



May 12, 2025

**Mr. Matt Jones**  
**Department of Natural Resource and Environmental Control**  
Division of Water  
89 Kings Highway  
Dover, DE 19901

**SUBJECT:       Leipsic Research Dock and Storage Facility**  
**Request for DNREC Wetlands and Subaqueous Lands Permit and WQC**

Dear Mr. Jones:

On behalf of our client, DNREC Division of Fish and Wildlife (DFW), Century Engineering, Inc. (Century) is pleased to inform the Wetlands and Subaqueous Lands Section (WSLS) about the Leipsic Research Dock and Storage Facility project (project; also referred to as the “Whedbee Property Research Vessel Dock and Storage Building” project) at the eastern terminus of Lombard Street in Leipsic, Kent County, Delaware. This application package provides the documentation supporting a request for a WSLS Permit and a 401 Water Quality Certification (WQC).

The purpose of the project is to construct a new research vessel dock, fueling facility, and storage building. The proposed fixed dock is 120’ long x 10’ wide with a 5’ x 5’ hose platform at the end of a 10’ wide gangway. The structure extends approximately 25.2 feet channelward of Mean Low Water (MLW) and 41.1 feet channelward of Mean High Water (MHW). The dock and gangway will require 18 support piles and will have water and electric service. The building will be 60’ x 66’ with a portion (20’ x 66’) dedicated to boat storage. The facility will not be used as a repair yard or for vessel maintenance. Construction of the dock will take place from the shore.

The dock is intended to regularly support one (1) research vessel, the First State, that is 60’ long. Other vessels may be moored at the dock from time to time; however, no more than four (4) vessels will utilize the dock at any one time. The size of the dock is to ensure a second vessel could be moored if the First State is already moored. The gangway and dock width are necessary to provide space for pallet jacks and personnel to transport large equipment from the research vessel to the storage facility, and to safely use a hydraulic boat boom to move oyster equipment.

Century is engaged in ongoing coordination with the State Fire Marshal Office (SFMO) for the building plans and fuel storage tank. The project scope was reviewed with Jeff Cerri, Fire Protection Specialist, Kent Division on 12/16/2024 and a submittal process was established for site plans, building plans, fire alarm plans, and tank plans.

DFW is applying for authorization under an U.S. Army Corps of Engineers (USACE) Individual Permit Letter of Permission (IP LOP, requiring Water Quality Certification and Coastal Zone Federal Consistency) for Section 10 impacts to an estuarine, unconsolidated bottom, subtidal channel (E1UBL). DFW is also applying for authorization under a USACE Nationwide Permit (NWP) 3 for repair and slight

**CENTURY ENGINEERING, LLC, A KLEINFELDER COMPANY**  
550 Bay Road, Dover, DE 19901   p | 302.734.9188

Leipsic Research Dock and Storage Facility DNREC-WSLS and WQC  
May 12, 2025  
Page 1 of 3

reconfiguration of the existing pavement. The site is depicted on State Regulated Wetlands Map #269 and is mapped as water (W) and Other; Upland or non-tidal wetlands less than 400 acres (O). The proposed project will result in 0.0354 acre of unavoidable, permanent shading to the Leipsic River. The project will not result in any loss of State regulated wetlands or waters.

Based upon the Century wetland delineation (completed March 2021) and State Tidal Wetlands Maps, the proposed activities will have the following impacts (refer to Environmental Compliance sheets included in Design Plans):

ID	IMPACT DURATION	DESCRIPTION	MAPPED RESOURCE	AREA (AC)	LOSS (AC)
O-02	PERMANENT	DOCK AND SUPPORT PILES	W	0.0354	0.000
T-08	TEMPORARY	CONSTRUCTION	W	0.0102	0.000
TOTAL STATE REGULATED WETLAND PERMANENT IMPACTS				0.0354-AC	
TOTAL STATE REGULATED TEMPORARY IMPACTS				0.0102-AC	
TOTAL STATE REGULATED WETLAND LOSS				0.000-AC	

In a letter dated May 12, 2025, DNREC- Species Conservation and Research Program (SCRP) indicated that the project area does not lie within a State Natural Heritage Site, nor does it lie within a Delaware National Estuarine Research Reserve. The SCRCP requests a work restriction April 1<sup>st</sup> to July 31<sup>st</sup> to avoid impacts to marsh nesting birds and a restriction March 1<sup>st</sup> to May 15<sup>th</sup> to allow upstream passage of young eels. In addition, the Leipsic River is utilized by anadromous fish so a time-of-year restriction on in-water work March 15<sup>th</sup> to June 30<sup>th</sup> will be followed. No in-water work will occur from March 1 through July 31 to adhere to all RTE guidance.

SCRCP identified habitat on this parcel as ecologically important by the Delaware Ecological Network (DEN) and indicated portions of the project area are classified as a core area and a hub. The DEN, although non-regulatory, is a statewide conservation network developed using GIS and field collected datasets that help to identify and prioritize ecologically important areas for natural resource protection. The DEN includes ecologically important areas that will be protected to the fullest extent possible.

Consultation with USFWS indicated “No effect” to federally rare, threatened, or endangered species. The NOAA Essential Fish Habitats (EFH) mapper indicated that the project boundary intersects with EFH for 12 species and one (1) Habitat Areas of Particular Concern (HAPC). The Leipsic River provides anadromous fish habitat, so a NOAA Fisheries Greater Atlantic Regional Fisheries Office Essential Fish Habitat (EFH) Assessment & Fish and Wildlife Coordination Act (FWCA) Consultation Worksheet was included with the USACE IP application. The NOAA Section 7 mapper indicated life stages of Atlantic sturgeon and Shortnose sturgeon may occur within the vicinity of the action area. A GARFO ESA Section 7: NLAA Program Verification Form was included as supporting information for the USACE IP application.

The Delaware State Historic Preservation office (SHPO) was notified of the project on April 17, 2024. The 30-day comment period has passed, so we have assumed concurrence with our “No Adverse Effects” findings.



Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

**CENTURY ENGINEERING, LLC, A KLEINFELDER COMPANY**

A handwritten signature in black ink, appearing to read 'Missy Kalb'.

Missy Kalb, CE  
Senior Environmental Scientist

- WSLs Application w/ Signature Page
- Appendix A
- Vicinity, USGS, NWI, Aerial Maps
- Design plan sheets
- RTE Correspondence
- Historical/Archaeological Correspondence
- Photolog
- Copy of USACE Individual Permit and NWP Application Packages

cc: Jeremy Ashe, DNREC  
Alex Schmidt, Century

# **WETLANDS AND SUBAQUEOUS LANDS SECTION PERMIT APPLICATION FORM**

**For Subaqueous Lands, Wetlands, Marina and  
401 Water Quality Certification Projects**

**State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Water**

**Wetlands and Subaqueous Lands Section**



**APPLICATION FOR APPROVAL OF  
SUBAQUEOUS LANDS, WETLANDS, MARINA  
AND WATER QUALITY CERTIFICATION PROJECTS**



**PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY****Application Instructions:**

1. Complete each section of this basic application and appropriate appendices as thoroughly and accurately as possible. Incomplete or inaccurate applications will be returned.
2. All applications must be accompanied by a scaled plan view and cross-section view plans that show the location and design details for the proposed project. Full construction plans must be submitted for major projects.
3. All applications must have an original signature page and proof of ownership or permitted land use agreement.
4. Submit an original and two (2) additional copies of the application (total of 3) with the appropriate application fee and public notice fee\* (prepared in separate checks) to:

**Department of Natural Resources and Environmental Control  
Wetlands and Subaqueous Lands Section  
89 Kings Highway  
Dover, Delaware 19901**

\*Application and public notice fees are non-refundable regardless of the Permit decision or application status.

5. No construction may begin at the project site before written approval has been received from this office.

**Helpful Information:**

1. Tax Parcel Information:

New Castle County	(302) 395-5400
Kent County	(302) 736-2010
Sussex County	(302) 855-7878
2. Recorder of Deeds:

New Castle County	(302) 571-7550
Kent County	(302) 744-2314
Sussex County	(302) 855-7785
3. A separate application and/or approval may be required through the Army Corps of Engineers. Applicants are strongly encouraged to contact the Corps for a determination of their permitting requirements. For more information, contact the Philadelphia District Regulator of the Day at (215) 656-6728 or visit their website at: <http://www.nap.usace.army.mil/Missions/Regulatory.aspx>.
4. For questions about this application or the Wetlands and Subaqueous Lands Section, contact us at (302) 739-9943 or visit our website at: <http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>. Office hours are Monday through Friday 8:00 AM to 4:30 PM, except on State Holidays.

## APPLICANT'S REVIEW BEFORE MAILING

### DID YOU COMPLETE THE FOLLOWING?

_____ Yes	BASIC APPLICATION
_____ Yes	SIGNATURE PAGE (Page 3)
_____ Yes	APPLICABLE APPENDICES
_____ Yes	SCALED PLAN VIEW
_____ Yes	SCALED CROSS-SECTION OR ELEVATION VIEW PLANS
_____ Yes	VICINITY MAP
_____ Yes	COPY OF THE PROPERTY DEED & SURVEY
_____ Yes	THREE (3) COMPLETE COPIES OF THE APPLICATION PACKET
_____ Yes	APPROPRIATE APPLICATION FEE & PUBLIC NOTICE FEE (Separate checks made payable to the State of Delaware)

### Submit 3 complete copies of the application packet to:

**Department of Natural Resources and Environmental Control  
Wetlands and Subaqueous Lands Section  
89 Kings Highway  
Dover, Delaware 19901**

### Before signing and mailing your application packet, please read the following:

The Department requests that the contractor or party who will perform the construction of your proposed project, if other than the applicant, sign the application signature page along with the applicant in the spaces provided. When the application is signed by the contractor as well as the applicant, the Department will issue the Permit to both parties. For Leases, the contractor will receive a separate construction authorization that will make them subject to all of the terms and conditions of the Lease relating to the construction

**Section 1: Applicant Identification**

1. Applicant's Name: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: \_\_\_\_\_  
 \_\_\_\_\_
2. Consultant's Name: \_\_\_\_\_ Company Name: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 \_\_\_\_\_ Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: \_\_\_\_\_
3. Contractor's Name: \_\_\_\_\_ Company Name: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 \_\_\_\_\_ Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: \_\_\_\_\_

**Section 2: Project Description**

4. Check those that apply:  
☐ New Project/addition to existing project? ☐ Repair/Replace existing structure? (If checked, must answer #16)
5. Project Purpose (attach additional sheets as necessary):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. Check each Appendix that is enclosed with this application:

<input type="checkbox"/>	A. Boat Docking Facilities	<input type="checkbox"/>	G. Bulkheads	<input type="checkbox"/>	N. Preliminary Marina Checklist
<input type="checkbox"/>	B. Boat Ramps	<input type="checkbox"/>	H. Fill	<input type="checkbox"/>	O. Marinas
<input type="checkbox"/>	C. Road Crossings	<input type="checkbox"/>	I. Rip-Rap Sills and Revetments	<input type="checkbox"/>	P. Stormwater Management
<input type="checkbox"/>	D. Channel Modifications/Dams	<input type="checkbox"/>	J. Vegetative Stabilization	<input type="checkbox"/>	Q. Ponds and Impoundments
<input type="checkbox"/>	E. Utility Crossings	<input type="checkbox"/>	K. Jetties, Groins, Breakwaters	<input type="checkbox"/>	R. Maintenance Dredging
<input type="checkbox"/>	F. Intake or Outfall Structures	<input type="checkbox"/>	M. Activities in State Wetlands	<input type="checkbox"/>	S. New Dredging

**Section 3: Project Location**

7. Project Site Address: \_\_\_\_\_ County: ☐ N.C. ☐ Kent ☐ Sussex  
 \_\_\_\_\_ Site owner name (if different from applicant): \_\_\_\_\_  
 \_\_\_\_\_ Address of site owner: \_\_\_\_\_  
 \_\_\_\_\_
8. Driving Directions: \_\_\_\_\_  
 \_\_\_\_\_  
 (Attach a vicinity map identifying road names and the project location)
9. Tax Parcel ID Number: \_\_\_\_\_ Subdivision Name: \_\_\_\_\_

<b>WSLS Use Only:</b>		<b>Permit #s:</b> _____		_____		_____		_____	
<b>Type</b>	SP <input type="checkbox"/>	SL <input type="checkbox"/>	SU <input type="checkbox"/>	WE <input type="checkbox"/>	WQ <input type="checkbox"/>	LA <input type="checkbox"/>	SA <input type="checkbox"/>	MP <input type="checkbox"/>	WA <input type="checkbox"/>
<b>Corps Permit:</b> SPGP 18 <input type="checkbox"/> 20 <input type="checkbox"/>		<b>Nationwide Permit #:</b> _____		<b>Individual Permit #</b> _____					
<b>Received Date:</b> _____		<b>Project Scientist:</b> _____							
<b>Fee Received?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>		<b>Amt: \$</b> _____		<b>Receipt #:</b> _____					
<b>Public Notice #:</b> _____		<b>Public Notice Dates:</b> ON _____		<b>OFF</b> _____					

**Section 3: Project Location (Continued)**

10. Name of waterbody at Project Location: \_\_\_\_\_ waterbody is a tributary to: \_\_\_\_\_

11. Is the waterbody: ☐ Tidal ☐ Non-tidal Waterbody width at mean low or ordinary high water \_\_\_\_\_

12. Is the project: ☐ On public subaqueous lands? ☐ On private subaqueous lands?\*

☐ In State-regulated wetlands? ☐ In Federally-regulated wetlands? **and waters**

\*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:

\_\_\_\_\_  
(Written permission from the private subaqueous lands owner must be included with this application)

13. Present Zoning: ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other

**Section 4: Miscellaneous**

14. A. List the names and complete mailing addresses of the immediately adjoining property owners on all sides of the project (attach additional sheets as necessary):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. For wetlands and marina projects, list the names and complete mailing addresses of property owners within a 1,000 foot radius of the project (attach additional sheets as necessary):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

15. Provide the names of DNREC and/or Army Corps of Engineers representatives whom you have discussed the project with:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A. Have you had a State Jurisdictional Determination performed on the property? ☐ Yes ☐ No

B. Has the project been reviewed in a monthly Joint Permit Processing Meeting? ☐ Yes ☐ No

\*If yes, what was the date of the meeting? \_\_\_\_\_

16. Are there existing structures or fill at the project site in subaqueous lands? ☐ Yes ☐ No

\*If yes, provide the permit and/or lease number(s):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*If no, were structures and/or fill in place prior to 1969? ☐ Yes ☐ No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?

☐ No ☐ Pending ☐ Issued ☐ Denied Date: \_\_\_\_\_

Type of Permit: \_\_\_\_\_ Federal Permit or ID #: \_\_\_\_\_

18. Have you applied for permits from other Sections within DNREC?

☐ No ☐ Pending ☐ Issued ☐ Denied Date: \_\_\_\_\_ Permit or ID #: \_\_\_\_\_

Type of permit (circle all that apply): Septic Well NPDES Storm Water

Other: \_\_\_\_\_

**Section 5: Signature Page****19. Agent Authorization:**

If you choose to complete this section, all future correspondence to the Department may be signed by the duly authorized agent. In addition, the agent will become the primary point of contact for all correspondence from the Department.

I do not wish to authorize an agent to act on my behalf ☐


I wish to authorize an agent as indicated below ☐

I, \_\_\_\_\_, hereby designate and authorize \_\_\_\_\_  
(Name of Applicant) (Name of Agent)  
to act on my behalf in the processing of this application and to furnish any additional information requested by the Department.

Authorized Agent's Name: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_ Fax #: \_\_\_\_\_  
\_\_\_\_\_  
E-mail: \_\_\_\_\_

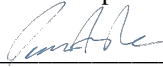
**20. Agent's Signature:**

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

\_\_\_\_\_  
Agent's Signature  \_\_\_\_\_  
Date \_\_\_\_\_

**21. Applicant's Signature:**

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application. I grant permission to authorized Department representatives to enter upon the premises for inspection purposes during working hours.

\_\_\_\_\_  
Applicant's Signature  \_\_\_\_\_  
Date \_\_\_\_\_

\_\_\_\_\_  
Print Name

**22. Contractor's Signature:**

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge, and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

\_\_\_\_\_  
Contractor's Name \_\_\_\_\_  
Date \_\_\_\_\_

\_\_\_\_\_  
Print Name

**BOAT DOCKING FACILITIES**

Any boat docking facility for more than four (4) vessels is considered a marina facility (see definitions and explanations section) and requires the applicant to complete Appendices N and O, and make application to the U. S. Army Corps of Engineers for approval.

Please make sure answers to all of the questions in this appendix correspond with information on the application drawings.

1. Briefly describe the project. (Attach additional sheets as necessary.)

2. Please provide numbers and dimensions as follows:

Structure Type	Number of Support Pilings	Dimensions (Channelward of MHW or OHW)		Dimensions (Channelward of MLW- n/a for non-tidal water)		New, repair or maintain
Dock, Pier, Lift, gangway		Width ____ ft.	Length ____ ft.	Width ____ ft.	Length ____ ft.	
Freestanding Pilings	Number					

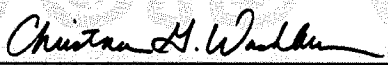
Mooring Buoy: How many moorings will be installed? \_\_\_\_\_  
 What will be used for the anchor(s)? \_\_\_\_\_  
 Anchor/Mooring Block Weight \_\_\_\_\_  
 Anchor Line Scope (Length or Ratio) \_\_\_\_\_  
 Water Depth at Mooring Location \_\_\_\_\_

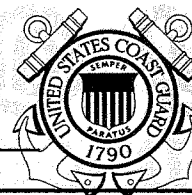
3. Approximately how wide is the waterway at this project site? \_\_\_\_\_ ft. (measured from MLW to MLW)
4. What will be the mean low water depth at the most channelward end of the mooring facility? \_\_\_\_\_ ft.
5. What type of material(s) will be used for construction of the mooring facility (e.g. salt treated wood, aluminum, fiberglass floats, etc.) Use of creosote-treated wood is prohibited. **Aluminum dock on steel piles**
6. Circle any of the following items that are proposed over subaqueous lands:  
 Fish Cleaning Stations/Benches/Ladders/Water Lines/ Satellite/Electric Lines/ Handrails/Other (Describe)

If any of the items are circled above, include their dimensions and location on the application drawings.

7. What will be the distance from the most channelward end of the docking facility to the edge of any natural or man-made channel? \_\_\_\_\_ ft.
8. Describe the vessels that will be berthed at the docking facility. Please draw proposed vessel locations on plans and drawings. See Environmental Compliance Plan in the design sheets. Note a second vessel is shown to demonstrate the size of the dock is needed for an additional vessel to occasionally dock at the facility with the First State.
- |                  |              |             |             |
|------------------|--------------|-------------|-------------|
| Make/model _____ | length _____ | width _____ | draft _____ |
| Make/model _____ | length _____ | width _____ | draft _____ |
| Make/model _____ | length _____ | width _____ | draft _____ |
| Make/model _____ | length _____ | width _____ | draft _____ |
9. Please provide a copy of the current state registration or Coast Guard Certificate of Documentation for each motorized vessel listed above.
10. Give the number and type of each Marine Sanitation Device (e.g. MSD III, Portable toilet) that will be used on vessels to be docked at the facility. The MSD on board is an Incinoleet which burns waste onboard.
11. Is there currently a residence on the property? \_\_\_\_\_ Yes \_\_\_\_\_ No
12. Do you plan to reach the boat docking facility from your own upland property? \_\_\_\_\_ Yes \_\_\_\_\_ No If "No", explain your proposed means of access and provide documentation of easement or documentation authorizing access if you intend to cross someone else's property.
13. Will any portion of the structure be located in privately owned underwater land (such as a pond or lagoon) owned by someone other than the applicant? \_\_\_\_\_ Yes \_\_\_\_\_ No.  
If yes, written permission of the underwater land owner must be provided with this application.
14. What is the width of the waterfront property frontage adjacent to subaqueous lands? \_\_\_\_\_ ft. ~750 ft of frontage  
Will any portion of the structure or any vessel be placed within 10 feet of your neighbor's property line?  
\_\_\_\_\_ Yes \_\_\_\_\_ No  
If yes, a letter of no objection from the adjacent property owner must be included with this application.

**UNITED STATES OF AMERICA****DEPARTMENT OF HOMELAND SECURITY  
UNITED STATES COAST GUARD****NATIONAL VESSEL DOCUMENTATION CENTER*****CERTIFICATE OF DOCUMENTATION***

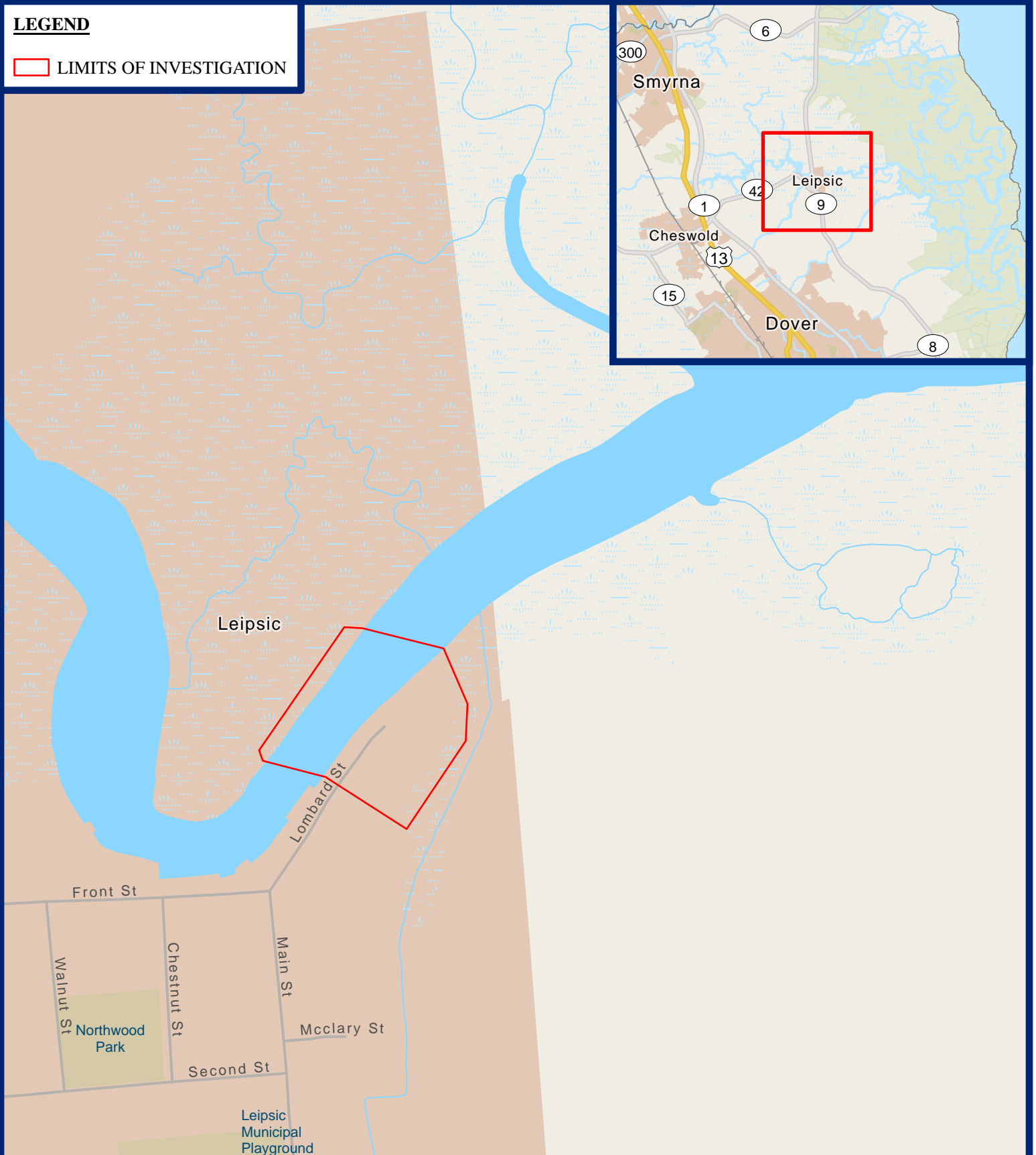
VESSEL NAME FIRST STATE		OFFICIAL NUMBER 1126487	IMO OR OTHER NUMBER DKRD3600D202	YEAR COMPLETED 2002	
HAILING PORT DOVER DE		HULL MATERIAL ALUMINUM		MECHANICAL PROPULSION YES	
GROSS TONNAGE  63 GRT	NET TONNAGE  50 NRT	LENGTH  62.0	BREADTH  17.0	DEPTH  9.0	
PLACE BUILT  MAMARONECK NY					
OWNERS STATE OF DELAWARE DIVISION OF FISH AND WILDLIFE		OPERATIONAL ENDORSEMENTS FISHERY			
MANAGING OWNER STATE OF DELAWARE DIVISION OF FISH AND WILDLIFE ATTN: VICKI RHODES 89 KINGS HIGHWAY DOVER DE 19901					
RESTRICTIONS NONE					
ENTITLEMENTS NONE					
REMARKS None					
ISSUE DATE MARCH 07, 2025		 DIRECTOR, NATIONAL VESSEL DOCUMENTATION CENTER			
THIS CERTIFICATE EXPIRES MARCH 31, 2026					





