



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

CAL  CalCannabis  
Cultivation Licensing

COMMERCIAL CANNABIS  
CULTIVATION LICENSES



A REFERENCE GUIDE FOR

# Creating a Cultivation Plan



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**CalCannabis Cultivation Licensing**, a division of the California Department of Food and Agriculture, created this document to provide guidance on how to create the cultivation plan required to be submitted with each cannabis cultivation licensing application. This document is for informational purposes and is not the official state application, nor does it include all the application requirements. For the official state application for a commercial cannabis cultivation license, please visit the CalCannabis website: [cannabis.cdfa.ca.gov](http://cannabis.cdfa.ca.gov).

*Updated 10/30/19*

## CULTIVATION PLAN REQUIREMENTS

Cultivation plan requirements vary based on the type of cannabis cultivation license one is applying for, and the plan requirements are outlined by license type below. Each cultivation plan requirement has a corresponding section in this document that introduces the requirement, provides examples, and, where applicable, offers optional templates that applicants may use.

### SPECIALTY COTTAGE, SPECIALTY, SMALL, AND MEDIUM LICENSE TYPES

- Lighting Diagram (mixed-light and indoor licenses only)
- Pest-Management Plan
- Premises Diagram
- Property Diagram
- Waste-Management Plan

### NURSERY LICENSE

- Pest-Management Plan
- Premises Diagram
- Property Diagram
- Waste-Management Plan

### PROCESSOR LICENSE

- Premises Diagram
- Property Diagram
- Waste-Management Plan

## GLOSSARY OF KEY TERMS

Brief definitions of key words and terms used in the state of California's cannabis cultivation licensing application are outlined below. For more in-depth definitions, please review the California Department of Food and Agriculture's cannabis cultivation regulations and Business and Professions Code Division 10, which are posted on the CalCannabis Cultivation Licensing website at [cannabis.cdafa.ca.gov](http://cannabis.cdafa.ca.gov).

**Administrative-Hold Area:** A designated area for all segregated cannabis or nonmanufactured cannabis products subject to being put on hold.

**Canopy:** The designated area(s) at a licensed premises (except for nurseries and processors) that will contain mature (flowering) plants at any point in time, as follows:

- A specialty outdoor canopy is determined by either square feet or plant count, whereas a specialty *cottage* outdoor canopy is determined by plant count.
- If mature plants are being cultivated using a shelving system, the surface area of each level must be included in the total calculation of the canopy.
- The canopy shall be calculated in square feet and measured using clearly identifiable boundaries of all the areas that will contain mature plants at any point in time, including all the space(s) within the boundaries.
- The canopy may be noncontiguous, but each unique area included in the total canopy calculation must be separated by an identifiable boundary that includes, but is not limited to, interior walls, shelves, greenhouse walls, hoop-house walls, garden benches, hedgerows, fencing, garden beds, or garden plots.

**Composting Area:** The area designated for composting on the licensed premises.

**Cultivation Plan:** A component of the licensing application that may include a premises diagram, pest-management plan, and waste-management plan, depending on the license type.

**Flowering:** A cannabis plant that has formed a mass of pistils measuring more than one-half-inch wide at its widest point.

**Harvest Storage Area:** The area designated in the cultivation plan for storing all harvested cannabis on the licensed premises.

**Immature Plant:** A cannabis plant that has a first true leaf measuring more than one-half-inch long from base to tip (if started from seed), or a mass of roots measuring more than one-half-inch wide at the widest point (if vegetatively propagated) that is not yet flowering.

## GLOSSARY OF KEY TERMS

**Indoor Cultivation:** Cultivation of cannabis within a permanent structure using artificial light exclusively, or within any type of structure using artificial light at a rate above 25 watts per square foot.

**Lighting Diagram:** A plan that identifies the location of all lights in the canopy area(s) and the maximum wattage, or wattage equivalent, of each light. *Note: This applies to mixed-light and indoor license types only.*

**Mature Plant:** A cannabis plant that is flowering.

**Mixed-Light Cultivation:** Cultivation of mature cannabis in a greenhouse, hoop-house, glasshouse, conservatory, hothouse, or similar structure, using a combination of:

- (1) Natural light, light deprivation, and one of the following artificial-lighting models:
  - (A) “Mixed-Light Tier 1” is without the use of artificial light—or using artificial light at a rate above zero, but not more than six watts per square foot;
  - (B) “Mixed-Light Tier 2” is using artificial light at a rate above six watts per square foot and below or equal to 25 watts per square foot; or
- (2) Natural light and one of the following artificial-lighting models:
  - (A) “Mixed-Light Tier 1” is using artificial light at a rate above zero watts, but no more than six watts per square foot;
  - (B) “Mixed-Light Tier 2” is using artificial light at a rate above six watts per square foot and below or equal to 25 watts per square foot.

**Outdoor Cultivation:** Cultivation of mature cannabis without using artificial lighting or light deprivation in the canopy area at any time; artificial lighting is permissible only to maintain immature plants outside the canopy area.

**Packaging Area:** The area designated for packaging cannabis on the licensed premises.

**Pesticide and Agricultural-Chemical Storage Area:** The area designated to store all chemicals that will be used on the licensed premises.

**Pest-Management Plan:** A plan that identifies the biological, cultural, and chemical removal of pests; this plan must include the product names and active ingredients of all the pesticides that will be used on cannabis.

**Premises:** The designated structure or structures, and the land specified in the cannabis license application, that is owned, leased, or otherwise held under the control of the applicant or licensee where the commercial cannabis activity will be conducted; the premises shall be a contiguous area and only occupied by one licensee.

## GLOSSARY OF KEY TERMS

**Processing Area:** The area designated for the processing of cannabis on the licensed premises; processing includes drying, curing, grading, trimming, rolling, storing, packaging, and labeling of nonmanufactured cannabis products.

