

EASEMENT

THIS AGREEMENT, made and entered into, and effective as of the 9th day of October, 1992, by and between ROBERT G. and PEGGY J. PITT, hereinafter referred to as "GRANTOR", and GTE NORTHWEST INCORPORATED, a Washington Corporation, whose business address is 1800 41st Street, Everett, Washington 98201, hereinafter referred to as "GRANTEE".

WITNESSETH:

That the GRANTOR hereby grants unto the GRANTEE, a perpetual easement over, under, above, and across a 30 by 30 foot portion in the NW1/4 of Section 21, Township 4 North, Range 4 West, W.M., County of Columbia, State of Oregon.

The GRANTEE has, at its sole cost and expense, retained a licensed surveyor to legally describe the easement and stake the corners. The resulting survey, marked Exhibit "A", is attached hereto and incorporated herein as if fully set forth. It is understood and agreed that Exhibit "A" represents the true legal description of the granted easement.

GRANTEE shall have the right to install, inspect and maintain all of the facilities necessary to provide communication service, power service, and related services located on said easement, including the trimming or removal of any brush, trees, shrubs, structures, or objects that may interfere with the construction, maintenance, and operation of said services.

SPECIAL CONDITIONS:

GRANTEE to provide fencing around the easement, to be constructed of 4" full treated poles with support bracing, including support bracing for existing fence. GRANTOR to provide barbed wire to match existing fence lines.

As consideration for the Easement, GRANTEE shall pay a one-time payment of THREE THOUSAND AND NO/100 DOLLARS (\$3,000.00), receipt of which is hereby acknowledged.

It is understood by the parties that the GRANTEE, its heirs and/or assigns, have full access and use of the herein above-described Easement. Further, GRANTOR shall not construct any structures or buildings that could inhibit or impede the GRANTEE from the use of said Easement.

Return Recorded Document to:

PEBBLE CREEK EASEMENT

DEBBIE DEGROOT
P.O. BOX 1003
(WA0103NP)
EVERETT, WA 98206

It is further understood that Ed Frank of Oregon Realty is representing the GRANTEE in this transaction.

This Easement shall inure to the benefit of the parties, heirs, successors, and assigns.

IN WITNESS WHEREOF, the GRANTOR(S) have hereunto set their hands as of this 9th day of October, 1992.

GRANTOR:

Robert G. Pitt
ROBERT G. PITT

Address of Grantor:

56965 Pebble Creek Road
Vernonia, OR 97064

Peggy J. Pitt
PEGGY J. PITT

Grantor's Social Security No.

530-38-4031

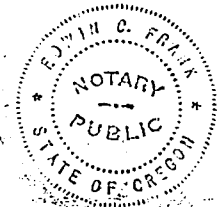
556-52-1000

Columbia County Tax Account No. 4421-000-00300

STATE OF Oregon)
)ss
COUNTY OF Columbia)

On this 9th day of October, 1992, before me, the undersigned, a Notary Public in and for the State of Oregon, personally appeared Robert G. & Peggy J. Pitt, known to me to be the persons whose names are subscribed to the within and foregoing instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



Edwin C. Frank

NOTARY PUBLIC in and for
the state of Oregon
residing at Clackamas County therein.

My commission expires January 27, 1994

PEBBLE CREEK EASEMENT

ALLAN & LEUTHOLD, INC.
SURVEYING
4827 N. E. 105th AVENUE
PORTLAND, OREGON 97220
503 - 254-0734

EXHIBIT "A"
PAGE 1 of 2

PARCEL 5470207

PEBBLE CREEK EASEMENT

A tract of land in the Northwest quarter of Section 21 T. 4 N., R. 4 W.,
W.M. Columbia County, Oregon described as follows:

Beginning at the intersection of the West right of way line of Pebble Creek
Road and the North line of Section 21, said point being North $89^{\circ} 18' 30''$ East
1669.32 feet from the Northwest corner of said Section 21; thence South $4^{\circ} 55' 40''$
West along the West right of way line of said Pebble Creek Road a distance of
30.00 feet; thence South $89^{\circ} 18' 30''$ West parallel with the North line of Section
21 a distance of 30.00 feet; thence North $4^{\circ} 55' 40''$ East parallel with the
West line of said Pebble Creek Road a distance of 30.00 feet to a point in the
North line of section 21; thence North $89^{\circ} 18' 30''$ East along said North line
a distance of 30.00 feet to the point of beginning..

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Gene A. Leuthold
OREGON
MAY 6, 1999
GENE A. LEUTHOLD
475

PAGE 2 of 2

50°51'5"
Basis
FOUND 1" IRON PIPE
W/ PLASTIC CAP MARKED
PLS KENON 1080

NARRATIVE:

Purpose of survey to establish an easement area for telephone equipment.

16, 17, 20, and 21 and ran random south and east to locate and the found points

along the West and North line of Section 21. Held the found monuments along the West line for bearing control and held the found bearing stumps at the North &

corner for control of the North line of the Section. Used the centerline of the

as traveled roadway and set the points along the right of way line to establish the easement area as shown . . .

Basis of bearings the found monument at the section corner and the

found iron along the West line of Section 21

Basis of bearings the record survey #3563

A survey diagram showing a rectangular area with dimensions 30.00 by 30.00. The area is bounded by a line labeled "PEBBLE CREEK RD." and a line labeled "S 4°55' 40" E". The area is also labeled "40'" and "20'".

REFERENCE SURVEYS
-76, 3563

○ DENOTES: Set 5/8" x 30" Iron Rod W/
Yellow Plastic Cap Marked L.S. 475

LEGEND

O DENOTES: Set 5/8" x 30" Iron Rod w/
Yellow Plastic Cap Marked L.S. 475

Ⓓ DENOTES: Found Monument as Indicated

**REGISTERED
PROFESSIONAL
LAND SURVEYOR**

OREGON
MAY 8, 1949
GENE A. LEUTHOLD
475

CERTIFICATE of SURVEY
Of A Tract

N.W. 1/4 SECTION 21 T. 4N., R. 4W

COLUMBIA COUNTY, OREGON

SCALE: 1" = 30' SEPT. 16, 1992

FOR: GENERAL TELEPHONE

ALLAN & LEUTHOLD, INC
SURVEYING
4827 N.E. 105th AVENUE
PORTLAND, OREGON 97220
503 — 254-0734

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PORTLAND, OREGON 97220
503 -- 254-0734

503 — 254-0734

I hereby certify that the within instrument was received for record and filed in the County of Columbia, State of Oregon.

7554 92 OCT 22 PM 39

Instrument # 920554
Pages 5

ELIZABETH HUSPER, County Clerk
By: BAW Deputy
Receipt # 35-60
4016

CONDITIONAL USE PERMIT APPLICATION FILE no. CU_____**1. New Uses: What uses will occur on the property if this Conditional Use Permit is approved. Describe your project:**

With the approval of this Conditional Use Permit, Ffynnon would operate as a Private Park and Campground, as well as continuing to conserve and improve the land. The property is currently zoned PF-80.

Section 505.4 of the Columbia County Zoning Ordinance lists Private Parks and Campgrounds as an appropriate conditional use, upon approval.

Recreational use, conservation

Land use would include low impact, casual, recreational uses such as camping, picnicking, hiking, and other nature-oriented recreational activities. Both day-use only and overnight-camping use are planned. Ffynnon also works to conserve and clean-up the land, which was formerly used as a private dump. We work to preserve the forest for plant and wildlife habitat in addition to recreational uses.

Outdoor gatherings

Approximately three times per year, Ffynnon would host outdoor gatherings that include overnight tent and RV camping. For such gatherings, we anticipate 250 or fewer persons.

In addition, approximately 3 to 4 times per year, Ffynnon would host outdoor, day-only events. These events would draw anywhere from 20 to 10 people.

2. Suitability. Why is the property suitable for this use (considering lot size, shape and location, access and roads, natural features and topography, existing improvements, etc.)***Additional recreational area for Columbia County***

In the Columbia County Comprehensive plan, Columbia County has identified the need to create additional recreational areas in the County. As a Private Park, the Ffynnon property would provide such additional outdoor recreational areas as well as opportunities for families with children to enjoy the beauties of nature.

As its guests, Ffynnon would welcome County residents as well as drawing visitors from the larger metro area. Many of these visitors will bring additional income to

County businesses during their stay, purchasing food and gas in Vernonia and visiting local restaurants. To make these recreational areas available to a wide spectrum of visitors, Ffynnon has established reasonable fees for overnight camping and gatherings as well as free day-only events for members.

Lot size, shape, location

The 51.7-acre Ffynnon property is extremely well suited for use as a Private Park and Campground.

The property includes both cleared meadows, ideal for tent and RV camping and outdoor gatherings, as well as many forested trails for walking and hiking. Please see Site Plan Inset 1 for details on the proposed Park's camping and recreation areas.

The property's location is 3.02 miles from the Vernonia Urban Growth Boundary, following East Alder St. The code section does not specify road mileage but a similar code section (OAR 660.22) does. The land between the Vernonia Urban Growth Boundary and the Ffynnon property is thickly forested and steep and is not developable for urban purposes, providing a natural separation between the property and the boundary.

Access and roads

The property is accessed via Pebble Creek Road at two existing access points. With approval of this application, all access points will be brought into compliance with the requirements of Columbia County Public Works Department.

Natural features, topography

Ffynnon features forested land and meadows. (See Site Plan Inset 1 for additional details.) All camping spaces are near the meadows or along the edges of the forest and are integrated into the local environment to protect the natural amenities of the site and to provide buffers for existing native trees and vegetation. Camping spaces are set back from the access road so they are not easily visible from the road or neighboring properties.

From the campsites, visitors have easy access to the forested lands, which feature walking and hiking trails. Trails are cleared as needed and wood chips laid down along main trails during damp conditions. Toward the back of the property, there is a 150-ft. elevation gain, making it best for hiking rather than camping. Traditionally, there have been horse trails and hiking trails in this area.

Existing improvements

Ffynnon offers rustic camping for tents and RVs. Sanitation will be handled via portable toilets, cleaned and serviced on a regular schedule. Tent camping is primitive; vehicle/RV spaces do not provide electricity or other hook-ups.

Camping spaces and existing hiking trails are ready now and are shown on the site map. Otherwise, only minimal changes are required to make the Ffynnon property ideal for use as a Private Park and Campground.

Please see the Project Narrative, associated maps, and environmental drainage report for details about this use, as well as plans for making the Ffynnon property fully ready to receive guests.

3. Compatibility. How will the use be compatible with surrounding uses?

Compatible with neighboring properties

Like Ffynnon, the properties that surround Ffynnon are zoned PF-80. The neighbor to the north owns forested acreage of similar size to Ffynnon and uses it to grow grass and run his cattle. To the west, there are 250 acres of managed timber/forest land. Across the road to the east is one single family home on large acreage. Its owner also owns the lot to the southeast which is undeveloped and serves as a woodlot. The property owners south of Ffynnon currently rent a portion of the property to Ffynnon for storage and event parking.

Compatible with Columbia County Comprehensive Plan

Ffynnon's proposed use is in harmony with the County's Comprehensive Plan to diversify from a logging-only economy, and is in accord with the Plan's stated description of uses for forest lands other than logging. The Plan states such uses may include:

- "2. Other forest lands needed for watershed protection, **wildlife** and fisheries **habitat**, and **recreation**;*
- 3. Lands where extreme conditions of climate, soil, and topography require the maintenance of vegetative cover irrespective of use; and*
- 4. Other forested lands in urban and agricultural areas that provide urban buffers, wind breaks, **wildlife** and fisheries **habitat**, livestock habitat, **scenic corridors and recreational use**."*

Please see the Project Narrative and APPENDIX 1 submitted with this application for a complete description of how the Ffynnon Private Park and Campground is compatible with the Columbia County Comprehensive Plan.

Compatible with nature and low-impact outdoor use

With approval of this Conditional Use Permit, the Ffynnon property would continue to be forested and relatively undeveloped. We would continue to conserve and improve the land and its health.

Ffynnon will not include intensively developed recreational uses such as swimming pools, tennis courts, retail stores, or gas stations. We understand that it is the County's goal to limit new development requiring public facilities such as water and sewer, arterial street systems, or urban level protection from a fire protection district. Approval of this Conditional Use Permit will require none of those things.

Instead, those who come to enjoy Ffynnon will discover the beauty of Columbia County and the opportunities available here. We can anticipate that this will, in turn, lead to additional visits to and further exploration of the County.

4. Impact. What impact will the proposed use have on existing public facilities or on your neighbor's use of their land? Why?

Approval of Ffynnon's proposed use as a Private Park and Campground will have very little, if any, impact on neighbors or existing public facilities/services. Conditional use as a Private Park and Campground will not alter the character of the surrounding area and will not preclude any current uses of surrounding properties.

Neighbors are in accord with the proposed use

Ffynnon principals have met with the immediate neighbors to explain the proposed use and all of them have indicated that they have no concerns. In addition, we have been working with our neighbors over the past several years and have developed open communications so that, should any issues arise, they can be addressed fully and immediately.

To ensure our neighbors are not disturbed, all gatherings will be configured so that there is a quiet zone near the neighbors' properties. We have also worked with them to agree on quiet times on the property. Ffynnon guests will be instructed to adhere to

these agreements, to stay away from neighbors' properties, and not to turn around in neighboring driveways.

Please see Project Narrative for Ffynnon's noise policies and buffering to shield neighbors and maintain good relations.

What's more, the use of the Ffynnon property for outdoor recreation will, in no way, limit the ability of neighboring properties to harvest timber and/or continue any of the current uses of their land. Further, access to the surrounding properties will not be impacted by our proposed use of the property; all event activities happen only on the Ffynnon property.

The property is sufficient for the proposed use as a Private Park and Campground with little additional work

As noted above, there will not be any intensive development at Ffynnon beyond what is proposed in our site plan and supporting documents, and no public services or facilities will be needed. Ffynnon visitors and campers will access the property using private vehicles. We are planning for 30 tent campsites and 10 RV sites. There will be 50 parking spaces for vehicles, sufficient for the planned usage.

No public transportation systems will be used. Public transportation systems and facilities will not be adversely affected by the proposed use.

Please see the Sitemaps, Project Narrative, and additional submitted documents for specific details.

5. Hazards. Does the proposed use create any hazardous conditions such as fire hazards, traffic hazards, slope stability hazards, or use any poisonous materials? Please describe them.

Fire hazards

Ffynnon will follow all campfire restrictions when such restrictions are active. Otherwise, campers will be able to have wood fires only in designated fire pits. These are brick pits with wide clearance from any vegetation; equipment to put out fires are located at each fire pit.

Only cooking stoves with bottled fuels or self-contained propane fire pits are allowed in the camp spaces. No candles or other open flames are allowed.

Traffic hazards

None. The most traffic would occur during the occasional large (under 250 people) gatherings. Arrivals are staggered and Pebble Creek Road will be able to handle this small increase in traffic.

Slope stability hazards

None. The Ffynnon property is not in a flood-hazard area. It is not within the Willamette River Greenway. Camping at Ffynnon would not be allowed in significant resource areas, such as riparian zones, wetlands, or slide-prone areas. Further, Ffynnon will not be disturbing any sloped areas, the designated recreational areas are all relatively flat.

Poisonous materials

None. No hazardous materials will be used and no hazardous conditions will be created by approval of this Conditional Use Permit for a Private Park and Campground.

SUMMARY

We believe the Ffynnon property fulfills the requirements needed to approve this application for a Conditional Use Permit:

- Use as a Private Recreational Park and Campground is one of the appropriate Conditional Uses currently applied to PF-80 zoning.
- The use meets the specific criteria established in the underlying zone.
- Ffynnon property is eminently suitable for the proposed use; see #2 above.
- The proposed use impacts no public transportation systems or facilities; the minimal changes needed to the property are noted in the Project Narrative, Sitemaps, and supporting documents.
- The proposed use will in no way change the character of the surrounding area or preclude the current use of the surrounding properties.
- The proposed use meets the Columbia County Comprehensive Plan's call to diversify the local economy from being primarily logging. Furthermore, it increases

the recreational opportunities for County residents and visitors, and brings more people in to discover beautiful Columbia County.

- The proposed use does not create any hazardous conditions.

Thank you for this opportunity to present our application for a Conditional Use Permit for Ffynnon. We look forward to working with you to help our Columbia County home grow and flourish.

Project Narrative

History

The property at 57009 Pebble Creek Road, which we call “Ffynnon,” was purchased from Kelly Hillyer by Ross Taylor on July 22, 1992. The property was in forest deferral, except for three acres in the southeast corner of the property in pasture.

The County Assessors listed one structure on the property as a “tool shed,” and also a wooden structure which was condemned in 1988, with no “Blt” date given. Both structures deteriorated and collapsed; we removed the debris.

Code Violations Associated with Property: None

There are no current, active, or closed code violations associated with this property that we are aware of.

Property Ownership History

In 2009, Ross Taylor sold the property to Neal Hevel. Neal envisioned Ffynnon as a place where people could come together to celebrate nature as a community. Neal and his spouse, Tasha Danner, invited Michael Agee and Joel Sweet to invest in this vision and the four of them formed The Ffynnon Group LLC.

In 2013, Ffynnon Properties LLC was formed by the members of The Ffynnon Group LLC and Ross Taylor. Ross forgave the outstanding balance on the sale in return for a 20% share in Ffynnon Properties LLC.

Ffynnon achieved 501(c)3 nonprofit corporation status in 2022. The nonprofit assumed the duties and responsibilities of the growing community activities for which Ffynnon was being used, including administering day-to-day activities, community outreach, event planning, and event execution. The nonprofit corporation entered into a Triple Net Lease with Ffynnon Group LLC and Ffynnon Properties LLC with eventual plans for full ownership of the property by the nonprofit when an appropriate arrangement with the owners could be made.

Narrative Details

Project Name

The project name is Ffynnon Private Park and Campground.

Project Location

The proposed Ffynnon Private Park and Campground is located at 57009 Pebble Creek Road, Vernonia, OR 97064. Tax Lot Number: 4400-00-02300.

Project Owner, Developer & Project Manager

The property is owned by Ffynnon Properties LLC. It is being developed by Ffynnon, an Oregon 501(c)3 nonprofit corporation. The Project Manager is Martha Taylor.

Project Support

We contracted with Lancaster Mobley Engineering to assess our site for traffic suitability and have received a Traffic Impact Memorandum, which is provided with this application.

We contracted with Aligned Engineering, LLC to create an engineered stormwater and erosion control plan that addresses how stormwater and drainage will be handled on the property; and what vegetation will need to be removed to accommodate the parking on the property. In addition, Aligned has reviewed the Ffynnon Site Plan for code compliance, provided comments, and summary; included with this application.

Our application is for a primitive campground with 30 tent spaces and 10 vehicle spaces, requiring minimal changes to the property beyond meeting the requirements for Recreational Parks and Organizational Campgrounds in OAR Chapter 918 Division 650 and the stormwater/drainage requirements to support our campsites, driveway, and parking.

With the approval of this application, we will contract with any additional local contractors needed to complete the projects described in this application in a timely manner with all appropriate permits and licenses.

Project Goal

The project's goal is to create a Private Park and Campground on the property.

Project Details & Benefits

Creating more recreational space in Columbia County

Columbia County has identified the need to create additional recreational areas in the County. As a Private Park and Campground, the Ffynnon property would provide such additional outdoor recreational areas as well as opportunities for families with children to enjoy the beauties of nature.

As its guests, Ffynnon would welcome County residents as well as drawing visitors from the larger metro area. Many of these visitors will bring additional income to County businesses during their stay, purchasing food and gas in Vernonia and visiting local restaurants. To make these recreational areas available to a wide spectrum of visitors, Ffynnon has established reasonable fees for overnight camping and gatherings as well as free day-only events for members.

Land use, recreation areas & campers on property

Visits to Ffynnon will be seasonal, with more in the summer months and almost none in the winter months. Land would be used for low-impact, casual recreation: camping, picnicking, walking, and simply enjoying the out-of-doors. Both day-use only and overnight-camping use are planned.

Please see **Site Plan Inset 1** for designated recreation areas; these are marked as Recreation Park on the inset. Camping spaces and portable toilets are provided as well as trails leading to the fire pits. As Ffynnon would be a primitive camp, no other amenities or activities are included.

Except for event weeks, on average, from 20 to 100 people would be on the property in any given month for day use. During event weeks—which would happen three times per year and include overnight camping—would average from 125-250 people. These events would take place in the Recreation Park areas marked on **Site Plan Inset 1**. Each event lasts no more than four days. Campers may stay no more than one week.

In addition, Ffynnon also works to conserve and clean-up the land, which was formerly

used as a private dump. We work to preserve the forest for plant and wildlife habitat in addition to recreational uses.

Lot size, shape, location

The 51.7-acre Ffynnon property is extremely well suited for use as a Private Park and Campground. The property is 3.02 miles from the Vernonia Urban Growth Boundary, following East Alder St. as shown on page 14. The code section does not specify road mileage but a similar code section (OAR 660.22) does and we request that this method be used in determining the location viability of this project.

Compatible with neighboring properties

Like Ffynnon, the properties that surround Ffynnon are zoned PF-80. The neighbor to the north owns forested acreage of similar size to Ffynnon and uses it to grow grass and run his cattle. To the west, there are 250 acres of managed timber/forest land. Across the road to the east is one single-family home on large acreage. Its owner also owns the lot to the southeast which is undeveloped and serves as a woodlot.

Compatible with Columbia County Comprehensive Plan

Ffynnon's proposed use is in harmony with the County's Comprehensive Plan to diversify from a logging-only economy, and is in accord with the Plan's stated description of uses for forest lands other than logging.

See APPENDIX 1 for detailed information about how Ffynnon fully supports the Columbia County Comprehensive Plan.

Compatible with nature and low-impact outdoor use

As a Private Park and Campground, Ffynnon would continue to be forested and relatively undeveloped. We would continue to conserve and improve the land and its health.

Ffynnon will *not* include intensively developed recreational uses such as swimming pools, tennis courts, retail stores, or gas stations. We understand that it is the County's goal to limit new development requiring public facilities such as water and sewer, arterial street systems, or urban level protection from a fire protection district.

Instead, those who come to enjoy Ffynnon will discover the beauty of Columbia County and the opportunities available here. We can anticipate that this will, in turn, lead to additional visits to and further exploration of the County.

The Ffynnon Private Park and Campground will not alter the character of the surrounding area and will not preclude any current uses of surrounding properties.

Neighbors are in accord

Ffynnon principals have met with the immediate neighbors to explain the project and all of them have stated that they have no concerns. In addition, we have been working with our neighbors over the past several years and have developed open communications so that, should any issues arise, they can be addressed fully and immediately.

To ensure our neighbors are not disturbed, all gatherings will be configured so that there is a quiet zone near the neighbors' properties. We have also worked with them to agree on quiet times on the property, reflected in the hours noted below in our guest rules and Noise Policies. Ffynnon guests will be instructed to adhere to these agreements, to stay away from neighbors' properties, and not to turn around in neighboring driveways.

All campsites and recreational areas are designated as quiet zones by 10 pm every day. There is one area that is an exception, which is in effect only during events: the fire pit near the seasonal pond. During events, this specific fire pit—because it is deep in the property and is the furthest away from any neighbor—is designated as a quiet zone by 11 pm on Thursdays during events and by 1 am on Fridays and Saturdays during events.

During events, there will be a Camp Host on-site and will ensure that these quiet times are respected by everyone on the property. Ffynnon Camp Hosts will be on-site during all events. There may be Ffynnon personnel on site at other times to monitor the property.

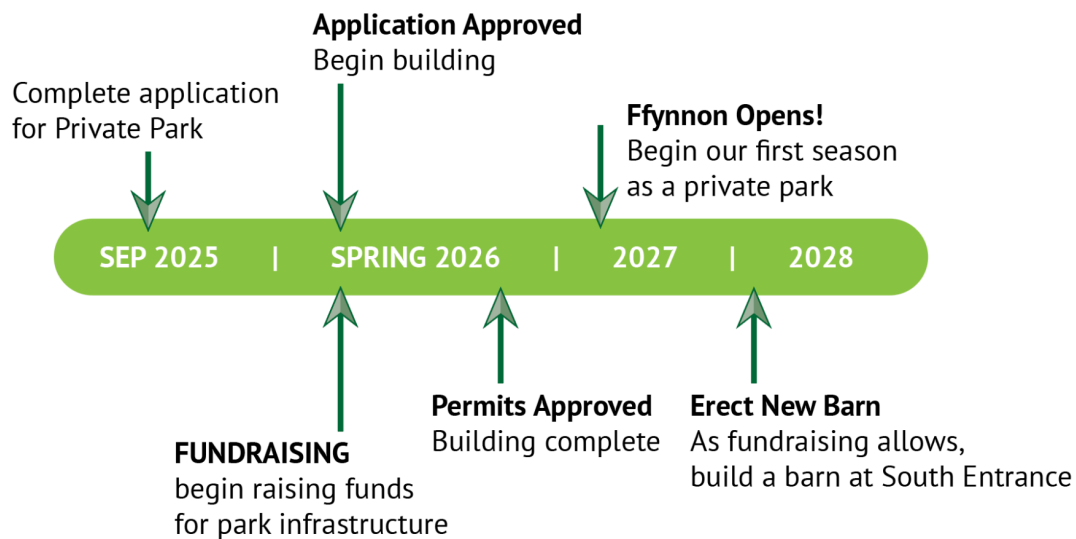
The use of the Ffynnon property for outdoor recreation will in no way limit the ability of neighboring properties to harvest timber and/or continue any of the current uses of their land. Further, access to the surrounding properties will not be impacted by our proposed use of the property; all event activities happen only on the Ffynnon property.

Utility Easements on the Property

The northern parking area, detention pond for the northern parking area, and 2 rain gardens will be located within West Oregon Electric Company's 50 ft. wide power line easement. Please see documentation from WOEC confirming that the proposed use is permitted by the easement. They will send this letter separately.

The utility structure identified on the Site Plan is not owned by Ffynnon Properties LLC. It is owned by a fiber optic company and is not a part of the Ffynnon Private Park and Campground project.

Project Timeline



With our anticipated approval in the Spring of 2026, we will begin building out the infrastructure to achieve our primary objective of establishing the Ffynnon Private Park and Campground. Our goal is to complete the necessary work and have our inspections and permits approved by the end of 2026, and be ready to officially open back up for the 2027 season.

Additionally, when we have raised enough funds, we will submit a new building site plan to erect a storage barn at the South Entrance (as designated on **Site Plan Inset 1**).

Achieve Conditional Use Permit from Columbia County

As part of our Conditional Use permit application, the following requirements will be completed:

- All campsites staked and labeled as shown on Site Plan Inset 1
- North and South Gate entrances to the property and driveways are improved as specified on Site Plan Inset 1
- Park driveways are improved and built to code, allowing vehicle and emergency access to all areas and provide loading/unloading locations
- Sitelines at both entrances cleared to code and approved by Columbia County
- Garbage/compost and recycling bins are located as indicated on Site Plan Inset 1 map, page 10.
- All necessary inspections/approvals of the recreation areas are made

Landscaping; minimal changes

Ffynnon is a large forested property that is home to many species of flora and fauna. One of our main goals is to help restore and steward our forest with minimal impact by human use on the land.

- The Site Plan Inset 1 on page 9 has minimal changes and additions to the property's existing landscaping
- Some small trees and foliage will be removed at the North and South Gates to provide the required sight-line distances
- Some trees will be removed (see storm plan) to provide for the North Gate parking area

Landscaping, buffering & screening mechanisms at outdoor gathering/recreation areas

- All outdoor gathering and recreation areas are located well away from Pebble Creek Road and all adjacent property lines. Thus, Pebble Creek Road and all

property lines are fully buffered by significantly more than the 10 feet width required by Section 1562 of the Zoning Ordinance.

- Existing trees, shrubs, and other foliage on the land exceed the minimum requirements for vegetation in buffer zones as stated in Section 1562, B-4. These existing conditions indicate that no additional screening or fencing is required as noted in Section 1562.
- Unless instructed by Columbia County, no additional work is required for buffering or screening.

Access, roads & parking

- There are two access points from Pebble Creek Road: North Gate and South Gate on Site Plan Inset 1. We have applied for Road Access Permits as part of our Conditional Use Permit Application. Those permit numbers are 2024-010, 2024-015, and 2024-016.
- The South Gate access point is a short gravel driveway that leads to the proposed barn past a loading zone and parking. At the barn location is a large pull in and turn about area.
- For the 10 vehicle spaces located along the drive, guests will be able to drive to their campsite and park their car at the sites as indicated on **Site Plan Inset 1**.
- Guests may also use the South Gate access point to drive in, drop off their items at the camp, then park in either of our two parking locations. The driveway will be gravel, 12 feet wide and 520 feet long, with a three-point turnaround area at its terminus and an unloading/turnabout area just past the midpoint.
- There will be 50 parking spaces as shown in **Site Plan Inset 2**. The parking area alley is over 20 feet wide.
- Guests parking at the South parking area will be able to walk the main driveway and extended walking paths to the camp areas.
- Guests parking at the North parking area can take the short walking path directly to the camp areas.

Onsite signage for park rules, information & guest navigation

Please see APPENDIX 2 for complete information on our onsite signage. Please also see **Site Plan Tent/RV Campsites—Details South Area** and **Site Plan Tent/RV Campsites—Details North Area** for sign locations in the park.

Camping sites & RV sites

Camp sites are numbered 1 - 30 for tent sites and V1 - V10 for vehicle/RV sites, **See Site Plan Tent/RV Campsites—Details North Area** and **Site Plan Tent/RV Campsites—Details South Area**. We will offer limited vehicle and RV camping in 10 sites that are adjacent to the driveways. Waste dumping, hookups, or other amenities of any sort are not available at Ffynnon.

