



FINAL REPORT

# The 2017 FAU INCUBATOR

## for Sustainable & Resilient Communities

Subjects of the FAU Incubator:

City of Hollywood – Reducing Flooding Impacts to Hollywood Lakes

City of West Palm Beach – Enhancing the Appeal of the Warehouse District

Date & Location:

April 25-26, 2017

Florida Atlantic University School of Architecture's MetroLAB, Downtown Fort Lauderdale

Organized By:

Florida Atlantic University's Center for Urban and Environmental Solutions (CUES)  
and the Florida Center for Environmental Studies (CES)



## THE FAU INCUBATOR PROCESS

Resilience is the ability to prosper through adversity, and sustainability is fostering development that promotes economic growth, environmental stewardship and social equity. The Florida Atlantic University (FAU) Incubator for Sustainable & Resilient Communities is a community engagement activity designed to foster coastal resilience and livable communities in South Florida. This includes adapting aging infrastructure to rising ocean levels, creating safe streets, increasing mobility options, encouraging economic development, providing affordable housing, and creating vibrant public spaces. FAU's objective is to convene structured brainstorming sessions with local officials that yield actionable solutions.

The cities of Hollywood and West Palm Beach participated in the inaugural FAU Incubator for Sustainable & Resilient Communities on April 25-26, 2017, each with distinct concerns in the study areas they identified. The city of Hollywood sought strategies for the Hollywood Lakes community, where increased flooding requires updated infrastructure and creative financing solutions. The city of West Palm Beach focused on the Warehouse District, an area under redevelopment that could benefit from examining the zoning code and improving walkability and transit connectivity to other key destinations.

To address these issues, FAU assembled a team of experts from a variety of backgrounds in the public and private sectors to lend expertise and fresh perspectives. After site visits and presentations, participants gathered at FAU School of Architecture's MetroLAB in Downtown Fort Lauderdale to draw upon the group's collective knowledge and experience to identify options and implementation strategies.

## OUTCOMES

During the event, elected officials and city staff had the opportunity to network, ask questions and discuss their concerns in the areas of planning, resilience and sustainability with peers from other cities, experts from related fields, as well as private developers. This report describes the study areas and contains a list of short- and long-term recommended actions and strategies for each city, as well as additional planning resources. Full details appear in the body of this report.



*Onsite in West Palm Beach*



*Onsite in Hollywood*



*At FAU MetroLAB in Fort Lauderdale*

Incubator highlights include, for the city of Hollywood’s growing flooding challenge, integrating a living shoreline with existing seawall networks. This solution appears likely to mitigate current short-term impacts. Putting longer-term strategies in place will require first building consensus among stakeholders and exploring innovative financing options, such as a public-private partnership, or a special-benefit taxing district.

In West Palm Beach, a vision for the Warehouse District’s future should be crafted with public and private partners providing input so that zoning options, financing tools and economic development strategies can be explored and implemented. Specifically, the creation of an overlay zoning district was encouraged along with a Business Improvement District to assist with infrastructure, placemaking and programming to promote new development, parking and mobility solutions, enhanced public spaces, and the promotion of arts and events. The group also encouraged the city to explore an innovation district concept where private industry, government, nonprofit organizations and local universities, including Florida Atlantic University could partner to bolster the Warehouse District as an innovation hub.

By having the staff from the cities of Hollywood and West Palm Beach together in conversation at the Incubator, common themes around implementation and planning emerged. Despite facing different challenges, both groups benefitted from the each other’s experience and discussing the process of engaging stakeholders to develop a vision and actionable steps towards implementation. They each benefited from the resource experts in the room and were able to make suggestions based on common issues that face municipal governments.

All participants, moderators and experts involved in the Incubator benefitted from examining the problems faced by Hollywood and West Palm Beach. Many cities across South Florida and other coastal regions could learn from this experience. Coastal municipalities are on the frontlines of climate change and are beginning to experience the impacts of sea-level rise. They can benefit from experts that can identify and suggest short- and long-term solutions. Moreover, at the same time these cities are trying to revitalize neighborhoods and encourage growth and development in a sustainable and resilient manner. The FAU Incubator for Sustainable and Resilient Communities provides the forum for stakeholders to engage with experts across the public, private and academic sectors to identify solutions summarized in this report. Most of the suggestions would be applicable to many other communities facing similar challenges.

## *ABOUT THE INCUBATOR*

A partnership between FAU’s Center for Urban & Environmental Solutions and the Florida Center for Environmental Studies, the FAU Incubator for Sustainable & Resilient Communities is a forum for stakeholders and decision-makers to develop action plans that address complex land use and infrastructure problems. The Incubator offers leadership and expertise based on best practices and provides guidance on developing implementable plans and policies.

