

PRESENTING....

November 2022

Epiphany

Gardens

Crop Swap LA & Epiphany Projects
A Urban Farm Collaboration



5975 S. Western Ave
South Central Los Angeles

Bringing Food Abundance to Food Deserts

Problem

The people of South Central are in a state of prolonged crisis:

- 55% of residents of District 8 live at or near poverty
- 30% of households near poverty level experience food insecurity
- Life expectancies 10+ years less than healthiest communities
- 16x less available recreational space than LA County average
- 58% live close to a grocery store vs. 90+% in the best communities
- 32% of adults are obese, 15% are diagnosed with diabetes
- 300% more serious crime than the LA County average
- 40% report not receiving the social & emotional support they need
- Half of registered voters in District 8 did not vote
- 10% of children are diagnosed with asthma
- 47 oil and gas wells creating risk for exposure to toxic chemicals
- Ranks in the bottom 2% on California Healthy Places Index

All while this 2.75 acre city-owned lot on 60th & Western sits vacant.

County of Los Angeles June 2018 Public Health Profile - Los Angeles City Council District 8



Solution

Turn the unused lot into a beautiful urban farm and outdoor event space that transforms this area into one of:

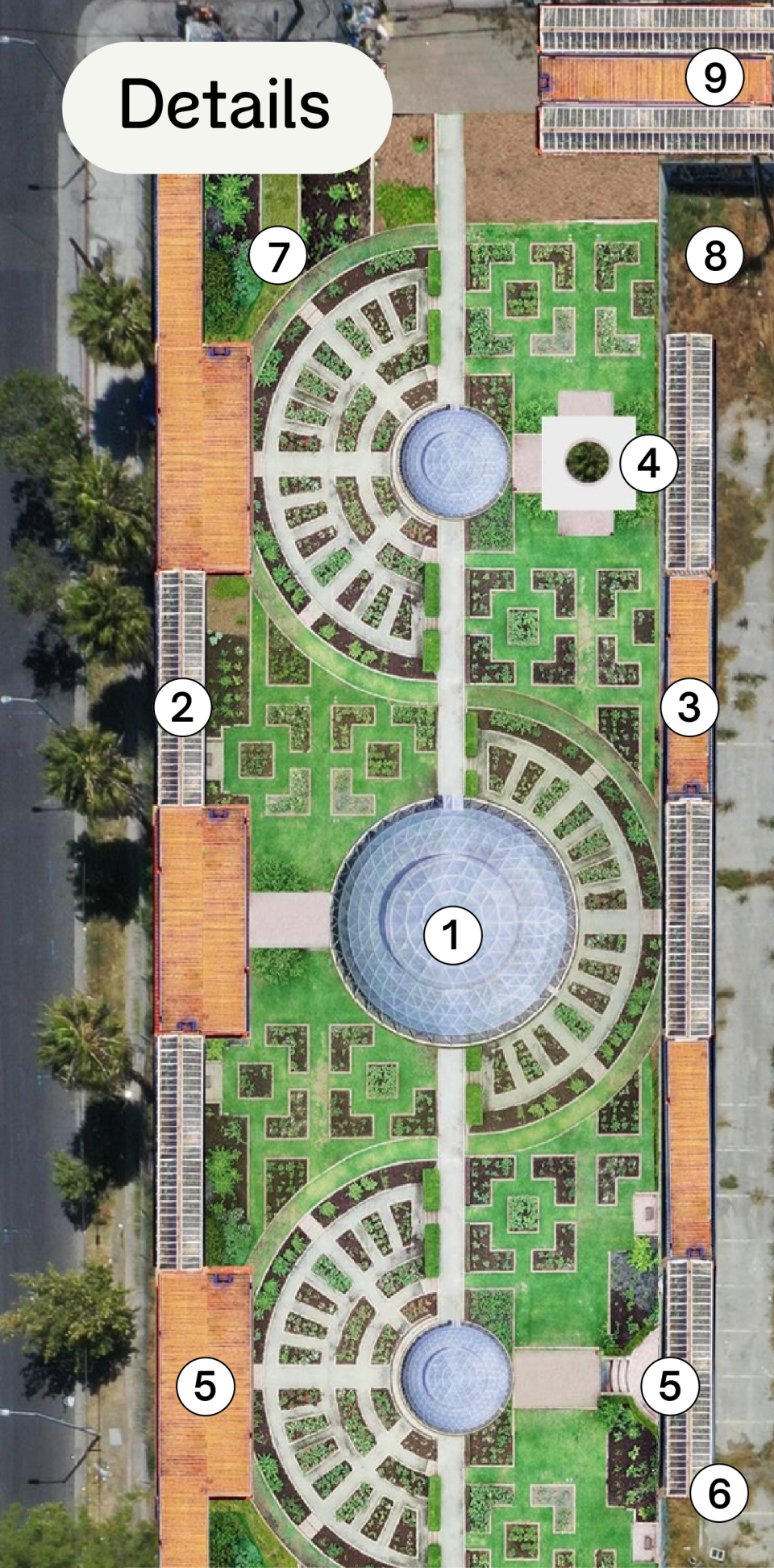
- **Food Abundance:** Enough fresh, nutrition-dense fruits & vegetables to feed 500 families per week plus a regular farmer's market attracting a diversity of farmers and options
- **Environmental Leadership:** A national model for community regeneration through urban farming. Cleaner air, cooler temperatures, and healthy soils that capture carbon.
- **Economic Prosperity:** Ecotourism. AgTech & Green Industry Jobs. Increased Property Values. Tax Revenue Generation.
- **Community Health:** Decrease crime, support neighborhood self-sufficiency, cross-cultural interactions, and social ties.







Details



Geodesic Domes

Algae Bloom & Tropical Permaculture Greenhouses. Large 40' and two smaller 12' domes.

Plant Sculpture

Sculptural Biophilic Art Installation - Used for meditation and relaxation and education.

Food Forestry Permaculture

Through a combination of growing methods, we aim to produce an abundance of high-quality food year round.

Ag Tech Container

Ag-Tech Hydroponic & Aquaponic Greenhouse, Controlled Environment Agriculture

Community Stage Rooftop Decks

Small music shows and plays, community gathering space, dinner parties, private events.

Compost Tea Vermiculture

Compost collection, tea production. We partner with local restaurants to collect organic matter as well as community drop off.

