



16591/3948  
January 18, 2022

## PUBLIC NOTICE (02-22)

All interested parties are notified that the Commander, Seventh Coast Guard District, has received an application from Brevard County, Florida for approval of location and plans for the replacement of a bridge over a navigable waterway of the United States.

**WATERWAY AND LOCATION:** Sykes Creek, mile 8.1 at Merritt Island, Brevard County, FL at Latitude 28°24'20.67"N, Longitude 80°41'39.23"W (28.405742, -80.694231). The bridge is known as Sea Ray Drive Bridge.

**CHARACTER OF WORK:** Brevard County proposes replacing the existing fixed-span Sea Ray Drive Bridge across Sykes Creek along the same alignment. The typical section of the replacement bridge includes two (2) 12-foot travel lanes, 7.5-foot wide shoulders, and an 8-foot wide raised path. The proposed bridge will be approximately 300.00 feet in length and consist of a three-span structure with an out-to-out width of approximately 50.46 feet. The proposed bridge will exceed the navigational envelope of the existing bridge. Sykes Creek, at the project location, has no discernable water level/tidal fluctuation, therefore the ordinary high water and ordinary low water elevations are equivalent.

### MINIMUM NAVIGATIONAL CLEARANCES:

**Existing**

Horizontal:

37.00 ft. between face of piles

**Proposed**

Horizontal:

96.00 ft. between face of piles

Vertical:

15.00 ft. above Ordinary High Water

Vertical:

18.96 ft. above Ordinary High Water

North American Vertical Datum of 1988 (NAVD 88) (Existing and Proposed bridges)

### ENVIRONMENTAL CONSIDERATIONS:

The United States Coast Guard (USCG), as the lead federal agency, has made a tentative determination that the proposed bridge replacement warrants a categorical exclusion for the purposes of the National Environmental Policy Act (NEPA) because it satisfies criteria for such actions listed in the Coast Guard's NEPA Implementing Instructions. The documents are available for review at the above address, Monday through Friday, 8:00 a.m. to 4:00 p.m.

Preliminary analysis indicates that the project would not result in adverse effects as described in Section 106 of the National Historic Preservation Act of 1966.

A water quality certification in accordance with Section 401 of the Clean Water Act, as amended, for this project was issued by the St. Johns River Water Management District on September 21, 2021. Environmental Resource Permit (ERP), Permit # 174206-1.

The bridge is located in the floodplain. The 100-year flood elevation is +2.7 ft. and the bridge low member elevation is approximately 18.26 ft.; elevations are referenced to NAVD 88. No fill material is anticipated to be placed below MHW level for the construction of the bridge and approaches.

In coordination with the National Marine Fisheries Service (NMFS), the USCG determined that impacts to threatened and endangered species, pursuant to the Endangered Species Act (ESA), and impacts to Essential Fish Habitat (EFH), pursuant to the Magnuson-Stevens Act, under the purview of NMFS, are de minimis. The Coast Guard will continue consultation with respect to ESA or EFH as necessary. The United States Fish and Wildlife Service reviewed the project and issued a letter of concurrence stating, the proposed action is not likely to adversely affect any federally listed species or designated critical habitat protected by the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et. seq.).

