

ADDENDUM NO.2

TAYLOR ENGINEERING, INC.



**INTRACOASTAL WATERWAY MAINTENANCE
DREDGING;**

**FLAGLER COUNTY, FLORIDA
APRIL 5, 2019**



SUMMARY TO AMENDMENTS TO PROJECT SPECIFICATIONS

00 21 13	Part 2.3	Clarified % of work completed by the prime
00 41 63A	Bid Schedule	Item 0004 (Additional Bathymetric Survey) Removed
01 29 00	Part 1.7.H.1.d	Item 0004 (Additional Bathymetric Survey) Removed
01 78 00	Part 1.3.B.1.	Clarified as-built requirements
35 20 23	Part 1.03.L.1	Utilities liability language relaxed
Project Drawings	Cover, C-2,C-4	Item 0004 (Additional Bathymetric Survey) Removed

SUMMARY OF QUESTIONS AND RESPONSES

1. **QUESTION:** Distance for Section F1 - What is F1 Sta. equal to @ F2, Sta. 0+00

RESPONSE: Cut F-1 is approximately 1,500 feet in length. NOTE: F-1 is not within the dredging template for this project. Dredging limits start at Cut F-2 STA 32+57.

2. **QUESTION:** Work Performed by Contractor: Which is Correct? Item 2.3, Pg. 12 states 60 %, Item 9.1, Pg. 66 states 40 %.

RESPONSE: Per 00 72 00 Section 9.1 the prime contractor is required to perform at least 40% of the work. The statement within 00 21 13 Section 2.3 has been amended to read "40%" of work required by the prime.

3. **QUESTION:** Work Hours: Section 01-11-00 & 03-01-B do not actually state work hours for use of Hydraulic Dredge, only refers to Mechanical Dredge.

RESPONSE: There are no work hour restrictions for this project.

4. **QUESTION:** Turbidity Levels: Spec's. & Permits do not state allowable NTU's.

RESPONSE: NTU allowance will be the standard, no more than 29 NTU's over background.

5. **QUESTION:** Bird Monitor: Is a Bird Monitor required at DMMA if during Bird Nesting Season. If so, there is no Bid Item to cover this cost.

RESPONSE: No bird monitoring is required.

6. **QUESTION:** Clearing & Grubbing @ Pipe Corridor: Is Contractor required to remove and dispose off-site any Clearing & Grubbing debris, and who approves the limits of clearing?

RESPONSE: Clearing and grubbing debris from the pipeline corridor may be chipped and spread within the pipeline corridor. The corridor is 100' wide as shown in plans. The Project Manager will approve the limits of clearing. There are no specific requirements on length or area of clearing, just a requirement to be able to get your pipes to and from the DMMA.

7. **QUESTION:** New 42" Dia. DR-32.5 Discharge Pipe - Is Contractor required to leave the additional 1,370 LF in place when project is complete, or do they have to remove and grade pipe corridor back to its original grade less trees?

RESPONSE: Please refer to 35 20 23 Part D.1. "When the inflow of dredged material is completed, the Contractor must continue to operate the weir system and slowly release the clarified surface water that remains ponded within the basin over the weir crest by incrementally removing weir boards. This process shall continue until all residual ponded water within the basin at the completion of dredge is released over the weirs. The Contractor will continue this operation until released from this requirement by the Engineer.

8. **QUESTION:** Seagrass Survey - Will Engineer be supplying a Current Seagrass Survey of ICWW, or does the Contractor need to do this during the Pre-Dredge Surveys, and if so, is cost to be included in Bid Items 005 & 006?

RESPONSE: No seagrass survey is required.

9. **QUESTION:** Could you please send out the vendor that you spoke to regarding the marsh mitigation?

RESPONSE: I have previously discussed the project with Superior Waterway Services although there are likely several qualified vendors in the state.

10. **QUESTION:** Can the area that we all originally met at, (on the side of the highway) be used to assemble a marsh excavator? I'm hesitant to assume a crane/semi, can make it all the way back to the proposed staging area at the placement site.

RESPONSE: Yes, most likely. As long as traffic is not interrupted and the roadside swales, etc are not damaged. Keep in mind that the DMMA construction required a lot of heavy equipment that was delivered to the site on tractor trailers so plenty of equipment has made it to and from the site with no issues.

11. **QUESTION:** Do you foresee the bid date being pushed back at all due to the updated specs still needing to be sent out on Monday? This just leaves us with one day figuring we send out our bids on Tuesday. Just curious.

RESPONSE: No. There will be no extensions.

12. QUESTION: Can we take our turbidity sample at the weir instead of at the outfall pipe area since it will be in the middle of the marsh lands?

RESPONSE: That would be acceptable although the contractor will still be required to monitor the outfall area at least 2-3 times daily during dredging operations to ensure that no streambank erosion or additional turbidity is resulting at the discharge location.

SECTION 00 21 13

INSTRUCTIONS TO BIDDERS

1.0 MANDATORY PRE-BID MEETING

The Florida Inland Navigation District (District) will hold a **mandatory** pre-bid meeting and site visit (to the dredged material management area) at the date, time, and place referenced in SECTION 00 10 00 BID SOLICITATION. Representatives of the District and Engineer will be present at the pre-bid meeting to discuss the project. All Bidders are required to attend and participate in the entire meeting. Failure of any Bidder to attend the pre-bid meeting shall render its Bid unresponsive. The Engineer will transmit to all prospective Bidders of record such Addenda as the Engineer considers necessary in response to questions arising at the pre-bid meeting. Oral statements may not be relied upon and will not be binding or legally effective.

2.0 PREPARATION OF BIDS

All Bids shall be submitted on reproduced copies of the forms furnished in the following Sections of the Contract Documents.

1. 00 41 63 BID FORM
2. 00 41 63A BID SCHEDULE
3. 00 43 00 BID BOND (if bid exceeds \$200,000.00)
4. 00 45 01 PUBLIC ENTITY CRIME STATEMENT
5. 00 45 02 AFFIDAVIT FOR SURETY COMPANY

These forms, completed in their entirety, together with all other required documents including but not limited to copies of licenses, credentials, reference lists, and project descriptions constitute the "Bid," also called the "Bid Package." Each Bid — **containing two separate sealed envelopes described below** — must be submitted in an opaque sealed outer envelope, plainly marked on the outside as "**Intracoastal Waterway Maintenance Dredging; Flagler Reach I; Flagler County, Florida**" and the envelope should bear on the outside the name and address of the Bidder, and its Contractor's License Number and classification for the State of Florida. If the Bid is sent through the mail or other delivery system, the sealed outer bid envelope must be enclosed in another envelope addressed to the District at the address referenced above with the notation "BID ENCLOSED" on the face of it.

1. **Sealed Envelope No. 1.** All blank spaces on the BID SCHEDULE for Bid prices must be filled in, in ink or typewritten, and the BID SCHEDULE must be fully completed and executed when submitted. The total bid price must be written in both words and numbers. In the event of a conflict, the words shall govern. Amounts are products of the Bid Unit Prices multiplied by the estimated quantities. In the event of a conflict between the amounts and the Unit Prices, the Unit Prices shall govern. The envelope shall be clearly labeled with the Bidder's name and "Sealed Bid Schedule for "**Intracoastal Waterway Maintenance Dredging; Flagler Reach I; Flagler County, Florida**"".
2. **Sealed Envelope No. 2.** All other required sections — BID FORM (inclusive of required credentials), BID BOND, PUBLIC ENTITY FOR CRIME STATEMENT, AFFIDAVIT FOR SURETY COMPANY — shall be submitted in a sealed envelope, separate from the BID SCHEDULE, and labeled "Qualification Documents for "**Intracoastal Waterway Maintenance Dredging; Flagler Reach I; Flagler County, Florida**"".

2.1 Credentials of Bidders to be Submitted as Part of SECTION 00 41 63 BID FORM

Each Bidder shall submit the documentation listed below with the bid package. Failure to submit these items will render the Bid unresponsive.

1. Copies of the Bidder's State or County (as applicable) Contracting licenses.

2. The names, addresses, and telephone numbers of three (3) references. Bidders shall use the REFERENCES form provided in SECTION 00 41 63 BID FORM.
3. Descriptions of at least three (3) projects of a similar nature that the Bidder has completed in the last three (3) years or currently has under way. Bidders shall use the SIMILAR PROJECTS form provided in SECTION 00 41 63 BID FORM.
4. A narrative plan for execution of dredging and disposal of dredged material. Bidders shall use the BIDDERS PLAN form provided in SECTION 00 41 63 BID FORM.

The District reserves the right to reject any Bid if the information submitted by a Bidder, or investigation of a Bidder fails to satisfy the District that a Bidder is properly qualified or licensed to carry out the obligations of the Contract Documents and to complete the Work described therein.

2.2 Inquiries/Addenda

Verbal interpretations of the meaning of the Project Drawings, Specifications, or other Contract Documents will not be valid. Every request for interpretation shall be in writing and addressed to **Bill Aley** via e-mail (baley@taylorengineering.com) and, to be given consideration, must be received at least six (6) calendar days prior to the date fixed for the Bid opening. Any and all interpretations and any supplemental instructions will be in the form of written Addenda to the Specifications which, if issued, will be posted on the District website not less than four (4) calendar days prior to the Bid opening date. Bidders must acknowledge receipt of the Addenda in their Bids. Failure of any Bidder to receive, or to acknowledge receipt of any such Addenda shall not relieve the Bidder from any obligation under its Bid as submitted, provided, however, that failure to so acknowledge receipt of any such Addenda may render a Bid unresponsive and result in its rejection. Bidders are advised to contact the Engineer and check the District's website (www.aicw.org) prior to submitting Bids to satisfy themselves as to the existence and number of all Addenda. All Addenda so issued shall become part of the Contract Documents.

2.3 Performance of Work by the Contractor

The Contractor shall perform Work equivalent to at least ~~sixty-four~~ percent (~~60~~40%) of the total amount of the Work to be performed under the Contract with his own organization.

2.4 Joint Venture

If the Bid involves a joint venture, a copy of the joint venture agreement shall be included with the Bid along with the attached "Statement of Business Organization."

2.5 Public Entity Crimes

Any Bidder, or any of its Suppliers, Subcontractors, or Consultants who shall perform Work which is intended to benefit the District, shall not be a convicted vendor. Each Bidder shall submit a completed Public Entity Crime Statement with the Bid Form. The Bidder shall use the form provided in SECTION 00 45 01 PUBLIC ENTITY CRIME STATEMENT for this purpose. The Bidder further understands and agrees that any Contract issued as a result of this solicitation shall be either voidable by the District or subject to immediate termination by the District in the event there is any misrepresentation or lack of compliance with the mandates of Section 287.133 F.S. The District, in the event of such termination, shall not be liable to the Contractor for any work or materials furnished.

2.6 Bid Guaranty

Bidders are not required to provide a Bid Bond if the Bid amount is less than or equal to \$200,000.00, unless specified in the Supplemental conditions. Each Bid greater than \$200,000.00 must be accompanied by the District's Bid Bond form meeting the standards specified in the General Conditions, including those applicable to the Sureties for the Payment Bond and Performance Bond specified in the General Conditions. The Bond shall be written on the Bid Bond form provided by the District, with Affidavit for Surety Company attached, in an amount not less than ten percent (10%) of the amount of the Bid. Bidders must use the District's forms

provided in the Contract Documents. Alternate Bond forms will not be accepted. Failure to use the District's Bond forms shall render the Bid unresponsive.

In lieu of the Bid Bond, the Bid may be accompanied by a certified check of any national or state bank made payable to the District in an amount not less than ten percent (10%) of the amount of the Bid. The Bid Bond or certified check shall be conditioned upon the Bidder's:

- A. not withdrawing said Bid within thirty (30) days after date of opening of the same, and
- B. within fifteen (15) calendar days after the prescribed forms are presented to the Bidder:
 - (1) entering into a written Contract with the District, in accordance with the Bid as accepted;
 - (2) providing evidence of insurance in the manner specified by the District; and
 - (3) if the Bid exceeds \$200,000.00, providing a Payment Bond and a Performance Bond as specified in the General Conditions (or, in lieu of the Statutory Payment Bond or Common Law Performance Bond, having provided an alternate form of security as specified in the General Conditions).

Any securities that may be received will be returned to all Bidders, with the exception of the two (2) highest ranked Bidders, within thirty (30) calendar days after the opening of the Bids. Bid bonds will not be returned to the Bidders, unless specifically requested by the Bidder. Any certified check of the two (2) highest ranked Bidders will be returned to them promptly after the District and the successful Bidder have (i) executed the Contract for the work, and (ii) the Contractor (successful Bidder) has secured and tendered to the District a valid and acceptable Payment Bond and a Performance Bond as specified in the General Conditions (or, in lieu of the Payment bond or Performance Bond, having provided an alternate form of security as specified in the General Conditions). Failure of the District to execute the Contract within sixty (60) days after the date of the Bid opening shall initiate release of the Bid Bond, certified check, cashier's check, treasurer's check or bank draft of the highest ranked and second highest ranked Bidders unless mutually agreed otherwise.

Attorneys-In-Fact who sign Bonds must file with such Bond a certified copy of their power of attorney to sign said Bonds.

3.0 RECEIPT AND EVALUATION OF BIDS

3.1 Bid Receipt

The District will receive bids at the location, date, and time referenced in SECTION 00 10 00 BID SOLICITATION. At such location, date, and time, the District will open Sealed Envelope No. 2. Any bid received after the time and date specified will not be considered and will be returned unopened. No bid information will be available until required to be released in accordance with Florida Statutes Section 119.071(1)(b) 2. and 3.