Shipping Container

Mycelium Growing
- Lions Mane
- Shitake Mushrooms
- Cordyceps

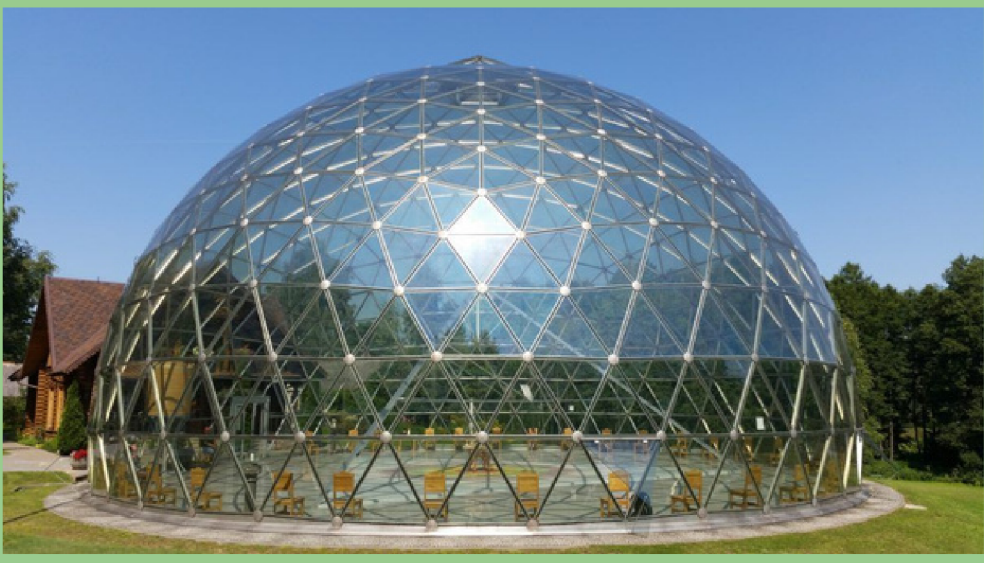
Atmospheric Water Generation

Gardens need a lot of water thankfully we have found a machine that produces 2200 gallons of water per day.

Energy & EV Charging

An tried and true combination of wind & solar will provide power and charge our batteries. We will also be able to provide energy for EV charging stations.

See appendix for details



Location

SOUTH CENTRAL, LOS ANGELES

Directly connected to the property is another acre of space owned and managed by the City of Los Angeles.

The lot is regularly rented as a basecamp by filming productions who appreciate the direct and easy load-in ramps onto the property. our goal is to beautify the area and bring a layer of life and energy to the empty dirt lot while also cleaning up the main parkway and maintaining it.

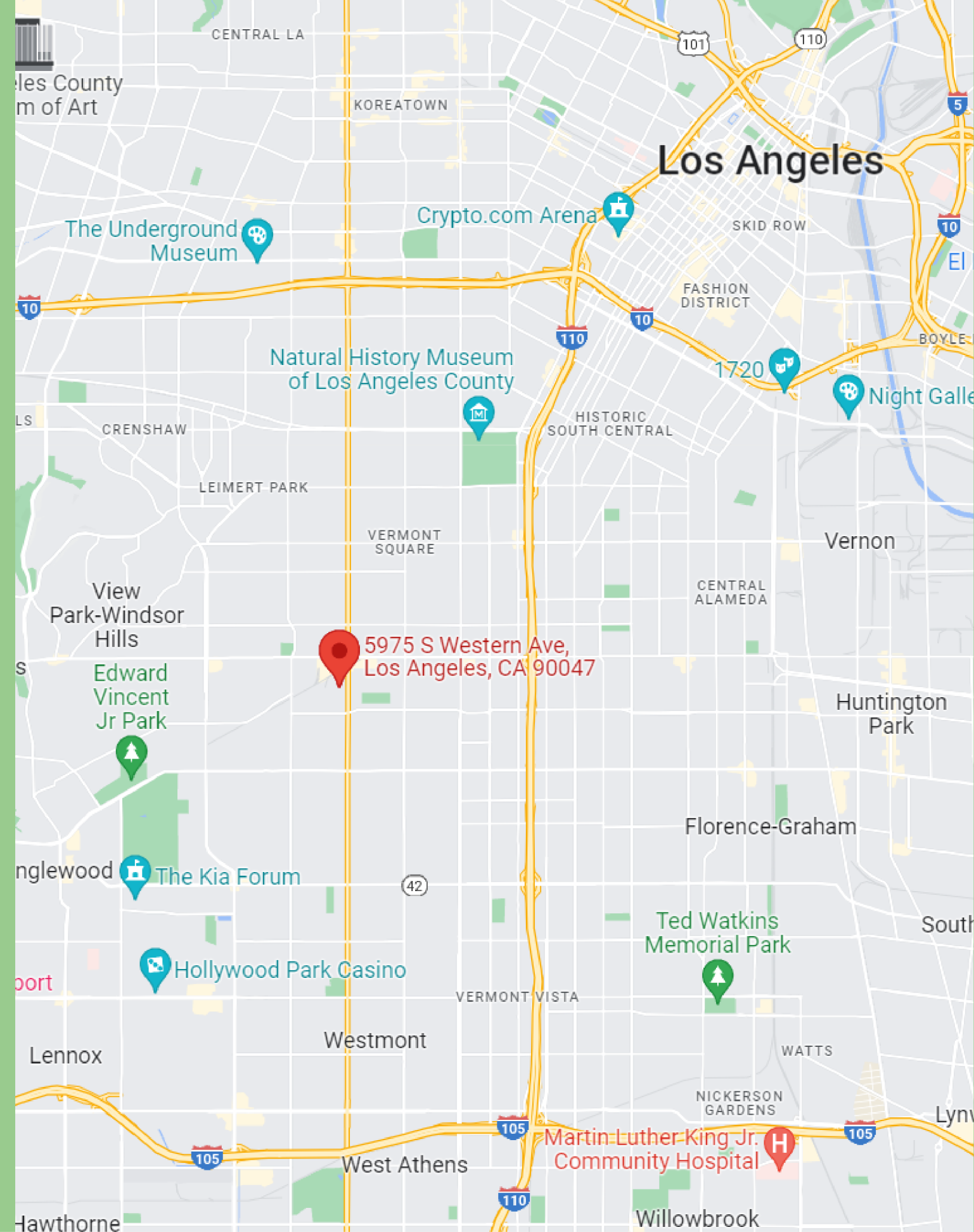
- Opportunity Zone
- Urban Agriculture Incentive Zone
- Redevelopment Project Area

CITY-OWNED, AVAILABLE FOR USE

Lot Size: 2.75 acre (121,477 sq ft)