**LEGEND**

 LIMITS OF INVESTIGATION



550 Bay Road  
Dover, DE 19901  
P: 302.734.9188

**VICINITY MAP**

**LEIPSIC RESEARCH DOCK FACILITY**  
**KENT COUNTY, DELAWARE**

Basemap Source: FirstMap (2022)  
ArcGIS Online

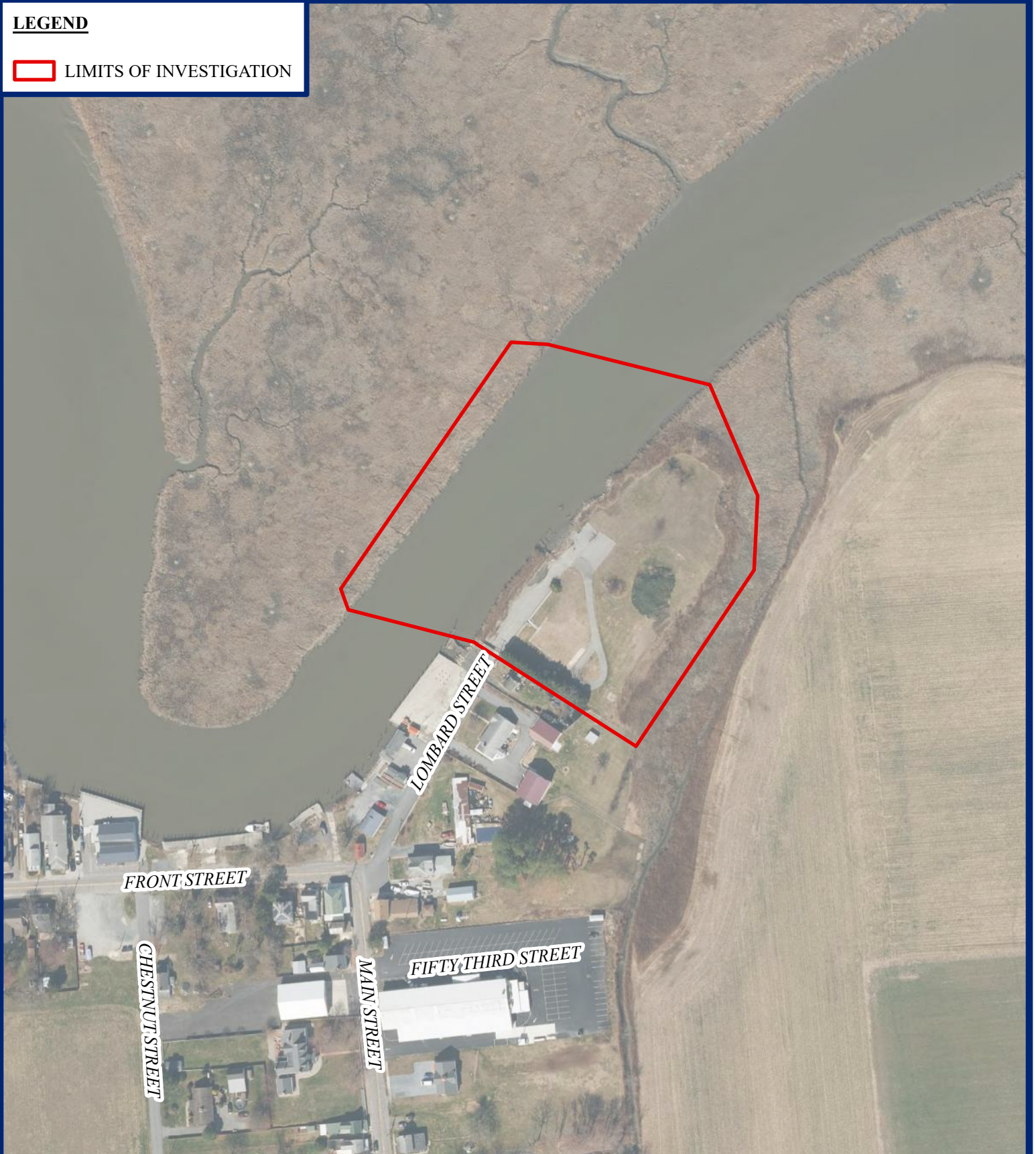
**3**

1 inch = 400 feet

**LEGEND**



LIMITS OF INVESTIGATION



550 Bay Road  
Dover, DE 19901  
P: 302.734.9188

AERIAL IMAGERY  
LEIPSIC RESEARCH DOCK FACILITY  
KENT COUNTY, DELAWARE

Aerial Imagery Source: FirstMap (2022)  
ArcGIS Online

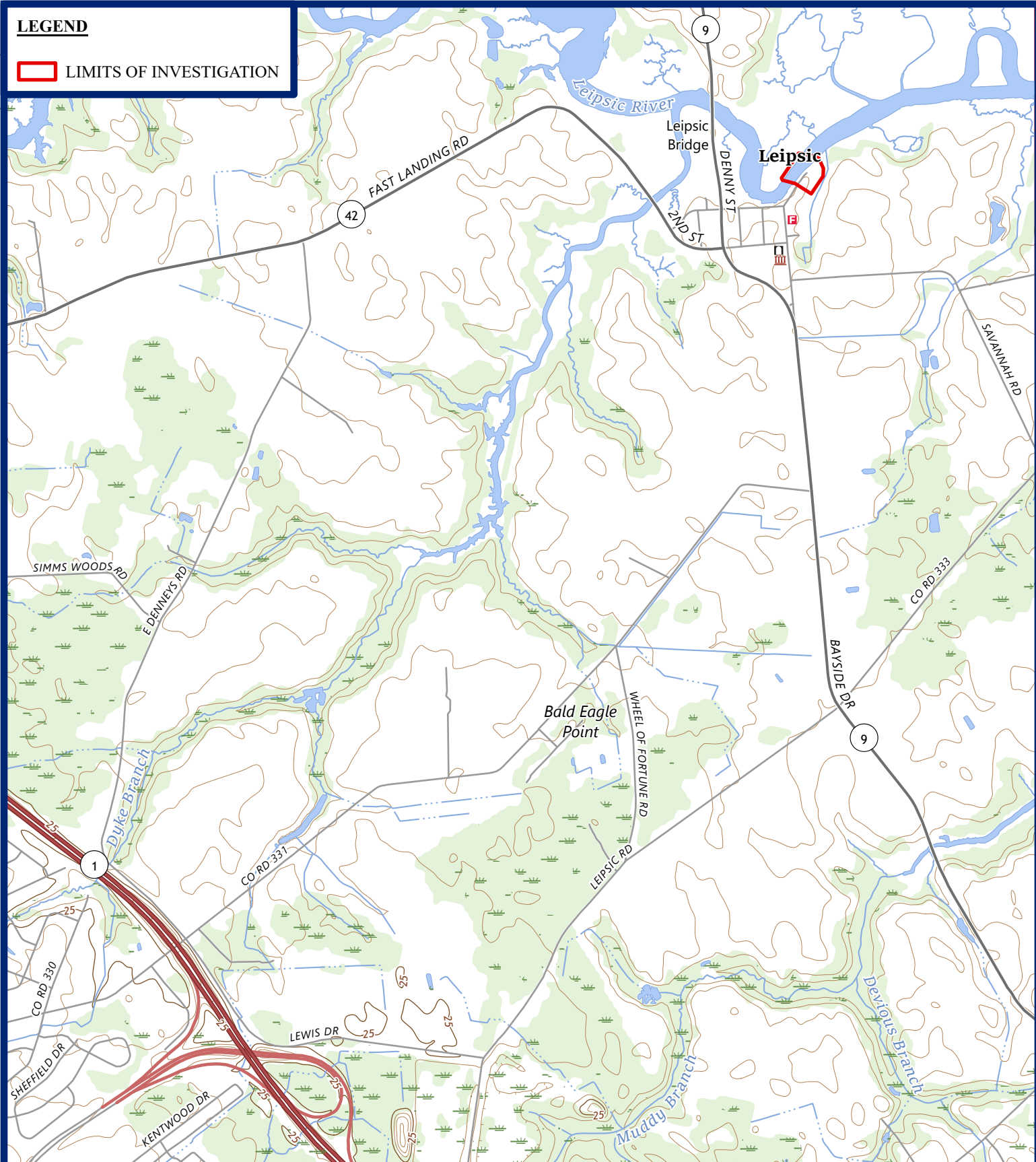


1 inch = 200 feet



# LEGEND

 LIMITS OF INVESTIGATION



550 Bay Road  
Dover, DE 19901  
P: 302.734.9188

## USGS TOPOGRAPHIC QUADRANGLE MAP





LEIPSIC RESEARCH DOCK FACILITY  
KENT COUNTY, DELAWARE

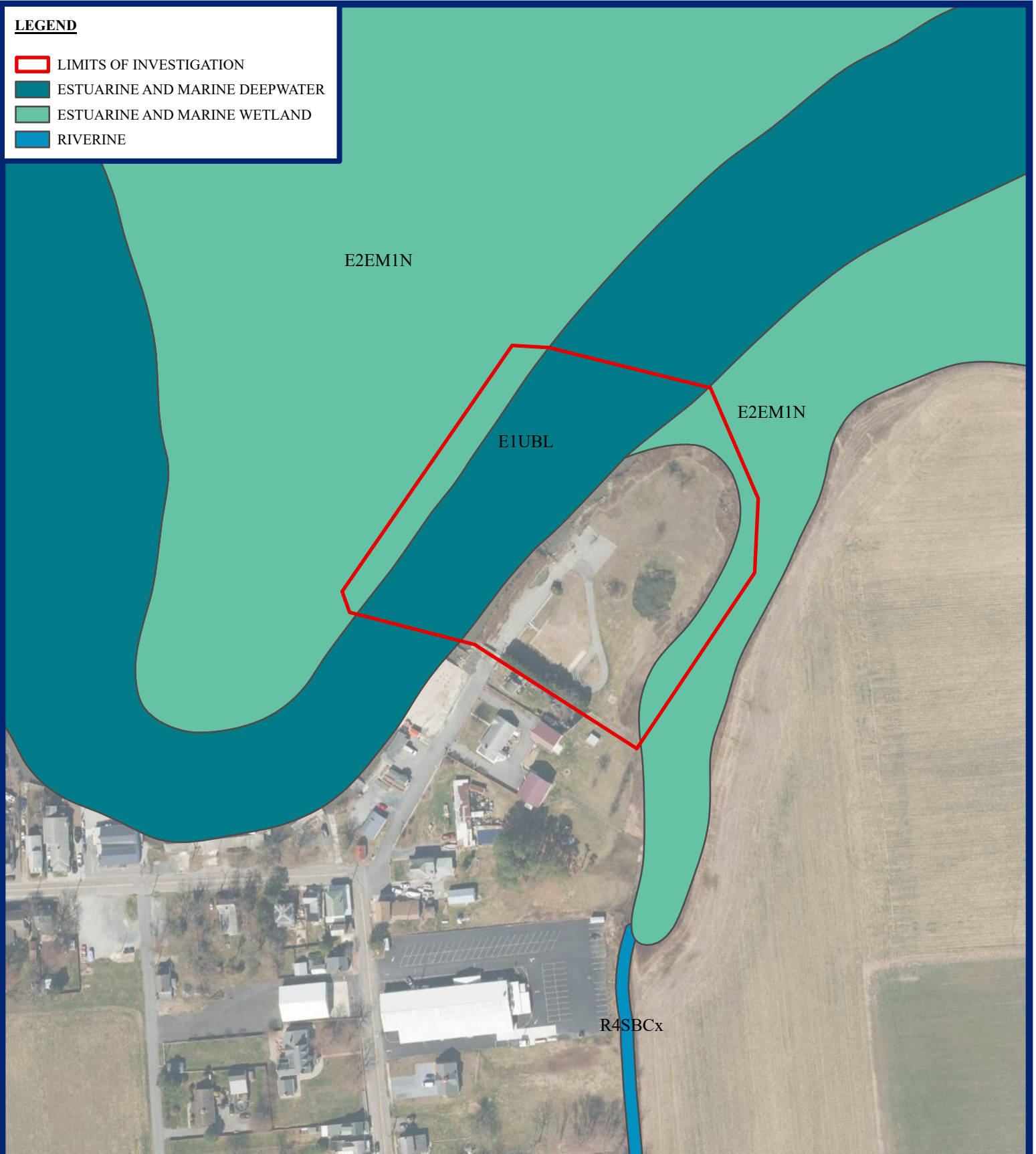
USGS Topo Quads:  
DOVER (DE)



Area: 5.73 +/- AC  
Latitude: 39°14'33.0"N  
Longitude: 75°30'45.8"W  
Elevation: ~0-10 feet  
Scale: 1:24,000

**LEGEND**

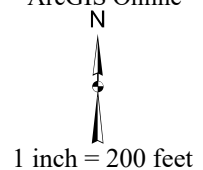
-  LIMITS OF INVESTIGATION
-  ESTUARINE AND MARINE DEEPWATER
-  ESTUARINE AND MARINE WETLAND
-  RIVERINE



550 Bay Road  
Dover, DE 19901  
P: 302.734.9188

NATIONAL WETLANDS INVENTORY  
LEIPSIC RESEARCH DOCK FACILITY  
KENT COUNTY, DELAWARE

Basemap Source: FirstMap (2022)  
NWI Inventory Source: USFWS (2022)  
ArcGIS Online

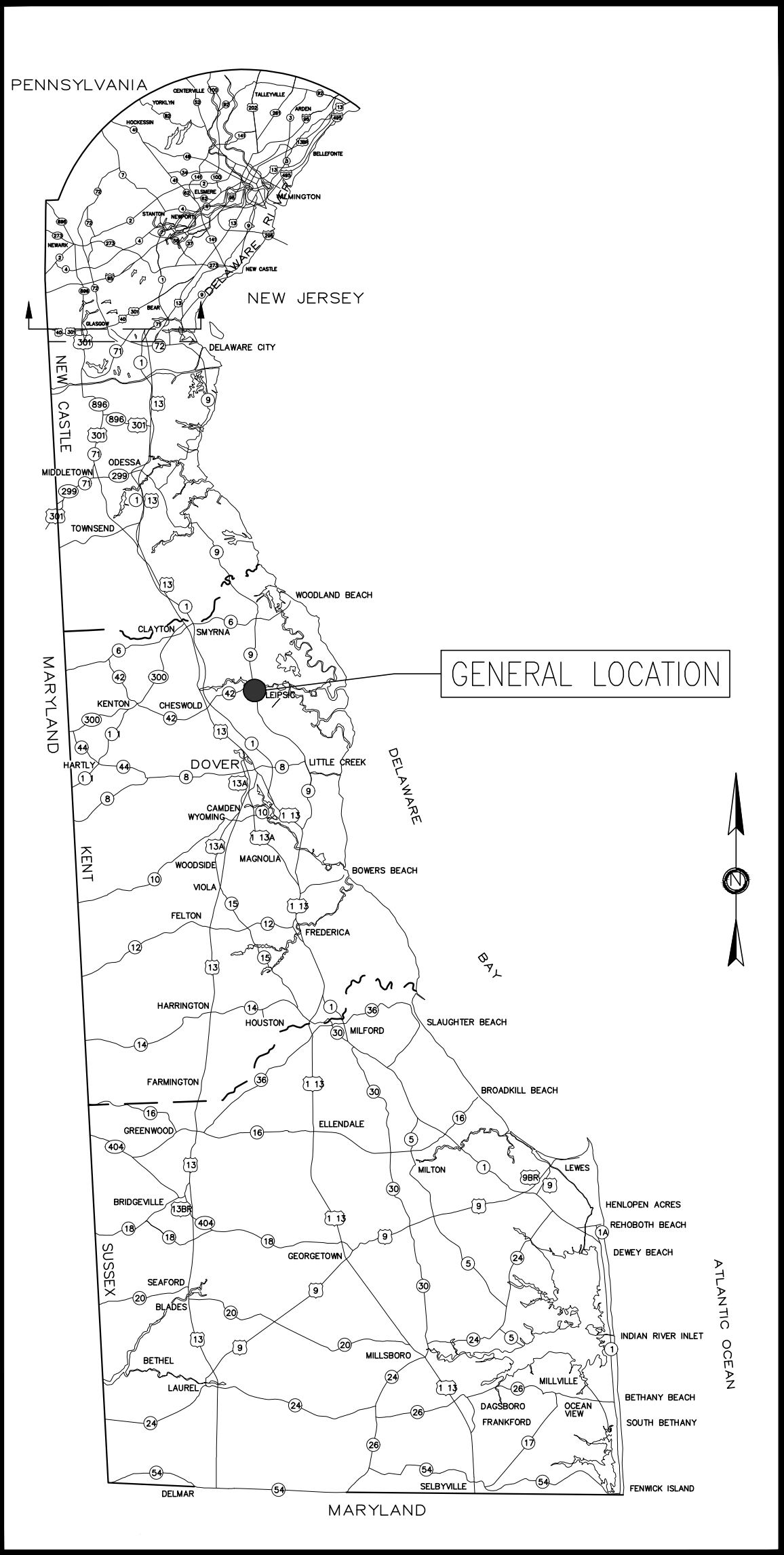




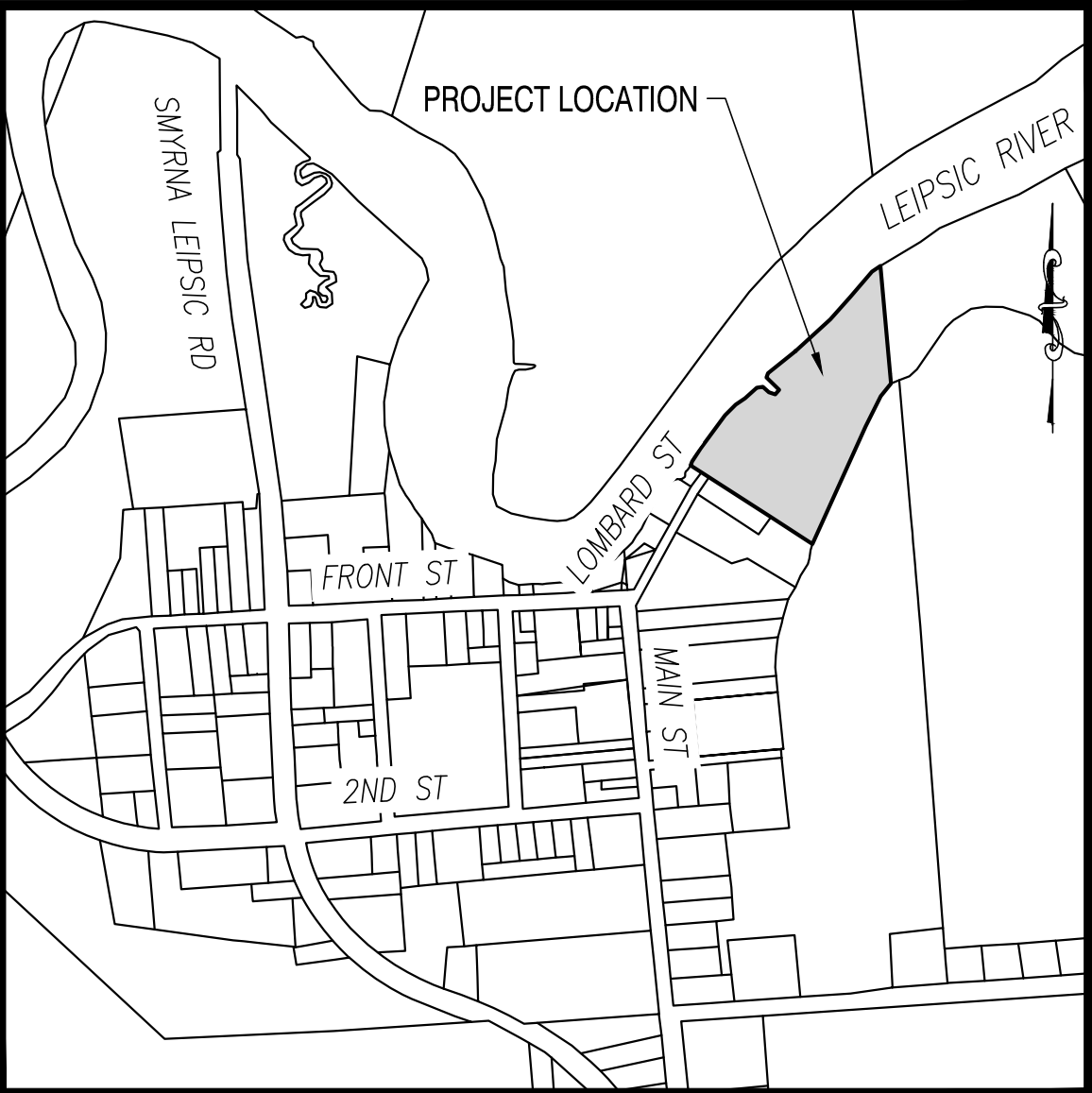
STATE OF DELAWARE  
DIVISION OF FISH AND WILDLIFE

LEIPSIC RESEARCH DOCK FACILITY

LEIPSIC, KENT COUNTY, DELAWARE  
DFW CONTRACT #NAT 202301-LEIPSICRESEARCHDOCK  
99% DESIGN REVIEW PLAN SET



LOCATION MAP SCALE: NTS



SITE MAP SCALE: 1" = 500'

DATA COLUMN			
1. TAX PARCEL NUMBER:	4-13-03910-01-3100-00001	6. SITE BREAKDOWN:	8. TOPOGRAPHY:
2. TAX PARCEL AREA:	4.45 ACRES	EXISTING SITE	TOPOGRAPHY TAKEN FROM SITE SURVEY PERFORMED BY CENTURY ENGINEERING, LLC, IN NOVEMBER 2023.
3. ADDRESS OF SITE:	86 LOMBARD ST LEIPSIC, DE 19901	IMPERVIOUS: 0.465 ± ACRES	9. WETLANDS:
4. DATUM:	VERTICAL - NAVD83 HORIZONTAL - NAD83	OPEN SPACE: 3.985 ± ACRES	A SITE INVESTIGATION PERFORMED BY CENTURY ENGINEERING, LLC, ON NOVEMBER 2023, FOUND THAT STATE AND FEDERALLY REGULATED WETLANDS AND WATERS WERE LOCATED WITHIN THE SITE AREA.
5. FLOODPLAIN MAP:	PER FEMA MAP NO. 10001C01571, DATED JULY 7, 2014. THE MAJORITY OF THE SITE PARCEL IS DETERMINED TO BE WITHIN ZONE AE (1% ANNUAL CHANCE FLOOD HAZARD). IN ADDITION, A PORTION OF THE SITE IS LOCATED IN THE 0.2% ANNUAL CHANCE FLOOD HAZARD (BASE FLOOD ELEVATION DETERMINED: ELEV.: 8).	OVERALL TOTAL: 4.451 ± ACRES	10. OWNER/DEVELOPER:
		PROPOSED SITE	STATE OF DELAWARE
		IMPERVIOUS: 0.562 ± ACRES	DIVISION OF FISH AND WILDLIFE
		OPEN SPACE: 3.892 ± ACRES	89 KINGS HIGHWAY
		OVERALL TOTAL: 4.451 ± ACRES	DOVER, DE 19901
		PROPOSED INCREASE IN IMPERVIOUS AREA: 0.097 ACRES	11. APPLICANT:
		7. TOTAL LAND DISTURBANCE:	STATE OF DELAWARE
		THE TOTAL LAND DISTURBANCE PROPOSED BY THIS PLAN IS 0.932± ACRES	DIVISION OF FISH AND WILDLIFE
			89 KINGS HIGHWAY
			DOVER, DE 19901
			JEREMEY ASHE
			(302) 739-9921/JEREMEY.ASHE@DELAWARE.GOV
			12. ENGINEER:
			CENTURY ENGINEERING, LLC.
			550 BAY ROAD
			DOVER, DE 19901
			ARTHUR LANCE WILGUS, P.E.
			(302) 734-9188/ LWILGUS@KLEINFELDER.COM

WETLAND DELINEATION

THIS PROPERTY, TAX MAP 4-13-03910-01-3100-00001, HAS BEEN EXAMINED BY CENTURY ENGINEERING, LLC, FOR THE PRESENCE OF WATERS OF THE UNITED STATES, INCLUDING WETLANDS (SECTION 404 AND SECTION 10), STATE SUBAQUEOUS LANDS AND STATE REGULATED WETLANDS AS ESTABLISHED BY THE REVIEWING AGENCIES IN THE FORM OF MANUALS, POLICIES AND PROCEDURES IN PLACE AT THE TIME THAT THE INVESTIGATION WAS CONDUCTED. THE WETLAND INFORMATION CONTAINED IN THIS PLAN SET IS IN ACCORDANCE WITH THIS CRITERIA. THE WETLAND DELINEATION FOR THIS PROJECT WAS COMPLETED BY CENTURY ENGINEERING, LLC.

MATT FETTERS, PWS  
CENTURY ENGINEERING, LLC.  
550 BAY ROAD  
DOVER, DELAWARE 19901  
PHONE: (302) 734-9188 / FAX: (302) 734-4589

OWNER CERTIFICATION

I, JEREMEY ASHE, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED STANDARD PLAN AND THAT RESPONSIBLE PERSONNEL (I.E., BLUE CARD HOLDER) INVOLVED IN THE LAND DISTURBANCE WILL HAVE A CERTIFICATION OF TRAINING PRIOR TO INITIATION OF THE PROJECT, AT A DNREC SPONSORED OR APPROVED TRAINING COURSE FOR THE CONTROL OF EROSION AND SEDIMENT DURING CONSTRUCTION. IN ADDITION, I GRANT THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY THE RIGHT TO CONDUCT ON-SITE REVIEWS.

JEREMEY ASHE - CONSTRUCTION MANAGER  
STATE OF DELAWARE  
DELAWARE DIVISION OF FISH & WILDLIFE  
89 KINGS HIGHWAY  
DOVER, DE 19901  
PHONE: (302) 632-5404

CERTIFICATION OF PLAN ACCURACY

I, ARTHUR LANCE WILGUS, HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.

ARTHUR LANCE WILGUS, P.E., DE NO. 6538  
CENTURY ENGINEERING, LLC.  
550 BAY ROAD  
DOVER, DELAWARE 19901  
PHONE: (302) 734-9188 / FAX: (302) 734-4589

INDEX OF SHEETS	
SHEET NUMBER	SHEET TITLE
C100	COVER SHEET
C101	LEGEND & NOTES
C102	EXISTING CONDITIONS
C103	DEMOLITION PLAN
C104	SITE LAYOUT
C105	GRADING
C106	DOCK DETAILS
C107	DOCK DETAILS
C108	SITE DETAILS
C109	SITE DETAILS
C110	FIRE MARSHAL PLAN (SITE)
C111	FIRE MARSHAL PLAN (DOCK)
C112	ENVIRONMENTAL COMPLIANCE PLAN
C113	ENVIRONMENTAL COMPLIANCE PLAN
C114	EROSION AND SEDIMENT CONTROL PLAN
C115	E&S DETAILS
C116	E&S DETAILS
C117	E&S DETAILS
C118	E&S DETAILS
S001	GENERAL NOTES & ABBREVIATIONS
S002	DESIGN PARAMETERS & SCHEDULES
S100	FOUNDATION & MEZZANINE PLAN
S301	SECTIONS & DETAILS
S501	TYPICAL DETAILS
A001	ABBREVIATIONS, SYMBOLES & CODE SUMMARY
A100	FIRST FLOOR CONSTRUCTION PLAN & LIFT DETAILS
A101	MEZZANINE CONSTRUCTION & STAIR DETAILS
A102	REFLECTED CEILING PLANS, ROOF PLANS & ROOF DETAILS
A201	BUILDING ELEVATIONS
A301	BUILDING SECTIONS
A302	WALL SECTIONS
A303	WALL SECTIONS
A401	ENLARGED BATHROOM PLAN & ELEVATIONS
M001	SYMBOLS, NOTES & ABBREVIATIONS
M101	FLOOR PLANS - MECHANICAL
M501	MECHANICAL DETAILS
M701	MECHANICAL SCHEDULE
P001	SYMBOLS, NOTES & ABBREVIATIONS
P101	FLOOR PLAN - PLUMBING
P102	LOFT PLAN AND ISOMETRIC PLAN - PLUMBING
P701	PLUMBING SCHEDULE
E001	ELECTRICAL NOTES & ABBREVIATIONS
E002	ELECTRICAL SYMBOLS
E010	ELECTRICAL SITE PLAN
E101	FLOOR PLANS - LIGHTING
E102	FLOOR PLANS - POWER
E103	FLOOR PLANS - FIRE ALARM
E501	ELECTRICAL DETAILS
E601	ELECTRICAL RISER DIAGRAMS
E701	ELECTRICAL SCHEDULES

REVISIONS:

DATE: DESCRIPTION: BY:

LEIPSIC RESEARCH DOCK FACILITY

COVER SHEET

SEAL:

CIVIL ENGINEER:

CENTURY ENGINEERING  
A Kleinfelder Company



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

AS SHOWN












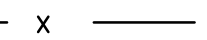
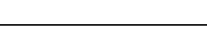





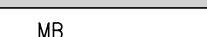
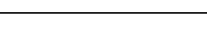
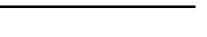

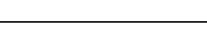
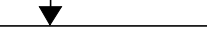

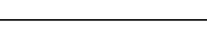


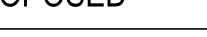
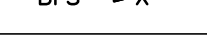



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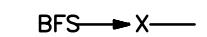

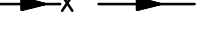



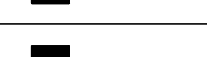


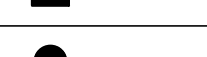


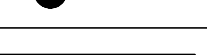


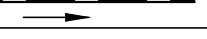
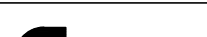


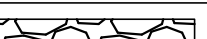




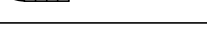





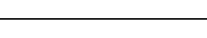


C100



PROJECT NO.:

00175013.092A



MANMADE ROADSIDE FEATURES			
FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BOLLARD – STEEL POLE			
BOLLARD – WOOD POST			
CURB, TYPE 1 AND TYPE 3			
CURB, TYPE 2			
CURB & GUTTER, TYPE 1			
CURB & GUTTER, TYPE 2			
CURB & GUTTER, TYPE 3			
FENCE – CHAINLINK OR STRANDED			
FENCE			
FLAG POLE			
GUARDRAIL – STEEL BEAM, TYPE 1			
LAMP AND POST			
MAILBOX			
PAVEMENT			
PILLAR OR MISCELLANEOUS POST			
TRAFFIC SIGN AND POST			

DRAINAGE FEATURES			
FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BIOFILTRATION SWALE			
DITCH OR STREAM CENTERLINE			
DIRECTIONAL STREAM FLOW ARROW			
DRAINAGE INLET			
DRAINAGE JUNCTION BOX			
DRAINAGE MANHOLE			
DRAINAGE PIPE AND FLOW ARROW			
FLARED END SECTION			
RIPRAP – AREA FEATURE			
SAFETY END SECTION			
UNDERDRAIN			
UNDERDRAIN OUTLET			

PAVEMENT SECTION(S)	
MILL AND OVERLAY – SEE TYPICAL SECTIONS FOR MATERIAL AND DEPTHS	
FULL DEPTH PAVEMENT	

#### PROJECT SPECIFICATION HIERARCHY

ELEMENTS UNDER THIS CONTRACT SHALL BE CONSTRUCTED UTILIZING THE FOLLOWING INFORMATION IN THE HIERARCHY LISTED BELOW:

- CONTRACT AGREEMENT BETWEEN OWNER AND CONTRACTOR.
- APPROVED PLANS.
- PROJECT MANUAL AND ENCLOSED TECHNICAL SPECIFICATIONS.
- STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL EROSION AND SEDIMENT CONTROL HANDBOOK, FEBRUARY 2019 OR MOST CURRENT AT DATE OF ADVERTISEMENT.
- DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DETAILS, 2020, OR MOST CURRENT AT ADVERTISEMENT.
- DELAWARE DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION, REVISION #2 – JUNE 2022, OR MOST CURRENT AT DATE OF ADVERTISEMENT.

#### GENERAL NOTES


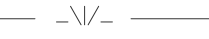






- THE CONSTRUCTION SITE WILL BE CLOSED TO PUBLIC ACCESS DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR WILL HAVE PRIMARY ACCESS AND CONTROL OF THE SITE DURING THE CONSTRUCTION PERIOD.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE CONSTRUCTION PERIOD. AS A MINIMUM THE CONTRACTOR SHALL SECURE THE EXISTING VINYL FENCE GATE AT THE PROPERTY ENTRANCE FROM LOMBARD STREET AND PLACE SIGNAGE ON THE GATE NOTIFYING THE PUBLIC THAT THIS IS AN ACTIVE CONSTRUCTION SITE AND NOT OPEN TO PUBLIC ACCESS. THE CONTRACTOR'S PROPOSED PROCEDURES FOR IDENTIFYING AND SECURING THE CONSTRUCTION SITE TO CONTROL PUBLIC ACCESS SHALL BE SUBMITTED TO DNREC FOR APPROVAL PRIOR TO THE START OF WORK. THE COST TO INSTALL, RELOCATE, AND MAINTAIN SITE SECURITY SHALL BE INCIDENTAL TO THE CONTRACT.
- AS A MINIMUM, THE CONTRACTOR SHALL CLOSE PUBLIC ACCESS TO THE CONSTRUCTION SITE FROM LOMBARD STREET BY EITHER UTILIZING THE EXISTING VINYL FENCE AND GATE OR PROVIDING TEMPORARY CONSTRUCTION FENCING AND GATE, OR PERMANENT FENCING AND GATE AT THE ENTRANCE TO THE CONSTRUCTION SITE.
- WHERE, AT ALL TIMES, CONSTRUCTION VEHICLES, EQUIPMENT, WORKERS, AND THEIR ACTIVITIES ARE ACCESSING THE CONSTRUCTION SITE THROUGH OR FROM THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL CONDUCT OPERATIONS IN A SAFE MANNER AND NOT OBSTRUCT OR RESTRICT THE PUBLIC USE OF THE RIGHT-OF-WAY. WHERE IT IS NECESSARY FOR CONSTRUCTION VEHICLES, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES TO OBSTRUCT OR RESTRICT THE PUBLIC USE OF THE RIGHT-OF-WAY THE CONTRACTOR SHALL PROVIDE FOR THE MAINTENANCE OF TRAFFIC WITHIN THE PUBLIC RIGHT-OF-WAY AS REQUIRED IN ACCORDANCE WITH THE DELAWARE TRAFFIC CONTROL MANUAL, LATEST EDITION.
- ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION AND SHALL BE IN COMPLIANCE WITH NCHRP 350.
- THE CONTRACTOR SHALL PROVIDE AND PLACE A MINIMUM OF TWO SIGNS INFORMING THE PUBLIC OF UPCOMING CONSTRUCTION ACTIVITIES AND AREA CLOSURE. THE SIGNS SHALL BE A MINIMUM OF 8.5" X 11" LAMINATED PAPER AND SHALL SAY "NOTICE TO THE PUBLIC: THIS AREA WILL BE CLOSED FROM (INSERT DATE) TO (INSERT DATE) DUE TO CONSTRUCTION ACTIVITIES. PLEASE CALL THE DIVISION OF FISH & WILDLIFE FISHERIES SECTION AT 302-739-9914 WITH ANY QUESTIONS". SIGNS SHALL BE POSTED A MINIMUM OF TWO WEEKS BEFORE THE CONSTRUCTION

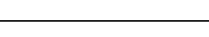
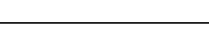
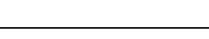
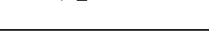
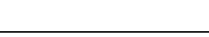
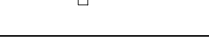









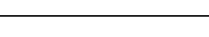
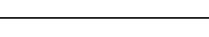
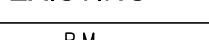
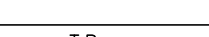
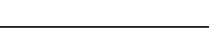
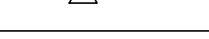
- CLOSURE. SIGN LOCATIONS AND CLOSURE DATES SHALL BE COORDINATED WITH THE FISHERIES PROJECT MANAGER.
- THE CONTRACTOR SHALL CONDUCT THE WORK WITH CONSIDERATION GIVEN TO THE EXISTING CONDITIONS AND FEATURES AT THE SITE. THE CONTRACTOR SHALL PROTECT ALL FEATURES NOT DESIGNATED TO BE REMOVED. FEATURES NOT SPECIFICALLY DESIGNATED FOR DEMOLITION OR REMOVAL THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO DNREC.
- THE CONTRACTOR SHALL PROVIDE ITS OWN FACILITIES AS NECESSARY DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION TRAILER, STORAGE FACILITIES, AND PORTABLE TOILETS.
- THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH THE OWNER, ENGINEER AND ANY OTHER ATTENDEES REQUESTED BY THE OWNER A MINIMUM OF 1 WEEK IN ADVANCE OF MOBILIZATION TO THE SITE.
- THE CONTRACTOR SHALL CONTACT THE OWNER AND THE ENGINEER AT LEAST 48 HOURS PRIOR TO ALL MEETINGS, INCLUDING PRE-CONSTRUCTION MEETINGS, AS REQUIRED IN THE CONSTRUCTION SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN THE SCALED AND THE FIGURED DIMENSIONS SHOWN ON THE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING ALL DIMENSIONS NECESSARY FOR THE WORK.
- IN CASE OF CONFLICT BETWEEN THE "MANUFACTURER'S RECOMMENDATIONS" FOR AN APPROVED MATERIAL AND THE GOVERNING "CONTRACT SPECIFICATIONS" FOR THE MATERIAL, THE MORE RESTRICTIVE OF THE TWO SHALL PREVAIL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY ELEMENTS OF CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY, ALL CONSTRUCTION, INCLUDING EXCAVATION, BACKFILLING, DEMOLITION, AND INSTALLATION, MUST BE COMPLETED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE

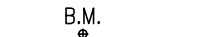
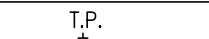