3.2 Bid Evaluation

An Evaluation Committee — comprising a minimum of three District and Engineer staff members — will open the Sealed Envelope No. 2 for each Bidder and shall evaluate the bids based on the scoring criteria set forth below. For each Bidder, committee members will independently complete an evaluation form and assign points for each scoring criterion. Evaluators' scores will be summed to determine overall ranking of Bids. The Bid receiving the greatest point total will be designated the highest-ranked Bid. The remaining Bids shall be ranked by descending point totals. The top one-third ranked Bids will be deemed eligible for further consideration, provided that if fewer than nine (9) Bids are received, the three (3) highest ranked Bids shall be deemed eligible for further consideration; the remaining Bids will not be eligible for further consideration and the BID SCHEDULES shall be returned to those Bidders unopened. All Bidders shall be notified in writing of their ranking and whether they are eligible for further consideration. The rankings of the Evaluation Committee shall be final.

DISTRICT EVALUATION CRITERIA

SECTION		MAXIMUM POINT VALUE
1	STAFF CREDENTIALS AND PROJECT TEAM The qualifications will be evaluated on the basis of the Contractor's demonstrated staff credentials. Items to be considered include: • Information regarding firm background and licenses/certificates attached • Years of dredging experience • Contractors profile and project team • Specific experience and functions of project team • Established team; how long they have worked together • Ability to meet the minimum requirements for the Site Safety and Health Officer and Dredge/Excavator Operators • Communication skills and accessibility	10
2	QUALITY CONTROL Qualifications will be evaluated on the quality control process to be implemented to ensure that work can be completed in a timely manner in compliance with all stated permit conditions: • Timely accomplishment of required objectives • Adherence to permit conditions including, but not limited to, all environmental monitoring criteria • Personnel assignments/project management to provide effective delivery • Contractor's accountability for QA/QC of internal and external (sub consultants) staff • Project schedule / budget tracking and billing • Contractors process for completing projects within approved budgets, preventing time delays, and minimizing Change Orders	20
3	TECHNICAL APPROACH Equipment list and Dredge Plan will be evaluated based on Contractors understanding of the project; written demonstration of its ability to successfully accomplish the project; and descriptions of previously completed projects to indicate the successful accomplishment of the project with no environmental impacts.	20
4	SIMILAR PROJECTS Successful dredging projects within tidal marine waters in the last 5 years. Scoring will consider similar environmental, geotechnical, and dredged material management approach.	25
5	REFERENCES AND PAST PERFORMANCE Submitted references must demonstrate Bidder's familiarity with projects of similar scope and complexity to this project. • Satisfactory response from contacts regarding project performance • Timely execution of projects with zero environmental impacts • Bidder's ratings in the Florida Department of Management Services Vendor Performance Tracking (VPT) system and the Federal Contract Performance Assessment Report System (CPARS), if available. • Scoring will consider successful completion of past similar District project within time and budget constraints.	25
MAXIMUM POINTS		100

NOTE: To clarify any response, the evaluation committee may contact references provided in response to this Bid, contact Bidder's clients, or solicit information from any available sources concerning any aspect of the Bid deemed pertinent to this evaluation process.

3.3 Bid Schedule Opening

At an advertised public meeting, the District will open the sealed BID SCHEDULE from the eligible Bidders. The date, time and place of the Bid Schedule opening meeting shall be advertised in a newspaper of general circulation in the county or counties in which the Project is located and in Palm Beach County at least three (3) days prior to the date of the meeting. In addition, the District shall send a courtesy notice by email to each Bidder who has filed a request for notice and a valid email address. The failure to receive the courtesy notice shall not affect the validity of the Bid Schedule opening. The District shall award the project to the qualified, responsible, and responsive Bidder presenting the lowest Bid. However, if any of the Bid Schedules are non-responsive and the District elects not to waive the irregularities, the District may, but is not required to, open the next highest ranked Bidder's Bid and consider it along with the Bids of the original eligible Bidders.

3.4 Bid Withdrawal

Any Bid may be withdrawn prior to the date and time referenced in SECTION 00 10 00 BID SOLICITATION or authorized postponement thereof provided that the Bidder submits a written request signed by an authorized representative of the firm that submitted the Bid. No Bidder may withdraw a Bid within sixty (60) days after the date of the opening thereof.

3.5 Acceptance or Rejection of Bids

The District reserves the right to reject any or all Bids when (i) such rejection is in the interest of the District; (ii) such Bid is void per se; or (iii) the Bid contains any irregularities, PROVIDED, however, that the District reserves the right to waive any minor irregularities and to accept the most responsive and qualified Bid as determined by the District. Bids will be considered irregular if there are omissions, unauthorized alterations of any forms, additions not called for, conditional or unauthorized alternate Bids, or other irregularities of any kind. The District reserves the right to request a written confirmation of the Bid and the responsibility of the Bidder prior to the awarding of the Contract. Failure of the Bidder to confirm the Bid within seven (7) working days from the date of the District's request shall render the Bid unresponsive and require forfeiture of the Bid Guaranty.

3.6 Notice of Intended Award

After completion of the review of the Bids and approval by the District's Board of Commissioners, a final Bid tabulation and notice of intent to award will be posted to the District's webpage. Failure to file a protest within the time prescribed in Section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, Florida Statutes.

4.0 CONTRACT

The Bidder understands that the Bid form does not constitute a Contract with the Bidder. A binding Contract does not exist until the Contract has been executed by both parties. The Bidder to whom the award is made shall, within fifteen (15) calendar days after receipt of the Contract from the District, execute the Contract in the form attached (SECTION 00 52 00 CONTRACT), entering into a Contract with the District. The executed Contract should be returned to the District accompanied by the required Certificates of Insurance, Performance and Payment Bonds as set forth herein. If the Bidder fails to execute the Contract or provide the insurance and Bonds within fifteen (15) calendar days after receipt of the Contract, there shall be just cause for the annulment of the award and forfeiture of the Bid Guaranty to the District. The District may then award the contract to the next lowest priced qualified, responsible, and responsive Bidder or may re-advertised the Work at the District's sole discretion.

4.1 Substitute Material and Equipment

A Contract, if awarded, will be on the basis of material and equipment described in the Project Drawings and Technical Specifications without consideration of possible substitute or an "equivalent" or "equal" item. Whenever it is indicated that a substitute or an "equivalent" or "equal" item of material or equipment may be furnished or used by the Contractor if acceptable to the Engineer, application for such acceptance will not be

considered by the Engineer until after the date of execution of the Contract. In all cases, the BID SCHEDULE shall be based on the costs for the materials and equipment specified. Bidders unable to provide the specified materials and equipment shall be determined unresponsive.

4.2 Notice to Proceed

The Notice to Proceed will be issued within fifteen (15) days of receipt and acceptance of the pre-construction submittals by the District and at completion of the Pre-Construction Meeting. Should there be reasons why the Notice to Proceed cannot be issued within such period; the time may be extended by mutual agreement between the District and Contractor. If the Notice to Proceed has not been issued within the allowed time or within the period mutually agreed upon, the Contractor may terminate the Contract without further liability on the part of either party.

4.3 Project Drawings and Specifications

Up to four (4) sets of the Project Drawings and Specifications will be provided free of charge to the successful Bidder upon award.

4.4 Conditions of Work

The Contract Documents contain the provisions required for the construction of the Work. Information obtained from an officer, agent, or employee of the District, Port or Engineer, or any other person shall not affect the risks or obligations assumed by the Contractor nor relieve the Contractor from fulfilling any of the conditions of the Contract. Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. The failure or omission of any Bidder to so familiarize themselves shall in no way relieve any Bidder from any obligation in respect to their Bid. All applicable federal, state, and local laws and regulations shall apply to the Work throughout the Contract.

5.0 EQUAL OPPORTUNITY

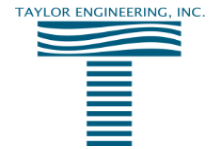
The Florida Inland Navigation District recognizes fair and open competition as a basic tenet of public procurement. Contractors doing business with the District are prohibited from discriminating on the basis of race, color, creed, national origin, handicap, age, or sex. In addition, The District encourages contractors doing business with the District to solicit and utilize minority business enterprises (as defined in Section 288.703, Florida Statutes) as subcontractors and suppliers to the greatest extent possible.

--End of Section--



SECTION 00 41 63A

BID SCHEDULE



INTRACOASTAL WATERWAY MAINTENANCE DREDGING; FLAGLER REACH I; FLAGLER COUNTY, FLORIDA

BIDDER: _____

ALL BID ITEMS SHALL INCLUDE ALL COSTS FOR FURNISHING TO THE OWNER ALL MATERIALS, EQUIPMENT, SUPPLIES, AND PERMITS INCURRED IN PROVIDING ALL WORK SHOWN ON THE INTRACOASTAL WATERWAY ST. LUCIE COUNTY REACH I MAINTENANCE DREDGING; ST. LUCIE COUNTY, FLORIDA PROJECT DRAWINGS AND OUTLINED IN THE CONTRACT SPECIFICATIONS FOR CONSTRUCTION.

BASE BID ITEMS

ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL COST
LUMP SUM					
0001	Insurance	LS	1	\$	\$
0002	Mobilization/Demobilization	LS	1	\$	\$
0003	Environmental Protection and Erosion Control	LS	1	\$	\$
0004	Additional Bathymetric Survey	LS	1	\$	\$
UNIT COST					
0005	Dredging and Dredged Material Placement	CY	185,200	\$	\$

TOTAL BASE BID (ITEMS 0001 THRU 0005) \$ _____

AMOUNTS SHALL BE SHOWN IN BOTH WORDS AND NUMBERS. IN CASE OF DISCREPANCIES, THE AMOUNT SHOWN IN WORDS SHALL GOVERN FOR EACH BID ITEM AND TOTAL BID.

TOTAL BASE BID (WRITTEN)

Dollars

Signature of Bidder: _____

Date: _____

Notes:

- (1) Quantities are estimated. Actual quantities may vary.
- (2) All bids must be for the entire work and must have each blank space completed.

Bidder has to sign below that they have read and understood all addendums related to this project. Failure

Addendum No.1	Date of Receipt:
Addendum No.2	Date of Receipt:
Addendum No.3	Date of Receipt:

NOTICE TO ALL BIDDERS

- 1 The District reserves the right to waive any informality in any bid, to reject any or all bids, and to delete any part of
- 2 Changes in the Contract Price and Contract Time require prior authorization in writing from the District, in the form
- 3 Bid prices for the various work items are intended to establish a total price for completing the project in its entirety.
- 4 Quantities shown are estimated. Actual quantity may vary due to estimated excavation or fill.

Contractor shall meet requirements of all applicable permits and codes (in their current edition).

5

Bidder: _____

By: _____

Title: _____

Name of Bidder

Signature of Bidder

Date: _____

SECTION 01 29 00

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes requirements to be used for the basis of measurement and payment. The Contractor shall receive and accept the compensation provided in the Bid Schedule as full payment for furnishing all materials, labor, tools and equipment for performing all operations necessary to complete the Work under the Contract. Payment for all loss or damages arising from the nature of the Work, or from the action of the elements or any unforeseen difficulties, encountered during the Work until final acceptance by the District is also included in the compensation provided in the SECTION 00 41 63A BID SCHEDULE.
- B. Bid prices for the various work items are to establish a total price for completing the project in its entirety. The Contractor shall include in the Bid, any item for which a separate pay item has not been established in the Bid Schedule, to reflect the total price for completing the project in its entirety, as depicted on the Project Drawings and specified herein. Unless there is a specific line item for administrative costs, such as Project Management, Quality Control and Safety, allocate such costs proportionally across all line items. The Contractor must include all costs for this project to complete all work, in total, designated in the project drawings, specifications, and bid schedule.

1.2 SUBMITTALS

The following submittals shall be submitted in accordance with SECTION 01 33 00 SUBMITTAL PROCEDURES. Bring the following administrative submittal items to the Preconstruction Meeting:

- A. Schedule of Values
 - 1. The Contractor will submit a printed schedule on Contractor's standard form in electronic printout for review and approval by the Engineer at least fifteen (15) calendar days prior to the first Payment Application. List payment items sequentially in the same order as they appear in the Bid Form.
 - 2. Lump sum items are to have adequate breakdown of components to facilitate evaluating completeness for payment. Breakdown components shall appear directly under the payment item heading to which they apply.
 - 3. The Contractor will revise the schedule to list approved Change Orders, with each Application for Payment. The Contractor will submit a revised Schedule of Values in accordance with this specification.

- B. Construction Schedule

At or before the scheduled pre-construction meeting, the Contractor shall prepare and submit to the Engineer for approval a draft construction schedule in the form of a progress chart. The Contractor shall indicate on the progress chart, the bid items contained in the Contract, showing the amount of the item and its relative weighted percentage of the total Contract. The Contractor may separate features of Work under each item to show salient work elements such as procurement of materials, plants, and equipment, and supplemental work elements such as excavation, reinforcing steel, backfill, etc. These salient features shall total to the cost and weighted percentages shown for the major bid item. When quantity variations impact the

weighted percentages of a separate item by five percent or more, the Contractor shall revise the Contract progress charts to accurately reflect the impact of such variations.

C. Revised Construction Schedule

1. Submit copies of the updated construction schedule to the Engineer for each Payment Application. Changes that have occurred since the last update shall be clearly marked.

D. Payment Surveys

1. With each Payment Application, the Contractor shall submit both hard and digital copies of payment surveys to the engineer for review and approval. The Contractor will only be paid for the volumetric change between payment surveys as compared to the Engineer-Approved pre-construction bathymetric survey and payment survey within the defined dredged template boundary (see SECTION 35 20 23 DREDGING AND DREDGED MATERIAL PLACEMENT).