## *FOR MORE INFORMATION – PLEASE CONTACT*

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## *Forward from Mayor Levy, City of Hollywood, Florida*



Standing in a neighborhood street, knee deep in saltwater on a sunny day during a King Tide, it is clear that sea level rise is a pressing issues facing Hollywood. When I was elected as Mayor in 2016 I knew sea level rise and associated flooding, both current and projected, would offer me challenges to overcome for the City. More than just problems to solve however, the challenges faced by today's coastal cities also provide unparalleled opportunity to redefine our community and create a Hollywood that is resilient, sustainable, and desirable now and into the future.

One of the greatest opportunities of sea level rise is that it cannot be tackled completely in isolation. Certainly, the City has taken and will continue to take steps to improve infrastructure and relieve some of the burden felt by flooding, but a global and regional problem requires global and regional action. Recently, I joined with other Mayors across the country to reaffirm our commitment to addressing the causes of climate change and its impacts, like sea level rise, head on. The City is also extremely fortunate to be in a region that is rife with opportunities for collaboration to develop regional tools and approaches. Florida Atlantic University has been an invaluable partner in this effort.

The 2017 Florida Atlantic University Incubator for Sustainable and Resilient Communities allowed us to focus in on one neighborhood on the front lines of sea level rise and develop ideas that do so much more than simply solve a problem. The suggestions resulting from the Incubator not only will help alleviate the burden of flooding, but they do so while at the same time addressing other areas that are important for a sustainable and resilient community. The solutions enhance the natural environment and environmental quality, incorporate mobility, increase economic opportunity, and create value that will benefit the entire City, not just the neighborhood in question. This is the way to create sustainability and resiliency. We must do more than simply solve problems, we must use those problems as opportunities for making our City even better.

We want to offer many thanks to Florida Atlantic University and the panel of experts they organized to give our City's challenges a fresh perspective. Only through collaboration and openness to different ways of doing things will we be able to move forward better and stronger than we were before.

*Forward from Mayor Muoio, City of West Palm Beach, Florida*



When I was first entered public service in the City of West Palm Beach in 2006, the challenges facing our community were predictable. Education, public safety, and the economy were the top three topics people were concerned about, as they historically have been. Fast forward to 2017, and the concept of what makes a city a great place to live has expanded. Creating cities where people want to live, work and play means addressing tough issues that are far from predictable.

Now, city leadership must look at an array dynamics affecting the daily experience of our residents. Cities are at the forefront of innovation, addressing equity, and leading environmental sustainability. Each and every day, we have the most to gain and the most to lose while facing these challenges. Cities are

creating best practices, sharing these ideas and fine tuning them with local academic leaders and other city leaders.

Florida Atlantic University’s 2017 Incubator for Sustainable and Resilient Communities addressed two examples of the new normal facing cities in South Florida. First, a city must grow all segments of its community in new ways that create equitable opportunities for not only existing industries but also residents. An Innovation Hub is one way to address that need. Second is Climate Change. We now know climate change is real. Communities, specifically those on the coast, are considering all strategies for handling sea level rise and other climate related challenges. Cities are leading the way in to a sustainable and resilient future.

We do not have the convenience of time to debate these matters. Each year the tides get higher and our job demands grow, which is why opportunities to work with universities and with other cities are critical to our future.

I want to thank Florida Atlantic University and the City of Hollywood for working with the City of West Palm Beach to further invest in developing solutions for these challenges.

## *FAU INCUBATOR PARTICIPANTS*

### City of Hollywood

Mayor Josh Levy, City of Hollywood

Commissioner Debra Case (Dist. 1), City of Hollywood

Lorie Mertens-Black, Chief Civic Affairs Officer, City of Hollywood

Lindsey Nieratka, Environmental Sustainability Coordinator, City of Hollywood

Arceli Redila, Planning & Development Services Administer, City of Hollywood

Frank Leon, Engineer, City of Hollywood

### City of West Palm Beach

Mayor Jeri Muoio, City of West Palm Beach

Christopher Roog, Director of Economic Development, City of West Palm Beach

Scott Kelly, Administrator, City of West Palm Beach

Rick Greene, Director of Development, City of West Palm Beach

Will Earl, VP of Development, The Warehouse District

E. Hunter Beebe, Managing Principal, Healthcare Real Estate Capital

### Experts

Michael Busha, Executive Director, Treasure Coast Regional Planning Council

Nader Salour, President, Cypress Realty

Tim Hernandez, Principal, New Urban Communities

Raphael Clemente, Executive Director, Downtown Development Authority, Downtown West Palm Beach

