DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS LA 70118-3651

December 11, 2023

Regulatory Division
Central Evaluation Branch

Project Manager: Kenny Blanke
(504) 862-1217
Kenneth.G.Blanke@usace.army.mil

Application #: MVN-2023-000269-CQ
408 Application #: 2023-01171

PUBLIC NOTICE

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [X] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [X] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344), and/or [X] Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 408)
.

MARINE TERMINAL IN MISSISSIPPI RIVER, HEAVY HAUL ROAD, AND INDUSTRIAL FACILITY FOR AMMONIA PRODUCTION FACILITY IN ASCENSION PARISH

NAME OF APPLICANT: CF Industries Blue Point, LLC, c/o CK Associates, Attn: Ms. Olivia Barry, 8591 United Plaza Blvd., Suite 300, Baton Rouge, Louisiana 70809.

LOCATION OF WORK: On an approximate 950-acre site, located within and along the right descending bank of the Mississippi River, near river mile 184, located at 8404 Noel Road, near Modeste, in Ascension Parish, Louisiana, (lat. 30.17261, long. -91.03739), as shown within the attached drawings. (Hydrologic Unit Code 08090302, Lower Mississippi River Basin, West Central Coastal Louisiana Watershed).

CHARACTER OF WORK: The applicant is proposing to clear, grade, place and maintain fill material for the construction of an industrial ammonia facility (Blue Ammonia Plant) which includes a heavy haul road, marine terminal, pipe rack crossing the levee, and associated infrastructure. The project will utilize a natural gas pipeline to fuel the ammonia manufacturing process. The proposed facility would produce approximately 4,300 tons per day of low carbon ammonia through the implementation of carbon capture and sequestration technologies prior to emission of process carbon dioxide (CO2). The proposed project claims that this method would allow for the capture of 100% of the process CO2 generated and would reduce overall carbon emissions by greater than 60% compared to conventional ammonia manufacturing. The CO2

captured would be compressed and transported via existing pipelines to a storage facility in Vermillion Parish. The final product is a form of ammonia that can be utilized as a hydrogen-based fuel or fertilizer and will be exported via barge or ship. The project proposes to impact approximately 44.97 acres of Mississippi River waterbottoms via dredging for marine terminal construction. The dredged waterbottoms would be disposed below the -55-foot contour within the Mississippi River downstream of the project site. The marine terminal, pipe rack, and heavy haul road portions of the project would temporarily impact approximately 2.96 acres of Mississippi River batture jurisdictional wetlands, permanently convert approximately 0.54 acre of forested batture wetlands to emergent wetlands, permanently fill approximately 0.35 acre of jurisdictional batture wetlands, and permanently impact 0.54 acres of jurisdictional Other Waters of the US (Mississippi River and batture side waters). The proposed ammonia manufacturing facility would permanently impact approximately 1.43 acres of jurisdictional Other Waters of the US via fill placement. Approximately 17,080 cubic yards of hauled in material would be placed as fill in jurisdictional areas for the heavy haul and pipe rack installation, 36,050 cubic yards of steel piles placed in jurisdictional areas for the proposed marine terminal installation, and 2,500 cubic yards of fill material for the proposed facility. Approximately 900,000 of native material in the Mississippi River would be excavated via dredging for the proposed marine terminal construction. Approximately 11,226 cubic yards of hauled in fill material would be placed as fill for the construction of the ammonia manufacturing facility and its associated infrastructure.

MITIGATION: The applicant proposes to avoid direct impacts and minimize secondary impacts to wetlands to the maximum extent practicable. The applicant is proposing to avoid approximately 15.79 acres of jurisdictional wetlands located adjacent to the project area and 6.99 acres of jurisdictional Other Waters of the US. For compensation for unavoidable wetland impacts, the applicant proposes to use a Corps approved mitigation bank within the watershed of impact.

The comment period on the requested Department of the Army Permit will close **30** days from the date of this public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit request, and must be submitted so as to be received before or by the last day of the comment period. Letters and/or comments concerning the subject permit application must reference the Applicant's Name and the Permit Application Number and can be preferably emailed to the Corps of Engineer's project manager listed above or forwarded to the Corps of Engineers at the address above, ATTENTION: REGULATORY DIVISION, RGC, **Kenny Blanke**. This public notice is also available for review online at https://go.usa.gov/xennJ

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from

the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

This request will also be reviewed pursuant to Section 408 and USACE Engineering Circular (EC) 1165-2-220, which provides policy and procedural guidance for processing requests to alter USACE civil works projects.

The decision whether to grant permission for the requested alteration will be based on several factors. The benefits that reasonably may be expected to accrue from the proposal will be balanced against its reasonably foreseeable detriments. Review of the requests for modification will be reviewed by a USACE technical review team considering the following factors:

1) Potential to Impair the Usefulness of the Project. Proposed alterations will be reviewed to determine whether the alteration would limit the ability of the USACE project to function as authorized, or would compromise or change any authorized project conditions, purposes or outputs. If USACE determines that the usefulness of the authorized project would be impaired, the request will be denied.

2) Potential to be Injurious to the Public Interest. Proposed alterations will be reviewed to determine the probable impacts, including cumulative impacts, on the public interest. Factors that may be relevant to the public interest depend upon the type of USACE project being altered and may include, but are not limited to, such things as conservation, economic development, historic properties, cultural resources, environmental impacts, water supply, water quality, flood hazards, floodplains, residual risk, induced damages, navigation, shore erosion or accretion, and recreation. This evaluation will consider information received from the interested parties, including tribes, agencies, and the public. The decision whether to approve an alteration will be determined by the consideration of whether benefits are commensurate with risks. If the potential detriments are found to outweigh the potential benefits, then it may be determined that the proposed alteration is injurious to the public interest.

The U.S. Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or

an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Further, all factors that may be relevant to the proposal will be considered, including the potential cumulative effects associated with the proposed project. The Section 408 review will consider the potential impact to the usefulness of the Federal project and whether the proposed alteration would be injurious to the public interest. Policy and legal compliance will also be considered.

The New Orleans District is presently unaware of properties listed on the National Register of Historic Places at or near the proposed work but is pending further review in accordance with the National Historic Preservation Act. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. As deemed necessary, copies of this public notice will be sent to the State Archeologist, State Historic Preservation Officer, and federally listed tribes regarding potential impacts to cultural resources.

Our initial finding is that the proposed work would have no affect on any species listed as endangered by the U.S. Department of Commerce, nor affect any habitat designated as critical to the survival and recovery of any such species.

Based on the Information Planning and Consultation (IPaC) tool for Endangered Species in Louisiana, as signed on January 27, 2020, between the U.S. Army Corps of Engineers, New Orleans and the U.S. Fish and Wildlife Service, it has been determined that the project may affect but not likely to adversely affect (NLAA) the pallid sturgeon. The applicant has stated that the water intake structure proposed for the marine terminal will comply with USFWS recommended screen mesh sizes to help mitigate potential concerns to the pallid sturgeon.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal may result in the destruction, alteration, and/or disturbance of **0** acres of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

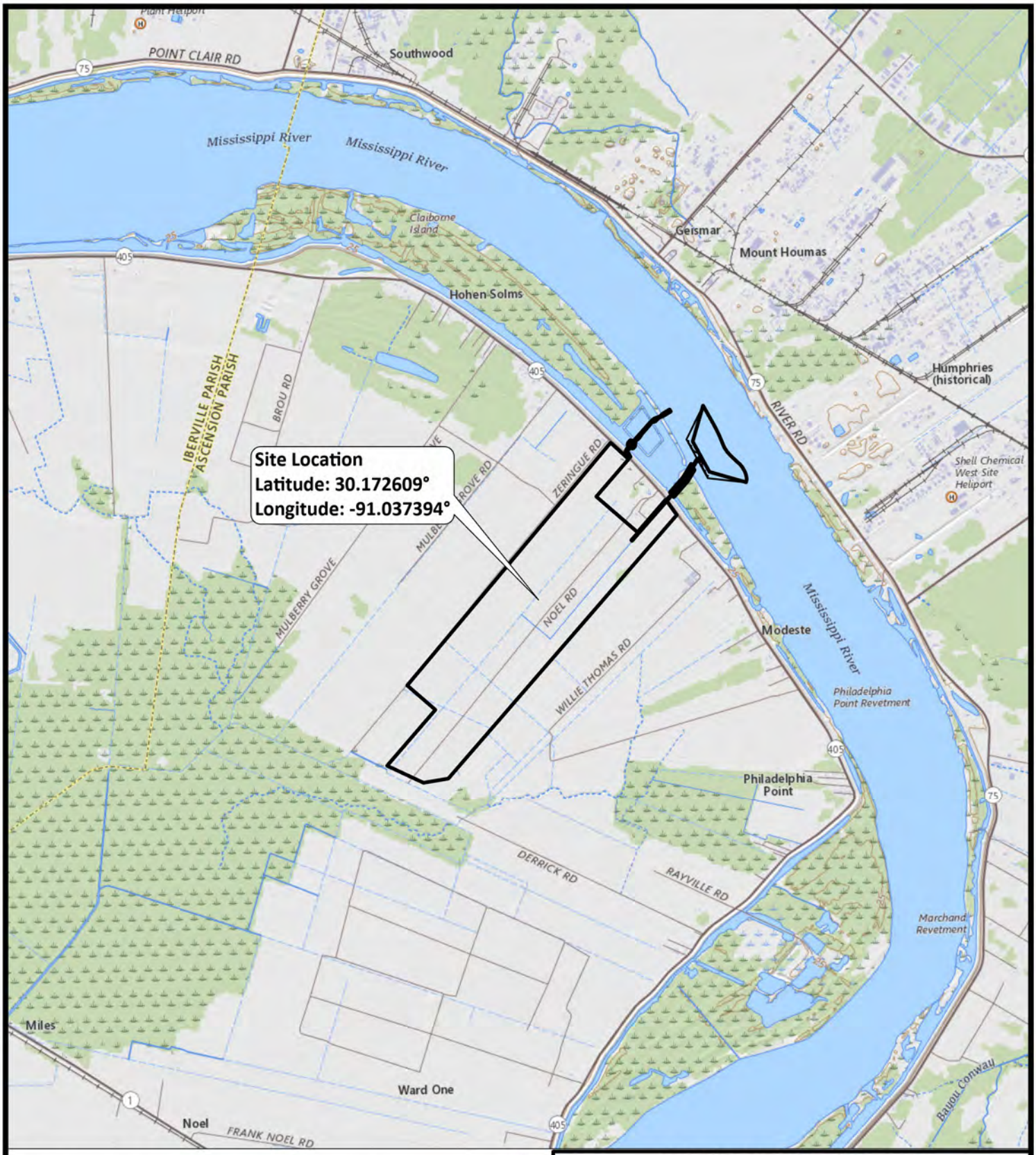
If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the LA Department of Environmental Quality before a Department of the Army permit is issued.

Any person may request, (preferably by email to the project manager, or in writing), within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

You are invited to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

for John M. Herman
Chief, Central Evaluation Branch
Regulatory Division

Enclosures



CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Site Location Map

Ascension Parish

CK Associates Environmental Consultants

Drawn:	OPB	Checked:	APK
Date:	05/24/2023	Approved:	OPB
Dwg. No.:	20046GEO_01		Figure 1

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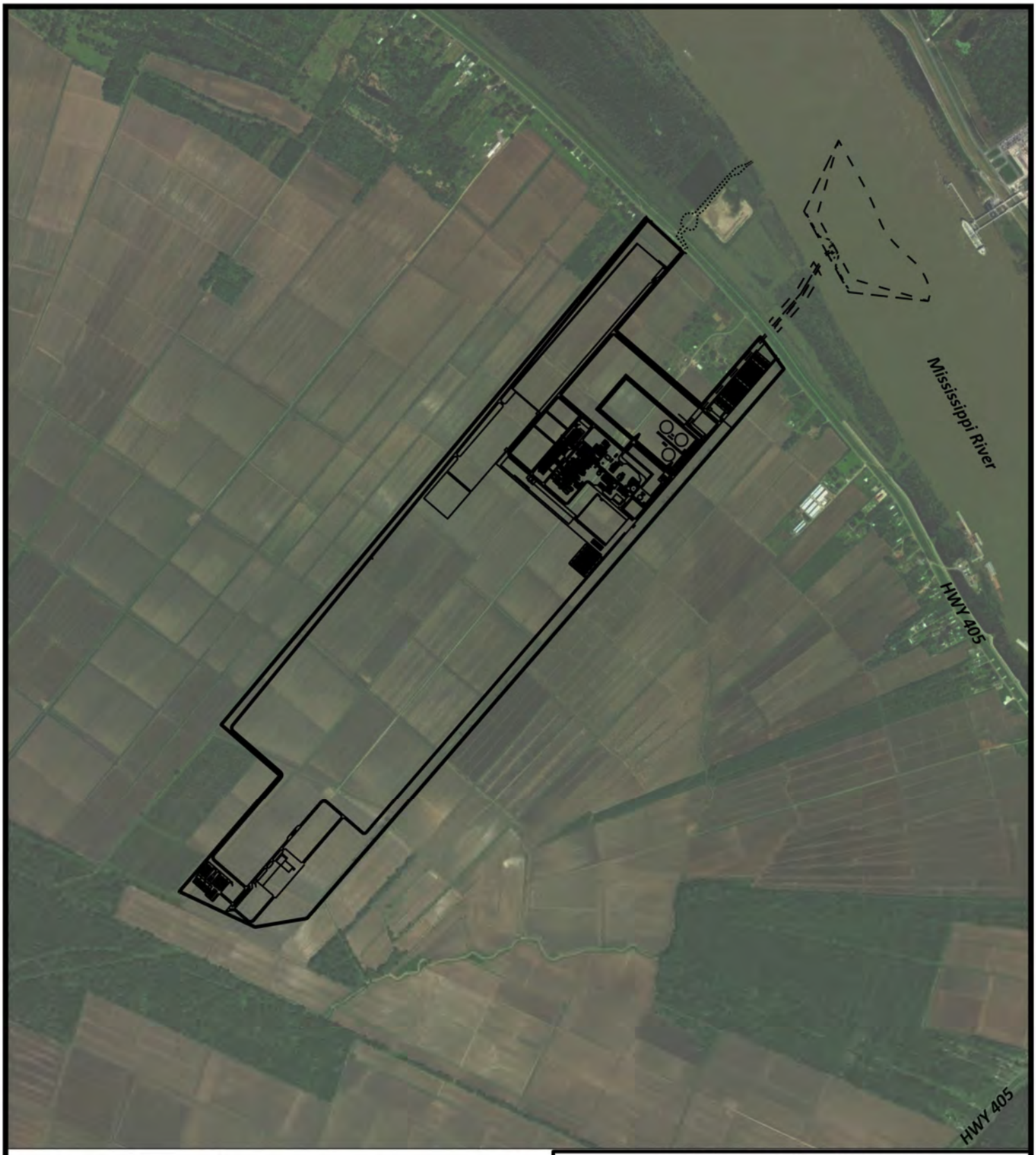

Proposed Ammonia Manufacturing Facility
Proposed Marine Terminal and Pipe Rack
Proposed Heavy Haul Road

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Feet
ESRI USGS Topo

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Project Overview Map

Ascension Parish

CK Associates Environmental Consultants

Drawn:	OPB	Checked:	APK
Date:	05/24/2023	Approved:	OPB
Dwg. No.:	20046GEO_02		Figure 2

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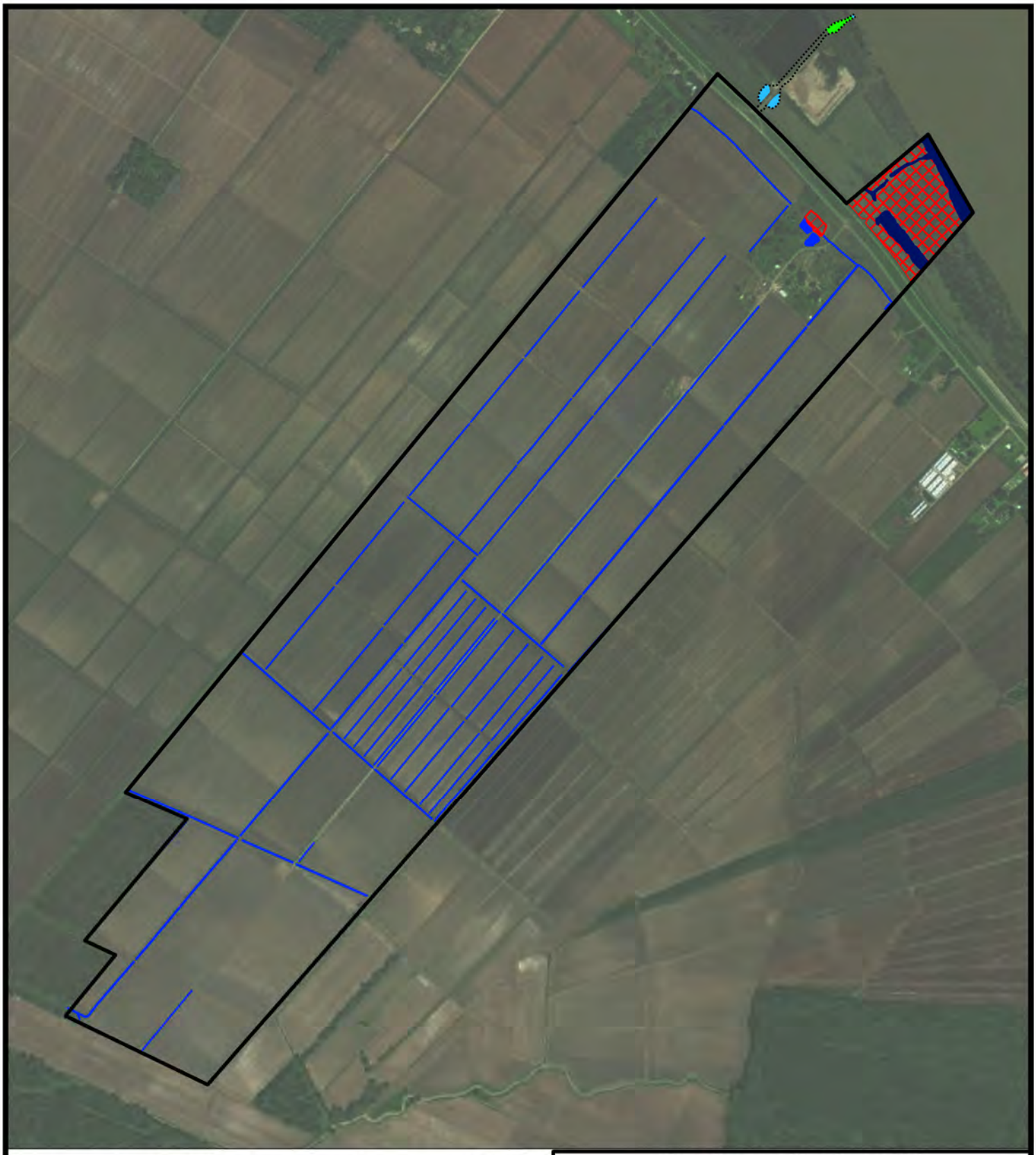

Survey Area MVN-2023-00269-SK
Section 10/404 Wetlands (18.60 Acres)
Section 10/404 Non-wetland Waters of the US (5.32 Acres)
Section 404 Wetlands (0.68 Acres)
Section 404 Non-wetland Waters of the US (5.20 Acres)
Desktop Delineation Area
Section 10/404 Wetlands (0.40 Acres)
Section 10/404 Non-wetland Waters of the US (0.59 Acres)

0 1,300 Feet

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ESRI World Imagery 2022

CF Industries Blue Point, LLC

Donaldsonville, Louisiana

Blue Ammonia Plant

Existing Conditions Map

Ascension Parish

CK Associates Environmental Consultants

Drawn:	OPB	Checked:	APK
Date:	05/24/2023	Approved:	OPB
Dwg. No.:	20046GEO_03		Figure 3

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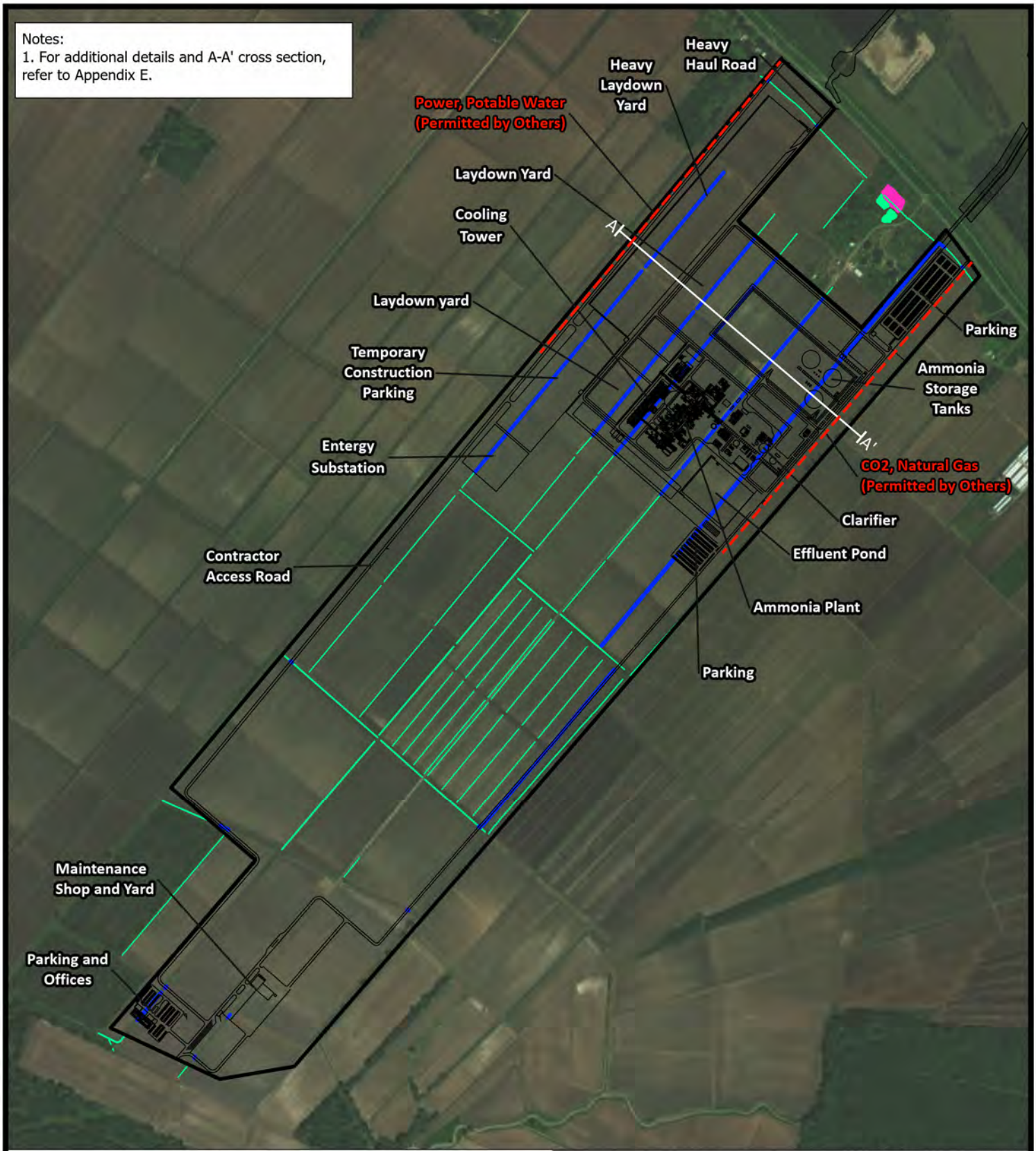

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Ammonia Manufacturing Facility Plan View

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	APK
Date:	8/8/2023	Approved:	OPB
Dwg. No.:	20046GEO_04		Figure 4

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CF Industries Blue Point, LLC
Donaldsonville, Louisiana

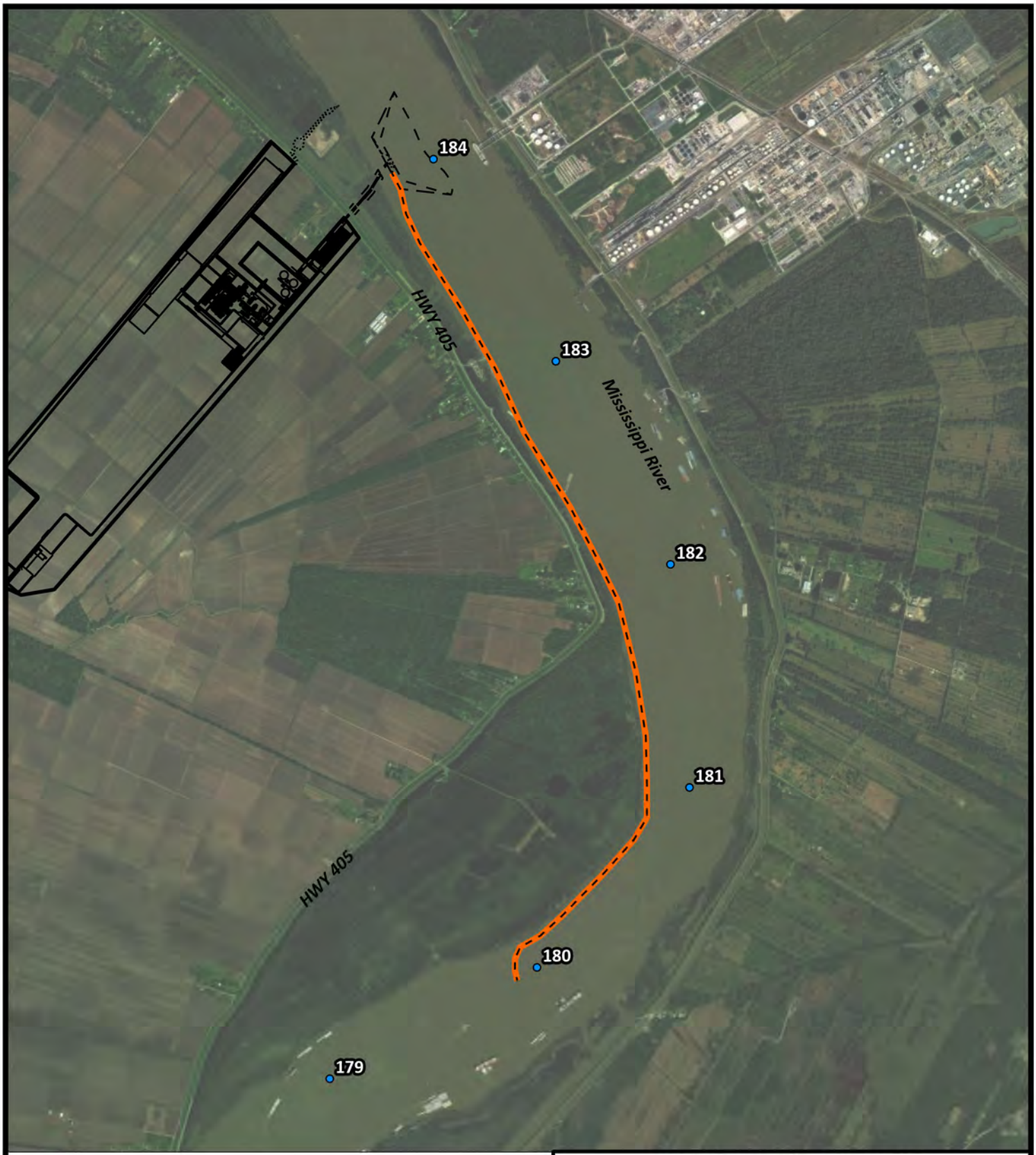
Blue Ammonia Plant

Marine Terminal and Pipe Rack Plan View

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	OPB
Date:	8/3/2023	Approved:	APK
Dwg. No.:	20046GEO_05		**Figure 5A**



River Mile Post
Proposed Ammonia Manufacturing Facility
Proposed Marine Terminal and Pipe Rack
Proposed Dredge Spoil Pipe

Note:
Dredge material to be disposed of below MP 180 beyond -55' LWRP Contour. Hydro Surveys will be performed to confirm shoaling in the channel is not occurring due to the dredge disposal

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Feet

ESRI USGS Topo

esri Partner Network Silver

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

In-River Dredge Disposal Plan View

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	APK
Date:	8/8/2023	Approved:	OPB
Dwg. No.:	20046GEO		Figure 5B

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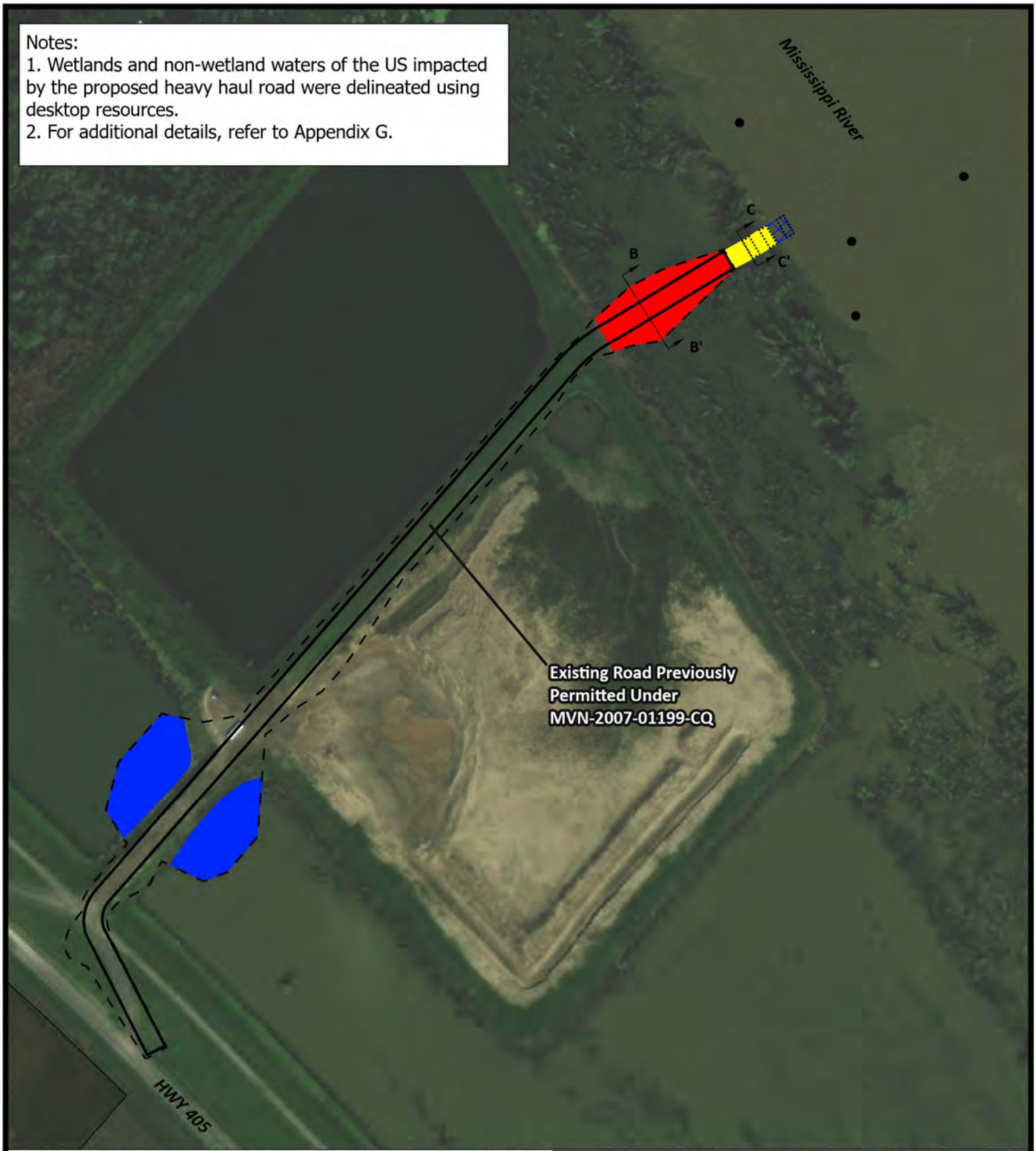

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Heavy Haul Road
Plan View

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	OPB
Date:	8/3/2023	Approved:	APK
Dwg. No.:	20046GEO_06		Figure 6

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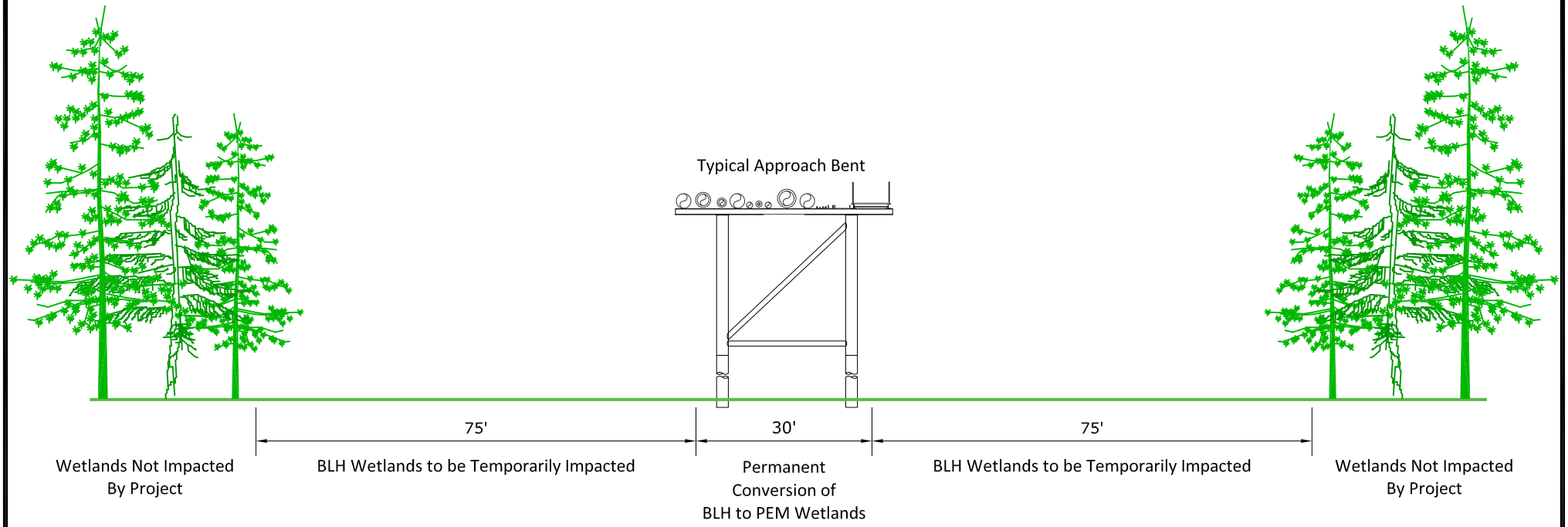

Note: BLH Welands Temporarily Impacted by the project will be allowed to regenerate naturally following completion of construction.

