the Engineer, he will notify the Contractor of his intention, stating the time at which the checking will commence. Any part of the work in progress, the results of which are predicated directly upon the Contractor's stakes, alignments, or grades to be checked, shall be held in abeyance until the Engineer has notified the Contractor that the checking has been completed.

2.05 LOCATING AND REPAIRING UNDERGROUND UTILITIES

- A. Except as provided by Government Code Section 4215, the Contractor shall be responsible for the removal, relocation and protection of all public and private utilities, including irrigation facilities in the nature of utilities, located on the site of the construction project if and to the extent that the same are identified in the Contract Documents, and the Contractor shall not be entitled to any extension of time or claim for damages for extra compensation in connection therewith.
- B. If and to the extent that such utilities or facilities are not identified in the Contract Documents, as between the Contractor and the District, the District will be responsible for the cost of their removal, relocation, or protection, to the extent required by law, but the Contractor shall immediately notify the District and the Utility in writing upon their discovery and shall perform any such work in conformance with applicable provisions of Section 00 72 00, General Conditions, if so directed by the Engineer and in such situation the Contractor shall not be responsible for liquidated damages for delay in completion of the project caused by the failure of the District or the owner of the utility to provide for such removal or relocation. If the Contractor, while performing the Contract, discovers utility or irrigation facilities not identified by the District in the Contract Documents, he shall immediately notify the Engineer and the utility in writing.
- C. In accordance with Government Code Section 4215, the Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or

relocating existing main or trunk line utility facilities not indicated in the Contract Documents with reasonable accuracy, and for the equipment on the project necessarily idled during such work; provided that the Contractor shall first notify the Engineer before commencing work on locating, repairing damage to, removing, or relocating such utilities.

2.06 WORK SEQUENCE AND CONSTRAINTS

- A. The District envisions the work being completed in the following sequence. The Contractor may propose an alternate sequence for District review and acceptance when he submits his initial construction schedule.
1. Sunset Well
 - a. Site clearing and grubbing, including tree and stump removal
 - b. Install and maintain noise control barrier walls
 - c. Install the conductor casing and sanitary seal as specified
 - d. Mobilize drilling rig and support equipment
 - e. Drill by flooded reverse-rotary methods a maximum 17.5-inch diameter pilot borehole from the bottom of the conductor casing to 500 feet bgs
 - f. Perform Downhole Geophysical Surveys as specified
 - g. Install temporary backfill in the pilot borehole to the bottom of the conductor casing
 - h. Furnish well casing, screen(s), cellar and cap, centralizers, feed tube and filter pack; cost plus 10%
 - i. Ream the pilot borehole to diameters and depths specified in the final well design
 - j. Perform caliper survey
 - k. Material transportation and well installation
 - l. Furnish and install transition sands and annular seal
 - m. Install, maintain and operate pumped groundwater management system for total duration of the project
 - n. Perform mechanical and chemical development as specified
 - o. Demobilize drilling rig and support equipment
 - p. Mobilize and install pump, equipment, and appurtenances for pumping development as specified
 - q. Perform pump development by pumping and surging as specified.
 - r. Perform variable-rate pumping test
 - s. Perform constant-rate discharge test
 - t. Collect and analyze water quality sample as specified
 - u. Conduct a flow velocity (spinner-log) survey
 - v. Remove and demobilize the test pump. Demobilize the pumped groundwater management system.
 - w. Conduct well plumbness testing by gyroscopic methods
 - x. Perform a color video camera survey
 - y. Complete final disinfection and capping
 - z. Final Demobilization & Site Restoration
 2. Tanglewood Well
 - a. Site clearing and grubbing, including tree and stump removal

- b. Destruction of long-screened test well.
- c. Install and maintain noise control barrier walls
- d. Install the conductor casing and sanitary seal as specified
- e. Mobilize drilling rig and support equipment
- f. Drill by flooded reverse-rotary methods a maximum 17.5-inch diameter pilot borehole from the bottom of the conductor casing to 500 feet bgs
- g. Perform Downhole Geophysical Surveys as specified
- h. Install temporary backfill in the pilot borehole to the bottom of the conductor casing
- i. Furnish well casing, screen(s), cellar and cap, centralizers, feed tube and filter pack; cost plus 10%
- j. Ream the pilot borehole to diameters and depths specified in the final well design
- k. Perform caliper survey
- l. Material transportation and well installation
- m. Furnish and install transition sands and annular seal
- n. Install, maintain and operate pumped groundwater management system for total duration of the project
- o. Perform mechanical and chemical development as specified
- p. Demobilize drilling rig and support equipment
- q. Mobilize and install pump, equipment, and appurtenances for pumping development as specified
- r. Perform pump development by pumping and surging as specified.
- s. Perform variable-rate pumping test
- t. Perform constant-rate discharge test
- u. Collect and analyze water quality sample as specified
- v. Conduct a flow velocity (spinner-log) survey
- w. Remove and demobilize the test pump. Demobilize the pumped groundwater management system.
- x. Conduct well plumbness testing by gyroscopic methods
- y. Perform a color video camera survey
- z. Complete final disinfection and capping
- aa. Final Demobilization & Site Restoration

- B. The work shall be subject to the following scheduling constraints:
 - 1. The Contractor shall not proceed from borehole drilling to casing and screen installation until the District has reviewed and accepted downhole geophysical and lithologic logs and provided a final, stamped design to the Contractor.
 - 2. Mechanical and chemical well development shall be completed to the satisfaction of the District prior to initiation of any pumping test activities, and shall be demonstrated by stabilized field parameters as defined in the specifications or approved work plan.
 - 3. All discharges shall be conducted in accordance with license agreements and permits from relevant agencies.

- C. The Contractor shall be aware that there may be change orders involved with this Work. The Engineer has made every reasonable attempt to determine the extent and location of all existing facilities within the project area. However, the inexact nature of existing knowledge and as-built plans may require change orders to reflect changed conditions. All change orders shall be handled using the procedures contained in the General Conditions of the Contract Documents.

2.07 CONTRACTOR'S MEANS AND METHODS

- A. Contractor is solely responsible for the means and methods utilized to perform the Work. In no case shall the Contractor's means and methods deviate from commonly used industry standards.

2.08 CLEAN-UP

- A. Throughout the period of construction the Contractor shall keep the Work site free and clean of all rubbish and debris, and shall promptly remove from the site, or from property adjacent to the site of the Work or from public access roads, all unused and rejected materials, surplus earth, concrete, plaster, and debris, excepting select material which may be required for refilling or grading. The Contractor shall assure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish from the Work.
- B. The Contractor shall provide containers for collection and disposal of waste materials, debris, and rubbish.
- C. If applicable, remove concrete, concrete wash, stucco splatter, gunite overspray, and all other waste and debris prior to final grading and landscaping.

2.09 SYSTEM START-UP

- A. NOT USED

2.10 TRAINING

- A. NOT USED

END OF SECTION

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35SECTION 01 77 00

CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for completion of the work.
 - 2. The requirements of this Section are in addition to the requirements for closeout procedures and closeout submittals for individual materials and equipment stated elsewhere in these Contract Documents.

PART 2 CLOSEOUT PROCEDURES

2.01 PROJECT CLOSEOUT

- A. It is the intent of these Contract Documents that the Contractor deliver a complete and operable facility capable of performing its intended functions and ready for use.

2.02 PARTIAL ACCEPTANCE OF WORK

- A. After completion of certain portions of the Work, including all testing and other preparation necessary for operation of such portions by the District as specified in these Special Conditions, but prior to final completion of the Work, provisions may be made for partial acceptance in writing by the District for such portions only. The portions of the Work to be included for partial acceptance prior to final project completion will be noted at the pre-construction conference in accordance with Contractor's schedule, or by written notice to the Contractor at the earliest possible time.
- B. The guarantee period for such portions of the Work shall commence with the date of their acceptance for use by the District. However, full payment for such portions will not be made until final acceptance of the entire Work.
- C. Acceptance of any portion of the Work prior to acceptance of the whole shall not be construed as absolving the Contractor of responsibility for any item of construction or incidental work included in the Contract.
- D. Prior to such occupancy or use, the District will enter into a written agreement with the Contractor delineating the portions of the Work released to the District for occupancy or use and indicating what, if any, work remains to be done within the occupied or released area. If such prior use increases the cost of or delays the Work, the Contractor shall be entitled to such extra compensation, or extension of time, or both, as may be determined by the District after consideration of recommendations by the Engineer.

- E. Should any portion of the Work in use be damaged by such use, the District shall bear the expense for repairing such damage. However, if the portion being so used should reveal deficiencies of materials or workmanship, it shall be the Contractor's responsibility to replace the defective construction.

2.03 FINAL SITE CLEAN-UP

- A. Upon completion of work and before the final estimate is submitted, the Contractor shall at its own cost and expense remove from the vicinity of the work all plant, buildings, equipment, rubbish, unused work materials, concrete forms, temporary bridging and other like materials, belonging to Contractor or used under its his direction during the construction, but not required as part of or appurtenant to the completed work.
- B. The Contractor shall clean, sweep, wash, and polish all work and installed equipment including finishes. The Contractor shall remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from sight-exposed interior and exterior finished surfaces. The Contractor shall broom clean paved surfaces and rake clean landscaped areas.
- C. Where the construction has crossed yards or driveways, they shall be restored by the Contractor to the complete satisfaction of the Engineer, at the Contractor's expense.
- D. In the event of failure to do so, the same may be removed by the District after ten (10) calendar days notice to the Contractor, such removal to be at the expense of the Contractor.

2.04 WASTE DISPOSAL

- A. The Contractor shall dispose of surplus materials, waste products and debris and shall make necessary arrangements for such disposal.

2.05 TOUCH-UP AND REPAIR

- A. The Contractor shall touch up or repair finished surfaces on structures, or installations, that have been damaged prior to final acceptance. Surfaces on which such touch up or repair cannot be successfully accomplished shall be completely refinished or, in the case of hardware and similar small items, shall be replaced.

2.06 PROJECT RECORD DOCUMENTS

- A. In accordance with Section 01 31 00, Project Management and Coordination, the Contractor shall maintain at the site, available to the District and Engineer, one copy of the Contract Documents, Drawings, Shop Drawings, Change Orders and other modifications, in good order and marked to record all changes made during construction. These documents shall be delivered to the Engineer upon completion of the Work.

- B. In the case that portions of the Work are required by the Contract Documents to be designed by a licensed professional under agreement with the Contractor, as-built drawings for this portion of the Work shall be prepared by the licensed professional and included in the Project Record Documents.

2.07 FINAL ACCEPTANCE AND DATE OF COMPLETION

- A. Whenever the Contractor shall deem all work under this Contract to have been completed in accordance therewith, it shall so notify the Engineer in writing, and the Engineer shall promptly ascertain whether the work has been satisfactorily completed and, if not, shall advise the Contractor in detail and in writing of any incomplete or nonconforming work. When all the provisions of the Contract have been fully complied with to the satisfaction of the Engineer, the Engineer shall proceed with all reasonable diligence to determine accurately the total value of all work performed by the Contractor at the prices set forth in the Contract or fixed by Change Orders, and the total value of all extra work, all in accordance with the Contract. The Engineer will then certify to said final estimate and to the completion of the work, and will file copies thereof with the District and the Contractor. The date of completion shall be the date upon which the District makes its formal written acceptance of the work.

2.08 FINAL SUBMITTALS

- A. Prior to requesting final payment, the Contractor shall obtain and submit the following items to the Engineer for transmittal to the District: (1) written guarantees, where required; (2) Well completion and destruction reports; (3) completed project record documents; (4) releases from all parties who are entitled to claims against the Project, property or the Work in a form required by law.

2.09 FINAL PAYMENT

- A. Within ten (10) days after the date of completion, and including the receipt of Final Release, the District will file in the Office of the County Recorder, a Notice of Completion of the work herein agreed to be done by the Contractor. On the expiration of thirty-five (35) days after the recordation of such Notice of Completion, the difference between said final estimate and all payments theretofore made to the Contractor shall be due and payable to the Contractor, subject to any requirements concerning the furnishings of a maintenance bond, and excepting only such sum or sums as may be withheld or deducted in accordance with the provisions of the Contract Documents or as required by law. All prior certifications upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

2.10 FINAL RELEASE

- A. Final payment to the Contractor, in accordance with the final estimate, is contingent upon the Contractor furnishing the District with a signed written

release of all claims against the District arising by virtue of the Contract. This will be accomplished by execution of the CLOSEOUT AGREEMENT AND RELEASE OF CLAIMS -attached. Disputed Contract claims in stated amounts may be specifically excluded by the Contractor from the CLOSEOUT AGREEMENT AND RELEASE OF CLAIMS.

2.11 RIGHT TO WITHHOLD PAYMENTS

- A. In addition to all other rights and remedies of the District hereunder and by virtue of the law, the District may withhold or nullify the whole or any part of final payment for reasons described in Section 00 72 00, General Conditions.

2.12 CONTRACTOR'S CONTINUING OBLIGATION

- A. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by Engineer, nor the issuance of a certificate of Substantial Completion, nor any payment by District to Contractor under the Contract Documents, nor any use or occupancy of the Work or any part thereof by District, nor any act of acceptance by District nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a Notice of Acceptability by Engineer, nor any correction of defective Work by District will constitute an acceptance of Work not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents.

2.13 WAIVER OF INTEREST

- A. The District shall have no obligation to pay and the Contractor hereby waives the right to recover interest with regard to monies which the District is required to withhold by reason of judgment, order, statute, or judicial process.

2.14 SATISFACTION OF CLAIMS AND LIENS

- A. Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the District, a complete release of all liens and claims arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and material for which a lien or claim could be filed; but the Contractor may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Engineer, to indemnify the District against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the District all monies that the latter may be compelled to pay in discharging such a lien, or claim, including all costs and reasonable attorney's fees.
- B. Prior to final payment by the District, the Contractor shall submit a final waiver of lien for the Contractor's work, in the forms prescribed by California

Civil Code §8136, together with releases of lien from any subcontractor or supplier.

2.15 DISBURSEMENT OF RETENTION PROCEEDS

- A. In accordance with Section 7107 of the Public Contracts Code with respect to all contracts entered into on or after January 1, 1993 relating to the construction of any public work of improvement the following shall apply.
- B. The retention proceeds withheld from any payment by the District from the original Contractor, or by the original Contractor from any Subcontractor, shall be subject to this paragraph.
 - 1. Within sixty (60) days after the date of completion of the work, the retention withheld by the District shall be released.
 - 2. In the event of a dispute between the District and the original Contractor, the District may withhold from the final payment an amount not to exceed one hundred fifty percent (150%) of the disputed amount.
- C. Subject to subsection D, within seven (7) days from the time that all or any portion of the retention proceeds are received by the original Contractor, the original Contractor shall pay each of its subcontractors from whom retention has been withheld, each subcontractor's share of the retention received. However, if a retention payment received by the original Contractor is specifically designated for a particular subcontractor, payment of the retention shall be made to the designated subcontractor, if the payment is consistent with the terms of the subcontract.
- D. The original Contractor may withhold from a subcontractor its portion of the retention proceeds if a bona fide dispute exists between the subcontractor and the original Contractor. The amount withheld from the retention payment shall not exceed one hundred fifty percent (150%) of the estimated value of the disputed amount.
- E. In the event that retention payments are not made within the time periods required by this Part, the District or original Contractor withholding the unpaid amount shall be subject to a charge of two percent (2%) per month on the improperly withheld amount, in lieu of any interest otherwise due. Additionally, in any action for the collection of funds wrongfully withheld, the prevailing party shall be entitled to attorneys' fees and costs.
- F. Any attempted waiver of the provisions of Section 7107 of the California Public Contract Code shall be void as against the public policy of this state.

2.16 REUSE OF DOCUMENTS

- A. Neither Contractor nor any Subcontractor or Supplier or other person or entity performing or furnishing any of the Work under a direct or indirect contract with District shall have or acquire any title to or ownership rights in any of the Drawings, Plans and Specifications or other documents (or any copies of such documents) prepared by or bearing the seal of Engineer, and they shall not reuse any of such documents on extensions of the Project or

any other project without written consent of District and Engineer and specific written verification or adaptation by Engineer.

2.17 RETENTION OF RECORDS

- A. In accordance with Government Code §8546.7, records of both the District and the Contractor shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment. Contractor shall make available to the District any of the Contractor's other documents related to the Project immediately upon request of the District. In addition to the State Auditor rights above, the District shall have the right to examine and audit all the books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at not additional cost to the District, for a period of four (4) years after final payment.

END OF SECTION

CLOSEOUT AGREEMENT AND RELEASE OF CLAIMS

THIS AGREEMENT AND RELEASE OF CLAIMS is made in South Lake Tahoe, California, this day of _____, _____, by and between South Tahoe Public Utility DISTRICT, hereinafter referred to as "DISTRICT", and _____, hereinafter referred to as "CONTRACTOR".

KNOW ALL PERSONS BY THESE PRESENTS:

1. That the undersigned, as the authorized representative of CONTRACTOR, for and in consideration of _____ (\$ _____), contract amount, and the sum of _____ (\$ _____) for said Contract Change Orders Nos. 1 through ____, receipt of which is hereby acknowledged, has submitted waivers from all subcontractors and suppliers in the form required by Civil Code §8132 - 8138, and does hereby and for each of its successors, assigns and partners, release acquit and forever discharge the SOUTH TAHOE PUBLIC UTILITY DISTRICT OF EL DORADO COUNTY, CALIFORNIA, and each of its successors, assigns, officers, agents, servants, and employees, from any and all rights, claims, demands, debts, obligations, liabilities, actions, damages, costs, expenses and other claims whatsoever, which might have been asserted against DISTRICT by reason of any matter or thing which was the subject matter of or basis for:
 - A. The performance of all terms and conditions of that certain agreement dated _____ for Purchase Order No. _____ DISTRICT project described as **SUNSET AND TANGLEWOOD WELL PROJECT**.
 - B. Change Orders Nos. 1 through __ as approved by the parties, pertaining to Purchase Order No. _____ and shown in Payment Request No. _____, dated _____.

2. That the undersigned, as the authorized representative of DISTRICT, for and in consideration of the CONTRACTOR's completion of Purchase Order No. _____ does hereby and for each of its successors, and assigns, releases, acquits and forever discharge _____ and each of its successors, assigns, officers, agents, servants, and employees, and sureties from any and all rights, claims, demands, debts, obligations, liability, actions, costs, expenses whatsoever which might have been asserted against CONTRACTOR, except for all rights accruing to the DISTRICT arising out of (1) patent and latent construction defects as codified by California Code of Civil Procedure Sections 337.10 and 337.15, (2) third party claims brought against the DISTRICT, and (3) warranty claims, which rights are specifically reserved and not released, provided by reason of any matter or thing which was the subject matter of or basis for:
 - A. The performance of all terms and conditions of that certain agreement dated _____ for Purchase Order No. _____ DISTRICT project described as **SUNSET AND TANGLEWOOD WELL PROJECT**.

- B. Change Orders Nos. 1 through _____ as approved by the parties, pertaining to Purchase Order No. _____ and shown in Payment Request No. dated _____.
3. Nothing contained herein shall waive or alter the rights, privileges, and powers of the DISTRICT or the duties, liabilities and obligations of the CONTRACTOR and its surety in respect to any portions of the Specifications for Purchase Order No. _____, including but not limited to indemnity and warranty obligations.
 4. The DISTRICT has received no claims from the CONTRACTOR.
 5. The DISTRICT filed and recorded a NOTICE OF COMPLETION with the El Dorado County Recorder on _____, 2021 as such the statutory lien period expired on _____, 2021.
 6.

The presently retained amount is	\$
Original Contract amount	\$
Total Change Order Amount	\$
Other Encumbrances	\$
Less: Amount Previously Paid (Request Nos. 1 through ____)	\$
Retainage	\$
BALANCE:	\$

The retainage will be released to the CONTRACTOR within sixty (60) calendar days after date of recording a NOTICE OF COMPLETION by El Dorado County Recorder or when all stop notices and other encumbrances have been released, whichever last occurs. Release pursuant to this agreement shall not apply to CONTRACTOR's rights to the presently retained amount until such time as such amounts are received in full by CONTRACTOR.

7. CONTRACTOR and DISTRICT agree that the total adjusted contract price and time of performance for Purchase Order No. after the execution of change orders shall be as follows:

Original Contract Price	\$
Original Calendar Days	
Total Adjusted Price	\$
Total Adjusted Calendar Days	

8. It is understood and agreed by the undersigneds that the facts with respect to which the foregoing Release is given may hereafter turn out to be other than or different from the facts in that connection now known to be or believed by said undersigneds to be true, and the undersigneds hereto expressly assume the risk of the facts turning out to be different than they now so appear, and agree that the foregoing Release shall be, in all respects, effective and not subject to termination or recession by any such difference in facts and undersigneds hereby

expressly waive any and all rights the undersigneds have or may have under California Civil Code Section 1542, which provides as follows:

"A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the Release which if known by him must have materially affected his settlement with the debtor."

9. The releases made by the CONTRACTOR and the DISTRICT herein are not to be construed as an admission or admissions of liability on the part of either party and that the parties deny liability hereof. Unless arising out of a right expressly reserved herein, the undersigneds agree that they will forever refrain and forebear from commencing, instituting or prosecuting any lawsuit, action or other proceeding against the other party based on, arising out of, or in any way connected with the subject matter of this Release.
10. The CONTRACTOR hereby releases the DISTRICT from all claims, including those of its Subcontractors for all delay and impact costs, if any.
11. The CONTRACTOR represents and warrants to the DISTRICT that the CONTRACTOR has not heretofore assigned or transferred or purported to assign or transfer to any person, firm, corporation, association or entity any of the rights, claims, warranties, demands, debts, obligations, liabilities, actions, damages, costs, expenses and other claims whatsoever and the CONTRACTOR agrees to indemnify and hold harmless the DISTRICT against, without limitation, any and all rights, claims, warranties, demands, debts, obligations, liabilities, actions, damages, costs, expenses and other claims, including attorney's fees, arising out of or connected with any such assignment or transfer or purported assignment or transfer.
12. The undersigned acknowledge that they have been represented by counsel of their own choice in connection with the preparation and execution of this Closeout Agreement and Release of Claims. The undersigned acknowledge and represent that they understand and voluntarily consent and agree to each and every provision contained herein.
13. The undersigned further declare and represent that no promise, inducement or agreement, not herein expressed, have been made to the undersigned and that this Release contains the entire agreement among the parties hereto and that the terms of the Release are contractual and not a mere recital.
14. The persons executing this Closeout Agreement and Release of Claims represent and warrant to the other party that the execution and performance of the terms of this Release have been duly authorized by all requisite corporate, partnership, individual, or other entity requirements and that said persons have the right, power, legal capacity and authority to execute and enter in the Closeout Agreement and Release of Claims.

PAUL HUGHES, GENERAL MANAGER

DATED

ATTEST: MELONIE GUTTRY, CLERK OF BOARD

DATED

CONTRACTOR

DATED

April 2026

TECHNICAL SPECIFICATIONS

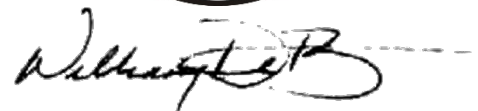
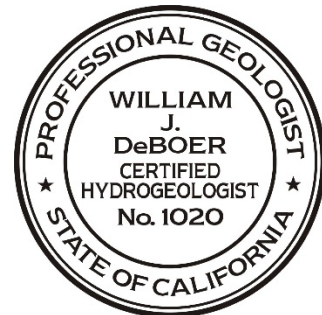
Construction, Development, and Testing of Sunset Well No. 2 and Tanglewood Well and Destruction of Long-Screen Test Well

Prepared for:

South Tahoe Public Utility District
1275 Meadow Crest Drive
South Lake Tahoe, California 96150

Prepared by:

Montgomery & Associates
1547A Third Avenue
Walnut Creek, California 94597



A handwritten signature in black ink, appearing to read "William J. DeBoer", written over a horizontal dashed line.

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Appendices

Appendix A. National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges to Waters of the United States (Order WQ 2014-0194-DWQ, NPDES No. CAG140001)
Appendix B. Sunset Well No. 1 Well Completion Report and Geophysical Logs
Appendix C. Tanglewood Long Screen Test Well Schematic and Geophysical Logs
Appendix D. Best Management Practices Plans and Standard Details

1 GENERAL SPECIFICATIONS

These technical specifications describe the minimum standards for completion and acceptance of the work described herein and serve as the basis for bidding. The term CONTRACTOR is used herein to refer to the drilling contractor and their subcontractors and subconsultants; the term DISTRICT is used to refer to South Tahoe Public Utility District, their designated representative, or consultant. The following technical specifications establish minimum requirements to be met.

In general, site activities shall progress chronologically in the order they are presented in these technical specifications. Unless otherwise approved by the DISTRICT, CONTRACTOR shall complete installation and development of Sunset Well No. 2 prior to completion of Tanglewood Well.

1.1 Summary of Work

The work to be conducted by CONTRACTOR includes the furnishing of all labor, materials, tools, supplies, equipment, transportation, appurtenances, and services—unless specifically excluded herein—necessary to implement the project.

The scope of work includes the following:

- Installation, development, and testing of Sunset Well No. 2
- Destruction of the long-screen test well (located at Tanglewood site)
- Installation, development, and testing of Tanglewood Well

The following figures are provided in support of these technical specifications:

- Figure 1. Site Location Map
- Figure 2. Sunset Facility Basemap
- Figure 3. Sunset Well Discharge Details
- Figure 4. Sunset Well Preliminary Design Schematic
- Figure 5. Tanglewood Facility Basemap
- Figure 6. Tanglewood Well Discharge Details
- Figure 7. Tanglewood Well Preliminary Design Schematic

Figures appear at the end of this document.

The Sunset Well No. 2 and Tanglewood Well shall be drilled by the flooded reverse-rotary drilling method with drilling equipment of sufficient capacity to drill the hole required by these specifications. Drilling equipment including, but not limited to, mast and drawworks, air

compressors, drilling fluid pumps, drill pipe, etc., must be of requisite size, sufficient capacity, and suitable condition to drill and set casing to the anticipated depths.

DISTRICT will provide CONTRACTOR a final well design for each well within 48 hours of receiving pilot borehole geophysical surveys and sieve analysis results from CONTRACTOR.

1.2 Schedule and Working Hours

To the extent feasible, construction activities shall be limited to daytime hours between 0800 and 1830, Monday through Friday. However, a 24-hour per day, 7-day per week work schedule will be required during certain aspects of the well installation process. Table 1 outlines the critical components of the well installation and testing process and the anticipated work schedule.

Table 1. Anticipated Work Schedule

Activity	Anticipated Schedule		
	Monday through Friday Only ^a	24-hour Work Required	Weekends Required or Possible
Site Preparation and Noise Control Barrier Walls	X		
Conductor Casing Installation	X		
Mobilization and Demobilization	X		
Pilot Borehole Drilling and Geophysics		X	X
Reaming and Well Installation		X	X
Initial Mechanical Development		X	X
Final Mechanical and Chemical Development	X		
Pumping Development	X		
Step-Rate Discharge Test	X		
Constant-Rate Discharge Test	X	X	
Video Inspection and Alignment	X		
Disinfection	X		

Notes:

^aExcludes District holidays unless specifically allowed

Some portions of the above schedule may be modified based on project and community needs. However, pilot borehole drilling, reaming, well installation, mechanical and chemical development, and constant-rate discharge testing shall be completed on a 24-hour per day schedule for the integrity of the well or test. Activities that do not necessitate 24-hour operation may still be completed on a 24-hour basis and include the weekends with prior approval from the DISTRICT.

1.3 Performance Requirements

These performance requirements are intended to objectively measure the suitability of Sunset Well No. 2 and Tanglewood Well for their intended purpose. CONTRACTOR shall be solely responsible for meeting the performance requirements for plumbness (Sections 2.23 and Section 3.23), video survey (Sections 2.24 and Section 3.24), and disinfection (Sections 2.25 and Section 3.25).

If either well does not meet these performance requirements CONTRACTOR shall, at their own expense, do all work necessary to cause the well to meet the performance requirements. If the well does not meet performance requirements after such efforts, DISTRICT may reject the well. If rejected, CONTRACTOR will be responsible for appropriate destruction of the rejected well and installation of a new well at their sole expense.

1.4 Performance Objectives

DISTRICT endeavors to achieve the following outcomes for Sunset Well No. 2 and Tanglewood Well: CONTRACTOR is specifically not responsible for meeting these outcomes.

Sand Content: Sand content of pumped water shall be measured at the design capacity of the well unless otherwise determined by DISTRICT, and shall be measured with a centrifugal (“Rossum”) sand sampler in accordance with ANSI/AWWA A100-20. The target average sand content of water pumped over any five (5)-minute period is equal to or less than one (1) part per million (ppm).

Turbidity: Turbidity of pumped water shall be measured at design capacity of the well unless otherwise determined by DISTRICT. The target turbidity of pumped water is equal to or less than one (1) NTU.

Yield: The target sustainable design capacity of each well is 2,000 gallons per minute (gpm).

While not responsible for meeting these outcomes, DISTRICT intends to work collaboratively with CONTRACTOR to achieve these goals. CONTRACTOR is encouraged to discuss any concerns regarding the final well design or other aspects of the project if they are concerned with achieving these desired outcomes. Similarly, CONTRACTOR is encouraged to support DISTRICT with additional work to achieve these goals. Any additional work and cost impacts shall be coordinated with and approved by DISTRICT in writing prior to being performed, as described in 00 72 00 2.10.

1.5 Contractor Responsibilities

CONTRACTOR shall provide a single Project Manager to serve as the point of contact and CONTRACTOR representative for the duration of the project. The Project Manager shall be identified upon receiving notice to proceed, attend all recurring and task-specific project meetings, submit project submittals, and manage CONTRACTOR invoicing.

CONTRACTOR shall submit applications, pay requisite fees, and obtain all appropriate permits required to complete the scope of work that are not obtained by DISTRICT. CONTRACTOR shall comply with the terms and conditions of all permits obtained by CONTRACTOR and DISTRICT.

CONTRACTOR shall confine drilling and construction operations to DISTRICT's property.

CONTRACTOR shall take all necessary precautions to preserve the well site(s), as nearly as practical, to present condition. CONTRACTOR shall be responsible for replacing any damaged property. At all times during the progress of this project, CONTRACTOR is responsible for keeping the site free of litter and debris.

CONTRACTOR is fully responsible for maintaining security of all work areas at all times. CONTRACTOR shall take such measures as are necessary to prevent access of unauthorized persons or animals onto the site. Such measures shall include fencing, posting of signs, temporary closure of excavations, or other means, including hiring private security as needed, and shall be maintained throughout the course of work. All barriers shall be in accordance with applicable site safety standards.

CONTRACTOR shall contain and dispose of construction-related trash, maintain an organized and safe work site, provide adequate sanitation facilities, and ensure vehicles leaving unpaved sites do not track mud onto public rights-of-way.

CONTRACTOR shall provide all necessary equipment, tools, and appurtenances for the timely completion of the work. CONTRACTOR's equipment shall be in complete and safe operating condition and shall be appropriately maintained and operated during the project.

CONTRACTOR shall be solely responsible for the condition of their equipment and shall maintain an inventory of necessary spare parts for the timely repair of equipment in the event of a failure or breakdown. No payment shall be made for standby time or equipment rental caused by a breakdown or failure of CONTRACTOR's equipment.

CONTRACTOR shall maintain copies of all project permits at the construction site.

CONTRACTOR shall at all times maintain the borehole in a sanitary manner and prevent potential entry of pests or contaminants.

1.6 Submittals

A list of required submittals is included with each task. In addition, CONTRACTOR shall be responsible for receiving acceptance of all required equipment and information referenced elsewhere in these technical specifications. All submittals required from CONTRACTOR shall be considered part of the scope of work. Submittals shall be reviewed and comments provided by the DISTRICT within 5 business days of receipt. All submittals are subject to acceptance by the DISTRICT; submittal requirements shall be satisfied upon acceptance.

All submittals shall be submitted using Procore as described in 01 32 20 as 1 complete PDF per submittal. Prior to issuance of the Notice to Proceed, DISTRICT will establish a list of required submittals in Procore. CONTRACTOR shall initiate submittals for any reports, plans, or materials not explicitly identified in the Contract Documents or in Procore.

1.7 Sanitation

CONTRACTOR shall provide and maintain adequate sanitation facilities appropriate to the number of personnel working on the site as described in 10 50 00 3.06.

1.8 Site Preparation, Base Rock, and Track-Out

CONTRACTOR shall prepare the site by clearing and grubbing the work area as necessary to provide a stable, uniform surface suitable for placement of base rock. CONTRACTOR shall furnish and place $\frac{3}{4}$ -inch crushed rock as necessary to provide a firm, stable working surface for subsequent construction activities.

CONTRACTOR shall remove trackable mud, cuttings, sand, grout, and other materials from undercarriages, tires, and other surfaces of equipment prior to moving equipment on or across public roads and pathways. CONTRACTOR shall immediately clean public rights of way.

1.9 Construction Water and Power

Water used for drilling purposes will be sourced from a DISTRICT fire hydrant as identified on Figure 2 (Sunset) and Figure 5 (Tanglewood). The DISTRICT will issue a hydrant meter and backflow protection device to the CONTRACTOR for its use. The CONTRACTOR will be required to install a high-line and appropriate traffic-rate road crossings (as appropriate). The high-line piping will be required to maintain pedestrian and vehicular safety and comply with applicable encroachment permit requirements.

CONTRACTOR shall provide all necessary power for completion of the work scope through temporary means such as generators.

1.10 Drilling Fluids

Unless otherwise specified within this document the CONTRACTOR shall adhere to the following stipulations and procedures regarding drilling fluid make up, testing and disposal.

DISTRICT's potable water shall be used to mix a bentonite-based drilling fluid designed to adequately maintain bore wall, minimize invasion of drilling fluid into the formation, and permit recovery of representative samples of cuttings. Soda ash may be used to increase pH of the water used to mix drilling fluids. The drilling fluid shall possess such characteristics that it can be readily removed from the borehole during development of the well. **Drilling with clear water alone shall not be permitted.**

Drilling fluid additives must be NSF/ANSI Standard 60 (Drinking Water Treatment Chemicals) certified, must be standard materials used in the water well drilling industry, and must be used in accordance with the manufacturer's recommendations. The methods and materials that CONTRACTOR would use in the event of borehole stability problems and/or loss of circulation must be approved by DISTRICT and on site at the start of drilling. In no case shall materials be added to the drilling fluid system or drill hole without prior approval of such materials by DISTRICT. Addition of unapproved materials to the drill hole or fluid system may be cause for rejection of the well.

Excavation of pits on site for drilling fluids are prohibited, and surface containment (i.e., tanks and/or bins) of drilling fluids are required.

It is the responsibility of CONTRACTOR to ensure that sizing and configuration of the fluid system is adequate to meet the drilling fluid properties outlined below. In the event CONTRACTOR cannot attain these properties, drilling shall be halted and the mud replaced at no cost to DISTRICT.

Proper control of the drilling fluid must remain in compliance with these specifications, and CONTRACTOR may be required to retain or employ an experienced, qualified Drilling Fluid (Mud) Engineer to supervise and maintain drilling fluid characteristics at no cost to DISTRICT. If at any time during borehole drilling, drilling fluid properties are not within the ranges specified below, CONTRACTOR shall cease borehole advancement and shall circulate and condition the drilling fluid until it falls within the specified ranges.

DISTRICT may measure drilling fluid properties periodically during borehole drilling. These measurements are intended to independently verify and check CONTRACTOR's measurements, and do not relieve CONTRACTOR of the responsibility to measure drilling fluid properties.

CONTRACTOR must provide at the drilling site at all times Standard API measurement devices in proper working order, along with qualified personnel to operate them, to determine the following drilling fluid properties:

- Drilling fluid weight
- Drilling fluid viscosity
- Drilling fluid sand content
- 30-minute water loss/filter cake

CONTRACTOR must additionally include appropriate devices for evaluating the make-up water suitability, including but not limited to:

- pH test strips or other reliable pH monitoring device
- Meter or test strips for checking water hardness

The properties of the drilling fluid leaving the circulation tank must be recorded by CONTRACTOR at a minimum of 4-hour intervals and whenever conditions appear to have changed or problems arise. The drilling fluid shall be within the following ranges unless otherwise approved by DISTRICT:

- Weight – maximum of 9.6 pounds per gallon
- Marsh Funnel Viscosity – minimum of 28 and maximum of 38 seconds per quart
- Sand Content – maximum of 1% by volume
- Water Loss and Filter Cake – maximum 15 cubic centimeters (cc) with maximum thickness of 2/32 inches

CONTRACTOR shall conduct all tests and shall maintain a log showing the drilling fluid properties set forth herein including date, time, depth, viscosity, drilling fluid weight, sand content, water loss, and filter cake thickness and any other pertinent comments.

In addition, CONTRACTOR shall keep an accurate record of the types and quantities of all drilling fluid additives, including time used and mixture; Marsh funnel viscosity before and after use; and the rate, times, and duration of makeup water injection. Rate of makeup water injection shall also be recorded when drilling fluids are not being circulated so that an evaluation can be made of the ability of the borehole to accept water.

Drill fluids will need to be contained in temporary storage tanks, removed from the site, and disposed of in accordance with all applicable federal, state, and local regulations.

1.11 Dispose of Drilling Fluids, Cuttings, and Waste

CONTRACTOR is responsible for the containment, hauling, and legal disposal of drilling fluids, cuttings and any other waste generated. Analytical pre-profiling and manifest tracking of waste disposal will not be required for this project.

CONTRACTOR shall remove materials at the appropriate frequency so as to not impact the progression of site operations. As necessary, drill cuttings will be allowed to be stockpiled on the site to facilitate drying, but such stockpiles will require appropriate containment and erosion control as described in the BMP Plan. If the CONTRACTOR determines there is insufficient room on the site to stockpile drill cuttings, they must make plans to contain and remove them as they are generated.

CONTRACTOR is responsible for the containment and proper disposal of concrete washout materials and shall not wash out concrete trucks or pumps onto public streets or bare ground.

1.12 Discharge of Generated Groundwater

Development and testing groundwater will be diverted to nearby surface waters under the State Water Resource Control Board (SWRCB) Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges (Order WQ 2014-0194-DWQ, NPDES No. CAG140001), portions of which are included as Appendix A.

The full document can be accessed at:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0194_dwq.pdf

CONTRACTOR shall implement best management practices (BMPs) as required in the NPDES permit Section IV-A. These include at a minimum, the following:

- Preventing aquatic toxicity through dechlorination
- Preventing riparian erosion and hydromodification by implementing flow dissipation and erosion control measures
- Minimizing sediment discharge, turbidity, and color impacts by implementing sediment, turbidity, erosion, and color control measures
- Preventing the cause of or contribution to an exceedance of turbidity limits; and complying with the action level of 100 NTU or less in discharged water

CONTRACTOR shall compile and submit required NPDES reporting documentation to the DISTRICT (Section 1.13). CONTRACTOR shall comply with all requirements of the Basin Plan Prohibition Exemptions and California Tahoe Conservancy license agreements obtained by DISTRICT. In the event of inconsistencies or conflicts between any permits, licenses, or specifications, the most stringent shall apply.

CONTRACTOR will be permitted to use the DISTRICT's sanitary sewer system to discharge pumped groundwater which does not meet the requirements of the NPDES permit and/or Basin Plan Prohibition Exemption, under the following conditions: 1) Rate not to exceed 300 gpm at Sunset and 200 gpm at Tanglewood, subject to modification at the discretion of the DISTRICT based on local sewer flow; 2) Turbidity not to exceed 1,000 NTU; free chlorine content not to exceed 200 ppm; and 3) Percent Settleable Solids not to exceed 0.2% (2 mL/L). Sewer discharges will be allowable at the Sunset site into manhole PD11 (Figure 2), and at the Tanglewood site into manhole AT149 (Figure 5).

1.13 Records

CONTRACTOR shall collect the measurements and keep records described in this section, as well as any required measurements or records described elsewhere in these Technical Specifications, permits, or license agreements. All work conducted by CONTRACTOR to execute these Technical Specifications shall be recorded in the driller daily log and/or on approved forms. Requirements for field measurements and records include those listed below.

Driller's Daily Log: International Association of Drilling Contractors or American Petroleum Institute (API) standard daily logs, or similar, shall be maintained and used to record all site activities. Any hourly items shown in the Bid Schedule shall be clearly identified for quantity verification. The daily logs shall indicate personnel present; shifts worked; depths drilled, reamed, developed, or bailed; accurate depths, thicknesses, and nature of the strata penetrated; drilling rates; water levels; length of tremie pipe installed in well; volume and depth intervals cemented or sealed with bentonite; downtime due to equipment issues; and results obtained from any and all caliper surveys, borehole geophysical logs, etc.

Drilling Fluids and Make-up Water: CONTRACTOR shall obtain regular measurements of drilling fluid properties, which shall be monitored at a minimum frequency of every 4 circulation hours when drilling fluids are being circulated. All drilling fluid samples shall be obtained at the flow line where fluid enters and recirculates down the borehole. Records of drilling fluid properties shall be in accordance with the requirements in Section 2.5.4.

Borehole Assembly: The measured length of each section of the drill pipe assembly shall be recorded and correlated with the depth drilled below ground surface. The outside diameter and type of each bit, reamer, hole opener, sub, drill pipe, etc., shall be recorded. The outside diameter

of each bit, reamer, and hole opener must be measured on site and demonstrated to have an outside diameter within 5% of what is specified in the final well design prior to use, unless DISTRICT approves otherwise.

NPDES Documentation: Records of water discharge volume and quality in compliance with the NPDES permitting documentation requirements (Section 1.12).

Permit Documentation: All discharge records required in Basin Plan Prohibition Exemptions (Lahontan Regional Water Quality Control Board) and License Agreements (California Tahoe Conservancy).

Miscellaneous: Records shall include any notable event or activity including accidents, violations, visitors, weather conditions, etc.

CONTRACTOR shall maintain records on a regular basis and in a legible, professional format.

1.14 Spills, Leaks, and Releases

CONTRACTOR shall not cause the release of any hazardous or nuisance substances to the environment and shall use plastic sheeting or oil absorbent mats to protect the well site from spills of hydraulic oil, fuel, lubricants, or coolants from the drilling and support equipment. If a release occurs, CONTRACTOR shall contain and properly dispose of affected media and shall be responsible for all costs associated with remedial or corrective actions to mitigate the release. CONTRACTOR shall contact the relevant regulatory DISTRICT/agencies for appropriate reporting.

1.15 Foreign and Lost Material Downhole

The placement of any foreign material down the hole must be approved by DISTRICT. This includes, but is not limited to, all drilling materials and fluids.

CONTRACTOR shall be responsible for all consequences of material lost down the hole. Every attempt shall be made by CONTRACTOR to retrieve lost material downhole within a timeframe and to the satisfaction of DISTRICT. If the borehole becomes damaged as a result of this investigation in the opinion of DISTRICT, CONTRACTOR shall properly abandon the borehole in accordance with California Well Standards and drill another borehole adjacent to the abandoned borehole at no additional expense to DISTRICT.

1.16 Payment

Costs for this project shall be defined by the completed and accepted Bid Schedule. The completed Bid Schedule shall be submitted by CONTRACTOR according to Section 00 41 00 of the Contract Documents.

Payment will be made according to the line items in the Bid Schedule based on the actual unit quantities expended as determined by DISTRICT. Progress payments shall be made as described in Section 01 20 00 of the Contract Documents.

2 SUNSET WELL NO. 2 INSTALLATION, DEVELOPMENT, AND TESTING

The District is implementing this scope to replace aging infrastructure and enhance groundwater production from the Sunset Well Site. The current facility includes the original Sunset Well (herein referred to as Sunset Well No. 1) and associated infrastructure, which was constructed in 1990. The State of California Well Completion Report and borehole geophysical logs are included as Appendix B for reference. Sunset Well No. 1 shall be retained but will not be in service during completion of this scope.

The site is a privately owned residential parcel located at 885 Sunset Drive in South Lake Tahoe, on which District has a 40-foot by 80-foot permanent easement in the southwest corner.

The following figures are applicable to this section:

- Figure 2. Sunset Facility Basemap
- Figure 3. Sunset Well Discharge Details
- Figure 4. Sunset Well Preliminary Design Schematic

In general, site activities shall progress chronologically in the order they are presented. Deviations from this order require prior DISTRICT approval.

If CONTRACTOR determines the project site will not provide adequate space for material staging, CONTRACTOR shall arrange for a secure temporary staging area within 25 miles of the site where well materials can be viewed by DISTRICT.

The following submittals shall be approved by DISTRICT prior to any site activities:

- Project baseline schedule (updates due monthly)
- Project 3-week look-ahead schedule (updates due weekly at the progress meeting)
- Site Plan including a scale drawing with proposed site layout
- Applicable permits, including but not limited to Underground Service Alert ticket(s), tree removal permit(s) and road obstruction permit(s) (if applicable)

2.1 Tree Removal

CONTRACTOR shall furnish all materials and equipment, and perform all labor required to fully remove 1 38-inch diameter pine tree from the project site.

2.1.1 Submittals

- The name and qualifications of the firm proposed for tree removal activities.
- Tree removal permit from the Tahoe Regional Planning Agency (TRPA)

2.1.2 Execution

CONTRACTOR shall fully remove and dispose of 1 site tree, including the stump, as indicated on Figure 2. The tree has been visibly marked for identification. Removal, pruning or damage of other site trees will not be permitted without approval from DISTRICT.

2.2 Noise Control Barrier Walls

CONTRACTOR shall install and maintain engineered noise control barrier walls on all sides of the well site property, unless otherwise approved by DISTRICT. The barriers shall be erected to a minimum height of 24 feet, installed prior to mobilization of drilling equipment and remain in place until the completion of well disinfection and capping. The layout and total linear footage of the sound barriers is at the discretion of CONTRACTOR to accommodate their workspace and safety needs.

CONTRACTOR shall incorporate all costs for designing, installing, and maintaining walls for the entire period required, and for their removal upon project completion. DISTRICT is not responsible for additional costs incurred by CONTRACTOR (i.e., rental of noise control barrier) which result from project delays, including those caused by material procurement lead times, weather, permitting, or similar. Applicable permits are the responsibility of CONTRACTOR.

General best practice noise suppression efforts shall be implemented at all times to minimize disturbance to nearby residents, workers, and the general public. The work site shall be managed and arranged to minimize noise to the extent practicable, including use of mufflers, shielding, and by placing noise-producing equipment away from sensitive receptors, as feasible.

