

CITY OF MOBILE CONTRACT

MOBILE RIVERFRONT DEVELOPMENT-BULKHEAD REPLACEMENT

CITY OF MOBILE MOBILE, ALABAMA

CONTRACT DOCUMENTS HAVE BEEN REVIEWED FOR USE BY:

City of Mobile, ALABAMA

TECHNICAL SPECIFICATIONS PREPARED BY:

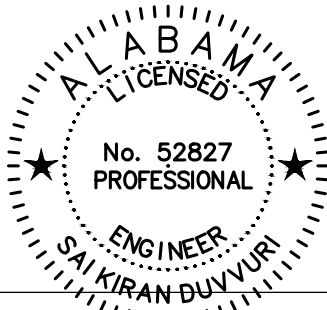
Moffatt & Nichol

ADDENDUM NO. 2

Date Issued: October 13, 2023

This Addendum No. 2 shall be part of the above referenced project.

Acknowledge receipt of this Addendum No. 1 by inserting its number in the space provided in the Alabama Uniform Public Work Bid Form of the Request for Proposals. Failure to do so may subject the bidder to disqualification.



Sai Kiran Duvvuri, M.S., P.E.
Moffatt & Nichol

DISCLAIMER:

It is the sole responsibility of the Contractor to read and understand all terms and provisions contained in this document, as it is a legally binding contract. Contractors are encouraged to consult legal counsel prior to its execution

CITY OF MOBILE CONTRACT
MOBILE RIVERFRONT DEVELOPMENT-BULKHEAD REPLACEMENT
MOBILE, ALABAMA

This Addendum is issued for the purpose of modifying, clarifying, or revising, as applicable, the specified items of the original Contract Documents. It is also issued for the purpose of adding, as applicable, the attached specified items to the original Contract Documents, or deleting, as applicable, the attached specified items from the original Contract Documents. The Addendum and attachments shall be construed as much a part of the original Contract Documents as contained therein. Changes made by Addenda shall take precedence over original Contract Documents.

GENERAL ANNOUNCEMENT

In the case that additional questions have been received but are not answered in this addendum, these questions will be answered in a subsequent addendum to be issued on a later date.

1. The deadline to submit written questions is **Wednesday, October 11, 2023, until 2:00 pm.**
2. Final Addendum will be issued on **Friday, October 13, 2023, by 5:00 pm.**

PART I – WRITTEN CONTRACTORS QUESTIONS

Contractor's written Questions and Engineer's Responses

PART II – MODIFICATIONS TO CONTRACT DOCUMENTS, TECHNICAL SPECIFICATION, PLANS, AND OTHER DOCUMENTS

Modifications to Contract Documents and Technical Specifications.

PART III– ATTACHMENTS

1. Pre-Bid Conference Attendee List
2. Pre-Bid Conference Meeting Notes
3. Section 00 41 00 Bid Form
4. Technical Specification 31 00 00
5. Plan Sheet SD 302

PART I – Written Contractors’ Questions

NOTE – The responses presented in PART I may differ from those presented in the Pre-Bid Conference. The responses in PART I are current as of the date of this Addendum and if different supersede those provided at the Pre-Bid Conference or any previous addenda.

Contractors’ General Questions Received

1. What is the Engineering Probable Cost of Construction?

Response: The Estimated Probable Cost of Construction is \$7 Million Dollars.

2. Does the Contractor have to obtain CSX Permit?

Response: Contractor is not required obtain CSX Permit.

PART II – Modifications to Contract Documents, Technical Specification, Plans, and Other Documents

Contract Documents:

Replace Section 00 41 00 “Bid Form” from the IFB documents with the attachment from this Addendum No.1.

“Bit Item No 22 quantity has be updated to 5 CY”

Technical Specifications:

Replace Technical Specification 31 00 00 from the IFB documents with the attachment from this Addendum No.1.

Plans:

Replace SD 302 from the IFB documents with the attachment from this Addendum No.1.

PART II - ATTACHMENTS
Pre-Bid Conference Attendee List

PART III - ATTACHMENTS
Pre-Bid Conference Meeting Minutes



moffatt & nichol

Date: Friday, October 06, 2023, 09:00 A.M

Project: City of Mobile
Mobile Riverfront Development Bulkhead Replacement
Mobile Contract No. PR-029-22

Location: Cooper Riverside Park
101 S Water St, Mobile, AL 36602

PRE-BID MEETING MINUTES

SAFETY TOPIC

Driving in Rainy Conditions.

ROSTER SIGNATURES AND INTRODUCTIONS

1. Owner – City of Mobile
 - i. Project Manager - Roger Washington
2. Engineer – Moffatt & Nichol (M&N)
 - i. Project Manager – Sai Kiran Duvvuri, M.S, P.E.

SCOPE OF WORK

The project scope consists of replacement of the existing deteriorated wharf, bulkhead, and cell structures forming the shoreline of Cooper Park.

NOTICE TO BIDDERS (Section 00 11 16)

The Notice to Bidders indicates how the plans, specifications, and contract documents may be obtained or viewed. (Deadline to purchase bid documents closes 24 hours after pre-bid meeting)

Sealed Bids will be received and clocked in until **2:15 PM** local time, **Wednesday, October 18th, 2023**, in the office of the City Clerk, Government Plaza, 9th Floor South Administrative Tower, 205 Government Street, Mobile, Alabama 36602.

All Bids not clocked in at the City Clerk’s Office prior to the time specified, or Bids received after the specified time, will be automatically rejected, and returned immediately, unopened.

Bids will be publicly opened and read at **2:30 PM** local time, in the Atrium Lobby of Government Plaza.



This is a tax-exempt project and shall be certified by the requirements of the Alabama Department of Revenue. Bidders shall NOT include sales and use taxes with their bid amounts. Bidders shall complete the Sales Tax Form C-3A and include it as an attachment to their Bid Form (see Section 00400).

PROPOER PRESENTATION AND SUBMISSION OF BIDS (*Item No. 9 Bid Submittals of Invitation to Bidders*)

- A. Bid, with Bid Security, Sales Tax Form C-3A and other supporting data specified, shall be contained in a sealed, opaque envelope, approximately 9x12 inches or larger and be marked on the outside with the words "**SEALED BID FOR MOBILE RIVERFRONT DEVELOPMENT-BULKHEAD REPLACEMENT- PROJECT NUMBER: PR-029-22**".
- B. The Bid envelope shall be clearly addressed to the Owner as indicated on the Bid Form and include the bid date, the name, address and State License number and classification of the Bidder issued by the State of Alabama Licensing Board for General Contractors.
- C. Each Bid Proposal packet shall include:
 - i. Completed Bid Form furnished in the bidding documents.
 - ii. A bid bond in the amount of 5% of the bid shall accompany the formal proposal. For the selected contractor, a performance bond and payment bond in the amount of 100% of the contract price will be required. This information may also be found in the Notice to Bidders section of the contract documents.
- D. Examination of the site.

BID COMPLETENESS REQUIREMENTS – *including, but not limited to, the following:*

- 1. Acknowledgement of Addenda on Bid Proposal.
- 2. Properly fill in unit price and extension price of each item included in the Bid Form.
- 3. Complete bidder information as requested.

