



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
CORPS OF ENGINEERS, MOBILE DISTRICT  
P.O. BOX 2288  
MOBILE, AL 36628-0001

**CESAM-RD-A**  
**PUBLIC NOTICE NO. SAM-2011-00687-DEM**

**May 30, 2019**

**JOINT PUBLIC NOTICE**  
**U.S. ARMY CORPS OF ENGINEERS AND**  
**STATE OF ALABAMA**  
**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**REQUEST FOR AUTHORIZATION TO DREDGE AND FILL IN ASSOCIATION WITH**  
**PERIODIC BEACH RENOURISHMENT ACTIVITIES WITHIN THE CITIES OF GULF**  
**SHORES, ORANGE BEACH, AND AT THE GULF STATE PARK, FRONTING THE GULF**  
**OF MEXICO, BALDWIN COUNTY, ALABAMA.**

TO WHOM IT MAY CONCERN: This District has received an application for a Department of the Army permit pursuant to Section 10 of the River and Harbor Act of 1899 (33 USC 403) and 404 of the Clean Water Act (33 USC 1344). This public notice is being distributed to all known interested persons to assist in developing facts on which a decision by the U.S. Army Corps of Engineers (USACE) can be based. Please communicate this information to interested parties.

**APPLICANTS:** City of Gulf Shores  
Mayor Robert Craft  
Post Office Box 299  
Gulf Shores, Alabama 36547

City of Orange Beach  
Attention: Mayor Tony Kennon  
Post Office Box 2432  
Orange Beach, Alabama 36561

State of Alabama Department of Conservation  
And Natural Resources  
Gulf State Park  
Commissioner N. Gunter Guy, Jr.  
64 North Union Street  
Montgomery, Alabama 36130

**AGENT:** Olsen Associates, Inc.  
Attention: Dr. Albert E. Browder, Ph.D., P.E.  
2618 Herschel Street  
Jacksonville, Florida 32204

**LOCATION/WATERS:** Gulf of Mexico Beaches and Shorelines of Orange Beach, Gulf State Park, and Gulf Shores, Baldwin County, Alabama.

The proposed periodic beach renourishment project is comprised of five primary segments. The westernmost segment, West Beach Gulf Shores, extends 3.8 miles from the City of Gulf Shores boundary with the Bon Secour National Wildlife Refuge eastward along West Beach Boulevard to Little Lagoon Pass. The East Beach Gulf Shores segment of the project extends a distance of 3.9 miles, from Little Lagoon Pass eastward to the City of Gulf Shores/Gulf State Park boundary. The third segment extends along the entire 2.2 mile shoreline of Gulf State Park from the City of Gulf Shores to the boundary with the City of Orange Beach, and includes the The Lodge at Gulf State Park hotel and convention center, the Gulf State Park Fishing and Education pier, and the Beach Pavilion. The Romar Beach/Orange Beach segment includes the entire 4.9 miles of Gulf of Mexico shoreline in Orange Beach west of Perdido Pass, from the boundary with the main unit of Gulf State Park through the Romar Beach area to the west jetty. The easternmost segment, a part of the City of Orange Beach, occupies the 1.7 mile length of Perdido Key from just east of the east jetty at Perdido Pass, in the Florida Point unit of Gulf State Park, to the Alabama/Florida State Line. In total, the five segments span over 16.5 miles of the Gulf of Mexico shoreline in Baldwin County, Alabama.

**PROPOSED WORK:** Applicants are requesting a 15-year authorization for periodic renourishment and restoration of the above described beaches. Portions of these beaches were originally permitted for renourishment in 2005-06 and again in 2012. The currently proposed project would include periodic replacement of beach sand volume losses that naturally occur over the project life-cycle of 8-10 years. It is anticipated that the project will include two separate maintenance events, and potential additional renourishment following any major storm event. Each anticipated renourishment event would include dredging of up to 1,441 acres of water bottoms from five nearby offshore locations that were previously utilized as a part of the 2012 authorization, and would include the placement of up to 3.5 million cubic yards of beach-compatible sand on approximately 903 acres of shoreline area along 16.5 miles of Baldwin County, Alabama, gulf-fronting beaches. The dredging/excavation of sands from the five identified locations would be performed primarily by a hydraulic cutterhead-suction dredge and/or trailing-suction hopper dredge. Shore-parallel sand dikes would be used as necessary to limit turbidity to water quality requirements specified by the State of Alabama. The project is intended to re-establish and maintain the storm protection function and recreation (tourism) amenity value of the beaches from Orange Beach to Gulf Shores, including the main unit of Gulf State Park. The applicants have proposed the first scheduled maintenance event to begin in the fall of 2020 with completion by winter 2020-21.

**PROJECT PURPOSE:** The cities of Orange Beach and Gulf Shores, Alabama, and the Alabama Department of Conservation and Natural Resources have adopted a long term Beach Management and Maintenance Plan to protect upland infrastructure and to maintain and enhance the recreational amenity value of their Gulf of Mexico beaches. To preserve the natural function and aesthetics of the project beaches, the plan is predicated upon a

strategy of full-scale beach renourishment and subsequent maintenance (principally, periodic renourishment) to counteract the erosional effects of storms and nearby inlets. Regional sources of erosion along the project area include the “sediment-sink” and sand starvation effects of the navigational entrances at Perdido Pass in Orange Beach, and to a lesser degree Pensacola Pass at the east end of Perdido Key in Escambia County, Florida. Additional contributors of erosion are the localized sand sink effect of Little Lagoon Pass in Gulf Shores and the naturally induced variations in the longshore transport climate, which can produce localized areas of noticeably increased erosion. The applicants have requested an extended 15-year authorization in order to allow for the two separate maintenance events, anticipated to occur every 8-10 years, as well as provide prompt implementation of restoration following a major storm event.

**WATER QUALITY AND COASTAL ZONE CONSISTENCY:** The applicant has applied for state water quality (WQ) certification in accordance with Section 401(a) (1) of the Clean Water Act, and for coastal zone (CZ) consistency in accordance with the Alabama Coastal Zone Management Program. Upon completion of the required advertising and public comment review, a determination relative to WQ certification and CZ consistency will be made by the Alabama Department of Environmental Management.

**HISTORIC PROPERTIES:** In accordance with Section 106 of the National Historic Preservation Act, and Appendix C of 33 CFR Part 325, the undertaking defined in this notice is being considered for the potential to affect cultural and historic properties within the permit area. During review of the previous 2012 authorization, the Alabama Historical Commission (AHC) concurred that the proposed project should have no effect on historic properties either listed on or eligible for the National Register of Historic Places (NRHP) (AHC 11-0860). Given that the proposed permit area for the project currently under review is identical to that of the previous authorization, the U.S. Army Corps of Engineers (USACE) has made a preliminary determination that there will be no effect on cultural and historic resources listed or eligible for listing on the NRHP. This action constitutes the full extent of cultural resources investigation within the project area unless comment to this notice is received documenting that significant sites or properties exist which may be affected by this work, or that adequately documents a potential exists for the location of significant sites or properties within the permit area.

**ENDANGERED SPECIES:** Preliminary review of this application and the U.S. Department of the Interior List of Endangered and Threatened Wildlife and Plants indicate that the proposed activity may affect listed species, and/or their critical habitat. This notice and application will be coordinated with the U.S. Fish and Wildlife Service (FWS) to assess if the proposed activity will adversely affect listed endangered or threatened species, or their critical habitat.

The National Marine Fisheries Service requires the evaluation of impacts to Essential Fish Habitat (EFH) of estuarine species. This notice initiates the EFH consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The project would impact approximately 1,441 acres of water bottoms and approximately 903 acres of coastal

beaches/shoreline EFH for managed species in the Gulf of Mexico. Our initial determination is that the proposed action May Adversely Affect EFH or federally managed fisheries due to the nature and location of impacts. Estuarine substrates would be hydraulically dredged within the area of impacts, affecting any benthic organisms in the immediate area. Neighboring benthic communities, filter feeders, and fin-fish within the estuarine water column would be stressed by any migrant sediments and/or suspended particulates generated during the temporary period of construction. However, due to the substrate composition and temporary nature of the dredging impacts, effects from sedimentation and suspended particulates are expected to be minor and temporary, and benthic communities within the direct footprint of impacts are expected to repopulate rapidly. Our final determination relative to project impacts to EFH and the need for mitigation measures are subject to review by and coordination with the National Marine Fisheries Service.

This public notice is being distributed to all known interested persons in order to assist in developing facts on which a decision by the USACE can be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, 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 reasonably may be expected to 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 values, fish and wildlife values, flood hazards, flood plain values, 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 U.S. Army Corps of Engineers (USACE) is soliciting comments from the public, from federal, state and local agencies and officials, and from other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE 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. Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing.

Evaluation of the probable impacts involving deposits of dredged or fill material into waters of the United States will include the application of guidelines established by the Administrator of the U.S. Environmental Protection Agency.

