South Florida Resilient Redesign

Workshop Summary

Site Overview

- City of Dania Beach
  - Population ~ 30,000
  - $44,500 median income

- East Dania Beach Boulevard is main corridor

- Economy depends on
  - Tourism- beach
  - Marine industry
  - Small business

Port Everglades

Fort Lauderdale Airport

I-95

Dania Beach

Dania Beach Canal

Coastal Ridge

Barrier Island

Commercial

Residential

Characteristics
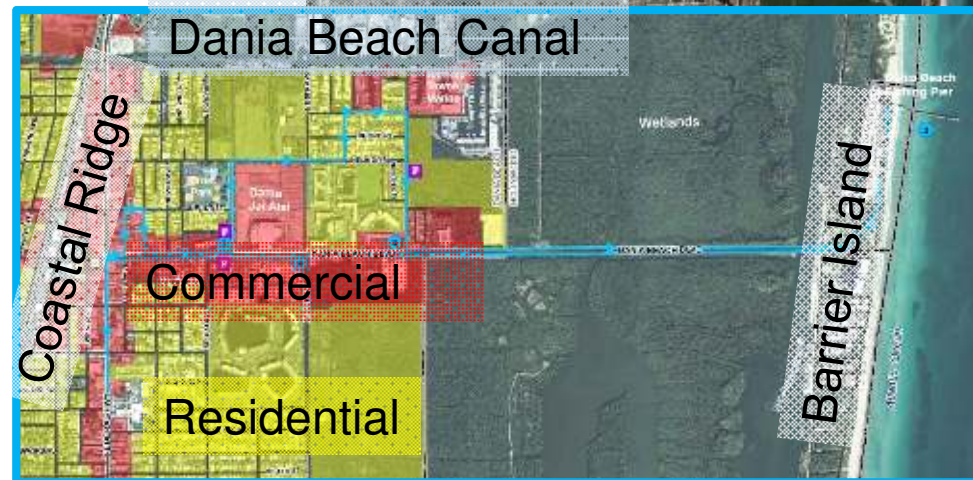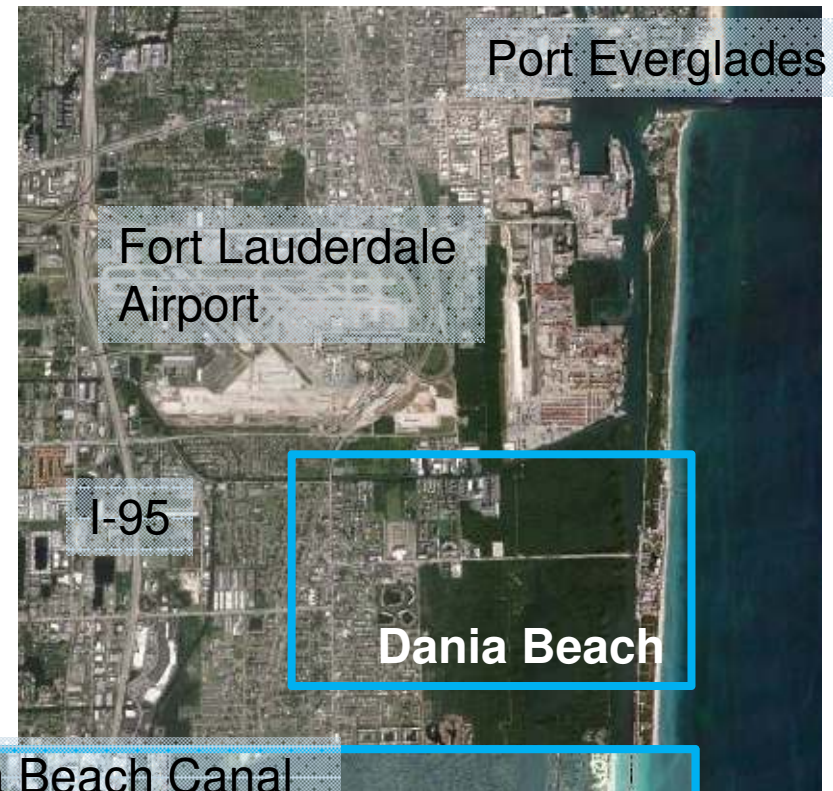
Historic

