

Miami Beach Rising Above: Miami Beach's Adaptation & Mitigation Strategies

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Environment & Sustainability

March 28, 2017

MIAMI BEACH
RISING
ABOVE

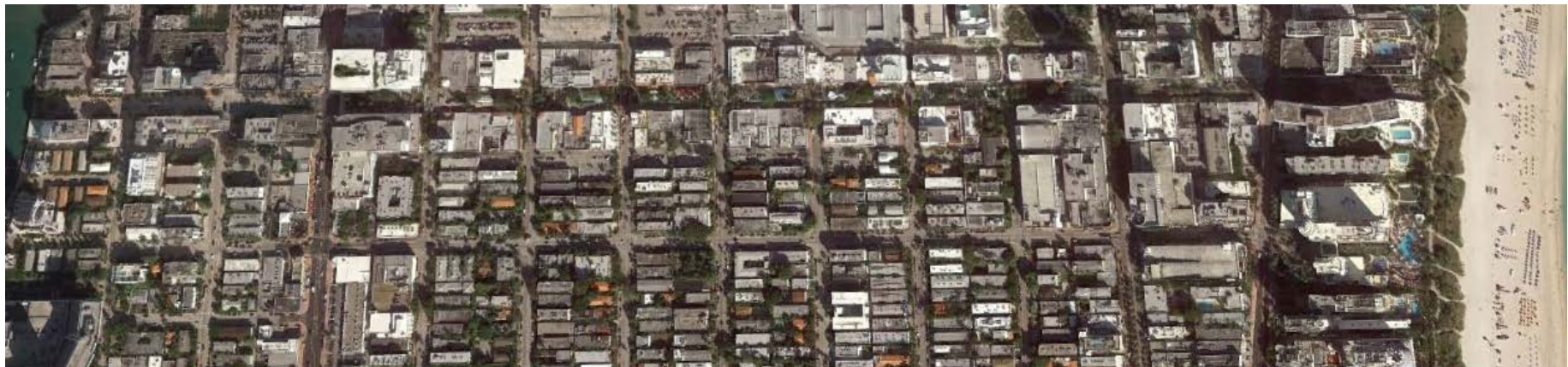
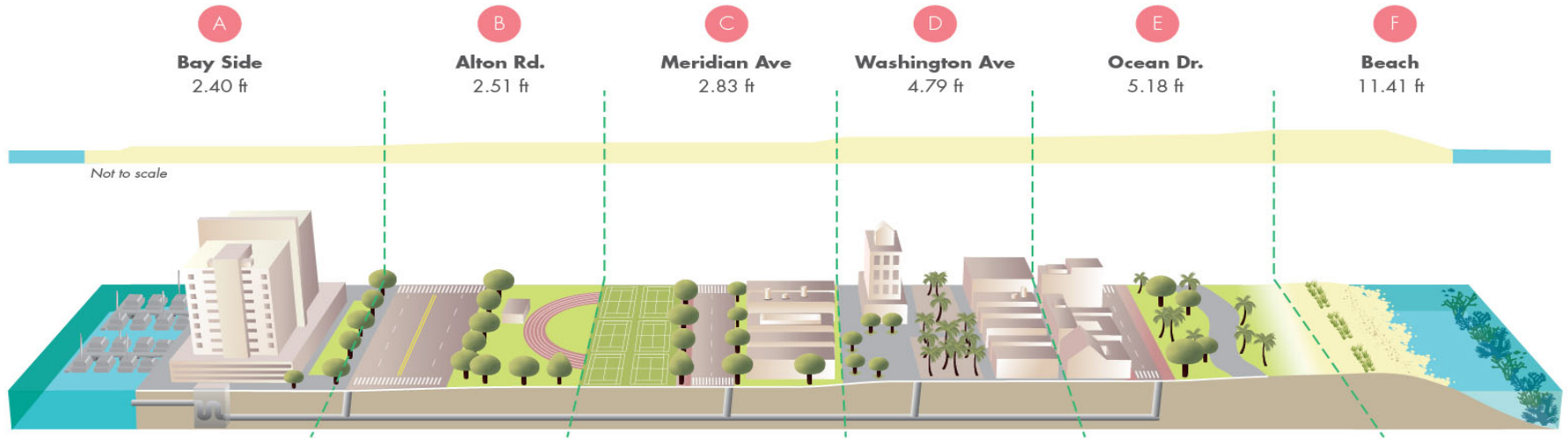