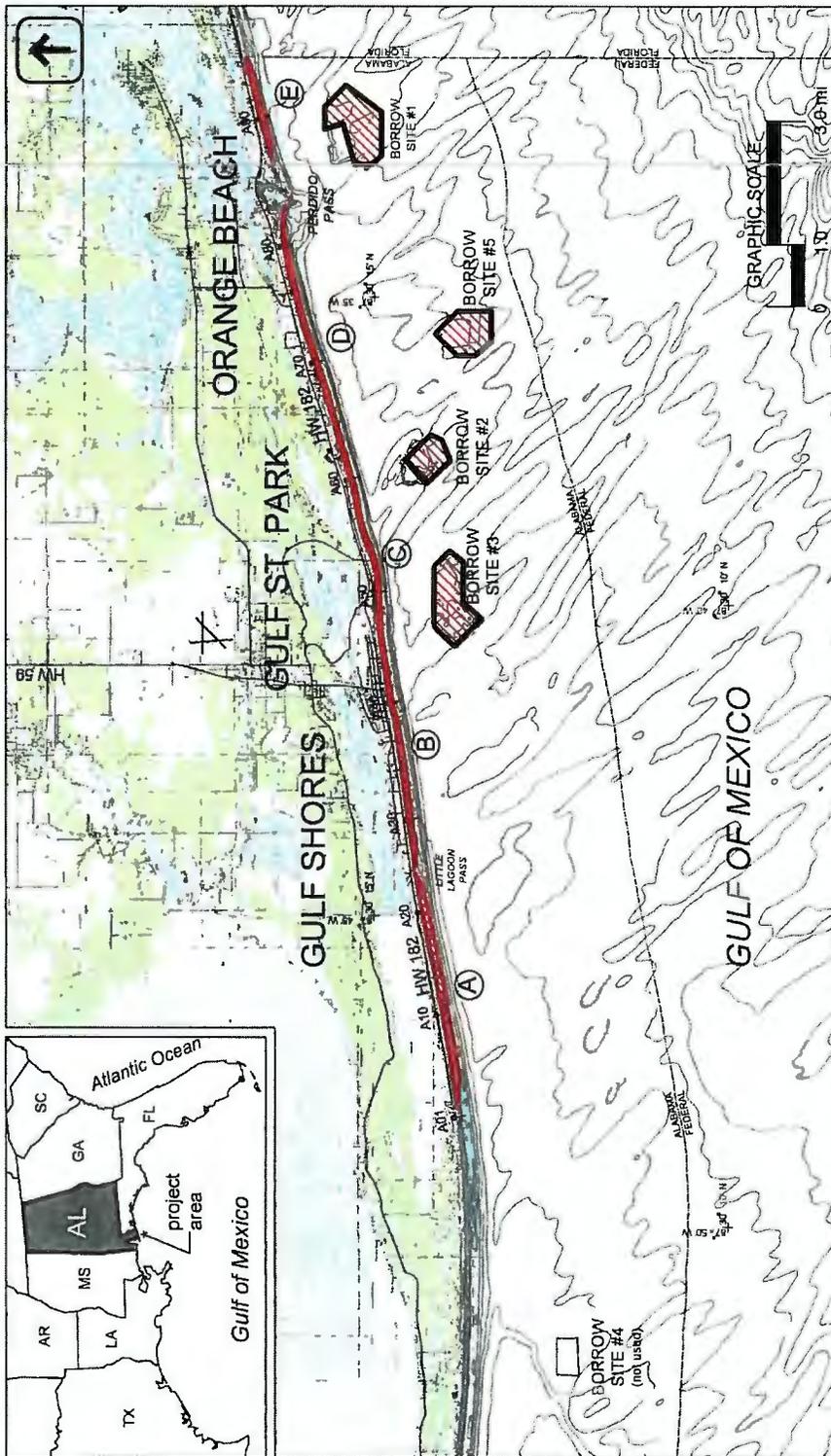
Correspondence concerning this public notice should refer to Public Notice Number **SAM-2011-00687-DEM** and should be directed via email to the project manager, Ms. Elizabeth A. Seavoy, at [elizabeth.a.seavoy@usace.army.mil](mailto:elizabeth.a.seavoy@usace.army.mil), or to the U.S. Army Corps of Engineers, Mobile District, Regulatory Division, Attention: Ms. Elizabeth A. Seavoy, Post Office Box 2288, Mobile, Alabama 36628-0001. Copies of all comments should be furnished to the Alabama Department of Environmental Management at [coastal@adem.alabama.gov](mailto:coastal@adem.alabama.gov), or sent to: Alabama Department of Environmental Management, Mobile Branch / Coastal Section 3664 Dauphin Street, Suite B, Mobile, Alabama 36608.

**All Comments should be received no later than 30 days from the date of this Public Notice.** If you have any questions concerning this publication, you may contact the project manager, Ms. Elizabeth Seavoy by email at [elizabeth.a.seavoy@usace.army.mil](mailto:elizabeth.a.seavoy@usace.army.mil), or at (251) 694-3781. Please refer to the Public Notice Number SAM-2011-00687-DEM, in any communication concerning this project.

For additional information about our Regulatory Program, please visit our web site at [www.sam.usace.army.mil/Missions/Regulatory.aspx](http://www.sam.usace.army.mil/Missions/Regulatory.aspx).

MOBILE DISTRICT  
U.S. Army Corps of Engineers

Attachments



- NOTES:
- 1 BASE MAPS USGS QUAD SHEETS
  - 2 DATUMS Vertical - NAVD88 (ft)

**(D)** ORANGE BEACH / ROMAR BEACH  
 S: 13-14 T: 9S R: 4E  
 S: 8-10, 17-18 T: 9S R: 5E  
 1,938,000 E / 96,500 N (ft)  
 30° 15.92' N / 87° 35.80' W  
 Length: 25,900 ft  
 Pay Volume: 1,036,000 cy (typ)

**(C)** GULF STATE PARK  
 S: 14, 21-23 T: 9S R: 4E  
 1,920,000 E / 91,000 N (ft)  
 30° 15.01' N / 87° 39.22' W  
 Length: 11,700 ft  
 Pay Volume: 468,000 cy (typ)

**(A)** WEST BEACH GULF SHORES  
 S: 22, 23, 27-28 T: 9S R: 3E  
 1,885,000 E / 86,000 N (ft)  
 30° 14.17' N / 87° 45.87' W  
 Length: 20,300 ft  
 Pay Volume: 812,000 cy (typ)

**(E)** PERDIDO KEY  
 S: 2-3 T: 9S R: 5E  
 1,959,000 E / 101,000 N (ft)  
 30° 16.66' N / 87° 31.81' W  
 Length: 9,000 ft  
 Pay Volume: 360,000 cy (typ)

**(B)** EAST BEACH GULF SHORES  
 S: 23-24 T: 9S R: 3E  
 S: 19-21 T: 9S R: 4E  
 1,904,000 E / 89,000 N (ft)  
 30° 14.67' N / 87° 42.26' W  
 Length: 20,400 ft  
 Pay Volume: 816,000 cy (typ)

DATE	APPR	REVISION	DATE	APPR	REVISION

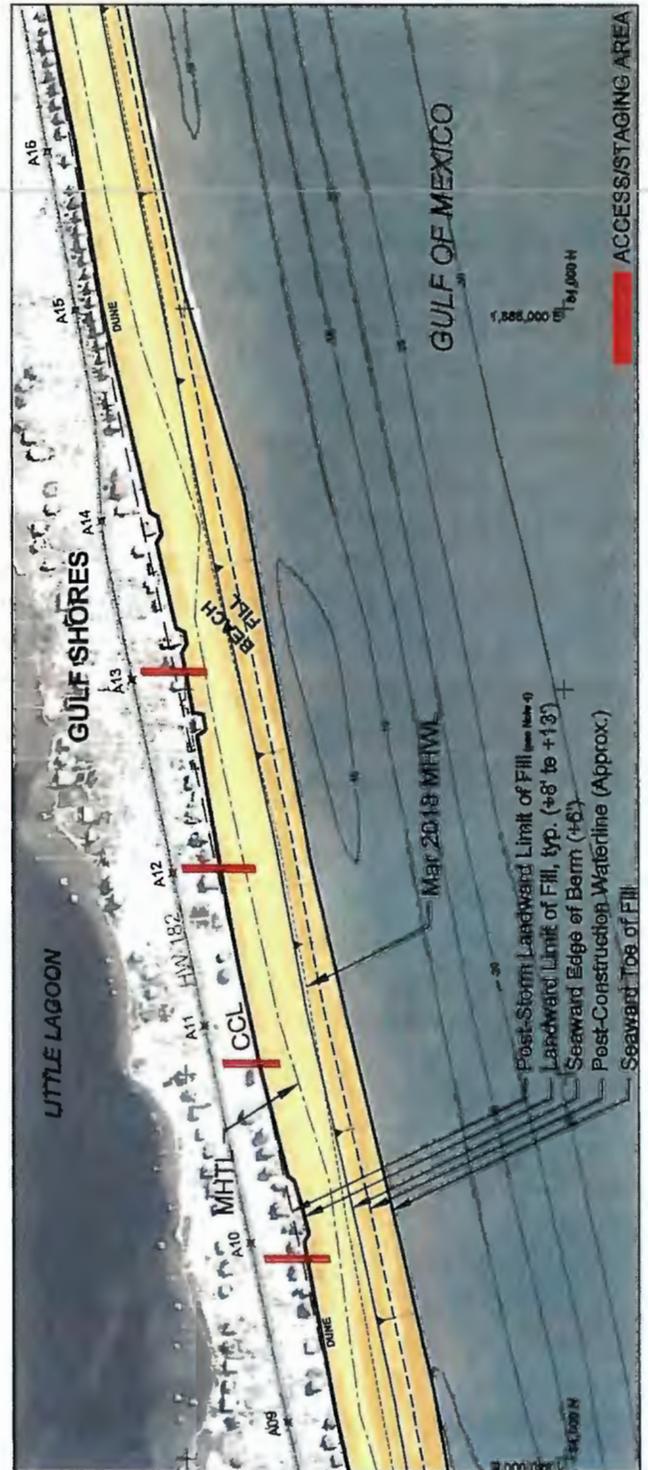
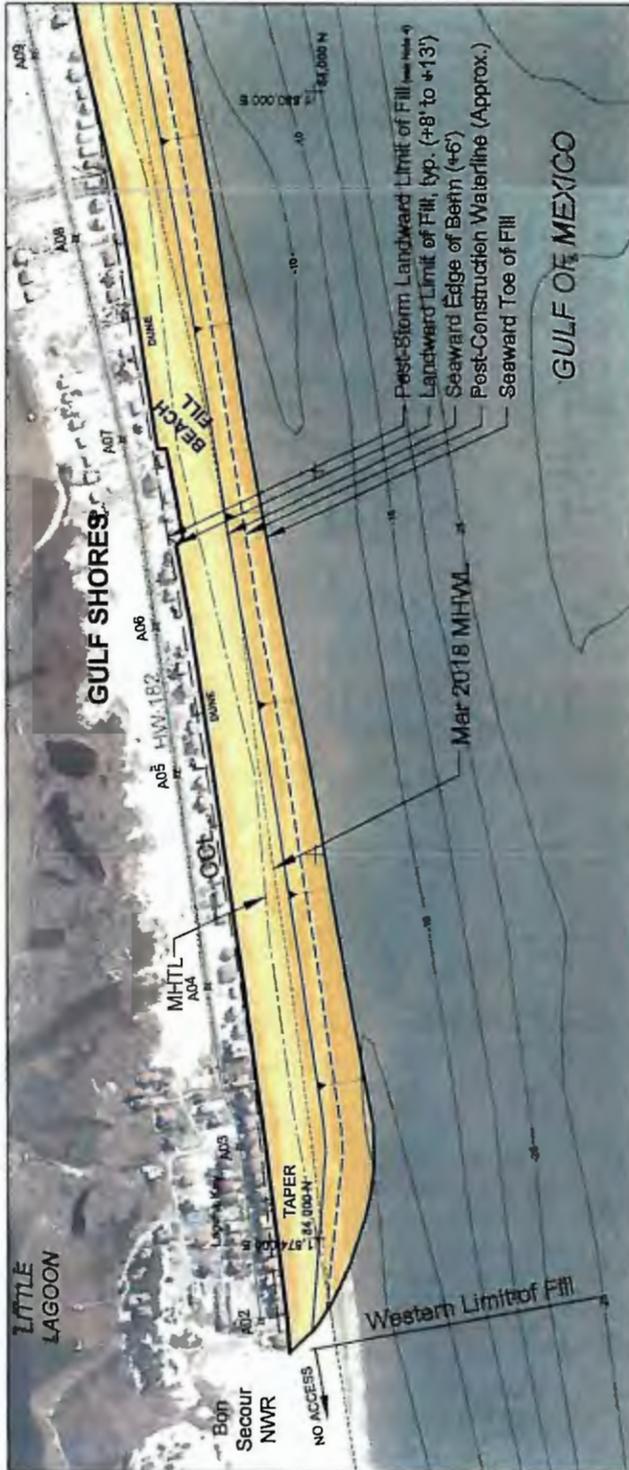
**olsen**  
 associates, inc.  
 2618 Herschel St.  
 Jacksonville, FL 32204  
 (904) 387-6114  
 (FAX) 384-7368  
 COA 2011-E

