



July 6, 2023

**TO:** LOCSO Board of Directors

**FROM:** Ron Munds, General Manager

**SUBJECT: Agenda Item 7F – 07/06/2023 Board Meeting**  
Approve the District Acting as Lead Agency to Receive Grant Funding from the Bay Foundation and the Approval of the Release of a Bid Package for Well Drilling Services for the Skyline Drive Monitoring Well Project

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### **STAFF RECOMMENDATION**

This item will be approved along with the Consent Calendar unless it is pulled by a Director for separate consideration. If so, Staff recommends that the Board adopt the following motion:

***Motion: I move that the Board:***

- 1. Approve the District to act as lead agency to secure a grant with the Bay Foundation for the Skyline Drive Monitoring Well Project; and***
- 2. Authorize the General Manager to execute all necessary grant agreements with the Bay Foundation for the Skyline Drive Monitoring Well Project; and***
- 3. Authorize a formal bid process for drilling Skyline Drive Monitoring Well pending completion of the County's Encroachment Permit and other miscellaneous logistical items; and***
- 4. Authorize the General Manager to execute the related contract if the lowest responsive bid is deemed a reasonable bid, which is within 20% of the Engineer's Estimate of \$132,200.***

### **Discussion**

The Basin Management Committee (BMC) is proposing to expand the groundwater monitoring program by drilling new monitoring wells at the east end of Skyline Drive in the public right of way. BMC and District staff secured a commitment for a grant from the Bay Foundation to fund a portion of the project. In order to obtain the grant, the District needs to act as the lead agency as is the case when the BMC has an opportunity for state and federal grant funding. Staff is requesting the Board approve the District to act as the lead agency on the project in order to secure \$70,000 in grant funding being offered by the Bay Foundation.

The project needs to move forward with contracting for the drilling and construction of the well as soon as possible because of the budgeting limitations of the BMC. The project must be completed by December 31, 2023. Bringing a drilling contractor onboard as soon as possible will ensure the successful completion of the project by the end of the year.

A bid package has been developed for the project. There are some pending conditions in the County's encroachment permit that staff is waiting for to include in the scope of work bid package. Some of the items will impact the site's access and will need to be incorporated into the package before release. The project consists of the construction and development of two separate wells. The purpose is to establish enhanced seawater intrusion monitoring in

Zones D and E of the groundwater basin. The Zone D well will be 340 feet deep and the Zone E well will be 480 feet deep. The engineering cost estimate to drill both wells is \$132,200.

### **FINANCIAL IMPACT**

As stated, the estimated project construction cost for the Skyline Drive groundwater monitoring well is estimated at \$132,200. Parties to the BMC will need to reimburse the LOCSD for their pro-rata share of the cost. It is also noted that Cleath-Harris Geologists was already awarded a contract by the BMC for \$30,000 for this project to provide well design and project management services. In accordance with the Stipulated Judgment approved by the Court, the District is responsible for 38% of the project cost.

### **Attachment**

Skyline Drive Well Project Manual Summary (the bid package will be available on the District website at [lososocsd.org](http://lososocsd.org) once completed)

PROJECT MANUAL

FOR THE

**LOS OSOS COMMUNITY SERVICES DISTRICT  
2122 9TH STREET, SUITE 110  
LOS OSOS, CA 93402  
(805) 528-9370**

## **SKYLINE MONITORING WELL PROJECT**

Prepared by:

**WALLACE GROUP  
612 Clarion Court  
San Luis Obispo, CA 93401  
805 544-4011**

JULY 2023

WG JOB NO. 0384-0011-00-00511

Legal Ad Published:

The Tribune: [DAY(S), DATE(S)]

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## **CERTIFICATION**

In accordance with the provisions of Section 6735 of the Business and Professions Code of the State of California, these specifications have been prepared by or under the direction of the following Professional Engineers licensed in the State of California:

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Steven G. Tanaka, PE C049779, Exp. 09/30/24