COMMUNITY CHALLENGES

1. Topography & Geology
2. High groundwater
3. Aging Infrastructure
4. Limited Data

SOUTH BEACH CROSS SECTION



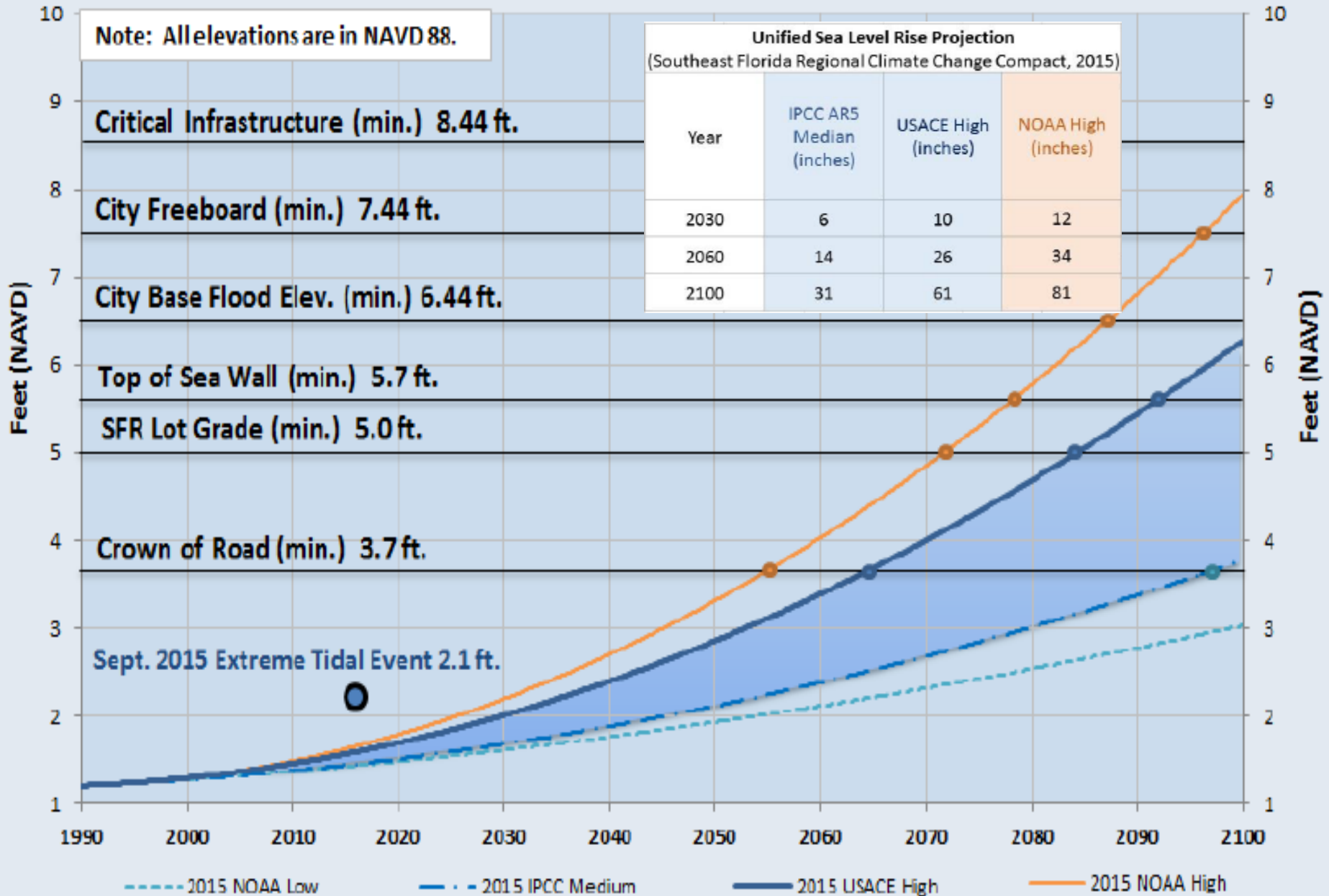
Source: Google Earth

SE FL Regional Climate Compact - SLR Projections (2015) + 1.2 ft NAVD (High Astronomical Tide)

Note: All elevations are in NAVD 88.