40° 26' 46" N 79° 58' 56" W

5953 S Western Ave, Los Angeles, CA 90047

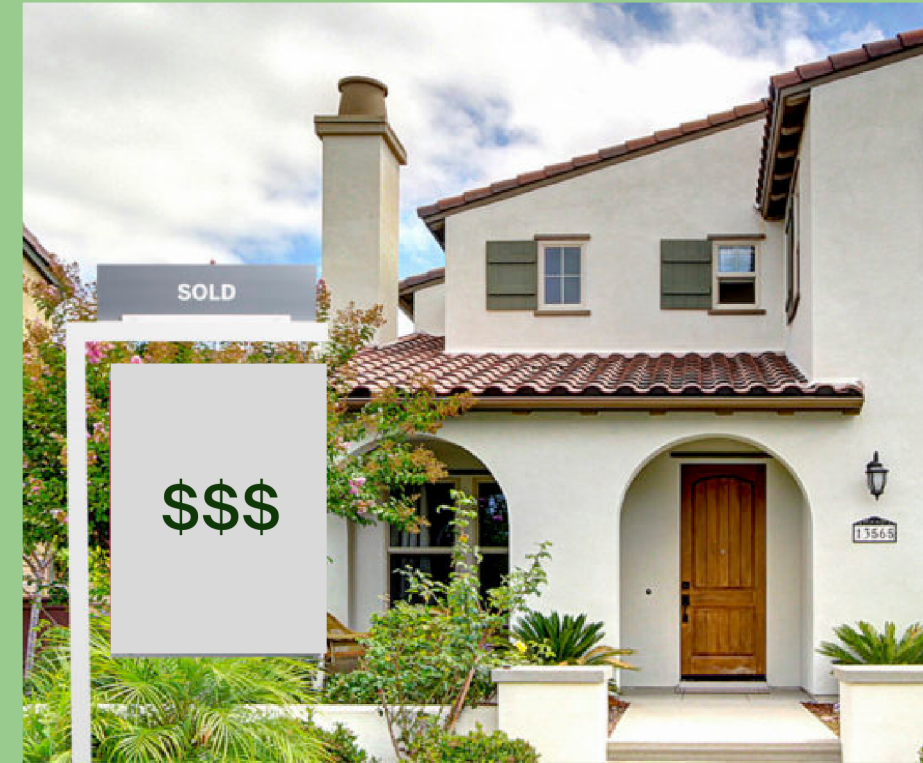


Economic Benefits



The New Ag Tech Center of Los Angeles

As a model urban farming project, Epiphany Gardens will feature some of the most cutting-edge AgTech in the world. The outdoor event space will become the new home for an annual AgTech Festival, attracting AgTech companies attention to this area for investment and development, creating potential for an emergent new Green Tech District.



Increased Property Values

Community gardens increase surrounding property values up to 9.4%. By increasing the property value of homes around them, they also bring in a significant tax revenue for the city. For some cities, tax income can be so great that most urban green spaces pay for themselves.



Green Job Creation

Creating and maintaining an urban green space requires manpower. New green jobs not only help keep the community employed, they also generate disposable income to be put back into local businesses and thus boost the local income taxes.

Civic Benefits



Mitigate the Homelessness Crisis

Our intention is to emulate the Homeless Garden Project, an established non-profit organization that has successfully provided job training, transitional employment and support services to individuals experiencing homelessness.

Over 6 years, 97% of their graduates got into steady sources of income and 90% got into housing.



Food Education & Resilience

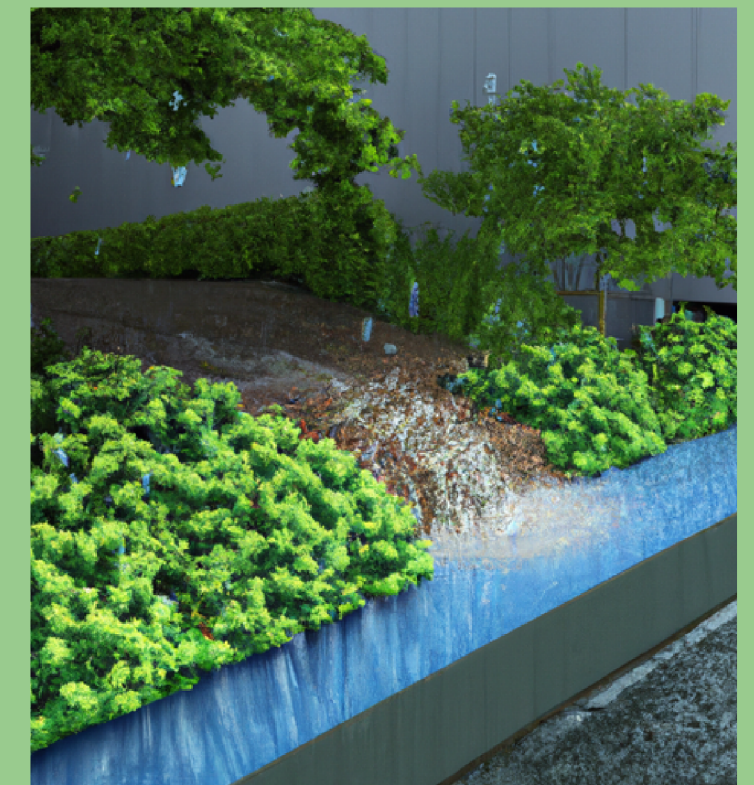
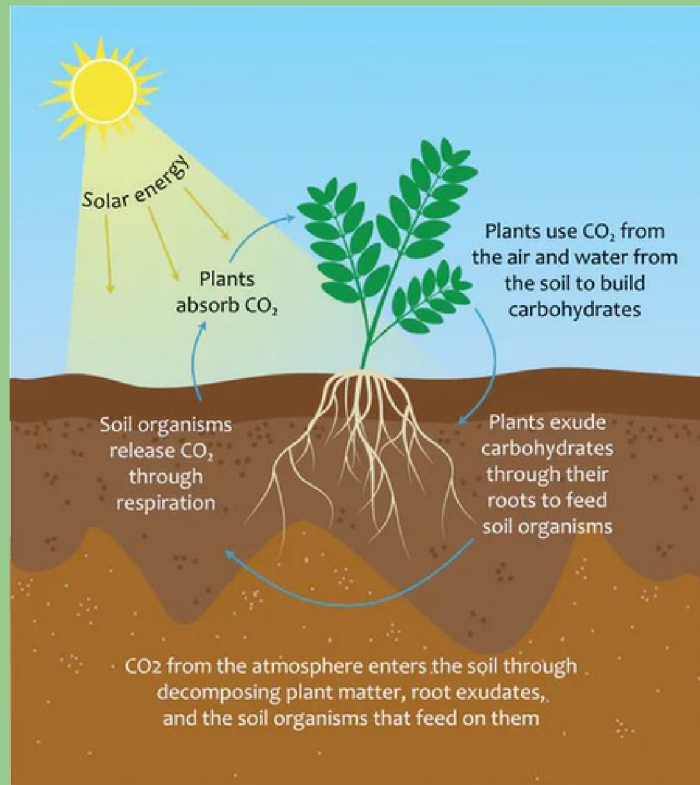
Through cultural events, educational programs, and strategic partnerships, the garden will inspire, educate, and equip members of the community to make improved decisions around their diet and even grow food at home for themselves and to sell back to the community food network.



Enhanced Security, Less Crime

Scientific studies show crime decreases in neighborhoods as the amount of green space increases. In Philadelphia, burglaries and thefts in one precinct dropped by 90 percent after police helped residents clean up vacant lots and plant gardens.

Environmental Benefits



Cooler Temperatures & Clean Air with Carbon Capture

During photosynthesis, plants absorb CO₂ and release up to 40% of this carbon into the soil to feed beneficial fungi and bacteria as this results in a return of nutrients to the plant. This carbon remains in the soil for hundreds of years, keeping it out of the atmosphere and resulting in cleaner air and lower temperatures. With this method, it is possible to sequester up to 20 tons of carbon per hectare per year and reduce global carbon levels to safe ranges within 6 years.

Reduce Stormwater Runoff

Urban stormwater runoff is one of the largest water quality issues faced by modern cities. It poses health concerns, leads to increased flooding, streambank erosion, and degradation of aquatic habitat. As a result of climate change, heavy precipitation is likely to increase. The Garden will decrease the volume and speed of stormwater runoff, increasing the resilience of one of LA's busiest streets, Western Avenue (~40K cars per day) from potential flash floods.