- OCCUPATIONAL SAFETY AND HEALTH ACT, CFR #1926.652(b)(2), AND ALL FEDERAL, STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL DESIGNATE A PERSON WHO SHALL BE RESPONSIBLE FOR CONSTRUCTION SITE AND WORKER SAFETY.
- THE TERM "ENGINEER," NOTED THROUGHOUT THE CONTRACT PLANS AND SPECIFICATIONS SHALL REFER TO DNREC, OR THEIR APPOINTED REPRESENTATIVE. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES AND PROVIDE ADVANCE NOTIFICATION OF ANY PROPOSED UTILITY DISRUPTION OR OUTAGE AS REQUIRED BY THE UTILITY COMPANY.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN SET OF NEATLY DRAWN "AS-BUILT" DRAWINGS LABELED IN RED INK THAT ACCURATELY ILLUSTRATE ALL FIELD CHANGES. FINAL "AS-BUILT" DRAWINGS SHALL BE DATED AND SIGNED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER AT THE END OF THE PROJECT FOR RECORDATION.
- PORTIONS OF THE WORK ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS) DATED JANUARY 2025 OR LATEST EDITION INCLUDING ALL REVISIONS UP TO ADVERTISEMENT OF THIS PROJECT, UNLESS NOTED OTHERWISE IN THESE PLANS OR THE SPECIFICATIONS. SITE ELEMENTS WITHIN THIS PLAN FOLLOW DELAWARE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. SIX (6) DIGIT ITEM NUMBER PROVIDED REFERS TO SPECIFICATION SECTION.
- THIS PROJECT IS SUBJECT TO THE BUILD AMERICA, BUY AMERICA ACT (BABA), ENACTED AS PART OF THE BIPARTISAN INFRASTRUCTURE LAW (BIL) REQUIRES IRON, STEEL, MANUFACTURED PRODUCTS, AND CONSTRUCTION MATERIALS USED IN INFRASTRUCTURE PROJECTS FUNDED BY FEDERAL FINANCIAL ASSISTANCE TO BE PRODUCED IN THE UNITED STATES. ALL MATERIALS THAT WILL BE PERMANENTLY INCORPORATED INTO THIS PROJECT WILL MEET THE BABA MATERIAL REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO CERTIFY AND PROVIDE DOCUMENTATION THAT CONSTRUCTION MATERIALS ARE COMPLIANT WITH BABA REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

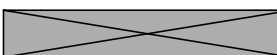
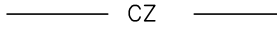
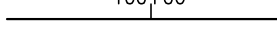


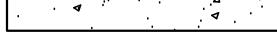
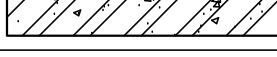


#### SITE NOTES:























- NO "IN-WATER" WORK SHALL BE ALLOWED DURING THE PERIOD FROM MARCH 1 THROUGH JULY 31.
- THE BASE SURVEY, INCLUDING ALL CONTOURS AND ELEVATIONS, IS BASED ON CONVENTIONAL SURVEY TAKEN IN THE FIELD. A BOUNDARY SURVEY WAS NOT PERFORMED. THE WETLAND DELINEATIONS WERE TAKEN FROM THE DNREC STATE REGULATED WETLANDS MAP INDEX AND FIELD VERIFIED.
- EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY OWNERS INVOLVED TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. ALL COSTS OF UTILITY LOCATING SHALL BE INCIDENTAL TO THE CONTRACT.
- TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A LOCATE REQUEST TO MISS UTILITY OF DELMARVA (EASTERN SHORE MARYLAND AND DELAWARE). NO EXCAVATION WORK SHALL BEGIN UNTIL ALL UTILITIES AS IDENTIFIED THROUGH THE MISS UTILITY LOCATE REQUEST HAVE EITHER BEEN CLEARED OR MARKED IN THE FIELD. TO LOCATE PRIVATELY OWNED UTILITIES THE CONTRACTOR SHALL CONTACT AND ARRANGE WITH THE UTILITY OWNER TO MARK THE PRIVATE UTILITIES IN THE FIELD. IF THE PRIVATE UTILITY OWNER DOES NOT MARK THEIR UTILITIES IN THE FIELD, THE CONTRACTOR SHALL EMPLOY A PRIVATE UTILITY COMPANY TO MARK THE UTILITIES.
- NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48-HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE TO THE MAXIMUM EXTENT POSSIBLE. ALL EXISTING UTILITIES SHALL BE PROTECTED AND TEMPORARILY SUPPORTED OR RELOCATED AS NECESSARY TO COMPLETE THE WORK IN ACCORDANCE WITH THE PERTINENT UTILITY COMPANY OR UTILITY OWNER REQUIREMENTS. ANY DAMAGE DONE TO EXISTING UTILITIES DUE TO CONTRACTOR'S NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED TO THE SATISFACTION OF THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL DESIGNATE A PERSON WHO SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES. THE PERSON RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CERTIFIED BY DNREC FOR EROSION AND SEDIMENT CONTROL RESPONSIBILITY (CERTIFIED CONSTRUCTION REVIEWER – BLUE CARD).
- THE CONTRACTOR SHALL ONLY WORK WITHIN THE DESIGNATED LIMIT OF CONSTRUCTION (LOC). ALL RUTS AND DEPRESSIONS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE FILLED, TOPSOILED, SEEDED AND MULCHED TO MATCH THE ADJACENT AREA. IMPACTS TO WETLANDS OR WORK OUTSIDE OF THE LIMIT OF CONSTRUCTION IS STRICTLY PROHIBITED.
- THE AREAS OF SITE WORK ARE GENERALLY SHOWN. HOWEVER, THE EXTENT OF RESTORATION IS NOT NECESSARILY LIMITED TO THESE AREAS. THE CONTRACTOR SHALL RESTORE ALL PAVING, SIDEWALKS, OR NON-PAVED AREAS AFFECTED BY THE CONSTRUCTION TO A CONDITION COMPARABLE TO THAT EXISTING PRIOR TO CONSTRUCTION, AND TO THE SATISFACTION OF DNREC.
- THE CONTRACTOR SHALL REGRADE AND RESTORE ALL AREAS DISTURBED BY THE CONSTRUCTION AS NECESSARY TO PROVIDE A UNIFORM, GRADUAL TRANSITION BETWEEN NEW FINISHED GRADES AND EXISTING GRADES, TO CREATE A NATURAL APPEARANCE AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM PAVED AREAS AND BUILDINGS. SUCH GRADING AND RESTORATION SHALL BE DONE TO THE SATISFACTION OF DNREC. THE COST FOR SITE RESTORATION SHALL BE INCIDENTAL TO THE CONTRACT.
- EXISTING SOILS, CONSTRUCTION MATERIALS, DEBRIS, CONCRETE, MASONRY, CONDUIT, PIPE, ETC. REMOVED DURING CONSTRUCTION, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF OFF SITE.






NATURAL ROADSIDE FEATURES		
FEATURE DESCRIPTION	EXISTING	PROPOSED
HEDGEROW OR THICKET		
MARSH BOUNDARY LINE		
TREE – CONIFEROUS		
TREE – DECIDUOUS		
TREE STUMP		
SHRUBBERY		
WETLAND BOUNDARY – DELINEATED		
WOODS LINE BOUNDARY		

RIGHT-OF-WAY FEATURES		
FEATURE DESCRIPTION	EXISTING	PROPOSED
DENIAL OF ACCESS		
EASEMENT – OTHERS		
PERMANENT EASEMENT		
PROPERTY LINE		
PROPERTY MARKER – CONCRETE		
PROPERTY MARKER – IRON PIPE		
RIGHT-OF-WAY BASELINE		
RIGHT-OF-WAY LINE		
RIGHT-OF-WAY & DENIAL OF ACCESS		
RIGHT-TO-ENTER		
TEMPORARY CONSTRUCTION EASEMENT		
CLEAR ZONE		
HORIZONTAL CLEARANCE		



SURVEY CONTROL & MONUMENTATION	
FEATURE DESCRIPTION	EXISTING
SURVEY BENCHMARK LOCATION	
SURVEY TIE POINT LOCATION	
SURVEY TRAVERSE POINT	

MISCELLANEOUS FEATURES	
FEATURE DESCRIPTION	PROPOSED
BUTT JOINT	
CLEAR ZONE	
CONSTRUCTION BASELINE	
LIMIT OF CONSTRUCTION	
DEMOLITION	
P.C.C. SIDEWALK	
6" P.C.C. SIDEWALK	
PAVEMENT PATCH	
SAW CUT	

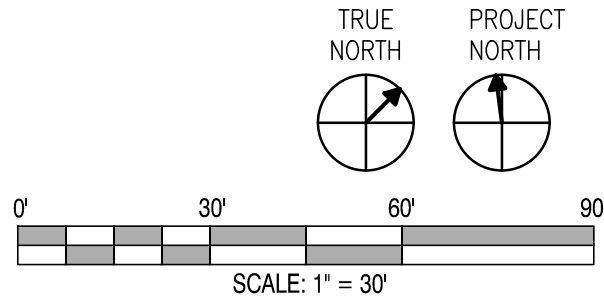
IDENTIFIERS	
FEATURE DESCRIPTION	ID
ABANDON BY CONTRACTOR	
ABANDON BY OTHERS	
ADJUST BY CONTRACTOR	
ADJUST BY OTHERS	
BEST MANAGEMENT PRACTICE	
BUS STOP PAD / TYPE	
BUS STOP WITH SHELTER PAD / TYPE	
CONCRETE SAFETY BARRIER	
CONVERT TO JUNCTION BOX	
CONVERT TO DRAINAGE MANHOLE	
DO NOT DISTURB	
ENERGY DISSIPATOR	
FILL WITH FLOWABLE FILL	
LANDSCAPE PLANTINGS	
PEDESTRIAN CONNECTION / TYPE	
RELOCATE BY CONTRACTOR	
RELOCATE BY OTHERS	
RELOCATE BY PROPERTY OWNER	
REMOVE BY CONTRACTOR	
REMOVE BY OTHERS	
REMOVE BY TRAFFIC CONTRACTOR	
RIGHT-OF-WAY MONUMENT	

EROSION & SEDIMENT CONTROL FEATURES	
FEATURE DESCRIPTION	PROPOSED
LIMIT OF DISTURBANCE	
PORTABLE SEDIMENT TANK	
PUMPING PIT	
SILT FENCE	
COMPOST FILTER LOG	

- NO DEMOLISHED MATERIAL OR STORED MATERIALS SHALL BE SOLD ON SITE.
- DEMOLITION SHALL INCLUDE THE REMOVAL, TRANSPORTATION, AND LEGAL DISPOSAL OF ALL MATERIALS AS INDICATED ON THE DRAWINGS, INCLUDING ALL RELATED DEBRIS, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL EXCESS MATERIAL OFF SITE AND/OR PROVIDING ADDITIONAL FILL MATERIAL AS REQUIRED. THIS PROJECT IS ANTICIPATED TO GENERATE EXCESS MATERIAL.
- NO DEBRIS SHALL BE BURIED OR BURNED ON THE SITE UNLESS SPECIFICALLY NOTED WITHIN THESE PLANS OR SPECIFICATIONS.
- BLASTING SHALL NOT BE ALLOWED.
- THERE ARE NO KNOWN HAZARDOUS MATERIALS WITHIN AREAS TO BE EXCAVATED ON THE SITE. IN THE EVENT THAT ANY HAZARDOUS MATERIALS MAY BE ENCOUNTERED WITHIN EXCAVATIONS, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND CONTACT DNREC.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING OFF-SITE SPOIL AREAS FOR LEGAL DISPOSAL OF EXCESS AND/OR UNSUITABLE EXCAVATED MATERIALS AS NECESSARY IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. ALL COSTS FOR TRANSPORTING TO, PROCURING AND UTILIZING THE OFF-SITE SPOIL AREAS ARE INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR STOCKPILE AREA IS SHOWN ON THE DRAWINGS. IF THE CONTRACTOR INTENDS TO STAGE OR STORE MATERIALS OFF-SITE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR OBTAINING ALL THE PROPER SEDIMENT AND STORMWATER APPROVALS AND/OR PERMITS THROUGH THE DESIGNATED DELEGATED AGENCY WHICH WILL BE DETERMINED BY THE LOCATION OF THE OFF-SITE MATERIAL STOCKPILE OR STAGING AREAS. ALL COSTS ASSOCIATED WITH OFF-SITE STOCKPILE OR STAGING AREAS SHALL BE INCIDENTAL TO THE WORK.
- THE CONTRACTOR SHALL LOAD TEST ALL SUBGRADE SOIL AREAS PRIOR TO PLACEMENT OF NEW SOIL STABILIZATION FABRIC AND GRADED AGGREGATE BASE COURSE FOR ALL PAVED AREAS. ANY AREAS OF UNSUITABLE MATERIAL SHALL BE EXCAVATED TO THE DEPTH OF STABLE SOIL AND BACKFILLED WITH APPROVED MATERIAL. DELDOT ITEM NO. 209002, BORROW TYPE B, SHALL BE UTILIZED FOR BACKFILL OF ALL UNDERCUT LOCATIONS AS DIRECTED BY THE ENGINEER IN THE FIELD. THE CONTRACTOR SHALL COMPACT ALL MATERIALS TO MEET THE DELDOT STANDARD SPECIFICATIONS. THE COST OF UNSUITABLE SUBGRADE UNDERCUT, REMOVAL, BACKFILL SHALL BE PAID FOR BY CHANGE ORDER.
- THE DRAWINGS INDICATE REQUIRED SURFACE GRADE ELEVATIONS AT PAVED ACCESSIBLE PARKING STALLS AND ACCESSIBLE ROUTES BETWEEN THE ACCESSIBLE PARKING AND THE BUILDING. THE CONTRACTOR SHALL CONSTRUCT THE NEW PAVEMENTS IN STRICT CONFORMANCE WITH THE INDICATED GRADES. IN ADDITION, THE SURFACE TRANSITIONS BETWEEN ASPHALT PAVEMENT, CONCRETE SIDEWALKS, AND CONCRETE DOCK ABUTMENT SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT REGARDING ALLOWABLE DIMENSIONS FOR SURFACE OPENINGS AND CHANGES IN LEVEL AT TRANSITIONS AND GAPS WITHIN THE ACCESSIBLE ROUTE. SEE AMERICANS WITH DISABILITIES ACT ACCESSIBLE GUIDELINES (ADAAG) FOR STANDARDS AND DETAILS REGARDING ALLOWABLE DIMENSIONS OR SUBMIT A REQUEST FOR INFORMATION TO DNREC.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 2 WORKING DAYS IN ADVANCE OF THE PROPOSED WORK TO ALLOW INSPECTION OF THE WORK AT THE FOLLOWING POINTS OF CONSTRUCTION:
  - PILE PLACEMENT
  - PROOF-ROLL TESTING OF PAVEMENT SUBGRADE
  - EACH DAY OF PROPOSED HOT-MIX PAVEMENT PLACEMENT
  - REBAR PLACEMENT FOR FUEL TANK CONCRETE PAD, DOCK RAMP CONCRETE, BUILDING FOUNDATION AND SLAB ON GRADE CONCRETE, SIDEWALK, OVERHEAD DOOR ARRON, AND MOWING STRIP CONCRETE.
- THE CONTRACTOR SHALL SCHEDULE AN ON-SITE PRE-PAVING MEETING WITH THE ENGINEER AND DNREC A MINIMUM 14 DAYS IN ADVANCE OF ASPHALT PAVING OPERATIONS. THE CONTRACTOR SHALL ALSO SUBMIT ITS PROPOSED ASPHALT PAVING PLAN TO THE ENGINEER AND DNREC A MINIMUM 14 DAYS IN ADVANCE OF PROPOSED PAVING OPERATIONS FOR REVIEW AND APPROVAL. THE PAVING PLAN SHALL SHOW THE LOCATION, WIDTH, LENGTH, AND DIRECTION OF PROPOSED PAVING LANES AND SEQUENCE OF CONSTRUCTION, FOR BOTH THE UNDERLYING AND SURFACE PAVEMENT COURSES, PAVEMENT JOINT OVERLAPS, LOCATION OF ANY PAVEMENT COLD JOINTS AND HAND WORK.
- IF THE CONTRACTOR DOES NOT PROVIDE ACCEPTABLE NOTICE OF HOT-MIX PLACEMENT, THE OWNER MAY REJECT ANY PAVING PERFORMED WITHOUT ACCEPTABLE NOTIFICATION.
- PAVING OF THE FINAL ASPHALT LIFT SHALL BE PERFORMED IN A CONTINUOUS OPERATION UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- ALL HOT JOINTS SHALL BE TIGHT WITH NO VISIBLE SEAMS. COLD JOINTS SHALL ONLY BE PLACED AT LOCATIONS APPROVED BY THE ENGINEER AND SHALL BE SEALED FOLLOWING PAVING OPERATIONS.
- THE OWNER SHALL HAVE THE OPTION TO REQUEST PAVEMENT CORES AND CORE HOLE PATCHING IN ANY LIFT, AT THE EXPENSE OF THE CONTRACTOR. PAVEMENT CORES AT THE CONTRACTOR'S EXPENSE WILL BE LIMITED TO A MAXIMUM OF 1 CORE PER 2,500 SF. IF PAVEMENT CORES INDICATE THAT THE PAVEMENT IS NOT IN COMPLIANCE WITH THE PLAN REQUIRED THICKNESS, THE CONTRACTOR SHALL REPLACE THE NON-COMPLIANT PAVEMENT AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL PERFORM ITS OWN QUALITY CONTROL DENSITY TESTING OF THE PAVEMENT DURING PAVING OPERATIONS TO ENSURE COMPLIANCE WITH DENSITY SPECIFICATIONS. THE OWNER SHALL HAVE THE OPTION TO PERFORM ITS OWN ADDITIONAL DENSITY TESTING DURING PAVING OPERATIONS. IF OWNER DENSITY TESTING INDICATES THAT THE PAVEMENT IS NOT MEETING DENSITY SPECIFICATION, THE CONTRACTOR SHALL RECOMPACT THE PAVEMENT TO MEET DENSITY SPECIFICATION. IF THE CONTRACTOR CANNOT MEET DENSITY SPECIFICATIONS WITHIN THE PAVEMENT WORKING WINDOW, THE CONTRACTOR SHALL REPLACE THE NON-COMPLIANT PAVEMENT AT NO COST TO THE OWNER.
- ASPHALT MIXTURES SHALL BE DELDOT APPROVED AND AS NOTED ON THE PLANS. CONTRACTOR SHALL PROVIDE ENGINEER WITH COPIES OF DELIVERY TICKETS BEARING THE DELDOT MIX DESIGNATION.
- ADDITIONAL REQUIREMENTS FOR PLACEMENT AND MIX SPECIFICATIONS ARE INCLUDED IN THE DELDOT STANDARD SPECIFICATIONS, INCORPORATED HEREIN BY REFERENCE.

REVISIONS:	DATE:	DESCRIPTION:							
	BY:								
	LEIPSIC RESEARCH DOCK FACILITY								
	LEGEND & NOTES								
	SEAL:								
	CIVIL ENGINEER:								
									
									
DESIGNED BY:			ALW						
DRAWN BY:			DFS						
CHECKED BY:			ALW						
DATE:			11-07-2025						
SCALE:			NTS						
SHEET NO.:			C101						
PROJECT NO.:			00175013.092A						





**REVISIONS:**

DATE: DESCRIPTION:

# LEIPSIK RESEARCH DOCK FACILITY

## EXISTING CONDITIONS

SEAL:

CIVIL ENGINEER

DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

$$1'' = 30$$

SHEET NO.:

C102

PROJECT NO.:

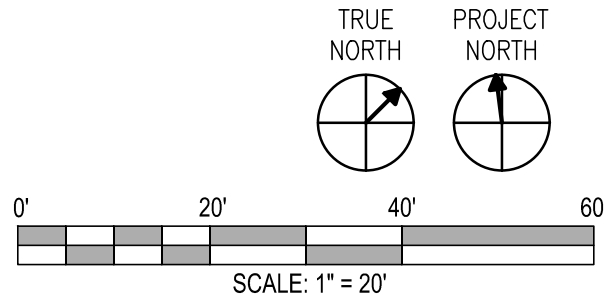
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NOTES

- 1 - CONC. RETAINING WALL & STAIRS
- 2 - CONC. PADS & SIDEWALKS
- 3 - ASPHALT PAVEMENT AND BASE
- 4 - EXCAVATE AND REMOVE EXISTING BELOW GRADE BUILDING MASONRY BASEMENT FOUNDATION WALLS, CONCRETE FLOOR SLAB AND FOOTINGS.
- 5 - EXCAVATE AND REMOVE EXISTING BELOW GRADE IN-GROUND CONCRETE SWIMMING POOL
- 6 - ABANDON EXISTING WELL IN ACCORDANCE WITH DELAWARE WELL ABANDONMENT REGULATIONS
- 7 - VINYL FENCE AND GATE, POST AND FOUNDATIONS



REVISIONS:

DATE: DESCRIPTION: BY:

LEIPSIC RESEARCH DOCK FACILITY

DEMOLITION PLAN

SEAL:

CIVIL ENGINEER:

**CENTURY**  
ENGINEERING  
A Kleinfelder Company



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

1" = 20'

SHEET NO.:

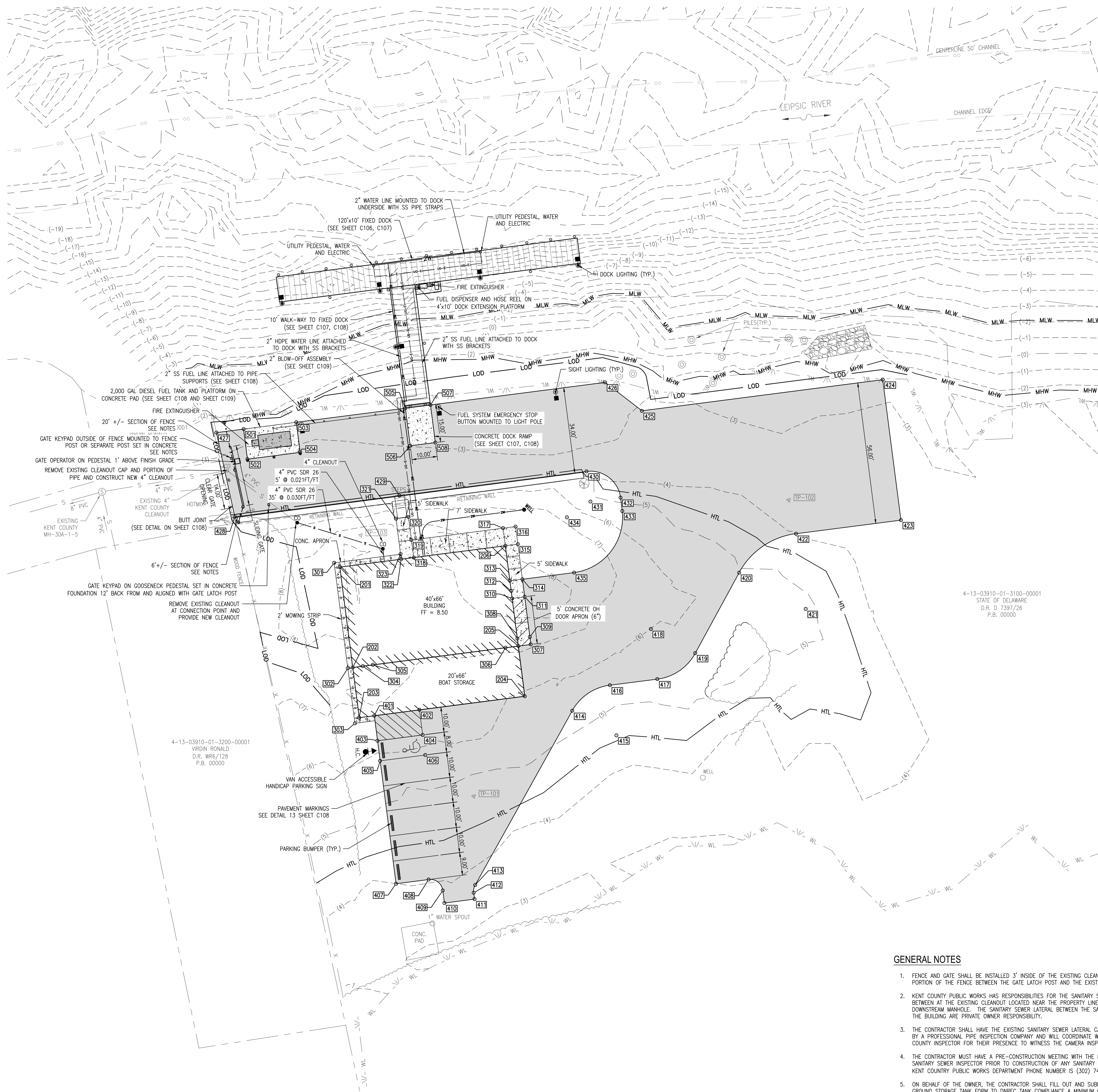
**C103**

PROJECT NO.:

00175013.092A



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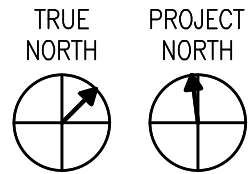
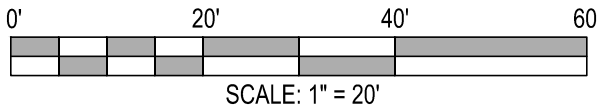
BUILDING POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
201	452471.8746	628936.5489	BUILDING
202	452447.4258	628968.2345	BUILDING
203	452435.2292	628984.0853	BUILDING
204	452487.4956	629024.3909	BUILDING
205	452499.7308	629008.5452	BUILDING
206	452524.1654	628976.8636	BUILDING

CONCRETE POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
301	452471.5179	628933.7866	CONCRETE
302	452445.8660	628967.0639	CONCRETE
303	452432.4451	628984.4458	CONCRETE
304	452450.6328	628970.6851	CONCRETE
305	452453.8004	628973.1277	CONCRETE
306	452495.6757	629005.4184	CONCRETE
307	452503.6657	629011.5778	CONCRETE
308	452501.5467	629006.1737	CONCRETE
309	452505.5063	629009.2269	CONCRETE
310	452511.3171	628993.5032	CONCRETE
311	452515.2766	628996.5565	CONCRETE
312	452513.1490	628991.1275	CONCRETE
313	452515.6184	628987.9502	CONCRETE
314	452519.5499	628991.0130	CONCRETE
315	452528.0828	628979.9131	CONCRETE
316	452532.3525	628974.3998	CONCRETE
317	452528.4152	628971.3299	CONCRETE
318	452495.2275	628954.5544	CONCRETE
319	452499.4656	628949.0312	CONCRETE
320	452505.0663	628941.7533	CONCRETE
321	452501.1411	628938.7383	CONCRETE
322	452491.2576	628951.4921	CONCRETE
323	452492.4789	628949.9082	CONCRETE
501	452483.5694	628871.1015	CONCRETE
502	452476.2581	628880.5774	CONCRETE
503	452500.1929	628883.9028	CONCRETE
504	452492.8652	628893.4056	CONCRETE
505	452534.6212	628910.4839	CONCRETE
506	452525.4786	628922.3426	CONCRETE
507	452542.5375	628916.5877	CONCRETE
508	452533.3976	628928.4490	CONCRETE

ASPHALT POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
401	452439.9877	628987.7486	ASPHALT
402	452454.2419	628998.7403	ASPHALT
403	452433.8812	628995.6677	ASPHALT
404	452448.1355	629006.6593	ASPHALT
405	452428.9960	629002.0029	ASPHALT
406	452443.2503	629012.9945	ASPHALT
407	452399.0743	629040.8061	ASPHALT
408	452409.3691	629048.7445	ASPHALT
409	452410.2754	629055.7573	ASPHALT
410	452407.2221	629059.7168	ASPHALT
411	452416.7250	629067.0446	ASPHALT
412	452418.2738	629065.0360	ASPHALT
413	452420.8657	629063.2799	ASPHALT
414	452496.6987	629041.7158	ASPHALT
415	452502.1691	629060.9532	RADIUS: 20'
416	452514.3821	629045.1151	ASPHALT
417	452529.3473	629056.6550	ASPHALT
418	452541.5602	629040.8169	RADIUS: 20'
419	452547.2125	629060.0016	ASPHALT
420	452581.9915	629049.7548	ASPHALT
421	452590.4699	629078.5319	RADIUS: 30'
422	452608.7893	629054.7748	ASPHALT
423	452641.8909	629080.2999	ASPHALT
424	452676.0620	629035.9549	ASPHALT
425	452600.0277	628977.3369	ASPHALT
426	452587.7080	628959.0981	ASPHALT
427	452474.9800	628864.4845	ASPHALT
428	452456.5833	628893.1620	ASPHALT
429	452508.5218	628933.2120	ASPHALT
430	452567.6144	628978.7919	ASPHALT
431	452560.2694	628988.3164	RADIUS: 21'
432	452569.7943	628995.6396	ASPHALT
433	452566.5364	628999.8690	ASPHALT
434	452549.2983	628986.1651	RADIUS: 22'
435	452535.8451	629003.6005	ASPHALT

GENERAL NOTES

- FENCE AND GATE SHALL BE INSTALLED 3' INSIDE OF THE EXISTING CLEANOUT EXCEPT THE PORTION OF THE FENCE BETWEEN THE GATE LATCH POST AND THE EXISTING WOOD FENCE.
- KENT COUNTY PUBLIC WORKS HAS RESPONSIBILITIES FOR THE SANITARY SEWER LATERAL BETWEEN AT THE EXISTING CLEANOUT LOCATED NEAR THE PROPERTY LINE AND THE DOWNSTREAM MANHOLE. THE SANITARY SEWER LATERAL BETWEEN THE SAME CLEANOUT AND THE BUILDING ARE PRIVATE OWNER RESPONSIBILITY.
- THE CONTRACTOR SHALL HAVE THE EXISTING SANITARY SEWER LATERAL CAMERA INSPECTED BY A PROFESSIONAL PIPE INSPECTION COMPANY AND WILL COORDINATE WITH THE KENT COUNTY INSPECTOR FOR THEIR PRESENCE TO WITNESS THE CAMERA INSPECTION.
- THE CONTRACTOR MUST HAVE A PRE-CONSTRUCTION MEETING WITH THE KENT COUNTY SANITARY SEWER INSPECTOR PRIOR TO CONSTRUCTION OF ANY SANITARY SEWER ITEMS. KENT COUNTRY PUBLIC WORKS DEPARTMENT PHONE NUMBER IS (302) 744-2430.
- ON BEHALF OF THE OWNER, THE CONTRACTOR SHALL FILL OUT AND SUBMIT AN ABOVE GROUND STORAGE TANK FORM TO DNREC TANK COMPLIANCE A MINIMUM OF 14 DAYS PRIOR TO PROPOSED TANK INSTALLATION AND OBTAIN A TANK ID NUMBER.



