Third Port Improvements Project Joint Base Langley-Eustis, Fort Eustis, Virginia

# APPENDIX H

Greater Atlantic Regional Fisheries Office Endangered Species Act Section 7: NLAA Program Verification



#### DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VIRGINIA 23510-1096

REPLY TO ATTENTION OF:

July 19, 2021

Operations Branch

Mark Murray-Brown Protected Resources Division National Marine Fisheries Service – Northeast Regional Office 55 Great Republic Drive Gloucester, Massachusetts 01930-2276

Dear Mr. Murray-Brown:

On behalf of Joint Base Langley Eustis – Fort Eustis (JBLE-Eustis), I am requesting verification under the USACE NLAA Program for the Third Port Improvements Project, located at JBLE-Eustis in Skiffes Creek, Newport News, Virginia. This project includes improvements to the Third Port in anticipation of the assignment of a new class of vessel to the port, as well as improvements designed to aid the entire fleet in the training and logistics missions of the port. A full description of the work and drawings are included in this package.

In accordance with the NLAA Program, the USACE, Norfolk District has determined that the action is not likely to adversely affect listed species per the justifications provided.

Should you have any questions or require further information on this submittal, please contact Dr. Megan Wood of my staff at <a href="mailto:megan.a.wood@usace.army.mil">megan.a.wood@usace.army.mil</a> or 757-201-7843. Thank you for your assistance.

Sincerely,

Date: 2021.07.19 15:37:51 -04'00'

Lesley Dobbins-Noble Chief, Operations Branch

Enclosures:

GARFO ESA Section 7: NLAA Program Verification Form

Appendix A: Project Description and Purpose

Drawings





#### **GARFO ESA Section 7: NLAA Program Verification Form**

(Please submit a signed version of this form, together with any project plans, maps, supporting analyses, etc., to <a href="mailto:nmfs.gar.esa.section7@noaa.gov">nmfs.gar.esa.section7@noaa.gov</a> with "USACE NLAA Program: [Application Number]" in the subject line)

#### **Section 1: General Project Details**

Appli	ication I	Number:			
Reini	tiation:				
Appli	icant(s):				
Perm	it Type:				
Antic	ipated p	project start date			
(e.g.,	10/1/20	)20)			
Antic	ipated p	project end date			
(e.g.,	12/31/2	2022 – if there is no permit			
expira	ation da	te, write "N/A")			
Proje	ct Type	/Category (check all that apply to	entire	action):	
	Aquac reef cr	ulture (shellfish) and artificial eation		Mitigation restoration)	(fish/wildlife enhancement or )
	Dredging and disposal/beach nourishment			Bank stabil	lization
	Piers, ramps, floats, and other			If other, de	scribe project type category:
	structures			, , , ,	,
Town	/City:		Zip:		
State:			Wate	r body:	

Proi	Project/Action Description and Purpose						
-		ant permit conditions that are no	t captu	rea	l elsewhere on	form):	
Туре	e of Botto	m Habitat Modified:	Perma	ne	nt/Temporary:	Area (acres):	
Dun	4 T -4:4	da (a. a. 42.625094)					
		de (e.g., 42.625884) tude (e.g., -70.646114)					
		ater (MLW)(m)					
		rater (MHW)(m)					
	th (m)	Stressor Category	Max extent (m)			nt (m)	
of w		(stressor that extends furthest di				r into the water body:	
body		water body – e.g., turbidity plur	ne; sou	nd			
actio	n area:	pressure wave):					
Section	on 2: ESA	<b>A-listed species and/or critical h</b>	abitat	in	the action are	a:	
	Atlantic	sturgeon (all DPSs)		_ [	Kemp's ridley	sea turtle	
	Atlantic	stargeon (an Di 53)		]	Kemp s naicy	sea turtie	
	Atlantic	sturgeon critical habitat			Loggerhead se	ea turtle	
		which DPS:		1	(NW Atlantic	DPS)	
	Shortnose sturgeon			1	Leatherback sea turtle		
				J			
	Atlantic salmon (GOM DPS)			]	North Atlantic	e right whale	
	Atlantic salmon critical habitat			,Τ	North Atlantic	=	
	(GOM D	OPS)			critical habitat		
	Green se	ea turtle (N. Atlantic DPS)		7	Fin whale		
		,					
* P16	ease consu	It GARFO PRD's ESA Section 7 M	apper fo	or F	ESA-listed speci	es and critical habitat	

<sup>\*</sup> Please consult GARFO PRD's ESA Section 7 Mapper for ESA-listed species and critical habitat information for your action area at: <a href="https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater">https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater</a>.

#### Section 3: NLAA Determination (check all applicable fields):

If the Project Design Criteria (PDC) is met, select Yes. If the PDC is not applicable (N/A) for your project (e.g., the stressor category is not included for your project activity, or for PDC 2, your project does not occur within the range of the GOM DPS of Atlantic salmon), select N/A. If the PDC is applicable, but is not met, leave both boxes blank and provide a justification for that PDC in Section 4.

a) G	ENER	AL PDC	
,			
Yes	N/A	PDC#	PDC Description
		1.	No portion of the proposed action will individually or cumulatively have an adverse effect on ESA-listed species or designated critical habitat.
		2.	No portion of the proposed action will occur in the tidally influenced portion of rivers/streams where Atlantic salmon presence is possible from April 10–November 7.
			<b>Note</b> : If the project will occur within the geographic range of the GOM DPS Atlantic salmon but their presence is not expected following the best available commercial scientific data, the work window does not need to be applied (include reference in project description).
		3.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as spawning grounds as follows:  i. Gulf of Maine: April 1–Aug. 31  ii. Southern New England/New York Bight: Mar. 15–Aug. 31  iii. Chesapeake Bay: March 15–July 1 and Sept. 15–Nov. 1
			<b>Note</b> : If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description).
		4.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as overwintering grounds, where dense aggregations are known to occur, as follows:  i. Gulf of Maine: Oct. 15–April 30  ii. Southern New England/ New York Bight: Nov. 1–Mar. 15  iii. Chesapeake Bay: Nov. 1–Mar. 15
			<b>Note</b> : If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description).
		5.	Within designated Atlantic salmon critical habitat, no portion of the proposed action will affect spawning and rearing areas (PBFs 1-7).
		6.	Within designated Atlantic sturgeon critical habitat, no work will affect hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand) (PBF 1).

Yes	N/A	PDC #	PDC Description			
		7.	Work will result in no or only temporary/short-term changes in water temperature, water flow, salinity, or dissolved oxygen levels.			
		8.	If ESA-listed species are (a) likely to pass through the action area at the time of year when project activities occur; and/or (b) the project will create an obstruction to passage when in-water work is completed, then a zone of passage (~50% of water body) with appropriate habitat for ESA-listed species (e.g., depth, water velocity, etc.) must be maintained (i.e., physical or biological stressors such as turbidity and sound pressure must not create barrier to passage).			
		9.	Any work in designated North Atlantic right whale critical habitat must have no effect on the physical and biological features (PBFs).			
		10.	The project will not adversely impact any submerged aquatic vegetation (SAV).			
		11.	No blasting or use of explosives will occur.			
		_	ressors are applicable to the action ply – use Stressor Category Table for guidance):			
	Sound	d Pressur	е			
	Impingement/Entrapment/Capture					
	Turbidity/Water Quality					
	Entar	nglement	(Aquaculture)			
	Habit	at Modif	ication			
	Vessel Traffic					

		Stressor Category				
Activity Category	Sound Pressure	Impingement/ Entrapment/ Capture	Turbidity/ Water Quality	Entanglement	Habitat Mod.	Vessel Traffic
Aquaculture (shellfish) and artificial reef creation	N	N	Y	Y	Y	Y
Dredging and disposal/beach nourishment	N	Y	Y	N	Y	Y

			Stressor Ca	tegory		
Activity Category	Sound Pressure	Impingement/ Entrapment/ Capture	Turbidity/ Water Quality	Entanglement	Habitat Mod.	Vessel Traffic
Piers, ramps, floats, and other structures	Y	N	Y	N	Y	Y
Transportation and development (e.g., culvert construction, bridge repair)	Y	N	Y	N	Y	Y
Mitigation (fish/wildlife enhancement or restoration)	N	N	Y	N	Y	Y
Bank stabilization and dam maintenance	Y	N	Y	N	Y	Y

#### c) SOUND PRESSURE PDC

#### **Information for Pile Driving:**

If your project includes non-timber piles\*, please attach your calculation to this verification form showing that the noise is below the injury thresholds of ESA-listed species in the action area. The GARFO Acoustic Tool is available as one source, should you not have other information:

 $\underline{https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultation-technical-guidance-greater-atlantic}$ 

\*Sound pressure effects from timber and steel sheet piles were analyzed in the NLAA programmatic consultation, so no additional acoustic information is necessary.

	Pile material	Pile	Number	Installation method
		diameter/width	of piles	
		(inches)		
a)				
b)				
c)				
d)				

See Appendix A for concrete sheet (d) information.

Yes	N/A	PDC#	PDC Descript	ion				
		12.	If pile driving	If pile driving is occurring during a time of year when ESA-listed species may				
				d the anticipated noise is above the behavioral noise threshold, a				
				required to allow animals an opportunity to leave the project				
				e sound pressure levels increase. <i>In addition to using a soft start</i>				
				at the beginning of the work day for pile driving, one must also be used at any				
			time following	time following cessation of pile driving for a period of 30 minutes or longer.				
			For impact pil	e driving: pile driving will commence with an initial set of three				
				hammer at 40% energy, followed by a one minute wait period,				
				equent 3-strike sets at 40% energy, with one-minute waiting				
				e initiating continuous impact driving.				
				<u>pile installation</u> : pile driving will be initiated for 15 seconds at y followed by a one-minute waiting period. This sequence of 15				
				luced energy driving, one-minute waiting period will be repeated				
				I times, followed immediately by pile-driving at full rate and				
			energy.	times, to nowed infinediately by pile driving at full face and				
			energy.	Chorgy.				
		13.	Any new pile	supported structure must involve the installation of $\leq 50$ piles				
			(below MHW	).				
		1.4						
Ш		14.		er noise (pressure) is below (<) the physiological/injury noise ESA-species in the action area.				
			tineshold for	ESA-species in the action area.				
d) II	MPINO	GEMENT	/ENTRAINME	ENT/CAPTURE PDC				
	_							
			edging/Disposa	li:				
	of dre	_	2	10437 22 1				
		e dredgin		If "Yes", how many acres?				
			was the last					
	ge cyclo			If "Yes", how many acres?				
	dredgi	_	dredging	If fes, now many acres?				
		red by pe						
			on measures					
required (e.g., cofferdam, turbidity curtain):								
If no exclusion measures required,								
explain why:								
			ake Structures	:				
Mesh	scree	n size (mr	n) for					
temporary intake:								