Public Health Benefits



Reduce Stress and Improve Mental Health

Multiple studies have shown that natural areas such as community gardens grant a variety of mental health benefits. Being in natural places fosters recovery from mental fatigue, improves outlook and life satisfaction, helps us to cope with and recover from stress, improves our ability to recover from illness and injury, restores concentration, and improves productivity (Maller et al., 2005).

Address Food Insecurity & Improve Diets

Increasing the consumption of organic local produce reduces exposure to chemical fertilizers, pesticides, as well as the preservatives that are typically added to produce that is shipped long distances. Eating locally produced food reduces asthma rates, because children are able to consume manageable amounts of local pollen and develop immunities. Overall, community gardens can lower household food security concerns by up to 90%.

Additional Benefits

- **Reduced Street Repairs.** When asphalt gets baked by the sun at high temperatures it breaks down faster, requiring more maintenance which can be an expensive source of inconvenience for residents
- **Boost Occupancy Rates.** Nearby gardens and parks have a high correlation with occupancy rates of apartments, municipal, and business buildings.
- **Ecotourism Revenue.** In this new “green” environmentally conscious era, people are becoming more interested in visiting urban farms. Ecotourism is a smart way for communities to bring in revenue with relatively little cost to themselves and countless other benefits
- **Increased Contracted Services.** Whether it’s hiring a construction crew or a landscaping service, urban green spaces have a positive impact on local businesses. By employing these services, this garden will contribute to the growth and fiscal strength of community enterprises.



Founding Partner: CropSwapLA



Jamaiah Hargins, Founder

About

Founded by Jamaiah Hargins in 2018, Crop Swap LA™ has grown from a small monthly neighborhood swap of fruits and vegetables, to a globally recognized movement.

The Crop Swap LA™ mission is to grow food on unused spaces, creating sustainable jobs and local, nutrient-rich food in communities affected most by food insecurity.

They believe that food should be grown and consumed locally to reduce reliance on inefficient, water and carbon intensive global supply chains.

CropSwapLA currently operates two microfarms, producing over 150lbs. of organically grown hyperlocal produce every week for around 30 local residents.



Darius Braswell, Operations



John Garside, Grants/Public Policy

Founding Partner: Epiphany Projects

About

Epiphany Projects is a 501(c)(3) non-profit community service innovation lab founded to bring world-class solutions to problems faced by the underserved South Central, Los Angeles community.

Allen Sovory II is a platinum-selling artist, 15-year South Central resident, and local business owner who has generated millions of dollars of film, TV, and event productions for South Central while advocating for its community-based non-profits and organizations.

Alex Park is an LA born-and-raised USC Marshall School of Business alumnus who brings 10 years of experience founding, growing, and studying the world's most innovative tech startup companies.

Dylan Tull, is a futurist, strategist, and multi-disciplinary creative. Whos dedicated years of extensive research into cutting-edge regenerative agriculture designs and technologies.



Dylan Tull, Design & Strategy

Allen Sovory II, Community Relations

Alex Park, Operations

Guiding Principles

Food First

Above all other benefits and opportunities, the primary purpose of this Garden is to ensure the community has access to fresh, organic, high-quality, locally grown, food to their families.

Spread the Movement

Moving beyond community gardens and farmer's markets, we want to catalyze a movement of Decentralized Agriculture and IMBY (In My Backyard) growing of food through the diffusion of best practices as well as resources like seeds, soil, and tools, among engaged citizens and organizations.

Make it Beautiful

When people perceive that a garden is a beautiful and neighborhood friendly place, they treat it that way, and their relationship with their community and with themselves transforms. It communicates they, too, are worthy of beautiful experiences.

Par Excellence

We believe there is an opportunity here to be a leader that creates an example and standard for urban communities all over the nation. So in everything that we do, we aim to bring the highest level of excellence and share the fruits of our labor with the people of South LA.



Regeneration, Not Gentrification

The core intention of this garden is to regenerate the health, happiness, and wealth of the community, not to displace, rent-seek, or extract from it.



Our hope is to be able to build a wonderful group of human beings who want to see this dream of abundance and growth become a reality, in a get your hands in the dirt kind of way.

Procure the land.

PLAN A

- Purchase the Lot from the city

PLAN B

- Long Term Lease With the City 10+ years

Fundraising & Donations

We will be funding the efforts to build out the garden with grants and private funding to the non-profit XXXXX

Our Raise

\$8,000,000

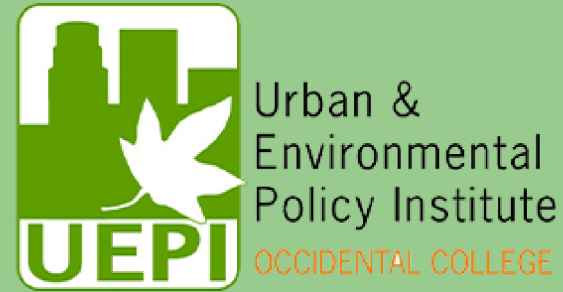
Partnerships

We will be working with a number of amazing human beings and organizations to be able to pull off such a groundbreaking project, we are always looking for more amazing human beings to join the mission to bring sustainable abundant food to the world one neighborhood at a time.

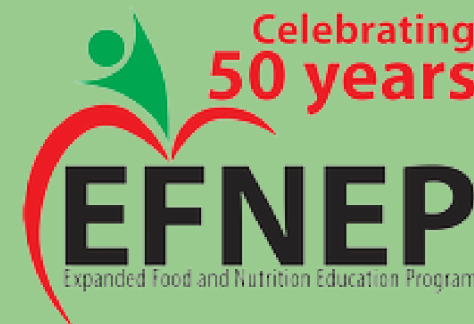
FUNDING SOURCE	\$\$\$ AMOUNT
Private Investors	3,000,000
State & National Grants	5,000,000
Community Fundraising	150,000
TOTAL	8,150,000

USE	\$\$\$ AMOUNT
Lot Ownership	\$1
Architecture & Buildout	2,000,000
Landscaping	750,000
Technology & Sustainability	1,000,000
R&D	500,000
Salaries	3,000,000
Community Programs	750,000
TOTAL	8,000,000

Potential Community Partners



TreePeople



Roadmap

MONTH 1

MONTH 3

MONTH 6

MONTH 9

MONTH 12

MONTH 15

MONTH 18

MONTH 21

MONTH 24

Close Grants

Break Ground

Build out Garden & Ag-Tech Greenhouses

Finalize Founding Partnerships

Launch Community based farm CSA

Procure long-term land lease from city of Los Angeles

Close Deal With City

Launch community initiatives and programs

Launch Homeless Rehabilitation Program

Continue lot-rental business with FilmLA

Plan and Launch Harvest Festival

investment Summary

- COMING SOON



APPENDIX

Review Article

The value in community gardens: A return on investment analysis

Susie Cochran* and Leia Minaker

University of Waterloo

Abstract

Food production in cities is increasingly regarded as one of the building blocks for sustainable urban living, particularly as the agricultural industry faces mounting ecological and economic constraints, and the globe continues to urbanize. While substantial research exists on the qualitative outcomes of urban agriculture, few studies present these outcomes in monetary terms that align more closely with municipal decision makers' economic priorities. In response to this gap, this paper reviews the literature on outcomes of one form of urban agriculture: community gardens. We describe impacts that could be quantified and included in a monetary return-on-investment (ROI) analysis, and identify gaps in both research and data for completing such analyses. Economic impacts of community gardens can include increased property values in adjacent neighbourhoods, increasing productivity of vacant lands, the value of food produced, and food bill savings for community gardeners. Environmental impacts can include ecosystem services, protection and revitalization of vacant land, and reducing urban carbon footprints. Social impacts can include improvements in community and individual health, food security, neighbourhood safety and social cohesion, as well as educational and recreational opportunities for residents. In extant literature, outputs of community gardens are rarely quantified, and much of the research to date lacks rigorous evaluation designs. In addition, little research examines unintended consequences of community gardens, including reproduction of inequities. More research needs to be done to accurately estimate ROIs of community gardens.