PROJECT ADDENDA

- 1. Clarifications in response to questions concerning Contract Documents will be issued in an Addendum.
- 2. Send all questions to sduvvuri@moffattnichol.com. Any questions submitted outside of this email address will not be considered.
- 3. Addenda will be issued as soon as possible, but no later than Wednesday, October 13, 2023 before 5:00 p.m. Addenda will be available at www.cityofmobile.org/bids/ by clicking on the Project Link, and will also be sent via email provided on the sign-in sheet for this meeting.

GENERAL PROJECT INFORMATION

1. **There is a total contract time of 365 days.** Failure to complete the project within the allotted time will result in the assessment of liquidated damages as indicated below.

Bid Alternate	Start Date	Completion Date	Applicable Liquidated Damages
Base Bid	TBD	TBD	\$1,000.00/day

2. Contractors are reminded that the contract documents (Notice to Bidders) call for general (Prime) contractors to be licensed in the State of Alabama with following classification:

A. Heavy Construction

3. The Form of Proposal also delineates specific unit price items applicable to the project. Actual contract quantities for measured quantities may nominally increase based upon execution of work.
4. Specification Section 01 10 00 “Measurement and Payment” describes the construction contract bid items (Base Bid and Additive Bids) and unit prices utilized in the Form of Proposal in more detail.
5. The award of this contract shall be approved by the Mobile City Council. It is anticipated that all contract approvals and execution of contract documents will be completed in a timely manner.
6. Contractors are informed to contact following representative for complying with minority business requirements. For DBE Requirements, please contact:

Archnique Kidd, Supplier Diversity Program Manager
 Archnique.kidd@cityofmobile.org
 (251) 208-7967

7. Construction Submittal Process – Submitted to Engineer as required in the Technical Specifications and Contract Documents
8. US Army Corps of Engineers (ACOE) Nationwide Permit No. SAM 2023-00241-LML dated April 7, 2023. City Grading Permit (pending), Building Permit (pending) Upon awarding bid and



receiving contractors' information, City permits will be processed and issued at no cost to the contractor.

9. There will be mandatory monthly progress meetings with Engineer and Owner personnel during construction.

WORK

1. Construction activity is only allowed between the hours of 7:30 am to 5:30 pm. Material deliveries shall additionally be restricted to these hours. Because of the project's vicinity to residential homes, work outside of these hours is prohibited. The City will provide Contractor a key for the locked gate into the site.
2. Contractor will be responsible for conduct and decorum of their employees and subcontractors at all times. This includes required high-vis safety shirts, no profanity or objectionable behavior, and minimal disruption to neighborhood residents in the form of traffic along public streets. The 25mph speed limit for the street will be strictly enforced.
3. The Contractor shall provide independent testing services to perform field tests of all materials. The contractor is to coordinate all testing with the M&N Project Manager. The contractor shall pay for all testing costs associated with the project in accordance with the contract documents.

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS (SECTION 00 22 00)

1. 20 – Site Considerations – remove and store, photos & videos, noise, clean work and adjacent area, dumpster & laydown area per direction of owner, and BMPs.
2. 22 - Lien Waivers – with pay app completed lien waivers, including from subcontractors and material suppliers.
3. 27 – Intent – Special Provisions supersede over conflicting counterpart provisions
4. 29 – Maintenance of Drainage
5. 31 – Sanitation Facility
6. 33 – Mud & Debris from construction vehicles onto public roads.
7. 39 – Redline drawings on site
8. 40 – Work/Installation Plan – Submit to Engineer 3 days prior to pre-construction meeting

PROJECT TOPICS

STRUCTURAL MONITORING



The project site includes multiple existing structures, some of unknown age and in various stages of deterioration. These consist of a timber bulkhead (unknown age), timber pile-supported wharf (piling age unknown, wharf 1995), the buried ALDOT Wallace Tunnel (1973), steel coffer cells from the tunnel construction (1973), and the Gulf Quest Museum Bulkhead. Vibration monitoring of the tunnel and movement monitoring of the cells and bulkhead are required during construction. See construction drawings S-002, S-004, S-100 and specification 33 51 43.

STRUCTURES

1. The structural scope includes construction of a new steel sheet pile bulkhead alignment through a pair of northern existing coffer cells (1973) with interruptions and closures of the new bulkhead at each intersection with a cell wall. The bulkhead's southern end interfaces with a buried shallow concrete Deadman (1995). The scope also includes encasement of an existing southern coffer cell (1973) with concrete retained by steel piling. The mudline between the cells is covered by an armor stone backfill placed above the Wallace Tunnel (1973) after its construction. The adjacent museum bulkhead (2005) was constructed above and tying into the southern existing coffer cell. The success of the contractor's work depends on understanding the interfacing of existing and proposed construction and possible conflicts. A summary of known information about existing structures is provided on construction drawing S-001 and all available applicable record drawings are provided in the reference sheets of the drawings.
2. The footprint of the existing coffer cells is approximated from surface surveying and is uncertain, and the footprint of the Deadman is traced from record drawings. The construction sequence requires the contractor to survey the Deadman and cell piling within the limits of excavation after performing excavation and demolition to expose them to view. The engineer will revise the bulkhead closure details and alignment to accommodate the survey findings, possibly adding an additional sheet pile and connector at each closure. The bulkhead may not begin installation until the engineer has reviewed the survey and revised the construction drawings as required for field conditions; therefore, this survey will be a critical path item. See construction drawings S-002, S-101, S-502, S-503 and specification 02 41 00.
3. The encasement of the existing south coffer cell will rely on steel half-pipes as stay-in place formwork. The perimeter of the cell is composed of granular backfill from the Wallace Tunnel excavation layback and armor stone backfill above the tunnel. The piling shall not be driven, but shall be pushed into place using mechanical equipment, to limit vibrations within the tunnel. The footprint of the armor stone is uncertain and so it is anticipated that the piling will refuse early when encountering stone and shall be cut off to design top of pile. The piling will be unstable for use as concrete encasement formwork due to lack of tip embedment into the armor stone. Therefore, the south cell armor stone revetment is required to be installed around the encasement piling before the encasement is poured.



4. The existing coffer cells are in a state of deterioration with many holes in the sheet piling through which fill has been lost. The engineer performed a dive inspection of the cells in August 2022 which measured and summarized the deterioration, included as Appendix A to the construction specifications. The bid quantity for the southern coffer cell encasement accounts for additional volume of concrete which will be lost into voids in the cell, but the concreter is advised that the final encasement quantity may vary depending on actual void size behind the holes.
5. The southern coffer cell encasement form half-pipe piles will not be placed in direct contact with the existing steel piling to prevent damage to the deteriorated piling during installation. Instead, they will be in contact with the existing cell concrete cap, which will create a standoff gap between the cell piles and half-pipes. At each end of the encasement, this gap will be open to the river and requires closure lest the poured encasement concrete be lost into the river. The contractor shall submit means and methods to close the two gaps. See construction drawing S-103.
6. The construction phasing on construction drawings S-002 and S-003 preserves the stability of the existing structures and new work until all lateral tieback and restraint system have been completed and final demolition may be performed. The contractor shall submit demolition and construction plans before work begins, for review by the engineer for understanding of the existing conditions and interfacing of proposed and existing construction. The contractor may propose an alternative sequence to that of the construction drawings but will be required to prove that the stability of the existing structure is maintained to the satisfaction of the engineer. The engineer's comments on the plans will be discussed in pre-construction meeting and due to the anticipated level of detailed review and comments, these plans will be critical path items.
7. Due to the difficulty of installing the proposed bulkhead amongst the existing structures and the possibility of field changes to alignment due to obstruction or conflicts, the bulkhead wall as-built alignment shall be surveyed after its installation and before construction of the concrete cap above. The survey shall be submitted to the Engineer for review to confirm conformance of the bulkhead and closure construction with the construction drawings and any approved field changes. Construction of the cap may not proceed until the Engineer approves the survey and specifies any required further closures. Therefore, this survey will be a critical path item.

