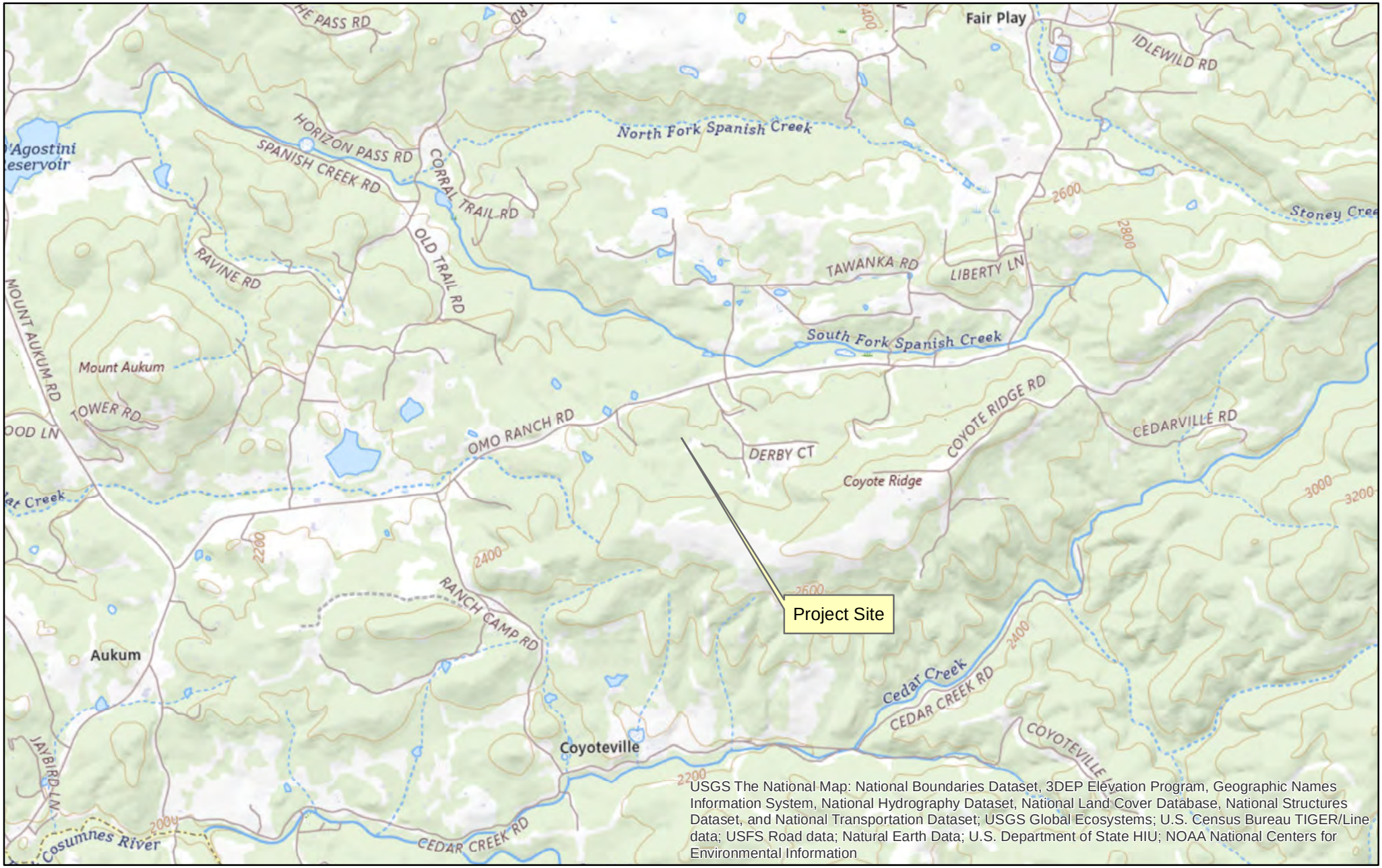


CCUP21-0007/Rosewood
Vicinity Map
Exhibit A

0 0.25 0.5 1 Miles

CCUP21-0007/Rosewood
Aerial Map
Exhibit B

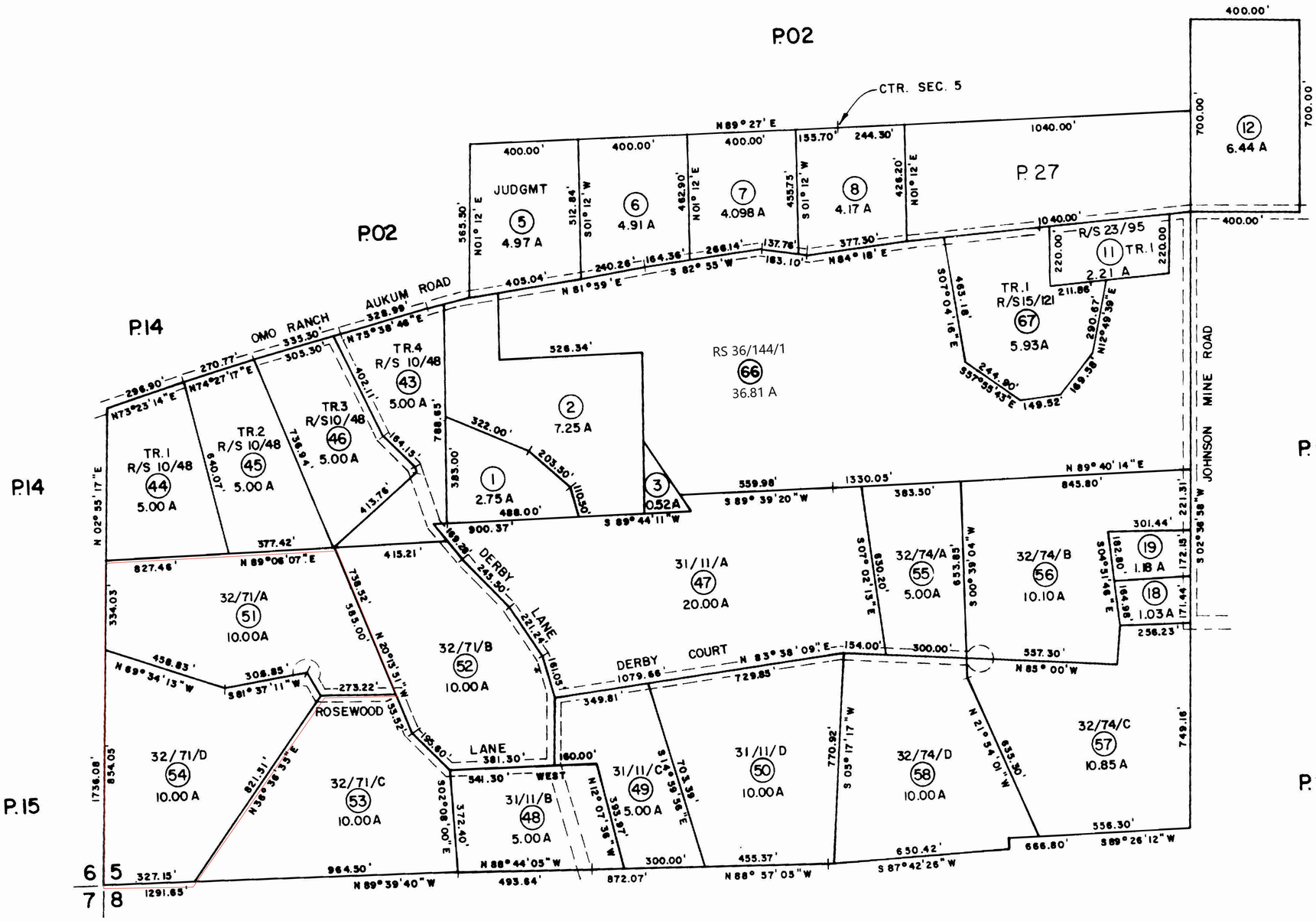
0 250 500 1,000 Feet

POR. SEC. 5., T.8N., R.12E., M.D.M.

Tax Area Code

95:13

1" = 400'



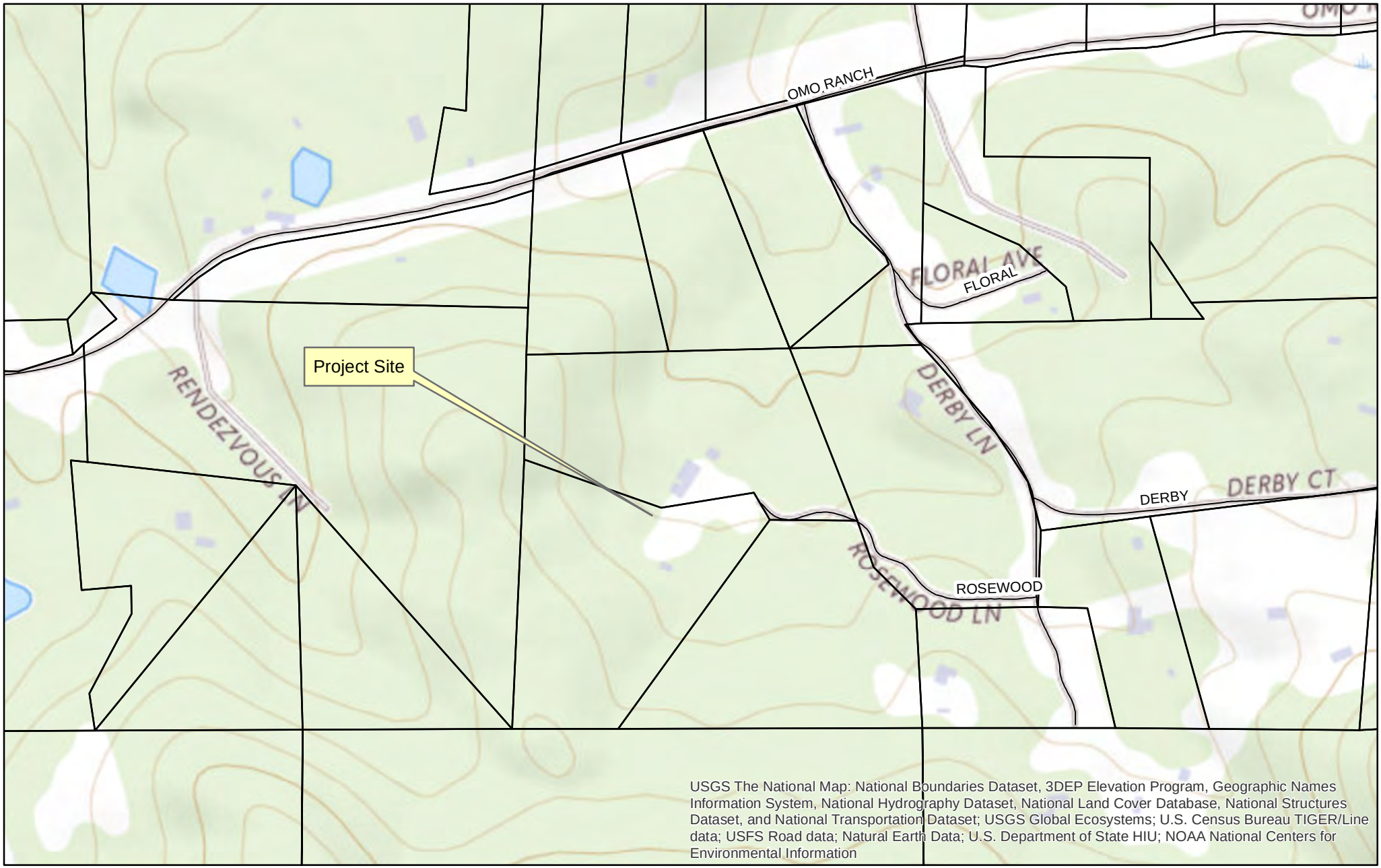
CCUP21-0007/Rosewood
APN Map
Exhibit C

P.02

NOTE – Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

REV. 10/16/2019

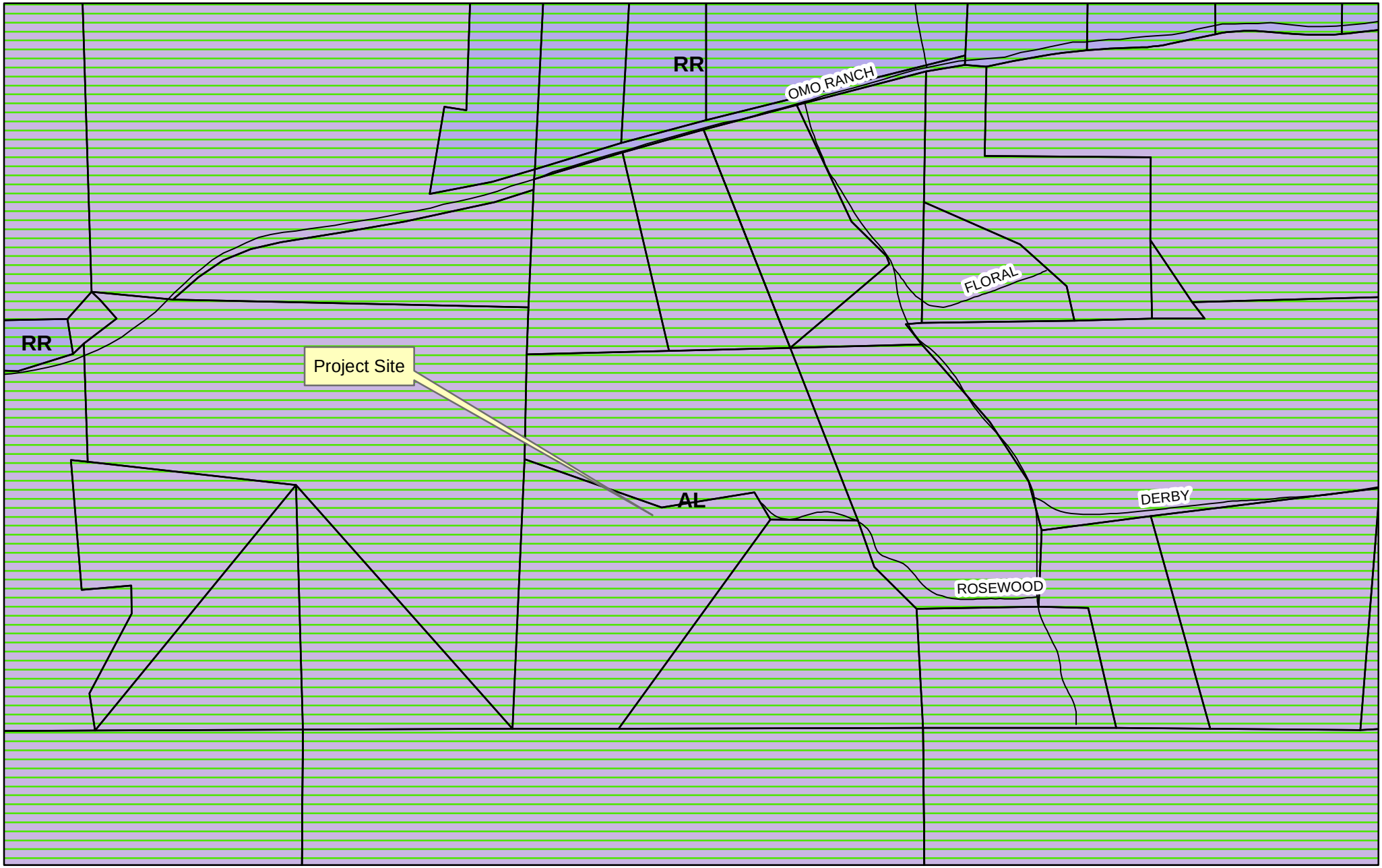
Assessor's Map Bk. 95 – Pg. 13
County of El Dorado, California



CCUP21-0007/Rosewood
Topography Map
Exhibit D

N

0 250 500 1,000 Feet

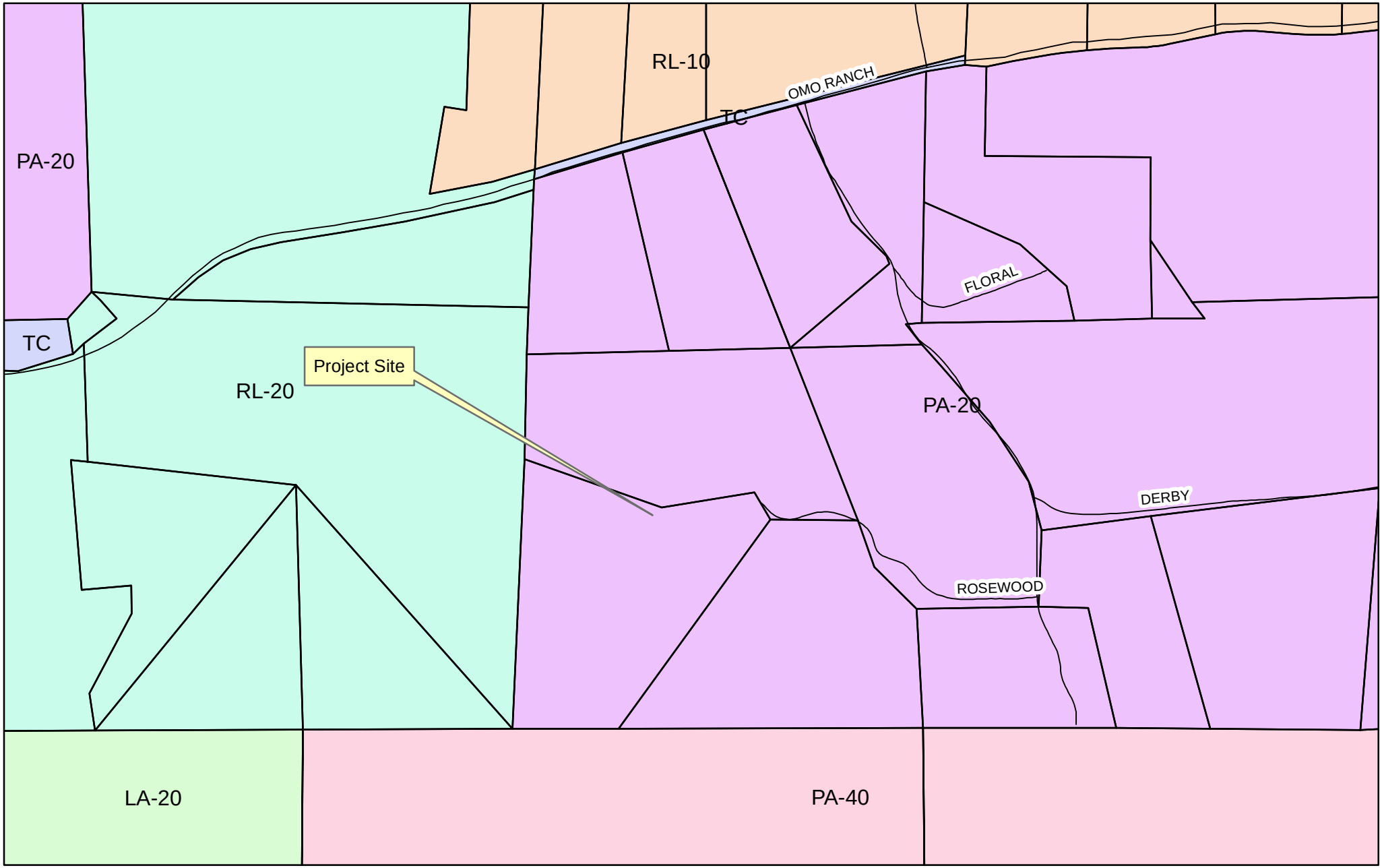


AL RR A

CCUP21-0007/Rosewood
General Plan Land Use Designation Map
Exhibit E

0 250 500 1,000 Feet

N



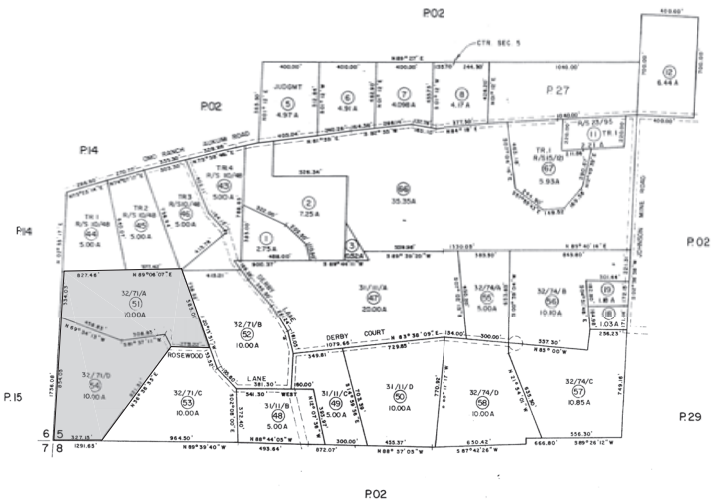
LA-20 RL-10
PA-20 RL-20
PA-40 TC

CCUP21-0007/Rosewood
Zoning Designation Map
Exhibit F

N

0 250 500 1,000 Feet

VICINITY MAP
No Scale



ASSESSOR'S PARCEL MAP
±1" = 200'-0"

A Cultivation Facility for

Jason Kipperman

3331 Rosewood Lane
Somerset, California 95684

GENERAL NOTES

1. THE BUILDER SHALL VERIFY THAT SITE CONDITIONS ARE CONSISTENT WITH THESE PLANS BEFORE STARTING WORK. WORK NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED TO THE SAME QUALITY AS SIMILAR WORK THAT IS DETAILED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH BUILDING CODES AND LOCAL CODES.

2. WRITTEN DIMENSIONS AND SPECIFIC NOTES SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND GENERAL NOTES. THE ENGINEER/DESIGNER SHALL BE CONSULTED FOR CLARIFICATION IF SITE CONDITIONS ARE ENCOUNTERED THAT ARE DIFFERENT THAN SHOWN, IF DISCREPANCIES ARE FOUND IN THE PLANS OR NOTES, OR IF A QUESTION ARISES OVER THE INTENT OF THE PLANS OR NOTES. CONTRACTOR SHALL VERIFY AND IS RESPONSIBLE FOR ALL DIMENSIONS (INCLUDING ROUGH OPENINGS).

3. DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.

4. ALL MANUFACTURERED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ADJUSTED, USED, CLEANED AND CONDITIONS AS DIRECTED BY THE MANUFACTURER, UNLESS OTHERWISE DIRECTED.

5. ALL MATERIALS SHALL BE NEW AND UNUSED, UNLESS OTHERWISE NOTED.

6. THE BUILDING, BUILDING SITE AND NEIGHBORING BUILDINGS AND PROPERTIES SHALL BE PROTECTED FROM ANY DAMAGE THAT MAY OCCUR DUE TO THE PERFORMANCE OF THIS WORK. ANY DAMAGES THAT OCCUR ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

7. ALL WASTE AND REFUSE CAUSED BY THIS WORK SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OFFPROPERLY BY THE GENERAL CONTRACTOR.

8. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY WORK KNOWINGLY PERFORMED CONTRARY TO SUCH LAWS, ORDINANCES, OR REGULATIONS. THE CONTRACTOR SHALL ALSO PERFORM COORDINATION WITH ALL UTILITIES AND STATE SERVICE AUTHORITIES.

9. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND PROPER FUNCTION OF PLUMBING, HVAC AND ELECTRICAL SYSTEMS.

10. THIS OFFICE SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, ACTS OR OMISSIONS OF THE CONTRACTOR OR SUBCONTRACTOR, OR FAILURE OF ANY OF THEM TO CARRY OUT WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. ANY DEFECT DISCOVERED IN THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THIS OFFICE BY WRITTEN NOTICE BEFORE PROCEEDING WITH WORK. REASONABLE TIME NOT ALLOWED THIS OFFICE TO CORRECT THE DEFECT SHALL PLACE THE BURDEN OF COST AND LIABILITY FROM SUCH DEFECT UPON THE CONTRACTOR.

11. ALL RECESSED LIGHTS IN INSULATED CEILINGS TO HAVE THE I.C. LABEL.

12. PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS PERPENDICULAR TO JOISTS AND OTHER BEARING POINTS NOT OTHERWISE PROVIDED WITH SUPPORT. PROVIDE SOILD BLOCKING AT ALL CABINET AND GRAB BAR LOCATIONS.

13. GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE SECTIONS OF CFC CHAPTER 33, *FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.*

14. PRIOR TO FINAL INSPECTION, GENERAL CONTRACTOR SHALL PROVIDE DOCUMENTATION INDICATING THAT THE BUILDING HAS BEEN TESTED BY A LICENSED CONTRACTOR AND COMPLIES WITH CFC SECTION 510, *EMERGENCY RESPONDER RADIO COVERAGE.*

15. ALL TRASH DUMPSTERS SHALL BE STORED INSIDE BUILDING AT ALL TIMES. [Z11-125,#5-6]

16. GATE REQUIREMENTS: (NO GATES ARE PROPOSED FOR THIS PROJECT)
ALL GATES SHALL BE UL 325 COMPLIANT.
ALL GATES TO BE SET BACK FROM CURB/ROADWAY BY 40' TO ALLOW EMERGENCY VEHICLES TO CLEAR ROADWAY & CURB.
ALL GATES TO HAVE A MINIMUM 20' CLEAR ACCESS WIDTH.
AUTOMATIC GATES TO BE PROVIDED WITH AC POWER AND BE PROVIDED WITH KEY OVERRIDE SWITCH (KNOX) AND RADIO OPERATED CONTROLLER (CLICK2ENTER)

PROJECT DATA

OWNER:	Jason Kipperman
ARCHITECT:	Jon N. Westphal 6960 Gild Creek Road Shingle Springs, California 95682 (530) 677-9840 C-19845
PROJECT ADDRESS:	3331 Rosewood Lane Somerset, California 95684
ASSESSOR'S PARCEL NUMBER:	095-130-51-100 & 095-130-54-100
CODE REFERENCES:	2019 C.G.B.C., C.B.C, C.E.C., C.M.C, C.P.C., C.E.C., Title 24 2019 California Fire Code NFPA 13, 2019 Fire Sprinkler System NFPA 55, 2019 Compessed Gas and Cryogenic Fluids Code NFPA 72, 2019 Fire Alarm System Sacramento City Ordinance No.: 2017-0005 California Code of Regulations - Title 19
OCCUPANCY GROUP:	F-1
CONSTRUCTION TYPE:	V-b
SNOW LOAD:	0 SPRINKLERS: No SPECIAL INSP. No
PROJECT SCOPE:	A Conditional Use Permit application for a 'Mixed-Light' cannabis cultivation facility on two parcels in El Dorado County, California
C.U.P. NO.:	

SHEET INDEX

No.	Date	Revision Type

Jon N. Westphal - Architect
6960 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

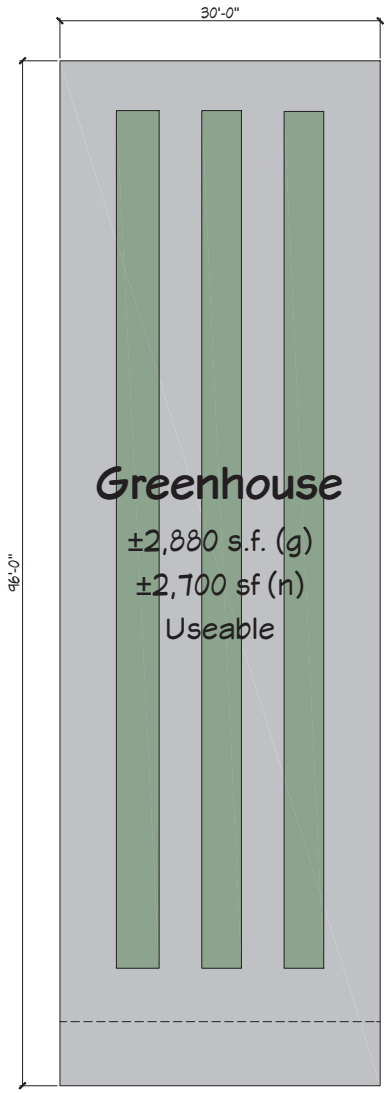
COVER SHEET

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

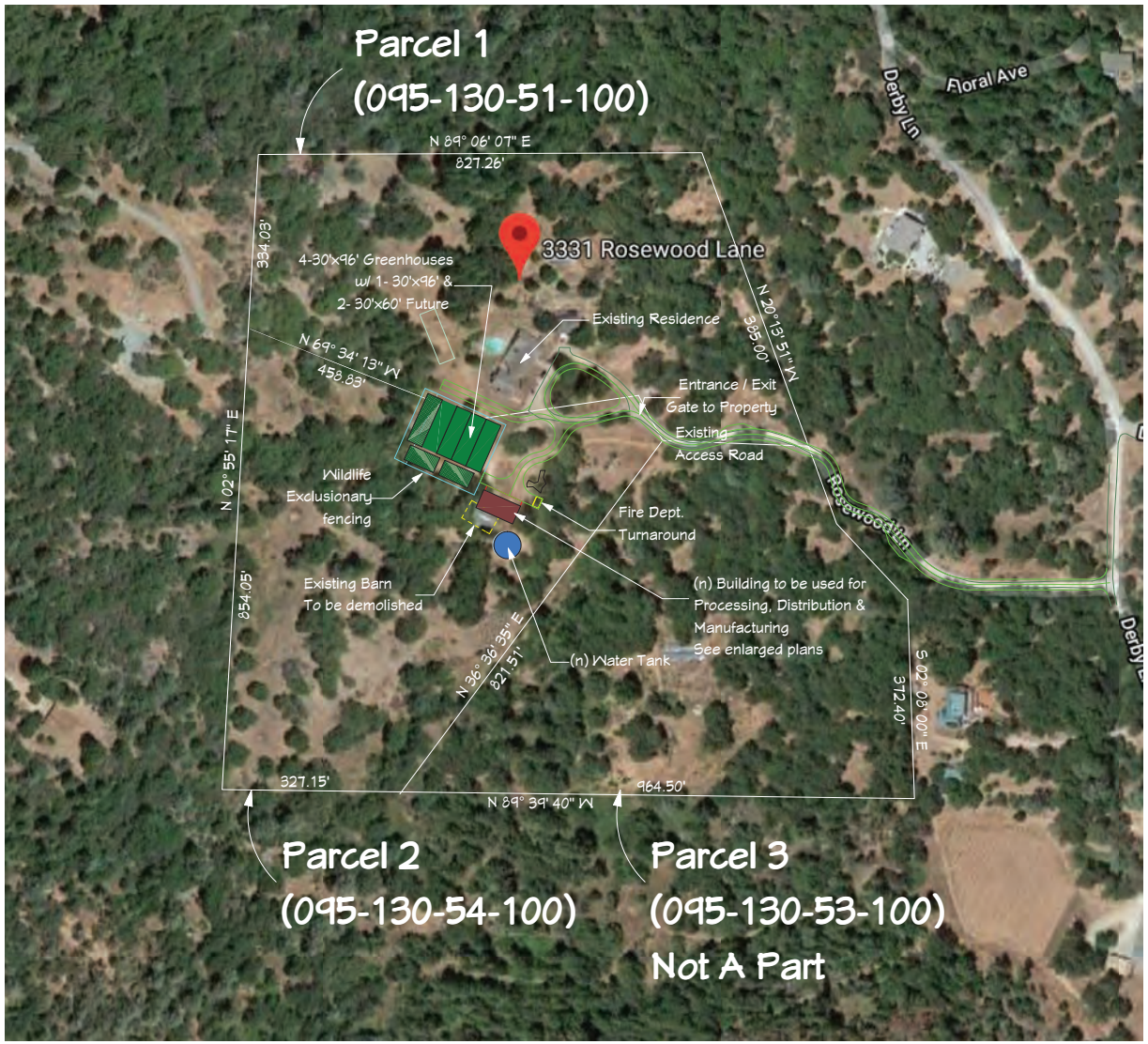
FILE NO: 1938Base
DATE: 5/17/2021
SHEET NO: A-1

