



**Cape Coral**  
FLORIDA  
**NORTHWEST CAPE AND  
SEVEN ISLANDS**  
**VISION  
PLAN**

OCTOBER 31, 2016

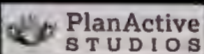
Prepared By:

**cph**

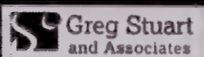


**DIX.HITE  
+PARTNERS**

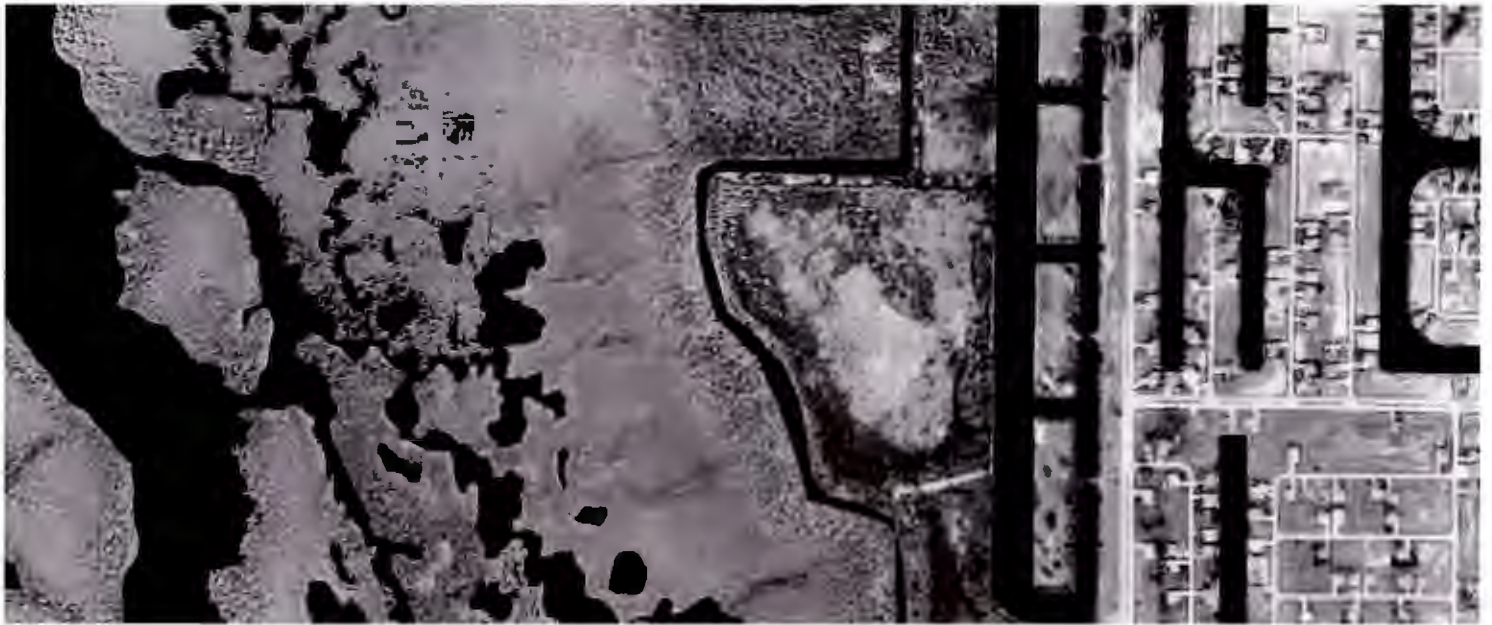
In Association With:



**PlanActive  
STUDIOS**



**Greg Stuart  
and Associates**



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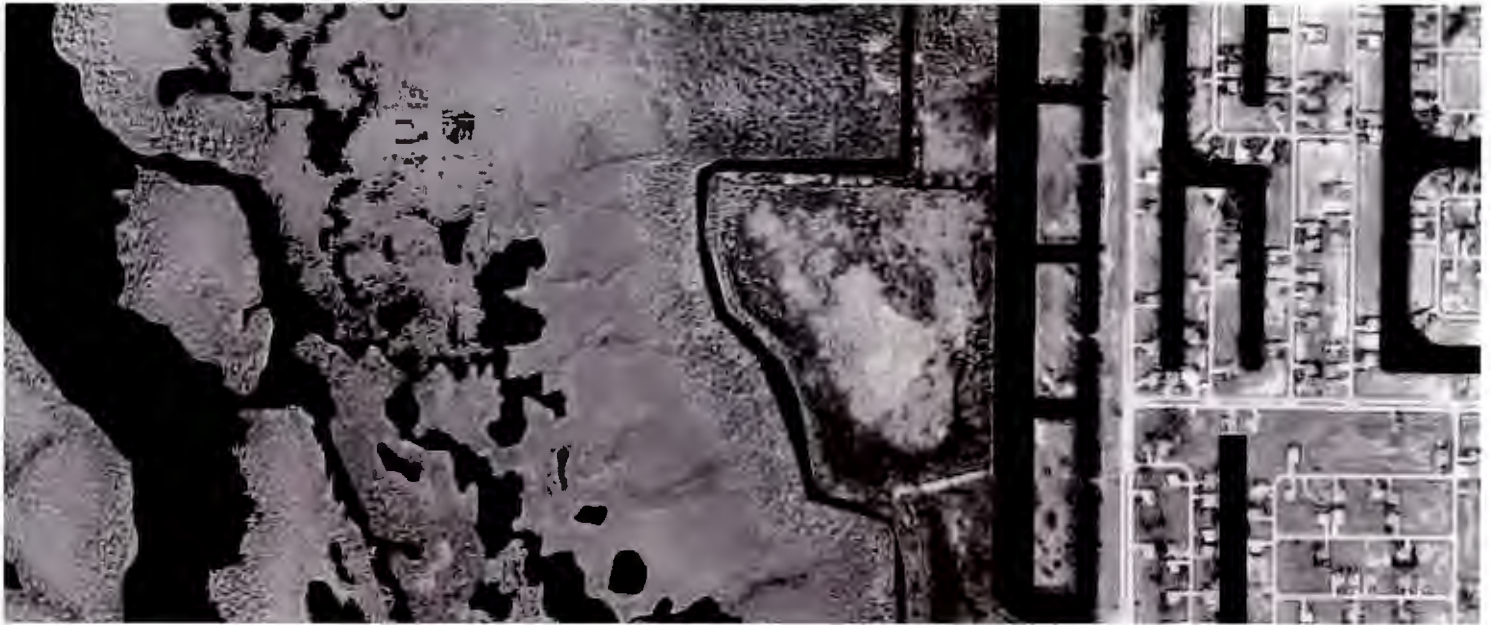
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## PURPOSE OF STUDY

The firm of CPH, Inc. and the Design Team were retained by the City of Cape Coral to prepare a Vision Plan for the Northwest Cape area and develop concept plans for the potential development of the 7 Islands properties.

The NW Cape Vision Plan is to identify key urban design and place-making elements that will set forth the blueprint for development in the area celebrating the environmental/ecological assets while ensuring sustainability. This is to be achieved through context-sensitive design options responding to connectivity, opportunities/constraints, and the environmental assets of the study area.

The 7 Islands Concepts identify potential development scenarios within context-compatibility driven sensitivity. The concepts set the basis for the establishment of the proper regulatory framework to guide development of this city asset.

The project team will lead the City Northwest Cape and 7 Islands planning efforts by analyzing the following parameters:

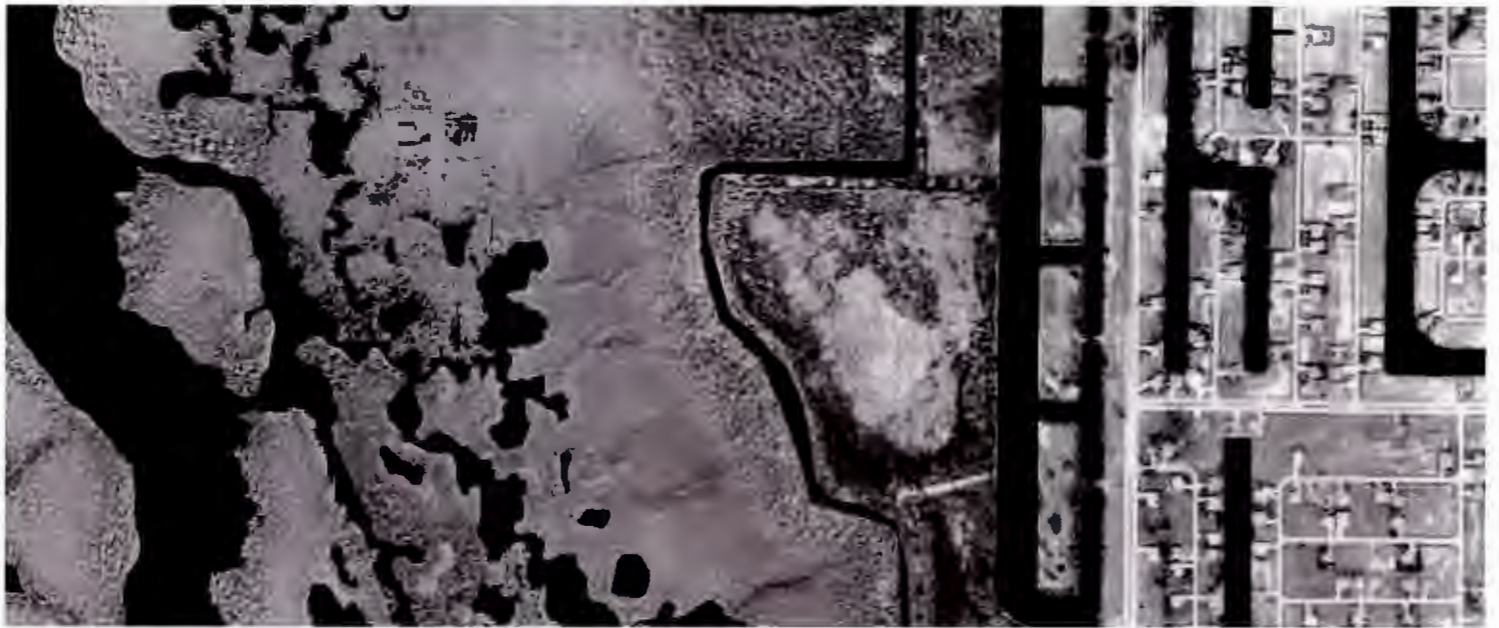
- DEFINE:** What are the community needs and aspirations?
- DISCOVER:** Gather data, information, and obtain better NW Cape community context.
- DESIGN:** Create and share design and planning alternatives.
- DISCUSS:** Open and continuous communications and feedback.
- DOCUMENT:** Identify the vision within a clear and concise set of documents.

The study consists of:

**VOLUME I    DREAM  
DISCOVERY**

**VOLUME II    DESIGN**

**VOLUME III    ALTERNATIVE CONCEPTS – 7 ISLANDS PARCELS  
ADDENDUM**



# TEAM

## PROJECT LEAD:



Land Planning  
 Urban Design  
 Infrastructure  
 Public Outreach



Urban Design/Land Planning  
 Public Outreach  
 Graphics



## IN ASSOCIATION WITH:

Land Development Code +  
 Comprehensive Plan Evaluation



Socio-Economic + Land Use Analysis

## PERSONNEL:

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 Frank N. Imbruglia  
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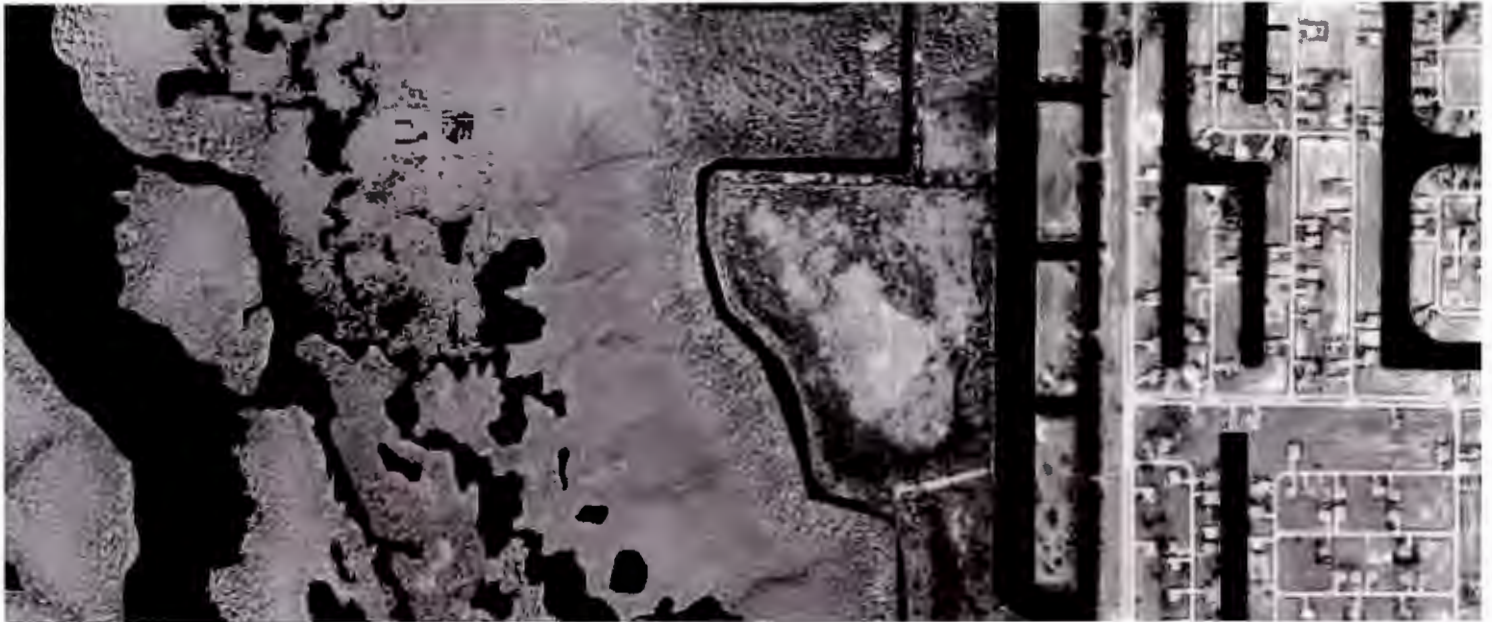
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 Rachel Taylor

PLAN ACTIVE

Tara Salmieri, AICP

GREG STUART  
 + ASSOCIATES

Greg Stuart



# ACKNOWLEDGEMENTS

## **CITY OF CAPE CORAL:**

Mayor: Mami Sawicki

District Council Members

District 1: Jim Burch

District 2: John Carioscia

District 3: Marilyn Stout

District 4: Richard Leon

District 5: Rana Erbrick

District 6: Rick Williams

District 7: Jessica Cosden

City Manager: John Szerlag

Department of Community Development: Vincent A. Cautero, AICP

Economic Development Office: Dana Brunett

## **CITIZENS:**

Denis Catalano, President-Northwest Cape Neighborhood Association

Northwest Cape Neighborhood Association

**VOLUME**

# DREAM

***“In order to carry a positive action we must  
develop here a positive vision.”***

***-Dalai Lama***

Critical to any Visioning and Conceptual Design efforts is a clear understanding of context and engagement of the affected parties: elected officials, regulatory staff, and the end-users. Establishing the Vision demands engagement. Identifying great place-making attributes, study area conditions, challenges, and opportunities is imperative in setting that vision.

The consultant group conducted interviews with City officials, City staff, members of the Northwest Cape Home Owner's Association, and civic/business groups. Their community aspirations are identified herein.

# WHAT MAKES A GREAT...

## CITY

[clusters of neighborhoods form a village or town]  
[clusters of many neighborhoods make up a city]

- + Urban places framed by architecture and landscape design that celebrate history, climate and ecology
- + Public and private uses to support a local economy
- + Corridors as regional connectors
- + Interconnected street networks / grid system
- + Walkable, safe and attractive streets
- + Multi-modal transportation alternatives – transit, pedestrian and the car
- + Public spaces and community institutions
- + Location of institutional and commercial uses in neighborhoods and districts
- + Schools located for cycling and walking
- + Conservation and open lands to define and connect different neighborhoods and districts
- + Well distributed park system with nodes in each neighborhood

## DISTRICT

[urbanized areas that specialize in a particular activity: residential, arts, commercial, office, parks, mixed-use, entertainment, etc.]

- + Connected with adjacent neighborhoods
- + Connected to transportation systems

## NEIGHBORHOOD

[the neighborhood is the building block of the city]

- + Limited in physical size; (5 minute walk from center)
- + Well defined edge and center
- + Diverse in use and population
- + Range of housing types within neighborhoods
- + Integrates multi-modal transportation alternatives – transit, bicycle, pedestrian and the car.
- + Range of parks distributed within neighborhood
- + Activities of daily living within walking distance
- + Supports non-residential uses







URBAN FORM



GREENWAYS/BLEUWAYS:  
BOUNDARIES AS  
CORRIDORS



HOUSING VARIETY



TRAILS/MOBILITY OPTIONS



VIBRANT COMMERCIAL AREAS



GREAT STREETS



CIVIC SPACES + PLACES



NEIGHBORHOOD CENTERS 5

## NW SECTOR

### CITY LEADERSHIP

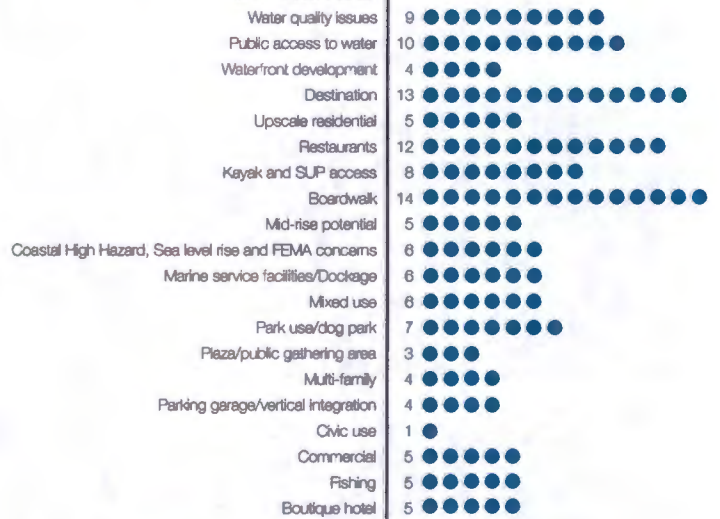


### COMMUNITY STAKEHOLDERS



## 7 ISLANDS

### CITY LEADERSHIP



### COMMUNITY STAKEHOLDERS



# COMMUNITY ASPIRATIONS

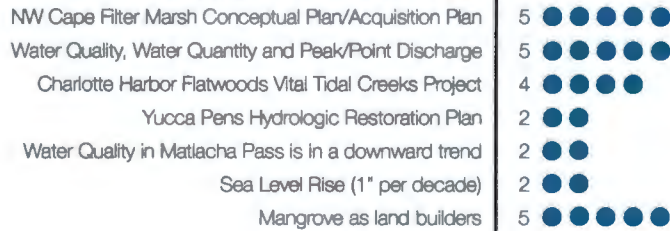
## CITY LEADERSHIP + STAKEHOLDER INTERVIEW RESULTS

### PROGRAM DESIRES

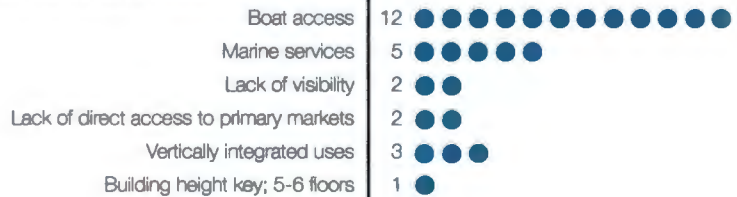
The matrix below represents the number of instances each specific program desire or concern was mentioned during the various meeting with city leadership and community stakeholders.

### NW CAPE CORAL + 7 ISLANDS

#### ENVIRONMENTAL AGENCY INPUT



#### DEVELOPMENT COMMUNITY INPUT



#### NWNA SUMMARY // 7 ISLAND SURVEY (61% OF MEMBERSHIP)



DIS

# COVERY

# APPROACH

The design team inventoried and reviewed published reports and information with respect to the subject study areas and identified opportunities and constraints in order to establish the basis of design.

## **STUDY AREA**

Northwest Cape  
7 Islands  
Pine Island Road/East Matlacha Strip  
Future Land Use  
Zoning  
Ceitus/Tropicana Neighborhood  
Vacant Lands  
The 491 Portfolio  
Public Lands  
Demographics  
The Market  
Residential Build-Out

## **REGIONAL CONTEXT**

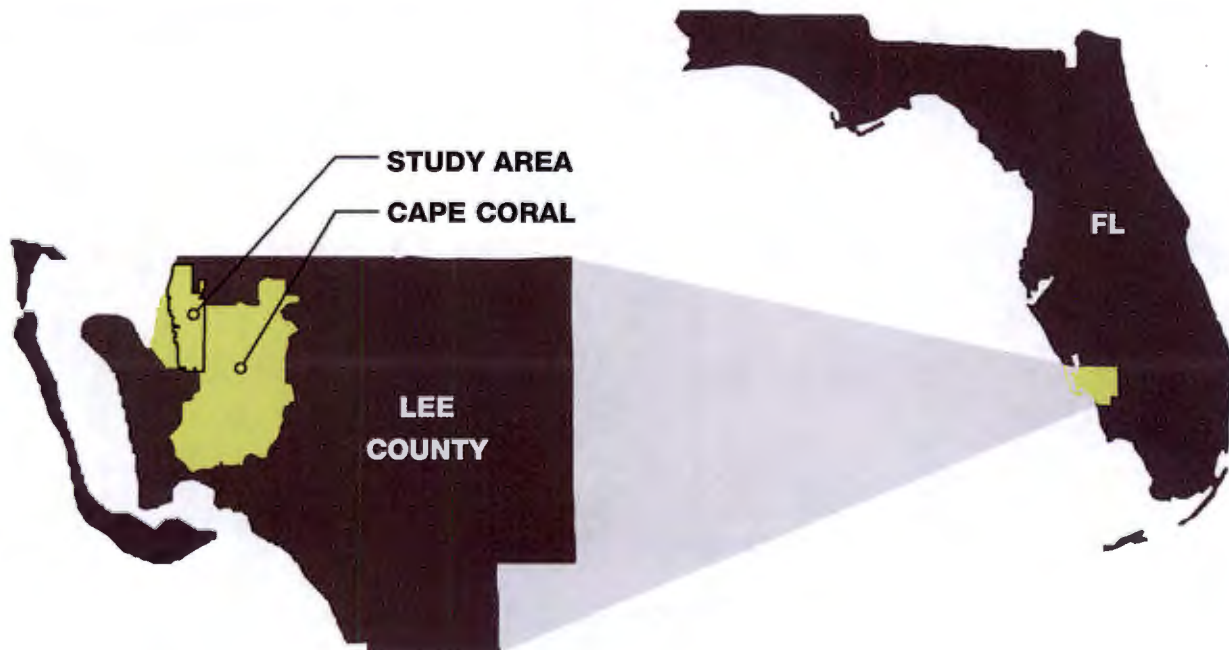
Hydrology  
Gator Slough  
Yucca Pens  
Canal System  
Spreader Canal  
Water Quality  
Surface Water Management  
Filter Marsh  
100 Year Flood Zone  
Coastal Hazard  
Protected Species  
Transportation + Circulation  
Bike, Road, + Pedestrian Systems  
Utility Expansion  
NW Cape Initial Opportunities + Constraints  
7 Islands Initial Opportunities + Constraints  
What Have We Learned So Far?

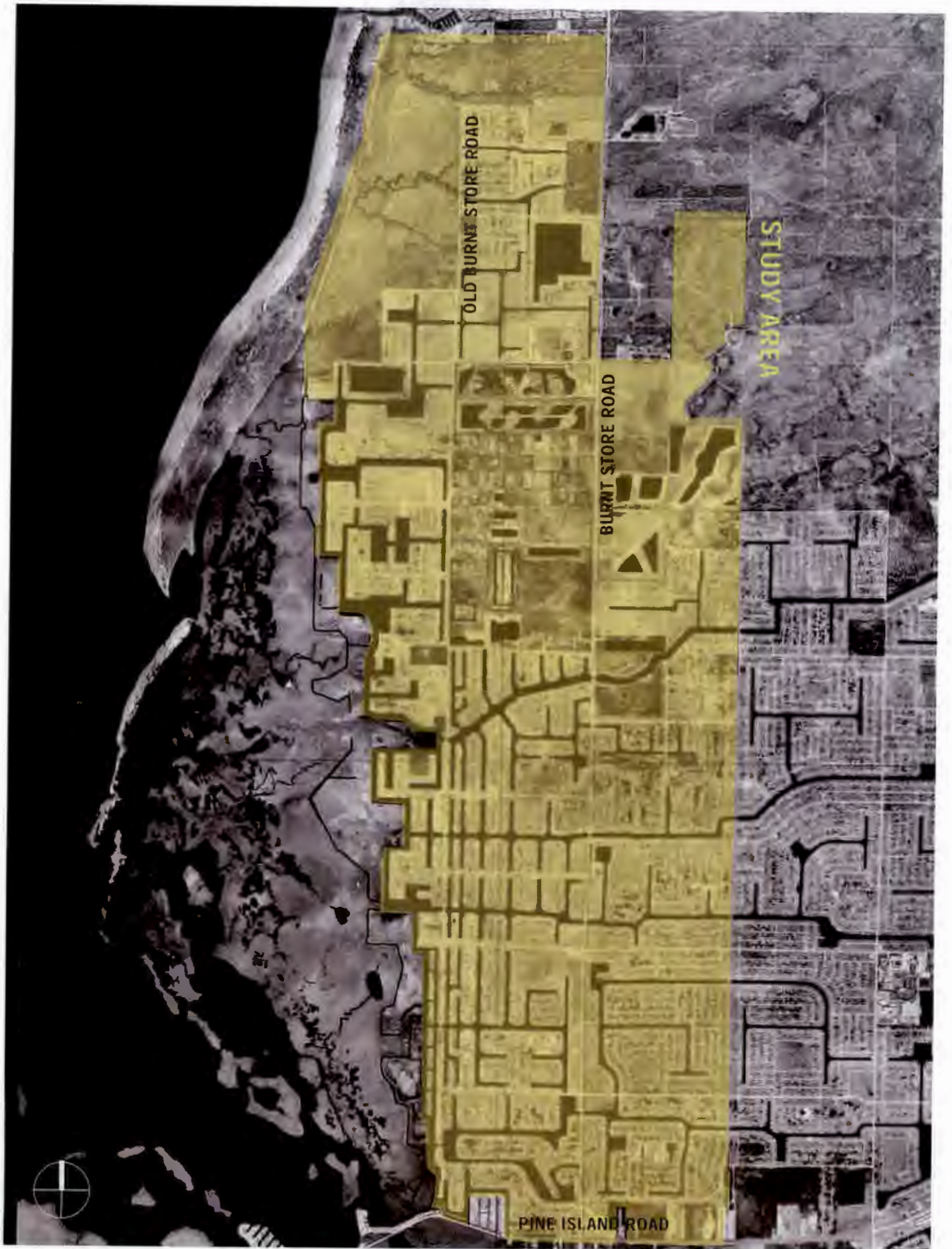
# STUDY AREA

## NW CAPE

The NW Cape study area, located within the City of Cape Coral in Lee County, Florida, comprises approximately 20.75 square miles (sq. mi.); the city is 115 sq.mi. The area includes three north/south arterial and collector roadways (El Dorado Blvd., Burnt Store Rd. and Old Burnt Store Rd.). The study area features nine east/west collector parkways. These include Ceitus, Embers, Tropicana, Yucatan, Gulfstream, Kismet, Jacaranda, Caloosa and Durden Parkways. The study area population in 2010 was 8,454 people and 2,997 households. The 2015 estimated study area population is 9,455 inhabitants and 3,348 households.

The study area is distinguished by a number of factors. It is adjacent to significant public land holdings, including the Yucca Pens Wildlife Management Area, the Charlotte Harbor State Buffer, the Charlotte Harbor Flatwoods and the Little Pine Island Mitigation Bank. The study area has over 8.3 miles of shoreline with the Matlacha Aquatic Preserve and Wildlife Refuge. The area is at 30% buildout, thus providing opportunities for the establishment of the regulatory framework to build a community with development patterns that address, protect, and enhance the complex environmental, urban, and recreational systems. Such opportunities are highlighted by the community's involved citizens such as the Northwest Cape Coral Neighborhood Association, elected officials, and business interests.





OLD BURNT STORE ROAD

BURNT STORE ROAD

PINE ISLAND ROAD

STUDY AREA





# STUDY AREA

## 7 ISLANDS

## PINE ISLAND ROAD / EAST MATLACHA STRIP

### **7 ISLANDS**

The 48.18 acre Seven Islands area is comprised of 46 platted single family lots that total 21.8 acres, and 7 "hammerhead" shaped spoil islands that total 26.4 acres. These seven properties are essentially spoil dirt islands from the original Spreader Canal dredge and fill. There are no improvements on the parcels. The category is transitional, and ultimately the land will support urban development. The Seven Islands land holding is classified FLUCCS<sup>1</sup> 191 Undeveloped Lands within Urban Areas. There are isolated FLUCCS 612 Mangrove areas (*Rhizophora mangle*) along the south island edges. Many of the island side banks have invasive species such as Brazilian pepper tree (*Schinus terebinthifolius*).

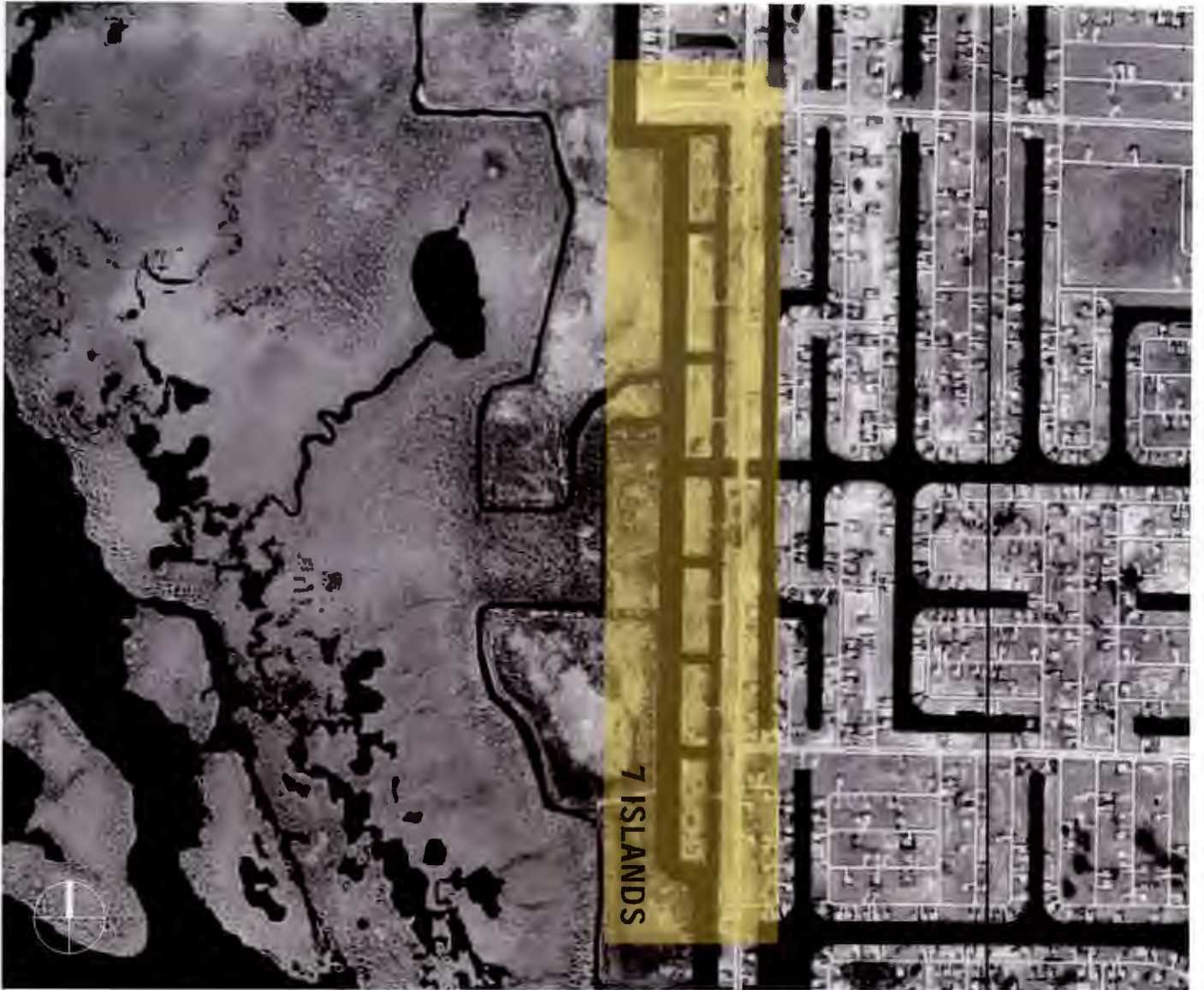
The Seven Islands area adjoins FLUCCS 510 Streams and Waterways (canals, other linear water bodies). The canal system's western edge abuts the Matlacha Wildlife Refuge and Aquatic Preserve's FLUCCS 612 Mangrove Swamps. This coastal hardwood tidal community is predominately composed of red and black mangrove. The islands are defined by 13 named canals and the Spreader Canal. The canals are: Dominica, Malta, Virgin Island, Culebra, Curaco, Guadeloupe, St. Croix, Martinique, Santa Lucia, Haiti, Eleuthera and Isla De Mona Canals. In general terms, the rear island canals and the canals perpendicular to the Spreader Canal have depths from five to seven feet. The rear and side canal bottom is comprised of sand silt, with an absence of sea grass and oysters.

The properties are underlain by 69 Matlacha Gravelly Fine Sand and are located in Flood Zone AE-Elevation 7 and 8 (FEMA Insurance Parcel 12071C0245F). Thirty-five percent of the property is located within a Category A Storm Surge; sixty-five percent is located in the Category B Storm Surge. Lands to the east of Old Burnt Store Road are developed single family homes, FLUCCS 120, at two to five units per acre Residential.

### **PINE ISLAND ROAD / EAST MATLACHA STRIP**

The Pine Island Road East Matlacha Strip is a six parcel, 4.56-acre property with Lee County C-2 Commercial zoning. The property is long and narrow, with average canal to road right-of-way depth of 200-ft. or less. The property's 2015 appraised value was \$3,326,931. Approximately 30,000 square feet are being leased by a bait and marina store. The balance of the property is used for boat launch, spillover parking and fishing. The property has a seawall edge, along with 240 linear feet of red mangrove shoreline.

<sup>1</sup> FLUCCS: Florida Land Use Cover\_Classification System



**NORTH SPREADER  
WATERWAY**

**MATLACHA ISLES  
SUBDIVISION**



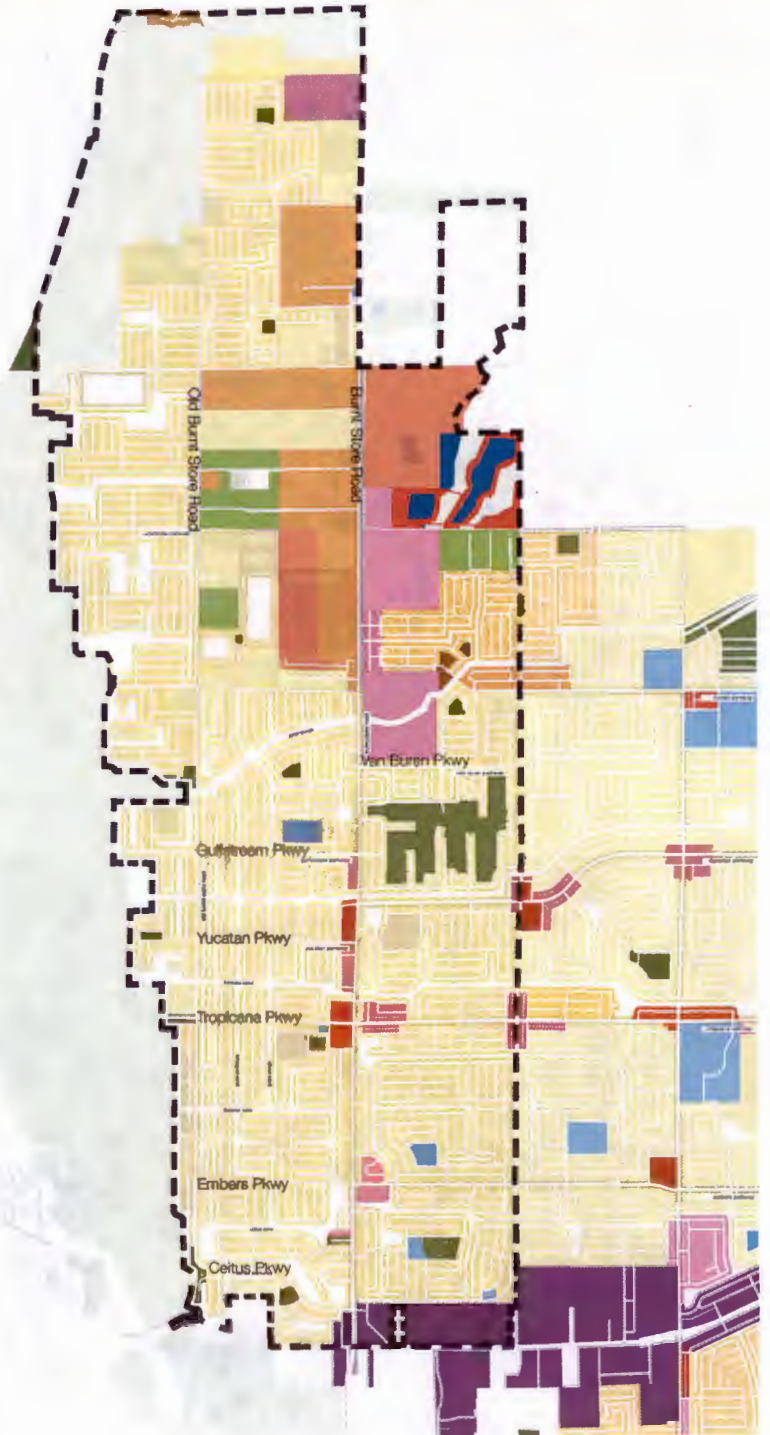
**MATLACHA CANAL**

**SAND DOLLAR CANAL**

**BOWS CANAL**

## LEGEND

- commercial activity center
- commercial/professional
- low density residential I
- low density residential II
- mixed use
- mixed use preserve
- mixed use preserve - conservation
- multiple family residential
- natural resources/preservation
- open space
- parks + recreation
- pine island road district
- public facilities
- single family residential
- single family + multi-family by PDP
- study area



0 3000 6000

# STUDY AREA FUTURE LAND USE

## FUTURE LAND USE

### **COMMERCIAL ACTIVITY CENTER**

Baseline Residential Density = 4.4 DU/AC  
Baseline Intensity Non-Residential = 0.5 FAR

### **COMMERCIAL/PROFESSIONAL**

1.0 FAR Maximum, Excluding Right-of-Way

### **LOW DENSITY RESIDENTIAL I**

1 DU/20,000 SF Maximum, Excluding Right-of-Way

### **LOW DENSITY RESIDENTIAL II**

1 DU/40,000 SF Maximum, Excluding Right-of-Way

### **MIXED USE**

0.5 FAR Maximum: 4.4 DU/AC Max

### **MIXED USE PRESERVE**

Class I: Residential - 1 DU/AC Average: 8.8 DU/AC Max  
Class II: Residential - 4.4 DU/AC Average: 16 DU/AC Max  
Class III: Residential - 4.4 DU/AC Average: 16 DU/AC Max  
Class IV: Residential - 4.4 DU/AC Average: 16 DU/AC Max

### **MIXED USE PRESERVE - CONSERVATION**

1 DU/20 AC for Wetlands, Must be located on uplands

### **MULTIPLE FAMILY RESIDENTIAL**

16 DU/AC Max

### **NATURAL RESOURCES/PRESERVATION**

Limited to activities that make them accessible to the public for research and/or recreational purposes

### **OPEN SPACE**

Open space determined by function of uses

### **PARKS + RECREATION**

Regional Park = 4 AC per 1,000 Population  
Community Park = 2 AC per 1,000 Population  
Neighborhood Park = 2 AC per 1,000 Population  
Specialty Park = 1/2 AC per 1,000 Population

### **PINE ISLAND ROAD DISTRICT**

Village Zoning: Residential - 24 DU/AC Max; Commercial - 1.25 FAR Max  
Corridor Zoning: Commercial/Light Manufacturing - 1.25 FAR Max

### **PUBLIC FACILITIES**

Consists of schools, public safety buildings, and religious establishments

### **SINGLE FAMILY RESIDENTIAL**

Sites of 10,000 SF and greater, 4.4 DU/AC Max

### **SINGLE FAMILY AND MULTI-FAMILY by PDP**

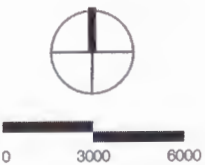
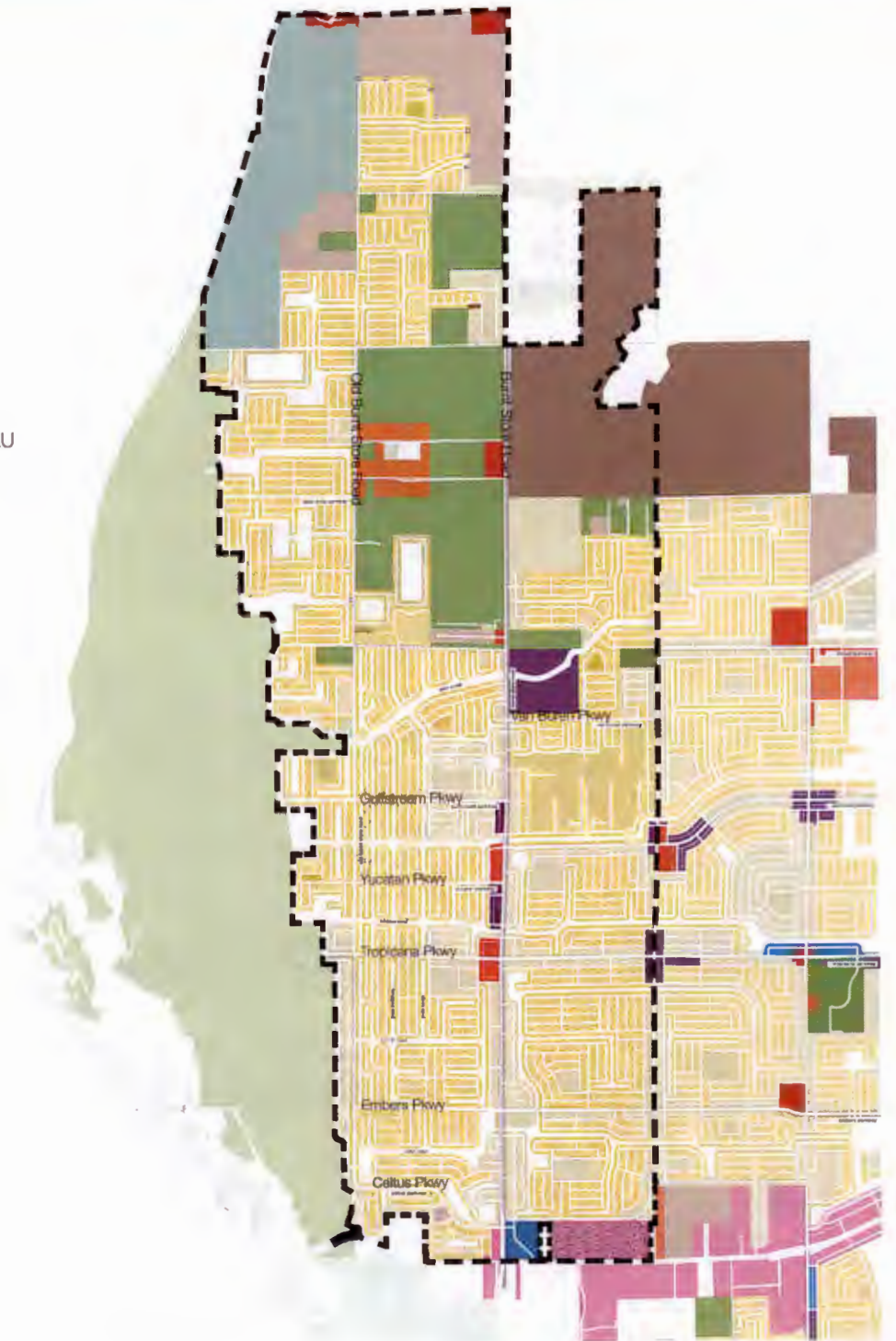
Single Family - 4.4 DU/AC Max  
Multi-Family Residential - 16 DU/AC Max

As an incentive to the assembly, holding, and planned development of sizable tracts of land in the urban service area, tract of the following sizes may be developed at the following residential densities:

3 - 4.99 Acres = 8 Dwelling Units Per Acre  
5 - 9.99 Acres = 10 Dwelling Units Per Acre  
10 - 14.99 Acres = 12 Dwelling Units Per Acre

**LEGEND**

- A (agriculture)
- C-1 (pedestrian commercial)
- corridor
- CPO (commerce park overlay)
- INST (institutional)
- MR (marketplace residential)
- NZ
- P-1 (professional office)
- PRES (preservation)
- PRFLU - regulated by preserve FLU
- R-1A (single family)
- R-1B (single family)
- R-3 (multi-family)
- RD (residential development)
- RE (residential estate)
- village
- study area



# STUDY AREA ZONING

## ZONING

### **A (AGRICULTURE)**

Designed as a holding category which encourages the conservation of natural resources until a parcel is ready for more intensive development

### **C-1 (PEDESTRIAN COMMERCIAL)**

Designed to encourage and facilitate commercial activities intended to serve a relatively large trade area and include major shopping facilities and goods oriented towards pedestrian shoppers in areas sufficiently large to meet the needs of several types and varieties of general commercial activities

### **CORRIDOR**

Established to promote such uses as retail, office, office/warehouse, light manufacturing, institutional, golf courses, larger scale commercial retail, and government uses such as parks and public facilities while also allowing for the consideration of the size of the land to be developed in determining the options for land development

### **CPO (COMMERCE PARK OVERLAY)**

Established to Expand the uses available in designated geographic areas of the corridor zoning district while also relaxing building design criteria and increasing required buffering. Allows a mix of commercial service and industrial uses

### **MR (MARKETPLACE RESIDENTIAL)**

Established to provide a variety of pedestrian-oriented neighborhood retail, specialty retail, office, services, and residential uses within the commercial activity center future land use classification

### **PRES (PRESERVATION)**

Established to create a district which adequately provides for protection of natural lands, environmental restoration projects, historical sites, wetlands, and submerged lands for preservation uses

### **PRFLU (REGULATED BY PRESERVE FLU)**

### **R-1A (SINGLE FAMILY)**

Designed to encourage and protect single family development

### **R-1B (SINGLE FAMILY)**

Designed to encourage and protect single family development

### **R-3 (MULTI-FAMILY)**

Designed to encourage and protect multi-family development

### **RD (RESIDENTIAL DEVELOPMENT)**

Established to provide areas for residential development at a variety of densities dependent on the size of the project

### **RE (RESIDENTIAL ESTATE)**

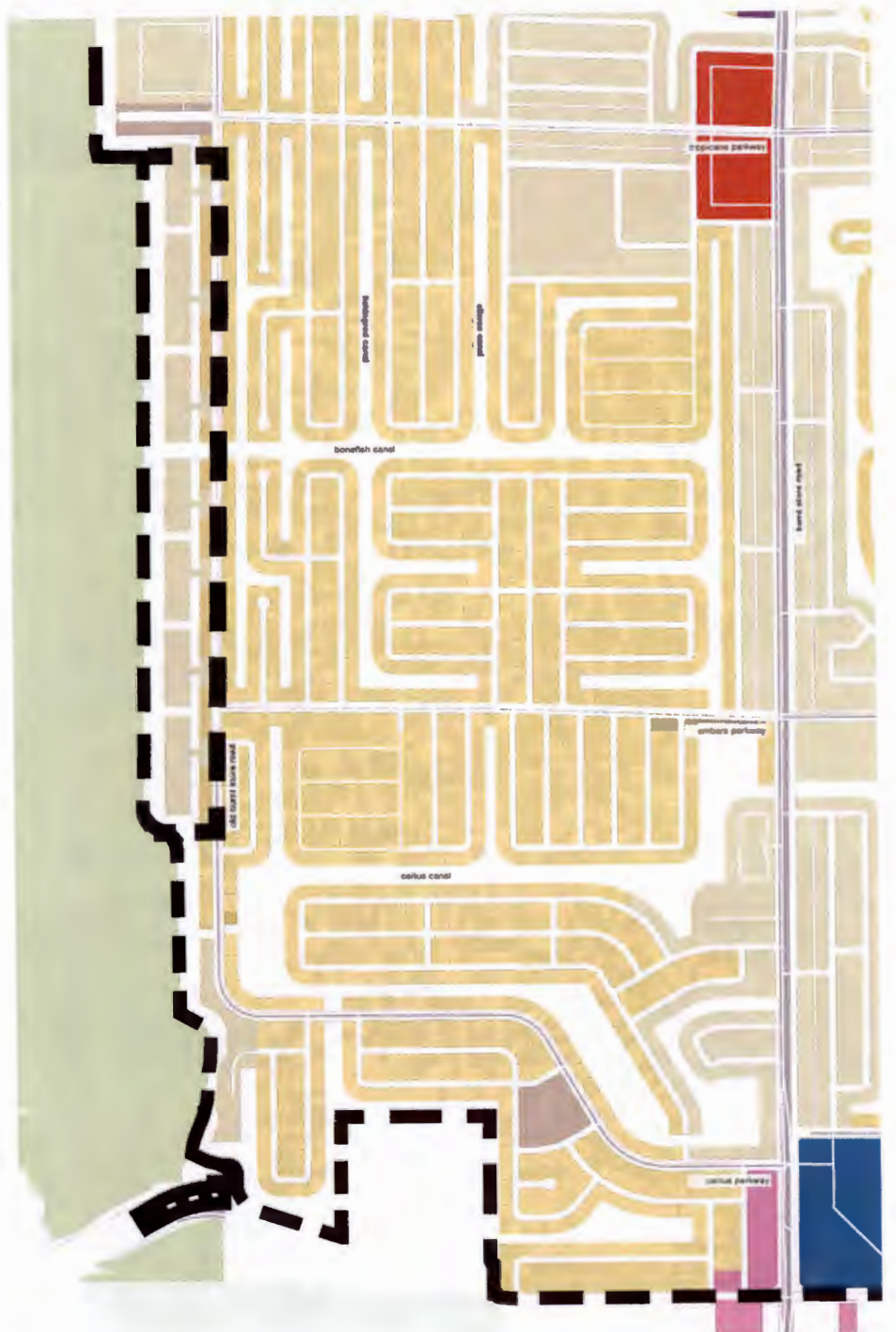
Established to provide areas for residential development at very low densities on plots of substantial size as well as ancillary uses which are compatible with and complimentary to such use

### **VILLAGE**

Established to provide for compact urban centers and multi-use developments that would utilize consistent design themes as well as to allow for the consideration of the size of the land to be developed in determining the options for land development

**LEGEND**

- A (agriculture)
- C-1 (pedestrian commercial)
- corridor
- CPO (commerce park overlay)
- INST (institutional)
- MR (marketplace residential)
- NZ
- P-1 (professional office)
- PRES (preservation)
- PRFLU - regulated by preserve FLU
- R-1A (single family)
- R-1B (single family)
- R-3 (multi-family)
- RD (residential development)
- RE (residential estate)
- village
- study area



# STUDY AREA: 7 ISLANDS LAND USE, ZONING, + DENSITIES

The Seven Islands District's island parcels are zoned Residential Development (RD) and the west adjoining Old Burnt Store Rd. parcels are zoned Single Family R-1B.