Billy Fields, Assistant Professor of Political Science, Texas State University

Susan Coughanour, Board of Directors, Palm Beach County Planning Congress

Kim Briesemeister, Principal Redevelopment Management Associates (RMA)

Jeff Huber, Assistant Professor, Florida Atlantic University

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### FAU Conveners/Facilitators

Dr. John Renne, Director & Associate Professor, FAU Center for Urban & Environmental Solutions (CUES)

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# CITY OF HOLLYWOOD, FLORIDA

Like many communities in South Florida, the city of Hollywood is impacted by flooding.<sup>1</sup> As Broward County Assistant Public Works Director Nancy Gassman noted, “In 2015 the tide rose one foot above predicted levels, exacerbated by the passage of a tropical storm and an anomaly in the Gulf Stream”.<sup>2</sup> The Southeast Florida Regional Climate Compact projects even greater impacts in the near future.<sup>3</sup> During a site visit to the study area, the Mayor of Hollywood Josh Levy and Commissioner Debra Case indicated where flooding limits access to properties, and residents described how saltwater encroaches on their properties and ruins their vehicles’ brakes.

The Hollywood project study area (Figure 1) included District 1 Boundaries, which begin at the intersection of Federal Highway and Pembroke Road, then northerly on Federal Highway to Sheridan Street, then

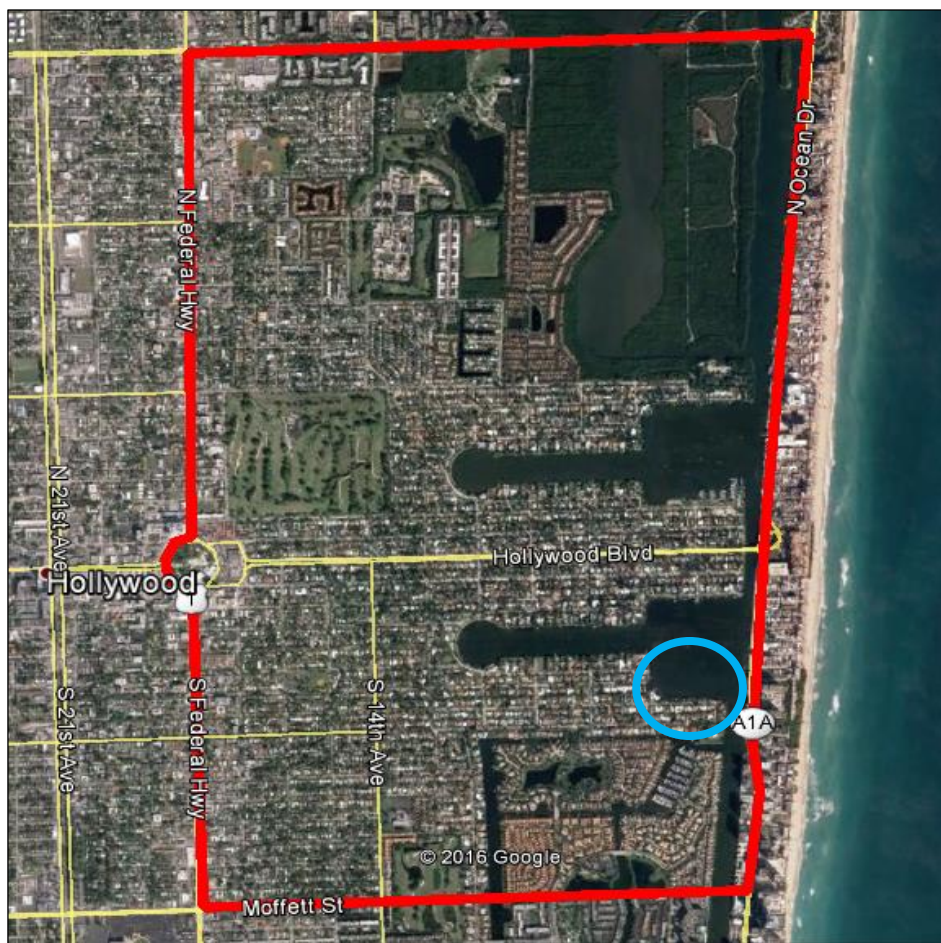


Figure 1 City of Hollywood Study Area (see Figure 2 for enlargement area)

<sup>1</sup> See Mayor Josh Levy’s video of the September 2016 King Tide impacts to the city, <https://youtu.be/71M-vDX-Zf8>

