

Overtown Community Farm & Omni Life Village

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Leadership Institute ULI Southeast Florida/Caribbean



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introduction

Summary

Mario Yanez and Thais Thiesen work together through two organizations, Inhabit Earth and Foodscape Designs, to bring home the idea of growing food everywhere, while simultaneously creating beautiful human-scale places that bring enjoyment and harmony to people's lives by connecting them to nature's endless cycles of abundance.

This report seeks to provide guidance and council to each of Inhabit Earth and Foodscape in the execution of their business plans. It first focuses on land selection, both with respect to identifying optimal properties and the methodologies for selection, as well as strategies for attracting landowners to the proposition(s) offered by Inhabit Earth and Foodscape. The report then discusses implementation, especially with respect to zoning, permitting, and regulatory issues, with specific considerations specific to urban agriculture. Finally, the report then discusses issues around leasing, ownership and management of the property.

The Omni Project

Inhabit earth and Foodscape Designs are jointly working on Omni Live Village to bring home the idea of growing food everywhere, while simultaneously creating beautiful human scale places that bring enjoyment and harmony to people's lives by connecting them to nature's endless cycles of abundance.

Inhabit Earth has received funding to develop a self-sustaining urban farm and food enterprise campus to serve the greater Omni area of Miami. The project will potentially include urban farm (shipping container and grow bags), co-op nursery operations, event space, and incubator for food entrepreneurs, mobile kitchen and café, etc.

The funding approved thus far is \$400,000 from the Omni CRA, although a contract cannot be executed with the CRA until a project site has been identified and confirmed. The CRA funding requires all program elements including the farm to be within the CRA boundary.



Overtown project planting beds, January 2018

Our task is to develop a roadmap for the Client to strategically identify and secure the appropriate site, enabling the Client to move forward on the project with the available funding.

Overtown Site

Inhabit Earth controls 1.25 acres in the Overtown community and has current control of the land. The program is innovative, but is resource challenged, and currently overcoming some implementation challenges. Inhabit Earth's mission is to cultivate resiliently productive human ecosystems by developing and applying regenerative design solutions that bring forth healthy eco-social systems. Inhabit Earth wants it to be self-sustaining, productive and useful for the Overtown Community.



The current site is located between NW11th Terrace, NW 12th Street and NW 2nd Avenue, and is surrounded by some existing vacant properties to the east, and existing 2 and 3 story residential apartment building to the northeast and southeast.



Vacant property to the east of the project



Existing surrounding residential apartment building to the southeast



Existing surrounding residential apartment building to the southeast

A new development to the north provides the project's greater density, and ground floor commercial opportunity, while a commercial strip on the west faces NW 3rd Avenue, which also contains active commercial uses.



Commercial properties facing NW 3rd Ave



Existing surrounding residential apartments to the northeast



New residential apartment building to the northwest with ground floor commercial introduction p4





Overtown project site, January 2018



Overtown project shaded potting area, January 2018

The neighborhood surrounding uses provide a strong mix of uses to support the project, including the use of bathrooms in adjacent buildings, opportunities for the sale of produce in commercial properties already in operation, and residential uses from which interested neighbors have already expressed interest in the program or have already engaged in the operations.

The site faced a number of challenges to begin opperations, with the land still containing a large amount of building debris and concrete that had to be removed. There is an existing well on the property, but no electricity. A chainlink site fence has been erected, and a large amount of rough mulch was obtained as spoils from last summer's hurricane. A small shade structure has been erected and a portion of the site set up with a potting area, and tools are currently stored in an unimproved shipping container. Tools available to the property currently include manual tools such a wheelbarrows, shovels, rakes etc. No mechanical equipment is currently permanently stored or used on the property.

The site currently utilizes volunteers to layout and set up the seven proposed planting areas, in raised felt begs that are individually filled with organic soil that is brought to the property. The proposed layout consists of six beds approximately 60'x30' divided by habitat strips, and a larger production garden with herbs of approximately 70'x70'.

It was recently determined that the current methodology of creating the beds is too reliant on manual labor, and a revised



system of larger beds and machinery is being developed. None of the beds have yet to be planted, since electrical source to power the well is being held up due to permitting requirements. A Temporary Use Permit was applied for in January, and an electrical permit cannot be pulled until that has been approved.



Overtown project proposed site plan



land selection

Identifying Suitable Land

Site acquisition in real estate can be classified into the following most basic categories: 1) A site looking for a use, or 2) a use looking for a site. The Overtown project is a site looking for a use. The Omni project, however, is a use looking for a site.

Regardless of the approach, the following steps should be followed:

- 1) Define the physical search criteria,
- 2) Determine the economic framework,
- 3) Identify suitable candidates,
- 4) Negotiate deal terms, and
- 5) Implement the business plan.

It is important to begin by identifying specific criteria that are relevant, if not critical, to the success of the business plan. Thoughtful consideration should be given to the type of business that will be operated, and the many variables that can and will affect the performance of same. By way of example, the search criteria for a hotel will differ from that of a warehouse, and the search criteria for a retail store will differ from that of an office building. Once these criteria are defined, it is important to adhere to as many of them as possible. In a perfect world, all criteria would be satisfied in the selection of a site. However, real estate is imperfect, and finding a site that checks all of the boxes is unlikely. Therefore, it may be helpful to rank or classify them as "must haves" and "want to haves". You may then, on a site-by-site basis, evaluate if the most basic prerequisites have been met. If they have, you may further qualify and quantify how many of the additional "want to haves" are available.

Physical Search Criterion

All land is not made equal: Where do I want or need to be?

Do I need visibility to end users/customers

- located on major thoroughfare
- visibility to support commerce

Is there proximity to supportive surrounding uses?

- supermarkets/markets
- education facilities
- civic connectivity to parks/NET office

Is there proximity to density of end users?

- high density residential nearby?
- too much vacant land nearby?

Will the project be a nuisance to neighbors?

- noise sensitivity?
- smell sensitivity?
- aesthetic concerns?
- ensure neighbor buy-in
- will neighbors be a nuisance?

