AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
		1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE	5. PROJECT NO. (If applicable)
W9127824B0001-0002	15 MARCH 2024		CHC22012

6. ISSUED BY CODE	7. ADMINISTERED BY(If other than item 6) CODE
Corps of Engineers 109 St. Joseph St. Mobile, AL 36602	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code)	☒	9A. AMENDMENT OF SOLICITATION NO. W9127824B0001 9B. DATED (SEE ITEM 11) 16 FEABRUARY 2024
	☐	10A. MODIFICATION OF CONTRACT/ORDER NO. 10B. DATED (SEE ITEM 13)
CODE FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended. Offers 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 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 ACKNOWLEDGEMENT 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 ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO 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 subject solicitation for: **MOBILE HARBOR, ALABAMA, DEEPENING AND WIDENING – PHASE 6 MOBILE, ALABAMA**

Is modified in the following: **REFER TO THE ENCLOSED REVISED SPECIFICATIONS FOR AMENDMENT NO. 0002**

Except as provided herein, all terms and conditions of the document reference 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 OFFICE (Type or print)	
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

PART I - REVISIONS MADE BY ADDED AND/OR REPLACEMENT PARAGRAPHS/PAGES/SECTIONS

The items listed below are to be replaced by the corresponding added and/or revised paragraphs/pages or sections. Added and/or revised paragraphs/pages or sections are indicated by a note in bottom right hand corner of each paragraph or page. Added sections are hereby made a part of the contract and are to be inserted in the specification in the proper numerical/alphabetical sequence.

Within the specifications, deletions from the specifications are indicated by strikethrough, e.g.: ~~deletions are marked with strikethrough~~ and additions to the specifications including revisions/substitutions are indicated in bold, italic and underlined, e.g.: ***additions are indicated thus.***

SECTION	Corresponding Added or Revised Paragraph Page, and/or Section
Bid Schedule	Revised Bid Item No. 6 as indicated herein.
Explanation of Bid Items	Revised Bid Item No. 6 as indicated herein.
01 00 00	Revised Paragraphs 1.3 and 1.7 as indicated herein.
Wage Rates	Replaced in its entirety.
01 33 00	Replaced Wage Rates associated with Section 35 20 23.
35 20 23	Revised Paragraphs 1.3, 3.3.6.6, 3.4.6, and 3.4.7 as indicated herein.

PART II - NOTE: Revised, replacement and added drawings are listed below. These revised, replacement and added drawings are to be inserted into the folio in the proper numerical sequence. Drawings that have been revised or replaced by this amendment shall be deleted from the folio. All drawings listed below are revised unless indicated otherwise.

SHEET ID	***TITLE OF DRAWINGS***
G-001	AM02 COVER SHEET
G-002.1	INDEX OF DRAWINGS
G-003.1	GENERAL NOTES (REPLACED)
CN101.1	PROJECT MAP (REPLACED)
CN105.1	DEER RIVER DREDGE PLACEMENT AREA (REPLACED)
CN106.1	DAUPHIN ISLAND PARKWAY CAUSEWAY NORTH AND SOUTH DREDGE PLACEMENT AREAS (REPLACED)
CN107.1	DAUPHIN ISLAND PARKWAY CAUSEWAY NORTH DREDGE PLACEMENT AREA (REPLACED)
CN108.1	DAUPHIN ISLAND PARKWAY CAUSEWAY SOUTH DREDGE PLACEMENT AREA (REPLACED)
CN110.1	TURNING BASIN DREDGE CUT AREAS (REPLACED)

PART III - The files listed below are provided as supplemental information to the solicitation.

011024WJB - South Approach Profile - Progress Survey EDT.xyz
011024WJB - South Approach Progress Survey EDT STL.xyz
021924DRA - North Floatation AD Survey EDT STL.xyz
021924DRA - South Floatation AD Survey EDT STL.xyz
Dauphin Island North.xyz
North Approach 12-30-23.xyz
Phase_6_Relic_Shell_20240307_Depth1.xyz
Phase_6_Relic_Shell_20240312_Depth1.xyz
PHASE 6.xyz

Encl as stated
Replaced pages of the specifications as indicated in Part I.
2 Revised Drawings as listed in Part II.
7 Replaced Drawings as listed in Part II.

BIDDER'S NAME:_____

BIDDING SCHEDULE

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
1.	Mobilization and Demobilization	1	Job	XXX	
2.	Dredging of Mobile Upper Bay Channel and Turning Basin	1,052,000	CY		
3.	Placement at Deer River Beneficial Use Site Marsh Fill Area	82,360	SY		
4.	Construction of Sand Berm at the Dauphin Island Causeway Beneficial Use Site	9,310	LF		
5.	Placement at Dauphin Island Causeway Beneficial Use Site Marsh Fill Area	345,870	SY		
6.	Dredging and Placement in the Relic Shell Placement Site	~~2,029,024~~***2,239,858***	CY		
				Total Bid	

OFFEROR ELECTS TO WAIVE THE PRICE EVALUATION PREFERENCE
FOR HUBZONE SMALL BUSINESS CONCERNS: ( )NO ( )YES

(SEE BIDDING SCHEDULE NOTE NOS. 6 AND 7)

NOTES FOR BIDDING SCHEDULE

NOTE NO. 1. To better facilitate the public bid opening process, all modifications to bids are to be submitted on copies of the latest bid schedules as published in the solicitation or the latest amendment thereto. In lieu of indicating additions/deductions to bid items, all bidders should state their revised prices for each item. The company name should be indicated on the face of the bidding schedule to preclude being misplaced.

NOTE NO. 2. Bidders must insert a price on all numbered items of the bidding schedule by the Government. Failure to do so will disqualify the bid.

NOTE NO. 3. All extensions of the unit prices shown will be subject to verification by the Government. In case of variation between the unit price and extension, the unit price will be considered to be the bid.

NOTE NO. 4. If a modification to a bid is submitted and provides for a job adjustment to the total estimated cost, the application of the job adjustment to each unit price and/or job price in the bid schedule must be stated or, if it is not stated, the bidder agrees that the job adjustment shall be applied on a pro rata basis to every bid item in the bid schedule.

NOTE NO. 5. CONDITIONS GOVERNING EVALUATION OF BIDS AND AWARD OF CONTRACTS.

Only one contract will be awarded on this Bid Schedule and award will be made to the low bidder on the Total Bid.

NOTE NO. 6. IMPORTANT NOTICE: Due to the suspension of the utilization of the price adjustment for small disadvantaged businesses (FAR Clause 52.219-23) by the Under Secretary of Defense on March 12, 2010, effective until further notice, said FAR Clause is not included in or made a part of this RFP. FAR Clause 52.219-4, relating to a 10% price evaluation preference for HUB ZONE small business concerns, is included in and made a part of this RFP. PLEASE NOTE HOWEVER that paragraph (b) (3) of the preceding clause is inapplicable also due to the referenced suspension of FAR Clause 52.219-23.

Consequently, if you are a small business qualified as a HUB ZONE and as an SDB, you will only receive the HUB ZONE 10% price evaluation preference in the evaluation process of this RFP.

NOTE NO. 7. This procurement is not restricted to Hubzone Small Business Concerns. However, offerors certifying as a Hubzone Small Business Concern must be certified by the SBA on or prior to date set for receipt of offers.

END OF BID SCHEDULE

EXPLANATION OF BID ITEMS

GENERAL: This section comprises an explanation of the bid items identified in the bid schedule for each item of work. The bid schedule and the contract drawings shall be worked together to identify the various items of work to which each bid item will apply. The Contractor shall bid the work under the applicable bid item for the specific areas identified in the bid schedule. All work specified herein shall be accomplished in accordance with the requirements of the technical provisions of the specifications and the contract drawings. Payment described for the various bid items will be full compensation for all labor, materials, and equipment required to complete the work. Compensation for any item of work described in the contract but not listed in the bid schedule shall be included in the payment for the item of work to which it is made subsidiary.

Bid Item No. 1 – Mobilization/Demobilization:

(a) All costs associated with initial mobilization to the work site at the Upper Bay and Turning Basin portion of the Mobile Harbor Shipping Channel in Mobile County, Alabama and final demobilization of all dredge plant, dredge attendant plant, and support equipment will be included in the contract lump sum price for Mobilization and Demobilization, Bid Item No. 1. This shall include all costs to (1) construct the necessary features to access and prepare the work site and (2) adapt, modify, reconstruct, and/or reconfigure the dredge plant and/or other equipment to a configuration capable of performing this contract work. No other separate payment shall be made for any such configuration preparations, and payment of this bid item is considered complete compensation for such actions. Sixty percent (60%) of the lump sum price will be paid after completion of the Contractor’s mobilization at the work sites. The remaining forty percent (40%) will be paid after completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraph (a) above do not bear a reasonable relation to the cost of the work in this contract. Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of –

(i) Actual mobilization costs at completion of mobilization;
(ii) Actual demobilization costs at completion of demobilization; and
(iii) The remainder of this item in the final payment under this contract.

The Contracting Officer's determination of the actual costs in paragraph (b) of this clause is not subject to appeal.

Bid Item No. 2 – Dredging of Mobile Upper Bay Channel and Turning Basin

Payment for Bid Item No. 2 will include all costs associated with the excavation of approximately 1,052,000 cubic yards of material to the grades and tolerances shown on the contract plans. Payment will be based on the volume of material dredged within the limits shown in the contract drawings and the transportation of the dredged material to the Deer River and Dauphin Island Causeway Beneficial Use sites. The contractor shall submit their own dredge cuts in the workplan, similar to Table 1 in section 35 20 23, which may be used for acceptance purposes in lieu of acceptance sections by channel stationing, if approved by the

Contracting Officer or their representative. The quantity of material dredged for payment shall be calculated as the difference between the before- and after-dredging surveys of the cut areas within the dredge prism. Partial payments can be made on individual cuts prior to final acceptance. Final acceptance will be made when the individual dredge cuts are constructed to the lines and grades shown on the contract drawings. As the contractor progresses, after-dredge surveys used to calculate partial payments will also serve as the before-dredge surveys for subsequent partial payments.

The contract clause VARIATIONS ON ESTIMATED QUANTITIES will only be applicable to the quantity required to construct the dredge area to the lines and grades shown, excluding the allowable overdepth, on the contract drawings. Subsidiary features of work including surveying turbidity monitoring shall also be included in this bid item. Details of the surveying requirements are provided in Section 01 00 00 – ADDITIONAL SPECIAL CONTRACT REQUIREMENTS, paragraph SURVEY REQUIREMENTS as well as Section 35 20 23.00 36 - DREDGING. Details of the turbidity monitoring are provided in section 01 57 19 – TEMPORARY ENVIRONMENTAL CONTROLS, paragraph PROTECTION OF FISH AND WILDLIFE.

Bid Item No. 3 – Placement at Deer River Beneficial Use Site Marsh Fill Area

Payment for Bid Item No. 3 will include all costs associated with the placement of approximately 82,360 square yards of marsh to the grades and tolerances shown on the drawings. The material to be placed should come from the dredge cuts designated for this site, as detailed in section 35 20 23 – DREDGING, paragraph ORDER OF WORK. Payment will be based on the square yardage of marsh placed within the limits shown in the contract drawings. The quantity of material placed for payment shall be calculated as the difference between the before- and after-placement surveys of the area within the placement prism. The contractor shall place fill material in accordance with the approved deposition plan to the grades and tolerances shown. No material shall be placed outside the placement sites detailed in the contract plans. Material placed outside of the placement site will be considered misplaced material and will not be paid for under this bid item. Any material placed outside of the placement site violates environmental requirements, including the Department of the Army permit, and the contractor shall be required to remove it at their full expense. The government reserves the right to accept a template below the tolerances shown in the drawings if the contractor encounters in-situ water bottoms in the placement site that are unsuitable for efficient fill operations. The contract clause VARIATIONS ON ESTIMATED QUANTITIES will only be applicable to the quantity required to construct the placement area to the lines and grades shown on the contract drawings, excluding the allowable tolerances, stated in the contract. Subsidiary features of work including surveying and turbidity monitoring shall also be included in this bid item. Details of the surveying requirements are provided in Section 01 00 00 – ADDITIONAL SPECIAL CONTRACT REQUIREMENTS, paragraph SURVEY REQUIREMENTS as well as Section 35 20 23 - DREDGING. Details of the turbidity monitoring are provided in section 01 57 19 – TEMPORARY ENVIRONMENTAL CONTROLS, paragraph PROTECTION OF FISH AND WILDLIFE.

Bid Item No. 4 – Construction of Sand Berm at the Dauphin Island Causeway Beneficial Use Site

Payment for Bid Item No. 4 will include the cost for placement of approximately 9,310 linear feet of sand berm in the Dauphin Island Causeway placement sites.

Approximately 5,947 linear feet of sand berm will be placed at the Northern site and 3,363 linear feet will be placed in the Southern site. The material to be placed in the Dauphin Island Causeway sand berms should come from the dredge cuts designated for this site, as detailed in section 35 20 23 – DREDGING, paragraph ORDER OF WORK. Payment will be based on the linear foot of sand berm placed within the template detailed in the contract plans and specifications. The contractor shall place fill material in accordance with the approved deposition plan to the grades and tolerances shown. All material placed within the tolerance range will be paid for at the unit price for this bid item. No material shall be placed outside the placement sites detailed in the contract plans. Material placed outside of the placement site will be considered misplaced material and will not be paid for under this bid item. Any material placed outside of the placement site violates environmental requirements, including the Department of the Army permit, and the contractor shall be required to remove it at their full expense. The government reserves the right to accept a template below the tolerances shown in the drawings if the contractor encounters in-situ water bottoms in the placement site that are unsuitable for efficient fill operations. The contract clause VARIATIONS ON ESTIMATED QUANTITIES will only be applicable to the quantity required to construct the dredge area to the lines and grades shown, excluding the allowable tolerances, stated in the contract. Subsidiary features of work including surveying and turbidity monitoring shall also be included in this bid item. Details of the surveying requirements are provided in Section 01 00 00 – ADDITIONAL SPECIAL CONTRACT REQUIREMENTS, paragraph SURVEY REQUIREMENTS as well as Section 35 20 23 - DREDGING. Details of the turbidity monitoring are provided in section 01 57 19 – TEMPORARY ENVIRONMENTAL CONTROLS, paragraph PROTECTION OF FISH AND WILDLIFE.

Bid Item No. 5 – Placement at Dauphin Island Causeway Beneficial Use Site Marsh Fill Area

Payment for Bid Item No. 5 will include all costs associated with the placement of approximately 345,870 square yards of marsh to the grades and tolerances shown on the drawings. Approximately 288,282 square yards of marsh will be placed in the northern site and 57,588 square yards will be placed in the southern site. The material to be placed should come from the dredge cuts designated for this site, as detailed in section 35 20 23 – DREDGING, paragraph ORDER OF WORK. Payment will be based on the square yardage of marsh placed within the limits shown in the contract drawings. The quantity of material placed for payment shall be calculated as the difference between the before- and after-placement surveys of the area within the placement prism. The contractor shall place fill material in accordance with the approved deposition plan to the grades and tolerances shown. No material shall be placed outside the placement sites detailed in the contract plans. Material placed outside of the placement site will be considered misplaced material and will not be paid for under this bid item. Any material placed outside of the placement site violates environmental requirements, including the Department of the Army permit, and the contractor shall be required to remove it at their full expense. The government reserves the right to accept a template below the tolerances shown in the drawings if the contractor encounters in-situ water bottoms in the placement site that are unsuitable for efficient fill operations. The contract clause VARIATIONS ON ESTIMATED QUANTITIES will only be applicable to the quantity required to construct the placement area to the lines and grades shown on the contract drawings. Subsidiary features of work including surveying and turbidity monitoring shall also be included in this bid item. Details of the surveying requirements are provided in Section 01 00 00 – ADDITIONAL SPECIAL CONTRACT REQUIREMENTS, paragraph SURVEY REQUIREMENTS as well as Section 35 20 23 - DREDGING. Details of the turbidity monitoring are

provided in section 01 57 19 – TEMPORARY ENVIRONMENTAL CONTROLS, paragraph PROTECTION OF FISH AND WILDLIFE.

Bid Item No. 6 – Dredging and Placement in the Relic Shell Placement Site

Payment for Bid Item No. ~~5~~***6*** will include all costs associated with the dredging and placement of approximately ~~2,029,024~~ ***2,239,858*** cubic yards of material. The quantities reported above were derived using the survey data from October and November 2023 (see APPENDIX C for Volume Report). ***The quantity of material includes 2,029,024 cubic yards of new work and O&M material with an additional 210,834 cubic yards added for projected shoaling***. Payment will be based on the volume of material dredged within the limits shown in the contract drawings. The contractor shall submit their own dredge cuts in the workplan, similar to Table 1 in section 35 20 23, which may be used for acceptance purposes in lieu of acceptance sections by channel stationing, if approved by the Contracting Officer or their representative. The quantity of material dredged for payment shall be calculated as the difference between the before- and after-dredging surveys of the area within the acceptance prism. The acceptance prism shall be defined as the lines and grades shown on the drawings. Payment will not be made for any volume dredged that exceeds the acceptance prism. The contractor shall place fill material in the Relic Shell Placement Site in accordance with the approved deposition plan to the grades and tolerances detailed in the contract plans and specifications. No material shall be placed outside the placement sites detailed in the contract plans. Material placed outside of the placement site will be considered misplaced material and will not be paid for under this bid item. Any material placed outside of the placement site violates environmental requirements, including the Department of the Army permit, and the contractor shall be required to remove it at their full expense. Subsidiary features of work including surveying, utility location verification, and turbidity monitoring shall also be included in this bid item. Details of the surveying requirements are provided in Section 35 20 23 – DREDGING, paragraph DREDGING SURVEYS. Details of the turbidity monitoring are provided in section 01 57 19 – ENVIRONMENTAL PROTECTION, paragraph PROTECTION OF FISH AND WILDLIFE.

-End of Section-

SECTION 01 00 00

ADDITIONAL SPECIAL CONTRACT REQUIREMENTS

PART 1 GENERAL

1.1 SUBMITTALS

See the technical sections for approval and detail requirements for submittals. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES and the required technical section:

SD-11 Closeout Submittals

Contractor Prepared As-Built Drawings; G, OP

1.2 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS

(a) The Contractor will be furnished with one CD-ROM containing a reproducible copy of the advertised solicitation, including all contract clauses, drawings, and specifications. Paper copies of the specifications and drawings will be the responsibility of the Contractor. The work shall conform to the technical provisions outlined in the specifications and the contract drawings.

(b) Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work, but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

(c) The Contractor shall check all drawings furnished them immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby.

(d) The list of drawings and maps provided in the Index Sheet of the Plans for this solicitation are hereby incorporated by reference into these specifications.

NOTE: Refer to the folio of drawings for the index of drawings in this solicitation.

AMENDMENT 0002
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1.3 PHYSICAL DATA

Data and information furnished or referred to below is for the Contractor's information. The Government will not be responsible for any

interpretation or conclusion drawn from the data or information by the Contractor.

(a) General: The indications of physical conditions on the drawings and in the specifications are the result of site investigations and surveys.

(b) Location: The work to be done under these specifications is located in the northern most reach of the Mobile Bay, Alabama at the mouth of the Mobile River within and along the Mobile Harbor Federal Navigation Channel and turning basin from Stations 226+16 to 337+00.

The in bay Relic Shell placement sites A and B for the project are located in the Mobile Bay, southeast of the channel work, approximately 4 miles to the closest point, and approximately 8.5 miles from the furthest point.

The benefical use Deer River and Dauphin Island Causeway North and South placement sites are located in the middle and lower portions of Mobile Bay southwest of the channel work, roughly 13.5 miles and 25 miles from the Mobile Harbor Turning Basin.

(c) Contractor's Investigation Responsibility: The Contractor should investigate submerged, surface, and overhead structures in the work areas and other locations which may be necessary to traverse. The exact location, depths, and heights of various structures to including, but not limited to submarine cables, pipes, highlines, docks, piers, bulkheads, and bridges etc. (as applicable), are not known. It will be necessary for the Contractor to ascertain interference problems and notify the respective owners in advance of dredging and placement operations. The Contractor shall make all arrangements with the respective owners of the structure to assure satisfactory completion of dredging and dredge material placement in the vicinity with a minimum interruption of service, and shall perform operations in such a manner as will avoid damage to these facilities.

