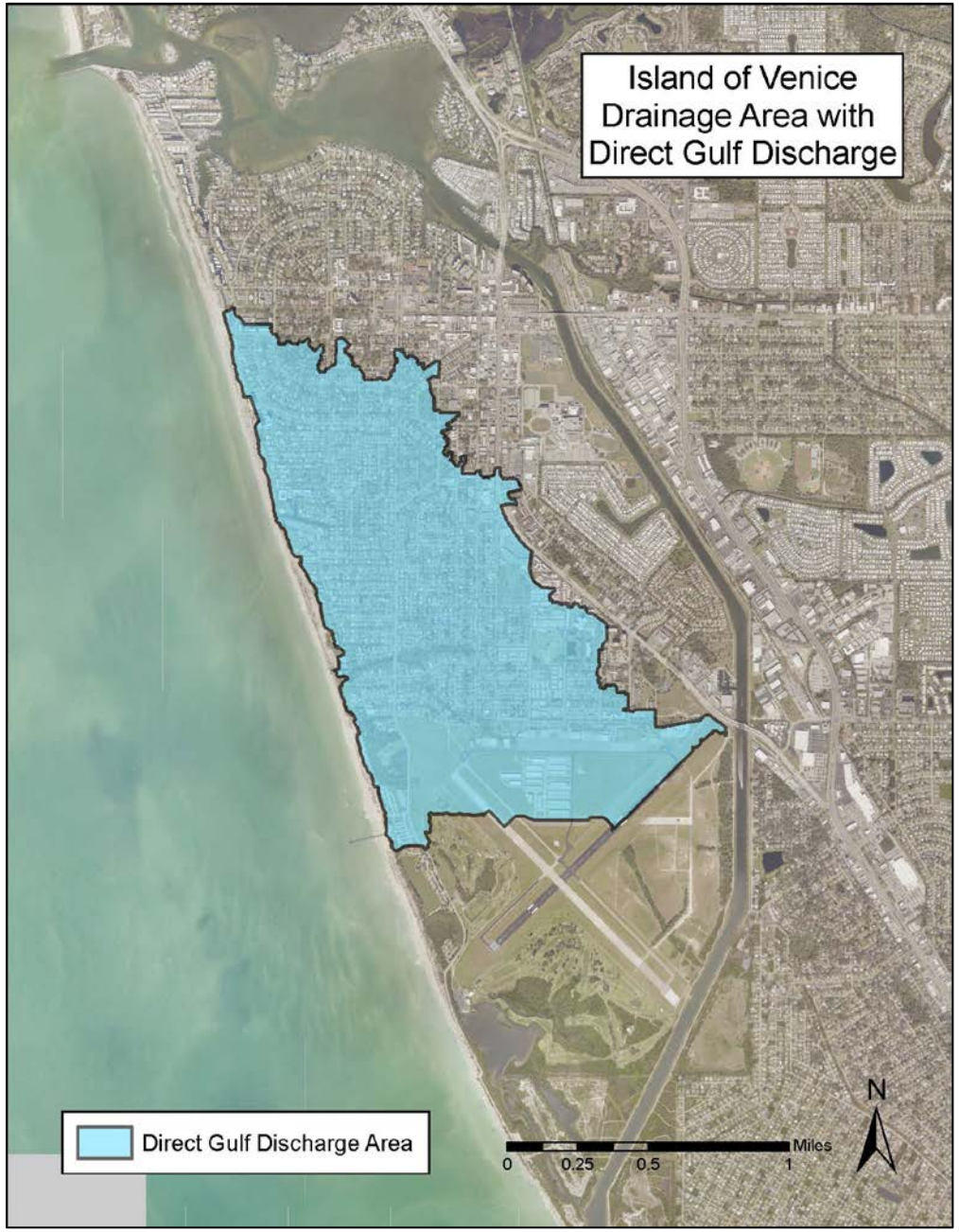
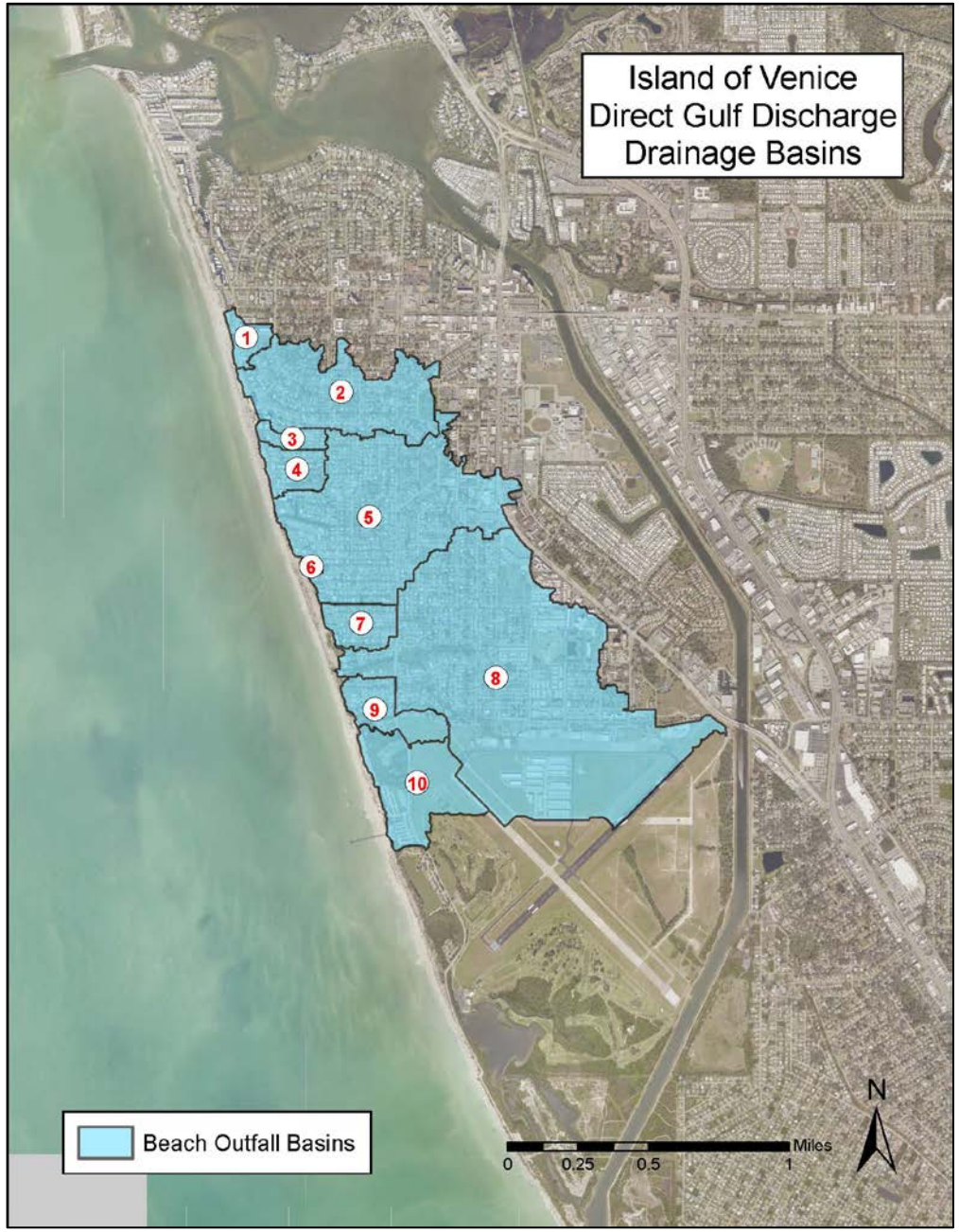
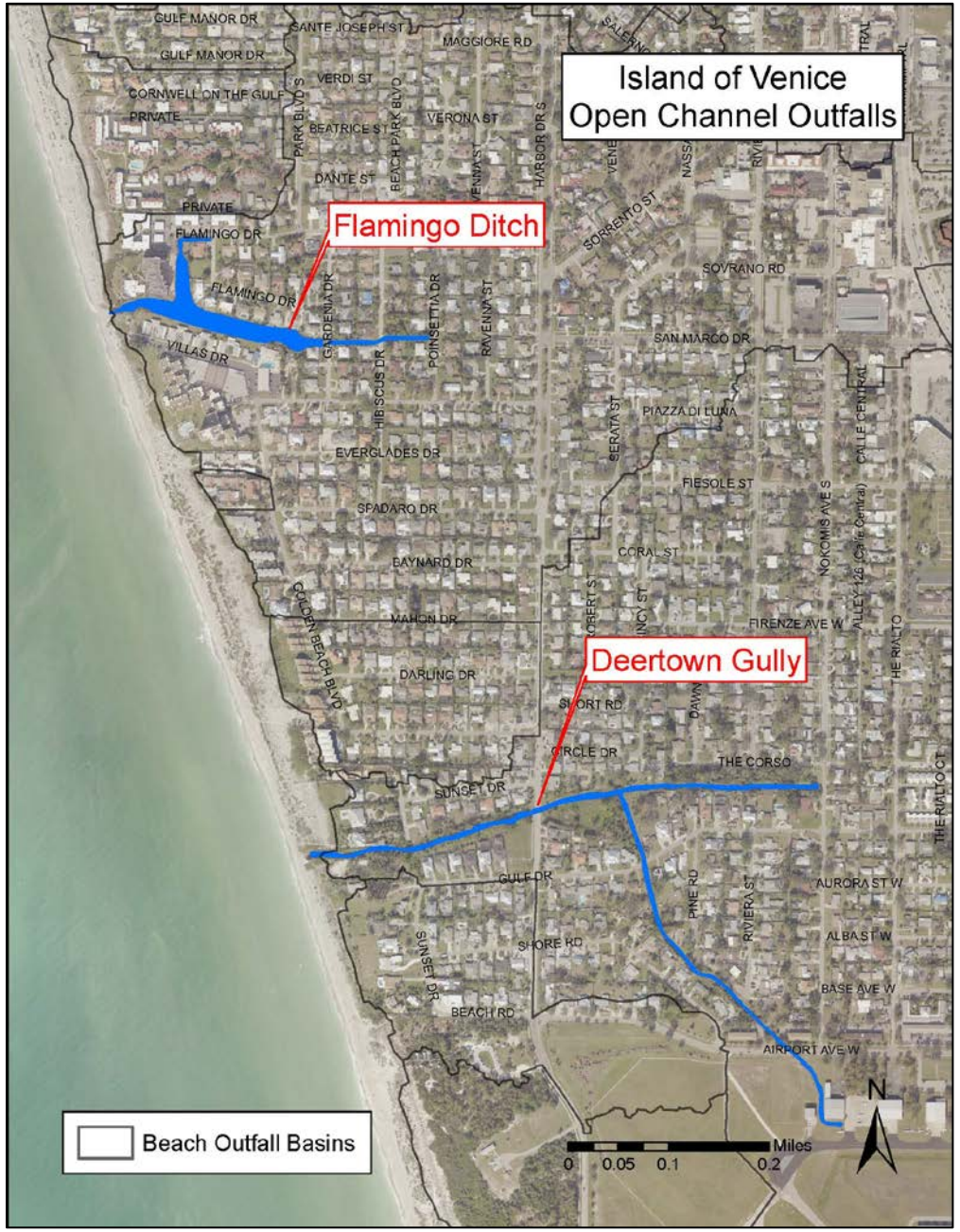
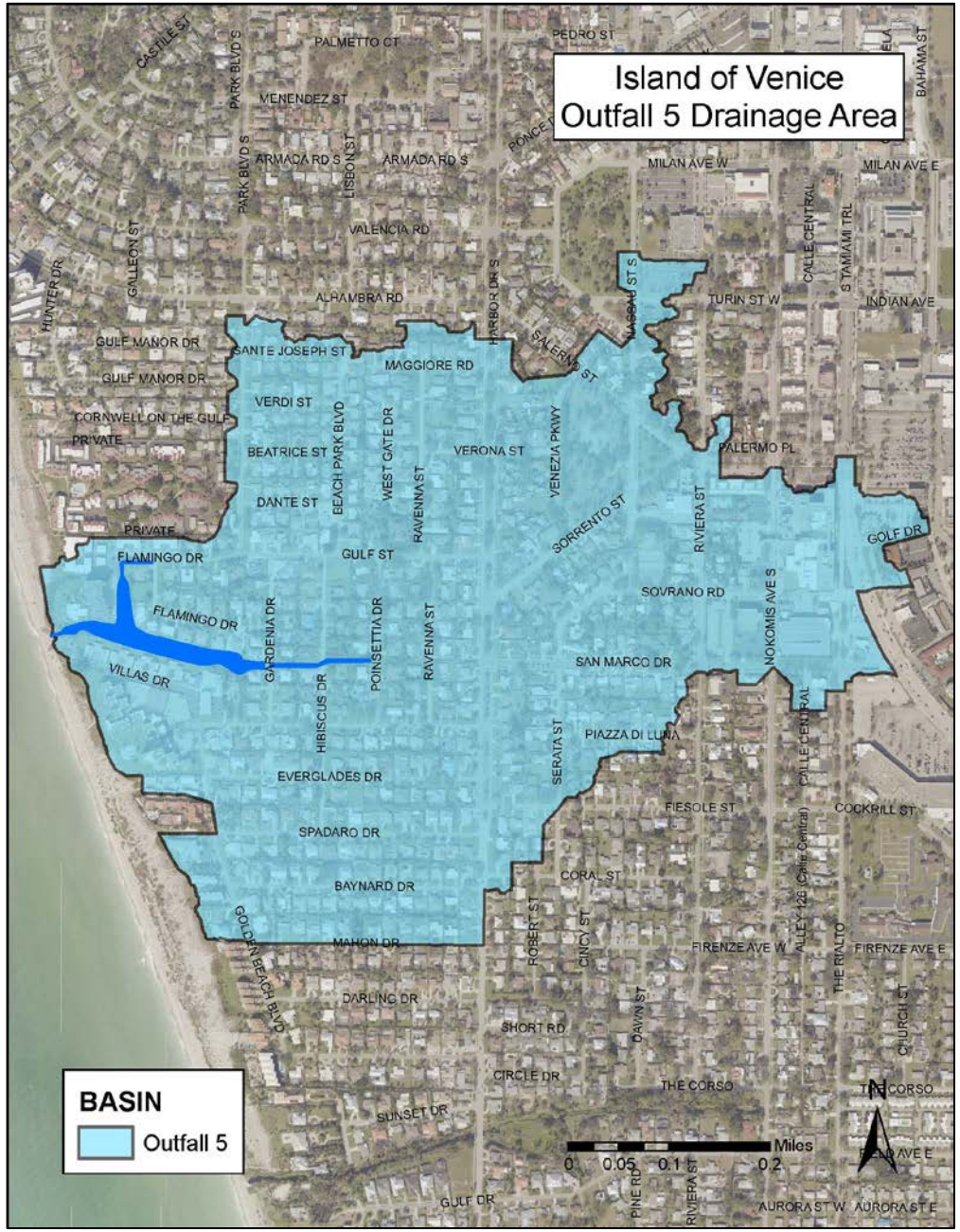
Golden Beach and Flamingo Ditch