REVISIONS:	DATE:	DESCRIPTION:							
	BY:								

LEIPSIC RESEARCH DOCK FACILITY

SITE LAYOUT

SEAL:

CIVIL ENGINEER:



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

1" = 20'

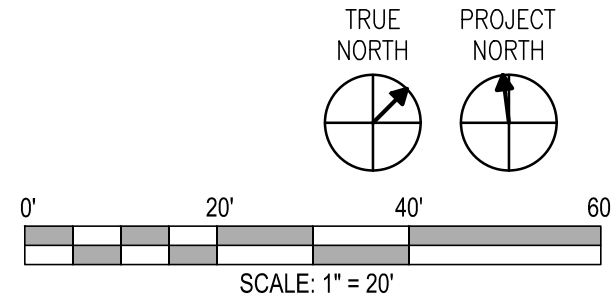
SHEET NO.:



C104

PROJECT NO.:

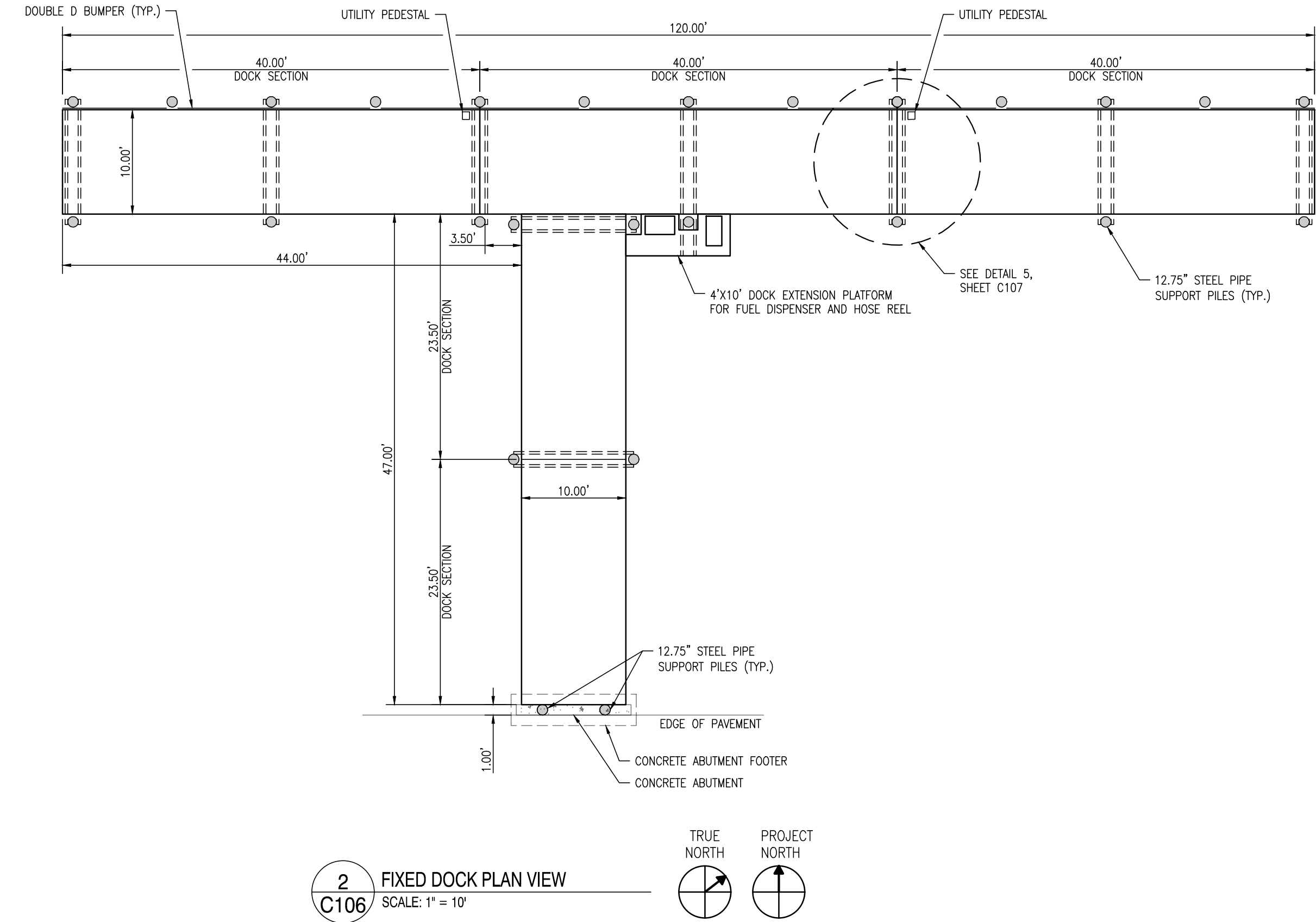
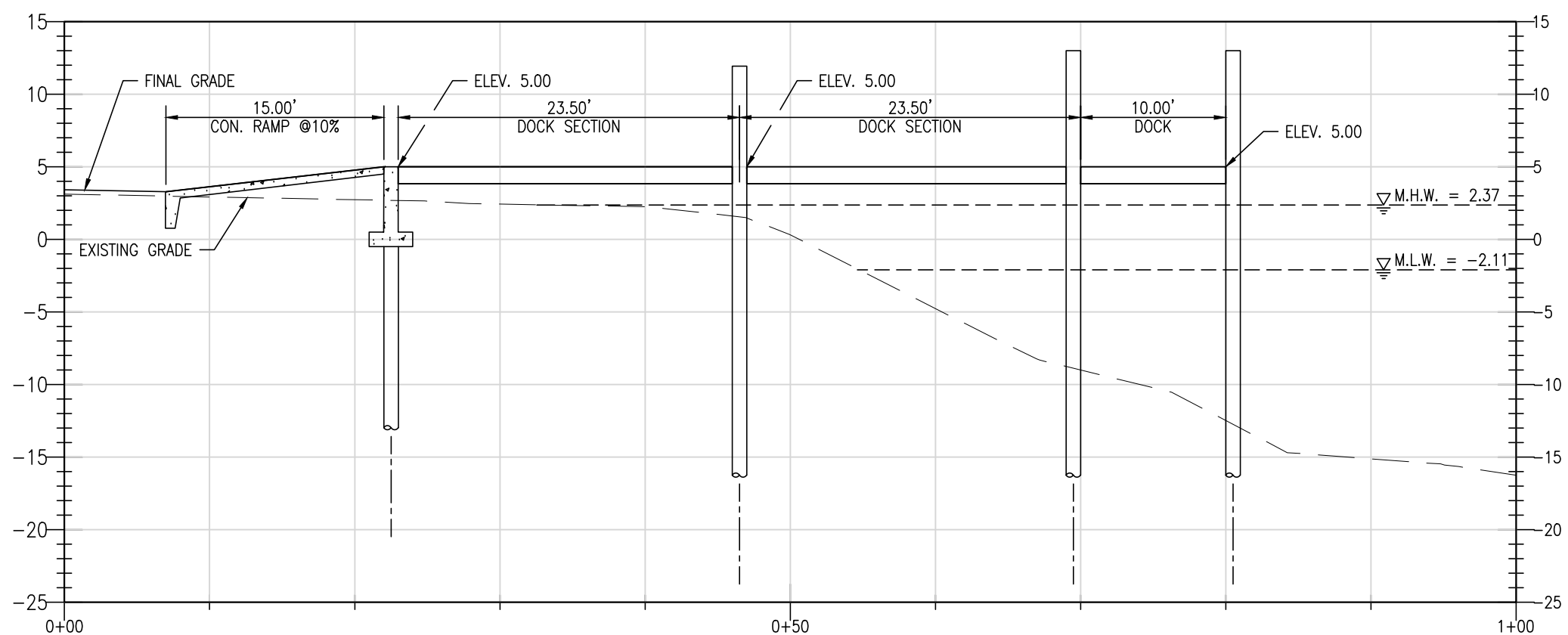
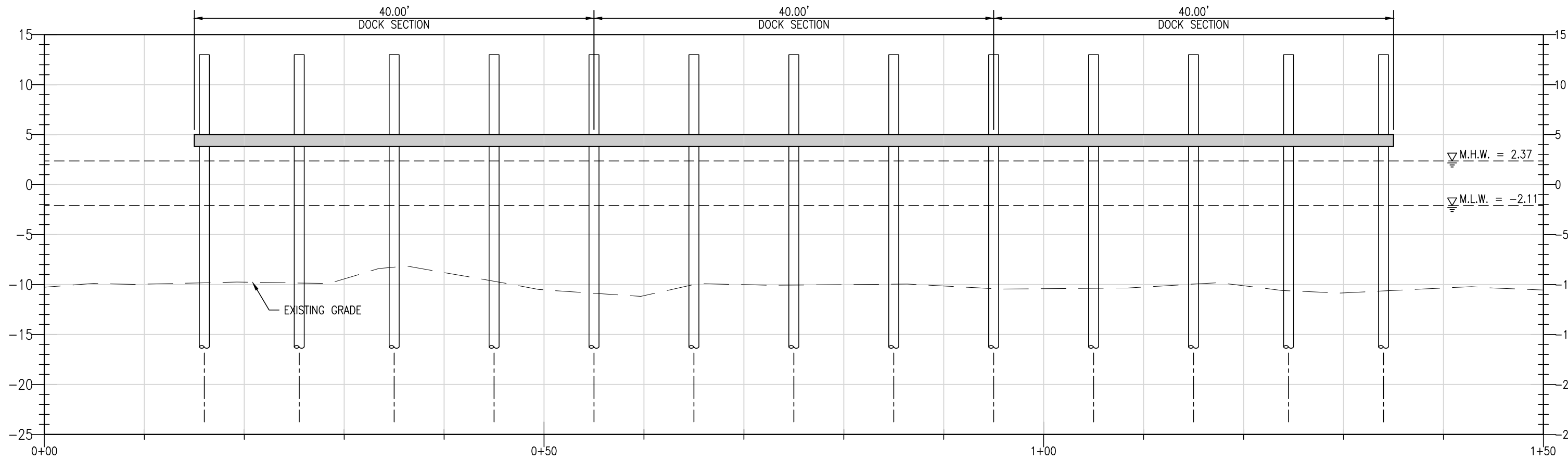
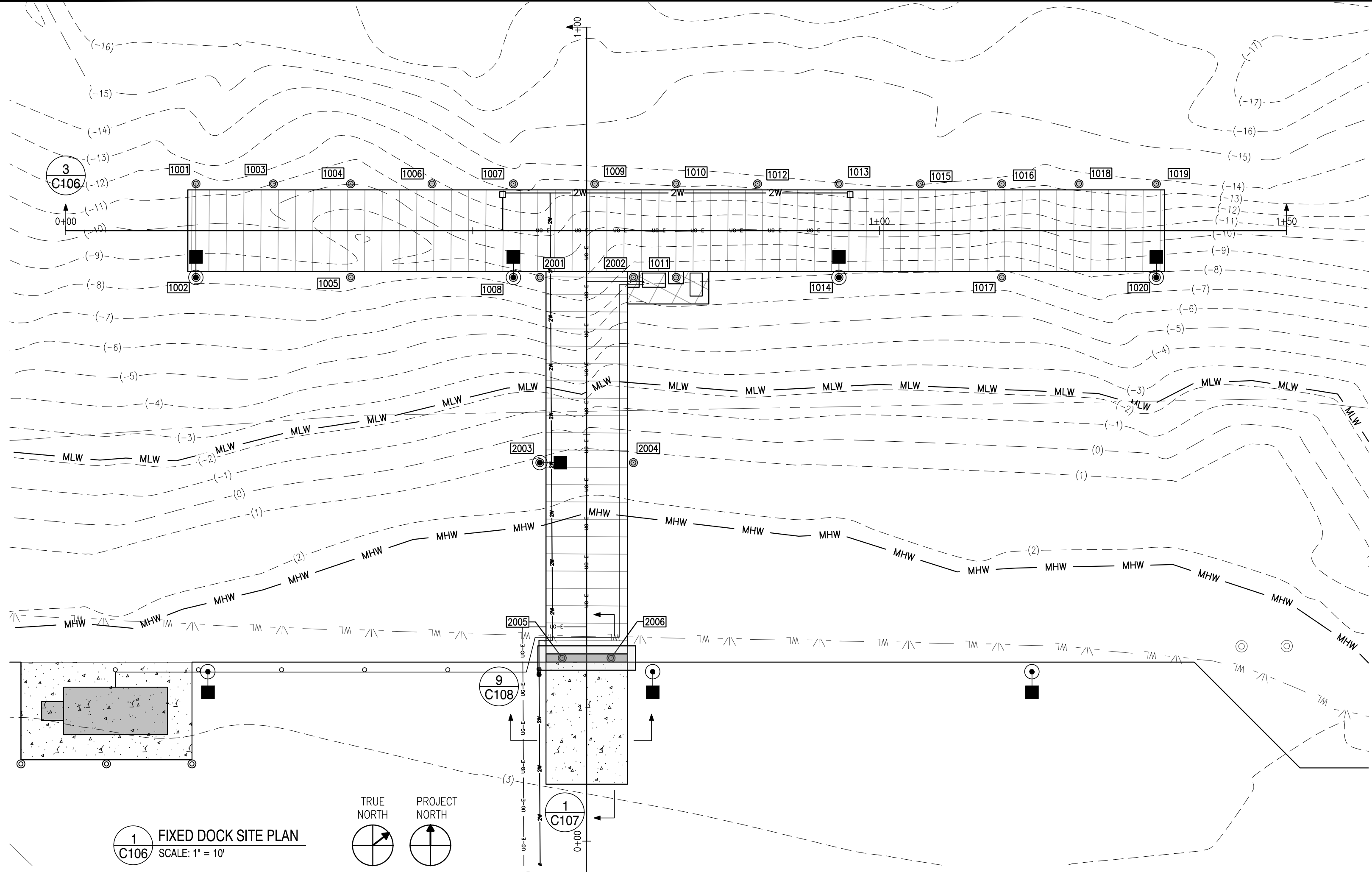
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LEIPSIC RESEARCH DOCK FACILITY		REVISIONS:	
		DATE:	DESCRIPTION:
GRADING		BY:	
SEAL:			
CIVIL ENGINEER:			
 <b>CENTURY</b> ENGINEERING A Kleinfelder Company			
			
DESIGNED BY:		ALW	
DRAWN BY:		DFS	
CHECKED BY:		ALW	
DATE:		11-07-2025	
SCALE:		1" = 20'	
SHEET NO.:		C105	
PROJECT NO.:		00175013.092A	





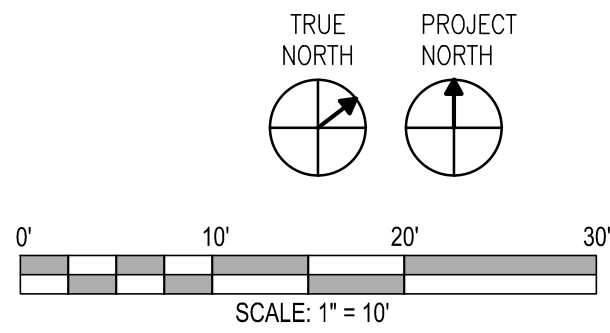
PILE LAYOUT TABLE					
PILE NO.	NORTHING**	EASTING**	TOP ELEV.	EST. TIP ELEV.	PILE LENGTH* (FT)
1001	452536.4594	628837.6852	13.00	-60.00	73.00
1002	452529.4369	628846.7921	13.00	-60.00	73.00
1003	452543.9825	628843.4864	13.00	-60.00	73.00
1004	452551.5055	628849.2875	13.00	-60.00	73.00
1005	452544.4831	628858.3944	13.00	-60.00	73.00
1006	452559.4246	628855.3940	13.00	-60.00	73.00
1007	452567.3436	628861.5005	13.00	-60.00	73.00
1008	452560.3212	628870.6074	13.00	-60.00	73.00
1009	452575.2626	628867.6069	13.00	-60.00	73.00
1010	452583.1817	628873.7134	13.00	-60.00	73.00
1011	452576.1592	628882.8203	13.00	-60.00	73.00
1012	452591.1007	628879.8199	13.00	-60.00	73.00
1013	452599.0197	628885.9263	13.00	-60.00	73.00
1014	452591.9973	628895.0332	13.00	-60.00	73.00
1015	452606.9387	628892.0328	13.00	-60.00	73.00
1016	452614.8578	628898.1393	13.00	-60.00	73.00
1017	452607.8353	628907.2462	13.00	-60.00	73.00
1018	452622.3809	628903.9404	13.00	-60.00	73.00
1019	452629.9039	628909.7416	13.00	-60.00	73.00
1020	452622.8815	628918.8485	13.00	-60.00	73.00
2001	452562.8948	628872.5920	13.00	-60.00	73.00
2002	452572.0017	628879.6144	13.00	-60.00	73.00
2003	452549.0039	628890.6061	13.00	-60.00	73.00
2004	452558.1108	628897.6285	13.00	-60.00	73.00
2005	452536.5274	628911.2894	0.75	-37.25	38.00
2006	452541.2788	628914.9532	0.75	-37.25	38.00

\* NOTE: PILE LENGTH COLUMN INDICATES MINIMUM PILE LENGTH TO BE ORDERED BY THE CONTRACTOR. ANY EXCESS PILE LENGTHS SHALL BE TRIMMED AS NEEDED. IF AN IMPACT HAMMER IS USED IN-LIEU OF A VIBRATORY HAMMER, FIVE (5) LESS FEET OF EMBEDMENT SHALL BE REQUIRED.

MINIMUM EMBEDMENT DEPTHS SHALL BE MEASURED FROM THE POINT AFTER WEIGHT OF HAMMER MOVEMENT HAS STOPPED.

\*\* AT ELEVATION 5.0

- FIXED DOCK NOTES**
- THE GATOR DOCK COMPONENTS OF THE NEW FIXED ALUMINUM DOCK SHOWN ON THESE PLANS ARE FOR GENERAL INFORMATION ONLY.
  - THE OWNER WILL PROVIDE, AND THE CONTRACTOR SHALL SCHEDULE THE DELIVERY OF, HANDLE, STORE, AND INSTALL, ALL NEW FIXED ALUMINUM DOCK COMPONENTS MANUFACTURED BY GATOR DOCK, INCLUDING DECKS, HEADERS, AND MISCELLANEOUS COMPONENTS AS INDICATED ON THE GATOR DOCK SHOP DRAWINGS SEPARATELY PROVIDED BY OWNER FOR THIS PROJECT.
  - TOP AND TIP ELEVATIONS OF STEEL PIPE PILES FOR FIXED DOCK PROVIDED ON THIS SHEET.
  - ALL ALUMINUM DOCK, HEADER CHANNELS, AND ANCILLARY ITEMS SHALL BE PROVIDED BY THE OWNER. HEADER CHANNELS WILL BE ONE (1) FOOT LONGER THAN THE PLAN LENGTH AND CUT IN THE FIELD BY THE CONTRACTOR.
  - FIXED DOCK GALVANIZED PIPE PILES SHALL BE DRIVEN TO MINIMUM EMBEDMENT REQUIREMENTS.
  - DOCK PIPE PILES SHALL BE 12.75-INCH DIAMETER CLOSED-END, ASTM A690, GALVANIZED IN ACCORDANCE WITH ASTM A123.
  - ABUTMENT PIPE PILES SHALL BE 12.75-INCH DIAMETER CLOSED-END, ASTM A690, GALVANIZED IN ACCORDANCE WITH ASTM A123.
  - SEE MANUFACTURER'S SHOP DRAWINGS FOR ADDITIONAL ALUMINUM DOCK DETAILS.
  - IF PILE DRIVING IS OCCURRING DURING THE IN-WATER WORK RESTRICTIONS A SOFT START IS REQUIRED. IT IS PREFERRED THAT VIBRATORY PILE INSTALLATION METHODS ARE USED. IF VIBRATORY PILE INSTALLATION CAN NOT BE COMPLETED IMPACT PILE DRIVING IS ALLOWED.
  - FOR VIBRATORY PILE INSTALLATION: PILE DRIVING WILL BE INITIATED FOR 15 SECONDS AT REDUCED ENERGY FOLLOWED BY A ONE-MINUTE WAITING PERIOD. THIS SEQUENCE OF 15 SECONDS OF REDUCED ENERGY DRIVING AND ONE-MINUTE WAITING PERIOD WILL BE REPEATED TWO ADDITIONAL TIMES, FOLLOWED IMMEDIATELY BY PILE-DRIVING AT FULL RATE AND ENERGY.
  - FOR IMPACT PILE DRIVING: PILE DRIVING WILL COMMENCE WITH AN INITIAL SET OF THREE STRIKES BY THE HAMMER AT 40% ENERGY, FOLLOWED BY A ONE-MINUTE WAIT PERIOD, THEN TWO SUBSEQUENT 3-STRIKE SETS AT 40% ENERGY, WITH ONE-MINUTE WAITING PERIODS, BEFORE INITIATING CONTINUOUS IMPACT DRIVING.
  - IN ADDITION TO USING A SOFT START AT THE BEGINNING OF THE WORK DAY FOR PILE DRIVING, ONE MUST ALSO BE USED AT ANY TIME FOLLOWING CESSATION OF PILE DRIVING FOR A PERIOD OF 30 MINUTES OR LONGER.



REVISIONS:

DATE:	DESCRIPTION:

LEIPSIK RESEARCH DOCK FACILITY

DOCK DETAILS

SEAL:

CIVIL ENGINEER:  
  
A Kleinfelder Company

DESIGNED BY:  
ALW

DRAWN BY:  
DFS

CHECKED BY:  
ALW

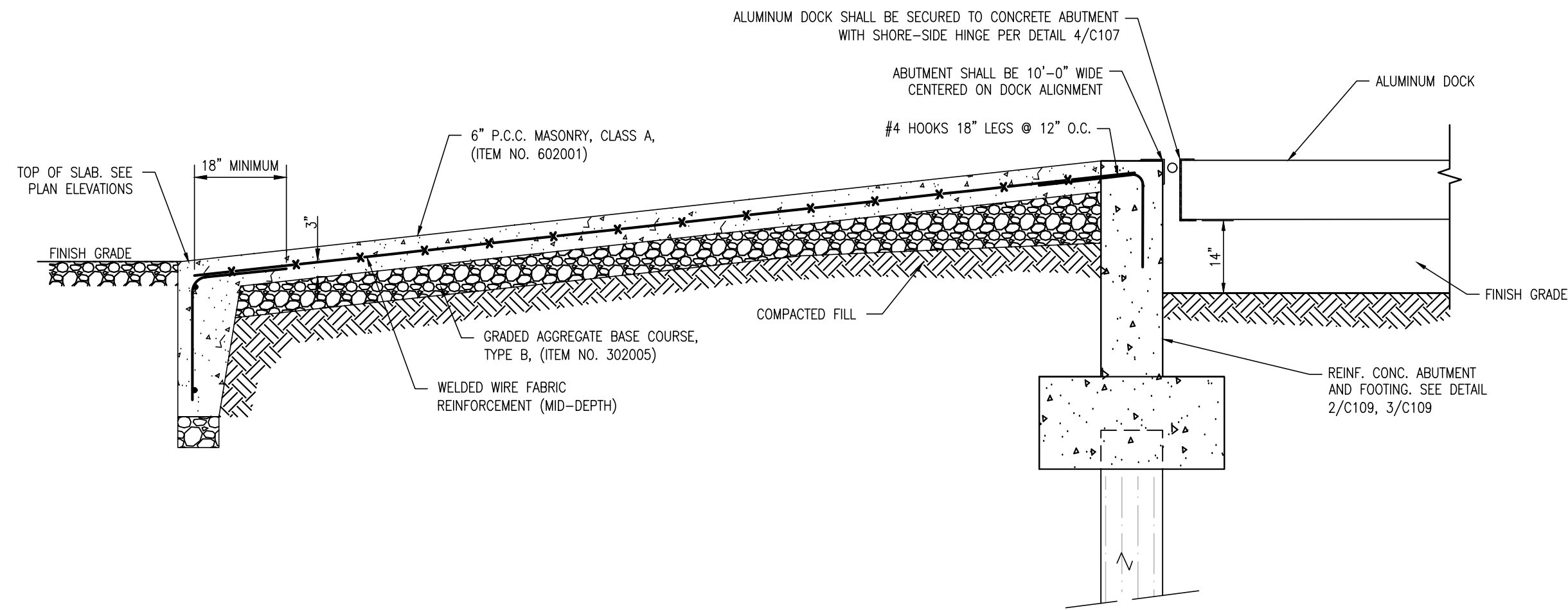
DATE:  
11-07-2025

SCALE:  
AS SHOWN

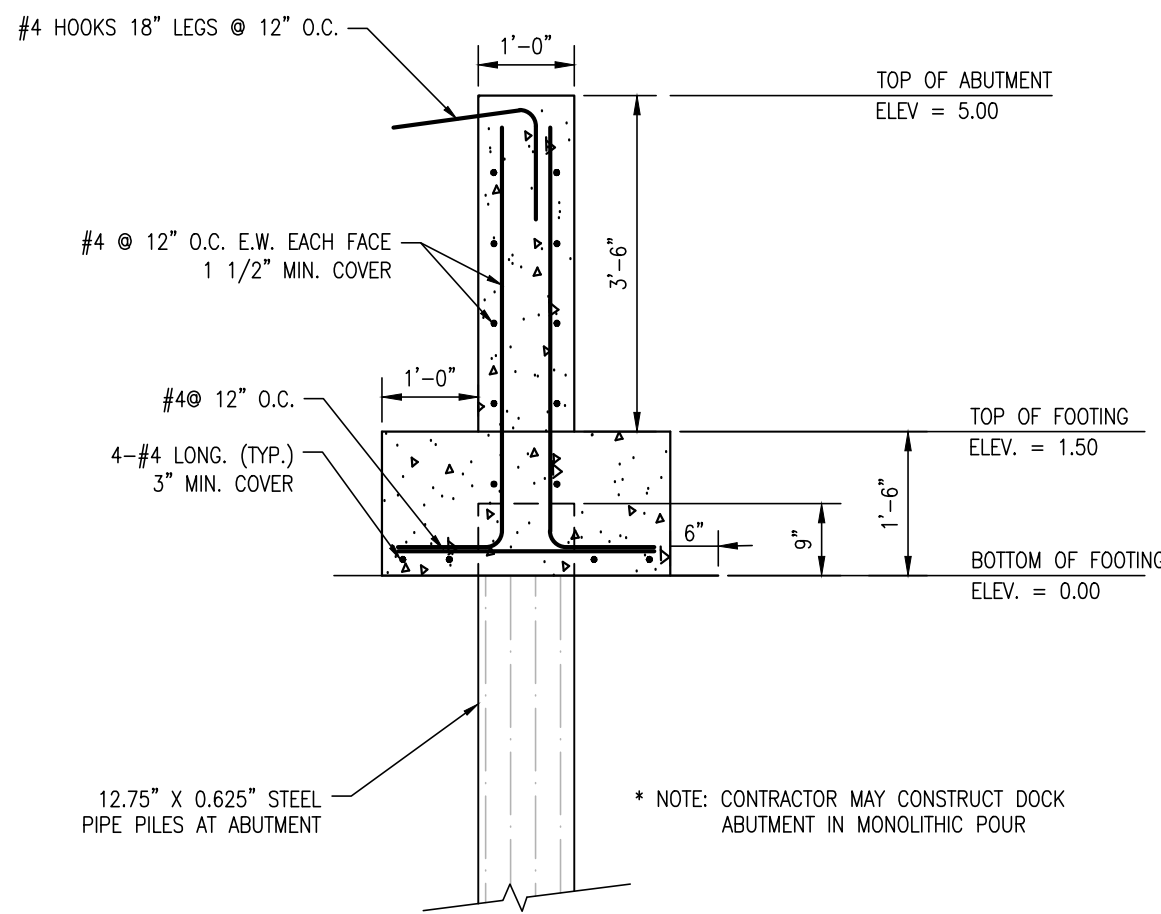
SHEET NO.:  
C106

PROJECT NO.:  
00175013.092A

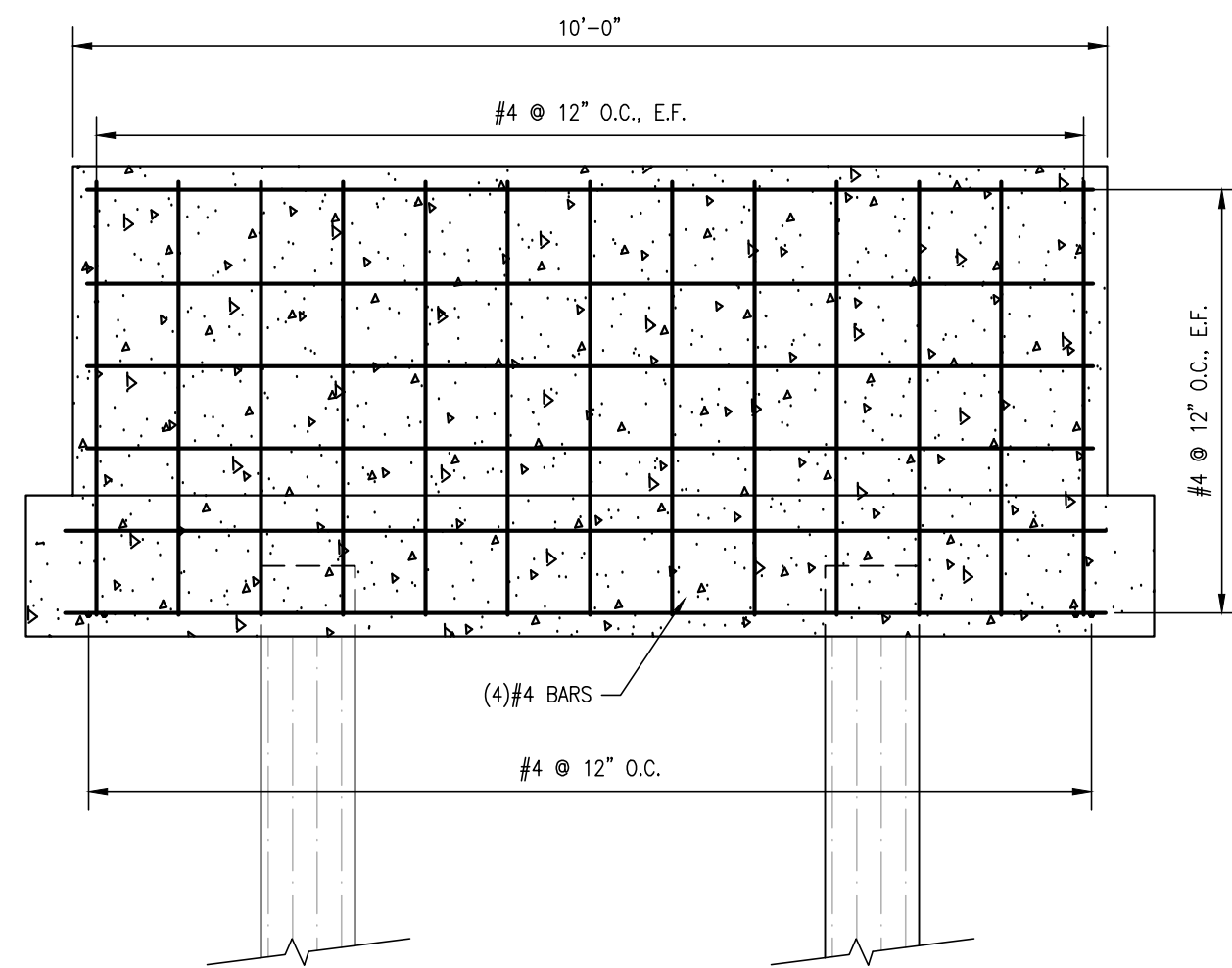
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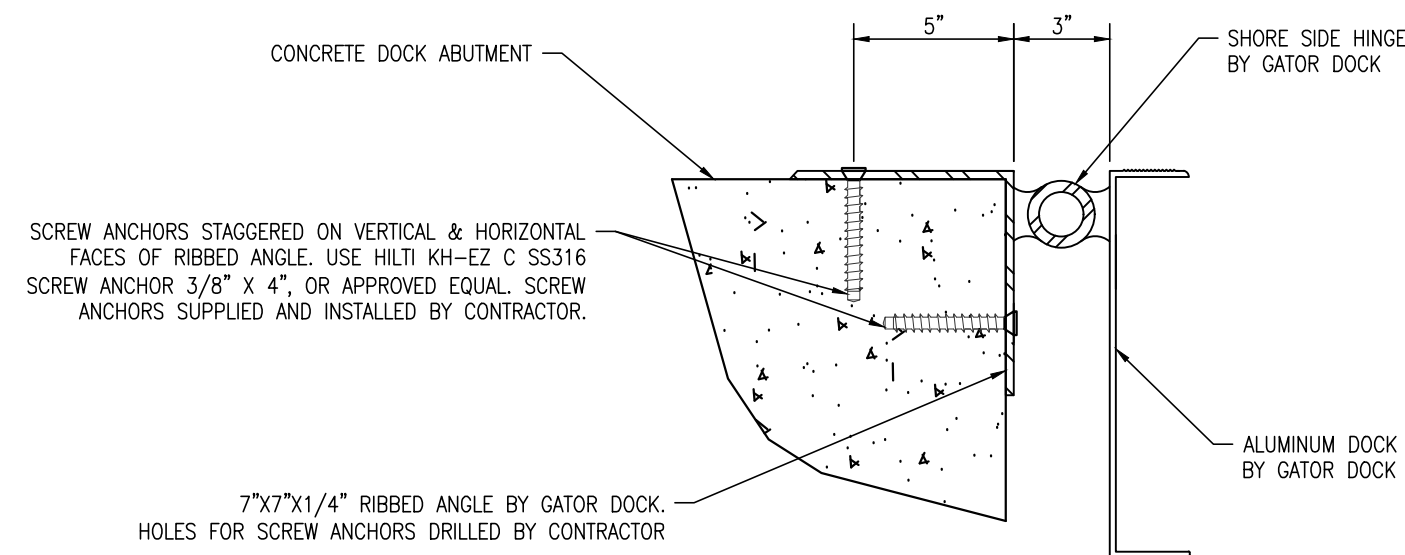
1 DOCK ABUTMENT AND RAMP PAVEMENT  
SCALE: 1/2" = 1'-0"