Unified Sea Level Rise Projection
(Southeast Florida Regional Climate Change Compact, 2015)

Year	IPCC AR5 Median (inches)	USACE High (inches)	NOAA High (inches)
2030	6	10	12
2060	14	26	34
2100	31	61	81



Critical Infrastructure (min.) 8.44 ft.

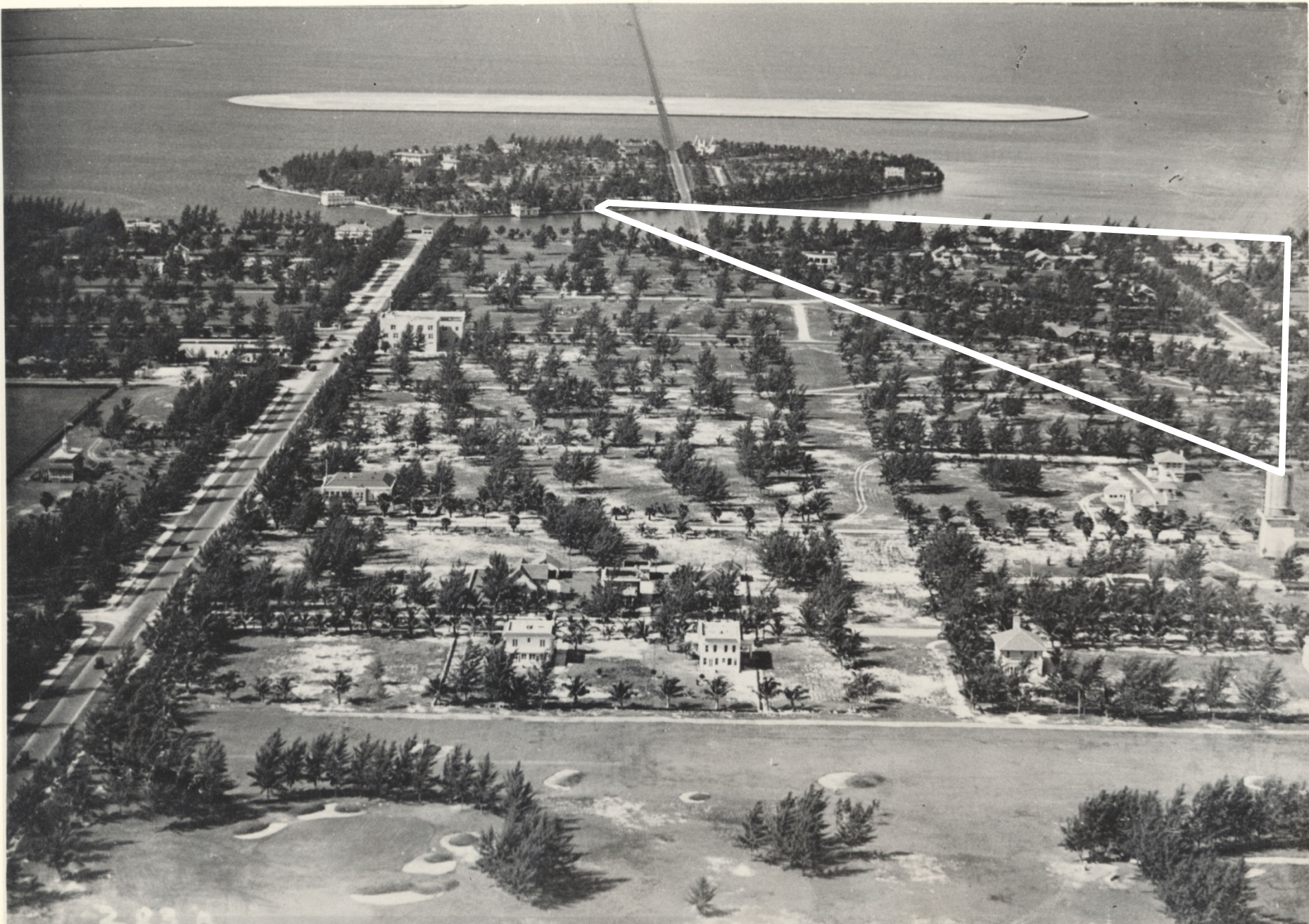
City Freeboard (min.) 7.44 ft.