2.2.1 Submittals

The following submittal is applicable to this section:

- Site specific noise mitigation workplan describing the type and layout of noise control barrier walls, noise control barrier wall product data including STC rating and design drawings, and structural analysis calculations developed in specific accordance with the applicable building and engineering codes stamped by a Structural Engineer licensed in the State of California.
- Concrete weight tickets for noise control barrier post holes

2.2.2 Materials

Noise control barrier walls shall be rigid panels or DISTRICT-approved equivalent with an STC rating of 32 or greater as determined in accordance with ASTM E-413. The design shall preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion. Use of non-rigid curtains or blankets is specifically disallowed except as needed for site entrance(s).

2.2.3 Execution

CONTRACTOR shall install sufficient linear footage to enclose the work area they deem necessary for completion of the project. The entrance(s) to the enclosed area shall be designed to fully close while achieving intended noise reduction. The entrance shall be fully closed when noisemaking is underway.

The length and location of noise control barrier walls shall be adequate to assure proper acoustic performance.

CONTRACTOR shall backfill all foundation boreholes following the removal of the noise control barrier walls with 2-sack sand-cement slurry to ground and restore surface conditions. Boreholes are not required to be re-drilled to their original depth prior to backfill. Backfill shall include that borehole which remains after the posts are removed.

2.3 Conductor Casing and Sanitary Seal

CONTRACTOR shall furnish all materials and equipment, and perform all labor required to install a permanent conductor casing and place the sanitary seal.

2.3.1 Submittals

The following submittals are applicable to this section:

- Mill Certificate for Conductor Casing
- Type and content of proposed sealing material
- Concrete weight ticket(s) upon delivery to the job site
- Valid welder certifications appropriate to the standards and positions required
- Formation samples every 5 feet (bagged)

2.3.2 Materials

Spiral welded mild steel casing material composed of new material conforming to ASTM A-778 specifications. The conductor casing shall have a minimum outside diameter of 40 inches, wall thickness of not less than 0.50 inch and be installed to a depth not less than 55 feet below ground surface (bgs). Unless otherwise approved by DISTRICT, and except for end pieces, all sections of the casing shall be a minimum length of 20 feet.

Sealing material shall consist of batch plant mixed 10.3 sack sand cement grout consisting of a mixture of ASTM C150 Type II cement, sand, and water. Accelerators, retardants, bentonite, and other additives shall not be used without prior approval by DISTRICT. Fly ash shall not be included in the sand cement grout.

2.3.3 Execution

CONTRACTOR shall drill a minimum 50-inch diameter borehole to a minimum depth of 55 feet bgs. The borehole shall be sufficiently plumb and of sufficient diameter that the conductor casing can be installed plumb and with a minimum annular thickness of 3 inches around the entire circumference of the conductor casing.

CONTRACTOR shall collect and preserve 1 set of drill cutting samples at 5-foot intervals during the drilling of the conductor borehole. Samples shall be placed in 1-gallon, heavy weight, resealable plastic bags and labeled with the sample depth interval. Collected samples shall be stored in a manner to prevent breakage or loss.

CONTRACTOR shall be solely responsible for determining depth and diameter of surface seal required to ensure stability of the wellhead during drilling, to prevent upward or downward seepage of water or drilling fluids outside the surface casing, to prevent bypass of the surface seal by drilling fluids, and/or to prevent soil erosion beneath the drilling rig. CONTRACTOR shall be solely responsible for any damage caused by an insufficient or ineffective surface seal, or any additional work required to remedy any adverse condition created by an inadequate surface seal.

2.3.4 Placement

CONTRACTOR shall install the conductor casing plumb and centered in the conductor casing borehole.

Centering guides shall be no less than 2 inches wide, welded to the conductor casing and include a minimum of 2 sets of 4 guides (8 in total) equally spaced circumferentially around the casing.

Guides shall be composed of the same material as the casing to which they are affixed and placed 5 feet from the top and bottom of the conductor casing.

Sealing material shall be placed in the presence of DISTRICT and in compliance with permit requirements. CONTRACTOR shall notify DISTRICT a minimum of 48 hours in advance of planned sealing material placement.

Sealing material shall be placed using the tremie method from the bottom of the borehole and shall be completed in a manner that prevents freefall, bridging, or separation. Placement shall be completed in 1 continuous operation from the bottom of the borehole to ground surface.

Upon installation of the sealing material and unless approved otherwise by DISTRICT, CONTRACTOR shall not operate heavy equipment on the site for a minimum of 48 hours. The 48-hour curing period shall not be regarded as standby time.

Fluids displaced during placement of the conductor casing and sanitary seal operations shall be appropriately managed.

2.4 Drilling Rig Mobilization

CONTRACTOR shall mobilize and set up all material and equipment, and perform all labor required to perform the scope of work. Equipment needed for the first 30 days of work shall be on site at start of the work.

2.4.1 Submittals

- Description of the drilling and fluid system including the types of fluid to be used, weights, viscosities, sand and solids contents, water loss control, and the name of the drilling fluid supplier
- Name and qualifications of the on-call Drilling Fluid (Mud) Engineer

2.4.2 Execution

CONTRACTOR's drilling equipment, temporary facilities, and operations shall be within the construction limits of the site. CONTRACTOR shall set up work facilities in a neat and orderly manner within the designated area. All drill pipe must use threaded flush or upset tool joints, or equal, as approved by DISTRICT.

2.5 Pilot Borehole Drilling

CONTRACTOR shall furnish all material and equipment and perform all labor to drill a maximum 17.5-inch-diameter pilot borehole from the bottom of the conductor casing to a minimum depth of 500 feet bgs, unless otherwise directed by DISTRICT.

2.5.1 Submittals

The following submittal is applicable to this section:

- Formation samples every 5 feet (bagged)
- Sieve results of up to 8 formation samples, selected by DISTRICT

2.5.2 Execution

The pilot borehole shall be drilled using the flooded reverse-rotary method. Although a maximum diameter of 17.5 inches is specified, CONTRACTOR shall determine the appropriate borehole diameter based on their preference, provided it is of sufficient diameter to complete downhole geophysical surveys required (Section 2.6).

2.5.3 Formation Sampling

CONTRACTOR shall collect and preserve 1 set of drill cutting samples at 5-foot intervals during the drilling of the pilot borehole. Samples shall be placed in 1-gallon, heavy weight, re-sealable plastic bags and labeled with the sample depth interval. Collected samples shall be stored in a manner to prevent breakage or loss. The method of collection shall be approved by DISTRICT prior to collection. The sample collection system must allow for collection of representative lithology (e.g., sluice box). Samples shall not be collected off the shale shaker or using a mesh strainer without prior approval by DISTRICT.

2.5.4 Drilling Fluids

Drilling Fluids shall be consistent with the standards mentioned above in Section 1.10.

2.6 Pilot Borehole Geophysical Survey

CONTRACTOR shall furnish all material and equipment and perform all labor to complete a geophysical log of the pilot borehole. The geophysical log shall include measurements of the following: spontaneous potential, electrical resistivity (including single-point, 16-inch normal, 64-inch normal, and focused guard resistivity), natural gamma ray, and borehole deviation.

2.6.1 Submittals

The following submittal is applicable to this section:

- The name and qualifications of the firm proposed for completing geophysical surveys
- Two field hardcopies of the geophysical log. The geophysical log shall also be provided in a digital data format, both as PDF and data files. Geophysical logs shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

2.6.2 Execution

CONTRACTOR shall ensure that the pilot borehole is properly conditioned by circulating drilling fluids in preparation for geophysical logging and the pilot borehole is continually filled with fluid during logging operations.

Standby time will not be paid for additional cleaning and conditioning of the pilot borehole to enable logging operations to proceed.

If the logging probe fails to descend to the desired depth, CONTRACTOR, at their own expense, shall condition the pilot borehole to permit the logging probe to descend to the bottom of the hole.

2.7 Pilot Borehole Temporary Backfill

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to temporarily backfill the pilot borehole.

2.7.1 Submittals

The following submittals are applicable to this section:

- Copies of weight tickets for backfill material delivered on site

2.7.2 Materials

Temporary backfill material shall consist of washed pea gravel or DISTRICT-approved equal. Crushed gravel will not be accepted.

2.7.3 Execution

Immediately following geophysical surveys (Section 2.6), CONTRACTOR shall backfill the pilot borehole with approved backfill material using the tremie method from the bottom of the borehole to the bottom depth of the conductor casing, at a minimum. The tremie pipe shall be installed within 10 feet of the bottom of the borehole before placement of backfill material begins and shall be withdrawn as the backfill material is placed. The tremie pipe shall be no more than 40 feet above the top of the backfill material during placement. Backfill material shall be hydraulically placed with the circulating drilling fluid using 1 or more positive displacement pumps. Under no circumstances shall the backfill material be allowed to free fall. CONTRACTOR shall exercise care to avoid creating a fluid density inversion during placement of the backfill material.

CONTRACTOR shall not demobilize or reposition the drilling rig while waiting for the final well design.

2.8 Pumped Groundwater Management

CONTRACTOR shall be responsible for providing all equipment and labor necessary to mobilize, maintain, and operate a groundwater management system capable of containing and disposing generated groundwater in compliance with Section 1.12.

2.8.1 Submittals

The following submittals are applicable to this section:

- Pumped groundwater management system plan

2.8.2 Execution

CONTRACTOR shall mobilize and install a groundwater management system adequate to ensure well development and testing tasks will proceed without delay. The minimum required components are shown on Figure 3. The groundwater management system must be installed and approved by DISTRICT prior to the beginning of pilot borehole reaming (Section 2.10) and must remain on site for the duration of the work. Conveyance of discharged water to the designated point shall be achieved using closed pipe; adequate energy dissipation and erosion control measures shall be installed at the discharge point to prevent erosion. Erosion control measures shall meet all permit and license requirements.

CONTRACTOR shall collect water quality samples from the discharge water to ensure compliance with the permits as described in Section 1.12.

2.9 Furnish Well Casing, Screen, and Filter Pack

CONTRACTOR shall furnish the casing, screen(s), cellar and cap, centralizers, feed tube, and filter pack as per Section 00 41 00 (Bid Schedule). A preliminary well design is included as Figure 4 for bidding purposes only. CONTRACTOR shall purchase well materials consistent with DISTRICT's final well design only after it is provided.

2.9.1 Submittals

The following submittals are applicable to this section:

- Updated vendor costs (invoices)
- Applicable Mill certificate(s) before delivering the casing, screen, feed tube, and centralizers to the job site
- Casing schedule for well casing materials, welding collars, and centralizers
- A gradation description, sample, and sieve analysis of the filter pack media
- Copies of weight tickets for filter material delivered on site
- Copies of weight tickets for transition sand material delivered on site

2.9.2 Materials

Material specifications are detailed individually in the sections below.

2.9.2.1 Well Casing

Well casing (collared) shall be spiral welded Type 304L stainless steel composed of new material manufactured and purchased from **Roscoe Moss Company** or DISTRICT-approved equal. The well casing shall have an inside diameter of 18 inches and wall thickness of not less than 3/8 inch.

Well screen (collared) shall be Type 304L stainless steel composed of new material manufactured in accordance with ASTM A-778 and be purchased from **Roscoe Moss Company** or DISTRICT-approved equal. The well screen shall have an inside diameter of 18 inches. The well screen shall be continuous slot wire wrap designed and manufactured to withstand tensile and collapse pressures appropriate to the final well design.

Well cellar (collared) shall be spiral welded with a semi-elliptical head Type 304L stainless steel composed of new material manufactured in accordance with ASTM A-778 and be purchased from **Roscoe Moss Company**. The well cellar shall have an inside diameter of 18 inches and wall thickness of not less than 3/8 inch.

2.9.2.2 Filter Pack Fill Pipe

Permanent filter pack fill pipe shall be Type 304L stainless steel composed of new material manufactured in accordance with ASTM A-312 and be purchased from **Roscoe Moss Company** or DISTRICT-approved equal. The filter pack feed tube shall be nominal 2-inch diameter (Schedule 40).

2.9.2.3 Centralizers and Spacers

Centralizers and spacers shall be Type 304L stainless steel and be purchased from **Roscoe Moss Company** or DISTRICT-approved equal. Centralizers shall be no less than 2 inches wide, composed of the same material as the casing to which they are affixed and placed at intervals of not more than 50 feet. Centralizers shall be designed to have minimum bore wall contact of 12 inches and extend from the casing not less than 2.5 inches. For screened intervals, C-type centralizers shall be affixed to collars, not in the screen.

2.9.2.4 Filter Media

Filter pack material shall be **P.W. Gillibrand** Raptor Filter Sands 4 (RFS 4) 8 by 16 gradation or DISTRICT-approved equal. Filter pack materials shall be hard, water worn, at least 90% silica, and washed clean of silt, dirt, and foreign matter. Crushed gravel will not be accepted. Filter pack materials shall be NSF/ANSI 61-certified, be well rounded with a high sphericity and graded. CONTRACTOR shall submit a sieve analysis of a recent production run from the manufacture for confirmation of gradation.

The filter pack materials shall be contained in super sacks and, if stockpiled at the well site, shall be protected and kept free of all foreign matter.

CONTRACTOR shall procure not less than 110% of the calculated filter sand volume required for well construction based on the final well design, as rounded upward to the nearest super sack. Any necessary filter pack in excess of 110% of that required by the final design is the CONTRACTOR's responsibility. Items which may result in this scenario include but are not limited to CONTRACTOR use of a larger than agreed upon diameter reaming bit, borehole washout, or excessive over drill.

Sodium hypochlorite: NSF-61 certified liquid 12.5% sodium hypochlorite solution; regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.

2.9.2.5 Transition Sand

Transition sand material shall be #60 mesh plaster sands and consist of round, non-reactive material. Crushed aggregate will not be accepted. The sand shall be free of vegetative matter and be contained in bags or super sacs (not bulk).

2.10 Pilot Borehole Reaming

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to ream the pilot borehole by flooded reverse-rotary methods to diameters shown on the final well design.

Pilot borehole reaming shall not begin until the following conditions are met:

- Pumped groundwater management system has been installed and has been viewed and approved by DISTRICT.
- All well materials and equipment necessary to construct a completed well have been transported to the site and have been viewed and approved by DISTRICT.

2.10.1 Submittals

There are no submittals applicable to this bid item.

2.10.2 Drilling Fluids

Drilling Fluids shall be consistent with the standards mentioned above in Section 1.10.

2.10.3 Execution

CONTRACTOR shall ream the pilot borehole to the depths and diameters specified in the final well diagram.

2.11 Borehole Caliper Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to conduct a caliper survey of the final reamed borehole.

2.11.1 Submittals

The following submittal is applicable to this section:

- The name and qualifications of the firm proposed for completing caliper survey

- Two field hardcopies of the caliper log. The log shall also be provided in a digital data format, both as PDF and data files. Logs shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

2.11.2 Execution

CONTRACTOR shall furnish professional logging services for the caliper survey of the final reamed borehole. The caliper tool must be of sufficient arm capacity to have the ability to measure borehole diameters to 50 inches for the entire length of the reamed borehole. The caliper survey shall include calculations of the theoretical annular volumes required for completion of the well.

If the caliper survey shows the reamed borehole to be less than the specified diameter(s) at any point or the final borehole is less than the specified depth, the borehole shall be re-reamed and re-surveyed at CONTRACTOR's expense.

If the caliper survey shows excessive washouts necessitating the purchase and transport of additional filter sands beyond those mentioned in Section 2.7, CONTRACTOR shall immediately procure and deliver to the site the additionally required materials at their expense.

2.12 Well Installation

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to transport well materials to the site and construct the well in accordance with the final well design.

2.12.1 Submittals

The following submittals are applicable to this section:

- Sodium hypochlorite safety data sheet and NSF-61 certification.
- Valid welder certifications appropriate to the standards and positions required for casing installation
- Copies of weight tickets for transition sand material delivered on site

2.12.2 Materials

Sodium hypochlorite: 12.5% liquid sodium hypochlorite solution; regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be

recently purchased and properly stored to ensure the concentration of the solution has not degraded.

2.12.3 Drilling Fluids

CONTRACTOR shall condition drilling fluids prior to placement of the well materials until it has the following properties:

- Weight – maximum of 9.1 pounds per gallon
- Marsh Funnel Viscosity – maximum of 30 seconds per quart
- Sand Content – maximum of 1% by volume

2.12.4 Well Casing Placement

Maintain circulation of drilling fluid until casing is set unless CONTRACTOR judges circulation to be unnecessary.

The casing and screen shall be plumb and centered in the hole. The well casing and screen assembly, when installed to the specified depth, shall extend 3 feet above ground surface. All field joints shall be properly lap welded during installation with a minimum of 2 passes per circumference. Centralizers shall be welded to the casing, each set consisting of 4 centralizers equally spaced circumferentially around the casing placed at intervals of not more than 50 feet.

The casing shall be suspended in tension from the surface by means of an appropriate hanger or clamp. The bottom of the casing shall be at a sufficient distance above the bottom of the reamed hole to ensure that the casing is not supported from the bottom of the hole. The use of float plugs to land and set casing will not be permitted. Fluids displaced during placement on the well casing shall be controlled and discharged to temporary storage tanks for off-site disposal.

If, for any reason, the casing cannot be landed in the correct position or at a depth acceptable to DISTRICT, or any of the casings or screens collapse prior to well completion, CONTRACTOR shall construct another well adjacent to the original location and complete this well in accordance with the specifications at no additional cost to DISTRICT. The first hole shall be destroyed by sealing in accordance with DISTRICT requirements and California Well Standards pertaining to proper well destruction. All work required to be repeated and all additional materials, labor, and equipment required, shall be furnished at the expense of CONTRACTOR and no claim for additional compensation shall be made or be allowed, except as specifically provided herein.

A clean construction tremie pipe shall be installed to place the annular materials.

The top of the casing shall be provided with a secure cap at all times when personnel are not on the site.

Field welding shall be conducted by a certified welder in accordance with AWWA C206 and American Welding Society Standards, conducted by an AWS Certified Welder with valid and current certification for metal arc-welding on ASTM A778 and A1024 base metals in the horizontal lap and horizontal groove weld positions.

The following field welding procedures shall apply:

- A length shall be lowered into the well with the collar facing upward.
- The plain end of the following length shall be inserted in the collar. True contact of the 2 joints must be verified by observation through the alignment holes.
- Join by a continuous full fillet weld of thickness equal to thickness of coupling. Alignment holes shall be completely filled by welding. Two passes shall be applied.
- Upon completion of welding, remove weld splatter, flux, slag, and burrs.

It is CONTRACTOR's responsibility to ensure that the appropriate type and size of electrodes are used for the various types of casing materials.

2.12.5 Filter Pack Placement

Filter pack, as specified, shall be installed in the annular space between the reamed hole and the well screen through a construction tremie pipe. Place filter pack by hydraulically pumping through the tremie pipe from the bottom of the annulus upward to the depth specified by DISTRICT. The placement shall proceed without interruption until complete. During placement of the filter pack in the annulus, liquid sodium hypochlorite shall be added at a uniform rate of 1 gallon of 12.5% solution per cubic yard of filter pack. A circulating system with 1 or more positive displacement pumps using fresh water shall be used for the purpose of introducing the filter pack into the annulus. Under no circumstances will the filter pack be allowed to free fall down into the annular space.

A DISTRICT-approved device shall be used to measure the level of the filter pack during placement.

Following placement of the filter pack to the depth specified in the final well design, a dual swab tool shall then be used across the well screen to settle the filter pack. CONTRACTOR shall measure the level of the filter pack and continue swab activities until no measurable change in filter pack level is noted. Additional filter pack shall be added as needed to comply with the final well design.

CONTRACTOR shall contain and appropriately manage displaced fluids during the well installation process.

2.12.6 Transition Sand Placement

A 10-foot layer of #60 mesh plaster sand shall be installed immediately above the top of the filter pack to separate the cement seal from the filter pack. Placement of this material shall occur after settling the filter pack to the satisfaction of DISTRICT.

2.13 Furnish and Install Annular Seal

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to install an annular seal in accordance with DISTRICT permit conditions, and DWR Bulletin No. 74-81 and its supplement Bulletin 74-90, including any later supplements or revisions. The annular seal shall be installed from a depth immediately above the top of the transition sand to surface.

2.13.1 Submittals

The following submittals are applicable to this section:

- Type and content of proposed sealing material
- Copy of the concrete weight ticket upon delivery to the job site; concrete weight tickets shall include the origin and type of sealing material used

2.13.2 Materials

Sealing material shall consist of batch plant mixed 10.3 sack sand cement grout consisting of a mixture of ASTM C150, Type II cement, sand, and water. Accelerators, retardants, bentonite, and other additives shall not be used without prior approval by DISTRICT. Fly ash shall not be included in the sand cement grout.

2.13.3 Execution

Sealing material shall be placed in the presence of DISTRICT, and in compliance with permit requirements. CONTRACTOR shall notify DISTRICT inspector a minimum of 24 hours in advance of planned sealing material placement, or as otherwise required by the well permit.

Sealing material shall be placed using the tremie method from the top of the transition sand and shall be completed in a manner that prevents freefall, bridging, or separation. Placement shall be completed in 1 continuous operation from the top of the transition sand to the top of the

borehole. The cement pump shall be capable of pumping the sand cement grout under pressure to the specified depth.

Upon installation of the sealing material and unless approved otherwise by DISTRICT, CONTRACTOR shall not operate heavy equipment on the site for a minimum of 24 hours. The 24-hour curing period shall not be regarded as standby time.

CONTRACTOR shall contain and appropriately manage displaced fluids during well sealing operations.

2.14 Initial Mechanical Well Development

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to perform initial well development by means of open-ended airlifting and swabbing with airlifting. Activities conducted under this bid item shall be completed with the drilling rig prior to its removal from the site. **Work shall continue on a 24-hour schedule until complete.**

2.14.1 Submittals

The following submittals are applicable to this section:

- Well development progress logs

2.14.2 Materials

The following materials are applicable to this section:

1. Single Swab Tool:
 - a) A single swab approximately 10 feet from the bottom of the pipe and appropriate air compressor capacity to airlift at a rate of 250 gpm
 - b) Outside diameter of flange not more than 1 inch smaller than inside diameter of screen section of well
 - c) Eductor pipe, fitted with airline to allow for airlift pumping
2. Dual Swab Tooling:
 - a) Two swabs separated by no more than 10 feet of slotted pipe with sufficient slots and appropriate air compressor capacity to airlift at a rate of 250 gpm
 - b) Outside diameter of flanges no more than 1 inch smaller than inside diameter of screen section of well
 - c) Eductor Pipe, fitted with airline to allow airlift pumping

2.14.3 Execution

Static water level and filter pack level shall be recorded at the beginning of each shift. Addition of filter media shall be added through the feed tube only at the direction of and under supervision by DISTRICT.

Clean water shall be continuously added to the feed tube during mechanical development operation by use of a garden hose or similar.

CONTRACTOR shall begin initial development no less than 24 hours and no more than 48 hours after placing annular seal. If not begun within 48 hours, additional swab and airlift development may be required—without additional cost to DISTRICT—for the length of time between 48 hours since placing annular seal and time that development was initiated, in addition to normal development time.

Install the single-swab open-ended drill pipe to the top of the screened interval and begin airlifting. Slowly progress the tooling downward through the screen interval while airlifting until the intake is in the cellar and continue airlifting in the cellar. This shall be done to remove drilling muds and solids from the well and shall be completed for a minimum of 4 hours or until drilling fluid has been removed from the well (visual).

Following open-ended airlifting, remove the single-swab tool and install the dual swab tool to the top of the screened interval. The well shall be developed by swabbing and airlifting with the dual swab tool from the top of the screen to the bottom, then from the bottom of the screen to the top. The screen shall be swabbed in 20-foot sections while simultaneously airlifting. Each 20-foot screen section shall be worked until successive swabbing produces little change in color and discharge is relatively clear, estimated to be approximately 30 minutes for each 20-foot interval of screen. This period may be extended or shortened by DISTRICT based on condition of discharge water. Upon completion of an interval, move to the next 20-foot interval and repeat until all screened intervals have been swabbed.

The well cellar shall be cleaned of accumulated material using open-ended airlifting if necessary following initial mechanical development.

CONTRACTOR shall be compensated according to the hourly well development bid item for work conducted in well screen sections only. The time required to move tooling through the unperforated well-casing section(s) shall not be considered development and therefore will not be paid for by DISTRICT.

2.15 Final Mechanical and Chemical Well Development

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to develop the well by mechanical and chemical development. This activity shall commence within 5 calendar days after completion of initial mechanical well development and be conducted during daytime work hours Monday through Friday (Table 1), unless otherwise approved by DISTRICT.

2.15.1 Submittals

The following submittals are applicable to this section:

- Well development progress logs

2.15.2 Materials

Materials shall be consistent with Section 2.14 and also include the following:

- Sodium Hypochlorite: Liquid sodium hypochlorite solution in accordance with the latest revision of AWWA C654. Sodium Hypochlorite shall be used in a concentration of 1,000 ppm to the volume of water in the screened sections and annulus. Regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.
- Chemical Dispersant: Nu-Well 220 (NW-220, manufactured by Johnson Screens) or AquaClear PFD (manufactured by Baroid Industrial Drilling Products), or approved equal, shall be used in a concentration of 1 gallon per 500 gallons of water in the screen sections.

2.15.3 Execution

Static water level and filter pack level shall be recorded at the beginning of each shift. Addition of filter media shall be added through the feed tube only at the direction of and under supervision by DISTRICT.

Clean water shall be continuously added to the feed tube during mechanical development operation by use of a garden hose or similar.

The well shall be developed by swabbing and airlifting from the top of the screen to the bottom using the dual swab tool. The screen shall be swabbed in 20-foot sections while simultaneously

airlifting. Each 20-foot screen section shall be worked until successive swabbing produces little change in color and discharge is relatively clear, estimated to be approximately 30 minutes for each 20-foot interval of screen. This period may be extended or shortened by DISTRICT based on the condition of discharge water. Upon completion of an interval, move to the next 20-foot interval and repeat until all screened intervals have been swabbed.

After reaching the bottom of the well, a chlorine solution shall be swabbed into the screen sections from the bottom to the top as the dual swab tool is removed at a rate of 15 minutes for each 20 feet of screen. Chlorine solution shall be sufficient to achieve a concentration of 1,000 ppm throughout the well screen.

Upon reaching the uppermost screen section, the development tools shall be left in the well for a minimum period of 12 hours. Screen sections shall then be developed in 20-foot intervals by swabbing and simultaneous airlifting at a rate of 30 minutes for each 20 feet of screen. This process shall be repeated throughout the entire length of all screened zones, beginning at the top and working down to the bottom.

After reaching bottom, the development tools shall be used to inject NW-220, or approved equal, incrementally into the screen sections. The total amount of NW-220 introduced to the well shall be equal to the quantity necessary to achieve a NW-220 concentration of 1 gallon per 500 gallons of water in the screened section(s). The NW-220 solution shall be swabbed at a rate of 15 minutes for each 20 feet of screen into each progressively shallower screen section as piping is removed.

Upon reaching the uppermost screen section, the development tools shall be left in the well for a minimum period of 24 hours. After this period, the airlifting and swabbing development procedure at a rate of 15 minutes for each 20 feet of screen described in the preceding paragraphs shall be repeated to bottom and then back to the top again.

The well cellar shall be cleaned of accumulated material using open-ended airlifting if necessary following mechanical development.

CONTRACTOR shall be compensated according to the hourly well development bid item for work conducted in well screen sections only. The time required to move tooling through the unperforated well casing section(s) shall not be considered development and therefore will not be paid for by DISTRICT.

The well cellar shall be cleaned of accumulated material using open-ended airlifting if necessary following mechanical development.

2.16 Mobilize and Install Test Pump

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to install a test pump and associated discharge piping as specified below.

2.16.1 Submittals

The following submittal is applicable to this section:

- Test pump details including pump intake depth, bowl specifics including number of stages and diameter, pump column diameter, and all other applicable dimensions.

2.16.2 Materials

The following materials are applicable to this section:

1. Vertical Turbine Pump installed to a depth of 240 feet bgs:
 - a) Capable of producing up to 3,000 gpm from the well
 - b) Do not equip with a foot valve, which would prevent backspin and interfere with surging.
2. Variable Frequency Drive capable of operating the Vertical Turbine Pump
3. Provide in-line digital flow meter registering in units of gallons per minute, together with a totalizer that reads in units of gallons, and capable of measuring pump discharge within plus or minus 5% of true flow rate.
4. Throttling Valve: Suitable to accurately regulate pumping rates throughout required range. Gate valves shall not be used for throttling.
5. Rossum Sand Tester to measure amount of sand produced from well
6. Sampling Port: One 0.75-inch sampling port equipped with a ball valve and spigot
7. Access Tubes:
 - a) One 1.25-inch inside diameter with perforations 10 feet along the bottom and including an end cap, adequate for insertion of water level sensing devices into well before, during, and after test pumping. Must allow free passage of pressure transducers that are 0.75-inch diameter and approximately 8 inches long.
 - b) One, 2-inch inside diameter Spinner/Flow Profile Access Tube terminating below the pump intake and adequate for insertion of the profile tooling.
 - c) Securely fastened to pump column assembly

2.16.3 Execution

CONTRACTOR shall install in the well a variable-speed turbine pump to complete pumping development. The pump shall not be equipped with a foot valve or other backflow preventers. Pump intake shall be set at a depth of 240 feet bgs unless otherwise directed by DISTRICT.

2.17 Pumping Development

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to develop the well by means of pumping and surging.

2.17.1 Submittals

The following submittals are applicable to this section:

- Field development data sheets

2.17.2 Execution

Static water level and filter pack level shall be recorded at the beginning of each shift. Addition of filter media shall be added through the feed tube only at the direction of and under supervision by DISTRICT.

Clean water shall be continuously added to the feed tube during mechanical development operation by use of a garden hose or similar.

Development pumping shall be conducted by alternately pumping (turning the pump on) and surging (turning the pump off and letting the water in the column pipe fall back into the well) at a specific flow rate, until pumping and surging at that flow rate produces visibly clear water and until no significant improvements in specific capacity are observed, as determined by DISTRICT. Surging operations shall include 3 surges after 60 minutes of continuous pumping unless otherwise approved by DISTRICT. Pump the well at an initial rate not to exceed 250 gpm or as low as is feasible. Discharge rate shall be incrementally increased up to 3,000 gpm, or as directed by DISTRICT.

Development pumping shall continue for a minimum of 40 hours unless otherwise approved by DISTRICT. Flow rate, water level, turbidity, and sand content shall be recorded at intervals of 15 minutes after the start of pumping following a surge cycle.

At the conclusion of development pumping, CONTRACTOR shall determine the required settings to obtain the flow rates for well and aquifer testing, as determined by DISTRICT, based on well development records.

2.18 Variable Rate Pumping Test

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a variable rate pumping test as described herein. CONTRACTOR shall also keep records on the type of pumping equipment used including engines, drive components, bowls, lines, and shafts. CONTRACTOR shall keep records of operation of equipment during the test including engine revolutions per minute and horsepower, fuel use, and other essential information that will be useful in designing a pump system.

2.18.1 Submittals

The following submittals are applicable to this section:

- Well testing data sheets

2.18.2 Materials

The temporary pump used for well development shall be used for performance testing unless other pumps and equipment are necessary to satisfy the requirements of this specification or as determined by DISTRICT.

2.18.3 Execution

A variable rate pumping (step drawdown) test shall be conducted following well development activities and shall be scheduled to begin when the water level has recovered to static groundwater level as determined by DISTRICT.

The well shall be tested at rates of approximately $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ times the design capacity of 2,000 gpm, or as directed by DISTRICT. The variable rate pumping test shall be conducted for a total duration of 10 hours (120 minutes each step). CONTRACTOR shall operate the pump and change the discharge rate as directed by DISTRICT. An electric water level meter will be furnished by DISTRICT. Sand content measurement shall be recorded at 1-hour intervals by CONTRACTOR using a Rossum sand tester. CONTRACTOR shall be responsible for maintaining the desired pump operation schedule. If necessary, adjustments in the pumping rate shall be made using an in-line butterfly valve, not engine throttle. **CONTRACTOR shall not make adjustments to the pumping rate after the first 2 minutes of pumping at each rate without approval from DISTRICT.**

Measure depth to water, flow rate, and discharge PSI at the following intervals, unless otherwise specified by DISTRICT:

1. 1 minute to 10 minutes: Measure at 1-minute intervals
2. 10 minutes to 20 minutes: Measure at 2-minute intervals
3. 20 minutes to 30 minutes: Measure at 5-minute intervals
4. 30 minutes to 60 minutes: Measure at 10-minute intervals
5. 60 minutes to 120 minutes: Measure at 15-minute intervals

After the pump is stopped, the temporary test pump shall remain in the well undisturbed, unless otherwise specified by DISTRICT. CONTRACTOR shall not be responsible for monitoring groundwater levels during recovery period.

2.19 Constant Rate Discharge Test

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a constant rate pumping test as described herein. CONTRACTOR shall also keep records on the type of pumping equipment used including engines, drive components, bowls, lines, and shafts. CONTRACTOR shall keep records of operation of equipment during the test including engine revolutions per minute and horsepower, fuel use, and other essential information that may be useful in designing a pump system.

2.19.1 Submittals

The following submittals are applicable to this section:

- Well testing data sheets

2.19.2 Materials

The temporary pump used for well development shall be used for performance testing unless other pumps and equipment are necessary to satisfy the requirements of this specification or as determined by DISTRICT.

2.19.3 Execution

A constant rate discharge test shall be conducted by pumping the well at the design rate of 2,000 gpm for a period of not less than 24 hours, or less if DISTRICT terminates the test. CONTRACTOR shall ensure the pumping rate remains within plus or minus 5% of the target rate. If necessary, adjustments to the pumping rate shall be made using an in-line butterfly valve, not engine throttle. **CONTRACTOR shall not make adjustments to the pumping rate after the first 2 minutes of pumping without approval from DISTRICT.**

CONTRACTOR shall test and record sand content using a Rossum sand tester every hour of pumping. DISTRICT may require CONTRACTOR to do additional redevelopment work if the hourly accumulation of sand exceeds 2 ppm at any point during the test. The turbidity of pumped water shall additionally not exceed 5 NTU.

Measure depth to water, flow rate, and discharge PSI at the following intervals, unless otherwise specified by DISTRICT:

1. 1 minute to 10 minutes: Measure at 1-minute intervals
2. 10 minutes to 20 minutes: Measure at 2-minute intervals
3. 20 minutes to 30 minutes: Measure at 5-minute intervals
4. 30 minutes to 60 minutes: Measure at 10-minute intervals
5. 60 minutes to 90 minutes: Measure at 15-minute intervals
6. 90 minutes to end of test: Measure at 30-minute intervals

2.19.4 Recovery Monitoring

After the pump is stopped, the temporary test pump shall remain in the well undisturbed for the full recovery period of 24 hours, or as specified by DISTRICT. CONTRACTOR shall not be responsible for monitoring groundwater levels during recovery period.

2.19.5 Aborted Test

Whenever continuous pumping at a uniform rate has been specified, failure of pumping operation for a period greater than 1% of the elapsed pumping time shall require suspension of the test until the water level in the pumped well has recovered to its original level. Recovery shall be considered complete after the well has been allowed to rest for a period at least equal to the elapsed pumping time of the aborted test, except if any 3 successive water level measurements spaced at least 20 minutes apart show no further rise in the water level in the pumped well. Under this exception, the test may be resumed immediately. DISTRICT shall be the sole judge as to whether this latter condition exists. CONTRACTOR will not be paid for any retesting done if the specified time or recovery requirements of DISTRICT for the aborted test are not first met. These tests are invalid and will not be construed as a test.

2.20 Groundwater Quality Sampling and Analysis

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to collect a groundwater sample and submit for laboratory analysis all the constituents listed in Table 2.

2.20.1 Submittals

The following submittals are applicable to this section:

- Name and qualifications of the proposed laboratory to conduct water quality testing
- Water quality laboratory test results

2.20.2 Execution

Toward the end of the constant rate discharge test, collect in laboratory provided containers a water quality sample from a sampling port installed on the discharge line upstream of any filtration, storage, or atmospheric exposure. Sampling shall not be conducted without DISTRICT supervision. Prior to sampling, the discharge shall be flushed until field parameters, including pH, temperature, and electrical conductivity, have stabilized.

Samples shall be collected using laboratory-supplied containers and preservatives. CONTRACTOR shall use new nitrile gloves and clean handling procedures to prevent contamination. Sampling and handling shall comply with applicable requirements and laboratory protocols. VOC samples shall be collected with zero headspace by filling vials to a positive meniscus and immediately capping without entraining air bubbles or agitation. All other samples shall be collected, preserved, and filtered as required by the laboratory.

Samples shall be placed on ice immediately after collection and maintained at or below 6°C, with complete chain-of-custody documentation. Samples shall be delivered to a DISTRICT-approved laboratory within required holding times. CONTRACTOR shall coordinate with the laboratory in advance to confirm bottle types, preservatives, and handling requirements for all analytes. Required California Code or Regulations, Title 22 analytes are shown in Table 2. DISTRICT personnel will be permitted to collect additional samples at any time throughout the pumping tests.

Table 2. Sunset Well No. 2 Summary of Analyses

Drinking Water Analyses
Title 22- Tables 64431-A and 64432-A – Inorganic Chemicals. See list below ¹
Title 22- Tables 64431-A and 64432-A – Nitrate (as N)
Title 22- Tables 64431-A and 64432-A – Perchlorate (reporting down to 2 ppb)
Title 22- Tables 64431-A and 64432-A – Hexavalent Chromium (Cr+6)
Title 22- Tables 64431-A and 64432-A – Asbestos
Title 22 – Table 64444 – A (a) (VOCs). Includes but is not limited to MtBE, TBA, and TBF
Title 22 – Table 64444 – A (b) (SOCs). Includes but is not limited to Dioxin & 1,2,3-TCP
Title 22 – Tables 64449-A and B- Secondary Standards and Title 22 – §64449 (b)(2). See list below ²
Title 22- Table 64442 – Radionuclides (@MDA95): Gross Alpha, including CE, Uranium, Radium 226, Radium 228

1. Includes: Al, Sb, As, Ba, Be, Cd, Cr, Cyanide, F, Hg, Ni, Nitrite (as N), Nitrate + Nitrite (as N), Se, Tl, Alkalinity. Do not include: Asbestos, Nitrate (as N) and Perchlorate. NO3 and ClO4 are submitted as a separate samples with the IOCs.

2. Includes: Odor, Cu, MBAS, Fe, Mn, Odor, Ag, Turbidity, Zn, TDS, EC, Chloride, Sulfate, Bicarbonate, Carbonate, Hydroxide Alkalinity, Ca, Mg, Na, pH, Total Hardness, Langelier Index and Aggressiveness Index.

Water quality results shall be submitted to DISTRICT as a single comprehensive report.

2.21 Dynamic Spinner Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to conduct a dynamic spinner survey of the well near the end of constant-rate discharge test but only after collection of the water quality sample. CONTRACTOR shall employ **Pacific Surveys, LLC**, for this activity, or equal approved by DISTRICT.

2.21.1 Submittals

The following submittals are applicable to this section:

- The name and qualifications of the firm proposed for completing spinner survey
- Two field hardcopies of the spinner/flow profile log. The log shall also be provided in a digital data format, both as PDF and LAS files. Spinner/flow profile shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

2.21.2 Execution

CONTRACTOR shall furnish professional logging services for the dynamic spinner survey. CONTRACTOR is responsible for completing the survey before the end of the constant rate discharge test. DISTRICT is not responsible for costs incurred by CONTRACTOR to extend pumping period beyond 24 hours to accommodate a complete spinner survey.

2.22 Test Pump Removal

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to remove the well pump and associated discharge piping. CONTRACTOR shall not remove pump from well until performance testing, including recovery monitoring, is complete.

2.22.1 Submittals

Submittals are not required for this section.

2.22.2 Execution

The test pump may be removed when the following conditions are met:

1. The laboratory confirms receipt of all collected samples as specified in Table 2.
2. Dynamic Spinner Survey is complete.
3. DISTRICT determines recovery monitoring of groundwater level is complete.

When the above conditions are met, CONTRACTOR may remove the well pump and associated discharge piping.

2.23 Gyroscopic Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a gyroscopic survey to determine the plumbness and alignment of the well casing after the well has been completed and before its acceptance.

The completed well shall be sufficiently plumb and straight so that there will be no interference with installation, alignment, operation, or future removal of the permanent well pump.

2.23.1 Submittals

The following submittals are applicable to this section:

- The name and qualifications of the firm proposed for completing gyroscopic survey
- Two field hardcopies of the gyroscopic survey. The gyroscopic survey results shall also be provided in a digital data format, both as PDF and LAS files. Alignment/deviation shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

2.23.2 Execution

CONTRACTOR shall furnish professional logging services for the gyroscopic survey and shall comply with AWWA A-100 standards. The maximum allowable horizontal deviation (drift) of the well from the vertical shall not exceed two thirds of the smallest inside diameter of that part of the well being tested per 100 feet of depth. DISTRICT may reject the well if the above tolerances are exceeded.

Plumbness testing shall be conducted by lowering the plumbness tool into the well from the ground surface to the full well depth. Measurements shall include station depth, inclination, azimuth, true vertical depth, departures, and plane of closure (displacement). Measurements shall be made every 10 feet from ground surface to the topmost well screen section. Measurements shall be made every 50 feet from the topmost well screen section to the full depth.

2.24 Color Video Camera Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a color video of the well prior to acceptance of the well by DISTRICT. The color video survey shall verify that the well is constructed per the final well design and that the well is free of structural defects and clear of all debris throughout the entire depth of the well prior to acceptance of the well by DISTRICT. If any defects or debris are found, CONTRACTOR shall make repairs to, or remove debris from, the well as necessary, prior to acceptance of the well by DISTRICT.

2.24.1 Submittals

The following submittals are applicable to this section:

- The name and qualifications of the firm proposed to complete video survey
- One copy of the video survey in AVI format and 2 copies of the written report

2.24.2 Execution

If necessary, airlift the well clean of debris prior to conducting the survey, then allow the well to remain idle for at least 24 hours. Prior to, and if necessary during the survey, introduce sufficient quantity of clear water into well to produce clear viewing conditions during survey. Run a dynamic vertical downhole view video from top of well to the bottom of well at a speed not exceeding 30 feet per minute. Video shall be in color, with side-scan capabilities, and include an automatic depth indicator to the nearest 0.1 foot.

If survey fails to produce a clear picture of internal casing condition, introduce clear, potable water and conduct survey to DISTRICT's satisfaction until a clear video is obtained.

2.25 Well Disinfection and Capping

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to disinfect the well.

2.25.1 Submittals

The following submittals are applicable to this section:

- Disinfection products and procedures
- Name and qualifications of the proposed water quality laboratory
- Water quality laboratory test results

2.25.2 Materials

Liquid sodium hypochlorite solution shall be used in accordance with the latest revision of AWWA C654. Regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.

2.25.3 Execution

Disinfect well prior to final capping by adding sufficient sodium hypochlorite solution to achieve 100 ppm chlorine concentration in the well. The well shall be disinfected by swabbing the chlorine solution into the water column using a surge block, nylon brush or other DISTRICT-approved method.

No sooner than 24 hours after disinfection and when residual chlorine is no longer present, CONTRACTOR shall collect a sample using a disposable bailer. CONTRACTOR shall submit the sample to an appropriate laboratory for analysis of total coliform (presence/absence), fecal coliform (presence/absence) and heterotrophic plate count.

After confirmation sampling results are approved by DISTRICT, CONTRACTOR shall cut the casing to a finished height of 3 feet and cap the well by welding a metal plate of like material over the top of the casing. The completed well shall be protected by four, 3-foot traffic bollards installed in accordance with DISTRICT standard detail C06.

2.26 Demobilization & Cleanup

CONTRACTOR shall removal all material and equipment from the site following acceptance of the Sunset Well No. 2 by the DISTRICT.

2.26.1 Submittals

The following submittals are applicable to this section:

- Closed permit(s)
- State of California Well Completion Report

2.26.2 Execution

Complete removal of all material, temporary facilities, drilling fluids, cuttings, and municipal waste from the site to the satisfaction of DISTRICT. CONTRACTOR shall notify DISTRICT at the completion of demobilization and site cleanup activities.

2.27 Standby

During the progress of drilling operations, it may be necessary for DISTRICT to perform work that will require CONTRACTOR to stand idle (“standby time”). In such an event, DISTRICT shall request in writing CONTRACTOR to cease operations and shall state the anticipated extent or duration thereof. CONTRACTOR shall promptly furnish such assistance and cease operations.

3 TANGLEWOOD WELL INSTALLATION, DEVELOPMENT, AND TESTING AND LONG-SCREEN TEST WELL DESTRUCTION

The District is implementing this scope to install a new groundwater production well at the Tanglewood Well Site (Figure 5). The Tanglewood site consists of undeveloped property owned by the District. A long-screen test well was installed in 2025 to inform the design of a future municipal supply well. The State of California Well Completion Report and borehole geophysical logs from the long-screen test well are included as Appendix C for reference. The long-screen test well shall be destroyed prior to the installation of the Tanglewood Well.

The site is located on undeveloped property owned by the District at 942 Tanglewood Drive in South Lake Tahoe (Figure 5). The exact location of the Tanglewood Well is subject to change by DISTRICT prior to mobilization.

The following figures are applicable to this section:

- Figure 5. Tanglewood Facility Basemap
- Figure 6. Tanglewood Well Discharge Details
- Figure 7. Tanglewood Well Preliminary Design Schematic

In general, site activities shall progress chronologically in the order they are presented. Deviations from this order require prior DISTRICT approval.

If CONTRACTOR determines the project site will not provide adequate space for material staging, CONTRACTOR shall arrange for a secure temporary staging area within 25 miles of the site where well materials can be viewed by DISTRICT.

The following submittals shall be approved by DISTRICT prior to any site activities:

1. Project baseline schedule (updates due monthly)
2. Project 3-week look-ahead schedule (updates due weekly at the progress meeting)
3. Site Plan including a scale drawing with proposed site layout
4. Applicable permits, including but not limited to Underground Service Alert ticket(s), tree removal permit(s) and road obstruction permit(s) (if applicable)

3.1 Long-Screen Test Well Destruction

CONTRACTOR shall furnish all material and equipment and perform all labor for destroying the well by means of tremie grout in accordance with California Well Standards.

3.1.1 Submittals

- The name and qualifications of the firm proposed to complete video and spinner surveys
- One copy of the video survey in AVI format and 2 copies of the written report
- Two field hardcopies of the spinner/flow profile log. The log shall also be provided in a digital data format, both as PDF and LAS files. Spinner/flow profile shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.
- Type and content of proposed sealing material
- Concrete weight tickets upon delivery to the job site. Concrete weight tickets shall include the origin and type of sealing material used

3.1.2 Material

Sealing material shall consist of batch plant mixed 10.3 sack sand cement grout consisting of a mixture of ASTM C150, Type II cement, sand, and water. Accelerators, retardants, bentonite, and other additives shall not be used without prior approval by DISTRICT. Fly ash shall not be included in the sand cement grout.