<sup>2</sup> Learn about the connection between rising temperatures and the Gulf Stream [https://www.washingtonpost.com/news/energy-environment/wp/2015/03/23/global-warming-is-now-slowing-down-the-circulation-of-the-oceans-with-potentially-dire-consequences/?utm\\_term=.6fdd395e4521](https://www.washingtonpost.com/news/energy-environment/wp/2015/03/23/global-warming-is-now-slowing-down-the-circulation-of-the-oceans-with-potentially-dire-consequences/?utm_term=.6fdd395e4521)

<sup>3</sup> SE Florida Regional Climate Compact Indicators, <http://www.southeastfloridaclimatecompact.org/indicators/>

easterly along Sheridan Street and the city's corporate boundary to the Atlantic Ocean, then southerly to the city's corporate boundary, then westerly to the Intracoastal Waterway, then northerly to Pembroke Road, then westerly on Pembroke Road to Federal Highway.

The Incubator team focused primarily on a section of the Hollywood Lakes neighborhood (Figure 2), which is part of District 1. Some recommendations apply to the larger study area, others specifically to Hollywood Lakes, and some may have implications for other sites in the city or other communities.

Experts at the Southeast Florida Regional Climate Change Compact's workshop, Resilient Redesign II, summarized the residential area of Hollywood Lakes as follows:<sup>4</sup>

*“Several iterations of redevelopment have occurred in the community...In many cases, property redevelopment did not necessarily result in the reconstruction of seawalls or placement of additional fill material to raise the property, leading to the current conditions of temporary flooding along waterfront boundaries in response to high tides and elevated groundwater levels. In order to counteract flooding, the city and its residents are implementing temporary site-specific solutions.”*

The site's flood protection and drainage infrastructure are in need of retrofitting, and overall, the community needs to implement a resilience and adaptation strategy that will sustain the waterfront community with limited resources.



Figure 2 Hollywood Lakes area (circled in blue on Figure 1 map)

City officials sought FAU Incubator assistance on a number of issues related to the Hollywood Lakes study area, and their top concerns were:

- Flooding and the need to update infrastructure  
As in other coastal urban areas, waterfront property and transportation infrastructure are subject

<sup>4</sup> See the full Resilient Redesign II [Hollywood solutions presentation](#) given by Jennifer Jurado at the 7th Annual SE Florida Regional Climate Leadership Summit.



to, or at risk of, flooding as a result of rain events, extreme high tide events, storm surge and sea-level rise.

- Exploring financing options

Studies and outreach activities have revealed next steps the city would like to take, but moving some projects forward has proven challenging.

## CITY OF HOLLYWOOD - ACTION ITEMS

On Day One, city officials and FAU's team of experts participated in site visits and discussion about the concerns identified above. On Day Two the group met for a facilitated brainstorming session at FAU School of Architecture's MetroLAB in Downtown Fort Lauderdale. They focused on identifying options and implementation strategies in the areas of information gathering, infrastructure, financing and gaining political support. The discussion included wide-ranging observations and suggestions reflecting the diverse background of the participants.



### Data collection steps

Before infrastructure improvements can be implemented, the following data will be needed:

- Inventory the existing seawalls.  
Ascertaining the dates and type of construction, and present condition will be key, as some existing "seawalls" are actually bulkheads and some viewed on the site visit appeared unable to structurally withstand the pressure of flowing water. The county is doing a study to set a minimum height.
- Collect good information on soils.  
Soil permeability will inform choices of infrastructure adaptation. For example, limestone or peat are more permeable and allow absorption of rainfall. Information can be obtained from the city in the building permit data.
- Identify demonstration projects to implement.

### Infrastructure strategies

Strategies to address flooding and saltwater inundation along the waterfront road between homes and the Intracoastal Waterway:

- Create a hybrid living shoreline extending into the water.  
The city owns the right-of-way between homes and waterway - land adjacent to homes and first five feet - and the docks are leased by homeowner from the city. The rear alleyway could allow access to homes, while the roadway in front of homes could be returned from impervious surfaces to a natural state. The city of Hollywood could re-issue residents' dock permits with the requirement of maintenance of the seawall.
- Change landscape code to require salt tolerant plants.

- Put in a landscape barrier behind the sea wall on the city’s property, and a knee wall built with flood doors to drop in and prevent water from coming in. As long as the doors are used, the knee wall would stop water, although it would restrict parking.
- Create a berm as a temporary solution to flooding, and the city can incorporate public use. Example – Las Olas Blvd, Fort Lauderdale.
- Plant trees to soak up water during inundation and take over the space. Mangroves might serve this function and signal to developers that the area is prone to flooding.
- To address flooding at the marina around Polk Street, raise either the boat ramp or the parking lot, whichever is more affordable. Note, flooding also comes from behind as saltwater is bubbling up behind the seawall.

