Oregon
Tina Kotek, Governor

Department of Environmental Quality
Eastern Region Bend Office
475 NE Bellevue Dr., Suite 110
Bend, OR 97701
(541) 388-6146
FAX (541) 388-8283
TTY 711

November 12, 2025

Sky View Holdings LLC
13200 SE McLaughlin Blvd
Portland, OR 97222

Re: WQ: Variance Approval: 248-25-000275-VAR: 11515 NW Dove Road; T.14S; R.12E; Sec. 3D; Tax Lot 2800; 4.77 Acres; Deschutes County.

Dear Sky View Holdings LLC,

This correspondence verifies that a variance hearing provided for under Oregon Administrative Rules 340-071-0430, was held on the site at 1:30 pm on September 29, 2025, for the subject property referenced above on NW Dove Road in Deschutes County. The purpose of the hearing was to provide a forum for the presentation of supportive facts to show that strict compliance with certain rules regulating onsite sewage disposal is inappropriate, or that special physical conditions at the site render strict compliance unreasonable, burdensome or impractical. The proposal and associated supporting information you provided with the application was presented during the recorded hearing.

Variance Decision:
Based on review and evaluation of the variance record and observations made during the variance hearing, I am pleased to inform you that the variance from the rules cited above is hereby granted. In my opinion, it would be unreasonable to prohibit this method of wastewater treatment by strictly following the administrative rules at this specific location at this time. It is my judgement that the proposed system is not likely to present a public health hazard risk or have any significant adverse impacts to groundwater or surface water quality if properly operated and maintained.

Justification for this decision:

- The proposed Orenco® AdvanTex AX20N-Mode 3B system is currently approved as a system meeting DEQ's Treatment Standard 2; OAR 340-071-0100(168) "Treatment Standard 2".
- On average, the AX20N-Mode 3B system is one of the best available technologies for Total Nitrogen treatment that has been approved for use in Oregon and is expected to treat residential wastewater to 20 mg/L Total Nitrogen, which is about two thirds of a reduction from that of a standard system and about half from a sand filter system in this climate.
- Treatment Standard 2, for the reduction of fecal coliform, will be met or exceeded with pre-treated effluent from the AX20N-Mode 3B unit (proposed w/o UV disinfection) that will discharge into a 250 square foot bottomless sand filter with an additional 8-inches or 14 – inches respectively of sand filter media (embedded 3-inches below ground surface) placed below the filter to meet or exceed the minimum 24-inch separation requirement to groundwater below. Note: The bottomless sand filter is assumed to meet Treatment Standard

2 criteria independently of the ATT, which is why UV disinfection is not included in the proposal.

- Overall Treatment: Treatment first occurs within the AX20N-Mode 3B system (w/o UV) for reductions in TSS, BOD_5 and Total Nitrogen (TN). Final discharge will occur through the elevated bottomless sand filter, which may provide some additional reduction/treatment of BOD_5, TSS, Fecal Coliform and TN. The final effluent Nitrate concentration is expected to be well under the EPA drinking water standard of 10 mg/L as well as local action levels set at 7 mg/L.
- The proposed system, with innovative technology, shall be required to be maintained by a certified maintenance provider for the life of the system. Additionally, the system shall be monitored at regular intervals to ensure that the system is performing as expected. The monitoring and maintenance of the system shall be reported to Deschutes County on an annual basis.
- The depth of the local water and numerous basalts flows between the surface and the underlying water table support concluding that the risk to the underlying groundwater from this proposed system is low.

Standards found in Oregon Administrative Rules Chapter 340, Division 071 & 073 have been developed to protect public health and the environment in Oregon. The variance officer's duty is to determine if in their professional judgement, the system proposed for this variance consideration is adequate to safeguard the public's health and the environment if variance from the standards noted above are granted. In my opinion, your proposal adequately addresses the limitations present at the site.

Other Considerations:
The effluent from the ATT discharging through a bottomless sand filter, will have a significant reduction in BOD, TSS, TN, and Fecal Coliform. In this proposal, treated ATT effluent will be discharged into a 250 square foot bottomless sand filter with an additional 8-14- inches of sand filter media embedded 6 - inches into the native soil that will be used to exceed the 24-inch separation from the shallowest water table depth standard by providing a total separation of 31-35 - inches. The additional media will mitigate the lack of vertical separation from the bottom of the sand filter to the highest level of groundwater on site.

This variance approval is being granted on the condition that requirements contained in the enclosed schedules are met. Schedules A and B (attached) include requirements and specifications for the design and location of the system approved through this variance. Failure to meet these conditions may cause the variance approval to become null & void.

Site History & Variance Proposal:
Deschutes County conducted a site evaluation with 3 test pits within the subject property on June 6, 2000, where a denial was issued for the use of an onsite wastewater system on June 6, 2000. The primary reason for denial was due to the lack of minimum required soil depth and the lack of sufficient useable area to construct an onsite system.

The proposed solution to overcome site limitations involves installing an Orenco® AdvanTex AX20N-Mode 3B Alternative Treatment Technology System, which will discharge to a 250 sq. ft. elevated Bottomless Sand Filter. This filter will be constructed on an 8- to 14-inch bed of sand media embedded 3

inches into the native soil. The proposal addresses the 2-foot continuous soil limitation by adding the 8 to 14 inches of additional sand media, thereby providing a total vertical separation of 31 to 35 inches from the bottom of the system to the shallowest depth of bedrock. The rest of the sand filter will be "conventional" from there up, consisting of 6 inches of underdrain media, 24- inches of sand filter media, 6- inches of drain media (with the distribution laterals), filter fabric, and 6-9 inches deep of final backfill on top. The sand filter will be contained within a supporting berm with a slope no steeper than 3:1.

You are seeking a variance from the following Oregon Administrative Rules (OAR):

340-071-0135(1) – which addresses DEQ approval of new or innovative technologies, materials, or designs for onsite systems. **This rule is being varied from due to deviating from the approved design for the AX20N in Mode 3B by not requiring UV disinfection. Treatment Standard 2 will still be met or exceeded without the UV disinfection by discharging the treated effluent through a bottomless sand filter.**

340-071-071-0150(4)(a)(B) - which requires all criteria for approving a specific type or types of systems, as described in this division are satisfied.

340-071-0290(4)(a) which states that saprolite; fractured bedrock; gravel; or sand, loamy sand, or sandy loam occur in a continuous section at least two feet thick in contact with and below the bottom of the sand filter. **This rule is being overcome by elevating the bottomless sand filter to exceed the 2-foot-thick requirement**

Should future ATT technologies for treatment of Total Nitrogen be approved for use in Oregon before issuance of a construction-installation permit for this site, Deschutes County may allow installation of equal or better technology instead of the type noted in this approval.

Conclusion:
The decision to grant your variance request is a Final Order of DEQ. Any person who is adversely affected or aggrieved by this Order is entitled to a contested case hearing before the Environmental Quality Commission. A request for a hearing must be received by DEQ within twenty days from the date of certified mailing of this Order. The request must specifically describe how the Order fails to meet the requirements of Oregon Revised Statutes 454.657 and 454.660 and include the technical basis that supports the petition. The appeal must be directed to the Environmental Quality Commission, in care of Lindsay Trapp, EQC Assistant, Department of Environmental Quality, 700 NE Multnomah St., Suite 600, Portland, OR 97232-4100.

Deschutes County onsite staff is hereby authorized to issue a construction-installation permit, subject to all the conditions, upon their receipt of a complete permit application. The application must include a favorable land use compatibility statement issued by Deschutes County, a set of detailed plans and specifications for the onsite wastewater treatment system, a current maintenance service agreement and the appropriate application fee.

Please feel free to contact me if you have any questions concerning this decision. I can be reached by telephone at (541) 776-6130, or by email at david.hurley@deq.oregon.gov.

Sincerely,

David Hurley

David Hurley, REHS
Variance Officer – Onsite Wastewater Program

Encl: Schedule A- Special Conditions
Schedule B- Approved Plans
Approved Drawings / Schematics

cc: Todd Cleveland, REHS; Deschutes County Onsite Wastewater Division, 117 NW Lafayette Ave, Bend OR 97703
Brian T. Rabe, CPSS, WWS; Principal Soil Scientist, of Elkhorn Consulting LLC, 14833 Goodrich Creek Lane, Baker City, OR 97814
Martin G & Laurie A Stunkel Rev Trust, 2920 SW Brentwood Dr, Redmond, OR 97756
Ronald A & Leslie Westendorf, 2866 SW Brentwood Dr, Redmond, OR 97756
Lujan Revocable Trust, 60528 Elkai Woods DR, Bend, OR 97702
Patrick D & Patricia J Schmitt, 4005 SW Wickiup Ct, Redmond, OR 97756
Dick & Nadines Trust, 80 South Place, Lebanon, OR 97355
Glen J & Linda Swearingen, 4022 SW Wickiup Ct, Redmond, OR 97756
Michael G Orwick, 1604 NW Lynch Ave, Terrebonne, OR 97760
Sager Family Trust Et Al, 405 SW Wickiup Ct, Redmond, OR 97756
Whitaker Family Trust, 2950 SW 41st St, Redmond, OR 97756

Schedule A – Sky View Holdings LLC
Variance Report - Special Conditions
T 14S, R 12E, Sec: 3D, TL 2800

Special Conditions and requirements for the Orenco® AX20N-Mode 3B Alternative Treatment Technology unit followed by an elevated 250 square foot Bottomless Sand Filter at 11515 NW Dove Road; T.14S; R.12E; Sec. 3D; Tax Lot 2800; 4.77 Acres; Deschutes County.

1. A person or business licensed by the Department of Environmental Quality in accordance with Oregon Revised Statutes, Chapter 454.695, must perform all work construction of this onsite wastewater treatment system.

2. Before starting with the actual construction of this system, the system installer shall submit, through a written statement to the Deschutes County Community Development Department, Onsite Wastewater Division (hereafter referred to as "County") that acknowledges that they have thoroughly reviewed the conditions of this variance approval with technical staff in that office, and they understand and will comply with all conditions associated with this variance approval.

3. This system incorporates the use of Sand Filter Media and Underdrain media, as defined in Oregon Administrative Rules (OAR) 340-071-0100(124) and OAR 340-071-0100(170). Prior to delivery to the site, a current sieve analysis, using testing requirements required in rule for the respective material, must be submitted for review and approval to the County. Special handling of the respective media is to occur, during transport, site storage, and construction of the sand filter.

4. This onsite wastewater treatment system shall serve a single-family residence with up to four bedrooms. The projected daily sewage flow must not exceed 450 gallons per day, and the average daily flow must not exceed 225 gallons per day. Where practical, low water-use plumbing fixtures and appliances should be used within the dwelling in conjunction with water conservation practices. **Use of a garbage disposal is not recommended.**

5. All construction of this system shall only occur under optimum soil moisture conditions. The soils must be nearly dry and not frozen. Typically, the ideal construction period begins at the end of spring run-off season and ends prior to the onset of winter weather.

6. The setback to all wells from the initial or replacement bottomless sand filters is to be at least 100 feet.

7. The County shall inspect the installation of this system at those stages of construction they identify as appropriate to ensure proper construction.

8. Except as specifically authorized, all requirements of the Oregon Administrative Rules (Chapter 340, Rules 071-0100 through 071-0650) must be met.

9. The permittee shall comply with all local planning, zoning and building ordinances.

10. A Certificate of Satisfactory Completion shall be issued for the completed installation only if all conditions of this variance approval are met.

11. Should the onsite wastewater treatment and disposal system, authorized through this variance fail, County staff may exercise professional discretion in effecting a repair, based upon an analysis of the possible causes of failure. An area next to the initial sand filter is to be designated for future repair or replacement and must be reserved for this use. The replacement system considered in this variance procedure is the installation of another sand filter.

TAX LOT 2900
CAPPING FILL
(INSTALLED 1999)

100'
SETBACK

50'
SETBACK

TEMPORARY
BENCHMARK (TBM)
(TOP OF IRON ROD)

TAX LOT 1200
CAPPING FILL
(INSTALLED 1993)

PROPOSED
GARAGE
(32'X25')

PROPOSED
WELL

PROPOSED
SHOP
(30'X50')

PROPOSED
HOUSE
(50'X50')

446.93'

POWER
POLE (PP)

W

11515 NW DOVE ROAD

PUMP
BASIN

CLEANOUT

PROPOSED
1,500 GALLON
SEPTIC TANK

TP1
TP2
TPE
TP4
TP3

PROPOSED
AX20N (MODE 3B)
TREATMENT UNIT

PROPOSED 10'X25'
MODIFIED BOTTOMLESS
SAND FILTER

TAX LOT 500
STANDARD (SERIAL) SYSTEM
(INSTALLED 1995)

UPPER EDGE OF
RIMROCK

PROPOSED
10'X25'
REPLACEMENT
AREA

540.44'

416.29'

TAX LOT 2700
ATT + CAPPING FILL
(PERMIT ISSUED 2025)

TAX LOT 3000
CAPPING FILL
(INSTALLED 1994)

TAX LOT 1300
CAPPING FILL
(INSTALLED 2002)

NOTE:
TBM TO 1 = 287'2"
TBM TO 2 = 298'10"
TBM TO PP = 194'3"
PP TO 1 = 123'3"
PP TO 2 = 122'11"

APPROVED
By DEQ Variance Officer 11/12/2025
David Hurley

0 80'
1"=80'
(SCALE AND LOCATIONS
ARE APPROXIMATE)

N

Figure 2. Site Plan

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 12/6/2024	
DWG NO: 2025011 F1-5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

G:\Documents\Elkhorn Consulting\Projects\2025\2025011 Bigbee CRR Constructed Fill\Drafting\DWG\2025011 F1-5.dwg August 18, 2025 DRABE