Yes	N/A	PDC#	PDC Description		
		15.	Only mechanical, cutterhead, and low volume hopper (e.g., CURRITUCK,		
			~300 cubic yard maximum bin capacity) dredges may be used.		
П		16.	No new dredging in Atlantic sturgeon or Atlantic salmon critical habitat		
			(maintenance dredging still must meet all other PDCs). New dredging outside		
			Atlantic sturgeon or salmon critical habitat is limited to one time dredge events		
			(e.g., burying a utility line) and minor ( $\leq 2$ acres) expansions of areas already		
			subject to maintenance dredging (e.g., marina/harbor expansion).		
		17.	Work behind cofferdams, turbidity curtains, or other methods to block access of		
			animals to dredge footprint is required when operationally feasible or beneficial		
			and ESA-listed species are likely to be present (if presence is limited to rare,		
			transient individuals, exclusion methods are not necessary).		
		18.	Temporary intakes related to construction must be equipped with appropriate		
			sized mesh screening (as determined by GARFO section 7 biologist and/or		
			according to Chapter 11 of the NOAA Fisheries Anadromous Salmonid Passage		
			Facility Design) and must not have greater than 0.5 fps intake velocities, to		
			prevent impingement or entrainment of any ESA-listed species life stage.		
		19.	No new permanent intake structures related to cooling water, or any other		
			inflow at facilities (e.g. water treatment plants, power plants, etc.).		
ŕ			ATER QUALITY PDC		
			rbidity Producing Activity (excluding disposal):		
		s turbidity			
		quired (e.	g., turbidity		
curta		<u> </u>			
		•	l measures		
		plain why	·		
			edged Material Disposal:		
	osal sit		Aving to		
		umber of	trips to		
	sal site				
		sposal site			
_	-		ions required		
		offshore d			
	include Group A, B, C, or relevant Long Island Sound consultation):				
Yes	N/A	PDC #	PDC Description		
168	IN/A	20.	Work behind cofferdams, turbidity curtains, or other methods to control		
		۷٠.	· · · · · · · · · · · · · · · · · · ·		
			turbidity is required when operationally feasible or beneficial and ESA-listed species are likely to be present (if presence is limited to rare, transient		
			individuals, turbidity control methods are not necessary).		
		21.	In-water offshore disposal may only occur at designated disposal sites that have		
		21.	been the subject of ESA section 7 consultation with NMFS, where a valid		
			consultation is in place and appropriate permit/special conditions are included.		
			constitution is in place and appropriate permit special conditions are included.		

Yes	N/A	N/A PDC # PDC Description							
		22.	Any temporary	y discharges must me	et state water quality standards (e.g., no				
					rations that may cause acute or chronic				
			adverse reaction	ons, as defined by EP	A water quality standards criteria).				
		23.			and improvements of existing discharge				
				ement in-kind are all	owed; no new construction of untreated				
			discharges.						
	f) ENTANGLEMENT PDC								
	_								
			uaculture Proje	ects:					
			e from shore						
	W)(m)		•						
			(approximate):						
			oproximate):						
		er of verti							
			zontal lines:						
			y removed						
		iter? If ye	s, which parts						
and v	vhen?	1. ~							
	Aqua	culture G	ear	Acreage (total	Type of Shellfish Cultivated				
				permit footprint)					
a)									
b)									
c)	NT/A	DDC "	DDC Day 1 41						
Yes	N/A	PDC#	PDC Descripti		-:				
		24.			ximum of 4 corner marker buoys;				
		25.			ing lines <5 acres and minimal vertical lines				
				f cages, 4 corner mar					
		26.			s and shallower than -10 feet MLLW with no				
				l minimal vertical lin	es (1 per string of cages, 4 corner marker				
			buoys);						
		27.	Floating upwe	ller docks in >10 feet	t MLLW.				
		28.	Any in-water l	ines, ropes, or chains	must be made of materials and installed in a				
					sk of entanglement by using thick, heavy,				
					tangle. Lines can be enclosed in a rigid				
			sleeve.	1	<i>5</i>				
	g) H	ABITAT	MODIFICATION	ON PDC					
Yes	N/A	PDC#	PDC Descripti	on					
		29.	No conversion of habitat type (soft bottom to hard, or vice versa) for						
			aquaculture or	reef creation.					

	h) V	ESSEL T	RAFFIC PDC						
Infor	matia	n for Voc	gal Traffia.						
111101		nation for Vessel Traffic:    Temporary Project Vessel Type   Number of Vessels							
			Troject vesser rype	1,022,021					
a)									
<u>b)</u>									
c)	T-		Communication Assessment	Name of Wares In					
		ype of Nor essels Ado	n-Commercial or Aquaculture	Number of Vessels (if sum > 2, PDC 33 is not met and justification					
			de if there is a net increase	required in Section 4)					
		•	rectly resulting from project)	,					
a)									
b)									
		-	mmercial Vessels Added	Number of Vessels					
	,	•	le if there is a net increase irectly resulting from project)	(if > 0, PDC 33 is not met and justification required in Section 4)					
a)	ai	recii y/ iriai	rectly resulting from project)	required in Section 4)					
b)									
			anent vessel						
			n (e.g., all						
	based 1 traffi		net increase in						
Yes	N/A	PDC #	PDC Description						
		30.	1	ating within the action area to speed limits below					
	ш			eeds of 4 knots maximum, while dredging.					
		31.		etween project vessels and ESA-listed whales and					
			1 0	ect vessels and sea turtles unless the vessel is					
			navigating to an in-water disposal site/activity. If the vessel is navigating to an						
			in-water disposal site/activity, refer to and include the conditions contained in the appropriate GARFO-USACE/EPA consultation for the disposal site.						
		32.	The number of project vessels must be limited to the greatest extent possible, as						
			appropriate to size and scale of						
		33.	<u> </u>	vessels resulting from a project (e.g.,					
			1 0	y) must not exceed two non-commercial vessels.					
			A project must not result in the vessels (e.g., a ferry terminal).	e permanent net increase of any commercial					
			vesseis (e.g., a left y termillar).						

#### Section 4: Justification for Review under the NLAA Program

If the action is not in compliance with all of the General PDC and appropriate stressor PDC, but you can provide justification and/or special conditions to demonstrate why the project still meets the NLAA determination and is consistent with the aggregate effects considered in the programmatic consultation, you may still certify your project through the NLAA program using

this verification form. Please identify which PDC your project does not meet (e.g., PDC 9, PDC 15, PDC 22, etc.) and provide your rationale and justification for why the project is still eligible for the verification form.

To demonstrate that the project is still NLAA, you must explain why the effects on ESA-listed species or critical habitat are **insignificant** (i.e., too small to be meaningfully measured or detected) or **discountable** (i.e., extremely unlikely to occur). **Please use this language in your justification.** 

PDC#	Justification

The total anticipated area of new work dredging is approximately 3.9 acres, and the anticipated area of maintenance dredging is approximately 0.25 acre. All new work and maintenance dredging is outside of critical habitat for Atlantic sturgeon and will be accomplished by either cutterhead or mechanical dredges. The area is a critical military training and port facility. The types of dredges used pose little risk to juvenile, subadult, and adult Atlantic sturgeon. Skiffes Creek is primarily a foraging grounds for juvenile, subadult, and adult Atlantic sturgeon. Anticipated impacts to prey species are expected to be temporary. Water quality impacts to sturgeon present in the dredging area will be temporary and minor due to the mobility of the species to avoid impacted areas and the relatively quick return of water quality to ambient conditions due to re-deposition of suspended sediments. Therefore, any effects to ESA-listed species of this action are insignificant and discountable.

#### **Section 5: USACE Verification of Determination**

	In accordance with the NLAA Program, USACE has determined that the action complies with all applicable PDC and is not likely to adversely affect listed species.				
$\checkmark$	In accordance with the NLAA Program, the USACE has determined that the action is not likely to adversely affect listed species per the justification and/or special conditions provided in Section 4.				
	USACE Signature: Date:				
Jessey Robbins from Date: 2021.08.09 13:10:08 -04'00'		08/09/2021			

#### **Section 6: GARFO Concurrence**

	In accordance with the NLAA Program, GARFO PRD concurs with USACE's			
	determination that the action complies with all applicab	ole PDC and is not likely to		
	adversely affect listed species or critical habitat.			
	In accordance with the NLAA Program, GARFO PRD	concurs with USACE's		
	determination that the action is not likely to adversely a	affect listed species or critical		
	habitat per the justification and/or special conditions pr	ovided in Section 4.		
GARFO PRD does not concur with USACE's determination that the action co				
	with the applicable PDC (with or without justification),	and recommends an		
	individual Section 7 consultation to be completed indep	pendent from the NLAA		
	Program.			
GARFO Signature: Date:				
Brian D Hopper		8/10/2021		

# Third Port Improvements Project NAO-2020-00611

#### **Appendix A: Project Purpose and Description**

The Third Port Improvements Project will take place at the Third Port located on Joint Base Langley-Eustis – Fort Eustis (JBLE-Eustis) in Skiffes Creek, a tributary of the James River, in Newport News, Virginia. The purpose of the project is to prepare JBLE-Eustis for up to 10 new vessels that will be assigned to the Third Port in the near future. This new class of vessels will berth along the finger piers; however, the new vessels are longer (117 feet in length) than vessels in the existing fleet that berth in the finger pier area and require improvements to berthing areas and access to the turning basin. Additionally, other improvements will be executed to increase the useable waterway for the vessel fleet, including the new vessels, and to aid in training for cargo logistics and vessel operations. The new vessels will replace older vessels in the fleet; there will be no net increase in the number of vessels in the fleet. All proposed work will be constructed from the water. The project involves multiple phases that may be constructed either consecutively or concurrently across multiple funding years depending on funding availability. See Figure 1 for the general location of project areas.



**Figure 1.** Project areas at the Third Port within Skiffes Creek: 1) finger piers; 2) mooring field; 3) landship; and 4) general's ramp.

#### **Finger Piers**

The finger piers provide berthing for the current fleet of support vessels at the Third Port. They are currently constructed of timber decking on timber piles, and timber mooring dolphins are located along the piers for berthing. The condition and size of the existing piers is not adequate to accommodate the new class of vessels (117 feet in length) that will be berthed at the Third Port. Additionally, the existing dolphins lack a fendering system with rubber energy absorbers, which has resulted in damage both to the timber piles and to vessels. The need for the proposed action is to improve the finger piers to accommodate the new vessels. This is proposed to be accomplished by removing the timber piers and mooring dolphins and replacing them. See Table 1 for a summary of proposed construction elements.

Pier 8 is intended to be replaced with a concrete pile-supported concrete pier and would be extended from 93 feet to 132 feet in length relative to the existing bulkhead. The concrete pier would be supported by 41 concrete piles (20-inch square), which would be installed using impact hammering. Piers 9 – 14 would be replaced with five concrete mooring dolphin/gangway structures; one existing pier would be eliminated. Pier 9 would be extended from 93 feet to 122 feet in length relative to the existing bulkhead, and the remaining four piers would be extended from 53 feet to 122 feet in length relative to the existing bulkhead. For the five piers replacing Piers 9 – 14, 20 concrete piles (20-inch square) would be installed using impact hammering for each pier, totaling 100 piles.

The new vessels are stern-loading and require stable support for loading ramps. A stern ramp support platform is proposed to be constructed along the length of the bulkhead east of Pier 8 and would be approximately 542 feet in length. The concrete stern ramp would be supported by 55 concrete piles (20-inch square).