Large scale infrastructure solutions:

- Create a hydric park with recreational features - a concept which works elsewhere.
- Extend public transportation (“Tan-Line”) connecting the beach with Downtown.

## Financing and Creating Political Will

Implementation of strategies requires support from stakeholders, as well as financial resources.

- Create an infrastructure task force so that stakeholders will support suggested strategies.
- Establish a special improvement or benefit district – the cost of the infrastructure for flood protection should be charged to the property owners that benefit from this investment.
- Public Private Partnership - Offer a low-cost lease for a developer to create a marina on South Lake with the requirement of a seawall. Additional funds could be generated by selling the marina on North Lake, if needed.
- Self-fund infrastructure adaptations for the marina with a bond.
- To create political will, try a radical approach - go to bond rating companies and ask what the current situation will do the city’s rating related to an increase of flooding due to sea-level rise. Once the information is obtained, ask stakeholders to act responsibly.
- An option that should be considered is to DO NOTHING, and let market forces prevail. This could be a costly option, due to the loss of local tax revenue.
- Tax - The most vulnerable to flooding would pay the most. Costly items associated with the project would be paid by water and sewer fees. For example, in the city of West Palm Beach, the stormwater fee is very high, assessed as a user fee.
- Tiered tax solution - 70% of the money invested in infrastructure goes to the area that pays 70% of the money.
- Sell the waterfront land to the homeowners but require them to put in a new sea wall. Docks built by the homeowner require permits. If homeowners do not want to purchase the land in front of their home, then allow anyone in the public the right to bid on it.



- Look at existing state & local government hazardous management and/or post-disaster plans, proposed mitigation strategies and funding requirements. For example, FEMA pre-disaster mitigation funds act as an incentive to have a plan in place before disaster strikes. Resource: <https://www.fema.gov/pre-disaster-mitigation-grant-program>
- Continue educating the public. Link solutions to other economic aspects like tourism, which is based in part on fishing. For example, mangroves planted to soak up water would also provide spawning areas for fish.
- Part of resiliency and financial planning is providing proper tools for bi-partisan support for mortgage modification. Establishing micro loans, a climate bank, or other models may require a five- or six-year process. Ordinary people need financial tools now to help them in an orderly fashion in the future. For example, agricultural lands in Southeast Dade will be lost in the next four years.
- Before leveeing special assessments, consider all the homes impacted by flooding, not only the ones on the waterfront.
- Hold facilitated discussions to consider a range of options. Take the results back to the commission and continue the conversation. Use community groups to make suggestions to the commission.

## Strategies & Suggestions

- Focus development on higher ground, retreat from low-lying, impacted areas.
- Re-evaluate existing building codes with regard to flooding.
- Address access to property under both short- and long-term flood conditions.
- Avoid investing in infrastructure which will not live out its life because of flooding.
- Do a cost-benefit analysis at the different 1-, 2-, and 3-foot sea-level rise projections. Assess what it would cost to buy out and relocate the properties. Broward County evaluated its projected real estate loss and found that preserving the tax base of multi-million dollar homes located at the water's edge through a time of transition is vital.
- The sea-level rise scenarios used by the county are MEAN tide not high tide, and do not account for storm surge or rainfall. The Gulf Stream anomaly – a slowdown in the ocean current which contributed to extreme King Tide flooding - has happened before and will likely happen again.
- Promote amphibious architecture and/or architecture on stilts.
- Add an educational component to outreach efforts. Homeowners may not know that they need to build at a higher elevation. However, they also need to access their homes - the road must also be high enough to account for flooding.
- Take a lesson from those planning for post-disaster - the best response depends on planning in advance, and the same can be said for dealing with sea-level rise. Every year the post-disaster recovery plan is reviewed but it's hard to get support. Blue sky planning may not be pursued in a vigorous way. Use city planners' insights when discussing such a plan. If the worst case happens, what steps will the city take to recover?



