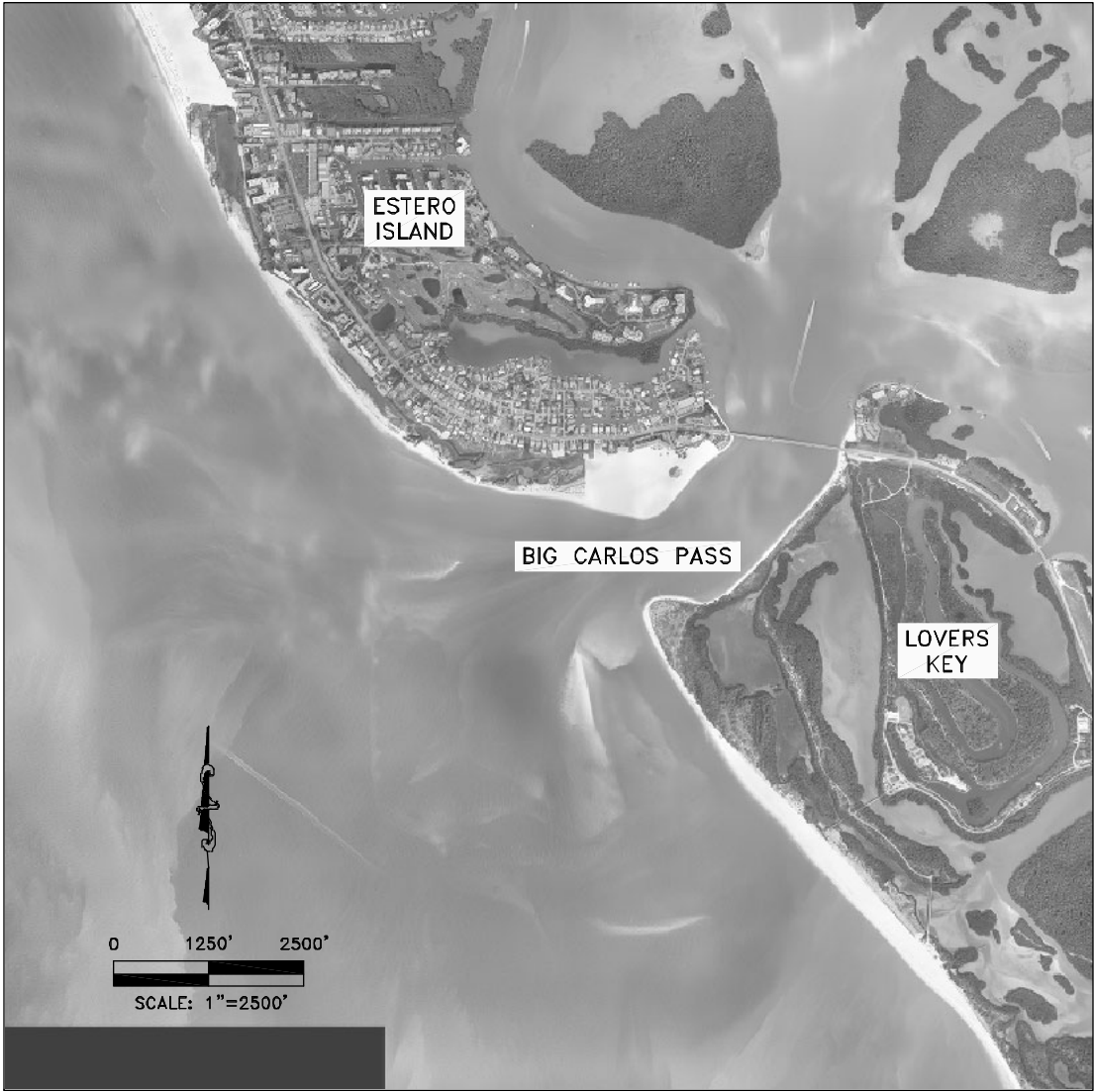
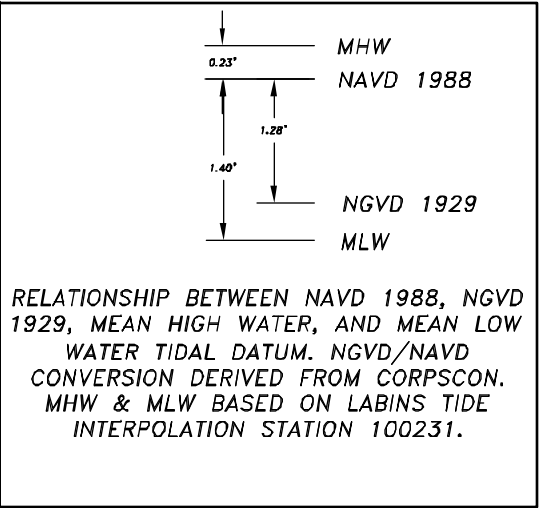
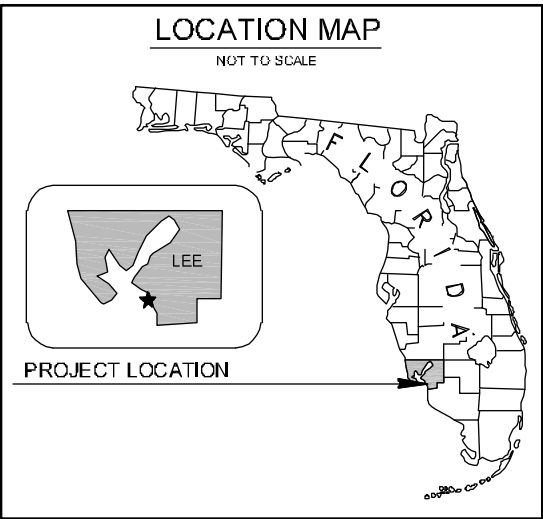


BIG CARLOS PASS CHANNEL DREDGING & RE-ALIGNMENT

WEST COAST INLAND NAVIGATION DISTRICT
LEE COUNTY, FLORIDA



SHEET INDEX

1. COVER SHEET AND LOCATION MAP
2. SITE PLAN
3. SITE PLAN-CHANNEL STATIONS
4. SITE PLAN-ESTERO ISLAND BEACH FILL TEMPLATE
5. SITE PLAN-LOVERS KEY BEACH FILL TEMPLATE
6. CROSS SECTIONS (0+00 TO 16+00)
7. CROSS SECTIONS (18+00 TO 34+00)
8. CROSS SECTIONS (36+00 TO 52+00)
9. CROSS SECTIONS (54+00 TO 58+00)
10. CROSS SECTIONS-ESTERO ISLAND BEACH FILL TEMPLATE
11. CROSS SECTIONS-LOVERS KEY BEACH FILL TEMPLATE

NOTES:

1. AERIAL PHOTOGRAPH DATED FEBRUARY 2015 COURTESY OF THE LEE COUNTY.
2. COORDINATES SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN DATUM OF 1983, WEST ZONE (NAD83).
3. ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. THESE PLANS ARE NOT VALID UNLESS SIGNED AND SEALED.

*PLANS REVISED 05/13/2021 FOR BRIDGE REPLACEMENT

 HUMISTON & MOORE ENGINEERS COASTAL ENGINEERING DESIGN AND PERMITTING	BCP CHANNEL DREDGING & RE-ALIGNMENT COVER PAGE & LOCATION MAP			5679 STRAND COURT NAPLES, FL 34110 FAX: (239) 594-2025 PHONE: (239) 594-2021 www.humistonandmoore.com
	FOR: WEST COAST INLAND NAVIGATION DISTRICT			
	DATE: 05/13/21	FILE: SITE PLAN	SCALE: SHOWN	
	JOB: 13-024	DATUM: NAVD88	SHEET: 1	



MEAN HIGH WATER LINE—BASED
ON THE JANUARY 2015 POST
CONSTRUCTION SURVEY FOR FDEP
PROJECT #0311811-001-JC
PROVIDED BY LEE COUNTY

2004 BORROW AREA AUTHORIZED
UNDER FDEP #0173059-003-JC

2003 BORROW AREA AUTHORIZED
UNDER FDEP #0200803-001-JC

2014 BORROW AREAS AUTHORIZED
UNDER FDEP #0311811-001-JC &
USACE SAJ-2012-00198 (IP-MJD)

PROPOSED CHANNEL RE-ALIGNMENT &
ADVANCED MAINTENANCE DREDGING

FORT MYERS
BEACH

BIG CARLOS
PASS

LOVERS KEY

GULF OF
MEXICO

MEAN HIGH WATER LINE—BASED
ON THE JANUARY 2015 POST
CONSTRUCTION SURVEY FOR FDEP
PROJECT #0311811-001-JC
PROVIDED BY LEE COUNTY

LOVERS KEY BEACH FILL OPTION — WITHIN FILL TEMPLATE
PREVIOUSLY AUTHORIZED UNDER FDEP #0311811-001-JC &
USACE SAJ-2012-00198 (IP-MJD) (SECONDARY FILL OPTION)

- NOTES:
1. THIS EXHIBIT IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. COORDINATE SYSTEM IS IN FL STATE PLANE WEST NAD83 (FT).
 3. R-MONUMENT LOCATIONS ARE APPROXIMATE.
 4. CONTOURS BASED ON SURVEY COMPLETED IN JANUARY 2015 FOR THE POST CONSTRUCTION SURVEY FOR DEP PERMIT #0311811 AND REFERENCE NAVD88.