#### **ANTICIPATED IMPACTS TO NAVIGATION DURING CONSTRUCTION:**

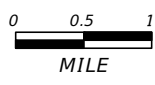
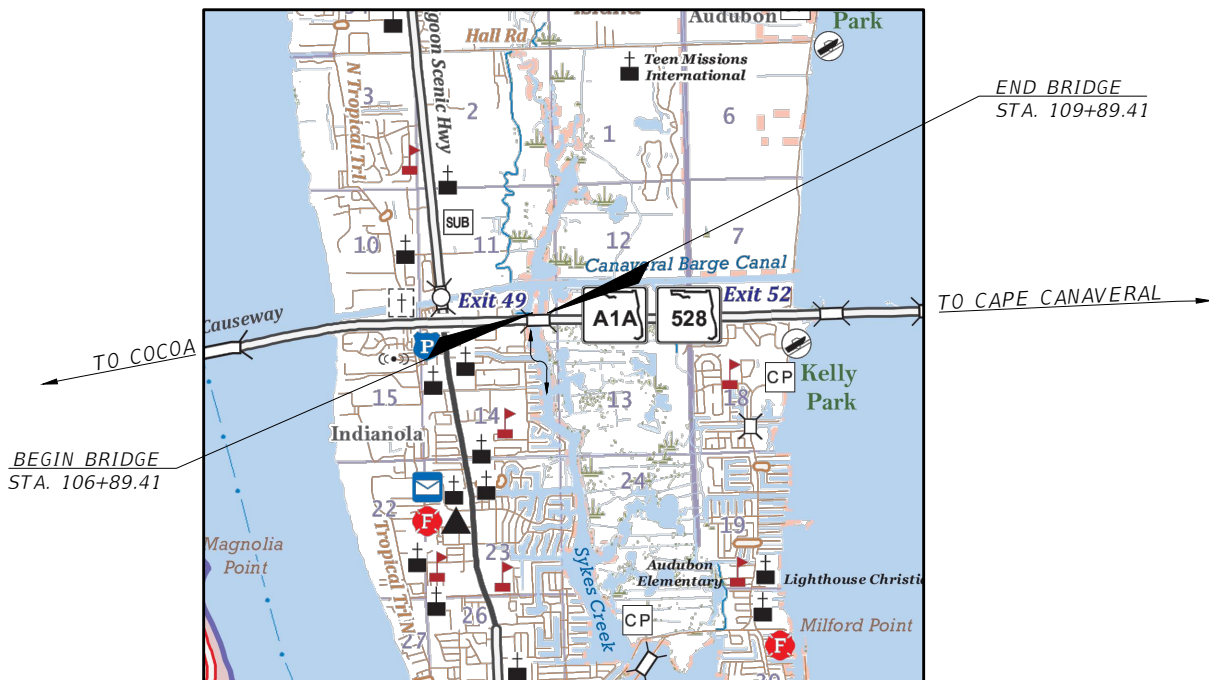
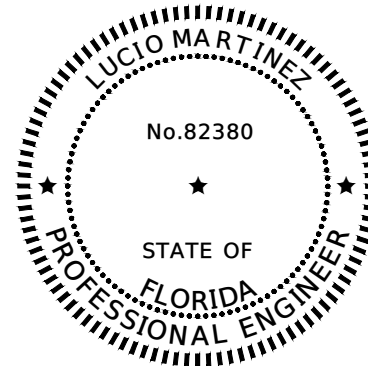
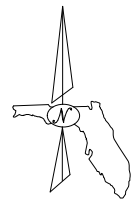
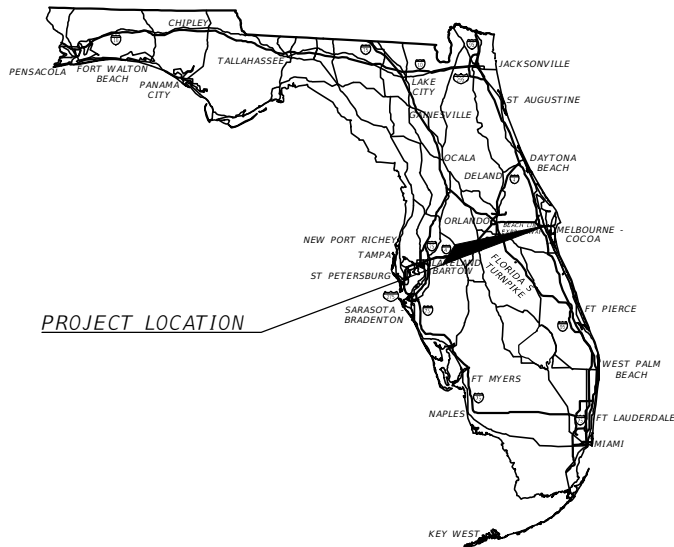
Anticipated impacts to navigation during construction include the possible use of construction barges within the waterway. Mariners will be notified of the details of in-water construction activities which may impact navigation at and around the bridge site. Details of any such impacts will be disseminated to mariners via the Coast Guard's Local Notice to Mariners (LNM). To subscribe to the Coast Guard LNM and other free Coast Guard navigation notification services, please visit <http://www.navcen.uscg.gov/> under "Subscribe / Report (free)" select the notifications you wish to receive; this project is located in the Seventh Coast Guard District area.