How much land do I need? Minimum, maximum & ideal.

- what program is proposed
- design a preliminary site plan
- adjacent expansion opportunities?

How do people get here?

- proximity to public transportation
- how much parking to do I need?
- can parking be provided on street?

Are there existing site features that help or hinder?

- existing buildings for adaptive reuse
- existing trees or vegetation such as fruit trees?
- existing services such as electricity or water
- existing curb cut locations and access routes
- environmental concerns, get a report



Search Tools

Once you've outlined the physical search criterion, you may begin your search for candidate sites. You may employ a variety of search tools to aid in your search, ranging from online to industry professionals. Online, free and fee websites such as Zillow, Loopnet and the MLS may be helpful. Another approach could be to engage a real estate professional, such as a broker or realtor. It would be strategic to try to identify a prominent or locally active broker that is familiar with the area being searched. This may be determined by who seems to have the most active listings in the area or through professional references. Some additional resources that could be of value are simple tools such as Google Earth, the property appraiser's office, and government surplus websites. Google Earth is helpful in identifying vacant land. The property appraiser's office is helpful in identifying ownership. Government surplus websites may be helpful in finding land that, while less selective, might be available for low cost or no cost.

Engaging the Land Owner

Once you've outlined your parameters and identified a few sites, it is now time to engage the land owner (or land seller) and begin to discuss transactional details. To the extent possible, it is recommended to outline the salient deal terms in a Letter of Intent ("LOI") for submission.

Before submitting the LOI, it is imperative you've underwritten the specific site, and have developed a pro forma revenue model that conservatively supports the cost of the land. Additionally, it is important to fully understand other material economic advantages that may support your offer to the landlord, such as tax exemptions (covered in more detail in another section).

Throughout the negotiations with the landlord(s), it will be necessary to evaluate the importance of various terms of your LOI as they push and pull and move. You are urged to focus on qualitative terms such as the termination rights, to avoid entering into a lease whereby the landlord could cause you to move in an unnecessarily short period of time. Such a move could prove disruptive, if not terminal, to your business. While such short termination clauses may be unavoidable given the

Search Tools Checklist

Web Based:

- Zillow
- Loopnet
- MLS
- Google Earth
- County Property Appraiser
- Government surplus websites

Engage a locally active broker



Key Aspects of the Letter of Intent

- 1. Name of Landlord
- 2. Name of Tenant
- 3. Proposed Use
- 4. Description of Premise
- 5. Rent (or other consideration)
- 6. Term
- 7. Commencement Date
- 8. Deposit Amount
- 9. Inspection Period
- 10. Termination Rights



economic realities of the arrangement, they might be mitigated through requests for notice periods and/or relief with moving expenses. If considered up front, these terms could be low cost or no cost additions to the lease.

Due Diligence

Once the letter of intent is executed, it is preferable to perform additional due diligence prior to executing the lease, and/or putting any deposit monies at risk. It is especially important if the lease period is limited, and preparation work is required to prepare the site for a productive season.

If a due diligence period is not granted, it is advisable to take advantage of the time spent negotiating the terms of the lease to investigate the property. Specific items of interest during due diligence vary based on use, but they might include: zoning confirmation, utility availability, permitting process, and other physical attributes of the site. For example, is the proposed use prohibited under the current zoning? If so, under a leasehold, it is impractical to expect that the site can be rezoned. This is likely a non-starter. Are water and electric available onsite? If not, how far away are they? What is the time and cost to bring them to the site? Alternatively, can you operate without them, and if so, at what expense? What permits and licenses are needed to operate? What is the procedure to secure the same? A quick meet-and-greet with the authority having jurisdiction can usually glean some insight into the local rules and regulations. What other physical attributes should be considered? Is site access ok? Elevation and topography? Does the site flood easily? In other instances, surface, subsurface and environmental studies may be warranted. For example, if the site is paved with asphalt over a limerock road base, and your plan is to plant trees and plants in the ground, it would seem that extensive or alternate measures would need to be taken to accommodate this plan. The same would apply if it is believed that the site may contain recognized environmental concerns.

Finally, once all variables have been outlined, and risks evaluated, it is time to execute the lease and to implement your business plan.

Due Diligence Checklist

Survey

Request a survey from the landowner, or engage a surveyor to determine easements and encumberances

Zoning

- Engage a zoning attorney to assess:
 - entitlement/approval processes and timingdiscovery of easement/restrictions
- Meet with City staff to discuss concerns

- Prepare preliminary Temporary Use Permit application materials such as a site plan, operational procedures, hours etc.

- Engage designer to provide a preliminary site plan

Utilities

- determine water, sewer, electrical etc. availability

- determine permitting process and timing for providing utilities not available

Flood Plain

- determine the flood zone from the FEMA website

Business Licence

- determine what permits and licenses are required to operate
- prepare initial information if possible

Create a working schedule

Potential tenants can plan accordingly and you can start marketing the sub leaseholds.



Alternate Land Aquisition: Purchasing Land

An alternate method of acquiring real estate that might be considered is buying. At first glance, while it seems less economical, it does have its advantages. For one, owning the real estate on which you operate affords you much more control over the fate of your operation with regards to permanence and stability. If buying, you may also avail a wider range of options to buy, versus just looking to lease. There may also be some tax advantages with regards to depreciation and additional deductions. And, of course, there's the chance of creating a capital gain. There are of course risks and disadvantages as well, such as tying up capital, illiquidity and mobility, and the risk of capital loss. These factors might be alluring to investors who might acquire the land for their own real estate account, and in turn, lease it back to your operation.

Stability versus transportability raised some concerns and discussion, since establishing an identity and location in a neighborhood may be quite important, especially to a program trying to develop commerce such as a cafe or famers market. Repeat customers returning to a single location is far more stable financially than if a consumer has to hunt down the market in a new location. Building a consumer base in any location takes time and effort and while physically relocating a farm may be possible, the impact on the commerce if a project is greatly impacted.

