AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0001	15-Jun-2023		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
CONTRACTING DIV-PROJ EAST BR CORPS OF ENGINEERS 7400 LEAKE AVENUE NEW ORLEANS LA 70118-3651	W912P8	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W912P823B0022
	X	9B. DATED (SEE ITEM 11) 23-May-2023
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [X] is extended, [ ] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The above numbered Solicitation for Grand Isle and Vicinity, LA, Hurricane Ida Repairs, Dune and Beach Construction, Jefferson Parish, Louisiana has been amended to:

a) Provide amended plans and specifications.
b) Provide answers to prior questions.
c) All questions are due NLT 11:00am CST on June 22, 2023
e) Bid submission date changed to June 29, 2023, at 1:30pm CST. Virtual Bid opening instructions included.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 15-Jun-2023

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

BID SUBMISSION INSTRUCTIONS

SOLICITATION NUMBER: W912P823B0022

NOTE 1: BIDDERS MAY SUBMIT BIDS BY ONLY ONE METHOD: A) ELECTRONIC COMMERCE (EMAIL) OR BY 2) PHYSICAL SUBMISSION. BIDDERS SHALL LIMIT THE BID SUBMITTAL TO ONE OPTION OR THE OTHER, NOT BOTH.
NOTE 2: ALL BID OPENINGS WILL BE VIRTUAL ONLY. NO PHYSICAL ATTENDANCE IS AUTHORIZED FOR THIS IFB.

Electronic Submission of Bids/Proposals (Email):

The New Orleans District utilizes electronic commerce (Email) for receipt of electronic bids under this IFB solicitation. To submit an electronic commerce (Email) bid please follow these steps:

1. Send an email containing your name, email address and bid/proposal to the following emails associated with the IFB (**MUST include all emails**):
   Contracting Officer – Margaret C. Maine email: Margaret.C.Maine@usace.army.mil
   Contract Specialist – Calvin D. Fogle, email: Calvin.D.Fogle@usace.army.mil

2. **ALL BIDS SUBMITTED BY EMAIL MUST CONTAIN THE SOLICITATION NUMBER IN THE SUBJECT LINE.**

3. Once the agency receives your bid/proposal at the above email addresses, you will then receive a confirmation email stating your bid/proposal was received. If a bidder does not receive a reply acknowledging receipt electronically from the New Orleans District, it is incumbent upon the bidder to seek confirmation from the issuing Contracting office by phone.

Note: The size limit for incoming emails is 35MB. Any bid/proposal over this size may not be accepted by the server and will constitute the bid not being received timely. Please note that embedded links, URLs, and other html language included may interfere with the USACE server security, which may cause emails to be removed prior to being received by the contracting office. Bidders are advised to refrain from including external links, embedded links, URLs, and other html language not germane to the proposal/bid. Please note it is a bidder's responsibility, when transmitting its bid electronically, to ensure the receipt of its bid to the proper designee at the proper time. See FAR 14.304(b)(1)(i) regarding untimely electronic bids. Please note, MVN's computer system firewall may cause a delay in receipt of emails, so be sure to allow ample time for possible delay. If your email would exceed 35MB you can use one of the following methods as a work-around:

- Use .zip files as attachments. Combine multiple files into a .zip file to compress file size prior to adding as an email attachment.
- Send multiple emails. Label each email with same subject line and indicate number of emails. For example: Smith Construction W912P823BXXXX (1 of 2) Smith Construction W912P823BXXXX (2 of 2).

VIRTUAL BID OPENING:

ALL BID OPENINGS WILL BE VIRTUAL ONLY. NO PHYSICAL ATTENDANCE IS AUTHORIZED FOR THIS IFB.

The Bid Opening is currently scheduled for Thursday, June 29, 2023, at 2:30PM CST. The Contracting Officer and Contract Specialist will begin downloading bids at 1:30 PM CST, which is the bid receipt cutoff time. All bids received after 1:30 PM CST on Thursday, June 29, 2023, will be considered late.

Audio Teleconference Bid Opening Information:

Bid Opening will be held on Thursday, June 29, 2023, at 2:30PM CST. Please use the following information to attend the meeting:

Join from the meeting link
https://usace1.webex.com/usace1/j.php?MTID=m5ed584f511940db91433ad8241d7f4b6

Join by meeting number
Meeting number (access code): **2764 258 8231**
Meeting password: **JqTmDQN?332**

Join by phone
+1-844-800-2712 US Toll Free
+1-669-234-1177 US Toll

Following the conclusion of the bid opening, in accordance with FAR 14.403(b), abstracts of offers for unclassified acquisitions shall be available for public inspection via SAM.GOV.

RESPONSES TO QUESTIONS

Responses to Questions:

Grand Isle and Vicinity, LA, Hurricane Ida Repairs, Dune and Beach Construction, Jef ferson Parish, Louisiana

Q1. Note 11 on the 1442 form issued within the Contract Solicitation states that the Contractor shall begin performance within 7 calendar days and complete the work within 400 calendar days after notice of receipt of NTP. Paragraph 52.211-10 Commencement, Prosecution and Completion of Work on page 43 of the Contract Solicitation states; The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 400 after the date of receipt of the Notice to Proceed.

a) The Contractor is requesting the Government clarify which timeline will be applicable for this Contract.

R1. The Contractor shall begin performance within 10 days.

Q2. Due to the complexity of the project, the Contractor is requesting the Government extend the pre- bid inquiry deadline for one additional week from the June 6th date as listed on the SAM.Gov project site.

R2. This is addressed by in this amendment.

Q3. Page C-44 of the Contract Plans displays a drawing showing the maximum allowable dig depth as - 16’ in the Barataria Borrow Pit. Note 3.1.4 Borrow Dimensions on page 7 of Section 35 20 23.00 12 states; An allowable tolerance of one (1) foot above the dredge bottom cut elevation of -20.0' NAVD88 shall be allowed.

a) The Contractor is requesting the Government clarify what the maximum allowable dig depth will be.

R3. Note 3.1.4 Borrow Dimensions on page 7 of Section 35 20 23.00 12 shall be revised to “An allowable tolerance of one (1) foot above the dredge bottom cut elevation of -20.0' NAVD88 at the Caminada Borrow Pit and -16.0’ NAVD88 at the Barataria Borrow Pit shall be allowed.”

Q4. Section 2.1.1 of the Technical Specifications states "Suitable clay materials are defined as ML, CL, and CH as per the Unified Soils Classification System, subject to the limitations of paragraph, Moisture Control". Section 01100-General Provisions, sub-section 15 provides a list of lands containing clay sources that may be capable of producing the quality of clay material meeting requirements set forth above. It further states "The contractor is responsible for submitting a complete borrow submittal for Corps review and approval with all applicable updated documentation. See Section 31 23 00.00 12 EXCAVATION, paragraph entitled, Submittal Package Requirements in Detail." There is no section as such in the EXCAVATION technical specification. Is it to be understood that the clay material can thereby come from a source outside of those listed in sub-section 15, CLAY SOURCES, so long as that material is classified as ML, CL or CH? Will a borrow pit submittal package still be required? If so, can specific requirements of that package be provided?

R4. See revised edits to the specifications.

SECTION 00010 - SOLICITATION CONTRACT FORM

The required response date/time has changed from 27-Jun-2023 10:30 AM to 29-Jun-2023 01:30 PM.
The contractor period of performance begin date has increased by 3 days from 7 days to 10 days.

(End of Summary of Changes)

SECTION 01100

Pages 15, paragraph 15. Delete this paragraph in its entirety and substitute the following therefore:

"15. CLAY SOURCES

(a) On the basis of information and data available to the Contracting Officer, the lands containing the clay sources from the sites designated below have been studied by the Government for environmental concerns and soil suitability. The designated sites, below, may be capable of producing the quality of clay material meeting the requirements set forth in Section 31 24 00.00 12 EMBANKMENT - CLAY, paragraph entitled "MATERIALS" and are subject to the subparagraphs (b) through (e) below. However, some documentation relating to the below sites may need to be updated prior to their use. The Contractor shall verify that environmental clearances for the below sites have not expired. The Contractor is responsible for submitting a complete Borrow Submittal for Corps review and approval with all applicable updated documentation. See Section 31 24 00.00 12 - EMBANKMENT - CLAY, paragraph entitled "Submittal Package Requirements in Detail".

March 2014

Site Name	Point of Contact	Contact Information	Location
River Birch, Phase 1	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006	Avondale, LA
River Birch, Phase 2	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006	Avondale, LA
Pearlington Dirt	Johnny Dollar	Cell: 318-366-8218 jdollar.chapel.hill@gmail.com	Pearlington, MS
Diaz Property (DK Aggregates)	Philip Callahan	504-450-6702 philcallahan@cox.net	St. Bernard Parish, LA
Eastover	Jerry Howell	Cell: 504-559-1606 jerryhowell992@hotmail.com	New Orleans, LA
St. Gabriel	Michael Daigle	Office: 225-216-7483 mdaigle@trcsolutions.com	Carville, LA
*1025 Florissant	Michael Palmer	Cell: 504-812-8016 palmertruckin@yahoo.com	St. Bernard Parish, LA
Acosta	Amanda Phillips	Office: 985-626-5204 gsdi@bellsouth.net	St. Bernard Parish, LA
3C Riverside Properties	H. Ray Coleman	Office: 901-309-5844 raycoleman@earthlink.net	St. Charles Parish, LA
*Myrtle Grove	Kenneth Payne	Office: 504-615-1076 Cell: 504-382-5866 gcdr1@hotmail.com	Plaquemines Parish, LA
Frierson	M. Matt Durand	Office: 337-394-6574	Hancock County, MS

Site Name	Point of Contact	Contact Information	Location
Meyer	Robert Najor	Office: 866-998-6400 Cell: 805-393-9994 bnajor@fortressgroupusa.com	Plaquemines Parish, LA
River Birch-Willswood	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006 vculpepper@riverbirchlandfill.com	Avondale, LA
Willow Bend	Hensley Lee	Office: 601-799-1335 Cell: 601-273-0404 hrlee81@hotmail.com	St. John the Baptist Parish, LA
Pearlington Dirt, Phase 2	Johnny Dollar	Cell: 318-366-8218 jdollar.chapel.hill@gmail.com	Pearlington, MS
*Gathien – Navy Ship	Paul Loupe	Office: 985-535-0148 Paul.Loupe@loupegroup.com	St. Bernard Parish
River Birch-South Kenner Rd.	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006 vculpepper@riverbirchlandfill.com	Avondale, LA
Guillot	Paul Loupe	Office: 985-535-0148 Paul.Loupe@loupegroup.com	St. Bernard Parish
Eastover, Phase 2	Jerry Howell	Cell: 504-559-1606 jerryhowell992@hotmail.com	New Orleans, LA
Willow Bend, Phase 2	Hensley Lee	Office: 601-799-1335 Cell: 601-273-0404 hrlee81@hotmail.com	St. John the Baptist Parish, LA
Tammany Holding Company	Robert Torres	Office: 985-641-0089	St. Tammany Parish, LA
Henley	Robert Najor	Office: 866-998-6400 Cell: 850-393-9994 najorr@bellsouth.net	Hancock County, MS
Big Shake	Jay Thomas	Office: 225-769-8615 laearthcorps@cox.net	St. James Parish, LA
Contreras Cells E, F, & Z	Philip Callahan	Cell: 504-450-6702 philcallahan@cox.net	St. Bernard Parish, LA
3C Riverside Properties, Phase 3	H. Ray Coleman	Office: 901-309-5844 raycoleman@earthlink.net	St. Charles Parish, LA
Bocage Plantation	Marion Rundell	Cell: 713-253-1700 mrundell@gmail.com	Ascension Parish, LA
Idlewild, Stage 1	Jerry Howel.	Cell: 504-559-1606 jerryhowell992@hotmail.com	Plaquemines Parish, LA
Plaquemines Dirt & Clay	Karen Boudrie	Office: 504-912-5696 boudriekaren@yahoo.com	Plaquemines Parish, LA
Citrus Lands	Shirley T. Hall	Office: 504-754-6881	Plaquemines Parish, LA

Site Name	Point of Contact	Contact Information	Location
Phillips 66	Emily Campbell	Office: 504-656-3103 Cell: 504-415-3568	Plaquemines Parish, LA
Nairn	Jerry Howell	Cell: 504-559-1606 jerryhowell992@hotmail.com	Plaquemines Parish, LA
King Mine	Richie Santiago	Cell: 228-216-5403 kinglandfill@att.net	Hancock County, MS
Idlewild, Stage 2	Jerry Howell	Cell: 504-559-1606 jerryhowell992@hotmail.com	Plaquemines Parish, LA
Spoil Area	Michael Pugh	Office: 504-309-4129 Cell: 504-905-6387 mpugh@royalengineering.net	St. Bernard Parish, LA
Lilly Bayou	Thomas Hymel	Office: 985-446-9644, Ext. 117 Cell: 985-665-8344 thymel@phylway.com	East Baton Rouge Parish, LA
Raceland Raw Sugars	Dan Duplantis	Office: 985-537-3533 rrsdanjr@aol.com	Lafourche Parish, LA
Acosta, Phase 2	Amanda Phillips	Office: 985-626-5204 Cell: 985-264-2425 gsdi@bellsouth.net	St. Bernard Parish, LA
Scarsdale	Michael Pugh	Office: 504-309-4129 Cell: 504-905-6387 mpugh@royalengineering.net	Plaquemines Parish, LA
River Birch-Landfill Expansion	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006 vculpepper@riverbirchlandfill.com	Avondale, LA
Levis	Robert Levis	Cell: 985-643-1800 rlevis@levischevycadillac.com	St. Tammany Parish, LA
Port Bienville	M. Matt Durand	Office: 337-394-6574	Hancock County, MS
RBEND II	Warren Treme	Cell: 504-458-9055 tremebuilders528@bellsouth.net	St. John the Baptist Parish, LA
Robert Brothers Farm	Pete Graffagnino	Office: 225-473-7778 Cell: 225-715-5525	St. John the Baptist Parish, LA
Assumption Land Company	Richard Robichaux	985-526-6457 985-209-8338 rgr23@bellsouth.net	Jefferson Parish, LA
Houma Excavation	Renee Sabella	504-739-9551 ext. 1091 renees@orleansshoring.com	Terrebonne Parish, LA

*No salinity data obtained as Right of Entry not provided

(b) Clay may be furnished from any of the above listed sources, or at the option of the Contractor may be furnished from any other source designated by the Contractor and

accepted by the Contracting Officer, subject to the conditions in Section 31 24 00.00 12 - EMBANKMENT - CLAY, paragraph entitled CONTRACTOR FURNISHED BORROW AREAS.