**Research and Development Area:** The area identified in the cultivation plan for a nursery license; this is the area that will be used for research and development that requires a cannabis plant to flower. All products derived from these plants are prohibited from entering the commercial distribution chain. *Note: This applies to nursery licenses only.*

**Seed Production Area:** The area designated for cannabis seed production for a nursery license; this area may contain mature plants, and seeds are the only product allowed to enter the commercial distribution chain from this designated area. *Note: This applies to nursery licenses only.*

**Waste-Management Plan:** A plan that identifies how cannabis waste generated on the licensed premises is managed.

**Watts per Square Foot:** The sum of the maximum wattage of all lights identified in the designated canopy area(s) in the cultivation plan, divided by the sum of the dimensions in square feet of the designated canopy area(s) identified in the cultivation plan.

## PROPERTY DIAGRAM

A property diagram is an illustration of the entire property (the bird’s-eye view) associated with the proposed premises. If the proposed premises span multiple parcels, all parcel numbers must be identified on the diagram.

The property diagram requirements are the same for all license types. A complete diagram includes:

- All roads and water crossings (including seasonal streams)
- All water sources, which must be identified and labeled for their type of beneficial use, including, but not limited to, irrigation, domestic, fire protection, power, fish and wildlife preservation and enhancement, and/or recreation
- Assessor’s Parcel Number(s) (APN)
- Designated shared areas
- Entrances to the property and premises
- Exits from the property and premises
- If proposing a water source for cultivation that uses a diversion from a waterbody or an underground stream flowing in a known and definite channel, groundwater well, or rain-catchment system, include the following locations on the property diagram, in addition to coordinates in either latitude and longitude or from the California Coordinate System:
  - Water storage unit(s) (label the type and storage capacity of each unit)
  - Water source(s) for cannabis irrigation; and
  - If the proposed premises consists of only a portion of the property, the diagram must be labeled to indicate which part of the property is the proposed premises and how the remaining property is used
- Premises boundaries and dimensions
- Property boundaries and dimensions
- Water-distribution system(s)—from water source to water storage—for cannabis irrigation, including pumps

In addition to the list above, a **property diagram must be to scale, and there may not be any highlighting. Please see the sample property diagram on the following page.**



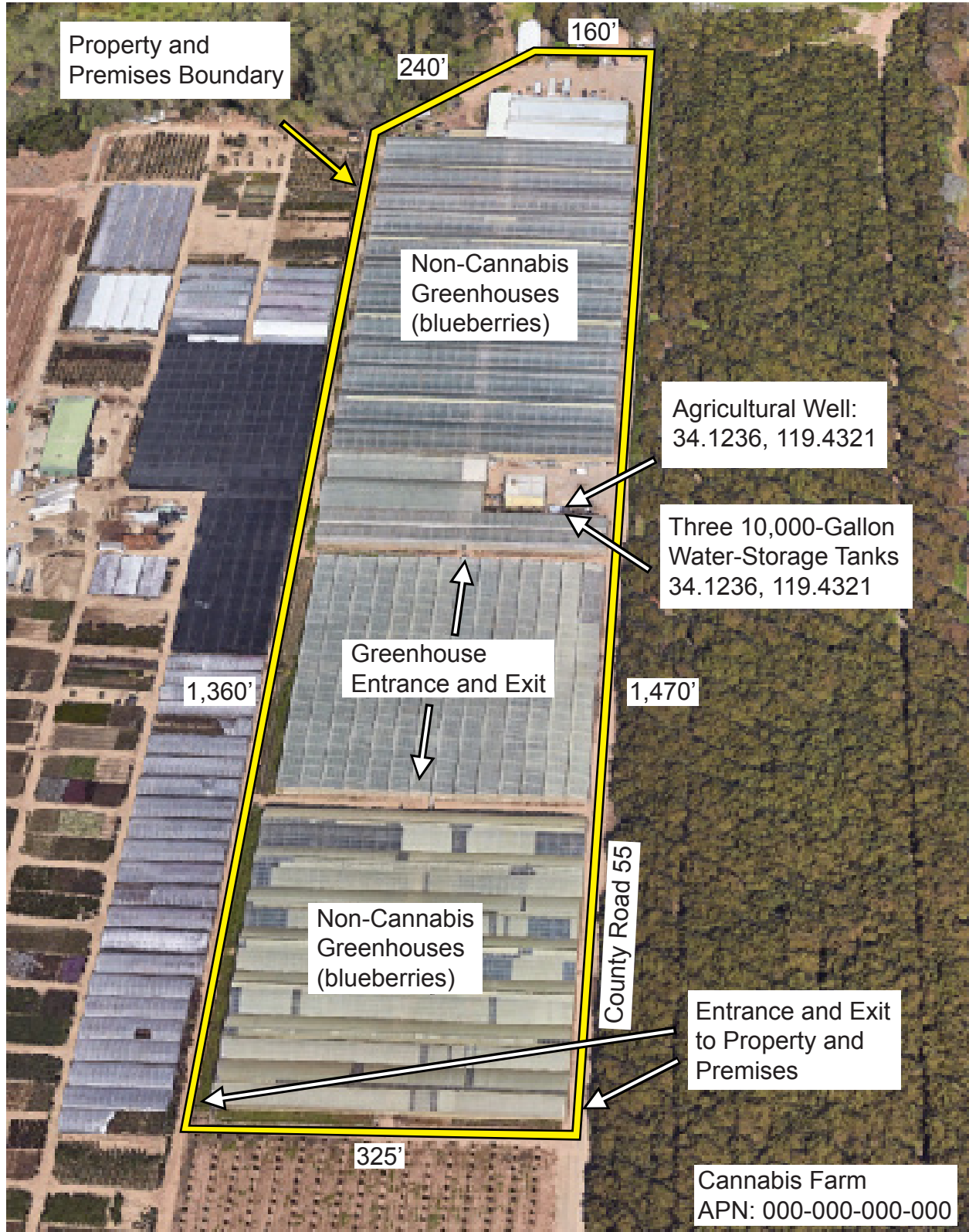
# PROPERTY DIAGRAM SINGLE CULTIVATION PREMISES



Aerial imagery and a basic image-editing software program were used to label each property diagram accurately.