City Base Flood Elev. (min.) 6.44 ft.

Top of Sea Wall (min.) 5.7 ft.

SFR Lot Grade (min.) 5.0 ft.

Crown of Road (min.) 3.7 ft.



283-A. 1923—Golf course in the foreground; Lincoln Road at the left, Belle Isle and the Collins Bridge.

SUNSET HARBOUR



SUNSET HARBOUR




20 ST & PURDY AVE PRE-

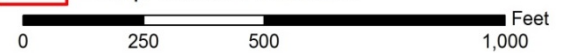


City of Miami Beach
 1700 Convention Center Dr.
 Miami-Beach, FL 33139

**Sea Level Rise Projects
 Flood Prevention & Relief
 City of Miami Beach, FL**

Legend

 Pump Station Locations





Water Quality Upgrades

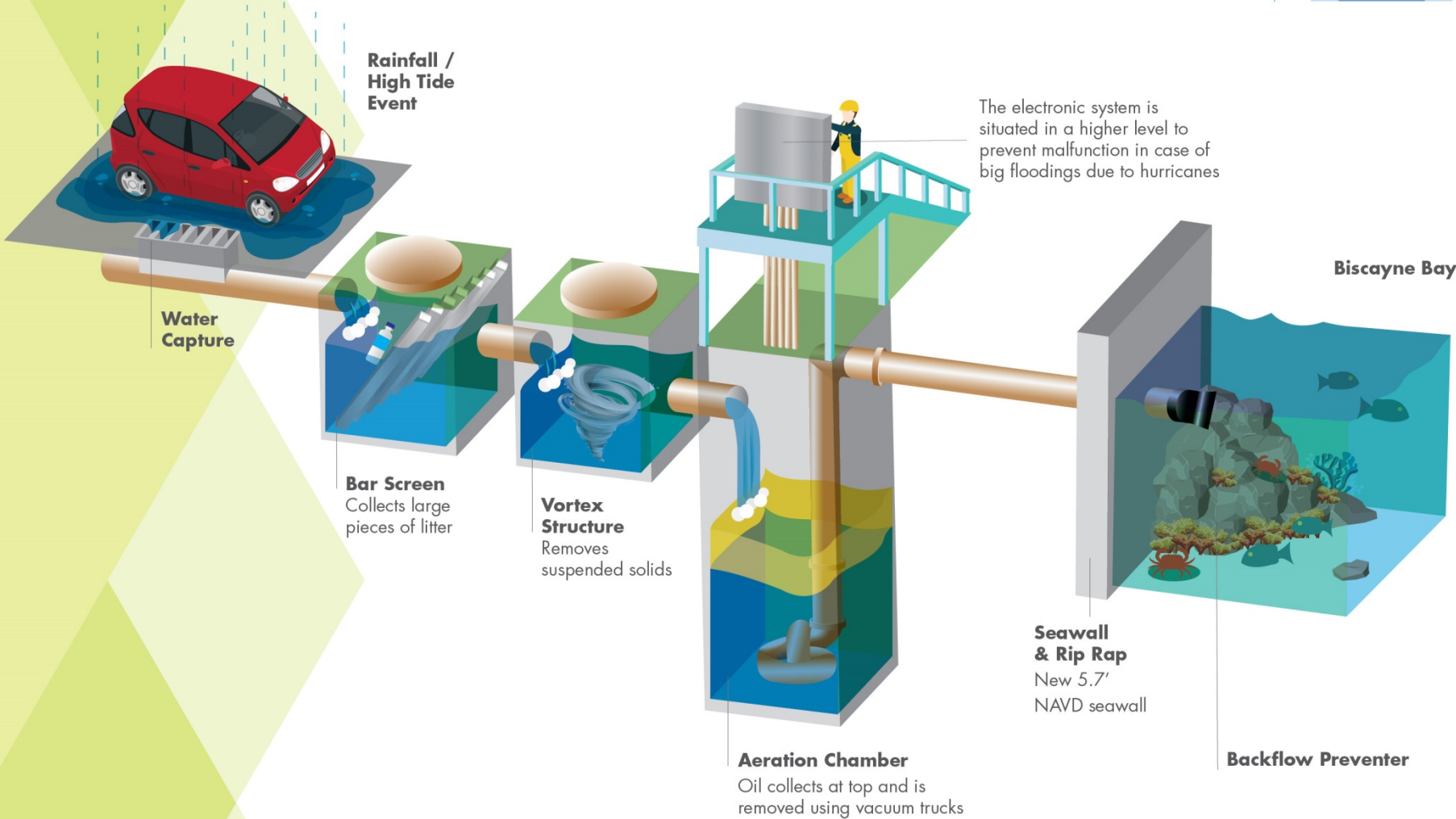