(d) Weather Conditions: The sites of the work are exposed to local weather conditions which may cause suspension of the work for short unknown periods of time. During tropical storms and hurricanes which may occur from June to November, the project channels do not afford a safe refuge for floating plants. There are no unusual currents except during floods, when velocities of 2 to 4 miles per hour may be expected; however, the Contractor should investigate all sites of work and determine for themself the requirements of the work. Under ordinary conditions, the Mean Tidal Range is 1.2 feet. The working season extends over the entire year. Tides in Mobile Harbor are affected by extended periods of strong north or south winds.

(e) Transportation Facilities: The work areas are accessible by water via the Gulf Intracoastal Waterway and the Gulf of Mexico. The Contractor shall investigate any limitations imposed by bridges or other structures on water access to the project site. Highway access (Federal, state, and local) is available to the near vicinity of all work areas. Rail and highway transportation is available to Mobile, Alabama. Water transportation is available to the site of the work. The Contractor shall make their own investigation of available roads for transportation, load limits for bridges and roads, and other road conditions affecting the transportation of materials and equipment to the work sites.

(f) Channel Traffic: The traffic using the Mobile, Alabama Federal Navigation Channel is considered to be a combination of heavy and large commercial vessels, and various sized recreational craft, respectively. The type of traffic consists of general container ships, bulk carriers, fuel tankers, tow boats, Navy ships, charter fishing boats, passenger boats, and pleasure craft. CAUTION: When navigation conditions become hazardous due to inclement weather (fog, storm, etc) or other circumstances, the Contractor shall maintain appropriate communication with project traffic. The Contractor shall particularly comply with all U.S. Coast Guard regulations pertaining to proper activation of fog (and any other) signaling devices (sound, light, etc).

(g) Obstruction of Navigation Channels: The Government will not undertake to keep the work areas and navigation channels free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the Rivers and Harbors Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs any navigation channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon the completion of the work the Contractor shall promptly remove their plant, including ranges, buoys, piles, and other marks placed by them under the contract in navigable waters or on shore.

(h) The Dauphin Island Causeway construction schedule estimates the end of May for substantial completion. The Dauphin Island Causeway contractor is to maintain the approach channel until final acceptance of channels based on as-built surveys, which may be conducted up to 30 days prior to the end of the contract. Dates are subject to change.

(i) The Deer River construction schedule estimates beginning of April for substantial completion. Deer River contractor is not required to maintain access channels. Dates are subject to change. Contractor to bid based on provided data.

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AMENDMENT 0001

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AMENDMENT 0002

1.4 TIME EXTENSIONS

Notwithstanding any other provisions of this contract, it is mutually understood that the time extensions for changes in the work will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements so delayed and that the remaining contract completion dates for all other portions of the work will not be altered and may further provide for an equitable readjustment of liquidated damages under the new completion schedule. Change orders involving time extensions must be obtained in writing from the Government's Representative.

1.5 CONTRACTOR PREPARED AS-BUILT DRAWINGS

(a) General: In accordance with SPECIAL CONTRACT REQUIREMENT paragraph: CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS, the Government will furnish the Contractor on CD-ROM one electronic set of solicitation drawing files and any amendments for use in preparation of as-built drawings by the Contractor. Copies of the drawings will be the responsibility of the Contractor. The as-built drawings shall be a record of the construction as completed by the Contractor. They shall include all the information shown on the contract set of drawings and a record of all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, all additional work not appearing on the contract drawings, and all changes which are made after final inspection of the contract work. In the event the Contractor accomplishes additional work which changes the as-built conditions after submission of the as-built drawings, the Contractor shall furnish revised and/or additional drawings as required to depict as-built conditions. The requirements for these additional drawings will be the same as for the as-built drawings included in the original submittal.

(b) Red line as-built drawings: The Contractor shall have on their staff, personnel to mark up a set of paper copy construction drawings to show the as-built conditions. These as-built marked copies shall be kept current and available on the job site at all times. All changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded, as the events occur, by means of details and notes. The Contractor shall call attention to entries by red lining areas affected. The red line as-built drawings will be jointly inspected for accuracy and completeness by the Contracting Officer's Representative and a responsible representative of the Contractor prior to submittal of each request for payment. The Contracting Officer Representative's approval of the current status of the as-built drawings shall be a prerequisite to the approval of request for progress payment and request for final payment under the contract. The drawings shall show the following information, but not be limited thereto:

(1) The location and description of any utility lines or other installations of any kind or description known to exist within the construction area that are not already shown on the contract drawings. The location includes dimensions to permanent features.

(2) The location and dimensions of any changes within the construction area.

(3) All changes or modifications which result from the final inspection.

(c) Submittal of as-built drawings for review and approval: The Contractor shall participate in monthly review meetings with the Contracting Officer's Representative to show the progress made the preceding month and make all required changes. At time of final construction inspection, the Contractor shall submit one copy of the red lined as-built drawings to the Contracting Officer's Representative for his review and approval. The as-built drawings shall be certified as to their correctness by the signature of an authorized representative of the Contractor. Upon Government approval of the Contractor's red lined copy of the as-built drawings, the Contractor shall prepare and provide two electronic sets of as-built drawings by incorporating the red line marked

up notations on the construction drawings into the electronic set of solicitation drawings and amendments. In addition to the electronic sets of as-built drawings which shall be submitted on a CD-ROM, the Contractor shall also submit a full size set of as-built paper drawings. Submittals are to be to the Contracting Officer's Representative not later than ten (10) calendar days after project completion date.

(d) Final Drawing Format:

(1) The solicitation drawing files and any amendments thereto will be furnished to the Contractor in electronic format. The solicitation drawing files have been prepared using MicroStation. The Contractor shall utilize a file format that is compatible with the latest version of MicroStation to revise/redraft each solicitation drawing and/or amendment drawing to reflect all changes made during construction as indicated by the red line marked up notations on the construction drawings. Revisions/redrafting shall match the font styles, sizes, and formats; line weights/thicknesses and styles/types; and all other drafting elements used on the solicitation drawing/amendments. All elements must be incorporated into each as-built drawing file; the use of reference files shall not be permitted.

(2) All revisions made to the solicitation drawings and/or amendment drawings to reflect changes made during construction shall be flagged and shall have the revision block completed as follows. The entry in the description column of the revision block shall read "AS-BUILT". The date of the revision and one approving initial from a responsible person within the Contractor's Firm shall also be included in the revision block. Above the drawing title block the drawing will be labeled in bold letters "AS-BUILT". The flagged changes and revision block format shall be in accordance with the examples shown in the Mobile District Design Manual located on the Internet at

http://www.sam.usace.army.mil/Missions/MilitaryMissions/Engineering/Engineering-Design-Manual/

The Contractor shall also furnish a revised index of drawings to match the actual design drawings. The drawing title blocks shall be in a uniform format to match the requirements as specified in the Design Manual.

(3) The two electronic sets of as-built drawing files shall be submitted in a format that is compatible with the latest version of MicroStation.

(4) The hard copy reproducible set of as-built drawings shall be submitted unbound on paper. The drawings shall be the full size.

(e) Payment: No separate payment will be made for preparation of the as-built drawings required under this contract. All costs will be considered a subsidiary obligation of the contract.

1.6 ATTENDANT PLANT

(a) Attendant plant shall be composed of such barges, fuel, water, pipe derrick, anchor, etc., floating, submerged, and slip joint discharge pipe, and other attendant or auxiliary plant as may be required for operations under these specifications whether or not these items are specifically mentioned. The auxiliary and attendant plant shall be in good condition and of sufficient size and capability to efficiently serve the

dredge.

(b) Radio Telephone: The Contractor shall furnish and maintain the following radios for communication with the Corps of Engineers, United States Coast Guard, and other vessels: Radio(s) must be certified as being operable on the specified frequencies and powers by a licensed radio technician. A copy of the certification must be furnished to the Contracting Officer prior to final acceptance of the dredging plant.

(1) A Marine VHF Radio, FCC type accepted with the following channels: Channel 16 (156.8 MHZ), Channel 13 (156.65 MHZ), Channel 12 (156.6 MHZ), Channel 14 (156.7 MHZ), and Channels 26 and 28 for public correspondence. A separate receiver must be provided on Channel 13 (156.65 MHZ) in compliance with Public Law 92-63.

(2) In addition to the above-mentioned radios, the Contractor shall provide additional space in the inspector's office as specified in the paragraph entitled "Inspector's Office" for placement of one VHF marine radio. The radio shall be able to receive all VHF marine channels and scan two channels continuously. The radio will be furnished at the expense of the Contractor.

(c) Transport Vessel: The Contractor shall provide one transport vessel, with twin propellers, not less than 40 feet in overall length, with enclosed space for three passengers, to adequately operate in all areas included in the scope of work. This vessel must have an operator on site at all times; be capable of traveling at a speed of 20 knots (23 MPH) or greater in good weather and capable of traveling safely at night and in intense fog; (such vessel shall meet or exceed the appropriate US Coast Guard regulation for a vessel of its size); and the vessel shall have a Certificate of Inspection by the US Coast Guard, or at least from a Marine Surveyor. This vessel shall be for the primary use of the Government Inspector. The use of this vessel for Contractor's crew changes, or any other use of this vessel by the Contractor shall be secondary to the Government Inspector shift changes. This vessel shall be equipped with the following at a minimum: built-in fuel tanks with correctly operating fuel gauges; marine and company radios; windshield wipers; running and spot lights; and all required survey equipment. The Contractor shall secure satisfactory landing location for this vessel.

AMENDMENT 0002
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1.7 ~~Sub Title~~***INSPECTOR'S OFFICE***

~~Text~~***An Inspector's office shall be provided by the Contractor for use by the Government at the Deer River and Dauphin Island Causeway Beneficial Use sites. The office shall be located within 2 miles of the placement sites for the duration of placement activities at the individual sites. The office shall also have wifi access and a bathroom.***

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AMENDMENT 0002

1.8 PRECONSTRUCTION CONFERENCE

(a) A preconstruction conference will be arranged by the Government's representative after award of contract and before commencement of work. The Government's representative will notify the Contractor of the time and

date set for the meeting. At this conference, the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

(b) The Contractor shall bring to this conference the submittals listed in Section 01 33 00 Paragraph entitled Preconstruction Submittals in either completed or draft form.

1.9 PROJECT SIGN

The Contractor shall furnish and install a project sign and a safety performance sign at the location designated by the Contracting Officer's Representative within 60 calendar days after notice to proceed. The signs shall be constructed as indicated on the figures bound herein. Size, lettering, color, and paint shall conform to the details shown in Figure 5B "Construction Sign," Figure 5C "Fabrication and Mounting Guidelines," and Figure 5D "Safety Performance Sign," bound herein. All parts of frames and signs shall be given a primer coat of oil paint and a minimum of two finish coats of white semi-gloss paint. The Contractor shall maintain the sign in a "like new" condition throughout the life of the project, repainting and replacing members as necessary to accomplish this requirement. No direct payment will be made for the signs or maintenance of the signs. All project signs shall be removed after construction is physically complete.

1.10 DATUM AND BENCHMARKS

The plane of references of Mean Lower Low Water (MLLW)and North American Vertical Datumn of 1988 (NAVD88) as used in these specifications is that determined by National Oceanic and Atmosperic Administration (NOAA) and the benchmark and tide gage data as on file at the U.S Army, Corps of Engineers, Mobile District Office and the Irvington Site Office. The Contractor can obtain such data from the Project Engineer, Irvington Site Office, telephone (251)957-6019.

1.11 FINAL EXAMINATION AND ACCEPTANCE

The Contractor or their authorized representative will be notified when soundings and/or sweepings are to be made for final examination and acceptance, and will be permitted to accompany the survey party. When the original or unacceptable area(s) is found to be in a satisfactory condition, it will be accepted finally. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for the removal of unacceptable shoals disclosed at a prior sounding or sweeping, the cost of such third and any subsequent sounding or sweeping operations will be charged against the Contractor at the rate of $2,200.00 per day for each day in which the Government (or Government A-E Contractor) plant is engaged in sounding or sweeping and/or is enroute to or from the site or held at or near the said site for such operations.

Final acceptance of the whole or 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.

AMENDMENT 0001
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1.11.1 Mobile Harbor Federal Navigation Channel and Turning Basin

(a) As soon as practicable (within 14 calendar days or less if agreed to by the Contracting Officer) after completion of the entire work or any designated section thereof (if the work is divided into Contractor and COR agreed upon sections), as in the opinion of the Contracting Officer, the work in this section will not be subject to damage by further operations under the contract, such work (required dredging prism) will be thoroughly examined at the cost and expense of the Government by sounding or by sweeping, or both, as determined by the Contracting Officer, for determination of ACCEPTABILITY of PERFORMANCE by the Contractor. Should any shoals, lumps, or other lack of contract required dredging prism depth, width, or slope (i.e. lack of acceptable contract performance) be disclosed by this examination, the Contractor will be required to remove same by dragging or dredging the affected surface until the acceptable condition is corrected. Before-dredging and after-dredging quantity computations will be made using the contract specified 1V:5H slope. Acceptance of the Mobile Harbor Federal Navigation Channel will be based on the required dredging prism only. The contract drawings include typical sections showing the existing channel dimensions, the required O&M dredging prism, the required new work dredging prism, and the allowable overdepth. If the unacceptable shoal (work) area(s) of the channel bottom/slope is soft and the shoal (work) area(s) is small and forms no material obstruction to navigation, the removal of such shoal(s) may be waived at the discretion of the Contracting Officer. If re-dredging is required to correct the unacceptable work, the dredging will be paid at the current unit price for dredging, however, the maximum payment quantity (original and re-dredgings) will not exceed the original computed pay quantity in the required dredging prism (plus any applicable allowable overdepth quantity, as applicable) based on the original before-dredging surveys.

For the purpose of acceptance for the Mobile Harbor Federal Navigation Channel, the work to be done will be divided into one 1,384, ~~nine~~ ***eight*** 1,000-foot sections, and one 1,700 foot section, as defined below, unless otherwise specified in the approved workplan. The contractor shall submit their own dredge cuts in the workplan, similar to Table 1 in section 35 20 23, which may be used for acceptance purposes in lieu of acceptance sections by channel stationing, if approved by the Contracting Officer or their representative. The quantity of material dredged for payment shall be calculated as the difference between the before- and after-dredging surveys of the cut areas within the dredge prism. Partial payments can be made on individual cuts prior to final acceptance. Final acceptance will be made when the individual dredge cuts are constructed to the lines and grades shown on the contract drawings:

Dredging Reach No.	From Station	To Station
1	226+16	240+00
2-~~11~~ ***9***	240+00	320+00
~~12~~ ***10***	320+00	337+00

(b) After acceptance by the Government, of the whole or part of the work, but before the Contractor has effected demobilization, should any shoals, lumps, or other lack of required contract depth be disclosed by an examination made by the Government, the Contractor may be requested to

remove any such shoal by using the on-site dredging plant and process, to be paid at the original contract rate for dredging in this location. This additional dredging is subject to a supplemental agreement under the contract and is only activated by the Contracting Officer (and if funds are available).

(c) Shoaling in the dredging prism, which occurs in the whole or part of the work not yet offered by the Contractor as candidate for acceptance examination by the Government, is the responsibility of the Contractor (notwithstanding other clauses or provisions of this contract). The Contractor should order the accomplishment of all the work of this contract in such a manner that causes the least exposure to such in-process shoaling.

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AMENDMENT 0001

1.11.2 Dredge Material Placement Sites

Acceptance of the dredged material placement areas will be based on placement to the lines, grades and elevations within the specified placement tolerances.

No dredged material shall be deposited at locations or elevations other than those shown on the contract plans and designated. Misplacement violates environmental compliance and/or Regulatory permit(s). Should any misplacement occur, the Contractor shall remove and/or redeposit material at his expense. Misplaced material will be quantified by volumes calculated from Lidar and/or hydrograph surveys and/or DQM measurements. Required removal and redeposit of the misplaced material and any necessary dredged material placement sites restoration work shall not be the basis for a time extension or additional compensation under this contract.

AMENDMENT 0001

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1.11.2.1 Deer River Dredge Material Placement Site

As soon as practicable (within 14 calendar days or less if agreed to by the Contracting Officer) after completion of the entire work of the Deer River Placement Site or any designated section thereof (if the work is divided into sections), as in the opinion of the Contracting Officer, the work in this section will not be subject to damage by further operations under the contract, such work (required placement template) will be thoroughly examined at the cost and expense of the ~~Government~~***Contractor*** by sounding, as determined by the Contracting Officer, for determination of ACCEPTABILITY of PERFORMANCE by the Contractor. Acceptance of the Deer River Placement Site will be based on dredged material placement to the lines, grades and elevations within the specified placement tolerances. Final acceptance will be based on at least 90% (by percentage of point elevations) within the Contractor and Contracting Officer agreed upon accpetance sections meeting the specified tolerance. The Contracting Officer or their representative may require the contractor to fill deficit or remove excesss dredge material placement areas that fall outside of the specified minimum and maximum tolerances.

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AMENDMENT 0001

1.11.2.2 Dauphin Island Causeway North and South Segement Placement Sites

As soon as practicable (within 14 calendar days or less if agreed to by the Contracting Officer) after completion of the entire work of the Dauphin Island Causeway North and South Segement Placement Sites or any designated section thereof (if the work is divided into sections), as in the opinion of the Contracting Officer, the work in this section will not be subject to damage by further operations under the contract, such work (required placement template) will be thoroughly examined at the cost and expense of the Contractor by sounding, as determined by the Contracting Officer, for determination of ACCEPTABILITY of PERFORMANCE by the Contractor. Acceptance of the Dauphin Island Causeway North and South Segement Placement Sites will be based on dredged material placement to the lines, grades and elevations within the specified placement tolerances.
Final acceptance of the marsh creation areas will be based on at least 90% (by percentage of point elevations) within the Contractor and COR agreed upon accpetance sections meeting the specified tolerance. The COR may require the contractor to fill deficit or remove excesss dredge material placement areas that fall outside of the specified minimum and maximum tolerances.

1.11.2.3 Relic Shell Mine Placement Sites A and B

As soon as practicable (within 14 calendar days or less if agreed to by the Contracting Officer) after completion of the placement within Relic Shell Mine Placement Sites A and B or any designated section thereof (if the work is divided into sections), as in the opinion of the Contracting Officer, the work in this section will not be subject to damage by further operations under the contract, such work (required placement template) will be thoroughly examined at the cost and expense of the Contractor by sounding, as determined by the Contracting Officer, for determination of ACCEPTABILITY of PERFORMANCE by the Contractor. Acceptance will be based on dredged material placement within the specified placement tolerances.

1.12 PERFORMANCE EVALUATION OF CONTRACTOR

As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluation may be prepared at any time during the contract performance when determined to be in the best interest of the Government.

The evaluation will be completed in the Contractor Performance Assessment Reporting System (CPARS), and the Contractor will be rated either exceptional, very good, satisfactory, marginal, or unsatisfactory in the areas of Quality, Schedule, Cost Control, Management, Small Business, Regulatory, and Other Areas. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official records. Performance Evaluation Reports will be available to all DOD Contracting offices for their future use in determining Contractor responsibility, in compliance with DFARS 36.201(c)(1).

-- End of Section --

U.S. Department of Labor Wage and Hour Division
Washington, D.C. 20210

Response to SF-308 Request for
Davis-Bacon Project Wage Determination

Project Wage Decision Number: 2024AL-23076308031137

State: Alabama

County: Mobile

Construction Type: Heavy Dredging Construction Project

Agency: U.S. Army Corps of Engineers

Solicitation Number: W9127824B0001

Project Name: Dredging in Mobile Bay, AL.