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## **PART I**

### **NOTICE, PROPOSAL AND AGREEMENT FORMS**

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# **NOTICE INVITING BIDS**

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**LOS OSOS COMMUNITY SERVICES DISTRICT**

**SKYLINE MONITORING WELL PROJECT**

**NOTICE INVITING BIDS**

NOTICE IS HEREBY GIVEN that the LOS OSOS COMMUNITY SERVICES DISTRICT (Owner) hereby invites sealed bids which will be received at:

LOS OSOS COMMUNITY SERVICES DISTRICT  
2122 9TH STREET, SUITE 110  
LOS OSOS, CA 93402

until **August 10, 2023, at 3:00 p.m. PST**], or such later date as may be set by Addendum, at which time and at the above address, they will be publicly opened and read aloud for performing the following work:

DESCRIPTION OF WORK: The work is comprised of providing two side-by-side groundwater monitoring wells, completed to 340 and 480 feet, as specified herein and as shown on the Contract Documents.

LOCATION OF THE WORK - The work is located in Los Osos, CA, and more specifically east of 590 Skyline Drive, Los Osos, CA 93402.

BID OPENING - Telephones will not be available to bidders for the preparation of the bids or for calling in bid results. Bid forms received after the designated time will not be accepted. Bidders, their authorized agents and other interested parties, are invited to attend the bid opening.

AWARD OF CONTRACT- The OWNER intends to award a contract **to the lowest, responsive, and responsible bidder to the bid schedule delineated in these contract documents**. All bids submitted shall be in accordance with the provisions of the Contract Documents and the OWNER may waive any minor irregularities or reject any and all bids. Any bid may be withdrawn prior to bid opening but not afterward.

FORM OF THE BID - Bidders must submit proposals on the proposal bid form provided. Proposals will not be considered unless submitted on proposal forms included in the Contract Documents obtained from the OWNER. It is **not mandatory**, but highly recommended, that the bidder attend the pre-bid job conference scheduled for **Day, Month, Year, at Time**. The bidder may contact Steven Tanaka at **805-441-2293** for additional information.

BID SECURITY - Each proposal must be accompanied by cash, a certified or cashier's check, or bidder's bond on the prescribed form and made payable to the OWNER for an amount equal to at least 10 percent of the amount of the Bid, such guaranty to be forfeited should the apparent successful bidder to whom the contract is awarded fail to furnish the required bonds and insurance certificates, and enter into contract with the OWNER within the time stated in the

Proposal requirements. Proposals cannot be withdrawn for the period of time specified in Article 10 of the Instructions to Bidders.

**PERFORMANCE SECURITIES** – The successful bidder will be required to furnish a payment bond and faithful performance bond in the full amount of the Contract price, and insurance with certificates and endorsements of insurance, as provided in the Contract Documents. The required bonds must be provided only by a surety insurer who is in good standing with the State of California Department of Insurance.

**CONTRACTOR LICENSING** - In accordance with the provisions of California Public Contract Code Section 3300, the OWNER has determined that the contractor shall possess a valid C57 Well Driller's License at the time of bid issuance. Failure to possess the specified license shall render the Bid as non-responsive and shall act as a bar to award of the Contract to any bidder not possessing said license at the time of award. In the event of dispute over classification of the license required, the opinion of the contractor's State License Board shall prevail.

**WAGE RATE REQUIREMENTS** - In accordance with the provisions of California Labor Code Sections 1770, 1773, 1773.1, 1773.6 and 1773.7 as amended, the Director of the Department of Industrial Relations has determined the general prevailing rate of per diem wages in accordance with the standards set forth in Section 1773 for the locality in which the work is to be performed. A copy of said wage rates is on file at the office of the OWNER. It shall be mandatory upon the contractor to whom the work is awarded and upon any subcontractor under the contractor to pay not less than said specified rates to all workmen employed by them in the execution of the work.