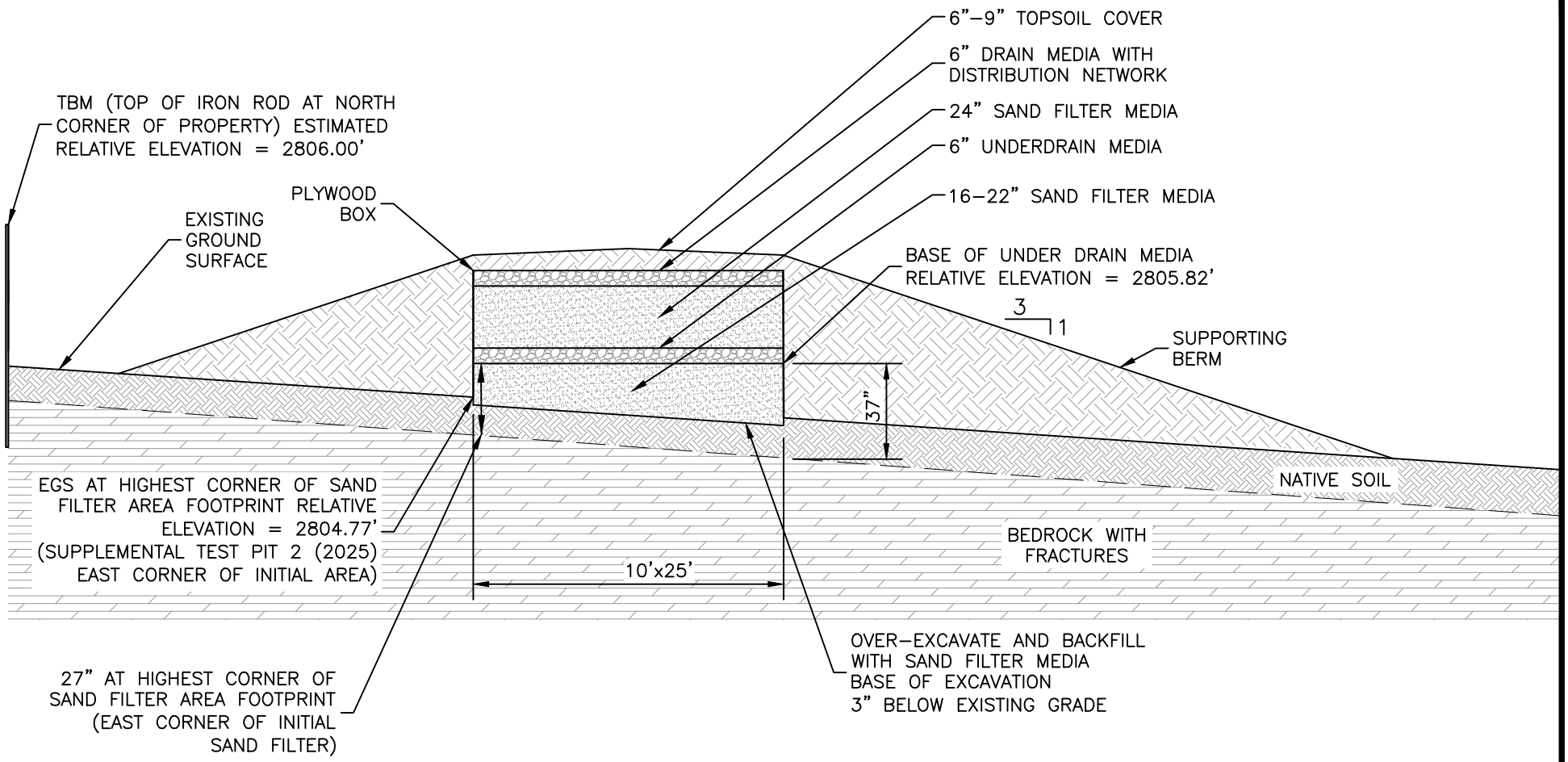


Figure 3A. Modified Bottomless Sand Filter Section – Initial

0 5'

1"=5'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1–5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1–5.dwg August 16, 2025 DRABE

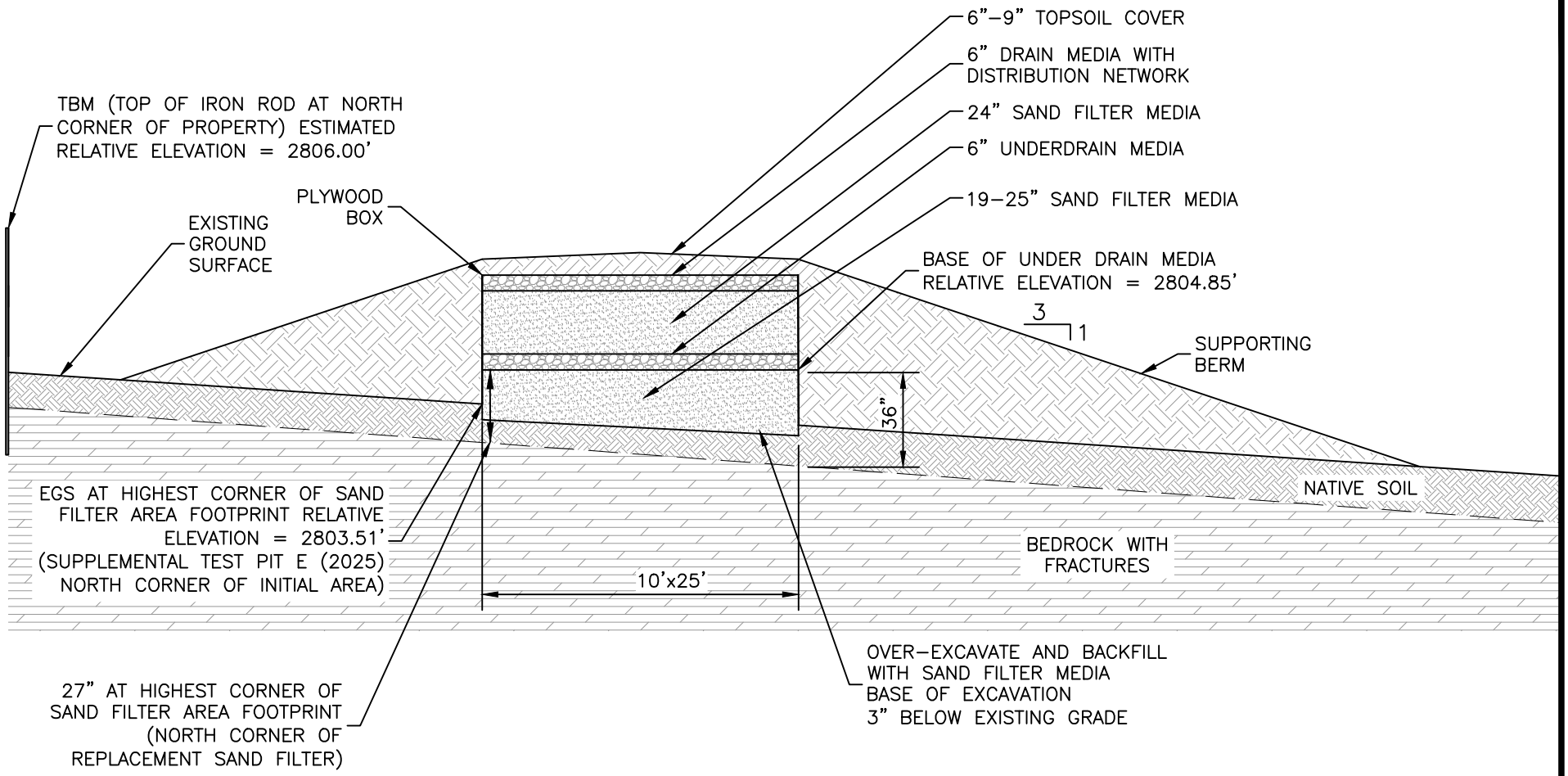


Figure 3B. Modified Bottomless Sand Filter Section – Replacement

0 5'

1"=5'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 12/6/2024	
DWG NO: 2025011 F1–5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1–5.dwg August 16, 2025 DRABE

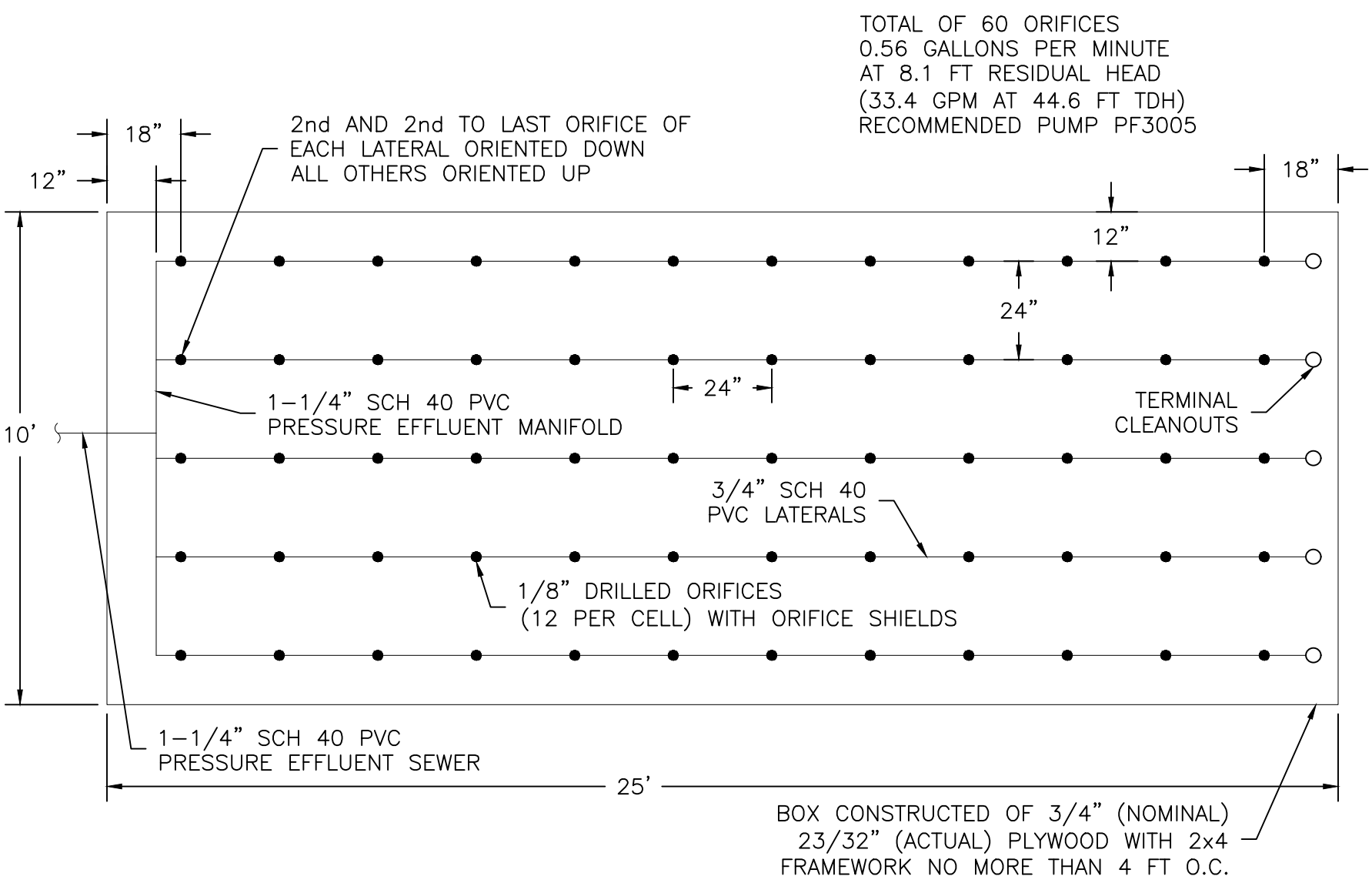


Figure 4. Sand Filter Plan Detail

0 4'

1"=4'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1-5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1-5.dwg August 16, 2025 DRABE

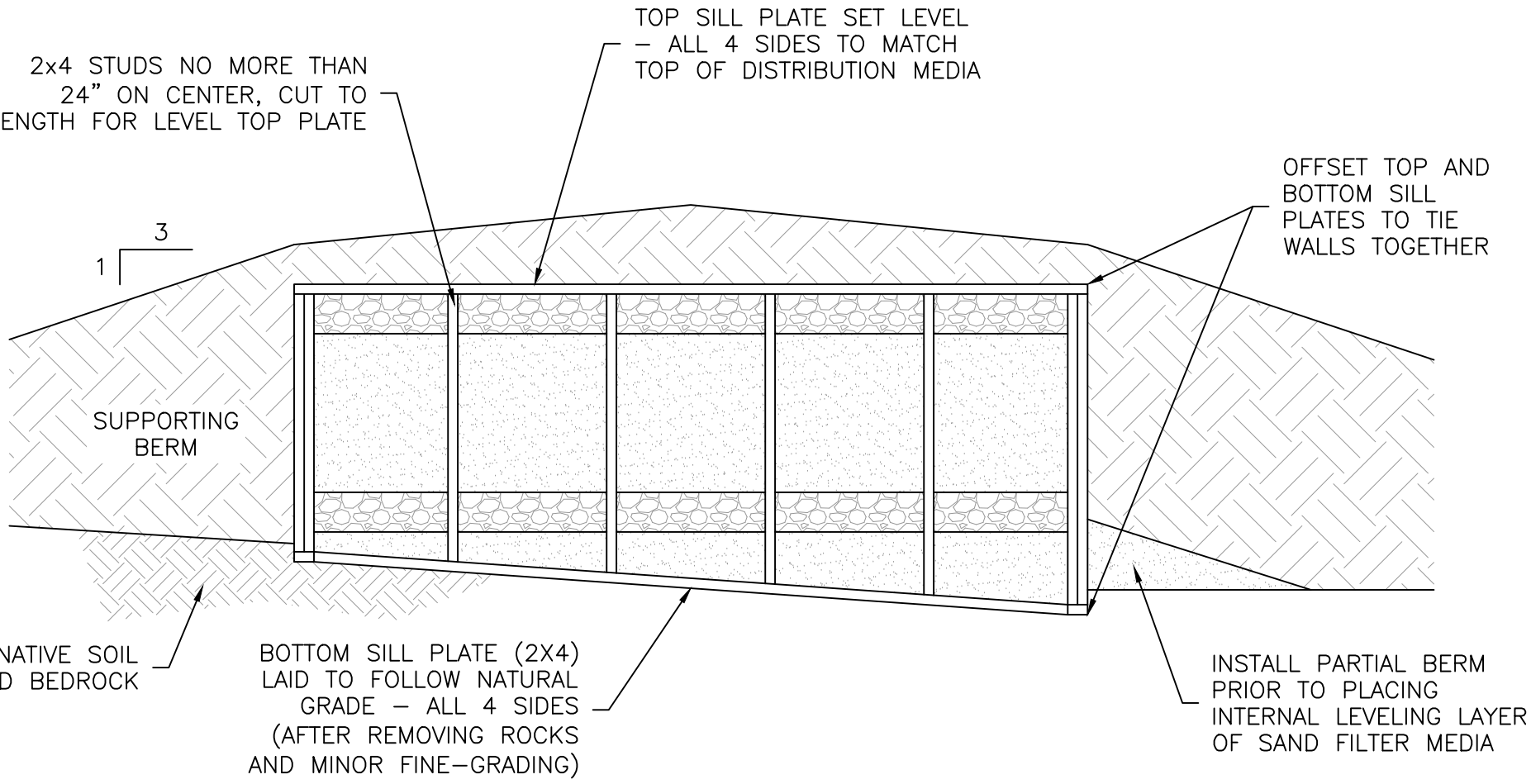


Figure 5. Sand Filter Box Detail

0 2'

1"=2'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1–5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1–5.dwg August 16, 2025 DRABE

ELKHORN CONSULTING LLC

14833 Goodrich Creek Lane
Baker City, OR 97814 • 503-881-1604
elkhornconsultingllc@gmail.com

August 18, 2025

Variance Officer
Onsite Variance Program
DEQ - Eastern Region Water Quality
475 NE Bellevue, Ste. 110
Bend, Oregon 97701

SUBJECT: Formal Variance Request – Sky View Holdings LLC – T14S, R12E, Section 3D, Tax Lot 2800 (4.77 acres), Deschutes County, West of Terrebonne, Oregon.

Dear Variance Officer:

A formal variance from selected onsite rules is hereby requested under the provisions of Oregon Administrative Rules, Chapter 340, Division 071, Section 0415 (OAR 340-071-0415).[1] The property is located at 11515 NW Dove Road, west of Terrebonne in Deschutes County, Oregon (Site) (Figure 1) and consists of 4.77 acres. A Tax Lot map is attached in Appendix A and a copy of the Deed is attached in Appendix B.

Background

Deschutes County conducted a site evaluation on March 25, 2021, and issued a denial on March 26, 2021. The denial was based on insufficient soil depth in 6 test pits in the northern corner of the lot. The test pits were described with sandy loam surface soils over fine sandy loam to a depth of 14 to 15 inches with a very high coarse fragment content below those depths, and bedrock at a depth of 15 to 21 inches below the existing ground surface (bgs). A copy of the site evaluation documentation from Deschutes County is attached in Appendix C. The primary reason cited for the denial was insufficient soil depth.

