



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
2000 FORT POINT RD
GALVESTON, TEXAS 77550

November 8, 2021

Evaluation Branch

SUBJECT: Permit No. SWG-2021-00619; Nationwide Permit Verification

Galveston Bay Foundation
Attention: Ms. Haille Leija
1725 Highway 146
Kemah, Texas 77565

Dear Ms. Leija:

This is in reference to your request, dated August 30, 2021, to construct Jones Bay Oystercatcher Habitat Restoration. The project sites are located in Jones Bay (see site list below) at near Tiki Island, in Galveston County, Texas.

Site ID	Latitude	Longitude	Location Description
Site 1	29.291341	-94.922692	South of Tiki Island, adjacent to GIWW, north of N. Deer Island
Site 2	29.305765	-94.931623	Northeast of Tiki Island in northern Jones Bay
Site 3	29.297527	-94.939357	Directly west of Tiki Island & north of spoil island
Site 4	29.288746	-94.943516	Adjacent to GIWW & northwest of N. Deer Island

You may proceed with this proposed activity, as shown on the project plans (including any proposed mitigation) dated August 30, 2021. This Nationwide Permit (NWP) 27 verification is valid provided the activity is compliant with the NWP General/Regional Conditions, Section 401 Water Quality Certification, and the Coastal Management Program, which can be found at:

<https://www.swg.usace.army.mil/Missions/Regulatory/Permits/Nationwide-General-Permits/>, a hard copy can be provided to you upon request.

NWP 27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities: Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas.

Based on available information, there appear to be "waters of the United States" and/or "navigable waters of the United States" on the project site. Therefore, your letter resulted in the initiation of the pre-construction notification (PCN) procedure specified for NWP 27. Your application was considered complete on August 30, 2021. The time period to process the PCN expired on October 14, 2021. Therefore, according to the NWP regulations, the project is verified under NWP 27.

The NWP verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2022. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

This letter does not address nor include any consideration for geographic jurisdiction on aquatic resources and shall not be interpreted as such. A copy of your plans in 15 sheets is enclosed. If you have any question regarding this verification, please contact Ms. Arianne Logwood at the letterhead address or by telephone at 409-766-3945. Please notify the Chief of the Compliance Branch in the Galveston District Regulatory Division in writing at the letterhead address, upon completion of the authorized project.

FOR THE DISTRICT COMMANDER:



Kristi N. McMillan
Leader, Central Evaluation Unit

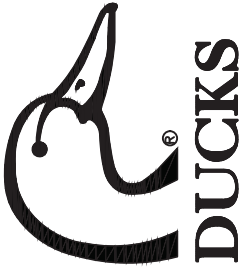
cc w/Encl.
hleija@galvbay.org

Eighth Coast Guard District, New Orleans, LA

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Coast & Geodetic Survey, Silver Spring, MD

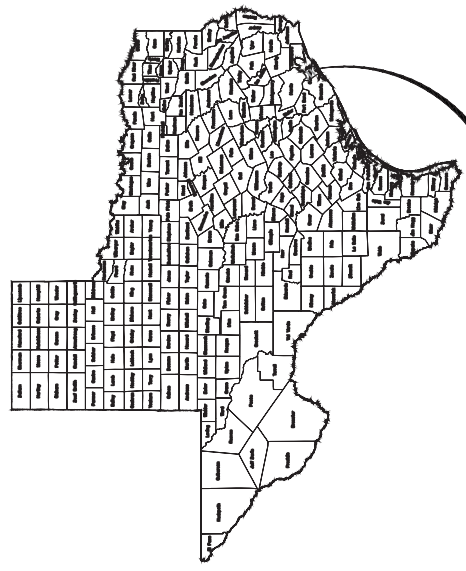
Texas Commission on Environmental Quality

Texas General Land Office



DUCKS UNLIMITED, INC.
JONES BAY
REEF CREATION AND
NESTING ISLAND ENHANCEMENT
 GALVESTON COUNTY
 IN COOPERATION WITH
GALVESTON BAY FOUNDATION

- SPECIFICATIONS**
 201 MOBILIZATION
 204 EMBANKMENT
 209 STONE MATERIAL
 211 POLLUTION CONTROL



PROJECT LOCATION



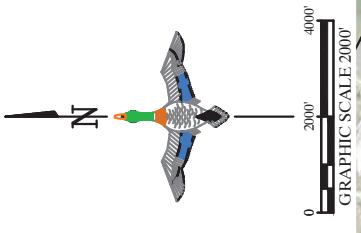
SHEET INDEX	
1	COVER SHEET
2	OVERALL EXISTING CONDITIONS
3	SITE 1 EXISTING CONDITIONS
4	SITE 1 SITE PLAN
5	SITE 1 CROSS SECTIONS
6	SITE 2 EXISTING CONDITIONS
7	SITE 2 SITE PLAN
8	SITE 2 CROSS SECTIONS
9	SITE 3 EXISTING CONDITIONS
10	SITE 3 SITE PLAN
11	SITE 3 CROSS SECTIONS
12	SITE 4 EXISTING CONDITIONS
13	SITE 4 SITE PLAN
14	SITE 4 CROSS SECTIONS
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PROJECT NO. DU-TX-217-1
 JONES BAY NESTING ISLANDS
 COVER SHEET
 SHEET 1 OF 15

CAUTION:
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.



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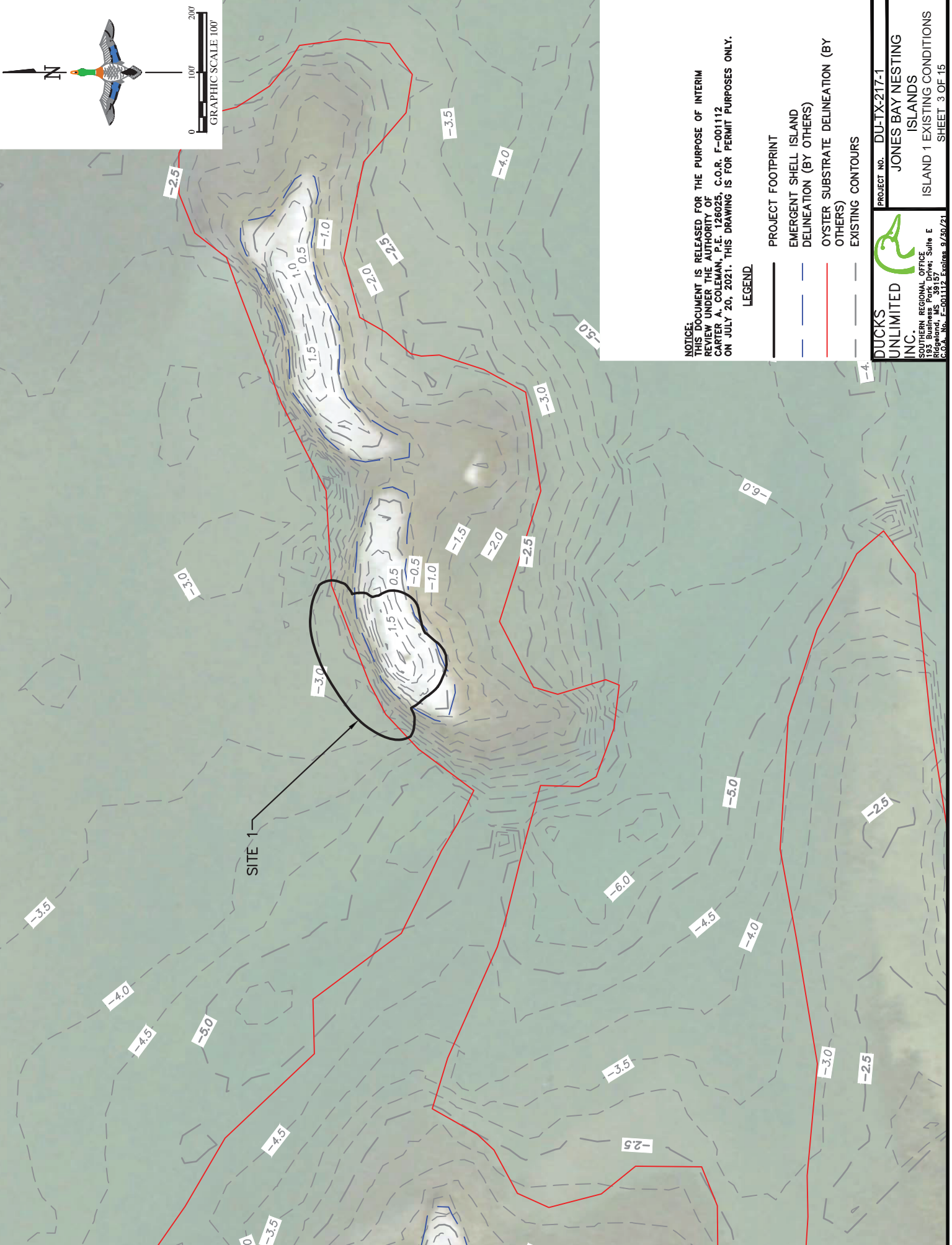
LEGEND