Fire management

Fire use on the property is allowed only in our designated fire pits; shown on **Site Plan Inset 1** and **Detail** maps designated below. These fire pits meet OAR standards and are Fire Marshall-approved. Guests may bring and use their own propane fire pits unless the County has declared a fire state of emergency.

Fire extinguishing tools are located at each fire pit, including a shovel and bucket of sand. These are marked on **Site Plan Tent/RV Campsites—Details North Area** and **Site Plan Tent/RV Campsites—Details South Area**.

Ffynnon strictly obeys all posted fire regulations.

Restrooms

Restroom facilities are one ADA and six standard portable toilets; locations shown on **Site Plan Inset 1** and **Site Plan Tent/RV Campsites—Details North Area** and **Site Plan Tent/RV Campsites—Details South Area**. Ffynnon also orders additional toilets as required by the needs of any individual event. We contract with Oregon Portable Toilets, LLC for daily pumping during events, in accordance with guidelines provided by the Columbia County Sanitation Department.

Lighting

During events, for safety and easy guest access, lighting will be provided along the

trails to the main fire pits as well as in the parking areas. As there is no electricity on the property, this lighting will be provided by battery powered or solar lights that are taken up and recharged/replaced each day of the event to provide lighting during the evening and night.

These LED lights are low to the ground and illuminate the path only, ensuring guests can easily follow pathways in the parking lots and on the trails. The lighting will be completely unobtrusive and unseen from the Pebble Creek Road and neighboring properties.

Small LED lights will also illuminate key trail signs, signs at the information kiosk, and safety-information signs.

During events, portable toilets are provided with battery-powered LED lighting inside each toilet. No other lighting is provided, but guests are encouraged to bring their own illumination, from flashlights to solar- or battery-powered lights for their campsites. Please see Suggestions for What to Bring in guest rules and regulations below.

Garbage & recycling

Garbage containers will be provided at a rate of one 30-gallon container for each 20 occupants per campground specifications. **See Site Plan Tent/RV Campsites—Details North Area** and **Site Plan Tent/RV Campsites—Details South Area** for locations on property. Ffynnon guests also pack-in/pack-out their personal garbage. Ffynnon will provide limited recycling of cans and bottles.

Potable water

There is no potable water on site; guests will be responsible for bringing their own water as needed for their own comfort and safety. Should it be needed for any given event, Ffynnon could bring in a potable water tank for guests to use.

Potential noise sources

Up to 250 guests may attend our several large, overnight events each year. Outside of those events, the day-only gatherings might be from 20-100 people. All events would occur in the areas marked recreation park on **Site Plan Inset 1**, and on **Site Plan Tent/RV Campsites—Details North Area**, and **Site Plan Tent/RV Campsites—Details South Area**, as well as at the main fire pits marked on these

same maps.

Types of events & activities, in relation to noise

The larger yearly events are held to celebrate the seasons (e.g. spring, summer, and fall) and might include community gatherings, picnics, camping, ceremony, as well as singing, dancing, and drumming. Smaller yearly events may, but won't always, include gathering, picnicking, camping, and ceremony. At these events, children's activities are often included, such as an egg hunt in the spring, crafting, and games. Ffynnon would also welcome weddings, life milestone celebrations, and other group camping events.

In addition to the above activities, guests can hike the trails, birdwatch, stargaze, or simply enjoy being outdoors and among friends, new or old. No food is prepared or served onsite by Ffynnon. Guests bring their own food to prepare and eat at their campsites as at any overnight camp.

Outside of the singing, dancing, and drumming noted above, none of these activities are noise intensive.

Sound & noise considerations

All campsites and recreational areas are designated as quiet zones by 10 pm every day. One area is an exception, **but only during the larger seasonal events**. *During these events only*, fire pit B—which is located deep in the property and is the furthest away from any neighbor—is designated as a quiet zone after 11 pm on Thursdays during events and by 1 am on Fridays and Saturdays during events.

During these events, there will be a Camp Host on-site to ensure these quiet times are respected by everyone on the property.

No amplified music is allowed, except by prior arrangement with Ffynnon. Unamplified music is allowed only in the recreation areas and main fire pits. Guests must adhere to Ffynnon quiet times, per our Noise Policies, noted above and below in the guest rules and regulations. Guests who do not adhere to these policies will be asked to leave the property. See Noise Policies below.

Walkways & vehicular access

The recreation areas and main fire pits are mainly accessible by footpath. Ffynnon may

provide access by golf cart for mobility-challenged guests to be able to access the fire pits. Vehicles are only allowed in RV spaces and on entry roads and in loading/unloading areas. Main fire pits and recreation areas are not accessed by vehicle.

Guest Experience: Ffynnon Events: “A Day in the Life”

Introduction

Ffynnon plans to host three larger, overnight camping events during the year. It might also host from 3 to 4 smaller, day-only events, as well as work parties for community members who wish to help steward the health and beauty of the land. In general, Ffynnon events are themed and relate to the natural changes of the year, such as celebrations of the turning of the seasons, as well as mythology from around the world.

As a private park, Ffynnon would also be available for events such as outdoor weddings, anniversaries, and birthday or other celebrations.

Ffynnon-sponsored events usually include both scheduled activities and free time. We believe that the free time is important so that campers have the opportunity not only to relax and socialize with each other, but also to walk the trails and enjoy the natural beauty Ffynnon has to offer.

While each Ffynnon event is different, depending on the time of year and specific theme, the following provides a general outline of the kind of schedule and activities that are typically offered to attendees.

General Schedule Overview

For our examples, we'll describe one larger, 4-day event and one day-only event.

4-Day festival event

Thursday—arrivals and opening ceremonies

Attendees begin arriving in the afternoon, late afternoon, or early evening—depending on their individual schedules. They will be able to unload their camping equipment closer to the campsites and use their own or Ffynnon-provided carts to move their equipment to their camping sites. Once unloaded, campers must park their cars in the

parking lot. Those with RVs must park in the designated spaces.

The afternoon is open time so that campers can set up camp as well as greeting friends, old and new.

In the early evening, before sunset, we would have opening ceremonies to welcome everyone to the festival and introduce the festival theme.

Friday—workshops related to the festival theme

For early risers, there may be a morning meditation or an easy yoga session so folks can stretch and get ready for the day.

Mid-morning, there will be a Community Meeting to let everyone know the schedule for the day, as well as to reiterate any park safety rules and answer any questions attendees might have.

Following lunchtime, there are one to three talks/workshops related to the event theme. For example, if our theme is myth-related, attendees will be able to learn about the myth, the culture it comes from, and how it is related to the activities of the event.

Workshops could include anything from drumming to crafting sessions for our younger attendees. (All children must be under the supervision of their parents/guardians at all times.)

Late afternoon and evening are usually free times for resting, enjoying nature, and socializing. On Fridays, attendees eat dinner when and as they wish, either in their own camps or in larger groups with other attendees.

On Friday night, we gather at Fire pit B (the area furthest from any neighbors) for drumming and dancing. There is a designated fire-tender for safety and all attendees must abide by the noise rules for quiet times. Music is not amplified.

Saturday—additional talks/workshops, main ceremonies

Saturday morning would include similar meditation or yoga for early risers, similar to Friday, as well as the Community Meeting to go over the day's schedule, any announcements, and to answer any questions.

Before and after lunchtime, there would be additional talks/workshops on the theme, as

well as children's activities.

On Saturday, we may have a Community Picnic for the evening meal. Everyone brings their food to a central area where attendees can together enjoy good food, good friends, and good fellowship as they dine.

Following the meal, there would be a break as people prepare for the main ceremonies. Depending on the theme and time of year, this might include (for example) an enactment of a mythic theme, giving thanks for a fine harvest (literal or symbolic), or honoring our ancestors.

On Saturday night, we join again at Fire pit B for drumming and dancing. There is a designated fire-tender for safety and all attendees must abide by the noise rules for quiet times. As noted, music is not amplified.

Sunday—closing ceremonies, clean-up, departure

On Sunday, about mid-morning, would be the last Community Meeting of the event with any final information for attendees about the day's schedule. Again, Ffynnon personnel would be available to answer any questions people may have.

About noon or just before, attendees would be called to the closing ceremonies. We would give thanks and perform ceremonies to officially "close" the event. After this, people will start to break down their campsites, clean up, and take their leave. Ffynnon personnel follow up after the event to make sure the site is secured and everything is put away properly and safely.

Day-only event

Day-only events generally last from just a few hours to up to half a day. Such events usually celebrate the turning of the seasons. For example, for the Spring Equinox, we might have a ceremony to welcome-in the spring, then we might have a visit from the March Hare and an egg hunt for the kids. Following the egg hunt, snacks, tea, coffee, and soft drinks would be available for people to enjoy as they socialize with each other until they take their leave.

Guest rules & regulations while at Ffynnon

Following are the Ffynnon rules & regulations that are provided to each guest during an event and to which they must agree:

Welcome to Ffynnon

We are glad you are here!

For the safety and enjoyment of you and others during your stay, please read and abide by the following:

SAFETY

- All guests on property must be registered for the event and sign a liability.
- In an emergency, call 911. The cell signal is strongest near the entrance.

First aid—Groups and individuals must come prepared for their own first aid needs. Hornets, bees, wasps, and ants are common. Please bring your own Benadryl and an epi pen if you are allergic to bites or stings. There are limited first aid items available and an AED in the kiosk for critical heart care emergencies, however we are not responsible for administering first aid or the AED.

BE NEIGHBORLY

- We have a good relationship with our neighbors and want to keep it that way.
- Please obey all No Trespassing signs, as the house on the hill and the surrounding area is strictly private.
- Do not go to the house across the road for any reason or use their driveway as a turnaround. They respect our privacy and use, and we respect their desire to not be impacted by us or our guests.
- Ffynnon has important noise agreements with its neighbors. Everyone visiting Ffynnon must agree and adhere to the Quiet Times and Quiet Areas listed under the Noise Policy below.

NOISE POLICIES

- Quiet areas—all areas must be quiet starting at 10 pm every night, except the Fire Pit near the Seasonal Pond during events.
- During events, this Fire Pit is available for celebration (dancing, drumming, singing) until 11 pm on Thursdays and until 1 am Friday and Saturday. Musical instruments are acoustic only; no drum kits or amplified sound are allowed except by prearrangement with Ffynnon.
- Vocal volume (loud conversations, screaming, howling, etc.)—Remember that tents are made of nylon and are in no way soundproof. Be respectful of your neighbors at all times; sound carries and not everyone has consented to your personal experience.
- By being at Ffynnon you are agreeing to abide by this policy. If you need to scream it out, please do this on top of a mountain, at the ocean, anywhere but Ffynnon—unless approved by prior arrangement with Ffynnon.
- Thank you for understanding the importance of these policies toward our continuing good relationship with our neighbors. Please continue to enjoy Ffynnon with friendship, spirit, and community.

ANIMALS ON PROPERTY

- No pets are allowed at Ffynnon. In keeping with the Americans with Disabilities Act and Oregon State Law, only trained service animals are allowed at Ffynnon when accompanying persons with disabilities. Other animals are not allowed. Keeping an animal in your car is not allowed.
- PLEASE NOTE: A service animal is defined as an animal that is trained to do work or perform tasks for the benefit of an individual with a disability (providing emotional support or deterring crime are NOT considered qualified tasks). Service animals must be on a maximum 9' leash at all times, stay with the owner, wear identifying tags, collars, or vests, and be cared for and cleaned up after solely by the owner or a designated assistant.
- Ffynnon reserves the right, at any time, to ask the owner to leave an event and the property if the service animal is causing a disturbance, is off-leash, or becomes a threat to the health, safety, or enjoyment of other guests or staff. The individual may return to Ffynnon without the service animal if desired.

BEHAVIOR

- Nudity—Is not allowed near the entrances, parking areas or anywhere visible by the public from the road. Each individual group is responsible for setting boundaries during their event, as necessary.
- Drugs and alcohol—Illegal drugs are prohibited. Ffynnon does not serve alcohol. Alcohol may be consumed by adults 21 years and older.
- Intoxication—Being intoxicated and causing a disturbance is unacceptable. If an individual becomes a nuisance or threat to the health, safety, or enjoyment of other guests or staff, they will be required to immediately stop consuming. Failure to reasonably manage a disruptive individual may result in that individual being required to leave, and the individual may be banned from future events at the property, at Ffynnon's discretion.

FIRE

- Fires are permitted only in designated areas as shown on the map. Please obey all posted public fire hazard notices.
- Firewood—There is plenty of firewood available at the Fire Pits. Please do not bring your own firewood as this can introduce diseases into our forest's biome. Feel free to bring fire starters or use downed branches for kindling. Please do not cut any trees or branches for extra firewood.
- If local fire danger is "HIGH - Level 3" there will be no open fires allowed on site, including charcoal briquettes. Power tools will also be prohibited.
- Propane stoves are allowed, only on a table, dirt, or other non-flammable surface.
- No unattended open flames (including candles or incense) of any kind are allowed on the property and will be extinguished. Attended fire such as candles and incense must be contained in glass or metal.
- In case of an emergency, use the non-potable water in barrels, the 5 gallon buckets

and/or the fire extinguishers at each fire ring and call the Fire Department, as needed.

PARKING & VEHICLES

- Park only in the designated parking areas, as shown on the map, or as indicated by signs.
- Do not drive or park in the meadow areas, as this will damage fragile ecosystems.
- RV and vehicle camping are allowed only in the designated camp sites labeled V1 - V12.

SMOKING

- Smoking is allowed ONLY in designated areas. Smoking on trails or down by the road at the entrances to Ffynnon is not allowed.
- Butts must be extinguished in metal or glass containers and NOT on the ground or in fire rings.
- Empty and clean all butt receptacles before departure.
- Self-extinguishing lighters are the only sources of ignition allowed at Ffynnon. High temperature torches or matches are prohibited.

GARBAGE, RECYCLING, & COMPOST MANAGEMENT

- While garbage containers are placed throughout Ffynnon, we also request that you collect and remove your own garbage during and after your stay.
- Compost—One compost bin is provided for use during events.
- Tossing compost into the woods, burying, or burning trash is ABSOLUTELY not allowed.

POTABLE WATER

Water is not available on the property. Guests must bring in all water they will need for their intended stay.

TRAILS & WALKING THE PROPERTY

- Stay on cleared and marked trails at all times.
- Carry a flashlight or headlamp at all times, especially if walking trails after dusk.
- Do not leave the property using side trails or horse paths.
- Please refer to the trail guide and maps. Getting lost in the woods isn't fun and our property abuts large, unmonitored tracts of forest land.
- Tell someone where you are going and when to expect your return.
- Wear shoes at all times: Bramble and wild rose grow freely at Ffynnon, often low to the ground. Occasionally glass or other sharp materials come to the surface.
- Plants—Do not collect forest materials during your stay. We require "do no harm/leave no trace" respect from our guests. Take only pictures, leave only footprints.
- Wildlife—Respect the local wildlife. These creatures are wild and not safe to approach. Do not feed the animals or leave food out at your campsites.
- DO NOT CLIMB TREES FOR ANY REASON.
- Damage and alterations—No alterations to Ffynnon property are allowed without prior approval. Damage to property and all repair or replacement costs are the responsibility of those who caused the damage.

SUGGESTIONS FOR WHAT TO BRING

- Remember that Ffynnon is a primitive campground and private park. No water or electricity is available.
- Flashlight, extra batteries and camp lighting
- Solar lights
- Tent and tarp (there is dew year round at Ffynnon)
- Sleeping bag/sleeping pad/air mattress/bedding
- Food—stored in cooler and/or animal proof containers
- Camp stove and propane, dish bin, cookware, utensils, plates, etc.
- Extra water, in case of an emergency
- Warm clothes, as it does cool down at night
- Boots or sturdy shoes for walking
- Sandals for camp
- Sun hat, sunscreen
- Bug spray
- Reusable water bottles and containers; please help us stay green and avoid disposable plastic water bottles
- Non-toxic, environmentally friendly soaps for camp cleanup
- Shade canopies and/or rain tarps
- Camp chairs/tables
- First Aid Kit and any medications you may require
- Epi pen or other personal allergy medication or care supplies

Thank you for joining us in respecting the land of Ffynnon and each other.

WE HOPE YOU HAVE A WONDERFUL STAY AT FFYNNON

Concluding Statement

Thank you for this opportunity to present our application for the Ffynnon Private Park and Campground. We look forward to working with you to help our Columbia County home grow and flourish.

Site Design Review

3. Existing Site Plan:

Vicinity Map

- Page 1 - The Vicinity Map shows the site in relation to the nearest town of Vernonia, Pebble Creek Road and how it is situated between Swamp Creek and Pebble Creek.
- Page 2 of the Vicinity Map zooms in showing the relationship to the two streams and Pebble Creek Road.

Tax Assessor's Map

- Page 3 - Tax Assessor's Map shows the adjacent and extended properties to the site.

Detailed Site Plan

- Page 4 - The Detailed Site Terrain is included to provide an overhead view of the Park site's (outlined in white) terrain, showing the forested areas and meadows in the SE corner.
- Page 5 Overview map of the Detailed Site Plan
- Page 6 - Detail Inset 1 shows the site as it exists today displaying current features both natural and manmade:
 - Existing trails
 - Existing entrances and drives
 - Existing approved fire pits
 - Location of the ravine and seasonal stream
 - Power line easement area along the road
- Page 7 - Overview map of the Detailed Topography showing the contour lines of the site
- Page 8 - Detail Topography of the site

4. Proposed Site Plan: Please show a site plan with proposed structures and improvements as they will appear after the project is complete

The Proposed Site Plan

The Proposed Site Plan map on page 8 shows the 57009 property outlined in blue which is the proposed Park site. The green zones are where we propose to designate as Recreational Park areas.

Page 10 - Site Plan Inset 1

Site Plan Inset 1 shows our current layout and overview for our proposed recreational areas with camping spaces.

Pages 12-13 - Plan Tent/RV Campsites—Details

Pages 12 and 13, Site Plan Tent/RV Campsites—Details South Area and Site Plan Tent/RV Campsites—Details North Area show the full detailed site plan:

- The steps to confirmation of our Conditional Use permit pending inspection/approval of our recreational areas:
 - All campsites are staked and labeled
 - North gate and south gate entrances to the park are improved as shown in Details South Area and Details North Area
 - Sitelines at both entrances are cleared to required code and approved by the county
 - Gates at North and South entrances are replaced
 - Garbage/compost and recycling bins are located as indicated
 - All necessary inspections and approvals of the recreation areas are made
 - South Gate serves as the main entrance for events
 - Extended driveway and turnabouts as located
 - Parking for up to 50 vehicles
 - A future barn site is designated at the South Gate. Engineered construction site plans of what we intend to build are included (see [Barn-20x30-tall-green.pdf](#))

Page 11 - Site Plan Inset 2 - Parking Plan and Traffic flow

- Adding new parking area at the north gate
 - close proximity to the road
 - parking works well with the power line easement as an area that needs to be kept clear, free of trees and hazards.
 - WOEC approves of the plan
 - provides enough spaces to accommodate parking for Ffynnon's events
- Adding new parking area and loading zone at south gate
 - provide easy access for loading
 - turnabout areas for Fire department
- Locating the site for a barn/storage building near the entrance at a future date (TBD)

5. Grading Plan:

Our proposed site plan does not include building of any structures or any changes to boundaries or the topography of the site.

Our proposed site plan includes upgrading the existing driveways, adding two parking locations and a location for a future barn.

- For elevation topography, please refer to Page 6.
- No potential or existing unstable slopes
- No wetland areas are impacted

Refer to Pages 12-13 Site Plan Tent/RV Campsites—Details South Area and Site Plan Tent/RV Campsites—Details North Area for detailed maps of all existing site features.

Our proposed site plan includes gravel parking areas, expanded gravel driveways with turnabouts and access for each vehicle camp site. Each vehicle site has direct access to the main driveway. These additions will be done by professional contractors, filing all necessary permits and fees.

6. Drainage Plan: Please include the following if applicable:

The purpose and intent of our drainage plan is to show existing water flow and drainage in the recreational areas.

- Water features are marked on the site maps, showing the seasonal stream that runs through the ravine down the center of the property.
- Page 6 - The Detailed Topography shows the current stormwater flow, and how water drains throughout the property.
- Drainage and water flow on the site is seasonal, drying up in the spring and not active again till late fall when the rains become active again.
- The stream is also seasonal, drying out in early summer.

Refer to Ffynnon Park and Camp - Storm Improvements Plans - 2024-12-18, Ffynnon Park Storm Drainage Report - SAP and Ffynnon Park Storm Drainage Report - NAP for complete details of the drainage plan.

8. Landscape Plan: Please include the following if applicable:

This is a large forested property with many species of flora and fauna along with wildlife. Our goals as a community organization are to provide a natural private park setting for guests while continuing to restore and steward our forest with as minimal impact as possible.

- The proposed site plan does not include any changes or additions to the properties existing landscaping, we intend to maintain its natural beauty.

- To complete the Site Plan, some trees and foliage will be removed at the north parking area
- Please refer to Page 4 with the Detailed Terrain Map for a current topographical view of the terrain.

Refer to page 6 - Detailed Inset 1 to view existing natural and manmade features, including trails and streams.

11. Access, Parking & Circulation Plan:

Page 10 - Site Plan Inset 2 - Parking Plan & Traffic Flow and Site Plan Tent/RV Campsites—Details South Area and Site Plan Tent/RV Campsites—Details North Area

The Park has 2 access points at the North Gate and South Gate locations. The South Gate serves as the primary entrance for events.

- The driveway and parking surfaces are gravel:
 - Entrances are 20' wide
 - Main Driveways are 20' wide
 - South Gate driveway has a large turnabout
- Parking Plan shows the following:
 - North Gate parking area approx 50000 sq/ft showing 40 spaces
 - South Gate parking area showing 10 spaces
 - space size of 10' x 20' with 5' adjacent isle
 - two rows of perpendicular parking with an aisle width of 20-24"
 - Directional flow of traffic is indicated by green arrows
- Access and right of ways are labeled
 - South gate with full sight line left/right
 - North gate with a limited right side sightline due to road curvature shows right turn only on exit
- Sight distances for South Gate are clear
- Sight distances for North gate are clear to the left and partial to the right resulting in limited visibility of oncoming traffic. This exit will have a right turn only.
- Please refer to the Traffic Impact Memorandum for further details
- County Road Access permits have been applied for and issued with a few conditions for improvements to the north and south gate access points
- Local Fire Department Access/Driveway permit has been issued

12. Impact Assessment:

Please refer to the included **Traffic Impact Memorandum** for the impact assessment.

14. Stormwater & Erosion Control Planning:

Our proposed site plan does not include any changes or additions to the property that would alter or affect the current stormwater flow or effect erosion control. We do not have any alterations to the existing topography. Our current stormwater and erosion control efforts are one of stewardship and preservation of the natural landscape.

- Water features are marked on the site maps, showing the seasonal stream that runs through the ravine down the center of the property.
- Page 6 - The Detailed Topography shows the current stormwater flow, and how water drains throughout the property.

Refer to Ffynnon Park and Camp - Storm Improvements Plans - 2024-12-18, Ffynnon Park Storm Drainage Report - SAP and Ffynnon Park Storm Drainage Report - NAP for complete details of the drainage plan.

15. List any current, active or closed code violations (local, state or federal, building, planning, wetlands, etc.) code violations on the subject property.

There are no current, active or closed code violations that we know of on the property.

Page 11 - Urban Growth Boundary

The Urban Growth Boundary map shows the Park sites proximity to the nearest UGB zones and the distance between.

Appendix:

Ffynnon's Proposed Use as Private Park & Campground Strongly Supports the Columbia County Comprehensive Plan

Introduction

In the Columbia County Land Development Services' letter of July 10, 2024, the Department requested additional information regarding how the proposed use supports the Goals and Policies of the Columbia County Comprehensive Plan (request # 6 in the letter).

In reviewing the Comprehensive Plan (accessed on the County's website at: <https://www.columbiacountyor.gov/departments/LandDevelopment/Planning>), other than the five Parts specifically called out in the July 10 letter, there were no additional Parts that seemed applicable to Ffynnon and its proposed use as a Private Park & Campground.

This Appendix addresses those five Parts. Please let us know if there any additional Parts that should be addressed.

Part II: Citizen Involvement

The County's Citizen Involvement Goals are, broadly, to ensure citizens are well informed regarding County planning and initiatives and to encourage citizen participation in providing input. The Columbia County Comprehensive Plan and the County address these Goals by maintaining and executing a Public Participation Plan that provides a framework for public information distribution, public notice, and citizen input on key comprehensive planning decisions.

- As a Private Park & Campground, Ffynnon will be able to participate in County initiatives and public meetings/hearings as needed in order to meet County Goals and Policies.
- To keep the public informed, Ffynnon maintains a public website, as well as social media and other communication channels to keep citizens—within Columbia County and without— informed of Ffynnon activities and planning.

Part IV: Forest Lands

Columbia County's Comprehensive Plan defines forest lands in Columbia County as:

1. Those lands composed of existing and potential forest lands that are suitable for commercial production;
2. Other forest lands needed for watershed protection, wildlife and fisheries habitat, and recreation;
3. Lands where extreme conditions of climate, soil, and topography require the maintenance of vegetative cover irrespective of use; and
4. Other forested lands in urban and agricultural areas that provide urban buffers, wind breaks, wildlife and fisheries habitat, livestock habitat, scenic corridors and recreational use.

- As a Private Park & Campground, Ffynnon's forest lands precisely fit definitions 2 and 4 above. Ffynnon will provide additional recreational space and will adhere to only compatible recreational use in support of the Comprehensive Plan.

Ffynnon is in full alignment with the County's main Forest Lands Goal: *To conserve forest lands for forest uses.*

In Ffynnon's case, these uses are recreational and thus are among the listed compatible forest land uses. Ffynnon is also aligned with the following Comprehensive Plan Forest Lands Policies, which apply to the Ffynnon property:

- **1I: Compatible recreational activities—**
 - Ffynnon will offer camping and the ability to enjoy being in nature.
- **2A: Designate 2 forest zones—**
 - Ffynnon is zoned PF-80, one of the two forest zones.
- **3A: Designate as Primary Forest those lands that are in industrial, private non-industrial and public ownerships—**
 - Ffynnon is privately owned and non-industrial.
- **3C: Designate as Primary Forest those lands that are in areas where parcels average 38 acres or more—**
 - Ffynnon is located in an area where parcels average 38 or more acres.
- **3G: Designate as Primary Forest lands those that do not generally require an on-site caretaker to effectively manage the resource—**
 - Ffynnon will not require an on-site caretaker, except during thrice-yearly events. During events, Ffynnon personnel are on-site to supervise and address participant needs.
- **5: Limit the creation of parcels or lots for non-forest uses—**
 - Ffynnon is an existing property and is not used for non-forest uses.
- **7: Limit dwellings—**
 - No new dwelling is being built on the Ffynnon property as part of this application.

Part X: Economy

As a Private Park & Campground, Ffynnon will contribute to the economy of Columbia County. Ffynnon supports the Economic Goals and Policies of the Comprehensive Plan that apply to the Ffynnon property in these ways:

- **Economic Goal 1:** *strengthen and diversify the economy of Columbia County and ensure stable economic growth—*
 - Ffynnon represents a diversification from the main logging economy by utilizing forest lands for compatible outdoor recreation.
- **Economic Goal 2:** *utilize Columbia County’s natural resources and advantages for expanding and diversifying the economic base—*
 - Ffynnon employs the natural beauty of Columbia County to bring new visitors to the area and utilizes its Primary Forest lands for recreation, such as camping and outdoor enjoyment.
 - As a Private Park & Campground, Ffynnon will further expand and diversify the economic base of Columbia County.
- **Economic Policy 9:** *Encourage the trade and service sectors and the recreation industry to insure greater revenue spending locally:*
 - Ffynnon’s seasonal events will bring hundreds of visitors to Columbia County, at least three times each year. Visitors regularly visit local stores, gas stations, restaurants, and even overnight accommodations when visiting Ffynnon, thus contributing to the local Vernonia-area economy.
 - In addition, visiting Ffynnon exposes a wider audience to the opportunities of Columbia County, encouraging additional visits. As a Private Park & Campground, Ffynnon is part of the recreation industry that Columbia County’s Policy 9 wishes to encourage.

Part XIV: Public Facilities and Services

The Columbia County Comprehensive Plan addresses the following Public Facilities & Services: Water, Law Enforcement, Fire Protection, Health Care Facilities, Communications Facilities, Schools, Social, Energy Facilities, and Solid Waste Disposal.

- No new or expanded facilities or services would be required for Ffynnon’s proposed use as a Private Park & Campground.

FACILITIES & SERVICES	FFYNNON
Water	Ffynnon offers only primitive camping; no water will be provided on the Ffynnon property at this time; visitors will bring in the water needed for their stay.
Law Enforcement	Ffynnon is under the jurisdiction of the Vernonia Police Department; no changes or expansion needed.

FACILITIES & SERVICES	FFYNNON
Fire Protection	Ffynnon supports Public Facilities & Services Policy 13: <i>Support a level of fire safety and service in all areas of the County sufficient to minimize the risk of fire damage to life and property.</i> Ffynnon is working with the local Fire Department to ensure easy access to the property by fire trucks, if needed. Ffynnon strictly obeys all posted fire regulations. The proposed use will not significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel; campfires are only allowed in Fire Marshall-approved fire pits, shown on Site Plan Inset 1. Campfires are not allowed at individual campsites.
Health Care Facilities	N/A
Communications Facilities	No new communications lines will be needed at Ffynnon; guests will use their own cell phone services when on site.
Schools	N/A
Social	N/A
EnergyFacilities	Ffynnon offers only primitive camping; no energy facilities or services are required on the property.
Solid Waste Disposal	Ffynnon provides the OAR-required number of refuse cans on site; these are collected after each seasonal event and taken to the waste station in Vernonia, when that station is open to receive waste. No new waste collection facilities or services will be needed for/at the Ffynnon property. Waste collection is handled by Ffynnon personnel.

