

85 W Hwy 246 #233, Buellton CA 93427

TELEPHONE: 818.317.8414
E-MAIL: lindsay@ccagriculture.com

Date: October 8, 2020

To: County of Santa Barbara Planning and Development

From: Central Coast Agriculture

Re: Odor Control and Management

Included with this letter are a series of documents that make up the CCA Odor Control Report. Central Coast Agriculture has operated the farm located at 8701 for over 5 years. In those 5 years, there has not been a single formal complaint issued against our operation. The parcel located at 8701 Santa Rosa Rd is just south of the West Buellton EDRN, and the outdoor cultivation area sits approximately 1200 ft setback from the southernmost boundary of the EDRN. The cultivation site is also located approximately 2000 feet away from any of the residences located in the West Buellton EDRN, and approximately 2500 feet away from the residential neighborhoods within the City of Buellton.

In July of 2019, Borsage Environmental did an odor study with a nasal ranger to determine if odors could be detected off site. During the evaluation, no odors were detected outside of the property boundary, and included areas throughout the community of Buellton. The results of that study are included as Attachment 1.

On site wind data was collected throughout the harvest seasons during the Fall of 2019 and the Spring of 2020. This data was used to model the emissions of the terpene limonene. The modeled data shows that the limonene does not reach the odor detection threshold at any location outside of the property line. Results from this study are included as Attachment 2.

Central Coast Agriculture is dedicated to ensuring maximum neighborhood compatibility, and so even though the available science was unable to show odors leaving the property, a Byers Vapor Unit will be used to control odors from reaching the City of Buellton, the adjacent West Buellton EDRN and associated sensitive receptors. The efficacy of this system was evaluated by Nate Seward, CIH to reduce odors emanating from the processing building and the cultivation site during mature plant cultivation, harvesting, and processing. The report provided by Nate Seward with Criterion Environmental is included as Attachment 3.

Finally, Central Coast Agriculture has adopted a comprehensive Standard Operating Procedure that will be used to maintain compliance with the Odor Abatement Plan. Floor plans have been incorporated to the SOP to show which areas have the highest potential to emit odor. This SOP has been included as attachment 4.

Attachment 1



Bosarge Environmental, LLC

707 Bienville Blvd.

Ocean Springs, MS 39564

(228) 217-3180

September 11, 2019

Mathew Allen
General Counsel
Central Coast Agriculture, Inc.
8701 Santa Rosa Road
Buellton, CA 93427

RE: Odor Assessment Study

Introduction

Central Coast Agriculture, Inc. (CCA) retained Bosarge Environmental, LLC, as a third-party Odor Expert, to perform an Odor Assessment Study of property in the vicinity of 8701 Santa Rosa Road in Buellton, California. Ms. Melanie Bosarge conducted ambient odor surveys the four days of July 1- 4, 2019. This time frame was selected because the facility would undergo harvesting and processing for a ten-day period beginning July 1, 2019. During this period, the facility would begin with a crop of fully formed plants at the stage when terpene odor is the greatest. Agitation of the budding plants through harvesting and processing creates 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 Nasal Ranger field olfactometer to quantify odor strength when odor was noticed at each monitoring location. Prior to odor observations, a carbon mask respirator was utilized to “zero” nose to 100%. Upon arrival at each separate location, ambient odor was assessed with the “naked nose”. If no odor was detected, the current time and “non-detected” (ND) was recorded. If an odor was detected, a reading was 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 was detected with the “naked nose” at a location, a measurement was 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).

Odor Survey – Introduction and Mapping

Upon arrival at the facility on the afternoon of July 1, 2019, Ms. Bosarge was taken on an extensive tour of the site by Mr. Mathew Allen, General Counsel of CCA. Each step of the cannabis process was identified and explained. A plan of action was developed and coordinated. Together, Ms. Bosarge and Mr. Allen investigated the area within the security fenced area, the property outside of the fenced area along accessible property lines, and residential, commercial and agricultural areas throughout Buellton. 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, Ms. Bosarge continued independently to develop a monitoring plan and complete several additional surveys during the four-day odor assessment study. Nine (9) onsite locations within the active cultivation and processing area of the facility, seven (7) onsite locations along the East security fence, seven (7) locations along the Santa Rosa Road CCA property perimeter and twenty-four (24) 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. Latitude and longitude coordinates for each location were entered into Odor Tracker software to produce Google Earth Maps of the areas within the CCA property, along the perimeter of the property and the surrounding community.

Odor Survey – Discussion

Nine (9) ambient odor surveys were conducted during the four-day study. Three (3) of the surveys were conducted within CCA property lines. The other six (6) surveys were conducted along Santa Rosa Road and the surrounding community. 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 will appear in the appendix of the final report.

Approximately one hundred and fifty (150) odor observations were conducted and recorded. During the first afternoon of the odor study, no odor was detected along the property perimeter or in the community. Workers had just finished the first day of harvesting and were processing the harvest in the building inside the entrance gate. During the second day of the odor study, odor was detected at a level of <2 D/T, at one location along Santa Rosa Road, adjacent to the CC Agriculture property line. During the third day of the odor study, odor was detected at a level of <2 D/T, at three separate locations along Santa Rosa Road, adjacent to the CCA property line. Harvesting and processing did not occur on the 4th of July holiday, and no odors were detected outside of the facility or property on the fourth day.

Since odor detection was so low during the first two and one-half days of the Odor Study, Ms. Bosarge elected to designate seven (7) locations along the fence line just outside of the crop and processing areas. On the fourth day, nine (9) additional locations were designated next to the crop and processing areas inside the fence line. Odors ranged from “non-detected” to <2 D/T, to 2 D/T and up to 4 D/T at one area. This area was next to the area scheduled next for harvest. These levels are extremely low for onsite operations.

Odor Survey Conclusions

In each case of odor detection, outside of the facility, the odor was faint and intermittent at each of the three locations where <2 D/T was recorded. These three locations were along the CCA property perimeter and directly downwind of harvesting operations. 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. No odors were detected at any of the other designated locations throughout the Buellton Community, during the four-day Odor Study.

Based on the findings in this Odor Study, Bosarge Environmental, LLC, concludes that “no discernible cannabis odor” was detected outside of the facility and is barely recognizable past the perimeter of the CCA property and should not adversely affect the surrounding community.

Submitted by,

Melanie Bosarge

Melanie Bosarge
Bosarge Environmental, LLC

Bosarge Odor Study

Write a description for your map.

Legend

- Buellton
- ▭ Farming Land
- 📍 Feature 1
- 📍 Feature 2
- 📍 Feature 3
- 📍 Feature 4
- 🏦 Rabobank
- 👮 Santa Barbara County Sheriff
- 🌿 Santa Ynez Valley Water Garden
- 🐾 Specifically Equine Veterinary Service
- 🌳 Windmill Nursery
- 🏌️ Zaca Creek Golf Course



Attachment 2

October 15, 2020
 File No. 04220012.00

MEMORANDUM

TO: Matthew Allen and Lindsay Cokeley, Central Coast Agriculture, LLC
 FROM: Jeff Leadford, SCS Engineers
 SUBJECT: 8701 Santa Rosa Road Model Results

The purpose of this memorandum is to describe the basic air dispersion modeling setup for this project, and display the results for the cannabis cultivation and processing site located at 8701 Santa Rosa Road, Buelton, CA (Facility). This facility is ran and operated by Central Coast Agriculture, LLC (CCA).

MODEL SETUP

The EPA-preferred air dispersion modeling system (AERMOD) and meteorological processor (AERMET) were used for this analysis. Meteorological (MET) data from the on-site MET tower was used to model during the fall 2019 and spring 2020 harvesting timeframes, with the Santa Ynez airport data being used to fill in gaps. The harvest seasons occurred between October 29, 2019 through November 20, 2019 last fall, and June 1, 2020 through June 19, 2020 this spring. These timeframes are found to be the most odorous, as the mature crops are disturbed and moved during harvesting.

All significant terpenes released by cannabis cultivation at the Facility were reviewed for the highest ratio of cultivation emission rate to odor threshold. Limonene is estimated to be the most likely terpene to be detected off-site with an emission rate of 1.19×10^{-7} g/s-m² and an odor threshold of 2.21 µg/m³. This terpene has the lowest odor detection threshold relative to significantly emitted terpenes based on available literature, and is one of the top five most emitted terpenes during cannabis harvesting. Detailed calculations are found in Attachment A.

RESULT ANALYSIS

Table 1 shows the maximum impact of Limonene outside the Facility boundary during each period. Wind data was accessed on an hourly basis during the harvest period to find the maximum impact at ground level.

Table 1. Maximum Impacts Outside Boundary

Harvest Period	Maximum 1 hour Limonene Impact (µg/m ³)	Odor Threshold (µg/m ³)	Time of Highest Impact
Fall 2019	2.28	2.21	10/30/2019, 5 AM
Spring 2020	1.77	2.21	6/17/2020, 12 AM



As you can see, limonene barely exceeds the odor threshold in the fall, and is completely below the odor threshold in the spring. Fall maximum impacts only exceed the threshold at three receptors during the time period, all on the same hour, and all directly at the property boundary. The receptors 10 meters from the property boundary are all below odor limits.

Figures 1 and 2 below show the limonene concentration isopleth at the odor threshold inside and outside of the Facility boundary.

Figure 1. Maximum AERMOD Impacts (Fall 2019 Harvest)

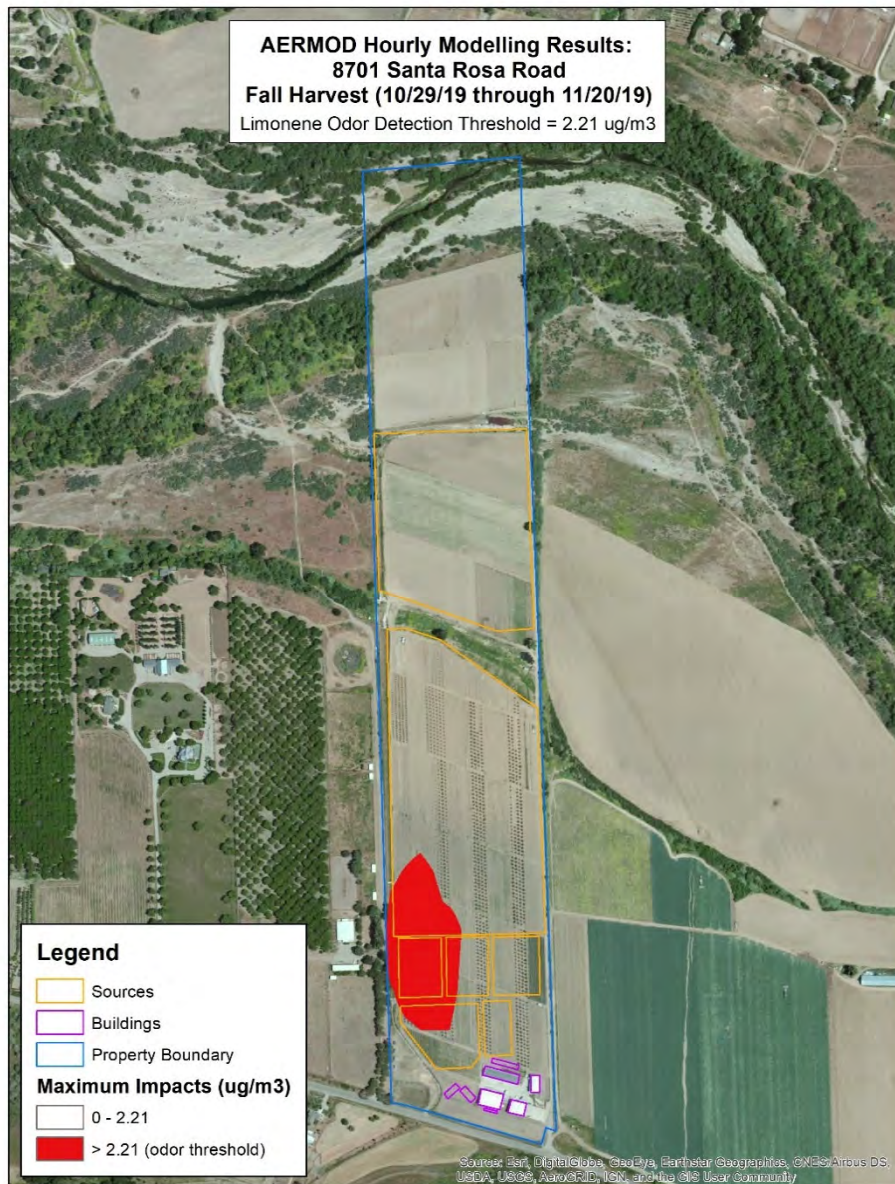
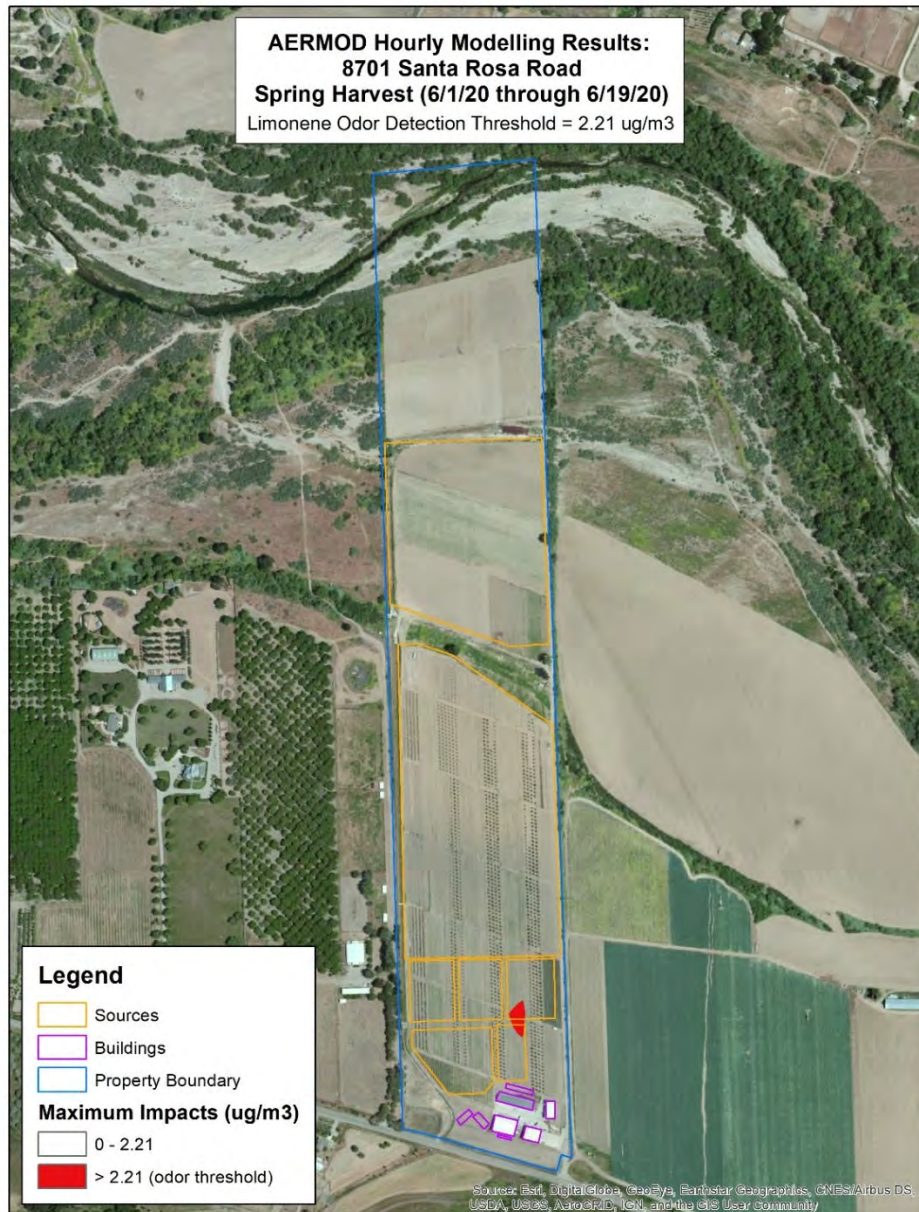


Figure 2. Maximum AERMOD Impacts (Spring 2020 Harvest)



The fall 2019 odor isopleth is larger because colder months generally see higher modeling impacts than warmer months. This is because warm weather causes more convection in the atmosphere, which leads to more mixing and spreading of pollutants. Because there is a mountain ridge directly to the south of the Facility and a creek directly north, Limonene emissions from the Facility are most likely to be higher closer to the mountain ridge where the wind will have more difficulty pushing the air away and thereby diluting. The northern part of the Facility is more spacious, and thus allows for more mixing and dilution. In addition, the terpene concentrations are generally higher in the middle of the night where the atmosphere is more stable.