In addition, there are of course some relocation costs that need to be included in the business proforma if lease terms continue

Case Study: Detroit, MI

...'In Detroit, Greg Willerer has been running Brother Nature Produce since 2009, growing microgreens on vacant lots in the city and running a Community Sharing Agreement (CSA). As business grew, he tried to acquire additional land in Detroit, but couldn't get the city to sell him more than a couple of vacant lots directly adjacent to his home.

"Getting land is a difficult thing," which limits profitability, Willerer says. "If [the city] made it a little easier, people would give it more of their time and energy."

In 2011, Willerer and his now-wife, Olivia Hubert, began to lease land

to include 3-5 years leases and move out clauses.

Farms for Farmers is a program created by the Equity Trust, Inc (Equity Trust)—a national, non-profit organization—to promote alternative ownership structures for farms, to benefit farmers who need affordable farmland and communities that want a secure source of locally grown food and a way to preserve their environmental heritage. In April 2016, the Equity Trust published a report titled Secure Land for Urban Agriculture: Seeking Funders' Perspective. The report highlighted the issue of long-term tenure as a potential crux of the future success of urban agriculture. As a participant in the report succinctly expressed: "Securing land should be a prime concern. Without it all else is moot."

in Riley, Mich., an hour outside the city, and now cultivate an additional 1 1/2 acres there. "After many years of trying to buy the acre in the city we have been farming from the planning and development department of Detroit we decided to buy land in the country, about an hour north of the city where the suburbs finally give up. We could not take the risk of being put off our land like some other growers had been so we decided to hedge our bets by continuing farming the lots and to trying to buy them but in the meantime establishing a food forest/ alley cropping system out in the country."

Credit: Urban Farms Fuel Idealism, Profits? Not So Much Tracie McMillan, March 7, 2016



Permanent versus Temporary/Relocatable

In researching other examples of successful urban farming it became apparent that the vast majority were permanent projects located within developments on a permanent basis. The long term stability of such projects would seem to be an important aspect of the business plan. If the City of Miami is interested in really pursuing healthy urban practices there may be some zoning modifications or incentives to be explored.

For example, the current green/open space requirements for most of the properties within the Omni and Overtown areas is only 10%. Any area unimproved by buildings counts toward this number, and all of that 10% could be impervious. Areas not at grade are not counted toward green or open space. The lot coverage is also allowed to be 80%, or 88% with a simple waiver process. For most projects aiming to maximize either the density and/or the FLR it is difficult to do better than the regulations require and provide additional pervious area at grade.

Temporary locations have the benefit of being able to find land more easily, but need a facile system to be able to relocate quickly and easily and maintain production in a seamless fashion so that customers relying on the produce can continue to be supported by the Community Farm.

Case Study: Freight Farms.com

An alternate way to grow when long-term land tenure is not an option is to farm in a shipping container. A few companies such as Freight Farms sell products like the "Leafy Green Machine"—a fully functional farm within an ISO container—which promises year-round production (up to 52 harvests) capable of producing two to four tons of produce per year on less that five gallons of water a day. One of this units (which retails for \$85,000 each) has a footprint that is only 40' x 8'. According to the company, as portrayed through case studies, IRRs of 45%, 36%, 59% are being achieved by some of their clients through several different business models. The inherent transportability of this system suits short term leases, and uninterrupted production.

Freightfarms sell a fully setup farming container, and also provide support through a diagnostic and management app, and a support team. www.freightfarms.com





Alternate Land Aquisition: Public Land

Introduced briefly earlier, an alternate source of a site could be by looking at a variety of municipal and public lands. Unutilized or underutilized land such as easements, schools, parks and surplus land could prove valuable to the use proposed, especially to the extent that this land is otherwise vacant or otherwise an unattractive nuisance on the government's hands. You might offer a solution whereby you utilize it for low or no cost, and inherit the maintenance thereon, creating a mutually beneficial arrangement. While we feel that this avenue is worth exploring, it should be noted that dealing with large bureaucracies can prove tedious and time consuming. So long as your expectations are realistic, this could be an achievable option as well.

Municipal and public land can be fraught with logistical concerns and approvals, however one example of possible land that could be used for urban agriculture in a long term and stable way might be the proposed Underline project. The Underline is currently proposed to activate a very linear park (10 miles long) occupying space under the Metroline elevated rail. This organization has already tackled Miami-Dade County and Miami-Dade Transit to secure the rights to make improvements to the land and is phasing the construction as funds become available. With varying programs proposed along the length of the park, it may be a great tie-in with the currently proposed health programs providing exercise areas along the park.

There are various portions of The Underline that could be ideal for this a project to be created. Some spaces have more space and direct sunlight such as the portion near Simpson Park. Other portions of the Underline are difficult to activate because of multiple adjacent storage buildings with their backs facing the park, but these areas could prove to be ideal for shade structures for preliminary growing of seedlings or microgreens.

More information about the project, and contacts to the organizers can be found in this link. https://www.theunderline.org/

Foundations interested in urban agriculture may play a key role in obtaining municipal support. A participant of a symposium hosted by Equity Trust, December 12, 2014, on the subject of long-term land tenure for urban agriculture said that if they have a sense that the city is responsive and doing its part, as a funder, they would not be inclined to get involved. But if a grantee says they need help because they are not getting traction, the funder would be open to approaching the city. Another participant mentioned the Funders' Network Partners for Places program as a compelling model that supports building partnerships between local government and place-based foundations for a variety of projects including urban agriculture.



Jnderline Typical Paths Now

The Underline, Miami. Image credit: James Corner Field Operations and www.theunderline.org



Underline Typical Paths After



the case to land owners and developers

The Pitch

In order to pitch landowners on Inhabit Earth and Foodscape Design's business plan, it is important to quantify the value that they as tenants can bring to the landowner.

Agricultural Tax Exemption

The main value, the agricultural real estate tax exemption, is easily quantifiable through a land search on Miami Dade County's Property Appraiser website, https://www.miamidade.gov/ propertysearch/#/.