RD zoning requires a minimum 10,000 sf. lot for single family. RD permits by right Duplex and Multi-family dwelling units on parcels that are 3 acres or larger.

Regulatory building height for Single Family and Duplex is 30-ft.; for Multi Family the maximum height is 38-ft. Through the Planned Development Project (PDP) process, building height may be increased one foot for each additional one foot setback.

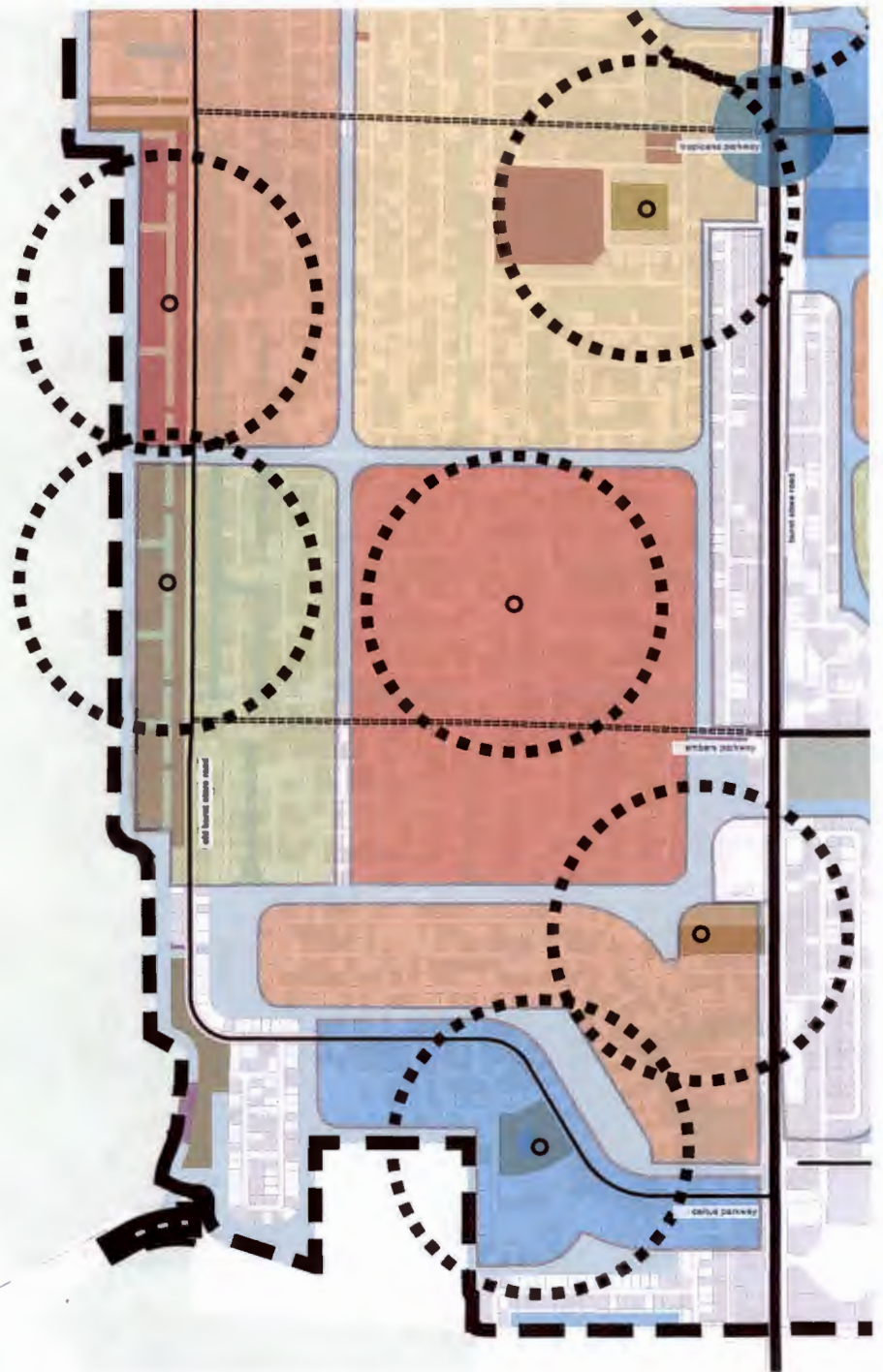
RD single family density is 4.4 units per acre. Permitted through the PDP process, multi-family densities vary with site size. For multi-family sites between 3 to 4.99 acres, density is 8 units per acre. For 5 to 9.99 acres, density is 10 units per acre, and for 10 to 14.99 acres the density is 12 units per acre. For sites from 15 to 19.99 acres density is 14 units per acre, and for sites greater than 20 acres the density is 16 units per acre. Construction of multi-family projects with densities above 4.4 units per acre are constrained by the lack of central sewer.





**LEGEND**

-  five minute walk
-  neighborhoods
-  isolated areas
-  potential crossroads



# STUDY AREA: 7 ISLANDS THE CEITUS/TROPICANA NEIGHBORHOOD

The Seven Islands District is located west of Old Burnt Store Road, south of Tropicana Parkway, and generally north of Ceitus Parkway. Embers Parkway bisects the Seven Islands District, providing the central gateway to Old Burnt Store Road. The District is comprised of 53 tax parcels, totaling approximately 48.18 acres.

The Ceitus/Tropicana/Burnt Store Neighborhood encompasses the Seven Islands District, and the neighborhood contains 2,960 tax parcels. Of that total 1,198 tax parcels are improved (40.5%). The improved median assessed property tax value is \$156,227. The Ceitus/Tropicana/Burnt Store Neighborhood contains other 491 Portfolio properties, including 2 spreader canal home sites, 629 NW 36th Ave. (19 acres assessed at \$853,764), 625 NW 34th Ave. (4.8 acres assessed at \$95,977).

The district and neighborhood has ample public park recreational opportunities, including Sirenai Community Park, Joe Stonis Neighborhood Park, the City Boat Ramp Park, Jim Jeffers Community Park and Tropicana Neighborhood Park. All of the District's canals are tidal saltwater. Bonefish Canal is the main east/west waterway, and the Spreader Canal is the north/south waterway. Matlacha Canal provides direct access to the Pass and Charlotte Harbor.



**LEGEND**

-  vacant residential
-  vacant commercial
-  vacant industrial
-  vacant general



# STUDY AREA VACANT LANDS

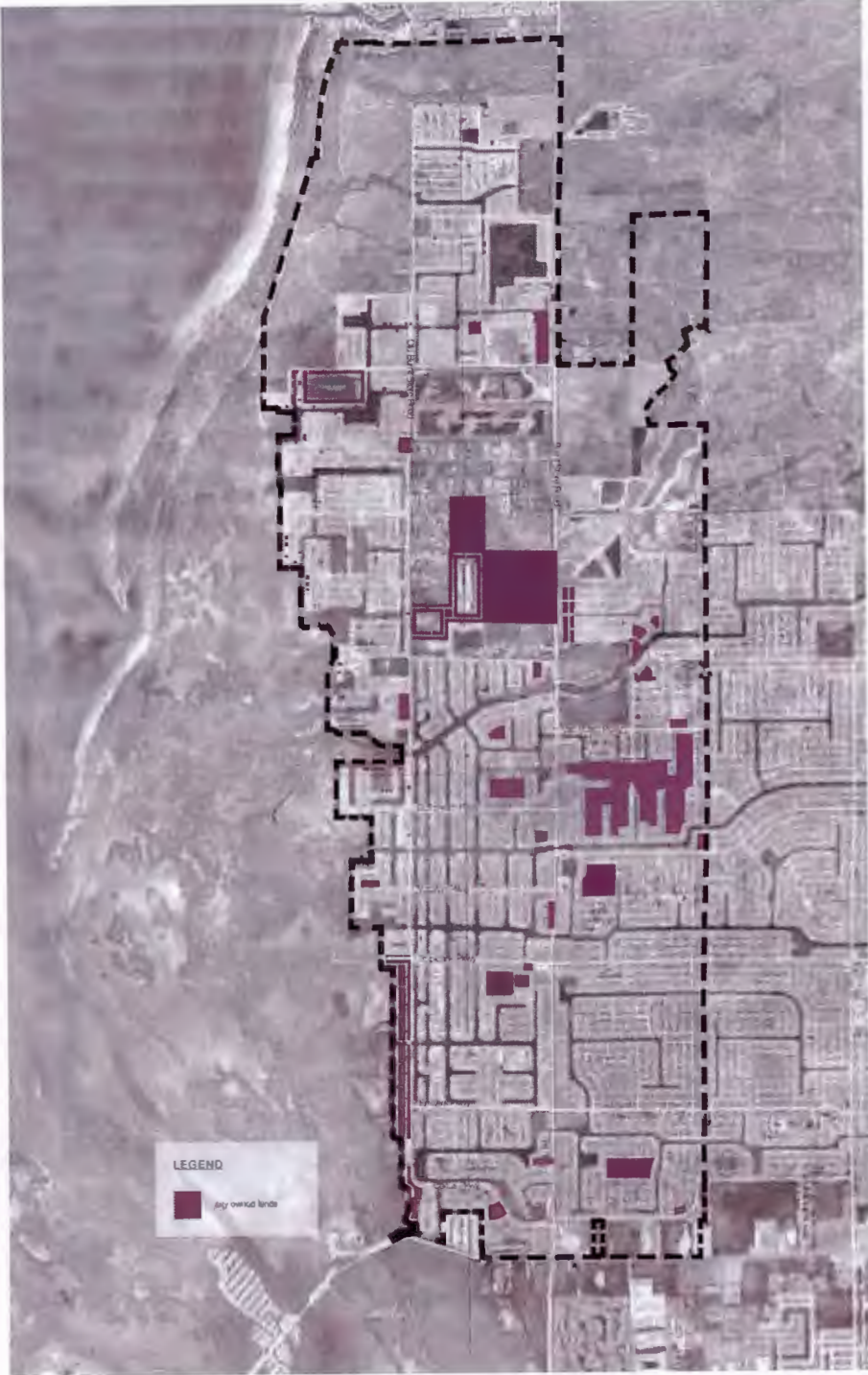
There are 18,173 tax property parcels within the NW Cape study area; 5,222 (31.8%) are improved and 12,951 parcels are unimproved. Of the 18,173 total, 4,193 are "salt water parcels west of Burnt Store Road. The Seven Islands District Neighborhood, between Tropicana Parkway and Pine Island Road and west of Burnt Store Road has the largest number of improved parcels. Of the neighborhood's 2,960 parcels, 1,198 (40.5%) are improved and 1,762 are vacant. The neighborhood north of Van Buren Parkway east of Burnt Store Road has the second largest number of improved parcels. Out of 1,301 parcels, the neighborhood has 1,006 improved parcels (77.3%) and 295 vacant parcels. The neighborhood south of Tropicana Parkway, north of Pine Island Road and east of Burnt Store Road has 909 (31.8%) improved parcels out of 2,861.

Neighborhoods located at the north section of the study area have the largest number of unimproved parcels. The neighborhood south of East Caloosa, north of Kismet, east of Old Burnt Store Road and west of Burnt Store Road has 47 improved out of 411 total parcels. The neighborhood south of East Kismet, north of Gulfstream Parkway, east of Old Burnt Store Road and west of Burnt Store Road has 264 (18.5%) improved parcels out of 1,426. Finally, the Durden/Caloosa neighborhood, defined as west of Burnt Store Road and north of Caloosa Parkway has 299 (12.1%) improved parcels, and 2,176 vacant parcels out of 2,475 total parcels.

## **RESIDENTIAL BUILDOUT: PROPERTY VALUES**

The NW Cape project study area has a 2015 total assessed tax value of \$814,097,981; estimated 2014 study area property tax revenues based upon a City 7.7070 millage rate were \$6,274,253. The study area contains 18,173 total parcels of which 573 are city or publicly owned parcels. The median assessed tax value for vacant parcels was \$7,853. The median assessed tax value for improved parcels was \$133,983. The West Gulfstream Spreader Canal neighborhood, west of Old Burnt Store Road, north of Tropicana and south of Gulfstream, had the highest improved median tax value (\$213,943). The second highest neighborhood median improved value was \$156,227 for the Seven Island District, south of Tropicana, north of Pine Island Road and west of Burnt Store Road. The lowest neighborhood median improved value was \$89,450 for the area between south Tropicana, north Pine Island Road and east of Burnt Store Road.

Using a random sample of five improved sailboat access home sites located south of Yucatan Parkway, west of Old Burnt Store Road and adjacent to the Spreader Canal, lot and home median value is \$496,694. A random sample of five home sites east of Old Burnt Store Road, between Tropicana and Yucatan Parkway and adjacent to the Hermosa Canal produces a home and lot median value of \$287,284. From this limited sample there is a just value difference of \$209,410. Based on the \$209K difference, there is a tax base difference of \$1,614 per improved home site. Assuming 200 home sites over ten years, the estimated tax base difference could total \$3.22MM. Based on this random analysis, there is a substantial value difference between sailboat access and non-sailboat access (bridge constraining boating).



# STUDY AREA

## CITY-OWNED LANDS: THE 491 PORTFOLIO

### **FINDINGS:**

The 2012 491 Portfolio acquisition was a 652 acre multiple land parcel \$13.367MM purchase (0.78 cents a square foot). Approximately 461 parcels of the 491 total parcels are located in the NW Cape study area. Based on Lee Co. Property Appraiser information the 491 Portfolio had a \$22,104,245 just value. The 491 Portfolio presents numerous infrastructure, economic development, environmental restoration and public recreational land use opportunities and challenges.

The Seven Island 491 Portfolio asset consists of 53 parcels totaling 48.18-ac. The city's \$2.151MM purchase price, the 2015 \$3.698MM property appraiser just value and the estimated \$7.3MM current non-entitled market value, are three ways of evaluating the assets value. The 491 Portfolio includes 34 Spreader Canal lots totaling 10-ac. with a 2015 \$2.148MM just value and a city \$1.299MM purchase price. A portfolio asset of note is the 337 acre Kismet/Janis tract, located along the west side of Burnt Store Road. The 337 acre tract is comprised of 118 parcels, was purchased for eleven cents per square foot (\$1.06MM), and is identified for future city economic development, multi-family development and environmental restoration purposes.

### **THE 491 STRATEGIC PLAN OUTLINE:**

P3/Property Sales/Mitigation (7 Islands & W. Pine Is. Rd.) \_ 59 parcels \_ 52.7-ac. \_ est. 2025 value \$18.75MM (750 units @ \$25K per entitled unit)

Real Estate Property Sales \_ Spreader Lots \_ 34 parcels \_ 10-ac. \_ est. 2025 value \$2.89MM (\$85K per lot)

Real Estate Property Sales \_ Other Lots \_ 102 parcels \_ 27-ac. \_ est. 2025 value \$2.61 (\$15K to \$30K per lot and \$2.50 for 20 acre SF lake development tract)

Real Estate Property Sales \_ MF Tracks \_ 92 parcels \_ 152-ac. \_ est. 2025 value \$14.5MM (1215 units @ \$12K per MF entitled unit)

Parks and Recreation \_ 88 parcels \_ 46-ac.

Filter Marsh/Environmental Exchange \_ 7 parcels \_ 60-ac.

City Enterprise Zone \_ 183 parcels \_ 251-ac. (\$0.50 psf = \$5.44MM)

City Infrastructure \_ 7 parcels \_ 8-ac.

**LEGEND**

- conservation lands
- city-owned conservation lands

NOTE: Vital Durden and Yucca Pen Tidal Creek Public Conservation "Gap"

Charlotte Harbor Flatwoods

Charlotte Harbor Buffer

Yucca Pens

Typical County-owned Conservation Lands

Van Buren Pkwy

Old Bunt Creek Road

Quailrun Pkwy

Yucatan Pkwy

Tropicana Pkwy

Embury Pkwy

Collis Pkwy

Little Pine Island Mitigation Bank



# STUDY AREA

## PUBLIC LANDS:

### NW CAPE CORAL + LEE COUNTY

The Charlotte Harbor complex was deemed an Estuary of National Significance in 1995. The NW Cape study area abuts significant conservation and wildlife management lands, including the federal Matlacha National Refuge (512 ac.), Florida's Yucca Pens (14,577 ac.), Charlotte Harbor Buffer Cape Coral Unit (7,951 ac.), Lee County's Charlotte Harbor Flatwoods (448 ac.) and Cape Coral Yucca Pens (234 ac.). Recreational fishing in Charlotte Harbor serves as an integral economic activity for the region. The Harbor has a rich and diverse coastal ecosystem, including pine flatwoods, scrubby flatwoods, scrub, oak hammock, tidal salt flats, tidal marsh, tidal swamps and disturbed Australian pine monoculture plant communities. Public conservation land recreational opportunities include bird watching, canoe/kayaking, hiking, nature study and photography.

A key public lands conservation task is the restoration of tidal creeks that flow into Charlotte Harbor. These tidal creeks play a significant role in water quality enhancement, surface water floodplain storage and hydroperiod timing. They provide essential fish habitat for snook, red fish and tarpon. State Agencies have identified three Cape Coral land areas that are "gaps" in public conservation tidal creek lands. These areas are located adjacent to Yucca Pen Creek and Durden Creek, and associated with a Greenwell Branch flow way.





# STUDY AREA DEMOGRAPHICS

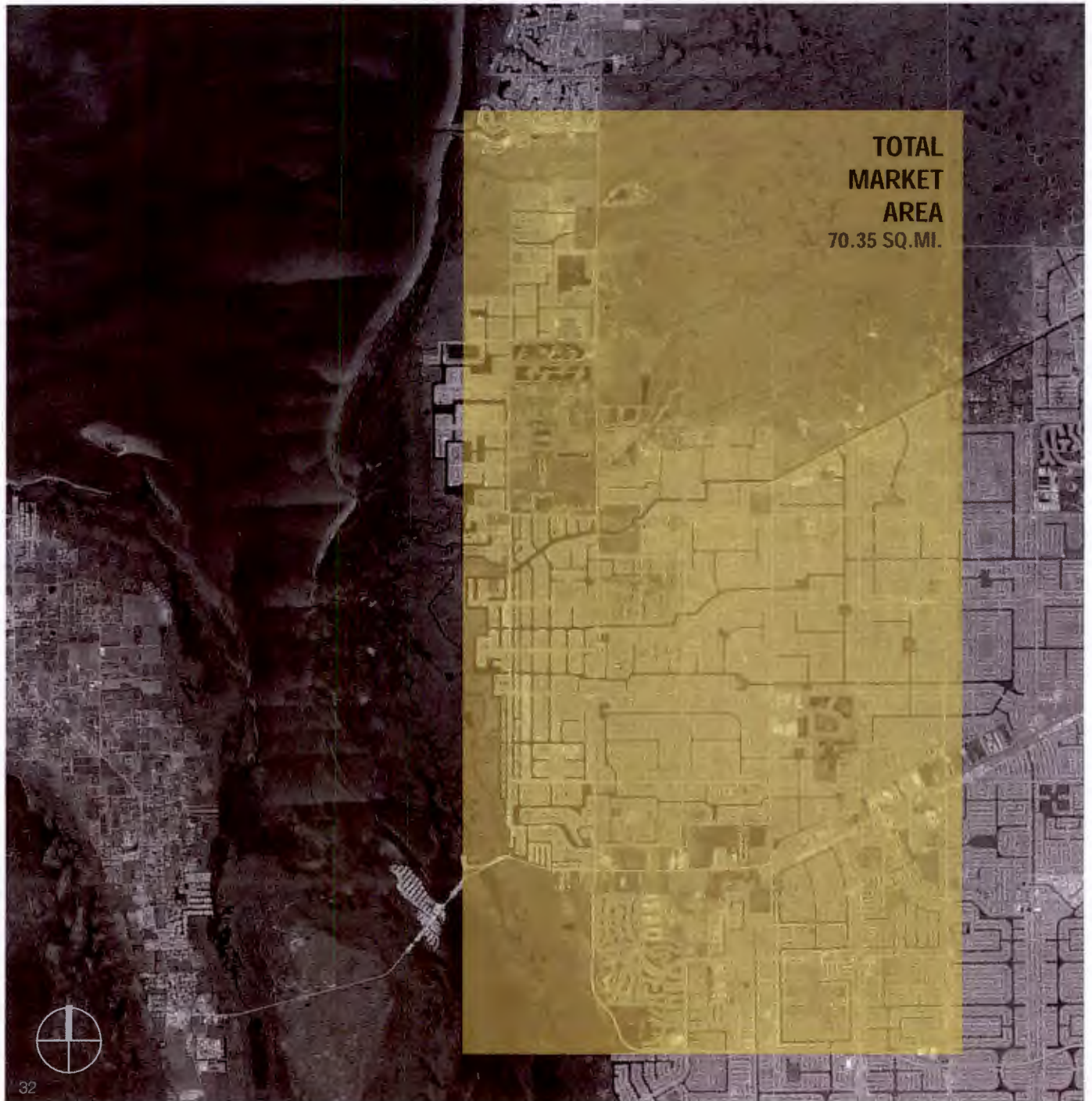
## **CURRENT DEMOGRAPHIC CONDITIONS:**

Total Population 2010	8,545
Total Households 2010	3,021
Total Est. Population 2015	9,455
Total Est. Households 2015	3,348
Est. Average HH Size 2015	2.82
Est. Median HH Income 2015	\$58,689
Est. Median Age 2015	42.1

## **POPULATION GROWTH FORECAST:**

Total Projected Population 2020	11,233
Total Projected Households 2020	3,983
Total Projected Population 2030	15,846
Total Projected Households 2030	5,619
Total Projected Population 2040	22,355
Total Projected Households 2040	7,927

Note: New Residential 1996 - 2015 Building Permits @ 5.48% Av. Annual Growth; 2010 - 2015 Annual Population Growth Per City @ 2.03%



# STUDY AREA THE MARKET

## FINDINGS:

As of June 2015, the total Cape Coral Retail submarket has an existing inventory of 8,726,144 square feet GLA, with an 8.8% vacancy (767,005 square feet GLA). The total Cape Coral Office submarket has an existing inventory of 2,539,880 square feet GLA, with a 10% (253,477 square feet GLA) vacancy. Year to Date net retail and office absorption is 32,947 and 82,060 square feet GLA respectively.

Burnt Store Road is the gateway to the NW Cape market; Embers Parkway is the gateway to the Seven Islands District. As determined by the Embers/Old Burnt Store Road intersection, the Seven Islands property is 2.01 miles to the intersection of Burnt Store and Pine Island Rd. The Seven Islands property is 8.55 miles from the Pine Island Road/Del Prado Boulevard intersection and 11.07 miles to the Mid-Point Bridge.

Including the city areas north of Veterans Parkway and west of Santa Barbara Blvd., the potential Northwest Cape and Seven Islands District total market area is defined by the following demographics:

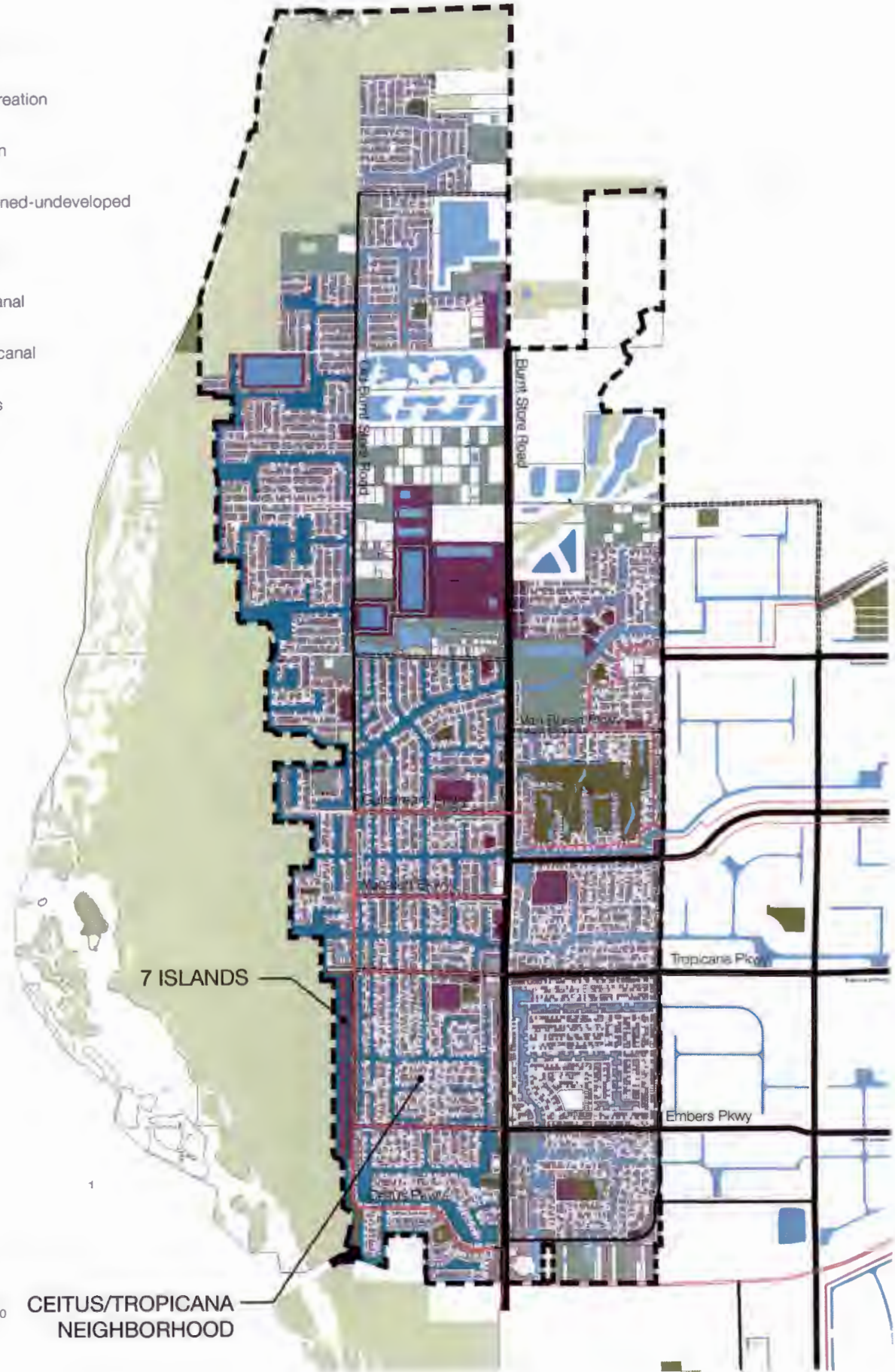
<b>SUMMARY</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>
Population	40,793	45,575	50,695
# Households	14,562	16,194	17,999
Average Household Size	2.79	2.82	2.81
Median Age	38.1	39.5	39.1

## HOUSEHOLDS BY INCOME

\$0 - \$34,999	25.6%	19.2%
\$35,000 - \$74,999	40.0%	40.8%
\$75,000 - \$99,000	13.4%	15.4%
>\$100,000	20.9%	24.6%
Median Household Income	\$56,067	\$62,578

LEGEND

- city-owned
- parks + recreation
- conservation
- privately owned-undeveloped
- vacant land
- saltwater canal
- freshwater canal
- bike access



CEITUS/TROPICANA NEIGHBORHOOD

# STUDY AREA RESIDENTIAL BUILDOUT

## PLANNING + ZONING: RESIDENTIAL LAND USE

### FINDINGS:

As of 2011, total City Residential land uses comprised 59% of the future land use categories, equating to a potential a land capacity of 91,725 to 123,880 additional residential units. Using the 04/2011 79,744 existing units, total residential units was estimated to range from 171,469 to 203,623 units. The City's low and high population projection ranges from 380,000 to 458,000 persons at buildout. The supply of vacant, platted single family residential parcels remains a continuing tax base burden and land use issue for NW Cape Coral and the overall city. Mixed Use and Commercial/Industrial land areas comprise 17% of city land area. The need to increase commercial and mixed-use lands so as to broaden and expand the tax base is another pressing land use issue. The Seven Island Districts principal Future Land Use is Single Family and Single Family + Multi-family by PDP. The West Embers/Burnt Store Rd. gateway is designated Single Family residential. The NW and SW Tropicana/Burnt Store Rd. intersection is designated for future Commercial/Professional. The overall NW Cape Study Area consists of mostly single-family residential use land.

## CAPE CORAL RESIDENTIAL DENSITIES

### SINGLE FAMILY RESIDENTIAL

Sites of 10,000 SF and greater, 4.4 DU/AC Max

### SINGLE FAMILY AND MULTI-FAMILY by PDP

Single Family - 4.4 DU/AC Max

Multi-Family Residential - 16 DU/AC Max

3 - 4.99 Acres = 8 Dwelling Units Per Acre

5 - 9.99 Acres = 10 Dwelling Units Per Acre

10 - 14.99 Acres = 12 Dwelling Units Per Acre

15 - 19.99 Acres = 14 Dwelling Units Per Acre.

>20 Acres = 16 Dwelling Units Per Acre.

### MIXED USE

0.5 FAR Maximum: 4.4 DU/AC Max

### MIXED USE PRESERVE

Class I: Residential - 1 DU/AC Average: 8.8 DU/AC Max

Class II: Residential - 4.4 DU/AC Average: 16 DU/AC Max

Class III: Residential - 4.4 DU/AC Average: 16 DU/AC Max

Class IV: Residential - 4.4 DU/AC Average: 16 DU/AC Max

# REGIONAL CONTEXT

## CHARLOTTE HARBOR



**CHARLOTTE  
HARBOR**

YUCCA PENS

NW CAPE

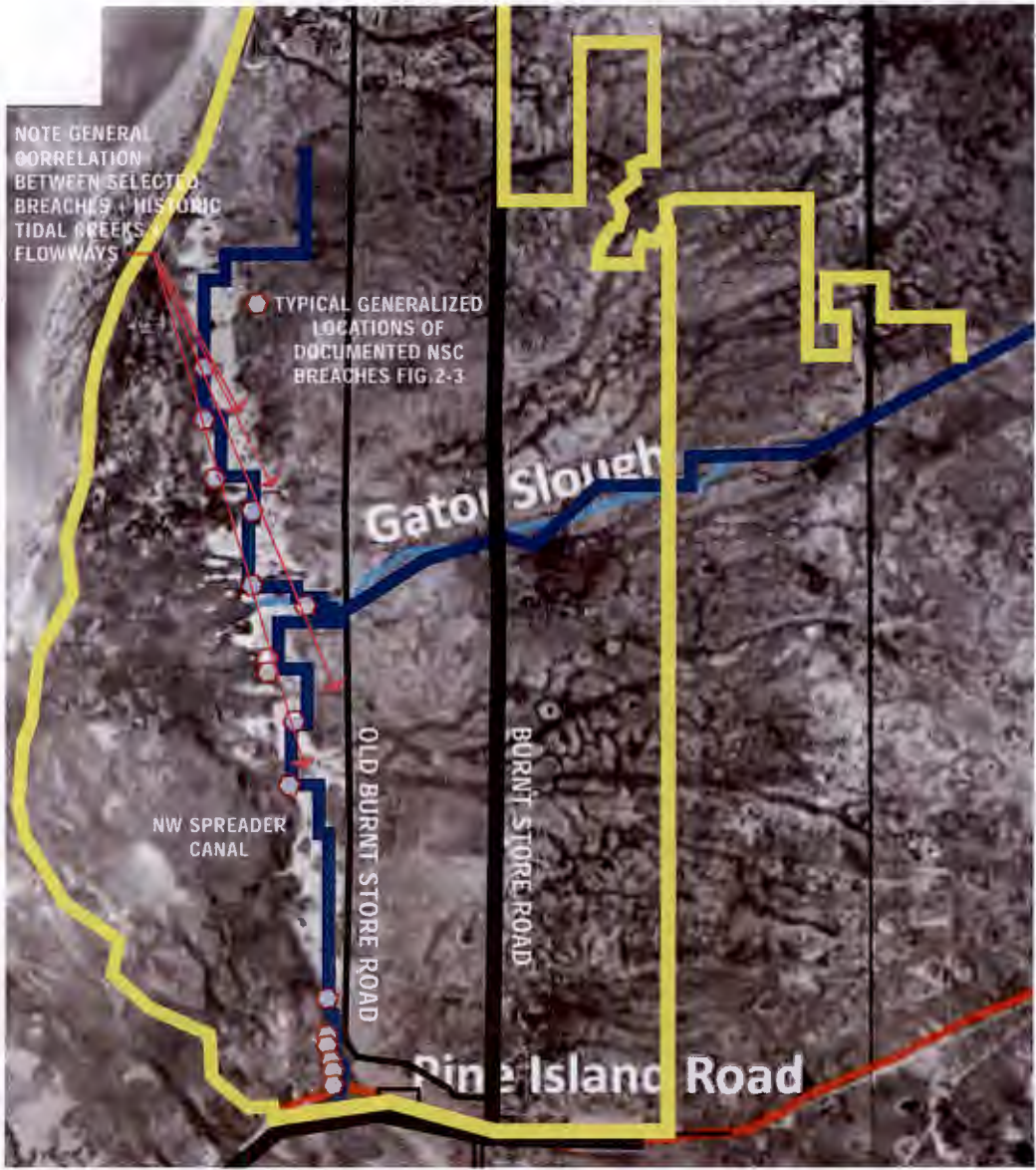
PINE  
ISLAND

7 ISLANDS

CITY OF  
CAPE CORAL





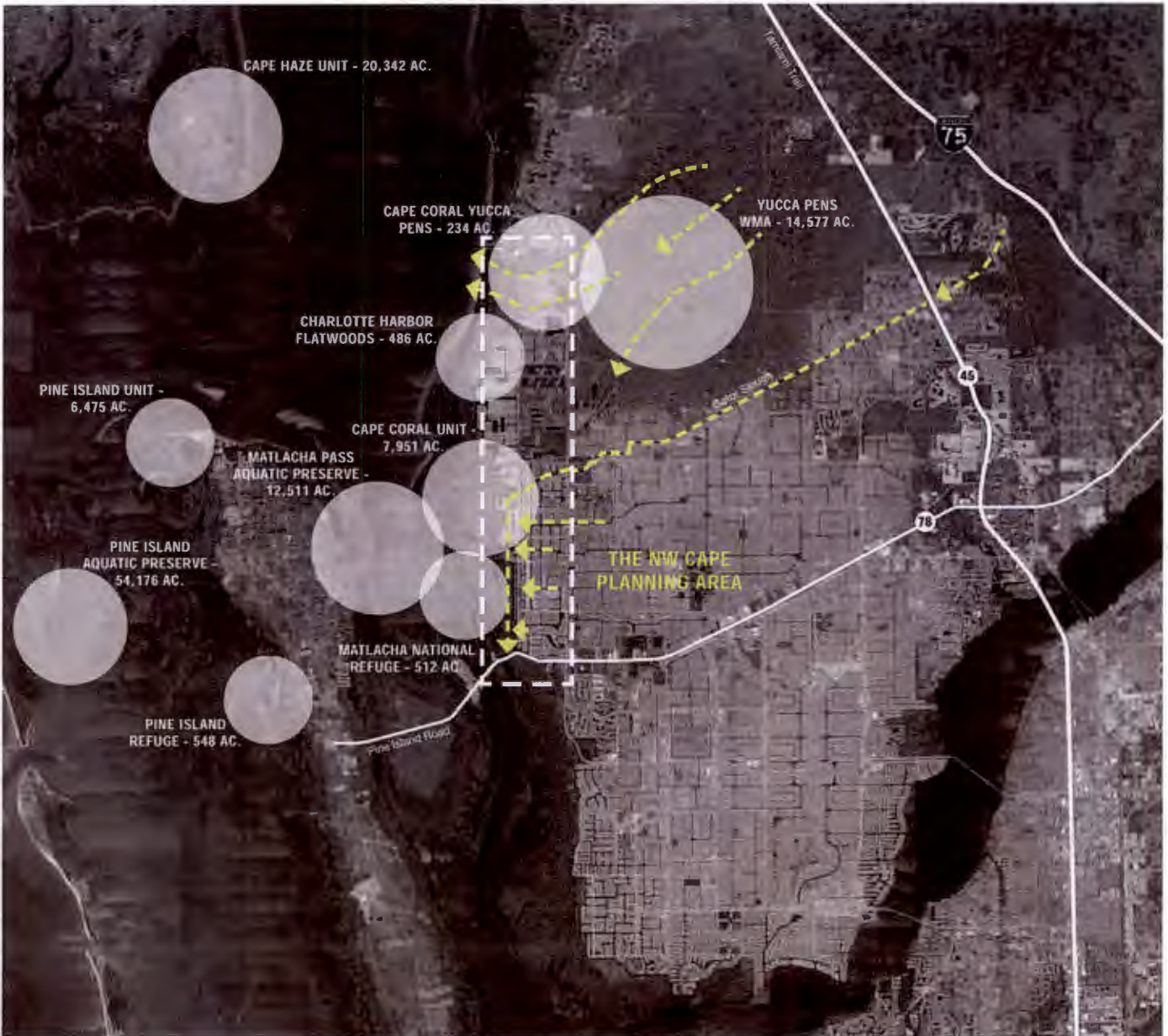


# REGIONAL CONTEXT HYDROLOGY: HISTORIC CONDITIONS

In the early 1970's, hundreds of miles of canals serving residential parcels were constructed. Prior to that, the NW Cape tidal edge was the downstream end of Yucca Pen, Durden and Gator Slough creeks and flow ways that conveyed water through mangrove marshes to Matlacha Pass. Gator Slough was historically a series of shallow depressions with sheet flow, with significant and beneficial upland to Matlacha Pass. NW Cape land development significantly altered ground water recharge, sheet flow and hydroperiod release and water quality. The development of the NW Key Ditch and NW Cape canals broke creek to tidal marsh connectivity. In 1977 the Department of Environmental Protection mandated the design and construction of the spreader canal, with the completion of the south opening barrier/boat lift in 1984. The system's objective was to intercept and retain storm water runoff, to separate fresh water from salt water and to facilitate the distribution of water to mangroves via sheet flow. In many cases today's breaches in the spreader canal system correspond to historic flow way tidal marsh connections. The Spreader Canal and other canals set forth the footprint for the future urban development of the Northwest Cape Coral area.

Source: Cape Coral/Lee Co. Watershed Initiative Study  
Phase 1: 06/2015 ATM. Inc. & Janicki Environmental, Inc.  
1953 Aerial Photo

Janicki Environmental, Inc. **North Spreader Canal Ecosystem Management Agreement Process.** 1155 Eden Isle Drive NE.  
10/2010

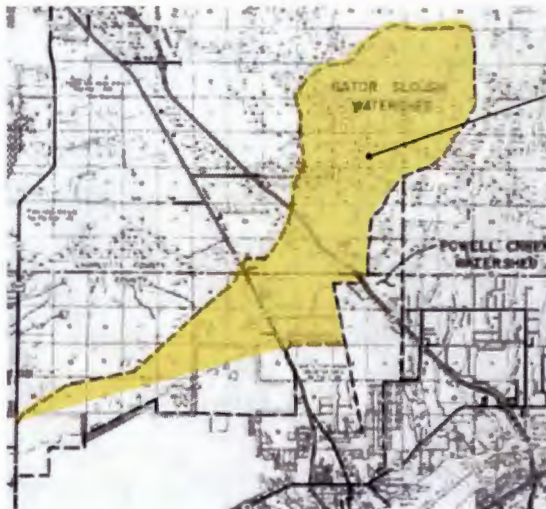


The 857 sq. mile Watershed - 5 Aquatic Preserves, 5 National Wildlife Refuges & the Charlotte Harbor State Buffer  
 The NW Cape Planning Area - Adjoins/Adjacent to 117,592 Public Lands  
 NW to SW Regional Agricultural, Residential, and Commercial Flows to Gator Slough  
 Historic Altered Freshwater Charlotte Harbor Inflows via Road Construction, Land Development, Groundwater Over-Pumping.  
 SOURCE: CHMEP SOURCE: <http://www.dep.state.fl.us/COASTAL/sites/charlotte/Info.htm>

# REGIONAL CONTEXT

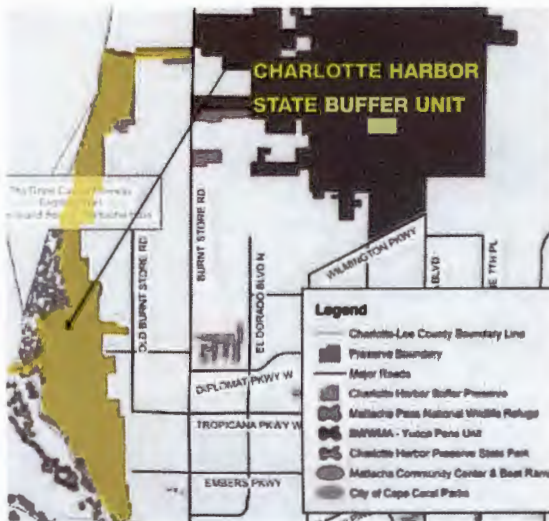
## GATOR SLOUGH

Cape Coral has the longest municipal estuary shoreline, with 19 out of an estimated 132 miles of mangrove tidal edge, within Charlotte Harbor. The NW Cape Coral Study Area adjoins or is adjacent to 117,592 acres of public conservation and wildlife management areas (shown on the right). The study area's regional location is shaped by 5 Aquatic and 5 National Wildlife Refuges set within the Charlotte Harbor National Estuary complex. Eighty-six of the state's endangered and threatened species are found within Charlotte Harbor.

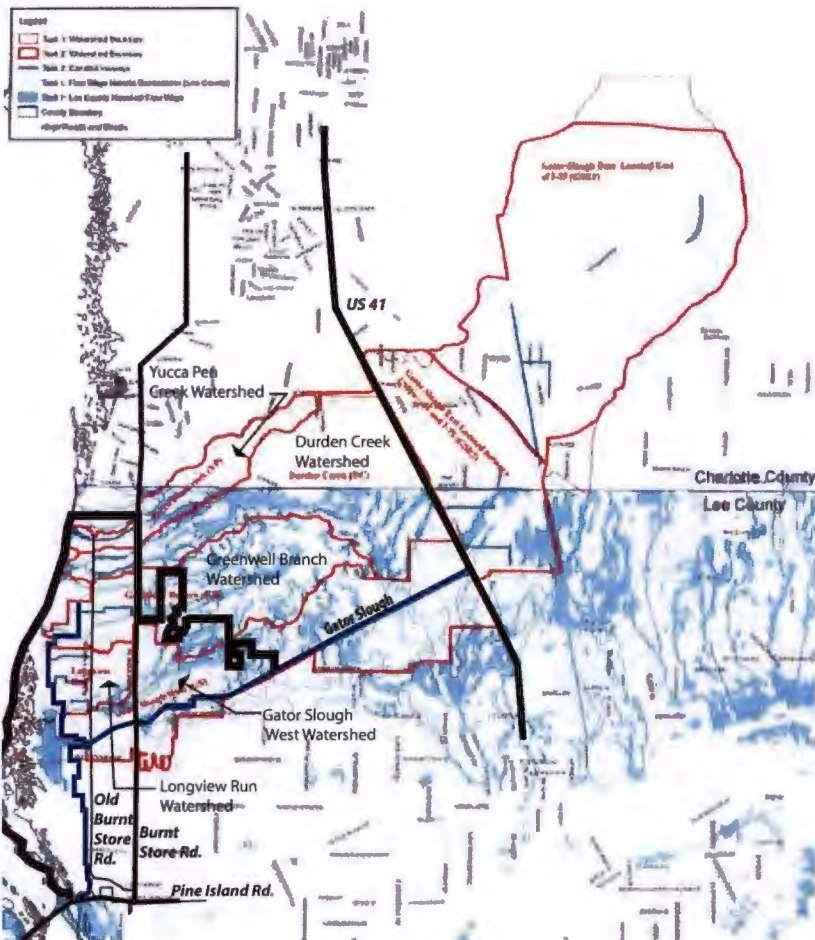


### GATOR SLOUGH WATERSHED

The 857 square mile Gator Slough Watershed is significant, conveying surface waters from Charlotte County's CM Webb WMA southwestward through Lee Co, into the NW Cape's canal system, then into the Charlotte Harbor estuary. Historically, the Gator Slough watershed had sheet flow drainage patterns via tidal creeks and shallow, depressional flowways. Since the 1950's, upstream road construction and urbanization have dramatically altered historic sheet water flows into Charlotte Harbor, negatively influencing groundwater recharge, fresh water to salt water hydroperiod discharge, water quality, and wildlife habitat/ecological balance. Impacts to the Harbor were furthered by the 1960's/70's dredging of Cape Coral's canal system(s).



Contemporary watershed management issues are interrelated to the tidal estuary functions of the city's spreader canal system. Basically, channelized conveyance has led to too much fresh water discharge at a given point. The spreader canal system requires redesign and engineering to allow for a more gradual, evenly distributed fresh water release that can be filtered through tidal mangroves into Matlacha Pass and Charlotte Harbor. Other water management issues include vital tidal creek public lands acquisition, public boating and recreational use, and long-term non-point pollution impacts brought about by urbanization and septic tank use.



## FLOWWAYS AND CANALS

39 sq. miles/75% of drainage flows west of US 41 are blocked off by Burnt Store Road and diverted into Gator Slough.

Ongoing SFWMD/SWFMD/other agency & local government efforts to lessen point water Gator Slough discharges via Yucca Pens sheet flow restoration, enhance water retention/aquifer recharge, flowway restoration, and historic Charlotte Harbor outfall restoration.

SOURCE: Charlotte County Roads Layer: Charlotte County Government GIS systems Lee County Roads Layer; Lee County Government GIS systems  
 Task 1 Watershed Boundaries: Provided by SFWMD (Northwest Lee County)  
 Surface Water Management Plan: "YuccaPenStudy\_east.shp" (shapefile by SFWMD)  
 Task 2 Watershed Boundaries: Delineated by BPG Group  
 Task 1 Historical Flow Ways and Connections (Lee County) Provided by SFWMD (Lee County Government, Department of Natural Resources)  
 Task 2 Canals/Flowways: Mapped by BPG Group



# REGIONAL CONTEXT

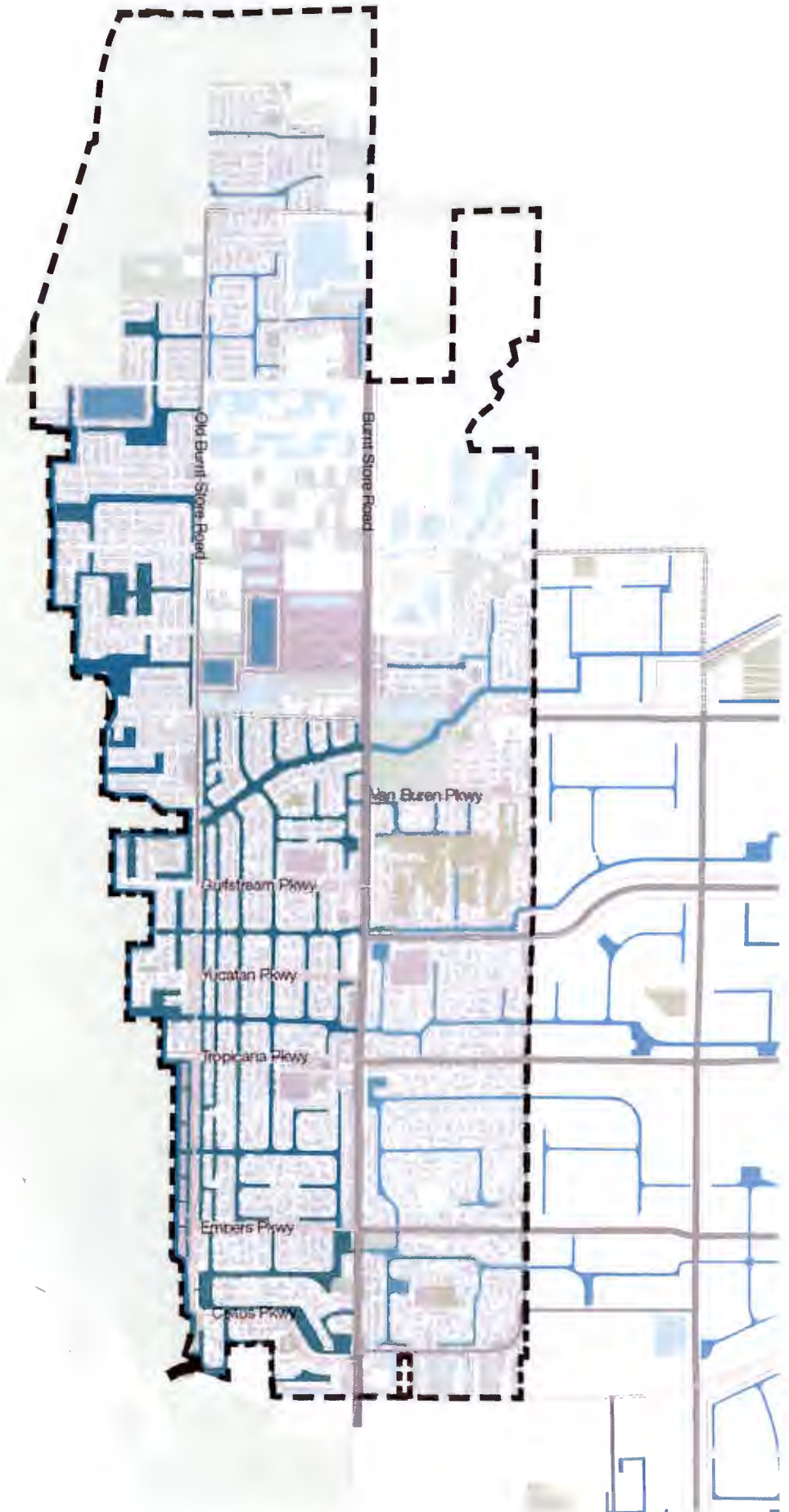
## YUCCA PENS

From the 1950's thru 1980's the historic, unrestricted South Charlotte Co./NW Lee Co. surface water NE to SW sheet flows began to be disrupted by road construction, land development and agriculture diking. These impacts were augmented by NW Cape canal dredging and the channelization of Gator Slough. The consequences of these actions were the creation of a highly altered natural system that sends water at high velocity rates to the Matlacha Pass estuary, damaging seagrass, altering salinity balance and diminishing water quality.

The Yucca Pens Restoration project is to restore historic sheet flows and drainage patterns to Charlotte Harbor via the Yucca Pens Creek, Durden Creek, Greenwell Branch and Longview Run. This will reduce the amount of water that has been redirected to Gator Slough and lessen the impact of damaging freshwater and pollutant point discharges into the NWSC and the Matlacha Pass Aquatic Preserve. The Southwest Florida Water Management District Yucca Pens restoration plan will attempt to enhance the ecological integrity of the region, improve water retention, aquifer recharge, and advance hydroperiod management. The key/main element of the plan is to restore historic flows across Burnt Store Rd. by using improvement drainage control structures, Burnt Store Road re-design, new filter marsh development and public land acquisition.