Soils

The web soil survey shows the location of the Site and a copy of the output is provided in Appendix D. The eastern half of the parcel is shown within a delineation of Map Unit 31A, Deschutes sandy loam, 0 to 3% slopes. Deschutes soils are typically moderately deep, well drained soils that developed in a mantle of volcanic ash over basalt. The western half of the parcel is shown within a delineation of Map Unit 101E, Redcliff-Lickskillet-Rock outcrop complex, 30 to 50% south slopes. Redcliff soils are typically moderately deep, well drained soils that developed in colluvium derived from volcanic rock and have a high coarse fragment content. Lickskillet soils are typically shallow, well drained and have a very stony surface. There is a rimrock that runs through the middle of the property along the boundary between the map units.

None of the characteristics observed in the eastern part of the Site resemble the conditions expected from the published soil survey. The underlying bedrock is fractured basalt and the soils are only about half as deep as expected. The observed soil characteristics are more like Stukel soils, which are included in a delineation of Map Unit 141C, Stukel-Deschutes-Rock outcrop complex, 0 to 15%

[1] Onsite wastewater treatment systems, 340 OAR § 340.71. (2020).

slopes mapped about 150 to 200 feet to the southwest of the Site on the neighboring parcels. Stukel soils are typically shallow, well drained soils that developed in volcanic ash on lava plains. The key difference between Stukel and Deschutes is the coarse fragment content and depth to bedrock.

A typical profile of Stukel soils is as follows:

- 4 inches of very dark gray sandy loam underlain by,
- 7 inches of dark brown cobbly sandy loam underlain by,
- 7 inches of dark brown gravelly sandy loam.

Preliminary Assessment

The Site was reviewed by EHC on May 12, 2025, along with the property owner (Ryan Bigbee) to excavate and evaluate test pits and to conduct a stake-out and collect field measurements. The purpose was to review the Site conditions and assess the potential to design a modified bottomless sand filter that incorporates additional structural and fill elements to maintain adequate separation from the underlying bedrock. The proposed bottomless sand filter area is located in the middle of the property on and area with fewer coarse fragments. Supplemental test pits were dug near the 4 corners of the staked area as well as in the middle. These test pits are shown on the site plan (central part of the lot - see Figure 2) and described later in this report.

Other Considerations

A search of the database of the Oregon Department of Water Resources was conducted for the section that the subject property lies within (Section 3 of Township 14 South, Range 12 East of the Willamette Meridian). There are about 111 records on file for Section 3. There were 6 water well records (well logs) identified in Section 3 that could be tied to specific parcels within about one-eighth of a mile of the subject property (Appendix E).

The nearest well that could be identified is about 310 feet southeast of the proposed bottomless sand filter area on Tax Lot 2700 and was completed on September 8, 2020, to a depth of 440 feet. Water was described as being first found at a depth of 350 feet in a layer of "Brown SS" (assumed to indicate sandstone) and had a static level of 320 feet below ground surface (bgs) on the date of completion with a reported yield of 25 gallons per minute (gpm) after 1 hour with air.

The next closest well is on Tax Lot 1400 and is about 340 feet east of the proposed bottomless sand filter area and was completed on April 23, 2020, to a depth of 450 feet. Water was described as being first found at a depth of 370 feet in a layer of "W/BFRACTURED BROWN CONGLOMERATE" and had a static level of 370 feet bgs on the date of completion with a reported yield of 15 gpm after 1 hour with air.

The next closest well is on Tax Lot 2900 and is about 340 feet northwest of the proposed bottomless sand filter area and was completed on May 5, 1999, to a depth of 395 feet. Water was described as being first found at a depth of 348 feet in a layer of "brown sandstone" and had a static level of 348 feet bgs on the date of completion with a reported yield of 25 gpm with no drawdown after 2 hours with a pump.

The well on Tax Lot 1300 is about 460 feet northeast of the proposed bottomless sand filter area and was completed on January 15, 2001, to a depth of 420 feet. Water was described as being first found at a depth of 339 feet in a layer of "frac Gray basalt W/B" and had a static level of 339 feet bgs on the date of completion with a reported yield of 15+ gpm after 6 hours with air.

The well on Tax Lot 500 is about 520 feet southwest of the proposed bottomless sand filter area and was completed on May 13, 1996, to a depth of 230 feet. Water was described as being first found at a depth of 165 feet in a layer of "broken brown rock (w.b)" and had a static level of 165 feet bgs on the date of completion with a reported yield of 20 gpm with no drawdown after 1 hour with a bailer.

The well on Tax Lot 1200 is about 670 feet north-northeast of the proposed bottomless sand filter area and was completed on June 25, 1993, to a depth of 415 feet. Water was described as being first found at a depth of 339 feet in a layer of "brn clay sand gravel (interbeds (WB)" and had a static level of 339 feet bgs on the date of completion with a reported yield of 18+ gpm after 1 hour with air.

The regional groundwater gradient is expected to follow the surface topography to the west for any near-surface saturated zones that may perch on the upper surface of the bedrock with the deeper aquifer(s) to the west or northwest toward the Deschutes River (depending on the tilt of the lithology). According to the interactive map for Oregon Domestic Well Testing, this part of Deschutes County has an average nitrate-nitrogen concentration in domestic wells of 1.84 milligrams per liter (mg/L) with 10.20% exceeding 3 mg/L and 0.78% exceeding 10 mg/L (based on 255 test results).[2]

Formal Variance Request

Variance is requested from the following rules:

1. OAR 340-071-0135(1) – which addresses Department of Environmental Quality (DEQ) approval of new or innovative technologies, materials, or designs for onsite systems.[1]
2. OAR 340-071-0150(4)(a)(B) – which requires all criteria for approval shall be met.[1]
3. OAR 340-071-0290(4)(a) – which states that saprolite; fractured bedrock; gravel; or sand, loamy sand, or sandy loam occur in a continuous section at least 2 feet thick in contact with and below the bottom of the sand filter.[1]

The primary issues are related to the variation in the surface of the underlying bedrock and the slope. There is insufficient depth to bedrock at the high corner to enable the sand filter to be countersunk and allow the low corner to be at or below the ground surface. This request seeks to overcome the limitations of this Site by elevating the bottomless sand filter such that the minimum 2-foot thick requirement is at least met at the high corner of each bottomless sand filter (initial and replacement.

[2] ARC GIS Online. (n.d.). Oregon domestic well testing, [Data file]. Retrieved August 13, 2025, from ARC GIS Online: https://www.arcgis.com/apps/MapSeries/index.html?appid=c0d7daea497049c1a686d07dab7106e5

Another potential issue that could be raised is the ability of the underlying bedrock to accept and transmit the treated effluent without hindering the performance of the sand filter. Most of the properties on the same landscape position (upper terrace) mapped with the same soils have capping fill drainfields with only a few preceded by sand filters or alternative treatment technologies. A review of historical aerial photographs on Google Earth does not indicate any signs of hydraulic stress – some have normal green patches or stripes during periods without irrigation but no signs of lateral migration on any of the systems that could be identified through a records review. It is reasonable to conclude that after up to 30 years of use (based on the timeframe for readable aerial photos) the bedrock appears to be adequately absorbing the effluent.

This request seeks to overcome the limitations of this Site by treating the sewage through the use of a recirculating textile filter system (AdvanTex® AX20N-Mode 3B or AX20RTN-Mode 3B) prior to discharge into an elevated bottomless sand filter. AdvanTex units do an effective job of reducing five-day biochemical oxygen demand and total suspended solids to below 10 mg/L. Nitrogen is often fully converted from ammonia-nitrogen to nitrate-nitrogen (greater than 90%). Operating in Mode 3, the AdvanTex unit reduces total nitrogen sufficiently to meet TS2 (less than 30 mg/L). The modified bottomless sand filter is used to achieve the pathogen reduction requirements of TS2 and, therefore, this configuration does not have or need an ultraviolet disinfection unit. The “B” designation indicates the AdvanTex unit is configured with the second pump in an external pump basin for the final discharge to the modified bottomless sand filter. The use of a system meeting the requirements of TS 2 is proposed to enhance the protection of human health and the environment for this Site.

The initial and replacement bottomless sand filter areas are proposed within an area in the central part of the parcel represented by supplemental Test Pits 1 through 4 (2025) excavated near the 4 outer corners of the staked sand filter area. This represents an area with the appropriate spatial footprint and meets all required horizontal setback requirements. These test pits were described by Brian Rabe on May 12, 2025. Test Pits 1 and 2 were excavated near the upper end of the proposed initial bottomless sand filter and Test Pits 3 and 4 were excavated near the lower end of the proposed replacement bottomless sand filter.

Test Pit 1 (2025) was described as:

- Very dark grayish brown (10YR 3/2) sandy loam from 0 to 7 inches with moderate subangular blocky structure; with many fine, and very fine roots, underlain by,
- Very dark grayish brown (10YR 3/2) sandy loam from 7 to 13 inches with weak subangular blocky structure; with many medium, fine, and very fine roots, underlain by,
- Dark brown (10YR 3/3) sandy loam from 13 to 21 inches with weak subangular blocky structure; with common coarse, medium, fine, and very fine roots, underlain by,
- Bedrock at 21 inches.

Test Pit 2 (2025) was described as:

- Very dark grayish brown (10YR 3/2) sandy loam from 0 to 8 inches with weak to moderate subangular blocky structure; with many fine and very fine roots, underlain by,
- Very dark grayish brown (10YR 3/2) sandy loam from 8 to 15 inches with moderate subangular blocky structure; with many medium, fine, and very fine roots, underlain by,
- Bedrock at 15 inches.

Test Pit 3 (2025) was described as:

- Very dark grayish brown (10YR 3/2) sandy loam from 0 to 5 inches with weak subangular blocky structure; with common fine and very fine roots, underlain by,
- Very dark grayish brown (10YR 3/2) sandy loam from 5 to 10 to 14 inches with weak subangular blocky structure; with common medium, fine, and very fine roots, underlain by,
- Bedrock at 10 to 14 inches.

Test Pit 4 (2025) was described as:

- Very dark grayish brown (10YR 3/2) sandy loam from 0 to 7 inches with moderate subangular blocky structure; with many fine and very fine roots, underlain by,
- Very dark grayish brown (10YR 3/2) sandy loam from 7 to 14 inches with weak subangular blocky structure; with many medium, fine, and very fine roots, underlain by,
- Weathered bedrock (saprolite) from 14 to 20 inches; with common medium, fine, and very fine roots, underlain by,
- Bedrock at 20 inches.

The highest level of the underlying bedrock is expected to be 14 inches bgs at the highest point within the area proposed for the initial sand filter and 11 inches bgs at the highest point within the area proposed for the replacement sand filter. The slope averages about 6% (initial) and 4% (replacement) where the sand filters are proposed (ranges between 3.4 and 6.6% based on elevation measurements at all 4 corners of each proposed sand filter). The slope is downward toward the southwest. The upper edge of the rimrock is 90 to 98 feet from lower edge of the replacement bottomless sand filter (110 to 118 feet from the lower edge of the initial bottomless sand filter). It is an additional 200 hundred feet or so to the downgradient property line. Even if the underlying bedrock has limited fractures, it is unlikely that highly treated effluent would migrate laterally in the subsurface to either the rimrock or the property line.

The proposed system seeks to overcome this limitation by elevating a 250-square foot modified bottomless sand filter in a manner that provides 3 inches more than the required minimum of 24 inches from the highest level of the underlying bedrock at the highest corner of each sand filter and substantially more (an additional 9 inches or more for the initial sand filter and 10 inches or more for the replacement sand filter) in the lowest corner (Figures 3A and 3B). The sod and underlying

sandy soil, along with any surface rock, to a depth of at least 3 inches within the footprint of the sand filter will be excavated and replaced with up to 16 inches or 19 inches of sand filter media at the high corner of the initial and replacement sand filters, respectively. This will be used to exceed the minimum 24-inch separation from shallowest underlying bedrock by 3 inches. The additional sand filter media at the low corner of the initial and replacement sand filters, respectively, will provide a total separation of 36 inches or 37 inches, respectively. The base of the sand filter container (framed wooden box) is proposed to follow the surface (countersunk 3 inches) to provide uniform contact of the imported sand filter media with the underlying soil (Figure 5). The rest of the sand filter will be "conventional" from there up, consisting of 6 inches of underdrain media, 24 inches of sand filter media, 6 inches of drain media (with the distribution laterals), filter fabric, and 6 to 9 inches of topsoil cover.

The extreme depth of the local water table and the numerous basalt flows between the surface and the underlying water table support a conclusion that the risk to the underlying groundwater from the proposed system is very low.

As described, the proposed combination of treatment components are expected to produce a final effluent with very high quality and a low potential to impact water quality, human health, or the environment. Given the unique circumstances at this Site, strict compliance with the rules is considered to be unreasonable.

It is acknowledged that detailed plans and specifications will need to be submitted and approved before any construction can take place.

Directions to the Site as well as a map showing the ownership of adjacent parcels along with a list of names and addresses are attached in Appendix F. If you have any questions or comments, please do not hesitate to contact me directly at (503) 881-1604.

