

PUBLIC DOCUMENTS

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*State of New Mexico*

**Regulation & Licensing Department  
Cannabis Control Division**

HEREBY CERTIFIES THAT

**Endo LLC**

HAVING GIVEN SATISFACTORY EVIDENCE OF THE LICENSING REQUIREMENTS  
PRESCRIBED BY LAW IS GRANTED A LICENSE TO OPERATE IN THE STATE  
OF NEW MEXICO AS A

**Cannabis Retailer**

License No. CCD-2022-0154-001

Issued 03/20/2022

Expires 03/20/2023

*THIS LICENSE SHOULD BE CONSPICUOUSLY POSTED IN PLACE OF BUSINESS OR AS REQUIRED BY LAW*

**ENDO, LLC**  
New Mexican Cannabis  
2903 Agua Fria Street  
Santa Fe, New Mexico 87505-5413  
(505) 577-3636



## 5 – ZONING VERIFICATION LETTER

See attached 9 February 2022 *Zoning Verification Letter* for Endo LLC for the property located at 2903 Agua Fria Street, Santa Fé, NM from Lani McCully, Land Use Planner for the City of Santa Fé





# City of Santa Fe, New Mexico

200 Lincoln Avenue, P.O. Box 909, Santa Fe, N.M. 87504-0909  
www.santafenm.gov

*Alan Webber, Mayor*

Councilors:

Signe I. Lindell, Mayor Pro Tem, District 1  
Renee Villarreal, District 1  
Michael J. Garcia, District 2  
Carol Romero-Wirth, District 2  
Lee Garcia, District 3  
Chris Rivera, District 3  
Jamie Cassutt, District 4  
Amanda Chavez, District 4

February 9, 2022

Stephen D Aarons  
Attorney at Law  
Aarons Law PC  
2019 Galisteo Street, Suite H1  
Santa Fe NM 87505

**RE: Zoning Verification for Endo LLC for the property located at 2903 Agua Fria Street, Santa Fe, NM**

Dear Mr. Aarons,

This letter provides zoning verification on the above referenced property. According to the Official Zoning Map, this property is zoned I-1 Light Industrial zoning district and is located in the West Santa Fe River Corridor overlay district.

#### 14-4.3(F) I-1 Light Industrial District

The I-1 district is intended primarily for light manufacturing, processing, storage, warehousing, distribution, and similar commercial uses. Regulations are intended to prevent friction between uses within the district and to protect nearby residential districts.

#### 14-5.11 - West Santa Fe River Corridor Overlay Zoning District.

##### (A) Purpose and Intent

Because openness, visual integrity, scale, and harmony are vital assets in implementing the West Santa Fe River Corridor Master Plan, it is the intent of the West Santa Fe River Corridor Overlay Zoning District to:

- (1) Maintain a clear sense of visual openness along the river corridor and promote its restoration, in part, by minimizing the negative impacts of adjoining land development;
- (2) Regulate land development, including site and building design, so that new development reflects the scale of the surrounding neighborhoods while meeting city development standards.

A Vertically Integrated Cannabis Business including producer (any level or micro), manufacturing (light or heavy), and retail distribution is a permitted use in the I-1 zoning district.

- ❖ Cannabis Producer Microbusiness: A small business conducted by a person licensed to cultivate cannabis at a single location, including the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis, provided that the person may not possess more than two hundred (200) total mature cannabis plants at any one time is a permitted use in the I-1 District.



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Lee Garcia, District 3  
Chris Rivera, District 3  
Jamie Cassutt, District 4  
Amanda Chavez, District 4

- ❖ Cannabis Producer: A business conducted by a person licensed to cultivate cannabis, including the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis, provided that the person may possess two hundred and one (201) total mature cannabis plants or more at any one time is a permitted use in the I-1 zoning district.
- ❖ Commercial Cannabis Retailer which is licensed to sell cannabis products directly to consumers who are twenty-one years of age or older are permitted uses in the I-1 zone with the understanding that all commercial cannabis retailers are limited to hours of operation from 7:00 AM to 12:00 AM (midnight).
  - This specific address IS NOT within 300 feet of a daycare, school, or religious institution. This location IS NOT currently within 400 feet of a licensed Medical or Retail cannabis location. THEREFORE: RETAIL IS AN ALLOWED USE AT THIS ADDRESS.

## Consumption Areas are not a permitted use in the City of Santa Fe.

For additional information, please reference City of Santa Fe Chapter 14 SFCC regarding these districts (Chapter 14-4 – Zoning Districts/14-6 Permitted Uses) [https://library.municode.com/nm/santa\\_fe/codes/code\\_of\\_ordinances?nodeId=CH14LADE](https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CH14LADE). All uses are subject to compliance with applicable development standards such as parking, lot coverage, etc.

*Note: The information provided in this letter is solely derived from the Official Zoning Map and the minimum requirements set forth in Chapter 14, SFCC 1987. This letter intends to provide advice regarding zoning regulations. It is not the intent to state that the subject property complies with zoning requirements. Occupancy is determined based on zoning compliance at the time of building permit or certificate of occupancy, whichever applies. Additionally, it is not the intent to interfere with or to abrogate or annul any official document including conditions or safeguards made a part of the subject property at the time of any public hearings. Applicants are advised to pursue an independent search of official documents.*

To apply for your City of Santa Fe business license, please go to [www.santafebizreg.com](http://www.santafebizreg.com). This zoning verification letter must be attached to the business license application for processing.

If you have any further questions, please contact me at [ljmcculley@santafenm.gov](mailto:ljmcculley@santafenm.gov).

Lani McCulley  
Land Use Planner  
City of Santa Fe, New Mexico

**ENDO, LLC**

New Mexican Cannabis  
2903 Agua Fria Street  
Santa Fe, New Mexico 87505-5413  
(505) 577-3636



## 2 – PREMISES DIAGRAMS

*The diagrams must show (as applicable):*

- *the boundaries of the property and the proposed premises to be licensed;*
- *the dimensions of each area that cannabis plants will be cultivated;*
- *the location(s) and the dimensions of other areas where other horticulture will be cultivated; and,*
- *where all cameras are located and assign a number to each camera for identification purposes.*

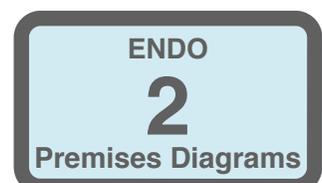
*The diagrams must include (as applicable):*

- *any equipment to be used;*
- *entrances and exits;*
- *interior partitions;*
- *location of lights in the cannabis plant cultivation area(s) and the maximum wattage or wattage equivalent;*
- *walls;*
- *rooms;*
- *windows;*
- *doorways; and,*
- *a brief statement or description of the principal activity to be conducted in each area on the premises.*

*The diagrams must be to scale and in black-and-white print, and it should not contain any highlighting.*

*If the proposed premises consists of only a portion of a property, the diagram must be labeled indicating which part of the property is the proposed premises and what the remaining property is used for.*

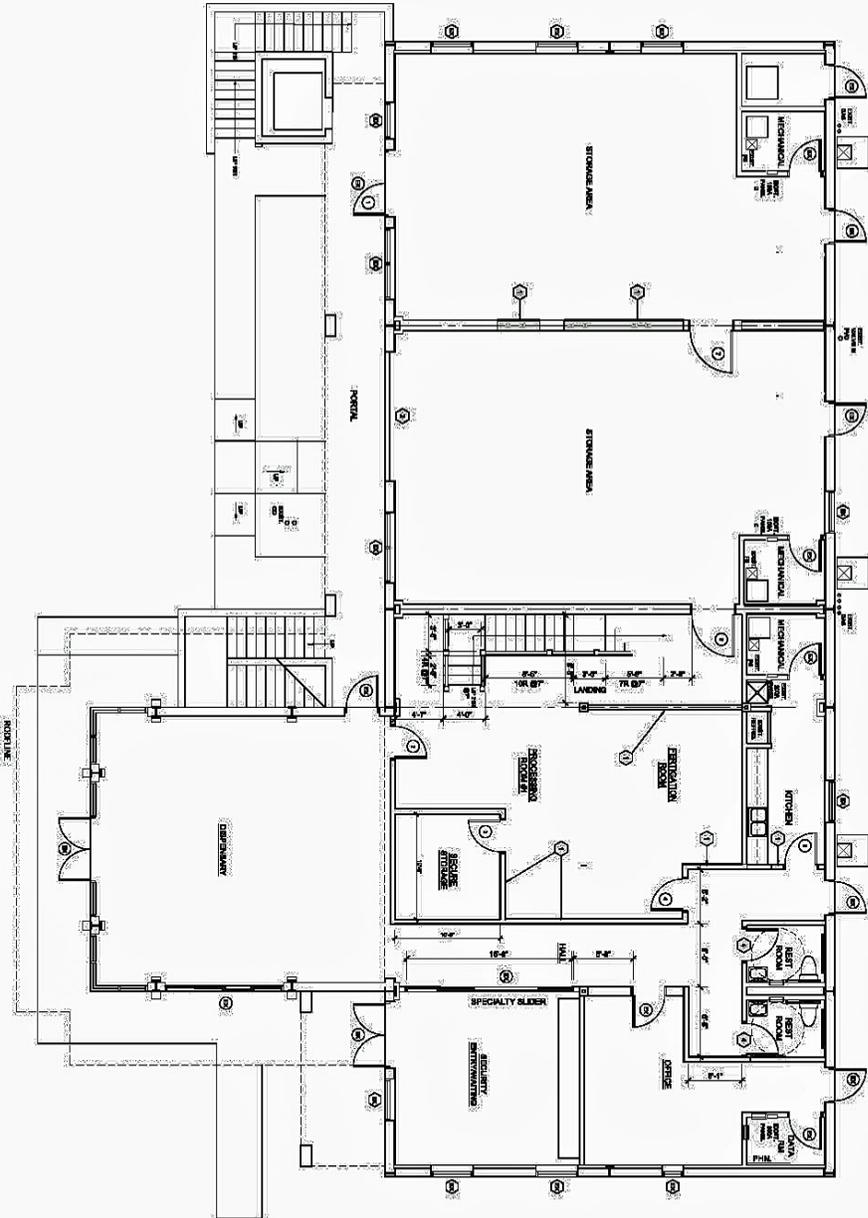
*If the proposed premises consists of only a portion of a property that will contain two or more licensed premises, then the diagram must be supplemented with a description of how two or more licensed premises will be managed on the property.*