To reduce wave action in the berthing area that may damage berthed ships, a wave screen is proposed to be installed along the western side of Pier 8. The wave screen would be approximately 126 feet in length and would be constructed of concrete sheet piles (30 inches long x 12 inches wide) installed using impact hammering. Hydrodynamic modeling will determine the appropriate level of porosity of the wave screen.

Sediment accretion in the finger pier berthing area has reduced the operational depths in portions of the area. New work dredging will deepen the berthing area (approximately 1.9 acres of unvegetated subaqueous bottom) between the toe of the channel and the bulkhead that supports the finger piers from the existing mudline (varies from approximately -2 feet to -19 feet MLLW) to -17 feet MLLW (maximum allowable depth of -18 feet MLLW). Approximately 14,000 cubic yards of new work dredged material would be removed from the berthing area. Approximately 11,000 cubic yards of material will be removed during each future maintenance cycle. See Table 1 for a summary of proposed new work dredging elements.

**Table 1.** Construction elements for the finger pier area. Please note that the anticipated construction timeline and project phasing are subject to change based on funding availability.

Structures	Structures					
Construction	Construction	Length (feet)	Pile number and	Pile		
Phase	Element		type	Size/Dimensions		
Phase 1 (FY23)	Pier 8	132	41 concrete piles	20" square		
	Pier 9	122	20 concrete piles	20" square		
	Pier 10	122	20 concrete piles	20" square		
	Wave Screen	126*	Concrete sheet	30" x 12"		
	Stern Ramp	240	24 concrete piles	20" square		
Phase 2 (FY24+)	Pier 11	122	20 concrete piles	20" square		
	Pier 12	122	20 concrete piles	20" square		
	Pier 13	122	20 concrete piles	20" square		
	Stern Ramp	302	31 concrete piles	20" square		
Dredging						
Construction	Construction	Area (acres)	Volume (cubic	Anticipated		
Phase	Element		yards)	placement area		
Phase 1 (FY23)	Dredging (Piers	1.1	6,500	FEDMMA		
	8-10)					
Phase 2 (FY24+)	Dredging (Piers	0.8	7,500	FEDMMA		
	11-13)					

<sup>\*</sup>Hydrodynamic modeling will determine the appropriate level of porosity (i.e., number and spacing of gaps in the wave screen).

#### **Mooring Field**

The mooring field is located north of and across Skiffes Creek from the finger piers. The field is approximately 850 feet long and extends north from the James River into Skiffes Creek. Timber mooring dolphins, spaced approximately 50 feet apart, provide mooring for the modular causeway system (MCS). These dolphins lack appropriate fendering and have become damaged. Additionally, there is substantial accretion along the shoreline in the area which has resulted in the relocation of the MCS further into the navigable waterway. The need for the proposed action is to realign and deepen the mooring field to increase the useable waterway without impacting existing wetlands, to provide the new vessel class with adequate access to the turning basin, and to facilitate the use of the mooring dolphins. See Table 2 for a summary of proposed construction elements.

Existing timber piles are proposed to be replaced with 22 steel monopiles (36-inch diameter) spaced approximately 50 feet apart. Timber piles are proposed to be removed from the area of the existing mooring field alignment; piles located in the creek would be pulled from the sediment, while piles located above the tideline would be cut at ground level. The new mooring field would be approximately 950 linear feet long and would be located further upstream in Skiffes Creek than the existing mooring field. The proposed alignment will improve operations within the navigable waterway.

Additionally, the installation of either subaqueous riprap or subaqueous bulkhead (approximately 950 linear feet each) behind or between the monopiles would mitigate the potential for shoreline accretion in the area channelward of the moorings. Approximately 0.75 acre of unvegetated subaqueous bottom would be hardened due to the installation of riprap, while the bulkhead would harden approximately 0.05 acres of unvegetated subaqueous bottom. Installation of the riprap sill would require dredging in the footprint before mattresses and stone fill could be placed (see Table 2). The bulkhead would be installed using impact hammering.

Maintenance and new work dredging to re-establish operational depths for training and mission requirements would deepen the area (approximately 1.5 acres of unvegetated subaqueous bottom) between the toe of the channel and the mooring field from the existing mudline (varies from approximately -2 feet to -11 feet MLLW) to a depth of -11 feet MLLW (maximum allowable depth of -14 feet MLLW). Approximately 1,000 cubic yards of maintenance dredged material and 10,000 cubic yards of new work dredged material would be removed from the mooring field access area. Approximately 11,500 cubic yards of additional material would be removed once to construct the riprap sill. Future maintenance events will remove approximately 8,000 cubic yards of material from the access area during each maintenance cycle. See Table 2 for a summary of proposed maintenance and new work dredging elements.

**Table 2.** Construction elements for the mooring field area. Please note that the anticipated construction timeline and project phasing are subject to change based on funding availability.

Structures		<u>-</u>		•
Construction Phase	Construction Element	Length (feet)	Pile number and type	Pile size
Phase 1 (FY23)	Mooring realignment	950	22 steel monopiles	36"
	Sill alternative 1: bulkhead	950	Steel sheet	24"
	Sill alternative 2: riprap	950 (variable width; typically 24 feet wide)		
Dredging				
Construction Phase	Construction Element	Area (acres)	Volume (cubic yards)	Anticipated placement area
Phase 1 (FY23)	Mooring realignment – maintenance*	0.25	1,000	
	Mooring realignment – new work*	1.25	10,000	FEDMMA
	Still alternative 2: riprap	0.75	11,500	FEDMMA

<sup>\*</sup>Dredging of the access area channelward of the mooring field, which will be dredged regardless of alternative chosen.

#### Landship

The landship is a stationary mock cargo vessel hull used for training Army personnel. The mock vessel sits on a concrete deck supported by concrete piles. Previously, the landship had mooring dolphins and catwalks along the channel side for training and access. Monopile dolphins with fendering and a steel pile-supported gangway will be installed along the landship. To support the gangways, 14 steel pipe piles (24-inch) will be installed, while 8 steel monopiles (36-inch) will be installed to support the fender assembly. Table 3 provides a summary of proposed construction elements.

**Table 3.** Construction elements for the landship. Please note that the anticipated construction timeline and project phasing are subject to change based on funding availability.

Structures			
Construction	Construction	Pile number and	Pile size
Phase	Element	type	
Phase 2 (FY24+)	Gangway	14 steel	24"
		monopiles	
	Fendering	8 steel	36"
		monopiles	

#### General's Ramp

The general's ramp is located at the southeast corner of the Third Port facility. The general's ramp is a gently sloped concrete ramp used to load and unload wheeled cargo. The area of the ramp adjacent to Goose Island has experienced accretion of sandy material along the shoreline, which has hindered vessel movement in the area. A subaqueous steel sheet bulkhead (approximately 200 linear feet) will be installed perpendicular to the shore at the southeast edge of the general's ramp to prevent sloughing of material or slope slip failure into the basin while protecting existing wetlands. A steel monopile (36-inch) and donut fender assembly will protect the channelward end of the bulkhead. Approximately 0.01 acres of unvegetated subaqueous bottom will be hardened due to the bulkhead. Table 4 provides a summary of proposed construction elements.

**Table 4.** Construction elements for the general's ramp. Please note that the anticipated construction timeline and project phasing are subject to change based on funding availability.

Structures					
Construction	Construction	Length (feet)	Pile number and	Pile size	
Phase	Element		type		
Phase 1 (FY24+)	Bulkhead	200	Steel sheet	24"	
	Fendering		1 steel monopile	36"	

#### **Debris Removal**

Debris created from the removal of existing structures, including timber piles, decking, and other debris, would be removed from the work area via barge and placed in containers on land. The debris would then be trucked to a nearby landfill or other appropriate disposal facility.

#### **Dredging Methods**

New work and current and future maintenance dredging would be conducted by mechanical dredge, hydraulic cutterhead dredge, or a combination of both plant types consistent with the most economical and environmentally acceptable alternative. If mechanical dredges are used, dredged material would be removed from the channel and placed onto a scow or barge. Dredged material may be pumped out of the scow and placed via pipeline into Fort Eustis Dredged Material Management Area (FEDMMA), a nearby upland placement site, if that is identified as the appropriate placement site. If hydraulic cutterhead dredges are used, dredged material would be hydraulically pumped via pipeline into FEDMMA. The dredged material would be hydraulically pumped through a pipeline (typically 16" – 20" diameter) varying in length from approximately 4,000 feet to 6,000 feet, depending on the distance to the FEDMMA. The pipeline would run over water, supported by floatation devices, to the shoreline, then cross Harrison Road and into FEDMMA. If dredged material placement capacity is not available at FEDMMA, the scow or barge may be transported for placement of dredged material at the Norfolk Ocean Disposal Site (NODS) if that is identified as the appropriate placement site.

# **Pile Driving Effects Analysis Third Port Improvements Project**

This effects analysis used the GARFO Acoustics Tool (published 14 September 2020) to estimate pile driving impacts of the Third Port Improvements Project on Atlantic sturgeon. Estimates are based on the Simplified Attenuation Formula (SAF) used for projects in rivers and nearshore environments. For this project, installation of all piles may be by either impact or vibratory hammer; therefore, proxy projects using impact hammers were chosen to estimate the maximum effects of the project. The next largest or nearest pile size was selected. Note that the project includes the proposed installation of concrete sheet pile to form a wave screen. Concrete piles (24-inch) were used to estimate the effects of installing concrete sheet piles.

Table 1: Proxy Projects for Estimating Underwater Noise

<b>Project Location</b>	Water Depth (m)	Pile Size (inches)	Pile Type	Hammer Type	Attenuation rate (dB/10m)
Not Available	15	24"	AZ Steel Sheet	Impact	5
Not Available	<5	36"	Steel Pipe	Impact	5
Not Available	5	24"	Concrete	Impact	5
Rodeo, CA - San Francisco Bay, CA	5	24"	Steel Pipe	Impact	3

Table 2: Proxy-Based Estimates for Underwater Noise

Type of Pile	Hammer Type	Estimated Peak Noise Level (dB <sub>Peak</sub> )	Estimated Pressure Level (dB <sub>RMS</sub> )	Estimated Single Strike Sound Exposure Level (dB <sub>sSEL</sub> )
24" AZ Steel Sheet	Impact	205	190	180
36" Steel Pipe	Impact	208	190	180
24" Concrete	Impact	185	170	160
24" Steel Pipe	Impact	203	189	178

Table 3: Estimated Distances to Sturgeon/Salmon Injury and Behavioral Thresholds

Type of Pile	Hammer Type	Distance (m) to 206dB <sub>Peak</sub> (injury)	Distance (m) to 150 dB <sub>sSEL</sub> (surrogate for 187 dBcSEL injury)	Distance (m) to Behavioral Disturbance Threshold (150 dB <sub>RMS</sub> )
24" AZ Steel Sheet	Impact	8.0	70.0	90.0
36" Steel Pipe	Impact	14.0	70.0	90.0
24" Concrete	Impact	NA	30.0	50.0
24" Steel Pipe	Impact	0.0	103.3	140.0

# Skiffes Creek Improvements Project



July 1, 2021

#### Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Other



Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# **Chesapeake Bay Map**

Disclaimer: this GIS data is not guaranteed to be accurate and complete at any given time. Although it is expected that the data will be used for regulatory and permitting processes, any user of this data should verify their use of the data with Marine Resources Commission and/or VDH Division of Shellfish Sanitation staff before taking action or otherwise using the data to make decisions, particularly when related to regulatory and permitting processes, or any other legal action.