PRELIMINARY-FOR PERMIT PURPOSES ONLY

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Cross-Section A-A'

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	OPB
Date:	8/3/2023	Approved:	APK
Dwg. No.:	20046-02		**Figure 8**

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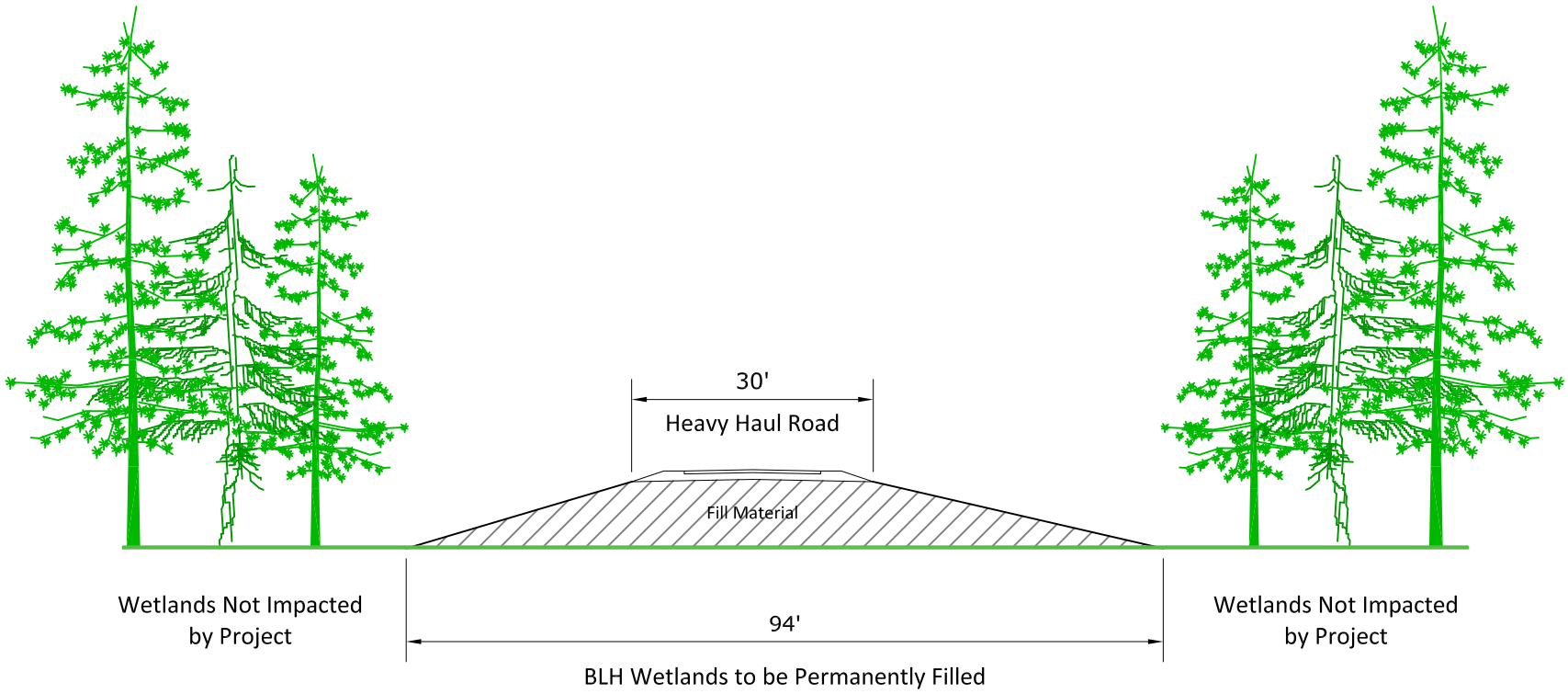

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Cross-Section B-B'

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	OPB
Date:	8/3/2023	Approved:	APK
Dwg. No.:	20046-03		**Figure 9**

PRELIMINARY-FOR PERMIT PURPOSES ONLY

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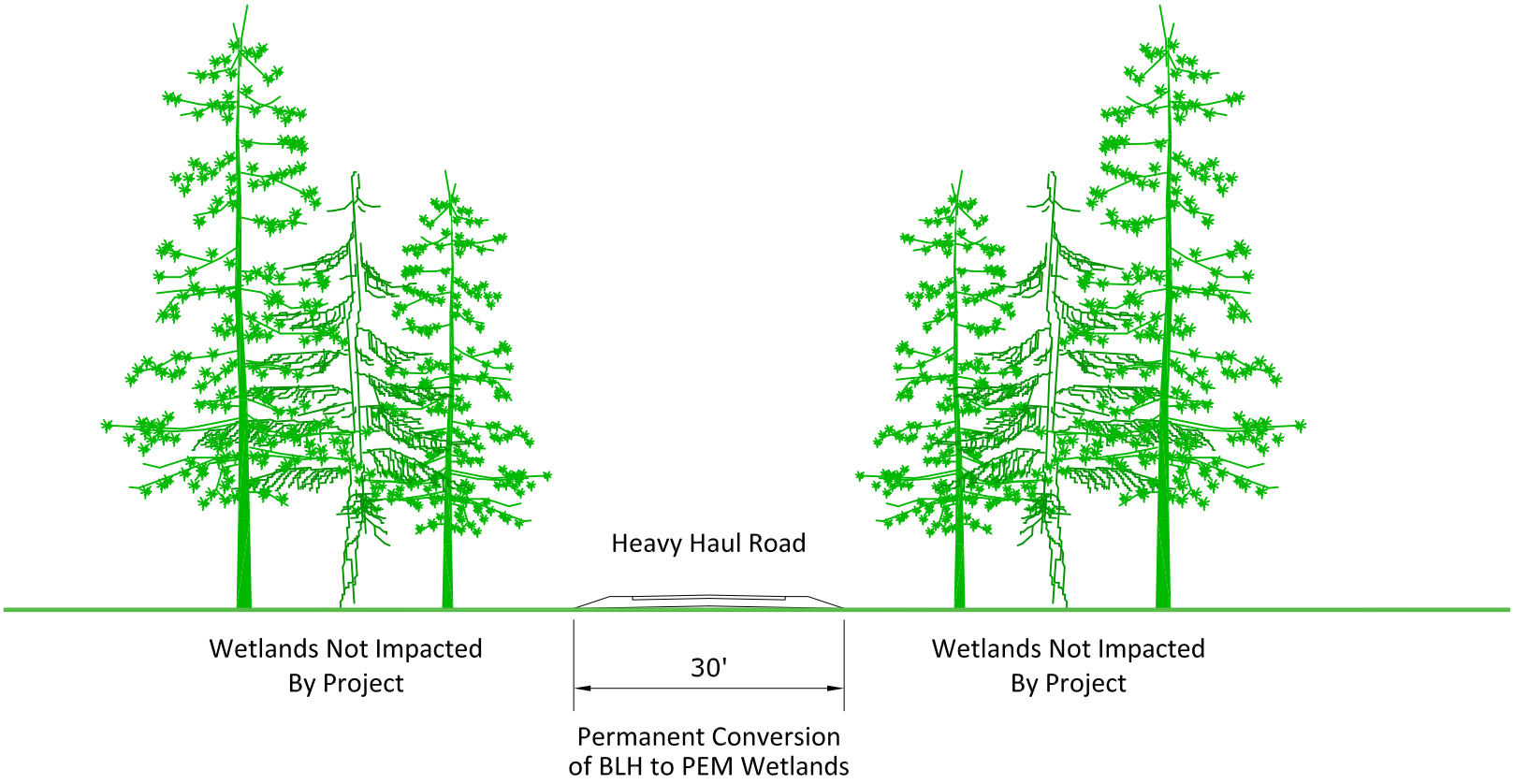

CF Industries Blue Point, LLC
Donaldsonville, Louisiana

Blue Ammonia Plant

Cross-Section C-C'

Ascension Parish

CK Associates Environmental Consultants

Drawn:	CAL	Checked:	OPB
Date:	8/3/2023	Approved:	APK
Dwg. No.:	20046-04		**Figure 10**

PRELIMINARY-FOR PERMIT PURPOSES ONLY

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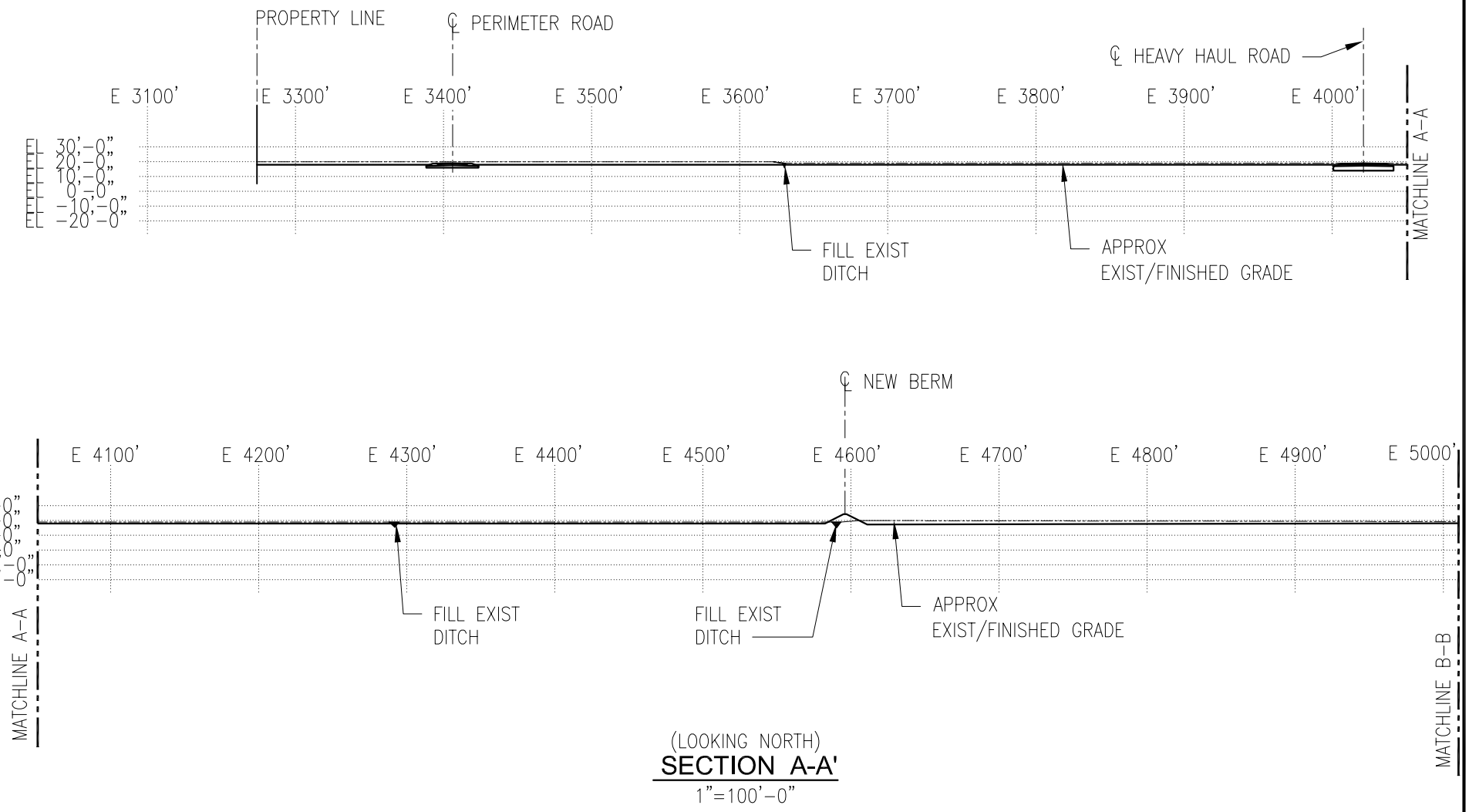


(LOOKING NORTH)

SECTION A-A'

1"=100'-0"

DRAWN	CL
CHECKED	BB
ISSUE DATE	06/23
PROJECT NO.	C18.D275500.BR00

CF INDUSTRIES BLUE POINT, LLC
SITE INFRASTRUCTURE FACILITIES
MODESTE, LOUISIANA
ASCENSION PARISH

FOR CF INDUSTRIES-MODESTE

REVISION	BY
REVISION 0	CL/BB
REVISION	

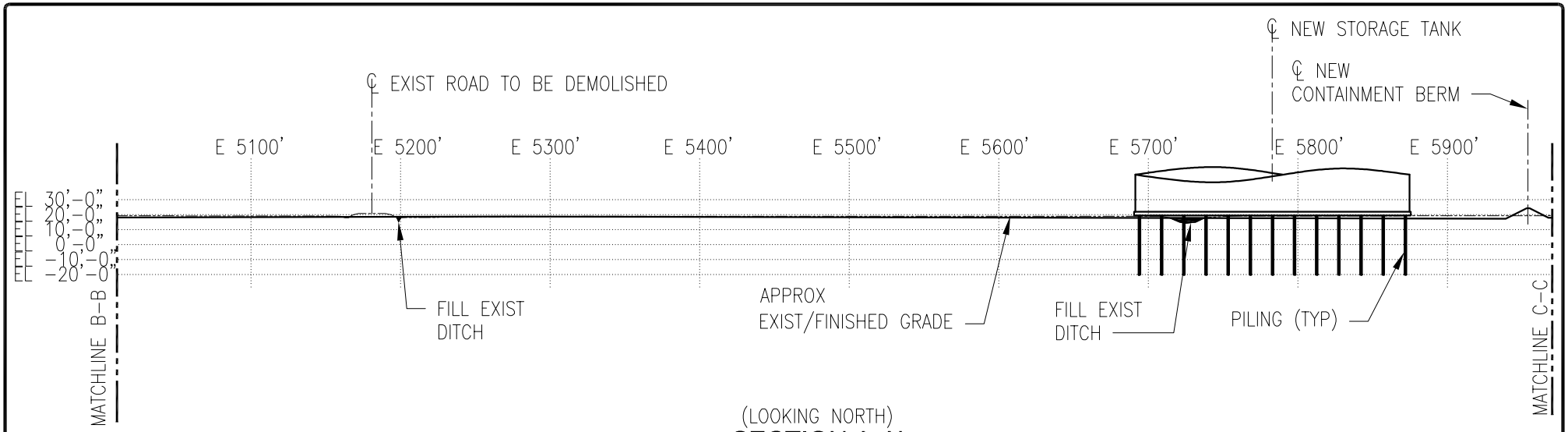
DRAWING NUMBER: USACE-SK-001

PRELIMINARY

FOR PERMIT PURPOSES ONLY

BRIAN BARIENT
LA PE # 23245
CDI ENGINEERING SOLUTIONS, LLC

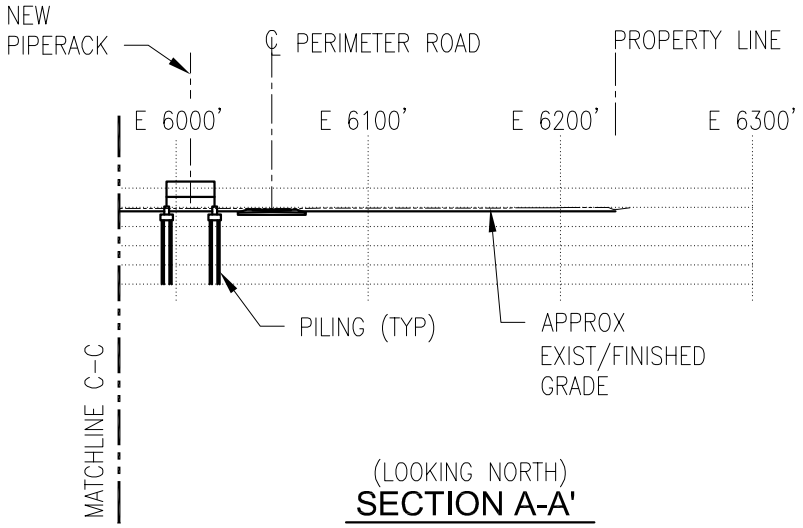
CDI Engineering Solutions
CDI ENGINEERING SOLUTIONS, LLC
4041 ESSEN LANE, SUITE 300
BATON ROUGE, LA 70809
(225) 663-4600
LOUISIANA LICENSE NO. EF 0006994



(LOOKING NORTH)

SECTION A-A'

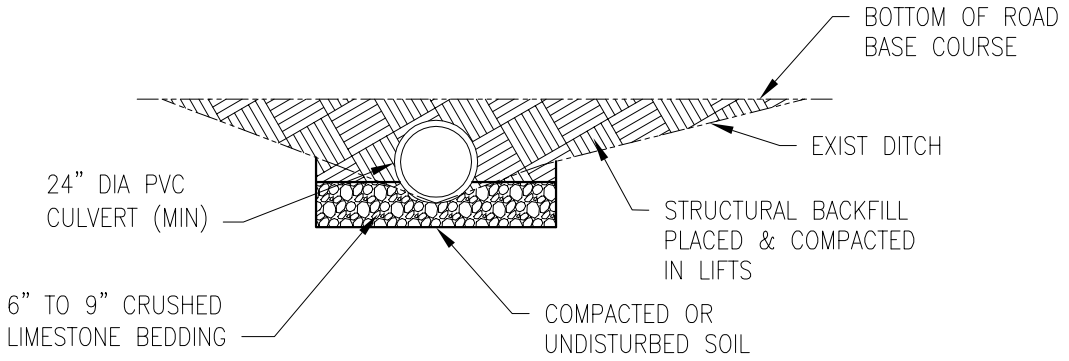
1"=100'-0"



(LOOKING NORTH)

SECTION A-A'

1"=100'-0"



CULVERT BEDDING DETAIL

3/16"=1'-0"
(TYPICAL 3 PLCS)

DRAWN	CL
CHECKED	BB
ISSUE DATE	06/23
PROJECT NO.	C18.D275500.BR00

CF INDUSTRIES BLUE POINT, LLC
SITE INFRASTRUCTURE FACILITIES
MODESTE, LOUISIANA
ASCENSION PARISH

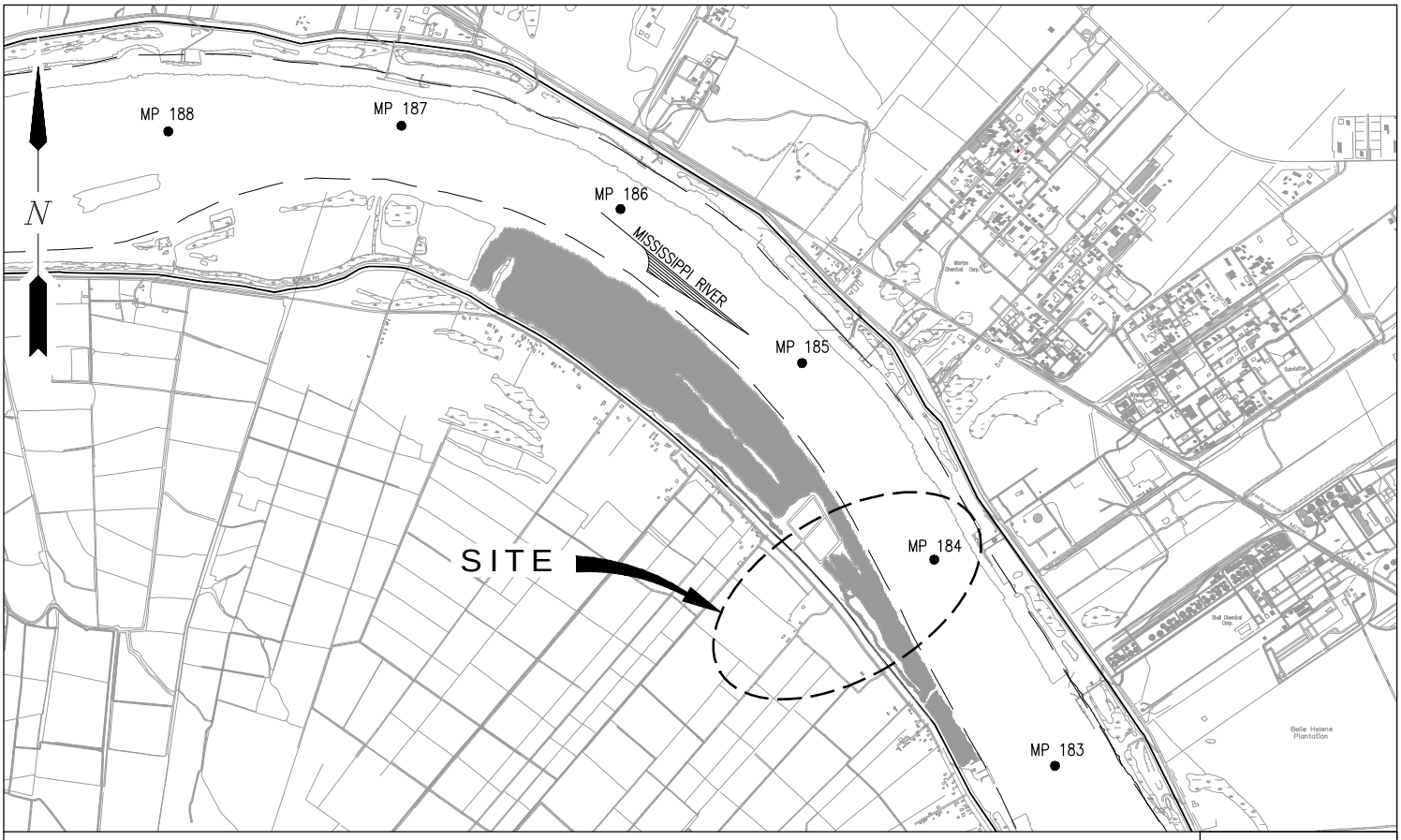
FOR CF INDUSTRIES-MODESTE

REVISION	BY
REVISION 0	CL/BB
REVISION	

DRAWING NUMBER: USACE-SK-002

PRELIMINARY
FOR PERMIT PURPOSES ONLY
BRIAN BARIENT
LA PE # 23245
CDI ENGINEERING SOLUTIONS, LLC

CDI Engineering Solutions
CDI ENGINEERING SOLUTIONS, LLC
4041 ESSEN LANE, SUITE 300
BATON ROUGE, LA 70809
(225) 663-4600
LOUISIANA LICENSE NO. EF 0006994



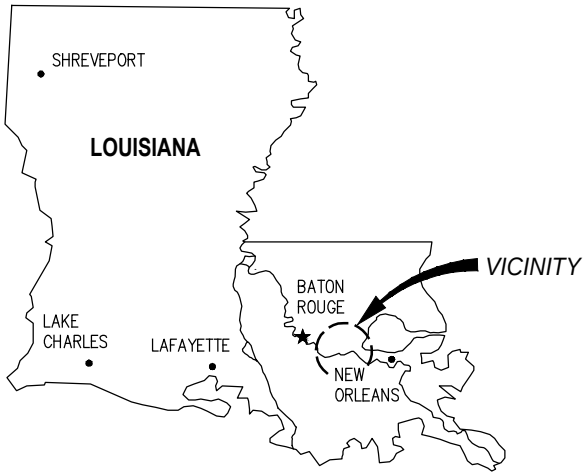
VICINITY MAP

SCALE: 1"=4000'

2000 0 1000 2000 4000

(IN FEET)

ASCENSION PARISH, LA
LAT. 30° 11' 08" N
LONG. 91° 01' 16" W



AREA MAP

NOTES

1. AS-BUILT DRAWINGS AND/OR PLANS SHALL HAVE WRITTEN ON THEM THE DATE OF COMPLETION OF SAID ACTIVITIES AND SHALL BE SUBMITTED TO THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES, OFFICE OF COASTAL MANAGEMENT, P.O. BOX 44487, BATON ROUGE, LA 70804-4487 WITHIN 30 DAYS FOLLOWING PROJECT COMPLETION.
2. ALL STRUCTURES, FACILITIES, WELLS, AND PIPELINES/FLOWLINES OCCURRING IN OPEN WATER AREAS OR IN OILFIELD CANALS OR SLIPS SHALL BE REMOVED WITHIN 120 DAYS OF ABANDONMENT OF THE FACILITIES FOR THE HEREIN PERMITTED USE UNLESS PRIOR WRITTEN APPROVAL TO LEAVE SUCH STRUCTURES IN PLACE IS RECEIVED FROM THE COASTAL MANAGEMENT DIVISION. THIS CONDITION DOES NOT PRECLUDE THE NECESSITY FOR REVISING THE CURRENT PERMIT OR OBTAINING A SEPARATE COASTAL USE PERMIT, SHOULD ONE BE REQUIRED.
3. STRUCTURES MUST ALSO BE MARKED/LIGHTED IN ACCORDANCE WITH U.S. COAST GUARD REGULATIONS.
4. IN ORDER TO ENSURE THE SAFETY OF ALL PARTIES, THE PERMITTEE SHALL CONTACT THE LOUISIANA ONE CALL SYSTEM (1-800-272-3020) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION (DIGGING, DREDGING, JETTING, ETC.) OR DEMOLITION ACTIVITY.
5. HORIZONTAL DATUM REFERENCED TO LOUISIANA STATE PLANE NAD83.
6. ALL ELEVATIONS ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). UNLESS NOTED OTHERWISE.
7. NO IMPACTS TO RARE, THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITATS ARE ANTICIPATED FROM THE PROPOSED PROJECT. NO STATE OR FEDERAL PARKS, WILDLIFE REFUGES, WILDLIFE MANAGEMENT AREAS OR SCENIC RIVERS ARE KNOWN AT THE SPECIFIED SITE OR WITHIN ¼ MILE OF THE PROPOSED PROJECT. THE WILDLIFE DIVERSITY PROGRAM (WDP) REPORTS SUMMARIZE THE EXISTING INFORMATION KNOWN AT THE TIME OF THE REQUEST REGARDING THE LOCATION IN QUESTION. WDP REPORTS SHOULD NOT BE CONSIDERED FINAL STATEMENTS ON THE BIOLOGICAL ELEMENTS OR AREAS BEING CONSIDERED, NOR SHOULD THEY BE SUBSTITUTED FOR ON-SITE SURVEYS REQUIRED FOR ENVIRONMENTAL ASSESSMENTS. IF AT ANY TIME WPD TRACKED SPECIES ARE ENCOUNTERED WITHIN THE PROJECT AREA, PLEASE CONTACT OUR BIOLOGIST AT 225-763-3554.