CONSTRUCTION SEQUENCE AND MEAN & METHODS

1. Responsibility of the contractor.
2. Contractor to submit project schedule within ten (10) days of the Effective Date of the Agreement for Owner/Engineer Review and Approval.



AGENCY/OWNER COMMENTS

Bid Questions & Responses

1. Questions received prior to this pre-bid conference will be addressed in an upcoming addendum within the following days.
2. All future questions shall be in writing and sent to the email address sduvvuri@moffattnichol.com. We shall not accept any questions over the phone or sent to different email addresses.
3. The last day to submit written questions will be Wednesday, October 11, 2023 until 2:00 p.m.

ADJOURN

Notes:

Hero Plaza Construction will be taking place near the Convention Center through 3rd quarter of 2024 and some coordination will be required with the contractor and City of Mobile during construction.

City will remove and store the states from the Cooper Park in the bathroom facilities located in the park and contractor is responsible for providing and maintaining their own sanitation facility.

Contractors can propose alternate sequencing for the construction but must be approved by the Engineer.

A post-construction survey of the sheet pile wall is required before caps are installed
Is the budget available? The owner may share budget details in an existing addendum

Pay application quantities should be verified with Engineer’s Inspector before submitting and the due date for submitting the monthly pay applications will be discussed during Pre-Construction Meeting.

PART III - ATTACHMENTS

Section 00 41 00 Bid Form

SECTION 00 41 00
BID FORM

Copies of the following Bid Forms shall be used. Bids submitted on alternate forms may be rejected. Fill in all blank spaces with an appropriate entry. Bid Form must be signed by an officer of the company and notarized.

TO: City of Mobile, 205 Government St., P.O. Box 1827, Mobile, AL, 36633

REF: PROJECT NO.: PR-029-22
PROJECT NAME: Mobile Riverfront- Cooper Riverside Redevelopment
PROJECT LOCATION: Cooper Riverside Park
Mobile, Alabama, 36602

In compliance with the Bid Documents and having carefully and thoroughly examined said documents for the subject Work prepared by the City of Mobile, Architectural Engineering Department dated September 8, 2023; and all Addendum (a) Number(s) _____, dated _____,

2023 (CAUTION: before submitting any bid it is the Bidder's responsibility to check with the Architectural Engineering Department for all Addenda or special instructions that may impact the Bid) thereto, receipt of which is hereby acknowledged, the premises and all conditions affecting the Work prior to making this Proposal, the Undersigned Bidder, hereby

COMPANY NAME: _____

ADDRESS: _____ **PHONE:** _____

ALABAMA GENERAL CONTRACTOR LICENSE NO. _____

CITY OF MOBILE BUSINESS LICENSE NO. _____

SECRETARY OF STATE OF ALABAMA BUSINESS IDENTITY NO. _____

SECRETARY OF STATE OF ALABAMA ACCOUNT NO. _____

(Note: Secretary of State Account Number shall be filled in only by non-resident bidders)

(Check one) A Corporation A Partnership An Individual Doing Business

hereby proposes to furnish all labor, materials, tools, equipment, and supplies and to sustain all the expenses incurred in performing the Work on the above captioned Project in accordance with the terms of the Contract Documents, and all applicable laws and regulations for the sum listed below. The initial term of the Contract shall extend for Three Hundred Sixty Five (365) calendar days from the date of the Notice to Proceed.

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following ADDENDA: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) _____

BASE BID: \$ _____

CONTINGENCY ALLOWANCE: + \$ 350,000.00

TOTAL BASE BID: \$ _____
(Fill in here and in Total Bid below)

TOTAL BASE BID: _____

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

_____ N/A Dollars (\$ _____ N/A
_____)

Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

_____ N/A Dollars (\$ _____ N/A
_____)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

_____ N/A Dollars (\$ _____ N/A
_____)

(Note: Show amount in both words and figures. In case of discrepancy, the amount in words shall govern). **Bids shall be provided in whole dollar amount with no cents.**

BASE BID						
SCOPE	ITEM NO.	DESCRIPTION	UNIT	EST QTY	UNIT PRICE (US DOLLARS)	TOTAL AMOUNT (US DOLLARS)
GENERAL CONDITIONS	1.0	General Conditions	LS	1		
	2.0	Mobilization and Demobilization	LS	1		
	3.0	Vibration and Displacement Monitoring	LS	1		
NORTH BULKHEAD DEMOLITION	4.0	Landside Demolition	LS	1		
	5.0	Demolition of Existing Wharf Bulkhead Cap and North Cofferd Cell Caps	LS	1		
	6.0	Demolition of Existing Wharf and Piling and Deadman Deck	LS	1		
	7.0	Bulkhead Construction and Relief Excavation and Stockpiling	CY	3409		
	8.0	Bulkhead Construction and Relief Excavation and Disposal	CY	1750		
	9.0	North Cofferd Cells Waterside Excavation	CY	2584		
	10.0	Support of Excavation	LS	1		
	11.0	Demolition of North Cofferd Cells	LF	258		
	12.0	Removal of Rip-Rap at North End of Wharf	CY	100		

NORTH BULKHEAD CONSTRUCTION	13.0	Bulkhead Wall	LF	399		
	14.0	Bulkhead Closures	LS	1		
	15.0	Tieback System	EA	42		
	16.0	Bulkhead Stone Backfill	CY	400		
	17.0	Bulkhead Wall Cap	CY	134		
	18.0	Backfill behind Bulkhead using Stockpiled Materials	CY	3409		
	19.0	Bulkhead Appurtenances	LS	1		
	20.0	Deadman Deck	CY	2		
SOUTH COFFER CELL SDEMOLITION	21.0	Construction Excavation, Stockpiling, and Backfill	CY	19		
	22.0	Demolition of Existing Cell Cap and Retaining Wall	CY	5		
	23.0	Cell Encasement Piling	VLF	990		
SOUTH COFFER CELL CONSTRUCTION	24.0	Cell Concrete Encasement	CY	159*		
	25.0	Geotextile	SF	12,830		
	26.0	Revetment	CY	4480		
	27.0	Encasement Cap	CY	26		
	28.0	Buoys	EA	3		
		BASE BID TOTAL AMOUNT	-----	-----	-----	

*See technical specification Section 01 10 00 for more information regarding bid quantity and payment for potential overrun for this item.

REQUIRED LISTING OF SUBCONTRACTORS/SUPPLIERS: List the subcontractors/suppliers for the trades listed below which you intend to use for the base bid. If no trades are designated, the listing is not required. List yourself for work you intend to self-perform. Any envelope adjustments to this section must be initialed by the bidder. Failure to complete this section may render your bid non-responsive. See Supplemental Instructions to Bidders for additional information.