CONCLUSION

Data is relatively limited on terpene emission rates from cannabis cultivation and processing, as well as terpene odor thresholds. The best available data was reviewed for this model, and the most conservative rates and thresholds were used. This data is also used by SCS Engineers for similar monitoring studies in the area. During the most recent two harvest periods, limonene was not shown to exceed the odor threshold outside the Facility boundary in spring 2020, and only exceeded during 2 separate one hour periods at three receptors on the property boundary. These were at 5 AM on 10/30/2019, and 2 AM on 10/29/2019.

Please contact me at 503-430-3031 or at jleadford@scsengineers.com if you have any questions.

Sincerely,



Jeff Leadford, PE
Senior Project Engineer
SCS Engineers



Paul Schafer, CIEC
Vice President/ Project Director: Air Monitoring
SCS Engineers

Attachment

Attachment 3

Cannabis Odor Abatement Plan (Revised)

March 26, 2020

Prepared for:

Central Coast Agriculture, LLC

Site Address: 8701 Santa Rosa Rd
Buellton, CA

Prepared by:

Nate Seward, PE, CIH

Professional Mechanical Engineer (M31978)
Certified Industrial Hygienist (9582 CP)
Certified Radon Tester #108180RT
EPA & IICRC Instructor (WRT & AMRT)
Licensed Asbestos Abatement Consultant (I-1923)



March 26, 2020

Central Coast Agriculture, LLC

Site Address: 8701 Santa Rosa Rd
Buellton, CA

Re: Cannabis Odor Abatement Plan

Ladies and Gentlemen,

On behalf of the applicant, Criterion Environmental, Inc. has prepared this Cannabis Odor Abatement Plan in compliance with the Inland Zoning Ordinance requirements and the regulations set forth for Commercial Cannabis regulations. This plan included the evaluation of the proposed odor abatement system (Byers System) and its effectiveness of reducing and/or eliminating cannabis-related odors. The objective of the system is to eliminate odors from reaching receptors within residential zoned properties closest to the subject site.

Site Description –

The subject site is located at 8701 Santa Rosa Rd, Buellton, CA; APN: 083-180-007; Inland Zone = AG; Zoning = AG-II 40. The subject property will include cultivation of approximately 35 acres with the closest residential property to the north east of the property and approximately 2,239 feet from the property line and 2,500 from the nearest cultivation. To the West, the closest residential zoning is 12.5 miles away.

It is anticipated that the subject property will produce two crops per year. The first crop will get planted into the ground in April with harvesting in the last two weeks of June. The second crop will get planted into the ground in July with harvesting in the last two weeks of October. Each harvest will be flash frozen within about 20 minutes from harvest. The flowers are stored on site in sealed containers at negative 30 degrees.

Odor emissions

The odors associated at the subject site will be emitted during the flowering stages from mature plants during the growth process. The strongest cannabis odors will be expected during the last few weeks just before harvesting. These odor-emitting activities will be abated at the subject site using best available technology to eliminate odors from leaving the subject property.

Proposed Odor Abatement System

Due to the anticipated cannabis odors that will be emitted at the subject site, the applicant intends to utilize the leading odor neutralizing, vapor-phase technology currently available to limit these cannabis odors from drifting off-site towards residential zones. The abatement system is manufactured by Byers Scientific and Manufacturing and consists of the following (See Attachment 1 for technical information):



Figure 1

1. Within the housing system unit (See Figure 1), a high-flow, low pressure blower is connected to a holding tank containing an odor neutralizing agent developed specifically to neutralize odors from cannabis. The fan unit vaporizes the odor neutralizing agent and distributes it to a piping system.

2. The PVC piping system is mounted to the upper perimeter of the structure at the roof line as seen in Figure 2. The neutralizing agent injected into the air stream several feet above the piping system (as seen in Figure 3). The cannabis terpene molecules are then neutralized as they mix with the neutralizing agent. The neutralizing vapor is designed to intercept the cannabis odor regardless of the wind direction.



Figure 2

3. A computer monitoring system which allows the operator to remotely regulate the flow of the odor control system to ensure that the amount of odor neutralizing agent is adjusted to match current odor producing conditions, seasonal weather patterns, and other fluctuating conditions. The system is also capable of notifying the operator if an equipment failure has occurred so that the system can be repaired and returned to service as soon as possible.



Figure 3

Nuetralizing Deodorant

The odor neutralizing agent to be used within the Byers system is Ecosorb CNB 100 (CNB 100) and is manufactured by OMI Industries, a leader in odor neutralization materials. CNB is comprised of two polysorbate surfactants and a blend of citrus and pine oils with the remainder water (see Attachment 1 for SDS Sheet).

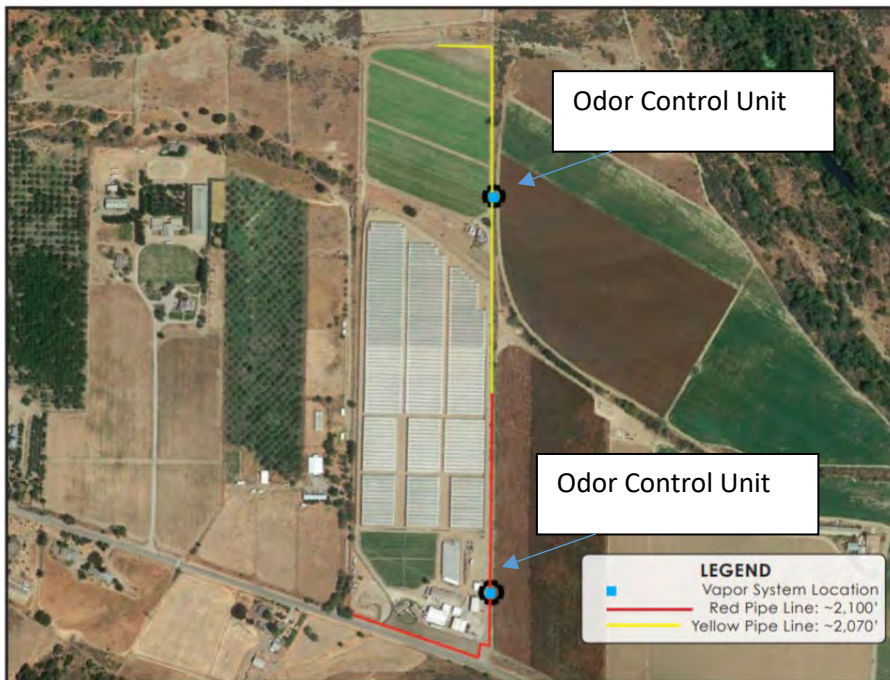
Specific Design Parameters of the Odor System

The proposed system will include approximately ~4,200 lineal feet of the perforated piping system along 2 sides of the property as seen in the following Site Plan where odor-emitting activities are anticipated to maximize mitigation of odor. Odors are anticipated to emanate from the processing building, however the design and layout of the piping system and two fan units will be used to vaporize the odor neutralizing product Ecosorb CNB100 and mitigate these odors. The product will be delivered at a rate of 3-6 gallons/day, depending on the characteristics of the site, to neutralize the cannabis odors as it mixes within in the air stream around the perimeter.

Site Plan



PROPOSED 6" PVC D2729 LAYOUT
8701 SANTA ROSA ROAD
BUELLTON, CA 93427



2332 W. Industrial Park Drive · Bloomington, IN 47404 USA

www.byers-scientific.com

The odor control system is located in between the nearest residential property which is approximately 2500' from the cultivation area. The odor control system has been designed to be located downwind or from the west to the east which is fairly consistent within the geographic area. It is unlikely, but if the wind direction changes to blow from the east to the west, the nearest residential property is over 12 miles away. In addition, the distance of 2,500' is a significant amount of space and would likely eliminate cannabis odors from being experienced even without the proposed odor system. The system will be remotely monitored and regulated to determine if adjustments need to be made to the output system. The applicant will operate the odor control

technology at maximum capacity during odor emitting activities. At no point in time is the odor control turned off, or turned down during odor emitting activities.

The applicant is aware that environmental conditions (temperature, humidity, wind direction & speed) will likely change during the day and/or seasonally which may increase or decrease the odor intensity of the cannabis activities. The applicant understands these environmental fluctuations and is committed to monitoring the odor abatement system thru olfactory observations and making necessary adjustments to the system in order to eliminate cannabis related odors beyond the property boundaries.

Odor Technology Approval & Recognition

Vapor-phase odor neutralizing technology is a proven odor abatement technology for reducing nuisance odors including cannabis related odors. Santa Barbara County Air Pollution Control District (SB APCD) recognized that at least 14 cannabis operations were utilizing vapor-phase odor neutralizing systems throughout the Carpinteria region for odor mitigation. According to a May 2018 presentation by SB APCD (See Attachment 2), an inspection was performed by APCD personnel of a 650,000 ft² cannabis cultivation facility in Carpinteria which revealed that an odor control system was operating and working as advertised and noted that pungent odors from inside the greenhouse, “could not be detected directly outside the greenhouse or at the property line.”

Additionally, the Long Range Planning Division of Santa Barbara County recently prepared a Final Environmental Impact Report (FEIR) to amend its Land Use and Development Code to allow certain types of cannabis activities. Within the FEIR, Appendix F indicates that vapor-phase technology, including the Byers Scientific system, is an effective odor control system in the cannabis industry including Carpinteria, CA and Pueblo, CO.

Criterion Environmental personnel, including myself, have also performed olfactory assessments at various cannabis cultivation properties in Carpinteria deploying the Byers Odor abatement technology. Results from these assessments are similar to the findings from APCD in that there is a substantial reduction in the cannabis related odor intensity within a few feet of the odor emitting source. The onsite field assessments also indicated an obvious reduction or dissipation in odor observation the further downwind from the mixing zone.

Odor Compliance

In accordance with applicable local regulations, this applicant will designate someone on staff that is responsible for monitoring the odors 24/7 and will be the primary contact person to respond to calls regarding nuisance odor complaints. The name and contact phone number for this person will be provided to the County and all complaints should follow the proper procedures, including the submission of the Odor Complaint Form on the Santa Barbara County’s website <https://www.surveymonkey.com/r/Can-Complaints>. Within 1 hour of receiving official notice of a complaint, the applicant will immediately make any adjustments or modifications to the odor abatement system as necessary to mitigate the odor. The applicant will internally track all complaints that are received and document the process including the following information:

1. Date & Time of the complaint
2. Name and contact (phone # and email) information of the complaining party

3. Date, time and specific location as where the odor was observed by the complaining party
4. A description of the odor including an intensity ranking from 1 – 5 (1 being mild and 5 being extremely strong)
5. The atmospheric/weather conditions including wind speed and direction if known at the time of the odor complaint
6. Location of the complaining party when first observed
7. Description of any activities observed by the complainant at or near the Project Site during the odor observation (trucks entering or exiting the area, uncovered cannabis wastes near the property line, etc.)
8. Any necessary correction actions as a result from the odor complaint will be implemented to the odor abatement system and/or processes. The applicant will maintain these records for a minimum of five (5) years and will make them available to the County if requested. The applicant will allow the County full access to the facility for the purpose of inspecting the odor abatement system. If needed, the applicant will contract the services of a Professional Engineer or Certified Industrial Hygienist as a third party to document the corrective actions.

Conclusions

The proposed odor abatement system and its design technology for this property in addition to our field observations of the odor system and its successful track record for mitigating odors did not reveal any obvious concerns with the technology. The vapor-phase technology is an approved odor control system with recognition from SB APCD and based on these findings, we conclude the following:

1. The neutralizing agent (CNB 100) is an actual deodorant neutralizers (not masking agents) specifically formulated for cannabis odors
2. The system can be modified or adjusted to deliver the deodorant with the objective to obtain a neutral odor and
3. The deodorant and/or neutralizing by-products is not a public health (acute or chronic) or environmental concern with supporting documentation that meets United States Environmental Protection Agency's Acute Exposure Guideline Levels or similar public health thresholds.
4. In our opinion, the proposed odor control system will not be detrimental to the comfort, convenience, general welfare, health and safety of the neighborhood and will be compatible with the surrounding area.

Therefore, it is our professional opinion that this odor abatement technology is an accepted industry-specific best control technology designed to mitigate odor. As designed, we certify that the equipment and methods to be used will be effective for reducing odors at the subject site.

Limitations

It should be noted and understood that although cannabis activities have been legalized and permitted within the County, it is expected that illegal and unpermitted commercial and personal growing operations will continue within the immediate area. These operations are not complying with State or County regulations, particularly as it relates to odor abatement and therefore malodor complaints by the public may be incorrectly directed at the applicant. Cannabis odors, whether “real” or “psychological” are subjective and interpretive, depending on the receptor. Generally, the intensity of an odor will dissipate over distance and therefore in theory, the further the receptor is from the emitting-source, the less intense the odor generally is observed. If you have any questions or concerns regarding the information provided, please do not hesitate to call us at 805.644.8347 or my cell phone at 805.432.4888.

Respectfully submitted,



Nate Seward, PE, CIH

Professional Mechanical Engineer (M31978)
Certified Industrial Hygienist (9582 CP)

Attachments

Attachment 1 - Byers Vapor Phase Odor Control System- Technical Brochure & CNB100 SDS
Attachment 2 - Santa Barbara APCD- Cannabis Odor Control Presentation

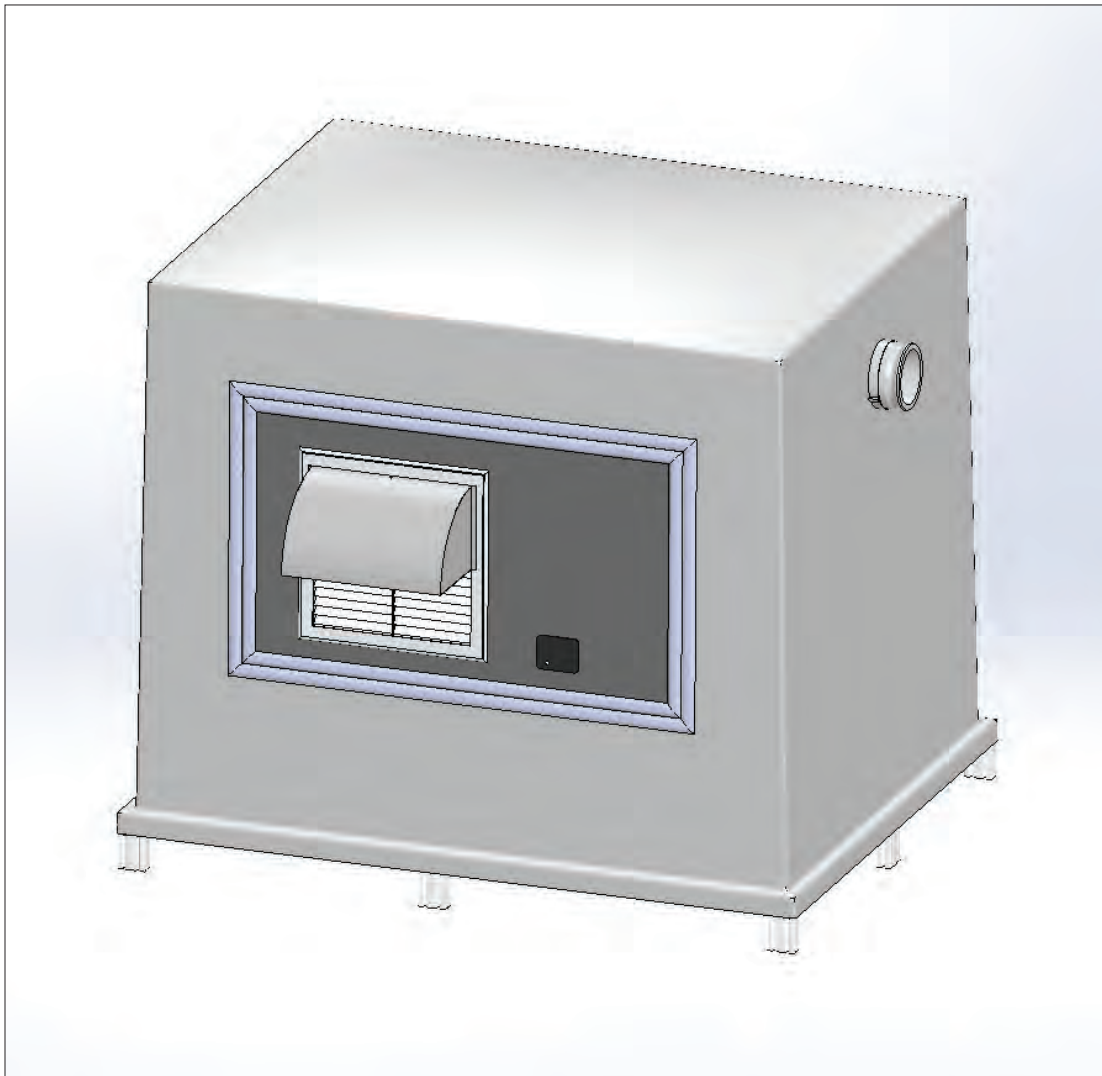
Attachment 1

Byers Vapor Phase Odor Control System- Technical Brochure & CNB107 SDS



Byers Scientific & Manufacturing
Industrial Odor Management





INSTRUCTION MANUAL



Waterless Vapor System for Odor Control HPII Series



Read equipment manufacturer's manual before operating or servicing system. Failure to understand how to safely operate the system can result in an accident causing serious injury or death. Only qualified personnel should operate or service the system.