CHRIS L. O'BRIEN
LA PE #33945

PRELIMINARY - FOR PERMIT PURPOSES ONLY

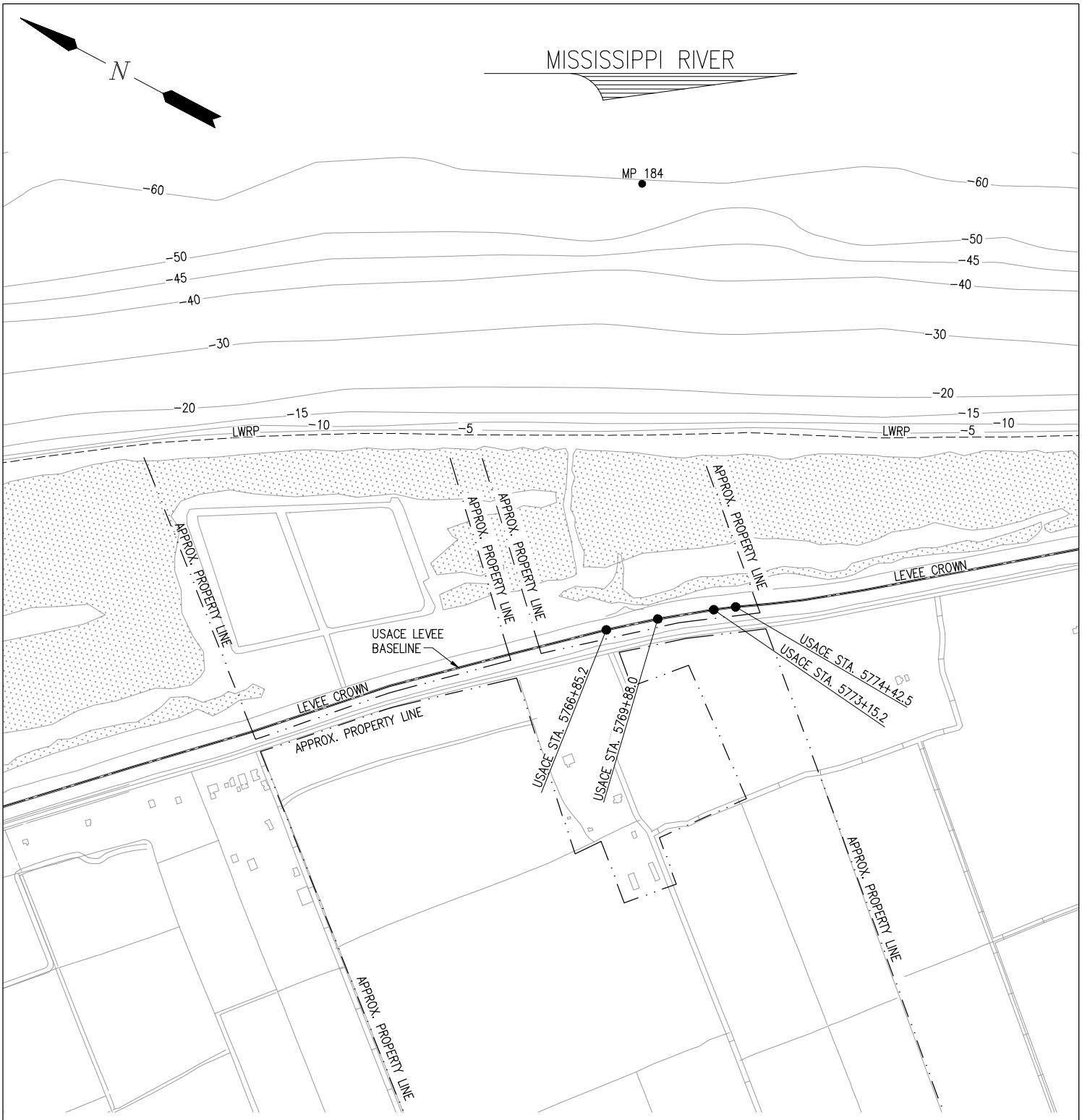
REV A

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
VICINITY MAP, AREA MAP & NOTES

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 1 OF 23



NOTES:
1. SURVEY DATA PROVIDED BY USACE 2020 REVETMENT SURVEY AND 2016 USACE LIDAR SURVEY INFORMATION .

OVERALL EXISTING SITE PLAN

SCALE: 1"= 800'

400 0 200 400 800

(IN FEET)

CHRIS L. O'BRIEN
LA PE #33945

PRELIMINARY - FOR PERMIT PURPOSES ONLY

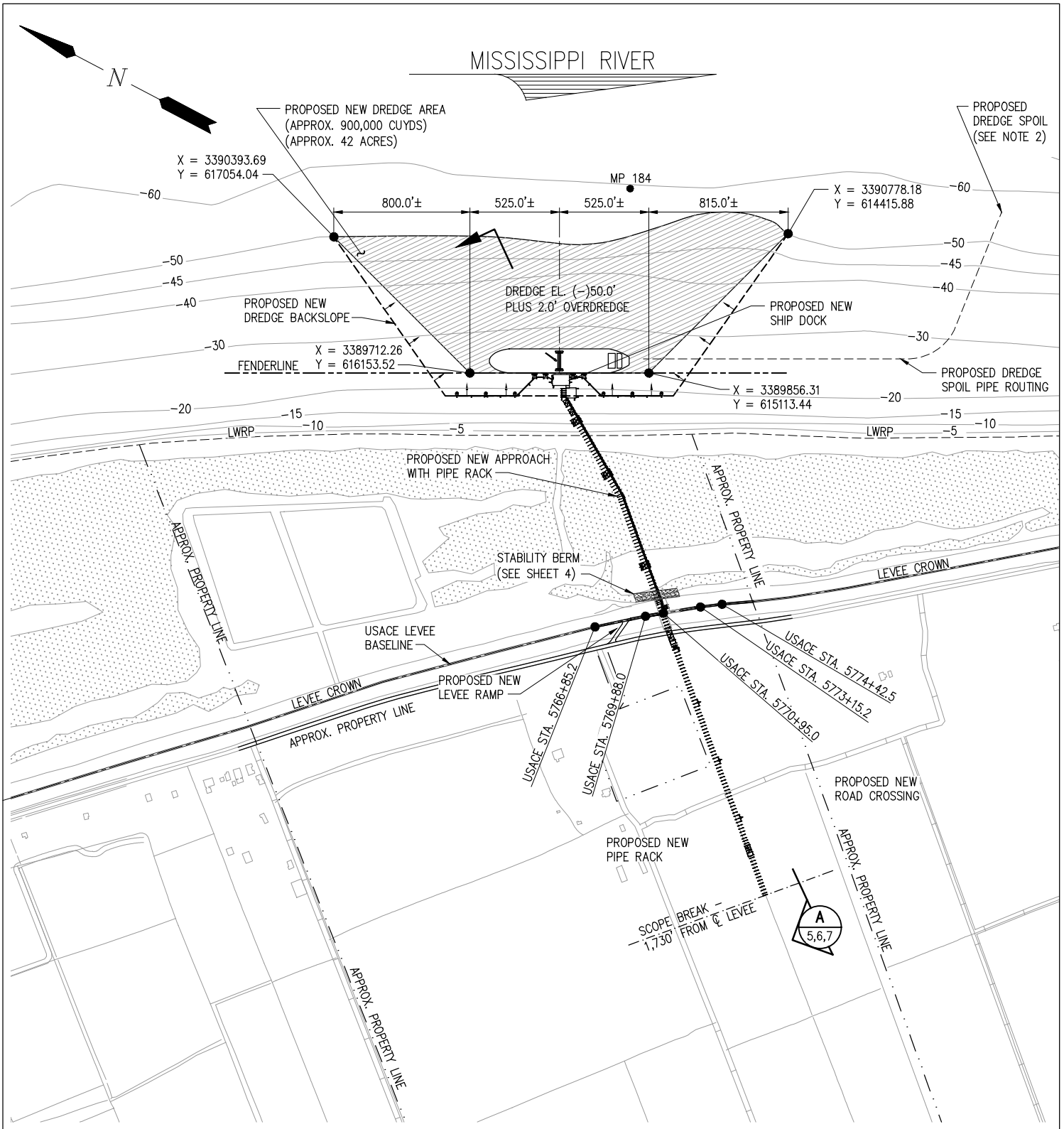
REV A

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
OVERALL EXISTING SITE PLAN

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 2 OF 23



OVERALL NEW SITE PLAN

SCALE: 1"= 800'

400 0 200 400 800

(IN FEET)

NOTES:

1. SURVEY DATA PROVIDED BY USACE 2020 REVETMENT SURVEY AND 2016 USACE LIDAR SURVEY INFORMATION.
2. DREDGE MATERIAL TO BE DISPOSED OF BELOW MP 180 BEYOND −55' LWRP CONTOUR. HYDRO SURVEYS WILL BE PERFORMED TO CONFIRM SHOALING IN THE CHANNEL IS NOT OCCURRING DUE TO THE DREDGE DISPOSAL.

CHRIS L. O'BRIEN
LA PE #33945

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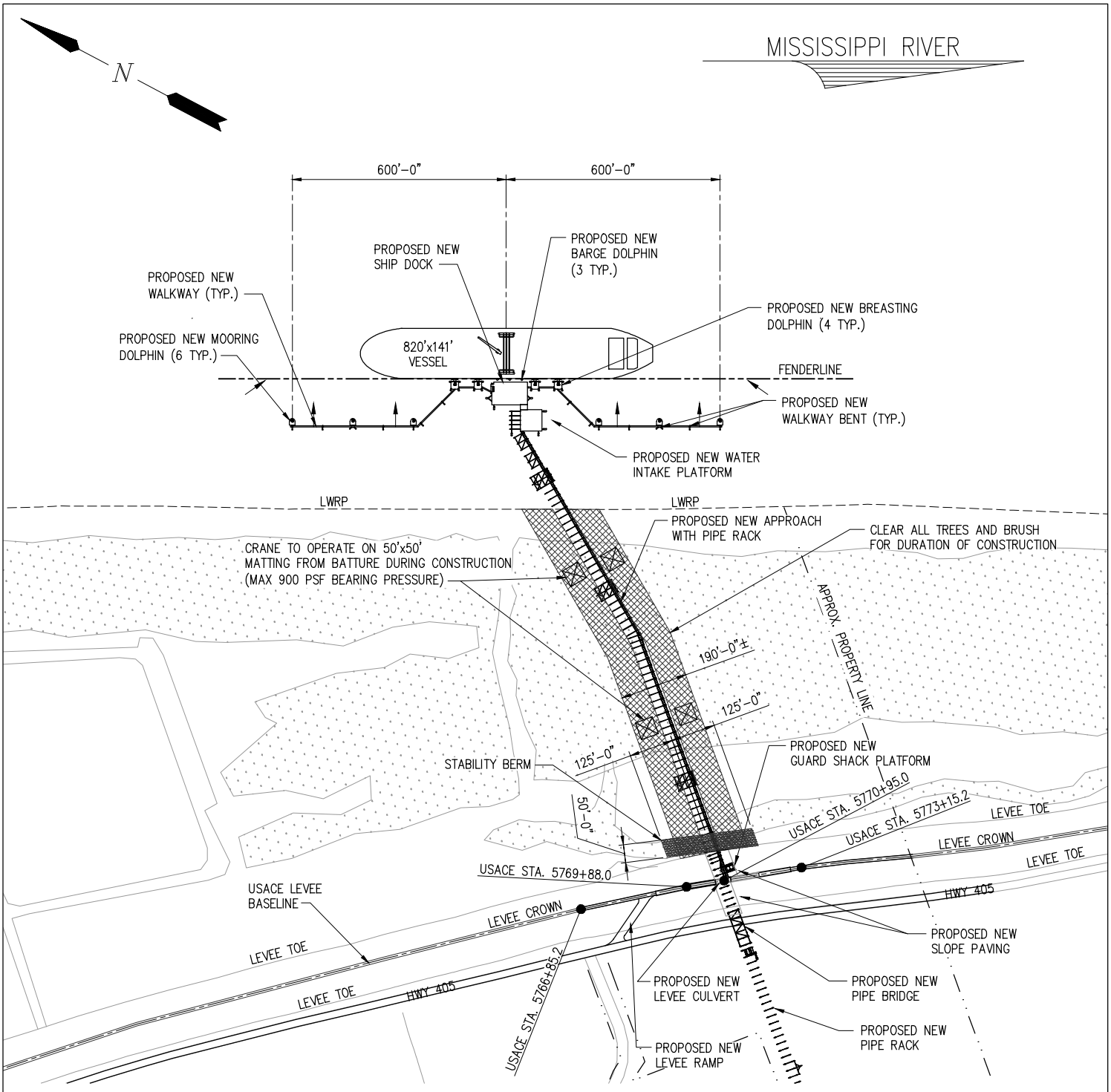
CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
OVERALL SITE PLAN

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 3 OF 23

8/8/2023 8:05 AM

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-P3.DWG



NOTES:
1. SURVEY DATA PROVIDED BY USACE 2020 REVETMENT SURVEY AND 2016 USACE LIDAR SURVEY INFORMATION .

ENLARGED NEW SITE PLAN

SCALE: 1"= 400'

200 0 100 200 400

(IN FEET)

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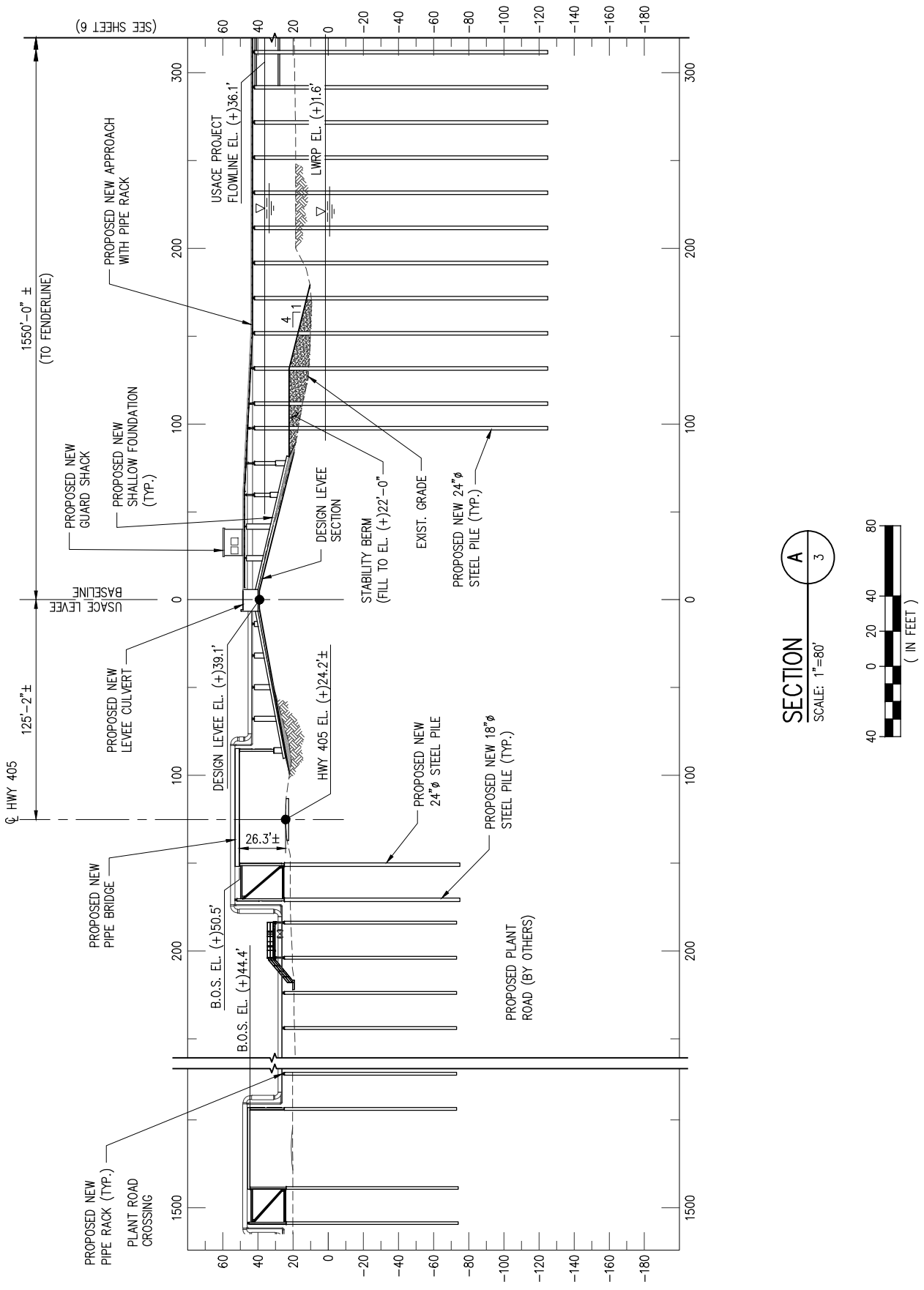
NEW MARINE TERMINAL
ENLARGED NEW SITE PLAN

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 4 OF 23



SECTION A/3
SCALE: 1"=80'

80 40 0 20 40
(IN FEET)

8/8/2023 8:05 AM

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-P5.DWG

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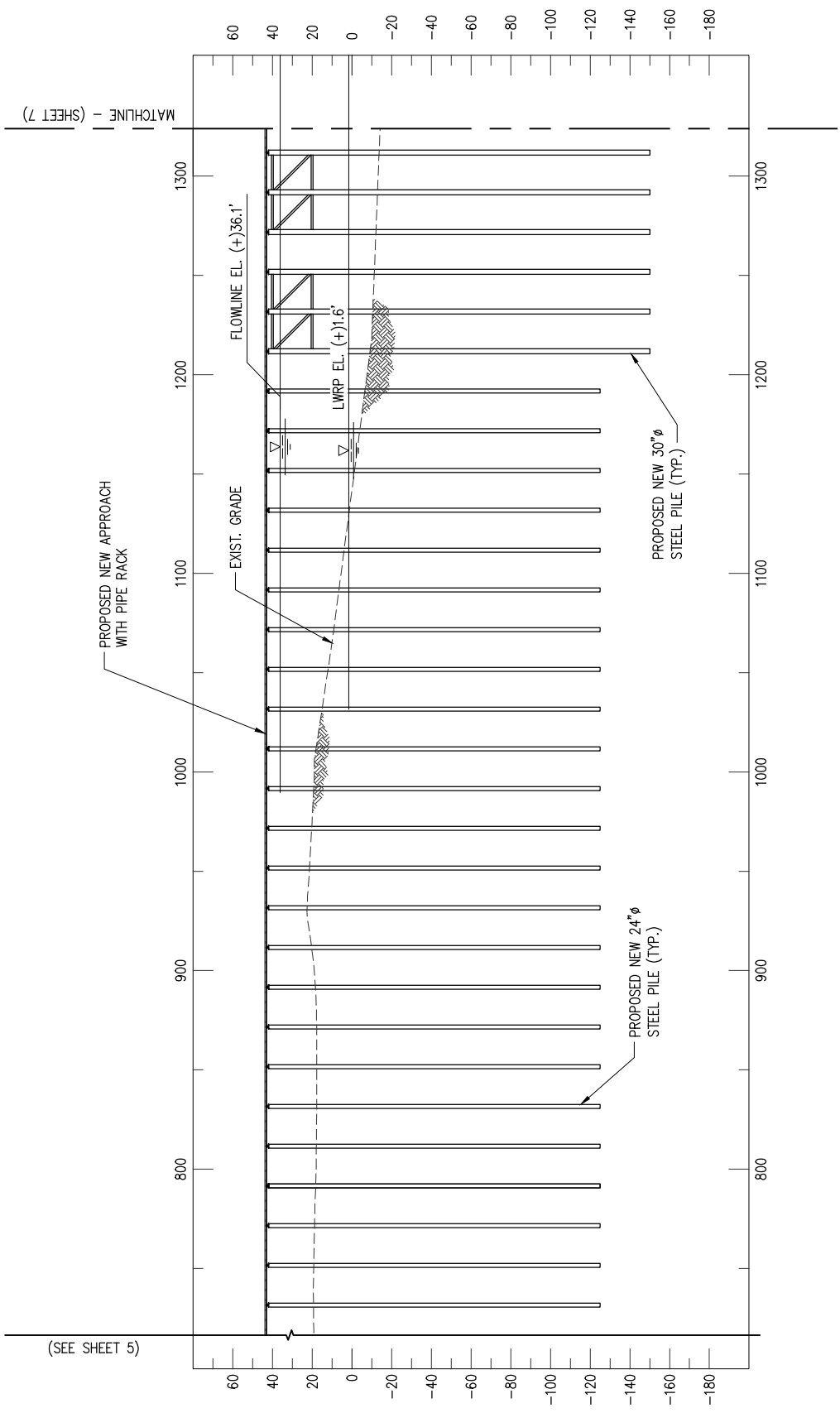
BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION (1 OF 3)

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
5 OF 23



SECTION A 3
SCALE: 1"=80'

80 40 20 0 40
(IN FEET)

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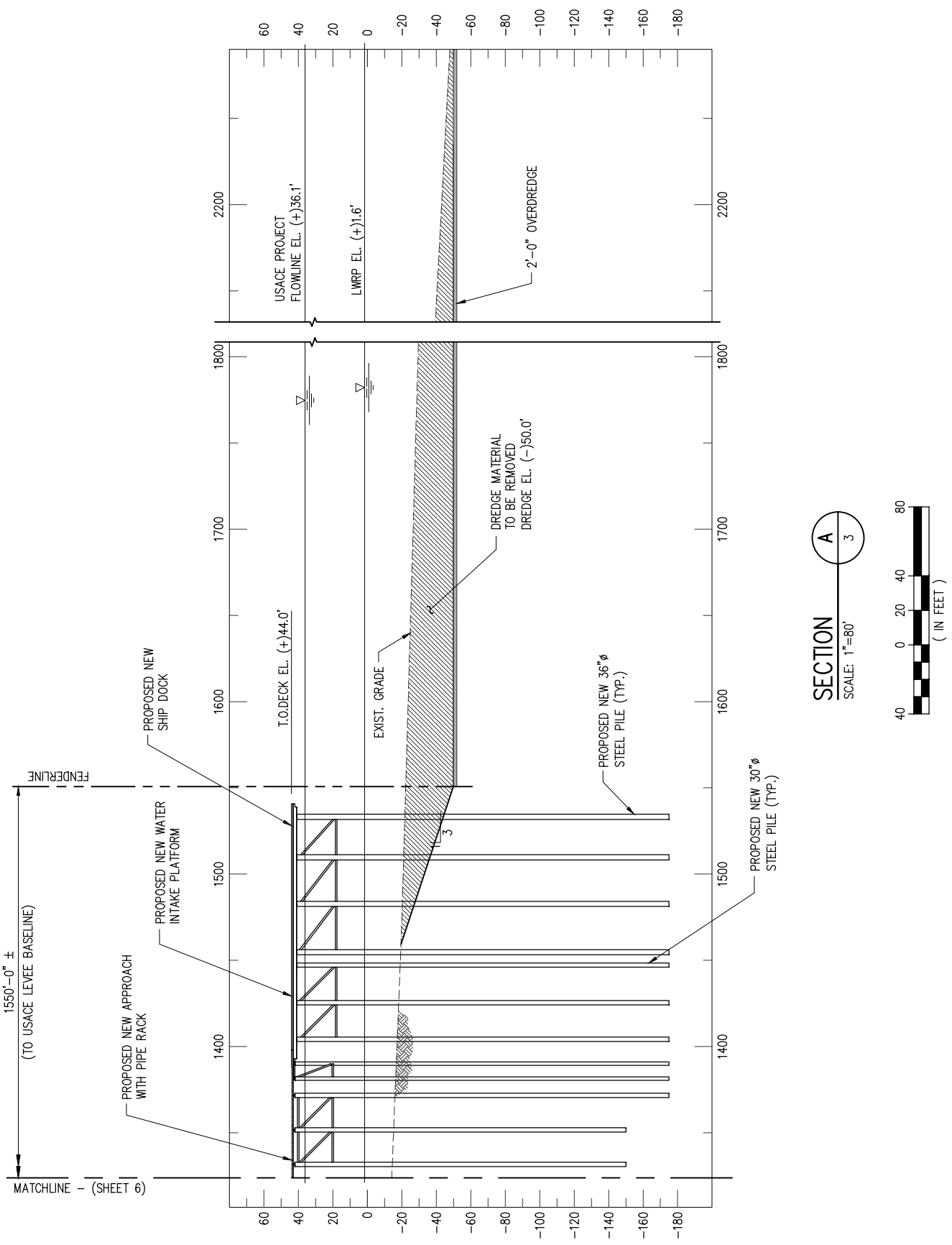
BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION (2 OF 3)

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
6 OF 23



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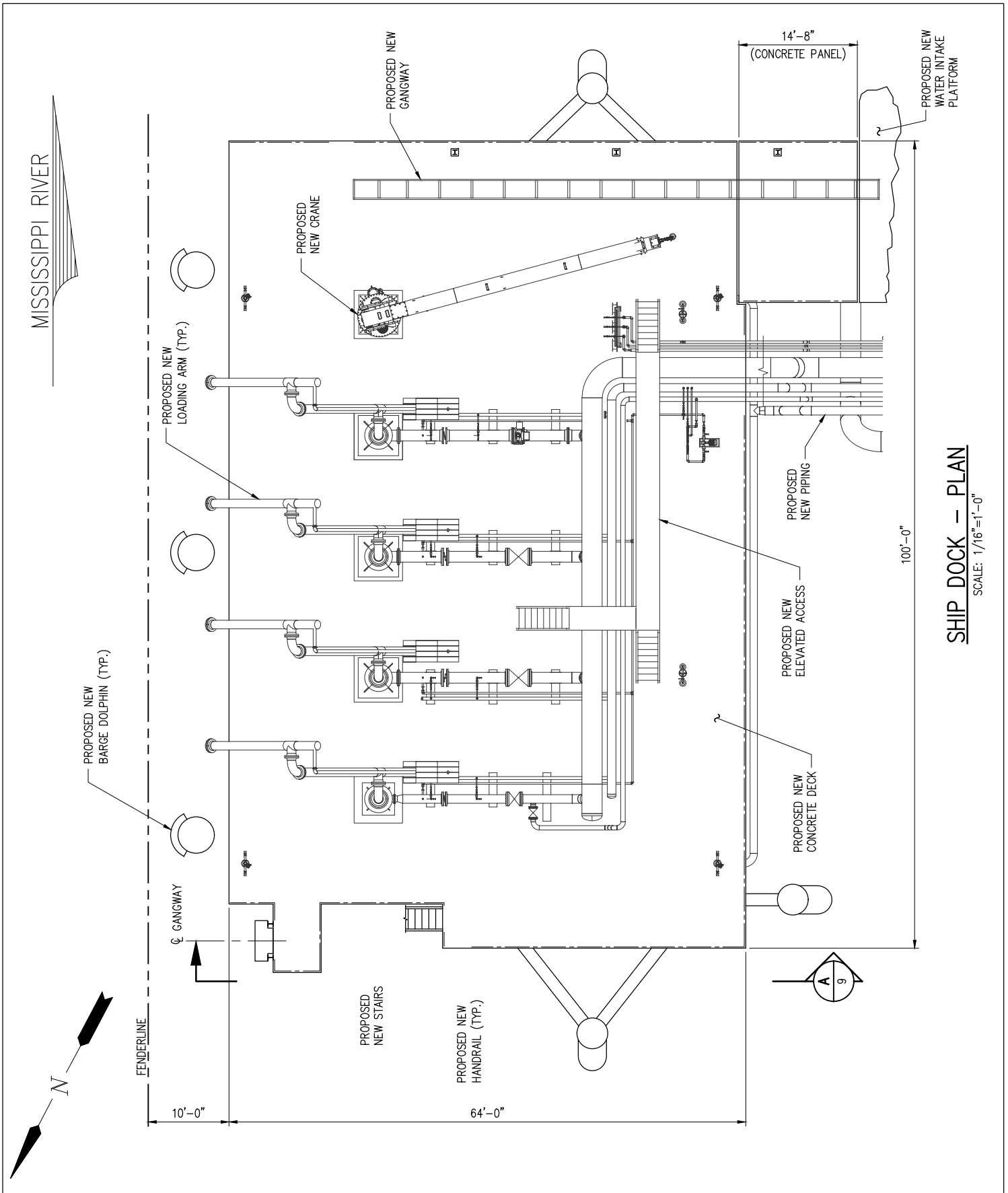
NEW MARINE TERMINAL
CROSS SECTION (3 OF 3)

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
7 OF 23



SHIP DOCK – PLAN

SCALE: 1/16"=1'-0"

8/8/2023 8:05 AM

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-P8.DWG

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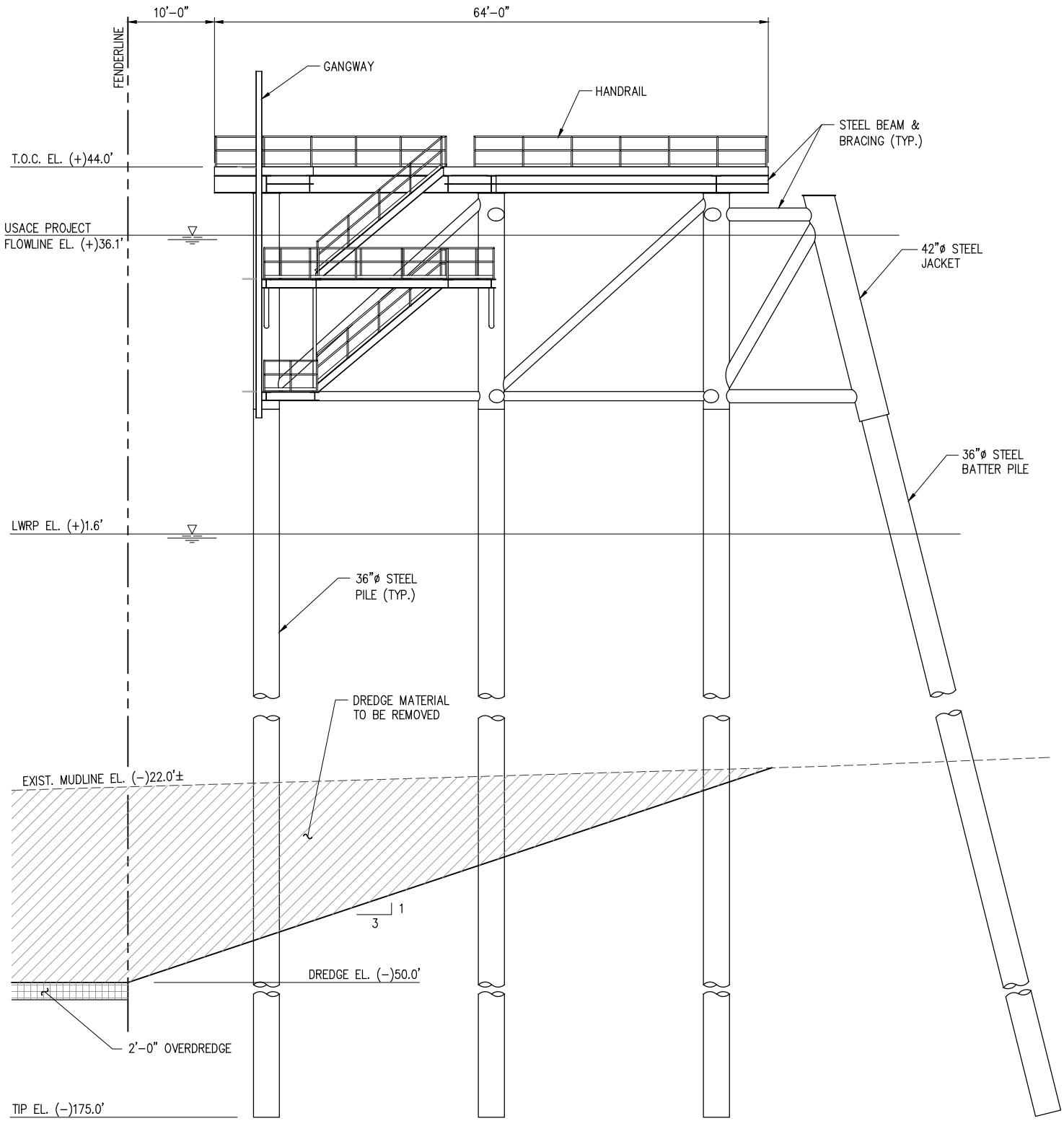
NEW MARINE TERMINAL
SHIP DOCK - PLAN