(List requested trades here, if any)

BID SECURITY: The undersigned Bidder agrees that the attached Bid Security, as a Cashier's Check drawn on a bank registered to do business in the State of Alabama and which is a member of the Federal Deposit Insurance Corporation, or a Bid Bond, made payable to the City of Mobile, in the amount of 5% of the bid amount, but in no event more than \$10,000, as the proper measure of liquidated damages which the City will sustain by the failure of the undersigned to execute the Contract. Said Bid Security shall become the property of the City of Mobile as liquidated damages as specified in the Contract Documents.

AMERICANS WITH DISABILITIES ACT (ADA): The undersigned Bidder agrees to fully comply with all requirements of the Americans with Disabilities Act of 1990 and the Amendment Act.

NONDISCRIMINATION: Contractor shall comply with all Federal, State and local laws concerning nondiscrimination, including but not limited to City of Mobile Ordinance No. 14-034 which requires, inter alia, that all contractors performing work for the City of Mobile not discriminate on the basis of race, creed, color, national origin or disability, require that all subcontractors they engage do the same, and make every reasonable effort to assure that fifteen percent of the work performed under contract be awarded to socially and economically disadvantaged individuals and business entities.

SIGNATURE: If the undersigned Bidder is incorporated, the entire legal title of the company followed by "a corporation" should be used. If Bidder is an individual, then that individual's full legal name followed by doing business as (d/b/a) and name of firm, if any, should be used. If Bidder is a partnership, then full name of each partner should be listed followed by "d/b/a" and name of firm, if any.

Ensure that name and exact arrangement thereof is the same on all forms submitted with this Bid. If a word is abbreviated in the official company name, such as "Co.", then use that abbreviation. If not abbreviated in the official name, spell out.

Bidder agrees not to revoke or withdraw this Bid until sixty (60) calendar days following the time and date for receipt of bids. If notified in writing of the acceptance of this Bid within this time

period, Bidder agrees to execute a Contract based on this Bid on the proscribed form within ten (10) calendar days of said notification and to furnish Performance Bond and Materials and Payment Bond as specified.

COMPANY NAME: _____
(Printed or Typed)

BY: _____
(Signature of Company Officer)

COMPANY OFFICER: _____
(Printed or Typed)

TITLE: _____ **DATE:** _____, 2023
(Printed or Typed)

Sworn to and subscribed before me this _____ day of _____,
2023

Notary Public

Attachments:

1. Bid Security, with Power of Attorney
2. Secretary of State Authorization (Out of state bidders only)
3. Sales Tax Form C-3A

END OF BID FORM

PART III - ATTACHMENTS
Technical Specification 31 00 00

SECTION 31 00 00

EARTHWORK

PART 1 - GENERAL

1.01 SCOPE

- A. The work covered by this Section includes furnishing all material and equipment and performing all labor to complete all earthwork as shown on the Contract Drawings and as herein specified or directed by the Engineer.
- B. The work covered by this Section includes but is not limited to the following:
 - Excavating behind existing bulkhead and coffer cells for new construction and for pressure relief.
 - Excavating inside existing coffer cells for construction and to enable their demolition
 - Removing from the site and disposing of temporary sheeting and shoring and excess Excavation including unsuitable material, construction debris, and demolition.
 - Installation and removal of temporary guardrails and barricades around excavations.
 - All excavations required for underground vaults, utilities, or other structures.
 - Backfilling of excavations behind the new bulkhead and other existing structures to remain.
 - Sediment, erosion, and turbidity control measures.
 - Excavation and backfill progress and completion surveys.

1.02 RELATED SECTIONS

Section 02 41 00

Demolition

1.03 DEFINITIONS

- A. Excavation consists of the removal of material encountered to subgrade elevations and the reuse or disposal of materials removed, not provided under Section 205 of ALDOT specifications" or called for under demolition on the Contract Drawings.
- B. Unclassified Excavation: The removal of all soil, paving materials, shale, rock, boulders, existing foundations, fill and every kind of subsurface condition encountered in the contract area, whether manmade or naturally occurring.
- C. Miscellaneous Excavation: The digging of extra test pits as approved by the Engineer.
- D. Subgrade: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, or sub-ballast.
- E. Suitable Onsite Material: Soil material obtained on-site that meets or exceeds the criteria listed in subparagraph 2.01.B of this Section.
- F. Select Borrow: Soil material obtained off-site when sufficient approved soil material – Suitable Onsite Material – is not available from on-site excavations.

- G. Undercutting of Unsuitable Material: The authorized Excavation of material classified as unsuitable below the sub-grade elevation.
- H. Unauthorized Excavation: The removal of materials beyond indicated subgrade elevations, trench payment width, or dimensions without direction by the Engineer. Unauthorized Excavation, as well as remedial work directed by the Engineer, shall be at the Contractor's expense.
- I. Structures: Footings, foundations, slabs and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.
- J. Utilities: Onsite underground pipes, conduits, ducts, and cables, as well as underground services within -the project limit.
- K. Dust Control: Controlling dust blowing and other movement on construction sites and roads due to construction equipment.

1.04 REFERENCES

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

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO M36 Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains

AASHTO M43 Sizes of Aggregate for Road and Bridge Construction

AASHTO T180 Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and 457-mm (18-in.) Drop

American Society for Testing and Materials (ASTM)

ASTM D 2487 Classification of Soils for Engineering Purposes (Unified Soil Classification System)

1.05 SUBMITTALS

- A. General: Submit the following in accordance with the 01 33 00, "Submittals" of these Specifications. Note that approval of submittals by the Engineer shall not be construed as relieving the Contractor from responsibility for compliance with the Specifications nor from responsibility of errors of any sort in the submittals.
- B. Certificate of supply from borrow source, approved by, ALDOT soil testing lab that the material meets the Specification requirements.
- C. Test Reports: In addition to test reports required under Field Quality Control, submit the following:
 - Laboratory analysis of each soil material proposed for fill and backfill from on-site and borrow sources.
 - One optimum moisture-maximum density curve and sieve analysis results for each soil material
- D. Material certifications for Sediment and Erosion Control Devices.
- E. Submit the design of any required support of excavation systems for the approval of the Engineer. Provide layout drawings for the designed system and other data prepared and sealed by a Registered Professional Engineer licensed in the State of Alabama. System design and calculations shall be in accordance with AASHTO standards and acceptable to local authorities

having jurisdiction. Submit trench box manufacturer certification that the equipment will sustain the anticipated loading and comply with AASHTO standards.

- F. Delivery Tickets: When requested by the Engineer, submit delivery tickets with each load of backfill material.
- G. Qualifications of the Independent Third-Party Inspection Agency to be employed by the Contractor.
- H. Description of guardrails and barricades used to protect the sides of trenches and excavations.
- I. Disposal logs for excavated material deemed unsuitable for backfill and disposed offsite. Logs shall be accompanied by the test reports for the material.
- J. Progress and Final Excavation/Backfill Surveys:

Submit progress surveys of excavated grades and backfilled grades accompanying each request for payment based on progress made in excavation or backfilling.

At the completion of excavation to the grades specified in the Contract Drawings, submit final excavation survey to confirm conformance with the Drawings and establish the required backfill volume based on actual excavation performed.

At the completion of backfilling to the grades specified in the Contract Drawings, submit final backfilling survey to confirm conformance with the Drawings.