Sincerely,
ELKHORN CONSULTING LLC

Brian T. Rabe, CPSS, WWS
Principal Soil Scientist

BTR/ddr
Enc: Figures 1-5, Appendices A-F
c: Ryan Bigbee – Sky View Holdings LLC
Todd Cleveland, REHS – Deschutes County

CPSS
Certified Professional
Soil Scientist
BRIAN T. RABE
15239 Exp. 31DEC25
Registered Wastewater Specialist
No. EH-W-448430 Exp. 30SEP25

FIGURES

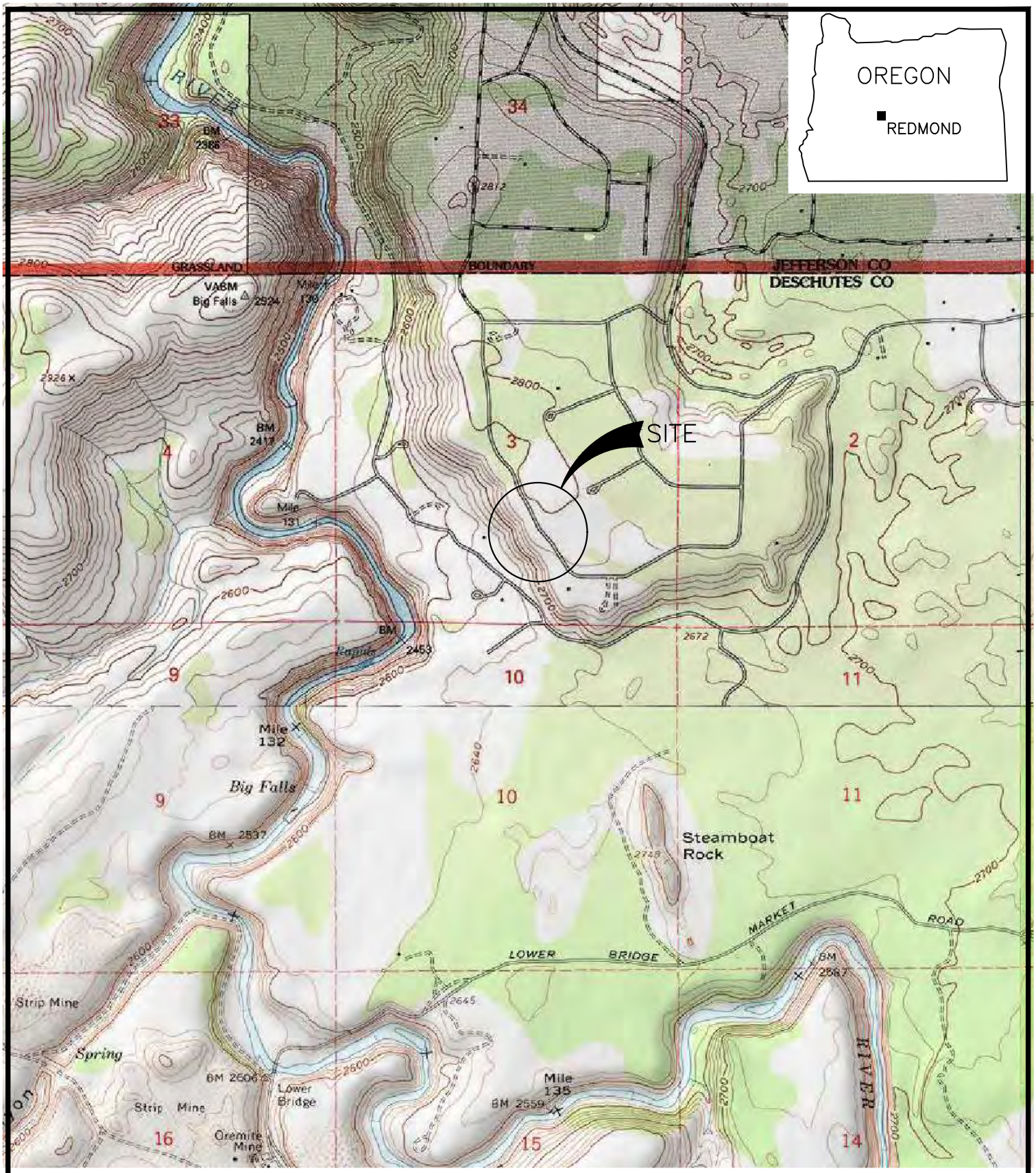


Figure 1. Vicinity Map

0 2,000'

1" = 2,000'

(LOCATIONS AND SCALE ARE APPROXIMATE)

(SOURCE: ©2013 National Geographic Society, i-cubed)

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1-5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

G:\Documents\Elkhorn Consulting\Projects\2025\2025011 Bigbee CRR Constructed Fill\Drafting\DWG\2025011 F1-5.dwg August 16, 2025 DRABE

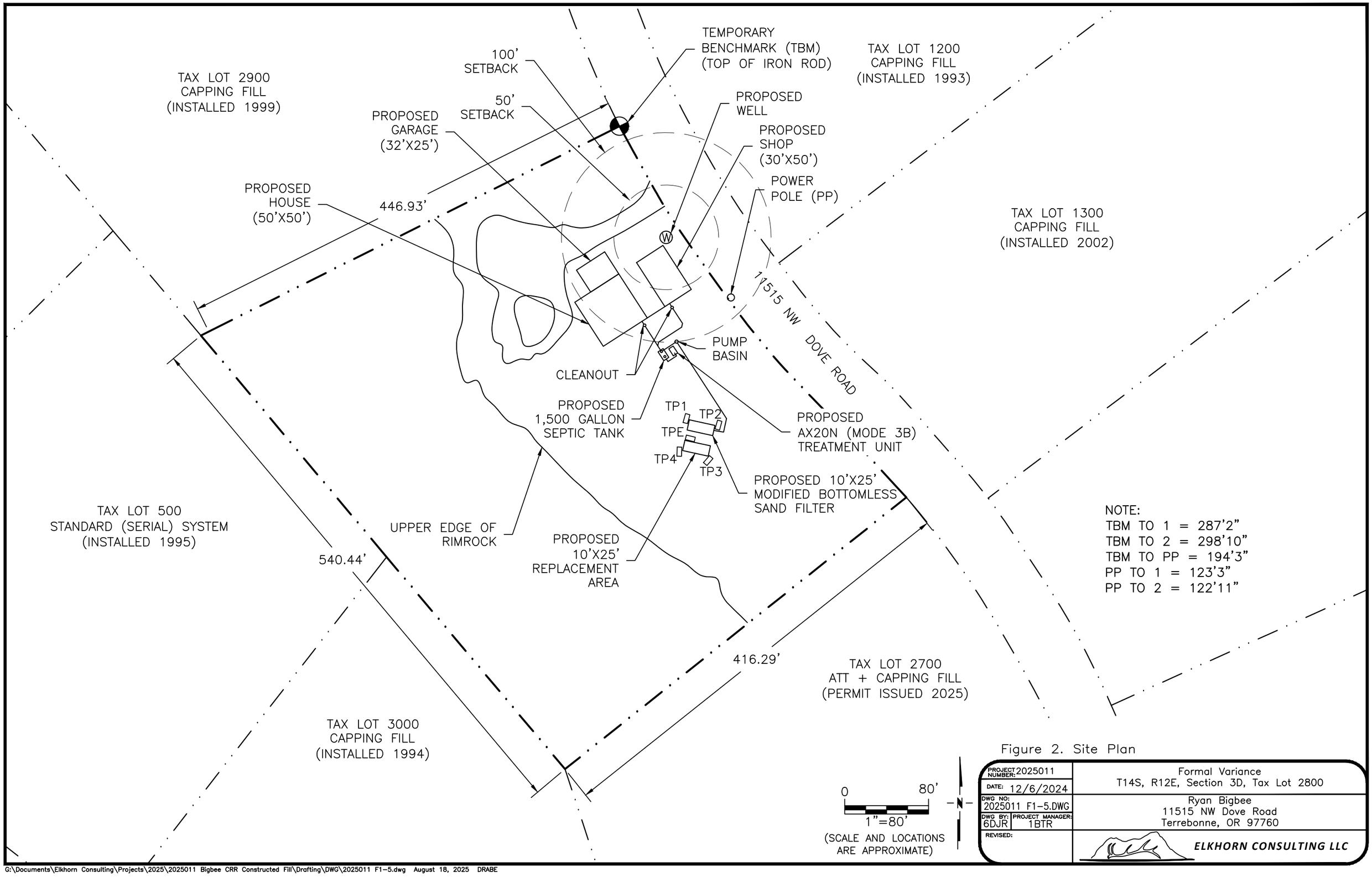


Figure 2. Site Plan

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 12/6/2024	
DWG NO: 2025011 F1-5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

G:\Documents\Elkhorn Consulting\Projects\2025\2025011 Bigbee CRR Constructed Fill\Drafting\DWG\2025011 F1-5.dwg August 18, 2025 DRABE

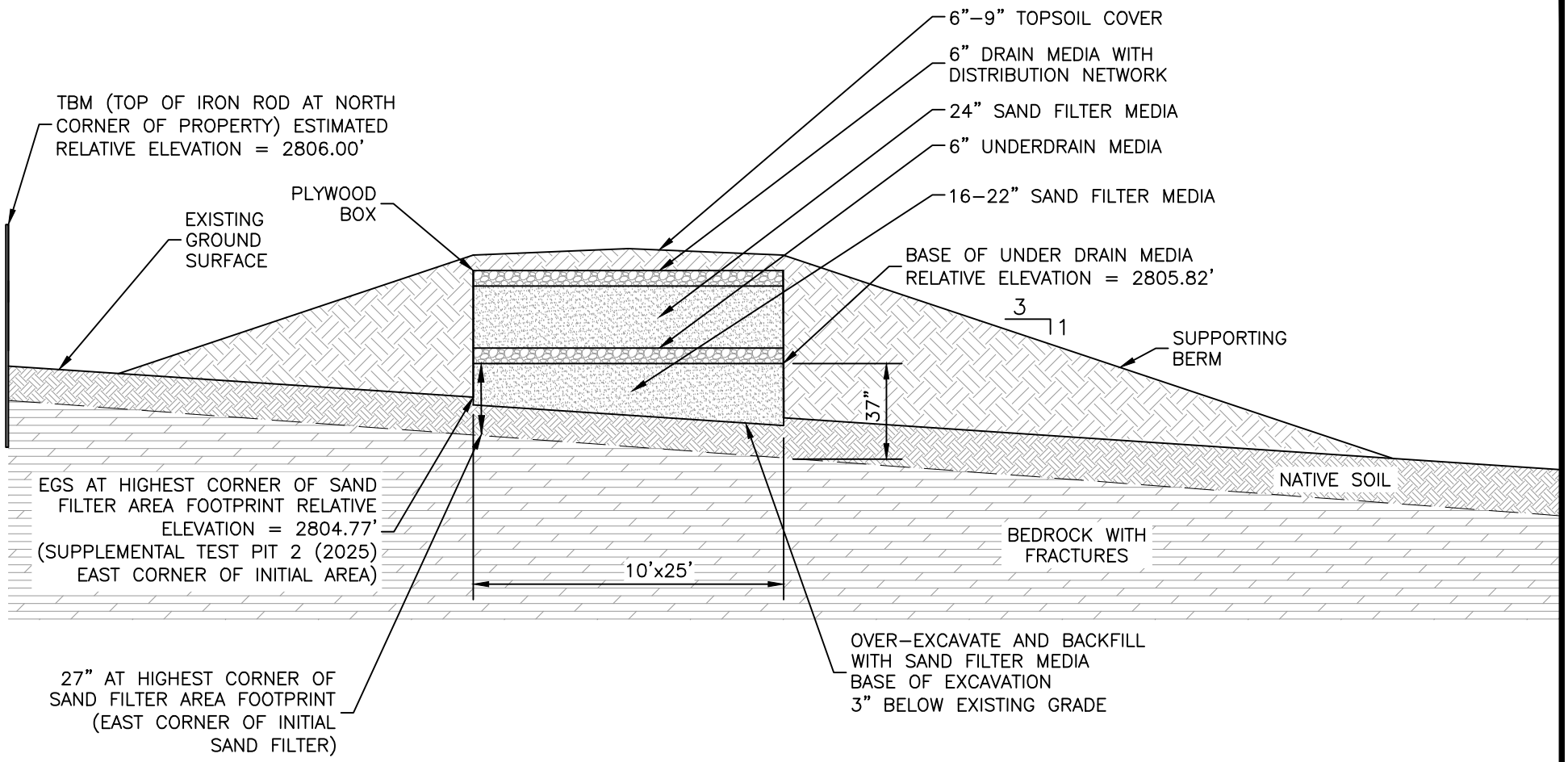


Figure 3A. Modified Bottomless Sand Filter Section – Initial

0 5'

1"=5'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1–5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1–5.dwg August 16, 2025 DRABE

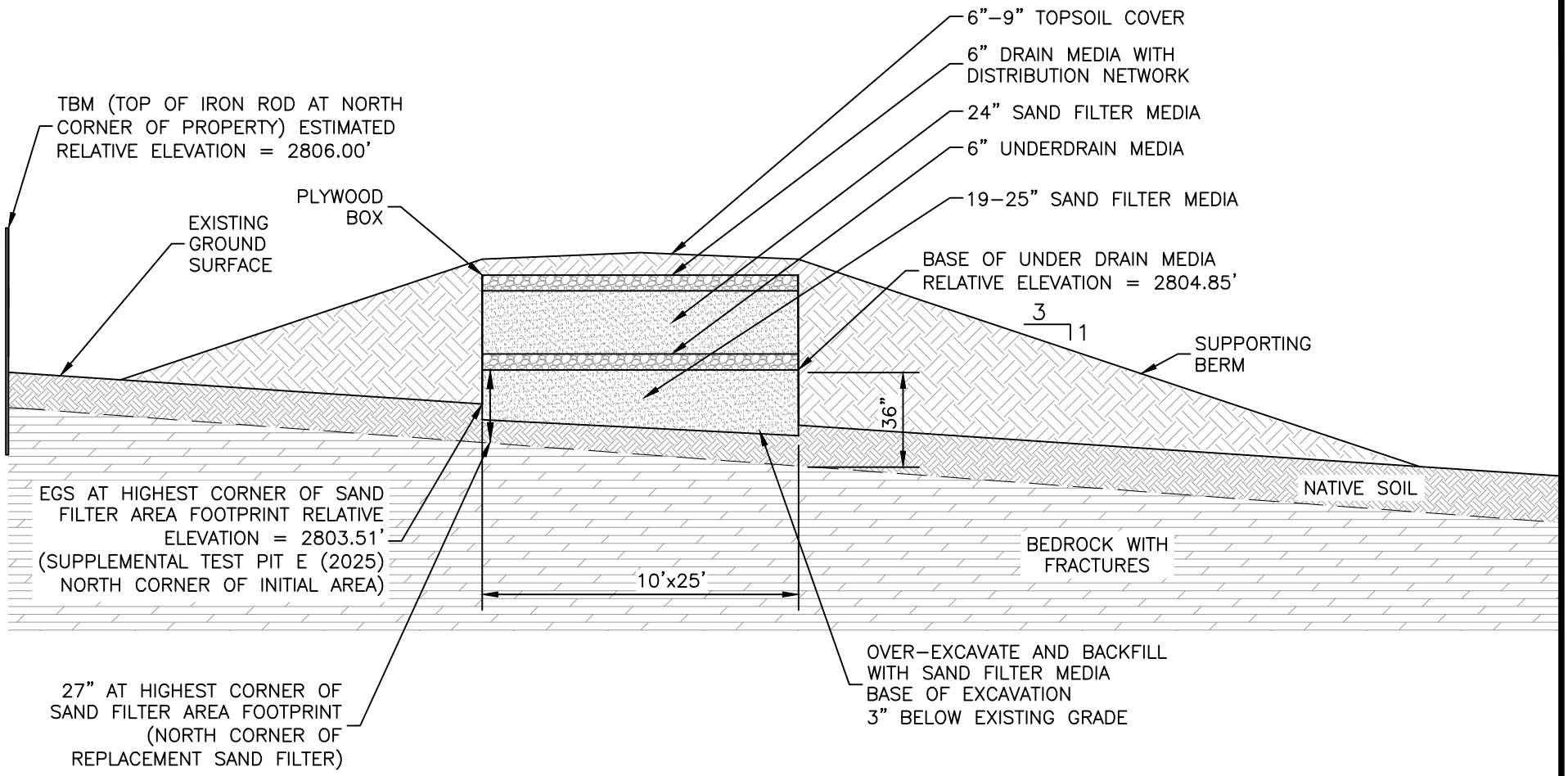


Figure 3B. Modified Bottomless Sand Filter Section – Replacement

0 5'

1"=5'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 12/6/2024	
DWG NO: 2025011 F1–5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1–5.dwg August 16, 2025 DRABE