#### **SOLICITATION OF COMMENTS:**

Mariners are requested to comment on the proposed navigation clearances, placement of a bridge protective system and other navigational safety issues, including need for clearance gauges and extent of nighttime navigation to determine the need for bridge lighting.

Interested parties are requested to express their views, in writing, on the proposed bridge project including its possible environmental impacts to include those impacts on minority and/or low income populations, if any, giving sufficient detail to establish a clear understanding of the reasons for support of, or opposition to, the proposed work. Comments will be received for the record at the office of: Commander (dpb), Seventh Coast Guard District, 909 SE 1st Ave., Suite 432, Miami, Florida 33131-3028, for a 30-day period from the date of this public notice. Our project manager for this application is Mr. Marty Bridges. He can be contacted by telephone at (305) 415-6766, by mail at the above address, or e-mail at [martin.a.bridges@uscg.mil](mailto:martin.a.bridges@uscg.mil). Comments received will be made part of the case record.

Map of location and plans attached.



APPLICANT: Brevard County  
 CONSULTANT: Kisinger Campo & Associates  
 BRIDGE NAME: Sea Ray Drive  
 WATERWAY NAME: Sykes Creek  
 WATERWAY MILE POINT: 8.1  
 LOCATION: Merritt Island, Brevard County, Florida  
 PLANS DATE: September 22, 2021

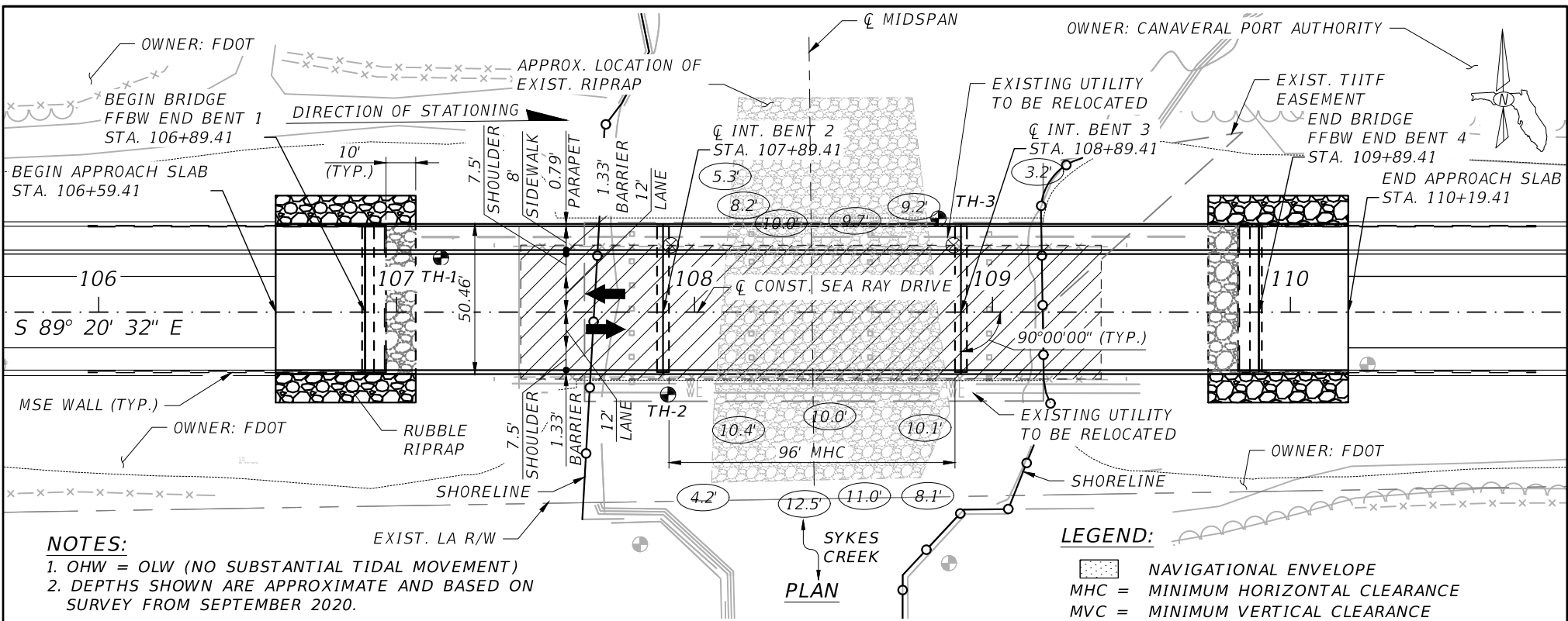
PERMIT PLANS UTILIZED TO  
 OBTAIN COAST GUARD BRIDGE  
 PERMIT