1.3 MEASUREMENT

- A. Measurement for Payment for this Project is based upon completion of the Work in accordance with Project Drawings and Specifications for each of the items. Field measurements will determine the percent complete of work components when listed on the approved Schedule of Values. Measurements will be made using linear, area, volumetric units, or by unit quantity count, as listed on the SECTION 00 41 63A BID SCHEDULE for unit quantity items and at the Engineer's sole discretion for lump sum items.
- B. The Contractor will take all measurements and compute quantities. The Engineer will verify measurements and quantities as appropriate.
- C. The Contractor will provide all necessary equipment, workers, and survey personnel as required.
- D. Measurement Devices:
1. Weigh Scales: Inspected, tested, and certified by the applicable State Weights and Measures department within the past year.
 2. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
 3. Metering Devices: Inspected, tested, and certified by the applicable State department within the past year.
- E. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord, in feet and hundredths of a foot.
- F. Measurement by Area: Measured by square dimension using mean length and width or radius, in feet and hundredths of a foot.
- G. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness, in feet and hundredths of a foot.
- H. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

1.4 BASIS FOR PAYMENT

- A. Unless indicated on the Contract Documents, all work indicated on the Project Drawings and specified in the Bid Documents and Contract shall be included in the Contract Sum indicated on the Bid Form.
- B. Prices stated in the Bid Schedule shall include all costs and expenses for taxes, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the Work as depicted on the Project Drawings and specified herein. The basis of payment for an item in the amount shown in the Bid Schedule shall be in accordance with the description of that item provided in this Section.
- C. The Contractor's attention is again called to the fact that the quotations for the various items of work are intended to establish a total price for completing the Work in its entirety. Should the Contractor feel that the cost for any item of work has not been established by the Bid Form or Payment Items, the Contractor shall include the cost for that work in another applicable bid item, in order that the Proposal for the project reflects the total price to be paid by the District for completing the Work in its entirety.
- D. Changes in the Contract Price and Contract Time require prior authorization in writing from the District and the Engineer, in the form of a Change Order or Work Change Directive. The Contractor is responsible for verification of all bid quantities and to report to the Engineer any discrepancies found prior to ordering materials and/or equipment for construction. Refer to SECTION 00 72 00 GENERAL CONDITIONS.
- E. The various major items of Work will be paid for either by 1) the quantity of the actual Work complete by the Contractor and accepted by the Engineer multiplied by the unit price or 2) the lump sum amount indicated for each Bid Schedule Item. The Work shall include all miscellaneous and ancillary items necessary to construct a complete and functional Project.

1.5 SCHEDULE OF VALUES

- A. The below descriptions generally outline the scope of work required for those elements of the Work to be paid for under each item listed in the Schedule of Bid Items. The Contractor shall submit a Schedule of Values per SECTION 00 72 00 GENERAL CONDITIONS and shall be consistent with SECTION 01 33 00 SUBMITTAL PROCEDURES.

1.6 PAYMENT ITEMS

- A. Basis of Payment for Unit Price Items
 - 1. Quantities indicated in the Bid Form (SECTION 00 41 63 BID FORM) are for bidding and Contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Engineer determine payment.
 - 2. If the actual Work requires more or fewer quantities than those quantities indicated, the Contractor will provide the required quantities at the unit prices contracted.
 - 3. If the actual Work requires a fifty percent (50%) or greater change in quantity than those quantities indicated, the District or Contractor may claim for a Contract Price adjustment for that item.

B. Basis of Payment for Lump Sum Items

1. Payment for lump sum items for this Project will be made at the lump sum price named in the Contract. The Contract price shall constitute full compensation for each item, including all required labor, products, tools, equipment, plant, transportation, services and incidentals, erection, application or installation of an item of the Work, overhead and profit as required to complete the item as indicated in the Project Drawings and Specifications.

C. Progress Payments

1. One progress payment will be made upon completion of mobilization to the site.
2. Subsequent progress payments will be made upon receipt and acceptance of surveys used for progress payments. Surveys will be evaluated based on the volumetric change (within the accepted dredge template) between the Engineer-approved pre-dredge bathymetric survey and payment, post-dredge surveys (see SECTION 35 20 23 DREDGING AND DREDGED MATERIAL PLACEMENT). A copy of the original bathymetric survey, completed by Morgan & Eklund, Inc., February 2016 is included in **APPENDIX F** of these specifications. An electronic version of this survey is available upon request. The Contractor is required to have all surveys performed by a Florida Registered Professional Surveyor. Sounding depths used for determining of acceptance surveys will be derived from multi-beam survey data collected and processed in accordance the latest USACE specifications for dredging measurement and payment surveys (200 kHz acoustic frequency) and using a median depth sort with a 10- by 10-foot matrix. Once accepted by the Engineer, the pre-bathymetric survey will be used to evaluate all progress payments in which the Contractor is requesting payment for dredging.
3. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by a unit price of the item. Final payment for unit price Work will be accomplished by reconciliation Change Orders to adjust quantities at the end of the Project.
4. No payment, partial or complete, will be made for defective or rejected Work. The Contractor will not receive payment for any material dredged outside of the horizontal or vertical limits of the dredge template nor any material that falls within the setback requirements of the regulatory permits.
5. No separate payment will be made for additional labor and materials required for accomplishing the Project in its entirety. All labor, materials, and incidental costs shall be included for payment as part of the Proposal and the Contract, under the several scheduled items of the Project.

1.7 DESCRIPTION OF WORK ITEMS AND SCHEDULE OF VALUES

- A. The following Work items are described in order to assist the Contractor in the preparation of the Proposal and to assist the Engineer in the evaluation of Bids and evaluation of progress payments during construction. The Contractor shall submit a Schedule of Values containing the work components of each Bid Item of the Proposal for approval prior to the first Payment Application for Payment for work in progress.
- B. No separate payment will be made for any testing and/or surveying performed to complete the Work; costs for testing and/or surveying (as applicable), are included in the cost to complete the Work item.

- C. Submittals are considered part of the Contractor's administrative and overhead costs. The Contractor will not be compensated separately for submittals required by these specifications or those listed on the Project Drawings.
- D. Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated there with shall be included in the applicable unit prices or lump-sum prices contained in the Bid Schedule.
- E. For the purpose of the work items listed below, complete installation will mean the inclusion of demolition work, site restoration to existing or better conditions, and testing, all included in the cost to complete the work item (as applicable).
- F. All work shall be completed in accordance with all applicable permits and District requirements.
- G. The following provides a description of the Work listed in the Schedule of Bid Items. This description is not intended to be a complete and all-inclusive record of the required work items. Work includes but is not limited to the following:

H. Bid Item Description

1. Lump Sum Items

- a. **Insurance (Bid Item No. 0001)** – Payment will be as a lump sum (LS) for costs associated with and incidental to acquiring and maintaining the appropriate insurance requirements for this project as listed in SECTION 00 72 00 GENERAL CONDITIONS.
- b. **Mobilization and Demobilization (Bid Item No. 0002)** - Payment for this item will be made as a lump sum (LS) for costs associated with or incidental to mobilization, demobilization, and establishment of initial project management and coordination. Sixty percent (60%) of the lump sum payment will be payable to the Contractor upon completion of the mobilization at the work site with the remaining forty percent (40%) payable upon the completion of demobilization. The Contractor shall breakdown the cost for Mobilization and Demobilization in the Schedule of Values for Engineers approval prior to the first Payment Application.
- c. **Environmental Protection and Erosion Control (Bid Item No. 0003)** – Payment will be as a lump sum (LS) for full compensation for furnishing and installing all materials, labor, and equipment required for compliance with all permits and specifications related to environmental protection. This includes, but not limited to, all turbidity, water quality monitoring and testing, erosion control, sediment chemistry testing, associated reporting of data, manatee observation, backfilling and marsh plant replanting etc. The Contractor shall breakdown the cost for Environmental Protection in the Schedule of Values for Engineer approval prior to the first application for payment. See SECTION 01 35 43 ENVIRONMENTAL PROTECTION.

~~d. **Additional Bathymetric Survey (Bid Item No. 0004)** – Payment will be as a lump sum (LS) for full compensation for furnishing a bathymetric survey of Intracoastal Waterway cuts SJ-63 and SJ-64. This survey is separate from and unrelated to required pre and post dredge surveys. ICWW cuts SJ-63 and SJ-64 are located approximately 1-2 miles north of the dredging project limits.~~

2. Unit Price Items

- a. **Dredging and Dredged Material Placement (Bid Item No. 0005)** – Payment will be made as a unit price (Cubic Yards) for costs associated with or incidental to dredge the Intracoastal Waterway Flagler County, Florida within the specified project limits

and transfer and dewater the material to the District-owned FL-3 dredged material management area. These prices shall include all labor, equipment, materials, upland site work, operational costs, and surveys required to complete the dredging and upland work necessary at the disposal area. Work stoppages for manatees, turbidity control, and Maintenance of Marine Traffic must be included in the overall cost. This project is set up with three (3) acceptance sections (A/S) based on defined cuts and stations [(Start of Project) Cut F-2 STA 32+00 through Cut F-5 STA 11+00; Cut F-5 STA 11+00 through Cut F-5 STA 70+00; Cut F-5 STA 70+00 through Cut F-10 STA 12+52 (End of Project)] in the project. The Owner will base final payment for dredging on an accepted survey conducted within each A/S only. Volumes of material dredged will be based off pre- and post-construction bathymetric surveys approved by the Engineer. See SECTION 01 40 00 CONTRACTOR QUALITY CONTROL, SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS, SECTION 01 78 00 PROJECT CLOSEOUT, and SECTION 35 20 23 DREDGING AND DREDGED MATERIAL PLACEMENT.

1.8 DEFECTIVE WORK

- A. The Contractor shall replace the Work, or portions of the Work, not conforming to specified requirements as directed by the Engineer.
- B. If, in the opinion of the Engineer or of the District, it is not practical to remove and replace the Work, the Engineer will direct one of the following remedies:
 - 1. The defective Work may remain, but the unit or lump sum price for the item will be adjusted to a new price. The adjustment will be performed at the sole discretion of the District. The determination for the adjustment will be done by the Engineer, whose determination will be final.
 - 2. The defective Work will be partially repaired to the instructions of the Engineer, and the unit or lump sum price will be adjusted to a new price at the sole discretion of the District. The determination for the adjustment will be done by the Engineer, whose determination will be final.
- C. The individual specification sections may modify these options or may identify a specific formula or percentage sum/price reduction.
- D. The authority of the Engineer to assess the defect and identify payment adjustment is final.
- E. Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products damaged in transit, during handling, or due to improper storage.
 - 4. Products not completely unloaded from the transporting vehicle.
 - 5. Products placed beyond the lines and levels of the required Work.
 - 6. Products remaining on hand after completion of the Work.
 - 7. Removing, demolishing, and disposing of rejected Work.
 - 8. Loading, hauling, and disposing of rejected Products.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 PAYMENT PROCEDURES

A. Requesting Progress Payment

1. Provide hard copies of supporting invoices and quantity measurements to support all requested earnings. Ensure that sum of payment activities do not exceed Contract award funding amounts.

B. Options and Modification

1. When additional work is added by modification, existing funding amounts must be updated, or new line items for modification will be created. If Contract has option line item not yet awarded, option line item will appear as zero dollars until option is awarded by modification. No payment may be requested for Options or Modification until Contract modification has been funded and signed.

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SECTION 01 78 00
PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes administrative and procedural requirements for contract closeout including, but not limited, the following:
 - 1. Preliminary and inspection substantial completion procedures
 - 2. Preliminary and re-inspection closeout completion procedures
 - 3. Record Document submittal
 - 4. Inspection procedure
 - 5. Final cleaning and site restoration of the temporary dredged material management area
- B. Closeout requirements for specific construction activities are included in the appropriate sections of this specification.

1.2 SUBMITTALS

The following submittals shall be submitted in accordance with SECTION 01 33 00 SUBMITTAL PROCEDURES:

- A. Record Drawings:
 - 1. Submit one (1) full-size hard copy and one (1) electronic copy of the Record Drawings for Engineer approval at least two (2) calendar days prior to requesting inspection for Substantial Completion.
- B. As-Built Drawings
 - 1. Submit two (2) full-size hard copy set of signed and sealed As-Built Drawings.
 - 2. Submit two (2) CDs containing the electronic AutoCAD drawing files (compatible with AutoCAD 2013 or later format and a PDF printout of the As-Built Drawings. All survey data shall be referenced to the horizontal projection NAD83, Florida East, Ft, and the vertical datum in NAVD 88, Mean Lower Low Water (MLLW).
 - 3. As-Built Drawings shall be submitted no later than thirty (30) calendar days post-project completion.
- C. Request for Inspection
 - 1. The Contractor shall notify both the Owner and Engineer in writing five (5) calendar days prior to substantial completion and the final acceptance inspection. The Owner and Engineer will then set up an appropriate time for the inspection(s).

1.3 PROJECT RECORD DOCUMENTS

- A. Record Drawings:
 - 1. Throughout the project maintain at least one clean, undamaged set of Project Drawings for submittal as Record Drawings for Engineer review. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Do not use record documents for construction purposes. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Record Drawings.

Give particular attention to concealed elements that would be difficult to measure and record at a later date.

2. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work.
 - a. Mark new information that is important to the Engineer and Owner but was not shown on the Project Drawings or Shop Drawings.
 - b. Note related Change-Order numbers where applicable.
 - c. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates and other identification on the cover of each set.
3. The Owner will make electronic copies available to the Contractor for Record Drawing purposes whatever versions of the bid plans exist. The Contractor must obtain the concurrence of the Engineer as to form and content of record information provided in electronic format prior to proceeding, but in general, information similar to that shown below needs to be similarly provided.
 - a. Record information weekly concurrently with construction progress.
 - b. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work. Mark each document "PROJECT RECORD" in neat, large, printed letters.
 - c. Mark new information that is important to the Owner but was not shown on Project Drawings or Shop Drawings.
 - d. Note related change-order numbers where applicable.
 - e. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
 - f. Include the following:
 - 1) Dates of areas dredged
 - 2) Depths of dredging per day or section.
 - 3) Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements (vertical and horizontal location of buried or encased piping, raceways, cables, etc.).
 - 4) Where Submittals (like shop drawings) are used for mark-up, record a cross-reference at corresponding location on Drawings.
 - 5) Field changes of dimension and detail.
 - 6) Changes made by Change Order or other Modifications.
 - 7) Details not on original Project Drawings.
 - 8) Record drawings shall include a plot of the actual excavation cross-sections plotted at the same station as and on top of the design cross-sections.