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 8 OF 23



SECTION A/8

SCALE: 1/16"=1'-0"

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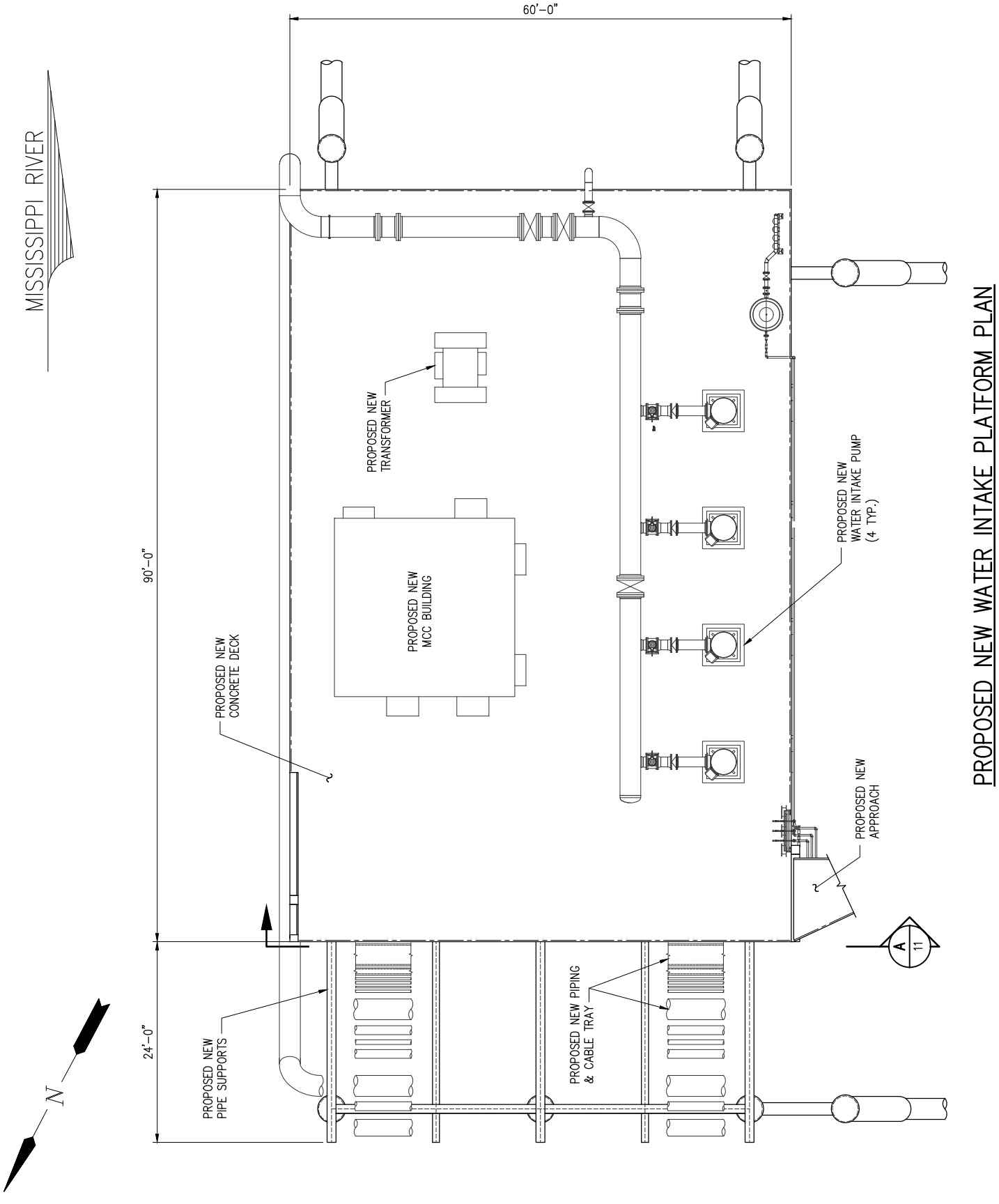
BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
SHIP DOCK - SECTION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 9 OF 23



PROPOSED NEW WATER INTAKE PLATFORM PLAN

SCALE: 1/16"=1'-0"

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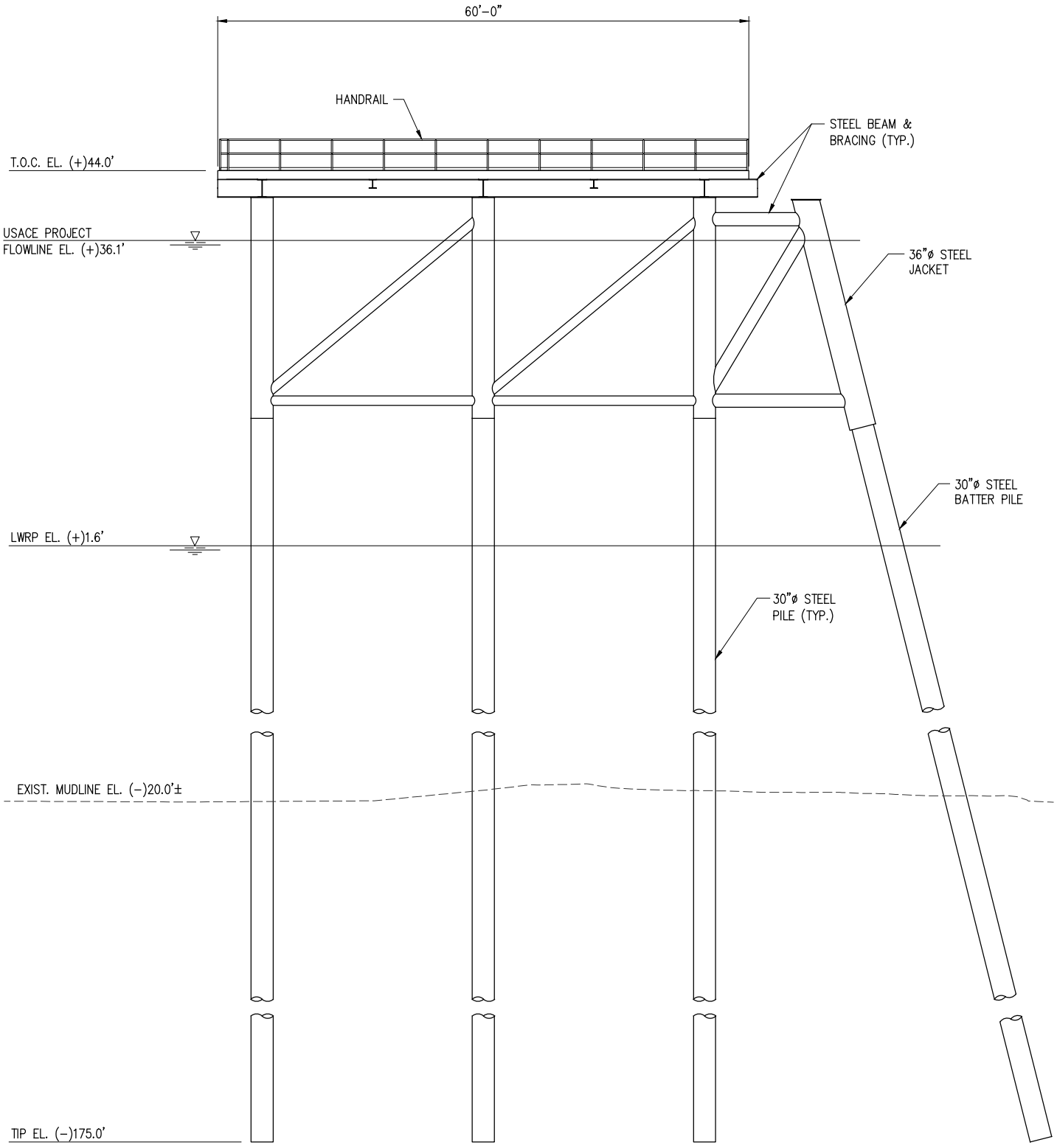
BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
WATER INTAKE PLATFORM - PLAN

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
10 OF 23



SECTION A
SCALE: 1/16"=1'-0"
10

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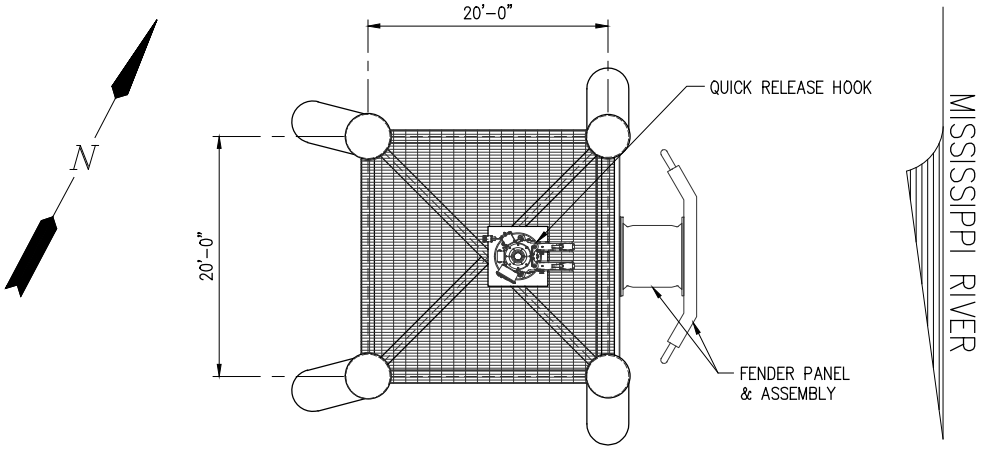
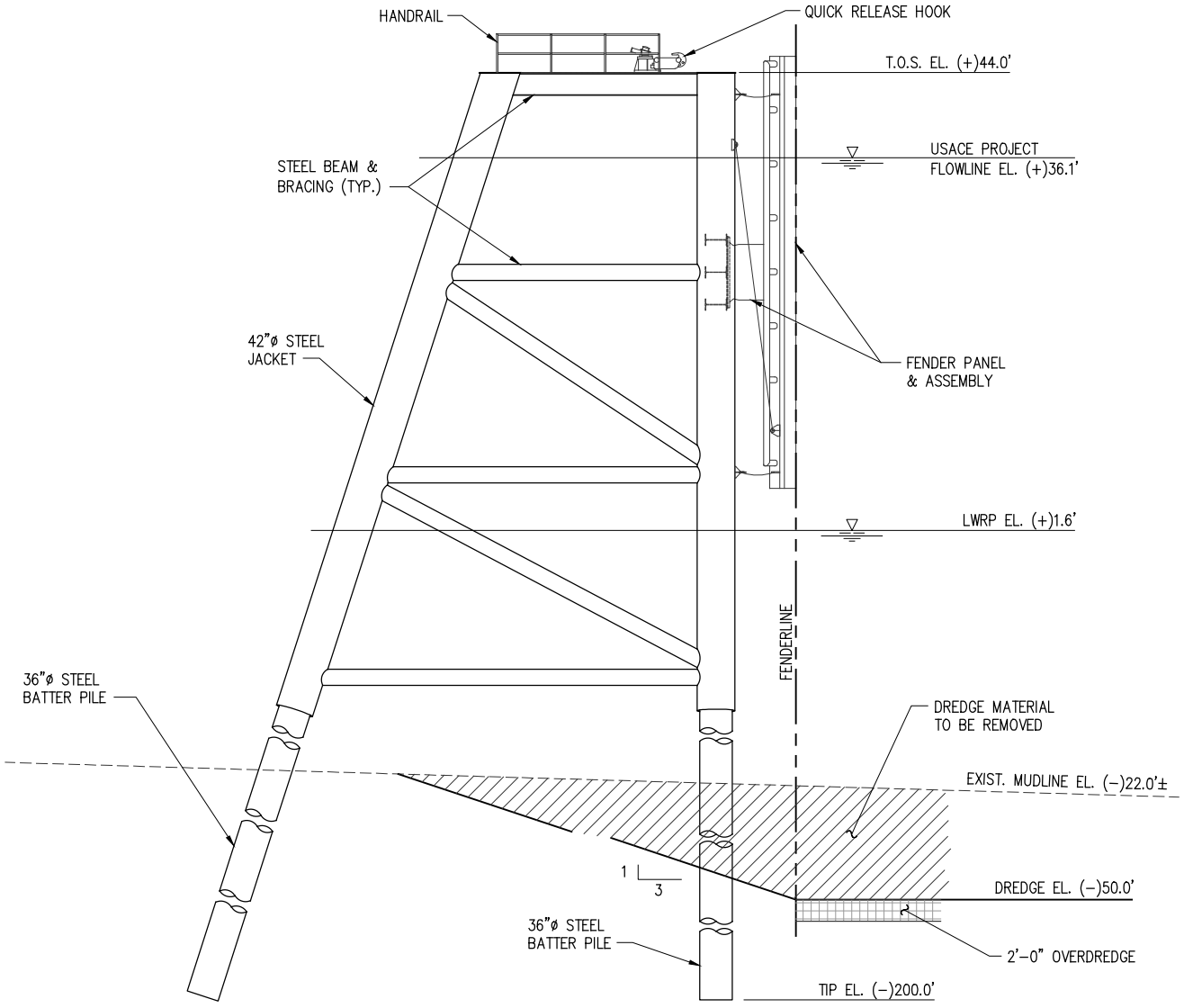
NEW MARINE TERMINAL
WATER INTAKE PLATFORM - SECTION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 11 OF 23



SHIP BREASTING DOLPHIN – PLAN

SCALE: 1/16"=1'-0"



SHIP BREASTING DOLPHIN – ELEVATION

SCALE: 1/16"=1'-0"
(4 REQUIRED)

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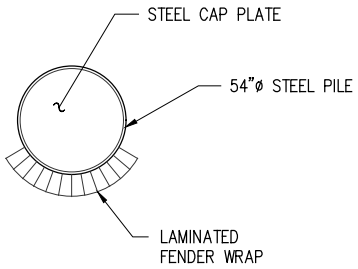
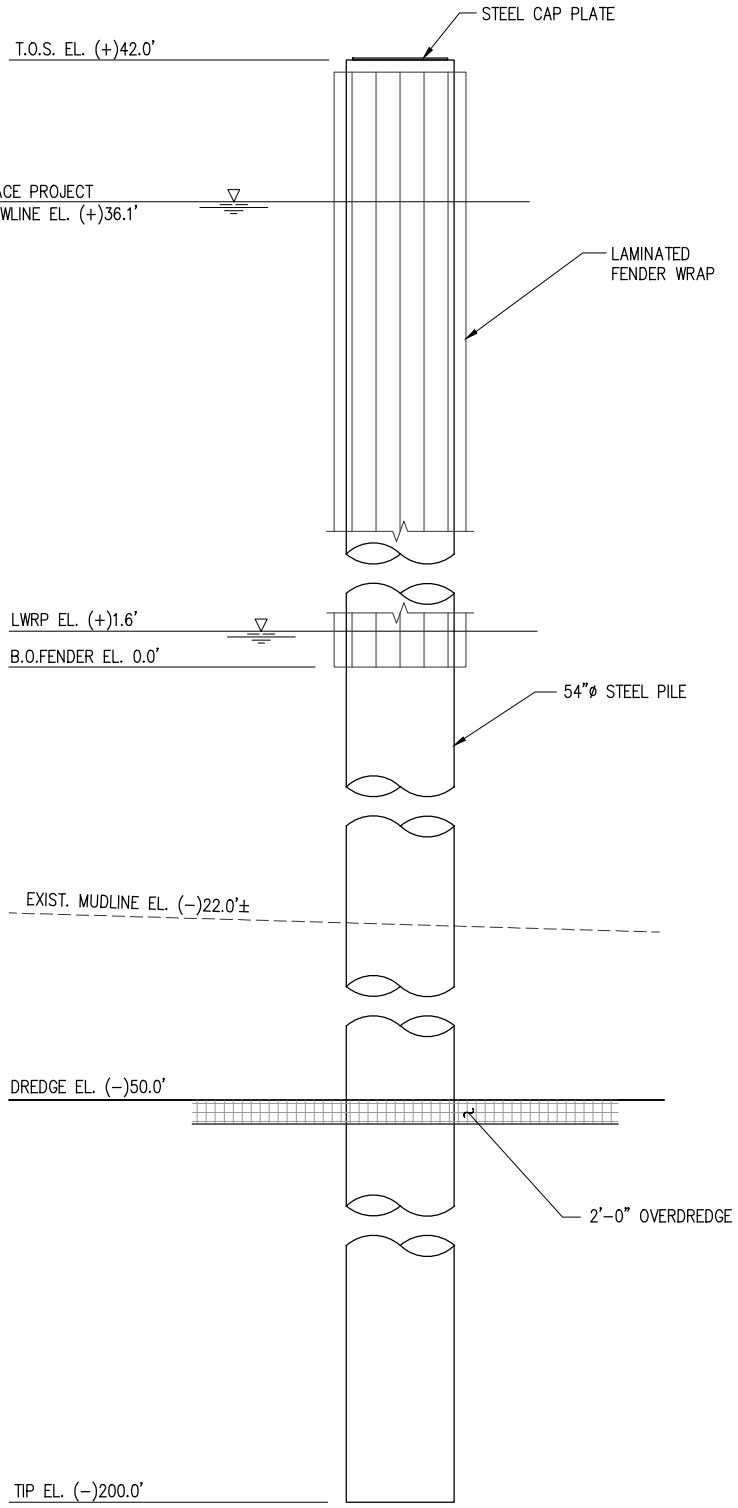
NEW MARINE TERMINAL
SHIP BREASTING DOLPHIN - PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
12 OF 23



BARGE DOLPHIN – PLAN

SCALE: 1/8"=1'–0"



BARGE DOLPHIN – ELEVATION

SCALE: 1/8"=1'–0"
(3 REQUIRED)

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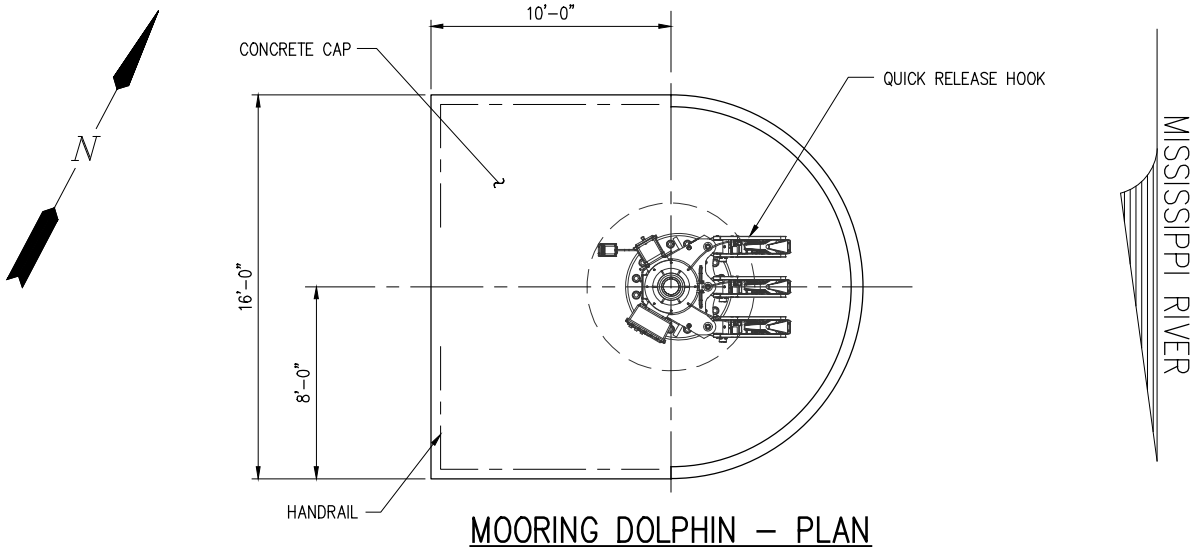
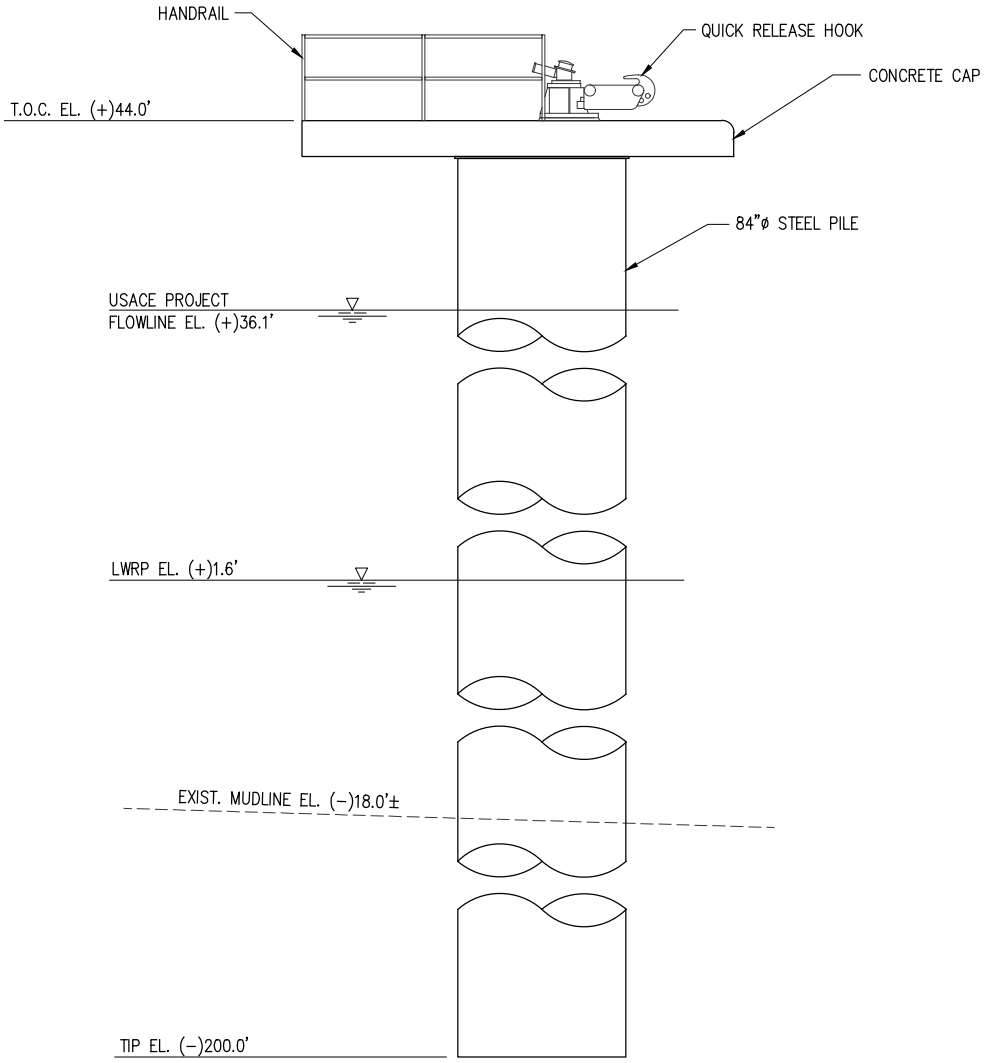
BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
BARGE DOLPHIN PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 13 OF 23



MOORING DOLPHIN – PLAN

SCALE: 1/8"=1'-0"



MOORING DOLPHIN – ELEVATION

SCALE: 1/8"=1'-0"
(6 REQUIRED)

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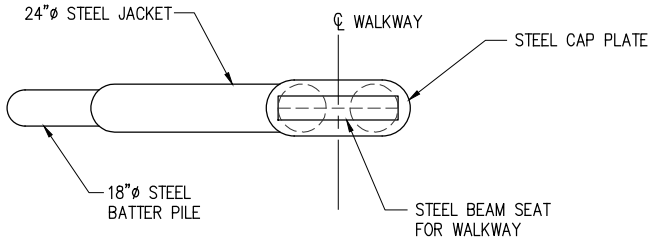
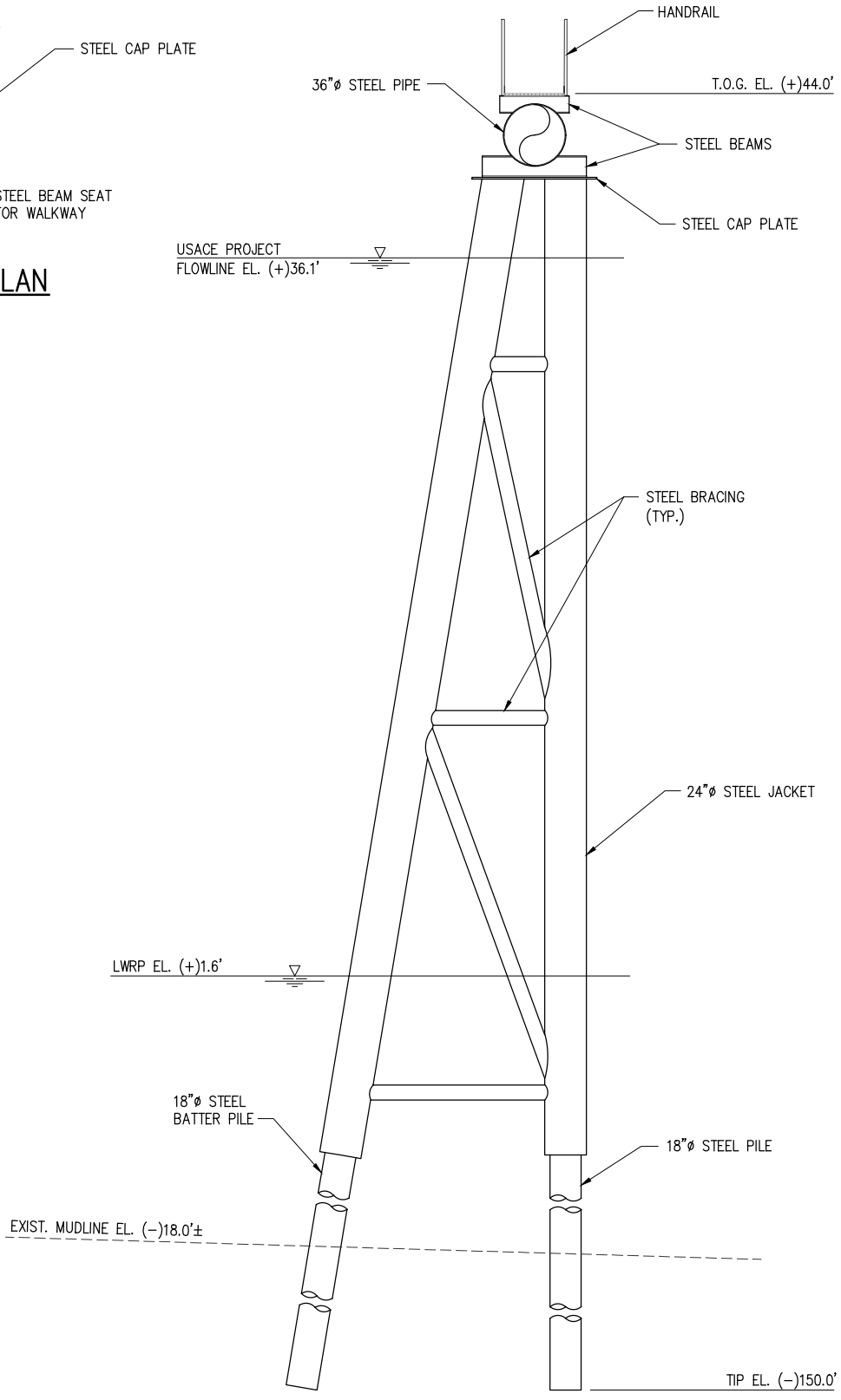
NEW MARINE TERMINAL
MOORING DOLPHIN - PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 14 OF 23



2 PILE WALKWAY BENT – PLAN

SCALE: 1/8"=1'–0"



2 PILE WALKWAY BENT – ELEVATION

SCALE: 1/8"=1'–0"
(12 REQUIRED)