LEGEND

-  saltwater canals
-  freshwater canals



# REGIONAL CONTEXT

## SURFACE WATER: CANAL SYSTEM

Northwest Cape Coral contains 17 miles of freshwater and 43 miles of saltwater canals set within a 55 square mile watershed. The Northwest Spreader canal (NWSC) is bounded by five control weirs along east Burnt Store Rd., and to the west by the NWSC dredged bank. Canals vary in depth from 3-ft. to 16-ft. and support a variety of fish and wildlife, recreational boating and fishing. The NWSC is a tidal estuarine ecosystem, functionally integrated to Matlacha Pass and Charlotte Harbor via freshwater/salt water tidal movements through 17 documented breaches (average depth is 0.3m). In many cases these breaches coincide with historic tidal creeks and flowways. With the exception of high watershed runoff periods (primarily via Gator Slough), tidal action is the major driving force of water circulation, moving water into and out of the NWSC on a daily basis. Canal water west of Burnt Store Road is mixed freshwater and saltwater. Salinity drops occur with relatively small freshwater inflows, indicating that the NWSC system is highly sensitive to freshwater inflows. Gator Slough is the largest NWSC tributary and contributes the most freshwater inflow. The NWSC has one navigable cut to Matlacha Pass (the South Opening). The Matlacha Aquatic Preserve is a designated Outstanding Florida Waterway. And as such, it is subject to a much higher degree of storm water management regulatory criteria. The Charlotte Harbor is a Federally designated Estuary of Special Concern.





# REGIONAL CONTEXT

## SURFACE WATER: SPREADER CANAL

The NW Cape Spreader Canal is the receiving water body for a 49,705-acre watershed. The four primary drainage basins that discharge into the NWSC are Shadroe Canal (3,865 ac.), Hermosa Canal (5,940 ac.), Horseshoe Canal (7,601 ac.) and Gator Slough (32,299 ac.). Though Durden Creek has a direct outlet to Matlacha Pass, it is also connected to the spreader system. The width of the spreader canal varies but is generally 150-ft., with an average depth of 7-ft. The South Opening is the conduit for 80% of the system's total water flows. These flows have been facilitated by the 2007/2008 boat lift and barrier removal. The north spreader Breaches #1A and #4 also facilitate transverse water flows. Rising tide flows into NWSC are facilitated by USGS Station 00, 01, 06 & 07 breaches; outflows are at USGS stations 02 and 07. Breach flow magnitudes increase as mean water levels rise, and drop to near zero when water levels are low. These findings are indicative of intermittent Matlacha and Key Ditch connections. For the Spreader Canal and Key Ditch breaches, when water levels rise above 0.0 to 0.1-ft., the NWSC western side overtops into mangrove areas typically through remnant tidal channels.

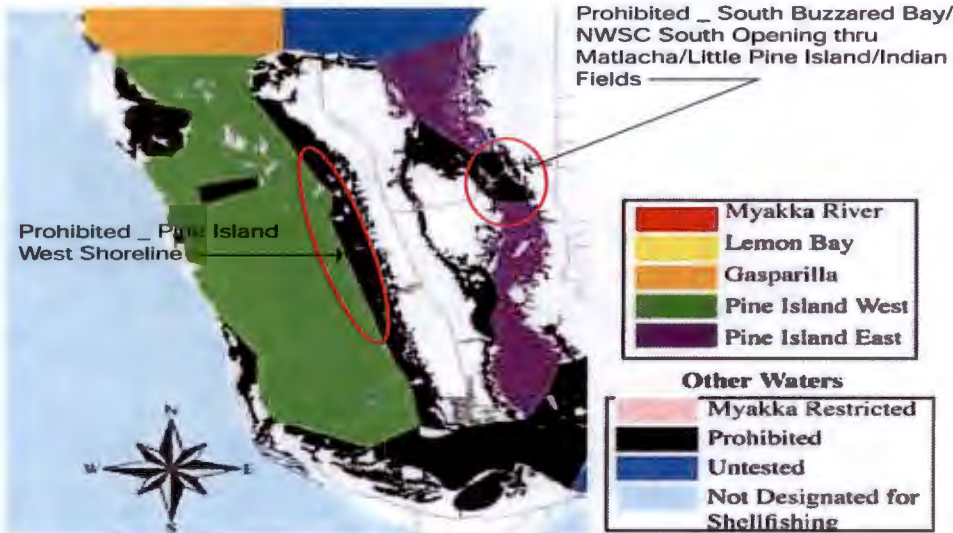
Both Lee Co. and the City have routinely conducted water quality monitoring for the spreader canal system and the Matlacha Pass receiving body. The State and County has maintained an active shellfish assessment monitoring program for physical chemistry and fecal coliform in Matlacha Pass. The City has 9 NWSC system fixed water quality monitoring stations, including 4 located below the weirs in the tidal portion of the system (Stations 120, 130, 150 and 271).

### **BOAT TRAFFIC**

In 2015 Lee County had 44,743 registered pleasure crafts; Cape Coral total boat registration data is not available. For this report it is assumed that the City has the number of registered pleasure craft directly proportional to its population as compared to the county. Given Lee Co.'s 2010 census population of 618,754 to Cape Coral's 154,305, it is assumed that 25% of total county boats are within the City. This equals an assumed 10,849 registered pleasure craft within the City of Cape Coral.

Allocating Cape Coral's total number of pleasure craft to NW Cape by direct proportion of population, it is estimated that there were 665 registered boats within the 3,348 household 2015 project study area (9,455 2015 study area population to city population = 6.1%). Based on local knowledge it is reasonable and conservative to expect peak boat recreational use to be 15% of total pleasure craft being used on any given peak weekend day. For 2015 one may expect 100 boats may be using the spreader canal and the south opening on a typical peak weekend day. For an eight hour day this is equal to 12 boats per hour using the Spreader Canal and the South Opening. This figure is consistent with contemporary observations of the Matlacha Canal downstream of the South Opening.

The report estimates a 2025 NW Cape study area 4,744 households with a population of 13,378. The report estimates the 2040 project study area households at 7,984 with a population of 22,516. Based on 15% of available pleasure craft being used on any given peak day, 207 boats may be using the spreader canal and the south opening. This is equal to 26 boats per hour or approximately one boat every 30 seconds.



## Charlotte Harbor Biological Indicator \_ Shellfish

Source: CHMEP Watershed Report, 2011



### NW Spreader Canal Chlorophyll-a Impairments

Source: NW Cape Coral/Lee Co. Watershed Initiative Phase 1 Summary Report, Fig. 5-7 06/2015; ATM, Inc. & Janicki Environmental, Inc.



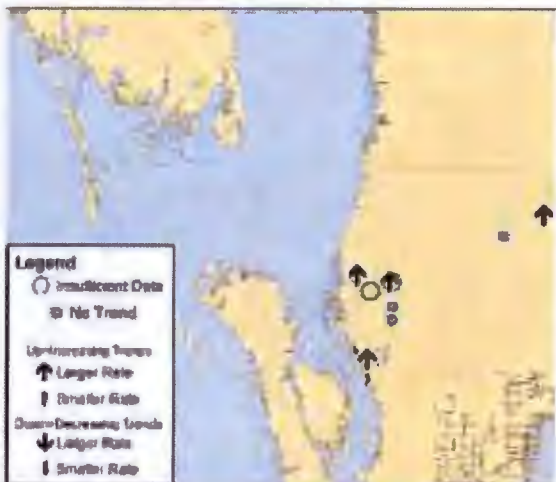
### NW Spreader Canal DO Impairments

Source: NW Cape Coral/Lee Co. Watershed Initiative Phase 1 Summary Report, Fig. 5-8 06/2015; ATM, Inc. & Janicki Environmental, Inc.



### NW Spreader Canal Fecal Coliform Impairments

Source: NW Cape Coral/Lee Co. Watershed Initiative Phase 1 Summary Report, Fig. 5-15 06/2015; ATM, Inc. & Janicki Environmental, Inc.



### NW Spreader Canal TN Nutrient Impairments

Source: NW Cape Coral/Lee Co. Watershed Initiative Phase 1 Summary Report, Fig. 5-7 06/2015; ATM, Inc. & Janicki Environmental, Inc.

# REGIONAL CONTEXT



## WATER QUALITY

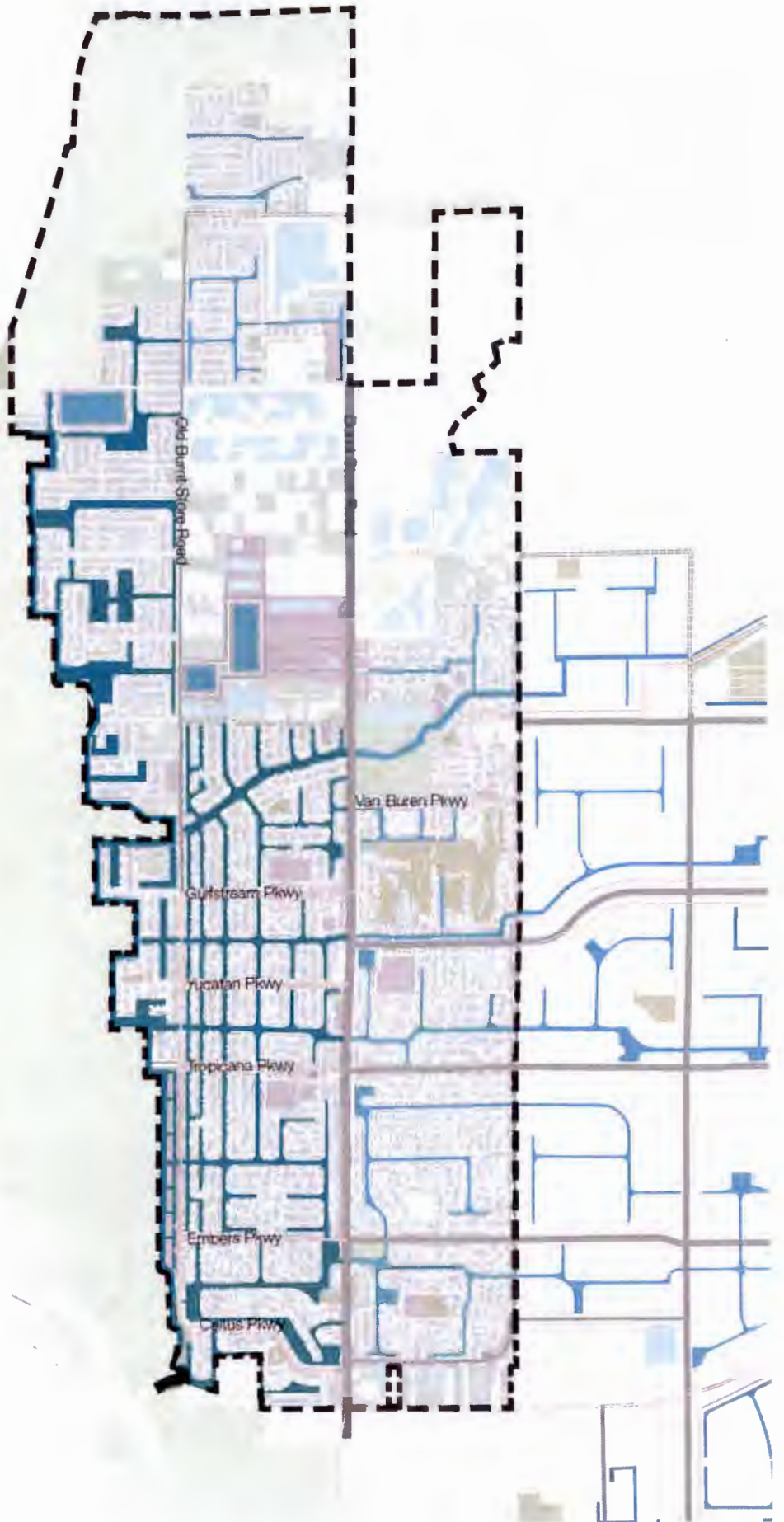
The NWSC and downstream Matlacha Pass have been routinely sampled for water quality for over 20 years. The Shellfish Environmental Assessment Section program has sampled a series of fixed stations for physical chemistry and fecal coliforms in Matlacha Pass since 1985. Parameters include salinity, dissolved oxygen (DO), total nitrogen (TN), total phosphorus (TP), chlorophyll-A (Chl a; phytoplankton indicator) and total suspended solids (TSS; water clarity). General Cape NWSC fixed station (9 total stations) findings include larger to smaller increased salinity trends, larger to smaller increased TN trends, and larger and smaller increased TP trends in addition to no TP trends near South Opening (insufficient data also noted). DO trends exhibit smaller rate declines north of Gator Slough, along with no trend around the South Opening. Larger rate trend increases are found in the canals east of Burnt Store Rd. for Chlorophyll-a and TSS; no trends are exhibited for Chl a, but increased TSS trends, are noted for the South Opening. A larger rate increased trends for Fecal Coliform are identified.

The FL Dept. of Agriculture is responsible for monitoring and managing shellfish harvest areas. Shellfish can concentrate bacteria and red tide toxins in their bodies. Hence, shellfish monitoring is a highly effective biological indicator for water quality. Shellfish harvest closures coincide with peak rainfall events due to pollutants being washed down into receiving water bodies. The relatively dry years from 2008-2010 allowed for 80% of available conditionally approved areas to be open. In 2011, 40% of the harbor's water was conditionally opened for harvest.

Lee County maintains five fixed stations for water quality monitoring, with permanent records from 1996 thru 2014. Station PI-06, located in the north pass area near Big Dead Creek, has been discontinued since 2003. Monitoring constituents are Chl-a, DO, FCOLI, Salinity, Secchi Disk, Visibility, TN, TP, TSS and TURB. No large rate or small rate increasing and decreasing TN, DO, Turbidity and Fecal Coliform trends were identified between 1996 thru 2013. Large increasing Total Suspended Solids trends were identified for the north and south Matlacha Pass areas. Large decreasing trends for Chlorophyll-a were identified.

LEGEND

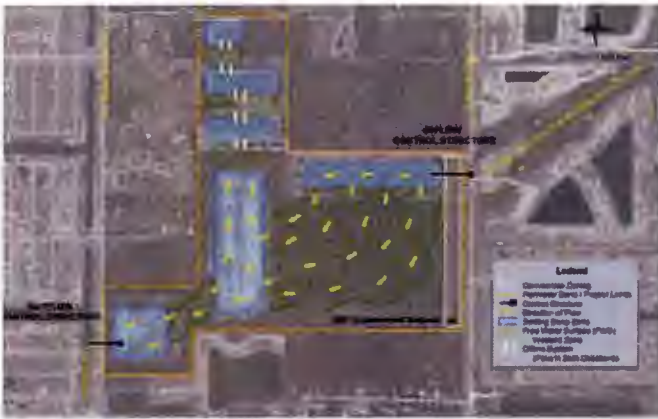
-  saltwater canals
-  freshwater canals



# REGIONAL CONTEXT SURFACE WATER MANAGEMENT

The City's Conservation Objective 1.1 is to maintain and/or improve the environmental quality of estuarine waters and prevent degradation of adjacent water bodies. To implement this Objective, the City developed a regional 520 square mile drainage conveyance system model. The model addressed system interconnects and system improvements, established a Water Quality Management Plan with BMP projects, and reviewed the City's Stormwater Maintenance Master Plan. The first phase Stormwater Model Report demonstrated that the city's primary canal and water control structures function well during a 25-year design event.

The second phase established water quality improvement programs designed to meet NPDES MS4 Permit Requirements. Twelve Best Management Practice concept plans, including wet ponds, bioretention, dry swales, filter marshes and stormwater wetlands, were identified and evaluated by site location, load reduction functional effectiveness, cost and other factors. Of the twelve concept plans, none specifically were located in NW Cape, through bioswale retention systems and dry swales can be made applicable to the study area. The 2015-17 Proposed Operating Budget does not allocate funds for NW Cape Drainage Improvements. Existing NWSC storm outfalls do not incorporate detention features.



Cape Coral NW Filter Marsh Feasibility Study  
 Concept 1 Natural w./Connection Restoration; AIM Engineering, 05/2014



Alt. NW Cape Coral Filter Marsh w./City Enterprise Zone

# STUDY AREA

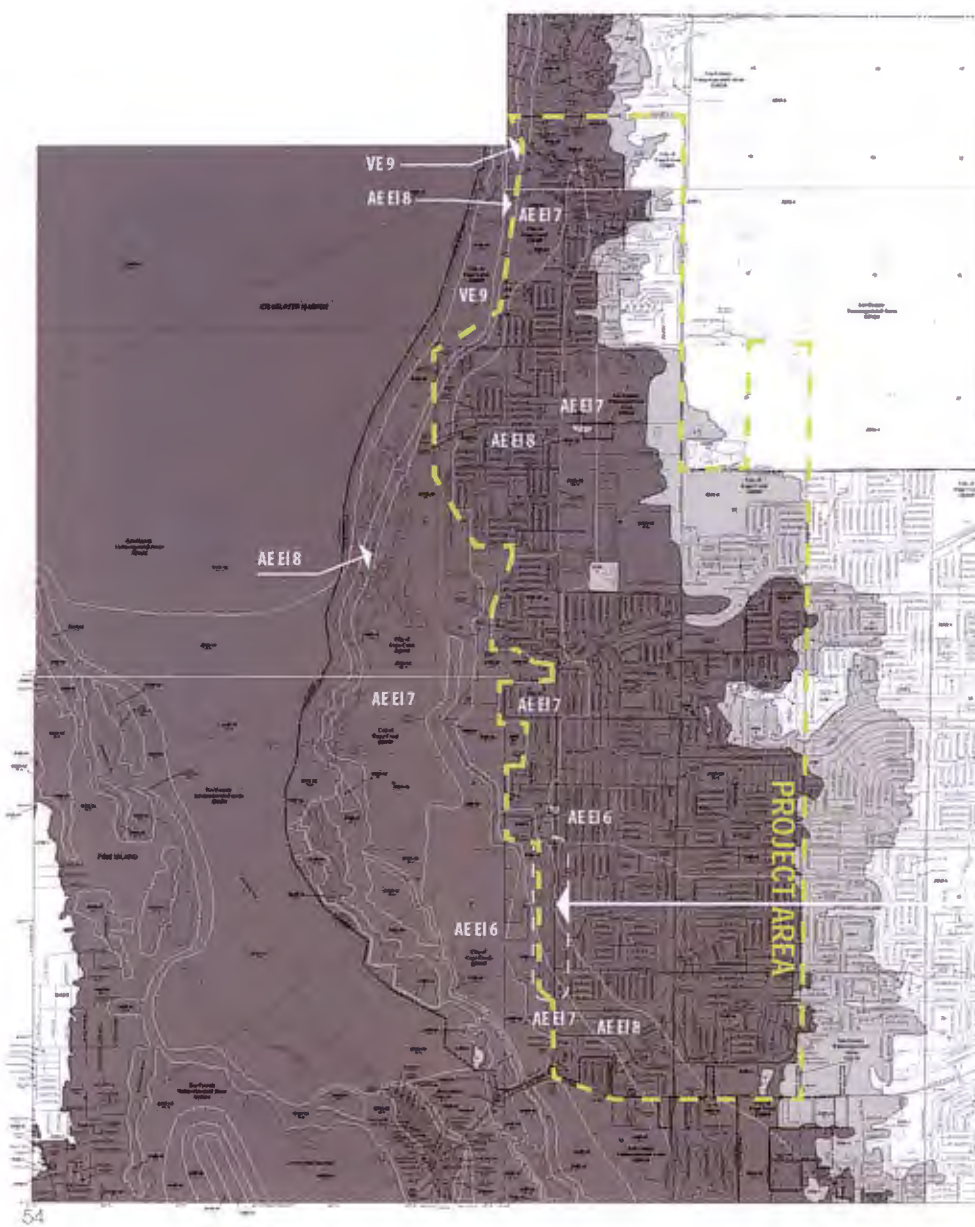
# FILTER MARSH

The City is geographically positioned via Gator Slough and Longview Run to effect positive change in improving surface water flows, timing, and distribution to the NWSC and Matlacha Pass tidal estuary. The completed NW Filter Marsh Feasibility Study's objective was to evaluate water storage and treatment options using a 337 acre city-owned property. The study assessed restoring a hydraulic connection from the historic Longview Run watershed along with creating a new Gator Slough hydraulic connection. The study concluded that a Longview Run gravity connection is a cost effective approach for significant watershed restoration, both storage capacity enhancements to reduce peak storm event water stages, and nutrient loadings reduction by utilizing settling ponds and filter marshes.

The proposed NW Cape Filter Marsh is consistent with the North Spreader Canal Ecosystem Management Agreement, providing a Stormwater Treatment Area with net environmental benefits to the NWSC. The Concept 1 Natural (gravity) with Connection Restoration presents a \$7.16MM to \$11.15MM estimated cost to construct. The study also proposed the introduction of passive recreation opportunities to accompany the surface water management functions.



# 100 YEAR FLOOD ZONE



## LEGEND

### SPECIAL FLOOD HAZARD AREAS SUBJECT TO BRADICATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AV, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevation determined
- ZONE AH** Base Flood Elevation determined
- ZONE AO** Flood depths of 1 to 3 feet (usually areas of parking lots) Base Flood Elevation determined
- ZONE AV** Flood depths of 1 to 3 feet (usually areas of parking lots); average depth determined. For areas of elevated lots, buildings, structures and equipment.
- ZONE VE** Special Flood Hazard Area determined based on the 1% annual chance flood by a flood control system that has subsequently developed. Zone VE indicates that the former flood control system is being removed to provide protection from the 1% annual chance or greater flood.
- ZONE V** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction, no Base Flood Elevation determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action) no Base Flood Elevation determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action), Base Flood Elevation determined.

### FLOODWAY AREAS IN ZONE AE

The boundary is the channel of a stream plus any adjacent floodway areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

### OTHER FLOOD AREAS

- Zone A** Areas of 0.2% annual chance flood, areas of 1% annual chance flood with peak rate depths of less than 1 foot, or with average depth less than 1 system wide and been protected by levees from 1% annual chance flood.

### OTHER AREAS

- Zone A** Areas determined to be outside the 0.2% annual chance floodline.
- Zone D** Areas in which flood hazards are undetermined, but possible.

### COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

### OTHERWISE PROTECTED AREAS (OPA)

CBRS areas and OPAs are normally added within or adjacent to Special Flood Hazard Areas.

- Wetland boundary
- Property boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas from and boundary dividing Special Flood Hazard Areas of different Base Flood Elevation, Flood depths or Flood velocities.
- Base Flood Elevation line and other elevation of feet
- Base Flood Elevation velocity hazard symbol (wave action elevation in feet)

\* Referenced to the North American Vertical Datum of 1988

Cross section line

Turned off

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83). UTM Zone 18Q.

100-meter Universal Transverse Mercator grid values, zone 17

5000-foot grid 24x24 Florida State Plane coordinate system, West zone (FIPS 3200 SRS), Transverse Mercator projection

Elevation in feet (elevation in meters to show datum of the 1988 datum)

Area in acres

State jurisdiction

Refer to legend of this map for more information on map icons

EFFECTIVE DATE OF COMMUNITY FLOOD INSURANCE MAP August 28, 2018

EFFECTIVE DATES OF REVISIONS TO THIS PANEL

This community map contains neither a recommendation nor a warranty by the Community Map Makers with respect to the Flood Insurance Study report for your jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6242.

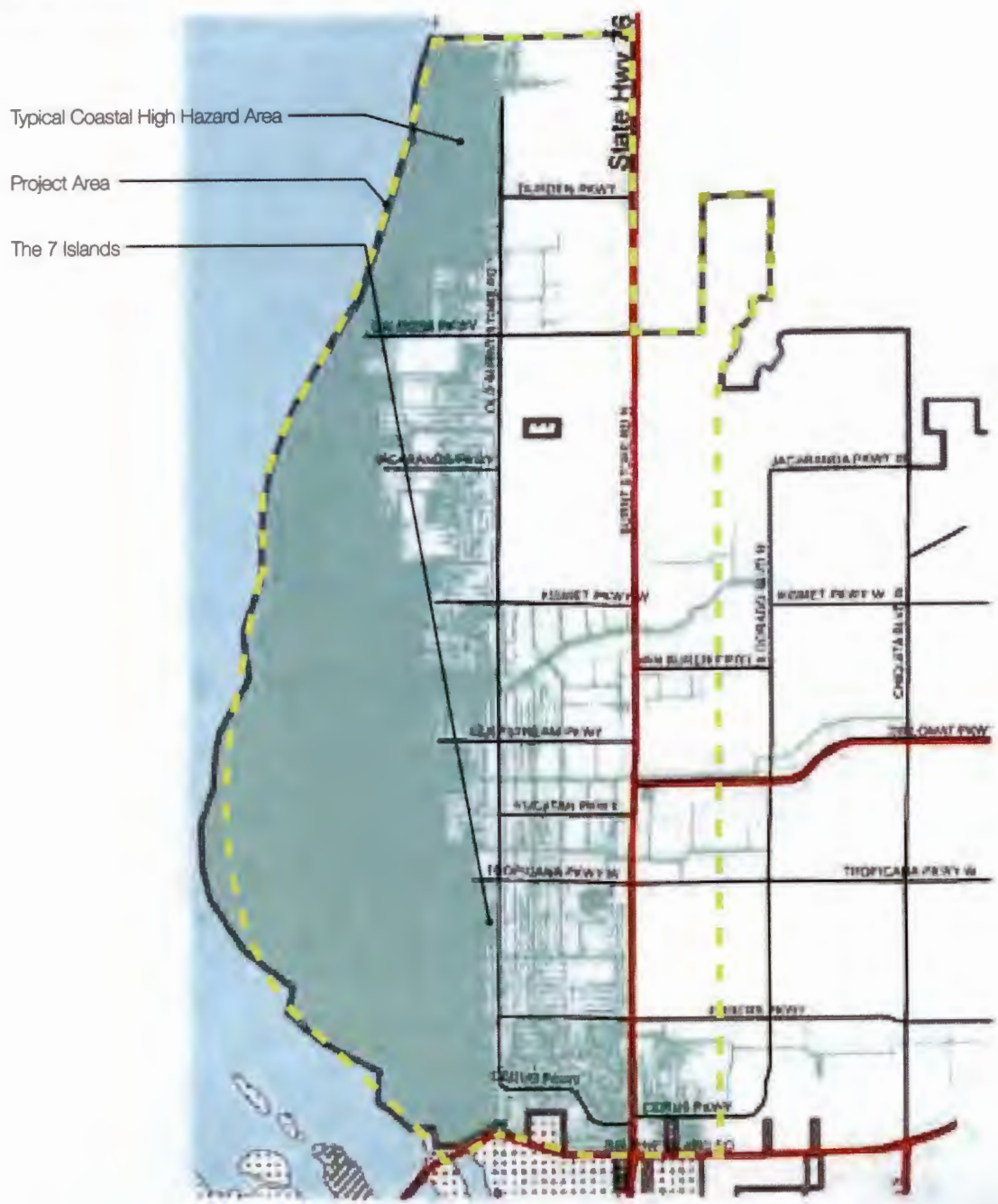
MAP SCALE 1" = 100'

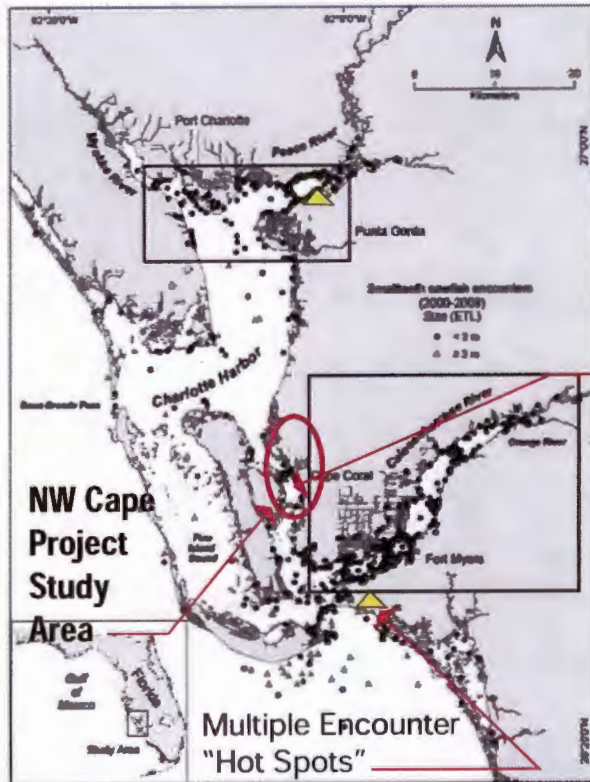


0 100 200 FEET  
0 100 200 METERS

# REGIONAL CONTEXT COASTAL HAZARD + FLOODING

## COASTAL HIGH HAZARD

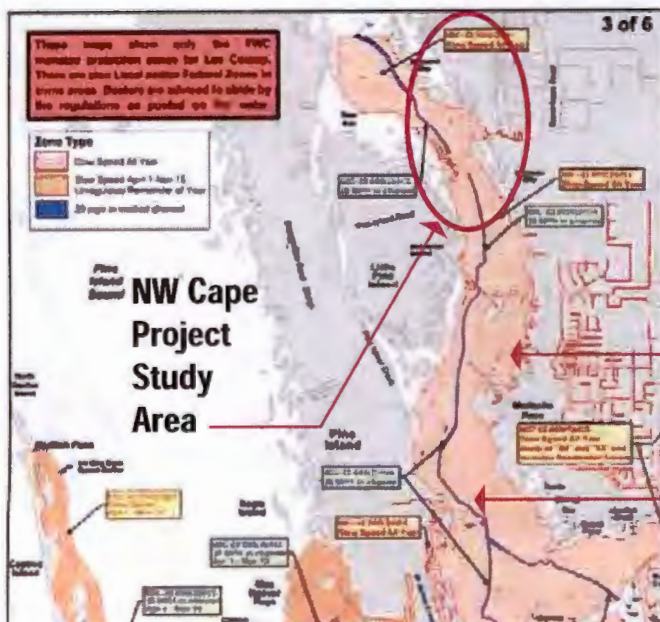




**Distribution, Habitat Use & Movement Of Juvenile Smalltooth Sawfish Map**

Fig. 1-1 2000 - 2009 Sawfish Encounter Data Base. Dots (< 3m) and Triangles (> 3m) represent 1,097 recorded encounters.

Seven Islands Rear Canals -- > 3-ft. Depth, Very Limited Red Mangrove Shoreline Habitat.



**Lee County Manatee Protection Zone Map**

Fig. 2. 09/2005. Spreader Canal -- Good Manatee Refuge. Seven Islands -- Sand Silt Bottom w./No Sea Grass; Poor Habitat.

Slow Speed All Year

25 MPH In Channel

# REGIONAL CONTEXT

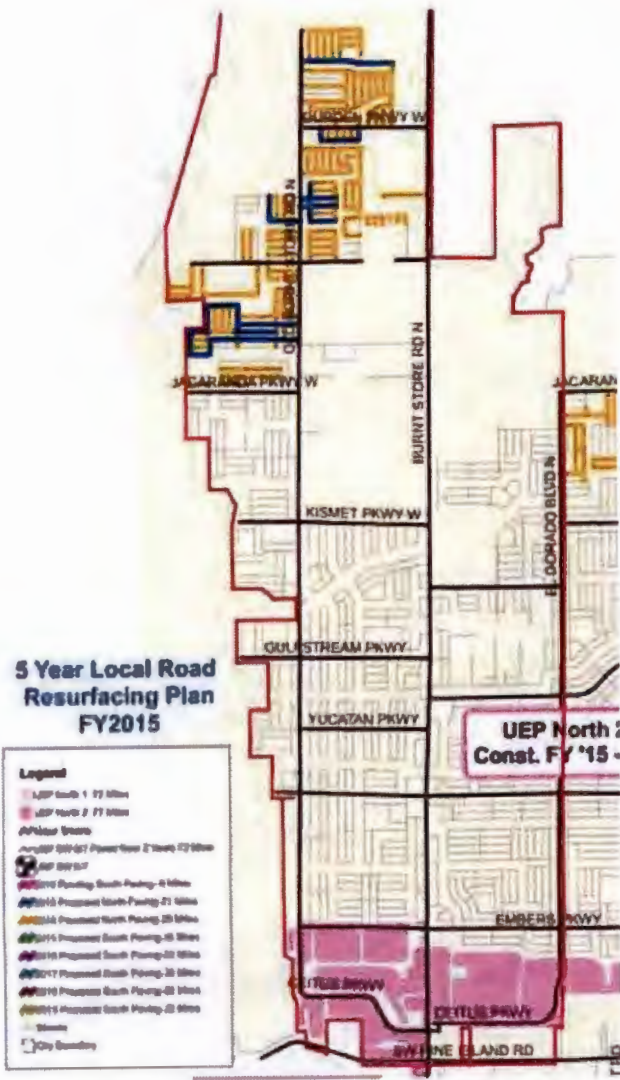
## PROTECTED SPECIES

The most common biological communities in the Charlotte Harbor estuary are Mangroves (red, black and white), Seagrasses (turtle, and Cuban shoal) and Salt Marshes (salt marsh grass, needlerush and cordgrass). These three communities provide exceptional nursery areas for commercial and recreational species, including mullet, spotted sea trout, blue crab, snook, tarpon, snapper, sheepshead and shark.

Eighty-six of the state's endangered and threatened species are found within the Charlotte Harbor region (listed by the Florida Game and Fresh Water Fish Commission, U.S. Fish and Wildlife Service, Convention of International Trade in Endangered Species of Wild Fauna and Flora or Florida Committee). Protected species include wood stork, bald eagle, Florida sandhill crane, Florida scrub jay, and gopher tortoise (refer to <http://www.dep.state.fl.us/COASTAL/sites/charlotte/info.htm> for a comprehensive list). Of particular note is the Florida manatee, which dictates boat slow speed zones in the waters adjacent to the project study area, and the Smalltooth Sawfish. The Smalltooth Sawfish was listed as a Florida protected species in 1999 and a Federal endangered species protection in 2003. Analysis shows that sawfish have an affinity for water less than 3-ft. deep, greater than 30 degree C, moderate to high dissolved oxygen levels and salinities between 18 and 30 psu. Larger sawfish (>1 yr. old) are associated with shoreline habitats with overhanging red mangroves.

Poulakis, Gregg R., Philip Stevens, et. al. **Distribution, Habitat Use and Movements Of Juvenile Smalltooth Sawfish, In The Charlotte Harbor Estuarine System.** Florida Fish and Wildlife Conservation Commission. Final Report, 02/2010.

Lee County Manatee Protection Zones. **Map Two Manatee Protection Zones. Florida.** Fish and Wildlife Conservation Commission. 09/2005.



# REGIONAL CONTEXT TRANSPORTATION + CIRCULATION

Old Burnt Store Road and Burnt Store Road are the Seven Island District's two main north/south arterial and collector roads. Ceitus, Embers and Tropicana Parkways are the district's primary east/west collector roads. The 2012 average daily traffic count for Embers Parkway west of Burnt Store Road is 2,300; for Ceitus Parkway west of Burnt Store Rd. is 1,400. The 2012 traffic count for Burnt Store Road north of the Pine Island Road intersection is 13,100 AADT. According to Lee County DOT, the generalized peak hour two-way service volume for Old Burnt Store Road (based on two lane divided) is 600 LOS C, 1,300 LOS D and 1,410 LOS E. As per the National Association of City Transportation Officials, the average weekday vehicle trip generation rate for condominiums is 5.6 per unit, single-family at 10 per unit, resort hotel at 9.6 per occupied room, quality restaurant at 56.3 per 1000 GLA, general office at 11.7 per 1000 GLA, and stand-alone retail at 26.5 per 1000 GLA.

## **PARKWAY EXISTING CONDITIONS**

Old Burnt Store Road and other parkways currently consist of two 15' travel lanes with 5' bike lanes separated by a 20' median. During the charrette, many residents expressed that these streets were unsafe for pedestrians due to speeding motorists. Along with the other major collector roads, Old Burnt Store has a 100' right-of-way, providing ample opportunity for increased walkability and improvement.

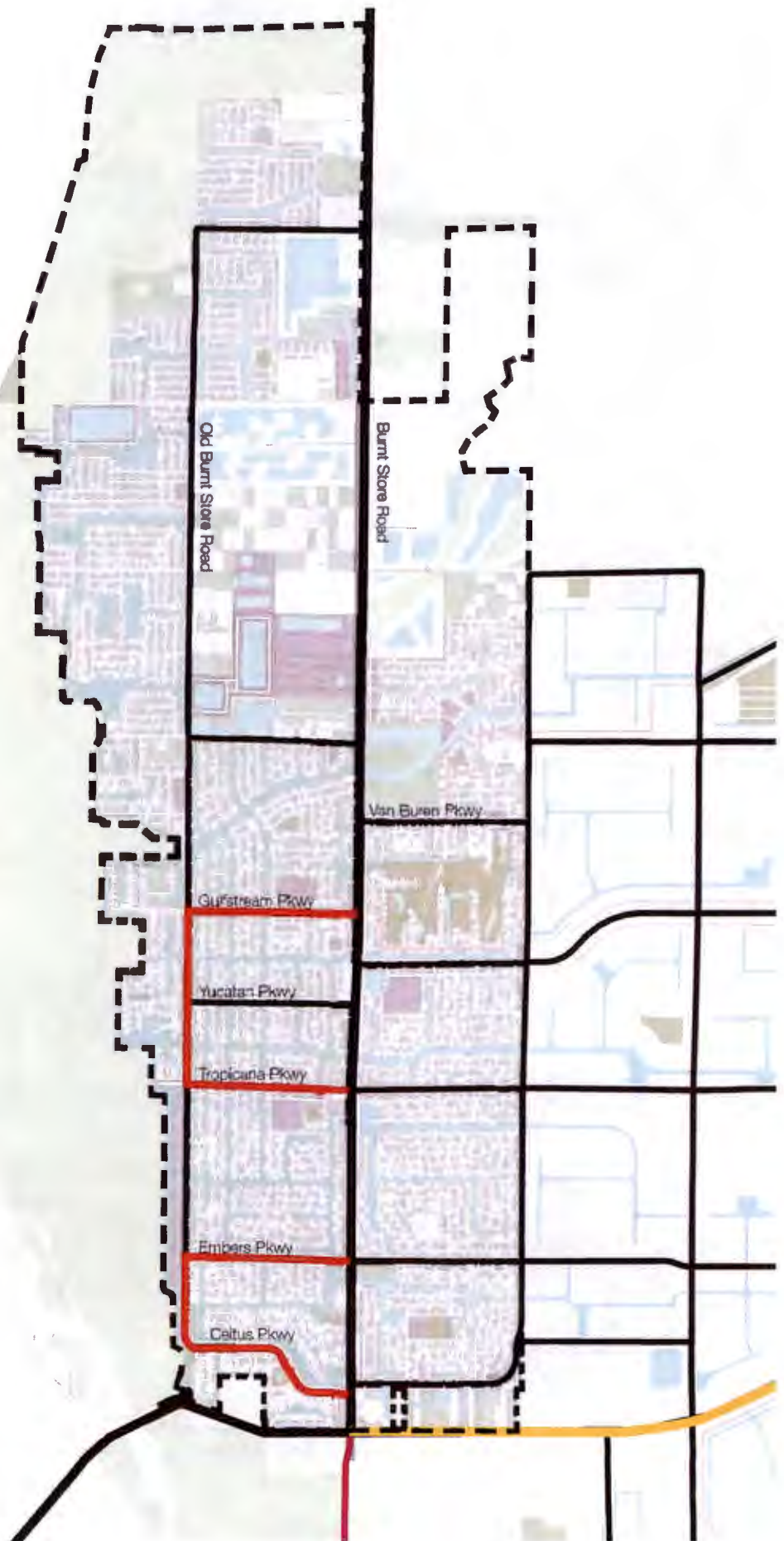
## **LOCAL ROAD EXISTING CONDITIONS**

The local roads (pictured below) currently have a 60' right-of-way with no sidewalks or bike lanes. While walking along these roads is relatively safe, there is little tree canopy and no designated pedestrian space.



LEGEND

-  sidewalks both sides
-  on street bike lanes
-  bike lanes and sidewalks
-  sidewalks and wide shoulders
-  sidewalks one side only
-  paved shoulder both sides
-  multi-use bike path



# REGIONAL CONTEXT BIKE, ROAD, + PEDESTRIAN SYSTEMS

Old Burnt Store Road (from Ceitus to Gulfstream) has a bike route designation with Yucatan, Tropicana and Embers Parkway designated for bike lanes. Ceitus to Embers Parkway, the corresponding Old Burnt Store Road segment, and Tropicana to Gulfstream Parkway have on-street bike lanes. The Old Burnt Store Road segment between Embers and Tropicana and adjacent to the Seven Islands, is not designated for city provided bike paths and sidewalks. Bike paths and walks are identified as being provided by others in FY 2019. Generally speaking, the project study area's roadway system from Gulfstream Parkway and northward do not have bike paths and sidewalks. City-wide, actual 2013 sidewalk expenditures were \$611,635. Proposed budgets for 2015, 2016 and 2017 are \$2.434MM, \$1.643MM and \$737K respectively.

Derived from the city Transportation Funds, 2013 Road Resurfacing expenditures were \$1.296MM. Proposed road resurfacing budgets for 2015, 2016 and 2017 are \$5.747MM, \$6.5MM and \$6.5MM respectively. As per the Department of Public Works, 49 miles of road paving is designated for the project study area within 2015/17, including the northern segments of Old Burnt Store Road, Durden Parkway and most of the local streets north of Jacaranda Parkway.

Old Burnt Store Road and Burnt Store Road are the study area's north/south arterial and collector roads. The Ceitus to Embers Parkway and Tropicana to Gulfstream Parkway segments (west of Old Burnt Store Rd.) consist of two lanes with an on-street bike lane; the Gulfstream to NW 22nd Terrace segment consists of four lanes. West of Burnt Store Road one finds Durden, Kismet, Gulfstream, Yucatan, Tropicana, Embers and Ceitus Parkways; they are classified as collector roads. East of Burnt Store Road, Diplomat, Tropicana and Embers Parkways are classified as minor collector roads.

Burnt Store Road is the project study area's essential north/south arterial highway. It is the central link in the Charlotte Co., Lee Co. and Cape Coral regional transportation corridor. Currently the road is being improved as a four lane arterial highway, with on-road bike lanes, a 10-ft. Multi-use path on the east side and a 6-ft. side walk on the west side. Ultimately the future design is six lanes with a 2-lane frontage road. Current CIP five year funding is \$29.28MM, with the total project set at \$40.70MM for the Pine Island Rd. to Kismet Parkway road segment.

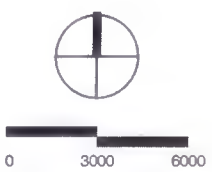
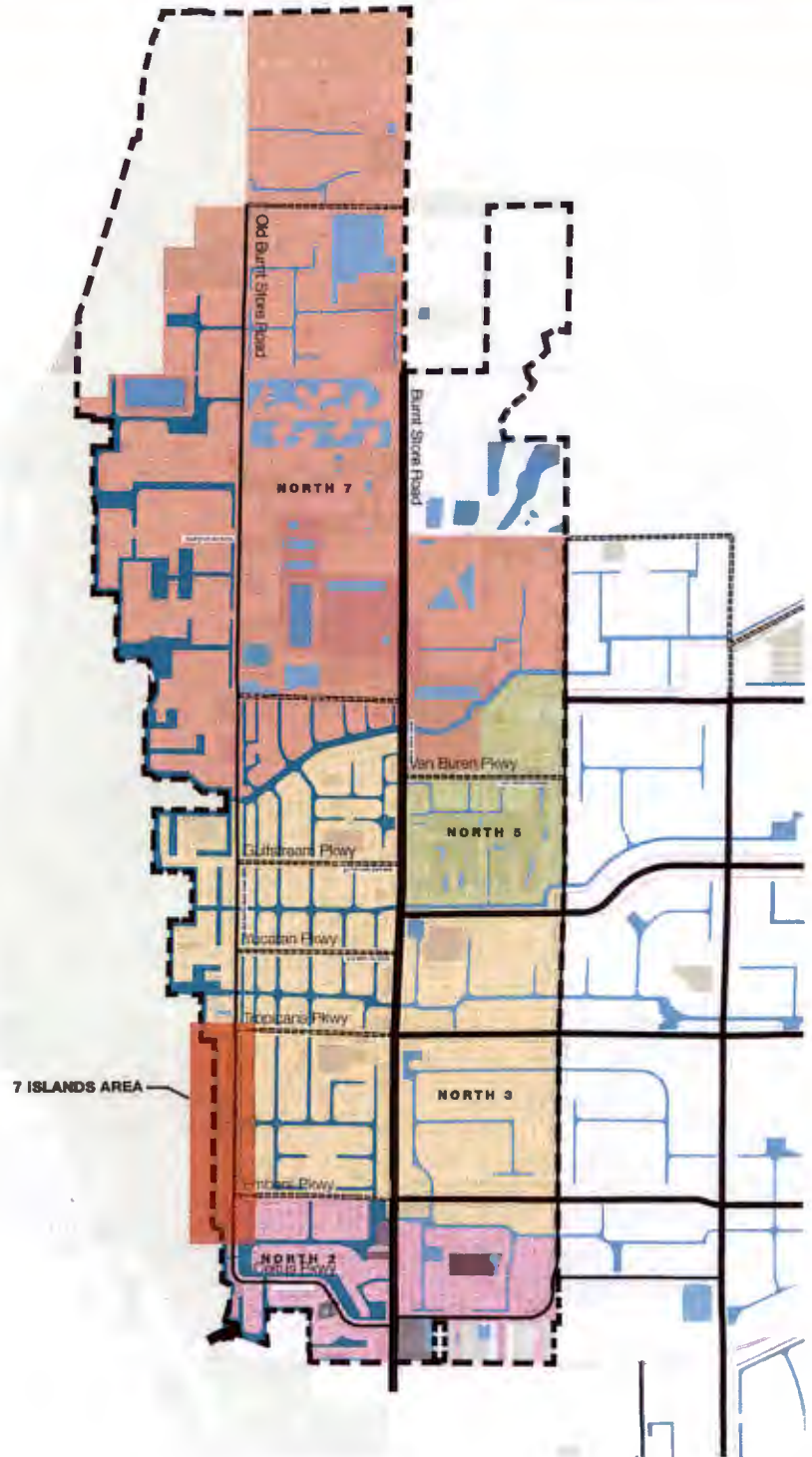
The first phase is from Diplomat Parkway to Van Buren Parkway. The Tropicana Parkway to Diplomat Parkway segment is funded in 2016/17; the Pine Island Rd. to Tropicana Parkway segment is funded in 2018/19. The Kismet Parkway to Lee County line segment is not funded; ROW has not been acquired and construction plans have not been designed. A key Kismet to County Line road design issue will be the facilitation of southeast to west stormwater and the reduction of direct outfall into Gator Slough.





**LEGEND**

-  N-2 // 2015-2017
-  N-3 // 2019-2021
-  N-5 // 2023-2025
-  N-7 // 2027-2029
-  existing service area







# REGIONAL CONTEXT UTILITY EXPANSION

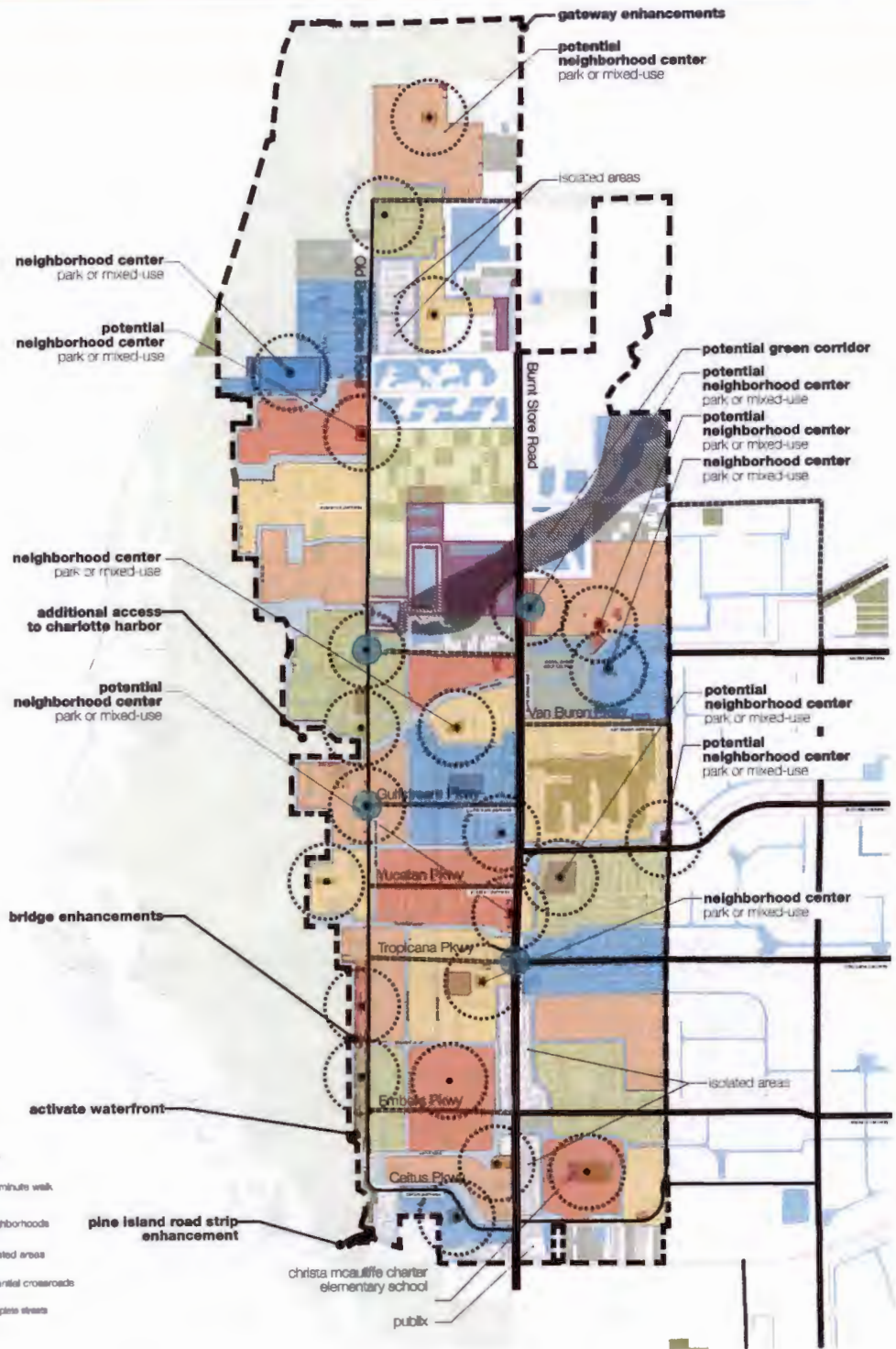
The project study area between Tropicana Parkway and Pine Island Road, and west of Burnt Store Road, contains 2,960 parcels. As of 2015 1,198 of these parcels were improved (40.5%); 1,762 parcels were not improved (59.5%).

The project study area north of Pine Island Road, south of Embers Parkway, and east to El Dorado Boulevard, are included in the North Two Construction Plan for fiscal years 2015/16. The Utilities Extension Project will provide potable water, sanitary sewer, irrigation water, new roads and drainage improvements. Potable water will be provided by the 12 MGD North Cape RO Water Treatment Plant with its associated 24 raw water wells. The sanitary sewer service design is gravity to centrally located lift stations, to pump under pressure force mains to the city's wastewater reclamation plants. Irrigation is supplied by both treated wastewater and freshwater canal pumping. The backbone of the project area's drainage system is the five canal weirs that provide water storage and flood control.