LUCIO MARTINEZ, P.E.  
 P.E. NO. 82380  
 KISINGER CAMPO & ASSOCIATES, CORP.  
 201 N. FRANKLIN STREET, SUITE 400  
 TAMPA, FL 33602



BREVARD COUNTY ENGINEERING  
 SERVICE DEPARTMENT  
 2725 JUDGE FRAN JAMIESON WAY  
 MELBOURNE, FL 32940

LOCATION MAP  
 SEA RAY BRIDGE REPLACEMENT  
 SHEET NO.  
 1 OF 4



**NOTES:**

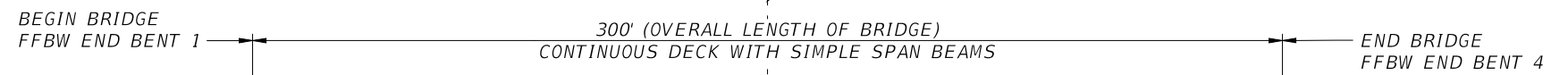
- 1. OHW = OLW (NO SUBSTANTIAL TIDAL MOVEMENT)
- 2. DEPTHS SHOWN ARE APPROXIMATE AND BASED ON SURVEY FROM SEPTEMBER 2020.

\* APPROX. TOP OF EXIST. RIPRAP  
EL. -10.0 (PER ACOE CHANNEL REHABILITATION PLANS, 2017)

**LEGEND:**

- NAVIGATIONAL ENVELOPE
- MHC = MINIMUM HORIZONTAL CLEARANCE
- MVC = MINIMUM VERTICAL CLEARANCE
- APPROX. DEPTH FROM OHW/OLW
- EXISTING BRIDGE No. 704144 TO BE REMOVED