Cursor Lat / Long: N37-11.1919, W76-33.5437				
Click Lat / Long:				



# **Map Layers Shellfish Grounds** ✓ ☐ Private Oyster Ground Leases Oyster Ground Applications Shellfish Condemnation Zones By VDH Open Harvest Areas 4 VAC 20-720 ☑ Public Grounds ☑ Public Clamming Grounds ✓ ☐ Oyster Sanctuaries ☐ State Marsh and Meadow Lands ☑ Submerged Aquatic Vegetation Sanctuaries

## Fixed Fishing Devices

Pound Nets

☐ **Q** Staked Gill Nets

☐ **?** Fyke Nets

### **Habitat Permits**

☐ 🐉 Habitat Permit Applications in 2017

☐ PRFC Jones Shore Special Mgmt Area

☐ 孝 Habitat Permit Applications in 2018

☐ ≰ Habitat Permit Applications in 2019

☐ 

 Habitat Permit Applications in 2020

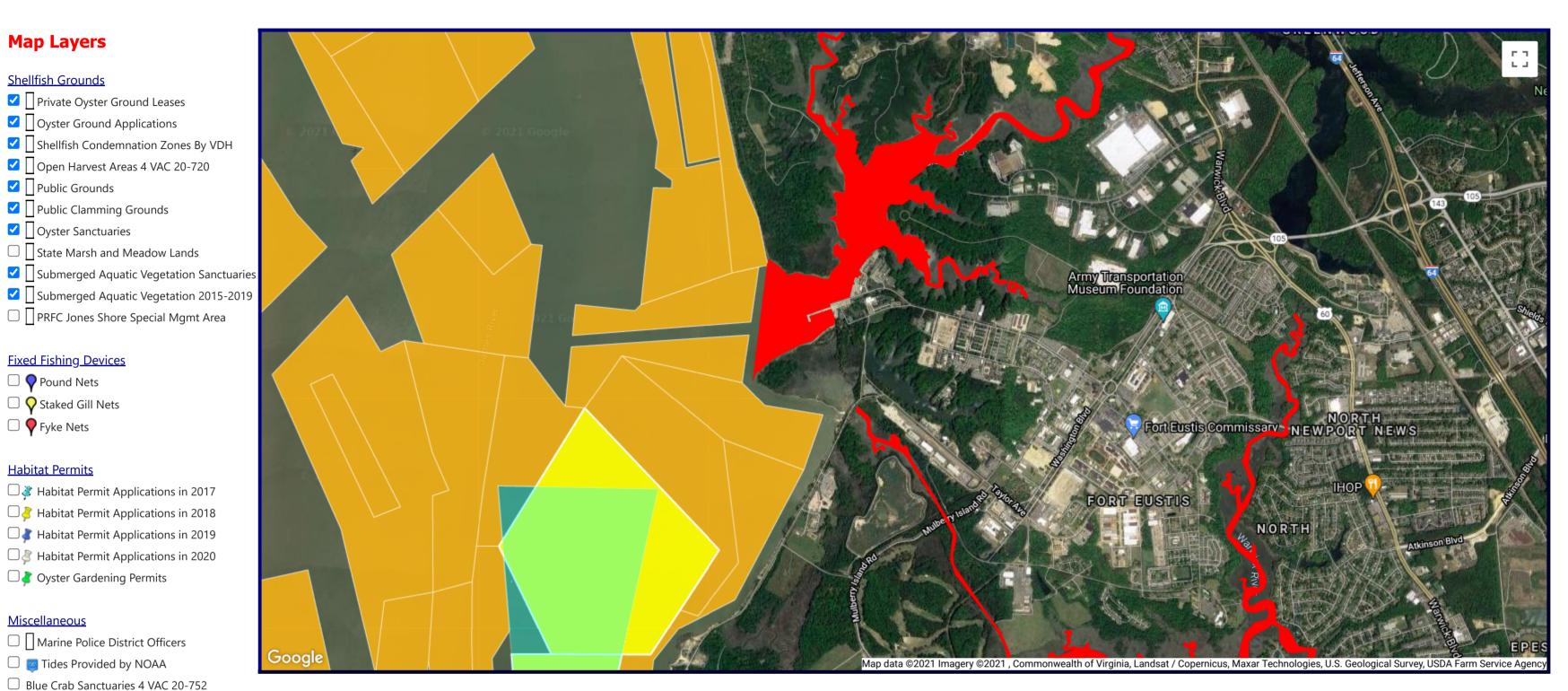
Oyster Gardening Permits

## <u>Miscellaneous</u>

☐ Marine Police District Officers

🗆 🥃 Tides Provided by NOAA

☐ Blue Crab Sanctuaries 4 VAC 20-752





US Army Corps of Engineers

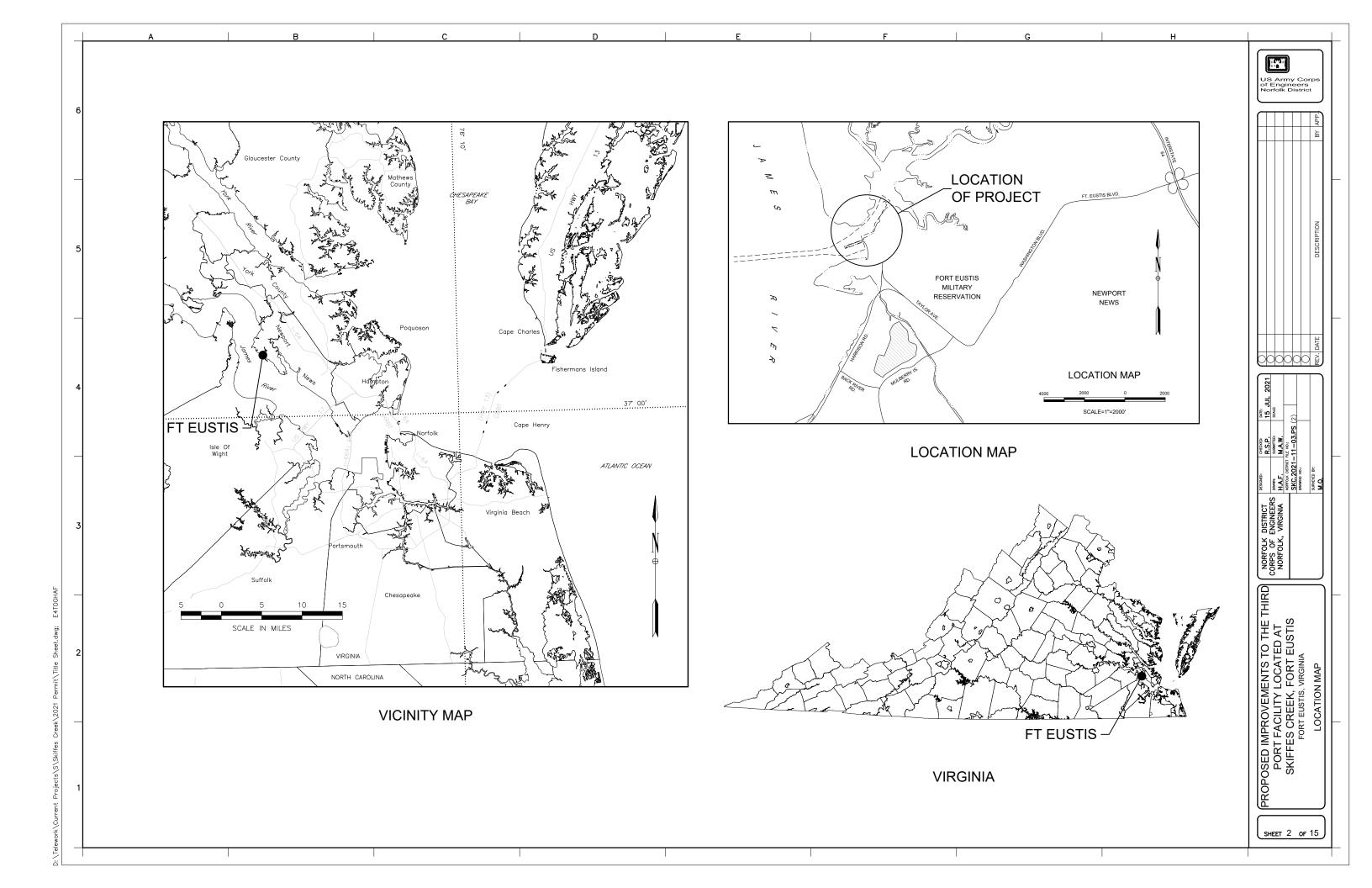
Norfolk District

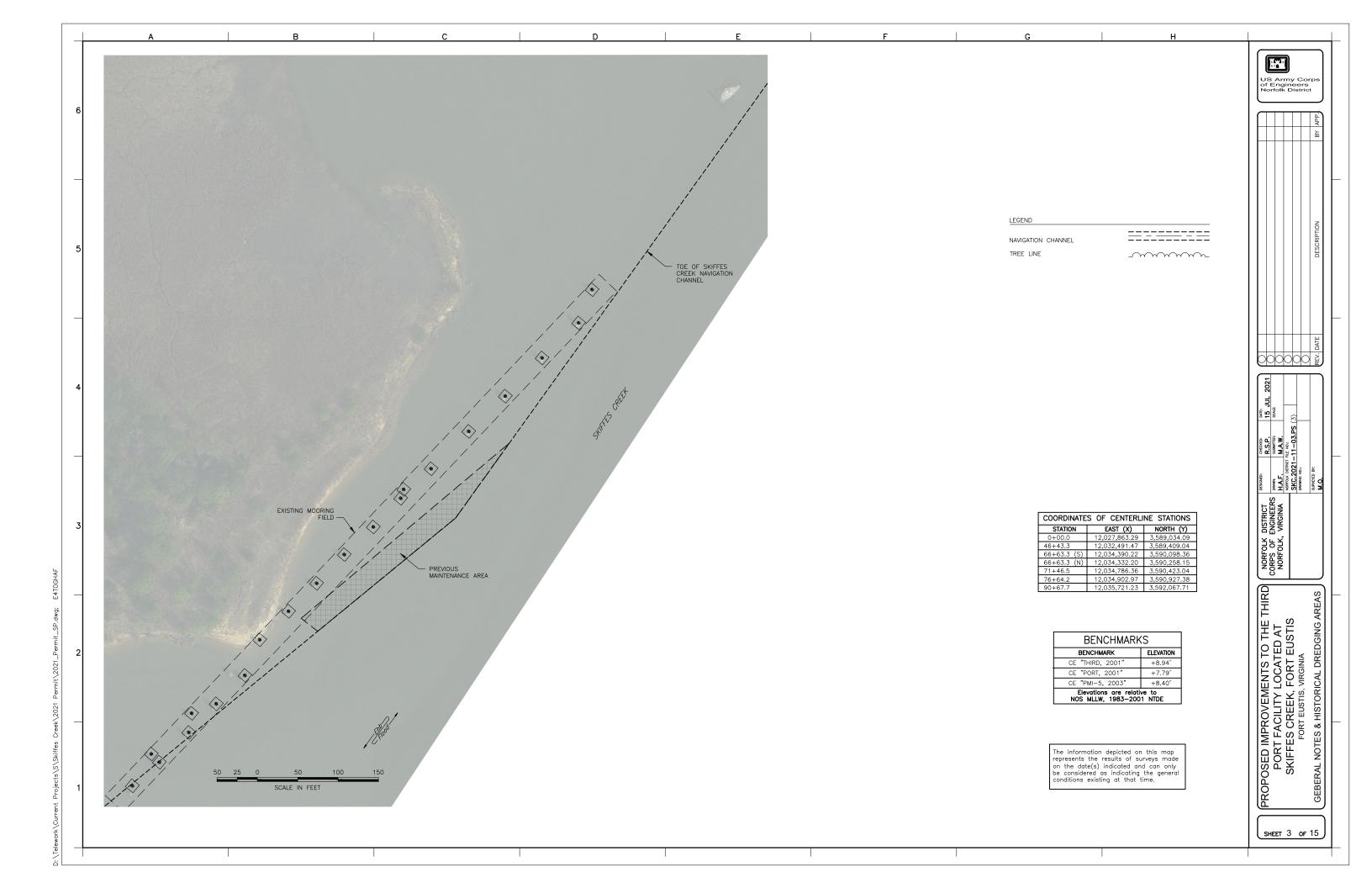
# PROPOSED IMPROVEMENTS TO THE THIRD PORT FACILITY LOCATED AT SKIFFES CREEK, FORT EUSTIS FORT EUSTIS, VIRGINIA