At the completion of excavation within the north coffer cells to the contours specified in the Contract Drawings, submit excavation survey to confirm conformance with the Drawings.

1.06 QUALITY ASSURANCE

- A. Inspection Agency: An independent third party, for inspection of soil compaction shall be provided by the Contractor. Agency shall employ National Institute for Certification in Engineering Technologies (NICET) Level II technicians certified in geotechnical engineering technology/construction or construction materials testing/soils to perform testing specified herein.
- B. The Agency's responsibilities shall include:
 - Having an Inspector present on-site during all earthwork operations.
 - Approving all backfilling procedures and mechanical compaction equipment.
 - Verifying compaction by in-place density tests. Tests shall be submitted to the Engineer for review. A minimum of one density test per lift shall be performed for each 2,500 square feet of lift area, or more often if directed by the Engineer.
 - The Contractor shall notify the Inspection Agency three days before the beginning of work so that the Inspection Agency can have a soils engineer and/or soils technician on the site during the work. All costs of this Inspection Agency incurred due to lack of coordination by the Contractor of the earthwork, causing unnecessary visits by the Inspection Agency, shall be paid for by the Contractor.
 - Maintaining accurate records in regard to Excavation and fill or backfill for approved undercutting or over-excavation.
- C. Structures, paving, landscaping, and other site improvements damaged by settlement, shall be removed and replaced at no extra cost to the Owner.

1.07 SYSTEM DESCRIPTION

- A. Excavation work under this contract is unclassified, and includes (without limitation) Excavation and removal of all soil, paving materials, shale, rock, boulders, existing foundations, fill and every kind of subsurface condition encountered in the contract area, whether manmade or naturally occurring.
- B. Maintain carefully all benchmarks, monuments, and other reference points and, if disturbed or destroyed, replace as directed by Engineer.
- C. All work specified herein shall be done in a safe, approved manner and in accordance with all governing codes, ordinances, and regulations.
- D. Suitable onsite material excavated from within the existing coffer cells or behind the existing wharf and cells shall be stockpiled, then used as fill. Only material meeting the requirements for suitable onsite material, as specified in Paragraph 2.01 and as determined by the Inspection Agency shall be placed in this stockpile.
- E. All unsuitable material and excess shall be disposed of off-site.

1.08 SUBSURFACE INFORMATION

A Boring Plan and Subsurface Profiles are presented in the Contract Drawings. The Contractor, at his own expense, may make additional investigations he considers justified.

1.09 PROJECT CONDITIONS

- A. Demolish and completely remove from site existing underground utilities and structures indicated to be removed within the limits of demolition. Contractor shall verify that existing utilities noted as abandoned on the plans are in fact abandoned and not active prior to demolition. Coordinate with utility companies to shutoff services if lines are active.
- B. The Contractor is responsible for verifying the location of underground utilities.
- C. The single south coffer cell is believed to be filled with a combination of sand and 9"-12" stone. The northern pair of adjacent coffer cells are believed to be filled with sand.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

- A. The Contractor shall reuse suitable onsite material for backfill material. If additional material is required, the Contractor shall use Select Borrow as specified in subparagraph 2.01.C of this Section.
- B. Classification of suitable onsite material for general site grading and backfill shall be determined solely by the Engineer using the following criteria:
 - The material shall not contain wood, organics, or debris.
 - Maximum particle size less than 4 inches.
 - Moisture content less than 20%.
 - Liquid Limit less than 40.
 - Plastic Index less than 15.

- C. Select borrow material shall conform to the following:
- United Soil Classification soil groups GW, GP, GM, SW, SP, SM, in accordance with ASTM D 2487.
- The percent of material passing the No. 200 sieve shall not exceed 20%.
- The Liquid Limit shall not exceed 40 and the Plastic Index shall not exceed 10.
- The maximum dry density of the material shall exceed 105 lb/ft³ as determined by AASHTO T180, Method C.
- Material shall be free of rock or gravel larger than 2-inches in any dimension, debris, waste, frozen materials, vegetation, or other deleterious materials.
- Recycled asphalt, concrete, or slag product shall not be used.
- D. The Contractor shall reuse the stockpiled material as backfill, providing the material meets the requirements of subparagraph 2.01.B of this Section.

2.02 SEDIMENT AND EROSION CONTROL

Material furnished for sediment and erosion control shall comply with applicable articles of Section 665 of ALDOT specifications, including revisions thereof and additions thereto, unless otherwise specified herein, and summarized as follows:

- Corrugated metal pipe for stabilized construction entrance shall conform to AASHTO M36. The pipe shall have a minimum thickness of 14 gauge.
- Geotextile for stabilized construction entrances shall conform to the requirements of Section 600's of ALDOT and also ADEM specification.
- Mulch shall conform to the requirements of Section 920.05 of the MDOT-SHA Standard Specifications for straw mulch.
- Removable Pumping Station shall be in accordance with the standard detail shown on the Contract Drawings.
- Sediment basin spillway riser plate shall be 1/2-inch-thick galvanized steel, with a draw down device of 6-inch perforated corrugated metal pipe.
- Soil stabilization matting shall conform to the requirements of ALDOT specification section 200's.
- Stone for stabilized construction entrances shall conform to the requirement of AASHTO M43, Size No. 2.
- Temporary and Permanent Seed shall conform to the requirements of the Contract Drawings.
- Turbidity Curtain shall be in accordance with the standard detail shown on the Contract Drawings.
- a. Fabric: 22 oz. – 500 lb/in tensile strength vinyl coated nylon.
 - b. Floatation: 12" marine quality rolled microfoam.
 - c. Main Load Lines: 5/16" vinyl sheathed galvanized steel cables (over 19,000 lb break strength).
 - d. Ballast: 1.5 lb/ft enclosed 3/8" galvanized chain

- e. General construction of curtain shall comply with DOD specification MIL-B-29617(YD).

Fabric for Inlet Protection shall conform to the requirements of Section 600.

Fabric for Silt Fence shall conform to the requirements of Section 6001 of the ALDOT Specifications.

Stone for Inlet Protection shall be No. 2 stone in accordance with AASHTO M43.

2.03 ACCESSORIES

Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick minimum, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep.

Tape Colors: Provide tape colors for utilities as follows:

- a. Red: Electric.
- b. Yellow: Gas, oil, steam, and dangerous materials.
- c. Orange: Telephone and other communications.
- d. Blue: Water systems.
- e. Green: Sewer systems.

2.04 SUPPORT OF EXCAVATION

Use manufacturers and materials for shoring, sheeting, and bracing as recommended by the Contractor's licensed Professional Engineer who designed the shoring, sheeting, and bracing.

PART 3 - EXECUTION

3.01 GENERAL

- A. Excavation, grading, and fill construction shall conform to the ALDOT Section 200 except as modified herein.
- B. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- C. Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- D. Ground surfaces after completion of Unclassified Excavation shall conform to the lines and grades shown on the Contract Drawing to within 0.1-foot.
- E. Excavation of unsuitable material below proposed subgrade elevations shall only be performed as directed by the Engineer; the Contractor shall be responsible for maintaining records of such work.

3.02 EXCAVATION

- A. Explosives: Explosives are not permitted.
- B. Sheeting and Shoring: Sheeting and shoring shall be considered unclassified Excavation and incidental to any earthwork operation.