Description of Work (as clarified): Hopper and pipeline dredging in Mobile, AL

Date of Decision: 03/12/2024
Expires: 08/12/2024

Modification Number: N/A

Classification	Hourly Rate	Fringe Benefits
Derrick Operator	$17.20	$0.00
Dozer Operator	$17.20	$0.00
Hydraulic Dredge 16" and over		
Deckhand	$17.20	$0.00
Dredge Tender Operator	$17.20	$0.00
Fireman	$17.20	$0.00
First Assistant Engineer	$17.20	$0.00
Leverman	$17.20	$0.00
Oiler	$17.20	$0.00
Second Assistance Engineer	$17.20	$0.00
Shoreman	$17.20	$0.00
Third Assistant Engineer	$17.20	$0.00
Truck Driver	$17.20	$0.00
Dredge Under 16"		
Deckhand	$17.20	$0.00

Dredge Tender Operator	$17.20	$0.00
Leverman	$17.20	$0.00
Oiler	$17.20	$0.00
Hydraulic Dredging		
First Cook	$17.20	$0.00
Handyman	$17.20	$0.00
Janitor – Cabin Person	$17.20	$0.00
Mess Person	$17.20	$0.00
Second Cook	$17.20	$0.00
Marsh Buggy Dragline		
Oiler	$17.20	$0.00
Operator	$17.20	$0.00
Self-Propelled Hopper Dredge- Drag Tenders	$17.20	$0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

This wage determination is specifically for the project listed above. It cannot be used for any other purpose including contracts and or projects.

Further, in the event the above referenced contract is subject to Executive Order (EO) 14026 and the approved conformed hourly wage rate (not including any fringe benefits) is less than the EO minimum wage, you are required to comply with the minimum wage requirements of EO 14026, codified at 29 CFR Part 10. Please note that EO 14026 apply to contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). See Final Rule: Increasing the Minimum Wage for Federal Contractors (Executive Order 14026) | U.S. Department of Labor (dol.gov) for additional information regarding EO 14026, including coverage and minimum wage requirements.

If you have any questions and or additional comments, please do not hesitate to contact me at Thomas.Rhontia@dol.gov.

Approved by:

RhonTia S. Thomas-Johnson

RhonTia Thomas-Johnson
Chief
Branch of Construction Wage Determinations
202-693-0806
Thomas.rhontia@dol.gov

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION
Mobile Harbor Deepening and Widening, Phase 6

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAG # RAPH	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)		(q)	(r)
		01 00 00	SD-11 Closeout Submittals																
			Contractor Prepared As-Built	1.5	G	OP													
			Drawings;																
		35 20 23	SD-01 Preconstruction Submittals																
			Notice Of Intent to Dredge	1.6.2	G	OP													
			Order Of Work Plan	3.2.1	G	OP													
			Quality Control Plan	3.4.4	G	OP													
			Deposition Plan	3.2.1.1	G	OP													
			Survey Plan	3.2.1.1	G	OP													
			Survey Plan	3.4.2	G	OP													
			Accident Prevention Plan (App)	1.7.1	G	OP													
			SD-05 Design Data																
			Pre-Construction Surveys	3.4.7	G	OP													
			Post-Construction Surveys	3.4.7	G	OP													
			Construcion Surveys		G	OP													
			Before-Dredging Condition	3.4.6	G	OP													
			Surveys																
			After-Dredging Condition Surveys	3.4.6	G	OP													
			Aerial Photographs Of Deer River	3.4.7	G	OP													
			And Dauphin Island Causeway																
			Placement Sites																
			SD-06 Test Reports																
			Dredge Progress Report	1.5	G	OP													
			Daily Reports	1.5	G	OP													
			SD-11 Closeout Submittals																
			Project Completion Report	3.6	G	OP													

SECTION 35 20 23

DREDGING
08/20

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

This Section covers furnishing all suitable labor, materials, plant, equipment, tools, skills, services, incidentals and performing all work required to excavate the specified materials from within the prescribed Mobile Harbor Federal Navigation Channel Improvements deepening and wideningdredge area limits. In addition, this section covers the transport and placement of the dredge material as indicated in the Contract drawings to attain the surface area and fill height for the respective benefical use at the Deer River, Dauphin Island Causeway and Relic Shell Areas A and B dredge material placement areas. The dredge material will be placed to create tidal marsh habitat and restore sediment to open water bay bottoms.

1.2 REFERENCES

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety and Health Requirements Manual

AMENDMENT 0002
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1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance with Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Unless otherwise indicated below, Preconstruction Submittals shall be submitted no later than 20 calendar days after Notice of Award or 5 calendar days after Notice to Proceed, whichever is later.

Notice Of Intent to Dredge; G, OP

Order Of Work Plan; G, OP

Quality Control Plan; G, OP

Deposition Plan; G, OP

Survey Plan; G, OP

Accident Prevention Plan (App); G, OP

SD-05 Design Data

Pre-Construction Surveys; G, OP

Post-Construction Surveys; G, OP

Construcion Surveys; G, OP

Before-Dredging Condition Surveys; G, OP

After-Dredging Condition Surveys; G, OP

Aerial Photographs Of Deer River And Dauphin Island Causeway Placement Sites; G, OP

SD-06 Test Reports

Dredge Progress Report; G, OP

Daily Reports; G, OP

SD-11 Closeout Submittals

Project Completion Report; G, OP

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AMENDMENT 0002

1.4 DEFINITIONS

1.4.1 Maintenance Material

Maintenance material is defined as that comprising shoaling which has occurred since the channel areas were last dredged.

1.4.2 New Work Material

New work material is defined as previously undredged material.

1.4.3 Mobile Harbor Upper Bay Deepening

Is the dredging to achieve a 5 foot deepening of the existing maintained Upper Mobile Harbor Channel between Stations 226+16 and 267+72.58

1.4.4 Mobile Harbor Turning Basin Deepening and Expansion

Is the dredging to achieve a 5 foot deepening and 250 foot southward expansion of the existing maintained Mobile Harbor turning basin located between stations 245+00 and 271+26.85.

1.4.5 Mobile Harbor Upper Bay Widening

Is the dredging to achieve a 100 foot widening of the existing maintained Upper Mobile Harbor Channel between Stations 267+72.58 to Station 337+00.

1.4.6 Deer River Marsh Creation Fill

Is marsh platform constructed by placement of sandy dredged fill material mixed with silts and clay from the specified Mobile Harbor Federal Navigation Channel behind the existing Deer River Containment Berm within the lines, grades, and elevations shown in the Plans.

1.4.7 Relic Shell Mine Site A and B

Is the open water placement of finer silts and clay dredged material from the specified Mobile Harbor Federal Navigation Channel within the specified limits of the bay shown on the contract Plans to restore sediment to the system.

1.4.8 Dauphin Island Causeway North Sand Berm

Is the placement of coarser sandy fill material from the specified Mobile Federal Navigation Channel behind the existing segmented breakwaters at the Dauphin Island Causeway North dredge placement area located north of Heron Bay Cutoff within the lines, grades, and elevations shown in the contract Plans.

1.4.9 Dauphin Island Causeway North Marsh Creation Fill

Is marsh platform constructed by placement of sandy dredged fill material mixed with silts and clays from the specified Mobile Harbor Federal Navigation Channel behind the Dauphin Island Causeway North Sand Berm located north of Heron Bay Cutoff within the lines, grades, and elevations shown in the contract Plans.

1.4.10 Dauphin Island Causeway South Sand Berm

Is the placement of coarser sandy dredged fill material from the specified Mobile Federal Navigation Channel behind the existing segmented breakwaters at the Dauphin Island Causeway South dredge placement area located south of Heron Bay Cutoff within the lines, grades, and elevations shown in the contract Plans.

1.4.11 Dauphin Island Causeway South Marsh Creation Fill

Is marsh platform constructed by placement of sandy dredged fill material mixed with finer silts and clays from the specified Mobile Harbor Federal Navigation Channel behind the Dauphin Island Causeway South Sand Berm located south of Heron Bay Cutoff within the lines, grades, and elevations shown in the contract Plans.

1.5 METHOD OF COMMUNICATION

Project coordination with the Contracting Officer/Representative (KO/COR) and Quality Assurance Representative (QAR) is to occur during all phases of construction. The area adjacent and West of the channel deepening and widening between stations 267+72.53 and 337+00 will be dredged under a separate Phase 5 Contract. The Contractor shall ensure close coordination regarding their order of work with the Contracting Officer to ensure clear coordination between contractors. Provide a system of communication between the dredge crew and the crew at the placement area. A portable two-way radio is acceptable. Coordination also includes but is not limited to publication of the notice of intent to dredge and coordination with local officials including police, public, US Coast Guard, and others as

agreed during coordination meetings. The Contractor shall submit a bi-weekly Dredge Progress Report in Adobe PDF format to the Contracting Officer. The Dredge progress reports shall include but not be limited to the following:

a. Summary table of excavated sediments, dredge positions and cut depths for the reporting time period obtained from applicable production reports 4267 or 27

b. Overview of the project showing the cumulative dredge positions for the reporting time period

c. Excavation graphs showing depth versus time for each dredge for the reporting time period

d. A color-coded plot, in the project reference datum, of the draghead, cutterhead, or other hydraulic or mechanical dredging device depicting the vertical and horizontal limits of the material dredged each day. Any horizontal or vertical dredge violations shall be clearly defined

e. Hopper dredges shall submit dredge track lines with draghead depths that shall indicate dredge status: dredging, transiting, unloading, and loading

f. Daily reports for the reporting time period

g. Update of the construction progress, including estimated volumetric production rates from dredge areas (both cumulative and for the reporting period)

h. Hopper Dredge Turtle Observer Reports (if applicable) for the reporting time period

i. Incidental Take Observer Reports (if applicable) for the reporting time period

1.6 NOTICES

1.6.1 Start of Work

The Contractor shall give the Contracting Officer's Representative five (5) days written advance notice of the date they plans to begin dredging work in order that required Government actions, such as the installation of baselines and other survey controls, can be started sufficiently in advance of the Contractor's operations.

1.6.2 Notice of Intent to Dredge

Prior to commencement of work on this contract, the Contractor will be required to notify the Commander, Eighth Coast Guard District of their intent 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 30 calendar days prior to project commencement. A copy of the notification shall be provided to the Contracting Officer.

1.6.3 Work Hours

Should the Contractor elect to work on Sundays, holidays, or at night, advance notice of this intent shall be given the Contracting Officer's Representative within a reasonable time, specifying both the dates and hours of the proposed work. Notification is not meant to restrict the Conrtactor, but to allow the government time to coordinate quality assurance inspections. Adequate lighting to facilitate thorough inspection of night operations shall be provided by the Contractor at no additional cost to the Government.

1.6.4 Order or Work Changes

The Contractor shall give the Contracting Officer's Representative ten (10)days written advance notice of the date of any plans to modify the order of work in order that required Government actions may be started sufficiently in advance of the Contractor's operations, including the installation of baselines and other survey controls.

1.7 GENERAL SAFETY REQUIREMENTS

The requirements of this paragraph shall be made part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

1.7.1 Accident Prevention Plan

An accident prevention program incorporating safety features and procedures from Engineer Manual EM 385-1-1, which are applicable to all aspects of the Contractor's dredging operations, is required. An Accident Prevention Plan (APP) describing the Contractor's accident prevention program shall be provided. In addition to these features, the safety requirements outlined in the following paragraphs shall be incorporated into the Contractor's accident prevention program.

1.7.2 Plant Fleeting Area

The Contractor shall designate a plant fleeting area within which all idle components of plant equipment shall be stored. The fleeting area plan shall be contained within the Order of Work Plan. The area shall be marked by "hazardous area" buoys, properly placed and marked with reflective tape to give adequate nighttime warning to mariners. In addition to these bouys, a lighted warning sign, as specified in Section 8.A. of EM 385-1-1, shall be prominently displayed on the equipment in the fleeting area. This sign shall be well lighted and have reflective borders. Multiple lengths of floating pipeline may be placed side-by-side within this fleeting area only if protected by a barge at each end, and shall not be placed in a manner so as to extend outside the barges. Floating pipeline within this fleeting area, not protected at each end by barges, may be placed in single rows and end-to-end only. The requirement for buoys and a lighted warning sign, as specified above, also applies to this configuration.

1.7.3 Dredge Pipeline Markings (Submerged and Floating)

Pipelines, for the purpose of critical markings, are defined as submerged and floating only. Submerged pipelines are defined as those that rest on, are positioned on, or are anchored to, the water column bottom at all times. Other pipelines are defined as floating for purposes of these

markings requirements. These definitions apply whether there is dredge slurry flowing through the pipeline or not. Stored pipeline is covered elsewhere in this Section.

1.7.3.1 Submerged Pipeline Markings

The location or position of the entire length of submerged pipeline shall be marked with signs, buoys, lights, or flags as required by the U.S. Coast Guard (USCG) and as approved by the Contracting Officer's Representative. Signs, bouys, and flags shall be constructed of, or coated with, reflective material that can be detected by marine radar and is easily visible when illuminated by a spotlight beam. The local USCG and U.S. Army Corps of Engineers (USACE) have agreed that the following marking elements are sufficient:

One row of signs, buoys, lights of constant yellow color and of intensity sufficient to be visible for at least one mile on a clear night, flags, or an appropriate combination of these, more or less equally spaced along the submerged pipeline length in sufficient number to define the alignment (length and course) of the pipeline.

1.7.3.2 Floating Pipeline Markings

The position of the entire length of floating pipeline, both rubber and metallic, shall be marked with lights as required by the USCG and approved by the Contracting Officer's Representative. The local USCG and USACE have agreed that the following marking elements are sufficient and in accordance with 33 CFR 88.15:

a. one row of yellow lights, more or less equally spaced, which:

(1). flash 50 to 70 times per minute;

(2). are visible all around the horizon for at least 2 miles on a clear night;

(3). are not less than 1 meter nor more than 3.5 meters above the water surface;

(4). are sufficient in number to clearly show the pipeline's alignment (length and course). The lights shall be spaced not more than 10 meters apart where a pipeline crosses a navigable channel (see paragraph below for further lighting requirements of channel crossings).

b. two red lights at each end of the pipeline length, which are:

(1). visible all around the horizon for at least 2 miles on a clear night;

(2). stacked 1 meter apart in a vertical line with the lower light at the same distance above the water as the flashing yellow lights along the rest of the pipeline.

1.7.4 Pipelines Crossing Navigable Channels

At navigable channel crossings, pipelines may be either of two types, submerged or floating (floating crossings are further defined as fixed and non-fixed opening types):

1.7.4.1 Submerged pipeline crossings

Submerged pipeline crossings shall meet the following requirements.

a. The pipeline shall be configured in such a fashion (joints, bends, etc.) that it allows a safe passageway to usual vessel traffic with dimensions equal to or greater than the project channel dimensions (bottom width, side slopes and depth);

b. The pipeline must have two lights at each side of the safe passageway, which are:

(1). visible all around the horizon for at least 2 miles on a clear night;

(2). stacked 1 meter apart in a vertical line with the lower light not less than 1 meter nor more than 3.5 meters above the water surface; and

(3). of red color matching the standard USCG channel marking convention.

1.7.4.2 Floating Pipeline Crossings

Floating pipeline crossings shall meet the following requirements:

Fixed, non-opening, drop loop crossings shall have two red lights stacked at each side of the safe passageway which meet the requirements of 1.7.4.1.b.(1)., 1.7.4.1.b.(2) and 1.7.4.1.b.(3) above, and have depth and width of the loop equal to or greater than the channel project dimensions.

Non-fixed, opening type crossings shall have two stacked red lights at each side of the to-be-presented safe passageway, which meet the criteria of 1.7.4.1.b.(1) and 1.7.4.1.b.(2) above, and have the capability to be quickly disconnected (opened), on proper notice by approaching traffic, to allow safe vessel passage.

1.7.5 Plant Inspection

All plants, in use or idle, shall be inspected at least once per shift by the Contractor'S inspector to assure that buoys, signs, and lights are in place and that all lights are operating properly. Daily reports by the Contractor shall identify inspection personnel and indicate the time of inspection of plant in use and in storage within the fleeting area. An adequate number of reserve batteries and lights shall be stored on the dredge(s) or on other readily accessible plant equipment at all times in order that non-functioning lights can be repaired or replaced.

1.7.6 Public Awareness

The Contractor shall facilitate public awareness of potential navigation hazards presented by dredge operation and plant storage within the fleeting area by ensuring that announcement of the beginning of work is carried by local newspapers, radio and television stations, and waterway user association publications. Details provided in the announcement shall include beginning date, work schedule, work location, fleeting area location, and recommended boat operation in the vicinity of work areas.

Periodic work updates and/or status announcements shall be made whenever necessary and at least on a monthly basis throughout the term of this contract. The Contractor shall provide and maintain sturdy and prominently displayed "Warning Signs" at all public boat marinas within ten (10) miles of the dredging operations and plant fleeting area. The warning signs shall be constructed as prescribed on the drawing entitled "Warning Sign" bound herein. The signs shall have red lettering and castles on a white background with a red reflective border. The information provided on the signs shall be similar to that indicated on the drawing and shall include locations of dredging operations and plant fleeting areas, as applicable. The Contractor shall be responsible for keeping the warning signs updated with appropriate information identifying all active work sites under this contract.

1.8 SPECIAL SAFETY REQUIREMENTS

The requirements of this paragraph shall be made part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

1.8.1 General

As a part of the Accident Prevention Program submittal, the Contractor shall provide documentation of the "indoctrination" safety briefing for the particular job to be performed by each employee as referenced in Sections 01.B. of EM 385-1-1. This documentation shall include the employee's name, job title, date(s) of safety briefing, and subject(s) of each briefing. When an employee changes jobs, another "indoctrination" safety briefing for the new job shall occur, with the documentation appropriately updated. The Contractor shall ensure that every employee receives appropriate "on-the-job" safety briefings on the first day the employee returns from off-tour time, and regular safety briefings at least every seven (7) days for all on-tour employees. Applicable portions of Sections 01.B. of EM 385-1-1 are referenced. All such briefings shall be documented on the daily Contractor's Quality Control Report (QCR). The Contractor shall ensure that every supervisor located at the job site(s) attends a "staff" safety meeting held at least monthly. The purpose of these safety meetings shall be to review, plan, and establish safety activities for this project. Applicable portions of Sections 01.B. of EM 385-1-1 are referenced. Documentation of these meetings shall include the employees' names, job titles, dates of meetings, topics covered, summary of actions, and other appropriate information. All such meeting documentation shall be furnished as an attachment to the daily Contractor's Quality Control Report within three (3) days after the meeting. The Contracting Officer's Representative shall be notified of all safety briefings and meetings, and may attend any "indoctrination" safety briefing, "on-the-job" safety briefings or "staff" safety meetings. These briefings and meetings shall be conducted throughout all phases of this contract and shall include the Contractor and subcontractors.

1.8.2 Accident/Incident Investigation and Reporting

The Contractor shall designate a specific company officer as the investigating official referenced by Section 1 of EM 385-1-1. The investigation official shall attend the pre-construction conference. The investigating official's name and other pertinent information including company position, qualifications, experience, and training shall be listed in the Contractor's Accident Prevention Program when submitted for

approval. All accidents and incidents shall be personally investigated by this official in accordance with the requirements of EM 385-1-1, and the requirements specified herein and at the pre-construction conference. The investigation official shall sign Block 1.d. of the ENG Form 3394 attesting to his or her personal participation in the accident or incident investigation process, the accident or incident cause analysis, and the accident or incident cause elimination plans anticipated or recommended. The completed, typed original of ENG Form 3394 shall be submitted to the Contracting Officer's Representative within 24 hours of the accident or Incident. All accidents and incidents shall be immediately reported to the Designated Government Representative. Accident and incident management shall be emphasized and will be further discussed at the Pre-Construction Conference.

1.8.3 Critical Lift Operations with Hoisting Equipment

All hoisting equipment used on this contract shall be performance- and operation-tested in accordance with EM 385-1-1. The planning and conduct of these tests shall be documented using the CRITICAL LIFT PLAN in accordance with EM 385-1-1. These tests shall be conducted for any CRITICAL LIFT OPERATION, i.e., when any one of the following conditions exists:

(a) Load to be lifted exceeds the original TEST LOAD (TEST LOAD or PERFORMANCE LOAD TEST is made at the beginning of the particular hoisting equipment's start-of-work on this contract).

(b) The operator will lose sight of the load during lift operation

(c) The lift operation requires two or more signal persons.

