U.S. ARMY

US Army Corps of Engineers®
New England District

PUBLIC NOTICE

Comment Period Begins: 29 October 2024
Comment Period Ends: 29 November 2024
File Number: NAE-2023-00668
In Reply Refer to: CT & RI Section, Regulatory Division
Phone: (800) 343-4789 or (800) 362-4367
Email: CENAE-R-PN-CTRI@usace.army.mil

The District Engineer, U.S. Army Corps of Engineers, New England District (USACE), has received a permit application, file number NAE-2023-00668, to conduct work in waters of the United States from Naval Submarine Base New London, Route 12, Box 400, Groton, CT. This work is proposed within the Thames River near Amberjack Road in Groton, CT at latitude 41.40119, longitude -72.09386.

The work involves construction of a concrete filled steel pipe pile supported pier extension with a concrete deck, mooring fittings, an integrated composite fender system, and specialized equipment including fendering camels. The work also includes dredging alongside the pier and adjacent to the western side of the Thames River Federal Navigation Project (FNP). Dredged material will be placed in the US Navy confined aquatic disposal (CAD) cell within the Thames River.

The work is shown on the enclosed plans titled “P-1044 SUBMARINE PIER 31 EXTENSION, NAVAL SUBMARINE BASE NEW LONDON”, on 24 sheets, and dated “25 AUGUST 2020”.

AUTHORITY
Permits are required pursuant to:
__X__ Section 10 of the Rivers and Harbors Act of 1899
__X__ Section 404 of the Clean Water Act
____ Section 103 of the Marine Protection, Research and Sanctuaries Act.
__X__ Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408)

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and

evaluate the impacts of this proposed activity. The USACE will consider all comments received to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an environmental assessment and/or an environmental impact statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, US Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

The activities proposed herein will also require permission from the USACE pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a USACE federally authorized Civil Works project known as the Thames River Federal FNP. The proposed alteration within the FNP is the disposal of approximately 44,000 cubic yards of material within the existing US Navy CAD cell. The proposed alteration within the FNP offset involves the replacement of the pier, the maintenance dredging of approximately 1,888 cubic yards of material from a 15,772 square foot area, and the relocation of two security barrier anchors and floats. The FNP offset is a 3:1 distance based on the depth of the FNP and is the side slope while performing maintenance dredging on the FNP. The Thames River FNP offset is 108 feet. A permit pursuant to Section 10/404 shall not be granted until the Section 408 permission is issued. Through this public notice, we are soliciting information necessary to inform the USACE evaluation and review.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Essential Fish Habitat describes waters and substrate necessary for fish for spawning, breeding, feeding or growth to maturity.

The dredging portion of this project will impact approximately 1 acre of EFH. Habitat at this site can be described as mud, silt, and clay. Loss of this habitat may adversely affect species that use these waters and substrate. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

The dredged material disposal is proposed for US Navy Thames River CAD cell. This is an open water site, which provides EFH. Habitat at this site can be described as mud, silt, and clay. Loss of this habitat may adversely affect species that use these waters and substrate. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

The structure portion of this project will impact approximately 0.13 acres of EFH. This habitat consists of silt and mud. Loss of this habitat may adversely affect species that use these waters and substrate. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

NATIONAL HISTORIC PRESERVATION ACT

Based on our initial review of the proposed project and coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s), no historic properties will be affected by the proposed project. Additional review and consultation to fulfill requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

ENDANGERED SPECIES CONSULTATION

The USACE has reviewed the application for the potential impact on federally-listed threatened or endangered species and their designated critical habitat pursuant to section 7 of the Endangered Species Act (ESA) as amended. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. We are coordinating with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service on listed

species under their jurisdiction and the ESA consultation will be concluded prior to the final decision.

OTHER GOVERNMENT AUTHORIZATIONS

The states of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable, the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this public notice, we are requesting the state concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:

__X__ Permit, license or assent from State.
__X__ Permit from local wetland agency or conservation commission.
__X__ Water Quality Certification in accordance with Section 401 of the Clean Water Act.

COMMENTS

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. People submitting comments are advised that all comments received will be available for public review in their entirety and will be considered a matter of public record.

Comments should be submitted in writing by the above date. If you have any questions, please contact the CT & RI Section, Regulatory Division, at CENAE-R-PN-CTRI@usace.army.mil, (800) 343-4789 or (800) 362-4367.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The USACE holds public

hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

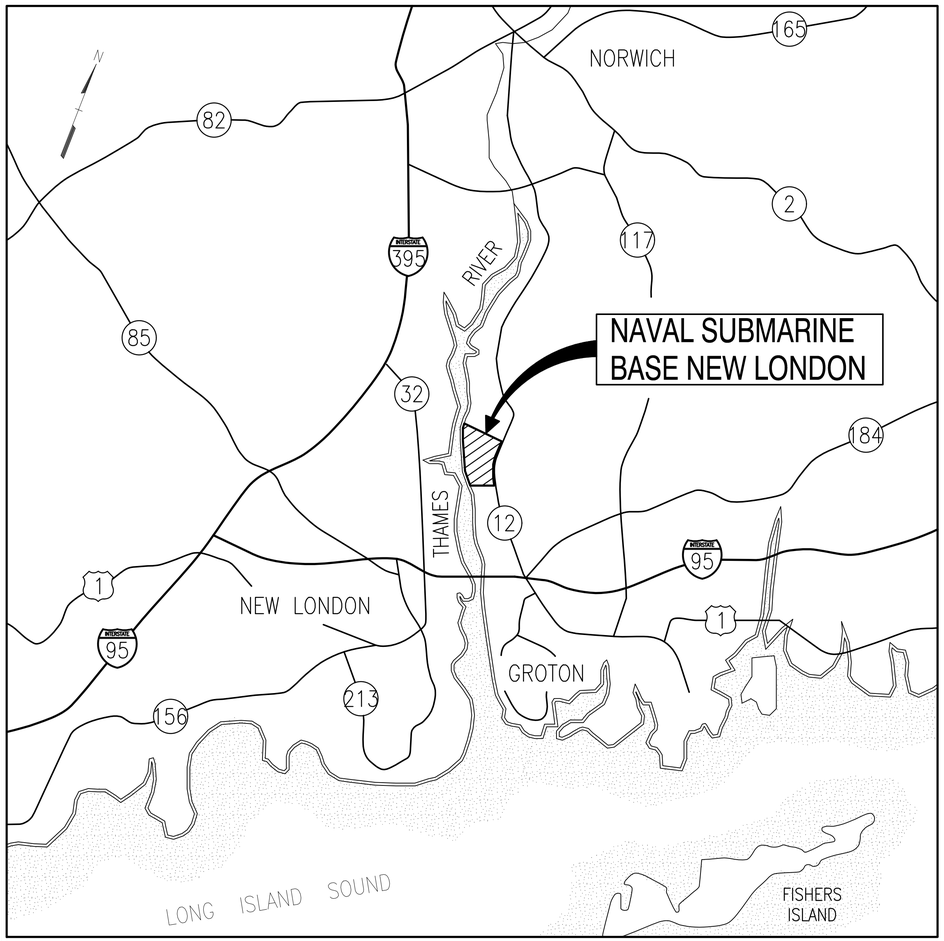
Kevin R Kotelly

Kevin R. Kotelly
Chief, CT/RI Section
Regulatory Division

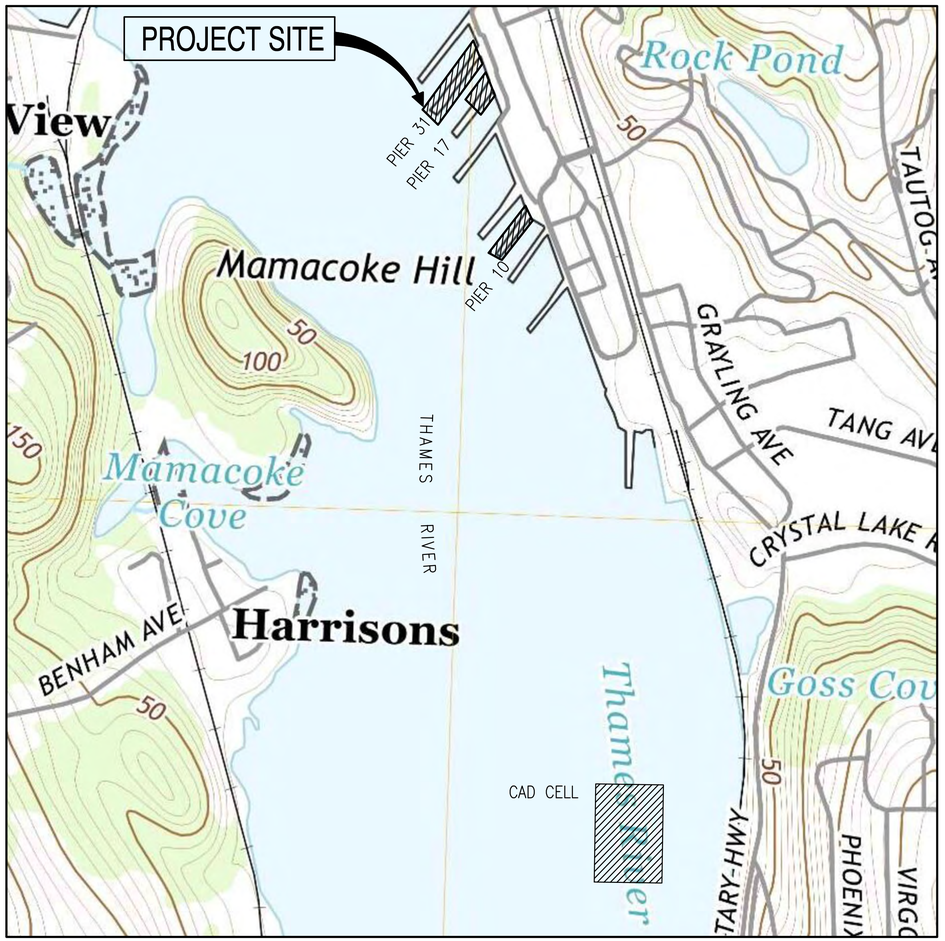
Please contact Ms. Tina Chaisson at bettina.m.chaisson@usace.army.mil or (978) 318-8058 if you would like to be removed from our public notice mailing list.

P-1044 SUBMARINE PIER 31 EXTENSION
NAVAL SUBMARINE BASE NEW LONDON

GROTON, CONNECTICUT



VICINITY MAP
NO SCALE
1



LOCATION MAP
1:24,000
2

DRAWING INDEX	
DRAWING NO	DRAWING TITLE
G-001	TITLE SHEET
G-101	OVERALL SITE PLAN
G-102	GENERAL ARRANGEMENT PLANS
G-103	GENERAL ARRANGEMENT SECTION
G-104	LAYOUT PLAN
G-105	BATHOMETRIC SURVEY
G-106	WATERCOURSE IMPACTS
G-107	CONTRACTOR ACCESS ROUTE PLAN
V-101	EXISTING PIER 31 LANDSIDE
V-102	PIER 31 EXISTING CONDITIONS - SHEET 1 OF 2
V-103	PIER 31 EXISTING CONDITIONS - SHEET 2 OF 2
B-101	TOP OF BEDROCK CONTOUR PLAN
C-001	CIVIL LEGEND ABBREVIATIONS & GENERAL NOTES
CD101	SITE DEMOLITION PLAN - CRANE WEIGHT HANDLING AREA
C-101	SITE PLAN - PIER 31 LANDSIDE
C-102	SITE PLAN - CRANE WEIGHT HANDLING AREA
C-103	UTILITY PLAN - PIER 31
C-501	EROSION CONTROL NOTES & DETAILS
CN101	OVERALL DREDGING PLAN
CN102	DREDGING PLAN - TURNING BASIN
CN103	NORTH BERTH DREDGING SITE PLAN
CN104	SOUTH BERTH DREDGING SITE PLAN
CN105	CAD CELL PLAN
CN301	DREDGING TYPICAL SECTIONS

APPR | DATE | DESCRIPTION | SYM

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY
XXXXX

SATISFACTORY/REJ. | DATE MM/DD/YY

DES	DRW/JBS	CHK

PM/DM –
BRANCH MANAGER – –
CHIEF ENG/ARCH –
FIRE PROTECTION –

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

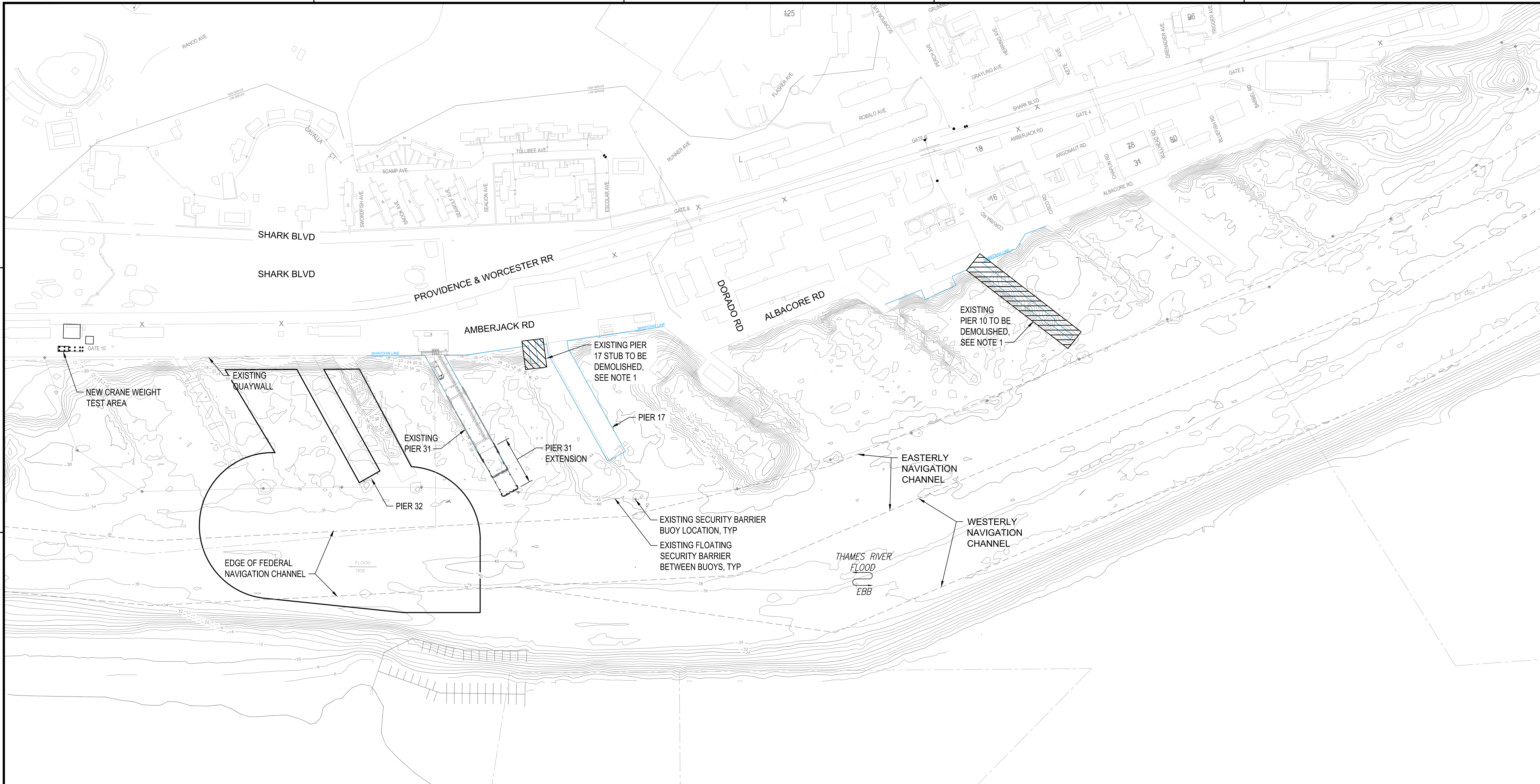
P1044 SUBMARINE PIER 31 EXTENSION

TITLE SHEET

SCALE: AS NOTED
EPROJECT NO.: #########
CONSTR. CONTR. NO.
######-##-#-#####
NAVFAC DRAWING NO.
CT–DEEP
SHEET - OF ##

G-001

DRAWFORM REVISION: 25 AUGUST 2020



NOTES:

1. NAVY IS NOT SEEKING APPROVAL FOR DEMOLITION OF PIER 10 AND PIER 17 STUB, WHICH WERE PREVIOUSLY PERMITTED UNDER THE PIER 32 PROJECT BY USACE (NAE-2013-01390) AND CT-DEEP WQC & FCC (#20198859.)