Small Business

Multi-family/ Small Business/ Jai Alai

Evacuation Route

Commercial Corridor
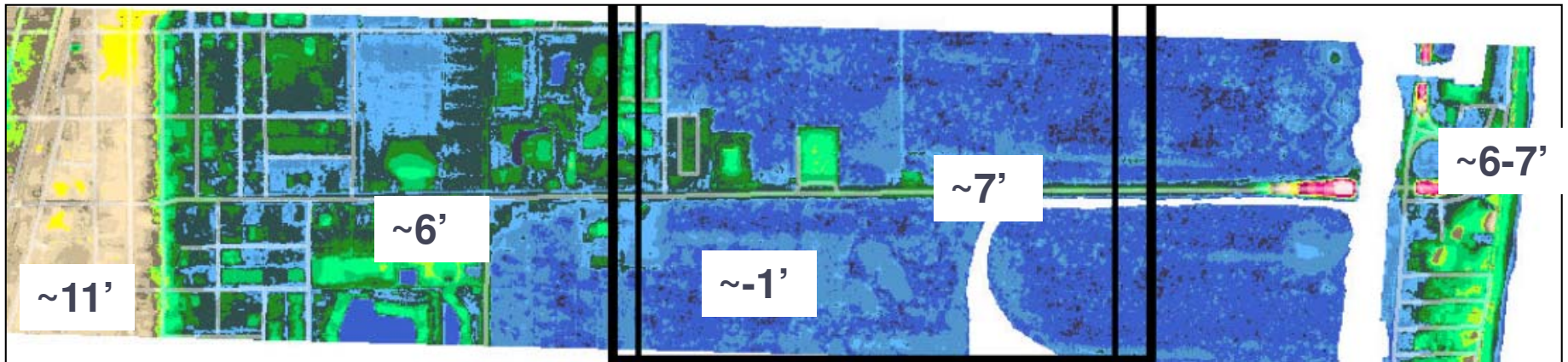
Natural Infrastructure

West Lake Mangrove Wetland

Dania Beach

Site Topography

Elevation in Feet NAVD

~6-7'

~7'
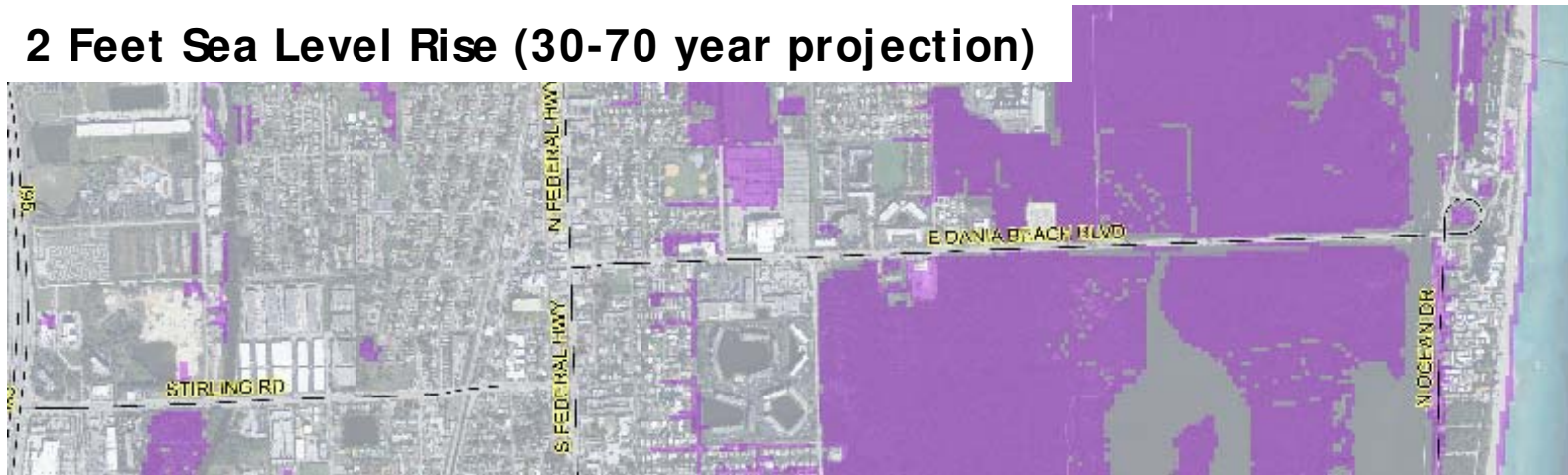
~6'