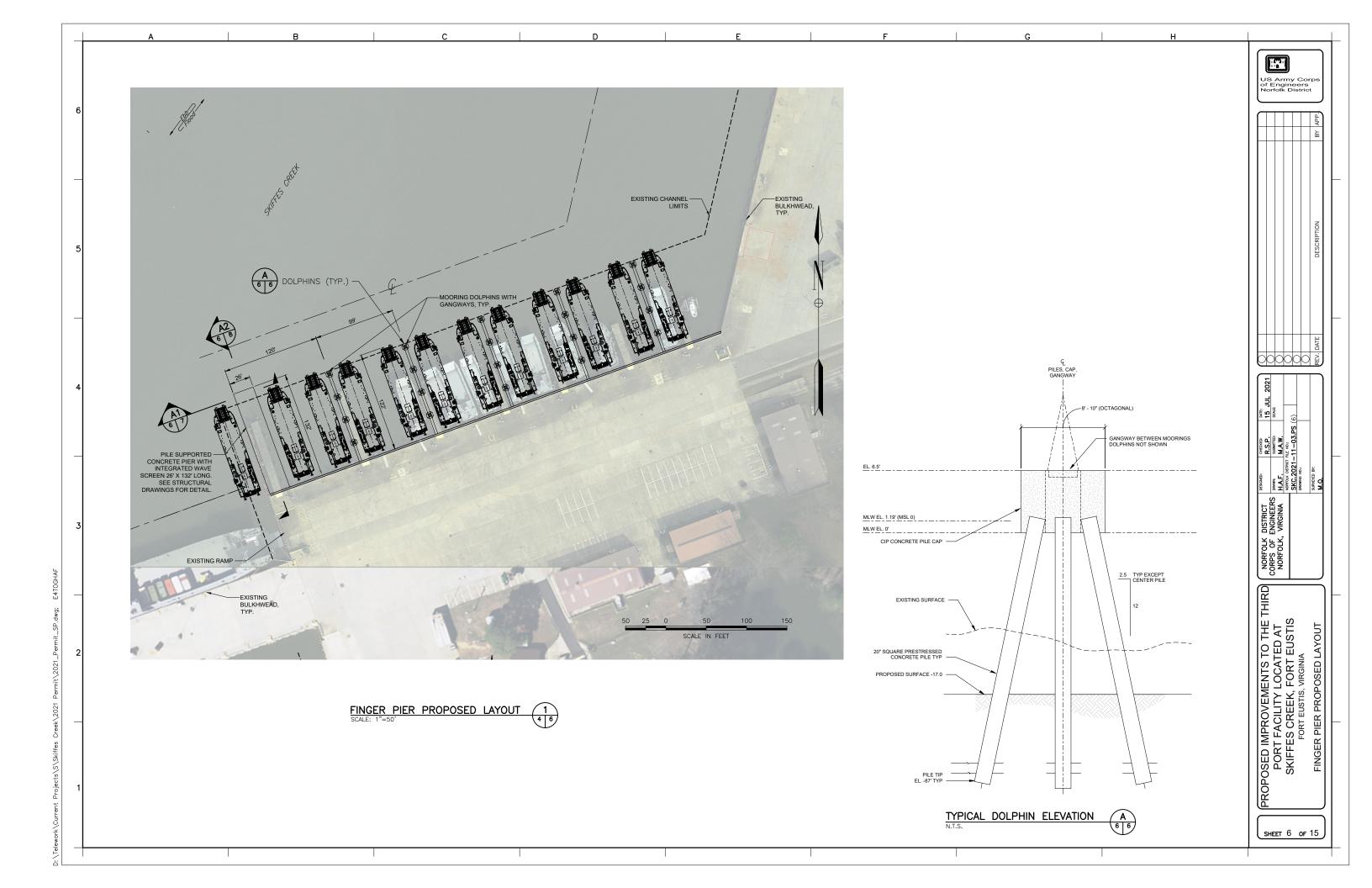
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Sheet Number	Sheet Title				
1	TITLE SHEET				
2	LOCATION MAP				
3	GEBERAL NOTES & HISTORICAL DREDGING AREAS				
4	OVERALL MAP				
5	FINGER PIER EXISTING CONDITION				
6	FINGER PIER PROPOSED LAYOUT				
7	PROPOSED FINGER PIER DETAIL				
8	PROPOSED FINGER PIER DETAIL (CONT'D)				
9	NEW WORK - DREDGING AREAS				
10	EXISTING CONDITION - MOORING FIELD SITE				
11	PROPOSED LAYOUT MOORING FIELD SITE OPTION A - RIPRAP SILL				
12	PROPOSED LAYOUT MOORING FIELD SITE OPTION B — BULKHEAD SILL				
13	LANDSHIP AREA				
14	GERERALS RAMP				
15	DEBRIS REMOVAL				

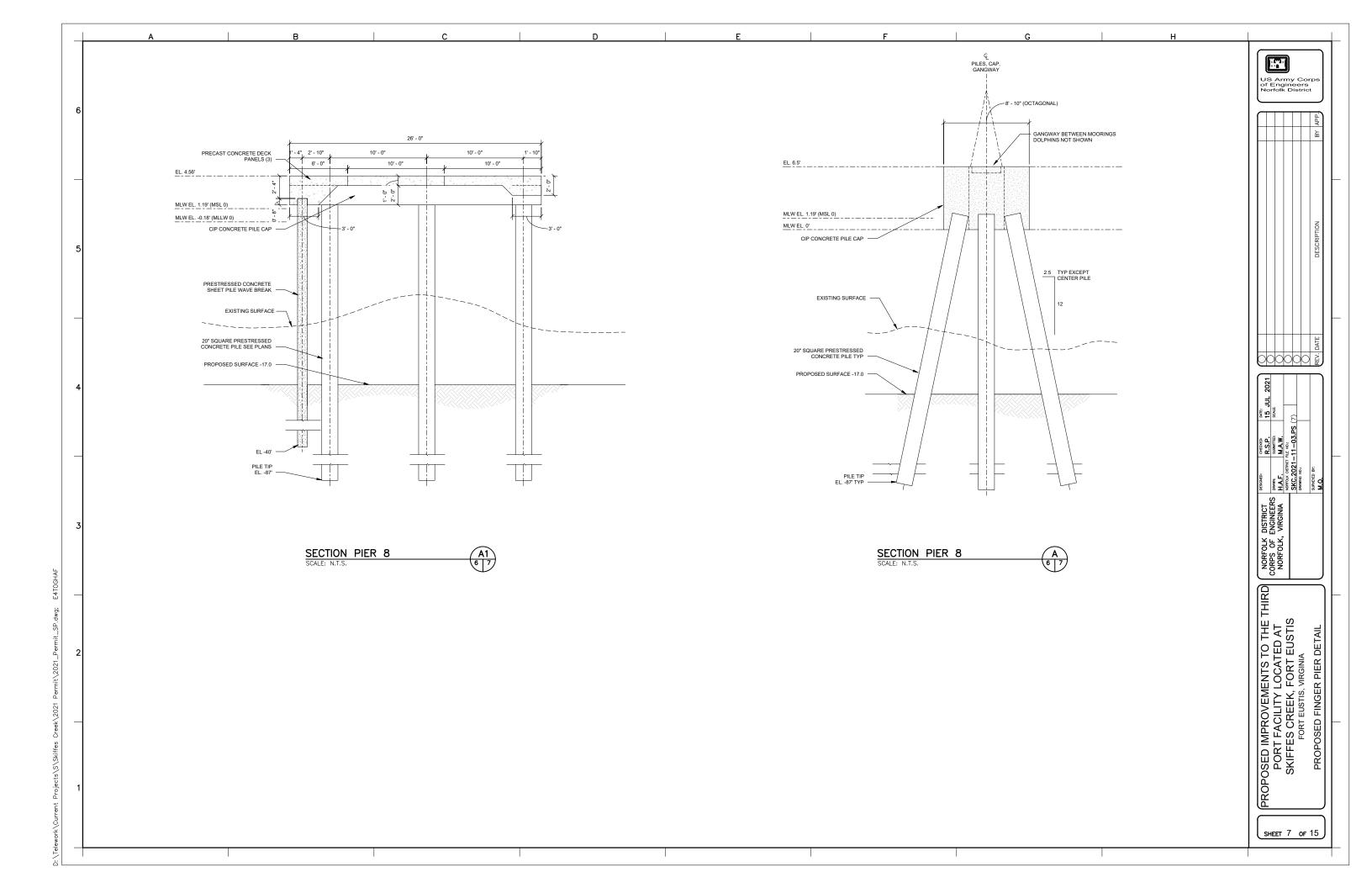
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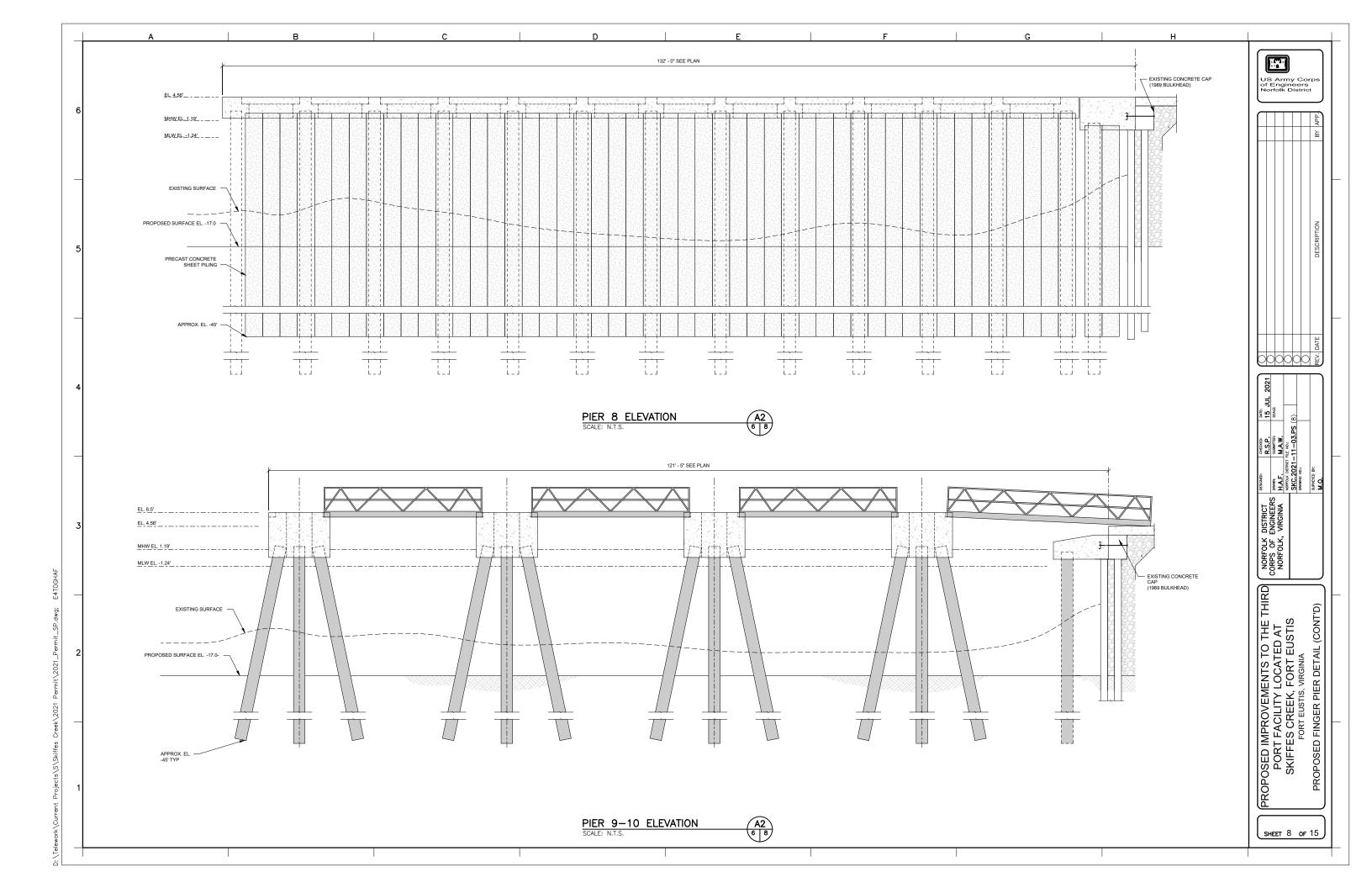
work\Current Projects\S\Skiffes Creek\2021 Permit\Title Sheet.dwg; E