OVERALL SITE PLAN

SCALE: 1" = 200'

PLAN NORTH

1" = 200' 0 200' 400'

PRELIMINARY NOT FOR CONSTRUCTION

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

XXXXX

SATISFACTORY TO DATE MM/DD/YY

DES	DRW	CHK
PM/DM		--
BRANCH MANAGER		--
CHIEF ENG/ARCH		--
FIRE PROTECTION		--

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
CI CORE - HAMPTON ROADS NAVAL STATION - NORFOLK, VIRGINA

NAVAL SUBMARINE BASE NEW LONDON GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

OVERALL SITE PLAN

SCALE: AS NOTED

EPROJECT NO.: ########

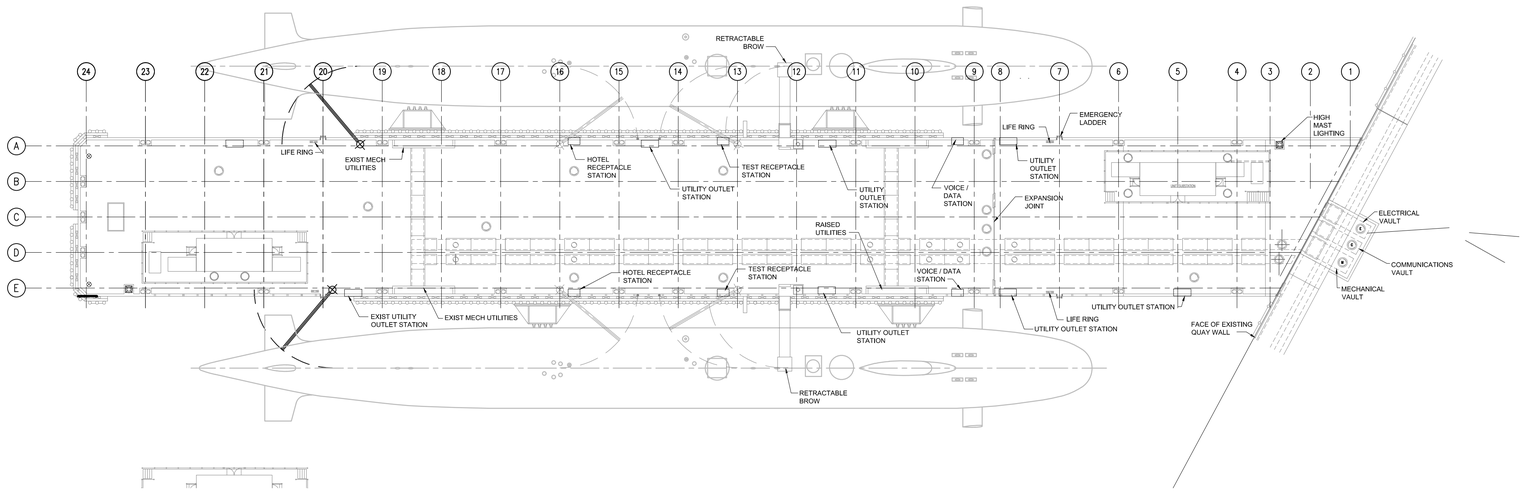
CONSTR. CONTR. NO. ######-##-#-####

NAVFAC DRAWING NO. CT-DEEP

SHEET - OF ##

G-101

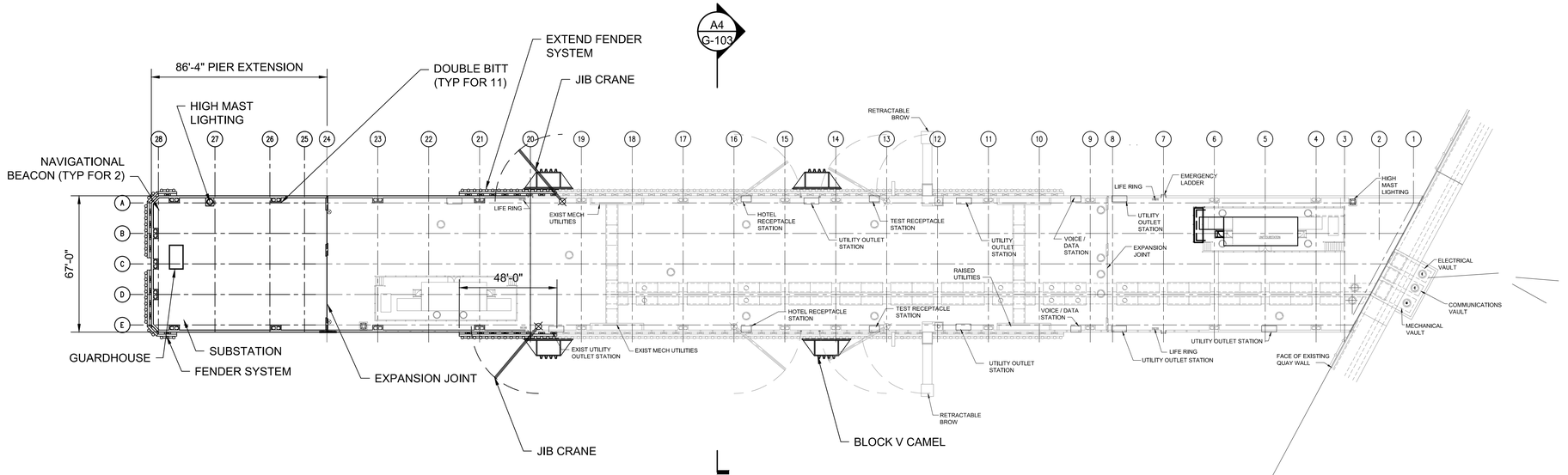
DRAWFORM REVISION: 25 AUGUST 2020



PLAN NORTH

GENERAL EXISTING ARRANGEMENT PLAN - BOW IN BERTHING

SCALE: 1/32" = 1'-0"



PLAN NORTH

GENERAL ARRANGEMENT PLAN - BOW IN BERTHING

SCALE: 1/32" = 1'-0"

3/32" = 1'-0" 4' 0 4' 8' 12' 16' 32'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

PRELIMINARY NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO | DATE: MM/DD/YY

DES	DRW	CHK

PM/DM --

BRANCH MANAGER --

CHIEF ENG/ARCH --

FIRE PROTECTION --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

GENERAL ARRANGEMENT PLANS

SCALE: AS NOTED

EPROJECT NO.: ##########

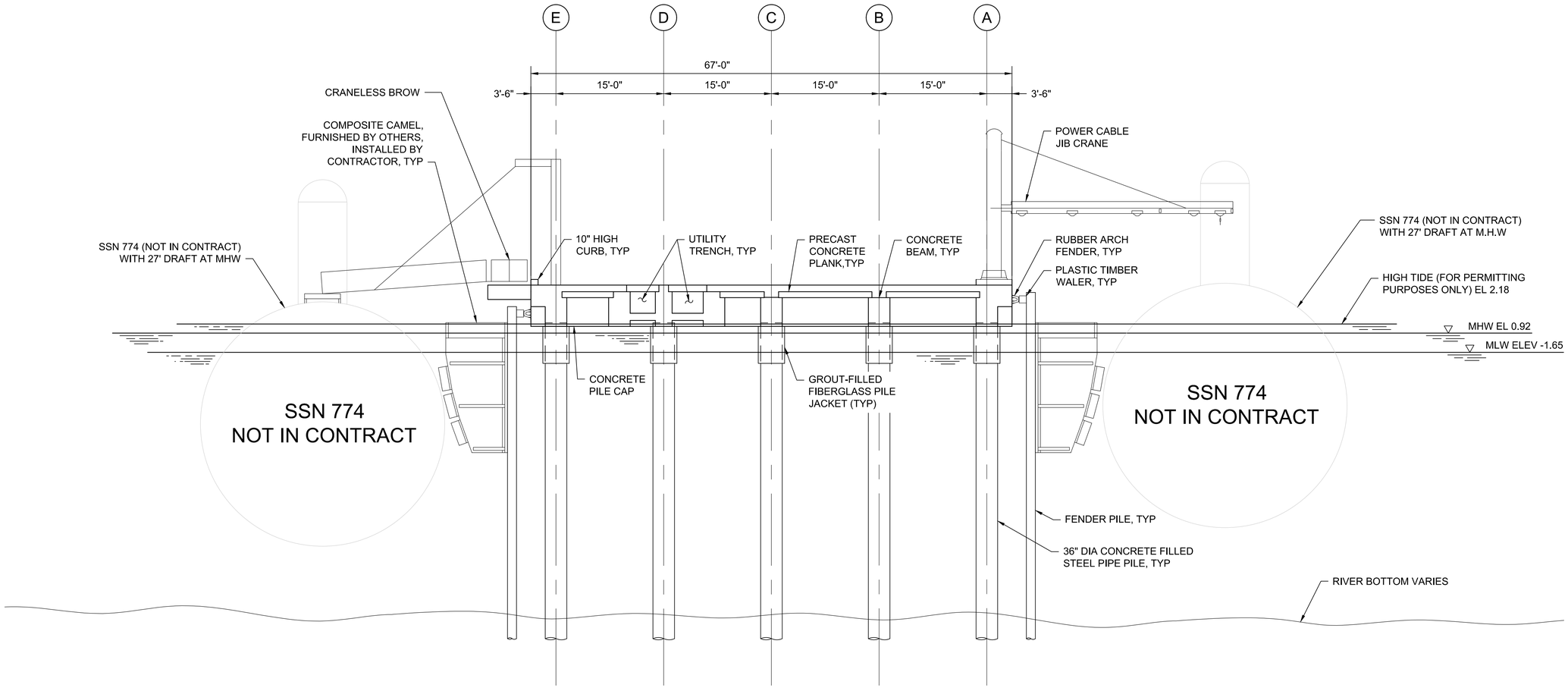
CONSTR. CONTR. NO.: ######## ## # #####

NAVFAC DRAWING NO.: CT–DEEP

SHEET - OF ##

G-102

DRAWFORM REVISION: 25 AUGUST 2020



GENERAL ARRANGEMENT SECTION

SCALE: 1/8" = 1'-0" G-102 A4

WATER LEVEL ELEVATIONS	
M.H.H.W.	1.21 FT
M.H.W.	0.92 FT
NAVD88	0.00 FT
M.L.W.	-1.65 FT
M.L.L.W.	-1.84 FT

4' 0 4' 8' 12' 16'

1/8" = 1'-0"

APPR | DATE | DESCRIPTION | SYM

NAVFAC

PRELIMINARY NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES	DRW	CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

GENERAL ARRANGEMENT SECTION

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO.: ########-##-#-#####

NAVFAC DRAWING NO.: CT–DEEP

SHEET - OF ##

G-103

DRAWFORM REVISION: 25 AUGUST 2020

PROVIDENCE AND WORCESTER RR.

GATE 10

AMBERJACK RD.

DORADO RD.

ALBACORE RD.

MHW/OHW LINE

QUAY WALL

EXISTING PIER 33

EXISTING PIER 32

EXISTING PIER 31

EXISTING PIER 17

EXISTING PIER 15

372' ±

504' ±

55' ±

INSTALL 4 FENDER PILES

DEMOLISH EXIST
PIER 17 SUB

86'-4" PIER EXTENSION

355' ±

67'-0"

47'-2"

33'-9"

33'-8"

19'-10"

EXISTING FLOATING
SECURITY BARRIER
BETWEEN BUOYS, TYP

Ø693'-0"

FLOOD
TIDE

EASTERLY NAVIGATION CHANNEL

RELOCATE EXISTING
FLOATING SECURITY
BARRIER

EASTERLY NAVIGATION CHANNEL

WESTERLY NAVIGATION CHANNEL

BLOCK V
TURNING BASIN

SHORELINE

TIMBER PIER
(PREVIOUSLY DEMOLISHED)

TOWN OF WATERFORD
15 ROPE FERRY RD WATERFORD, CT 06385
PARCEL ID: 682600

LAYOUT PLAN
SCALE: 1" = 100'

NORTH

1" = 100' 100' 0 100' 200'

APPR	DATE	DESCRIPTION	SYM

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES	DRW	CHK

PM/DM: ---

BRANCH MANAGER: ---

CHIEF ENG/ARCH: ---

FIRE PROTECTION: ---

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

LAYOUT PLAN

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO.
########-##-#-#####

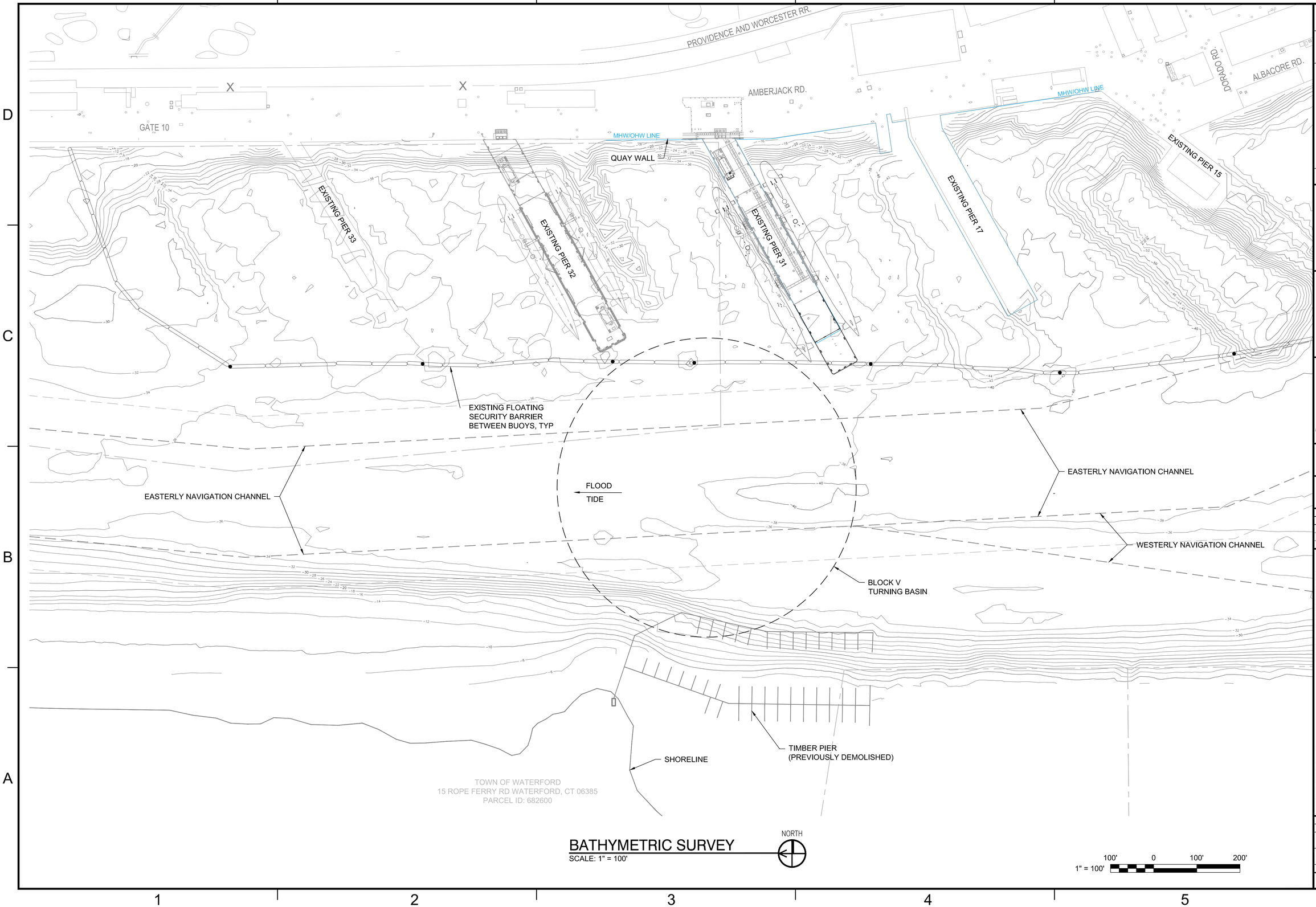
NAVFAC DRAWING NO.
CT–DEEP

SHEET - OF ##

G-104

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: I:\22410125\3\40_cad\30_permitting\CT_DEEP\G-105 BATHYMETRIC SURVEY.dwg LAYOUT NAME: G-104 LAYOUT PLAN PLOTTED: Wednesday, September 06, 2023 - 3:06pm USER: mcaramagno



BATHYMETRIC SURVEY

SCALE: 1" = 100'

APPR	DATE	DESCRIPTION	SYM

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED:

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES	DRW	CHK

PM/DM: --

BRANCH MANAGER: --

CHIEF ENG/ARCH: --

FIRE PROTECTION: --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

BATHOMETRIC SURVEY

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO.
########-##-#-#####

NAVFAC DRAWING NO.
CT–DEEP

SHEET - OF ##

G-105

DRAWFORM REVISION: 25 AUGUST 2020

LEGEND:

- TEMPORARY IMPACT AREA
- PERMANENT IMPACT AREA

WATERCOURSE IMPACTS

SCALE: 1" = 250'

PLAN NORTH

1" = 250' 0 250' 500'

APPR	DATE	DESCRIPTION	SYM

PRELIMINARY
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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES	DRW	CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

WATERCOURSE IMPACTS

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO.: ########-##-#-#####

NAVFAC DRAWING NO.: CT–DEEP

SHEET - OF ##

G-106

DRAWFORM REVISION: 25 AUGUST 2020

ALPHA LOT
THE CONTRACTOR MAY SUBMIT A FORMAL REQUEST TO THE GOVERNMENT FOR USE OF A PORTION OF ALPHA LOT FOR SUPPLEMENTAL MATERIAL LAYDOWN AND STORAGE. AUTHORIZATION FOR USE IS SUBJECT TO GOVERNMENT REVIEW AND CONDITIONS FOR USE AT TIME OF REQUEST.

GATE 7, CONTRACTOR AND TRUCK ACCESS
FOR USE BY ALL COMMERCIAL VEHICLES AND OVERSIDE LOADS

SECURITY CHECK POINT FOR CONTRACTORS

BASE AND LOWER BASE PASS OFFICE - BUILDING 585
FOR CONTRACTOR PERSONNEL AND VEHICLES

OPEN PARKING FIRST COME FIRST SERVE AREA

WORKFORCE SHUTTLE VAN DROPOFF/PICKUP

GATE 7

ACCESS ROUTE

MAIN GATE
GATE 1

MAIN GATE, GATE 1
NOT FOR USE BY CONTRACTORS
NO COMMERCIAL VEHICLE OR TRUCK ACCESS

PASS AND ID OFFICE - BUILDING 500

LOWER BASE CORRIDOR ( )
ACCESS FOR WORKFORCE SHUTTLE VAN

ACCESS ROUTE

GATE 4, 6, & 8
NO ACCESS

GATE 2 - SECURITY CHECK POINT
ACCESS TO/FROM LOWER BASE AND SECURITY CORRIDOR

SECURITY CHECK POINT - ACCESS TO/FROM
WATERFRONT SECURITY CORRIDOR

WATERFRONT SECURITY CORRIDOR
- NO POV ACCESS
- NO PARKING OR MATERIAL STORAGE
- ACCESS FOR MATERIAL DELIVERY AND OVERSIZED LOADS
- LIMITED ACCESS FOR CONTRACTOR'S SUPERVISORY VEHICLES

FIRE DEPARTMENT
BUILDING 107

EXISTING PIER 10 TO BE DEMOLISHED

GATE 10
NO ACCESS

MATERIAL LAYDOWN AND STORAGE AREA (10,000 SF)
LIMITED CONTRACTOR'S SUPERVISORY PARKING (2 SPACES).
PROVIDE AND MAINTAIN TEMPORARY CHAINLINK FENCE AND GATES TO SURROUND AREA

WORKFORCE SHUTTLE VAN DROPOFF/PICKUP

PIER 31

CONTRACTOR ACCESS ROUTE PLAN

SCALE: 1" = 300'

PLAN NORTH

1" = 300' 0 300' 600'

	APPR
	DATE
	DESCRIPTION
	SYM

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY
XXXXX

SATISFACTORY TO DATE MM/DD/YY

DES	DRW	CHK
"	"	"

PM/DM --
BRANCH MANAGER DLB
CHIEF ENG/ARCH --
FIRE PROTECTION --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

CONTRACTOR ACCESS ROUTE PLAN

SCALE: AS NOTED
EPROJECT NO.: ##########
CONSTR. CONTR. NO. ########-##-#-#####
NAVFAC DRAWING NO. CT--DEEP
SHEET 22 OF ##