D:\JNW\Architect_Drafting\1938_3331RosewoodLane\Drawings\1938Base-layout

CCUP21-0007/Rosewood
Site Plan
Exhibit G



TYPICAL GREENHOUSE
3/16" = 1'-0"



OVERALL SITE PLAN
1" = 100'-0"

D:\JNW\Architect_Drafting\1938_3331RosewoodLane\Drawings\1938Base-layout

Revision Table
No. Date Description

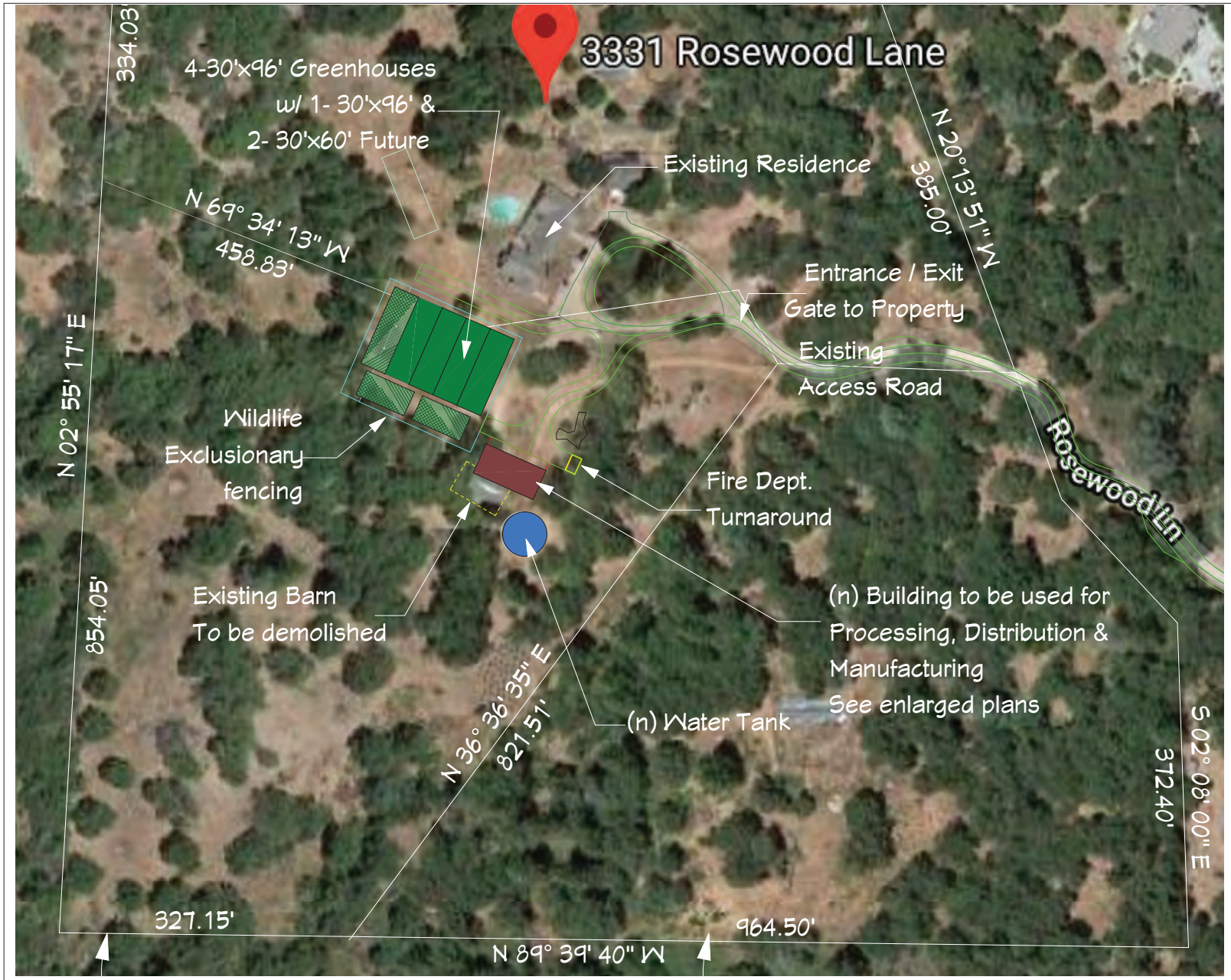
Jon N. Westphal - Architect
6960 Gold Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

OVERALL SITE PLAN

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO: 1938Base
DATE: 5/17/2021
SHEET NO: A-2

CCUP21-0007/Rosewood
Site Plan
Exhibit G



PREMISE PLAN
1" = 50'-0"

Revision Table
No. Date Description

Jon N. Westphal - Architect
6960 Gold Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

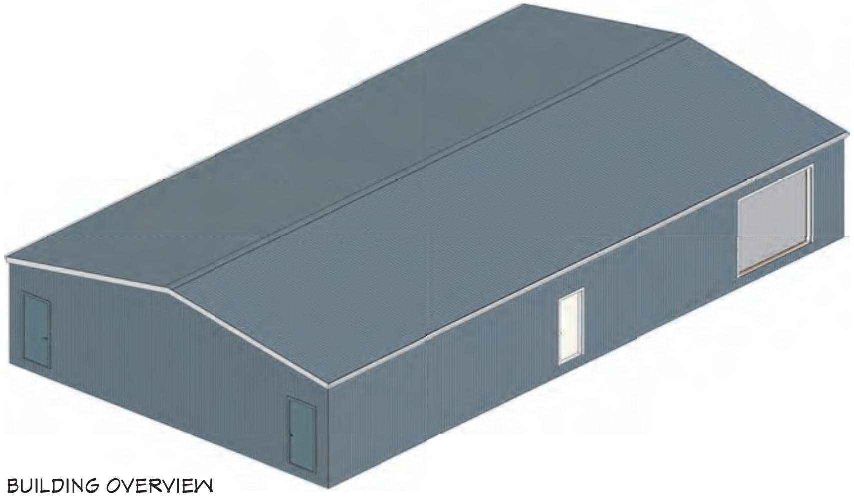
PREMISE PLANS

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

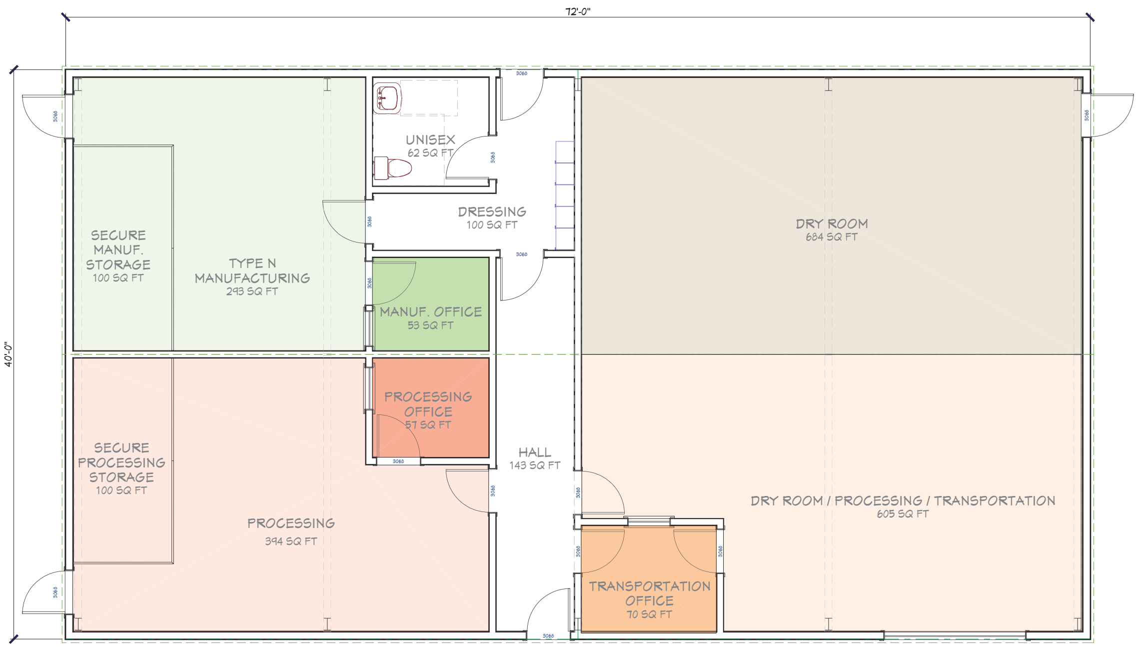
FILE NO: 1938Base
DATE: 5/17/2021
SHEET NO: A-3

D:\JNW\Architect_Drwl\1938_3331RosewoodLane\Drawings\1938Base-layout

CCUP21-0007/Rosewood
Site Plan
Exhibit G



BUILDING OVERVIEW



PROCESSING BUILDING
1/4" = 1'-0"

Revision Table

No.	Date	Description

Jon N. Westphal - Architect
6960 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

PROCESSING BUILDING

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO: 1938Base

DATE: 5/17/2021

SHEET NO: A-4

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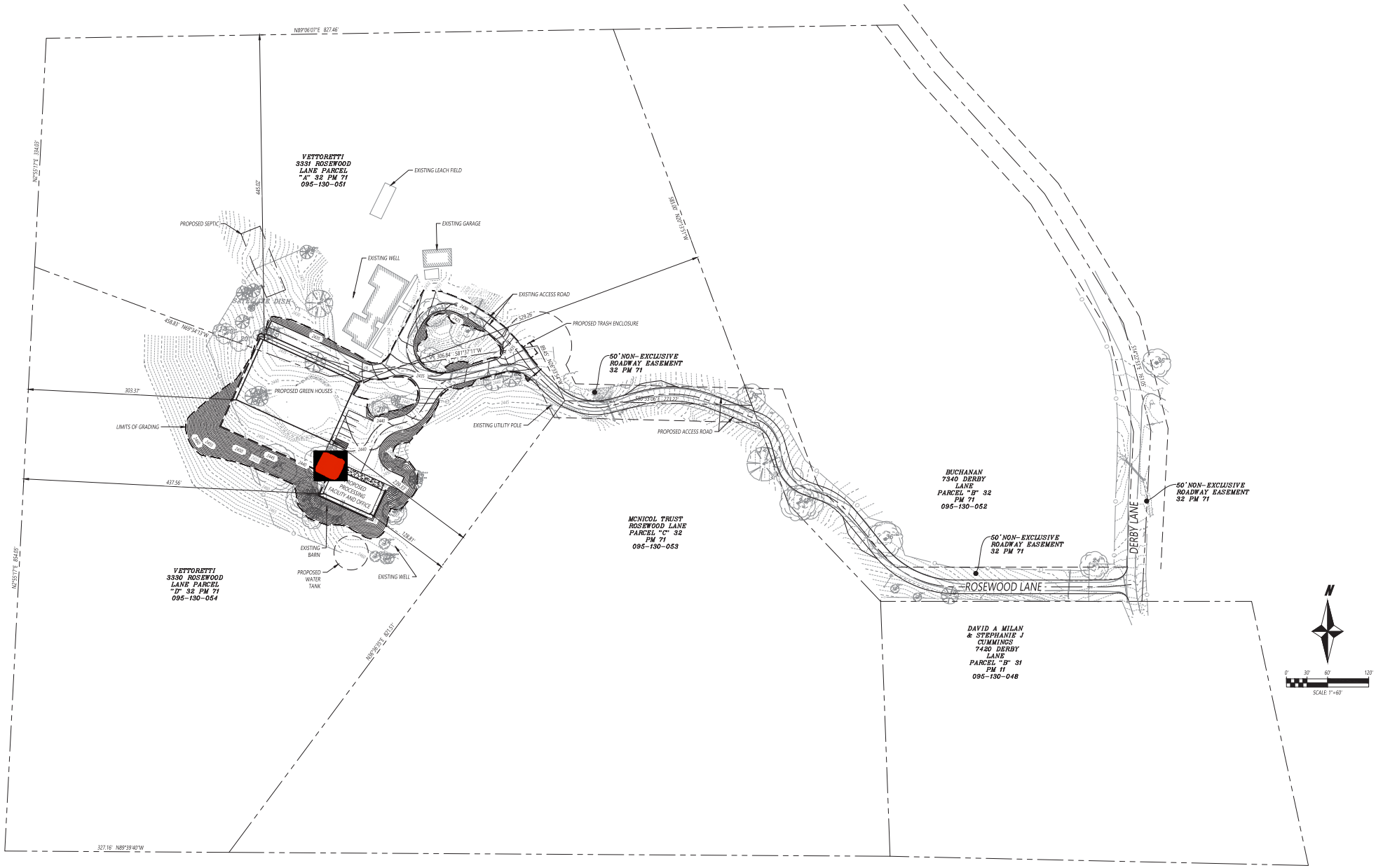
CCUP21-0007/Rosewood
Site Plan
Exhibit G



CARTWRIGHT NOR CAL
CIVIL ENGINEERING & PROJECT MANAGEMENT
3010 LAVA RIDGE COURT, SUITE 160
ROSEVILLE, CALIFORNIA 95661
T (916) 978-4001
WWW.CARTWRIGHTENGINEERS.COM

CONCEPTUAL SITE PLAN

3331 ROSEWOOD LANE
SOMERSET, CA 95684

DATE: 05/03/2021
SCALE: 1"=60'
DRAWN BY: RP

CCUP21-0007/Rosewood
Site Plan
Exhibit G

ENVIRONMENTAL PERMITTING SPECIALISTS
Air Quality • Permitting • OHSA • RMP/PSM

August 11, 2021

Dale Schafer
Dale Schafer Law
4010 Foothills Blvd
Roseville, CA 95747

Subject: Evaluation of On-Site and Off-Site Cannabis Odors at Proposed Indoor Cannabis Cultivation Project in Somerset (El Dorado County)

Dear Dale:

Environmental Permitting Specialists (EPS) has reviewed the project description and site plans for the proposed indoor cannabis cultivation to be located at 3331 Rosewood Lane, Somerset in El Dorado County.

It is our understanding that the site consists of 3 parcels totaling 30 acres. The site plan (Figure 1) indicates that four greenhouses are proposed with an additional 2 greenhouses in the future. The current total area for indoor cultivation is estimated to equal 32,000 square feet. Harvested cannabis leaves will be dried and processes at an adjacent 2,880 square foot building. The distances from the greenhouses to the nearest property line varies from 300 feet to the West to 600 feet to the South.

It is our understanding that each greenhouse will be equipped with carbon filtration or an equivalent odor control system. In addition, the processing building will be equipped with carbon filtration system. Details of the construction of the greenhouses, processing building and the odor control system have been submitted to the County. The proposed odor control measures will reduce odor intensity to well below 7 DT near the greenhouses and near the processing building.

Modeling completed by EPS at several locations in El Dorado County, including Somerset, found that odor intensity decreases by distance away from the sources of cannabis odors. Specifically, EPS found odor intensity declines by 88% over 100 meters or 26.7% every 100

feet. See Figure 2. As a result, odor intensity at the property lines at this project is estimated to be 3.5 DT or lower assuming odors are reduced to 7 DT adjacent to the greenhouses or the process building.

To confirm that this project will comply with Dorado County's 7 dilution to threshold (D/t) odor standard [Ordinance 5110 (5) D)], EPS relied on odor intensity measurements at other greenhouses in Northern California. Specifically, EPS collaborated with Fulcrum Enterprises, LLC, NCM Odor Control, Inc., and Bosarge Environmental, LLC to conduct multi-day odor intensity measurements adjacent to greenhouses.

Melanie Bosarge conducted the odor measurements using a Nasal Ranger Field Olfactometer and the results are reported in terms of DT. She is a Certified Instructor and has extensive training and experience in the use of the Nasal Ranger. She also completed training at the Odor School at St. Croix Sensory, the manufacturer of Nasal Ranger.

The odor measurements were conducted October 1 to 3, 2019 at a Northern California location (10175 Alberton Ave, Chico) that has seven (7) greenhouses each measuring 200 feet x 42 feet. Each greenhouse had 3 rows of four hundred (400) plants totaling 1,200 plants. The greenhouses were equipped with an odor control misting system. Photographs of the misting system appear in the attached report. At the time odor measurements were taken, the plants were two weeks away from harvesting. See Figures 1 to 5 in the attached report.

Odor intensity was measured at the greenhouse exhaust vents, at the property lines and at nearby off-site locations. A total of 17 on-site readings were taken. The results of the on-site testing were as follows:

Number of Readings	Measured D/t
4	0 (non-detect)
10	Between 2 and less than 2
2	4
1	7

In addition to on-site readings, 144 off-site readings were taken over two days under a variety of weather conditions. A complete copy of the odor monitoring report is attached.

These results indicate that odor intensity from the greenhouses equipped with effective odor control system would not lead to excess odors. Specifically, the odor intensity would remain at or below 7 DT. During majority of the tests (16 out of 17), odor intensity remained at or below 2 DT.

On the basis of odor measurements taken at the Chico greenhouses, and the fact that your greenhouses will have an odor control, we conclude that odors near the proposed greenhouses will also remain well below 7 at the property lines. We expect the odor intensity at the property lines to be less than 2 DT.

To ensure on-going compliance with the County's 7 DT odor standard along the property lines, EPS staff will be available to measure odor intensity after the greenhouses are in operation. In the meantime, the data collected at the Chico greenhouses overwhelmingly demonstrates that odor intensity would not exceed 7 D/t from your greenhouses either at the property lines or off-site beyond your property lines.

Please contact me if you have any questions or require additional information.

Sincerely,

Ray Kapahi

Ray Kapahi
Principal
Environmental Permitting Specialists
Web Site: https://www.epsconsulting.org/

ATTACHMENTS

- Site Map
- Photos from Odor Testing at Greenhouses in Chico
- Copy of Chico Odor Testing Report (November 1, 2019)

Figure 1
Site Map

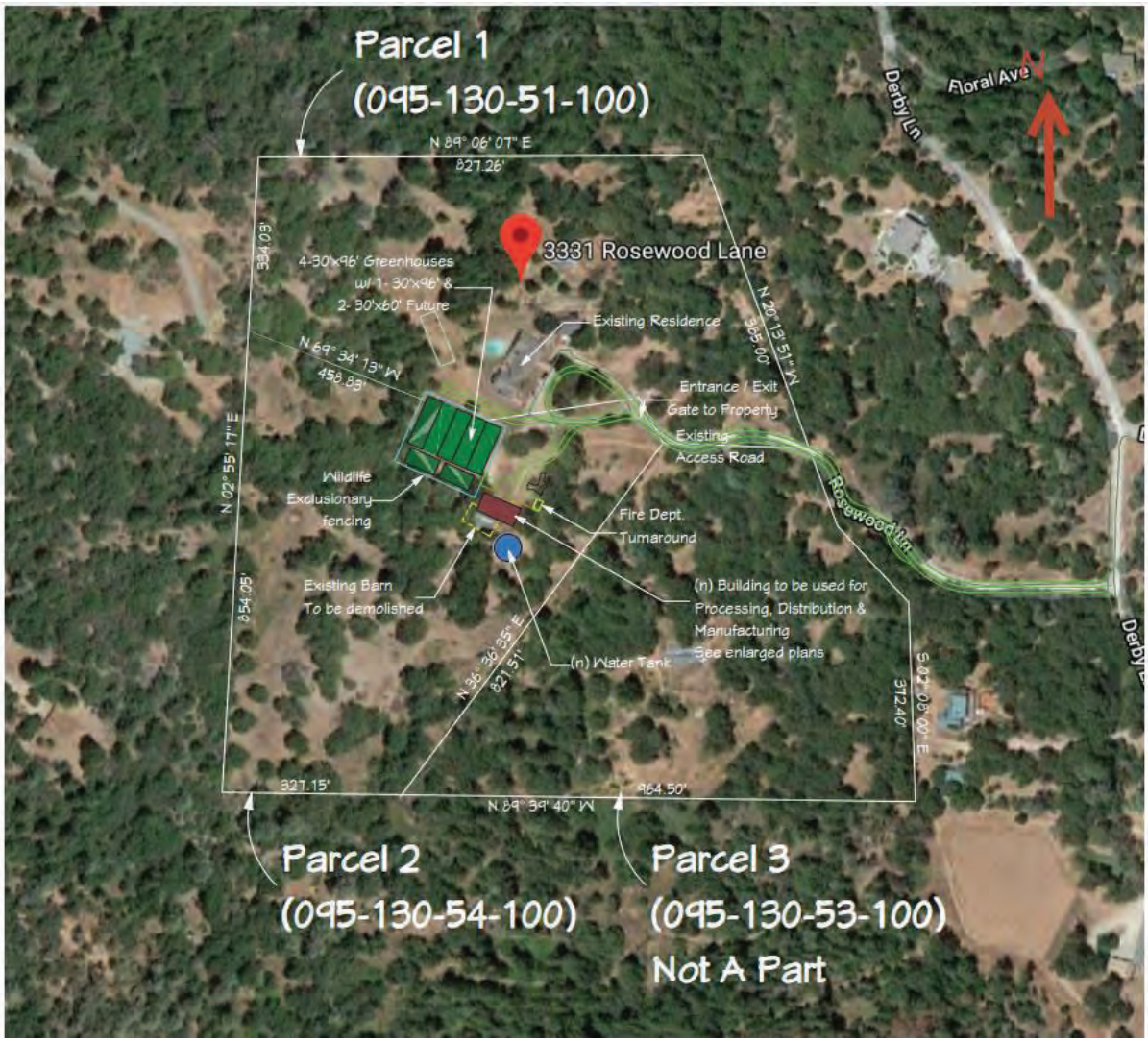
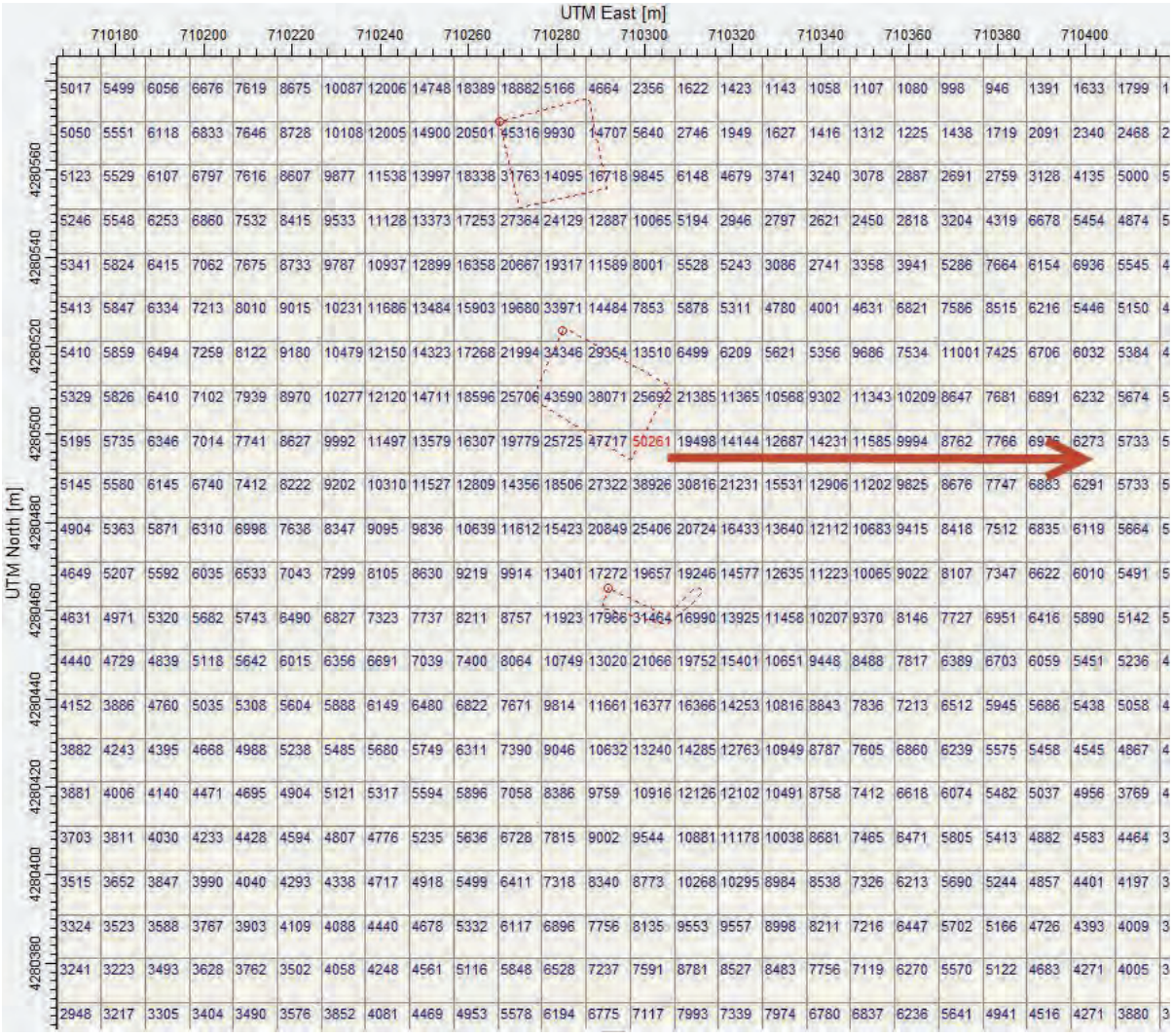


Figure 2
Odor Modeling Results for a Site in Somerset Showing the Decline in Odor Intensity with Distance
(Relative Odor Concentration in ug/m3)



Each Cell is 10 meters (32.8 feet)

ATTACHMENT

Figure 1

Location of Chico Greenhouses

Figure No. 2 - Odor Inspection Locations Full View (Google Earth Map)

Figure No. 3 - Onsite Odor Inspection Locations (Google Earth Map)

CCUP21-0007/Rosewood
Odor Study
Exhibit H

Bosarge Environmental, LLC
707 Bienville Blvd.
Ocean Springs, MS 39564
(228) 217-3180

November 1, 2019

Fulcrum Enterprises, LLC
390 Main Street
Great Barrington, MA 01239

RE: Odor Assessment Study

Introduction

Fulcrum Enterprises, LLC, (Fulcrum) retained Bosarge Environmental, LLC, as a third-party Odor Expert, to analyze the cannabis odor impact of a facility in California that is similar to a project Fulcrum is proposing for approval in Great Barrington, MA. The California facility is much older, but very similar in building size and plant production, of the proposed new facility. The Fulcrum design incorporates the same measures for odor control as the California facility. Fulcrum plans to present this odor study of an existing operational facility as a model for permitting the new facility.

Ms. Melanie Bosarge conducted ambient odor surveys the three days of October 1- 3, 2019. This time frame was selected because the operation was in full flowering stage. During this period, the greenhouses would have a crop of fully formed flowering cannabis plants at the stage when terpene odor is the greatest, creating a "worst-case-scenario" of odor for the facility.