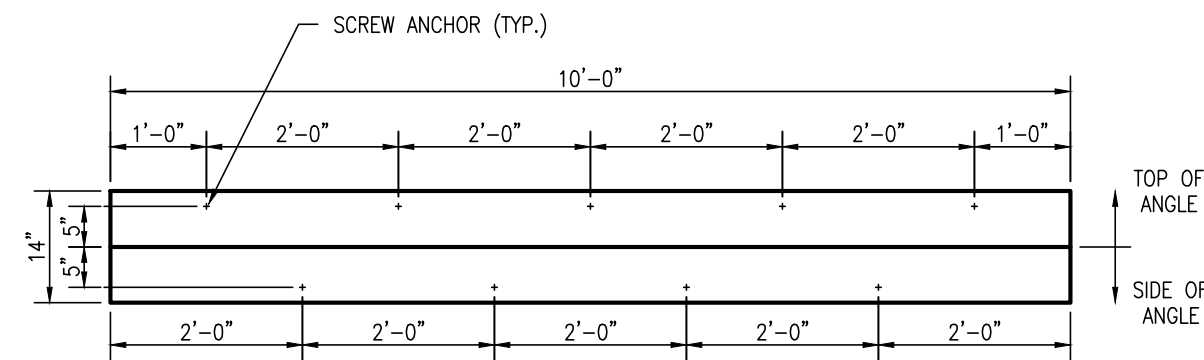
2 DOCK ABUTMENT DETAIL  
SCALE: 1/2" = 1'-0"



3 DOCK ABUTMENT ELEVATION  
SCALE: 1/2" = 1'-0"

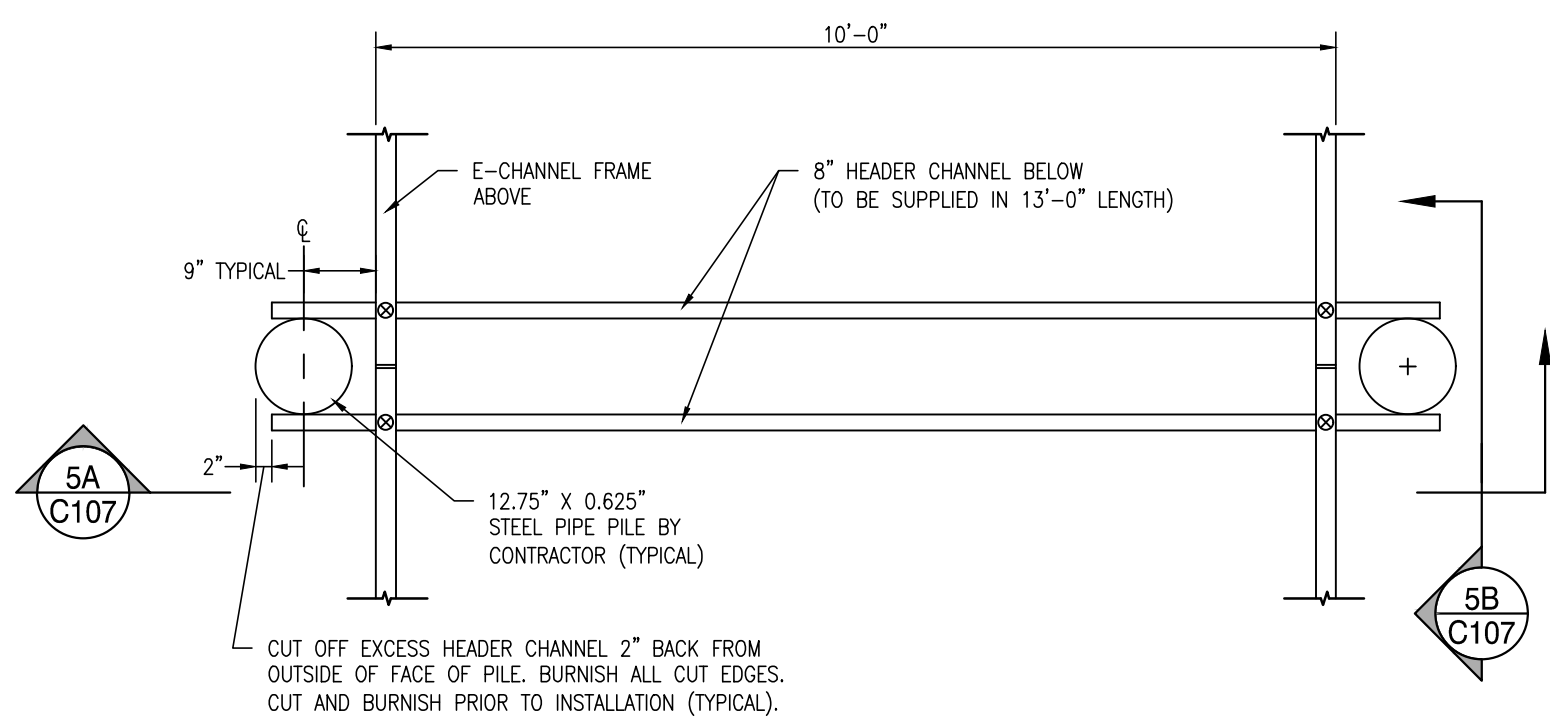


4 SHORE-SIDE HINGE DETAIL  
SCALE: 2" = 1'-0"



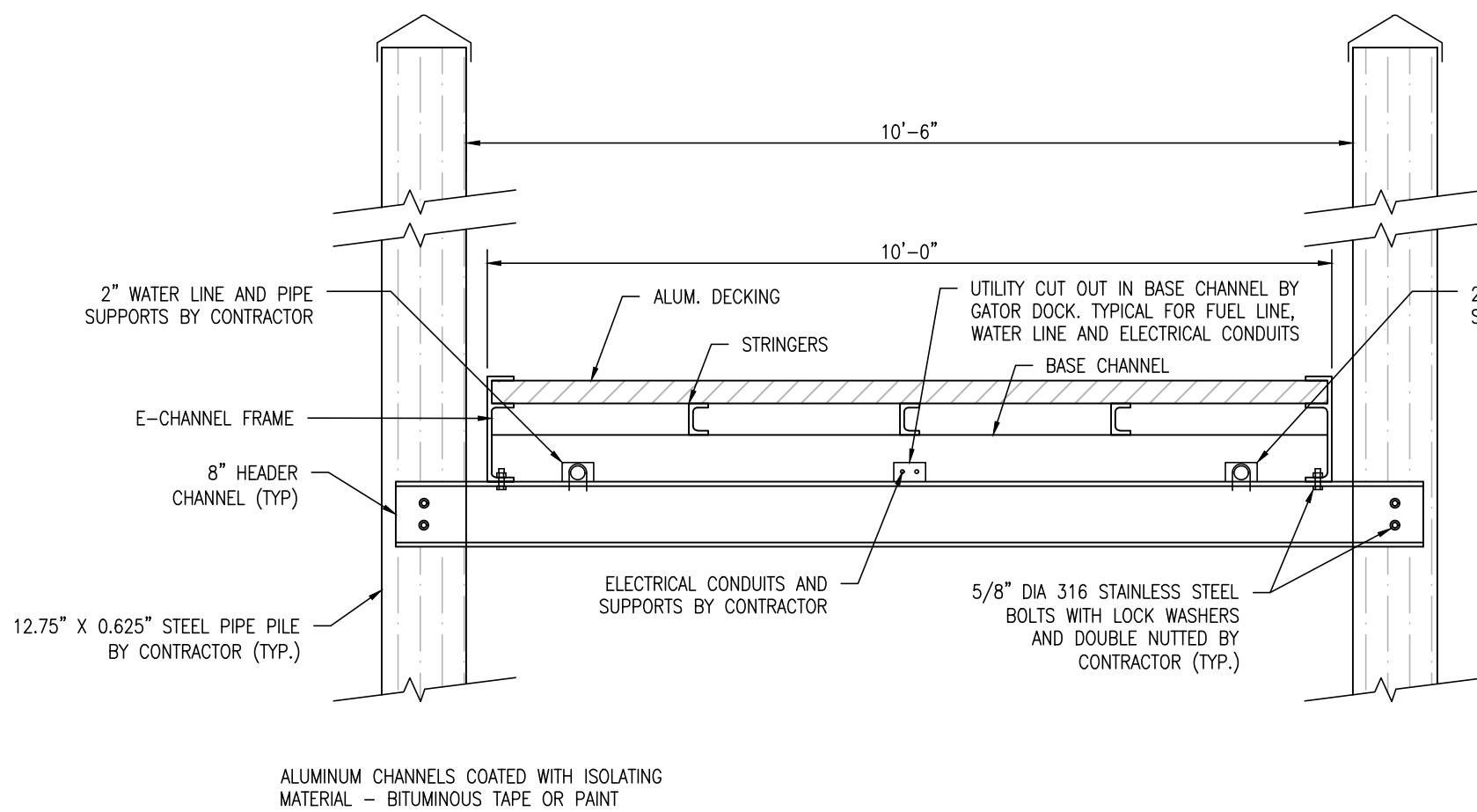
\* NOTE: 7X7X1/4" SHORE-SIDE RIBBED ANGLE SHOWN FLAT FOR CLARITY

4A SHORE-SIDE HINGE RIBBED ANGLE FASTENER DETAIL  
SCALE: 1/2" = 1'-0"



ALL COMPONENTS SHOWN ARE PER GATOR DOCK SHOP DRAWINGS UNLESS NOTED OTHERWISE

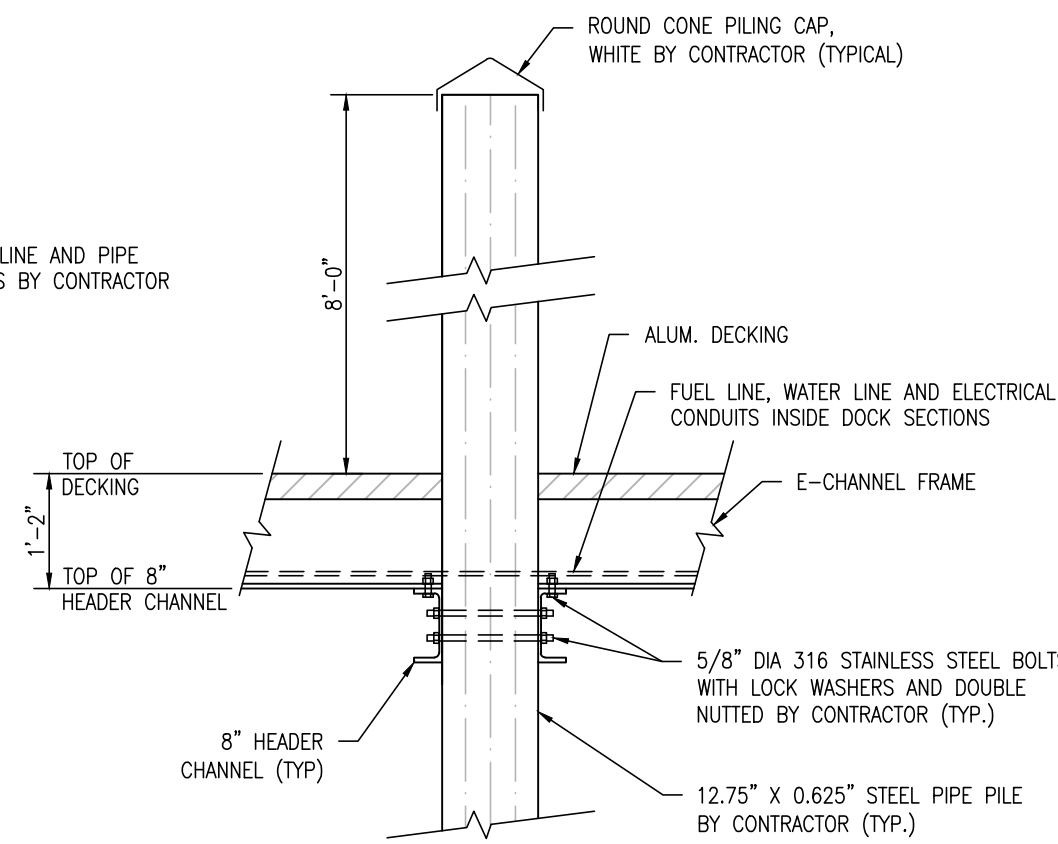
5 ALUMINUM HEADER - PLAN DETAIL  
SCALE: 1/2" = 1'-0"



ALL COMPONENTS SHOWN ARE PER GATOR DOCK SHOP DRAWINGS UNLESS NOTED OTHERWISE

NOTE: CONTRACTOR SHALL DRILL HOLES IN STEEL PILING, 1/8" DIAMETER LARGER THAN HEADER BOLTS, TOUCH UP DRILLED HOLES WITH ZINC RICH COATING, ZINC COLD GALVANIZING COMPOUND, OR APPROVED EQUAL.

5A ALUMINUM HEADER - SECTION A  
SCALE: 1/2" = 1'-0"



ALUMINUM CHANNELS COATED WITH ISOLATING MATERIAL - BITUMINOUS TAPE OR PAINT

ALL COMPONENTS SHOWN ARE PER GATOR DOCK SHOP DRAWINGS UNLESS NOTED OTHERWISE

5B ALUMINUM HEADER - SECTION B  
SCALE: 1/2" = 1'-0"

REVISIONS:

DATE: DESCRIPTION: BY:

LEIPSIC RESEARCH DOCK FACILITY

DOCK DETAILS

SEAL:

CIVIL ENGINEER:

CENTURY ENGINEERING  
A Kleinfelder Company



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

AS SHOWN

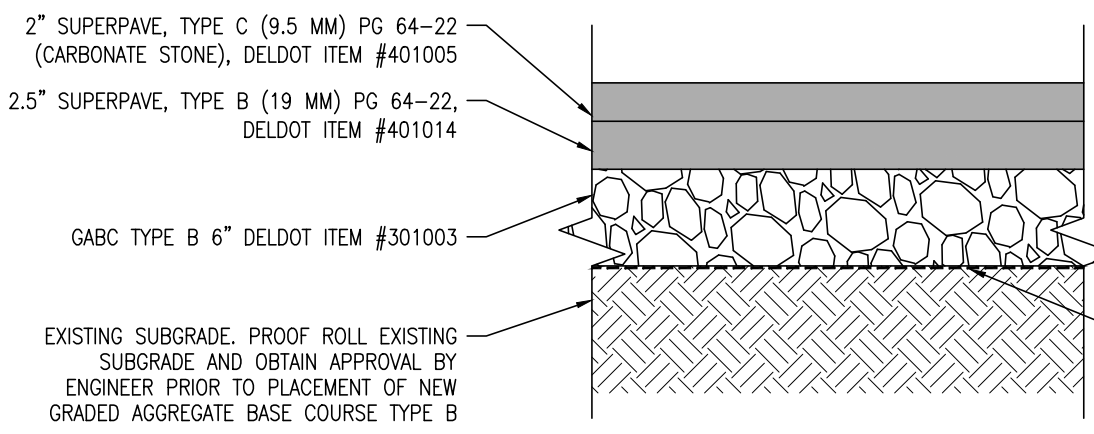
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C107

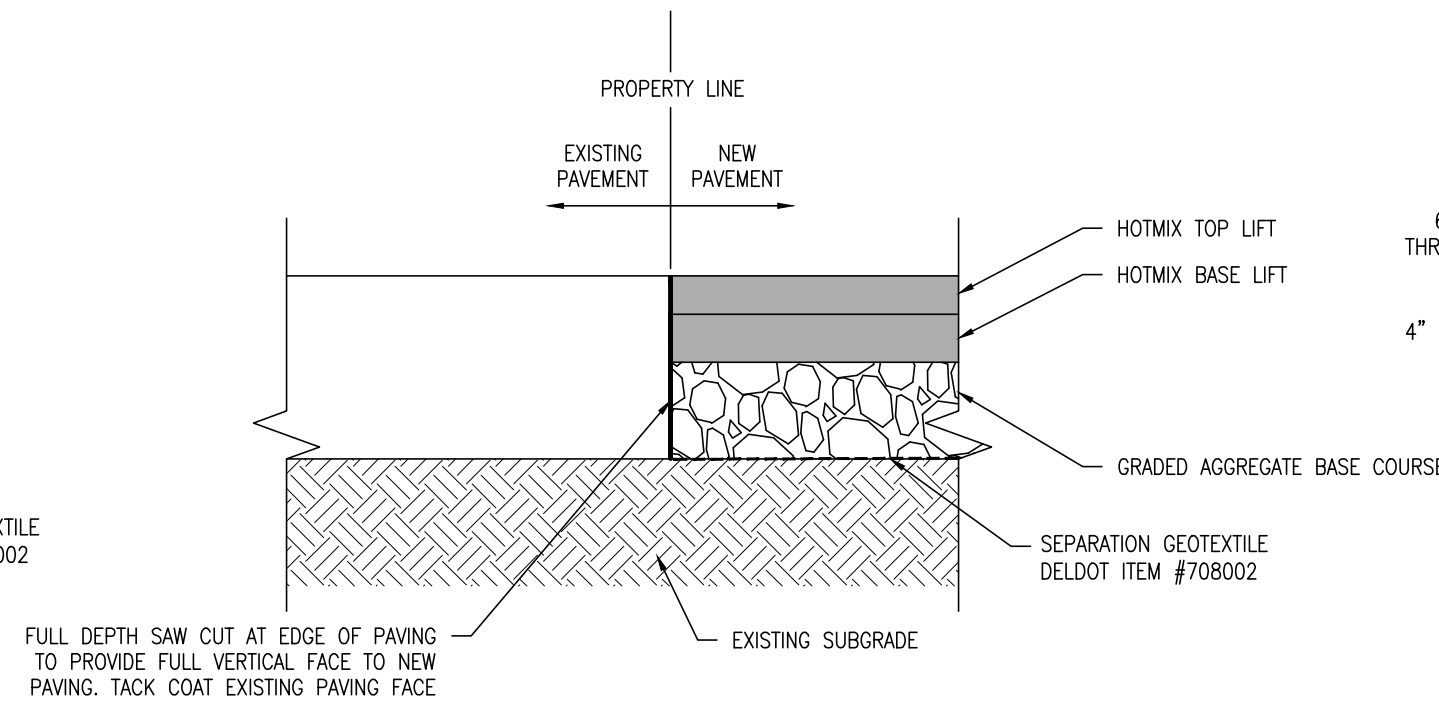
PROJECT NO.:

00175013.092A

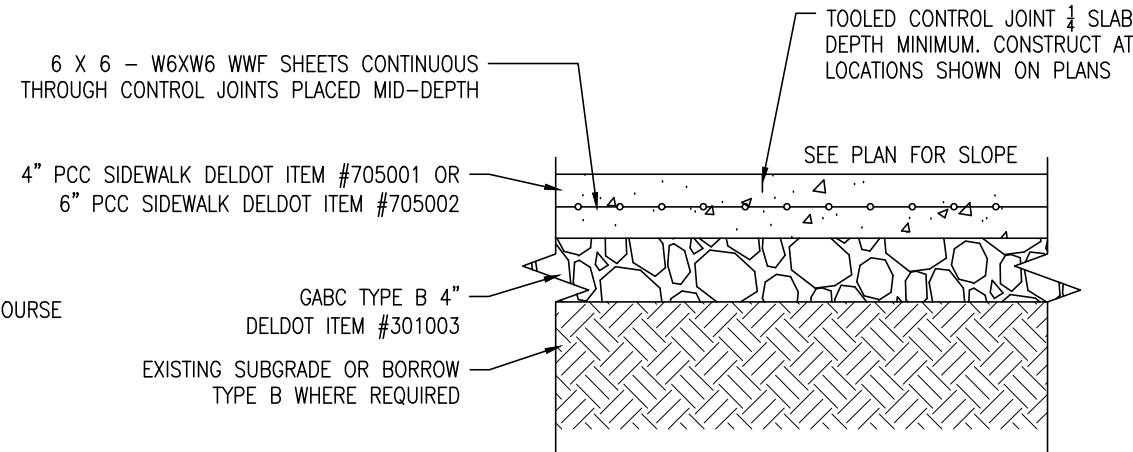




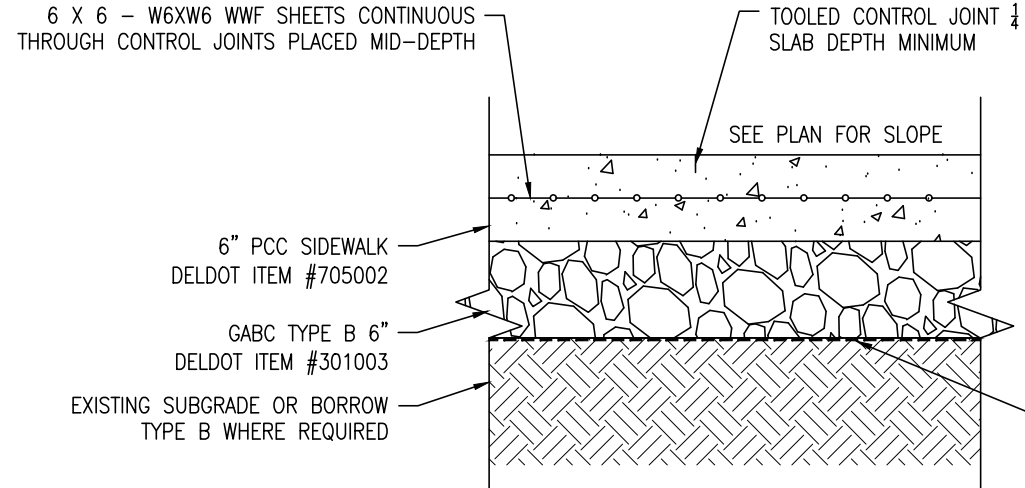
1  
C108  
TYPICAL SECTION: FULL DEPTH PAVEMENT  
SCALE: 1"= 1'-0"



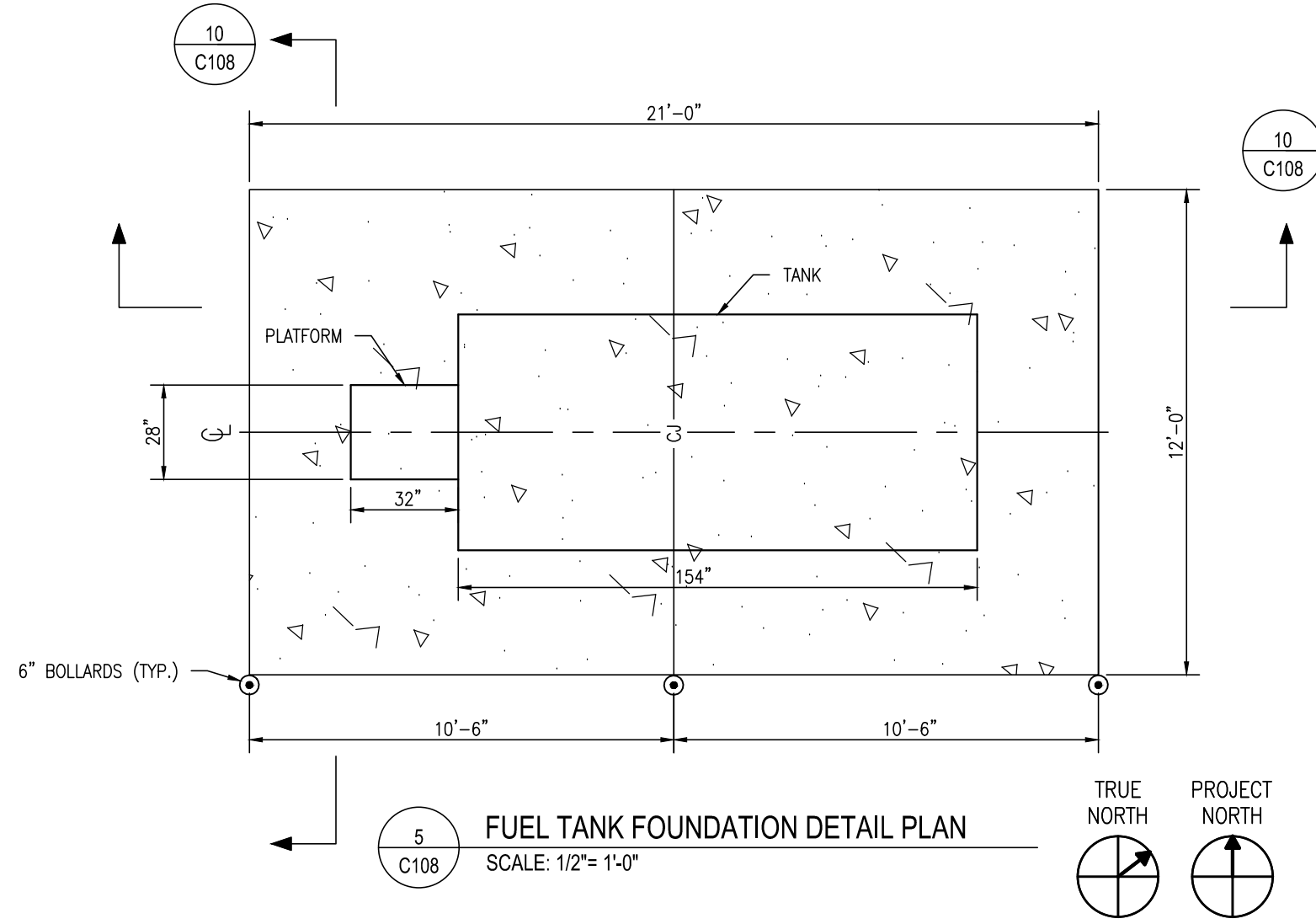
2  
C108  
SAW CUT / PAVEMENT JOINT DETAIL  
SCALE: 1"= 1'-0"



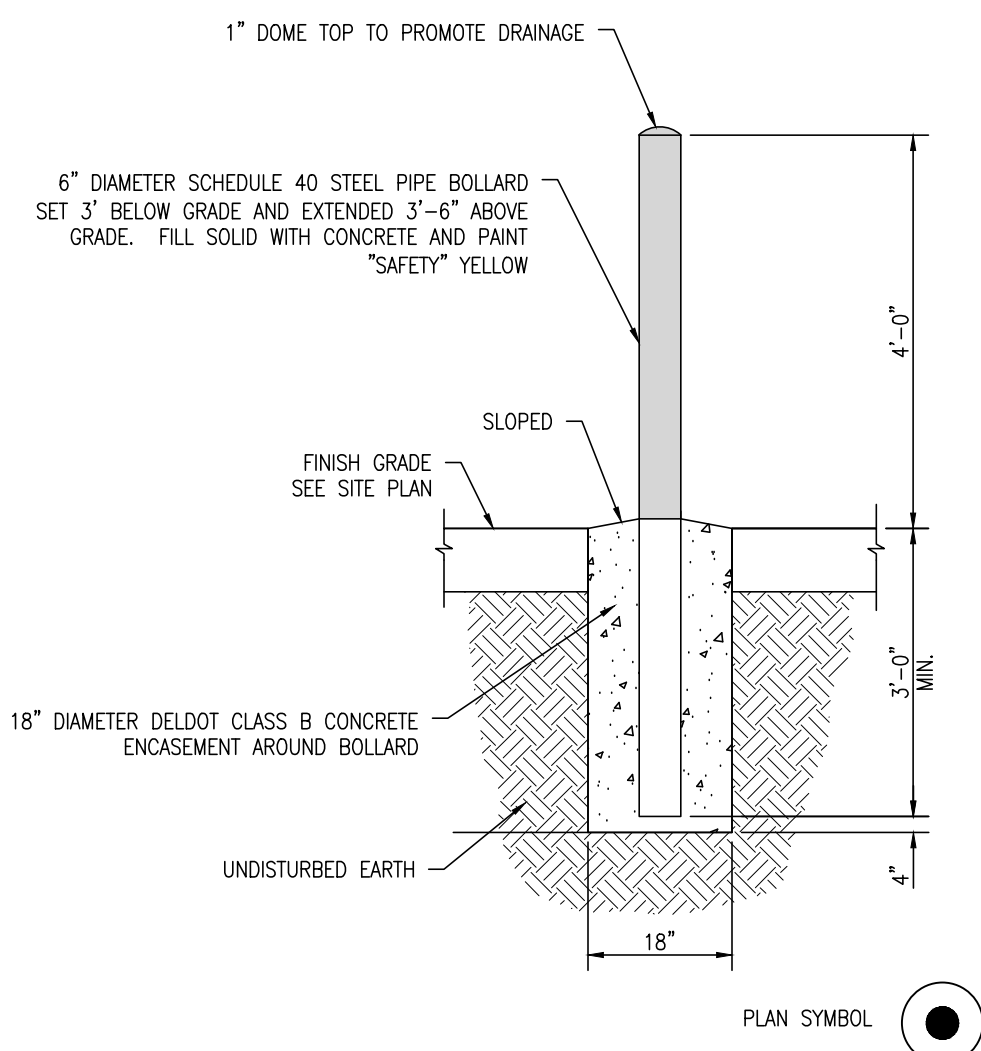
3  
C108  
TYPICAL SECTION: SIDEWALK AND MOWING STRIP  
SCALE: 1"= 1'-0"



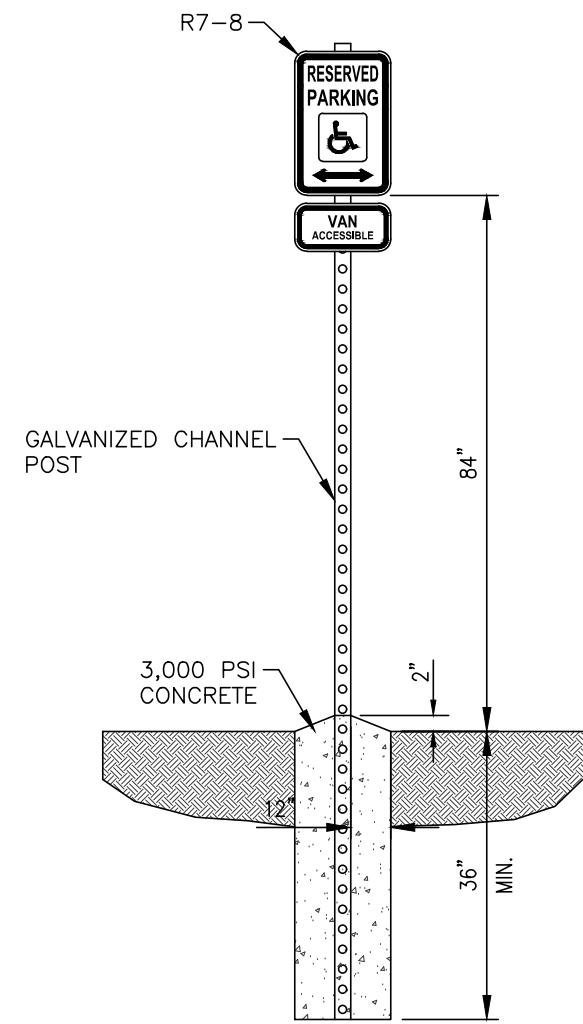
4  
C108  
TYPICAL SECTION: DOCK RAMP AND OH DOOR APRON  
SCALE: 1"= 1'-0"