Sheeting and shoring shall be employed by the contractor where required to protect existing site features and structures from damage due to layback excavations.

The Contractor shall support the sides and ends of all excavations with braces, trench boxes, sheeting shores, or stingers which meet accepted engineering requirements. All sheeting shall be put in place and/or driven by persons skilled in such work and shall be so arranged that it may be withdrawn as backfilling proceeds, without injury to the structures built under the contract or to any roadbed, adjacent structure, or property. If, in the opinion of the Engineer, the material furnished for sheeting Excavation is not of proper quality or sufficient size, or not properly placed to ensure the safety of the work or of adjacent structures or property, the Contractor shall, upon notice, forthwith procure and place suitable shoring materials or the work may be ordered stopped until said notice shall have been carried out and without entitling the Contractor to any claim for extra compensation, damage, or delay. Nothing in this Specification shall be read or interpreted as permitting lesser degrees of support than required by Federal regulations under OSHA. At all times, Federal requirements shall be met, as a minimum.

All sheeting in Excavation shall be withdrawn as the backfilling proceeds. If the Contractor requests to leave the sheeting in place and the Engineer approves, it shall be cut-off at least 18 inches below the finished grade. All cut-off material shall be removed. The sheeting left in place and the cut-off and removal shall be at the Contractor's own expense.

Wherever necessary, in quicksand or soft ground, or for the protection of any property, sheeting shall be driven to such depth below the bottom of the Excavation as may be required or directed without extra compensation.

Guardrail or barricades shall be provided at or near the sides of excavations as necessary to protect the workmen and the public. The description of the type of guardrail or barricades to be used shall be submitted to and approved by the Engineer prior to starting any work.

Excavated material and superimposed loads shall not be nearer than 18 inches to the sides of an excavation, unless bracing has been installed that is designed to withstand the load.

- C. Unclassified Excavation: Excavation is unclassified and includes Excavation to required subgrade elevations regardless of the character of materials and obstructions encountered. Unclassified Excavation shall be confined to the Excavation, backfill, compaction, hauling, and disposal for pavements on fast land. Excavation for demolition and removal work, as well as installation of utilities, shall be considered incidental to that work.
- D. Suitable onsite material encountered within the limits of excavation shall be reused as backfill. The Contractor shall carefully excavate to avoid contamination with unsuitable materials. Stockpiled material shall be protected to prevent loss or contamination with other materials. Surplus material shall be disposed of offsite. The Contractor shall keep a disposal log to be submitted to the Engineer.
- E. The Contractor shall exercise care in his excavation operations so as not to damage existing pavement and structures to remain.
- F. Pavement materials, concrete foundations, wood, trash, debris, and unsuitable soils encountered shall be disposed of offsite in a legal manner.

- G. Excavation to Final Mudline within North Coffe Cells
- 1) Excavation within the pair of north coffer cells from the initial construction excavation to construct the bulkhead to the final mudline contours shall not be over dredged deeper than the contours shown on the construction drawings to avoid destabilizing the existing armor stone dike between the north and south cells. An under dredge of 2 ft shallower than the contours is acceptable.
 - 2) After completion of excavation and before demolition of the cells waterside of the new bulkhead, survey the final mudline contours within the cells and submit for review. The cells may not be demolished until the survey is reviewed by the Engineer.

3.03 STORAGE OF EXCAVATED MATERIALS

- A. Following removal of existing landscaping features, the Contractor shall excavate where required for construction, and stockpile all suitable onsite material for reuse as backfill. The Contractor shall segregate and remove any debris resulting from demolition from the material to be stockpiled.
- B. The suitable onsite material shall be hauled and stockpiled in as indicated on the drawings. The stockpile embankment will be no more than twenty (20) feet in height with maximum 2:1 side slopes. The Engineer shall make the sole determination as to the suitability or unsuitability of the excavated material for reuse as structural fill for the new wharf based on soil classification and moisture content.
- C. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent wind-blown dust.

Stockpile soil materials away from edge of excavations and provide silt fence to retain any sediment from running offsite.

3.04 BACKFILLING

Contractor shall recover and reuse the stockpiled material to backfill excavations. The Contractor shall be responsible for making sure enough quantity is available for all required backfilling areas prior to disposal of any suitable excavated material.

This fill may be supplemented with material meeting the requirements of Select Borrow as specified in Paragraph 2.01.C of this Section.

Backfill material shall be layered and compacted above EL+1.5, which is just above the tidal range.

3.05 COMPACTED FILL

- A. Fills shall be constructed in accordance with Section 204.03 of ALDOT Specifications Section 200 unless otherwise specified.
- B. Place backfill and fill materials in layers not more than 8-inches in loose depth for material compacted by heavy compaction equipment, and not more than 4-inches in loose depth for material compacted by hand-operated tampers.
- C. Place backfill and fill materials evenly on all sides of structures to required elevations.
- D. Percentage of Maximum Dry Density Requirements: Compact soil to not less than the following percentages of maximum dry density according to AASHTO T180:

Across the project site, compact the top 12 inches below subgrade and each layer of backfill or fill material at 97% maximum dry density.

- E. When necessary, the layer shall be wetted or dried in order to compact the layer to the required density. The resultant moisture content, when finally compacted to required density, shall be within two (2) percentage points of optimum.
- F. Top of fill grade shall conform to the elevations shown in the Contract Drawings to within 1/2-inch.
- G. Compaction shall be by suitable mechanical compaction equipment subject to the approval of the Inspection Agency.
- H. Areas inaccessible to mechanical rollers shall be compacted with mechanical tampers to the required density.

3.06 PROTECTION

Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

3.07 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and all unsatisfactory waste material, including soil, trash, and debris, and legally dispose of it off the property.
- B. Pavement materials, concrete foundations, wood, trash, track materials, debris and unsuitable soils encountered shall be disposed of in accordance with all local, State and Federal regulations governing their disposal.

3.08 EROSION AND SEDIMENT CONTROL

- A. Installation of erosion and sediment control structures is phased in accordance with the construction sequencing plan set forth on the Contract Drawings. If the Contractor proposes any changes to the Erosion and Sediment Control Plans, they must be submitted at least 14 days prior to the Notice to Proceed to -
- B. Any standing water within the Excavation that the Contractor chooses to pump shall be diverted to a sediment control filtering structure or device before allowing it to drain into any manmade or natural waterway.
- C. The Contractor shall maintain Stabilized Construction Entrances in a serviceable condition by removing debris, adding stone, or other methods as approved by the Engineer.
- D. Silt Fence and Inlet Protection shall be maintained throughout construction.
- E. Temporary and permanent seeding and mulching schedule and rates of application shall be made in accordance with ALDOT specifications.
- F. Turbidity curtain shall be anchored at 50-foot intervals. Provide a buoy at each anchor location.

3.09 FIELD QUALITY CONTROL

Field Density

In-place density shall be measured in accordance with ALDOT specifications Section 300.

A minimum of one (1) density and moisture content test shall be performed for each 2,500 square feet per lift of backfill above the water table.