- PROJECT FOOTPRINT
- EMERGENT SHELL ISLAND DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY OTHERS)
- EXISTING CONTOURS

HORIZONTAL DATUM: NAD83 TEXAS STATE PLANE, SOUTH CENTRAL ZONE (4204)
 VERTICAL DATUM: NAVD88

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PROJECT NO. OK-6-5
 HACKBERRY FLAT
 STRUCTURE REHAB
 OVERALL EXISTING CONDITIONS
 SHEET 2 OF 15



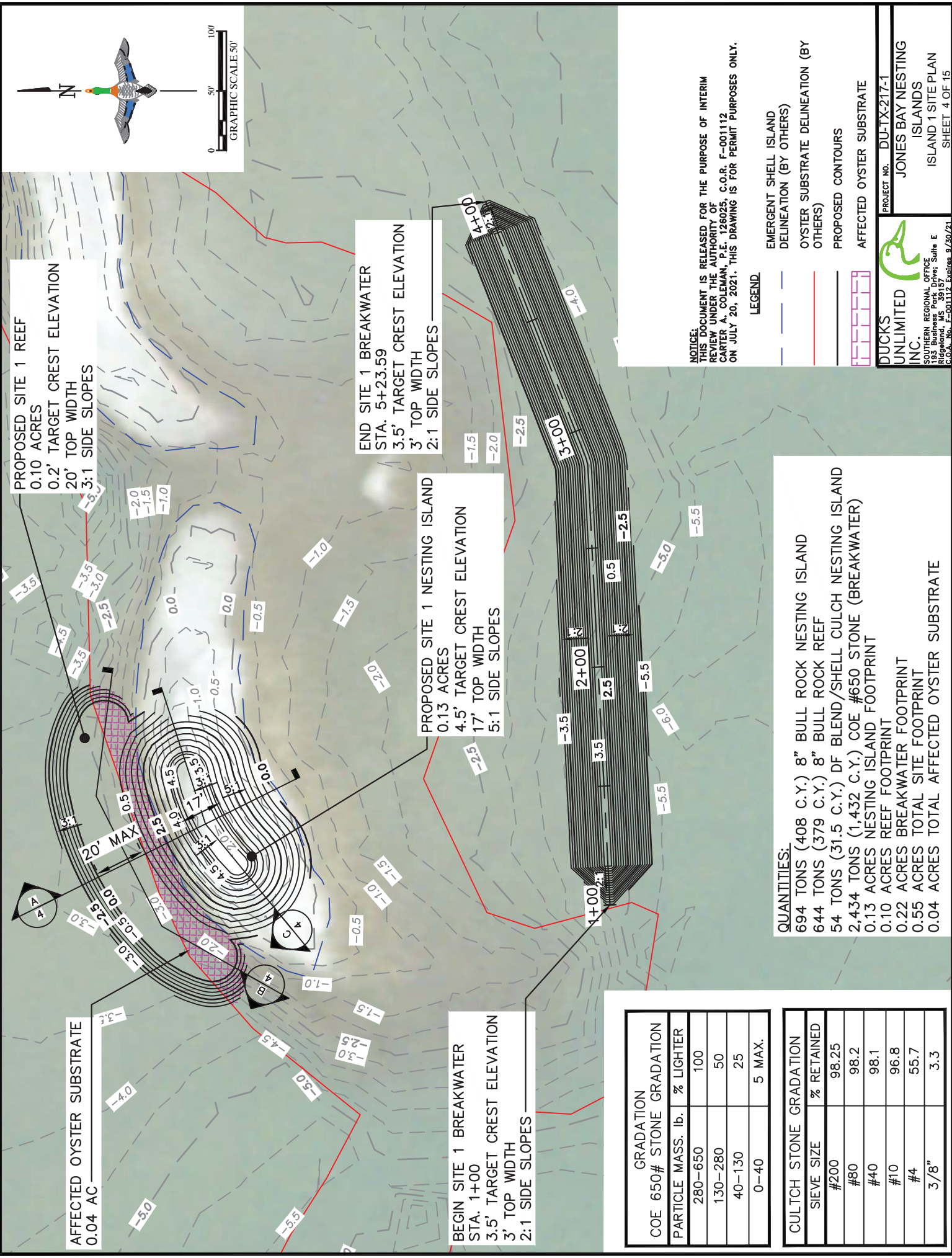
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LEGEND

- PROJECT FOOTPRINT
- EMERGENT SHELL ISLAND DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY OTHERS)
- EXISTING CONTOURS

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PROJECT NO. DU-TX-217-1
 JONES BAY NESTING ISLANDS
 ISLAND 1 EXISTING CONDITIONS
 SHEET 3 OF 15



PROPOSED SITE 1 REEF
0.10 ACRES
0.2' TARGET CREST ELEVATION
20' TOP WIDTH
3:1 SIDE SLOPES

END SITE 1 BREAKWATER
STA. 5+23.59
3.5' TARGET CREST ELEVATION
3' TOP WIDTH
2:1 SIDE SLOPES

PROPOSED SITE 1 NESTING ISLAND
0.13 ACRES
4.5' TARGET CREST ELEVATION
17' TOP WIDTH
5:1 SIDE SLOPES

BEGIN SITE 1 BREAKWATER
STA. 1+00
3.5' TARGET CREST ELEVATION
3' TOP WIDTH
2:1 SIDE SLOPES

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LEGEND

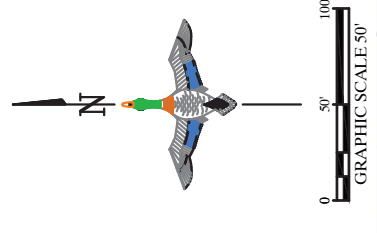
- EMERGENT SHELL ISLAND DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY OTHERS)
- PROPOSED CONTOURS
- AFFECTED OYSTER SUBSTRATE

QUANTITIES:

- 694 TONS (408 C.Y.) 8" BULL ROCK NESTING ISLAND
- 644 TONS (379 C.Y.) 8" BULL ROCK REEF
- 54 TONS (31.5 C.Y.) DF BLEND/SHELL CULCH NESTING ISLAND
- 2,434 TONS (1,432 C.Y.) COE #650 STONE (BREAKWATER)
- 0.13 ACRES NESTING ISLAND FOOTPRINT
- 0.10 ACRES REEF FOOTPRINT
- 0.22 ACRES BREAKWATER FOOTPRINT
- 0.55 ACRES TOTAL SITE FOOTPRINT
- 0.04 ACRES TOTAL AFFECTED OYSTER SUBSTRATE

GRADATION	
COE #650 STONE GRADATION	% LIGHTER
PARTICLE MASS. lb.	
280-650	100
130-280	50
40-130	25
0-40	5 MAX.