Keywords: Community Gardens; return on investment; urban agriculture; food systems

*Corresponding author: lminaker@uwaterloo.ca
DOI: 10.15353/cfs-rcea.v7i1.332
ISSN: 2292-3071

The Multiple Benefits of Community Gardening**1. Municipal Costs**

Community Gardens are economically beneficial to local governance:

- Developing and maintaining garden space is less expensive than parkland area, in part because gardens require little land and 80% of their cost is in labor (Saylor, 2005)
- Composting saves on land fill space, which saves the city and tax payers money
- Community gardens provide a place to retreat from the noise and commotion of urban environments, they attract people (including the 'creative class' of the new economy and small businesses)
- Community gardens have been shown to actually increase property values in the immediate vicinity where they are located. In Milwaukee properties within 250 of gardens experienced a decline of \$24.77 with every foot and the average garden was estimated to add approximately \$9,000 a year to the city tax revenue (Bremer et al, 2003, p. 20; Chicago, 2003, p. 10; Sherer, 2006).
- Been and Voicu estimate that New York's "gross tax benefit generated by all community gardens over a 20-year period amounts to about \$563 million. Under the scenario in which the local government would have fully subsidized the garden provision [which is rarely the case], the city's total investment would have amounted to about \$83.5 million. Thus, the estimated net tax benefit would be, in the aggregate, about \$480 million or, per garden over \$750,000" (2006, p. 28).

2. "Pocket Parks"

- Community gardens add beauty to the community and heighten people's awareness and appreciation for living things. In Chicago survey this was the #1 reason given for the importance of community gardens – mentioned by 14.3% of respondents) while 83% of respondents felt that the garden has enhanced the beauty of the community (Chicago, 2003, p. 34)
- "A 1995 Regional Plan Association poll of individuals nationwide found that the major components of a satisfactory quality of life are safe streets and access to greenery and open spaces. In another survey, owners of small companies ranked recreation, parks, and open space as their highest priority in choosing a new location for a business" (Sherer, 2006, p.5).
- However, urban green spaces are unevenly distributed and access is extremely limited near low-income neighborhoods populated by minorities (including recent immigrants). For example, in "Los Angeles, white neighborhoods enjoy 31.8 acres of park space for every 1,000 people, compared with 1.7 acres in African-America neighborhoods and 0.6 in Latino neighborhoods" (Sherer, 2006, p.6).

3. Exercise

Gardens can be areas for recreation and exercise. According to the American Journal of Preventive Medicine, the "creation of or enhanced access to places for physical activity combined with informational outreach" produced a 48.4 percent increase in frequency of physical activity in addition to a 5.1 percent median increase in aerobic capacity, reduced body fat, weight loss, improved flexibility and an increase in perceived energy (as referenced in Sherer, 2006).

4. Improved Diets

- Studies (like the one conducted by Lackey and Associates) have shown that community gardeners and their children eat healthier, more nutrient rich diets than do non-gardening families (Bremer et al, 2003, p.54).
- Eating locally produced food reduces asthma rates, because children are able to consume manageable amounts of local pollen and develop immunities.
- Increasing the consumption of fresh local produce is one of the best ways to address childhood lead poisoning as well as their exposure to chemical fertilizers and pesticides (Bremer et al, 2003, p. 54; <http://www.cce.ufl.edu/past/comingardens/>).

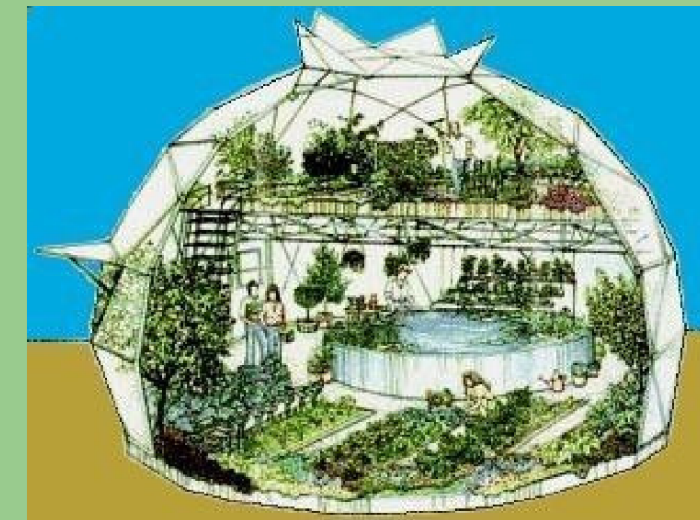
5. Food Production

- Community gardens provide access to traditional produce or nutritionally rich foods that may otherwise be unavailable to low-income families and individuals
- Community gardens allow families and individuals without land of their own the opportunity to produce food. Oftentimes gardeners take advantage of the experiential knowledge of elders to produce a significant amount of food for the household.
- Urban agriculture is 3-5 times more productive per acre than traditional large-scale farming.
- Local agriculture conserves resources by shortening the commodity chain, saving on fuel demanding transportation and packaging (Bremer et al, 2003, p.23).
- From 1978-1989 \$8.9 million worth of produce was grown in Milwaukee community gardens (Bremer et al, 2003, p.22, 56).
- "In 1999, the fifteen New York gardens organized as the City Farms program of the organization Just Food grew close to 11,000 pounds of fresh vegetables and fruits. Nearly 50 percent was donated to nearby soup kitchens and food pantries (Just Food 1999 Summary Report, as cited by Englander, 2001, p. 14). The Fancy Flowers Community Association in the South Bronx alone produced 200 pounds of tomatoes and about 75 pounds of green and red peppers in 1999 (City Farmers: Tales from the Field, as cited by Englander, 2001, p. 14).



Geodesic Domes

We will be using AWG and water capture systems to recycle what little rainfall we do get while also maximising the atmospheric water



Algae Production

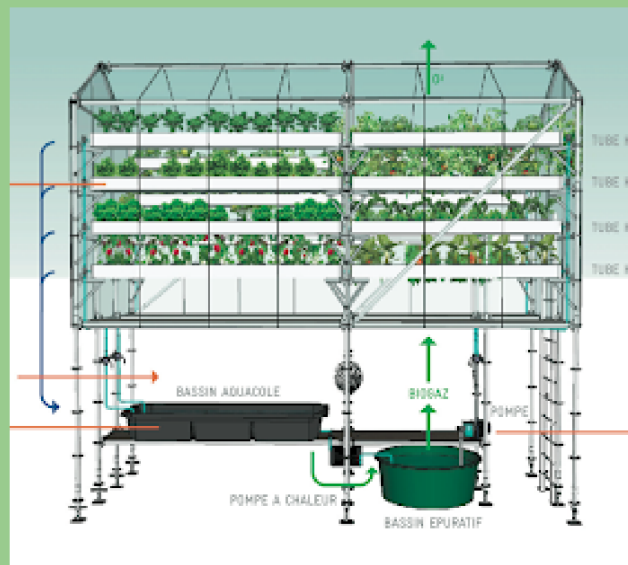
Algae can be used for biofuel and soil regeneration in tandem with biochar.