# REGIONAL CONTEXT NW CAPE INITIAL OPPORTUNITIES + CONSTRAINTS

## LEGEND

-  five minute walk
-  neighborhoods
-  isolated areas
-  potential crossroads



## LEGEND

-  five minutes walk
-  neighborhoods
-  isolated areas
-  potential crossroads
-  complete streets

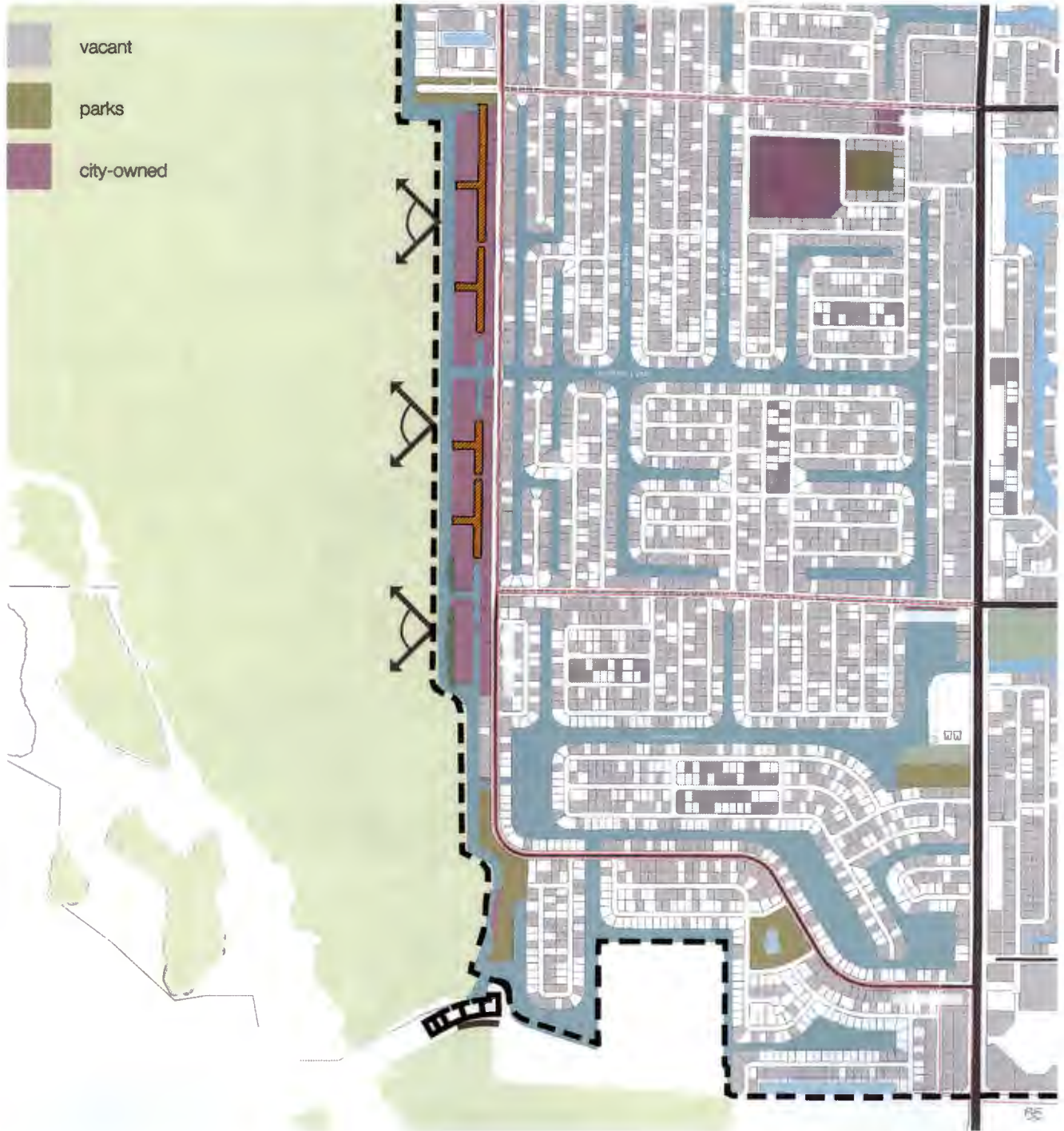


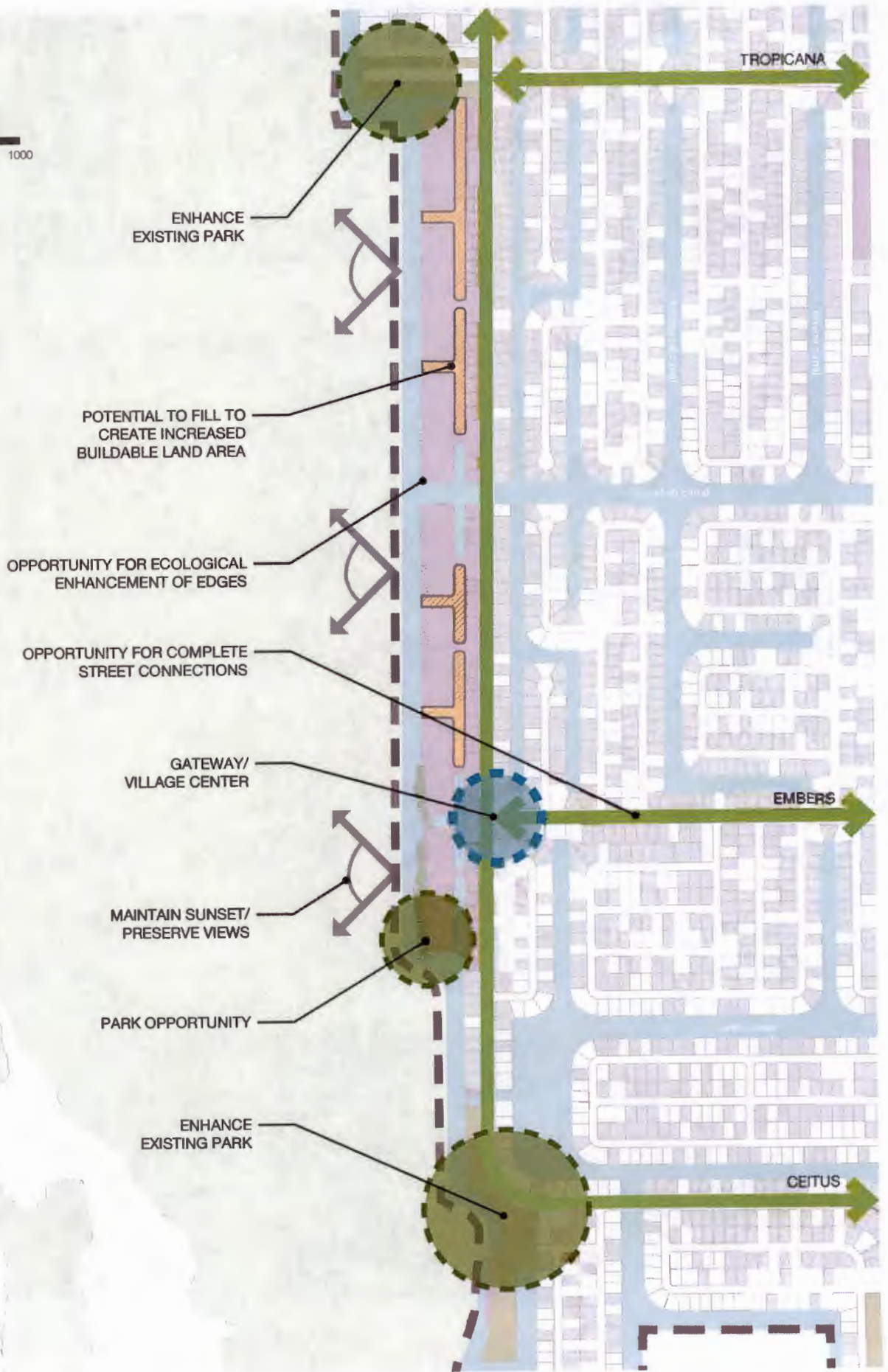
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# REGIONAL CONTEXT 7 ISLANDS INITIAL OPPORTUNITIES + CONSTRAINTS

## LEGEND

- vacant
- parks
- city-owned





ENHANCE EXISTING PARK

POTENTIAL TO FILL TO CREATE INCREASED BUILDABLE LAND AREA

OPPORTUNITY FOR ECOLOGICAL ENHANCEMENT OF EDGES

OPPORTUNITY FOR COMPLETE STREET CONNECTIONS

GATEWAY/VILLAGE CENTER

MAINTAIN SUNSET/PRESERVE VIEWS

PARK OPPORTUNITY

ENHANCE EXISTING PARK

TROPICANA

EMBERS

CEITUS

# STUDY AREA: WHAT HAVE WE LEARNED SO FAR?

The Dream and Discovery phases have provided great insight into the wants and wishes from elected officials, residents, and stakeholders. Selective analysis of existing physical conditions from a regional and project perspective have yielded a wealth of information and data that will serve as the basis of design of the NW Cape Vision Plan and the 7 Islands Concept Plans:

## OPPORTUNITIES

- + Mixed-use and housing diversity
- + Street and canal grid
- + Connections to conservation and open space
- + Creation of activity nodes
- + Vacant lands
- + City-owned lands
- + Recreational uses & access
- + Conservation/environmental restoration potential
- + Waterfront activation/spreader canal
- + Bridge enhancements

## CHALLENGES

- + Flood zone (coastal high hazard and 100-year flood)
- + Lack of infrastructure (central water and sewer to 7 Islands and portions of the NW Cape)
- + Poor soils
- + Lack of sidewalks
- + Lack of diverse uses
- + Lack of activity nodes
- + Lack of neighborhood center
- + Water quality/environmental impacts
- + Conservation/environmental restoration
- + Lack of urban forest
- + Stormwater treatment
- + Future land use and zoning flexibility
- + Protected species
- + Create NW Cape + 7 Islands vision/concept plans that respect and honor the environmental/ecological heritage while providing a sustainable blueprint for growth and sound economic development

**VOLUME**

**1**

**1**

# DESIGN



# APPROACH

Combining the analysis and discoveries from Volume I and the design charrette, the design team arrived at a vision plan for the NW Cape and concept plans for the 7 Islands.

## **CHARRETTE**

### **THE THREE C's**

- Context
- Connectivity
- Compatibility

### **7 ISLANDS: CHARRETTE CONCEPTS**

- Matlacha Pass
- NW Cape Vision Plan
- 7 Islands Blended Concepts A+B

### **NORTHWEST CAPE VISION PLAN**

### **7 ISLANDS CONCEPTS**



# CHARRETTE

## **DESIGN CHARRETTE**

The City of Cape Coral hosted a 3-day design charrette, from November 4 – 6, 2015 to facilitate the Vision Plan for future development in the Northwest Cape and the 7 Islands. The charrette was held in the City's Council Chambers. The charrette was a focused session in which the consultant team of CPH, Dix.Hite + Partners and Stuart and Associates, land planners and landscape architects, led the City's stakeholders through an on-site design process, and provided opportunities for input during the design period. A charrette is intended to encourage input and inspiration from all parties, and establishes the design framework in which the master plan direction is derived. With the combination of the consultants' expertise, elected officials' comments, staff input, and the local stakeholders' knowledge, a plan forms that meets the overall goals of the City of Cape Coral.

### **DAY ONE**

The first day of the charrette consisted of site visits, analysis and contextual inspiration. The day ended with a stakeholder session. This session included an introduction to the charrette process/goals, neighborhood character, and neighborhood identification input gathering exercises to help define desired characteristics for the vision plan.

### **DAY TWO**

The second day was a focused design session for both the NW Cape and the 7 Islands. At the end of the first day, stakeholders reviewed where the design team was heading with the design, and provided the opportunity for additional input prior to heading into the final day of design.

### **DAY THREE**

During the third day, the design team refined the design plans based on stakeholders input, and presented the findings at the end of the day. The charrette was well attended, and participants included city staff, elected officials and community stakeholders. At the end of the charrette, the design team shared the next steps in the visioning process. The design team took the sketches and master plan direction established during the charrette for both the NW Cape and 7 Islands and refined them graphically for presentation to the City Council and the community at large. The design team reviewed the feasibility of each plan with respect to impacts to the area and documented all in a final report.

The following pages illustrate the charrette process and results from Day 1 to Day 3.



# SCHEDULE

	<b>TUESDAY</b> 11.03.15	<b>WEDNESDAY</b> 11.04.15	<b>THURSDAY</b> 11.05.15	<b>FRIDAY</b> 11.06.15
7:00		<b>SITE VISIT</b> spreader canal	<b>TEAM DESIGN SESSION</b> concepts	<b>TEAM DESIGN SESSION</b> concept refinement
8:00				
9:00				
10:00				
11:00				
12:00		<b>SITE VISIT</b> dryland		
1:00				
2:00				
3:00				
4:00		<b>COMPILE CONTEXT + OBSERVATIONS</b>		<b>STAFF ARRIVES</b>
5:00				<b>STAKEHOLDER INPUT SESSION</b>
6:00	design team arrives	<b>STAFF ARRIVES</b>	<b>STAFF ARRIVES</b>	
7:00	<b>STAFF DINNER</b>	<b>STAKEHOLDER INPUT SESSION</b>	<b>STAKEHOLDER INPUT SESSION</b>	design team departs
8:00				

- design team
- staff
- stakeholders

NOTE: The charrette process is intended to be a forum to facilitate the exchange of ideas and inspiration in a focused time frame. The design team sessions were not open to public participation. The stakeholder sessions were open to the public.



# PUBLIC CHARRETTE: DAY ONE

NOVEMBER 4, 2015

## **SITE VISIT • DAYTIME**

The project team conducted an on-land and on-water tour of the Northwest Cape, 7 Islands, and Northwest Spreader Canal in order to identify the opportunities and constraints of the overall site.

## **STAKEHOLDER SESSION • EVENING**

### **INPUT GATHERING EXERCISES**

- **RED DOT/GREEN DOT EXERCISE**  
Community stakeholders were asked to vote in a visual preference survey. The visual survey consisted of contextually appropriate images associated with the elements that create a great city, district, and neighborhood.
- **NEIGHBORHOOD MAPPING**  
Community stakeholders were asked to locate their neighborhoods within the Northwest Sector.
- **WORD ASSOCIATION EXERCISE**  
Community stakeholders were asked to describe Cape Coral's current state and what they envision for its future.
- **COMMUNITY ASPIRATIONS**  
Community stakeholders were asked to review the programming desires from previous meetings and add their input.





# DAY ONE: SITE VISIT

## NW CAPE SITE VISIT

### BOAT TOUR

The boat tour began in Matlacha Pass and took the design team through the Northwest Spreader Canal, venturing into Bonefish Canal and the 7 Islands. Viewing the project area from the water allowed the design team to gain a better understanding of the aesthetic, ecological, form, recreational characteristics, and potential for the Northwest Cape (NWC) and the 7 Islands area.

### LAND TOUR

The team traveled by car across the parkways and local roads of the NWC. Some of the sites visited included Old Burnt Store Road, Charlotte Harbor Preserve State Park, Durden Creek, and the 7 Islands. The design team gained valuable insight into the opportunities and constraints of the project/study area.



# SITE VISIT WILDLIFE + HABITAT



charlotta harbor flatwoods



pine barrens



durdan creek



osprey habitat



osprey nest



mangroves



manatee habitat



atlantic bottlenose dolphin



children creek



osprey



canal mangroves



charlotte harbor preserve



australian pines affected by herbicide



yuca

# SITE VISIT RECREATION



# SITE VISIT WATERFRONT ACTIVITY



# SITE VISIT INFRASTRUCTURE



Dickstein canal bridge



Linton Slough Slough



matlacha bridge



spreaders canal closures



creek weir



Bonellah canal bridge



spreaders canal dredging



Linton Slough Weir

# SITE VISIT STREETS





interior coves



view of islands from charlotte harbor



existing vegetation



view of main island



interior cove



spreader canal access



tropicana park



australian pines



# SITE VISIT 7 ISLANDS



view of islands from spreader canal



middle islands



view of islands from spreader canal



view of islands from spreader canal



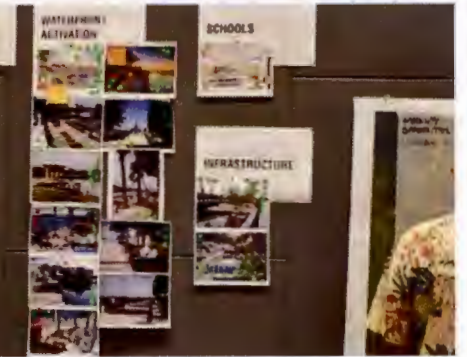
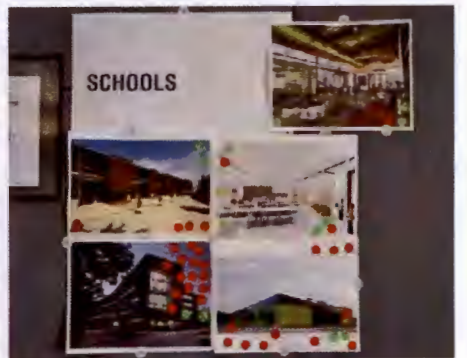
erosion along banks



Bonfish canal bridge from spreader canal



view of spreader canal from south island



# DAY ONE: INPUT GATHERING EXERCISES

## RED DOT/GREEN DOT EXERCISE

### **OVERALL CONCEPT**

The Red Dot/Green Dot Exercise was designed to measure stakeholder preference of various images. Attendees were given sheets of red and green stickers and asked to place green stickers on the images they liked and red stickers on the images they disliked. This allowed the design team to gain a better understanding of the community's desires for the Northwest Cape. Image categories consisted of the following:

- Canopy
- Civic Places
- Commercial
- Corridors + Connections
- Greenways + Blueways
- Housing Variety + Diversity
- Infrastructure
- Natural Lands
- Neighborhood Centers
- Parks
- Schools
- Streets
- Transportation + Mobility
- Urban Form
- Walkability
- Waterfront Activation

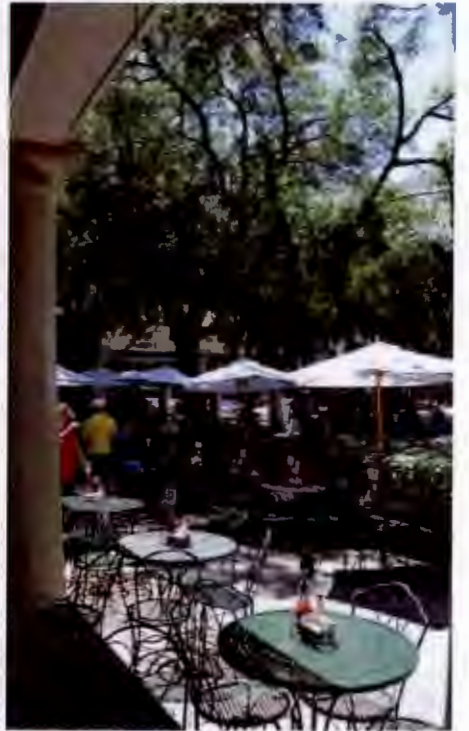
### **COMMUNITY REACTION**

The community stakeholders had an overwhelmingly positive reaction to the exercise. The ability to physically identify which images they liked and disliked gave the attendees a sense of ownership and participation in the design process.

Inventory of the images revealed a strong community desire for increased tree canopy, traditional Floridian coastal architecture, greenway connections, and walkable streets. Small businesses and restaurants, high-end multi-family residential, and waterfront activation also had positive reactions. Attendees typically rejected buildings over three stories, "kitschy" styles, highly modern architecture, and high-intensity commercial and industrial development.

### **LESSONS LEARNED**

Allowing the stakeholders to play an active role in the design process was vital to the charrette. After this exercise, attendees were much more receptive to the design team's ideas and eager to give their input. Although the stickers were originally intended only for the Red Dot/Green Dot exercise, people began to use them pro-actively to give their feedback throughout the entire charrette. Taking inventory of the desired programming and aesthetics for the Northwest Cape was useful in moving forward with the design.



# PREFERRED IMAGES CANOPY





# PREFERRED IMAGES CIVIC PLACES







# PREFERRED IMAGES COMMERCIAL





# PREFERRED IMAGES CORRIDORS + CONNECTIONS





# PREFERRED IMAGES GREENWAYS + BLUEWAYS





# PREFERRED IMAGES HOUSING VARIETY + DIVERSITY



**PREFERRED IMAGES  
INFRASTRUCTURE**







# PREFERRED IMAGES NATURAL LANDS



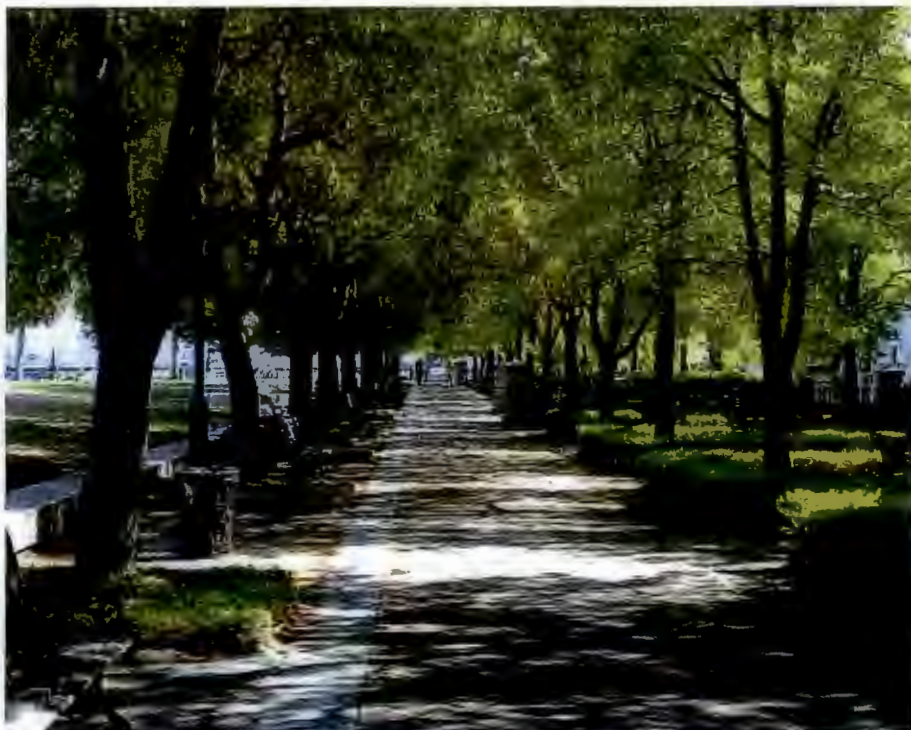


# PREFERRED IMAGES NEIGHBORHOOD CENTERS





## PREFERRED IMAGES PARKS + RECREATION



# PREFERRED IMAGES SCHOOLS





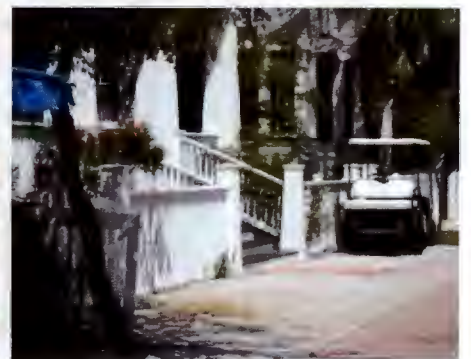


# PREFERRED IMAGES STREETS





# PREFERRED IMAGES TRANSPORTATION + MOBILITY





# PREFERRED IMAGES URBAN FORM





# PREFERRED IMAGES WALKABILITY







# PREFERRED IMAGES WATERFRONT ACTIVITY





# DAY ONE: NEIGHBORHOOD MAPPING

## OVERALL CONCEPT

Attendees were asked to place a pin on a map of the Northwest Cape to indicate where they live. After doing so, attendees drew what they consider to be their "neighborhood."

## LESSONS LEARNED

Through this exercise, the design team was able to discern the average size, location, and nature of various neighborhoods throughout the Northwest Cape. Neighborhoods were typically bounded by the canal system and main arterial roads. This information was later used to locate potential neighborhood centers, activity nodes, and greenway connections.





WHAT IS CAPE CORAL (NW SECTOR) TO YOU?

---

Now

- BARREN
- SCARC
- NATURE (PRESERVE)

FUTURE

- UNIFORM (PLACE) • WALKWAYS
- HIPS (LAND) • INCENTIVES (HEALTH CARE)
- SCALED (PAPER) • NATURE (RECREATION)



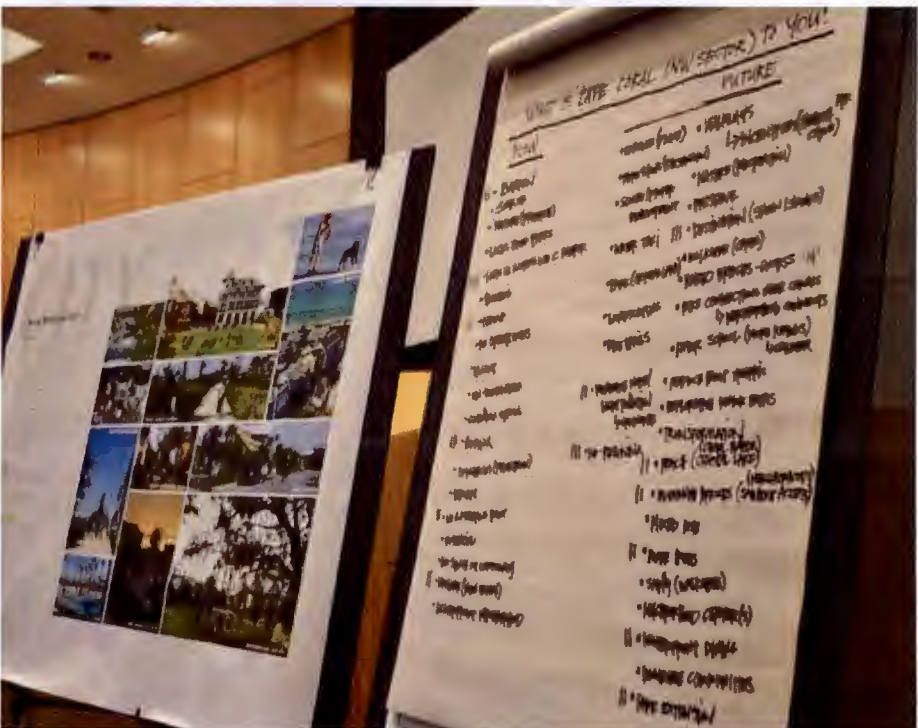
... (IN) • INCENTIVES (HEALTH CARE)

• "NATURE (RECREATION)

• PRESERVE

III • DESTINATION (SEVEN ISLANDS)

• WALKWAYS (CAPES)



# DAY ONE: WORD ASSOCIATION EXERCISE

## OVERALL CONCEPT

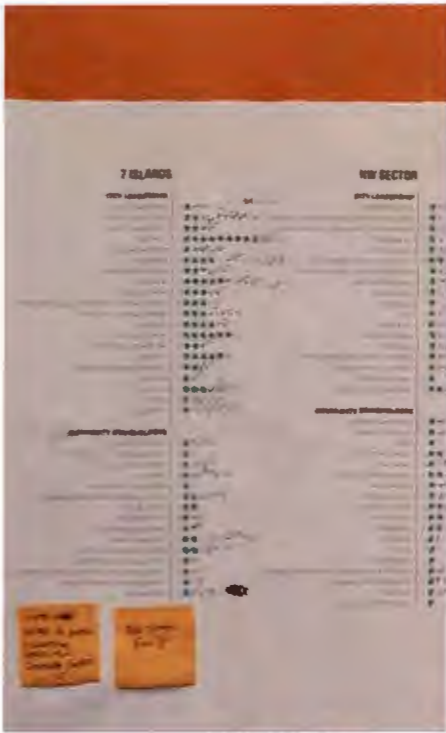
Community stakeholders were asked to think of words and concepts that describe both the current state of the Northwest Sector and what they envision for the future.

## COMMUNITY REACTION

Residents reported that Cape Coral is tranquil and has many wonderful natural qualities, but expressed that the current development pattern is unsustainable. They also claimed that the city is not walkable, and there is little sense of community.

Attendees commonly envisioned a more community-based NWC and 7 Islands area, conveying a desire for better walkability and neighborhood centers with small mixed-use development destinations. Residents also imagined the natural preserve areas playing a greater role in the NWC, such as a greenway systems and opportunities for nature-based recreation.

KEY WORDS	NOW	FUTURE
	Barren	Unique
	Scarce	Destination
	Nature (Preserve)	Walkway Health Care Incentives
	Lacks Small Parks	Scaled/Proper Development
Lacks Northern Access into Charlotte Harbor	Tranquil	Nature (Recreation)
	Serene	Preserve
	No Street Lights	Water Taxi
	Vacant	Destination (7 Islands)
	Un-Sustainable	Park (Crystal Lake)
	Suburban Sprawl	Walkable (Capes)
	Boring	Raised Bridges - 14' Access
Dangerous (Pedestrian)	Desert	Landscaping
	No Gathering Point	Bike Connections over Canals (Neighborhood Connections)
	Potential	Bike Trails
No Sense of Community	Nature (Man-Made)	Kayak School/More Kayaks - Calmer
Waterfront Neighborhood		Minimize Noise/Light Pollution
		Noise/Light Ordinance
		Reduce Boat Traffic
		Explorative Kayak Paths
		Transformation (Charlotte Harbor)
		No Re-Zoning
		Beach (Charlotte Harbor + Crystal Lake)
		Eliminate Bridges for Sailboat Access
		Mixed Use
		More Trees
		Safety (Walkable)
		Neighborhood Centers
		Waterfront Dining
		Boatable Communities
		Park Extension



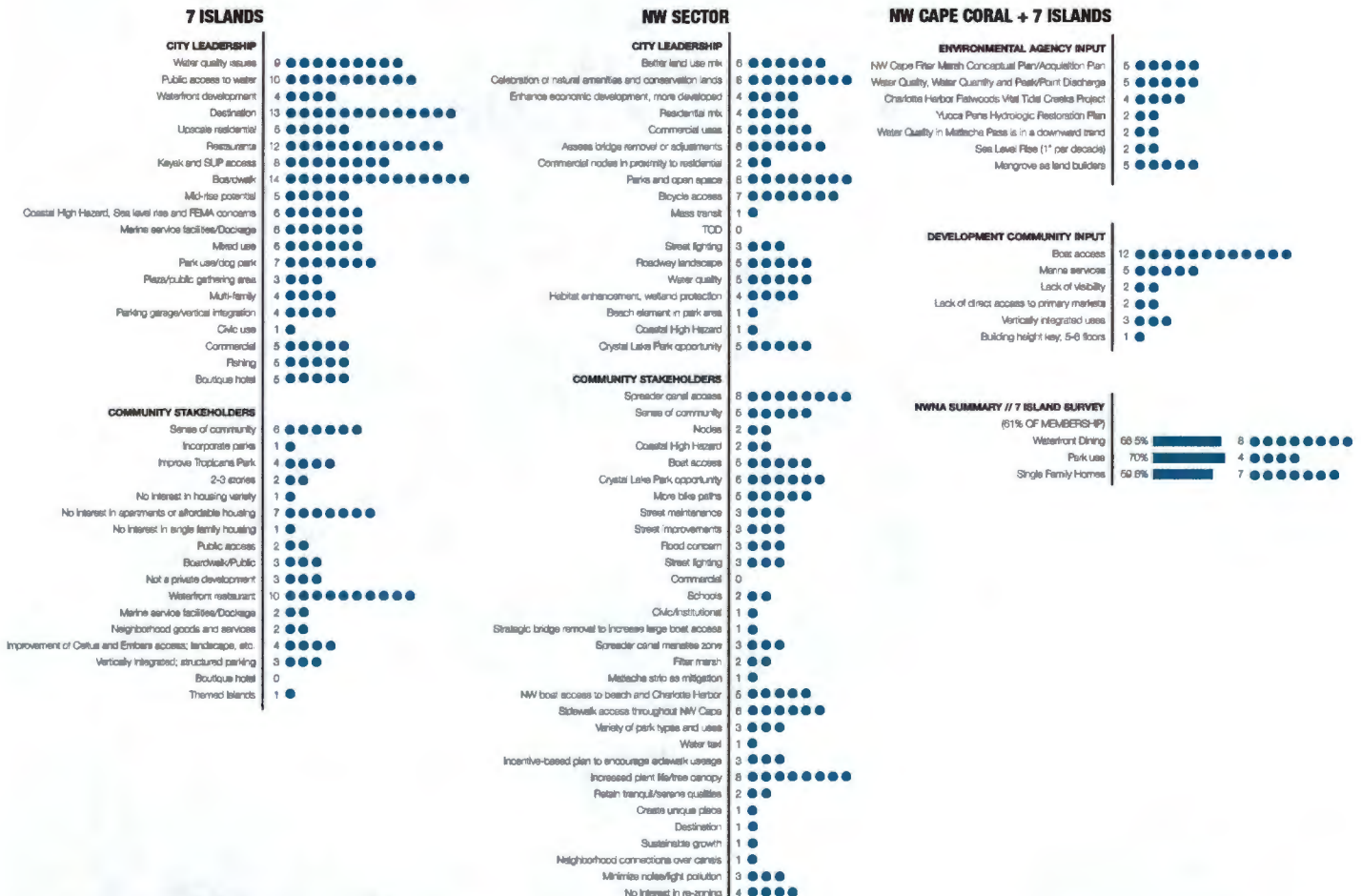
# DAY ONE: COMMUNITY ASPIRATIONS

## OVERALL CONCEPT

In previous meetings with stakeholders and the City of Cape Coral, the design team kept record of various topics of discussion. Every time each subject was explored as a possibility for design, a dot was placed on a matrix to create a Community Aspirations board. This board was brought to the charrette, and charrette attendees were asked to place a check mark next to topics with which they agreed.

## COMMUNITY REACTION

Community members placed strong emphasis on protection of natural resources and water quality, while also expressing a desire for more boating access and recreational opportunities. Attendees largely agreed that they would like to see the 7 Islands become a village center for the Northwest Cape, indicating waterfront restaurants, mixed-use development, and boardwalks as possible design opportunities.







# PUBLIC CHARRETTE: DAY TWO

NOVEMBER 5, 2015

## DESIGN DAY

### OVERALL SECTOR PLAN

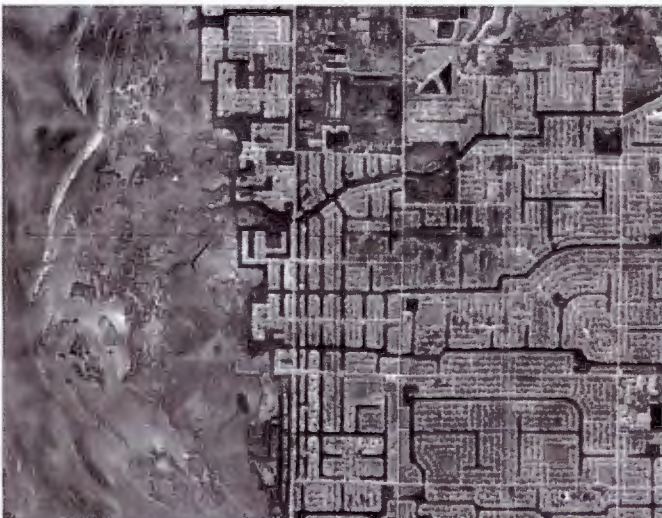
The community stakeholder response to the master plan was overwhelmingly positive. The charrette participants endorsed the idea of improved walkability, green connections between conservation areas, and other place-making ideas.

### 7 ISLANDS

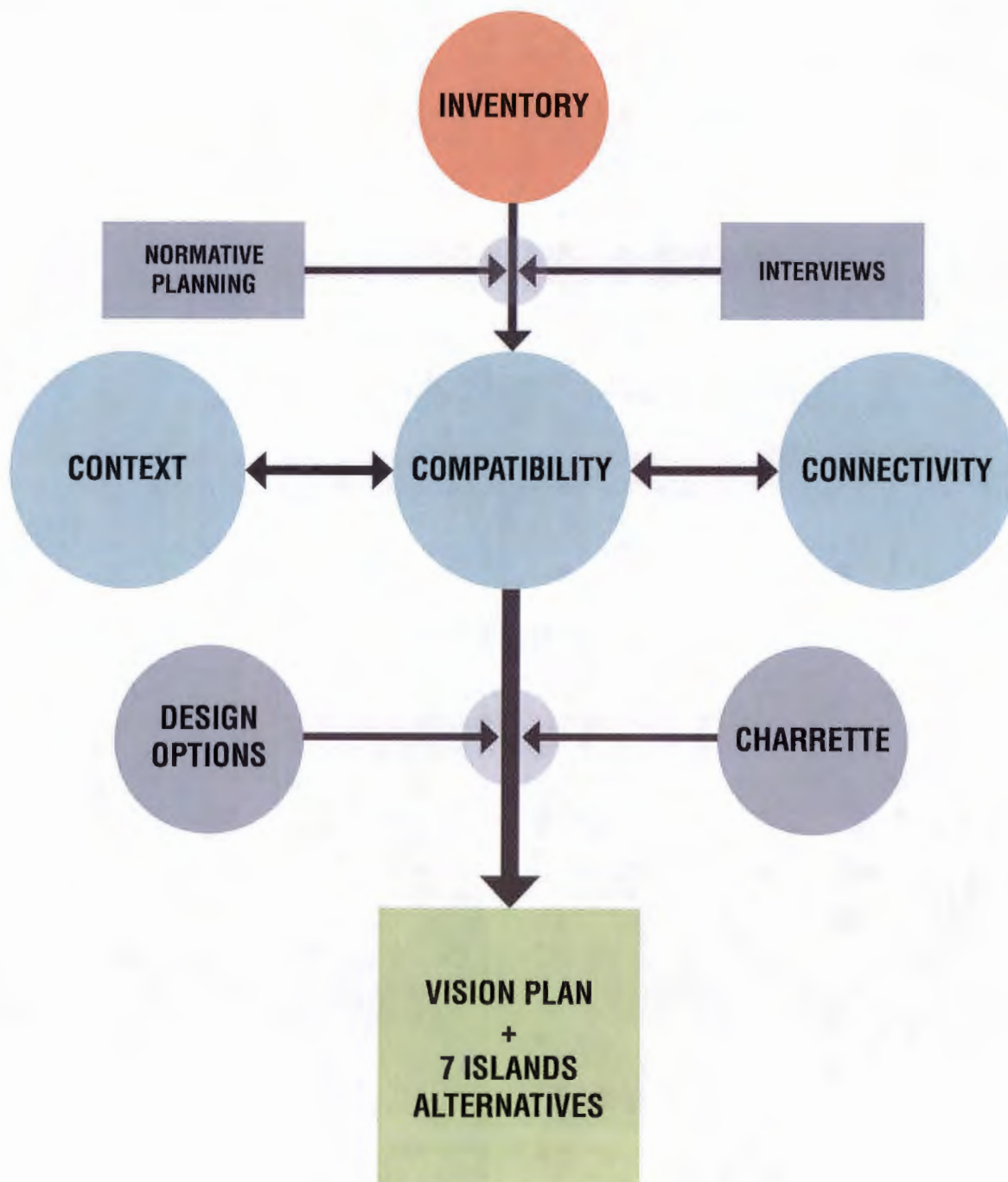
Overall, attendees preferred Option B to Option A. The community stakeholders were generally against backfilling the coves and preferred a more naturalized design. Many were also hesitant towards allowing buildings over two stories and concerned about possible noise from restaurants. The idea of combining the positive elements of each concept into a single design was met favorably with the community.

### MATLACHA PASS MANATEE PARK

The Manatee Park had a generally positive community reaction. The community members enjoyed the concept of creating a peaceful park space that would improve water quality while providing wildlife opportunities.



# THE DESIGN PROCESS



# THE THREE Cs: CONTEXT

## CREATING PLACE

### 7 ISLANDS AS THE VILLAGE CENTER

Heart, Destination, Beautiful Mixed Use

- + Specialty retail, neighborhood services
- + Boutique Hotel
- + Residential Mix
- + Office
- + Parks
- + Waterfront Activation

### NW CAPE MIXED ACTIVITY NODES

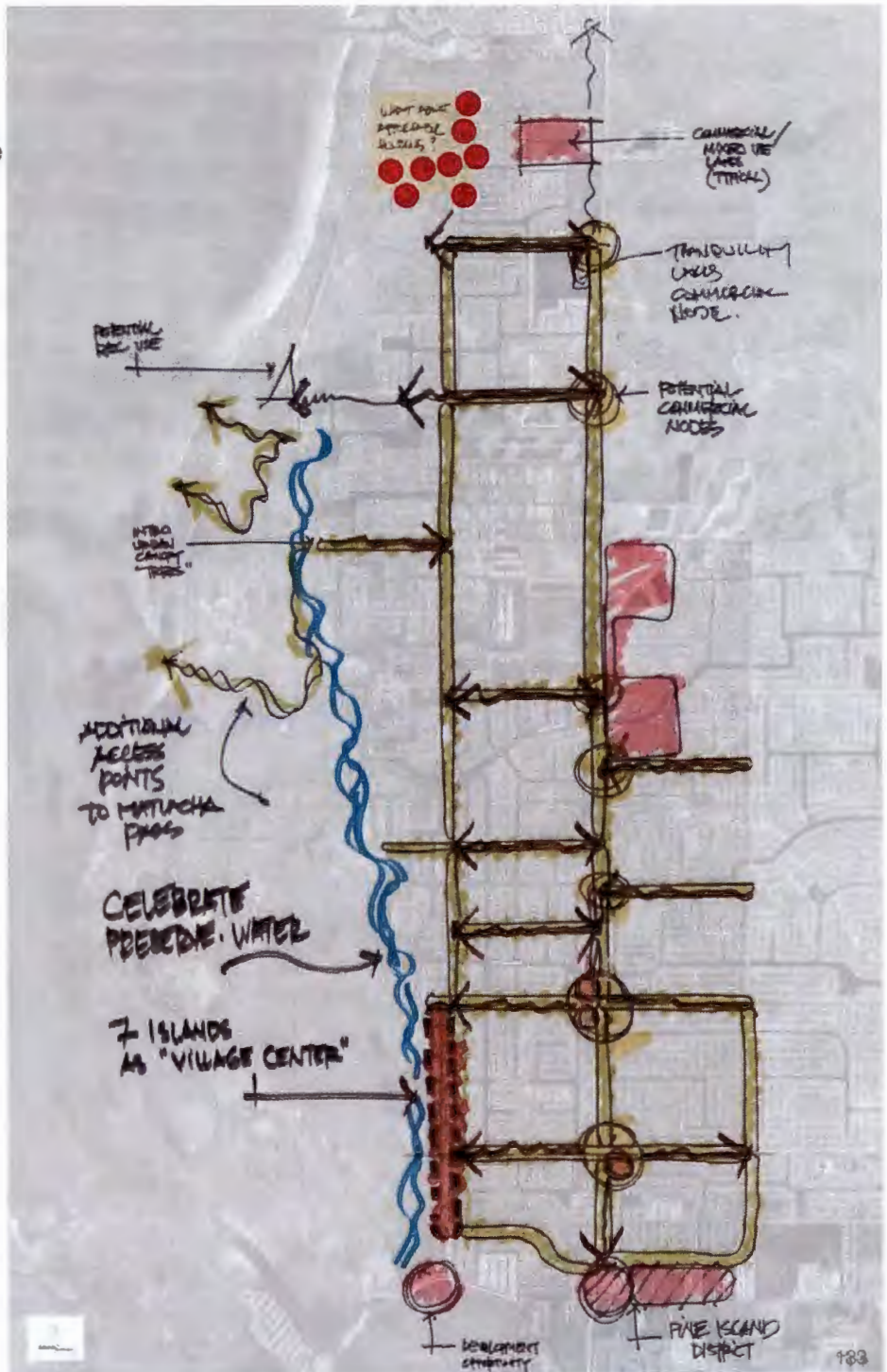
- + Neighborhood services
- + Residential mix
- + Office

### LANDSCAPE CHARACTER

- + Maintained Coastal
- + Natural Coastal
- + Canopy

### 491 PORTFOLIO

Used to create development opportunities to create place



CONNECTIVITY:  
NEIGHBORHOOD  
CLUSTERS &  
TRAIL/GREENWAY  
CONNECTIONS.

PIC  
USE  
(Campus  
Park)

PRODUCTION  
LAND CONNECTION  
NODE

NEIGHBORHOOD  
BOUNDARY

PARK/TYPICAL

ROADWAY TRAIL/  
GREENWAY

MIXED  
USE NODE

# THE THREE Cs: CONNECTIVITY

## **OPPORTUNITIES**

### **EXISTING GRID**

Maintain and enhance (Arterial/Collector/Bridges/Local)

- + Connectivity, not exclusivity

### **WALKABILITY**

- + Provide sidewalks
- + Integrate trails/take advantage of east/west corridor widths (100' R.O.W.) and waterfront

### **PARKS**

- + Neighborhood connections to parks
- + Trails and linear parks create green connections
- + Parks along Spreader Canal/7 Islands Area

### **ENVIRONMENTAL CONNECTIVITY**

- + Enhance flow-ways
- + Provide human connectivity to environmental lands/Matlacha pass
- + Land swaps to create and enhance environmental lands

### **CONNECTIVITY/ACCESS TO NEIGHBORHOOD SERVICES**

- + Access to village core
- + Access to neighborhoods

### **INFRASTRUCTURE**

- + Basic utility service: water/sewer, street lights/light pollution
- + Stormwater/drainage
  - LID (Low Impact Development Strategies)
  - Roadway improvements/Stormwater enhancements

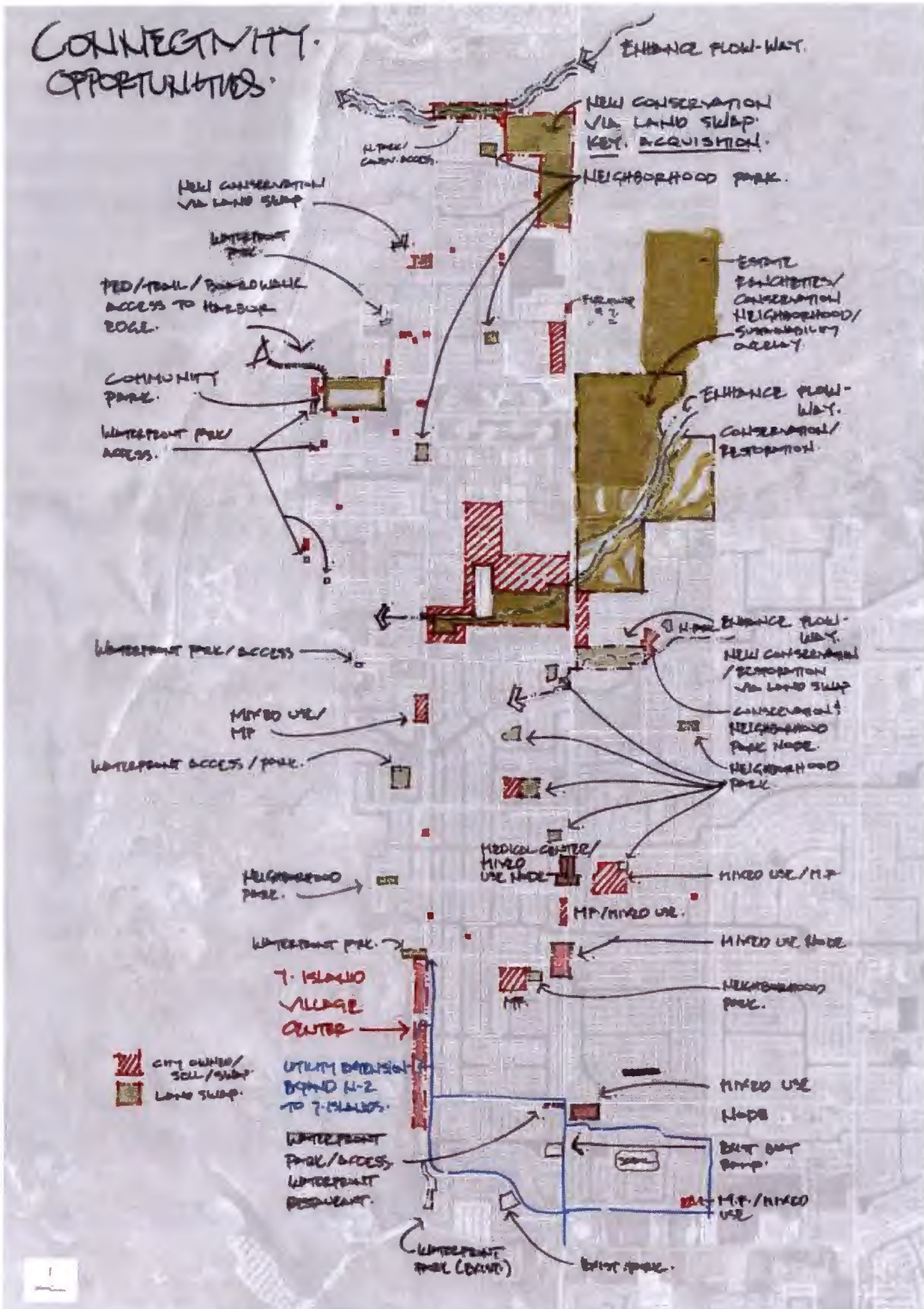
### **SCHOOLS/NEIGHBORHOOD SCHOOLS**

#### **491 PORTFOLIO**

- + Used to enhance connectivity opportunities

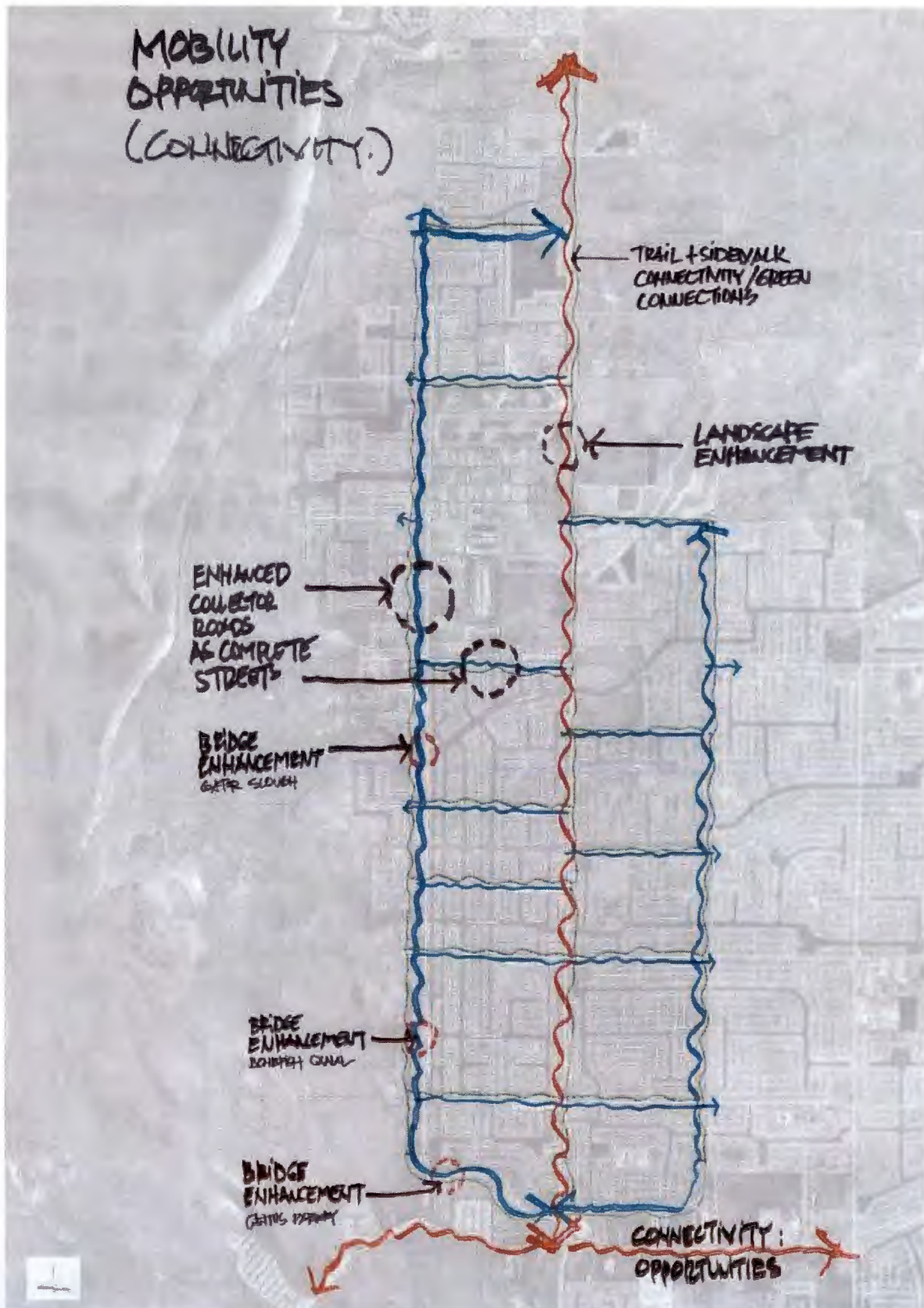
## CONNECTIVITY OPPORTUNITIES

Areas were identified as possible locations for neighborhood parks, mixed-use nodes, and conservation lands.