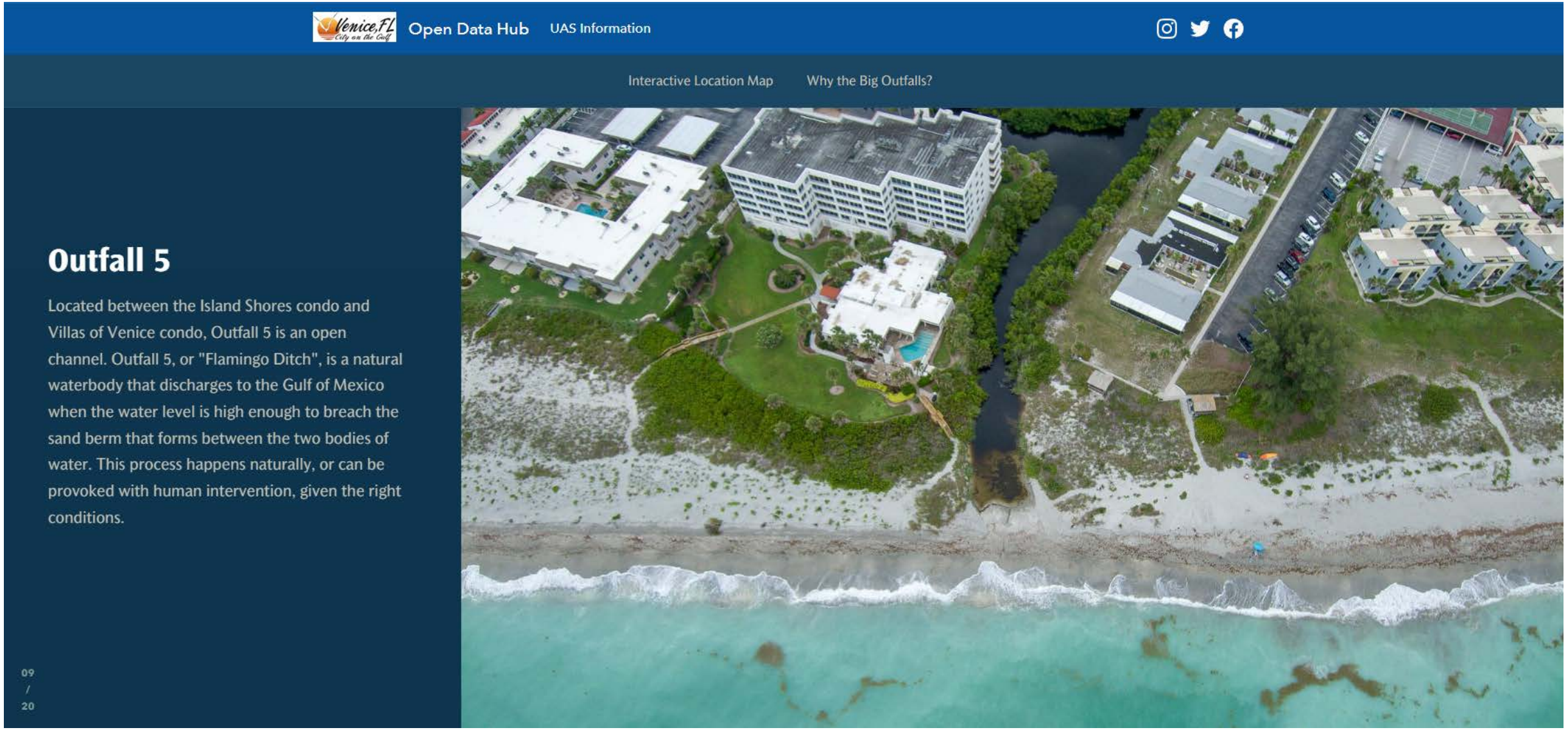
Overview of the hydrological conditions of the residential neighborhood surrounding Flamingo Ditch