**ENDO, LLC***Premises Diagrams, Page 2*

*If the proposed premises is located on only a portion of a property that also includes a residence, the diagram shall clearly show the designated buildings for the premises and the residence.*

*(Please see Rule Ref 16.8.2.24 NMAC.)*



PROPOSED FIRST FLOOR PLAN

PROPOSED FIRST FLOOR PLAN: 5388 SF

SCALE: 1/8" = 1'-0"



- PROPOSED 1ST FLOOR PLAN SHEET REVISION NOTES**
- 1. INITIAL REVISIONS FROM INITIAL PERMIT REVIEW
  - 2. INITIAL REVISIONS FROM ARCHITECTURAL REVIEW
  - 3. INITIAL REVISIONS FROM ELECTRICAL REVIEW
  - 4. INITIAL REVISIONS FROM MECHANICAL REVIEW
  - 5. INITIAL REVISIONS FROM PLUMBING REVIEW
  - 6. INITIAL REVISIONS FROM STRUCTURAL REVIEW
  - 7. INITIAL REVISIONS FROM FIRE REVIEW
  - 8. INITIAL REVISIONS FROM HEALTH DEPARTMENT REVIEW
  - 9. INITIAL REVISIONS FROM ENVIRONMENTAL REVIEW
  - 10. INITIAL REVISIONS FROM OTHER REVIEW

- LEGEND**
- 1. REVISIONS TO BE MADE
  - 2. REVISIONS TO BE REVIEWED
  - 3. REVISIONS TO BE REVIEWED
  - 4. REVISIONS TO BE REVIEWED
  - 5. REVISIONS TO BE REVIEWED
  - 6. REVISIONS TO BE REVIEWED
  - 7. REVISIONS TO BE REVIEWED
  - 8. REVISIONS TO BE REVIEWED
  - 9. REVISIONS TO BE REVIEWED
  - 10. REVISIONS TO BE REVIEWED

A-3

PROPOSED FIRST FLOOR PLAN

2803 Agua Fria Street  
Santa Fe, NM

JAP ARCHITECT

PROJECT NO.: 2803  
DATE: 10/20/2011  
DRAWN BY: JAP  
CHECKED BY: JAP  
SCALE: 1/8" = 1'-0"

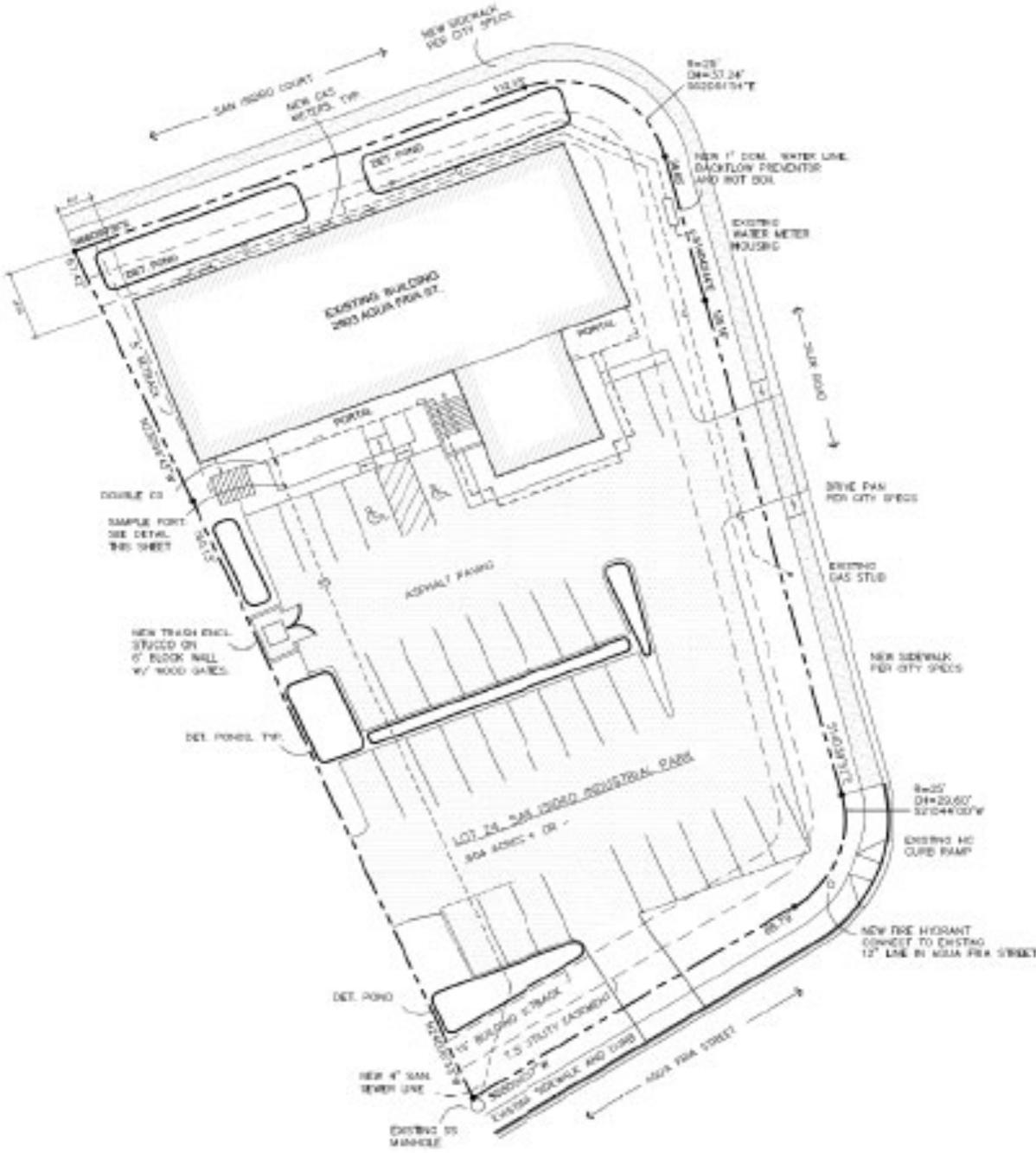


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**SITE PLAN**



The premises consist of the entire property, not a portion of the tract.

**ENDO, LLC**

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## 2.4 – ACTIVITY DIMENSIONS & DIAGRAM

*The diagrams must show (as applicable): ...*

- *the dimensions of each area that cannabis plants will be cultivated;*
- *the location and the dimensions of other areas where other horticulture will be cultivated*

### **1) Grow Room 1:**

Mature Cannabis plants are placed in this room to flower until ready for harvest. This room measures 25' by 32' = 800 sq ft.

### **2) Grow Room 2:**

Mature cannabis plants are placed in this room to flower until ready for harvest. This room measures 26' by 32' = 832 sq ft.

### **3) Kitchen/Employee Breakroom:**

This room can be used by employees during their break to store food, eat and wait until their break is over.

### **4) Fertigation and Processing Room:**

This room includes our fertigation equipment (water tanks, filtration, and nutrient injectors) as well as tables for trimming harvested cannabis and packaging processed cannabis. This measures 15' by 33' = 500 sq ft.

### **5) Vault/Product Storage:**

This room contains finished packaged product that is awaiting testing and the tested products. This room will serve as a vault that managers can restock their front-end supply. This measures 5' by 27' = 135 sq ft.

**6) Dispensary Floor:**

This area is where all sales are processed and where displays of cannabis are shown to customers. Customers will be queued to enter this room and must be vetted by security. It measures 25' by 28' = 700 sq ft

**7) Bathrooms:**

These bathrooms will be emergency use only bathrooms for customers and regular use for employees. We will have both a female and male gendered bathroom.

**8) Data Room:**

This room will host our internet, security, and fire alarm infrastructure. This room will be locked at all times and only accessible by our technical director and IT staff.

**9) Office:**

This room will be used by our directors as office space to work on computers.

**10) Security Entrance:**

This room serves as a check-in for customers to present their identification and be vetted by our security personal. After passing inspection customers will be queued to enter the dispensary floor. It measures 16' by 17.5' = 280 sq ft.

**11) Grow Room 3:**

Mature Cannabis plants are placed in this room to flower until ready for harvest. This room measures 25' x 32' = 800 sq ft.

**12) Grow Room 4:**

Mature Cannabis plants are placed in this room to flower until ready for harvest. This room measures 27' by 32' = 865 sq ft.

**13) Vegetation and Mother Room:**

This room serves as a vegetative space where immature plants are kept to prepare them for transition to one of the grow rooms. This room measures 19' by 24' = 456 sq ft. and 20' by 22.5' = approx. 450 sq ft.

**14) Drying Room:**

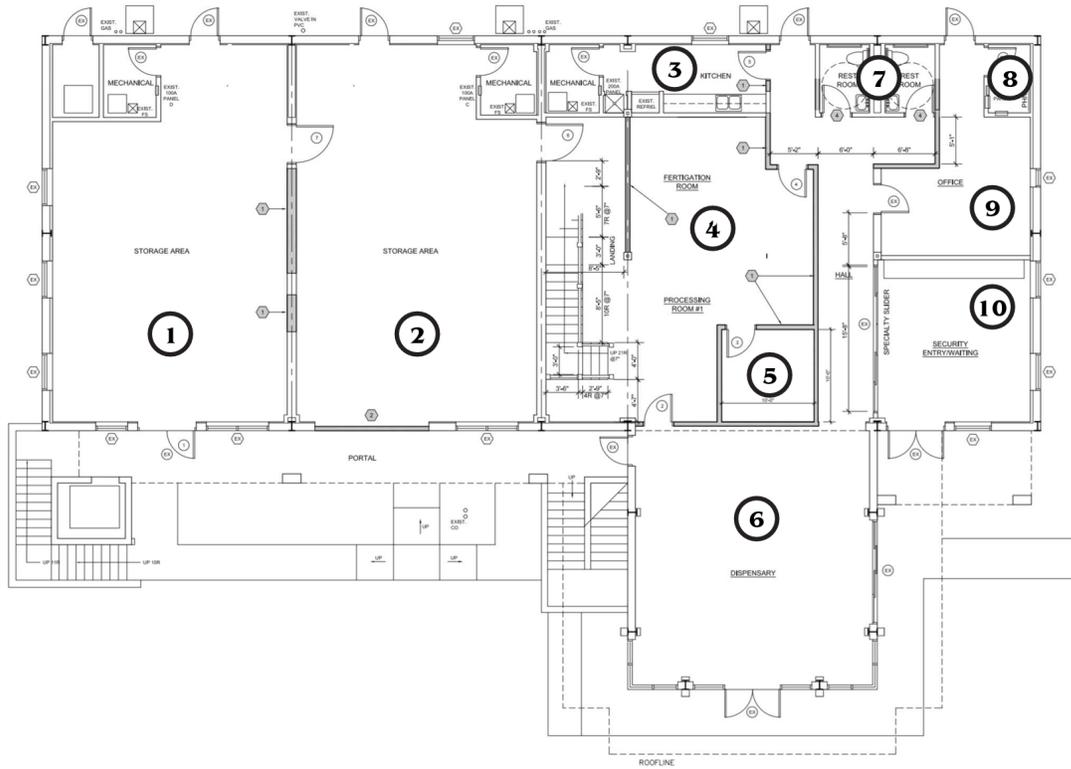
Harvested Cannabis is hung on racks and allowed to dry slowly. Once finished drying the product is moved to storage to be trimmed and packaged. 24.5' by 11.5' = 282 sq ft.