LEGEND
— MHWL
--- ECL

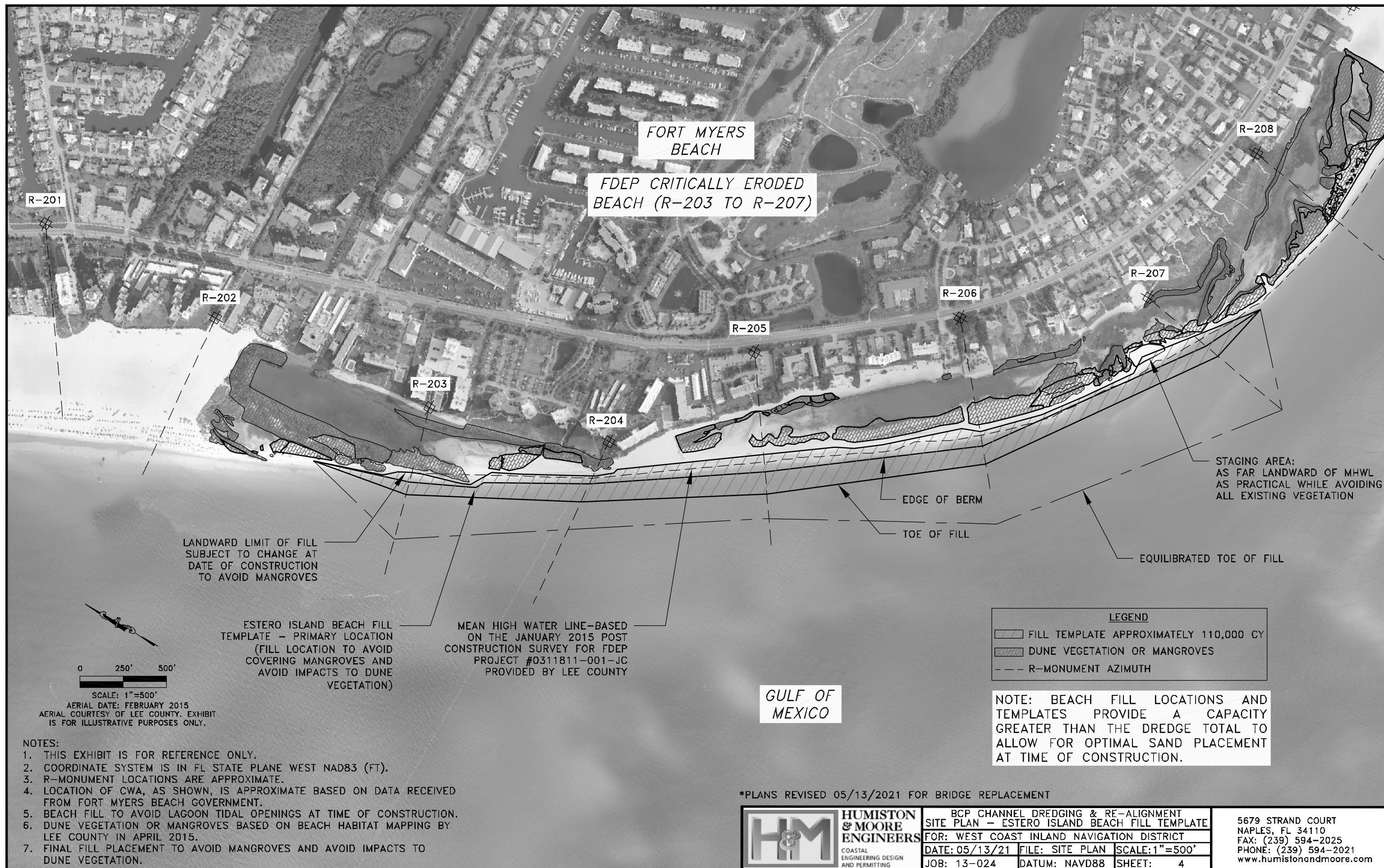


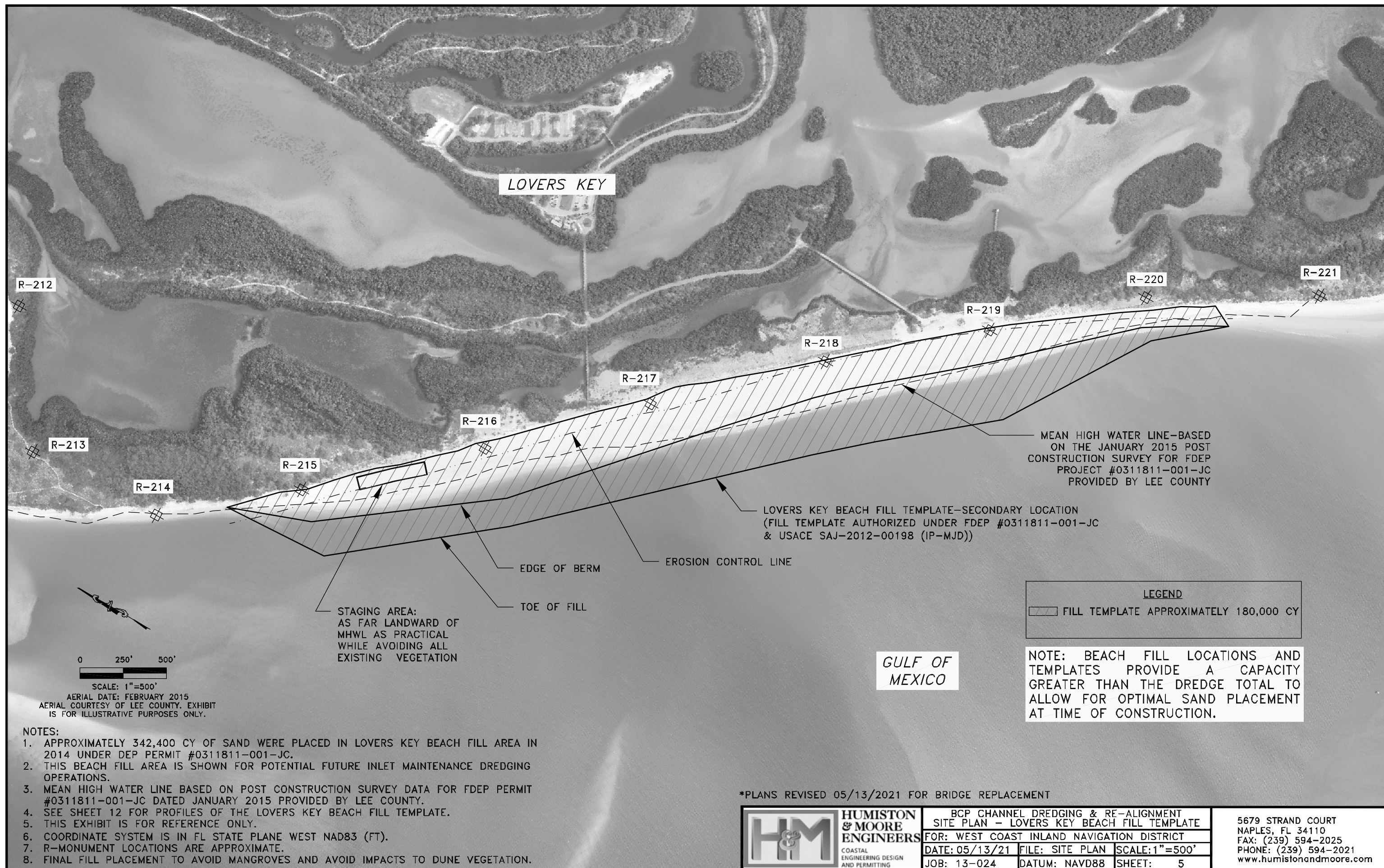
BCP CHANNEL DREDGING & RE-ALIGNMENT SITE PLAN		
FOR: WEST COAST INLAND NAVIGATION DISTRICT		
DATE: 05/13/21	FILE: SITE PLAN	SCALE: 1"=1500'
JOB: 13-024	DATUM: NAVD88	SHEET: 2

5679 STRAND COURT
NAPLES, FL 34110
FAX: (239) 594-2025
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NOTES:

1. APPROXIMATELY 342,400 CY OF SAND WERE PLACED IN LOVERS KEY BEACH FILL AREA IN 2014 UNDER DEP PERMIT #0311811-001-JC.
2. THIS BEACH FILL AREA IS SHOWN FOR POTENTIAL FUTURE INLET MAINTENANCE DREDGING OPERATIONS.
3. MEAN HIGH WATER LINE BASED ON POST CONSTRUCTION SURVEY DATA FOR FDEP PERMIT #0311811-001-JC DATED JANUARY 2015 PROVIDED BY LEE COUNTY.
4. SEE SHEET 12 FOR PROFILES OF THE LOVERS KEY BEACH FILL TEMPLATE.
5. THIS EXHIBIT IS FOR REFERENCE ONLY.
6. COORDINATE SYSTEM IS IN FL STATE PLANE WEST NAD83 (FT).
7. R-MONUMENT LOCATIONS ARE APPROXIMATE.
8. FINAL FILL PLACEMENT TO AVOID MANGROVES AND AVOID IMPACTS TO DUNE VEGETATION.

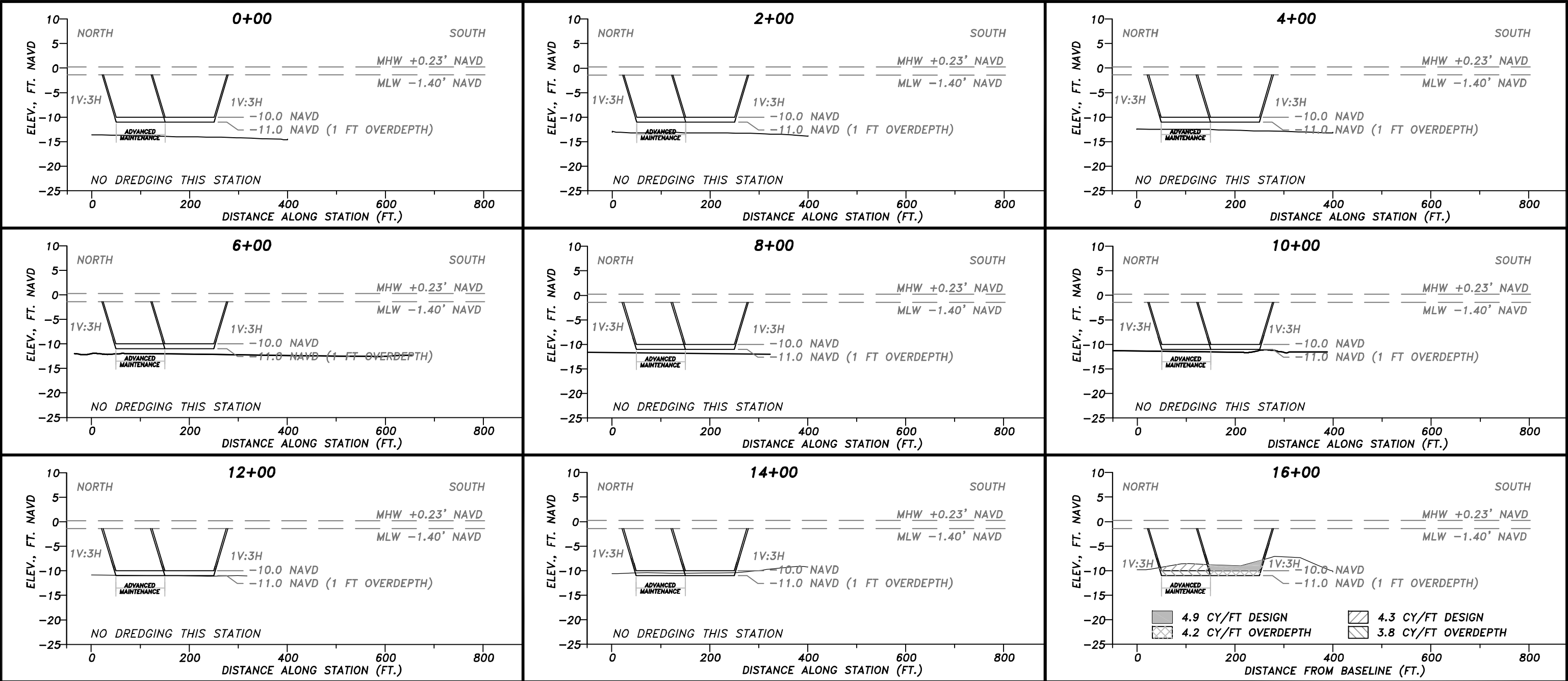
*PLANS REVISED 05/13/2021 FOR BRIDGE REPLACEMENT



**HUMISTON
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AND PERMITTING

BCP CHANNEL DREDGING & RE-ALIGNMENT		
SITE PLAN - LOVERS KEY BEACH FILL TEMPLATE		
FOR: WEST COAST INLAND NAVIGATION DISTRICT		
DATE: 05/13/21	FILE: SITE PLAN	SCALE: 1"=500'
JOB: 13-024	DATUM: NAVD88	SHEET: 5

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- NOTES:
1. PROFILES 00+00 TO 04+00 BASED ON COMPILATION OF DATA FROM AIM ENGINEERING & SURVEYING, INC. 2013 & 2014 SURVEY AND SEA DIVERSIFIED, INC. 2013 SURVEY.
 2. PROFILES 06+00 TO 52+00 BASED ON THE JANUARY 2015 POST CONSTRUCTION SURVEY FOR FDEP PROJECT #0311811-001-JC & USACE SAJ-2012-00198 (IP-MJD) PROVIDED BY LEE COUNTY.
 3. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 4. SIDE SLOPES ON DREDGE TEMPLATE 1V:3H.
 5. BOX CUT MAY BE CONDUCTED IN LIEU OF SIDE SLOPES ALLOWING FOR SIDE SLOPE ADJUSTMENTS.

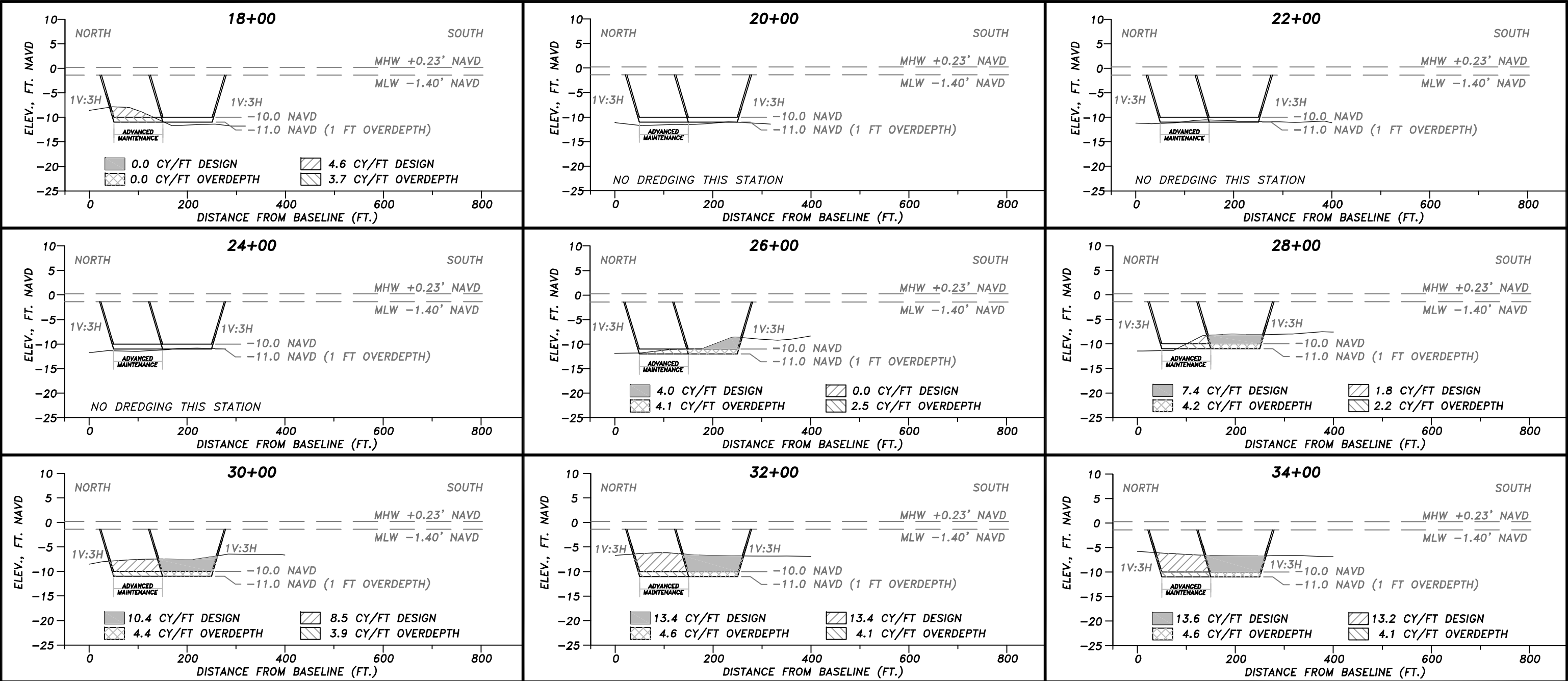


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ENGINEERING DESIGN
AND PERMITTING

BCP CHANNEL DREDGING & RE-ALIGNMENT
CROSS SECTIONS (0+00 TO 16+00)
FOR: WEST COAST INLAND NAVIGATION DISTRICT
DATE: 05/13/21 FILE: PLAN SCALE: SHOWN
JOB: 13024 DATUM: SHOWN SHEET: 6

5679 STRAND COURT
NAPLES, FL 34110
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- NOTES:
1. PROFILES SHOWN BASED ON THE JANUARY 2015 POST CONSTRUCTION SURVEY FOR FDEP PROJECT #0311811-001-JC & USACE SAJ-2012-00198 (IP-MJD) PROVIDED BY LEE COUNTY.
 2. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 3. SIDE SLOPES ON DREDGE TEMPLATE 1V:3H.
 4. BOX CUT MAY BE CONDUCTED IN LIEU OF SIDE SLOPES ALLOWING FOR SIDE SLOPE ADJUSTMENTS.