Elevated Electrical Panel

Upsized Pump

PUMP STATION #2

Stormwater Pump Station UPGRADES

MIAMIBEACH
RISING
ABOVE





20 ST & PURDY AVE



10/02/2015

20 ST & PURDY AVE



20 ST & BAY RD



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LITMEE
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BOOK LAB

BARCELONETA

20 ST & BAY RD

VETA



20 ST & BAY RD



INDIAN CREEK DR 2015



INDIAN CREEK DR 2015



INDIAN CREEK DR



TEMPORARY WALL



TEMPORARY WALL



RAISED

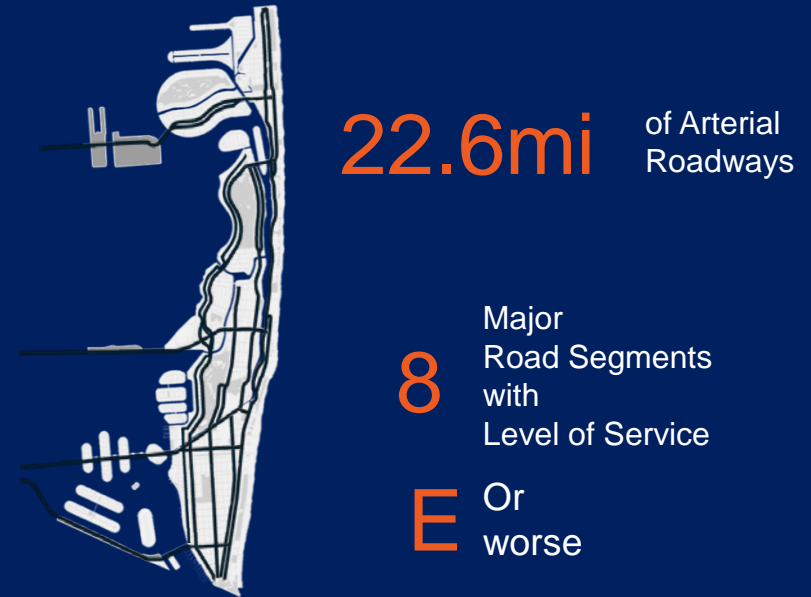
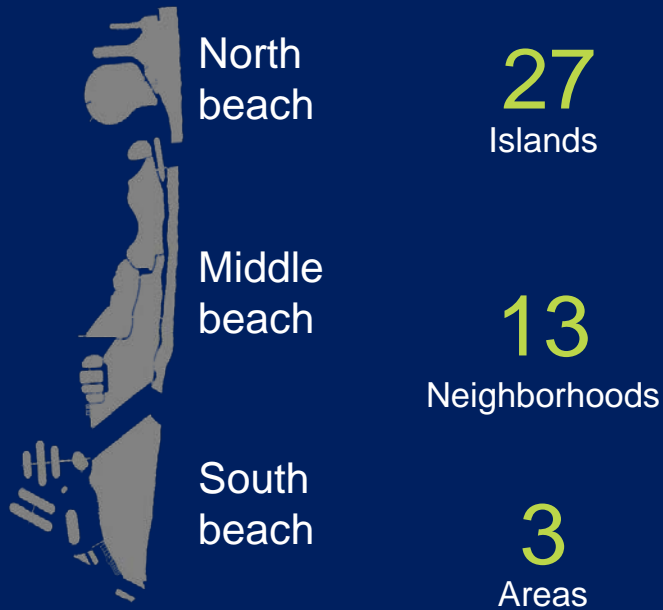