PERIODIC RENOURISHMENT:  
 ORANGE BEACH/GULF STATE PARK/  
 GULF SHORES  
 BEACH RESTORATION PROJECT

LOCATION



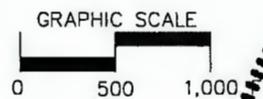
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- NOTES:
- 1 PHOTO DATE: OCTOBER 28, 2018
  - 2 HORIZONTAL DATUM: HORIZONTAL - NAD83, SPC AL WEST ZONE (FT)
  - 3 VERTICAL DATUM - NAVD88 (FT)
  - 4 POST-STORM FILL MAY EXTEND TO CCL

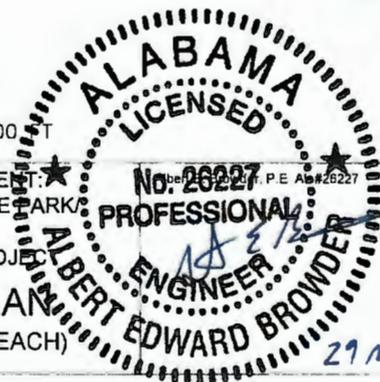
WEST BEACH GULF SHORES  
S: 22, 23, 27-28 T: 9S R: 3E  
30° 14' 17" N / 87° 45' 87" W

DATE	APPR	REVISION	DATE	APPR	REVISION



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COA 2011-E

PERIODIC RENOURISHMENT  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
GULF SHORES (WEST BEACH)

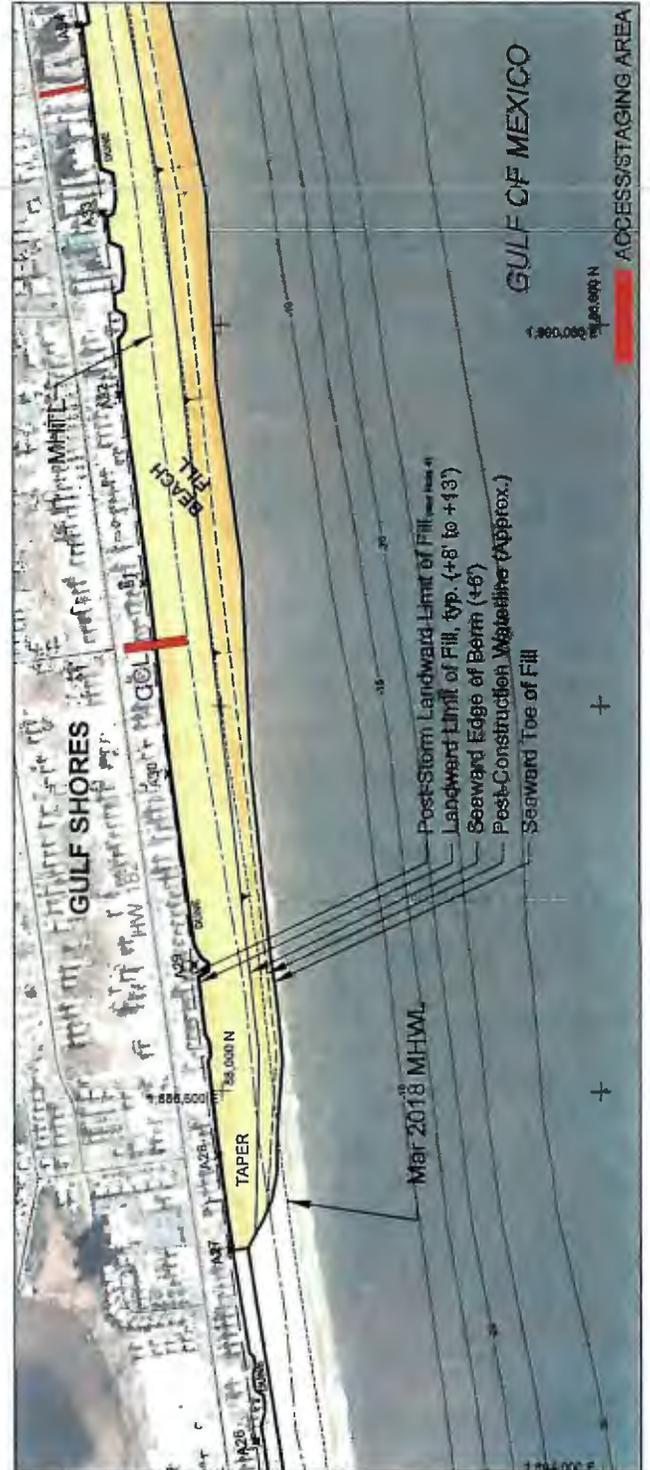
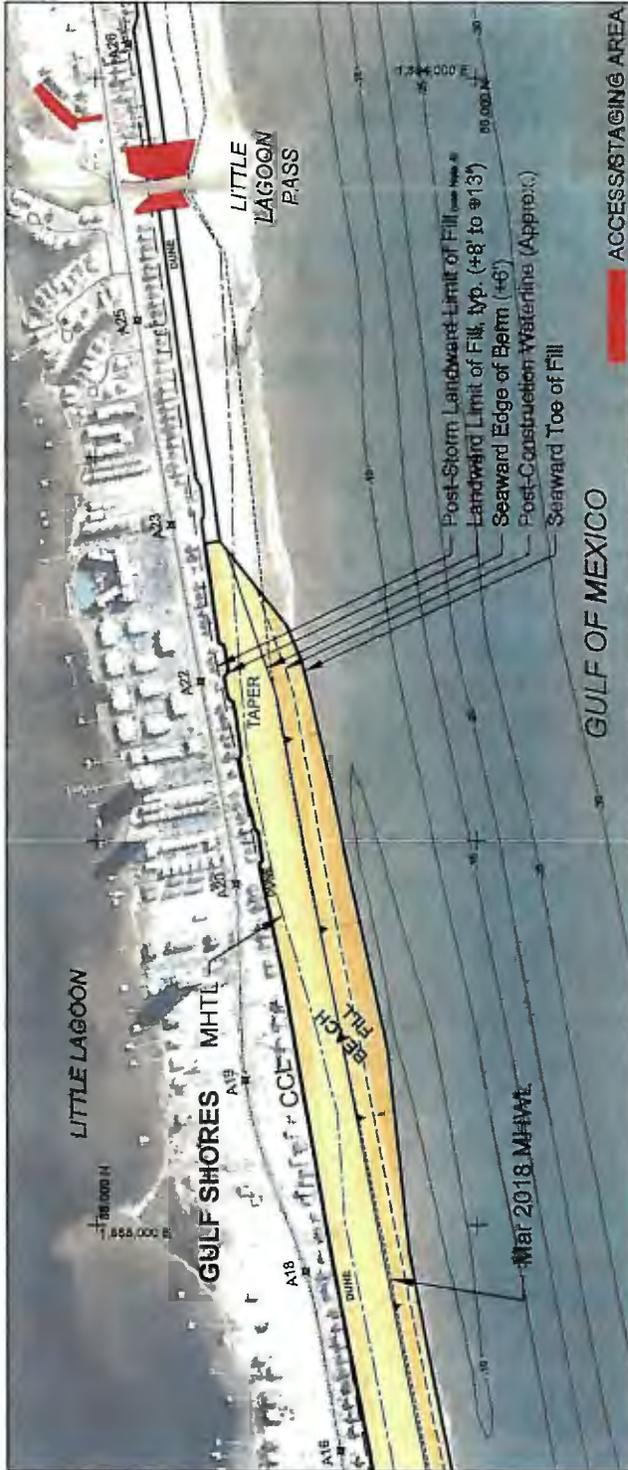


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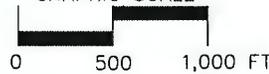
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WEST BEACH GULF SHORES  
S: 22, 23, 27-28 T: 9S R: 3E  
30° 14'17" N / 87° 45.87' W

EAST BEACH GULF SHORES  
S: 23-24 T: 9S R: 3E  
19-21 T: 9S R: 4E  
30° 14'67" N / 87° 42'26" W

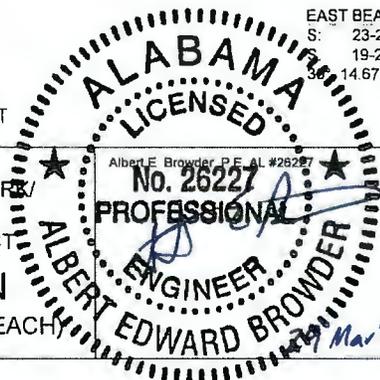
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GRAPHIC SCALE