For example, the 2016 and 2017 tax bills for the current Overtown site show that the property owners are saving approximately \$90K a year on real estate taxes due to the urban farm that is being operated on their site:

Property Address	<u>2016</u>	<u>2017</u>	<u>Delta</u>
1136 NW 2 nd Ave	\$60,129.52	\$40.19	\$60,089.33
1160 NW 2 nd Ave	\$31,127.81	\$42.68	\$31,085.13
		Total Savings	\$91,174.46

Considering that the lease agreement is for a four-year term, this equates to a total added value of \$364,697.84.

Understanding this value add on the front end is extremely important when negotiating a lease with a prospective land owner. If the prospective owners understood the potential benefits that the landowner was receiving then they may have negotiated a lease where the landowner would reimburse the urban farm's setup costs once the land owner started to receive the tax benefit.

Case Study: California

In California, the agriculture tax incentive is on effective for properties participating in the agricultural activities for a minimum term of 5 years. Lobbying for such restrictions may Since the value Inhabit Earth and Foodscape Design bring is contingent on obtaining the exemption, it is critical that a plan is put in place to obtain the tax exemption as quickly as possible. The County typically requires that the urban farm be in place and operating by January 1 of the year in which the landowner claims the exemption. Due to this timing and the likely 60-90 day period needed to set up the urban farm, the ideal time to sign a lease and identify landowners would be no later than October- November of each year. This would allow enough time to set up the farm before the 1st of the year and obtain the tax exemption.

Links to the applications for the agricultural exemption can be found below:

http://www.miamidade.gov/pa/property_agriculture_application.asp

http://www.miamidade.gov/pa/library/agricultural-classification-application-and-return.pdf

In addition, the City of Mlami Planning Department has been charged by Planning, Zoning and Appeals Board, to investigate new city level incentives to promote better use of vacant properties, including the incentivization of urban agriculture. A Knight Foundation Grant was also applied for to fund the creation of a Miami-Dade County level tax incentive for urban agriculture. Unfortunately this request was not a winning recipient of the grant, however this illustrates the level of interest in the City of Mlami, and Miami-Dade County, and it maybe worthwhile to engage professionals to assist with the implementation of such programs and coordinate directly with government entities to have these incentives codified in a way to be most beneifial to the Inhabit Earth and Foodscape Designs mission.

have the advantage of allowing for the security of a minimum 5 year lease, or may be a detriment of securing land by being too restrictive for certain developers who wish to maintain flexibility.



In addition to the main benefit of the real estate tax exemption, there are several ancillary benefits that the urban farm provides.

LEED and NGBS Incentives

While a lot of the discussion about this project revolves around the temporary use of a site, and transportability of the program, we believe it should also be a goal to market the program to projects that may seek to include the program permanently in their projects, so as to provide a level of stability and predictability to the program.

Cities are leaning more and more toward sustainable practices and codifying those goals. In Miami's case, the City mandates LEED Silver certification for projects over 50,000 sf in size, and in Florida some projects struggle to reach those goals without seeing substantial cost increases in construction.

In addition, LEED certifications can be included in the marketing strategy to the end user, playing to the sustainably conscious movement and every growing population.

Under the LEED v4 for BD+C: New Construction, urban agriculture is not formally written into the LEED point scoring system, however can contribute points via 'Innovation points', and is a low cost symbiotic program that can help contribute points in creative ways. In addition, urban agriculture does tie directly into established points by using recaptured water, reducing the heat island impact of roofs and surface areas, providing additional Open Space than is required, and capturing rainwater and reducing runoff and drainage requirements. In the future, it may be beneficial to start lobbying the U.S. Green Building Council (USGBC) to formally include urban agriculture in their point system, so as to really allow developers and policy makers to understand the benefits of including this use in their projects, and to provide guidelines for effective integration into future development.

To learn more about how urban agriculture might tie into a LEED project, see the following link, which also describes the point system for other types of projects, such as Retail, Healthcare and Education, amongst others. https://new.usgbc.org/leed

LEED/NGBS Incentives

- The urban farm may have the potential for LEED or NGBS innovation points if it is incorporated into a built or proposed project.

- Consider lobbying USGBC/NGBS to create an"Innovation" credit that developers can quantify within the current scoring system.

- The farm may create an amenity for residents and community, with the potential to stock a community market inside a built apartment building and sell the produce from the farm.

- The potential also exists for community engagement and health benefits, which activates vacant land and the community, potentially leading to higher land value for the owner.

- A local, urban farm can create a point of differentiation for attracting tenants/sales (e.g. through elderly activities, educational opportunities for all ages, and health conscious)

- The farm may help meet or exceed open space requirements with no maintenance cost to the building (most open space is maintained by the operator)

- The farm may in general give rise to increased urban quality of life through infill pocket parks

...'food-growing areas can be differentiating amenities that add value to residential and mixed-use developments at little cost.'

Cultivating Development: Trends and Opportunities at the Intersection of Food and Real Estate, Urban Land Institute, 2016



Not-for-profit ad valorem tax exemption

Another potential partner, besides vacant land owners, is for-profit developers of elderly affordable housing communities. Florida Statutes allow for an ad valorem tax exemption for communities that meet the following requirements:

1. The fee simple owner of the land that the community is developed on is either a not-for-profit or a partnership where the general partner is a not-for-profit

2. 75% of the apartments in the community must be leased to low income residents over the age of 62 or are permanently disabled

Since a for-profit developer would not qualify for this real estate tax exemption, Inhabit Earth and Foodscape Design could partner with a developer to help them meet the requirements of the statute in exchange for a fee or future commercial space in the new community. A potential ownership structure for this to work would be a limited partnership with Inhabit Earth or Foodscape Design as the General Partner, the for-profit developer as the Special Limited Partner, and the tax credit investor as the Limited Partner. An organizational chart reflecting this proposed structure and be found below: A complete memorandum including instructions and copies of the applications needed to obtain this real estate tax exemption can be found in Exhibit A. In addition, the list of developers and proposed developments in Miami-Dade are posted on the Florida Housing Finance Corporation's website which can be found here:

http://floridahousing.org/programs/developers-multifamily-programs/competitive/2018

Another benefit of Inhabit Earth and Foodscape Design partnering with an affordable housing developer is that as a non-profit serving the community, the cost of construction for their retail and farm space in a development would be considered a Community Service Facility (CSF). As a CSF, the construction costs can generate tax credits that can then be sold to investors for equity to build the development.