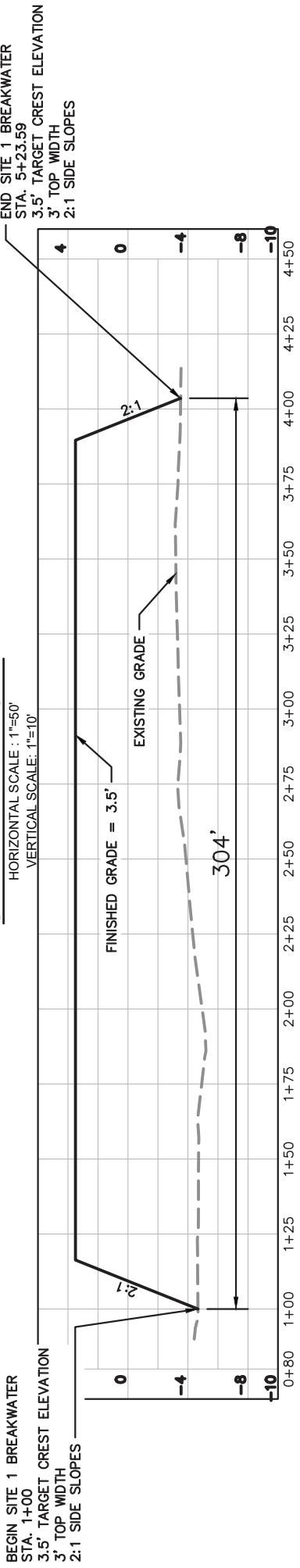
CULTCH STONE GRADATION	
SIEVE SIZE	% RETAINED
#200	98.25
#80	98.2
#40	98.1
#10	96.8
#4	55.7
3/8"	3.3



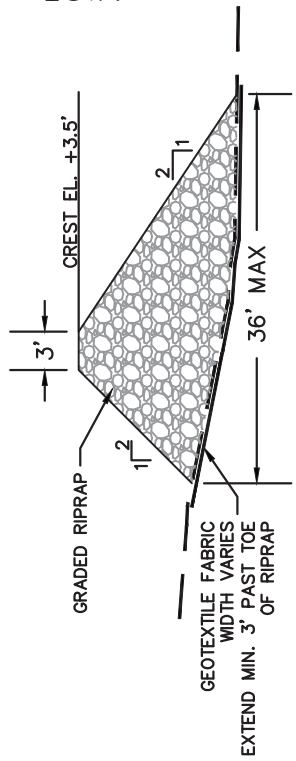
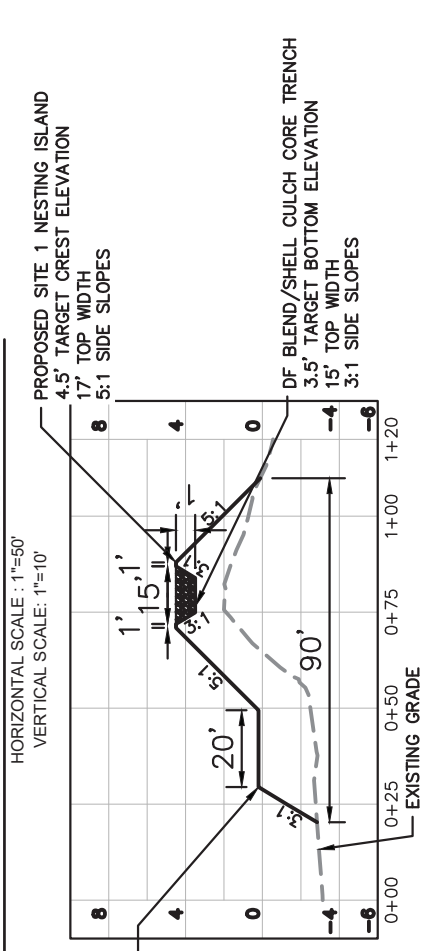
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PROJECT NO. DU-TX-217-1
JONES BAY NESTING ISLANDS
ISLAND 1 SITE PLAN
SHEET 4 OF 15

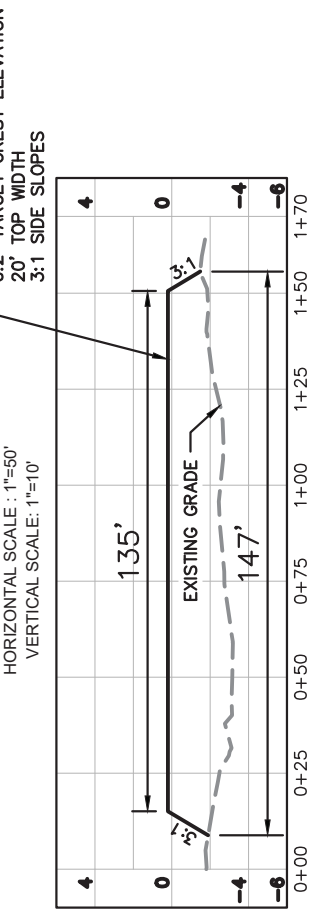
SITE 1 BREAKWATER PROFILE



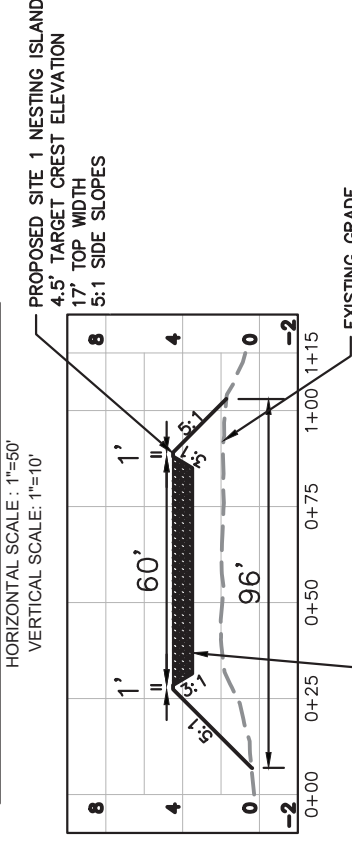
SITE 1 NESTING ISLAND AND REEF CROSS SECTION A-A



SITE 1 REEF CROSS SECTION B-B



SITE 1 NESTING ISLAND CROSS SECTION C-C



DF BLEND/SHELL CULCH CORE TRENCH
3.5' TARGET BOTTOM ELEVATION
15' TOP WIDTH
3:1 SIDE SLOPES

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JONES BAY NESTING ISLANDS
ISLAND 1 PROFILES
SHEET 5 OF 15



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LEGEND

- PROJECT FOOTPRINT
- EMERGENT SHELL ISLAND DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY OTHERS)
- EXISTING CONTOURS

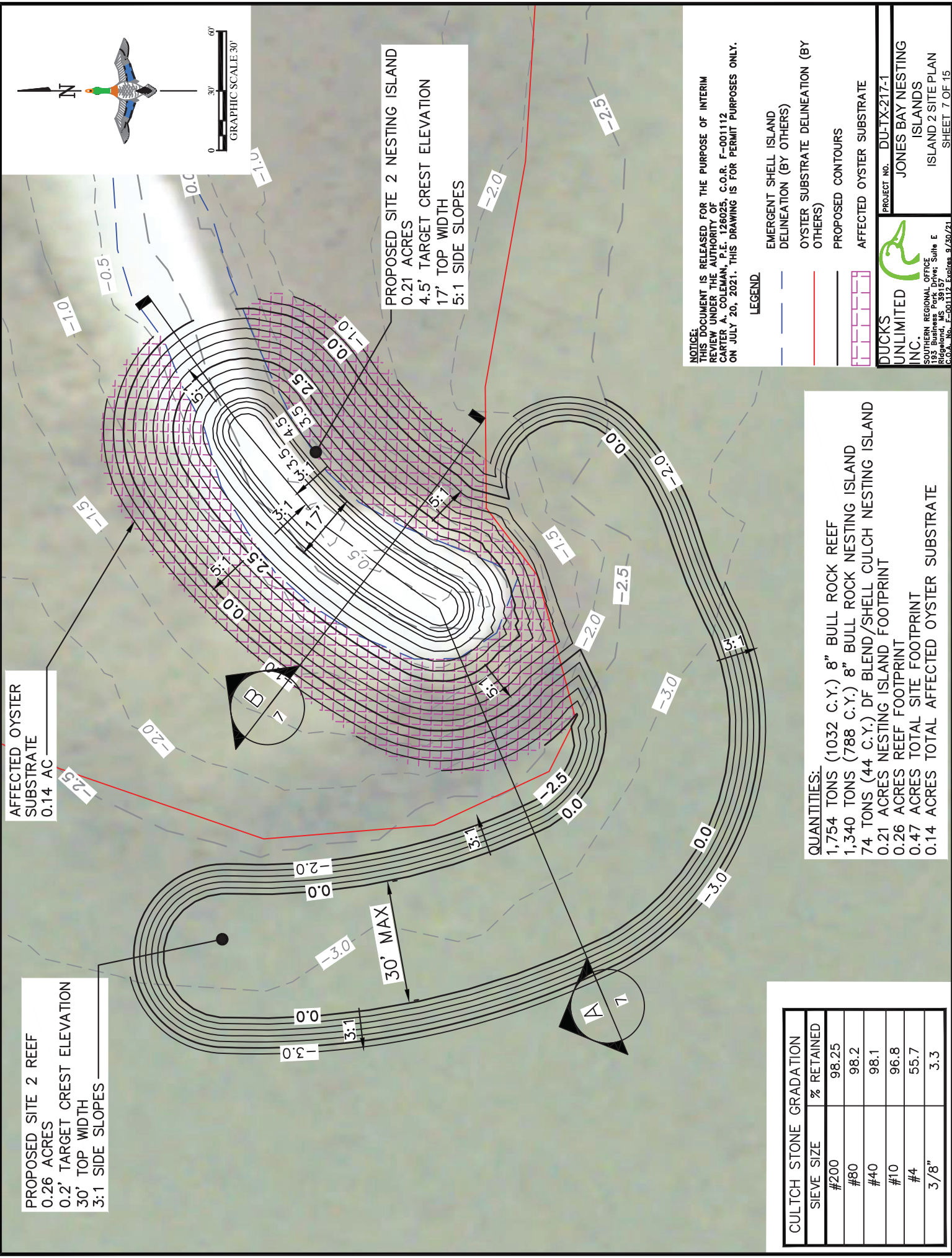
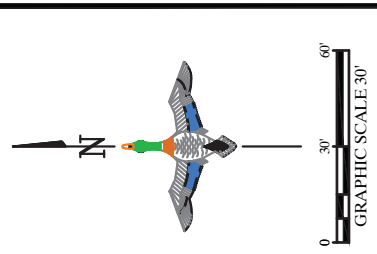
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PROJECT NO. DU-TX-217-1
 JONES BAY NESTING ISLANDS
 ISLAND 2 EXISTING CONDITIONS
 SHEET 6 OF 15