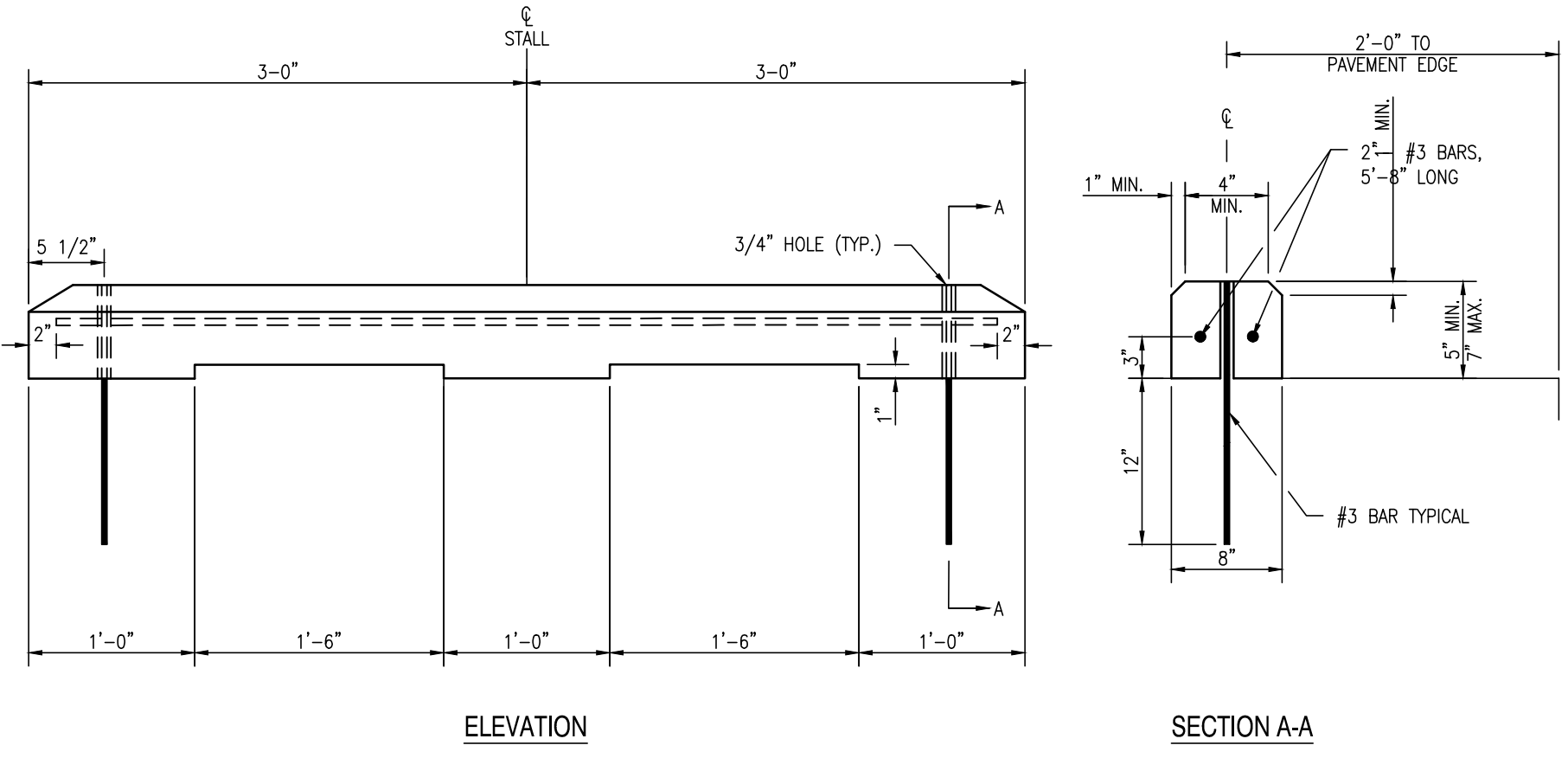
5  
C108  
FUEL TANK FOUNDATION DETAIL PLAN  
SCALE: 1/2"= 1'-0"



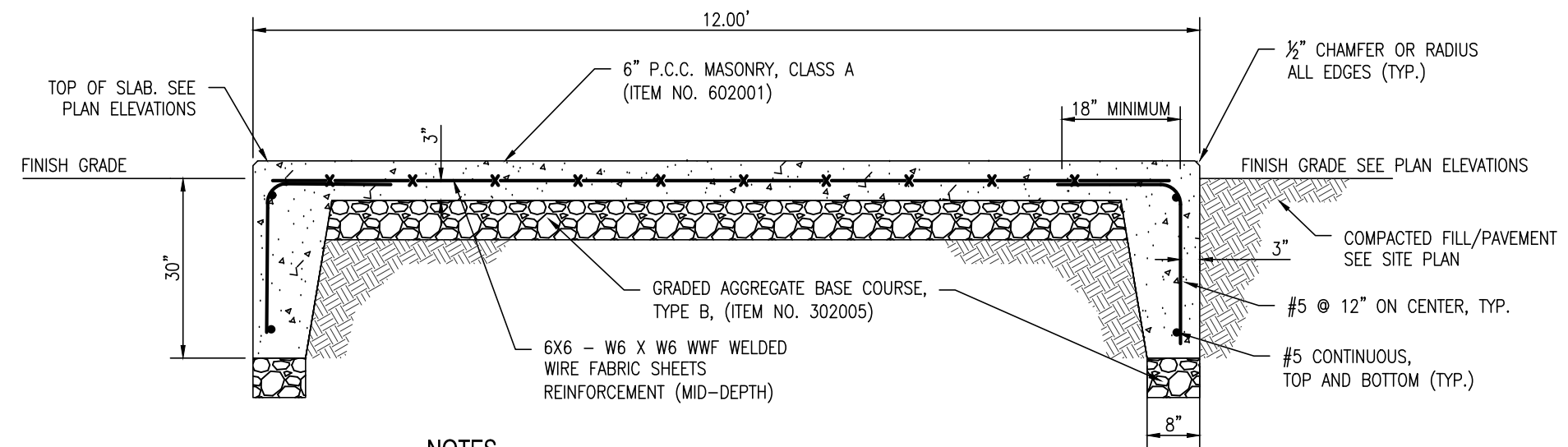
6  
C108  
FIXED BOLLARD DETAIL  
SCALE: 1"= 1'-0"



7  
C108  
VAN ACCESSIBLE PARKING SIGN AND POST DETAIL  
SCALE: N.T.S.

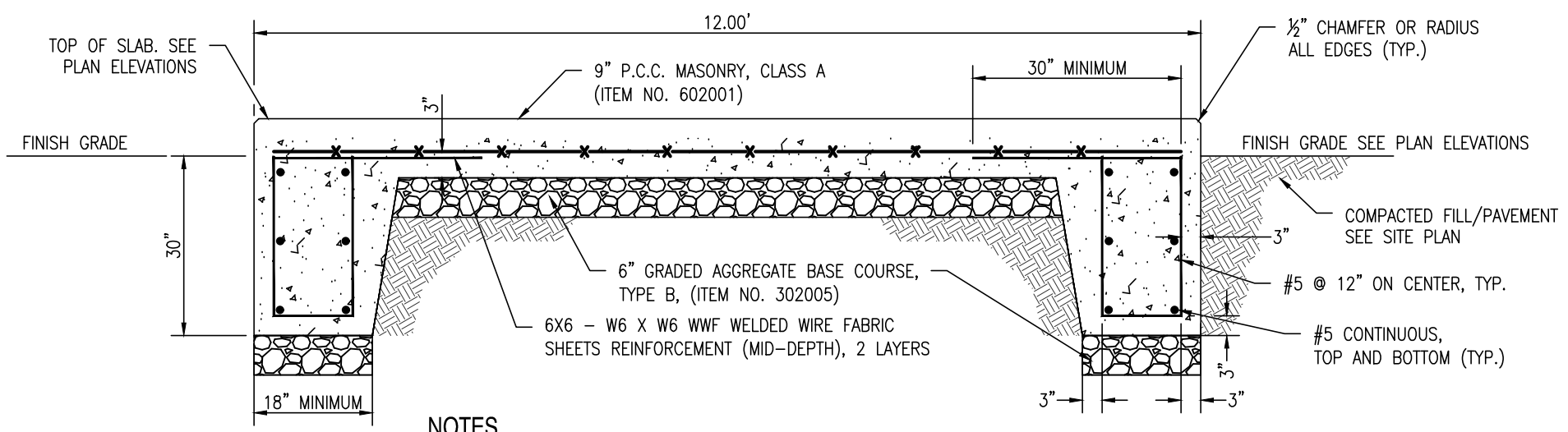


8  
C108  
CONCRETE PARKING BUMPER DETAIL  
SCALE: 1"= 1'-0"



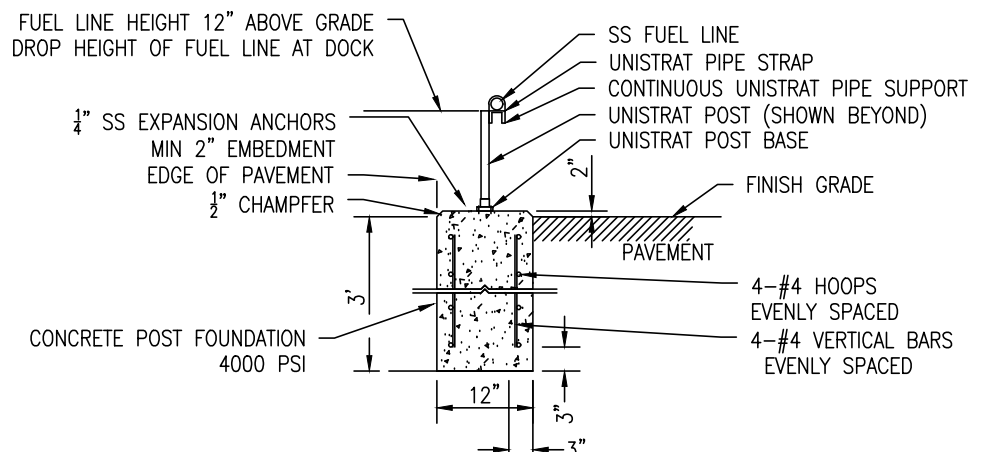
NOTES  
1. EXISTING SOIL BENEATH PAD SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR PRIOR TO PLACEMENT OF GABC.

9  
C108  
DOCK RAMP FOUNDATION SECTION  
SCALE: 1/2"= 1'-0"

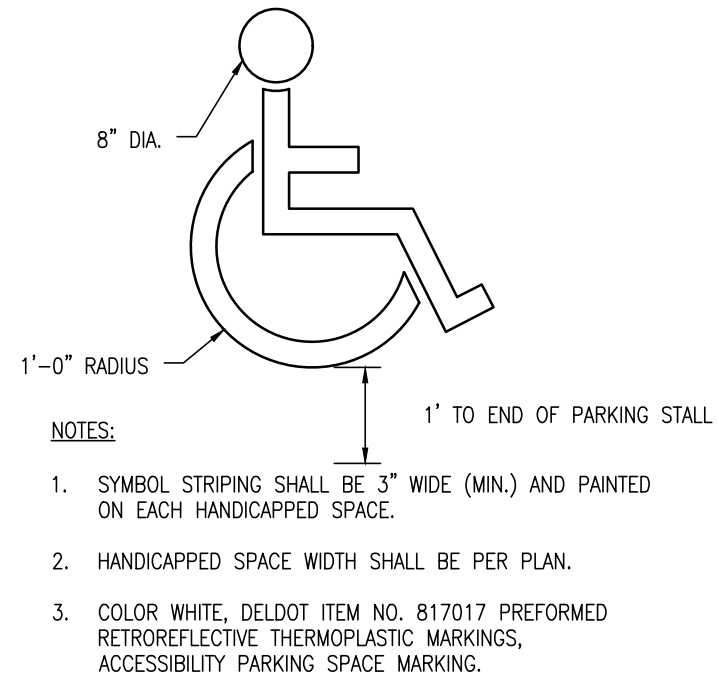


NOTES  
1. STAR AND TANK ANCHORS SHALL BE DRILLED AND EPOXYED INTO SLAB. ANCHORS SHALL BE PER MANUFACTURES REQUIREMENTS.  
2. EXISTING SOIL BENEATH PAD SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR PRIOR TO PLACEMENT OF GABC.

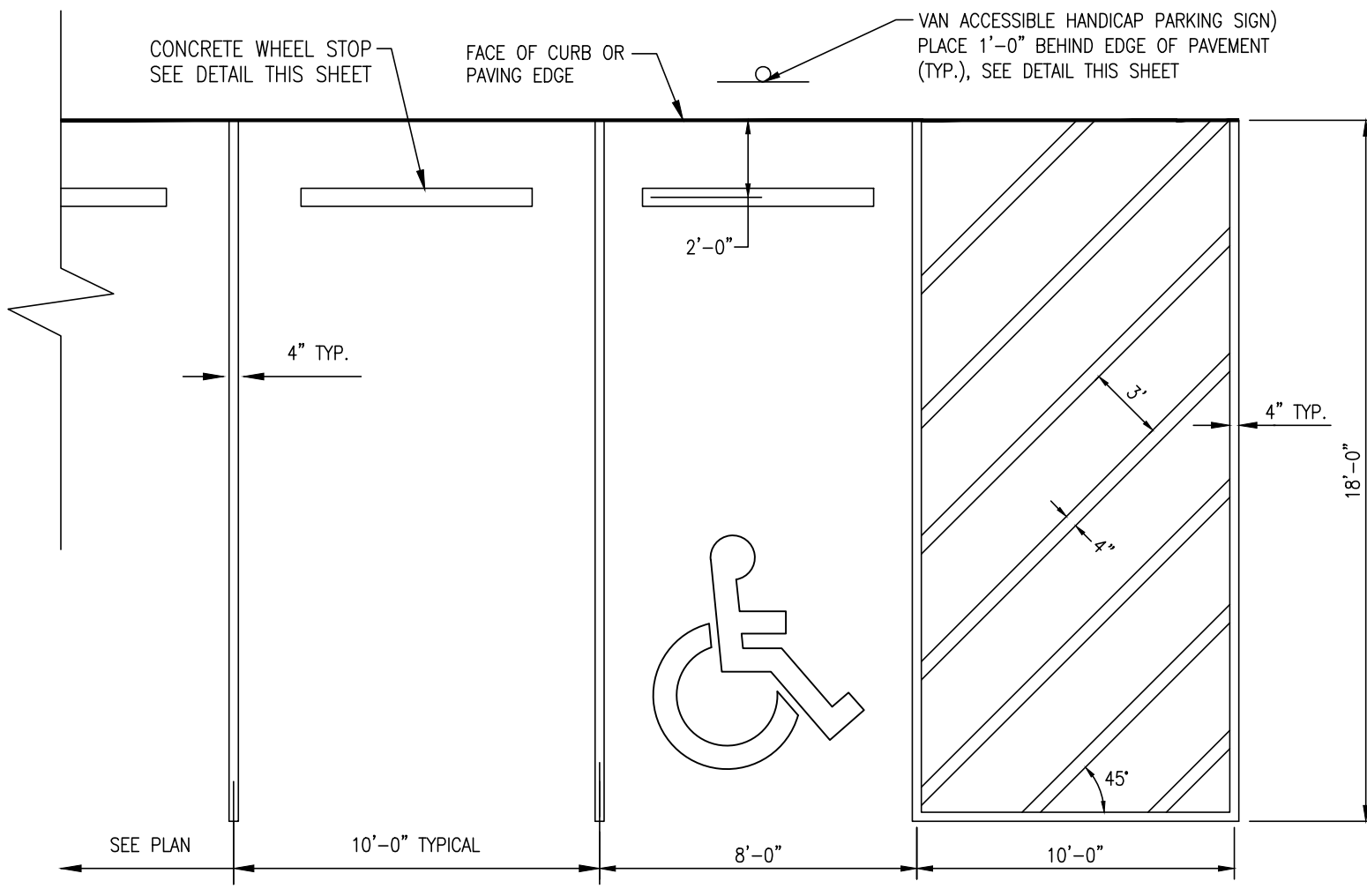
10  
C108  
FUEL TANK FOUNDATION SECTION  
SCALE: 1/2"= 1'-0"



11  
C108  
FUEL LINE PIPE SUPPORT DETAIL  
SCALE: 1/2"= 1'-0"

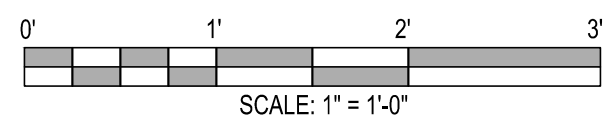


12  
C108  
ACCESSIBILITY PARKING SPACE MARKING DETAIL  
SCALE: 1/2"= 1'-0"



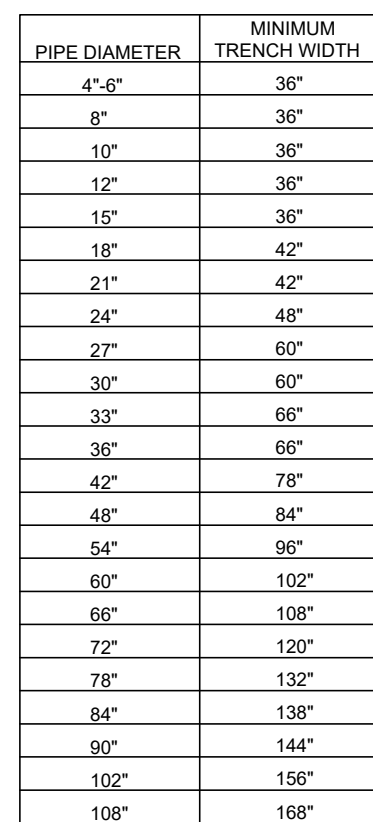
NOTES:  
1. ALL STRIPING SHALL BE WHITE EPOXY RESIN PAINT APPLIED IN ACCORDANCE WITH DELDOT ITEM 817013.  
2. DETAIL SHOWS TYPICAL SPACE DIMENSIONS. SEE PLAN FOR SPACE LOCATIONS.

13  
C108  
STANDARD AND HANDICAPPED PARKING PAVEMENT MARKING  
SCALE: N.T.S.



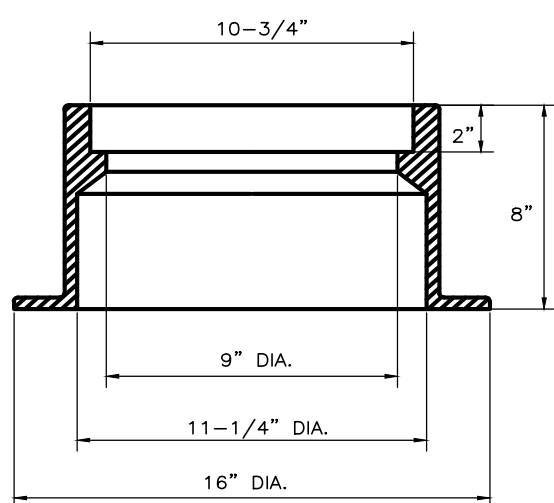
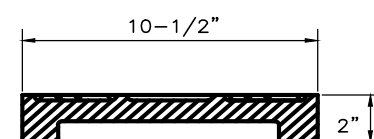
REVISIONS:	DATE:	DESCRIPTION:	BY:
LEIPSIK RESEARCH DOCK FACILITY			
SITE DETAILS			
SEAL:			
CIVIL ENGINEER:			
CENTURY ENGINEERING A Kleinfielder Company			
DESIGNED BY:			
ALW			
DRAWN BY:			
DFS			
CHECKED BY:			
ALW			
DATE:			
11-07-2025			
SCALE:			
AS SHOWN			
SHEET NO.:			
C108			
PROJECT NO.:			
00175013.092A			





- 2) 17" MINIMUM FINISHED PAVING WITHIN 18" OF R.O.W.
- 3) FOR TRENCHES REQUIRING SHORING AND BRACING, ALL WIDTHS SHALL BE INCREASED BY 2 FT.
- 4) FOR ALL MECHANICAL RECORDING INDICATORS A HIGH WATER TABLE AND/OR CONDITIONS VARYING WELL POINTS SHALL BE INSTALLED TO MAINTAIN ADEQUATE WIDTHS AND SLOPES TO PREVENT COLLAPSE.
- 5) THE ENTIRE THICKNESS AND VERTICAL EDGE OF CUT SHALL BE TACKED.
- 6) THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXIST BE REINSTEALLED, BUT IN NO CASE SHALL THE ASPHALT PAVEMENT BE LESS THAN 2" THICK.
- 7) THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED PROPERLY TO RESIST A SUFFICIENTLY STRENGTH TO BE ADEQUATE.
- 8) ALL MAXIMUM DRY WEIGHT REQUIREMENTS ARE BASED ON STANDARD PROCTER UNIFORM TEST METHOD AND SHALL BE OBTAINED IN THE LABORATORY.
- 9) ONLY A FULLY COMPLETED EARTH OVER PIPE AFTER 30" INITIAL COVER REQUIREMENT IS MET.
- 10) LIFTS TO BE A MINIMUM OF 8" MAXIMUM OF 12", EXCEPT FOR FIRST LIFT OF COVER OVER PIPE.
- 11) FOR GRAVITY SANITARY SEWER APPLICATIONS FROM 3 TO 15 FT DEEP:
  - a) PVC SDR 26 OR PVC SDR 31 FOR GRAVITY SANITARY SEWER APPLICATIONS FROM 3 TO 20 FEET DEEP (CORRUGATED PVC PIPE AS ACCEPTABLE ALTERNATIVE).
  - b) PVC SDR 31 FOR SANITARY SEWER FORCE MAIN APPLICATIONS 12 IN. DIA. OR LESS.
- 12) FINAL TRENCH RESTORATION SHALL BE IN ACCORDANCE WITH CURRENT DEEDLY LOCAL STANDARDS
- 13) NO MATERIAL WILL BE ACCEPTED FOR BACKFILL THAT HAS A PLASTICITY INDEX GREATER THAN 30
- 14) ALL TRENCHING OPERATIONS MUST FOLLOW OSHA GUIDELINES FOR EXCAVATION

NOT TO SCALE



WT., FRAME & COVER - 85 LBS.

- 1) OUTER FRAME & COVER, MACHINED ON THE BEARING SURFACE.
- 2) MATERIAL--GRAY IRON ASTM A-48, CLASS 35B.
- 3) ALL CASTINGS ARE OF HEAVY DUTY AND SUITABLE FOR H-20 LOADING.
- 4) EAST JORDAN IRON WORKS, INC. MODEL 1565 WITH SOLID COVER OR FOJAL


NOT TO SCALE



- 1) CLEANOUT NOT TO BE LOCATED IN DITCH, SWALE, ECT.
- 2) MAINTAIN 10 FT. MIN. SEPARATION BETWEEN WATER & SEWER LINES. MAINTAIN 5 FT. MIN SEPARATION BETWEEN STORMWATER & SEWER LINES.
- 3) CLEANOUT TO BE INSTALLED WHERE SHOWN ON PLANS.
- 4) LOCATION OF CLEANOUTS SHALL BE LOCATED ON THE AS-BUILT DRAWINGS BY TIES TO EXISTING PERMANENT STRUCTURES.
- 5) ALL CONNECTIONS TO BE COMPLETED UTILIZING THE CURRENT PLUMBING CODES.

NOT TO SCALE



	APPROVAL	DEPARTMENT OF PUBLIC WORKS	ISSUED: _____
	_____ DIRECTOR OF PUBLIC WORKS	STANDARD DETAILS	REVISED: <u>3-27-08</u>
	_____ DATE	SEWER CLEANOUT DETAIL (NON-TRAFFIC AREAS)	REVISED: _____
		MODIFIED	PLATE
			CO-05

## SITE DETAILS

PROJECT NO.:  
00175013.092A





DATA COLUMN

1. NAME OF BUILDING: LEIPSIC RESEARCH DOCK FACILITY  
2. PLAN DATE: 10-10-2025  
3. ADDRESS OF SITE: 86 LOMBARD ST, LEIPSIC, DE 19901  
4. TAX PARCEL NUMBER: 4-13-03910-01-3100-00001  
5. KENT COUNTY PLANNING NUMBER: N/A, TOWN OF LEIPSIC  
6. BUILDING USE: STORAGE, BUSINESS, DOCK  
7. WATER SUPPLIER: ON SITE, PRIVATE WELL  
8. MAXIMUM HEIGHT OF BUILDING: 23'-0" +/-  
9. PROPOSED BUILDING CONSTRUCTION: NFPA 101, TABLE A.8.2.1.2 TYPE II (000) NON-COMBUSTIBLE, UNPROTECTED  
10. AUTOMATIC SPRINKLER PROTECTION: NONE  
NO FIRE LANES, HYDRANTS, OR FIRE DEPARTMENT CONNECTIONS  
11. OWNER/DEVELOPER: STATE OF DELAWARE  
DIVISION OF FISH AND WILDLIFE  
89 KINGS HIGHWAY  
DOVER, DE 19901  
JEREMY ASHE  
(302) 739-9921/JEREMY.ASHE@DELAWARE.GOV  
12. APPLICANT: STATE OF DELAWARE  
DIVISION OF FISH AND WILDLIFE  
89 KINGS HIGHWAY  
DOVER, DE 19901  
ARTHUR LANCE WILGUS, P.E.  
(302) 734-9188/WILGUS@KLEINFELDER.COM  
13. ENGINEER: CENTURY ENGINEERING, LLC  
550 BAY ROAD  
DOVER, DE 19901  
ARTHUR LANCE WILGUS, P.E.  
(302) 734-9188/WILGUS@KLEINFELDER.COM

NOTE:  
ALL FIRE LANES, FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.

REVISIONS:

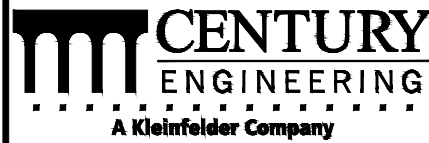
DATE:	DESCRIPTION:	BY:

LEIPSIC RESEARCH DOCK FACILITY

FIRE MARSHAL PLAN (SITE)

SEAL:

CIVIL ENGINEER:



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

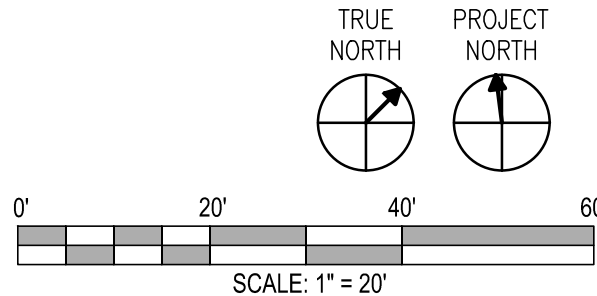
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SHEET NO.:

C110

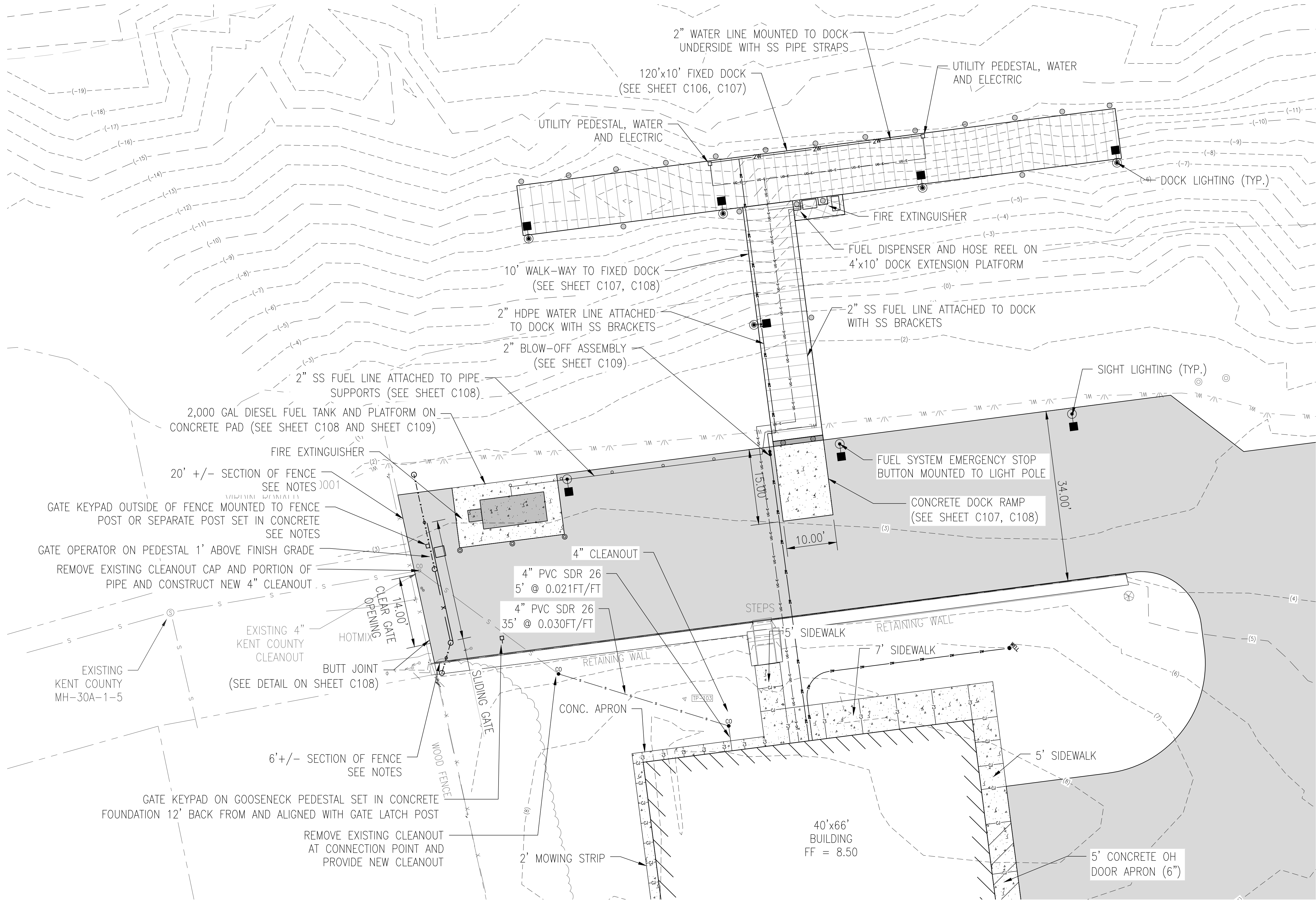
PROJECT NO.:

00175013.092A





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DATA COLUMN

- |                                     |  |
|-------------------------------------|--|
| 1. NAME OF BUILDING:                | LEPSIC RESEARCH DOCK FACILITY  |
| 2. PLAN DATE:                       | 10-10-2025   |
| 3. ADDRESS OF SITE:                 | 86 LOMBARD ST, LEPSIC, DE 19901  |
| 4. TAX PARCEL NUMBER:               | 4-13-03910-01-3100-00001   |
| 5. KENT COUNTY PLANNING NUMBER:     | N/A, TOWN OF LEPSIC  |
| 6. BUILDING USE:                    | STORAGE, BUSINESS, DOCK  |
| 7. WATER SUPPLIER:                  | ON-SITE PRIVATE WELL   |
| 8. MAXIMUM HEIGHT OF DOCK:          | DOCK ELEVATION 5.0' TOP OF PILINGS 13.0'   |
| 9. PROPOSED DOCK CONSTRUCTION:      | ALUMINUM DOCK ON STEEL PILINGS   |
| 10. AUTOMATIC SPRINKLER PROTECTION: | N/A  |
| 11. OWNER/DEVELOPER:                | STATE OF DELAWARE<br>DIVISION OF FISH AND WILDLIFE<br>89 KINGS HIGHWAY<br>DOVER, DE 19901<br>JEREMY ASHE<br>(302) 739-9921/JEREMY.ASHE@DELAWARE.GOV              |
| 12. APPLICANT:                      | STATE OF DELAWARE<br>DIVISION OF FISH AND WILDLIFE<br>89 KINGS HIGHWAY<br>DOVER, DE 19901<br>ARTHUR LANCE WILGUS, P.E.<br>(302) 734-9186/LWILGUS@KLEINFELDER.COM |
| 13. ENGINEER:                       | CENTURY ENGINEERING, LLC.<br>350 BAY ROAD<br>DOVER, DE 19901<br>ARTHUR LANCE WILGUS, P.E.<br>(302) 734-9186/LWILGUS@KLEINFELDER.COM                              |

NOTE:  
ALL FIRE LANES, FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.