~-1'

~11'

Storm Surge Limit

Team Focus

- Underutilized assets & economic opportunities
  - Natural infrastructure (beach and wetlands)
  - Airport (new runway)
  - Rail passenger transport
  - Port expansion
  - Population growth (40%)

- Flood hazards
  - SLR, surge, rainfall
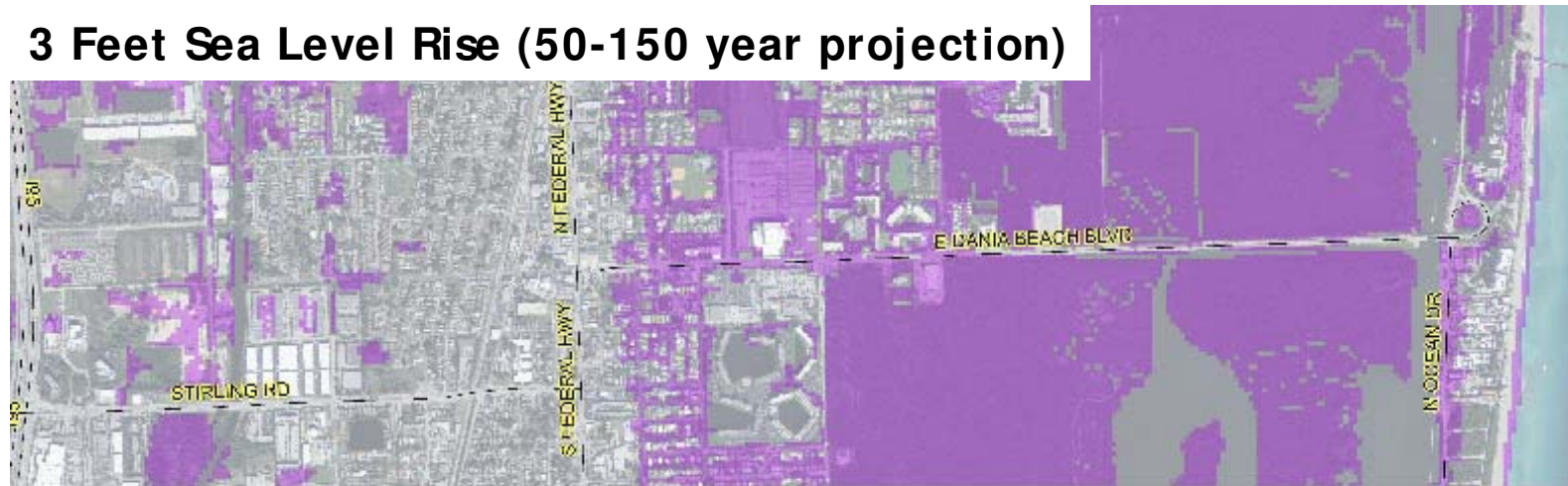
- Limited infrastructure resilience