G-107

DRAWFORM REVISION: 25 AUGUST 2020

STORM DRAIN
12" HIGH PRESSURE WATER LINE (APPROX)
SMH TF=3.84 FULL OF WATER
10" SANITARY SEWER
EMH TF=9.17 COVER BOLTED DOWN
EMH TF=9.13 COVER BOLTED DOWN
8" VERTICAL PIPE
ELECTRIC PANEL
4" VERTICAL PIPE
ACCESS LID
CB TF=3.47 INACCESSIBLE
DMH TF=3.93 INACCESSIBLE
CB TF=3.37 FULL OF WATER
CONCRETE PAD WITH BOLLARDS
CB INACCESSIBLE
SWITCHGEAR
SWITCHGEAR
4'DP
UNDERGROUND ELECTRIC (APPROX)
6" SANITARY FORCE MAIN (APPROX)
DMH TF=8.68 FULL OF WATER=7.08
CMH TF=3.41 FULL OF WATER=1.71
2.5'DP
EMH TF=3.41 FULL OF WATER=1.71
3' WIDE ELECTRICAL DUCT BANK
CONCRETE BARRIERS
4" SANITARY FORCE MAIN (ABANDONED)(APPROX)
EMH TF=3.50 FULL OF WATER=2.0
MAGNETIC NAIL (SET) N 707295.60 E 1180121.67 Z 3.66
CONCRETE PAD
SMH TF=3.92 GRATED COVER=-3.83
8" WATER (ABANDONED) (APPROX)
BITUMINOUS PAVEMENT
MH TF=3.86 INACCESSIBLE 2ND LID INSIDE
UNDERGROUND ELECTRIC (APPROX)
18" STORM DRAIN (APPROX)
WATER LINE (APPROX)
CONCRETE PAD
3' WIDE DUCT BANK
TMH x 3.75 TF=4.20 INACCESSIBLE 2ND LID INSIDE
BITUMINOUS PAVEMENT
10" WATER
ACCESS LID
3' WIDE ELECTRIC VAULT
3.5'DP
CMH TF=4.90 FULL OF WATER=4.77
GUARD SHACK ON CONCRETE PAD
4" COMPRESSED AIR (APPROX)
HYDRANT WITH BOLLARDS
EMH TF=4.89 FULL OF WATER=1.7
MMH TF=4.92 FULL OF WATER=1.7
BOLLARD (TYPICAL)
8" VERTICAL PIPE
METAL COVER
EDGE OF PAVEMENT
MON #950 DISC IN CONC (FND) N 707351.40 E 1180134.06 Z 4.571
6" VERTICAL PIPE
SECURITY FENCE
SLIDING GATE
PEDESTRIAN GATE
POWER SHUTOFF W/ BOLLARDS
CONCRETE
CLEAT (TYPICAL)
BOTTOM OF RAMP
MHW/OHW LINE
BUMPER
BUMPER
UTILITY BOX "DIVERSIFIED CONTROL"
CONCRETE WALLS ARCHED PIPE
LIGHT POLE
PILE (TYPICAL)
PILE (TYPICAL)
CONEX BOX
3.5'DP
MMH TF=4.99 TOP OF PIPES=2.39
2.5'DP
MMH TF=5.04 TOP OF PIPES=2.44
2'DP
6' WIDE DUCT BANK
DRAIN HOLE (TYPICAL)
LIGHT POLE
6" DOMESTIC COLD WATER
6" FIRE PROTECTION
2" LOW PRESSURE AIR
4" OILY WASTE
4" SANITARY
EMH TF=6.66 FULL OF WATER=2.06
UTILITY OUTLET STATION
METAL CABINETS
TRANSFORMER ON CONCRETE PAD
EMH TF=11.10 COVER BOLTED DOWN
4.5' WIDE DUCT BANK
SUBSTATION
EMH TF=10.94 COVER BOLTED DOWN
EMH TF=11.09 COVER BOLTED DOWN
LARGE CLEAT (TYPICAL)
TOP OF RAMP
LADDER
POLE WITH LIFE VEST
EMH TF=10.97 COVER BOLTED DOWN
THAMES RIVER FLOOD EBB
MATCH LINE V-102
1" = 10'
10' 0 10' 20'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

PRELIMINARY NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

XXXXX

SATISFACTORY TO DATE MM/DD/YY

DES	DRW	CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

EXISTING PIER 31 LANDSIDE

SCALE: AS NOTED

EPROJECT NO.: ##########

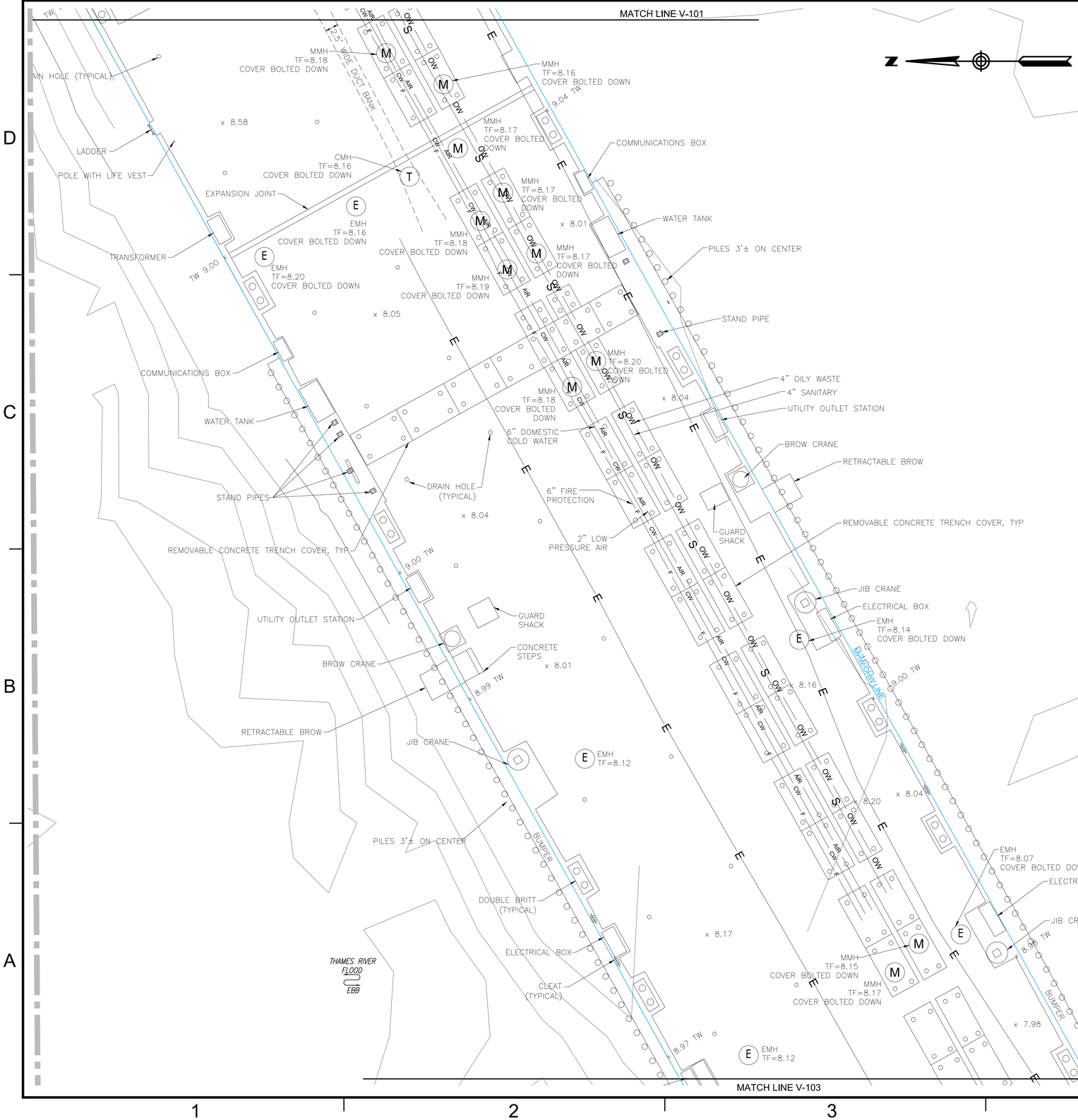
CONSTR. CONTR. NO. ########-##-#-#####

NAVFAC DRAWING NO. CT-DEEP

SHEET OF ##

V-101

DRAWFORM REVISION: 25 AUGUST 2020



SURVEY NOTES

1. THIS PLAN AND THE SURVEY IT IS BASED ON HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THROUGH 20-300B-20, "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. THE TYPE OF SURVEY IS A DATA ACCUMULATION PLAN. HORIZONTAL ACCURACY FOR LOCATION OF IMPROVEMENTS LOCATED CONFORMS TO CLASS A-2. TOPOGRAPHIC DETAIL CONFORMS TO CLASS T-2 AND THE VERTICAL ACCURACY CONFORMS TO CLASS V-2. THIS IS NOT A PROPERTY SURVEY OR BOUNDARY SURVEY AND ANY PROPERTY LINES DEPICTED DO NOT REPRESENT A SURVEYOR'S PROPERTY/BOUNDARY OPINION.
2. COORDINATES ARE REFERENCED TO CONNECTICUT COORDINATE SYSTEM NAD 83, ELEVATIONS ARE REFERENCED TO NAVD 88. (OBSERVED USING GNSS)
3. UNDERGROUND UTILITIES SHOWN ON THIS MAP WERE MARKED IN THE FIELD BY LOURIERO ENGINEERING ASSOCIATES, INC. AND SUPPLEMENTED USING NAVFAC RECORD PLANS PREPARED BY OTHERS. ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED PRIOR TO EXCAVATION AND/OR CONSTRUCTION.
4. THIS PLAN REPRESENTS THE SITE CONDITIONS DETERMINED BY FIELD SURVEY ON SEPTEMBER 7, 2021.

LEGEND AND ABBREVIATIONS:

CB	CATCH BASIN
CONC	CONCRETE
CI	CAST IRON
CMH	COMMUNICATIONS MANHOLE
CMP	CORRUGATED METAL PIPE
CW	COLD WATER (DOMESTIC)
DMH	STORM DRAIN MANHOLE
DP	DEPTH
ELEC	ELECTRIC
EMH	ELECTRIC MANHOLE
ELEV	ELEVATION
F	FIRE PROTECTION (WATER)
INV	INVERT
MH	MANHOLE
MMH	MECHANICAL MANHOLE
OW	OILY WASTE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
TB	TOP OF BANK
TF	TOP OF FRAME
TMH	TELEPHONE MANHOLE
TYPE CL	CURBLESS CATCH BASIN
(C)	COMMUNICATIONS MANHOLE
(E)	ELECTRIC MANHOLE
(M)	MECHANICAL MANHOLE
(D)	STORM DRAIN MANHOLE
(S)	SANITARY SEWER MANHOLE
(T)	TELEPHONE MANHOLE
D	STORM DRAIN LINE
E	ELECTRIC LINE
	FENCE LINE
S	SANITARY SEWER
W	WATER LINE
	BOLLARD
	HYDRANT
WV	WATER VALVE

APPR	DATE	DESCRIPTION	SYM

NAVFAC

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A/E INFO

APPROVED:

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES	DRW	CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

PIER 31 EXISTING CONDITIONS - SHEET 1 OF 2

SCALE: AS NOTED

EPROJECT NO.: ##########

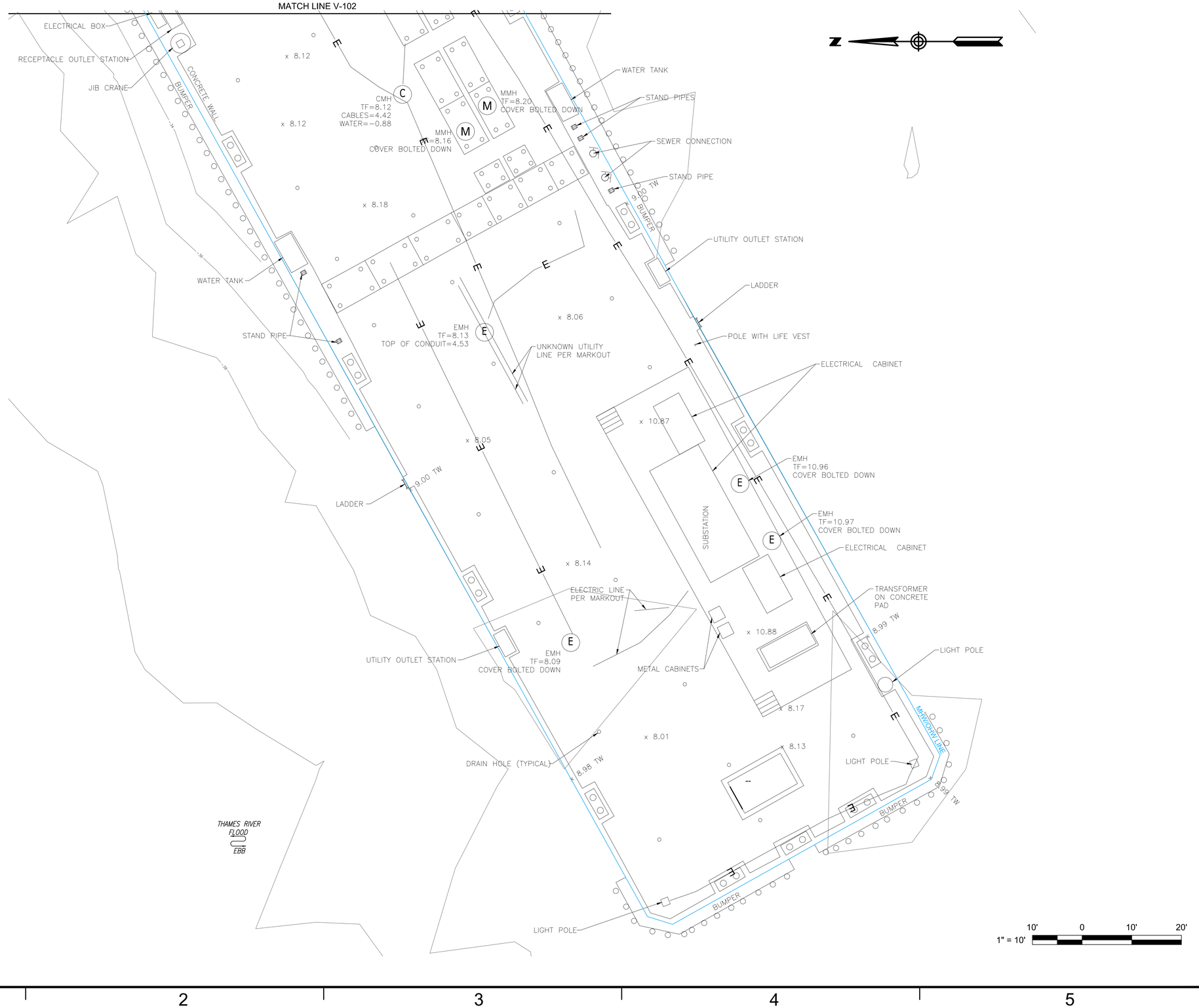
CONSTR. CONTR. NO. ########-##-#-#####

NAVFAC DRAWING NO. CT-DEEP

SHEET ## OF ##

V-102

DRAWFORM REVISION: 25 AUGUST 2020



APPR	DATE	DESCRIPTION	SYM

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

XXXXX

SATISFACTORY TO DATE MM/DD/YY

DES	DRW	CHK

PM/DM	--
BRANCH MANAGER	--
CHIEF ENG/ARCH	--
FIRE PROTECTION	--

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

PIER 31 EXISTING CONDITIONS - SHEET 2 OF 2

SCALE: AS NOTED

EPROJECT NO.: ##########

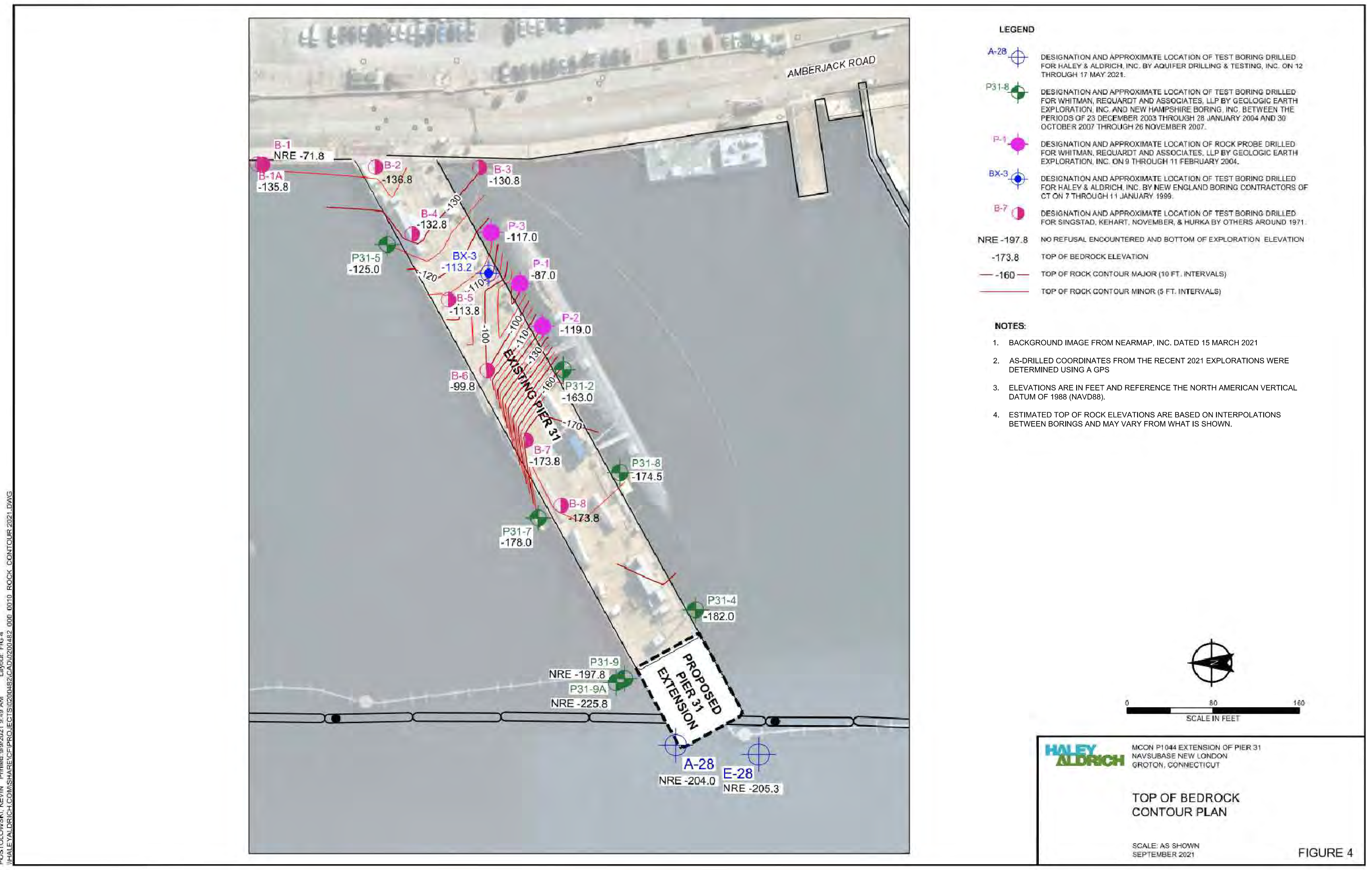
CONSTR. CONTR. NO.
######## ## # #####

NAVFAC DRAWING NO.
CT-DEEP

SHEET ## OF ##

V-103

DRAWFORM REVISION: 25 AUGUST 2020



AMBERJACK ROAD
B-1
NRE -71.8
B-1A
-135.8
B-2
-138.8
B-3
-130.8
B-4
-132.8
P-3
-117.0
P31-5
-125.0
BX-3
-113.2
P-1
-87.0
B-5
-113.8
P-2
-119.0
B-6
-99.8
EXISTING PIER 31
P31-2
-163.0
B-7
-173.8
P31-8
-174.5
B-8
-173.8
P31-7
-178.0
P31-4
-182.0
P31-9
NRE -197.8
P31-9A
NRE -225.8
PROPOSED PIER 31 EXTENSION
A-28
NRE -204.0
E-28
NRE -205.3
LEGEND
A-28 DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED FOR HALEY & ALDRICH, INC. BY AQUIFER DRILLING & TESTING, INC. ON 12 THROUGH 17 MAY 2021.
P31-8 DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED FOR WHITMAN, REQUARDT AND ASSOCIATES, LLP BY GEOLOGIC EARTH EXPLORATION, INC. AND NEW HAMPSHIRE BORING, INC. BETWEEN THE PERIODS OF 23 DECEMBER 2003 THROUGH 28 JANUARY 2004 AND 30 OCTOBER 2007 THROUGH 26 NOVEMBER 2007.
P-1 DESIGNATION AND APPROXIMATE LOCATION OF ROCK PROBE DRILLED FOR WHITMAN, REQUARDT AND ASSOCIATES, LLP BY GEOLOGIC EARTH EXPLORATION, INC. ON 9 THROUGH 11 FEBRUARY 2004.
BX-3 DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED FOR HALEY & ALDRICH, INC. BY NEW ENGLAND BORING CONTRACTORS OF CT ON 7 THROUGH 11 JANUARY 1999.
B-7 DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED FOR SINGSTAD, KEHART, NOVEMBER, & HURKA BY OTHERS AROUND 1971.
NRE -197.8 NO REFUSAL ENCOUNTERED AND BOTTOM OF EXPLORATION ELEVATION
-173.8 TOP OF BEDROCK ELEVATION
-160 TOP OF ROCK CONTOUR MAJOR (10 FT. INTERVALS)
TOP OF ROCK CONTOUR MINOR (5 FT. INTERVALS)
NOTES:
1. BACKGROUND IMAGE FROM NEARMAP, INC. DATED 15 MARCH 2021
2. AS-DRILLED COORDINATES FROM THE RECENT 2021 EXPLORATIONS WERE DETERMINED USING A GPS
3. ELEVATIONS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. ESTIMATED TOP OF ROCK ELEVATIONS ARE BASED ON INTERPOLATIONS BETWEEN BORINGS AND MAY VARY FROM WHAT IS SHOWN.
0
80
160
SCALE IN FEET
HALEY ALDRICH
MCON P1044 EXTENSION OF PIER 31
NAVSUBASE NEW LONDON
GROTON, CONNECTICUT
TOP OF BEDROCK CONTOUR PLAN
SCALE: AS SHOWN
SEPTEMBER 2021
FIGURE 4

GENERAL NOTES:

1. INSTALL STEEL PIPE PILES IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. FOR ADDITIONAL STEEL PIPE PILE REQUIREMENTS, AS WELL AS REQUIREMENTS FOR THE PROJECT TEST PILE PROGRAM, REFER TO SPECIFICATION SECTION 31 62 16.13 "STEEL PIPE PILES." NOTE THAT THE TEST PILE PROGRAM CONSISTS OF DYNAMIC PILE ANALYSIS (PDA) TESTS AT LOCATIONS AS INDICATED ON THE PILE PLANS. ALL PDA TEST LOCATIONS INDICATED ON THE PILE PLANS AND SCHEDULES SHALL BE PERFORMED TO VERIFY PILE CAPACITIES AND DRIVABILITY AS THE PROJECT PROGRESSES. PDA TEST PILES SHALL BE DRIVEN WITHIN THE FIRST 10% OF PRODUCTION PILES INSTALLED. LOCATION OF TEST PILES MAY BE ADJUSTED SLIGHTLY WITH CONTRACTING OFFICER APPROVAL. PDA TEST PILES SHALL INCLUDE AN ADDITIONAL 10 FT OF PILE LENGTH. DRIVE TEST PILES TO INDICATED TIP ELEVATION AND CAPACITY.