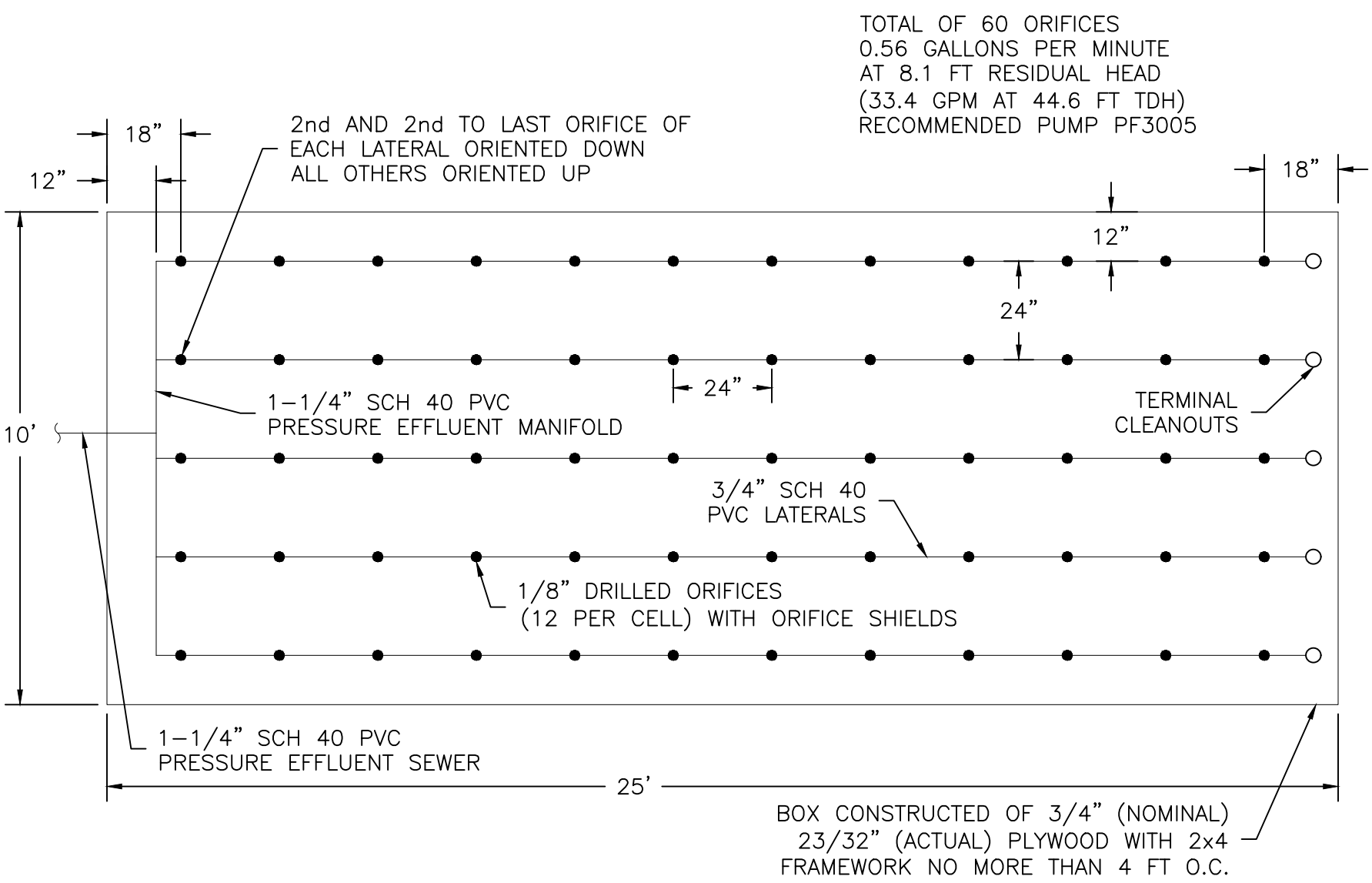


Figure 4. Sand Filter Plan Detail

0 4'

1"=4'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1-5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1-5.dwg August 16, 2025 DRABE

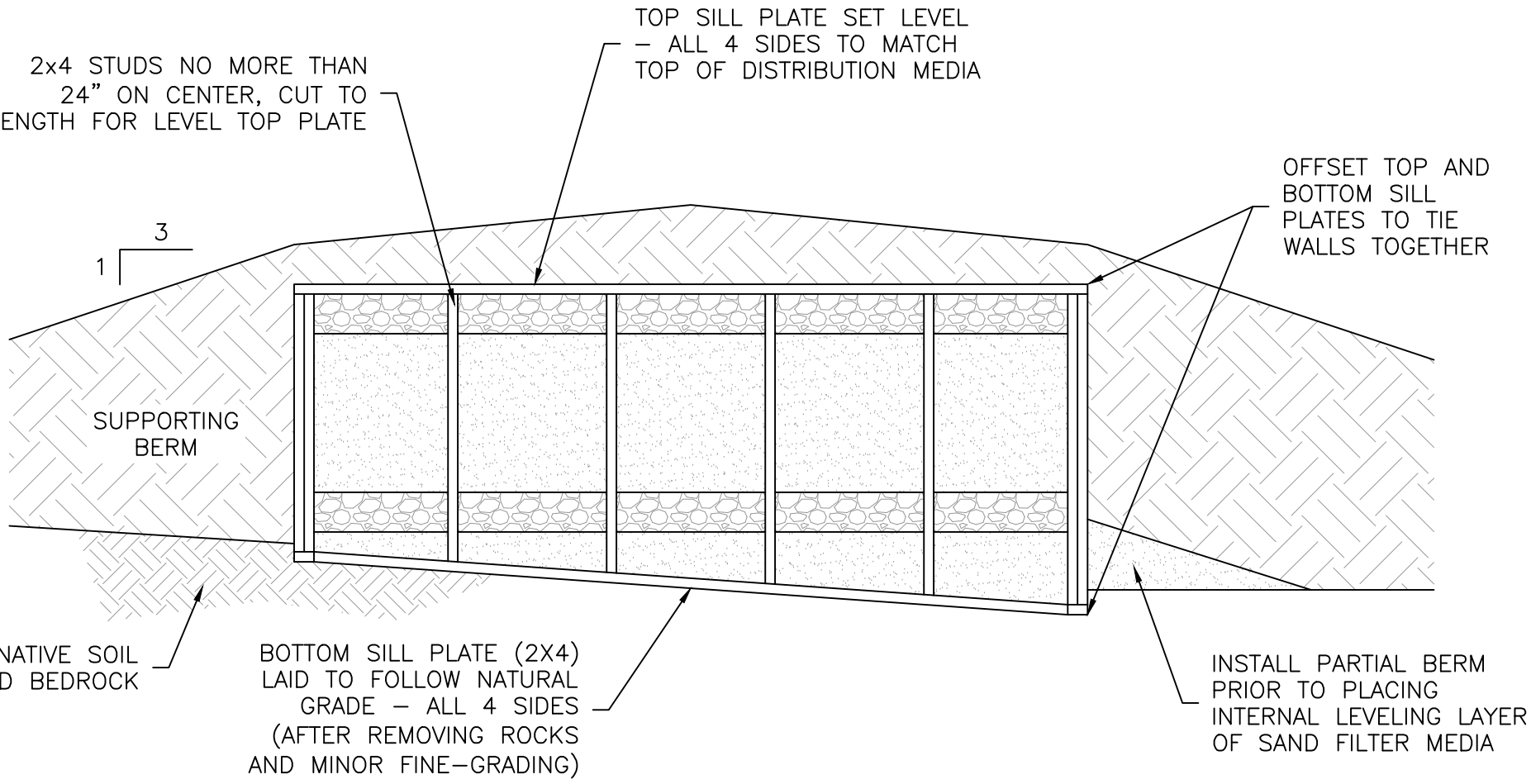


Figure 5. Sand Filter Box Detail

0 2'

1"=2'

PROJECT NUMBER: 2025011	Formal Variance T14S, R12E, Section 3D, Tax Lot 2800
DATE: 8/15/2025	
DWG NO: 2025011 F1–5.DWG	Ryan Bigbee 11515 NW Dove Road Terrebonne, OR 97760
DWG BY: 6DJR / PROJECT MANAGER: 1BTR	
REVISED:	ELKHORN CONSULTING LLC

2025011 F1–5.dwg August 16, 2025 DRABE

APPENDICES

Appendix A.	**Tax Lot Map**
Appendix B.	**Deed**
Appendix C.	**Site Evaluation Reports**
Appendix D.	**NRCS Soil Report**
Appendix E.	**Water Well Reports**
Appendix F.	**Directions to Site, List of Names and Addresses for Neighboring Property Owners**

Appendix A.

Tax Lot Map

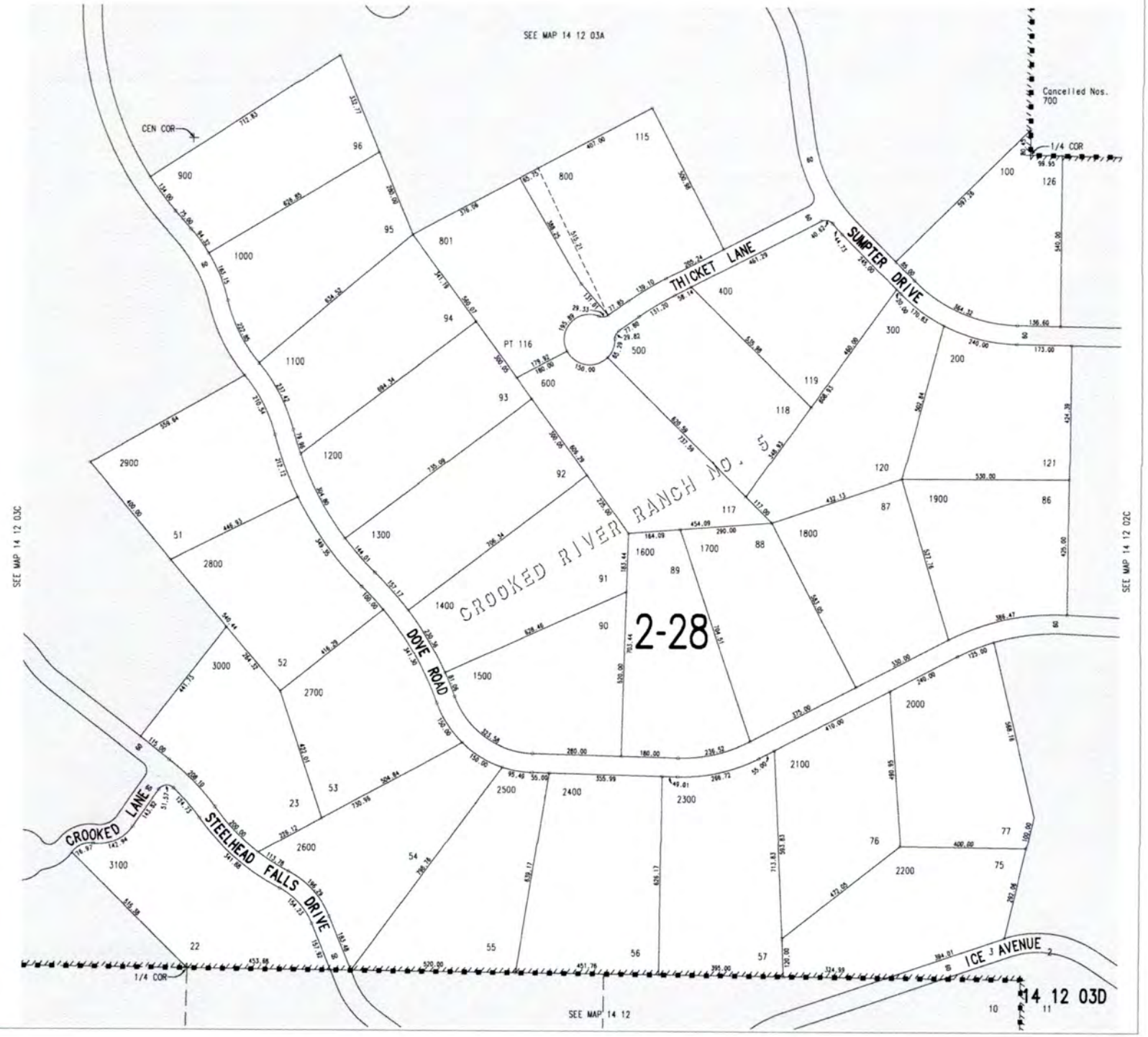
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

REVISED: 12/01/2008

SE1/4 SEC. 03 T.14S. R.12E. W.M.
DESCHUTES COUNTY

1" = 200'

14 12 03D



Appendix B.

Deed

RECORDING REQUESTED BY:

Lawyers Title

825 NE Multnomah St, Ste 1175
Portland, OR 97232

Deschutes County Official Records	**2022-09911**
D-D	
Stn=1 BN	**03/09/2022 02:13 PM**
$15.00 $11.00 $10.00 $61.00 $6.00	**$103.00**

I, Steve Dennison, County Clerk for Deschutes County, Oregon, certify that the instrument identified herein was recorded in the Official Records.
Steve Dennison - County Clerk

AFTER RECORDING RETURN TO:
Order No.: 262200216-ET
Ryan Bigbee
Sky View Holdings, LLC
13200 SE McLoughlin Blvd
Portland, OR 97222

SEND TAX STATEMENTS TO:
Sky View Holdings, LLC
13200 SE McLoughlin Blvd
Portland, OR 97222

APN: 127763
Map: 141203D002800
11515 NW Dove Road, Terrebonne, OR 97760

SPACE ABOVE THIS LINE FOR RECORDER'S USE

AMYERS TITLE 262200216

STATUTORY WARRANTY DEED

Michael Slonaker, Grantor, conveys and warrants to **Sky View Holdings, LLC, an Oregon limited liability company**, Grantee, the following described real property, free and clear of encumbrances except as specifically set forth below, situated in the County of Deschutes, State of Oregon:

Lot 52, CROOKED RIVER RANCH NO. 5, Deschutes County, Oregon, recorded November 26, 1973, Plat Book B, Page 381, Deschutes County Records.

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS TWO HUNDRED THIRTY-NINE THOUSAND NINE HUNDRED AND NO/100 DOLLARS **($239,900.00)**. (See ORS 93.030).

Subject to:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

STATUTORY WARRANTY DEED
(continued)

IN WITNESS WHEREOF, the undersigned have executed this document on the date(s) set forth below.

Dated: 02/11/2022

Michael Slonaker

State of OR
County of Multnomah

This instrument was acknowledged before me on 2/11/22 by Michael Slonaker.

Notary Public - State of Oregon

My Commission Expires: 6/7/22

OFFICIAL STAMP
EDEN STEPHANIE TOOTHMAN
NOTARY PUBLIC-OREGON
COMMISSION NO. 975679
MY COMMISSION EXPIRES JUNE 7, 2022

EXHIBIT "A"
Exceptions

Subject to:

Easements, conditions, restrictions and notes as delineated on the recorded plat.

Covenants, conditions, restrictions and easements but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, source of income, gender, gender identity, gender expression, medical condition or genetic information, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth in the document
Recording Date: October 19, 1973
Recording No: 200-306
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: June 16, 1976
Recording No: 232-898
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: September 21, 1982
Recording No: 362-316
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: March 25, 1998
Recording No: 486-258
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: September 15, 1998
Recording No: 512-919
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: March 7, 2000
Recording No: 2000-8778
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: March 7, 2000
Recording No: 2000-8779
Statement of Account Information (Notice of Homeowners Association),
Recording Date: October 26, 2000
Recording No.: 2000-43361
Amendment(s)/Modification(s) of said covenants, conditions and restrictions,
Recording Date: January 5, 2018
Recording No: 2018-00539
Liens and assessments, if any, by the Crooked River Ranch Club and Maintenance Association Homeowner's Association.