Ms. Bosarge is a Chemical Engineer and Owner/Manager of Bosarge Environmental, LLC. She has represented St. Croix Sensory (St. Croix) as a certified instructor and provided client training and odor assessment services, as an independent contractor, since 2002. For more than thirty-five (35) years, St. Croix has been assisting facility owners, consulting engineering firms, and regulatory agencies to quantify odors from a variety of industrial, agricultural, and municipal operations, including wastewater treatment, landfills, composting, and manufacturing in both field and laboratory settings. St. Croix manufactures and markets state-of-the-art odor sampling and measurement equipment, including the Nasal Ranger Olfactometer. St. Croix's "ODOR SCHOOL"® is an internationally recognized program to prepare inspectors to conduct field evaluations of ambient odors.

Ambient Odor Assessment Methodology

Odor surveys were conducted using a newly calibrated Nasal Ranger field olfactometer to quantify odor strength when odor was noticed at each monitoring location. The Calibration Certificate appears in the Appendix as ***Exhibit 1***. Prior to odor observations, an inspector breathes through carbon cartridges for approximately one minute to "zero" nose to 100%. Upon arrival at each separate location, ambient odor is assessed with the "naked nose". If no odor is detected, the current time and "non-detected" (ND) is recorded. If an odor is detected, a reading is then taken with Nasal Ranger Olfactometer.

Using the Nasal Ranger, odor strength is measured as dilution ratios, reported as Dilution-to-Threshold (D/T) values. The Nasal Ranger Dilution-to-Threshold odor measurement is an "instantaneous" measurement, which is a recognition threshold. For example, a 4-D/T is the dilution ratio of 4-volumes of carbon filtered odor free air mixed with one-volume of ambient (odorous) air that makes the ambient odorous air "just-barely-recognizable" as an odor.

The D/T dilution ratio steps of the Nasal Ranger olfactometer used for the odor surveys were 2, 4, 7, 15, 30, and 60. If an odor is detected with the "naked nose" at a location, a measurement is taken with the Nasal Ranger. An odor in the air that is not measured at the 2-D/T dilution ratio is reported as less than 2-D/T (<2). The absence of ambient odor is reported as "non-detected" (ND).

Figure 1 – Nasal Ranger Olfactometer is a photograph taken during an odor survey at a cannabis growing operation in Colorado.

Figure No. 1 – Nasal Ranger Olfactometer

Building and Odor Control Specifications

NCM Environmental Solutions (NCM) constructed the odor neutralizing mist system for the California facility and currently provides the odor neutralizing agent and ongoing maintenance of the system. The California facility is much older, but very similar in building size and plant production, of the proposed new Fulcrum facility. Fulcrum plans to incorporate the same measures for odor control as the California facility. Consequently, one of the objectives of this odor study was to evaluate the efficiency of the exhaust and odor neutralizing system.

The cannabis growing area is made up of seven (7) greenhouses, two hundred (200) feet in length and forty-two (42) feet in width. Each greenhouse has three (3) rows of four hundred (400) plants, totaling twelve hundred (1,200) plants per greenhouse. The greenhouses have multiple holes on the siding and roof, as shown in pictures in ***Exhibit 2.***

NCM system specifications include an electric 1 HP system with a 1.75 GPM high pressure atomizing pump, operating at 800 PSI. During the odor study, the chemical injection pump was not automated. It was adjusted by hand using two knobs, as shown in photographs in ***Exhibit 2.***

The exhaust vents are fifty-five inches, square shaped, and powered by a 1-HP motor. Each exhaust vent has three (3) NCM 1.9 GPH nozzles. The nozzles are located on the exhaust vents, centered and positioned in a straight line. The California facility maintains the odor neutralizer injection pump at their preferred setting of 1000:1 dilution ratio. This set dilution ratio achieves the level of odor control needed and works within operations budget. Growers have determined that the facility has low levels of cannabis odors without the system on; therefore, the 1000:1 dilution ratio is sufficient for that site.

Odor Survey – Introduction and Mapping

Upon arrival at the facility on the afternoon of October 1, 2019, Ms. Bosarge was taken on an extensive tour of the site. Each step of the odor control system was identified and explained. A plan of action was developed and coordinated. The first odor survey was performed to test the efficiency of the odor control system. After concluding the onsite test, Ms. Bosarge investigated the area within the security fence, and along accessible residential, commercial and agricultural areas throughout neighborhood. Meteorological conditions were recorded and several locations were mapped and designated as survey locations. No odors were detected past the perimeter of the property during this initial investigation.

After the initial tour and first round of controlled test measurements of the odor neutralizer, Ms. Bosarge continued independently to develop a monitoring plan and complete several additional surveys during the three-day odor assessment study. Sixteen (16) onsite locations within the fenced area of the property and twelve (12) locations in the surrounding community were designated and mapped by recording latitude and longitude coordinates at each location. Unique identification codes were assigned to each location. The onsite locations were designated as Locations A through P. The offsite locations were designated as Locations 1 through 12. The center point of the cannabis greenhouses was designated as Location X. Latitude and longitude coordinates for each location were entered into Odor Tracker software to produce Google Earth Maps of the areas within the property and the surrounding community.

Table No. 1 Cannabis Facility Odor Monitoring Locations lists the center of the cannabis facility as Location X, along with twenty-eight (28) ambient odor survey locations. The table specifies an identification number, the latitude and longitude coordinates for each location and whether each location is onsite or offsite.

Table 1 - Cannabis Facility Odor Monitoring Locations

Loc #		Name	Latitude	Longitude
1	Offsite			
2	Offsite			
3	Offsite			
4	Offsite			
5	Offsite			
6	Offsite			
7	Offsite			
8	Offsite			
9	Offsite			
10	Offsite			
11	Offsite			
12	Offsite			
A	Onsite	Test Area 6 Ft from Exhaust		
B	Onsite	Test Area 12 FT From Exhaust		
C	Onsite	Test Area 24 Ft From Exhaust		
D	Onsite	West Corner of Greenhouses		
E	Onsite	South Corner of Greenhouses		
F	Onsite	South Midpoint of Greenhouses		
G	Onsite	East Corner of Greenhouses		
H	Onsite	East Corner of Whse		
I	Onsite	East Midpoint of Whse		
J	Onsite	North Corner of Whse		
K	Onsite	North Corner of Greenhouses		
L	Onsite	North Center of Greenhouses		
M	Onsite	Front Gate To Property		
N	Onsite	Post by Dumpster		
O	Onsite	Post Behind House		
P	Onsite	On Hill Behind House		
X	Onsite	Reference Center of Facility		

Figure No. 2 - Odor Inspection Locations Full View identifies the center of the cannabis facility as Location X and each of the twenty-eight (28) monitoring locations on a Google Earth map. The offsite Locations 1 through 12 are featured in this figure.

Figure No. 2 - Odor Inspection Locations Full View (Google Earth Map)

Figure No. 3 - Onsite Odor Inspection Locations identifies the center of the cannabis facility as Location X, and each of the sixteen (16) onsite monitoring Locations A through P on a Google Earth map.

Figure No. 3 - Onsite Odor Inspection Locations (Google Earth Map)

Odor Survey – Discussion

Fourteen (14) ambient odor surveys were conducted during the three-day study. Seven (7) of the rounds were performed offsite, in the surrounding community, and seven (7) rounds were conducted onsite. Two (2) of the onsite rounds, referred to as Test Rounds, included locations on the side of the greenhouses where the odor control system is installed. The objective of these Test Rounds was to evaluate the efficiency of the exhaust and odor neutralizing system.

For the Test Rounds, Locations A, B and C were designated at points six feet, twelve feet and twenty-four feet away from the exhaust fan of the greenhouses with the most mature plants. The exhaust fan, when operational, was blowing from the greenhouses at approximately sixteen MPH. The Test Rounds were performed under different scenarios to test the efficiency of the exhaust and odor neutralizing system.

Five (5) additional odor surveys were conducted onsite, within the facility property over the three-day odor study. During each survey, the date, time, odor reading and meteorological conditions, including temperature, humidity, precipitation, sky conditions, wind speed and wind direction were recorded at each location. Each survey was recorded separately and odor survey data reports appear in the Appendix as ***Exhibit 3***.

Approximately one hundred and sixty-eight (168) odor observations were recorded during the three-day study. During those days, seven offsite odor surveys were completed and seventy-nine (79) offsite observations were recorded. No cannabis odor was detected offsite at the property perimeter or in the community during those three days. The meteorological conditions, time of day and level of odor treatment varied between each offsite survey. Based on the results of the Odor Study, cannabis odor from the cultivation process does not leave the property.

During the same three-day timeframe, seven (7) onsite odor surveys were conducted and eighty-nine (89) onsite observations were recorded. No cannabis odor was detected during fifty-two (52) of those observations. Cannabis odor was detected at <2 D/T during twenty-three (23) observations and 2 D/T during nine (9) observations. Cannabis odor was detected at a level of 4 D/T during three (3) observations and 7 D/T during two (2) observations. During each observation of 4 D/T and 7D/T, the exhaust system had just been activated without odor neutralizer treatment, after cannabis odors had built up over night in the greenhouses. Those values returned to 2 D/T or less, within minutes after the greenhouses were properly vented and/or treated. These levels are extremely low for onsite operations.

Meteorological data and odor observation readings, from each Round, were loaded into the Odor Tracker software. ***Exhibit 3*** displays the results of each of the fourteen (14) Rounds. ***Exhibit 4*** contains several Maps that were created by the Odor Tracker Software, utilizing the entered data.

Odor Rounds Summary

Test Round 1 - Onsite

On the first afternoon, Test Round 1 was conducted from approximately 2:45 PM until 3:30 PM. In ***Exhibit 3,*** the Round 1 Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30%, and the temperature was 74 degrees F. The wind was moderate and blowing from the west northwest. Prior to the odor observations, the exhaust and odor neutralizer systems were turned off. Cannabis odors were allowed to accumulate within the greenhouses. At 2:45 PM, the ventilation and exhaust system was turned on, without engaging the mist system. Measurements were taken at the three locations A, B and C, as the exhaust fans were turned on, but with no water mist or odor neutralizer. A reading of 7 D/T was taken at Location A with the Nasal Ranger. Within two minutes, a reading of 4 D/T was taken at Location B. Within two more minutes, a reading of 2 D/T was taken at Location C. These readings are higher than normal, because of the accumulation of cannabis odors, with an outdoor temperature of 74 degrees F and without any consistent ventilation in the greenhouses.

The next test was performed with the exhaust fans on and water mist only. After the system was on for approximately five minutes, a reading of 4 D/T was taken at Location A. Within two minutes, a reading of 2 D/T was taken at Location B. Within two more minutes, a reading of <2 D/T was taken at Location C. The lower readings were due to a combination of additional venting time and the water mist.

The odor control system was fully operational for the third and fourth set of readings. Each survey was within five to eight minutes of each other and results were identical at Locations A, B and C. A reading of <2 D/T was taken at Locations A and B. At Location C, no odor was detected. From these test results, it appears that a fully operational odor control system lowers the odor intensity readings from 7 D/T to <2 D/T, at six to twelve feet from the greenhouse ventilation fan. At twenty-four feet, the odor intensity goes from 2 D/T to non-detected.

Round 2 - Onsite

Several more onsite locations were designated and observed that afternoon, during Round 2, from 3:36 PM until 4:11 PM. The sky was sunny with no precipitation. The humidity was 20%, and the temperature was 74 degrees F. The wind was moderate and blowing from the northwest. The odor control system was fully operational. Odor was observed at <2 D/T at Locations D, E and G. No odors were detected at Locations M or K.

Round 3 - Offsite

After the initial onsite investigation, several offsite locations were designated and observed during Round 3, from approximately 4:13 PM until 5:06 PM. In ***Exhibit 3,*** the Round 3 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 19%, and the temperature was 74 degrees F. The wind was moderate and blowing from the west northwest. The odor control system was fully operational. No odors were detected.

Round 4 - Offsite

On the second day of the odor study, a few more offsite locations were designated and observed during Round 4, from approximately 9:56 PM until 10:30 PM. In ***Exhibit 3,*** the Round 4 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 51%, and the temperature was 55 degrees F. The wind was calm and blowing from the north. The odor control system was not operational yet. No odors were detected.

Test Round 5 - Onsite

Several more onsite locations were designated and observed during Round 5, from approximately 11:00 AM until 11:45 AM. In ***Exhibit 3,*** the Round 5 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30 - 36%, and the temperature was 63 - 64 degrees F. The wind was light and variable. The odor control system had been during the night and had not been turned on yet. Odor was detected at a level of 2 D/T at Location O. At that moment, this location was downwind of greenhouses. Odor was detected at a level of <2 D/T at Locations A, B and F. No odors were detected at the other onsite locations.

Test Round 6 - Onsite

On the second day, Test Round 6 was conducted from approximately 11:40 AM until 12:24 PM. Additional onsite Locations L & K were incorporated into Test Round 6. In ***Exhibit 3,*** the Round 6 Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30%, and the temperature was 64 degrees F. The wind was light and blowing from the north. Prior to the odor observations, the exhaust and odor neutralizer systems were still turned off. Cannabis odors were accumulating within the greenhouses, but appeared to be staying within the greenhouses. Readings were taken at Locations A and B at a level of <2 D/T. No odor was detected at Locations C or L. At approximately 11:45 PM, the ventilation and exhaust system was turned on, without engaging the mist system and allowed to vent for ten minutes. A reading of 2 D/T was taken at Locations A, B and C, within two minutes of each other. Within five to six more minutes, a reading of <2 D/T was taken at Locations L and K. These readings are higher than the first set of readings, because of the discharge of accumulated cannabis odors in the greenhouses.

The odor control system was fully operational during the next set of readings. The system was allowed to operate for fifteen minutes before odor was measured. A reading of <2 D/T was taken at Locations A, B and C. At Locations L and K, no odor was detected. From these test results, it appears that a fully operational odor control system, operated for fifteen to twenty minutes, lowers the odor intensity readings to non-detectable up to <2 D/T, at six to twenty-four feet from the greenhouse perimeter.

Round 7 – Onsite

After Test Round 6, one more set of observations were taken onsite, from approximately 12:26 PM until 12:51 PM. In ***Exhibit 3,*** the Round ***7*** Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 25%, and the temperature was 70 degrees F. The wind was light and blowing from the north. The odor control system was fully operational for approximately twenty to forty-five minutes. No odors were detected. This onsite round indicates that under the circumstances stated above, the odor control system, when operated consistently for less than one hour, reduces all onsite cannabis odor to zero.

Round 8 – Offsite

Offsite locations were observed during Round 4, from approximately 12:58 PM until 1:28 PM. In ***Exhibit 3,*** the Round 8 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 24%, and the temperature was 72 degrees F. The wind was light and blowing from the north. The odor control system was fully operational. No odors were detected.

Round 9 – Offsite

Offsite locations were observed during Round 9, from approximately 6:09 PM until 6:34 PM. In ***Exhibit 3,*** the Round 9 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 21%, and the temperature was 72 degrees F. The wind was moderate and blowing from the south southwest. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Round 10 – Offsite

On the third day of the odor study, offsite locations were observed during Round 10, from approximately 9:42 AM until 10:09 AM. In ***Exhibit 3,*** the Round 10 Offsite Data Sheet displays the test data. The sky was mostly cloudy and foggy. The humidity was 51%, and the temperature was 59 degrees F. The wind was moderate and blowing from the south. The ventilation exhaust and odor control system were not in operation. No odors were detected.

Round 11 – Onsite

The next round was conducted from approximately 10:11 AM until 10:35 AM. In ***Exhibit 3,*** the Round 11 Onsite Data Sheet displays the test data. The sky was partly cloudy with no precipitation. The humidity was 37%, and the temperature was 60 degrees F. The wind was light and blowing from the north. Prior to the odor observations, the exhaust and odor neutralizer systems were still turned off. Cannabis odors had been accumulating within the greenhouses overnight.

At approximately 10:29 AM, the ventilation and exhaust system turned on automatically, because it was set to activate based on temperature in the greenhouses. The readings prior to the system coming on were relatively low. Readings at Locations J, O and K were <2 D/T. No odor was detected at any other locations before the system engaged. Once the ventilation and exhaust system turned on, a reading of 7 D/T was taken at Location A. A reading of 4 D/T was taken at Location B. A reading of 2 D/T was taken at Locations C and L. These readings are high and consistent with values obtained in Test Round 1, on the first day of the odor study, when the exhaust system was turned on, without the odor neutralizer. The elevated values are because of the discharge of accumulated cannabis odors in the greenhouses.

Round 12 – Onsite

After Round 11, one more set of observations were taken onsite, from approximately 11:20 AM until 11:50 AM. In ***Exhibit 3,*** the Round 12 Onsite Data Sheet displays the test data. The sky was partly cloudy with no precipitation. The humidity was 28%, and the temperature was 67 degrees F. The wind was light and blowing from the north. The ventilation and exhaust system had been operational for approximately fifty minutes to one hour and twenty minutes. The odor neutralizing system was still down because of the pump malfunction. Odors were detected at a level of 2 D/T at Location A. Odor was detected at a level of <2 D/T at Locations B, C, L and K. No odors were detected at any other locations. This onsite round indicates that under the circumstances stated above, the ventilation and exhaust system operating alone reduces the odor level onsite to a level of 2 D/T or less, when operated consistently.

Round 13 – Offsite

Offsite locations were observed during Round 13, from approximately 12:00 PM until 12:20 PM. In ***Exhibit 3,*** the Round 13 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 26%, and the temperature was 68 degrees F. The wind was light and blowing from the north. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Round 14 - Offsite

Offsite locations were observed during Round 14, from approximately 3:40 PM until 4:10 PM. In ***Exhibit 3,*** the Round 14 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 16%, and the temperature was 77 degrees F. The wind was moderate and blowing from the south southeast. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Odor Survey Conclusions

No odors were detected at any of the designated locations throughout the California Community, during the three-day Odor Study. Seven (7) offsite surveys were conducted under three different operational conditions including 1) ventilation fan exhaust and odor neutralizer treatment 2) ventilation fan exhaust and no odor neutralizer treatment and 3) no ventilation fan exhaust and no odor neutralizer treatment. Based on these findings, this facility or one similar in size, construction, cultivation and basic odor control measures, should not adversely affect the surrounding community, even in times when odor control equipment is out-of-service for maintenance or not working properly.

In each case of onsite odor detection, where proper ventilation, exhaust and odor neutralizer treatment was in place, the odor was faint and intermittent at each location where <2 D/T was recorded. These locations were along the exhaust side of the greenhouses and either next to the greenhouses or directly downwind of the exhaust fans. This value indicates a barely discernible odor with the "naked nose", but under the threshold to be considered a recognizable odor with the Nasal Ranger Olfactometer on the lowest setting of 2-D/T.

Based on the findings in this Odor Study, Bosarge Environmental, LLC, concludes that "no discernible cannabis odor" was detected outside of this facility and is barely recognizable within 25 to 100 feet of the greenhouses. Consequently, this cannabis operation or one similar in size, construction, cultivation and odor control measures, should not adversely affect the surrounding community.

Submitted by,

Melanie Bosarge

Melanie Bosarge
Bosarge Environmental, LLC

APPENDIX

EXHIBIT 1

Nasal Ranger Olfactometer Calibration Certificate

CERTIFICATE OF CALIBRATION

for the

Nasal Ranger® Field Olfactometer

Serial Number : 90201429 Calibration Date : 7/15/2019

Dial D/T	Actual D/T	% Variance
60	60.02	0.0%
30	30.03	0.1%
15	15.07	0.5%
7	7.00	0.0%
4	4.00	0.0%
2	2.00	0.0%

This document certifies this Nasal Ranger® Field Olfactometer, specified by unique Serial Number, was calibrated using a NIST traceable primary gas flow standard by St. Croix Sensory, Inc.

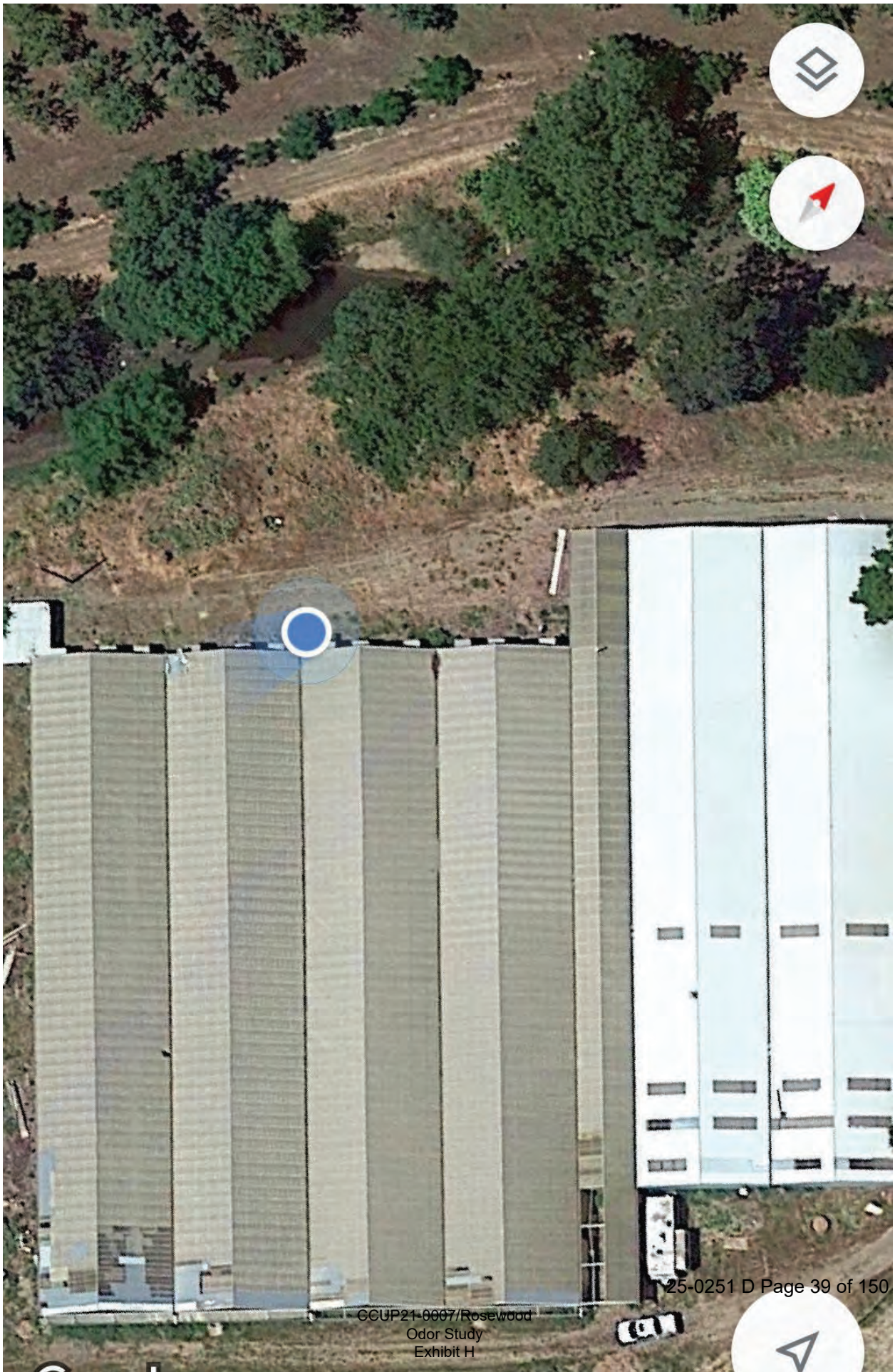
St. Croix Sensory, Inc.
1150 Stillwater Blvd. N.
Stillwater, MN 55082 USA
+1-651-439-0177
info@nasalranger.com

NASAL RANGER®

Calibration Technician

Exhibit 2

Photographs from the California Property



CCUP21-0007/Rosewood
Odor Study
Exhibit H


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Exhibit 3

Onsite and Offsite Odor Survey Data Sheets

ROUND 1 - ONSITE
10/1/19 2:50 PM - 3:26 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 15:26	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:24	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:22	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:20	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:17	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:14	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:06	C	Test Area 24 Ft From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:04	B	Test Area 12 FT From Exhaust	2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:02	A	Test Area 6 Ft from Exhaust	4	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:54	C	Test Area 24 Ft From Exhaust	2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:52	B	Test Area 12 FT From Exhaust	4	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:50	A	Test Area 6 Ft from Exhaust	7	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92

ROUND 2 - ONSITE
10/1/19 3:36 PM - 4:11 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 16:11	M	Front Gate To Property	ND	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:53	E	South Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:49	G	East Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:44	K	North Corner of Greenhouses	ND	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:36	D	West Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95

ROUND 3 - OFFSITE
10/1/19 4:13 PM - 5:06 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 17:06	6		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 17:02	10		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:59	11		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:56	12		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:24	9		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:20	8		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:13	1		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94

ROUND 4 - OFFSITE
10/2/19 9:56 AM - 10:30 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 10:30	1		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:28	2		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:24	3		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:21	6		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:19	4		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:17	5		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:15	7		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:12	8		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:08	9		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:04	10		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:00	11		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 9:56	12		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07

ROUND 5 - ONSITE
10/2/19 11:00 AM - 11:45 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 11:45	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:43	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:42	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:40	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:38	D	West Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:36	O	Post Behind House	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:33	P	On Hill Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:31	N	Post by Dumpster	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:27	E	South Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:26	F	South Midpoint of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:24	G	East Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:22	H	East Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:20	I	East Midpoint of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:18	J	North Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:15	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:00	M	Front Gate To Property	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05

ROUND 6 - ONSITE
10/2/19 11:40 AM - 12:24 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 12:24	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:23	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:22	C	Test Area 24 Ft From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:21	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:19	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:05	K	North Corner of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:05	K	North Corner of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:04	L	North Center of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:59	C	Test Area 24 Ft From Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:57	B	Test Area 12 FT From Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:55	A	Test Area 6 Ft from Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:45	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:43	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:42	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:40	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05

ROUND 7 - ONSITE
10/2/19 12:26 PM - 12:51 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 12:51	E	South Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:50	F	South Midpoint of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:48	G	East Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:47	H	East Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:46	I	East Midpoint of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:44	N	Post by Dumpster	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:43	M	Front Gate To Property	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:42	P	On Hill Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:41	O	Post Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:40	J	North Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:33	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:30	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:26	D	West Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03

ROUND 8 - OFFSITE
10/2/19 12:58 PM - 1:28 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 13:28	11		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:25	12		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:21	10		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:19	8		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:18	9		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:16	7		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:14	6		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:12	5		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:10	4		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:06	3		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:04	2		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 12:58	1		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02

ROUND 9 - OFFSITE
10/2/19 6:09 PM - 6:34 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 18:34	12		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:31	11		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:29	10		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:27	9		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:25	8		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:22	7		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:20	6		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:18	5		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:16	4		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:14	3		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:12	2		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:09	1		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95

ROUND 10 - OFFSITE
10/3/19 9:42 AM - 10:09 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/3/2019 10:09	1		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:08	2		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.30
10/3/2019 10:07	3		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:06	4		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:05	5		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:04	6		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:56	12		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:54	11		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:50	10		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:46	9		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:44	8		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:42	7		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00

ROUND 11 - ONSITE
10/3/19 10:11 AM - 10:35 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 10:35	C	Test Area 24 Ft From Exhaust	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:34	B	Test Area 12 FT From Exhaust	4	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:33	A	Test Area 6 Ft from Exhaust	7	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:31	D	West Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:29	L	North Center of Greenhouses	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:27	K	North Corner of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:25	O	Post Behind House	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:23	P	On Hill Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:21	J	North Corner of Whse	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:19	I	East Midpoint of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:17	E	South Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:16	F	South Midpoint of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:15	G	East Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:14	H	East Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:13	N	Post by Dumpster	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:11	M	Front Gate To Property	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00

ROUND 12 - ONSITE
10/3/19 11:20 AM - 11:50 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 11:50	M	Front Gate To Property	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:45	A	Test Area 6 Ft from Exhaust	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:44	B	Test Area 12 FT From Exhaust	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:43	C	Test Area 24 Ft From Exhaust	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:41	D	West Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:39	L	North Center of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:38	K	North Corner of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:35	P	On Hill Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:34	O	Post Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:32	J	North Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:29	N	Post by Dumpster	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:27	I	East Midpoint of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:25	H	East Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:23	G	East Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:21	F	South Midpoint of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:20	E	South Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99

ROUND 13 - OFFSITE
10/3/19 12:00 PM - 12:20 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 12:20	12		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:18	11		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:15	10		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:12	9		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:10	8		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:08	7		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:06	6		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:05	5		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:04	4		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:03	3		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:02	2		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:00	1		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98

ROUND 14 - OFFSITE
10/3/19 3:40 PM - 4:10 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 16:10	1		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:08	2		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:06	3		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:04	4		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:02	5		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:00	6		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:52	12		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:50	11		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:48	10		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:44	9		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:42	8		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:40	7		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90

Exhibit 4

Onsite and Offsite Odor Data Maps


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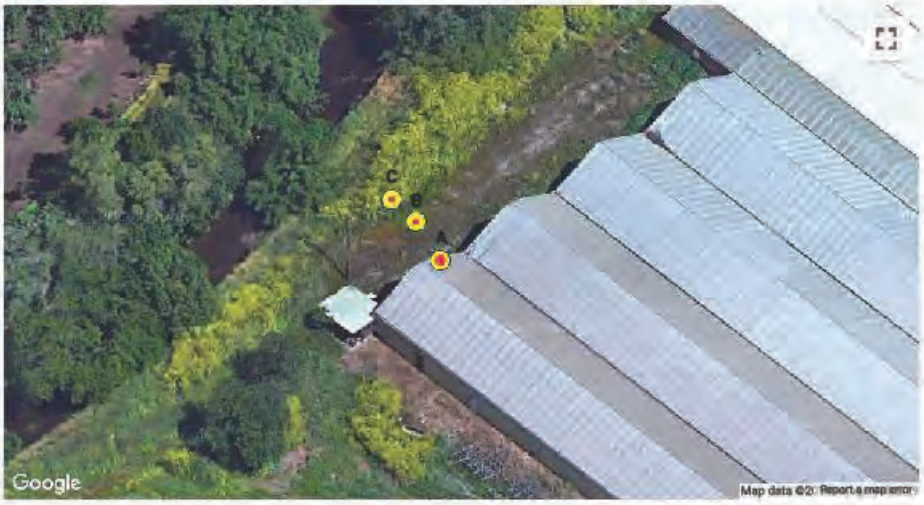
Map data ©2019 Imagery ©2019 , Maxar Technologies, U.S. Report a map error



Odor GT Criteria (Eclipse Key)			
Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection
(DT)
Include Non-Detect

10/16/19, 12:45 PM

Odor DT Criteria (Eclipse Key)

Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection (DT)
Include Non-Detect

Odor DT Criteria (Eclipse Key)

Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection (DT)
Include Non-Detect

Rosewood Odor Abatement Plan

Purpose:

Applicant states that the purpose of this Odor Abatement Plan is to mitigate odors created by cultivating, drying, curing, processing, and storing of cannabis so as to not adversely affect the health, safety, or enjoyment of property of persons residing near the property on which cannabis is cultivated or processed due to odor that is disturbing to people of normal sensitivity.