B. As-Built Drawings:

1. Within fifteen (15) days of Substantial Completion, the Contractor shall complete an as-built survey and submit an As-Built Drawing set of ~~the completed dike, gravel toe drain pipes, weirs, weir pipes, timber walkway, roads, ditches, inlets, culverts, fence line, fence gates, edge of clearing, and other construction items as deemed necessary by the Engineer~~ all areas dredged within the waterway. The as-built survey shall show plan location and elevation of constructed features. Approval and acceptance of final As-Built Drawings shall be accomplished before final payment is made to the Contractor.
2. The Contractor will rely on the Project Drawings as the basis for the As-Built Drawing set. The Engineer will provide electronic copies of the Project Drawings in AutoCAD at the Preconstruction Meeting.

3. As-built survey drawings shall be in AutoCAD 2013 or later format. Survey data shall be in the same horizontal coordinate system and vertical datum used in the project drawings.
4. Each sheet of the As-Built Drawing set shall be clearly marked "As-Built Drawings" and shall be signed and sealed by a licensed Land Surveyor Registered in the State of Florida.
5. The Surveyor shall sign the cover sheet of the marked-up drawings in the following manner: "I CERTIFY THAT THESE CORRECTED DRAWINGS INDICATE CONSTRUCTION AS ACTUALLY PERFORMED AND ARE AN ACCURATE REPRESENTATION OF THE SPECIFIED WORK. THESE CORRECTED DRAWINGS ARE APPROVED FOR PREPARATION OF AS-BUILT DRAWINGS."
6. The As-Built Drawing set shall display the constructed dike cross sections superimposed on the Project Drawing sheets displaying the planned dike cross sections. Linework for the constructed features should be bold and easily distinguishable from linework for the designed features. Linework for the designed features shown in the Project Drawings shall be made to plot faded and in the background of the constructed features.
7. The As-Built Drawing set shall display as-built elevations and locations of the completed dike, weirs, roads, ditches, and walkway next to those design elevations and locations shown on the Project Drawings for comparison. Where the specifications list required tolerances, the As-Built Drawings shall clearly indicate if the constructed item is out of tolerance.
8. For unit price bid items determined by survey, the As-Built Survey Drawing set shall show a table with the final construction quantities of each unit price item using the same unit as indicated on the Bid Schedule.
9. The District and Engineer reserves the right to reject any drawing files it deems incompatible with the Engineer's AutoCAD system. Paper prints, drawing files and storage media submitted will become the property of the District upon final approval. Failure to submit final As-Built Drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract.

1.4 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for Certification of Substantial Completion, complete the following (list exceptions in the request):
 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, the Contractor shall demonstrate 100 percent completion for the portion of the Work claimed as substantially complete.
 - a. Include supporting documentation required for completion as indicated in these Specifications and a statement showing an accounting of changes to the Contract Sum.
 - b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 2. Submit specific warranties, maintenance agreements, final certifications, and similar documents.
 3. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

4. Submit preliminary Post-Dredging survey drawings and electronic files, damage or settlement surveys, property surveys, and similar final record information as indicated.
5. Complete final cleanup requirements.

B. Inspection Procedures

1. On receipt of a written request for inspection from the Contractor, the Engineer will either proceed with inspection within 3 days or advise the Contractor of unfilled requirements. The Engineer will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
2. The Engineer will repeat inspection when requested and assured that the Work is substantially complete.
3. Results of the completed inspection will form the basis of requirements for final acceptance.

1.5 FINAL ACCEPTANCE

A. Preliminary Procedures: When requesting final inspection, include exceptions in the request. Before requesting final inspection of the Work for certification of final acceptance and final payment, complete the following:

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
3. Submit a certified copy of the Engineer's final inspection list of items to be completed or corrected, endorsed and dated by the Engineer. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Engineer.
4. Submit Consent of Surety to final payment.
5. Submit a final liquidated damages settlement statement.
6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

B. Re-inspection Procedure: The Engineer will re-inspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Engineer.

1. Upon completion of re-inspection, the Engineer will prepare a certificate of final acceptance. If the Work is incomplete, the Engineer will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
2. If necessary, re-inspection will be repeated.

PART 2 - PRODUCTS

2.1 AUTOCAD DESIGN FILES

- A. The Contractor will be furnished AutoCAD design files. The Contractor shall use the electronic design files provided by the District to prepare changes and additions to the electronic As-Built Drawings.

PART 3 - EXECUTION

3.1 FINAL SITE CLEANING

- A. Execute periodic (once a day minimum) cleaning to keep the work, the site, and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from Construction work.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris, and rubbish from the site periodically and dispose of at legal disposal areas away from the site.
- D. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
- E. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the District's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
- F. Where extra materials of value remain after completion of associated Work, they become the District's property. Dispose of these materials as directed by the District.
- G. Prior to final completion, or District occupancy, Contractor shall conduct an inspection of the site, and all work areas, to verify that the entire work area is clean.
 - 1. Upon completion of dewatering and final offloading, all applicable access roads, pipeline access, and parkway amenities shall be returned to its preconstruction condition.
 - 2. After the Contractor completes the final site cleaning, the Engineer and Contractor shall arrange a meeting that involves the FIND and Taylor Engineering to inspect the site conditions.
- H. The Engineer will not recommend final payment and release of retainage until the Contractor has completed the site restoration as described in this section.

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SECTION 35 20 23

DREDGING AND DREDGED MATERIAL PLACEMENT

PART 1 GENERAL

1.01 SUMMARY

- A. The Work covered by this section consists of furnishing all labor, materials, equipment, supplies and material, surveying, and performing all operations necessary to mechanically or hydraulically dredge the Intracoastal Waterway project limits (as indicated in the Project Drawings, **APPENDIX A**), transfer all excavated material to the District-owned FL-3 Dredged Material Management Area (DMMA), and dispose of in-channel debris. In-channel debris shall be separated, hauled off site, and properly disposed of in an approved landfill. All watercraft associated with the execution of the permitted project shall only operate within waters of sufficient depth so as to preclude bottom scouring, prop dredging, grounding, and damage to the submerged bottom or submerged resources (a minimum eighteen-inches clearance must be maintained at all times). Temporary and permanent impacts to surrounding wetland and submerged natural resource areas are not authorized.
- B. This project generally entails dredging approximately 185,200 cubic yards of material from Reach I of the Atlantic Intracoastal Waterway (ICWW) in Flagler County, Florida. The ICWW maintenance dredging area extends from Cut F-3 through ICWW Cut-F11 STA 28+02. This maintenance work will include excavation of the ICWW channel to target elevations of -14 feet (ft) mean lower low water (MLLW) (project depth of -12 feet and 2-foot allowable overdredge). In accordance with permit conditions, material shall be dredged via the use of either a mechanical or hydraulic dredge to remove all material (inclusive of all in-channel debris) feasible from the dredge template. Dredged material from the northern maintenance area shall be offloaded at the ±44-acre dredged material management area (DMMA) FL-3 located in Palm Coast, Florida.
- C. The successful Bidder will have **180** calendar days from the Notice to Proceed to complete the entire project, inclusive of the alternate bid item, if awarded.
- D. Throughout all phases of the project, the Contractor shall remain responsible for ensuring that all work complies with the requirements specified in the regulatory permits (**APPENDIX B and APPENDIX C**). Failure to meet the environmental requirements of the aforementioned permits or of these Specifications may result in work stoppages or termination for default. The Contractor shall make no part of the time lost due to any such work stoppages the subject of claims for extensions of time or for excess costs or damages. If Contractor fails or refuses to promptly repair any damage caused by violation of the provisions of these permits and/or Specifications, the Owner may have the necessary work performed and charge the cost thereof to the Contractor.

1.02 REFERENCES

- A. American Society of Mechanical Engineers (ASME)
 - ASME B18.2.2 Nuts for General Applications: Machine Screw Nuts, Hex, Square, Hex Flange, and Coupling Nuts (Inch Series)
 - ASME B18.2.6 Fasteners for Use in Structural Applications

ASME B18.21.1 Washers: Helical Spring-Lock, Tooth Lock, and Plain Washers (Inch Series)

ASTM A307 Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength

B. American Society of Testing Materials (ASTM)

ASTM A153 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A307 Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength

ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort.

ASTM D1140 Standard Test Methods for Amount of Material in Soils Finer than the No. 200 (75-um) Sieve

ASTM D1556 Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method

ASTM D2216 Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes.

C. American Wood Preservers' Association (AWPA)

AWPA U1 User Specification for Treated Wood

AWPA M4 Standard for the Care of Preservative-Treated Wood Products

1.03 SUBMITTALS

The following shall be submitted in accordance with SECTION 01 33 00 SUBMITTAL PROCEDURES:

A. Notice to Mariners

1. Prior to the commencement of work on this Contract, the Contractor shall notify the Commander, Seventh Coast Guard District in Miami, Florida of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least two weeks prior to the commencement of this dredging operation. A copy of the notification shall be provided to the Engineer.

B. Notification of Discovery of Historical Resources

1. Contractor shall immediately notify Engineer if any shipwreck, artifact, or other objects of antiquity that have scientific or historical value, or are of interest to the public, are discovered, located, and/or recovered. Contractor acknowledges that the site(s), articles,

or other materials are the property of the State of Florida, with title vested in the Department of State, Division of Historical Resources.

C. Notice of Misplaced Material

1. Contractor shall immediately notify the U.S. Coast Guard Marine Safety Office and the Engineer of any misplaced material (e.g., dredge pipe, cable, etc.).

D. Notification of Aids Relocation

1. Unless expressly stated in the Project Drawings, the Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation without written consent from the U.S. Coast Guard. Within seven (7) calendar days following receipt of the Notice to Proceed, the Contractor shall notify the Commander, Seventh Coast Guard District in Miami, Florida of his plan to dredge adjacent to any aids which require relocation to facilitate dredging. This notification shall be immediately followed by formal written request with a copy to the Engineer. The Contractor shall contact the U.S. Coast Guard for information concerning the position to which these aids will be relocated.

E. Dredge Plan

1. At least fifteen (15) calendar days before the scheduled pre-construction conference, the Contractor shall submit to Engineer for approval, a dredge plan that provides for a comprehensive summary of proposed project methodology (equipment, material transport, daily dredging productivity), operational controls (quality control, minimization of marine and upland traffic delays, permit compliance), security, and turbidity management/monitoring procedures to be implemented.

F. Maintenance of Marine Traffic Plan

1. The Contractor shall develop and submit a Maintenance of Marine Traffic Plan to the Engineer for approval within fifteen (15) calendar days before the scheduled pre-construction conference. The plan — addressing traffic within the Intracoastal Waterway — must clearly demonstrate, via narrative and illustrative documentation, how the Contractor will avoid disruption of ongoing traffic to the maximum extent possible.
2. During active dredging, the plan shall also include a daily email correspondence to local mariners that provides via narrative and illustrative documentation, at a minimum, the planned location of the dredge, local landmarks for ease of reference, and hours of operation.

G. DMMA Facility Operation Plan

1. Within fifteen (15) days of the Notice to Proceed, the Contractor shall submit plans to the Engineer for approval of the DMMA Facility Operation Plan. The Plan shall include a detailed narrative for transporting and placing the material at DMMA FL-3. Primary plan components include both the Site Plan and Placement Operations Plan.

a. Site Plan

- 1) Proposed location and dimensions of any on-site facilities (storage area, field office, sanitation, etc.)
- 2) On-site turbidity control measures
- 3) Avenues of ingress/egress

- 4) The Contractor shall also indicate if the use of a supplemental or other staging area will be used.

b. Placement Operations Plan

- 1) The Contractor shall describe the procedure and equipment that will be used by the Contractor to manage the DMMA.
- 2) The Placement Operations Plan shall include, at a minimum, the proposed commencement and completion date relevant to the District's Notice to Proceed, hours of operation, material unloading and handling equipment, anticipated production rates, maintenance and operation of inflow pipe, effluent monitoring, discharge monitoring and reporting, equipment and vehicles to be used on site, key personnel names and telephone numbers, pipeline route, fuel spill plan, and other pertinent procedures relating to material unloading, transportation and placement of the dredged material required under this Contract.
- 3) The Placement Operations Plan shall also include, but shall not be limited to, the following items:
 - a) A scaled drawing and description of the inflow pipeline design and layout. The description shall include details including: pipe material, size and thickness; location of all proposed inflow pipe end points; pipeline valves and wyes; inflow pipe end point conditions, including use of spreaders, distance off the dike and pontoons or other equipment used.
 - b) Listing of all equipment to be mobilized on site and a description of the intended use. Equipment shall include but shall not be limited to: all pumps and pump details, spill cleanup equipment, monitoring equipment, and material excavation/trenching equipment. The Contractor shall be responsible for designing any necessary pumping system and sizing any pumps.
 - c) Procedure for inspection and maintenance of inflow pipeline to prevent leaks and spills. The Contractor shall inspect the full length of the inflow pipe a minimum of two (2) times per day.
 - d) Procedure for communication between the dredge and DMMA.
 - e) Health, Safety, and Security measures that will be implemented by the Contractor at the work site and along the pipeline locations to ensure safety and security for onsite personnel and to keep the public free and clear from work site and pipeline.
 - f) Location and description of any ramps, trenches or road crossing areas to be constructed by the Contractor along the pipeline on the DMMA.
 - g) Operating procedures to control discharge water and water quality including sampling and monitoring procedure and equipment.
 - h) Detailed plan of the operation and procedures that will be used to monitor the Contractor's operations at the disposal area and ensure compliance with the facility permits requirements.
 - i) Note, the Contractor has access to the on-site weir boards for use during the project construction. The Contractor shall inspect both the quality and

quantity on on-site weir boards for use during construction. The Contractor is responsible for verification and acquisition of needed weir boards necessary to operate the on-site weir structure.