(d) The rigging procedures to be used on the lift operation are considered unusual.

(e) The operator or supervisor believes the lift operation should be considered CRITICAL.

The Contractor shall ensure that hoisting equipment operators have been proven competent prior to employment on this contract. A Resume' of each operator's competence (experience, training, etc.) shall be made part of the Contractor's Quality Control Plan referenced elsewhere in this specification. Hoisting equipment performing duty cycle activities shall undergo the critical lift operation testing procedure for each distinct type of duty cycle activity (dragline activity, clamshell activity, etc.) involved. When any of the conditions under which the original critical lift operation test was conducted for a piece of hoisting equipment changes, another critical lift operation test shall be planned, conducted and documented for that equipment. All documentation for critical lift operation tests shall become part of the permanent contract safety files. All actions specified in the paragraph entitled "General Safety Requirements" shall be part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

1.9 REPORTING REQUIREMENTS

The Contractor shall prepare and submit a Report of Operations and a Contractor's Quality Control (CQC) Report daily. The reports shall be developed in accordance with SECTION 01 45 00.15 10.The Contractor reports

shall be prepared for all dredging work activities. A sample of each form for recording the required information is bound herein. In addition to the two daily dredging reports required, the Contractor shall submit a monthly report of operations covering each month or partial month's work on the ENG No. 4267 and/or 27a. The monthly reports shall be submitted to the Contracting Officer's Representative on or before the seventh (7th) day of each month, consolidating the previous month's work. Upon completion of the contract, the Contractor shall submit a consolidated job report, combining the monthly reports. These reports shall be submitted in duplicate, the original and one copy. The Contractor shall complete a narrative completion report combining all reports (696's, 4267's, etc.). The report shall be maintained throughout the life of the project. A draft shall be submitted bi-monthly, with the final narrative completion report being submitted at the end of the contract. The draft and final versions shall be submitted in electronic and hardcopy forms.

1.10 OTHER OPERATIONS

The Contractor should anticipate the possibility of concurrent marine construction and aquaculture operations, adjacent to or nearby the dredge and placement areas in this contract. Locations of known aquaculture subtidal reefs in the vicinity of the work areas are shown on the Contract drawings. Delays should be anticipated in transiting to, and through, the dredging and placement areas during dredging and placement operations. Coordination with other operations in the vicinity of the dredge and placement areas is required.

The Contractor shall so conduct their operations such that they shall not close any thoroughfare nor interfere in any way with traffic on railway, highways, or on water, without the written consent of the Contracting Officer. The regulations the Contractor shall adhere to are those established by, but not necessarily limited to, the Department of the Navy, U.S. Coast Guard, Department of the Army, American Bureau of Shipping, Department of Interior, Alabamaa Department of Transportation, Alabamaa Law Enforcement Agencies, county and municipal.

1.11 PROTECTION OF EXISTING STRUCTURES

The Contractor shall be responsible for determining and documenting the pre-construction condition of existing structures within the project area including staging site(s) and work access. The Contractor shall take appropriate measures to prevent damage to any structures during construction, and for performing a post-construction verification inspection of those structures previously inspected.

1.12 DAMAGES TO ADJACENT PROPERTY AND STRUCTURES

Any damage to private or public property within the project boundaries, including staging site(s) and work access areas/roads, shall be repaired promptly by the Contractor. Any damage as a result of the Contractor's operations shall be repaired at no cost to the Government.

1.13 PROJECT FINAL CLEANUP

Final cleanup, as stated in the paragraph COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK of Section 00700 CONTRACT CLAUSES, shall include the removal of all of the Contractor's plant and equipment either for disposal or reuse. Plant and/or equipment to be disposed of shall ONLY be disposed of in a manner and at locations approved by the COR. Unless otherwise

approved in writing by the COR, the Contractor will not be permitted to abandon pipelines, pipeline supports, pontoons, or other equipment in the work area, pipeline access areas, water areas, or other areas adjacent to the work site. Pilings and any other debris removed or created as a result of the execution of this contract shall be disposed of in a manner and at locations approved by the COR.

1.14 ENVIRONMENTAL COMPLIANCE AND PROTECTION

Comply with conditions and requirements of State and Federal permits. See Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS for additional details. During the life of the contract, provide and maintain environmental protective measures. Also, environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging operations, must be provided. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution.

1.14.1 Pumping of Bilges

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 3 March 1899 (30 Stat. 1152; 33 U.S.C. 407). Violation of this prohibition is subject to penalties provided under the referenced Act.

1.14.2 Fuel Oil Transfer Operations

In accordance with U.S. Coast Guard regulations (33 CFR 156.120), couplings used in fuel oil transfer operations on any vessel with a capacity of 250 or more barrels of oil shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker operator shall be submitted to the Contracting Officer for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling. Submittal of the Declaration of Inspection is described in SD-03 Product Data

1.14.3 Turbidity

Excavation, transport, and filling operations shall be performed in a manner that will minimize turbidity. The Contractor shall meet the requirements to maintain the quality of the State's waters as contained in Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS. The Contractor will be required to make inspections, measurements and observations required by those regulations in the vicinity of the dredge, and the dredge material placement areas(s). During dredging and placement operations the Daily Report shall clearly shall clearly note the daily turbidity measurements, including: brand and model of the turbidity meter, Easting and Northing of the Compliance and Background points, the water depth of the collection location, the water temperature, the date and time of the measurements, the dredge status, the name of the collector, the wind velocity and direction, the current velocity and direction, and other appropriate weather conditions.

1.14.4 Cultural Resources Protection

No known cultural resources exist with in the project area. However, 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, the Contractor acknowledges that:

a. The site(s), articles, or other materials are the property of the State or Federal Government.

b. Shall immediately notify the QAR, the archaeological monitor, and the Project Archaeologist.

1.15 BASIS FOR BIDS

See the EXPLANATION OF BID ITEMS.

PART 2 PRODUCTS

2.1 CHARACTER OF MATERIAL

2.1.1 Logs of Borings and Laboratory Data

The boring logs and lab data for this project are located in Appendix A of this specification. Locations of borings are shown within the contract drawings. The borings represent conditions at the time of drilling operations. The Contractor shall make their own interpretation(s) of this information in determining the character of materials to be dredged and understand how the character of the materials may affect the placement. All classifications of soils, both visual and laboratory, are in accordance with the Unified Soil Classification System, sompatible with ASTM D 2487.

2.1.2 Materials to Be Removed

Material to be removed under this contract (within the required dredging prisms) includes mainteance material and new work, previously undredged material. Additionally, some large and small debris, not indicated on the boring logs or contract drawings, may exist within the limits of the required work. The Contractor may also find that the material to be removed contains various non-soil substances such as fibrous debris (trees, roots, snags, stumps, etc.), metal cables, wire, rubble, etc.

Records of previous dredging, consisting of cross sections, history cards and/or general data on past contract dredging, are available at the Irvington Site Office of the Mobile District, Corps of Engineers, 7861 13th Street, Irvington, AL 36544, (251) 957-6019.

PART 3 EXECUTION

3.1 INSPECTION

Inspect the work, keep records of work performed, and ensure that gages, targets, ranges, and other markers are in place and usable for the intended purpose. Provide, at the request of the Contracting Officer, boats, boatmen, laborers, and materials necessary for inspecting, supervising, and surveying the work. When required, provide transportation for the Contracting Officer and inspectors to and from the placement area and between the dredging plant and adjacent points on shore.

3.1.1 Plant Inspection

The dredge plant will be inspected by the Contractor and Contracting Officer, or their representative, prior to beginning work to ensure total dredging plant is in safe working condition. Before any machinery or

mechanized equipment is placed in service, it must be inspected and tested by the Contractor and certified to be in safe operating condition.

3.1.1.1 Contractor's Obligation to Inspect

Mechanized equipment shall be inspected and tested by the Contractor and certified to be in safe operating condition using the Safety Survey Checklist for Floating Plant and the Safety Inspection Checklist for Mobile Construction Equipment forms as prescribed by EM 385-1-1. Records of these tests and inspections shall be provided to the Government prior to Government inspection and shall be maintained at the site by the Contractor.

All plants, in use or idle, shall be inspected at least once per shift by the Contractor inspector to assure that buoys, signs, and lights are in place and that all lights are operating properly. Daily reports by the Contractor shall identify inspection personnel and indicate the time of inspection of plant in use and in storage within the fleeting area. An adequate number of reserve batteries and lights shall be stored on the dredge(s) or on other readily accessible plant equipment at all times in order that non-functioning lights can be repaired or replaced.

3.1.1.2 Government Safety Inspection

Upon completion of mobilization, before starting work, and after the checklist forms are provided to the Government, a safety inspection will be conducted by the Government. The safety inspection will be conducted using the checklists as a guide to denote any deficiencies. Inspections performed by the Government do not relieve the Contractor of their responsibility to perform their own inspections of plant to assure a safe working environment at all times in accordance with contract specifications, EM 385-1-1 and the Accident Prevention Plan. Checklists are provided in Appendix D.

3.1.1.3 Hopper Leakage Test

During the safety inspection, the dredge will be required to take on water equivalent to the hopper capacity. In order for the dredge to begin work, it must have no more than a 5% loss in a one hour period. This test may be performed again at any time during the contract when an indication of leakage exists. Should the dredge fail said test, no dredging will take place until the leakage is repaired.

3.1.1.4 Clearance to Begin Work

Upon completion of the Government's safety inspection, a list of deficiencies, if any, will be given to the Contractor for corrective action. If, in the opinion of the Contracting Officer's Representative, the plant is unsafe or does not meet the terms of the specifications, clearance to begin work will be withheld. In the absence of deficiencies.

3.1.1.5 USCG Operator's License

If Dredge (or other marine construction) Plant operation support workboat operators are moving dredge equipment, supplies, personnel, etc. in/at the immediate dredging site, i.e., from one side of the channel to the opposite side, or to/from a shore staging area located not more than approximately ½ mile from the dredge work location/operation and always within sight of the dredge operator, then the work boat operator need not be the holder of a

USCG Operator's license. However, if the workboat moves equipment, personnel, supplies, etc., or proceeds "light boat", any significant distance beyond the immediate dredge work location/site, particularly over congested, busy waterways and/or out of sight of the dredge operator, an appropriate licensed operator (must possess a current USCG Operator's License) must be in control of the vessel operation. References: EM 385-1-1 Section 19 Paragraph 19.A.02 b., Volume III of the USCG Marine Safety Manual Section 24.B.3, 46 USC 8904.

3.2 DREDGING

3.2.1 Order of Work

The Contractor shall submit a Order of Work Plan describing all methods, materials, equipment, and personnel to be utilized during dredge and placement operations including submerged pipelines and pipeline routes and staging and access areas. The order of dredging will be dependent on the placement features to be created with the dredge material. Dredging of the Mobile Harbor Federal Navigation Channel Improvements for this contract has generally been divided into 7 separate horizontal (A-G) and 13 vertical cuts based on material types for best matching with the placement. The associated placement location of each cut is provided in table 1 below. The contractor shall make their own determination of the existing conditions and propose the dredge cuts and placement feature order of construction within the work plan to be approved by the Contract Officer. The Government reserves the right to change the order of work at any time.

Table 1: Dredge Cuts and Dredge Material Placement Areas

Dredge Cut	**Dredge Material Placement Area**	**Material**
Turning Basin Cut A above -33 ft MLLW	Deer River and/or Dauphin Island Causeway Sand Berm	Coarser Sandier Materials
Turning Basin Cut A below -33 and above -50 ft MLLW	Dauphin Island Causeway Marsh Creation	Finer Clay Materials
Turning Basin Cut A below -50 and above -56 ft MLLW	Dauphin Island Causeway Sand Berm and/or Dauphin Island Causeway Marsh Creation	Coarser Sandier Materials
Turning Basin Cut B above -28 ft MLLW	Dauphin Island Causeway Sand Berm	Coarser Sandier Materials
Turning Basin Cut B below -28 and above -42 ft MLLW	Dauphin Island Causeway Marsh Creation	Finer Silts and Clay Materials
Turning Basin Cut B below -42 and above -56 ft MLLW	Dauphin Island Causeway Sand Berm and/or Dauphin Island Causeway Marsh Creation	Coarser Sandier Materials
Turning Basin Cut C above -52 ft MLLW	Relic Shell A and/or B	Finer Silts and Clays Materials

Dredge Cut	Dredge Material Placement Area	Material
Turning Basin Cut C below -52 ft and above -56 ft MLLW	Deer River Marsh and Dauphin Island Causeway Sand Berm	Sands and Finer Silts and Clay Materials
Turning Basin Cut D above -56 ft MLLW	Dauphin Island Causeway Marsh Creation	Finer Clay Materials
Upper Bay Channel Deepening Cut Fabove -50 ft MLLW Station (226+16 to 260+00)	Relic Shell A and/or B	Finer Silts and Clay Materials
Upper Bay Channel Deepening Cut Fbelow -50 and above -54 ft MLLW Station (226+16 to 260+00)	Deer River and/or Dauphin Island Causeway Berm	Coarser Sandier Materials
Upper Bay Channel Deepening Cut E above -54 ft MLLW Station (260+00to 267+72.58)	Dauphin Island Causeway Marsh	Finer Silts and Clay Materials
Upper Bay Channel Widener Cut G above -54 ft MLLW Station (267+72 to 335+00)	Relic Shell A and/or B	Finer Silts and Clay Materials

The preferred dredged material placement order of work is to fill the Deer River and Dauphin Island Causeway North dredge material placement sites to the specified lines, grades and elevations prior to placement in Dauphin Island Causeway South dredge material placement site.

Dredged material placement in the Dauphin Island Causeway North and South dredge material placement sites shall be performed in a continuous and consecutive manner. Placement of material will generally proceed where the coarser sandier material is used to construct sand berm features first to help contain the finer silts and clay material placed behind in the marsh creation areas. For the Dauphin Island Causeway North and South Sand Berm the preferred placement is from south to north. The Contractor may elect to construct the sand berms beginning at the approach channels/pipeline corridor landing areas and advancing towards the south and north;however, the portion from the landing area to the southern end must be completed before advancing northward from the landing area. If the Contractor elects to begin material placement at the landing area proceeding southward at the Dauphin Island Causeway South Sand Berm, then the sand berm must tie-in to the existing shoreline with an internal containment berm between station 64+00 and 74+00 to create a partially filled area behind the completed berm sections to receive fill for the marsh creation.

3.2.1.1 Work Plan

A Work Plan is to be submitted by the Contractor for review and approval by the Contracting Officer. The work plan is to cover all aspects of dredging, transport, and placement operations and shall include, but not be limited to, the following:

a. Deposition Plan: A Deposition Plan is to be sumbitted by the Contractor to the Contracting Officer for approval prior to placement of any dredged material under this contract. The Contractor's Deposition Plan is to be

completely explanatory and include all assumptions, statements of fact, computations and a narrative to fully explain the procedures that the Contractor will follow during the contract. The Contractor's Deposition Plan will address each different placement situation, including but not limited to, contingencies to correct any excess displacement of in-situ water bottoms, non-compliant turbidity, placement of varying material types, and/or slope failures that may occur during placement of material. The Deposition Plan is also to address weir structures (if needed) and the means and methods for surveying and monitoring the placement of fill to meet required slopes and grades, i.e. grade stakes, settlement plates, topographic surveys, etc.

b. Survey Plan: The Survey Plan shall present the project survey effort from start to completion. The plan shall cover, as a minimum, layout work including baseline control, progress surveys, and monitoring surveys. The plan shall include details of all equipment used for surveying as well as a step by step process of survey efforts. This plan shall coincide with the order of work plan required by the paragraph entitled "Order of Work." The Contractor's survey plan shall show a percentage breakdown of each type of survey phase (baseline control, progress surveys, etc.) of the total survey effort for the project.

c. Progress Schedule Map: Provide a progress schedule map of the contractor's work. The progress schedule map shall be a plan view drawing depicting the dredge limits, dredge material placement and access areas to be used on the project. The map shall show all acceptance sections (AS), access/staging areas, and pipeline landings anticipated to be used on the project. For each acceptance section, the information shall list the following: Anticipated quantity of material per acceptance section, projected dates for satisfactory channel dredging and fill to be placed and
completed. The map will be color coordinated with the following color scheme: Red depicting an area not ready for construction; Orange depicting an area currently being worked, and Green meaning an area accepted by the Contracting Officer. The map shall be updated at least weekly and whenever significant changes occur to the projected dates. Since the map will be used by the Government for coordination with the sposnor(s) to track progress, the update shall be provided prior to the weekly project progress meeting.

d. Buoy Log: The Contractor shall develop a method of inventory for all anchors, buoys, and buoy cables used in the construction of the project. This record shall be used by the Contractor to recover all buoys and anchoring equipment at the completion of the project.

e. Grade Stake Log and Recovery Plan: If the Contractor intends to use grade stakes in the project work area, they shall submit a Construction and Grade Stakes Recovery Plan. The plan will outline the steps that the Contractor will implement to recover all the stakes used on the project. A sample Grade Stake Log is to be provided indicating how the log will be prepared and maintained to inventory the grade stakes used on the project. The log is to include information concerning the location, installation, and recovery of all grade stakes. This log is to be available for review by the appropriate Government personnel upon request.

f. Staging and Access Areas: The Contractor shall indicate how they plan on accessing each site for their construction operations. The Contractor shall submit proposed drawings depicting the areas, photo-documentation of the condition of the access location prior to disrupting the site,

dimensions of access channels, location of placement for excavated access channel material, and any support facilities for Contracting Officer approval.

g. Public Protection: Provide a Contractor's plan for ensuring public and worker safety. Submit means and methods for public protection during fill operations for review and approval by the Contracting Officer. Submit product information and methods of installation for orange safety fencing for safety measures. Submit methods of staking in place and maintenance of system for duration of construction. If required submit an off-road trucking operation safety plan.

3.2.2 Interference with Navigation

Minimize interference with the use of channels and passages. The Contractor is responsible for shifting or moving of dredges or the interruption of dredging operations to accommodate the movement of vessels and floating equipment, if necessary. Adhere to Coast Guard Regulations for passing vessels.

3.2.3 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, pipelines, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting must conform to United States Coast Guard requirements for visibility and color.

3.2.4 Navigation Warnings

Furnish and maintain navigation warning signs along the pipeline. Provide notice to increase public awareness of potential hazards presented by dredge plant equipment by stating the location, date of construction, equipment mooring, marshaling areas, using local newspapers, radios, television, waterway users associations, or other appropriate area specific communication networks. Ensure that an announcement is made through the same networks at the beginning of the dredging operation. Make periodic updates/status announcements at intervals of not more than a month throughout the contract life.

Display a sturdy and prominent warning sign at all public boat marinas within 10 miles of dredging operations or moored equipment. The warning signs shall be constructed as prescribed on the drawing entitled "Warning Sign" bound herein. The signs shall have red lettering and castles on a white background with a red reflective border. The information provided on the signs shall be similar to that indicated on the drawing and shall include locations of dredging operations and plant. The Contractor is responsible for keeping this sign current with respect to the dredging operations or equipment.

3.2.5 Ranges, Gages, and Lines

Provide, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The Contracting Officer will furnish, upon request by the

Contractor, survey lines, points, and elevations necessary for the setting of ranges, gages, and buoys.

3.2.6 Navigation Aids

If necessary, navigation aids located within or near the areas required to be dredged will be removed by the USCG in advance of dredging operations. Relocation of navigation aids shall be discussed and scheduled with the USCG at the pre-construction conference.

3.2.7 Dredge Plant and Equipment

a. The Contractor has an option to use clamshell, hydralic cutter head, and/or trailing suction hopper dredge to perform all dredging work under this contract.

b. The Contractor may elect to operate more then one dredge or dredge type under this Contract at a time. Should the Contractor employ more than one dredge unit on the project, concurrent work locations shall be approved by the Contracting Officer's Representative.

c. Maintain all dredge plant and associated equipment such as, but not limited to, scows, coamings, barges, and pipelines, to meet the requirements of the work. Promptly repair leaks or breaks along pipelines.