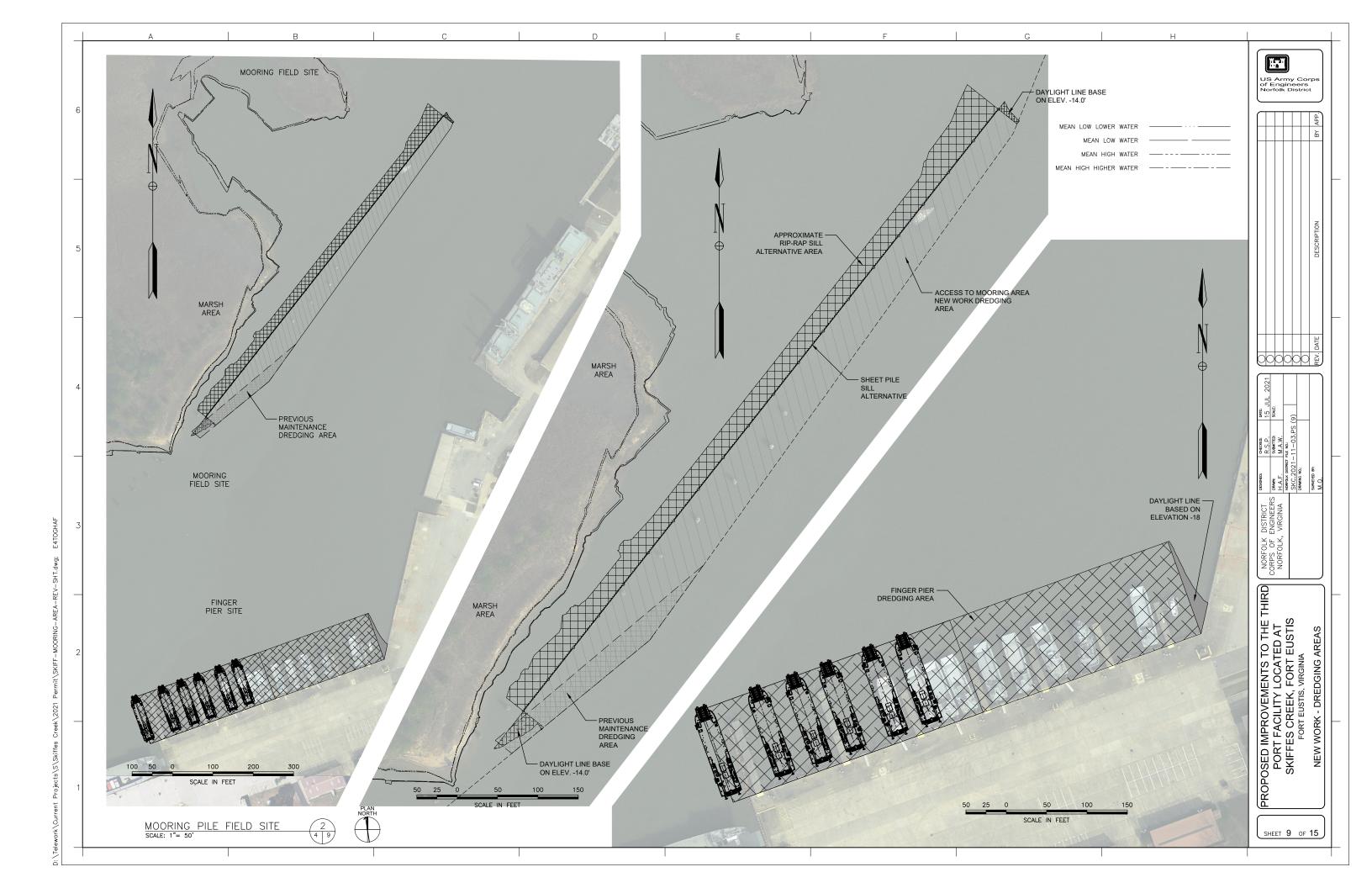


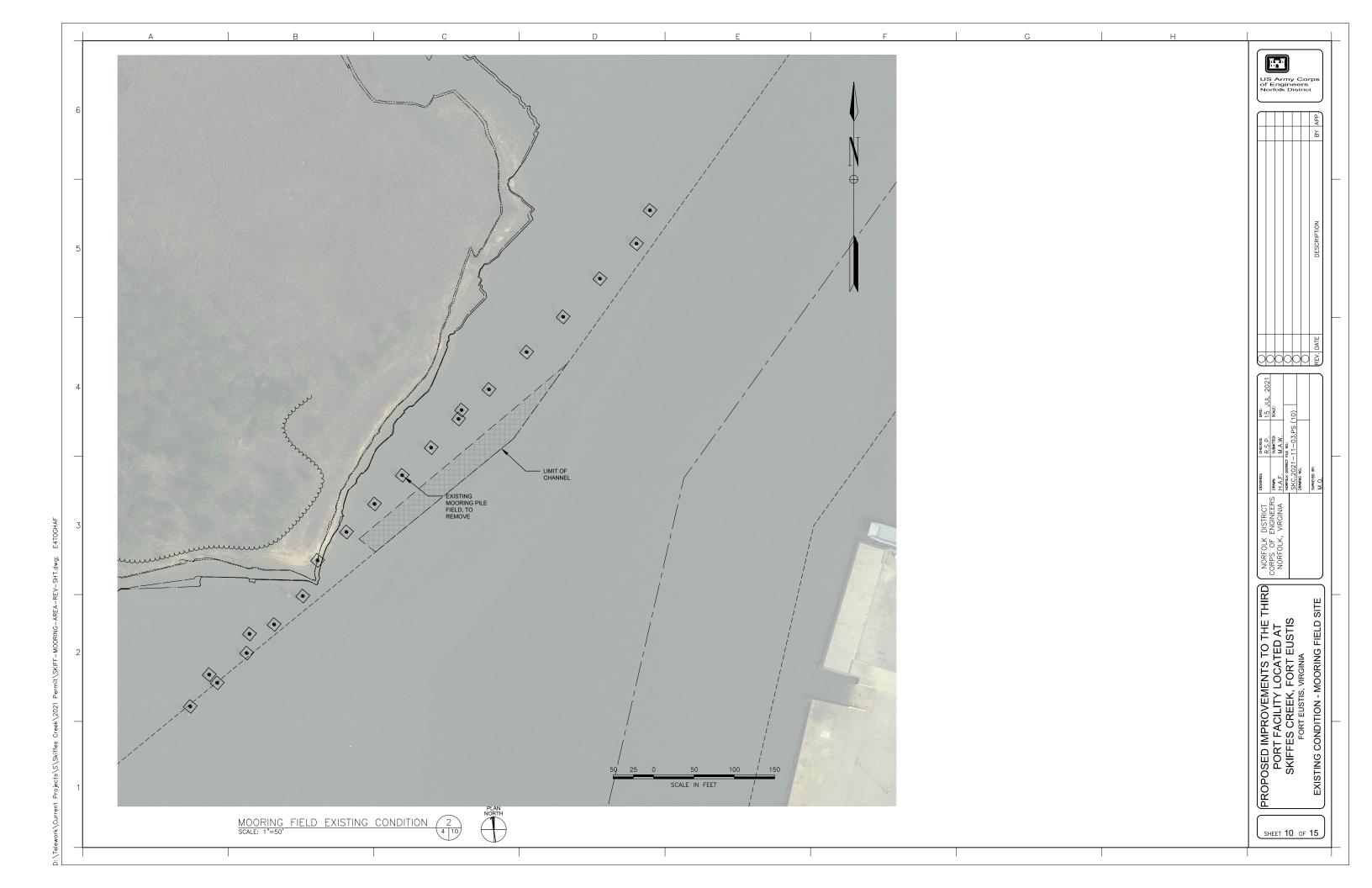


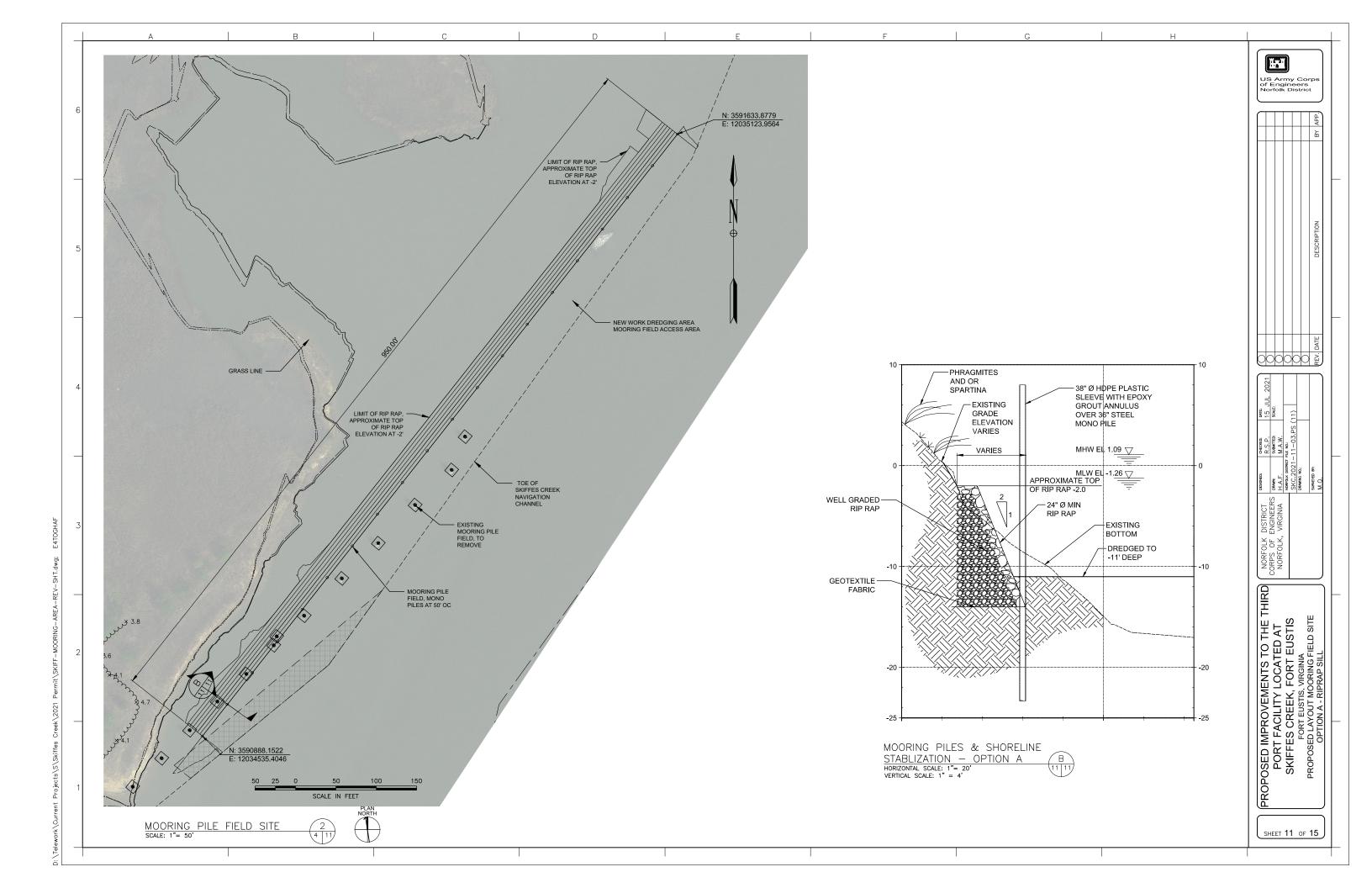


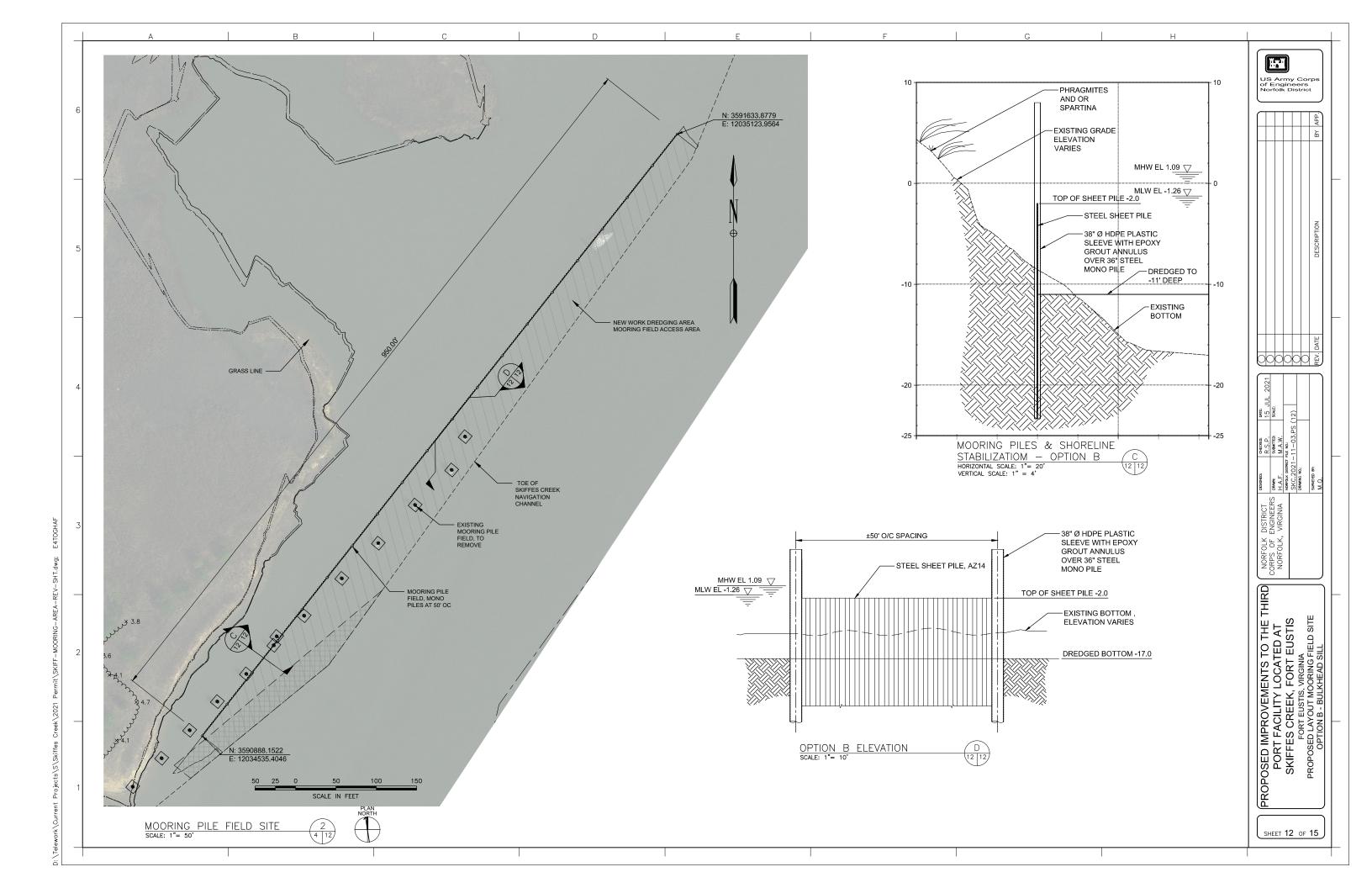


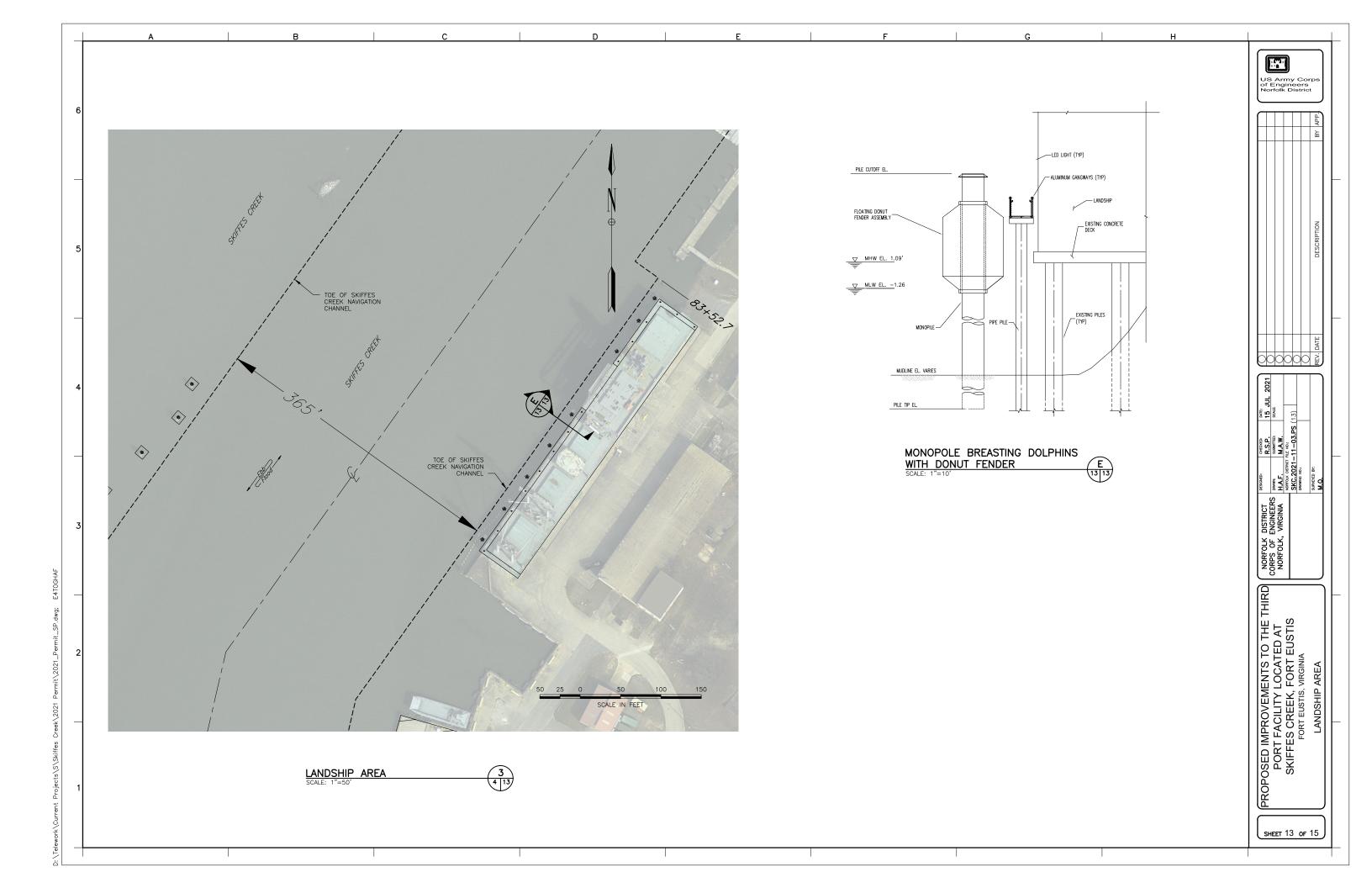


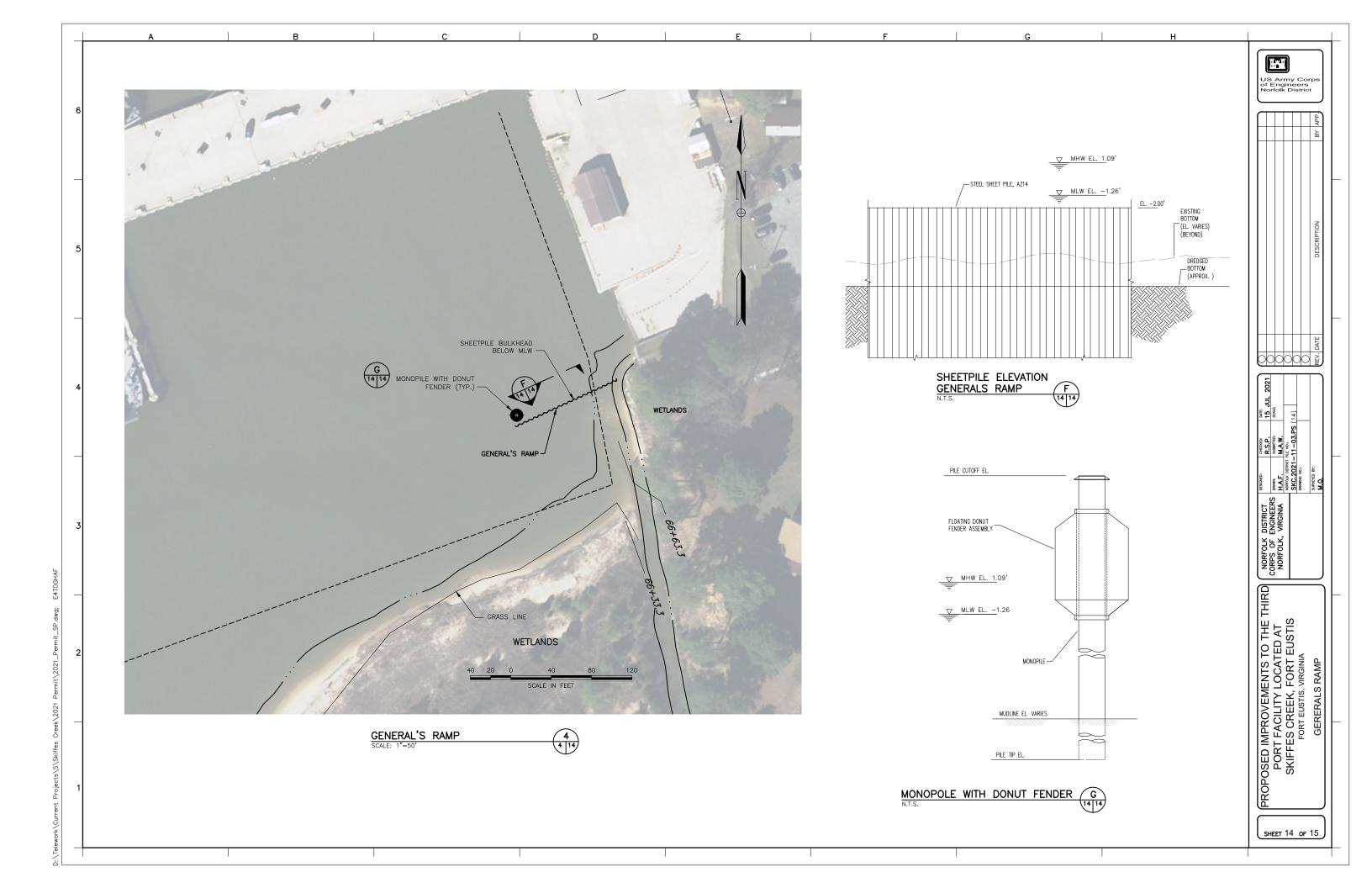














Brian D Hopper - NOAA Federal From:

Wood, Megan A CIV USARMY CENAO (USA) To:

Subject: Re: [Non-DoD Source] Re: USACE NLAA Program: Third Port Improvements Project (NAO-2020-00611)

Date: Tuesday, August 10, 2021 10:35:24 AM

Attachments: final NAO-2020-00611.pdf

for your records

On Tue, Aug 10, 2021 at 8:21 AM Wood, Megan A CIV USARMY CENAO (USA)

Megan.A.Wood@usace.army.mil> wrote:
Brian, see attached. I printed the signature page like last time so you wouldn't have issues. I also added the sheet pile number in the noise section, although it doesn't allow decimals.
Thanks!
Megan
From: Brian D Hopper - NOAA Federal < brian.d.hopper@noaa.gov > Sent: Tuesday, August 10, 2021 8:01 AM  To: Wood, Megan A CIV USARMY CENAO (USA) < Megan.A.Wood@usace.army.mil > Subject: Re: [Non-DoD Source] Re: USACE NLAA Program: Third Port Improvements Project (NAO-2020-00611)
just the form, please. thanks!
On Mon, Aug 9, 2021 at 3:07 PM Wood, Megan A CIV USARMY CENAO (USA) < Megan.A.Wood@usace.army.mil > wrote:
Brian, to clarify, to you just want the form or do you want the whole package (sans letter) again?
Thanks!
Megan
From: Brian D Hopper - NOAA Federal < brian.d.hopper@noaa.gov > Sent: Monday, August 9, 2021 9:25 AM

To: Wood, Megan A CIV USARMY CENAO (USA) < <u>Megan. A. Wood@usace.army.mil</u>> Subject: Re: [Non-DoD Source] Re: USACE NLAA Program: Third Port Improvements Project (NAO-2020-00611) Hi Megan, I think you will need to make the correction and re-sign the form. Once it's ready, you can send it to me for my signature. Oh, and in the future, you don't need to prepare a cover letter to accompany the form. Thanks! -Brian On Thu, Aug 5, 2021 at 3:35 PM Wood, Megan A CIV USARMY CENAO (USA) < <u>Megan.A.Wood@usace.army.mil</u>> wrote: Brian, I was reviewing the documents for the project and noticed a typo in one of the justifications. The justification for PDC #16 states that the total anticipated area of new work dredging is 6 acres. This