

South Florida Resilient Redesign

Workshop Summary



Kingdom of the Netherlands



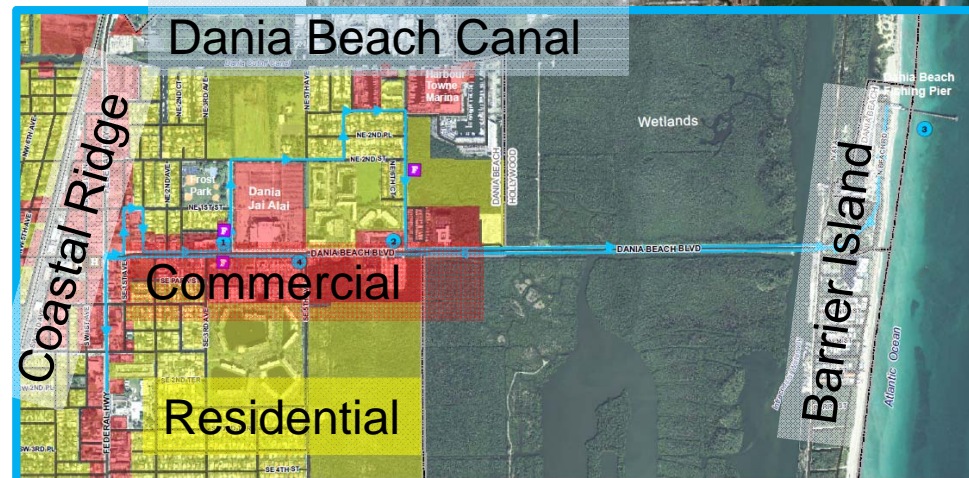
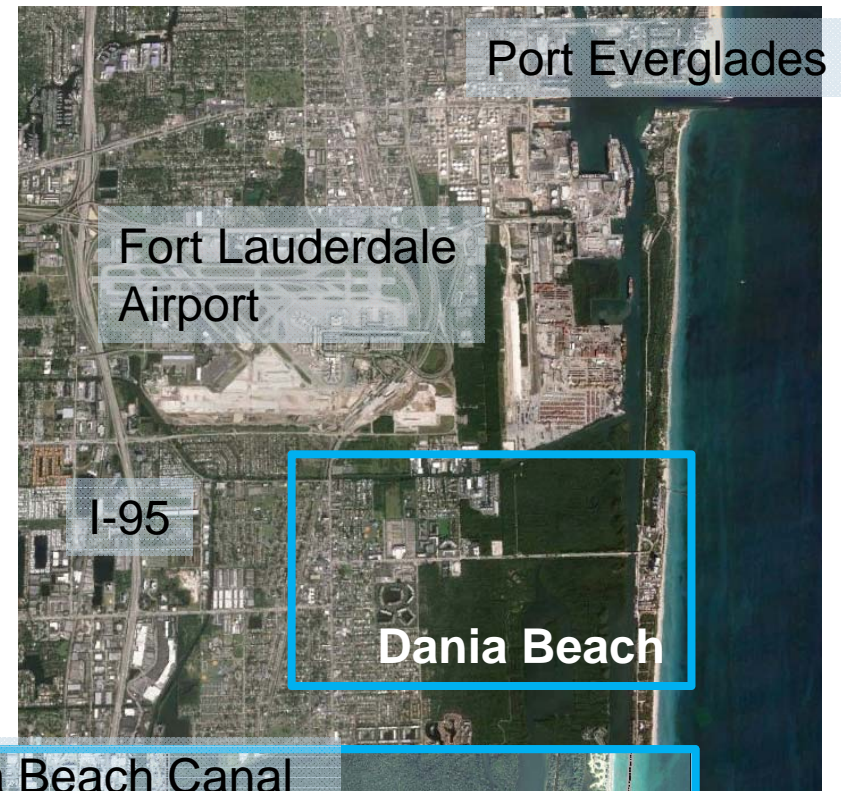
MIAMI CENTER FOR ARCHITECTURE & DESIGN