⚠ DANGER			
			
<p>Hazardous Voltage can cause electrical shock or death.</p>	<p>High speed rotating equipment can cause severe personal injury.</p>	<p>Lock out/Tag out to prevent personal injury <u>BEFORE</u> starting <u>ANY</u> service or inspection.</p>	<p>Avoid injury. You <u>MUST</u> read and understand all instructions in this manual <u>BEFORE</u> operation.</p>

TECHNICAL SPECIFICATIONS

SYSTEM OVERVIEW

Footprint 74.5" L x 59.0" D x 63" H

Decibels at 30 feet: 65 dB

Access Door with Intake Filter

Filter Size: 18" x 18" x 1" Nominal
(Actual: 17.75" x 17.75" x 0.75")

63 Gallon Storage Tank

Internal circulation via eductors

Level Sensor

Temperature Sensor

In-Tank Heater for cold climates

Tank can be filled by toggle switch operated pump affixed to tote/drum

Evaporation Tank

Patent-Pending Uniform Vapor Production

Level Sensor

Temperature Sensor

In-Tank Heater

Can produce up to 7 equivalent gallons of vapor/day

Tank fills automatically via PLC

TECHNICAL SPECIFICATIONS CONT'D

ELECTRIC

UL-LISTED PANEL

40 / 50 Amp Service Disconnect Switch

Touch Screen Panel Display

Indicator Lights

Programmable Logic Controller (PLC) for Critical System Operations

Industrial Remote Access Router with External Antenna/Ethernet Connection

High Limit Heat Safety Controllers

3-PHASE COMPONENTS (208- 240 / 480VAC)

Main Blower

7.5 HP Motor

19.4 - 17.6 / 8.8 Full Load Amps

3530 RPM

Secondary Blower

0.5 HP Motor

3450 RPM

In-Tank Heater(s)

2000 - 2660 / 3500 Watts

5.6 - 6.4 / 4.3 Amps

24VDC COMPONENTS

Diaphragm Pumps (3)

3.0 gallons per hour

3.5 Amps

Precalibrated Level Sensors (2)

Precalibrated Flow Meter with Totalizer

Precalibrated Differential Pressure Sensor (2)

Temperature Sensors (2)

OPERATION

SAFETY WARNING

ONLY QUALIFIED PERSONNEL THAT HAVE BEEN PROPERLY TRAINED SHOULD OPERATE THE SYSTEM

BEFORE TURNING ON

- The yellow/red handled service disconnect located on the electric panel door must be turned to the ON position. The green indicator light for CONTROL POWER ON will be illuminated to visually show that there is power to the unit
- The HMI (Human-Machine Interface) will boot up upon turning the yellow/red handled service disconnect. To learn more about using the HMI, please refer to the guide within this manual. If it does not, contact Byers Scientific & Manufacturing for further troubleshooting
- Inspect fan inlets for obstructions
- Check that the auxiliary is filled sufficiently and that the vapor tank level is between 47 - 50%
- Once door is closed, open filter access door to make sure a filter is in place

OPERATING THE SYSTEM

- With the door closed and locked, turn the "CONTROL POWER ON/OFF" switch on the electrical panel to the ON position
- A green light under EVAPORATION FAN RUNNING will indicate that the system is in operation. The MAIN FAN RUNNING indicator light is purposefully delayed and will turn green after three seconds. If a red FAN FAULT appears for either the evaporation or main fan, contact Byers Scientific & Manufacturing for further troubleshooting.
- The system is programmed to be self-operating and we advise that any levels set on the touchscreen should be left as is. Altering the inputs could have a negative impact upon the efficacy of the neutralizing vapor.

OPERATION CONT'D

OPERATING THE SYSTEM CONT'D

- The system will send out an SMS text message or email to personnel to alert of any systems needs e.g., filling auxiliary tank or system fault. Level 1 alarms cause the system to completely shut down to prevent potential harm to the system. Level 1 alarms are primarily due to the VFD (variable frequency drive) on the fans and can be due to a multiple factors, such as low/high supply voltage or motor overheating. After such an event, the fault code displayed on the VFD must be provided to Byers Scientific in order to determine the cause of the fault. Failing to do so and resetting the VFD without understanding the fault can harm the system as the VFD fault codes provide insight to the problem.
- To fill the auxiliary tank, make sure that the “CONTROL POWER ON/OFF” switch on the electrical panel is in the OFF position before opening the door. The toggle switch located inside the system controls the pump plumbed into the drum/tote located next to the system. Flip the toggle switch to the ON position until the level on the auxiliary level sensor reaches a maximum of 99%. Overfilling the tank can lead to a fault and the system will not run.
- When replacing drums/totes, be sure to keep the provided attachment and check the filter at the end of the plumbing before inserting into new drum/tote.
- *For optimum performance and results, Byers Scientific & Manufacturing recommends operating the unit full-time at a minimum output level of 3-4 equivalent gallons per day. The specified minimum level of output has been established based on calculations of deodorizer molar mass contrasted with a baseline typical malodor molar mass. When site-specific conditions necessitate a greater degree of output, the unit output may be increased up to 6-7 equivalent gallons of output. Please consult with Byers Scientific & Manufacturing personnel for assistance in programming your unit for scheduled production.*

MAINTENANCE

Our systems are built for minimal maintenance but will require occasional servicing. Please refer to the separate Maintenance Guide for detailed instructions on servicing the odor control unit.

TROUBLESHOOTING

FAN FAULTED	Contact Byers Scientific & Manufacturing with VFD Fault Code for further information
TRANSFER PUMP FAULTED	Pump motor issue, contact for replacement
EVAPORATION/AUXILIARY TANK FAULTED	Possible hi-limit controller issue, contact Byers Scientific & Manufacturing for further information

CONTACT INFORMATION

Byers Scientific & Manufacturing
2332 W. Industrial Park Drive
Bloomington, IN 47404
Phone: (812) 269-6218

E-mail: info@byers-scientific.com

WARRANTY

KGM Enterprises, Inc. d/b/a Byers Scientific & Manufacturing (Seller) warrants products of its own manufacture, against defects of material and workmanship under normal use and service for a period of THIRTY-SIX (36) months from the date of original installation for Purchaser. This warranty does not apply to any of Seller's products or any part thereof which has been subject to extraordinary wear and tear, accident, abuse, misuse, overloading, acts of God, negligence or alteration or repair by anyone not authorized by Seller. This warranty shall be void if the products are used in any matter other than as explicitly outlined in the product instruction manual. Purchaser's acceptance of the products from Seller indicates that Purchaser is assuming all liability for the consequences of its use or misuse by Purchaser, its employees or others. Further, the materials within Seller's odor control systems are specifically designed for use of Ecosorb® deodorizers. The use of any deodorizers other than Ecosorb® voids all warranties due to potential material incompatibilities that can cause harm to the system.

On products or product components furnished by Seller, but manufactured by others, such as fan motors, Seller extends the same warranty as Seller received from the manufacturer of the products or product components but makes no additional warranty.

THIS WARRANTY CONSTITUTES THE ENTIRE WARRANTY BETWEEN SELLER AND PURCHASER AND IS MADE IN LIEU OF ALL OTHER OBLIGATIONS AND LIABILITIES. SELLER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, RELATING TO THE PRODUCTS INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY EXCLUDED. IN NO EVENT SHALL SELLER BE LIABLE TO PURCHASER FOR ANY LOST PROFITS, INDIRECT, COLLATERAL, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH PURCHASER'S USE OR OPERATION OF THE PRODUCTS, OR FOR ANY OTHER CAUSE WHATSOEVER RELATING TO THE PRODUCTS OR THEIR SALE OR INSTALLATION.

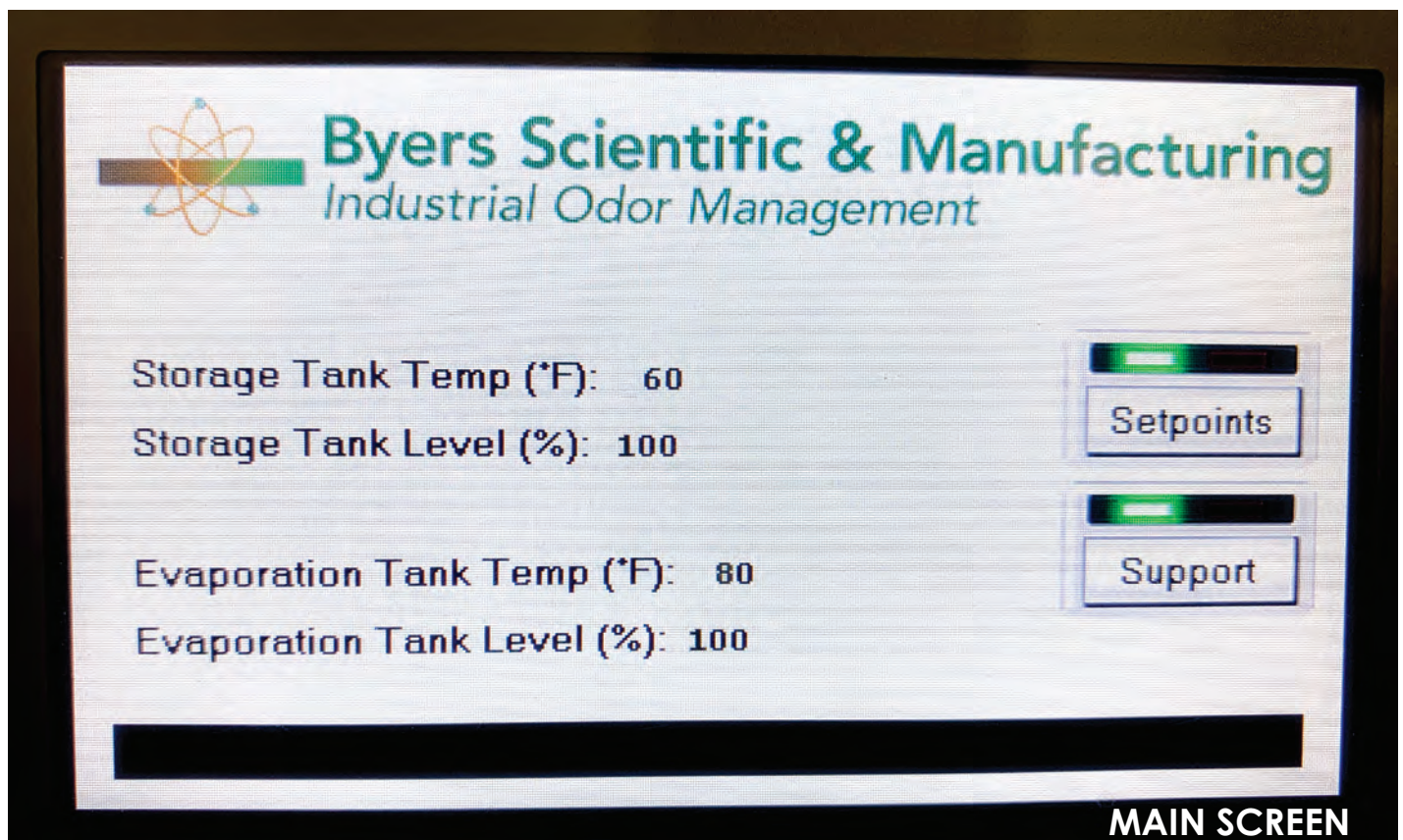
Should Purchaser believe it has a warranty claim, it must contact Seller via phone at 812-369-6218 or via email at info@byers-scientific.com to make arrangements for a review of the warranty claim. Expenses incurred by Purchasers in repairing or replacing any allegedly defective product or parts will not be allowed except where authorized in writing and signed by an officer of Seller.

HMI GUIDE

The touchscreen HMI (Human-Machine Interface) is located on the electrical control panel. The HMI will boot up automatically once the red handled electric disconnect on the panel is turned to the ON position. It takes about 30 seconds for it load the MAIN SCREEN. If the boot up process appears to be stuck/frozen, turn the yellow/red electric disconnect handle to the OFF position to reset and wait at least a minute before turning back ON. If the HMI does not boot up after resetting or any other initial boot up issues, please contact Byers Scientific for further troubleshooting.

MAIN SCREEN

The MAIN SCREEN is READ ONLY. The values displayed for the storage tank temperature, storage tank level, evaporation tank temperature and evaporation tank level cannot be changed on this screen. See SETPOINTS for instructions on how to manually change the input values.



SETPOINTS

The SETPOINTS screens are a combination of read only and input values. The values that are highlighted with YELLOW can be changed by touching within the YELLOW area.

Byers Scientific & Manufacturing
Industrial Odor Management

Main Fan Speed (%):	100.00
Static Pressure (inWC):	30.01
Evaporation Fan Speed (%):	100.00
Static Pressure (inWC):	1.40

Main
Next
Support

SETPOINT SCREEN ONE

Byers Scientific & Manufacturing
Industrial Odor Management

Main Fan Speed (%):	100.00
Static Pressure (inWC):	30.01
Evaporation Fan Speed (%):	100.00
Static Pressure (inWC):	1.40

Min: 0.00
Max: 100.00
100.00

◀ ▶ CLR CANCEL
7 8 9 BS ▲
4 5 6 DEL ▼
1 2 3 + ENT
0 . - T

SETPOINT SCREEN ONE WITH INPUT SELECTED

SETPOINTS CONT'D

Once the pop-up screen opens with the number pad, values can be changed to the desirable setpoint. Press ENTER to input the new value and close the pop-up screen.

NOTE: Values CANNOT be changed if scheduling has been enabled via Byers Scientific SCADA. Contact Byers Scientific to disable or change output schedule.

To go to the different SETPOINT screens, press the NEXT button.