Part XVII: Recreational Needs

The County's Recreational Needs Goal is *to satisfy the recreational needs of the citizens of Columbia County and its visitors.*

- As a Private Park & Campground, Ffynnon would contribute to the County's goal by adding to the roster of privately owned parks/campgrounds available in the County.

As noted in the Comprehensive Plan (Part XVII), *“Coordination with private enterprise is especially important, considering the amount and location of private lands. When private facilities answer a public need, the County should encourage and supplement these efforts.”*

- Adding Ffynnon to the list of Private Parks & Campgrounds will help answer the public need for recreational options and thus supports the County's Recreational Needs Goal.
- Approval of Ffynnon's application as a Private Park & Campground would encourage and supplement Ffynnon's ability to assist the County in meeting that public need.
- As a Private Park & Campground, Ffynnon will provide an additional recreation area to County residents who are guests at Ffynnon. We charge a reasonable fee for camping events and all are open to the public. Our property is also open to scheduled, small, day events, which are free of charge for members. Very low-cost membership is open to the public.

As further noted in the Comprehensive Plan, "Recreation areas, open space, watershed protection, wildlife and fisheries habitat, soil protection from erosion, and recreational sites are some of the multiple benefits derived from forest lands. In Columbia County, 93% of the forests are privately owned. These lands may provide multiple benefits, but are not managed to that end. Recreational activities that may be considered permissible by the owner of private forest lands include campgrounds, trails, and points of interest."

- Ffynnon is actively seeking to use its privately owned forest lands to offer recreational opportunities, including camping, picnicking, and enjoying being out in nature, to the County.

Of the Recreational Needs Policies noted in the Comprehensive Plan, the only one that could directly apply to Ffynnon is Policy 1. Ffynnon—upon approval as a Private Park & Campground—would become a valuable part of the Parks Board's overall plan to aid in meeting the recreational needs of the people of the County.

Ffynnon and its Board agree with the County that it is essential to recognize the recreational needs of Columbia County and to establish the ways and means to resolve these needs. We believe that Ffynnon can be part of the solution and we appreciate your consideration.

APPENDIX 2: PARK/CAMPGROUND ONSITE SIGNAGE

TYPE OF SIGN	LOCATION	NUMBER OF SIGNS	MATERIAL	SIZE	SQ. FT. OF SIGN	COPY ON SIGN	
Entrance Signs	At park entrance from Pebble Creek Rd., north and south	2	Wood	3x2 ft.	6 sq. ft.	Ffynnon South Gate Entrance Ffynnon North Gate Entrance	Design TBD
Garbage-Compost-Recycling Area/Bins	At all refuse locations, near fire pits	6	Large weatherproof stickers for each refuse bin with either Recycle, Compost, or Landfill on them	10x10 in.	0.69 sq. ft.	Recycle Compost Landfill Please take all other waste materials with you	  
Fire Safety Rules	At all fire pits	6	Wood	12x24 in.	2 sq. ft.	Fire pit icon Safety Rules; exact text TBD Firewood Rules	 
NORTH AREA Directional Signs; Trail Maps	At trail crossroad to fire pit F or North Area campsites	1	Wood	6x18 in.	0.75 sq. ft.	Fire Circle; trail map	Design TBD
	On trailhead from North Area campsites to fire pit F	1	Wood	6x18 in.	0.75 sq. ft.	Fire Circle; trail map	Design TBD
	At trail crossroad to fire pit F or South Area campsites	1	Wood	6x18 in.	0.75 sq. ft.	Main Meadow; trail map	Design TBD
SOUTH AREA Directional Signs; Trail Maps	On path from North Area campsites to main South Area campsites	1	Wood	6x18 in.	0.75 sq. ft.	TBD; trail map	Design TBD
	At trailhead to North Area campsites	1	Wood	6x18 in.	0.75 sq. ft.	TBD; trail map	Design TBD
	At trailhead from South Area campsites to fire pit D	1	Wood	6x18 in.	0.75 sq. ft.	Fire Circle; trail map	Design TBD
Information Kiosk; park map, rules, safety, fire, first aid, bulletin board	From south parking area to South Area campsites + from north parking area to North Area campsites	2	Wood	2x3 ft.	6 sq. ft.	Site Map Rules, Safety, Fire, First Aid, Announcements (bulletin board); exact text TBD	Design TBD
Directional Signs to Portopotties	From south parking area and at pedestrian walkway between V4 and V6 campsites	2	Wood	6x18 in.	0.75 sq. ft.	Restrooms	
Tent & Vehicle Campsite Signs	At each tent or vehicle campsite	30 for tent; 10 for vehicle	Wood	6x6 in.	0.25 sq. ft.	Tent icon Vehicle icon	 

We are working on your custom estimate. You will receive another email from one of our team members once it is ready.



Locke Buildings
1105 NW Noble Dr.
Estacada, OR 97023
(503) 630-3183
info@lockebuildings.com

Customer Order - **Sep 4, 2024**

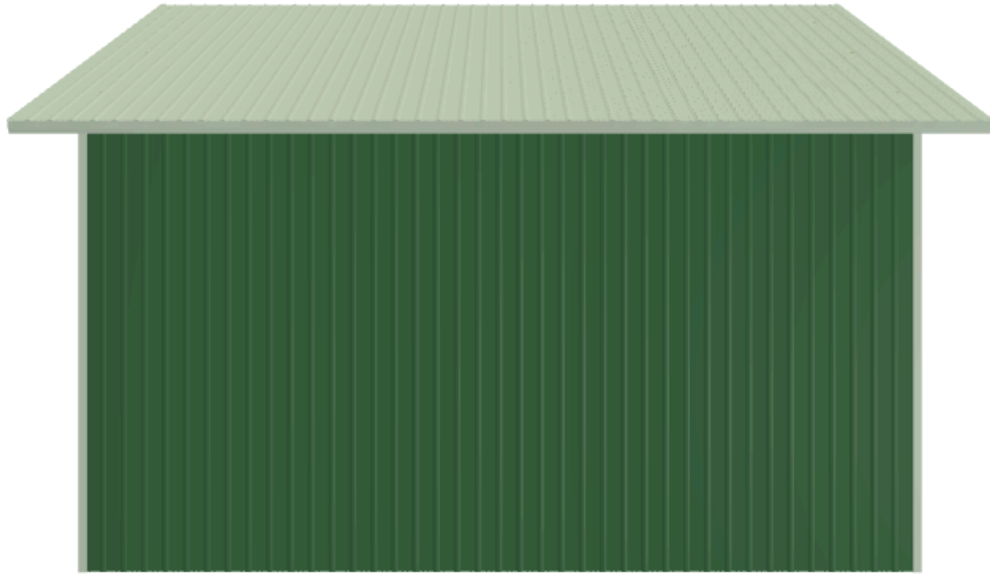
Ship To		Dealer	
Name <u>Neal Hevel</u>	Order # <u>1723143794696722-4</u>	Website	
Install Address <u>56965 Pebble Creek Rd</u>		Estacada, Oregon 97023	
City <u>Vernonia</u>	State <u>OR</u>	Zip Code <u>97064</u>	Phone: (503) 630-3183
Email <u>source@ffynnonoregon.com</u>	Phone # <u>5037040410</u>	Mobile # <u></u>	info@lockebuildings.com
Building Info	Size	Color	
Style: <u>Single Slope</u>	$\frac{34'}{\text{Width}} \times \frac{30'}{\text{Length}} \times \frac{16' \times 22\frac{7}{8}''}{\text{Eave Height}}$	Roof	Parchment ☐
Roof Overhang: <u>24" Overhang</u>		Trim:	Parchment ☐
Roof Style: <u>29 Gauge Ribbed</u>		Siding:	Sage Green ☒
Leg Style: <u>Standard</u>			
Design Link & Notes			
Design Link: https://idearoom.lockebuildings.com/?lng=en-US&dealer=website#7a2f25b5e202347fa80396b7b42218cb			
Additional Comments <u>We are getting ideas, may submit a few different designs to compare</u>			



Perspective View



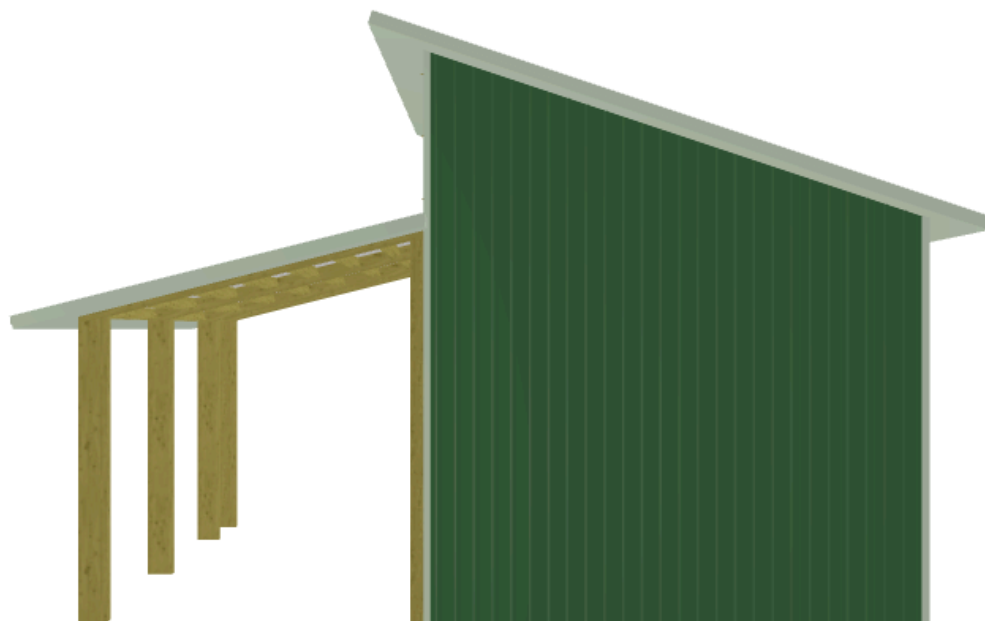
Front



Left Side



Right Side



Back

Section	Description	Quantity
	Structure Details	
	Style: Single Slope	1
	Base Size: 20'x30'	1
	Metal Roof: Parchment	1
	Trim: Parchment	1
	Siding: Sage Green	1
	Window Frame: White	1
	Garage Door: White	1
	Frame Spacing: 12 Ft Bay Spacing	1
	Roof Style: 29 Gauge Ribbed	1
	Roof Pitch: 4 / 12	1
	Roof Overhang: 24" Overhang	1
	Trusses: Standard Truss	1
	Leg Height: 16'	1
	Right Side: Gap Panel	1
	Right Side Siding: 29 Gauge Ribbed	2
	Left Side: Fully Enclosed	1
	Left Side Siding: 29 Gauge Ribbed	1
	Right Side: Fully Enclosed	1
	Front End: Fully Enclosed	1
	Front End Siding: 29 Gauge Ribbed	1
	Back End: Fully Enclosed	1
	Back End Siding: 29 Gauge Ribbed	1
Right Lean	Base Size: 14'x30'	1
Right Lean	Type: Standard	1
Right Lean	Roof Pitch: 3 / 12	1
Right Lean	Trusses: Lean Porch Truss	1
Right Lean	Leg Height: 12'	1
	Doors & Ramps	
	3' All Steel Man Door	1
	Windows & Accessories	
	5 x 3	3
	Garage Doors & Ramps	
	10' x 12' Garage Door	1
	Additional Options	
	Standard Girts	
	Packaging and Hardware	

Signatures	
Customer Signature:	
Date:	
Delivery Date (may vary depending on weather):	
Delivery Notes:	

Dealer or Manufacturer Signature:	
Date:	

Colors and visual representations are not an exact match. Selections are for reference only.

Price subject to final engineering and local snow/wind conditions (client responsible to provide snow and wind loads)

Pricing Table (For Internal Use): - Default Region

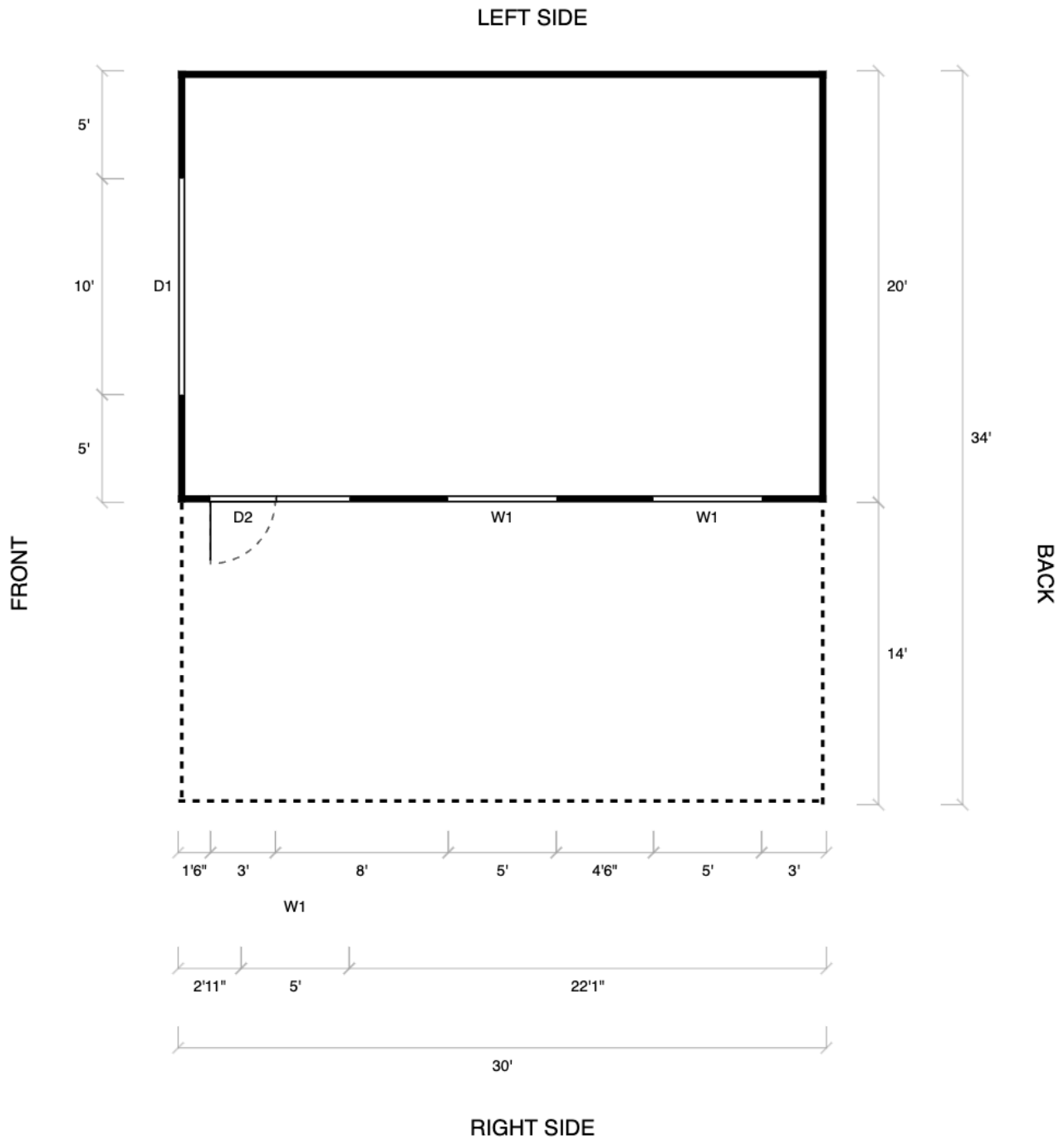
This estimate is provided by Locke Buildings. Use of this estimate with any other company violates the terms and conditions of Locke Buildings and will be subject to legal action.



Website
 Estacada, Oregon, 97023
 (503) 630-3183
 info@lockebuildings.com

#1723143794696722-4

FLOOR PLAN



SYMBOL LEGEND			
D1	10' x 12' Garage Door	W1	5 x 3
D2	3' All Steel Man Door		Closed Wall
----	Open Wall		

#1723143794696722-4

September 30, 2024

Nikos Tzetos
Ffynnon
57005 Pebble Creek Rd
Vernonia, Oregon 97064

**Infiltration Testing
Ffynnon Development Project
57005 Pebble Creek Rd
Vernonia, Oregon 97064**

This letter presents the results of our infiltration testing for proposed stormwater infiltration facilities that are part of the Ffynnon Development project. We understand the project will include the construction of gravel roads and two parking lots. The purpose of this infiltration testing is to provide tested infiltration rates for the design of the infiltration facilities.

Two infiltration tests were performed at 57005 Pebble Creek Rd at the approximate locations shown on Figure 1. The locations of the tests were determined based on the proposed development and the anticipated location of the infiltration facilities. Infiltration tests were performed as Open Pit Tests in general accordance with the 2020 City of Portland Stormwater Management Manual, using the falling head test method. Infiltration test reports are included as attachments. Table 1 presents a summary of our infiltration test results.

Table 1. Field Measured Infiltration Rates

Exploration	Location	Depth (inches)	Soils	Infiltration Rate (inches/hour)
IT-1	Main Entrance	27	Sandy Silt (ML)	0.8
IT-2	North Parking Lot	30	Sandy Silt (ML)	1.1

The infiltration rates presented in Table 1 are unfactored. The design engineer should apply the appropriate correction factors to the measured rates during design. If these systems are built, we recommend a geotechnical engineer observe to confirm the soil conditions are consistent with our observations during our testing. Infiltration systems should not be located adjacent to building basements.

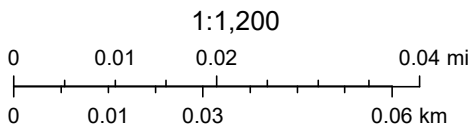
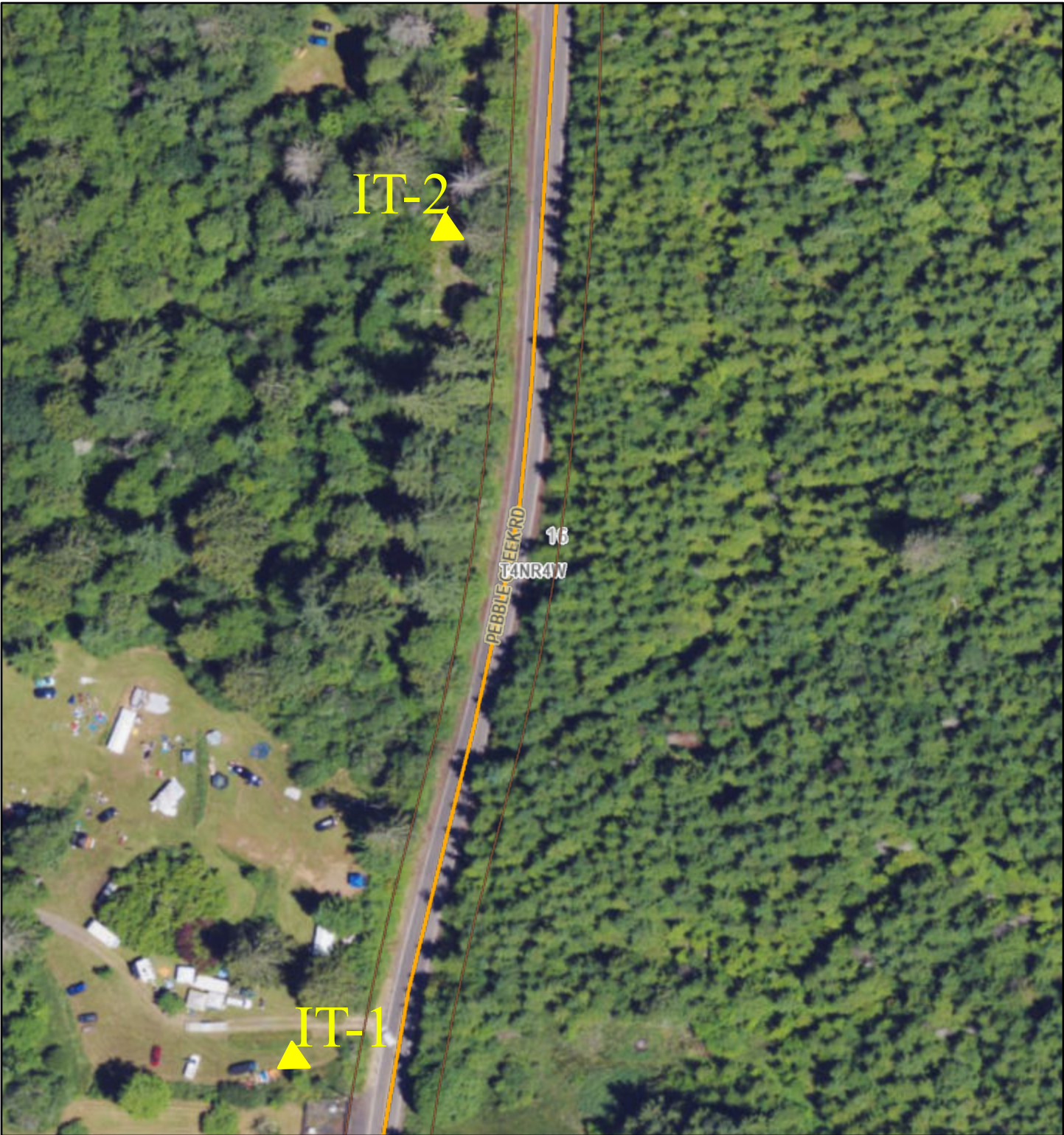
We appreciate the opportunity to participate in this project. Please contact us if you have questions about this report.

Respectfully,



Ian LaVielle, P.E.
Geotechnical Engineer

Attachments:
Figure 1 - Site Plan
Infiltration Test Reports



Columbia County, OR
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp. | Oregon GEO, NAIP | Oregon Statewide Imagery Program (OSIP) -

Oregon Statewide Imagery Program (OSIP) - Oregon Imagery Framework Implementation Team, National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

**Ffynnon
Site Plan**

FIGURE
1

INFILTRATION TEST DATA

Project No.: N/A

Tested By: I. LaVielle

Test Method: Open Pit

Test Location: IT-1

Depth from Reference Point to Bottom of Hole: --

Depth from Reference Point to Ground Surface: --

Depth of Hole Below the Ground Surface: 27.0 in

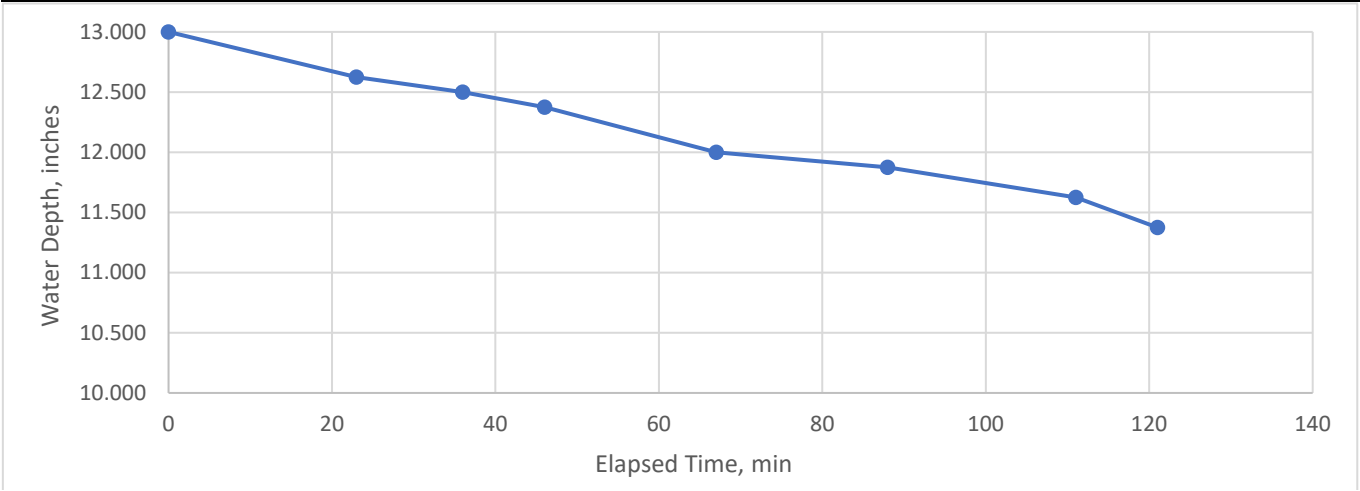
Project Name: Ffynnon

Date: 9/22/2024

Procedure: Falling Head

Hole Dia.: 2 feet x 2 feet square

Time	Water Level Reading (in)	Elapsed Time (min)	Water Depth in Hole (in)	Change in Water Level (in)	Incremental Infiltration Rate (in/hr)
11:44	--	0	13.000	0.0	--
12:07	--	23	12.625	-0.4	0.98
12:20	--	36	12.500	-0.1	0.58
12:30	--	46	12.375	-0.1	0.75
12:51	--	67	12.000	-0.4	1.07
13:12	--	88	11.875	-0.1	0.36
13:35	--	111	11.625	-0.3	0.65
13:45	--	121	11.375	-0.3	1.50
				Full =	0.8 in
				Average =	0.8 in



INFILTRATION TEST DATA

Project No.:

N/A

Tested By:

I. LaVielle

Test Method:

Open Pit

Test Location:

IT-2

Depth from Reference Point to Bottom of Hole:

--

Depth from Reference Point to Ground Surface:

--

Depth of Hole Below the Ground Surface:

30.0 in

Project Name:

Ffynnon

Date:

9/22/2024

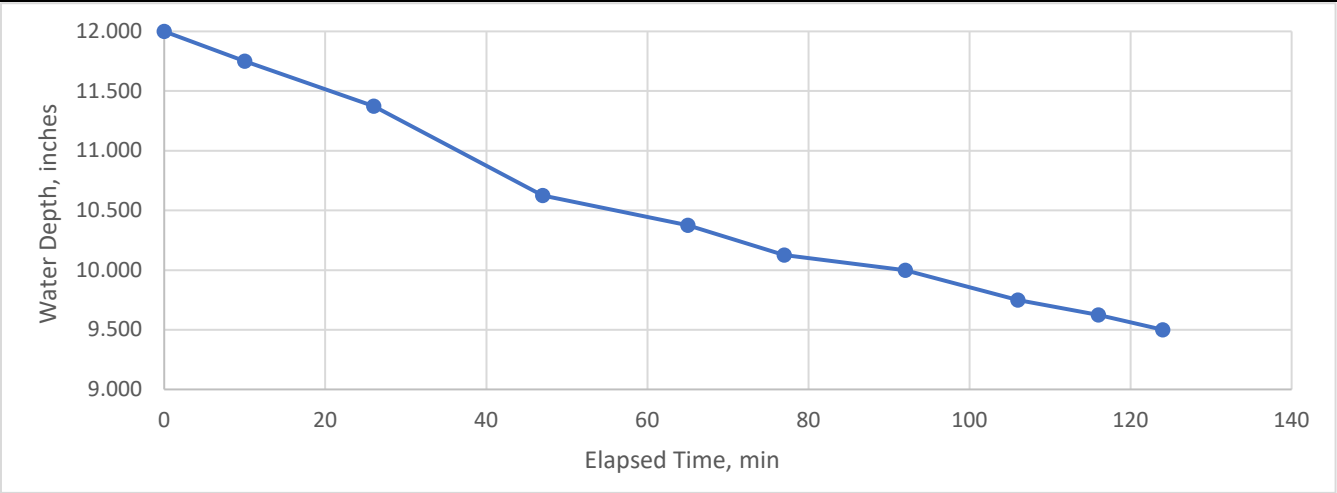
Procedure:

Falling Head

Hole Dia.:

2 feet x 2 feet square

Time	Water Level Reading (in)	Elapsed Time (min)	Water Depth in Hole (in)	Change in Water Level (in)	Incremental Infiltration Rate (in/hr)
12:38	--	0	12.000	0.0	--
12:48	--	10	11.750	-0.3	1.50
13:04	--	26	11.375	-0.4	1.41
13:25	--	47	10.625	-0.8	2.14
13:43	--	65	10.375	-0.3	0.83
13:55	--	77	10.125	-0.3	1.25
14:10	--	92	10.000	-0.1	0.50
14:24	--	106	9.750	-0.3	1.07
14:34	--	116	9.625	-0.1	0.75
14:42	--	124	9.500	-0.1	0.94
				Full =	1.2 in
				Average =	1.1 in



VERNONIA, OR, COLUMBIA COUNTY

- 11,586 SF COMPACTED AGGREGATE PARKING
- 1,660 SF OF ASPHALT DRIVEWAY APRON (IN ROW)
- 560 SF OF ASPHALT DRIVEWAY APRON (OUT OF ROW)

TOTAL IS 13,246 SF (OUTSIDE THE ROW)

- 816 SF OF NEW BARN BUILDING (INCLUDES OVERHANG)
- 330 SF OF CONCRETE BARN BUILDING APRON
- 4,413 SF OF COMPACTED AGGREGATE DRIVEWAY
- 900 SF OF COMPACTED AGGREGATE DRIVEWAY TURN-AROUND-AREA
- 1,820 GRAVEL PARKING LOT OF BUILDING 1 (NEW BARN)
- 6,215 SF ASPHALT CONCRETE DRIVE (IN ROW)
- 502 SF ASPHALT CONCRETE DRIVE (OUTSIDE ROW)
- 3,950 SF CONVEYANCE DITCH FOR DRIVEWAY

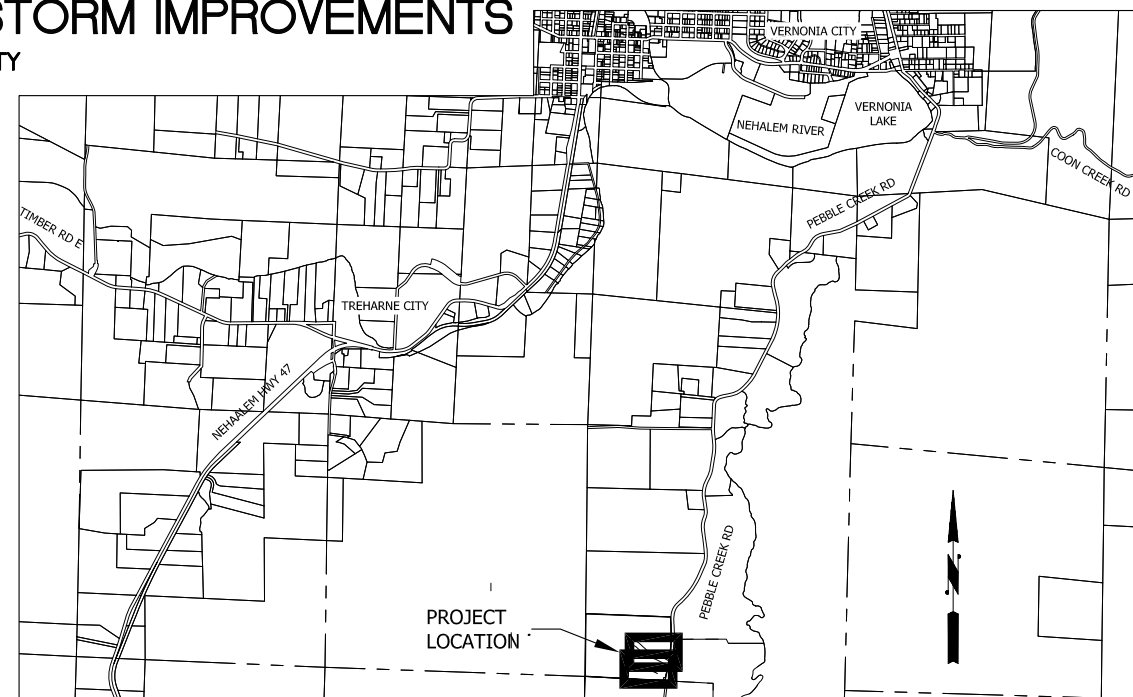
TOTAL IS 18,444 SF (OUTSIDE ROW)

MICHAEL AGEE – SPECIAL DIRECTOR
FFYNNON, NON-PROFIT 501(C3)
EMAIL: THEMAENADLYSIOS@GMAIL.COM
(503) 313-8028

NEAL HEVEL - OPERATIONS DIRECTOR
FFYNNON, NON-PROFIT 501(C3)
EMAIL: HEVEL@THRICEGREAT.COM
253-606-3333

MARTHA TAYLOR

KEN KIM
LANCASTER MOBLEY



SCALE NTS ($\sim 1'' = 3/4$ MILE)

- C-1 COVER SHEET
- C-2 DEMOLITION, AND TEMPORARY EROSION AND SEDIMENT CONTROL
- C-3 NAP (NORTH ACCESS POINT) STORM PLAN AND PROFILE
- C-4 SAP (SOUTH ACCESS POINT) STORM PLAN AND PROFILE
- C-5 GENERAL NOTES AND TABLES
- C-6 EROSION CONTROL AND STORM DETAILS

	<u>EXISTING</u>	<u>PROPOSED</u>
BEEHIVE INLET		
STORM DRAIN CATCH BASIN		
STORM LINE	_____ SD _____	----- SD -----
STORM DRAIN MANHOLE		
PROPERTY LINE	_____	
RIGHT OF WAY LINE	_____	
FENCE CIRCLE	_____○_____○_____	

HARN/WO (WESTERN OREGON) OREGON STATE
PLANES, NORTH ZONE, INTERNATIONAL FOOT.