AIA Miami
A Chapter of The American Institute of Architects

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



Characteristics



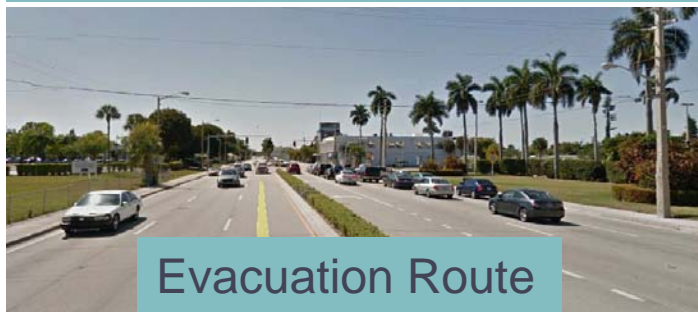
Multi-family/ Small Business/
Jai Alai



Historic



Small Business



Evacuation Route



Commercial Corridor

Natural Infrastructure

West Lake Mangrove Wetland

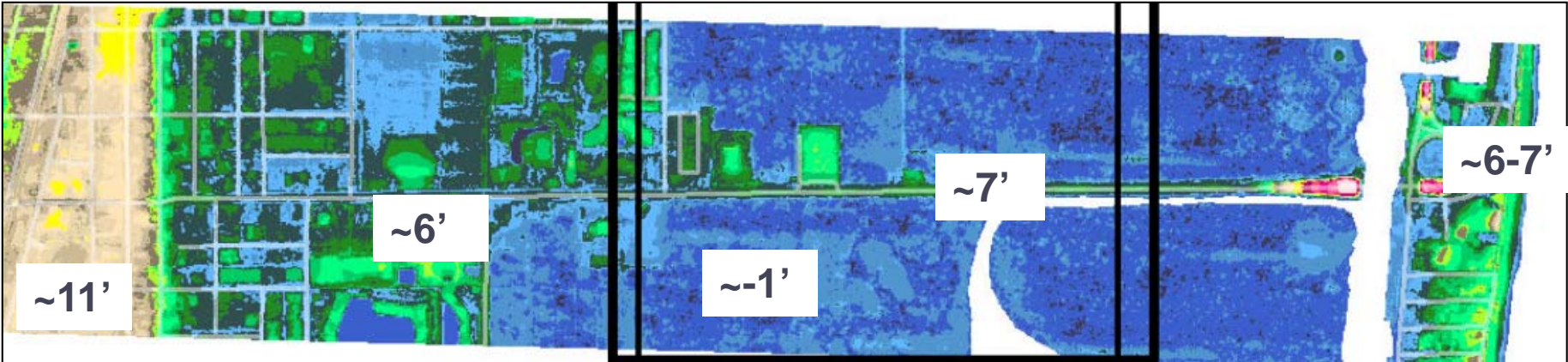


Dania Beach



Site Topography

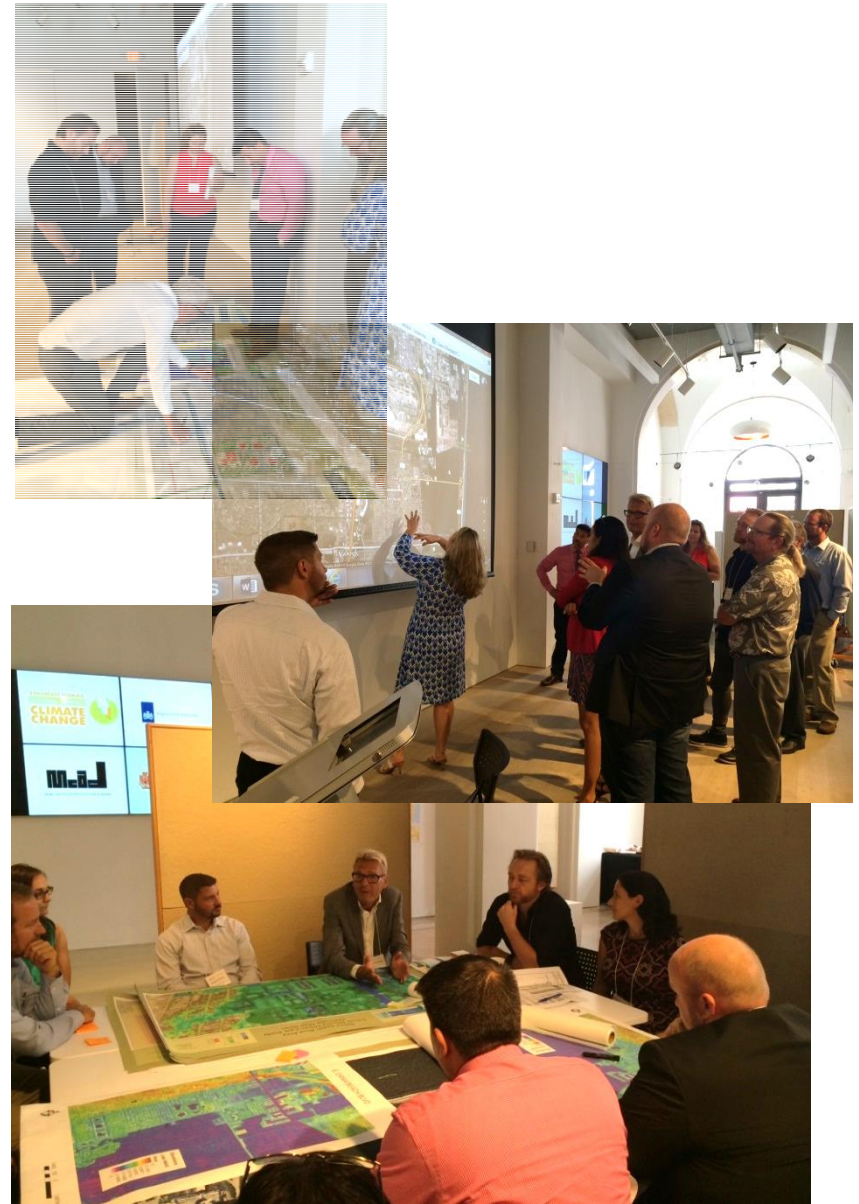
Elevation in Feet NAVD



Storm Surge Limit

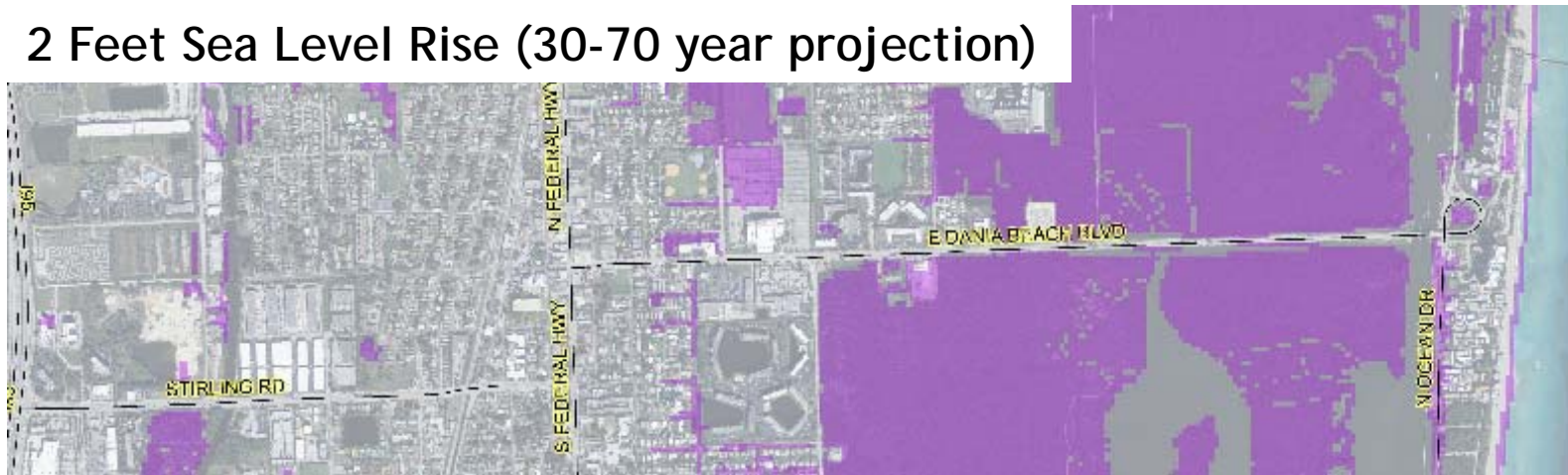
Team Focus

- 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

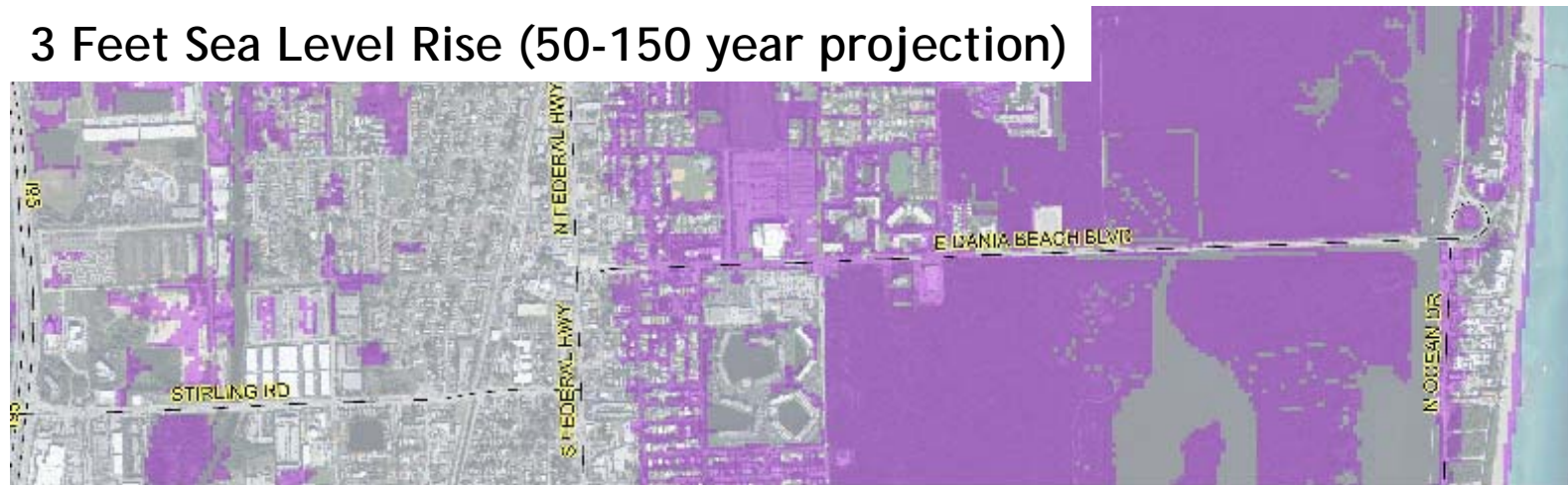


Vulnerability to Climate Change

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