3.1.3 Color Video Camera and Static Spinner

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to conduct a color video camera and dynamic spinner survey of the well. CONTRACTOR shall employ Pacific Surveys, LLC, for this activity, or equal approved by DISTRICT.

Prior to, and if necessary during color video survey, introduce sufficient quantity of clear water into well to produce clear viewing conditions during survey. Run a dynamic vertical downhole view video from top of well to the bottom of well at a speed not exceeding 30 feet per minute. Video shall be in color, with side-scan capabilities, and include an automatic depth indicator to the nearest 0.1 foot. If survey fails to produce a clear picture of internal casing condition, introduce clear, potable water and conduct survey to DISTRICT's satisfaction until a clear video is obtained.

Following the color video survey, conduct a static spinner survey of the well.

Well destruction may proceed following completion of these surveys only with the approval of DISTRICT.

3.1.4 Well Destruction

CONTRACTOR shall destroy the well according to the following procedures:

1. Remove wellhead pedestal and bollards.
2. Excavate around the wellhead to minimum 5 feet bgs, then cut and remove minimum 5 feet of well casing and conductor casing.
3. Install a temporary casing to ground surface. The temporary casing shall have sufficient inner diameter to include the well casing and extend over it a vertical distance of no less than 1 foot.
4. Backfill excavated area with crushed aggregate and compact to ground surface.
5. Fill the well casing with approved sealing material. Well casing shall be filled using a rigid tremie pipe, placed from within 3 feet of the bottom of the well.
6. Remove the tremie pipe, remove the temporary casing and add additional sealing material as necessary to form a mushroom cap.
7. Once sufficient time has been allowed for the sealing material to set, the excavation shall be backfilled with crushed aggregate and compacted to grade.

All wastes must be properly managed, including waters generated during debris removal and seal placement. Any deviations must be agreed upon by DISTRICT.

If there are periods of time when no work is being done on the well (overnight or while waiting for sealing material to set), the well shall be securely covered to prevent the introduction of foreign material.

3.2 Noise Control Barrier Walls

CONTRACTOR shall install and maintain engineered noise control barrier walls on all sides of the well site property, unless otherwise approved by DISTRICT. The barriers shall be erected to a minimum height of 24 feet, installed prior to mobilization of drilling equipment and remain in place until the completion of well disinfection and capping. The layout and total linear footage of the sound barriers is at the discretion of CONTRACTOR to accommodate their workspace and safety needs.

CONTRACTOR shall incorporate all costs for designing, installing, and maintaining walls for the entire period required, and for their removal upon project completion. DISTRICT is not responsible for additional costs incurred by CONTRACTOR (i.e., rental of noise control barrier) which result from project delays, including those caused by material procurement lead times, weather, permitting, or similar. Applicable permits are the responsibility of CONTRACTOR.

General best practice noise suppression efforts shall be implemented at all times to minimize disturbance to nearby residents, workers, and the general public. The work site shall be managed and arranged to minimize noise to the extent practicable, including use of mufflers, shielding, and by placing noise-producing equipment away from sensitive receptors, as feasible.

3.2.1 Submittals

The following submittal is applicable to this section:

- Site specific noise mitigation workplan describing the type and layout of noise control barrier walls, noise control barrier wall product data including STC rating and design drawings, and structural analysis calculations developed in specific accordance with the applicable building and engineering codes stamped by a Structural Engineer licensed in the State of California.
- Concrete weight tickets for noise control barrier post holes

3.2.2 Materials

Noise control barrier walls shall be rigid panels or DISTRICT-approved equivalent with an STC rating of 32 or greater as determined in accordance with ASTM E-413. The design shall preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion. Use of non-rigid curtains or blankets is specifically disallowed except as needed for site entrance(s).

3.2.3 Execution

CONTRACTOR shall install sufficient linear footage to enclose the work area they deem necessary for completion of the project. The entrance(s) to the enclosed area shall be designed to fully close while achieving intended noise reduction. The entrance shall be fully closed when noisemaking is underway.

The length and location of noise control barrier walls shall be adequate to assure proper acoustic performance.

CONTRACTOR shall backfill all foundation boreholes following the removal of the noise control barrier walls with 2-sack sand-cement slurry to ground and restore surface conditions. Boreholes are not required to be re-drilled to their original depth prior to backfill. Backfill shall include that borehole which remains after the posts are removed.

3.3 Conductor Casing and Sanitary Seal

CONTRACTOR shall furnish all materials and equipment, and perform all labor required to install a permanent conductor casing and place the sanitary seal.

3.3.1 Submittals

The following submittals are applicable to this section:

- Mill Certificate for Conductor Casing
- Type and content of proposed sealing material
- Concrete weight ticket(s) upon delivery to the job site
- Valid welder certifications appropriate to the standards and positions required
- Formation samples every 5 feet (bagged)

3.3.2 Materials

Spiral welded mild steel casing material composed of new material conforming to ASTM A-778 specifications. The conductor casing shall have a minimum outside diameter of 40 inches, wall thickness of not less than 0.50 inch and be installed to a depth not less than 55 feet bgs. Unless otherwise approved by DISTRICT, and except for end pieces, all sections of the casing shall be a minimum length of 20 feet.

Sealing material shall consist of batch plant mixed 10.3 sack sand cement grout consisting of a mixture of ASTM C150 Type II cement, sand, and water. Accelerators, retardants, bentonite, and other additives shall not be used without prior approval by DISTRICT. Fly ash shall not be included in the sand cement grout.

3.3.3 Execution

CONTRACTOR shall drill a minimum 50-inch diameter borehole to a minimum depth of 55 feet bgs. The borehole shall be sufficiently plumb and of sufficient diameter that the conductor casing can be installed plumb, and with a minimum annular thickness of 3 inches around the entire circumference of the conductor casing.

CONTRACTOR shall collect and preserve 1 set of drill cutting samples at 5-foot intervals during the drilling of the conductor borehole. Samples shall be placed in 1-gallon, heavy weight, resealable plastic bags and labeled with the sample depth interval. Collected samples shall be stored in a manner to prevent breakage or loss.

CONTRACTOR shall be solely responsible for determining depth and diameter of surface seal required to ensure stability of the wellhead during drilling, to prevent upward or downward seepage of water or drilling fluids outside the surface casing, to prevent bypass of the surface seal by drilling fluids, and/or to prevent soil erosion beneath the drilling rig. CONTRACTOR shall be solely responsible for any damage caused by an insufficient or ineffective surface seal, or any additional work required to remedy any adverse condition created by an inadequate surface seal.

3.3.4 Placement

CONTRACTOR shall install the conductor casing plumb and centered in the conductor casing borehole.

Centering guides shall be no less than 2 inches wide, welded to the conductor casing and include a minimum of 2 sets of 4 guides (8 in total) equally spaced circumferentially around the casing. Guides shall be composed of the same material as the casing to which they are affixed and placed 5 feet from the top and bottom of the conductor casing.

Sealing material shall be placed in the presence of DISTRICT and in compliance with permit requirements. CONTRACTOR shall notify DISTRICT a minimum of 48 hours in advance of planned sealing material placement.

Sealing material shall be placed using the tremie method from the bottom of the borehole and shall be completed in a manner that prevents freefall, bridging, or separation. Placement shall be completed in 1 continuous operation from the bottom of the borehole to ground surface.

Upon installation of the sealing material and unless approved otherwise by DISTRICT, CONTRACTOR shall not operate heavy equipment on the site for a minimum of 48 hours. The 48-hour curing period shall not be regarded as standby time.

Fluids displaced during placement of the conductor casing and sanitary seal operations shall be appropriately managed.

3.4 Drilling Rig Mobilization

CONTRACTOR shall mobilize and set up all material and equipment and perform all labor required to perform the scope of work. Equipment needed for the first 30 days of work shall be on site at start of the work. It is anticipated that CONTRACTOR will relocate material and equipment from the Sunset site to the Tanglewood site.

3.4.1 Submittals

- Description of the drilling and fluid system including the types of fluid to be used, weights, viscosities, sand and solids contents, water loss control, and the name of the drilling fluid supplier
- Name and qualifications of the on-call Drilling Fluid (Mud) Engineer

3.4.2 Execution

CONTRACTOR's drilling equipment, temporary facilities, and operations shall be within the construction limits of the site. CONTRACTOR shall set up work facilities in a neat and orderly manner within the designated area. All drill pipe must use threaded flush or upset tool joints, or equal, as approved by DISTRICT.

3.5 Pilot Borehole Drilling

CONTRACTOR shall furnish all material and equipment and perform all labor to drill a maximum 17.5-inch-diameter pilot borehole from the bottom of the conductor casing to a minimum depth of 470 feet bgs, unless otherwise directed by DISTRICT.

3.5.1 Submittals

The following submittal is applicable to this section:

- Formation samples every 5 feet (bagged)
- Sieve results of up to 8 formation samples, selected by DISTRICT

3.5.2 Execution

The pilot borehole shall be drilled using the flooded reverse-rotary method. Although a maximum diameter of 17.5 inches is specified, CONTRACTOR shall determine the appropriate borehole diameter based on their preference, provided it is of sufficient diameter to complete downhole geophysical surveys required (Section 3.6).

3.5.3 Formation Sampling

CONTRACTOR shall collect and preserve 1 set of drill cutting samples at 5-foot intervals during the drilling of the pilot borehole. Samples shall be placed in 1-gallon, heavy weight, re-sealable plastic bags and labeled with the sample depth interval. Collected samples shall be stored in a manner to prevent breakage or loss. The method of collection shall be approved by DISTRICT prior to collection. The sample collection system must allow for collection of representative

lithology (e.g., sluice box). Samples shall not be collected off the shale shaker or using a mesh strainer without prior approval by DISTRICT.

3.5.4 Drilling Fluids

Drilling Fluids shall be consistent with the standards mentioned above in Section 1.10.

3.6 Pilot Borehole Geophysical Survey

CONTRACTOR shall furnish all material and equipment and perform all labor to complete a geophysical log of the pilot borehole. The geophysical log shall include measurements of the following: spontaneous potential, electrical resistivity (including single-point, 16-inch normal, 64-inch normal, and focused guard resistivity), natural gamma ray, and borehole deviation.

3.6.1 Submittals

The following submittal is applicable to this section:

- The name and qualifications of the firm proposed for completing geophysical surveys
- Two field hardcopies of the geophysical log. The geophysical log shall also be provided in a digital data format, both as PDF and data files. Geophysical logs shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

3.6.2 Execution

CONTRACTOR shall ensure that the pilot borehole is properly conditioned by circulating drilling fluids in preparation for geophysical logging, and that the pilot borehole is continually filled with fluid during logging operations.

Standby time will not be paid for additional cleaning and conditioning of the pilot borehole to enable logging operations to proceed.

If the logging probe fails to descend to the desired depth, CONTRACTOR, at their own expense, shall condition the pilot borehole to permit the logging probe to descend to the bottom of the hole.

3.7 Pilot Borehole Temporary Backfill

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to temporarily backfill the pilot borehole.

3.7.1 Submittals

The following submittals are applicable to this section:

- Copies of weight tickets for backfill material delivered on site

3.7.2 Materials

Temporary backfill material shall consist of washed pea gravel or DISTRICT-approved equal. Crushed gravel will not be accepted.

3.7.3 Execution

Immediately following geophysical surveys (Section 3.6), CONTRACTOR shall backfill the pilot borehole with approved backfill material using the tremie method from the bottom of the borehole to the bottom depth of the conductor casing, at a minimum. The tremie pipe shall be installed within 10 feet of the bottom of the borehole before placement of backfill material begins and shall be withdrawn as the backfill material is placed. The tremie pipe shall be no more than 40 feet above the top of the backfill material during placement. Backfill material shall be hydraulically placed with the circulating drilling fluid using 1 or more positive displacement pumps. Under no circumstances shall the backfill material be allowed to free fall. CONTRACTOR shall exercise care to avoid creating a fluid density inversion during placement of the backfill material.

CONTRACTOR shall not demobilize or reposition the drilling rig while waiting for the final well design.

3.8 Pumped Groundwater Management

CONTRACTOR shall be responsible for providing all equipment and labor necessary to mobilize, maintain and operate a groundwater management system capable of containing and disposing generated groundwater in compliance with Section 1.12.

3.8.1 Submittals

The following submittals are applicable to this section:

- Pumped groundwater management system plan

3.8.2 Execution

CONTRACTOR shall mobilize and install a groundwater management system adequate to ensure well development and testing tasks will proceed without delay. The minimum required components are shown on Figure 6. The groundwater management system must be installed and approved by DISTRICT prior to the beginning of pilot borehole reaming (Section 3.10) and must remain on site for the duration of the work. Conveyance of discharged water to the designated point shall be achieved using closed pipe; adequate energy dissipation and erosion control measures shall be installed at the discharge point to prevent erosion. Erosion control measures shall meet all permit and license requirements.

CONTRACTOR shall collect water quality samples from the discharge water to ensure compliance with the permits as described in Section 1.12.

3.9 Furnish Well Casing, Screen and Filter Pack

CONTRACTOR shall furnish the casing, screen(s), cellar and cap, centralizers, feed tube, and filter pack as per Section 00 41 00 (Bid Schedule). A preliminary well design is included as Figure 7 for bidding purposes only. CONTRACTOR shall purchase well materials consistent with DISTRICT's final well design only after it is provided.

3.9.1 Submittals

The following submittals are applicable to this section:

- Updated vendor costs (invoices)
- Applicable Mill certificate(s) before delivering the casing, screen, feed tube, and centralizers to the job site
- Casing schedule for well casing materials, welding collars, and centralizers
- A gradation description, sample, and sieve analysis of the filter pack media
- Copies of weight tickets for filter material delivered on site
- Copies of weight tickets for transition sand material delivered on site

3.9.2 Materials

Material specifications are detailed individually in the sections below.

3.9.2.1 Well Casing

Well casing (collared) shall be spiral welded Type 304L stainless steel composed of new material manufactured and purchased from **Roscoe Moss Company** or DISTRICT-approved equal. The well casing shall have an inside diameter of 18 inches and wall thickness of not less than 3/8 inch.

Well screen (collared) shall be Type 304L stainless steel composed of new material manufactured in accordance with ASTM A-778 and be purchased from **Roscoe Moss Company** or DISTRICT-approved equal. The well screen shall have an inside diameter of 18 inches. The well screen shall be continuous slot wire wrap designed and manufactured to withstand tensile and collapse pressures appropriate to the final well design.

Well cellar (collared) shall be spiral welded with a semi-elliptical head Type 304L stainless steel composed of new material manufactured in accordance with ASTM A-778 and be purchased from **Roscoe Moss Company**. The well cellar shall have an inside diameter of 18 inches and wall thickness of not less than 3/8 inch.

3.9.2.2 Filter Pack Fill Pipe

Permanent filter pack fill pipe shall be Type 304L stainless steel composed of new material manufactured in accordance with ASTM A-312 and be purchased from **Roscoe Moss Company** or DISTRICT-approved equal. The filter pack feed tube shall be nominal 2-inch diameter (Schedule 40).

3.9.2.3 Centralizers and Spacers

Centralizers and spacers shall be Type 304L stainless steel and be purchased from **Roscoe Moss Company** or DISTRICT-approved equal. Centralizers shall be no less than 2 inches wide, composed of the same material as the casing to which they are affixed and placed at intervals of not more than 50 feet. Centralizers shall be designed to have minimum bore wall contact of 12 inches and extend from the casing not less than 2.5 inches. For screened intervals, C-type centralizers shall be affixed to collars, not in the screen.

3.9.2.4 Filter Media

Filter pack material shall be **P.W. Gillibrand** Raptor Filter Sands 4 (RFS 4) 8 by 16 gradation or DISTRICT-approved equal. Filter pack materials shall be hard, water worn, at least 90% silica, and washed clean of silt, dirt, and foreign matter. Crushed gravel will not be accepted. Filter pack materials shall be NSF/ANSI 61-certified, be well rounded with a high sphericity and graded. CONTRACTOR shall submit a sieve analysis of a recent production run from the manufacture for confirmation of gradation.

The filter pack materials shall be contained in super sacks and, if stockpiled at the well site, shall be protected, and kept free of all foreign matter.

CONTRACTOR shall procure not less than 110% of the calculated filter sand volume required for well construction based on the final well design, as rounded upward to the nearest super sack. Any necessary filter pack in excess of 110% of that required by the final design is the CONTRACTOR's responsibility. Items which may result in this scenario include but are not limited to CONTRACTOR use of a larger than agreed upon diameter reaming bit, borehole washout, or excessive over drill.

Sodium hypochlorite: NSF-61 certified liquid 12.5% sodium hypochlorite solution; regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.

3.9.2.5 Transition Sand

Transition sand material shall be #60 mesh plaster sands and consist of round, non-reactive material. Crushed aggregate will not be accepted. The sand shall be free of vegetative matter and be contained in bags or super sacs (not bulk).

3.10 Pilot Borehole Reaming

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to ream the pilot borehole by flooded reverse-rotary methods to diameters shown on the final well design.

Pilot borehole reaming shall not commence until the following conditions are met:

- Pumped groundwater management system has been installed and has been viewed and approved by DISTRICT.
- All well materials and equipment necessary to construct a completed well have been transported to the site and have been viewed and approved by DISTRICT.

3.10.1 Submittals

There are no submittals applicable to this bid item.

3.10.2 Drilling Fluids

Drilling Fluids shall be consistent with the standards mentioned above in Section 1.10.

3.10.3 Execution

CONTRACTOR shall ream the pilot borehole to the depths and diameters specified in the final well diagram.

3.11 Borehole Caliper Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to conduct a caliper survey of the final reamed borehole.

3.11.1 Submittals

The following submittal is applicable to this section:

- The name and qualifications of the firm proposed for completing caliper survey
- Two field hardcopies of the caliper log. The log shall also be provided in a digital data format, both as PDF and data files. Logs shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

3.11.2 Execution

CONTRACTOR shall furnish professional logging services for the caliper survey of the final reamed borehole. The caliper tool must be of sufficient arm capacity to have the ability to measure borehole diameters to 50 inches for the entire length of the reamed borehole. The caliper survey shall include calculations of the theoretical annular volumes required for completion of the well.

If the caliper survey shows the reamed borehole to be less than the specified diameter(s) at any point or the final borehole is less than the specified depth, the borehole shall be re-reamed and re-surveyed at CONTRACTOR's expense.

If the caliper survey shows excessive washouts necessitating the purchase and transport of additional filter sands beyond those mentioned in Section 3.9, CONTRACTOR shall immediately procure and deliver to the site the additionally required materials at their expense.

3.12 Well Installation

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to transport well materials to the site and construct the well in accordance with the final well design.

3.12.1 Submittals

The following submittals are applicable to this section:

- Sodium hypochlorite safety data sheet and NSF-61 certification.
- Valid welder certifications appropriate to the standards and positions required for casing installation
- Copies of weight tickets for transition sand material delivered on site

3.12.2 Materials

Sodium hypochlorite: 12.5% liquid sodium hypochlorite solution; regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.

3.12.3 Drilling Fluids

CONTRACTOR shall condition drilling fluids prior to placement of the well materials until it has the following properties:

- Weight – maximum of 9.1 pounds per gallon
- Marsh Funnel Viscosity – maximum of 30 seconds per quart
- Sand Content – maximum of 1% by volume

3.12.4 Well Casing Placement

Maintain circulation of drilling fluid until casing is set unless CONTRACTOR judges circulation to be unnecessary.

The casing and screen shall be plumb and centered in the hole. The well casing and screen assembly, when installed to the specified depth, shall extend 3 feet above ground surface. All field joints shall be properly lap welded during installation with a minimum of 2 passes per circumference. Centralizers shall be welded to the casing, each set consisting of 4 centralizers equally spaced circumferentially around the casing placed at intervals of not more than 50 feet.

The casing shall be suspended in tension from the surface by means of an appropriate hanger or clamp. The bottom of the casing shall be at a sufficient distance above the bottom of the reamed hole to ensure that the casing is not supported from the bottom of the hole. The use of float plugs

to land and set casing will not be permitted. Fluids displaced during placement on the well casing shall be controlled and discharged to temporary storage tanks for off-site disposal.

If, for any reason, the casing cannot be landed in the correct position or at a depth acceptable to DISTRICT, or any of the casings or screens collapse prior to well completion, CONTRACTOR shall construct another well adjacent to the original location and complete this well in accordance with the specifications at no additional cost to DISTRICT. The first hole shall be destroyed by sealing in accordance with DISTRICT requirements and California Well Standards pertaining to proper well destruction. All work required to be repeated and all additional materials, labor, and equipment required, shall be furnished at the expense of CONTRACTOR and no claim for additional compensation shall be made or be allowed, except as specifically provided herein.

A clean construction tremie pipe shall be installed to place the annular materials.

The top of the casing shall be provided with a secure cap at all times when personnel are not on the site.

Field welding shall be conducted by a certified welder in accordance with AWWA C206 and American Welding Society Standards, conducted by an AWS Certified Welder with valid and current certification for metal arc-welding on ASTM A778 and A1024 base metals in the horizontal lap and horizontal groove weld positions.

The following field welding procedures shall apply:

- A length shall be lowered into the well with the collar facing upward.
- The plain end of the following length shall be inserted in the collar. True contact of the 2 joints must be verified by observation through the alignment holes.
- Join by a continuous full fillet weld of thickness equal to thickness of coupling. Alignment holes shall be completely filled by welding. Two passes shall be applied.
- Upon completion of welding, remove weld splatter, flux, slag, and burrs.

It is CONTRACTOR's responsibility to ensure that the appropriate type and size of electrodes are used for the various types of casing materials.

3.12.5 Filter Pack Placement

Filter pack, as specified, shall be installed in the annular space between the reamed hole and the well screen through a construction tremie pipe. Place filter pack by hydraulically pumping through the tremie pipe from the bottom of the annulus upward to the depth specified by DISTRICT. The placement shall proceed without interruption until complete. During placement of the filter pack in the annulus, liquid sodium hypochlorite shall be added at a uniform rate of

1 gallon of 12.5% solution per cubic yard of filter pack. A circulating system with 1 or more positive displacement pumps using fresh water shall be used for the purpose of introducing the filter pack into the annulus. Under no circumstances will the filter pack be allowed to free fall down into the annular space.

A DISTRICT-approved device shall be used to measure the level of the filter pack during placement.

Following placement of the filter pack to the depth specified in the final well design, a dual swab tool shall then be used across the well screen to settle the filter pack. CONTRACTOR shall measure the level of the filter pack and continue swab activities until no measurable change in filter pack level is noted. Additional filter pack shall be added as needed to comply with the final well design.

CONTRACTOR shall contain and appropriately manage displaced fluids during the well installation process.

3.12.6 Transition Sand Placement

A 10-foot layer of #60 mesh plaster sand shall be installed immediately above the top of the filter pack to separate the cement seal from the filter pack. Placement of this material shall occur after settling the filter pack to the satisfaction of DISTRICT.

3.13 Furnish and Install Annular Seal

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to install an annular seal in accordance with DISTRICT permit conditions, and DWR Bulletin No. 74-81 and its supplement Bulletin 74-90, including any later supplements or revisions. The annular seal shall be installed from a depth immediately above the top of the transition sand to surface.

3.13.1 Submittals

The following submittals are applicable to this section:

- Type and content of proposed sealing material
- Copy of the concrete weight ticket upon delivery to the job site; concrete weight tickets shall include the origin and type of sealing material used

3.13.2 Materials

Sealing material shall consist of batch plant mixed 10.3 sack sand cement grout consisting of a mixture of ASTM C150, Type II cement, sand, and water. Accelerators, retardants, bentonite, and other additives shall not be used without prior approval by DISTRICT. Fly ash shall not be included in the sand cement grout.

3.13.3 Execution

Sealing material shall be placed in the presence of DISTRICT, and in compliance with permit requirements. CONTRACTOR shall notify DISTRICT inspector a minimum of 24 hours in advance of planned sealing material placement, or as otherwise required by the well permit.

Sealing material shall be placed using the tremie method from the top of the transition sand and shall be completed in a manner that prevents freefall, bridging, or separation. Placement shall be completed in 1 continuous operation from the top of the transition sand to the top of the borehole. The cement pump shall be capable of pumping the sand cement grout under pressure to the specified depth.

Upon installation of the sealing material and unless approved otherwise by DISTRICT, CONTRACTOR shall not operate heavy equipment on the site for a minimum of 24 hours. The 24-hour curing period shall not be regarded as standby time.

CONTRACTOR shall contain and appropriately manage displaced fluids during well sealing operations.

3.14 Initial Mechanical Well Development

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to perform initial well development by means of open-ended airlifting and swabbing with airlifting. Activities conducted under this bid item shall be completed with the drilling rig prior to its removal from the site. **Work shall continue on a 24-hour schedule until complete.**

3.14.1 Submittals

The following submittals are applicable to this section:

- Well development progress logs

3.14.2 Materials

The following materials are applicable to this section:

1. Single Swab Tool:
 - a) A single swab approximately 10 feet from the bottom of the pipe and appropriate air compressor capacity to airlift at a rate of 250 gpm
 - b) Outside diameter of flange not more than 1 inch smaller than inside diameter of screen section of well
 - c) Eductor pipe, fitted with airline to allow for airlift pumping
2. Dual Swab Tooling:
 - a) Two swabs separated by not more than 10 feet of slotted pipe with sufficient slots and appropriate air compressor capacity to air lift at a rate of 250 gallons per minute (gpm)
 - b) Outside diameter of flanges not more than 1 inch smaller than inside diameter of screen section of well
 - c) Eductor Pipe, fitted with airline to allow airlift pumping

3.14.3 Execution

Static water level and filter pack level shall be recorded at the beginning of each shift. Addition of filter media shall be added through the feed tube only at the direction of and under supervision by DISTRICT.

Clean water shall be continuously added to the feed tube during mechanical development operation by use of a garden hose or similar.

CONTRACTOR shall begin initial development not less than 24 hours and no more than 48 hours after placing annular seal. If not begun within 48 hours, additional swab and airlift development may be required—without additional cost to DISTRICT—for the length of time between 48 hours since placing annular seal and time that development was initiated, in addition to normal development time.

Install the single-swab open-ended drill pipe to the top of the screened interval and begin airlifting. Slowly progress the tooling downward through the screen interval while airlifting until the intake is in the cellar and continue airlifting in the cellar. This shall be done to remove drilling muds and solids from the well and shall be completed for a minimum of 4 hours or until drilling fluid has been removed from the well (visual).

Following open-ended airlifting, remove the single-swab tool and install the dual swab tool to the top of the screened interval. The well shall be developed by swabbing and airlifting with the dual swab tool from the top of the screen to the bottom, then from the bottom of the screen to the top. The screen shall be swabbed in 20-foot sections while simultaneously airlifting. Each

20-foot screen section shall be worked until successive swabbing produces little change in color and discharge is relatively clear, estimated to be approximately 30 minutes for each 20-foot interval of screen. This period may be extended or shortened by DISTRICT based on condition of discharge water. Upon completion of an interval, move to the next 20-foot interval and repeat until all screened intervals have been swabbed.

The well cellar shall be cleaned of accumulated material using open-ended airlifting if necessary following initial mechanical development.

CONTRACTOR shall be compensated according to the hourly well development bid item for work conducted in well screen sections only. The time required to move tooling through the unperforated well-casing section(s) shall not be considered development and therefore will not be paid for by the DISTRICT.

3.15 Final Mechanical and Chemical Well Development

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to develop the well by mechanical and chemical development. This activity shall commence within 5 calendar days after completion of initial mechanical well development and be conducted during daytime work hours Monday through Friday (Table 1), unless otherwise approved by the DISTRICT.

3.15.1 Submittals

The following submittals are applicable to this section:

- Well development progress logs

3.15.2 Materials

Materials shall be consistent with Section 2.14 and also include the following:

- Sodium Hypochlorite: Liquid sodium hypochlorite solution in accordance with the latest revision of AWWA C654. Sodium Hypochlorite shall be used in a concentration of 1,000 parts per million (ppm) to the volume of water in the screened sections and annulus. Regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.
- Chemical Dispersant: Nu-Well 220 (NW-220, manufactured by Johnson Screens) or AquaClear PFD (manufactured by Baroid Industrial Drilling Products), or approved

equal, shall be used in a concentration of 1 gallon per 500 gallons of water in the screen sections.

3.15.3 Execution

Static water level and filter pack level shall be recorded at the beginning of each shift. Addition of filter media shall be added through the feed tube only at the direction of and under supervision by DISTRICT.

Clean water shall be continuously added to the feed tube during mechanical development operation by use of a garden hose or similar.

The well shall be developed by swabbing and airlifting from the top of the screen to the bottom using the dual swab tool. The screen shall be swabbed in 20-foot sections while simultaneously airlifting. Each 20-foot screen section shall be worked until successive swabbing produces little change in color and discharge is relatively clear, estimated to be approximately 30 minutes for each 20-foot interval of screen. This period may be extended or shortened by DISTRICT based on the condition of discharge water. Upon completion of an interval, move to the next 20-foot interval and repeat until all screened intervals have been swabbed.

After reaching the bottom of the well, a chlorine solution shall be swabbed into the screen sections from the bottom to the top as the dual swab tool is removed at a rate of 15 minutes for each 20 feet of screen. Chlorine solution shall be sufficient to achieve a concentration of 1,000 ppm throughout the well screen.

Upon reaching the uppermost screen section, the development tools shall be left in the well for a minimum period of 12 hours. Screen sections shall then be developed in 20-foot intervals by swabbing and simultaneous airlifting at a rate of 30 minutes for each 20 feet of screen. This process shall be repeated throughout the entire length of all screened zones, beginning at the top and working down to the bottom.

After reaching bottom, the development tools shall be utilized to inject NW-220, or approved equal, incrementally into the screen sections. The total amount of NW-220 introduced to the well shall be equal to the quantity necessary to achieve a NW-220 concentration of 1 gallon per 500 gallons of water in the screened section(s). The NW-220 solution shall be swabbed at a rate of 15 minutes for each 20 feet of screen into each progressively shallower screen section as piping is removed.

Upon reaching the uppermost screen section, the development tools shall be left in the well for a minimum period of 24 hours. After this period, the airlifting and swabbing development

procedure at a rate of 15 minutes for each 20 feet of screen described in the preceding paragraphs shall be repeated to bottom and then back to the top again.

The well cellar shall be cleaned of accumulated material using open-ended airlifting if necessary following mechanical development.

CONTRACTOR shall be compensated according to the hourly well development bid item for work conducted in well screen sections only. The time required to move tooling through the unperforated well casing section(s) shall not be considered development and therefore will not be paid for by DISTRICT.

The well cellar shall be cleaned of accumulated material using open-ended airlifting if necessary following mechanical development.

3.16 Mobilize and Install Test Pump

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to install a test pump and associated discharge piping as specified below.

3.16.1 Submittals

The following submittal is applicable to this section:

- Test pump details including pump intake depth, bowl specifics including number of stages and diameter, pump column diameter, and all other applicable dimensions.

3.16.2 Materials

The following materials are applicable to this section:

1. Vertical Turbine Pump installed to a depth of 240 feet bgs:
 - a) Capable of producing up to 3,000 gpm from the well
 - b) Do not equip with a foot valve, which would prevent backspin and interfere with surging.
2. Variable Frequency Drive capable of operating the Vertical Turbine Pump
3. Provide in-line digital flow meter registering in units of gallons per minute, together with a totalizer that reads in units of gallons, and capable of measuring pump discharge within plus or minus 5% of true flow rate.
4. Throttling Valve: Suitable to accurately regulate pumping rates throughout required range. Gate valves shall not be used for throttling.

5. Rossum Sand Tester to measure amount of sand produced from well
6. Sampling Port: One 0.75-inch sampling port equipped with a ball valve and spigot.
7. Access Tubes:
 - a) One 1.25-inch inside diameter with perforations 10 feet along the bottom and including an end cap, adequate for insertion of water level sensing devices into well before, during, and after test pumping. Must allow free passage of pressure transducers that are 0.75-inch diameter and approximately 8 inches long.
 - b) One, 2-inch inside diameter Spinner/Flow Profile Access Tube terminating below the pump intake and adequate for insertion of the profile tooling
 - c) Securely fastened to pump column assembly

3.16.3 Execution

CONTRACTOR shall install in the well a variable-speed turbine pump to complete pumping development. The pump shall not be equipped with a foot valve or other backflow preventers. Pump intake shall be set at a depth of 240 feet bgs unless otherwise directed by DISTRICT.

3.17 Pumping Development

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to develop the well by means of pumping and surging.

3.17.1 Submittals

The following submittals are applicable to this section:

- Field development data sheets

3.17.2 Execution

Static water level and filter pack level shall be recorded at the beginning of each shift. Addition of filter media shall be added through the feed tube only at the direction of and under supervision by DISTRICT.

Clean water shall be continuously added to the feed tube during mechanical development operation by use of a garden hose or similar.

Development pumping shall be conducted by alternately pumping (turning the pump on) and surging (turning the pump off and letting the water in the column pipe fall back into the well) at a specific flow rate, until pumping and surging at that flow rate produces visibly clear water and

until no significant improvements in specific capacity are observed, as determined by DISTRICT. Surging operations shall include 3 surges after 60 minutes of continuous pumping unless otherwise approved by DISTRICT. Pump the well at an initial rate not to exceed 250 gpm or as low as is feasible. Discharge rate shall be incrementally increased up to 3,000 gpm, or as directed by DISTRICT.

Development pumping shall continue for a minimum of 40 hours unless otherwise approved by DISTRICT. Flow rate, water level, turbidity, and sand content shall be recorded at intervals of 15 minutes after the start of pumping following a surge cycle.

At the conclusion of development pumping, CONTRACTOR shall determine the required settings to obtain the flow rates for well and aquifer testing, as determined by DISTRICT, based on well development records.

3.18 Variable Rate Pumping Test

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a variable rate pumping test as described herein. CONTRACTOR shall also keep records on the type of pumping equipment used including engines, drive components, bowls, lines, and shafts. CONTRACTOR shall keep records of operation of equipment during the test including engine revolutions per minute and horsepower, fuel use, and other essential information that will be useful in designing a pump system.

3.18.1 Submittals

The following submittals are applicable to this section:

- Well testing data sheets

3.18.2 Materials

The temporary pump used for well development shall be used for performance testing unless other pumps and equipment are necessary to satisfy the requirements of this specification or as determined by DISTRICT.

3.18.3 Execution

A variable rate pumping (step drawdown) test shall be conducted following well development activities and shall be scheduled to begin when the water level has recovered to static groundwater level as determined by DISTRICT.

The well shall be tested at rates of approximately $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ times the design capacity of 2,000 gpm, or as directed by DISTRICT. The variable rate pumping test shall be conducted for a total duration of 10 hours (120 minutes each step). CONTRACTOR shall operate the pump and change the discharge rate as directed by DISTRICT. An electric water level meter will be furnished by DISTRICT. Sand content measurement shall be recorded at 1-hour intervals by CONTRACTOR using a Rossum sand tester. CONTRACTOR shall be responsible for maintaining the desired pump operation schedule. If necessary, adjustments in the pumping rate shall be made using an in-line butterfly valve, not engine throttle. **CONTRACTOR shall not make adjustments to the pumping rate after the first 2 minutes of pumping at each rate without approval from DISTRICT.**

Measure depth to water, flow rate, and discharge PSI at the following intervals, unless otherwise specified by DISTRICT:

1. 1 minute to 10 minutes: Measure at 1-minute intervals
2. 10 minutes to 20 minutes: Measure at 2-minute intervals
3. 20 minutes to 30 minutes: Measure at 5-minute intervals
4. 30 minutes to 60 minutes: Measure at 10-minute intervals
5. 60 minutes to 120 minutes: Measure at 15-minute intervals

After the pump is stopped, the temporary test pump shall remain in the well undisturbed, unless otherwise specified by DISTRICT. CONTRACTOR shall not be responsible for monitoring groundwater levels during recovery period.

3.19 Constant Rate Discharge Test

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a constant rate pumping test as described herein. CONTRACTOR shall also keep records on the type of pumping equipment used including engines, drive components, bowls, lines, and shafts. CONTRACTOR shall keep records of operation of equipment during the test including engine revolutions per minute and horsepower, fuel use, and other essential information that may be useful in designing a pump system.

3.19.1 Submittals

The following submittals are applicable to this section:

- Well testing data sheets

3.19.2 Materials

The temporary pump used for well development shall be used for performance testing unless other pumps and equipment are necessary to satisfy the requirements of this specification or as determined by DISTRICT.

3.19.3 Execution

A constant rate discharge test shall be conducted by pumping the well at the design rate of 2,000 gpm for a period of not less than 24 hours, or less if DISTRICT terminates the test. CONTRACTOR shall ensure the pumping rate remains within plus or minus 5% of the target rate. If necessary, adjustments to the pumping rate shall be made using an in-line butterfly valve, not engine throttle. **CONTRACTOR shall not make adjustments to the pumping rate after the first 2 minutes of pumping without approval from DISTRICT.**

CONTRACTOR shall test and record sand content using a Rossum sand tester every hour of pumping. DISTRICT may require CONTRACTOR to do additional redevelopment work if the hourly accumulation of sand exceeds 2 ppm at any point during the test. The turbidity of pumped water shall additionally not exceed 5 NTU.

Measure depth to water, flow rate, and discharge PSI at the following intervals, unless otherwise specified by DISTRICT:

1. 1 minute to 10 minutes: Measure at 1-minute intervals
2. 10 minutes to 20 minutes: Measure at 2-minute intervals
3. 20 minutes to 30 minutes: Measure at 5-minute intervals
4. 30 minutes to 60 minutes: Measure at 10-minute intervals
5. 60 minutes to 90 minutes: Measure at 15-minute intervals
6. 90 minutes to end of test: Measure at 30-minute intervals

3.19.4 Recovery Monitoring

After the pump is stopped, the temporary test pump shall remain in the well undisturbed for the full recovery period of 24 hours, or as specified by DISTRICT. CONTRACTOR shall not be responsible for monitoring groundwater levels during recovery period.

3.19.5 Aborted Test

Whenever continuous pumping at a uniform rate has been specified, failure of pumping operation for a period greater than 1% of the elapsed pumping time shall require suspension of

the test until the water level in the pumped well has recovered to its original level. Recovery shall be considered complete after the well has been allowed to rest for a period at least equal to the elapsed pumping time of the aborted test, except if any 3 successive water level measurements spaced at least 20 minutes apart show no further rise in the water level in the pumped well. Under this exception, the test may be resumed immediately. DISTRICT shall be the sole judge as to whether this latter condition exists. CONTRACTOR will not be paid for any retesting done if the specified time or recovery requirements of DISTRICT for the aborted test are not first met. These tests are invalid and will not be construed as a test.

3.20 Groundwater Quality Sampling and Analysis

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to collect a groundwater sample and submit for laboratory analysis all the constituents listed in Table 3.

3.20.1 Submittals

The following submittals are applicable to this section:

- Name and qualifications of the proposed laboratory to conduct water quality testing
- Water quality laboratory test results

3.20.2 Execution

Toward the end of the constant rate discharge test, collect in laboratory-provided containers a water quality sample from a sampling port installed on the discharge line upstream of any filtration, storage, or atmospheric exposure. Sampling shall not be conducted without DISTRICT supervision. Prior to sampling, the discharge shall be flushed until field parameters, including pH, temperature, and electrical conductivity, have stabilized.

Samples shall be collected using laboratory-supplied containers and preservatives. CONTRACTOR shall use new nitrile gloves and clean handling procedures to prevent contamination. Sampling and handling shall comply with applicable requirements and laboratory protocols. VOC samples shall be collected with zero headspace by filling vials to a positive meniscus and immediately capping without entraining air bubbles or agitation. All other samples shall be collected, preserved, and filtered as required by the laboratory.

Samples shall be placed on ice immediately after collection and maintained at or below 6°C, with complete chain-of-custody documentation. Samples shall be delivered to a DISTRICT-approved laboratory within required holding times. CONTRACTOR shall coordinate with the laboratory in advance to confirm bottle types, preservatives, and handling requirements for all analytes.

Required California Code or Regulations, Title 22 analytes are shown in Table 2. DISTRICT personnel will be permitted to collect additional samples at any time throughout the pumping tests.

Table 3. Tanglewood Well Summary of Analyses

Drinking Water Analyses
Title 22- Tables 64431-A and 64432-A – Inorganic Chemicals. See list below ¹
Title 22- Tables 64431-A and 64432-A – Nitrate (as N)
Title 22- Tables 64431-A and 64432-A – Perchlorate (reporting down to 2 ppb)
Title 22- Tables 64431-A and 64432-A – Hexavalent Chromium (Cr+6)
Title 22- Tables 64431-A and 64432-A – Asbestos
Title 22 – Table 64444 – A (a) (VOCs). Includes but is not limited to MtBE, TBA, and TBF
Title 22 – Table 64444 – A (b) (SOCs). Includes but is not limited to Dioxin & 1,2,3-TCP
Title 22 – Tables 64449-A and B- Secondary Standards and Title 22 – §64449 (b)(2). See list below ²
Title 22- Table 64442 – Radionuclides (@MDA95): Gross Alpha, including CE, Uranium, Radium 226, Radium 228

1. Includes: Al, Sb, As, Ba, Be, Cd, Cr, Cyanide, F, Hg, Ni, Nitrite (as N), Nitrate + Nitrite (as N), Se, Ti, Alkalinity. Do not include: Asbestos, Nitrate (as N) and Perchlorate. NO3 and ClO4 are submitted as a separate samples with the IOCs.

2. Includes: Odor, Cu, MBAS, Fe, Mn, Odor, Ag, Turbidity, Zn, TDS, EC, Chloride, Sulfate, Bicarbonate, Carbonate, Hydroxide Alkalinity, Ca, Mg, Na, pH, Total Hardness, Langelier Index and Aggressiveness Index.

Water quality results shall be submitted to DISTRICT as a single comprehensive report.

3.21 Dynamic Spinner Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to conduct a dynamic spinner survey of the well near the end of constant-rate discharge test but only after collection of the water quality sample. CONTRACTOR shall employ **Pacific Surveys, LLC**, for this activity, unless otherwise approved by DISTRICT.

3.21.1 Submittals

The following submittals are applicable to this section:

- The name and qualifications of the firm proposed for completing spinner survey
- Two field hardcopies of the spinner/flow profile log. The log shall also be provided in a digital data format, both as PDF and LAS files. Spinner/flow profile shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

3.21.2 Execution

CONTRACTOR shall furnish professional logging services for the dynamic spinner survey. CONTRACTOR is responsible for completing the survey before the end of the constant rate discharge test. DISTRICT is not responsible for costs incurred by CONTRACTOR to extend pumping period beyond 24 hours to accommodate a complete spinner survey.

3.22 Test Pump Removal

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to remove the well pump and associated discharge piping. CONTRACTOR shall not remove pump from well until performance testing, including recovery monitoring, is complete.

3.22.1 Submittals

Submittals are not required for this section.

3.22.2 Execution

The test pump may be removed when the following conditions are met:

1. The laboratory confirms receipt of all collected samples as specified in Table 3.
2. Dynamic Spinner Survey is complete.
3. DISTRICT determines recovery monitoring of groundwater level is complete.

When the above conditions are met, CONTRACTOR may remove the well pump and associated discharge piping.

3.23 Gyroscopic Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a gyroscopic survey to determine the plumbness and alignment of the well casing after the well has been completed and before its acceptance.

The completed well shall be sufficiently plumb and straight so that there will be no interference with installation, alignment, operation, or future removal of the permanent well pump.

3.23.1 Submittals

The following submittals are applicable to this section:

- The name and qualifications of the firm proposed for completing gyroscopic survey
- Two field hardcopies of the gyroscopic survey. The gyroscopic survey results shall also be provided in a digital data format, both as PDF and LAS files. Alignment/deviation shall have a vertical scale of 50 feet per inch and horizontal scale appropriate to the log type and response values.

3.23.2 Execution

CONTRACTOR shall furnish professional logging services for the gyroscopic survey and shall comply with AWWA A-100 standards. The maximum allowable horizontal deviation (drift) of the well from the vertical shall not exceed two thirds of the smallest inside diameter of that part of the well being tested per 100 feet of depth. DISTRICT may reject the well if the above tolerances are exceeded.

Plumbness testing shall be conducted by lowering the plumbness tool into the well from the ground surface to the full well depth. Measurements shall include station depth, inclination, azimuth, true vertical depth, departures, and plane of closure (displacement). Measurements shall be made every 10 feet from ground surface to the topmost well screen section. Measurements shall be made every 50 feet from the topmost well screen section to the full depth.

3.24 Color Video Camera Survey

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to complete a color video of the well prior to acceptance of the well by DISTRICT. The color video survey shall verify that the well is constructed per the final well design and that the well is free of structural defects and clear of all debris throughout the entire depth of the well prior to acceptance of the well by DISTRICT. If any defects or debris are found, CONTRACTOR shall make repairs to, or remove debris from, the well as necessary, prior to acceptance of the well by DISTRICT.

3.24.1 Submittals

The following submittals are applicable to this section:

- The name and qualifications of the firm proposed to complete video survey
- One copy of the video survey in AVI format and 2 copies of the written report

3.24.2 Execution

If necessary, airlift the well clean of debris prior to conducting the survey, then allow the well to remain idle for at least 24 hours. Prior to, and if necessary during survey, introduce sufficient

quantity of clear water into well to produce clear viewing conditions during survey. Run a dynamic vertical downhole view video from top of well to the bottom of well at a speed not exceeding 30 feet per minute. Video shall be in color, with side-scan capabilities, and include an automatic depth indicator to the nearest 0.1 foot.

If survey fails to produce a clear picture of internal casing condition, introduce clear, potable water and conduct survey to DISTRICT's satisfaction until a clear video is obtained.

3.25 Well Disinfection and Capping

CONTRACTOR shall furnish all material and equipment and provide all labor necessary to disinfect the well.

3.25.1 Submittals

The following submittals are applicable to this section:

- Disinfection products and procedures
- Name and qualifications of the proposed water quality laboratory
- Water quality laboratory test results

3.25.2 Materials

Liquid sodium hypochlorite solution shall be used in accordance with the latest revision of AWWA C654. Regular household bleach may not be used. No fragranced products or other products with additives will be allowed. Sodium hypochlorite shall be provided in the original sealed container. Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.

3.25.3 Execution

Disinfect well prior to final capping by adding sufficient sodium hypochlorite solution to achieve 100 ppm chlorine concentration in the well. The well shall be disinfected by swabbing the chlorine solution into the water column using a surge block, nylon brush or other DISTRICT-approved method.

No sooner than 24 hours after disinfection and when residual chlorine is no longer present, CONTRACTOR shall collect a sample using a disposable bailer. CONTRACTOR shall submit the sample to an appropriate laboratory for analysis of total coliform (presence/absence), fecal coliform (presence/absence), and heterotrophic plate count.