2. FOUNDATION TYPE AND LOCATIONS ARE SHOWN ON THE PILE PLANS (DRAWINGS S-103 THROUGH S-105). REFER TO PILE SCHEDULES (DRAWING S-601) FOR PILE CUTOFF AND ESTIMATED PILE TIP ELEVATIONS.

3. UNLESS OTHERWISE INDICATED, BENTS 25-28 AT PIER 31 EXTENSION SHALL BE SUPPORTED BY 36"Ø X 5/8" WALL THICKNESS DRIVEN STEEL PIPE PILES. STEEL PIPE PILES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A252, GRADE 3 (MODIFIED TO 50 KSI MINIMUM YIELD STRENGTH). ALL DRIVEN STEEL PIPE PILES SHALL BE EQUIPPED WITH AN OUTSIDE-FIT CAST STEEL DRIVING SHOE OR PILE POINT CONFORMING TO THE REQUIREMENTS OF ASTM A27, GRADE 65/35. FOR TYPICAL STEEL PIPE PILE DETAILS, SEE DRAWING S-501.

4. STEEL PIPE PILES SHALL BE DRIVEN TO THE MINIMUM TIP ELEVATIONS AND ALLOWABLE BEARING CAPACITIES INDICATED ON THE PLANS, USING AN APPROVED HAMMER, WITH A CAPACITY AT LEAST EQUAL TO THE HAMMER MANUFACTURER'S RECOMMENDATIONS FOR THE TOTAL WEIGHT OF PILE AND THE CHARACTER OF THE SUBSURFACE MATERIAL TO BE ENCOUNTERED.

5. PILE SERVICE (ALLOWABLE) CAPACITIES:
   - 5.1. 36" STEEL PIPE PILES CAPACITY - 343 TONS (COMPRESSION), 0 TONS (TENSION)

6. PILE FACTORED (ULTIMATE) CAPACITIES:
   - 6.1. 36" STEEL PIPE PILES CAPACITY - 772 TONS (COMPRESSION), 0 TONS (TENSION)

7. PILE TIP ELEVATION REQUIRED FOR LATERAL STABILITY:
   - 7.1. 36" STEEL PIPE PILES CAPACITY - EL. -123 (NAVD88)

8. SPUDDING AND/OR JETTING OF STEEL PIPE PILES WILL NOT BE ALLOWED.

9. THE CONTRACTOR SHALL COORDINATE THE STEEL PIPE PILE DRIVING SCHEDULE SO AS NOT TO INTERFERE WITH OR BE DETRIMENTAL TO ADJACENT CONCRETE PLACEMENT AND CURING OPERATIONS.

10. EPOXY COAT ENTIRE STEEL PIPE PILES IN ACCORDANCE WITH SPECIFICATION SECTION 09 97 13.26 "COATING OF STEEL WATERFRONT STRUCTURES."

11. FOR THE PURPOSE OF BIDDING, THE CONTRACTOR SHALL ANTICIPATE ENCOUNTERING OBSTRUCTIONS (2 TOTAL PILES) DURING DRIVING OF THE STEEL PIPE PILES FOR PIER 31 EXTENSION. IF OBSTRUCTIONS ARE ENCOUNTERED DURING PILE DRIVING, THE CONTRACTOR SHALL:
   - 11.1. NOTIFY THE CONTRACTING OFFICER IMMEDIATELY OF THE DEPTH AND APPARENT SIZE OF THE OBSTRUCTION.
   - 11.2. OBTAIN APPROVAL OF THE CONTRACTING OFFICER THAT THE CONTRACTOR HAS ENCOUNTERED AN OBSTRUCTION.

GENERAL NOTES (CONTINUED):

12. FOLLOWING ARE SUGGESTED ALTERNATIVES FOR MITIGATING OBSTRUCTIONS ENCOUNTERED DURING DRIVING OF THE PIER 31 EXTESNSION STEEL PIPE PILES. NOTE THAT THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE METHODS FOR MITIGATING OBSTRUCTIONS FOR APPROVAL BY THE CONTRACTING OFFICER. PERSONNEL AND EQUIPMENT REQUIRED TO PERFORM ANY AND ALL OBSTRUCTION MITIGATION MEASURES MUST BE AVAILABLE TO BE ON-SITE WITHIN 72 HOURS OF ENCOUNTERING THE OBSTRUCTION. THE FOLLOWING ITEMS ARE CONSIDERED AS PART OF CONTRACT LINE ITEM (CLIN) 0001A AS DESCRIBED IN SPECIFICATION SECTION 00 22 13.00 20 "SUPPLEMENTARY INSTRUCTIONS TO BIDDERS."

   - 12.1. IF THE DRIVEN STEEL PIPE PILE REACHES THE ESTIMATED PILE TIP ELEVATION SHOWN ON THE PROJECT DRAWINGS WHILE ALSO ACHIEVING THE REQUIRED ULTIMATE VERTICAL CAPACITY, THE PILE WOULD BE CONSIDERED ACCEPTABLE.

   - 12.2. IF THE DRIVEN STEEL PIPE PILE ENCOUNTERS AN OBSTRUCTION BELOW EL -123.0 (NAVD88) AND THE CONTRACTING OFFICER DETERMINES THAT THE OBSTRUCTION IS LOCATED WITHIN THE DENSE GLACIAL DEPOSITS, THE CONTRACTOR SHALL PERFORM ADDITIONAL PDA TESTING TO DETERMINE THE ULTIMATE VERTICAL CAPACITY OF THE PILE (USING A CAPWAP ANALYSIS) AND IF THE PILE WAS DAMAGED DURING INSTALLATION. THE PDA REPORT AND CAPWAP ANALYSIS SHALL BE PROVIDED TO THE CONTRACTING OFFICER WITHIN 72 HOURS OF ENCOUNTERING THE OBSTRUCTION. RESULTS OF THE CAPWAP ANALYSIS WILL BE COMPARED VERSUS THE REQUIRED ULTIMATE VERTICAL CAPACITY OF THE SPECIFIC PILE ENCOUNTERING THE OBSTRUCTION. IF IT IS DETERMINED THAT THE PILE WAS DAMAGED DURING INSTALLATION, THE CONTRACTOR SHALL REMOVE AND REPLACE THE PILE AT NO ADDITIONAL COST TO THE GOVERNMENT. IF THE PILE HAS NOT BEEN DAMAGED, IS OF SUITABLE DEPTH, AND HAS ACHIEVED THE REQUIRED ULTIMATE VERTICAL CAPACITY, THE PILE WOULD BE CONSIDERED ACCEPTABLE.

   - 12.3. IF THE DRIVEN STEEL PIPE PILE ENCOUNTERS AN OBSTRUCTION BELOW EL -123.0 (NAVD88), BUT THE REQUIRED ULTIMATE VERTICAL CAPACITY IS NOT ACHIEVED (AS DETERMINED THROUGH INITIAL ADDITIONAL PDA TESTING), POSSIBLE CONTRACTOR OPTIONS TO MITIGATE THE OBSTRUCTION INCLUDE, BUT ARE NOT LIMITED TO:

     - 12.3.1. RE-STRIKE THE PILE AND PERFORM FURTHER ADDITIONAL PDA TESTING (WITH CAPWAP ANALYSIS) TO DETERMINE IF THE PILE IS ABLE TO ACHIEVE THE REQUIRED ULTIMATE VERTICAL CAPACITY THROUGH SETUP OF THE UNDERLYING SOILS.

     - 12.3.2. PERFORM FURTHER ADDITIONAL PDA TESTING (WITH CAPWAP ANALYSIS) TO DETERMINE THE ULTIMATE VERTICAL CAPACITY OF BOTH THE PILE ENCOUNTERING AN OBSTRUCTION AND THE TWO (2) ADJACENT PILES IN THE BENT CAP. THE CONTRACTING OFFICER WILL UTILIZE THIS INFORMATION TO DETERMINE IF THE BENT CAP CAN STRUCTURALLY ACCOMMODATE A LOWER CAPACITY PILE AT THE OBSTRUCTION LOCATION.

     - 12.3.3. PROBE THE LIMITS OF THE OBSTRUCTION TO DETERMINE IF THE STEEL PIPE PILE CAN BE PULLED, OFFSET ALONG THE LONGITUDINAL AXIS OF THE CAST-IN-PLACE CONCRETE BENT CAP, AND RE-DRIVEN TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY. THE CONTRACTING OFFICER WILL UTILIZE THE REQUIRED OFFSET INFORMATION TO DETERMINE IF THE BENT CAP AND PILES CAN ACCOMMODATE RELOCATION TO AVOID THE OBSTRUCTION. AT THE CONTRACTOR'S OPTION, THE PILE ENCOUNTERING THE OBSTRUCTION MAY BE ABANDONED IN PLACE AND A NEW STEEL PIPE PILE INSTALLED AT THE REQUIRED OFFSET LOCATION AT NO ADDITIONAL COST TO THE GOVERNMENT.

     - 12.3.4. PROBE THE LIMITS OF THE OBSTRUCTION TO DETERMINE IF THE STEEL PIPE PILE CAN BE PULLED, OFFSET ALONG THE LONGITUDINAL AXIS OF THE CAST-IN-PLACE CONCRETE BEAM, AND RE-DRIVEN TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY. THE CONTRACTING OFFICER WILL UTILIZE THE REQUIRED OFFSET INFORMATION TO DETERMINE IF THE BENT CAP, BEAM, AND PILES CAN ACCOMMODATE RELOCATION TO AVOID THE OBSTRUCTION. NOTE THAT THIS OPTION WILL REQUIRE MODIFICATIONS TO THE BEAM WIDTH IN ORDER TO FULLY ENCAPSULATE THE 36"Ø STEEL PIPE PILE WITHIN THE BEAM WHILE MAINTAINING 6" CLEAR FROM THE EDGE OF PILE TO EDGE OF BEAM. AT THE CONTRACTOR'S OPTION, THE PILE ENCOUNTERING THE OBSTRUCTION MAY BE ABANDONED IN PLACE AND A NEW STEEL PIPE PILE INSTALLED AT THE REQUIRED OFFSET LOCATION AT NO ADDITIONAL COST TO THE GOVERNMENT.

     - 12.3.5 PROBE THE LIMITS OF THE OBSTRUCTION TO DETERMINE IF THE STEEL PIPE PILE CAN BE PULLED AND RE-DRIVEN AT A SLIGHT BATTER (NOT MORE THAN 1" PER FOOT) TO AVOID THE OBSTRUCTION. PILES SHALL BE BATTERED PERPENDICULAR TO THE LONGITUDINAL AXIS OF THE BENT CAP AND RE-DRIVEN TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY.

     - 12.3.6. USE A DTH HAMMER TO DRILL THROUGH THE OBSTRUCTION AND ATTEMPT TO RE-DRIVE THE PILE THROUGH THE OBSTRUCTION TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY.

   - 12.4. IF THE DRIVEN STEEL PIPE PILE ENCOUNTERS AN OBSTRUCTION ABOVE EL -123.0 (NAVD88), POSSIBLE CONTRACTOR OPTIONS TO MITIGATE THE OBSTRUCTION INCLUDE, BUT ARE NOT LIMITED TO:

     - 12.4.1. IF THE OBSTRUCTION IS DETERMINED TO BE RELATIVELY CLOSE TO THE APPROXIMATE MUDLINE ELEVATION, PULL THE PILE, ATTEMPT TO EXTRACT THE OBSTRUCTION BY MEANS AND METHODS DETERMINED BY THE CONTRACTOR, AND RE-DRIVE THE PILE TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY.

     - 12.4.2. PROBE THE LIMITS OF THE OBSTRUCTION TO DETERMINE IF THE STEEL PIPE PILE CAN BE PULLED, OFFSET ALONG THE LONGITUDINAL AXIS OF THE CAST-IN-PLACE CONCRETE BENT CAP, AND RE-DRIVEN TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY. THE CONTRACTING OFFICER WILL UTILIZE THE REQUIRED OFFSET INFORMATION TO DETERMINE IF THE BENT CAP AND PILES CAN ACCOMMODATE RELOCATION TO AVOID THE OBSTRUCTION. AT THE CONTRACTOR'S OPTION, THE PILE ENCOUNTERING THE OBSTRUCTION MAY BE ABANDONED IN PLACE AND A NEW STEEL PIPE PILE INSTALLED AT THE REQUIRED OFFSET LOCATION AT NO ADDITIONAL COST TO THE GOVERNMENT.

     - 12.4.3. PROBE THE LIMITS OF THE OBSTRUCTION TO DETERMINE IF THE STEEL PIPE PILE CAN BE PULLED, OFFSET ALONG THE LONGITUDINAL AXIS OF THE CAST-IN-PLACE CONCRETE BEAM, AND RE-DRIVEN TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY. THE CONTRACTING OFFICER WILL UTILIZE THE REQUIRED OFFSET INFORMATION TO DETERMINE IF THE BENT CAP, BEAM, AND PILES CAN ACCOMMODATE RELOCATION TO AVOID THE OBSTRUCTION. NOTE THAT THIS OPTION WILL REQUIRE MODIFICATIONS TO THE BEAM WIDTH IN ORDER TO FULLY ENCAPSULATE THE 36"Ø STEEL PIPE PILE WITHIN THE BEAM WHILE MAINTAINING 6" CLEAR FROM THE EDGE OF PILE TO EDGE OF BEAM. AT THE CONTRACTOR'S OPTION, THE PILE ENCOUNTERING THE OBSTRUCTION MAY BE ABANDONED IN PLACE AND A NEW STEEL PIPE PILE INSTALLED AT THE REQUIRED OFFSET LOCATION AT NO ADDITIONAL COST TO THE GOVERNMENT.

     - 12.4.4. PROBE THE LIMITS OF THE OBSTRUCTION TO DETERMINE IF THE STEEL PIPE PILE CAN BE PULLED AND RE-DRIVEN AT A SLIGHT BATTER (NOT MORE THAN 1" PER FOOT) TO AVOID THE OBSTRUCTION. PILES SHALL BE BATTERED PERPENDICULAR TO THE LONGITUDINAL AXIS OF THE BENT CAP AND RE-DRIVEN TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY.

     - 12.4.5. USE A DTH HAMMER TO DRILL THROUGH THE OBSTRUCTION AND ATTEMPT TO RE-DRIVE THE PILE THROUGH THE OBSTRUCTION TO THE ESTIMATED PILE TIP ELEVATION AND REQUIRED ULTIMATE VERTICAL CAPACITY.