The Rosewood project team is working with construction and air quality professionals to design a distribution space with odor control technology built-in through the HVAC system. This includes carbon scrubbing technology to separate and eliminate odor before it has the opportunity to leave the building. In addition Applicant has chosen to use NextG3N greenhouses which are custom designed for cannabis cultivation. (Please refer to the Site Plan for detailed information).

On August 11, 2021, Environmental Permitting Specialists, Ray Kapahi, drafted a memo entitled “Evaluation of On-Site and Off-Site Cannabis Odors at Proposed Indoor Cannabis Cultivation Project in Somerset (El Dorado County)”. This memo recognizes the utilization of carbon filtration in each greenhouse as well as the processing building. The following seeks to further advise of the plan for implementing the carbon filtration and methods for maintaining the carbon filtration systems. Additionally, to advise of the recommendations made by Mr. Kapahi for ongoing surveys to ensure that the carbon filtration system is fulfilling the requirements made by El Dorado County.

Definitions:

Cannabis means all parts of the plant Cannabis sativa Linnaeus, Cannabis indica, or Cannabis ruderalis, whether growing or not; the seeds thereof; the resin, whether crude or purified, extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin. "Cannabis" also means the separated resin, whether crude or purified, obtained from cannabis. "Cannabis" does not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stalks (except the resin extracted therefrom), fiber, oil, or cake, the sterilized seed of the plant which is incapable of germination, or "industrial hemp" as defined by Section 11018.5 of the Health and Safety Code. (Business and Professions Code Section 26001.)

Cannabis business means any person engaged in any commercial cannabis activity.

Cannabis products means cannabis that has undergone a process whereby the plant material has been transformed into a concentrate, including, but not limited to, concentrated cannabis or an edible or topical product containing cannabis or concentrated cannabis and other ingredients. (Health and Safety Code Section 11018.1; Revenue and Taxation Code Section 34010.)

Canopy means the designated area(s) at a licensed premises, calculated in square feet, that will contain mature plants at any point in time, as follows:

For indoor and mixed-light cultivation and nurseries, canopy shall be calculated in square feet and measured using the room boundaries, walls, or ceiling-to-floor partitions of each enclosed area that will contain mature plants at any point in time, including all of the space(s) within the boundaries. If mature plants are being cultivated using a shelving system, the surface area of each level shall be included in the total canopy calculation.

For outdoor cultivation and nurseries, canopy shall be calculated in square feet and measured using physical boundaries of all area(s) that will contain mature plants at any point in time, including the space within the boundaries. Canopy may be noncontiguous, but each unique area included in the total canopy calculation shall be separated by a physical boundary, such as a fence, hedgerow, garden plot, or other stable, semi permanent structure that clearly demarcates the canopy edge.

Child care center means any licensed child care center, daycare center, childcare home, or preschool.

Place of worship means a structure or leased portion of a structure that is used primarily for religious worship and related religious activities.

Commercial cannabis activity includes any activity involving the propagating, cultivating, harvesting, processing, drying, curing, storing, trimming, manufacturing, packaging, labeling, transporting, delivering, possessing, distributing, or laboratory testing of cannabis or cannabis products for the sale, distribution, gifting, or donating to any other person regardless of whether the activity involves medicinal or adult recreational cannabis or cannabis products, is operated for profit, or is in compliance with State laws and regulations. "Commercial cannabis activity" does not include any activity expressly allowed under Business and Professions Code Section 26033, Health and Safety Code Section 11362.1, and County Code Title 130, Article 9, Section 130.14.260 (Outdoor Medical Cannabis Cultivation for Personal Use) or the transportation of cannabis or cannabis products through the County without delivery within the County on public roads by a transporter licensed under State law.

Commercial Cannabis Activities Tax means the tax due under this article for engaging in the commercial cannabis activities in the unincorporated area of the County.

Commercial cannabis operation includes all of the commercial cannabis activities performed at a premises by one person as a single operation regardless of the number of individual permits or State licenses required and regardless of whether the activity involves medicinal or adult recreational cannabis or cannabis products.

Cultivation **or** ***cultivating*** means the propagation, planting, growing, harvesting, drying, curing, grading, or trimming of one or more cannabis plants or any part thereof.

Delivery means the commercial transfer of cannabis or cannabis products to a customer and includes the use by a retailer of any technology platform. (California Business and Professions Code Section 26001.)

Distribution means the procurement, sale, and transport of cannabis and cannabis products between licensed cannabis businesses, but not the direct sale or transport to the general public.

Distributor means a person engaged in the distribution of cannabis and/or cannabis products between cannabis businesses.

Dried flower means all dead cannabis that has been harvested, dried, cured, or otherwise processed, excluding leaves and stems.

Flowering means that a cannabis plant has formed a mass of pistils measuring greater than one half inch wide at its widest point.

Gross receipts shall have the same meaning as set forth in California Revenue and Taxation Code Section 6012.

Immature plant* or *immature means a cannabis plant that has a first true leaf measuring greater than one half inch long from base to tip (if started from seed) or a mass of roots measuring greater than one half inch wide at its widest point (if vegetatively propagated), but which is not flowering.

Indoor cultivation means the cultivation of cannabis within a permanent structure using exclusively artificial light or within any type of structure using artificial light at a rate above 25 watts per square foot.

Infusion means a process by which cannabis, cannabinoids, or cannabis concentrations are directly incorporated into a product formulation to produce a cannabis product.

Legal parcel means any parcel of real property that may be separately sold in compliance with the Subdivision Map Act (Division 2 (commencing with Government Code Section 66410) of Title 7 of the Government Code).

Manufacture means all aspects of the extraction and/or infusion processes, including processing, preparing, holding, storing, packaging, or labeling of cannabis, cannabis products, or other components and ingredients that is performed pursuant to a license issued by the California Department of Public Health's Manufactured Cannabis Safety Branch.

Mature plant means a cannabis plant that is flowering.

Medical* or *medicinal cannabis means cannabis grown for personal medicinal use by a qualified patient as defined in Health and Safety Code Section 11362.7 or a person with a valid cannabis identification card issued under Health and Safety Code Section 11362.71.

Mixed-light cultivation means the cultivation of mature cannabis in a greenhouse, hoop-house, glass house, conservatory, hothouse, or other similar structure using a combination of natural light or light deprivation and artificial lighting at a rate of six watts per square foot or less.

Nursery means all activities associated with producing clones, immature plants, seeds, and other agricultural products used specifically for the propagation and cultivation of cannabis.

Organic certification standards means the organic certification adopted by the California Department of Food and Agriculture for cannabis pursuant to Business and Professions Code Section 26062.

Outdoor cultivation means cultivation activities that are not conducted within a fully enclosed, permitted building, constructed of solid materials, accessible only through one or more locking doors.

Owner means any person that constitute an "owner" under the regulations promulgated by the Bureau of Cannabis Control and (1) a person with any ownership interest, however small, in the person applying for a permit, unless the interest is solely a security, lien, or encumbrance; (2) the chief executive officer of a nonprofit or other entity; (3) a member of the board of directors of a nonprofit entity; (4) a person who will be participating in the direction, control, or management of the person applying for a permit, including but not limited to a general partner of a partnership, a non-member manager or managing member of a limited liability company, and an officer or director of a corporation; or (5) a person who will share in any amount of the profits of the person applying for a permit or has a financial interest, as defined by the regulations promulgated by the Bureau of Cannabis Control, in the person applying for the permit.

Person means any individual, firm, partnership, joint venture, association, corporation, limited liability company, cooperative, collective, organization, entity, estate, trust, business trust, receiver, syndicate, or any other group or combination acting as a unit, whether as principal, agent, employee, or otherwise, and the plural as well as the singular.

Premises means a single, legal parcel of property. Where contiguous legal parcels are under common ownership or control, such contiguous legal parcels may be counted as a single "premises."

Process* or *processing means all cannabis business activities associated with drying, curing, grading, trimming, storing, packaging, and labeling of raw cannabis, or any part thereof, for transport.

Processor means a cultivation site that conducts only trimming, drying, curing, grading, packaging, or labeling of cannabis and non manufactured cannabis products.

***Propagate* or propagation** means to cultivate immature plants from cannabis plant cuttings or seeds.

Retail sale, sell,* and *to sell means any transaction whereby, for any consideration, title to cannabis or cannabis products is transferred from one person to another, and includes the delivery of cannabis or cannabis products pursuant to an order placed for the purchase of the same and soliciting or receiving an order for the same, but does not include the return of cannabis or cannabis products by a cannabis permittee to the cannabis permittee from whom the cannabis or cannabis product was purchased.

School means an institution of learning for minors, whether public or private, offering a regular course of instruction required by the California Education Code. This definition includes a nursery

school, kindergarten, elementary school, middle or junior high school, senior high school, or any special institution of education, but does not include a home school or vocational or professional institution of higher education, including a community or junior college, college, or university.

School bus stop means any location designated in accordance with California Code of Regulations, Title 13, Section 1238, to receive school buses, as defined in Vehicle Code Section 233, or school pupil activity buses, as defined in Vehicle Code Section 546. *Testing laboratory* or *laboratory* means a laboratory, facility, or entity in California that offers or performs tests of cannabis or cannabis products and that is accredited by an accrediting body that is independent from all other persons involved in commercial cannabis activity in the state.

Transport* or *transportation means the transfer of cannabis from the licensed cannabis business site of one State commercial cannabis licensee to the State licensed cannabis business site of another State commercial cannabis licensee for the purposes of conducting cannabis business activities as authorized pursuant to California Business and Professions Code Section 26000 et seq.

Treasurer-Tax Collector means the Treasurer-Tax Collector of the County of El Dorado, his or her deputies, unless another County officer or employee is assigned by resolution of the Board of Supervisors, to perform all or a portion of the duties as listed herein, in which case, the Treasurer-Tax Collector shall interpreted as the person defined in the resolution.

***Watts** per square foot* means the sum of the maximum wattage of all lights identified in the designated canopy area(s) in the cultivation plan divided by the square feet of designated canopy area(s) identified in the cultivation plan.

Youth-oriented facility means any facility that caters to or provides services primarily intended for minors.

Plan:

Cultivation Premises:

The Rosewood project team is committed to being a good neighbor and corporate citizen and implementing good security measures and both, start with odor control. Aside from all odorous inventory being stored in a secure and temperature-controlled space with carbon scrubbing technology, Applicant has seeked the advice of Ray Kapahi of Environmental Permitting Specialists, an odor control specialist to ensure that we are doing our part to prevent the odors associated with cannabis from exiting our cultivation space. (Please see attached Evaluation Studies).

In addition to the aforementioned odor mitigations practicers Applicant intends to use the NextG3N gabled greenhouses which have been custom designed for cannabis cultivation including a built-in odor mitigation system. (Please refer to Site Plan for detailed information). This includes a mixture of natural and biodegradable ingredients injected into a high pressure fog system eliminate the molecules that contain odor rather than masking it. A cost effective solution to neutralizing and eliminating odors with no contamination impact.

Odor Control Devices:

The activated carbon filtration is installed to control odors being emitted from cannabis operations. Activated carbon filtration technique involves forcing the air circulating within the HVAC system through an activated carbon filter in order to filter out odors and pathogens that may pose a public health risk. Exhaust air is pushed through active carbon to scrub the smells associated with cannabis operations. The system is the easiest to install, as the filters are designed as pipes or “cans” that are connected to the inline fans and exhaust fans that can circulate the contaminated air with filtered air and outside air, respectively. This method is highly effective and can be used in combination with other technologies such as an electrostatic precipitator. Finished product will be stored in a sealed area containing one (1) 1700 cfm carbon scrubber. At the entrance of the building, we will have two (2) 2500 cfm carbon scrubbers. This will allow for the opening and closing of the main entrance door without allowing odor to leak outside the building. (Please refer to the attached evaluation studies).

Staff Training & System Maintenance Plans:

As filters age and the activated carbon becomes clogged with impurities, it will be necessary to replace the carbon filters. Applicant will replace them per the manufacturer's recommendation. In addition, the dust collector “sock” associated with the carbon filter will be changed out every 6-8 months for proper airflow. Carbon filtration is the least energy-intensive. In most cases, the energy required to run the filtration system is already accounted for in the air handling and exchange system. The excess energy necessary to force air through the filter is negligible and, depending on the size of the discharge and intake, often only slightly alters the speed of the exchange. The use and disposal of the filters create the most physical waste; however, the carbon can typically be regenerated for reuse.

Staff will be trained and calendared to replace the carbon filter, every 4-6 weeks, as per the recommendations of the manufacturer. Additionally, the “dust collector sock” will be replaced every 6-8 months. Training, for maintenance of the odor control system, will be done with every newly hired employee and every 6 months to refresh and update knowledge.

Conclusion:

Applicant has completed an onsite odor evaluation review by Ray Kapahi of Environmental Permitting Specialists. He states in his review that,... “the proposed odor control measures will reduce odor intensity to well below 7 DT (El Dorado County threshold) near the greenhouses and near the processing building. Modeling completed by EPS at several locations in El Dorado County, including Somerset, found that odor intensity decreases by distance away from the sources of cannabis odors. Specifically, EPS found odor intensity declines by 88% over 100 meters or 26.7% every 100 feet. As a result, odor intensity at the property lines at this project is estimated to be 3.5

DT or lower assuming odors are reduced to 7 DT adjacent to the greenhouses or the process building.

Further, it is the intention of the Applicant to continue to monitor thresholds throughout cultivation cycles and processing so as to, not only, adversely affect the health, safety, or enjoyment of property of persons residing near the property due to odor that is disturbing to people of normal sensitivity but to maintain but to stay within and well below the guidelines set by El Dorado County.

ENVIRONMENTAL PERMITTING SPECIALISTS
Air Quality • Permitting • OHSA • RMP/PSM

May 16, 2024

Jordan Vettorett
3331 Rosewood Lane
Somerset, CA 95684

Subject: Evaluation of Odor from Proposed Cannabis Cultivation Project
Rosewood Lane, Somerset, California

Dear Mr. Vettoretti:

Environmental Permitting Specialists (EPS) has reviewed the project description and site plans for the proposed cannabis cultivation to be located at 3331 Rosewood Lane in Somerset (El Dorado County). It is my understanding that up to 7 greenhouses are planned at the 20 acre site (Figure 1). Each greenhouse may be equipped with a fogging type odor control system. Based on the site plan, the distances from the greenhouses to the nearest property lines vary between 239 feet to 529 feet.

To determine if the proposed project will comply with El Dorado County's 7 dilution to threshold (DT) odor standard [Ordinance 5110 (5) D)], EPS relied on odor intensity measurements at other greenhouses in Northern California and on numerous odor modeling studies. The odor modeling studies quantify the dilution of odors with distance from the greenhouses.

Specifically, EPS conducted an odor dispersion modeling study in Somerset in 2021 to determine the dilution of odors versus distances from greenhouses. This study employed an EPA and El Dorado County Air Quality Management District using procedure approved by the District. The results of the modeling study indicated that odor decline by 70% over a distance of 300 feet solely due to atmospheric dilution. Figures 2 and 3 show the spatial variation of relative odor intensity from for a 75' x 75' area.

In addition to the dispersion modeling. EPS collaborated with Fulcrum Enterprises, LLC, NCM Odor Control, Inc., and Bosarge Environmental, LLC to conduct multi-day odor intensity measurements adjacent to greenhouses in Chico, California.

Melanie Bosarge conducted the odor measurements using a Nasal Ranger Field Olfactometer and the results are reported in terms of D/T (dilution to threshold) . She is a Certified Instructor and has extensive training and experience in the use of the Nasal Ranger. She also completed training at the Odor School at St. Croix Sensory, the manufacturer of Nasal Ranger.

The odor measurements were conducted October 1 to 3, 2019 at a Northern California location (10175 Alberton Ave, Chico) that has seven (7) greenhouses each measuring 200 feet x 42 feet. Each greenhouse had 3 rows of four hundred (400) plants totaling 1,200 plants. The greenhouses were equipped with an odor control misting system. Photographs of the misting system appear in the attached report. At the time odor measurements were taken, the cannabis plants were two weeks away from harvesting. See Figures 1 to 5 in the attached report.

Odor intensity was measured at the greenhouse exhaust vents, at the property lines and at nearby off-site locations. A total of 17 on-site readings were taken. The results of the on-site testing were as follows:

Number of Readings	Measured DT	Mitigation Scenario
4	0 (non-detect)	With Mitigation
10	Between 2 and less than 2	With Mitigation
2	4	No Mitigation
1	7	No Mitigation

These results show an average odor intensity of 2.06 D/T and a maximum of 7 D/T. A copy of the odor monitoring report is attached.

On the basis of odor measurements and odor modeling studies, EPS calculated the maximum intensity of odors at the nearest property lines. The results are summarized below.

				Odor Intensity (D/T)		
Property Line	Distance (ft)	Ratio of odor intensities	Dilution (%)	No Mitig	Water	Neutralizer
South	239	0.267	73.3%	1.869	0.801	0.534
West	303	0.28	72.0%	1.96	0.84	0.56
East	529	0.037	96.3%	0.259	0.111	0.074
North	445	0.168	83.2%	1.176	0.504	0.336

Greenhouse Measurement Data		
Scenario	Chico Measurements (D/T)	
No Mitigation	7	Measured
Water Only	3	Estimte
Neutralizer	2	Measured

These results indicate that even without mitigation, the odor intensity at the nearest property lines would remain well below 7 D/T. The use of misting system would further reduce the intensity of odors.

To ensure on-going compliance with the County's 7 D/T odor standard along the property lines, EPS staff will be available to measure odor intensity after the greenhouses are in operation.

Please contact me if you have any questions or require additional information.

Sincerely,

Ray Kapahi

Ray Kapahi
Principal
Environmental Permitting Specialists
Web Site: https://www.epsconsulting.org/

ATTACHMENTS

- Figures 1-3
- Attachments - Photos from Odor Testing at Greenhouses in Chico
- Copy of Chico Odor Testing Report (November 1, 2019)

Figure 1
Site Map

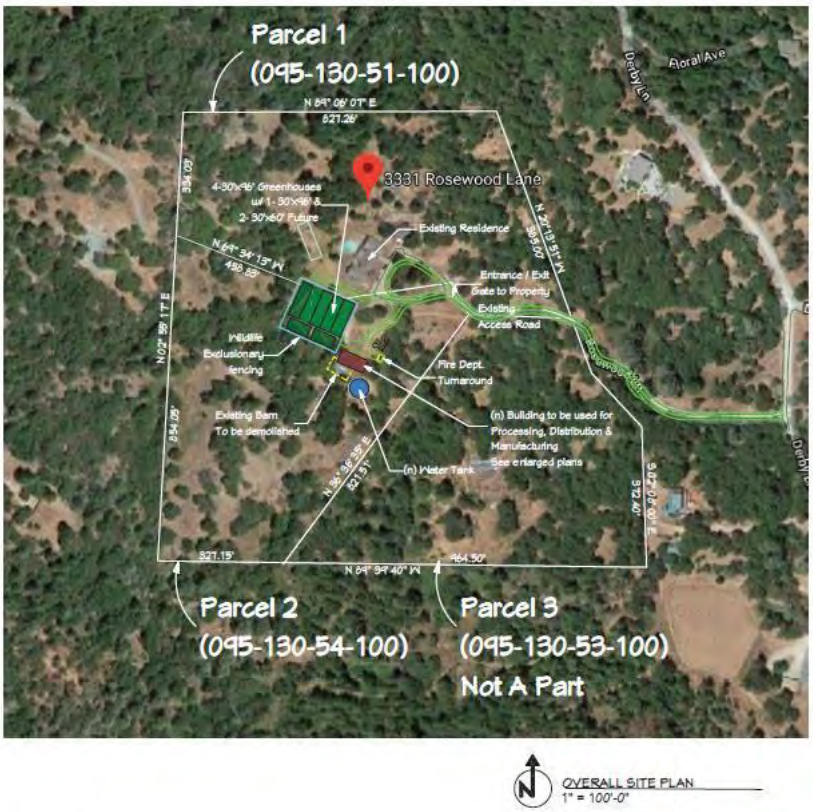


Figure 2

Results of Odor Dispersion Modeling Study in Somerset
Values Shown Represent Relative Odor Intensities
in Micrograms per Cubic Meter

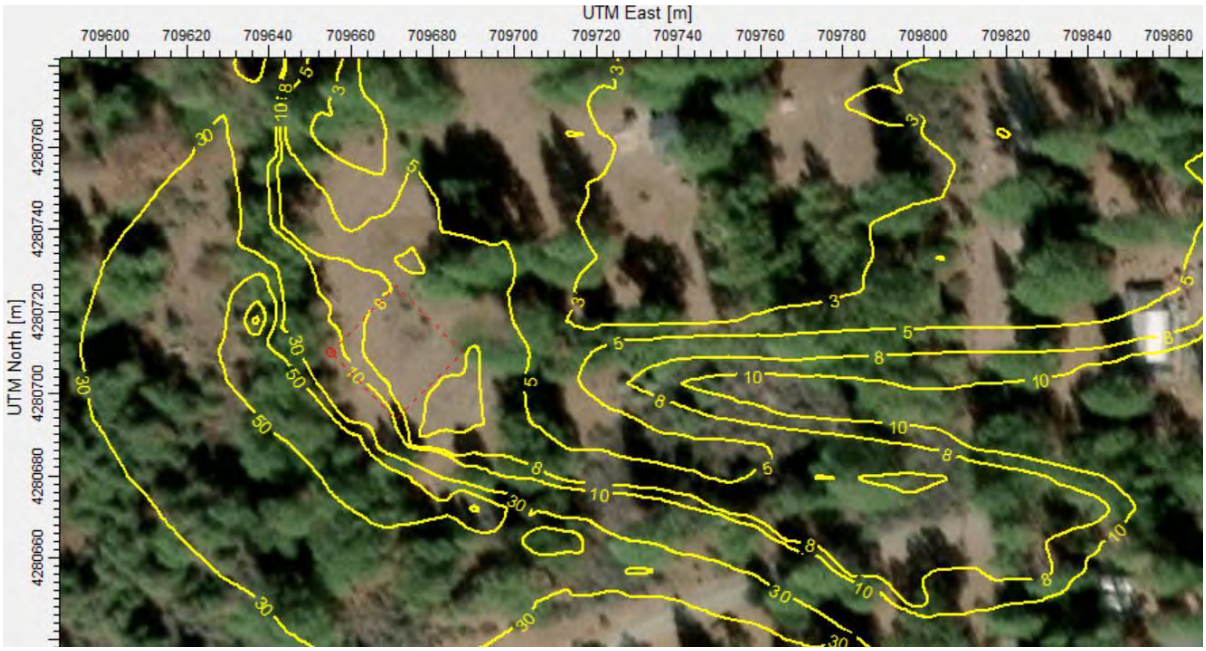
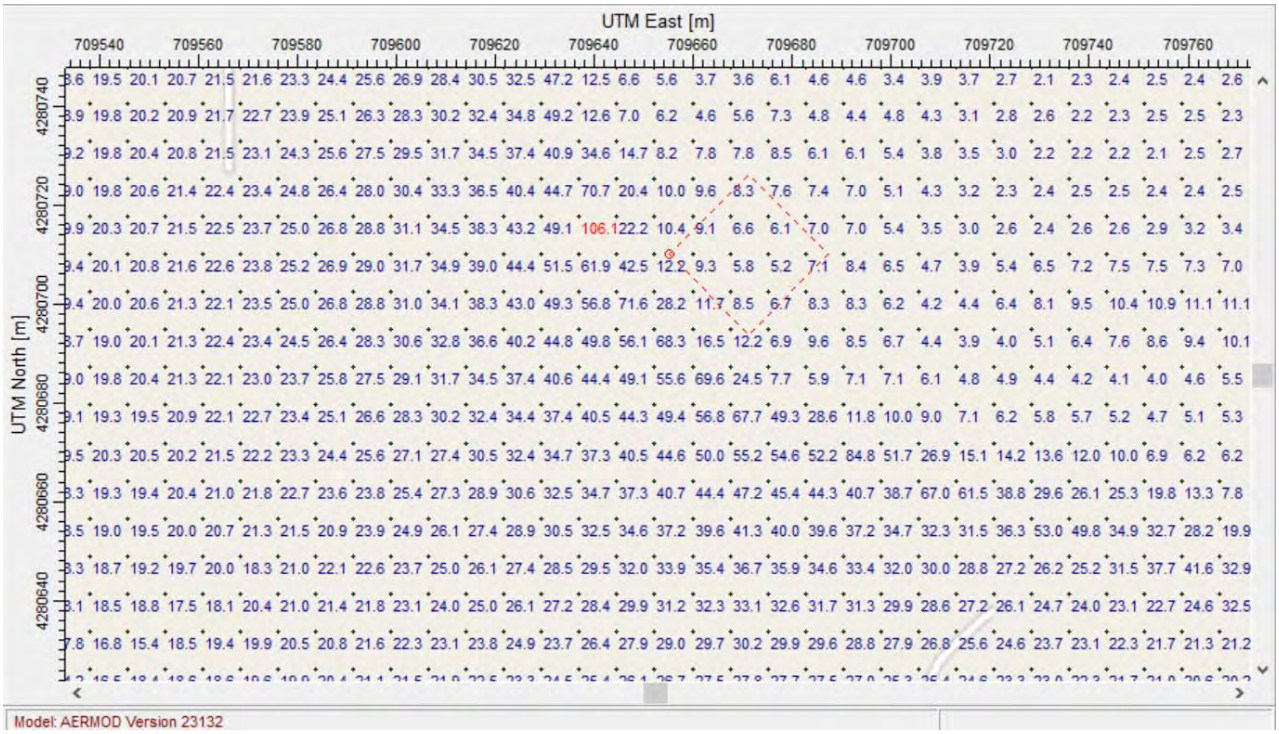


Figure 3

Results of Odor Dispersion Modeling Study in Somerset
Values Shown Represent Relative odor Intensities
in Micrograms per Cubic Meter



Note: Each cell is 25 feet x 25 feet. The maximum odor intensity (in red) is 106.1 ug/m3.

Attachment

130.41.100.4.F.13 The security plan for the operation that includes adequate lighting, security video cameras with a minimum camera resolution of 1080 pixels and 360 degree coverage, alarm systems, and secure area for cannabis storage. The security plan shall include a requirement that there be at least 90 calendar days of surveillance video (that captures both inside and outside images) stored on an ongoing basis and made available to the County upon request. The County may require real-time access of the surveillance video for the Sheriff's Office. The video system for the security cameras must be located in a locked, tamper-proof compartment. ***The security plan shall remain confidential.***

APN NUMBER 095-130-53

SITUS NUMBER 3331

SITUS NAME Rosewood Ln

OWNER LAST NAME McNicol

PERMIT NUMBER 2130

PERMIT TYPE

COMPLAINT	☐
LOAN CERT	☐
SEPTIC	☐
WELL	☐
BUILDING	☐
OLD FICHE	☐
MISC	☐

WELL PERMIT APPLICATION

EL DORADO COUNTY

ENVIRONMENTAL MANAGEMENT DEPT.
Division of Environmental Health
2850 Fairlane Ct.
Placerville, CA 95667 (530)621-5300

INSPECTION LINE: (530)621-4257 Prior to 7:00 a.m.