After confirmation sampling results are approved by DISTRICT, CONTRACTOR shall cut the casing to a finished height of 3 feet and cap the well by welding a metal plate of like material over the top of the casing. The completed well shall be protected by four, 3-foot traffic bollards installed in accordance with DISTRICT standard detail C06.

3.26 Demobilization & Cleanup

CONTRACTOR shall removal all material and equipment from the site following acceptance of the Tanglewood Well by DISTRICT.

3.26.1 Submittals

The following submittals are applicable to this section:

- Closed permit(s)
- State of California Well Completion Report

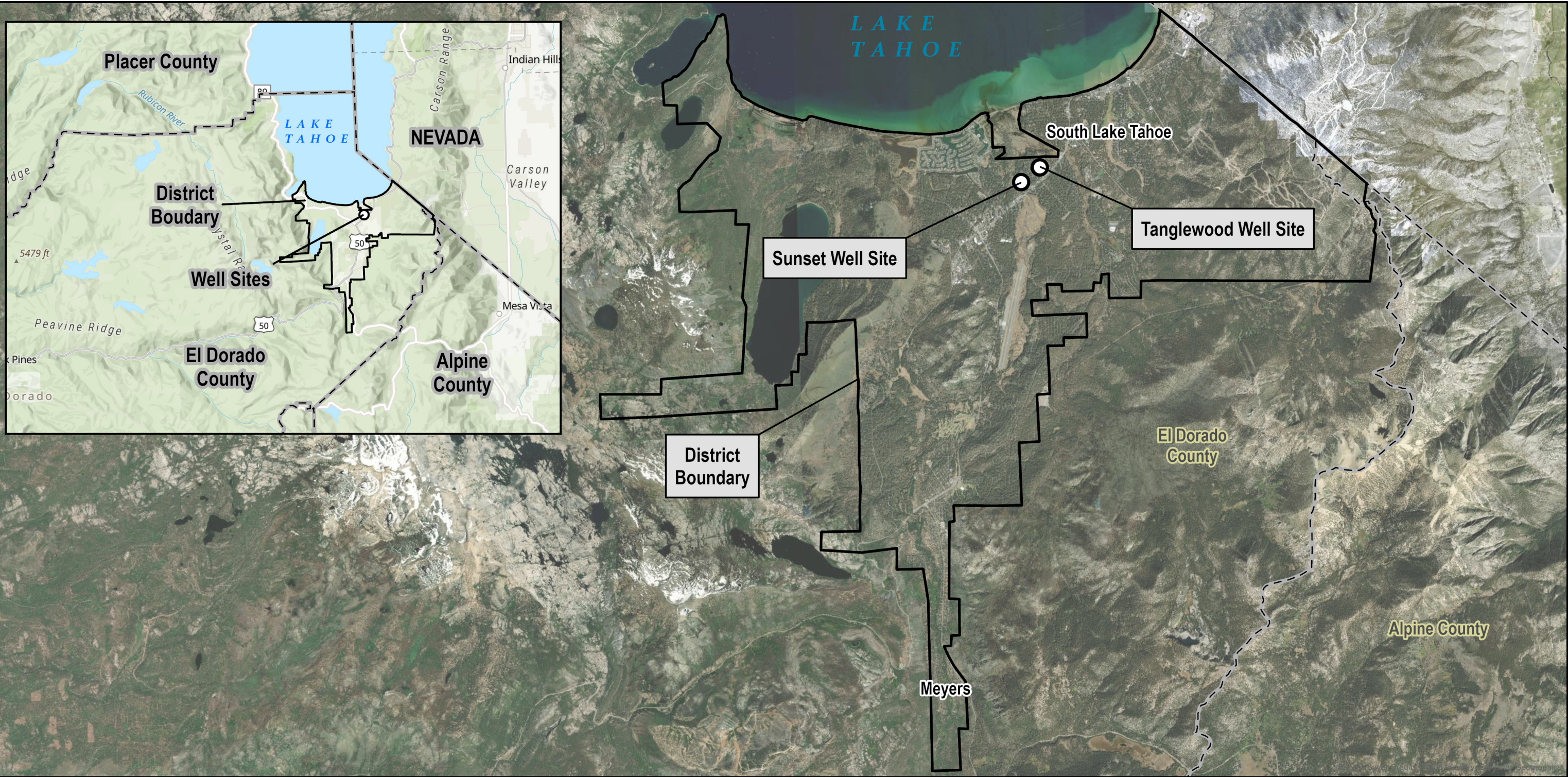
3.26.2 Execution

Complete removal of all material, temporary facilities, drilling fluids, cuttings, and municipal waste from the site to the satisfaction of DISTRICT. CONTRACTOR shall notify DISTRICT at the completion of demobilization and site cleanup activities.

3.27 Standby

During the progress of drilling operations, it may be necessary for \DISTRICT to perform work that will require CONTRACTOR to stand idle (“standby time”). In such an event, DISTRICT shall request in writing CONTRACTOR to cease operations and shall state the anticipated extent or duration thereof. CONTRACTOR shall promptly furnish such assistance and cease operations.

FIGURES



EXPLANATION

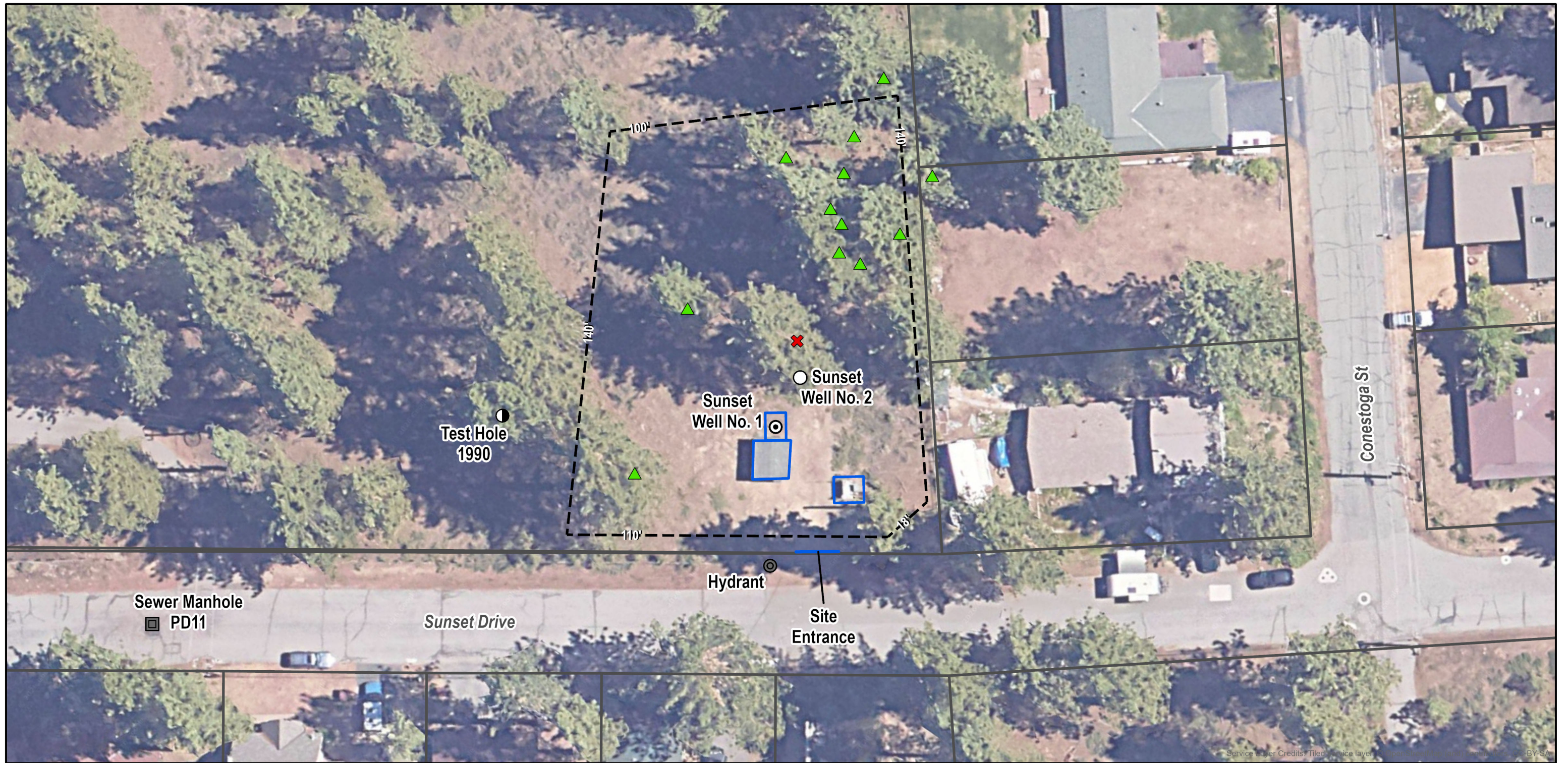
- Well Locations
- ▬ District Boundary
- - - Counties

South Tahoe Public Utilities District
El Dorado County, California

Figure 1. Site Location Map

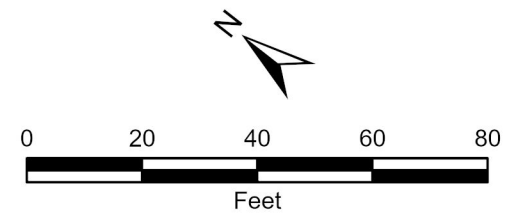
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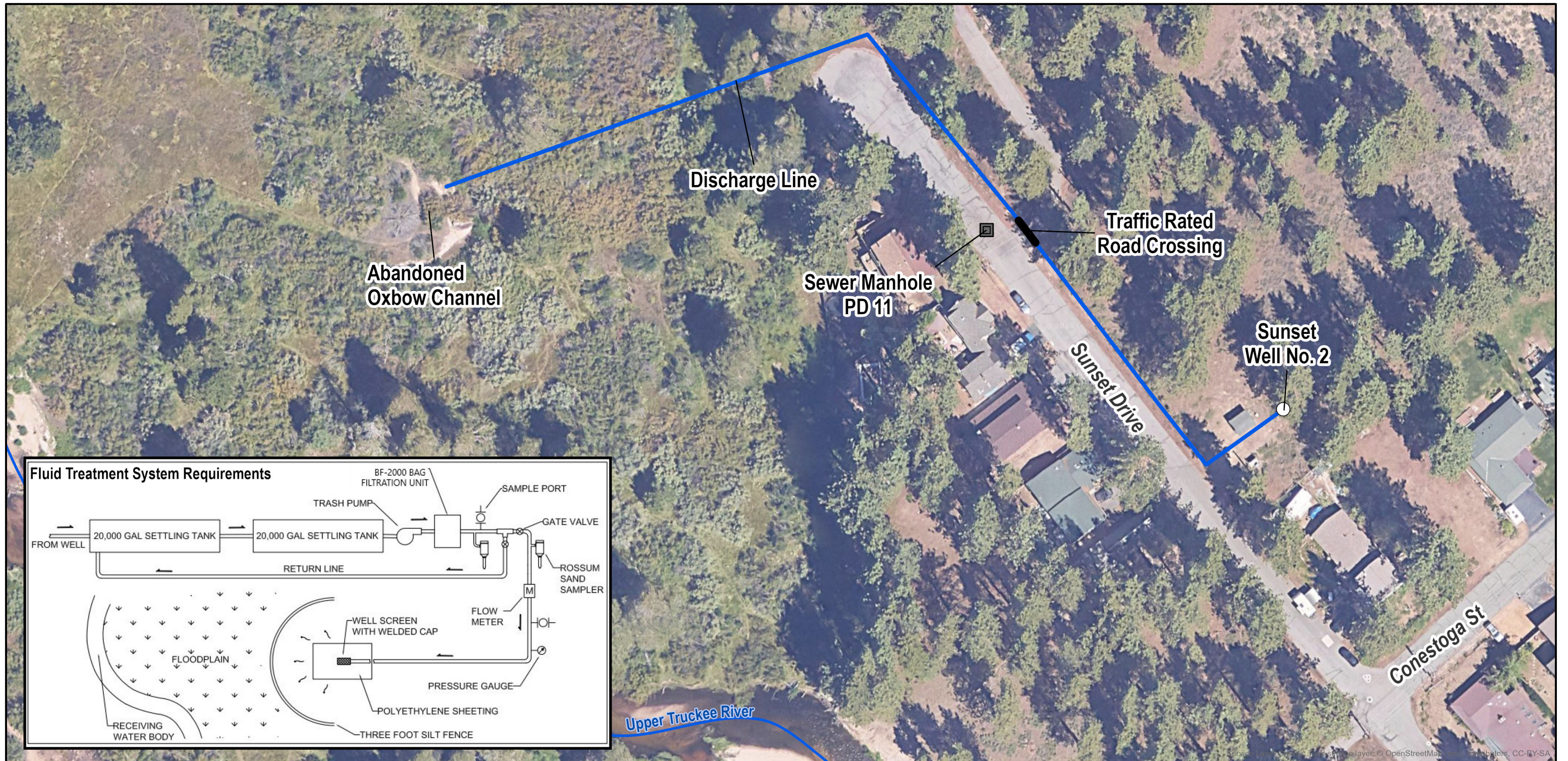
EXPLANATION

- | | | | |
|-----------------|---------------------------|----------------------------------|--------------------|
| ● Current Well | ■ Sanitary Sewer | ▭ Parcels | Tree Status |
| ○ Proposed Well | ● Hydrant | ▭ Existing Above-Ground Features | ▲ Protect in Place |
| ● Test Hole | - - Approximate Work Area | ✗ Remove | |



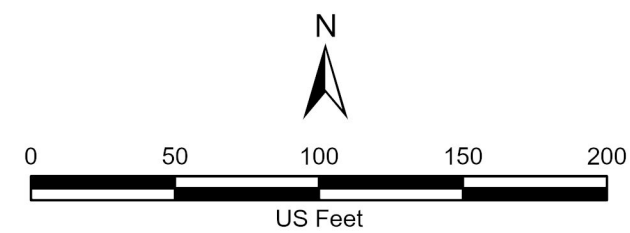
South Tahoe Public Utilities District
El Dorado County, California

Figure 2. Sunset Facility Basemap



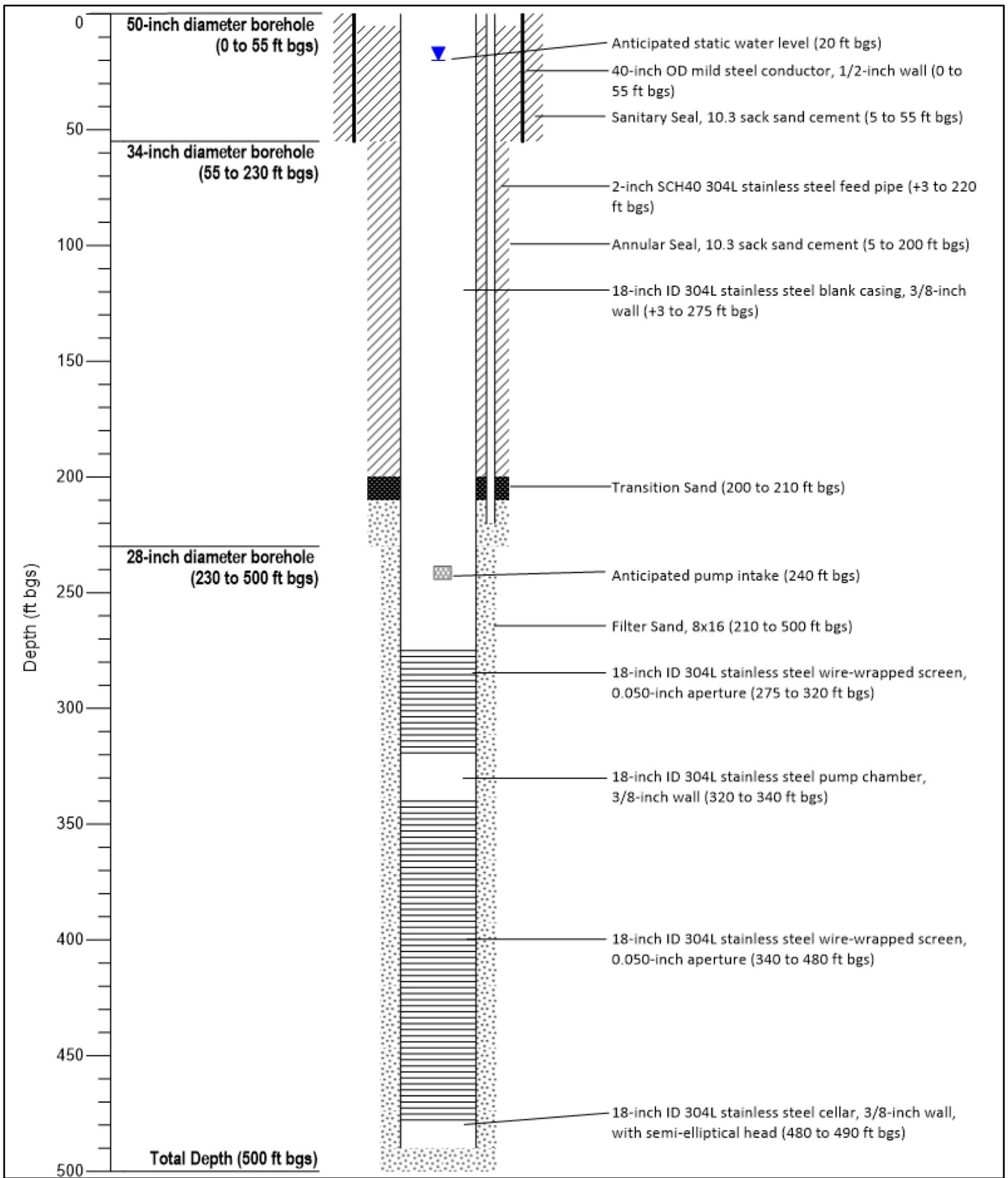
EXPLANATION

- Sunset Well No. 2
- Sanitary Sewer
- Discharge Line
- ▬ Traffic Rated Road Crossing



South Tahoe Public Utilities District
El Dorado County, California

**Figure 3. Sunset Well
Discharge Details**

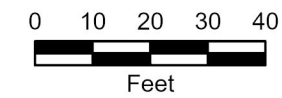


South Tahoe Public Utilities District
El Dorado County, California



EXPLANATION

- Proposed Well ● Hydrant ▭ Parcels
- ⊙ Test Well ◻ Sanitary Sewer ▭ District Property Boundary

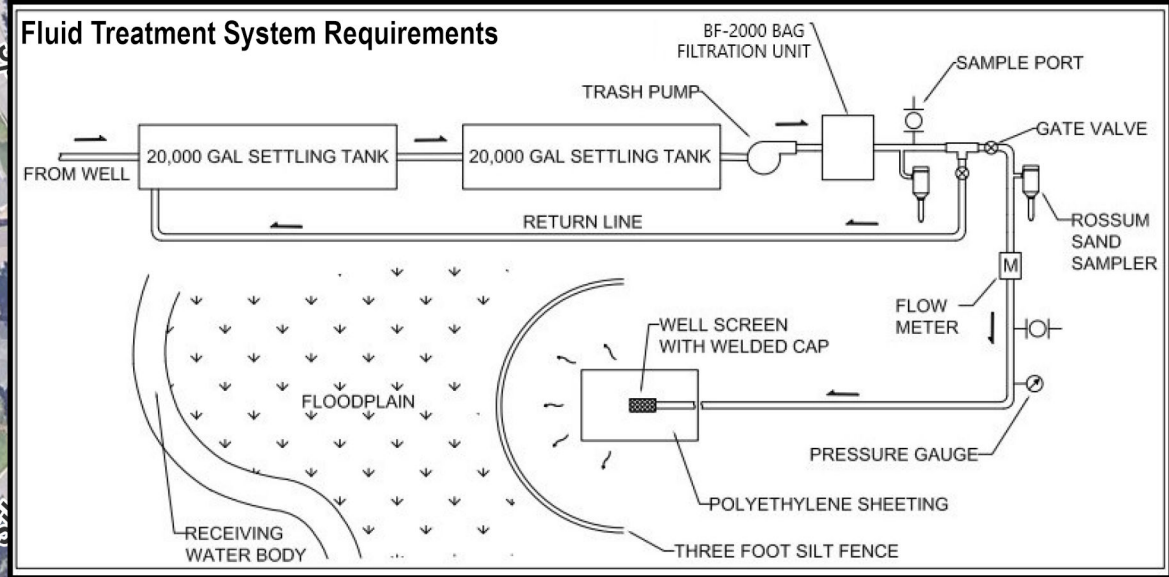
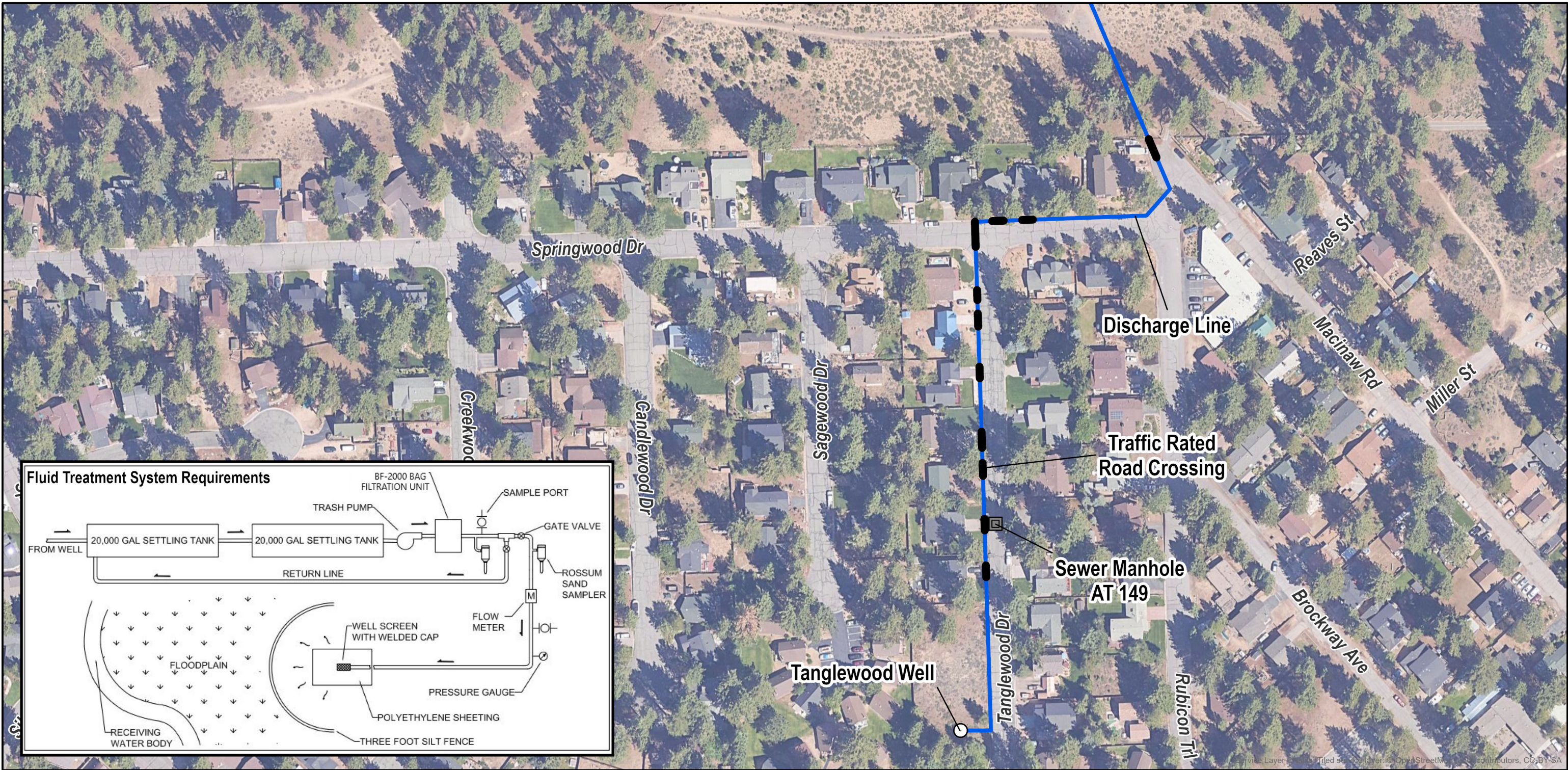


South Tahoe Public Utilities District
El Dorado County, California

**Figure 5. Tanglewood
Facility Basemap**

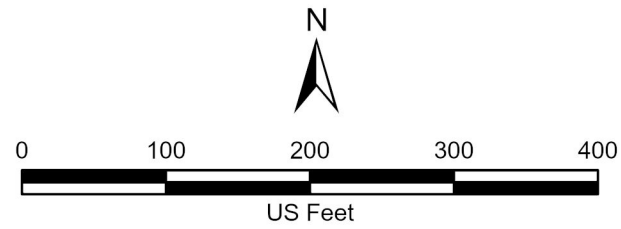
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EXPLANATION

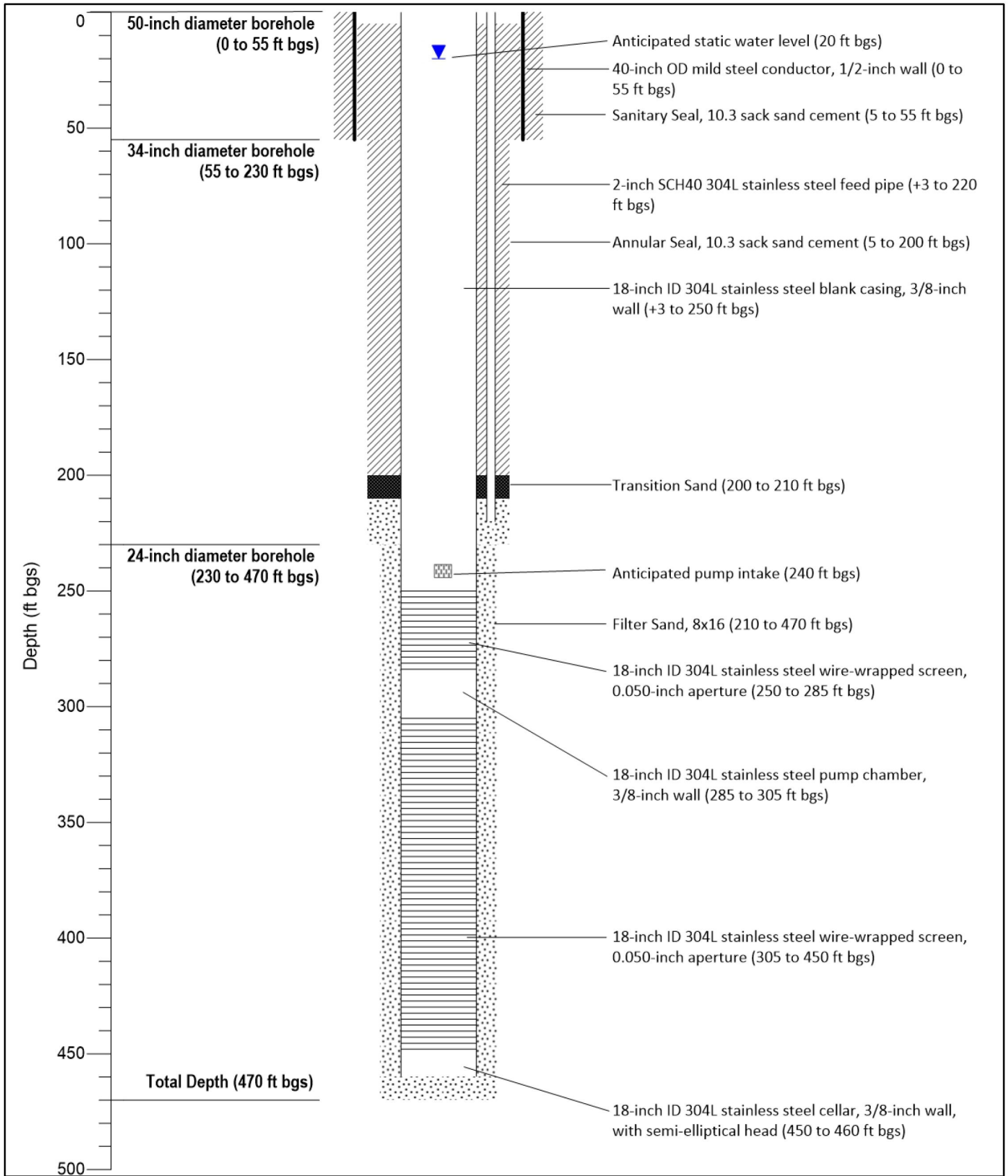
- Tanglewood Well
- Sanitary Sewer
- Discharge Line
- Traffic Rated Road Crossing



South Tahoe Public Utilities District
El Dorado County, California

Figure 6. Tanglewood Well Discharge Details

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South Tahoe Public Utilities District
El Dorado County, California



2026

Figure 7. Tanglewood Well Preliminary Design Schematic



Appendix A

Statewide National Pollutant Discharge Elimination System Permit for Drinking Water System Discharges to Waters of the United States

STATE WATER RESOURCES CONTROL BOARD

1001 I Street, Sacramento, California 95814
http://www.waterboards.ca.gov/water_issues/programs/npdes

**ORDER WQ 2014-0194-DWQ
GENERAL ORDER NO. CAG140001**

**STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT FOR DRINKING WATER SYSTEM DISCHARGES
TO WATERS OF THE UNITED STATES**

Discharges from drinking water systems to surface waters in California are subject to waste discharge requirements as set forth in this Order, and as authorized by a Notice of Applicability issued by the Deputy Director of Water Quality (Deputy Director). Definitions for the purpose of this Order are included in Attachment A. Key definitions are as follows:

Table 1. Key Definitions for the Purpose of this Order

Drinking Water System ¹	A system with 1000 ² connections or greater that are regulated by the State Water Board Division of Drinking Water or a local county department of health, with the primary purpose of transmitting, treating and distributing safe drinking water. Drinking water systems include state owned/operated facilities such as parks, campgrounds, and rest areas ¹ This Order applies to community water systems as defined in Attachment A of this Order. This Order does not apply to non-community water systems or non-transient water systems as defined in Attachment A of this Order. ² Systems with fewer than 1000 connections that discharge to waters of the United States have the option to enroll in this Order. Non-enrollment does not exempt dischargers from Clean Water Act requirements.
Drinking Water System Discharge	Short-term or seasonal discharges from a drinking water system of water that has been dedicated for drinking water purposes
Water Purveyor	Any entity that discharges from a drinking water system, including water purveyors, wholesalers, distributors, districts, municipalities, private companies, and other entities that own or operate a community drinking water system
Discharger	A water purveyor that is authorized to discharge under this Order through an approved Notice of Applicability issued by the Deputy Director of Water Quality
Waters of the United States	Generally refers to surface waters, as defined for the purposes of the federal Clean Water Act. For the purpose of this Order, the terms “surface water,” and “receiving water” are interchangeably used to mean “waters of the United States,” unless noted otherwise

Table 2. Administrative Information

This Order was adopted by the State Water Board on November 18, 2014:
This Order shall become effective on February 26, 2015 (100 days after the adoption date of this Order)
This Order shall expire on February 25, 2020

CERTIFICATION


I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the State Water Board on November 18, 2014.

AYE: Chair Felicia Marcus
Vice Chair Frances Spivy-Weber
Board Member Tam M. Doduc
Board Member Steven Moore
Board Member Dorene D'Adamo

NAY: None

ABSENT: None

ABSTAIN: None



Jeanine Townsend
Clerk to the Board

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I. SCOPE OF STATEWIDE GENERAL ORDER AND REQUIRED REGULATORY COVERAGE

This Order is a National Pollutant Discharge Elimination System (NPDES) general permit that authorizes discharges from drinking water systems, as defined on Page 1 of this Order. This Order provides regulatory coverage for short-term or seasonal planned and emergency (unplanned) discharges resulting from a water purveyor's essential operations and maintenance activities undertaken to comply with the federal Safe Drinking Water Act, the California Health and Safety Code, and the State Water Board's Division of Drinking Water permitting requirements for providing reliable delivery of safe drinking water.

Planned discharges include regularly scheduled, automated, or non-regularly scheduled activities that must take place to comply with mandated regulations and that the water purveyor knows in advance will result in a discharge to surface water. Emergency discharges include unplanned discharges that occur due to facility leaks, system failures, operational errors, or catastrophic events for which the water purveyor is not aware of the discharge until after the discharge has commenced. Planned and emergency discharges may occur directly, through a constructed storm drain or through another conveyance system, to waters of the United States (U.S.).

The Federal Water Pollution Control Act (also referred to as the Clean Water Act) section 402 requires that a discharge of any pollutant or combination of pollutants to surface waters that are deemed waters of the U.S., with certain exceptions, be regulated by a NPDES permit. (For the purpose of this Order, the terms "waters of the United States [or U.S.]", "surface waters" and "receiving waters" are used interchangeably unless noted otherwise.) On September 22, 1989, the U.S. Environmental Protection Agency (U.S. EPA) granted the State of California, through the State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Boards), the authority to issue NPDES permits pursuant to title 40 Code of Federal Regulations parts 122 and 123.

Discharges of a pollutant from a drinking water system, regardless of the size of the system, are required to be regulated by an NPDES permit if the discharges flow into a water of the U.S. Title 40 Code of Federal Regulations part 122.28 provides for issuance of general permits to regulate a category of dischargers if they involve the same or substantially similar types of operations; discharge the same type of waste; require the same type of effluent limitations or operating conditions; require similar monitoring; and are more appropriately regulated under a general order rather than individual orders. Discharges from drinking water systems that result from mandated activities to protect public health are of substantially similar types of operations, discharging the same type of waste.

This Order requires all water purveyors in California with drinking water system discharges to waters of the U.S. as described in Section I.B of this Order, except those water purveyors that meet the exception criteria identified in section I.A of this Order, to obtain NPDES regulatory coverage through enrollment in this statewide NPDES General Order. The water purveyor shall submit an application package to the State Water Board in accordance with section II.C.1 *Application Package Requirements* any time after the effective date of the permit but no later than **September 1, 2015**.

A. Water Purveyors NOT Required to Enroll in This Order

Water purveyors that meet any of the following criteria, items 1 through 6, are NOT required to submit an application package to obtain coverage through enrollment in this particular statewide NPDES General Order; this Order is, however, available for water purveyors that meet the criteria of items 1 through 3 below and choose to enroll. (This Order does not exempt any water purveyor from federal Clean Water Act requirements to obtain NPDES regulatory coverage for its discharges to waters of the U.S.) By **September 1, 2015**, water purveyors that meet any one of the items 2 through 5 below shall submit to the State Water Board a Notice of Non-Applicability form (see Attachment B-2) that certifies NPDES regulatory coverage from this Order is not required. A water purveyor with multiple community water systems in California need only submit one Notice of Non-Applicability for its systems that meet the same criterion.

1. The drinking water system has fewer than 1000 connections that deliver drinking water to end users. (This does not include water wholesalers as defined in Attachment A that deliver water to other drinking water systems); or
2. The water purveyor discharges solely to a municipal separate storm sewer system(s) (MS4) and has an established local agreement with the MS4 permittee to discharge into its system(s),

AND

The corresponding Regional Water Board Executive Officer provides written confirmation to the State Water Board Deputy Director that the local agreement provides sufficient regulation of the subject drinking water system discharges through an existing MS4 NPDES permit; or

3. The water purveyor is an MS4 permittee, or co-permittee, named on a State Water Board or a Regional Water Board issued MS4 permit that also authorizes discharges from drinking water systems, and all drinking water system discharges solely discharge into its own MS4 system; or
4. The water purveyor's discharge is regulated under an existing individual site-specific NPDES permit issued by the Regional Water Board because: (1) the discharge from the system is outside of the scope of this low threat Order, and/or (2) a Total Maximum Daily Load (TMDL) was adopted and the Regional Water Board determined that TMDL-specific permit requirements for its drinking water system(s) discharges are appropriate because those discharges may contribute to the impairment of the water body; or
5. All discharges from the drinking water system do not discharge to a water of the U.S.; or
6. The discharge is exempt from the legal requirement to obtain an NPDES permit under federal law.

After review, a Notice of Non-Applicability Approval by the State Water Board's Deputy Director of Water Quality (Deputy Director) may be issued. If the Notice of Non-Applicability is not complete or the discharge is deemed ineligible, the Deputy Director will send a response letter to the applicant outlining: (1) the missing information that deems the Notice of Non-Applicability incomplete, or (2) why the described discharge is not eligible and thus the water purveyor must obtain coverage under this Order. The State Water Board will provide the water purveyor **60 days from the date of the response letter** to provide State Water Board staff the items necessary to complete the Notice of Non-Applicability or to submit a complete application package in accordance with section II.C of this Order.

B. Discharges Authorized Under This Order

This Order authorizes drinking water system discharges (as defined on Page 1) resulting from a water purveyor's essential operations and activities undertaken to comply with the federal Safe Drinking Water Act, the California Health and Safety Code, and the State Water Board's Division of Drinking Water permitting requirements. Discharges authorized by this Order are composed solely of water that is dedicated by drinking water facilities for the primary purpose of providing safe and reliable drinking water. Additionally, discharges authorized under this Order are determined to not adversely affect or impact beneficial uses of the receiving waters when properly managed through best management practices. Such discharges include, but are not limited to, discharges from supply wells, transmission systems, water treatment facilities, water distribution systems, and storage facilities. Any discharges that are likely to cause or contribute to an exceedance of a water quality objective other than those granted an exception under the State Water Board Resolution 2014-0067, will not be authorized under this Order.

This Order authorizes single discharges at one identified location and multiple simultaneous discharges at multiple locations. Authorized discharges to waters of the U.S. may include, but are not limited to, the following discharges:

1. Planned Discharges Due To:

- a. Groundwater supply well flushing or pump-to-waste.
- b. Groundwater well development, rehabilitation, and testing.
- c. Groundwater monitoring for purpose of supply well development, rehabilitation and testing.
- d. Trench dewatering of drinking water during planned repairs.
- e. Transmission system installation, cleaning, and testing.
- f. Water treatment plant operations (excluding filter backwash that is discharged to a water of the U.S).
- g. Distribution system storage tank or reservoir releases.
- h. Distribution system dewatering, flushing, and pressure testing.
- i. Fire flow / fire hydrant testing.
- j. Meter testing.

- k. Automated water quality analyzers operations.
- l. Pressure relief valves.
- m. Unscheduled activities that must be undertaken to comply with mandates of the Federal Drinking Water Act and California Health and Safety Code.

2. Emergency (Unplanned) Discharges Due To:

- a. Emergency drinking water system failures and repairs including transmission and distribution system failures and repairs.
- b. Trench dewatering due to an emergency failure.
- c. Operation errors.
- d. Catastrophic events.

C. Discharges Not Authorized Under This Order

The State Water Board does not authorize any of the following discharges to waters of the U.S. under this Order:

- 1. Discharges that are not within the scope of this Order as described in section I and/or are not authorized by a Notice of Applicability issued by the Deputy Director of Water Quality (Deputy Director); or
- 2. Discharges to a water of the U.S. with a total maximum daily load (TMDL) that prescribes a waste load allocation to a water purveyor, where the Deputy Director determines that the requirements of this Order are not consistent with the assumptions and requirements of the TMDL and thus compliance with this Order is not sufficient for the water purveyor to comply with the imposed TMDL requirements; or
- 3. Discharges from new drinking water systems (not an expansion of an existing system) into a Clean Water Act section 303(d)-listed impaired water body that is impaired for a constituent that exists in the new discharge at a concentration greater than the criteria used to establish the impairment of the water body, and for which a regional water board has issued an individual permit that addresses the TMDL requirements; or
- 4. Direct discharges into areas designated by the State Water Board as Areas of Special Biological Significance (ASBS).

II. PERMIT COVERAGE AND APPLICATION REQUIREMENTS

A. Permit Coverage

This Order provides regulatory coverage to water purveyors with existing and potential authorized discharges as set forth in section I.B to waters of the U.S. from a community drinking water system that does not adversely affect or impact beneficial uses of the

receiving water. Permit coverage may include discharges from work conducted by contractors on behalf of the water purveyor.

B. Permit Effective Date

This Order becomes effective **February 26, 2015**, 100 days after the adoption date of this Order. Any time after the effective date but no later than **September 1, 2015**, all water purveyors that do not meet the criteria of section I.A. of this Order shall submit a complete application package in accordance with the following section II.C.

C. Application Package Requirements

To obtain regulatory coverage under this Order, a water purveyor must submit to the State Water Board a complete application package that includes all the following items. A water purveyor with multiple drinking water systems in California need only submit one complete application package (with individual Notice of Intent forms for each of its drinking water systems) and obtain one Notice of Applicability for regulatory coverage of all its systems that discharge to waters of the U.S.

1. **Notice of Intent.** A completed Notice of Intent form for each of its drinking water systems (shown as Attachment B1 of this Order), signed and certified in accordance with section V.B., *Signatory and Certification Requirements*, of Attachment D – Standard Provisions.
2. **Application Package Fee.** A fee payable to the State Water Board in accordance with California Code of Regulations, title 23, or subsequent fee regulations updates. The current fee schedule is available at the following website:
<http://www.waterboards.ca.gov/resources/fees>
Only one fee is required for an application package requesting coverage for multiple drinking water systems.
3. **Site Information.**
 - a. A site schematic showing the following items:
 - i. The general location of the community drinking water facilities and/or the boundaries of the water purveyor's service area(s); and
 - ii. The general location of groundwater supply wells and/or any discharge locations to surface waters; and
 - iii. General identification of the portion of the community water system that discharges within a 300-foot conveyance distance from the receiving water(s) and/or within a 300-foot radius of the receiving water(s).
 - b. Names of all named receiving water bodies and/or major downstream water bodies.

- c. A description of the multiple uses of the water prior to surface water discharge or beneficial reuse that the discharges will serve (i.e. ground water recharge, irrigation).
 - d. Reason(s) that the discharge water cannot be utilized for multiple uses or beneficial reuse. (Refer to section VI. MULTIPLE USES OR BENEFICIAL REUSE, below)
4. **Total Maximum Daily Loads (TMDL) Constituent-specific Application Package Supplement** (applicable for discharges into waters of the U.S. identified in section III. K of the Fact Sheet). A supplement to the application requirements listed above shall include the following items:
- i. **Laboratory Analysis of TMDL-specific constituent(s).** (The laboratory analysis shall be conducted by a laboratory certified by the Environmental Laboratory Accreditation Program (ELAP).) The application package supplement shall include a laboratory analysis sheet(s) indicating the concentration of the applicable TMDL specific constituent(s) in the drinking water system discharge at the point of discharge. The monitoring and analysis shall be conducted in accordance with title 40 Code of Federal Regulations part 136. The water purveyor shall submit the following items for the application supplement to be deemed complete:
 - a) A minimum of two samples representative of the drinking water system discharge that contains or has the potential to contain the greatest concentration or level of constituent/parameter associated with the TMDL constituent/parameter. The samples shall be taken at a location after the appropriate treatment or controls are implemented for the constituent associated with the TMDL; and
 - b) The estimated minimum and maximum discharge volume per discharge event; and
 - c) The estimated average discharge volume from the system per year. The estimated volumes may be based on historical data.
 - ii. **TMDL-specific Best Management Practices.** Description of site-specific best management practices that properly treat and/or control corresponding TMDL constituents in the discharge to a concentration or level less than the water purveyor's applicable TMDL-specific permit requirement (s) as set forth in Attachment G, if any.

The supplemental analytical information will be used to confirm that the discharge does not contribute to the specific impairment of the TMDL-related waterbody(ies) and that the requirements in this Order are sufficient to ensure compliance with the specific TMDLs.

D. State Water Board Notice of Applicability

After the water purveyor's application package is deemed complete, the Deputy Director will issue a Notice of Applicability. Regulatory coverage for the planned and emergency

discharges that occur within the areas identified in the application package commences with the date of issuance of a Notice of Applicability to the water purveyor. If the submitted application package is not complete in accordance with previous section II.C., or the discharge is deemed ineligible for coverage under this Order, the Deputy Director will send a response letter to the applicant outlining: (1) the missing information that renders the application package incomplete, or (2) why the described discharge is not eligible for coverage under this Order. The water purveyor will have **60 days from the date of the response letter** to provide State Water Board staff the items necessary to complete the application package.

E. Permit Coverage Termination

1. **Termination of Existing Regional Water Board Permit Coverage.** Upon the issuance of the NOA in accordance with this Order, the State Water Board expects the applicable Regional Water Board to terminate regulatory coverage under an existing non-MS4 Regional Water Board NPDES permit for discharges within the scope of this Order.
2. **Termination of Statewide Permit Coverage or Revocation of Notice of Non-Applicability.** The Deputy Director may terminate coverage or revoke a Notice of Non-Applicability Approval (NONAA) under this Order for any of the specified causes, and require application for coverage under an individual or other NPDES permit as set forth in title 40 Code of Federal Regulations part 122.28(b)(3). Causes for permit coverage termination or NONAA revocation include, but are not limited to, the following:
 - a. Violation of any term or condition of this Order; or
 - b. Misrepresentation or failure to disclose all relevant facts in obtaining permit coverage or non-applicability status under this Order, or
 - c. Written request from a Discharger to terminate enrollment because discharge has ceased or that the permit is no longer needed.

Annual permit fees will be assessed by the State Water Board up to the date of written termination notification from the State Water Board to the Discharger, or the date of a termination request letter from the Discharger to the State Water Board, whichever is applicable.

3. **Qualified Biologist Certification Following Project Completion.** Upon completion of the project, the Discharger shall provide certification by a qualified biologist that beneficial uses of the receiving waters have been restored. For drinking water system discharges, completion of the project is when the water purveyor ceases discharges from its drinking water system under this Order, or when the State terminates NPDES permit coverage for the discharge(s).

F. Permit Transfer

A change in ownership of the facilities authorized to discharge through coverage under this Order requires the current owner to provide written notice to the State Water Board

at least 30 days in advance of transfer of ownership. The Deputy Director may determine that the new owner must submit an application package to seek coverage under this Order if the nature or location(s) of the discharge(s) have changed from the application package on file.