Island of Venice
Drainage Area with
Direct Gulf Discharge
Direct Gulf Discharge Area
0
0.25
0.5
1
Miles
N


Island of Venice
Direct Gulf Discharge
Drainage Basins
1
2
3
4
5
6
7
8
9
10
Beach Outfall Basins
0
0.25
0.5
1
Miles
N


Island of Venice
Open Channel Outfalls
Flamingo Ditch
Deertown Gully
Beach Outfall Basins
Miles
0 0.05 0.1 0.2
N

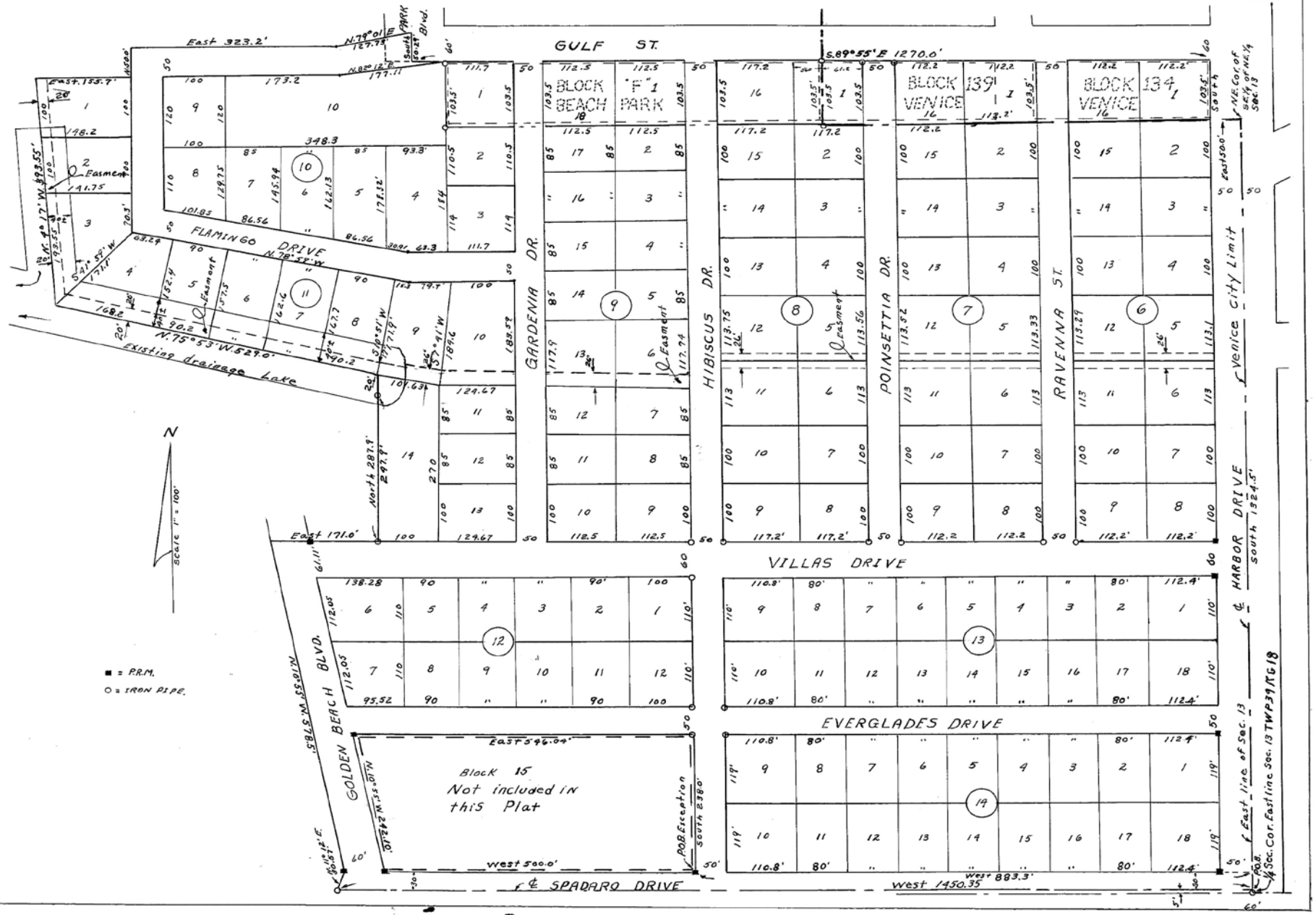

Island of Venice
Outfall 5 Drainage Area
BASIN
Outfall 5
Miles
0 0.05 0.1 0.2
N



(Excerpt from the “Venice Beach Outfalls” Storymap, available on the Open Data Hub)

GOLDEN BEACH UNIT No. 2, SHEET 2 OF 2 SHEETS

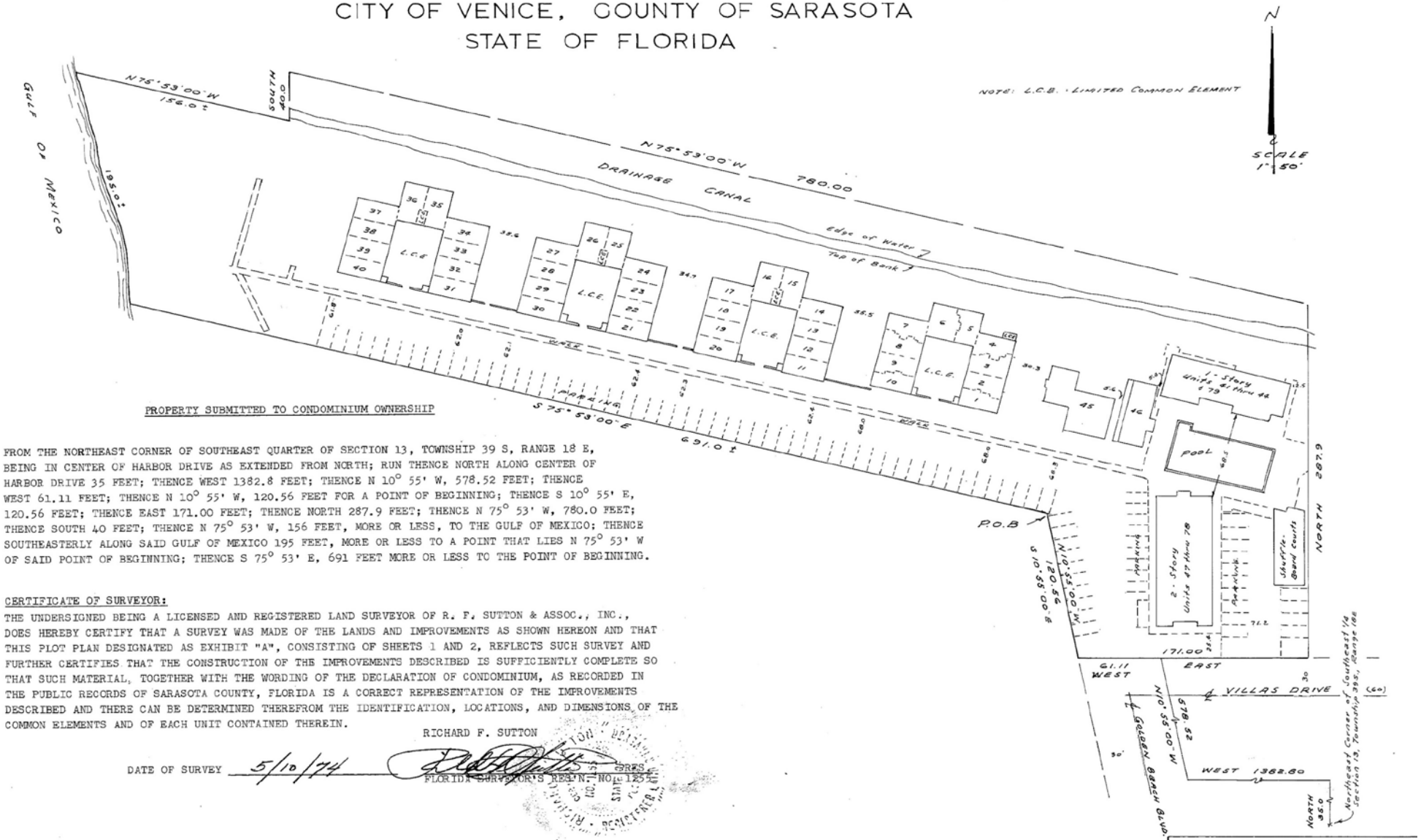
COUNTY OF SARASOTA STATE OF FLORIDA



622502

VENICE VILLAS A CONDOMINIUM

SECTION 13 TOWNSHIP 39S. RANGE 18E.
CITY OF VENICE, COUNTY OF SARASOTA
STATE OF FLORIDA



PROPERTY SUBMITTED TO CONDOMINIUM OWNERSHIP

FROM THE NORTHEAST CORNER OF SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 39 S, RANGE 18 E, BEING IN CENTER OF HARBOR DRIVE AS EXTENDED FROM NORTH; RUN THENCE NORTH ALONG CENTER OF HARBOR DRIVE 35 FEET; THENCE WEST 1382.8 FEET; THENCE N 10° 55' W, 578.52 FEET; THENCE WEST 61.11 FEET; THENCE N 10° 55' W, 120.56 FEET FOR A POINT OF BEGINNING; THENCE S 10° 55' E, 120.56 FEET; THENCE EAST 171.00 FEET; THENCE NORTH 287.9 FEET; THENCE N 75° 53' W, 780.0 FEET; THENCE SOUTH 40 FEET; THENCE N 75° 53' W, 156 FEET, MORE OR LESS, TO THE GULF OF MEXICO; THENCE SOUTHEASTERLY ALONG SAID GULF OF MEXICO 195 FEET, MORE OR LESS TO A POINT THAT LIES N 75° 53' W OF SAID POINT OF BEGINNING; THENCE S 75° 53' E, 691 FEET MORE OR LESS TO THE POINT OF BEGINNING.