3.2.8 Staging and Fabracation Areas

The Contractor shall determine the requirements for staging and fabrication areas for dredging equipment based on his their proposed operational methods. Acquisition of real estate interests in any such area and/or required permits for the particular type land use shall be the sole responsibility of the Contractor, the Government being held harmless from any liability or legality of procurement, use, or restoration.

3.2.9 Dredging Requirements

Dredging limits shown on the contract drawings were determined based on surveys current during the development of these specifications. The following web site links contain files of the most recent hydrographic surveys for the channel. These surveys and data are provided for information only and may not reflect the current conditions. Mobile Ship Channel:

https://www.arcgis.com/apps/opsdashboard/index.html#/4b8f2ba307684cf597617bf1b6d2f85d

3.2.9.1 Upper Bay Channel Deepening

Dredging of the Upper Bay Channel Deepening consist of the removal of both maintenance and new work material within the horizontal and vertical limits displayed on the contract drawings. Dredging of the Upper Bay Channel Deepening has generally been divided into 2 separate horizontal and 3 vertical cuts based on general material types and placement locations described in section 3.2.1 Order of Work. Dredging for acceptance will be satifactory removal of material down to -52 feet MLLW including paid overdepth, unless otherwise stated in the layout drawing

3.2.9.2 Turning Basin Deepening and Expansion

Dredging of the turning basin consist of the removal of both maintenance

and new work material within the horizontal and vertical limits displayed on the contract drawings. Dredging of the turning basin has been divided into 4 separate horizontal and 9 vertical cuts based on general material types and placement locations described in section 3.2.1 Order of Work. Dredging for acceptance will be satifactory removal of material down to -54 feet MLLW including paid overdepth, unless otherwise stated in the layout drawing.

3.2.9.3 Upper Bay Channel Widening

Dredging of the Upper Bay Channel Widening consist of the removal of new work material within the horizontal and vertical limits displayed on the contract drawings between Stations 271+00 to Station 335+00. Dredging for acceptance will be satifactory removal of material down to -52 feet MLLW including paid overdepth, unless otherwise stated in the layout drawing.

3.2.10 Required Dredging

Required dredging under this contract includes all material lying within the designated side slopes of one foot vertical to five feet horizontal (1V to 5H) originating at the plane of elevation -52 feet MLLW from Station 2226+16 to Station 337+00, and -54 feet MLLW within the Mobile Harbor Turning Basin at the widths shown on the contract drawings.

3.2.10.1 Allowable Overdepth

To accommodate the imprecision of the dredging process, material removed from within the Mobile Ship Channel alignment limits to a depth of 2 feet below the depth of required dredging will be estimated and paid for at the contract unit price for new work dredging. Side slopes for allowable overdepth will be 1V:0H. The Contractor shall not exceed 2 feet of allowable overdepth dredging

3.2.10.2 Side Slopes

Side slopes in the dredge areas within this contract will be measured and paid based on a 5 feet horizontal to 1 feet vertical ratio. Material that is actually removed, within the required dredging limits to provide for final side slopes no flatter than as designated, but not in excess of the amount originally lying above this required dredging limiting side slope, will be estimated and paid for (as applicable), whether dredged in the original position or by dredging "storage space" below the required side slope plane, at the bottom of the slope, for upslope material capable of falling into the cut. This "storage space", excavated in anticipation of upslope face material falling thereinto, is not subject to the above depth and width overdredging restrictions (if applicable), as long as it is reasonable. The Contractor should refer to the typical section included in the contract drawings for the required dredging, allowable overdepth, and allowable maintenance limits.

3.2.10.3 Dredge Overflow

Overflow will be limited to forty-five minutes, per load, for hopper dredges only, unless otherwise approved by the COR. Overflow will only be allowed for material that is predominantly sand. This slurry shall not overflow transport vessel sidewalls while in transit, nor shall it be dumped (or pumped) from the vessel except when placed directly at an authorized dredge material placement area. Mechanical dredge bucket dripping occurring between the excavation point and deposition into dump

scows will not be considered overflow

3.2.10.4 Excessive Dredging

Material removed from beyond the dredging limits shown on the contract drawings shall be considered excessive dredging for which payment will not be made. Payment will be made for removal of shoals performed in accordance with the applicable provisions of the Additional Special Contract Requirements paragraph entitled "FINAL EXAMINATION AND ACCEPTANCE".

3.2.11 Obstructions and Debris

The Government has no knowledge of cables, pipes, or other artificial obstructions or of any wrecks, wreckage, or other material that would necessitate the use of explosives or the employment of additional equipment for economical removal. Contractors should however exercise due diligence in determining the existence of any obstructions within proposed work areas during bid preparation.

The Government has knowledge of debris such as, but not limited to, metal bands, pallets, pieces of broken cable, rope, fire hose, and broken piles. The Contractor is responsible for the disposal of the removed debris. This disposal must occur outside the limits of government property, and done so in accordance with all federal, state, and municipal regulations.

The Government has no knowledge of existing wrecks, wreckage, or other material of such size or character as to require the use of explosives or special or additional plant for its economical removal.

3.2.12 Quality Control

Establish and maintain quality control for operations to assure compliance with contractual requirements and maintain records of this quality control for dredging operations.

While performing all dredging work control the horizontal positioning of the dredge with electronic positioning.

3.2.13 Skimming of Hoppers

Skimming of hoppers must be performed in compliance with environmental requirements and ABS/USCG load line marks.

3.2.14 Salvaged Material

Anchors, chains, firearms, and other articles of value, which are brought to the surface during dredging operations, must remain or become the property of the Government and will be placed on shore at a convenient location near the site of the work, as directed.

3.2.15 Safety of Structures

The prosecution of work must ensure the stability of piers, bulkheads, and other structures lying on or adjacent to the site of the work, insofar as structures may be jeopardized by dredging and/or placement operations. Repair damage resulting from dredging operations is the responsibility of the Contractor, insofar as such damage may be caused by variation in

locations or depth of dredging, or both, from that indicated or permitted under the contract. The Contractor is responsible for coordinating with the owner of the structure for any necessary repairs.

3.3 PLACEMENT OPERATONS

3.3.1 Placement of Excavated Materials

Provide for safe transportation and placement of dredged materials. Transport and placement of dredged material in the Deer River, Dauphin Island Causeway North and South and the Relic Shell Areas A and B dredge material placement areas. The Contractor shall provide equipment and operators satisfactory to manipulate dredge material and move the outflow pipe to ensure the placement of material does not cause the excessive displacement of in-situ water bottoms. The contractor shall also ensure adjacent areas outside of the fill template are not adversely impacted by the contractor’s placement operations. This includes but is not limited to adversely affecting adjacent oyster beds, marshes, roadways, etc. The Contractor will be responsible for any damage resulting from their dredge material placement operations, inside or outside of the dredge material placement area. The contractor shall furnish sufficient crew at the dredge material placement areas to ensure the correct placement of material is maintained throughout the contract.

3.3.2 Method of Placement

For dredged material pumped through a pipeline, the Contractor is responsible to select a pipeline route within the boundaries outlined in the contract drawings to the placement sites and methodology of construction (type of pipeline and installation) and/or plant equipment layout that will not cause a hazard to existing navigation nor undue restriction to marine traffic, particularly in the marked navigation channels and the adjacent private docking/mooring/sailing fairways. Particular attention should be given to the pipeline route or other plant layout as related to the existing accesses of the businesses along the project banks. These accesses should not be blocked or restricted to those businesses. If the Contractor’s pipeline or equipment is found to be blocking or restricting any business’s access or use area, it will be the Contractor’s responsibility to coordinate with the business to bring a solution to that restriction problem, even if the Contractor’s pipeline or equipment has to be moved or relocated (all at no increase to contract price). Care shall be taken to avoid damaging private structures.

3.3.3 Natural Drainage

The Contractor will be required to maintain the natural drainage within the placement areas. Dredging operations shall be suspended should the Contractor fail to immediately restore to its normal condition any drainage system, either natural or artificial, which was damaged as a result of dredging operations.

3.3.4 Weir Box Maintenance

Dredged material shall be placed in the dredge material placement sites site within containment areas sufficient in volume to effectively settle solids. At no time shall any material be allowed to enter the weir boxes of any of the placement sites. Any material escaping the dredge material placement areas will be considered misplaced material and cleanup provisions as stated in paragraph entitled OBSTRUCTION OF NAVIGABLE

WATERWAYS, of SECTION 00700 will be enacted. Adequate settling time shall be maintained by raising the elevation of the weirs crest at the drainage structure as necessary. Sufficient size overflow boards shall be furnished by the Contractor to fill the slotted columns on all open sides of the weir box. Overflow boards shall not exceed six (6) inches in height. The Contractor shall be responsible for the maintenance of all weirs and drainage structures until completion and acceptance of work. Prior to dredging operations, discharge pipes through containment dikes should be inspected for obvious displacement due to settlement, and joints in the discharge pipes shall be sealed to prevent seepage through joints. Polyethylene may be used and supplied by the Contractor around the weir box as an additional safeguard against seepage. The polyethylene will be supplied and installed at no additional cost to the Government.

3.3.5 Access Channels and Staging Areas

Access channels are shown on the Contract Drawings. Dredging of the channels are to be done under seperate contracts. Given the dynamic nature of the project area, the final limits of access shall be field-verified by the Contractor and approved by the Contracting Officer, prior to commencement of construction. Should any access channel need to be dredged as part of this contract for access for placement the excuvation shall be restricted to the limits shown on the Constract Drawings. No other areas are cleared for distrubance. Dredged material from the excavation of access channels maybe sidecast to the east of the access channels with final limits of placement to be approved by the COR. Contractor will not be required to back fill the access channels following construction.

The Contractor is responsible for locating a staging areas for equipment. The Contractor shall include the proposed location of the staging area(s) in the Work Plan. The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in an area approved by the COR. The COR shall approve all temporary movement or relocation of Contractor facilities.

Optional Temporary Laydown Area is located at Cedar Point east of the Dauphin Island Parkway Right of Way that the Contractor may use for a material laydown area, equipment staging, field office, etc. during construction.

Should the Contractor require additional staging or laydown areas, these additional areas are the responsibility of the Contractor. Contractor is responsible for all permitting and costs associated with additional staging and laydown areas.

For access and staging the contractor shall ensure the following:

a. The staging areas are be kept neat, orderly and in a safe manner.

b. Staging areas are cordoned off and/or fenced to secure all staging areas from the public.

c. Access and staging areas are restored to the pre-construction condition upon project completion, at cost to the Contractor, unless otherwise directed by this contract or the COR.

d. Water and land access routes are provided and maintained as necessary

for their equipment and plant to and from the work sites.

e. Environmental conditions, which can affect water and land access, such as climate, terrain, winds, current, waves, swells, depths, shoaling, and scouring tendencies are assertained.

3.3.6 Placement in Indicated Site(s)

In placing excavated material for fill, uniformly grade and allow for shrinkage.

Provide and maintain necessary bulkheads, dikes, ditches, weirs, spillways, and other construction necessary to confine and retain the fill in the dredge placement areas.

In order to most efficiently use the available fill material, the COR may make alterations in the plan dimensions or slopes of the sand berm fill or marsh creation area fill area elevations in order to increase or decrease the volume of fill placed.

3.3.6.1 Deer River Marsh Creation Area

An estimated 164,000 cubic yards of inplaced predominately sandy material, dredged from the COR approved dredge cuts, shall be used to fill the Deer River Marsh Creation site to the lines, grades and elevations shown on the Contract drawings. Approximately 82,360 square yards of material shall be placed within this placement site.

Discharge of dredge material slurry will only be allowed within the existing containment berm shown on the contract drawings.

The target fill elevation range is +2.5’ to +3.5’ NAVD 88.

Should the estimated 164,000 cubic yards of inplaced dredge material exceed the site capacity as determined by the maximum target fill elevation, Contractor may delinate a stockpile area furtherest from the weir locations for COR approval.

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3.3.6.2 Dauphin Island Causeway North Sand Berm

An estimated 109,000 cy of inplaced predominately sandy coarser material from the COR approved dredge cuts shall be used to fill the sand berm fill to the lines, grades, and elevations indicated in the Contract documents. Approximately 5,947 linear feet of sand berm shall be placed within this placement site. Discharge of dredge material slurry will only be allowed within sand berm fill area shown on the contract drawings. Additonally the dredge discharge ***point*** must always be located at least 25 feet away from the existing shoreline. To the extent practical, the fill placement must be uniform with minimal ridges, humps and depressions. The Contractor may construct interal training dikes, at their own discretion, at locations within the sand berm fill area. Spreader and pocket pipe or other measures may be used as necesssary to prevent gullying and erosion.

The target constructed sand berm elevation is +3.5’ NAVD 88. The vertical fill tolerance is ±0.5’. The sand berm target fill elevation range is therefore +3.0’ to +4.0’ NAVD 88. The sand berm crest shall have a maximum

width of 15' and a minimum width of 5'. The sand berm landward slope shall have a grade no shallower than 30:1 (H:V) with no limits on the maximum grade (i.e. maximum steepness) of the slope. The Contractor is encouraged to minimize the volume of sand material placed in the sand berm section within the defined template to maximize the length of sand berm that can be constructed with available sandy fill material and to ensure that sufficient length of sand berm is constructed prior to the placement of the marsh creation fill areas.

On portions of the sand berm landward slope below Mean Low Water (MLW), the Contractor may place material to the natural angle of repose if different from the design slope of the placement section. The Contractor shall ensure that there are no undrained areas or abrupt mounds within the completed segments. The Contractor is not required to perform grading on portions of the sand berm landward slope below MLW.

Should the estimated 109,000 cys of inplaced dredge material exceed the sand berm capacity as determined by the target fill crest width and elevation the Contractor with COR approval may place excess material within the north marsh creation fill area.

3.3.6.3 Dauphin Island Causeway North Marsh Creation Fill

An estimated 167,000 cy of inplaced predominately finer sands, silts and clay materials from the COR approved dredge cuts shall be used to fill the marsh creation fill to the lines, grades, and elevations indicated in the Contract documents. Approximately 288,282 square yards of material shall be placed within this placement site. Discharge of dredge material slurry will only be allowed within marsh creation fill area shown on the contract drawings.
Additonally the dredge discharge ***point*** must always be located at least 25 feet away from the existing shoreline. To the extent practical, the fill placement must be uniform with minimal ridges, humbs and depressions. The Contractor may construct interal training dikes, at their own discretion, at locations within the sand berm fill area. Spreader and pocket pipe or other measures may be used as necesssary to prevent gullying and erosion.

At no point shall fill be placed on the existing wetlands or within the Dauphin Island Parkway Right of Way. Fill shall be placed in such a way so as to not erode or damage the existing shoreline including any natural or armored shorelines.

The target constructed Dauphin Island Causeway marsh creation elevation is +2' NAVD88. The vertical fill tolerance is +/- 0.5'. The marsh creation fill elevation range is therefore +1.5' to +2.5' NAVD88.

Should the estimated 167,000 cys of inplaced dredge material exceed the marsh fill capacity as determined by the maximum fill tolerance elevation the COR may make adjustments to the marsh creation fill elevation or direct the contractor to place excess within the Dauphin Island Causeway South Marsh.

3.3.6.4 Dauphin Island Causeway South Sand Berm

An estimated 77,569 cy of inplaced predominately sandy coarser material from the COR approved dredge cuts shall be used to fill the sand berm fill to the lines, grades, and elevations indicated in the Contract documents. Approximately 3,363 linear feet of sand berm shall be placed within this placement site. Discharge of dredge material slurry will only be allowed

within sand berm fill area shown on the contract drawings. Additonally the dredge discharge ***point*** must always be located at least 25 feet away from the existing shoreline. To the extent practical, the fill placement must be uniform with minimal ridges, humbs and depressions. The Contractor may construct interal training dikes, at their own discretion, at locations within the sand berm fill area. Spreader and pocket pipe or other measures may be used as necesssary to prevent gullying and erosion.

The target constructed sand berm elevation is +3.5’ NAVD 88. The vertical fill tolerance is ±0.5’. The sand berm target fill elevation range is therefore +3.0’ to +4.0’ NAVD 88. The sand berm crest shall have a maximum width of 15' and a minimum width of 5'. The sand berm landward slope shall have a grade no shallower than 30:1 (H:V) with no limits on the maximum grade (i.e. maximum steepness) of the slope. The Contractor is encouraged to minimize the volume of sand material placed in the sand berm section within the defined template to maximize the length of sand berm that can be constructed with available sandy fill material and to ensure that sufficient length of sand berm is constructed prior to the placement of the marsh creation fill areas.

On portions of the sand berm landward slope below Mean Low Water (MLW), the Contractor may place material to the natural angle of repose if different from the design slope of the placement section. The Contractor shall ensure that there are no undrained areas or abrupt mounds within the completed segments. The Contractor is not required to perform grading on portions of the sand berm landward slope below MLW.

Should the estimated 77,569 cy of dredge material exceed the sand berm capacity as determined by the target fill crest width and elevation between station 64+00 and 97+62.82 the Contractor may elect with COR approval to place excess material within the South marsh creation fill area and/or within additional South Sand berm to the north of station 64+00.

3.3.6.5 Dauphin Island Causeway South Marsh Creation Fill

An estimated 43,000 cy of inplaced predominately finer sands, silts and clay materials from the COR approved dredge cuts shall be used to fill the marsh creation fill to the lines, grades, and elevations indicated in the Contract documents. Approximately 57,588 square yards of material shall be placed within this placement site. Discharge of dredge material slurry will only be allowed within marsh creation fill area shown on the contract drawings. Additonally the dredge discharge ***point*** must always be located at least 25 feet away from the existing shoreline. To the extent practical, the fill placement must be uniform with minimal ridges, humbs and depressions. The Contractor may construct interal training dikes, at their own discretion, at locations within the sand berm fill area. Spreader and pocket pipe or other measures may be used as necesssary to prevent gullying and erosion.

The target constructed Dauphin Island Causeway marsh creation elevation is +2.5' NAVD88. The vertical fill tolerance is +/- 0.5'. The marsh creation fill elevation range is therefore +2' to +3' NAVD88.

Should the estimated 43,000 cys of inplaced dredge material exceed the marsh fill capacity as determined by the maximum fill tolerance elevation the COR may make adjustments to the marsh creation fill elevation or direct the contractor to place excess within additional South Sand berm to the north.

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3.3.6.6 Relic Shell Mine A and B Dredge Material Placement Areas

The Contractor shall delineate limits of the Relic Shell Mine Areas A and B as shown on the Contract drawing that will be used for placement of dredged material from this work that is not specified to go to the Deer River or Dauphin Island Causeway North or South sites. ***Should the Deer River and Dauphin Island Causeway Sites be constructed to the full lines and grades, within the tolerances detailed in the Section, then excess material designated for these sites, as detailed in Table 1 of the paragraph 3.2.1 Order of Work, may be placed in the Relic Shell sites.*** The Contractor shall ensure deposition is within the limits of the COR approved Contractor delineated dredge material placement boundary.

Dredge material placed within the Relic Shell Mine sites A and B shall be on an average no greater than 1.5 feet in thickness over each placement site and in no instance shall the placement exceed a +3 foot tolerance.

The Constractor should note the water depths between the dredge channel limits and the relic shell mine placement areas are known to be shallower than the elevations shown on the contract plans. Some areas may be shallower than -5 feet MLLW. The Contractor should also note areas alongside the Mobile Harbor channel are subject to change as they are authorized open water dredged material placement sites for maintenance material. The Contractor is responsible for ensuring routes provide adequate depths for all necessary equipment needed to complete this work and is advised to perform surveys to verify.

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3.3.7 Misplaced Dredged Material

Any dredged material deposited at locations other than in dredge material placement sites shown in the drawings will be considered misplaced material and will not be paid for until the Contractor, at their own expense, removes and redeposits the misplaced material. Any material deposited in excess of tolerances described in the plans and specifications shall be removed by the Contractor at their own expense with no increase in contract price or time. This required removal and redeposit of the misplaced material and any necessary placement site restoration work is not the basis for a time extension or additional compensation under this contract.