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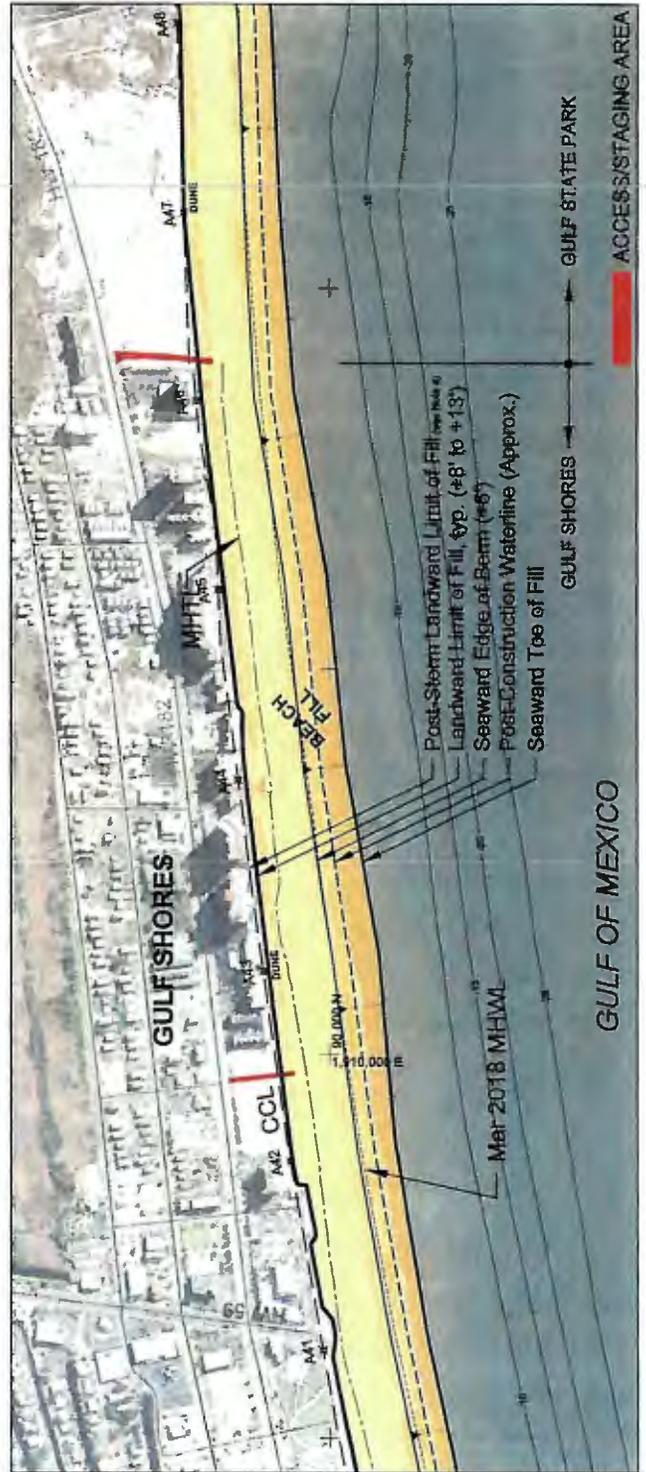
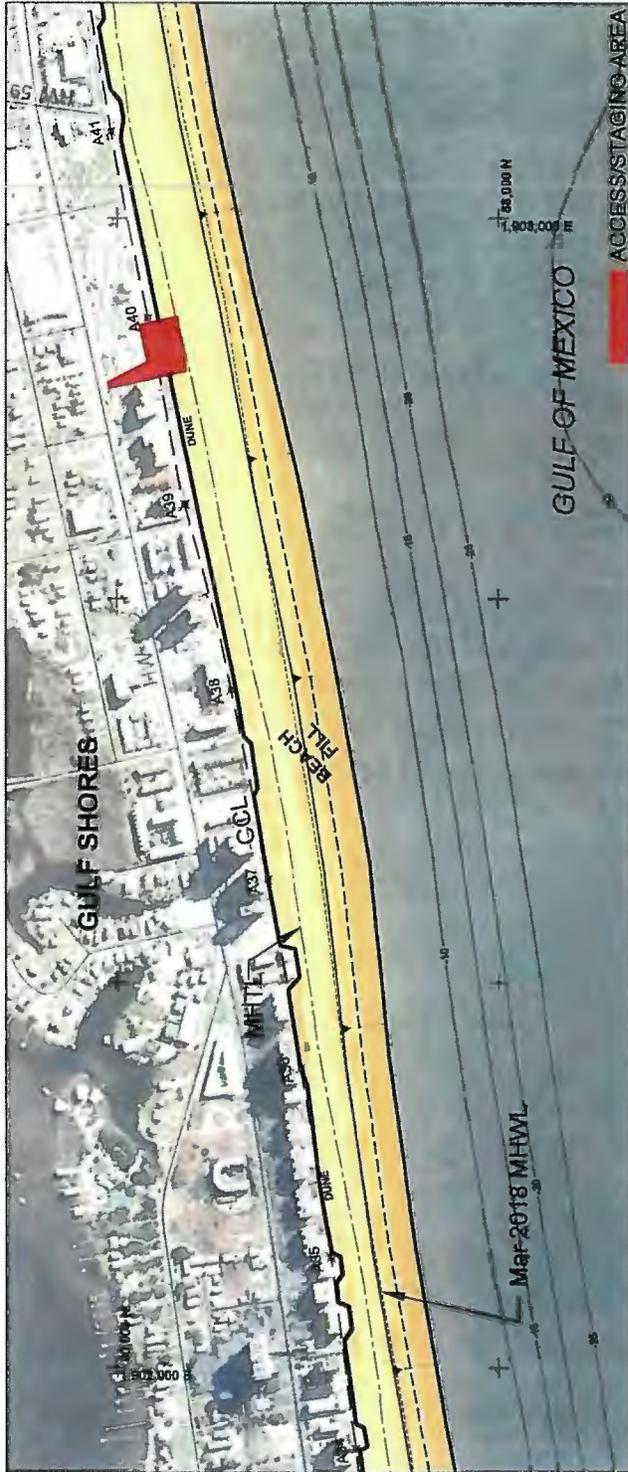
PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
GULF SHORES (WEST / EAST BEACH)



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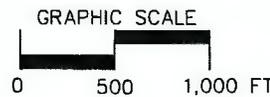


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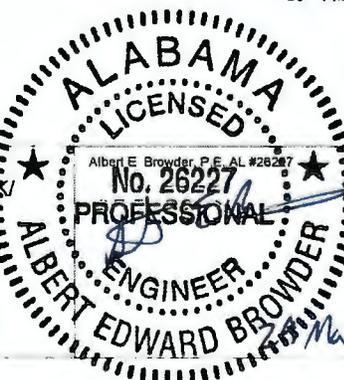
EAST BEACH GULF SHORES  
S 23-24 T: 9S R: 3E  
S 19-21 T: 9S R: 4E  
30° 14.67' N / 87° 42.26' W

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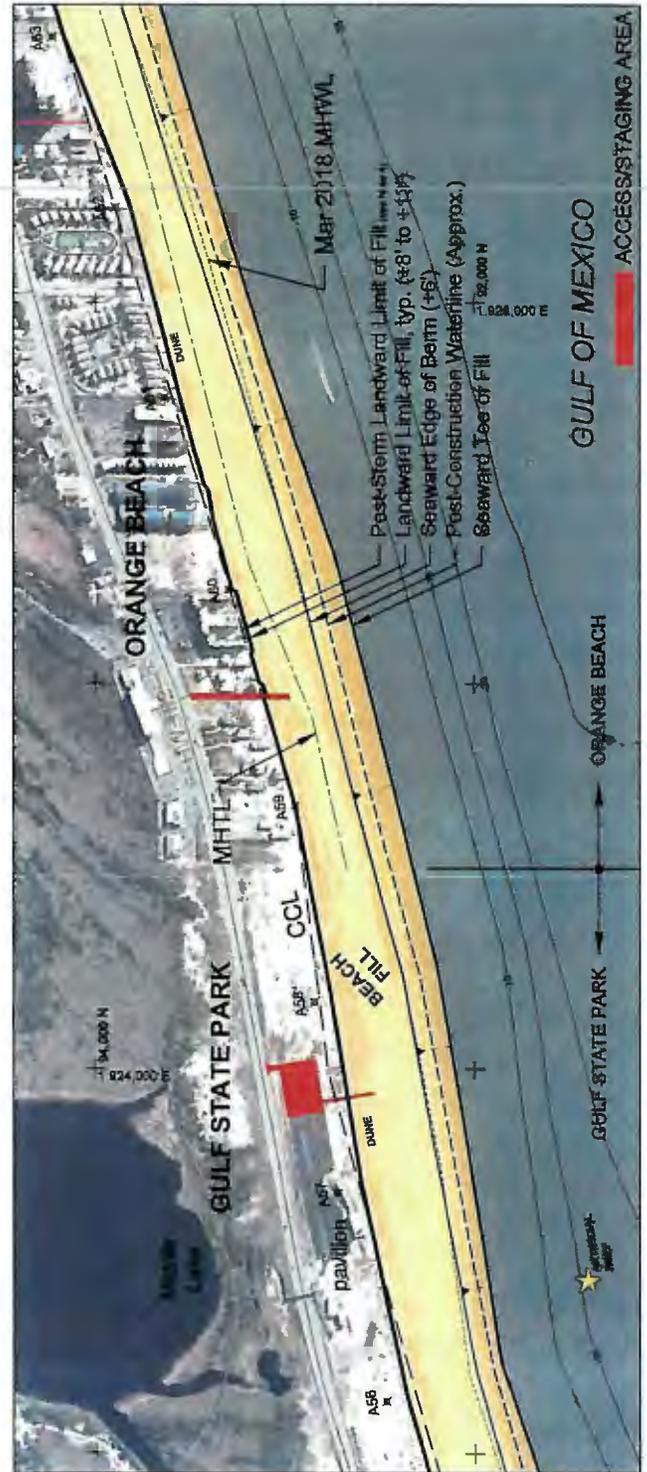
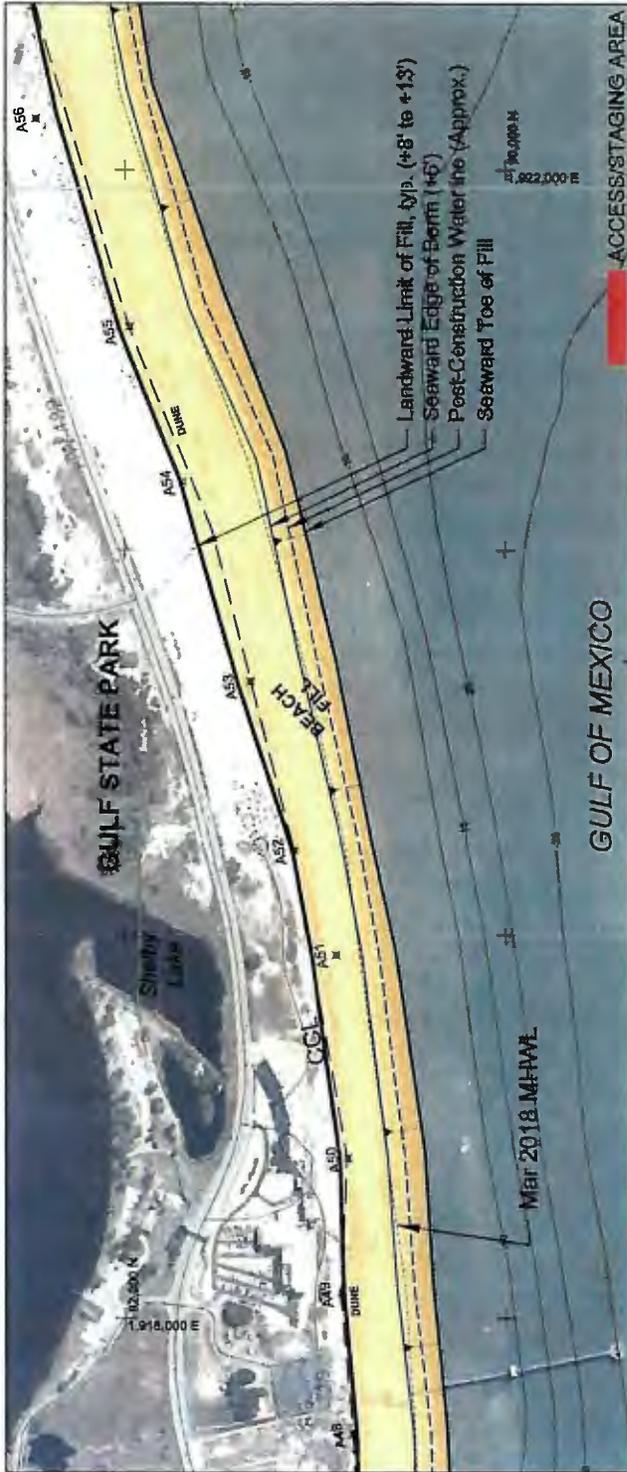