CERTIFICATE OF SURVEYOR:

THE UNDERSIGNED BEING A LICENSED AND REGISTERED LAND SURVEYOR OF R. F. SUTTON & ASSOC., INC., DOES HEREBY CERTIFY THAT A SURVEY WAS MADE OF THE LANDS AND IMPROVEMENTS AS SHOWN HEREON AND THAT THIS PLOT PLAN DESIGNATED AS EXHIBIT "A", CONSISTING OF SHEETS 1 AND 2, REFLECTS SUCH SURVEY AND FURTHER CERTIFIES THAT THE CONSTRUCTION OF THE IMPROVEMENTS DESCRIBED IS SUFFICIENTLY COMPLETE SO THAT SUCH MATERIAL, TOGETHER WITH THE WORDING OF THE DECLARATION OF CONDOMINIUM, AS RECORDED IN THE PUBLIC RECORDS OF SARASOTA COUNTY, FLORIDA IS A CORRECT REPRESENTATION OF THE IMPROVEMENTS DESCRIBED AND THERE CAN BE DETERMINED THEREFROM THE IDENTIFICATION, LOCATIONS, AND DIMENSIONS OF THE COMMON ELEMENTS AND OF EACH UNIT CONTAINED THEREIN.

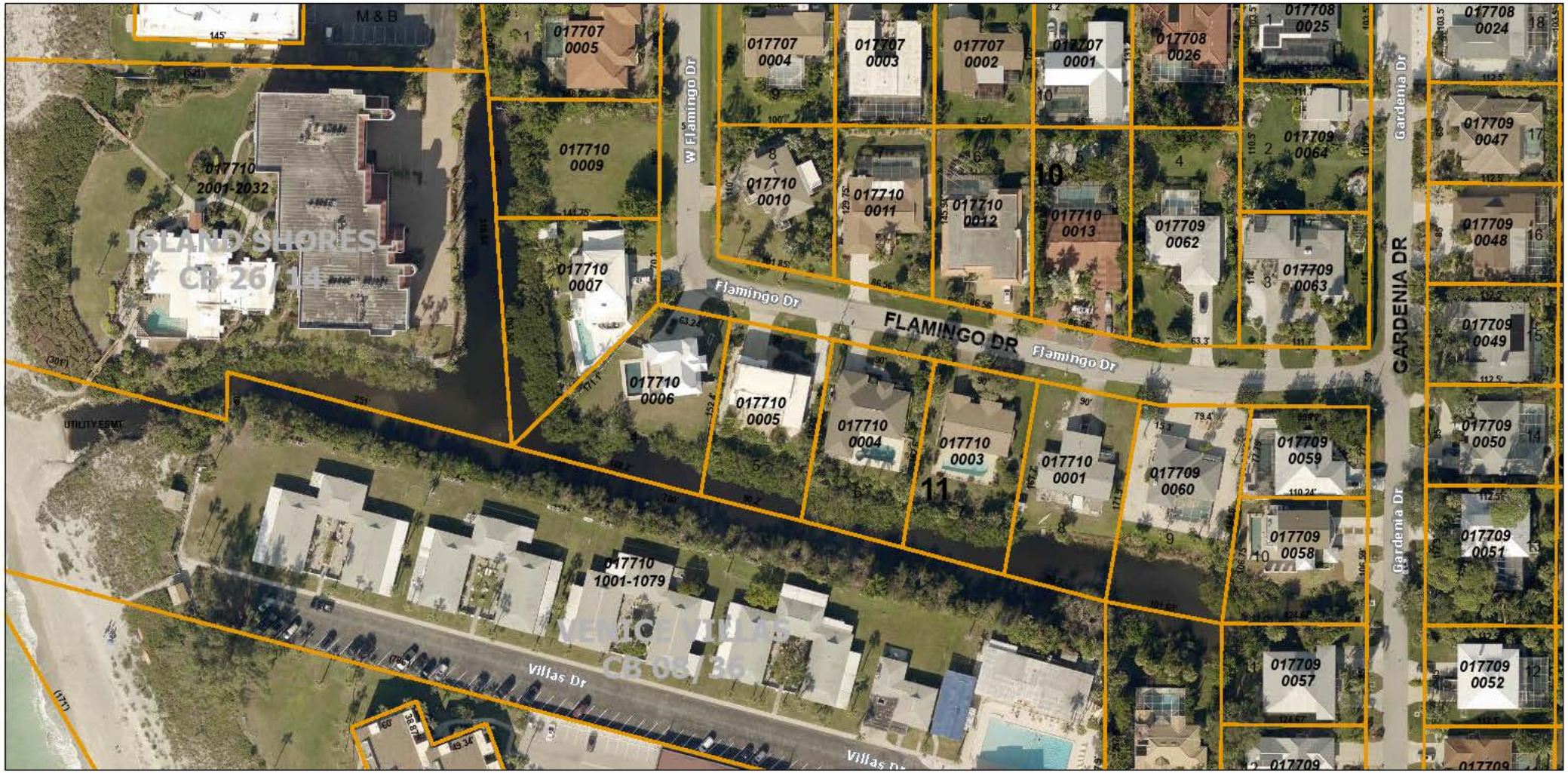
RICHARD F. SUTTON

DATE OF SURVEY 5/10/74

FLORIDA SURVEYOR'S REG'N. NO. 1252

PREPARED BY
R.F. SUTTON & ASSOC. INC.
CIVIL ENGINEERS - LAND SURVEYORS
VENICE FLORIDA

Sarasota County Property Appraiser



10/17/2023, 2:13:37 PM

Parcels 2024

Lot

Lot Phase

1:1,128

0 0.01 0.02 0.04 mi

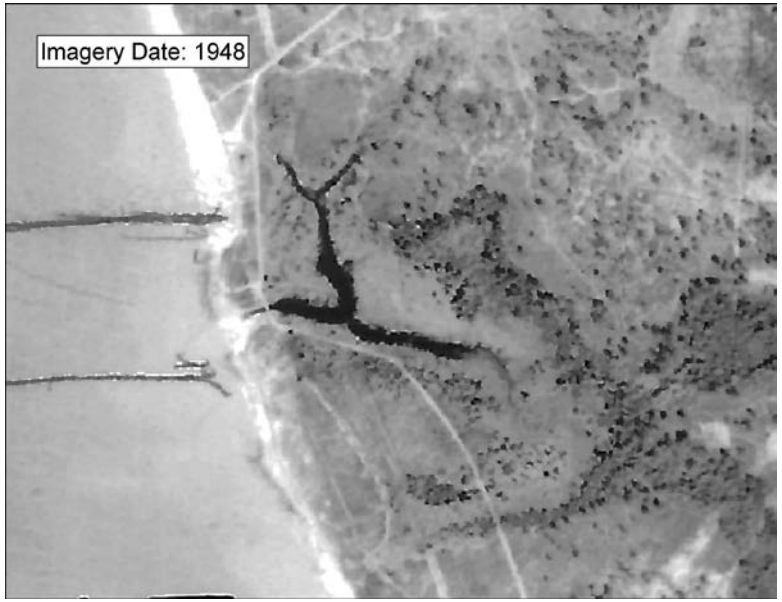
0 0.02 0.04 0.07 km

Sec. 62-1. - Obstructing street drainage or drainage facilities.

(a) It shall be unlawful to obstruct the flow of stormwater by the obstruction of any ditch or drain on the alleys and streets of the city in any manner whatsoever. In addition, it shall be unlawful to block or impede historical drainage or retention.