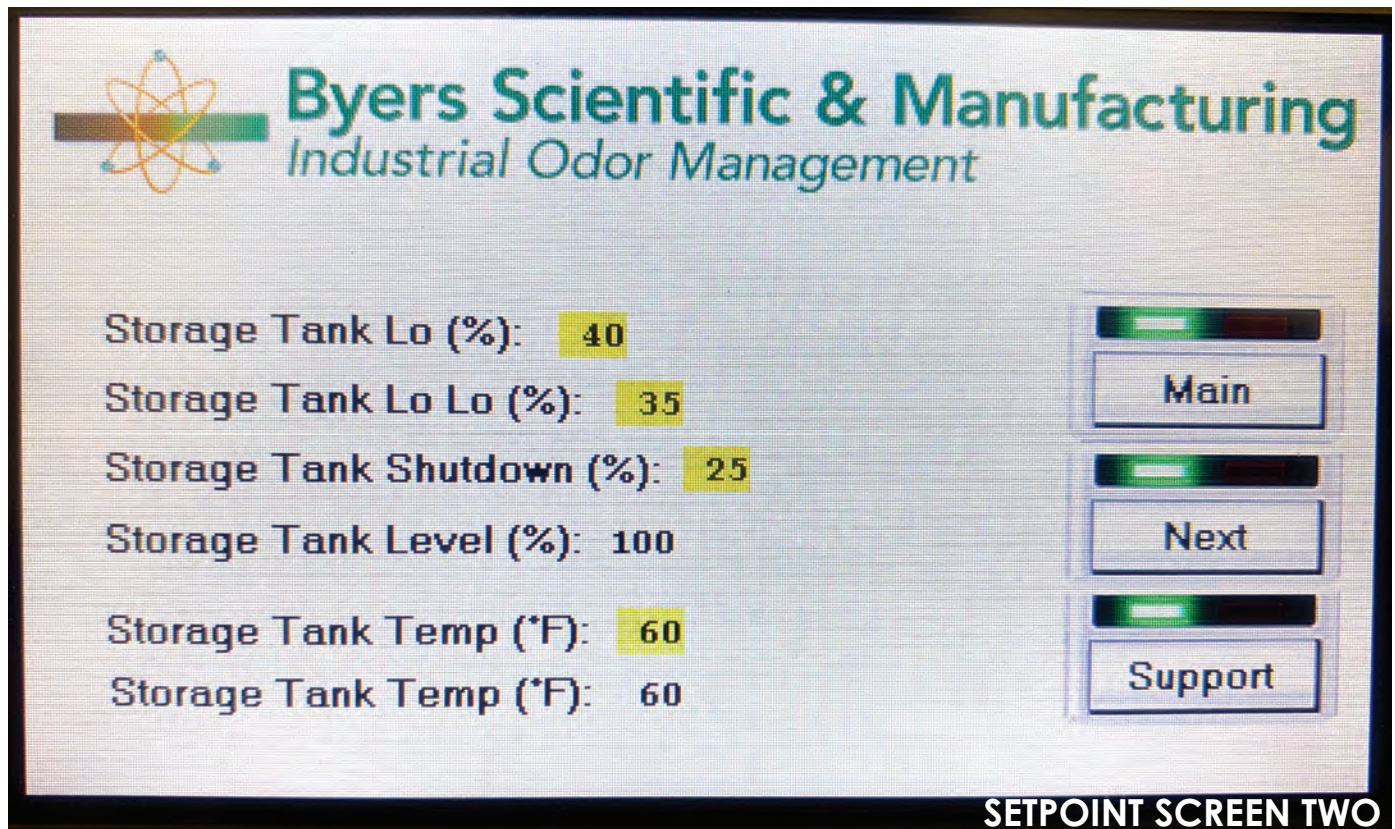
SETPOINT SCREEN ONE OF THREE

Main Fan Speed: 100% is based upon 60 Hz; manufacturer recommends not changing this value. This value can be set by Byers Scientific for scheduling via the SCADA.

Main Fan Static Pressure: Read-only value based upon Main Fan Speed

Evaporation Fan Speed: 100% is based upon 60 Hz; this value can be lowered if output of deodorizer needs to be decreased. This value can be set by Byers Scientific for scheduling via the SCADA.

Evaporation Fan Static Pressure: Read-only value based upon Evaporation Fan Speed



Byers Scientific & Manufacturing
Industrial Odor Management

Storage Tank Lo (%):	40
Storage Tank Lo Lo (%):	35
Storage Tank Shutdown (%):	25
Storage Tank Level (%):	100
Storage Tank Temp (*F):	60
Storage Tank Temp (*F):	60

Main
Next
Support

SETPOINT SCREEN TWO

SETPOINTS CONT'D

SETPOINT SCREEN TWO OF THREE

Storage Tank Setpoints are based upon the level of deodorizer required to remain in the tank for the circulation and transfer pump to function properly. For cold climate locations it is also used to keep the deodorizer from freezing and provide an adequate level of deodorizer over the heating element. Byers Scientific recommends that the setpoints for Storage Tank be kept at the initial set value.

For systems with a Storage Tank Heater, the Lo, Lo Lo, and Lo Lo Lo setpoint values can be safely altered to NO HEATER setpoints once past last date for frost in the spring. If this is done, the setpoint values must be reset back to original HEATER values once the first frost date approaches in the fall.

Storage Tank Lo:	NO HEATER: Minimum setpoint value 20% HEATER: Minimum setpoint value 40% A text/email alert will go out when this setpoint is reached to refill the tank within three (3) days
Storage Tank Lo Lo:	NO HEATER: Minimum setpoint value 15% HEATER: Minimum setpoint value 35% A text/email alert will go out when this setpoint is reached to refill the tank immediately or the system will shut down
Storage Tank Lo Lo Lo:	NO HEATER: Minimum setpoint value 5% HEATER: Minimum setpoint value 25% A text/email alert will go out when this setpoint is reached that the system is shut down to prevent harm to components
Storage Tank Level:	Read-only value of current storage tank level
Storage Tank Temperature:	NO HEATER: N/A HEATER: Minimum setpoint value 35°F. Recommended to be set at 60°F during freezing/near freezing temperatures and 35°F during above freezing temperatures.
Storage Tank Temperature:	Read-only value of current storage tank temperature

SETPOINTS CONT'D

SETPOINT SCREEN THREE OF THREE

Evaporation Tank Setpoints are based upon an adequate level of deodorizer over the heating element and headspace within the evaporation tank for vaporizing the deodorizer. Byers Scientific recommends that the setpoints for Evaporation Tank be kept at the initial set value.

Evaporation Tank Lo: Setpoint value 50%

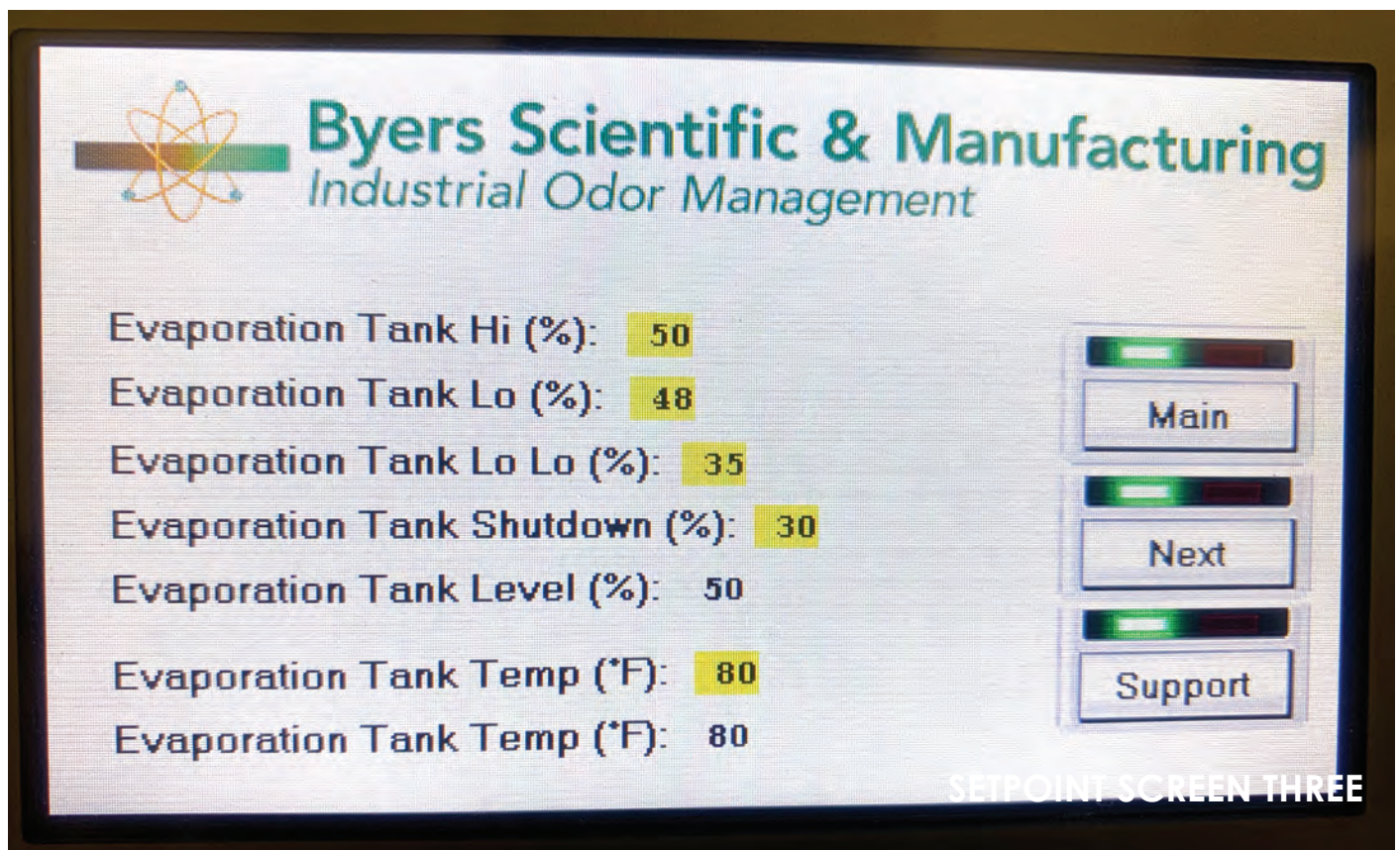
Evaporation Tank Lo Lo: Setpoint value 48%

Evaporation Tank Lo Lo Lo: Setpoint value 40%
A text/email alert will go out when this setpoint is reached that the system is shut down to prevent harm to components

Evaporation Tank Level: Read-only value of current storage tank level

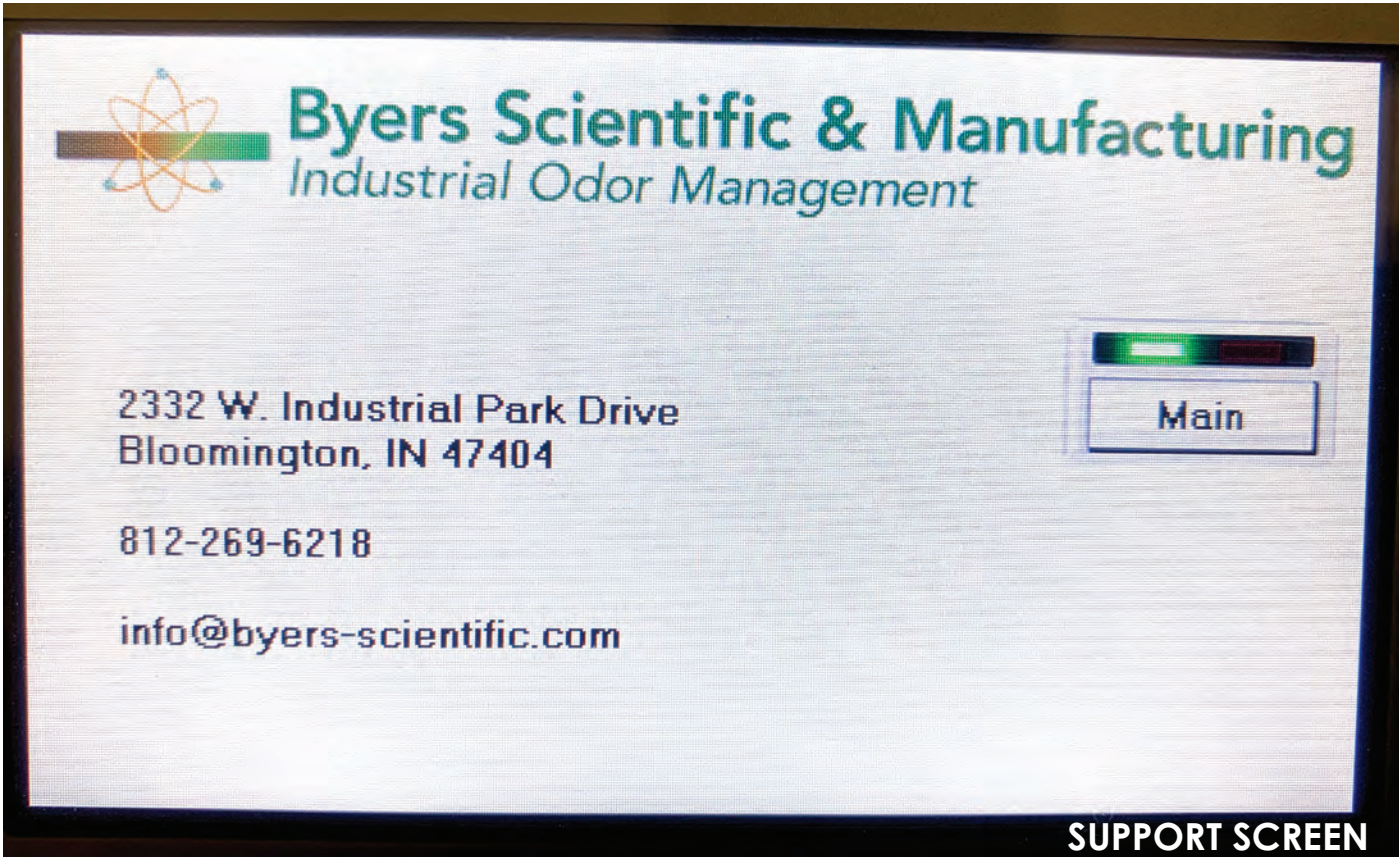
Evaporation Tank Temperature: Maximum setpoint value 95°F, minimum 80°F. This value can be set by Byers Scientific for scheduling via the SCADA.

Evaporation Tank Temperature: Read-only value of current storage tank temperature



SUPPORT

Provides contact information for Byers Scientific & Manufacturing for further support.



The image shows a support screen for Byers Scientific & Manufacturing. At the top left is the company logo, which consists of a stylized atom symbol with three blue electrons and a central nucleus, positioned to the left of a horizontal bar that transitions from brown to green. To the right of the logo, the company name "Byers Scientific & Manufacturing" is displayed in a large, bold, teal font, with the tagline "Industrial Odor Management" in a smaller, teal font below it. In the center-left area, the contact information is listed: "2332 W. Industrial Park Drive", "Bloomington, IN 47404", "812-269-6218", and "info@byers-scientific.com". On the right side, there is a rectangular button with a green bar at the top and the word "Main" in the center. At the bottom right corner of the screen, the text "SUPPORT SCREEN" is displayed in a bold, black font.

Byers Scientific & Manufacturing
Industrial Odor Management

2332 W. Industrial Park Drive
Bloomington, IN 47404

812-269-6218

info@byers-scientific.com

Main

SUPPORT SCREEN



ECOSORB CNB 107P

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 04/04/2019 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : ECOSORB CNB 107P

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Odor Neutralizer
Recommended use : Odor Neutralizer
Restrictions on use : None known

1.3. Supplier

Manufacturer

OMI Industries
1300 Barbour Way
Rising Sun, IN 47040 - U.S.A
T 1-847-304-9111

1.4. Emergency telephone number

Emergency number : 1-800-662-6367, Monday - Friday 8 am to 5 pm CST

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling
No labeling applicable

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None under normal conditions. Keep out of reach of children.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of HazCom 2012

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation : Move to fresh air if necessary.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : No other effects known.
Expected Symptoms/Effects, Acute and Delayed : No known effects from this product.
Symptoms/effects : None under normal use.
Symptoms/effects after inhalation : No effects known.
Symptoms/effects after skin contact : No effects known.
Symptoms/effects after eye contact : No effects known.
Symptoms/effects after ingestion : No effects known.
Symptoms/effects upon intravenous administration : No other effects known.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so.

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6.1.1. For non-emergency personnel

Protective equipment : Gloves and safety glasses recommended.
Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Does not require any specific or particular technical measures.
Storage conditions : Store in a well-ventilated place. Keep cool.
Incompatible products : Oxidizing agent. Strong acids.
Incompatible materials : Keep away from strong acids and strong oxidizers.
Storage temperature : 4 - 29 °C 40°F and 85°F Allowing product to freeze may cause layering.
Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: (strong) acids. oxidizing agents.
Storage area : Keep container in a well-ventilated place. Store in a cool area. Keep out of direct sunlight. Store in a well-ventilated place.
Special rules on packaging : Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

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Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves and safety glasses recommended.