(c) The Government is not responsible for any agreements or breach of agreements nor the resulting impacts of any breach of agreements between the Contractor and the listed owners and/or agents and or any other persons.

(d) Contact the Point of Contact for the above sources for information regarding the location of the sites and geotechnical boring logs of the material.

(e) Usage of any of the above listed clay sources shall neither relieve the Contractor from its obligation to furnish satisfactory material to the project nor commit the Government to the acceptance of the character, quantity, or availability of material from these sources. Verification of the material should be performed by the Contractor to assure that the material meets the contract specifications for embankment construction material."

SECTION 31 23 00.00 12

Page 3, paragraph 3.2. Delete this paragraph in its entirety and substitute the following therefore:

"3.2 DEGRADING EXISTING DUNE

Between Station 22+00 to Station 233+00, the existing dune shall be degraded to elevations shown on the drawings. Material excavated from the existing dune shall be used in backfill. Any geotextiles and debris shall be removed from site."

SECTION 31 24 00.00 12

Delete this section in its entirety and substitute the attached revised Section 31 24 00.00 12 – EMBANKMENT – CLAY, therefore.

SECTION 35 20 23.00 12

1. Page 7, paragraph 3.1.4. Delete this paragraph in its entirety and substitute the following therefore:

"3.1.4 Borrow Dimensions

The borrow pit shall be dredged to the required dimensions shown on the contract drawings. An allowable tolerance of one (1) foot above the dredge bottom cut elevation of -20.0' NAVD88 at the Caminada Borrow Pit and -16.0' NAVD88 at the Barataria Borrow Pit shall

be allowed. Post-Dredging surveys of the borrow site shall confirm that remaining bottom elevations are no deeper than the allowable template shown on the drawings."

2. Add the attached Particle Size Distribution Report to the end of this section.

DRAWINGS

1. SHEET IDENTIFICATION Nos. G-03, C-01, C-03, C-21, and C-37. Delete these drawings in their entirety and substitute the attached revised drawings SHEET IDENTIFICATION Nos. G-03, C-01, C-03, C-21, and C-37, therefore.

2. Add the attached new drawing SHEET IDENTIFICATION No. C-21.

SECTION TABLE OF CONTENTS

DIVISION 31 - EARTHWORK

SECTION 31 24 00.00 12

EMBANKMENT - CLAY

-- End of Section Table of Contents --

SECTION 31 24 00.00 12

EMBANKMENT - CLAY

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment, and materials, except as otherwise specified in Section 31 23 00.00 12 EXCAVATION, and performing all operations in connection with foundation preparation and construction of a clay core. It includes other incidental earthwork as may be necessary to complete the clay core, as shown on the drawings, and as hereinafter specified.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D698	(2012; E 2014; E 2015) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/cu. ft. (600 kN-m/cu. m.))
ASTM D1140	(2017) Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
ASTM D2216	(2019) Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D2487	(2017; E 2020) Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D2974	(2020; E 2020) Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
ASTM D4318	(2017; E 2018) Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4643	(2017) Standard Test Method for Determination of Water Content of Soil and Rock by Microwave Oven Heating
ASTM E 1527	Standard Practice for Environmental Site Assessments: Phase I Environmental Site

	Assessment Process
ASTM E 2247	(2005) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property

1.3 MEASUREMENT

1.3.1 Embankment

Unless otherwise specified, required fill materials of any description specified in this section will be measured for payment by the cubic yard, and quantities will be determined by the average end area method. The basis for the measurement will be cross sections of the areas to be filled taken after excavation operations and the theoretical design sections. Embankment not constructed to design grade and section, including allowable tolerance as indicated on the Contractor's compliance survey will not be accepted. There will be no separate measurement or payment for tolerances. Embankment quantities for payment will be determined by the Government.

1.3.2 Embankment Materials Testing

No separate measurement will be made for testing regardless of the location (i.e., in the borrow area, stockpile area, or in-place) of the material.

1.4 PAYMENT

1.4.1 Embankment

Payment for all material placed as required for the clay core will be made at the contract unit price per cubic yard for "Clay Placement". Price and payment shall constitute full compensation for furnishing all plant, labor, employ of professional engineering services, equipment, materials, all testing, hauling, foundation preparation, material processing for moisture control and blending, placing and compacting the material and other incidental work required to complete the embankment or fill.

1.4.2 Embankment Materials Testing

No separate payment will be made for testing. Testing shall be including in the contract unit prices for which the work is incidental.

1.5 QUALITY CONTROL

1.5.1 General

The Contractor shall establish and maintain quality control for embankment construction operations to assure compliance with contract requirements, and maintain records of its quality control for all construction operations including but not limited to the following:

(1) Equipment. Type, size, and suitability for construction of the prescribed work.

(2) Foundation Preparation. Breaking surface in advance of embankment construction, and during fill placement when necessary, drainage of foundation and partially completed fill.

(3) Materials. Applicable tests, location of material testing sites.

(4) Construction. Layout, maintaining existing drainage, moisture control, thickness of layers, spreading and compacting.

(5) Grade and Cross Section. Crown width, crown slope, side slopes, and grades.

(6) Grade Tolerances. Check fills to determine if placement conforms to prescribed grade and cross section.

(7) Slides. Location and limits; methods and equipment used where remedial work has been directed.

(8) Compliance Surveys. The Contractor shall submit plotted cross sections at intervals and locations corresponding to the Government's original survey. The primary, secondary, and temporary benchmarks used shall be listed on each compliance survey. Upon completion of suitable reaches of embankment, the Contractor shall perform, plot, and submit compliance cross section surveys at a maximum of 100-foot intervals and all P.I. 's, curve P.C.'s, P.T.'s, transitions, and breakpoints. All sections shall be taken at locations corresponding to the Government original survey. They shall be plotted by the Contractor on a minimum scale of 1 inch equal to 10 feet horizontally, and 1 inch equal to 5 feet vertically, with the theoretical design cross section and allowable grade tolerances superimposed thereon. Additionally, the Contractor shall perform, plot, and submit a centerline profile with shots taken at a maximum of 20-foot intervals. The plotted cross sections and profile shall be submitted to the Contracting Officer's Representative for review. Electronic survey data shall be submitted to the Contracting Officer's Representative within 48 hours of completion of surveys. Survey notes shall be provided with the plotted sections for each survey taken by station, with offset and elevation. After the Contracting Officer's Representative accepts and verifies the survey, the Contractor shall email the electronic survey data to mvn-cd-q-testresults@usace.army.mil. All surveys shall meet the minimum requirements of the USACE document "USACE New Orleans District Minimum Survey Standards" dated June 2022. The survey information that the Contractor emails shall be in the ".EM" format as specified in the USACE document "Engineering Manual File Format Specification Version: EM15" https://www.mvn.usace.army.mil/portals/56/docs/engineering/Geospatial/EM_Format15.pd dated December 3, 2015. An example .EM format is provided at the end of Section 01100, GENERAL PROVISIONS. All compliance surveys shall be performed, signed, and sealed by a Licensed Surveyor. The safe file exchange (SAFE) website is located at https://safe.arl.army.mil.

1.5.2 Reporting

The original and two (2) copies of these records of inspections and tests, as well as the records of corrective action taken, shall be furnished the Government daily. Format of the report shall be as prescribed in Section 01 45 04.00 10 CONTRACTOR QUALITY CONTROL.

1.6 QUALITY ASSURANCE

As a control, the Government will perform assurance and check tests for maximum dry density for all materials in accordance with ASTM D 698. If

values for maximum dry density as determined by the Contractor and as determined by the Government do not agree, the Government will determine the values to be used.

1.7 EQUIPMENT

1.7.1 General

Compaction equipment shall be capable of properly compacting the soil so that no planes of weakness or laminations are formed in the fill. Equipment shall be capable of compacting a layer of soil not less than 12 inches thick to the requirements specified herein and shall be operated at speeds not to exceed 3.5 miles per hour.

1.7.2 Tamping Rollers

1.7.2.1 Tractor-Drawn

Tractor-drawn tamping rollers shall consist of one or more units. Each unit shall consist of a cylindrical drum not less than 48 inches in length and not less than 40 inches in diameter. Each drum shall have staggered feet uniformly spaced over the cylindrical surfaces so as to provide approximately 3 tamping feet for each 2 square feet of drum surface. The tamping feet shall be 7 to 11 inches in clear projection from the cylindrical surface of the roller, and shall have a face area of not less than 5 nor more than 10 square inches. The drums shall be water or sand and water ballasted. The weight of the roller when fully loaded shall not be less than 1,150 pounds per linear foot of drum length and when empty shall be not more than 850 pounds per foot of drum length. The Contractor will be required to vary the amount of ballast in the drums to obtain optimum compactive effort for the material being compacted. The roller shall be equipped with cleaning devices, so designed and attached as to prevent the accumulation of material between the tamping feet. These cleaning devices shall be maintained at their full length and correct alignment throughout the periods of use of the roller. The rolling units of multiple-type tamping rollers shall be pivoted on the main frame in a manner which will permit the units to adapt themselves to uneven ground surfaces and to rotate independently. The roller shall be pulled by a tractor at a speed not to exceed 3.5 miles per hour.

1.7.2.2 Self-Propelled

At the option of the Contractor, self-propelled tamping rollers may be used in lieu of tractor-drawn tamping rollers provided these rollers conform to the towed roller requirements for the length and spacing of tamping feet, the empty weight per foot of the drum and cleaning devices. However, self-propelled rollers exceeding the empty weight requirement may be used, provided that by substitution of tamping feet having a face area not exceeding 14 square inches, the nominal feet pressure on the tamping feet of the self-propelled roller can be adjusted to approximate the foot pressure of the towed roller for the particular working conditions. Self-propelled rollers conforming to the above requirements but with tamping feet exceeding the 14 square inch maximum face area may be approved for use provided the Contractor demonstrates to the satisfaction of the Engineer, by field tests performed in accordance with provisions of paragraph "Alternative Compaction Equipment", that the roller can properly compact the fill without creating planes of weakness or laminations. For the self-propelled rollers in which steering is accomplished through the use of rubber tired wheels, the tire pressures shall not exceed 40 pounds

per square inch. The roller shall be operated at a speed of not more than 3.5 miles per hour.

1.7.3 Rubber-Tired Rollers

Rubber-tired rollers shall have a minimum of four wheels equipped with pneumatic tires. The tires shall be of such size and ply as to be capable of being operated at tire pressures between 80 and 100 pounds per square inch at a 25,000-pound wheel load. The roller wheels shall be located abreast and so designed that each wheel will carry approximately equal load in traversing uneven ground. The spacing of the wheels shall be such that the distance between the nearest edges of adjacent tires is not greater than 50 percent of the rated tire width of a single tire. The roller shall have a rigid steel frame provided with a body suitable for ballast loading so that the load per wheel may be varied, as directed by the Engineer, from 18,000 to 25,000 tires. The roller shall be towed at speeds not exceeding 5 miles.

1.7.4 Crawler-Type Tractors

Crawler-type tractors used for spreading or compaction shall weigh not less than 20,000 pounds, shall exert a unit tread pressure of not less than 6 pounds per square inch, and shall be operated at speeds not to exceed 3.5 miles per hour.

1.7.5 Alternative Compaction Equipment

The Contractor may propose for use, alternative types of compaction equipment not included in these specifications. The alternative compaction equipment must be capable of properly compacting the soil so that no planes of weakness or laminations are formed in the fill. The field test shall consist of compacting a minimum of three layers of an area of embankment with the alternative type equipment. Testing and inspection of the area shall then be performed by the Contractor at no additional cost the Government. Procedures for constructing and testing the area will be provided by the Engineer. Each proposed alternative type of equipment must be capable compacting a layer of soil not less than 12 inches thick. A minimum of four complete passes over each layer of the test fill will be required for each type of alternative equipment that is allowed for use, unless in the course of constructing the test fill the Contractor is able to demonstrate that proper compaction can be obtained with fewer passes. Alternative type equipment shall be operated at speeds not to exceed 3.5 miles per hour.

1.7.6 Miscellaneous Equipment

Scarifiers, disks, spring-tooth or spike-tooth harrows, spreaders, power tampers, hand compactors, garden tillers, vibrators, and other equipment shall be types suitable for the type of construction required and acceptable to the Engineer. Hand-operated power tampers for use in compacting impervious material in confined areas and against structures shall have a minimum static weight of 100 pounds. All hand-operated power tampers and vibratory compactors must be field checked prior to their use on fill to assure that the required results can be obtained

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Embankment Material

The clay material shall be constructed of material that is free from unsuitable materials as defined in paragraph "Unsuitable Materials". Suitable clay materials are defined as ML, CL, and CH as per the Unified Soils Classification System, and subject to the limitations of paragraph "Moisture Control". Materials classified by the Unified Soil Classification System as gravels (GW, GP, GM) and sands (SW, SP, SM) shall not be used unless suitably blended with less pervious material. The clay material shall not be placed in the water and shall be spread or placed in layers. The first layer spread not more than 6 inches in thickness and the succeeding layers not more than 12 inches in thickness prior to compaction. When the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be adequately scarified before the next layer is placed thereon. The clay material shall be of earth material free from unsuitable materials as defined in paragraph "Unsuitable Materials".