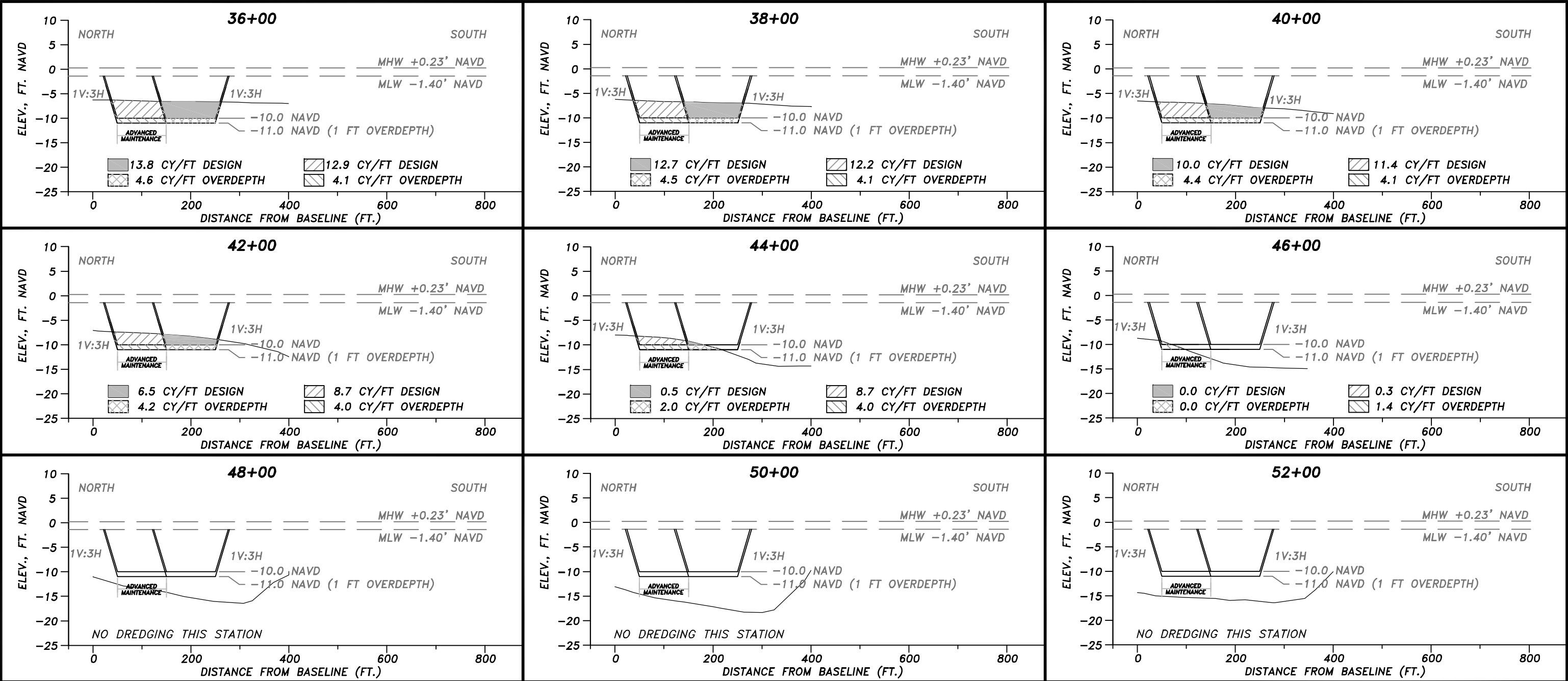


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ENGINEERING DESIGN
AND PERMITTING

BCP CHANNEL DREDGING & RE-ALIGNMENT CROSS SECTIONS (18+00 TO 34+00)		
FOR: WEST COAST INLAND NAVIGATION DISTRICT		
DATE: 05/13/21	FILE: PLAN	SCALE: SHOWN
JOB: 13024	DATUM: SHOWN	SHEET: 7

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- NOTES:
1. PROFILES SHOWN BASED ON THE JANUARY 2015 POST CONSTRUCTION SURVEY FOR FDEP PROJECT #0311811-001-JC & USACE SAJ-2012-00198 (IP-MJD) PROVIDED BY LEE COUNTY.
 2. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 3. SIDE SLOPES ON DREDGE TEMPLATE 1V:3H.
 4. BOX CUT MAY BE CONDUCTED IN LIEU OF SIDE SLOPES ALLOWING FOR SIDE SLOPE ADJUSTMENTS.

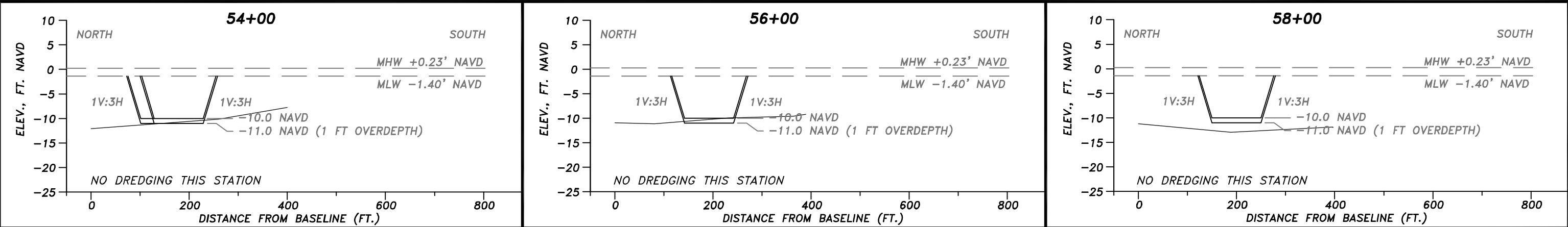


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BCP CHANNEL DREDGING & RE-ALIGNMENT
CROSS SECTIONS (36+00 TO 52+00)
FOR: WEST COAST INLAND NAVIGATION DISTRICT
DATE: 05/13/21 FILE: PLAN SCALE: SHOWN
JOB: 13024 DATUM: SHOWN SHEET: 8

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- NOTES:
1. PROFILES 72+00 TO 80+00 BASED ON COMPILATION OF DATA FROM AIM ENGINEERING & SURVEYING, INC. 2013 & 2014 SURVEY AND SEA DIVERSIFIED, INC. 2013 SURVEY.
 2. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 3. SIDE SLOPES ON DREDGE TEMPLATE 1V:3H.
 4. BOX CUT MAY BE CONDUCTED IN LIEU OF SIDE SLOPES ALLOWING FOR SIDE SLOPE ADJUSTMENTS.

BIG CARLOS PASS CHANNEL DREDGE VOLUMES - ONE FOOT OVERDEPTH TO -11.0' NAVD						
STATION	DISTANCE (FT)	DESIGN VOLUME (CY/FT)	DESIGN VOLUME (CY)	OVERDEPTH VOLUME (CY/FT)	OVERDEPTH VOLUME (CY)	TOTAL VOLUME (CY)
12+00	200	0.0	0	0.0	0	0
14+00	200	0.0	0	0.0	0	0
16+00	200	4.9	985	4.2	840	1,825
18+00	200	0.0	0	0.0	0	0
20+00	200	0.0	0	0.0	0	0
22+00	200	0.0	0	0.0	0	0
24+00	200	0.0	0	0.0	0	0
26+00	200	4.0	799	4.1	812	1,611
28+00	200	7.4	1,487	4.2	844	2,331
30+00	200	10.4	2,073	4.4	889	2,961
32+00	200	13.4	2,687	4.6	913	3,600
34+00	200	13.6	2,710	4.6	912	3,622
36+00	200	13.8	2,765	4.6	913	3,678
38+00	200	12.7	2,534	4.5	902	3,436
40+00	200	10.0	2,001	4.4	874	2,876
42+00	200	6.5	1,305	4.2	834	2,139
44+00	200	0.5	90	2.0	400	490
46+00	200	0.0	0	0.0	0	0
48+00	200	0.0	0	0.0	0	0
TOTAL			19,439		9,132	28,570

BIG CARLOS PASS ADVANCED MAINTENANCE DREDGE VOLUMES - ONE FOOT OVERDEPTH TO -11.0' NAVD						
STATION	DISTANCE (FT)	DESIGN VOLUME (CY/FT)	DESIGN VOLUME (CY)	OVERDEPTH VOLUME (CY/FT)	OVERDEPTH VOLUME (CY)	TOTAL VOLUME (CY)
12+00	200	0.0	0	0.0	0	0
14+00	200	0.0	0	0.0	0	0
16+00	200	4.3	863	3.8	754	1,617
18+00	200	4.6	914	3.7	736	1,650
20+00	200	0.0	0	0.0	0	0
22+00	200	0.0	0	0.0	0	0
24+00	200	0.0	0	0.0	0	0
26+00	200	0.0	0	2.5	497	497
28+00	200	1.8	354	2.2	434	788
30+00	200	8.5	1,708	3.9	787	2,495
32+00	200	13.4	2,687	4.1	820	3,507
34+00	200	13.2	2,633	4.1	828	3,461
36+00	200	12.9	2,575	4.1	824	3,399
38+00	200	12.2	2,431	4.1	820	3,251
40+00	200	11.4	2,275	4.1	814	3,089
42+00	200	8.7	1,736	4.0	799	2,535
44+00	200	5.2	1,045	3.9	781	1,826
46+00	200	0.3	54	1.4	283	337
48+00	200	0.0	0	0.0	0	0
TOTAL			19,276		9,176	28,451
TOTAL COMBINED (CHANNEL DREDGE AND ADVANCED MAINTENANCE DREDGE VOLUMES)						57,021

AREA DREDGED IN 2014 FOR
LOVERS KEY BEACH NOURISHMENT.

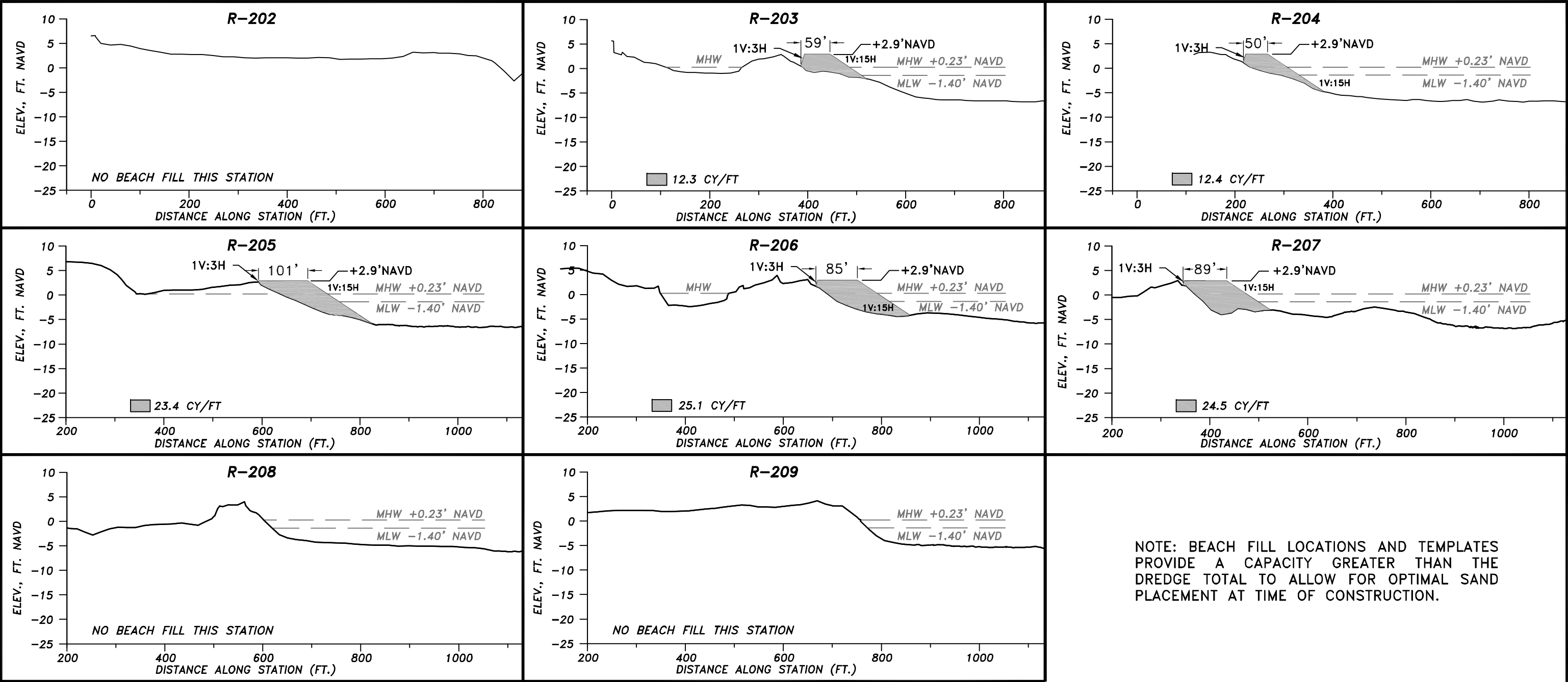


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BCP CHANNEL DREDGING & RE-ALIGNMENT
CROSS SECTIONS (54+00 TO 58+00)
FOR: WEST COAST INLAND NAVIGATION DISTRICT
DATE: 05/13/21 FILE: PLAN SCALE: SHOWN
JOB: 13024 DATUM: SHOWN SHEET: 9

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NOTE: BEACH FILL LOCATIONS AND TEMPLATES PROVIDE A CAPACITY GREATER THAN THE DREDGE TOTAL TO ALLOW FOR OPTIMAL SAND PLACEMENT AT TIME OF CONSTRUCTION.

- NOTES:
- 1. PROFILES R-202 TO R-204 BASED ON SURVEY BY SEA DIVERSIFIED, INC. 2013 SURVEY.
 - 2. PROFILES R-205 TO R-209 BASED ON THE JANUARY 2015 POST CONSTRUCTION SURVEY FOR FDEP PROJECT #0311811-001-JC & USACE SAJ-2012-00198 (IP-MJD) PROVIDED BY LEE COUNTY.
 - 3. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 - 4. LANDWARD SLOPE OF FILL TO BE FIELD ADJUSTED TO AVOID MANGROVES AND AVOID IMPACTS TO DUNE VEGETATION.