# PROPERTY DIAGRAM MULTIPLE CULTIVATION PREMISES



## PREMISES DIAGRAM

A premises diagram is a bird's-eye-view illustration of the proposed premises; requirements vary based on the type of license. Boundaries and dimensions (in feet) of the required areas must be identified, as specified below.

### SPECIALTY COTTAGE, SPECIALTY, SMALL, AND MEDIUM LICENSE TYPE REQUIREMENTS

Areas marked with “if applicable” must be identified if they occur on the site. “If applicable” areas occurring off-site may be identified on the optional template on page 12 or directly on the diagram.

- Areas containing only immature plants (if applicable)
- Canopy areas; include aggregate square footage if the canopy areas are noncontiguous
- Common-use area(s), such as hallways, bathrooms, or break rooms
- Composting area (if applicable)
- Designated administrative-hold area
- Harvest storage area
- Pesticide and agricultural-chemical storage area
- Processing area (if applicable)
- Packaging area (if applicable)
- Secure cannabis-waste-storage area (if applicable)

### NURSERY LICENSE REQUIREMENTS

- At least one of the following areas:
  - Areas containing only immature plants
  - Seed production area (if applicable)
- Composting area (if applicable)
- Pesticide and agricultural storage area
- Research and development area (if applicable)
- Secure cannabis-waste-storage area (if applicable)

## PREMISES DIAGRAM AREAS MARKED “IF APPLICABLE”

### PROCESSOR LICENSE REQUIREMENTS

- Composting area (if applicable)
- Harvest storage area
- Packaging area (if applicable)
- Processing area
- Secure cannabis-waste-storage area (if applicable)

In addition to the items listed above, **a premises diagram must be to scale.** Please see the sample premises diagrams on pages 13, 18, and 19.

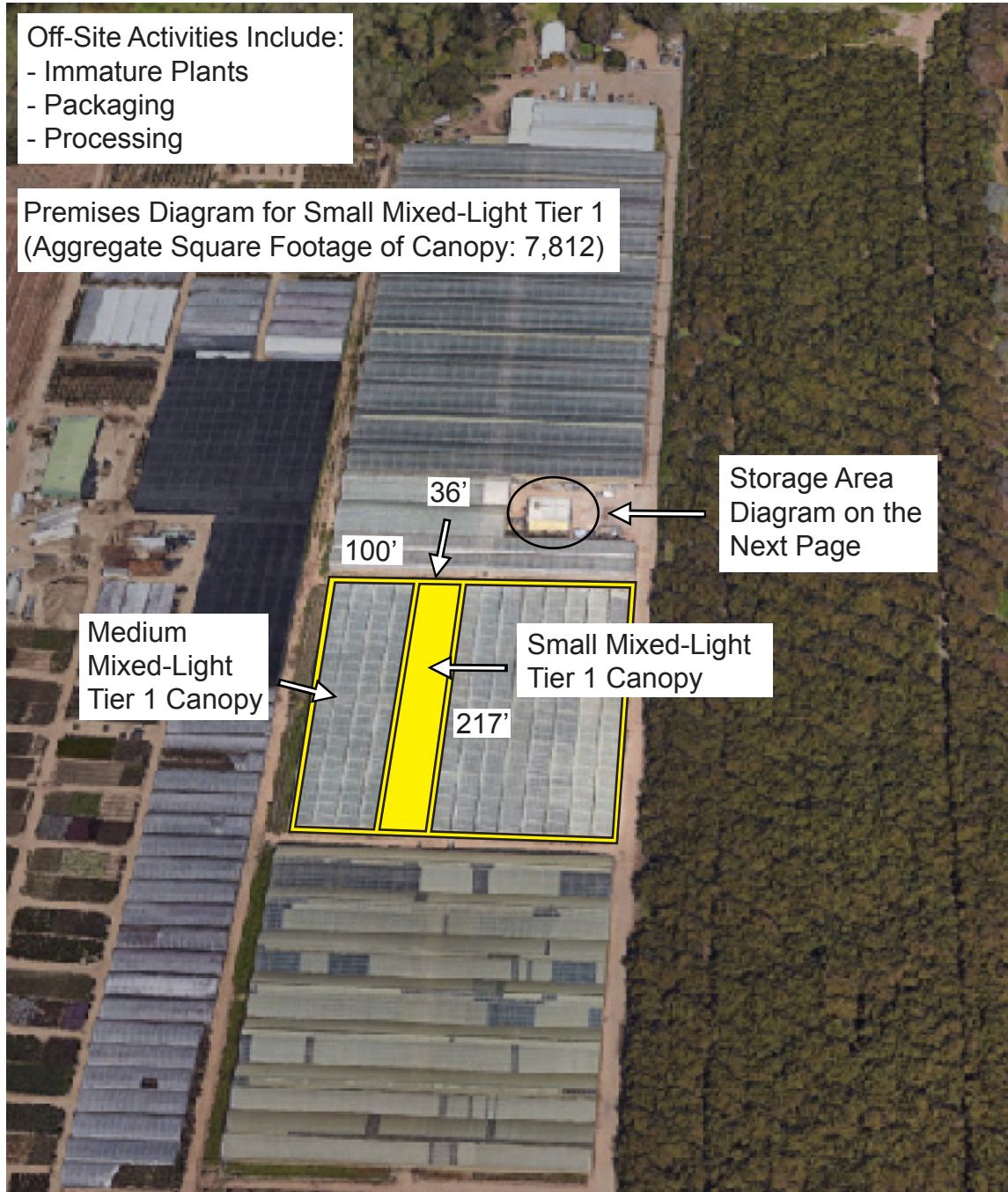
CalCannabis has created an *optional* template, available on page 12, that applicants may use to identify off-site activities.