Controlled Environment Agriculture



We will feature a number of cutting-edge ag-tech 40' shipping containers, both AI vision systems & automated farming systems



Each 320 sq ft container can produce 50,000 heads of lettuce per year

Controlled Environment Agriculture

- **Productivity:** CEA increases the productivity of a farm, usually expressed as pounds of produce per square foot. It does so in three ways: by increasing the density of plants that coexist in a given space (usually with things like vertical farming), by shortening the growing season (thanks to better nutrients and lighting), and also by increasing the crop yield (ideal growing conditions lead to healthier plants with more growth).
- **Flavor:** By adjusting some of the input variables, farmers and scientists have come up with ways to develop distinct flavors out of the same crop. It's the same phenomenon as wines that have a specific taste in certain years because of the weather experienced by the grapevines. It enables consumers to consistently have access to better or different tasting produce than they would normally find.
- **Freshness:** Locating farms closer to the consumers that will eat what is grown inside ensures that transportation time (and the cost of both miles covered and refrigeration required) is minimized. This also means that produce can be grown and picked for optimal freshness instead of the hardness required to survive long-distance journeys (which in turn means the produce retains more of its color and nutrients).
- **Availability:** CEA removes the effects of climate, location, and seasonality; meaning, you could theoretically have whatever produce you wanted at any time of year, in any location. Arugula in Antarctica or strawberries in space are both feasible. Extreme weather areas, non-arable land, and dense urban environments are all possible applications.
- **Traceability:** Consumers increasingly desire traceability in their food, meaning knowing where it came from, who grew it, how long ago it was picked, etc. These location-conscious buyers are sometimes called locavores and are having an important impact on food sourcing, including the popularity of farmers' markets. When the farm is just down the street rather than hundreds or thousands of miles away, making food 'local' and from a company you believe in and trust is much easier.
- **Purity:** Closely controlling what goes into the crops means farmers also have control over what does NOT go in as well. Things like pesticides and herbicides are no longer required to prevent bugs and weeds from attacking the crops.
- **Security:** In one sense, CEA provides physical security by preventing losses from animal vermin or human theft. In another sense, it promotes food security by stabilizing future harvest quantities through the elimination of risks like droughts or freezes.
- **Water Conservation:** Since most CEA systems are closed or semi-closed systems, farmers can precisely control the water entering and leaving the overall system while preventing excess watering on adjacent areas. More importantly, they can recycle the water that IS needed over and over again, greatly reducing overall water use.

Controlled Environment Mycelium

We will dedicate a number of our shipping containers to producing mycelium fruiting bodies.



Container Restaurant & Offices



We will have the opportunity to turn the shipping containers into a cafe or restaurant that uses food from the garden in its food. We will also be able to setup small offices and spaces for the farm team to get away or rest.



Green Walls



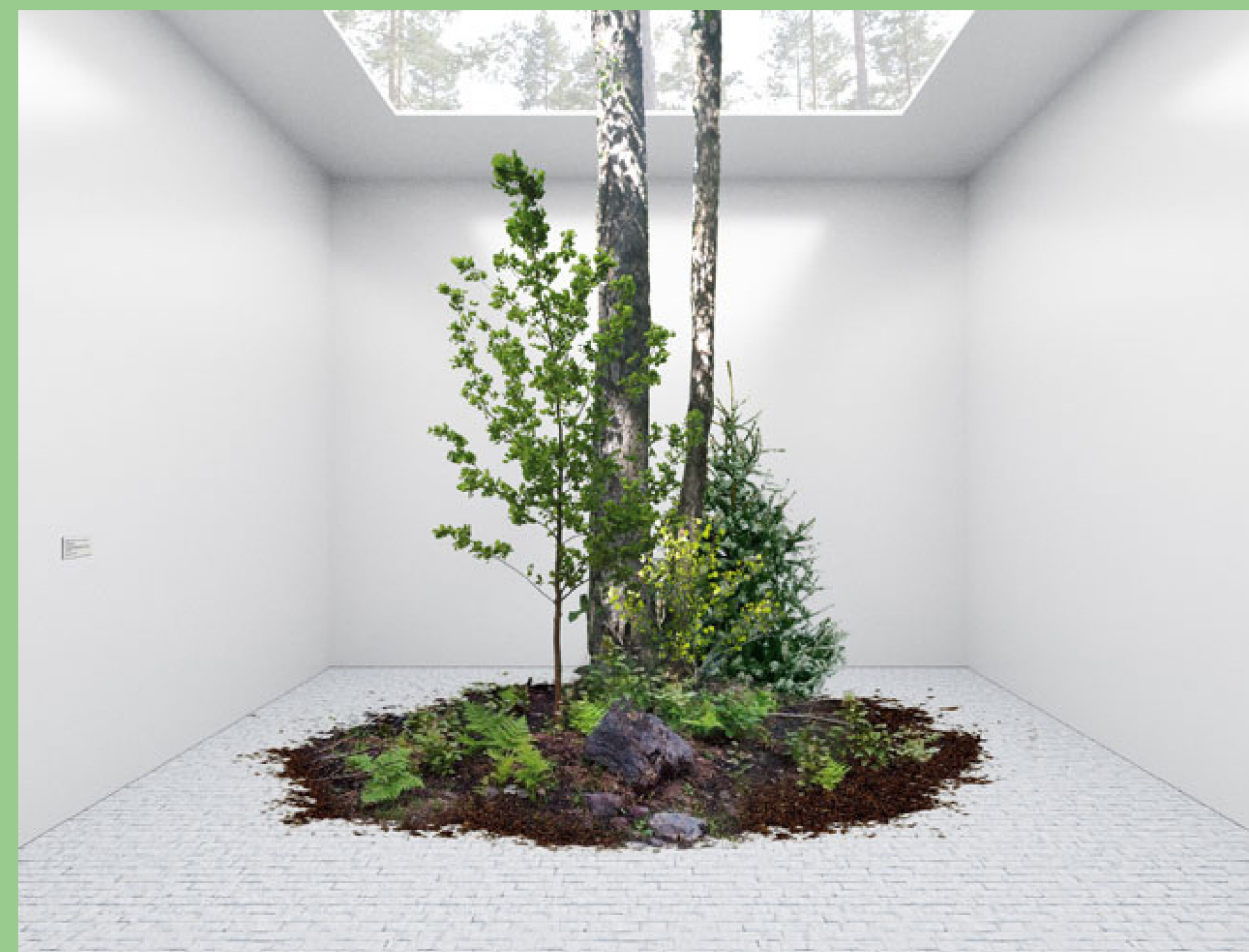
Each container will feature green walls providing smog clearing and beautification





Plant Sculpture

Sculptural Biophilic Installation - Used for meditation and relaxation and education.