Hand protection:

Protective gloves. Recommended

Eye protection:

Safety glasses. Recommended

Skin and body protection:

None under normal use

Respiratory protection:

Respiratory protection not required in normal conditions

Thermal hazard protection:

Not applicable.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: White liquid.
Color	: White
Odor	: Characteristic odour
Odor threshold	: No data available
pH	: 6 - 8.5
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: ≈ 99 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: ≈ 0.99
Solubility	: Soluble in water.
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: ≈ 1.1 cSt
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agent. Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified pH: 6 - 8.5
Serious eye damage/irritation	: Not classified pH: 6 - 8.5
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: ≈ 1.1 cSt
Likely routes of exposure	: Inhalation. Dermal.
Potential Adverse human health effects and symptoms	: No other effects known.
Expected Symptoms/Effects, Acute and Delayed	: No known effects from this product.
Symptoms/effects	: None under normal use.

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Symptoms/effects after inhalation : No effects known.
Symptoms/effects after skin contact : No effects known.
Symptoms/effects after eye contact : No effects known.
Symptoms/effects after ingestion : No effects known.
Symptoms/effects upon intravenous administration : No other effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

ECOSORB CNB 107P	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

ECOSORB CNB 107P	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

ECOSORB CNB 107P	
Ecology - soil	The product is predicted to have high mobility in soil. Soluble in water.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Avoid release to the environment.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

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Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

ECOSORB CNB 107P

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

ECOSORB CNB 107P

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

ECOSORB CNB 107P

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : None.

Abbreviations and acronyms:

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	ATE	Acute Toxicity Estimate
	BCF	Bioconcentration factor
	IATA	International Air Transport Association
	IMDG	International Maritime Dangerous Goods
	LC50	Median lethal concentration
	IARC	International Agency for Research on Cancer
	OECD	Organisation for Economic Co-operation and Development
	LD50	Median lethal dose
	SDS	Safety Data Sheet
	STP	Sewage treatment plant

Hazard Rating

Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection	: B B - Safety glasses, Gloves

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Attachment 4

	Odor Control and Management	
	Implementation Date: January 2020	
Last Reviewed/Update Date	10/8/2020	SOP Owner: Lindsay Cokeley

1. Approval Block

APPROVALS	TITLE	SIGNATURE & DATE
<i>Prepared By:</i>		
<i>Reviewed By:</i>		
<i>Approved By:</i>		
<i>Other:</i>		

2. Purpose

Central Coast Agriculture, Inc., (CCAg) has prepared this Odor Control and Management Plan for its cannabis cultivation, nursery, distribution and processing operations located at 8701 Santa Rosa Rd. Worksite ventilation and control of airborne contaminants and odors shall be minimized (wherever possible) within the workplace environment through engineering and administrative controls.

3. Scope

This plan applies to the cannabis farm and processing building located at 8701 Santa Rosa Rd.

4. Prerequisites

- SOP: All cannabis processing SOPs

5. Responsibilities


Employer Responsibilities:

- Update SOP as required.
- Train employees/contractors on this SOP.

Quality Control Manager (QC):

- Ensure this procedure is followed, remains consistent with current practices, and is reviewed and updated as necessary.
- Ensure employees involved have been trained on this SOP. *Date of training shall be documented and tracked on the L & D platform.*
- Follow up with staff as necessary.
- Review documentation and ensure documentation is maintained on site for a minimum of 7 years.

Employee/Contractor Responsibilities:

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- Must follow procedure exactly as written.
- Discuss issues or needs of updating SOP with upper management.

Odor Control and Management Designee:

- Primary contact for Odor Control and Management topics both inside the company and for third-parties, including regulatory agencies and complainants

6. Procedure

ODOR EMISSIONS

CCAg has identified potential odor sources, the potential timing of odors, and mitigation measures to ensure odors are not detected outside of designated areas.

ODOR SOURCES


CCAg will conduct operations associated with cannabis processing in a way which minimizes odor generation and resultant airborne emissions. Sources of odor are discussed below with references to plan sheets/floor plans.

- **Cannabis Processing Area (SD1.2)** Odors resulting from the processing of raw cannabis can result from the raw cannabis material being exposed to the environment after harvesting and prior to freezing. The emission of odor from the cannabis flowers throughout the freezing will be minimized as the process of freezing the material at harvest and then packaging in vacuum sealed bags while frozen would trap any potential terpenes or other odor emitting substances within the product to maintain maximum freshness.
- **Cultivation Areas (A1.1)** Odors emanating from plants during the flowering stage of the plants are restricted to 2-3 weeks twice a year, just before harvest.
- **Storage Areas (A1.2, D3.1)** Raw cannabis material will be stored in the Secure Storage area inside controlled freezers and/or designated areas at all times. All cannabis material shall be stored in 4mm vacuum sealed plastic bags to prevent odor emissions within storage areas.
- **Indoor Areas (D1.8, D1.7)** Odors emanating from plants grown indoors are minimized by design. All indoor areas are for immature plants and seed production plants. Due to the fact that immature plants will not be flowering, the odors coming from these plants are much less than those from the other cultivation areas.

ODOR MITIGATION

Airborne release of potential cannabis related odors, from any of the three source areas, will be mitigated through the use of engineering and administrative controls, as discussed below.

- **Engineering Controls** CCAg will use best control technology to ensure odors are minimized outside the project site boundaries or in common areas accessible to the public, such as Santa Rosa Rd.

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Also, CCAg proposes to use a Byers vapor phase odor neutralizing system in order to prevent odors from impacting nearby sensitive receptors.

Temperature monitoring of freezers will prevent thawing and escape of cannabis odors.

- **Administrative Controls** Procedures to ensure odors are minimized and/or precluded from being released and/or emitted outside include, but are not limited to, the following:
 - Ensure that authorized personnel work in their designated areas.
 - Establish procedures to manage odor complaints and train employees on odor mitigation.
 - Ensure that received Fresh Frozen material is received in frozen, vacuum sealed bags.
 - Stored Fresh Frozen materials remain sealed and frozen consistently.
 - Regular inspections to ensure odors are contained and properly mitigated to avoid impacts to sensitive receptors.

TRAINING


Staff will be trained on procedures for mitigating odor, as discussed above. Managers will be responsible for training new employees prior to beginning work in areas where there is potential for odor-emitting activities. Staff will be required to go through training on an annual basis to review odor mitigation procedures and best odor management and control practices. CCAg will maintain records of training as part of its record keeping procedures discussed below. Guidance for personnel to report odors abnormal externally detected odors.

RECORDKEEPING

Records pertaining to this Odor Control and Management Plan will include, but are not limited to, the following:

1. Performed maintenance logs for odor control equipment
2. Timing of maintenance will follow the manufacturer recommendations
3. Documentation and notification of equipment malfunctions
4. Documentation of odor complaints
5. Employee training logs
6. Documentation for review and changes to engineering and administrative controls

Physical and/or electronic training records will be maintained on site for a minimum period of seven years and archived electronically thereafter. Records will be available in either hard copy or electronic

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format for review by applicable agency personnel upon request.


ODOR COMPLIANCE

In accordance with applicable regulations, there will be a designee responsible for monitoring the odors 24/7 and primary contact person to respond to calls regarding nuisance odor complaints. The name and contact information for this person will be provided for complaints, and should follow the proper procedures. Within 4 business hours of receiving official notice of a complaint, the designee will readily make any adjustments or modifications to the odor abatement system as necessary to mitigate odor. The company will internally track complaints that are received and document the process including the following information:

1. Date & Time of the complaint
2. Name and contact (phone number and/or email) information of the complaining party
3. Date, time, and specific location as where the odor was observed by the complaining party, if known
4. A description of the odor including an intensity ranking from 1-5 (1 being mild and 5 being extremely strong), if known
5. The atmospheric/weather conditions including wind speed and direction if known at the time of the odor complaint
6. Location of the complaining party when first observed
7. Description of any activities observed by the complainant at or near the activities area during the odor observation (trucks entering or exiting the area, uncovered cannabis wastes near the property line, etc.), if known

Any necessary correction actions as a result from the odor complaint will be implemented to the odor abatement system and/or processes. The company will allow the City access to the facility for the purpose of inspecting the odor control system. If needed, the company will contract the services of a Professional Engineer or Certified Industrial Hygienist as a third party to document the corrective actions in the event of continuous nuisances.

ODOR CONTROL AND MANAGEMENT CONTACTS

<p>CENTRAL COAST AGRICULTURE INC</p> 	Odor Control and Management	
	Implementation Date: January 2020	
Last Reviewed/Update Date	10/8/2020	SOP Owner: Lindsay Cokeley

Odor Control and Management POC	Main Contact: JD Augustus	Phone: +1 805 895 2505 Email:jd@ccagriculture.com	Oversees all activities relating to the odor control and manages other team members
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7. **References**

- ISO 9001 Standard
- **CIVIL CODE - CIV DIVISION 4. GENERAL PROVISIONS [3274 - 9566]** (*Heading of Division 4 amended by Stats. 1988, Ch. 160, Sec. 16.*) **PART 3. NUISANCE [3479 - 3508.2]** (*Part 3 enacted 1872.*) **TITLE 1. GENERAL PRINCIPLES [3479 - 3486.5]** (*Title 1 enacted 1872.*) **3479.**
- County of Santa Barbara Land Use and Development Code Chapter 35 Section 42.075
- <https://www.ourair.org/wp-content/uploads/APCD-Cannabis-Advisory-v2.pdf>

8. **Definitions**

N/A

9. **Forms**

N/A

10. **Revision History**

See Google Doc Log for detailed [revision history](#)

SHEET INDEX

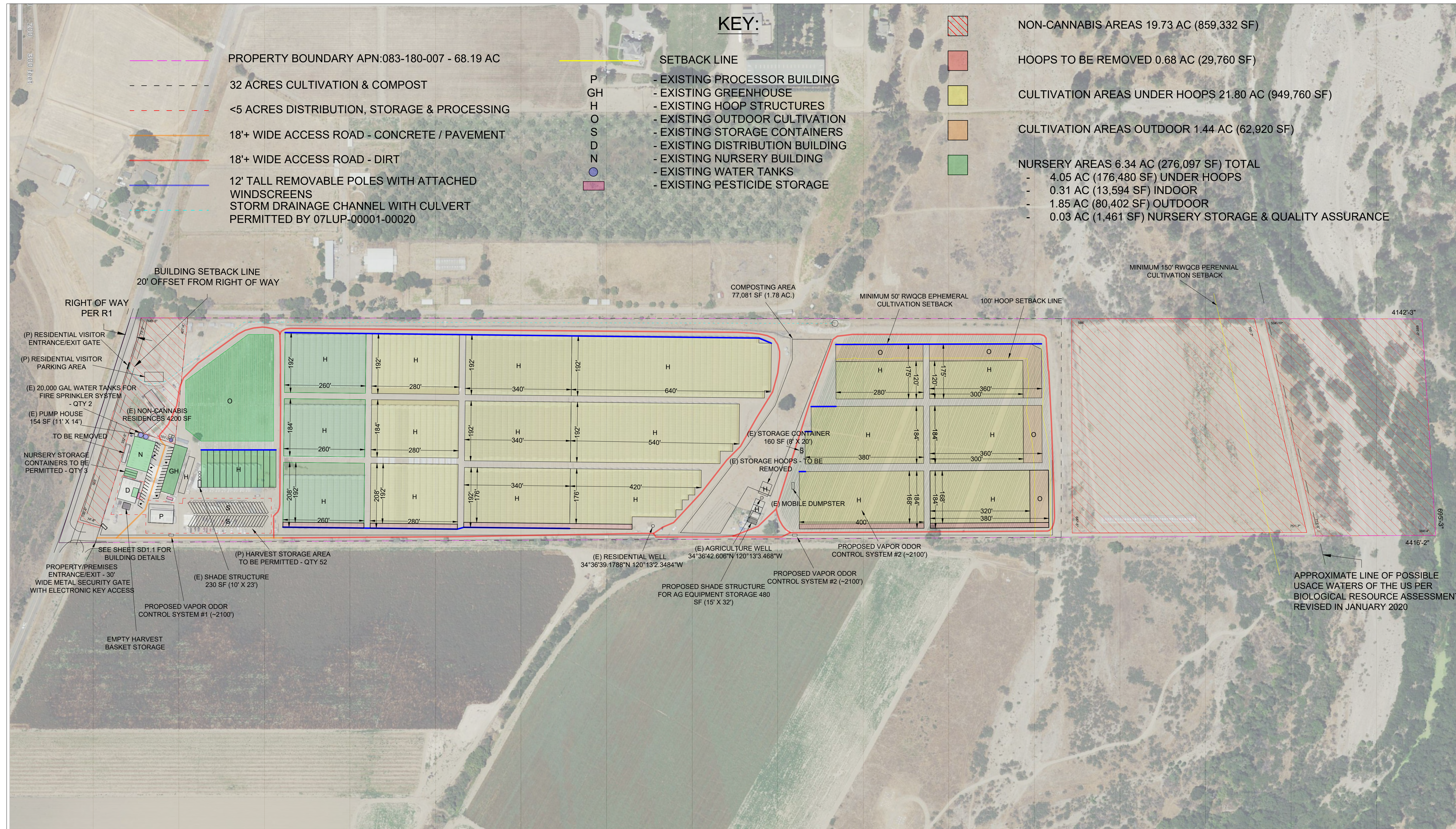
A1.1	PROPERTY DIAGRAM
SD1.1	STRUCTURE DETAIL
SD1.2	PROCESSING WAREHOUSE DETAIL
SD1.3	TREES
D1.7	GREENHOUSE FLOOR PLAN / ELEVATIONS
D1.8	CONTAINER BUILDING FLOOR PLAN / ELEVATIONS
D3.1	HARVEST STORAGE DETAIL
D3.3	DISTRIBUTION BUILDING DETAIL
L1.1	OUTDOOR LIGHTING DETAIL
L1.2	OUTDOOR LIGHTING TYP.
T1.1	TRAFFIC AND NOISE PLAN
T1.2	TRAFFIC AND NOISE PLAN DETAIL
IR1.1	IRRIGATION DIAGRAM
SF1.1	SECURITY AND FENCING PLAN

KEY:

- PROPERTY BOUNDARY APN:083-180-007 - 68.19 AC
- 32 ACRES CULTIVATION & COMPOST
- <5 ACRES DISTRIBUTION, STORAGE & PROCESSING
- 18'+ WIDE ACCESS ROAD - CONCRETE / PAVEMENT
- 18'+ WIDE ACCESS ROAD - DIRT
- 12' TALL REMOVABLE POLES WITH ATTACHED WINDSCREENS
- STORM DRAINAGE CHANNEL WITH CULVERT PERMITTED BY 07LUP-00001-00020

- P - EXISTING PROCESSOR BUILDING
- GH - EXISTING GREENHOUSE
- H - EXISTING HOOP STRUCTURES
- O - EXISTING OUTDOOR CULTIVATION
- S - EXISTING STORAGE CONTAINERS
- D - EXISTING DISTRIBUTION BUILDING
- N - EXISTING NURSERY BUILDING
- W - EXISTING WATER TANKS
- PS - EXISTING PESTICIDE STORAGE

- NON-CANNABIS AREAS 19.73 AC (859,332 SF)
- HOOPS TO BE REMOVED 0.68 AC (29,760 SF)
- CULTIVATION AREAS UNDER HOOPS 21.80 AC (949,760 SF)
- CULTIVATION AREAS OUTDOOR 1.44 AC (62,920 SF)
- NURSERY AREAS 6.34 AC (276,097 SF) TOTAL
 - 4.05 AC (176,480 SF) UNDER HOOPS
 - 0.31 AC (13,594 SF) INDOOR
 - 1.85 AC (80,402 SF) OUTDOOR
 - 0.03 AC (1,461 SF) NURSERY STORAGE & QUALITY ASSURANCE



