



# DUCKS UNLIMITED, INC. SARGENT MARSH SHORELINE PROTECTION ROCK BREAKWATER PROJECT



MATAGORDA COUNTY  
IN COOPERATION WITH

**U.S. FISH & WILDLIFE SERVICE**



PROJECT LOCATION



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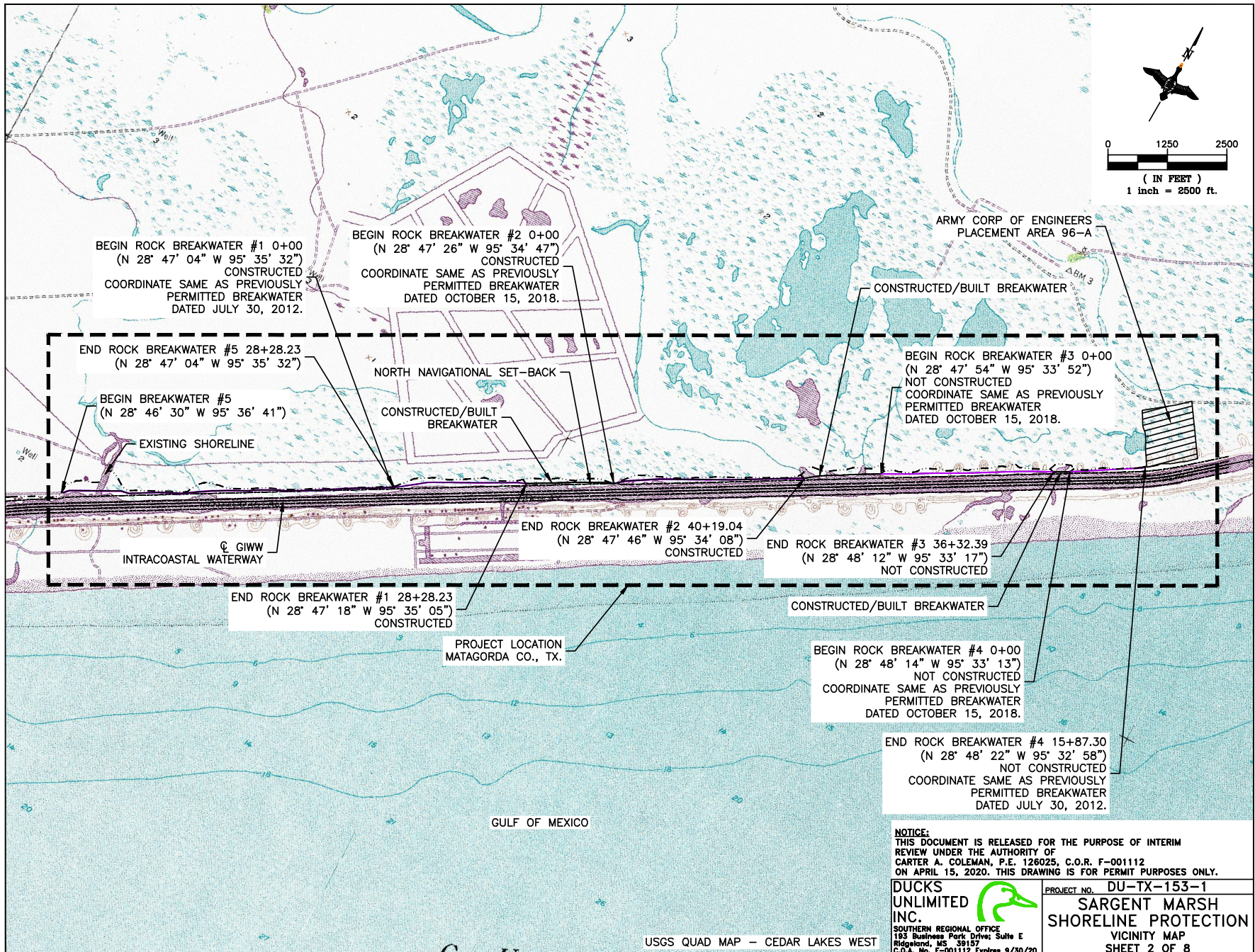
**CAUTION:**  
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

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SOUTHERN REGIONAL OFFICE  
193 Business Park Drive, Suite E  
Ridgeland, MS 39157  
C.O.A. No. F-001112 Expires 9/30/20