**CONTRACTOR REGISTRATION WITH DEPARTMENT OF INDUSTRIAL RELATIONS** – In accordance with California Labor Code Section 1725.5, Contractors and Subcontractors (as defined by California Labor Code Section 1722.1) bidding on Public Works contracts in California shall be registered with the Department of Industrial Relations **prior to bidding**. Contractor shall verify that this requirement has been met, prior to award of Contract.

**AGREEMENT TO ASSIGN** - In accordance with Section 4552 of the California Government Code, the bidder shall conform to the following requirements: In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act 15 U.S.C. 15, or under the Cartwright Act, Chapter 2.

**DEPOSIT OF SECURITIES IN LIEU OF RETAINAGE** - The Contractor may elect to receive 100 percent of payment due under the Contract Documents from time to time, without retention of any portion of the payment by the OWNER, by depositing securities of equivalent value with the OWNER in accordance with the provisions of Section 20300 of the California Public Contract Code. Such securities, if deposited by the Contractor, shall be valued by the OWNER, whose decision on valuation of the securities shall be final. Securities eligible for investment under this provision shall be limited to those listed in Section 16430 of the California Government Code or bank or savings and loan certificates of deposit.

**CONTRACT DOCUMENTS** - Contract Documents, including Instructions to Bidders, the Contract Specifications and Drawings may be downloaded from the District's web site, <https://www.losososcscsd.org/>, or by contacting the office of the Engineer, Wallace Group, Steven Tanaka, at [stevent@wallacegroup.us](mailto:stevent@wallacegroup.us), or by telephone (805) 441-2293. If you download the

contract documents from the District's web site and intend to submit a bid, you must contact the Engineer at the contact information above, to be placed on the planholders' list. Only PDF electronic copies of the bid documents will be made available to bidders, at no charge to bidders. The special attention of prospective bidders is called to the Instructions to Bidders portion of the Contract Documents for full directions for bidding the Work.

The successful bidder must insure that employees and applicants for employment are not discriminated against on the basis of age, color, race, national origin, ancestry, religion, sex, sexual preference, marital status, and shall comply with the Americans with Disabilities Act.

Date: \_\_\_\_\_

OWNER: \_\_\_\_\_  
RON MUNDS, GENERAL MANAGER

**END OF NOTICE INVITING BIDS**

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**Technical Specifications  
for  
Skyline Drive Groundwater Monitoring Wells**

**Prepared for:**

**Los Osos Basin Management Committee  
and  
Los Osos Community Services District**

**Prepared by:**

**Cleath-Harris Geologists, Inc.  
75 Zaca Lane, Suite 110  
San Luis Obispo, CA 93401**

**(805) 543-1413**

**June 2023**





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## 1.0 Introduction

This technical specification applies to the construction and development of a groundwater monitoring well cluster for the Los Osos Community Services District. The purpose of this specification is to document the level of effort expected from the drilling contractor. This specification does not, through omission, excuse the contractor from complying with any laws, rules and regulations, or standards governing the work being performed.

## 2.0 Scope of Work

The work includes furnishing all labor, materials, transportation, tools, supplies, equipment, and appurtenances necessary for the complete and satisfactory construction, and development, of the monitoring well cluster. The well site location is shown in Figure 1. Well design construction diagrams for bidding purposes are shown in Figure 2a and 2b. The preliminary design and development parameters are as follows:

### Well Construction Summary

Drilling site:	East end of Skyline Drive in Los Osos, California.
GPS Coordinates:	Skyline 1a (North): N 35.315873 ; W -120.843155 Skyline 1b (South): N 35.315804 ; W -120.843153
Conductor Casing:	Temporary - as needed
Borehole:	Skyline 1a: 500 feet depth, 10-inch nominal diameter Skyline 1b: 350 feet depth, 10-inch nominal diameter
Geophysics:	Skyline 1a only: Spontaneous potential, long and short normal, single point resistivity, natural gamma ray, sonic. No geophysics required at Skyline 1b.
Total well depth:	Skyline 1a: 480 feet Skyline 1b: 340 feet
Conductor casing:	Skyline 1a only: 10-inch SDR 21 PVC from 0 – 50 feet depth
Skyline 1a:	Wellhead to 420 feet: 2.5-inch diameter, Sch 80 PVC blank casing. 420 to 460 feet: 2.5-inch diameter, Sch 80 PVC, 0.020-inch slots. 460 to 480 feet: 2.5-inch diameter, Sch 80 PVC blank casing with end cap.