No.	Revision/Issue	Date

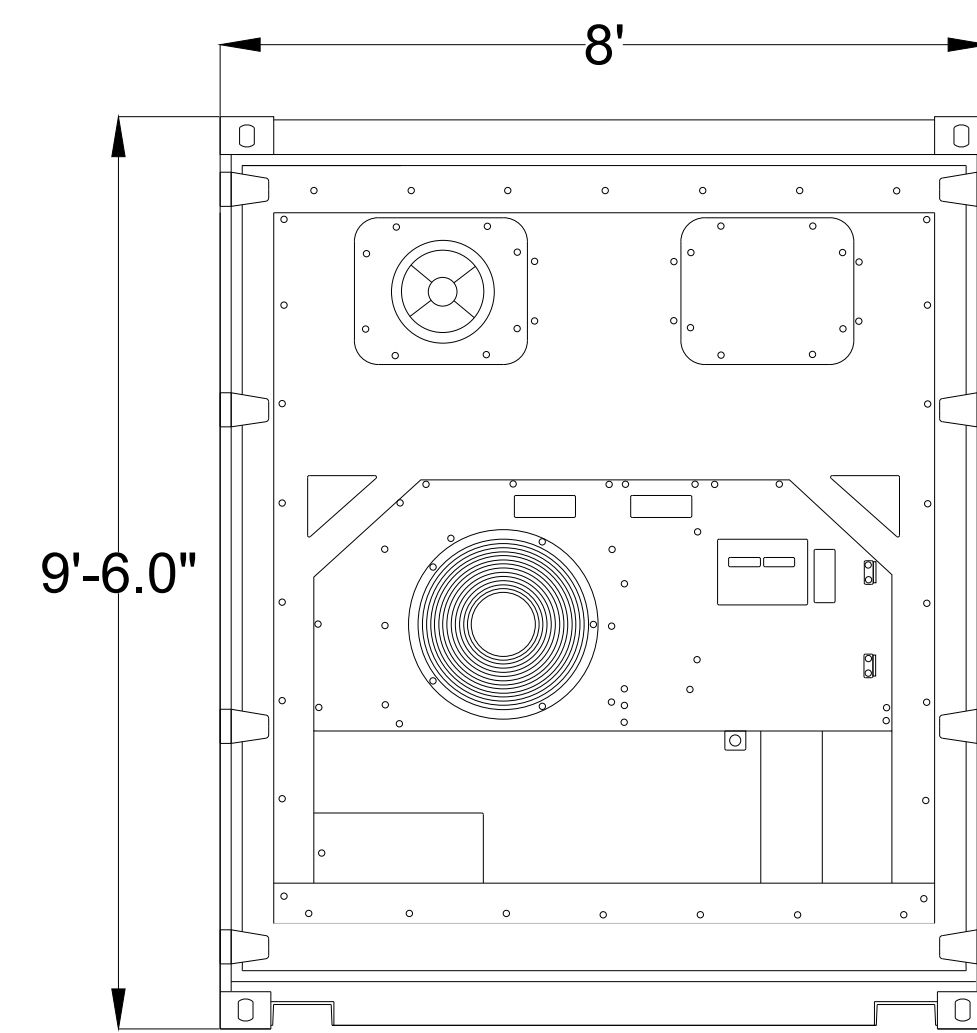


CULTIVATION AND PROCESSING SITE
 8701 SANTA ROSA RD.
 BUELLTON, CA.
 APN: 083-180-007

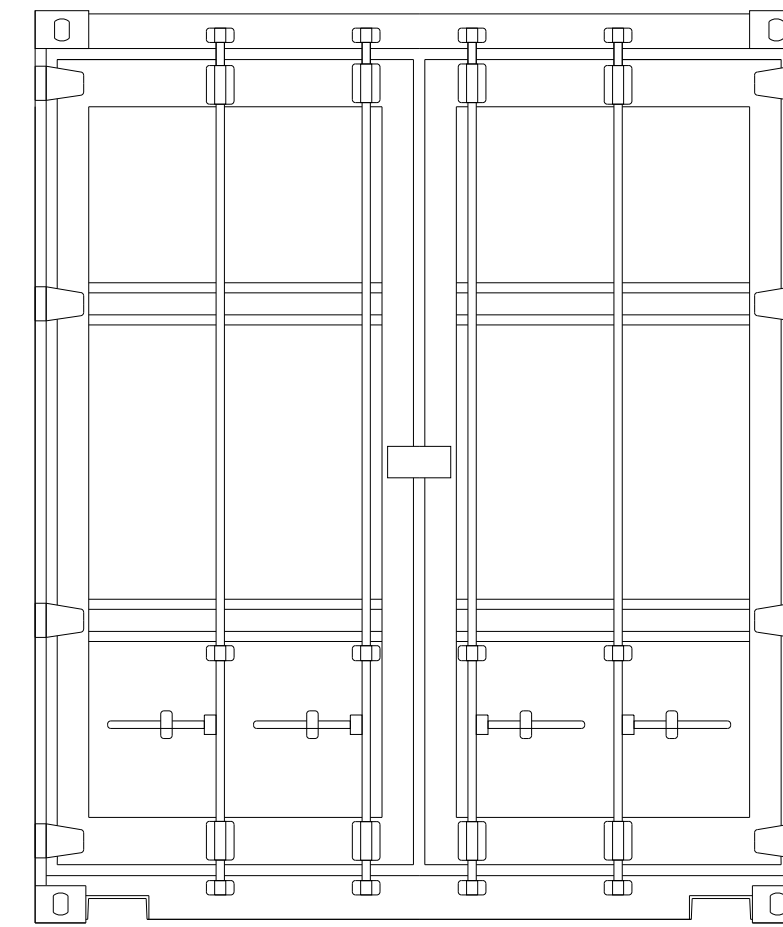
OWNER: BLUE RIBBON FARMS, LLC
 APPLICANT: CENTRAL COAST AGRICULTURE, INC.
 AGENT: MATTHEW T. ALLEN
 LOT SIZE: 68.12 AC.
 CANNABIS DEVELOPMENT(E): 24.07 AC.
 CANNABIS NURSERY(P): 5.65 AC.

Project	Sheet
8701 SANTA ROSA RD BUELLTON CA	A1.1
Date	
AUGUST 2020	
Scale	1 in. = 168 ft.

HARVEST STORAGE AREA DETAIL:

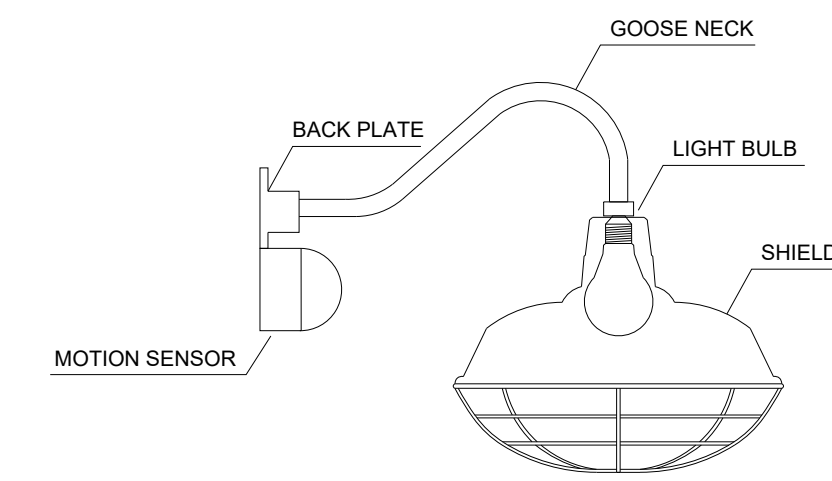


BACK VIEW
(NOT VISIBLE)



FRONT VIEW

MOTION ACTIVATED
DOWNWARD-FACING SECURITY LIGHTING



SCALE: 1/2" = 1'



SIDE VIEW

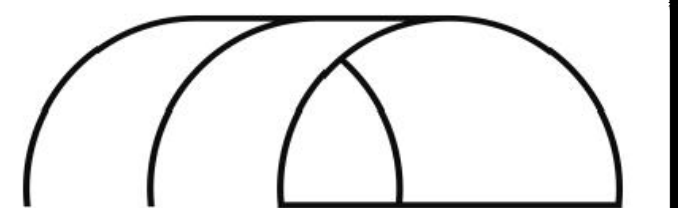
NOTE: AGRICULTURAL ACCESSORY STRUCTURE TO BE PERMITTED BY 19CUP-00000-00005 / 19DVP-00000-00010
SINGLE UNIT = 89dB

SCALE: 1/4" = 1'

SHEET INDEX

A1.1	PROPERTY DIAGRAM
SD1.1	STRUCTURE DETAIL
SD1.2	PROCESSING WAREHOUSE DETAIL
SD1.3	TREES
D1.7	GREENHOUSE FLOOR PLAN / ELEVATIONS
D1.8	CONTAINER BUILDING FLOOR PLAN / ELEVATIONS
D3.1	HARVEST STORAGE DETAIL
D3.3	DISTRIBUTION BUILDING DETAIL
L1.1	OUTDOOR LIGHTING DETAIL
L1.2	OUTDOOR LIGHTING TYP.
T1.1	TRAFFIC AND NOISE PLAN
T1.2	TRAFFIC AND NOISE PLAN DETAIL
IR1.1	IRRIGATION DIAGRAM

No.	Revision/Issue	Date



CENTRAL COAST AG FARMING, LLC

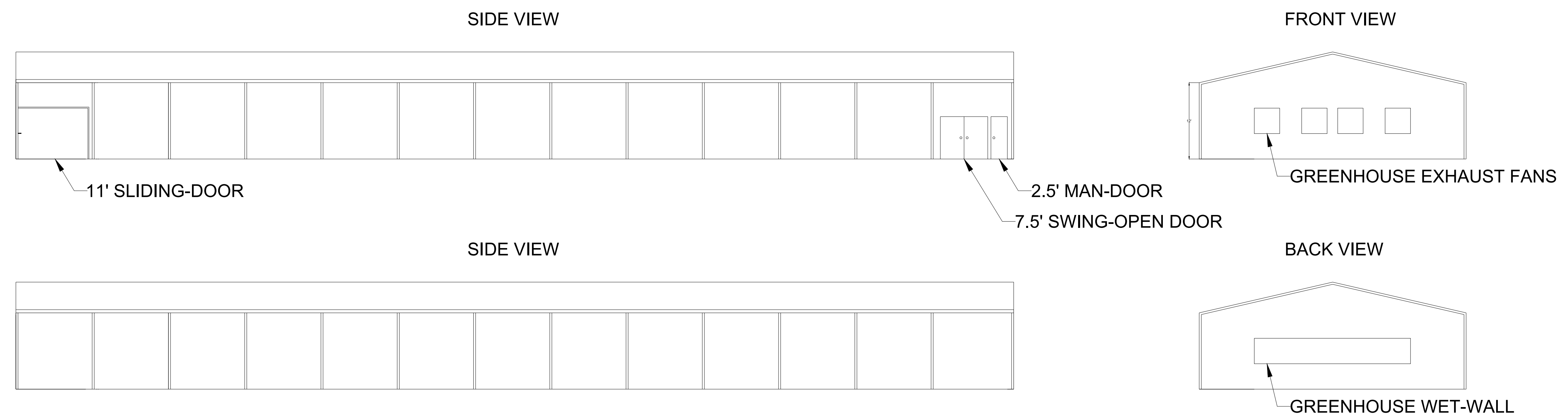
CULTIVATION AND PROCESSING SITE
8701 SANTA ROSA RD.
BUELLTON, CA.
APN: 083-180-007

OWNER: BLUE RIBBON FARMS, LLC
APPLICANT: CENTRAL COAST AGRICULTURE, INC.
AGENT: MATTHEW T. ALLEN
LOT SIZE: 68.12 AC.
CANNABIS DEVELOPMENT(E): 24.07 AC.
CANNABIS NURSERY(P): 5.65 AC.

Project 8701 SANTA ROSA RD BUELLTON CA	Sheet D3.1
Date AUGUST 2020	
Scale SCALE AS DEPICTED	

PERMITTED BY 03DVP-00000-00026

BUILDING TO BE USED FOR
NURSERY SEED PRODUCTION
PLANTS AND IMMATURE PLANTS



GREENHOUSE DETAIL

SHEET INDEX

A1.1	PROPERTY DIAGRAM
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SD1.2	PROCESSING WAREHOUSE DETAIL
SD1.3	TREES
D1.7	GREENHOUSE FLOOR PLAN / ELEVATIONS
D1.8	CONTAINER BUILDING FLOOR PLAN / ELEVATIONS
D3.1	HARVEST STORAGE DETAIL
D3.3	DISTRIBUTION BUILDING DETAIL
L1.1	OUTDOOR LIGHTING DETAIL
L1.2	OUTDOOR LIGHTING TYP.
T1.1	TRAFFIC AND NOISE PLAN
T1.2	TRAFFIC AND NOISE PLAN DETAIL
IR1.1	IRRIGATION DIAGRAM

No.	Revision/Issue	Date

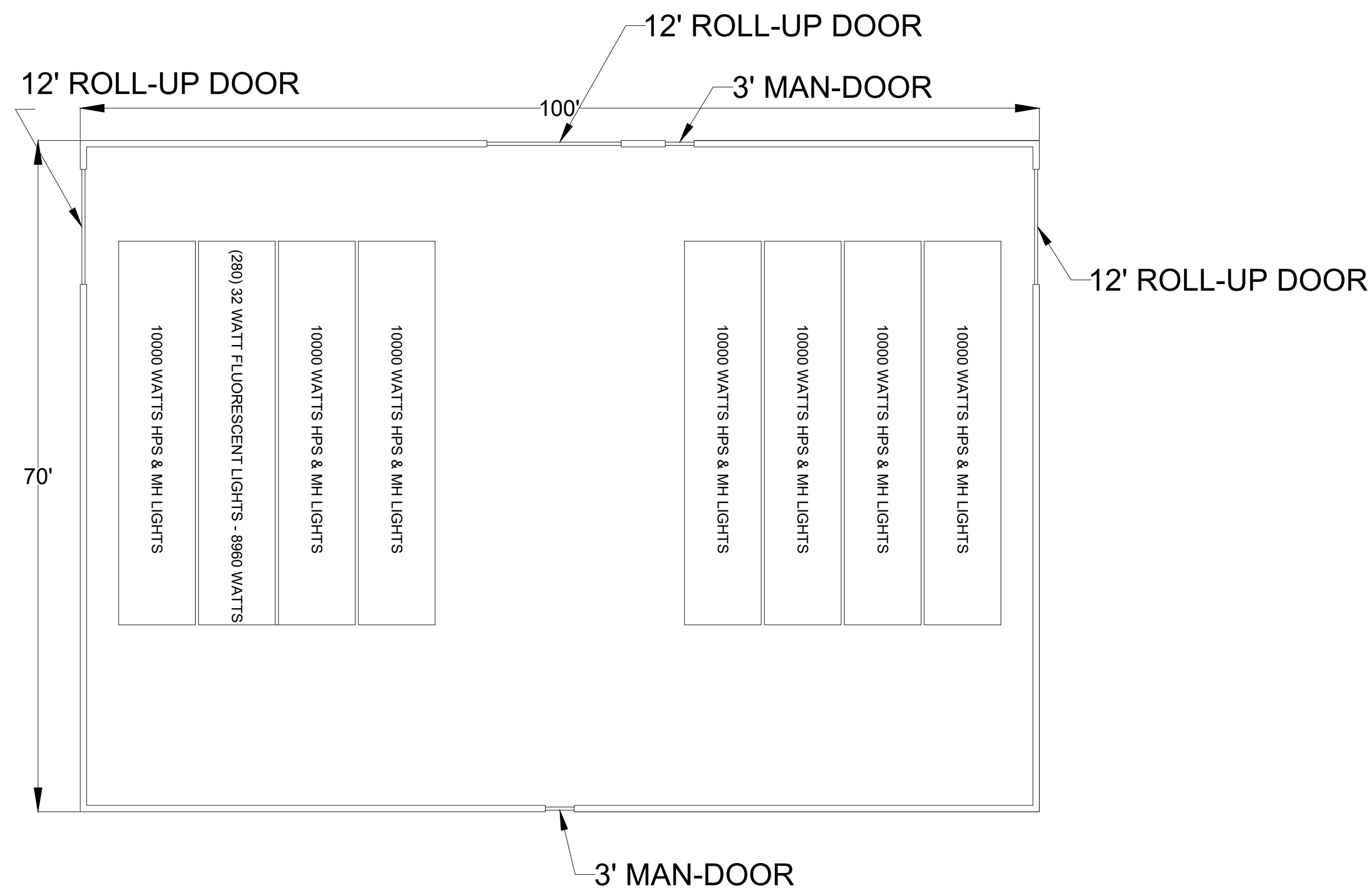


CULTIVATION AND PROCESSING SITE
8701 SANTA ROSA RD.
BUELLTON, CA.
APN: 083-180-007

OWNER: BLUE RIBBON FARMS, LLC
APPLICANT: CENTRAL COAST AGRICULTURE, INC.
AGENT: MATTHEW T. ALLEN
LOT SIZE: 68.12 AC.
CANNABIS DEVELOPMENT(E): 24.07 AC.
CANNABIS NURSERY(P): 5.65 AC.