3.3.8 Submerged Pipelines

If a leak occurs in the discharge pipeline, immediately discontinue using the line until leaks are repaired. Following a leak, the Contractor should conduct, or request the Government to conduct, a hydrosurvey to ensure that any dredged material discharged through the leak did not accumulate or cause mounding. If accumulation did occur, the Contractor must coordinate with the Government to remove the accumulated material, if

deemed necessary. The Contractor is responsible for any resulting costs of repair and restoration.

3.4 DREDGE AND PLACEMENT AREA SURVEYING

3.4.1 General

The Government will furnish survey and dredging layout data for each dredging tangent and placement areas prior to any dredging. The data will be discussed at the pre-construction conference. The Contractor shall perform all necessary pre-construction, acceptance, and post-construction surveys of channel and dredge material placement sites. Additionally, the Contractor shall provide all construction progress surveys performed prior to acceptance to the Government for the record.

The survey work to be performed includes: Preconstruction surveys, construction surveys and post Construction surveys.

Preconstruction surveys are required to be conducted prior to the commencement of Work.

Construction surveys are required for progress surveys, payment applications and also for the layout and staking of the work to be completed where appliciable.

Post-Construction surveys include as-built surveys of the completed Work.

3.4.2 Survey Plan

The Contractor shall prepare and submit for approval of the Contracting Officer's Representative, a written survey plan, presenting the project survey effort from start to completion. The plan shall cover, as a minimum, layout work including baseline control, progress surveys, and monitoring surveys. The plan shall include details of all equipment used for surveying as well as a step by step process of survey efforts. This plan shall coincide with the order of work plan required by the paragraph entitled "Order of Work." The Contractor's survey plan shall show a percentage breakdown of each type of survey phase (baseline control, progress surveys, etc.) of the total survey effort for the project.

3.4.3 Layout of Work

All surveys for baselines, hydrographic survey ranges, cutting ranges, and other necessary survey work shall be performed by standard survey methods. All baselines and markers, whether land or water based, shall be related to existing land based survey markers using coordinate positions furnished by the Government. All such survey work shall be clearly and completely recorded in standard bound field books, and shall be made available for inspection and verification by representatives of the Government. Upon or before completion of the requirements of this contract, the field books and computations shall become the property of the Government. The Contractor shall furnish all electronic positioning and surveying equipment, stakes, poles, flagging, field books, compact discs, and other survey materials and engineering work required for the layouts. Costs associated with the required layout of work and positioning surveys, and all data compilation and computations shall be included in the Bidding Schedule contract unit price for dredging.

3.4.4 Quality Control

The Contractor shall establish and maintain a Quality Control Plan for surveying operations to assure compliance with contractual requirements. The Contractor shall maintain records of quality control qualifications for survey personnel. These records shall include, but not be limited to, the following requirements:

(a) Survey work shall be performed in accordance with the USACE Hydrographic Surveying Engineering Manual, EM 1110-2-1003. The manual can be found at the following link:

https://www.publications.usace.army.mil/USACE-Publications/Engineer-Manuals/u43544q/687964726F67726170686963/

Sole responsibility for accuracy, completeness, and verification of all survey work performed during execution of this contract, with the exception of the initial and final quantity surveys performed by the Government, shall rest with the Contractor.

(b) The Contractor shall maintain complete and accurate field notes, sketches, recordings, and computations required in establishing the necessary horizontal and vertical control. All survey data shall be recorded in accordance with accepted standards and as approved by the Contracting Officer or his/her designated representative. All the above data shall be available at all times during the progress of the work forready examination and use by the Contracting Officer or his/her designated representative. Upon request of the Contracting Officer or his/her designated representative, the Contractor shall furnish a copy of above survey data.

(c) Survey personnel. All quantity surveys required by the Contractor shall be made by personnel of a professional engineer and/or land surveyor experienced in the practice of such work including Global Positioning Systems (GPS) surveys. The survey personnel shall have the following minimum qualifications.

(1) Each party chief shall be a Professional Land Surveyor and shall be proficient in the operation of precise and semi-precise instruments. They shall be capable of running horizontal and vertical control of 2nd order accuracy. In the event it is considered advantageous to employ a party chief who is not a Professional Land Surveyor, detailed qualifications of the individual shall be submitted to the Contracting Officer for review and approval.

(2) Instrument personnel shall be proficient in the operation of precise and semi-precise instruments and shall prepare all survey notes in a firm and legible manner.

(3) Surveying technicians shall be familiar with all phases of surveys and the Alabama plane coordinate system. They shall also be well versed in the computation and adjustment of horizontal and vertical control of 2nd and 3rd order survey.

(d) Daily reports shall be submitted by the Contractor for days when surveying activity is required. The reports shall be prepared and signed by the Contractor's authorized representative. Report submittal to the Contracting Officer's Representative shall be on the duty day following the surveying activity. The reports shall include,

but not be limited to, the following: equipment used; location, description, and type of work performed; inspection(s) of work; verbal instructions received and action(s) taken; safety procedures; and cause(s) of delays. All daily reports shall be prepared on SAM Form No. 696 (copy attached hereto).

(e) The Contractor shall be responsible for protection of all vegetation and property within surveying areas. Should any portion of the survey work area require tree trimming or cutting, or use of private property or facilities for any purpose, the Contractor shall obtain specific written consent from the affected property owner(s) prior to commencing any survey work within that area. The Contractor shall save and hold harmless the Government from any liability in connection with required survey activities.

(f) All survey work shall be subject to periodic inspection and/or verification by the Government, both during and after completion of such work. Should any portion of the surveys be found in error, it shall be the responsibility of the Contractor to correct such error at no cost to the Government. In the event that dredging operations have proceeded based on erroneous survey information, any necessary redredging shall be done at the Contractor's expense. The Contractor should perform verification calculations and calibrations of the survey data furnished by the Government prior to using that data for dredging purposes. All verification and calibration calculations shall be the sole responsibility of the Contractor. Presence of the Government representative at the work site shall not relieve the Contractor of responsibility for providing quality control of the required survey work and shall not relieve the Contractor from the responsibility of taking necessary corrective action should errors be discovered that necessitate redredging. The final determination of acceptable and unacceptable dredged channel sections will be made by the Contracting Officer's Representative.

(g)For lidar data the constractor shall ensure overlapping lines and datasets shall be compared to each other and to cross lines. All systematic errors shall be identified and eliminated, and remaining errors should have a normal distribution. Differences between a DEM and bare earth ground truth data will be unbiased and within 5 cm (RMSE) in flat terrain. A binned surface of standard deviation (within each bin) generated from topographic lidar data will not exceed 5 cm in flat areas for > 5% of the grid cells.

3.4.5 Equipment and Data

3.4.5.1 Real Time Kinematic (RTK) Global Positioning System (GPS)

Survey data for the Deer River and the Dauphin Island Causeway North and South beneficial use sites shall be collected using RTK GPS technology.

3.4.5.2 Sounding Equipment

Sounding equipment shall consist of an electronic sounding machine/device capable of providing updated soundings on not more than 1/20 second intervals and have accuracy rating of not more than +/-0.5 feet. Sounding device shall have analog charting (real time) within the device and shall have all the capabilities of calibrating to a bar check utilizing the Norfolk Method of bar checking. The sounding device will be similar and equal to the Odom MKIII Echo Sounder. All depths acquired will consist of

dual frequency soundings utilizing a high operating 208 Khz frequency transducer and a low operating 41 Khz or 28 Khz frequency transducer. All digitally acquired sounding data for the borrow area surveys shall be those acquired with the high frequency survey (any frequencies other than those listed must be approved by the Government prior to use). Both the high and low frequency soundings shall be shown on the analog chart of the sounding device. All soundings shall be acquired on a continuous basis with plotting of data based on the scale and size of the plot.

3.4.5.3 Spacing, Coverage, and Datum

Surveyed points, including easting, northing, and elevation for each point, shall be collected along cross section lines with spacing not to exceed 200 feet. Spacing between points along the cross section lines shall not exceed 3 feet nor be less than 0.3 feet for hydrographic surveys. Spacing between points along the cross section lines for topographic surveys shall not exceed 10 feet and shall include points at each sharp change in slope. The easting and northing values shall be relative to the State Plane Coordinate System, Alabama West zone, NAD 1983 in U.S. survey feet. Elevations shall be relative to Mean Lower Low Water for the Navigation channel and relic shell A and B placement area and NAVD88 for the Deer River and Dauphin Island Causeway placement areas . Each survey line shall extend a minimum of 200 feet beyond the limits shown on the contract drawings.

3.4.5.4 Lidar Requirements

If surveys are collected using Lidar, the collection and mapping shall be in compliance with USACE EM- 1110-1-1000 for Photogrammetric and Lidar Mapping. Collection methods shall comply with the American Society for Photogrammetry and Remote Sensing (ASPRS) Vertical Accuracy for Lidar Data Guidelines. UAS operations shall be conducted in compliance with APL 95-1-1.

3.4.5.5 Survey Data Submittal Requirements

The Contractor shall submit all pre- and post-construction plan view and cross-section plots of the channel and dredge materil placement acceptance sections,along with a breakdown of quantities removed from and placed at the respective locations. If the Contractor is utilizing HYPACK to perform required surveys, the Contractor shall submit the HYPACK project files for the specific survey performed. These files contain all the files that make up the survey including raw and edited data, line files, tide files, etc. associated with each survey. Otherwise, the Contractor shall utilize a system capable of acquiring or converting all, unedited raw data (horizontal and vertical) to an ASCII compatible format prior to submittal to the Government. Sounding files shall contain single line records. Each record shall contain the easting, northing, elevation, date, and time for one sounding. Each item in the record shall be separated by a space character, and the record shall be terminated by a line feed with carriage return. Sounding files shall be no greater than 1.2 MB in size and shall contain the data for no more than 99 section lines. All records shall conform to the format shown below.

East	North	Elevation	Date	Time
123456.78	876543.21	-42.3	10/15/91	14:22:13.3

Data acquired by the Contractor for each survey shall be furnished to the Government on computer disks in the form of CADD drawing files in

Microstation format and additionally in ASCII XYZ format digital files. Each digital XYZ file shall be accompanied with information stating the surveyor's name, collection date, horizontal datum and units, and vertical datum and units of the survey, and all other field notes. The contractor shall provide a metadata file compliant with the latest version of the Federal Geographic Data Committee (FGDC) Standards/ ISO 19115. The metadata file shall contain methods, procedures, control information, datum, and other data necessary to properly describe the origin of the data.

LiDAR data shall be provided inClassified Point Data (LAS) and Digital Terrain Model and Digital Surface Model (GeoTiff) formats , unless otherwise approved by COR.Complete metadata shall be provided for each of these data products. The metadata will be provided in xml format and will adhere to an FDGC-endorsed metadata standard (i.e. ISO 19115-2). At a minimum, the core elements of the FGDC-endorsed metadata standard will be completed. In addition to the core metadata elements, process steps, including software packages and version numbers, will be provided with sufficient detail to allow reproduction of the product file

AMENDMENT 0002
****

3.4.6 Channel Surveys

~~The Contractor shall perform Pre-Construction surveys and Post-Construction surveys in accordance with Section 01 00 00, pargaph 1.10 FINAL EXAMINATION AND ACCEPTANCE, of the project excavation limits.~~

~~The contractor shall peform Construcion Surveys for quality checks on the dredging depth and width behind the dredge as work progresses. The Contractor will take progress soundings or sweepings.~~***The Government shall perform Before-dredging Condition Surveys and After-Dredging Condition Surveys in accordance with Section 01 00 00, paragraph 1.11 FINAL EXAMINATION AND ACCEPTANCE, of the project excavation limits.***

3.4.7 Dredge Material Placement Areas Surveys

The Contractor shall perform Pre-Construction surveys and Post-Construction surveys along repeatable ranges covering the portion of the placement area to be used for this contract and adjacent bottom within the limits specified herein. The required pre construction surveys shall be referenced to NAVD88 for the Deer River and Dauphin Island Causeway Sites and MLLW for the Relic Shell Mine Areas. Pre- surveys shall be performed within 14 days prior to commencement placement operations. The surveys shall generally be oriented with ranges (cross sections) spaced no greater than five hunderd (500) feet apart and extending one hundred (100) feet beyond the approved placement area limits for this contract.

The contractor shall peform Construction Surveys for progress, quality checks on placement lines, grades, and elevation and pay applications.

All poles, stakes, flagging, books, compact discs, and/or other survey materials shall be furnished by the Contractor. The Contractor shall submit the survey data in "raw" hardcopy form (fathometer charts, books, scrolls, etc.), plotted form, and in digital form on compact discs within five (5) working days of completion of the surveys. The data furnished on compact discs shall include Microstation CADD drawing files from which

hardcopy drawing plots were made. These books and/or compact discs shall, upon or before completion of the requirements of this contract, become the property of the Government. All costs associated with the required surveys and data compilation shall be included in the unit price for dredging.

The Contractor will perform final acceptance surveys of the Deer River and Dauphin Island Causeway North and South Placement sites in accordance with Section 01 00 00, pargaph 1.10 FINAL EXAMINATION AND ACCEPTANCE, of the project placement limits.

The Contractor shall provide Aerial Photographs of Deer River and Dauphin Island Causeway Placement Sites on a weekly basis for the duration of placement activities at the sites. Photography should continue until final acceptance of the site is obtained.

****

AMENDMENT 0002

3.5 PLANT REMOVAL

Upon completion of the work, remove all dredging plant and placement equipment, including ranges, buoys, piles, and other markers or obstructions within 10 days. Plant and/or equipment to be disposed of shall ONLY be disposed of in a manner and at locations approved by the Contracting Officer. Unless otherwise approved in writing by the Contracting Officer, the Contractor will not be permitted to abandon pipelines, pipeline supports, pontoons, or other equipment in the work area, pipeline access areas, water areas, or other areas adjacent to the work site. Pilings and any other debris removed or created as a result of the execution of this contract shall be disposed of in a manner and at locations approved by the Contracting Officer.

3.6 PROJECT COMPLETION REPORT

The Contractor shall submit a project completion report in Adobe PDF format to the Contracting Officer within 30 days following project completion. The Project Completion Report shall include but not be limited to the following:

(a) Names and titles of the project managers overseeing the effort, including contact information (telephone numbers, mailing addresses, and email addresses)

(b) Location and description of the project, including the final total volume of material extracted from the Mobile Harbor Channel the volume of material actually placed into each placement site (including a description of the volume calculation method used to determine these volumes)

(c) Files containing the x, y, z and time stamp of the dredge locations (if applicable)

(d) Narrative describing the final, as-built features, boundaries

(e) A table, showing the various items of work construction, final quantities, and monetary amounts

(f) A listing of construction and construction oversight

information, including the prime and subcontractor(s), contract costs, etc;

(g) A list of all major equipment used to construct the project

(h) A narrative discussing the construction sequences and activities, and, if applicable, any problems encountered and solutions

(i) A list and description of any construction change orders issued (if applicable)

(j) A list and description of any safety-related issues or accidents reported during the life of the project

(k) A narrative and any appropriate tables describing any environmental or compliance surveys or efforts associated with the project and costs associated with these surveys or efforts

(l) A table listing significant construction dates beginning with bid opening and ending with final acceptance of the project

(m) Digital appendices containing the as-built drawings, cross-sections, and survey data

-- End of Section --

US Army Corps
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MOBILE DISTRICT
109 SAINT JOSEPH STREET
MOBILE AL 36602

MOBILE HARBOR DEEPENING AND WIDENING PHASE 6

MOBILE, ALABAMA

MOBILE DISTRICT PROJECT CODE : CHC22012

SOLICITATION NUMBER : W9127824B0001

FEBRUARY 2024

AMENDMENT NO. 0002

SHEET REF.	TITLE OF DRAWINGS
G-002	INDEX OF DRAWINGS
G-003.1	GENERAL NOTES
CN101.1	PROJECT MAP
CN102	OVERALL DREDGE PLAN
CN103	PARTIAL DREDGE PLAN
CN104	PARTIAL DREDGE PLAN
CN105.1	DEER RIVER DREDGE PLACEMENT AREA
CN106.1	DAUPHIN ISLAND PARKWAY CAUSEWAY NORTH AND SOUTH DREDGE PLACEMENT AREAS
CN107.1	DAUPHIN ISLAND PARKWAY CAUSEWAY NORTH DREDGE PLACEMENT AREA
CN108.1	DAUPHIN ISLAND PARKWAY CAUSEWAY SOUTH DREDGE PLACEMENT AREA
CN109	RELIC SHELL "A" and "B" DREDGE PLACEMENT AREA
CN110.1	TURNING BASIN DREDGE CUT AREAS
CN301	TYPICAL DREDGE SECTIONS
CN302	DREDGE CROSS SECTIONS
CN303	DREDGE CROSS SECTIONS
CN304	DREDGE CROSS SECTIONS
CN305	DREDGE CROSS SECTIONS
CN306	DREDGE CROSS SECTIONS
CN307	DREDGE CROSS SECTIONS
CN308	DREDGE CROSS SECTIONS
CN309	DREDGE CROSS SECTIONS
CN310	DREDGE CROSS SECTIONS
CN311	DREDGE CROSS SECTIONS
B-312	BORING PROFILE
B-313	BORING PROFILE
B-314	BORING PROFILE

1 1 1

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MARK	DESCRIPTION	DATE
1	AMENDMENT NO. 0002, REPLACE DRAWINGS	3/13/24

DESIGNED BY: E. GODSEY
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. WIGGINS
SIZE: ANSI D
ISSUE DATE: MARCH 2024
SOLICITATION NO.:
CONTRACT NO.: WXXXXX-XX-X-XXX
CADD CODE: CHC22012
LST'D SHEET FILE NAME: CHC22012-G-002.DGN

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL. 36602

MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 6

INDEX OF DRAWINGS

SHEET ID
G-002.1

GENERAL NOTES:

1. ALL ELEVATIONS SHOWN IN THIS PLAN SET EXCEPT FOR SHEETS CN105 TO CN108 ARE REFERENCED TO FEET IN MEAN LOWER LOW WATER (M.L.L.W.) DATUM. SHEETS CN105 TO CN106 ARE REFERENCED TO FEET IN NAVD 88 DATUM.

2. ALL COORDINATES SHOWN IN THIS PLAN SET ARE IN FEET AND ARE REFERENCED TO ALABAMA STATE PLANE COORDINATE SYSTEM NAD 83 DATUM (0102) WEST ZONE.

3. THE HYDROGRAPHIC SURVEYS FOR THE TURNING BASIN, MOBILE RIVER AND MOBILE UPPER CHANNELS IN THIS PLAN SET WERE PERFORMED ON OCTOBER 3 AND 26, 2023 AND NOVEMBER 3, 2023 BY THE IRVINGTON SITE OFFICE OF THE U.S. ARMY CORPS OF ENGINEERS. THE HYDROGRAPHIC SURVEYS FOR RELIC SHELL AREAS WERE PERFORMED ON APRIL 6, 7, 12 AND 13, 2023 BY ANCHOR QEA , THE HYDROGRAPHIC SURVEYS OF THE DAUPHIN ISLAND CAUSEWAY PLACEMENT SITE WAS PERFORMED ON OCTOBER AND NOVEMBER BY ROWE ENGINEERING AND SURVEYING. THE HYDROGRAPHIC SURVEY OF THE DEER RIVER PLACEMENT SITE WAS PERFORMED ON MAY 16, 2022 BY ROWE ENGINEERING AND SURVEYING.

4. THE INFORMATION DEPICTED IN THIS PLAN SET REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THE TIME.

5. FREQUENCY SOUNDINGS: 208KHZ

6. ALL UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL INVESTIGATE SUBMERGED, SURFACE, AND OVERHEAD STRUCTURES IN THE WORK AREAS IN ACCORDANCE WITH SECTION 01 00 00, PARAGRAPH 1.3(c), CONTRACTOR'S INVESTIGATION RESPONSIBILITY.

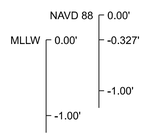
7. ONLY USACE GAUGES SHALL BE USED FOR REFERENCE UNLESS OTHERWISE APPROVED BY THE COR. GAUGE INFORMATION WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING.

8. CHANNEL COORDINATES ON SHEETS CN102 TO CN104 CORRESPOND TO THE ELEVATION OF THE NEW WORK DREDGE TEMPLATE (EL. -50' MLLW). SEE SHEET CN301 FOR TYPICAL DREDGE SECTION.