**PLAN**

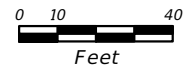


**ELEVATION**

EXISTING BRIDGE NOT SHOWN FOR CLARITY

EXISTING BRIDGE NO. 704144  
NEW BRIDGE NO. XXXXX

PERMIT PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT  
APPLICANT: Brevard County  
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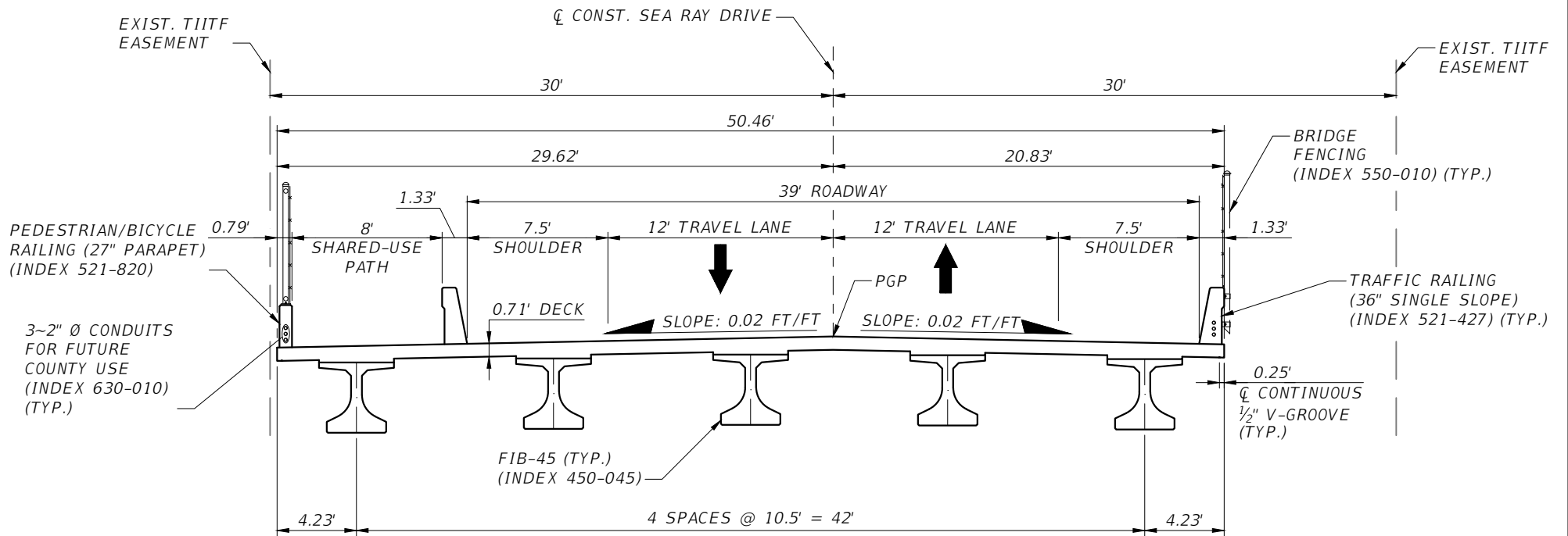
DRAWN BY	NAMES	DATES	ENGINEER OF RECORD:
CHECKED BY	ARF	05/21	LUCIO MARTINEZ, P.E.
DESIGNED BY			P.E. NO. 82380
CHECKED BY			KISINGER CAMPO & ASSOCIATES, CORP.
APPROVED BY	LUCIO MARTINEZ P.E.		201 N. FRANKLIN STREET, SUITE 400 TAMPA, FL 33602



BREVARD COUNTY ENGINEERING SERVICE DEPARTMENT  
2725 JUDGE FRAN JAMIESON WAY  
MELBOURNE, FL 32940

PLAN AND ELEVATION  
SEA RAY BRIDGE REPLACEMENT

SHEET NO. 2 OF 4



TYPICAL SECTION

PERMIT PLANS UTILIZED TO OBTAIN  
COAST GUARD BRIDGE PERMIT

APPLICANT: Brevard County  
CONSULTANT: Kisinger Campo & Associates  
BRIDGE NAME: Sea Ray Drive  
WATERWAY NAME: Sykes Creek  
WATERWAY MILE POINT: 8.1  
LOCATION: Merritt Island, Brevard County, Florida  
PLANS DATE: September 22, 2021



NAMES	DATES	ENGINEER OF RECORD:
DRAWN BY: ARF	05/21	LUCIO MARTINEZ, P.E.
CHECKED BY:		P.E. NO. 82380
DESIGNED BY:		KISINGER CAMPO & ASSOCIATES, CORP.
CHECKED BY:		201 N. FRANKLIN STREET, SUITE 400
APPROVED BY: LUCIO MARTINEZ P.E.		TAMPA, FL 33602