## PREMISES DIAGRAM OPTIONAL TEMPLATE

### ACTIVITIES TO BE PERFORMED OFF-SITE INCLUDE:

- For Specialty Cottage, Specialty, Small, and Medium Licenses** *(check all that apply)*
  - Immature plant growth
  - Packaging
  - Processing
  
- For Nursery Licenses** *(check all that apply)*
  - Immature plant growth
  - Research and development with flowering cannabis plants
  - Seed production with flowering cannabis plants
  
- For Processor Licenses** *(check if applicable)*
  - Packaging

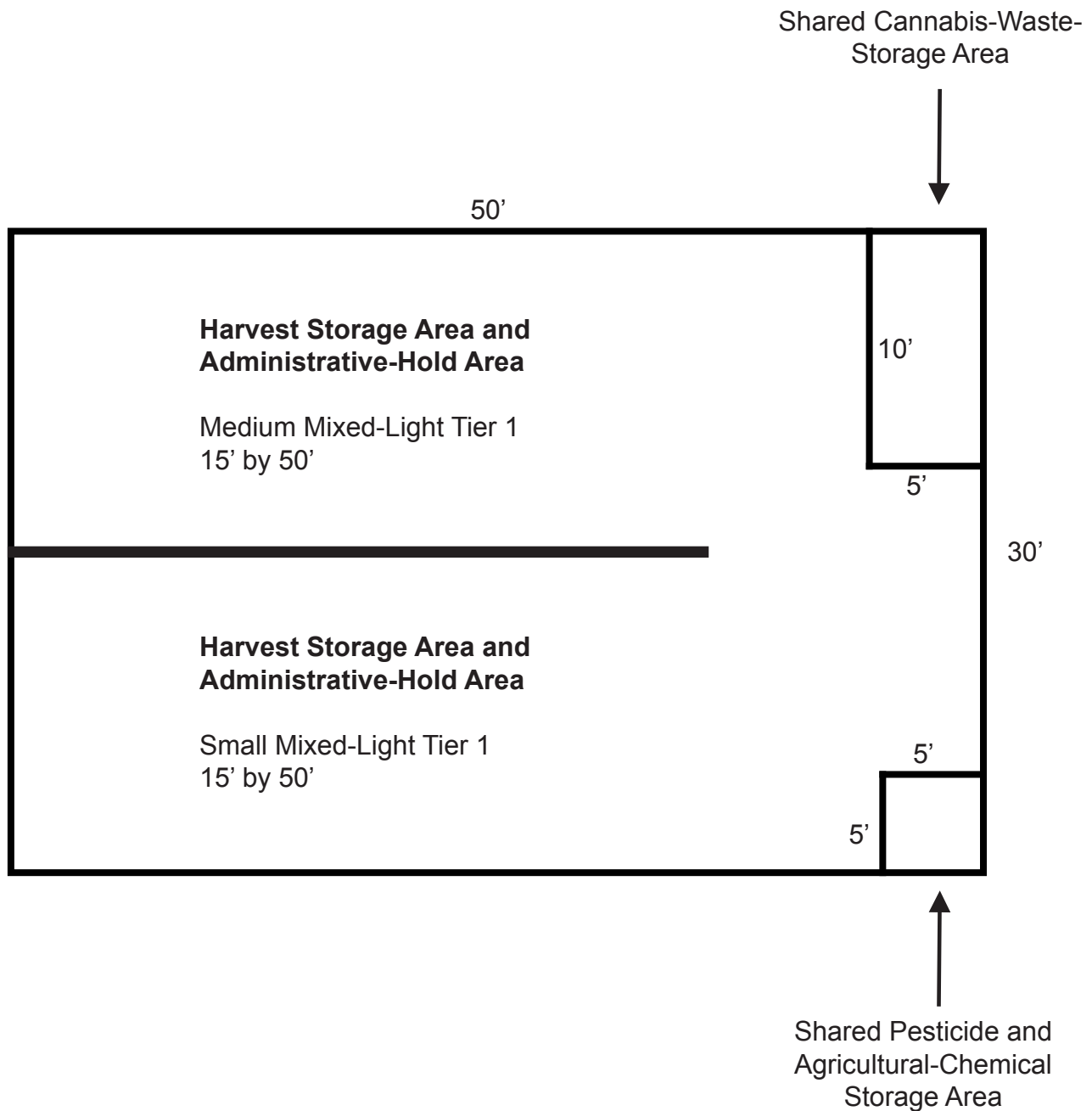
## PREMISES DIAGRAM MULTIPLE CULTIVATION PREMISES



Multiple premises are permitted to be on one property, but only licenses held by the same licensee may share spaces. For “if applicable” areas, please clarify on the diagram whether they will occur on-site or off-site.

## PREMISES DIAGRAM MULTIPLE CULTIVATION PREMISES

### Storage Area Diagram (detail from page 13)



This sample diagram shows two cultivation premises on one property.