PRELIMINARY NOT FOR CONSTRUCTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA
CI CORE - HAMPTON ROADS
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT
P1044 SUBMARINE PIER 31 EXTENSION
TOP OF BEDROCK CONTOUR PLAN

ACTIVITY: XXXXX
SATISFACTORY TO / DATE: MM/DD/YY
SCALE: AS NOTED
EPROJECT NO.: ########
CONSTR. CONTR. NO.: ######-##-#-####
NAVFAC DRAWING NO.: CT-DEEP
SHEET - OF ##

B-101

LEGEND

EXISTING	NEW	DESCRIPTION
	1	NEW WORK KEY NOTE NUMBER
		BUILDING
		CONCRETE PAVEMENT/PAD
		BITUMINOUS CONCRETE PAVING
D		STORM DRAIN MANHOLE / CATCH BASIN INLET
S		SANITARY SEWER MANHOLE
6" W		FRESH WATER (FW)
12" W		HIGH PRESSURE WATER (FIRE PROTECTION)
12" W		HIGH PRESSURE WATER (HPW)
15" D		STORM DRAIN
8" S		SANITARY SEWER
8" S		SANITARY FORCE MAIN
4" CA		LOW PRESSURE AIR
E		UNDERGROUND ELECTRIC DUCT (4 DUCTS WIDE x 4 DUCTS DEEP)
E		UNDERGROUND COMMUNICATIONS DUCT (4 DUCTS WIDE x 4 DUCTS DEEP)
X X X		CHAINLINK FENCE
X 5.20	5.50	SPOT ELEVATION
WV		GATE VALVE
		POST INDICATOR VALVE
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION (FDC)
		REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
		GUARD POST / BOLLARD
		REMOVABLE GUARD POST / BOLLARD
		STEEL RAZOR WIRE
		SAWCUT, REMOVE AND DISPOSE EXISTING BITUMINOUS CONCRETE PAVEMENT
		REMOVE AND DISPOSE OF UTILITY OR REMOVE RAIL FOR UTILITY INSTALLATION AND REUSE
		CONCRETE THRUST BLOCK
		FLOW ARROW

CIVIL ABBREVIATIONS:

@	AT
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS
ABND, AB	ABANDONED
AC	ALTERNATING CURRENT
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICES
BP	BEGIN POINT
CA	COMPRESSED AIR
CB	CATCH BASIN
CI	CAST IRON
CLF	CHAIN LINK FENCE
CONC	CONCRETE
DIA	DIAMETER
DI, DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
E	EASTING
ELEV (EL)	ELEVATION
EXIST, EX	EXISTING
FG	FINISH GRADE
FM	FORCE MAIN
FT	FEET
FW	FRESH WATER
GALV	GALVANIZED
H OR HORIZ	HORIZONTAL
HP	HIGH POINT
HPA	HIGH PRESSURE AIR
HPW	HIGH PRESSURE WATER
INV	INVERT
L	LENGTH
MHHW	MEAN HIGHER HIGH WATER
MIN	MINIMUM
N	NORTHING
N/A	NOT APPLICABLE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
SMH	SANITARY MANHOLE
SSFM	SANITARY SEWER FORCE MAIN
SSWR	GRAVITY SANITARY SEWER
TBM	TEMPORARY BENCH MARK
TR	TOP OF RIM
TYP	TYPICAL
UNK	UNKNOWN
UNO	UNLESS NOTED OTHERWISE
V OR VERT	VERTICAL
VSP	VERTICAL SEWER PIPE
W	WIDTH
W/	WITH

DRAWING NUMBER ABBREVIATIONS:

C	CIVIL
CD	CIVIL DEMOLITION
CS	CIVIL SITE
CN	CIVIL NAVIGATION

GENERAL NOTES:

1. THE LOCATIONS SHOWN FOR EXISTING UNDERGROUND UTILITIES AND ABOVE GROUND FEATURES ARE BASED ON AVAILABLE BASE UTILITY PLANS AND SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR MUST FIELD LOCATE ALL UNDERGROUND UTILITIES THROUGH THE USE OF A QUALIFIED UNDERGROUND UTILITY LOCATION SERVICE PRIOR TO ANY EXCAVATION. UTILITIES LOCATED MUST BE INDICATED ON THE "AS-BUILT" DRAWINGS. NOTIFY THE CONTRACTING OFFICER 72 HOURS PRIOR TO COMMENCING DEMOLITION, EXCAVATION, OR CONSTRUCTION.
2. WATERFRONT UTILITY OPERATIONS WILL REMAIN ACTIVE THROUGHOUT THE WORK OF THE PROJECT. PROTECT EXISTING UTILITIES TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE CONTRACTING OFFICER AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CONTRACTING OFFICER A MINIMUM OF 15 DAYS IN ADVANCE OF ANY UTILITY OUTAGES.
3. ALL VALVES, FITTINGS, MANHOLES, ETC. HAVE BEEN LOCATED IN PLAN AND DIMENSIONS SHOWN SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE CONTRACTING OFFICER. PROFILE STATIONING SHALL BE ADJUSTED AS REQUIRED TO CONFORM TO PLAN DIMENSIONS.
4. EXISTING TOPOGRAPHY AND PHYSICAL FEATURES SHOWN ARE BASED ON SURVEYS PERFORMED ON SEPTEMBER 7, 2021 BY LOUREIRO ENGINEERING, PLAINVILLE, CONNECTICUT UNLESS OTHERWISE NOTED. VERTICAL CONTROL IS BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). HORIZONTAL CONTROL IS BASED ON THE CONNECTICUT STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD83) AND WAS ESTABLISHED FROM BASE MONUMENTS #950 AND #951 LOCATED ON THE SUB BASE. CONTACT THE CONTRACTING OFFICER FOR ADDITIONAL MONUMENT AND BENCHMARKS LOCATED IN THE VICINITY OF PIER 31.
5. THE 100 YEAR BASE FLOOD ELEVATION ZONE AE EQUALS 11 FT. AND ZONE VE EQUALS 13 FT. ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF, CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, AND THE SPECIFICATIONS.
7. NEW UTILITY STAKEOUT DIMENSIONS ARE TO CENTERLINE OF STRUCTURE AND CENTERLINE OF PIPE, UNLESS INDICATED OTHERWISE.
8. ADJUST SEWER, DRAINAGE, AND ELECTRICAL FRAMES AND COVERS TO MATCH FINISH GRADE. REMOVE EXISTING FRAMES AND COVERS AND PROVIDE NEW FRAMES AND COVERS WHEN DAMAGED DURING THE COURSE OF WORK, AT NO ADDITIONAL COST TO THE GOVERNMENT.
9. SURVEY UTILITY MANHOLES, STRUCTURES, GATE VALVES, VALVE BOXES AND OTHER SURFACE FEATURES PRIOR TO PAVING AND VERIFY TO THE CONTRACTING OFFICER THAT THESE FEATURES ARE ACCESSIBLE AFTER FINAL PAVING HAS BEEN COMPLETED.
10. ADJUST ITEMS NOTED IN NOTE 9 ABOVE TO FINISH GRADE. REMOVE EXISTING GATE VALVE BOXES AND CURB STOP BOXES AND PROVIDE NEW GATE VALVE BOXES WHEN DAMAGED DURING THE COURSE OF WORK, AT NO ADDITIONAL COST TO THE GOVERNMENT.
11. A 15' WIDE CLEAR VEHICLE ACCESS LANE MUST BE PROVIDED THROUGH THE PROJECT SITE ALONG AMBERJACK ROAD AT ALL TIMES. PHASE DEMOLITION OPERATIONS, TEMPORARY IMPROVEMENTS, AND PROPOSED IMPROVEMENTS AS REQUIRED TO MEET THESE CONDITIONS.
12. DIG TEST PITS TO DETERMINE THE LOCATION AND ELEVATIONS OF EXISTING PIPING AT CONNECTION POINTS PRIOR TO LAYING PIPE NEAR CONNECTION POINTS. IF NECESSARY, THE ELEVATIONS FOR NEW PIPING SHALL BE ADJUSTED AS DIRECTED BY THE CONTRACTING OFFICER.
13. UNDERGROUND UTILITIES, STRUCTURES AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED FROM RECORD MAPPING AND OTHER AVAILABLE DATA. THE OWNER OR IT'S REPRESENTATIVES HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. ADDITIONAL UNDERGROUND AND ABOVE GROUND FEATURES MAY EXIST THAT ARE NOT DEPICTED WITHIN THESE DOCUMENTS. THE EXISTENCE, SIZE AND LOCATION OF THESE FEATURES MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 OR WWW.CBYD.COM 72-HOURS PRIOR TO STARTING CONSTRUCTION IN ORDER TO VERIFY THE LOCATIONS OF EXISTING UTILITIES.
14. CONTRACTOR SHALL COORDINATE WITH ALL OTHER DISCIPLINES AND FIELD VERIFY ALL DIMENSIONS AND CONDITIONS FOR FIT-UP OF NEW WORK PRIOR TO ORDERING MATERIAL AND FABRICATION.

GENERAL NOTES CONT:

15. ELEVATION CONTOURS, SPOT GRADES, INVERTS AND DIMENSIONS ON CIVIL DRAWINGS ARE IN DECIMAL FEET UNLESS NOTED OTHERWISE.
16. WORK FROM GIVEN DIMENSIONS AND LARGE SCALE DETAILS ONLY.DO NOT SCALE DRAWINGS.
17. EXERCISE CARE TO PROTECT EXISTING BENCHMARKS, SYSTEMS, AND SURFACES TO REMAIN. ALL DAMAGED SYSTEMS AND SURFACES MUST BE REPAIRED OR REPLACED AS APPROVED BY THE CONTRACTING OFFICER AT NO ADDITIONAL COST TO THE GOVERNMENT.
18. YELLOW PLASTIC - CONTRACTORS MUST NOT USE YELLOW OR ORANGE-YELLOW COLORED MATERIALS FOR THE FOLLOWING URPOSES; PROTECTIVE CLOTHING, HOODS, SHEETING, TARPS,POLYETHYLENE BOTTLES OR OTHER CONTAINERS, TAPES, BAGS, BANDING, IDENTIFICATION MARKS ON TOOLS, BOUNDARY MARKERS, RIBBONS, VENT DUCTS, ETC. CONTRACTOR GENERATED YELLOW COLORED WASTE MUST BE DISPOSED OF BY THE CONTRACTOR OFF-YARD, SHIPYARD REFUSE CONTAINERS MUST NOT BE USED FOR THE DISPOSAL OF YELLOW COLORED WASTE MATERIALS. YELLOW COLORED ITEMS SUCH AS DESCRIBED ABOVE ARE OF SPECIAL SIGNIFICANCE WITHIN THE NAVAL BASE AND ARE SUBJECT TO STRICT CONTROLS. YELLOW COLORED CONTRACT GENERATED DEBRIS MUST BE BAGGED IN NON-TRANSLUCENT CONTAINERS AND PROMPTLY REMOVED FROM NEW LONDON NAVAL SUBMARINE BASE.
19. REPORT ALL SPILLS AND LEAKS OF OIL OR OTHER HAZARDOUS SUBSTANCES (IE OIL, ANTIFREEZE, CHEMICALS, ETC.) OCCURRING DURING THE PERFORMANCE OF THIS CONTRACT IMMEDIATELY UPON DISCOVERY, REGARDLESS OF THE QUANTITY. CALL THE BASE FIRE DEPARTMENT TO REPORT THE SPILL. THE GOVERNMENT RESERVES THE RIGHT TO CLEAN UP, PACKAGE AND DISPOSE OF CONTRACTOR SPILLS OCCURRING ON THE BASE, AND BILL SUCH COSTS TO THE CONTRACTOR.
20. NOTIFY CONTRACTING OFFICER AND STOP WORK IMMEDIATELY IF HAZARDOUS MATERIAL SUCH AS PCB, LEAD PAINT, AND FRIABLE AND NON-FRIABLE ASBESTOS AND ANY OTHER MATERIAL THAT MAY BE HAZARDOUS TO HUMAN HEALTH IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS.

APPR.
DATE
DESCRIPTION
SYM

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SEAL

A/E INFO

APPROVED:

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO: DATE: MM/DD/YY

DES - DRW - CHK -

PM/DM: –

BRANCH MANAGER: – –

CHIEF ENG/ARCH: –

FIRE PROTECTION: –

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CLCORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

CIVIL LEGEND ABBREVIATIONS & GENERAL NOTES

SCALE: AS NOTED

EPROJECT NO.: ##########

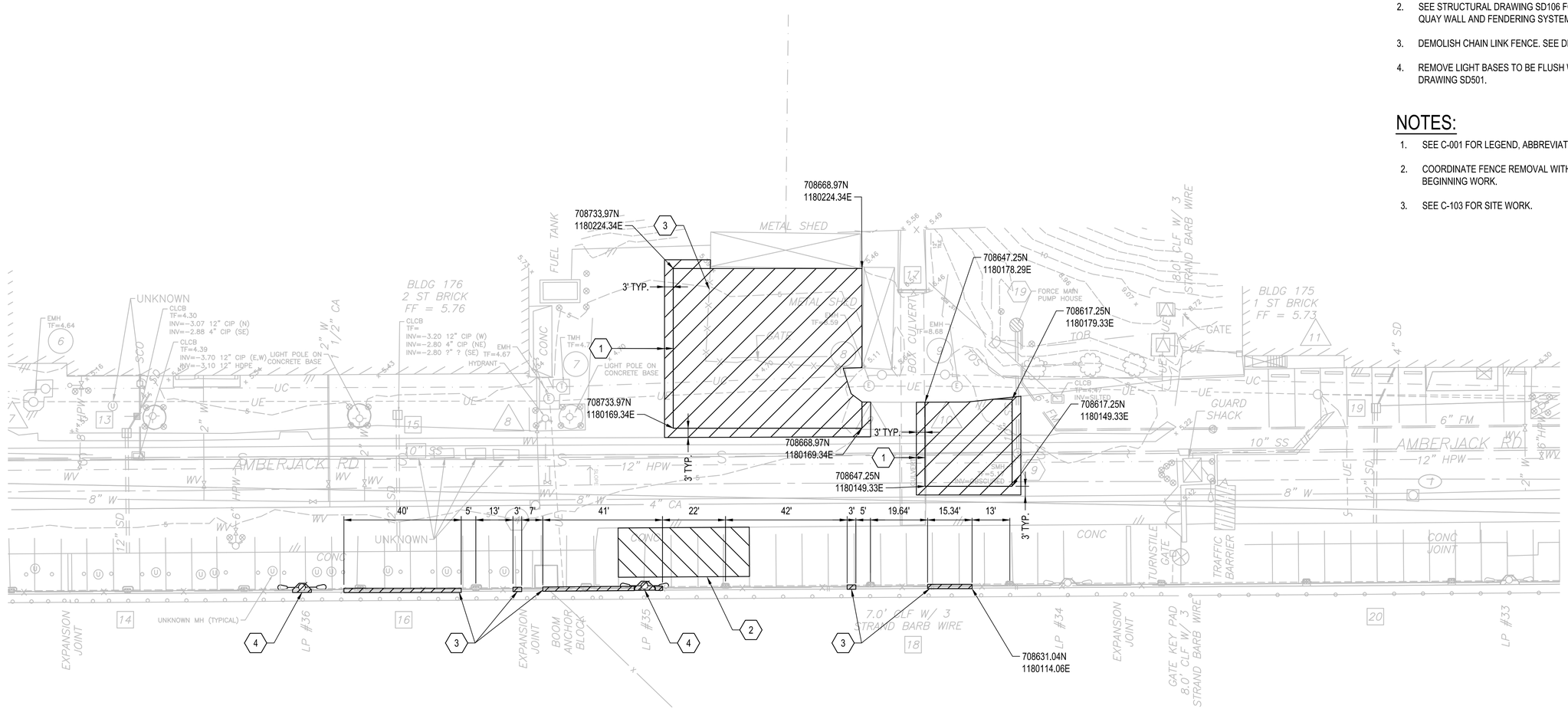
CONSTR. CONTR. NO.: ########-##-#-#####

NAVFAC DRAWING NO.: CT–DEEP

SHEET - OF ##

C-001

DRAWFORM REVISION: 25 AUGUST 2020



SITE DEMOLITION PLAN - CRANE WEIGHT HANDLING AREA

SCALE: 1" = 20'

PLAN NORTH

1" = 20'

DEMOLITION KEYNOTES:

1. SAWCUT AND DEMOLISH OF EXISTING BITUMINOUS CONCRETE PAVEMENT AND SUBBASE MATERIAL.
2. SEE STRUCTURAL DRAWING SD106 FOR DEMOLITION OF EXISTING QUAY WALL AND FENDERING SYSTEM.
3. DEMOLISH CHAIN LINK FENCE. SEE DETAILS ON DRAWING SD501.
4. REMOVE LIGHT BASES TO BE FLUSH WITH TOP OF CURB. SEE DRAWING SD501.

NOTES:

1. SEE C-001 FOR LEGEND, ABBREVIATIONS & GENERAL NOTES.
2. COORDINATE FENCE REMOVAL WITH CONTRACTING OFFICER PRIOR TO BEGINNING WORK.
3. SEE C-103 FOR SITE WORK.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY

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SATISFACTORY TO DATE MM/DD/YY

DES	-	DRW	-	CHK	-

PM/OM –

BRANCH MANAGER – –

CHIEF ENG/ARCH –

FIRE PROTECTION –

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CLCORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

SITE DEMOLITION PLAN - CRANE WEIGHT HANDLING AREA

SCALE: AS NOTED

EPROJECT NO.: ##########

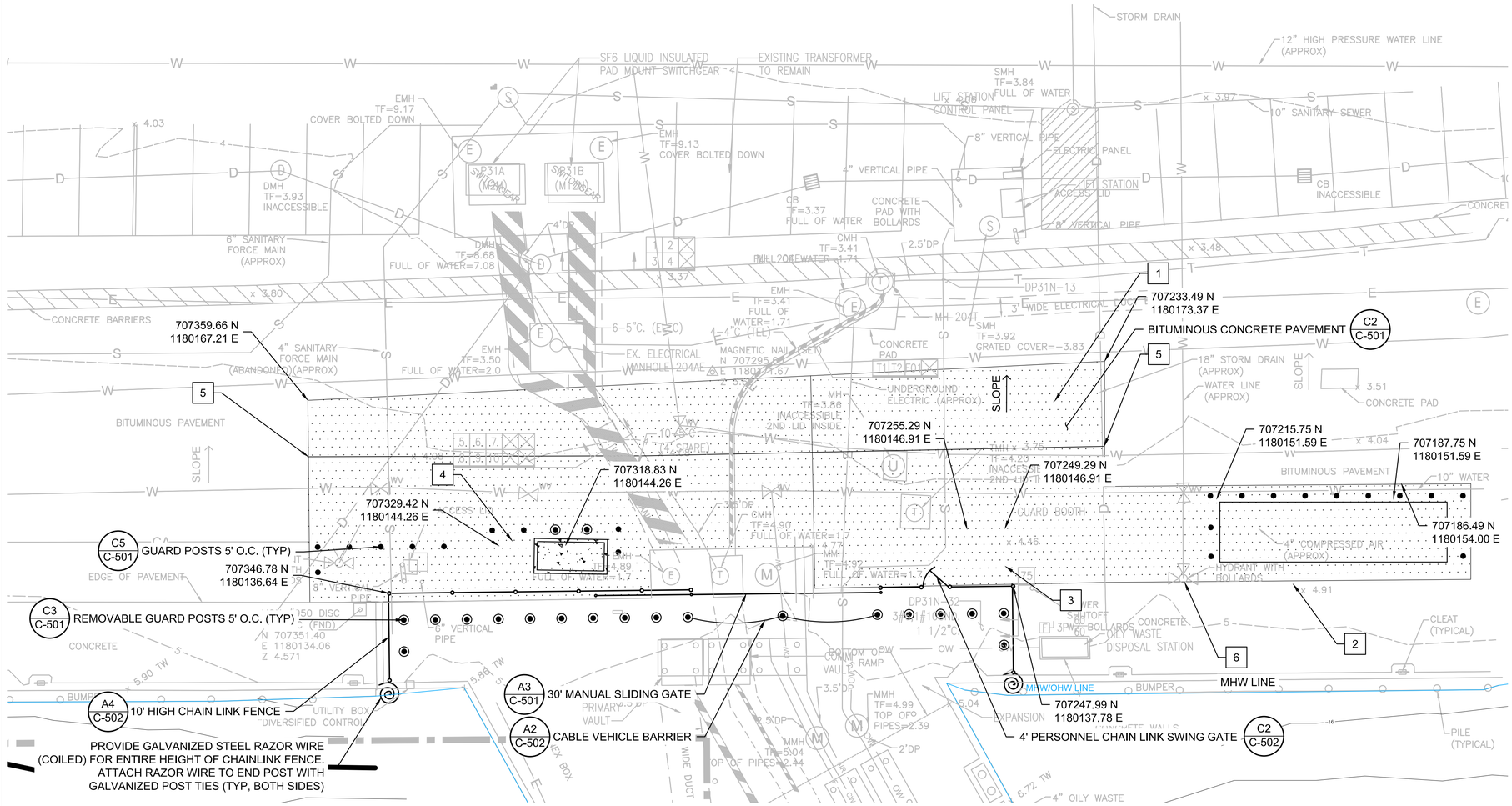
CONSTR. CONTR. NO.
########-##-#-#####

NAVFAC DRAWING NO.
CT–DEEP

SHEET ## OF ##

CD101

DRAWFORM REVISION: 25 AUGUST 2020



WORK KEYNOTES:

1. PROVIDE BITUMINOUS CONCRETE PAVEMENT.
2. PROVIDE COMPRESSED AIR ENCLOSURE. FINISHED FLOOR ELEVATED TO ELEVATION 11.00'
3. RELOCATED GUARD BOOTH
4. REDUCED PRESSURE BACKFLOW PREVENTER IN ENCLOSURE ON CONCRETE PAD, REFER TO SHEET F-101
5. 4" YELLOW EPOXY RESIN PAVEMENT MARKING. MATCH EXISTING PAVEMENT MARKINGS.
6. EXISTING HYDRANT TO REMAIN AND BE PROTECTED

GENERAL NOTES:

1. SEE C-001 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE UTILITY PLAN C-102 FOR UTILITY WORK
3. LIMITS OF BITUMINOUS CONCRETE SHALL MATCH LIMITS OF PAVEMENT REMOVAL, SEE CD101. NEW GRADES SHALL MATCH EXISTING AND MAINTAIN CURRENT DRAINAGE PATTERNS. AT NO POINT SHALL STORMWATER RUNOFF BE PERMITTED TO POND WITHIN THE AREA OF NEW PAVEMENT.
4. ADJUST ALL SURFACE CASTINGS TO MATCH FINISH GRADES

SITE PLAN - PIER 31 LANDSIDE

SCALE: 1" = 10'

PLAN NORTH

10' 0 10' 20'
1" = 10'

APPR	DATE	DESCRIPTION	SYM

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PM/DM --

BRANCH MANAGER --

CHIEF ENG/ARCH --

FIRE PROTECTION --

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
CI CORE - HAMPTON ROADS

NAVAL STATION - NORFOLK, VIRGINA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

SITE PLAN

SCALE: AS NOTED

EPROJECT NO.: ##########

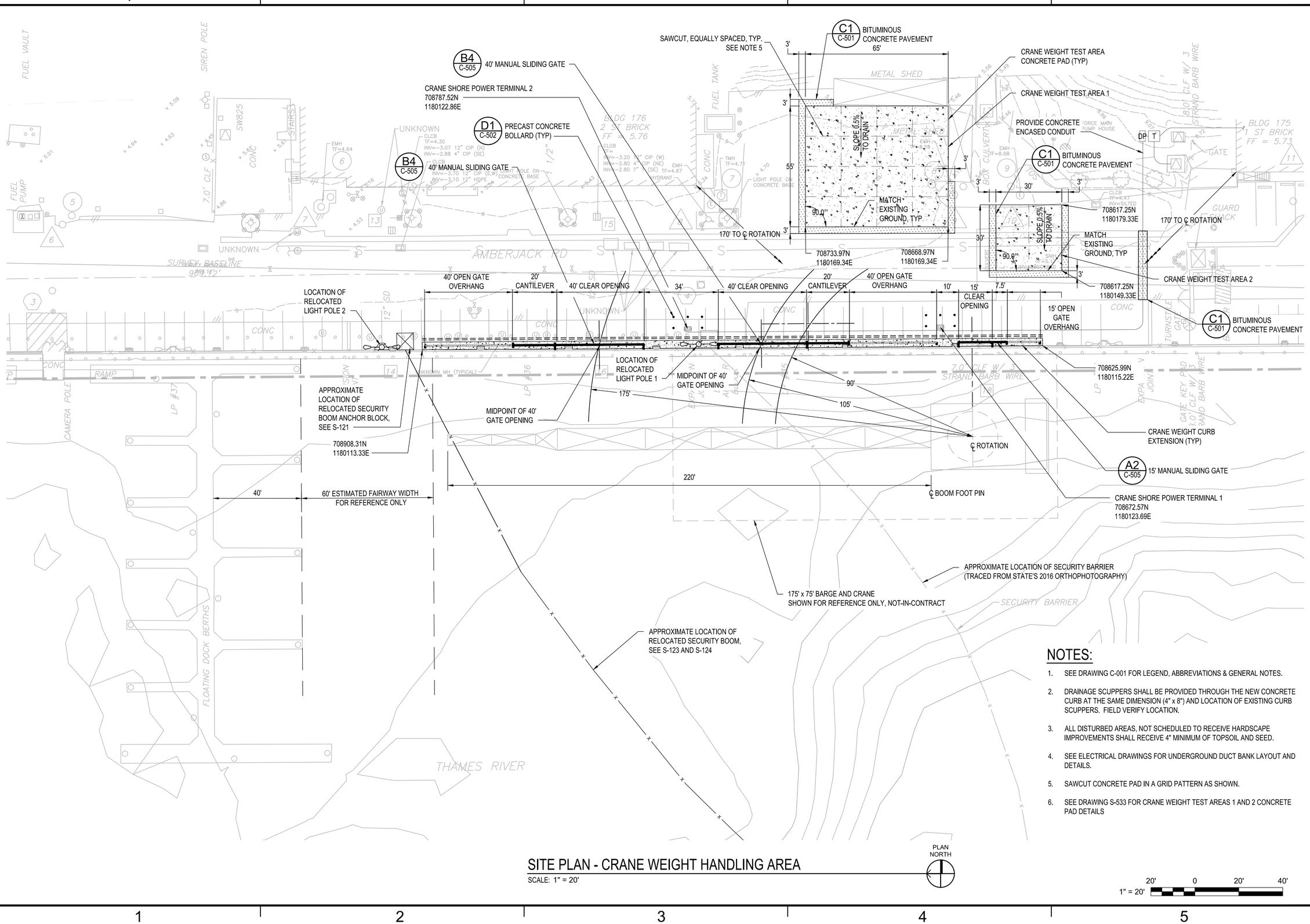
CONSTR. CONTR. NO. ########-##-#-#####

NAVFAC DRAWING NO. CT–DEEP

SHEET - OF ##

C-101

DRAWFORM REVISION: 25 AUGUST 2020



NOTES:

1. SEE DRAWING C-001 FOR LEGEND, ABBREVIATIONS & GENERAL NOTES.
2. DRAINAGE SCUPPERS SHALL BE PROVIDED THROUGH THE NEW CONCRETE CURB AT THE SAME DIMENSION (4" x 8") AND LOCATION OF EXISTING CURB SCUPPERS. FIELD VERIFY LOCATION.
3. ALL DISTURBED AREAS, NOT SCHEDULED TO RECEIVE HARDSCAPE IMPROVEMENTS SHALL RECEIVE 4" MINIMUM OF TOPSOIL AND SEED.
4. SEE ELECTRICAL DRAWINGS FOR UNDERGROUND DUCT BANK LAYOUT AND DETAILS.
5. SAWCUT CONCRETE PAD IN A GRID PATTERN AS SHOWN.
6. SEE DRAWING S-533 FOR CRANE WEIGHT TEST AREAS 1 AND 2 CONCRETE PAD DETAILS

SITE PLAN - CRANE WEIGHT HANDLING AREA

SCALE: 1" = 20'

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PM/DM –

BRANCH MANAGER – –

CHIEF ENG/ARCH –

FIRE PROTECTION –

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

SITE PLAN - CRANE WEIGHT HANDLING AREA

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO. ########-##-#-#####

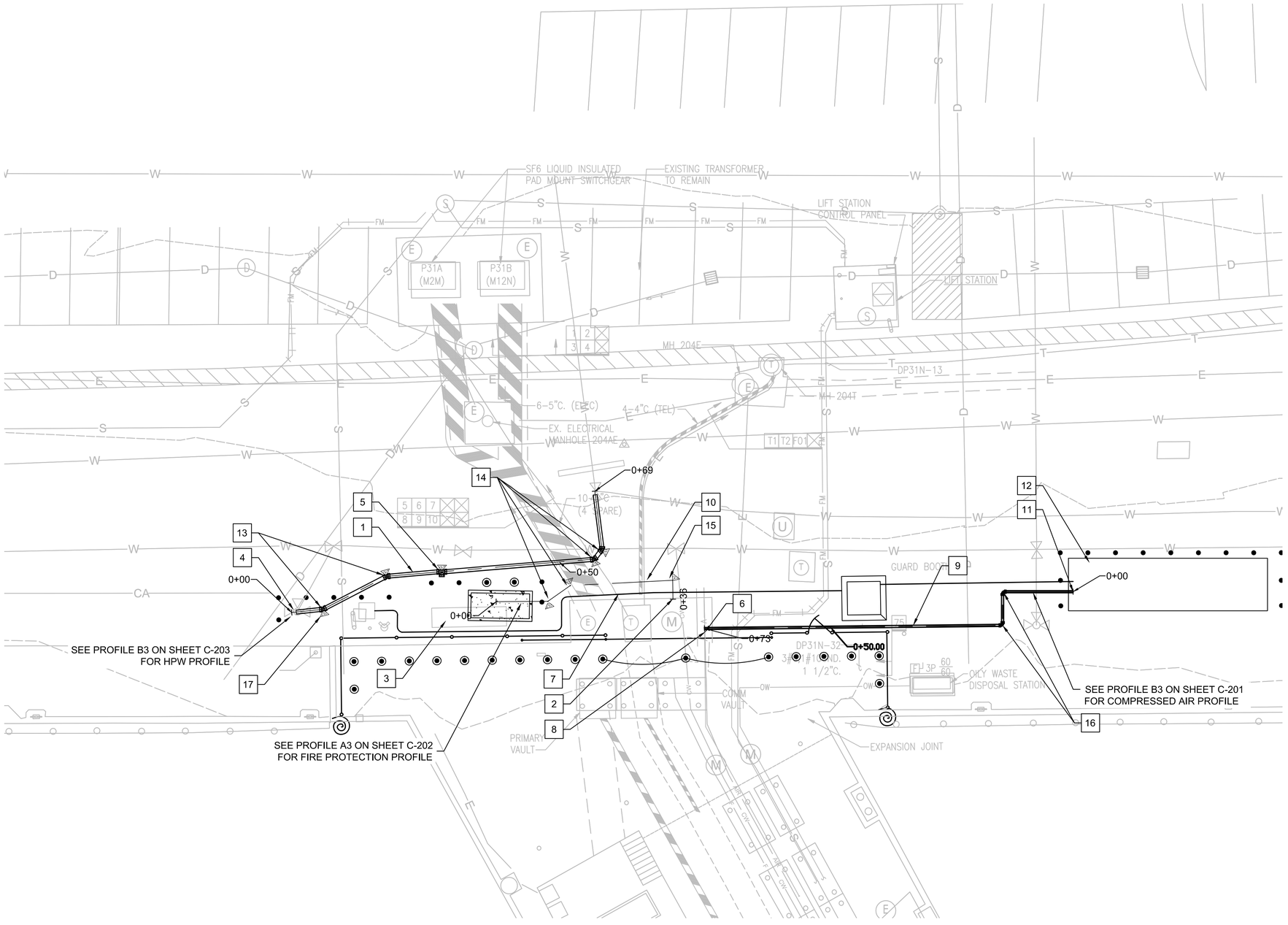
NAVFAC DRAWING NO. CT–DEEP

SHEET - OF ##

C-102

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: \\12410125\3\40_cad\30_permitting\CT_DEEP\C-103-104 PIER 17 SITE PLAN.dwg LAYOUT NAME: C-102 SITE PLAN – CRANE WEIGHT HANDLING AREA PLOTTED: Thursday, July 27, 2023 – 12:02pm USER: mcaramagno



WORK KEYNOTES:

1. PROVIDE A 8" HIGH PRESSURE WATER MAIN.
2. REFER TO SHEET F-101 FOR CONTINUATION OF NEW 8" FIRE PROTECTION LINE ALONG PIER
3. PROVIDE BACKFLOW PREVENTER AND STORZ FIRE DEPARTMENT ENCLOSURE, REFER TO SHEET F-101.
4. CONNECT 8" HIGH PRESSURE WATER TO EXISTING HIGH PRESSURE HYDRANT.
5. PROVIDE 8" X 8" X 8" TEE TO RELOCATED 8" MAIN.
6. TIE IN COMPRESSOR ENCLOSURE TO 3" MAIN. PROVIDE CAP AT ABANDONED SITE COMPRESSED AIR SYSTEM.
7. RELOCATED 2" ELECTRICAL CONDUIT FROM COMM. MANHOLE TO RELOCATED GUARD BOOTH.
8. TIE IN COMPRESSED AIR LINE TO NEW PIPE INSIDE UTILITY TRENCH, REFER TO SHEET M-101.
9. PROVIDE 3" COMPRESSED AIR LINE.
10. PROVIDE 6" FIRE PROTECTION LINE.
11. CONNECT COMPRESSED AIR LINE TO COMPRESSED AIR ENCLOSURE.
12. COMPRESSED AIR ENCLOSURE, REFER TO SHEET M-101
13. PROVIDE 8" 22.5° BEND
14. PROVIDE 8" 45° BEND
15. PROVIDE 8" 90° BEND
16. PROVIDE 3" 90° BEND
17. PROVIDE CONCRETE THRUST BLOCK, TYP., SEE DRAWING DETAIL C5, C-504

GENERAL NOTES:

1. SEE DRAWING C-001 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.

UTILITY PLAN - PIER 31

SCALE: 1" = 10'

PLAN NORTH

10' 0 10' 20'
1" = 10'

APPR	DATE	DESCRIPTION	SYM

NAVFAC

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SATISFACTORY TO DATE MM/DD/YY

DES	DRW	CHK -

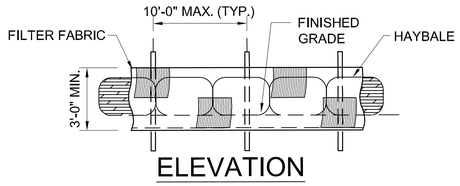
PM/DM -
BRANCH MANAGER -
CHIEF ENG/ARCH -
FIRE PROTECTION -

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
CI CORE - HAMPTON ROADS
NAVAL STATION - NORFOLK, VIRGINIA
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT
P1044 SUBMARINE PIER 31 EXTENSION
UTILITY PLAN - PIER 31

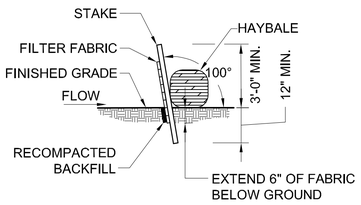
SCALE: AS NOTED
EPROJECT NO.: ##########
CONSTR. CONTR. NO. ########-##-#-#####
NAVFAC DRAWING NO. CT–DEEP
SHEET - OF ##

C-103

DRAWFORM REVISION: 25 AUGUST 2020



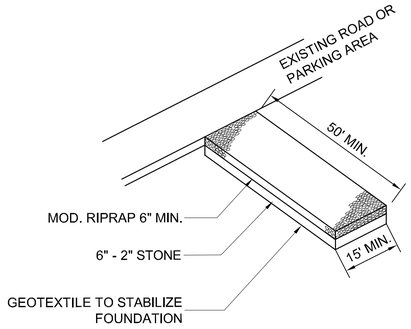
ELEVATION



SECTION

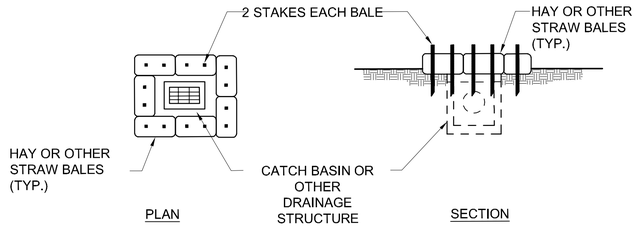
C1 SILT FENCE DETAIL

SCALE: NTS



C2 ANTI-TRACKING PAD DETAIL

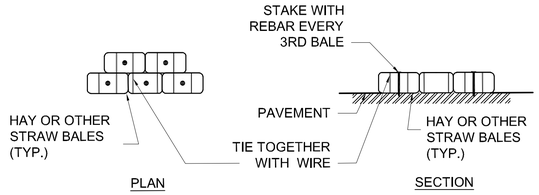
SCALE: NTS



NOTE:
1. ALL EXISTING OR NEW CATCH BASINS IN AREAS DISTURBED BY CONSTRUCTION SHALL BE PROTECTED BY SEDIMENTATION CONTROLS.

B1 HAY BALE DETAIL

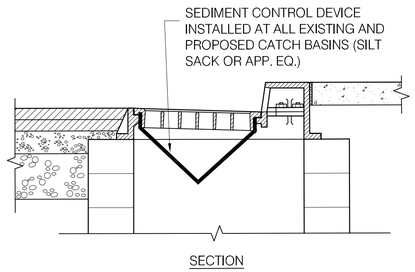
SCALE: NTS



NOTE:
1. PATCH HOLE WITH LIQUID BITUMEN AND COVER WITH SAND ONCE BALES ARE REMOVED OR MOVED.

B2 HAY BALE ON PAVEMENT DETAIL

SCALE: NTS



SECTION

A1 SEDIMENT EROSION CONTROL AT CATCH BASINS

SCALE: NTS

SEDIMENTATION AND EROSION CONTROL NOTES:

1. SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY WORK AND MAINTAINED UNTIL ALL GROUND SURFACES ARE STABILIZED I.E. WITH TURF, PAVEMENT, ETC., AND MAY CONSIST OF SILT FENCING, HAY BALES, TEMPORARY SEDIMENTATION BASINS AND/OR SWALES, MULCH AND TEMPORARY SEEDING.

2. PROVIDE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS, WATERCOURSES OR OTHER AREAS OF WATER IMPOUNDMENT BY CONSTRUCTION OPERATIONS. EVERY EFFORT SHALL BE MADE TO PREVENT EROSION ON THE SITE AND/OR ONTO ABUTTING PROPERTY.

3. DIVERT SURFACE WATER RUN-OFF AWAY FROM EXPOSED RAW EARTH SURFACES THROUGH THE USE OF TEMPORARY BERMS, DIKES, DIVERSION CHANNELS AND/OR OTHER DIVERSION TECHNIQUES.

4. THE EROSION CONTROL FEATURES SHALL BE INSTALLED AND MAINTAINED AND SHALL BE CHECKED DAILY AND AFTER EACH SEVERE RAIN STORM FOR DAMAGE. ALL SEDIMENTATION TRAPS AND SEDIMENTATION BASINS SHALL HAVE THE ACCUMULATED SEDIMENT AND/OR CLEAN WATER REMOVED BEFORE IT SIGNIFICANTLY REDUCES THEIR STORAGE VOLUME OR FUNCTION, PRIOR TO THE NEXT RAIN STORM FORECAST FOR THE REGION.

5. AT ALL TIMES, HAVE ON HAND THE NECESSARY MATERIALS AND EQUIPMENT TO PROVIDE FOR EARLY SLOPE STABILIZATION AND CORRECTIVE MEASURES TO DAMAGED SLOPES. RESPOND TO MAINTENANCE OR ADDITIONAL MEASURES ORDERED BY THE GOVERMENT WITHIN 24 HOURS.

6. OPERATE ALL EQUIPMENT AND PERFORM ALL CONSTRUCTION OPERATIONS SO AS TO MINIMIZE POLLUTION TO ADJACENT WATER COURSES OR WETLANDS AREAS. CEASE ANY OPERATIONS WHICH WILL INCREASE POLLUTION DURING RAIN STORMS.

7. ALL SLOPES OF STOCKPILE MATERIAL AND OTHER DISTURBED AREAS SHALL BE STABILIZED AND PROTECTED BY SURROUNDING WITH SILT FENCING OR HAY BALES, OR OTHERWISE PROTECTED AS APPROVED. ALL DAMAGED AREAS SHALL BE REPAIRED AS SOON AS POSSIBLE. LIMIT THE SURFACE AREA OF EACH MATERIAL EXPOSED TO SUFFICIENTLY PROTECT THE SLOPES TO PREVENT POLLUTION.