**15) Lab/Cloning Room:**

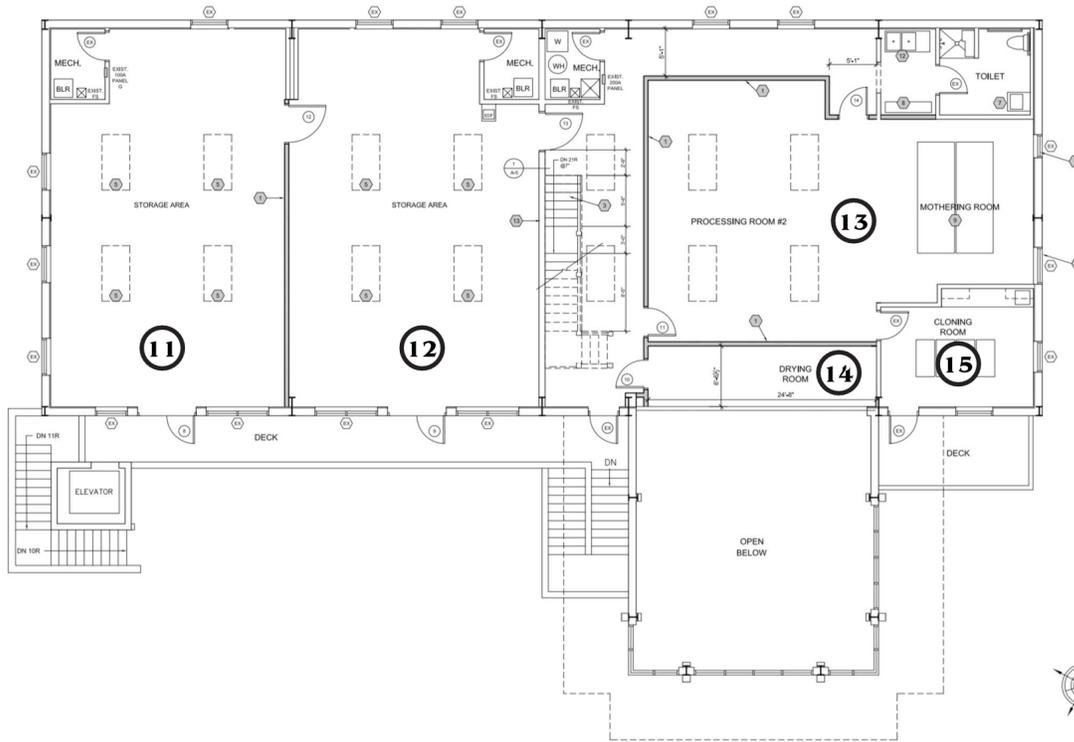
This room holds our immature cannabis cuttings that are to be propagated and grown on shelving. This room will also serve as a lab for tissue culture and analysis. This room measures 17' by 10'5" = 180 sq ft.

No other horticulture will be cultivated at this location.

### First Floor



### Second Floor



# LEGEND

 Luxx 645w LED (60)  
Dimensions: 49in x 43.3in x 2.55 in

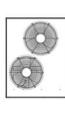
 Water Filtration System

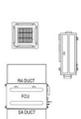
 Automatic Fertigation System

 Water Tank, 300+ gallons

## HVAC SYMBOLS LEGEND

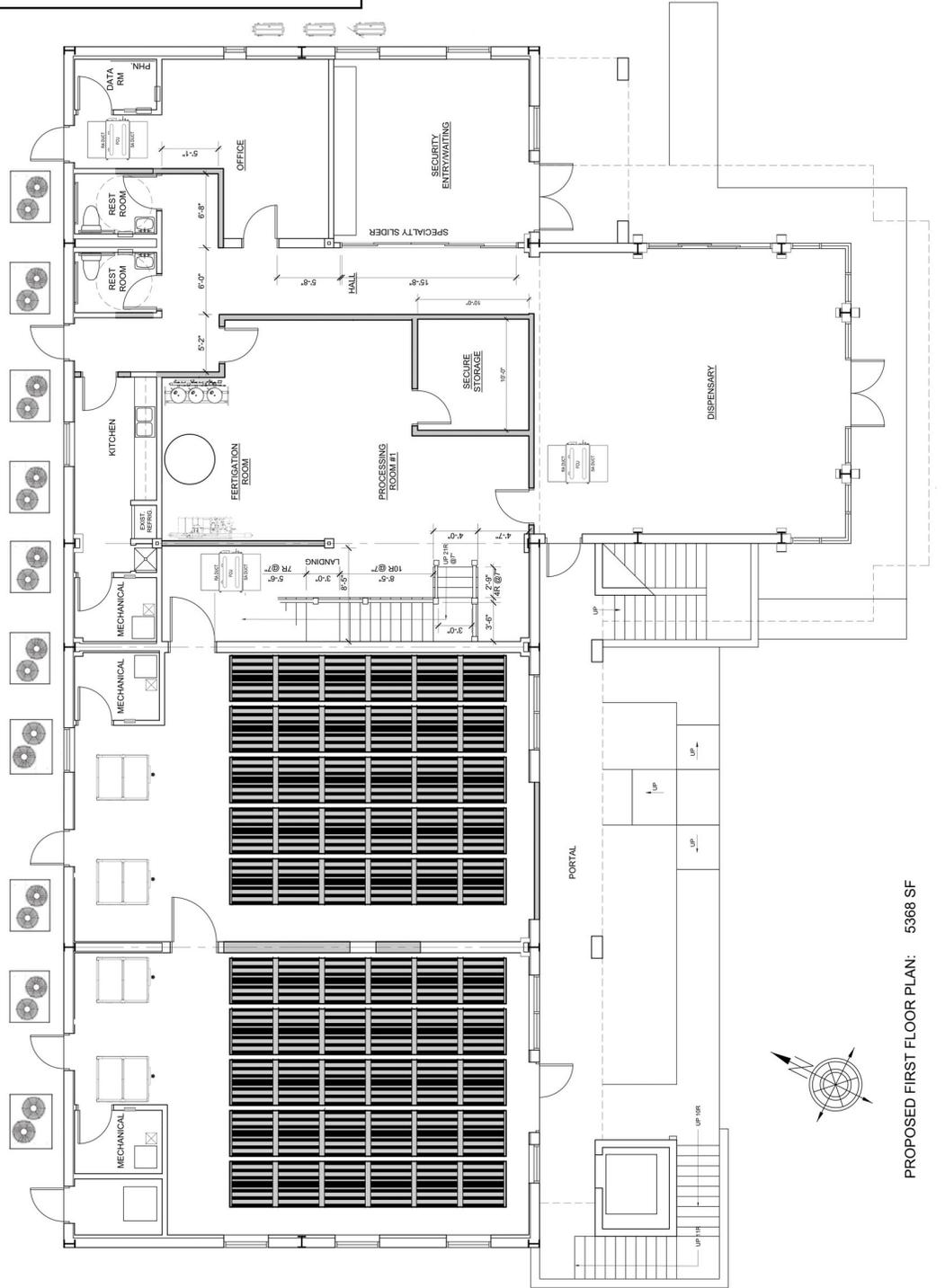
 INDOOR AIR HANDLING UNIT - 10 TON, CEILING HUNG  
WILL NEED SEPARATE 20A, 3P CIRCUIT

 OUTDOOR CONDENSING UNIT, 10-TON

 INDOOR FAN COIL UNITS - POWER BY HP  
3-TON MULTI-ZONE OUTDOOR HEAT PUMP  
208/230V, 2P, MCA: 23 AMPS, MOP: 25 AMP

 EXHAUST AIR

 Scale: 10 ft



# LEGEND

Luxx 645w LED (60)

Dimensions: 49in x 43.3in x 2.55 in



Vivosun VS4000 (36)