2.1.2 Unsuitable Materials

Materials which are classified as unsuitable clay materials are defined as masses of organic matter, sticks, branches, roots, and other debris such as geotextile. Earthen materials may contain excessive amounts of sea shell, and wood. Isolated pieces of these materials will not be considered objectionable provided their length does not exceed one foot, their volume does not exceed 48 cubic inches, and they are distributed throughout the fill.

2.1.2.1 Investigation and Testing of Objectionable Materials

The Contractor shall expose and remove objectionable materials within the fill layer prior to compaction. Not more than 1 percent (by volume) of total unsuitable and non-soil materials shall be contained in the earthen material placed in each tested lift of the levee section. The tested lift is defined as the same dimensions as the lift for compaction testing. If, in the opinion of the Contracting Officer's Representative, amounts of wood in the fill brought to the site are in excess of the embankment material requirements herein, the borrow area will be investigated by the Contracting Officer's Representative along with the New Orleans District's engineering representatives . A determination will be made as to the appropriate action that may be necessary to eliminate the unacceptable materials being delivered to the site of the placement. Inspections of subsequent lifts prior to compaction shall be performed by the Contractor in the presence of QA personnel and documented in the QC/QA reports. Organic matter within the soils shall not be considered a non-soil material.

2.1.3 Moisture Control

The Contractor shall control the moisture content of the clay core material. Material placed in the fill shall have a moisture content ranging between the following limits:

Type of Material Moisture Content (In Percent dry weight)		Maxim	Mini
ML	(Silt and Very Fine Sand, Silty or Clayey Fine Sand or Clayey Silt with slight Plasticity, LL < 50)	26	15
CL	(Lean Clay, Sandy Clay, Silty Clay, of low to medium Plasticity, LL < 50)	34	18
CH	(Fat Clay, Inorganic Clay of high Plasticity, LL > 50)	37	20

The Contractor shall perform necessary work in moisture control to bring the material within the moisture content range specified above. If the material is too wet, it shall be stockpiled and allowed to drain before it is placed in the clay core cross sections and/or the wet material shall be processed by disking and harrowing, if necessary, until the moisture content is reduced sufficiently. If the material is too dry, sufficient moisture shall be uniformly distributed in each layer before compacting. No additional payment will be made for any moisture control required.

PART 3 EXECUTION

3.1 CONTRACTOR-FURNISHED BORROW AREAS

3.1.1 General

The Contractor, at its option, may use borrow areas other than those indicated provided that the Contracting Officer approves their locations and dimensions. The Contractor shall submit a written statement to the Government within fifteen (15) days after contract award on their intention to provide a Contractor-furnished borrow source or utilize a borrow source from the Clay Source List in Section 01100 - GENERAL PROVISIONS, paragraph "CLAY SOURCES". The statement shall include the proposed site name, a description of the location, and a vicinity map. The Contractor shall ensure that any Contractor-furnished borrow area submitted has all applicable environmental documentation acquired, current, and up-to-date, as described in paragraph "Submittal Package Requirements in Detail". All costs arising or growing out of the use of Contractor-furnished borrow areas shall be borne by the Contractor. The Contractor shall submit the information described in paragraph "Submittal Package Requirements in Detail" to the Contracting Officer for review and approval. The Contractor shall comply with the requirements of the Section 01100 GENERAL PROVISIONS, provision "RIGHTS-OF- WAY", subparagraph b.

3.1.2 Time Extensions

No time extension to the contract completion date will be granted to the Contractor for delays incurred in obtaining Contractor-furnished borrow areas. The Contractor shall be solely responsible for any and all damages, claims for damages, and liability of any nature whatsoever arising from or growing out of the use of borrow areas other than those furnished by the Government.

3.1.3 Approval

Approval of the location and dimensions of the Contractor-furnished borrow area shall neither relieve the Contractor from its obligation to furnish satisfactory material to the project nor commit the Government to the acceptance of the responsibility for the character, quantity, or availability of material in Contractor-furnished borrow areas.

3.1.4 Submittal Package Requirements

The Contractor in a single, complete package shall submit the following information for its proposed Contractor-furnished borrow area, whether it is from the "Clay Source List" or is a new proposed site. All documentation presented for the proposed borrow source shall be current and up-to-date. The submittal of incomplete, out of date, or insufficient documentation may result in the Contractor being denied the use of the proposed borrow source. The Contractor shall allow a minimum of thirty (30) days, after the receipt of the package, for the Government's review, processing, and approval. The Contractor shall allow a minimum of one hundred twenty (120) days after the receipt of the package for the Government's review, processing, and approval of a new proposed borrow source that hasn't been previously investigated.

(1) Right of Entry.

(2) Maps as follows:

(a) Location and Direction map.

(b) Topographic map(s) with scale of 1:24,000.

(c) Layout map with dimensions and property boundary defined by latitude and longitude.

(d) Soil boring location map.

(3) Jurisdictional Wetlands Determination from the USACE.

(4) Coastal Zone Management (CZM) Coastal Use Permit(CUP).

(5) Threatened & Endangered Species (T&E) concurrence from the U.S. Fish and Wildlife Service.

(6) Phase I Cultural Resources Survey

(7) Phase I Environmental Site Assessment.

(8) Geotechnical report.

(9) Borrow Area Agronomy Report.

(10) Borrow Area Management Plan

(11) Mitigation Protection Plan

(12) Zoning classification

(13) Environmental Protection Plan

(14) Louisiana Department of Transportation and Development (LADOTD) permits or approvals

3.1.5 Right of Entry

A Right of Entry form signed by the landowner(s) that covers the contract duration shall be included in the package. If the proposed clay source Point-of-Contact (POC) is not the landowner, then the Contractor furnished

package should include a document signed by the landowner(s) stating that the POC is acting as an agent of the landowner(s) and has the right to represent the landowner(s) in all Contractor-furnished efforts. In the event the POC is unable to obtain the signature of each landowner, then the POC must submit a letter stating the name, address, and phone number of each landowner and that the POC has the authority of the landowner(s) to represent the landowner(s) in all Contractor-furnished efforts.

3.1.6 Maps

The following maps shall be provided:

(1) A map of the general area giving detailed instructions on how to get to the Contractor-furnished borrow area from the nearest major highway.

(2) A topographic map(s) (quadrangle) with a scale of 1:24,000 with the location of the borrow area superimposed. The map should be zoomed out enough to show the nearest city or town.

(3) A layout map of the borrow area showing the dimensions of the proposed excavation , locations of soil borings, and latitude/longitude points to reference property boundaries. The map shall show the location and dimensions of any haul road that exists or is to be constructed to help the Contractor in its hauling operation. The map shall also show the location and dimensions of any protection dikes which will help the Contractor drain and keep the borrow area dry.

3.1.7 Wetlands Determination

Package must include U.S. Army Corps of Engineers (USACE) Jurisdictional Wetland Determination (JD) letter and map. The Contractor shall avoid jurisdictional wetlands, with an adequate buffer. The Corps is currently avoiding impacts to jurisdictional wetlands, as such Contractors are advised that sites with jurisdictional wetlands present that would be impacted by the Contractors borrow actions are to be avoided. If the Contractors plan includes impacts to jurisdictional wetlands due to an unrelated construction activity, a USACE Section 404 permit and/or Section 10 permit will be required. A Section 10/404 Permit does not constitute full environmental compliance for potential use as an Hurricane & Storm Damage Risk Reduction System (HSDRRS) borrow area. The landowner must still submit all other required environmental documentation, as detailed in paragraph "Submittal Package Requirements in Detail", to be considered for approval for any HSDRRS borrow related activities including, but not limited to, excavation, transportation, staging, stockpiling and processing. A JD is valid, and considered current for five (5) years from the date of issuance.

3.1.8 Coastal Zone Management (CZM)

Package must include a Coastal Use Permit (CUP) Application, and a Letter of No Objection (LNO) or CUP from the Louisiana Department of Natural Resources for borrow areas in Louisiana, or the respective state agency for other states. A CUP Application, and CUP or LNO from the local agency must be provided when the state decides that it is a matter of Local Concern. A CUP is valid, and is considered current usually for two (2) years from the date of issuance.

3.1.9 Threatened & Endangered Species (T&E)

Package must include a consultant's report and a concurrence letter of "No Effect on T&E Species" from the U.S. Fish & Wildlife Service. The consultant's report must include a map of the studied area with the study area boundary defined by x-y coordinate system. T&E concurrence is valid, and considered current for one (1) year from the date of issuance. The report and letter are not required for Contractor-furnished borrow utilizing one of the clay sources listed in Section 01100 - GENERAL PROVISIONS, paragraph "CLAY SOURCES".

3.1.10 Cultural Resource Report

Package must include seven (7) bound copies of a Phase I Cultural Resource Survey prepared by a professional cultural resource management (CRM) company that has staff who meet the Secretary of the Interior's Professional Qualifications Standards https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology The report must include a map of the studied area with the study area boundary defined by x-y coordinate system.

3.1.11 Environmental Site Assessment

Package must include an Environmental Site Assessment (ESA) that shows a low risk of encountering Recognized Environmental Conditions (REC). The ESA must conform to ASTM E 1527 or ASTM E 2247 (if applicable) standards. The ESA must include a map of the studied area with the study area boundary defined by x-y coordinate system . An ESA is valid, and considered current for six (6) months from the date of the report. The environmental assessment is not required for Contractor-furnished borrow utilizing one of the clay sources listed in Section 01100 - GENERAL PROVISIONS, paragraph "CLAY SOURCES".

3.1.12 Soil Boring Analysis

Package must include a Geotechnical Report stamped and signed by a licensed civil engineer with a specialization in geotechnical engineering certifying that the proposed source contains suitable material meeting the specifications outlined below.

(1) The Geotechnical Report must consist of a summary and conclusion section in the main body of the report with any supporting data attached separately. The licensed engineer shall determine the sub-surface investigations required. These investigations should include but are not limited to continuous soil borings and test pits. Cone Penetrometer tests may also be included to supplement the physical samples and lab testing provided.

(2) Investigations shall be spaced according to the geotechnical engineer's sub-surface evaluation and be representative of the entire proposed source. The licensed engineer's test plan must provide a comprehensive sampling to at least five (5) feet below the bottom of the proposed excavation.

(3) All soil samples must be classified in accordance with the Unified Soil Classification system. See below for required soil testing. The supporting data attached to the geotechnical report shall be comprehensive and include as a minimum all field logs, soil sampling and testing results, and a detailed investigation location map with the

location of the potential borrow source and all investigation locations superimposed. The soil investigation locations must include latitudes and longitudes for plotting purposes.

3.1.13 Laboratory Tests

The following laboratory tests must be performed:

(1) Soil classification shall be performed in accordance with the Unified Soil Classification System and ASTM D2487.

(2) Atterberg Limits Test shall be performed in accordance with ASTM D4318.

(3) Determination of moisture content shall be performed in accordance with ASTM D2216 or ASTM D4643.

(4) Determination of organic content shall be performed in accordance with ASTM D2974, Method C.

(5) Control Compaction Curves shall be established in accordance with ASTM D698 - Laboratory Compaction Characteristics of Soil Using Standard Effort. A Compaction Control Curve will be required for each type of material from each source or a minimum of one Compaction Control Curve every 25,000 cubic yards of compacted fill placement. Where construction operations result in the blending of material, two representative Compaction Control Curves will be required for each resulting blend of material. The samples collected for the resultant blended material shall be collected from separate locations. If the borrow or source of fill material changes, new Compaction Control Curves shall be performed. Material test samples for Compaction Control Curves shall be prepared by air-drying, rewetting, and curing.

(6) Sand Content shall be determined by (#200 sieve) wash in accordance with ASTM D1140.

3.1.14 Test Procedures for Borings

The testing procedure for borings shall be as follows:

(1) A moisture content determination shall be made and recorded on all samples classified as (CH), (CL), and (ML) at no less than 2 foot intervals.

(2) For (CH), (CL), and (ML) soils, Atterberg Limits and Organic Content Testing (ASTM D2974, Method C), is required every 5 feet (minimum).

(3) Samples with moisture contents at 70% or higher or having a Liquid Limit of 70 or higher must be tested for organic content for that sample as well as for a sample 2 feet above and 2 feet below that sample.

(4) Sand content tests will be required for samples that classify as CL (with a PI greater than 10) and for all clay samples (CH and CL) with greater than 10% coarse grain materials estimated by visual classification for 2 or more consecutive feet.

(5) Sand content tests shall be limited to one test every 5 feet of

sampling and shall conform to ASTM D1140 (#200 sieve required).

(6) Sand content tests will be required for samples that classify as a ML, but limited to one test every 5 feet of sampling.

If a borrow site is within 1,500 feet of the Mississippi River Levee (MRL) or within 300 feet of a Hurricane Protection Levee (HPL), a permit from the local sponsor must be included. For additional information regarding this permit, please contact Amy Powell, Amy.E.Powell@usace.army.mil, (504) 862-2241 or Karen Clement, Karen.L.Clement@usace.army.mil, (504) 862-2313.