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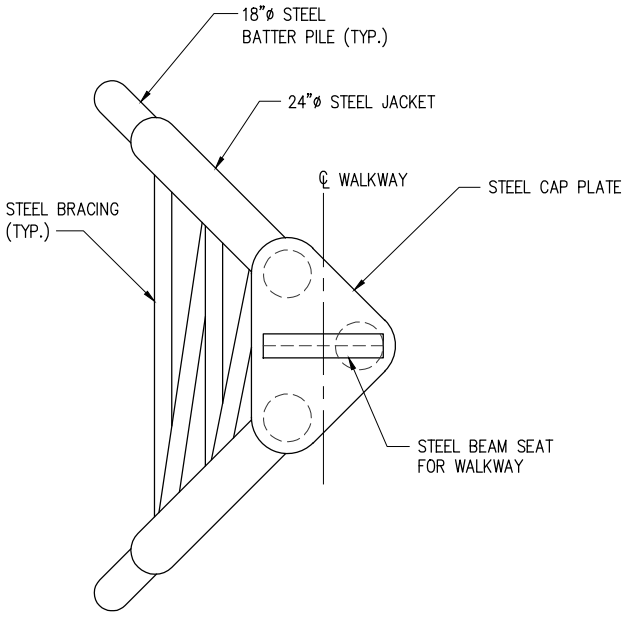
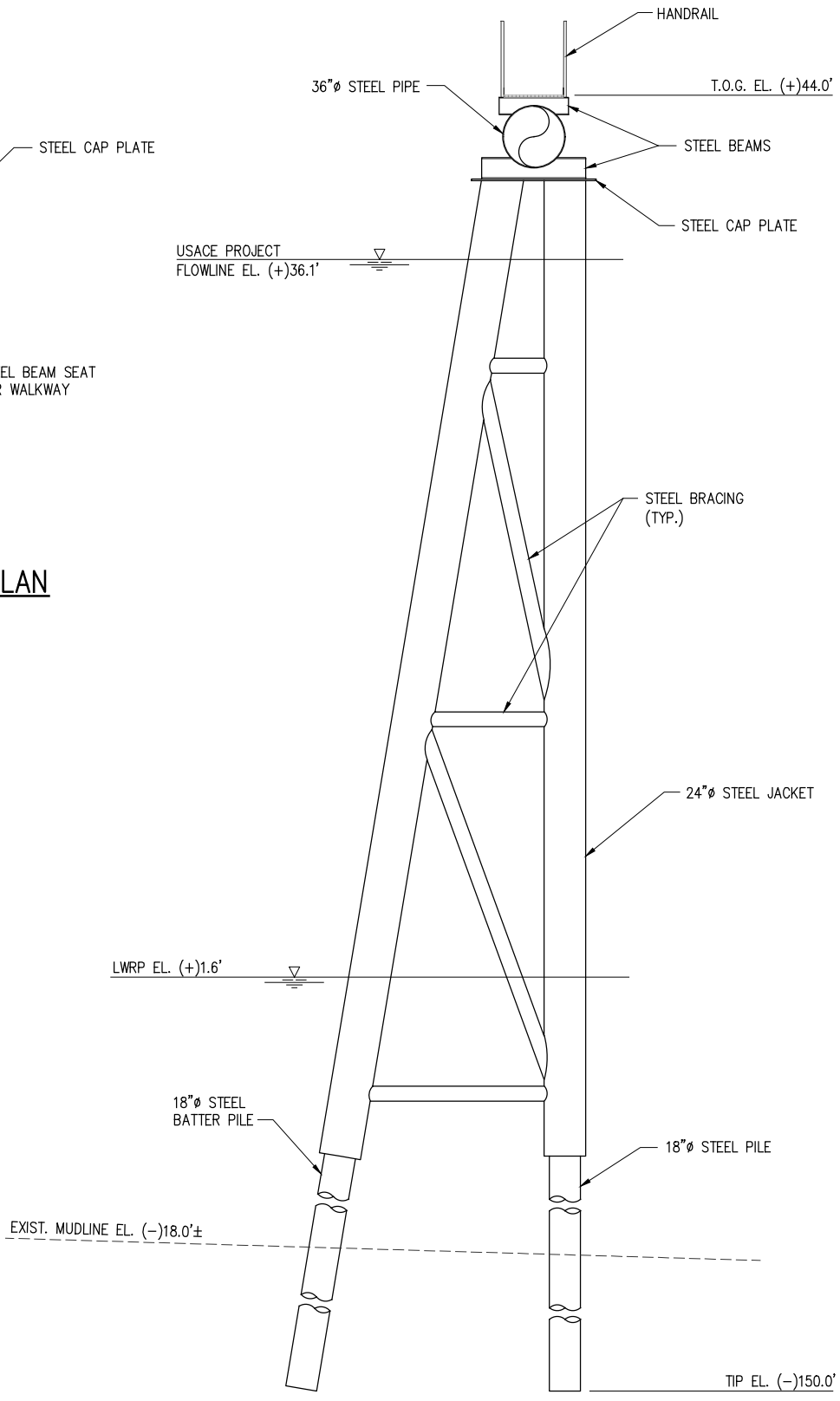
NEW MARINE TERMINAL
2 PILE WALKWAY BENT - PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
15 OF 23



TRIPOD WALKWAY BENT – PLAN

SCALE: 1/8"=1'–0"



TRIPOD WALKWAY BENT – ELEVATION

SCALE: 1/8"=1'–0"
(2 REQUIRED)

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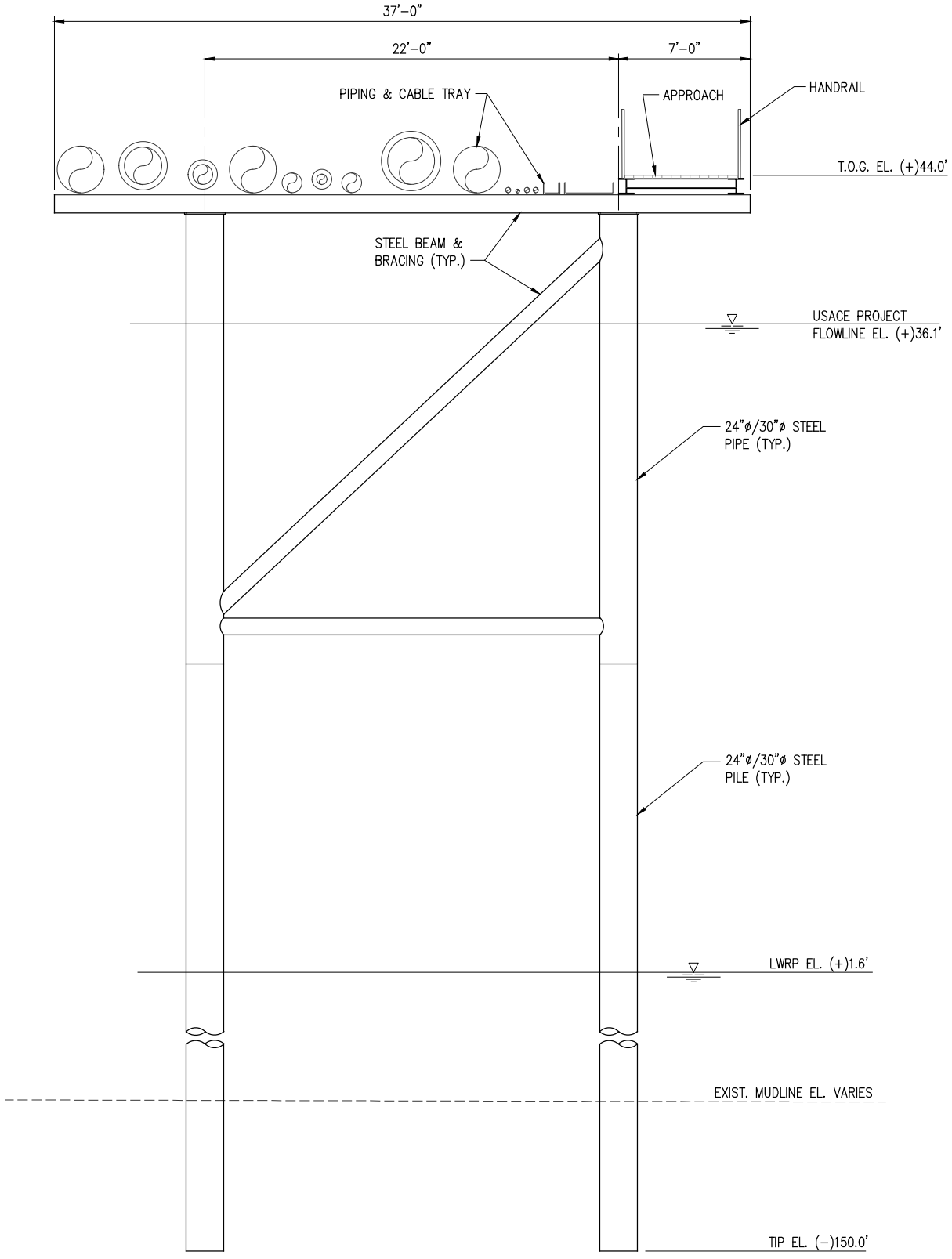
NEW MARINE TERMINAL
TRIPOD WALKWAY BENT - PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 16 OF 23



TYPICAL APPROACH BENT – ELEVATION

SCALE: 1/8"=1'-0"

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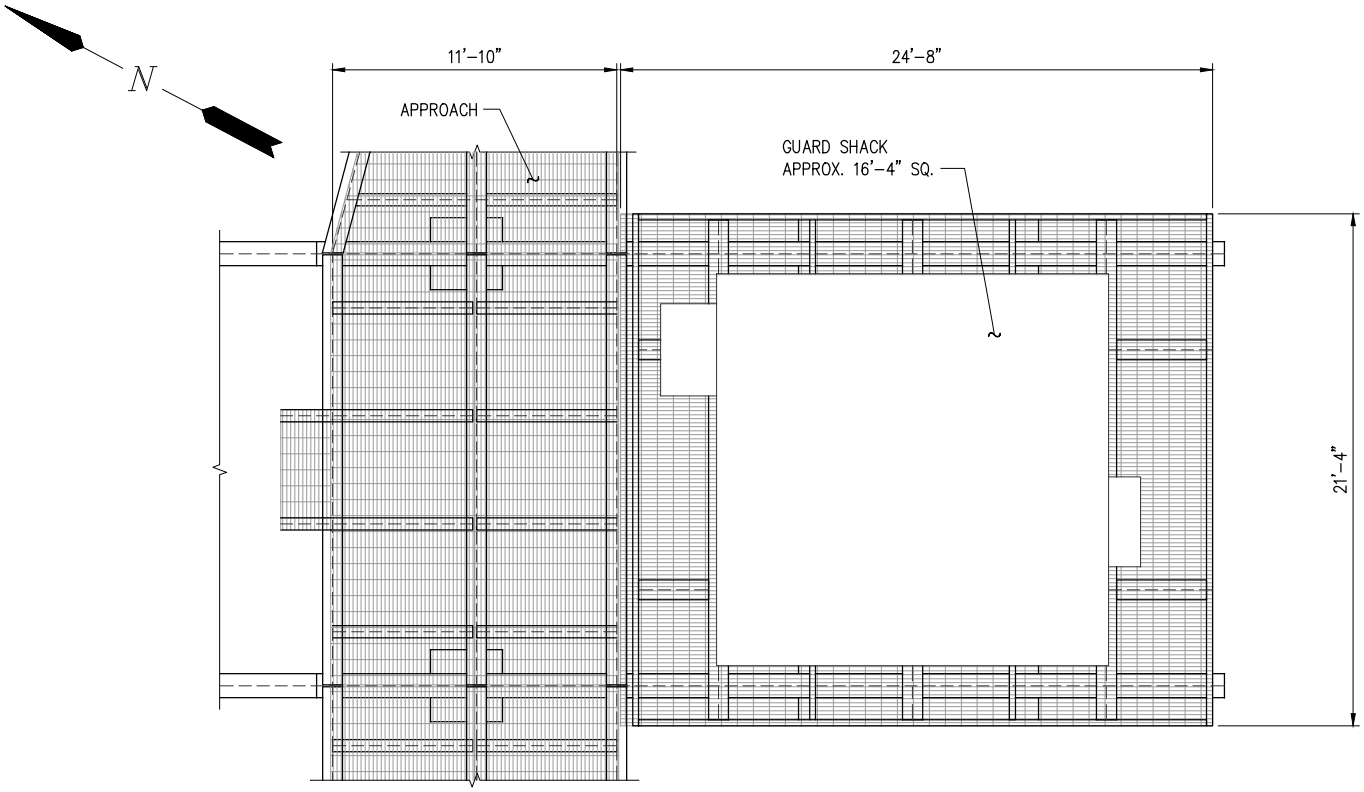
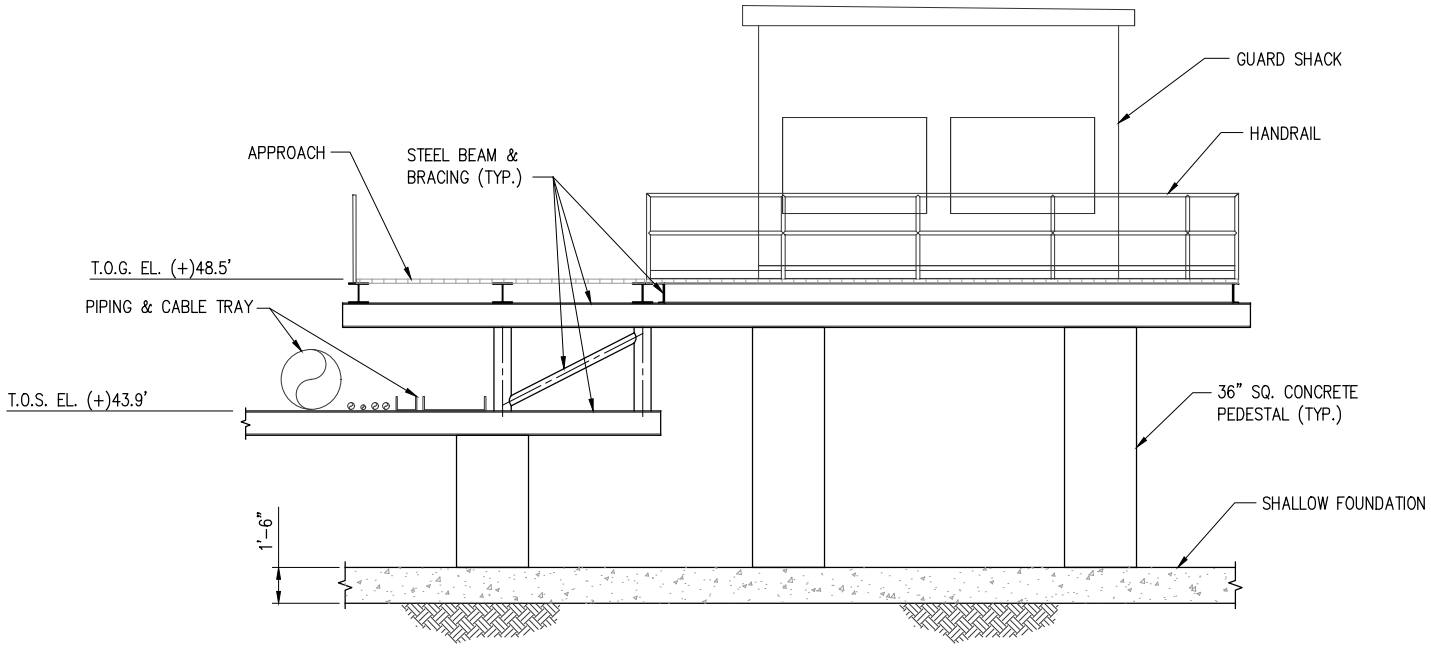
BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
TYPICAL APPROACH BENT ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No. 17 OF 23



GUARD SHACK PLATFORM – PLAN

SCALE: 1/8"=1'-0"



GUARD SHACK PLATFORM – ELEVATION

SCALE: 1/8"=1'-0"

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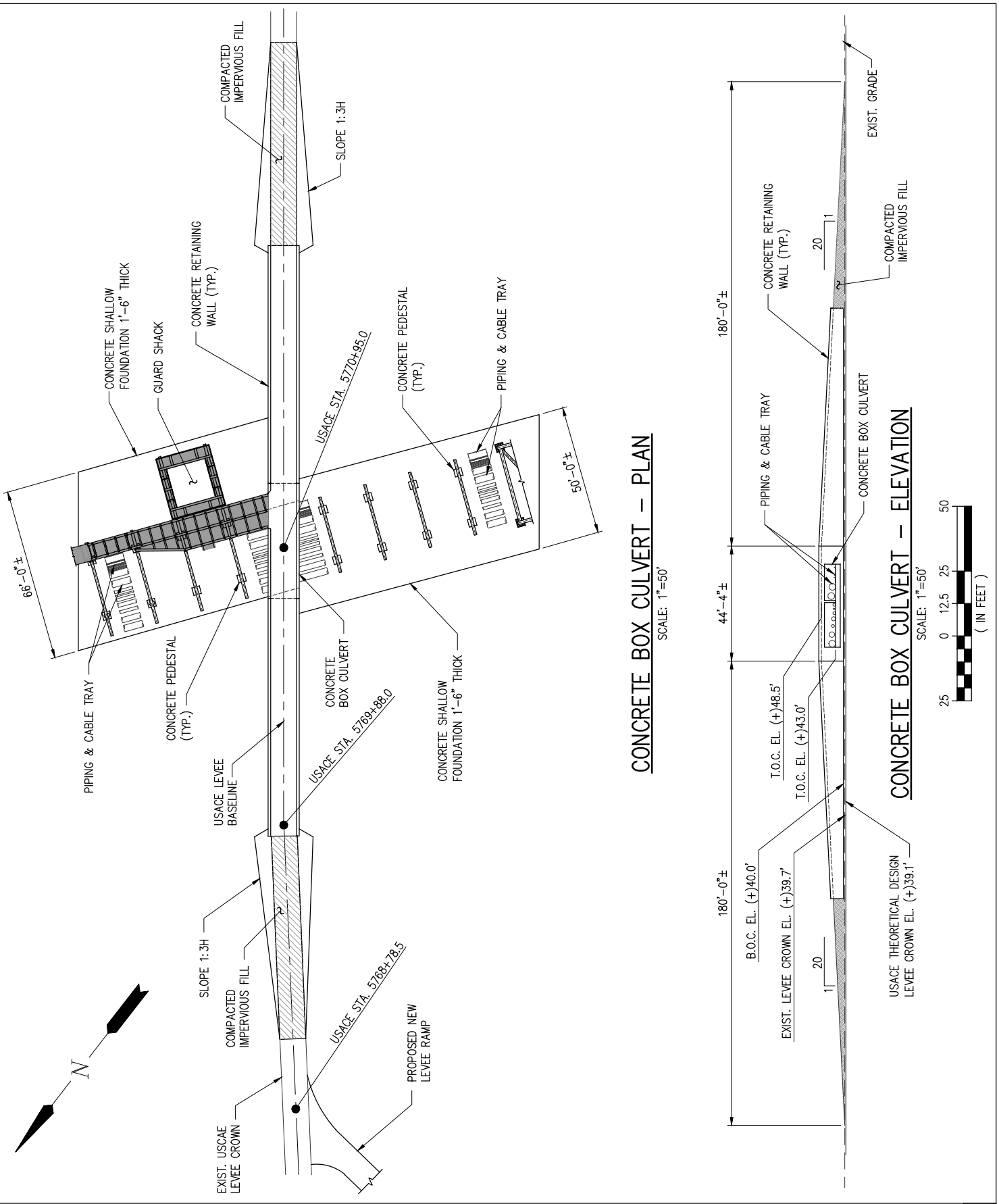
NEW MARINE TERMINAL
GUARD SHACK PLATFORM PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
18 OF 23



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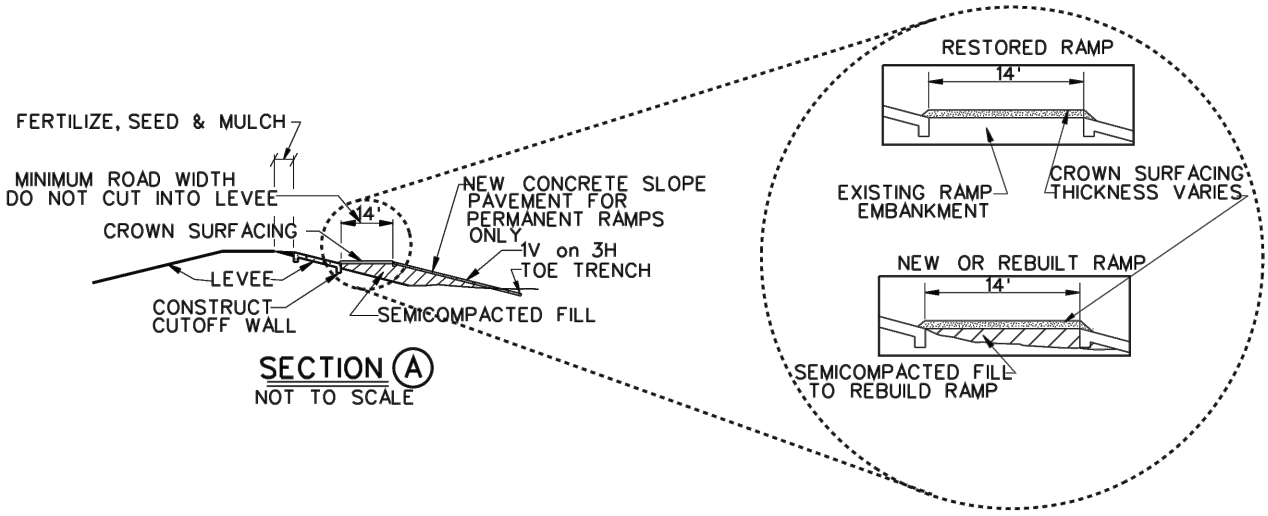
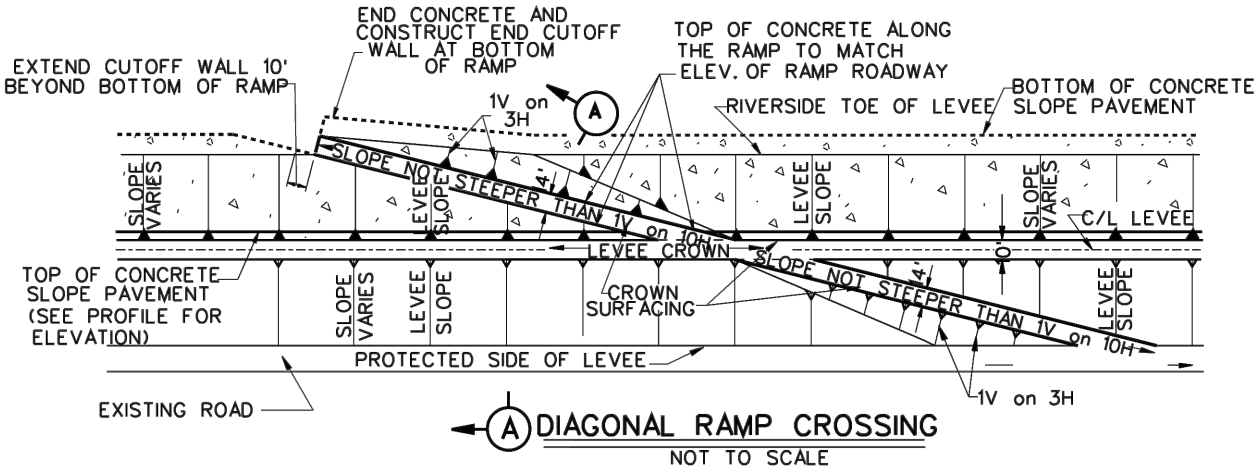
NEW MARINE TERMINAL
BOX CULVERT - PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
19 OF 23





REFERENCE USACE DRAWING:
PIPE LINE CROSSINGS OVER LEVEES AND FLOODWALLS
SURFACE CROSSINGS TYPICAL OF RIVER LEVEES
FILE NUMBER H-8-29027, DRAWING 6 OF 9

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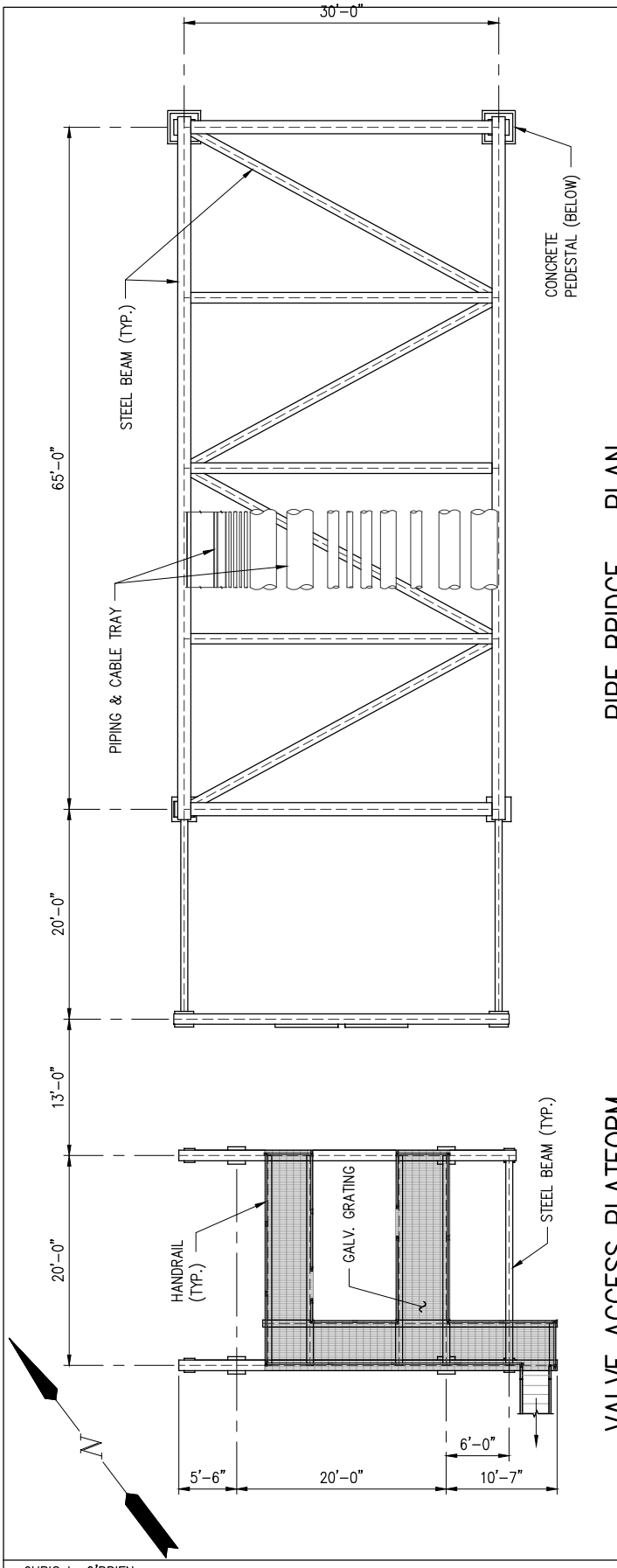
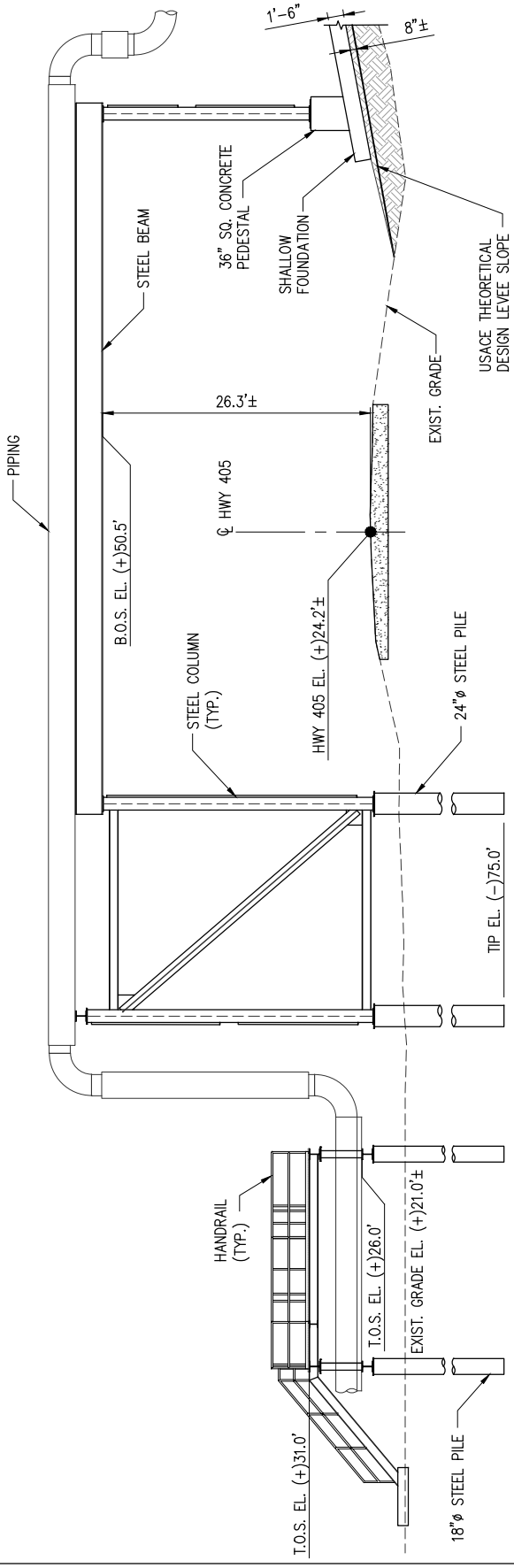
NEW MARINE TERMINAL
USACE LEVEE RAMP CROSSING DETAILS

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
20 OF 23



PIPE BRIDGE – PLAN
SCALE: 1/16"=1'-0"

VALVE ACCESS PLATFORM



PIPE BRIDGE – ELEVATION
SCALE: 1/16"=1'-0"

VALVE ACCESS PLATFORM

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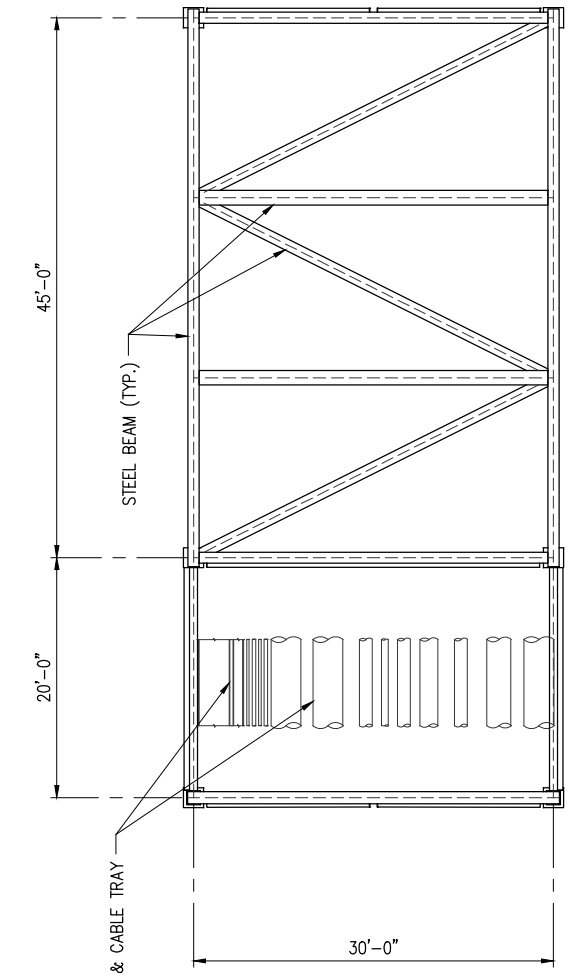
NEW MARINE TERMINAL
PIPE BRIDGE - PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
21 OF 23