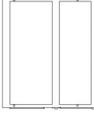
Dimensions: 2ft x 2ft



## HVAC SYMBOLS LEGEND

INDOOR AIR HANDLING UNIT - 10 TON, CEILING HUNG

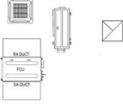
WILL NEED SEPARATE 20A, 3P CIRCUIT



INDOOR FAN COIL UNITS - POWER BY HP

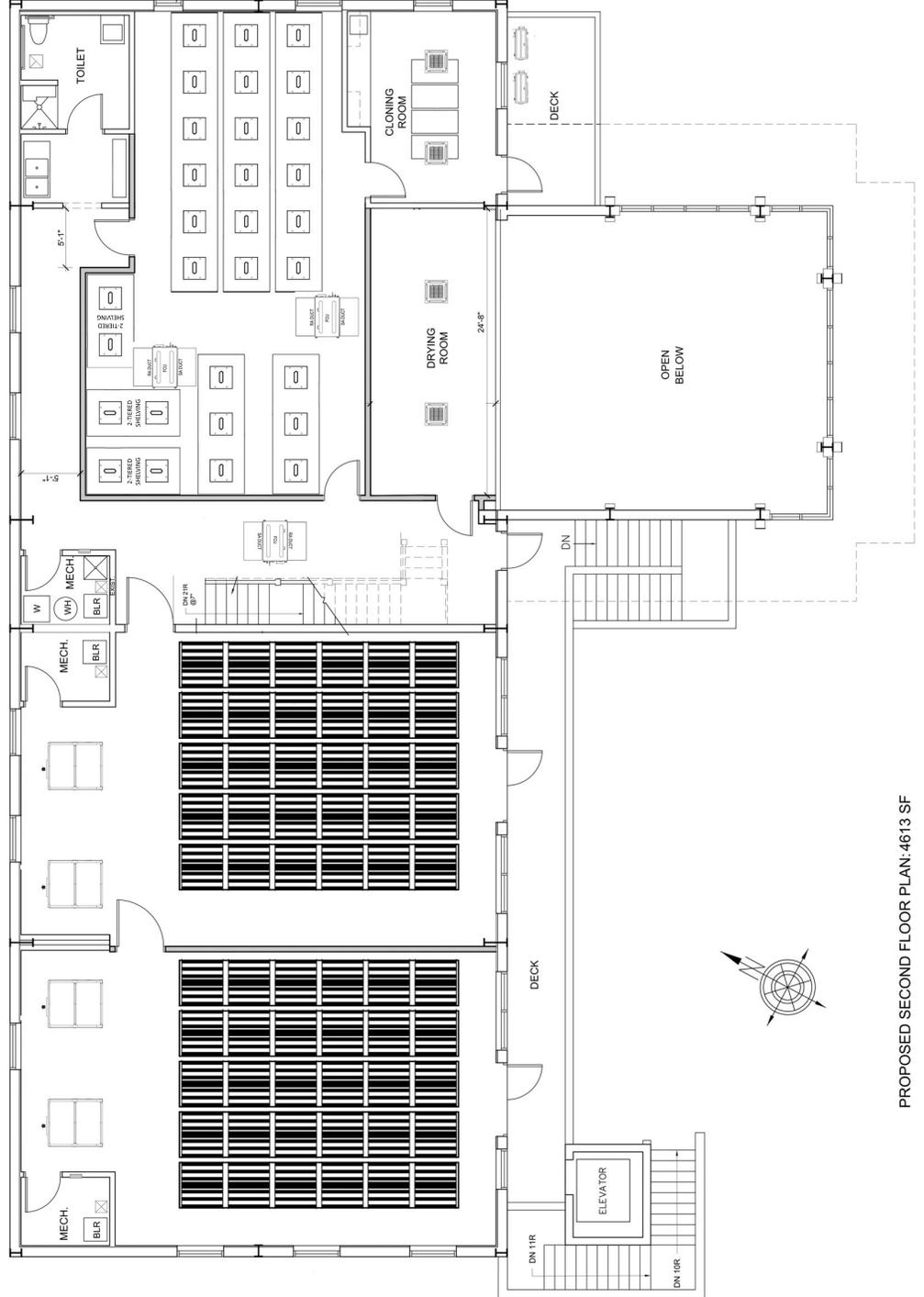
3-TON MULTI-ZONE OUTDOOR HEAT PUMP  
208/230V, 2P, MCA: 23 AMPS, MOP: 25 AMP

EXHAUST AIR



Scale: 10 ft

ENDO - 14



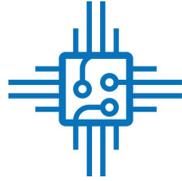
PROPOSED SECOND FLOOR PLAN: 4613 SF

## Lighting Wattage:

In the above diagrams we display four flower rooms, each containing equal lights and design, one vegetative room, a cloning room. The lighting elsewhere is standard lighting and thus removed from the conversation. The lighting and wattage in each room are as follows:

- Flower Rooms (4)
  - 30 Luxx 645 Watt LEDs @ 4 rooms = 77.4 kW
- Vegetative Room
  - 36 Vivosun 400 Watt LEDs = 14.4 kW
- Clone Room
  - 32 Luxx 18 Watt LEDs = 0.58 kW

**In total, the grow lights in our facility use a maximum of 92.38 kW.**



## ENDO SECURITY PROPOSAL: 2903 AGUA FRIA STREET

*The diagrams must show (as applicable):*

- *where all cameras are located and assign a number to each camera for identification purposes.any equipment to be used;*

ATUM.TECH proposes to install the following security system for Endo LLC prior to operation. This proposal meets or exceeds the requirements as set forth by the New Mexico Cannabis Control Division.

The premises located at 2903 Agua Fria Street is approximately 10,000 square feet. To provide adequate coverage and meet the guidelines, Atum will install 32 Power-over-Ethernet (PoE) cameras. PoE offers high flexibility and easy replacement. The cameras will be connected to a 32-camera Amcrest NVR, which records and stores a minimum of 30 days of footage on 12 terabytes of storage. Each camera has the capability of recording up to 2k resolution @ 30 fps, however, to reduce storage size cameras will record 1080p @ 15 fps. Additionally, cameras located in the Dispensary, Waiting Room, and select outdoor cameras will feature built-in microphones to record audio.

The Amcrest NVR provides motion detection alerts among other necessary alerts to the mobile apps installed on each user's cell phone. The footage stored on the NVR will be backed up at regular intervals to a storage server, allowing for redundancy and longer time frames of storage.

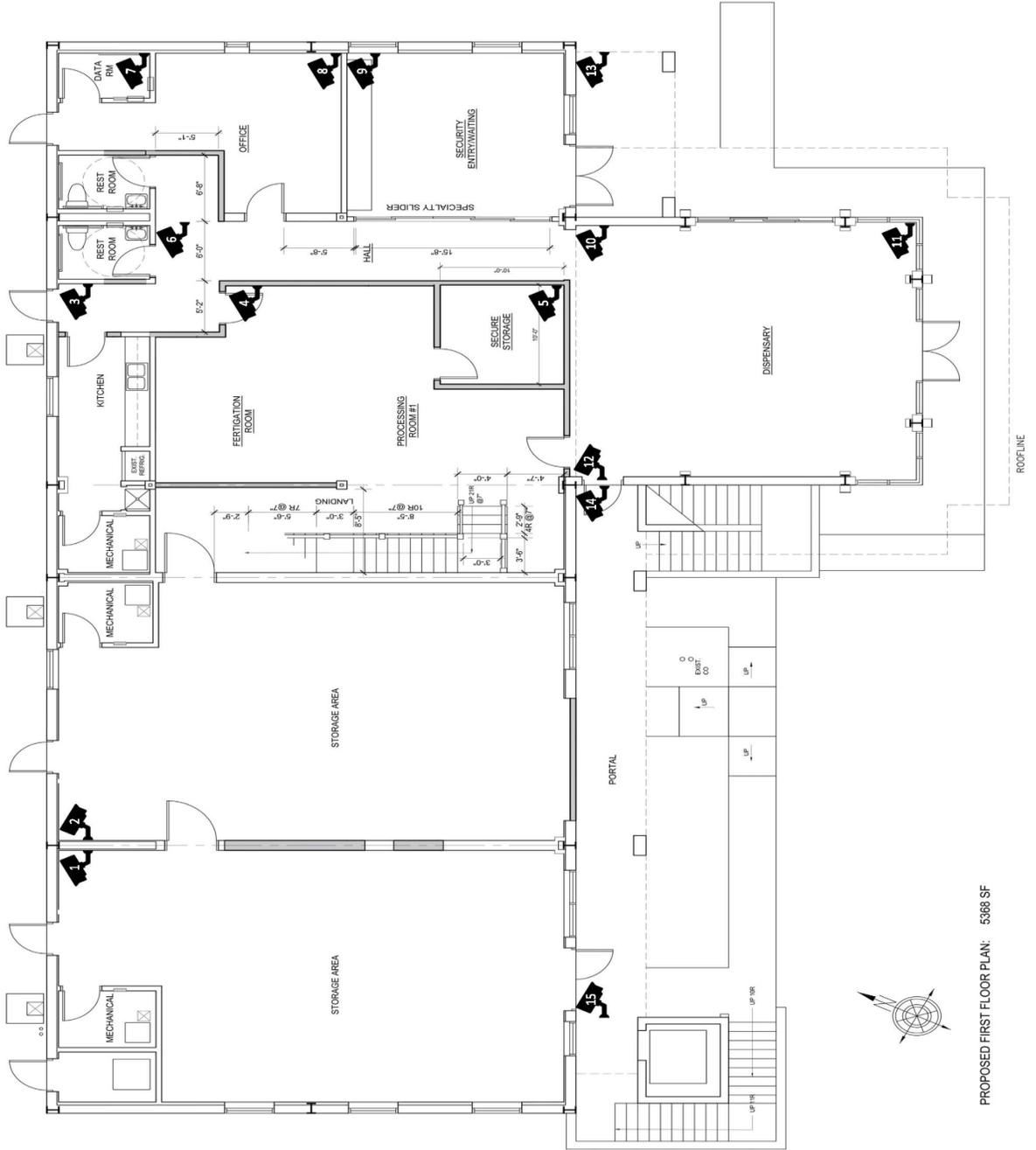
As an extra layer of security, 8 floodlights are to be installed on the outside of the building to deter any potential break-ins.

**Note:** *The camera icons as depicted on the diagrams do not represent the actual viewing angle or the exact mounting position for each camera when installed. The icons do represent the general location of the cameras and security lights. Future improvements will include a perimeter fence when funded.*