3.1.15 Mitigation Requirements

The package must include a written plan and map that describes and shows any areas subject to laws or regulations (Clean Water Act Section 404, Rivers and Harbors Act Section 10, National Historical Preservation Act, Section 906 of WRDA 1986, HTRW, etc.) that hold jurisdiction within the proposed borrow area. Borrow area is defined to include access routes, loading and unloading facilities, staging areas, etc. Plan and maps must clearly show areas/resources being avoided, areas where any impacts were minimized, and areas where it has been determined that impacts are unavoidable. Resources include but are not limited to areas of cultural interest, bottomland hardwood forest, wetlands subject Section 404 of the Clean Water Act, Threatened and Endangered species including any habitat deemed critical by the U.S. Fish and Wildlife Service, and areas found to be hazardous, toxic, or to contain radioactive waste. The U.S. Army Corps of Engineers New Orleans District (CEMVN) Environmental Team Coordinator will determine the consequences of a proposed action on any resources identified on the property in question. Plan and maps will be reviewed as outlined in paragraph "Government Performed Environmental Assessment" below, including any mitigation deemed necessary. For mitigation related to unavoidable impacts to wetlands or forested area as written proof shall constitute a letter from a mitigation bank showing compensatory mitigation has been completed as "in-kind" in the hydraulic basin.

Contractor-furnished borrow utilizing one of the clay sources listed in Section 01100 - GENERAL PROVISIONS, paragraph "CLAY SOURCES" shall provide written proof of the required mitigation necessary has been accomplished. Notice to Proceed will not be granted until this proof is provided to the Contracting Officer. Written proof shall constitute a letter from a mitigation bank showing compensatory mitigation has been completed as "in-kind" in the hydraulic basin.

3.1.16 Zoning Classification

Written evidence that the property intended for use as a Contractor-furnished borrow area contains the proper zoning classification that will allow the Contractor to excavate the property and use it as a borrow area. This evidence shall consist of a letter from the local land zoning office stating the zoning classification of the proposed Contractor-furnished borrow area.

3.1.17 Environmental Protection Plan

A proposal for implementing Section 01 57 20.00 12 ENVIRONMENTAL PROTECTION of this contract insofar as that section applies to borrow areas , when applicable. Environmental Protection provisions exclusive to the borrow area are discussed in paragraph "Submittal Package Requirements in Detail", and shall be adhered to by the Contractor.

3.1.18 Government Performed Environmental Assessment

The Government is required to perform an environmental assessment on all new proposed borrow areas without regard to the source. For Greater New Orleans Hurricane work, the environmental assessment is provided in an Individual Environmental Report (IER). Production and approval of an IER requires a minimum of one hundred twenty (120) days for review, processing, and approval time by the Government once all materials required from the Contractor have been provided. Before the Government will commence the environmental assessment of a proposed Contractor-furnished borrow site, the Contractor must submit all of the above items as a single, complete package. The reviewing CEMVN staff reserves the right to disapprove the use of potential Contractor-furnished borrow areas located in jurisdictional wetlands, and those sites that have significant outstanding cultural resource or hazardous waste concerns or other avoidable impacts. The Government shall be reimbursed by the Contractor for actual costs incurred for assistance in completing or attempting to complete additional environmental coordination and documentation. The Government performed environmental assessment is not required for Contractor-furnished borrow utilizing one of the clay sources listed in Section 01100 - GENERAL PROVISIONS, paragraph "CLAY SOURCES".

3.2 CLAY CORE FOUNDATION PREPARATION

After clearing and grubbing and any required excavation of the existing embankment, the foundation shall be brought to the required grade and elevation and geotextile laid.

3.3 CLAY COMPACTION

When the moisture content and conditions of the spread layers are satisfactory, each layer shall be compacted by any of the following methods at the option of the Contractor.

3.3.1 Tamper-Type Roller

Four complete passes over each layer will be required. If tamping rollers are used in tandem, not more than two rows will be permitted, and in such case, on trip of the tandem rollers over any surface will be considered as two passes. When tamping rollers are used in tandem, the tamper foot spacing shall be offset so that the circumference rows of the rear drums are in line with the midpoint of the circumferential rows of the forward drums. Each pass of the tamping roller shall overlap the preceeding or adjacent pass by not less than 1 foot.

3.3.2 Rubber-Tired Roller

Two complete passes over each layer will be required.

3.3.3 Crawler-Type Tractor

Three complete passes over each layer will be required. The tractor will not be considered compacting while spreading materials.

3.3.4 Definition of Pass

A pass shall consist of one complete coverage of the surface layer by the treads of the roller, tractor, or other compacting equipment. Portions of

the core which the compacting equipment cannot reach for any reason shall be compacted by an approved method to the density at least equal to that of the surrounding core.

3.3.5 Additional Compaction

If, in the opinion of the Engineer, the desired compaction of any portion of the embankment cannot be secured by the minimum number of passes specified, additional complete passes shall be made over the surface area of such designated portion until the desired compaction has been obtained, and an equitable adjustment in the contract price and time will be made.

3.3.6 Embankment Work Advance

The Contractor shall prosecute the embankment work such that no more than 5,000 linear feet of dune shall be under embankment construction at any time. If the Contractor elects to perform embankment work in multiple locations within the total contract length, the sum of the lengths of the multiple embankment construction locations allowed shall not exceed the above given total length of linear feet. During the hurricane season (1 June – 30 Nov), all above mentioned embankment work limits shall be reduced to 2,000 linear feet. The Contractor shall have adequate crews and materials to close any excavated gaps in the dune alignment prior to evacuation of the island. Contractor shall place sand or supersacks to a minimum elevation of +11.0' NAVD88.

3.3.7 Grade Tolerances

All embankments shall be constructed to the design grade and cross section shown on the drawings. Six inches above the prescribed design grade and cross section shown will be permitted in the final dressing provided that there are no abrupt humps or depressions in surfaces or bulges in the width of the crown, and the side slopes are uniform. Any partial fill material temporarily placed within the design section shall not exceed the design grade or design slopes of the embankment by more than 2 feet, and shall have side slopes not steeper than 1V on 5H.

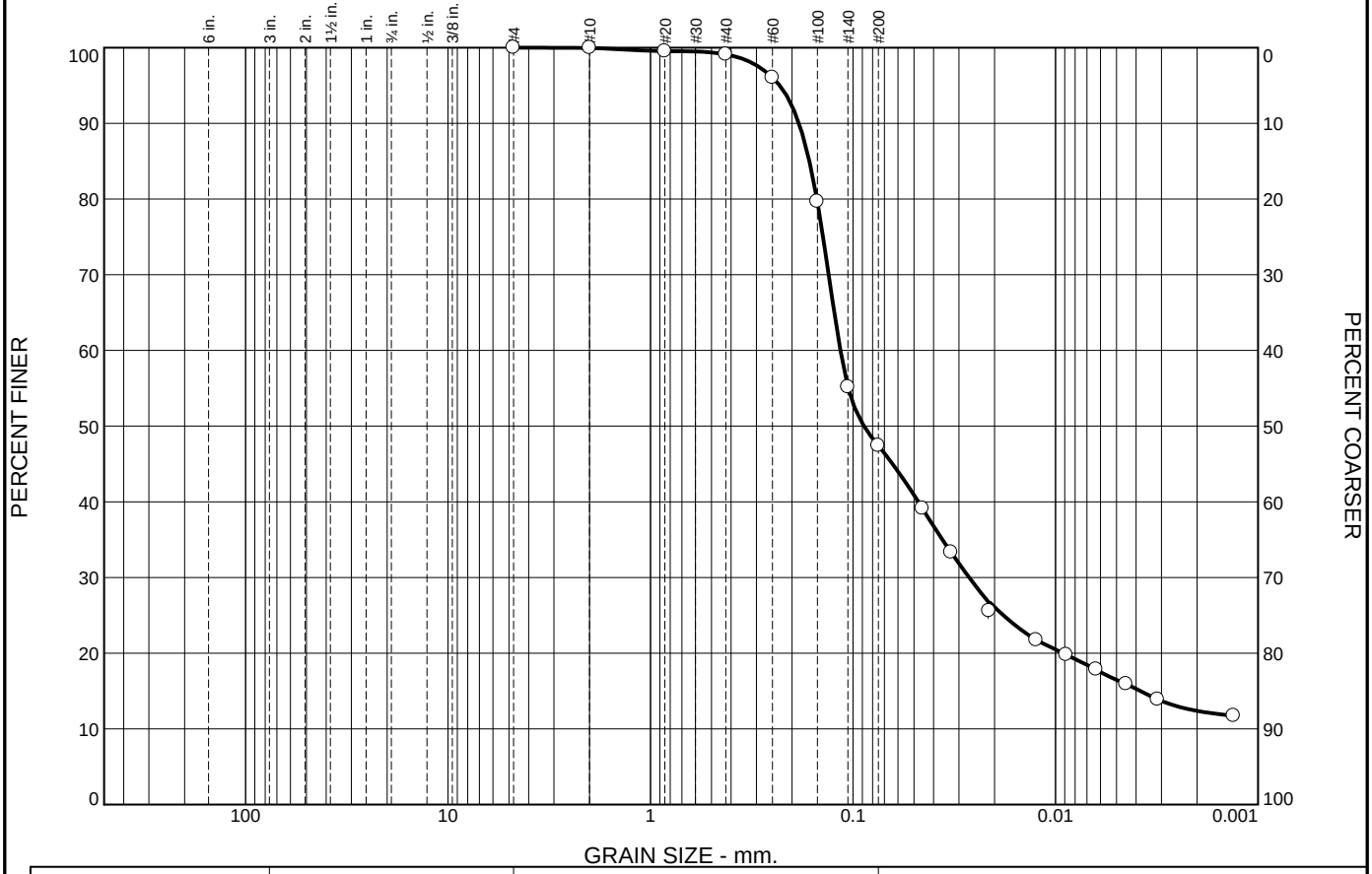
3.3.8 Slides

Should a slide occur in any part of the embankment during its construction, or after its completion, but prior to its acceptance, the Contractor shall, upon written order of the Contracting Officer, either cut out and remove the slide from the embankment and then rebuild that portion of the embankment, or construct a stability berm of such dimension, and placed in such manner, as the Contracting Officer shall prescribe. In case the slide is caused through fault of the Contractor, the foregoing operations shall be performed at no additional cost to the Government. In case the slide is not the fault of the Contractor, the repair shall be made by an equitable adjustment under the Clause in Section 00700 CONTRACT CLAUSES, entitled "CHANGES (FAR 52.243-4)". The method of slide correction will be determined by the Contracting Officer.

3.3.9 Local Roads

Local roads shall be maintained in good conditions throughout the contract period and restored to pre-construction conditions upon completion of the construction. In addition to the requirements stated above, the Contractor shall keep any public street used free and clean of mud and other debris resulting from construction operations.

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.9	51.7	30.9	16.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.1642	0.1155	0.0883	0.0267	0.0038			

Material Description	USCS	AASHTO
○ GR SM W/ SIF	SM	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** BP-22-1 **Depth:** 2.5 **Sample Number:** PB-2

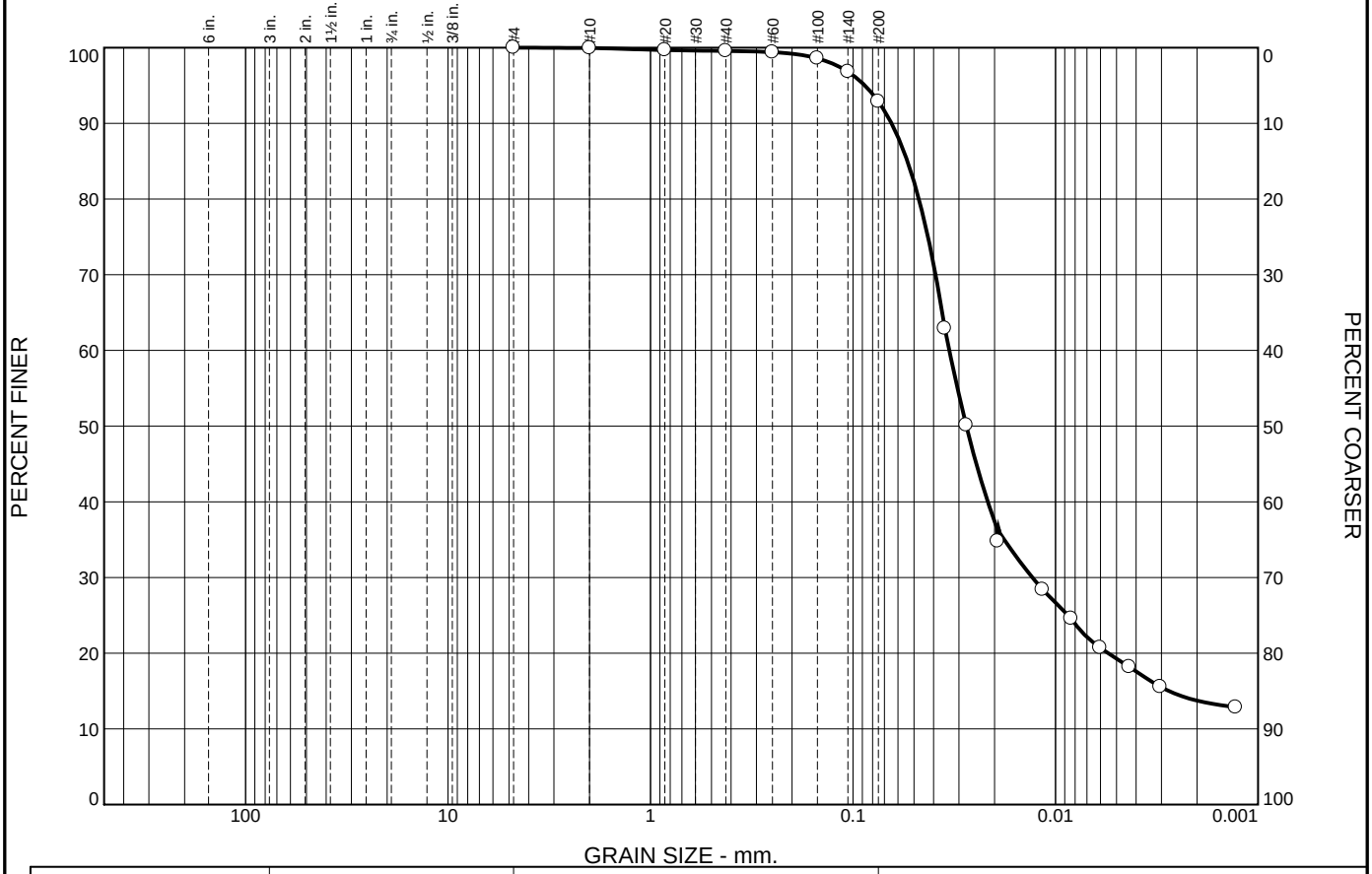
Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	0.3	6.7	73.6	19.3