PROPOSED SITE 2 REEF
 0.26 ACRES
 0.2' TARGET CREST ELEVATION
 30' TOP WIDTH
 3:1 SIDE SLOPES

AFFECTED OYSTER
 SUBSTRATE
 0.14 AC

PROPOSED SITE 2 NESTING ISLAND
 0.21 ACRES
 4.5' TARGET CREST ELEVATION
 17' TOP WIDTH
 5:1 SIDE SLOPES



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LEGEND:

- EMERGENT SHELL ISLAND
 DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY
 OTHERS)
- PROPOSED CONTOURS
- AFFECTED OYSTER SUBSTRATE

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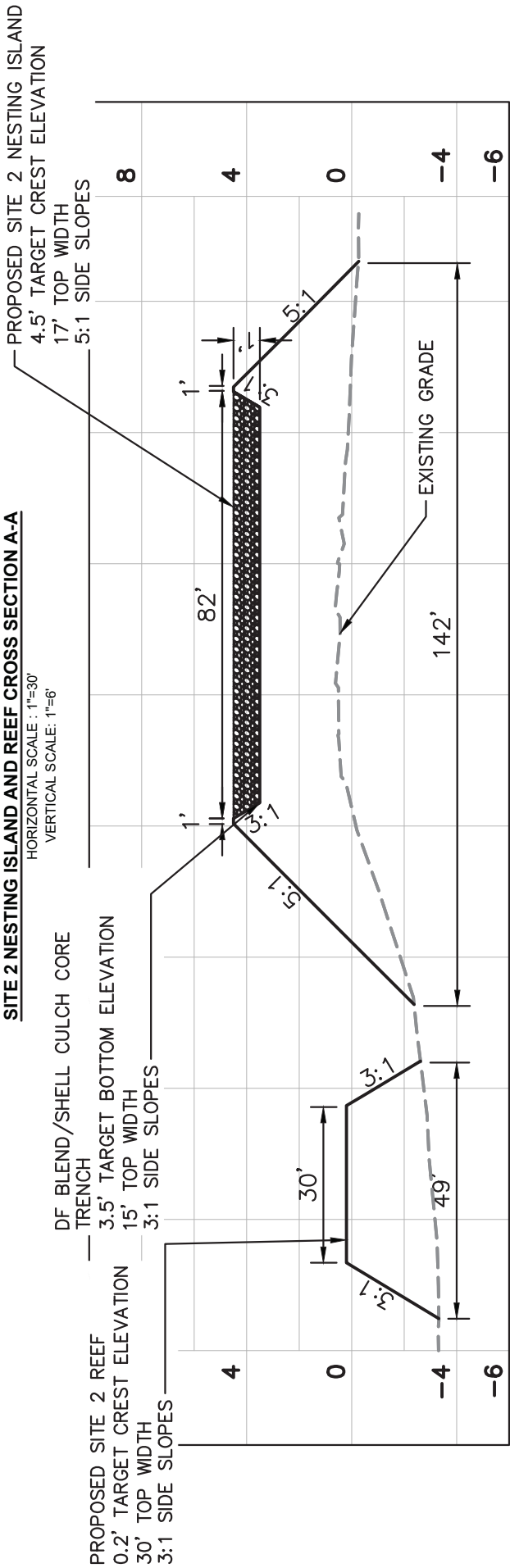
PROJECT NO. DU-TX-217-1
JONES BAY NESTING ISLANDS
ISLAND 2 SITE PLAN
 SHEET 7 OF 15

QUANTITIES:
 1,754 TONS (1032 C.Y.) 8" BULL ROCK REEF
 1,340 TONS (788 C.Y.) 8" BULL ROCK NESTING ISLAND
 74 TONS (44 C.Y.) DF BLEND/SHELL CULCH NESTING ISLAND
 0.21 ACRES NESTING ISLAND FOOTPRINT
 0.26 ACRES REEF FOOTPRINT
 0.47 ACRES TOTAL SITE FOOTPRINT
 0.14 ACRES TOTAL AFFECTED OYSTER SUBSTRATE

CULCH STONE GRADATION	
SIEVE SIZE	% RETAINED
#200	98.25
#80	98.2
#40	98.1
#10	96.8
#4	55.7
3/8"	3.3

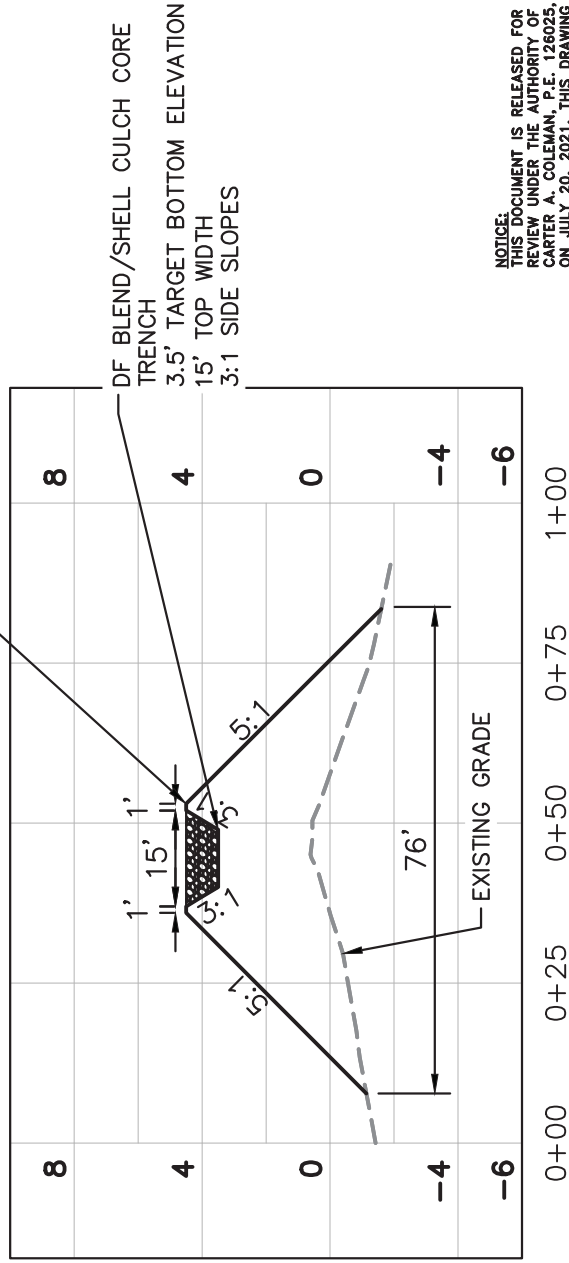
SITE 2 NESTING ISLAND AND REEF CROSS SECTION A-A

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=6'



SITE 2 NESTING ISLAND SECTION B-B

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=6'



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PROJECT NO. DU-TX-217-1
 JONES BAY NESTING ISLANDS
 ISLAND 2 PROFILES
 SHEET 8 OF 15