LEGEND  
Numbered Cameras



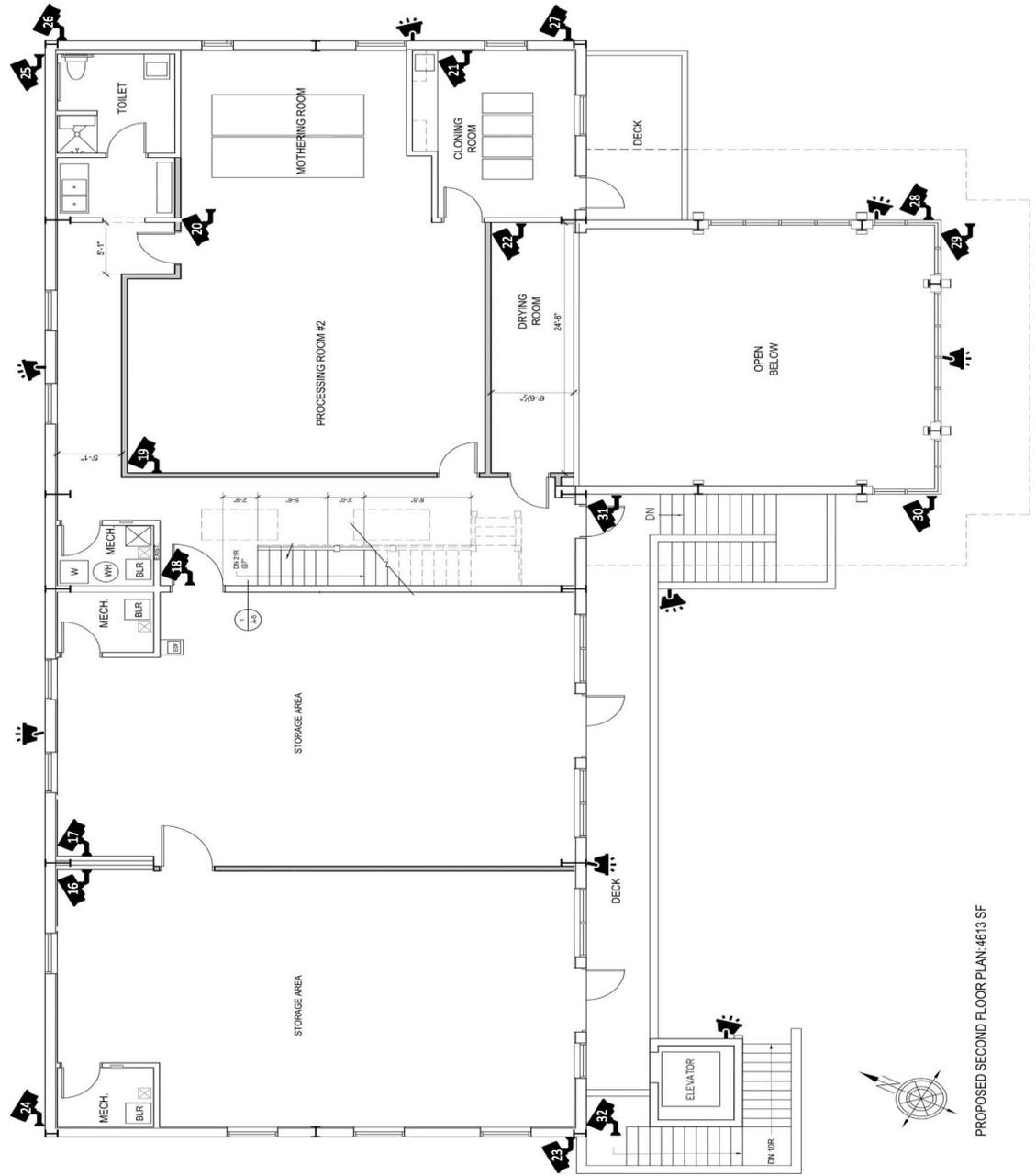
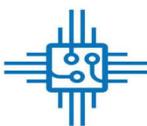
Proposed Security System  
2903 Agua Fria Street



PROPOSED FIRST FLOOR PLAN: 5388 SF

LEGEND

-  Numbered Cameras
-  Floodlights

Proposed Security System  
2903 Agua Fria Street



PROPOSED SECOND FLOOR PLAN: 4615 SF

**ENDO, LLC**

New Mexican Cannabis  
 2903 Agua Fria Street  
 Santa Fe, New Mexico 87505-5413  
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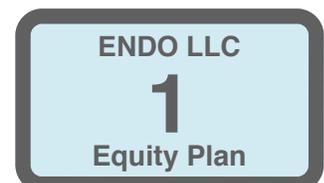
## 1 – SOCIAL AND ECONOMIC EQUITY PLAN

*Please provide the applicant's social and economic equity plan, which should describe the applicant's plan to encourage economic and social diversity in employment. The applicant's plan should include race, ethnicity, gender, age, and residential status of the licensee, all controlling persons and employees of the applicant and whether the applicant, controlling persons, employees or the locations where the cannabis products are produced are located in an underserved rural community, including tribal, acequia, land grant merced, federally designated opportunity zone, or other rural historic communities.*

Social and economic equity is not a goal, a set of metrics, a checklist or, for that matter, a plan. Equity is a way of being, a mindset, and a practice. At Endo LLC, we practice economic and social equity every day at home, at work and in our interpersonal relationships. We embrace diversity of gender, race, religion, ethnic background, and national origin of employees through hiring practices and the diversity of customers who visit our facility. We donate a portion of our income to local charities. We have reduced humanitarian values to writing in our employee handbook. Our management team leads by example in our heartfelt management system.

Our facility, situated on the northwest corner of Siler Road and Agua Fria Street, is in the center of tract 12.02, a qualified, federally designated opportunity zone (QOZ) known as *Siler Road/Agua Fria Manufacturing Overlay*. Over 22% of residents in this neighborhood live below the poverty line, and over 28% of adults here report fair or poor health.<sup>1</sup> Many Latin American immigrants and blue collar workers live here. In addition to serving medical customers with may have difficulty finding transportation

<sup>1</sup>[https://www.santafenm.gov/opportunity\\_zones\\_in\\_santa\\_fe](https://www.santafenm.gov/opportunity_zones_in_santa_fe).



**ENDO, LLC**

to other sections of the city, we offer handicapped access and the promise of gainful employment for otherwise low-income residents of our QOZ.

Endo owners are equally homegrown and diverse. President *Doris Valdez*, for example, was born in Santa Fe and has lived here her entire life. She has both Hispanic with Jicarilla Apache ancestors, and recently retired from the New Mexico Department of Cultural Affairs after 30 years of service to museums and monuments statewide. Her son *Ian Aarons*, our Managing Director, also is a lifelong New Mexican who recently graduated with honors from the Anderson School of Business at the University of New Mexico with an MBA. Anderson is a leading institution in injecting ethical principles into business practice.

*Alex Costello*, Technical Director at Endo, has resided in Albuquerque for four years and recently graduated from Central New Mexico with a degree in information technology. *Stephen Aarons*, Endo LLC General Counsel, has been practicing law throughout New Mexico since 1985 from his office in Santa Fé. Before moving to Santa Fé in 1985, he worked as a volunteer lawyer providing legal services to the Blackfeet Nation in Montana and more recently served as a public defender representing the poor in New Mexico state and federal courts. Several prospective investors below the threshold for controlling person are minorities and economically challenged.

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**CANNABIS**  
BUSINESS TIMES

**2020**

**STATE  
OF THE  
INDUSTRY  
REPORT**

Five years of data reveals  
key trends in the cannabis  
cultivation market.

IN PARTNERSHIP  
WITH



**NEXUS**  
GREENHOUSE SYSTEMS



GREENHOUSE PRODUCTION CONTINUES TO BE THE NO. 1 TOOL FOR REDUCING YOUR INITIAL AND OPERATIONAL COSTS FOR A 52-WEEK PRODUCTION FACILITY, AS ILLUSTRATED IN THIS YEAR'S REPORT SHOWING **A DECREASE IN INDOOR AND INCREASE IN GREENHOUSE CULTIVATION SITES.**

## FIVE YEARS INSIDE THE STATE OF THE INDUSTRY

For the past five years, Nexus Greenhouse Systems has partnered with *Cannabis Business Times* to bring you an inside look at the cannabis cultivation industry. With consistent year-over-year data, this research enables us all to better understand the industry, and its trends, and provides a useful tool for future planning.

As you'll see in this year's report, participants are reporting fewer losses and a leveling off of profits. As state markets stabilize across the country, we know it will be more important than ever to build and maintain operationally efficient cultivation facilities. As the market matures, the price per pound will continue to fall, and your production costs should too if you want to remain competitive, whether you are an entrepreneurial start-up or multistate producer. As a supplier of both greenhouse and indoor cultivation facilities, we know greenhouse production continues to be the No. 1 tool for reducing your initial and operational costs for a 52-week production facility, as illustrated in this year's report showing a decrease in indoor and increase in greenhouse cultivation sites. Nearly a third of greenhouse cultivators also report average production costs of less than \$100 per pound of dried flower, compared to 11% of indoor cultivators.

Whether for greenhouses or indoor grows, hemp, marijuana, or processing and extraction, we have the expertise to design your cultivation facility for your exact business needs. We handle projects from inception to completion with a multitude of structures to suit every climate and general contracting services to ensure you have a knowledgeable team capable of handling installation and systems integration. Our first-to-market approach will get you up and running so that you can optimize your return on investment and maintain operational efficiency.

How do we do this? By being a single-source solution provider. We're pleased to announce the development of the Growing and Processing Solutions groups from our parent company, Gibraltar Industries. Nexus Greenhouse Systems, Rough Brothers, Inc. (RBI), Tetra Indoor Grow, and Thermo Energy Solutions comprise the Growing Solutions Group. Apeks Supercritical and Delta Separations Extraction are the Processing Solutions Group. Together, we are a one-stop-shop for cultivation and processing.

We appreciate your participation in this year's research. We are pleased to support *Cannabis Business Times* in its effort to collect essential cultivation industry data through this annual "State of the Cannabis Cultivation Industry Report." If asked to participate in next year's study, we encourage you to do so; we can gather even more data with your help.

2020 is off to a very different start than any of us could have imagined. The long-term effect that COVID-19 will have on our industry is still to be determined. Nevertheless, we know that we will need to continue to promote the economic and medicinal benefits of our products, stay flexible in our methods of conducting business, and become more efficient in purchasing and day-to-day operations. We know that the cannabis industry is resilient and resourceful. Stay Safe! Stay Healthy!

— Greg Ellis, National Sales Director, Growing Solutions Group

Growing & Processing Solutions



# TRACKING DATA REVEALS INDUSTRY SHIFTS, SUSTAINED GROWTH

**WHEN CANNABIS BUSINESS TIMES** first published the “State of the Cannabis Cultivation Industry Report” a half decade ago, only four states had legalized adult-use programs, close to a dozen states had no legal cannabis programs whatsoever, and hemp was illegal except for research pilot programs. Today, 11 states have fully legalized cannabis, just a small number of states have no legal cannabis programs, and hemp cultivation is permitted at the federal level.

What does this momentum mean for cannabis cultivators? With information and insights from study participants about their operations from multiple years, it is now possible to examine key trends and get a clearer picture of how the market has evolved.

Each year, cultivators are reporting lower production costs no matter whether they grow indoors, in a greenhouse or outdoors. Dramatic decreases were seen in greenhouse production. In response to the question, “What is your operation’s average production cost per pound of dried flower produced,” the number that fell in the middle of responses (the median) for greenhouse growers in 2018 was \$300; that figure is now \$233. Indoor and outdoor cultivators also are reducing production costs, with the median response to the same question dropping from \$425 two years ago to \$396 this year for indoor growers, and from \$175 in 2018 to \$100 this year for outdoor growers.