is incorrect. The total new work dredging area is 3.9 acres, and there is 0.25 acre of maintenance. This information is correct elsewhere on the verification form and in the appendix. Please let me know how you would like me to correct this. Thanks! Megan **From:** Brian D Hopper - NOAA Federal < brian.d.hopper@noaa.gov > Sent: Thursday, July 22, 2021 11:34 AM To: Wood, Megan A CIV USARMY CENAO (USA) < <u>Megan. A. Wood@usace.army.mil</u>> Subject: Re: [Non-DoD Source] Re: USACE NLAA Program: Third Port Improvements Project (NAO-2020-00611)

thanks for the info about the concrete piles. i added that to the form from this end.

i think i figured out a way to sign the form. please let me know if you have any issued with the attached copy.

On Thu, Jul 22, 2021 at 10:16 AM Wood, Megan A CIV USARMY CENAO (USA) < Megan.A.Wood@usace.army.mil > wrote:

Brian, I can sign the signature page in the unlocked version I sent you and the security panel says there are no document restrictions. Can you explain the issue you're having? I may be able to get Lesley to sign the page again without locking as well.

As for the 30" x 12" concrete sheet piles, the wave screen will be 126' in length, indicating that the maximum number of sheet piles installed to be 50.4. It is unlikely that the wave screen would be continuous, so the constructed wave screen may have fewer sheet piles. Hydrodynamic modeling is currently being conducted to determine the appropriate level of porosity (voids), comparing 0% (continuous), 20%, and 40%.

Please let me know if you need more information.

Thanks!

Megan

From: Brian D Hopper - NOAA Federal < brian.d.hopper@noaa.gov>

**Sent:** Thursday, July 22, 2021 9:55 AM

To: Wood, Megan A CIV USARMY CENAO (USA)

< Megan. A. Wood@usace.army.mil>

Subject: Re: [Non-DoD Source] Re: USACE NLAA Program: Third Port

Improvements Project (NAO-2020-00611)

thanks! much better, except for the signature page, which is still locked. also, i didn't see a number for how many 30 inch concrete piles would be installed.

On Wed, Jul 21, 2021 at 3:30 PM Wood, Megan A CIV USARMY CENAO (USA) < Megan.A. Wood@usace.army.mil > wrote:

Brian, see if the attached version works better for you.
Thanks! Megan