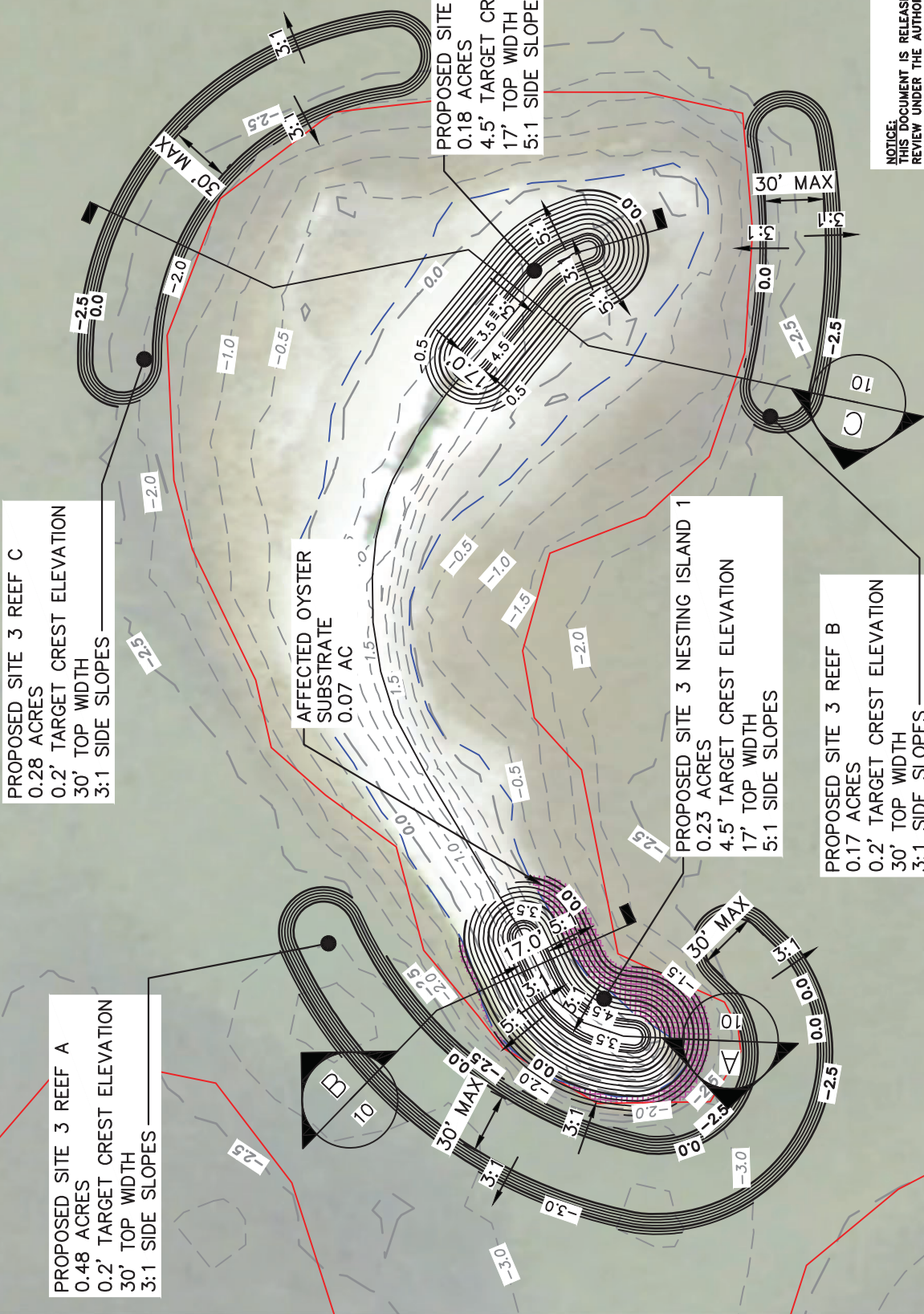
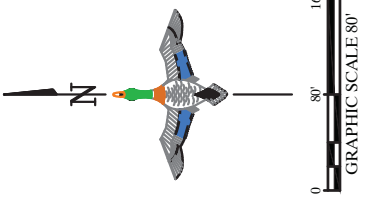
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LEGEND

- PROJECT FOOTPRINT
- EMERGENT SHELL ISLAND DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY OTHERS)
- EXISTING CONTOURS

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PROJECT NO. DU-TX-217-1
 JONES BAY NESTING ISLANDS
 ISLAND 3 EXISTING CONDITIONS
 SHEET 9 OF 15



PROPOSED SITE 3 REEF A
 0.48 ACRES
 0.2' TARGET CREST ELEVATION
 30' TOP WIDTH
 3:1 SIDE SLOPES

PROPOSED SITE 3 REEF C
 0.28 ACRES
 0.2' TARGET CREST ELEVATION
 30' TOP WIDTH
 3:1 SIDE SLOPES

AFFECTED OYSTER
 SUBSTRATE
 0.07 AC

PROPOSED SITE 3 NESTING ISLAND 2
 0.18 ACRES
 4.5' TARGET CREST ELEVATION
 17' TOP WIDTH
 5:1 SIDE SLOPES

PROPOSED SITE 3 NESTING ISLAND 1
 0.23 ACRES
 4.5' TARGET CREST ELEVATION
 17' TOP WIDTH
 5:1 SIDE SLOPES

PROPOSED SITE 3 REEF B
 0.17 ACRES
 0.2' TARGET CREST ELEVATION
 30' TOP WIDTH
 3:1 SIDE SLOPES

QUANTITIES:

- 3,446 TONS (2,027 C.Y.) 8" BULL ROCK REEF A
- 991 TONS (583 C.Y.) 8" BULL ROCK REEF B
- 1,698 TONS (999 C.Y.) 8" BULL ROCK REEF C
- 1,063 TONS (625 C.Y.) 8" BULL ROCK NESTING ISLAND 1
- 94 TONS (55 C.Y.) DF BLEND/SHELL CULCH NESTING ISLAND 1
- 978 TONS (575 C.Y.) 8" BULL ROCK NESTING ISLAND 2
- 94 TONS (55 C.Y.) DF BLEND/SHELL CULCH NESTING ISLAND 2
- 0.41 ACRES NESTING ISLAND FOOTPRINT
- 0.93 ACRES REEF FOOTPRINT
- 1.34 ACRES TOTAL SITE FOOTPRINT
- 0.07 ACRES TOTAL AFFECTED OYSTER SUBSTRATE

CULTCH STONE GRADATION	
SIEVE SIZE	% RETAINED
#200	98.25
#80	98.2
#40	98.1
#10	96.8
#4	55.7
3/8"	3.3

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LEGEND:

- EMERGENT SHELL ISLAND
 DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY
 OTHERS)
- PROPOSED CONTOURS
- AFFECTED OYSTER SUBSTRATE

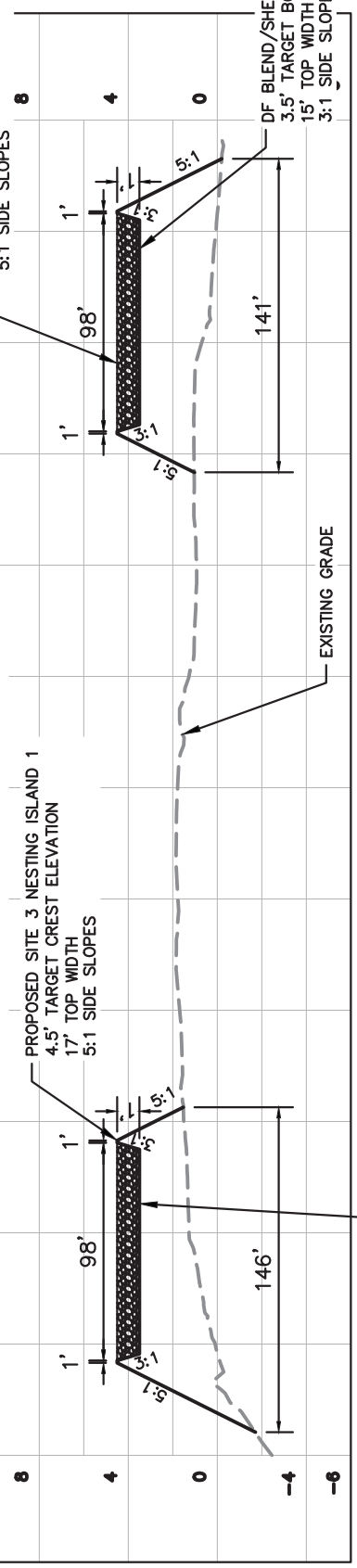


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PROJECT NO. DU-TX-217-1
 JONES BAY NESTING
 ISLANDS
 ISLAND 3 SITE PLAN
 SHEET 10 OF 15