"WORLD GEODETIC SYSTEM 1984 (WGS84)"
STANDARD, AND A COMBINATION OF DATA
SOURCES INCLUDING NASA'S SRTM (SHUTTLE
RADAR TOPOGRAPHY MISSION).

SURVEY IS A COMBINATION OF COUNTY GIS INFORMATION, GOOGLE EARTH SURFACES, ORMAP INFORMATION, AND ONSITE MEASUREMENTS AND OBSERVATIONS.

INFORMATION SHOWN IS APPROXIMATE AND A CONSTRUCTION SURVEY WILL BE REQUIRED PRIOR TO CONSTRUCTION TO VERIFY THE INFORMATION SHOWN.



AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call 811
before you
Dig

NOTE
EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
CALL BEFORE YOU DIG: 811

ALIGNED ENGINEERING. LLC
19120 SW BUTTERNUT ST
ALOHA, OR, 97078
(541-225-7157)
ENGINEERING CONTACT: ROBERT RIPPEE, P.E.
EMAIL: ROBERT@AEPNW.COM

SCALE: 1"=100'

~~ZIPPER ZEMAN ASSOCIATES, INC.~~
~~2501 EAST 'D' ST. #200~~
~~TACOMA, WA. 98421~~
~~253-573-9939~~
CONTACT: NIKOS TZETOS

REGISTERED PROFESSIONAL
ENGINEER
77,739
OREGON
DECEMBER 9, 2023
ROBERT EDWARD RIPPEE
EXPIRES 12-31-2026

TITLE:

**FFYNNON PARK AND CAMPGROUND
STORM IMPROVEMENTS - CIVIL PLANS
COVER SHEET / EXISTING CONDITIONS**

COLUMBIA COUNTY OREGON

T: FFYNNON, NON-PROFIT
57009 PEBBLE CREEK ROAD
VERNONIA OREGON 97064

CLIENT:

ALIGNED ENGINEERING, LLC

DESIGNED: RER

DRAWN: RER / REM

CHECKED: _____ RER

DATE: 12/18/24

SHEET

C-1

1 OF 6
ALIGNED PROJECT #

1206

FFYNNON PARK AND CAMPGROUND
STORM IMPROVEMENTS

VERNONIA, OR, COLUMBIA COUNTY

PROJECT INFORMATION KEYNOTES

1. INSTALL BIOFILTER BAG INLET PROTECTION
SEE DETAIL NO. 914 ON SHEET C5.
2. INSTALL SILT SACK
SEE DETAIL NO. 913 ON SHEET C5.
3. PROVIDE BIO-BAG CHECK DAMS IN EXISTING DITCH AND FLOW LINE
AT 20' O.C. MIN. AS NEEDED. SEE DETAIL NO. 916 ON SHEET C5.
4. FURNISH AND INSTALL SEDIMENT FENCE PER ODOT STANDARDS.

PRE-CONSTRUCTION, CLEARING, AND DEMOLITION NOTES:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. SEDIMENT BARRIERS APPROVED FOR USE INCLUDE SEDIMENT FENCE, BERMS CONSTRUCTED OUT OF MULCH, CHIPPINGS, OR OTHER SUITABLE MATERIAL, STRAW WATTLES, OR OTHER APPROVED MATERIALS.
3. SENSITIVE RESOURCES INCLUDING, BUT NOT LIMITED TO, TREES, WETLANDS, AND RIPARIAN PROTECTION AREAS SHALL BE CLEARLY DELINEATED WITH ORANGE CONSTRUCTION FENCING OR CHAIN LINK FENCING IN A MANNER THAT IT IS CLEARLY VISIBLE TO ANYONE IN THE AREA. NO ACTIVITIES ARE PERMITTED TO OCCUR BEYOND THE CONSTRUCTION BARRIER.
4. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, STREET SWEEPING AND VACUUMING, MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS, ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
5. RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES. RUN-ON AND RUN-OFF CONTROL MEASURES INCLUDE: SLOPE DRAINS (WITH OUTLET PROTECTION), CHECK DAMS, SURFACE ROUGHENING, AND BANK STABILIZATION.

NOTES TO CONTRACTOR:

1. PROVIDE COMBINATION INLET PROTECTION AND BIO BAGS AT ALL DISCOVERED CATCH BASIN AND STORM DRAIN INLETS (TYP) PER CITY OF SALEM STANDARD DRAWING NO. 913 AND 914 ON SHEET C-5.
2. COORDINATE WITH OWNER TO PROTECT ANY DISCOVERED TREES TO REMAIN WITHIN THE CONSTRUCTION AREAS PER PER CITY OF SALEM STANDARD DRAWING NO. 820 & 821.
3. CONSTRUCTION DEWATERING MUST FOLLOW THE NOTES ON THIS SHEET.

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES

1. ONCE KNOWN, INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE, AND THE AREAS OF THE SITE WHERE THE CONTRACTOR(S) WILL ENGAGE IN CONSTRUCTION ACTIVITIES. REVISE THE LIST AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.i). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES.) (SECTION 4.4.C.ii)
2. VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
3. INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.q)
4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. (SECTION 4.7)
5. THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTION 4 AND 4.11)
6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
8. SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
9. CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
10. IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SECTION 2.2.1)
11. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SECTION 2.2.5)
12. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50- FEET OF WATERS OF THE STATE. (SECTION 2.2.4)
13. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTION 2.1.3)
14. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAM BANKS. (SECTIONS 2.1.1. AND 2.2.16)
15. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SECTIONS 2.2.6 AND 2.2.13)
16. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
17. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATION MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS. (SECTIONS 2.2.20 AND 2.2.21)
18. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.3.7)
19. KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE AND CLOSE LIDS AT THE END OF THE BUSINESS DAY FOR THOSE CONTAINERS THAT ARE ACTIVELY USED THROUGHOUT THE DAY. FOR WASTE CONTAINERS THAT DO NOT HAVE LIDS. PROVIDE EITHER (1) COVER (E.G., A TARP, PLASTIC SHEETING, TEMPORARY ROOF) TO PREVENT EXPOSURE OF WASTES TO PRECIPITATION, OR (2) A SIMILARITY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS (E.G., SECONDARY CONTAINMENT). (SECTION 2.3.7)
20. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPs SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPs MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES. (SECTION 2.2.7)
21. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.f)
22. CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
23. ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. (SECTION 2.2.10)
24. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
25. USE BMPs TO PREVENT OR MINIMIZED STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENT, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SECTIONS 2.2.15 AND 2.3)
26. PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AND OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
28. PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
29. IMPLEMENT THE FOLLOWING BMPs WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLE, REGULAR MAINTENANCE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SECTION 2.3)
30. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
31. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
32. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
33. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAINS EVENTS AT ALL TIMES OF THE YEAR. (SECTION 2.2)
34. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPs MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SECTION 2.2.8)
35. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
36. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS); REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
37. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVED TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SECTION 2.1.5.D)
38. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.15.A)
39. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
40. DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F)
41. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER. LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SECTION 2.2.20)
42. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED MOVED AND DISPOSED OF PROPERLY, UNLESS NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF CONSTRUCTION (SECTION 2.2.21)

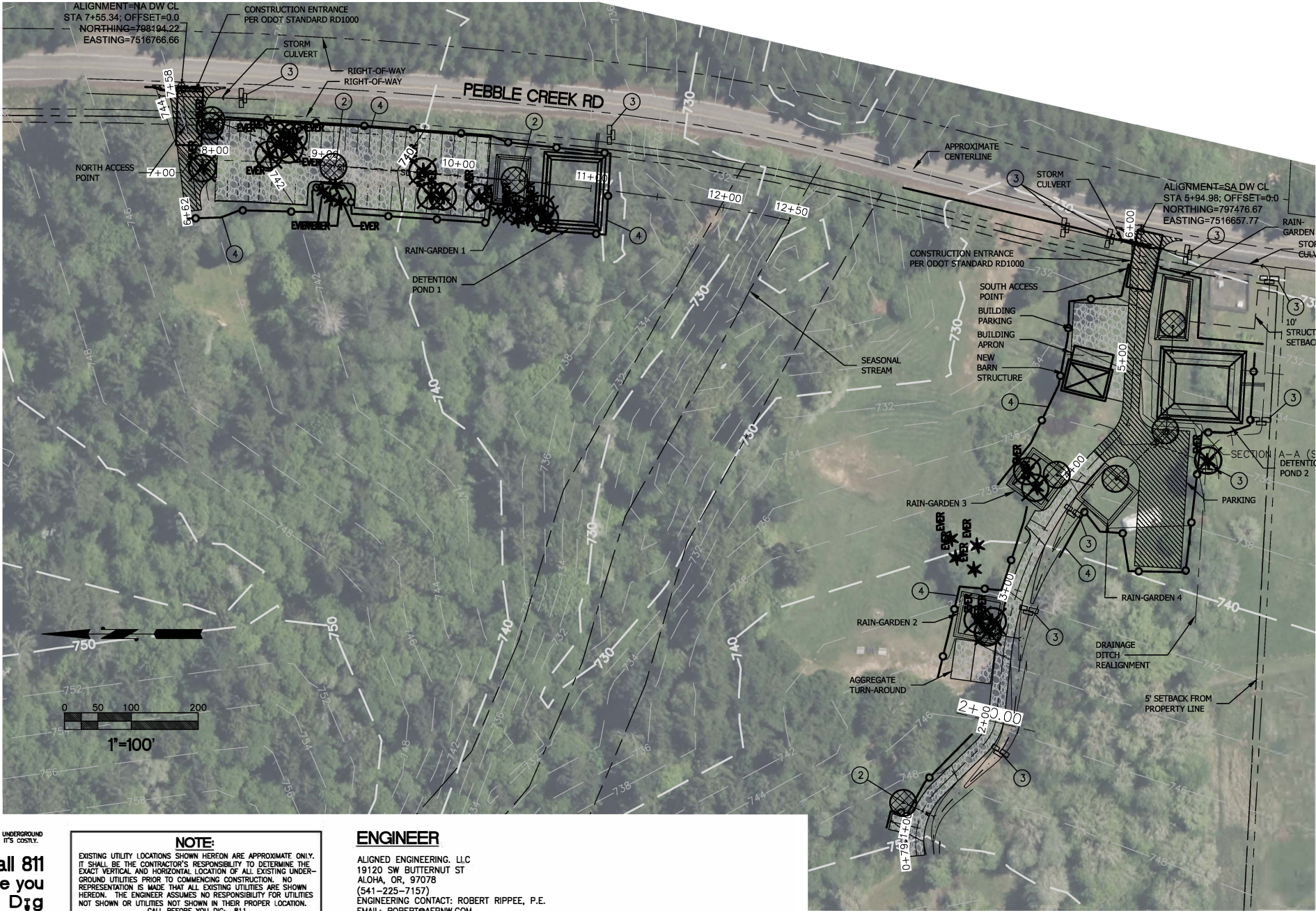
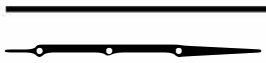
TESC LEGEND

INTERIM CB PROTECTION

TREE REMOVAL

CLEARING LIMITS

SILT FENCE



AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811
before you Dig

NOTE:

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ENGINEER

ALIGNED ENGINEERING, LLC
19120 SW BUTTERNUT ST
ALOHA, OR, 97078
(541)-225-7157
ENGINEERING CONTACT: ROBERT RIPPEE, P.E.
EMAIL: ROBERT@AEPNW.COM



TITLE:
FFYNNON PARK AND CAMPGROUND
DEMOLITION, AND TEMPORARY
EROSION AND SEDIMENT CONTROL
COLUMBIA COUNTY OREGON

CLIENT:
FFYNNON, NON-PROFIT
57009 PEBBLE CREEK ROAD
VERNONIA OREGON 97064

ALIGNED ENGINEERING, LLC

NO.	DATE	DESCRIPTION	BY

DESIGNED: RER

DRAWN: RER

CHECKED: RER

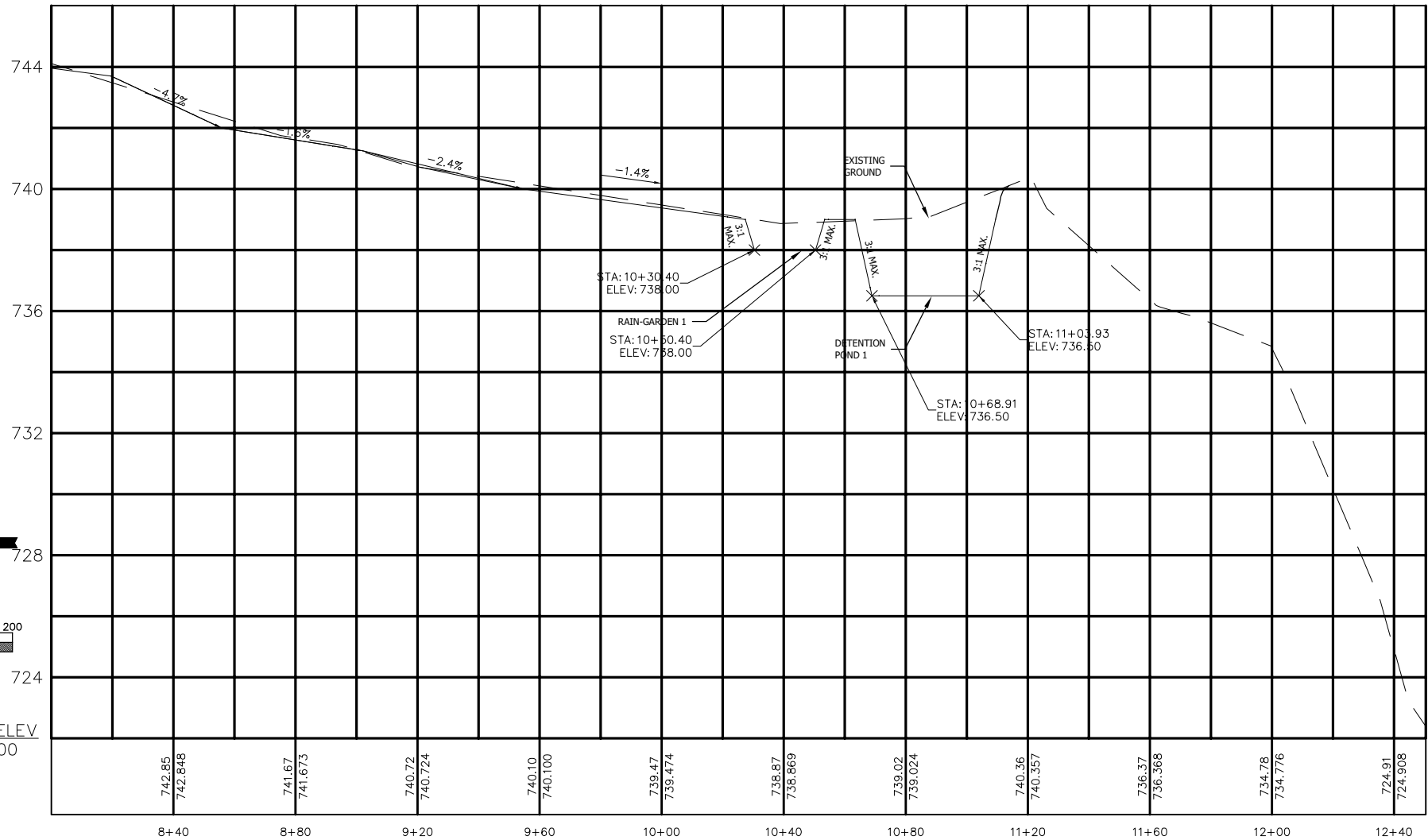
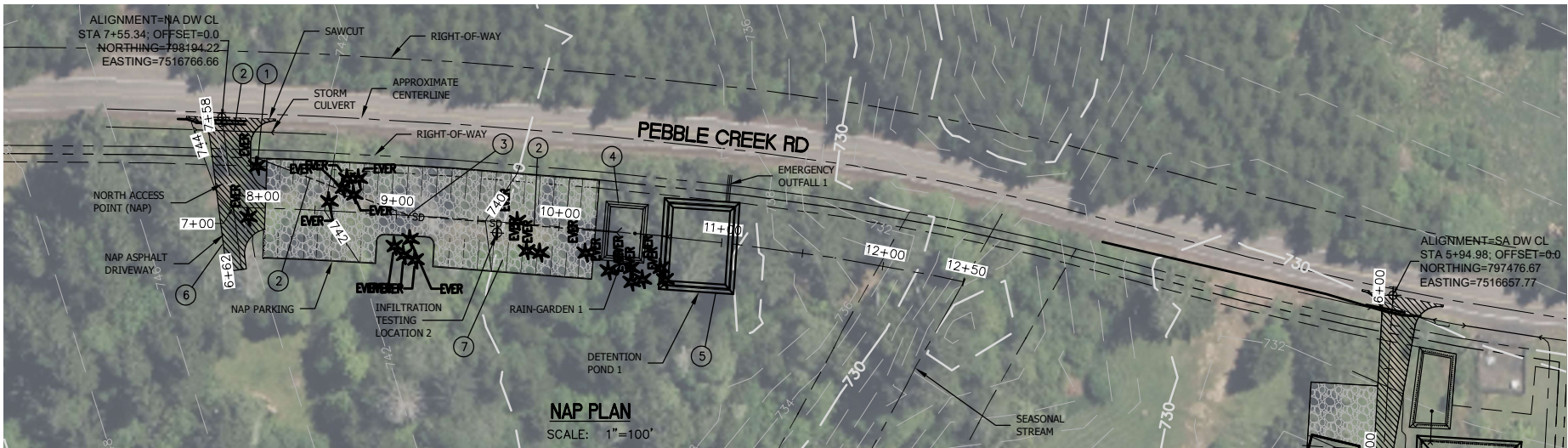
DATE: 12/18/24

SHEET
C-2

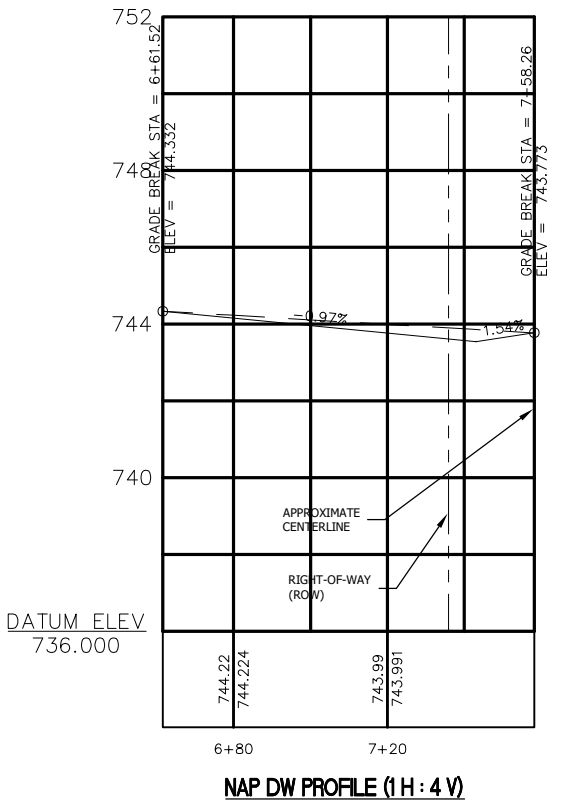
2 of 6
ALIGNED PROJECT #
1206

FFYNNON PARK AND CAMPGROUND STORM IMPROVEMENTS

VERNONIA, OR, COLUMBIA COUNTY



- CONSTRUCTION NOTES**
- FURNISH AND INSTALL INLET WITH BEEHIVE INLET GRATE PER CITY OF SALEM STANDARD PLAN NO. 246.
 - INSTALL 12" DI STORM LINE. OPEN TRENCHING TO BE DONE PER CITY OF SALEM STANDARD PLAN 309, 601, & 605.
 - FURNISH AND INSTALL AREA DRAIN WITH HERRINGBONE GRATE INLET AND 12" SUMP PER ODOT STANDARD.
 - FURNISH AND INSTALL RAIN-GARDEN PER SALEM STANDARD PLAN NO. 217, & 221, AND DRAINAGE REPORT.
 - FURNISH AND INSTALL BIO-INFILTRATION/DETENTION POND PER ODOT STANDARDS AND THE PROJECT STORMWATER DRAINAGE REPORT.
 - FURNISH AND INSTALL ASPHALT DRIVEWAY (2" AC OVER 4" AGG) AND PARKING PER CITY OF SALEM, ODOT, AND VERNONIA STANDARDS.
 - FURNISH AND INSTALL COMPACTED AGGREGATE PARKING LOT 6" IN DEPTH PER ODOT AND COUNTY STANDARDS (INCLUDING DRAWING NO. DW-205).



LEGEND

	EXISTING	PROPOSED
BEEHIVE INLET		
STORM CATCH BASIN		
STORM LINE		
DRAINAGE MANHOLE		
PROPERTY LINE		
GROUND CONTOUR		
SEDIMENT FENCING		
CHAIN LINK CONSTRUCTION FENCE		

FFYNNON PARK AND CAMPGROUND
STORM PLAN AND PROFILE

COLUMBIA COUNTY

OREGON

TITLE:

CLIENT:

FFYNNON, NON-PROFIT
57009 PEBBLE CREEK ROAD
VERNONIA OREGON 97064

ALIGNMENT=NA DW CL
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NORTHING=798194.22
EASTING=7516766.66

ALIGNMENT=SA DW CL
STA 5+94.98; OFFSET=0.0
NORTHING=797476.67
EASTING=7516657.77

DATE: 12/18/24

DESIGNED: RER

DRAWN: RER

CHECKED: RER

DATE: 12/18/24

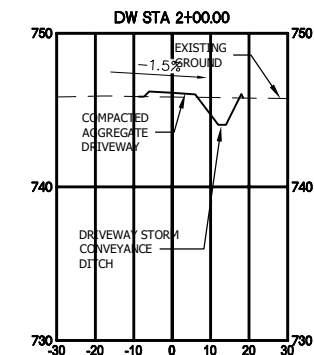
SHEET C-3

3 of 6

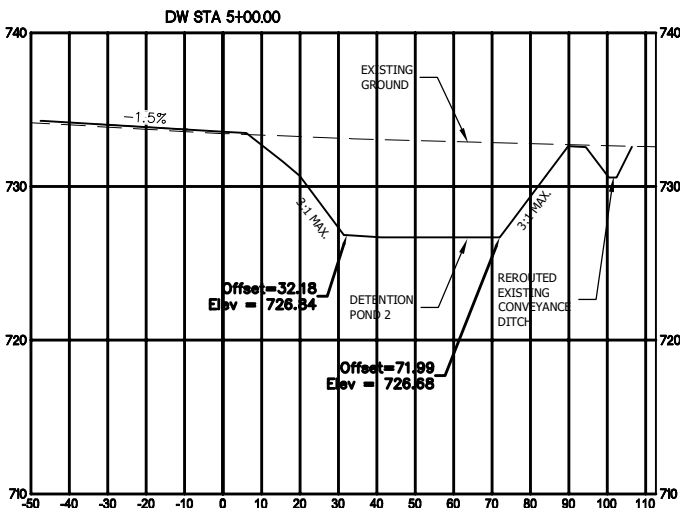
ALIGN PROJECT # 1206

FFYNNON PARK AND CAMPGROUND STORM IMPROVEMENTS

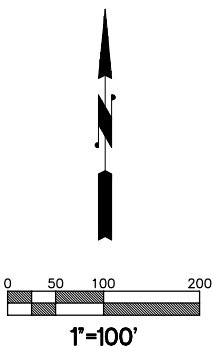
VERNONIA, OR, COLUMBIA COUNTY



DW STA 2+00 SECTION VIEW (1 H : 4 V)
TYPICAL STA 0+79 TO 4+00



DW STA 5+00 SECTION VIEW (1 H : 4 V)
TYPICAL STA 4+50 TO 6+00



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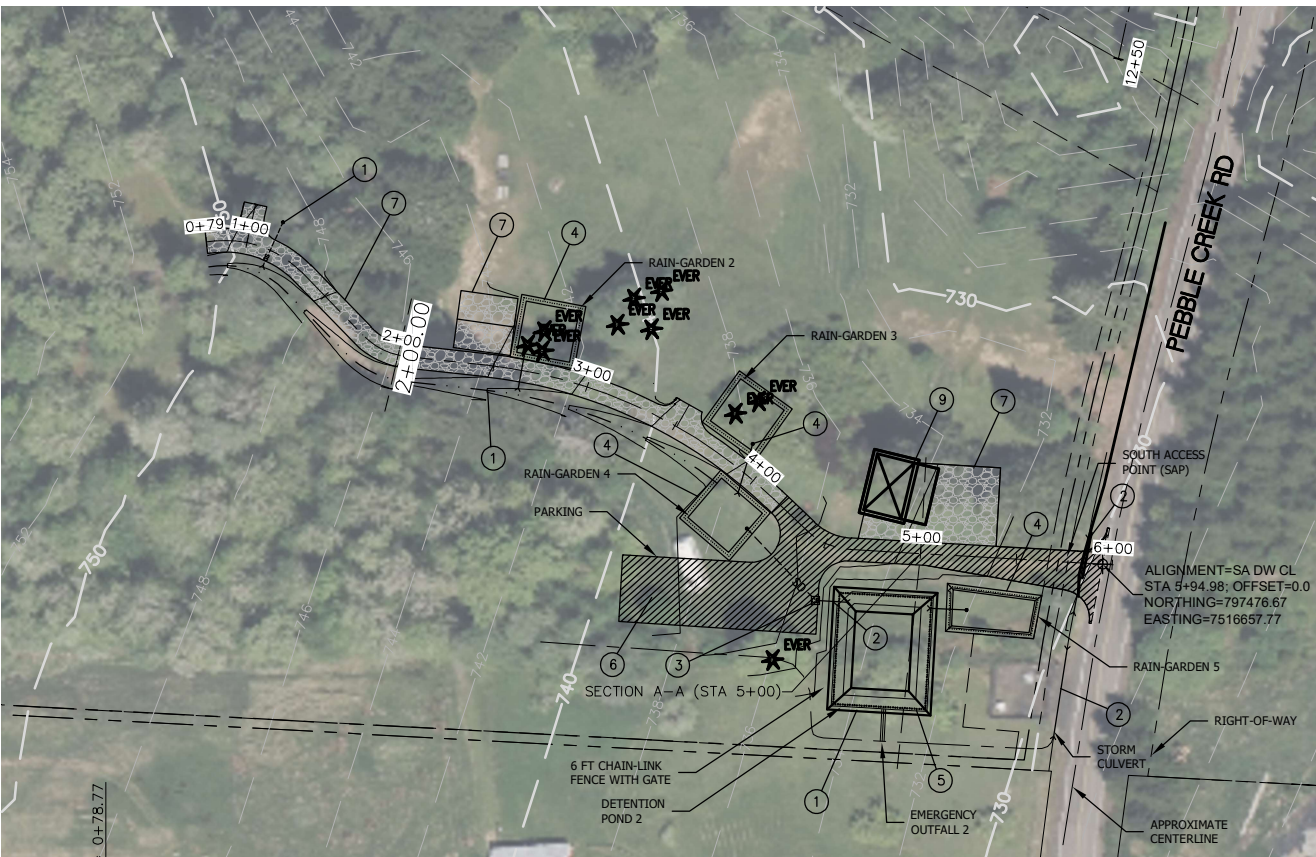
Call 811
before you
Dig