ESTERO ISLAND BEACH FILL TEMPLATE VOLUMES						
Station	Easting	Northing	Azimuth	Distance	Volume	Volume
Number	Feet	Feet	Degrees	Feet	CY/FT	CY
R-203	688193.1	755976.1	255	1015	12.3	12,526
R-204	688540.1	754979.6	265	1035	12.4	12,788
R-205	689409.9	754511.0	235	1155	23.4	27,053
R-206	690175.2	753582.5	230	1360	25.1	34,116
R-207	690818.4	752698.0	190	1090	24.5	26,705
Total Available						113,187

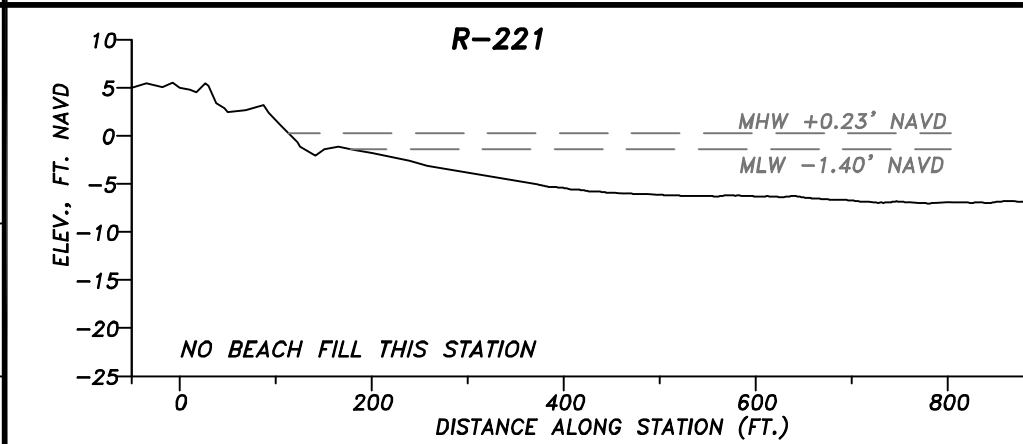
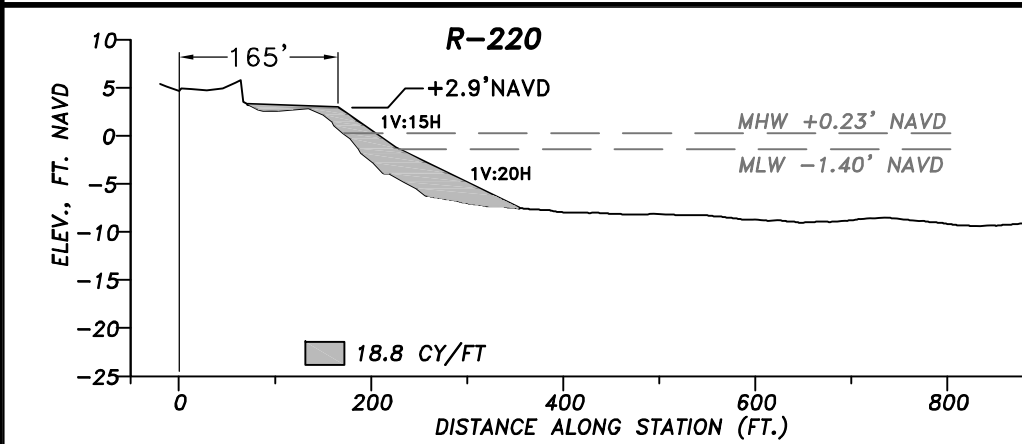
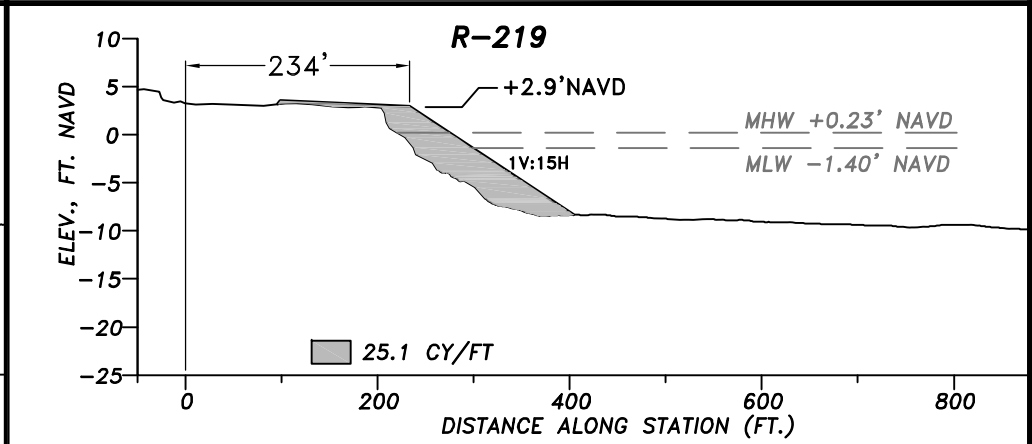
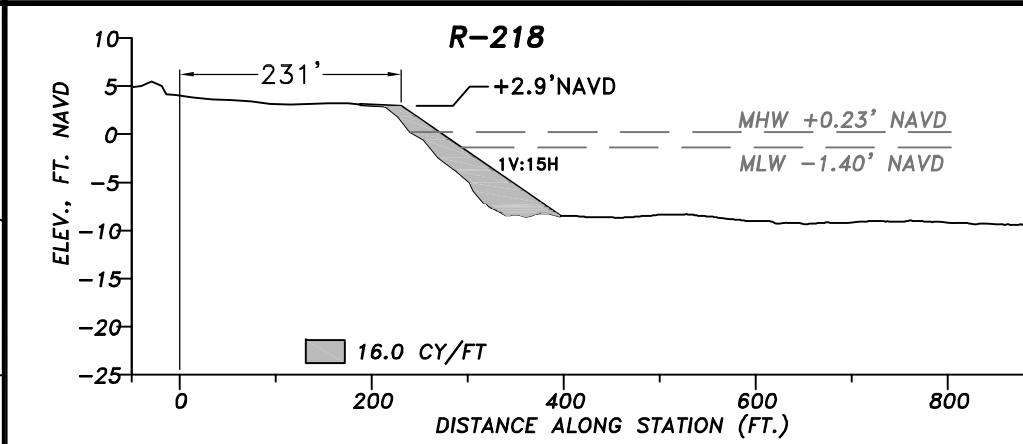
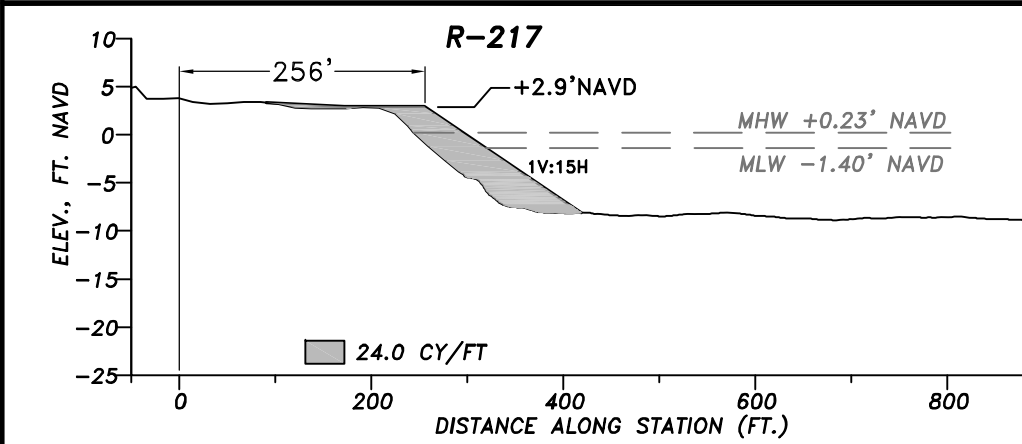
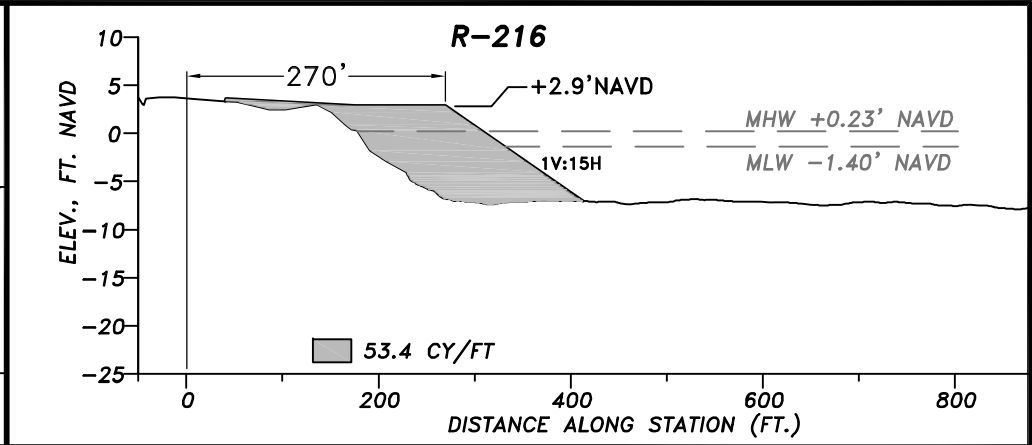
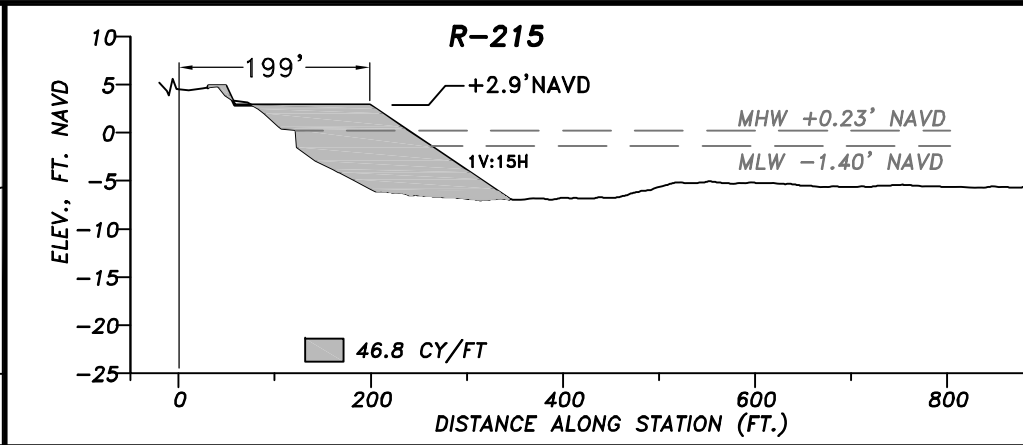
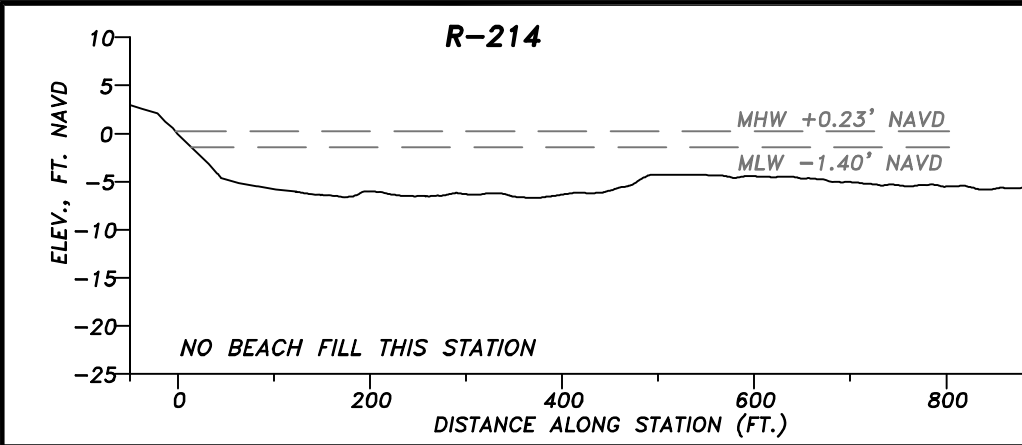


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BCP CHANNEL DREDGING & RE-ALIGNMENT
X SECTIONS-ESTERO ISLAND BEACH FILL TEMPLATE
FOR: WEST COAST INLAND NAVIGATION DISTRICT
DATE: 05/13/21 FILE: PLAN SCALE: SHOWN
JOB: 13024 DATUM: SHOWN SHEET: 10

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NOTE: BEACH FILL LOCATIONS AND TEMPLATES PROVIDE A CAPACITY GREATER THAN THE DREDGE TOTAL TO ALLOW FOR OPTIMAL SAND PLACEMENT AT TIME OF CONSTRUCTION.

- NOTES:
1. LOVERS KEY BEACH FILL TEMPLATE BASED ON PLANS BY COASTAL TECHNOLOGY CORPORATION PLANS (FDEP PROJECT #0311811-001-JC & USACE SAJ-2012-00198 (IP-MJD)) DATED 01/22/2013.
 2. PROFILES R-214 TO R-221 BASED ON THE JANUARY 2015 POST CONSTRUCTION SURVEY FOR FDEP PROJECT #0311811-001-JC PROVIDED BY LEE COUNTY.
 3. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 4. LANDWARD SLOPE OF FILL TO BE FIELD ADJUSTED TO AVOID MANGROVES AND AVOID IMPACTS TO DUNE VEGETATION.