- Examine existing beliefs about property rights.
  - Transfer of development rights, previously for agricultural uses, now might be used in reverse process taking land offline for use - a political, unwanted conversation.
  - The Lincoln Institute of Land Policy - a good resource to assist on the level of property rights and the government.
  - If the community does nothing, the market will take over, sending a signal that the property is no longer viable and has no value.
  - Communal land ownership, for example, is not a widespread model.
  - Structure of government and role of government is to tax and provide services. Some areas may become economically useless, and the municipality doesn't have resources to buy out public areas. Is it government's responsibility to bail residents out? How do the municipal planning structures allow for the evolution?
- Replacement of pumps may cease when they are no longer a good investment of public dollars. Example: A road in Northeast Florida washed out when a hurricane cut a new channel through it, and the courts ruled that the county does not have to rebuild that road.
- At what point does the property tax appraiser stop the valuation? When does property become uninsurable?
- It is government's responsibility to create financial tools to extend the viable life of properties. Create sea-level rise or climate savings accounts. Create a financial tool similar to the Roth IRA to pool resources to move or replace septic tanks. Municipalities have the power to move the needle. Sea-level rise is made exponentially worse by not being ready.

## Additional Resources

### Fort Lauderdale seawall ordinance & Vision Plan

Flooding during the Fall 2015 seasonal King tides prompted a review of the city of Fort Lauderdale's seawall ordinance with minimum elevation. [<http://gyr.fortlauderdale.gov/greener-government/climate-resiliency/seawall-maintenance>]. The seawall ordinance includes two provisions under which a property owner may receive a citation:

- Failure to maintain seawall in good repair
- Allowing tidal waters entering property to impact others' properties or right of way

The Vision Plan for 2035 aims to build resilience for the 165 miles of canals and waterways flowing through the city [<http://www.fortlauderdale.gov/home/showdocument?id=294>].

# CITY OF WEST PALM BEACH, FLORIDA

The Warehouse District in West Palm Beach has the potential to become a center of cross connection of industry and collaboration of innovation, reflecting a modern use of old industrial buildings. City staff believes the area lends itself to follow an Innovation District model for redevelopment as defined by the Brookings Institute.<sup>5</sup>

Innovations Districts, according to Brookings, are this century's productive geography where professionals from a variety of industries are in walkable, bikeable, dense places. These places include companies, university and popular gathering places where new ideas can be turned into products for the market. At a work session on April 12, 2017, the United States Conference of Mayors and Brookings further described Innovations Districts to be "essential to helping improve the human condition" and "environments where success is the most likely outcome."

At the FAU Incubator facilitated brainstorming session to address these issues, Chris Roog, Director of Economic Development for the City of West Palm Beach, explained a vision for the area. To illustrate, he played a video by the Brookings Institute<sup>6</sup>, highlighting the strategy of concentrating people with cutting-edge ideas - and cool spaces - so they can work together. In St. Louis for example, the Cortex Innovation Community combines biology and technology companies like Monsanto, Boeing and others to benefit from a place where they can be housed near each other. Other examples include the research triangle in North Carolina and Silicon Valley in California.



Figure 3 West Palm Beach study area

<sup>5</sup> <https://www.brookings.edu/blog/metropolitan-revolution/2016/03/30/so-you-think-you-have-an-innovation-district/>

<sup>6</sup> Brookings Institute video, *What is an Innovation District?* [www.brookings.edu/innovation-districts/](http://www.brookings.edu/innovation-districts/)

West Palm Beach’s Warehouse District (Figure 3) is bounded by Okeechobee Blvd to the north, Australian Avenue/ Interstate 95 to the west, and the Stub Canal/CSX Rail line/ Parker Avenue along the east boundary. The area is in close proximity, but poorly connected to, the city’s Downtown, major retail centers, train stations and the airport. An abandoned railway runs through the area. At present, the code doesn’t allow residential use (See Figure 4).

City staff sought FAU Incubator assistance on a number of issues related to The Warehouse District, and chief among them were:

- Zoning concerns – As the area seeks to reach its potential as a center for industry and collaboration of innovation, present zoning codes are not optimal for its creative uses.
- Walkability and connectivity - Sidewalks and streets need to be redesigned to reflect the city’s complete streets policy. How can the district become more attractive to young professionals through better connectivity to the Downtown area, the Tri-Rail station and other key destinations via transit, bicycling and other modes?