PERMIT NO: 2130

Receipt: 29739 **Check** 2075
Amount: 165.00
Date: 4/24/00
By: [signature]

095 130 - ~~F53~~

PARCEL NO. [illegible] - [illegible] - [illegible]

Job Address/Location: 3331 Rosewood Lane Sommerset Calif. 95684

Driving Directions: ~ 2 miles North of Mt Auburn - Omo Ranch Rd to Derby Lane take a right on Derby + a right on Rosewood to Residence.

Owner: Laura H McNicol **Phone:** 650-941-7622 **Parcel Size:** 10 acres
PO Box 869 Los Altos 94023

Applicant (if different): Fred Waters **Lot:**

Address: 17075 Grizzly Rd. Ply. **Subdivision:**

Well Driller: Fred Waters Constr Well **Phone:** 345-6683 **Sec** **Twn** **Rng**

Address: 17075 Grizzly Rd. Ply. Ca. 95669

TYPE OF WORK (CHECK): ***New Well*** ☒ ***Deepen*** ☐ ***Destruction*** ☐ ***Reconstruction/Repair*** ☐

WELL USE (CHECK): ***Individual/Domestic*** ☒ ***Irrigation*** ☐ ***Public/Commercial*** ☐ ***Other*** ☐

PERMIT EXPIRES 1 YEAR FROM ISSUE DATE/NON TRANSFERRABLE TO ANOTHER DRILLER

ATTACH A COPY OF ASSESSOR'S PARCEL MAP OR ACCURATE PLOT PLAN:
INDICATE THE EXACT LOCATION OF WELL WITH RESPECT TO PROPERTY LINES, SEWER OR SEPTIC SYSTEMS, WATER COURSES, EXISTING WELLS, ROADS, EXISTING STRUCTURES, AND ADJACENT PROPERTY DEVELOPMENT.

NOTES:

1. **An accurate scaled plot plan must accompany this application.**
2. **This application becomes a permit when approved by Division of Environmental Health.**
3. **The location of the well cannot be changed without prior approval of this office.**
4. **Contact El Dorado County Building Department for plumbing and electrical permits.**
5. **Drilling fluids shall be disposed of in a safe and sanitary manner.**

DRILLER CERTIFICATION

I hereby certify that the proposed well will be constructed per applicable County and State Code and regulations for water wells, that I notify Environmental Health 24 hours prior to beginning drilling, and that within 30 days of the completion of drilling I will furnish this office a complete well log with accurate well yield.

Well Driller: Fredric C Waters

State License: 357897 **Date:** 4-24-00

DISPOSITION OF APPLICATION

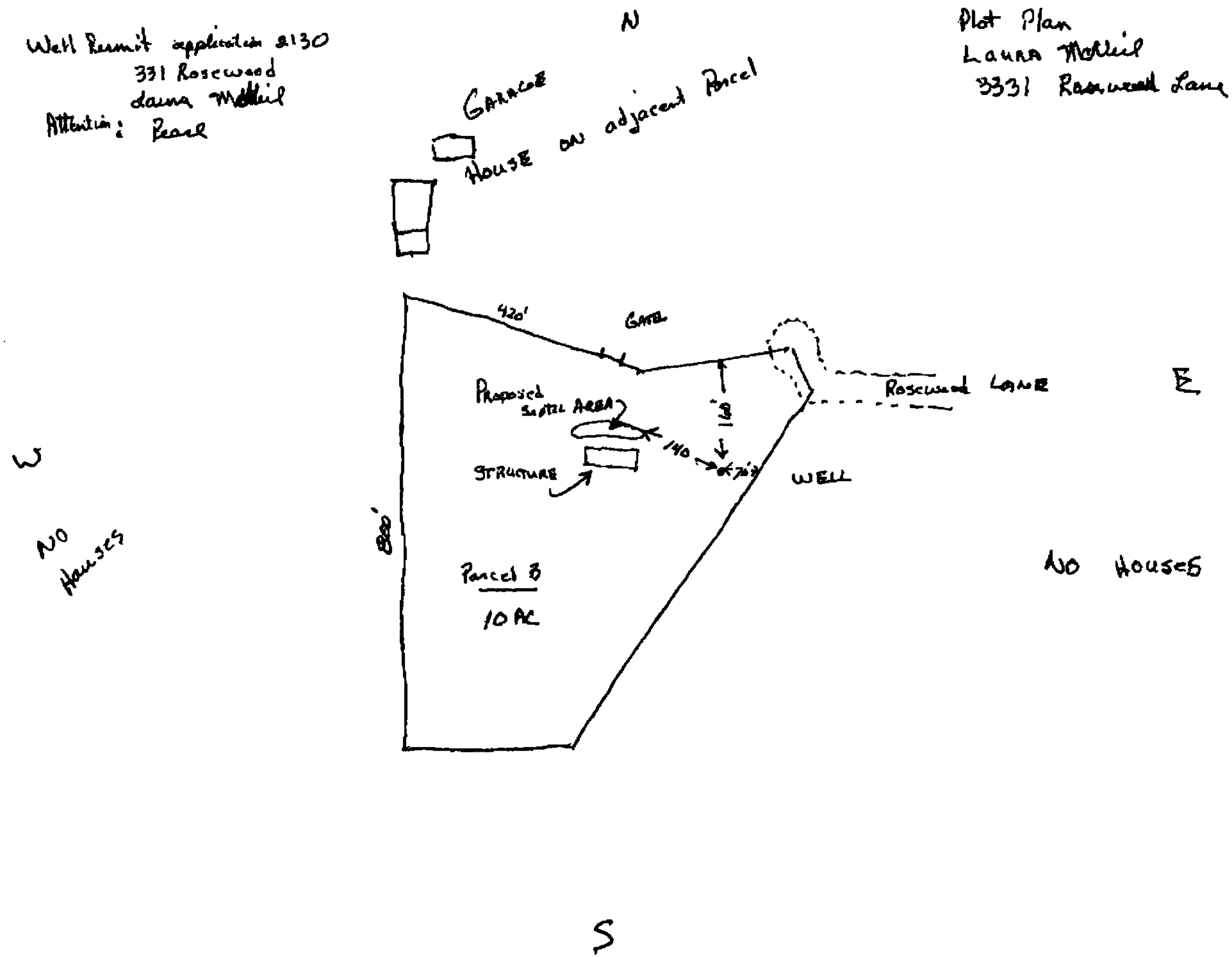
(For Health Officers use Only)

APPROVED ☒ **DENIED** ☐ **APPROVED WITH CONDITIONS** ☐

BY: [signature] **DATE:** 5-8-00

FINALED BY: CKM **DATE:** 1-24-01

G:\forms\well.per4-98



FROM : WATERS WELL DRILLING & CONST. FAX NO. : 2092456682 May. 08 2000 01:02PM P1

FILE/ROLL 2000

APN/ACCT 095-130-53-100 STATUS CD 00 TRA 093-005 USE CODE 21

OWNER NAME	% OWN	TYPE	MAIL ADDRESS	TYPE-%
MC NICOL LAURA H	100.000	S	P O BOX 869	
			LOS ALTOS CA	
			ZIP 94023	M-ADD-CHG 01/08/1998
			SITUS ADDRESS, CHG DATE 0	

TYPE, O.R.	REC.DATE	EFF.DATE	APP	(%)	PAR/LOT	BLK	SUB.NO	ZIP
R 4973692	08/15/97	08/15/97*1	Y	100.0	PAR C P/M 32-71			
R 4097236	09/02/93	09/02/93*1	N	0.00	REC.MAP		AC 10.000	D-AB
R 2172333	05/20/83	05/20/83*1			1911	UNT	CREAT 12/14/83	

PARCEL BACKGROUND FROM: 09513036100
TO:

LAND	STRUCT-MOBILE	FIXED-EQ	PER-PROP	TOT-EXEMPT	NET-ROLL	CAAP
50,926	0	0	0	0	50,926	CL

STATUTORY	APP DATE,CD.,ID	PAR-COMP	EXEMPT-CD	VAL-CHG-R/P,P/P
	08/15/97 S RGF			07/01/99

NEXT UTM010 <ENTER>=PAGE 2 F3=QUIT F4=MENU F5/6=HIST(BCK/FWD)
F7/8=NAMES(BACK/FWD) F9/F10=PAR BKGD(BACK/FWD) UTM020A

* Held for final - owner not happy & may want to destroy
No further action requested as of 1-24-01 -CKM

WELL DRILLING INSPECTION REQUEST

Permit # 2130

NAME: McNicol

LOCATION: 3331 Rosewood Lane
Somerset

DATE: 5/16 TIME: AM PM

REQUESTED BY: Dave

DRILLER: Fred Waters

{ } PRELIMINARY SITE (X) WELL SEAL { } DESTRUCTION

{ } APPROVED { } DISAPPROVED

CASING DEPTH: 26' SEAL DEPTH: 24'+ @ 10AM

OF BAGS: MATERIAL: Bentonite

REMARKS:
Water in seal hole ~2' down/advised to obtain bentonite & return later today to seal well

R.E.H.S. CKM DATE: 5-16-00

rev.08/98well.insp ~1½ GPM per Dave

ORIGINAL
File with DWR

Page ___ of ___
Owner's Well No. 1
Date Work Began [redacted] Ended 4-24-00
Local Permit Agency [redacted] Eldorado
Permit No. 2130 Permit Date 4-24-00

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 813634

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft	to Ft	DESCRIPTION (Describe material, grain size, color, etc.)
0	20	Soft over Burden
20	40	Granite 1 gpm
40	100	Hard Granite
100	140	Hard Granite
140	240	Granite
240	260	Very Hard Granite
260	300	
300	400	Granite
400	500	Very Hard
500	580	Granite

TOTAL DEPTH OF BORING 580 (Feet)
TOTAL DEPTH OF COMPLETED WELL 580 (Feet)

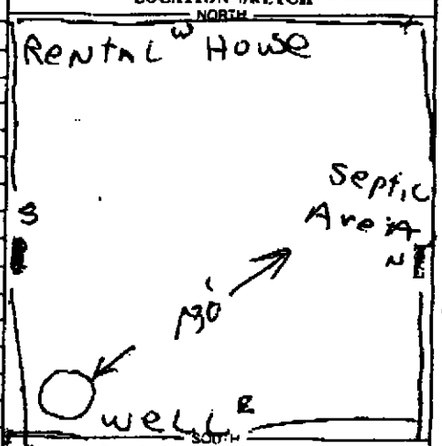
WELL OWNER

Name Laura McNicol
Mailing Address 438 Galician st #1
City Los Altos Ca. STATE 94023 ZIP

WELL LOCATION

Address 3331 Rosewood Lane
City Sommerset Calif. 95684
County Eldo
APN Book ___ Page ___ Parcel 95-130-53
Township ___ Range ___ Section ___
Latitude ___ DEG MIN SEC NORTH Longitude ___ DEG MIN SEC WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers or Streams and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

✓ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)
WATER SUPPLY ✓ Domestic ___ Public ___ Irrigation ___ Industrial
___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 40 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * 1.5 (GPM) & TEST TYPE ___
TEST LENGTH 8 (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft	to Ft	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONSTRUCTION	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	25						Schlo	6"		

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft	to Ft	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	25	✓			

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

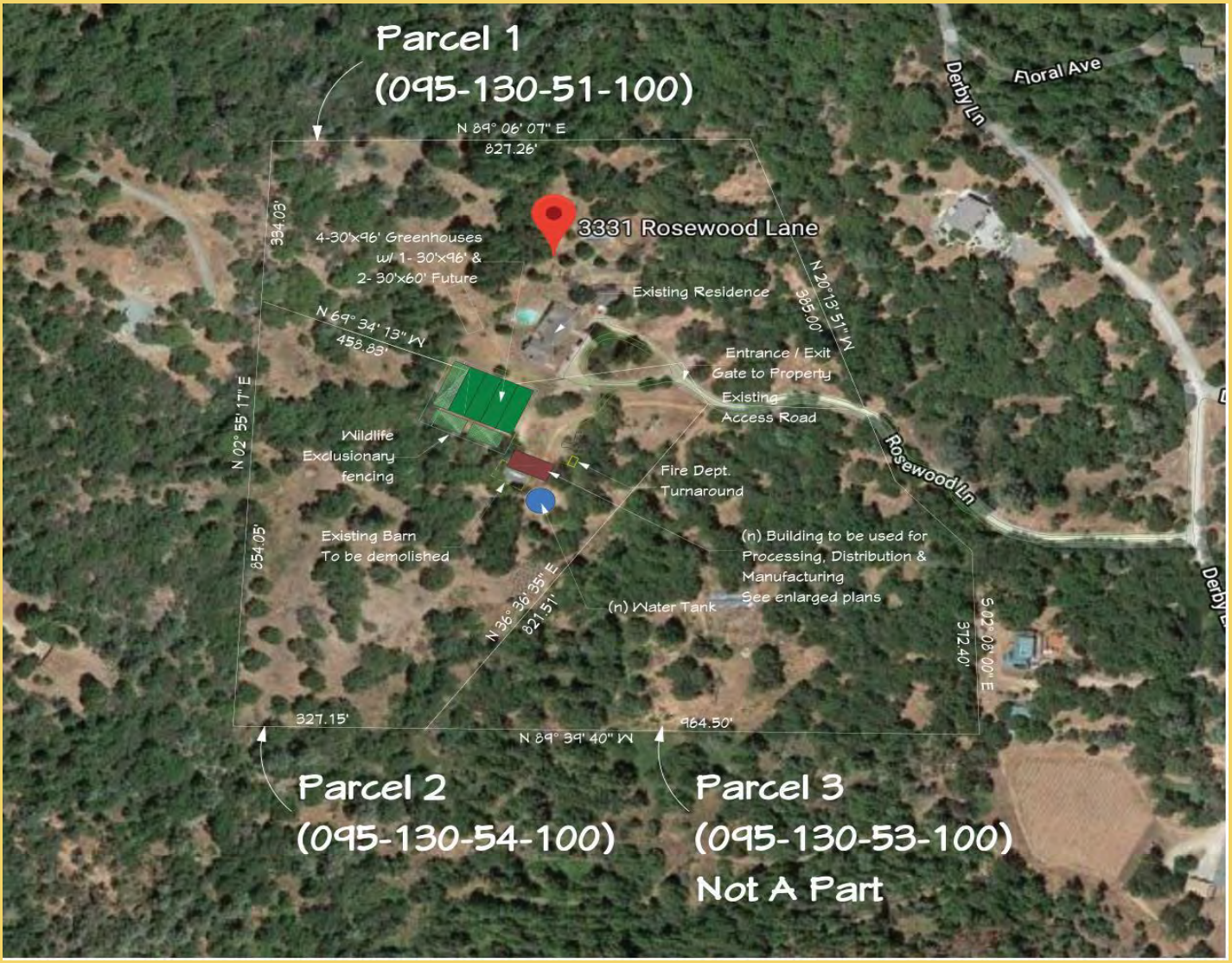
NAME Fred Winters CONT # WCL ___
(PERSON, FIRM OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 17075 Greenleaf Rd CITY Ply STATE CA ZIP 95669
Signed Fred Winters WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED 5-14-00
C-57 LICENSE NUMBER 357897

DWR 188 REV 11/96 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

FROM : WATERS WELL DRILLING & CONST. FAX NO. : 2092456682 May. 23 2000 09:46AM P1

CCUP21-0007/Rosewood
Well Completion Report
Exhibit J

Fire Safe Plan



Rosewood Commercial Cannabis Operating Permit Project
3331 Rosewood Lane – Somerset
County of El Dorado CUP21-0007

Phillips Consulting Services

4328 Empire Creek Circle, Georgetown, CA 95634
E-Mail: Rphillips3401@yahoo.com
Cell Phone # 530.217.7432

TABLE OF CONTENTS

PLAN APPROVAL SHEET

The Rosewood Commercial Cannabis Operating Permit Fire Safe Plan has been designed to mitigate the wildfire risk presented for the commercial project at 3331 Rosewood Lane, in Somerset, CA. The plan has been developed to conform with California Code of Regulations Title 14 §§ 1270-1276 (Fire Safe Regulations), California Code of Regulations Title 24, Part 9 – § 4903 (Plans) and El Dorado County Fire Protection Standard W-002 (Wildland Urban Interface Fire Protection Plans).

The Rosewood Commercial Cannabis Operating Permit Wildfire Safety Plan has been reviewed and approved by the following fire agencies located in El Dorado County:

DATE PUBLISHED: March 15, 2024

PREPARED BY:	APPROVED BY:	APPROVED BY:
Ronald A. Phillips	Ken Earle, Fire Marshal	Jeff Hoag, Battalion Chief
Phillips Consulting	Pioneer Fire Prot. District	CAL FIRE - AEU

FORWARD

The following **Rosewood Commercial Cannabis Operating Permit Fire Safe Plan** (FSP) has been prepared for 3331 Rosewood Lane (Project) in Somerset, California. This FSP for the Project meets the requirements described in Chapter 49 of the California Fire Code and various other State and County statues and regulations. The FSP addresses the following topics:

- Project Scope
- Fire Risk Analysis
- Fuel Modification Practices for the Project
- Fire Safety Plan Recommendations
- Plan Appendix Materials

The goals of this Fire Safe Plan are as follows:

- Reduce the exposure of vulnerable buildings to high intensity flames.
- Reduce the quantity of embers accumulating at a building based on factors related to the building characteristics and adjacent fuel treatments.
- Reduce the likelihood of urban conflagration due to treatment of fuels in proximity to buildings.
- Enhance the level of preparedness by both residents and visitors for safe evacuation during a wildfire or similar hazardous situation.

The FSP specifically applies to the Rosewood Commercial Cannabis Operating Permit Project (CUP21-0007). The FSP provides a framework for protection of residents and visitors from natural hazards, the prevention of fire, and preparation for responding to an emergency evacuation of the Project should the need arise. The FSP is intended to be utilized during the development, construction, and occupancy phases of the Project.

For the purpose of interpreting and applying the provisions found within each chapter the terms shall and should are found throughout. The use of the term “shall” refer to requirements of the Plan as mandated through State statue or regulation. The use of the term “should” refer to recommendations cited in the document by the authors.

CHAPTER 1: PROJECT SCOPE

1.1 Strategic Highlights

Project Name: Rosewood Commercial Cannabis Operating Permit (CUP21-0007)

Location: The Project is located west of Derby Lane, south of Omo Ranch Road and east of Rendezvous Lane in Somerset, California. El Dorado County Assessor Parcel #s 095-130-051 and 095-130-054. The Map Coordinate for the Project is 38.569785N,120.685920W. The Project applicant is Mr. Jason Kipperman. See Figure 1 for an area map for the Project site.

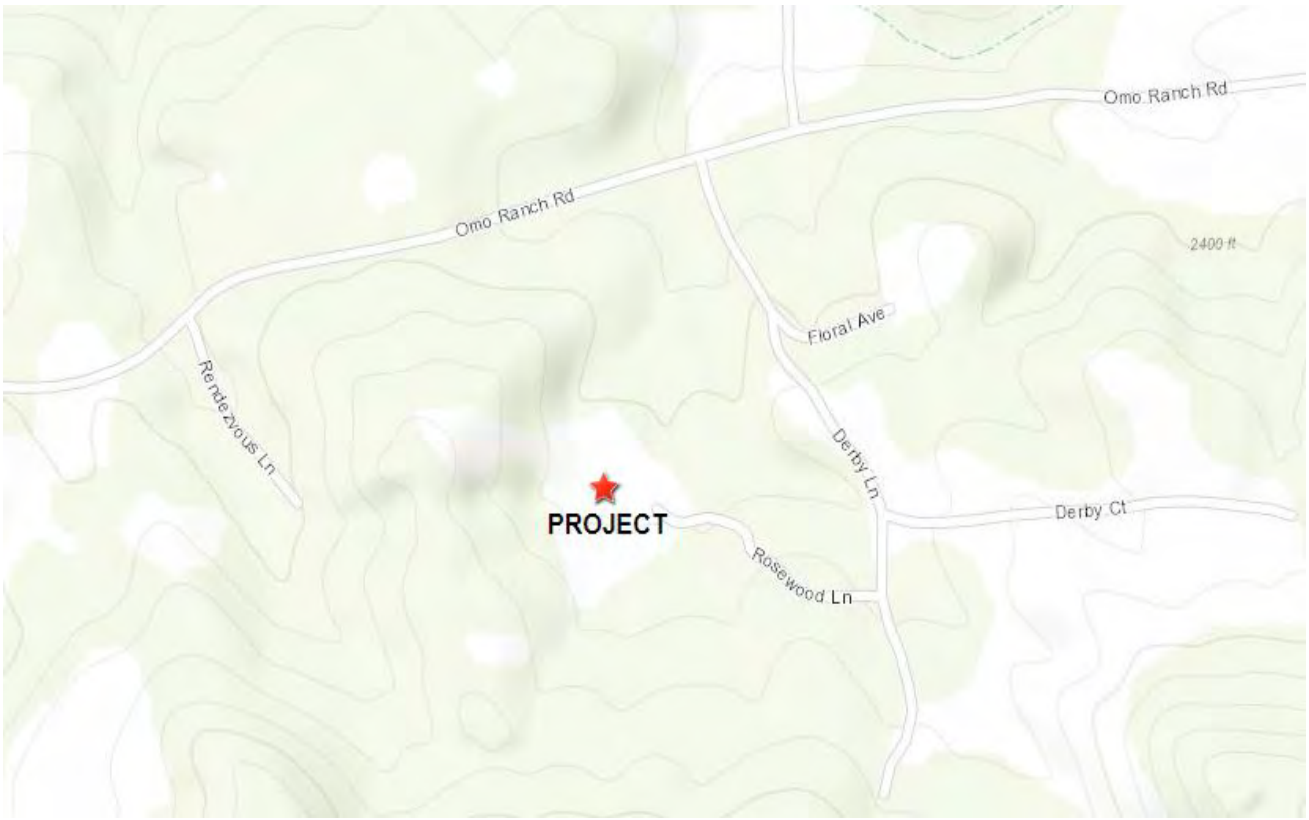


Figure 1: Area Map

Project Description: The Project is seeking to obtain a Conditional Use Permit from the County of El Dorado for a "Mixed-Light" cannabis cultivation facility. The Project will be located on two parcels adjacent to each other on Rosewood Lane. Both parcels are 10-acres in size. Up to 10 full-time and 10 seasonal employees are anticipated to be on site during peak production periods.

The Project is bordered by the following adjoining properties:

- **North Side** – Three 5-acre vacant rural residential parcels are located north of the Project.
- **East Side** – A 10-acre vacant rural residential parcel (APN # 095-130-053) located on Rosewood Lane is located east of the Project site.
- **West Side** – A 23.87-acre vacant rural residential parcel (APN # 095-150-009) located on Rendezvous Lane is located west of the Project site. The property currently contains significant wildfire fuels that can pose a risk to the Project.
- **South Side** – A 45-acre developed residential parcel (APN # 095-021-044)) located at 7440 Derby Lane is located south of the Project site. The property currently contains significant wildfire fuels that can pose a risk to the Project.

See Figure 2 for the existing land use condition of the Project.

Figure 2: Project Site Looking South from 3331 Rosewood Lane

1.2 Looking Ahead

The Project includes the development and construction of one 3,000 Square Foot (FT²) **Group F1, (Moderate Hazard Factory Use)** commercial building of II-B construction, and four 2,880 FT² Greenhouse structures[1] of II-B construction. The Project site is mostly located on Parcel 095-130-054 which has an existing barn structure that is proposed to be replaced by an approximately 3,000 square foot commercial building. See Figure 3 for additional details on the proposed site plan for the Project.

Figure 3: Project Site Plan

The Project will be built to facilitate a business that cultivates, manufactures, and distributes cannabis on the permitted land for sale to the public. The use of hazardous materials is not anticipated with this Project.

[1] 1-2,880 FT² and 2 -1,800 FT² additional greenhouse structures are proposed on site in the future.

Chapter 2: FIRE PROTECTION PLANNING

2.1 Fire Hazard Versus Fire Risk

The threat of wildfire exposure to people, critical infrastructure, structures, and communities is based upon a comprehensive vulnerability assessment of an area. This vulnerability assessment is usually completed through the evaluation of both *fire hazard* and *fire risk* factors. The term "hazard" describes the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fires intensity or rate of spread such as topography or weather conditions. The term "risk" describes the potential damage a fire can cause to buildings, critical assets/infrastructure, and other values at risk in individual open space areas and other wildland urban interface areas.

Landowners, managers, and fire officials need to consider the potential fire hazard and risk factors that may make their community vulnerable to a wildfire when making land management and development decisions in fire-prone areas[2]. This assessment also aids fire agencies in the preparation of pre-incident plans and resource deployment actions such as fire equipment staffing levels and resource placement during critical fire periods. This assessment should consider the factors described in Table 1 when assessing the wildfire exposure potential for an area:

Table 1: **Hazard and Risk Assessment Factors**

Hazard Assessment Factors	Risk Assessment Factors
• Vegetation (fuel) types present • Topography of the area • Weather conditions present during both seasonal and critical fire weather periods • Other criteria as determined by the Fire Agency	• Size and configuration of the WUI • Proximity of structures to the WUI • Building construction and defensible space provisions for structures near the WUI • Emergency access including public/private roads and trails • Local Fire Protection Capabilities • Water supply sources and other risk factors

[2] Wildfire Hazard and Risk Assessment, United Nations Office for Disaster Risk Reduction, 2017

2.2 Fire Hazard Assessment for the Project

The term Fire Hazard refers to the dangerous accumulation of flammable fuels in open space areas and other wildland urban interface areas (WUI). It is typically described at the landscape (area) level, usually referring to the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fires intensity or rate of spread. Fire hazard is based on the vegetation types likely to be present over the next 50 years that contribute to fire severity and ember production, the topography of the area and the average fire weather conditions present in the area.

Fire Hazard ratings are provided by CAL FIRE as part of their *Fire Hazard Zone Severity Mapping* program. One of the major hazards in the southern El Dorado County region is the threat of a disastrous wildfire endangering both people and property. The Project is also located within a designated[3] Wildland Urban Interface (WUI) community identified by the Federal Government as being at risk from a large wildfire due to fire behavior potential and values at risk.

The area is vulnerable to the threat of wildfire throughout the year subject to a variety of conditions including, but not limited to:

- Daily weather conditions such as air temperature, humidity, wind speed and direction.
- Climatic conditions such as drought, extended seasonal periods of hot, dry weather typically found in the summer and fall months, or seasonal rains typically found in the winter and spring months.
- Fuel moisture and growth cycle periods, especially in fine fuels such as the herbs and shrubs that are prevalent in the area.
- Human caused ignition factors such as arson, escaped debris burns and unsafe equipment operation.

[3] Federal Register *Urban Wildland Interface Communities within the Vicinity of Federal Lands that are at High Risk from Wildfires; (January, 2001);* Federal Register :: Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire

The Project area is located within a State Responsibility Area (SRA) for fire management. The current CAL FIRE Hazard Severity Zone[4] Map for El Dorado County identifies the Project as being inside a **High Fire Hazard Severity Zone.** All lands within 1/2 mile of the Project are located within the same severity zone. See Figure 4 for the Fire Hazard Map information for the Project and surrounding community.

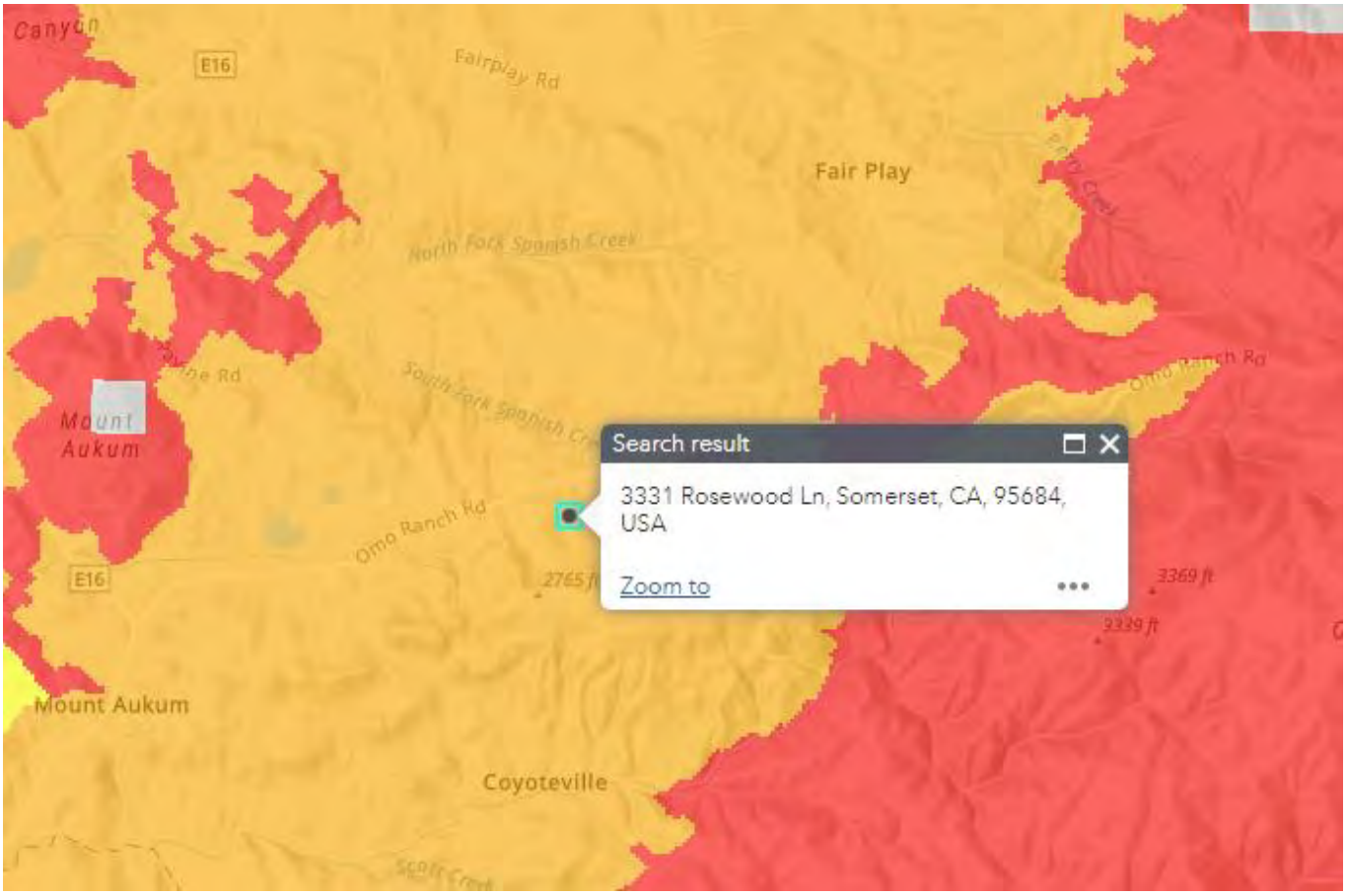


Figure 4: Fire Hazard Severity Zone Classification for the Project Site

2.3 Historical Fire Weather Conditions in the Project Area

Fire weather in El Dorado County is typically dominated by three general weather phenomena; the Delta push influence, north wind events, and east foehn winds caused by high pressure development in the Great Basin[5]. All three weather conditions cause potential increases in fire

[4] CAL FIRE; Fire Hazard Severity Zone Map for El Dorado County (April, 2024); Fire Hazard Severity Zones in State Responsibility Area - El Dorado County (azureedge.net).