From: Brian D Hopper - NOAA Federal < brian.d.hopper@noaa.gov > Sent: Wednesday, July 21, 2021 7:52 AM To: Wood, Megan A CIV USARMY CENAO (USA)
<a href="mailto:subject"><a href="mailto:subject">Megan.A.Wood@usace.army.mil</a></a> <a href="mailto:Subject">Subject:</a> [Non-DoD Source] Re: USACE NLAA Program: Third Port Improvements Project (NAO-2020-00611)
Hi Megan,
Thanks for submitting your consultation package. When you have a minute, could you please send me an unlocked version of the form? I can't electronically sign the one attached to your email. Please let me know if you have any questions.
Thanks!
-Brian
On Tue, Jul 20, 2021 at 2:36 PM NMFS.GAR ESA.Section7 - NOAA Service Account < nmfs.gar.esa.section7@noaa.gov> wrote:
From: Wood, Megan A CIV USARMY CENAO (USA) <a href="mailto:\left(Megan.A.Wood@usace.army.mil">Megan.A.Wood@usace.army.mil</a> Date: Mon, Jul 19, 2021 at 5:13 PM  Subject: USACE NLAA Program: Third Port Improvements Project (NAO-2020-00611)  To: nmfs.gar.esa.section7@noaa.gov <nmfs.gar.esa.section7@noaa.gov></nmfs.gar.esa.section7@noaa.gov>
Cc: Pruhs, Robert S CIV USARMY CENAO (USA)  < <u>Robert.S.Pruhs@usace.army.mil</u> >, Reinheimer, Shannon J CIV USARMY CENAO (USA) < <u>Shannon.J.Reinheimer@usace.army.mil</u> >

Good afternoon,

Please find attached the GARFO NLAA Program Verification package, including the verification form, drawings, and other supporting documentation, for the Third Port Improvements Project located in Skiffes Creek at Joint Base Langley-Eustis – Fort Eustis in Newport News Virginia. An environmental assessment is being prepared for the project and is anticipated to be available for public review and comment in the fall.

Please let me know if you have any questions or require additional information.

Thanks!

Megan

Megan A. Wood, PhD Environmental Scientist Technical Support Section, Operations Branch Water Resources Division, Norfolk District 757-201-7843

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Brian D. Hopper Protected Resources Division NOAA Fisheries Greater Atlantic Regional Fisheries Office

200 Harry S Truman Parkway

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410 267 5649

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