Map created by the Sarasota County Property Appraiser
Created by the Sarasota County Property Appraiser

c. 1948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Imagery Date: 1957


Imagery Date: 1974


Imagery Date: 1986


Imagery Date: 1995

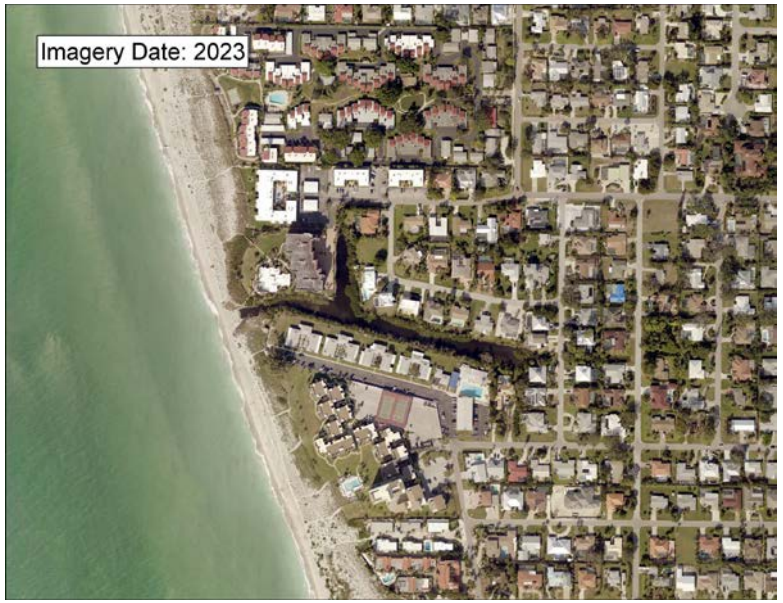

Imagery Date: 2001


Imagery Date: 2007


Imagery Date: 2014


Imagery Date: 2018


Imagery Date: 2019


Imagery Date: 2023


Imagery Date: 1986

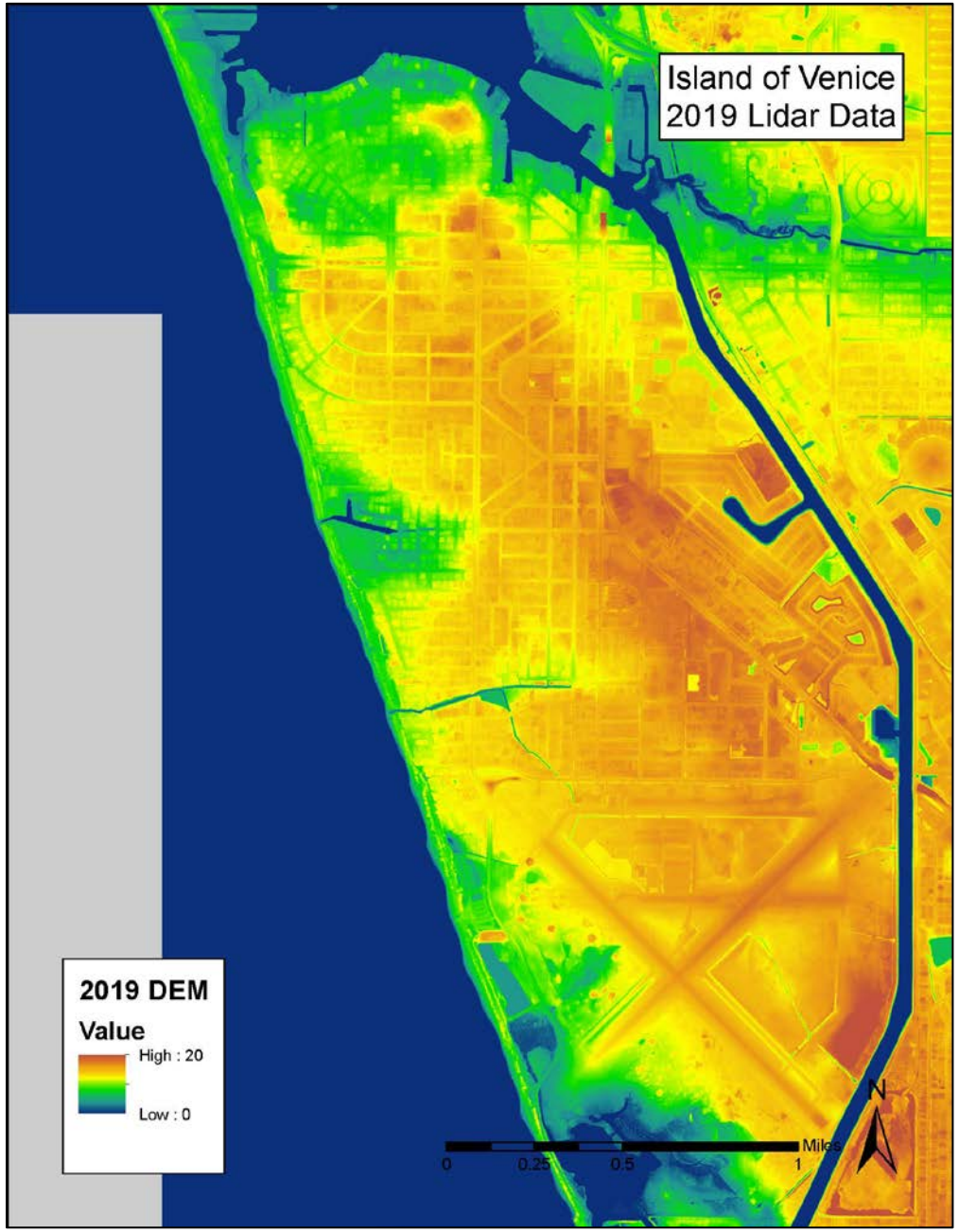

Imagery Date: 2007

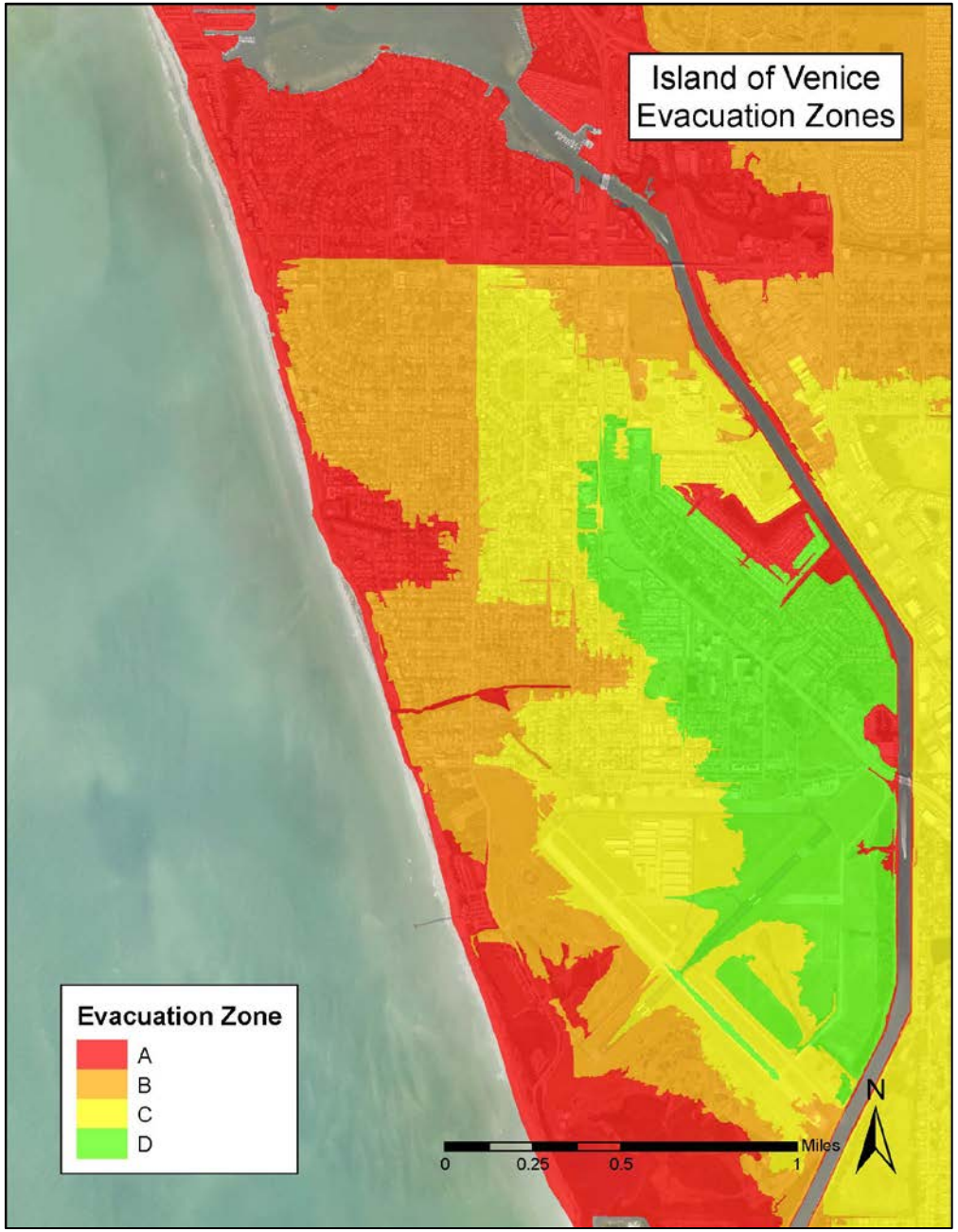

Imagery Date: 2015


Imagery Date: 2016


Imagery Date: 2019

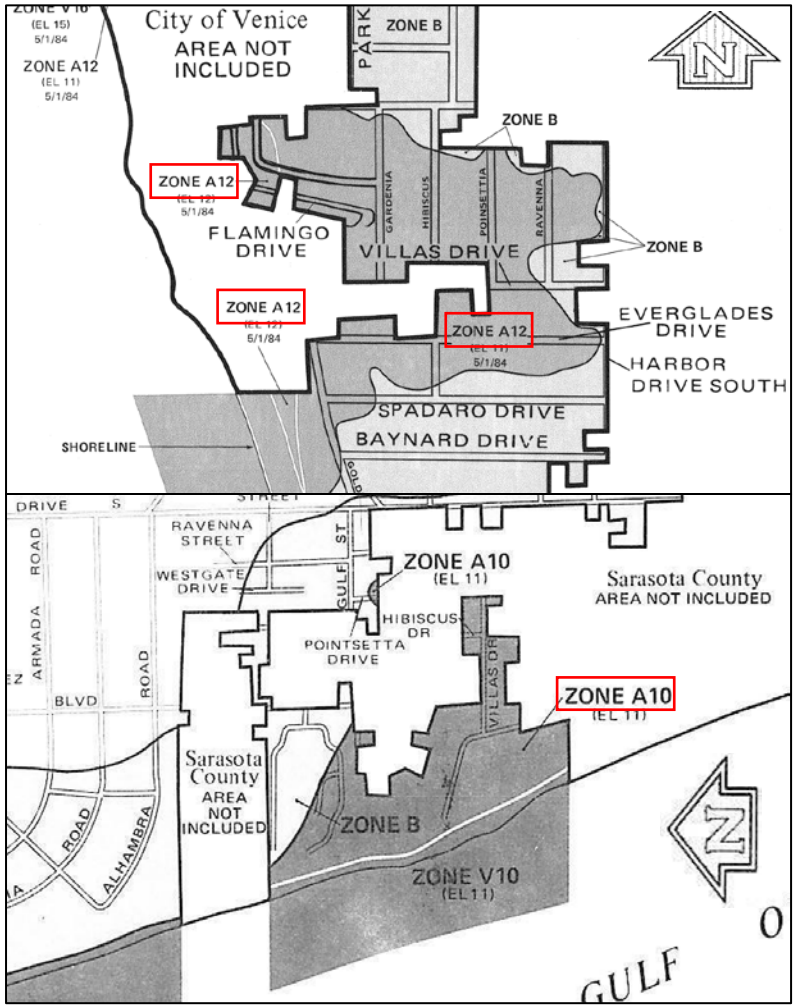