*****END OF SECTION*****

PART III - ATTACHMENTS

Plan Sheet SD 302



Rev.	Date	Description

**MOBILE RIVERFRONT REDEVELOPMENT
BULKHEAD REPLACEMENT**

**DEMOLITION SECTIONS
(2 OF 2)**

Date: 2023-09-08 M&N Project No: 10961-04 Drawing code:	Drawing Scale: AS INDICATED Plot scale: 1" = 10' (0 SHEET)
Designed by: 11 N. WATER ST., STE. 20220 MOBILE, AL 36602 (251) 378-9000 WWW.MOFFATTNICHOL.COM CERT. OF AUTH. # ECA2876	Drawn by: RW Reviewed by: MR Submitted by: MEG GOECKER

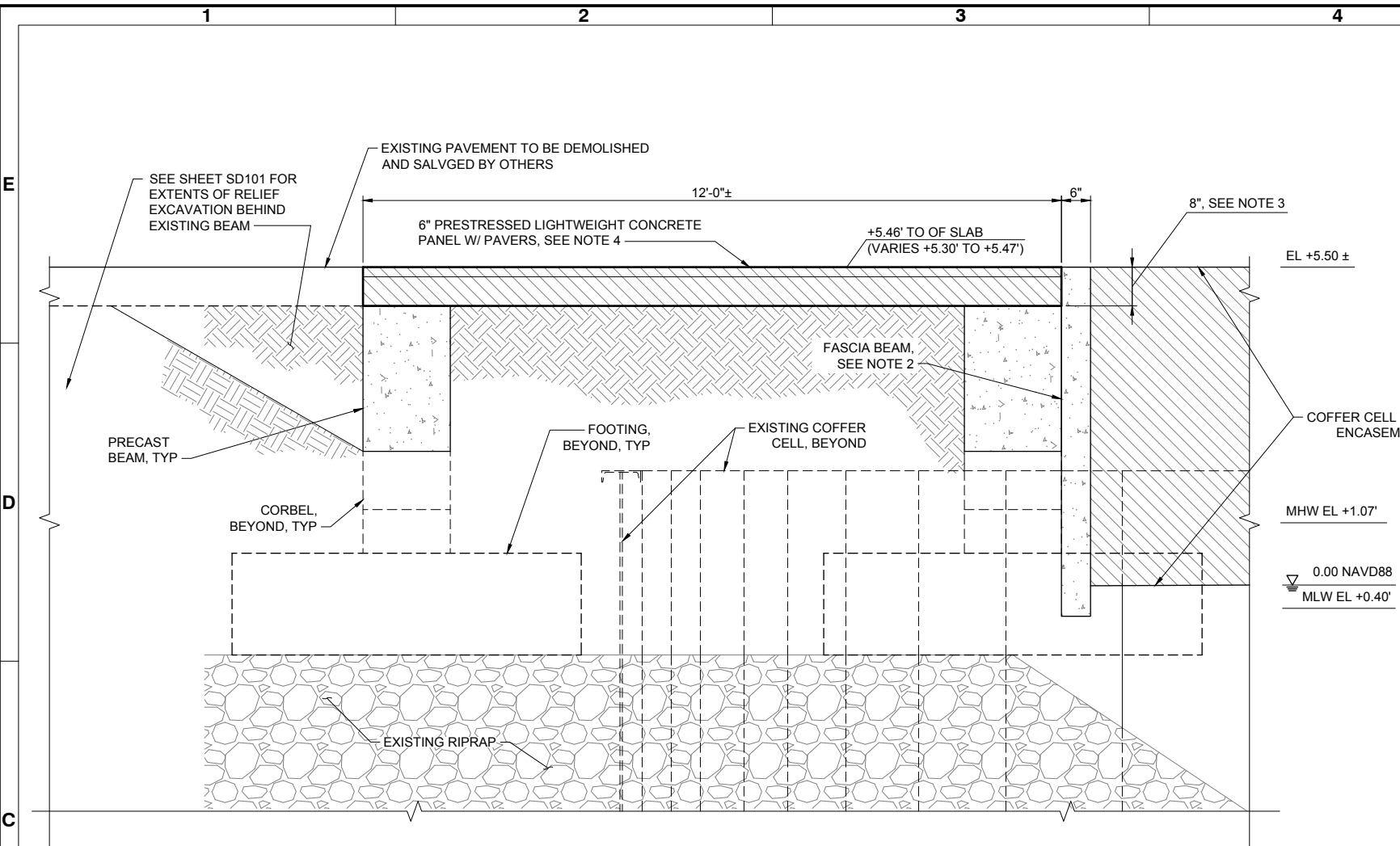
motoff & nichol

11 N. WATER ST., STE. 20220
MOBILE, AL 36602
(251) 378-9000
WWW.MOFFATTNICHOL.COM
CERT. OF AUTH. # ECA2876

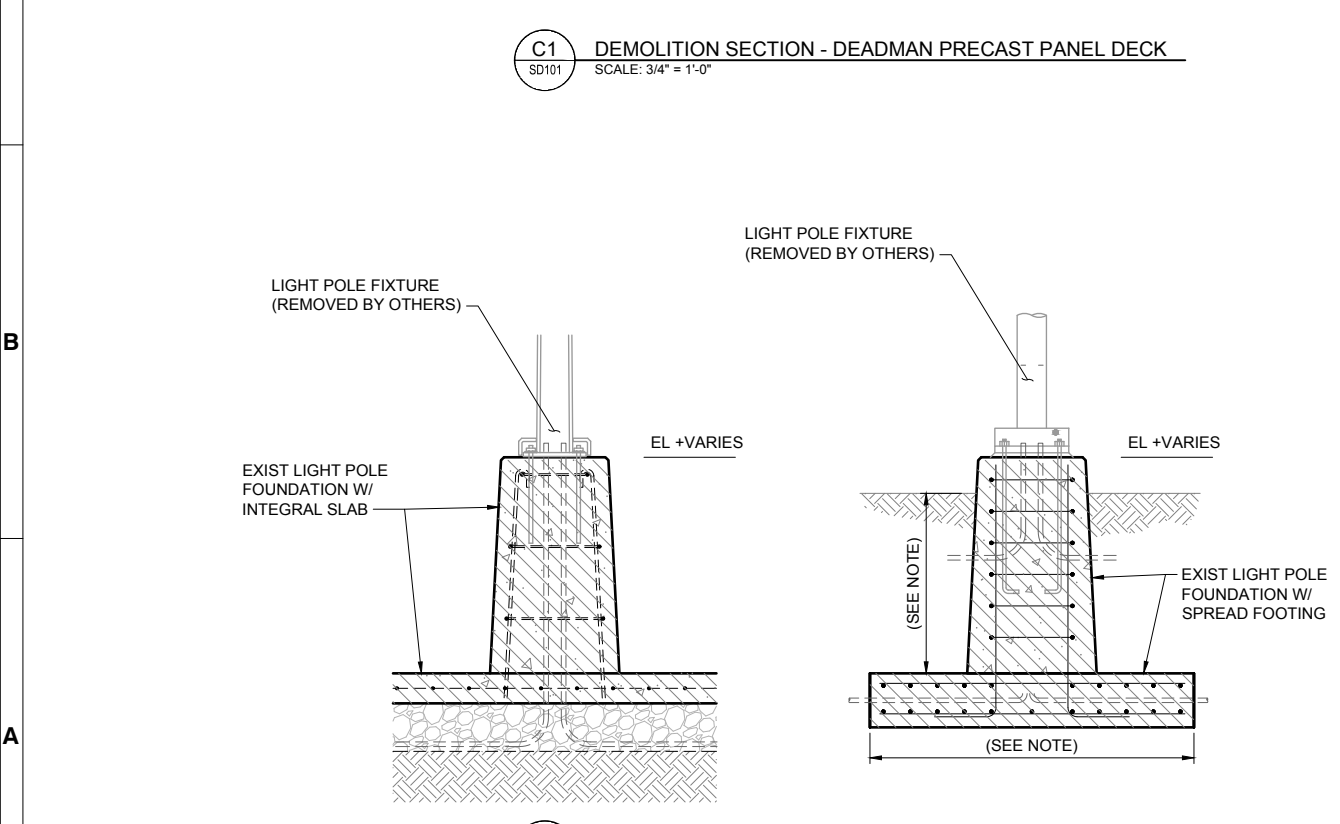
SEAL

Sheet Reference No.
SD302
INDEX: 21 OF 60

File: Q:\191\10961-04\20 CAD\1\10961-04 Mobil River Bulkhead Replacement\1096104SD302.dwg; Plotted: 9/27/2023 1:40 PM by SAMPSON ISAJAH; Saved: 9/27/2023 1:38 PM by ISAMPSON



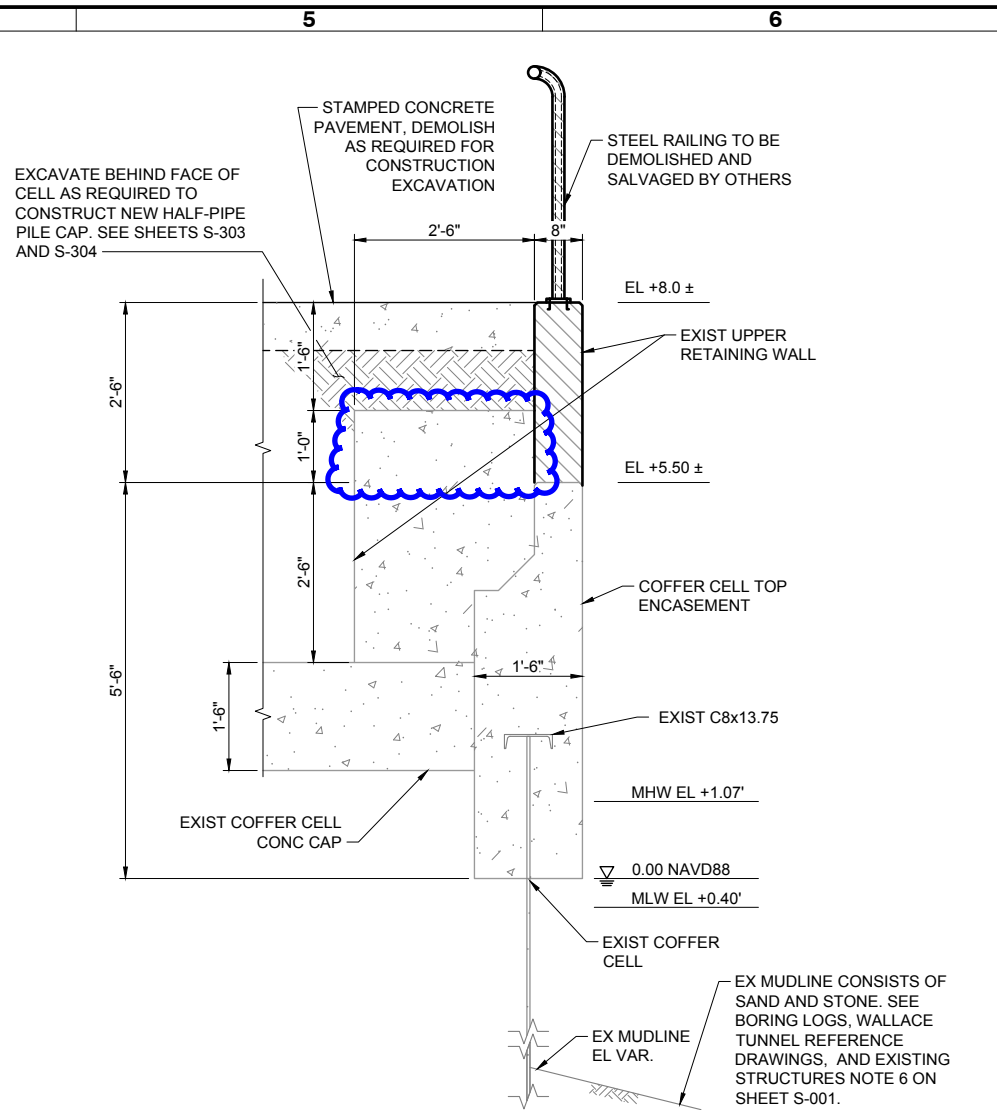
C1 DEMOLITION SECTION - DEADMAN PRECAST PANEL DECK
SD101 SCALE: 3/4" = 1'-0"



A1 DEMOLISH EXISTING LIGHT POLE FOUNDATIONS
CD101 SCALE: 3/4" = 1'-0"

LIGHT POLE NOTES:

- EXACT EXISTING LIGHT POLE FOUNDATION DIMENSIONS ARE UNKNOWN.