Perhaps the efforts to reduce cannabis production costs are due to increased competition/declining prices, the primary

business challenge participants have cited throughout the years of the study, including this year. Despite these and other fiscal hurdles, however, fewer cultivators (4%) said their revenue declined in 2020 compared to 2019 (11%). More cultivators (29%) reported increases in revenue during their most recently completed fiscal year compared to the 2019 study (22%), and 15% indicated no change. That may not seem like something to celebrate, until you consider that many participants (43%) could not answer that question, as they have not been in business for two years—a reminder that this is still a young industry that continues to attract interest and expand.

Not only is the industry growing, but the facilities that participants are cultivating in have also continued to expand during the past five years. Each year, a vast majority of participants report plans to add square footage to their cultivation sites in the next two years, and that remained unchanged in 2020, with 81% of participants reporting they have plans to expand.

This report, made possible each year with the support of Nexus Greenhouse Systems and based on a study conducted by third-party researcher Readex Research, provides benchmarks cultivators can use to compare their businesses and a look at the major trends and happenings that have occurred in this very dynamic market. We look forward to continuing to monitor the growth and changes, and to see what the next five years bring.

**Where do you grow cannabis?**  
In which location(s) are your operation’s grow site(s)/facilities?



Total exceeds 100% because participants could select multiple answers

# 29%

**OF GREENHOUSE GROWERS ARE PRODUCING A POUND OF DRIED FLOWER FOR AN AVERAGE OF LESS THAN \$100.**

## REVENUE & PROFITS: PLATEAUED, BUT SOLID

**AFTER GROWTH SKYROCKETED BETWEEN 2018 AND 2019**, participants in the 2020 “State of the Cannabis Cultivation Industry Report” hit a plateau in their revenue trajectory. The average reported revenue inched up from \$3.73 million in 2019 to \$3.74 million in 2020.

The median company revenue (the number where half of participants reported a higher revenue and half reported a lower revenue) fell from \$273,000 in 2019 to \$269,000 in 2020. A slightly higher percentage of cultivators (34%) noted revenues of \$1 million or more this year compared to last year (32%); this upward trend has continued during the five years *Cannabis Business Times* has conducted the “State of the Cannabis Cultivation Industry Report” with 24% noting revenues of \$1 million or more in 2016.

However, more cultivators reported revenue growth and fewer reported losses in the most recently completed fiscal year. Only 4% of participants indicated revenue had declined this year, compared to 11% in 2019 and 8% in 2018. And more than a quarter of participants (29%) reported revenue growth, with 17% of those participants noting that the increase was 25% or higher. Another 15% had steady revenue with no change compared with the previous year. Close to half of participants (43%) could not respond to that question because they have not been in business for two years.

What was your operation's **revenue** from its cannabis cultivation operations in its most recently completed fiscal year?

	2016	2017	2018	2019	2020	Overall % pt. change 2016 vs. 2020
▶ <b>\$5 million or more</b>	6%	8%	11%	14%	<b>11%</b>	↑5%
▶ <b>\$2 million - \$4.9 million</b>	10%	9%	12%	7%	<b>13%</b>	↑3%
▶ <b>\$1 million - \$1.9 million</b>	8%	11%	10%	11%	<b>10%</b>	↑2%
\$500,000 - \$999,999	5%	13%	8%	8%	8%	↑3%
\$250,000 - \$499,999	9%	12%	7%	9%	7%	↓2%
\$100,000 - \$249,999	17%	13%	14%	14%	12%	↓5%
\$50,000 - \$99,999	30%*	6%	8%	9%	6%	-*
\$25,000 - \$49,999	-	5%	3%	4%	4%	↓1%**
Less than \$25,000	-	19%	21%	18%	26%	↑7%**
No answer	16%	5%	5%	7%	3%	↓13%

\*Note: In the 2016 report, a total of 30% of research participants reported revenue less than \$100,000; the research did not break down revenue ranges less than \$100,000  
\*\*Compared to 2017 data

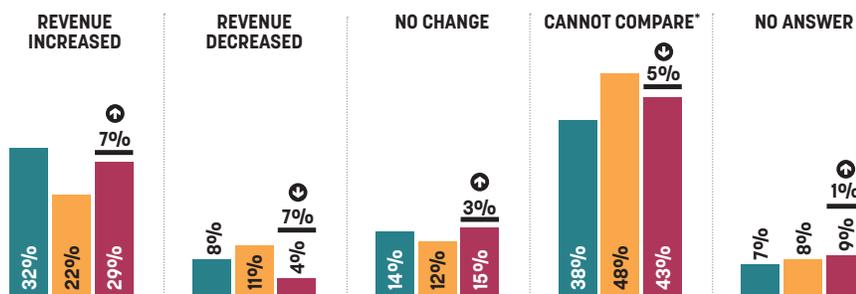


**29%**

of research participants noted revenue growth in the 2020 study.

Compared with one year prior, how did your operation's **revenue** from its cannabis cultivation change in its most recently completed fiscal year?

● 2018 ● 2019 ● 2020 ● Overall change (% points 2019 vs. 2020)



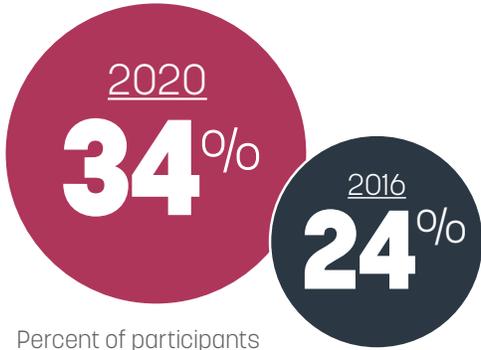
**2020 Revenue increased:**

by 100% or more	5%
by 50% - 99%	7%
by 25% - 49%	5%
by less than 25%	10%

**2020 Revenue decreased:**

by less than 25%	1%
by 25% - 49%	1%
by 50% or more	2%

Note: Totals may not add up due to rounding or participants not specifying percentages increased/decreased. \*Have not been in business for two years

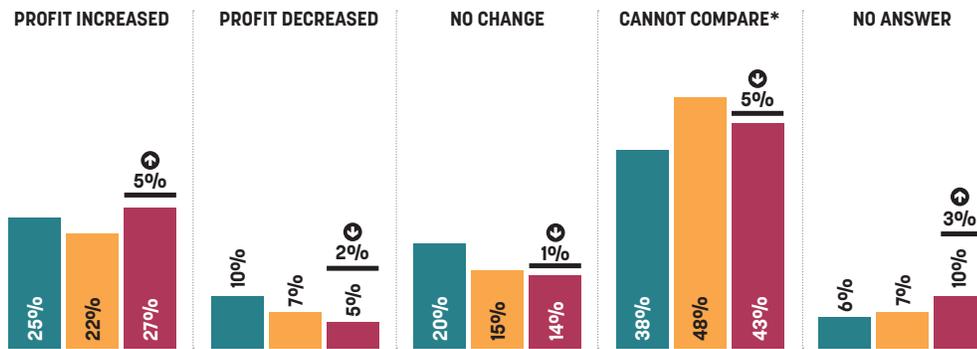


Percent of participants who noted their revenue was \$1 million or more

### MODEST PROFIT INCREASES

**AS WITH REPORTED REVENUE**, more participants in this year's study noted profit increases and fewer indicated they experienced profit losses. Although the changes weren't significant between 2019 and 2020, the trends are positive, with 27% reporting profit increased in 2020 compared to 22% in 2019, and 5% reporting profit decreased compared with 7% in 2019. Another 14% reported no change, down from 15% who reported no change in 2019. Profit growth was moderate, with fewer people reporting gangbuster percentage increases of 50% or more (8% in 2020 versus 12% in 2019) and more reporting modest profit jumps. In the 2019 study, nearly half (48%) of participants could not compare revenue and profit changes because they were not in business the previous year. In the 2020 study, the number is slightly lower (43%) but still notable.

Compared with one year prior, how did your operation's profit from its cannabis cultivation change in its most recently completed fiscal year? ● 2018 ● 2019 ● 2020 ● Overall change (% points 2019 vs. 2020)



\*Have not been in business for two years

#### 2020 profit increased:

by 100% or more	3%
by 50% - 99%	4%
by 25% - 49%	10%
by less than 25%	8%

#### 2020 profit decreased:

by less than 25%	1%
by 25% - 49%	0%
by 50% or more	2%

Note: Totals may not add up due to rounding and due to some participants not specifying percentages increased/decreased.

### COVID-19 FACTOR

**CBT CONDUCTED THE 2020 "STATE OF THE CANNABIS CULTIVATION INDUSTRY" RESEARCH IN APRIL AMID THE COVID-19 PANDEMIC** that the world is still grappling with. It is too soon to tell what the business impact will be, but 63% of participants indicated that COVID-19 has already affected their operations, with the following ramifications: "decreased sales" (23%), "staff reductions/hours cut" (22%), "suspension of some operations" (21%) and "suspension of all operations" (4%). However, nearly a fifth of participants (18%) reported increased sales, and 5% said they increased staff hours. One bright note for the industry is that most states deemed cannabis companies essential businesses, so they could remain open, with modifications to prevent the spread of the virus.

In what ways, if any, has the COVID-19 outbreak impacted your cannabis operation?



## WHERE CULTIVATORS GROW

**THE YEAR-OVER-YEAR PERCENTAGE CHANGE** showing where people grow cannabis—warehouse/indoors, greenhouse or outdoors—was negligible when comparing 2019 to 2020. When looking further back in time, the number of people growing cannabis in warehouses has decreased by 20 percentage points since the first “State of the Cannabis Cultivation Industry” study in 2016, when a vast majority (80%) of participants grew indoors compared with 60% in this year’s study. Meanwhile, the number of participants growing in greenhouses and outdoors has increased steadily over the years, with some variations. However, some participants grow in multiple types of facilities, but there are more participants who *only* grow cannabis in warehouses than any other sole option, with 42% growing exclusively indoors. The number of people solely growing in greenhouses has increased since 2016, moving 8 percentage points from 4% to 12% in 2020.

### % of Crop Space

The average percentage of your cannabis production area is?



Note: This question first appeared in the 2017 study; 2016 data is not available.