## MOBILITY OPPORTUNITIES

The existing street network was analyzed for potential increased connectivity. Collector roads were identified as opportunities for complete streets and bridge enhancements.



# THE THREE Cs: CONNECTIVITY GREENWAYS, PARKS + NEIGHBORHOODS









## PARKWAY ANALYSIS

### EXISTING CONDITIONS



### PARKWAY/TRAIL SYSTEM - OPTION 1



### PARKWAY/TRAIL SYSTEM - OPTION 2



# THE THREE Cs: CONNECTIVITY

## PARKWAYS

### EXISTING CONDITIONS

Old Burnt Store Road and other parkways currently consist of two 15' travel lanes with 5' bike lanes separated by a 20' median. During the charrette, many residents expressed concerns that these streets were unsafe for pedestrians due to speeding motorists. Along with the other major collector roads, Old Burnt Store has a 100' right-of-way, providing ample opportunity for increased walkability and roadway section improvements.

### PROPOSED IMPROVEMENTS

The design team proposed the transformation of Old Burnt Store Road into a "complete street." The central median would be removed, pushing the lanes together and making use of otherwise dead space. Street trees, sidewalks, multi-use trails, and bioswales would create a walkable linear park system spanning the length of Old Burnt Store Road.

## LOCAL ROADS

### EXISTING CONDITIONS

The local roads currently have a 60' right-of-way with no sidewalks or bike lanes. While walking along these roads is relatively safe, there is little tree canopy and no designated pedestrian space.

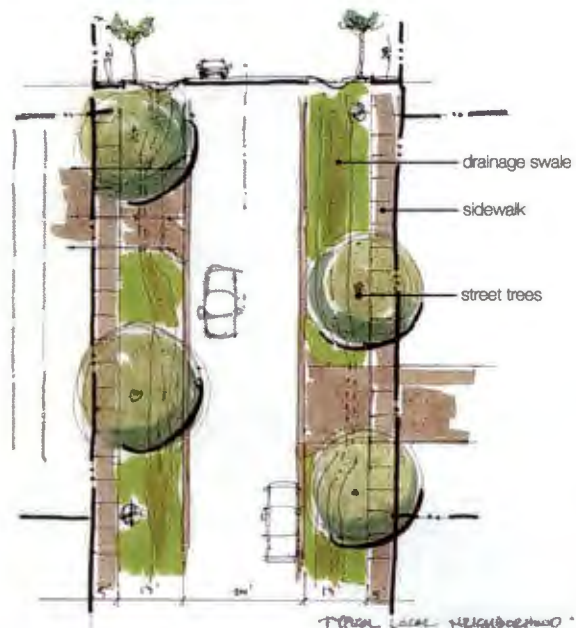
### PROPOSED IMPROVEMENTS

The design team proposed adding bioswales, street trees, and 5' sidewalks along both sides of the local roads, creating a pleasant walking environment, increasing plant life, and allowing for stormwater filtration. Implementation of a paving-repaving plan is vital to safe mobility.

### LOCAL ROADS EXISTING CONDITIONS



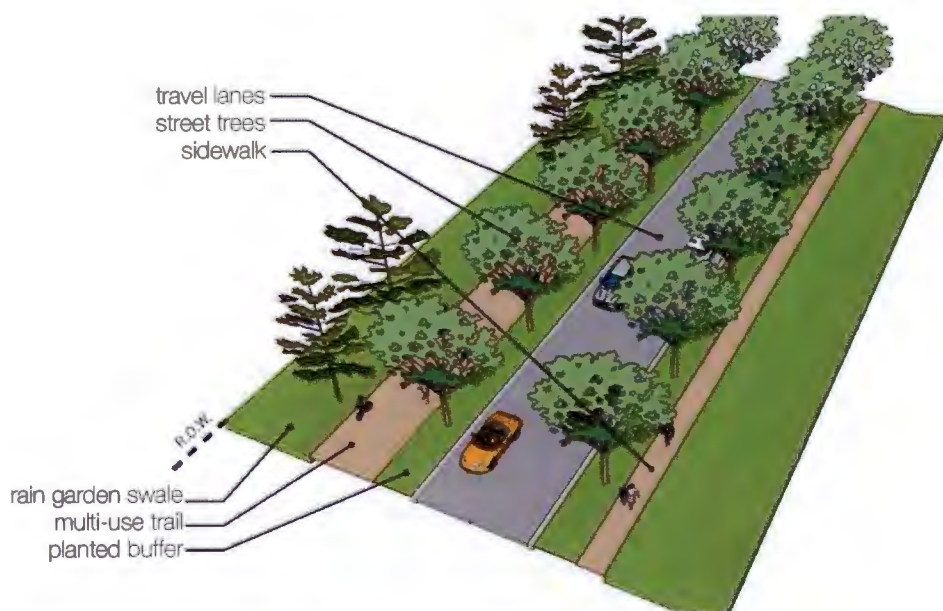
### LOCAL ROADS DESIGN



# THE THREE Cs: CONNECTIVITY COMPLETE STREETS + GREENWAYS

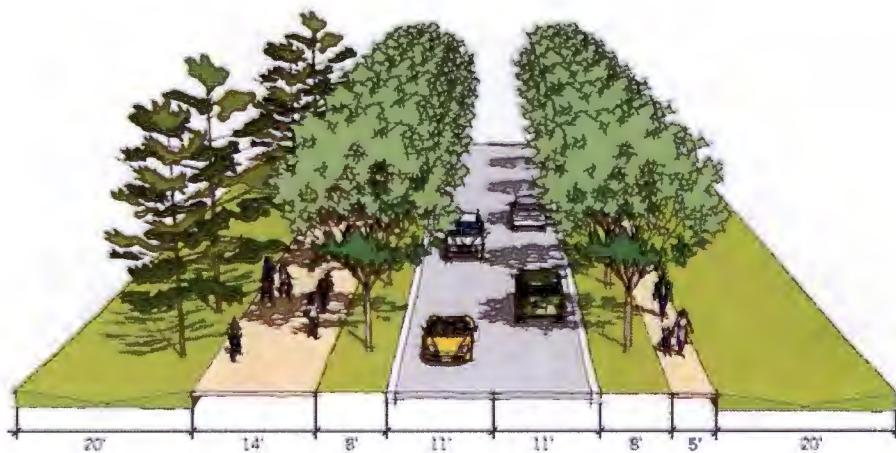
## PARKWAYS (100' R.O.W. COLLECTOR STREETS)

Complete Street Diagram



## PARKWAYS (100' R.O.W. COLLECTOR STREETS)

Complete Street Section/Perspective



# THE THREE Cs: CONNECTIVITY

## BRIDGE CLOSURE STUDIES

### OVERALL CONCEPT

Bridge removal and improvement were explored as options for increasing large boat and sailboat access to the canal lots. However, bridge removal would cut off the connectivity established by the existing street grid and limit access to the 7 Islands. There was also opportunity to create raised pedestrian and bike access over the canals to retain connectivity while increasing large boat access.

### COMMUNITY REACTION

The opinions from the stakeholders were mixed. Many enjoyed the prospect of opening the canals to larger boats, but the limited access to Old Burnt Store Road and the 7 Islands was met with displeasure by others.



#### LEGEND

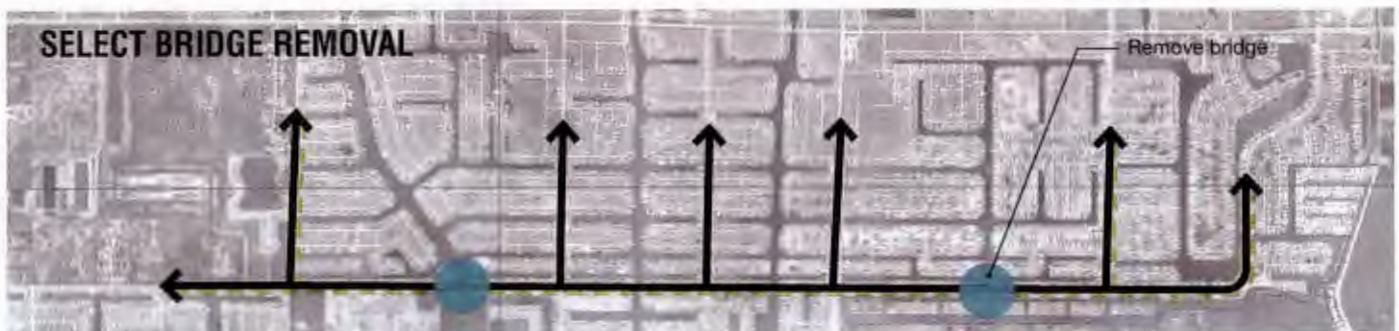
-  COLLECTOR ROAD
-  TRAIL
-  BRIDGE ENHANCEMENT W/ PEDESTRIAN / BIKE / VEHICULAR ACCESS

#### OPPORTUNITIES

- Opens sail boat access to larger blocks
- Creates increased neighborhood definition
- Provides multi-modal throughway access

#### CONSTRAINTS

- New bridge construction costs
- Potential maintenance/operations
- Temporary traffic disruption during operation



#### LEGEND

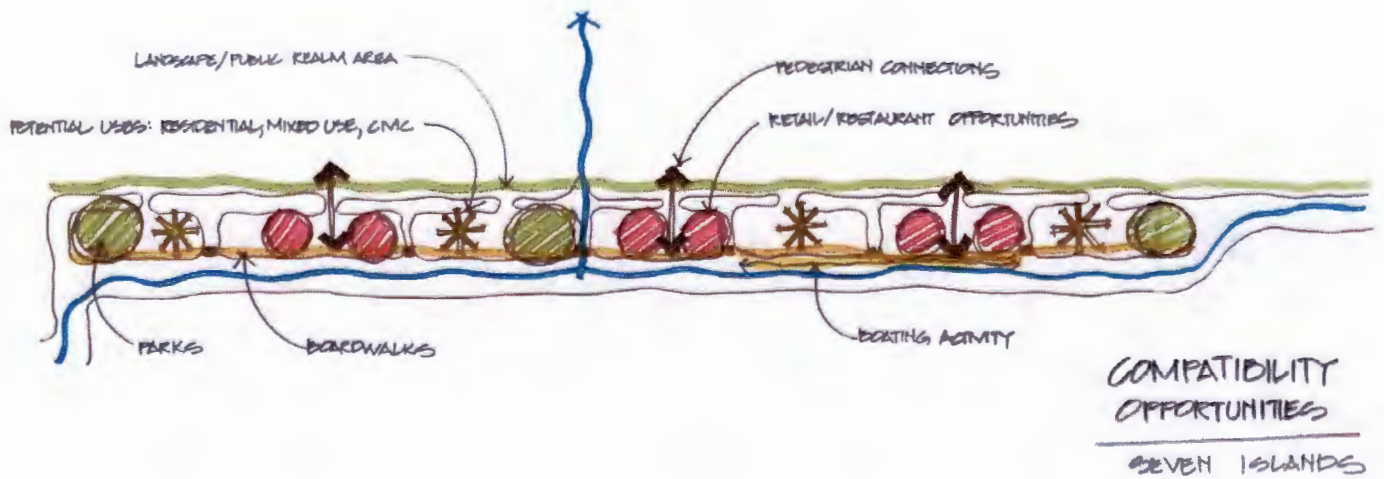
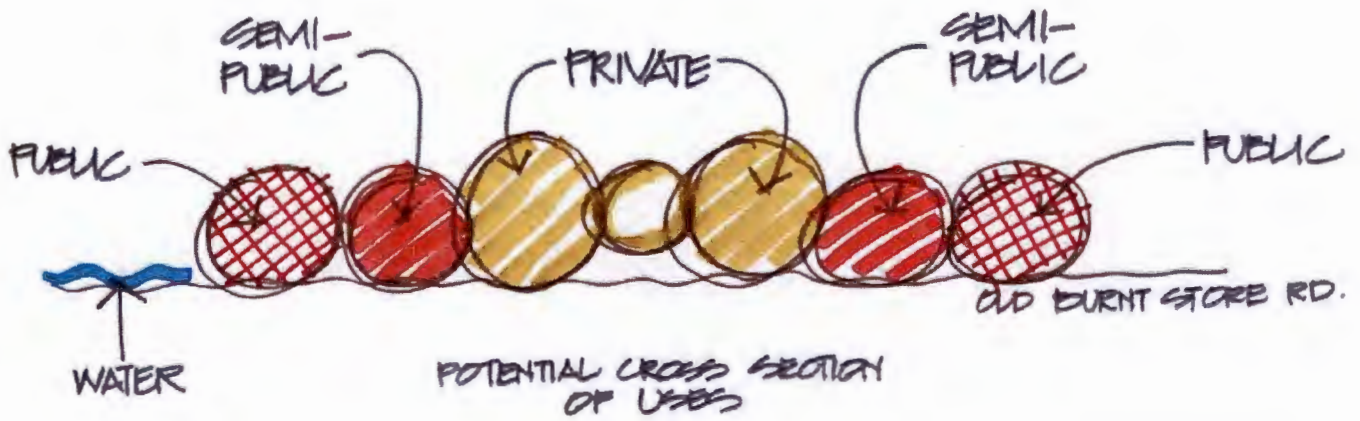
-  COLLECTOR ROAD
-  TRAIL
-  BRIDGE REMOVAL

#### OPPORTUNITIES

- Opens sail boat access to interior neighborhoods
- Creates partial neighborhood definition
- Maintains multiple ingress/egress options

#### CONSTRAINTS

- Cuts off some connectivity established with the existing grid
- Pushes portions of circulation to Burnt Store Road



# THE THREE Cs: COMPATIBILITY

## URBAN FORM/PLACEMAKING

### COMPATIBILITY: ELEMENTS

- **SCALE**

- + Building height
- + Public realm: Streets, Parks, Urban Plazas
- + Massing

- **CHARACTER**

- + Refined Coastal

- **USES**

- + Residential
- + Commercial
- + Mixed-Use
- + Civic
- + Waterfront Activation
  - Urban form associated with waterfront
  - Boardwalks
  - Pedestrian connections
  - Parks
  - Boating activity
  - Retail: Restaurant opportunities
  - Commercial recreation

## SUSTAINABILITY

- **ECONOMIC**

- + 491 Portfolio Opportunity

- **ENVIRONMENTAL**

- + Stormwater
- + Connections
- + Restoration
- + Sustainability

- **SOCIAL**

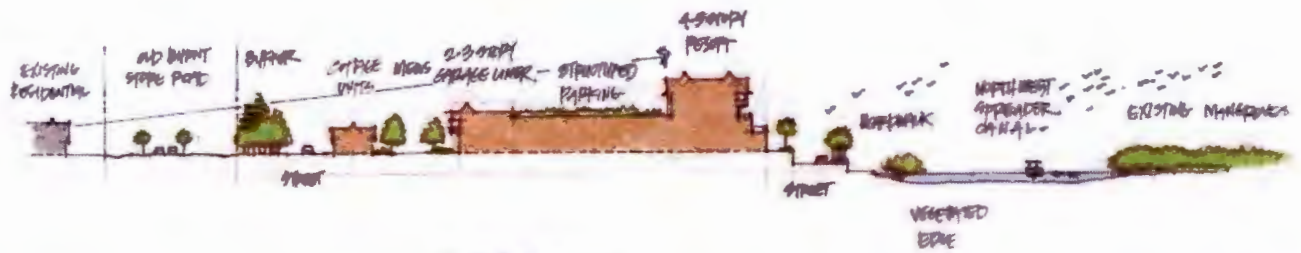
- + Connections
- + Nodes
- + Neighborhood Centers
- + Parks



AN PARK

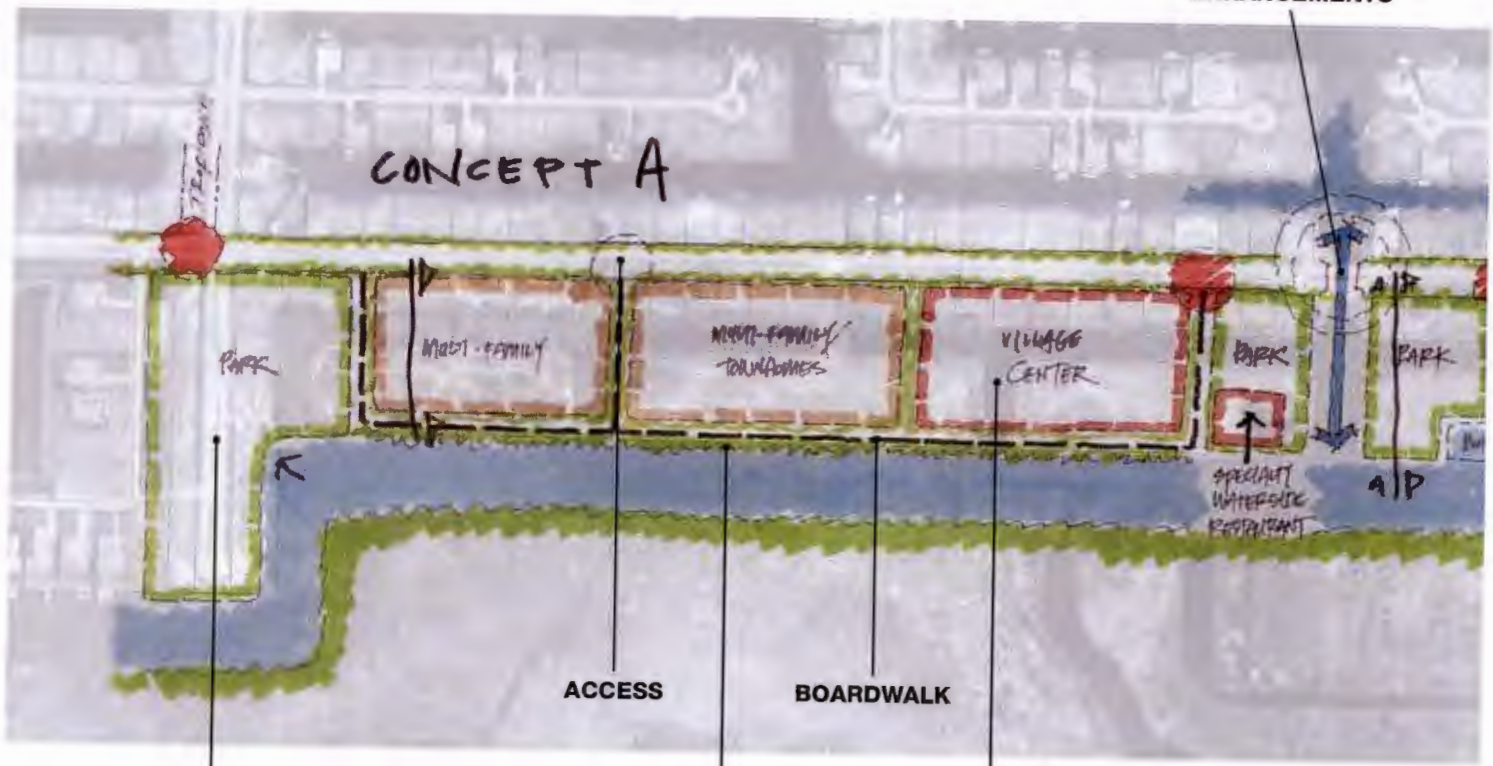


MULTI-FAMILY



RESORT

POTENTIAL BRIDGE ENHANCEMENTS



NORTH BOOKEND:  
PUBLIC SPACE

BOAT SLIPS

MIXED-USE  
RETAIL, OFFICE,  
+ RESIDENTIAL



# THE 7 ISLANDS: CHARRETTE CONCEPTS

## CONCEPT A

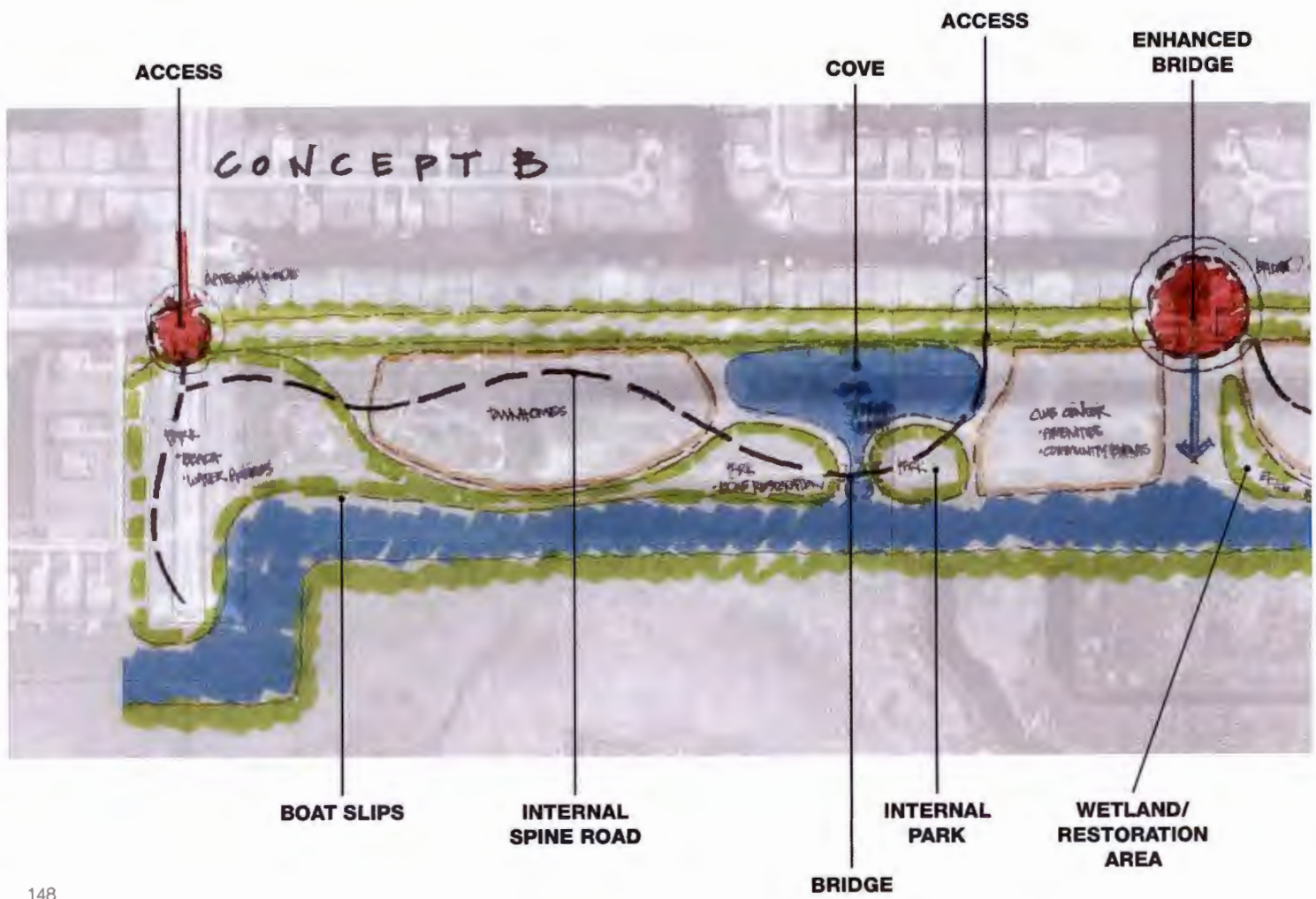
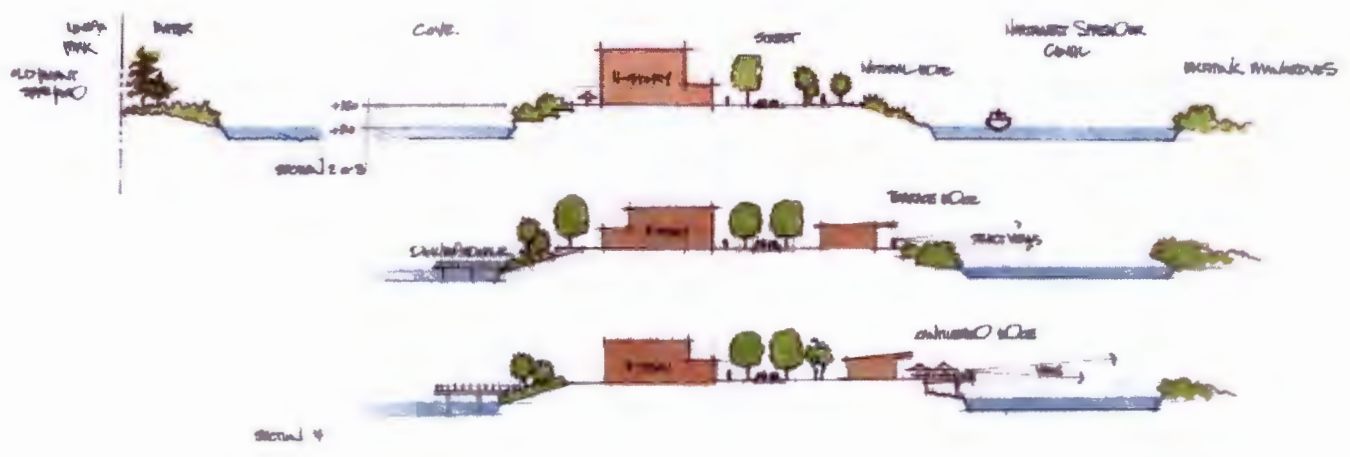
### CONVENTIONAL GRID

#### OVERALL CONCEPT

Concept A explores the possibility of a traditional grid-based mixed-use development flanked by waterfront park space. The team proposed backfilling the coves between the 7 Islands to create more space for multi-family residential, townhouse, resort, and commercial village centers.

Key to this concept is the location of two park bookends and the establishment of a defined public realm element along the waters' edge.





# THE 7 ISLANDS: CHARRETTE CONCEPTS

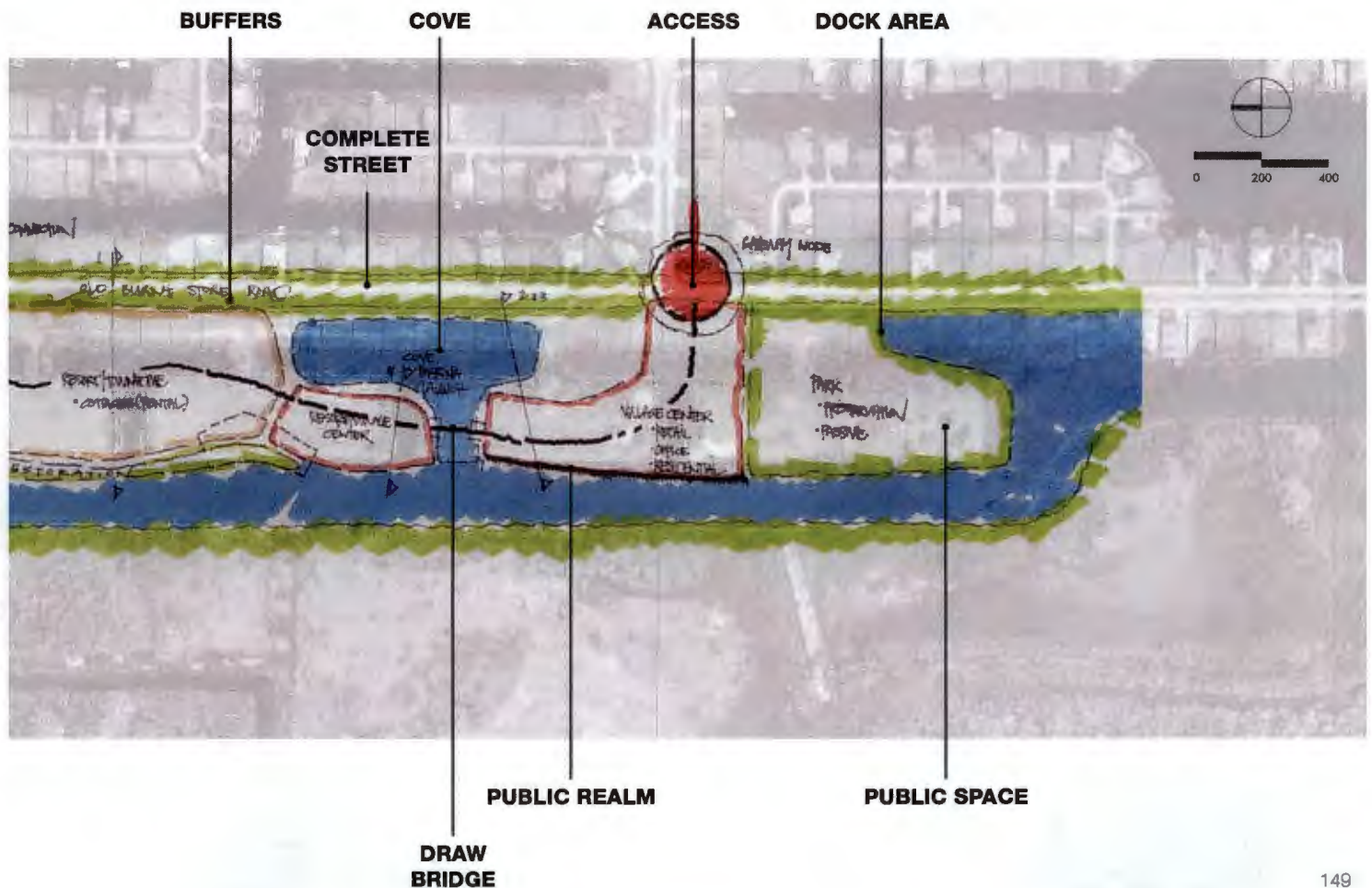
## CONCEPT B

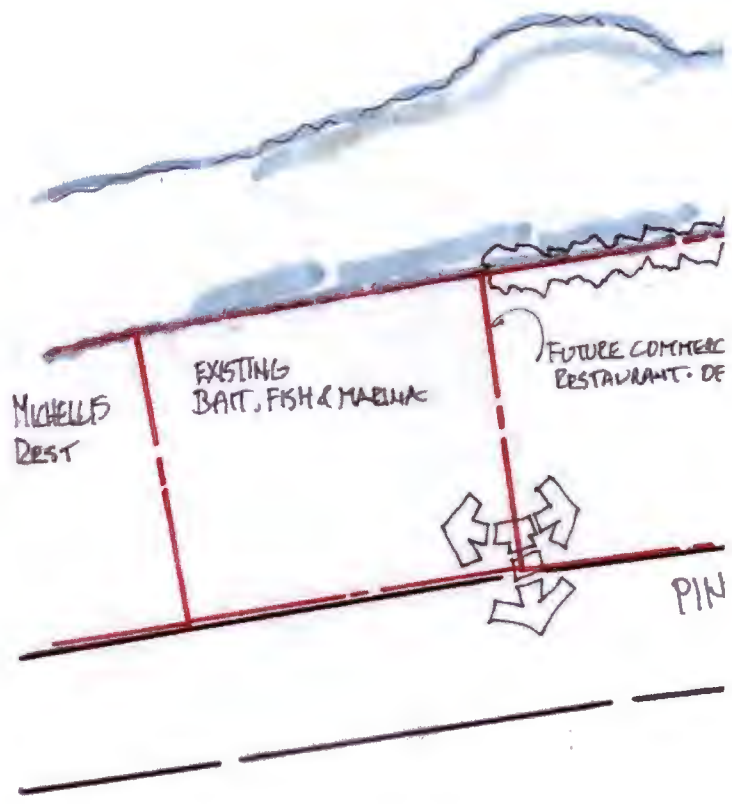
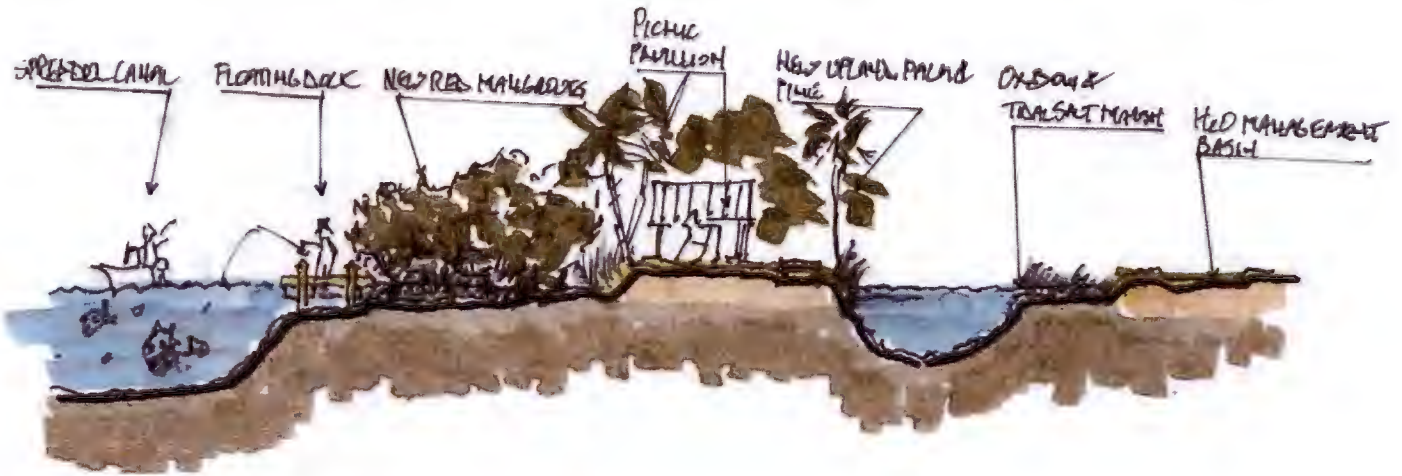
### ORGANIC FORM

#### OVERALL CONCEPT

Concept B explores a more naturalized approach to the village center, proposing a more organic form. The edges of the islands and two of the existing coves would be preserved and enhanced with native restoration planting and passive park space. Three entry points along Old Burnt Store Road would give access to proposed townhomes, resort/rental cottages, and a mixed-use village center.

This concept is highlighted by a combination of public realm elements to include boardwalks, environmental restoration, limited back-filling of coves, residential, and mixed-use product.



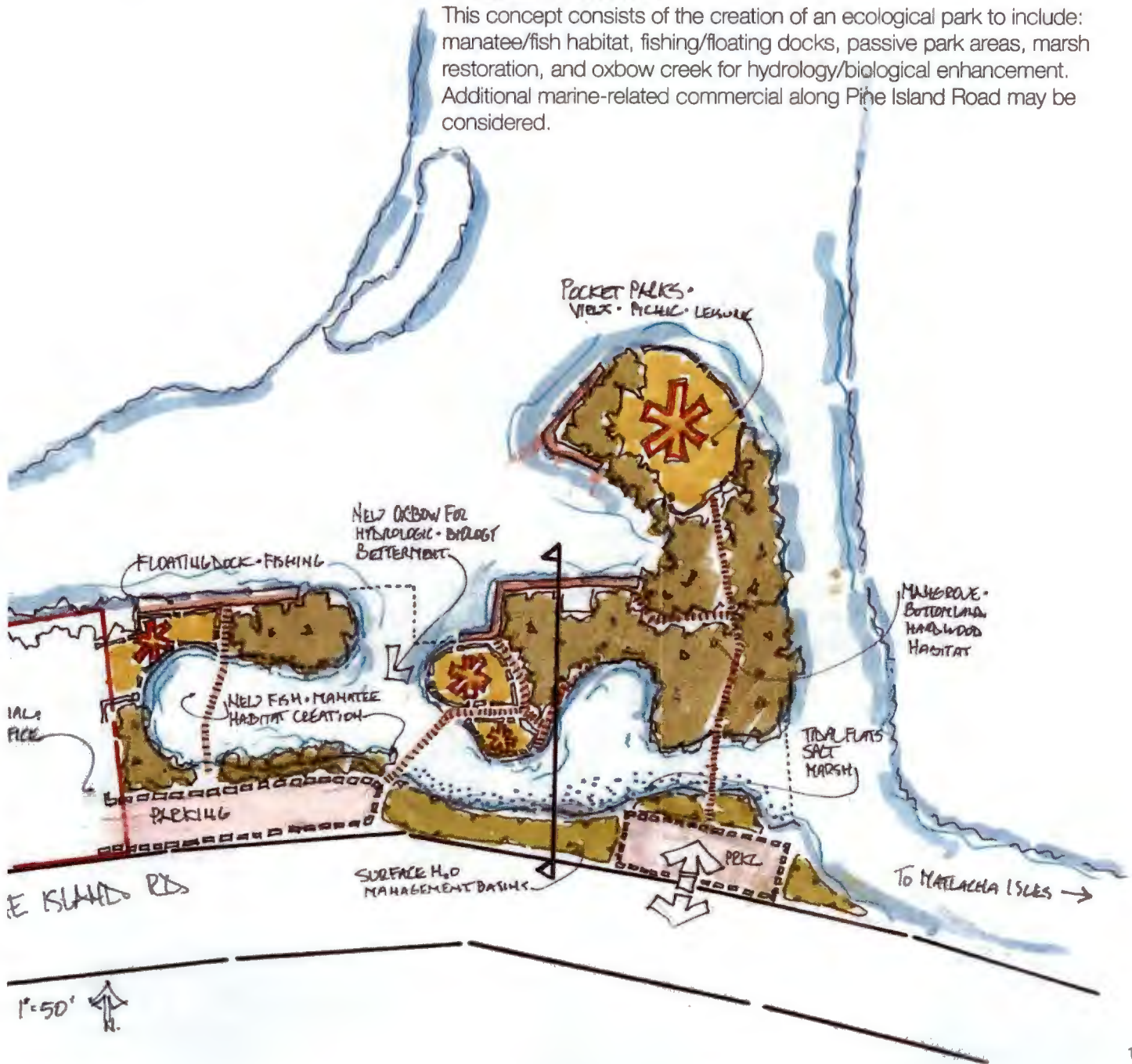


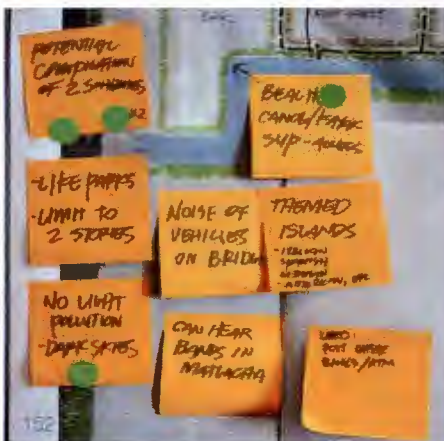
# MATLACHA PASS: MANATEE PARK

## RESTORATION - ENHANCEMENT

### OVERALL CONCEPT

This concept consists of the creation of an ecological park to include: manatee/fish habitat, fishing/floating docks, passive park areas, marsh restoration, and oxbow creek for hydrology/biological enhancement. Additional marine-related commercial along Pine Island Road may be considered.







**PUBLIC CHARRETTE:  
DAY THREE**  
NOVEMBER 6, 2015

**DESIGN SESSION - CONCEPT REFINEMENT**

The design team used the feedback from the previous night's session to refine the conceptual designs into a Northwest Cape Master Plan and 7 Islands Village Center Plan.

**STAKEHOLDER REVIEW**

The designs were presented at a final stakeholder session to receive feedback before the designs are finalized for presentation to the City of Cape Coral Council.

FLOW WAY  
ENHANCEMENT

GATEWAY

GREENWAY +  
BLUEWAY  
CORRIDOR

Recreational  
Area  
Opportunity

GATEWAY  
SLOUGH  
ENHANCEMENT

WATER  
ACCESS  
OPPORTUNITIES

"CONCRETE  
STREETS"

STREET TREES  
TRANSIT  
BIKE SHARED  
PARKING  
CALMING STRIPES

NORTHWEST CAPE  
"VILLAGE"

NEIGHBORHOOD  
CENTRAL



GATEWAY

GATEWAY



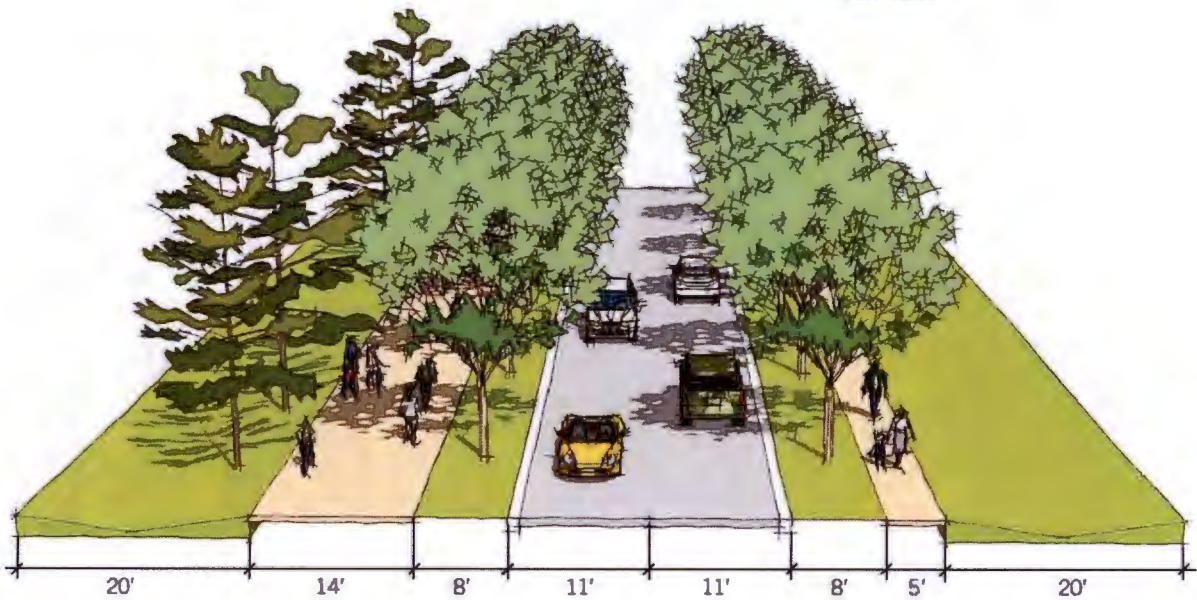
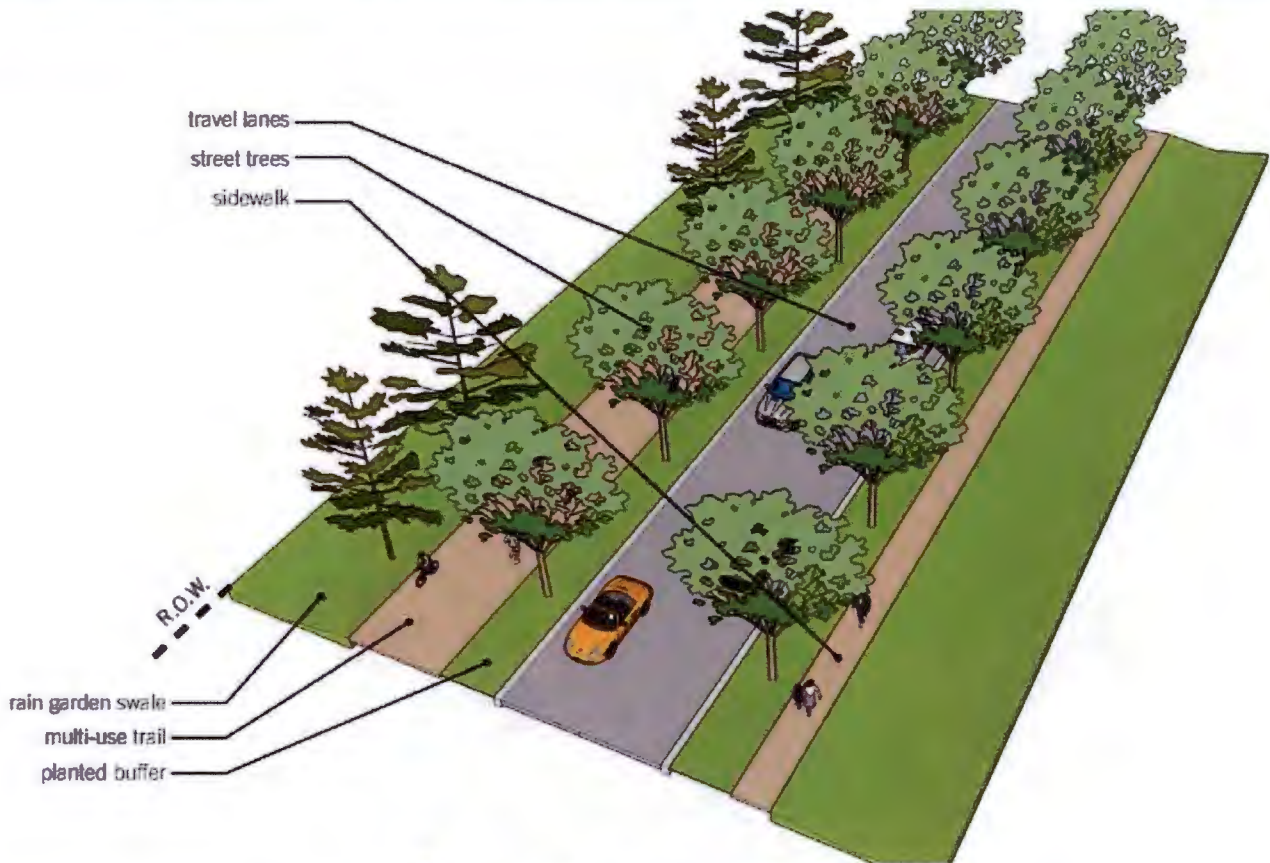


# NW CAPE VISION PLAN

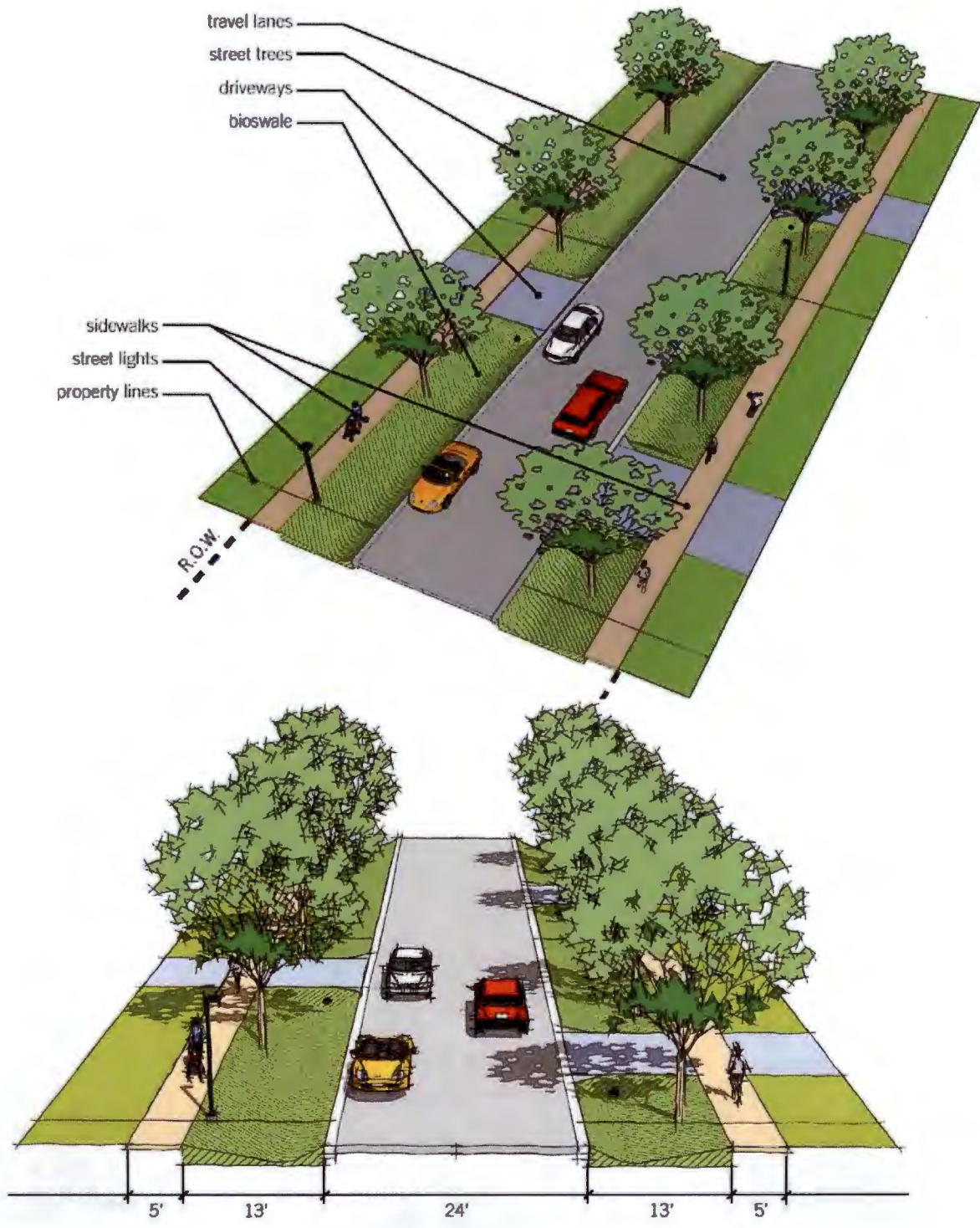
An overall Master Plan for the Northwest Cape was revised and refined according to the topics of interest in throughout the charrette process. Greenway systems, street improvements, conservation corridors, flow way enhancements, opportunities for access to Charlotte Harbor, neighborhood centers, commercial nodes, gateways, and the 7 Islands Village were all identified on the Vision Plan as areas of interest.