## PREMISES DIAGRAM MULTIPLE CULTIVATION PREMISES

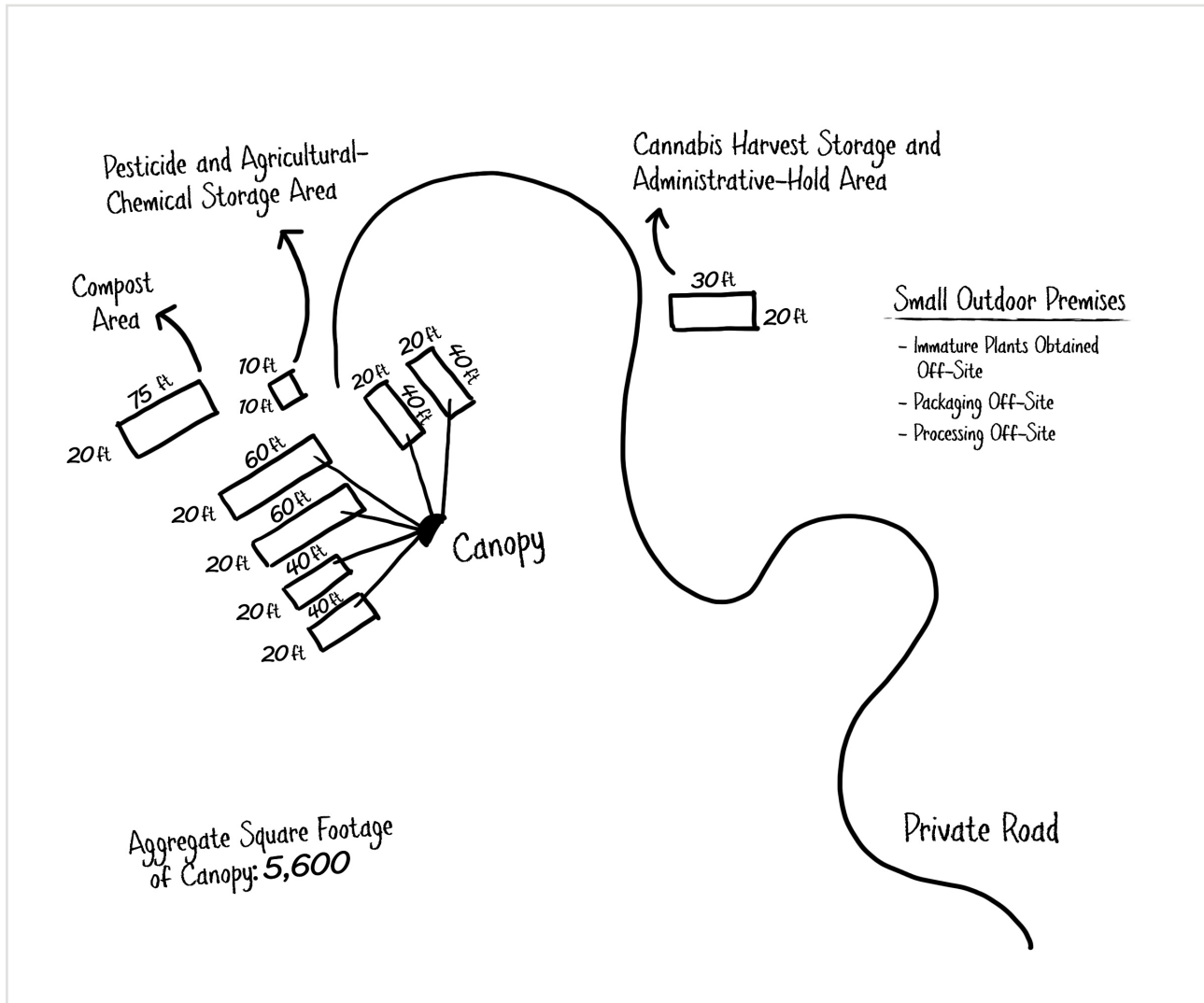
### AREAS THAT MAY NOT BE SHARED

- Canopy
- Designated administrative-hold area
- Harvest storage area
- Immature-plant area (if applicable)
- Packaging area (if applicable)
- Processing area (if applicable)

### AREAS THAT MAY BE SHARED IF MULTIPLE LICENSES ARE HELD BY ONE LICENSEE

- Cannabis-waste area (if applicable)
- Common-use areas, such as hallways, break rooms, or bathrooms
- Compost area (if applicable)
- Pesticide and agricultural-chemical storage area