Ash St.

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Skyline Dr.

Skyline 1a

Skyline 1b



0 50 100 150 ft

### Explanation

- Well Sites
- ▨ Work Area

Base Map: Google Satellite Imagery 2023



Figure 1  
Vicinity Map

Skyline Dr. Monitoring Wells  
Los Osos, California

Cleath-Harris Geologists

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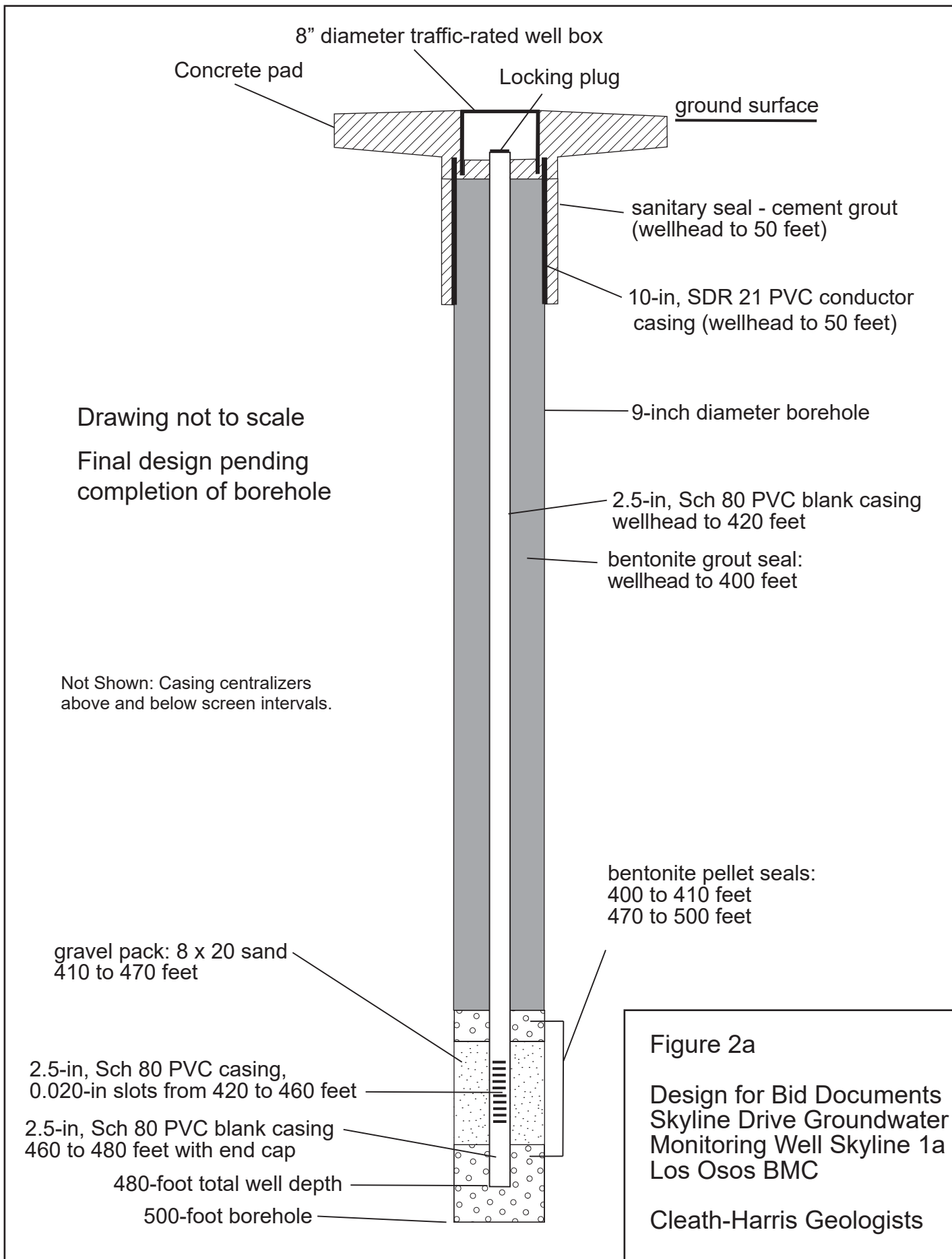
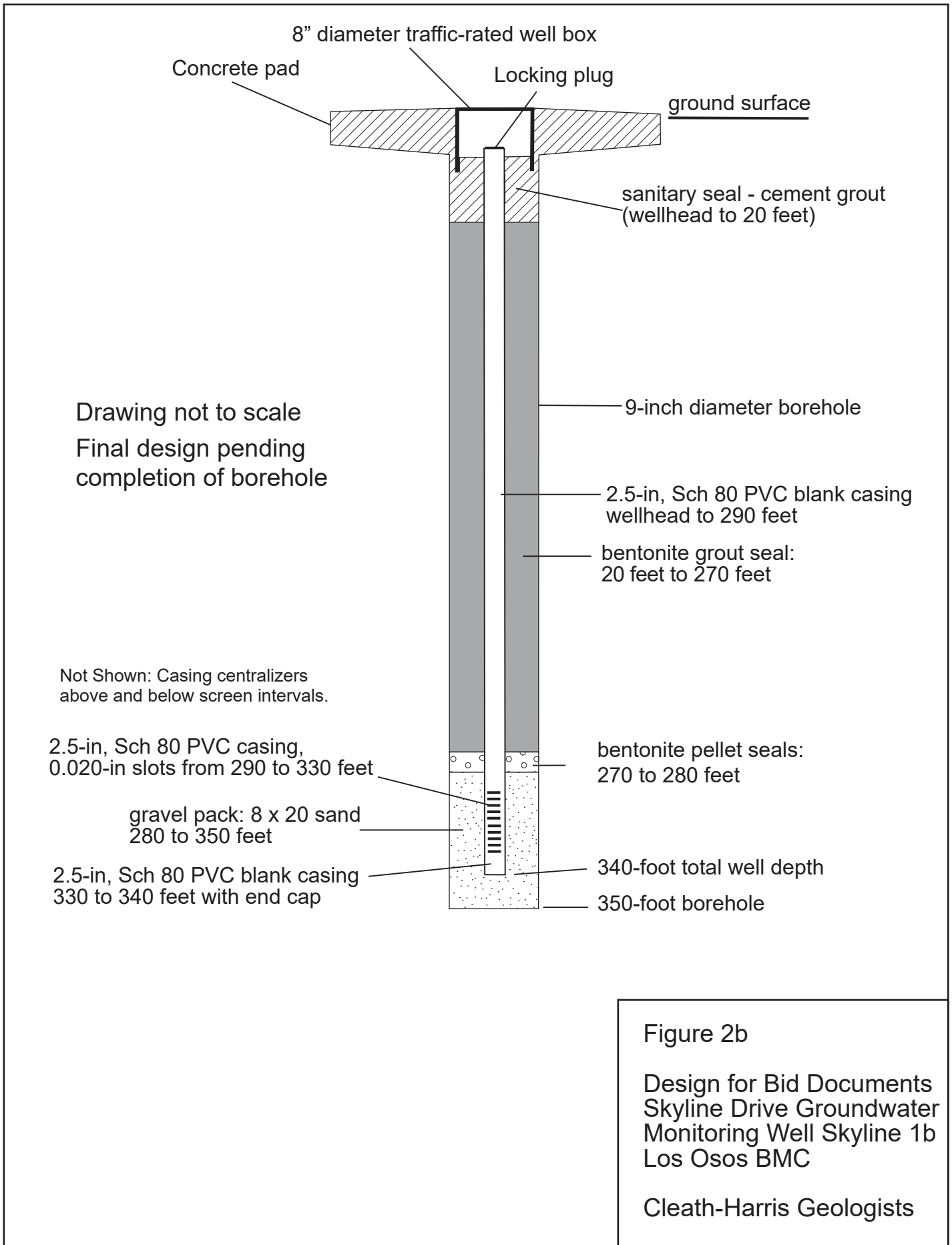