REVISIONS:

BY:

DATE: DESCRIPTION:

LEPSIC RESEARCH DOCK FACILITY

FIRE MARSHAL PLAN (DOCK)

SEAL:

CIVIL ENGINEER:

**CENTURY**  
ENGINEERING  
A Kleinfelder Company



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

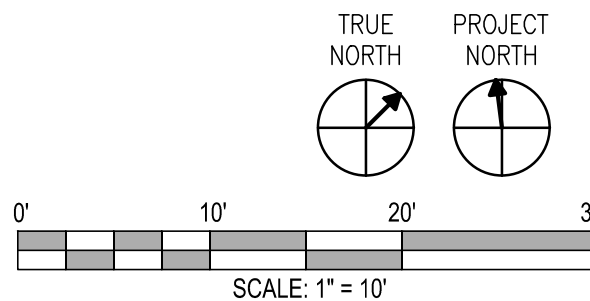
1" = 10'

SHEET NO.:

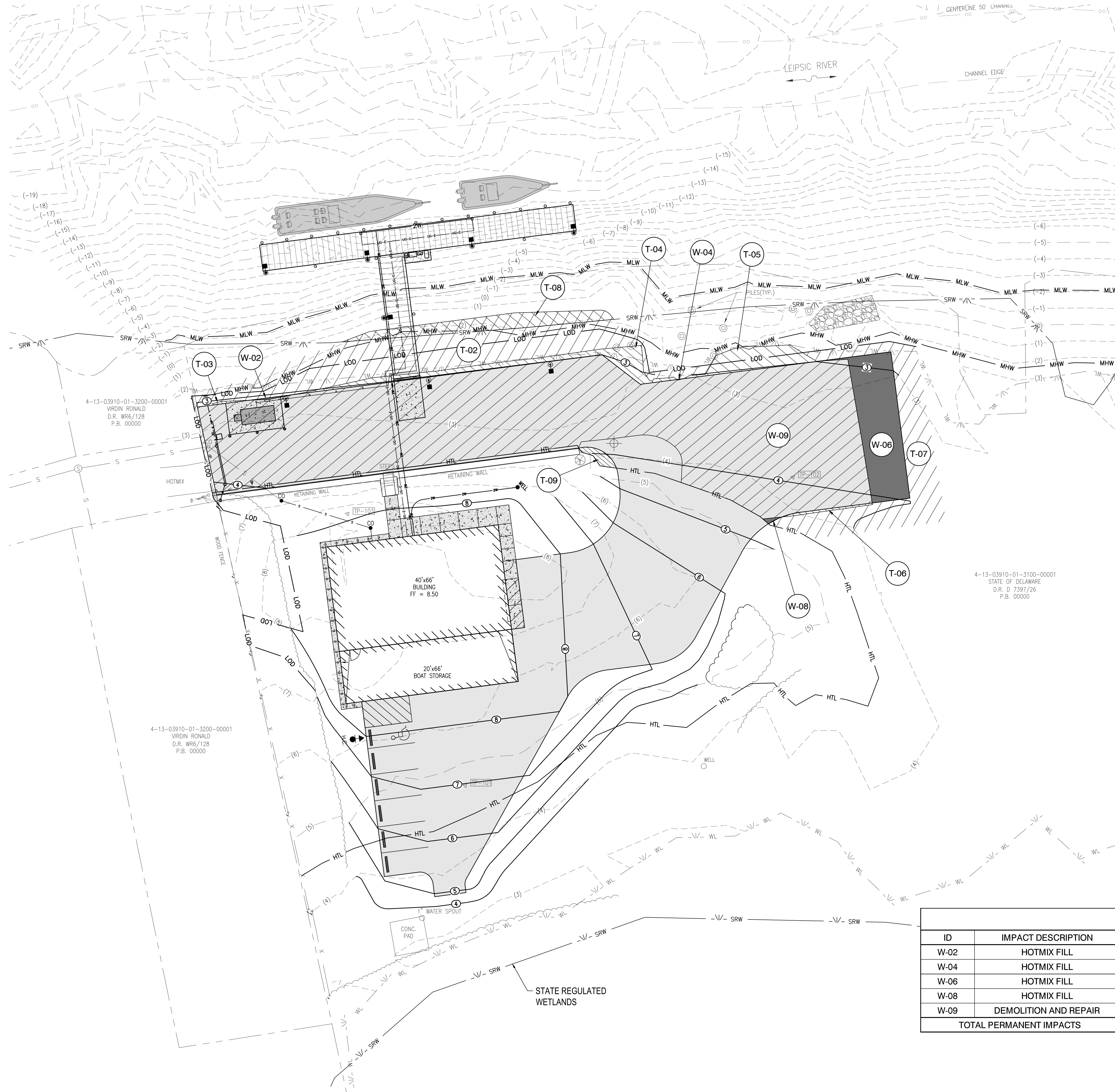
C111

PROJECT NO.:

00175013.092A







**LEGEND:**

LIMIT OF DISTURBANCE — LOD — LOD —

EXISTING HIGH TIDE LINE ELEV: 4.51 — HTL — HTL —

EXISTING MEAN HIGH WATER ELEV: 2.37 — MHW — MHW —

EXISTING MEAN LOW WATER ELEV: -2.11 — MLW — MLW —

EXISTING STATE REGULATED WETLAND — -V/- SRW —

PERMANENT IMPACTS [Solid Grey Box]

TEMPORARY IMPACTS [Hatched Box]

TEMPORARY IMPACT AREA SCHEDULE				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	JURISDICTION
T-02	CONSTRUCTION	1354.7160	0.0311	USACE
T-03	REMOVE EXISTING FILL	8.7560	0.0002	USACE
T-04	REMOVE EXISTING FILL	360.8500	0.0083	USACE
T-05	REMOVE EXISTING FILL	290.5450	0.0067	USACE
T-06	REMOVE EXISTING FILL	26.4800	0.0006	USACE
T-07	CONSTRUCTION	2652.8040	0.0609	USACE
T-08	CONSTRUCTION	442.5696	0.0102	DNREC
T-09	CONSTRUCTION	47.6200	0.0011	USACE
TOTAL TEMPORARY IMPACT AREAS		4,741.7710	0.1089	USACE
TOTAL TEMPORARY IMPACT AREAS		442.5696	0.0102	DNREC

PERMANENT IMPACT AREA SCHEDULE							
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS IMPACT	LOSS (AC)
W-02	HOTMIX FILL	5.4890	0.0001	0.1779	USACE-SECTION 404	IMPACT	0.0000
W-04	HOTMIX FILL	0.3000	0.0000	0.0097	USACE-SECTION 404	IMPACT	0.0000
W-06	HOTMIX FILL	869.2398	0.0200	28.1698	USACE-SECTION 404	IMPACT	0.0000
W-08	HOTMIX FILL	7.3600	0.0002	0.2385	USACE-SECTION 404	IMPACT	0.0000
W-09	DEMOLITION AND REPAIR	9263.8600	0.2127	142.9610	USACE-SECTION 404	IMPACT	0.0000
TOTAL PERMANENT IMPACTS		10146.2488	0.2329	171.5569	USACE	IMPACT	0.0000

0' 20' 40' 60'

SCALE: 1" = 20'

TRUE NORTH PROJECT NORTH

REVISIONS:


DATE:	DESCRIPTION:	BY:


LEIPSIC RESEARCH DOCK FACILITY

ENVIRONMENTAL COMPLIANCE PLAN

SEAL:

CIVIL ENGINEER:

**CENTURY**  
ENGINEERING  
A Kleinfelder Company



DESIGNED BY:  
ALW

DRAWN BY:  
DFS

CHECKED BY:  
ALW

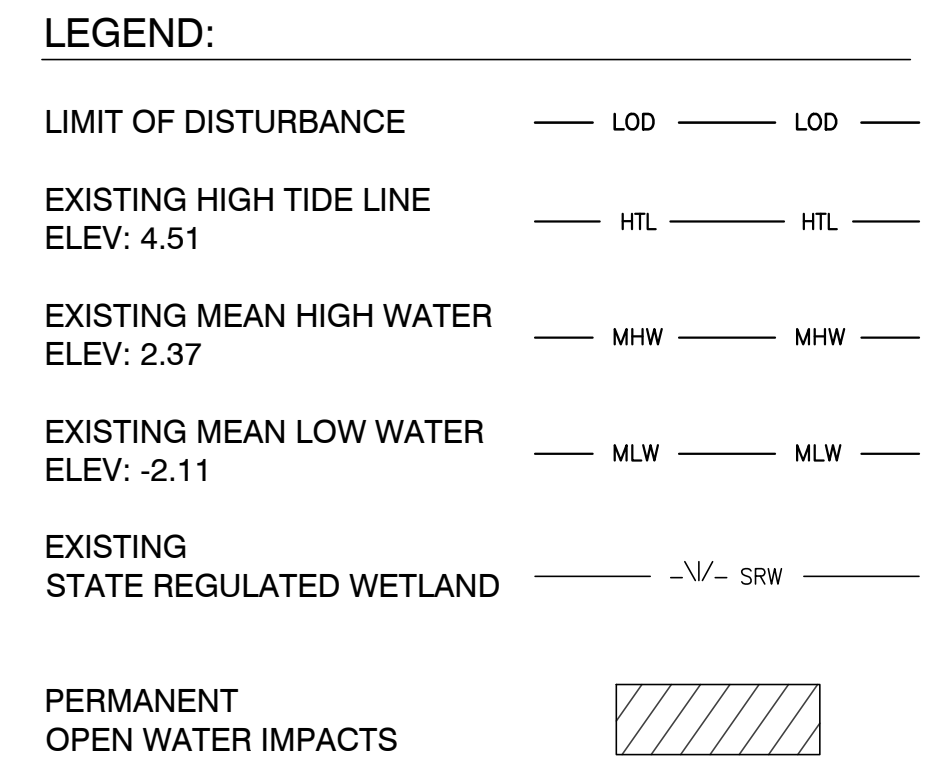
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11-07-2025

SCALE:  
1" = 20'

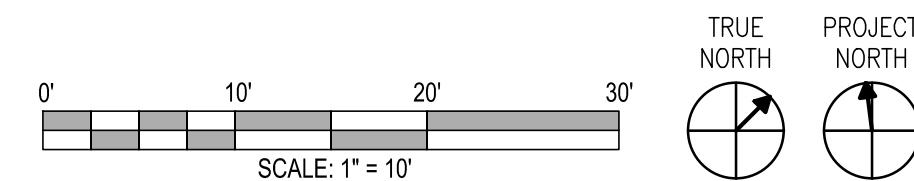
SHEET NO.:  
**C112**

PROJECT NO.:  
00175013.092A





PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	JURISDICTION	LOSS AREA (AC)
O-01	DOCK AND SUPPORT PILES	1,525.56	0.0350	USACE-SECTION 10	0.0000
O-02	DOCK AND SUPPORT PILES	1,541.98	0.0354	DNREC-WATER	0.0000
TOTAL PERMANENT OPEN WATER IMPACTS		1,525.56	0.0350	USACE	0.0000
TOTAL PERMANENT OPEN WATER IMPACTS		1,541.98	0.0354	DNREC	0.0000



**REVISIONS:**

DATE: DESCRIPTION:

BY:

LEIPSIK RESEARCH DOCK FACILITY

# ENVIRONMENTAL COMPLIANCE PLAN

SEAL:

CIVIL ENGINEER



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE \_\_\_\_\_

11-07-2025

SCALE:

$$1'' = 10$$

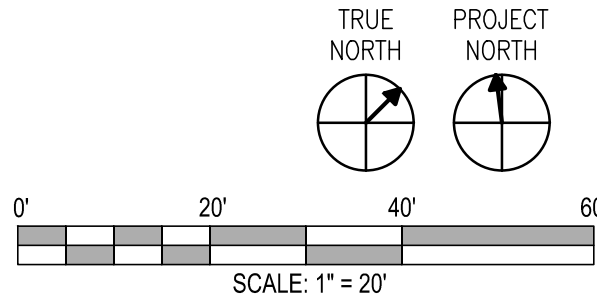
SHEET NO.:

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PROJECT NO.:

00175013.092A

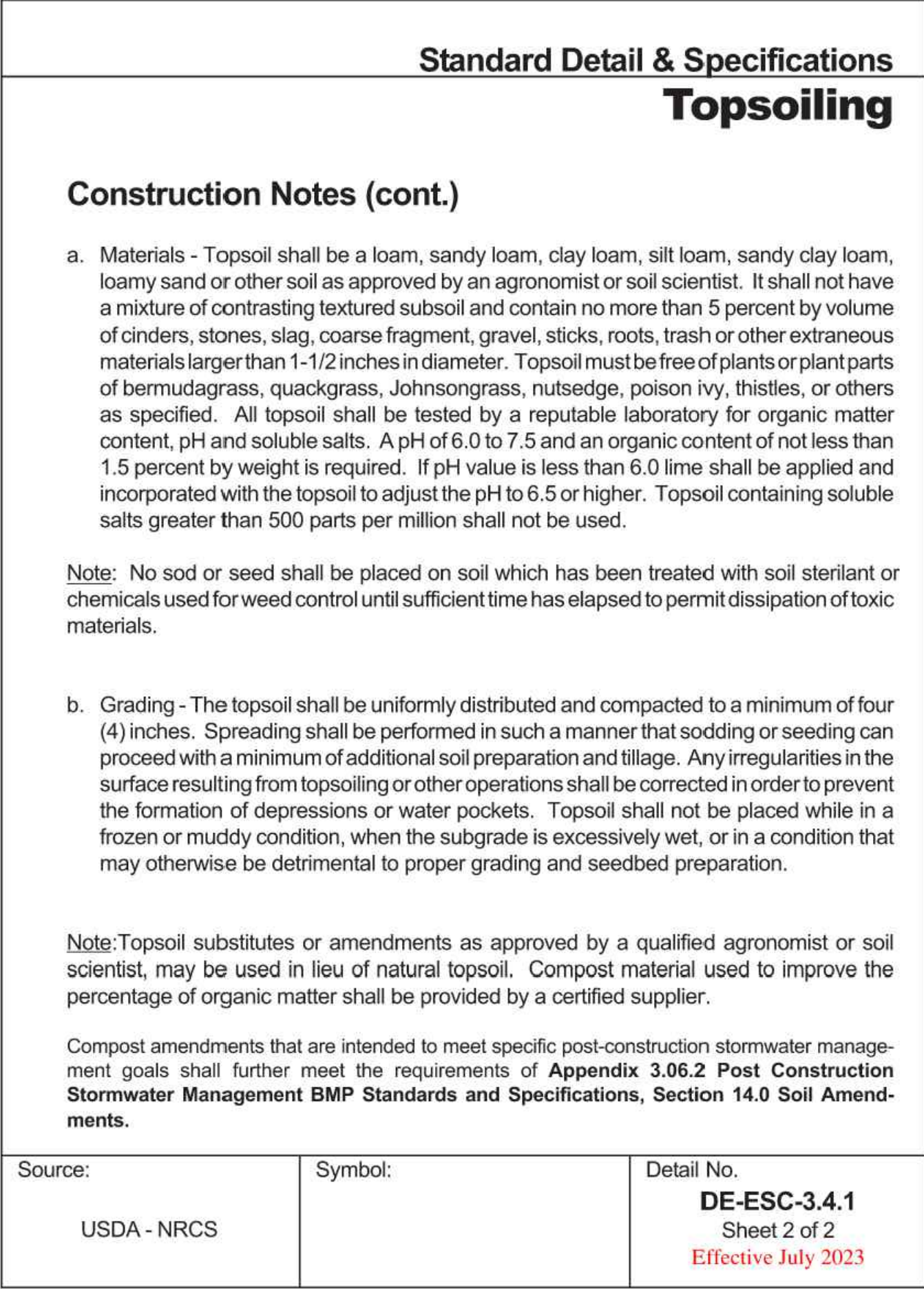
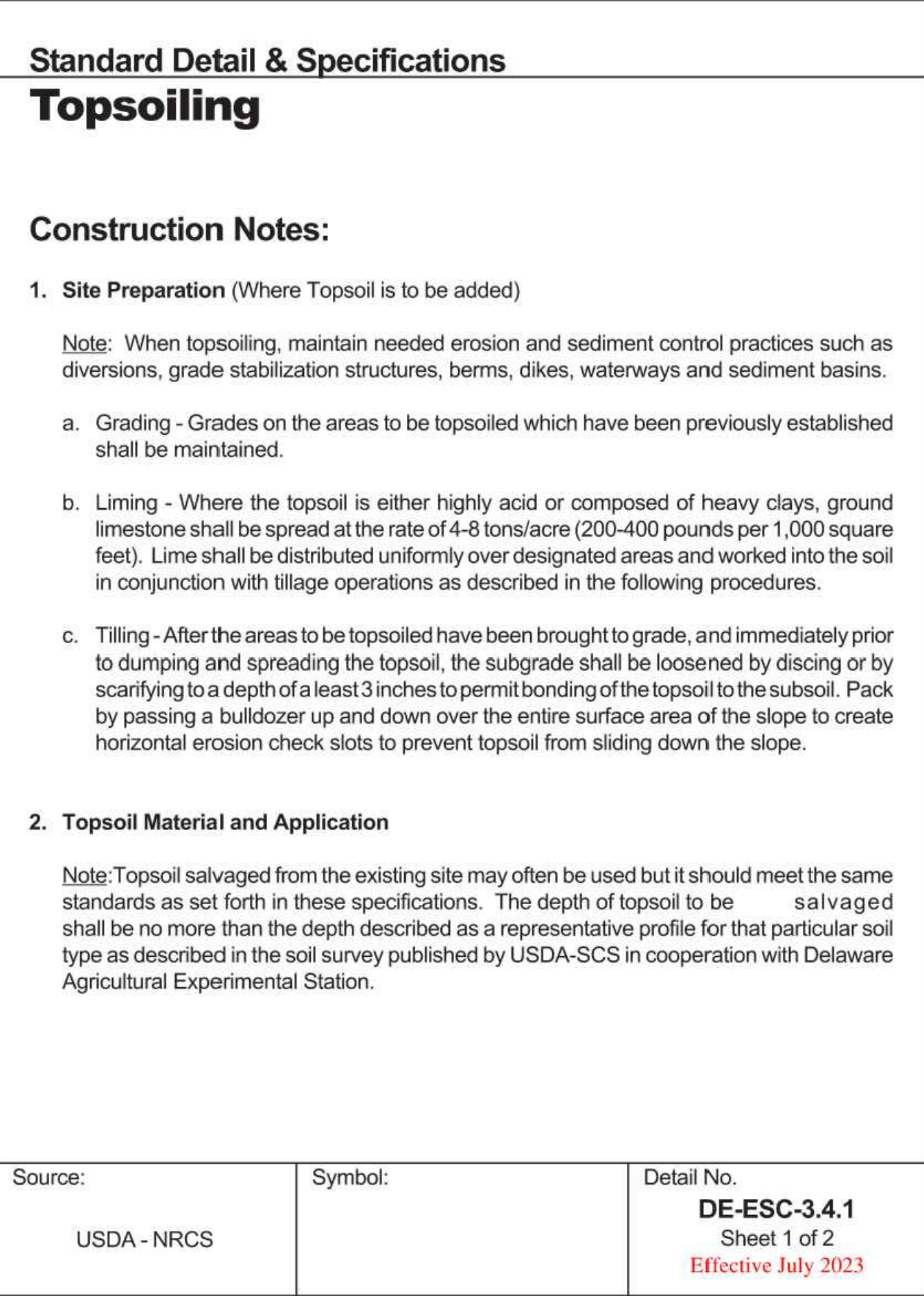
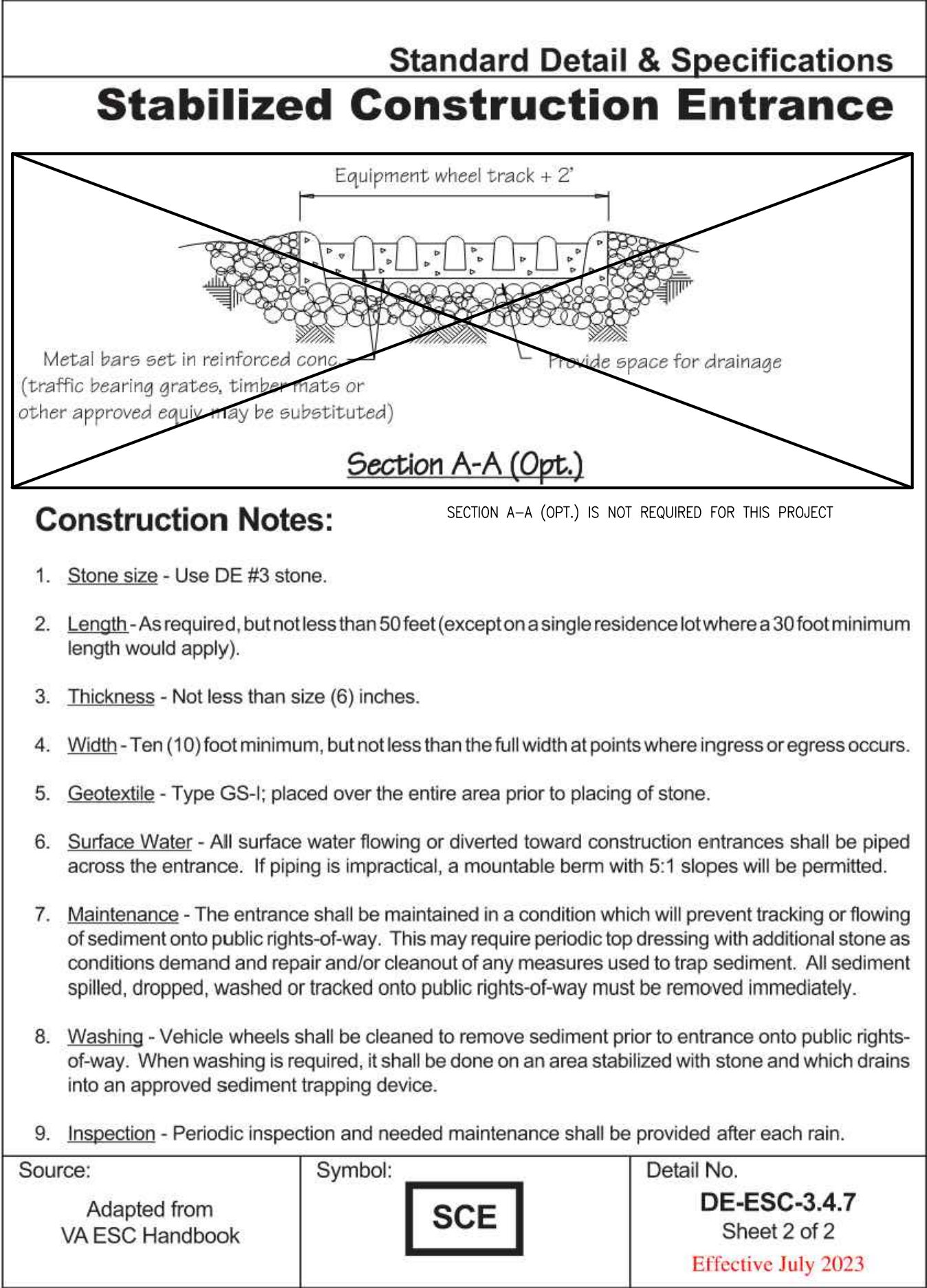
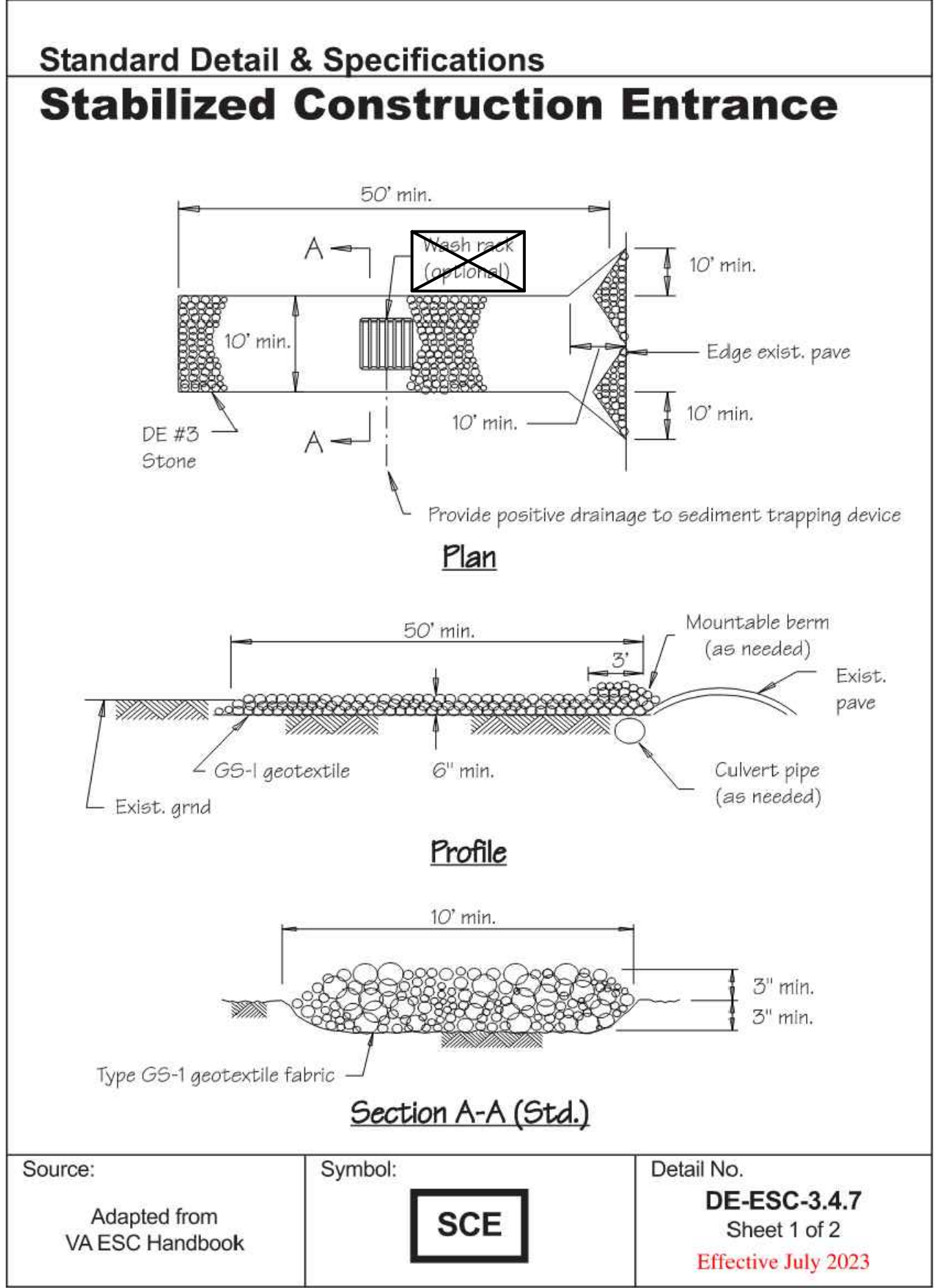






1 CONTRACTOR SHALL INSTALL SM-S MATTING (NORTH AMERICAN GREEN S75BN) OR APPROVED EQUAL TO ALL DISTURBED TURF AREAS ON SITE

## 00175013.092A





<div>REVISIONS:</div> <table><tr><td>DATE:</td><td>DESCRIPTION:</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>		DATE:	DESCRIPTION:									LEIPSIC RESEARCH DOCK FACILITY	E&S DETAILS
		DATE:	DESCRIPTION:										
SEAL:		<div>CIVIL ENGINEER:</div> <div>CENTURY ENGINEERING A Kleinfelder Company</div>											
													
DESIGNED BY:		ALW											
DRAWN BY:		DFS											
CHECKED BY:		ALW											
DATE:		11-07-2025											
SCALE:		NTS											
SHEET NO.:		C201											
PROJECT NO.:		00175013.092A											







Standard Detail & Specifications  
Construction Site Pollution Prevention

Delaware NPDES Discharge Permit  
General Permit for Discharge of Stormwater from Construction Activities

((Project Name))  
((NOI Permit Number))  
((Agency Plan Approval ID))  
((Contact Name & Number for Additional Site Information))  
((Contact Name & Number to Obtain Copy of Approved Plan))

If you observe indicators of stormwater pollutants  
in the discharge or in the receiving waterbody, call the  
DNREC Spill Notification 24 HR Hotline at

1-800-662-8802

Example Construction General Permit (CGP) Signage

NOTES:

1. Minimum sign size 2' x 2'
2. Minimum text size 1"
3. Sign must be posted at a safe, publicly accessible location close to construction site
4. Sign must be visible from the public road nearest the active construction site
5. Signs posted within a DelDOT or other public road right-of-way (ROW) must be in accordance with all local and/or State requirements in regards to safety, location, orientation, etc.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		<b>DE-ESC-3.6.1</b> Sheet 1 of 4 Effective July 2023

Standard Detail & Specifications  
Construction Site Pollution Prevention

Notes:

The Construction Site Pollution Prevention Plan includes the following elements:

1. Material Inventory

Document the storage and use of the following materials:

- a. Concrete
- b. Detergents
- c. Paints (enamel and latex)
- d. Cleaning solvents
- e. Pesticides
- f. Wood scraps
- g. Fertilizers
- h. Petroleum based products

2. Good housekeeping practices

- a. Store only enough product required to do the job.
- b. Store all materials in a neat, orderly manner in their original labeled containers and covered.
- c. Do not mix different substances.
- d. When possible, use all of a product prior to disposal of the container.
- e. Manufacturers' instructions for disposal should be strictly adhered to.
- f. Designate someone to inspect all BMPs daily.

3. Waste management practices

- a. Collect and store all waste materials in securely lidded dumpsters in a location that does not drain to a waterbody.
- b. Salvage and/or recycle waste materials whenever possible.
- c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		<b>DE-ESC-3.6.1</b> Sheet 2 of 4 Effective July 2023

Standard Detail & Specifications  
Construction Site Pollution Prevention

Notes (cont.)

- d. Dispose of all trash in accordance with all applicable Delaware laws.
  - e. Littering is strictly prohibited. Trash cans should be placed at all lunch spots and recycle bins should be placed near the construction trailer.
  - f. If fertilizer bags can not be stored in a weather-proof location, they should be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.
4. Equipment maintenance practices
- a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
  - b. If performed on-site, wash vehicles with high-pressure water spray without detergents in an area contained by an impervious berm.
  - c. Use drip pans for all equipment maintenance.
  - d. Inspect equipment for leaks on a daily basis.
  - e. Direct washout from concrete trucks into a temporary pit for hardening and proper disposal.
  - f. Equip fuel nozzles with automatic shut-off valves.
  - g. Dispose of all used products such as oil, antifreeze, solvents and tires in accordance with manufacturers' recommendations and local, state and federal laws and regulations.
5. Spill prevention practices
- a. Identify potential spill areas and contain them in covered areas with no connection to the storm drain system.
  - b. Post warning signs in hazardous material storage areas.
  - c. Perform preventive maintenance on all tanks, valves, pumps, pipes and other equipment as necessary.
  - d. Prioritize low or non-toxic substances for use.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		<b>DE-ESC-3.6.1</b> Sheet 3 of 4 Effective July 2023

Standard Detail & Specifications  
Construction Site Pollution Prevention

Notes (cont.)

- e. Prominently post contact information for reporting spills through the DNREC 24-Hour Toll Free Number.
6. Education
- a. Include Best Management Practices (BMPs) for construction site pollution control as part of regular progress meetings.
  - b. Information regarding waste management, equipment maintenance and spill prevention should be prominently posted in the construction trailer.