LIVING SHORELINE



**INDIAN CREEK DR
LIVING SHORELINE**

TRANSPORTATION



STUDY AREA

Total Resident Population: **91,714** (as of 2015)

 **53% Male**

Jobs within City: **52,732**

Average Daily Population: **222,079**

 **47% Female**

ROADWAY NETWORK

Total City-wide crashes: **8,425** (From 2011-2013)

Pedestrian crashes: **310** (From 2011-2013)

Bicyclists crashes: **166** (From 2011-2013)



362

Stops

13

Regional Routes

3

Local Routes

TRANSIT



Highest Daily Activity: **17,046** (Boardings & Alightings for Route 119 - S)

Stops Range Up to: **950** (Daily Boardings)

Average Speeds as Low as: **5 MPH**



29.5mi of bicycle networks



5 pedestrian bridges

BICYCLISTS & PEDESTRIANS

Miles of Bicycle Lanes: 17.0

Miles of Bicycle Routes: 7.0

Miles of Shared Paths: 4.8

ADOPTED MODE PRIORITIZATION



PEDESTRIANS

1



TRANSIT



CYCLISTS



FREIGHT



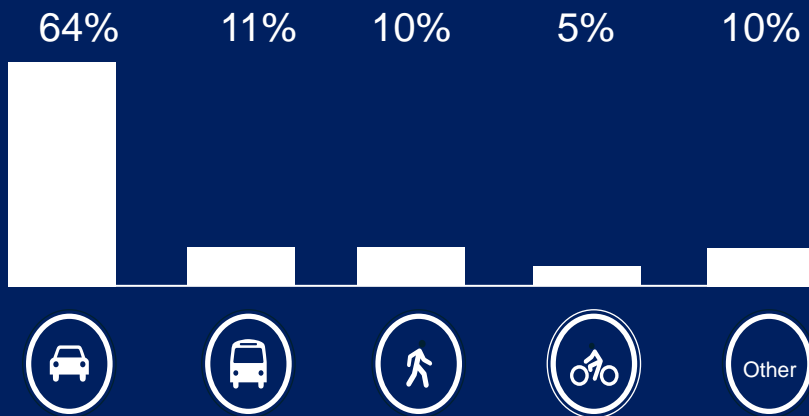
PRIVATE
VEHICLES

3

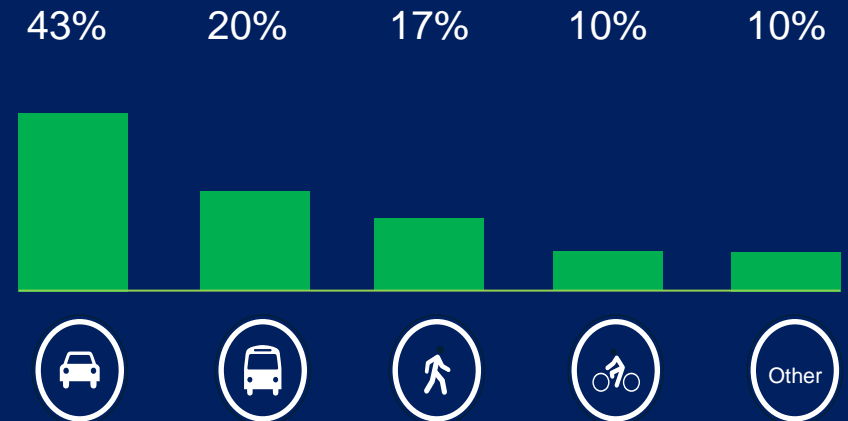
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HOW DOES MIAMI BEACH TRAVEL?

Existing Mode Share

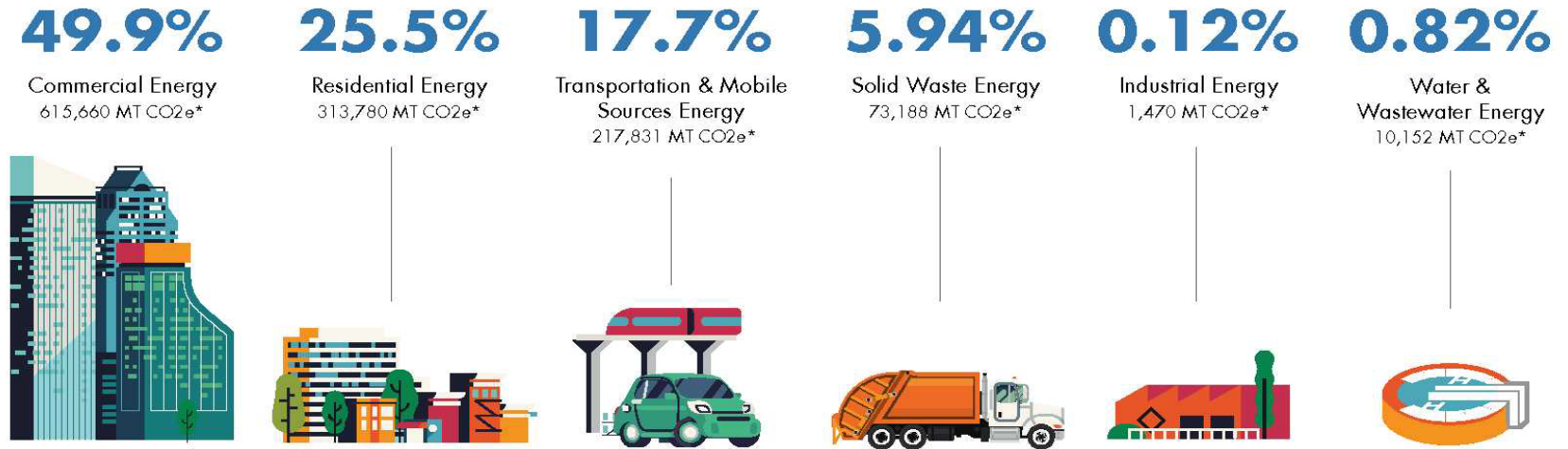


2035 Vision



Approx. 99.2 Metric Tons of
GHGs reduced per day

Emissions by Sector



Total emissions in the community: 1,232,080 MT CO₂e*

Emissions by Source



*MT CO₂e = metric tons of CO₂ equivalent

GHG Emissions = greenhouse gas emissions

Based on the most current data available.