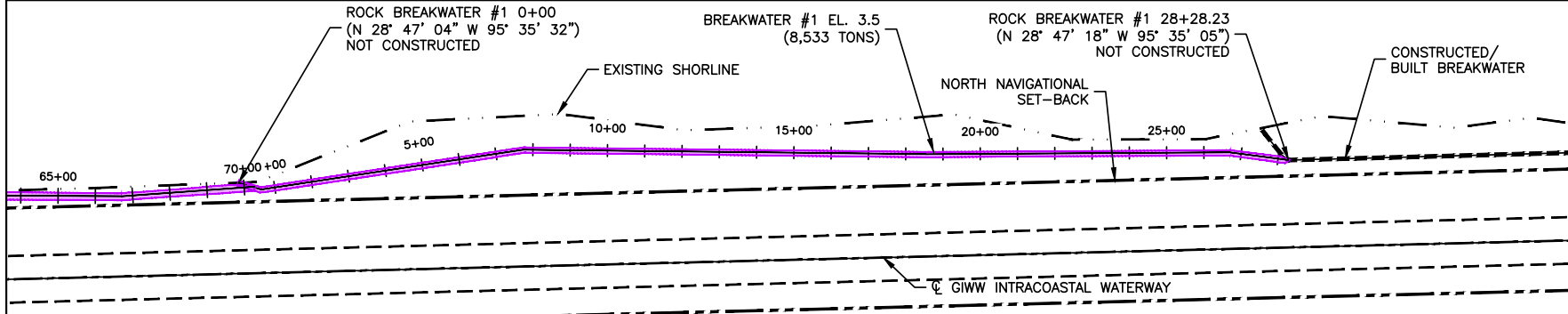
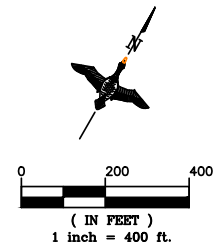