Profitable Partnerships

Beyond the dollars and cents of the financial arrangement with the landlord or investor, it might be worth exploring some additional 'feel good' components to attract and entice would be landlords or investors into working with you. While economic considerations are certainly important, contributing to or participating in a socially conscious business is a powerful motivator, and could exploit additional opportunities.

For example, if there were a meaningful charitable component whereby the use gave back to the community, it could serve as both a tax advantage for the landlord, and as an attraction to a philanthropist landlord looking to do good, a win-win. Further, these same charitable and philanthropic components could give rise to valuable public relations on their own and prove to be extremely marketable for the business plan alone. Public awareness around philanthropic incentive retail has led to a surge in retailers giving back to gain followers, which in turn, catalyzes an organic grass roots movement of loyal supporters. One example could be allocating a portion of food and resources to feed those in need.

Case Study: Gotham Greens, Brooklyn

Gotham Greens in Brooklyn has located a hydroponic leafy greens farm on top of Whole Foods grocery store, and some of the produce is sold in the store below.

'Five Urban Farms That Are Growing Big' Urban Land Magazine, Flavie Halais, Citiscope September 17, 2014





implementation

Current Zoning

As an emerging trend in inner city locations across the United States, urban agriculture/urban farms and their associated uses are gradually being included in zoning codes and city ordinances in various ways. As discussed in the ULI report 'Cultivating Development: trends and opportunities at the intersection of food and real estate' it is important that a partnership is established with the City to facilitate any required modifications to the zoning and permitting process. The City of Miami Zoning Code, Miami 21 does not currently include Urban Agriculture or Urban Farms as a defined use so the code is currently silent on any restrictions, operating procedure requirements or parking for this use.

The Overtown and Omni areas typify the zoning in the urban core of Miami. Land banked vacant properties are often zoned for high density residential and mixed use, include T5 and T6, and adjacent parcels may already include multifamily developments and commercial establishments. The City of Miami Planning department considers the urban agriculture use to be more closely aligned with D1 and D2 zoning, which includes light industrial uses. It is however considered to be on the least intensive end of the list of light industrial uses.

Analysis of the current Process

As discovered during the implementation of the Overtown Community Farm, the current zoning and permitting procedures has resulted in a rather slow passage through the City permitting process, especially as they forge a previously untraveled path. Expeditors and even NET Offices are unclear on the requirements. and it has taken many months to finally have an application submitted to the City. The permitting process can take many months for approval.

The Overtown Farm was required to apply for a Temporary Use Permit (TUP) for Vacant Land, which must be renewed every 6 months. This 6 month permit renewal requirement coupled with a 90 day lease termination clause, is a are substantial problems for any farming vendor who requires any substan-

•	inititate contact with the City Planning/Zoning Department	nce/ ions
•	engage surveyor, architect, engineers, land use attorney and expeditor	dilige
•	prepare preliminary site plan	due e ne
•	complete environmental report etc.	leas
leas	e signed	
•	prepare Temporary Use Permit Application	n of ittal eks
•	finalize site plan	atio ubmi
•	site preparation work such as debris clearing, root grubbing, concrete removal, bed preparation etc. may begin	prepar su max. 2
sub	mit Temporary Use Permit	
•	retaining a land use attorney to submit the TUP is recommended, as they are responsible for following up with staff.	of TUP weeks
•	during the TUP approval period, meet with the Building Official to review the plan and confirm all required permits.	proval 5
•	have engineers/architect prepare all necessary additional plans for submittal for additional per- mits, such as electrical, temporary structures, bathrooms etc.	City a
rece	eive TUP and submit for all required permits	
•	it is recommended that an expeditor is retained to run all permits through the City of Miami, and Miami-Dade County	ermits weeks
•	during this period, prepare all work required by a contractor or subcontractor, and have them ready to begin work immediately upon receipt of the permit	of other p 5
•	all permits for relocation of structures from other properties should be applied for during this period	ity approval
_		5
•	construction/connection of electricity/water etc. inspections.	ction
•	move tenants in and connect	construc 2 w



tial capital investment in on a particular site. In addition, such temporary conditions may drive up the capital investment required since any growing process must now be designed to be completely relocatable (ie. water holding infrastructure and relocatable planter beds).

During the current Temporary Use Permit, conditions and restrictions on hours, noise etc. are all being negotiated on a case by case basis with no current guidelines for staff to refer to or uphold. This has resulted in the current TUP process having lasted over three months without any significant progress.

A TUP is required to be able to pull an electrical permit, which is required for the pump for the well. After many months, the Overtown Farm is still without a water source, prohibiting any growing whatsoever. For other properties without a well, bathroom facilities, curb cuts or storage facilities, other permits may also need to pulled before a farm can become properly operational.

At the very beginning of the project, in order to activate a formal due diligence process, a meeting with the City Zoning and Building department should be conducted and an exhaustive list of all permits and requirements for the TUP and permitting submittals should be created. In order to do this, the end users should be in place and the business plan for the property firmly established. This allows for a detailed site plan to be submitted to the City at the very beginning. A detailed site plan convinces the City that the project has an organized and detailed plan for operations, and will be able to comply with any conditions set forth in the TUP.

Possible Zoning/Permitting Modifications

In discussions with the City of Miami Planning Department, it was reassuring to note that there is genuine interest in making modifications to the current procedures and code language to more easily facilitate urban agriculture, especially as it relates to the better utilization of currently vacant 'land banked' properties. Many of these vacant properties are found in both Overtown and the Omni area, and the Planning and Zoning and Appeals Board has charged the City of Miami Planning Board with providing strategies and incentives for activating these properties, with urban agriculture being one of the earmarked uses. Specifically discussed were city level tax incentives that could additionally supplement those provided at the state level.