[5] See Strategic Fire Plan for Amador El Dorado Unit; 2023; 2023 Strategic Fire Plan Amador El Dorado Unit (ca.gov); P.5.

intensity and size. The Delta influence is the most common and occurs frequently throughout the summer.

Characteristically, high pressure systems will dominate Northern California in the summer months bringing extremely hot and dry conditions over much of the region. As these systems develop, they tend to originate near the Delta and Sacramento areas bringing the marine influence to the area. This is generally considered a beneficial condition for fire behavior; slightly cooler afternoon temperatures and increases in relative humidity. However, the downside is the strong winds that typically accompany these patterns which can override any benefit that may come from cool, moist marine air.

This type of wind generally subsides after sundown causing fire behavior to drop off dramatically. The other critical wind patterns that are difficult to predict for El Dorado County are the northerly and easterly winds. They are relatively rare, and often are forecasted only the day before. Northerly or easterly winds are typically warmer and drier than most other wind patterns due to air compression. These conditions provide the perfect environment for increased fire intensity and large fire growth.

Fire growth is typically wind driven, however as these winds subside, fire immediately returns to fuel/topography driven in opposing directions to the wind driven direction. This type of wind event is commonly referred to as a Santa Ana wind in Southern California, and a Foehn wind in the Sierra/Cascade Region.

Predominant local weather patterns in the Project area[6] are characterized by warm, dry summers and cool, wet winters. Dry conditions traditionally begin around the beginning of May and last into late October. An average summer day is 95°- 105° Fahrenheit, winds from the southwest at 0-10 miles per hour, and relative humidity levels in the 15-25 percent range. Summer lightning storms are infrequent in the area. On average, the strongest wind speeds in the Somerset area occur in March through May, but winds can frequently exceed 20 mph throughout the local fire season period.

[6] Steely Fork Remote Automated Weather Station Site; National Weather Service. https://weather.rrnc.gov

2.4 Vegetation (Fuels)

The predominant fire fuel types found in the Somerset area include Grey Pines, Canyon Live Oak, Black Oak, Chamise, Buckeye, Scotch Broom, Rosemary, and annual grasses. The Project area is bounded by an Oak Woodland Area[7]. Approximately 1 acre of this woodland is planned for removal to construct the project and maintain adequate defensible space for the Project. See Chapter 3 for additional details on the defensible space requirements for the Project.

2.5 Topography

The topography in the general area of the Project is classified as being a "foothill" terrain type which transitions from the Central Valley area of California to the Sierra Nevada Mountain range. The Project is located within the Coyote Ridge area at an elevation range of between 2400 – 2900 feet above sea level. Slopes within the Project are generally less than 20%. See Figure 5 for the existing topographic condition of the Project area.

Figure 5: Vegetation and Topography Typical of the South and West Areas of the Parcel

[7] See Rosewood Lane Arborist Report Prepared by Eric Corona (July, 2021).

2.6 Wildfire History

According to CAL FIRE statistics the majority of wildland fires that have occurred in the El Dorado County area were human caused[8]. Common fire ignition sources have included arson, equipment failure, escaped debris burns, and vehicle related causes. Table 2 describes the significant wildland fire history in the vicinity of the Project area:

Table 2: **Somerset Area Fire History** [9]

Year	Fire Name	Acres Damaged
1992	Farnham	801
2005	Serenity	24
2014	Sand	4,239
2017	Ranch	140
2021	Caldor	221,000

No large wildfires (>10 acres) have been reported in the Project area between 1950 and 2023. The "Ranch" fire in 2017 burned to within 1,500 feet of the Project.

2.7 Fire Risk Assessment for the Project Area

A comprehensive fire risk analysis is an important component of the Fire Safety Plan for the Project. The term "risk[10]" describes the probability of adverse wildfire exposure to people, to structures, critical assets/infrastructure and other values at risk located in the WUI Zone. This fire risk assessment was performed for the Project to determine relative risk, the extent of the wildfire hazards present, and applicable mitigation measures as outlined in National Fire Protection Association Standard No. 1144 (*Assessing Wildland Fire Hazards in the Structure Ignition Zone*), 2018 Edition.

Risk factors examined as part of this Project analysis include the following:

- Existing Conditions Found on the Project Site
- Size and configuration of the Wildland Urban Interface (WUI) Zone Adjacent to the Project
- Proximity of Structures Within the Project to the WUI Zone

[8] 2023 *Strategic Fire Plan Amador-El Dorado-Alpine-Sacramento Unit;* P.60.
[9] Capitol Radio (2020) *A History of California Wildfires;* California Wildfire History Map (capradio.org)
[10] National Fire Protection Association Standard No 1144 (2018); Chapter 3, Section 3.3.19

- Building Construction of Structures and Hazardous Fuel Reduction Strategies Required to Reduce the Risk of Fire
- Emergency Vehicle Access Including Public/ Private Roads
- Local Fire Protection Capabilities
- Water Supply Sources for Fire Protection
- Critical Assets / Infrastructure at Risk

A detailed risk analysis of each of these points can be found below within this section.

2.8 Existing Conditions Found on the Project Site

The Project site is currently mostly undeveloped. An existing barn is located on the parcel and is planned to be removed as part of the Project. No high-voltage electric transmission power lines, essential service facilities, populations at risk, or critical infrastructure were identified within the current lands of the Project.

2.9 Size and Configuration of the Wildland Urban Interface (WUI) Zone Adjacent to the Project

The Project is adjacent to an approximately 10-acre parcel that contains an approximately 4,000 square foot residential building and associated uses. The proposed Project is located on a 10-acre parcel that also contains extensive hazardous vegetation on the south and western sections of the parcel. Both properties require on-going defensible space maintenance to protect them from the threat of a wildfire.

2.10 Building Construction and Fuel Modification Strategies Required to Reduce the Risk of Fire

Structures constructed within the Project shall comply with the current requirements of the California Building Code (CBC). The Project shall be constructed and maintained in accordance with the current design standards found in *California Building Code (CBC) Chapter 7A* (**Materials and Construction Methods for Exterior Wildfire Exposure**). Examples of where construction

methods and other development activities will meet the ignition resistant requirements found in this chapter include, but are not limited to, the following:

- Class A roof coverings, fire resistant valley flashings, and an approved means to prevent the accumulation of leaves and debris in roof gutters.
- Ventilation openings into enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces and underfloor ventilation openings.
- Exterior wall materials, decks, porches, balconies, stairs, and other Projections.
- Roof eaves and exterior porch ceilings.
- Exterior windows, doors, glazing and skylights.
- Accessory buildings and miscellaneous structures located within 50' of another building.

Areas located between 0-feet and 5-feet from a building shall remain non-combustible. Landscape materials and other vegetation located within 30' of buildings shall comply with the fire-resistant standards of PIO and CAL FIRE. Exterior combustible decks that cantilever over the natural slope of the property shall be enclosed to reduce the potential of burning embers from a wildfire creating spot fires that can extend into the building.

2.11 Emergency Vehicle Access Including Public/Private Roads

All roads and driveways[11] shall meet the minimum access requirements found within California Code of Regulations (CCR) Title 14, Section 1273 (Fire Safe Regulations) and Title 24, Part 9, Section 503 (Fire Apparatus Access Roads). Derby Lane provides access to the Project location from Omo Ranch Road. Derby Lane is currently a 16-foot wide partially paved and compacted gravel private road that provides access to Rosewood Lane, Floral Avenue and Derby Court.

Rosewood Lane is currently a 12-foot-wide compacted gravel and dirt private driveway that serves an approximately 4,000 square foot single-family residential dwelling at 3331 Rosewood Lane. This driveway also provides primary access to the Project site located on Parcel # 095-130-054 (3330 Rosewood Lane). See Figure 6 for information on the existing driveway serving the Project.

[11] CCR Title 14 – Section 1270.01 (Driveway) states that a "Driveway" shall not serve commercial or industrial uses at any size or scale.

Figure 6: Existing Driveway (Rosewood Lane) Serving the Project

Primary emergency vehicle access and public evacuation for the Project site shall comply with all of the road requirements described in CCR Title 14 – Sections 1273.01. See Appendix E for additional information on the regulation provisions described below. An emergency vehicle access road shall be constructed from Derby Lane to the Project site using the existing 50-foot-wide Rosewood Lane easement. This access road shall comply with the following measures:

a. The road shall provide a minimum of two ten (10) foot traffic lanes, not including shoulders and striping, as required by CCR Title 14 – Section 1273.01 (Width).
b. The road shall provide a minimum of fifteen (15) feet unobstructed vertical clearance and a fourteen (14) feet unobstructed horizontal clearance, as required by the Pioneer Fire Code and CCR Title 14 – Section 1273.01 (c).
c. The road shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and shall provide an aggregate base, as required by

CCR Title 14 – Section 1273.02 (Road Surface).

d. Road structures[12] shall be designed and maintained to support at least 40,000 pounds, as required by CCR Title 14 – Section 1273.02 (b).

e. At no point along the road shall the grade exceed 16%, as required by CCR Title 14 – Section 1273.03 (Grades).

f. No road or road structures shall have a horizontal inside radius or curvature of less than fifty (50) feet, as required by CCR Title 14 – Section 1273.04 (Radius).

g. An approved turnaround shall be provided within fifty (50) feet of the commercial building and greenhouse structures as required by CCR Title 14 – Section 1273.05 (Turnarounds).

h. Gated entrances across the road shall comply with the requirements described in El Dorado County Fire Chiefs Association Standard No. B-002 (Automatic & Manual Gates on Fire Access Roadways & Driveways). This document can be accessed via the following link: Fire Prevention Officers - El Dorado County Fire Chiefs association (edchiefs.org).

All buildings within the Project shall be issued an address by the County of El Dorado which conforms with the overall address system. The Project property is currently addressed by the County as 3330 Rosewood Lane. Utility and miscellaneous buildings (i.e. the greenhouse structures) are not required to have a separate address. The road serving the Project shall be provided with an approved street sign identifying Rosewood Lane. The installation, location and visibility of the street sign shall meet the requirements found in CCR Title 14 - Section 1274.02. Road signs shall meet the following additional criteria:

- Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.
- Sign assemblies shall be constructed of non-combustible materials.
- Sign background shall be of a reflective material and of a contrasting color to the address numbers or letters.
- Spacing between address numbers or letters shall be between ½-inch and 1-inch.
- Road signs shall be installed a minimum of 7-feet above the traveled way.

[12] CCR Title 14 – Section 1270.01 (Road Structure) includes bridges, culverts, and other appurtenant structures which supplement the traffic lane or shoulders.

- The beginning of every dead-end roadway shall have signage indicating that there is not a secondary outlet.

The new commercial building located at 3330 Rosewood Lane shall be provided with a visible address number sign on the side of the building facing the road. Address numbers shall be of a reflective material, of a contrasting color to the sign background, and with a height of not less than 8-inches and with a width of ½-inch stroke.

2.12 Local Fire Protection Capabilities

Local government fire protection and rescue services for the Project are provided by the Pioneer Fire Protection District (PIO). Wildland fire protection responsibility remains under the authority of the California Department of Forestry and Fire Protection, Amador-El Dorado-Alpine-Sacramento Ranger Unit (CAL FIRE). Emergency medical services, including ground ambulance transport, are provided to the Project under the authority of El Dorado County.

The closest fire station to the Project area is PIO Station No. 38 located at 7061 Mount Aukum Road in the Somerset community. Station 38 is approximately 6.25 miles from the Project site. Services are provided by one Type I /III fire engine staffed daily by a minimum of two full-time firefighters.

CAL FIRE operates one fire station in the south El Dorado County region to meets its wildfire suppression and prevention mission. This fire station is located at CAL FIRE Station 30 in the River Pines area and is approximately 4.5 miles from the Project. CAL FIRE staffs one state funded fire engine with a crew of 3-4 firefighters on a seasonal basis from this location.

The Project is located within an Insurance Service Office (ISO) Class 10X rating area. PIO emergency response travel times for the first arriving unit to the Project are on-average less than 10 minutes[13].

[13] Response times are based on an average 90 second turnout time by firefighters from their station plus travel time using the closest roads available to the project. The response time standard the county uses to evaluate the adequacy of the project meeting General Plan Policy 6.2.3.1 are based the closest station (Station 38) only, and not the average response times of all resources responding to an incident.

2.13 Water Supply Sources for Fire Protection

The Project is located within a rural region that is not provided with a municipal water supply system that can meet existing emergency water supply regulations[14]. The Project shall provide an immediately available water supply that is capable of providing the required fire flow for fire protection at the premise. The applicant is proposing a private water system that will store water for fire protection on-site within an aboveground water tank storage system. This system will supply a single fire-hydrant near the buildings being constructed, at a location approved by PIO.

The Project fire-flow requirement is approximately **750** gallons per minute (GPM) for a **1**-hour duration as identified in National Fire Protection Association (NFPA) Standard No. 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting", 2017 edition. This demand is based upon a construction method consistent with the California Building Standards Code for **Type II-N** construction. The required fire-flow requirements are based on the information provided in Table 3 below.

Table 3: Fire-Flow Requirements[15] for the Project Based on NFPA 1142

Building Name	Square Footage (FT^2)	Cubic Footage (FT^3)	Occupancy Hazard Class Type	Construction Type	Minimum Water Supply[16],[17]	Minimum Water Delivery Rate
Process/Manufacture	3,000	30,000	5	II-000	18,000	500
Greenhouse	14,400	201,600	5	II-000	30,000	750

The design, installation and maintenance of the water storage and delivery system for fire protection shall comply with El Dorado County Regional Fire Protection Standard No. D-003 (Water Supplies for Suburban and Rural Firefighting), except as required by the Pioneer Fire Protection District.

[14] See CCR Title 14 – Section 1275 and CCR Title 24 (Part 9) – Section 507.
[15] "Fire Flow" is the flow rate of a water supply, measured at 20 pounds per square inch (psi) residual pressure, that is available for firefighting.
[16] An exposure factor of 1.5 was added to the calculation based on the criteria found in NFPA 1142 – Section 4.3.1.
[17] The required water supply calculation for the "Greenhouse" building includes a 50% reduction due to the building being equipped with an approved automatic fire sprinkler system installed throughout.

Pioneer Fire has the following local fire code requirements for an automatic fire sprinkler system to be installed in all new commercial buildings over 3,600 square feet in size:

[A] Pioneer Fire Code Section 903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures when constructed or relocated within the jurisdiction shall be provided in the locations described in **Sections 903.2.1 through 903.2.12** [see 2.4 below] and Sections 903.2.14 through 903.2.23.

***Exception: Agricultural buildings not under a special use permit used for commercial purposes*.**

[B] Pioneer Fire Code Section 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. **A Group F-1 fire area exceeds 3,600 square feet.**

PIO requires all new commercial buildings less than 3,600 FT^2 to be equipped with an automatic fire alarm system throughout in accordance with PIO Fire Code Section 907.2.7.2.

2.14 Critical Assets / Infrastructure at Risk

The identification and analysis of Critical Assets and Infrastructure at Risk is an important part of a comprehensive fire risk analysis. This analysis also looks at potential risks associated with public service sites designated in California as being "Essential" that must conform to current seismic design criteria. Refer to *Appendix B: Critical Assets / Infrastructure at Risk Table* for additional information on the various categories of uses that have been identified within the Project area.

The Project has no proposed uses that are identified as *Critical Assets* that could be at risk during a wildfire. No *Essential Service* building uses are proposed within the Project. No *Infrastructure at Risk* site has been identified as a location within the Project area that could be adversely impacted by a wildfire.

2.15 Fire Risk Rating for the Project

The fire risk factor scoring for the Project is found in Table 4. The overall risk rating can be described as Low (0-29), Moderate (30-59), High (60-79) and Very-High (80-100). When analyzing individual fire risk factor ratings within the Project area the following terms are used:

- **LOW RISK** – Fire risk factors present typically do not support rapid fire spread.
- **MODERATE RISK** – Fire risk factors present may support moderate fire spread, but burning ember distribution is limited to less than ½ mile.
- **HIGH RISK** – Fire risk factors present may support rapid fire spread and ember distribution beyond ½ mile.
- **VERY-HIGH RISK** – Fire risk factors present may support extreme fire spread and intensity.

Table 4 provides the analysis of the fire risk rating that are specific for the Project site.

Table 4: Fire Risk Factor Rating for the Project

No.	Risk Factor	Low	Moderate	High	Very-High	Total
		0-3	4-6	7-8	9-10	
1	Fire Hazard Severity Rating			⑧		8
2	Local Fire Department Capabilities				⑨	9
3	Local Fire History			⑧		8
4	Size / Configuration of the WUI			⑧		8
5	Proximity of Structures to WUI				⑨	9
6	Building Construction Meets CBC CH 7A		⑥			6
7	Defensible Space Complies with PRC 4291			⑧		8
8	Emergency Access to WUI			⑧		8
9	Water Supply for Fire Suppression			⑧		8
10	Critical Assets / Infrastructure at Risk	①				1
	Total	1	6	48	18	73

Overall Wildfire Risk Rating: *High (60-79)*

NOTE: Two **Very High-Risk** factors are currently found within the Project area. Item 2 notes that the current fire department capability to adequately suppress structure and wildfires impacting the Project is limited. Additional fire agency resources from greater distances will be required to suppress fires on the parcel, leading to the risk that fires will expand quickly unless on-site mitigation measures such as fire sprinkler system protection or early warning fire detection are used in all buildings. Item 5 in Table 4 notes that the Project and adjoining parcel are currently within 100-feet of hazardous vegetation of the Project site, thereby placing the proposed structures at risk from ember brands and other wildfire conditions that can occur on the property.

It is important to remember that the risk factor ratings described do not infer that a community is at greater or less risk due to its overall rating. Fires can, and do, cause significant damage to property even when they occur in areas that may receive an overall low or moderate rating. Failure to maintain adequate defensible space, critical fire weather conditions and/or lack of available fire suppression resources due to other emergency incidents may cause a fire to increase its intensity and fire spread beyond the capabilities of firefighters on scene.

CHAPTER 3: FUEL REDUCTION PRACTICES

The purpose of this chapter is to describe the recommended long-term comprehensive hazardous fuel reduction management and defensible space best practices for the Project. The best practices include adequate defensible space within 100' of all buildings. This Chapter is based on California Government Code Section 51182 and California Fire Code Section 4903 and includes analysis on the following subjects:

- Defensible Space Requirements
- Defensible Space Zone Criteria
- Hazardous Fuel Reduction During Construction
- Reoccurring Hazardous Fuel Reduction Maintenance Frequency

3.1 Hazardous Fuel Reduction Regulations Applicable to the Project

Both California Public Resource Code (PRC) 4291 and County of El Dorado Code Chapter 8.09 state that property owners shall maintain a 100-feet defensible space perimeter around all structures[18]on their property if they are in proximity to forests, grasslands, or similar undeveloped areas. Defensible space on each property is the responsibility of the individual property owner, except as required by El Dorado County Code Chapter 8.09. Defensible space within the Project starts at the structure and extends out 100-feet or to the property line that faces the undeveloped area if the property line is less than 100 feet from the structure.

3.2 Hazardous Fuel Reduction Program

A *Rosewood Commercial Cannabis Operating Permit Fuel Hazardous Fuel Reduction Program*[19] shall be established to maintain defensible space for the Project and associated parcels where required by El Dorado County Code. The program should be designed to ensure the following fuel management activities are completed in a timely manner:

[18] Defensible space is required on each side, and from the front and rear, of all structures.
[19] The program includes the administration, resource types used and funding sources to apply the Fuel Management Plan described here.

a. Provide administrative oversight and coordination of fuel reduction activities within the Project area.
b. Confirm that fuel reduction activities are identified, scheduled, and completed in accordance with the Fuel Management Program.
c. Coordinate the use of resources (e.g., crews, mechanical equipment, domestic livestock, prescribed fire, etc.) that are most appropriate for the fuel reduction work that is required.
d. Ensure that sensitive biological resources within each area are identified in advance of the fuel management Project. Complete pre/post activity inspections of these areas to safeguard sensitive areas from damage and/or destruction.
e. Verify that each fuel reduction activity has sufficient fiscal resources available to it using industry best practices that are most appropriate for the Project area.
f. Ensure the safe disposal (e.g., hauling it to a landfill, chipping/mulching on site, etc.) of biomass materials removed as part of a fuel management program.

3.3 Defensible Space Requirements

The term "Defensible Space" refers to reducing the wildfire vulnerability in WUI Zones by actions that will decrease the potential of heat, flames and embers spreading to buildings. Defensible space work around buildings should be performed within 3 zone areas based on the fire risk reduction efforts necessary to protect the occupants and property.

The 3 defensible space zones around buildings are described as:

Zone 0 – Ember Resistant Zone

Zone 0 extends 5-feet from buildings, buildings, decks, etc.

The ember-resistant zone is currently not required by law, but scientific data has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks, and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to the home. The following provides guidance for this zone, which may change based on the regulation developed by the California Board of

Forestry and Fire Protection. See Figure 7 below to match the item number with the corresponding zone.

1. Use hardscape like gravel, pavers, concrete, and non-combustible mulch materials. No combustible bark or mulch.
2. Remove all dead and dying weeds, grass, plants, shrubs, trees, branches, and vegetative debris (leaves, needles, cones, bark, etc.); Check roofs, gutters, decks, porches, stairways, etc.
3. Remove all branches within 10-feet of any chimney or stovepipe outlet
4. Limit plants in this area to low growing, nonwoody, properly watered, and maintained plants.
5. Limit combustible items (outdoor furniture, planters, etc.) on top of decks
6. Relocate firewood and lumber to Zone 2
7. Replace combustible fencing, gates, and arbors attached to the home with non-combustible alternatives
8. Consider relocating garbage and recycling containers outside this zone
9. Consider relocating boats, RVs, vehicles, and other combustible items outside this zone

Zone 1 – Lean, Clean and Green Zone

Zone 1 extends 30-feet from buildings, decks, etc. or to the property line, whichever is closer.

10. Remove all dead plants, grass, and weeds (vegetation).
11. Remove dead or dry leaves and pine needles from yard, roof, and rain gutters.
12. Remove branches that hang over roof and keep dead branches 10-feet away from your chimney.
13. Trim trees regularly to keep branches a minimum of 10- feet from other trees.
14. Relocate wood piles to Zone 2.
15. Remove or prune flammable plants and shrubs near windows.
16. Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.

17. Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 – Reduce Fuel Zone

Zone 2 extends from 30-feet to 100-feet out from buildings, buildings, decks, etc. or to the property line, whichever is closer.

18. Cut or mow annual grass down to a maximum height of 4 inches.
19. All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
20. Create horizontal space between shrubs and trees. (See diagram)
21. Create vertical space between grass, shrubs, and trees. (See diagram)
22. Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.

All Zones

23. Mow before 10:00 am, but never when its windy or excessively dry.
24. Protect water quality, do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion – especially on steep slopes.
25. Logs or stumps embedded in the soil must be removed in Zone 0. In Zones 1 and 2 they need to be removed or isolated from other vegetation.

Figure 7 provides additional information on defensible zone spaces around buildings.

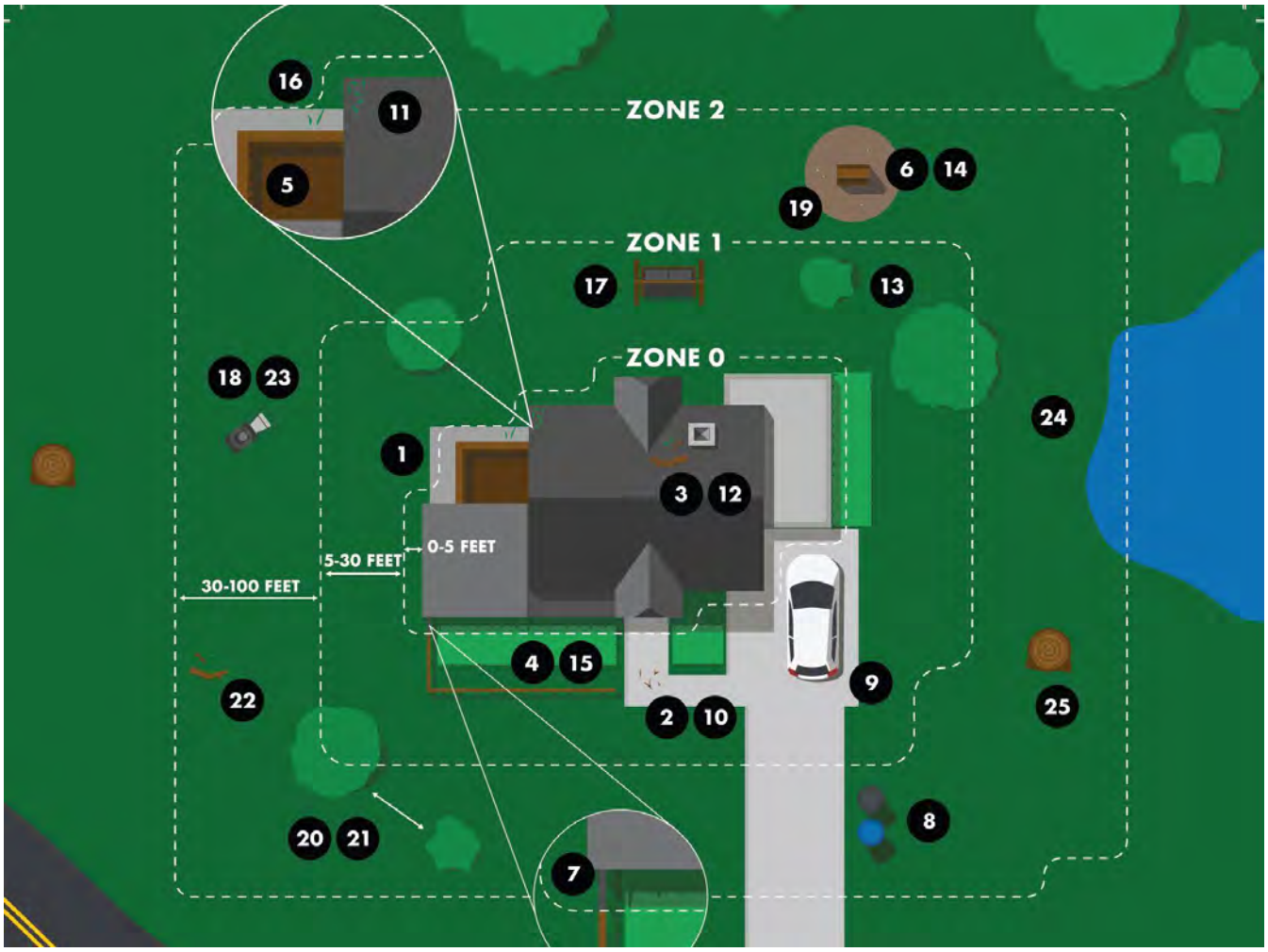


Figure 7: CAL FIRE Defensible Space Zones

3.4 Hazardous Fuel Reduction Criteria for the Project

A. Fuel reduction work shall include the mowing of annual grasses down to a height of 2-inches or less, removal of dead and diseased trees, debris, and the removal of tree limbs on live trees up to a height of 6-feet above the ground. Tree branches are to be limbed to at least 6-feet when possible. The minimum height may be lowered when trees are young or small; or if it is unsafe to reach a 6-foot height due to terrain, equipment, or skill level.