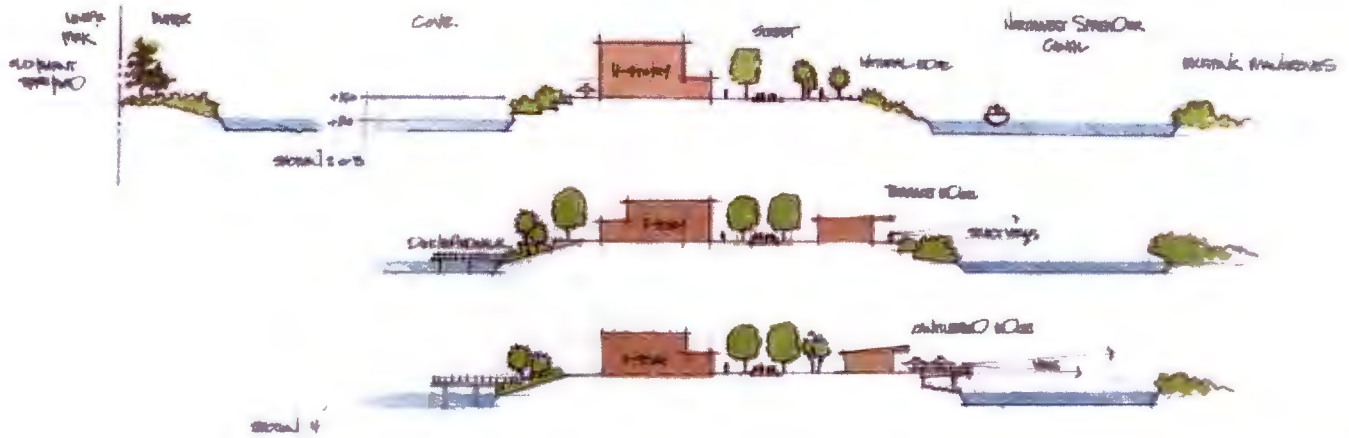


# ROADWAY IMPROVEMENTS PROPOSED PARKWAY



# ROADWAY IMPROVEMENTS PROPOSED LOCAL ROADS





**TOWNHOMES**      **BEACH**      **ACCESS**      **ENHANCED BRIDGE**

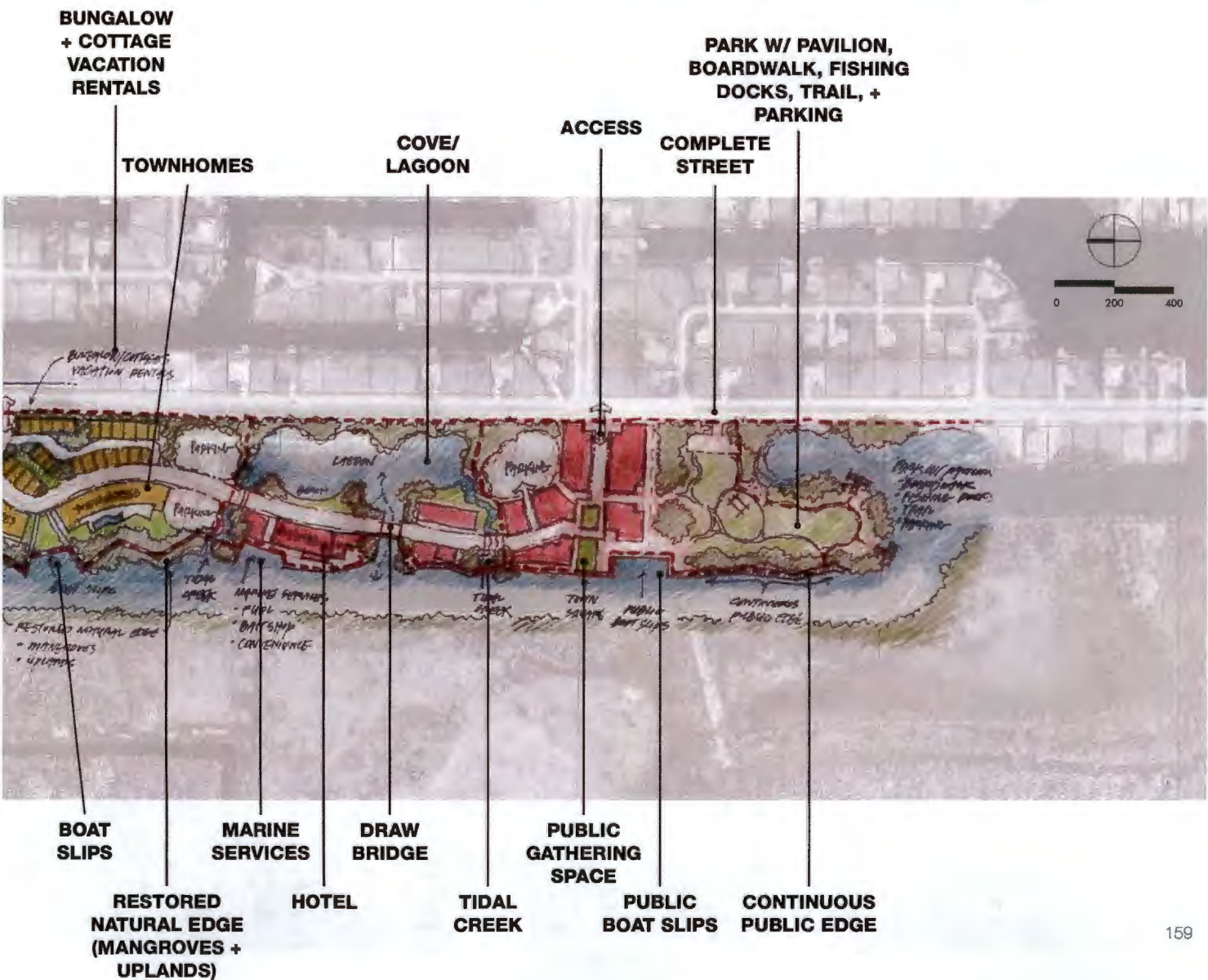
**BUFFERS**      **COVE/LAGOON**



# THE 7 ISLANDS BLENDED CONCEPTS A + B

## 7 ISLANDS AS A VILLAGE CENTER

Both concepts from the previous night's presentation were combined to create a design plan for the 7 Islands Village Center. Townhomes, mixed-use, multi-family residential, commercial, and park space were explored in greater detail. A community club would provide a civic center for the Northwest Cape, providing opportunities for meeting space, pool facilities, and other neighborhood amenities. The design team proposed creating tidal creeks between the inner coves and the Northwest Spreader Canal, allowing for increased water circulation. Boardwalk systems would stretch along the edges of the islands for a peaceful pedestrian experience, intertwining with mangrove restoration, park space, and proposed beaches for water access.





# NW CAPE VISION PLAN

## 7 ISLANDS CONCEPTS

Upon completion of the charrette process and its resulting direction, the Design Team prepared an overall Northwest Cape Vision Plan and expanded the 7 Islands Concept Plans to five concepts. The additional 7 Islands Concepts explored potential development scenarios based on the place-making and urban design components from the charrette process. These concepts were presented to City Council for consideration.

### **VISION ELEMENTS**

#### **PARKS**

#### **COMMERCIAL AREAS**

#### **CORRIDORS**

Pedestrian

Automobile

Bicycle

#### **COMPLETE STREETS**

#### **GATEWAYS**

#### **WATERFRONT ACTIVATION**

#### **PUBLIC LANDS**

#### **INFRASTRUCTURE**

#### **VILLAGE CENTER**

#### **RECREATION**

#### **GREENWAYS**

#### **BLUEWAYS**

#### **SIGNAGE**

#### **IMAGE/THEMING**

#### **NEIGHBORHOOD DEFINITION**

#### **TRANSPORTATION**



0 2400 4800

EXISTING PARKS

DURDEN FEEDER CREEK

EXISTING PARKS

SPREADER CANAL

CHARLOTTE HARBOR

CHARLOTTE HARBOR CONSERVATION AREA (MARSHES)

POTENTIAL FOR ECOLOGICAL ENHANCEMENT OF CANAL + SPREADER SWALE SYSTEM

YUCCA PEN CREEK

BURNT STORE ROAD

THE DURDEN COMMUNITY

DURDEN CREEK

CALOOSA NORTH

CALOOSA PKWY

NEIGHBORHOODS

CALOOSA SOUTH

NORTH JACARANDA

SOUTH JACARANDA

EAST GATOR CANAL

GATOR CANAL BURROW PIT

WEST KISMET

WEST GATOR CANAL

EAST GATOR CANAL

KISMET PKWY

WEST GULFSTREAM

EAST GULFSTREAM

VAN BUREN

EXISTING PARK

WEST YUCATAN

EAST YUCATAN

WEST DIPLOMAT

DIPLOMAT PKWY

EXISTING PARK

7 ISLANDS DISTRICT

WEST TROPICANA

EAST TROPICANA

TROPICANA PKWY

WEST EMBERS

EAST EMBERS

EMBERS PKWY

EXISTING PARKS

PINE ISLAND ROAD

KEY

- SURFACE WATER MANAGEMENT AREA \*
- MULTI FAMILY
- PROPOSED PARKS
- EXISTING PARKS
- NEIGHBORHOODS
- KEY WATER MANAGEMENT ACQUISITION PARCELS \*
- CITY ENTERPRISE ZONE OVERLAY
- COMPLETE STREETS/GREENWAY
- NEW EAST CALOOSA PARKWAY
- POTENTIAL BLUEWAYS TO MATLACHA PASS RESULTING FROM ECOLOGICAL RESTORATION
- MASS TRANSIT STOP/KIOSK
- POTENTIAL MASS TRANSIT ROUTE
- 7 ISLANDS DISTRICT COMMERCIAL/MIXED USE
- NEIGHBORHOOD GATEWAYS
- BRIDGE ENHANCEMENTS
- WATER TAXI
- NW CAPE STUDY AREA
- ACCELERATED UTILITY EXPANSION ZONE \*\*



# NW CAPE VISION PLAN

## VISION STATEMENT

To improve the aesthetic quality of physical environment and urban form in the northwest Cape Coral area and to create a stronger sense of place and community identity.

## FRAMEWORK

- Advance the NW Cape's District and Neighborhood definition and character by highlighting 15 neighborhoods through gateway signage and landscape improvements.
- Propose five new neighborhood parks, one new community park, and five new pocket parks.
- Enhance the existing grid-street system by applying "complete street" elements where practical. This includes a multi-purpose path system and linear park along Old Burnt Store Road.
- Create the Seven Islands Special District: Marina Village, The NW Cape's community focal point.
- Create a 250-acre City Enterprise Zone to promote economic and business development and opportunities.
- Utilize the 491 Portfolio parcels for potential land swaps for enhancement of regional basin/sub-basin stormwater treatment, economic development, and recreational opportunities.
- Study surface water quality and quantity enhancements that may include: Low Impact Design standards for residential development, native plants, rain gardens, bioswales, etc.

\* Lands potentially targeted for surface management areas based on City's 491 Portfolio Land Exchanges

\*\* Accelerate utility expansion program zones N-2 & N-3 in City's work plan to service 7 Islands District

# NW CAPE VISION PLAN: LAND USES, NEIGHBORHOODS, AND PARKS

NW Cape's Seven Island District's Marina Village will be the community's focal point. The District will provide a mix of housing and commercial, marine, recreational, services and facilities. The Sector Plan will advance neighborhood definition and character by defining 15 neighborhoods and creating neighborhood gateway signage and landscaping improvements.

Parks are an important neighborhood defining element. The NW Cape Sector plan relies on 88 491 Portfolio parcels that total 45.5 acres. The Sector Plan calls for five new neighborhood parks, one new community park and five neighborhood pocket parks. The five small pocket parks are to further advance neighborhood identification and character. The plan calls for a multi-purpose path system and linear park along Old Burnt Store Rd. and West Embers Pkwy. This greenway will be a defining NW Cape element, providing bike and path recreation, reforestation and multi-functional landscaping for water quality treatment.

The new NW Cape Sector plan provides for a 250-acre city enterprise zone, a new East Caloosa Pkwy. road breakthrough, and a new Seven Island District Gateway commercial node at Embers and W. Burnt Store Rd. For surface water quality and quantity enhancements the sector plan requests new low impact design standards for SF and MF parcels, including 75% native landscaping (including ground cover) and SF lot rain gardens. For areas located outside the Seven Island District, building height will be limited to 3 to four stories.

## **MAIN CONCEPTS:**

- 7 Islands as a Focal Point
- 15 Distinct Neighborhoods
- Gateway Signage + Landscape Architectural Improvements
- Community Park + 5 Pocket Parks
- Multi-purpose Path + Linear Park Along Old Burnt Store Rd. + West Embers Parkway
- Embers Parkway + Burnt Store Road

# NW CAPE VISION PLAN: SURFACE WATER MANAGEMENT

## KEY WATER MAINTENANCE ACQUISITION PARCELS

### FINDINGS:

Given the various local and regional surface water management, water quality and spreader canal issues, it is noted that long term bioswale and dry swale improvements will be needed. These improvements cost \$542,890 per bioswale mile and \$212,043 per dry swale mile. Dedicated funding for spreader canal pipe outfall control structure and small drainage basin improvements, spreader canal re-engineering and street sweeping are not available for the NW Cape study area.

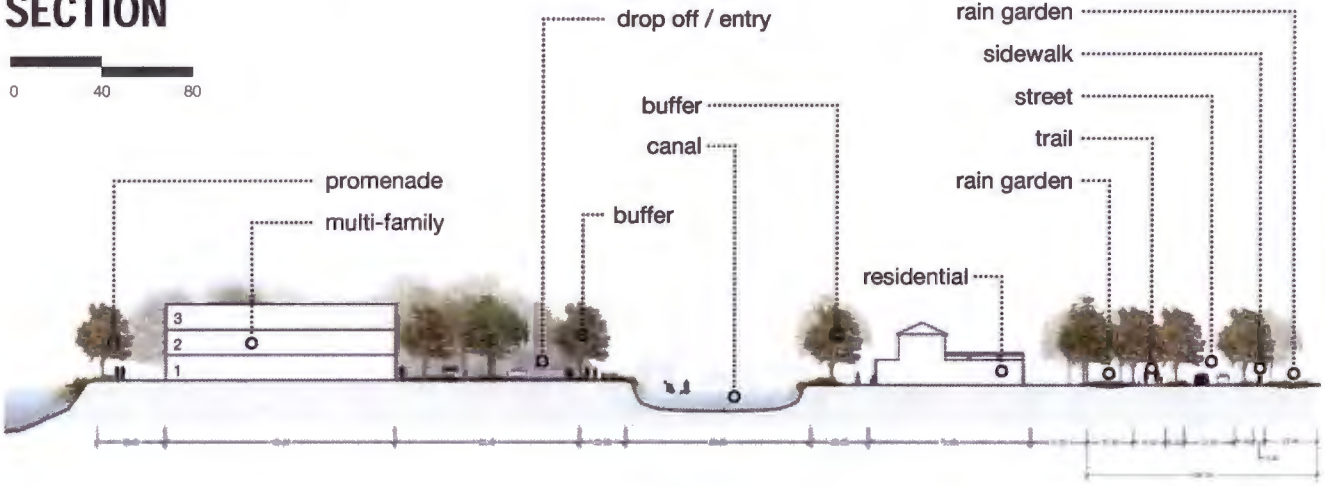
### RECOMMENDATIONS:

Key sector plan surface water management potential programs include:

- \* Flow way enhancements on a portion of city owned lands located north of Kismet Prky., to facilitate and treat south to west water flow.
- \* A new surface water management overlay for parcels that adjoin Yucca Pens wild life management and conservation lands; the overlay will establish new design guidelines regarding the management of surface water.
- \* Land exchange to facilitate a Gator Slough filter marsh for east to west water storage and treatment.
- \* Dedicated funding for spreader canal re-engineering in order to facilitate mangrove tidal flow for water treatment and Matlacha Pass fresh water balance. Projects may include the removal of the Gator Canal west spreader sea wall, and joint educational and scientific research facilities to be used for evaluating long-term mangrove systems, living seawalls and sea level rise.
- \* Dedicated funding for surface water management capital improvement projects, including a revised NW Cape Filter Marsh system, street to spreader canal outfall improvements, bioswale and dry swale improvements and street sweeping.

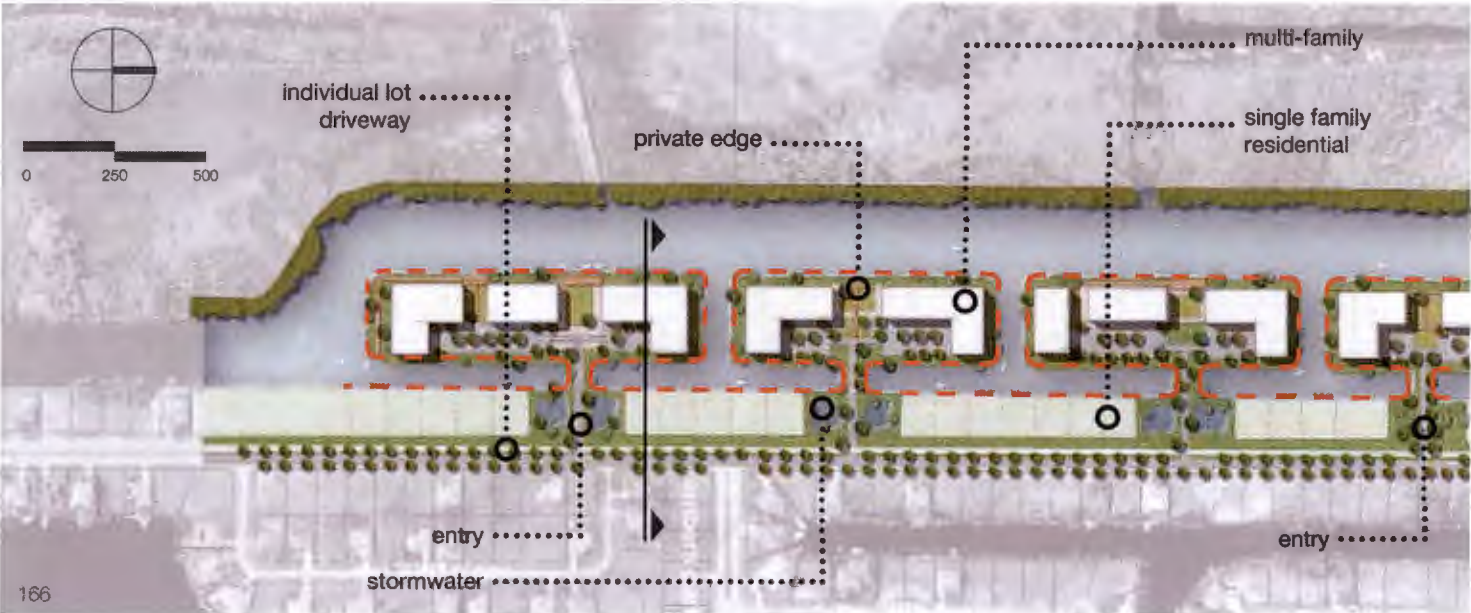
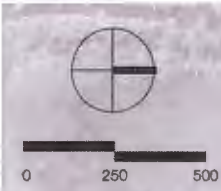


# SECTION



NOTE:  
+ Cross Section illustrates greatest number of floors proposed  
+ Overall concept consists of 1, 2, & 3-story buildings

# PLAN

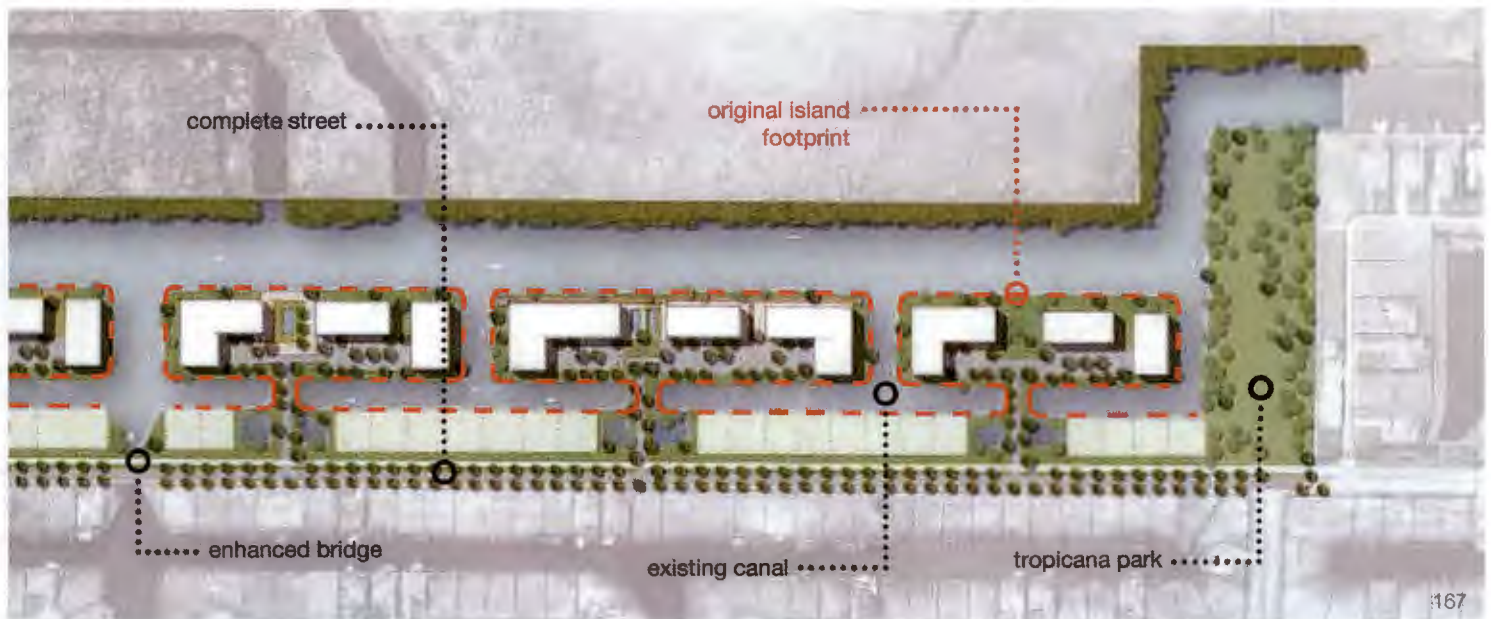


# 7 ISLANDS CONCEPT PLANS CONCEPT A

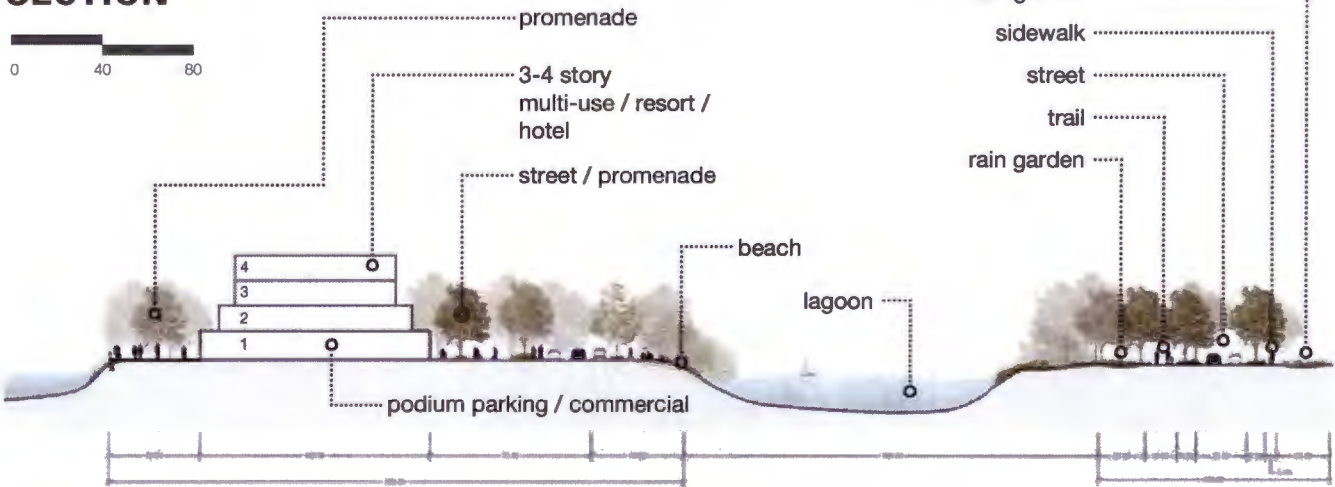
## PROGRAM

<b>RESIDENTIAL</b>	<u>4.4 du/ac*</u>	<u>16 du/ac**</u>
MF / Condo / Apartments	161	588
SF / Bungalows	49	49
Total Units	210	637

- \* Potential yield with base entitlement
- \*\* Potential yield with variances



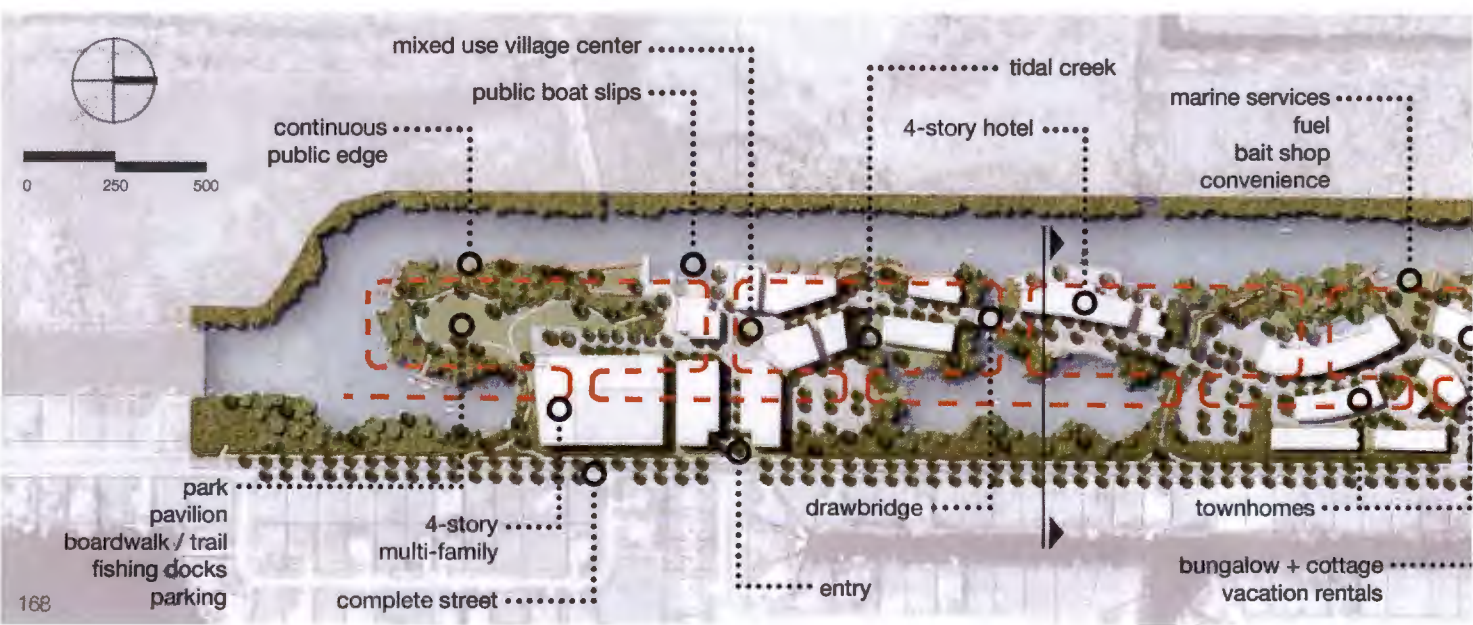
# SECTION



**NOTE:**

- + Cross Section illustrates greatest number of floors proposed
- + Overall concept consists of 1, 2, 3, & 4-story buildings

# PLAN



# 7 ISLANDS CONCEPT PLANS

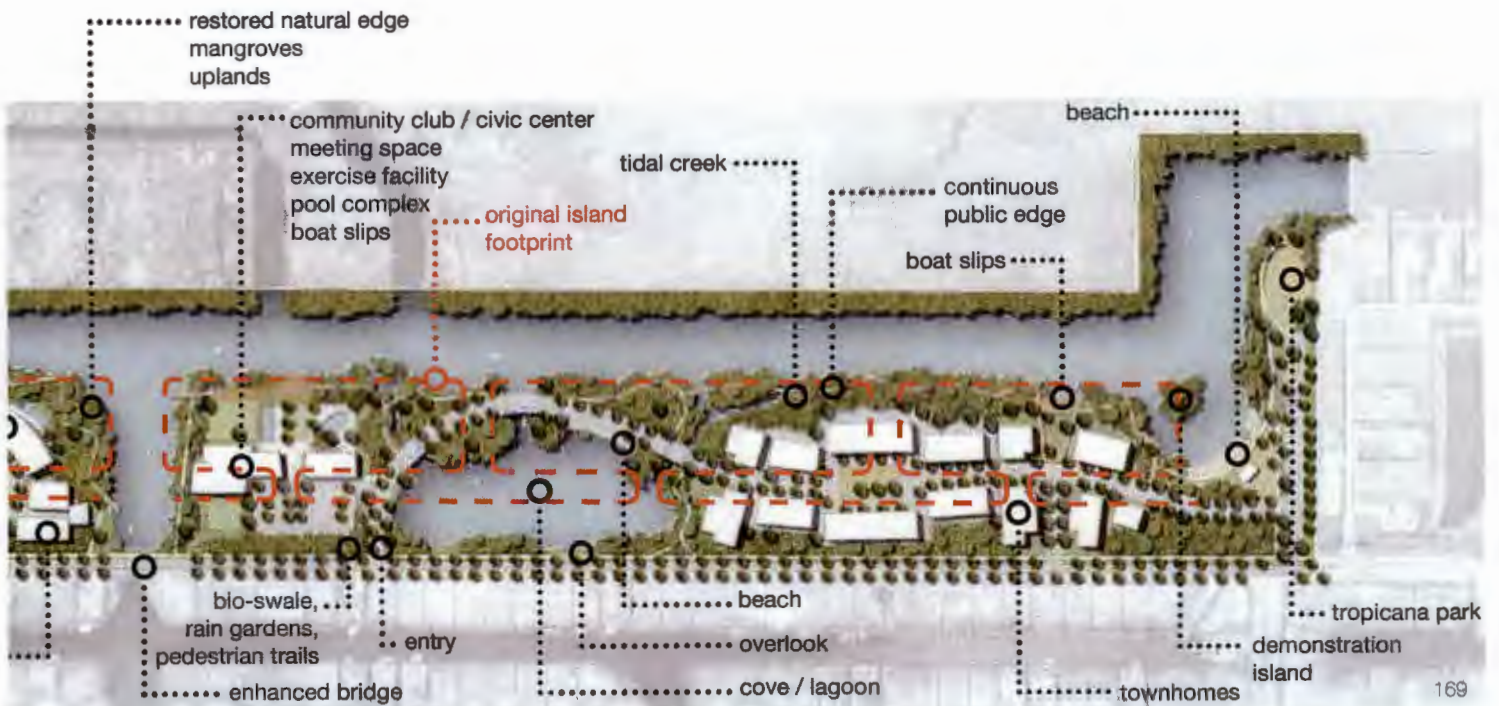
## CONCEPT B

### PROGRAM

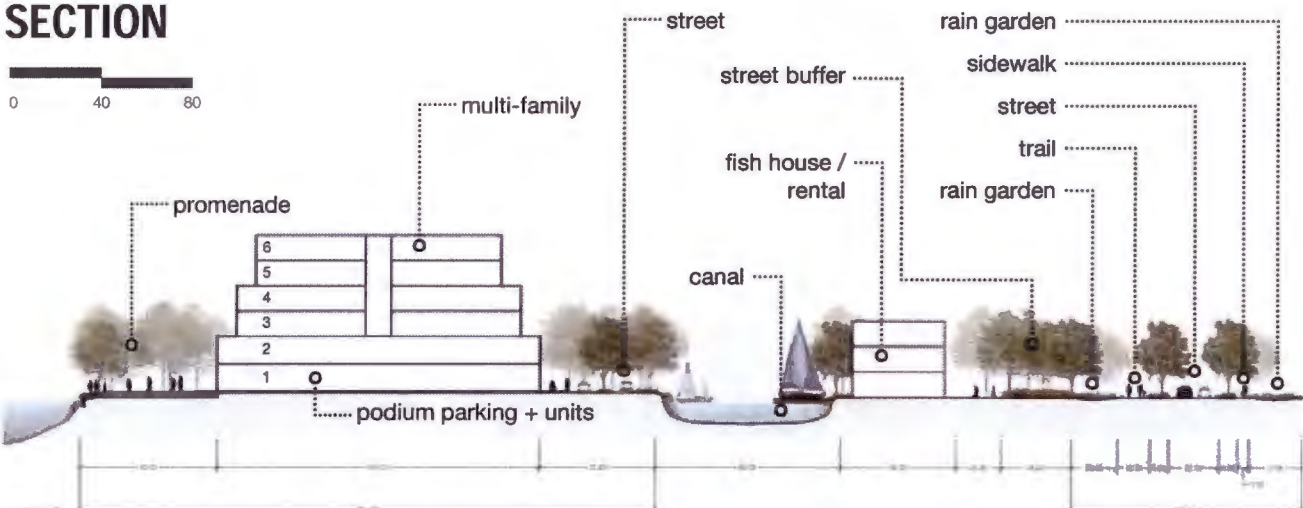
<b>RESIDENTIAL</b>	490 Units
<b>HOTEL / RESORT</b>	90 Rooms
<b>COMMERCIAL</b>	65,000 SF

### AMENITIES

- Community Center
- Park
- Public Marina + Launch
- Boat Slips/Marina

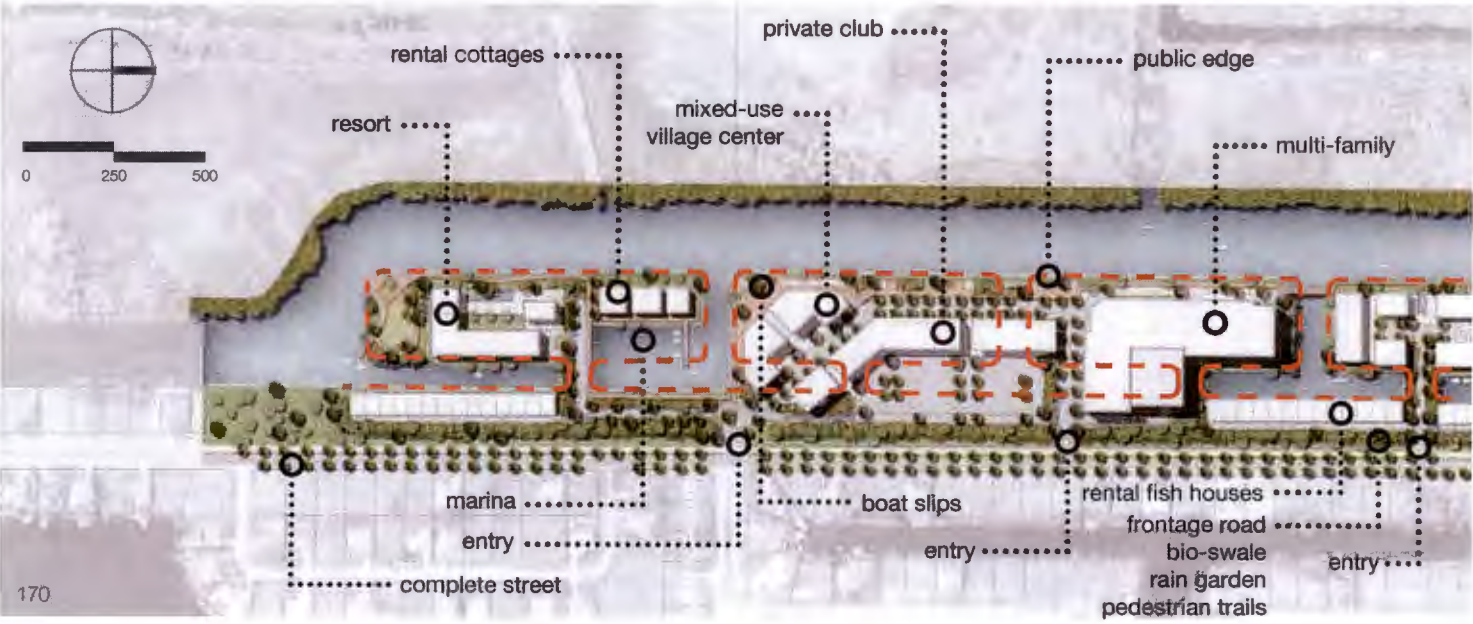
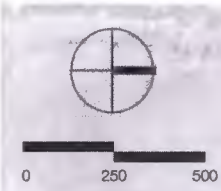


# SECTION



NOTE:  
 + Cross Section illustrates greatest number of floors proposed  
 + Overall concept consists of 1-6 story buildings

# PLAN





# 7 ISLANDS CONCEPT PLANS CONCEPT C

## PROGRAM

### RESIDENTIAL

MF / Condo / Apartments	710 Units
SF / Fish Houses	71 Units
Total Units	781 Units

### HOTEL / RESORT

Meeting Space	120 Rooms
Amenities	75,000 SF

### COMMERCIAL

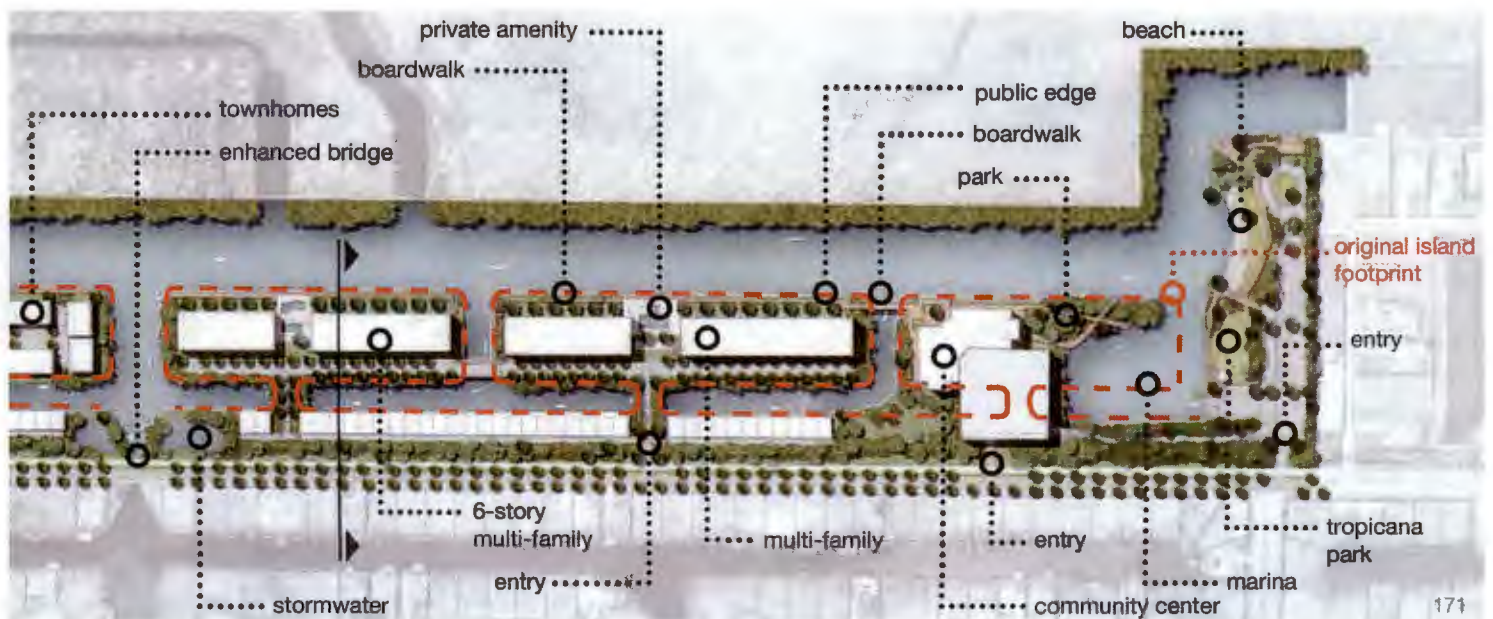
58,000 SF

### BOAT SLIPS

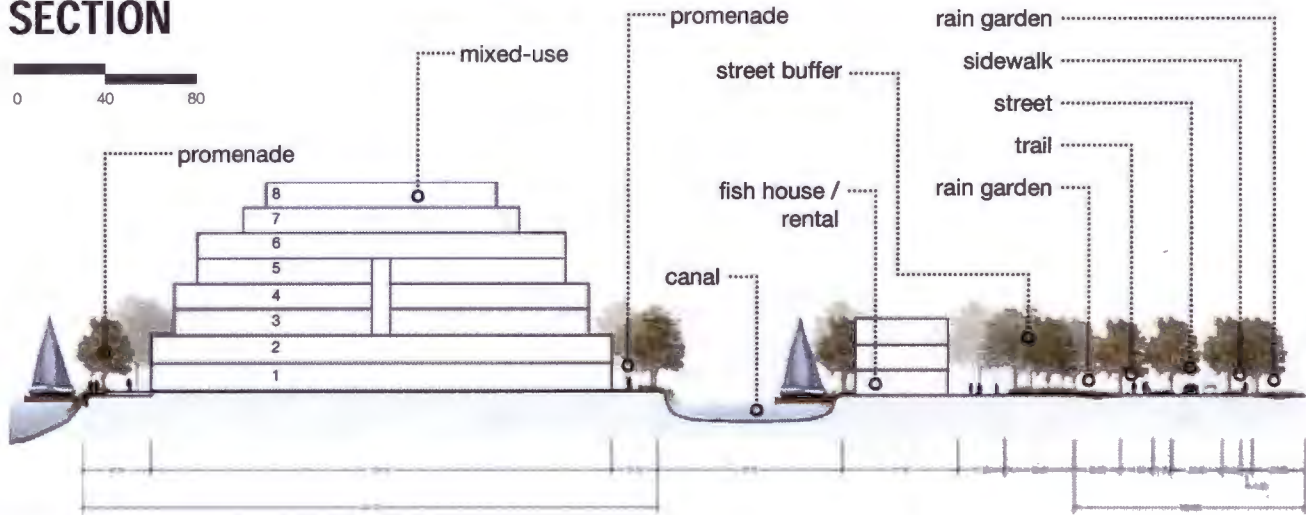
140 Slips

### AMENITIES

Community Center  
Park



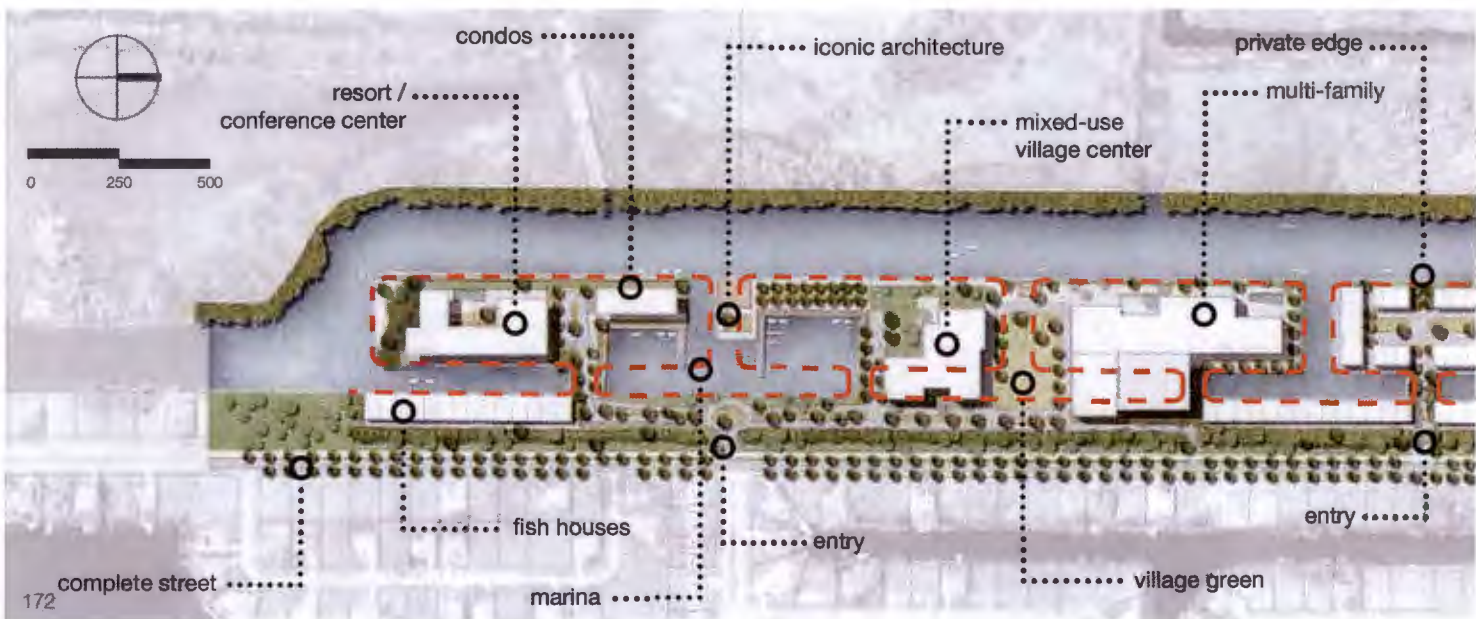
# SECTION



NOTE:

- + Cross Section illustrates greatest number of floors proposed
- + Overall concept consists of 1-8 story buildings

# PLAN



# 7 ISLANDS CONCEPT PLANS

## CONCEPT D

### PROGRAM

#### RESIDENTIAL

MF / Condo / Apartments	924 Units
SF / Fish Houses	71 Units
Total Units	995 Units

#### HOTEL / RESORT

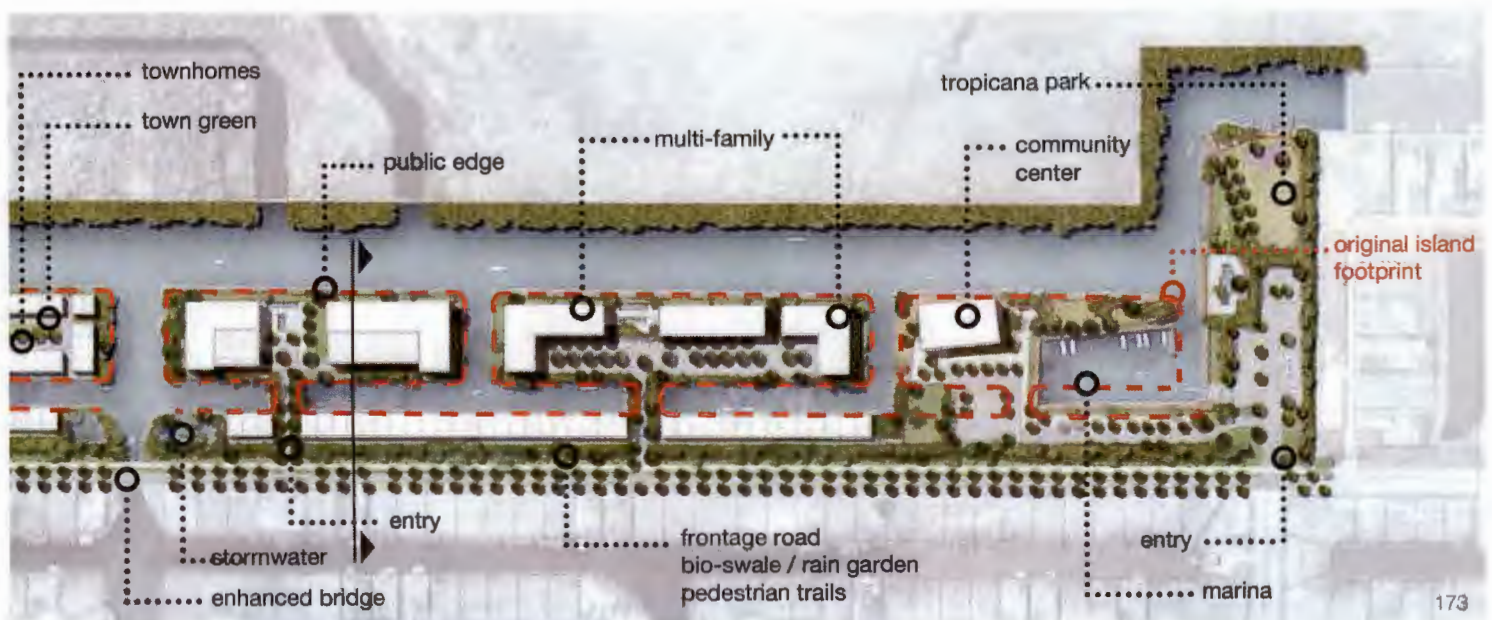
Meeting Space	240 Rooms
	25,000 SF

#### COMMERCIAL

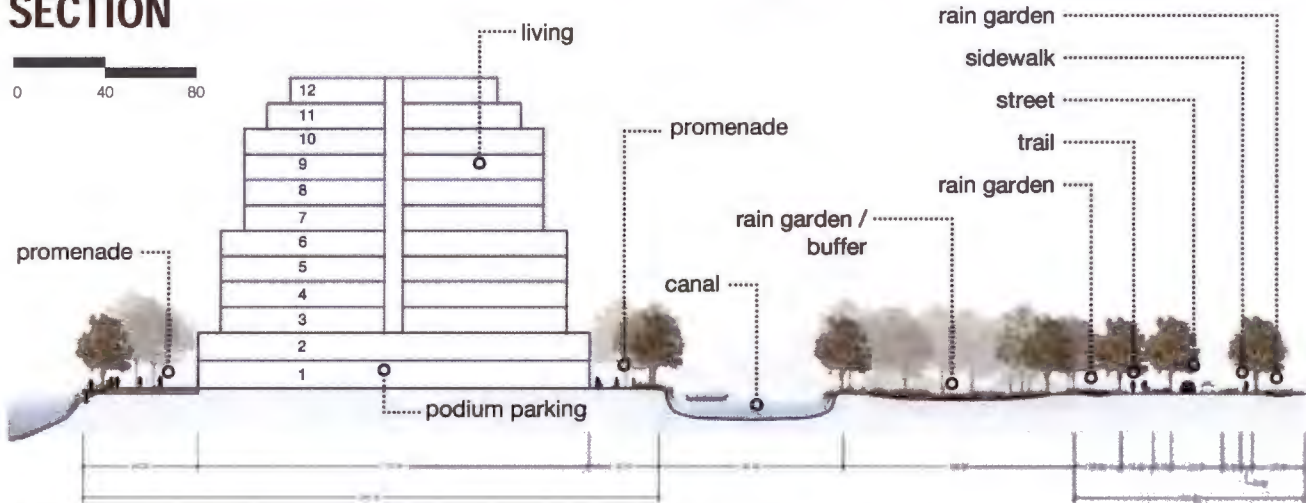
45,000 SF

#### AMENITIES

Community Center  
Park  
Public Marina + Launch  
Boat Slips/Marina



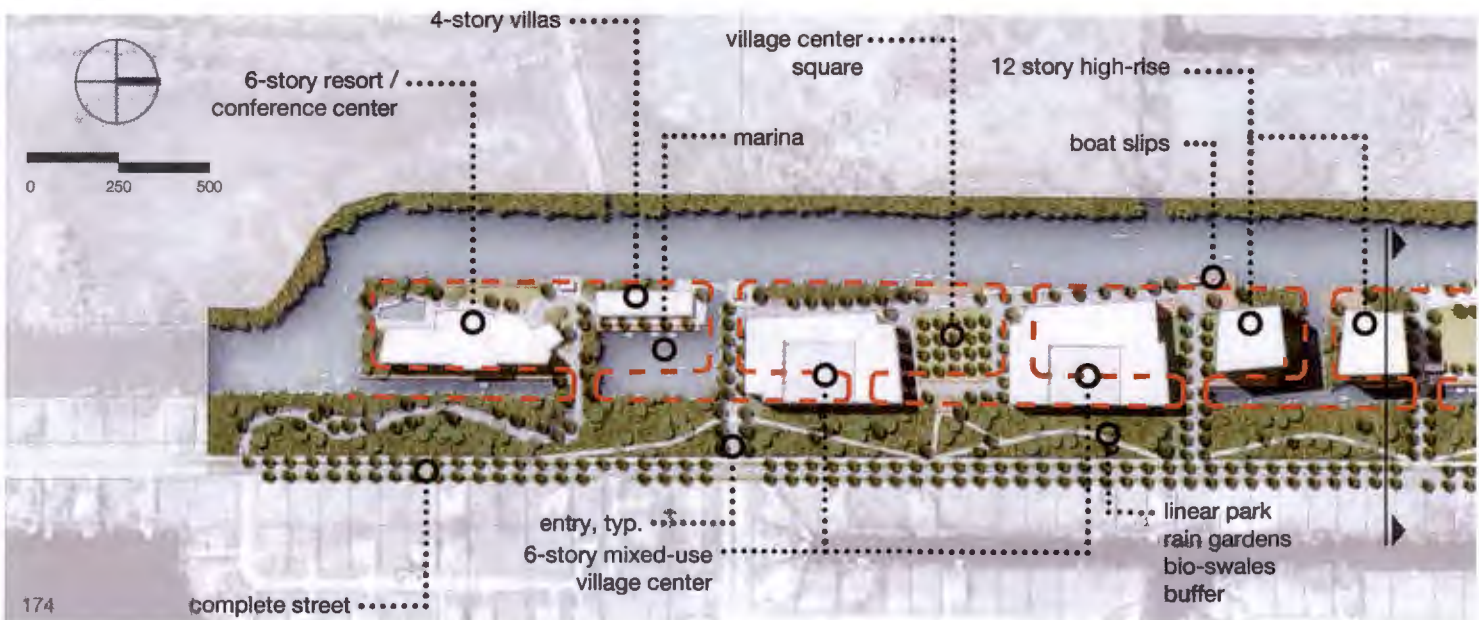
# SECTION



**NOTE:**

- + Cross Section illustrates greatest number of floors proposed
- + Overall concept consists of 1-12 story buildings

# PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT E

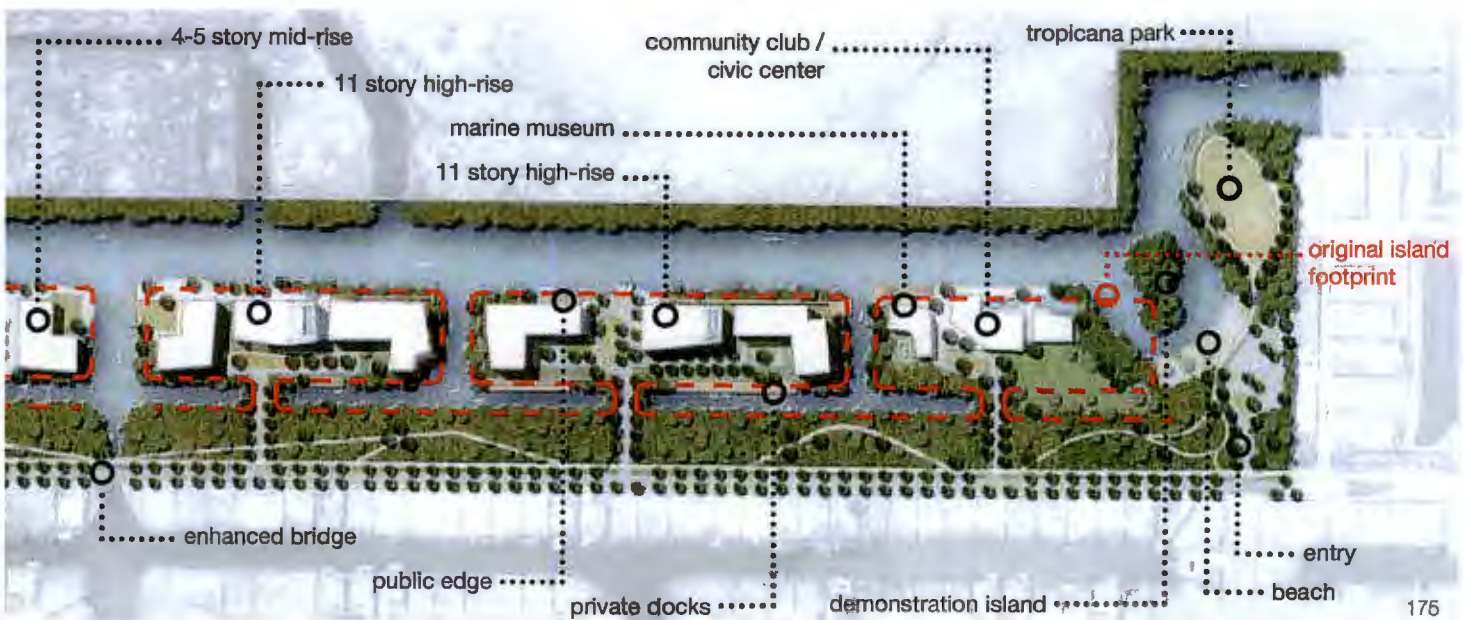
## PROGRAM

**RESIDENTIAL** 1,269 Units

**HOTEL / RESORT** 320 Rooms  
 Marina Cottages 6 Units  
 Meeting Space 35,000 SF

**COMMERCIAL** 70,000 SF

**AMENITIES**  
 Community Center 22,500 SF  
 Marine Museum 10,000 SF  
 Recreational Center 10,000 SF  
 NW Cape Park



**VOLUME**



# ALTERNATIVE CONCEPTS

## MISSION

On August 3, 2016 the consultant team presented alternative designs for Concepts B, C, and D at the Committee of the Whole (C.O.W.) City Council Workshop. These alternatives, as directed by city council, were to define/refine the concepts with modifications to certain place-making elements and design features.