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COA 2011-E

PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
GULF SHORES (EAST BEACH)



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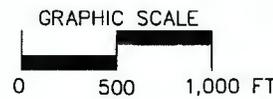
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- 2 HORIZONTAL DATUM - HORIZONTAL - NAD83, SPC AL WEST ZONE (FT)
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GULF STATE PARK  
S. 14, 21-23 T. 9S R. 4E  
30° 15'01" N / 87° 39'22" W

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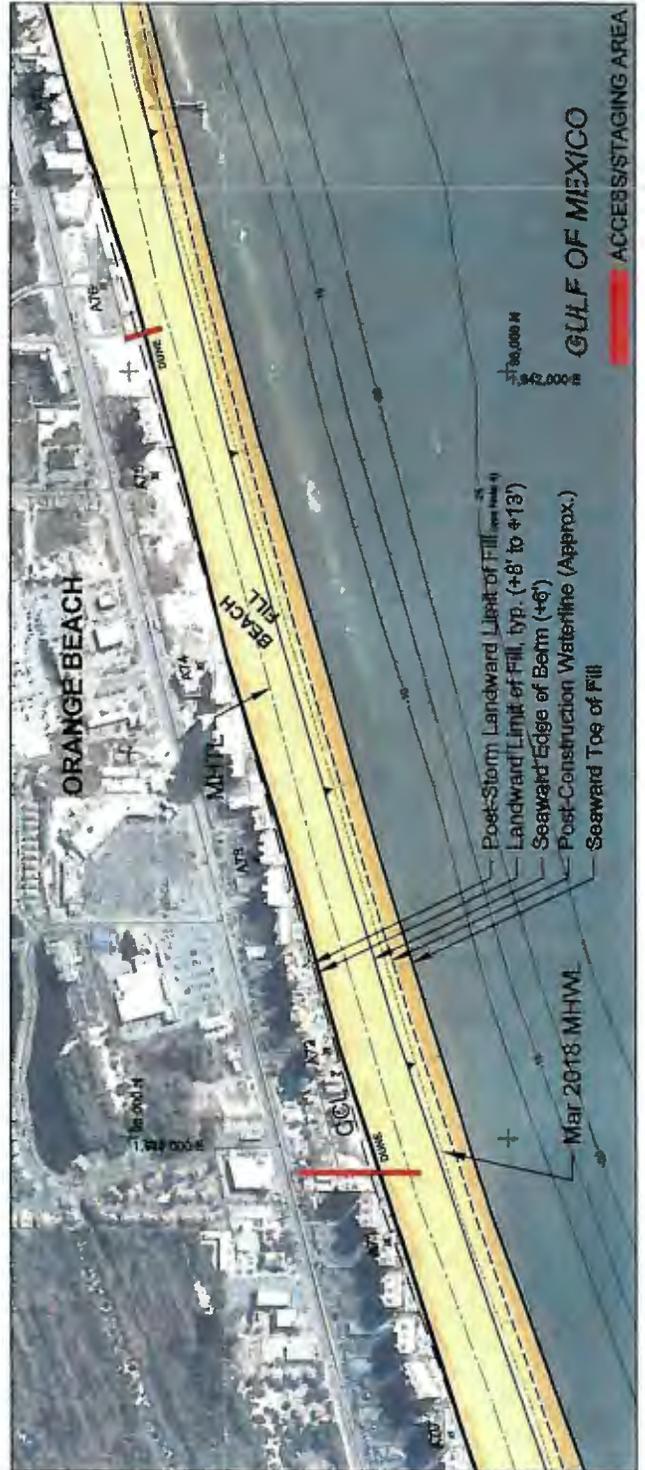
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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
GULF STATE PARK/ORANGE BEACH



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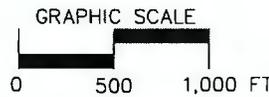


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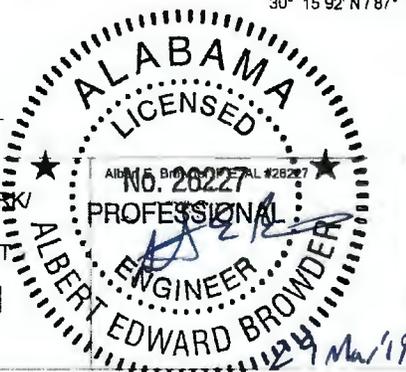
ORANGE BEACH / ROMAR BEACH  
S 13-14 T 9S R 4E  
S 8-10, 17-18 T 9S R 5E  
30° 15' 92" N / 87° 35' 80" W

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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
ORANGE BEACH



DATE  
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ORANGE BEACH / ROMAR BEACH  
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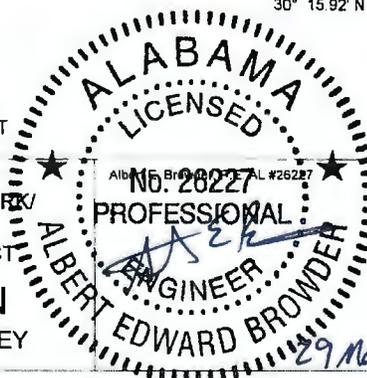


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COA 2011-E

GRAPHIC SCALE



PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
ORANGE BEACH/PERDIDO KEY



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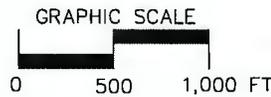


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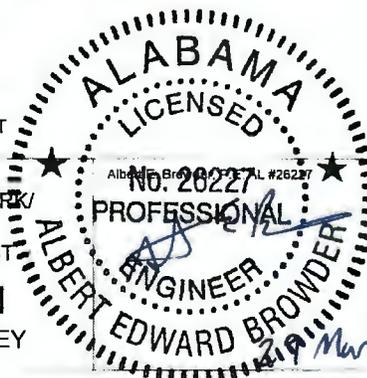
PERDIDO KEY  
S. 2-3 T. 9S R. 5E  
30° 16' 66" N / 87° 31' 81" W