BREVARD COUNTY ENGINEERING  
SERVICE DEPARTMENT  
2725 JUDGE FRAN JAMIESON WAY  
MELBOURNE, FL 32940

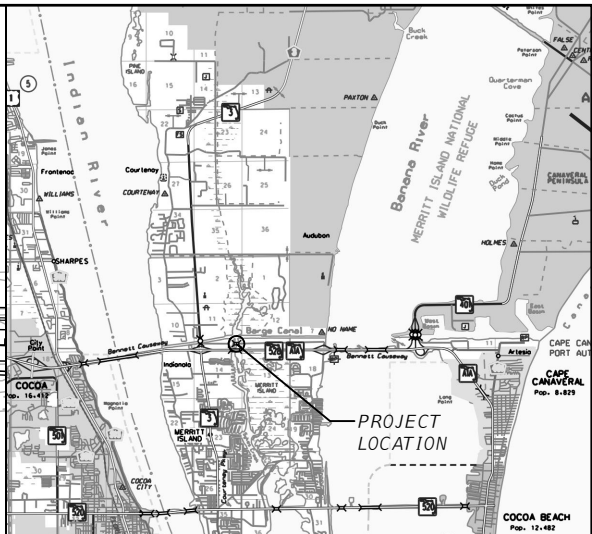
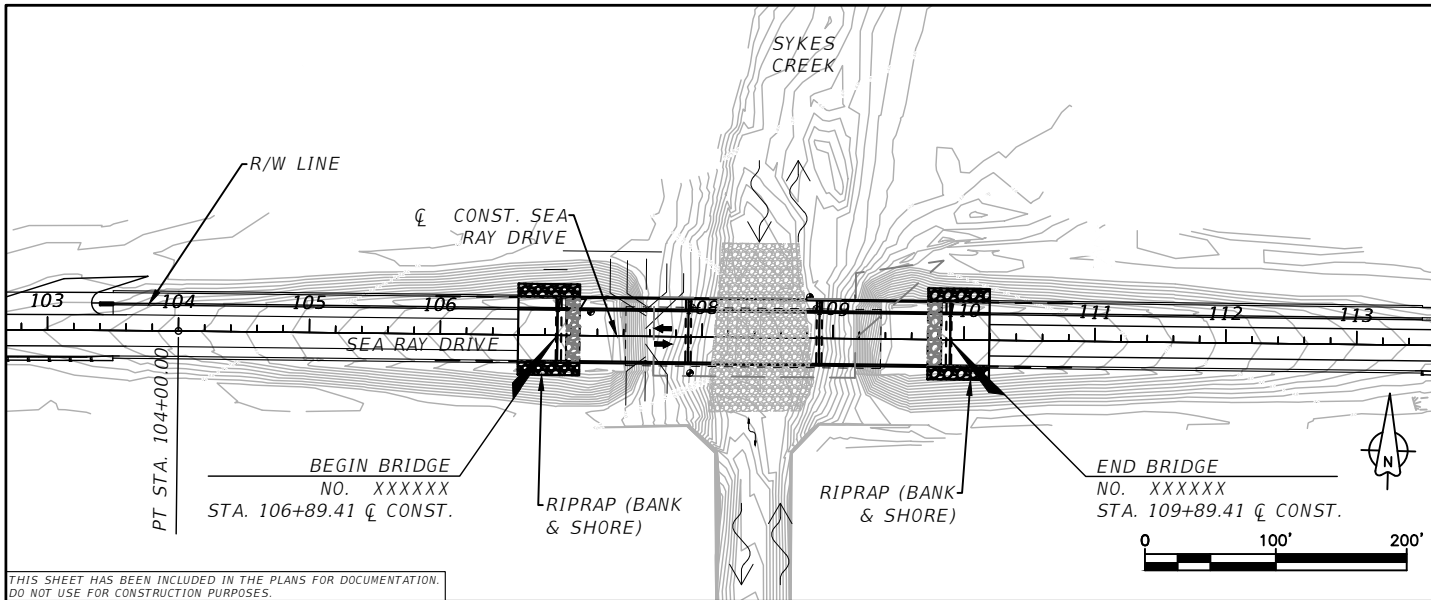
EXISTING BRIDGE NO. 704144  
NEW BRIDGE NO. XXXXXX