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COASTAL
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AND PERMITTING

BCP CHANNEL DREDGING & RE-ALIGNMENT
X SECTIONS-LOVERS KEY BEACH FILL TEMPLATE
FOR: WEST COAST INLAND NAVIGATION DISTRICT

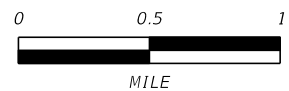
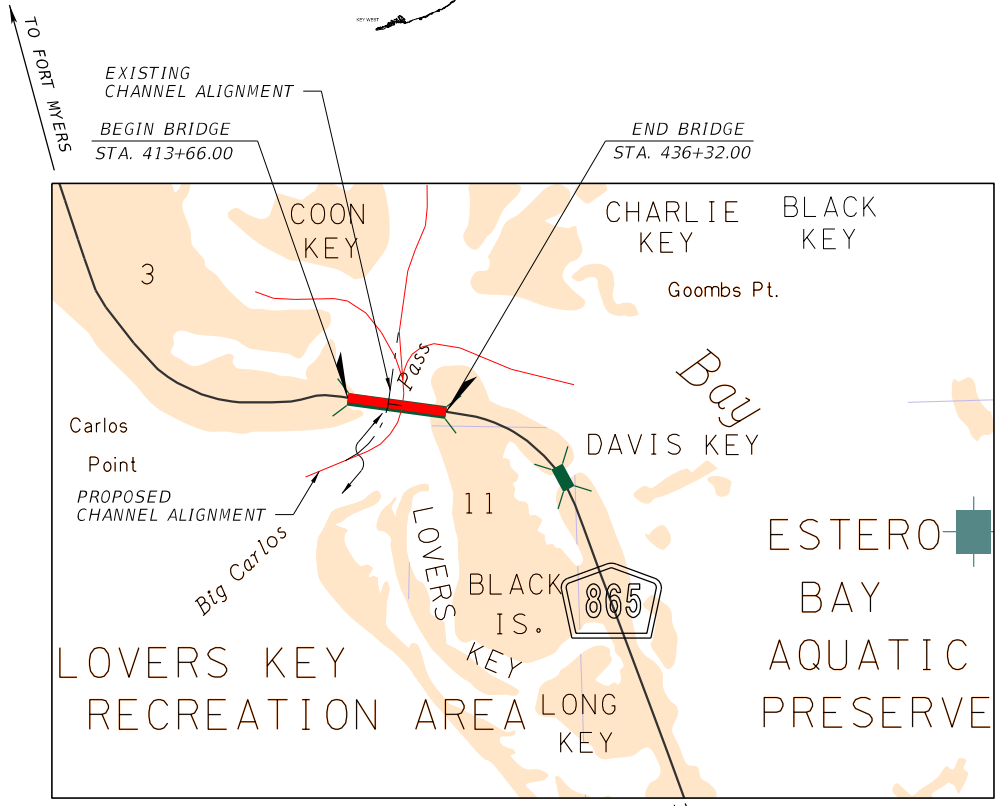
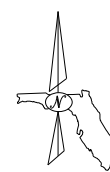
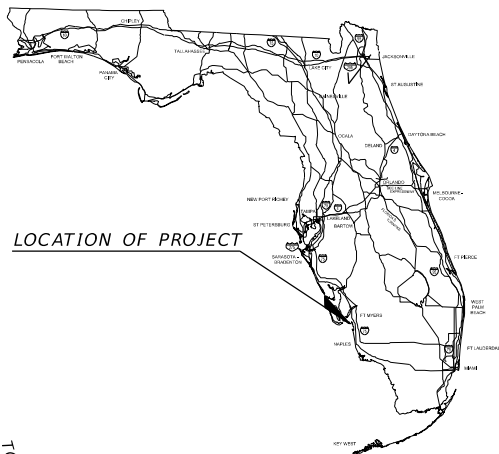
DATE: 05/13/21 FILE: PLAN SCALE: SHOWN

JOB: 13024 DATUM: SHOWN SHEET: 11

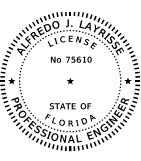
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*PLANS REVISED 05/13/2021 FOR BRIDGE REPLACEMENT

LOVERS KEY BEACH FILL TEMPLATE VOLUMES						
Station	Easting	Northing	Azimuth	Distance	Volume	Volume
Number	Feet	Feet	Degrees	Feet	CY/FT	CY
R-214	693933.3	749376.5	235	0	0.0	0
R-215	694480.2	748722.7	220	980	46.8	45,846
R-216	695215.0	747924.4	215	1035	53.4	55,281
R-217	695917.4	747224.5	235	1010	24.0	24,251
R-218	696634.5	746474.2	230	1000	16.0	16,000
R-219	697265.3	745742.3	230	945	25.1	23,748
R-220	697879.9	745055.4	235	860	18.8	16,162
R-221	698389.9	744191.9	235	0	0.0	0
Total Available						181,287



TO NAPLES



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:
Alfredo J Layrisse 2021.05.13 11:17:24 -0400

ON THE DATE ADJACENT TO THE SEAL
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET, SUITE 400
 TAMPA, FLORIDA 33602
 PHONE: (813) 871-5331 FAX: (813) 871-5135
 CERTIFICATE OF AUTHORIZATION NO. 02317
 ALFREDO J. LAYRISSE, P.E. NO. 75610

CONCEPTUAL PLANS UTILIZED TO
 OBTAIN JOINT COASTAL
 PERMIT

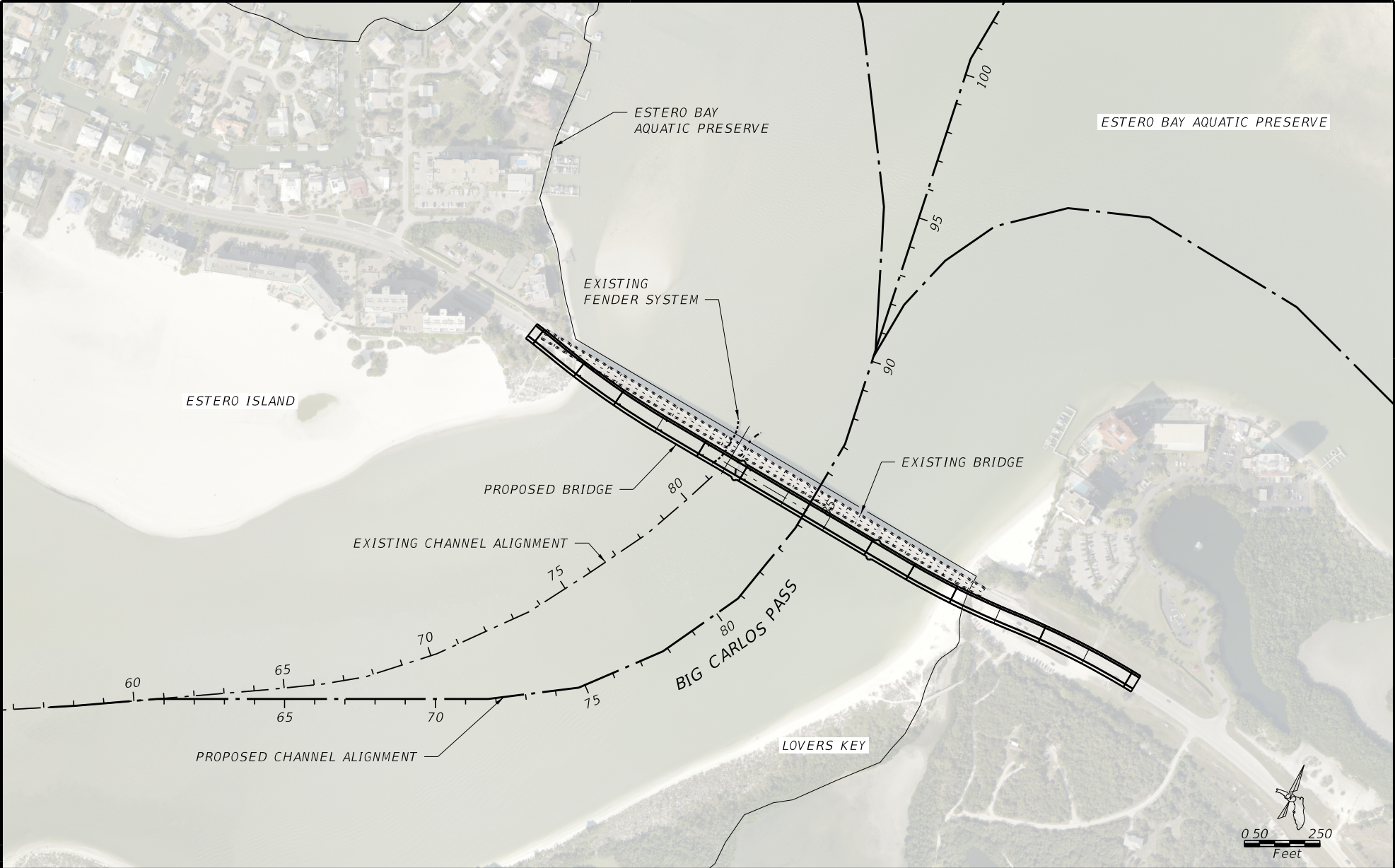
APPLICANT: Lee County
 CONSULTANT: Kisinger Campo & Associates
 BRIDGE NAME: Big Carlos Pass Bridge
 WATERWAY NAME: Big Carlos Pass
 WATERWAY MILE POINT: 0.0
 LOCATION: Estero Island, Lee County, Florida
 PLANS DATE: February 7, 2020

ALFREDO J. LAYRISSE, P.E.
 P.E. LICENSE NUMBER 75610
 KISINGER CAMPO AND ASSOCIATES
 201 N. FRANKLIN STREET SUITE 400
 TAMPA, FL 33602
 CERTIFICATE OF AUTHORIZATION: 02317



LEE COUNTY DEPARTMENT OF
 TRANSPORTATION
 1500 MONROE STREET, 5th FLOOR
 FORT MYERS, FLORIDA 33901

LOCATION MAP	
BIG CARLOS PASS BRIDGE REPLACEMENT AND CHANNEL REALIGNMENT	SHEET NO. 1 OF 12



REVISIONS						Kisinger Campo & Associates Corp. 201 N. Franklin Street Suite 400 Tampa, FL 33602 Florida C.O.A. No. 02317 Alfredo Jose Layrisse, PE No. 75610	DRAWN BY:	LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION			SHEET TITLE:	PROPOSED CHANNEL ALIGNMENT		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY:	ROAD NO.	COUNTY	COUNTY PROJECT No.	PROJECT NAME:	CR 865 (ESTERO BOULEVARD) OVER BIG CARLOS PASS		SHEET NO.
							DESIGNED BY:							
							CHECKED BY:	CR 865	LEE	CN160002				2 OF 12

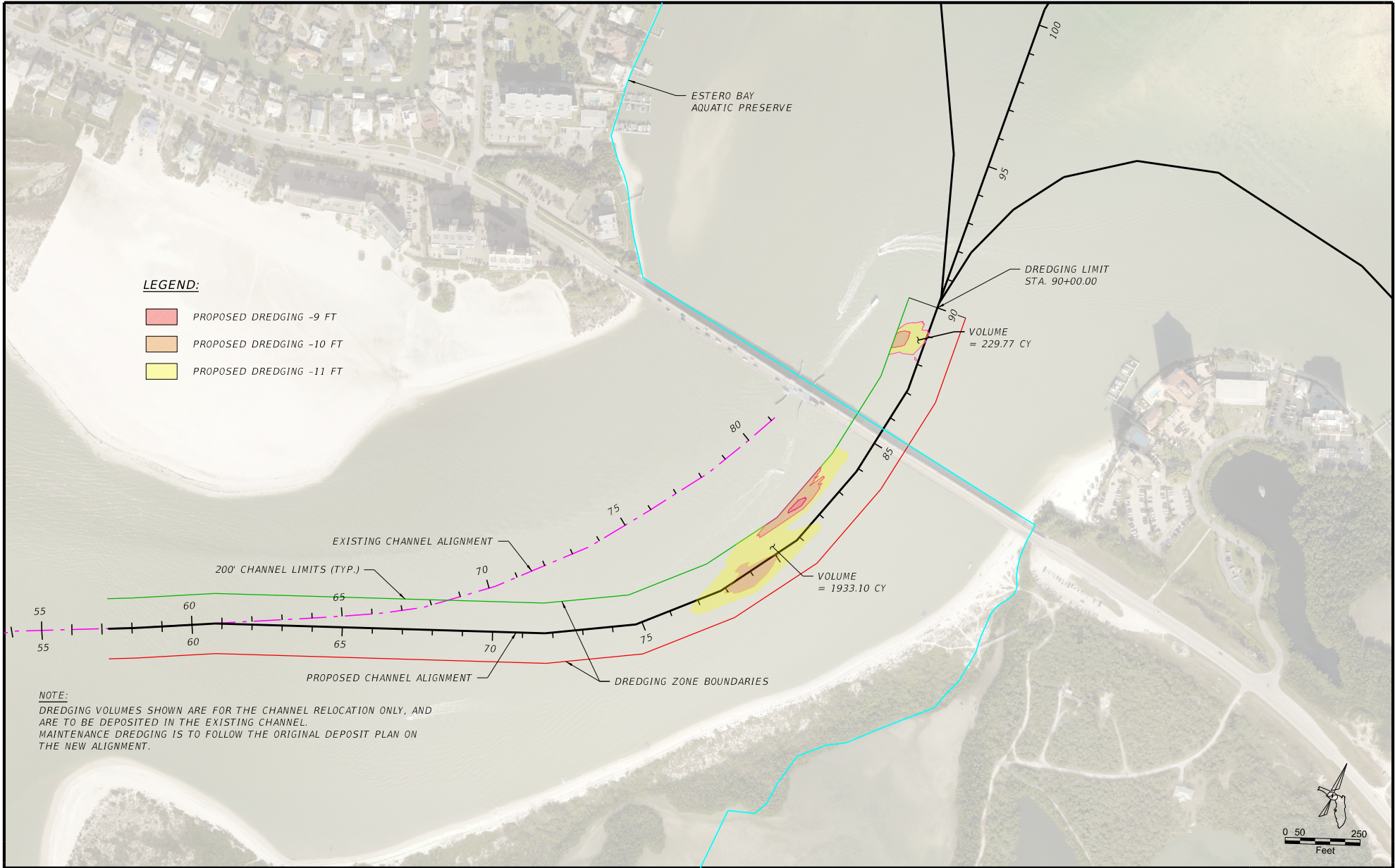
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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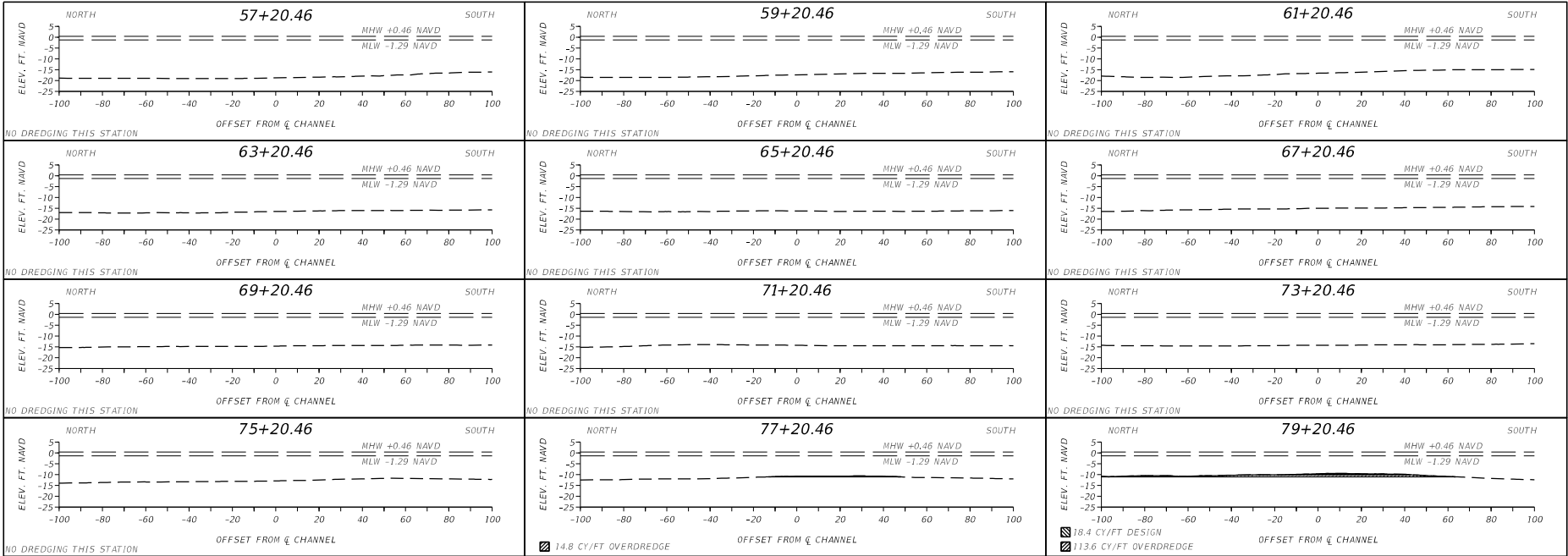