PROJECT NO. DU-TX-153-1  
**SARGENT MARSH  
SHORELINE PROTECTION**  
COVER SHEET  
SHEET 1 OF 8

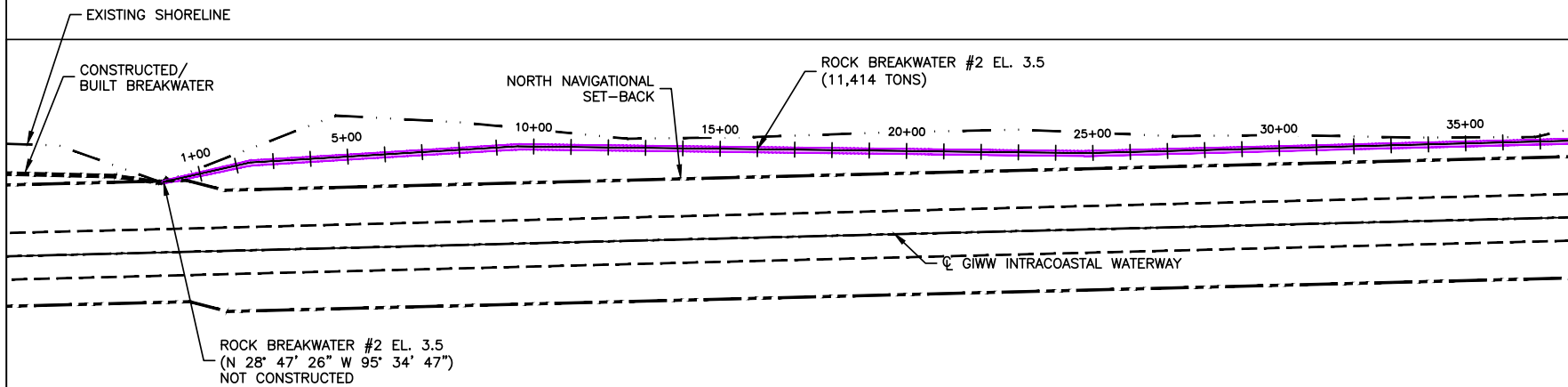








ROCK BREAKWATER #1 STA. 0+00 - 28+28.23



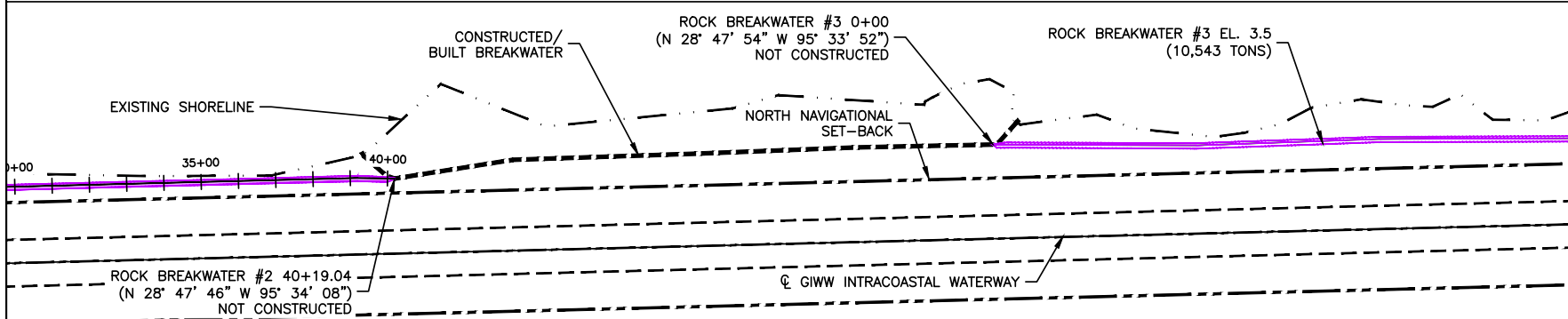
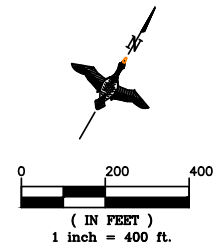
ROCK BREAKWATER #2 STA. 0+00 - 37+00

NOTE:  
 ☉ GIWW COORDINATES AT STATION  
 PROVIDED BY CLIFFORD DOMINEY, USACO  
 PROJECT ENGINEER

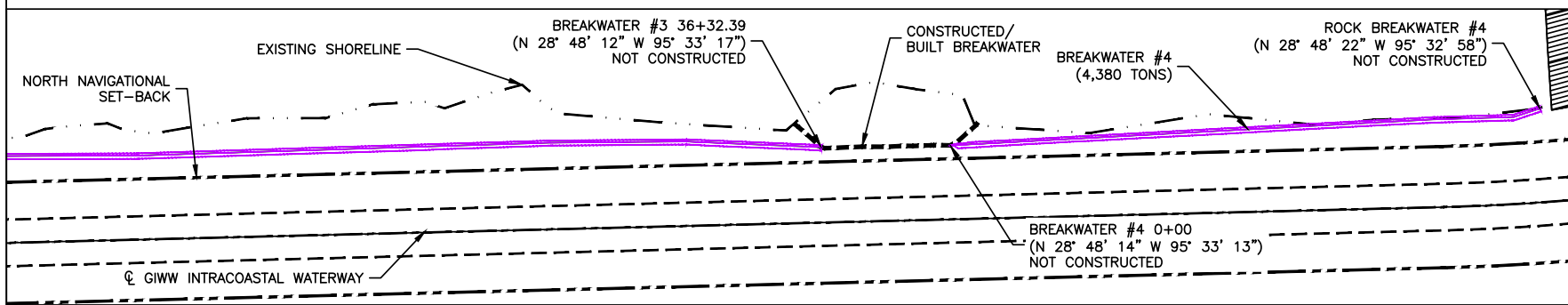
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**SARGENT MARSH  
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 BREAKWATER LAYOUT  
 SHEET 3 OF 8**