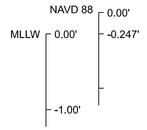
MOBILE HARBOR CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.00	267145.47	1798020.87
30+38.38	264108.89	1798125.38
72+09.06	260026.86	1798980.75
75+09.16	259728.77	1799015.40
98+82.05	257371.75	1799289.35
105+53.94	256705.45	1799375.88
157+17.67	251589.58	1800077.25
198+76.99	247439.68	1799797.37
213+05.16	246045.01	1800104.88
244+65.83	243219.15	1801520.62
253+64.33	242321.22	1801488.67
259+30.00	241755.93	1801467.74
267+72.58	240913.92	1801436.88
302+72.59	237416.26	1801308.73
317+72.59	235917.26	1801253.80
404+67.98	227227.70	1800935.41
423+46.58	225350.36	1800866.62
1055+42.67	162421.95	1806677.00
1115+67.25	156398.05	1806586.50
1538+00.00	114515.26	1801160.91
1576+00.00	110746.75	1800672.73
1760+09.29	92490.01	1798307.71
1775+26.83	90984.40	1798117.75
1854+55.94	83147.48	1799323.38
1859+28.29	82675.54	1799303.76
2029+60.04	66091.47	1795424.45
2029+60.04	66091.47	1795424.45
2089+08.62	60301.94	1794058.08
2189+05.33	50923.23	1790597.75

AVOIDANCE AREAS		
POINT	NORTHING	EASTING
A	242761.57	1803361.71
B	244845.33	1805543.86
C	245107.49	1809536.39
D	234935.55	1808406.01
E	234451.81	1812371.88
F	230745.23	1812371.88
G	229181.50	1806148.96
H	229181.50	1803083.42
I	234773.32	1801911.24
J	239070.08	1801869.64

ELEVATION CONVERSION FOR
DEER RIVER PLACEMENT AREA
0.00' MLLW = -0.327 NADVD 88



ELEVATION CONVERSION FOR
DAUPHIN ISLAND CAUSEWAY
PLACEMENT AREA
0.00' MLLW = -0.247 NADVD 88



⚠1

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MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REPLACE DRAWING	03/14/24

DESIGNED BY: E. GODSEY
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. VIGGIANI
SIZE: ANSI D
ISSUE DATE: MARCH 2024
SOLICITATION NO.:
CONTRACT NO.: WXXXXX-XX-X-XXX
CADD CODE: CHC22012
LS'D SHEET FILE NAME: CHC22012-G-003.dgn

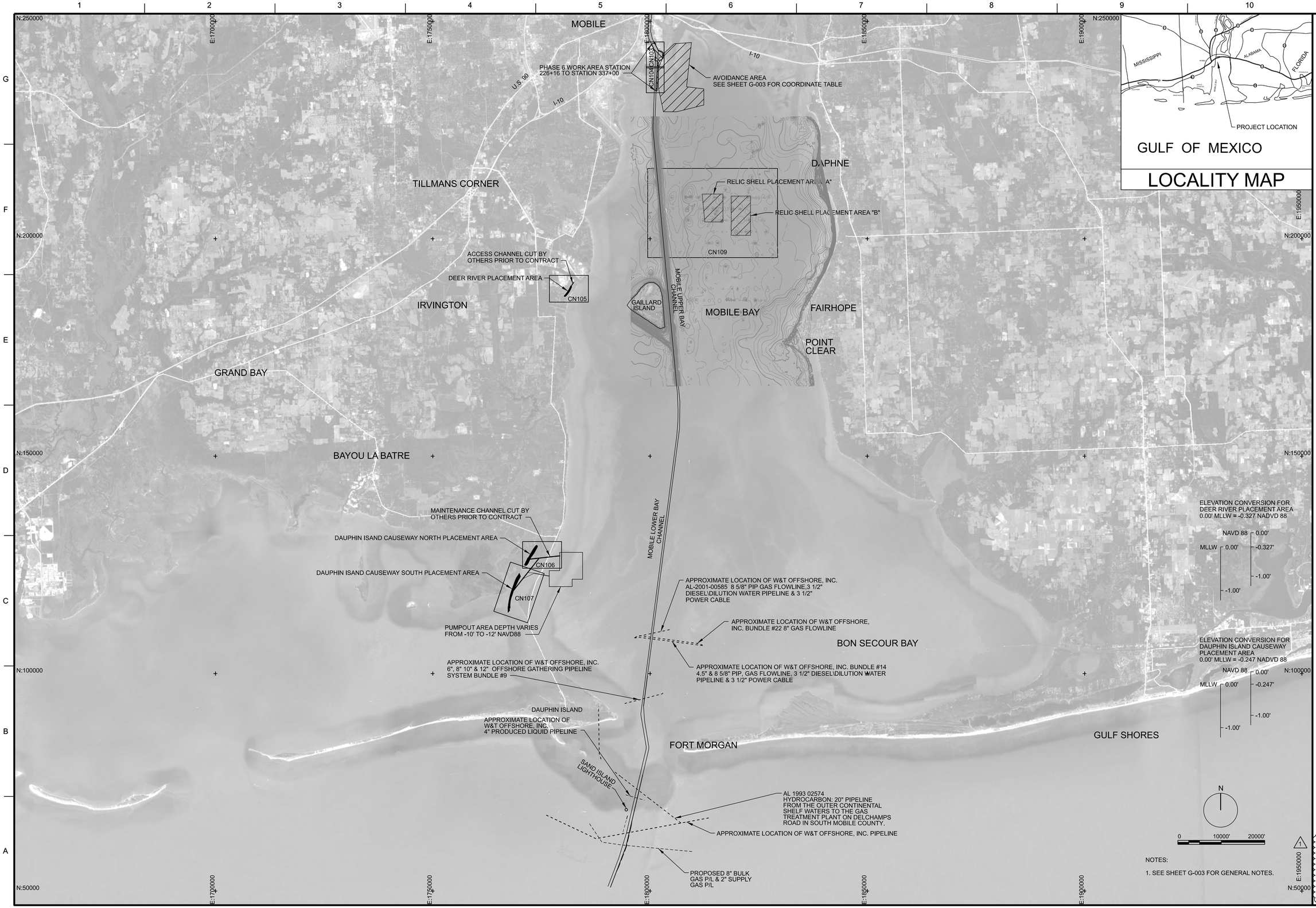
U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL. 36602

MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 6

GENERAL NOTES

SHEET ID
G-003.1

AMENDMENT NO. 0002



GULF OF MEXICO

LOCALITY MAP

ELEVATION CONVERSION FOR DEER RIVER PLACEMENT AREA
0.00' MLLW = -0.327 NADVD 88

NAVD 88 0.00' -0.327' -1.00'
MLLW 0.00' -1.00'

ELEVATION CONVERSION FOR DAUPHIN ISLAND CAUSEWAY PLACEMENT AREA
0.00' MLLW = -0.247 NADVD 88

NAVD 88 0.00' -0.247' -1.00'
MLLW 0.00' -1.00'

N

0 10000' 20000'

NOTES:

1. SEE SHEET G-003 FOR GENERAL NOTES.

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MARK	DESCRIPTION	DATE
1	AMENDMENT NO. 0002, REPLACE DRAWING	02/27/24

DESIGNED BY: E. GODSEY
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. VOLLENWEIDER
SIZE: ANSI D

ISSUE DATE: MARCH 2024
SOLICITATION NO.:
CONTRACT NO.: WXXXXX-XX-X-XXX
CADD CODE: CHC22012
LIST OF SHEET FILE NAME: CHC22012-CN101.dgn

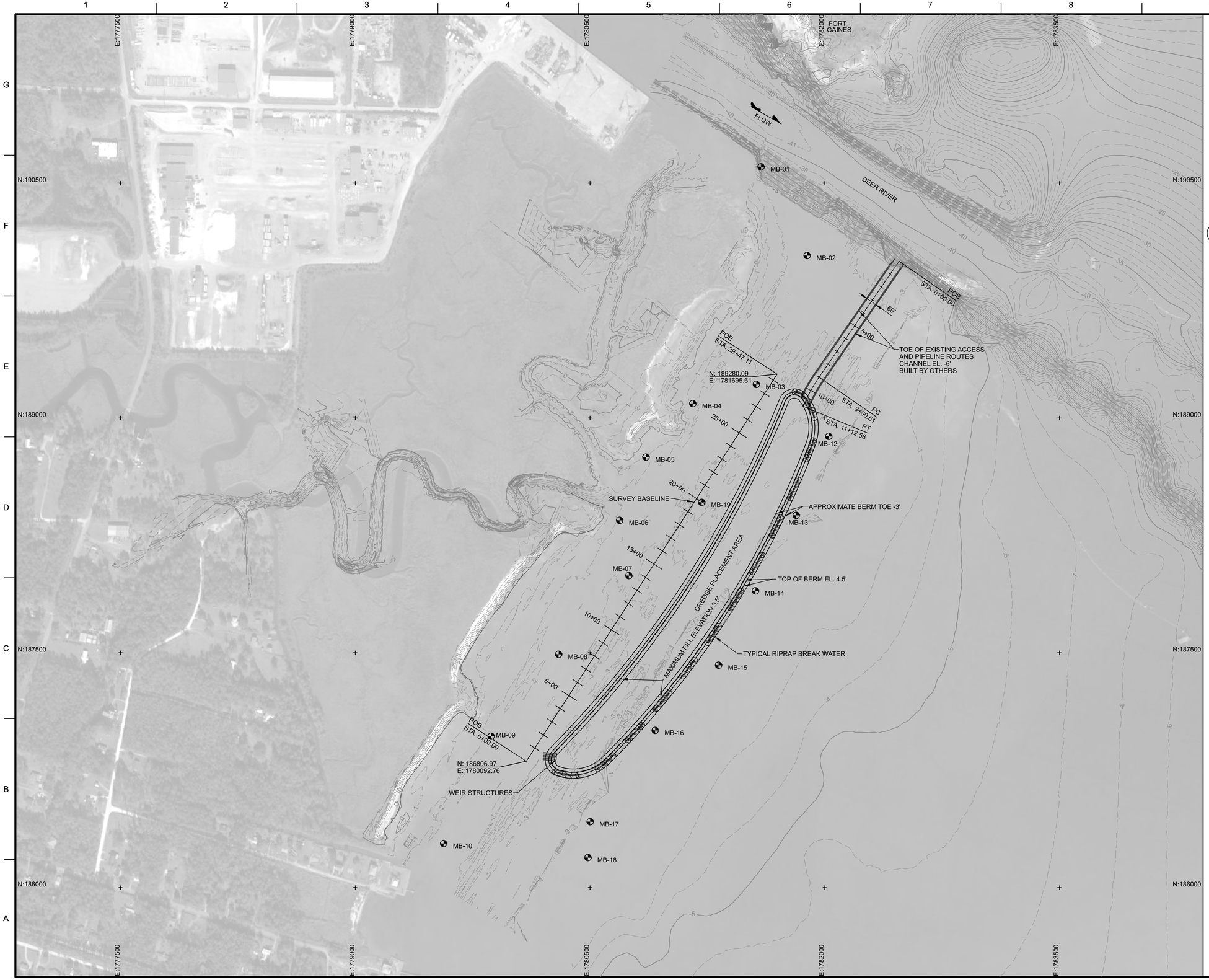
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL 36602

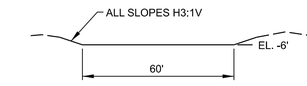
MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING
PHASE 6

PROJECT MAP

SHEET ID
CN101.1

AMENDMENT NO. 0002





TYPICAL SECTION OF ACCESS AND PIPELINE ROUTES

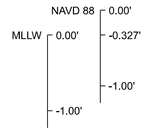
F9

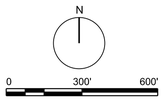
NOT TO SCALE

LEGEND

XX-XX BORING LOCATION

ELEVATION CONVERSION FOR DEER RIVER PLACEMENT AREA
0.00' MLLW = -0.327 NADV 88





NOTES:

1. SEE SHEET G-003 FOR GENERAL NOTES.
2. THE DREDGE MATERIAL CONTAINMENT BERM AND SEGMENTED BREAKWATERS WILL BE BUILT BY OTHERS AHEAD OF DREDGE MATERIAL PLACEMENT. MATERIAL SHALL BE PLACED INSIDE THE BERM.
3. MAXIMUM FILL ELEVATION NAVD 88 3.5'.
4. ALL ELEVATIONS SHOWN ARE IN NAVD 88 FEET.
5. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ALIGNMENTS AND CURRENT CONDITIONS ARE ADEQUATE FOR ALL NECESSARY EQUIPMENT TO PERFORM THE WORK AT THIS SITE.
6. THE CONTRACTOR CAN NOT IMPEDE NAVIGATION AND NEEDS TO ADHERE TO 35 20 23 PARAGRAPH 3.2.2.
7. PUMP OUT LOCATION LOCATED WITHIN THE THEODORE SHIP CHANNEL.
8. FINAL ACCESS AND WEIR LOCATIONS TO BE VERIFIED WITH THE COR.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REPLACE DRAWING	03/13/24

DESIGNED BY: E. GODSEY	ISSUE DATE: MARCH 2024
DRAWN BY: J. GIBSON	SOLICITATION NO.:
CHECKED BY: J. BASS	CONTRACT NO.: WXXXXX-XX-X-XXX
SUBMITTED BY: M. WILLIAMS	CADD CODE: CHC22012
SIZE: ANSI D	IS/D SHEET FILE NAME: CHC22012-CN105.ddn

MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL 36602

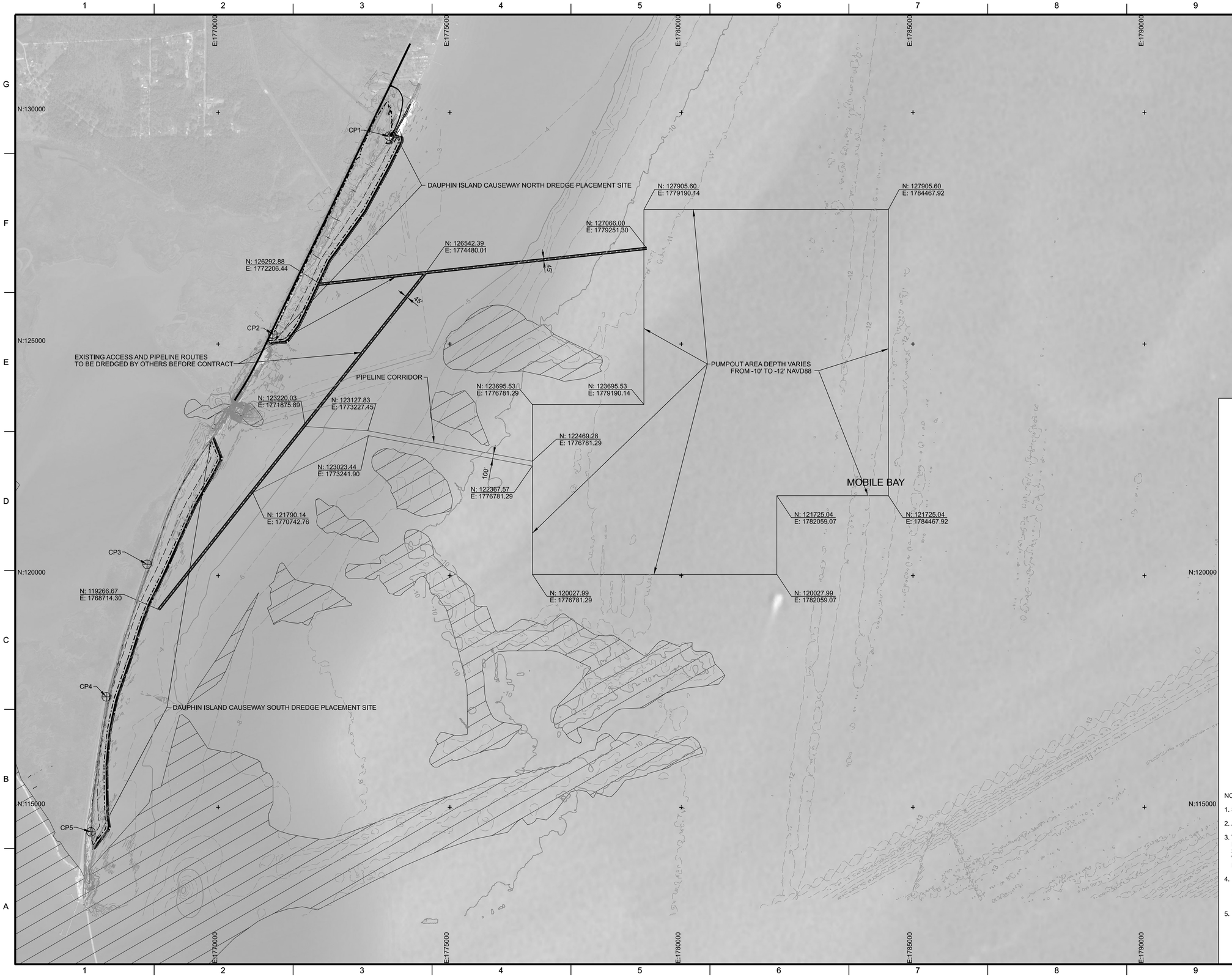
MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING
PHASE 6

DEER RIVER
DREDGE PLACEMENT AREA

SHEET ID

CN105.1

AMENDMENT NO. 0002



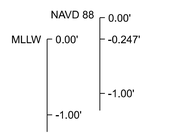
SURVEY CONTROL COORDINATES		
POINT	NORTHING	EASTING
CP1	129487.19	1773690.15
CP2	125214.92	1771177.93
CP3	120244.25	1768463.15
CP4	117383.75	1767582.29
CP5	114469.24	1767248.50

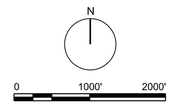
LEGEND

EXISTING OYSTER BEDS

SURVEY CONTROL POINT

ELEVATION CONVERSION FOR
DAUPHIN ISLAND CAUSEWAY
PLACEMENT AREA
0.00' MLLW = -0.247 NADVD 88





NOTES:

1. SEE SHEET G-003 FOR GENERAL NOTES.
2. ALL ELEVATIONS SHOWN ARE IN NAVD 88 FEET.
3. THE CONTRACTOR IS TO ADHERE TO THE REQUIREMENTS OF SECTION 01 57 19 PARAGRAPH 3.1 PROTECTION OF NATURAL RESOURCES WHEN WORKING AROUND SENSITIVE EXISTING OYSTER REEFS AND WETLANDS.
4. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ALIGNMENTS AND CURRENT CONDITIONS ARE ADEQUATE FOR ALL NECESSARY EQUIPMENT TO PERFORM THE WORK AT THIS SITE.
5. THE CONTRACTOR NEEDS TO BE AWARE OF NEARBY AQUICULTURAL OPERATIONS AS SPECIFIED IN PARAGRAPH 1.10 OTHER OPERATIONS IN THE 35 30 35 DREDGING SPECIFICATION.