LEGEND:

- PROPOSED DREDGING -9 FT
- PROPOSED DREDGING -10 FT
- PROPOSED DREDGING -11 FT

NOTE:
DREDGING VOLUMES SHOWN ARE FOR THE CHANNEL RELOCATION ONLY, AND ARE TO BE DEPOSITED IN THE EXISTING CHANNEL. MAINTENANCE DREDGING IS TO FOLLOW THE ORIGINAL DEPOSIT PLAN ON THE NEW ALIGNMENT.

REVISIONS						Kisinger Campo & Associates Corp. 201 N. Franklin Street Suite 400 Tampa, FL 33602 Alfredo Jose Layrisse, PE No. 75610	DRAWN BY: SKB 10-20			LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION			SHEET TITLE: DREDGE VOLUME CONTOURS		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: A.J.L. 10-20								
							DESIGNED BY: SKB 10-20			ROAD NO.	COUNTY	COUNTY PROJECT No	PROJECT NAME: ESTERO BLVD. (CR 865) OVER BIG CARLOS PASS		SHEET NO. 3 OF 12
							CHECKED BY: A.J.L. 10-20			CR 865	LEE	CN160002			



- NOTES:
- DESIGN DREDGE ELEVATION IS -10.0 NAVD.
 - OVERDREDGE ELEVATION IS -11.0 NAVD.
 - PROFILE ELEVATIONS ARE BASE UPON SURVEY DATA PROVIDED BY THE WEST COAST INLAND NAVIGATION DISTRICT (WCIND).

REVISIONS						DRAWN BY: SAB 10-20	LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION			SHEET TITLE: CHANNEL CROSS SECTION (1 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: A.J.L. 10-20	ROAD NO. COUNTY COUNTY PROJECT No			PROJECT NAME: ESTERO BLVD. (CR 865) OVER BIG CARLOS PASS	SHEET NO. 4 OF 12
						DESIGNED BY: SAB 10-20	CR 865	LEE	CN160002		
						CHECKED BY: A.J.L. 10-20					

Kisinger Campo & Associates Corp.
201 N. Franklin Street
Suite 400
Tampa, FL 33602
Alfredo Jose Layrisse, PE No. 75610

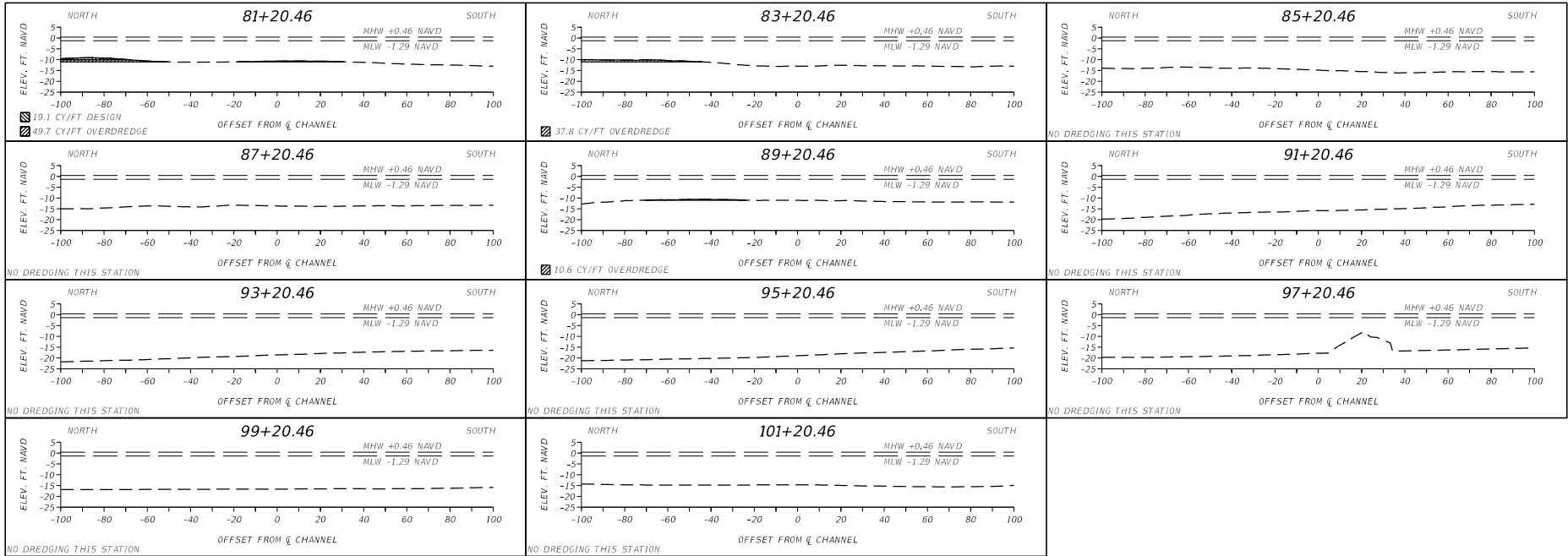
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5/5/2021

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REVISIONS						DRAWN BY: SAB 10-20	LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION			SHEET TITLE: CHANNEL CROSS SECTION (2 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: A.J.L. 10-20	ROAD NO. COUNTY COUNTY PROJECT No			PROJECT NAME: ESTERO BLVD. (CR 865) OVER BIG CARLOS PASS	SHEET NO. 5 OF 12
						DESIGNED BY: SAB 10-20	CR 865	LEE	CN160002		
						CHECKED BY: A.J.L. 10-20					

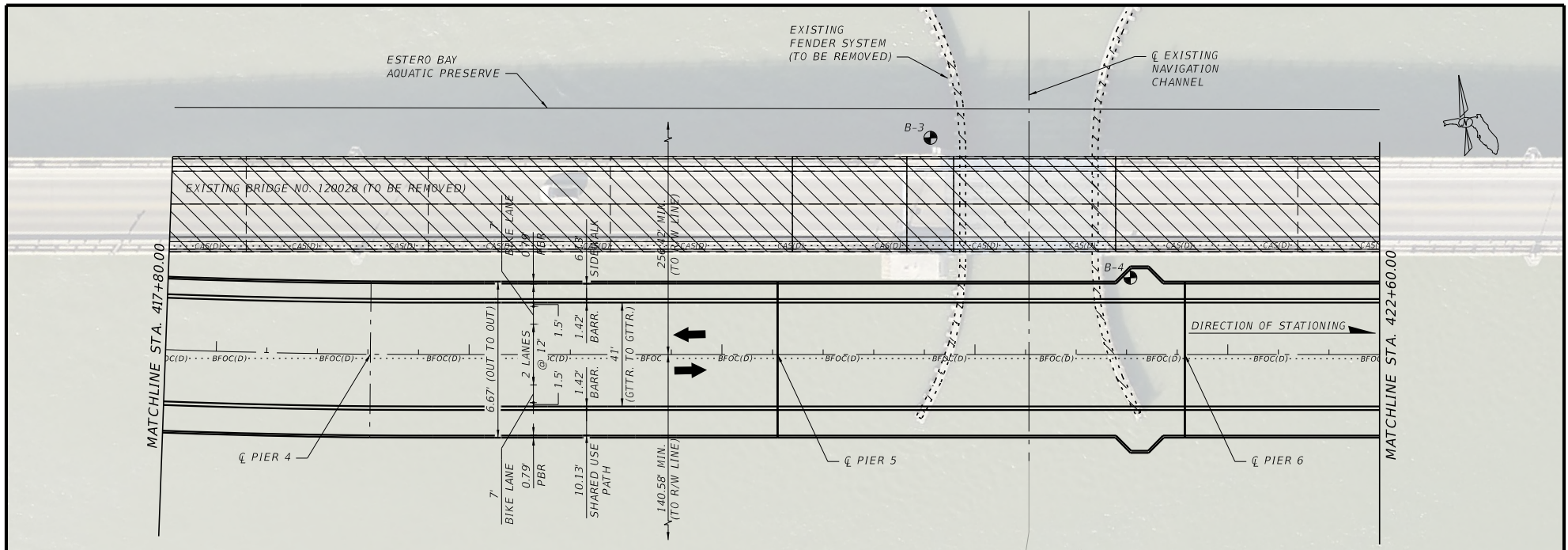
Kisinger Campo & Associates Corp.
201 N. Franklin Street
Suite 400
Tampa, FL 33602
Alfredo Jose Layrisse, PE No. 75610

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5/5/2021

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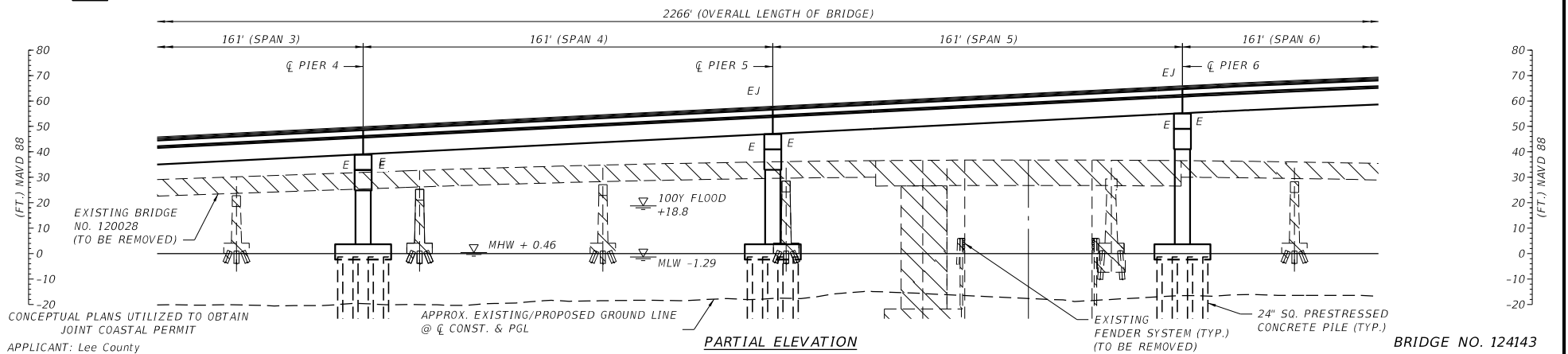
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PARTIAL PLAN