TYPICAL SECTION

SEA RAY BRIDGE REPLACEMENT

SHEET NO.  
3 OF 4

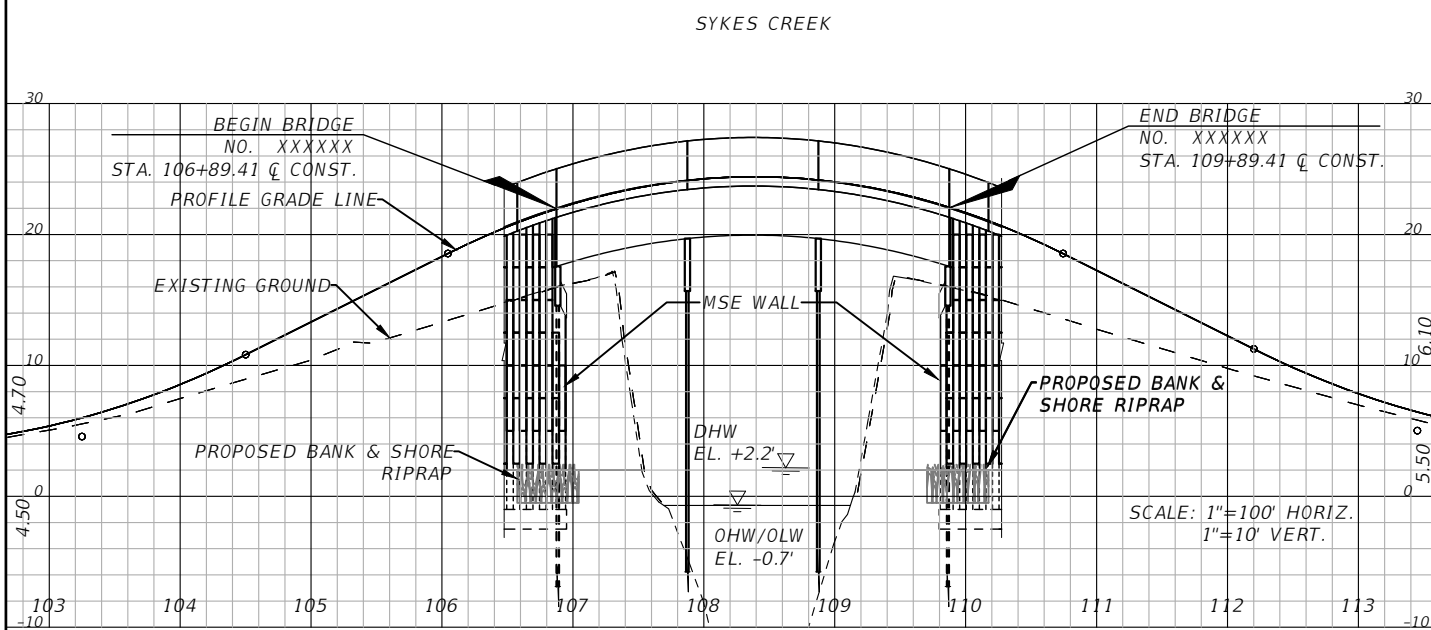




THIS SHEET HAS BEEN INCLUDED IN THE PLANS FOR DOCUMENTATION. DO NOT USE FOR CONSTRUCTION PURPOSES.

BRIDGE NO. XXXXXX

(REFERENCE) FOUNDATION	EXISTING STRUCTURE (1)	PROPOSED STRUCTURE
TYPE OF CONSTRUCTION	18" CONC. PILES	24" CONC. PILES
AREA OF OPENING @ D.F.	200'	300'-0"
ROADWAY WIDTH	5 @ 40'-0"	3 @ 100'
ELEV. LOW MEMBER	CONCRETE	CONCRETE
	42'-2"	XXX'
	+15.8 FT-NAVD	39'-0"
		+18.26 FT-NAVD