**PREMISES DIAGRAM**  
HAND-DRAWN SMALL OUTDOOR CULTIVATION PREMISES

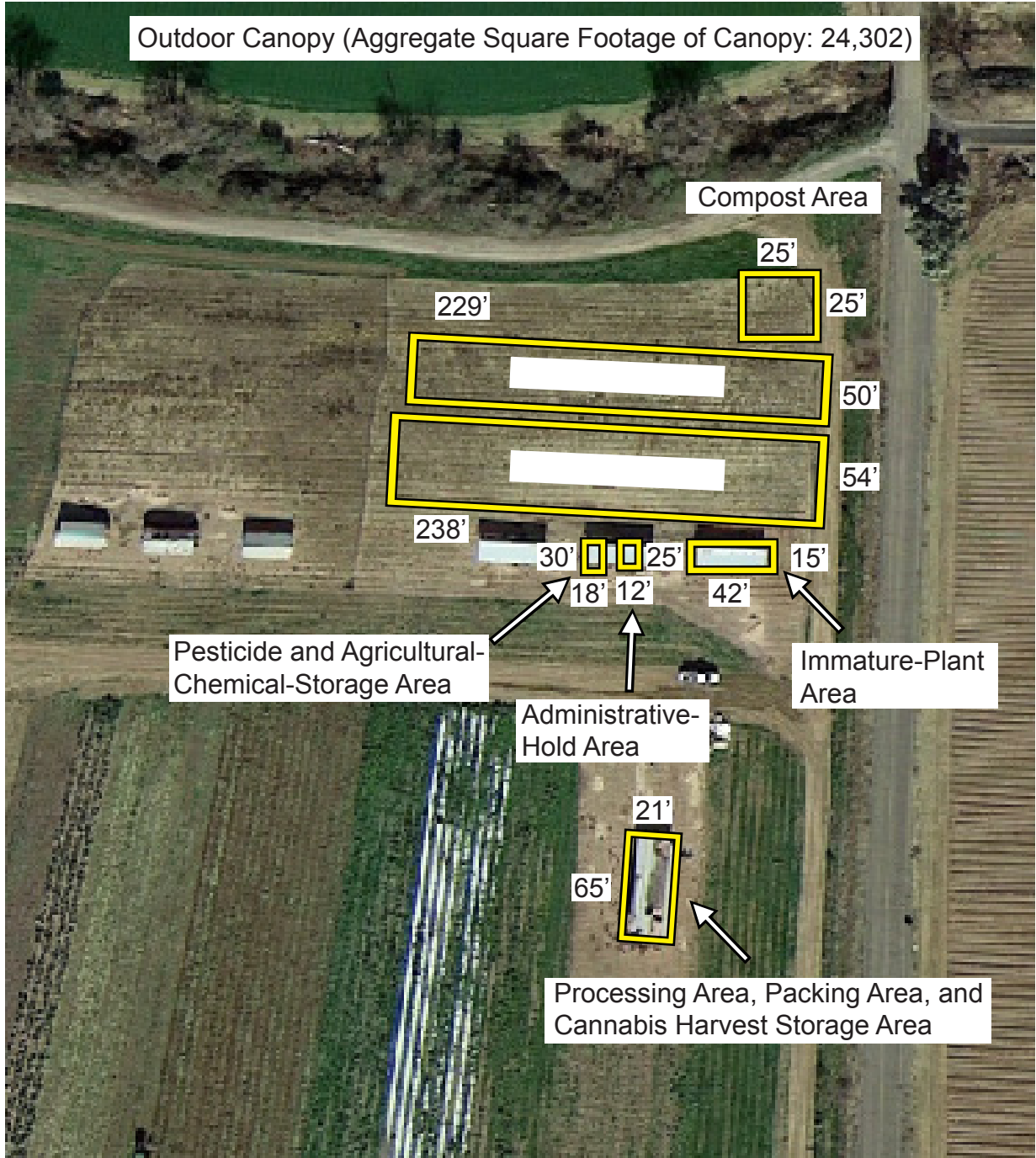


Hand-drawn diagrams are permissible if they are legible and meet all requirements.

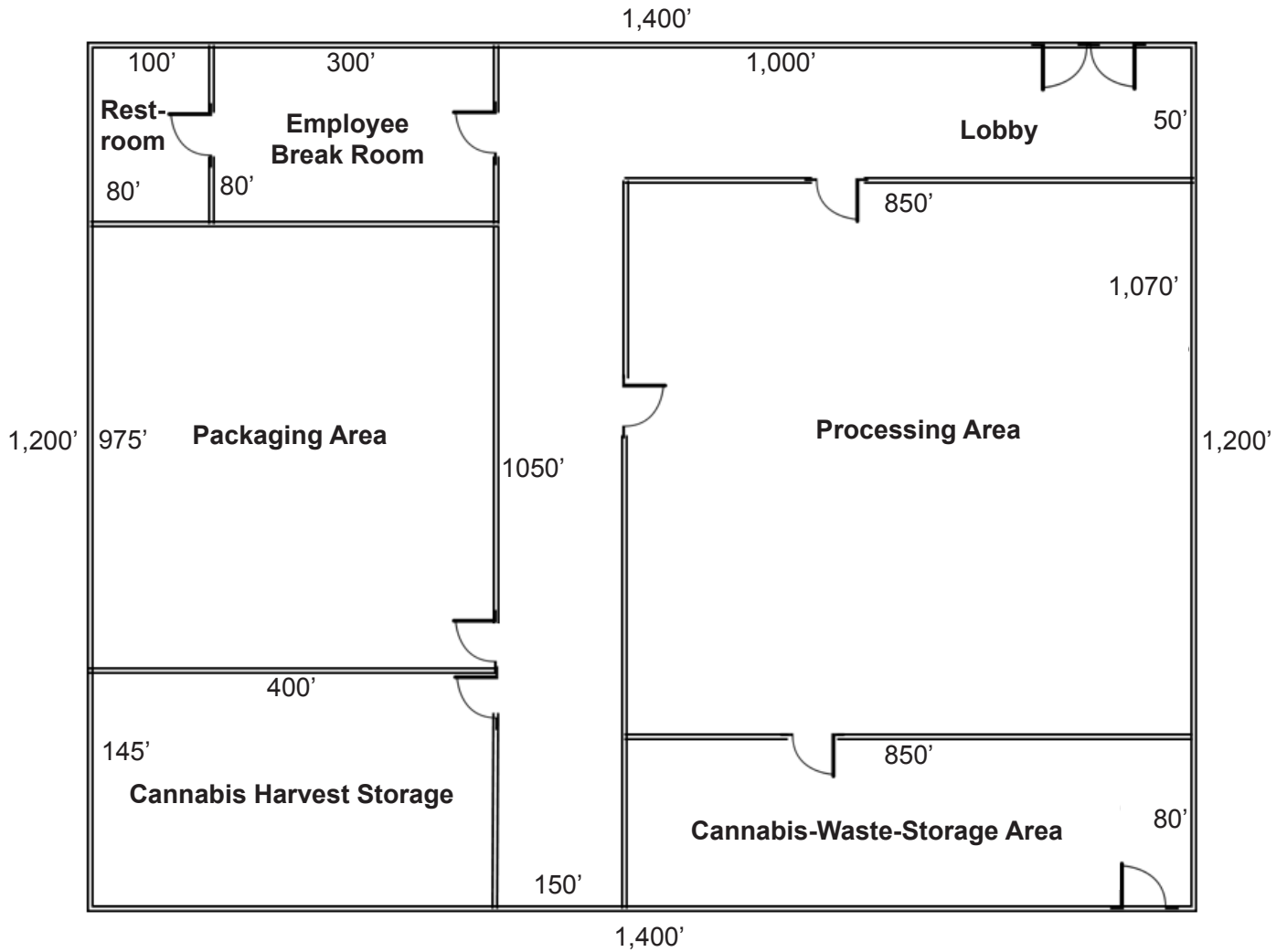
If the canopy is noncontiguous, all mature cannabis must be contained within the identified canopy boundaries.