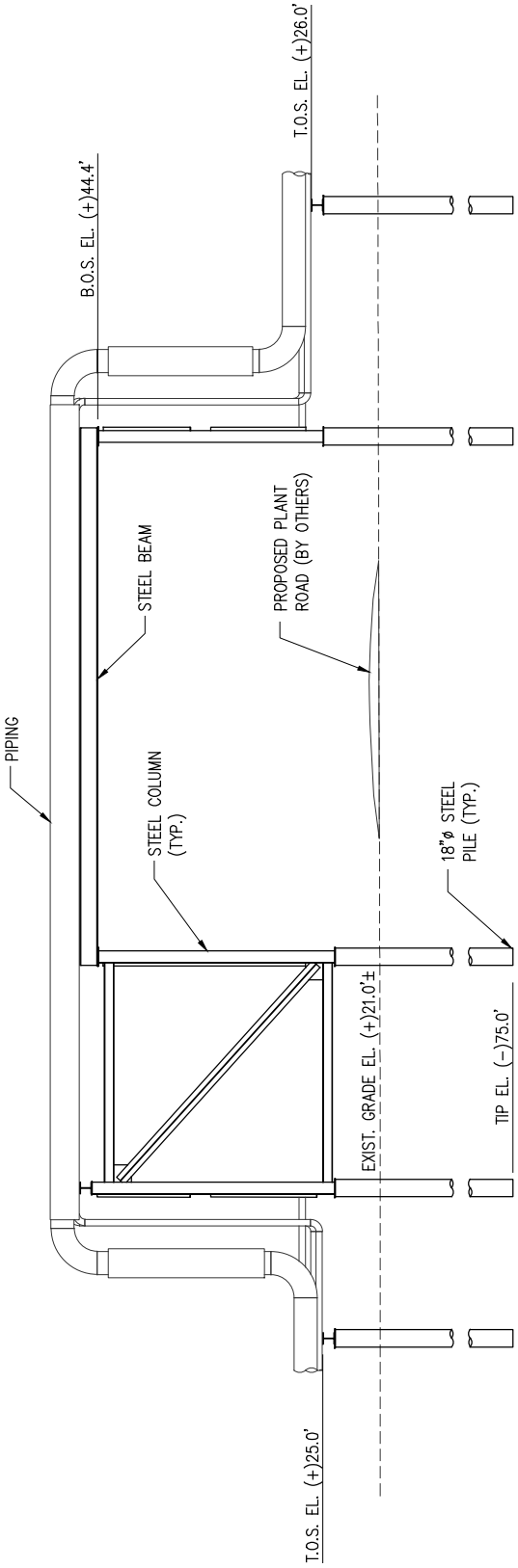
8/8/2023 8:07 AM

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-P21.DWG



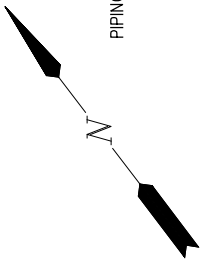
PLANT ROAD CROSSING – PLAN

SCALE: 1/16"=1'-0"



PLANT ROAD CROSSING – ELEVATION

SCALE: 1/16"=1'-0"



CHRIS L. O'BRIEN
LA PE #33945

PRELIMINARY - FOR PERMIT PURPOSES ONLY

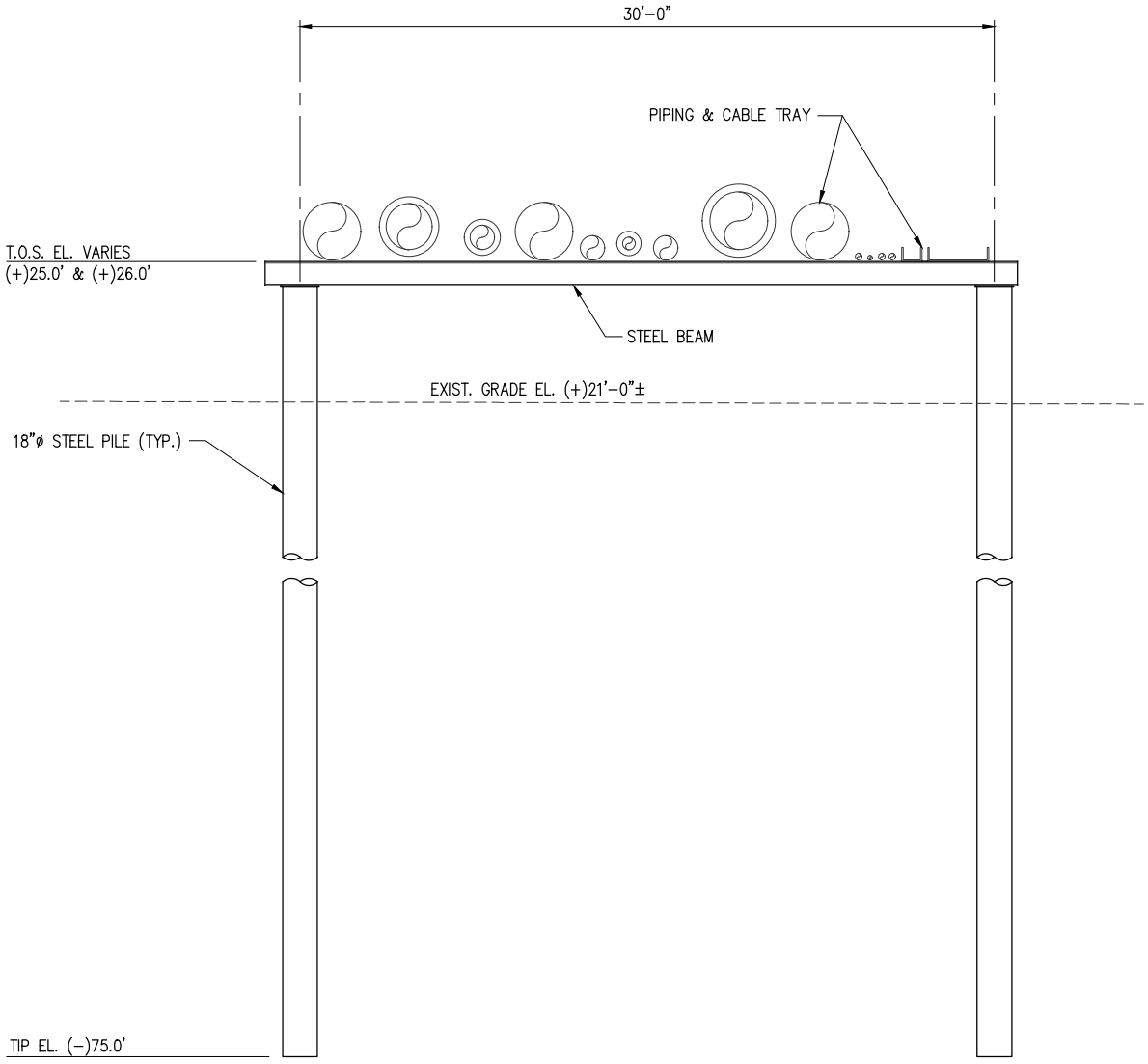
REV A

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
PLANT ROAD CROSSING PLAN & ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
22 OF 23



TYPICAL PIPE RACK – ELEVATION

SCALE: 1/8"=1'-0"

CHRIS L. O'BRIEN
LA PE #33945

PRELIMINARY - FOR PERMIT PURPOSES ONLY

REV A

LANIER & ASSOCIATES
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INCORPORATED
LA: EF-1120 TX: F-2981
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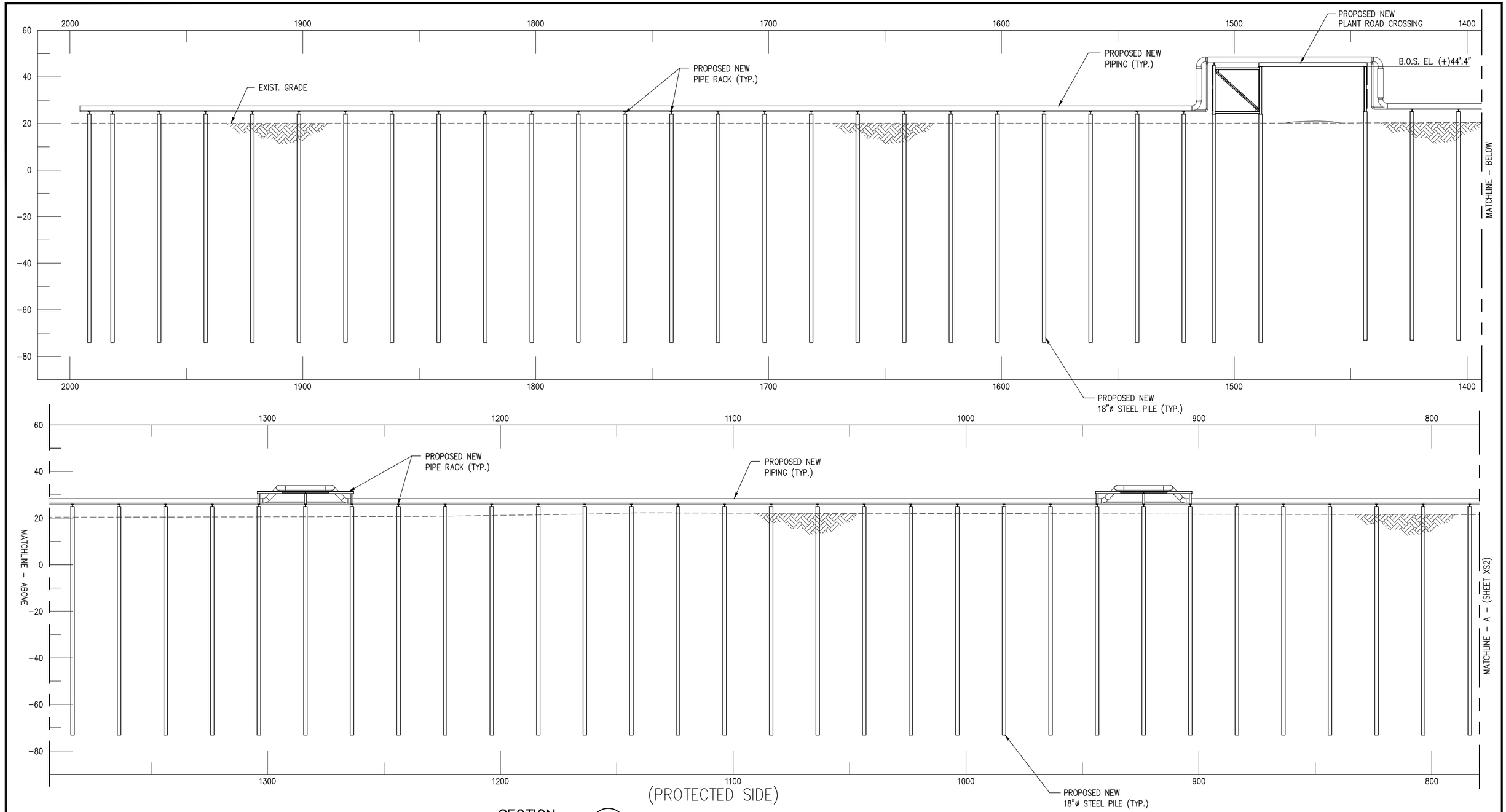
CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
TYPICAL PIPE RACK ELEVATION

DATE DEC. 22'
DESIGN ETW
DRAWN TPM
CHECK CLO
JOB NO 12117
SHEET No.
23 OF 23



SECTION A/3
SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF–1120 TX: F–2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

REV	DATE	BY	DESCRIPTION
*			

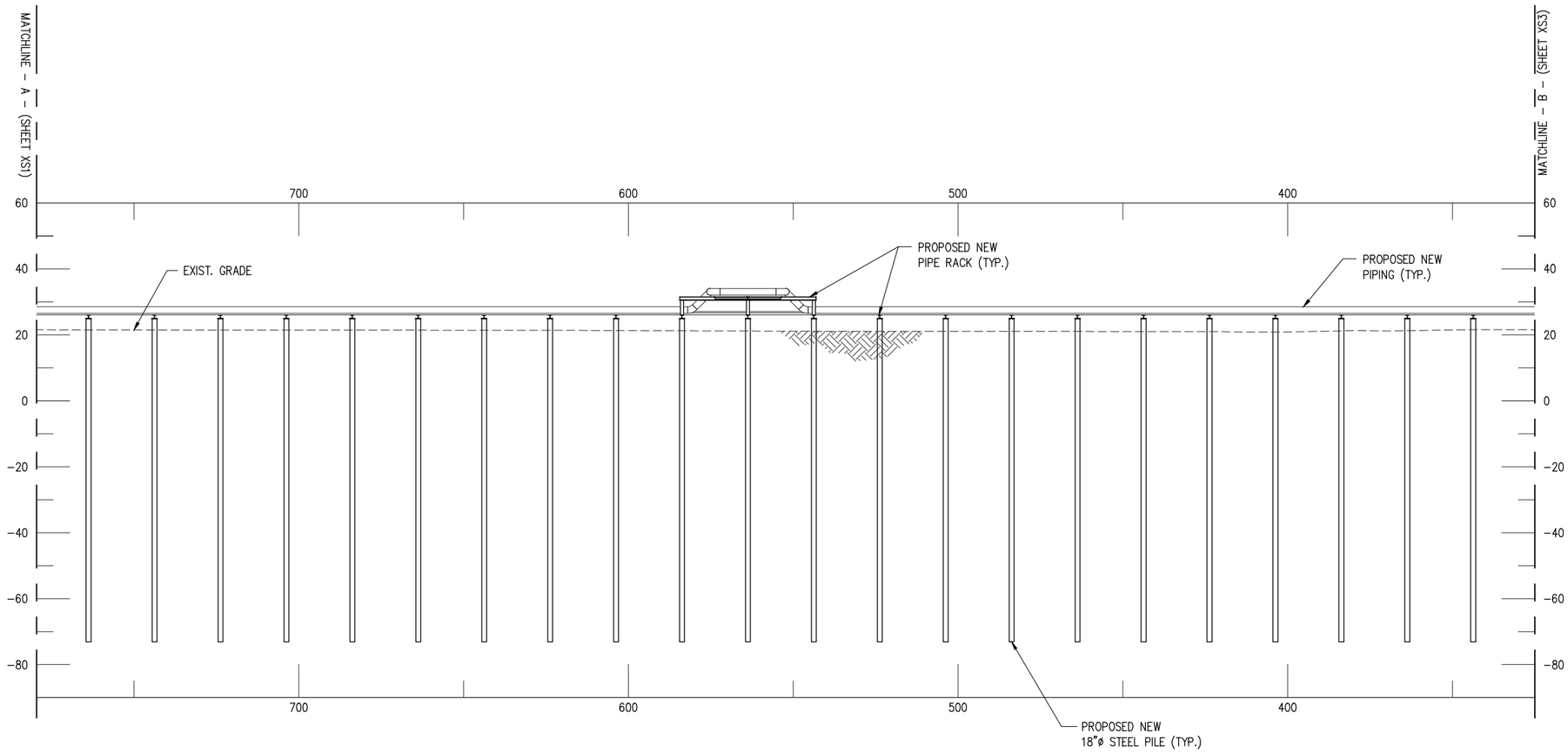
REV	DATE	BY	DESCRIPTION
*			

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (1 OF 7)

SHEET NO.
XS1



(PROTECTED SIDE)

SECTION A/3
SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

* REV	DATE	BY	DESCRIPTION

* REV	DATE	BY	DESCRIPTION

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (2 OF 7)

SHEET NO.
XS2

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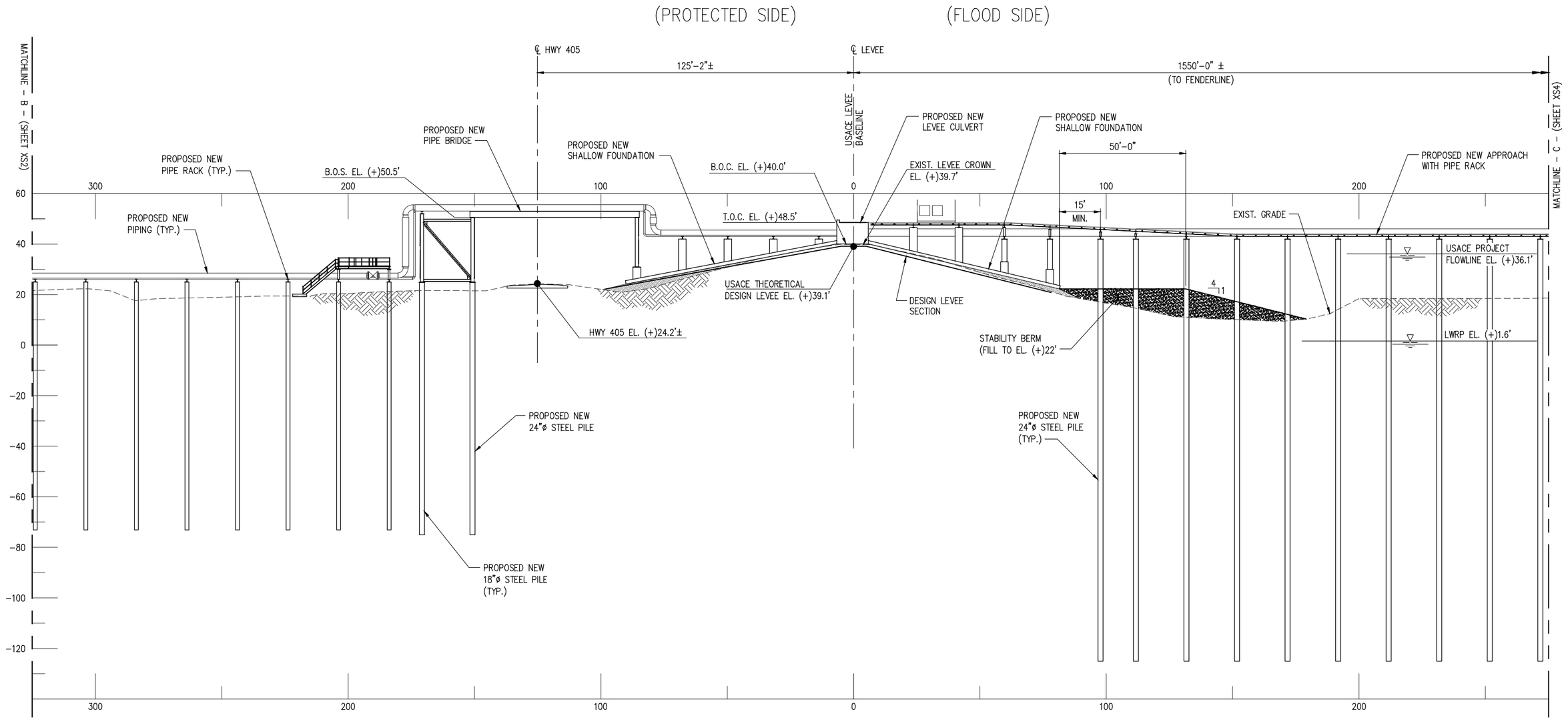
8/8/2023 8:02 AM



SECTION A/3
SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

* REV	DATE	BY	DESCRIPTION

* REV	DATE	BY	DESCRIPTION

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

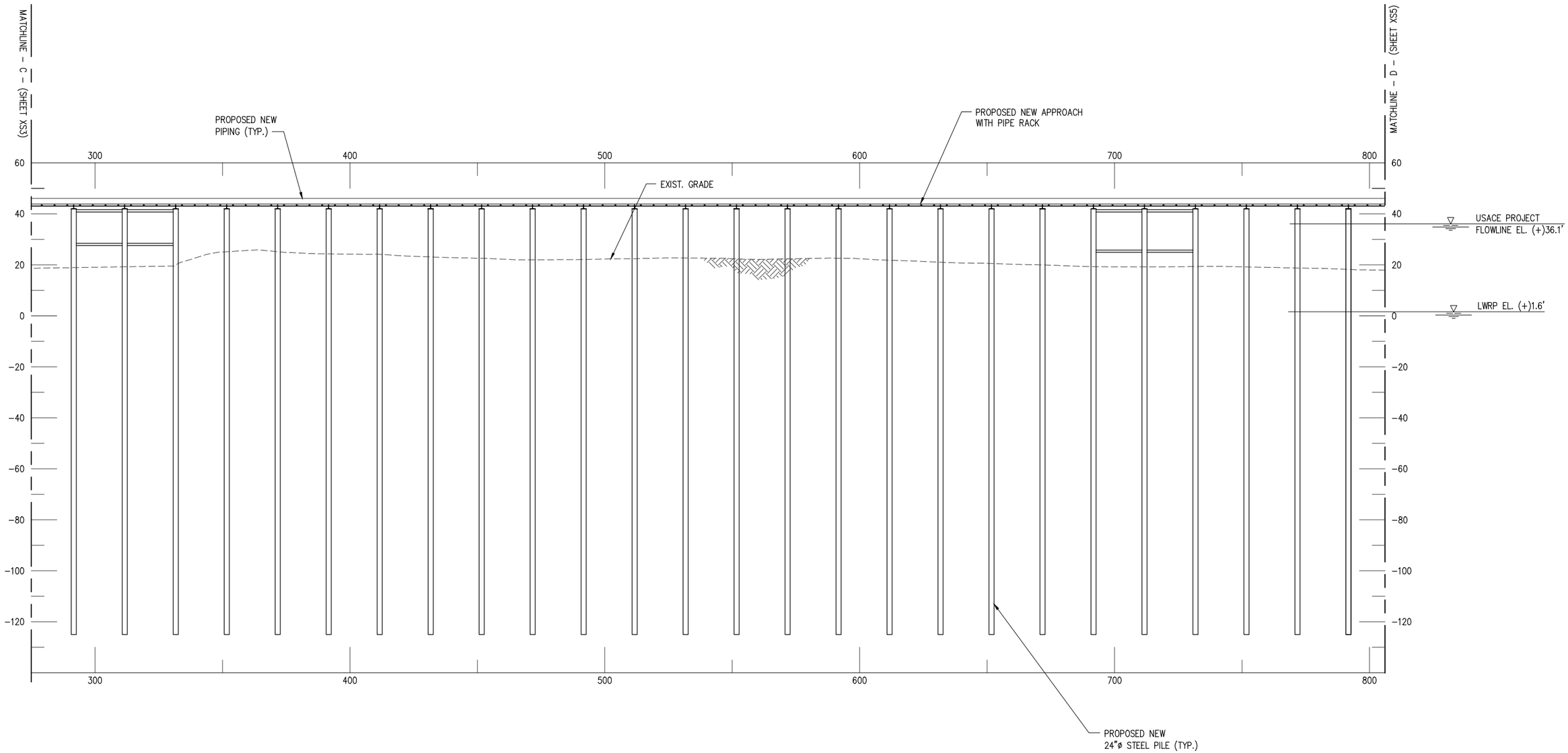
CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (3 OF 7)

SHEET NO.
XS3

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-PXS.DWG

8/8/2023 8:02 AM



(FLOOD SIDE)

SECTION A/3
SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

* REV	DATE	BY	DESCRIPTION

* REV	DATE	BY	DESCRIPTION

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (4 OF 7)

SHEET NO.
XS4

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-PXS.DWG

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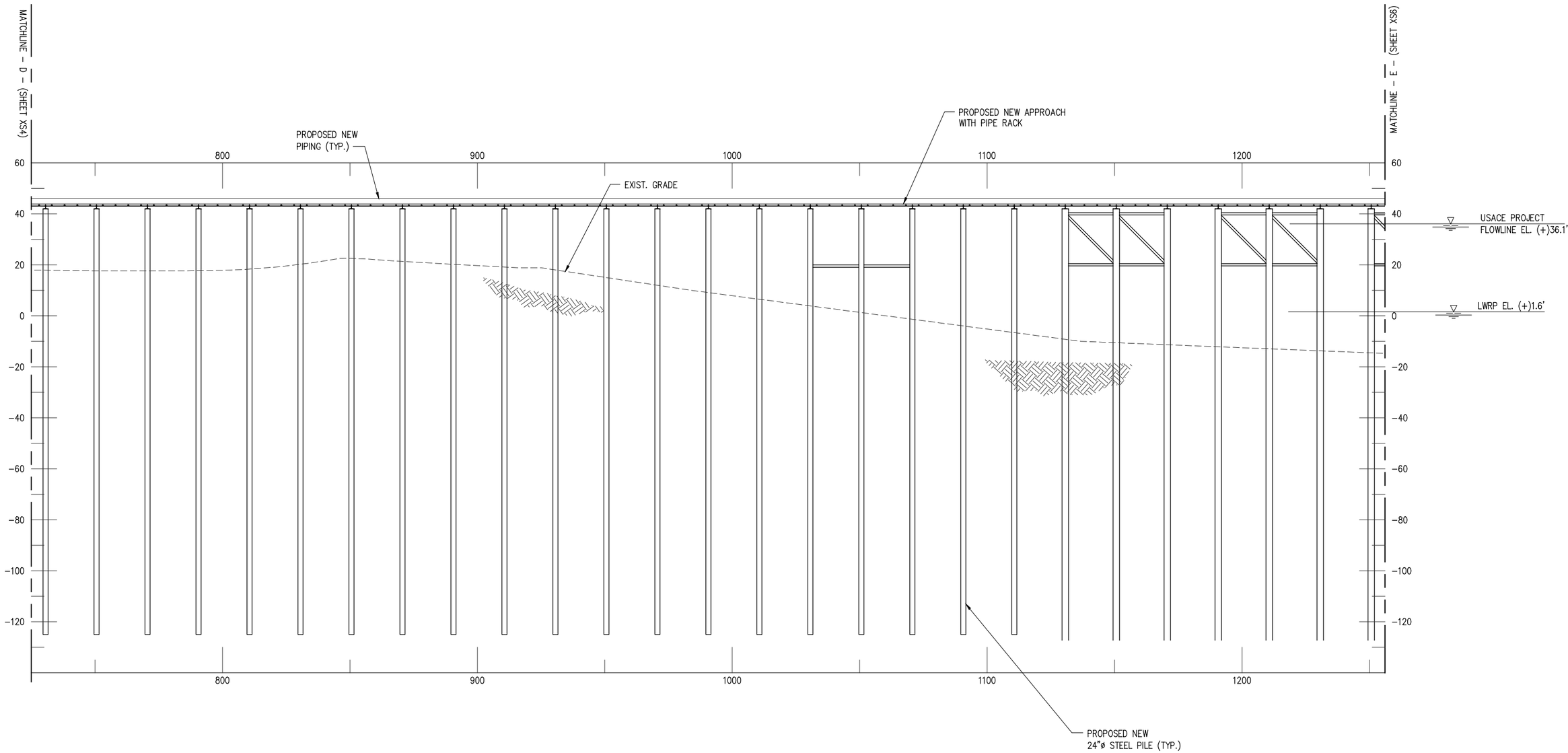

SECTION A/3
SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

* REV	DATE	BY	DESCRIPTION

* REV	DATE	BY	DESCRIPTION

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (5 OF 7)

SHEET NO.
XS5

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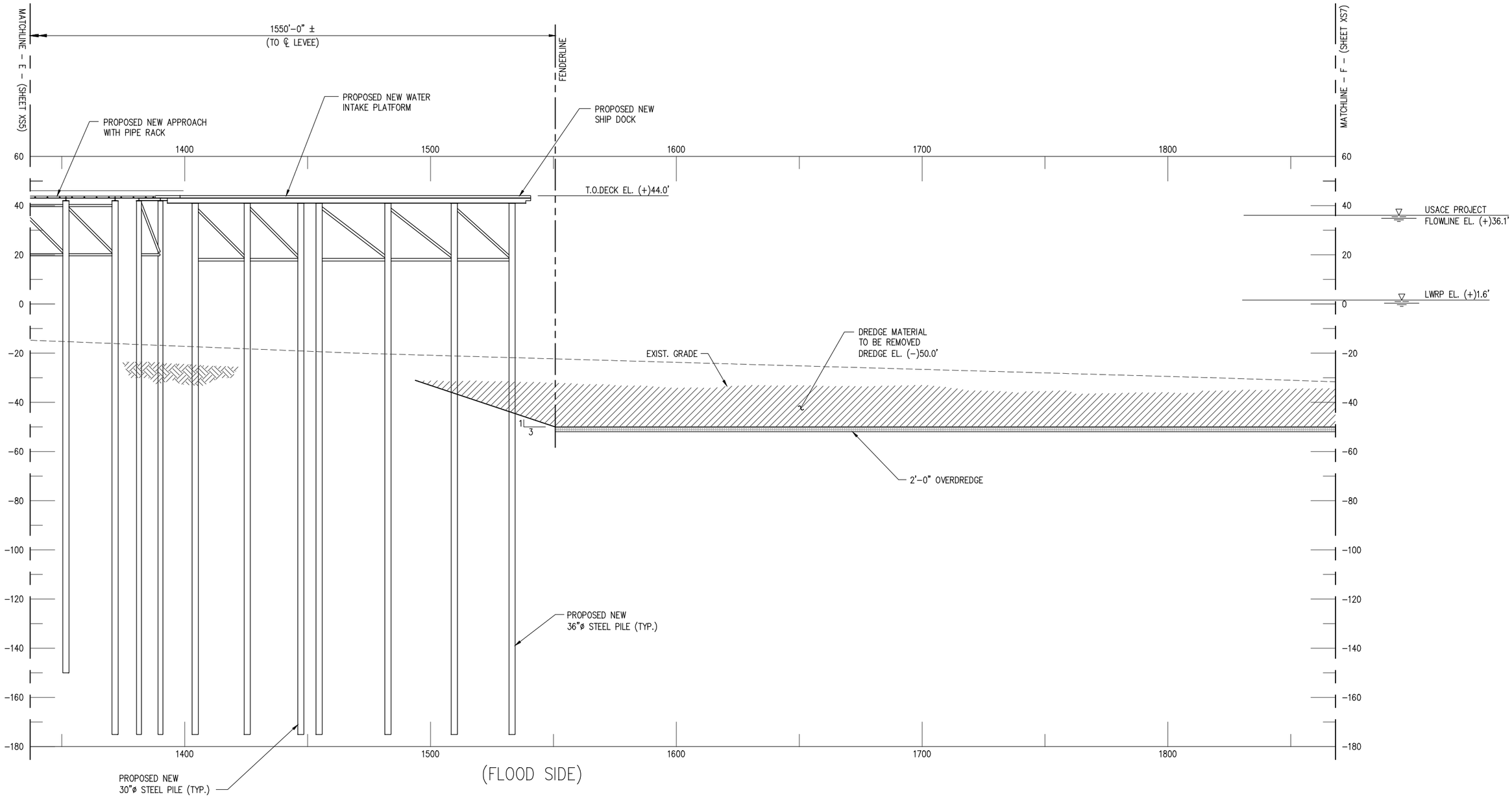
8/8/2023 8:02 AM