LEGEND	GENERAL			DMP			HISTORIC
<ul style="list-style-type: none"> <li>★ BHUD Public Open Space Preferred</li> <li>— BHUD Primary Intersection</li> <li>◻ Coleman Park</li> <li>◻ Historic District</li> <li>◻ Downtown Master Plan (DMP)</li> <li>◻ City of West Palm Beach</li> </ul>	<ul style="list-style-type: none"> <li>CMFD</li> <li>CPD</li> <li>GC</li> <li>NC</li> <li>OC</li> <li>OCPD</li> <li>CS</li> <li>CSPD</li> <li>CON</li> <li>I</li> <li>IPD</li> <li>UT</li> </ul>	<ul style="list-style-type: none"> <li>BHUD TYPE I</li> <li>BHUD TYPE II</li> <li>CMUD PUBLIC GREEN</li> <li>CMUD TYPE I</li> <li>CMUD TYPE II</li> <li>CMUD TYPE III</li> <li>NHUD TYPE I</li> <li>NHUD TYPE II</li> <li>NHUD TYPE III</li> <li>PC</li> <li>POR</li> <li>POR/ID</li> <li>RTD</li> </ul>	<ul style="list-style-type: none"> <li>ROS</li> <li>NOS/PO</li> <li>NPD</li> <li>SF7</li> <li>SF14</li> <li>SF11</li> <li>MF14</li> <li>MF20</li> <li>MF32</li> </ul>	<ul style="list-style-type: none"> <li>BPD-5</li> <li>BPD-R</li> <li>CAD-5</li> <li>TOD-8</li> <li>UOS</li> <li>QBD-3</li> <li>QBD-5</li> <li>QBD-8</li> <li>QGD-10</li> <li>QGD-25</li> <li>QGD-5</li> <li>TOD-10</li> <li>TOD-35</li> </ul>	<ul style="list-style-type: none"> <li>CC2</li> <li>CLD-25</li> <li>CWD-CD</li> <li>CWD-5</li> <li>CWD-10</li> <li>FWD-5</li> <li>ICD-2</li> <li>ICD-5</li> <li>LD-10</li> <li>LD-4</li> <li>LD-5</li> <li>LD-8</li> <li>NWD-1</li> </ul>	<ul style="list-style-type: none"> <li>NWD-4</li> <li>NWD-5</li> <li>PPD-PO</li> <li>PPD-R</li> <li>QBD-10</li> <li>NWD-R</li> </ul>	<ul style="list-style-type: none"> <li>HNC</li> <li>NWD-R</li> <li>MF32-C1</li> <li>MF14-C1</li> <li>MF14-C2</li> <li>MF20-C1</li> <li>SF14-C2</li> <li>SF14-C3</li> <li>SF14-C5</li> <li>SF7-C4</li> <li>NWD-R-C1</li> </ul>

4 WPB study area zoning map & legend

# CITY OF WEST PALM BEACH - ACTION ITEMS

On Day One of the Incubator, city officials and FAU’s team of experts visited the study area and discussed the city’s concerns identified above. On Day Two at FAU School of Architecture’s MetroLAB in Downtown Fort Lauderdale, facilitated brainstorming identified overarching themes, data collection suggestions, short-term action items, longer-term options and implementation strategies in the areas of zoning and land use; infrastructure; traffic flow, branding and wayfinding; parking and mobility, public spaces, art and events. The discussion included wide-ranging observations and suggestions reflecting the diverse background of the participants.



### Outcomes from the Brainstorming Session:

The question of zoning seemed premature without thinking through the options.

### Suggestions to help with the creation of the district:

- Follow up the conversation with stakeholders about the different zoning options. Rotterdam and New Orleans are examples of cities that have transformed themselves. Through taxing, a city can implement financial incentives that help preserve certain industries and discourage others.
- Find the right team and develop a plan for the area. The zoning land use plan needs revisiting. Two strategies might be to let unrestricted development happen, or define a Downtown Development Plan (DMP)-like designation as a standard to prescribe development. Some experts suggested that form-based zoning is less complicated than DMP. Floor Area Ratios (FARs) in the area are currently too low.

### Additional considerations:

- Consider whether any land uses should be eliminated.
- Some land must remain available for industrial usage.
- Some stakeholders did not want to change the zoning from industrial because that would change the character of the area.
- Some experts suggested allowing new housing with a cap of supply in an area but review every few years.
- Set a ratio between residential and industrial land uses.
- Resilient districts include zoning for green & public spaces. Example: Rotterdam’s resilient district has green roofs and walking/biking access to public transportation. Example: New Orleans cultural products districts deem indie art as tax-free. Businesses are enabled by state legislation, i.e., financial incentives.

## Data collection steps

- Examine employment projections to determine local job prospects or conduct an employment analysis. Resource: <http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections>
- Conduct a land uses analysis.
- Obtain guidance about the process the city will use to dispose of its property.