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0539	0.0335	0.0275	0.0130	0.0028			

	Material Description	USCS	AASHTO
○	GR ML	ML	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** BP-22-2 **Depth:** 5 **Sample Number:** PB-3

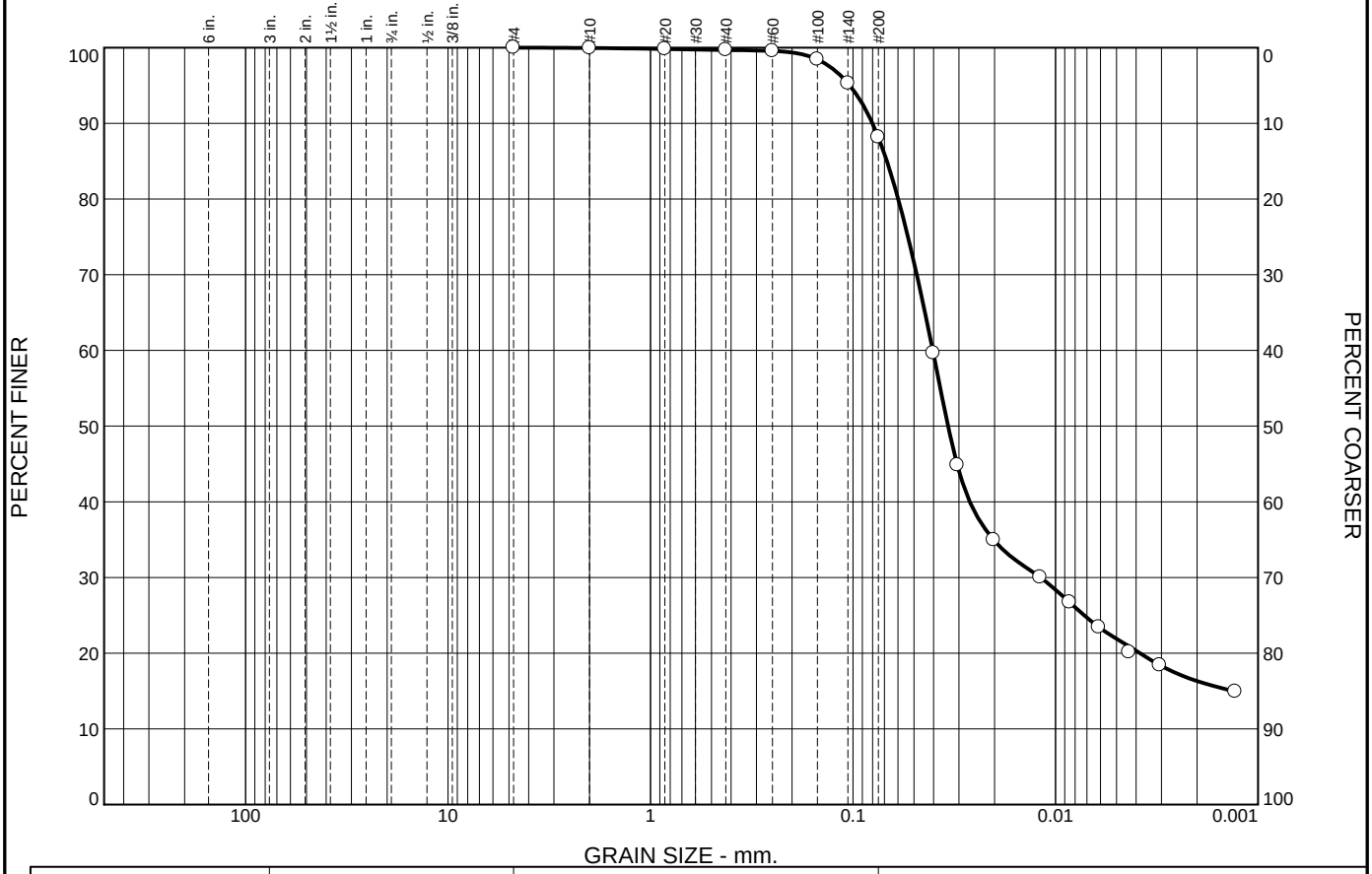
Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.3	11.5	66.3	21.9

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0680	0.0404	0.0339	0.0119	0.0013			

Material Description	USCS	AASHTO
○ GR ML	ML	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** BP-22-3 **Depth:** 5 **Sample Number:** PB-3

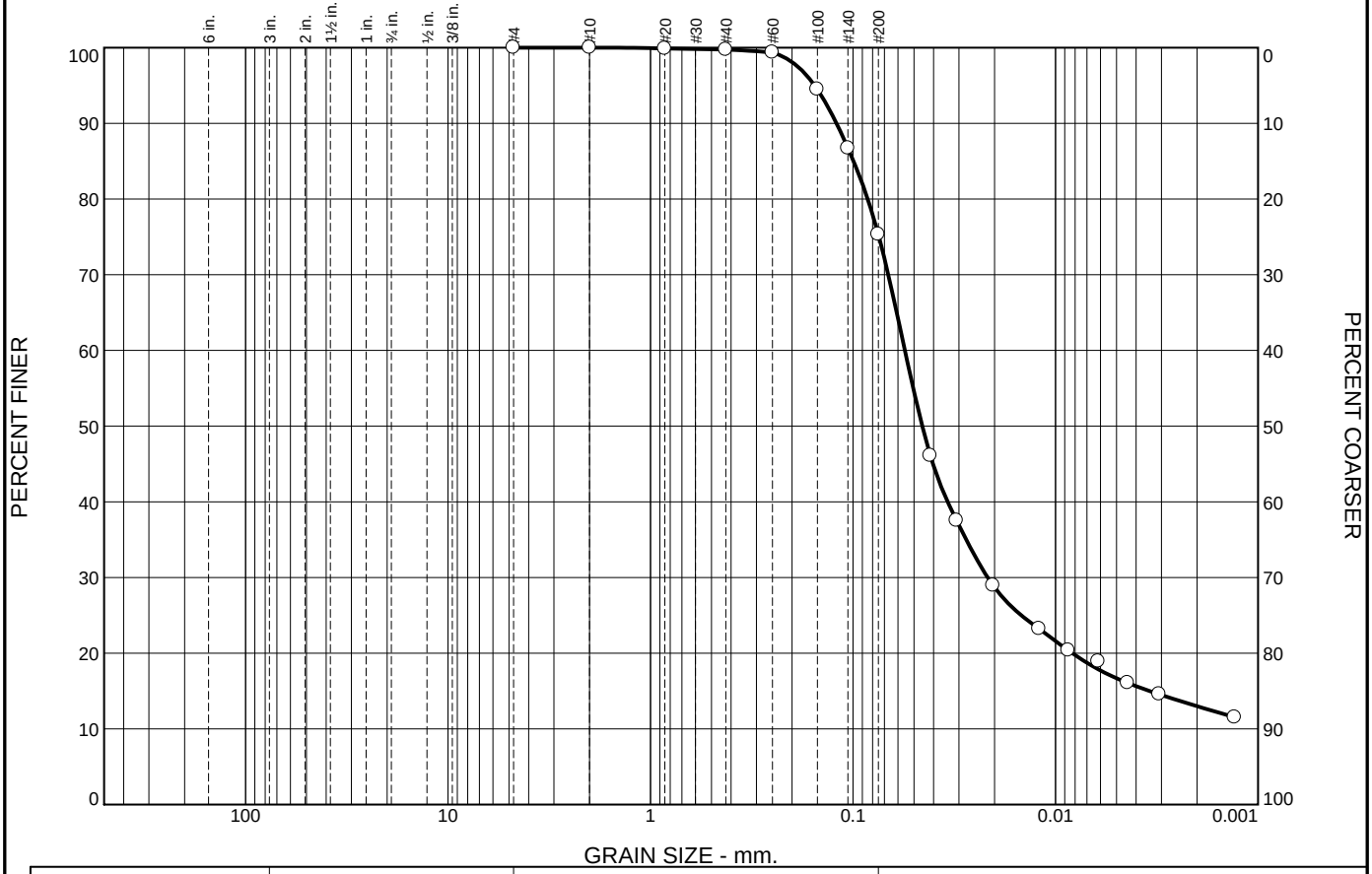
Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.3	24.4	58.6	16.7

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0995	0.0554	0.0455	0.0216	0.0034			

	Material Description	USCS	AASHTO
○	GR ML W/ SIF	ML	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** BP-22-4 **Depth:** 7.5 **Sample Number:** PB-4

Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.1	2.9	60.2	36.8

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○			0.0274	0.0142	0.0106	0.0021				

	Material Description	USCS	AASHTO
○	GR ML	ML	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** BP-22-5 **Depth:** 7.5 **Sample Number:** PB-4

Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	0.2	25.4	55.6	18.7

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.1005	0.0439	0.0303	0.0134				

	Material Description	USCS	AASHTO
○	GR ML	ML	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** BP-22-6 **Depth:** 7.5 **Sample Number:** PB-4

Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.4	11.5	48.6	39.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○			0.0588	0.0191	0.0096	0.0020				

Material Description	USCS	AASHTO
○ VSO GR CH3 W/ SIF, ARS SP	CH3	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** CP-22-1 **Depth:** 10 **Sample Number:** PB-5

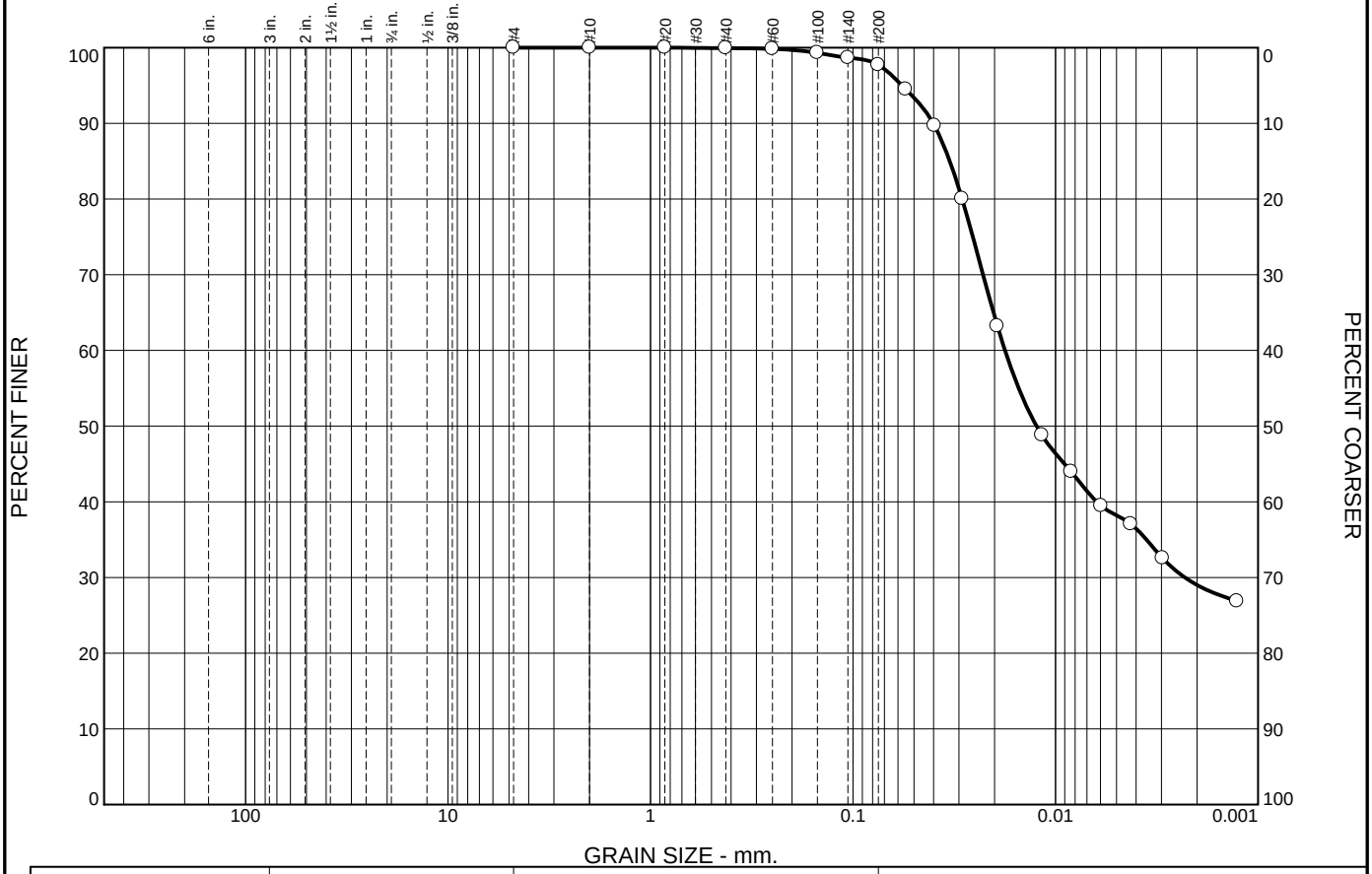
Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.1	2.2	59.5	38.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0333	0.0178	0.0124	0.0023				