SECTION A/3

SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF-1120 TX: F-2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

* REV	DATE	BY	DESCRIPTION

* REV	DATE	BY	DESCRIPTION

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (6 OF 7)

SHEET NO.
XS6

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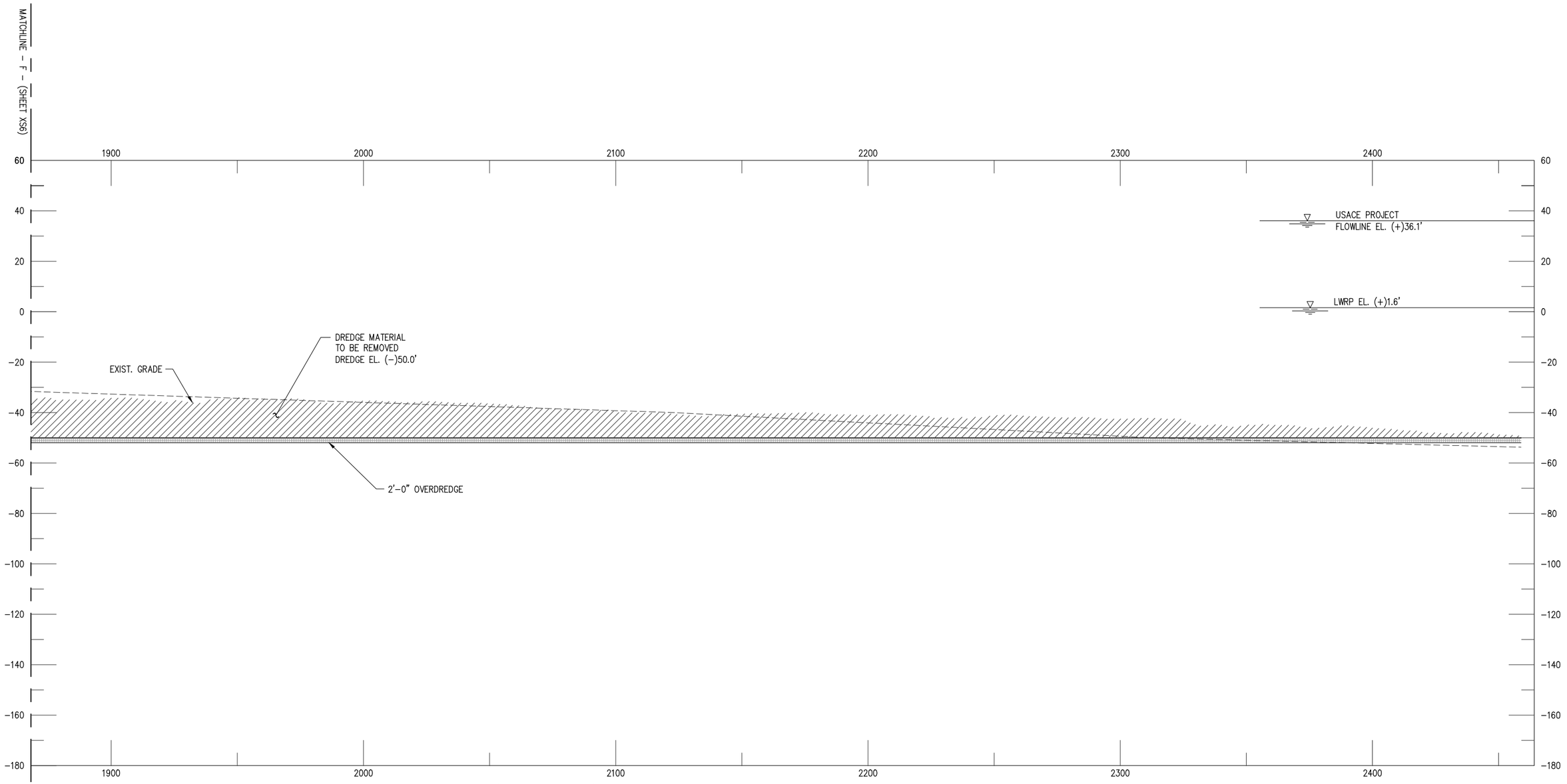
8/8/2023 8:02 AM



SECTION A/3

SCALE: 1"=40'
(SECTION @ APPROACH)

20 0 10 20 40
(IN FEET)

CHRIS L. O'BRIEN P.E.
33945

PRELIMINARY - FOR PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION

LANIER & ASSOCIATES
CONSULTING ENGINEERS
INCORPORATED
LA: EF−1120 TX: F−2981
NEW ORLEANS • BEAUMONT • CORPUS CHRISTI • HOUSTON

* REV	DATE	BY	DESCRIPTION

* REV	DATE	BY	DESCRIPTION

DATE DEC. 22'
SHT SIZE 11"x17"
DESIGN ETW
DRAWN TPM
CHECK CLO
APPR'D JTM
JOB NO 12117

CF INDUSTRIES BLUE POINT, LLC
ASCENSION PARISH LOUISIANA

BLUE AMMONIA PLANT PROJECT
NEW MARINE TERMINAL
CROSS SECTION @ APPROACH (7 OF 7)

SHEET NO.
XS7

J:\12000S\12117 CFIND NEW AMMONIA DOCK\DRAWINGS\PERMIT\12117-PXS.DWG

CF INDUSTRIES LOCATION MAP
Scale: SHOWN

0 200 400 800 Feet
1:2400

SHEET INDEX

MARK	DESCRIPTION	DATE

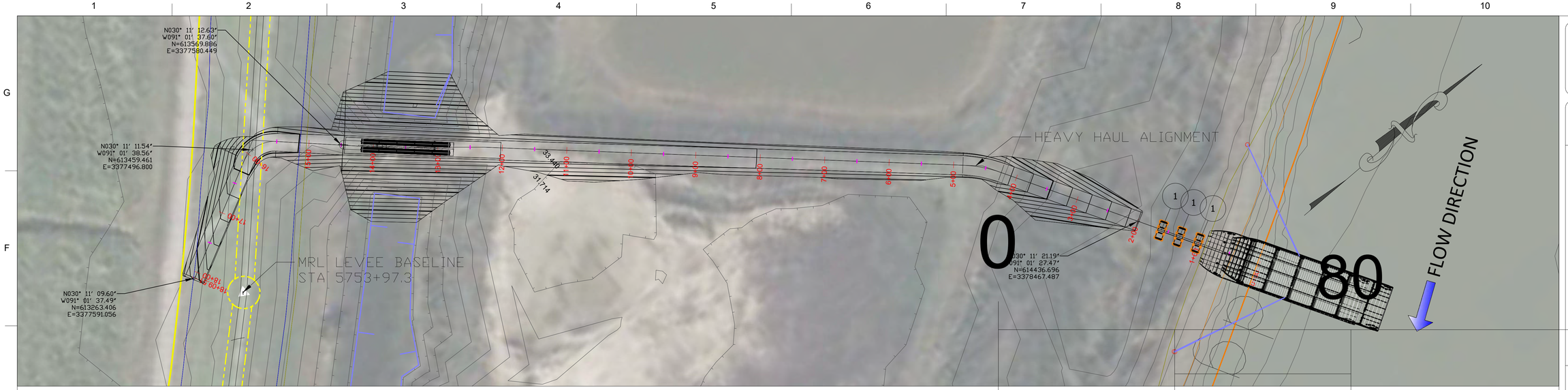
DESIGNED BY: D.O'REILLY
DRAWN BY: D.O'REILLY
CHECKED BY: TV/KC
SUBMITTED BY: D.O'REILLY
SIZE: 34x22
ISSUE DATE: 02-15-2019
ALE PROJECT NO: AA6515-02
CONTRACT NO.:

O'REILLY ENGINEERING
518 SOUTH RAMPART STREET
NEW ORLEANS, LA 70113

CF INDUSTRIES
PROPOSED HEAVY HAUL CROSSING
MRL STA 5753+00

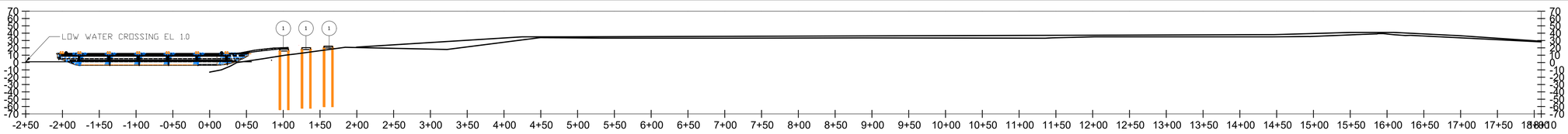
SHEET ID
G.2

PRELIMINARY



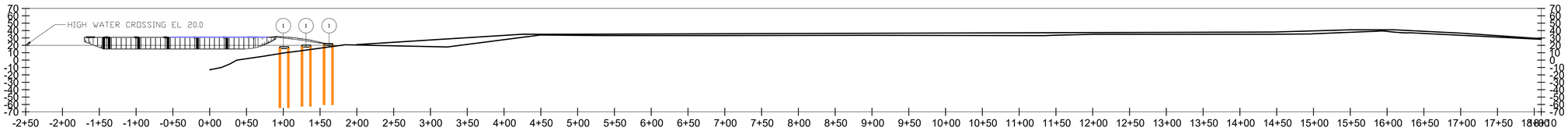
CF INDUSTRIES ALTERNATE ALIGNMENT 1

Scale: SHOWN



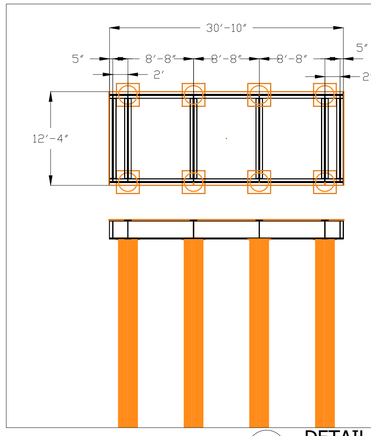
CF INDUSTRIES LOW WATER CROSSING

Scale: SHOWN



CF INDUSTRIES HIGH WATER CROSSING

Scale: SHOWN



PILE BENT MATERIALS - 9 REQUIRED

MEMBER	SIZE	LENGTH	QTY
BEAMS-	W30X99	30'	2
	W30X99	12'	6
ST PLATES-	3/4" ST PLATES/BENT		8
PILE CAPS-	3x3x3/4"		8
PILES-	24" Ø X 3/8" WALL PIPE	60'	8

1 DETAIL 1 - TYPICAL PILE BENT

Scale: 1:10

MARK	DESCRIPTION	DATE

ISSUE DATE: 02-15-2019
ALE PROJECT NO.: AA65515-02
CONTRACT NO.:

DESIGNED BY: D O'REILLY
DRAWN BY: D O'REILLY
CHECKED BY: TV/KC
SUBMITTED BY: D O'REILLY
SIZE: 34x22

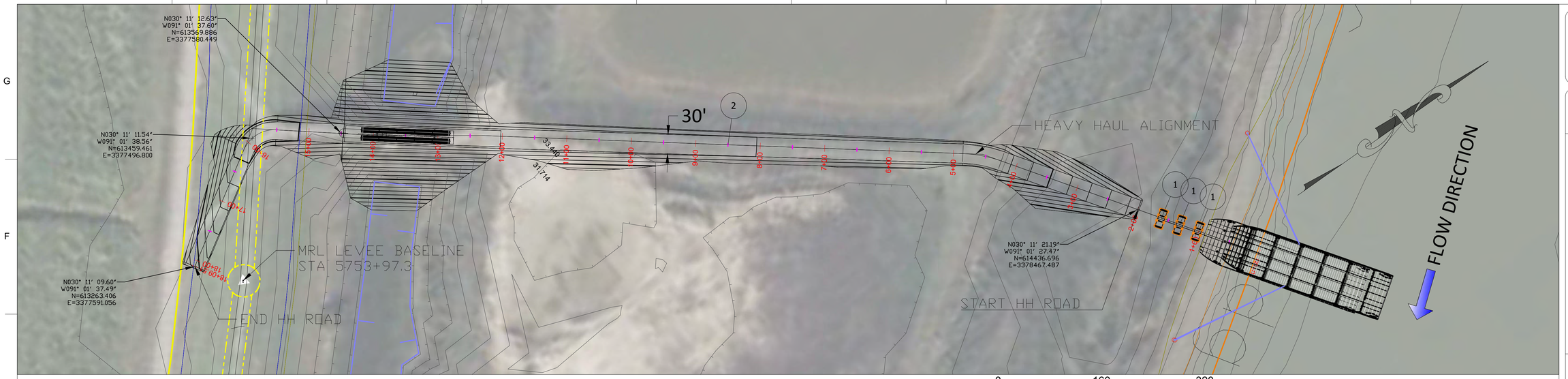
1:9

O'REILLY ENGINEERING
518 SOUTH RAMPART STREET
NEW ORLEANS, LA 70113

CF INDUSTRIES
PROPOSED HEAVY HAUL CROSSING
MRL STA 5753+00

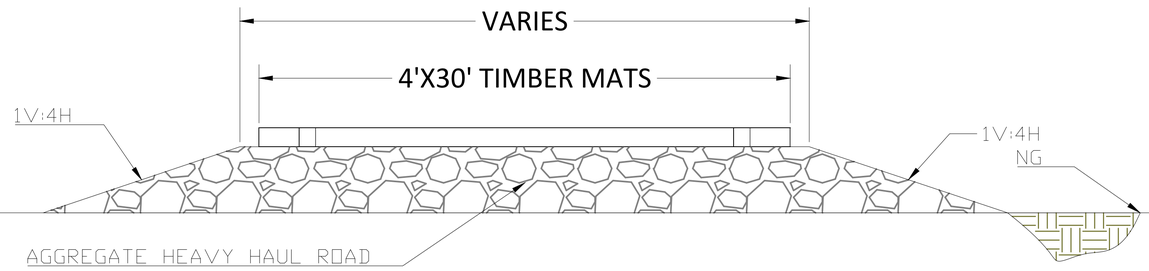
SHEET ID
G.3

PRELIMINARY



CF INDUSTRIES ALTERNATE ALIGNMENT 1
Scale: SHOWN

0 80 160 320 Feet
1:960



2 DETAIL 2 - TYPICAL HEAVY HAUL ROAD SECTION
Scale: 1:4

Name	Cut Factor	Fill Factor	2d Area	Cut(adjusted)	Fill(adjusted)	Net(adjusted)	Net Total Fill	
VOL ROUTE 1	1	1.4	47844 ft^2	0 yd^3	8368 yd^3	8368 yd^3		
VOL ROUTE 1 GRADING	1	1.4	70926 ft^2	0 yd^3	20142 yd^3	20142 yd^3	28510 yd^3	ALIGNMENT 1

MARK	DESCRIPTION	DATE

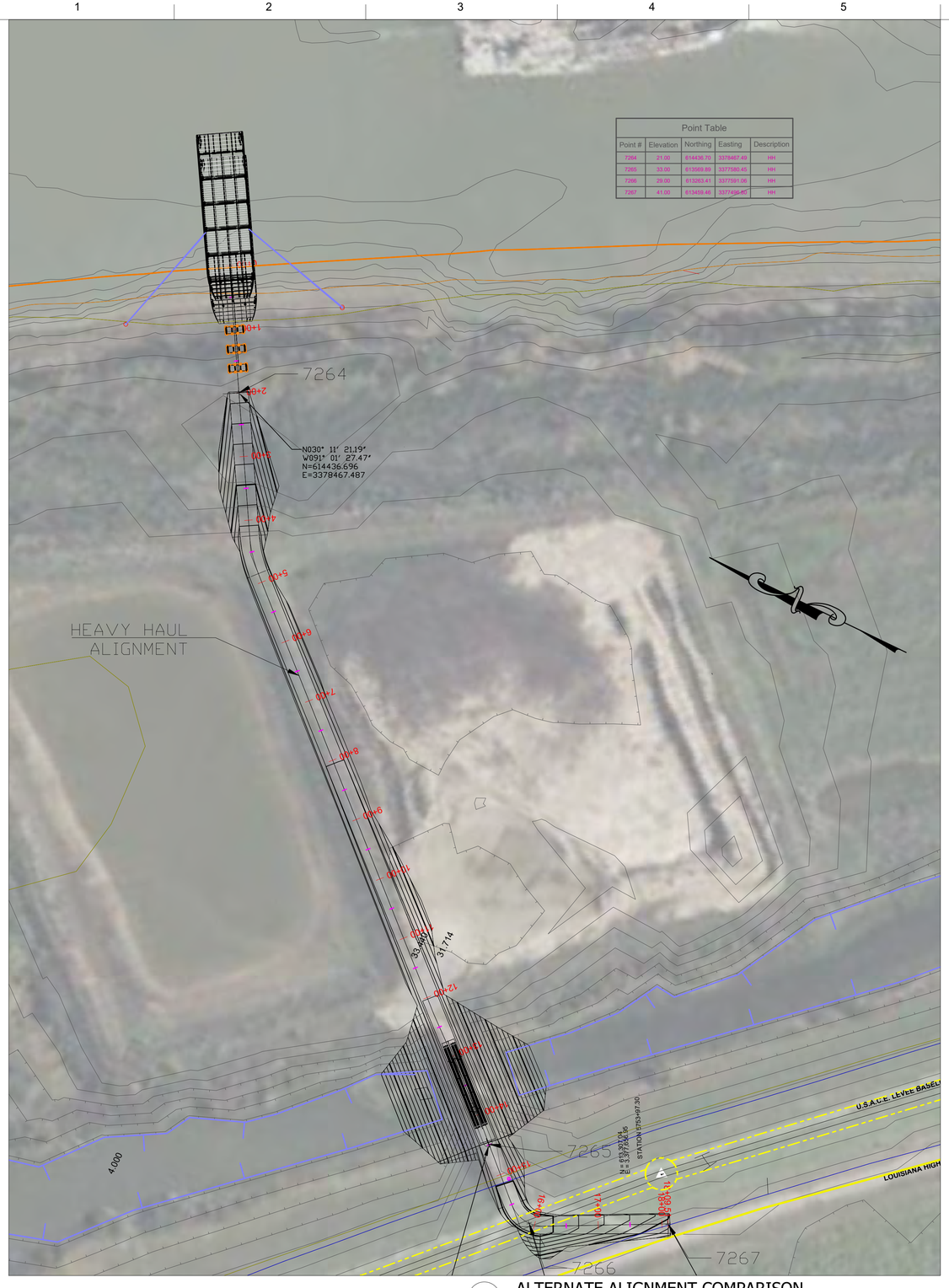
DESIGNED BY: D O'REILLY
DRAWN BY: D O'REILLY
CHECKED BY: TV/KC
SUBMITTED BY: D O'REILLY
ISSUE DATE: 02-15-2019
ALE PROJECT NO.: AA65515-02
CONTRACT NO.:
SIZE: 34x22

O'REILLY ENGINEERING
518 SOUTH RAMPART STREET
NEW ORLEANS, LA 70113

CF INDUSTRIES
PROPOSED HEAVY HAUL CROSSING
MRL STA 5753+00

SHEET ID
G.4

PRELIMINARY



ALTERNATE ALIGNMENT COMPARISON
Scale: 1:100

Name	Cut Factor	Fill Factor	2d Area	Cut(adjusted)	Fill(adjusted)	Net(adjusted)	Net Total Fill
VOL ROUTE 1	1	1.4	47844 ft^2	0 yd^3	8368 yd^3	8368 yd^3	
VOL ROUTE 1 GRADING	1	1.4	70926 ft^2	0 yd^3	20142 yd^3	20142 yd^3	28510 yd^3 ALIGNMENT 1

CUT/FILL VOLUMES

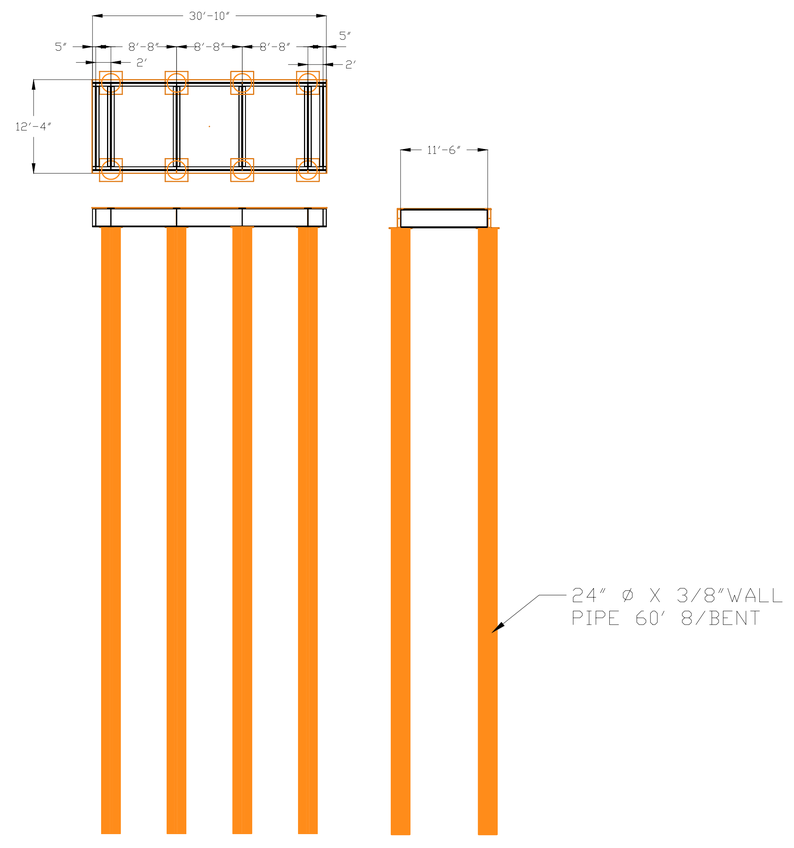
ALIGNMENT TABLE

Number	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Direction	End Direction	PI Station
1	Line	424.791'		S59° 46' 44.60"W	0+00.00'	4+24.79'						
2	Curve	60.813'	200.000'		4+24.79'	4+85.60'	017.4215 (d)	60.579'	S51° 04' 05.83"W	S59° 46' 44.60"W	S42° 21' 27.06"W	4+55.43'
3	Line	738.417'		S42° 21' 27.06"W	4+85.60'	12+24.02'						
4	Curve	7.504'	200.000'		12+24.02'	12+31.53'	002.1497 (d)	7.504'	S41° 16' 57.55"W	S42° 21' 27.06"W	S40° 12' 28.03"W	12+27.77'
5	Line	153.087'		S40° 12' 28.03"W	12+31.53'	13+84.61'						
6	Curve	11.141'	200.000'		13+84.61'	13+95.75'	003.1917 (d)	11.140'	S41° 48' 13.10"W	S40° 12' 28.03"W	S43° 23' 58.17"W	13+90.18'
7	Line	154.890'		S43° 23' 58.17"W	13+95.75'	15+50.64'						
8	Curve	63.837'	52'		15+50.64'	16+14.48'	070.4198 (d)	59.894'	S08° 11' 22.47"W	S43° 23' 58.17"W	S27° 01' 13.24"E	15+87.30'
9	Line	195.027'		S27° 01' 13.24"E	16+14.48'	18+09.51'						

HEAVY HAUL ALIGNMENT
PILE BENTS - 3

PILE BENT MATERIALS

MEMBER	SIZE	LENGTH	QTY
BEAMS-	W30X99	30'	2
	W30X99	12'	6
ST PLATES-	3/4" ST PLATES/BENT		8
PILE CAPS-	3x3x3/4"		8
PILES-	24" Ø X 3/8" WALL PIPE	60'	8



1 TYP PILE BENT
Scale: 1:10

	DATE
	DESCRIPTION
	MARK

DESIGNED BY: D.O'REILLY
DRAWN BY: D.O'REILLY
CHECKED BY: TV/KC
SUBMITTED BY: D.O'REILLY
SIZE: 34x22
ISSUE DATE: 02-15-2019
ALE PROJECT NO: AA6515-02
CONTRACT NO.:

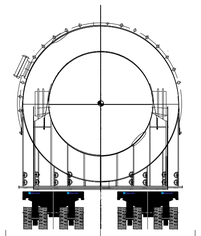
O'REILLY ENGINEERING
518 SOUTH RAMPART STREET
NEW ORLEANS, LA 70113

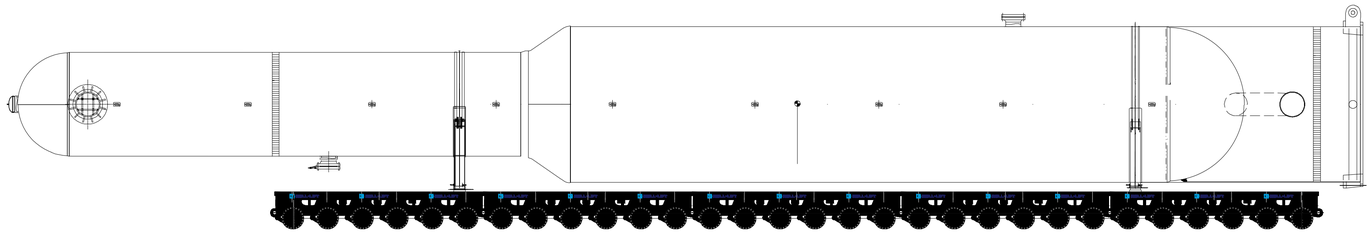
CF INDUSTRIES
PROPOSED HEAVY HAUL CROSSING
MRL STA 5753+00

SHEET ID
G.5

PRELIMINARY

ITEM NO.	05C001		
NAME OF ITEM	ABSORBER		
NET WEIGHT (kg)	693000		
GROSS WEIGHT (kg)	718000		
DIMENSION LENGTH X WIDTH X HEIGHT	L	54665	mm
	W	7340	mm
	H	7250	mm



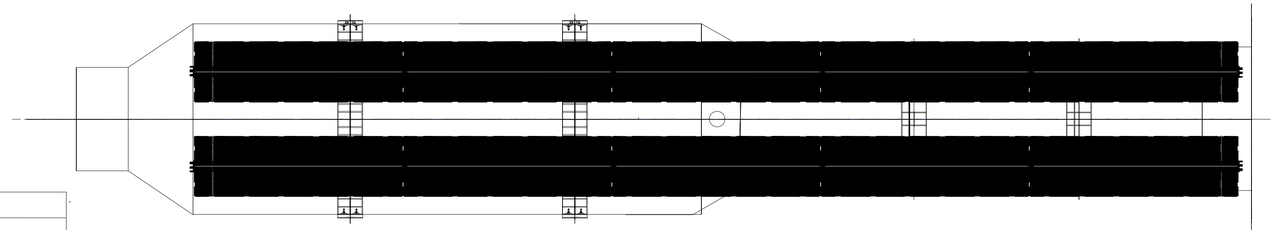


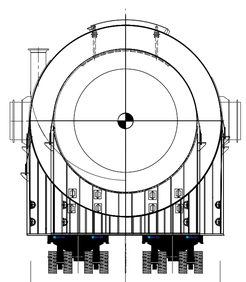
12'-6" 12'-6"

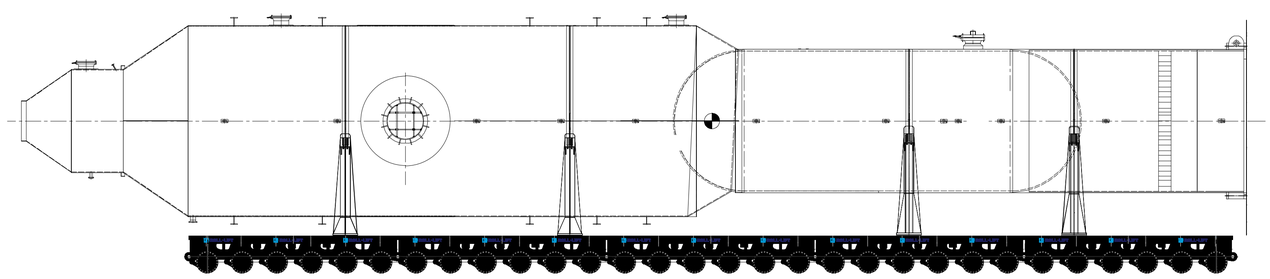
25'

HEAVY HAUL
ROAD WIDTH

ITEM NO.	05C100		
NAME OF ITEM	FLASH VESSEL		
NET WEIGHT (kg)	445000KGS(979000pound)		
TOTAL WEIGHT (kg)	508000KGS(1117600pound)		
DIMENSION LENGTH X WIDTH X HEIGHT	L	49280	mm
	W	9350	mm
	H	8800	mm







12'-6" 12'-6"

25'

HEAVY HAUL
ROAD WIDTH

HEAVIEST ANTICIPATED LIFT TRAILER ARRANGEMENT

Scale: 1:10

MARK	DESCRIPTION	DATE

ISSUE DATE:
02-15-2019
ALE PROJECT NO:
A46515-02
CONTRACT NO.:

DESIGNED BY:
D OREILLY
DRAWN BY:
D OREILLY
CHECKED BY:
TV/KC
SUBMITTED BY:
D OREILLY
SIZE
34x22

O'REILLY ENGINEERING
518 SOUTH RAMPART STREET
NEW ORLEANS, LA 70113

CF INDUSTRIES

PROPOSED HEAVY HAUL CROSSING

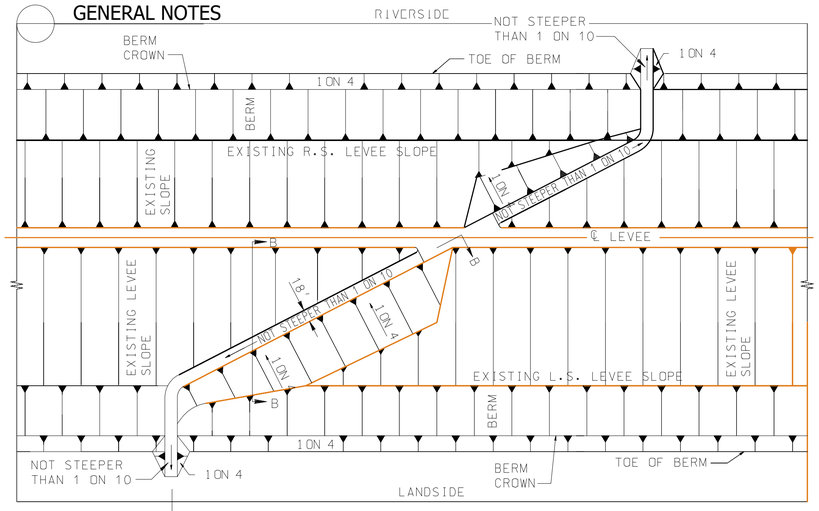
MRL STA 5753+00

SHEET ID

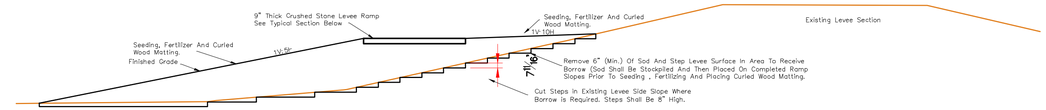
G.6

PRELIMINARY

GENERAL NOTES

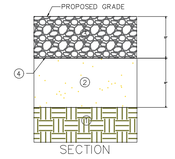


NOTE: FOR SIDE RAMP CROSSINGS ONLY RIVERSIDE SIDE RAMP MUST FACE DOWNSTREAM.