Figure 2a

Design for Bid Documents  
Skyline Drive Groundwater  
Monitoring Well Skyline 1a  
Los Osos BMC

Cleath-Harris Geologists

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- Skyline 1b: Wellhead to 290 feet: 2.5-inch diameter, Sch 80 PVC blank casing.  
290 to 330 feet depth: 2.5-inch diameter, Sch 80 PVC, 0.020-inch slots  
330 to 340 feet: 2.5-inch diameter, Sch 80 PVC blank casing with end cap.
- Centralizers: Two (2) centralizers per well at top and bottom of screened intervals.
- Gravel pack: 8x20 sand from approved supplier.
- Deep Seals: Skyline 1a: Bentonite grout from wellhead to 400 feet depth. Coated time release bentonite pellets from 400 to 410 feet and from 470 to 500 feet depth.  
  
Skyline 1b: Bentonite grout from 20 feet to 270 feet depth. Coated time release bentonite pellets from 270 to 280 feet.
- Sanitary Seal: Skyline 1b: Cement grout from wellhead to 50 feet depth (conductor).  
  
Skyline 1a: Cement grout from wellhead to 20 feet depth.
- Development: 4 hours air-lift per casing (8 hours total).
- Pumping tests: none
- Development water: Contain development water and convey to adjacent stormwater basin at south side of work area.
- Wellhead: Skyline 1a/1b: 8-inch diameter, traffic rated well boxes
- Cuttings: Removed from site and disposed by contractor.
- Drilling Mud: Removed from site and disposed by contractor.

### 3.0 Permits, Laws, and Standards

The contractor is responsible for obtaining a well application permit prior to drilling and for filing a Well Completion Report at the conclusion of the project. The contractor shall comply with all federal, state, or local laws, ordinances, rules and regulations, and standards relating to the performance of work, including the California Water Well Standards (Dept. of Water Resources Bulletins 74-81 and 74-90) and any applicable noise ordinance.



An encroachment permit from San Luis Obispo County will be needed for well construction in county right-of-way. Contractor shall obtain the encroachment permit with assistance as needed from District. Contractor shall follow applicable provisions of encroachment permit.

## **4.0 Site Access/Make-up Water**

Any improvements necessary for access should be identified by the contractor during pre-bid site inspection. The contractor is responsible for ensuring that site access is satisfactory prior to mobilizing equipment on-site. Any improvements needed for access are part of Contractor's bid, and no additional compensation will be provided.

Traffic barrier shall be removed as required for construction and re-installed or replaced in kind to pre-construction condition (or better) to the satisfaction of the County.

Arranging for, obtaining, and transporting water for drilling shall be the contractor's responsibility.

## **5.0 Conductor Casing/Sanitary Seal**

A conductor casing shall be used to stabilize the upper borehole wall at Skyline 1a as indicated in the Scope of Work. The conductor casing shall be installed to a minimum depth of 50 feet bgs in a nominal 18-inch diameter borehole. The conductor shall be 10-inch diameter SDR 21 PVC. After the conductor has been centered and aligned plumb in the borehole, the annular space shall be filled with cement grout that will also serve as the sanitary seal for the well.