B. Understory fuels over 1-foot in height are to be removed in order to develop vertical separation and low horizontal continuity of fuels. Individual plants or pairs of plants may be retained provided there is a horizontal separation between plants of 3 to 5 times the height of the residual plants and the residual plants are not within the drip lines of an overstory tree.

C. Fuel reduction work shall include the removal of all dead vegetation 2 inches or less in diameter. Trunks shall be cut flush with the ground. The removal of additional trees shall be done in consultation with CAL FIRE and El Dorado County Planning & Building Department staff.

D. Threatened and/or endangered species may be present within the Project area. The recommendations of the Project biologist shall be implemented with respect to avoiding loss or harm to the affected species, or restoration and/or compensation measures to be undertaken if the species' habitat cannot be avoided. For example, if nesting raptors are present, the nesting tree shall not be removed and no tree removal or mechanical activity shall occur within a buffer zone established around the nest until the young have fledged. The Federal and/or State agency with jurisdiction over the affected protected species shall also be consulted.

E. Annual grasses shall be maintained below 2-inches in height just after the grasses cure in early summer. Additional fuel treatment work may be necessary throughout the year within 100-feet of structures to maintain defensible space requirements.

F. Tree snags shall be removed when they meet one or more of the following criteria:

- Snags 17-inch Diameter Breast Height (DBH) or smaller
- Snags greater than 30-feet in height
- Snags which are capable of reaching a structure
- Snags closer than 100-feet from adjoining snags.

G. The cutting of vegetation materials shall be done with CAL FIRE approved spark arrestors.

H. The removal of annual grasses and similar hazardous vegetation shall be completed through the use of plastic string weed trimmers or other PIO or CAL FIRE approved equipment.

I. Chipping of material is permitted. Chipped material shall be removed from the site unless otherwise approved by the landowner representative.

J. Prescribed burning and / or herbicide use is not allowed within the Project area unless such use is approved by the County of El Dorado, CAL FIRE and PIO.

K. Approved fire suppression equipment is required on-site at all times during the fuel-modification activities

L. All fuel reduction work shall be performed using every reasonable measure to minimize erosion, ground disturbing activities and soil damage. Where the ground is exposed by fuel reduction efforts, the area shall be revegetated and/or erosion control measures shall be installed prior to October 15.

M. Pruning on live trees shall be performed in accordance with the Best Management Practices set forth by the International Society of Arboriculture (ISA) and conform to ANSI A300 Standards for Tree Care.

N. The following tree-spacing guidelines are recommended when feasible; when not in conflict with applicable standards or codes; and after consultation with the CAL FIRE, County of El Dorado, or the respective agency representative(s):

- Intermediate Zone (5-feet to 30-feet from structures) - trees / clumps of trees should have a minimum of 18 feet between tree tops. This provision would typically include those trees on private property that extend into the open space.
- Extended Zone (30-feet to 100 feet from structures) - trees/clumps of trees should have a minimum of 12 feet between tree tops.
- Extended Zone (100-feet to 300-feet from structures) - trees/clumps of trees should have a minimum of 6 feet between tree tops.

3.5 Hazardous Fuel Reduction During Construction

Undeveloped parcels adjacent to structures, either when vacant or under construction, can pose a significant fire risk to adjacent occupied structures. To reduce the risk of wildfires spreading to nearby structures a 100-foot defensible space zone shall be established and maintained between developed parcels and adjacent undeveloped parcels or during construction activities. Construction related work such as welding and other “hot work” activities during critical fire periods can pose an increased risk of fire ignition that can lead to a significant wildfire risk. Construction activities shall conform to the current California Fire Code provision required by PIO and CAL FIRE.

3.6 Annual Hazardous Fuel Management Maintenance Frequency

The effectiveness of the Hazardous Fuel Modification program requires certain elements to be maintained on an annual or otherwise noted frequency. The coordination of fuel modification work between the property owner, PIO and CAL FIRE staff, and the adjacent land owner(s) to complete these activities in a timely fashion is imperative for the success in minimizing the wildfire risk in the Project area.

Table 5 provides additional details regarding the recommended maintenance frequency for various activities described in the Plan.

***Table 5*: Maintenance Frequency for Hazardous Fuel Management Work**

Action Item	Party Responsible	Frequency
Remove/trim annual grasses to less than 2-inches height within 100-feet of buildings.	Property Owner	Annual
Remove debris piles, dead trees (snags) or dying trees, down trees and limbs.[20]	Property Owner	Annual
Removal of understory fuels that contribute to fire spread.	Property Owner	Annual
Action Item	Party Responsible	Frequency
Remove biomass materials from the site and dispose of in accordance with best practices.	Property Owner	Annual
Remove ladder fuels (tree limbs) to 10-foot DBH and increase tree canopy spacing.	Property Owner	10 Year

[20] This plan recognizes that dead and dying trees may provide a beneficial use for the habitat. The removal of this vegetation should be completed after an annual inspection by representatives from CAL FIRE and the Property Owner has been completed and a scope of work agreed on by both parties.

CHAPTER 4: KEY FINDINGS AND FIRE SAFE RECOMMENDATIONS

4.1 Key Findings for the Project

A. Fire and rescue services for the Project site are the responsibility of the Pioneer Fire Protection District (PIO) in accordance with California Government Code § 66474.02(a)(2)(A).

B. Wildfire protection for the adjacent undeveloped SRA lands near the Project are the responsibility of CAL FIRE.

C. The Project is located within a CAL FIRE SRA designated **High** Fire Hazard Severity Zone. The Project is therefore subject to the regulations found in California Public Resource Code Section's 4290 and 4291. See Appendix E for additional information.

D. The Project shall be subject to the wildfire regulations found in the California Building Standard Codes (California Code of Regulations Title 24, Parts 1-12).

E. The Project has an overall Fire Risk Rating of **High** based upon the ten rating criteria outlined in Chapter 4.

F. The Project has no proposed uses that are identified as Critical Assets, Essential Service Locations, or Vulnerable Populations that could be at risk during a wildfire.

G. No strategic ridgelines to reduce fire risk and improve fire protection, as described by California Code of Regulations Title 14 - §1276.02, have been identified by the Pioneer Fire Protection District within the Project or adjoining areas.

4.2 Fire Safe Recommendations for the Project

A. All commercial buildings, except as required by PIO, shall have approved 8-inch tall by ½-inch wide or larger address signage installed so as to be visible from Rosewood Lane.

B. An emergency vehicle access road shall be constructed from Derby Lane to the Project site using the Rosewood Lane easement. This access road shall comply with the following measures:

- The road shall provide a minimum of two ten (10) foot traffic lanes, not including shoulders and striping, as required by CCR Title 14 – Section 1273.01 (Width).

- The road shall provide a minimum of fifteen (15) feet unobstructed vertical clearance and a fourteen (14) feet unobstructed horizontal clearance, as required by the Pioneer Fire Code and CCR Title 14 – Section 1273.01 (c).

- The road shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and shall provide an aggregate base, as required by CCR Title 14 – Section 1273.02 (Road Surface).

- Road structures[21] shall be designed and maintained to support at least 40,000 pounds, as required by CCR Title 14 – Section 1273.02 (b).

- At no point along the road shall the grade exceed 16%, as required by CCR Title 14 – Section 1273.03 (Grades).

- No road or road structures shall have a horizontal inside radius or curvature of less than fifty (50) feet, as required by CCR Title 14 – Section 1273.04 (Radius).

- An approved turnaround shall be provided within fifty (50) feet of the commercial building and greenhouse structures as required by CCR Title 14 – Section 1273.05 (Turnarounds).

- Gated entrances across the road shall comply with the requirements described in El Dorado County Fire Chiefs Association Standard No. B-002 (Automatic & Manual Gates on Fire Access Roadways & Driveways). This document can be accessed via the

[21] CCR Title 14 – Section 1270.01 (Road Structure) includes bridges, culverts, and other appurtenant structures which supplement the traffic lane or shoulders.

following link: Fire Prevention Officers - El Dorado County Fire Chiefs association (edchiefs.org).

C. Traffic calming devices obstructing emergency vehicle access roads and driveways shall meet the design guidelines of PIO and shall require a construction permit from that agency subject to Pioneer Fire Code Section 105.6.26.

D. The Project shall provide emergency water for fire protection on-site. The design, installation and maintenance of the water storage and delivery system for fire protection shall comply with El Dorado County Regional Fire Protection Standard No. D-003 (Water Supplies for Suburban and Rural Firefighting), except as required by the Pioneer Fire Protection District.

E. The Project shall provide an immediately available water supply that is capable of providing the required fire flow for fire protection at the premise. See Section 2.13 of this plan for additional information regarding the design criteria for the Project water system.

F. The Project shall be constructed and maintained in accordance with the current design standards found in *California Building Code (CBC) Chapter 7A* (**Materials and Construction Methods for Exterior Wildfire Exposure**).

G. All commercial buildings within the Project shall have either an approved automatic fire sprinkler system or an approved Automatic Fire Alarm System installed within them as required by either Pioneer Fire Code Section 903.2 and 907.2.7.2.

H. A Rosewood Commercial Cannabis Operating Permit Hazardous Fuel Management program shall be established to ensure that all hazardous fuel reduction efforts, including creating and maintaining defensible space near each building in the Project, is completed annually or more frequently as determined by PIO and CAL FIRE. See Chapter 3 of this plan for additional details.

I. Undeveloped areas within the Project shall have all hazardous fuels, including annual grasses and dead vegetation, removed and/or maintained in accordance with the provisions outlined in Chapter 3 of this plan.

J. The Project shall remove all Grey Pine Trees within 100-feet of all structures constructed within the Project.

K. The Project shall remove all Oak Trees and other plant species within 5-feet of all proposed structure locations.

L. The Project shall avoid the use of certain highly flammable trees and vegetation within 100-feet of buildings and structures as identified in Appendix G of this Plan.

Chapter 5: PLAN APPENDIXES

Appendix A: Glossary of Terms

Biomass – Refers to "green waste" materials generated during the defensible space clearing Project. This includes grass, weeds, and tree trimming materials.

CAL FIRE – Refers to the California Department of Forestry and Fire Protection.

CWPP – Refers to the El Dorado County Community Wildfire Protection Plan (2012).

Defensible Space – Is the design and maintenance of natural and/or landscaped areas in an area where mitigation actions are undertaken to reduce structure loss from a wildfire. It is also intended to provide access to firefighters for fire suppression actions and to provide a safe zone for them to work. Defensible space is based on four general concepts:

1. Elimination of combustible vegetation and other materials within 5' of the structure.
2. Fuel removal or reduction within 100' of structures in all directions
3. Thinning, pruning and removal of continues and dense uninterrupted layers of vegetation
4. Removal of ladder fuels within 8'-10' from the ground to prevent fire spread through tree canopies.

Pioneer Fire Protection District (PIO) – PIO provides year-round, all-hazard fire and emergency services to over 9,000 residents and provides fire and emergency medical services in the Mt. Aukum, Grizzly Flat, Somerset, Outingdale, Fairplay, and Omo Ranch communities. PIO utilizes a mix of full-time salaried staff, part-time hourly staff, and volunteers to operate its seven fire stations.

Evacuation Order – Refers to a situation involving an immediate threat to life. This is a lawful order to leave now. The area is lawfully closed to public access.

Evacuation Warning – Refers to a potential threat to life and/or property. Those who require additional time to evacuate, and those with pets and livestock should leave now.

Fire Hazard – Is the dangerous accumulation of flammable fuels in open space areas and other wildland urban interface areas. It is typically described at the landscape (area) level. Usually referring to the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fires intensity or rate of spread. Fire hazard is based on the vegetation types likely to be present over the next 50 years that contribute to fire severity and ember production, the topography of the area and the average fire weather conditions present in the area.

Fire Risk – Is the potential damage a fire can due to buildings, critical assets/infrastructure, and other values at risk in individual open space areas and other wildland urban interface areas. Fire risk does consider modification that may affect susceptibility of property to damage such as defensible space, fire sprinkler systems and building construction that can reduce the risk of burning embers igniting buildings. Fire hazard does not equal fire risk but is an important factor in determining fire risk.

Hazardous Fuel Reduction – Refers to the reduction of wildfire fuels such as trees, shrubbery, grasses, and other natural materials to decrease risks to human life and damage to personal property. Hazardous fuel reduction result in less extreme fire behavior and intensity through decreased fire spread rates and reduced flame lengths.

Improved Parcel – A portion of land determined by the County Assessor's Office to contain a dwelling (occupied or unoccupied).

Shelter in Place – Is a strategy in which the individual(s) goes indoors, shut and lock doors and windows. They prepare to self-sustain until further notice and/or contacted by emergency personnel for additional direction.

Snag – Refers to a dead or partly dead tree that is still standing.

Survivable Space – Is similar in concept to defensible space, except it emphasizes the house surviving a wildfire without significant firefighter or homeowner assistance.

Temporary Refuge Area – A gathering point for residents if they are temporarily evacuated from their residence, or when evacuation routes are obstructed by smoke, incoming emergency equipment, or directly threatened by fire.

Unimproved Parcel – A portion of land of any size, the area of which is determined by the County Assessor's Office maps and records and which may be identified by the Assessor Parcel Number, upon which no dwelling is located.

Wildland fire – Describes an unplanned and uncontrolled fire spreading through vegetative fuels, including any structures or other improvements thereon.

Wildland Urban Interface Zone – Describes locations in which the local fire warden determines the topographical features, vegetation fuel types, local weather conditions, and prevailing winds can result in the potential for ignition of the structures within the area from flames and firebrands of a wildland fire.

Appendix B: Critical Assets / Populations at Risk Table

Facility Type	Essential Service	Population at Risk	Infrastructure at Risk	Facility Count
Fire Station	X			0
Police Station	X			0
Emergency Evacuation Shelter*	X			0
Government Facilities	X			0
General Acute Care Hospital	X			0
Medical Health Facility		X		0
Adult Residential Care Facility		X		0
Child Care Facility		X		0
Adult Care Facility		X		0
Public Elementary School		X		0
Private Elementary School		X		0
Public Middle School		X		0
Private Middle School		X		0
Public High School		X		0
Private High School		X		0
College / University		X		0
Vulnerable Population Centers**		X		0
Water Treatment Plant			X	0
Water Storage Facility			X	0
Water Conveyance System			X	0
Electrical Transmission Lines			X	0
Electrical Substation			X	0
Sewer Lift Station			X	0
Telecommunications Facilities			X	0
Corporation Yard				0
* Includes General Population, Access/Functional Needs Shelters, and Animal Shelters				
** Includes Disadvantaged, Disabled and Low-Income Census Areas				

Appendix C: PRC 4290 and 4291 Checklist

Project Name:				
	CCR Title 14	Conforms	Does Not Conform	N/A
Safe Access and Egress				
Road Width	§1273.01	X		
Roadway Surface	§1273.02	X		
Road Grades	§1273.03	X		
Road Radius	§1273.04	X		
Road Turnarounds	§1273.05	X		
Road Turnouts	§1273.06			X
Road and Driveway Structures	§1273.07	X		
Dead-end Roads	§1273.08	X		
Gate Entrances	§1273.09			X
Signing and Building Numbering				
Road Name Signs	§1274.01	X		
Road Sign Installation	§1274.02	X		
Addresses for Buildings	§1274.03	X		
Address Installation, Location	§1274.04			X
Fire Water Standards				
Application	§1275.01	X		
Approved Fire Water Supply	§1275.02	X		
Hydrants	§1275.03	X		
Signing of Water Sources	§1275.04	X		
Building Siting and Fuel Mod.				
Building and Parcel Siting/Setbacks	§1276.01	X		
Ridgelines	§1276.02			X
Fuel Breaks	§1276.03			X
Greenbelts, Open Spaces	§1276.04			X
Disposal of Flammable Vegetation	§1276.05			X

NOTES:

1. See Section 4.2 (Fire Safe Recommendations) regarding proposed mitigation measures.

Appendix D: Emergency Evacuation Planning Checklist

No.	Risk Factor	Yes	No	Unknown
1	Existing Evacuation Plan is Current?			X
2	General Population Shelters Identified?			X
3	Special Care Shelters Identified?			X
4	Animal Care Shelters Identified?			X
5	Temporary Safe Refuge Areas Identified?			X
6	Emergency Evacuation Routes Identified?			X
7	Mass Notification System Identified/Used?			X
8	Ready-Set-Go or Similar Program Used?			X
9	Evacuation Plans Available to the Public?			X
10	Are First Responders Briefed on the Plan?			X
	Total	0	0	10

Notes:

1. Project is located in El Dorado County. A search of public websites did not identify an existing evacuation plan for this area.

2-4. El Dorado County OES has no pre-designated emergency shelters throughout the County during prior large-scale emergencies.

5-6. There are no reported temporary refuge areas identified in the Project area.

7. El Dorado County OES uses *RAVE* as its emergency notification system. The system relies on notifications through existing telephone lines and through "opt-in" sign-ups for cell phones and other devices.

8-10. A search of public websites did not identify R-S-G materials, evacuation plans for the Project area or information that first responders are briefed on the evacuation planning efforts. All of this information will be made available in the Project area through handout materials distributed to both members of the public and first responders.

Appendix E: California Code of Regulations Title 14 §1270-1276

UNOFFICIAL COPY

State Minimum Fire Safe Regulations

Board of Forestry and Fire Protection

FOR INFORMATIONAL USE ONLY
View the official California Code of Regulations online at govt.westlaw.com/calregs

As of April 1, 2023

California Code of Regulations
Title 14 Natural Resources
Division 1.5 Department of Forestry
Chapter 7 - Fire Protection
Subchapter 2 State Minimum Fire Safe Regulations
Articles 1-5

Contents

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Article 1 Administration

§ 1270.00. Title

Subchapter 2 shall be known as the “State Minimum Fire Safe Regulations,” and shall constitute the minimum Wildfire protection standards of the California Board of Forestry and Fire Protection.

§ 1270.01. Definitions

The following definitions are applicable to Subchapter 2.
(a) Agriculture: Land used for agricultural purposes as defined in a Local Jurisdiction's zoning ordinances.
(b) Board: California Board of Forestry and Fire Protection.
(c) Building: Any Structure used or intended for supporting or sheltering any use or Occupancy, except those classified as Utility and Miscellaneous Group U.
(d) CAL FIRE: California Department of Forestry and Fire Protection.
(e) Dead-end Road: A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and Roads that loop back on themselves
(f) Defensible Space: The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping Structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical Structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, Road names and Building identification, and fuel modification measures.
(g) Development: As defined in section 66418.1 of the California Government Code.
(h) Director: Director of the Department of Forestry and Fire Protection or their designee.
(i) Driveway: A vehicular pathway that serves no more than four (4) Residential Units and any number of non-commercial or non-industrial Utility or Miscellaneous Group U Buildings on each parcel. A Driveway shall not serve commercial or industrial uses at any size or scale.
(j) Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.
(k) Fire Apparatus: A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support emergency response, including but not limited to the suppression of fires.
(l) Fire Authority: A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards in the Local Jurisdiction.
(m) Fire Hydrant: A valved connection on a water supply or storage system for the purpose of providing water for fire protection and suppression operations.
(n) Fuel Break: A strategically located area where the volume and arrangement of vegetation has been managed to limit fire intensity, fire severity, rate of spread, crown fire potential, and/or ember production.
(o) Greenbelts: open space, parks, wildlands, other areas, or a combination thereof, as designated by Local Jurisdictions, which are in, surround, or are adjacent to a city or urbanized area, that may function as Fuel Breaks and where Building construction is restricted or prohibited.
(p) Greenways: Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.

(q) Hammerhead/T: A “T” shaped, three-point Turnaround space for Fire Apparatus on a Road or Driveway, being no narrower than the Road or Driveway that serves it.
(r) Hazardous Land Use: A land use that presents a significantly elevated potential for the ignition, prolonged duration, or increased intensity of a Wildfire due to the presence of flammable materials, liquids, or gasses, or other features that initiate or sustain combustion. Such uses are determined by the Local Jurisdiction and may include, but are not limited to, power-generation and distribution facilities; wood processing or storage sites; flammable gas or liquids processing or storage sites; or shooting ranges.
(s) Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that approves or has the authority to regulate Development.
(t) Municipal-Type Water System: A system having water pipes servicing Fire Hydrants and designed to furnish, over and above domestic consumption, a minimum of 250 gpm (950 L/min) at 20 psi (138 kPa) residual pressure for a two (2) hour duration.
(u) Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.
(v) One-way Road: A Road that provides a minimum of one Traffic Lane width designed for traffic flow in one direction only.
(w) Residential Unit: Any Building or portion thereof which contains living facilities including provisions for sleeping, eating, cooking and/or sanitation, for one or more persons. Manufactured homes, mobile homes, and factory-built housing are considered Residential Units.
(x) Ridgeline: The line of intersection of two opposing slope aspects running parallel to the long axis of the highest elevation of land; or an area of higher ground separating two adjacent streams or watersheds.
(y) Road: A public or private vehicular pathway to more than four (4) Residential Units, or to any industrial or commercial Occupancy.
(z) Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the Traffic Lane or Shoulders.
(aa) Same Practical Effect: As used in this subchapter, means an Exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:

(1) access for emergency wildland fire equipment,
(2) safe civilian evacuation,
(3) signing that avoids delays in emergency equipment response,
(4) available and accessible water to effectively attack Wildfire or defend a Structure from Wildfire, and
(5) fuel modification sufficient for civilian and fire fighter safety.

(bb) Shoulder: A vehicular pathway adjacent to the Traffic Lane.
(cc) State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.
§(ee) Structure: That which is built or constructed or any piece of work artificially built up or composed of parts joined together in some definite manner.
(ff) Traffic Lane: The portion of a Road or Driveway that provides a single line of vehicle travel.
(gg) Turnaround: An area which allows for a safe opposite change of direction for Fire Apparatus at the end of a Road or Driveway.
(hh) Turnout: A widening in a Road or Driveway to allow vehicles to pass.

(ii) Undeveloped Ridgeline: A Ridgeline with no Buildings.
(jj) Utility and Miscellaneous Group U: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.
(kk) Vertical Clearance: The minimum specified height of a bridge, overhead projection, or vegetation clearance above the Road or Driveway.
(*ll*) Vertical Curve: A curve at a high or low point of a Road that provides a gradual transition between two Road grades or slopes.
(mm) Very High Fire Hazard Severity Zone (VHFHSZ): As defined in Government Code section 51177(i).
(nn) Wildfire: Has the same meaning as “forest fire” in Public Resources Code Section 4103.

§ 1270.02. Purpose

(a) Subchapter 2 has been prepared and adopted for the purpose of establishing state minimum Wildfire protection standards in conjunction with Building, construction, and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones, as defined in Government Code § 51177(i) (VHFHSZ).
(b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.
(c) These standards shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; vegetation modification, Fuel Breaks, Greenbelts, and measures to preserve Undeveloped Ridgelines. Subchapter 2 specifies the minimums for such measures.

§ 1270.03. Scope

(a) Subchapter 2 shall apply to:
(1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection (b).
(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971;
(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and
(4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel or tentative map.
(b) Subchapter 2 does not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the Buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.
(c) Affected activities include, but are not limited to:
(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);
(2) application for a Building permit for new construction not relating to an existing Structure;

(3) application for a use permit;
(4) Road construction including construction of a Road that does not currently exist, or extension of an existing Road.

(d) The standards in Subchapter 2 applicable to Roads shall not apply to Roads used solely for Agriculture; mining; or the management of timberland or harvesting of forest products.

§ 1270.04. Provisions for Application of these Regulations

This Subchapter shall be applied as follows:

(a) the Local Jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for Building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or Development within the SRA, or if after July, 1 2021, the VHFHSZ.

(b) the Director or their designee may review and make fire protection recommendations on applicable construction or development permits or maps provided by the Local Jurisdiction.

(c) the Local Jurisdiction shall ensure that the applicable sections of this Subchapter become a condition of approval of any applicable construction or Development permit or map.

§ 1270.05. Local Regulations

(a) Subchapter 2 shall serve as the minimum Wildfire protection standards applied in SRA and VHFHSZ. However, Subchapter 2 does not supersede local regulations which equal or exceed the standards of this Subchapter.

(b) A local regulation equals or exceeds a minimum standard of this Subchapter only if, at a minimum, the local regulation also fully complies with the corresponding minimum standard in this Subchapter.

(c) A Local Jurisdiction shall not apply exemptions to Subchapter 2 that are not enumerated in Subchapter 2. Exceptions requested and approved in conformance with § 1270.07 (Exceptions to Standards) may be granted on a case-by-case basis.

(d) Notwithstanding a local regulation that equals or exceeds the State Minimum Fire Safe Regulations, Building construction shall comply with the State Minimum Fire Safe Regulations.

§ 1270.06. Inspections

Inspections shall conform to the following requirements:

(a) Inspections in the SRA shall be made by:
(1) the Director, or
(2) Local Jurisdictions that have assumed state fire protection responsibility on SRA lands, or
(3) Local Jurisdictions where the inspection duties have been formally delegated by the Director to the Local Jurisdictions, pursuant to subsection (b).

(b) The Director may delegate inspection authority to a Local Jurisdiction subject to all of the following criteria:
(1) The Local Jurisdiction represents that they have appropriate resources to perform the delegated inspection authority.
(2) The Local Jurisdiction acknowledges that CAL FIRE's authority under subsection (d) shall not be waived or restricted.
(3) The Local Jurisdiction consents to the delegation of inspection authority.
(4) The Director may revoke the delegation at any time.
(5) The delegation of inspection authority, and any subsequent revocation of the delegation, shall be documented in writing, and retained on file at the CAL FIRE Unit headquarters that administers SRA fire protection in the area.

(c) Inspections in the VHFHSZ shall be made by the Local Jurisdiction.

(d) Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws in the SRA even when the inspection duties have been delegated pursuant to this section.
(e) Reports of violations within the SRA shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the Local Jurisdiction.
(f) When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of Occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or Building permit.

§ 1270.07. Exceptions to Standards

(a) Upon request by the applicant, an Exception to standards within this Subchapter may be allowed by the Inspection entity in accordance with 14 CCR § 1270.06 (Inspections) where the Exceptions provide the Same Practical Effect as these regulations towards providing Defensible Space. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06, shall be made on a case-by-case basis only. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06 shall be forwarded to the appropriate CAL FIRE unit headquarters that administers SRA fire protection in that Local Jurisdiction, or the county in which the Local Jurisdiction is located and shall be retained on file at the Unit Office.
(b) Requests for an Exception shall be made in writing to the Local Jurisdiction listed in 14 CCR § 1270.06 by the applicant or the applicant's authorized representative.
At a minimum, the request shall state the specific section(s) for which an Exception is requested; material facts supporting the contention of the applicant; the details of the Exception proposed; and a map showing the proposed location and siting of the Exception. Local Jurisdictions listed in § 1270.06 (Inspections) may establish additional procedures or requirements for Exception requests.
(c) Where an Exception is not granted by the inspection entity, the applicant may appeal such denial to the Local Jurisdiction. The Local Jurisdiction may establish or utilize an appeal process consistent with existing local building or planning department appeal processes.
(d) Before the Local Jurisdiction makes a determination on an appeal, the inspector shall be consulted and shall provide to that Local Jurisdiction documentation outlining the effects of the requested Exception on Wildfire protection.
(e) If an appeal is granted, the Local Jurisdiction shall make findings that the decision meets the intent of providing Defensible Space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in that Local Jurisdiction.

§ 1270.08. Distance Measurements

All specified or referenced distances are measured along the ground, unless otherwise stated.

Article 2 Ingress and Egress

§ 1273.00. Intent

Roads, and Driveways, whether public or private, unless exempted under 14 CCR § 1270.03(d), shall provide for safe access for emergency Wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a Wildfire emergency consistent with 14 CCR §§ 1273.00 through 1273.09.

§ 1273.01. Width.

(a) All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other standards are provided in this article or additional requirements are mandated by Local Jurisdictions or local subdivision requirements. Vertical clearances shall conform to the requirements in California Vehicle Code section 35250.

(b) All One-way Roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including Shoulders. The Local Jurisdiction may approve One-way Roads.

(1) All one-way roads shall, at both ends, connect to a road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) Residential Units.

(2) In no case shall a One-way Road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each One-way Road.

(c) All driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13′ 6″).

§ 1273.02. Road Surface

(a) Roads shall be designed and maintained to support the imposed load of Fire Apparatus weighing at least 75,000 pounds, and provide an aggregate base.

(b) Road and Driveway Structures shall be designed and maintained to support at least 40,000 pounds.

(c) Project proponent shall provide engineering specifications to support design, if requested by the Local Jurisdiction.

§ 1273.03. Grades

(a) At no point shall the grade for all Roads and Driveways exceed 16 percent.

(b) The grade may exceed 16%, not to exceed 20%, with approval from the Local Jurisdiction and with mitigations to provide for Same Practical Effect.

§ 1273.04. Radius

(a) No Road or Road Structure shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.

(b) The length of vertical curves in Roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

§ 1273.05. Turnarounds

(a) Turnarounds are required on Driveways and Dead-end Roads.