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



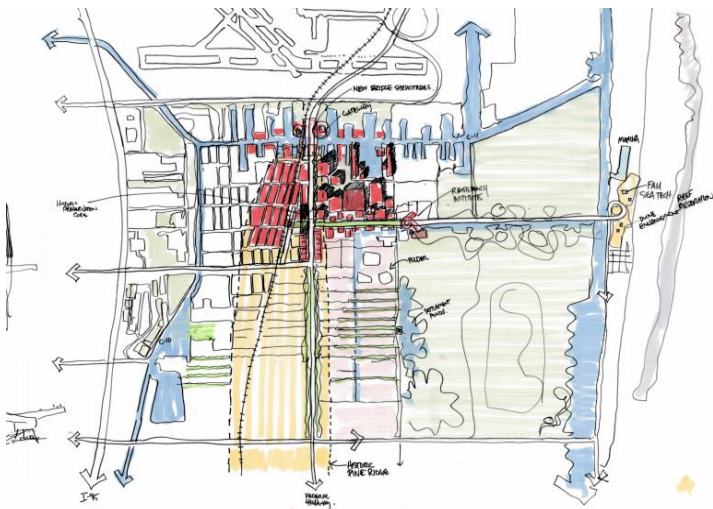
 Flooding



Design Concepts

Urban: East Dania Beach Boulevard

Urban Densification at City Center

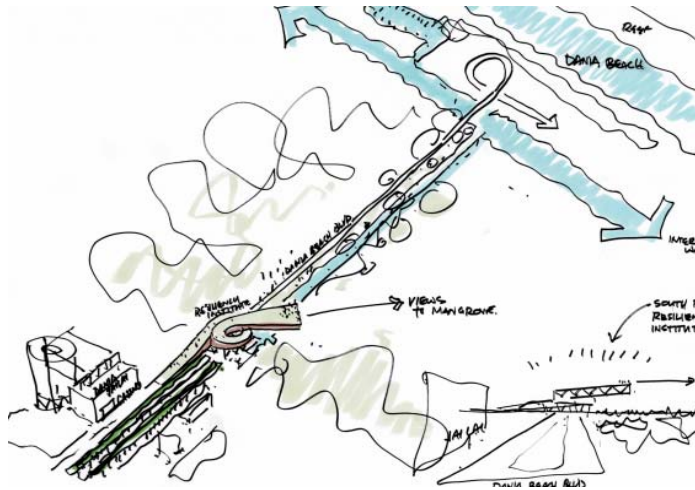


- City Center
 - Vertical expansion
 - Invest along ridge
 - Evacuation shelter
 - Layered design