Project 8701 SANTA ROSA RD BUELLTON CA	Sheet D1.7
Date MARCH 2020	
Scale 1 in. = 10 ft.	

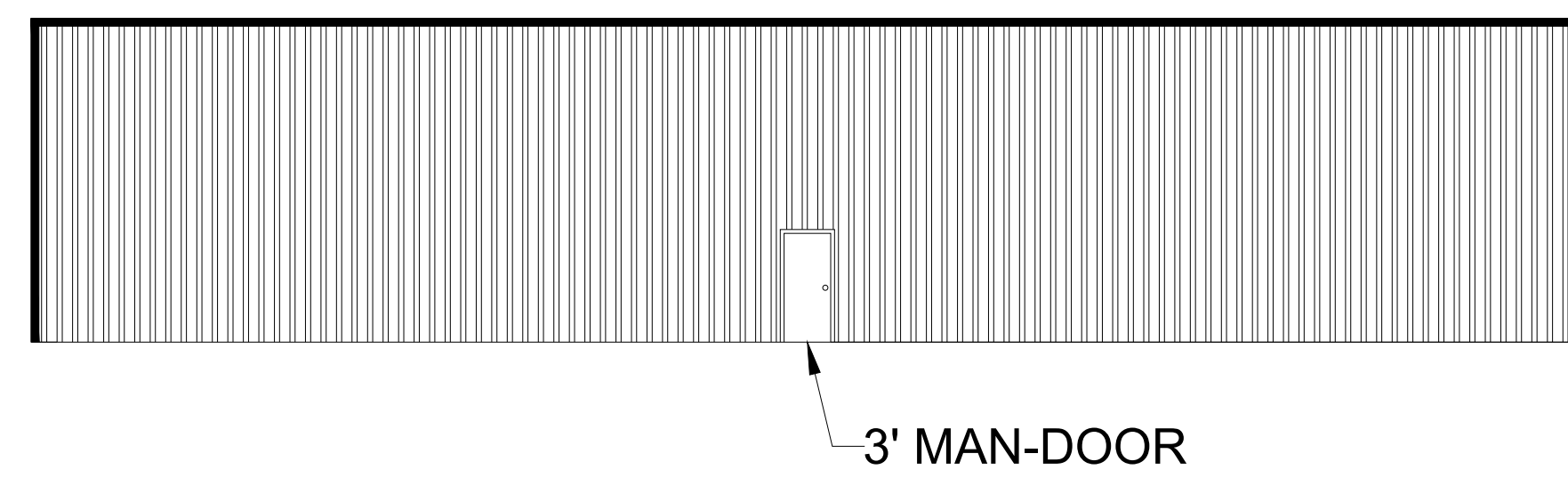
FLOOR PLAN



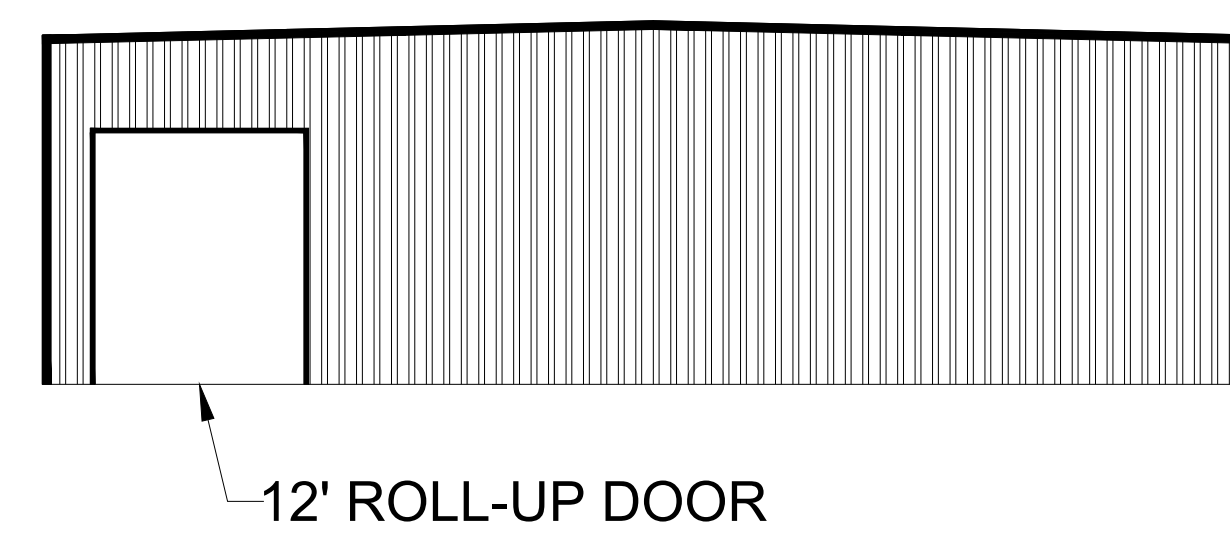
PERMITTED BY:
03DVP-00000-00026
16ELE-00000-00082

BUILDING TO BE
USED FOR
NURSERY. SEED
PRODUCTION,
STORAGE, AND
PLANT CUTTINGS.

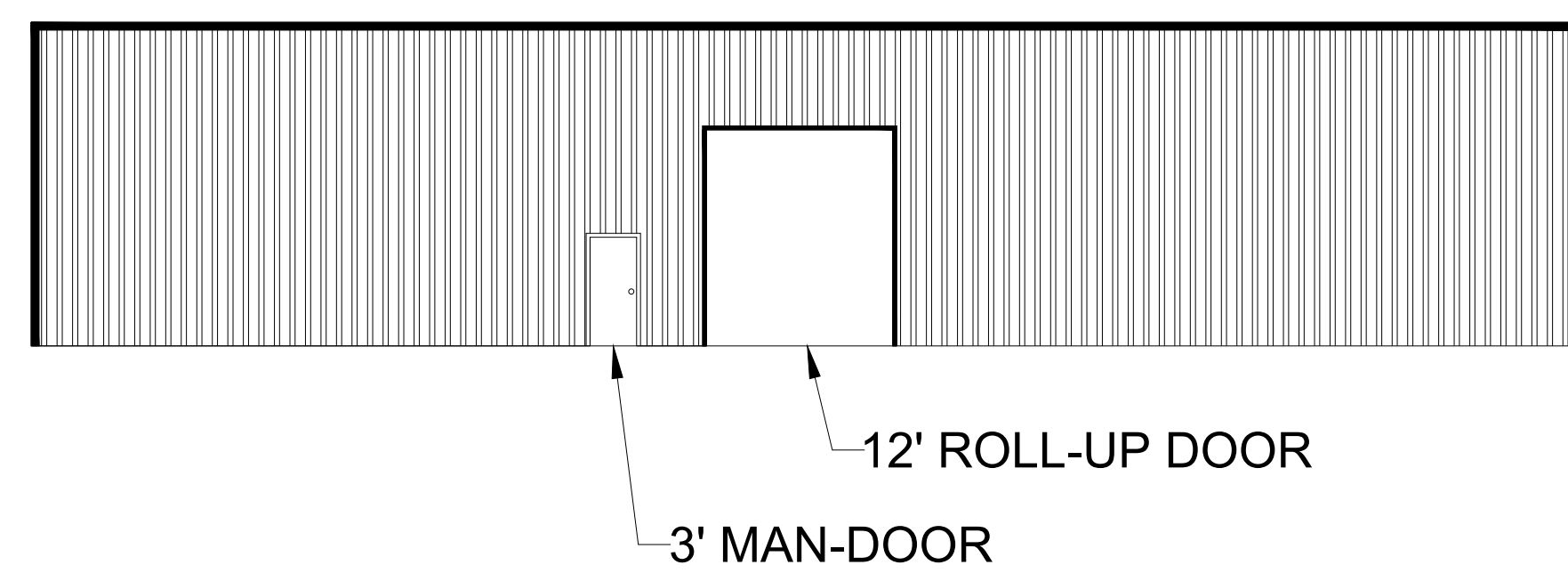
BACK VIEW



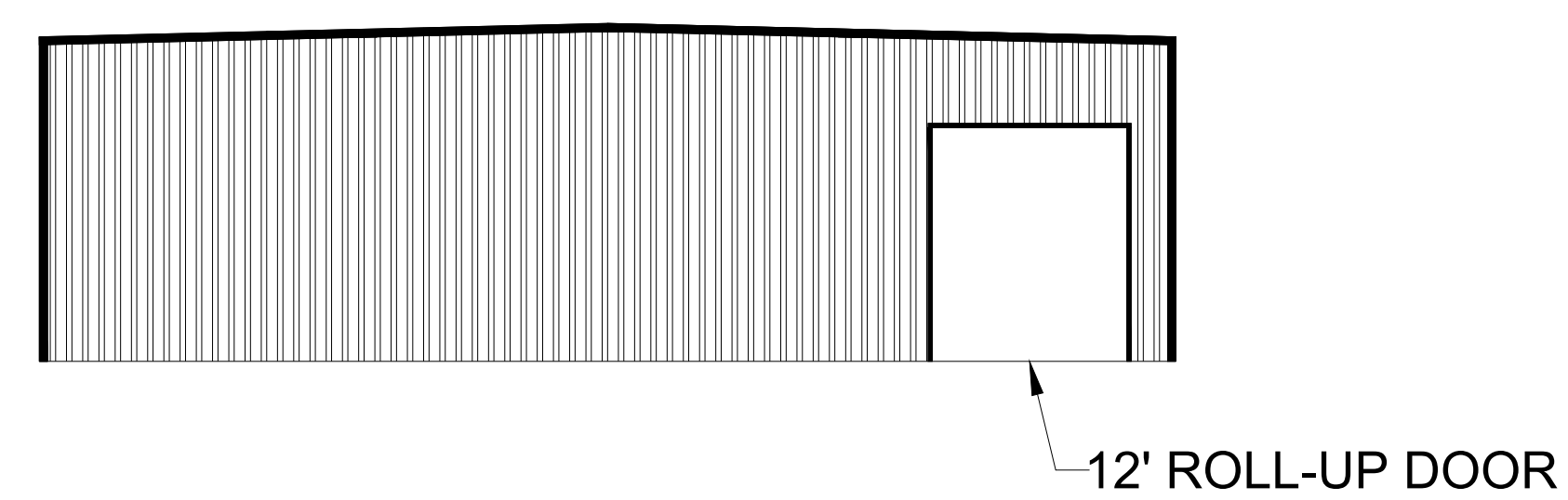
SIDE VIEW



FRONT VIEW



SIDE VIEW



NURSERY BUILDING DETAIL

SHEET INDEX

A1.1	PROPERTY DIAGRAM
SD1.1	STRUCTURE DETAIL
SD1.2	PROCESSING WAREHOUSE DETAIL
SD1.3	TREES
D1.7	GREENHOUSE FLOOR PLAN / ELEVATIONS
D1.8	CONTAINER BUILDING FLOOR PLAN / ELEVATIONS
D3.1	HARVEST STORAGE DETAIL
D3.3	DISTRIBUTION BUILDING DETAIL
L1.1	OUTDOOR LIGHTING DETAIL
L1.2	OUTDOOR LIGHTING TYP.
T1.1	TRAFFIC AND NOISE PLAN
T1.2	TRAFFIC AND NOISE PLAN DETAIL
IR1.1	IRRIGATION DIAGRAM

No.	Revision/Issue	Date

CENTRAL COAST AG FARMING, LLC

CULTIVATION AND PROCESSING SITE
8701 SANTA ROSA RD.
BUELLTON, CA.
APN: 083-180-007

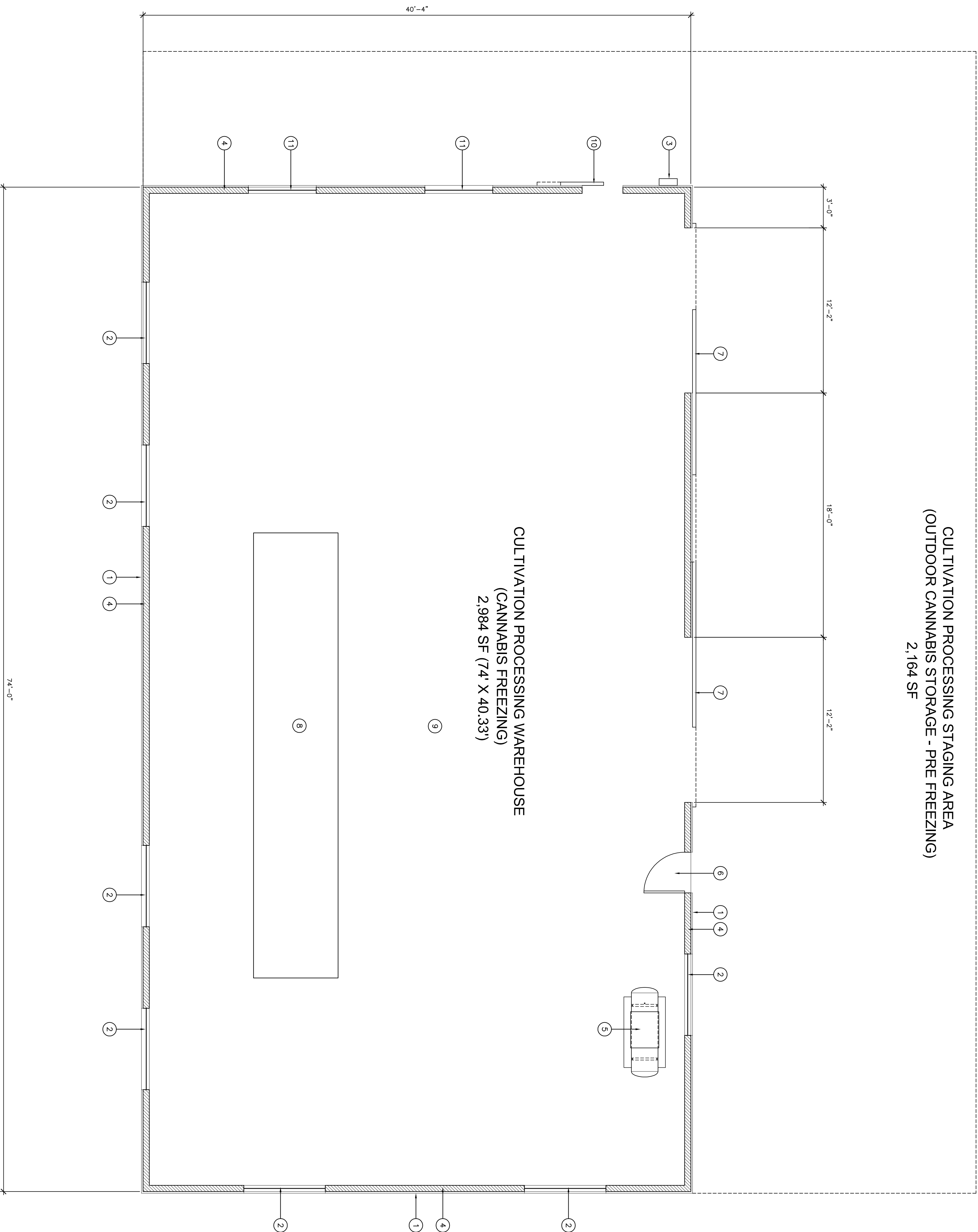
OWNER: BLUE RIBBON FARMS, LLC
APPLICANT: CENTRAL COAST AGRICULTURE, INC.
AGENT: MATTHEW T. ALLEN
LOT SIZE: 68.12 AC.
CANNABIS DEVELOPMENT(E): 24.07 AC.
CANNABIS NURSERY(P): 5.65 AC.

Project 8701 SANTA ROSA RD BUELLTON CA	Sheet D1.8
Date MARCH 2020	
Scale 1 in. = 11 ft.	