(b) The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the figures in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is used instead, the top of the "T" shall be a minimum of sixty (60) feet in length.
(c) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the Driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
(d) A turnaround shall be provided on Driveways over 300 feet in length and shall be within fifty (50) feet of the building.
(d) Each Dead-end Road shall have a turnaround constructed at its terminus. Where parcels are zoned five (5) acres or larger, turnarounds shall be provided at a maximum of 1,320 foot intervals.
(e) Figure A. Turnarounds on roads with two ten-foot traffic lanes.
Figure A/Image 1 on the left is a visual representation of paragraph (b).
(f) Figure B. Turnarounds on driveways with one ten-foot traffic lane.
Figure B/Image 2 on the right is a visual representation of paragraph (b).

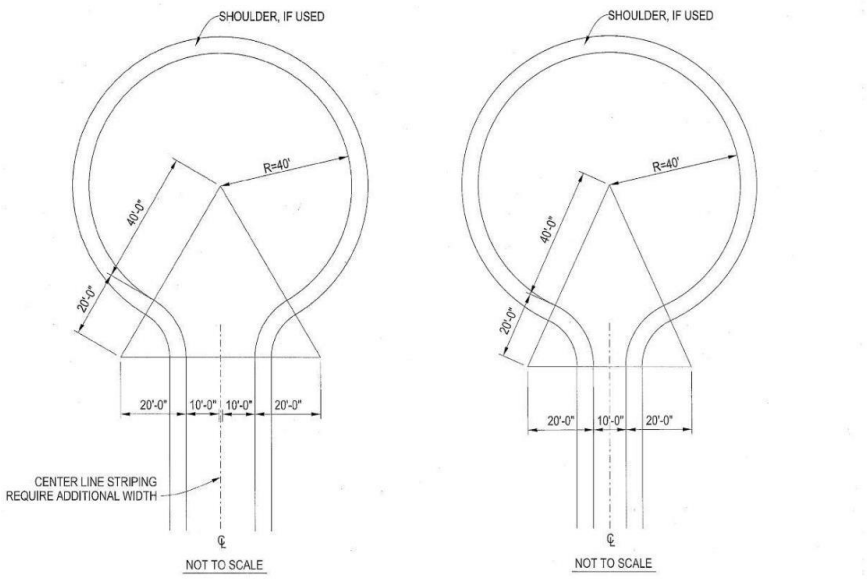


FIGURE FOR 14 CCR § 1273.05. TURNAROUND EXAMPLES

§ 1273.06. Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

§ 1273.07. Road and Driveway Structures

(a) Appropriate signing, including but not limited to weight or vertical clearance limitations, One-way Road or single traffic lane conditions, shall reflect the capability of each bridge.
(b) Where a bridge or an elevated surface is part of a Fire Apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and

Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction.
(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.
(d) A bridge with only one traffic lane may be authorized by the Local Jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

§ 1273.08. Dead-end Roads

(a) The maximum length of a Dead-end Road, including all Dead-end Roads accessed from that Dead-end Road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

parcels zoned for less than one acre - 800 feet
parcels zoned for 1 acre to 4.99 acres - 1,320 feet
parcels zoned for 5 acres to 19.99 acres - 2,640 feet
parcels zoned for 20 acres or larger - 5,280 feet

All lengths shall be measured from the edge of the Road surface at the intersection that begins the Road to the end of the Road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes requiring different length limits, the shortest allowable length shall apply.
(b) See 14 CCR § 1273.05 for dead-end road turnaround requirements.

§ 1273.09. Gate Entrances

(a) Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of thirteen feet, six inches (13′ 6″).
(b) All gates providing access from a Road to a Driveway shall be located at least thirty (30) feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that Road.
(c) Where a One-way Road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used.
(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

Article 3 Signing and Building Numbering

§ 1274.00. Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved Roads and Buildings shall be designated by names or numbers posted on signs clearly visible and legible from the Road. This section shall not restrict the size of letters or numbers appearing on road signs for other purposes.

§ 1274.01. Road Signs.

(a) Newly constructed or approved Roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each Local Jurisdiction. This section does not require any entity to rename or renumber existing roads, nor shall a Road providing access only to a single commercial or industrial Occupancy require naming or numbering.
(b) The size of letters, numbers, and symbols for Road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background color of the sign.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.
(b) Signs required by this article identifying intersecting Roads shall be placed at the intersection of those Roads.
(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end roads, one-way roads, or single lane conditions, shall be placed:
(1) at the intersection preceding the traffic access limitation, and
(2) no more than one hundred (100) feet before such traffic access limitation.
(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

§ 1274.03. Addresses for Buildings.

(a) All Buildings shall be issued an address by the Local Jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U Buildings are not required to have a separate address; however, each Residential Unit within a Building shall be separately identified.
(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.
(c) Addresses for residential Buildings shall be reflectorized.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All buildings shall have a permanently posted address which shall be plainly legible and visible from the Road fronting the property.
(b) Where access is by means of a private Road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.
(c) Address signs along one-way Roads shall be visible from both directions.
(d) Where multiple addresses are required at a single driveway, they shall be mounted on a single sign or post.

(e) Where a Road provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest Road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.
(f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Article 4 Emergency Water Standards

§ 1275.00. Intent

Emergency water for Wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a Wildfire or defend property from a Wildfire.

§ 1275.01. Application

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the Local Jurisdiction.

§ 1275.02. Water Supply.

(a) When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the Local Jurisdiction.
(b) Water systems equaling or exceeding the California Fire Code, California Code of Regulations title 24, part 9, or, where a municipal-type water supply is unavailable, National Fire Protection Association (NFPA) 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting,” 2017 Edition, hereby incorporated by reference, shall be accepted as meeting the requirements of this article.
(c) Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man made containment structure, as long as the specified quantity is immediately available.
(d) Nothing in this article prohibits the combined storage of emergency Wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.
(e) Where freeze or crash protection is required by Local Jurisdictions, such protection measures shall be provided.

§ 1275.03. Hydrants and Fire Valves.

(a) The hydrant or fire valve shall be eighteen (18) inches above the finished surface. Its location in relation to the road or driveway and to the building(s) or structure(s) it serves shall comply with California Fire Code, California Code of Regulations title 24, part 9, Chapter 5, and Appendix C.
(b) The hydrant head shall be a two and half (2 1/2) inch National Hose male thread with cap for pressure and gravity flow systems and four and a half (4 1/2) inch for draft systems.
(c) Hydrants shall be wet or dry barrel and have suitable freeze or crash protection as required by the local jurisdiction.

§ 1275.04. Signing of Water Sources.

(a) Each hydrant, fire valve, or access to water shall be identified as follows:
(1) if located along a driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the driveway address sign and mounted on a fire retardant post, or
(2) if located along a road,

(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said hydrant or fire valve, with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

§ 1275.04. Signing of Water Sources.

(a) Each Fire Hydrant or access to water shall be identified as follows:
(1) if located along a Driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the Driveway address sign and mounted on a fire retardant post, or
(2) if located along a Road,
(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said Fire Hydrant with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the Driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Article 5 Building Siting, Setbacks, and Fuel Modification

§ 1276.00 Intent

To reduce the intensity of a Wildfire, reducing the volume and density of flammable vegetation around Development through strategic fuel modification, parcel siting and Building setbacks, and the protection of Undeveloped Ridgelines shall provide for increased safety for emergency fire equipment, including evacuating civilians, and a point of attack or defense from a Wildfire.

§ 1276.01. Building and Parcel Siting and Setbacks

(a) All parcels shall provide a minimum thirty (30) foot setback for all Buildings from all property lines and/or the center of a Road, except as provided for in subsection (b).
(b) A reduction in the minimum setback shall be based upon practical reasons, which may include but are not limited to, parcel dimensions or size, topographic limitations, Development density requirements or other Development patterns that promote low-carbon emission outcomes; sensitive habitat; or other site constraints, and shall provide for an alternative method to reduce Structure-to-Structure ignition by incorporating features such as, but not limited to:
(1) non-combustible block walls or fences; or
(2) non-combustible material extending five (5) feet horizontally from the furthest extent of the Building; or
(3) hardscape landscaping; or
(4) a reduction of exposed windows on the side of the Structure with a less than thirty (30) foot setback; or
(5) the most protective requirements in the California Building Code, California Code of Regulations Title 24, Part 2, Chapter 7A, as required by the Local Jurisdiction.

§ 1276.02. Ridgelines

(a) The Local Jurisdiction shall identify Strategic Ridgelines, if any, to reduce fire risk and improve fire protection through an assessment of the following factors:

(1) Topography;

(2) Vegetation;

(3) Proximity to any existing or proposed residential, commercial, or industrial land uses;

(4) Construction where mass grading may significantly alter the topography resulting in the elimination of Ridgeline fire risks;

(5) Ability to support effective fire suppression; and

(6) Other factors, if any, deemed relevant by the Local Jurisdiction.

(b) Preservation of Undeveloped Ridgelines identified as strategically important shall be required pursuant to this section.

(c) New Buildings on Undeveloped Ridgelines identified as strategically important are prohibited, as described in subsections (c)(1), (c)(2), and (c)(3).

(1) New Residential Units are prohibited within or at the top of drainages or other topographic features common to Ridgelines that act as chimneys to funnel convective heat from Wildfires.

(2) Nothing in this subsection shall be construed to alter the extent to which utility infrastructure, including but not limited to wireless telecommunications facilities, as defined in Government Code section 65850.6, subdivision (d)(2), or Storage Group S or Utility and Miscellaneous Group U Structures, may be constructed on Undeveloped Ridgelines.

(3) Local Jurisdictions may approve Buildings on Strategic Ridgelines where Development activities such as mass grading will significantly alter the topography that results in the elimination of Ridgeline fire risks.

(d) The Local Jurisdiction may implement further specific requirements to preserve Undeveloped Ridgelines.

§ 1276.03. Fuel Breaks

(a) When Building construction meets the following criteria, the Local Jurisdiction shall determine the need and location for Fuel Breaks in consultation with the Fire Authority:

(1) the permitting or approval of three (3) or more new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d); or

(2) an application for a change of zoning increasing zoning intensity or density; or

(3) an application for a change in use permit increasing use intensity or density.

(b) Fuel Breaks required by the Local Jurisdiction, in consultation with the Fire Authority, shall be located, designed, and maintained in a condition that reduces the potential of damaging radiant and convective heat or ember exposure to Access routes, Buildings, or infrastructure within the Development.

(c) Fuel Breaks shall have, at a minimum, one point of entry for fire fighters and any Fire Apparatus. The specific number of entry points and entry requirements shall be determined by the Local Jurisdiction, in consultation with the Fire Authority.

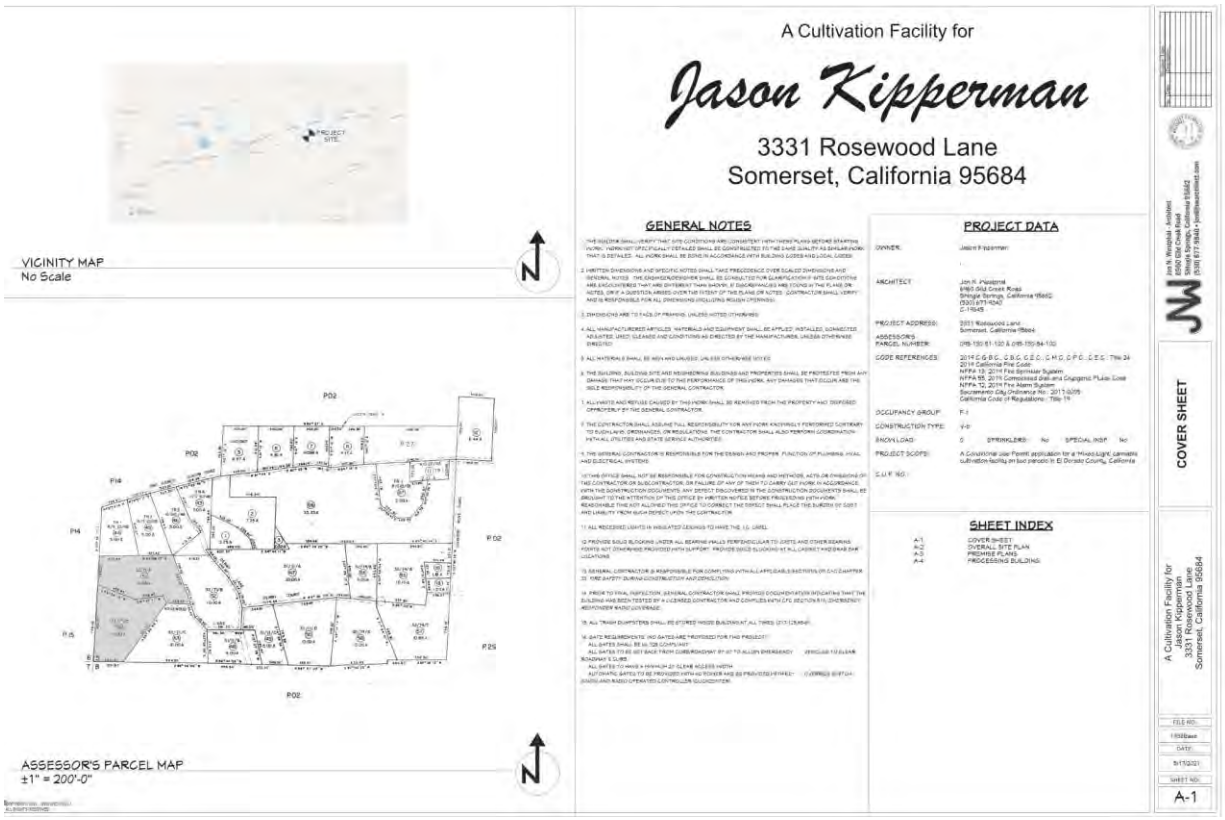
(d) Fuel Breaks may be required at locations such as, but not limited to:

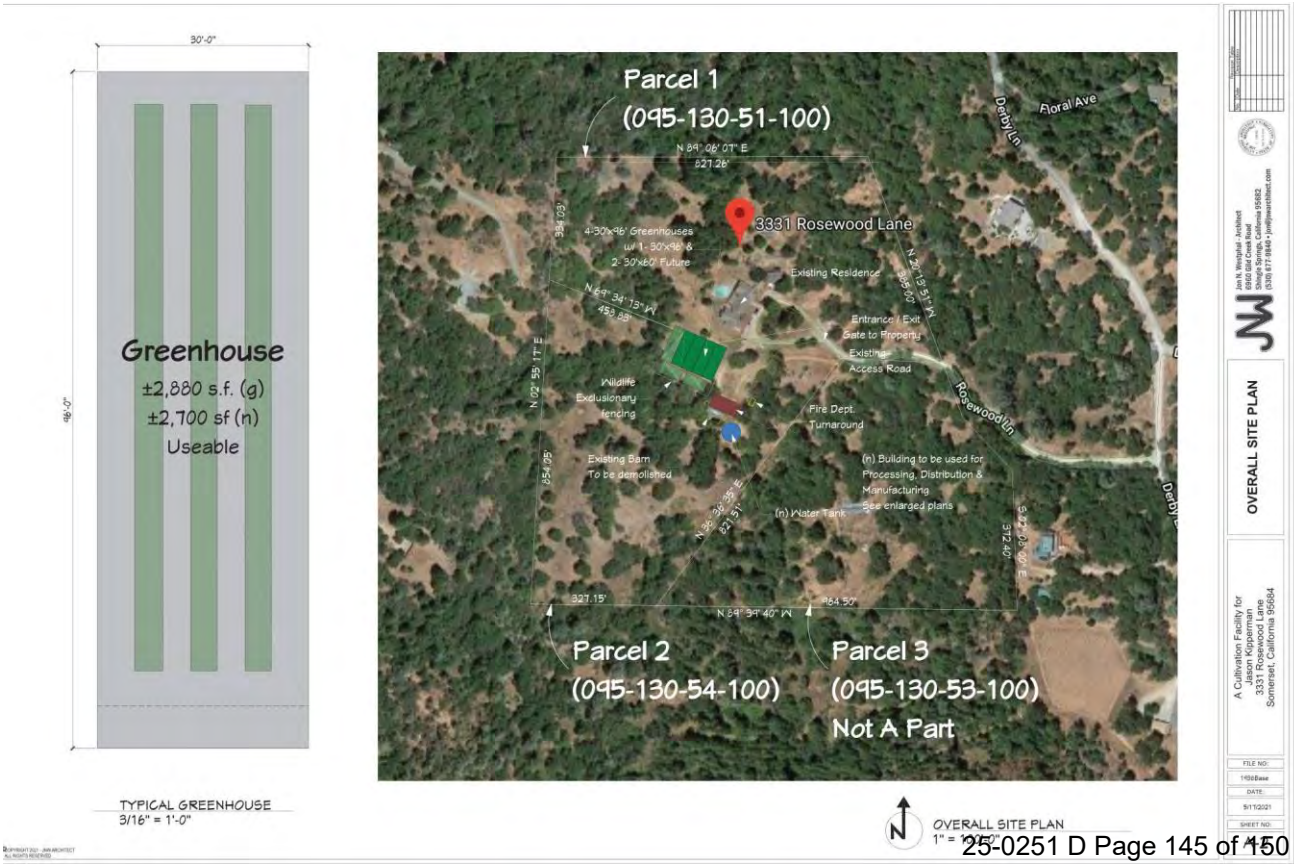
(1) Directly adjacent to defensible space as defined by 14 CCR § 1299.02 to reduce radiant and convective heat exposure, ember impacts, or support fire suppression tactics;

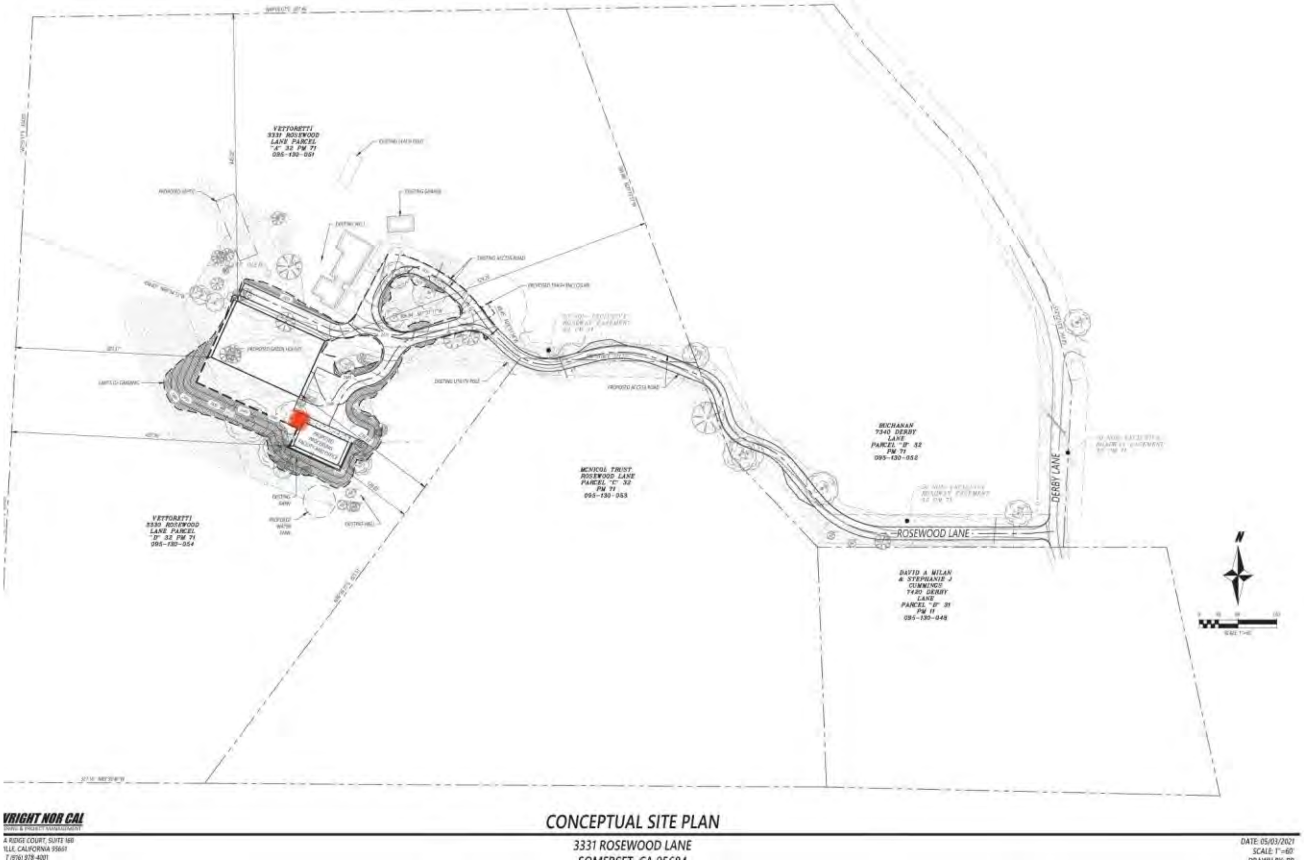
(2) Directly adjacent to Roads to manage radiant and convective heat exposure or ember impacts, increase evacuation safety, or support fire suppression tactics;

(3) Directly adjacent to a Hazardous Land Use to limit the spread of fire from such uses, reduce radiant and convective heat exposure, or support fire suppression tactics;

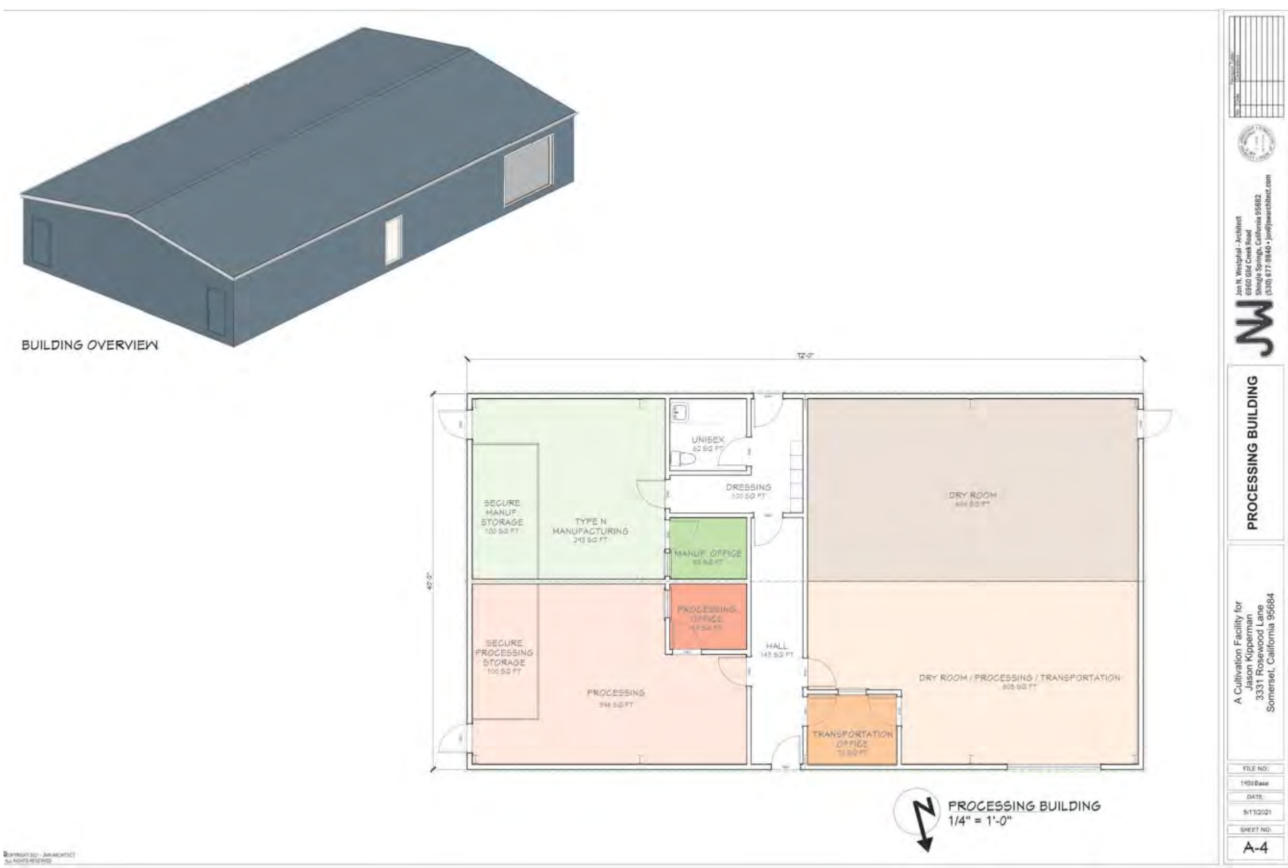
Appendix F: 3331 Rosewood Lane Tentative Site Plans







ROSEWOOD LANE
DERBY LANE
CONCEPTUAL SITE PLAN
3331 ROSEWOOD LANE



BUILDING OVERVIEW
UNISEX
DRESSING
SECURE MANUF STORAGE
TYPE N MANUFACTURING
MANUF. OFFICE
DRY ROOM
PROCESSING OFFICE
HALL
SECURE PROCESSING STORAGE
PROCESSING
DRY ROOM / PROCESSING / TRANSPORTATION
TRANSPORTATION OFFICE
PROCESSING BUILDING
1/4" = 1'-0"
PROCESSING BUILDING
A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684
A-4


3331 Rosewood Lane
4-30'x96' Greenhouses
w/ 1- 30'x96' &
2- 30'x60' Future
334.03'
Existing Residence
N 20° 13' 51" W
385.00'
N 69° 34' 13" W
458.83'
Entrance / Exit
Gate to Property
Existing
Access Road
Rosewood Ln
N 02° 55' 17" E
Wildlife
Exclusionary
fencing
Fire Dept.
Turnaround
Existing Barn
To be demolished
854.05'
(n) Building to be used for
Processing, Distribution &
Manufacturing
See enlarged plans
N 36° 36' 35" E
821.51'
(n) Water Tank
S 02° 08' 00" E
372.40'
327.15'
964.50'
N 89° 39' 40" W
PREMISE PLAN
1" = 50'-0"
PREMISE PLANS
A Cultivation Facility for
Jason Kinsman
3331 Rosewood Lane
Somerset, California 95684
A-3

Appendix G: Highly Flammable Trees & Vegetation

Highly Flammable Trees & Vegetation

It is advised that these trees and vegetation be removed from the defensible space area around structures.

Trees:	Grasses, Shrubs, Ground Cover
Acacia	Algerian Ivy
Arboritae California Bay	American Holly
Arizona Cypress	Bamboo
Bald Cypress	Black Sage
Blue Gum	Boxwood
Cedar	Brooms
Cryptomeria	California buckwheat
Cypress	California sagebrush
Eucalyptus	Chamise or greasewood
Pine	Deer Grasses
Hemlock	Dry annual Grasses
Italian Cypress	Fountain Grasses
Juniper	Gallberry Holly
Larch	Hopseed Bush
Leyland Cypress	Juniper
Manna Gum	Laurel sumac
Palm (when left untrimmed)	Coyote Brush
Palm Pine	Manzanita
Pepper Tree	Melaleuca
Fir	Pampas Grass
Red Cedar	Pine straw
Spruce	Podocarpus
Sugar Gum	Red Shanks
Tamarisk	Rosemary
Wax Myrtle Cabbage Palm	Salal
Yew	Saw Palmetto
	Scotch broom
	Scrub oak
	Spanish broom
	Sugar bush
	Toyon
	Wax Myrtle
	Yaupon Holly

*These plants are among those known for the amount of dead fuel that accumulates in them, and high oil, high resin, or low moisture content of their leaves and branches

**All plants are flammable if not pruned periodically and the risk attached to any one plant can be greatly diminished with maintenance.

Appendix H: Ready – Set – Go Wildfire Evacuation Program

WILDFIRE IS COMING. ARE YOU READY?

The geography, weather patterns and number of Wildland Urban Interface communities in California make it a state particularly threatened by devastating wildfire. To help educate property owners and residents in areas most at risk, CAL FIRE has developed a communications program called “Ready, Set, Go!” that breaks down the actions needed to be ready for wildfire.

Get prepared for wildfire before it strikes by following Ready, Set, Go!

- Be Ready: Create and maintain defensible space and harden your home against flying embers.
- Get Set: Prepare your family and home ahead of time for the possibility of having to evacuate.
- Be Ready to GO!: Take the evacuation steps necessary to give your family and home the best chance of surviving a wildfire.

Go to this link for additional information on the Ready - Set - Go program: https://www.readyforwildfire.org/prepare-for-wildfire/ready-set-go-campaign/ .

Appendix I: About the Author

This Fire Safe Plan was prepared in 2024 by Phillips Consulting Services of Georgetown, CA. The author, Ronald A. Phillips, has over 40 years of experience in both fire safety and emergency preparedness. Mr. Phillips served in a variety of positions within the California Fire Service including the position of Fire Chief for the City of Folsom between 2010 - 2016. He has a Bachelor of Science degree in Fire Administration along with several state and national program certificates in specialties such as the emergency management, fire prevention, arson & fire investigation, and the incident command system.

Phillips Consulting Services aids both public and private partners in the following areas of expertise:

Δ POST Incident Analysis & After-Action Reviews
Δ Homeland Security Exercises / Improvement Plans
Δ Emergency Management Planning & Documents
Δ Community Fire & Rescue Master Planning
Δ Special Event Planning
Δ Firewise™ Community Assessments & Plans
Δ WUI Site Assessments
Δ Pre-Incident Planning for First Responders
Δ Fire Code Inspections
Δ Emergency Evacuation Planning & Training