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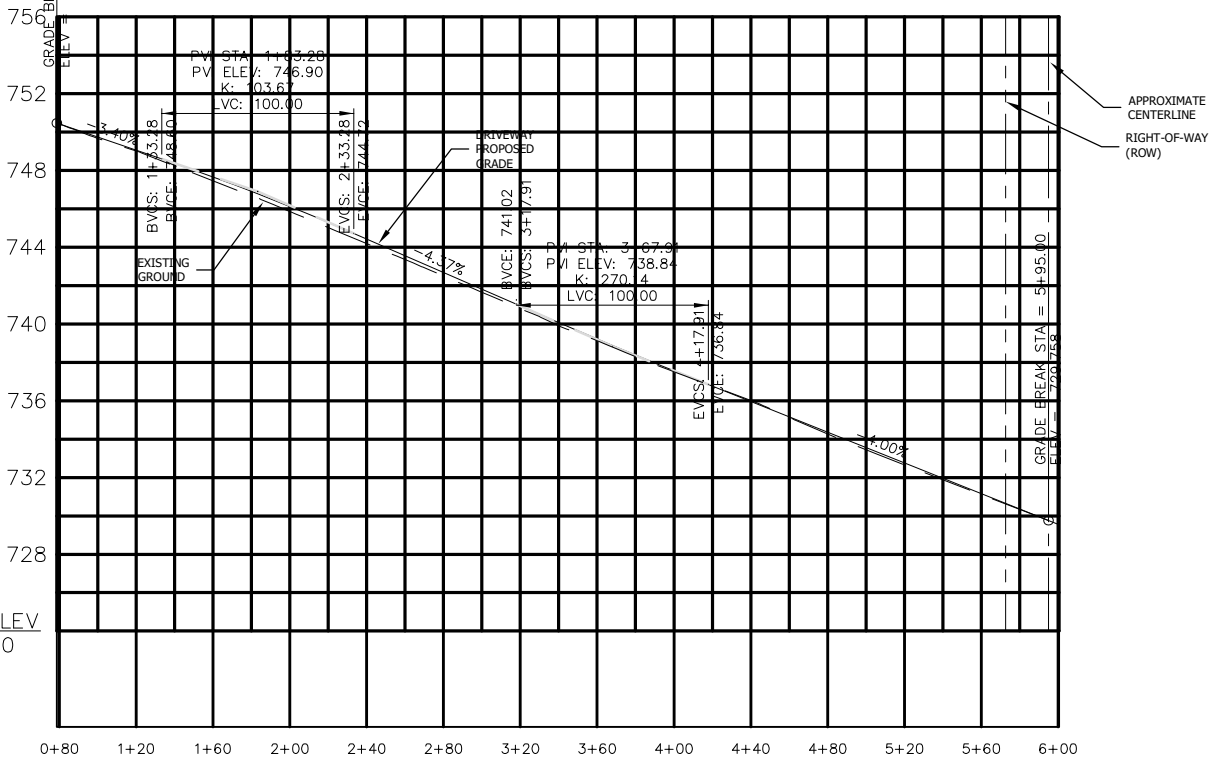
ENGINEER

ALIGNED ENGINEERING, LLC
19120 SW BUTTERNUT ST
ALOHA, OR, 97078
(541) 225-7157
ENGINEERING CONTACT: ROBERT RIPPEE, P.E.
EMAIL: ROBERT@AEPNW.COM



SAP PLAN

SCALE: 1"=100'



SAP PROFILE VIEW (1 H : 4 V)

CONSTRUCTION NOTES

- 1 FURNISH AND INSTALL INLET WITH BEEHIVE INLET GRATE PER CITY OF SALEM STANDARD PLAN NO. 246.
- 2 INSTALL 12" DI STORM LINE. OPEN TRENCHING TO BE DONE PER CITY OF SALEM STANDARD PLAN 309, 601, & 605.
- 3 FURNISH AND INSTALL AREA DRAIN WITH HERRINGBONE GRATE INLET AND 12" SUMP PER ODOT STANDARD.
- 4 FURNISH AND INSTALL RAIN-GARDEN PER SALEM STANDARD PLAN NO. 217, & 221, AND DRAINAGE REPORT.
- 5 FURNISH AND INSTALL BIO-INFILTRATION/DETENTION POND PER ODOT STANDARDS AND THE PROJECT STORMWATER DRAINAGE REPORT.
- 6 FURNISH AND INSTALL ASPHALT DRIVEWAY (2" AC OVER 4" AGG) AND PARKING PER CITY OF SALEM, ODOT, AND VERNONIA STANDARDS.
- 7 FURNISH AND INSTALL COMPACTED AGGREGATE DRIVEWAY, TURN AROUND AREA, AND PARKING LOT 6" IN DEPTH PER ODOT AND COUNTY STANDARDS (INCLUDING DRAWING NO. DW-205).
- 8 GRADE OUT AND CREATE STORM CONVEYANCE DITCH PER ODOT AND COUNTY STANDARDS.
- 9 FURNISH AND INSTALL NEW BARN STRUCTURE PER PROJECT SITE PLANS AND COUNTY STANDARDS.

LEGEND

	EXISTING	PROPOSED
BEEHIVE INLET		⊙
STORM CATCH BASIN	■	
STORM LINE	—	--- SD ---
DRAINAGE MANHOLE	⊙	
PROPERTY LINE	---	
GROUND CONTOUR	---	
SEDIMENT FENCING	□	□
CHAIN LINK CONSTRUCTION FENCE	○	○



TITLE:
FFYNNON PARK AND CAMPGROUND
STORM PLAN AND PROFILE
COLUMBIA COUNTY
OREGON

CLIENT:
FFYNNON, NON-PROFIT
57009 PEBBLE CREEK ROAD
VERNONIA OREGON 97064

ALIGNED ENGINEERING, LLC

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED: RER
DRAWN: RER
CHECKED: RER
DATE: 12/18/24

SHEET
C-4
4 of 6
ALIGNED PROJECT #
1206

GENERAL NOTES:

- Contractor shall procure and conform to all construction permits required by the City of Vernonia and Columbia County, and conform to all conditions and requirements of said permits. Issuance of a City Public Works street/site/utility construction permit does not relieve the contractor from obtaining any and all reviews and permits required under building, plumbing or electrical codes that any portions of the work may be subject to (including a site plumbing permit if required), or from any requirements under permits which may be required for the project by other agencies with jurisdiction.
- A copy of final approved construction drawings and any required permits shall be kept on-site at all times, for review by inspectors upon request.
- Contractor shall provide all bonds and insurance required by public and/or private agencies having jurisdiction.
- All materials and workmanship for facilities in street right-of-way or easements shall conform to approving agencies' construction specifications wherein each has jurisdiction, including but not limited to the City, County, Oregon Health Authority –Drinking Water Services (OHA–DWS) and the Oregon Department of Environmental Quality (DEQ).
- Unless otherwise approved by the Public Works Director, construction of all public facilities shall be done between 7:00 a.m. and 6:00 p.m., Monday through Friday (Saturday & Sunday only upon written approval from City).
- The Contractor shall perform all work necessary to complete the project in accordance with the approved construction drawings including such incidents as may be necessary to meet applicable agency requirements and provide a completed project.
- Contractor to notify City, County and all utility companies a minimum of 48 business hours (2 business days) prior to start of construction, and comply with all other requirements of ORS 757.541 to 757.571.
- Any inspection by the City, County or other agencies shall not, in any way, relieve the Contractor from any obligation to perform the work in strict compliance with the applicable codes and agency requirements.
- All traffic control plans & measures shall be approved by the agency with jurisdiction and in place prior to any construction activity. Contractor shall erect and maintain barricades, warning signs, traffic cones (and all other traffic control devices required) per City, County and ODOT requirements in accordance with the current MUTCD (including Oregon amendments). Access to driveways shall be maintained at all times.
- Unless authorized in writing by the City prior to the start of the work, no work within any existing public roadway shall disrupt traffic flow for more than 14 consecutive days (timeframe applies independently and separately to each block or intersection where traffic control work is required).
- Record Drawings. The Contractor shall maintain one complete set of approved drawings on the construction site at all times wherein he will record any approved deviations in construction from the approved drawings, as well as the station locations and depths of all existing utilities encountered (whether or not existing utilities are shown on the construction drawings). These field record drawings shall be kept up to date at all times and shall be available for inspection by the City upon request. Information on the field record drawings shall include reference measurements and materials type.
- Upon completion of construction of public facilities, Contractor shall submit a clean set of field record drawings containing all as-built information to the Design Engineer for use in the preparation of As-Built drawings for submission to the City.
- The Contractor shall submit a suitable maintenance bond prior to final payment or final approval where required by public and/or private agencies having jurisdiction. Elevations shown on the drawings are estimated and need to be field verified prior to construction.
- TRAFFIC CONTROL
- Contractor shall erect and maintain barricades, warning signs, traffic cones (and all other traffic control devices required) per City requirements in accordance with the current MUTCD (including Oregon amendments). Access to driveways shall be maintained at all times. All traffic control measures shall be approved end in place prior to any construction activity. Prior to any work in the existing public right-of-way, Contractor shall submit final traffic control plan to the Approving Agency for review and issuance of a Lane Closure or Work in Right-of-Way Permit.
- TESTING AND INSPECTION:
- For public and private improvements, the Contractor shall be responsible to ensure that all required or necessary inspections are completed by authorized inspectors prior to proceeding with subsequent work which covers or that is dependent on the work to be inspected. Failure to obtain necessary inspection(s) and approval(s) shall result in the Contractor being fully responsible for all problems and/or corrective measures arising from work not inspected.
- Unless otherwise specified, the "Required Testing and Frequency" table outlines the minimum testing schedule for improvements on the project. This testing schedule is not complete, and does not relieve the Contractor of the responsibility of obtaining all necessary inspections or observations for all work performed, regardless of who is responsible for payment. Cost for retesting shall be borne by the Contractor. All failed tests shall be provided as well.
- Contractor is solely responsible for assuring that any site, street or utility work within the jurisdiction of the City, meets or exceeds any and all legal requirements and any and all industry best practices in the design, construction and/or performance of such site, street or utility work. Contractor is solely responsible for payment of any assessment, fine, penalty, claim, damages or costs that result from Contractor's (1) performing site, street or utility work or failing to perform site, street or utility work that meets or exceeds any and all legal requirements and industry best practices. The City may require and Contractor shall provide the City with confined space entry plans conforming with the requirements of OR–OSHA, traffic control plans, or other plans or performance descriptions necessary or desirable for the Public Works Director to assure that these requirements can be met in performing the work. The City's acceptance, review, or comments on or about the adequacy of any such plan shall not remove or reduce Contractor's sole responsibility to meet any and all legal requirements, administrative requirements, or industry best practices, and Contractor specially assumes, will defend, and will indemnify the City against any liability, damages, fines, fees or assessments related in any manner to Contractor's site, street or utility work.
- All construction water must be obtained through an approved hydrant meter or bulk water meter, at a location approved by Public Works.
- Notice to Property Owners, Contractor Responsibility. When work performed by Contractor will impact or interrupt water /sewer /storm drainage utility service or interrupt vehicular or pedestrian access to any public or private property, Contractor shall notify all the affected parties prior to the anticipated impact a minimum of 48 hours in advance. In addition, Contractor shall provide door hangers or equivalent a minimum of 24 hours (and a maximum of 48 hours) before such interruption of utility service (or vehicular /pedestrian access) to all residences, structures or businesses impacted by the work (Contractor is responsible to coordinate with the City staff a minimum of 1 week prior in order to verify area of impact or interruption). In addition to the written notice, a representative of the Contractor shall knock on the front door of all affected residences or businesses on the morning that the work will commence, and attempt to notify the residents or businesses regarding the start of the work.
- EXISTING UTILITIES & FACILITIES:
- ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952–001–0010 through OAR 952–001–0090. You may obtain copies of the rules by calling the (Note: the telephone number for the Oregon Utility Notification Center is 232–1987).
- The location and descriptions of existing utilities shown on the drawings are compiled from available records and/or field surveys. The engineer or utility companies do not guarantee the accuracy or the completeness of such records. Contractor shall field verify sizes and locations of all existing utilities prior to construction.
- The Contractor shall locate and mark all existing property and street monuments prior to construction. Any survey monuments disturbed during construction of the project shall be replaced by a Registered Land Surveyor at the Contractor's expense. The monuments shall be replaced within a maximum of 90 days, and the County Surveyor shall be notified in writing as required by ORS 209.150.
- Contractor shall field verify location and depth of all existing utilities where new facilities cross or are closely parallel to the existing facilities. All utility crossings marked or shown on the drawings shall be potholed using hand tools or other non-invasive methods prior to excavating or boring. Contractor shall be responsible for resolving potential utility and other conflicts far enough ahead of construction to determine necessary grade, alignment or depth modifications without delaying the work or requiring otherwise unnecessary materials, fittings or structures. If grade, alignment or depth modification is necessary, Contractor shall notify the Design Engineer, and the Design Engineer shall obtain approval from the City Engineer prior to construction.

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

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FFYNNON PARK AND CAMPGROUND STORM IMPROVEMENTS
VERNONIA OR, COLUMBIA COUNTY

EXISTING UTILITIES + FACILITIES CONTINUED:

- All existing facilities shall be maintained in-place by the Contractor unless otherwise shown or directed. Contractor shall take all precautions necessary to support, maintain, or otherwise protect existing utilities and other facilities at all times during construction. Contractor to leave existing facilities in an equal or better-than-original condition and to the satisfaction of the City Engineer.
- Utilities that are abandoned in place, or interfering portions of utilities, shall be removed by the Contractor to the extent necessary to accomplish the work. The Contractor shall plug the remaining exposed ends of abandoned utilities (grout or concrete plugs, if used, shall be installed to fill the full pipe diameter for a distance of two times the pipe diameter from the pipe end).
- Unless otherwise approved by the City, all field ties intercepted during construction shall be repaired in accordance with the drawings.
- GRADING PAVING & DRAINAGE:
- Contractor shall remove all existing signs, mailboxes, fences, landscaping, etc., as required to avoid damage during construction and replace them to existing or better condition.
- The Contractor shall be responsible for managing construction activities to ensure that public streets and right-of-ways are kept clean of mud, dust or debris. Dust abatement shall be maintained by adequate watering of the site by the Contractor.
- Clear and grub within work limits all surface vegetation, trees, stumps, brush, roots, etc. Do not damage or remove trees except as approved by the Owner's Representative or as shown on the drawings. Protect all roots two inches in diameter or larger.
- Strip work limits, removing all organic matter, which cannot be compacted into a stable mass. All trees, brush, and debris associated with clearing, stripping or grading shall be removed and disposed of off-site.
- For public and private improvements, except as otherwise allowed by the specifications, drawing details or notes, immediately following stripping and grading operations, compact subgrade to 95% of the maximum dry density per AASHTO T–180 test method (Modified Proctor). Subgrade must be inspected and approved by the Owner's authorized representative before piecing, engineered fill or fine grading for base rock.
- Engineered fills shall be constructed and compacted in 6" lifts over approved subgrade. All fills shall be engineered and comply with the Oregon Structural Specialty Code, with each lift compacted to 95% of the maximum dry density per AASHTO T–180 test method (Modified Proctor).
- Granular baserock shall conform to the requirements of OSSC (ODOT/APWA) 02630.10 (Dense Graded Base Aggregate), with no more than 10% passing the #40 sieve and no more than 5% passing the #200 sieve.
- Compact granular baserock to 95% of the maximum dry density per AASHTO T–180 test method (Modified Proctor). Written baserock compaction test results from an independent testing laboratory must be received by the Owner's authorized representative before placing AC pavement, and a finished rock grade proof-roll (witnessed by the Owners authorized representative) must be performed.
- A.C. pavement shall conform to OSSC (ODOT/APWA) 00745 (Hot Mixed Asphalt Concrete Pavement) for standard duty mix. Unless otherwise specified or shown on the drawings, base lifts shall be 3/4" dense graded mix, while wearing courses shall be 1 1/2" dense graded mix. Unless otherwise specified or shown on the drawings, A.C. pavement for parking lots and streets shall be Level 2 mix (50 blow Marshall) per OSSC (ODOT/APWA) 00744.13. A.C. Pavement shall be compacted to a minimum of 91% of maximum density as determined by the Rice standard method. Written AC pavement compaction test results from an independent testing laboratory must be received by the Owner's authorized representative before final payment. Asphalt cement – use PG64–22 asphalt. Provide asphalt cement conforming to the most current published version of ODOT "Standard Specifications for Asphalt Materials." Use PG64–22 Performance Graded Asphalt Binder with mixes containing 20 percent or more RAP.
- Pavement surface shall be a smooth, well-sealed, tight not without depressions or bird baths. Bony or open graded pavement surfaces shall be repaired to the satisfaction of the Owner's authorized representative, prior to final acceptance of the work.
- IMAC mixtures shall be placed only when the surface is dry and weather conditions are such that proper handling, finishing and compaction can be accomplished. In no case shall bituminous mixtures be placed when the surface temperature is below the minimum established under 2018 OSSC (ODOT/APWA) 00744.40 (AC – Season and Temperature
- Limitations) or the project specifications, whichever is more stringent.
- Contractor shall protect new pavement against traffic as required, until it has cooled sufficiently to avoid tracking.
- Unless otherwise shown on the drawings or details, straight grades shall be run between all finish grade elevations and/or finish contour lines shown (exception: where grades are shown across sidewalk, slopes shall be adjusted to ensure that maximum allowable sidewalk cross slopes are not exceeded).
- Finish pavement grades at transition to existing pavement shall match existing pavement grades or be feathered past joints with existing pavement as required to provide a smooth, free-draining surface.
- All existing or constructed manholes, cleanouts, monument boxes, gas valves, water valves and similar structures shall be adjusted to match finish grade of the pavement, sidewalk, landscaped area or median strip wherein they lie. Verify that all valve boxes and risers are clean and centered over the operating nut.
- Unless otherwise shown on the drawings, no cut or fill slopes shall be constructed steeper than 2H: 1V.
- Contractor shall seed and mulch (uniformly by hand or hydroseed) all exposed slopes and disturbed areas which are not scheduled to be landscaped, including trench restoration areas. If the Contractor fails to apply seed and mulch in a timely manner during periods favorable for germination, or if the seeded areas fail to germinate, the Owner's Representative may (at his discretion) require the Contractor to install seed to cover such disturbed areas.
- The Contractor shall be responsible for managing construction activities to ensure that public streets and right-of-ways are kept clean of mud, dust or Dust abatement shall be maintained by adequate watering of the site by the Contractor.
- Unless otherwise noted, all grading, rocking and paving to conform to OSSC (ODOT/APWA) Specifications, 2018 edition.
- Clear and grub within work limits all surface vegetation, trees, stumps, brush, roots, etc. Do not damage or remove trees except as approved by the engineer or as shown on the drawings. Protect all roots two inches in diameter or larger on trees which are not scheduled for removal.
- Strip work limits, removing all organic matter which cannot be compacted into a stable mass. All trees, brush and debris associated with clearing, stripping or grading shall be removed and disposed of off-site. Fills are not to be placed prior to approval of stripping limits and depths and concurrence of such approval by the City.
- Immediately following fine grading operations, compact subgrade to 95% of the maximum dry density per AASHTO T–180 test method (Modified Proctor). Subgrade must be inspected and approved by the City prior to placing embankments or base rock.
- Unless otherwise shown on the drawings, straight grades shall be run between all finish grade elevations and/or finish contour lines shown. Finish pavement grades at transition to existing pavement shall match existing pavement grades or be feathered past joints with existing pavement as required to provide a smooth, free draining surface.
- Crushed granular baserock shall conform to the requirements of OSSC (ODOT/APWA) 02630.10 (Dense Graded Base Aggregate), with no more than 10% passing the #40 sieve and no more than 5% passing the #200 sieve, and shall be approved by the City prior to placement.
- 36" Compact granular baserock to 95% of the maximum dry density per AASHTO T–180 test method (Modified Proctor). Prior to placing AC pavement, written compaction test results for baserock and trench backfill must be received by the City, and a finished rock grade proof-roll (witnessed by the City) must be performed.
- All existing or constructed manholes, cleanouts, monuments, gas valves, water valves and similar structures shall be adjusted by the Contractor to match finish grade of the pavement, sidewalk, landscaped area or median strip wherein they lie.
- Unless otherwise shown on the drawings, no cut or fill slopes shall be constructed steeper than 2H: 1V maximum.
- Contractor shall hydroseed all exposed slopes and disturbed areas which are not scheduled to be landscaped.
- PIPED UTILITIES:
- Unless otherwise noted, materials and workmanship for water, sanitary sewer and storm sewer shall conform to OSSC (ODOT/APWA) Specifications, 2015 edition.
- The Contractor shall have appropriate equipment on site to produce a firm, smooth, undisturbed subgrade at the trench bottom, true to grade. The bottom of the trench excavation shall be smooth, free of loose materials or tooth grooves for the entire width of the trench prior to placing the bedding material.
- Bedding and Backfill. All pipes in the treatment plant or under paved roadways shall be bedded with a minimum of 6-inches of 3/4" minus crushed rock bedding and backfilled with compacted 3/4" minus crushed rock in the pipe zone (crushed rock shall extend a minimum of 12-inches over the top of the pipe in all cases). Granular trench backfill shall be compacted to 92% of the maximum dry density per AASHTO T–180 test method (Modified Proctor). All pipes in farm fields or the airport shall be bedded with a minimum of 6-inches of sand and backfilled with compacted native soil in the pipe zone as detailed in the drawings.

PIPED UTILITIES CONTINUED:

- All piped utilities abandoned in place shall have all openings closed with concrete plugs with a minimum length equal to 2 times the diameter of the abandoned pipe.
- Contractor shall provide all materials, equipment and facilities required for testing all utility piping in accordance with City construction specifications.
- Tracer (Toning) Wire. All water, sanitary and storm sewer piping shall have an electrically conductive insulated 10-gauge solid core copper tracer wire the full length of the installed mainline pipe using blue wire for water and green for storm and sanitary piping.
- Tracer wire shall be taped to the top of the pipe at 10 foot maximum intervals and shall be extended up into all valve boxes, and manholes and catch basins and accessible from the surface.
- All tracer wire splices shall be made with corrosion resistant waterproof wire nuts (DBR direct bury splice kit by 3M Company, or equal).
- Tracer wire penetrations into manholes shall be within 18 inches of the rim elevation. The tracer wire shall be set to allow retrieval from the outside of the manhole or catch basin.
- Warning Tape. Detectable or non-detectable acid and alkali resistant safety warning tape shall be provided along the full length of all water, sanitary sewer and storm drain segments. Underground warning tape shall be continuous the entire length.
- No trenches in roads or driveways shall be left in an open condition overnight. All such trenches shall be closed before the end of each work day and normal traffic flows restored.
- Before mandrel testing, TV inspection or final acceptance of gravity sewer or storm pipelines, all trench compaction shall be completed and all sewers and storm drains flushed & cleaned to remove all mud, debris & foreign material from the pipelines, manholes and/or catch basins.
- The Contractor shall have appropriate equipment on site to produce a firm, smooth, undisturbed subgrade at the trench bottom, true to grade. The bottom of the trench excavation shall be smooth, free of loose materials or tooth grooves for the entire width of the trench prior to placing the granular bedding material.
- Before mandrel testing, TV inspection or final acceptance of gravity pipelines, all trench compaction shall be completed and all sewers and storm drains flushed & cleaned to remove all mud, debris & foreign material from the pipelines, manholes and/or catch basins.
- SEWER & STORM MANHOLES
- All precast sanitary sewer manholes shall be provide with integral rubber boots.
- All connections to existing manholes shall be made by core-drilling the existing manhole structure and installing a rubber boot. Connections to manholes shall be watertight and shall provide a smooth flow into and through the manhole. Small chipping hammers or similar light tools which will not damage or crack the manhole base may be used to shape channels. Use of large pneumatic jackhammers shall be prohibited.
- Manhole channel depths (sewer & storm) shall be to the heights shown on the drawings, but in no case shall be the channel depth be less than 2/3 of the pipe diameter. Flow channels in manholes shall be of such shape (semi-circular bottoms) and slope to provide smooth transition between inlet and outlet sewer size/invert to minimize turbulence and to ensure that the manhole channels are self-cleaning. Channels, as well as shelves between the channels and the manhole walls, shall be sloped to drain per plan details.
- All sanitary sewer manholes shall be internally sealed with Strong-Seal or equivalent (including new manholes and existing manholes worked on for taps, repairs, etc.). Installation shall be by methods and by a contractor approved by Public Works.
- Non-shrink grout used for sewer and storm manholes shall be Speed Crete Red Line, or equal approved in writing by Public Works.
- Vacuum Testing. All sanitary sewer manholes shall be vacuum tested following completion of paving or final surface restoration. All testing shall conform to requirements as outlined on City testing forms contained in the Visible groundwater infiltration or leakage constitutes a failed manhole test, whether or not the vacuum test is successful.
- CURBS & SIDEWALKS:
- Unless otherwise shown or indicated on the drawings, 6-inches nominal curb exposure used for design of all parking lot and street grades.
- Where new curbing connects to existing curbing or is installed along existing streets or pavement, the gutter grade shall match the existing street grades so as to allow drainage from the street to the gutter and through any transitions. The Contractor shall notify the Owner's Representative in writing of any grade discrepancies or problems prior to curb placement.
- STORM DRAIN
- Unless otherwise shown, storm drain pipe shall be PVC in conformance with ASTM D3034, SOR 35. All other appurtenances and installation to conform to the City specifications.
- Catch basins and junction boxes shall be set square with buildings or with the edge of the parking lot or street wherein they lie. Storm drain inlet structures and paving shall be adjusted so water flows into the structure without ponding water. All catch basins shall be provided with City approved storm drain marker, "NO DUMPING, DRAINS TO RIVER" with a fish symbol, epoxy bonded to top of basin.

STORM PIPE TABLE		
Cover Depth	6" – 18" Diameter	
Less than 2' Cover	Class 50 ductile iron pipe with bell and spigot joints and rubber gasket.	
2' to 2-1/2' Cover	Pipe specified for lesser cover depths –or– Class 3, ASTM C-14 non-reinforced concrete pipe with bell and spigot joints & rubber gaskets, ASTM 150 Type II cement. –or– PVC pipe conforming to AWWA C900 DR 18 (6"-12") or AWWA C-905 (14"-18") with bell and spigot joints and rubber gasket	
2-1/2' to 15' Cover	Pipe specified for lesser cover depths –or– PVC pipe conforming to ASTM D-3034 PVC SDR 35 (6"-15") or ASTM F-679 PVC solid wall SDR 35 (18") with bell and spigot joints and rubber gasket. –or– HDPE (high density polyethylene) pipe conforming to AASHTO M-252, (6"-10") or AASHTO M-254 (12"-18"). For slopes less than 6% the pipe shall be ADS N-12 IB ST, Mancor Sure-Lok F477, or approved equal. For slopes greater than 6% the pipe shall be ADS N-12 IB WT, Mancor Blue Seal, or approved equal with watertight pressure testable fittings. –except– jointed HDPE (high density polyethylene) pipe referenced above not permitted for depth to invert greater than 12 feet.	
More than 15' Cover	See construction drawings.	
Cover Depth	21" – 30" Diameter	
Less than 2' Cover	Class 50 ductile iron pipe with bell and spigot joints and rubber gasket.	
2' to 2-1/2' Cover	Pipe specified for lesser cover depths –or– Class IV ASTM C-76 reinforced concrete pipe with bell and spigot joints and rubber gasket, ASTM 150, Type II cement.	
2-1/2' to 15' Cover	Pipe specified for lesser cover depths –or– (**HDPE allowed up to 60" diameter subject to max. depth limits listed) ASTM F-679 PVC solid wall SDR 35 pipe with bell and spigot joints and rubber gasket –or– HDPE (high density polyethylene) pipe conforming to AASHTO M-254. For slopes less than 6% the pipe shall be ADS N-12 IB ST, Mancor Sure-Lok F477, or approved equal. For slopes greater than 6% the pipe shall be ADS N-12 IB WT, Mancor Blue Seal, or approved equal with watertight pressure testable fittings. –except– (**jointed HDPE (high density polyethylene) pipe referenced above not permitted for depth to invert greater than 12 feet.	
More than 15' Cover	See construction drawings.	
Greater than 30" diameter and other pipe materials:	Case by case basis.	