The alternative concepts were presented at the August 22, 2016 City Council meeting for consideration/selection. Given the study's mission – to provide a vision and a regulatory framework for physical development of the 7 Islands, – City Council opted to establish key land use and place-making elements and minimum/maximum development standards in lieu of a specific concept plan. These minimum/maximum development standards are graphically depicted in Blended Concepts B1+C1 and C1+D1.

## 7 ISLANDS ALTERNATIVE CONCEPT PLANS

### DESIGN PARAMETERS

**B-1**

**B-2**

**C-1**

**C-2**

**D-1**

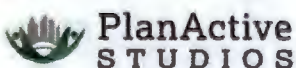
**D-2**

### OPPORTUNITY MATRICES

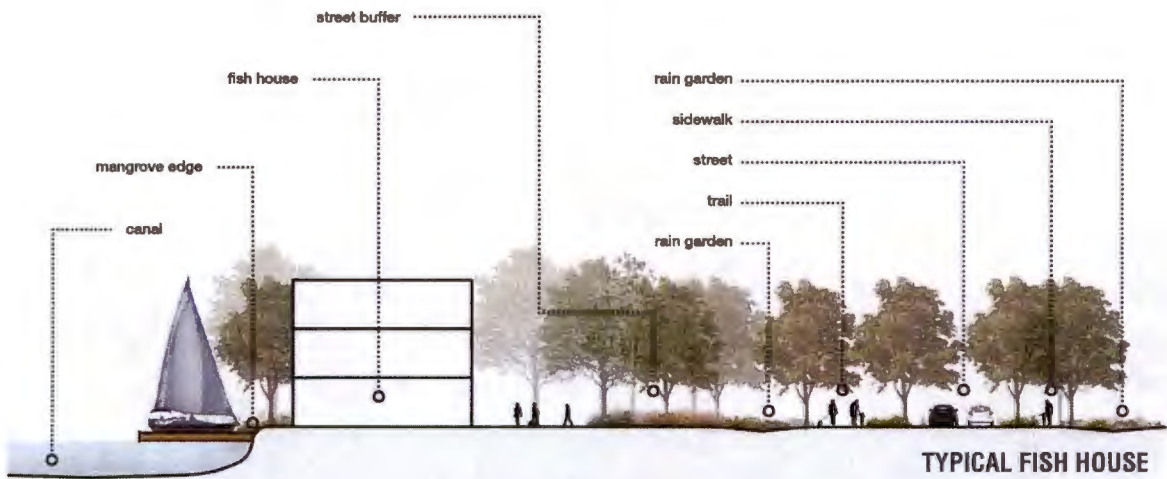
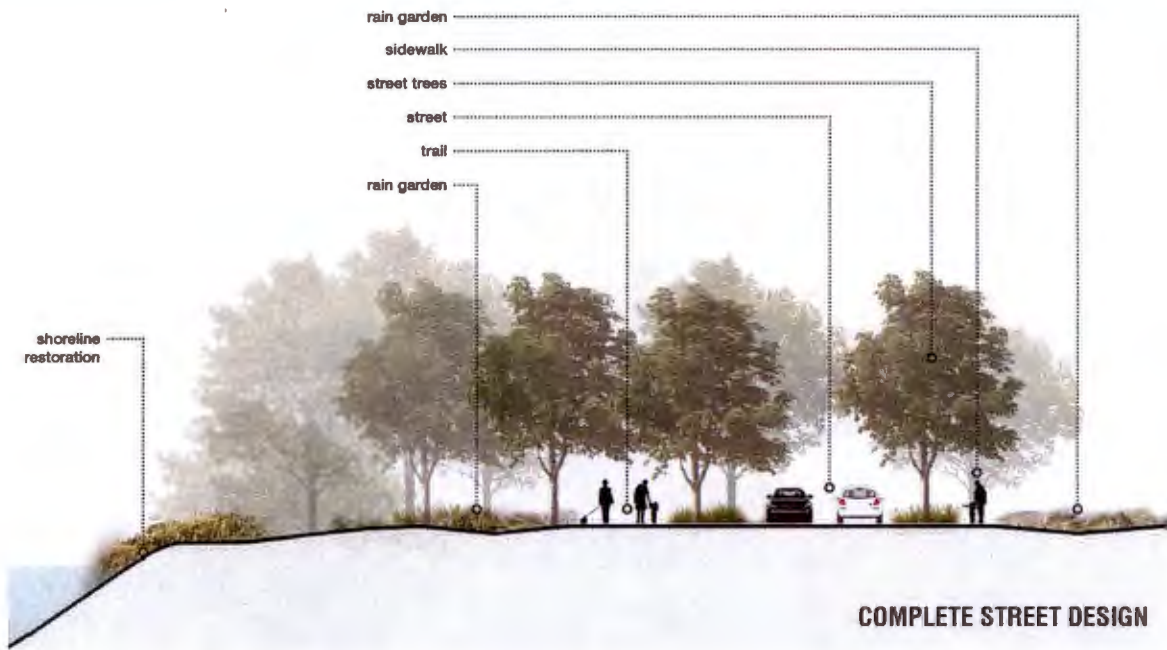
### MINIMUM/MAXIMUM STANDARDS

### RECOMMENDATIONS

### BLENDED CONCEPTS







# DESIGN PARAMETERS

## DESIGN NARRATIVE

City Council directed the consultant team to address the selected design concepts with respect to the following development attributes for B-1, C-1, and D-1:

- With a Public Marina
- Cut and Fill of Canal Areas
- Enhanced Tropicana Park

Conversely same Concepts B-2, C-2, and D-2:

- Without a Public Marina
- No Cut and Fill of Canal Areas
- No Enhancement of Tropicana Park

Land design, place-making elements that are to be common to all alternative concepts include:

- Community Center
- Continuous Public Water Edge
- Mixed-Use Village Center
- Parks
- Marina Services (Fuel, Convenience Shop)
- Stormwater Treatment (Surface, Bio-swales)
- "Complete Street" Treatment of Old Burnt Store Road
- Hotel
- Pedestrian Connectivity
- Mix of Housing Opportunities (Fish Houses, Multi-Family, Townhomes)
- Shoreline and Mangrove Restoration
- Ecologically Sensitive Design



# ALTERNATIVE CONCEPTS

**B-1**

**B-2**

**C-1**

**C-2**

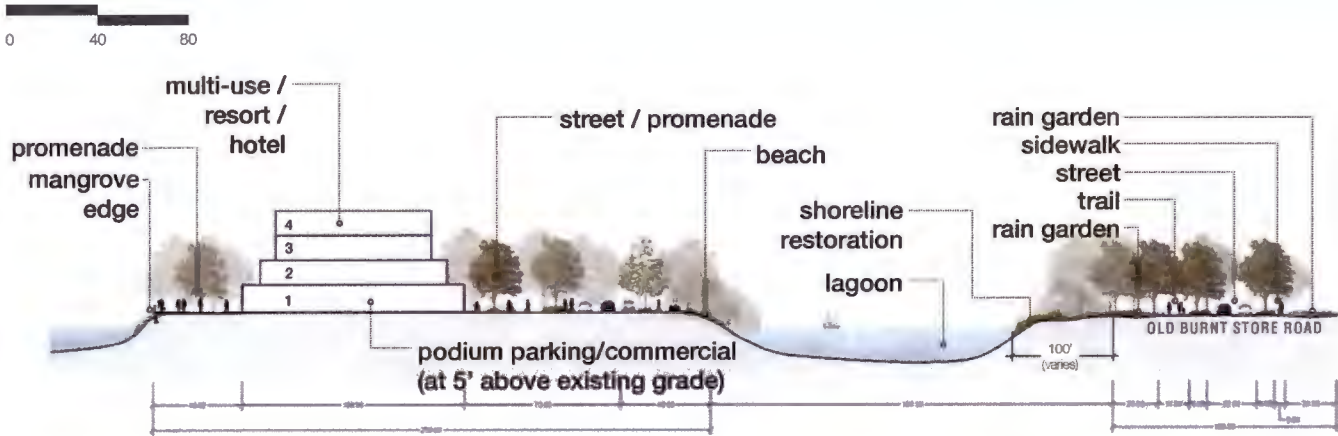
**D-1**

**D-2**

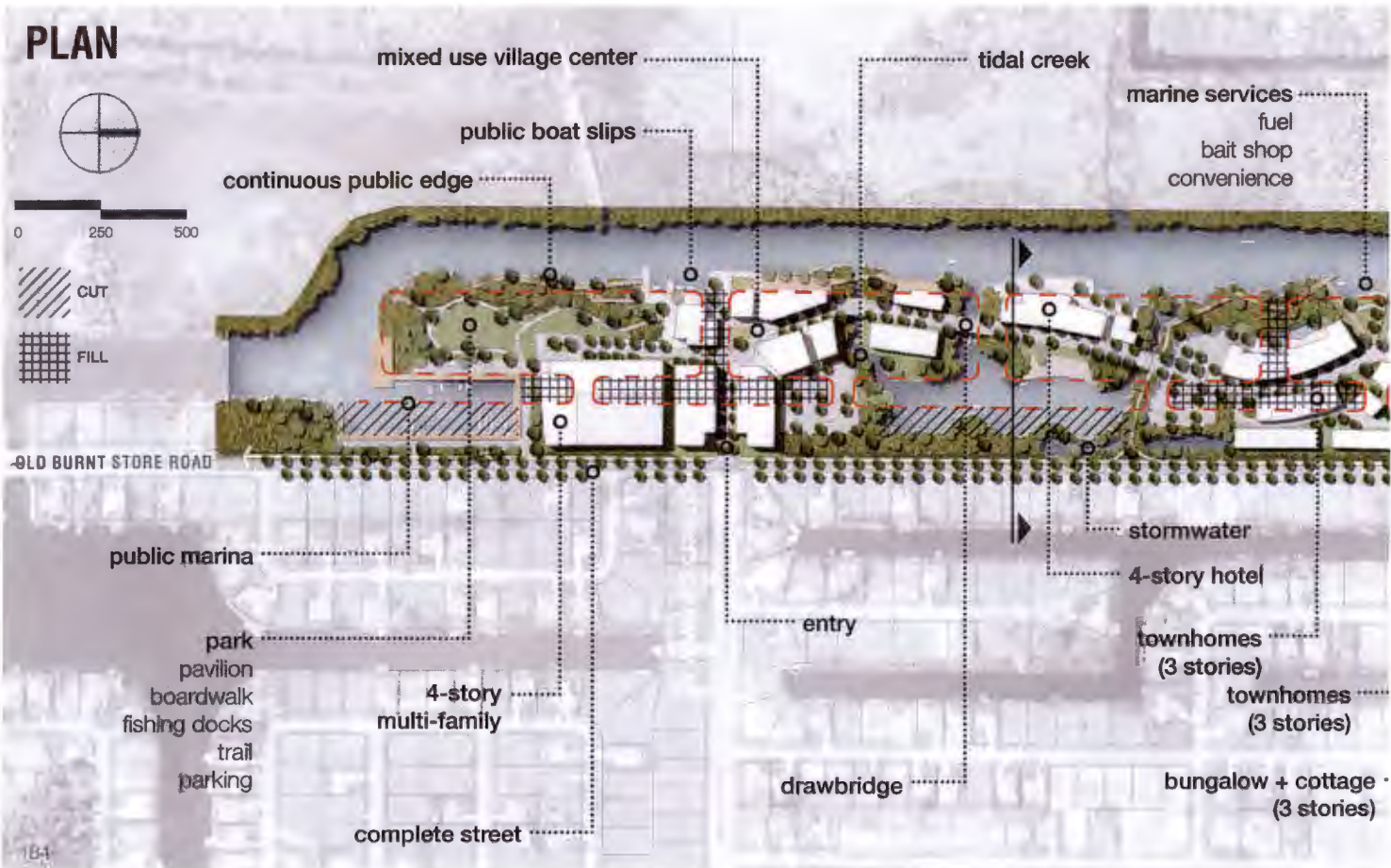
- + WITH MARINA
- + FILL BETWEEN ISLANDS WHILE KEEPING CONCEPT VISION
- + OPEN SPACE AS DEPICTED
- + WITH TROPICANA BEACH

**CUT: 5.7 ACRES ±**  
**FILL: 7.9 ACRES ±**

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT B-1

Concept B was the preferred concept by the Northwest Cape Coral Neighborhood Association, Inc. during the charrette process. It became known as the "organic" plan due to its curvilinear internal street layout, man-made lagoons, generous open space, 4-story maximum height, restored natural edges and lagoons, and north/south "bookends." Concept B-1 minimizes the cut/fill activities while adhering to the design elements from the charrette.

## PROGRAM

### RESIDENTIAL

Townhome/Bungalow/Cottage	75
Multi-Family	415
Total Units	490 Units

### HOTEL / RESORT

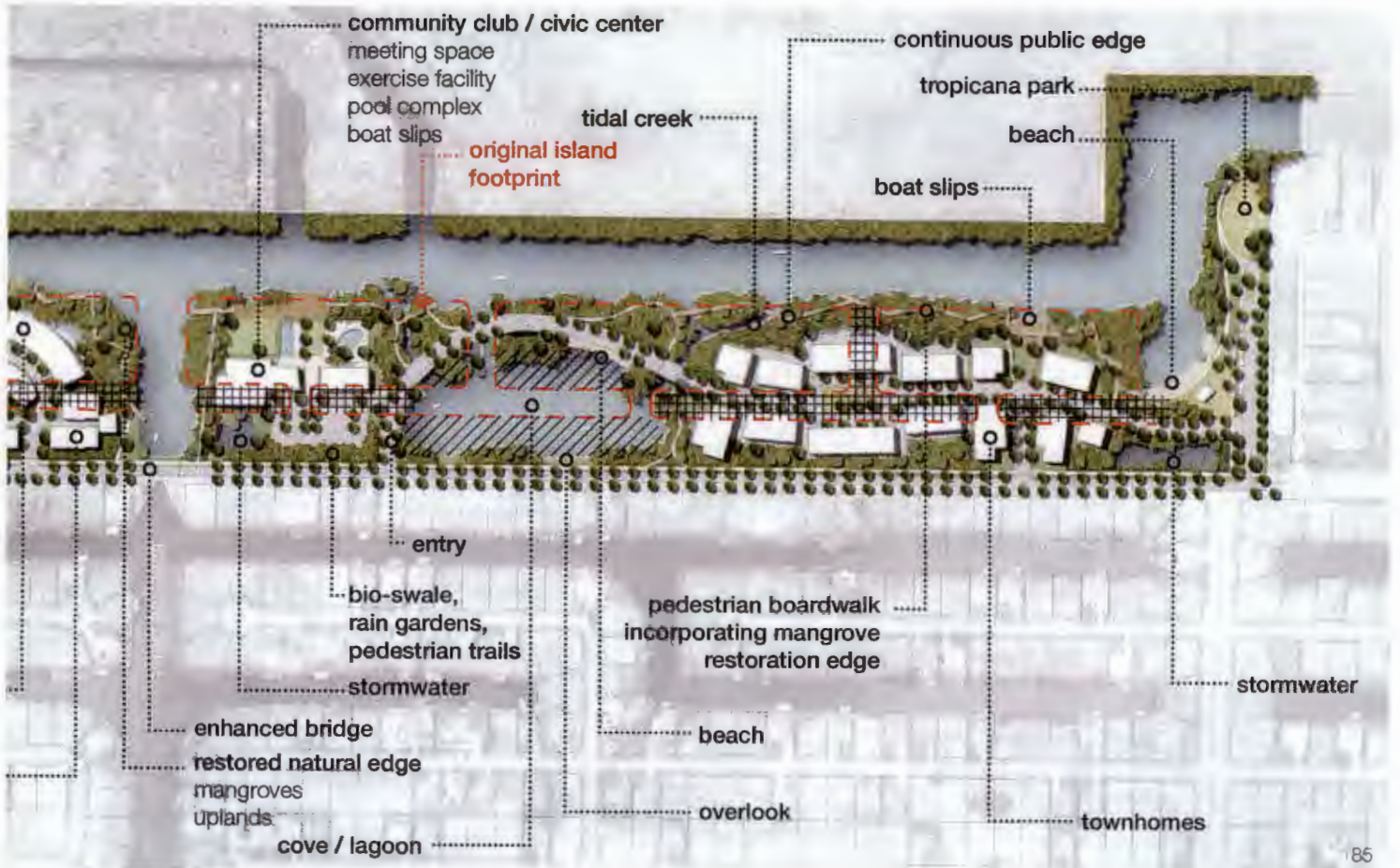
90 Rooms

### COMMERCIAL

65,000 SF

### AMENITIES

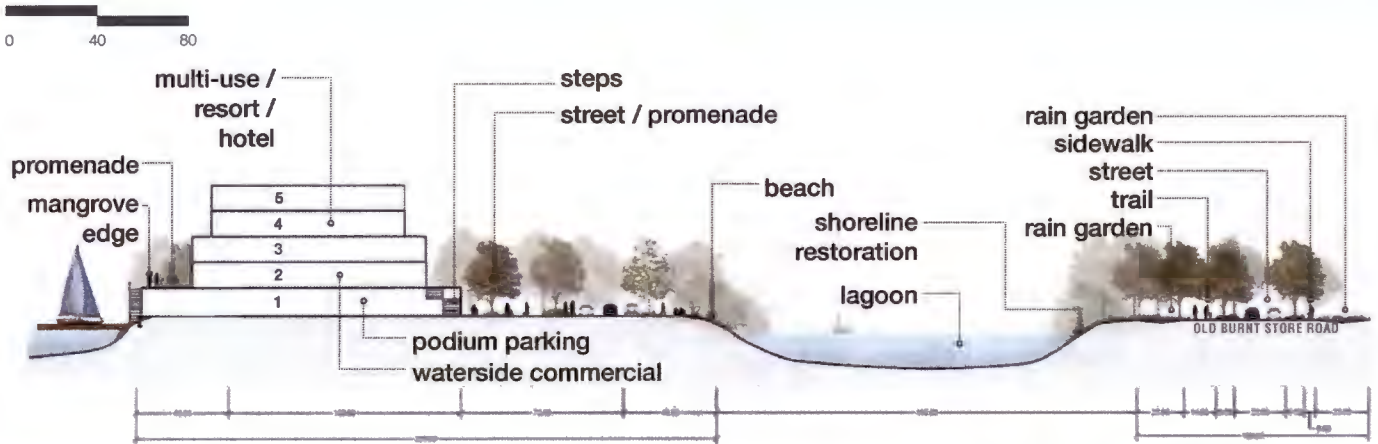
Community Center	40,000 SF
Marina	140 slips ±
Enhanced Tropicana Park	
Boat Slips	120



- + WITHOUT MARINA
- + INCREASED OPEN SPACE
- + MAINTAIN TROPICANA PARK STATUS QUO

CUT: 0 ACRES  
 FILL: 0 ACRES

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT B-2

Concept B-2 does not call for any cut/fill activities while maintaining some of the "organic" design elements from the original plan. It has building heights of 5 stories.

## PROGRAM

### RESIDENTIAL

Multi-family	600
Townhomes / Bungalows	79
Total Units	679 Units

### HOTEL / RESORT

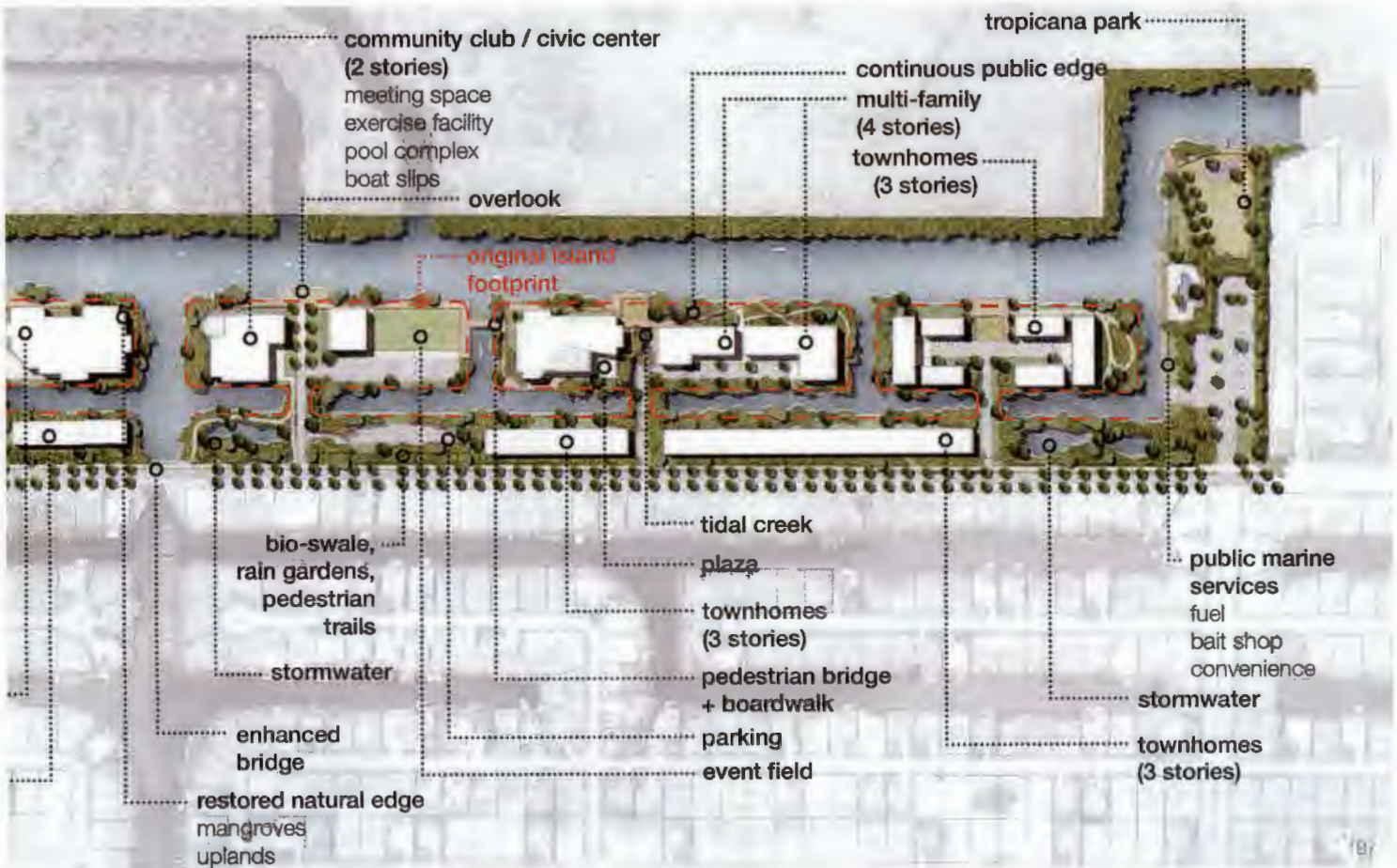
120 Rooms

### COMMERCIAL

45,000 SF

### AMENITIES

Community Center	40,000 SF
Public Marine Services	





# CONCEPT B-1

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Townhomes/Bungalow + Cottages	75	3
Multi-Family	415	4
<b>Residential Total:</b>	<b>490</b>	
Commercial/Village	65,000 SF	4
Hotel	90 Rooms	4
Community Center	40,000 SF	2
Marina	140 Slips	
Improved Tropicana Park		
<b>EARTHWORK</b>		
	<b>AREA</b>	
Cut	5.7 ac (+/-) (1,489,752 f <sup>3</sup> )	
Fill	7.9 ac (+/-) (2,162,600 f <sup>3</sup> )	

### NOTES

Concept B-1 mirrors the potential layout, use mix, and yield of Concept B, while minimizing the earthwork needs, and still reflects the "organic" concept design and layout.

### KEY ELEMENTS INCLUDE:

1. Old Burnt Stone Road redesign as a "complete street."
2. Tidal creek to aid in canal "flushing."
3. Public marina.
4. Community center.
5. Enhancement of Tropicana Park.
6. Mixed-use village center highlights open/plaza areas, waterfront boardwalk, ground level commercial with office and/or residential uses above.
7. Maximum Building Height: 4 stories.

### LAND AREAS

Boardwalk: 6,800 LF ±

Open Space: T.B.D.

# CONCEPT B-2

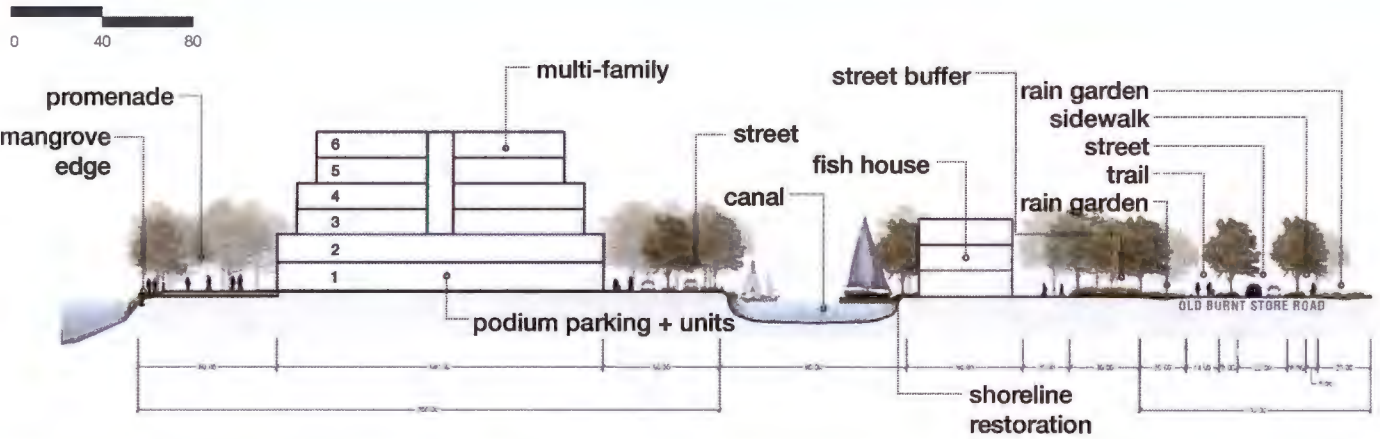
## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Townhomes	79	3
Multi-Family	600	5
<b>Residential Total:</b>	<b>679</b>	
Commercial/Village	45,000 SF	4
Hotel	120 Rooms	4
Community Center	40,000 SF	2
Marina	<i>No</i>	
Improved Tropicana Park	<i>No</i>	
<b>EARTHWORK</b>		
		<b>AREA</b>
Cut		<i>None</i>
Fill		<i>None</i>
<b>NOTES</b>		
<p>Concept B-2 positions the land use mix introduced in the original Concept B and locates potential building envelopes and development areas within the existing Seven Island areas without any cut/fill areas.</p> <p><b>KEY ELEMENTS INCLUDE:</b></p> <ol style="list-style-type: none"> <li>1. No earthwork of Seven Islands or Spreader Canal areas.</li> <li>2. Old Burnt Stone Road redesign as a "complete street."</li> <li>3. No public marina.</li> <li>4. Additional open space.</li> <li>5. Public surface parking along Old Burnt Stone Road frontage strip.</li> <li>6. Mixed-use village center highlights open/plaza areas, waterfront boardwalk, ground level commercial with office and/or residential uses above.</li> <li>7. Maximum Building Height: 5 stories.</li> </ol>		
<b>LAND AREAS</b>		
<p>Boardwalk: 8,900 LF ±                      Open Space: T.B.D.</p>		

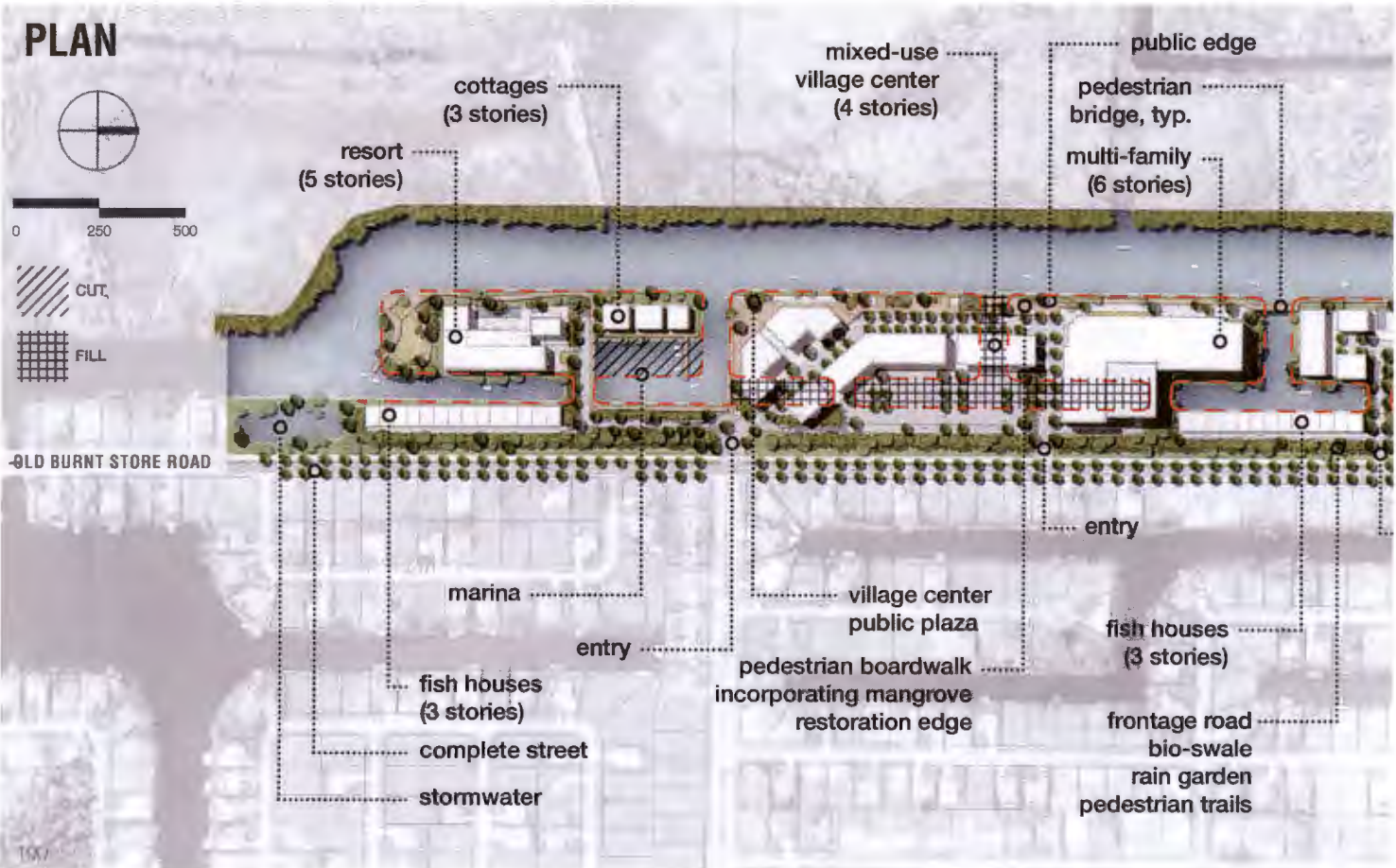
- + WITH MARINA
- + WITH TROPICANA BEACH
- + OPEN SPACE AS DEPICTED
- + WITH CUT AND FILL

**CUT: 2.0 ACRES ±**  
**FILL: 3.6 ACRES ±**

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT C-1

Concept C-1 is characterized by a resort complex and large public marina on the south end, plus an enhanced Tropicana Park at the north end of the islands. Maximum building height is 6 stories.

## PROGRAM

### RESIDENTIAL

Townhomes	30
Multi-Family	680
Fish Houses	71
Total Units	781 Units

### HOTEL / RESORT

Meeting Space	75,000 SF
---------------	-----------

Amenities

### COMMERCIAL

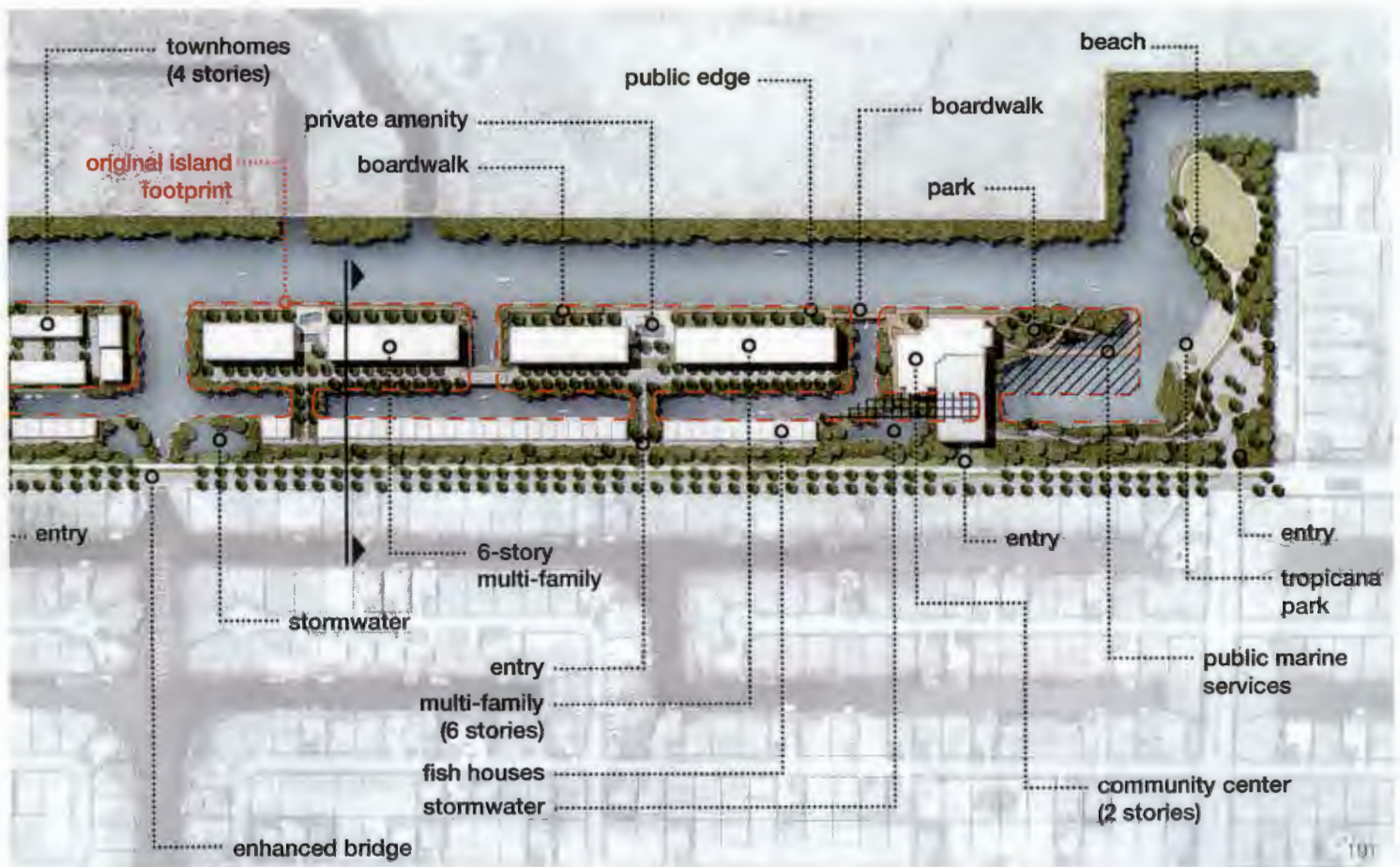
58,000 SF

### BOAT SLIPS

210 Slips

### AMENITIES

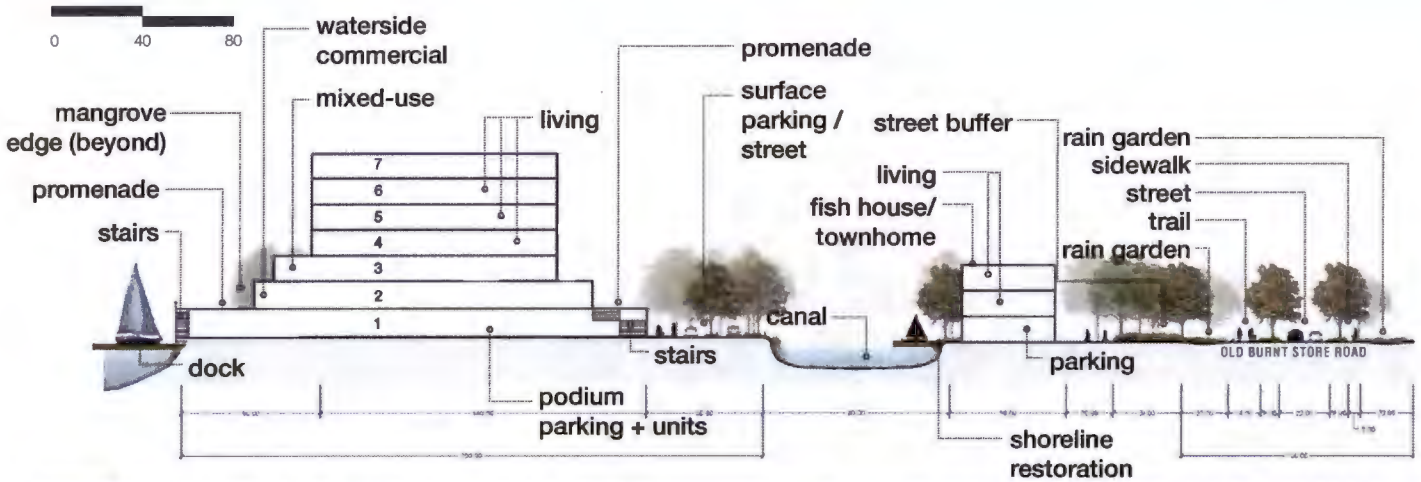
Community Center	40,000 SF
Improved Tropicana Park	



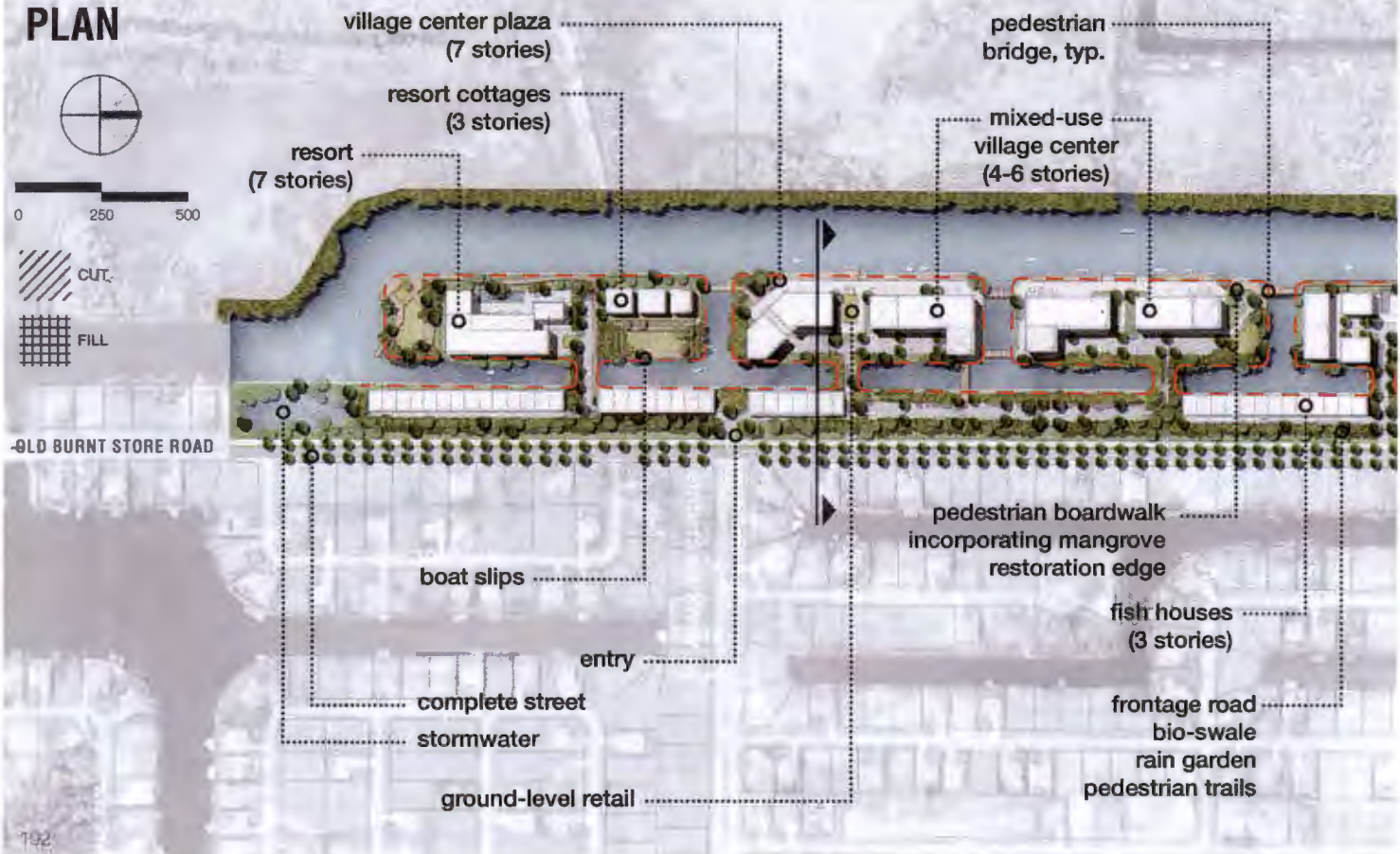
- + WITHOUT MARINA
- + WITHOUT TROPICANA BEACH
- + MAINTAIN TROPICANA PARK STATUS QUO
- + NO FILL

CUT: 0 ACRES  
 FILL: 0 ACRES

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT C-2

Concept C-2 has a maximum building height of 7 stories with no cut/fill activity. It calls for the placement of the Community Center at the north end of the islands to complement Tropicana Park.