ROCK BREAKWATER #2 STA. 30+00 - 40+19.04  
 ROCK BREAKWATER #3 0+00 - 15+00



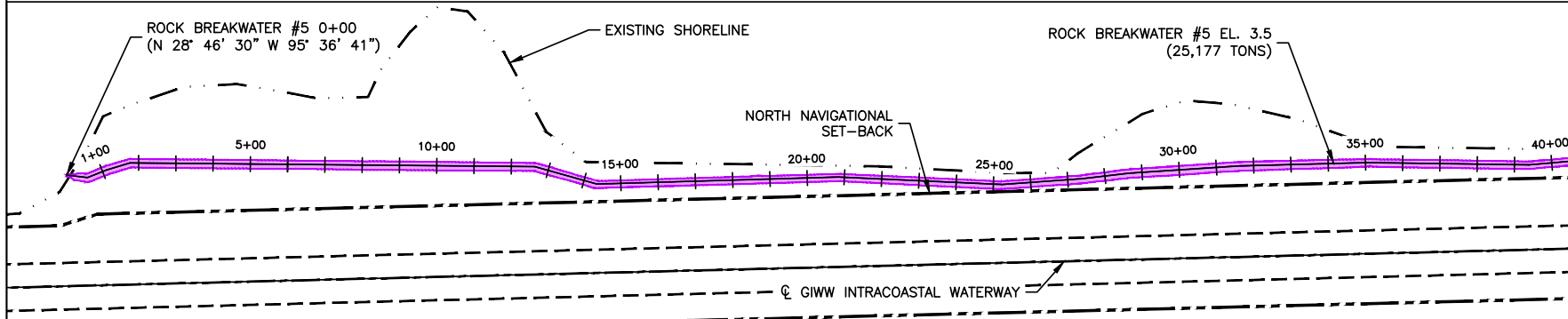
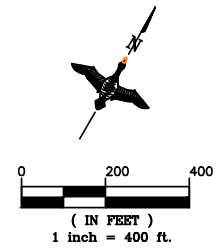
ROCK BREAKWATER #3 STA. 15+00 - 36+32.39  
 ROCK BREAKWATER #4 STA. 0+00 - 15+87.30

NOTE:  
 GIWW COORDINATES AT STATION  
 PROVIDED BY CLIFFORD DOMINEY, USACO  
 PROJECT ENGINEER

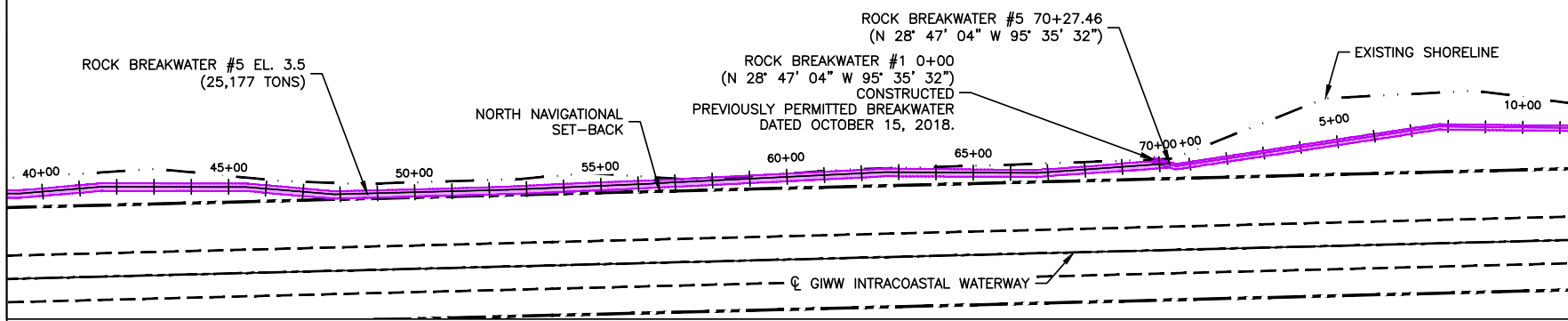
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 BREAKWATER LAYOUT  
 SHEET 4 OF 8**