Initial zoning strategies suggested by the City of Miami Planning Department included obtaining a Determination of Use which would allow the use to be allowed within any zoning transect. This is a temporary measure that allows for projects to move forward quickly, and then the zoning modifications would be formally codified immediately afterwards. Microbreweries were an example of a use that used this strategy in their initial introduction to areas not initially zoned for this use, since they were determined to be a low impact light industrial use that could reasonably be allowed within other transects. The Determination of Use included a limit on the size and established supplemental regulations that formed the basis for the code changes to follow. The Determination of Use for microbreweries in the City of Miami can be reviewed as an example in this link.

http://www.miamigov.com/planning/docs/zoning/Determinations/Determination_No_2016_02_Microbrewery.pdf

The City of Miami Planning Department indicated support for such a Determination of Use to be applied to urban agriculture, and so to move forward with this process a Land Use Attorney could be hired to draft such language and help proffer the supplemental regulations applicable to the safe, effective and productive operation of an urban farm. They would also be responsible for any negotiations with Planning staff regarding the exact conditions and provide examples of regulations in other municipalities with successfully integrated urban agriculture.

A TUP specific to Urban Agriculture was also discussed with City of Miami Planning staff since this could be the vehicle to codify any supplemental regulations and conditions and streamline the permitting and approval process. The Urban Agriculture TUP could also define its own expiration dates and provide a 5 year period to allow for more term security for tenant farmers. The TUP also requires notification of adjacent neighbors, which has the advantage of being transparent and creating an open line of communication right from the beginning.



Overtown Existing Zoning



Current Zoning of Overtown Community Farm

The existing Miami 21 zoning map illustrates an ideal mix of uses surrounding the existing site to provide the mix of uses most suitable to support the farm. However since Urban Agriculture and farming is not identified as an allowed use within the current code, additional process is required for the use to exist in this neighborhood.



Regulations and Conditions Applicable to Urban Agriculture

Regulations and Conditions applicable to Urban Agriculture Concerns raised by the Planning staff and often addressed in other zoning codes include a variety of issues with potential negative impacts on adjacent residential properties, including noise, light pollution, smells, waste and parking. Ideal locations in Overtown and the Omni area are often adjacent to existing residential developments with the goal being to engage the local community in the project.

Many cities have seen the positive aspects of urban farming addressing food deserts and providing educational opportunities, however these must be weighed with quality of life and urban planning concerns of compatible uses. Some cities found it more productive to craft conditions and regulations after the uses were in place, and the tolerances of the neighbors had been gauged. Others created the regulations based on the experiences of other municipalities however there is some concern in the case studies that this second methodology sometimes created stronger regulations than were required for that location, and hence thwarted some activities. Conversely, with clear ordinances in place at the beginning, farm operators and tenants have the opportunity to plan most effectively for a successful long-term future, with rules for the location of compost, waste pickup times and access, storage of equipment, scale of structures etc. Clear ordinances allow for a fast and predictable permitting process and limited disruption during operations due to code enforcement violations and neighbor disputes

Structures

Most zoning codes have limitations on setbacks, maximum height and/or massing of structures on a property. The City of Miami zoning also has a minimum height requirement. Zoning regulations for structures such as greenhouses, shade structures and storage facilities are addressed usually as accessory uses, not as primary structures, so language specific to urban farming would have the advantage to be able to clearly address the ideal locations for water storage tanks and garages for machinery. Many of these types of buildings would normally require a full permitting process, however a good understanding of the code to allow for temporary buildings to be used for these the following purposes: such as using adapted shipping containers or prefabricated buildings would be more suited to the use given the typical lease terms. Additional code language to allow water storage tanks and greenhouses as temporary structures may be needed also and could be included in the supplementary regulations of the TUP.

Alternately, adaptation of existing structures on the site may require some language to avoid needing them to be brought up to current code but use of these buildings for storage of equipment or as offices may be a cost effective and more slightly solution than complete demolition and clearing of the site, followed by the influx of prefabricated temporary buildings.

Permitting Case Study: Opa Locka, FL

The City of Opa Locka recently passed an ordinance creating development standards and permitting processes for community gardens, urban gardens and urban farms to allow for these uses to be more easily and quickly permitted and with safeguards in place to protect adjacent uses for any detrimental effects of these uses. Examples of permitting and regulations.



Nuisance/Safety regulations

Most codes allowing urban agriculture have language setting limits for hours of operation, scale of machinery, location of compost and waste and the keeping of animals. These regulations have typically been in response to allowing the use to coexist with adjacent residential properties. Within a regular light industrial district these regulations are not required, so this language needs to be located in code sections such as the TUP to make them applicable only to urban agriculture in residential and mixed use transects. It is important that regulations do not prohibit the farm from functioning, but also prevent the use from being permanently forced out of the neighborhood entirely after being poorly integrated and regulated.

Parking

Some of these restrictions such as parking requirements, may have an impact on the proposed business plan for the Overtown and Omni locations and therefore the business plan needs to be developed with a clear understanding of the impacts some of the accessory uses may have. For example, educational uses and permanent commercial enterprises located at the farm may greatly increase parking requirements and remove land from the project that could otherwise be farmed. Plans should be developed to determine what size of property allows for such uses to harmoniously coexist with the farming component and not cannibalize the productivity of the project. Bathrooms and traffic impacts of these more intense uses may also determine that some properties are more suited to those accessory uses than others. Proximity to public transportation, easy access to arterial roadways and proximity to high density areas providing end users may be preferred site, with others being more suitable purely for production. An ideal scenario may be to have a network of properties with differing characteristics to allow for the properties to work as a complex or campus providing all uses across a group of projects.

Parking Case Studies:

In Chicago, the code has required 1 off street parking space for every 4 employees. The number of employees is not tied to the sf square foot of the growing area, since this may vary per crop type. In Nashville however, the parking is assessed on a site by site basis, and existing on-street parking may be deemed sufficient. Chattanooga requires sufficient parking for employees, visitors and patrons.