GENERAL NOTES

1. IF DUE TO HIGH RIVER LEVELS, "SEEPAGE" SHOULD OCCUR IN THE CONSTRUCTION AREA THE CONTRACTOR SHALL DISPOSE OF THE "SEEPAGE" IN A MANNER THAT IT WILL NOT INTERFERE WITH HIS WORK.
2. THERE SHALL BE NO EXCAVATION OF THE NET LEVEE DESIGN SECTION OTHER THAN STEPS AND SOD REMOVAL.
3. ANY DAMAGE DONE TO THE LEVEE OR BERM IN PERFORMANCE OF HIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE LEVEE DISTRICT.
4. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED TO EXCAVATE A BORROW PIT WITHIN 100 FEET OF THE LANDSIDE TOE AND WITHIN 40 FEET OF THE RIVERSIDE, BATTURE SIDE TOE OF THE LEVEE.
5. THE CONTRACTOR SHALL NOT ADVERSELY IMPACT OR PROHIBIT THE LEVEE DISTRICT'S MAINTENANCE OPERATIONS, OR ANY POTENTIAL FLOOD FIGHT ACTIVITIES AND ANNUAL TECHNICAL LEVEE INSPECTIONS ON, ALONG, OR IN THE VICINITY OF THE LEVEE.
6. THE CONTRACTOR'S WORK OPERATIONS SHALL NOT HINDER ACCESS ALONG THE LEVEE AND GRAVEL ROAD.



EMBANKMENT REQUIREMENTS

COMPACTED FILL: (LEVEE ACCESS ROADS AND FOOTINGS)
THE MATERIAL FOR COMPACTED FILL SHALL BE PLACED IN LAYERS, THE FIRST LAYER NOT MORE THAN 4 INCHES IN THICKNESS AND THE SUCCEEDING LAYERS NOT MORE THAN 8 INCHES IN THICKNESS PRIOR TO COMPACTION. EACH LAYER SHALL BE COMPACTED BY 10 COMPLETE PASSES OF A CRAWLER-TYPE TRACTOR WEIGHING NOT LESS THAN 20,000 POUNDS AND EXERTING A UNIT TREAD PRESSURE OF NOT LESS THAN 6 POUNDS PER SQUARE INCH. THE TRACTOR SHALL BE OPERATED AT SPEEDS NOT TO EXCEED 3.5 MILES PER HOUR. IF AN ALTERNATE TYPE COMPACTING MACHINE IS USED, TYPE SHOULD BE STATED ON APPLICANT'S DRAWING FOR REVIEW AND APPROVAL.

SEMICOMPACTED FILL: (LEVEE)
THE MATERIAL FOR SEMICOMPACTED FILL SHALL BE PLACED OR SPREAD IN LAYERS, THE FIRST LAYER NOT MORE THAN 6 INCHES IN THICKNESS AND THE SUCCEEDING LAYERS NOT MORE THAN 12 INCHES IN THICKNESS PRIOR TO COMPACTION. EACH LAYER SHALL BE COMPACTED BY THREE COMPLETE PASSES OF A CRAWLER-TYPE TRACTOR WEIGHING NOT LESS THAN 20,000 POUNDS AND EXERTING A UNIT TREAD PRESSURE OF NOT LESS THAN 6 POUNDS PER SQUARE INCH. THE TRACTOR SHALL BE OPERATED AT SPEEDS NOT TO EXCEED 3.5 MILES PER HOUR. IF AN ALTERNATE TYPE COMPACTING MACHINE IS USED, TYPE SHOULD BE STATED ON APPLICANT'S DRAWING FOR REVIEW AND APPROVAL.

UNCOMPACTED FILL: (BERMS AND BACKFILL)
THE MATERIAL FOR UNCOMPACTED FILL SHALL BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS NOT EXCEEDING 3 FEET IN THICKNESS. THE LAYERS SHALL BE UNIFORMLY SPREAD, DISTRIBUTED, AND OTHERWISE MANIPULATED DURING PLACEMENT TO SUCH AN EXTENT THAT INDIVIDUAL LOADS OF MATERIAL DEPOSITED ON THE FILL WILL NOT REMAIN INTACT, AND LARGE, OPEN VOIDS IN THE FILL WILL BE ELIMINATED.

NOTES:

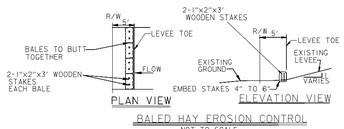
1. A 10' MIN. DISTANCE (OR AS OTHERWISE REQUIRED) BETWEEN THE LEVEE TOE AND THE PIPELINE SUPPORT IS REQUIRED TO AVOID PENETRATION OF CONCRETE SLOPE PAVEMENT.
2. CONCRETE SLOPE PAVEMENT IS REQUIRED WHEN SPREAD FOOTINGS REST ON LEVEE SLOPE. PAVEMENT MUST EXTEND 5' EACH SIDE OF FOOTINGS.
3. IN ABSENCE OF FOOTING ON LEVEE, LANDSIDE SLOPE PAVING WILL NOT BE REQUIRED. RIVERSIDE SLOPE PAVING WILL BE REQUIRED WHEN NECESSARY FOR EROSION CONTROL.
4. SMOOTH TRANSITIONS SHALL BE CONSTRUCTED BETWEEN THE LEVEE ENLARGEMENT AND THE EXISTING LEVEE.
5. ALL FRESH FILLS SHALL BE SODDED OR FERTILIZED AND SEEDED AND SHALL BE MAINTAINED UNTIL A HEALTHY GROWTH IS OBTAINED.
6. THE CROWN OF THE ENLARGED LEVEE AND THE LEVEE ACCESS RAMPS SHALL BE SURFACED WITH CRUSHED STONE (7" FOR MISSISSIPPI RIVER LEVEES AND 9" FOR ATCHAFALAYA BASIN LEVEES) IN THICKNESS (LOOSE MEASUREMENT) FOR THE FULL WIDTH (10' MIN.) AND LENGTH OF THE ENLARGED LEVEE OR RAMP. THE CRUSHED STONE SURFACING SHALL MEET THE REQUIREMENTS OF LSSRB SECTION 1003.04 (a), 2000 EDITION.
7. FILL MATERIAL USED IN CONSTRUCTION OF THE LEVEE ENLARGEMENT, RAMPS, PIPE COVER AND BACKFILL OF EXCAVATION SHALL BE IMPERVIOUS EARTH FILL.
8. A PIPELINE MARKER SHALL BE PLACED AND MAINTAINED AT EACH LEVEE TOE IN LINE WITH THE PIPELINE CROSSING AND INDICATE OWNER, SIZE, NUMBER OF LINES, PRODUCT AND ADDRESSES FOR CONTACTING OWNER.

① SUBGRADE PREPARATION – THE EXISTING GROUND SURFACE SHOULD BE CLEARED OF VEGETATION, DEBRIS, STUMPS, ORGANIC MATTER, AND ANY OTHER DELETERIOUS MATERIALS. AFTER THE CLEARING OPERATIONS, THE EXPOSED SURFACE SHOULD BE SCARIFIED TO A DEPTH OF 6 INCHES AND RECOMPACTED. RECOMPACTION SHOULD BE 95% OF ITS MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 698. ANY DEPRESSIONS, STUMP HOLES, OR WEAK AREAS IDENTIFIED BY SCARIFICATION SHOULD BE THOROUGHLY CLEANED OUT TO THE SURFACE OF FIRM UNDISTURBED SOIL AND BACKFILLED WITH A SELECT STRUCTURAL FILL MATERIAL PLACED AND COMPACTED UNDER CONTROLLED CONDITIONS. ALL CLEARING AND COMPACTION OPERATIONS SHOULD BE PERFORMED ONLY DURING PERIODS OF DRY WEATHER.

② COMPACTED SAND SUBASE – SAND SHOULD BE NON-PLASTIC AND FREE OF ROOTS, CLAY LUMPS, AND OTHER DELETERIOUS MATERIALS WITH NO MORE THAN 10% BY WEIGHT OF MATERIAL PASSING A U.S. STANDARD NO. 200 MESH SIEVE. THE SELECT FILL SHOULD ALSO HAVE AN ORGANIC CONTENT OF NO GREATER THAN 5% BY WEIGHT. SELECT FILL SHOULD BE PLACED IN 6 TO 8 INCH THICK LIFTS AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY NEAR (±2%) OPTIMUM WATER CONTENT IN ACCORDANCE WITH ASTM D 698. THE TOP THREE(3) LIFTS SHOULD BE COMPACTED TO 100% OF ITS MAXIMUM DRY DENSITY NEAR OPTIMUM WATER CONTENT IN ACCORDANCE WITH ASTM D 698.

③ CRUSHED STONE AGGREGATE SURFACE MATERIAL– CRUSHED STONE SURFACE COURSE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1003.04 (a) OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2006 EDITION (LSSRB). THE STONE SURFACE COURSE SHOULD BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 302 OF THE LSSRB FOR A CLASS II BASE COURSE.

④ GEOTEXTILE FABRIC – FABRIC SHALL CONFORM TO SECTION 1019 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2006 EDITION (LSSRB), FOR CLASS C GEOTEXTILES.



BALED HAY EROSION CONTROL
NOT TO SCALE

NOTE:
AFTER REMOVAL OF HAYBALES, FERTILIZE, SEED AND MULCH THE AREA OCCUPIED BY THE HAYBALES AND AREAS DISTURBED AS A RESULT OF REMOVING THE HAYBALES.

SITE PREPARATION

INSPECTION OF FOUNDATION EXCAVATIONS SHOULD BE PERFORMED PRIOR TO BEDDING AND BACKFILL PLACEMENT BY A QUALIFIED GEOTECHNICAL ENGINEER OR GEOTECHNICAL ENGINEERING TECHNICIAN UNDER HIS/HER DIRECTION TO ENSURE THAT THE PROPER BEARING SURFACE IS PRESENT. THE SOILS THAT FORM THE BEARING STRATUM FOR THE HEAVY HAUL ROAD ARE CLAYS AND CAN UNDERGO SEVERE LOSS OF STRENGTH WHEN WETTED. TRAFFIC IN THE FOUNDATION EXCAVATIONS SHOULD BE LIMITED. DRAINAGE SHOULD BE PROVIDED AWAY FROM THE EXCAVATIONS DURING CONSTRUCTION, AND PONDING SHOULD BE PREVENTED ADJACENT TO ANY FOUNDATIONS AFTER CONSTRUCTION.

SIGNIFICANT SITE PREPARATION PROBLEMS COULD DEVELOP UNLESS GOOD DRAINAGE IS PROVIDED THROUGHOUT THE PROJECT DURATION. PROPER SITE DRAINAGE SHOULD BE MAINTAINED DURING AND AFTER CONSTRUCTION. PROVIDING DRAINAGE DURING THE CONSTRUCTION PROCESS WILL FACILITATE CONSTRUCTION BY REDUCING THE POTENTIAL FOR COMPACTION PROBLEMS. MAINTAINING THE DRAINAGE AFTER CONSTRUCTION WILL IMPROVE THE LIFE OF THE FOUNDATION SYSTEM BY AVOIDING WATER SOFTENING OF THE FOUNDATION SOILS.

CLEARING AND GRUBBING
WITHIN THE AREAS OF THE PROPOSED MATS AND FILL PLACEMENT, THE EXISTING GROUND SURFACE SHOULD BE STRIPPED TO A DEPTH NECESSARY TO REMOVE TREES, VEGETATION, LOOSE TOPSOIL, DEBRIS, AND ORGANIC MATTER. THE EXACT DEPTH OF STRIPPING SHOULD BE DETERMINED DURING CONSTRUCTION (8" ASSUMED.) THE SITE SHOULD NOT BE STRIPPED UNTIL CONSTRUCTION DRAINAGE MEASURES HAVE BEEN PROVIDED. SOILS DEGRADED FROM THE BATTURE SHOULD NOT BE STORED ON THE RIVER SIDE OF THE PROJECT LIMITS. THESE MATERIALS SHOULD BE MOVED OVER THE LEVEE AND STORED OFF SITE UNTIL AFTER THE TRANSPORT IS COMPLETE.

SUBGRADE PREPARATION
PRIOR TO FILL OR MAT PLACEMENT, THE DEGRADED BATTURE, EXISTING BATTURE, AND LEVEE SURFACE SHOULD BE PROOF ROLLED WITH A BULLDOZER OR TRACKED VEHICLE EXERTING A GROUND PRESSURE BETWEEN 10 AND 15 PSI. THE VIBRATORY SYSTEM ON THE COMPACTOR, IF PRESENT, SHOULD NOT BE USED DURING PROOF ROLLING. ALTERNATIVE PROOF ROLLING TECHNIQUES MAY BE PROPOSED, BUT THESE METHODS SHOULD BE APPROVED BY EOR PRIOR TO THEIR USE AT THE SITE. ANY DEPRESSIONS OR WEAK AREAS IDENTIFIED BY PROOF ROLLING SHOULD BE THOROUGHLY CLEANED OUT TO THE SURFACE OF FIRM UNDISTURBED SOIL OR COMPACTED LEVEE FILL AND BACKFILLED WITH CRUSHED STONE PLACED AND COMPACTED UNDER CONTROLLED CONDITIONS. ALL ASSUMPTIONS AND PARAMETERS ARE LISTED ON THE GLOBAL STABILITY PLATES INCLUDED WITH THIS SUBMITTAL. ALL CALCULATIONS, ASSUMPTIONS, AND NOTES ARE INCLUDED ON THE DRAWINGS AND CALCULATIONS. IF YOU HAVE ANY ADDITIONAL QUESTIONS OR CONCERNS, PLEASE CONTACT THIS OFFICE ANYTIME.

MATERIAL SEPARATION
MATERIAL SEPARATION SHOULD BE PROVIDED BETWEEN BEDDING MATERIALS AND THE NATURAL SUBGRADE TO PREVENT UPWARD MIGRATION OF THE NATURAL SOILS AND ASSOCIATED SETTLEMENTS. MATERIAL SEPARATION SHOULD ALSO BE PROVIDED BETWEEN BEDDING MATERIALS AND STRUCTURAL FILL OR BETWEEN STRUCTURAL FILL AND CRUSHED STONE USED FOR A PAVEMENT BASE. THIS MAY BE ACCOMPLISHED WITH A GEOTEXTILE STABILIZATION FABRIC. THE GEOTEXTILE SHOULD BE A NON-WOVEN FABRIC WITH AN APPARENT OPENING SIZE (AOS) SMALLER THAN THE U.S. NO. 100 SIEVE. THE GEOTEXTILE SHOULD BE ABLE TO RETAIN THE UNDERLYING SOILS WITHOUT CLOGGING.

THE GEOTEXTILE SHOULD BE PLACED DIRECTLY ON THE UNDISTURBED SOILS ONCE THE EXCAVATION BOTTOM IS CLEARED OF ALL DEBRIS, WATER, MUCK, AND LOOSE SOIL. THE GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE GEOTEXTILE FABRIC SHOULD MEET OR EXCEED MATERIAL REQUIREMENTS CONTAINED IN SECTION 1019 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (LSSRB), 2006 EDITION, FOR CLASS C GEOTEXTILES. SUBSEQUENT TO CLEARING AND STRIPPING, THE FABRIC SHOULD BE PLACED DIRECTLY ON THE UNDISTURBED SOILS IN ACCORDANCE WITH THE MANUFACTURER'S CONSTRUCTION RECOMMENDATIONS.

CRUSHED STONE.
THE MATERIAL FOR THE CRUSHED STONE SHOULD CONFORM TO THE REQUIREMENTS OF SECTION 1003.04(A) OF THE LSSRB. THE STONE SHOULD BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 302 OF THE LSSRB FOR A CLASS II BASE COURSE.

QUALITY CONTROL
PRIOR TO TRANSPORTING STRUCTURAL FILL TO THE SITE, A SAMPLE OF THE BORROW MATERIAL SHOULD BE TESTED TO VERIFY ITS CONFORMANCE TO THE SPECIFICATIONS. DENSITY TESTS SHOULD BE PERFORMED ON EACH LIFT OF THE COMPACTED FILL TO DETERMINE IF THE CONTRACTOR HAS ACHIEVED THE RECOMMENDED DENSITY. ALL FILLING AND COMPACTION OPERATIONS SHOULD ONLY BE ACCOMPLISHED DURING PERIODS OF DRY WEATHER. THE CONTRACTOR SHOULD EXERCISE CAUTION DURING AND AFTER INCLEMENT WEATHER TO ENSURE SUBSOIL SUPPORT IS NOT DEGRADED BY CONSTRUCTION OPERATIONS.

MARK	DESCRIPTION	DATE

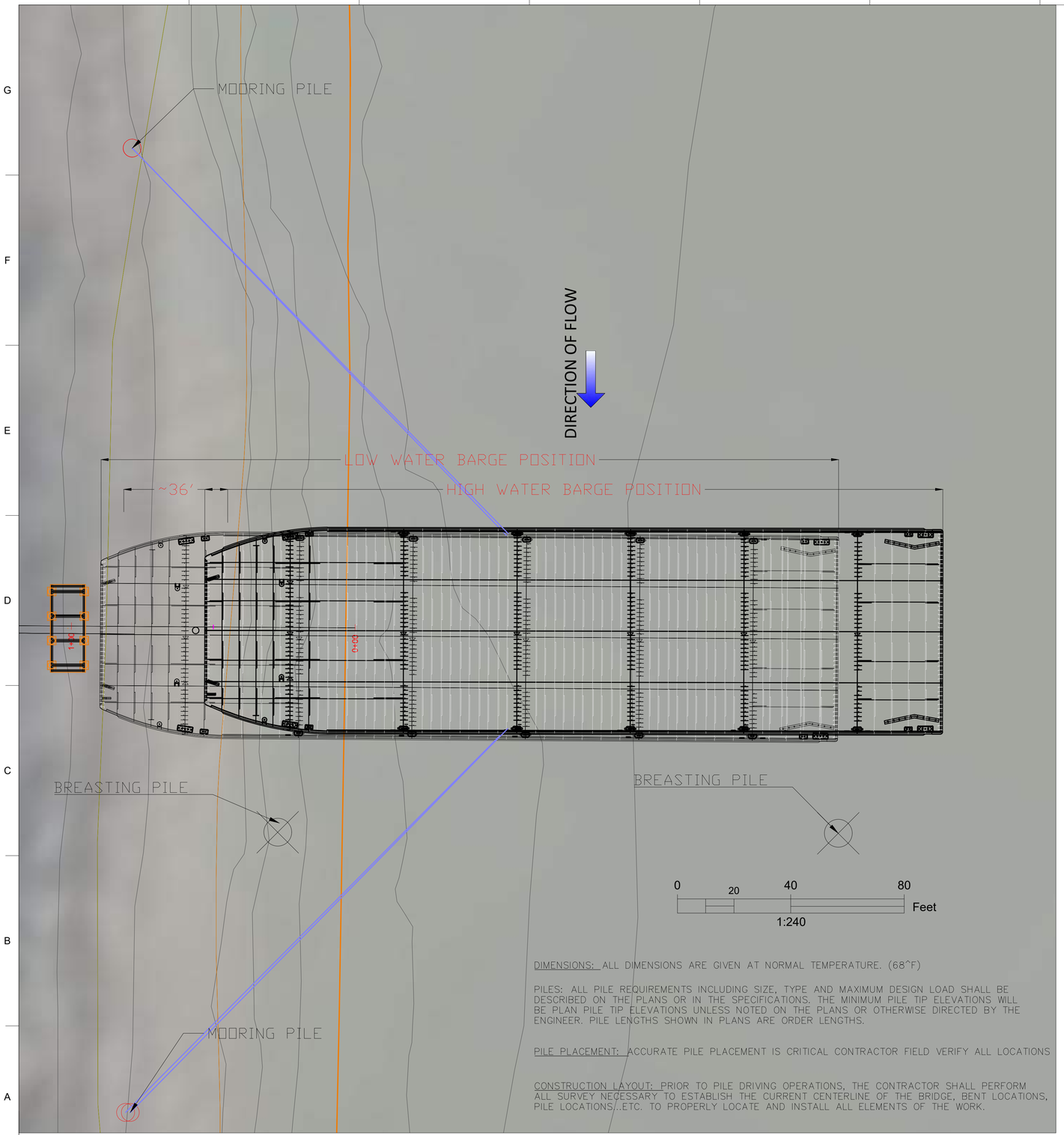
DESIGNED BY: D O'REILLY
DRAWN BY: D O'REILLY
CHECKED BY: TV/KC
SUBMITTED BY: D O'REILLY
SIZE: 34x22
ISSUE DATE: 02-15-2019
ALE PROJECT NO: A46515-02
CONTRACT NO.:

O'REILLY ENGINEERING
518 SOUTH RAMPART STREET
NEW ORLEANS, LA 70113

CF INDUSTRIES
PROPOSED HEAVY HAUL CROSSING
MRL STA 5753+00

SHEET ID
G.7

PRELIMINARY



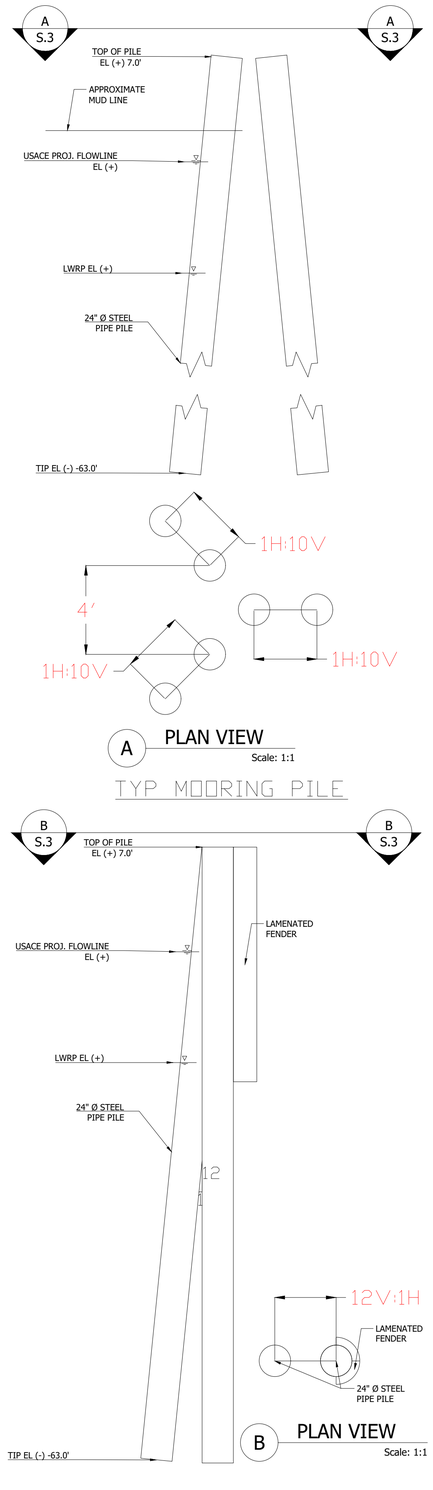
DIMENSIONS: ALL DIMENSIONS ARE GIVEN AT NORMAL TEMPERATURE. (68^F)

PILES: ALL PILE REQUIREMENTS INCLUDING SIZE, TYPE AND MAXIMUM DESIGN LOAD SHALL BE DESCRIBED ON THE PLANS OR IN THE SPECIFICATIONS. THE MINIMUM PILE TIP ELEVATIONS WILL BE PLAN PILE TIP ELEVATIONS UNLESS NOTED ON THE PLANS OR OTHERWISE DIRECTED BY THE ENGINEER. PILE LENGTHS SHOWN IN PLANS ARE ORDER LENGTHS.

PILE PLACEMENT: ACCURATE PILE PLACEMENT IS CRITICAL CONTRACTOR FIELD VERIFY ALL LOCATIONS

CONSTRUCTION LAYOUT: PRIOR TO PILE DRIVING OPERATIONS, THE CONTRACTOR SHALL PERFORM ALL SURVEY NECESSARY TO ESTABLISH THE CURRENT CENTERLINE OF THE BRIDGE, BENT LOCATIONS, PILE LOCATIONS/..ETC. TO PROPERLY LOCATE AND INSTALL ALL ELEMENTS OF THE WORK.

GENERAL MOORING ARRANGEMENT
Scale: SHOWN



A PLAN VIEW
Scale: 1:1

TYP MOORING PILE

B PLAN VIEW
Scale: 1:1

TYP BREASTING PILE

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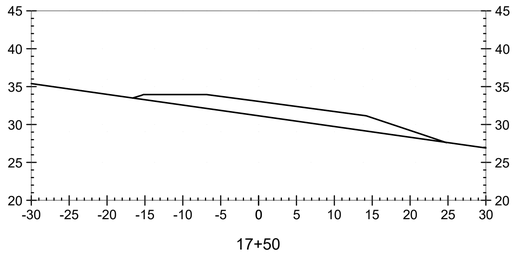

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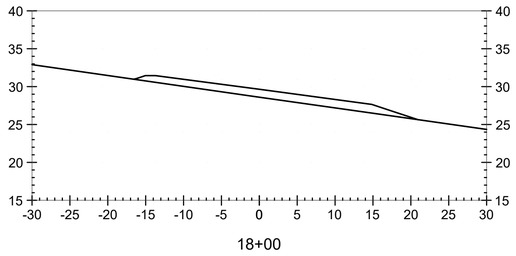

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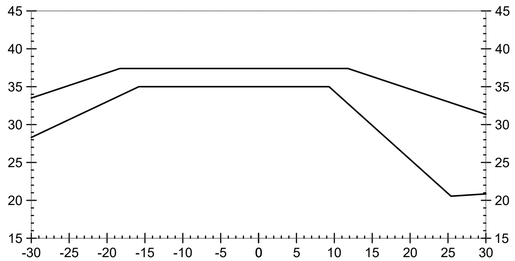

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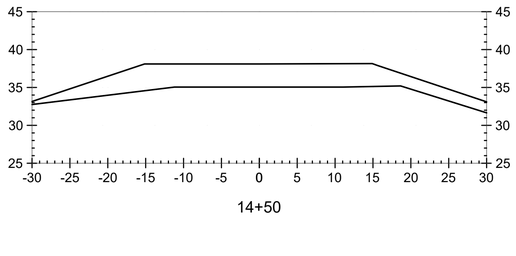

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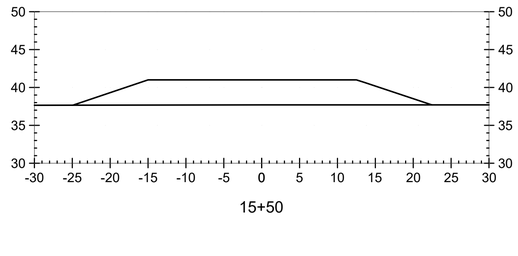

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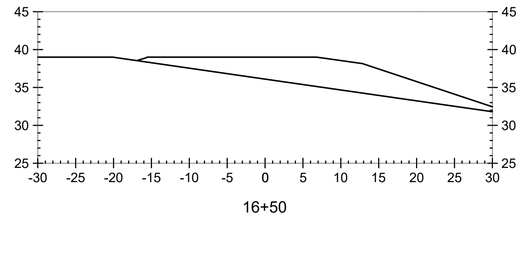

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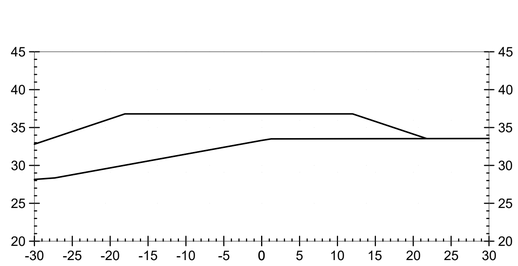

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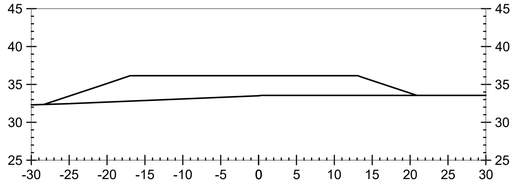

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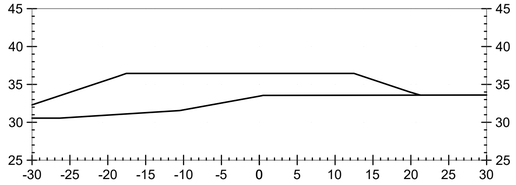

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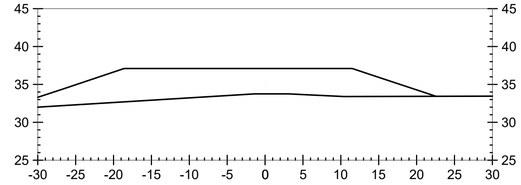

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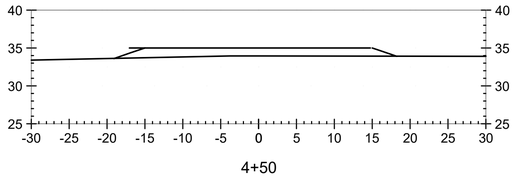

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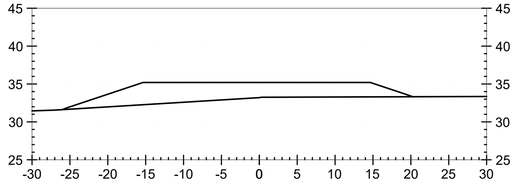

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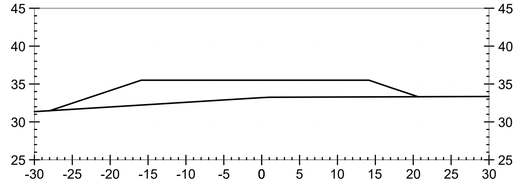

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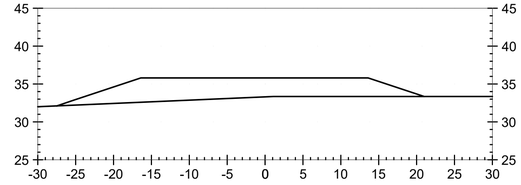

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