Community Stage & Decks

We would like to provide a number of community hang out places where we can learn and be



Atmospheric Water Generation



Fit for sustainable renewable green power
Atmospheric Water Generator's are able to produce water with lower energy consumption.

The energy efficiency of Atmospheric Water Generators when powered by electricity or other renewable energy sources, is the key to economic viability.

A key economic advantage of Atmospheric Water Generator's are able to provide "point specific water production" at the site where water is required.

Highly Efficient production technology

- Atmospheric Water Generators produce water from the atmosphere in large quantities in regions with humidity as low as 20%.
- The warmer and wetter the region, the higher the content of water evaporation, and the greater production of water.
- Water production facilities are constructed to meet the increasing demand for water. For example 30 AWG5000 units can produce over 20 million gallons of water a year based on environmental conditions.

<https://awgcontractingus.com/>

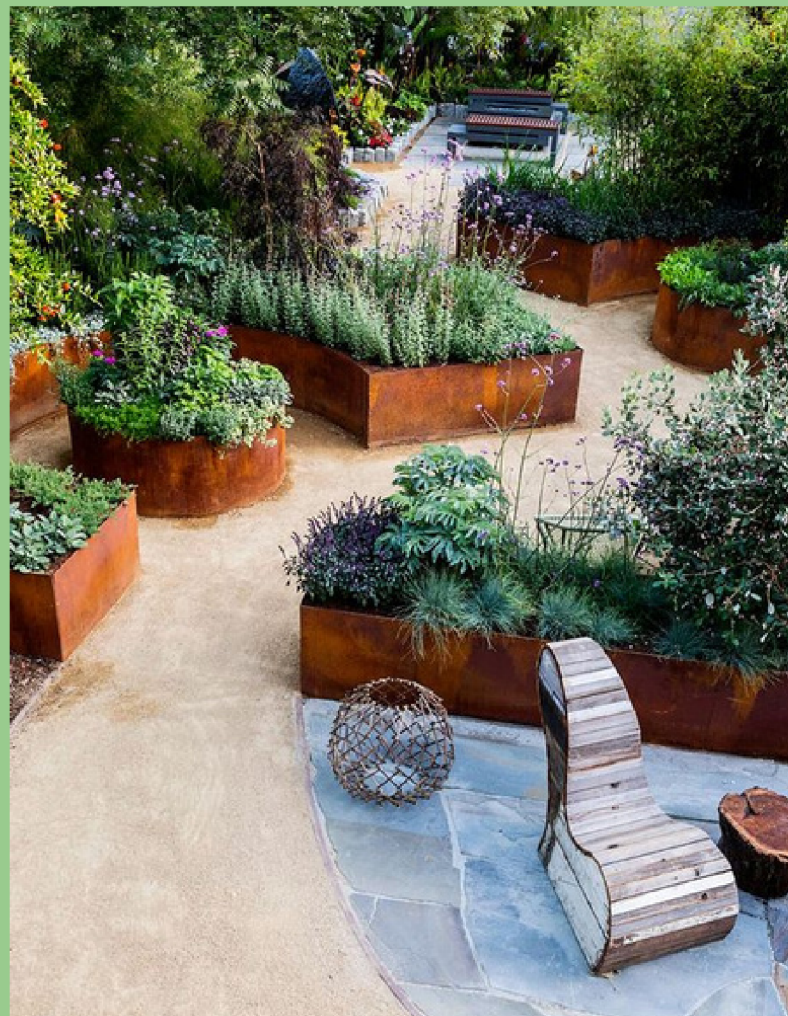
Water Resources & Storage

In addition to the Atmospheric water generation we will also be implementing storage and recycling techniques to ensure that the water we do use is used optimally.



Food Forrestry & Permaculture

We will be combining a number of growing practices and techniques to provide the most abundant and beautiful experience





Food Forrestry & Permaculture

We will be combining a number of growing practices and techniques to provide the most abundant and beautiful experience





Compost Tea & Vermiculture

Through compost and compost tea and vermiculture we will be able to create an abundance of soil healing goods that can be shared with the local parks and green spaces.



Ag Tech R&D

Vertical Farming:

Simply put, it is growing plants in vertically stacked layers. While in most cases this implies growing crops indoors as a CEA application, it could be used outdoors as well.

Urban Farming:

The process of growing and distributing crops in an urban environment, placing people closer to the source of their food, and working to eliminate food deserts. Given the high land costs in urban areas, CEA is often used in conjunction with urban farming as a way to increase crop yield.

Sustainable Agriculture:

Farming with an eye toward resource conservation, ensuring that farming activities today don't adversely impact the ability of future farmers to grow healthy produce of their own.

Cyber Agriculture:

The application of cutting-edge technology like artificial intelligence (AI) and machine learning to create computerized agriculture, allowing software to determine the conditions that will result in a specific outcome in a plant (like a specific flavor, or enhanced medicinal qualities).

Robotic Farming:

The use of electromechanical robots to handle the maintenance and care of plants, whether indoors or outdoors.



Solar & Wind Power

Hybrid solar and wind generation integrates multiple profiles into one complementary system.



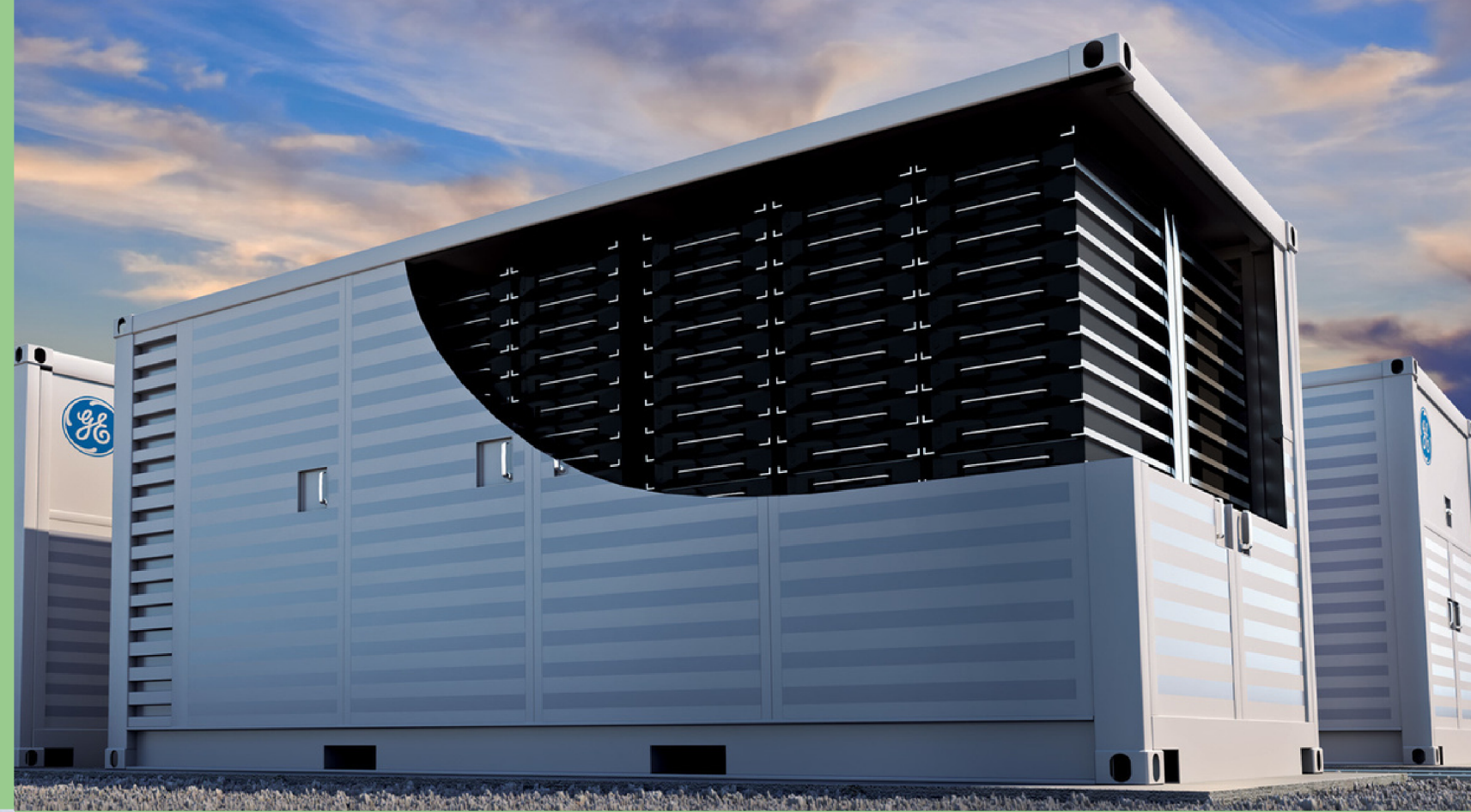
- Bi-Facial Solar Panels
- Solar Roofs
- Solar Heating and Cooling
- Wind Generation
 - The Power Collective
 - Sensitive Windmill