III. FINDINGS

The State Water Board finds the following:

- A. Legal Authorities.** This Order serves as statewide Waste Discharge Requirements (WDRs) pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations adopted by the U.S. EPA, and the California Water Code, chapter 5.5, division 7 (commencing with § 13370). This Order shall serve as a statewide general NPDES permit for point source discharges from single or multiple discharge points to surface waters, storm drains, and other storm water conveyances leading to waters of the U.S.
- B. Background and Rationale for Requirements.** The Fact Sheet (Attachment F) contains background information and rationale for the requirements in this Order, and is hereby incorporated into and constitutes findings for this Order. Attachments A through E, G, and H are also incorporated into this Order.
- C. Termination of Existing Coverage Under Similar Regional Water Board Orders.** The State Water Board's intention in the issuance of this statewide NPDES Permit is to provide consistent and efficient regulation of discharges from drinking water systems statewide. To provide such consistency, the State Water Board intends that existing regulatory coverage under an existing non-MS4 Regional Water Board NPDES permit for discharges regulated under this Order will be terminated by the applicable regional water board upon issuance of the Notice of Applicability to a water purveyor per the terms of this Order.
- D. Threat and Complexity of Discharge.**
When mitigated through implementation of appropriate management practices, treatment and/or controls, discharges from community water systems, as defined under this Order, pose no adverse effects or impacts to beneficial uses of the receiving waters. In accordance with the State Water Board fee regulations, the discharges that are regulated under this general NPDES Permit require minimal or no additional treatment systems to meet limits and pose no significant threat to water quality and therefore are of low threat and low complexity.
- E. State Implementation Policy.** As adopted in March 2000, and amended in February 2005, the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP) establishes implementation provisions for priority pollutant criteria, and objectives and provisions for chronic toxicity control. Section 5.3 of the SIP allows for the granting of a categorical exception for drinking water system activities conducted to fulfill statutory requirements mandated by federal and state regulations.

F. California Ocean Plan. In 1972, the State Water Board adopted the Water Quality Control Plan for Ocean Waters of California (hereinafter Ocean Plan), as amended. The latest Ocean Plan amendment became effective on August 19, 2013. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean waters of the State. To protect the beneficial uses of ocean water, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the Ocean Plan and are applicable to those discharges directly into the Ocean or indirectly via a storm water system that drains into the Ocean near the location of discharge. This Order does not authorize direct discharges into Areas of Special Biological Significance (ASBS).

Section III.J of the Ocean Plan allows the State Water Board to grant an exception where the State Water Board determines that the exception will not compromise protection of the ocean waters or beneficial uses and the public interest will be served.

G. Exception Resolution. On November 18, 2014, the State Water Board adopted a Resolution approving an exception to the State Implementation Policy and the Ocean Plan to water purveyors statewide for discharges from drinking water systems from complying with specified priority pollutant criteria and ocean plan objectives. As provided in Resolution 2014-0067, the State Water Board granted an exception per section 5.3 of the State Implementation Policy to water purveyors statewide, for planned and emergency discharges to inland surface waters, enclosed bays and estuaries. Similarly, as provided in Resolution 2014-0067, the State Water Board granted water purveyors with drinking water system discharges to the ocean, other than direct discharges into ASBS, an Ocean Plan exception for compliance with specified Ocean Plan objectives. As further discussed in the Fact Sheet (Attachment F), the State Water Board finds that in accordance with the requirements of the SIP and Ocean Plan, discharges from drinking water systems qualify for an exception of the State Implementation Policy and Ocean Plan per Resolution 2014-0067.

H. California Environmental Quality Act. Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA), (commencing with section 21100) of Division 13 of the Public Resources Code.

Additionally, pursuant to CEQA, Public Resources Code section 21100 et seq., on November 18, 2014 the State Water Board adopted Resolution 2014-0067 approving a Mitigated Negative Declaration for excepting the type of discharges as covered under this Order from specified requirements of the State Implementation Policy and the California Ocean Plan.

I. Total Maximum Daily Load (TMDL) Implementation. A review of Regional Water Board TMDLs found that, as of the adoption date of this Order, only the Los Angeles Regional Water Board and the San Diego Regional Water Board have TMDLs that either directly apply waste load allocations to, or may indirectly imply that waste load allocations are applicable to, the discharges from drinking water systems regulated under this General Order. None of these TMDLs established waste load allocations that apply exclusively to discharges from drinking water systems. These TMDLs are

applicable to the discharges from drinking water systems authorized under this Order and are therefore implemented by this Order.

This Order requires TMDL-related sampling of discharges from drinking water systems identified in a TMDL. If a Regional Water Board determines that any of these TMDLs, or any newly approved TMDLs, establish requirements that should be implemented through TMDL-specific permit requirements for the discharges from drinking water systems that are authorized under this Order, the Regional Water Board may issue permit(s) for those discharges, with coverage under this Order subsequently terminated. Alternatively, if further TMDLs are adopted that address pollutants that are likely to be in discharges from drinking water systems, and allocate waste loads specifically to water purveyors regulated under this Order, the State Water Board may consider adding additional TMDL-specific permit requirements to Attachment G of this Order in a subsequent permit amendment or renewal.

J. Notification of Interested Parties. State and Regional Water Board staffs have conducted eight stakeholder meetings statewide, and numerous other informal communications, and have notified prospective water purveyors and interested agencies and persons of the intent to issue this statewide NPDES permit and prescribe these statewide waste discharge requirements. The State Water Board provided an opportunity for all interested parties to submit written comments and testimony.

K. Consideration of Public Comment. The State Water Board, in an August 5, 2014 public hearing, heard and considered public comments pertaining to the draft Order. The State Water Board also considered all written public comments submitted by the public comment due date of August 19, 2014, prior to adopting this Order. The Fact Sheet (Attachment F) provides details regarding the public notice and public hearing.

THEREFORE, IT IS HEREBY ORDERED that, in order to meet the provisions contained in California Water Code, Division 7 (commencing with section 13000) and regulations adopted thereunder, and the provisions contained in the Clean Water Act and regulations and guidelines adopted thereunder, a water purveyor shall comply with the requirements of this Order. Water purveyors that have obtained coverage under this Order shall comply with the requirements in sections IV. through VII. (Discharge Specifications and Effluent Limitations, Receiving Water Limitations, Multiple Uses or Beneficial Uses Provisions, and Compliance Determination), Attachments D and E (Standard Provisions and Monitoring and Reporting Program) of this Order, and Attachment G (TMDL-related requirements) as applicable.

IV. DISCHARGE SPECIFICATIONS AND EFFLUENT LIMITATIONS (ONLY APPLICABLE TO DISCHARGES THAT ENTER A WATER OF THE U.S.)

For purposes of this Order, references to “discharge(s)” mean discharge(s) that may occur directly, through a constructed storm drain, or through other conveyance system, to waters of U.S. The Discharger shall comply with the following discharge specifications and effluent limitations.

A. Specification for Implementation of Best Management Practices

1. The Discharger shall implement best management practices (BMPs) that treat or control pollutants from its discharges to maintain compliance with this Order. Implementation of BMPs includes proper management, and routing of discharges to control the pollutants of concern. The Discharger shall properly manage planned discharges and implement proven BMPs provided by professional associations or institutes such as the American Water Works Association, to protect beneficial uses of the receiving water body(ies). For emergency discharges, the Discharger shall implement BMP procedures as soon as feasible while concurrently protecting public health and safety. Attachment C of this Order provides example BMPs.

At minimum, the Discharger shall implement BMPs for planned discharges to achieve the following performance measures:

- i. Prevent aquatic toxicity by using dechlorination chemical additions, implementing equivalent proven dechlorination methods, and/or assuring that the chlorine in the discharge dissipates naturally; such that the level of chlorine in the discharge is less than 0.019 mg/L prior to entering a receiving water.
 - ii. Prevent riparian erosion and hydromodification by implementing flow dissipation, erosion control, and hydromodification-prevention measures; and
 - iii. Minimize sediment discharge, turbidity and color impacts by implementing sediment, turbidity, erosion and color control measures.
2. For Groundwater Supply Well Operations, the Discharger shall implement treatment systems or BMPs for all groundwater well development, rehabilitation, or operation discharges to waters of the U.S. to ensure these discharges:
 - (1) Do not cause or contribute to an exceedance of the receiving water limitation for turbidity in Section V.G. of this Order, and
 - (2) Comply with a turbidity action level of 100 Nephelometric Turbidity Units (NTUs) or less in the discharge. An exceedance of the turbidity numeric action level of 100 NTU is not a violation of this Order, but any exceedance does require that the Discharger take action to modify, change or enhance BMPs when the turbidity level is greater than 100 NTU, until the turbidity level is 100 NTU or less.
3. The Discharger shall implement quality assurance and quality control protocol to assure best management practices, monitoring, and reporting are effective, valid, and in compliance with this Order. The Discharger shall train all personnel operating the drinking water system and responding to emergency discharges to assure the quality assurance and quality control protocol is properly implemented.
4. For planned discharges, BMPs shall be implemented prior to and during discharges that enter a water of the U.S. For planned discharges from pressure relief valves (*i.e.*, due to testing or maintenance) and unchlorinated pump-to waste wells, BMPs

shall be implemented unless infeasible (e.g., inaccessible, inadequate space). For emergency discharges, BMPs shall be implemented as soon as feasible following assurance that public safety, property, and infrastructure are protected.

5. In fulfilling the requirements of this section, the Discharger may implement the example BMPs contained in Attachment C, or proven BMPs per updated approved guidance established by industry experts, professional associations, or entities (e.g. *2014 Edition of the BMP Manual for Drinking Water System Releases* published by the California-Nevada Section of the American Water Works Association).
6. The Discharger shall maintain a documented log of all BMPs implemented for its different types of discharges that enter a water of the U.S., and make it available to State and Regional Water Board staff upon request.
7. The Discharger shall modify BMPs as necessary to maintain compliance with the requirements of this Order. If monitoring results or other available information demonstrate that the discharge is not in compliance, the Discharger shall determine the source of non-compliance, and develop and implement new or revised BMPs as necessary. As part of this process, the Discharger shall validate the effectiveness of any new or revised BMPs to achieve the requirements of this Order. All non-compliance and corresponding corrective actions to address non-compliance shall be reported to the State Water Board in the annual report, as required in the Monitoring and Reporting Program (Attachment E) of this Order. A log documenting the additional or revised BMPs shall be made available upon request by staff of the State and/or Regional Water Board.

B. Effluent Limitations

1. All Discharges of Superchlorinated Water:

- a. The total chlorine residual concentration in the discharge shall not exceed 0.019 mg/L.
- b. A field monitoring result with a total residual chlorine concentration greater than or equal to 0.1 mg/L shall be deemed out of compliance with a chlorine effluent limitation.

2. All Planned Discharges directly into, or within 300 feet of, Inland Surface Waters, Enclosed Bays, and Estuaries

- a. The total chlorine residual concentration in the discharge shall not exceed 0.019 mg/L.
- b. A field monitoring result with a total residual chlorine concentration greater than or equal to 0.1 mg/L shall be deemed out of compliance with a chlorine effluent limitation.

3. All Planned Discharges directly into, or within 300 feet of, Ocean Waters

- a. The total chlorine residual concentration in the discharge shall not exceed 0.008 mg/L.
- b. A field monitoring result with a total residual chlorine concentration greater than or equal to 0.1 mg/L shall be deemed out of compliance with a chlorine effluent limitation.

- c. The turbidity concentration in the discharge shall not exceed 225 NTU at any time.

V. RECEIVING WATER LIMITATIONS

Receiving water limitations are based on water quality objectives contained in Regional Water Quality Control Board Basin Plans and State Water Board water quality control plans, including the Ocean Plan, and policies, and are a required part of this Order. Drinking water system discharges to the receiving water that are authorized to discharge under this Order shall not cause or contribute to the exceedance of a water quality objective or standard in the receiving water, other than water quality objectives or standards for parameters that have been granted an exception under the State Water Board Resolution 2014-0067 and are not part of a TMDL, and at minimum shall not cause or contribute to an occurrence of the following in the receiving water:

- A. **pH.** The pH level to be outside the range of the pH receiving water objective in a corresponding Regional Water Board basin plan.
- B. **Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses.
- C. **Floating Material and Trash.** Floating material, debris or trash to be present that cause nuisance or adversely affect beneficial uses.
- D. **Sediment and Total Suspended Solids.** The sediment load and total suspended solids discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- E. **Toxicity.** Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- F. **Hydromodification.** Velocity and/or volume of discharge to modify the existing physical characteristics of a water body.
- G. **Turbidity.** Turbidity concentrations to exceed corresponding Regional Water Board basin plan water quality objectives for turbidity.

VI. MULTIPLE USES OR BENEFICIAL REUSE

The discharge to surface waters may be considered wasteful when it is feasible for the water to be used prior to discharge. The State Water Board strongly encourages all water purveyors to put all or part of the discharge water to multiple uses or a beneficial reuse prior to discharge into surface water. Because of the high quality of the discharge water addressed in this Order, discharges authorized under this Order that are put to multiple use or beneficial reuse are not required to be monitored and generally not required to obtain any other waste discharge requirements if the water that would otherwise be discharged is instead collected and reused for landscape irrigation, agricultural irrigation or other uses in

a manner that augments the existing water supply, or if the discharge is directly or indirectly discharged to: (1) storm water capture basin(s), (2) low impact development features, or (3) other groundwater-recharge system(s).

VII. PROVISIONS

A. Standard Provisions

The Discharger shall comply with all Standard Provisions in Attachment D.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the Monitoring and Reporting Program requirements in Attachment E.

C. Special Provisions

1. Reopener Provisions

The State Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances:

- a. If present or future investigations demonstrate that the discharges governed by, and in compliance with, this Order cause adverse impacts on water quality or beneficial uses of the receiving waters;
- b. If State Water Board precedential decisions, new policies, new laws, or new regulations are adopted;
- c. To include specific implementation provisions in Attachment G for any existing or newly adopted TMDLs;
- d. If an administrative or judicial decision on a separate NPDES permit or Waste Discharge Requirements addresses requirements applicable to discharges authorized in this Order; and/or
- e. As otherwise authorized by law.

D. Noncompliance

Noncompliance with any requirement of this Order may be subject to enforcement action by the State Water Board and/or Regional Water Board as authorized under the Porter Cologne Water Quality Control Act (Water Code Section 13000), consistent with the State Water Board's enforcement policy.

VIII. COMPLIANCE DETERMINATION FOR PLANNED DISCHARGES

Compliance with the final effluent limitations contained in Section IV.B of this Order will be determined as specified below:

A. Permit Compliance for Planned Discharges only

Compliance with applicable effluent limitations, BMP implementation requirements, receiving water limitations, monitoring, notification, and reporting requirements of the permit constitutes compliance with this Order. Due to the infeasibility of a Discharger to self-monitor compliance with receiving water limits in distant receiving water bodies (for discharges into drainage conveyance systems), non-compliance with receiving water limitations for indirect discharges will be determined based on additional site-specific information made available to the Water Boards indicating that drinking water system discharges caused or contributed to the exceedance of the receiving water limitations and adversely impacted beneficial uses.

B. General

Compliance with effluent limitations shall be determined using monitoring and reporting protocols defined in the Monitoring and Reporting Program of this Order. For purposes of reporting and administrative enforcement by the State and/or Regional Water Boards, the Discharger shall be deemed out of compliance with the effluent limitations if the constituent concentration or level is greater than the effluent limitation and greater than or equal to the minimum level (ML, also known as the Reporting Level (RL)) of properly calibrated in-field monitoring equipment.

C. Total Residual Chlorine

Handheld chlorine measuring devices that are U.S. EPA-approved are appropriate to measure residual chlorine in the field for compliance determination. The minimum level of a hand-held chlorine meter used to determine compliance with the total chlorine residual effluent limitations is 0.1 mg/L or lower. A discharge monitoring result with a total residual chlorine concentration greater than or equal to 0.1 mg/L shall be deemed out of compliance with a chlorine effluent limitation. Due to other possible interferences of these handheld devices, if readings are false positives, these will not be evaluated for compliance if explanation of cause of false positive is provided.



Appendix B

Water Well Drillers Report

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

JAN 13 1990

Do not fill in

No. 319675

SUNSET WELL

Notice of Intent No. _____

State Well No. _____
Other Well No. 12N18E04B03

Local Permit No. or Date _____

(1) OWNER: Name SOUTH LAKE PUD
Address 1275 MEADOW CREST DRIVE
City SOUTH LAKE TAHOE, CA ZIP 95706

(2) LOCATION OF WELL (See instructions):
County EL DORADO Owner's Well Number _____
Well address if different from above SUNSET WELL SITE
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED

SEE ATTACHED

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

(12) WELL LOG: Total depth 600 ft. Completed depth 440 ft

from ft.	to ft.	Formation (Describe by color, character, size or material)
50	70	FINE SAND w/ SILT
70	90	FINE GRAVELLY SAND
90	110	FINE SILTY SAND
110	170	SILTY FINE SAND
170	190	FINE SAND
190	210	FINE GRAVELLY SAND
210	240	SILTY FINE SAND
240	260	SILTY CLAYEY SAND
260	290	SILTY CLAYEY FINE SAND
290	320	SILTY SANDY CLAY
320	330	SANDY SILT
330	340	SANDY CLAY
340	350	FINE SAND
350	360	SILTY FINE SAND
360	380	FINE GRAVELLY SAND
380	400	SILTY SAND
400	410	SILTY CLAYEY SAND
410	440	SILTY SAND
440	460	FINE SAND
460	490	FINE GRAVELLY SAND
490	510	FINE SAND, SILTY
510	540	FINE CLAYEY SAND
540	570	FINE GRAVELLY SAND
570	600	FINE, SILTY SAND

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

(6) GRAVEL PACK:
Yes No Size 20/40
Diameter of bore _____
Packed from 255 to 440 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen _____

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	50	3 1/2	.375	275	440	.040
0	275	10 1/4	.250			
430	440	11	11			

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 255 ft.
Were strata sealed against pollution? Yes No Interval 440-600 ft.
Method of sealing SAND CEMENT - 10 SACK

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test 30 ft. At end of test 150 ft.
Discharge 1000 gal/min after 8 hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? OWNER
Was electric log made Yes No If yes, attach copy to this report

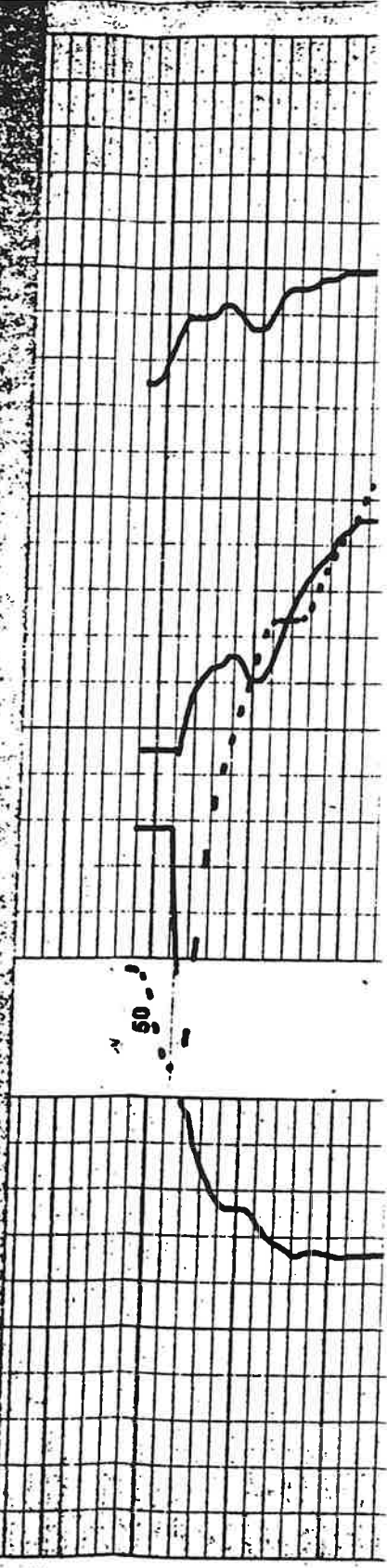
Work started _____ 19____ Completed _____ 19____

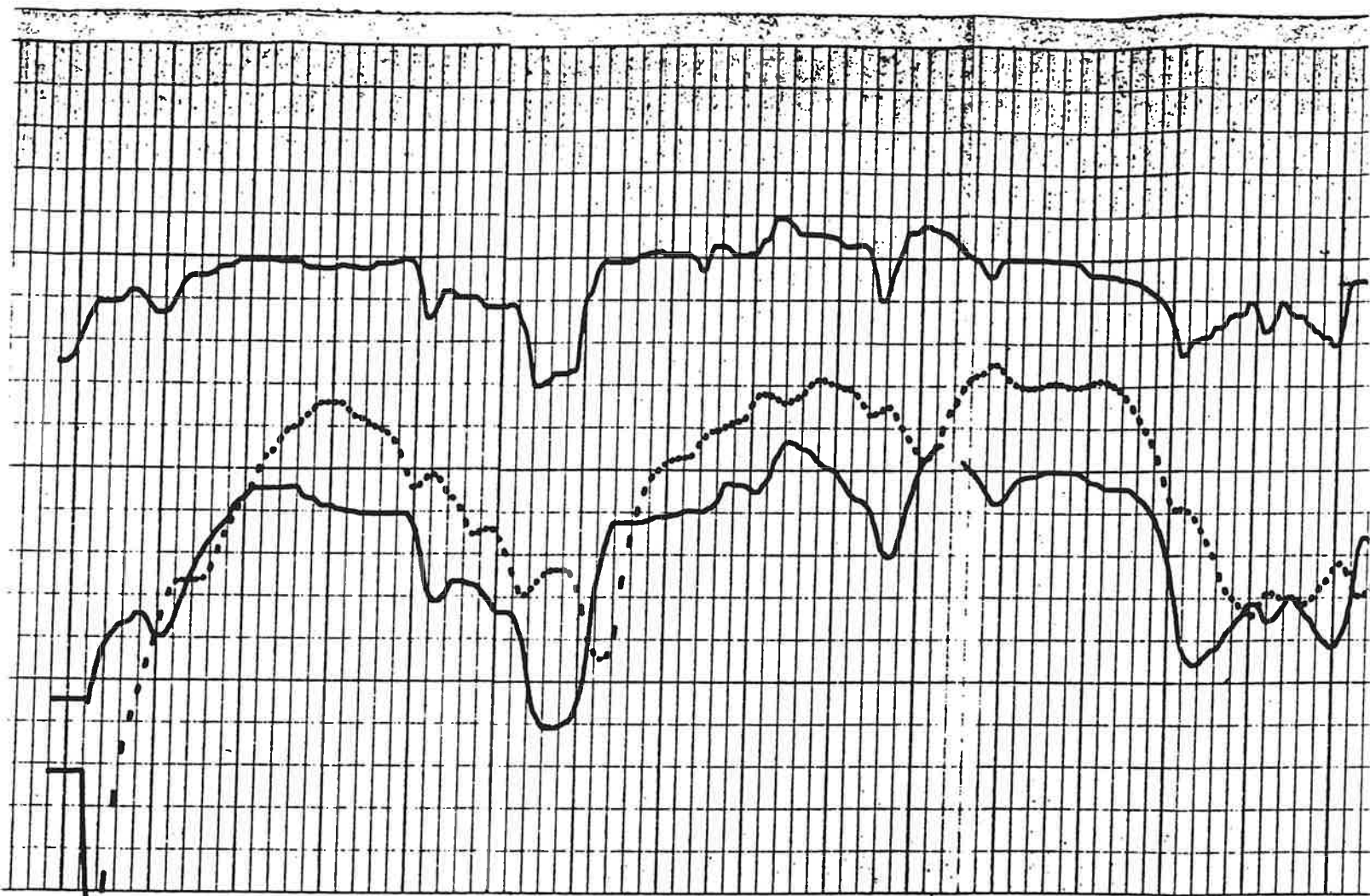
WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed [Signature] (Well Driller)
NAME Beylik Drilling Inc.
Address 3429 Longview Dr.
City North Highlands CA ZIP 95660
License No. 306291 Date of this report 11-13-90

0274 of additional samples

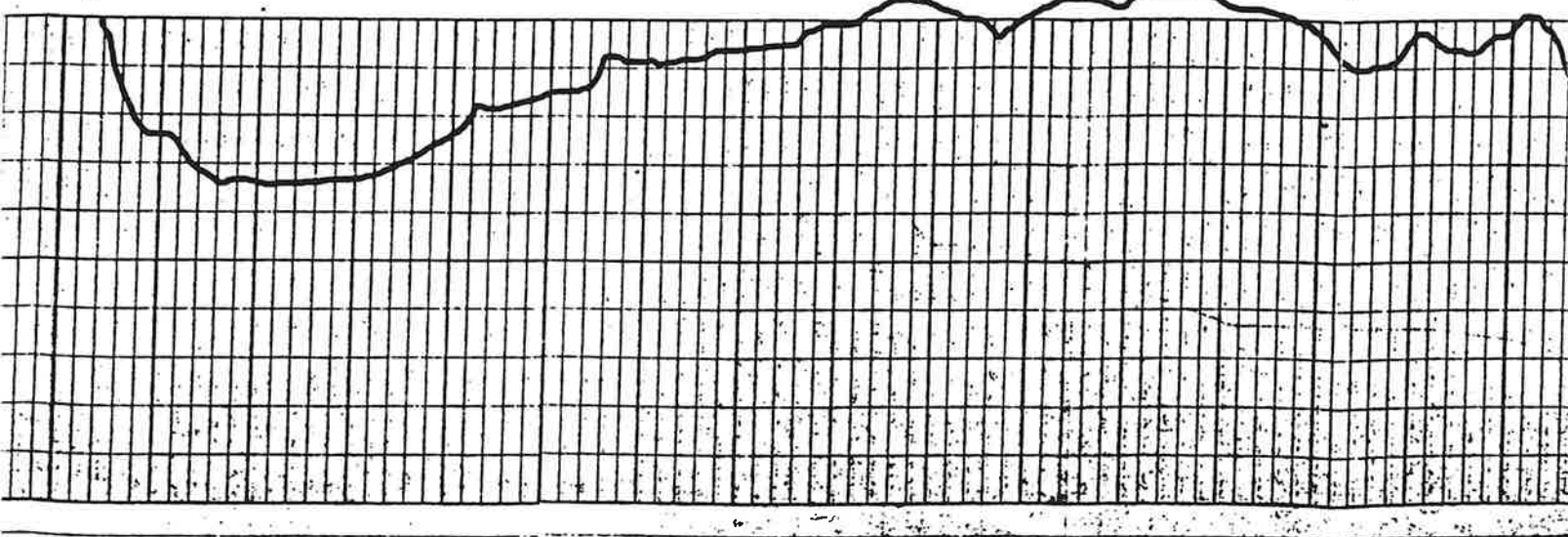
Type Log		Depth		Scale Changes	
Scale Up Hole		Scale Down Hole			
Depth	Sample No.	Run No.	Tool Type	Tool Position	Other
0		0016	E-Log	FACE	
10					
20					
30					
40					
50					
60					
70					
80					
90					
100					

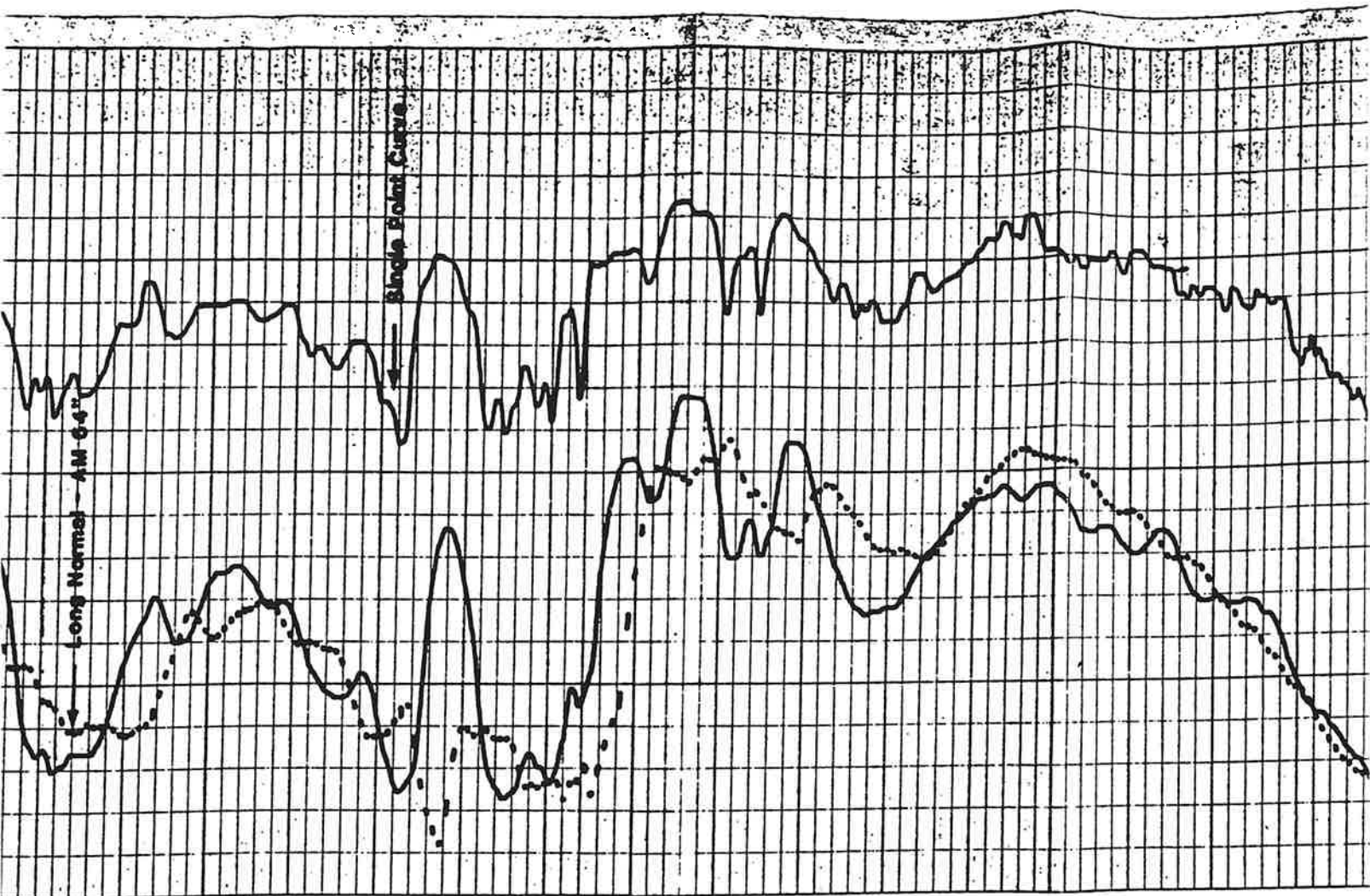
SPONTANEOUS POTENTIAL millivolts	RESISTIVITY ohms. m ² /m	RESISTIVITY ohms. m ² /m	RESISTANCE Detail Curve
10	SHORT NORMAL 16 Inch	SHORT NORMAL 16 Inch	RESISTANCE Detail Curve
50	LONG NORMAL 64 Inch	LONG NORMAL 64 Inch	





50
100
150
200

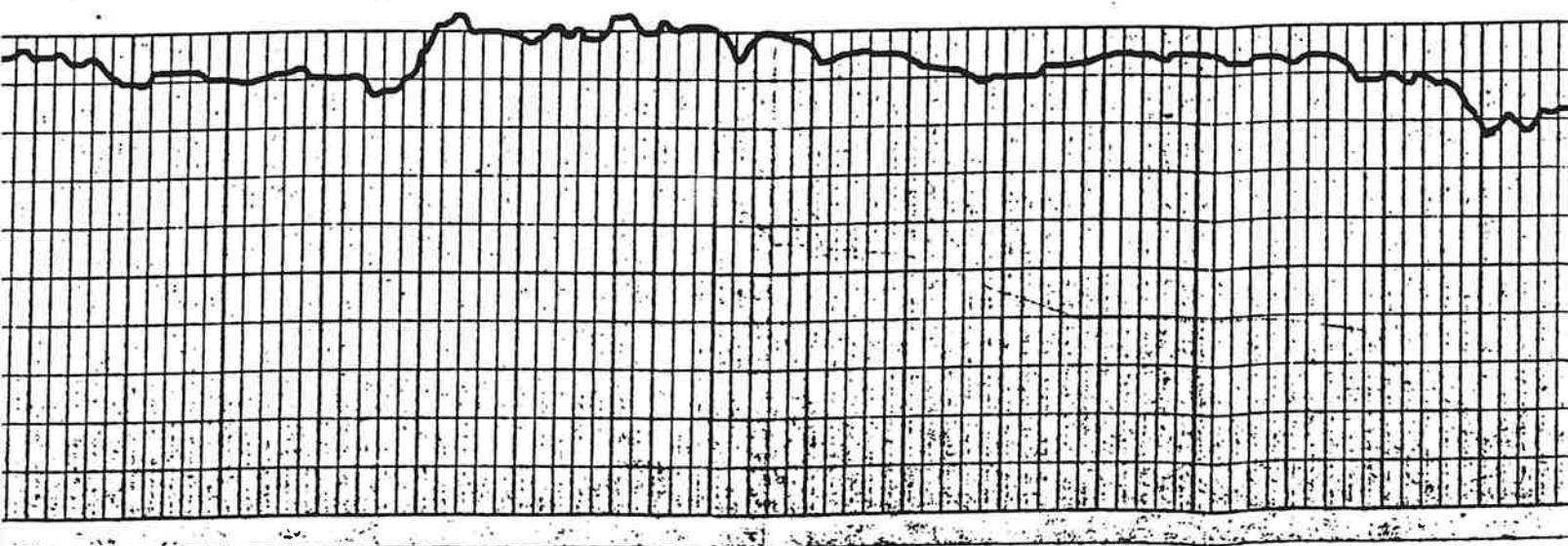


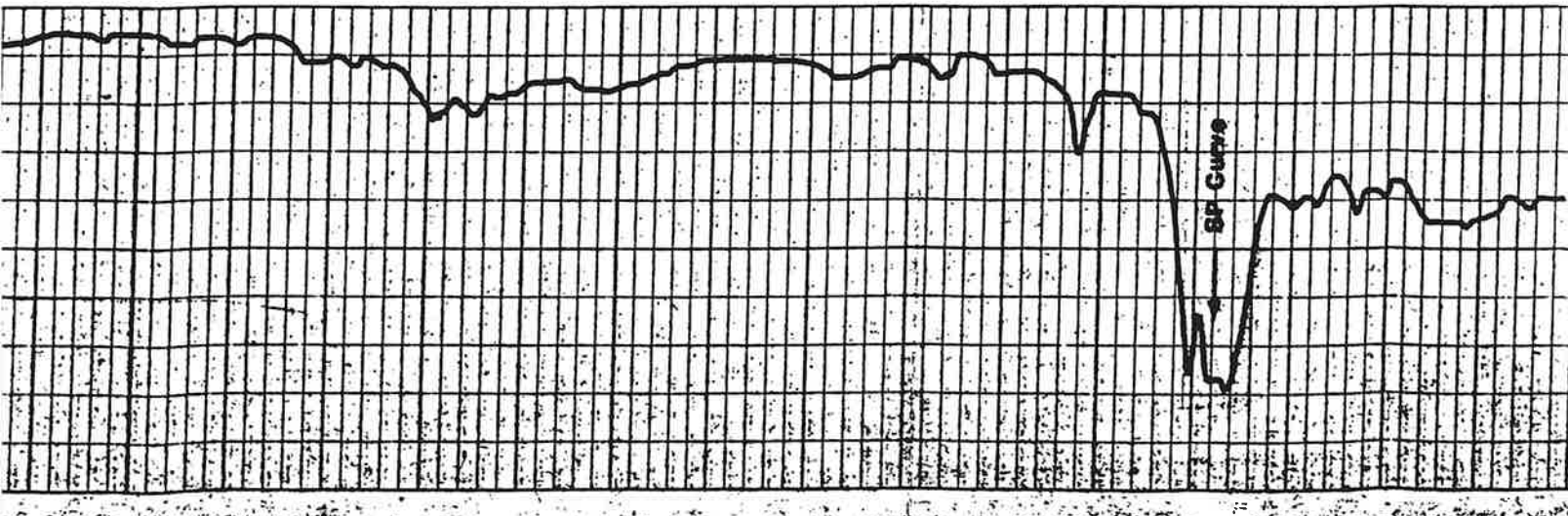
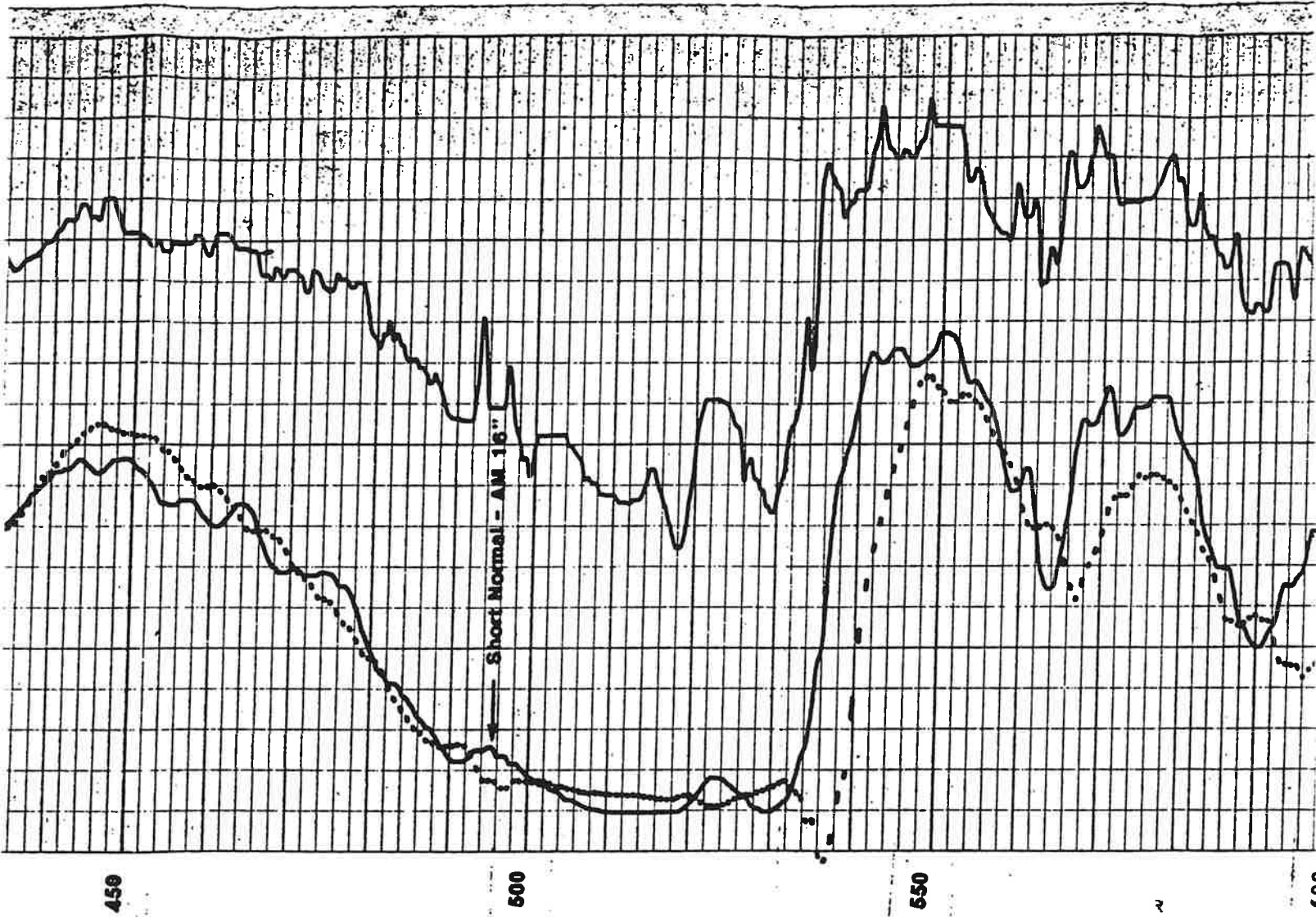


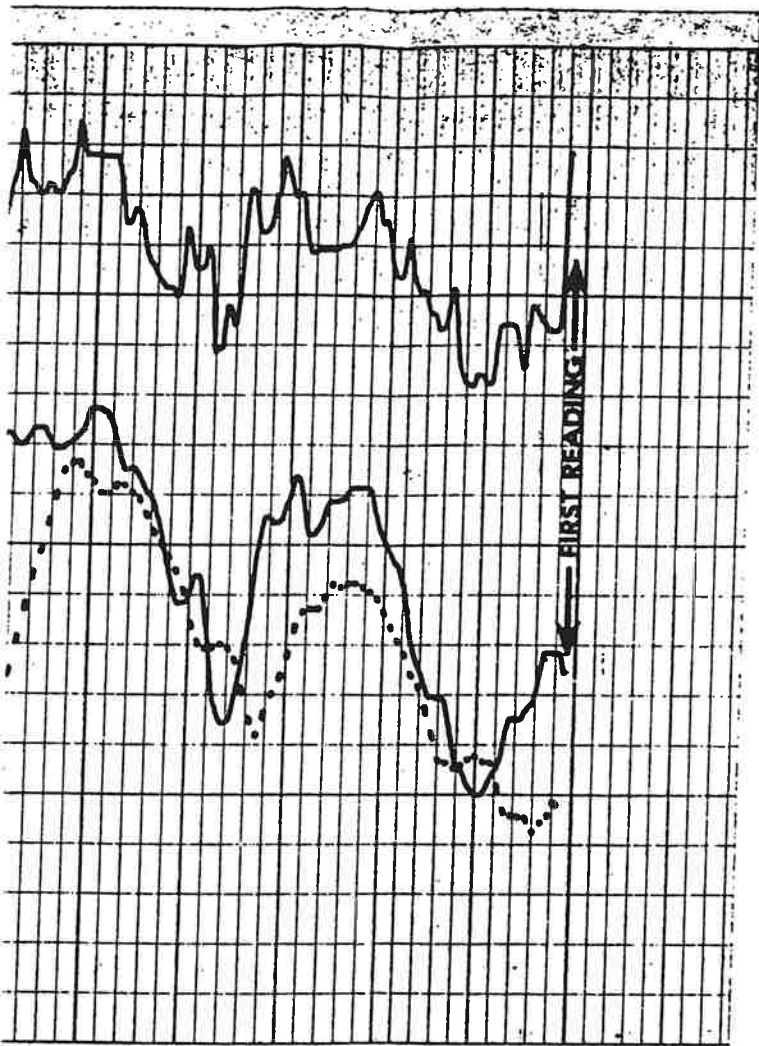
350

400

450



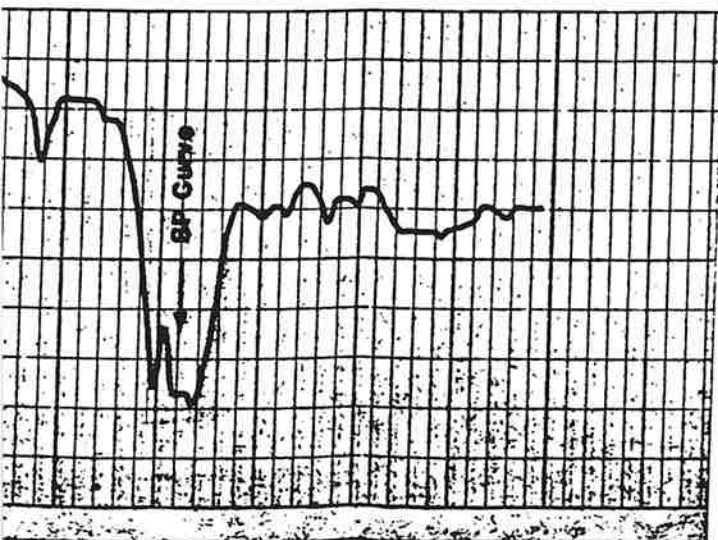




550

4

600



ST029958



Gamma-Ray Log

COMPANY South Lake Tahoe P.U.D.