Subdivision Improvement and Maintenance Agreement, including the terms and provisions thereof,
Recording Date: December 26, 1973
Recording No.: 201-164

Easement for ingress, egress and utilities, as set forth in instrument, including the terms and provisions thereof,
Recording Date: June 2, 1975
Recording No.: 219-112

Easement for utilities, as disclosed in Bargain and Sale Deed,
Recording Date: December 26, 1980 Recording No.: 334-74

Amended By-laws of Crooked River Ranch Club and Maintenance Association, Recording Date: January 5, 2018
Recording No.: 2018-00543

Appendix C.

Site Evaluation Reports

March 26, 2021

MICHAEL A SLONAKER
25 NW 23RD PL #6-179
PORTLAND, OR 97210

RE: 247-21-000302-EVAL
11515 NW DOVE RD, TERREBONNE

A site evaluation for an onsite wastewater treatment system for a single-familing dwelling was recently completed at the property noted above. Test pits were evaluated on March 25TH, 2021.

This site does not meet minimum Oregon Administrative Rules (OARs) for new system installations to serve the proposed single family dwelling.

- The effective soil depth is less than the minimum 30" required for a Standard Subsurface System (OAR 340-071-0220 (1)(a)); and
- The effective soil depth is less than the minimum 18" required for Capping Fill System (OAR 340-071-0265(f)].

Therefore, this lot is **denied** for on-site sewage disposal. You may have additional test pits examined by this division within 90 days of the initial site evaluation with no additional charge, or you may apply for a site evaluation report review conducted by the Department of Environmental Quality.

Pursuant to Oregon Administrative Rules (OAR 340), if you conclude this report to be in error of these Rules, you may request a review. The report review is through the Oregon Department of Environmental Quality (DEQ). The application is a written request that includes all information you have received from Deschutes County, the reason the report is in error, citing the specific OAR's that conflict with the report, and an application fee. DEQ will review the county report and visit the site to determine compliance with the appropriate rules.

Pursuant to Oregon Administrative Rules (OAR 340), you can request a variance from these Rules. The variance request is through the Oregon Department of Environmental Quality. This is not an automatic variance. You must provide technical justification that demonstrates your proposed system will operate over an extended period of time, that it will not degrade the environment and will provide public health protection. An application, justification and exhibits, including this Deschutes County report, a land use compatibility statement, and detailed plans of your proposed system will be necessary. Technical advice from a knowledgeable consultant is recommended. A variance application fee is required. A Variance Officer from DEQ will review your application and the property.

A determination will be made, in writing, following an informational hearing. Deschutes County recognizes your right to a variance request.

This property however, has severe limitations for onsite sewage disposal, as noted in the above report. Unless public health and environmental protection is assured, a variance request cannot be supported by the Deschutes County Environmental Soil Division, and will not likely be approved by DEQ.

For further information regarding a report review or a variance request, please contact the Oregon Department of Environmental Quality at 475 NE Bellevue Dr., #110, Bend, OR, 97701, phone 541-388-6146.

If you have any questions, please do not hesitate to call this office at 541-388-6519.

Sincerely,
ENVIRONMENTAL SOILS DIVISION

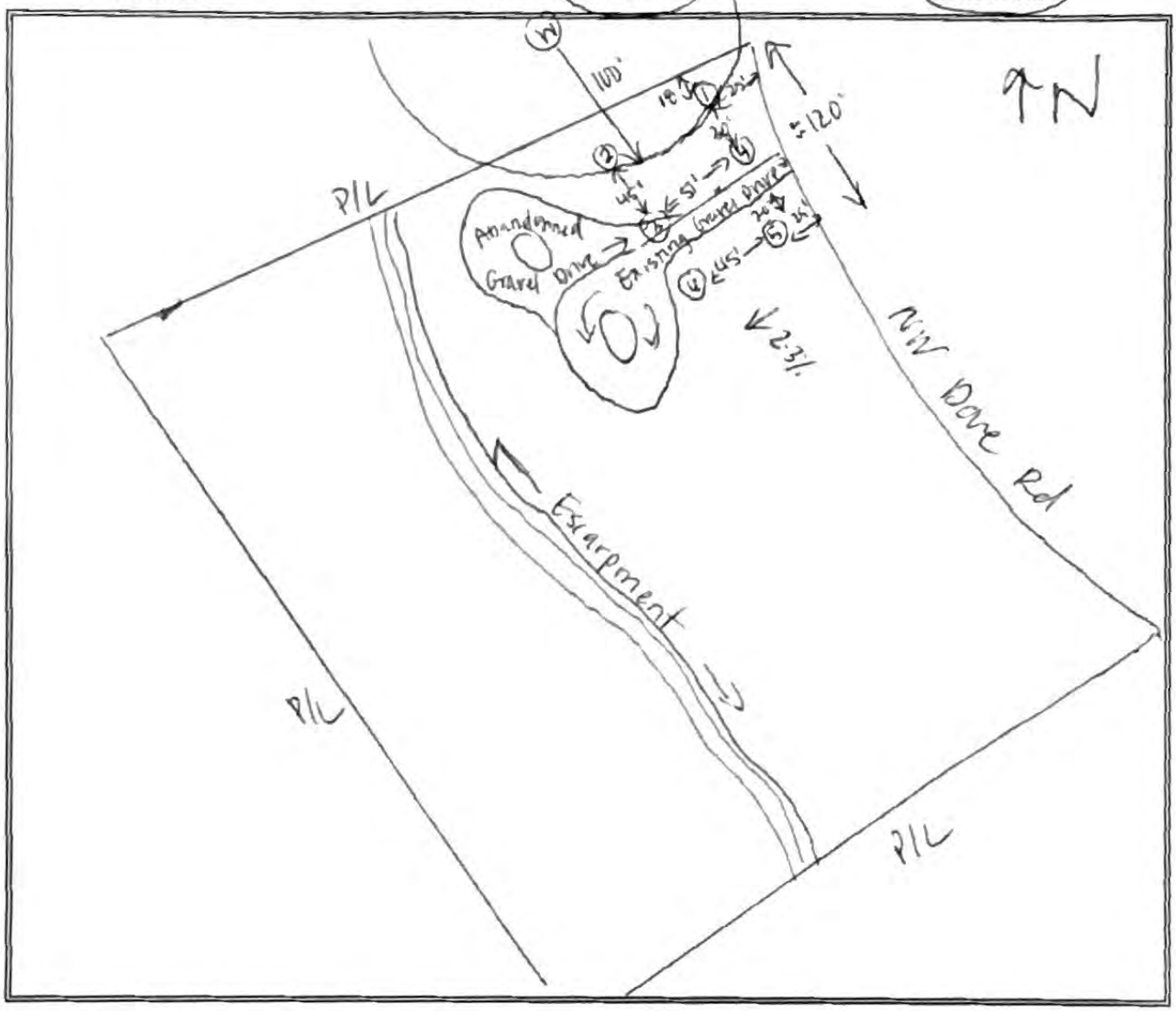
Kiley Rucker Clamons, REHS
Registered Environmental Health Specialist

KRC/mas

SITE EVALUATION FIELD INSPECTION FORM

Applicant: Michael Slonaker Site Evaluation # 247-21-020302-EVAL
Evaluator: K Rucker Clemens Date: 3/25/2021 Parcel Size: 4.77 Acres
Subdivision: Crooked River Ranch NO 5 T 14 R 12 S 03 TL 2400 L 52 B 0

Suitable **Sketch/Not to Scale** **Unsuitable**



systems approved are the **minimum to meet current DEQ rules and are not design specifications*

System type approved: _____ Absorption facility:
Initial _____ Min. Size _____ Max. Depth _____ Min. Depth _____
Replacement _____ Min. Size _____ Max. Depth _____ Min. Depth _____
Tank Size _____ Sewage Flow _____
Special Conditions: _____

SITE EVALUATION FIELD INSPECTION FORM

Applicant: Michael Slonaker Site Evaluation # 247-21-000302-EVAL
Evaluator: K. Rucker Clamans Date: 3/25/2021 Parcel Size: 4.77 Acres
Subdivision: Crooked River Ranch No 5 T 14 R 12 S 03 TL 2000 L 52 B 0

	DEPTH	TEXTURE	COLOR	Notes on roots, structure, rock frag, redox, limiting layer type & depth
1	0-11"	sl	10 YR 3/2	2vf lf lm; 1msbk; FR
	11-15"	fsl	10 YR 3/2	1vf lf; 1 csbk, FR → SR Peds
2	0-12"	sl	10 YR 3/2	2vf lf lm; 1msbk; FR
	12-16"	fsl	10 YR 3/2	1vf lf; 1csbk; FR → SR Peds
	16-17"	xgrcobl	10 YR 4/6	1vf lf; 3csbk; SR → VR Peds; ~75% gr → cob
3	0-5"			gravel = not effective soil
	5-16"			} similar to Pit #2
	16-19"			
	19-21"			
4	0-11"			} Similar to Pit #1
	11-15"			
5	0-6"			} Similar to Pit #2
	6-14"			
	14-17"			
6	0-10"			} Similar to Pit #2
	10-14"			
	14-17"			
7				

Landscape Note: Juniper, rabbit brush, bunch grass, surface rock
Slope: 2-3% Aspect: SW Groundwater: N/A
Other site notes:

Comments:

Reason for Unsuitability: (Include Rule Reference)
Effective soil depth is less than minimum required for Standard or Capping Fill System [OAR 340-071-0220(1)(a) & 0265(1)].
Pits #1 & 2 do not meet setback to wells [OAR 340 071-0220].

Appendix D.

NRCS Soil Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Upper Deschutes River Area, Oregon, Parts of Deschutes, Jefferson, and Klamath Counties

11515 NW Dove

August 12, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map (11515 NW Dove)

Map Scale: 1:1,610 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Upper Deschutes River Area, Oregon, Parts of Deschutes, Jefferson, and Klamath Counties
Survey Area Data: Version 22, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 7, 2020—Jun 2, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (11515 NW Dove)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31A	Deschutes sandy loam, 0 to 3 percent slopes	2.3	48.4%
101E	Redcliff-Lickskillet-Rock outcrop complex, 30 to 50 percent south slopes	2.5	51.6%
Totals for Area of Interest		**4.8**	**100.0%**

Map Unit Descriptions (11515 NW Dove)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Upper Deschutes River Area, Oregon, Parts of Deschutes, Jefferson, and Klamath Counties

31A—Deschutes sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2464
Elevation: 2,500 to 4,000 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 70 to 90 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Deschutes and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deschutes

Setting

Landform: Lava plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Volcanic ash over basalt

Typical profile

H1 - 0 to 7 inches: sandy loam
H2 - 7 to 17 inches: sandy loam
H3 - 17 to 31 inches: sandy loam
H4 - 31 to 41 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: R010XA009OR - Juniper Shrubby Pumice Flat 10-12 PZ
Hydric soil rating: No

101E—Redcliff-Lickskillet-Rock outcrop complex, 30 to 50 percent south slopes

Map Unit Setting

National map unit symbol: 23yg
Elevation: 2,000 to 4,500 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 47 to 52 degrees F
Frost-free period: 70 to 100 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Redcliff, south, and similar soils: 60 percent
Lickskillet, south, and similar soils: 20 percent
Rock outcrop: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Redcliff, South

Setting

Landform: Canyons
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Colluvium derived from volcanic rock or metavolcanic rock

Typical profile

H1 - 0 to 10 inches: cobbly sandy loam
H2 - 10 to 25 inches: very cobbly sandy loam
H3 - 25 to 34 inches: extremely cobbly sandy loam
H4 - 34 to 44 inches: unweathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): 7e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R010XA007OR - Juniper Pumice South 9-12 PZ
Hydric soil rating: No

Description of Lickskillet, South

Setting

Landform: Canyons
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Colluvium derived from volcanic rock

Typical profile

H1 - 0 to 7 inches: very stony sandy loam
H2 - 7 to 14 inches: very cobbly sandy loam
H3 - 14 to 24 inches: unweathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): 7e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R010XA007OR - Juniper Pumice South 9-12 PZ
Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: unweathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

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Appendix E.

Water Well Reports

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

DESC 62241

9/24/2020

WELL I.D. LABEL# L 138713
START CARD # 1048893
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D.
First Name JOHN & CHRISTINA Last Name ENNEKING
Company
Address 11495 NW DOVE
City TERREBONNNE State OR Zip 97760

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion ☐ Alteration (complete 2a & 10) ☐ Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Community ☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering ☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)
Depth of Completed Well 440.00 ft.

BORE HOLE

Dia	From	To
12	0	48.5
8	48.5	440

SEAL

Material	From	To	Amt	sacks/lbs
Bentonite	0	48.5	31	S
		Calculated	27.5	
		Calculated		

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other BENTONITE DRY
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	8	☒	1.5	48.5	.250	●	○	☒	☐
○	●	6	☐	40	440	.188	●	○	☒	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s)
Temp casing ☐ Yes Dia From + ☐ To

(7) PERFORATIONS/SCREENS

Perforations Method FACTORY CUT
Screens Type Material

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Perf	Liner	6	400	440	.125	3	400	

(8) WELL TESTS: Minimum testing time is 1 hour

○ Pump ○ Bailer ◉ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
25		420	1

Temperature 60 °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount 58 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County DESCHUTES Twp 14.00 S N/S Range 12.00 E E/W WM
Sec 3 SW 1/4 of the SE 1/4 Tax Lot 2700
Tax Map Number Lot
Lat ° ' " or 44.38122127 DMS or DD
Long ° ' " or -121.27854209 DMS or DD
◉ Street address of well ○ Nearest address
11495 NW DOVE

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	9/4/2020			320

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 388.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
9/8/2020	350	440	25			320

(11) WELL LOG

Ground Elevation

Material	From	To
Top soil	0	1
Red cinders lava congl	1	5
Basalt	5	15
red cinders	15	16
Loose Caving sand-lava congl with pumice	16	41
Brown SS - Tuff hard	41	293
Basalt	293	350
Brown SS	350	388
Basalt fractures	388	411
Lava Fractures	411	440

Date Started 9/4/2020 Completed 9/8/2020

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1255 Date 9/24/2020

Signed WILLIAM AIKEN (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1970 Date 9/24/2020

Signed NEIL FAGEN (E-filed)

Contact Info (optional) 541-548-1245

WATER SUPPLY WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

DESC 62241

9/24/2020

Map of Hole

STATE OF OREGON
WELL LOCATION MAP

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department
725 Summer St NE, Salem OR 97301
(503)986-0900