Imagery Date: 2023

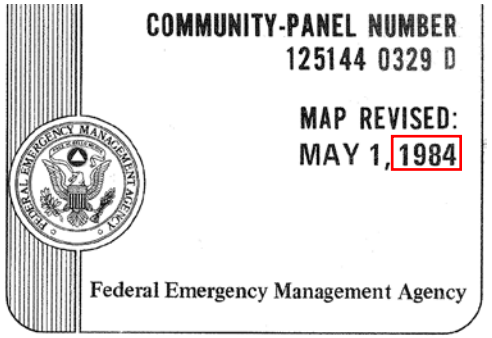

Island of Venice
2019 Lidar Data
2019 DEM
Value
High : 20
Low : 0
0
0.25
0.5
1
Miles
N

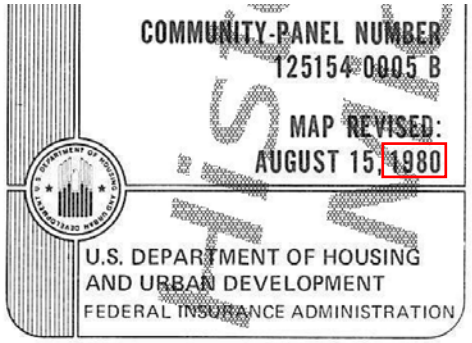

Island of Venice
Evacuation Zones
Evacuation Zone
A
B
C
D
0
0.25
0.5
1
Miles
N

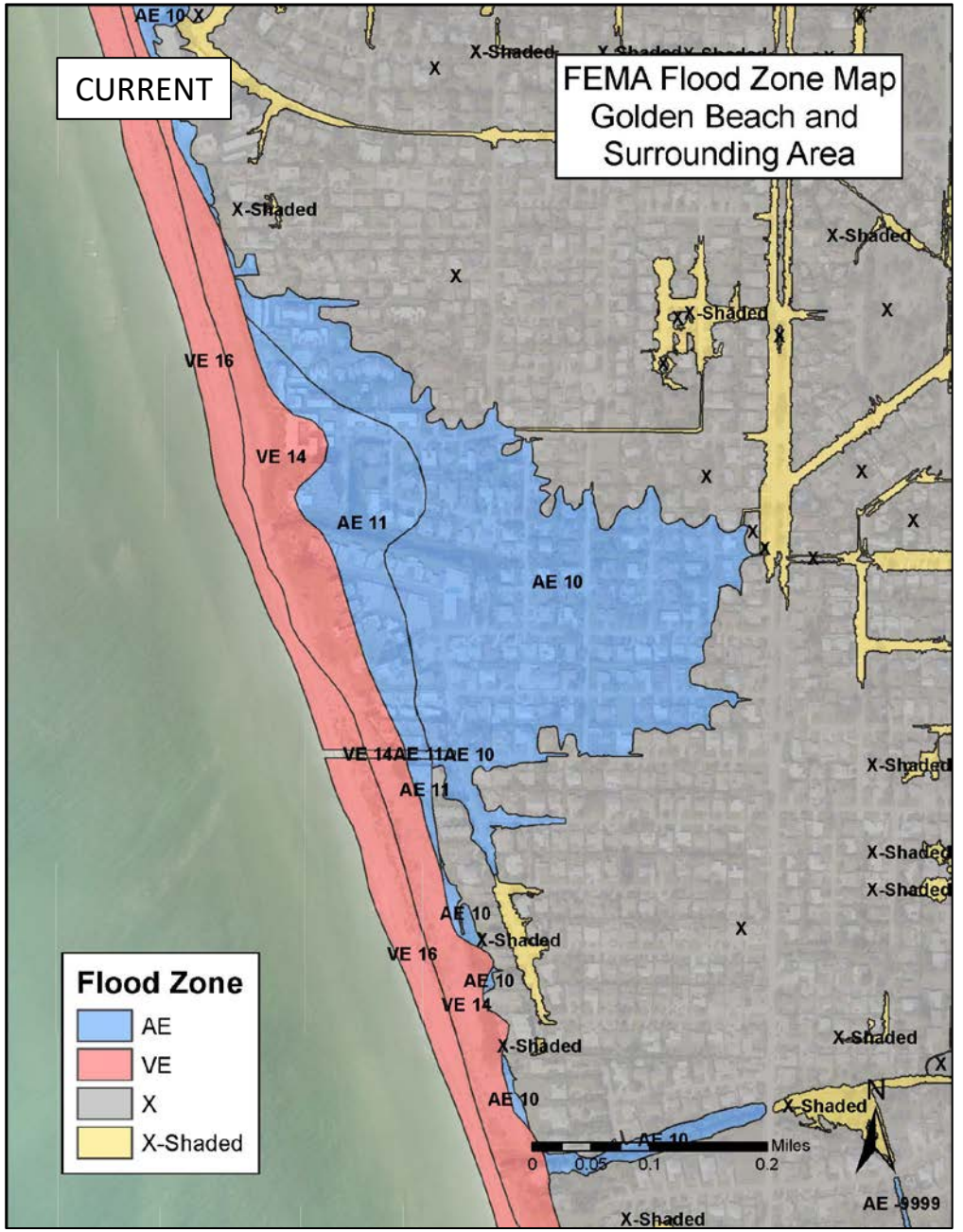
FEMA Flood Zones

- The area surrounding Flamingo Ditch has been in the Special Hazard Flood Area for over 40 years.





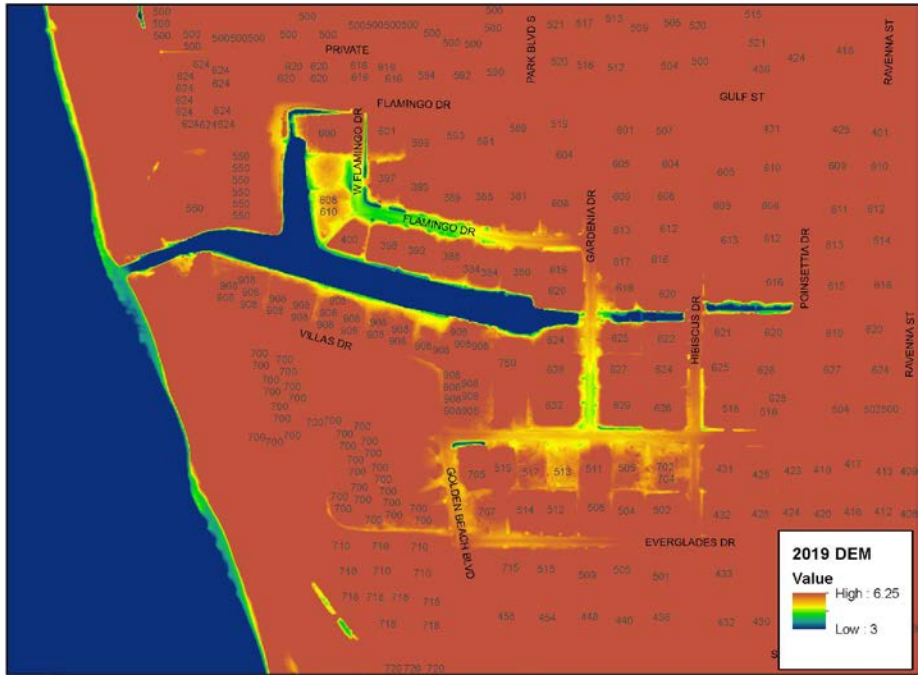





PRIVATE
PARK BLVD S
RAVENNA ST
GULF ST
FLAMINGO DR
W FLAMINGO DR
GARDENIA DR
POINSETTIA DR
HIBISCUS DR
VILLAS DR
GOLDEN BEACH BLVD
EVERGLADES DR
SPADARO DR