ROCK BREAKWATER #5 STA. 0+00 - 40+00



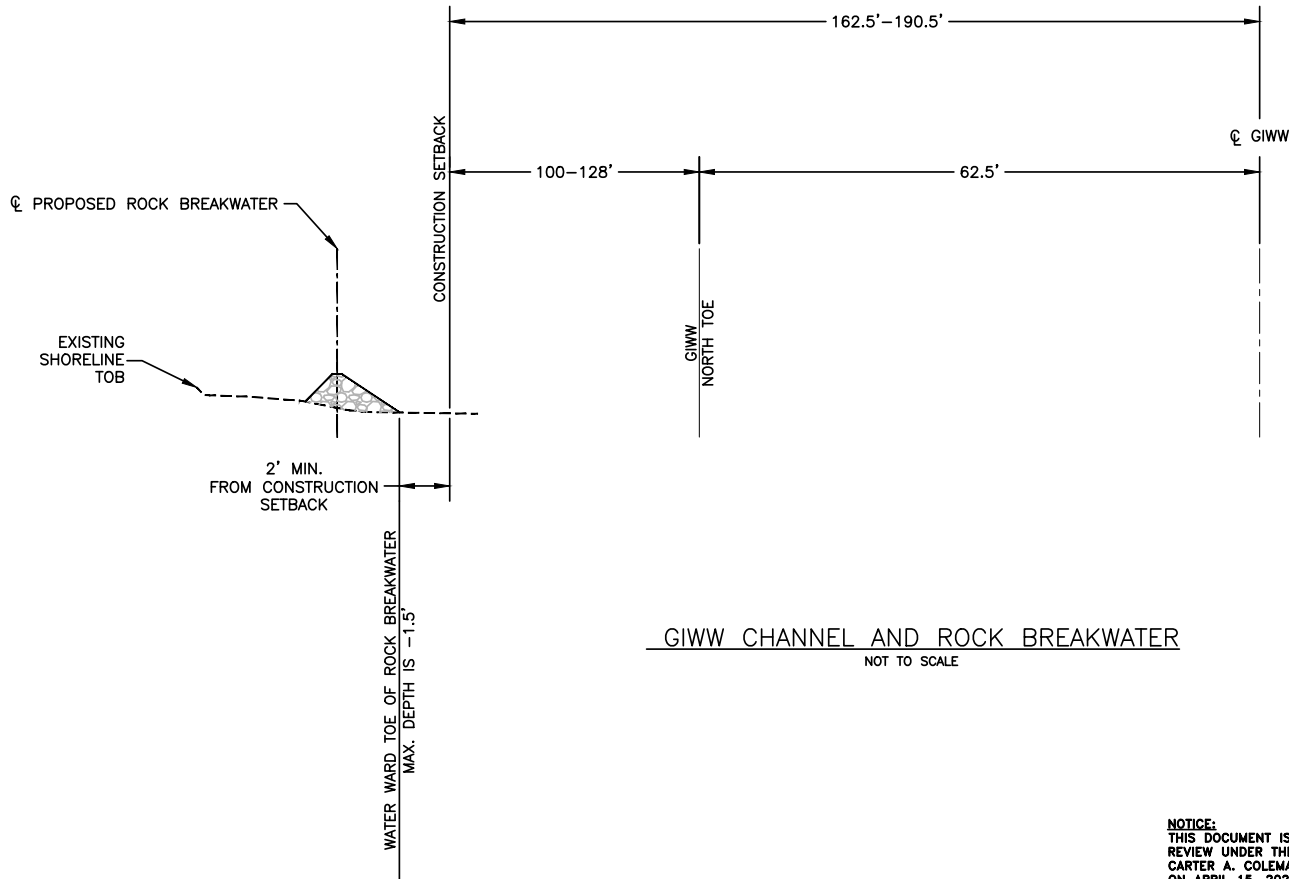
ROCK BREAKWATER #5 STA. 40+00 - 70+27.46

NOTE:  
 ☉ GIWW COORDINATES AT STATION  
 PROVIDED BY CLIFFORD DOMINEY, USACO  
 PROJECT ENGINEER

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**SARGENT MARSH  
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 BREAKWATER LAYOUT  
 SHEET 5 OF 8**



GIWW CHANNEL AND ROCK BREAKWATER  
NOT TO SCALE

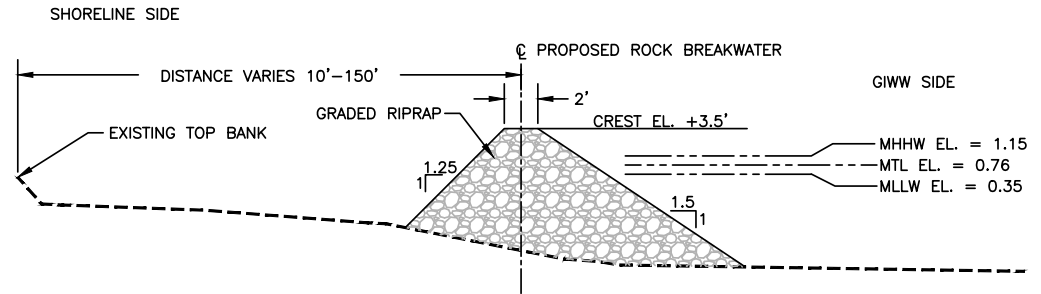
NOTE:  
GIWW DIMENSIONS AND CONSTRUCTION SETBACK  
LENGTH PROVIDED BY CLIFFORD DOMINEY,  
USACOE PROJECT ENGINEER