Vulnerability to Climate Change

2 Feet Sea Level Rise (30-70 year projection)

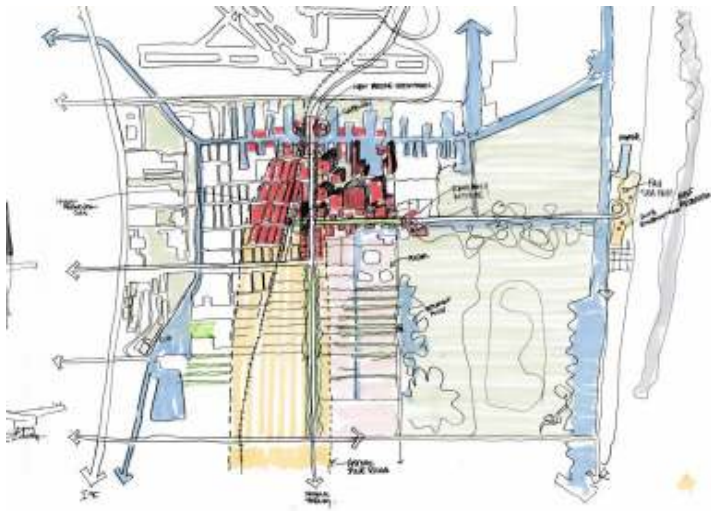**3 Feet Sea Level Rise (50-150 year projection)**
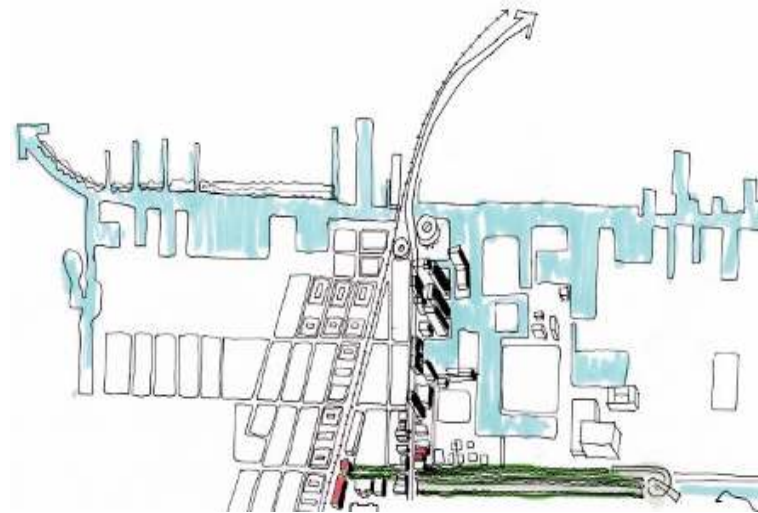

Flooding

Design Concepts

Urban: East Dania Beach Boulevard

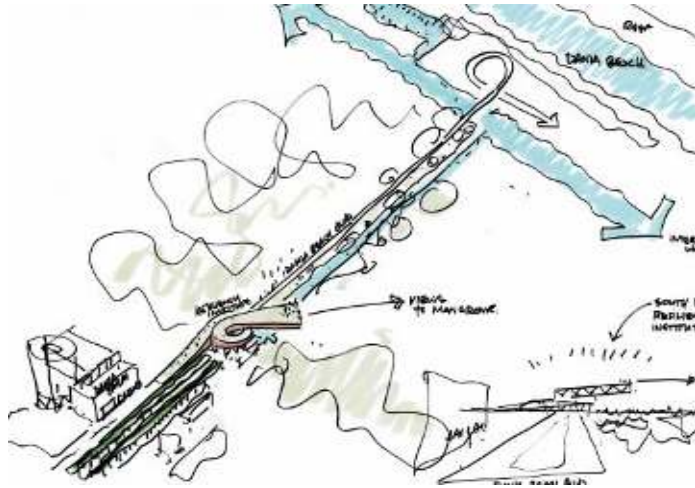# Urban Densification at City Center

- City Center
  - Vertical expansion
  - Invest along ridge
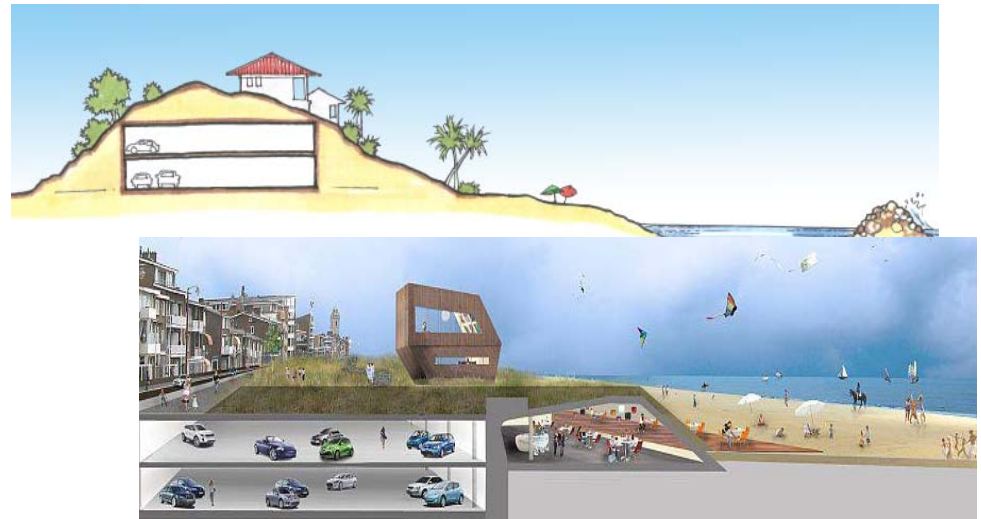 - Evacuation shelter
  - Layered design