## Traffic flow, branding and wayfinding

- Decrease the speed limit on Parker/Tamarind Avenue from the Warehouse District to the Tri-Rail station.
- Improve the Caroline Street crossing for pedestrians.
- Provide wayfinding / signage for cars to Downtown from I-95 to relieve traffic pressure.
- Provide pedestrian-level signage to help finding amenities and businesses. Add human-level signs encouraging use of the Warehouse District.
- Brand the area, for example with signs. Use [www.Walkyourcity.org](http://www.Walkyourcity.org) to assist making signs.
- Use apps in addition to signage to improve wayfinding and highlight features. How people find places is changing; think about using technology to the district's advantage. For example, employ interactive city apps using thumbtacks to show bike racks and crosswalks.

## Zoning ideas and suggestions

- Engage with nearby neighborhood associations so they can better participate in this conversation.
- Consider forming a Business Improvement District (BID) with the Warehouse District as a lead entity.
- Consider an overlay zone to maintain sufficient land for industrial and residential uses while keeping "the feel" of the area.
- Create an incentive for the private sector to build with X amount of housing units, cap and revisit to add more in the future, as needed. Landowners may be willing to sell properties, maintaining a ratio between industrial and residential uses.
- Use DACRA in the design district as a resource (<http://dacra.com/>).
- Follow-up with FAU's School of Urban and Regional Planning/Center for Urban and Environmental Solutions and the Treasure Coast Regional Planning Council on the available zoning options.
- Incentivize certain businesses to promote creative firms, but discourage non-desirable uses.
- Consider including more green public spaces.
- Explore how to get the county to be more cooperative, for example regarding the convention center.
- Continue to use the university as a resource (CUES & MetroLAB).
- How can the city solve the problems of non-conforming uses?  
Evaluate existing uses. Consider a moratorium on storage facilities, for example.



## Parking & Mobility

How can planning for parking enhance the study area? Plan for on-street parking. Eventually, a structured parking deck might be useful in the area if it becomes popular. Consider doing a mobility plan for the area incorporating shared vehicles and bike sharing (Skybikes).

- The Downtown Mobility Plan should address the Warehouse District. Staying in contact with the consultants could let ideas from this Incubator be reflected in their study.
- On-street parking – Draw upon best practices to encourage efficient on-street parking and long-term flexibility for repurposing based on complete streets theory.
- Consider whether the city wants revenue from parking.
- Consider shared parking - businesses during the day, residential at night. The lot could eventually become a parking deck over time.

## Public Spaces, Art & Events

- Launch a concerted effort to bring public and performing arts into the area.
- Create a robust programming schedule. Think of the project as a canvas, and use the community's creativity to create something unique.
- With construction evolving and businesses opening, events need support from policing, approvals, and marketing.
- Public space is lacking in the area but is needed by any great destination for interaction and aesthetics. Consider landmarks and plazas.
- Expand street furniture.
- Integrate stormwater infrastructure with improving streets.
- Attracting creative talent is contingent upon creating a vibrant district, maintaining industrial uses, allowing residential development, and adding in public spaces (i.e. playground, dog park).
- Public spaces need to be considered in relation to the functions around them and the scale from the point of view of the communities, for example kids vs. dogs.

The Warehouse District has enormous potential to attract typical Innovation District firms and creatives. By defining the vision, managing development, and improving its connectivity and walkability, the city of West Palm Beach has the opportunity to encourage the area to flourish.



## *Bring the FAU Incubator for Sustainable & Resilient Communities to your community*

The FAU Incubator for Sustainable & Resilient Communities is a program that provides mayors and municipal leaders in South Florida the opportunity to draw upon experts for creative and attainable solutions to local problems. Communities face issues such as adapting aging infrastructure to sea-level rise, creating safe streets, increasing mobility options, encouraging economic development, addressing affordable housing needs, and creating vibrant public spaces. The process allows community leaders a safe space to hash out ideas with input from our team of experts, who assist with visioning creative solutions and identifying next steps in resolving issues. At the end of the process, the mayor and key leaders depart with the group's short and long-term recommended actions, strategies for accomplishing those actions, drawings of design solutions, and a renewed sense of optimism for implementation in their community. FAU delivers a final report and can meet with the mayor and city leaders to discuss next steps towards implementation.

A partnership between FAU's Center for Urban & Environmental Solutions and Center for Environmental Studies, the Incubator for Sustainable & Resilient Communities is a forum for stakeholders and decision-makers developing action plans which address complex land use and infrastructure problems. The Incubator offers leadership and expertise based on best practices and provides guidance on developing implementable plans and policies.

Our core values are:

- equitable economic growth,
- environmental stewardship,
- vibrant, safe and healthy neighborhoods,
- sustainable land use patterns,
- multimodal transportation systems, and
- best practices in storm water management and coastal resilience.

***For more information or to discuss how we can help your community,  
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