H. Daily Dredging Report of Operations

1. For each 24-hour period of dredging operations, the Contractor shall prepare and submit to Engineer one (1) copy of the Daily Report of Operations. A sample daily report form is provided in **APPENDIX J**. These reports shall be submitted to Engineer in Adobe PDF format by 5:00 pm on the day following the 24-hour period covered by the report. Upon completion of the job, Contractor shall summarize the daily reports in a consolidated job report and submit this report to Engineer.
2. DMMA Seepage Control and Observation
 - a. The Contractor shall daily monitor the embankment for signs of increased seepage flow, development of pipes/boils, slope depressions, sloughs, etc. Any development of these conditions shall be immediately reported to the Engineer and pumping operations shall cease until said conditions can be observed and evaluated.
 - b. The daily report observations at the DMMA shall be noted on the Daily Report of Operations aforementioned and in additional detail, as necessary, in the DMMA Placement Daily Operations Report.

I. Daily DMMA Placement Report of Operations

1. The Contractor shall also generate and maintain a Daily Operations Report to record the placement operations at the DMMA. The reports shall be generated for the entire duration of the placement and dewatering operations conducted by the Contractor. The forms to record the information shall be developed by the Contractor and submitted the Engineer for approval ten (10) days prior to the intended start of dredging. The information contained in the daily operations report shall include, at a minimum, the following:
 - a. A drawing showing the location of each material discharge point within the disposal site.
 - b. Date, starting and ending times of deposition of dredged material from each discharge point.
 - c. Daily average pond elevation in the basin
 - d. Daily meteorological data including precipitation, sky conditions, winds (direction and miles per hour) and temperature.
 - e. Date, starting and ending times, quantity and duration of effluent water discharged through the weir, number of weir boards in place, ponding and freeboards depths
 - f. Daily narrative describing Contractor's operations including water control and discharge operations, any maintenance or material handling/grading activities performed, and site condition including any signs of dike erosion or other condition requiring remediation.
 - g. Daily tally of persons on site including Contractor personnel. Forms shall be filled out completely and legibly each day by the Site Superintendent using black ink, including signatures. The original, completed Forms shall be submitted to the Engineer by 5:00 pm on the day following the 24-hour period covered by the report.

J. Waterfront Marine Structures Photo-Documentation

1. Pre-Construction: At least fifteen (15) days prior to the commencement of dredging activities, the Contractor shall submit photo-documentation of all waterfront structures within fifty (50) ft from the channel side slopes along the entire project length. The Contractor shall supply a narrative and accompanying photographs that detail the specific condition of the structure(s) and denote any structural deficiency's that are cross-referenced and appropriately labeled, via location and owner name, in the survey.
2. Post-Construction: Within fifteen (15) days after the completion of each acceptance section (A/S) and in the equivalent areas of the Pre-Construction Waterfront Marine photo-documentation area, the Contractor shall supply a narrative and accompanying photographs that detail the specific condition of the structure(s) and denote any structural deficiency's (as strictly compared to the pre-construction condition) that are cross-referenced and appropriately labeled, via location and owner name, in the survey.

K. Pre-Construction Bathymetric Survey

1. At least fifteen (15) days prior to the commencement of dredging activities, Contractor shall perform a pre-construction bathymetric survey of the project dredge area. Note that all dredging surveys used to determine pay quantities shall be conducted by an Engineer-approved bathymetric surveyor licensed in the State of Florida. The Engineer must review and approve the pre-dredge survey prior to any dredging activity.

L. Pre-Construction Utility Survey

1. It is the Contractor's sole responsibility to investigate the location of all utility crossings, via an independent and comprehensive pre-construction utility survey and submit to the Engineer for approval, at least fifteen (15) calendar days prior to any dredging operations. The Contractor shall take precautions against damages which might result from his operations in the vicinity of the utility crossings. **The Contractor assumes all liability for submerged and buried utility facilities Contractor will assume liability for any damaged submerged and buried utility facilities due to their own negligence.** If any utility damage occurs as a result of its operations, the Contractor shall suspend dredging in the area of the damaged utility until the damage is repaired and resumption of the dredging is approved by the Engineer. The District shall not be responsible for the cost of such damage and repairs regardless of cause – including but not limited to any costs associated with interruption of utility services and delay damages.

M. Post-Construction Bathymetric Survey

1. Within seven (7) days of the completion of construction activities within an acceptance section, the Contractor shall perform the post-dredge bathymetric survey (by equivalent methods, standards, and density to the pre-construction dredging survey). Upon submittal to the Engineer, the surveys shall be reviewed for accuracy, completeness, and to calculate payment quantities relative to the pre-construction bathymetric survey or progress payment surveys. The payment quantities, within the permitted template and broken down by required depth and allowable overdepth, shall be shown on the front cover of each Acceptance Section survey and be sealed by a Florida Registered Professional Surveyor as part of the submittal. At the end of each acceptance section, the Contractor shall submit two (2) signed and sealed surveys.
2. At project completion of all Acceptance Sections, the Contractor shall submit two (2) copies of a signed and sealed survey of the entire project within fifteen (15) calendar days of the completion of dredging activities for Engineer for approval. At a minimum, the project certification survey must include the pre-construction bathymetric survey, permitted

dredging template, construction template, and post-dredge bathymetric survey (combining each of the acceptance sections). The payment quantities, within the permitted template and broken down by required depth and allowable overdepth, shall be shown on the front cover (summarizing each Acceptance Section) and be sealed by a Florida licensed surveyor as part of the submittal.

1.04 DEFINITIONS

- A. Limits of Dredging: The area in which the dredge is free to excavate material. All vessels and construction equipment, tools, and dredging activities shall be setback a minimum of 25 feet from all structures within the main channel. Anchoring, spudding of vessels, storage, stockpiling or access of equipment on, in, over or through submerged aquatic vegetation is strictly prohibited.
- B. Required Depth: The material actually removed from the designated areas to be dredged, to a depth of not more than the "Project Depth" as shown on the drawings, will be estimated and paid for in accordance with the provisions contained in SECTION 01 29 00 MEASUREMENT AND PAYMENT.
- C. Allowable Overdepth: To cover the inaccuracies of the dredging process, material actually removed from the designated areas to a depth below the required depth of not more than the allowable overdepth shown on the drawings, will be measured and paid for in accordance with the provisions contained in in SECTION 01 29 00 MEASUREMENT AND PAYMENT.
- D. Side Slopes: Although dredging of side slope material may be necessary to provide the required project channel dimensions (depth and width), the side slopes shown on the drawings are provided for payment purposes only. Side slopes may be formed by box cutting, step cutting, or dredging along the side slope. Material actually removed, confined by the "Limits of Dredging", to provide for final side slopes not flatter than that shown on the Project Drawings, but not in excess of the amount originally lying above the limiting side slope, will be measured and paid for in accordance with SECTION 01 29 00 MEASUREMENT AND PAYMENT.

1.05 PUMPING OF BILGES

- A. Contractors are warned that pumping oil or bilge water containing oil into navigable waters, or into areas which would permit the oil to flow into such waters, is prohibited by Section 13 of the River and Harbor Act of 1899, approved March 3, 1899 (30 Stat. 1152; 33 U.S.C. 407). Violation of this prohibition is subject to the penalties under the referenced acts.

1.06 UTILITY CROSSINGS

- A. The Contractor shall be responsible for investigating the locations and depths of all utility crossings. Contractor will take precautions against damages which might result from his operations, especially the sinking of dredge spuds and/or anchors into the channel bottom, in the vicinity of underwater utility crossings. If any damage occurs because of his operations, Contractor will be required to suspend dredging until the damage is repaired and approved by the District and Engineer. Costs for such repairs and for the downtime of the dredge and attendant equipment shall be at Contractor's expense.

1.07 SIGNAL LIGHTS

- A. The Contractor shall display signal lights and conduct operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day

signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in the U.S. Coast Guard August 2014 Navigation Rules and Regulations Handbook, or 33 CFR 80 through 33 CFR 82 (International) and 33 CFR 83 through 33 CFR 90 (Inland) as applicable.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.01 GENERAL

- A. Contractor shall dredge within the Limits of Dredging as necessary to complete the Work as defined in the Project Drawings and Specifications and transport the dredged material to the designated placement area. Contractor shall not dredge outside the Limits of Dredging.
- B. Work Hours
 - 1. Refer to Section 01 11 00 SUMMARY OF WORK, **APPENDIX B** and **APPENDIX C** for Work Hour restrictions.
 - 2. A qualified manatee observer shall be on-site at all times during in-water work.
- C. Access to Work Sites
 - 1. Contractor shall be responsible for providing and maintaining access necessary for his equipment to and from the Work sites.

3.02 WEATHER

- A. The project area is subject to windy and rainy weather, including severe electrical storms and other sudden and locally severe meteorological occurrences that approach hurricane conditions, during any time of the year. Contractor shall maintain full-time monitoring of the NOAA marine weather broadcasts, and avail themselves of such other local commercial weather forecasting services as may be available. It shall be Contractor's responsibility to obtain information concerning rain, wind, and wave conditions that could influence his dredging and disposal operations.

3.03 NOISE CONTROL

- A. Contractor shall ensure that all possible measures are employed to reduce the amount of noise produced by his operations. Contractor shall conduct his operations to comply with all federal, state and local laws pertaining to noise. Additionally, Contractor shall inform all crewmembers of the need to maintain a professional manner while on the job sites, in radio communications, and in dealing with the public, Palm Beach, Port of Palm Beach employees.
- B. All hauling and excavating equipment including dredges, dredge/barges, booster pumps, tugs and other support vessels, dozers, loaders, etc. used on this Work shall be equipped with satisfactory mufflers and/or other noise abatement devices.

- C. Contractor shall consider the proximity of the dredge operations to residential areas, especially during early evening and early morning hours. Such consideration should include but not be limited to—reducing deck noise, reducing throttle, holding the use of horn and whistle signals to a minimum, and restraining the use of P.A. loudspeaker systems.

3.04 LIGHT CONTROL

- A. Contractor shall ensure that all work lights (as opposed to safety lighting) are shielded to prevent them from shining on residential areas.

3.05 DAMAGE TO PROPERTY

- A. Any damages to private or public property (inclusive of utilities) resulting from Contractor's operations shall be repaired and paid for by Contractor.

3.06 NOTIFICATION OF COAST GUARD

A. Navigation Aids

- 1. Navigation aids located within or near the areas required to be dredged will be removed, if necessary, by the U.S. Coast Guard in advance of dredging operations. The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid of navigation.

B. Dredging Aids

- 1. The Contractor shall obtain approval from the U.S. Coast Guard for all buoys, dredging aid markers to be placed in the water, and dredging aid markers affixed with a light prior to the installation. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids.

3.07 WATERBORNE OPERATIONS

- A. All areas to be dredged shall be in accordance with the attached Project Drawings and shall not exceed the specific areas and depths indicated on those drawings. The Contractor is NOT authorized to dredge outside of the area depicted. Material excavated shall be transported to and deposited in the DMMA designated on the Project Drawings. No wetlands or submerged aquatic vegetation outside the project area is to be disturbed as a result of this project construction. Failure to comply with this condition and all other permit conditions may result in enforcement action. All regulatory enforcement actions, stemming from the project construction, are the strict responsibility of the Contractor. **Failure to comply with this condition and all other permit conditions may result in enforcement action. All regulatory enforcement actions, stemming from the project construction, are the strict responsibility of the Contractor.**

3.08 BRIDGE-TO-BRIDGE COMMUNICATION

- A. In order that radio communication may be made with passing vessels, all dredges engaged in Work under this Contract shall be equipped with bridge-to-bridge radio telephone equipment. The radio equipment shall operate on a single channel very high frequency (VHF), FM, on a frequency of 156.55 MC per second with low power output having a communication range of

approximately ten (10) miles. The frequency has been approved by the Federal Communication Commission (FCC). Channels #13 and #16 must be monitored at all times.

3.09 RIGHT-OF-WAY LIMITS

- A. Contractor shall conduct his operations to minimize interference with the movement of vessels in the adjacent waters not being actively dredged. However, the Contractor will be permitted to exclude the public from the work areas including in the immediate vicinity of active dredging or material placement operations. Enforcement shall be Contractor's responsibility at no additional cost to District. When appropriate, the enforcement shall be coordinated with local law enforcement agencies and will be subject to approval of Engineer.

3.10 ACCESS

- A. The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site and the DMMA site. The Contractor shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

3.11 PROTECTION OF EXISTING WATERWAYS

- A. The Contractor shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The Contractor will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the Contractor's operations, the same must be promptly removed by and at the expense of the Contractor to the satisfaction of the Engineer.
- B. Obstruction to Navigable Waterways
 - 1. Contractor shall promptly recover and remove any material, plant, machinery, or appliance Contractor loses dumps, throws overboard, sinks, or misplaces, and which, in the opinion of Engineer, may be dangerous to or obstruct navigation. If required by Engineer, Contractor will mark or buoy such obstructions; Engineer may have the obstructions removed by a separate Contract and deduct the cost from any monies due or becoming due to Contractor, or recover the cost under Contractor's bond. Contractor's Liability for the removal of a vessel, wrecked or sunk without fault of negligence is limited to that provided in sections 15, 19, and 29 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 409 et seq.).
- C. Solid Waste Disposal
 - 1. Contractor may encounter solid waste (tires, cans, bottles, fibrous plant material, boards and other debris) within the dredging template that cannot be dredged and/or hydraulically transported to the DMMA site. Contractor shall be responsible for the appropriate disposal of such material.

3.12 ADJACENT PROPERTY AND STRUCTURES

- A. No dredging will be permitted within twenty-five (25) feet of any structure. Any damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Any damage to structures as a result of

Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

3.13 BARGE AND EQUIPMENT ANCHORING

- A. If Contractor's operations require anchoring of barges or other equipment within the work areas, Contractor shall be responsible for assuring that the anchoring technique does not impact or interfere with navigation or damage public or private property. If pilings are used for anchorage, the pilings shall be well marked and removed in their entirety upon completion of Contractor's operation. Contractor shall, at his own expense, repair any damages to private or public property resulting from Contractor's operations. Anchoring or spudding of vessels and barges within wetland or submerged natural resource areas, including the identified Important Manatee Area and Warm Water Aggregation Area, is prohibited.