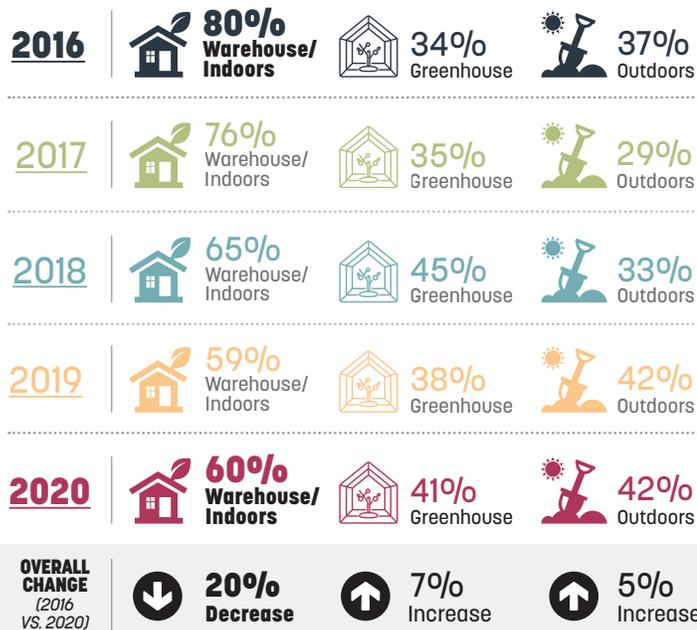
# 20%

The number of study participants growing in warehouses/indoors has decreased by 20 percentage points since the “State of the Cannabis Cultivation Industry Report” first launched in 2016.



### Warehouse/Indoors, Greenhouse or Outdoors

Where does your operation grow cannabis?



Note: Totals exceed 100% because respondents could select multiple answers.

### Warehouse/Indoors, Greenhouse or Outdoors: A Closer Look

Where does your operation grow cannabis?

	2016	2020	Overall Change
Warehouse/Indoors Only	44%	42%	⊖ 2%
Greenhouse Only	4%	12%	⊕ 8%
Outdoors Only	10%	12%	⊕ 2%
Greenhouse + Outdoors (No Warehouse)	3%	16%	⊕ 13%
Greenhouse + Warehouse (No Outdoors)	13%	4%	⊖ 9%
Warehouse + Outdoors (No Greenhouse)	10%	5%	⊖ 5%
All Three	14%	9%	⊖ 5%

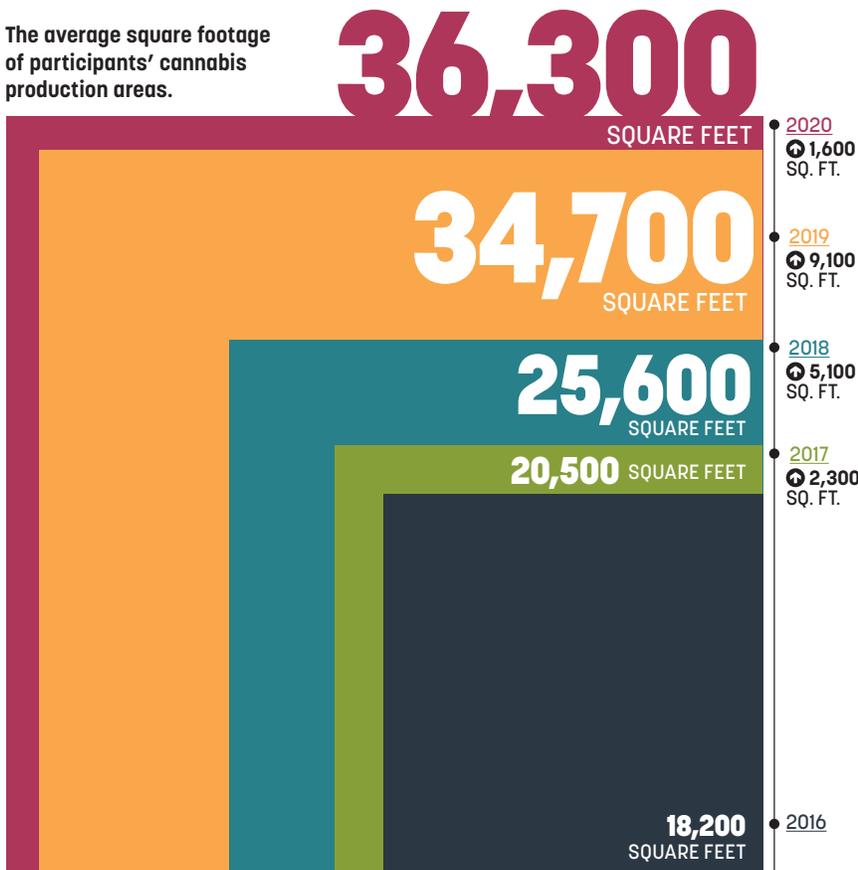
# 58%

of cultivators operate grow sites under the sun, either in greenhouses or outdoors.

## BIGGER OPERATIONS, MORE FACILITIES

**MOST PARTICIPANTS** operate single cannabis growing operations (59%), but examining five years of data reveals trends toward larger facilities and more grow sites. In 2016, 66% grew in a single facility/location. Between 2016 and 2020, the number of participants indicating they grow in two or more facilities/grow sites increased from 32% to 41%. The number of cultivators growing in five or more sites jumped by 5 percentage points compared with the first year of the study, moving from 6% to 11%. In addition, the number of cultivators who have 80,000 sq. ft. or more of production space has increased by 12 percentage points comparing the 2016 to 2020 studies, and now nearly a fifth of study participants (19%) indicate they grow in facilities that size or larger.

The average square footage of participants' cannabis production areas.



### Grow Size

What is the square footage of your operation's cannabis production area?

SIZE	2016	2020	OVERALL CHANGE
80,000 sq. ft. or more	7%	19%	↑ 12%
50,000-79,999 sq. ft.	3%	7%	↑ 4%
25,000-49,999 sq. ft.	12%	11%	↓ 1%
10,000-24,999 sq. ft.	15%	15%	-
5,000-9,999 sq. ft.	24%	12%	↓ 12%
Less than 5,000 sq. ft.	34%	35%	↑ 1%

### Grow Sites: Single vs. Multi-Facility

How many cannabis facilities/grow sites does your operation have?

#### FIVE OR MORE



2016 2020  
**6%** **11%**

Overall Change ▶ ↑ **5%**

#### FOUR



2016 2020  
**4%** **2%**

Overall Change ▶ ↓ **2%**

#### THREE



2016 2020  
**7%** **10%**

Overall Change ▶ ↑ **3%**

#### TWO



2016 2020  
**15%** **17%**

Overall Change ▶ ↑ **2%**

#### ONE



2016 2020  
**66%** **59%**

Overall Change ▶ ↓ **7%**

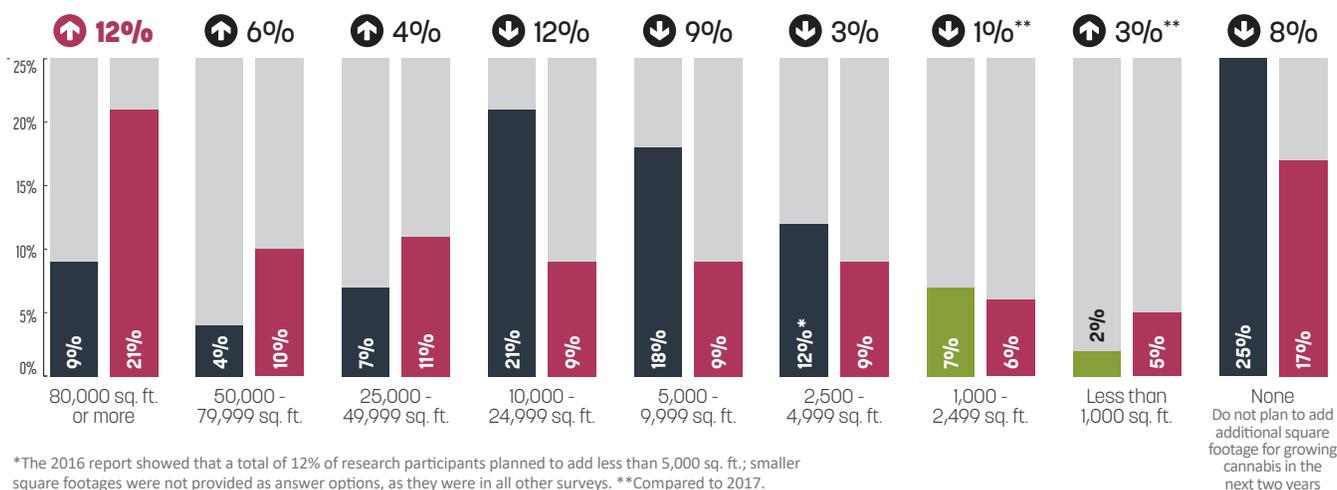
## INDUSTRY OPTIMISM, EXPANSION CONTINUES

**IN THE FIVE YEARS** that *Cannabis Business Times* has published the “State of the Cannabis Cultivation Industry Report,” the vast majority of research participants noted they plan to expand their cultivation operations, with a slight shift in the types of expansion they have planned. The number of participants who noted greenhouse expansion plans has hovered around 45%, while the number of cultivators who plan to add indoor/warehouse space has decreased slightly since 2016 (36% in 2020 vs. 43% in 2016). Each year, about a fifth of cultivators noted plans to add outdoor cultivation space (22% this year).

The square footage that cultivators plan to add has shifted more significantly over previous years. Since 2016, the number of participants who said they plan to add 25,000 sq. ft. or more of cultivation space has increased from 20% in 2016 vs. 42% in 2020, while the number of cultivators planning to add less than 25,000 sq. ft. has decreased from 51% in 2016 to 39% in 2020. In 2016, a quarter (25%) of cultivators said they had no plans to add square footage; that number has decreased to 17% in this year’s study.

### Expansion Plans

How much additional square footage for growing cannabis does your operation plan to add in the next two years? ● 2016 ● 2017 ● 2020



### Projecting Growth Ahead

Which of the following does your operation plan to add for cannabis cultivation in the next two years?

	2016	2017	2018	2019	2020
Warehouse/indoors cultivation space	43%	47%	53%	39%	36%
Greenhouse	44%	46%	43%	43%	45%
Outdoor cultivation space	22%	20%	25%	23%	22%
None of these	21%	16%	18%	21%	21%
All three	-	-	-	-	5%

# 38,700 sq. ft.

The average square footage cultivators plan to add for growing cannabis in the next two years.