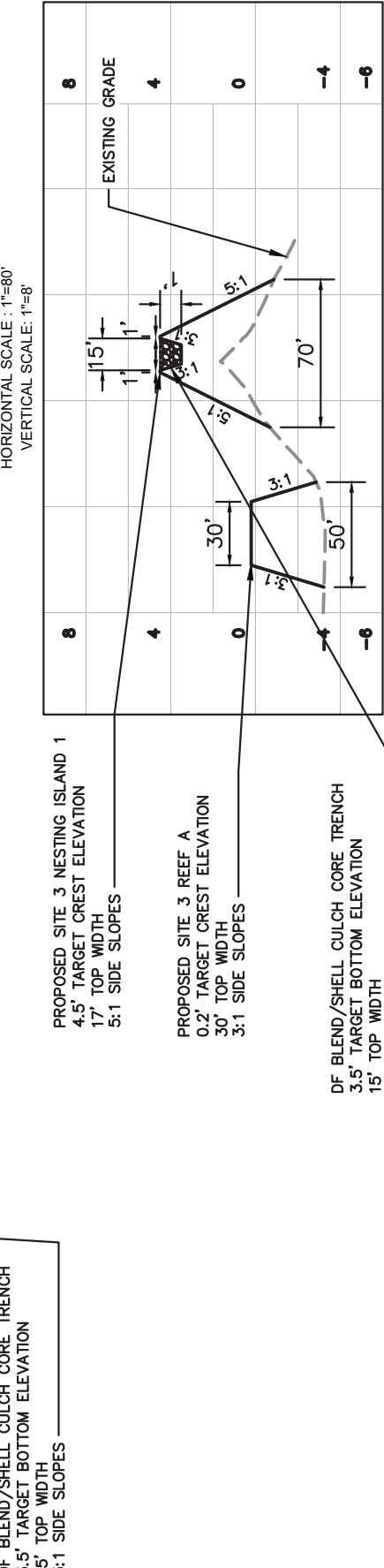
SITE 3 NESTING ISLANDS CROSS SECTION A-A

HORIZONTAL SCALE: 1"=80'
VERTICAL SCALE: 1"=8'



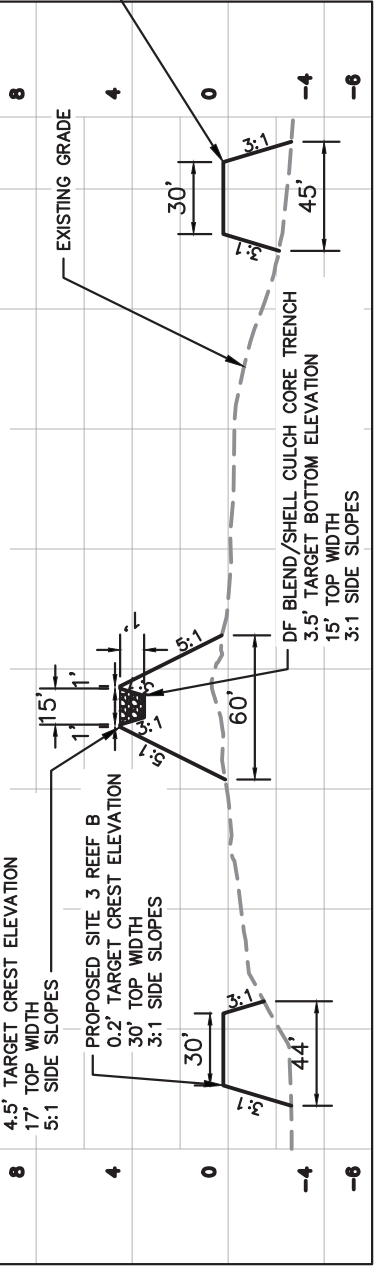
SITE 3 ISLAND AND REEF CROSS SECTION B-B

HORIZONTAL SCALE: 1"=80'
VERTICAL SCALE: 1"=8'



SITE 3 ISLAND AND REEF CROSS SECTION C-C

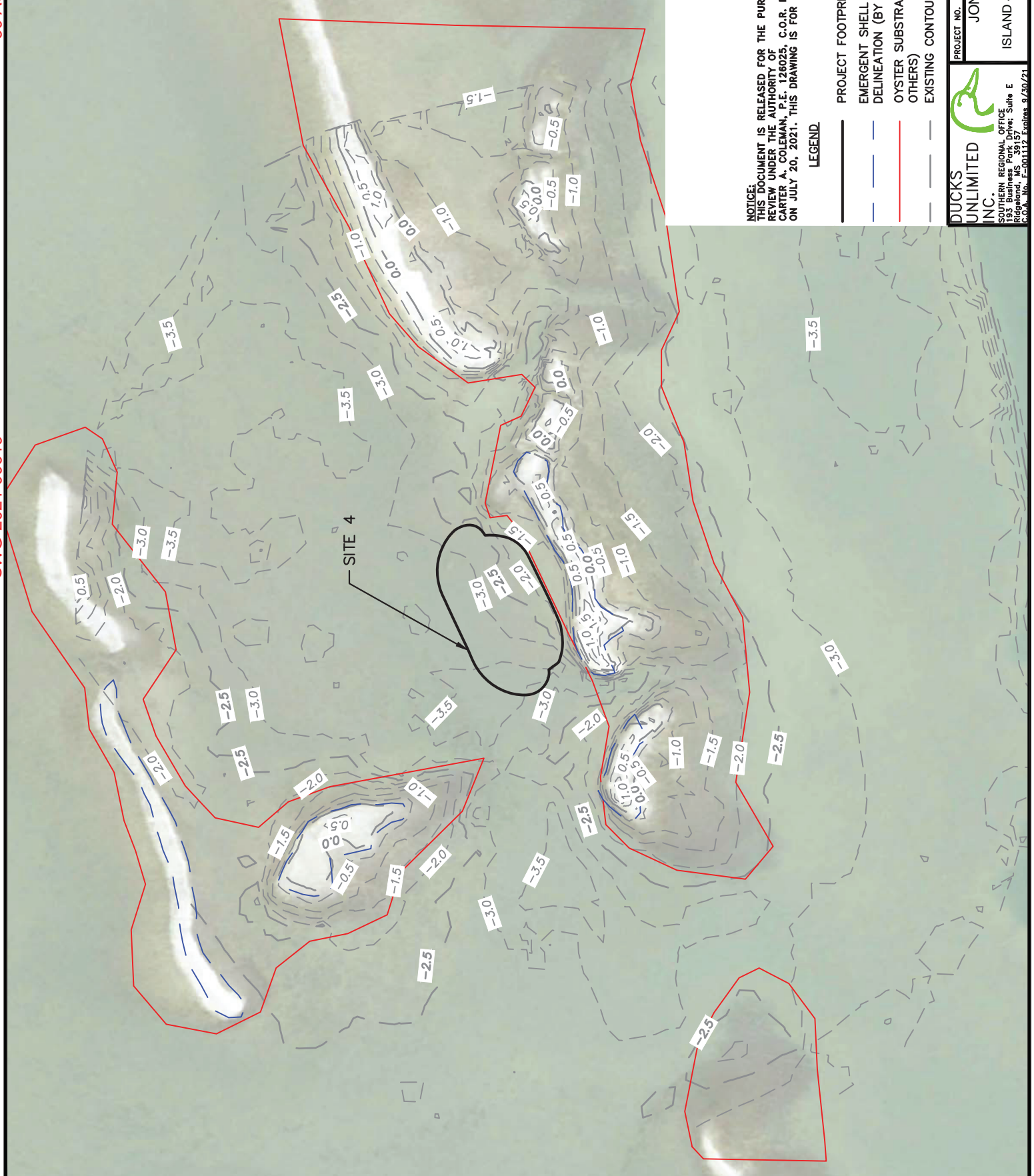
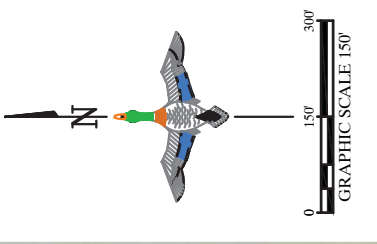
HORIZONTAL SCALE: 1"=80'
VERTICAL SCALE: 1"=8'