STORM DRAIN CONTINUED:

- Unless otherwise approved by the City Engineer, all storm drain connections shall be by manufactured tee or wye fittings.
- Unless otherwise shown on the drawings, all storm pipe inlets & outfalls shall be beveled flush to match the slope wherein they lie.
- Sweep (deflect) storm drain pipe into catch basins and manholes as required. Maximum joint deflection shall not exceed 5 degrees or manufacturers recommendations, whichever is less.
- Unless otherwise specified or directed, install storm drain pipe in accordance with manufacturer's installation guidelines.
- Storm Cleaning. After manhole channeling and prior to mandrel testing, TV inspection or final acceptance, flush and clean all sewers, and remove all foreign material from mainlines, manholes and catch basins. Failure to clean all dirt, rock and debris from pipelines and manholes prior to TV inspection will result in the need to re-clean and re-TV the storm lines. The Contractor will be required to pay for water used for such re-cleaning of storm lines.
- Storm Mandrel Testing. Contractor shall conduct deflection test of flexible storm sewer pipes by pulling on approved mandrel through the completed pipe line following trench compaction. The diameter of the mandrel shall be 95% of the initial pipe diameter. Test shall be conducted not more than 30 days after the trench backfilling and compaction has been completed.
- Storm TV Inspection. Upon completion of all storm drain construction, testing and repair, the Contractor shall conduct a color TV acceptance inspection of all mainlines in accordance with OSSC (ODOT/APWA) 445.74 to determine compliance with grade requirements of OSSC (ODOT / APWA) 445.40.b (no deviation greater than 1/32-inch per inch of pipe diameter [1/2-inch max for pipes >16-inch diameter], & no reverse slope/pipe inverts) and to verify pipelines are adequately cleaned. The TV inspection shall be conducted by an approved technical service which is equipped to make audio-visual recordings of the TV inspections on DVD or thumb drive. Unless otherwise required by agency with jurisdiction, a standard 1-inch diameter ball shall be suspended in front of the camera during the inspection. Sufficient water to reveal low areas or reverse grades shall be discharged into the pipe immediately prior to initiation of the TV inspection. The DVD or thumb drive and written report shall be delivered to the City.
- Prior to acceptance, the City may also lamp storm lines upstream & downstream of structures to verify that the pipes are clean and there is no grout or concrete in the mainlines, and that there are no observable bellies in the line. When necessary, sufficient water to reveal low areas shall be discharged into the pipe by the Contractor prior to any such inspection by the City.

REQUIRED TESTING AND FREQUENCY TABLE		Party Responsible for payment	
		Contractor	Others (see note 1)
Roads, Dikes			
Subgrade	1 Test/4000 S.F./Lift (4 min), locations acceptable to approving agency (typically alternate sides of road or access aisles)	✓	See note 2
Baserock	1 Test/4000 S.F./Lift (4 min), locations acceptable to approving agency (typically alternate sides of road or access aisles)	✓	See note 2
Piped Utilities, All			
Trench Backfill	1 Test/200 Foot Trench/Lift (4 min)	✓	See note 2
Trench AC Restoration	1 Test/300 Foot Trench (4 min)	✓	See note 2
Sanitary Sewer			
Air Test	Per City or APWA Requirements, whichever is more stringent	✓	See note 3
Mandrel	95% of actual inside diameter	✓	See note 3
TV Inspection	All Lines must be cleaned prior to TV work	✓	
Manhole	(1) Vacuum test per manhole, witnessed by Owner's Representative or approving agency	✓	See note 2
Pressure Test (Irrig. Piping & Force Main)	Hydrostatic pressure test, witnessed by Owner's Representative or approving agency	✓	See note 3
Storm			
Mandrel	95% of actual inside diameter	✓	See note 3
Concrete, Block, etc.			
Slump, Air & Cylinders for structural & reinforced concrete, equipment slabs, curbs, sidewalks & PCC pavements. Unless otherwise specified, one set of cylinders per 100 cubic yards (or portion thereof) of each class of concrete placed per day			
Slump & air tests required on same load as cylinders	✓	See note 2	
Building permit inspection & Special Inspection for structural concrete, reinforced masonry, epoxy anchors, etc. as required by applicable State Building Codes.		See note 4	✓
Note 1: "Others" refers to Owner's authorized Representative or Approving Agency as applicable. Contractor responsible for scheduling testing. All testing must be completed prior to performing subsequent work.			
Note 2: Testing must be performed by an approved independent testing laboratory.			
Note 3: To be witnessed by the Owner's Representative or approving agency. The Contractor shall perform pretests prior to scheduling witnessed watertight or sanitary sewer pressure tests, or pipeline mandrel test.			
Note 4: The Contractor is responsible for scheduling and coordinating any and all required inspections and Special Inspections as required by applicable building codes or jurisdictions having authority.			



TITLE: FFYNNON PARK AND CAMPGROUND STORM IMPROVEMENTS GENERAL NOTES AND TABLES

CLIENT: FFYNNON, NON-PROFIT 57009 PEBBLE CREEK ROAD VERNONIA OREGON 97064

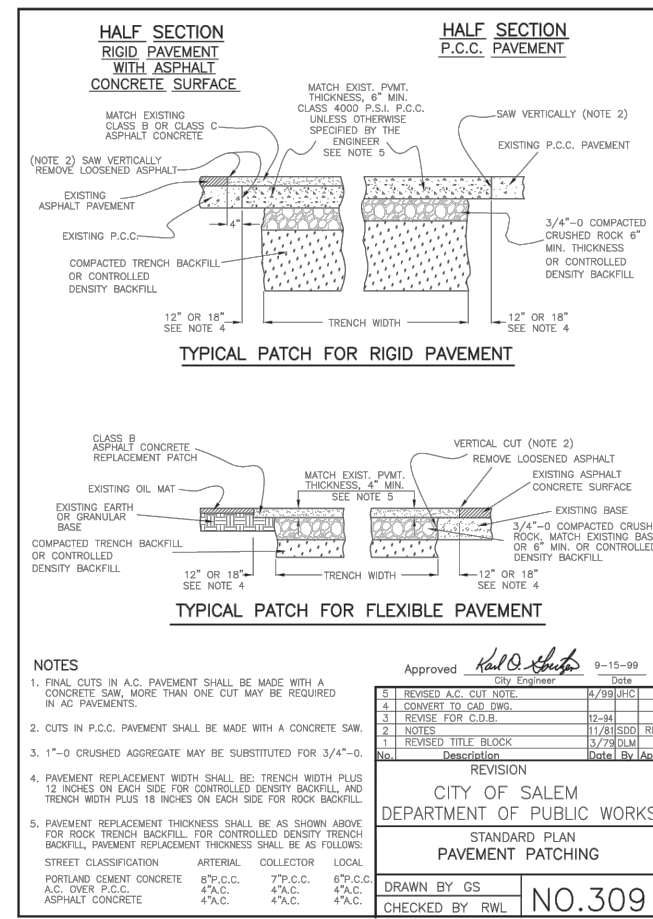
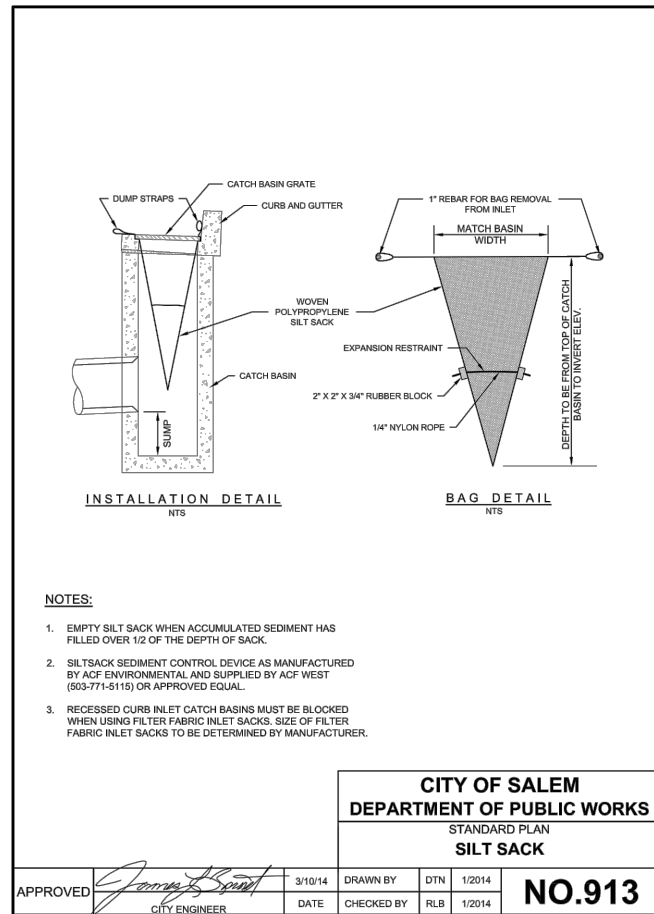
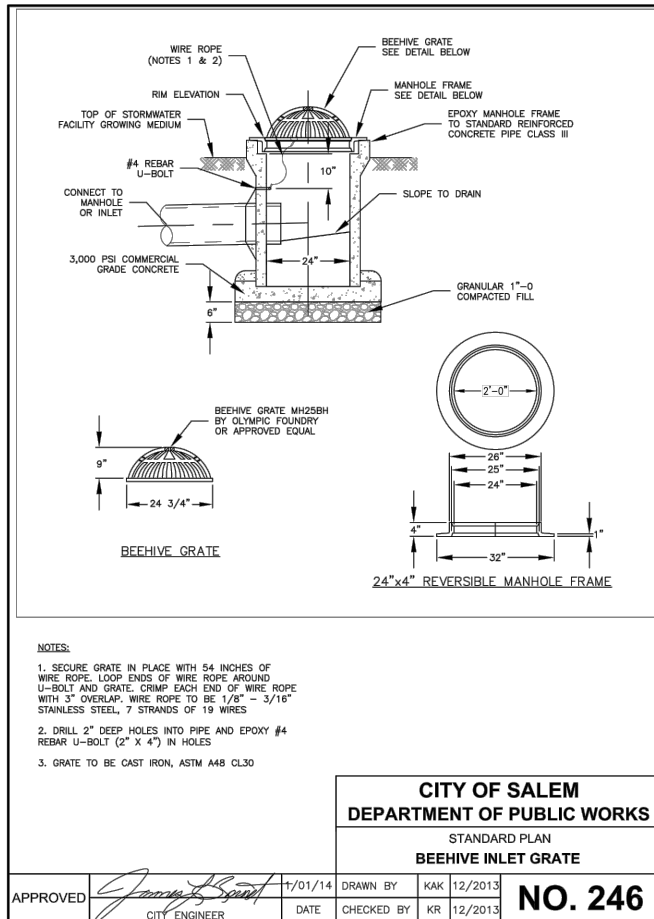
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DRAWN: RER

CHECKED: RER

DATE: 12/18/24

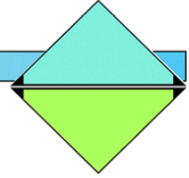
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NAP POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

Prepared for
FFYNNON – NONPROFIT 501(c)(3)

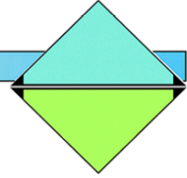
December 17, 2024
File No.: CU 24-04 and DR 24-04

Prepared by
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Stormwater Drainage Report for NAP (North Access Point)

Ffynnon Campground Stormwater Management Plan

1. Introduction

1.1 Project Overview

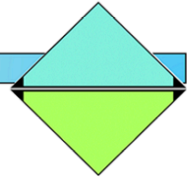
The Ffynnon Campground NAP Stormwater Management Plan focuses on managing stormwater runoff for the proposed improvements north of the seasonal stream. The NAP construction includes additional impervious and semi-impervious surfaces such as asphalt and gravel areas. This report ensures that all stormwater generated is treated and infiltrated on-site in compliance with Columbia County standards.

1.2 Site Location

The project is located at **57009 Pebble Creek Road, Vernonia, Oregon**, in a Primary Forest Zone (PF-80). The area north of the seasonal stream will be developed to include parking and infrastructure improvements, necessitating effective stormwater management to maintain environmental quality.

1.3 Goals and Objectives

- Meet Columbia County stormwater management requirements.
- Design an integrated system for treatment and infiltration of runoff.
- Minimize erosion and ensure the protection of adjacent water bodies.



- Incorporate native vegetation and biofiltration techniques to enhance site aesthetics and functionality.
-

2. Site Conditions

2.1 Existing Site Conditions

The existing site comprises a mix of natural meadows and gravel trails. Key site characteristics include:

- **Topography:** Slopes range from 3% to 30%.
- **Soil Type:** Mayger Silt Loam (Type 30D) with a measured infiltration rate of 1.1 inches/hour.
- **Drainage Patterns:** Runoff drains toward the seasonal stream to the south.

2.2 Proposed Development

The Phase 1 improvements include the following:

- **Impervious Surfaces:**
 - Asphalt apron: **6,215 sf**
 - **Semi-impervious Surfaces:**
 - Gravel parking: **11,586 sf**
 - Total Area: **17,801 sf**
 - **Total Equivalent Impervious Area:** Calculated based on runoff coefficients, including asphalt (CN=98) and gravel (CN=92).
-

3. Stormwater Design

3.1 Design Storm Requirements

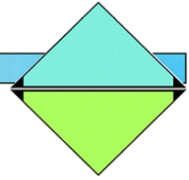
Stormwater facilities are designed to handle the following events:

- **Water Quality Storm:** 1.4 inches (24-hour storm).



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- **2-Year, 24-Hour Storm:** 2.8 inches.
- **10-Year, 24-Hour Storm:** 3.9 inches.
- **100-Year, 24-Hour Storm:** 5.4 inches.

3.2 Stormwater Treatment System

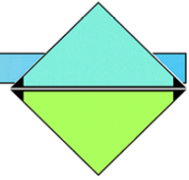
A treatment train is proposed, featuring a single rain garden and a biofiltration pond.

1. Rain Garden

- Location: Adjacent to the parking area.
- Dimensions:
 - Bottom Area: **30' x 20' = 600 sf**
 - Surface Area: **36' x 26' = 936 sf**
 - Ponding Depth: **6 inches**
 - Freeboard: **6 inches**
 - Total Depth: **12 inches**
- Volume: **384 cf**
- Features:
 - 24-inch engineered soil media.
 - Overflow connection to biofiltration pond.

2. Biofiltration Pond

- Dimensions:
 - Bottom Area: **45' x 35' = 1,575 sf**
 - Surface Area: **56' x 46' = 2,576 sf**



- Total Depth: **30 inches** (18 inches treatment, 12 inches freeboard).
- Volume: **1,550 cf**
- Features:
 - Pre-treatment forebay (15% of WQ volume).
 - Emergency spillway for 100-year storm events.
 - 18-inch engineered soil media.

3.3 Hydrologic Calculations

- **Required Water Quality Volume:**
- **Rain Garden Contribution:**
- **Remaining Treatment Volume:**
- **Biofiltration Pond Storage:**
- **Drawdown Time:** Using a design infiltration rate of **0.55 inches/hour**, the drawdown time is **33 hours** (within 48-hour requirement).

3.4 Overflow Management

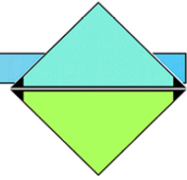
Both facilities include overflow connections to safely convey excess flows to the seasonal stream during large storm events.

4. Vegetation and Soil Design

4.1 Planting Plan

The rain garden and biofiltration pond will use native plants for biofiltration and stabilization.

- **Zone 1 (Pond Bottom):** *Juncus effusus*, *Carex obnupta*, *Eleocharis palustris*.
- **Zone 2 (Side Slopes):** *Cornus sericea*, *Spiraea douglasii*, *Juncus patens*.



- **Zone 3 (Upland Buffer):** *Ribes sanguineum*, *Polystichum munitum*, *Fragaria chiloensis*.

4.2 Soil Specifications

- **Rain Garden Media:**
 - 24 inches depth.
 - 60% sand, 40% compost.
 - Porosity: 30%.
- **Biofiltration Pond Media:**
 - 18 inches depth.
 - 60% sand, 20% topsoil, 20% compost.

5. Maintenance and Monitoring

5.1 Maintenance Tasks

Task	Frequency	Details
Sediment Removal	Annual	Remove sediment exceeding 3" depth.
Vegetation Inspection	Quarterly	Replace dead plants; maintain 90% survival.
Mulching	Annual	Apply 3" mulch; keep clear of stems.
Debris and Litter	Monthly	Remove debris from inlet and outlet.
Overflow Check	After Major Storm	Clear obstructions in spillway.
Underdrain Cleaning	As Needed	Flush underdrain to prevent clogging.

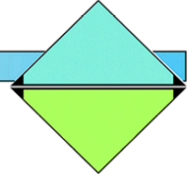
5.2 Monitoring Plan

- **Year 1-2:** Monthly weeding and irrigation during dry months.
- **Post-Year 2:** Annual inspection of system performance and vegetation.



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6. Conclusion

The Phase 1 Stormwater Management Plan incorporates a rain garden and biofiltration pond to meet regulatory requirements and ensure sustainable runoff treatment. The use of native vegetation, engineered soil media, and routine maintenance ensures effective long-term performance.

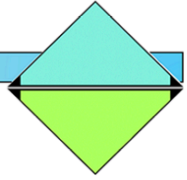
Attachments

1. **Site Map and Topography.**
2. **Stormwater Design Calculations [29†source] .**
3. **Planting Plan Details.**
4. **Example SWMP (Port Westward Industrial Park).**



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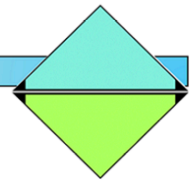


SAP POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

Prepared for
FFYNNON – NONPROFIT 501(c)(3)

December 17, 2024
File No.: CU 24-04 and DR 24-04

Prepared by
Aligned Engineering, LLC



97078, Aloha, OR 97078



Stormwater Drainage Report for SAP (South Access Point)

Ffynnon Campground Stormwater Management Plan

1. Introduction

1.1 Project Overview

The Ffynnon Campground SAP Stormwater Management Plan addresses stormwater runoff for the proposed improvements south of the seasonal stream located on the property. The SAP improvements include additional impervious and semi-impervious surfaces such as asphalt parking, gravel areas, and infrastructure. The purpose of this report is to ensure that stormwater runoff generated from the development is effectively managed on-site in accordance with Columbia County standards, protecting downstream water quality and meeting environmental requirements.

1.2 Site Location

The project is located at **57009 Pebble Creek Road, Vernonia, Oregon** (Tax Lot IDs: 4400-00-02300 & 4421-00-00300). The site lies within a Primary Forest Zone (PF-80) and is surrounded by natural meadows, forested areas, and a seasonal stream that runs through the southern portion of the property.

1.3 Goals and Objectives

- Meet Columbia County standards for stormwater management.
- Design a sustainable stormwater system that treats and infiltrates runoff on-site.
- Prevent erosion and discharge of untreated runoff into adjacent water bodies.



- Integrate stormwater facilities with site aesthetics using native vegetation and biofiltration techniques.
-

2. Site Conditions

2.1 Existing Site Conditions

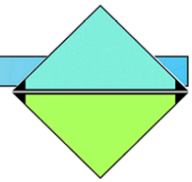
The existing site consists of meadows, forested areas, gravel drives, and dirt trails. Key features include:

- **Topography:** Gentle to moderate slopes, ranging between 3% and 30%.
- **Soil Type:** Predominantly **Mayger Silt Loam (Type 30D)** with moderate infiltration rates.
- **Drainage Patterns:** The site drains naturally toward the seasonal stream located in the southern portion.

2.2 Proposed Development

The SAP improvements include the following:

- **Impervious Surfaces:**
 - Asphalt parking: **6,215 sf**
 - Barn roof: **816 sf**
 - Concrete apron: **330 sf**
 - Total Impervious: **7,361 sf**
- **Semi-impervious Surfaces:**
 - Gravel parking: **1,820 sf**
 - Gravel driveway: **4,413 sf**
 - Storm ditch: **3,950 sf**
 - Aggregate turnaround: **900 sf**
 - Total Semi-impervious: **11,083 sf**
 - Equivalent Impervious Area = **7,758 sf** (using C=0.7).



- **Total Design Area: 15,119 sf equivalent impervious area.**
-

3. Stormwater Design

3.1 Design Storm Requirements

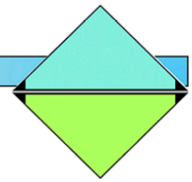
The stormwater management facilities have been designed to handle the following storm events as per Columbia County standards:

- **Water Quality Storm (WQ):** 1.4 inches over 24 hours (50% of 2-year storm).
- **2-Year, 24-Hour Storm:** 2.8 inches.
- **10-Year, 24-Hour Storm:** 3.9 inches.
- **100-Year, 24-Hour Storm:** 5.4 inches.

3.2 Stormwater Treatment Train

A multi-stage treatment system is proposed to manage and treat runoff:

1. **Rain Gardens:** Four rain gardens are proposed near parking areas for initial treatment.
 - Each rain garden: **400 sf** (20' x 20').
 - Total rain garden area: **1,600 sf**.
 - Ponding depth: **6 inches**; Media depth: **24 inches**.
 - Volume reduction: 20% of WQ volume.
2. **Biofiltration Pond:** A main biofiltration pond will provide final treatment, detention, and infiltration.
 - Required Treatment Volume: **1,411 cf** (post rain garden reduction).
 - Pond Design:
 - Bottom dimensions: **40' x 30'**.
 - Side slopes: **3:1**.



- Total depth: **3.5 feet** (1.5 feet sediment storage, 2.0 feet live storage).
- Surface area at rim: **64' x 54'**.
- Total volume: **2,000 cf** (includes additional capacity).
- Features:
 - Pre-treatment forebay (15% of WQ volume).
 - Flow spreader to distribute inflow.
 - Emergency spillway sized for 100-year storm.
 - Native vegetation on side slopes.

3.3 Hydrologic Calculations

- **Water Quality Volume (WQ):**
- **Rain Garden Reduction:**
- **Pond Required Volume:**
- **Drawdown Time:** Using engineered soil with a permeability of **1 inch/hour**, drawdown is achieved within **48-72 hours**.

3.4 Overflow Management

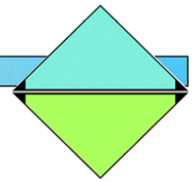
The biofiltration pond includes an emergency overflow spillway designed to safely convey flows exceeding the 100-year, 24-hour storm event to the seasonal stream.

4. Vegetation and Soil Design

4.1 Planting Plan

Native plants are specified for biofiltration and soil stabilization **【12†source】** .

- **Zone 1 (Pond Bottom):** *Juncus effusus*, *Carex obnupta*, *Eleocharis palustris*.
- **Zone 2 (Side Slopes):** *Cornus sericea*, *Spiraea douglasii*, *Juncus patens*.



- **Zone 3 (Upland Buffer):** *Ribes sanguineum*, *Polystichum munitum*, *Fragaria chiloensis*.

4.2 Soil Specifications

The biofiltration media consists of:

- 60% sand, 40% compost.
- Depth: **18 inches** minimum.
- Porosity: 30%.

5. Maintenance and Monitoring

The long-term success of the stormwater facilities depends on regular inspection and maintenance.

Task	Frequency	Details
Sediment Removal	Annual	Remove sediment exceeding 3" depth.
Vegetation Inspection	Quarterly	Replace dead plants; maintain 90% survival.
Mulching	Annual	Apply 3" mulch; keep clear of stems.
Debris and Litter	Monthly	Remove debris from inlet and outlet.
Overflow Check	After Major Storm	Clear obstructions in spillway.
Underdrain Cleaning	As Needed	Flush underdrain to prevent clogging.

5.1 Monitoring Plan

- **Year 1-2:** Establishment period with monthly weeding and bi-weekly irrigation during dry months.
 - **Post-Year 2:** Annual inspections for vegetation survival, sediment buildup, and system performance.
-



6. Conclusion

The SAP Stormwater Management Plan integrates rain gardens and a biofiltration pond to meet Columbia County's stormwater treatment and detention standards. Native vegetation, engineered soil, and a detailed maintenance plan ensure long-term functionality and environmental protection.

Attachments

- 1. Site Map and Topography.**
- 2. Stormwater Design Calculations.**
- 3. Planting Plan Details.**
- 4. County Correspondence.**

SITE PLAN

Ffynnon Site Plan proposal to support the conditional use application for Private Park

Organization:

Ffynnon, non-profit 501(c3)
source@ffynnonoregon.com

Park Site Location:

57009 Pebble Creek Road
Vernonia Oregon 97064

Prepared by:

Neal Hevel - Special Director
Michael Agee - Special Director
Martha Taylor - Secretary/Director
Isidora Forrest - Director

Prepared Date: 7/8/25

Project Manager:

Martha Taylor

Traffic Engineer:

Ken Kim - Lancaster Mobley

Design/Storm Engineer:

Robert Rippee - Aligned Engineering



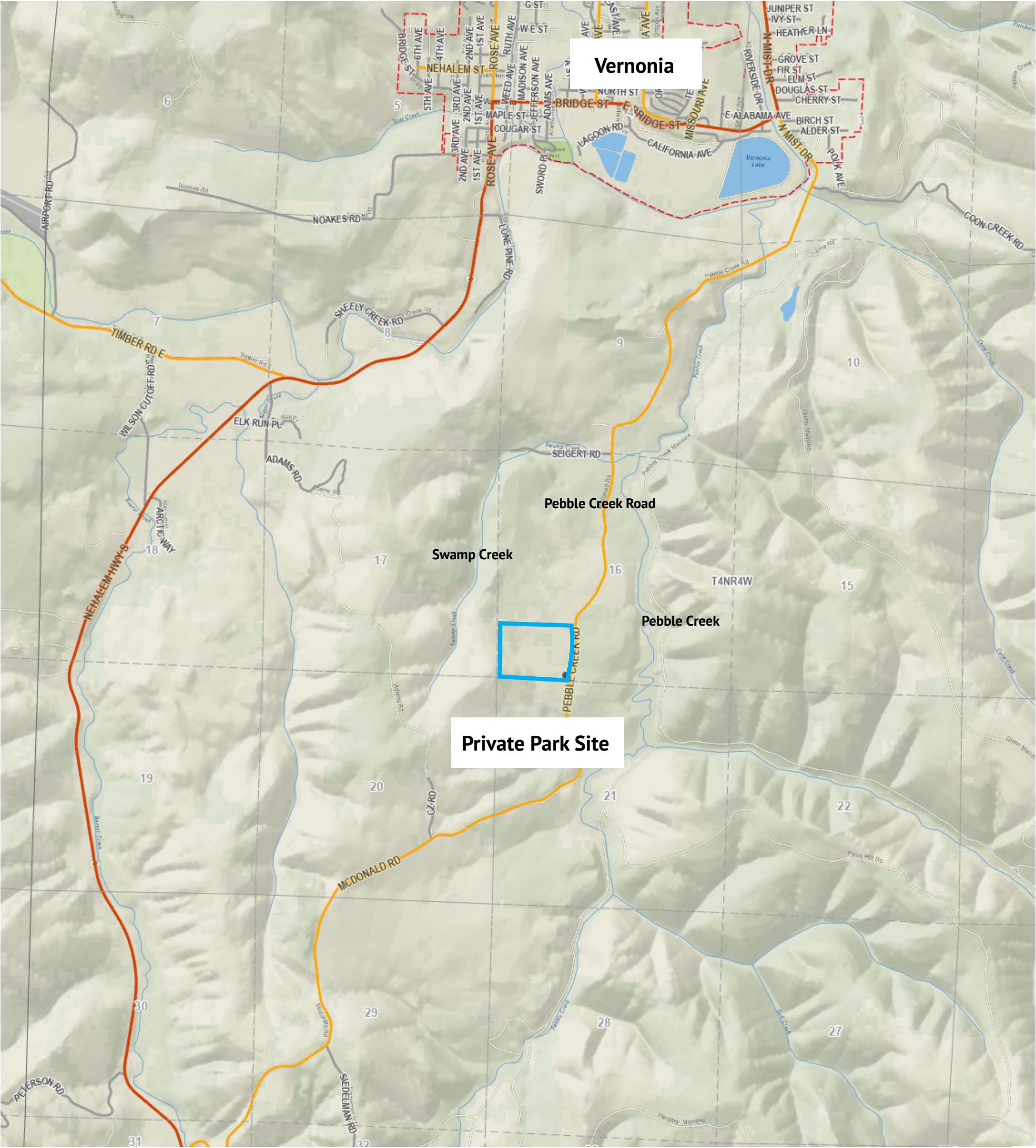
Contents:

PAGE 1 - VICINITY MAP
PAGE 2 - VICINITY MAP ZOOM
PAGE 3 - TAX ASSESSOR'S MAP
PAGE 4 - DETAILED SITE TERRAIN
PAGE 5 - DETAILED SITE PLAN
PAGE 6 - DETAILED INSET 1
PAGE 7 - DETAIL TOPOGRAPHY
PAGE 8 - DETAIL TOPOGRAPHY INSET
PAGE 9 - PROPOSED SITE PLAN
PAGE 10 - PLAN INSET 1 - CAMPGROUND
PAGE 11 - PLAN INSET 2 - PARKING
PAGE 12 - SITE PLAN TENT/RV CAMPSITES - DETAILS SOUTH AREA
PAGE 13 - SITE PLAN TENT/RV CAMPSITES - DETAILS NORTH AREA
PAGE 14 - URBAN GROWTH BOUNDARY