No conductor casing is required for Skyline 1b, as the design will be established prior to drilling (from the e-log at Skyline 1a) and the well will be constructed immediately upon reaching total depth. The sanitary seal for Skyline 1b shall consist of a cement grout to a depth of 20 feet depth.

## **6.0 Borehole Drilling**

Boreholes shall be drilled to the total depths listed in the Scope of Work. During borehole drilling, the contractor shall keep the following minimum records:

- 6.1 A descriptive log of the formation materials with depths at which each change in materials occurs.
- 6.2 The penetration rate of each drill pipe section, reported in minutes per joint.
- 6.3 Collect representative formation samples in labeled containers at regular 10-foot intervals.



- 6.4 Record the drill bits used (type and size) and any notable events, such as loss of circulation, hole instability, voids, etc.
- 6.5 A mud condition log (Section 6.0)

## 7.0 Mud Program

A mud program is required. Only high-quality products from a national brand (e.g. WYO-BEN, BAROID, CETCO, Drilling Specialty Company, or approved equal) shall be used in the make-up of the drilling fluid. The purpose of the mud program is to prevent formation invasion by drilling fluid, reduce the potential for other downhole problems, and facilitate development. Solids control is very important to limiting water loss and the desanding equipment should be capable of handling about 1-1/2 times the anticipated maximum pumping volume, with fines removal down to about 25 microns.

The contractor shall either provide and follow a mud program designed by a qualified Mud Engineer or shall follow the mud program described below. The mud program involves maintaining mud values within specified limits and checking/adjusting mud values at least once every 4 hours during drilling. The program may be modified as necessary during drilling, however, the reasons for any modification to the program should be noted. Sufficient time for proper monitoring and conditioning of the drilling mud every morning and as needed during drilling should be taken and will be expected. The basic monitoring components of the mud program are as follows:

- 7.1 Drilling fluid pH should be between 8.5-9 units. Adjust make-up water pH with soda ash before adding bentonite. pH strips are acceptable for testing.
- 7.2 Mud weight should be less than 9.0 pounds per gallon. A mud balance is required.
- 7.3 Mud viscosity should generally be between 35-50 seconds. Viscosity should only be as high as needed to clean out hole. A marsh funnel viscometer is required.
- 7.4 Sand content should be less than 2 percent. An Imhoff cone or equivalent is required.

Mud conditioning additives, such as a polymer for shielding formation clays from hydrating, are required. Additives should be mixed per manufacturer instructions, slowly, while circulating after all other mud adjustments are made in the morning. Mud viscosity increases due to additives should be taken into consideration. Drilling mud additives may include National Science Foundation (NSF) 60 certified products such as Aqua-Gel, Quik-Gel, EZ-Mud, Quick-Trol, Drispac, etc. Specific product selection and use are at contractor's discretion and based on actual borehole conditions. All bentonite and mud additive products must be approved by the project inspector.

The basic procedure for daily mud monitoring/adjusting is as follows:





- 7.5 Circulate mud in the morning. If greater volume is needed, add clean water first. Pre-treat make-up water with about 6 ounces of soda ash per 300 gallons.
- 7.6 Check fluid pH. Adjust using soda ash (to increase) or clean water (to decrease).
- 7.7 Check mud viscosity. Add bentonite to increase. Allow for about 10 seconds of increased viscosity for polymer, if used.
- 7.8 Check sand content. If too high, circulate through desanding cones and recheck.
- 7.9 Check mud weight. If too high, add clean water and return to step 6.6.
- 7.10 Add polymer last. Polymer should be added very slowly and used sparingly. Check final viscosity.
- 7.11 Recheck mud values every 4 hours during drilling. All mud values and product quantities used should be recorded in a log.

## 8.0 Final Design

The project inspector will determine the final well design following receipt of the e-log and other borehole results from contractor (generally within a few hours of borehole completion). Changes to the well design used for bidding would involve adjustments to total well depth, screened interval, and/or deep seal depths. Final designs for both Skyline 1a and 1b will be prepared from the test hole results of Skyline 1a.