- Marina Expansion
  - Build adaptively
  - Hotel area

Enhancement and Multi-purposing of Natural Infrastructure
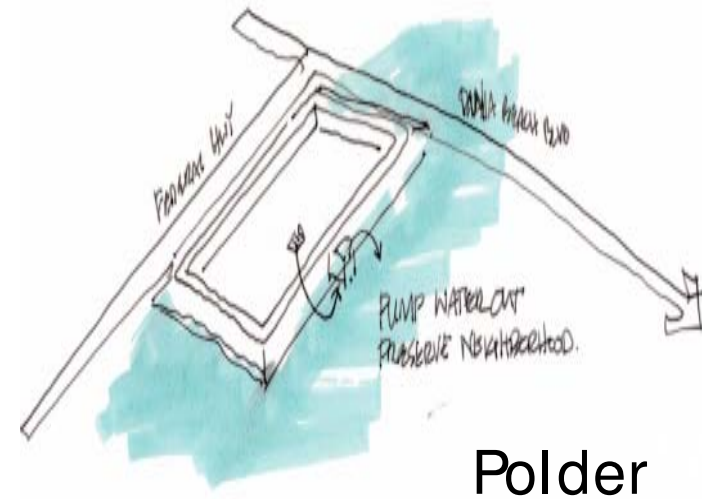

- Resiliency Center and Wetland Bike Path
- Mangrove restoration

- Dune (barrier island) enhancement with underground parking
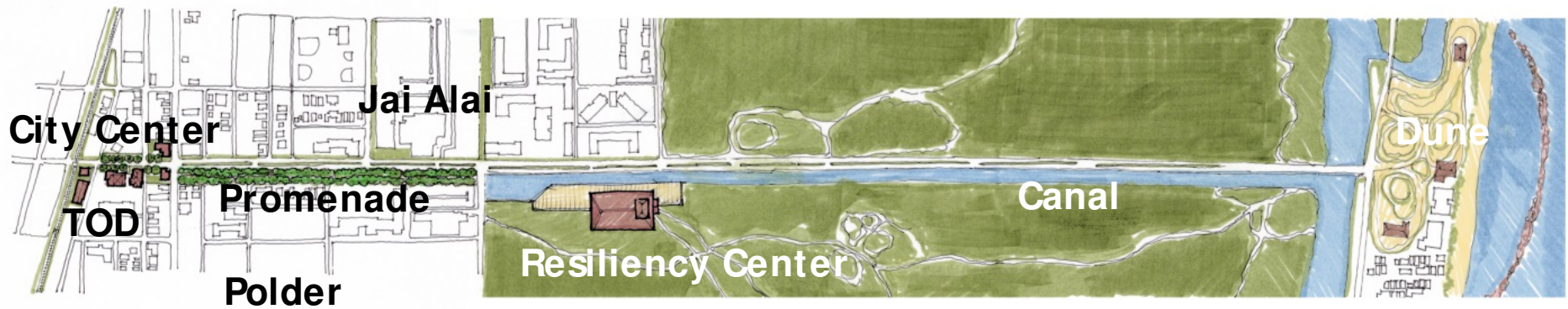- Reef enhancement

Flood Control

Polder

- Polder
  - Raise perimeter roads to act as levees
  - Add pump system
  - Incorporate canals

Interconnectivity

City Center

TOD

Promenade

Polder

Jai Alai

Resiliency Center

Canal

Dune

Team Recommendations

- Consider regional context
- Develop long term plan with strategic approach
  - Decision making process
  - Community engagement
- Consider temporal scale of planning
- Develop a roadmap

- Use concepts as inspiration!

Implementation of Prototype

- **Urban communities in South Florida**
  - Strategic investment and densification in dry areas

  - Maximize potential economic opportunities to facilitate resilient redesign of infrastructure

  - Integration of natural infrastructure

  - Active flood control of low lying areas where and when feasible

Next steps

- Idea refinement process
  - Resilient redesign is an evolutionary process
  - Cultivate agreement upon a shared vision
  - Seize moments of opportunity

- Follow-up workshop with local officials
  - Get officials to champion concepts
  - Local implementation strategies

- Design concept outreach
  - Booklet/ Brochure
  - Mini- design workshops for decision-makers

- Identify funding opportunities