WELL Sunset Test Well # 2

FIELD South Lake Tahoe

STATE California COUNTY EL Dorado

LOCATION Sunset DR

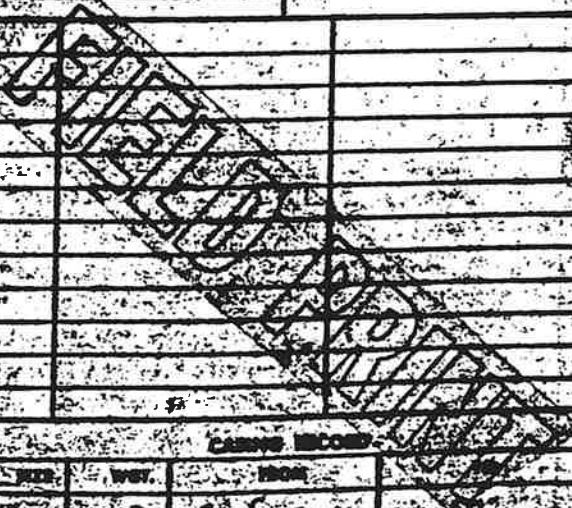
OTHER SERVICES
Electric Log

SEC _____ TWP _____ RSE _____

PERMANENT DATUM G.L. ELEV. _____
 LOG MEASURED FROM G.L. FT. ABOVE PERM. DATUM _____
 DRILLING MEASURED FROM G.L. _____

ELEV. K.S. _____
 D.F. _____
 G.I. _____

DATE 7-6-90
 RUN NO. 016
 TYPE LOG Gamma Ray
 DEPTH-DRILLER 625'
 DEPTH-LOGGER 600'
 BOTTOM LOGGED INTERVAL 599'
 TOP LOGGED INTERVAL 0'
 TYPE FLUID IN HOLE Water
 MAX. REC. TEMP., DEG. F. N/A
 RECORDED BY Robert
 WITNESSED BY Vanderschuer



RUN NO.	BORE-HOLE RECORD				CASING RECORD		
	BIT	FROM	TO	TYPE	WT.	IRON	
1	18 1/2"	50'	625'	2 1/2"	COND	Surface	50'

EQUIPMENT DATA

Run No.	Log Type	Tool Model No.	Diameter	Detector Model No.	Type	Length	Source Model No.
016	927X4LD	2"		55101	4"		Model

Gamma Ray

Neutrod

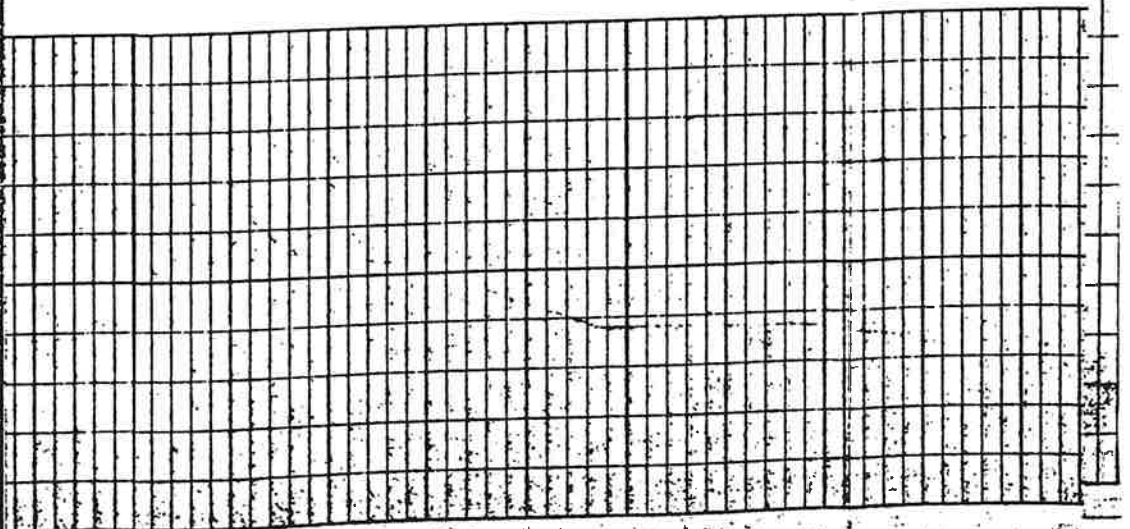
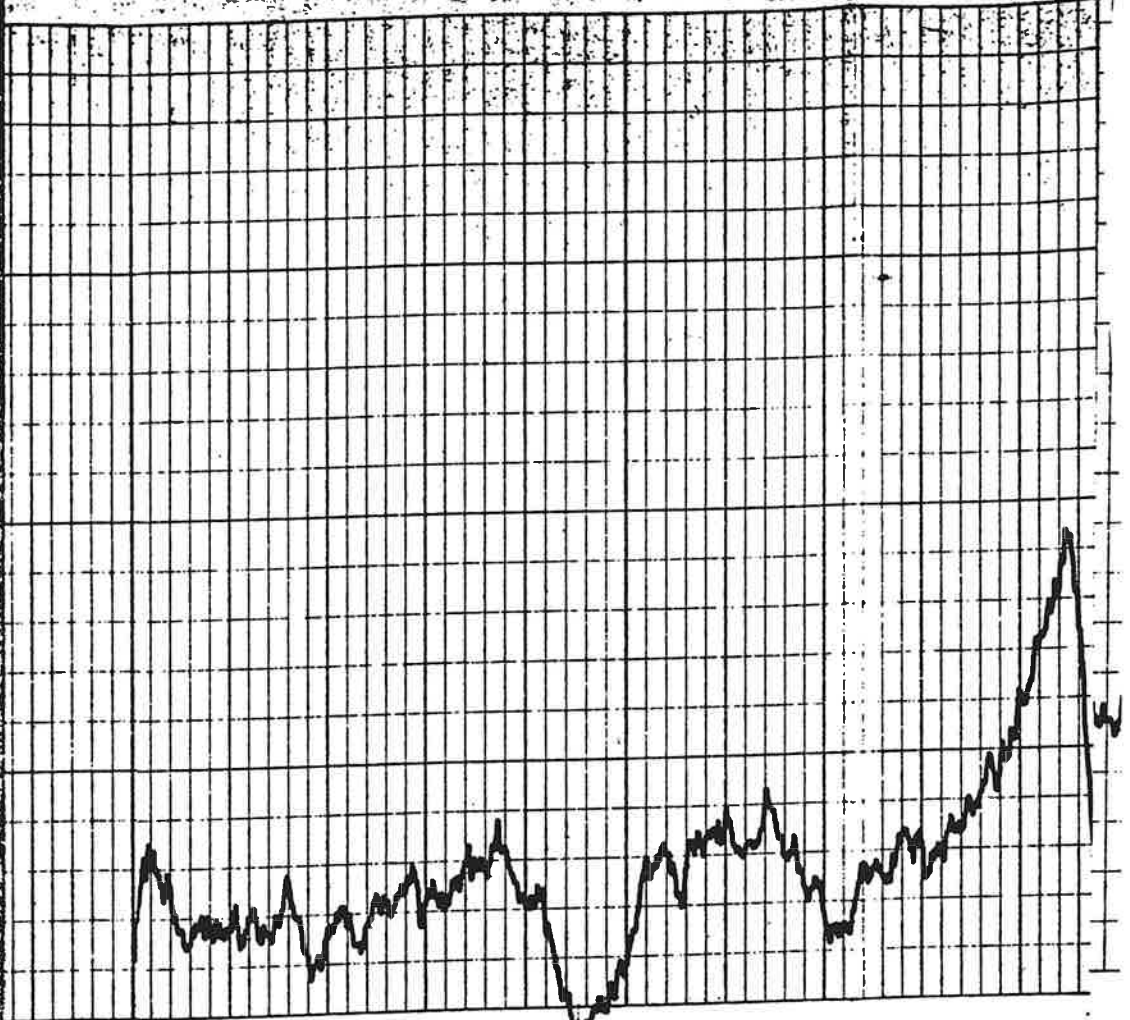
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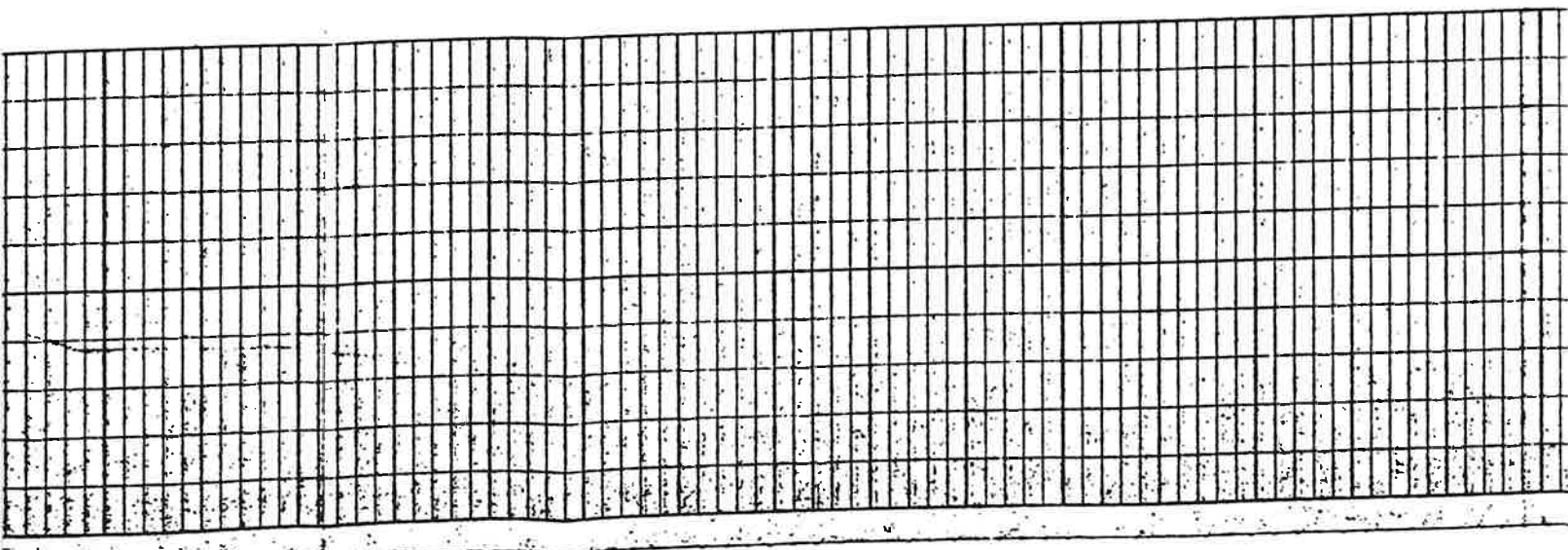
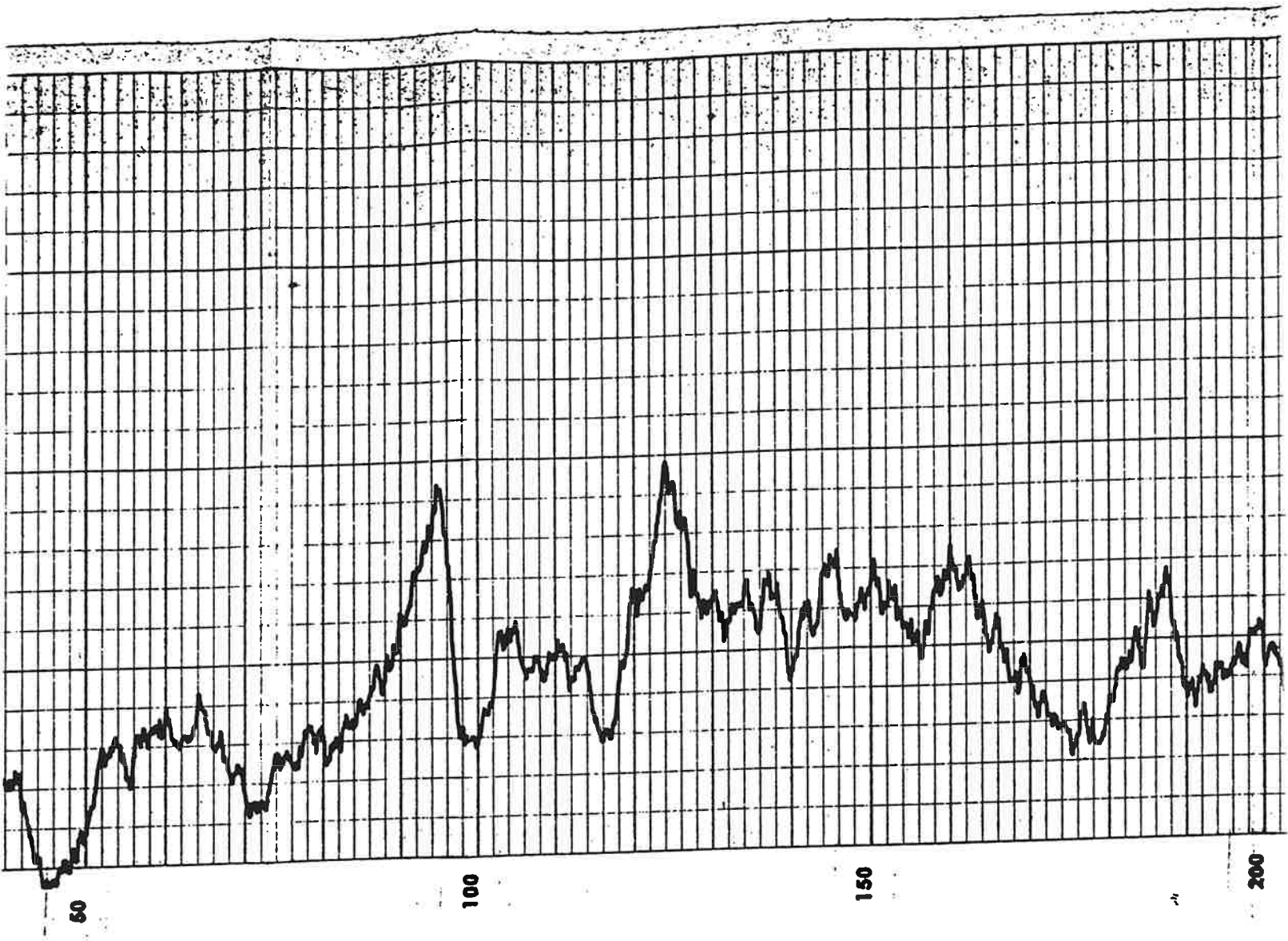
GAMMA RAY RAY UNITS

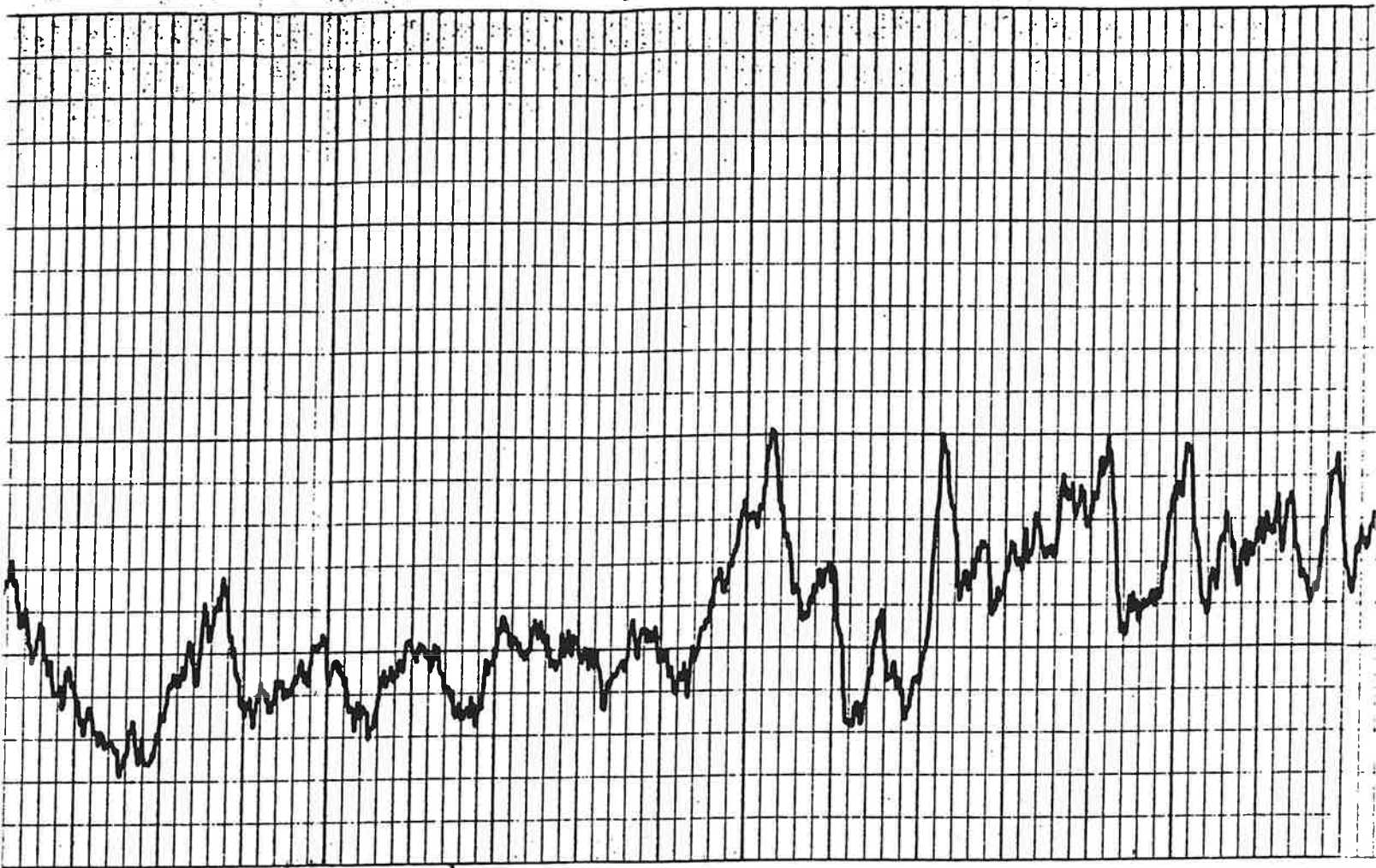
DEPTH

50

50



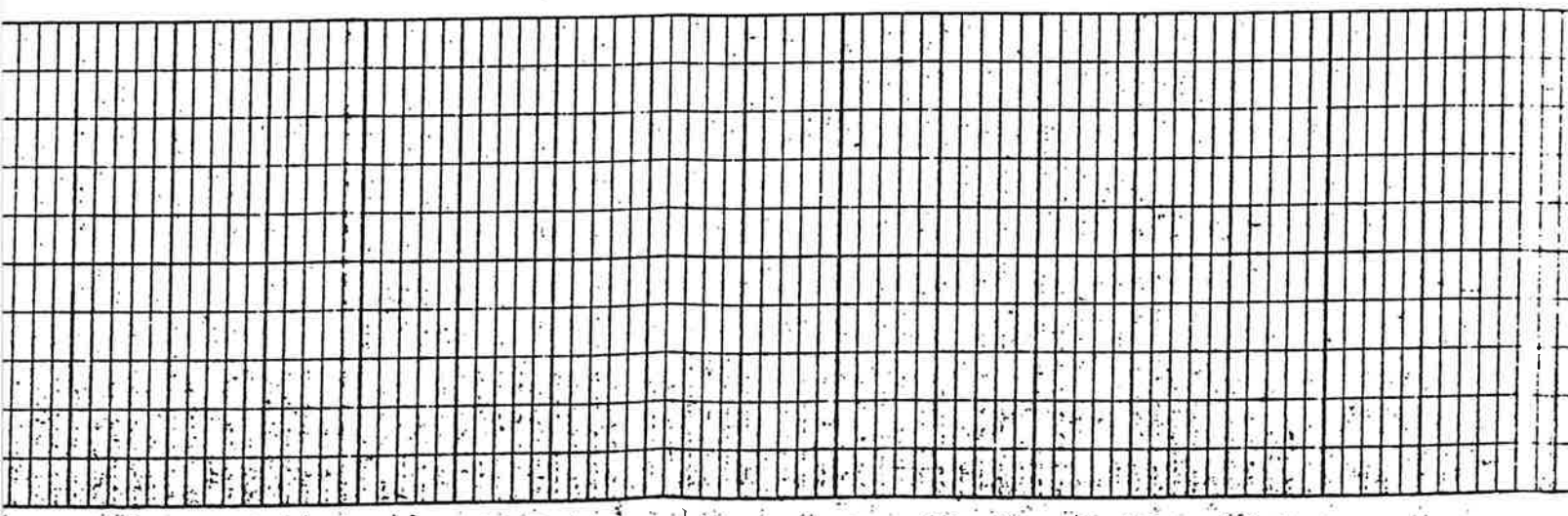


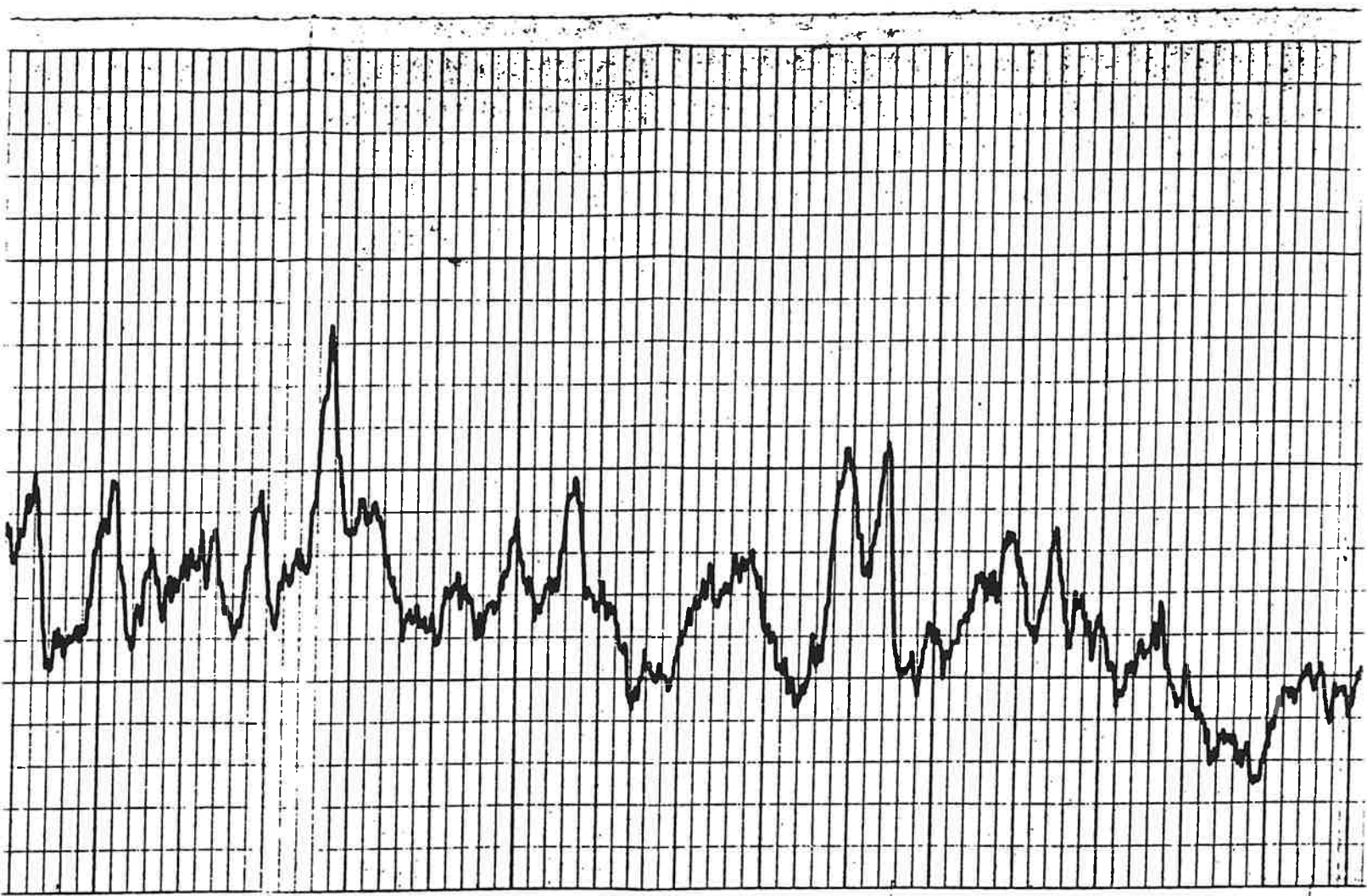


200

250

300



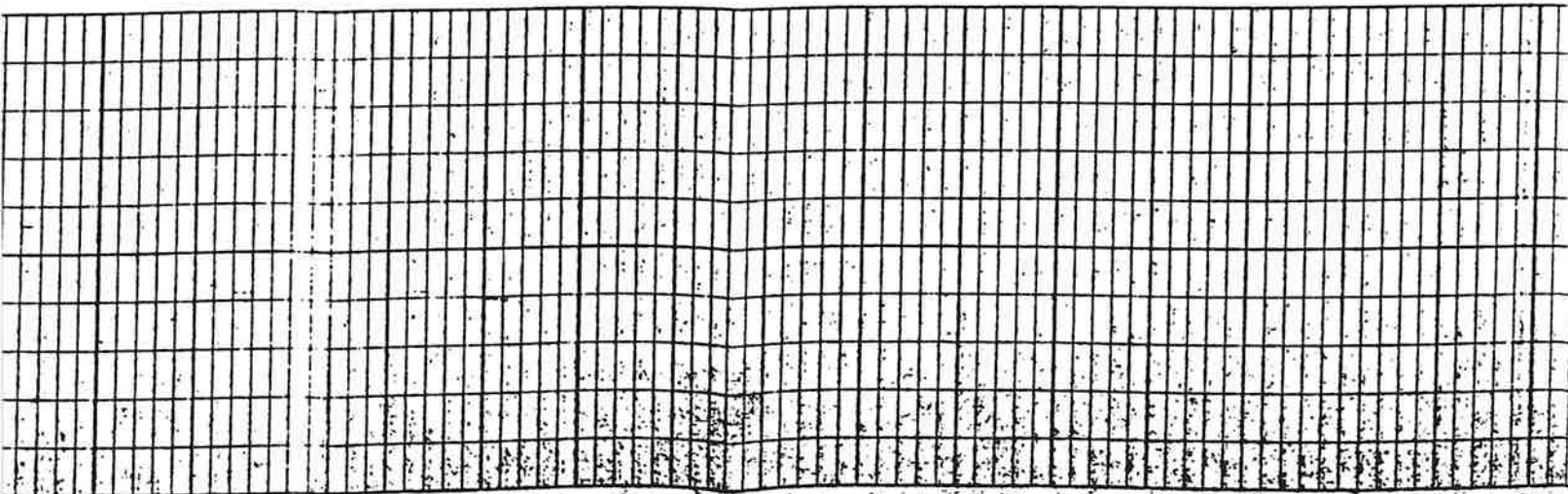


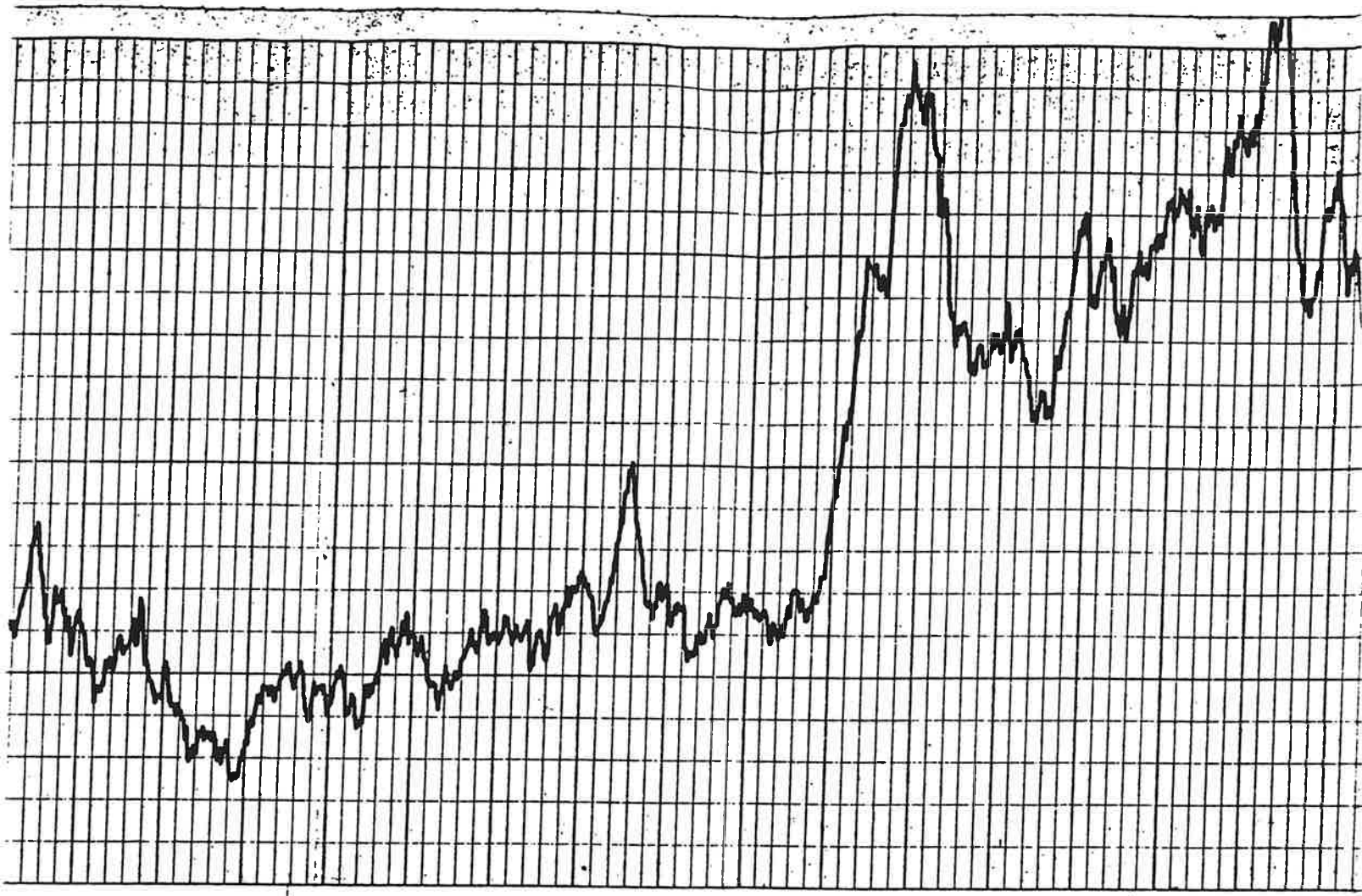
300

350

400

450

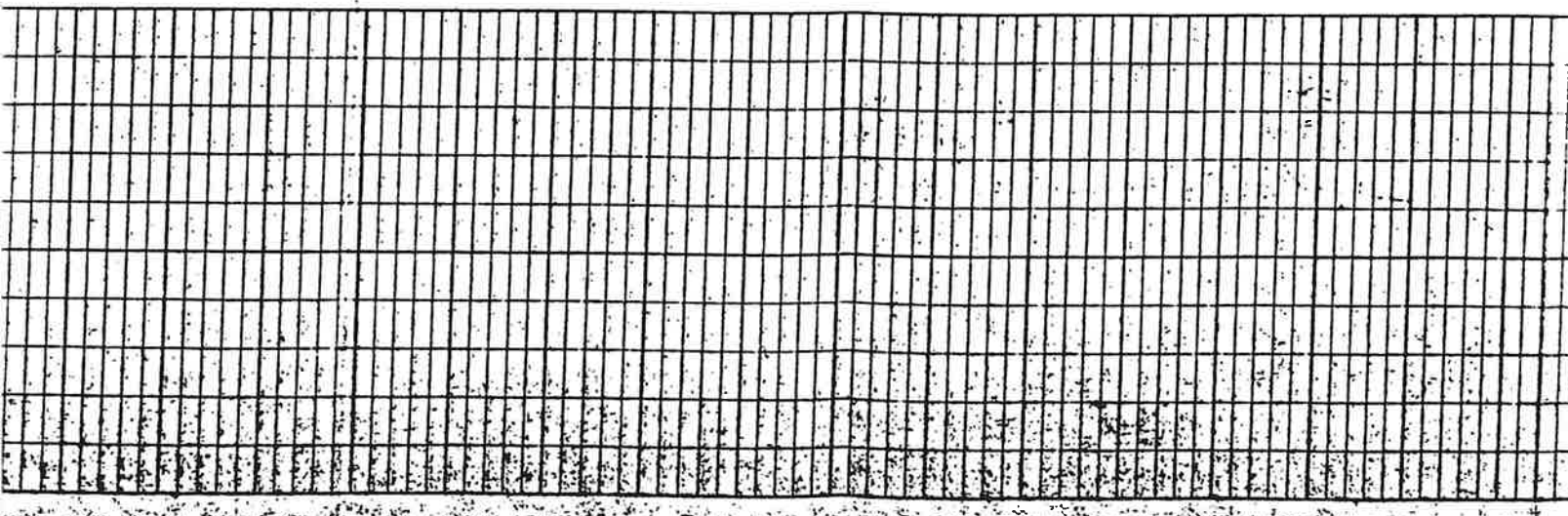


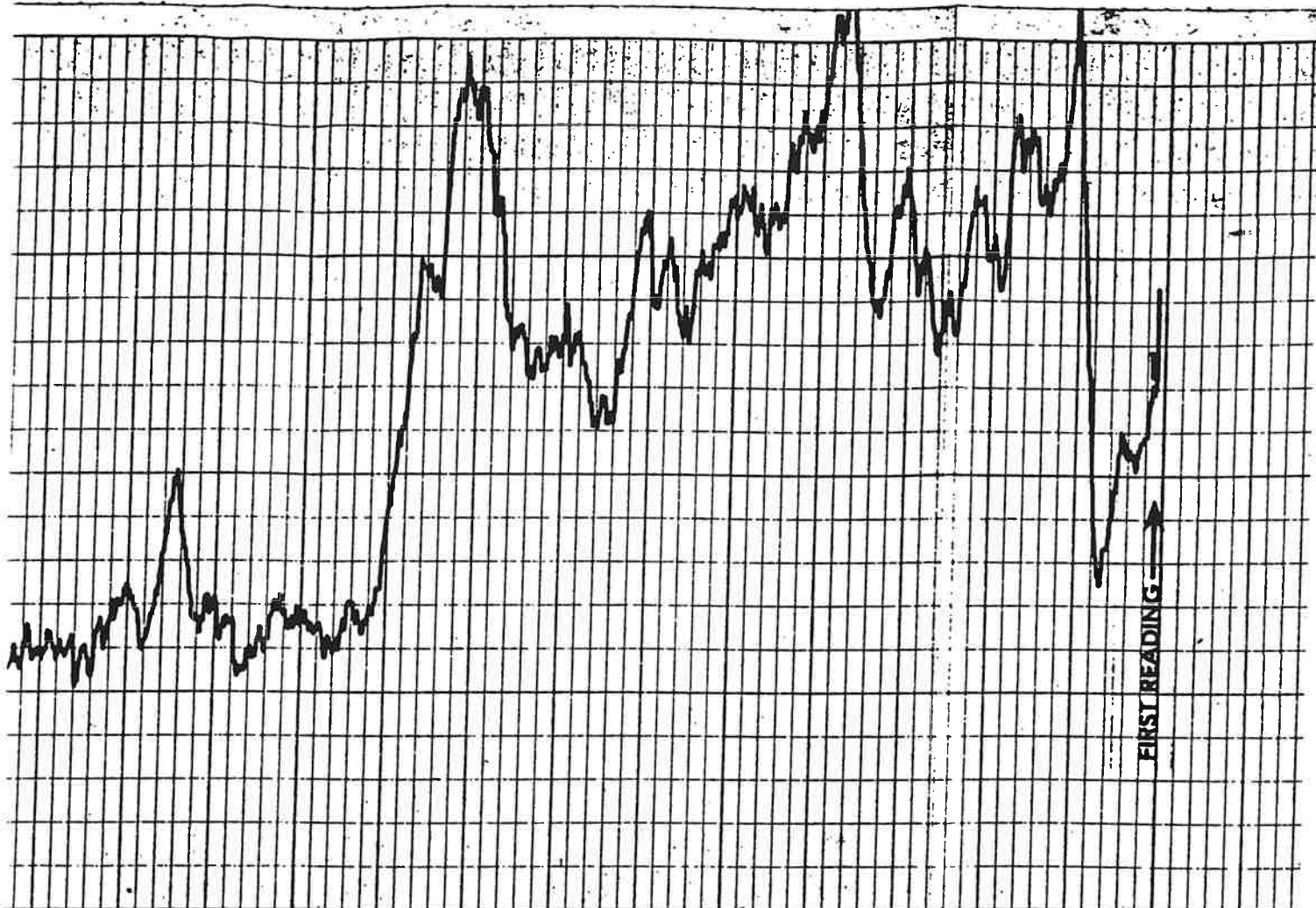


450

500

650

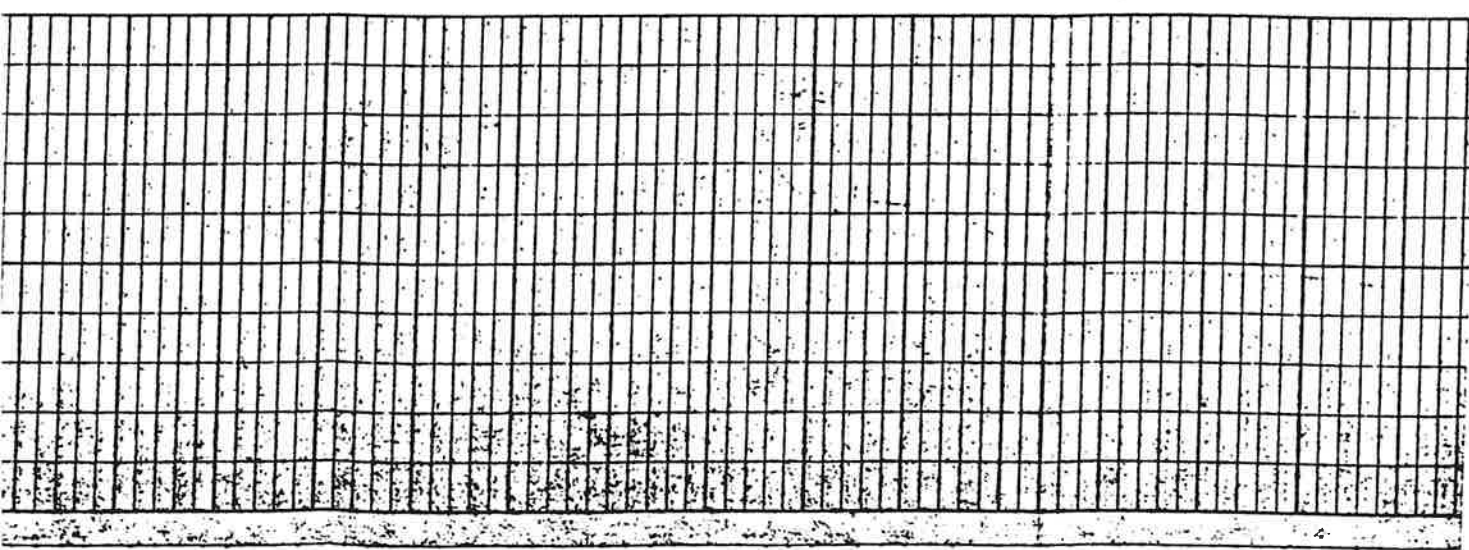




500

550

600

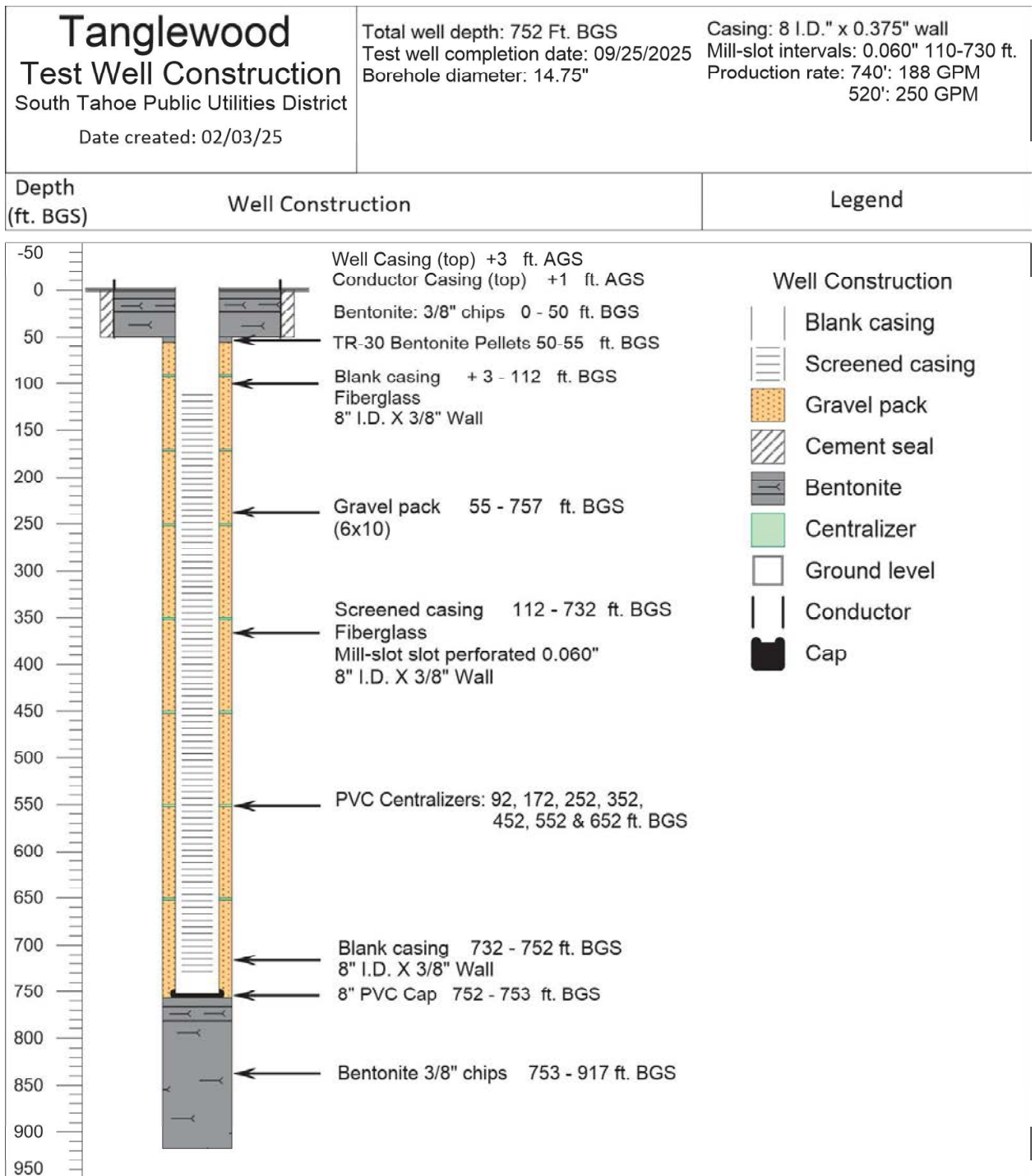


ST029959



Appendix C

Tanglewood Test Well Construction



Phone: (415) 453-2501
 Website: www.besst-inc.com
 Address: 50 Tiburon St. STE 7 San Rafael CA, 94901

Figure 3: Tanglewood well construction as built diagram.