3.14 SUBAQUEOUS CABLE CROSSINGS

- A. The Contractor shall be responsible for verifying the locations and depths of all utility crossings and take precautions against damages which might result from his operations, especially the sinking of dredge spuds and/or anchors into the channel bottom, in the vicinity of utility crossings. **The Contractor assumes all liability for submerged and buried utility facilities. If any utility damage occurs as a result of its operations, the Contractor shall suspend dredging in the area of the damaged utility until the damage is repaired and resumption of the dredging is approved by the Engineer. The District shall not be responsible for the cost of such damage and repairs regardless of cause – including but not limited to any costs associated with interruption of utility services and delay damages.**

3.15 BOOSTER PUMPS

- A. Any booster pumps installed by the Contractor shall be located at least 300 feet from any residential-type building or house. Booster pumps, their prime movers, and any auxiliary equipment shall be fitted or equipped with mufflers, noise control enclosures, or other engineering noise control methods, measures, and features such that steady noise emanating from this equipment does not exceed the local ordinances. Such items shall be maintained throughout the project duration. Location of booster pumps and noise control methods must be submitted to the Engineer for approval.

3.16 NOISE CONTROL

- A. Contractor shall ensure that all possible measures are employed to reduce the amount of noise produced by his operations. Contractor shall conduct his operations to comply with all federal, state and local laws pertaining to noise. Additionally, Contractor shall inform all crewmembers of the need to maintain a professional manner while on the job sites, in radio communications, and in dealing with other team members involved in the project.
- B. The District retains the right to require the Contractor to install additional noise control measures if the public is not satisfied and the noise is within the decibel requirements of this specification. These additional measures will be paid for by the District.
- C. All hauling and excavating equipment including dredges, dredge/barges, booster pumps, tugs and other support vessels, dozers, loaders, etc. used on this Work shall be equipped with satisfactory mufflers and/or other noise abatement devices.

- D. Contractor shall consider the proximity of the dredge operations to residential areas, especially during evening, night, and early morning hours. Such consideration should include but not be limited to — reducing deck noise, reducing throttle, holding the use of horn and whistle signals to a minimum, and restraining the use of P.A. loudspeaker systems.

3.17 LIGHT CONTROL

- A. The Contractor shall ensure that all work lights (as opposed to safety lighting) are shielded to prevent them from shining on residential property.
- B. Interference with Other Contractors
 - 1. The District reserves the right to perform other work in the vicinity of the project area under separate contracts. Contractor shall afford District and other Contractor's reasonable opportunity for the introduction and storage of their materials and execution of their respective work, and shall properly connect and coordinate his work with theirs.
 - 2. If the performance of any contract for the project is likely to be interfered with by the simultaneous execution of some other contract or contracts, Engineer shall decide which Contractor shall cease work temporarily and which Contractor shall continue, or whether work under the contracts can be coordinated so that the Contractors may proceed simultaneously. District shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project or caused by the omission of consultation with the Engineer with respect to the order of precedence in the performance of the contracts other than for an extension of time.

3.18 TRANSPORT OF DREDGED MATERIALS

- A. All excavated material shall be transported to the DMMA site. If any material is deposited other than in places designated or approved, Contractor may be required to remove such misplaced material and redeposit it where directed at his expense. To the greatest extent possible, Contractor shall configure his activities (inclusive of pipelines) to allow continuous boat access to navigable waters. Contractor shall restrict access to these areas only as required to ensure public safety.
- B. Hydraulic Dredge Pipelines
 - 1. A tight dredge discharge pipeline shall be maintained to prevent spilling of dredged material or dredge water outside of the disposal area. The Contractor shall ensure that the entire pipeline route is devoid of any leaks before commencing dredging operations. The Contractor shall provide and maintain radio communication between the dredge and the disposal areas. The pipeline shall be inspected at least twice daily for leaks. Failure to immediately repair leaks in the discharge pipeline will result in suspension of dredging operations and require prompt repair of pipeline as a prerequisite to the resumption of dredging. Any pipeline leak will be immediately surveyed to determine the extent of the material spill. All spilled or misplaced materials will be recovered by the Contractor and any damage to private or public property resulting from the Contractor's operations shall be repaired by the Contractor at his expense.
- C. Hydraulic Discharge Pipeline Marking
 - 1. The Contractor shall plainly mark the pipeline access route (along the entire access) with conspicuous stakes, targets and/or buoys (in accordance with required U.S. Coast Guard requirements and **APPENDIX C**) to be maintained throughout the Contract operations.

2. Additionally, the Contractor shall clearly label the upland pipeline every 100 feet with signs reading as follows: "DANGER: HIGH PRESSURE DISCHARGE LINE."

D. Submerged Pipeline

1. In the event the Contractor elects to submerge his pipeline, the pipeline shall rest on the bottom, and the top of the submerged pipeline and any anchor securing the submerged pipeline shall be no higher than the project depth for any navigation channel in which the submerged pipeline is placed. Should Contractor elect to use a pipeline material that is buoyant or semi-buoyant, such as PVC pipe or similar low-density materials, the Contractor shall securely anchor the pipeline to prevent pipeline from lifting off the bottom under any conditions. Contractor shall make daily inspections of the submerged pipeline to ensure buoyancy has not loosened the anchors. Contractor shall remove all anchors when the submerged pipeline is removed. The location of the entire length of submerged pipeline shall be marked with signs, buoys, lights, and flags conforming to U.S. Coast Guard regulations. Under no circumstances shall the pipeline be anchored within any area identified with submerged natural resources.

E. Floating Pipeline

1. Should the Contractor's pipeline not rest on the bottom, it will be considered a floating pipeline and shall be visible on the surface and clearly marked. In no case will the Contractor's pipeline be allowed to fluctuate between the surface and the bottom or lie partly submerged. Lights shall be installed on the floating pipeline as required in paragraph SIGNAL LIGHTS above. The lights shall be supported either by buoys or by temporary piling, provided by the Contractor and approved by the Engineer. Where the pipeline does not cross a navigable channel, the flashing yellow all-around lights shall be spaced not over 200 feet apart, unless closer spacing is required by U.S. Coast Guard personnel, in which case the requirements of the U.S. Coast Guard shall govern, at no additional cost to the Government.

3.19 PLACEMENT OF DREDGED MATERIALS

- A. The Contractor shall supply all labor, equipment, plant, supplies and material to place the dredged material only in the DMMA as shown on the Project Drawings. The DMMA discharge water quality, settling basin water depth limits, and containment dike freeboard shall be maintained as specified in the following sections.
1. The Contractor shall supply all labor, equipment, plant, supplies and material to perform water control and discharge operations of the effluent from the dredged material containment cell during the entire term of this Contract in a manner consistent with regulatory and permit requirements prescribed for this facility. This includes water control and discharge during placement of the material and active dewatering and material handling/grading operations to promote drying of the containment cell material between, during, and after placement operations.
 2. A freeboard of two (2) feet shall be maintained at all times between the top of the containment dikes and the top of the water surface within the containment cell. This limit shall be maintained at all times during the term of this contract. During placement operations, if the freeboard limit is reached, the Contractor shall cease pumping into the containment area and shall allow sufficient time for drainage and settlement of solids before additional material is deposited. Between placement operations the freeboard limit shall also be maintained. The Contractor shall actively dewater the site and shall not allow rainwater to accumulate in the containment cell without periodic discharge.

3. The maximum settling basin water depth in the DMMA shall be maintained at an elevation suitable for proper material settling while preventing material resuspension and dike erosion/scour due to wind-wave activity. During active inflow operations, a minimum basin depth of two (2) feet should be maintained to achieve proper water quality and effective site operation. Greater depths may be needed to allow for sufficient settling of solids. Lower water depths may be necessary during periods of no- or low-inflow. At no times shall the basin depth exceed three (3) feet unless approved by the Engineer. The water depth shall not exceed the two (2) foot freeboard restriction.
4. Water depths shall be measured using a standard USGS Style A Water Level Staff Gauge to be located on the discharge control structure. The Staff Gauge is to be installed and maintained by the CONTRACTOR. Mudline elevation in the DMMA and settling basin water depths shall be measured a minimum of twice per day and shall be recorded and submitted to the Engineer on the ***Daily Report of Operations***.

3.20 DREDGED MATERIAL DISCHARGE AND PLACEMENT OPERATIONS

- A. The excavated dredged material shall be placed in the DMMA as shown on the Project Drawings. This Contract and all Bids shall be based on placing excavated material in the designated DMMA only.
 1. The Contractor shall provide an inflow pipeline to discharge material and shall provide an even distribution of material in and along the interior of the cell with a positive flow toward the weir. Inflow pipe locations shall be in accordance with the Contractor-submitted ***DMMA Facility Operation Plan: Placement Operations Plan***.
- B. The inflow pipeline shall be made of either new or used High Density Polyethylene (HDPE) with no obvious imperfections or weak areas. The pipeline shall be placed within the alignment limits as shown on the Project Drawings. The Contractor shall ensure that the pipeline does not create a public hazard and does not block access to any existing facilities. The pipeline shall be placed so there is not interference with traffic on existing DMMA roadways, roadway markers, wells, bench marks, piezometers or other instrumentation.
- C. The Contractor shall place material in the DMMA in a manner to: minimize turbidity of the ponded water column; increase settlement of deposited material; decrease disturbance of deposited material; and eliminate the potential for interior dike/levee erosion or scouring. The methods for placement and controlling of the dredged material into the dredged material containment cell shall be the Contractor's responsibility.
- D. The Contractor shall maintain the operation of all pipeline, valves, and endpoints including, determination of which endpoints to use during placement to maintain the cell filling operations consistent with the requirements of the Contract and Project Drawings. The Contractor shall outfit the inflow pipeline with wyes, valves and other appurtenances or relocate the pipeline endpoints as necessary to achieve uniform filling of the containment cell, prevent excessive mounding of dredged material within the containment cell, minimize areas of standing surface water, prevent excessive loading against the containment dike system, and prevent short circuiting of material.
- E. The Contractor is responsible for advancing or relocating the inflow endpoints as required to prevent the settled material from accumulating to an elevation that blocks inflow, diverts flow towards the dikes causing erosion/scour, or exceeding permit requirements. The inflow endpoints may require relocation due to their effects on effluent quality or other special circumstances as determined by the Engineer. Relocation of inflow endpoints shall be achieved by the Contractor within forty-eight (48) hours notification from the Engineer.

- F. Dike erosion, caused by excessive inflow velocities, wave action, or other means, shall be repaired within twenty-four (24) hours. Verbal notification of dike erosion shall be given to the Engineer within one (1) hour and written notification shall be submitted within twenty-four (24) hours.
- G. The Contractor shall outfit the pipeline endpoints with spreaders or other appurtenances and shall position pipeline endpoints in a manner that will minimize the potential for dike erosion, to promote spreading of material and prevent material build-up.
- H. The Contractor shall be responsible for managing the placement and dewatering of the dredged material and for scheduling the delivery of the dredged material to accommodate all the material designated on the Project Drawings for disposal at the site.
- I. The Contractor shall provide qualified personnel to monitor and control inflow of dredged material at all times that inflow is occurring. The person(s) monitoring and controlling inflow shall have a phone, radio, or other direct communication contact with the dredge or other plant that is supplying material to the containment cell. The inflow installation shall be capable of immediate shutdown to avoid exceeding freeboard requirements within the cell or as needed to satisfy water quality criteria for effluent discharge.
- J. Interruptions to Placement: The Contractor may be required to stop placement in order to permit the fill to settle and/or allow the water quality to improve to meet permit and regulatory requirements. Inflow operations may be required to stop if discharge limits cannot be met. There shall be no compensation to the Contractor for interruptions to placement operations.

3.21 EFFLUENT DISCHARGE AND WATER CONTROL OPERATIONS

- A. The Contractor shall supply all labor, equipment, plant, supplies and material to manage and discharge the effluent from the DMMA. During placement operations, the Contractor shall establish and maintain a basin in the cell to control retention of effluent to allow settling of Total Suspended Solids (TSS) until water quality reaches a level that would enable discharge consistent with regulatory requirement (and in accordance with SECTION 01 35 43 ENVIRONMENTAL PROTECTION) prescribed for discharges from the DMMA. The Contractor shall be responsible for the operation and maintenance of the water control structure to maintain an appropriate sized basin in the containment cell. The maximum basin water depth in the DMMA shall be maintained at an elevation suitable for proper material settling while preventing material re-suspension and dike erosion/scour due to wind-wave activity, not to exceed three (3) feet above the mudline. The Contractor shall discharge the effluent through the DMMA weir structure.
- B. The Contractor shall all labor, equipment, plant, supplies and material to connect their discharge line to the existing 42" HDPE flange at the weir discharge. All decant water shall be piped back to a suitable place in the waterway in a manner as to not cause excess turbidity or erosion of shorelines.
- C. During the term of this Contract, the Contractor is required to manage the cell water to protect the physical integrity of the site, to direct flow and settlement of dredged material to maintain a positive grade toward the weir without excessive mounding, and to discharge cell water as quickly as possible following placement operations to facilitate dewatering and consolidation of the placement material.
- D. During dredged material placement operations and during the immediate period of time following placement during which the drawdown of the DMMA is to be performed, the Contractor shall provide adequate staff to operate, inspect and monitor the discharge operations from the facility. No discharge from the facility can occur unless the Contractor is present on location, operating and monitoring the discharge.

- E. Following the completion of dredging of the final project segment and final approval of the dredging operations, the Contractor shall completely draw down and discharge the settling basin water level in the DMMA, at which point the District shall assume control of further dewatering operations.

3.22 WATER CONTROL STRUCTURE OPERATIONAL PROCEDURES

- A. Water control structure operational procedures are discussed in three sections, corresponding to the stages in operations at the site: beginning of inflow and end of inflow.