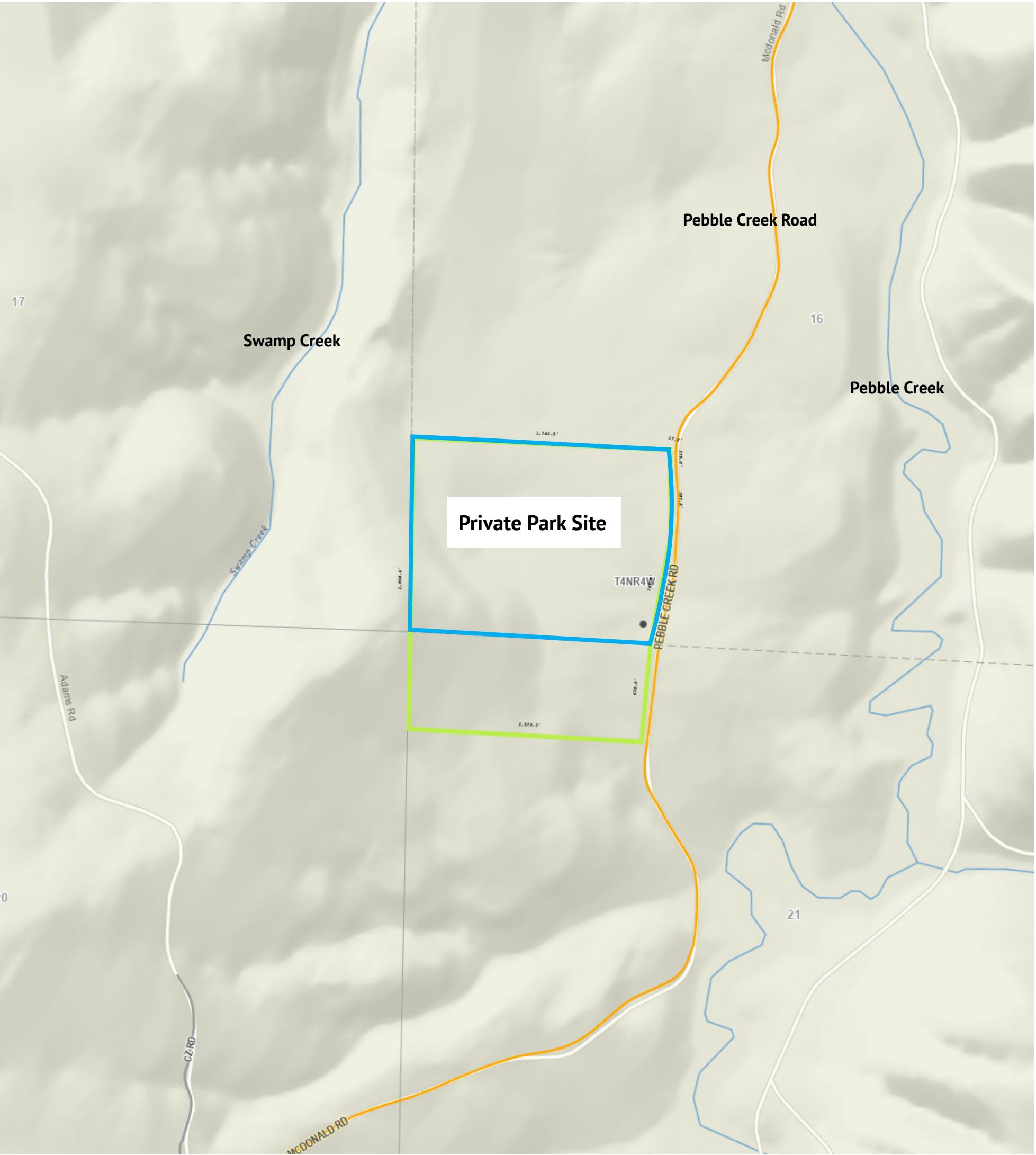
Supporting Documents:

Project Narrative
Site Design Review
Traffic Impact Memorandum
Ffynnon Park and Camp - Storm Improvement Plans
Storm Drainage Report - SAP
Storm Drainage Report - NAP

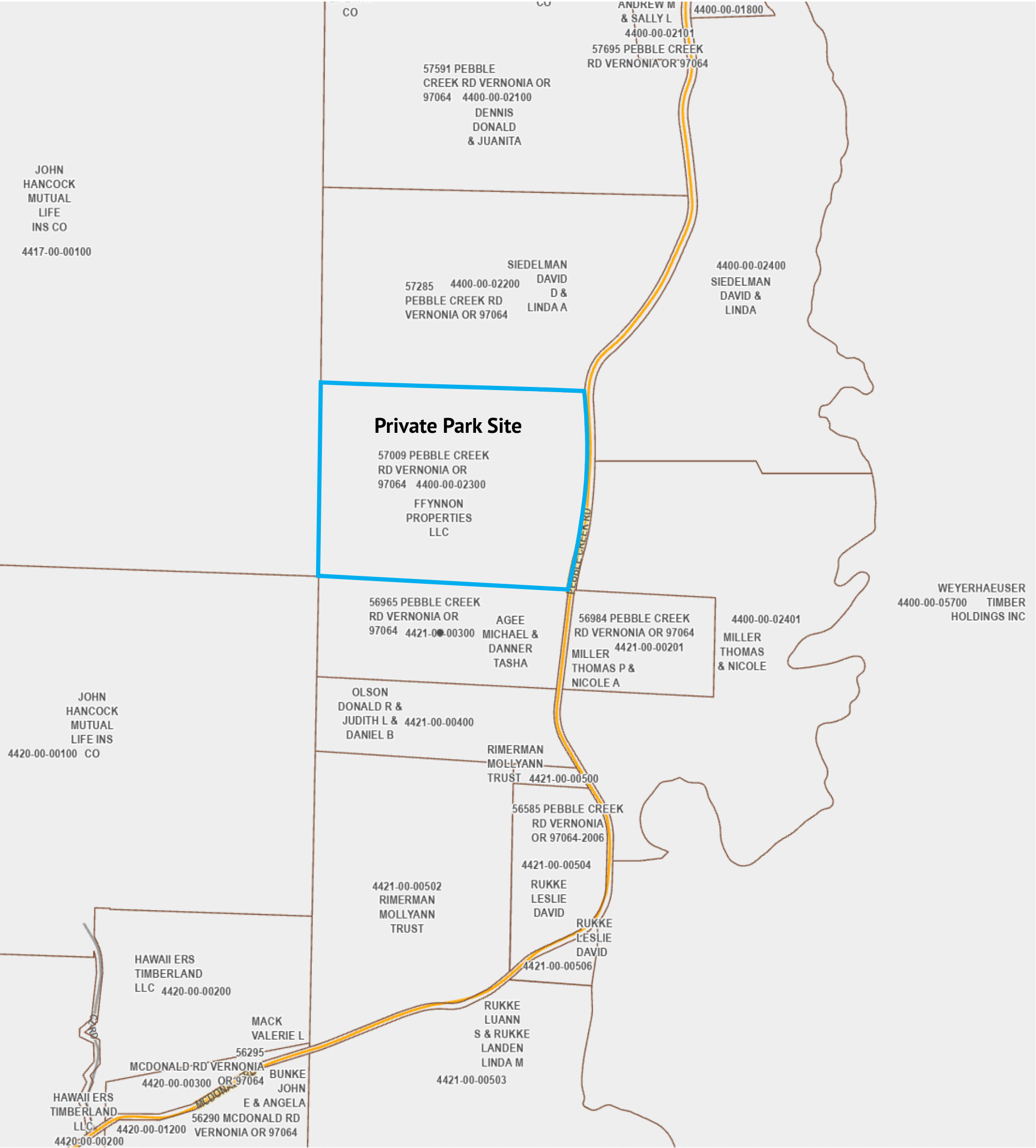
Vicinity Map



Vicinity Map Zoom



Tax Assessor’s Map

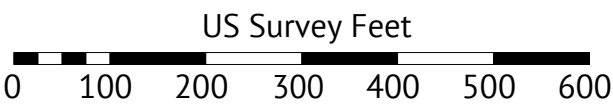


Detailed Site Terrain

Overhead terrain map of the site, showing forested areas and meadows.

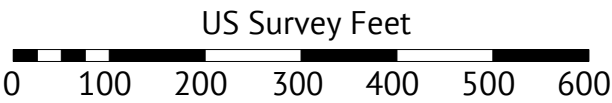
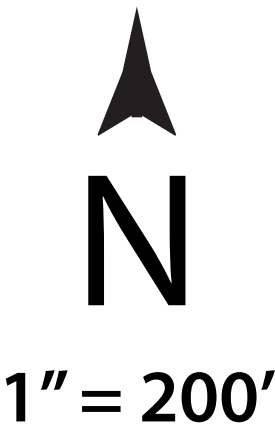
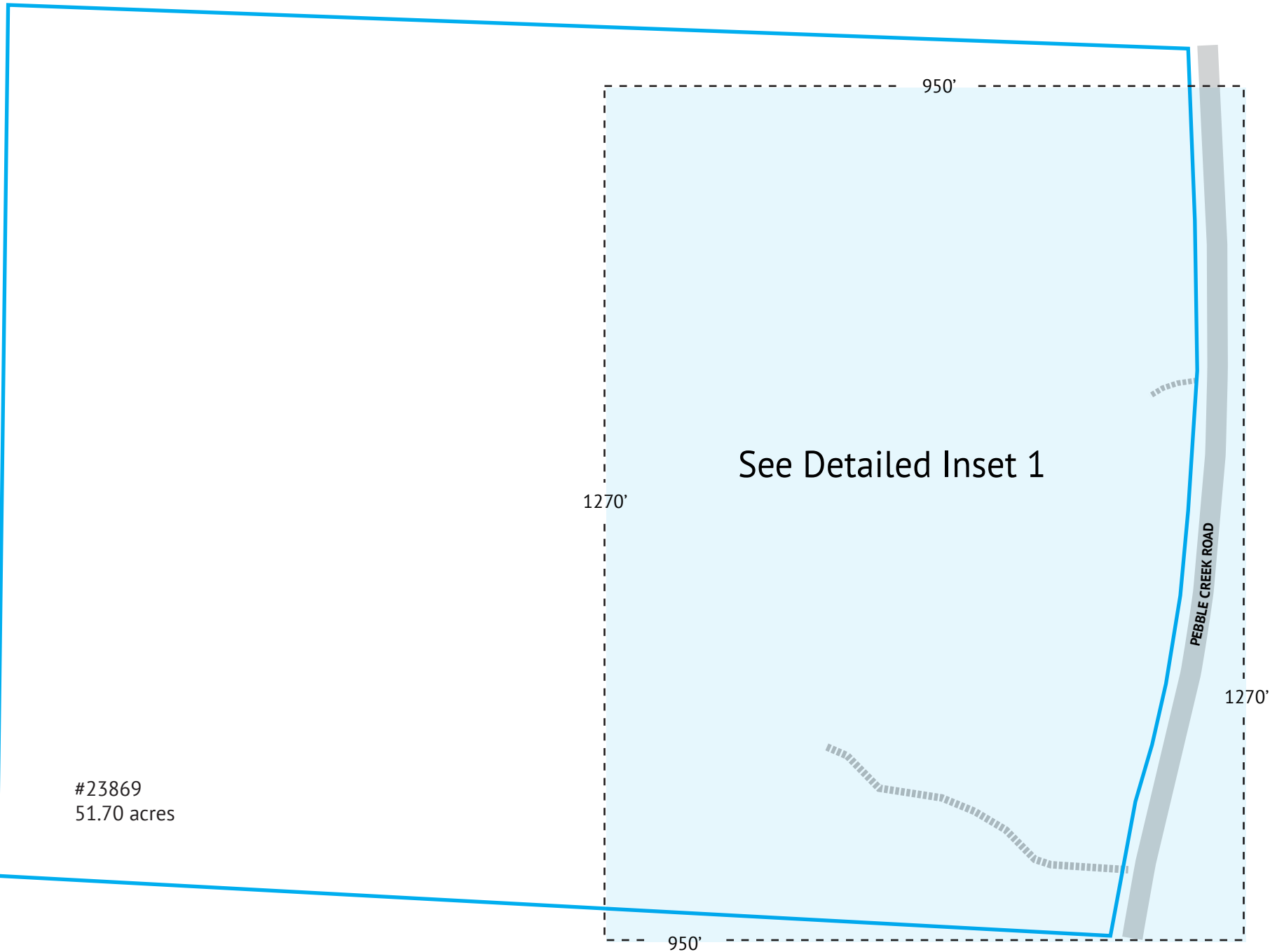


1" = 200'



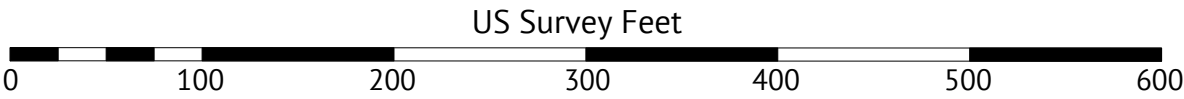
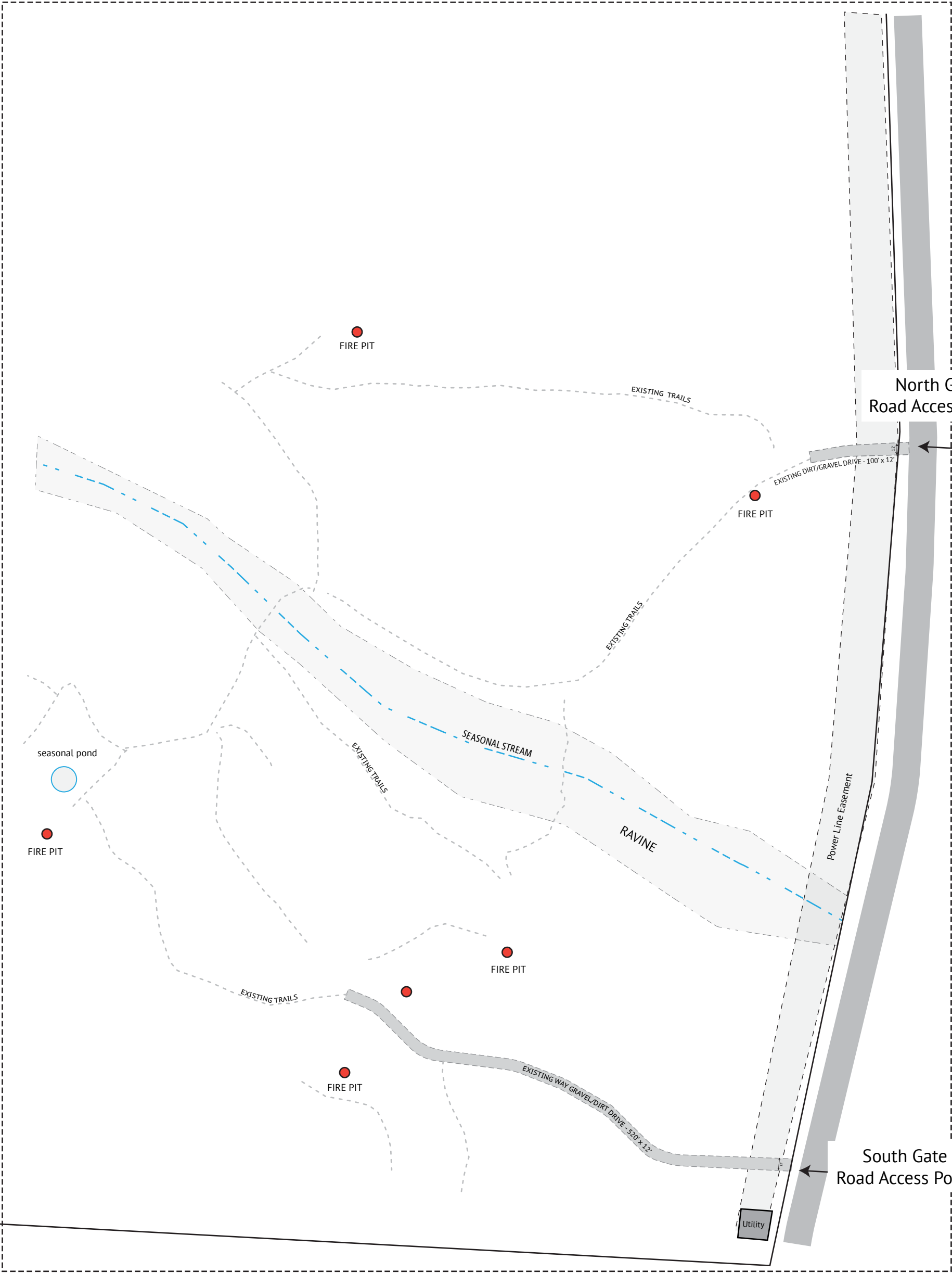
Detailed Site Plan

Detailed Site Plan overview of site as it exists, with man made & natural features shown.



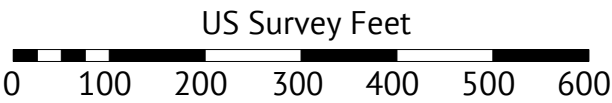
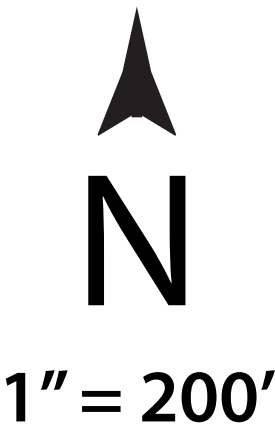
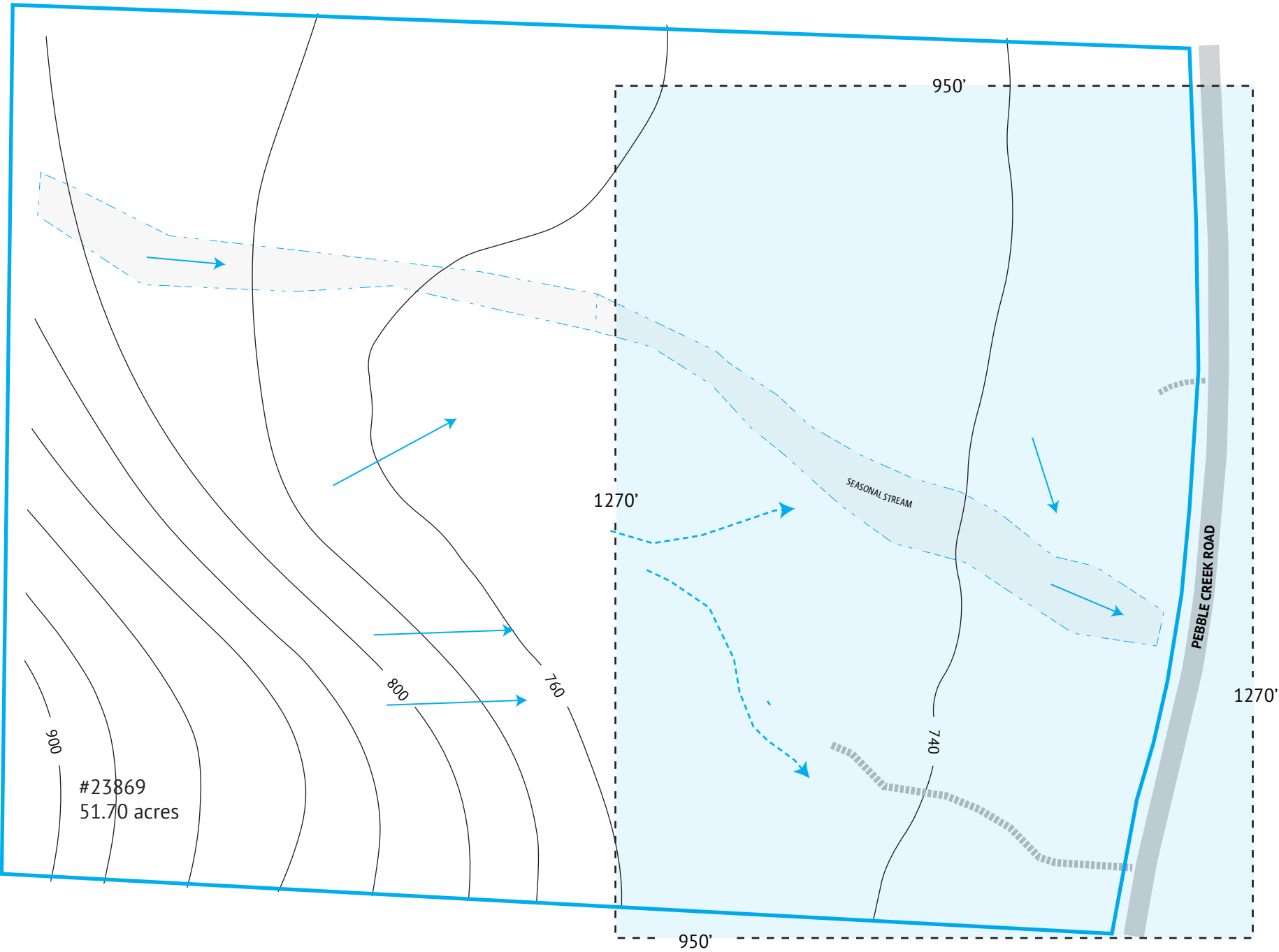
Detail Inset 1

Detailed Inset shows existing site, with gravel drives, trails, fire pits, and seasonal stream.



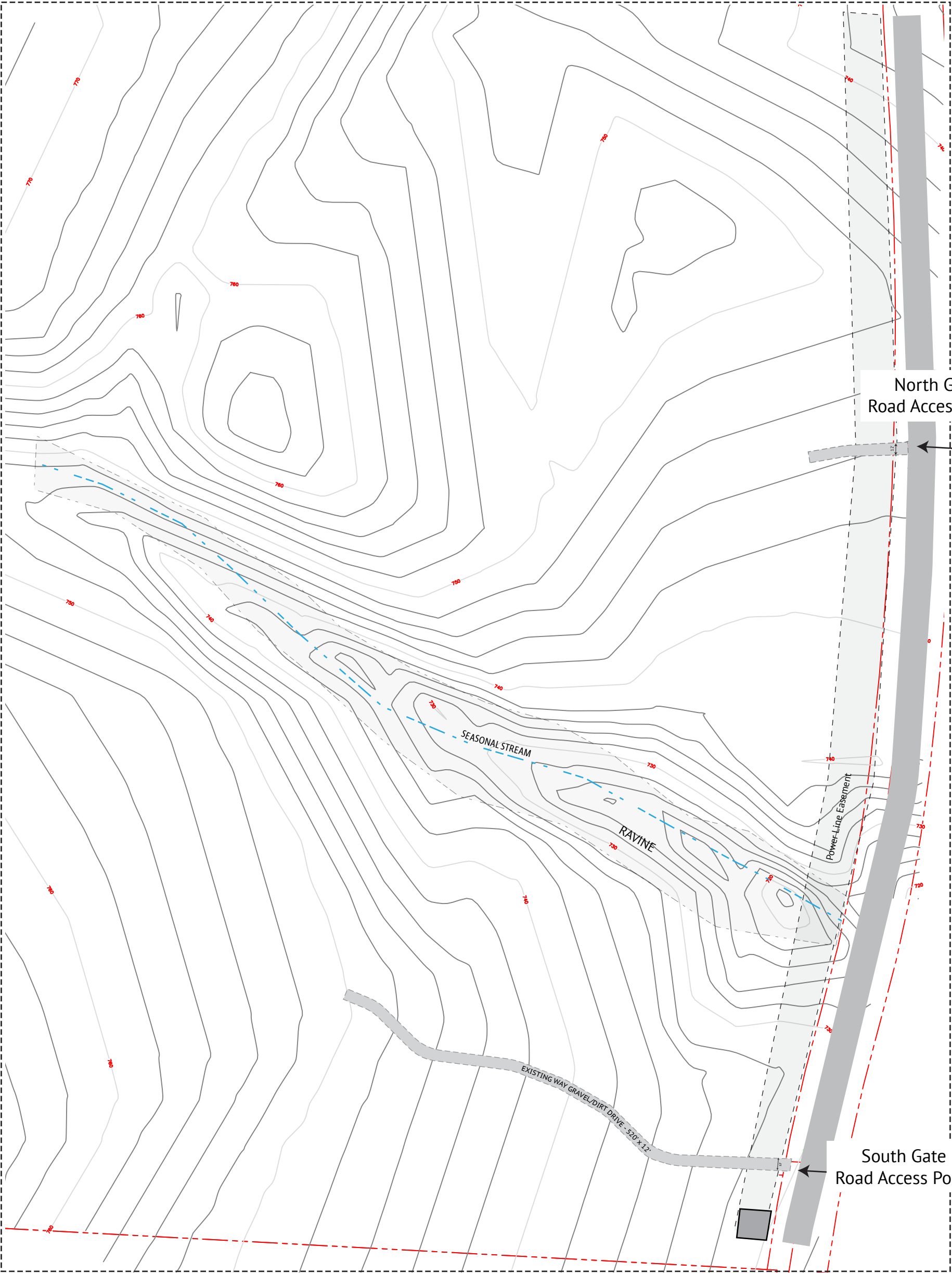
Detailed Topography

Overhead topography showing contour lines.

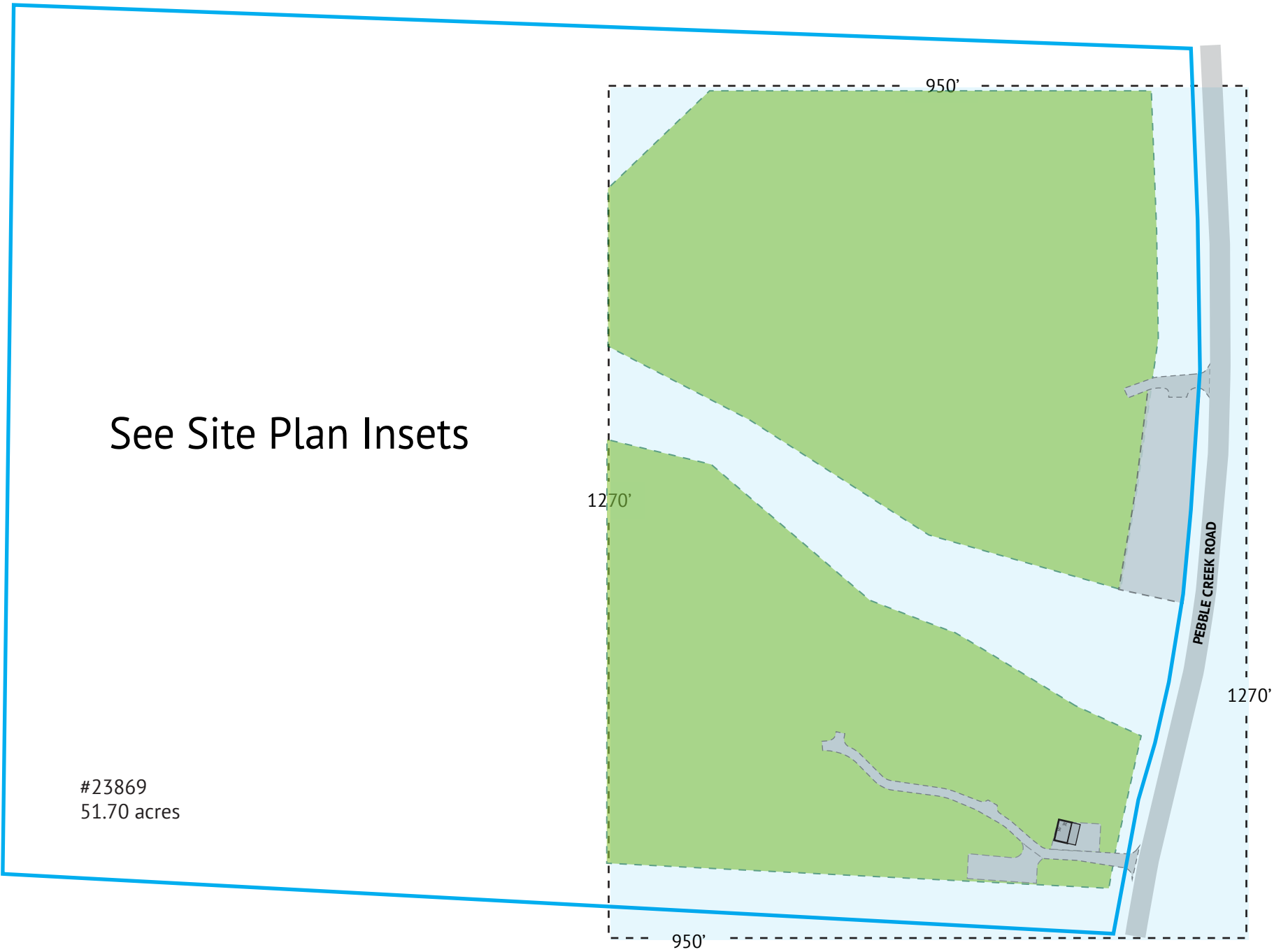


Detail Topography Inset

Detail topography showing contour lines for the area of the proposed site plan.