DEVIATION SURVEY

Job No.	33785	Company	GREGG DRILLING, LLC.
		Well	STPUJ TANGLEWOOD WELL
		Field	SOUTH LAKE TAHOE
File No.		County	EL DORADO
		State	CA

Location: 942 TANGLEWOOD DR.
 GPS: 38.9284980 -119.9864179
 Other Services: CALIPER/BHV
 ELOG/GR

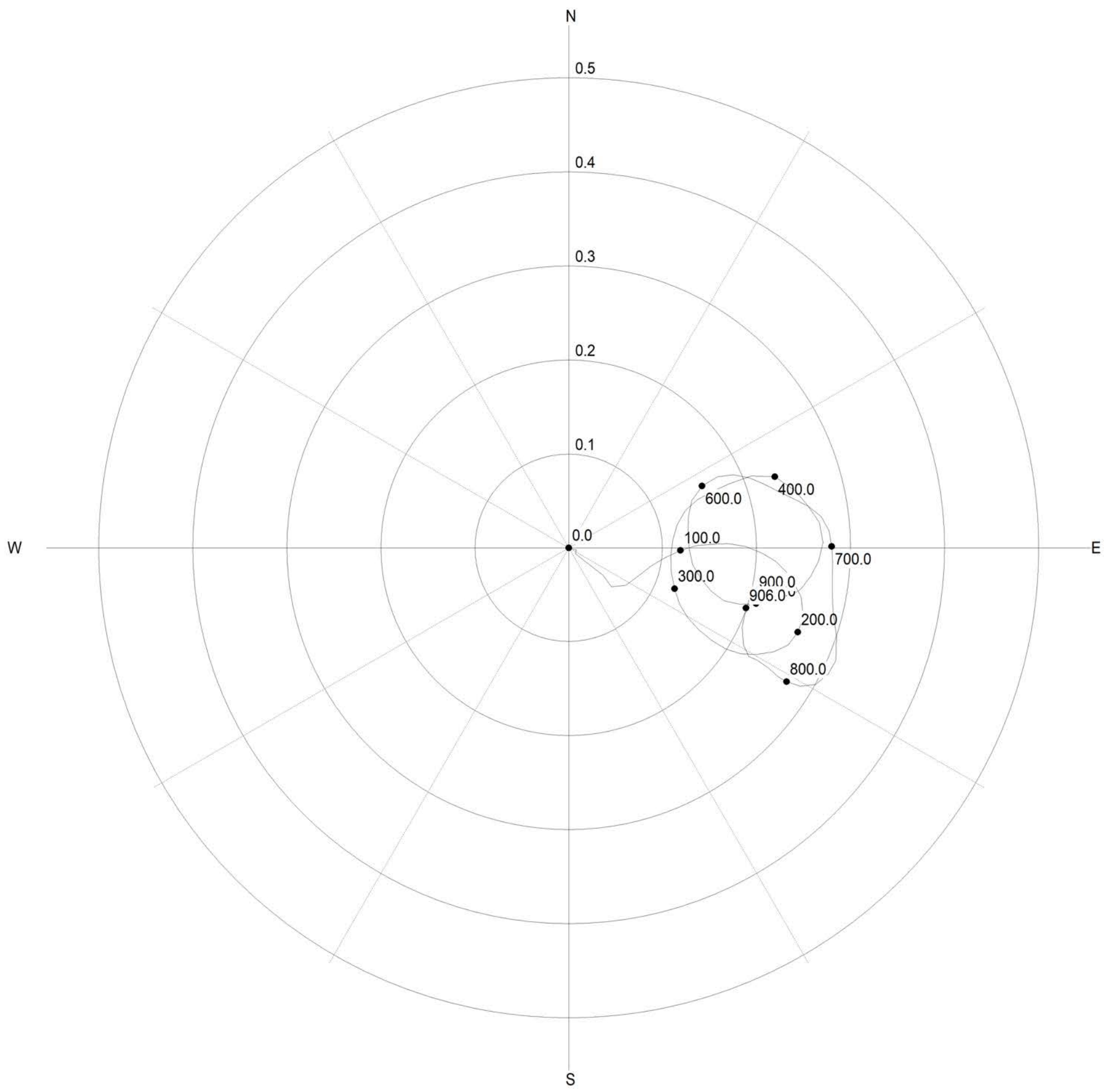
	Permanant Datum	GL.	Elevation	Elevation
	Log Measured From	G.L.	above perm. datum	K.B. D.F. G.L.
	Drilling Measured From	G.L.		
Date		9/18/25		
Run Number		ONE		
Depth Driller		920'		
Depth Logger		918'		
Bottom Logged Interval		918'		
Top Log Interval		0'		
Casing Driller		36" @ 51'		
Casing Logger		51'		
Bit Size		14.75"		
Type Fluid in Hole		BENT/POLY/DRISPAC		
Density / Viscosity		9.1 36		
pH / Fluid Loss		7.2 0		
Source of Sample		CONDUCTOR		
Rm @ Meas. Temp		16.4 @ 57.0F		
Rmf @ Meas. Temp		16.9 @ 57.0F		
Rmc @ Meas. Temp		N/A		
Source of Rmf / Rmc		MEASURED		
Rm @ BHT		N/A		
Time Circulation Stopped		11:30		
Time Logger on Bottom		14:50		
Max. Recorded Temperature		N/A		
Equipment Number		PS-8		
Location		FNO		
Recorded By		FARRELL		
Witnessed By		S. MCLIN		

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

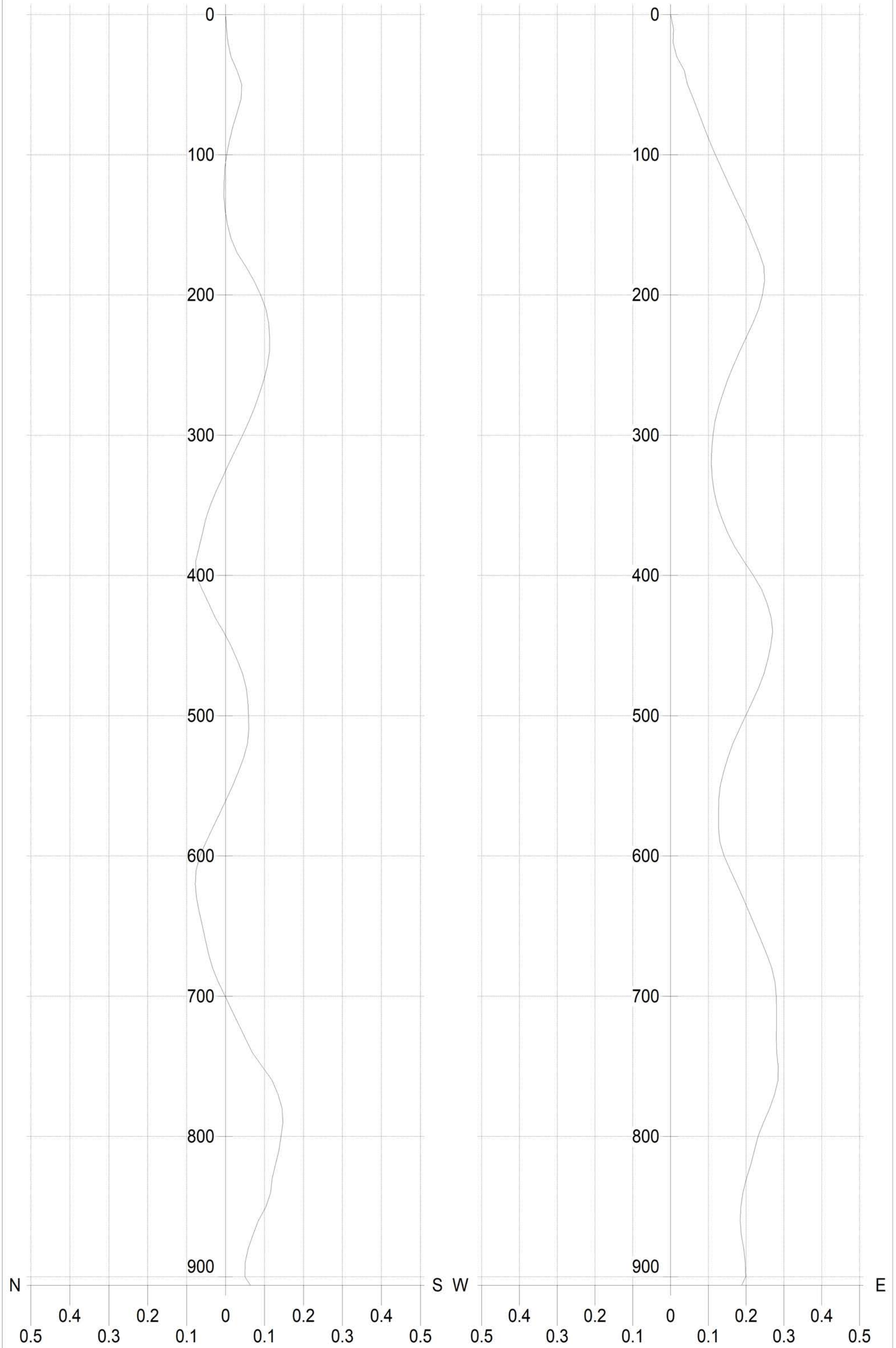
CROSS SECTION
(Displacement (ft))



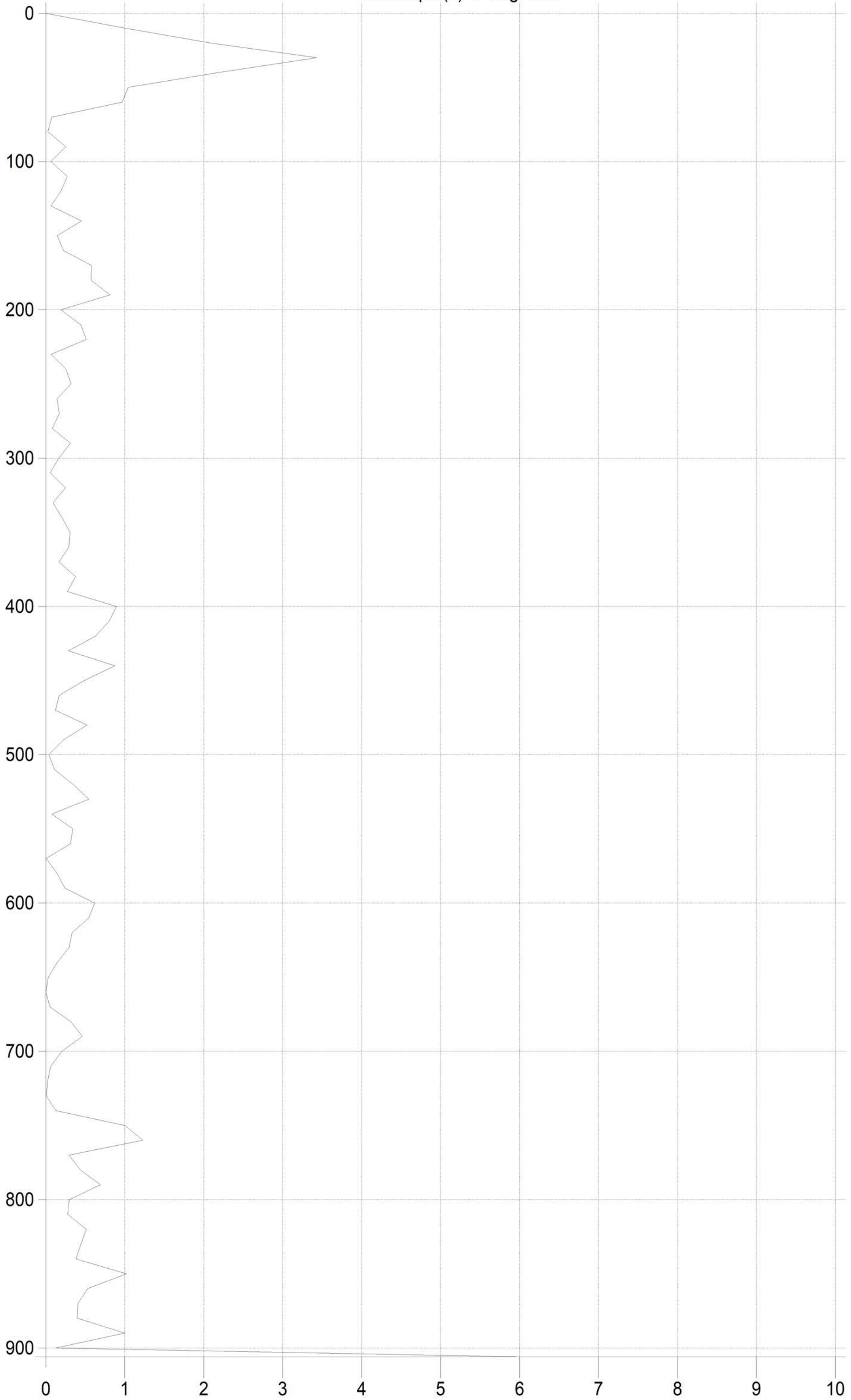
CLOSURE SECTIONS
(True Depth vs Displacement (ft))

N - S Section

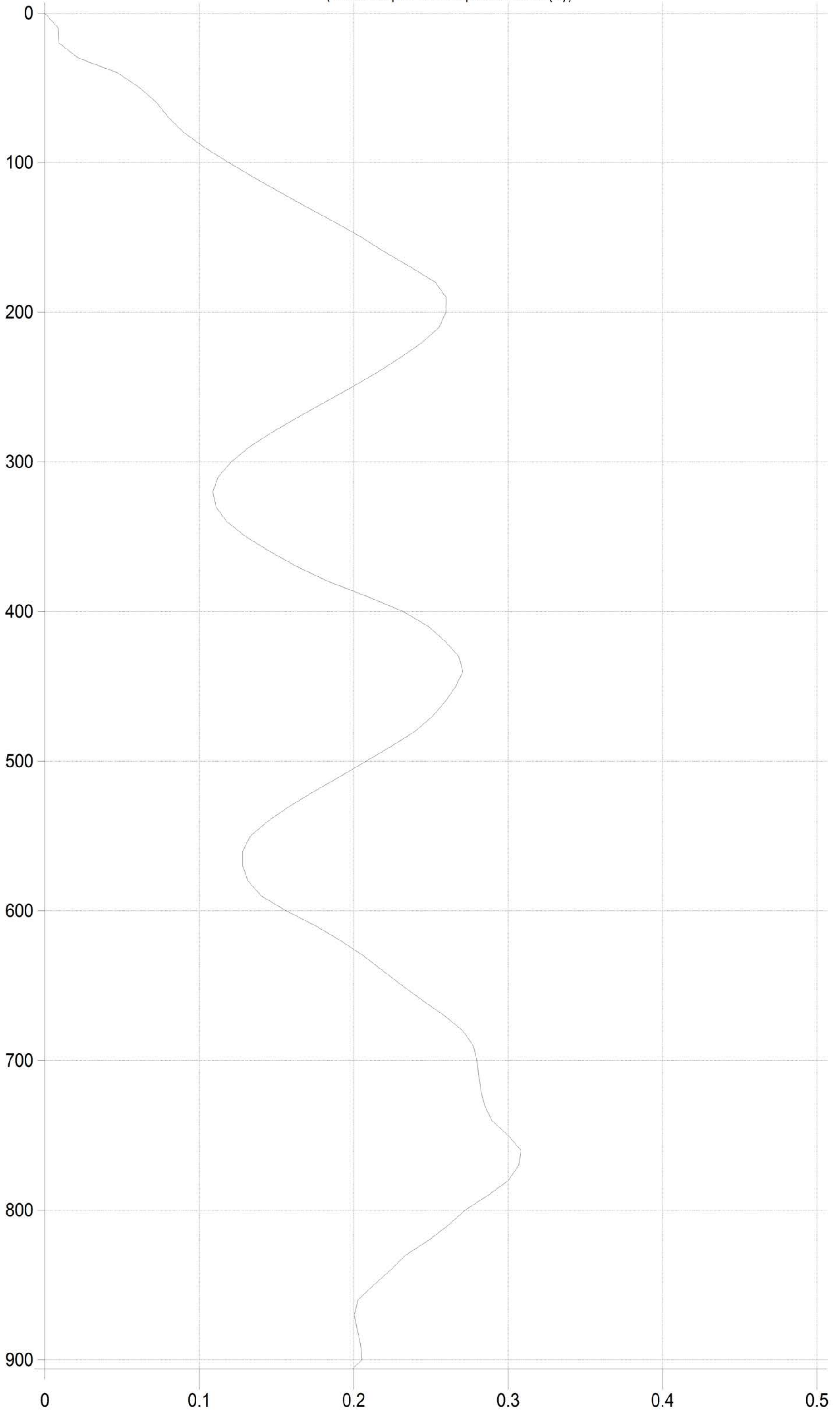
W - E Section



DOG LEG
True Depth(ft) vs deg/100ft



IN THE PLANE OF CLOSURE
(True Depth vs Displacement (ft))



TVD Report (Minimum Curvature Method)

Database File 33785.db
 Dataset Pathname ././././_tvd_/1
 Dataset Creation Thu Sep 18 17:16:41 2025

Meas. Depth	Incline	Azimuth	TVD	North	East	Dog Leg	Closure Dis	Closure Dir	Vert. Sec.
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(deg/100ft)	(ft)	(deg)	(ft)
Vertical Section Direction 0.00									
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.0	0.10	107.55	10.00	-0.00	0.01	1.00	0.01	-72.45	-0.00
20.0	0.11	265.27	20.00	-0.01	0.01	2.09	0.01	-48.48	-0.01
30.0	0.24	109.54	30.00	-0.01	0.02	3.43	0.02	-50.25	-0.01
40.0	0.10	176.19	40.00	-0.03	0.04	2.18	0.05	-51.27	-0.03
50.0	0.10	113.17	50.00	-0.04	0.05	1.05	0.06	-47.46	-0.04
60.0	0.10	55.39	60.00	-0.04	0.06	0.97	0.07	-56.49	-0.04
70.0	0.10	51.04	70.00	-0.03	0.07	0.08	0.08	-68.31	-0.03
80.0	0.10	52.59	80.00	-0.02	0.09	0.03	0.09	-77.95	-0.02
90.0	0.10	67.31	90.00	-0.01	0.10	0.26	0.10	-84.37	-0.01
100.0	0.10	63.71	100.00	-0.00	0.12	0.06	0.12	-88.59	-0.00
110.0	0.10	79.36	110.00	0.00	0.14	0.27	0.14	88.93	0.00
120.0	0.10	90.45	120.00	0.00	0.15	0.19	0.15	88.47	0.00
130.0	0.10	86.72	130.00	0.00	0.17	0.07	0.17	88.48	0.00
140.0	0.11	110.34	140.00	0.00	0.19	0.45	0.19	89.51	0.00
150.0	0.10	114.45	150.00	-0.01	0.21	0.15	0.21	-88.49	-0.01
160.0	0.10	127.34	160.00	-0.01	0.22	0.22	0.22	-86.28	-0.01
170.0	0.15	140.88	170.00	-0.03	0.24	0.58	0.24	-82.79	-0.03
180.0	0.15	162.97	180.00	-0.05	0.25	0.57	0.25	-78.03	-0.05
190.0	0.10	193.29	190.00	-0.07	0.25	0.81	0.26	-73.58	-0.07
200.0	0.10	204.21	200.00	-0.09	0.24	0.19	0.26	-69.75	-0.09
210.0	0.10	229.91	210.00	-0.10	0.23	0.44	0.26	-66.09	-0.10
220.0	0.10	259.77	220.00	-0.11	0.22	0.52	0.24	-63.11	-0.11
230.0	0.10	263.65	230.00	-0.11	0.20	0.07	0.23	-60.61	-0.11
240.0	0.10	278.31	240.00	-0.11	0.18	0.26	0.22	-58.42	-0.11
250.0	0.10	296.71	250.00	-0.11	0.17	0.32	0.20	-57.21	-0.11
260.0	0.10	304.90	260.00	-0.10	0.15	0.14	0.18	-57.02	-0.10
270.0	0.10	314.75	270.00	-0.09	0.14	0.17	0.16	-57.74	-0.09
280.0	0.10	319.46	280.00	-0.07	0.13	0.08	0.15	-59.48	-0.07
290.0	0.10	337.44	290.00	-0.06	0.12	0.31	0.13	-62.98	-0.06
300.0	0.10	346.91	300.00	-0.04	0.11	0.17	0.12	-68.84	-0.04
310.0	0.10	350.24	310.00	-0.03	0.11	0.06	0.11	-76.35	-0.03
320.0	0.10	4.59	320.00	-0.01	0.11	0.25	0.11	-85.14	-0.01
330.0	0.10	9.84	330.00	0.01	0.11	0.09	0.11	85.82	0.01
340.0	0.10	21.55	340.00	0.02	0.12	0.20	0.12	77.86	0.02
350.0	0.10	39.40	350.00	0.04	0.12	0.31	0.13	72.27	0.04
360.0	0.10	56.26	360.00	0.05	0.14	0.29	0.15	69.47	0.05
370.0	0.10	65.88	370.00	0.06	0.15	0.17	0.16	68.58	0.06
380.0	0.14	65.00	380.00	0.07	0.17	0.38	0.18	68.22	0.07
390.0	0.15	74.72	390.00	0.08	0.19	0.27	0.21	68.44	0.08
400.0	0.15	109.42	400.00	0.08	0.22	0.89	0.23	70.91	0.08
410.0	0.16	138.85	410.00	0.06	0.24	0.80	0.25	75.83	0.06
420.0	0.10	142.13	420.00	0.04	0.26	0.63	0.26	80.39	0.04
430.0	0.13	149.15	430.00	0.03	0.27	0.29	0.27	84.21	0.03
440.0	0.14	187.76	440.00	0.01	0.27	0.88	0.27	88.77	0.01
450.0	0.10	202.69	450.00	-0.01	0.27	0.48	0.27	-86.96	-0.01
460.0	0.10	212.55	460.00	-0.03	0.26	0.17	0.26	-83.46	-0.03
470.0	0.10	219.54	470.00	-0.04	0.25	0.12	0.25	-80.00	-0.04
480.0	0.10	249.81	480.00	-0.05	0.23	0.52	0.24	-77.13	-0.05
490.0	0.10	262.75	490.00	-0.06	0.22	0.23	0.22	-75.15	-0.06

Meas. Depth	Incline	Azimuth	TVD	North	East	Dog Leg	Closure Dis	Closure Dir	Vert. Sec.
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(deg/100ft)	(ft)	(deg)	(ft)
Vertical Section Direction 0.00									
500.0	0.10	265.01	500.00	-0.06	0.20	0.04	0.21	-73.43	-0.06
510.0	0.10	271.40	510.00	-0.06	0.18	0.11	0.19	-71.79	-0.06
520.0	0.10	291.49	520.00	-0.06	0.17	0.35	0.17	-71.12	-0.06
530.0	0.10	323.11	530.00	-0.05	0.15	0.54	0.16	-73.04	-0.05
540.0	0.10	318.65	540.00	-0.03	0.14	0.08	0.14	-76.90	-0.03
550.0	0.10	338.45	550.00	-0.02	0.13	0.34	0.13	-82.18	-0.02
560.0	0.10	356.48	560.00	-0.00	0.13	0.31	0.13	-89.43	-0.00
570.0	0.10	356.71	570.00	0.02	0.13	0.00	0.13	82.76	0.02
580.0	0.10	4.81	580.00	0.03	0.13	0.14	0.13	75.23	0.03
590.0	0.10	18.81	590.00	0.05	0.13	0.24	0.14	68.89	0.05
600.0	0.13	48.19	600.00	0.07	0.14	0.62	0.16	65.02	0.07
610.0	0.10	73.24	610.00	0.08	0.16	0.55	0.18	64.40	0.08
620.0	0.10	92.54	620.00	0.08	0.18	0.34	0.19	66.03	0.08
630.0	0.10	109.45	630.00	0.07	0.19	0.29	0.21	68.78	0.07
640.0	0.10	117.86	640.00	0.07	0.21	0.15	0.22	71.99	0.07
650.0	0.10	115.97	650.00	0.06	0.22	0.03	0.23	75.04	0.06
660.0	0.10	116.04	660.00	0.05	0.24	0.00	0.25	77.72	0.05
670.0	0.10	118.97	670.00	0.04	0.25	0.05	0.26	80.19	0.04
680.0	0.10	137.29	680.00	0.03	0.27	0.32	0.27	82.90	0.03
690.0	0.10	164.07	690.00	0.02	0.28	0.46	0.28	86.15	0.02
700.0	0.10	175.81	700.00	0.00	0.28	0.20	0.28	89.68	0.00
710.0	0.10	179.47	710.00	-0.02	0.28	0.06	0.28	-86.76	-0.02
720.0	0.10	180.90	720.00	-0.03	0.28	0.02	0.28	-83.22	-0.03
730.0	0.10	180.43	730.00	-0.05	0.28	0.01	0.28	-79.73	-0.05
740.0	0.10	173.16	740.00	-0.07	0.28	0.13	0.29	-76.37	-0.07
750.0	0.20	171.64	750.00	-0.09	0.28	1.00	0.30	-71.72	-0.09
760.0	0.10	200.97	760.00	-0.12	0.28	1.23	0.31	-67.19	-0.12
770.0	0.10	217.91	770.00	-0.13	0.28	0.29	0.31	-63.99	-0.13
780.0	0.10	243.26	780.00	-0.15	0.26	0.44	0.30	-61.03	-0.15
790.0	0.10	283.80	790.00	-0.15	0.25	0.69	0.29	-59.14	-0.15
800.0	0.07	294.66	800.00	-0.14	0.23	0.30	0.27	-58.45	-0.14
810.0	0.05	306.13	810.00	-0.14	0.22	0.28	0.26	-58.35	-0.14
820.0	0.10	315.84	820.00	-0.13	0.21	0.51	0.25	-58.93	-0.13
830.0	0.07	291.36	830.00	-0.12	0.20	0.44	0.23	-59.20	-0.12
840.0	0.04	298.99	840.00	-0.12	0.19	0.38	0.22	-58.90	-0.12
850.0	0.13	344.55	850.00	-0.10	0.19	1.02	0.21	-60.89	-0.10
860.0	0.10	8.71	860.00	-0.08	0.18	0.53	0.20	-65.40	-0.08
870.0	0.06	20.15	870.00	-0.07	0.19	0.41	0.20	-69.36	-0.07
880.0	0.10	30.10	880.00	-0.06	0.19	0.40	0.20	-73.34	-0.06
890.0	0.00	51.91	890.00	-0.05	0.20	1.00	0.20	-75.72	-0.05
900.0	0.01	57.80	900.00	-0.05	0.20	0.12	0.21	-75.94	-0.05
906.0	0.35	217.11	906.00	-0.06	0.19	6.03	0.20	-71.22	-0.06



**ELECTRIC LOG
GAMMA RAY**

Job No. 33785
 Company GREGG DRILLING, LLC.
 Well STPUD TANGLEWOOD WELL
 Field SOUTH LAKE TAHOE
 County EL DORADO State CA

Location: 942 TANGLEWOOD DR.
 GPS: 38.9284980 -119.9864179
 Sec. Twp. Rge. Other Services: CALIPER/BHV DEVIATION

Permanent Datum	GL.	Elevation	
Log Measured From	GL.	above perm. datum	
Drilling Measured From	GL.		
Date	9/18/25	Elevation	
Run Number	ONE		
Depth Driller	920'		
Depth Logger	918'		
Bottom Logged Interval	918'		
Top Log Interval	30'		
Casing Driller	36" @ 51'		
Casing Logger	51'		
Bit Size	14.75"		
Type Fluid in Hole	BENT/POLY/DRISPAC		
Density / Viscosity	901 36		
pH / Fluid Loss	7.2 0		
Source of Sample	CONDUCTOR		
Rm @ Meas. Temp	16.4 @ 57.0F		
Rmf @ Meas. Temp	16.9 @ 57.0F		
Rmc @ Meas. Temp	N/A		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	N/A		
Time Circulation Stopped	11:30		
Time Logger on Bottom	14:50		
Max. Recorded Temperature	N/A		
Equipment Number	PS-8		
Location	FNO		
Recorded By	FARRELL		
Witnessed By	S. MCLIN		

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

RSN, RLN Corr.
 WELL CONSTRUCTION DETAILS SUBJECT TO CHANGE. DIAGRAM PROVIDED ON THIS LOG WAS DISCUSSED WITH STEPH MCLIN AS PROPOSED IN THE FIELD.

Calibration Report

Database File 33785.db
 Dataset Pathname elog
 Dataset Creation Thu Sep 18 15:00:02 2025

ELOG Calibration Report

Serial: D4
 Model: DTQ
 Shop Calibration Performed: Tue May 28 10:57:48 2024
 Before Survey Verification Performed: Tue May 28 10:58:07 2024
 After Survey Verification Performed: Tue May 28 10:58:23 2024

Shop Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		Gain	Offset
Short	1.091	51.320		0.500	50.000	Ohm-m	0.985	-0.575
Long	4.067	205.814		2.000	200.000	Ohm-m	0.981	-1.991
IEE	15.880	4023.880	counts	0.017	4.404	A		
VSN	135.940	4574.820	counts	2.593	87.259	V		
VLN	125.940	1190.980	counts	2.402	22.716	V		

Before Survey Verification

	Readings			References			Results	
	Zero	Cal		Zero	Cal		Gain	Offset
Short	773.857	101.205		761.940	101.194	Ohm-m	0.982	1.780
Long	2875.540	105.273		2823.560	105.376	Ohm-m	0.981	2.082
IEE	15.900	4163.860	counts	0.017	4.557	A		
VSN	138.240	4734.500	counts	2.637	90.305	V		
VLN	128.420	1231.200	counts	2.449	23.484	V		

After Survey Verification

	Readings			References			Results	
	Zero	Cal		Zero	Cal		Gain	Offset
Short	781.827	101.216		773.857	101.205	Ohm-m	0.988	1.173
Long	2896.480	105.271		2875.540	105.273	Ohm-m	0.992	0.792
IEE	15.640	4170.640	counts	0.017	4.564	A		
VSN	137.380	4742.740	counts	2.620	90.462	V		
VLN	127.240	1233.180	counts	2.427	23.521	V		

After Survey Verification compared to Before Survey Calibration

	Zero			Cal		
	Before	After		Before	After	
Short	761.940	773.857	Ohm-m	101.194	101.205	Ohm-m
Long	2823.560	2875.540	Ohm-m	105.376	105.273	Ohm-m

Gamma Ray Calibration Report

Serial Number: D4
Tool Model: ELOG
Performed: Tue May 28 10:57:23 2024

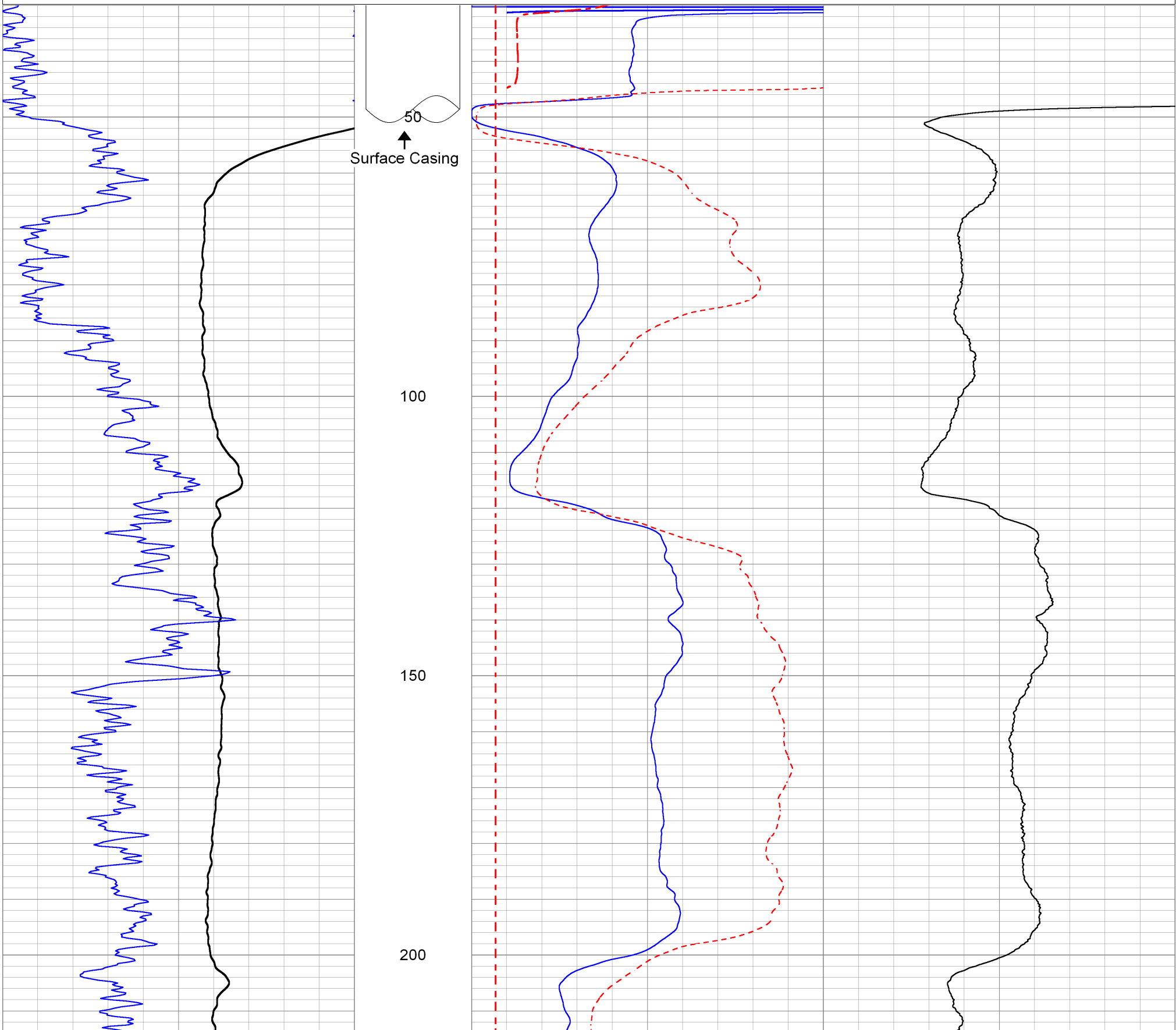
Calibrator Value: 162.0 GAPI

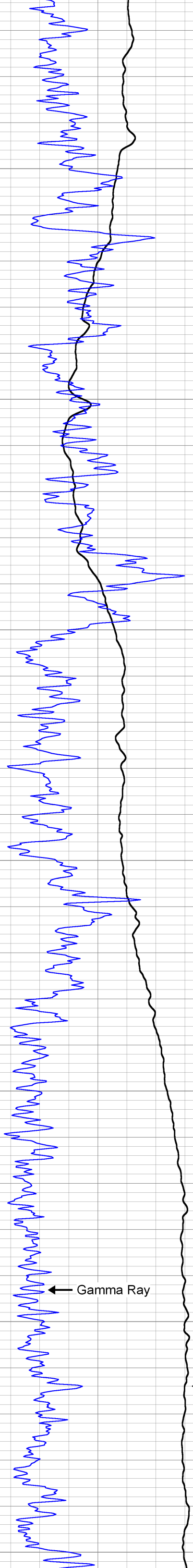
Background Reading: 101.7 cps
Calibrator Reading: 326.7 cps

Sensitivity: 0.7200 GAPI/cps

Database File 33785.db
Dataset Pathname EL
Presentation Format elog_cwa
Dataset Creation Thu Sep 18 16:12:47 2025
Charted by Depth in Feet scaled 1:240

-70	SP (mV)	30	0	RSN (Ohm-m)	250	0	SPR (Ohm-m)	120
40	Gamma-Ray (GAPI)	190	0	RLN (Ohm-m)	250			
			0	RMF (Ohm-m)	250			
			250	RSN X 10 (Ohm-m)	2500			
			250	RLN X 10 (Ohm-m)	2500			





← Gamma Ray

← SP

250

300

350

400

450

500

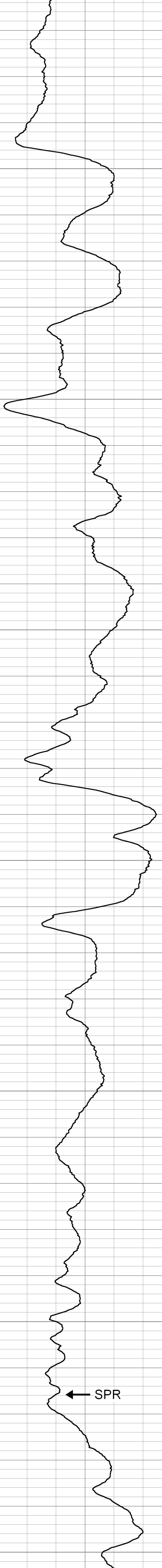
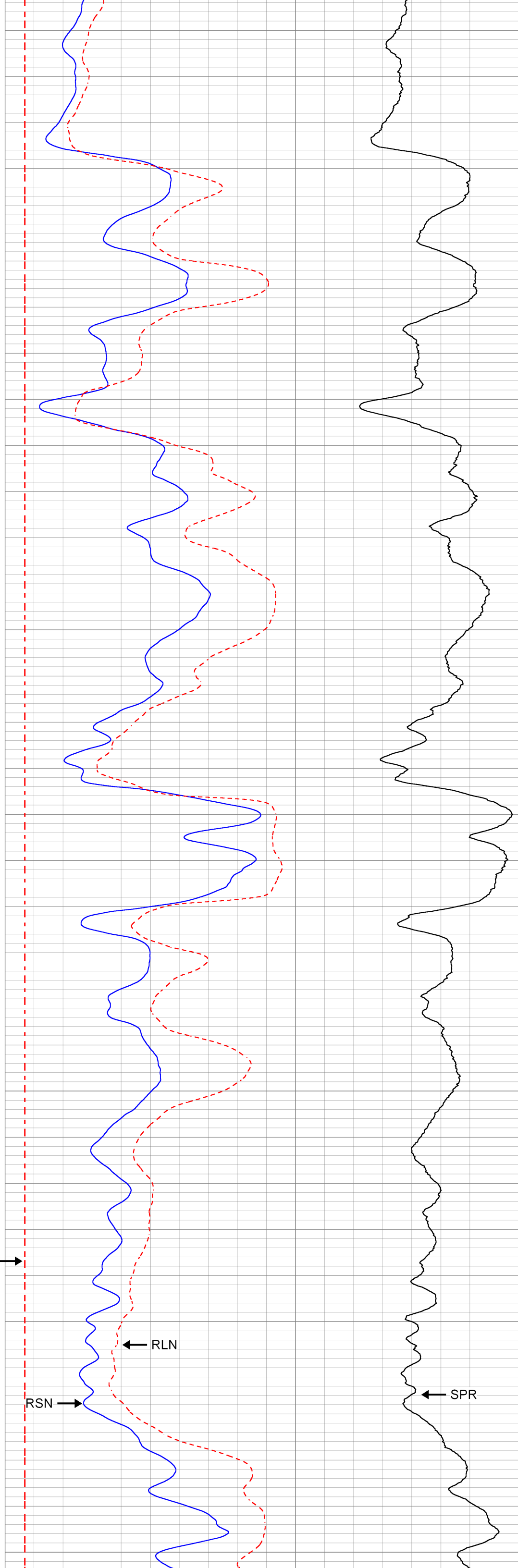
550

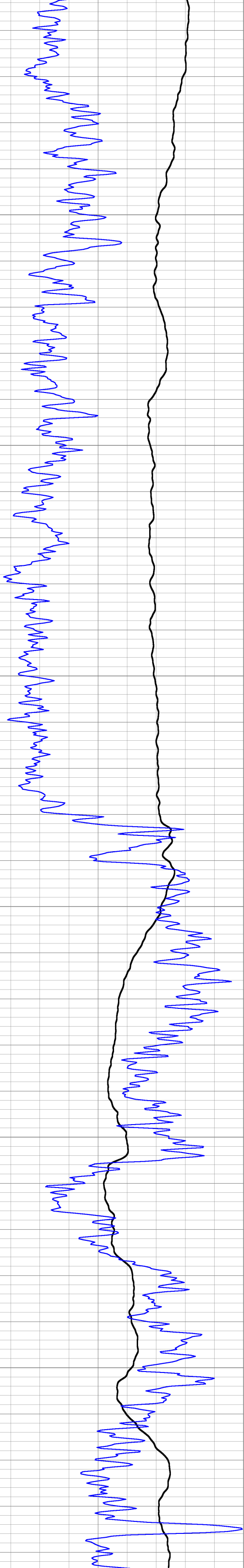
RMF →

RSN →

← RLN

← SPR





600

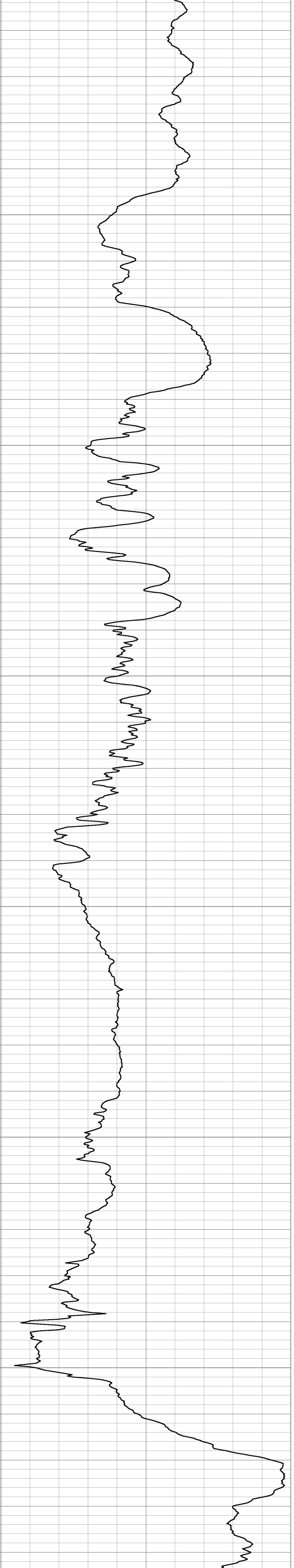
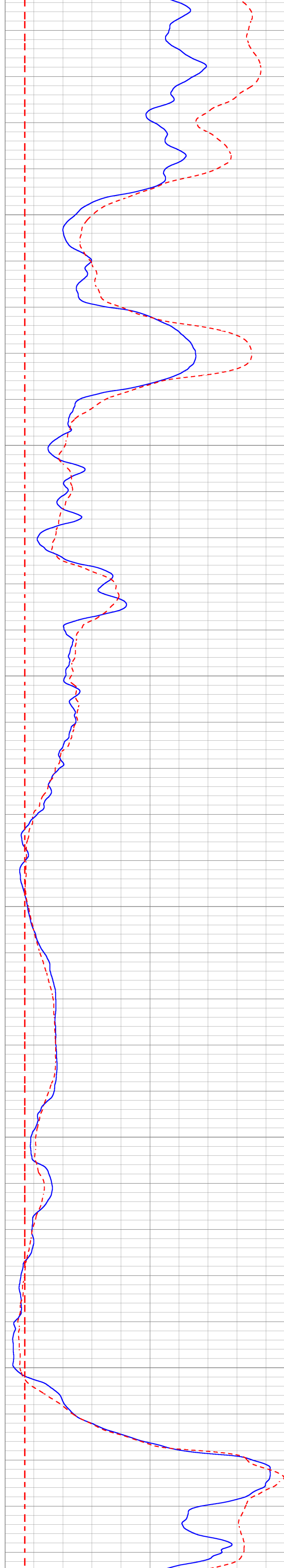
650

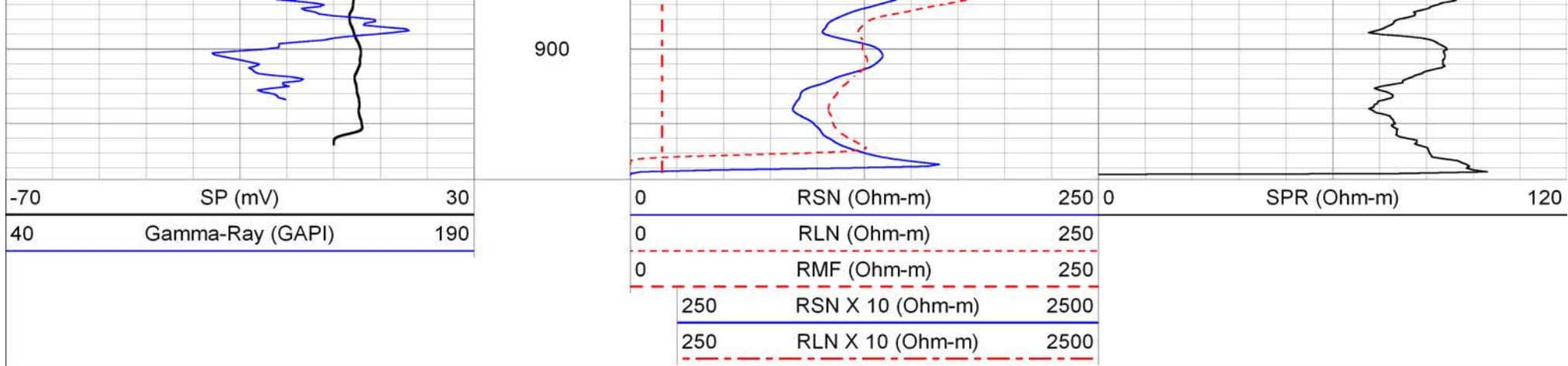
700

750

800

850





Log Variables

DatabaseC:\ProgramData\Warrior\Data\33785.db
Dataset field/well/run1/EL/_vars_

Top - Bottom

BOREID in 14.75	BOTTEMP degF 55.39	CASEOD in 5.5	CASETHCK in 0	PERFS No	RM_MEAS_R Ohm-m 16.4	RM_MEAS_T degF 57	RMF Ohm-m 16.9	RSH Ohm-m 20	SPSHIFT mV 0
SRFTEMP degF 44.05	TDEPTH ft 918	TempGrad degF/ft 0.01235							

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
PERFS : Perforation Flag

RM_MEAS_R : Mud Resistivity Measured
RM_MEAS_T : Mud Temperature Measured
RMF : Resistivity of Mud Filtrate
RSH : Resistivity of Shale
SPSHIFT : S.P. Baseline Offset

SRFTEMP : Surface Temperature
TDEPTH : Total Depth
TempGrad : Temperature Gradient

Filter Report

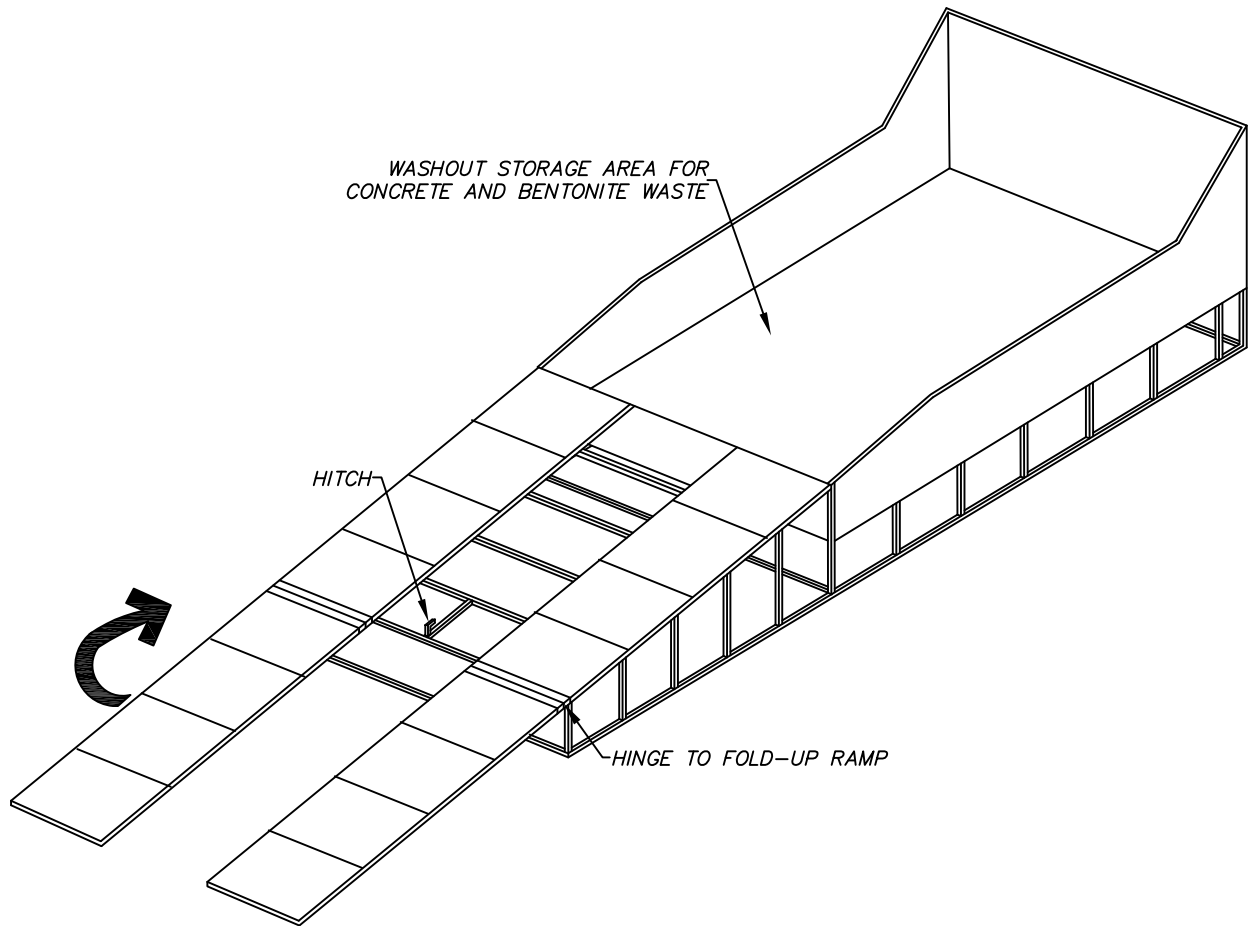
Database File 33785.db
Dataset Pathname EL
Dataset Creation Thu Sep 18 16:12:47 2025

Filter Name	Filter Type	Filter Length (ft)
LSPD	Gaussian	12.00
LTEN	Gaussian	6.00
LSPDRT	None	
IEE	None	
VSN	None	
VLN	None	
SP	Gaussian	3.00
RSN	Gaussian	2.00
RLN	Gaussian	3.00
SPR	Gaussian	1.00
GR	Gaussian	2.00
HVOLT	Gaussian	1.00
INCL	Square	2.00
AZI	Square	2.00
ROLL	Square	2.00
MAG ROLL	Square	2.00
ACC TOTAL	Square	2.00
MTEMP	Square	2.00



Appendix D

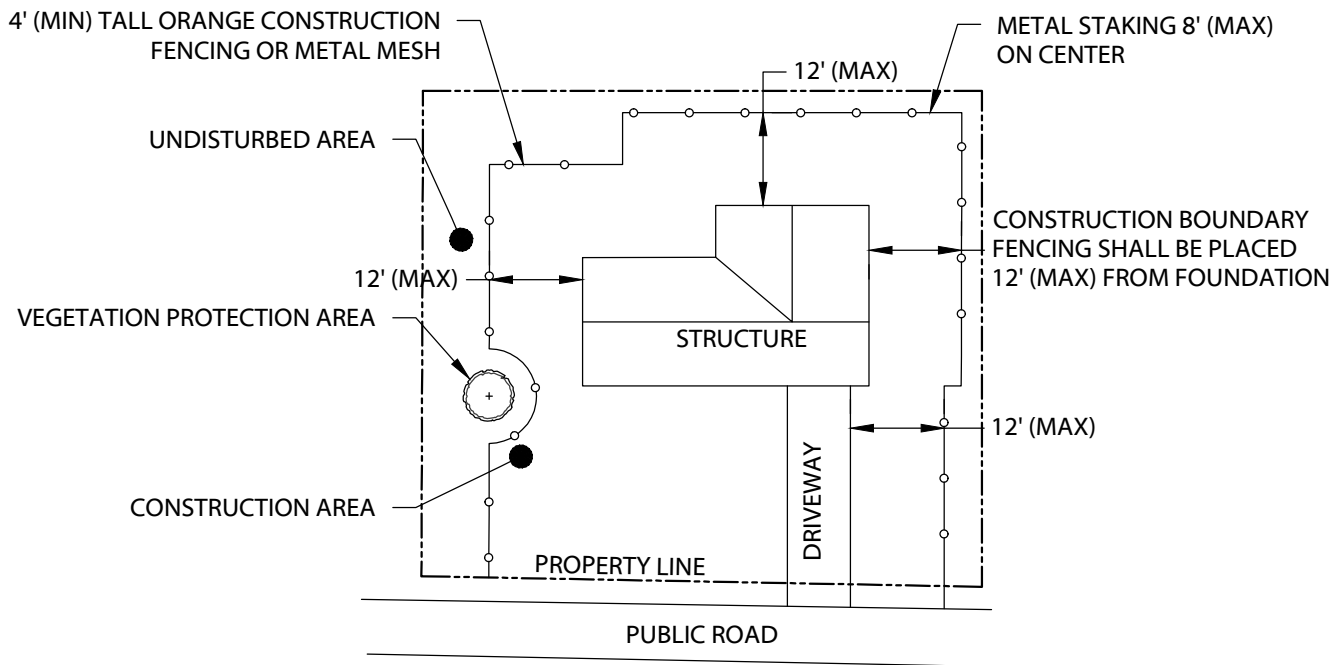
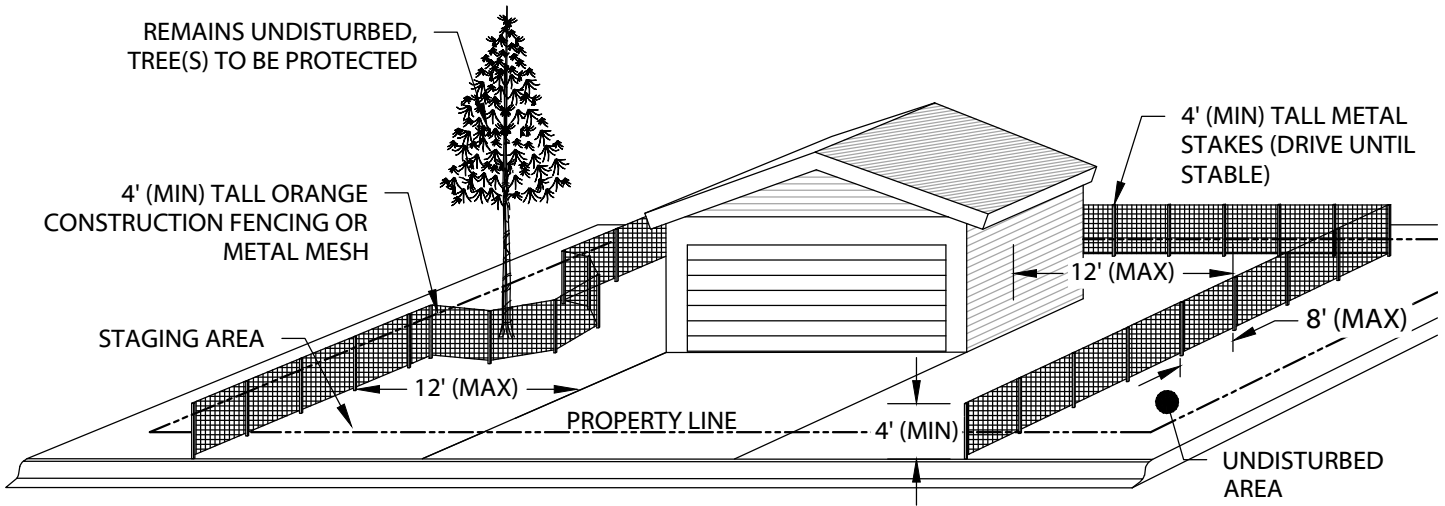
Best Management Practices Plans and Standard Details



Concrete Washout Station



BMP-509
April 2011

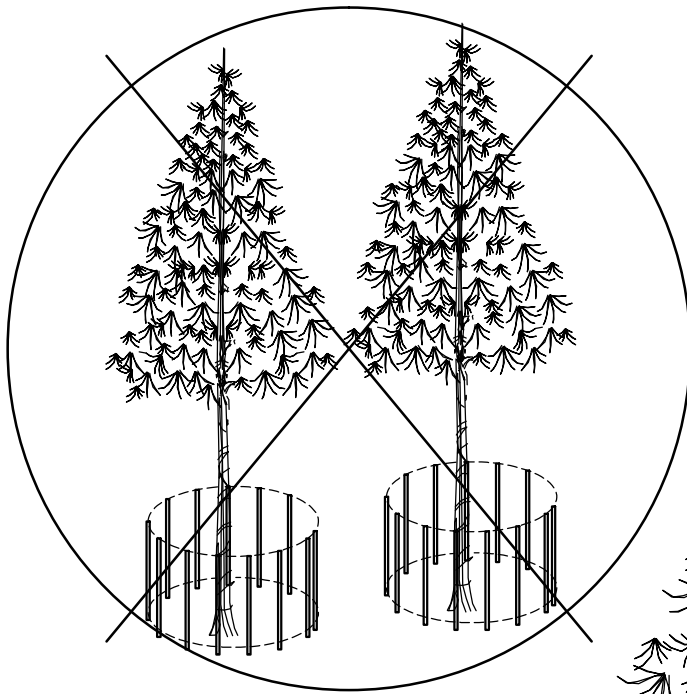


NOTES:

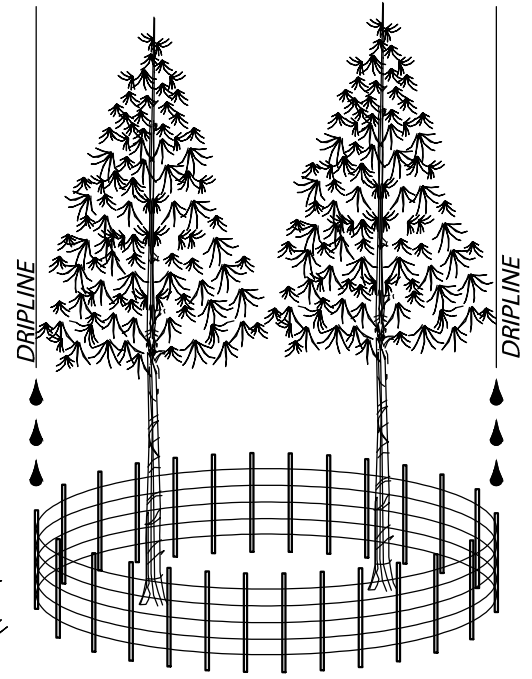
1. METAL OR WIRE MESH FENCING MAY BE REQUIRED FOR SITES THAT CONSISTENTLY FAIL TO MAINTAIN PERMITTED FENCING REQUIREMENTS.
2. INSPECTIONS SHALL BE MADE DAILY AND DOWNED SECTIONS REPAIRED IMMEDIATELY.
3. ALL DISTURBED SOIL WITHIN THE CONSTRUCTION AREA MUST BE DE-COMPACTED AND RESTORED. PLANT WITH NATIVE AND/OR ADAPTED PLANTS POST-CONSTRUCTION.