	Material Description	USCS	AASHTO
○	VSO GR CH3	CH3	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** CP-22-2 **Depth:** 12.5 **Sample Number:** PB-6

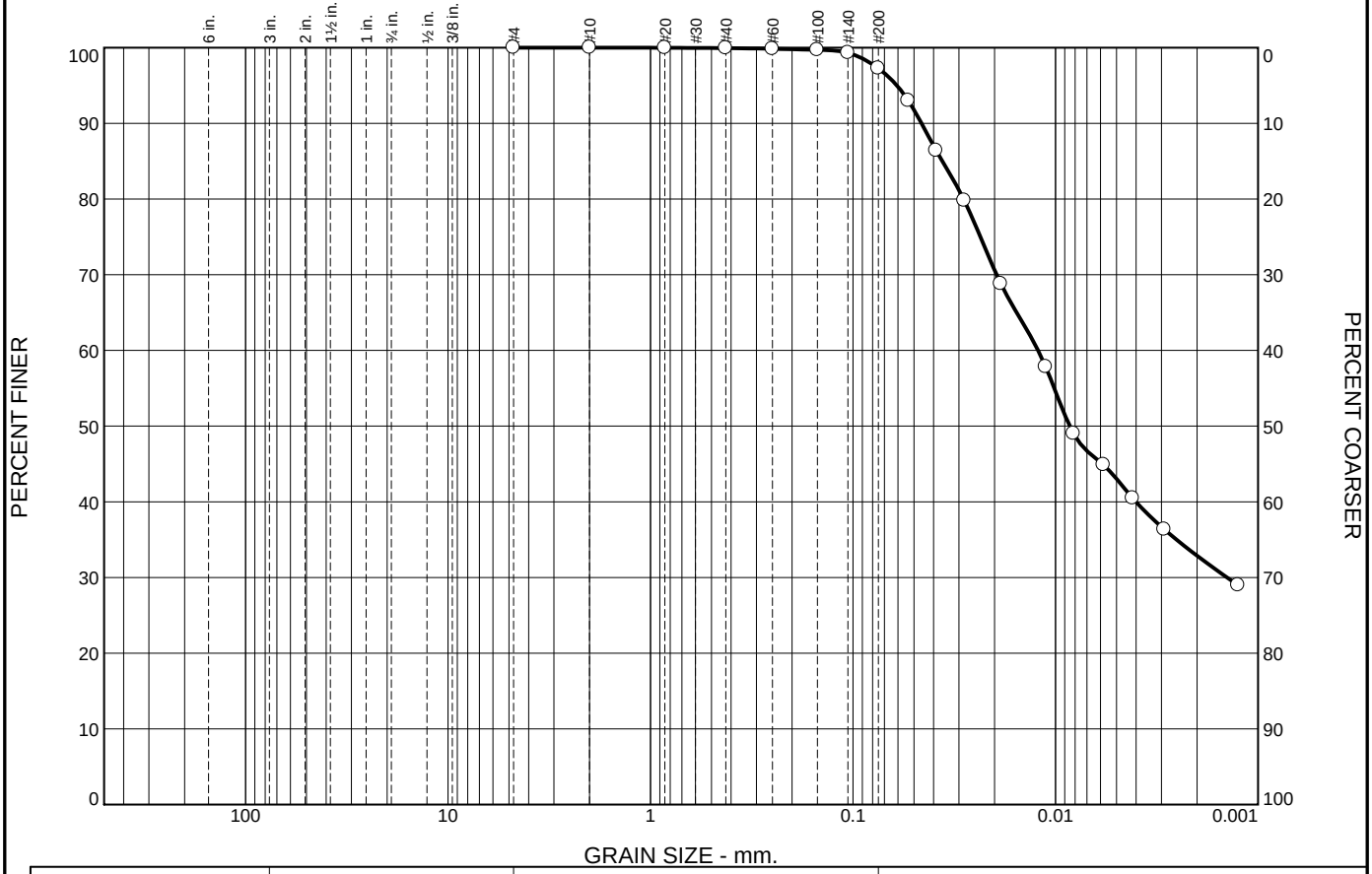
Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.1	2.6	54.3	43.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0362	0.0122	0.0085	0.0014				

Material Description	USCS	AASHTO
○ VSO GR CH3 W/ ARS SP	CH3	

Project No. 24867 **Client:** U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER,

Project: U.S. ARMY CORPS OF ENGINEERS - RETRIEVAL AND CLASSIFICATION OF GENERAL TYPE BORINGS, GRAND ISLE BORROW SOURCES, JEFFERSON PARISH,

○ **Source of Sample:** CP-22-5 **Depth:** 10 **Sample Number:** PB-5

Remarks:

EUSTIS ENGINEERING SINCE 1946

Figure

Tested By: BH & JP **Checked By:** CD & RR

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ABBREVIATIONS

* UNLESS OTHERWISE NOTED ON EACH SHEET

AC	ACRE
APPROX	APPROXIMATE
B/L	BASELINE
BS	BORROW SITE
BEC	BOTTOM EDGE OF CUT
C/L	CENTERLINE
CA	CUT AREA
DWG	DRAWING
DIST	DISTANCE
EL.	ELEVATION
EXIST	EXISTING
FA	FILL AREA
FT	FEET
H	HORIZONTAL
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
N.T.S.	NOT TO SCALE
P.I.	POINT OF INFLECTION
P/S	PROTECTED SIDE
SF	SQUARE FEET
STA	STATION
TYP	TYPICAL
V	VERTICAL
(+/-)	APPROXIMATE

GENERAL LEGEND

PROJECT BENCHMARK

EXISTING GROUND

R/W — RIGHT OF WAY

W — EXISTING WATERLINE

E — EXISTING UNDERGROUND POWERLINE

LPG — EXISTING PIPELINE

NAVIGATION AID

BORING

GENERAL NOTES:

1. THE DESCRIPTIONS OF HORIZONTAL AND VERTICAL CONTROL POINTS ARE AVAILABLE FROM THE NEW ORLEANS DISTRICT SURVEY SECTION (504) 862-2995.

2. ORIGINAL DATA COMPILED NAD 83 US SURVEY FOOT UNLESS OTHERWISE NOTED.

3. ELEVATIONS REFER TO NAVD88 (2009.55) UNLESS OTHERWISE NOTED.

4. AERIAL PHOTOGRAPHY FLOWN (2021).

5. ALL XY COORDINATES ARE LOUISIANA STATE PLANE, SOUTH, US SURVEY FEET.

6. CONTRACTOR SHALL NOT DISTURB EXISTING UTILITIES. CONTRACTOR SHALL USE LOUISIANA 1-CALL PRIOR TO EXCAVATION.

7. LOCATION OF UTILITIES INDICATED ON THE PLAN SHEET ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED, IN PART ON INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION. UTILITY LABELLED "P13" PARALLELS THE BARATARIA BORROW PIT. CONSULTATION WITH PIPELINE OWNER IS REQUIRED PRIOR TO DREDGING OPERATIONS. APPROXIMATE DEPTH OF COVER ON PIPELINE IS 4 FEET.

8. THE CONTRACTOR SHALL MAKE HIS/HER OWN INTERPRETATION OF THE CHARACTER AND CONDITION OF THE MATERIALS WHICH WILL BE ENCOUNTERED BETWEEN THE BORING LOCATIONS. THE CONTRACTOR, AT HIS/HER OWN EXPENSE, MAY MAKE ADDITIONAL SURVEYS AND INVESTIGATIONS AS HE/SHE DEEMS NECESSARY TO DETERMINE CONDITIONS WHICH WILL AFFECT PERFORMANCE OF THE WORK.

9. ALL EXISTING STRUCTURES WITHIN THE EXISTING RIGHT-OF-WAY ARE CONSIDERED A "DO NOT DISTURB" AREA, AND SHALL BE AVOIDED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS.

10. CONSTRUCTION STAGING AND STOCKPILE AREAS SHALL BE ON THE BEACH AND COMPLETELY RESTORED AT THE COMPLETION OF WORK.

DUNE CENTERLINE COORDINATES

POINT #	STATION	Y COORDINATE	X COORDINATE
PC-1	0+00.00	256917.90	3692780.72
PCC-2	5+34.514	256946.09	3693291.46
PT-3	11+52.53	257363.26	3693742.83
PI-4	16+01.88	257718.57	3694017.91
PI-5	20+02.93	258055.78	3694234.99
PI-6	30+49.49	258796.98	3694973.85
PI-7	45+60.36	259887.88	3696019.16
PI-8	56+72.94	260643.19	3696836.08
PI-9	75+93.16	261951.92	3698241.23
PI-10	76+82.30	262011.61	3698307.44
PI-11	77+86.71	262100.84	3698361.64
PI-12	87+78.36	262764.78	3699098.23
PI-13	106+68.07	263865.73	3700634.10
PI-14	115+47.12	264391.91	3701338.28
PI-15	125+80.19	264978.08	3702188.94
PI-16	126+80.22	265032.77	3702272.71
PI-17	128+31.51	265118.61	3702397.28
PI-18	138+95.60	265718.85	3703275.92
PI-19	146+79.29	266151.98	3703929.03
PI-20	147+79.32	266209.34	3704010.99
PI-21	158+69.18	266811.69	3704919.27
PI-22	170+77.37	267439.68	3705951.43
PI-23	171+77.40	267489.52	3706038.16
PI-24	181+69.37	268005.13	3706885.60
PI-25	196+05.63	268745.03	3708116.60
PI-26	208+17.75	269385.66	3709145.61
PI-27	221+83.12	270217.87	3710228.03
PI-28	222+79.79	270275.71	3710305.48
PI-29	233+31.30	270861.69	3711178.59
PI-30	246+89.22	271605.42	3712314.72
PI-31	264+18.69	272582.84	3713741.52
PI-32	274+07.63	273144.92	3714555.19
PI-33	288+95.58	273922.96	3715823.51
PI-34	304+38.52	274675.30	3717170.60
PI-35	325+87.36	275759.27	3719026.01
PI-36	341+21.99	276932.96	3720014.72
PI-37	356+95.69	278171.34	3720985.77
PI-38	360+10.67	278419.37	3721180.25
PI-39	364+38.14	278775.94	3721416.02
PC-40	374+95.09	279776.79	3721755.79
PT-41	378+33.06	280110.00	3721794.63

CURVE 1 DATA	CURVE 2 DATA	CURVE 3 DATA
R = 522.64'	R = 1700'	R = 800'
D = 10°54'45.94"	D = 3°22'13.22"	D = 7°9'43.10"
Δ = 58°35'47.74"	Δ = 20°49'46.45"	Δ = 24°12'20.95"
T = 293.27'	T = 312.46'	T = 171.55'
L = 534.51'	L = 618.02'	L = 337.98'
LC = 511.51'	LC = 614.63'	LC = 335.47'
PI STA. 2+93.27	PI STA. 8+46.97	PI STA. 376+66.64
X=3693044.00	X=3693555.48	X=3721810.94
Y=256788.70	Y=257113.19	Y=279939.23

TABULATION OF UTILITIES

UTILITY #	DESCRIPTION	OWNER
P1	6" GAS P/L	TOWN OF GRAND ISLE
W1	12" WATERLINE	TOWN OF GRAND ISLE
E1	7-6" ELECTRICAL CONDUITS	ENTERGY LA
P2	ABANDONED 16" NATURAL GAS P/L	EXXONMOBIL
P3	12" NATURAL GAS P/L	EXXONMOBIL
P4	12" NATURAL GAS P/L	ENERGY XXI
P5	12" NATURAL GAS P/L	ENERGY XXI
P6	ABANDONED 16" NATURAL GAS P/L	VASTAR RESOURCES INC
P7	ABANDONED 18" OD OUTFALL P/L	EXXONMOBIL
P8	12" OIL P/L	EXXONMOBIL
P9	ABANDONED 12" PRODUCED WATERS P/L	EXXONMOBIL
P10	ABANDONED 14" NATURAL GAS P/L	FREEPORT INTERSTATE PIPELINE CO
P11	6" NATURAL GAS	EXXONMOBIL
P12	30" OIL P/L	BP LLC
P13	10" CRUDE P/L	CONOCO PHILLIPS