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MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REPLACE DRAWING	03/13/24

ISSUE DATE: MARCH 2024
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DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. MYERS
SIZE: ANSI D
1:5:0 SHEET FILE NAME: CHC22012-CN106.ddn

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL. 36602

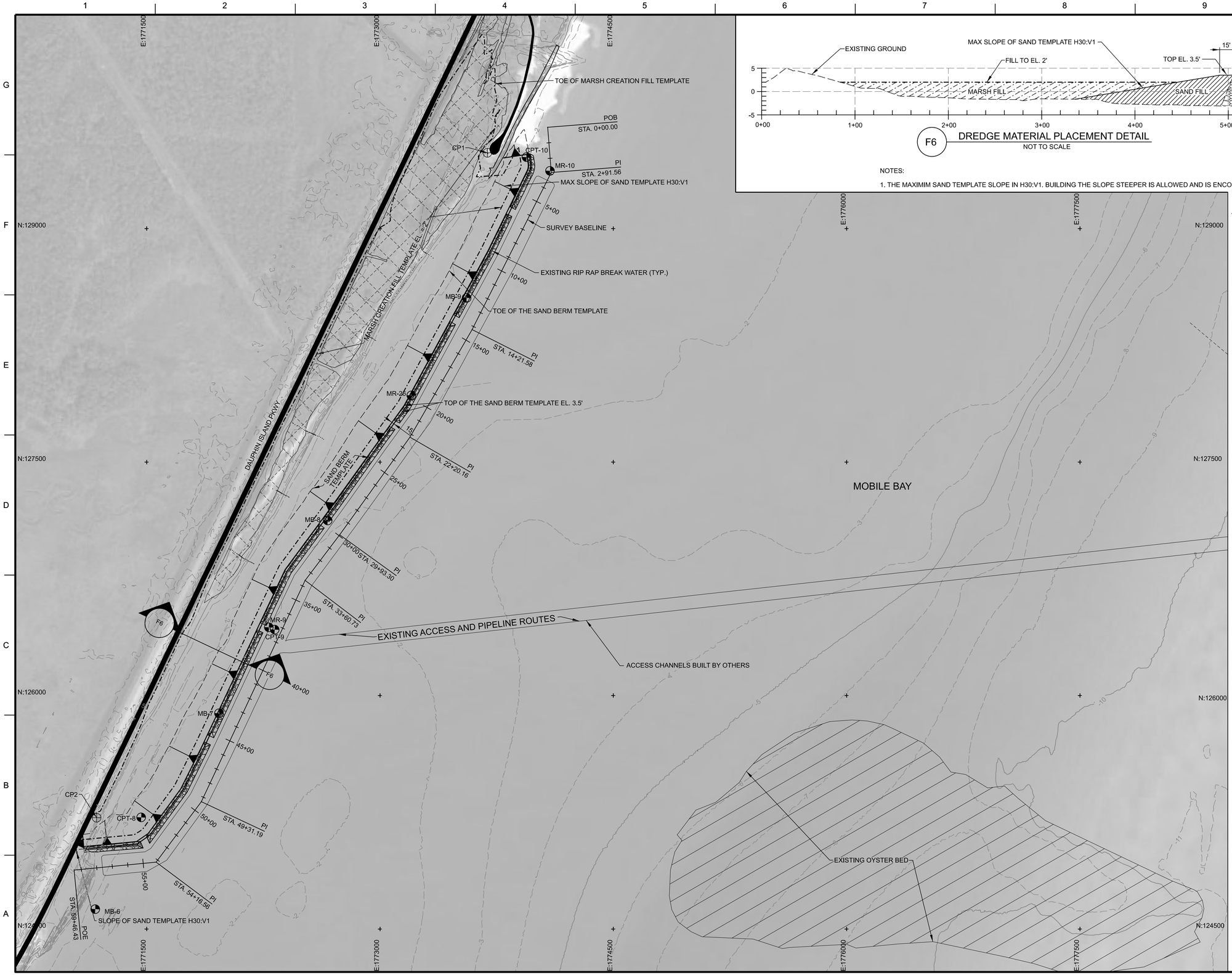
MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 6

DAUPHIN ISLAND PARKWAY NORTH AND SOUTH DREDGE PLACEMENT AREAS

SHEET ID

CN106.1

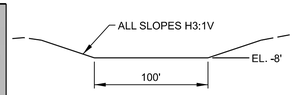
AMENDMENT NO. 0002



F6 DREDGE MATERIAL PLACEMENT DETAIL
NOT TO SCALE

NOTES:

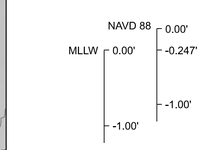
1. THE MAXIMIM SAND TEMPLATE SLOPE IN H30:V1. BUILDING THE SLOPE STEEPER IS ALLOWED AND IS ENCOURAGED.



E9 TYPICAL SECTION OF ACCESS AND PIPELINE ROUTES
NOT TO SCALE

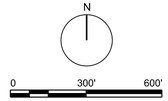
SURVEY BASELINE		
STATION	NORTHING	EASTING
0+00.00	129651.07	1774077.69
2+91.56	129360.40	1774100.54
14+21.58	128351.29	1773591.96
22+20.16	127659.94	1773192.27
29+93.30	127032.59	1772740.41
33+60.73	126739.94	1772518.24
49+31.19	125318.08	1771851.40
54+16.56	124929.50	1771560.56
59+46.43	124878.63	1771033.14

ELEVATION CONVERSION FOR DAUPHIN ISLAND CAUSEWAY PLACEMENT AREA
0.00' MLLW = -0.247 NADVD 88



LEGEND

- XXX-X BORING LOCATION
- EXISTING WETLANDS
- EXISTING OYSTER BEDS
- SURVEY CONTROL POINT



NOTES:

1. SEE SHEET G-003 FOR GENERAL NOTES.
2. ALL ELEVATIONS SHOWN ARE IN NAVD 88 FEET.
3. SEE CN106 FOR OVERALL DAUPHIN ISLAND CAUSEWAY SITE AND SURVEY CONTROL POINTS TABLE.
4. DREDGE DISCHARGE MUST ALWAYS BE LOCATED AT LEAST 25 FEET AWAY FROM THE EXISTING SHORELINE.
5. THE CONTRACTOR IS TO ADHERE TO THE REQUIREMENTS OF SECTION 01 57 19 PARAGRAPH 3.1 PROTECTION OF NATURAL RESOURCES WHEN WORKING AROUND SENSITIVE EXISTING OYSTER REEFS AND WETLANDS.
6. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ALIGNMENTS AND CURRENT CONDITIONS ARE ADEQUATE FOR ALL NECESSARY EQUIPMENT TO PERFORM THE WORK AT THIS SITE.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REPLACE DRAWING	03/13/24

DESIGNED BY: E. GODSEY
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. WOLFORD
SIZE: ANSI D
ISSUE DATE: MARCH 2024
SOLICITATION NO.:
CONTRACT NO.: WXXXXX-XX-X-XXX
CADD CODE: CHC22012
IS/O SHEET FILE NAME: CHC22012-CN107.dgn

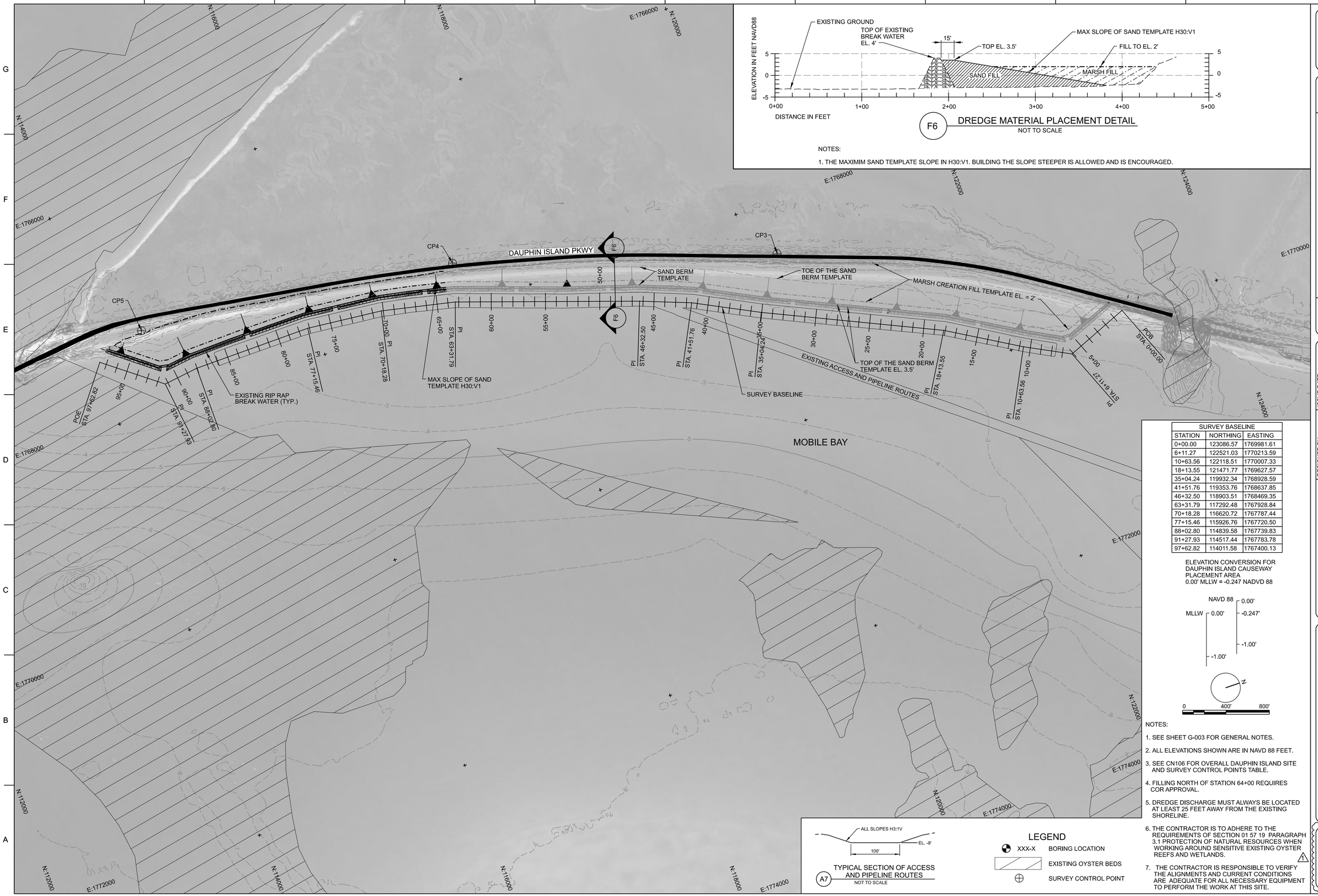
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL. 36602

MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 6

DAUPHIN ISLAND PARKWAY CAUSEWAY NORTH DREDGE PLACEMENT AREA

SHEET ID
CN107.1

AMENDMENT NO. 0002



F6 DREDGE MATERIAL PLACEMENT DETAIL
NOT TO SCALE

NOTES:

1. THE MAXIMIM SAND TEMPLATE SLOPE IN H30:V1. BUILDING THE SLOPE STEEPER IS ALLOWED AND IS ENCOURAGED.

SURVEY BASELINE		
STATION	NORTHING	EASTING
0+00.00	123086.57	1769981.61
6+11.27	122521.03	1770213.59
10+63.56	122118.51	1770007.33
18+13.55	121471.77	1769627.57
35+04.24	119932.34	1768928.59
41+51.76	119353.76	1768637.85
46+32.50	118903.51	1768469.35
63+31.79	117292.48	1767928.84
70+18.28	116620.72	1767787.44
77+15.46	115926.76	1767720.50
88+02.80	114839.58	1767739.83
91+27.93	114517.44	1767783.78
97+62.82	114011.58	1767400.13

ELEVATION CONVERSION FOR DAUPHIN ISLAND CAUSEWAY PLACEMENT AREA
0.00' MLLW = -0.247 NADV 88

NOTES:

1. SEE SHEET G-003 FOR GENERAL NOTES.
2. ALL ELEVATIONS SHOWN ARE IN NAVD 88 FEET.
3. SEE CN106 FOR OVERALL DAUPHIN ISLAND SITE AND SURVEY CONTROL POINTS TABLE.
4. FILLING NORTH OF STATION 64+00 REQUIRES COR APPROVAL.
5. DREDGE DISCHARGE MUST ALWAYS BE LOCATED AT LEAST 25 FEET AWAY FROM THE EXISTING SHORELINE.
6. THE CONTRACTOR IS TO ADHERE TO THE REQUIREMENTS OF SECTION 01 57 19 PARAGRAPH 3.1 PROTECTION OF NATURAL RESOURCES WHEN WORKING AROUND SENSITIVE EXISTING OYSTER REEFS AND WETLANDS. 1
7. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ALIGNMENTS AND CURRENT CONDITIONS ARE ADEQUATE FOR ALL NECESSARY EQUIPMENT TO PERFORM THE WORK AT THIS SITE.

A7 TYPICAL SECTION OF ACCESS AND PIPELINE ROUTES
NOT TO SCALE

LEGEND

- XXX-X BORING LOCATION
- EXISTING OYSTER BEDS
- SURVEY CONTROL POINT

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REPLACE DRAWING	03/13/24

ISSUE DATE: MARCH 2024
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DESIGNED BY: E. GODSEY
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. WOOTEN
SIZE: ANSI D
US STD SHEET FILE NAME: CHC22012-CN108.dgn

MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL 36602

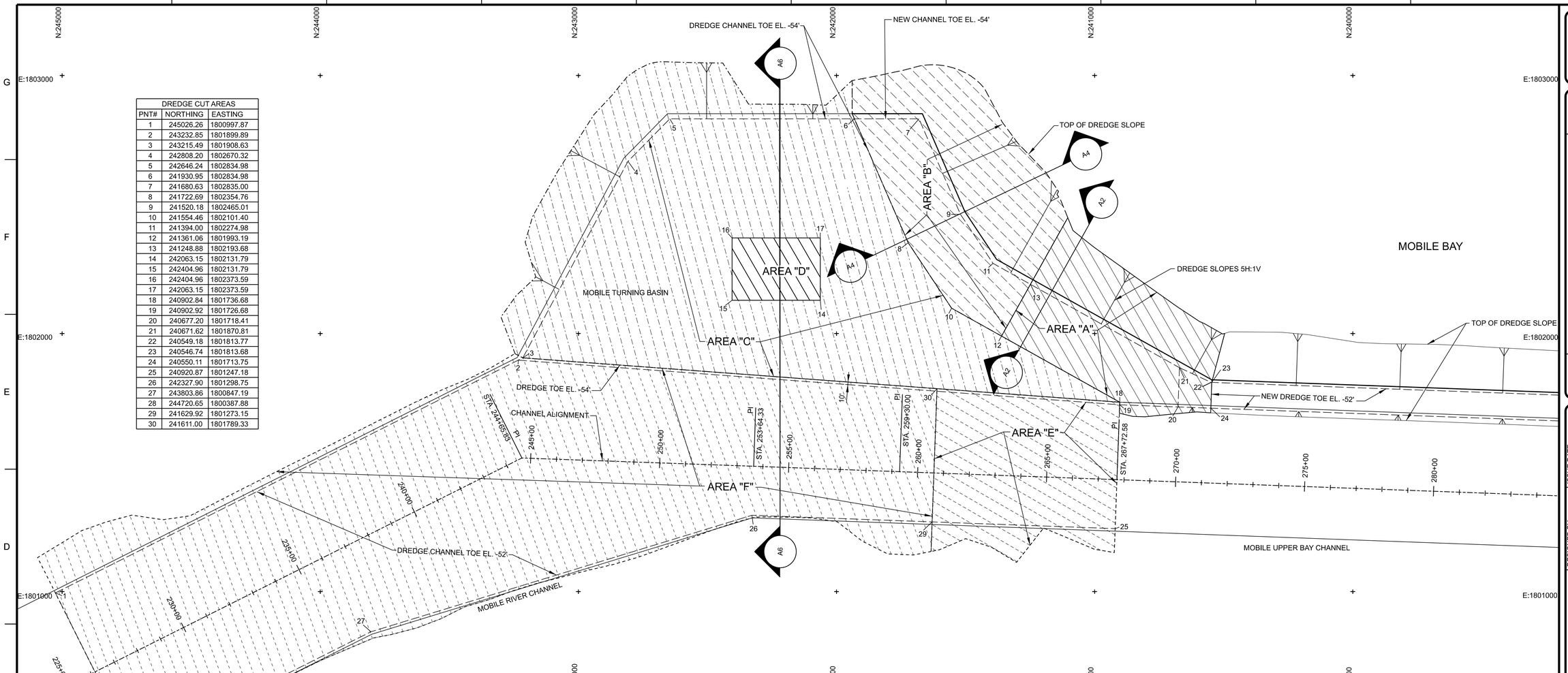
MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 6

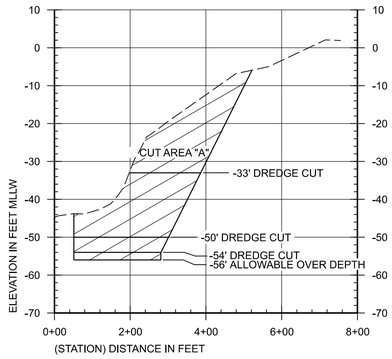
DAUPHIN ISLAND PARKWAY CAUSEWAY SOUTH DREDGE PLACEMANT AREA

SHEET ID
CN108.1

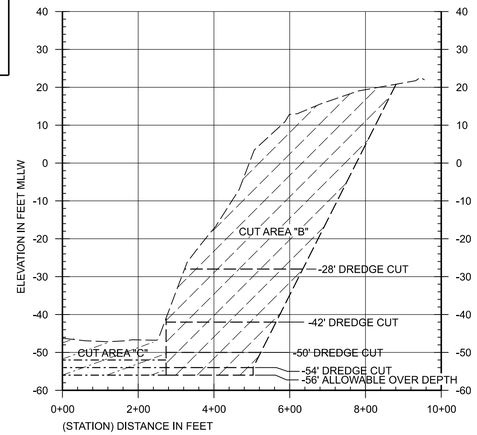
AMENDMENT NO. 0002

DREDGE CUT AREAS		
PNT#	NORTHING	EASTING
1	245026.26	1800997.87
2	243232.85	1801899.89
3	243215.49	1801908.63
4	242808.20	1802670.32
5	242646.24	1802834.98
6	241930.95	1802834.98
7	241680.63	1802835.00
8	241722.69	1802354.76
9	241520.18	1802465.01
10	241554.46	1802101.40
11	241394.00	1802274.98
12	241361.06	1801993.19
13	241248.88	1802193.68
14	242063.15	1802131.79
15	242404.96	1802131.79
16	242404.96	1802373.59
17	242063.15	1802373.59
18	240902.84	1801736.68
19	240902.92	1801726.68
20	240677.20	1801718.41
21	240671.62	1801870.81
22	240549.18	1801813.77
23	240546.74	1801813.68
24	240550.11	1801713.75
25	240920.87	1801247.18
26	242327.90	1801298.75
27	243803.86	1800847.19
28	244720.65	1800387.88
29	241629.92	1801273.15
30	241611.00	1801789.33

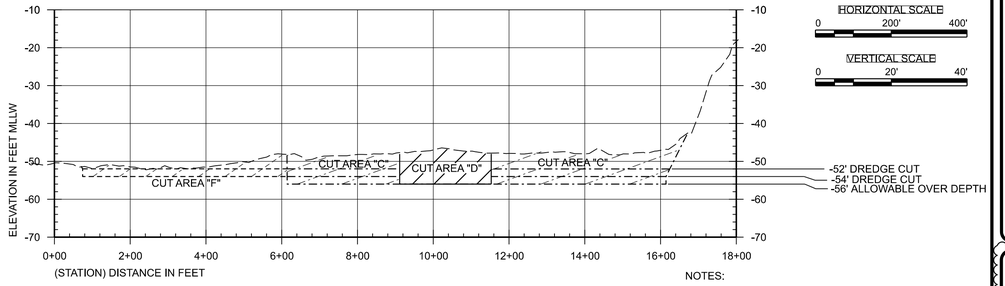




A2 PROFILE OF "A" CUT AREA
SCALE: 1" = 200' HORIZONTAL
1" = 20' VERTICAL



A4 PROFILE OF "B" CUT AREA
SCALE: 1" = 200' HORIZONTAL
1" = 20' VERTICAL



A6 PROFILE OF "C", "D" AND "F" CUT AREAS
SCALE: 1" = 200' HORIZONTAL
1" = 20' VERTICAL

PLAN NORTH

HORIZONTAL SCALE
0 200' 400'

VERTICAL SCALE
0 20' 40'

NOTES:

1. SEE SHEET G-003 FOR GENERAL NOTES.
2. REFERENCE SECTION 35 20 23 PARAGRAPH 3.2.1 ORDER OF WORK AND TABLE. DREDGE CUTS AND DREDGE MATERIAL PLACEMENT AREAS.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REPLACE DRAWING	03/14/24

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U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL 36602

MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 6

TURNING BASIN
DREDGE AREAS

SHEET ID
CN110.1

AMENDMENT NO. 0002