- CONTRACTOR SHOULD USE PROVIDED LIGHT POLE FOUNDATION DETAILS FOR BID PURPOSES.
- ACTUAL DEMOLITION COSTS SHALL ACCOUNT FOR COMPLETE REMOVAL OF LIGHT POLE PEDESTAL AND FOOTING AND/OR INTEGRAL SLABS WITH NO ADDITIONAL COMPENSATION PAID BY OWNER SHOULD ACTUAL LIGHT POLE FOUNDATIONS DIFFER FROM PROVIDED DETAILS.

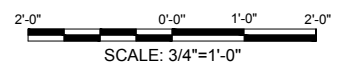
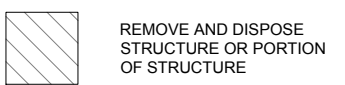


C5 DEMOLITION SECTION - SOUTH COFFER CELL
SD101 SCALE: 3/4" = 1'-0"

NOTES:

- ALL ITEMS ON THIS DRAWING ARE EXISTING UON.
- DO NOT DAMAGE DEADMAN FASCIA BEAM. COORDINATE WITH THE ENGINEER IF THERE IS A CONNECTION BETWEEN THE PANEL AND FASCIA.
- AFTER DEMOLISHING PANEL, MEASURE THE DEPTH FROM TOP OF EXISTING BEAMS TO TOP OF FASCIA AND SUBMIT TO THE ENGINEER. IF IT IS NOT 8", THE DECK DETAIL ON SHEET S-506 SHALL BE REVISED BY THE ENGINEER.
- ONLY THE SINGLE NORTHERNMOST PRECAST PANEL SHALL BE DEMOLISHED. ITS PRECISE LIMITS ARE NOT KNOWN AND MUST BE DETERMINED AFTER REMOVAL OF THE PAVERS ABOVE.
- REFER TO SHEET S-002 FOR ADDITIONAL CROSS-SECTION WORK SEQUENCING INFORMATION.

LEGEND



ISSUED FOR BID
ISSUED: 2023-09-08
NOT TO BE USED FOR CONSTRUCTION