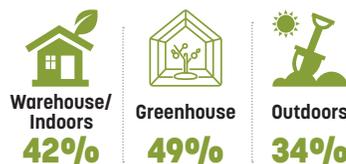
# 21%

Percent of research participants who indicated they plan to add 80,000 sq. ft. or more of cannabis growing space during the next two years.

### MORE CONTINUE TO INVEST IN CANNABIS

**THE GROWING CANNABIS INDUSTRY** continues to attract interest, as indicated by the intentions of an additional 53 research participants who do not currently own or work for a cannabis cultivation operation but plan to in the next 18 months.

If you **DO NOT** currently own or work for an operation that grows cannabis, but plan to in the next 18 months\*, which of the following does your operation plan to add for cannabis cultivation in the next two years?



\*Base: an additional 53 research participants who do not currently own or work for an operation that grows cannabis. Note: Totals exceed 100% because participants could select multiple answers.

## MORE EFFICIENT OPERATIONS

WHETHER GROWING IN A GREENHOUSE, INDOORS OR OUTSIDE, cultivators are running more efficient operations, as evidenced by the continuous decline in production costs seen during the years. For example, when growers were asked to provide their average production cost per pound of dried flower in 2019, the number that fell in the middle of all responses (the median) when growing in a warehouse, greenhouse or outdoors was \$400, \$261 and \$130, respectively. This year, those figures have declined to \$396, \$233 and \$100, respectively. When compared to 2018 data, as the chart below illustrates, the decreases are even more dramatic. Cultivators are continuing to utilize automation technology when cultivating, which could be increasing efficiency and lowering production costs. As noted later in the study, competition and declining prices have been cultivators' top challenges for multiple years, so decreasing the cost to produce a pound of flower may be a top priority.

# 47%

of cultivators indicated their average production costs per pound of dried flower grown outdoors is less than \$100.

# 29%

of cultivators said their average production cost per pound of dried flower grown in greenhouses is less than \$100, up from 15% in 2019.

### Dried Flower: Production Costs

What is your operation's average production cost per pound (\$/lb.) of dried flower produced?

	Warehouse/ Indoors	Greenhouse	Outdoors
\$1,000 or more	7%	2%	5%
\$700 - \$999	15%	13%	2%
\$500 - \$699	14%	6%	5%
\$400 - \$499	8%	6%	1%
\$300 - \$399	12%	7%	6%
\$200 - \$299	7%	12%	11%
\$100 - \$199	17%	10%	16%
Less than \$100	11%	29%	-
\$50-\$99	-	-	19%
Less than \$50	-	-	28%
No answer	9%	13%	7%

What is the average cost to grow a pound of dried flower produced?\*

2020



\$100

Outdoors



\$233

Greenhouse



\$396

Warehouse/  
Indoors

Cost per pound change, 2018 vs. 2020:

↓ \$75

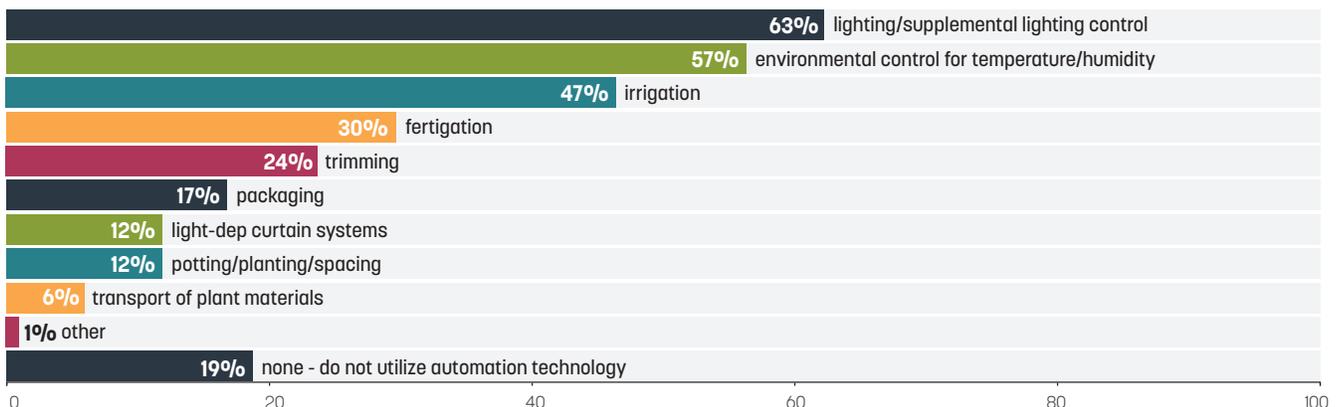
↓ \$67

↓ \$29

\*Note: This chart shows the median average cost, or the number that fell in the middle of all responses

### What Are You Automating?

For which systems does your operation utilize automation technology in its cannabis cultivation?



\*Note: Total exceeds 100% because respondents could select multiple answers.



## CHALLENGES: ONE CONSTANT IN A DYNAMIC INDUSTRY

**NOT MUCH IN THE CANNABIS INDUSTRY IS CONSISTENT**, with changing regulations and more states coming online with medical or adult-use programs. However, the primary cultivation- and business-related challenges for cannabis operations, according to participants, have remained unchanged for the past three years CBT has conducted the “State of the Cannabis Cultivation Industry Report.”

The top three *cultivation*-related hurdles cited again this year by participants are: “insect pest/disease prevention/control” (37%), “increasing yield,” (31%) and “achieving desired terpene/cannabinoid content” (28%). Other challenges noted included “humidity control” (21%), “maintaining consistent yields” (19%), “finding suitable genetics for growth environment” (15%) and “weather” (13%).

As far as *business* challenges, “competition/declining prices” again ranked as the No. 1 challenge among cultivators, with “compliance with local and/or state regulations” in a close second, and “finance management” ranking third. In addition to the top three business-related challenges, other highly cited options included “securing capital/funding” (23%), “uncertainty regarding federal law” (21%), “production costs” (20%), “marketing/brand building” (19%) and “product sales” (19%).

### What do you consider to be your operation’s three\* biggest *cultivation-related* challenges as a cultivator of cannabis?



\*Note: Research participants could choose between multiple answer options. These were the top three most-cited responses.

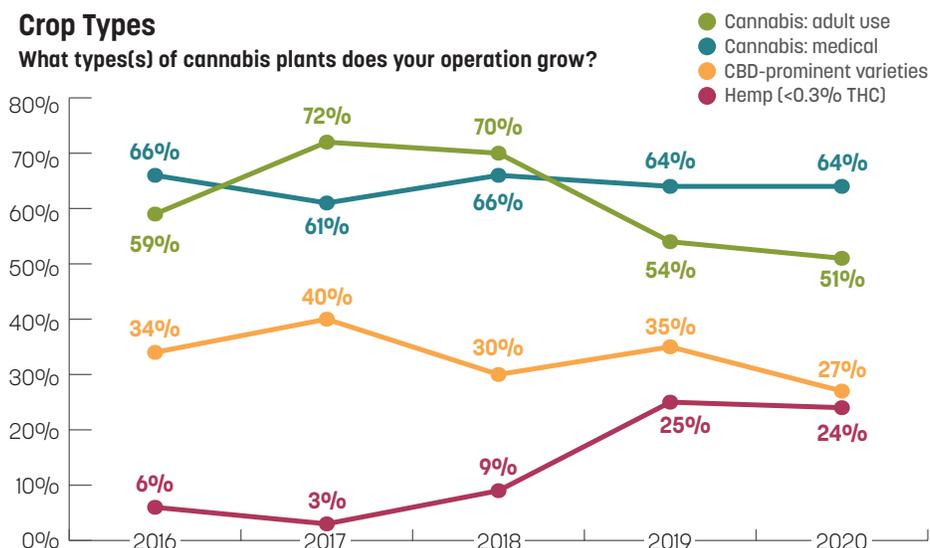
### What do you consider to be your operation’s three\* biggest *business-related* challenges as a cultivator of cannabis?



\*Note: Research participants could choose between multiple answer options. These were the top three most cited responses.

## Crop Types

What type(s) of cannabis plants does your operation grow?



Note: Totals exceed 100% because respondents could select multiple answers.

# 24%

About a quarter of cultivators reported they are growing hemp, an 18-percentage-point increase from participants in 2016, the first year of the study.

## CULTIVATORS DIVERSIFY

**MORE THAN HALF OF ALL STUDY PARTICIPANTS** (54%) are vertically integrated companies, either manufacturing retail products and/or operating dispensaries. This year's study took a closer look at companies that process/extract cannabis (42%), examining which methods were most prevalent. Of the 42% of cultivators that operate cannabis processing/extraction facilities, the top three extraction methods used included ethanol (45%), CO<sub>2</sub> (40%) and solventless (36%).

# 54%

of participants said their companies are vertically integrated.



### Vertically Integrated

In addition to growing cannabis, which of these other areas is your operation involved with?

**47%**  
Manufacturing retail products



**27%**  
Dispensaries

**46%**  
None

Note: Totals exceed 100% because respondents could select multiple answers.

What portion of your crop do you extract/manufacture?\*

100%	9%
80-99%	7%
60-79%	8%
40-59%	14%
20-39%	28%
1%-19%	29%
Less than 1%	4%

\*Base: 85 study participants who indicated they are currently processing/extracting cannabis. No answer: 1%

Does your operation currently include cannabis processing/extraction?

**YES** **42%**

**NO** **40%**

**NO, BUT PLAN TO WITHIN THE NEXT TWO YEARS** **18%**

What method(s) does your operation use to process cannabis?\*



Note: Totals exceed 100% because respondents could select multiple answers.

**ABOUT THE RESEARCH:** The data in this report was collected by independent research firm Readex Research via an online survey, which was sent to all emailable, active, qualified subscribers to *Cannabis Business Times* magazine and/or e-newsletter located in the U.S. or Canada, from April 15 to April 29, 2020. The survey was closed for tabulation with 298 responses. To best represent the audience of interest, the base for the results in this report, unless otherwise noted, are the 202 respondents who indicated they currently own or work for an organization that grows cannabis. Another 53 respondents indicated they do not currently own or work for an operation that grows cannabis, but plan to in the next 18 months. The margin of error for percentages based on the 202 respondents who currently own or work for an operation that grows cannabis is approximately +/- 6.8 percentage points at the 95% confidence level.

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