BEACHWALK SYSTEM



BIKE SHARING



NORTH BEACH LOOP

TROLLEY CONNECTION



NORTH BEACH LOOP/
COLLINS LINK
CONNECTIONS



COLLINS LINK (December 2014)

TROLLEY CONNECTIONS



COLLINS LINK/
NORTH BEACH LOOP
CONNECTIONS



COLLINS LINK/
MIDDLE BEACH LOOP
CONNECTIONS



MIDDLE BEACH LOOP

TROLLEY CONNECTIONS



MIDDLE BEACH LOOP/
COLLINS LINK
CONNECTIONS



MIDDLE BEACH LOOP/
SOUTH BEACH LOCAL
CONNECTIONS



SOUTH BEACH LOCAL
OPERATED BY
MIAMI-DADE COUNTY

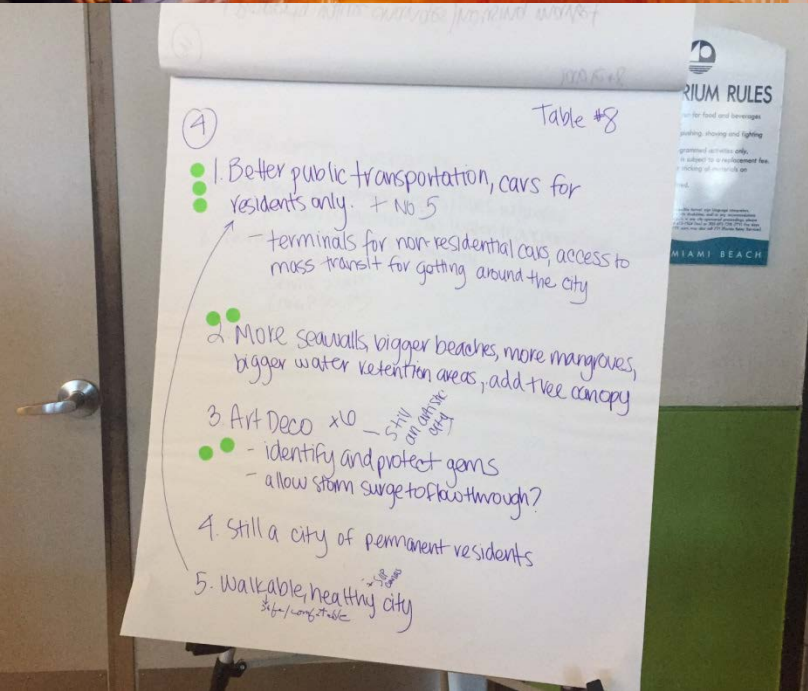
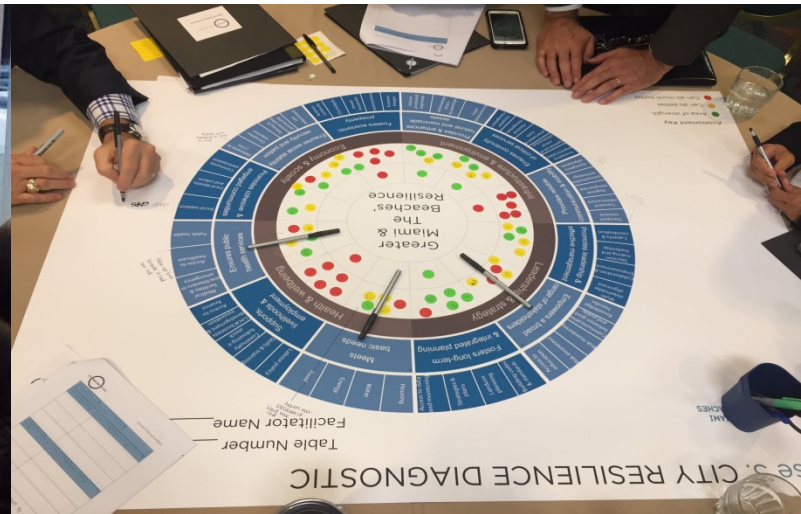


ALTON-WEST LOOP



TROLLEY

STAKEHOLDER INPUT



THANK YOU!



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MIAMIBEACH
RISING
ABOVE