Proposed Site Plan



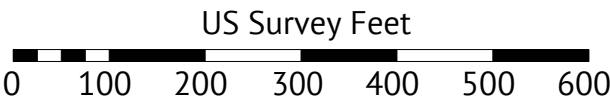
See Site Plan Insets

#23869
51.70 acres



N

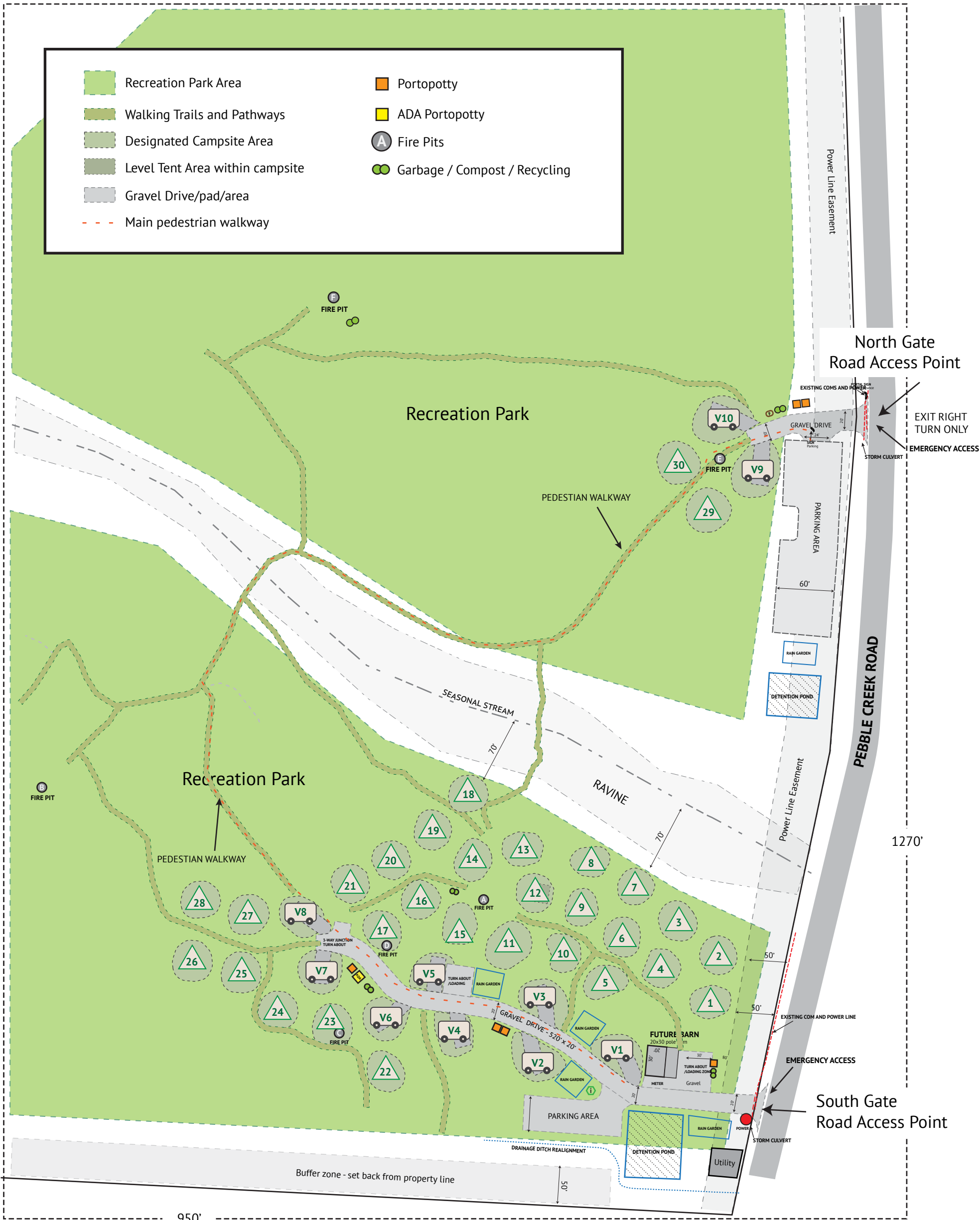
1" = 200'



Site Plan Inset 1

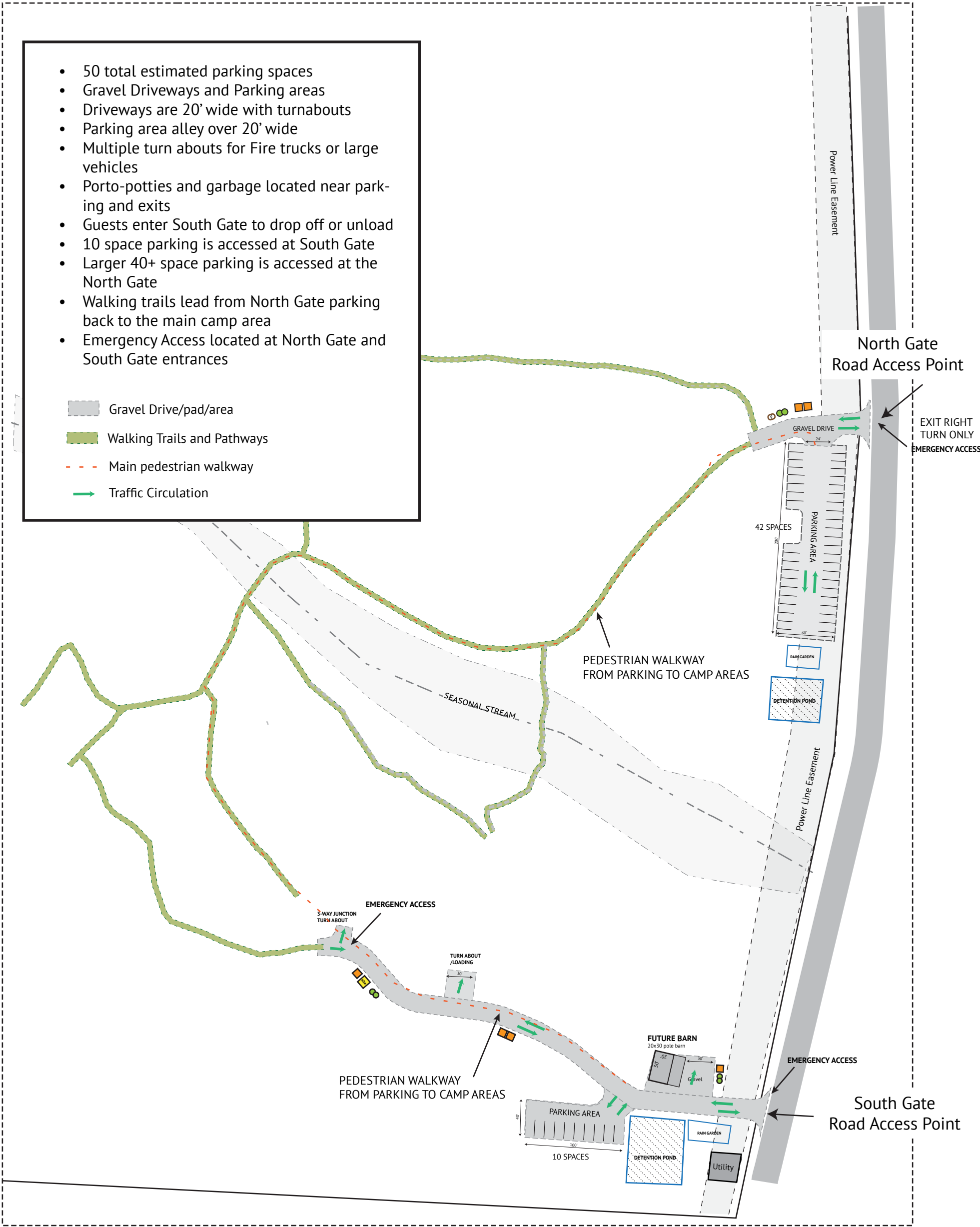
Recreation Park

Full overview of the Recreation Park: Camp sites - 40 total spaces - 10 vehicle/RV spaces & 30 tent spaces

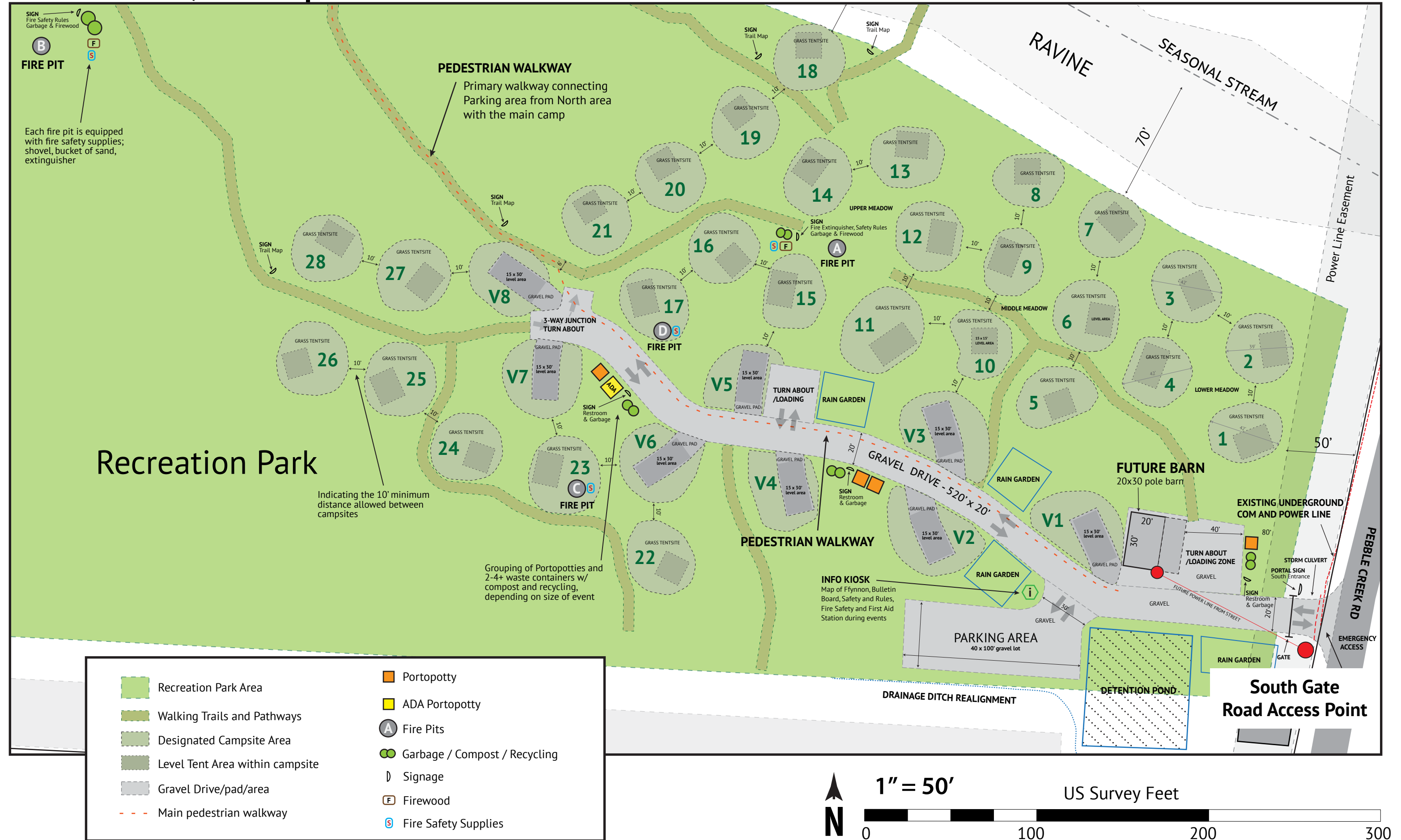


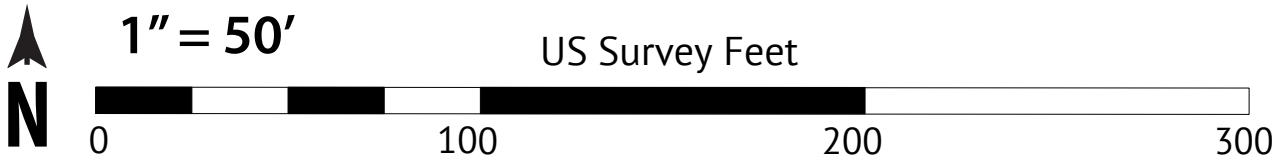
Parking Plan & Traffic Circulation

Parking Plan & Traffic Circulation

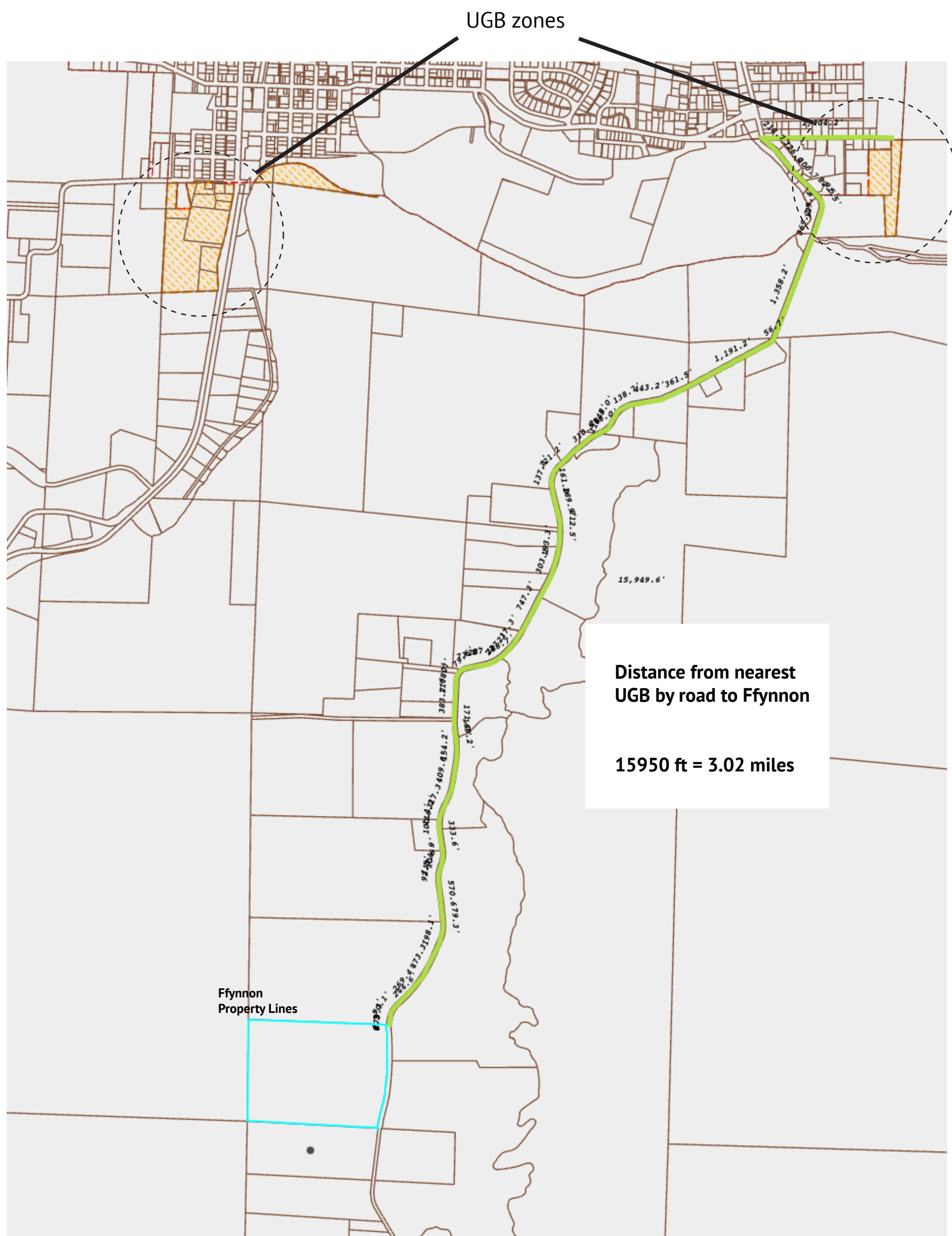


Site Plan Tent/RV Campsites—Details South Area





Urban Growth Boundary





West Oregon Electric Cooperative, Inc.

A Touchstone Energy® Cooperative 

RE: Property Development/Parking Area
57009 Pebble Crk Rd. Vernonia OR
Tax Lot 4400-00-02300

August 27, 2025

To Columbia County Deb Jacobs,

West Oregon Electric has no issue with the construction of a parking lot in the Electric Utility ROW/Easement at 57009 Pebble Creek Road at tax lot 4400-00-02300. This will be ok as long as the developed lot is in between poles to avoid a pole being left in the middle of a lot waiting for a vehicle to hit it. It appears that there is adequate clearance for vehicles to park under the lines. If the development of the property ends up with additional clearance requirements for truck traffic and not just cars then the property owner will be required to pay for the installation two taller poles or to underground the line in the parking area.

Thank You

Andrew Larson

Engineering and Operations Manager

Andyl@westoregon.org

503-429-3021

West Oregon Electric Cooperative, Inc.

652 Rose Ave.

Vernonia, OR 97064

Memorandum

To: Michael Agee, Ffynnon
From: Ken Kim, PE
Date: October 10, 2024
Subject: Ffynnon Park and Campground on Pebble Creek Road
Trip Generation, Crash Data Analysis, and Sight Distance Evaluation



Introduction

This memorandum provides transportation safety analysis for a proposed private park and campground use located at 56965 Pebble Creek Road (Tax Lot 4400-00-02300) in Columbia, Oregon. The proposed project will utilize the two (2) existing driveways along Pebble Creek Road.

This memorandum is written to estimate the trip generation from the proposed facility and evaluate intersection sight distances at existing driveways along Pebble Creek Road. The analysis will be considering the following:

- Estimate trip generation associated with the proposed event space.
- Review the most recent five years of crash data at the site accesses along Pebble Creek Road.
- Evaluate intersection sight distances at the existing access locations along Pebble Creek Road.

Detailed information on trip generation as well as supporting materials are included as an attachment to this memorandum. The project site is shown in Figure 1 with the subject site outlined in yellow.

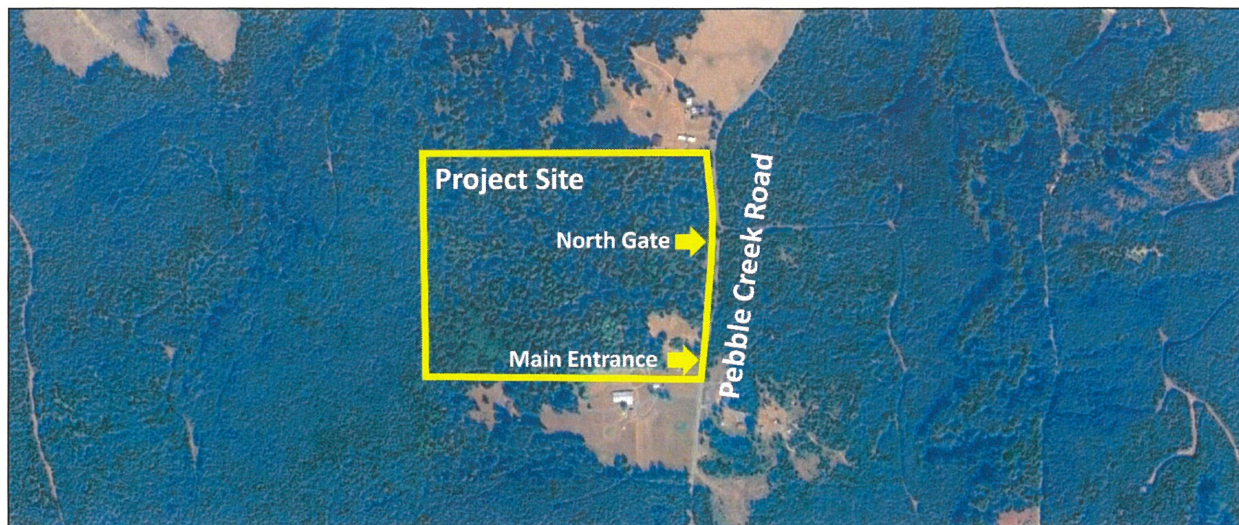


Figure 1: Project Location (image from Google Earth)

Trip Generation

To estimate trip generation of the proposed development, the following two methodologies were utilized:

- Derive an accurate estimate of trips generated based on the proposed site land use plan provided.
- Utilize the *Trip Generation Manual*,¹ specifically data from land use code 416, *Campground/Recreational Vehicle Park*, based on the number of Occupied Campsites.

Proposed Event Plan Estimates

Per the proposed site land use plan, the proposed park will be used by a specific group of people on certain days for certain events including Member Day (MD), Ffynnon Event (FE), Festival (F), Work Party (WP), and Private Events (PE). The summary of the proposed yearly land use plan is shown in following table.

Table 1: Proposed Yearly Plan

Event	Days in Use (Number of People)											
	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
MD			2 (12)	2 (20)	2 (20)	2 (30)	2 (30)	2 (30)	2 (30)	2 (20)		
FE		1 (50)	1 (100)					1 (100)		1 (100)		
F					4 (150)	4 (150)			4 (150)			
WP				1 (10)		1 (10)			1 (10)	1 (10)		
PE (1)					4 (50)	4 (50)	4 (100)	4 (100)	4 (50)	4 (50)		
PE (2)							4 (50)	4 (50)				
Total Days in Use	0	1	3	3	10	11	10	11	11	8	0	0

As shown in Table 1, June, August, and September are the months with the most usage (11 days) and the festivals are the events with the most participation (150 people). Based on the given information from the staff of Ffynnon, 150 people arrive at the event over the course of three days and all leave on the last day. In addition, it is anticipated that 10 to 30 trips per day would be added by the participants' other activity. Assuming an average vehicle occupancy 1.2, the daily trips for September Festival was estimated as shown in Table 2.

Based on the proposed site land use plan, the trip generation calculations show that the proposed project could generate a maximum weekday volume of 165 trips for the Festival.

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.



Table 2: Festival Daily Trip Summary

Trip Resource	Estimated Daily Trips				
	Prep Day	1 st Day	2 nd Day	3 rd Day	4 th Day
Festival Arrival & Departure	33	58	34	0	125
Participants' Other Activity	10	24	30	30	30
Others – Delivery, Refuse truck, Staff	10	10	10	10	10
TOTAL	53	92	74	40	165

Standard Trip Generation Estimates

To check if the trip generation by the standard methodology meets the TIA threshold, the proposed site trips were calculated using the trip rates from *ITE Trip Generation Manual*. Data from land use code 416, *Campground/Recreational Vehicle Park*, was used to estimate trip generation of the proposed use based on the number of camp spaces.

The trip generation calculations show that the proposed project is projected to generate an additional 9 morning peak hour trips, 12 evening peak hour trips, and 120 average weekday trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included in the attachment.

Table 3: ITE Trip Generation Summary (Total Vehicle Trips)

ITE Code	Intensity (Camp Spaces)	Morning Peak Hour			Evening Peak Hour			Daily Trips
		In	Out	Total	In	Out	Total	
416 – Campground/Recreational Vehicle Park	43	3	6	9	8	4	12	120

Note: No daily trip rate is provided in the Trip Generation Manual; therefore, the daily trip generation assumed to be approximately ten times the evening peak hour trips. This assumption is likely a conservatively high estimate of the daily volume.

County Standard for Traffic Analysis

Per the Columbia County Zoning Ordinance, Section 1450, a traffic analysis is required when a proposed development will generate 25 or more trips during either the AM or PM peak hour, or more than 400 daily tips.

Based on the standard in the County Zoning Ordinance, both trip generation results for the proposed development will fall below the threshold. Therefore, a TIA is not required.

Crash History Review

Five years of the most recent available crash history (January 2017 through December 2021) in ODOT's Crash Data System was reviewed for the study intersection. No crashes were reported during that period. Accordingly, no safety mitigation is recommended per the crash data analysis.



Sight Distance

A sight distance analysis was performed for the planned at the existing site accesses along Pebble Creek Road. Sight distance was measured and evaluated in accordance with *Columbia County Roadway Standards* as well as standards established in *A Policy on Geometric Design of Highways and Street*.²

Columbia County Standards

According to *Columbia County Roadway Standards*, the driver's eye is assumed to be 10 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the minor-street approach pavement. The vehicle driver's eye-height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement. The minimum sight distance requirement is 10 times the 85th percentile speed to be measured 10 feet. Pebble Creek Road has no posted speed; therefore, a design speed 60 (5 mph over the statutory speed, 55 mph) was used for the sight distance calculations for all driveways along Pebble Creek Road. At 60 mph, the minimum sight distance requirements are 600 feet looking to both north and south of the site accesses.

Stopping Sight Distance

Stopping sight distance (SSD) is considered the minimum requirement to ensure safe operation of the driveway access. This distance allows the driver of a vehicle traveling on the major street to react to a turning vehicle or other object in the roadway and come to a complete stop to avoid a collision. To ensure safe operation of a driveway, the available sight distance must at least equal the minimum required stopping sight distance. At a design speed of 60 mph, the SSD is 570 feet.

Available Sight Distance

Main Entrance

The available sight distance along Pebble Creek Road was measured to be 480 feet to the north of the site access (i.e., looking left), which is less than the County's minimum sight distance requirement (600 feet), due to existing trees and foliage on the property. Provided the trees and foliage on the property are removed or properly maintained to maximize available sight distance, the adequate sight distance can be made available to the north of Main Entrance.

The available sight distance along Pebble Creek Road was measured to be greater than 800 feet to the south of the site access (i.e., looking right), which is greater than the County's minimum sight distance requirement (600 feet).

North Gate Entrance

The available sight distance along Pebble Creek Road was measured 100 feet to the north of the site access, which is less than the County's minimum sight distance requirement (600 feet), due to existing trees and foliage on the property. Provided the trees and foliage on the property are removed or properly maintained to maximize available sight distance, adequate sight distances can be made available to the north of the site access. The available sight distance along Pebble Creek Road was measured to be 320 feet to the south, which is less than the County's minimum sight distance requirement (600 feet), due to the existing vertical curve of

² American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 7th Edition, 2018.



Pebble Creek Road. Based on this analysis, it is recommended to limit the access to right-turn only for outbound.

Conclusion

Based on the sight distance analysis, adequate sight distances can be made available at Main Entrance intersection along Pebble Creek Road provided any obstructing trees and foliage on the property are removed. For North Gate Entrance, it is recommended to remove any obstructing trees and foliage on the property to the north and limit the access to right-turn only for outbound.

Conclusions

Key findings of this study include:

- Based on the Trip Generation Analysis, the trip generation for the proposed development will fall below the threshold. Therefore, a TIA is not required.
- Based on the crash data analysis, no crashes were reported during the most recent five years. Accordingly, no safety mitigation is recommended per the crash data analysis.
- Based on the sight distance analysis, adequate sight distances can be made available at Main Entrance intersection along Pebble Creek Road provided any obstructing trees and foliage on the property are removed. For North Gate Entrance, it is recommended to remove any obstructing trees and foliage on the property to the north and limit the access to right-turn only for outbound.

If you have any questions or concerns regarding this analysis or need further assistance, please don't hesitate to contact us.

Attachments:

1. *Site Plan*
2. *Site Land Use Plan*
3. *Trip Generation Calculation*
4. *Sight Distance Photos*

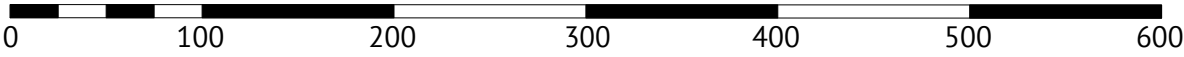


Site Plan Inset 1



N

1" = 100'



Tent Space
Camper/vehicle Space

portapotty
ADA portapotty
approved fire pit
garbage / compost / recycling

power/meter

	Number of People		Estimated Vehicle Traffic per Access Point - assuming average	
Monthly Traffic	People	Days	South Gate	North Gate
JAN				
FEB				
Ffynnon Event	50	1	25	20
MAR				
MD	12	2	6	
Ffynnon Event	100	1	50	40
APR				
MD	20	2	10	5
workparty	10	1	5	
MAY				
MD	20	2	10	10
Festival	150	4	50	50
Private Events	50	4	20	20
JUN				
MD	30	2	10	5
workparty	10	1	5	
Festival	150	4	50	50
Private Events	50	4	20	20
JUL				
MD	30	2	10	5
Private Events	100	4	30	30
Private Events	50	4	20	20
AUG				
MD	30	2	10	5
Ffynnon Event	100	1	30	20
Private Events	100	4	30	30
Private Events	50	4	20	20
SEP				
MD	30	2	10	5
workparty	10	1	5	
Festival	150	4	50	50
Private Events	50	4	20	20
OCT				
MD	20	2	10	10
workparty	10	1	5	
Ffynnon Event	100	1	30	20
Private Events	50	4	20	20
NOV				
MD				
DEC				
MD				



TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use: Campground/RV Park
Land Use Code: 416
Land Use Subcategory: All Sites
Setting/Location: General Urban/Suburban
Variable: Occupied Campsites
Trip Type: Vehicle
Formula Type: Rate
Variable Quantity: **43**

AM PEAK HOUR

Trip Rate: 0.21

	Enter	Exit	Total
Directional Split	36%	64%	
Trip Ends	3	6	9

PM PEAK HOUR

Trip Rate: 0.27

	Enter	Exit	Total
Directional Split	65%	35%	
Trip Ends	8	4	12

WEEKDAY

Trip Rate: 0

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	NA	NA	NA

SATURDAY

Trip Rate: 0

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	NA	NA	NA



Main Entrance: Looking Right (South) along Pebble Creek Road



Main Entrance: Looking North from 800 ft



Main Entrance: Looking Left (North) along Pebble Creek Road



Main Entrance: Looking South from 400 ft



North Gate Entrance: Looking Right (South) along Pebble Creek Road



North Gate Entrance: Looking Nouth from 320 ft



North Gate Enterance: Looking Left (North) along Pebble Creek Road



North Gate Enterance: Looking South from 600 ft