CONTACT INFORMATION

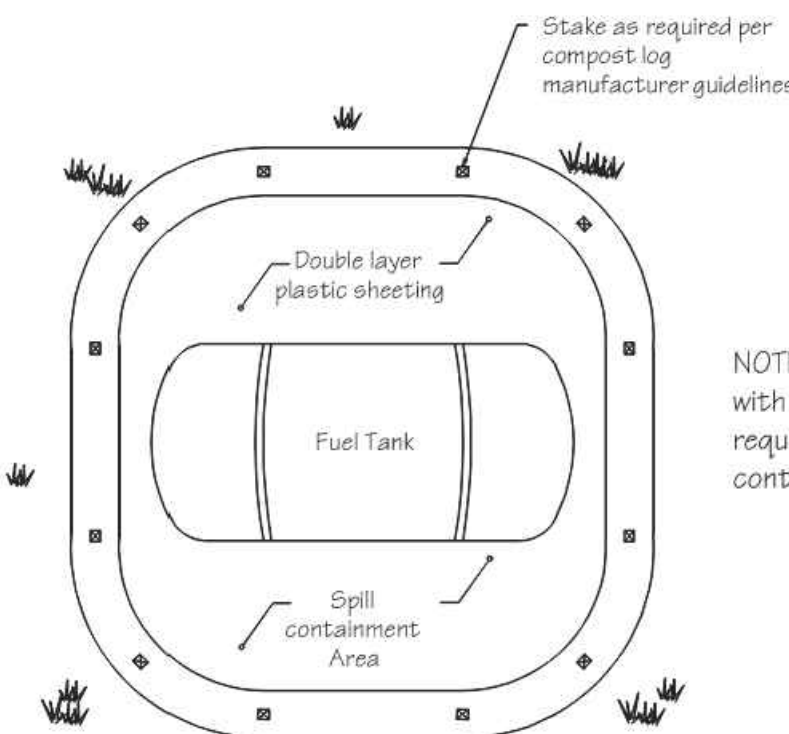
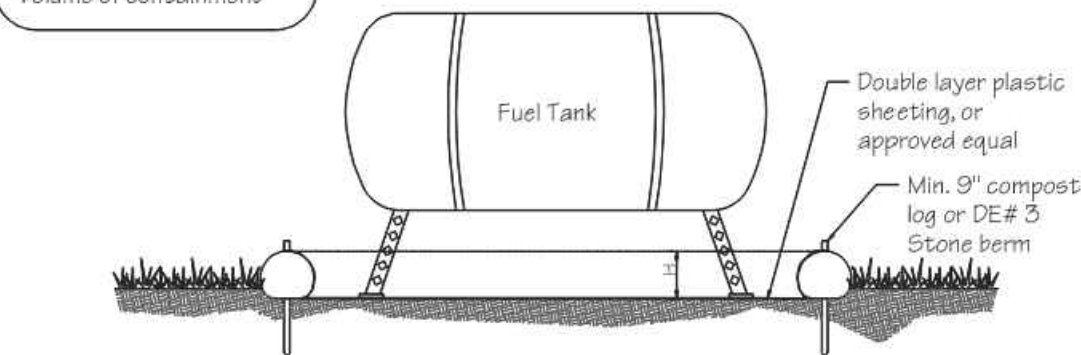
DNREC 24-Hour Toll Free Number 800-662-8802  
DNREC Solid & Hazardous Waste Management Section 302-739-9403

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		<b>DE-ESC-3.6.1</b> Sheet 4 of 4 Effective July 2023

Standard Detail & Specifications  
Fueling & Spill Control

DATA TO BE PROVIDED

Volume of Potential  
Pollution  
Height of containment  
Area of containment  
Volume of containment



NOTE: Double-walled tanks  
with proper labeling meet EPA  
requirements for secondary  
containment.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		<b>DE-ESC-3.6.4</b> Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications  
Fueling & Spill Control

Pollution Prevention – Fueling & Spill Control

1. Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
2. Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
3. Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
4. Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
5. Place a "Fueling Area" sign next to each fueling area.
6. Store hazardous materials such as fuel, solvents, oil and chemicals in secondary containment.
7. Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
8. Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
9. If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
10. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.

CLEAN UP SPILLS

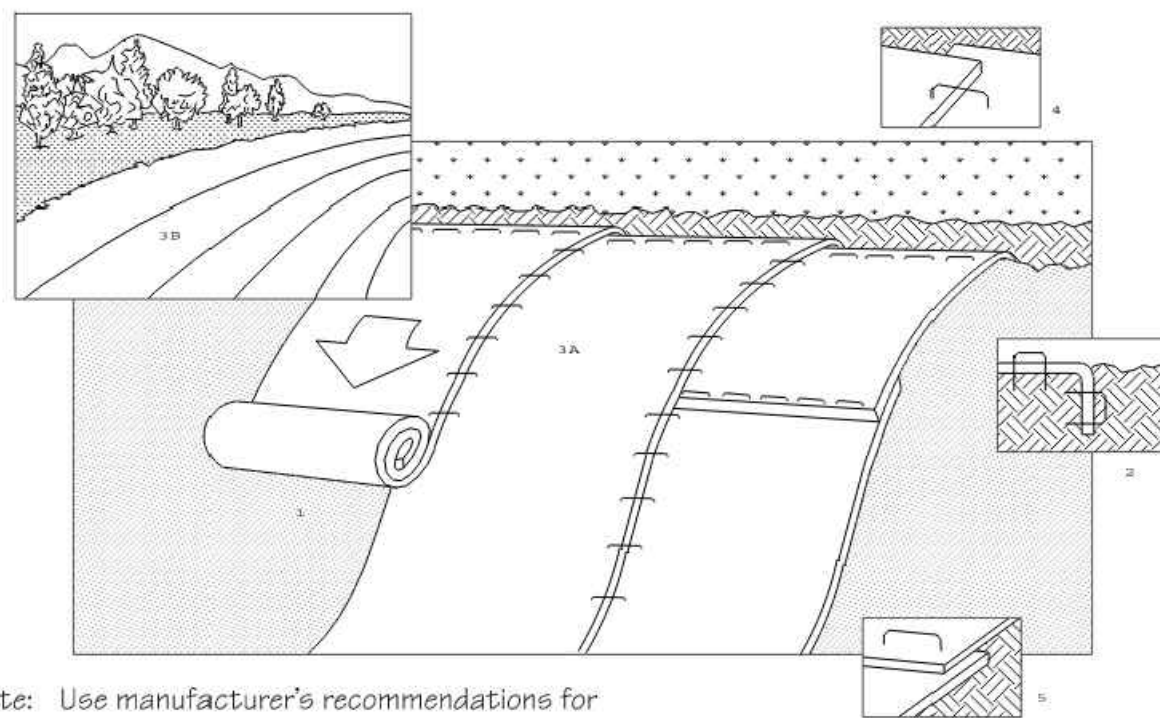
1. If it is safe to do so, immediately contain and clean up any chemical and/or hazardous material spills.
2. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.
3. Do not bury spills or wash them down with water.

LEAKS AND DRIPS

1. Use drip pans or absorbent pads at all times. Place under and around leaky equipment.
2. Do not allow oil, grease, fuel or chemicals to drip onto the ground.
3. Have spill kits and clean up material on-site.
4. Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
5. Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
6. Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		<b>DE-ESC-3.6.4</b> Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications  
Stabilization Matting - Slope



Note: Use manufacturer's recommendations for  
stapling patterns for slope installations.

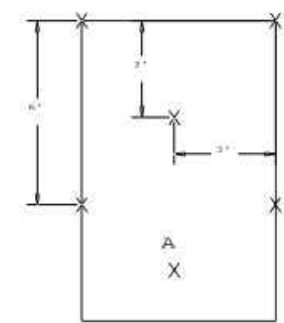
Perspective

Construction Notes:

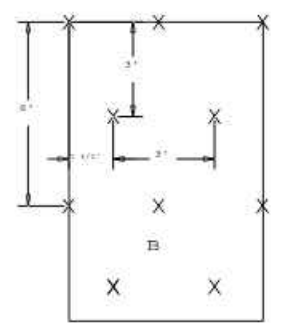
1. Prepare soil before installing matting, including application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the mat in a 6" deep X 6" wide trench. Backfill and compact trench after stapling.
3. Roll the mats (A) down or (B) horizontally across the slope.
4. The edges of parallel mats must be stapled with approx. 2" overlap.
5. When mats must be spliced down the slope, place mats end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart.

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	<b>SM-S</b>	<b>DE-ESC-3.4.6.1</b> Sheet 1 of 2 Effective July 2023

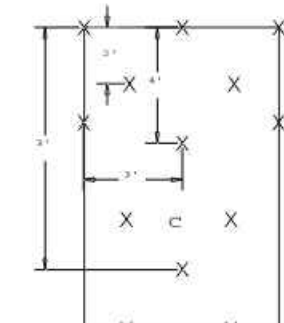
Standard Detail & Specifications  
Stabilization Matting - Slope



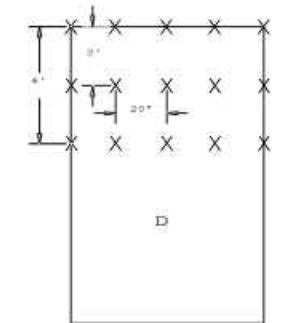
0.7 Staples per Sq. Yd.



1.2 Staples per Sq. Yd.



1.75 Staples per Sq. Yd.



3.5 Staples per Sq. Yd.

NOTE: These patterns are provided  
for general guidance only. They shall  
not be used as a substitute for  
manufacturer's recommendations.

Stapling Patterns

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	<b>SM-S</b>	<b>DE-ESC-3.4.6.1</b> Sheet 2 of 2 Effective July 2023

REVISIONS:

DATE: DESCRIPTION:

LEIPSIC RESEARCH DOCK FACILITY

EROSION & SEDIMENT CONTROL DETAILS

SEAL:

CIVIL ENGINEER:

**CENTURY**  
ENGINEERING  
A Kleinfelder Company



DESIGNED BY:

ALW

DRAWN BY:

DFS

CHECKED BY:

ALW

DATE:

11-07-2025

SCALE:

NTS

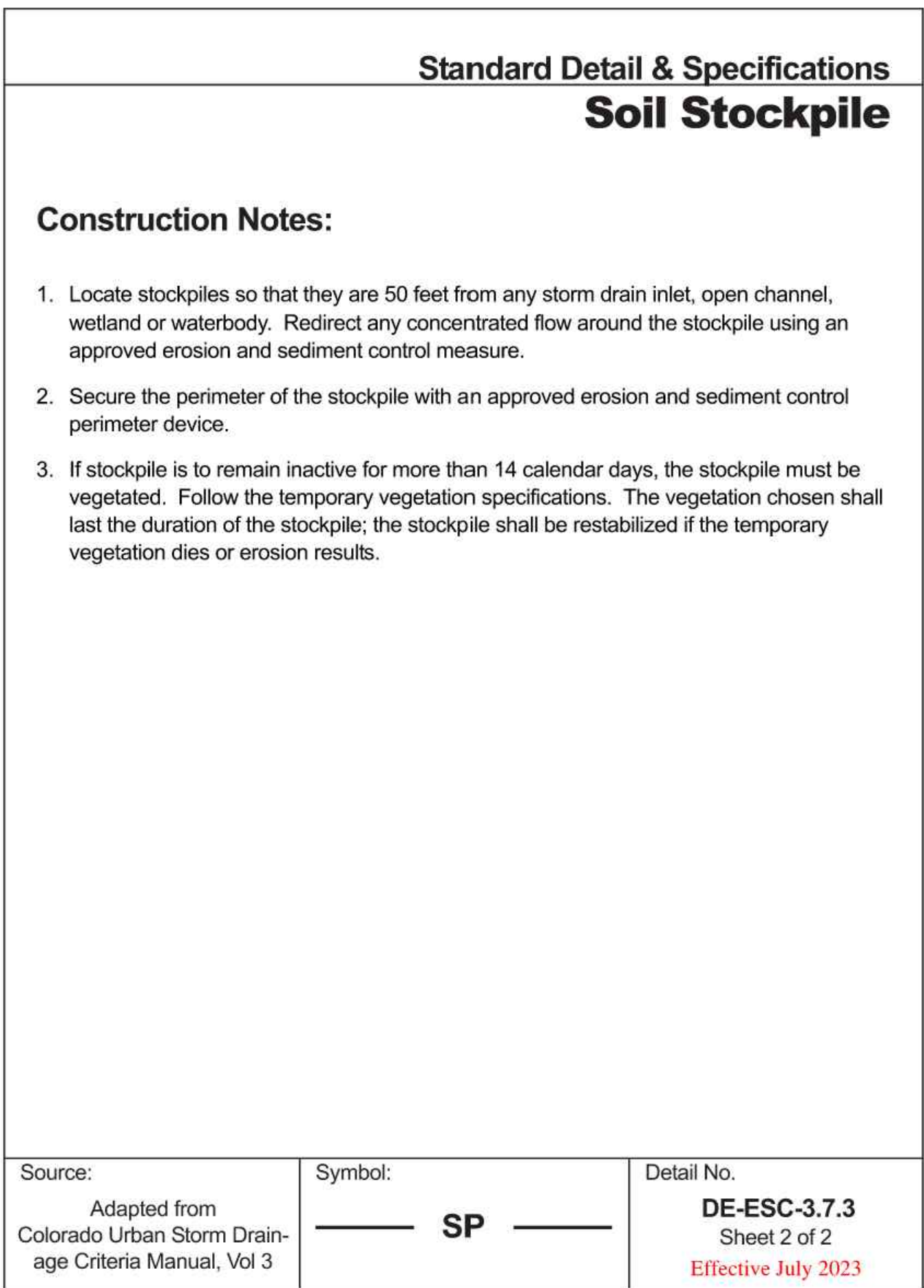
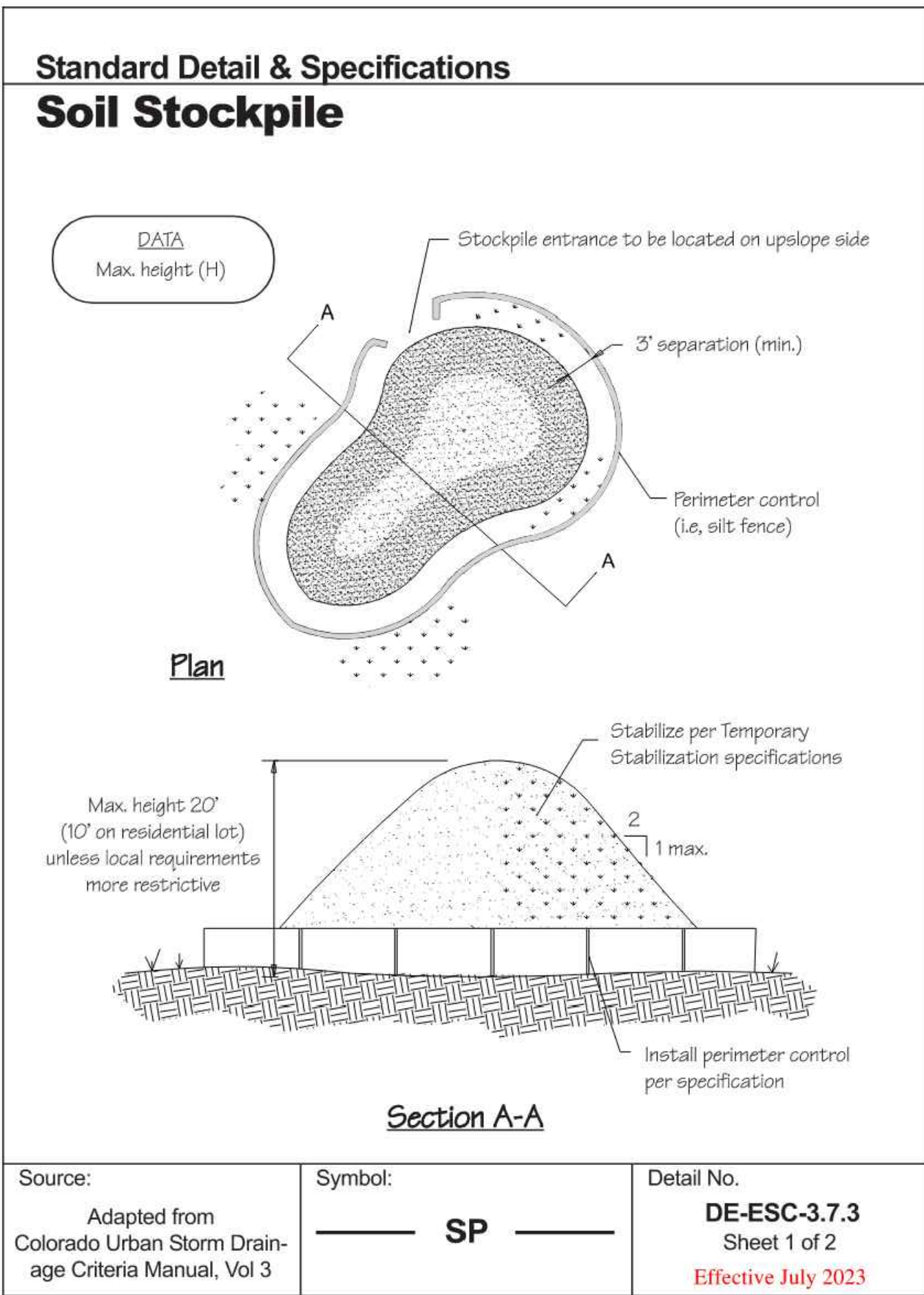
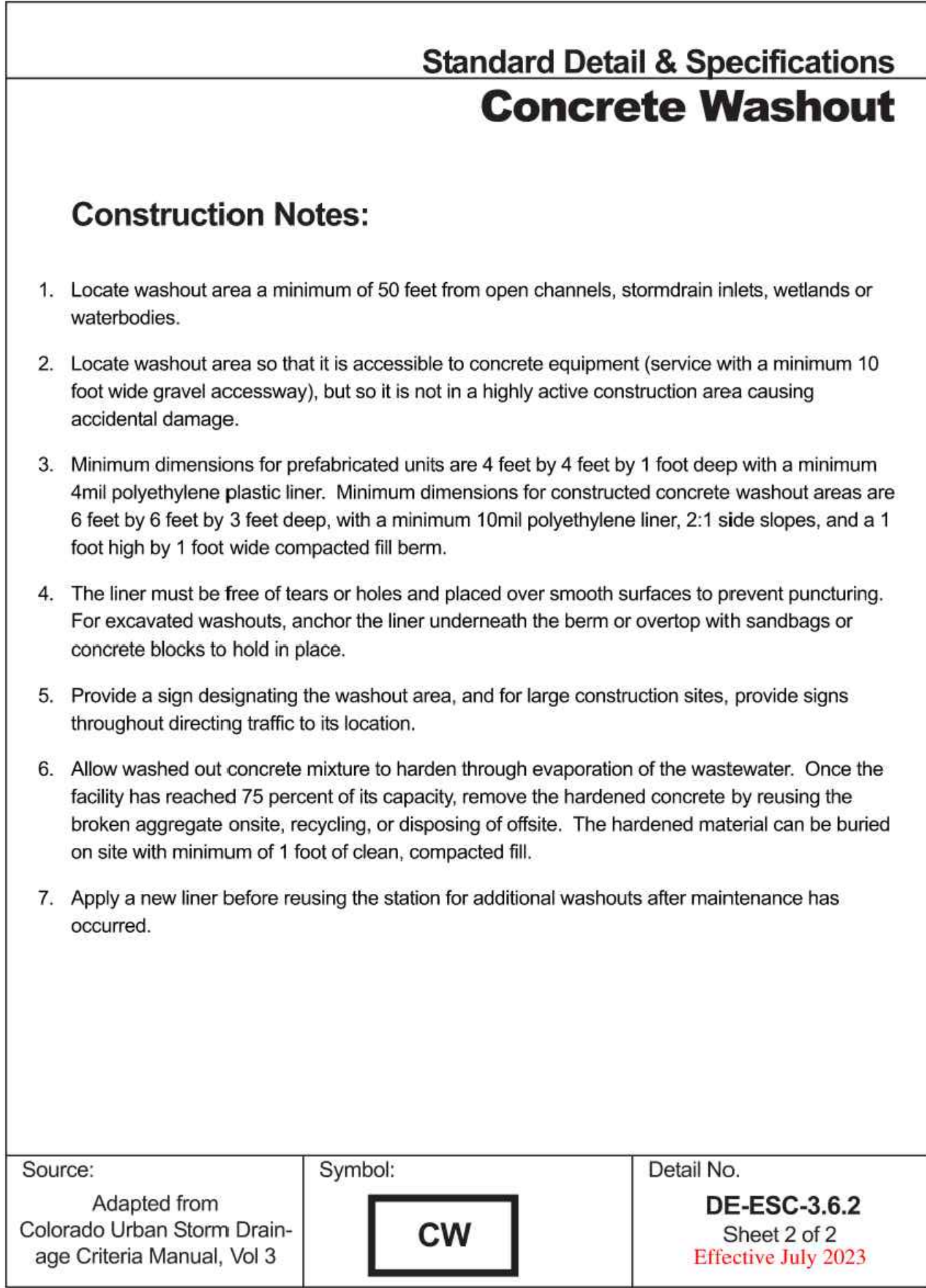
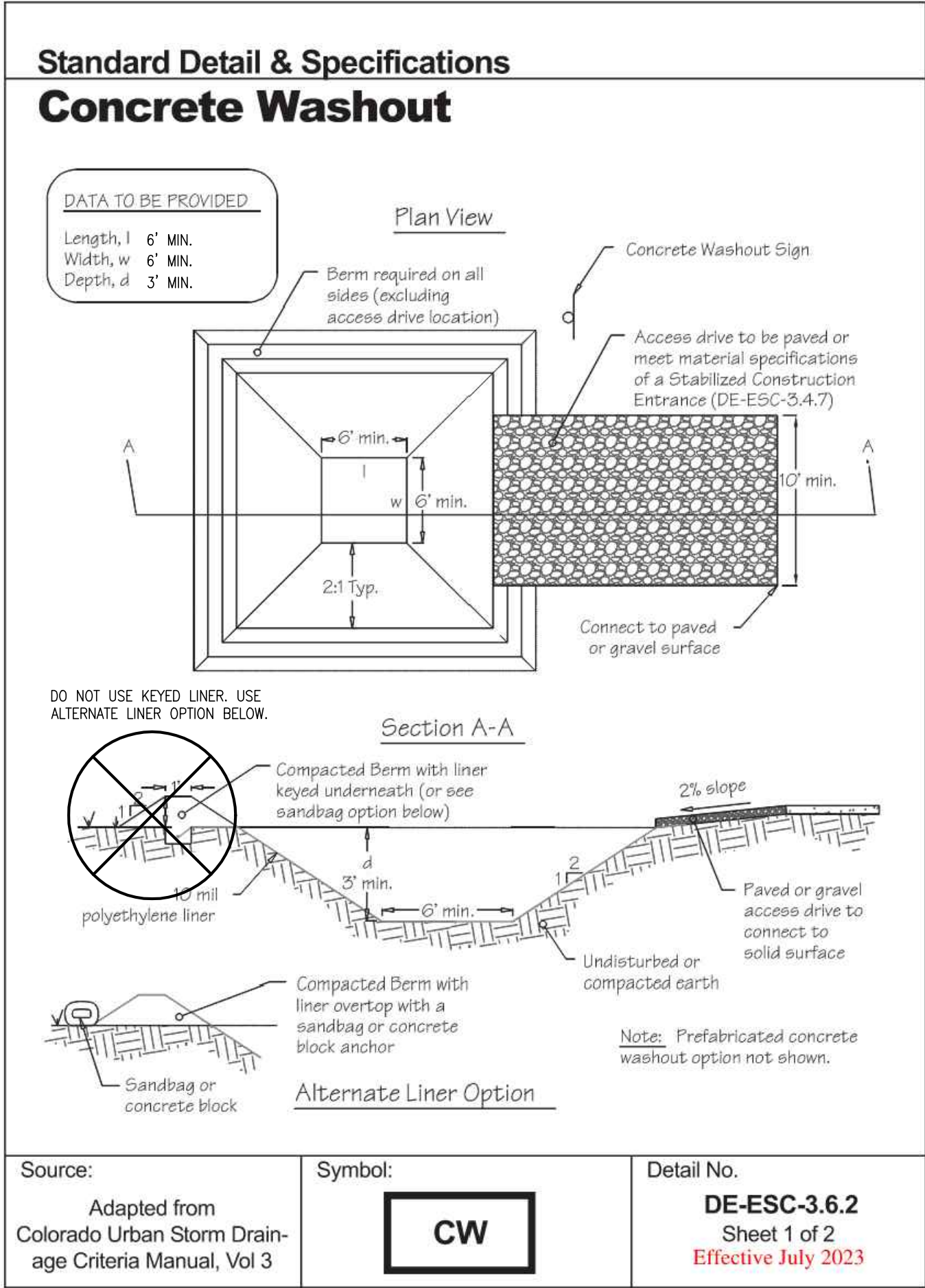
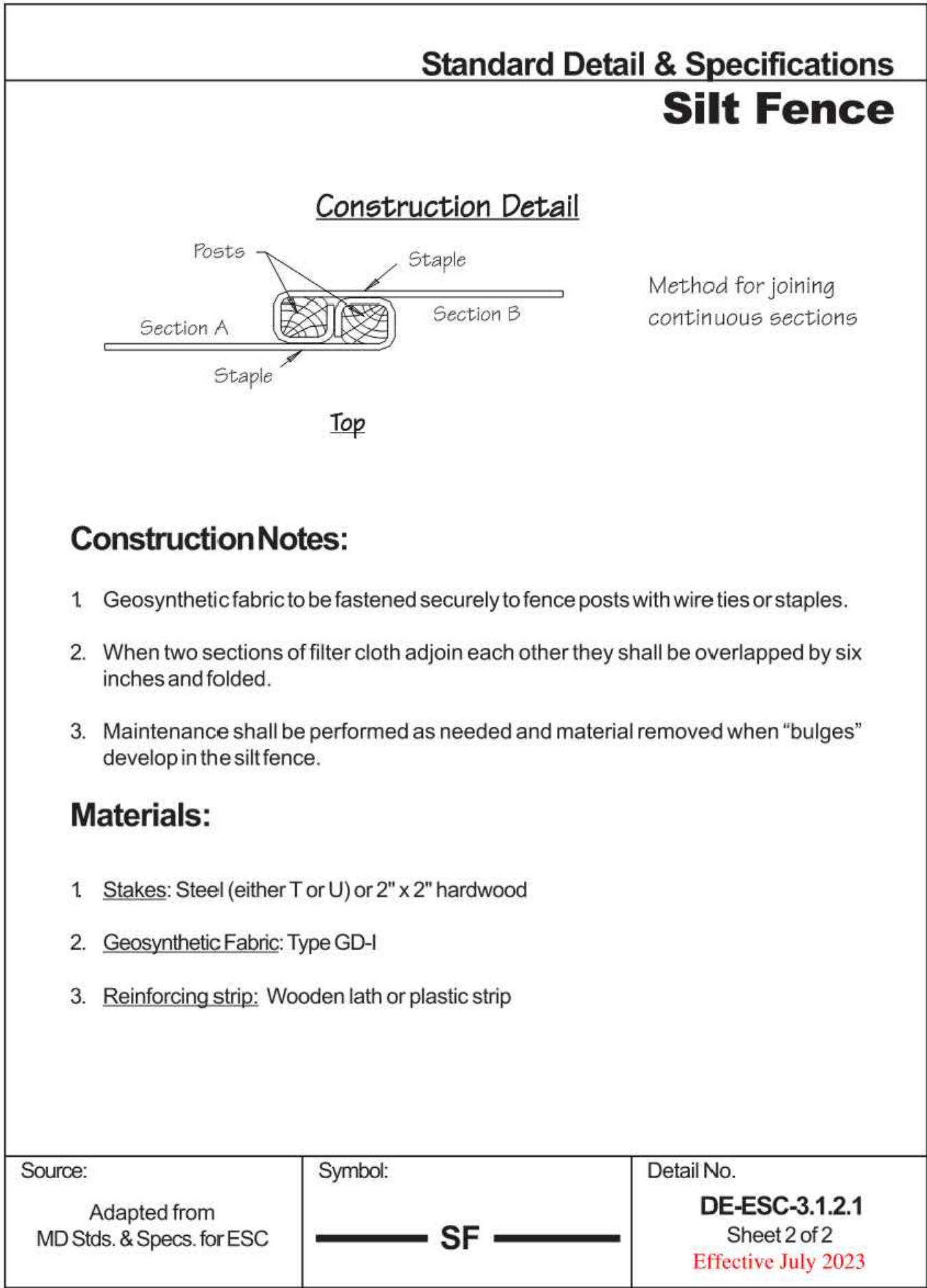
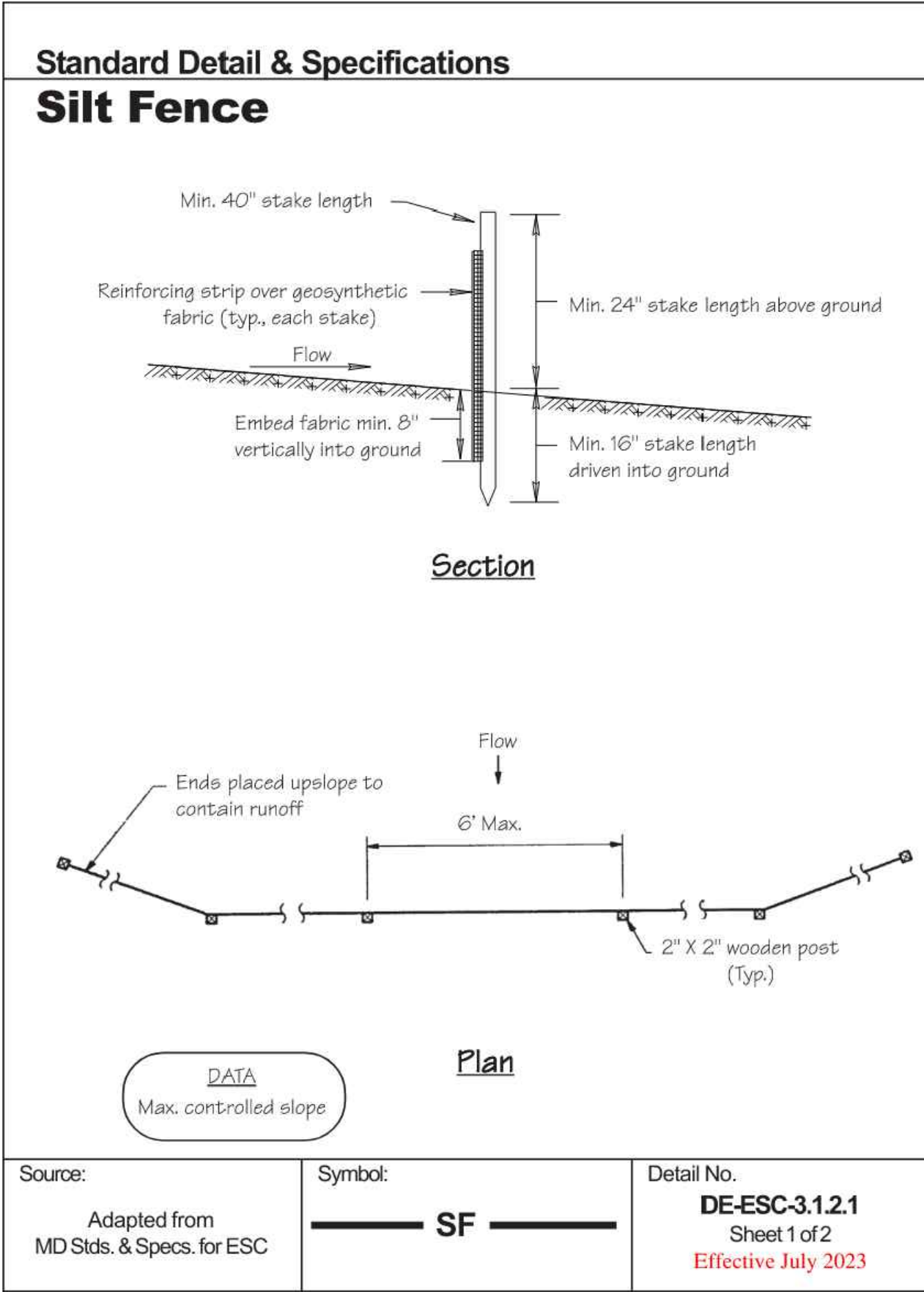
SHEET NO.:



C203

PROJECT NO.:

00175013.092A





REVISIONS:	DATE:	DESCRIPTION:	BY:
LEIPSIK RESEARCH DOCK FACILITY			
EROSION & SEDIMENT CONTROL DETAILS			
SEAL:			
CIVIL ENGINEER:			
			
			
DESIGNED BY:			
ALW			
DRAWN BY:			
DFS			
CHECKED BY:			
ALW			
DATE:			
11-07-2025			
SCALE:			
NTS			
SHEET NO.:			
C204			
PROJECT NO.:			
00175013.092A			