## PROGRAM

### RESIDENTIAL

Multi-Family	807
Townhomes	30
Fish Houses	86
Total Units	923 Units

### HOTEL / RESORT

Meeting Space	60,000 SF
---------------	-----------

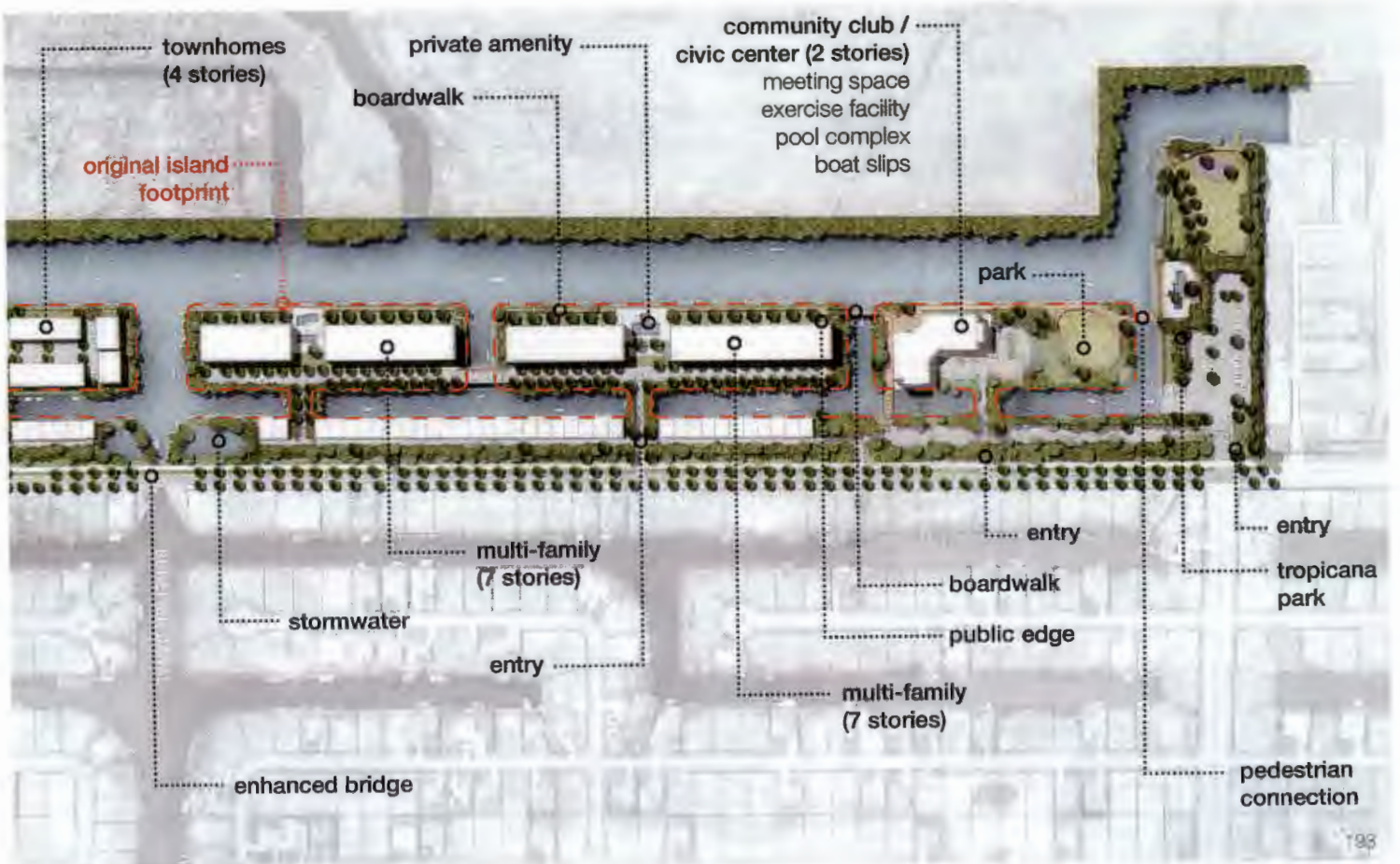
Amenities

### COMMERCIAL

40,000 SF

### AMENITIES

Community Center	40,000 SF
Park	



# CONCEPT C-1

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Fish Houses	71	3
Townhomes	30	4
Multi-Family	680	6
<b>Residential Total:</b>	<b>781</b>	
Commercial/Village	58,000 SF	4-5
Hotel	120 Rooms	5
Community Center	40,000 SF	2
Marina	210 Slips	
Improved Tropicana Park	Yes	
<b>EARTHWORK</b>		
	<b>AREA</b>	
Cut	2.0 ac (+/-) (510,000 f <sup>2</sup> )	
Fill	3.6 ac (+/-) (940,896 f <sup>2</sup> )	
<b>NOTES</b>		
Concept C-1 consists of a "blend" of uses framed by "fish houses" along the Old Burnt Stone Road frontage with a resort island, mixed use village, multi-family uses, two marinas, and an enhanced Tropicana Park.		
<b>KEY ELEMENTS INCLUDE:</b>		
1. Old Burnt Stone Road redesign as a "complete street."		
2. Resort Island		
3. Maximum Height: 6 Stories		
<b>LAND AREAS</b>		
Boardwalk: 10,100 LF ±		
Open Space: 35.6 AC ±		

# CONCEPT C-2

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Fish Houses	86	3
Townhomes	30	4
Multi-Family	680	7
<b>Residential Total:</b>	<b>923</b>	
Commercial/Village		4-6
Hotel	225 Rooms	6
Community Center	40,000 SF	2
Marina	No	
Improved Tropicana Park	No	
<b>EARTHWORK</b>		
	<b>AREA</b>	
Cut	None	
Fill	None	

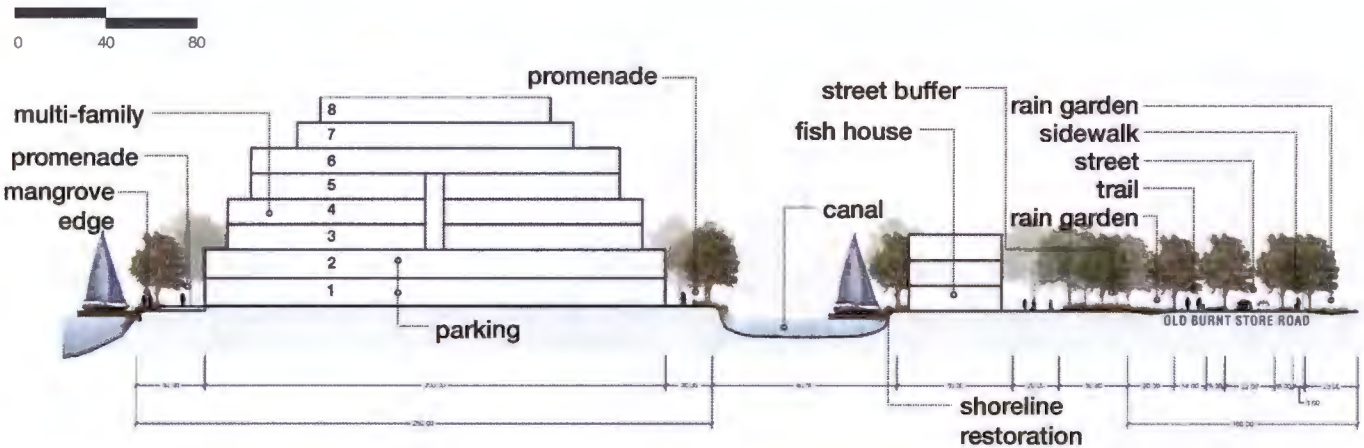
<p><b>LAND AREAS</b>          Boardwalk: 11,100 LF ±          Open Space: 36.7 AC ±</p>
-------------------------------------------------------------------------------------------------



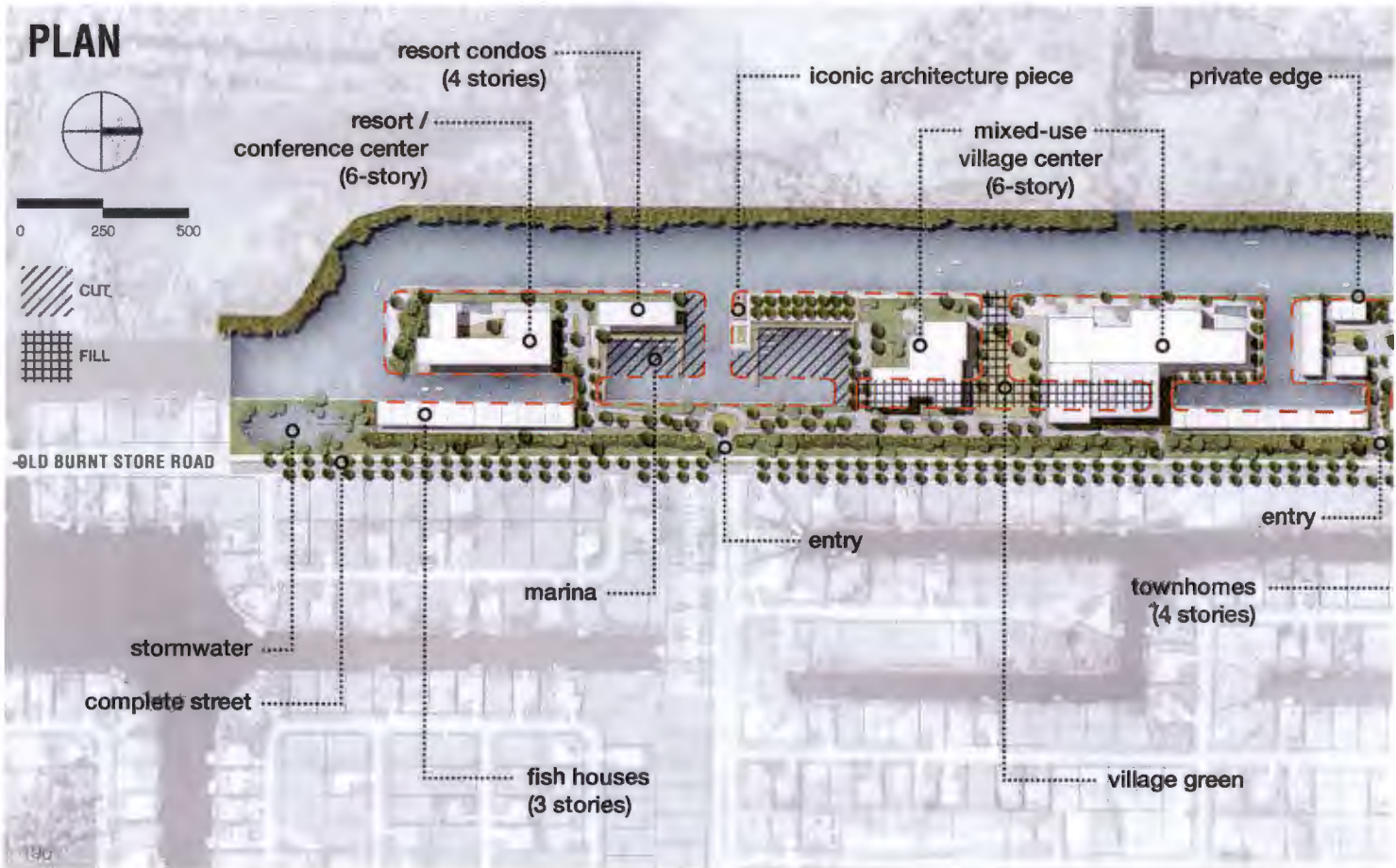
- + WITH MARINA
- + OPEN SPACE AS DEPICTED
- + WITH TROPICANA BEACH [FROM CONCEPT E]
- + WITH CUT AND FILL

**CUT: 3.4 ACRES ±**  
**FILL: 2.6 ACRES ±**

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT D-1

Concept D-1 is highlighted by a resort/marina and mixed-use village node that anchors the Islands' south end. The north end is characterized by a large public-use complex consisting of the Community Center, an enhanced Tropicana Park, and a public marina. The proposed building height is a maximum of 8 stories.

## PROGRAM

### RESIDENTIAL

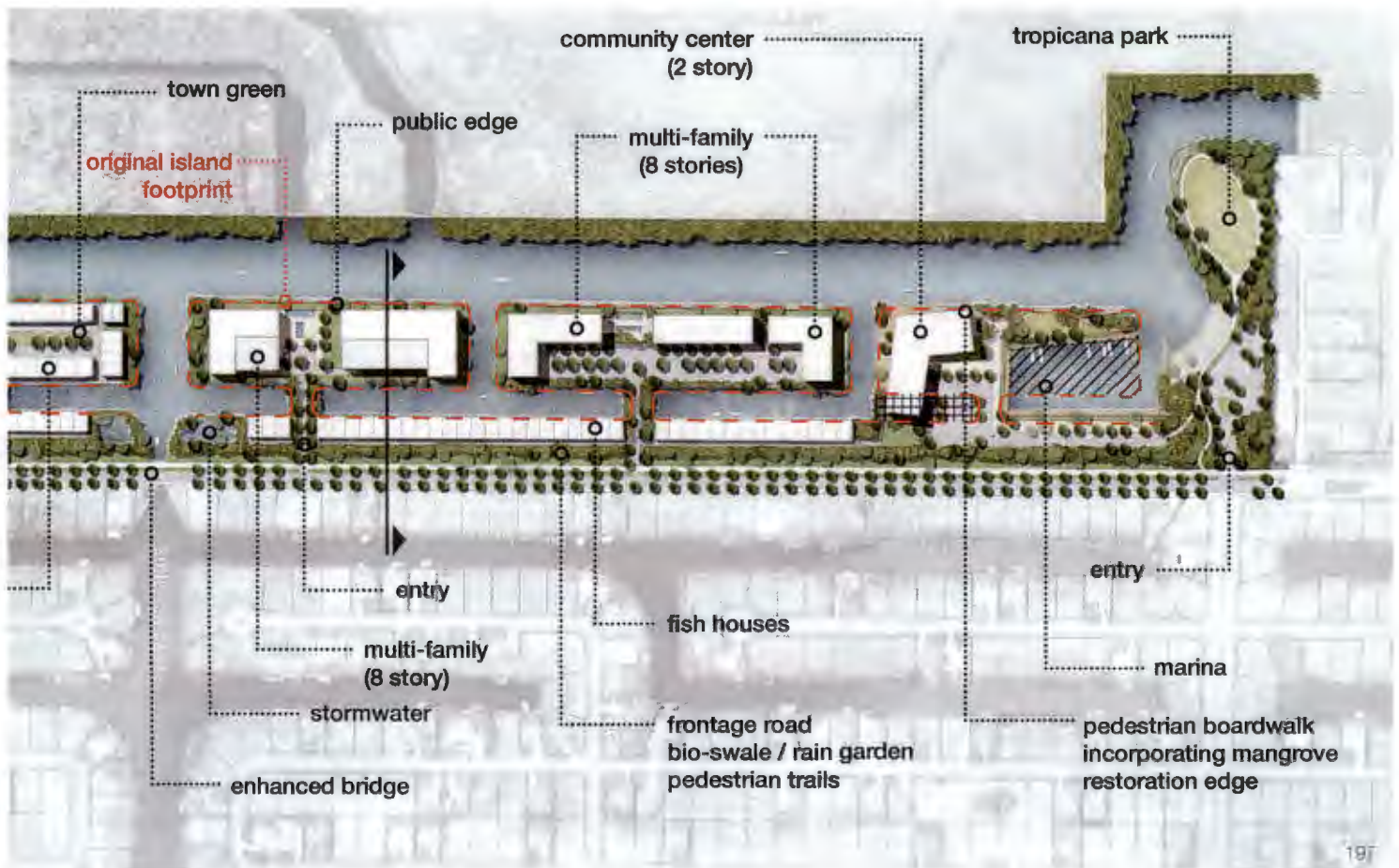
Multi-Family / Condo	890
Townhomes	34
Fish Houses	71
Total Units	995 Units

### HOTEL / RESORT

Meeting Space	240 Rooms
	25,000 SF
	45,000 SF

### COMMERCIAL AMENITIES

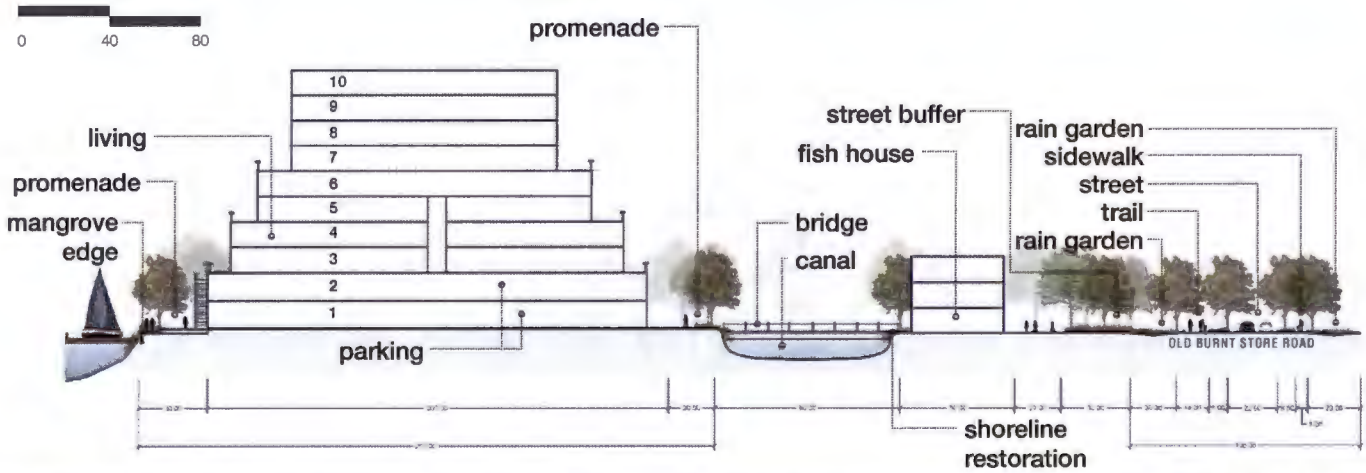
Community Center	40,000 SF
Park	
Public Marina + Launch	280 Slips
Boat Slips/Marina	



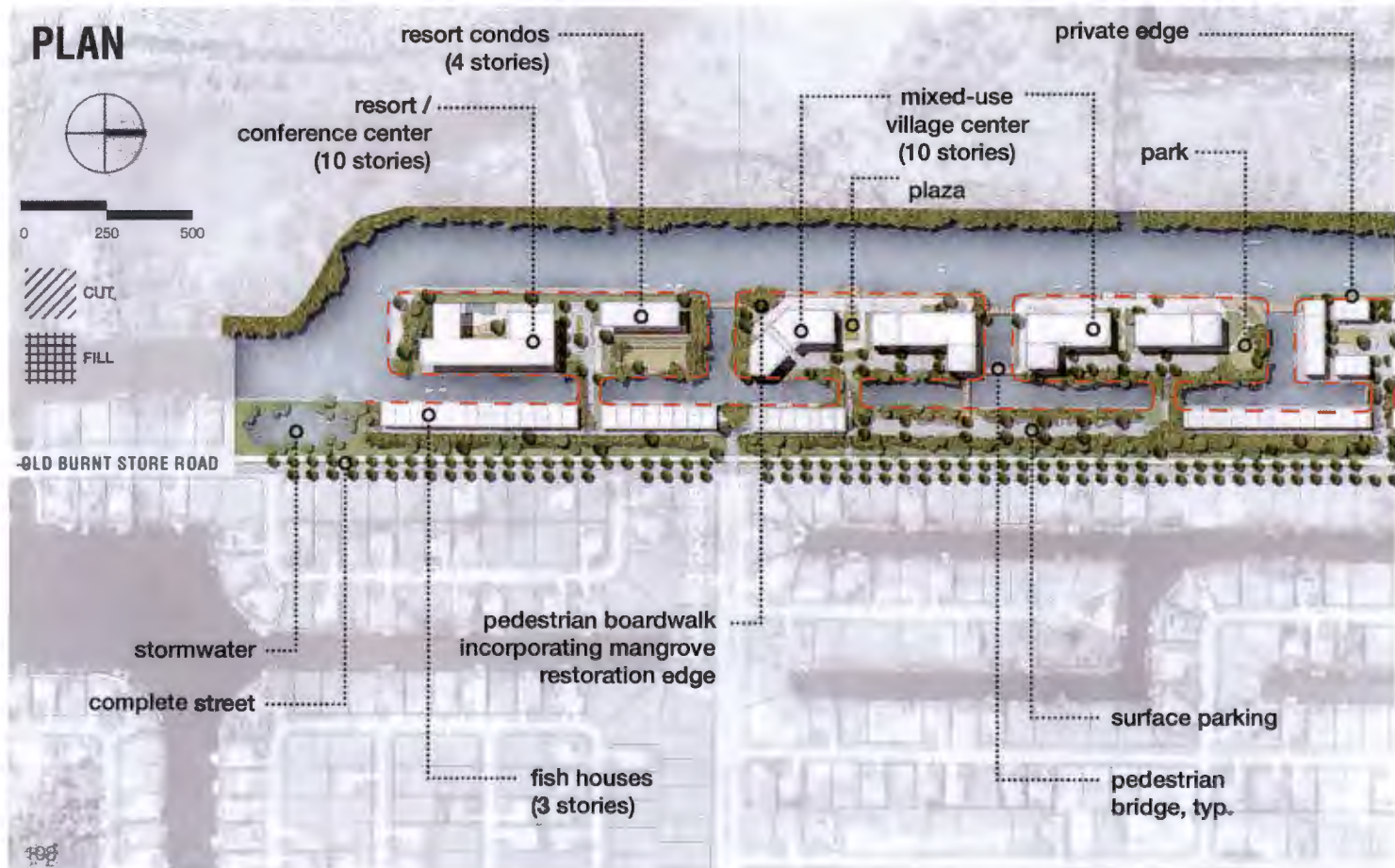
+ WITHOUT MARINA  
 + NO CUT AND FILL

CUT: 0 ACRES  
 FILL: 0 ACRES

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS

## CONCEPT D-2

Concept D-2 calls for a 10-story maximum building height, no cut/fill activities, and limited public access to the Spreader Canal.

### PROGRAM

#### RESIDENTIAL

Multi-Family	1,176
Townhomes	37
Fish Houses	87
Total Units	1,300 Units

#### HOTEL / RESORT

Meeting Space	35,000 SF
---------------	-----------

#### COMMERCIAL

40,000 SF

#### AMENITIES

Community Center	40,000 SF
Park	



# CONCEPT D-1

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Fish Houses	71	3
Townhomes	34	4
Multi-Family	890	8
<b>Residential Total:</b>	<b>955</b>	
Commercial/Village	45,000 SF	6
Hotel	240 Rooms	6
Community Center	40,000 SF	2
Marina	Yes	
Improved Tropicana Park	Yes	
<b>EARTHWORK</b>		
	<b>AREA</b>	
Cut	3.4 ac (+/-) (888,624 f <sup>2</sup> )	
Fill	2.6 ac (+/-) (679,536 f <sup>2</sup> )	

### NOTES

Concept D-1 is a high intensity and density project layout that calls for cut/fill areas. Preliminary estimates provide excess materials/dirt. Concept depicts a large boat basin/marina as a focal point to village and resort islands.

### KEY ELEMENTS INCLUDE:

1. Old Burnt Stone Road redesign as a "complete street."
2. Large resort/village complex and large boat basin.
3. Surface parking to serve village.
4. Maximum Building Height: 8 stories.

### LAND AREAS

Boardwalk: 6,800 LF ±  
Open Space: T.B.D.

# CONCEPT D-2

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Fish Houses	87	3
Townhomes	37	4
Multi-Family	1,176	8-10
<b>Residential Total:</b>	<b>1,300</b>	
Commercial/Village Center	40,000 SF	6
Hotel	320 Rooms	6-7
Community Center	40,000 SF	2
Marina	No	
Improved Tropicana Park	No	

EARTHWORK	AREA
Cut	None
Fill	None

### NOTES


Concept D-2 expands the density and intensity of the proposed development within the existing Seven Island footprint--no cut and fill of land areas. The Concept provides for various uses and building heights ranging from 2 to 10 stories.

### KEY ELEMENTS INCLUDE:

1. Old Burnt Stone Road redesign as a "complete street."
2. Resort island.
3. Surface parking to serve village.
4. Maximum Building Height: 10 stories.

### LAND AREAS

Boardwalk: 10,300 LF ±  
Open Space: T.B.D.



Council selected alternative concepts C-1 as a minimum and D-1 as a maximum for the development of the 7 Islands. These concepts contain land uses, housing types, and “place-making” elements that establish the blueprint for creating a sustainable, walkable, viable district as the cornerstone/focal point of the Vision for the Cape Coral Northwest Quadrant.

Desired elements include: restored natural edges, mangrove restoration, community center, parks, continuous public edge, marina, mix of housing types, mixed-use village center, complete street design for Old Burnt Store Road, and an enhanced Tropicana Park.

# CONCEPTS C-1 + D-1

# MINIMUM-MAXIMUM

# STANDARDS

## **BUILDING HEIGHT**

- Maximum - 6 to 8 stories

## **“COMPLETE STREET” TREATMENT FOR OLD BURNT STORE ROAD**

## **PUBLIC ACCESS TO WATERFRONT**

- At mixed-use village center
- At Tropicana Park and community center

## **COMMUNITY CENTER**

- Adjacent to Tropicana Park
- Two-story marine-interpretative center, meeting space

## **MIX OF HOUSING TYPES**

- Fish houses
- Multi-family
- Townhomes
- Flats

## **STORMWATER TREATMENT**

- Bio-swales
- Rain gardens
- Stormwater ponds

## **HOTEL/RESORT**

- 120-240 rooms
- Conference center

## **VILLAGE CENTER**

- 4-6 stories
- Mixed-use
- Open space
- Boardwalk

## **PEDESTRIAN CONNECTIVITY**

## **LIMIT CUT/FILL ACTIVITIES ALONG ISLAND CANALS**

## **MARINA**

- At hotel resort
- At Tropicana Park and community center

## **ECOLOGICAL CONSIDERATIONS**

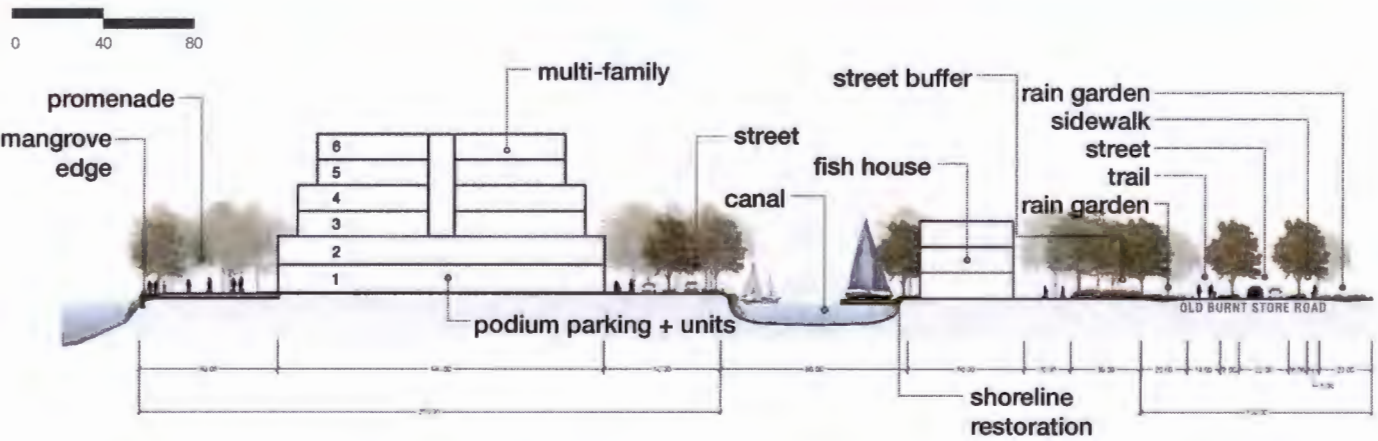
- Shoreline Restoration/Revegetation
- Native species landscape
- Stormwater ponds



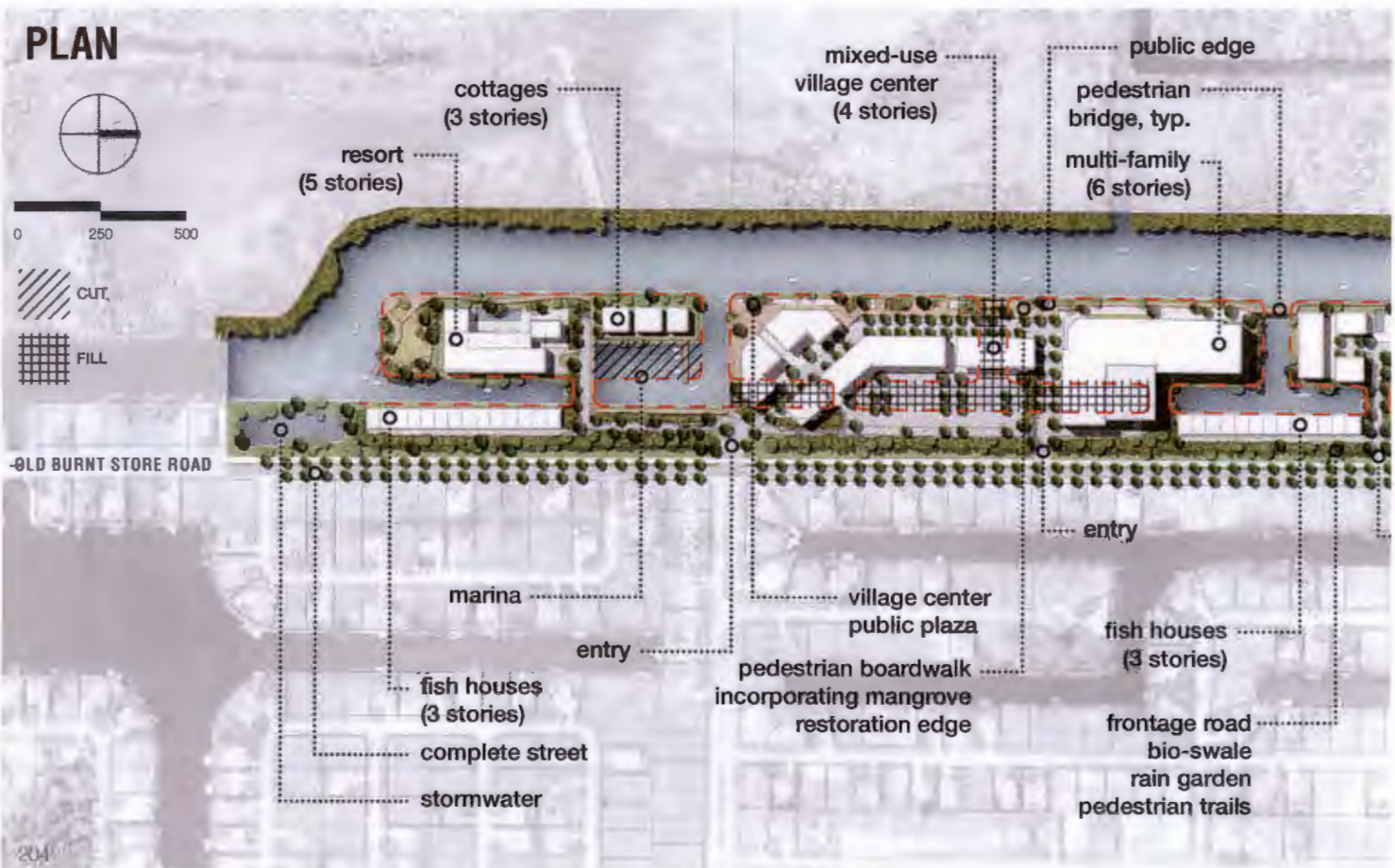
- + WITH MARINA
- + WITH TROPICANA BEACH
- + OPEN SPACE AS DEPICTED
- + WITH CUT AND FILL

**CUT: 2.0 ACRES ±**  
**FILL: 3.6 ACRES ±**

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT C-1

Concept C-1 is characterized by a resort complex and large public marina on the south end, plus an enhanced Tropicana Park at the north end of the islands. Maximum building height is 6 stories.

## PROGRAM

### RESIDENTIAL

Townhomes	30
Multi-Family	680
Fish Houses	71
Total Units	781 Units

### HOTEL / RESORT

Meeting Space	120 Rooms
Amenities	75,000 SF

### COMMERCIAL

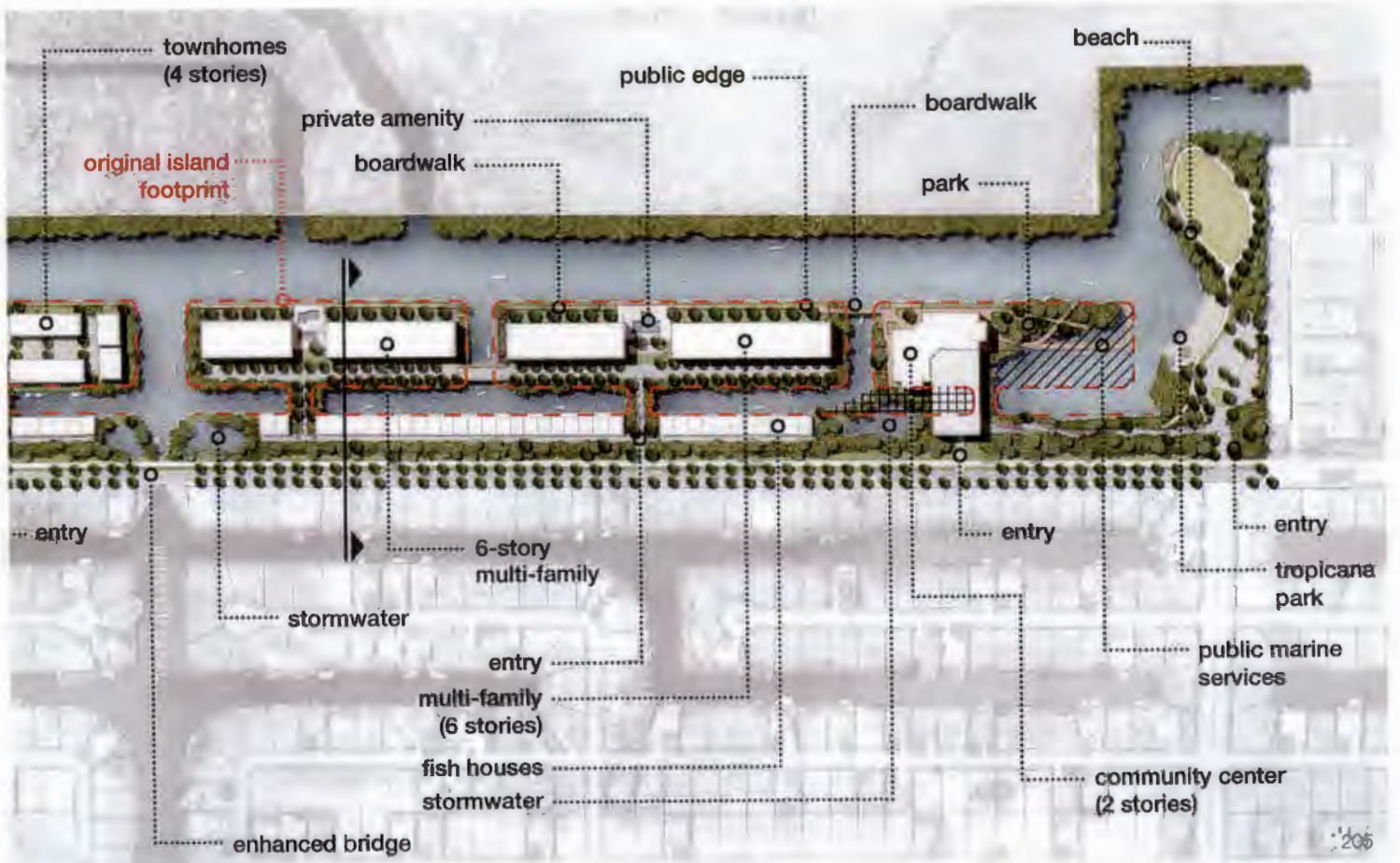
58,000 SF

### BOAT SLIPS

210 Slips

### AMENITIES

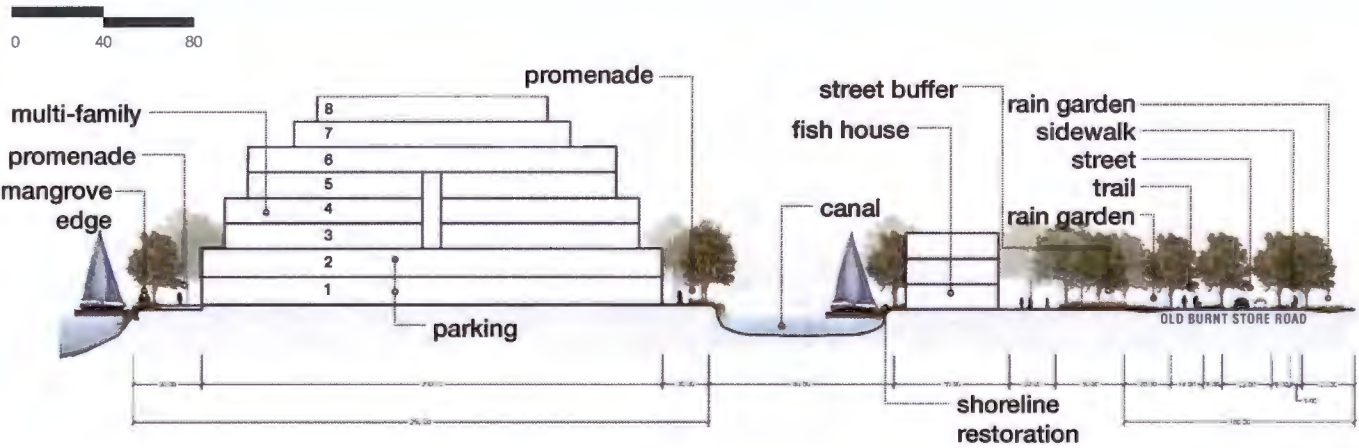
Community Center	40,000 SF
Improved Tropicana Park	



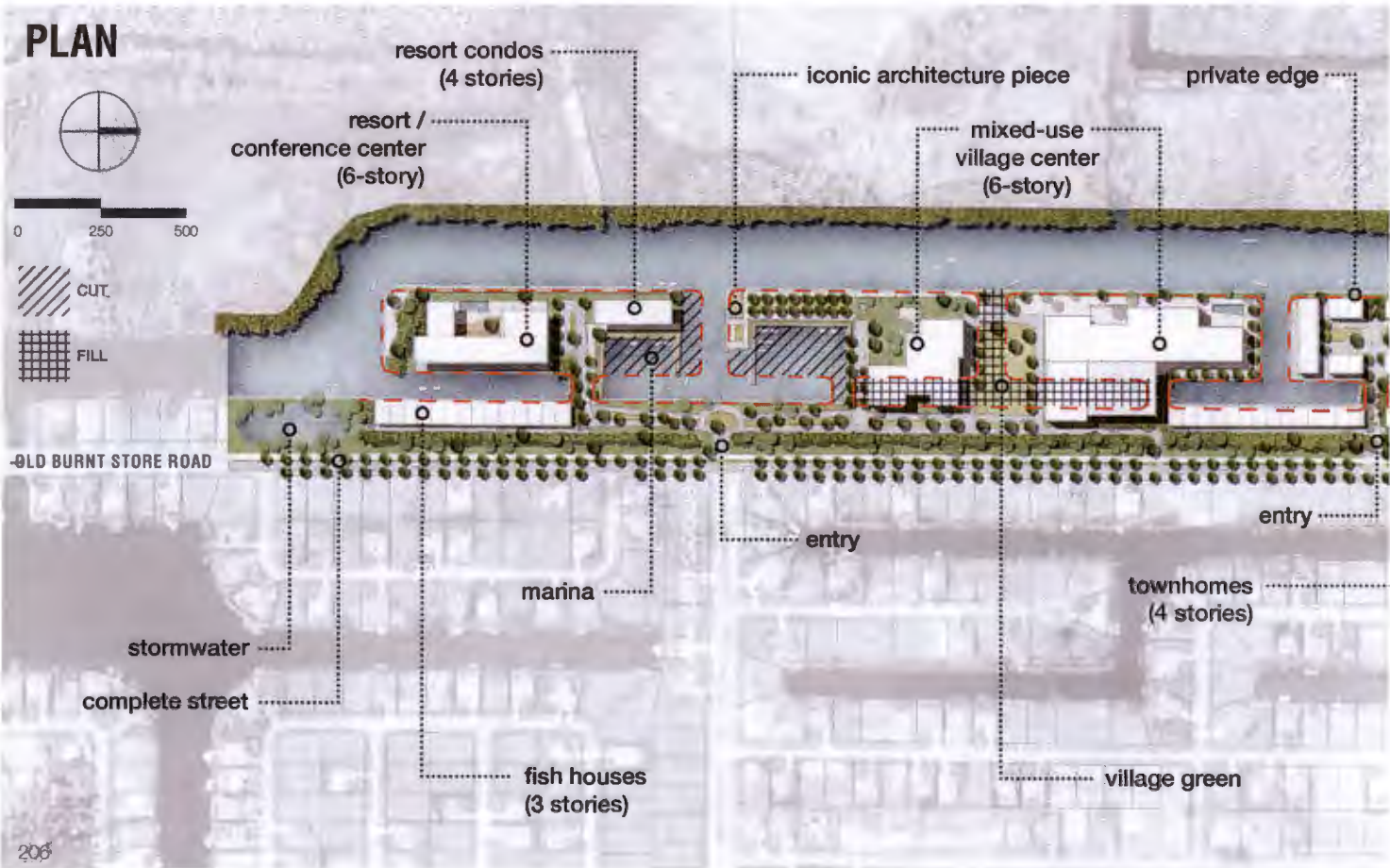
- + WITH MARINA
- + OPEN SPACE AS DEPICTED
- + WITH TROPICANA BEACH [FROM CONCEPT E]
- + WITH CUT AND FILL

CUT: 3.4 ACRES ±  
 FILL: 2.6 ACRES ±

## SECTION



## PLAN



# 7 ISLANDS CONCEPT PLANS CONCEPT D-1

Concept D-1 is highlighted by a resort/marina and mixed-use village node that anchors the Islands' south end. The north end is characterized by a large public-use complex consisting of the Community Center, an enhanced Tropicana Park, and a public marina. The proposed building height is a maximum of 8 stories.

## PROGRAM

### RESIDENTIAL

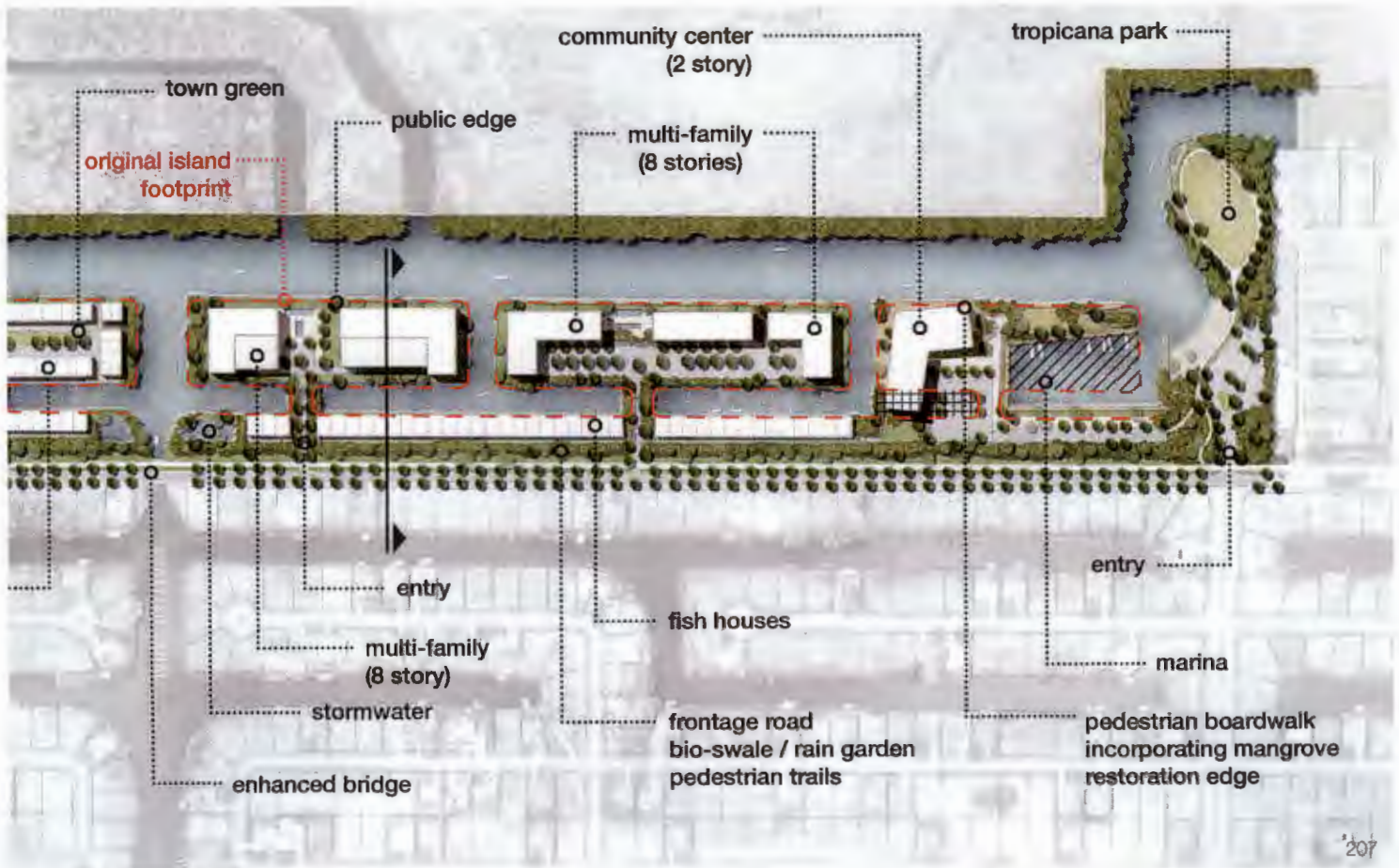
Multi-Family / Condo	890
Townhomes	34
Fish Houses	71
Total Units	995 Units

### HOTEL / RESORT

Meeting Space	240 Rooms
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### COMMERCIAL AMENITIES

Community Center	40,000 SF
Park	
Public Marina + Launch	280 Slips
Boat Slips/Marina	



# CONCEPT C-1

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Fish Houses	71	3
Townhomes	30	4
Multi-Family	680	6
<b>Residential Total:</b>	<b>781</b>	
Commercial/Village	58,000 SF	4-5
Hotel	120 Rooms	5
Community Center	40,000 SF	2
Marina	210 Slips	
Improved Tropicana Park	Yes	
<b>EARTHWORK</b>		
	<b>AREA</b>	
Cut	2.0 ac (+/-) (510,000 f <sup>3</sup> )	
Fill	3.6 ac (+/-) (940,896 f <sup>3</sup> )	
<b>NOTES</b>		
Concept C-1 consists of a "blend" of uses framed by "fish houses" along the Old Burnt Stone Road frontage with a resort island, mixed use village, multi-family uses, two marinas, and an enhanced Tropicana Park.		
<b>KEY ELEMENTS INCLUDE:</b>		
1. Old Burnt Stone Road redesign as a "complete street."		
2. Resort Island		
3. Maximum Height: 6 Stories		
<b>LAND AREAS</b>		
Boardwalk: 10,100 LF ±		
Open Space: 35.6 AC ±		

# CONCEPT D-1

## OPPORTUNITY MATRIX

PROGRAM	UNITS	# OF FLOORS
<b>Residential</b>		
Fish Houses	71	3
Townhomes	34	4
Multi-Family	890	8
<b>Residential Total:</b>	<b>955</b>	
Commercial/Village	45,000 SF	6
Hotel	240 Rooms	6
Community Center	40,000 SF	2
Marina	Yes	
Improved Tropicana Park	Yes	
<b>EARTHWORK</b>		
	<b>AREA</b>	
Cut	3.4 ac (+/-) (888,624 f <sup>2</sup> )	
Fill	2.6 ac (+/-) (679,536 f <sup>2</sup> )	

### NOTES

Concept D-1 is a high intensity and density project layout that calls for cut/fill areas. Preliminary estimates provide excess materials/dirt. Concept depicts a large boat basin/marina as a focal point to village and resort islands.

### KEY ELEMENTS INCLUDE:

1. Old Burnt Stone Road redesign as a "complete street."
2. Large resort/village complex and large boat basin.
3. Surface parking to serve village.
4. Maximum Building Height: 8 stories.

### LAND AREAS

Boardwalk: 6,800 LF ±  
Open Space: T.B.D.



0 2400 4800

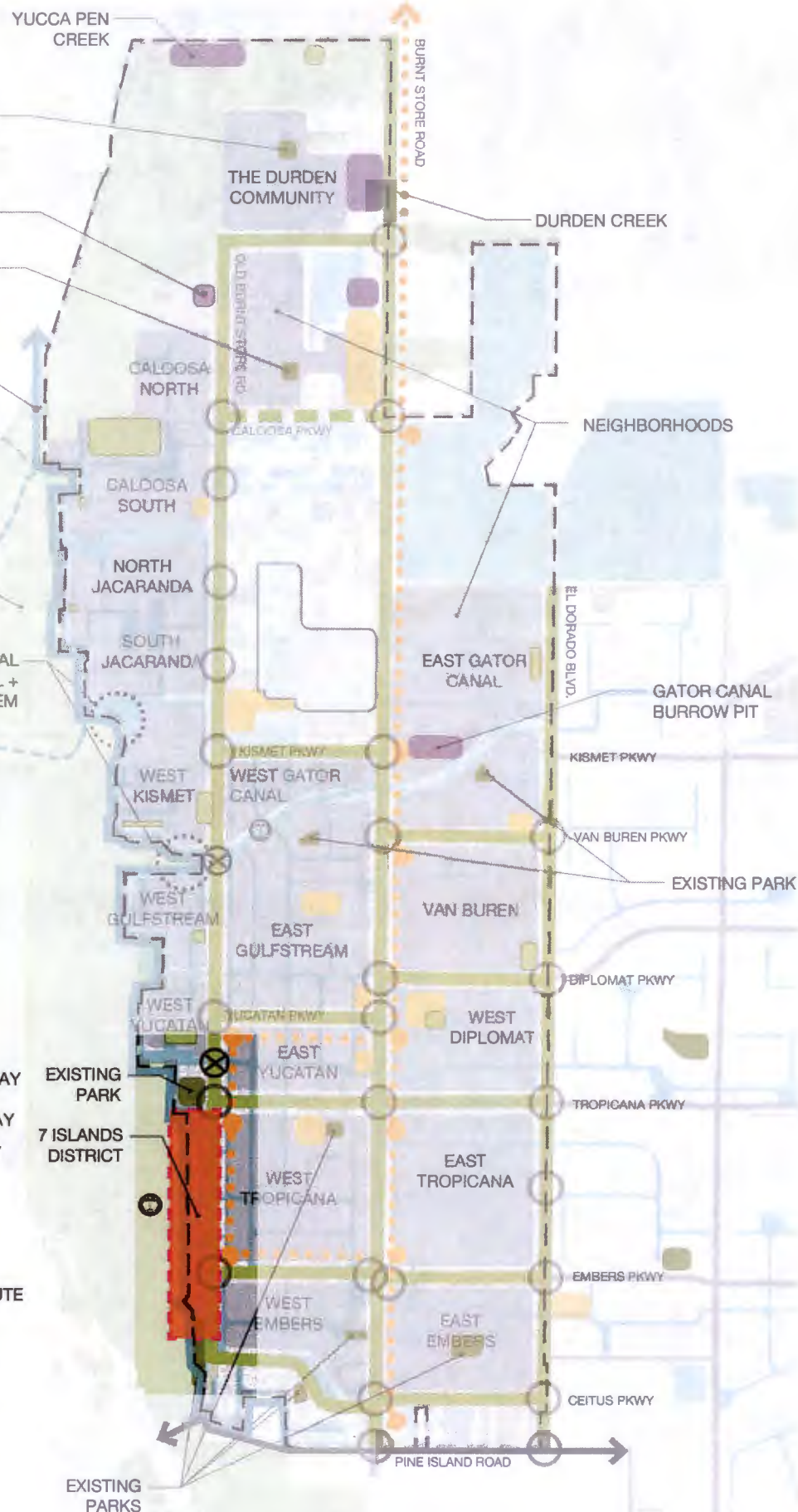
### CHARLOTTE HARBOR

CHARLOTTE HARBOR CONSERVATION AREA (MARSHES)

POTENTIAL FOR ECOLOGICAL ENHANCEMENT OF CANAL + SPREADER SWALE SYSTEM

### KEY

- SURFACE WATER MANAGEMENT AREA \*
- MULTI FAMILY
- PROPOSED PARKS
- EXISTING PARKS
- NEIGHBORHOODS
- KEY WATER MANAGEMENT ACQUISITION PARCELS \*
- CITY ENTERPRISE ZONE OVERLAY
- COMPLETE STREETS/GREENWAY
- NEW EAST CALOOSA PARKWAY
- POTENTIAL BLUEWAYS TO MATLACHA PASS RESULTING FROM ECOLOGICAL RESTORATION
- MASS TRANSIT STOP/KIOSK
- POTENTIAL MASS TRANSIT ROUTE
- 7 ISLANDS DISTRICT COMMERCIAL/MIXED USE
- NEIGHBORHOOD GATEWAYS
- BRIDGE ENHANCEMENTS
- WATER TAXI
- NW CAPE STUDY AREA
- ACCELERATED UTILITY EXPANSION ZONE \*\*



# RECOMMENDATIONS

The 7 Islands Concept Designs have identified key place-making/ community elements and criteria that will shape the development of this Northwest Cape iconic city-purchase. Establishing the proper regulatory framework is imperative in "guiding" land development activities to the vision established herein. In positioning the 7 Islands for "parcel-ready" development, the following recommendations are made:

- Amend Policy 1.15 of the City's Comprehensive Plan to create a new Land Use District (similar to the Pine Island Road District) exclusively for the 7 Islands. This District would identify allowable uses, floor area ratios, impervious surface coverage, etc.
- Create an alternative Planned Development Projects (PDP) process that is streamlined for the 7 Islands. It would establish criteria for the establishment of a new zoning district – 7 Islands PDP.
- Create a new Zoning District for the 7 Islands similar to the Pine Island Road Master Plan. It would include range of uses, site design criteria, minimum elements, and provide flexibility of design and yield based on adopted regulatory framework options.
- Coordinate with Public Works Department for the extension/expediting of infrastructure provision for the 7 Islands. Identify specific project(s) for inclusion in Capital Improvements Plan (CIP).
- Coordinate implementation of "Complete Street" elements on current design plans for Old Burnt Store Road improvements.
- Undertake a Stormwater/Basin Study of the 7 Islands area to ascertain drainage requirements for anticipated development in order to minimize pollutant discharge into the Spreader Canal waters.
- Coordinate implementation of shoreline + mangrove restoration.