LEGEND

- DENOTES APPROXIMATE LOCATION OF CORE BORING
- ▨ TO BE REMOVED



PARTIAL ELEVATION

CONCEPTUAL PLANS UTILIZED TO OBTAIN
JOINT COASTAL PERMIT

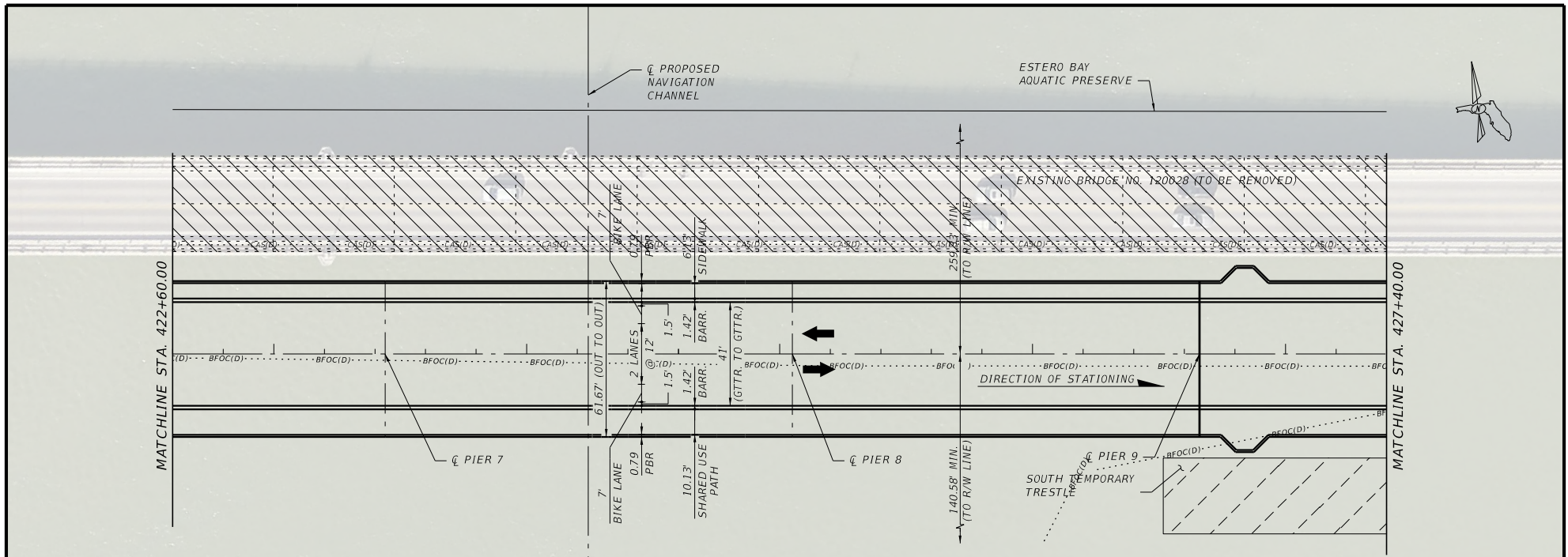
APPLICANT: Lee County
CONSULTANT: Kisinger Campo & Associates
BRIDGE NAME: Big Carlos Pass Bridge
WATERWAY NAME: Big Carlos Pass
WATERWAY MILE POINT: 0.0
LOCATION: Estero Island, Lee County, Florida
PLANS DATE: February 7, 2020

0 10 40
Feet

Kisinger Campo & Associates Corp.
201 N. Franklin Street
Suite 400
Tampa, FL 33602
Florida C.O.A. No. 02317
Alfredo Jose Layrisse, PE No. 75610

DRAWN BY: ARF 06-19 CHECKED BY: A.J. 06-19 DESIGNED BY: CEL 06-19 CHECKED BY: ATB 06-19	LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION	
ROAD NO.	COUNTY	COUNTY PROJECT No.
CR 865	LEE	CN160002

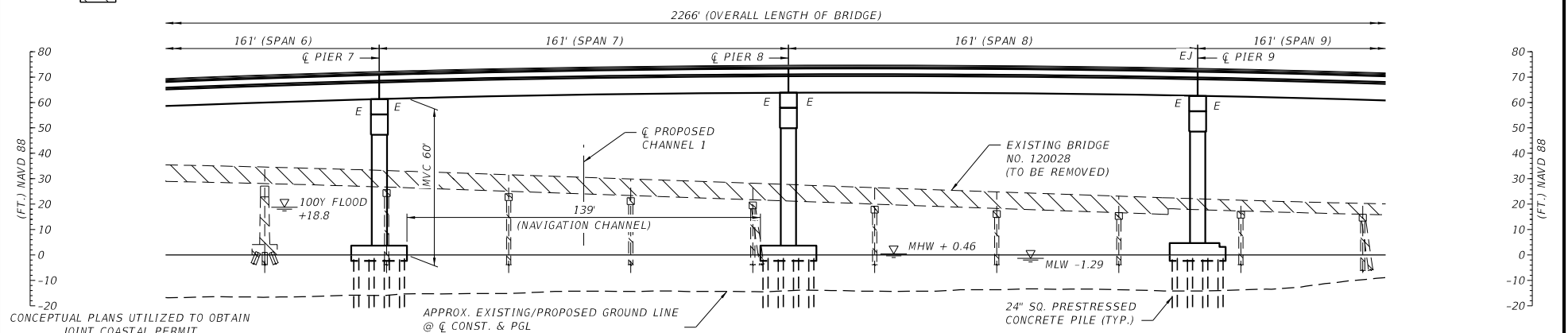
SHEET TITLE:		REF. DWG. NO.
PLAN AND ELEVATION (2 OF 5)		
PROJECT NAME:		SHEET NO.
CR 865 (ESTERO BOULEVARD) OVER BIG CARLOS PASS		7 OF 12



LEGEND

- DENOTES APPROXIMATE LOCATION OF CORE BORING
- ▨ TO BE REMOVED

PARTIAL PLAN



PARTIAL ELEVATION

BRIDGE NO. 124143

CONCEPTUAL PLANS UTILIZED TO OBTAIN
JOINT COASTAL PERMIT

APPLICANT: Lee County
CONSULTANT: Kisinger Campo & Associates
BRIDGE NAME: Big Carlos Pass Bridge
WATERWAY NAME: Big Carlos Pass
WATERWAY MILE POINT: 0.0
LOCATION: Estero Island, Lee County, Florida
PLANS DATE: February 7, 2020

0 10 40
Feet

Kisinger Campo & Associates Corp.
201 N. Franklin Street
Suite 400
Tampa, FL 33602
Florida C.O.A. No. 02317
Alfredo Jose Layrisse, PE No. 75610

DRAWN BY:
ARF 06-19
CHECKED BY:
A.J.L. 06-19
DESIGNED BY:
CEL 06-19
CHECKED BY:
AIB 06-19

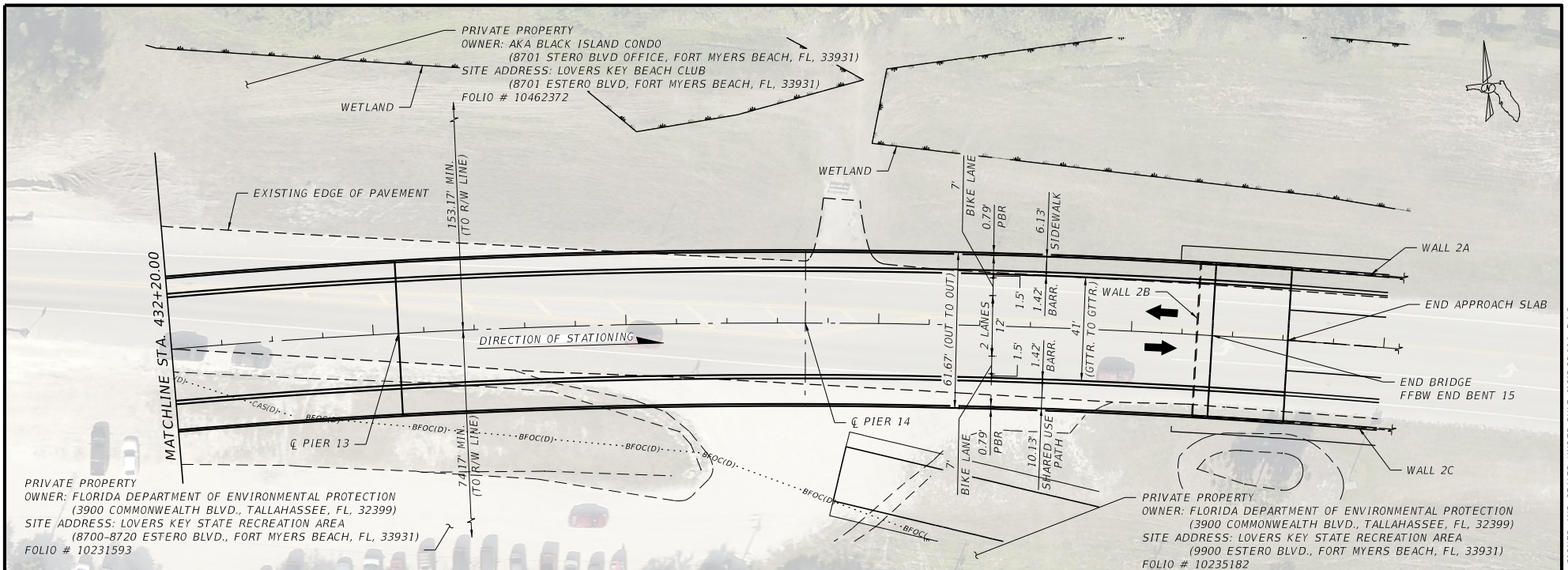
LEE COUNTY PUBLIC WORKS
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	COUNTY PROJECT NO.
CR 865	LEE	CN160002

SHEET TITLE:
PLAN AND ELEVATION (3 OF 5)

PROJECT NAME:
CR 865 (ESTERO BOULEVARD) OVER BIG CARLOS PASS

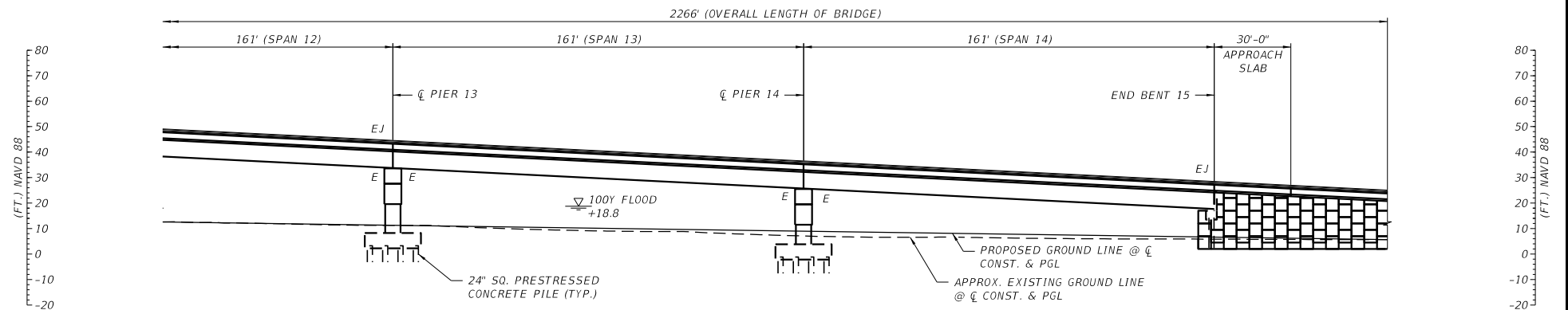
REF. DWG. NO.
SHEET NO.
8 OF 12



LEGEND

● DENOTES APPROXIMATE LOCATION OF CORE BORING

PARTIAL PLAN



CONCEPTUAL PLANS UTILIZED TO OBTAIN JOINT COASTAL PERMIT

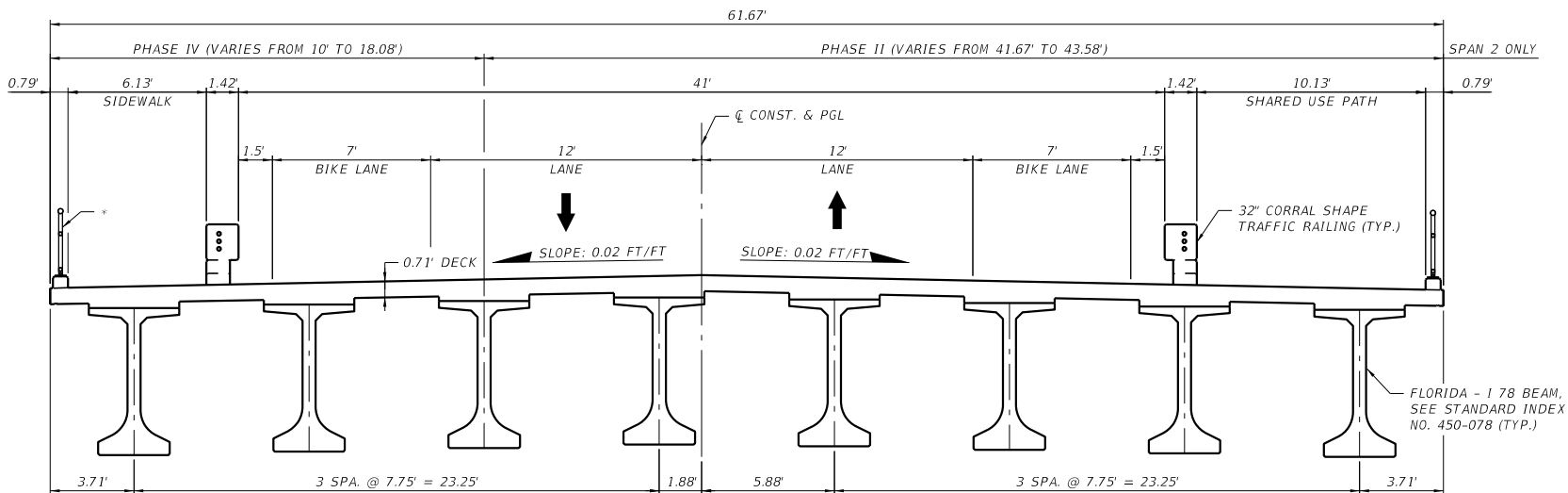
APPLICANT: Lee County
CONSULTANT: Kisinger Campo & Associates
BRIDGE NAME: Big Carlos Pass Bridge
WATERWAY NAME: Big Carlos Pass
WATERWAY MILE POINT: 0.0
LOCATION: Estero Island, Lee County, Florida
PLANS DATE: February 7, 2020