# PREMISES DIAGRAM

MEDIUM OUTDOOR CULTIVATION PREMISES

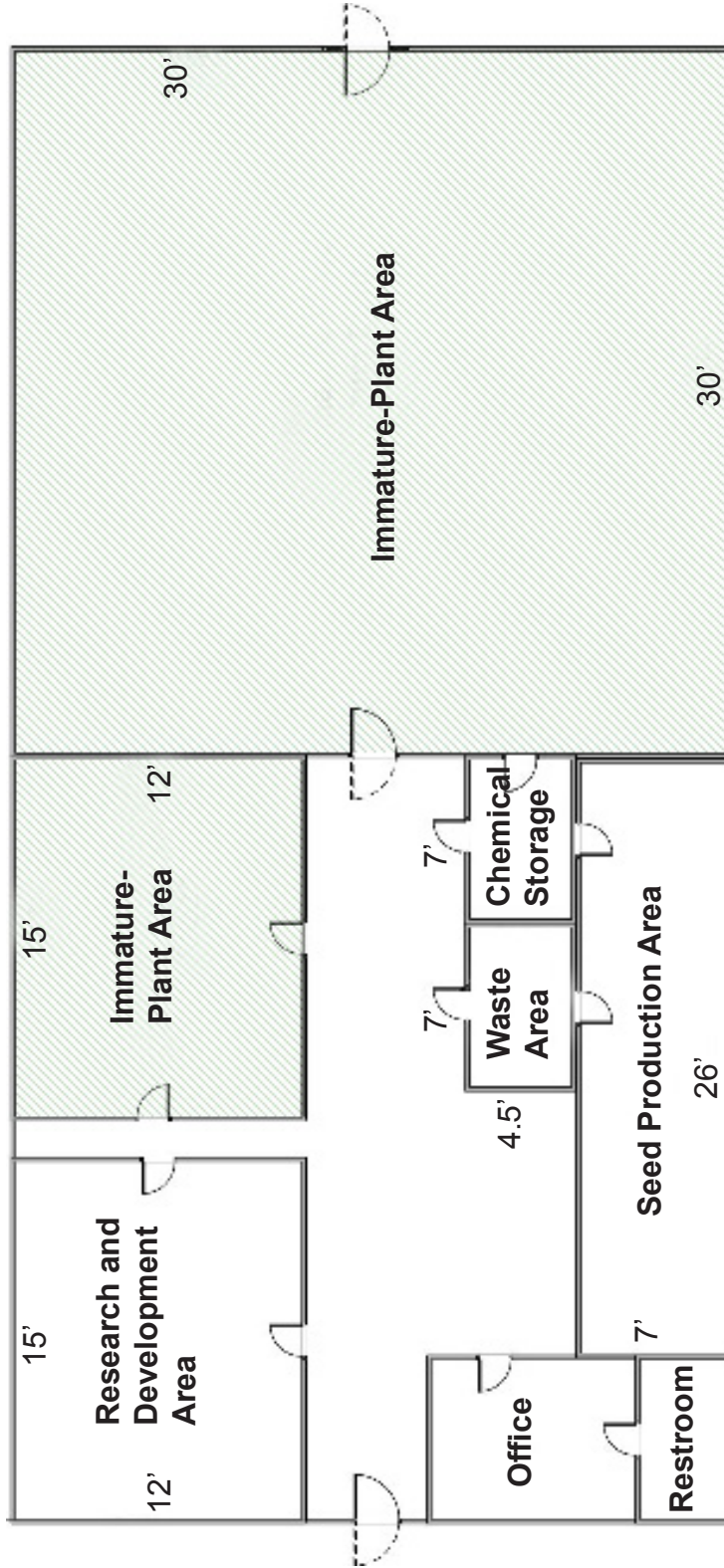


# PREMISES DIAGRAM PROCESSOR LICENSE



A software-editing program was used to create this sample premises diagram for a processor license.

# PREMISES DIAGRAM NURSERY LICENSE



A software-editing program was used to create this sample premises diagram for a nursery license.

## PEST-MANAGEMENT PLAN

Traditionally, pest-management plans are implemented with a focus on long-term management and/or suppression of unwanted pests using cultural, biological, and chemical control measures. The pest-management plan submitted with a cannabis cultivation license application must include, but is not limited to, the requirements listed below.

The local county agricultural commissioner (CAC) is responsible for regulating pesticides in his or her county. CAC contact information is available online: [cdfa.ca.gov/exec/county/countymap](http://cdfa.ca.gov/exec/county/countymap).

All licensed cultivators must comply with the laws and regulations enforced by the California Department of Pesticide Regulation and county agricultural commissioners. The California Department of Food and Agriculture (CDFA) requires all applicants to sign an acknowledgement and attestation regarding pesticide usage. Please read, sign, and upload the attestation available on the CDFA CalCannabis Cultivation Licensing Division website: [calcannabis.cdfa.ca.gov](http://calcannabis.cdfa.ca.gov).

### REQUIREMENTS

- A signed acknowledgement and attestation for pest-management activities
- Integrated pest-management protocols, including the following control methods:
  - Biological
  - Chemical
  - Cultural
- Product name and the active ingredients of all pesticides that will be applied to cannabis during any stage of plant growth (for example, rooting hormones, pesticides, rodenticides, fungicides, etc.)

CalCannabis has created an *optional* template that applicants may use to complete their pest-management plan (see the following page).