Clean Power, Supports Community Resilience.

Battery Energy Storage Systems

Through our solar and wind power we aim to harvest more energy than we use we need storage for this energy.

- Tesla MegaPack
- GE Reservoir



Battery Energy Storage systems provide essential services for electric utilities and large energy users including on demand capacity, energy arbitrage, and ancillary grid support services. While also providing resilience for local grid power quality issues.

EV Fleet & Charging Infrastructure

PG & E Incentive Program

- Integrate EV Charging in a number of the parking lot spaces.
- Benefits
 - Revenue from charging, tax credits & rebates
 - Financial Benefits to employees: Low to zero fuel costs, access to tax credits (up to 7,500 for new EV purchase)
- PG&E EV Fleet Program
 - Target to install infrastructure at 700+ sites by Q4 2023
 - current budget \$236 million
- Charger Rebates
- Infrastructure Incentives



Farmers Market

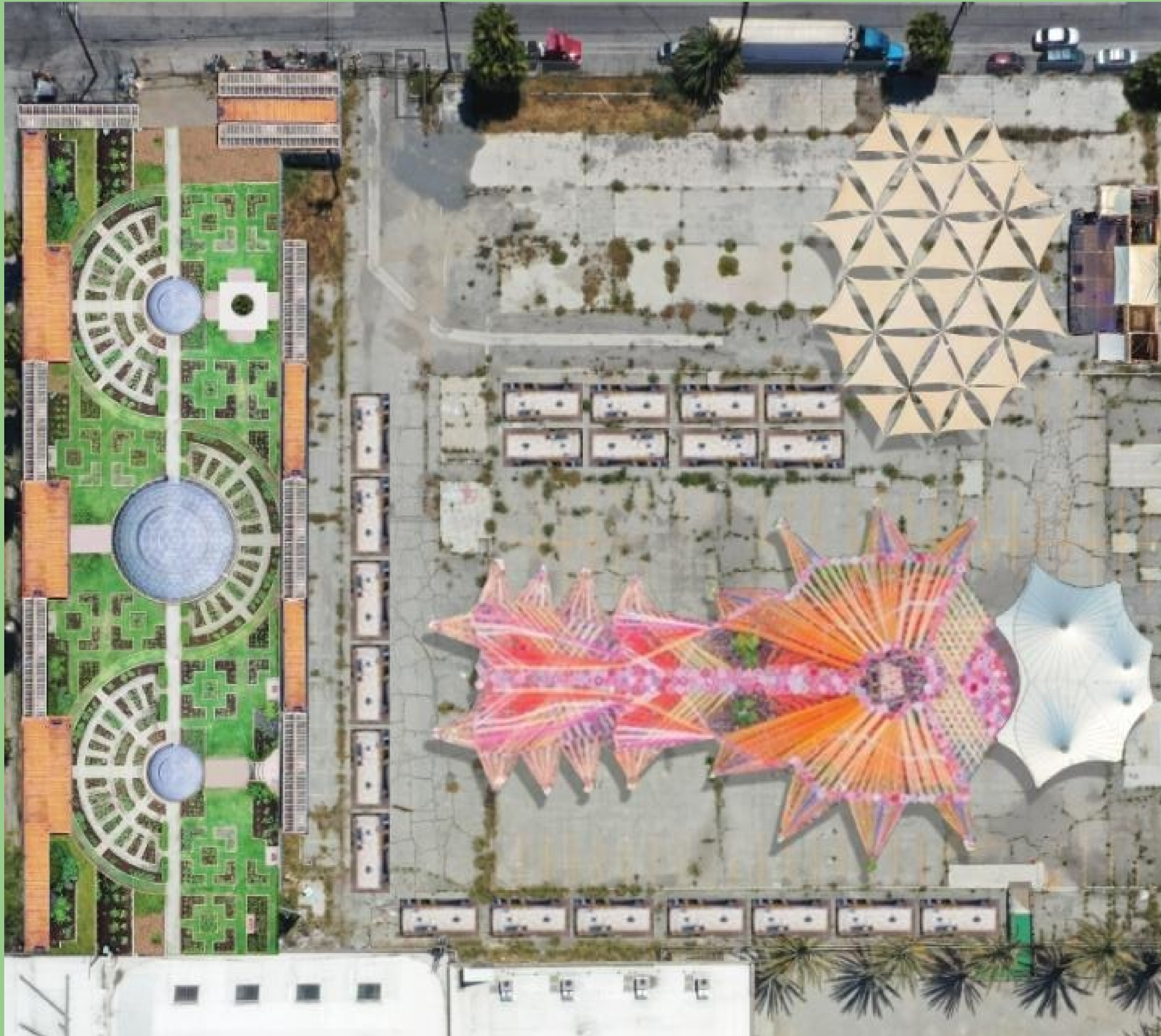
We plan on hosting a monthly farmer's market to bring organic food, food, and soil educational events as well as host 2 large Harvest festivals every year where we bring together the farmer's market with food trucks and music and art.



Lot Rental & Events



We plan to continue the longstanding relationship with filmLA and make sure the lot is still available for productions. In addition to this we will also be hosting a number of our own private and public facing events including but not limited to a yearly Harvest festival for the garden. Additionally we plan to host a series of farmers markets and craft fairs. We are dedicated to bringing vibrance and abundance to this community while also give the locals an opportunity to



Harvest Festival

We plan on hosting yearly Harvest Festivals to promote food abundance.