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JONES BAY NESTING ISLANDS
ISLAND 3 PROFILES
SHEET 11 OF 15



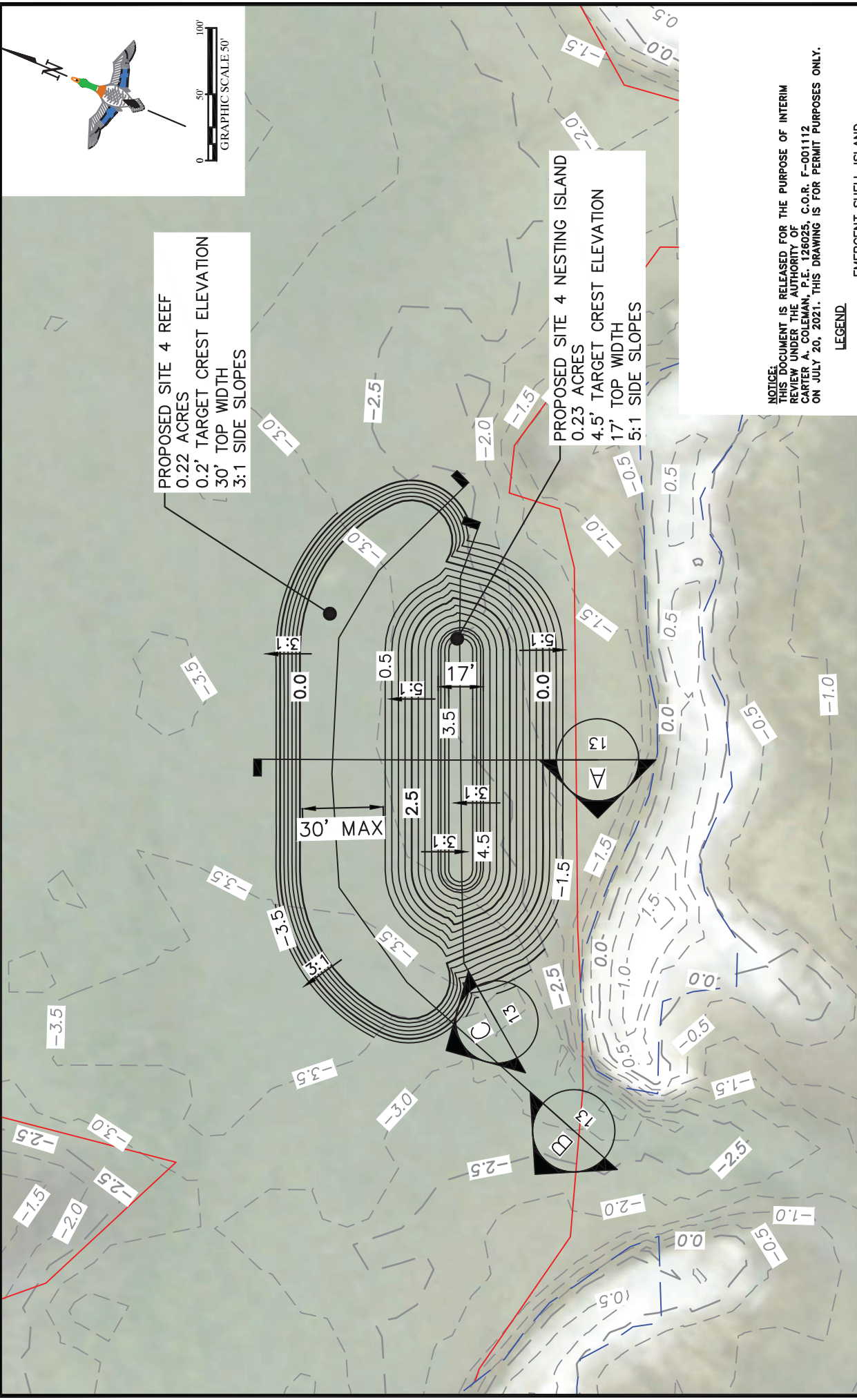
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LEGEND

- PROJECT FOOTPRINT
- EMERGENT SHELL ISLAND
DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY
OTHERS)
- EXISTING CONTOURS

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PROJECT NO. DU-TX-217-1
JONES BAY NESTING ISLANDS
ISLAND 4 EXISTING CONDITIONS
SHEET 12 OF 15



PROPOSED SITE 4 REEF
0.22 ACRES
0.2' TARGET CREST ELEVATION
30' TOP WIDTH
3:1 SIDE SLOPES

PROPOSED SITE 4 NESTING ISLAND
0.23 ACRES
4.5' TARGET CREST ELEVATION
17' TOP WIDTH
5:1 SIDE SLOPES

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LEGEND:

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DELINEATION (BY OTHERS)
- OYSTER SUBSTRATE DELINEATION (BY
OTHERS)
- PROPOSED CONTOURS
- AFFECTED OYSTER SUBSTRATE

QUANTITIES:
1,710 TONS (1,005 C.Y.) 8" BULL ROCK REEF
2,652 TONS (1,560 C.Y.) 8" BULL ROCK NESTING ISLAND
94 TONS (55 C.Y.) DF BLEND/SHELL CULCH NESTING ISLAND
0.23 ACRES NESTING ISLAND FOOTPRINT
0.22 ACRES REEF FOOTPRINT
0.45 ACRES TOTAL SITE FOOTPRINT

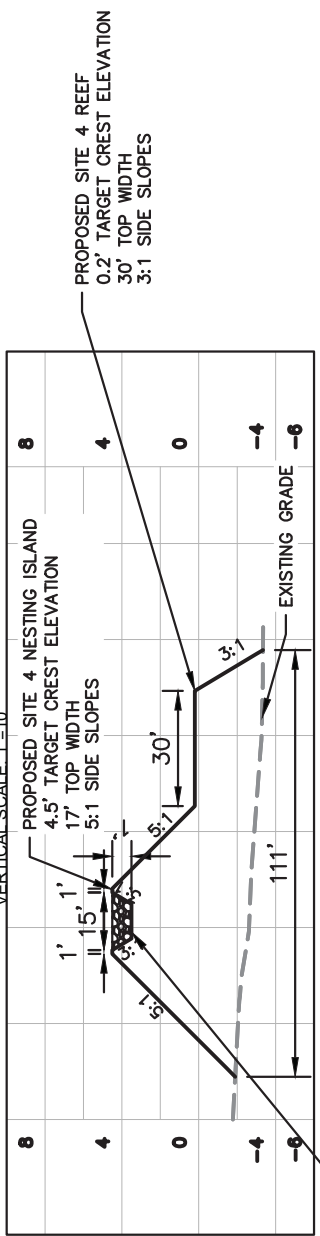
CULCH STONE GRADATION	
SIEVE SIZE	% RETAINED
#200	98.25
#80	98.2
#40	98.1
#10	96.8
#4	55.7
3/8"	3.3

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JONES BAY NESTING ISLANDS
ISLAND 4 SITE PLAN
SHEET 13 OF 15

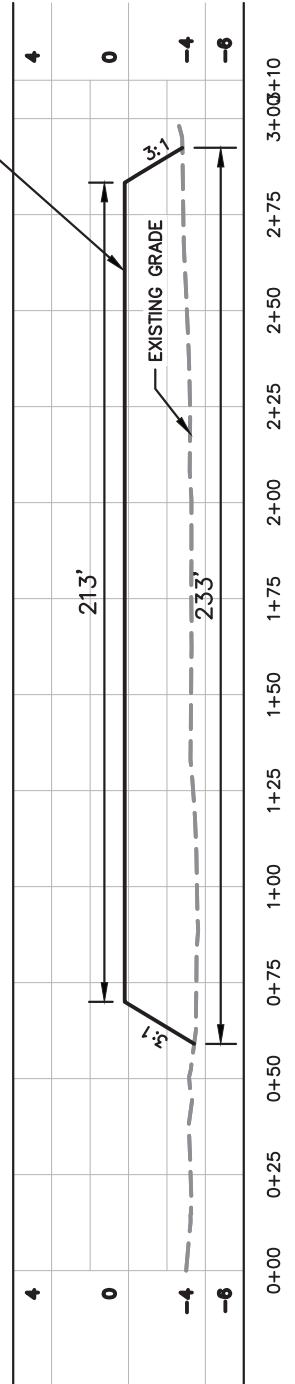
SITE 4 NESTING ISLAND AND REEF CROSS SECTION A-A

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'