Chicago urban farms, images via Wiki Commons



business structure

Leasing and Management

The lease is the key contract to ensure that the land can be controlled on a long-term basis (unless it can be purchased at a significant discount). Any lease would need to be organized in a way where licensees can have the comfort that they can spend the necessary capital on their fixed costs. Unfortunately, this may be challenging since the land most likely is leased at a subsidized cost and often have short-term termination options. For example, with the lease for the Overtown Community Farm has a 90-day termination option for the landlord. This type of structure presents a serious challenge to implementing an urban farm on that site.

To address this challenge, this type of use (urban farm) should be leveraged so that a landowner is able to take advantage of a tax exemption and allow for significant expense savings. This savings should be utilized to allow for a lease term of a minimum amount with a reasonable notification period for a termination. For example, the minimum term should be at least 5 years with a 12-month notification period. In the case of the Overtown Community Farm lease, there is a savings of \$62K per year based on the most recent TRIM notice. The landlord should be willing to accept a longer notification period because of that savings. This swap of the tax exemption for the more stable lease agreement should allow for a win-win between a land owner seeking maximum valuation (or in the case, minimum costs) and satisfying the goals of an urban farm.

For an agreement with any subtenant, a standardized license is the most applicable form. This agreement should be full service and cancellable with a month's notice, to allow for maximum flexibility for both the farm and potential licensees. With this approach, if a licensee is not successful, the licensee can leave in the short term and be relieved of any contractual obligations. At the same time, the farm can bring on new licensees (and not have the land stagnant while a negotiated exit occurs). Services provided by the farm should include basic utilities (electric, water), waste removal, insurance, modest security, and the pro-rata cost of a farm manager. The license payment should be set at a rate that will allow the farm to recapture the costs and breakeven.

The land should be fully devoted to the actual plots or any support services associated with the plots (for example, a service shed, access roads, etc.). This is an important concept since there are many ideas about the types of program that could occur with the real estate. However, the most important initial goal should be to have the farm be sustainable, economically. Therefore, all possible area within the farmland should be devoted to production and ancillary services supporting production. Areas designated for demonstration should be delayed until the viability of the farm is confirmed and it can function as a true going concern.

Operation

The average urban farm sees sales of just under \$54,000 a year, according to a survey of 370 urban farmers across the U.S., although hydroponic operations earn more than double that and rooftop farms one-sixth of it.

Much of urban farms' smaller balance sheets can be traced

'The average urban farm sees sales of just under \$54,000 a year, according to the survey, although hydroponic operations earn more than double that and rooftop farms one-sixth of it.'

Much of urban farms' smaller balance sheets can be traced to their scale of production, which is generally limited by the amount of land to which they have access. While the average American farm

was 434 acres in 2012, nearly 60 percent of all urban farms are less than 5 acres — and 20 percent are less than 1 acre. In thriving cities like New York, that's often a function of hefty real-estate prices. But it can also be an issue in struggling cities, where leaders may be wary of committing real estate to unorthodox use.

Urban Farms Fuel Idealism. Profits? Not So Much Tracie McMillan, March 7, 2016



to their scale of production, which is generally limited by the amount of land to which they have access. While the average American farm was 434 acres in 2012, nearly 60 percent of all urban farms are less than 5 acres — and 20 percent are less than 1 acre. In thriving cities like New York, that's often a function of hefty real-estate prices. But it can also be an issue in struggling cities, where leaders may be wary of committing real estate to unorthodox use.

Financials

Food grown locally and sustainably is popular and socially rewarding however the production is costly. The marketing and distribution to retail channels are not well defined in the community farming (urban farming) or urban agriculture space. Furthermore, the extreme proximity of urban farms to consumers is helpful but does not create a competitive advantage when compared with establish food destination points. However, urban farms do help close the loop system characterized by importation of food from remote locations and the exportation of waste to regions outside the city.

There are key financial and operational metrics that Inhabit Earth (I.E.) needs to consider whether I.E. is actively farming the land that it controls in Overtown or searching for land within the Omni CRA District. The Key Financial metrics involves production capacity or yield of the farm on a per square foot basis, a targeted percentage customer mix, production of value-added products (e.g. pickle, honey, etc.), and high profit margin activities for the Urban Eco-Design Center.

To date, the urban farm industry has not developed measurable metrics that can be benchmarked across cities and states. The key operational metrics involves growing and selecting a diversity of crops with the highest profit margin, maintaining an active retail presence (e.g. providing a substantial inventory of seedling plants for sale), and developing efficiencies in delivery process.

In order to arrive at the financial model, we focused on the key revenue generating means in the urban farm which is the land. Using a hypothetical half-acre site (approx. 21,700 square feet), a production analysis would help derive the economic benefits that I.E. can extract from the land through farming. It is assumed that the ancillary business offerings (the Food Marketplace, Specialty Nursery and the Urban Eco-Design Center) would produce additional revenues that will be measured according to its scalability during the term of the land lease. Due to the unpredictability in the soil quality throughout the Omni urban core, using raised beds as the growth medium will provide for a controlled process for the production of high margin crops. Farming labor is included in gross margin analysis; however, additional costs for fixed assets and general labor to set up the site are not factored in this model.

The model assumes 90% of products (high yielding salad greens –lettuce, kale, arugula, scallions, etc.) are sold directly to consumers through CSA (defined below), restaurants and farmers markets. An estimated 10% of the production is deemed spoilage or excess inventory that can be shared with food kitchens and other hunger relief efforts in the local community.

To achieve ambitious revenue from 1/4 acre or less, Curtiss Stone, celebrity chef and author of the book '*The Urban Farmer*' suggest a business model with access to high-end restaurants and good farmers markets. Farmers should specialize in the crops that give the highest return on the smallest amount of land in the least amount of turnover time. The trade-off will be less diversity in crop selection. Mr Stone wouldn't consider operating a community-supported agriculture (CSA) program at first, as they're best suited to 1/2 acre or more

Urban Bakyard Farming for Profit

Action Plan Items

- Focus on high-margin greens and fast-growing herbs.
- Pursue training courses and home gardening consultations.
- Develop line of value-added product offerings to sell directly to consumers.
- Develop CSA's and supplier relationships with local restaurants as a primary sales channel
- Research and implement optimal delivery systems (Meals on Wheels, refrigerated storage, local packing facilities).