## 9.0 Casing Placement

Well casing installations shall begin as soon as practical following contractor receipt of the final design. All casing material delivered to the site will be new.

The well casings and screens will be placed in the correct position and depth or an alternate acceptable to the project inspector. Casing centralizers will be attached at the required intervals, or as directed by the project inspector. The well casings will be suspended from the top and allowed to hang freely in the borehole at all times during well construction.

## 10.0 Filter Pack Placement

The filter pack will consist of clean, mostly rounded to sub-rounded silica sand, graded to the specifications listed in the Scope of Work. A recent sieve analysis of the product being used must be provided to the project inspector. The project inspector has the right to reject a filter pack if the sieve analysis is unsatisfactory or not representative of the actual delivered load, if the grains are mostly angular to highly angular, or if the sand has more than a trace of impurities, especially of calcium carbonate (such as shell fragments). The filter pack shall be protected from contamination during storage. If stored on site, the filter pack shall be placed on new plastic sheeting (visqueen) and covered with new plastic sheeting.



Prior to placement of the gravel pack into the annular space, the drilling fluid shall be thinned with clean water. The rate of gravel placement shall not exceed 1.5 feet per minute, and placement of gravel shall proceed without interruption until completion.

## **11.0 Deep Seals**

Two types of deep seal will be used to isolate the well casings in each borehole, (1) coated time release bentonite pellets and (2) bentonite grout (slurry). All sealing products must be approved by the project inspector.

Pellets shall be placed through a tremie pipe the depths specified in the Scope of Work, with depth verification using a tag line. Bentonite grout shall consist of a high-solids bentonite and water mixture specifically designed for borehole seals, with a minimum of 20 percent solids. Conventional drilling clay and water is not acceptable. The grout shall be thoroughly mixed so that no lumps exist, and shall be pumped through a tremie pipe to the sealing depth.

## **12.0 Well Development**

The two monitoring wells will be developed by air lifting. The maximum depth of the air-line (supply) in each casing shall be 170 feet to limit collapse pressure. The well bottom shall be free of sediment following development, as verified by a tag line. Contractor shall bail or circulate clean water from the bottom of the well, if needed, to assist with development and removing fines. Discharge water from well development shall be contained and conveyed to adjacent stormwater basin at south side of work area.

## **13.0 Drill Cuttings and Drilling Fluids**

Drill cuttings shall be removed from the site and disposed of at contractor's expense. All drilling fluids must be contained and removed from the site and disposed of at contractor's expense.

## **14.0 Site Security/Traffic Control**

The work area shall be clearly marked to prevent unauthorized entry and the test hole shall be covered to prevent access when contractor is not present on site. Traffic control shall be provided in accordance with any applicable provisions in the encroachment permit.

## **15.0 Monitoring Well Boxes**



The finished wellheads shall consist of the well casings terminated below grade inside an 8-inch diameter traffic-rated monitoring well box with concrete pad. The concrete pad shall be a minimum of 4-inches thick and a nominal 3-foot square, with the manhole cover approximately two inches above surrounding grade and the pad gently sloped to drain away from the manhole cover. The well box shall be placed at the center of the concrete pad. The conductor casing will need to be cut off below grade to accommodate well box and concrete pad installation (see Figure 2). Each nested casing will be furnished with a locking plug. The manhole cover shall include the words “monitoring well” and be a water-tight design. Well box and locking plug products must be approved by the project inspector.

## **16.0 Final Inspection**

The project inspector will inspect the site and wellhead prior to releasing the contractor from the job. All trash, extra materials, and drilling fluids generated by the contractor must be off the site, and the wellhead must be properly secured in the well box. Contractor shall have before and after image documentation of the traffic barrier. The traffic barrier shall be re-installed and the Encroachment Permit signed off for work completion by the County.