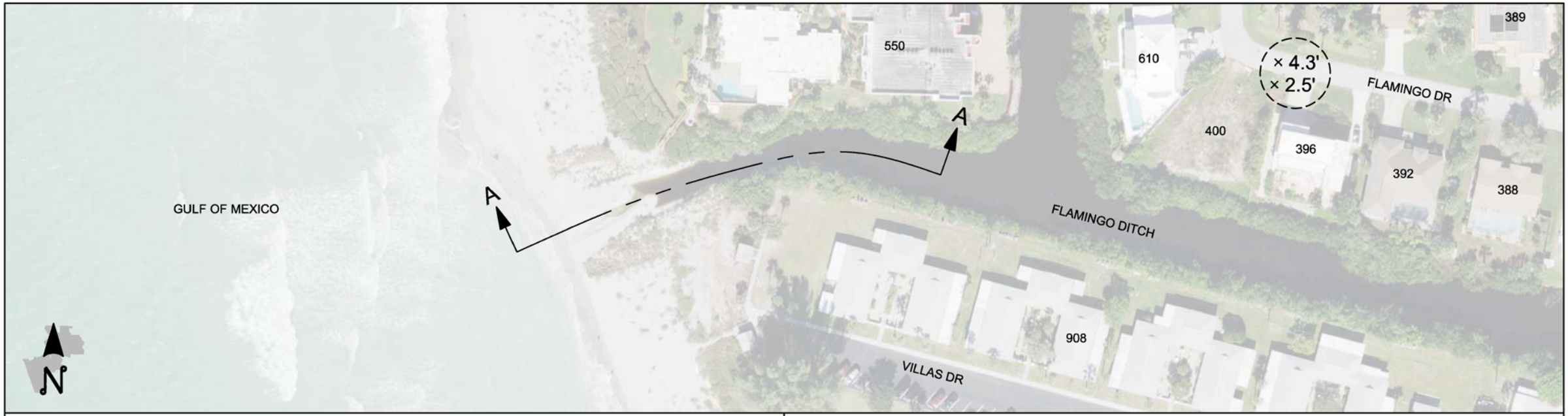

PRIVATE
PARK BLVD S
RAVENNA ST
GULF ST
FLAMINGO DR
W FLAMINGO DR
GARDENIA DR
POINSETTIA DR
HIBISCUS DR
VILLAS DR
GOLDEN BEACH BLVD
EVERGLADES DR
2019 DEM
<VALUE>
0 - 6.25
6.25 - 100


PRIVATE
PARK BLVD S
RAVENNA ST
GULF ST
FLAMINGO DR
W FLAMINGO DR
GARDENIA DR
POINSETTIA DR
HIBISCUS DR
VILLAS DR
GOLDEN BEACH BLVD
EVERGLADES DR
2019 DEM
Value
High : 15
Low : 0

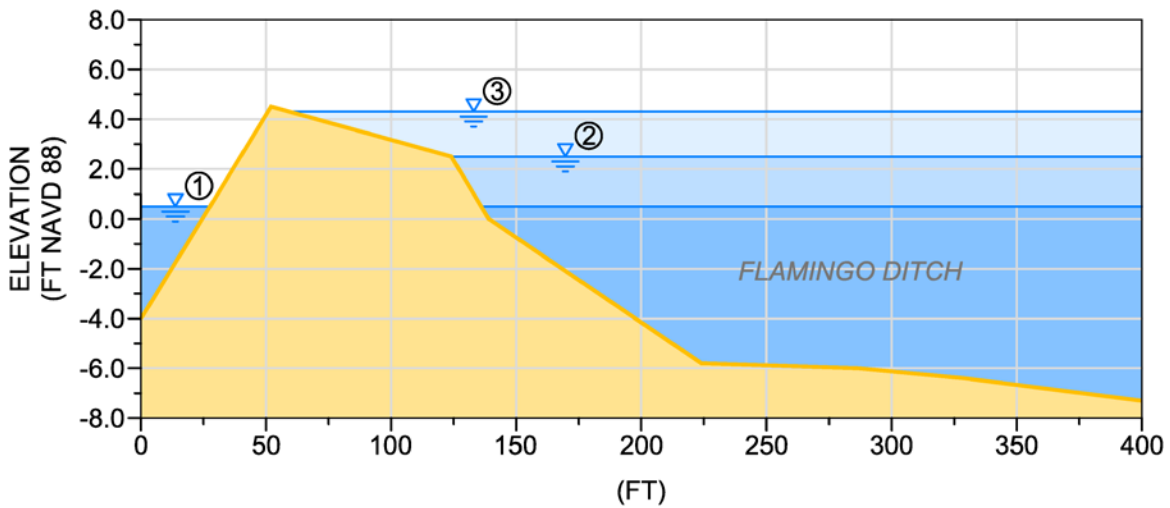

PRIVATE
PARK BLVD S
RAVENNA ST
GULF ST
FLAMINGO DR
W FLAMINGO DR
GARDENIA DR
POINSETTIA DR
HIBISCUS DR
VILLAS DR
GOLDEN BEACH BLVD
EVERGLADES DR
2019 DEM
Value
High : 6.25
Low : 3

After Hurricane Idalia

- Emergency vehicles were available to respond to the area except during high wind warnings.



SECTION A-A



① 2023 hurricane season average high tide (Jun-Nov): 2.02 ft MLLW = 0.54 ft NAVD88
② Lowest roadside swale elevation: 2.5 ft NAVD88
③ Lowest crown of road elevation: 4.3 ft NAVD88

- The profile of the seaward 150 ft is highly variable. What is shown is considered typical, based on Lidar data. The profile landward of the aforementioned point is more stable; values shown are based on the 2014 post-demucking survey.
- Wave action effectively increases the elevation of the gulf as it pertains to opening the outfall.
- A deep trench not only drains Flamingo Ditch faster, it is also necessary to keep the trench open. A shallow trench will fill in.
- [*rough calculations based on an assumed runoff coefficient*] It takes less than 2" of rainfall to fill flamingo ditch to the lowest crown of road elevation if the outfall is not open even if drained to 0.0 ft NAVD88 prior to storm.

Equipment Access

- Restricted during Sea Turtle Nesting Season (May-Oct)
  - A direct cell phone contact has been established with Mote Marine for emergency clearance during Turtle Nesting Season.

Outfall Improvement Project Design Report (Dec 2011)

5.2 Design Rationale

Water quality violations result from bacterial growth exacerbated by stagnant water, whereas continuous circulation and treatment of stormwater at the Gulf discharge will improve the water quality on a routine basis. Improvements to water quality require a continuous flushing or movement of water through the outfall discharge points, pruning and removing overgrown vegetation and non-native plants along the channel banks, sediment removal and UV treatment of a 2 inch equivalent "event" stormwater volume to significantly improve water quality. Discharge will be maintained by use of force main discharging fresh clean water at sufficient depths to provide mixing to achieve background salinity levels near hardbottom areas.

Table 2.2 Storm Surge Elevations by Storm Event

Return Period (Yrs)	Storm Surge (ft, NGVD)	Storm Surge (ft, NAVD)
10	6.2	5.1
15	7.3	6.2
20	8.9	7.8
25	9.5	8.4
50	11.4	10.3
100	12.8	11.7