8. MULCHES: SHALL BE HAY, STRAW, WOOD CELLULOSE, WOOD CHIPS, STONE, NETTING, BURLAP OR OTHER SUITABLE MULCH MATERIAL. MULCHES SHALL BE REASONABLY CLEAN AND FREE OF NOXIOUS WEEDS AND DELETERIOUS MATERIALS. ASPHALT SPRAYS WILL NOT BE ALLOWED. PREVENT STRAW, WOOD CHIPS, ETC., FROM ENTERING ANY CATCH BASINS, RESERVOIRS OR WATERCOURSES.

9. HAY BALES: SHALL BE PLACED AROUND ALL EXISTING DRAINAGE INLETS WITHIN THE PROJECT LIMITS. THEY SHALL BE HELD IN PLACE BY TWO WOODEN STAKES IN EACH BALE. BALES SHALL BE MAINTAINED OR REPLACED AS ORDERED BY THE CONTRACTING OFFICER UNTIL THEY ARE NO LONGER NECESSARY FOR THE PURPOSE INTENDED OR ARE ORDERED . HAY BALES SHALL BE MADE OF HAY WITH 40 POUNDS MINIMUM WEIGHT AND 120 POUNDS MAXIMUM WEIGHT. WOOD STAKES SHALL BE A MINIMUM OF 1 INCH BY 1 INCH NOMINAL SIZE BY A MINIMUM OF 3 FEET LONG.

10. SILT FENCE: SHALL CONSIST OF 3-FOOT WIDE GEOSYNTHETIC FABRIC WITH PREFABRICATED WOOD POSTS AS MANUFACTURED BY "MIRAFI" OR EQUAL. THE BOTTOM SIX INCHES OF FABRIC SHALL BE BURIED BY EITHER TRENCHING OR BY LAYING THE SIX INCH SECTION HORIZONTALLY ON THE GROUND AND BURYING BY RAMPING THE 3/4" CRUSHED STONE UP TO THE CONTROL FENCE.

    - MINIMUM LENGTH OF SILT FENCE IS 15 L.F.
    - MAXIMUM POST SPACING IS 10 L.F.
    - JOINTS IN FILTER FABRIC SHALL BE ONLY AT SUPPORT POSTS WITH MINIMUM 6" OVERLAP, SECURELY SEALED
    - TO THE EXTENT PRACTICAL, SILT FENCE SHALL BE INSTALLED PARALLEL WITH CONTOUR OF THE LAND. WHERE THIS IS NOT PRACTICAL SILT FENCE CHECKS MAY BE REQUIRED.
    - SILT FENCE SHALL BE BACKED WITH STAKED HAY BALES AT LOW POINTS OR CRITICAL AREAS WHERE CONCENTRATIONS OF RUNOFF MAY OCCUR.
    - SILT FENCE SHALL NOT BE USED IN A WATER COURSE
    - FABRIC SUSCEPTIBLE TO SUNLIGHT DAMAGE SHALL NOT BE USED IN ANY INSTALLATIONS WHERE EXPOSURE TO LIGHT WILL EXCEED 30 DAYS, UNLESS SPECIFICALLY AUTHORIZED.

11. TEMPORARY SWALES AND SEDIMENTATION BASINS MAY BE CONSTRUCTED OF RIP-RAP, MULCH, HAY BALES OR JUTE MESH. PORTLAND CEMENT CONCRETE OR BITUMINOUS CONCRETE WILL NOT BE ALLOWED.

12. TEMPORARY GRASS SEED SHALL BE PERENNIAL RYE-GRASS (LOLIUM PERENNE) OR AN IMPROVED VARIETY THEREOF, SUCH AS MANHATTAN, HAVING A MINIMUM PURITY OF 98 PERCENT AND A MINIMUM GERMINATION OF 90 PERCENT.

13. AT THE COMPLETION OF THE PROJECT, AND AFTER ALL DISTURBED AREAS ARE STABILIZED, COMPLETELY REMOVE ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES. ALL MULCH, HAY BALES AND TEMPORARY RIP-RAP SHALL BE REMOVED FROM THE SITE.

14. EFFECTIVE MARCH 30, 2024, STRAW BALES WILL REPLACE HAY BALES AS THE PREFERRED MATERIAL FOR BALED SEDIMENT BARRIERS PER THE REVISED CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

APPR. | DATE | DESCRIPTION | SYM

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

XXXXX

SATISFACTORY TO | DATE MM/DD/YY

DES - | DRW - | CHK -

PM/DM --

BRANCH MANAGER --

CHIEF ENG/ARCH --

FIRE PROTECTION --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
CI.CORE-I-HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK - VIRGINIA
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

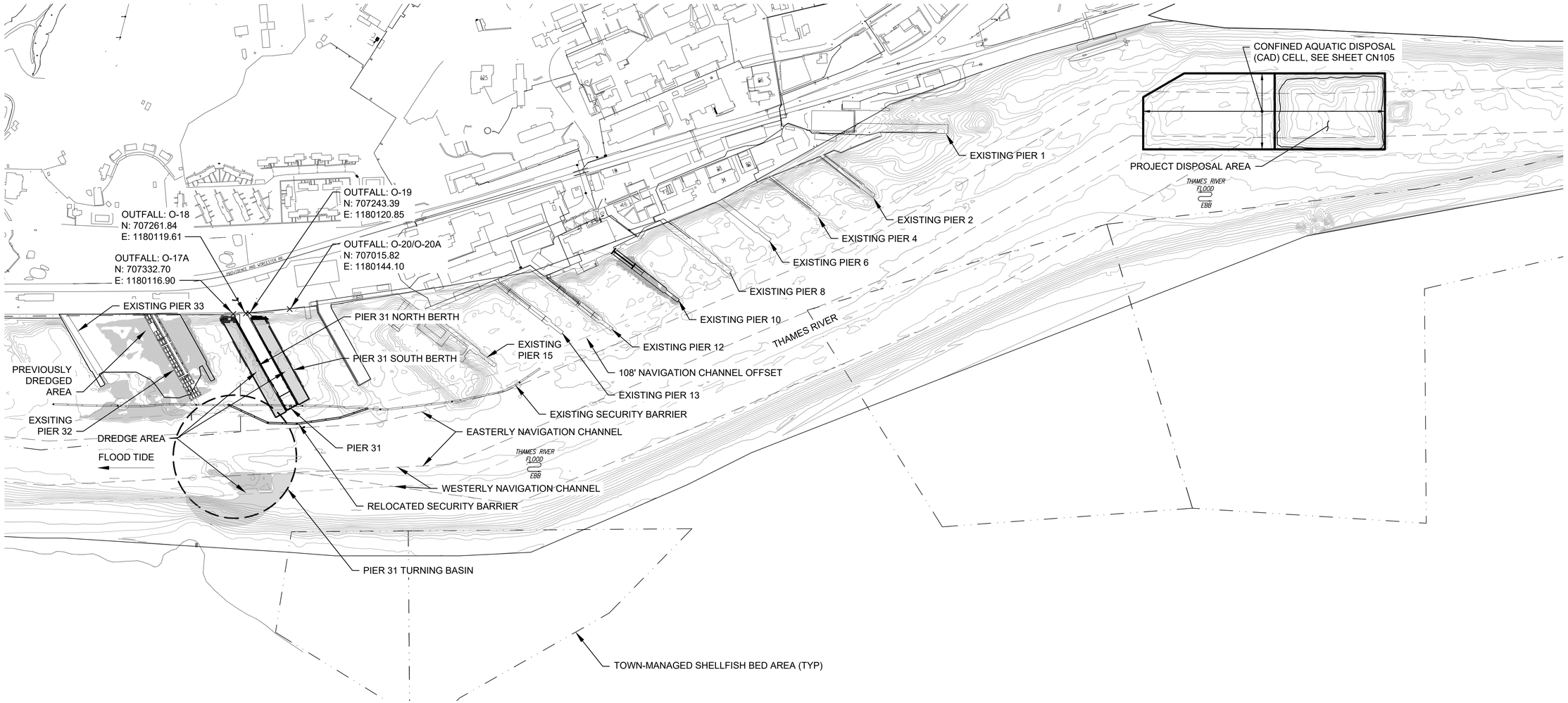
P1044 SUBMARINE PIER 31 EXTENSION

EROSION CONTROL NOTES & DETAILS

SCALE: AS NOTED
EPROJECT NO.: #########
CONSTR. CONTR. NO. #######-##-#-#####
NAVFAC DRAWING NO. CT-DEEP
SHEET - OF ##

C-501

DRAWFORM REVISION: 25 AUGUST 2020



LEGEND:

- CHANNEL LIMITS
- DREDGE AREA
- PREVIOUSLY DREDGED AREA

GENERAL NOTES:

1. EXISTING BATHYMETRY IS BASED ON SURVEYS PERFORMED ON OCTOBER 25, 2022.
2. ELEVATIONS SHOWN ON THE DREDGING PLAN ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE CONTRACTOR SHALL COORDINATE TEMPORARY RELOCATION OF THE EXISTING FLOATING SECURITY BARRIER AND ANCHOR BUOYS DURING DREDGING ACTIVITIES WITH PORT OPERATIONS.

DREDGE VOLUME SUMMARY

SITE	TOTAL DREDGE VOLUME (CY)	TOTAL OVERDREDGE VOLUME (CY)	AREA WITHIN 108' OF NAV CHANNEL (SF)	DREDGE VOLUME WITHIN 108' OF NAV CHANNEL (CY)	OVERDREDGE VOLUME WITHIN 108' OF NAV CHANNEL (CY)
TURNING RADIUS	18,390	24,534	12,955	429	1,386
PIER 31 NORTH BERTH	5,800	9,405	2817	293	502
PIER 31 SOUTH BERTH	6,452	9,713	0	0	0

PLAN NORTH

OVERALL DREDGING PLAN

SCALE: 1" = 300'

300' 0 300' 600'

1" = 300'

APPR | DATE | DESCRIPTION | SYM

NAVFAC

PRELIMINARY NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO | DATE: MM/DD/YY

DES | DRW | CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CLCORE -HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

OVERALL DREDGING PLAN

SCALE: AS NOTED

EPROJECT NO.: ##########

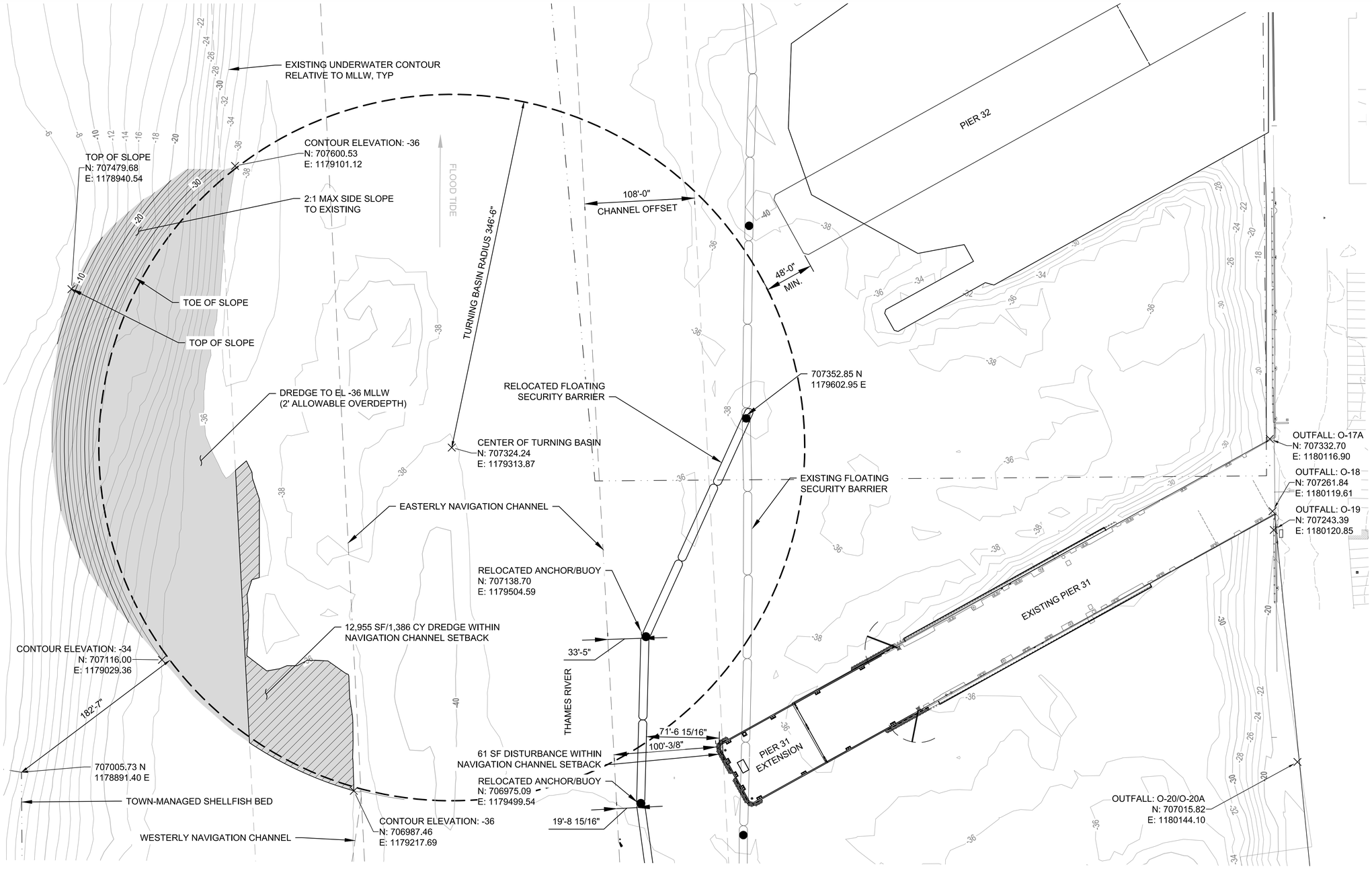
CONSTR. CONTR. NO.: ######-##-#-#####

NAVFAC DRAWING NO.: CT–DEEP

SHEET - OF ##

CN101

DRAWFORM REVISION: 25 AUGUST 2020



LEGEND:

- -30 — MAJOR CONTOUR
- -32 — MINOR CONTOUR
- -30 — EXISTING MAJOR CONTOUR
- -32 — EXISTING MINOR CONTOUR
- DREDGE AREA

GENERAL NOTES:

1. EXISTING BATHYMETRY IS BASED ON SURVEYS PERFORMED ON OCTOBER 25, 2022.
2. ELEVATIONS SHOWN ON THE DREDGING PLAN ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. REFER TO SHEET CN101 FOR DREDGE VOLUME SUMMARY.

50' 0 50' 100'
1" = 50'

DREDGING PLAN - TURNING BASIN

SCALE: 1" = 50'

PLAN NORTH

APPR | DATE | DESCRIPTION | SYM

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES - | DRW - | CHK -

PM/DM -

BRANCH MANAGER -

CHIEF ENG/ARCH -

FIRE PROTECTION -

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CI.CORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

DREDGING PLAN - TURNING BASIN

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO. ########-##-#-#####

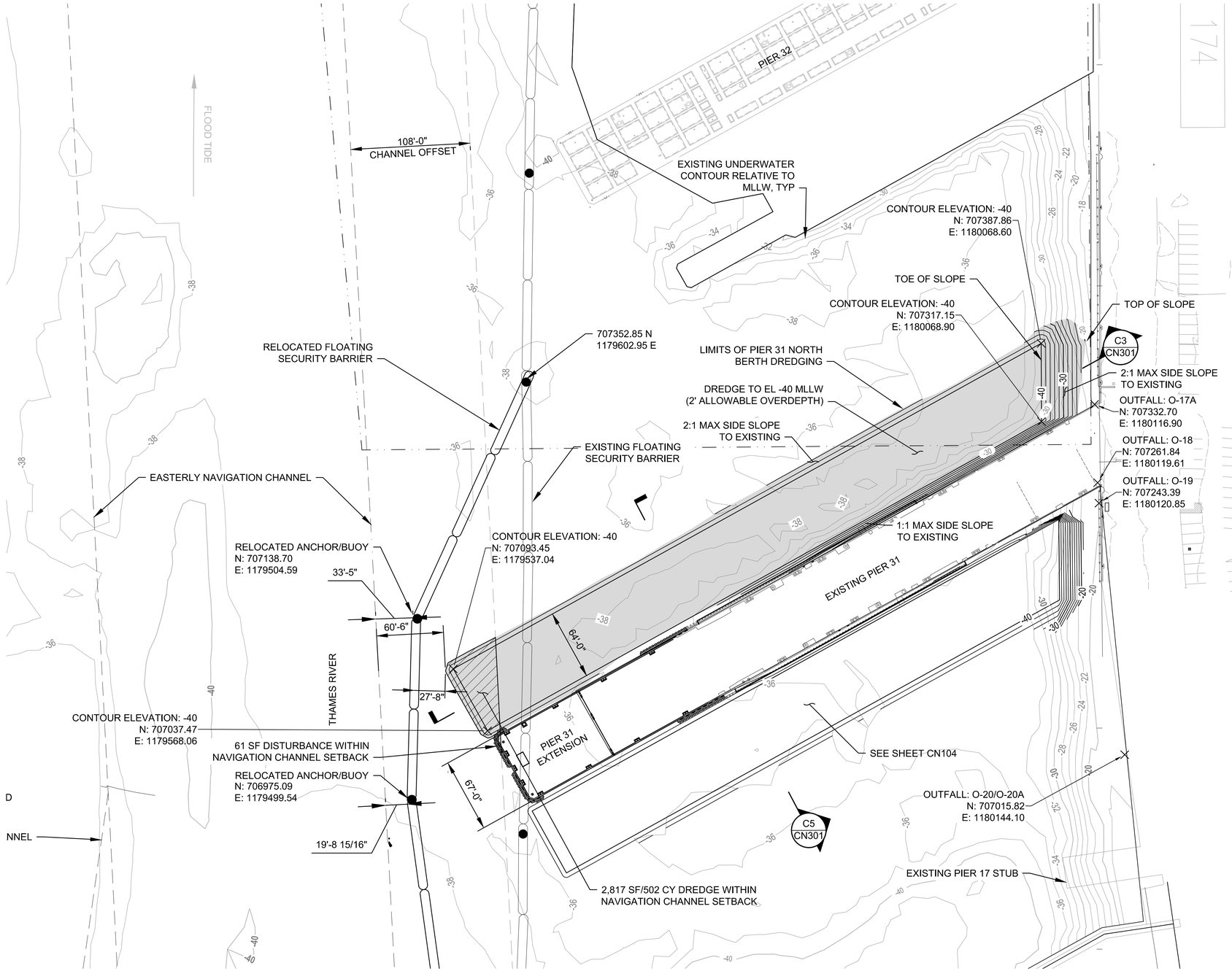
NAVFAC DRAWING NO. CT–DEEP

SHEET - OF ##

CN102

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: I:\124101253\40_cad\30_permitting\CT_DEEP\CN105 CAD CELL LOCATION PLAN.dwg LAYOUT NAME: CN102 DREDGING PLAN – TURNING BASIN PLOTTED: Thursday, November 09, 2023 – 1:45pm USER: mcaramagno



NORTH BERTH DREDGING SITE PLAN

SCALE: 1" = 50'

PLAN NORTH

GENERAL NOTES:

1. EXISTING BATHYMETRY IS BASED ON SURVEYS PERFORMED ON OCTOBER 25, 2022.
2. ELEVATIONS SHOWN ON THE DREDGING PLAN ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. REFER TO SHEET CN101 FOR DREDGE VOLUME SUMMARY.