0 10 40
Feet

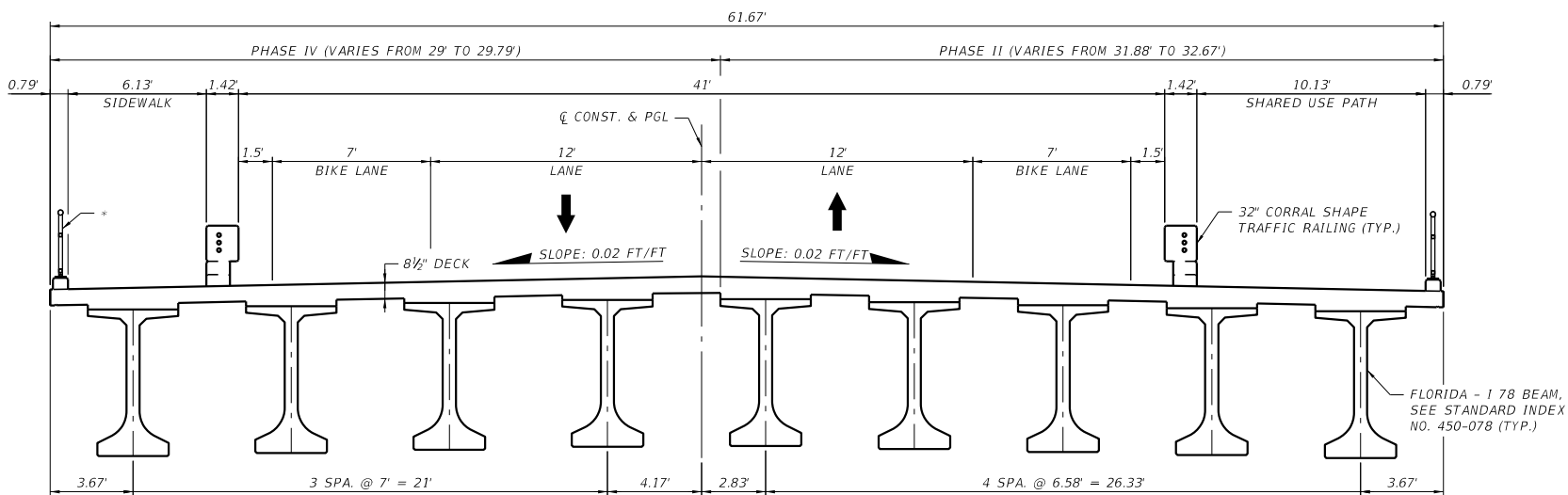
PARTIAL ELEVATION

BRIDGE NO. 124143

Kisinger Campo & Associates Corp. 201 N. Franklin Street Suite 400 Tampa, FL 33602 Florida C.O.A. No. 02317 Alfredo Jose Layrisse, PE No. 75610	DRAWN BY: ARF 06-19 CHECKED BY: A.J.L. 06-19 DESIGNED BY: CEL 06-19 CHECKED BY: ATB 06-19	LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION	SHEET TITLE: PLAN AND ELEVATION (5 OF 5)	REF. DWG. NO.
	ROAD NO.	COUNTY	COUNTY PROJECT NO.	PROJECT NAME:
	CR 865	LEE	CN160002	CR 865 (ESTERO BOULEVARD) OVER BIG CARLOS PASS
SUSERS SDATES STINES SPILES				SHEET NO. 10 OF 12



TYPICAL SECTION



TYPICAL SECTION SPAN 1

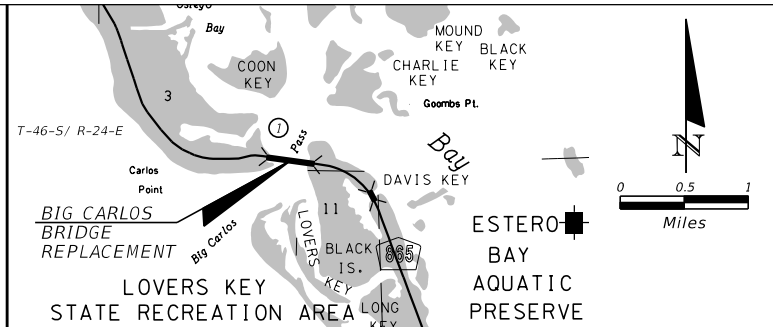
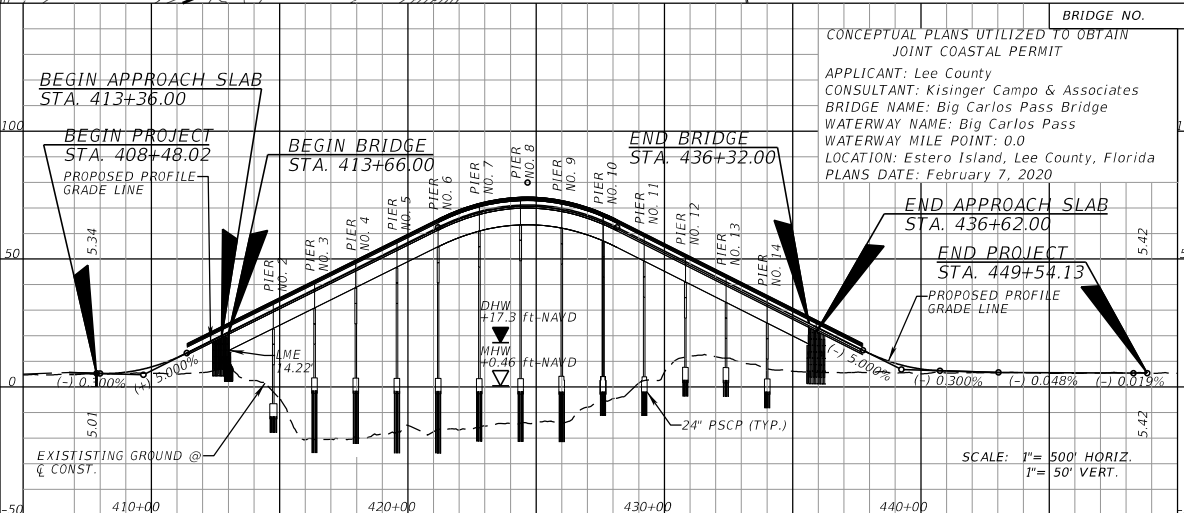
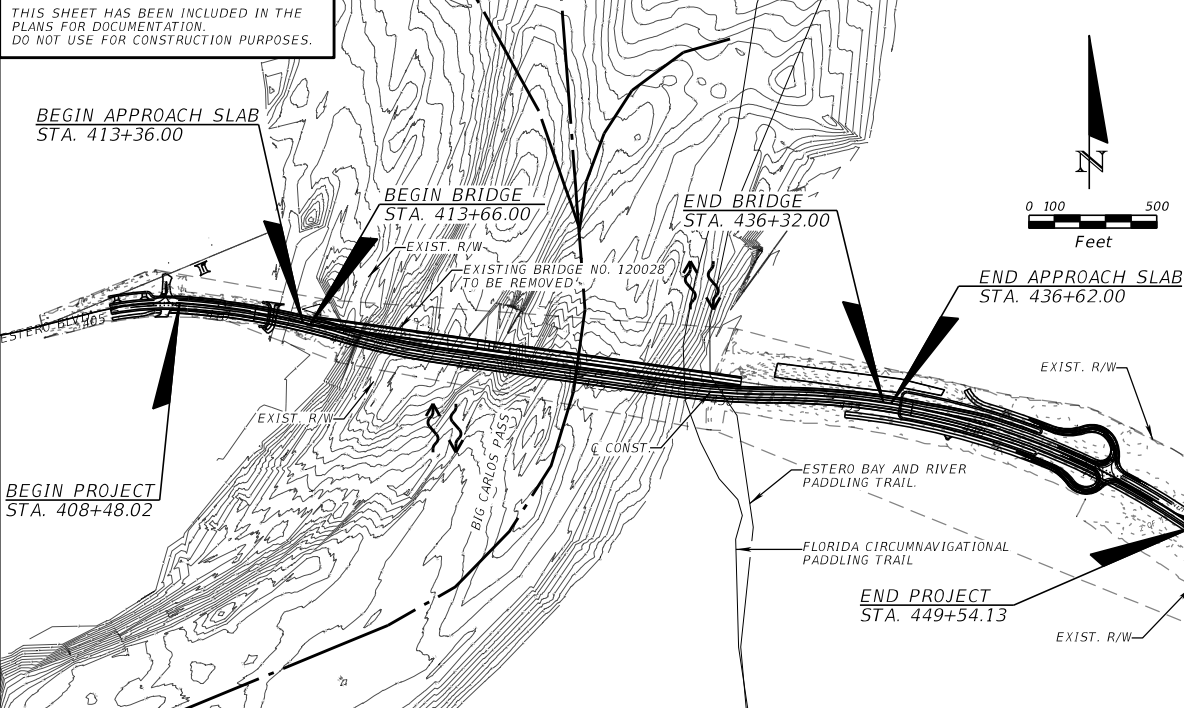
CONCEPTUAL PLANS UTILIZED TO OBTAIN
JOINT COASTAL PERMIT

APPLICANT: Lee County
CONSULTANT: Kisinger Campo & Associates
BRIDGE NAME: Big Carlos Pass Bridge
WATERWAY NAME: Big Carlos Pass
WATERWAY MILE POINT: 0.0
LOCATION: Estero Island, Lee County, Florida
PLANS DATE: February 7, 2020

BRIDGE NO. 124143

Kisinger Campo & Associates Corp. 201 N. Franklin Street Suite 400 Tampa, FL 33602 Florida C.O.A. No. 02317 Alfredo Jose Layrisse, PE No. 75610	DRAWN BY: ARF 06-19		LEE COUNTY PUBLIC WORKS DEPARTMENT OF TRANSPORTATION		SHEET TITLE: TYPICAL SECTION	REF. DWG. NO.		
	CHECKED BY: A.J.L 06-19							
	ROAD NO.		COUNTY	COUNTY PROJECT NO.			PROJECT NAME: CR 865 (ESTERO BOULEVARD) OVER BIG CARLOS PASS	SHEET NO. 11 OF 12
	DESIGNED BY: CEL 06-19		CR 865	LEE				
	CHECKED BY: A.J.R 06-19							
SUSERS			SDATES STIMES SFILES					

THIS SHEET HAS BEEN INCLUDED IN THE
PLANS FOR DOCUMENTATION.
DO NOT USE FOR CONSTRUCTION PURPOSES.



	EXISTING STRUCTURES			PROPOSED STRUCTURE
(REFERENCE)	(1)	(2)	(3)	(4)
FOUNDATION	Concrete			Concrete Piles
OVERALL LENGTH	168'			226'
SPAN LENGTH	48'-72'			161'
TYPE CONSTRUCTION	Concrete			Concrete
AREA OF OPENING@D.F.	19.480 sq-ft			50.190 sq-ft
BRIDGE WIDTH	37.6'			61'-8"
ELEV. LOW MEMBER	+5.19			14.22

NOTE: The hydraulic data is shown for informational purposes only to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgements and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particularly antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which cannot be obtained.

Design Flood: Utilized to assure a desired level of hydraulic performance.
Base Flood: Has a 1% chance of being exceeded in any given year (100 year frequency)
Overtopping Flood: Causes flow over the highway, over a watershed divide, or thru emergency relief structures.
Greatest Flood: The most severe that can be predicted where overtopping is not practicable.

WATER SURFACE ELEVATIONS:		N.H.W. (Non-Tidal)	<u>NA</u>	M.H.W. (Tidal)	<u>+0.46 ft-NAVD88</u>
		CONTROL (Non-Tidal)	<u>NA</u>	M.L.W. (Tidal)	<u>-1.29 ft-NAVD88</u>
FLOOD DATA:	MAX. EVENT OF RECORD	DESIGN FLOOD	BASE FLOOD		☒ OVERTOPPING or ☐ GREATEST FLOOD
STAGE (ft-NAVD (ft))	<u>UNKNOWN</u>	<u>+17.3</u>	<u>+18.8</u>		<u>+20.5</u>
DISCHARGE (cfs)	<u>NA</u>	<u>304,125</u>	<u>304,125</u>		<u>304,125</u>
AVERAGE VELOCITY (ft/s)	<u>NA</u>	<u>7.7</u>	<u>7.7</u>		<u>7.7</u>
EXCEEDANCE PROB. (%)	<u>NA</u>	<u>2</u>	<u>1</u>		<u>0.2</u>
FREQUENCY (yr.)	<u>NA</u>	<u>50</u>	<u>100</u>		<u>500</u>

SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:

PIER INFORMATION		TOTAL SCOUR ELEVATION		
NUMBERS	SIZE AND TYPE	LONG TERM	WORST CASE < 100 yr.	WORST CASE < 500 yr.
		SCOUR ELEV.	FREQ. (yr.)	FREQ. (yr.)
			100	500
Pier 2	24 inch square piles	-29	-30.0	-30.0
Pier 3	24 inch square piles	-33	-48.2	-48.2
Pier 4	24 inch square piles	-36	-48.2	-48.2
Pier 5	24 inch square piles	-33	-48.2	-48.2
Pier 6	24 inch square piles	-31	-48.0	-48.0
Pier 7	24 inch square piles	-30	-46.0	-46.0
Pier 8	24 inch square piles	-29	-40.0	-40.0
Pier 9	24 inch square piles	-26	-36.0	-36.0
Pier 10	24 inch square piles	-15	-28.0	-28.0
Pier 11	24 inch square piles	-2	-26.0	-26.0
Pier 12	24 inch square piles	3	-26.0	-26.0
Pier 13	24 inch square piles	3	-26.0	-26.0
Pier 14	24 inch square piles	3	-26.0	-26.0

HYDRAULIC RECOMMENDATIONS

1. BEGIN BRIDGE STATION 413+66 END BRIDGE STATION 436+32 SKEW ANGLE 0
2. CLEARANCE PROVIDED: NAV: HORIZ. 100' VERT. 61.4' ABOVE EL. +0.46 DRIFT: HORIZ. - VERT. overspans ABOVE EL. +17.3
3. MINIMUM CLEARANCE: NAV: HORIZ. 10' VERT. 6.0' ABOVE EL. +0.46 DRIFT: HORIZ. - VERT. 2.0' ABOVE EL. +17.3

4. ABUTMENTS:		BEGIN BRIDGE	END BRIDGE
RUBBLE GRADE:	<u>Rubble riprap</u>	<u>Rubble riprap</u>	
SLOPE:	<u>flat</u>	<u>flat</u>	
BURIED OR NON-BURIED HORIZ. TOE:	<u>Non-buried</u>	<u>Non-buried</u>	
TOE HORIZ. DISTANCE:	<u>15'</u>	<u>15'</u>	
LIMIT OF PROTECTION:	<u>413+36</u>	<u>436+62</u>	

5. **DECK DRAINAGE:** Runoff will follow the cross-slope away from the roadway and the bridge will have scuppers.

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