BUILDING PERMITTED BY
03DVP-00000-00026
APN: 083-180-007

CULTIVATION PROCESSING STAGING AREA
(OUTDOOR CANNABIS STORAGE - PRE FREEZING)
2,164 SF

CULTIVATION PROCESSING WAREHOUSE
(CANNABIS FREEZING)
2,984 SF (74' X 40.33')



ELEVATION REF NOTES

- 1 EXISTING PRE-ENGINEERED STEEL WALL PANELS.
- 2 EXISTING 6'-0" X 3'-0" ALUMINUM SLIDING WINDOW.
- 3 EXISTING MAIN ELECTRICAL SERVICE DISCONNECT.
- 4 EXISTING 2 X 6 STUDS @ 16" O.C. FRAMED WALL.
- 5 PROPOSED AIR COMPRESSOR.
- 6 EXISTING 3'-0" X 7'-0" STEEL DOOR.
- 7 EXISTING 12'-0" X 12'-0" ROLLING STEEL SERVICE DOOR WITH OVERHEAD TRACK (BOTH DOORS ROLL ON SAME TRACK).
- 8 PROPOSED ORGONEIC FREEZER TUNNEL.
- 9 EXISTING CONCRETE SLAB FLOOR.
- 10 EXISTING 3'-0" X 7'-0" ROLLING STEEL DOOR.
- 11 EXISTING 5'-0" X 3'-0" ALUMINUM SLIDING WINDOW.

SHEET INDEX

- A1.1 PROPERTY DIAGRAM
- SD1.1 STRUCTURE DETAIL
- SD1.2 PROCESSING WAREHOUSE DETAIL
- SD1.2B PROCESSING WAREHOUSE ELEVATIONS
- SD1.3 TREES
- D1.7 GREENHOUSE FLOOR PLAN / ELEVATIONS
- D1.8 CONTAINER BUILDING FLOOR PLAN / ELEVATIONS
- D3.1 HARVEST STORAGE DETAIL
- D3.3 DISTRIBUTION BUILDING DETAIL
- L1.1 OUTDOOR LIGHTING DETAIL
- L1.2 OUTDOOR LIGHTING TYP.
- T1.1 TRAFFIC AND NOISE PLAN
- T1.2 TRAFFIC AND NOISE PLAN DETAIL
- IR1.1 IRRIGATION DIAGRAM

FLOOR PLAN

SCALE: 1/4" = 1'-0"



DATE
3-22-2020

JOB NO.
RA-294

JOB TITLE
CENTRAL COAST AGRICULTURE, LLC
8701 SANTA ROSA ROAD, BUELLTON, CA

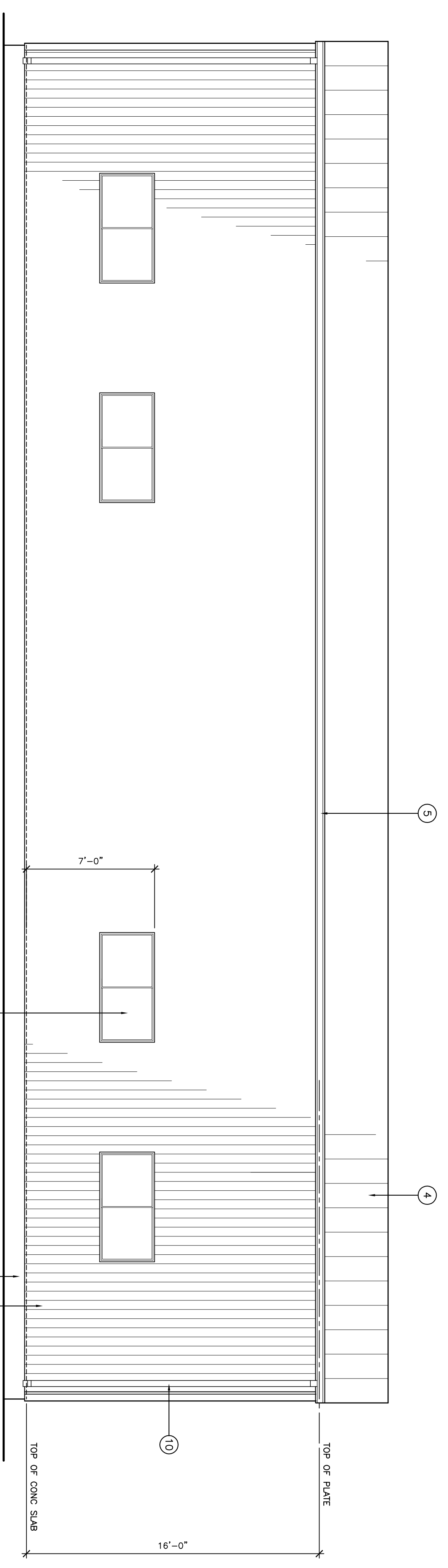
SHEET TITLE
CULTIVATION AND PROCESSING WAREHOUSE
EXISTING BUILDING FLOOR PLAN

DATE	REVISION

REESE & ASSOCIATE • ARCHITECT
115 EAST COLLEGE AVENUE, SUITE 5, LOMPOC, CALIFORNIA 93436
PHONE: (805) 736-8117 FAX: (805) 736-7174

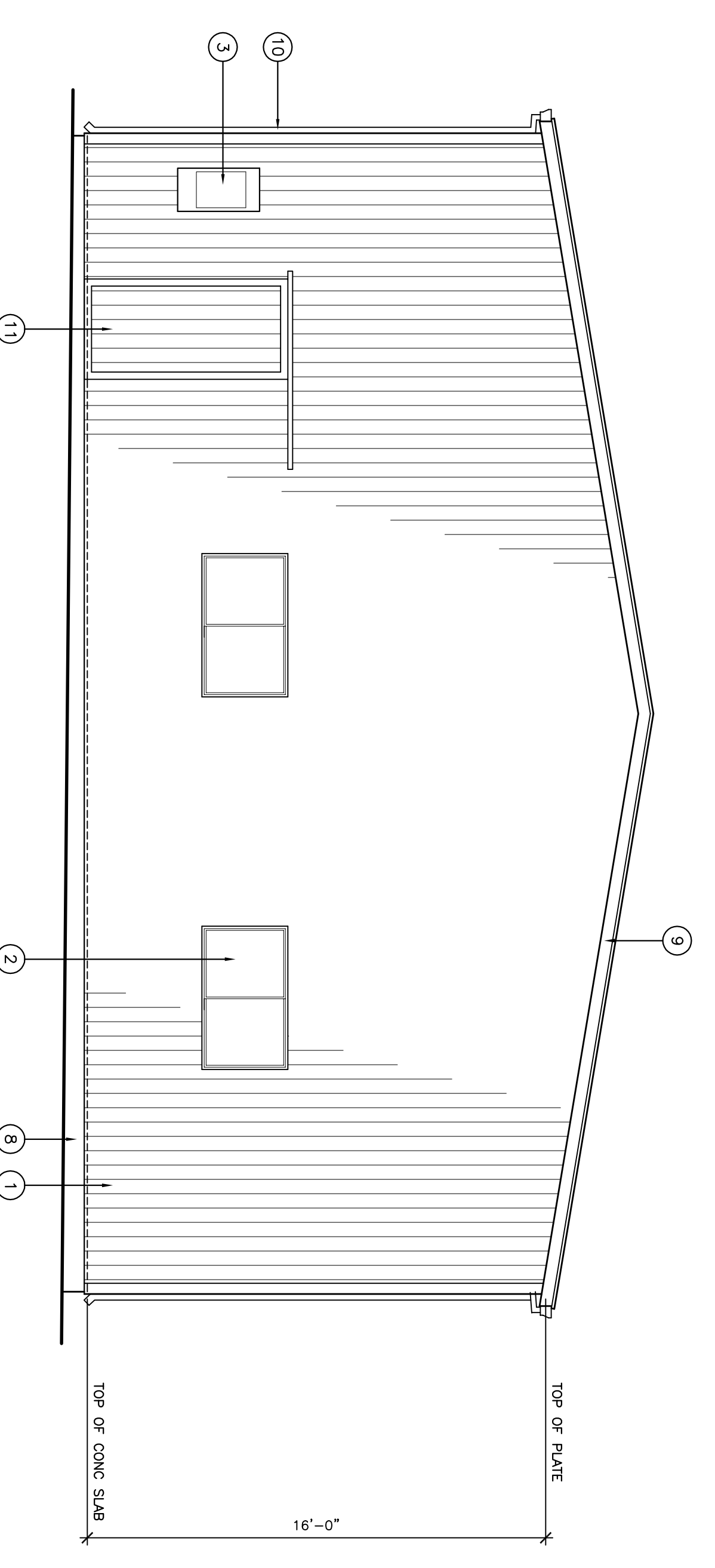
SD1.2

SHEET NO.



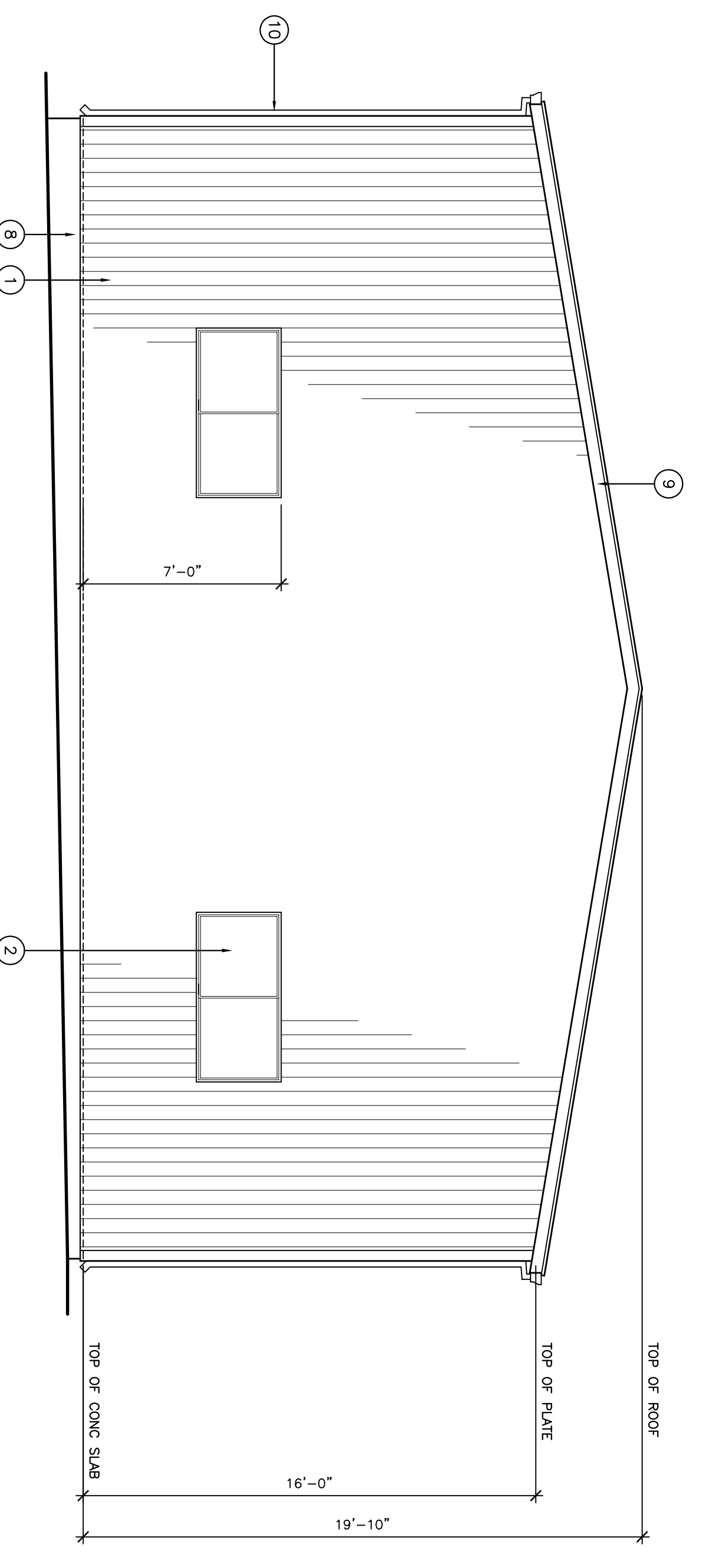
EAST ELEVATION

SCALE: 1/4" = 1'-0"



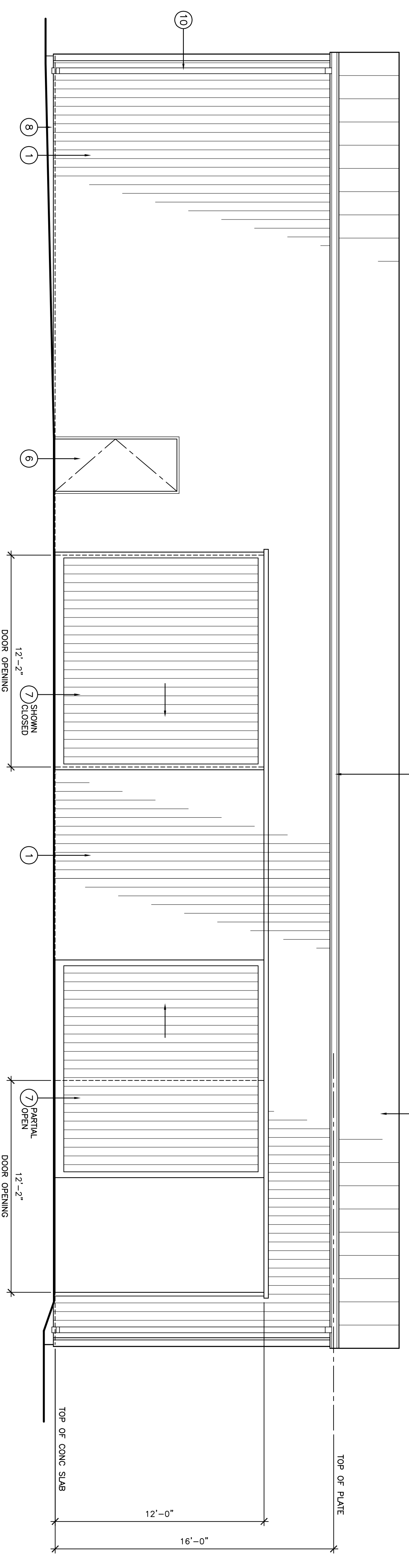
SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



NORTH ELEVATION

SCALE: 1/4" = 1'-0"



WEST ELEVATION

SCALE: 1/4" = 1'-0"

ELEVATION REF NOTES

- ① EXISTING PRE-ENGINEERED STEEL WALL PANELS.
- ② EXISTING ALUMINUM SLIDING WINDOWS.
- ③ EXISTING MAIN ELECTRICAL SERVICE DISCONNECT.
- ④ EXISTING PRE-ENGINEERED STEEL ROOF PANELS.
- ⑤ EXISTING PRE-ENGINEERED STEEL ROOF GUTTER.
- ⑥ EXISTING 3'-0" X 7'-0" STEEL DOOR.
- ⑦ EXISTING 12'-0" X 12'-0" ROLLING STEEL SERVICE DOOR WITH OVERHEAD TRACK (BOTH DOORS ROLL ON SAME TRACKS).
- ⑧ EXISTING CONCRETE FOUNDATION.
- ⑨ EXISTING PRE-ENGINEERED STEEL RAKE TRIM.
- ⑩ EXISTING PRE-ENGINEERED STEEL ROOF DOWNSPOUT.
- ⑪ EXISTING 3'-0" X 7'-0" ROLLING STEEL DOOR.

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- A1.1 PROPERTY DIAGRAM
- SD1.1 STRUCTURE DETAIL
- SD1.2 PROCESSING WAREHOUSE DETAIL
- SD1.2B PROCESSING WAREHOUSE ELEVATIONS
- SD1.3 TREES
- D1.7 GREENHOUSE FLOOR PLAN / ELEVATIONS
- D1.8 CONTAINER BUILDING FLOOR PLAN / ELEVATIONS
- D3.1 HARVEST STORAGE DETAIL
- D3.3 DISTRIBUTION BUILDING DETAIL
- L1.1 OUTDOOR LIGHTING DETAIL
- L1.2 OUTDOOR LIGHTING TYP.
- T1.1 TRAFFIC AND NOISE PLAN
- T1.2 TRAFFIC AND NOISE PLAN DETAIL
- IR1.1 IRRIGATION DIAGRAM

DATE	3-22-2020
JOB TITLE	CENTRAL COAST AGRICULTURE, LLC 8701 SANTA ROSA ROAD, BUELLTON, CA
SHEET TITLE	CULTIVATION AND PROCESSING WAREHOUSE EXISTING BUILDING ELEVATIONS
JOB NO.	RA-294

DATE	REVISION

REESE & ASSOCIATE • ARCHITECT
115 EAST COLLEGE AVENUE, SUITE 5, LOMPOC, CALIFORNIA 93436
PHONE: (805) 736-8117 FAX: (805) 736-7174

SD1.2B

SHEET NO.