DATE	APPR	REVISION	DATE	APPR	REVISION

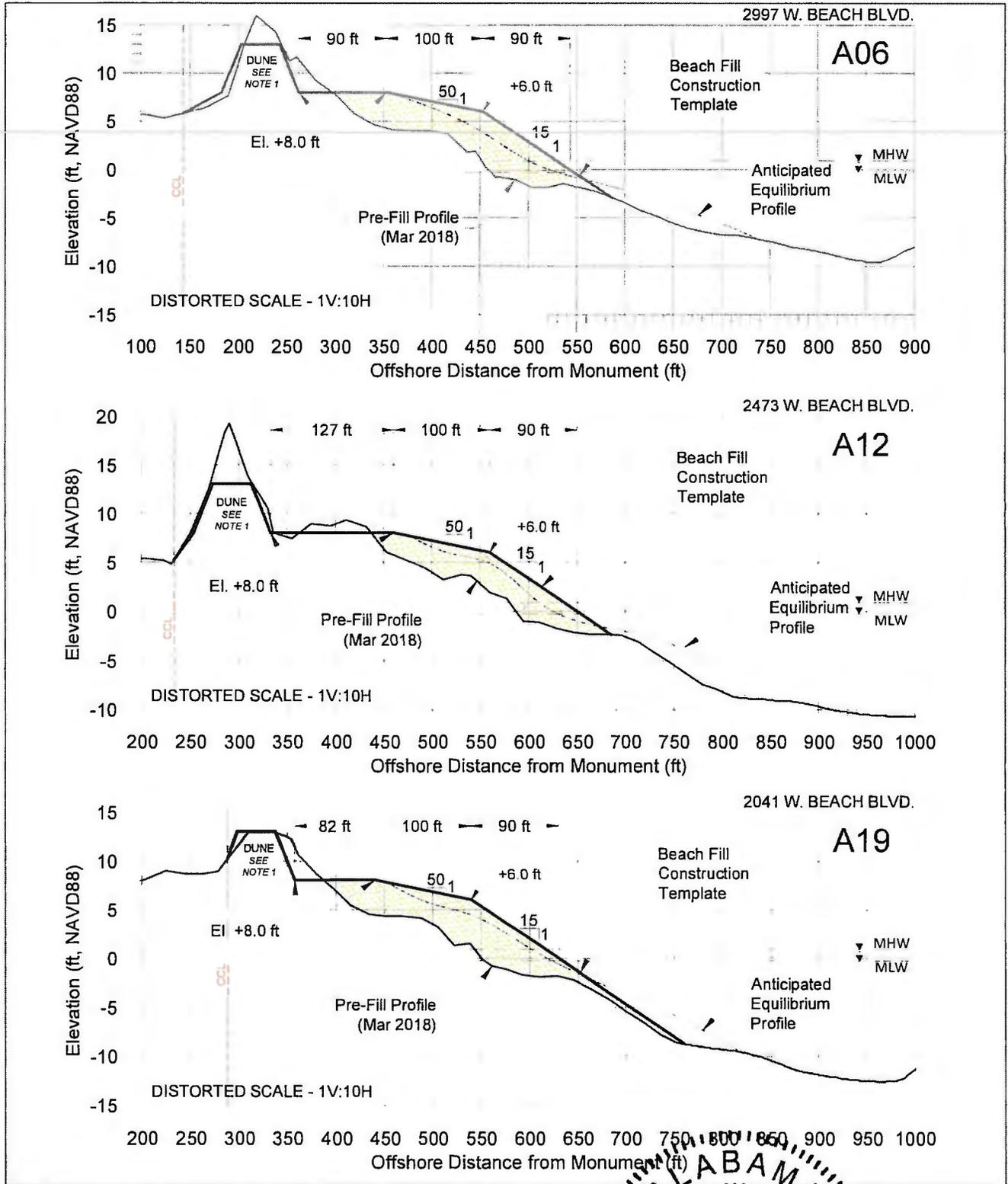


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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
ORANGE BEACH/PERDIDO KEY



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8 OF 19



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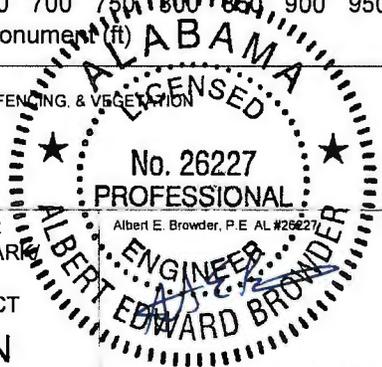
1 WHERE NEEDED, REPAIR/REPLACEMENT TO BE PERFORMED TO DUNE TEMPLATE, SAND FENCING, & VEGETATION

DATE	APPR	REVISION	DATE	APPR	REVISION



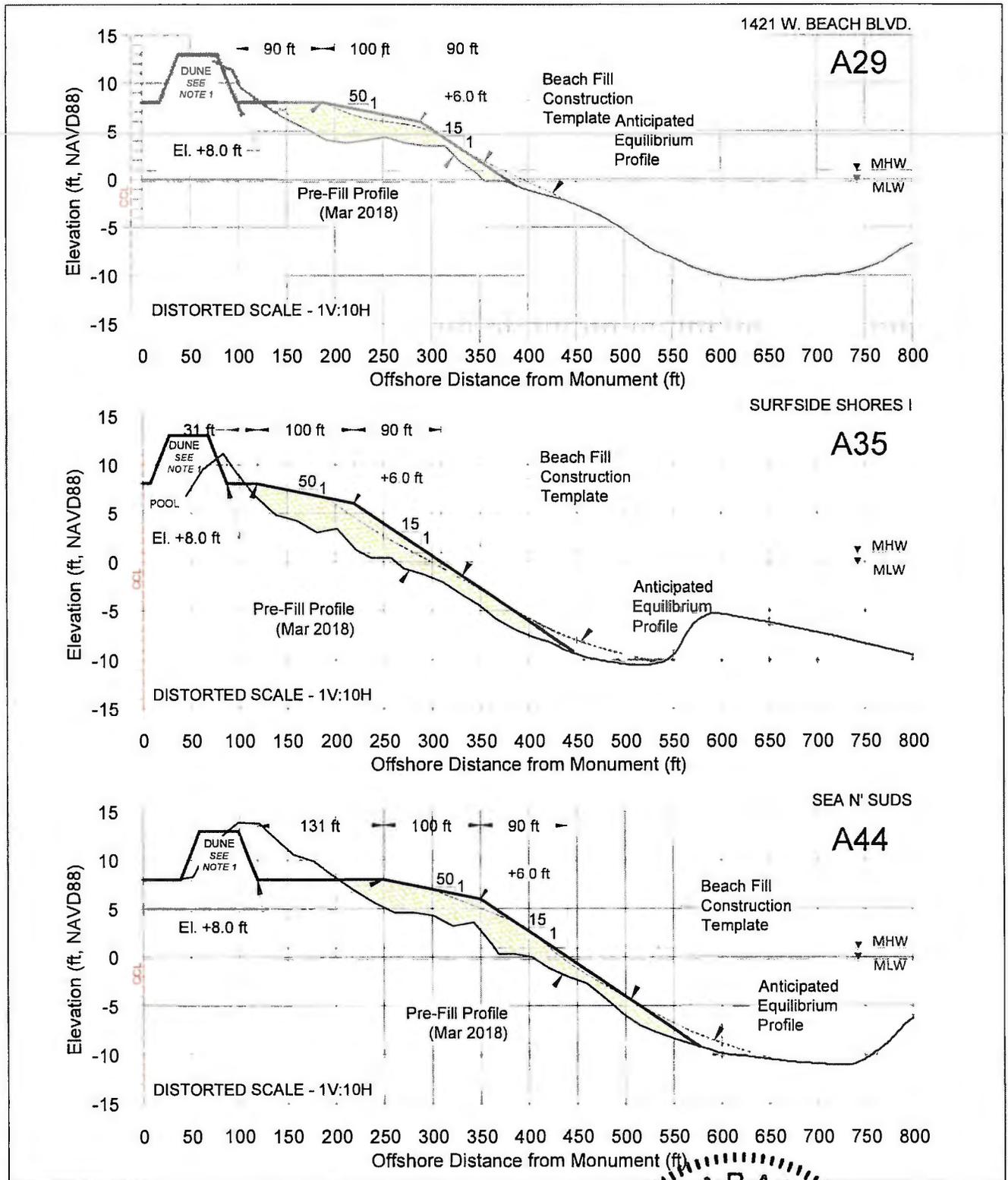
**olsen**  
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2618 Herschel St.  
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(FAX) 384-7368  
COA 2011-E

PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK  
GULF SHORES  
BEACH RESTORATION PROJECT  
**BEACH FILL PLAN**  
(WEST BEACH GULF SHORES)



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9 OF 19

*29 Mar 19*



NOTES:

1 WHERE NEEDED REPAIR/REPLACEMENT TO BE PERFORMED TO DUNE TEMPLATE SAND FENCING & VEGETATION

DATE	APPR	REVISION	DATE	APPR	REVISION



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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK  
GULF SHORES  
BEACH RESTORATION PROJECT

**SECTIONS**  
(EAST BEACH)

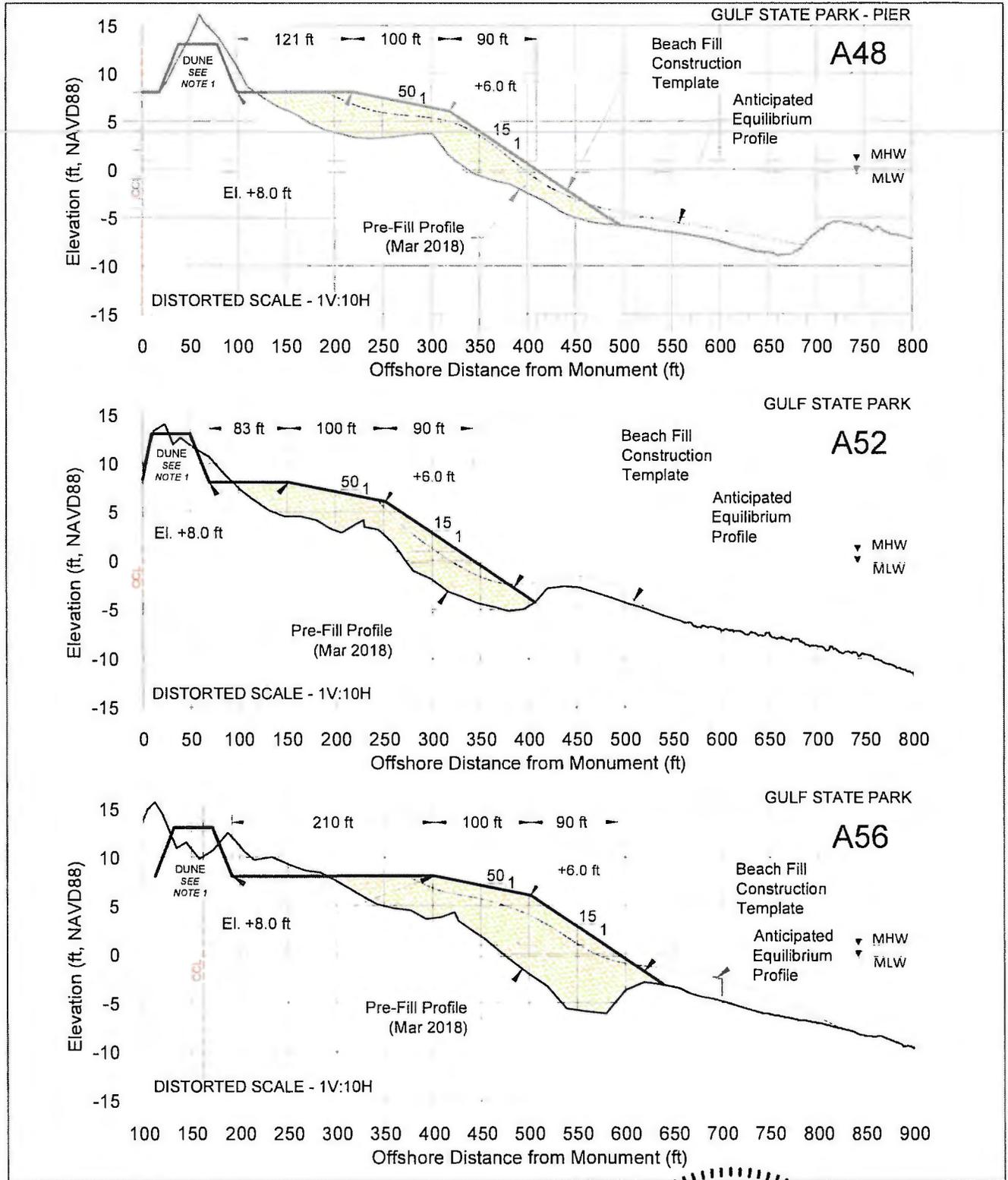


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10 OF 19

29 Mar 19



NOTES:

1 WHERE NEEDED, REPAIR/REPLACEMENT TO BE PERFORMED TO DUNE TEMPLATE, SAND FENCING & VEGETATION

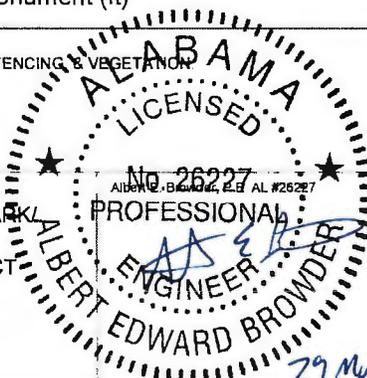
DATE	APPR	REVISION	DATE	APPR	REVISION



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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK  
GULF SHORES  
BEACH RESTORATION PROJECT

**SECTIONS**  
(GULF STATE PARK)

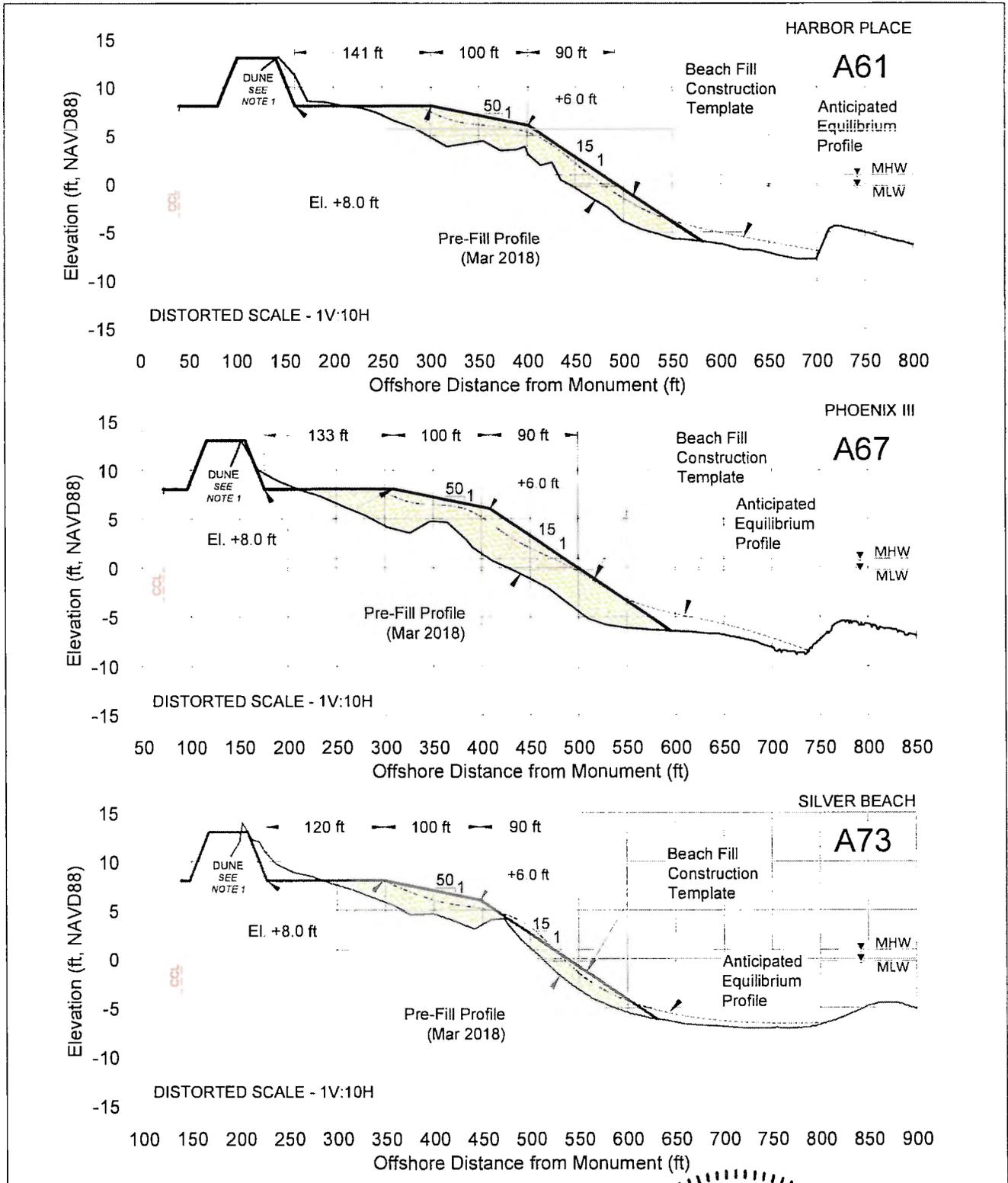


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29 Mar 19



NOTES:

1 WHERE NEEDED REPAIR/REPLACEMENT TO BE PERFORMED TO DUNE TEMPLATE SAND FENCING & VEGETATION

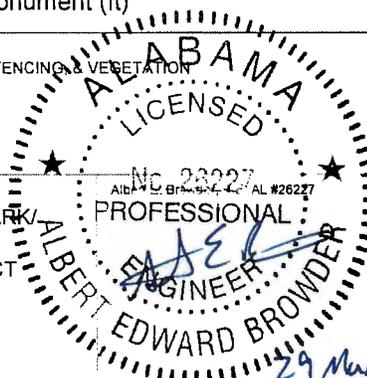
DATE	APPR	REV'S ON	DATE	APPR	REV'S ON



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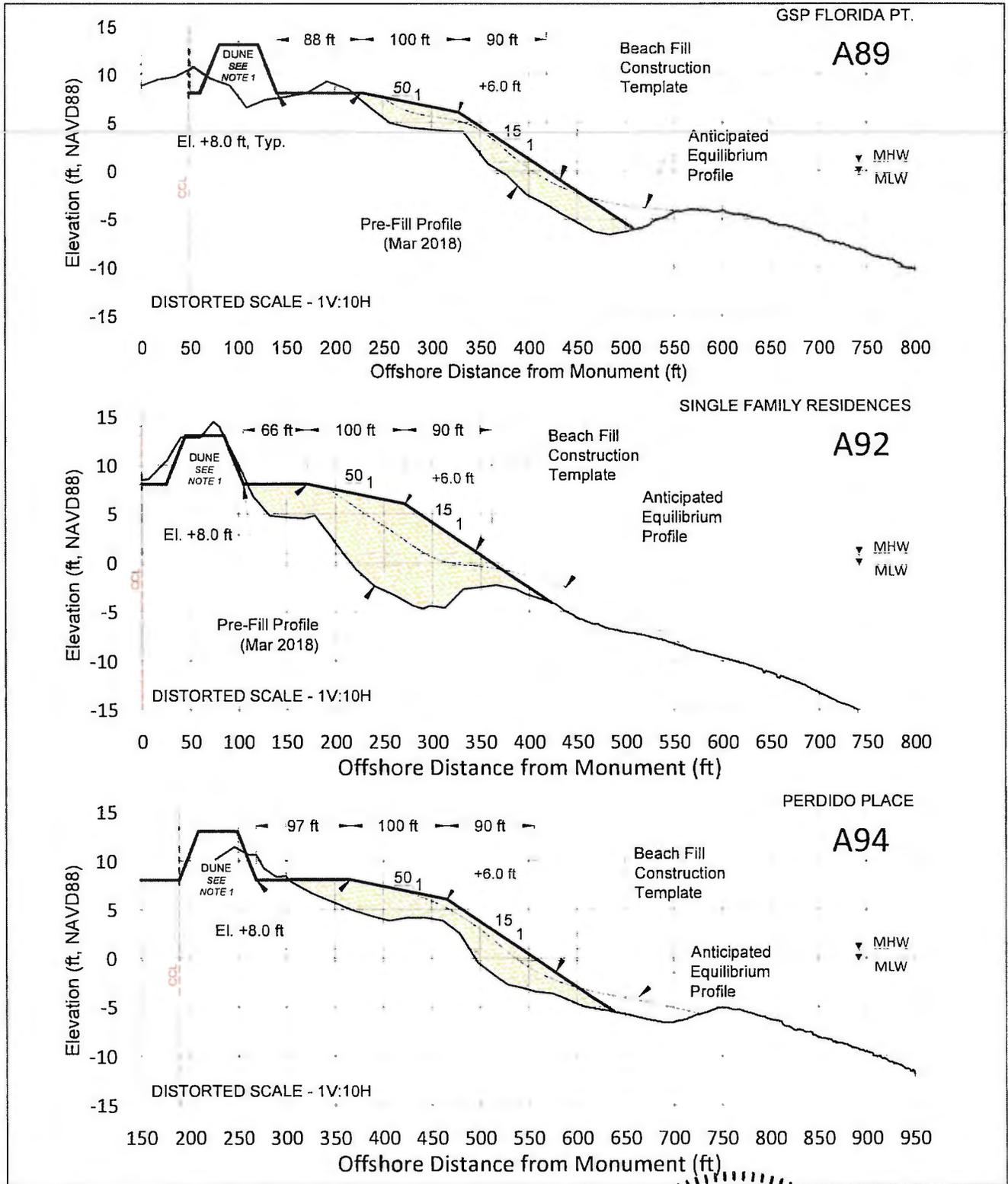
PERIODIC RENOURISHMENT:  
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GULF SHORES  
BEACH RESTORATION PROJECT

**SECTIONS**  
(ROMAR BEACH)



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GSP FLORIDA PT.