LEGEND:

-30 — MAJOR CONTOUR

-32 — MINOR CONTOUR

-30 — EXISTING MAJOR CONTOUR

-32 — EXISTING MINOR CONTOUR

DREDGE AREA

50' 0 50' 100'

1" = 50'

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES - DRW - CHK -

PM/DM --

BRANCH MANAGER --

CHIEF ENG/ARCH --

FIRE PROTECTION --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CLOBE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

NORTH BERTH DREDGING SITE PLAN

SCALE: AS NOTED

EPROJECT NO.: ##########

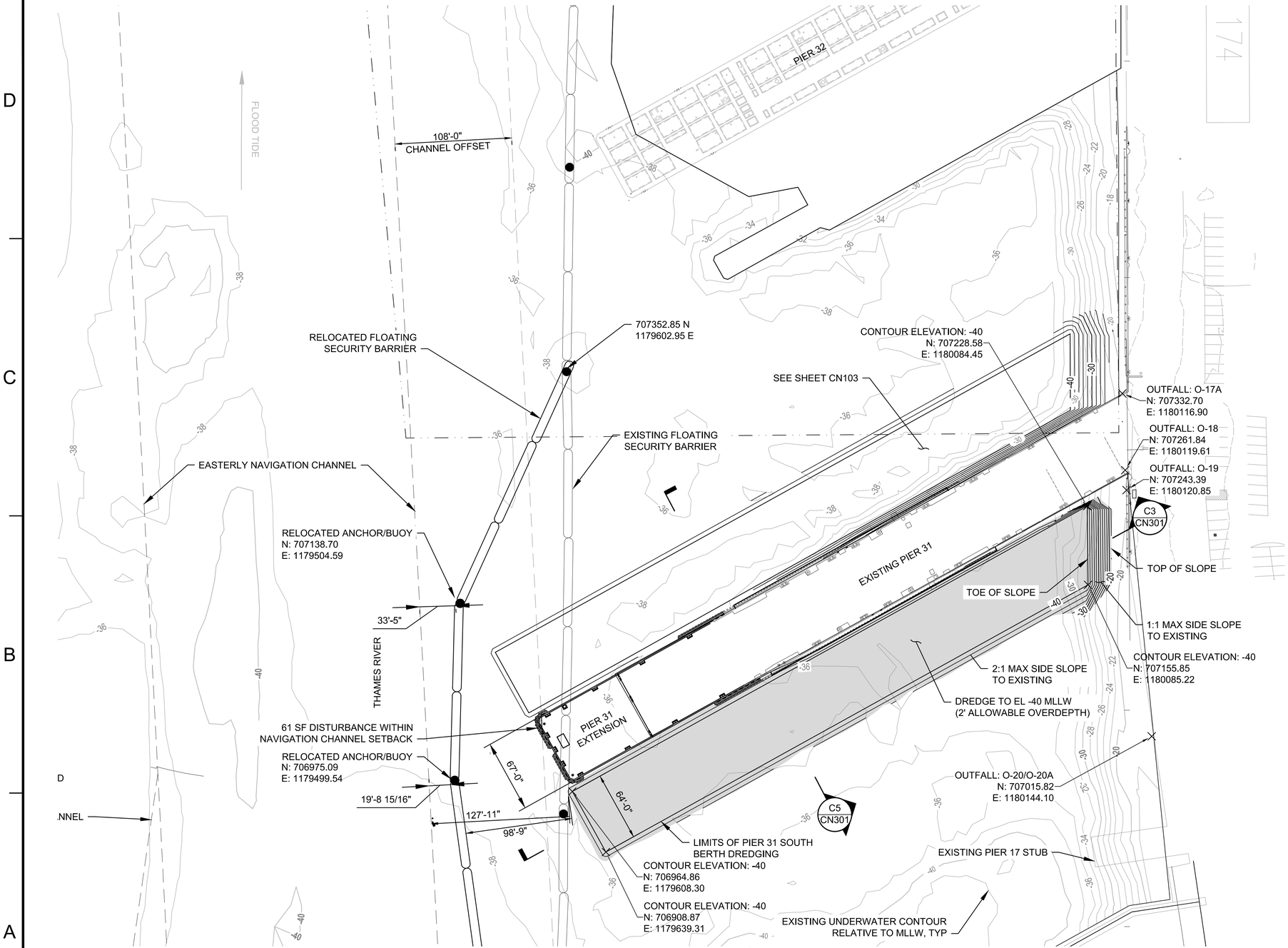
CONSTR. CONTR. NO. ########-##-#-#####

NAVFAC DRAWING NO. CT–DEEP

SHEET - OF ##

CN103

DRAWFORM REVISION: 25 AUGUST 2020



SOUTH BERTH DREDGING SITE PLAN

SCALE: 1" = 50'

PLAN NORTH

GENERAL NOTES:

1. EXISTING BATHYMETRY IS BASED ON SURVEYS PERFORMED ON OCTOBER 25, 2022.
2. ELEVATIONS SHOWN ON THE DREDGING PLAN ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. REFER TO SHEET CN101 FOR DREDGE VOLUME SUMMARY.

LEGEND:

- -30 — MAJOR CONTOUR
- -32 — MINOR CONTOUR
- -30 — EXISTING MAJOR CONTOUR
- -32 — EXISTING MINOR CONTOUR
- DREDGE AREA

50' 0 50' 100'

1" = 50'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES - DRW - CHK -

PM/DM --

BRANCH MANAGER ---

CHIEF ENG/ARCH --

FIRE PROTECTION --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CLORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

SOUTH BERTH DREDGING SITE PLAN

SCALE: AS NOTED

EPROJECT NO.: ##########

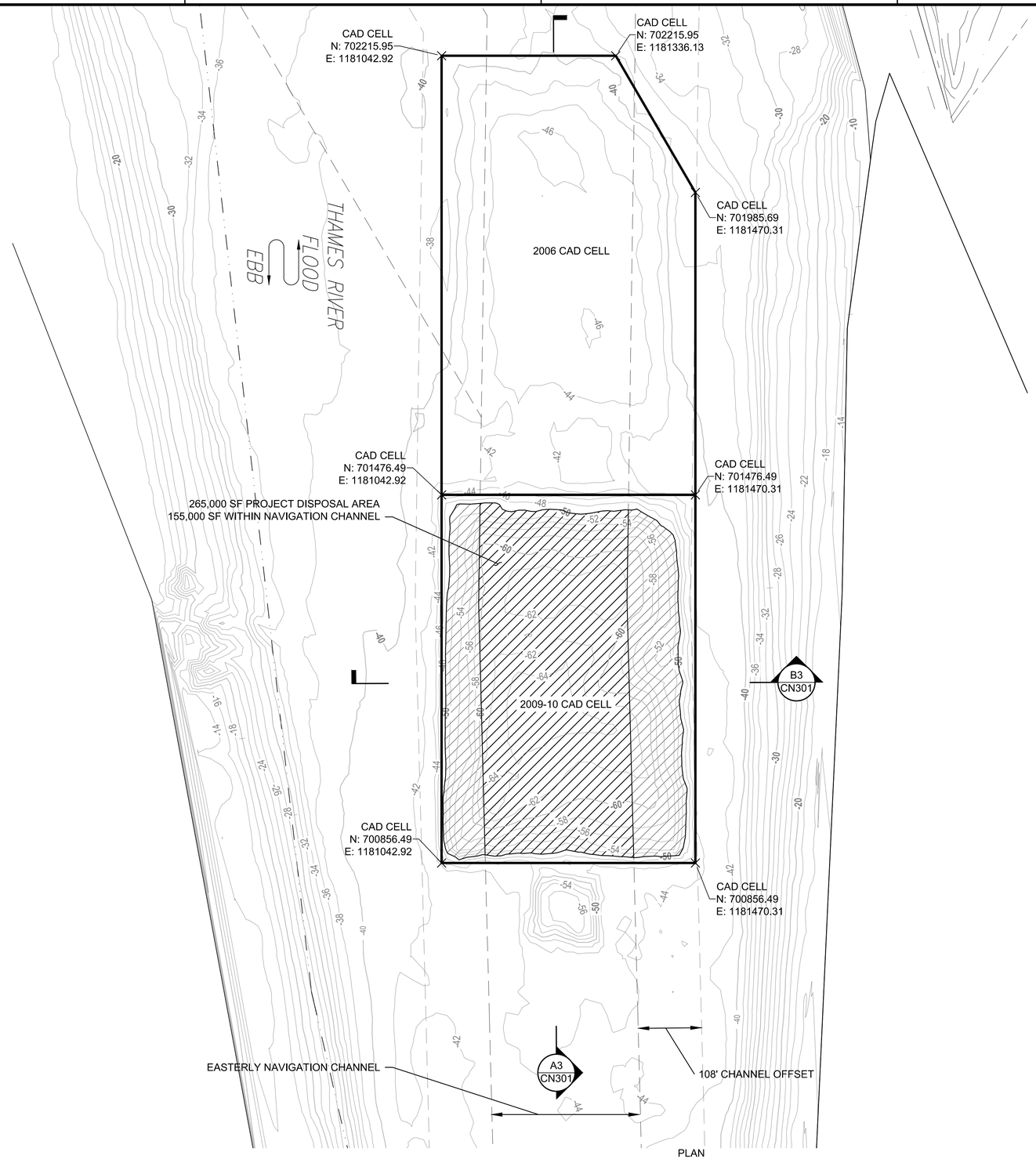
CONSTR. CONTR. NO. ########-##-#-#####

NAVFAC DRAWING NO. CT–DEEP

SHEET - OF ##

CN104

DRAWFORM REVISION: 25 AUGUST 2020



CAD CELL LOCATION PLAN

SCALE: 1" = 100'

GENERAL NOTES:

1. EXISTING BATHYMETRY IS BASED ON SURVEYS PERFORMED ON OCTOBER 25, 2022.
2. ELEVATIONS SHOWN ON THE DREDGING PLAN ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. FOR DREDGE AREAS ADJACENT TO/UNDERNEATH PIERS, THE TOP 2'-0" OF DREDGE MATERIAL SHALL BE PLACED IN THE CAD CELL FIRST. ALL OF THE DREDGE MATERIAL FROM THE TURNING BASIN AND THE UNDERLYING MATERIAL IN LOWER LAYER OF SEDIMENTS FROM THE DREDGE AREAS ADJACENT TO/UNDERNEATH PIERS SHALL BE USED AS CAPPING MATERIAL.
4. 2009-10 CAD CELL AREA WITHIN FEDERAL NAVIGATION CHANNEL - 155,000 SF.
5. 2009-10 CAD CELL AREA WITHIN 108' FEDERAL NAVIGATION CHANNEL OFFSET - 265,000 SF.

LEGEND:

-30 EXISTING MAJOR CONTOUR

-32 EXISTING MINOR CONTOUR

DREDGE MATERIAL DISPOSAL

ESTIMATED CAPACITY (CY)

FILL TO DEPTH (MLLW)	2009-10 CAD CELL
38	190,637
39	180,823
40	171,009
41	161,203
42	151,435
43	141,712
44	132,045

100' 0 100' 200'

1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
CLOORE - HAMPTON ROADS
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK, VIRGINIA
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

CAD CELL PLAN

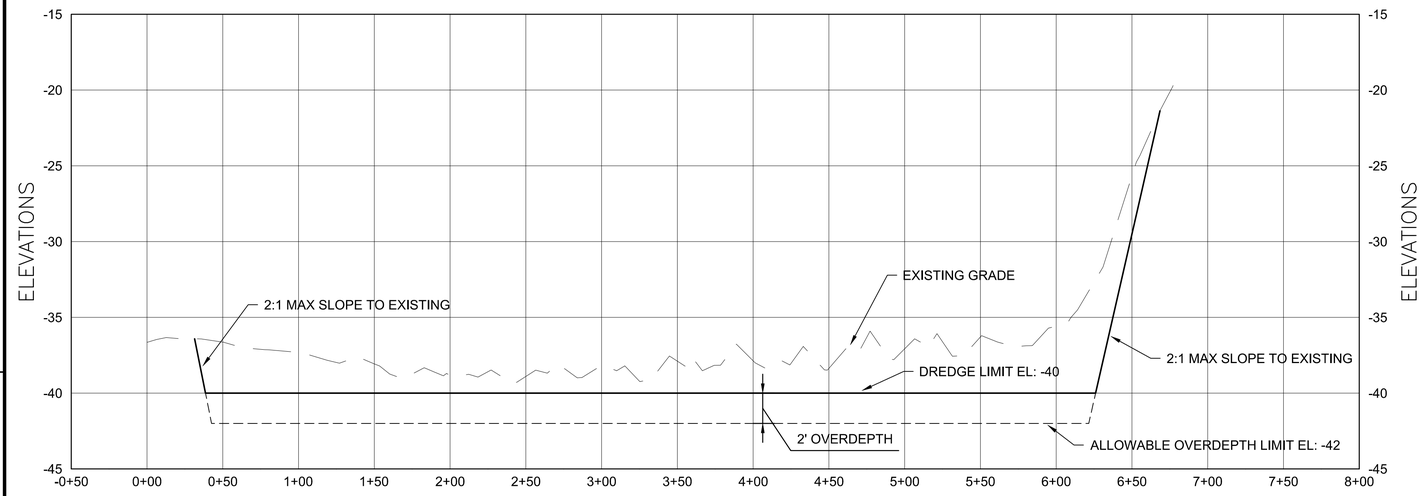
SCALE: AS NOTED
EPROJECT NO.: #########
CONSTR. CONTR. NO. ########-##-#-#####
NAVFAC DRAWING NO. CT–DEEP
SHEET - OF ##

CN105

DRAWFORM REVISION: 25 AUGUST 2020

APPR | DATE | SYM | DESCRIPTION

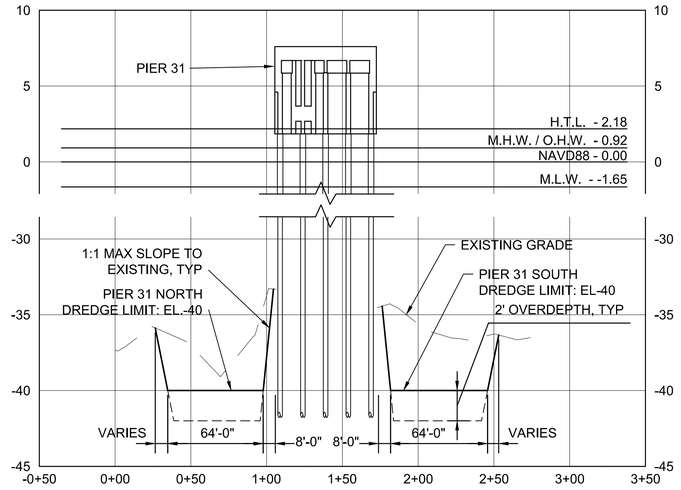
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
XXXXX
SATISFACTORY TO DATE MM/DD/YY
DES - DRW - CHK -
PM/DM –
BRANCH MANAGER – –
CHIEF ENG/ARCH –
FIRE PROTECTION –



PIER 31 DREDGING LONGITUDINAL TYPICAL SECTION

HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

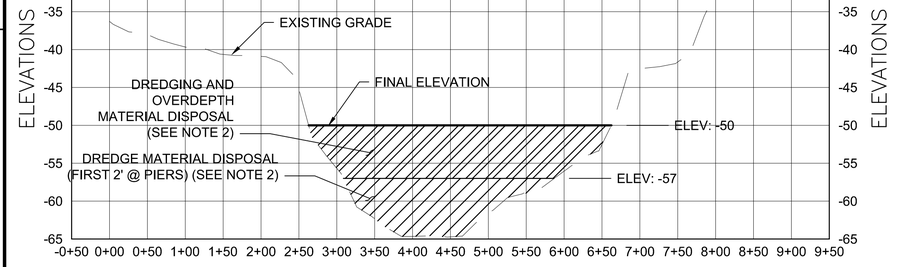
CN103, CN104 — C3



PIER 31 DREDGING TRANSVERSE TYPICAL SECTION

HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

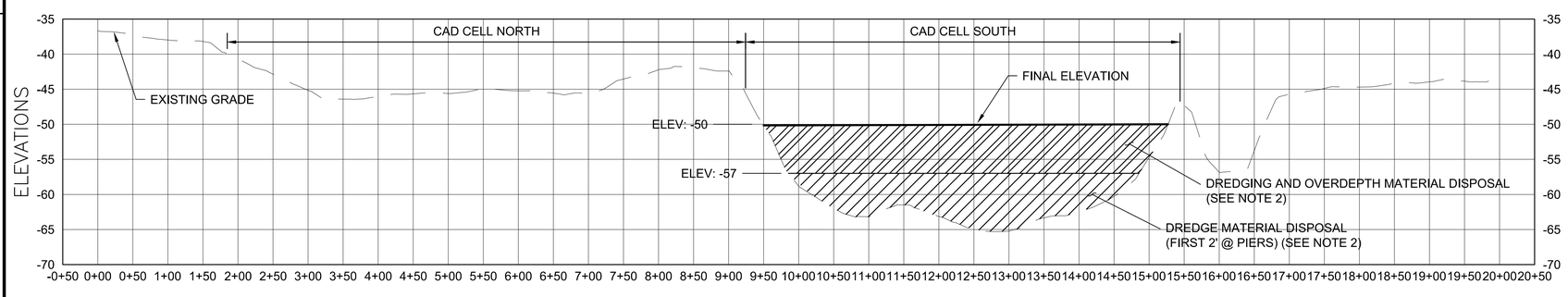
CN103, CN104 — C5



CAD CELL TRANSVERSE TYPICAL SECTION

HORIZ. SCALE: 1" = 100'
VERT. SCALE: 1" = 10'

CN105 — B3



CAD CELL LONGITUDINAL TYPICAL SECTION

HORIZ. SCALE: 1" = 100'
VERT. SCALE: 1" = 10'

CN105 — A3

GENERAL NOTES:

1. ELEVATIONS SHOWN ON THE DREDGING PLAN ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
2. FOR DREDGE AREAS ADJACENT TO/UNDERNEATH PIERS, THE TOP 2'-0" OF DREDGE MATERIAL SHALL BE PLACED IN THE CAD CELL FIRST. ALL OF THE DREDGE MATERIAL FROM THE TURNING BASIN AND THE UNDERLYING MATERIAL IN LOWER LAYER OF SEDIMENTS FROM THE DREDGE AREAS ADJACENT TO/UNDERNEATH PIERS SHALL BE USED AS CAPPING MATERIAL.

APPR	DATE	DESCRIPTION	SYM

NAVFAC

PRELIMINARY NOT FOR CONSTRUCTION

SEAL

A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY: XXXXX

SATISFACTORY TO DATE: MM/DD/YY

DES - DRW - CHK -

PM/DM –

BRANCH MANAGER – –

CHIEF ENG/ARCH –

FIRE PROTECTION –

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
CLCORE - HAMPTON ROADS

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CT

P1044 SUBMARINE PIER 31 EXTENSION

DREDGING TYPICAL SECTIONS

SCALE: AS NOTED

EPROJECT NO.: ##########

CONSTR. CONTR. NO.
########-##-#-#####

NAVFAC DRAWING NO.
CT–DEEP

SHEET - OF ##

CN301

DRAWFORM REVISION: 25 AUGUST 2020