## PEST-MANAGEMENT PLAN OPTIONAL TEMPLATE

**Cultural pest-management-control methods, such as pulling weeds, irrigation practices, and sanitation**

**Biological pest-management-control methods, such as natural predators like lady beetles and lacewings**

**Chemical pest-management-control methods**

**Chemical(s) to be applied at any stage of plant growth**

Product Name	Active Ingredient(s)

Attach additional sheets of paper, as needed.

I have signed the Pesticide Acknowledgement and Attestation form posted on the CDFA CalCannabis Cultivation Licensing Division website at [cannabis.cdfa.ca.gov](http://cannabis.cdfa.ca.gov), and uploaded it to the application record.

## WASTE-MANAGEMENT PLAN

For this section, cannabis waste is defined as organic waste, such as food waste, green waste, landscape and pruning waste, nonhazardous-wood waste, and food-soiled paper waste that is mixed with food waste. For cannabis cultivation license applications, a waste-management plan must identify all methods—from the allowable methods listed below—that will be used for managing cannabis waste generated on the premises.

### WASTE-MANAGEMENT METHODS

- Collection and processing by a local agency, a waste-hauler franchised or contracted by a local agency, or a private waste-hauler permitted by a local agency
- On-premises composting
- Reintroducing cannabis waste into an agricultural operation through on-premises organic-waste-recycling methods, including, but not limited to, tilling directly into agricultural land and no-till farming
- Self-hauling to one or more of the following:
  - a manned and fully permitted solid-waste landfill or transformation facility
  - a manned and fully permitted composting facility or manned composting operation
  - a manned and fully permitted in-vessel digestion facility or manned in-vessel digestion operation
  - a manned and fully permitted transfer/processing facility or manned transfer/processing operation
  - a manned and fully permitted chip-and-grind operation or facility
  - a recycling center as defined in the California Code of Regulations, title 14, section 17402.5(d), and that meets all the following:
    - the cannabis waste received shall contain at least 90 percent inorganic material;
    - the inorganic portion of the cannabis waste is recycled into new, reused, or reconstituted products that meet the quality standards necessary for use in the marketplace; and
    - the organic portion of the cannabis waste shall be sent to one of the five facility or operation types listed above in the self-hauling section

CalCannabis has created an *optional* template that applicants may use to complete their waste-management plan (see the following page).

## WASTE-MANAGEMENT PLAN OPTIONAL TEMPLATE

### METHODS FOR MANAGING CANNABIS WASTE GENERATED ON A PREMISES MAY INCLUDE:

- Collection and processing by a local agency, a waste-hauler franchised or contracted by a local agency, or a private waste-hauler permitted by a local agency
- On-premises composting
- Self-hauling to one or more of the following:
  - a manned and fully permitted solid-waste landfill or transformation facility
  - a manned and fully permitted composting facility or manned composting operation
  - a manned and fully permitted in-vessel digestion facility or manned in-vessel digestion operation
  - a manned and fully permitted transfer/processing facility or manned transfer/processing operation
  - a manned and fully permitted chip-and-grind operation or facility
  - a recycling center as defined in the California Code of Regulations, title 14, section 17402.5(d), and that meets all the following:
    - the cannabis waste received shall contain at least 90 percent inorganic material;
    - the inorganic portion of the cannabis waste is recycled into new, reused, or reconstituted products that meet the quality standards necessary for use in the marketplace; and
    - the organic portion of the cannabis waste shall be sent to one of the five facility or operation types listed above in the self-hauling section

# LIGHTING DIAGRAM

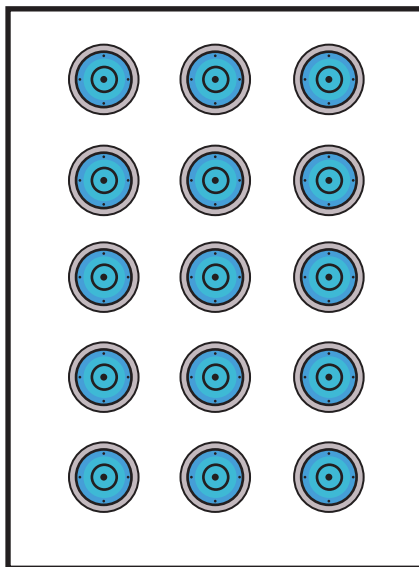
Applications for indoor and mixed-light license types must include a lighting diagram; please see the requirements outlined below. While not required, it is helpful to provide the aggregate wattage per square foot of each canopy.

## REQUIREMENTS

- Aggregate wattage per square foot of each canopy (*recommended but not required*)
- Location of all lights in the canopy area(s)
- Maximum wattage of each light

## SAMPLE LIGHTING DIAGRAM FOR A MIXED-LIGHT TIER 2 LICENSE

**Canopy Area 1**



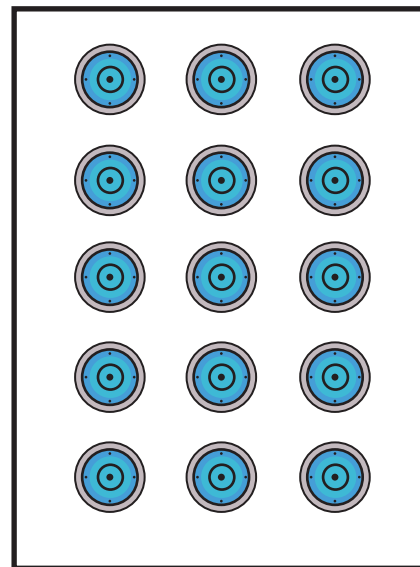
**Aggregate Wattage per Canopy Area**

15 lights X 1,200 watts per light = 18,000 watts

Each canopy area (greenhouse) = 1,500 square feet

18,000 watts ÷ 1,500 square feet = 12 watts per square foot

**Canopy Area 2**



**Maximum Wattage of Each Light**

 = a 1,200 maximum watt light



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