TABULATION OF PROJECT BENCHMARKS

BENCH MARK	ELEVATION	COORDINATE	DESCRIPTION
N221 (PRIMARY)	5.16 FT	X = 3693447.71 Y = 258567.42	DESCRIBED BY COAST AND GEODETIC SURVEY 1965 3.75 MI SW FROM GRAND ISLE. 3.75 MILES SOUTHWEST ALONG STATE HIGHWAY 1 FROM THE POST OFFICE AT GRAND ISLE, SET IN THE TOP OF THE SOUTHWEST END OF THE SOUTHEAST CONCRETE ABUTMENT OF A CONCRETE BRIDGE OVER THE CAMINADA PASS, 18 FEET SOUTHWEST OF THE SOUTHWEST CONCRETE WINGWALL, ABOUT LEVEL WITH THE HIGHWAY.
GI 1	2.12 FT	X = 3717852.64 Y = 275967.94	MARK IS AN ALUMINUM USACE SURVEY DISK SET ON A 5/8" X 4' IRON ROD IN CONCRETE. MARK IS 5' SOUTH OF A FIRE HYDRANT, 32' SOUTH OF THE CENTERLINE OF LA-1. MARK IS APPROXIMATELY 0.3 MILES WEST OF THE ENTRANCE TO GRAND ISLE STATE PARK.
GI 2	3.22 FT	X = 3713527.80 Y = 272756.07	MARK IS AN ALUMINUM USACE SURVEY DISK SET ON A 5/8" X 4' IRON ROD IN CONCRETE. MARK IS SET 40' N OF LA-1 AND 35' SW OF THE SW CORNER OF A CONCRETE SLAB WHERE AIRPORT ENERGY SERVICES IS LOCATED. MARK IS 90' E-NE OF INTERSECTION OF LA-1 AND ACCESS TO GRAND ISLE COMMUNITY CENTER, SET FLUSH WITH THE GROUND.
GI 3	4.02 FT	X = 3709067.03 Y = 269636.33	MARK IS AN ALUMINUM USACE SURVEY DISK SET ON A 5/8" X 4' IRON ROD IN CONCRETE. MARK IS LOCATED APPROX 300' E ALONG LA-1 FROM JO-BOB'S CONOCO STATION AND 30' N OF THE CL OF LA-1. MARK IS 55' W OF THE INTERSECTION OF LA-1 AND LANDRY LANE, SET FLUSH WITH THE GROUND.
GI 4	3.04 FT	X = 3699604.86 Y = 263500.96	MARK IS AN ALUMINUM USACE SURVEY DISK SET ON A 5/8" X 4' IRON ROD IN CONCRETE. MARK IS LOCATED 25' N OF CL OF LA-1 AND 25' W OF THE INTERSECTION OF LA-1 AND CRANBERRY LANE. MARK IS SET 9' NW OF POWER POLE #78 FLUSH WITH THE GROUND.
GI 5	2.47 FT	X = 3695561.60 Y = 260041.63	MARK IS AN ALUMINUM USACE SURVEY DISK SET ON A 5/8" X 4' IRON ROD IN CONCRETE. MARK IS LOCATED 32' NORTH OF THE CL OF LA-1, 50' E OF THE CL OF MEMORY LANE AT ITS JUNCTION WITH LA-1, AND 12' WNW OF A 12' POWER POLE. MARK IS SET 0.10' BELOW THE SURFACE OF THE GROUND.
GI 6	5.76 FT	X = 3692311.03 Y = 257687.87	MARK IS AN ALUMINUM USACE SURVEY DISK SET ON A 5/8" X 4' IRON ROD IN CONCRETE. MARK IS LOCATED AT THE WESTERN TERMINUS OF GRAND ISLE, 100' EAST OF THE SHORELINE RIPRAP ALONG THE EASTERN BANK OF CAMINADA PASS, AND 20' WEST OF THE TREELINE. MARK IS SET FLUSH WITH THE GROUND.

US Army Corps of Engineers®
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
1	REVISE INDEX AND DUNE CL COORDINATES		
2	REVISED TEXT		
3	REVISED LIMIT OF WORK		
4	UPDATED CROSS SECTIONS		

DESIGNED BY: MATTHEW N. RAGER
DRAWN BY: MNR
CKD BY: JAS
SUBMITTED BY: MATTHEW N. RAGER
PLOT SCALE: 1:1
PLOT DATE: 31 MAR 2023
SIZE: ANSI D
DATE: MARCH 2023
SOLICITATION NO.: W912P823B0022
CONTRACT NO.:
FILE NUMBER: I-16-48911
FILE NAME: I-16-48911_G-03

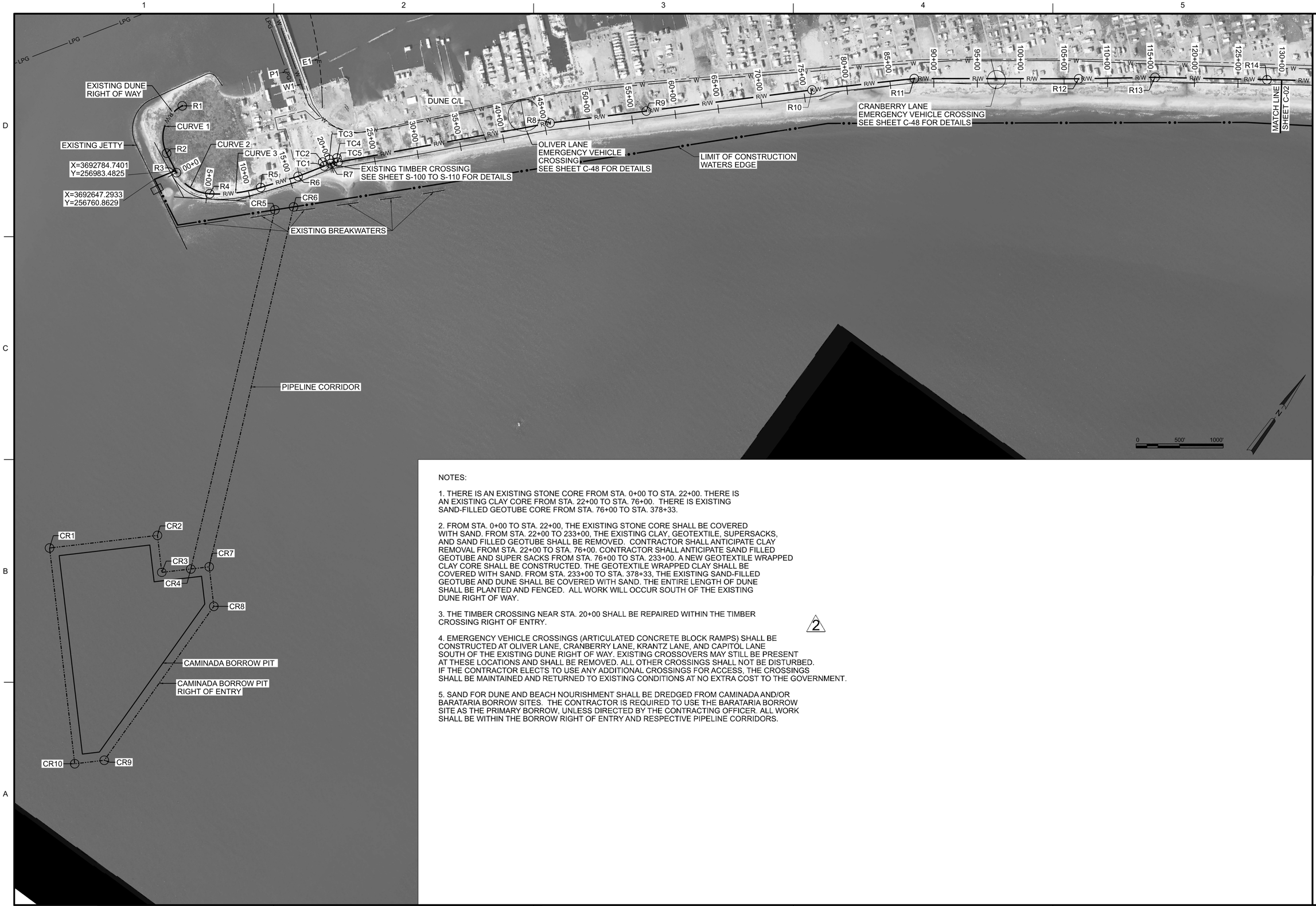
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

ED-22-054

GRAND ISLE AND VICINITY, HURRICANE IDA REPAIRS, DUNE AND BEACH RESTORATION, JEFFERSON PARISH, LOUISIANA

INDEX, LEGEND, ABBREVIATIONS AND TABULATIONS

SHEET IDENTIFICATION
G-03



NOTES:

1. THERE IS AN EXISTING STONE CORE FROM STA. 0+00 TO STA. 22+00. THERE IS AN EXISTING CLAY CORE FROM STA. 22+00 TO STA. 76+00. THERE IS EXISTING SAND-FILLED GEOTUBE CORE FROM STA. 76+00 TO STA. 378+33.

2. FROM STA. 0+00 TO STA. 22+00, THE EXISTING STONE CORE SHALL BE COVERED WITH SAND. FROM STA. 22+00 TO 233+00, THE EXISTING CLAY, GEOTEXTILE, SUPERSACKS, AND SAND FILLED GEOTUBE SHALL BE REMOVED. CONTRACTOR SHALL ANTICIPATE CLAY REMOVAL FROM STA. 22+00 TO STA. 76+00. CONTRACTOR SHALL ANTICIPATE SAND FILLED GEOTUBE AND SUPER SACKS FROM STA. 76+00 TO STA. 233+00. A NEW GEOTEXTILE WRAPPED CLAY CORE SHALL BE CONSTRUCTED. THE GEOTEXTILE WRAPPED CLAY SHALL BE COVERED WITH SAND. FROM STA. 233+00 TO STA. 378+33, THE EXISTING SAND-FILLED GEOTUBE AND DUNE SHALL BE COVERED WITH SAND. THE ENTIRE LENGTH OF DUNE SHALL BE PLANTED AND FENCED. ALL WORK WILL OCCUR SOUTH OF THE EXISTING DUNE RIGHT OF WAY.

3. THE TIMBER CROSSING NEAR STA. 20+00 SHALL BE REPAIRED WITHIN THE TIMBER CROSSING RIGHT OF ENTRY.

2

4. EMERGENCY VEHICLE CROSSINGS (ARTICULATED CONCRETE BLOCK RAMPS) SHALL BE CONSTRUCTED AT OLIVER LANE, CRANBERRY LANE, KRANTZ LANE, AND CAPITOL LANE SOUTH OF THE EXISTING DUNE RIGHT OF WAY. EXISTING CROSSOVERS MAY STILL BE PRESENT AT THESE LOCATIONS AND SHALL BE REMOVED. ALL OTHER CROSSINGS SHALL NOT BE DISTURBED. IF THE CONTRACTOR ELECTS TO USE ANY ADDITIONAL CROSSINGS FOR ACCESS, THE CROSSINGS SHALL BE MAINTAINED AND RETURNED TO EXISTING CONDITIONS AT NO EXTRA COST TO THE GOVERNMENT.

5. SAND FOR DUNE AND BEACH NOURISHMENT SHALL BE DREDGED FROM CAMINADA AND/OR BARATARIA BORROW SITES. THE CONTRACTOR IS REQUIRED TO USE THE BARATARIA BORROW SITE AS THE PRIMARY BORROW, UNLESS DIRECTED BY THE CONTRACTING OFFICER. ALL WORK SHALL BE WITHIN THE BORROW RIGHT OF ENTRY AND RESPECTIVE PIPELINE CORRIDORS.

US Army Corps of Engineers®
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR
1	REVISE INDEX AND DUNE CL COORDINATES		
2	REVISED TEXT		
3	REVISED LIMIT OF WORK		
4	UPDATED CROSS SECTIONS		

DESIGNED BY: MATTHEW N. RADER	DATE: MARCH 2023
DWN BY: MNR / CKD BY: JAB	SOLICITATION NO.: W912P823B0022
SUBMITTED BY: MATTHEW N. RADER	CONTRACT NO.:
PLOT SCALE: 1:1 / PLOT DATE: 14 JUNE 2023	FILE NUMBER: H-16-48811
SIZE: ANSI D	FILE NAME: H-16-48811, C-01

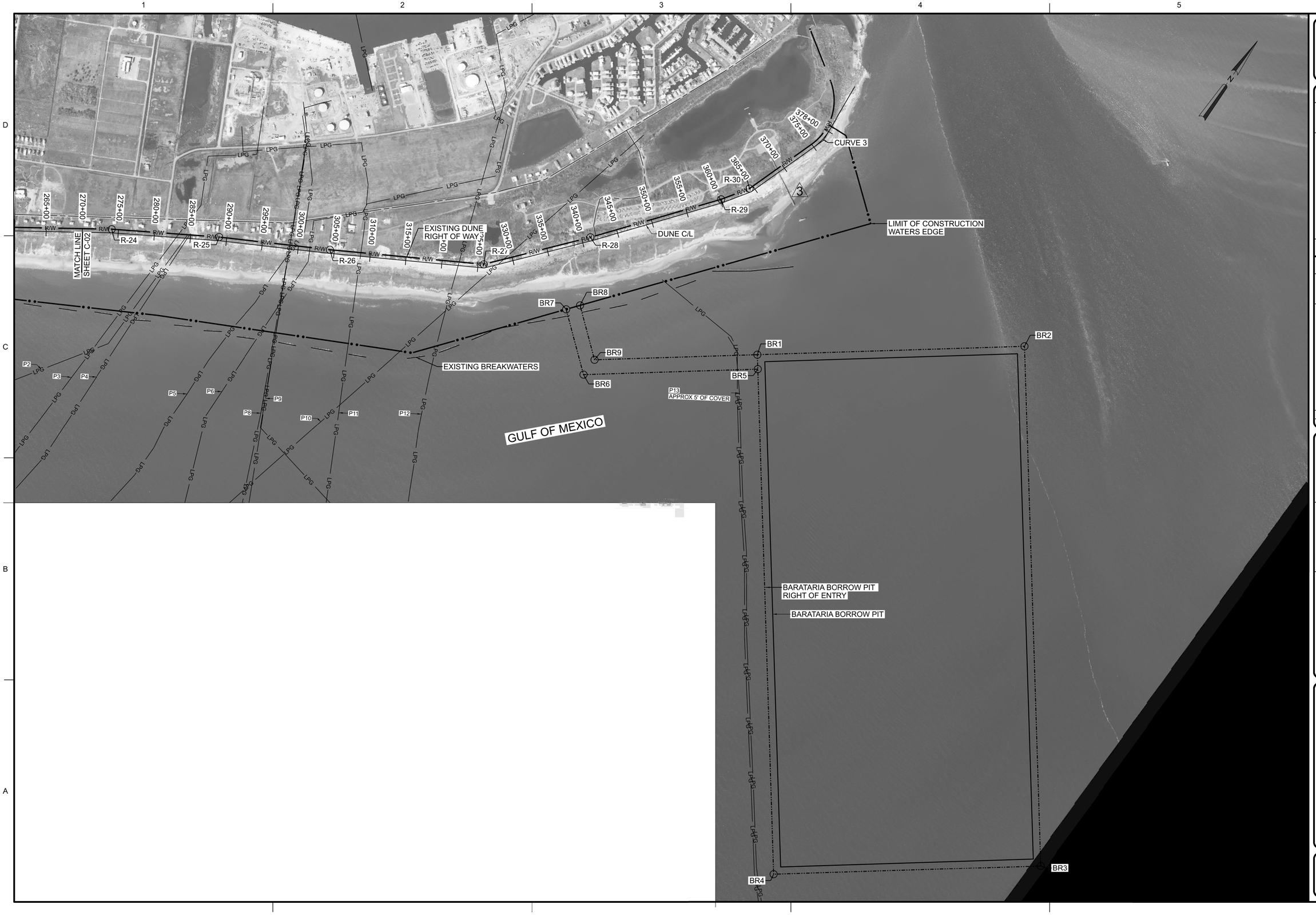
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