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 JUDGMENTS 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: THE FLOOD UTILIZED TO ASSURE A DESIRED LEVEL OF HYDRAULIC PERFORMANCE  
 BASE FLOOD: THE FLOOD HAVING A 1% CHANCE OF BEING EXCEEDED IN ANY YEAR (100 YEAR FREQUENCY)  
 OVERTOPPING FLOOD: THE FLOOD WHICH CAUSES TO FLOW OVER THE HIGHWAY, OVER A WATERSHED DIVIDE, OR THRU EMERGENCY RELIEF STRUCTURES  
 GREATEST FLOOD: THE MOST SEVERE FLOOD WHICH CAN BE PREDICTED WHERE OVERTOPPING IS NOT PRACTICABLE.

DEFINITION	DESIGN FLOOD	BASE FLOOD	OVERTOPPING FLOOD
STAGE ELEV. (FT.) ST. PETE DATUM	22.2	22.7	33.0
DISCHARGE (CFS)	7,332	6,611	11,052
AVERAGE VELOCITY (FPS)	3.3	3.7	4.8
EXCEEDANCE PROB. (%)	2	1	0.2
FREQUENCY (YR.)	50	100	500

SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:

PIER INFORMATION	LONG TERM SCOUR ELEV.	WORST CASE < 100 YR.	WORST CASE < 500 YR.
PIER 2	-18.9 FT-NAVD	-18.9 FT-NAVD	-18.0 FT-NAVD
PIER 3	-18.9 FT-NAVD	-18.9 FT-NAVD	-18.0 FT-NAVD

1. BEGIN BRIDGE STATION: 106+89.41 END BRIDGE STATION: 109+89.41 SKEW ANGLE: 0
2. CLEARANCE PROVIDED: NAV. HORIZ. 96' VERT. 18.96' ABOVE EL. -0.7 FT-NAVD  
 DRIFT: HORIZ. 96' VERT. 2.2' ABOVE EL. 3.22 FT-NAVD  
 MIN. CLEARANCE: NAV. HORIZ. N/A VERT. 8' ABOVE EL. -0.7 FT-NAVD  
 DRIFT: HORIZ. 10' VERT. 2' ABOVE EL. 3.22 FT-NAVD
3. ABUTMENTS: RUBBLE GRADE: BEGIN BRIDGE BANK AND SHORE RUBBLE RIPRAP END BRIDGE BANK AND SHORE RUBBLE RIPRAP  
 SLOPE: BURIED OR NON-BURIED HORIZ. TOE: NA BURIED NA BURIED  
 TOE HORIZ. DISTANCE: 10' 10'  
 LIMIT OF PROTECTION: 10' 10'
4. DECK DRAINAGE/DISCHARGES OFF BRIDGE TO INLET

REMARKS: THE TIDE RANGE IS NEGLIGIBLE DUE TO THE LIMITED CONNECTION TO THE ATLANTIC OCEAN (SEBASTIAN INLET), AND THE LARGE SURFACE AREA OF THE COMBINED SYKES CREEK, INDIAN RIVER AND BANANA RIVER. THE 100-YEAR WAVE GREST ELEV. = +4.5 FT-NAVD88. THE 50, 100, AND 500-YEAR ELEV. DO NOT INCLUDE SEA LEVEL RISE.

PERMIT PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT  
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 PLANS DATE: September 22, 2021

	NAMES	DATES	ENGINEER OF RECORD:
DRAWN BY			MARK GOSSSELIN, P.E.
CHECKED BY			P.E. NO. 54594
DESIGNED BY			INTERA INCORPORATED.
CHECKED BY			2114 NW 40TH TERRANCE, SUITE A-1
APPROVED BY			GAINESVILLE, FL 32605

**BREVARD COUNTY ENGINEERING SERVICE DEPARTMENT**  
 2725 JUDGE FRAN JAMIESON WAY  
 MELBOURNE, FL 32940

**BRIDGE HYDRAULIC RECOMMENDATION SHEET**  
**SEA RAY BRIDGE REPLACEMENT** SHEET NO. 4 OF 4