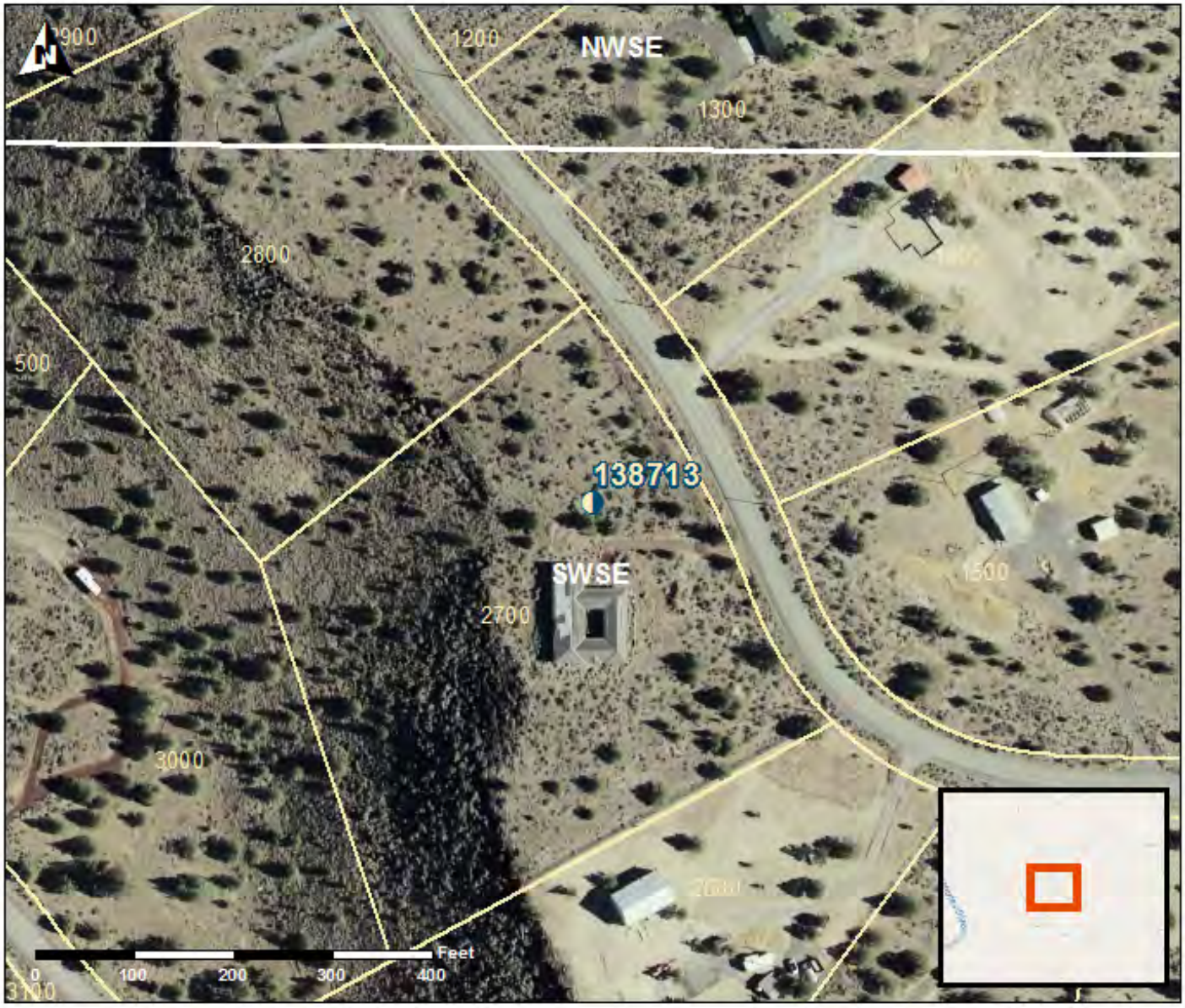
LOCATION OF WELL
Latitude: 44.38122127 Datum: WGS84
Longitude: -121.27854209
Township/Range/Section/Quarter-Quarter Section:
WM14.00S12.00E3SWSE
Address of Well:
11495 NW DOVE

Well Label: 138713

Printed: September 24, 2020

DISCLAIMER: This map is intended to represent the approximate location the well. It is not intended to be construed as survey accurate in any manner.

Provided by well constructor



STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

DESC 62008

5/14/2020

WELL I.D. LABEL# L 137952
START CARD # 1046000
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D.
First Name JIM AND Last Name OLIVER
Company
Address 114 TALKNEENTH HEIGHTS
City LONGVIEW State WA Zip 98632

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion ☐ Alteration (complete 2a & 10) ☐ Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Community
☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)
Depth of Completed Well 450.00 ft.

BORE HOLE

Dia	From	To
12	0	23.5
8	23.5	450

SEAL

Material	From	To	Amt	sacks/lbs
Bentonite Chips	0	23.5	33	S
		Calculated	21.3	
		Calculated		

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other POURED DRY
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	8		1.5	23.5	.250	●	○	☒	
○	●	6		10	450	.188	●	○	☒	
○	○						○	○		
○	○						○	○		
○	○						○	○		

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s)
Temp casing ☐ Yes Dia From + ☐ To

(7) PERFORATIONS/SCREENS

Perforations Method FACTORY
Screens Type Material

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Perf	Liner	6	430	450	.125	3	228	

(8) WELL TESTS: Minimum testing time is 1 hour

○ Pump ○ Bailer ◉ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
15		450	1

Temperature 52 °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount 170 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County DESCHUTES Twp 14.00 S N/S Range 12.00 E E/W WM
Sec 3 SW 1/4 of the SE 1/4 Tax Lot 1400
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
◉ Street address of well ○ Nearest address
11480 NW DOVE RD

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	4/23/2020			370

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 370.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
4/22/2020	370	450	15			370

(11) WELL LOG

Ground Elevation

Material	From	To
TOP SOIL	0	2
CINDERS	2	10
HARD GRAY LAVA	10	32
BROWN SANDSTONE	32	97
COARSE BROWN SANDSTONE CONGLOMERA	97	177
BROWN LAVA CONGLOMERATE	177	278
MILD BROWN LAVA W/CLAY SEAMS	278	355
W/BFRACTURED BROWN CONGLOMERATE	355	415
W/B BROKEN LAVA	415	450

Date Started 4/22/2020 Completed 4/23/2020

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1987 Date 5/14/2020

Signed MATHEW ROGERS (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1720 Date 5/14/2020

Signed JACK ABBAS (E-filed)

Contact Info (optional) JACK ABBAS

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

DESC 52343

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MAY 1 0 1999 MAY 2 8 1999

WATER RESOURCES DEPT. WATER RESOURCES DEPT.
SALEM, OREGON SALEM, OREGON

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form.

WELL I.D. # L 23699
START CARD # 102313

(1) OWNER: Well Number
Name mr.&mrs. Will Danley
Address P.O. Box 2081
City Terrebonne State Or Zip 97760

(2) TYPE OF WORK
[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:
[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger
[ ] Other

(4) PROPOSED USE:
[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation
[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval [ ] Yes [X] No Depth of Completed Well 395 ft.
Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
12"	0	22	bentonite	0	22	11 sks
8"	22	395				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[X] Other poured
Backfill placed from ft. to ft. Material
Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	8"	+1	22	250	[X]	[ ]	[X]	[ ]
Liner:	6"	+1	395	.188	[X]	[ ]	[X]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:
[X] Perforations Method factory
[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
375	395	1/8 3"	236	6"		[ ]	[X]

(8) WELL TESTS: Minimum testing time is 1 hour
[X] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
25	[redacted] 0		2hr 1 hr.

Temperature of water 52 Depth Artesian Flow Found
Was a water analysis done? [ ] Yes By whom
Did any strata contain water not suitable for intended use? [ ] Too little
[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other
Depth of strata:

(9) LOCATION OF WELL by legal description:
County Deschutes Latitude Longitude
Township 14 s N or S Range 12 e E or W. WM.
Section 3 D nw 1/4 se 1/4
Tax Lot 2900 Lot Block Subdivision
Street Address of Well (or nearest address)
11711 nw Galana

(10) STATIC WATER LEVEL:
348 ft. below land surface. Date 5-6-99
Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:
Depth at which water was first found 348

From	To	Estimated Flow Rate	SWL
348	395	25	348

(12) WELL LOG:
Ground Elevation

Material	From	To	SWL
sandy top soil	0	3	
med gray lava	3	27	
black sandstone	27	78	
brown sandstone	78	278	
red sandstone	278	289	
med hard red lava	289	292	
hard red lava	292	310	
hard gray basult	310	333	
brown sandstone	333	376	348
fractured gray lava	376	381	
broken rock- course sand	381	395	

Date started 5-3-99 Completed 5-5-99

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
Signed [signature] WWC Number Trainee Date 5-7-99

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 1658
Signed [signature] Date 5-7-99

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

DESC 53634

WELL ID # L 31661

(START CARD) # 46587

(1) OWNER:

Well Number:

Name Robert & Marsha Symonk

Address 11500NW Galena

City Terrebonne State OR Zip

(2) TYPE OF WORK:

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 420 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
12	0	19	bentonite	0	19	12 sacks
8	19	420				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	8	+1	19	.250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	6	-1	420	.188	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[X] Perforations Method machine

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
400	420	1/8X3	228			[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
15 +		420	6 Hrs

Temperature of Water Depth Artesian Flow found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Deschutes Latitude Longitude

Township 14S N or S. Range 12E E or W. of WM.

Section 3D 1/4 1/4

Tax lot 1300 Lot Block Subdivision

Street Address of Well (or nearest address) 11500NW Galena Terrebonne OR

(10) STATIC WATER LEVEL:

339 ft. below land surface. Date 1/15/2001

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 228

From	To	Estimated Flow Rate	SWL
339	420		339

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
brn topsoil	0	3	
redcinders	3	11	
gray basalt	11	35	
L/C soft	35	50	
R/C red cinders	50	170	
brn S/S	170	248	
gray basalt	248	270	
brn S/S	270	281	
gray basalt	281	339	
frac Gray basalt W/B	339	420	339

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JAN 24 2001

WATER RESOURCES DEPT
SALEM, OREGON

Date started 12/28/2000 Completed 1/15/2001

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1575

Signed Date 1/15/01

Douglas R. Dunagan

ORIGINAL - WATER RESOURCES DEPARTMENT FIRST COPY - CONSTRUCTOR SECOND COPY - CUSTOMER

DESC 50283

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DESC 50283

MAY 28 1996

WATER RESOURCES DEPT.
SALEM, OREGON

WELL I.D. #-LL-LO 3560

(START CARD) # 91729

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

(1) OWNER: Well Number

Name EDWARD R WEBBER

Address 19236 KIOWA RD.

City BEND State OR. Zip 97702

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[ ] Rotary Air [ ] Rotary Mud [X] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 230 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
12"	0	22	BENT	0	22	20 SACKS
8"	22	230				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other POURED DRY

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	*8"	+2	23	250	X		X	
Liner:	5"	+1	230	sdr26		X	X	

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[X] Perforations Method saw

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
210	230	2"	~~1/16~~ 700	1/16		[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [X] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
20	0		1 hr.

Temperature of water 52 Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County DESCH Latitude Longitude

Township 14s N or S Range 12e E or W. WM.

Section 3 se 1/4 sw 1/4

Tax Lot 500 Lot Block Subdivision

Street Address of Well (or nearest address) 11450 STEEL FALLS ROAD TERREBONNE OR. 97760

(10) STATIC WATER LEVEL:

~~-2~~ 165 ft. below land surface. Date 5/11/96

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 165

From	To	Estimated Flow Rate	SWL
165	230	20	165

(12) WELL LOG:

Ground Elevation

Material	From	To	SWL
soil	0	8	
black sandstone	8	15	
brown sandstone	15	50	
red sandstone	50	145	
broken brown rock (w.b)	145	185	165
red cinders (w.b)	185	215	
course black sand(w.b)	215	230	

Date started 4/29/96 Completed 5/13/96

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number 1631

Signed Date 5-16-96

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1495

Signed Date 5-16-96

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

WELL IDENTIFICATION FORM 50283 Owner's Well Number: _____

CURRENT WELL OWNER: Phone 503-690-0461

Name: Gregory Applegate / Barbara Stark

Mailing Address: 363 SW Seminole Dr

City: Aloha State: Or Zip: 97006

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"DESC 50283"

AUG 2 4 1998

WATER RESOURCES DEPT.
SALEM, OREGON

WELL LOCATION:

County: Deschutes Longitude: _____

Township: 14 N or S, Range Desc 50283 already tagged 3 C 1/4 1/4

Tax Lot Number: 500 H ~~5360~~ 3560

Street Address of Well (if different _____

11450 NW Skelhead Falls, CRK, OR 97760

If a well report is available for this well, please attach a copy of it to this form and return. It is not necessary for you to complete the remainder of the form if the well report is attached. If a well report is not available, please complete the remainder of the form to the best of your ability.

WELL INFORMATION:

Start Card Number: _____ Approx. Construction Date: _____

Well Constructor: _____

Name of Owner at Time of Construction: _____

Well Depth (in feet): _____ Static Water Level (in feet): _____

Diameter of Exposed Well Casing (in inches): _____

Does this well have a formal water right associated with it? Yes: _____ No: _____ If yes:

Application #: _____ Permit #: _____ Certificate #: _____

Please Return Completed Form to: **Oregon Water Resources Department**
158 12th Street NE
Salem, OR 97310

(Office use only)

Well Identification Number: _____ 3560

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Desc 1786

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JUL - 1 1993

WATER RESOURCES DEPT. SALEM, OREGON

14S/12E/3db

(START CARD) # 53884 labeled

(1) OWNER: Well Number

Name Jack Lakonen

Address 7808 SE Southgate

City Milwauke State Ore Zip 97522

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 415 ft.

Explosives used ☐ Yes ☒ No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
12"	0	39	cement	39	6	22 sacks
8"	39	415	bentonite	6	0	4 sacks

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☒ Other poured

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	8"	+1	39	.250	☒	☐	☐ x	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	6"	-5	415	.188	☒	☐	☒	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method machine

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
395	415	228	1/8by	3		☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
18 +		415	1 hr.

Temperature of Water 53 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Des Latitude Longitude

Township 14 S N or S. Range 12 E E or W. WM.

Section 3 D NW ¼ SE ¼

Tax Lot 1200 Lot 93 Block Subdivision

Street Address of Well (or nearest address)

11600 NW Galena CRR #5 Terrebonne, Ore

(10) STATIC WATER LEVEL:

339 ft. below land surface. Date 6-25-93

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 339

From	To	Estimated Flow Rate	SWL
339	356		
371	415		339

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
brn soil gray brkn basalt	0	3	
red cindery congl	3	28	
gray basalt	28	65	
brn clay congl	65	80	
fine cemented gravel	80	105	
gray ss congl	105	187	
brn ss	187	251	
tan clayey congl	251	298	
gray brkn ves basalt	298	335	
brn clay sand gravel (interbeds (WB)	335	356	
tan clayey congl	356	371	
red cindery congl (WB)	371	398	
redish gray brkn basalt(WB)	398	415	

Date started 6-21-93 Completed 6-25-93

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number 1575

Signed Date 6-25-93

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 595

Signed Date 6-25-93

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 10/91

Appendix F.