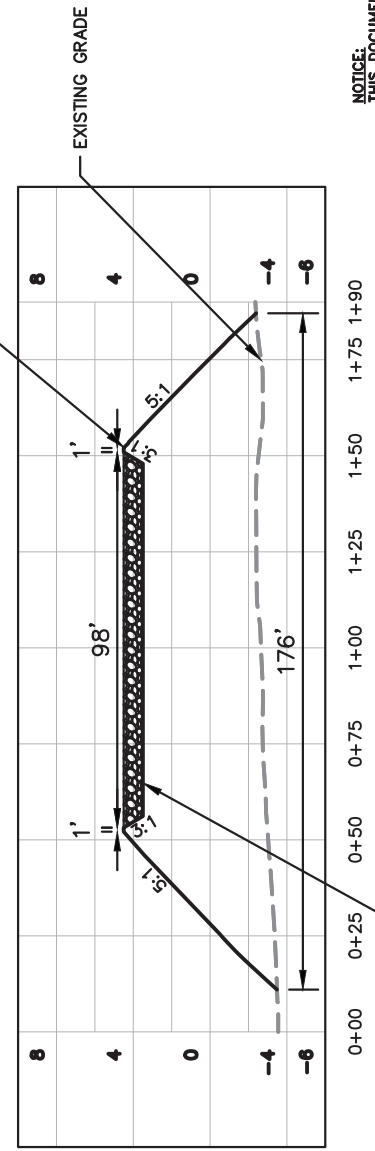
SITE 4 REEF CROSS SECTION B-B

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'



SITE 4 NESTING ISLAND CROSS SECTION C-C

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'



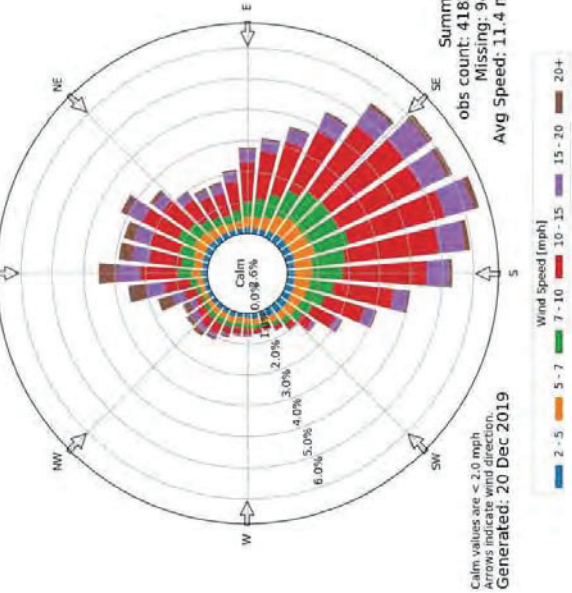
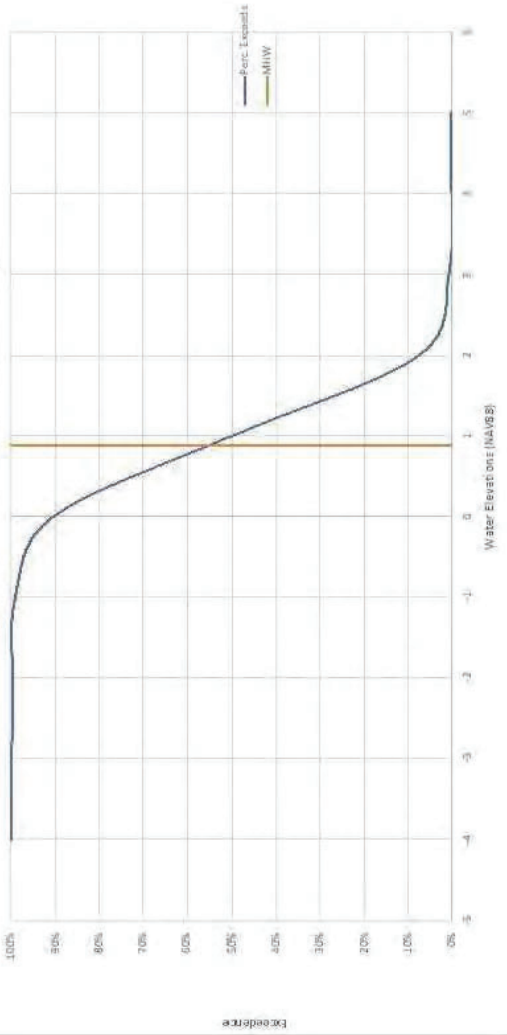
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PROJECT NO. DU-TX-217-1
JONES BAY NESTING ISLANDS
ISLAND 4 PROFILES
SHEET 14 OF 15

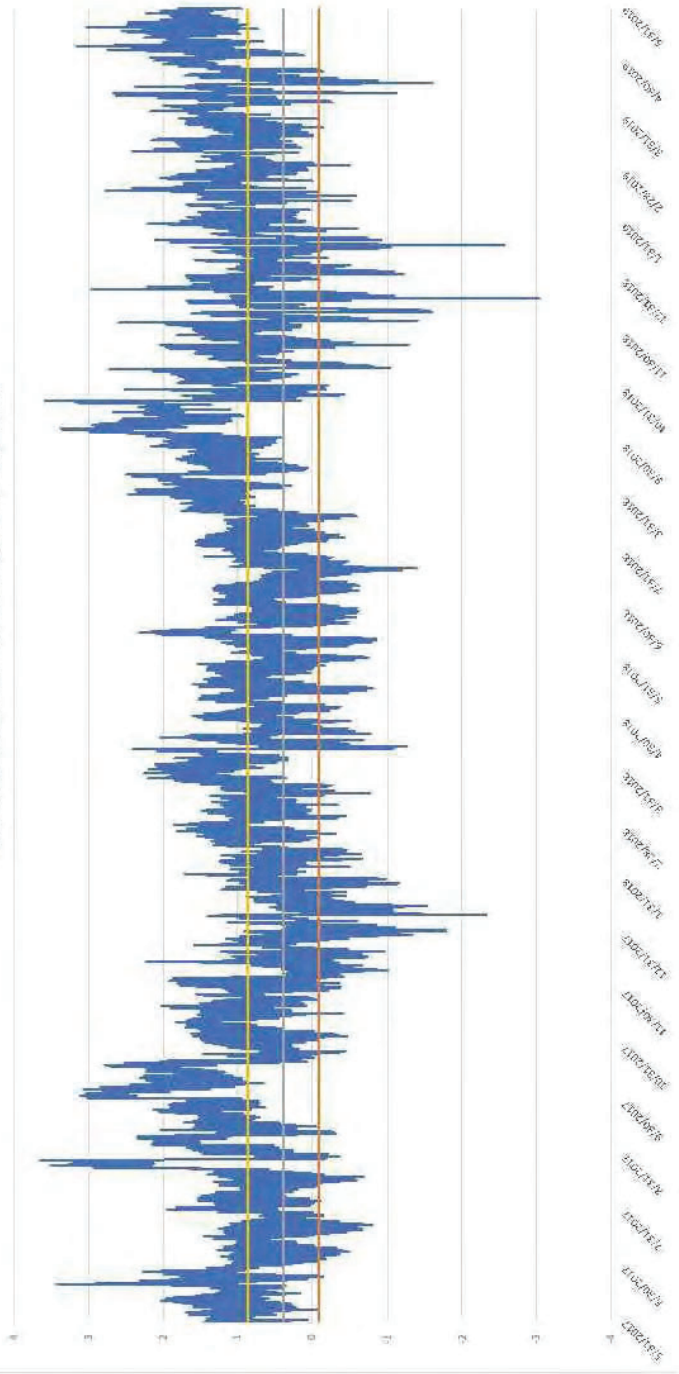


[GLS] GALVESTON/SCHOLES
Windrose Plot [All Year]
Period of Record: 01 Jan 1973 - 20 Dec 2019



Summary
obs count: 418355
Missing: 9476
Avg Speed: 11.4 mph
Calm values are < 2.0 mph
Arrows indicate wind direction.
Generated: 20 Dec 2019

Water Elevations Galveston Railroad Bridge #8771486 (NAV88)



Galveston Railroad Bridge (#8771486) Tide Data NAV88	
MHHW	0.97
MHW	0.87
MTL	0.39
MLW	-0.09
MLLW	-0.29
Lowest Observed Tide	-2.59
Lowest Astronomical Tide	-1.08
Highest Observed Tide	3.67
Highest Astronomical Tide	1.33

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JONES BAY NESTING ISLANDS
TIDE AND WIND DATA
SHEET 15 OF 15