The calculations are based on the configurations of the raised bed layout assuming all the beds are planted and rotated as required per crop type and as noted on the attached table.

The crops are selected based on their potential to generate high margins and be easily sold in the marketplace. The intent of the model was not to tailor a specific variety of crops but to maximize the potential revenue generated by the land.

The calculation used crop percentages that were typically used (or suggested) by local farms, including rotation per year, cost and gross margin percentages. Research suggests that costs for soil-grown produce could vary significantly from product to product and farm to farm, with gross margins ranging from 30% to 60% of revenues.¹ The model used 60% gross margin in order to generate a best case scenario thereby maximizing the yield on a per square foot basis.

Using the crop varietals as noted in the Crop Yield Table, we arrived at a \$52.95 /SF. Local and independent growers assisted us in formulating cost and farming layouts.² It is assumed that I.E.'s numerous other profit centers within its enterprise format would supplement the gross revenue to help sustain I.E. on a long-term basis. Assuming other revenue generating seg-



Example raised bed layout

ments can achieve yields, any long term financial models must capture the maximum earning potential of farming the land on a dollar per square foot basis.

Sources:

- 1. Henrickson J. (2005) Profit by Planning: Helping fresh market growers meet financial goals and improve their quality of life.
- 2. Tiffany Noe, Chris French, Little River Coop Jeannie Necessary, Urban Oasis Project

Crop Yield (half acre raised bed growing medium)										
	`					Povonuo	Povonuo	Gross Margin %	Avg Gross Margin	
	Available		Cron	Cron	Avg Vield	60%	30%	Ividigiti 70	iviaigiii	
	Row (feet)	# of Rows	Percentage	Rotation/Yr	per Yr	to Consumer	Restaurant			Assumptions
Kale Cost					lbs	\$4/lb	\$3.5/lb			Yield 5 pounds per 10-foot row. Space plants 12 inches apart in rows 12 inches apart.
Kale Revenue	2152	6	15.2%	5	5380	\$ 12,912.00	\$ 5,649.00	60%	\$ 11,136.60	
Lettuce Cost					Ibs	\$12/LB	\$8/LB			Planted at 10 inches on center 1lb per head of lettuce
Lettuce Revenue	4305	12	30.4%	6	38745	\$ 278,964.00	\$ 92,988.00	60%	\$ 223,171.20	
Cucumber					lbs	\$3/LB	\$2/LB			Cucumber planting at 24 inches apart
Cucumber Revenue	1697	5	12.0%	4	6788	\$ 12,218.40	\$ 4,072.80	60%	\$ 9,774.72	1lb =2
Arugula					lbs	\$12/LB	\$8/LB			Arugula planted 4-inches apart
Arugula Revenue	717.5	2	5.1%	20	28700	\$ 206,640.00	\$ 68,880.00	60%	\$ 165,312.00	1lb=2 plants
Scallion					Bunch	\$3/Bunch	\$2/Bunch			Ready normally 60 days after planting
Scallion Revenue	989	3	7%	5	9890	\$ 17,802.00	\$ 5,934.00	60%	\$ 14,241.60	1 Bunch=.25 lbs
Beets					Bunch	\$4/Bunch	\$4/Bunch			Ready 50 days after planting, seeds 3-in apart
Beets Revenue	1414	4	10.0%	6	8484	\$ 20,361.60	\$ 10,180.80	60%	\$ 18,325.44	
Tomato					Ibs	\$5/LB	\$4/LB			Plant tomatoes 24 inches apart 3 tomatoes per pound
Tomato Revenue	2870	8	20.3%	6	2870	\$ 8,610.00	\$ 3,444.00	60%	\$ 7,232.40	
Total Crop Area =	14,139		100%				TOTAL AVG GRO	SS MARGIN	\$449,193.96	
							Gross Sales per	3F = (\$/3F)	352.95	



conclusion

In the United States, we often take food for granted, especially where it is grown and how it is sourced. Food has become an increasingly important part of not just our diets, but also of our emotional and community connectivity.

In the private sector, a growing number of developers are learning that food and its accessibility can have a big impact on the success or failure of new development, particularly as developers seek to provide value-add amenities.

With greater awareness for fresh and locally source food, progressive national grocers are partnering with urban agriculture establishments to better source their produce while contributing to their respective communities.

Many government entities across the country have been leading successful efforts in building urban agriculture framework from providing physical public land, re-developing public historical buildings to establishing multi-level community programs. An additional benefit of such programs involve working with nonfor-profit organizations to play an important role in furthering urban agriculture.

Overtown Community Farm & Omni Life Village are going to be the anchor projects in the area to lead the urban agriculture development.

The most critical step for both projects to be successful is to put together executable business plans. Land selection, strategic partnerships, project implementation and business structure are the main component to such plan. • Land selection generally involves identifying suitable land, engaging the land owner, performing due diligence (considering both leasing vs purchasing) on the land. Additional considerations include whether the land contract is permanent or temporary, privately owned land versus public land. Real estate professional like brokers and appraisers who specialized in this area should be engaged for such effort.

• Strategic partnership should explore opportunities to attract private land owners and developers with Agricultural Tax exemption, LEED and NGBS incentives as well as Not-for-profit tax exemptions. Furthermore, alliance can be formed with public entities with available land to contribute to a better and stronger community, and with corporations seeking to increase its social responsibility quotient.

• Project Implementation involves zoning regulations, process analysis, zoning/permitting modifications, as well as regulations and conditions specific to urban agriculture. Such process needs professional consultancy from land use attorneys, land planners, architects etc.

• Business structure considerations includes leasing and management, operation and financial metrics to determine the health and sustainability of the urban farming venture.

Urban Agriculture is not only a way to grow vegetables, but also a way to strengthen communities. More cities are developing urban agriculture policies. In many cities across the United States, urban gardens have become a distinctive type of open space asset –community based civic asset anchored by the cultural values of food. It has provided a way for families and communities of all income levels to survive and thrive. Residents in these communities are leading healthier, happier and more prosperous lives.





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