Directions to Site, Names and Addresses of Neighboring Property Owners

Google Maps

Department of Environmental Quality, Bend office
475 NE Bellevue Dr # 110, Bend, OR 97701

Take NE Dalton St and NE Forum Dr to NE 27th St

3 min (0.5 mi)

1. Head southwest toward NE Bellevue Dr

43 ft

2. Turn right toward NE Bellevue Dr

46 ft

3. Turn right toward NE Bellevue Dr

233 ft

4. Turn right onto NE Bellevue Dr

240 ft

5. Turn left onto NE Dalton St

0.2 mi

6. Turn left onto NE Forum Dr

0.2 mi

Take Deschutes Market Rd and US-97 N to NW Odem Ave

29 min (21.5 mi)

7. Turn right onto NE 27th St

1.8 mi

8. At the traffic circle, take the 1st exit onto NE Butler Market Rd

0.3 mi

9. At the traffic circle, take the 2nd exit onto Deschutes Market Rd

1.5 mi

10. At the traffic circle, continue straight to stay on Deschutes Market Rd

3.7 mi

11. Turn right onto Graystone Ln

0.2 mi

12. Turn left onto Deschutes Pleasant Ridge Rd

0.1 mi

13. Merge onto US-97 N
Pass by Taco Bell (on the right in 8.4 mi)

9.7 mi

14. Continue onto US-97 N

4.1 mi

Take NW Lower Bridge Way/Lower Bridge Market Rd and NW Quail Rd to NW Dove Rd in Crooked River Ranch

17 min (10.1 mi)

15. Turn left onto NW Odem Ave

0.6 mi

16. Turn right onto NW 19th St

1.5 mi

17. Turn left onto NW Lower Bridge Way/Lower Bridge Market Rd

4.6 mi

18. Turn right onto NW Quail Rd

1.2 mi

19. Turn right to stay on NW Quail Rd

1.1 mi

20. Slight left onto NW Dove Rd
Destination will be on the left

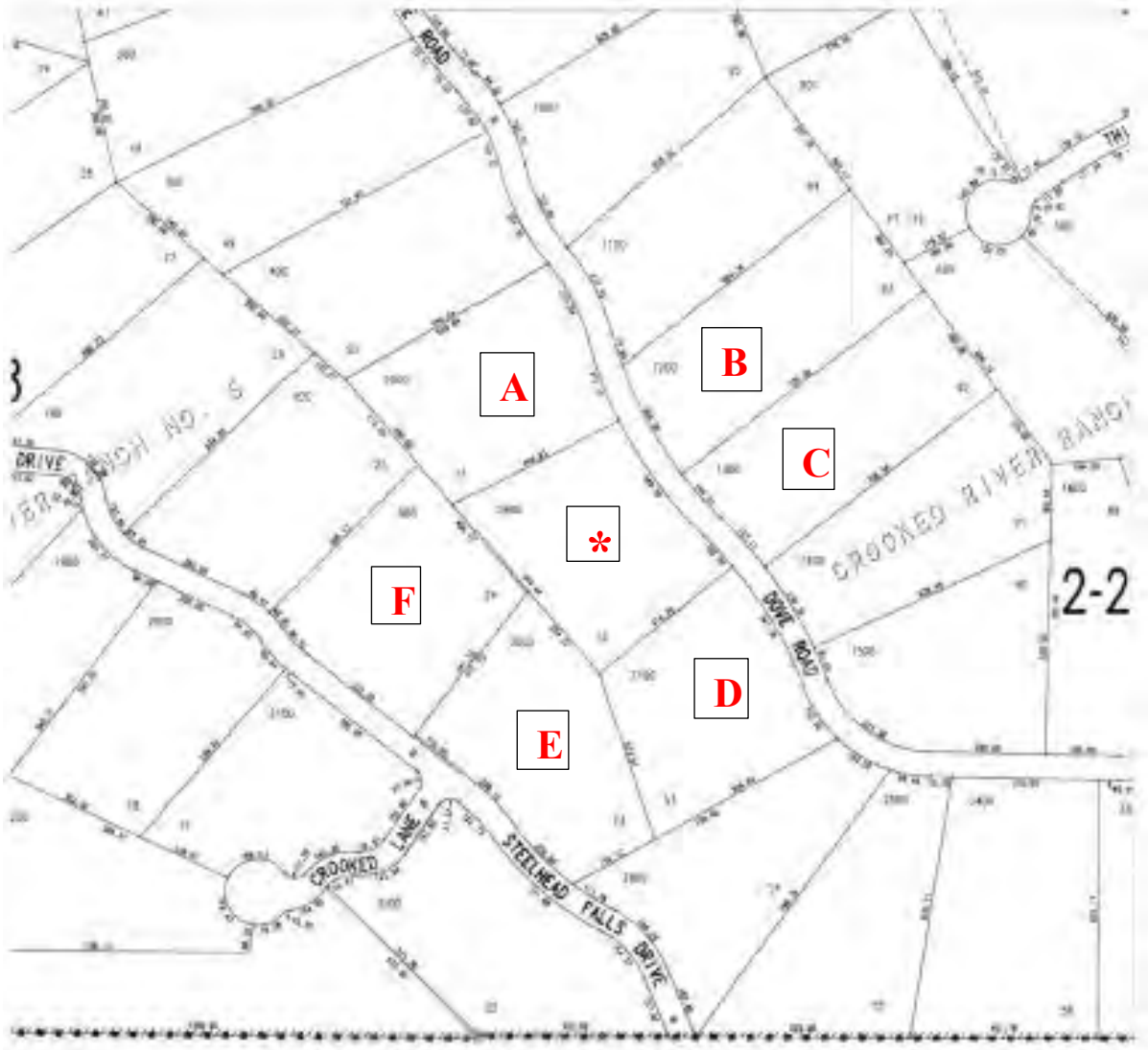
1.2 mi

11515 NW Dove Rd
Terrebonne, OR 97760

Adjacent Parcels Property Owners

11515 NW Dove Road, Terrebonne, Oregon
(T14S, R12E, Section 3, Tax Lot 2800, 4.77 acres

*	Tax Lot	2800	Sky View Holdings LLC 13200 SE McLaughlin Blvd Portland, OR 97222
A.	Tax Lot	2900	Danley, Willard J & Diana L PO Box 2081 Terrebonne, OR 97760
B.	Tax Lot	1200	Lakanen Family Trust 11600 NW Dove Road Terrebonne, OR 97760
C.	Tax Lot	1300	Rabourn, John & Jenifer 20564 SE High Ridge C Damascus, OR 97089
D.	Tax Lot	2700	Enneking, John P et al 93 Fairview Plaza Los Gatos, CA 95030
E.	Tax Lot	3000	Hoopes, David R & Linda L 35727 SE Squaw Mtn Estacada, OR 97023
F.	Tax Lot	500	Neglay, Christopher J & Mattie M 11450 Steelhead Falls Dr Terrebonne, OR 97760


A
B
C
D
E
F
*
CROOKED LANE
STEELMEAD FALLS DRIVE
DOVE ROAD
CROOKED RIVER
2-2

Variance Application from Oregon Administrative Rules Regulating Onsite Wastewater Treatment Systems

DEQ
State of Oregon Department of Environmental Quality

Western and Northwest Regions:

Oregon Department of Environmental Quality
Onsite Program
165 East Seventh Ave, Ste 100
Eugene, Oregon 97401

Eastern Region:

Oregon Department of Environmental Quality
Onsite Program
475 NE Bellevue Dr, Ste 110
Bend, OR 97701

RECEIVED
AUG 22 2025
DEQ
Eastern Region Bend

Please complete this application form and submit it with the fee and required attachments to one of the addresses above. The fees can be found in the current rule tables on DEQ's website here: https://ordeq.org/variancefees

Please note: Variance approval is not guaranteed, and fees are non-refundable. Learn more about the variance process at https://ordeq.org/septicvariance

Owner Information - Please Print:

Owner Name(s) (Last, First) Sky View Holdings LLC

Mailing Address 13200 SE McLoughlin Blvd

City, State, Zip Portland, OR 97222

Phone (503) 341-5418 Email ryan.bigbee@gmail.com

Property Information:

County Deschutes

Township, Range, Section, Tax Lot T14S R12E S3 Tax Lot 2800

Lot and Block Number Lot 52 Block Subdivision Name Crooked River Ranch No. 5

Provide the Following Attachments:

1. A locator map showing accurate directions to the property. List the property's street address if the street address is known.

2. **Two copies** of the parcel's legal description (metes and bounds, warranty deed, sales contract or approved subdivision plat). Include copies of the protective covenants, deed restrictions and easements applicable to the property.

3. **Two copies** of the assessor's tax lot map showing the property or a surveyor's plat map.

4. **Two copies** of a land use compatibility statement from the appropriate land use authority that your proposed land use is compatible with the Land Conservation and Development Commission's acknowledged comprehensive plan or statewide planning goals.

5. **One copy** of the DEQ (or county agent) site evaluation report, field notes, and other correspondence relating to past evaluations for septic system development.

6. **Two copies** of a narrative description for your variance proposal, including system construction specifications and the step-by-step procedures you propose to follow when installing the system. You must clearly describe how your proposal will overcome the limitations cited by DEQ or the county in the original denial.

7. **Two copies** of a plot plan drawn with the location and dimensions of all components of the proposed system. Use a defined scale that is not smaller than one-inch equals 30 feet. Also, be sure to include the replacement absorption facility in the plot plan drawing. Indicate separation distances between disposal trenches, springs, water courses, agricultural drainage tile, ditches, drainage ways, water lines, buildings, roads, embankments, and other identifying features, which help demonstrate parcel-to-drainfield relationships. Locate all wells within 200 feet of the proposed system and the replacement system.

8. The names and mailing addresses of all adjacent property owners and other known interested persons, for hearing notice.

9. The variance officer will request additional items be provided, if found necessary for the variance. The application will be deemed incomplete until the requested items are provided.

A minimum of two test pits must be provided within the specific area where the variance system is proposed, and should be approximately two feet wide, four feet long, and excavated to either bedrock or to a depth of five feet. Similar pits must be provided in the area of the repair system. The variance officer may require the proposed drainfield and the future replacement drainfield to be staked out.

Hardship Variances:

Hardship variances may be considered in cases of extreme and unusual hardship. The following factors may be considered: advanced age or bad health of applicant, need of applicant to care for aged, incapacitated or disabled relative, and the hardship variance will have relative, insignificant environmental impact. Documentation of hardship must be provided.

☐ MARK THIS BOX FOR HARDSHIP CONSIDERATION

By my (our) signature(s), I (we) request DEQ act on this application and hereby grant permission to enter onto the above-described property. I (we) also acknowledge that I (we) have read the Variance Process Fact Sheet found here: https://ordeq.org/septicvariance

8/13/2025 _____
Date Owner Signature

_____
Date Owner Signature

NOTE: All owners must sign this application form. If there are more than two owners, have them sign additional duplicate applications and include them with submittal.

* Pursuant to ORS 454.662, the applicant is not required to submit the application fee if, at the time of filing the application, the applicant is 65 years of age or older, is a resident of the State of Oregon, and has an annual household income, as defined in ORS 310.630, of $15,000 or less. Appropriate documentation must be submitted with the application.

ELKHORN CONSULTING LLC

14833 Goodrich Creek Lane
Baker City, OR 97814 • 503-881-1604
elkhornconsultingllc@gmail.com

August 18, 2025

Variance Officer
Onsite Variance Program
DEQ - Eastern Region Water Quality
475 NE Bellevue, Ste. 110
Bend, Oregon 97701

SUBJECT: Formal Variance Request – Sky View Holdings LLC – T14S, R12E, Section 3D, Tax Lot 2800 (4.77 acres), Deschutes County, West of Terrebonne, Oregon.

Dear Variance Officer:

A formal variance from selected onsite rules is hereby requested under the provisions of Oregon Administrative Rules, Chapter 340, Division 071, Section 0415 (OAR 340-071-0415).[1] The property is located at 11515 NW Dove Road, west of Terrebonne in Deschutes County, Oregon (Site) (Figure 1) and consists of 4.77 acres. A Tax Lot map is attached in Appendix A and a copy of the Deed is attached in Appendix B.

Background

Deschutes County conducted a site evaluation on March 25, 2021, and issued a denial on March 26, 2021. The denial was based on insufficient soil depth in 6 test pits in the northern corner of the lot. The test pits were described with sandy loam surface soils over fine sandy loam to a depth of 14 to 15 inches with a very high coarse fragment content below those depths, and bedrock at a depth of 15 to 21 inches below the existing ground surface (bgs). A copy of the site evaluation documentation from Deschutes County is attached in Appendix C. The primary reason cited for the denial was insufficient soil depth.

Soils

The web soil survey shows the location of the Site and a copy of the output is provided in Appendix D. The eastern half of the parcel is shown within a delineation of Map Unit 31A, Deschutes sandy loam, 0 to 3% slopes. Deschutes soils are typically moderately deep, well drained soils that developed in a mantle of volcanic ash over basalt. The western half of the parcel is shown within a delineation of Map Unit 101E, Redcliff-Lickskillet-Rock outcrop complex, 30 to 50% south slopes. Redcliff soils are typically moderately deep, well drained soils that developed in colluvium derived from volcanic rock and have a high coarse fragment content. Lickskillet soils are typically shallow, well drained and have a very stony surface. There is a rimrock that runs through the middle of the property along the boundary between the map units.

None of the characteristics observed in the eastern part of the Site resemble the conditions expected from the published soil survey. The underlying bedrock is fractured basalt and the soils are only about half as deep as expected. The observed soil characteristics are more like Stukel soils, which are included in a delineation of Map Unit 141C, Stukel-Deschutes-Rock outcrop complex, 0 to 15%

[1] Onsite wastewater treatment systems, 340 OAR § 340.71. (2020).

Business Name Search

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Business Entity Data

08-25-2025
13:35

Registry Nbr	Entity Type	Entity Status	Jurisdiction	Registry Date	Next Renewal Date	Renewal Due?
1717495-92	DLLC	ACT	OREGON	09-10-2020	09-10-2026	
Entity Name	SKY VIEW HOLDINGS, LLC					
Foreign Name						

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Associated Names

Type	PPB	PRINCIPAL PLACE OF BUSINESS		
Addr 1	13200 SE MCLOUGHLIN BLVD			
Addr 2				
CSZ	MILWAUKIE	OR	97222	UNITED STATES OF AMERICA

Please click here for general information about registered agents and service of process.

Type	AGT	REGISTERED AGENT	Start Date	08-31-2022	Resign Date	
Of Record	1945685-99	OREGON STATE REGISTERED AGENT SERVICES, LLC				
Addr 1	2215 SE HARRISON ST					
Addr 2						
CSZ	MILWAUKIE	OR	97222	UNITED STATES OF AMERICA		

Type	MAL	MAILING ADDRESS		
Addr 1	13200 SE MCLOUGHLIN BLVD			
Addr 2				
CSZ	PORTLAND	OR	97222	UNITED STATES OF AMERICA

Type	MGR	MANAGER		Resign Date	
Name	RYAN		BIGBEE		
Addr 1	13200 NE MCLOUGHLIN BLVD				
Addr 2					
CSZ	MILWAUKIE	OR	97222	UNITED STATES OF AMERICA	

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Name History

Business Entity Name	Name Type	Name Status	Start Date	End Date
SKY VIEW HOLDINGS, LLC	EN	CUR	09-10-2020	

Please read before ordering Copies.

New Search Printer Friendly

Summary History

Image Available	Action	Transaction Date	Effective Date	Status	Name/Agent Change	Dissolved By
	AMENDED ANNUAL REPORT	08-04-2025		FI		
	AMENDED ANNUAL REPORT	08-06-2024		FI		
	AMENDED ANNUAL REPORT	08-15-2023		FI		
	AMENDED ANNUAL REPORT	08-31-2022		FI	Agent	
	AMENDED ANNUAL REPORT	09-01-2021		FI		
	ARTICLES OF ORGANIZATION	09-10-2020		FI		

Onsite Variance
Application Verification

248-25-000275-VAR

DEQ Medford Office
221 Stewart Avenue
Suite 201
Medford, OR 97501
541-776-6010
OnsiteMedford@deq.state.or.us
Website: oregon.gov/deq

Application created: 8/25/25

Parcel Nbr: 141203D002800

Site Address: 11515 NW Dove RD, Terrebonne, OR 97760

Owner: SKYVIEW HOLDINGS LLC
(503) 341-5418

Applicant: Elkhorn Consulting LLC - Elkhorn Consulting LLC
14833 Goodrich Creek Ln.
Baker City, OR 97814

Phone: (503) 881-1604

Email: elkhornconsultingllc@gmail.com

Licensed Professional(s):

No Licensed Professionals Designated

Site Ready for Inspection:

Attached Documents:

No Documents have been attached.