- B. Beginning of Inflow

- 1. Prior to the scheduled commencement of inflow, the Contractor will verify that all necessary preparations have been made to receive dredged material.
 - a. The water control structure and weir pipes shall be boarded up with the on-site weir boards to an elevation that can accommodate the volume of settled solids expected from the upcoming inflow cycle plus the depth of basin required for adequate settling of suspended solids. This weir crest elevation should be no less than three (3) feet above the existing cell surface and the elevation must not exceed the two (2) foot minimum freeboard requirement from cell water elevation to top of dike or upset the integrity of the dike system.
 - 2. As inflow begins, the Contractor will hydraulically pump material into the DMMA cell. The cell will gradually fill and the basin elevation shall rise to the established weir crest elevation. If acceptable water quality has not been accomplished by the time the basin level nears the weir crest elevation, another row of weir boards shall be added to the water control structure. The weir crest elevations should always be maintained above an unstable basin to prevent sediments from entering the water control structure.

- C. Water Quality Management

- 1. Water quality shall be monitored at all times during discharge. The water control structure operator will remain at the water control structure for a sufficient period to ensure that of the discharge is stable.
 - 2. The ponding elevation must be maintained within specified range. Once the desirable ponding elevation has been reached the Contractor shall take all necessary steps to maintain the basin elevation by increasing the weir crest elevation at about the same rate as the sediment builds in the basin.
 - 3. Wind conditions should be closely monitored. Any increase in wind speed or change in the wind direction may cause turbidity in the basin to rise. Strong winds will cause wave action and this turbulence will raise turbidity.

- D. End of Inflow

- 1. When the inflow of dredged material is completed, the Contractor must continue to operate the weir system and slowly release the clarified surface water that remains ponded within the basin over the weir crest by incrementally removing weir boards. This process shall continue until all residual ponded water within the basin at the completion of dredge is released over the weirs. The Contractor will continue this operation until released from this requirement by the Engineer.
 - 2. To maintain effluent quality, the Contractor should allow the flow over the weirs to drop essentially to zero before removing another row of weir boards. The Contractor may be

required to grade the deposited dredged material to drain isolated pockets of water so that this water may also be released over the weirs.

3. If at any time during this process monitoring shows effluent turbidity to exceed permitted standards, the Contractor must add weir boards until testing of the ponded waters that remains with the basin confirms that turbidity has returned to acceptable limits.
4. Following the completion of decanting and removal of all residual ponded water, the Contractor must re-install the weir boards to a sufficient height to ensure that no storm water discharges over the weir crest.

3.23 SURVEYS

A. Pre-Dredge Bathymetric Survey

1. Sea Diversified, Inc., completed a May-June 2014 examination survey of the project area entitled *Hydrographic Survey of the Intracoastal Waterway Flagler County, Florida*. The contours shown on the Project Drawings represent the bathymetric conditions existing at the time of the survey.
2. At the time of construction, actual conditions at the project sites may vary significantly. Since the Contractor will be paid for quantity of material removed from the project area, the Contractor shall perform a new pre-construction bathymetric survey of the project area. When approved by the Engineer, this survey will be used as the pre-dredge survey for payment quantity calculations. Refer to SECTION 01 78 00 PROJECT CLOSEOUT.

B. Post-Dredge Bathymetric Survey

1. Within 7 days of the completion of construction activities within an acceptance section, the Contractor shall perform the post-construction bathymetric survey (by equivalent methods and density to the pre-construction bathymetric survey). Upon submittal to the Engineer, the surveys shall be reviewed for accuracy, completeness, and to calculate payment quantities relative to the pre-dredge survey or progress payment surveys. At the project completion and for final project certification, the Contractor shall submit two copies of a signed and sealed survey of the entire project. Refer to SECTION 01 78 00 PROJECT CLOSEOUT.

C. Additional Bathymetric Survey

1. Contractor shall perform an additional bathymetric survey of Intracoastal Waterway cuts SJ-63 and SJ-64 by equivalent methods and density to the pre- and post- construction bathymetric survey. Upon submittal to the Engineer, the survey shall be reviewed for accuracy, completeness prior to acceptance. The Contractor shall submit two copies of a signed and sealed survey Intracoastal Waterway cuts SJ-63 and SJ-64.

3.24 FINAL EXAMINATION AND ACCEPTANCE

A. Final Examination of Dredging Work

1. As soon as practicable as and no later than one (1) week after receipt of the post-construction bathymetric surveys, the Engineer will review the surveys and/or examine the Work sites. Methods of examination, at no expense to the District, may include but are not limited to review of survey data and additional survey soundings or sweeping. Should any lumps or other lack of depth be disclosed by this examination, the Contractor will be

required to remove by dredging. Contractor or his authorized representative will be notified when the examination is to be made and will be permitted to accompany the survey party. When the area is found to be in a satisfactory condition, it will be accepted.

2. The District reserves the right to conduct an independent survey. Any discrepancies between the Contractor and Districts surveys will be in favor of the District.
3. Should more than two examinations by Engineer over an area be necessary by reason of work for the removal of lack of depth disclosed at a prior examination, the cost of such third and any subsequent soundings or sweeping operations will be charged against Contractor at the rate of \$5,000 per day for each day in which the examination survey crew is engaged in sounding and/or is en route to or from the site or held at or near the site for such operation.

B. Final Acceptance

1. Final acceptance of the whole or a part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

3.25 FINAL CLEANUP

- A. Final cleanup shall include the removal of all Contractor's plant, equipment, and materials for either disposal or reuse. All such disposal shall be in a manner and at locations approved by the District and Engineer. Contractor shall not be permitted to abandon equipment or materials in any area within or adjacent to the project sites, including the dredging area and the DMMA.

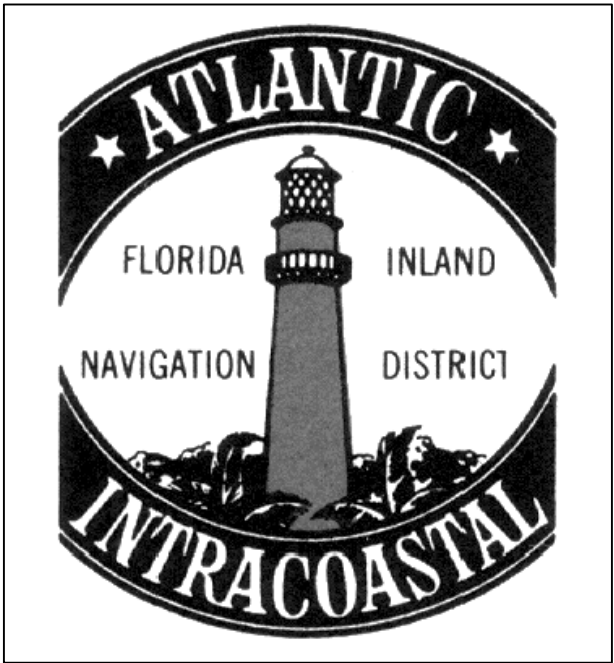
-End of Section-

INTRACOASTAL WATERWAY MAINTENANCE DREDGING -- FLAGLER
COUNTY REACH 1
FLAGLER COUNTY, FLORIDA

DRAFT

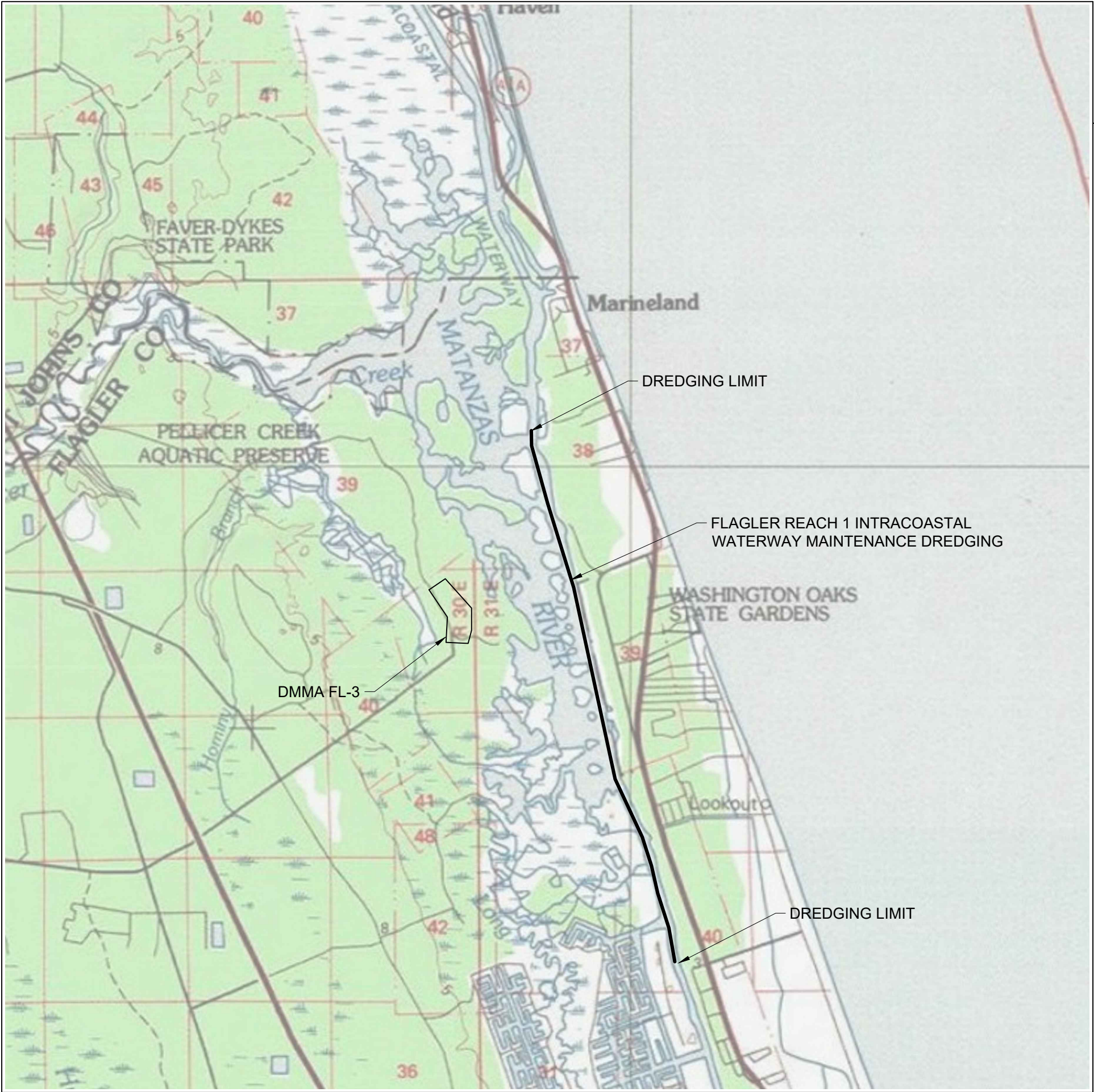


LOCATION MAP
N.T.S.



DRAWING INDEX

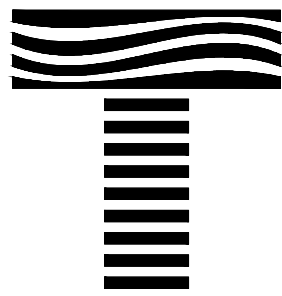
- C-1 TITLE SHEET
- C-2 PROJECT OVERVIEW AND GENERAL NOTES
- C-3 BIOLOGICAL CONDITIONS NOTES
- ~~C-4 SJ-63 AND SJ-64 PLAN~~
- C-5 DREDGING PLAN
- C-6 DREDGING PLAN
- C-7 DREDGING PLAN
- C-8 CROSS-SECTIONS
- C-9 CROSS-SECTIONS
- C-10 CROSS-SECTIONS
- C-11 DMMA FL-3 SITE PLAN
- C-12 EROSION CONTROL DETAILS



VICINITY MAP
1"= 2000' (22x34)
1"= 4000' (11x17)

REFERENCE:
USA TOPO MAPS, ESRI

Call 811 before you dig.


TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD
SUITE 310
JACKSONVILLE, FLORIDA 32256
(904)-731-7040

CERTIFICATE OF AUTHORIZATION # 4815

PRELIMINARY DRAWINGS: THESE
DRAWINGS ARE NOT IN FINAL FORM, BUT
ARE BEING TRANSMITTED FOR AGENCY
REVIEW.