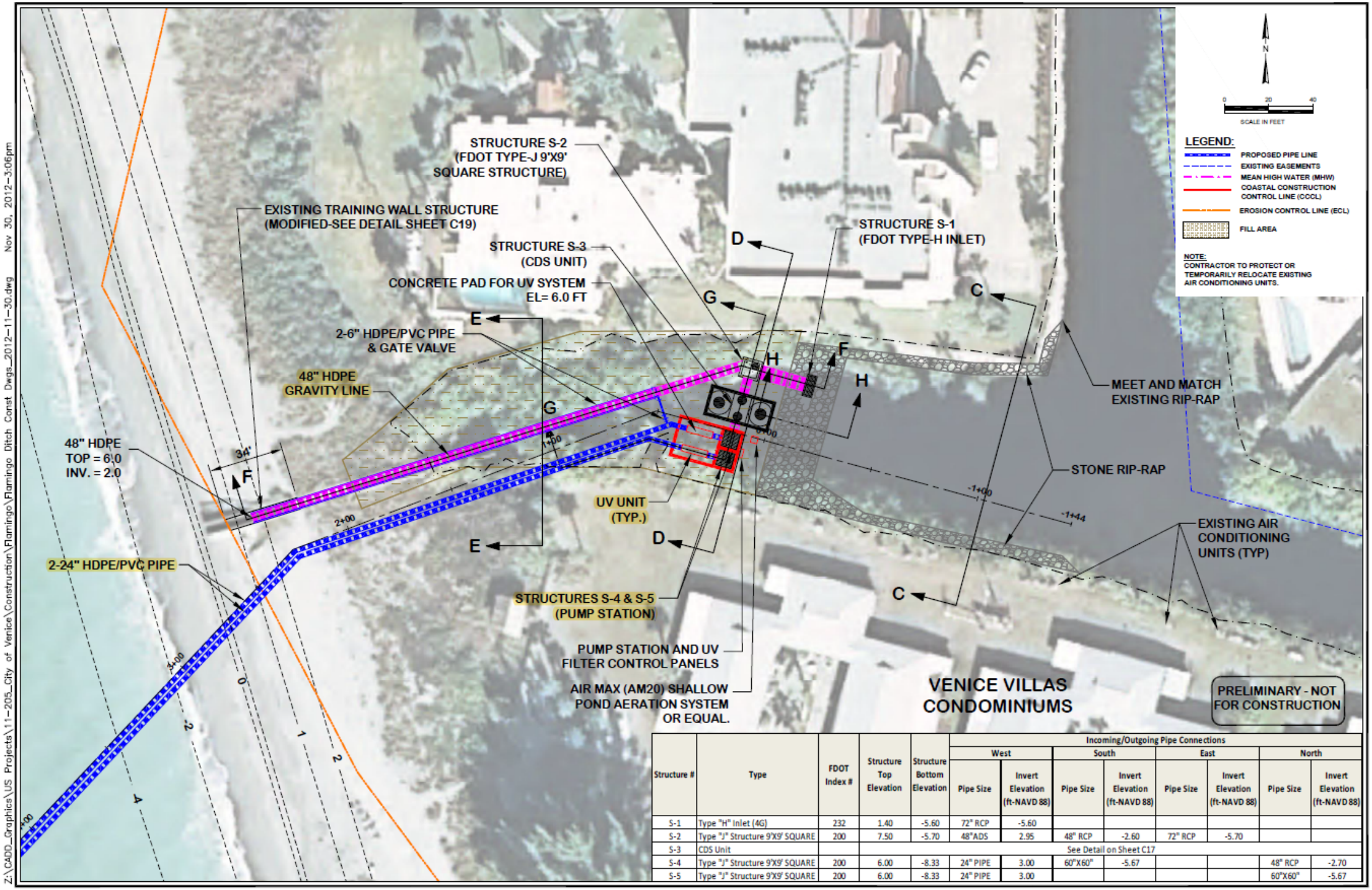
Source: Dean et al 1998

Table 2.4 Peak Water Stage Elevations by Rainfall Event

Rainfall Event	Flamingo Ditch Peak Elevations (Ft - NAVD)	Deertown Gully Peak Elevations (Ft - NAVD)
0.5" Event	2.06	1.79
1.0" Event	2.79	2.24
1.5" Event	3.55	2.74
2.0" Event	4.26	3.24
3.0" Event	5.29	3.89
4.0" Event	5.93	4.36
2yr/24hr	6.20	4.51
5yr/24hr	6.84	4.99
10yr/24hr	7.21	5.30
25yr/24hr	7.54	5.59
100yr/24hr	8.05	6.17

FLAMINGO DITCH GULF DISCHARGE PROJECT
Project Cost Estimate
4-Mar-13

TOTAL PRICE ESTIMATE (HDPE Pipe Option)	**$**	**3,614,654.58**
TOTAL PRICE ESTIMATE (FPVC Pipe Option)	**$**	**3,649,574.58**



Structure #	Type	FDOT Index #	Structure Top Elevation	Structure Bottom Elevation	Incoming/Outgoing Pipe Connections							
					West		South		East		North	
					Pipe Size	Invert Elevation (ft-NAVD 88)	Pipe Size	Invert Elevation (ft-NAVD 88)	Pipe Size	Invert Elevation (ft-NAVD 88)	Pipe Size	Invert Elevation (ft-NAVD 88)
S-1	Type "H" Inlet (4G)	232	1.40	-5.60	72" RCP	-5.60						
S-2	Type "J" Structure 9'X9' SQUARE	200	7.50	-5.70	48"ADS	2.95	48" RCP	-2.60	72" RCP	-5.70		
S-3	CDS Unit		See Detail on Sheet C17									
S-4	Type "J" Structure 9'X9' SQUARE	200	6.00	-8.33	24" PIPE	3.00	60"X60"	-5.67			48" RCP	-2.70
S-5	Type "J" Structure 9'X9' SQUARE	200	6.00	-8.33	24" PIPE	3.00					60"X60"	-5.67

FLAMINGO DITCH
CITY OF VENICE, FLORIDA

GRADING PLAN

Erickson Consulting Engineers, Inc.
7201 Delaney Court
Sarasota, FL 32240
(941) 373-6460

DRAWING NUMBER
C10
SHEET 10 OF 36

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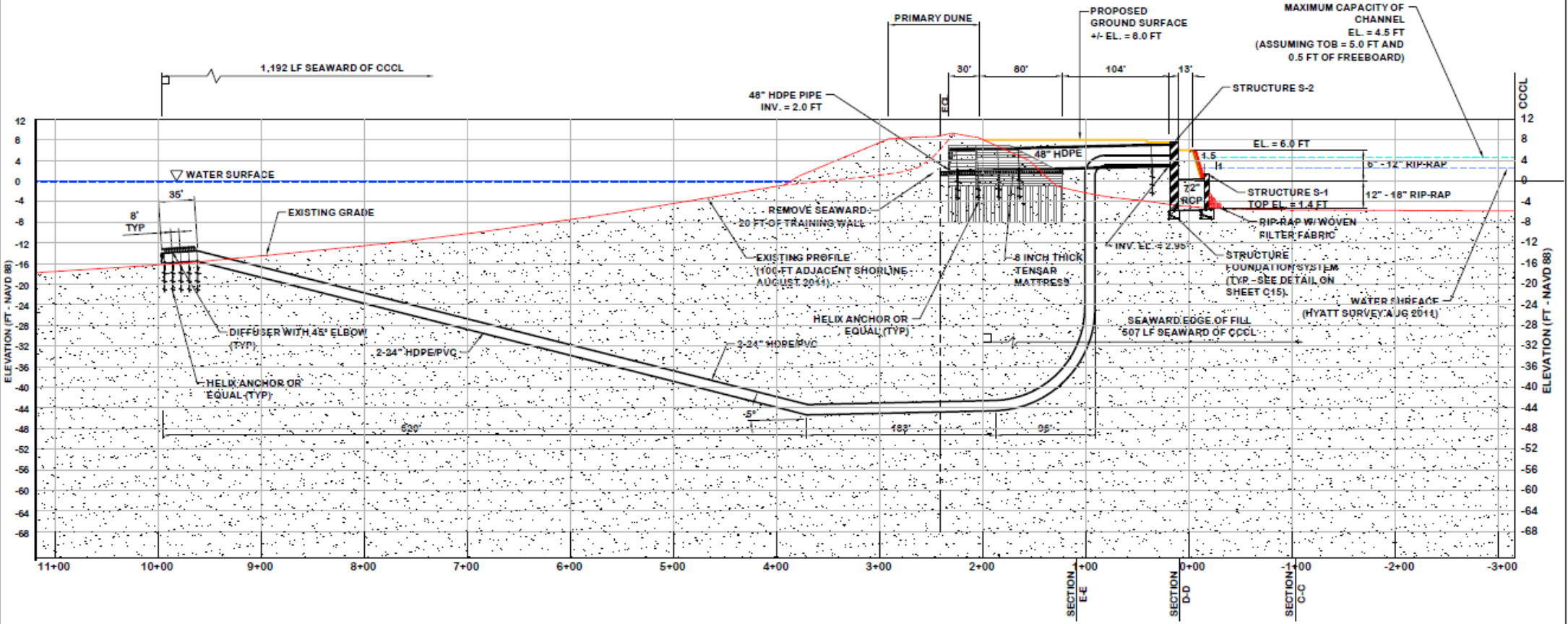

FLAMINGO DITCH FORCEMAIN LONGITUDINAL PROFILE

SCALE: 1"=50' (H)
1"=10' (V)

NOTE:
ALL PIPELINE ELEVATIONS ARE SHOWN AS MINIMUM BURIAL DEPTHS. PIPELINE MAY BE CONSTRUCTED AT ELEVATIONS DEEPER THAN ARE SHOWN ON HEREIN.

PRELIMINARY - NOT FOR CONSTRUCTION

FLAMINGO DITCH
CITY OF VENICE, FLORIDA
FORCEMAIN LONGITUDINAL PROFILE

Erickson Consulting Engineers, Inc.
7201 Delaney Court
Sarasota, FL 32420
(941) 373-6460

DRAWING NUMBER
C12
SHEET 12 OF 88

Z:\CADD_Graphics\US Projects\11-205_City of Venice\Construction\Flamingo\Flamingo Ditch Const Dwgs_2012-11-30.dwg Nov 30, 2012-3:06pm

2013 Flamingo Ditch Demucking

2017 No-Name Storm (Prior to Hurricane Irma)

Wooden Outfall Structure Removal (2018)

Conclusions

- All cost-feasible options for improvement have been implemented
  - Demucking Project
  - Wooden Outfall Structure Removal
  - Improvement to SOPs
  - Encourage flood insurance policies (discount through CRS program)
- Low roadway elevations increase likelihood of flooding during surge events and major rain events
- Residents should heed evacuation orders
- Options moving forward:
  - Venice Villas: Easement and modification to beach access
  - Consultant needed for any other proposed improvement
  - Special tax district