Temporary Boundary Construction Fencing





INCORRECT



CORRECT

ORANGE CONSTRUCTION FENCING OR METAL MESH

48" (MIN)

DRIPLINE

METAL STAKES BEYOND DRIPLINE

NOTES:

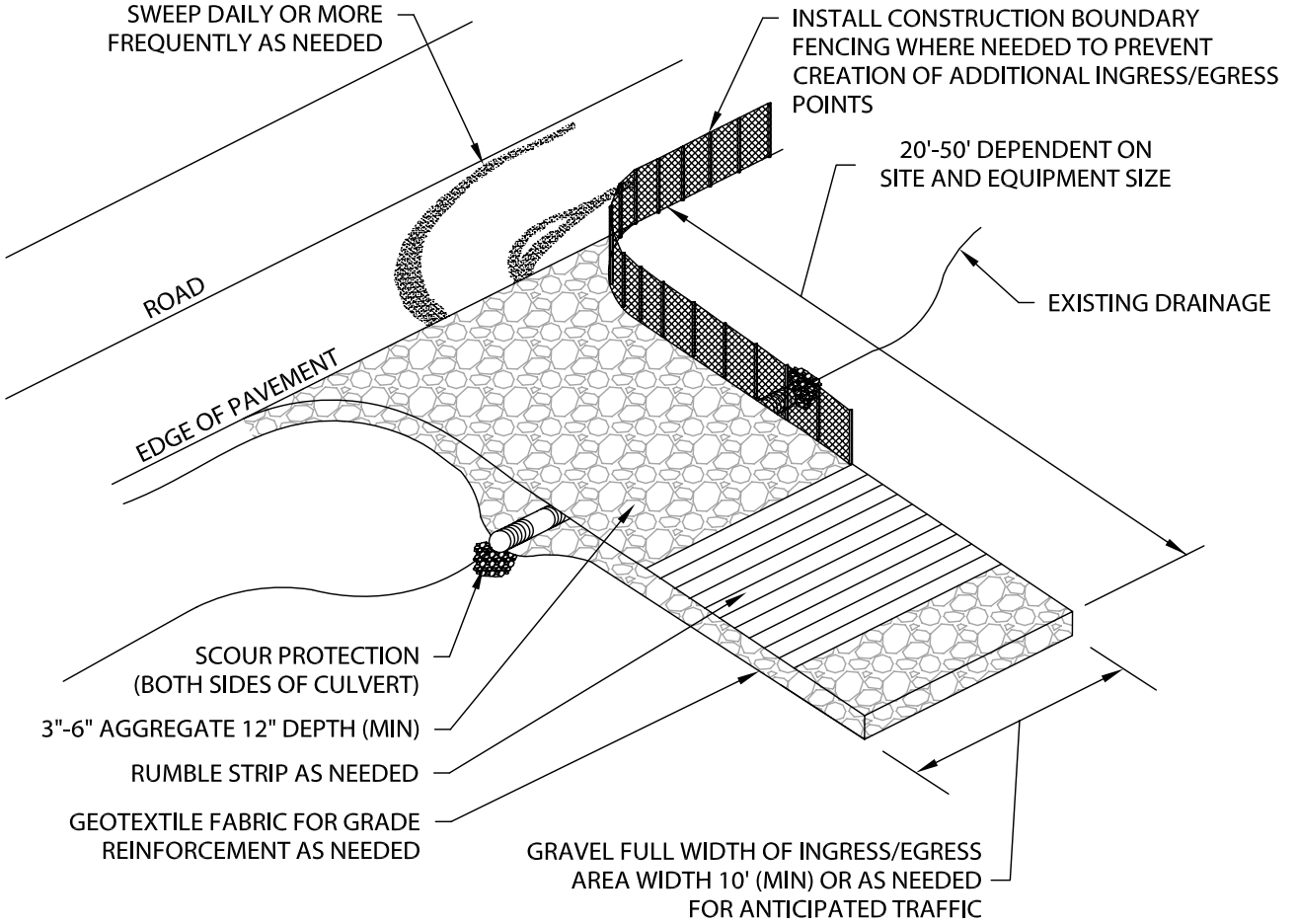
1. DO NOT PERMIT PERSONNEL, CONSTRUCTION MATERIALS, OR EQUIPMENT, TEMPORARY OR OTHERWISE, WITHIN PROTECTIVE FENCING.
2. VEGETATION PROTECTION IS REQUIRED FOR ALL PROJECTS AS A CONDITION OF PROJECT APPROVAL.
3. METAL OR WIRE MESH FENCING MAY BE REQUIRED.
4. CALCULATE THE PROTECTIVE PERIMETER FOR SHIELDING LARGER SPECIMEN TREES MEASURING OVER 30" DBH AS FOLLOWS: COMPUTE THE PROTECTIVE RADIUS BY ADDING ONE FOOT, AS MEASURED OUT FROM THE TREE BOLE, FOR EVERY INCH IN DBH. (E.G. A TREE WITH A 30" DBH WOULD RECEIVE A 30' PROTECTIVE PERIMETER)

Vegetation Protection



THE TAHOE REGIONAL PLANNING AGENCY (TRPA) SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS DETAIL.

BMP-507
November 2012



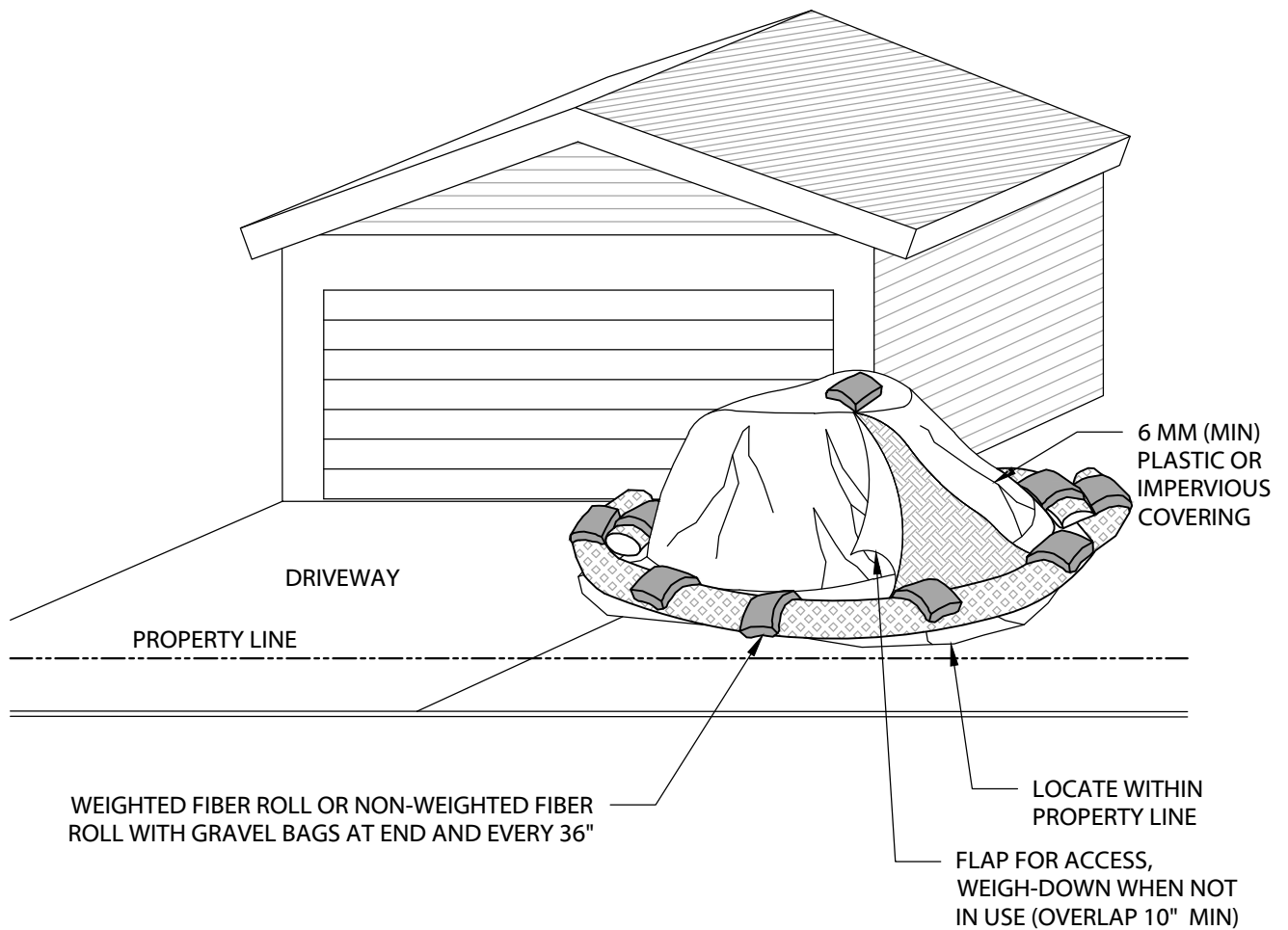
NOTES:

1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE USED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS.
2. THE AGGREGATE SHALL BE 3" - 6" CRUSHED ROCK.
3. THE ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
4. THE ENTRANCE SHALL BE CONSTRUCTED ON LEVEL GROUND, WHERE FEASIBLE, AND LOCATED WHERE PERMANENT DRIVEWAY OR PARKING AREAS ARE PLANNED.
5. ADDITIONAL STONE SHALL BE PROVIDED WHEN SURFACE VOIDS ARE NO LONGER VISIBLE OR WHEN THERE IS FREQUENT OFF-SITE TRACKING. FREQUENT OFF-SITE TRACKING MAY INDICATE THE NEED FOR GRAVEL REPLACEMENT.
6. CONTRACTOR TO MAINTAIN CONSTRUCTION ENTRANCE AT ALL TIMES.
7. ALL SEDIMENT DEPOSITS ON PAVED ROADWAYS SHALL BE SWEEPED AND REMOVED DAILY OR MORE FREQUENTLY AS NEEDED.
8. LIMIT CONSTRUCTION TRAFFIC DURING WET WEATHER OR WHEN THE SITE IS SATURATED, MUDDY OR COVERED IN SNOW.
9. LIMIT SPEEDS OF INGRESS/EGRESS VEHICLES TO 5 M.P.H. OR LESS.

Vehicle Tracking Control



THE TAHOE REGIONAL PLANNING AGENCY (TRPA) SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS DETAIL.

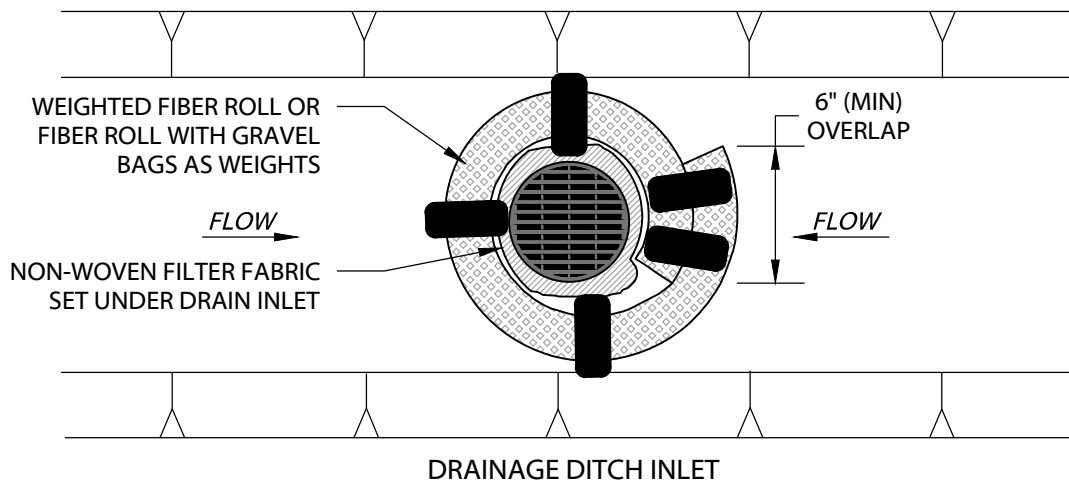
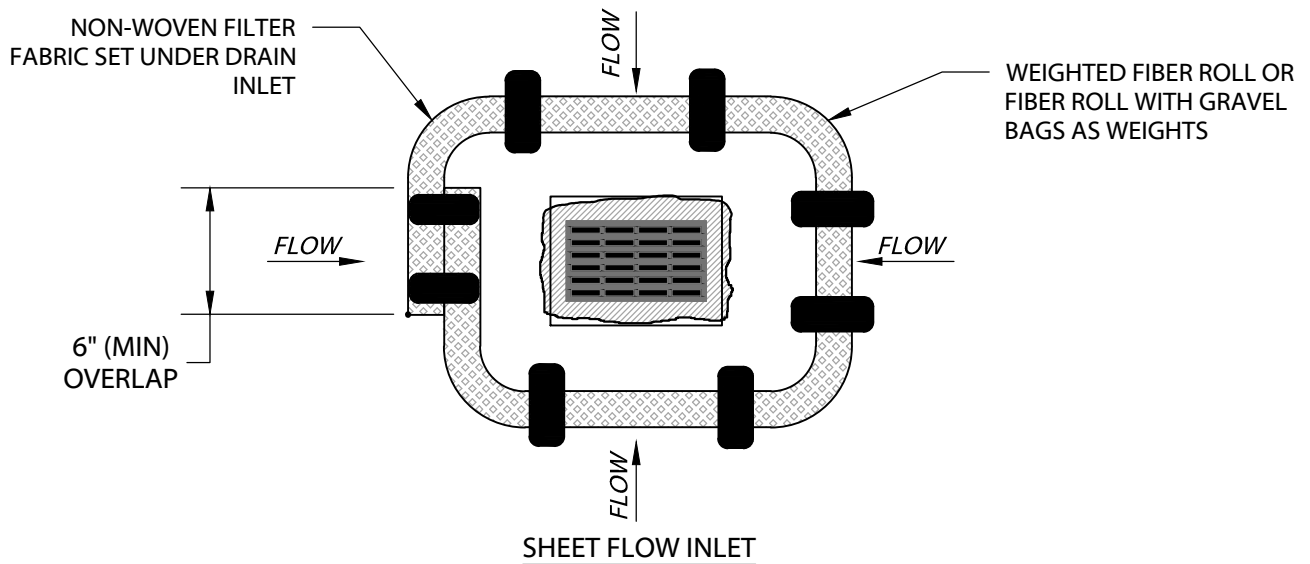
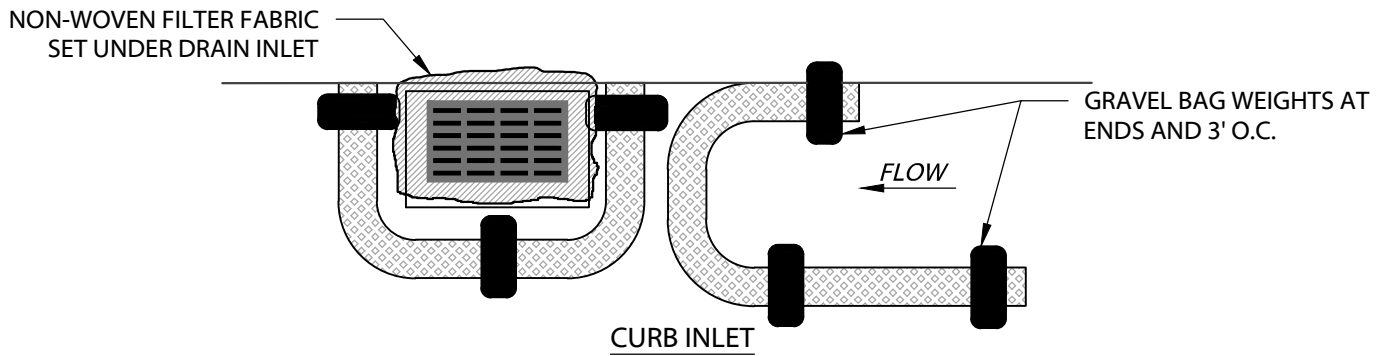


NOTES:

1. LOCATE STOCK AND/OR SPOIL PILES AWAY FROM DRAINAGE COURSES, DRAIN INLETS OR CONCENTRATED FLOWS OF STORMWATER.
2. ALL STOCK AND/OR SPOIL PILE PERIMETERS SHALL BE PROTECTED WITH TEMPORARY LINEAR SEDIMENT BARRIERS.
3. COVER ALL STOCK AND/OR SPOIL PILES WITH 6 MM PLASTIC, CANVAS TARP OR IMPERVIOUS COVER TO PREVENT WIND AND RAIN EROSION. EVENLY SPACE WEIGHTS (GRAVEL BAGS) ON COVER TO KEEP IN PLACE DURING WIND.
4. CONDUCT REGULAR INSPECTIONS OF STOCK AND/OR SPOIL PILES DURING AND AFTER RAIN EVENTS
5. VERY LARGE STOCK AND/OR SPOIL PILES MAY REQUIRE SILT FENCE IN LIEU OF FIBER ROLLS.
6. REMOVE SPOIL PILES FROM CONSTRUCTION SITE AS SOON AS POSSIBLE.
7. STOCK/SPOIL PILES MUST BE STORED WITHIN THE APPROVED STAGING AREA.

Stockpile Management





NOTES:

1. FIBER ROLL DRAIN INLET PROTECTION SHALL USE A MIN. 12" DIAMETER ROLL AND BE INSTALLED BEFORE CONSTRUCTION BEGINS.
2. GRAVEL BAGS SHALL BE FILLED WITH GRAVEL. SAND BAGS ARE NOT AN ACCEPTABLE SUBSTITUTE.
3. INSPECT AND REPAIR FIBER ROLLS EACH DAY AND AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE THIRD OF THE FILTER DEPTH HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DISPOSED OF PROPERLY.
4. SEDIMENT AND GRAVEL DEPOSITED ON ROADWAYS SHALL BE IMMEDIATELY REMOVED.
5. IN HIGH TRAFFIC AREAS, MARK DRAIN INLET PROTECTION WITH VISIBLE BARRIERS SUCH AS SAFETY CONES.
6. REMOVE DRAIN INLET PROTECTION AFTER THE SURROUNDING AREA HAS BEEN STABILIZED.

Drain Inlet Protection



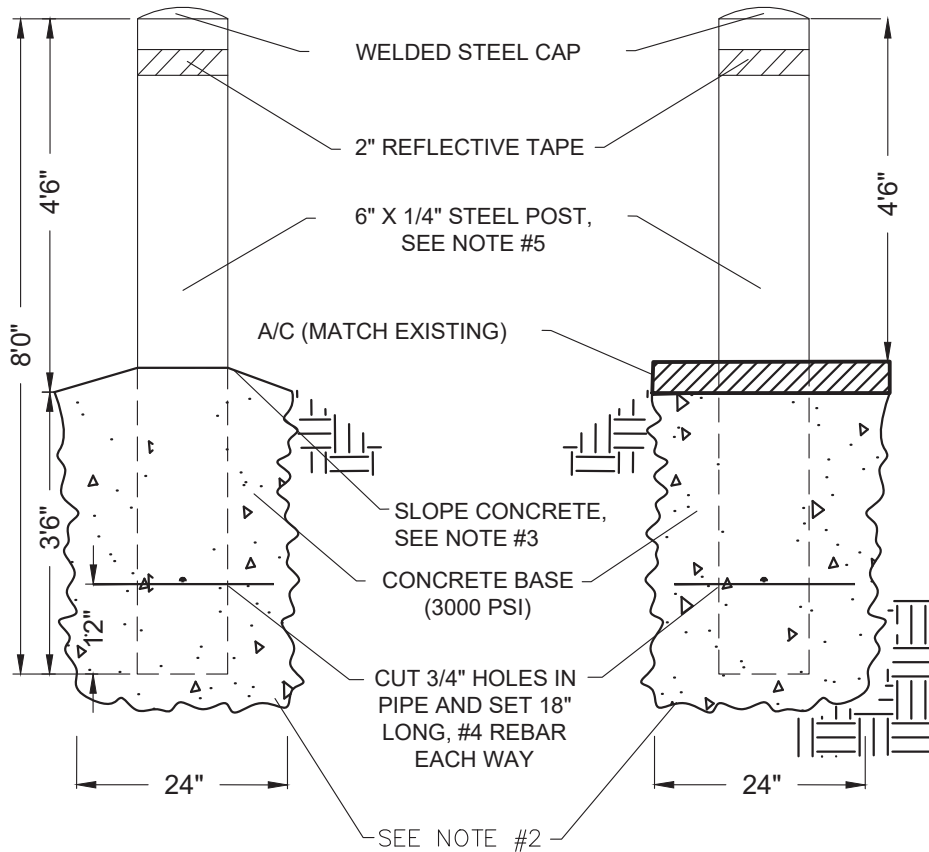
**TAHOE
REGIONAL
PLANNING
AGENCY**

THE TAHOE REGIONAL PLANNING AGENCY (TRPA) SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS DETAIL.

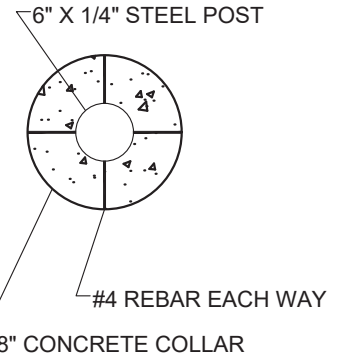
BMP-511
November 2012

**BOLLARD - OUTSIDE PAVED AREA
PROFILE**

**BOLLARD - PAVED AREA
PROFILE**



**BOLLARD
PLAN VIEW**



NOTES:

- 1) BOLLARDS WITHIN THE CITY OF SOUTH LAKE TAHOE USED AS FIRE HYDRANT PROTECTION SHALL BE BE PAINTED WITH A MINIMUM OF THREE (3) COATS OF SPRAY MATE "ALUMINUM METALLIC", COLOR CODE 0180, OR APPROVED EQUAL. BOLLARDS WITHIN EL DORADO COUNTY SHALL BE PAINTED WITH A MINIMUM OF THREE (3) COATS OF "TRAFFIC YELLOW" SHERWIN-WILLIAMS SHER-CRYL B66-300, OR APPROVED EQUAL.
- 2) CONCRETE SHALL BE PLACED ON UNDISTURBED SOIL OR A MINIMUM OF SIX INCHES (6") OF COMPACTED CLASS TWO AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION.
- 3) CONCRETE COLLAR SHALL BE A MINIMUM OF EIGHT INCHES (8") AROUND BOLLARD. BOLLARDS PLACED OUTSIDE THE PAVED AREA SHALL HAVE THE CONCRETE MOUNDED AND SLOPED TO DRAIN WATER AWAY FROM THE POST.
- 4) BOLLARD SHALL BE FILLED AND CAPPED WITH CONCRETE. CONCRETE SHALL BE A MINIMUM OF 2500 PSI CONCRETE.
- 5) BOLLARDS SHALL BE SIX INCHES (6") IN DIAMETER AND SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE OR QUARTER INCH (1/4") STRUCTURAL STEEL TUBE.
- 6) THE BOLLARD SHALL BE PLACED A MINIMUM OF TWO AND HALF FEET (2.5') FROM THE CENTER OF THE FIRE HYDRANT AND OFFSET TO AVOID OBSTRUCTING THE USE OF THE FIRE HYDRANTS NOZZLES.

APPROVED BY:

MEGAN COLVEY, DISTRICT ENGINEER
P.E. NO. C74708

SAFETY BOLLARD

STANDARD DETAIL C06

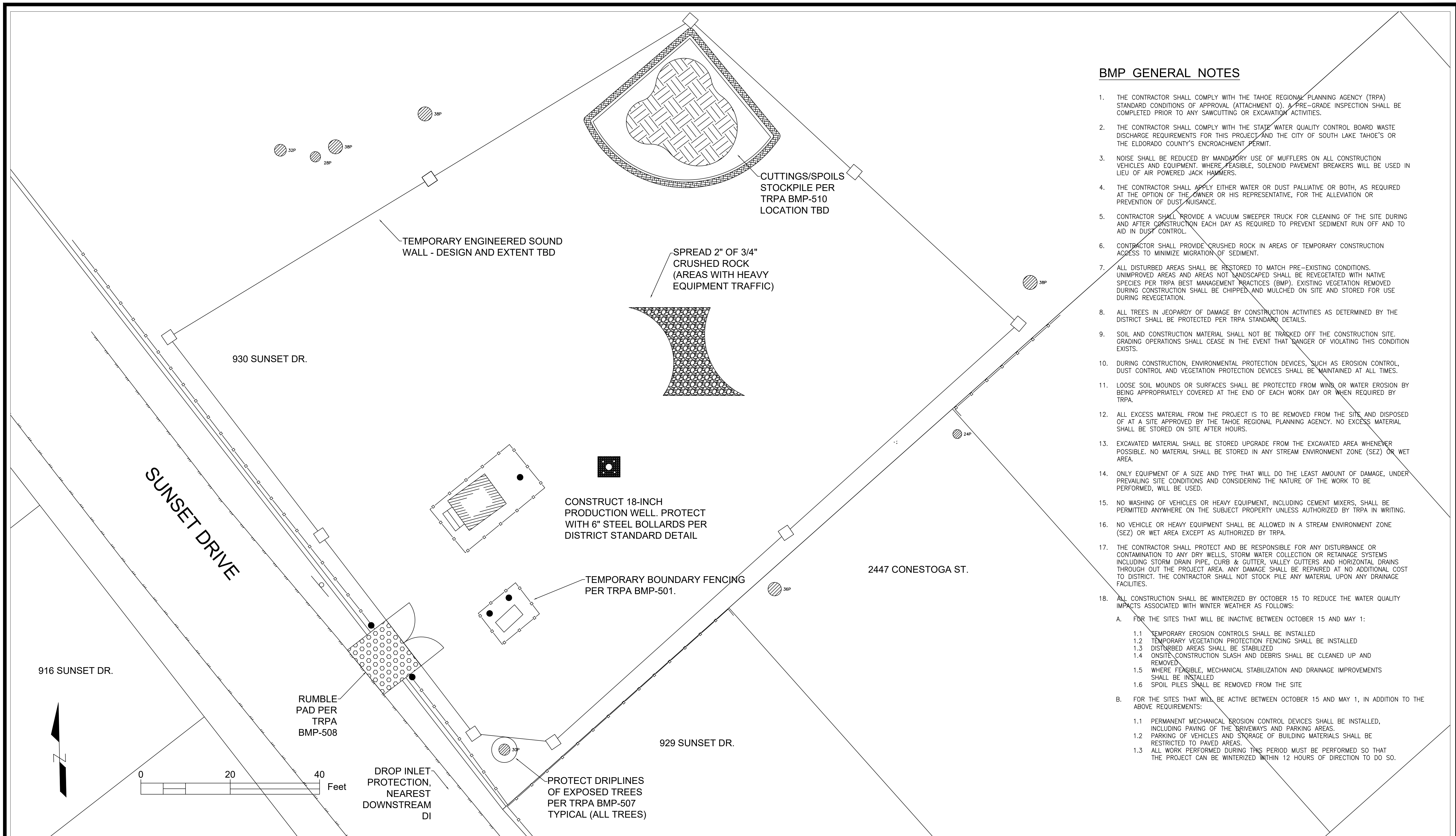
DATE: 04/13/2026

SCALE: NTS



C06

**BEST MANAGEMENT PRACTICES
PLANS**



BMP GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH THE TAHOE REGIONAL PLANNING AGENCY (TRPA) STANDARD CONDITIONS OF APPROVAL (ATTACHMENT Q), & PRE-GRADE INSPECTION SHALL BE COMPLETED PRIOR TO ANY SAWCUTTING OR EXCAVATION ACTIVITIES.
2. THE CONTRACTOR SHALL COMPLY WITH THE STATE WATER QUALITY CONTROL BOARD WASTE DISCHARGE REQUIREMENTS FOR THIS PROJECT AND THE CITY OF SOUTH LAKE TAHOE'S OR THE EL DorADO COUNTY'S ENCROACHMENT PERMIT.
3. NOISE SHALL BE REDUCED BY MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT, WHERE FEASIBLE, SOLENOID PAVEMENT BREAKERS WILL BE USED IN LIEU OF AIR POWERED JACK HAMMERS.
4. THE CONTRACTOR SHALL APPLY EITHER WATER OR DUST PALLIATIVE OR BOTH, AS REQUIRED AT THE OPTION OF THE OWNER OR HIS REPRESENTATIVE, FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE.
5. CONTRACTOR SHALL PROVIDE A VACUUM SWEEPER TRUCK FOR CLEANING OF THE SITE DURING AND AFTER CONSTRUCTION EACH DAY AS REQUIRED TO PREVENT SEDIMENT RUN OFF AND TO AID IN DUST CONTROL.
6. CONTRACTOR SHALL PROVIDE CRUSHED ROCK IN AREAS OF TEMPORARY CONSTRUCTION ACCESS TO MINIMIZE MIGRATION OF SEDIMENT.
7. ALL DISTURBED AREAS SHALL BE RESTORED TO MATCH PRE-EXISTING CONDITIONS. UNIMPROVED AREAS AND AREAS NOT LANDSCAPED SHALL BE REVEGETATED WITH NATIVE SPECIES PER TRPA BEST MANAGEMENT PRACTICES (BMP). EXISTING VEGETATION REMOVED DURING CONSTRUCTION SHALL BE CHIPPED AND MULCHED ON SITE AND STORED FOR USE DURING REVEGETATION.
8. ALL TREES IN JEOPARDY OF DAMAGE BY CONSTRUCTION ACTIVITIES AS DETERMINED BY THE DISTRICT SHALL BE PROTECTED PER TRPA STANDARD DETAILS.
9. SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. GRADING OPERATIONS SHALL CEASE IN THE EVENT THAT DANGER OF VIOLATING THIS CONDITION EXISTS.
10. DURING CONSTRUCTION, ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES.
11. LOOSE SOIL MOUNDS OR SURFACES SHALL BE PROTECTED FROM WIND OR WATER EROSION BY BEING APPROPRIATELY COVERED AT THE END OF EACH WORK DAY OR WHEN REQUIRED BY TRPA.
12. ALL EXCESS MATERIAL FROM THE PROJECT IS TO BE REMOVED FROM THE SITE AND DISPOSED OF AT A SITE APPROVED BY THE TAHOE REGIONAL PLANNING AGENCY. NO EXCESS MATERIAL SHALL BE STORED ON SITE AFTER HOURS.
13. EXCAVATED MATERIAL SHALL BE STORED UPGRADE FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
14. ONLY EQUIPMENT OF A SIZE AND TYPE THAT WILL DO THE LEAST AMOUNT OF DAMAGE, UNDER PREVAILING SITE CONDITIONS AND CONSIDERING THE NATURE OF THE WORK TO BE PERFORMED, WILL BE USED.
15. NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
16. NO VEHICLE OR HEAVY EQUIPMENT SHALL BE ALLOWED IN A STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA EXCEPT AS AUTHORIZED BY TRPA.
17. THE CONTRACTOR SHALL PROTECT AND BE RESPONSIBLE FOR ANY DISTURBANCE OR CONTAMINATION TO ANY DRY WELLS, STORM WATER COLLECTION OR RETAINAGE SYSTEMS INCLUDING STORM DRAIN PIPE, CURB & GUTTER, VALLEY GUTTERS AND HORIZONTAL DRAINS THROUGH OUT THE PROJECT AREA. ANY DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST TO DISTRICT. THE CONTRACTOR SHALL NOT STOCK PILE ANY MATERIAL UPON ANY DRAINAGE FACILITIES.
18. ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER AS FOLLOWS:
 - A. FOR THE SITES THAT WILL BE INACTIVE BETWEEN OCTOBER 15 AND MAY 1:
 - 1.1 TEMPORARY EROSION CONTROLS SHALL BE INSTALLED
 - 1.2 TEMPORARY VEGETATION PROTECTION FENCING SHALL BE INSTALLED
 - 1.3 DISTURBED AREAS SHALL BE STABILIZED
 - 1.4 ONSITE CONSTRUCTION SLASH AND DEBRIS SHALL BE CLEANED UP AND REMOVED
 - 1.5 WHERE FEASIBLE, MECHANICAL STABILIZATION AND DRAINAGE IMPROVEMENTS SHALL BE INSTALLED
 - 1.6 SPOIL PILES SHALL BE REMOVED FROM THE SITE
 - B. FOR THE SITES THAT WILL BE ACTIVE BETWEEN OCTOBER 15 AND MAY 1, IN ADDITION TO THE ABOVE REQUIREMENTS:
 - 1.1 PERMANENT MECHANICAL EROSION CONTROL DEVICES SHALL BE INSTALLED, INCLUDING PAVING OF THE DRIVEWAYS AND PARKING AREAS
 - 1.2 PARKING OF VEHICLES AND STORAGE OF BUILDING MATERIALS SHALL BE RESTRICTED TO PAVED AREAS.
 - 1.3 ALL WORK PERFORMED DURING THIS PERIOD MUST BE PERFORMED SO THAT THE PROJECT CAN BE WINTERIZED WITHIN 12 HOURS OF DIRECTION TO DO SO.



△	BY	DATE	REVISION	APPROVED	DATE

SCALE
1 inch = 10 feet

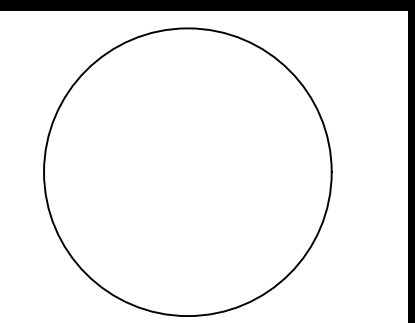
DATE
4/10/2026

DESIGNED BY
MARK SEELOS

DRAWN BY
MARK SEELOS

AS-BUILT DRAWN BY

AS-BUILT DATE



SOUTH TAHOE PUBLIC UTILITY DISTRICT

1275 MEADOW CREST DRIVE
SOUTH LAKE TAHOE, CALIFORNIA 96150
PHONE (530) 544-6474 FAX (530) 541-4319
WWW.STPUD.US



SUNSET PRODUCTION WELL PROJECT

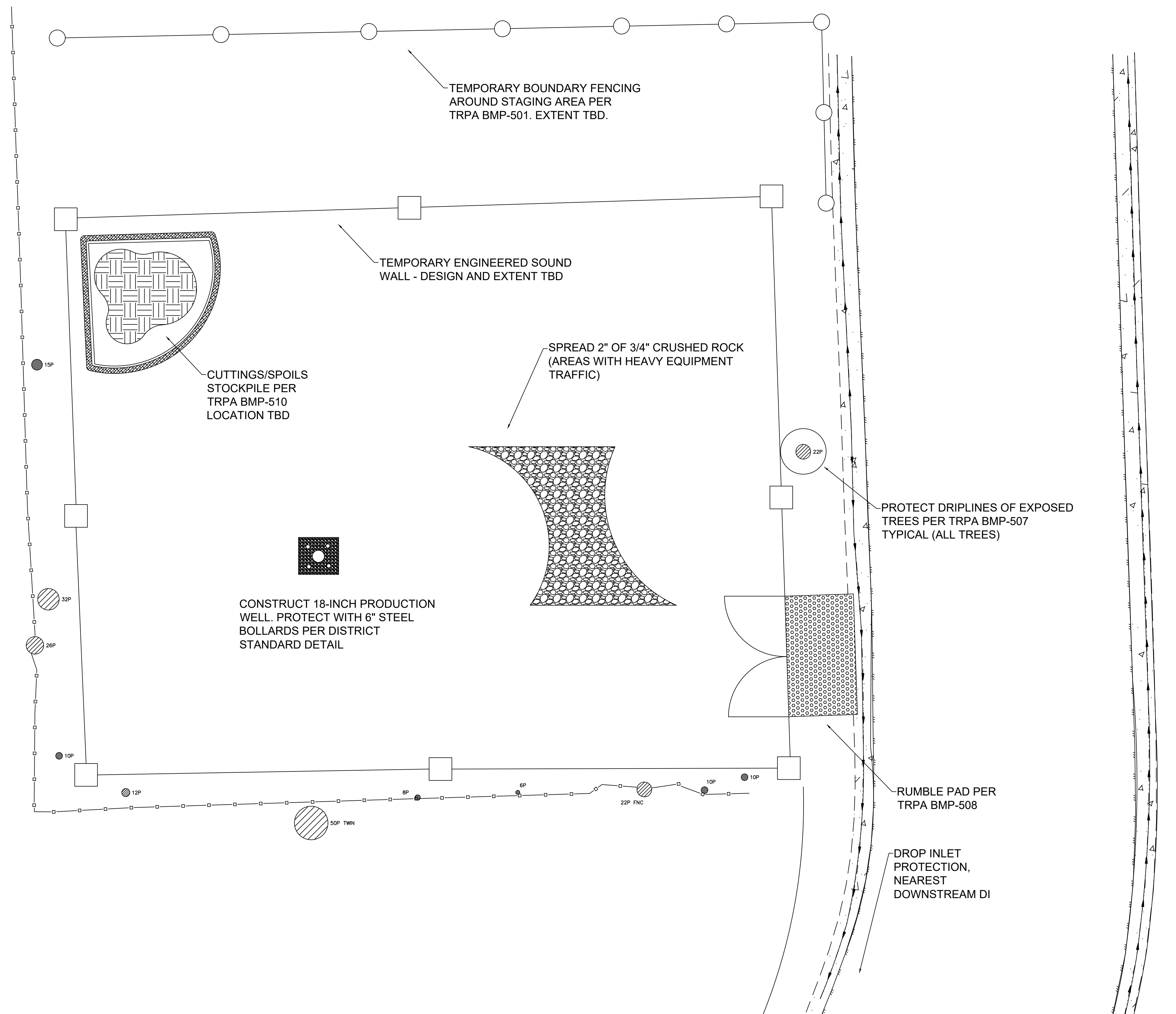
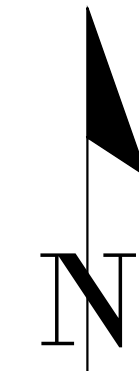
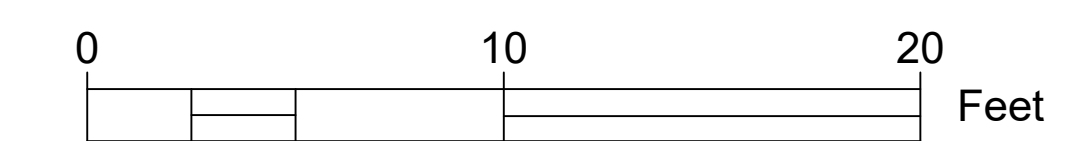
BMP PLAN

1 OF 1 SHEETS

PROJECT CODE
SSWRBD

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TEMPORARY BOUNDARY FENCING AROUND STAGING AREA PER TRPA BMP-501. EXTENT TBD.

TEMPORARY ENGINEERED SOUND WALL - DESIGN AND EXTENT TBD

CUTTINGS/SPOILS STOCKPILE PER TRPA BMP-510 LOCATION TBD

SPREAD 2" OF 3/4" CRUSHED ROCK (AREAS WITH HEAVY EQUIPMENT TRAFFIC)

CONSTRUCT 18-INCH PRODUCTION WELL. PROTECT WITH 6" STEEL BOLLARDS PER DISTRICT STANDARD DETAIL

PROTECT DRIPLINES OF EXPOSED TREES PER TRPA BMP-507 TYPICAL (ALL TREES)

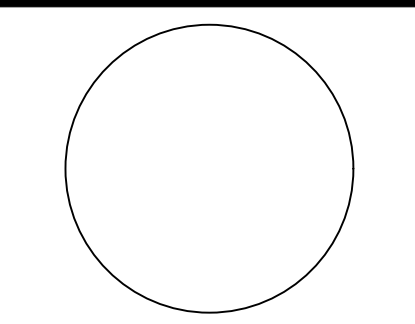
RUMBLE PAD PER TRPA BMP-508

DROP INLET PROTECTION, NEAREST DOWNSTREAM DI



BY	DATE	REVISION	APPROVED	DATE

SCALE 1" = 7'	DATE 2026-04-28
DESIGNED BY MARK SEELOS	DRAWN BY MARK SEELOS
AS-BUILT DRAWN BY	AS-BUILT DATE



SOUTH TAHOE PUBLIC UTILITY DISTRICT
 1275 MEADOW CREST DRIVE
 SOUTH LAKE TAHOE, CALIFORNIA 96150
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TANGLEWOOD PRODUCTION WELL PROJECT
BEST MANAGEMENT PRACTICES PLAN

1 OF 1 SHEETS
 PROJECT CODE
 TNLWD