PROJECT TITLE
INTRACOASTAL WATERWAY
MAINTENANCE DREDGING --
FLAGLER COUNTY REACH 1
FLAGLER COUNTY, FLORIDA

PROJECT NO C2018-25
DATE MAR 2019

SEAL

DRAFT

KEITH A. KNIGHT P.E.# 58084

C-1

SHEET 1 OF 12

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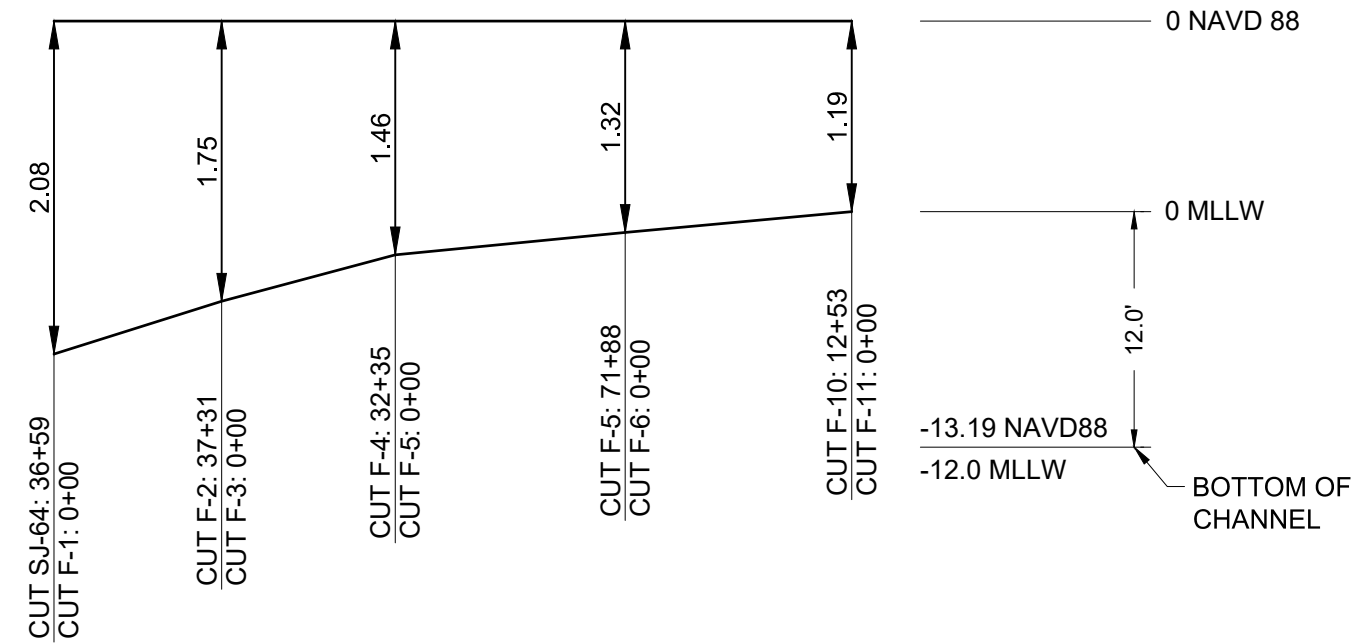
- GENERAL NOTES:
- COORDINATES SHOWN ARE IN U.S. SURVEY FEET RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR FLORIDA, EAST ZONE (0901), NORTH AMERICAN DATUM (NAD) OF 1983, 1990 ADJUSTMENT.
 - ELEVATIONS ARE SHOWN IN FEET REFERENCED TO MEAN LOWER LOW WATER. MEAN LOWER LOW WATER WAS TRANSLATED FROM THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) UTILIZING THE LATEST VERSION VDATUM (VERTICAL DATUM TRANSFORMATION) PROVIDED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS).
 - BASE DATA REFERENCES AS SHOWN IN THE CONSTRUCTION DRAWINGS ARE AS FOLLOWS: AERIAL REFERENCE - MICROSOFT BING OPENSTREETMAP, 2011; GEOTECHNICAL INFORMATION - JUNE 2006 AND MAY 2016, U.S. ARMY CORPS OF ENGINEERS SOUTH ATLANTIC DIVISION - CESAW (APPENDIX E); BATHYMETRIC SURVEY - SEA DIVERSIFIED, INC., HYDROGRAPHIC SURVEY (NUMBER 13-2078) OF THE INTRACOASTAL WATERWAY, FLAGLER COUNTY, FL, MAY 16 THROUGH JUNE 23, 2014; DREDGED MATERIAL MANAGEMENT AREA FL-3 AS-BUILT SURVEY (MAY 2013), DREDGED MATERIAL MANAGEMENT AREA DU-2 AS-BUILT SURVEY (JANUARY 2016) (APPENDIX H).
 - THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL WORK AREAS FOR INSPECTION BY THE ENGINEER OF RECORD (EOR), ENGINEER, AND OWNER.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE EOR AND THE ENGINEER AS NECESSARY FOR CONSTRUCTION INSPECTION AND AS-BUILT CERTIFICATION. THE CONTRACTOR SHALL NOTIFY THE EOR AND THE OWNER AT APPROPRIATE AND APPROVED TIMES DURING THE COURSE OF THE WORK THAT THE CONTRACTOR IS READY FOR INSPECTION. WORK THAT IS ASSEMBLED OR COVERED SO THAT THE ENGINEER CANNOT INSPECT THE WORK PROPERLY SHALL BE DISASSEMBLED, UNCOVERED, OR DESTROYED AS NECESSARY FOR INSPECTION. THE COSTS OF REPAIR OR RESTORATION OF THIS WORK SHALL BE BORNE SOLELY BY THE CONTRACTOR.
 - ALL REQUIRED SUBMITTALS OR MANUFACTURER'S INFORMATION SHALL BE IN U.S. CUSTOMARY UNITS. ALL SUBMITTALS USING METRIC UNITS WILL BE REJECTED AND RETURNED WITHOUT COMMENT.

- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
- THE CONTRACTOR SHALL LOCATE ALL ABOVE-GROUND AND BELOW-GROUND UTILITIES, VIA AN INDEPENDENT AND COMPREHENSIVE PRE-CONSTRUCTION UTILITY STUDY AND, AS DEEMED NECESSARY BY THE CONTRACTOR, A DIVER INVESTIGATION, BEFORE COMMENCING WORK. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO INVESTIGATE THE LOCATION OF ALL UTILITY CROSSINGS, VIA AN INDEPENDENT AND COMPREHENSIVE PRE-CONSTRUCTION UTILITY SURVEY AND SUBMIT TO THE ENGINEER FOR APPROVAL, AT LEAST FIFTEEN (15) CALENDAR DAYS PRIOR TO ANY DREDGING OPERATIONS. THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGES WHICH MIGHT RESULT FROM HIS OPERATIONS IN THE VICINITY OF THE UTILITY CROSSINGS. THE CONTRACTOR ASSUMES ALL LIABILITY FOR SUBMERGED AND BURIED UTILITY FACILITIES, IF ANY UTILITY DAMAGE OCCURS AS A RESULT OF ITS OPERATIONS, THE CONTRACTOR SHALL SUSPEND DREDGING IN THE AREA OF THE DAMAGED UTILITY UNTIL THE DAMAGE IS REPAIRED AND RESUMPTION OF THE DREDGING IS APPROVED BY THE ENGINEER. THE DISTRICT SHALL NOT BE RESPONSIBLE FOR THE COST OF SUCH DAMAGE AND REPAIRS REGARDLESS OF CAUSE - INCLUDING BUT NOT LIMITED TO ANY COSTS ASSOCIATED WITH INTERRUPTION OF UTILITY SERVICES AND DELAY DAMAGES.
- IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ADJACENT FACILITIES, INCLUDING ALL ACCESS ROUTES TO AND FROM THE PERMANENT DISPOSAL LOCATION, CAUSED BY HIS ACTIVITIES DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL RESTORE ALL SUCH DAMAGES TO THEIR PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- DRAINAGE SHALL BE CONTROLLED ONSITE AT THE DMMA. DRAINAGE NOT PREVIOUSLY DISCHARGED OFFSITE SHALL NOT BE DISCHARGED TO ADJACENT PROPERTIES DURING THE COURSE OF THE WORK.
- PERMANENT IMPACTS TO SHORELINE AND MARSH VEGETATION ARE NOT AUTHORIZED. IN THE EVENT THAT PIPELINE PLACEMENT OR USE CAUSES RUTS OR PERMANENTLY DAMAGES MARSH VEGETATION, ALL RUTS SHALL BE BACKFILLED WITH CLEAN SAND AND MARSH VEGETATION (SPARTINA SPP.) SHALL BE REPLANTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

- THE CONTRACTOR SHALL ALL LABOR, EQUIPMENT, PLANT, SUPPLIES AND MATERIAL TO CONNECT THEIR DISCHARGE LINE TO THE EXISTING 42" HDPE FLANGE AT THE WEIR DISCHARGE. ALL DECANT WATER SHALL BE PIPED BACK TO A SUITABLE PLACE IN THE WATERWAY IN A MANNER AS TO NOT CAUSE EXCESS TURBIDITY OR EROSION OF SHORELINES.
- PERMITS AND PERMIT CONDITIONS
- THE OWNER HAS SUPPLIED COPIES OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT NO. 18-0315383-003-EE (APPENDIX B), THE U.S. ARMY CORPS OF ENGINEERS REGIONAL GENERAL PERMIT VERIFICATION SAJ-2018-01865 (RGP-SCW) (APPENDIX C) AS PART OF THE SPECIFICATIONS. THE CONTRACTOR SHALL COMPLY WILL ALL PERMIT CONDITIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT SUPPLIED BY THE OWNER. COSTS OF OBTAINING PERMITS NOT SUPPLIED BY THE OWNER SHALL BE BORNE BY THE CONTRACTOR. THIS SHALL INCLUDE BUT NOT BE LIMITED TO: NPDES PERMIT (OR NOI), CLEARING OR LAND DISTURBANCE PERMITS, TREE IMPACT PERMITS, CITY OR COUNTY BUILDING PERMITS, DRIVEWAY OR ENTRANCE PERMITS, TEMPORARY UTILITIES PERMITS, ETC, AS NECESSARY.
 - THE CONTRACTOR SHALL NOT EXTEND DREDGING ACTIVITIES OUTSIDE THE PERMITTED DREDGED TEMPLATE. DREDGED MATERIAL SHALL BE DEPOSITED AT THE 44.29 ACRE, DREDGED MATERIAL MANAGEMENT AREA (DMMA FL-3) LOCATED IN UNINCORPORATED PALM COAST, FLORIDA.
 - ALL WATERCRAFT ASSOCIATED WITH THE EXECUTION OF THE PERMITTED PROJECT SHALL ONLY OPERATE WITHIN WATERS OF SUFFICIENT DEPTH SO AS TO PRECLUDE BOTTOM SCOURING, PROP DREDGING, GROUNDING, AND DAMAGE TO THE SUBMERGED BOTTOM OR SUBMERGED RESOURCES.
 - AT LEAST ONE PERSON SHALL BE DESIGNATED AS A MANATEE OBSERVER WHEN IN-WATER WORK IS BEING PERFORMED. THAT PERSON SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND BE EQUIPPED WITH POLARIZED SUNGLASSES TO AIDE IN OBSERVATION. THE MANATEE OBSERVER MUST BE ON SITE DURING ALL IN-WATER DREDGING ACTIVITIES AND WILL ADVISE PERSONNEL TO CEASE OPERATION UPON SIGHTING A MANATEE WITHIN 50 FEET OF ANY IN-WATER CONSTRUCTION ACTIVITIES.

- WHERE BUOYS ARE USED TO MARK PIPELINES, THE PERMITTEE SHALL USE LIGHT WEIGHT CHAIN, NON-LOOPING WIRE ROPE, OR PLASTIC SHEATHING AROUND NYLON ROPE TO SECURE THE BUOY LINE TO THE PIPELINE TO PREVENT LOOPING.
- CAUTION:
- THE LOCATION OF POTENTIAL UTILITY CROSSINGS ARE NOT SHOWN ON PROJECT DRAWINGS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO INVESTIGATE THE LOCATION OF ALL UTILITY CROSSINGS
- DATUM: MEAN LOWER LOW WATER
- CORRECTIONS: CAUTION: THE DIFFERENCE BETWEEN NAVD 88 AND MEAN LOWER LOW WATER VARIES AND MAY NOT BE THE SAME AS THE DIFFERENCE USED FOR PREVIOUS USACE SURVEYS. TO MAKE A DIRECT COMPARISON BETWEEN SURVEYS, THE USER NEEDS TO BE CAREFUL TO VERIFY THE VERTICAL DATUM TRANSFORMATION PARAMETERS FOR EACH PROJECT AREA (SEE VERTICAL DATUM DIAGRAM).
- WATERFRONT MARINE STRUCTURES PHOTO-DOCUMENTATION
- PRE-CONSTRUCTION: THE CONTRACTOR SHALL SUBMIT PHOTO-DOCUMENTATION OF ALL WATERFRONT STRUCTURES WITHIN FIFTY (50) FT FROM THE CHANNEL SIDE SLOPES ALONG THE ENTIRE PROJECT LENGTH. THE CONTRACTOR SHALL SUPPLY A NARRATIVE AND ACCOMPANYING PHOTOGRAPHS THAT DETAIL THE SPECIFIC CONDITION OF THE STRUCTURE(S) AND DENOTE ANY STRUCTURAL DEFICIENCY'S THAT ARE CROSS-REFERENCED AND APPROPRIATELY LABELED, VIA LOCATION AND OWNER NAME, IN THE SURVEY.
- POST-CONSTRUCTION: AFTER THE COMPLETION OF EACH ACCEPTANCE SECTION (A/S) AND IN THE EQUIVALENT AREAS OF THE PRE-CONSTRUCTION WATERFRONT MARINE PHOTO- DOCUMENTATION AREA, THE CONTRACTOR SHALL SUPPLY A NARRATIVE AND ACCOMPANYING PHOTOGRAPHS THAT DETAIL THE SPECIFIC CONDITION OF THE STRUCTURE(S) AND DENOTE ANY STRUCTURAL DEFICIENCY'S (AS STRICTLY COMPARED TO THE PRE-CONSTRUCTION CONDITION) THAT ARE CROSS-REFERENCED AND APPROPRIATELY LABELED, VIA LOCATION AND OWNER NAME, IN THE SURVEY.

~~OF INTRACOASTAL WATERWAY CUTS SJ-63 AND SJ-64 BY EQUIVALENT METHODS AND DENSITY TO THE PRE AND POST CONSTRUCTION BATHYMETRIC SURVEY. UPON SUBMITTAL TO THE ENGINEER, THE SURVEY SHALL BE REVIEWED FOR ACCURACY, COMPLETENESS PRIOR TO ACCEPTANCE. THE CONTRACTOR SHALL SUBMIT TWO COPIES OF A SIGNED AND SEALED SURVEY INTRACOASTAL WATERWAY CUTS SJ-63 AND SJ-64.~~



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(904)-731-7040

CERTIFICATE OF AUTHORIZATION # 4815

SEAL

DRAFT

KEITH A. KNIGHT P.E.# 58084

PROJECT TITLE

**INTRACOASTAL WATERWAY
MAINTENANCE DREDGING --
FLAGLER COUNTY REACH 1**
FLAGLER COUNTY, FLORIDA

Call 811 before you dig.

SEE SHEET C-2 FOR GENERAL NOTES. THIS PAGE NOT VALID WITHOUT SHEET C-2

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

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PROJECT NO C2018-25										
DATE MAR 2019										
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PROJECT OVERVIEW AND GENERAL NOTES										
C-2										
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