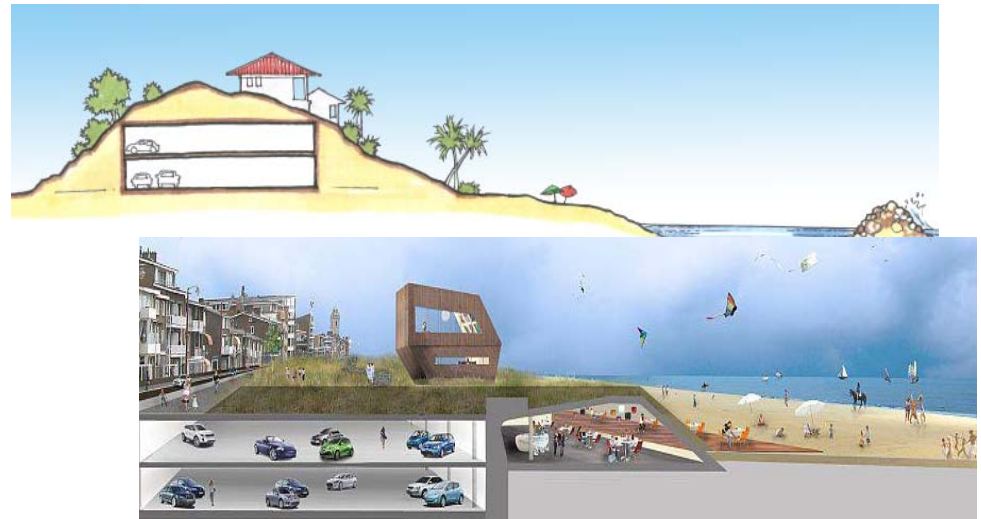


- Marina Expansion
 - Build adaptively
 - Hotel area

Enhancement and Multi-purposing of Natural Infrastructure



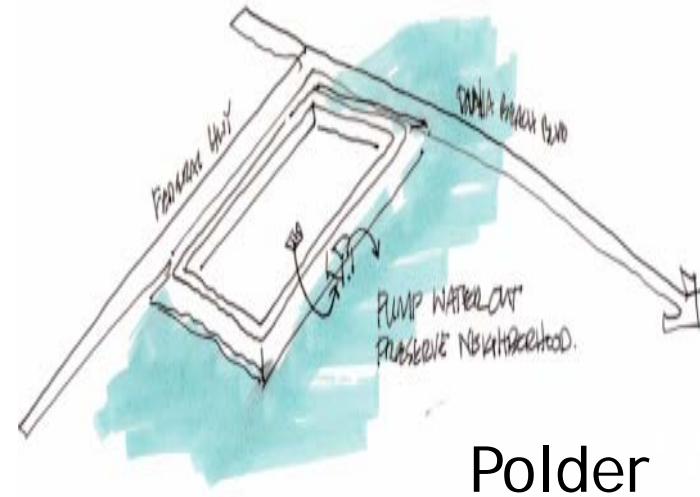
- Resiliency Center and Wetland Bike Path
- Mangrove restoration



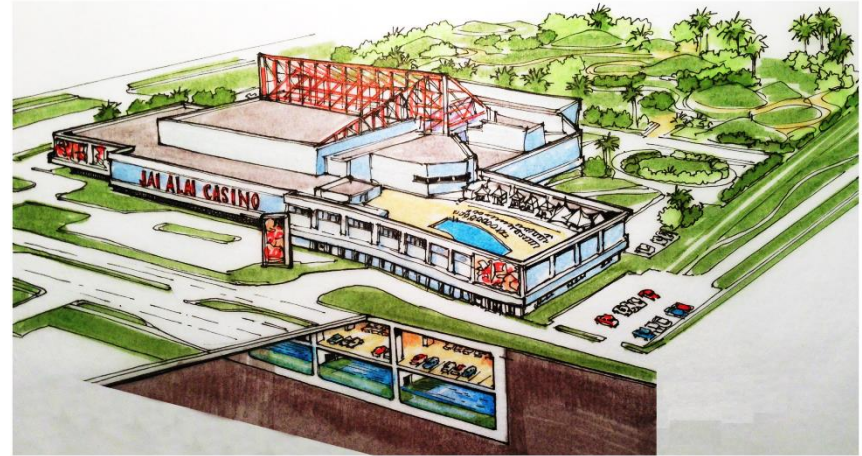
- Dune (barrier island) enhancement with underground parking
- Reef enhancement

Flood Control

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



Interconnectivity





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