ED-22-054

GRAND ISLE AND VICINITY,
HURRICANE IDA REPAIRS,
DUNE AND BERM RESTORATION,
JEFFERSON PARISH, LOUISIANA

OVERALL PLAN VIEW
STA. 0+00 TO STA. 130+00

SHEET IDENTIFICATION
C-01



US Army Corps of Engineers®
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
1	REVISE INDEX AND DUNE CL COORDINATES		
2	REVISED TEXT		
3	REVISED LIMIT OF WORK		
4	UPDATED CROSS SECTIONS		

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

DESIGNED BY: MATTHEW N. RADER		DATE: MARCH 2023	
DWN BY: MNR	CHD BY: JAB	SOLICITATION NO.: W912P823B0022	
SUBMITTED BY: MATTHEW N. RADER		CONTRACT NO.:	
PLOT SCALE: 1 : 1	PLOT DATE: 21 MAR 2023	FILE NUMBER: H-16-46811	
SIZE: ANSI D	FILE NAME: H-16-46811		

ED-22-354

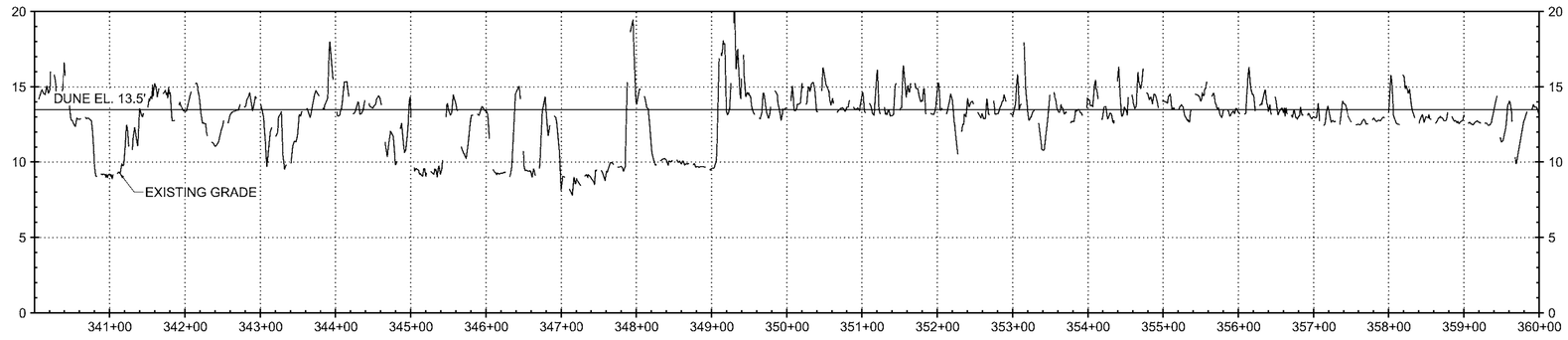
GRAND ISLE AND VICINITY,
HURRICANE IDA REPAIRS,
DUNE AND BERM CONSTRUCTION,
JEFFERSON PARISH, LOUISIANA

OVERALL PLAN VIEW
STA. 270+00 TO STA. 382+00

SHEET IDENTIFICATION
C-03

NOTES:

1. SAND SHALL BE PLACED ON TOP OF THE EXISTING SAND FILLED GEOTUBE AT THE GRADE AND ELEVATIONS SHOWN ON SHEET C-22.



US Army Corps of Engineers
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
1	REVISE INDEX AND DUNE CL COORDINATES		
2	REVISED TEXT		
3	REVISED LIMIT OF WORK		
4	UPDATED CROSS SECTIONS		

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

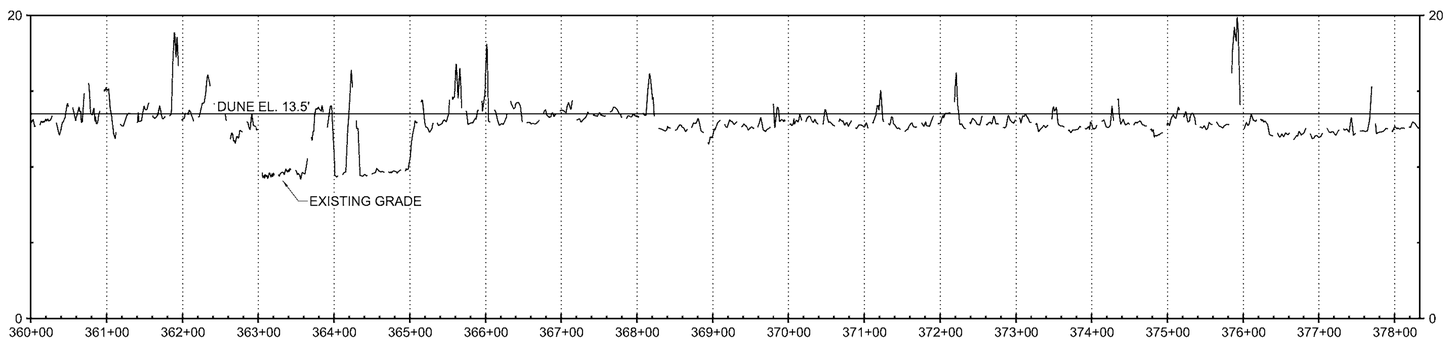
DESIGNED BY: MATTHEW N. RADER	DRAWN BY: MNR	SUBMITTED BY: MATTHEW N. RADER	PLOT SCALE: 1" = 100 PLOT DATE: 17 MAR 2023
CHKD BY: JAB			
DATE: MARCH 2023	SOLICITATION NO.: W912P823B0022	CONTRACT NO.:	FILE NUMBER: H-16-46811
SIZE: ANSI D	FILE NAME: H-16-46811_C-21		

ED-22-054

GRAND ISLE AND VICINITY,
HURRICANE IDA REPAIRS,
DUNE AND BERM CONSTRUCTION,
JEFFERSON PARISH, LOUISIANA

DUNE CENTERLINE PLAN AND PROFILE
STA. 340+00 TO STA. 362+00

SHEET IDENTIFICATION
C-21



NOTES:

1. SAND SHALL BE PLACED ON TOP OF THE EXISTING SAND FILLED GEOTUBE AT THE GRADE AND ELEVATIONS SHOWN ON SHEET C-22.

US Army Corps of Engineers
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
1	REVISE INDEX AND DUNE CL COORDINATES		
2	REVISED TEXT		
3	REVISED LIMIT OF WORK		
4	UPDATED CROSS SECTIONS		

DESIGNED BY: MATTHEW N. RADER	DATE: MARCH 2023
DWN BY: MNR	CKD BY: JAB
SUBMITTED BY: MATTHEW N. RADER	SOLICITATION NO.: W912P823B0022
PLOT SCALE: 1:500	CONTRACT NO.:
PLOT DATE: 21 MAR 2023	FILE NUMBER: H-16-48811
SIZE: ANSI D	FILE NAME: H-16-48811 C-21A

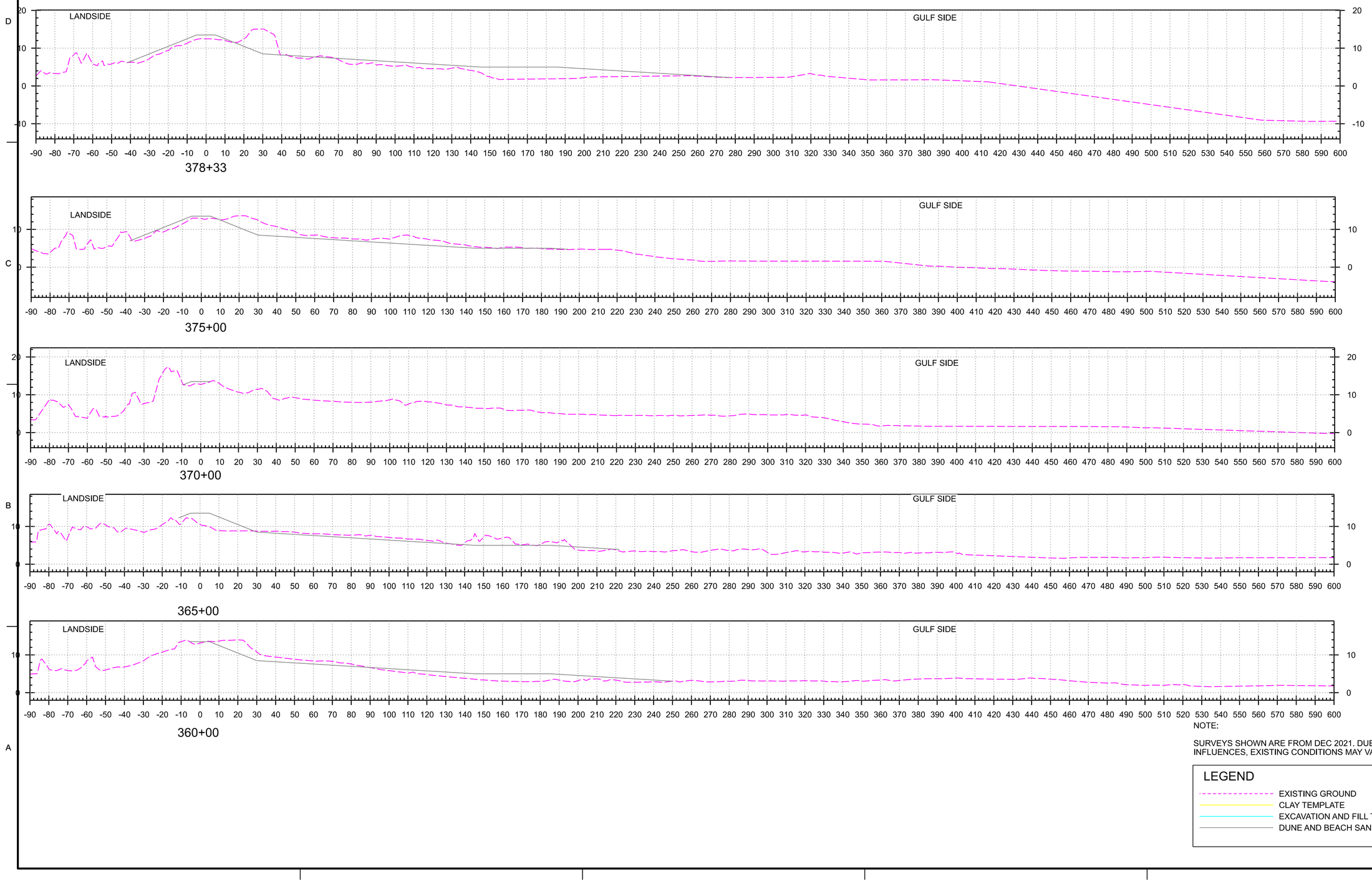
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

ED-22-054

GRAND ISLE AND VICINITY;
HURRICANE IDA REPAIRS;
DUNE AND BERM CONSTRUCTION,
JEFFERSON PARISH, LOUISIANA

DUNE CENTERLINE PLAN AND PROFILE
STA. 360+00 TO STA. 380+00

SHEET IDENTIFICATION
C-21A



NOTE:

SURVEYS SHOWN ARE FROM DEC 2021. DUE TO GULF INFLUENCES, EXISTING CONDITIONS MAY VARY.

LEGEND

- EXISTING GROUND
- CLAY TEMPLATE
- EXCAVATION AND FILL TEMPLATE
- DUNE AND BEACH SAND TEMPLATE

4

US Army Corps of Engineers®
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
1	REVISE INDEX AND DUNE CL COORDINATES		
2	REVISED TEXT		
3	REVISED LIMIT OF WORK		
4	UPDATED CROSS SECTIONS		

DESIGNED BY: MATTHEW N. RADER	DATE: MARCH 2023
DWN BY: MNR	CKD BY: JAB
SUBMITTED BY: MATTHEW N. RADER	SOLICITATION NO.: W912P823B0022
PLOT SCALE: AS SHOWN	CONTRACT NO.:
SIZE: ANSI D	PLOT DATE: 31 MAR 2023
FILE NAME: H-15-48611_C-37	FILE NUMBER: H-15-48611

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

ED-22-054

GRAND ISLE AND VICINITY,
HURRICANE IDA REPAIRS,
DUNE AND BEACH RESTORATION,
JEFFERSON PARISH, LOUISIANA

DUNE AND BEACH CROSS SECTIONS
STA. 360+00 TO STA. 382+00

SHEET IDENTIFICATION
C-37