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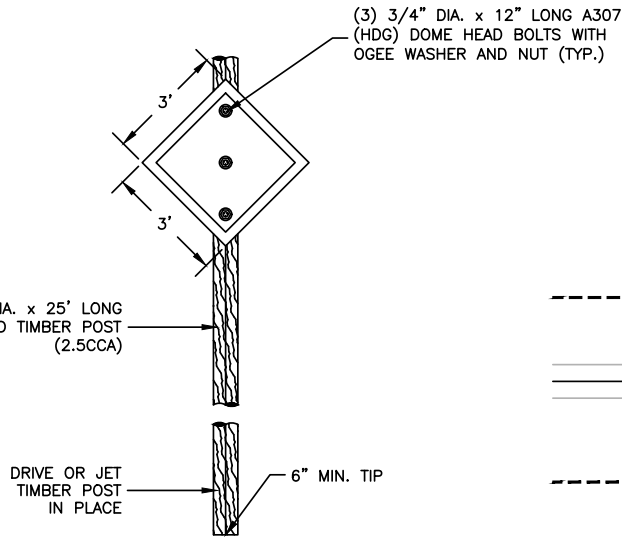


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**SARGENT MARSH  
SHORELINE PROTECTION**  
TYPICAL CROSS SECTION  
SHEET 6 OF 8



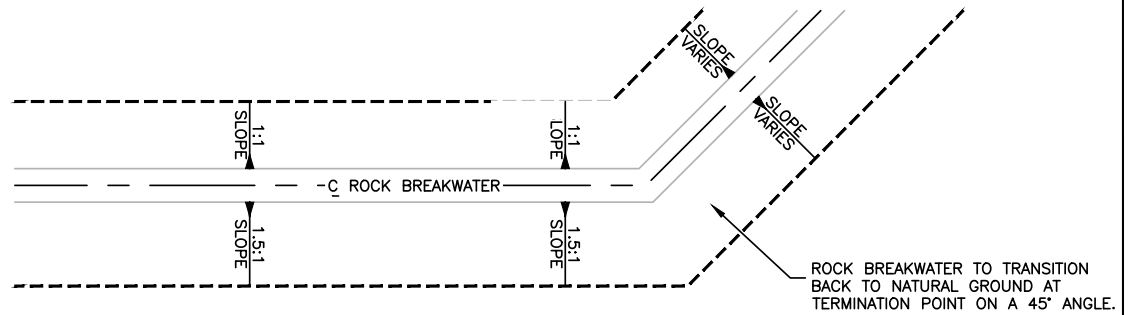
TYPICAL SECTION - ROCK BREAKWATER  
NOT TO SCALE

- NOTE:  
 1. WATER ELEVATIONS BASED ON PORT O'CONNOR TIDE GAGE 7/30/2012  
 2. ALL ELEVATIONS ARE NAVD 88



TYPICAL DETAIL - DAY BEACON  
NOT TO SCALE

NOTE:  
 WARNING SIGNAGE LOCATIONS TO BE DETERMINED BY USCG PRIVATE AIDS TO NAVIGATION MARKING DETERMINATION.



DETAIL - ROCK BREAKWATER TERMINATION  
NOT TO SCALE

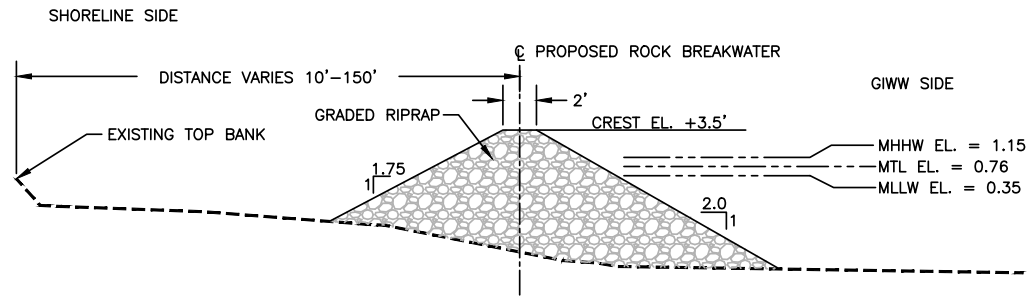
NOTE:  
 GRADED RIP RAP IS COE 650# GRADATION.

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

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**SARGENT MARSH SHORELINE PROTECTION**  
 TYPICAL DETAILS  
 SHEET 7 OF 8



TYPICAL SECTION — ROCK BREAKWATER #5

NOT TO SCALE

NOTE:

- 1. WATER ELEVATIONS BASED ON PORT O'CONNOR TIDE GAGE 7/30/2012
- 2. ALL ELEVATIONS ARE NAVD 88

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 BREAKWATER #5 TYPICAL SECTION**  
 SHEET 8 OF 8