NOTES:

1 WHERE NEEDED, REPAIR/REPLACEMENT TO BE PERFORMED TO DUNE TEMPLATE, SAND FENCING & VEGETATION.

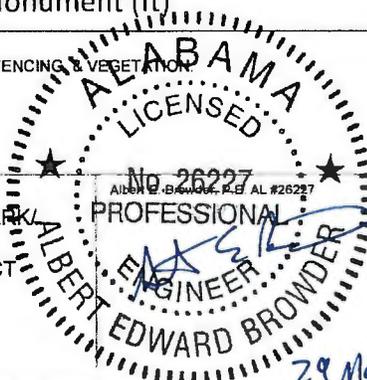
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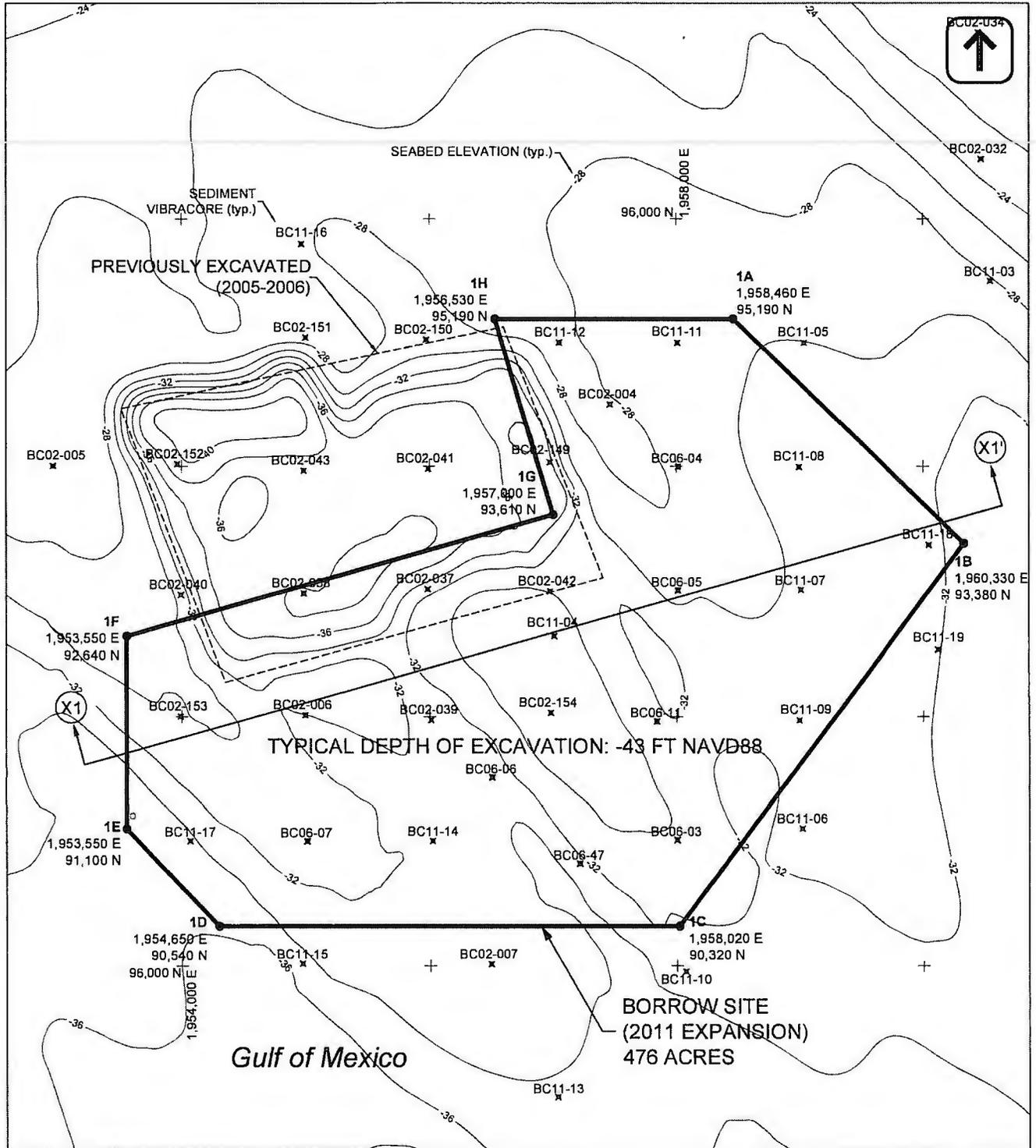
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COA 2011-E

PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT

**SECTIONS**  
(PERDIDO KEY)



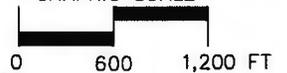
DATE: 03/29/2019  
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SHEET 13 OF 19



NOTES:

- 1 DATUMS. Horizontal - NAD83, SPC AL West Zone (ft), Vertical - NAVD88 (ft)
- 2 SITE TO BE SUBDIVIDED PRIOR TO EXCAVATION TO CONSERVE MATERIAL
- 3 DEPTH OF EXCAVATION VARIES (BASED ON VIBRACORE/SUB-BOTTOM SONAR DATA)
- 4 SURVEY DATE JUNE 2016 (POST 2012-2013 EXCAVATION)

GRAPHIC SCALE



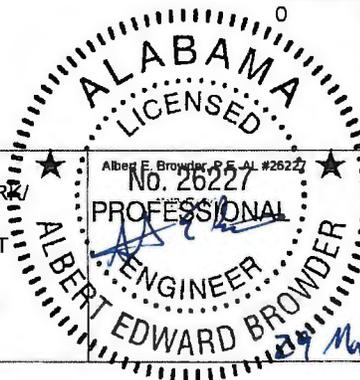
DATE	APPR	REVISION	DATE	APPR	REVISION



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COA 2011-E

PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT

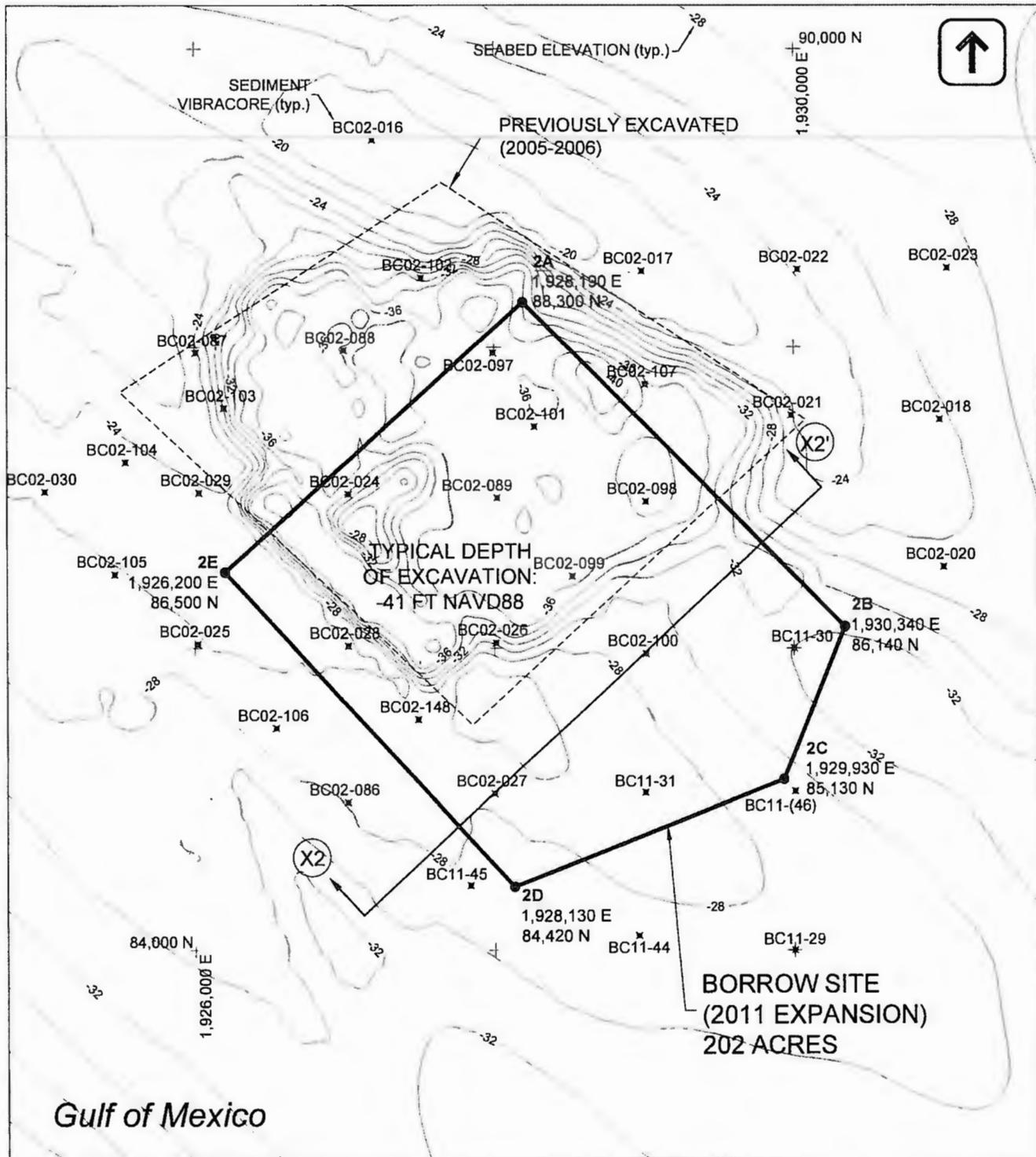
**BORROW SITE #1**



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03/29/2019

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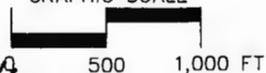
SHEET  
14 OF 19



NOTES:

- 1 DATUMS: Horizontal - NAD83, SPC AL West Zone (ft). Vertical - NAVD88 (ft)
- 2 SITE TO BE SUBDIVIDED PRIOR TO EXCAVATION TO CONSERVE MATERIAL
- 3 DEPTH OF EXCAVATION VARIES (BASED ON VIBRACORE/SUB-BOTTOM SONAR DATA)
- 4 SURVEY DATE: MAY 2011

GRAPHIC SCALE



DATE	APPR	REVISION	DATE	APPR	REVISION



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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT

**BORROW SITE #2**

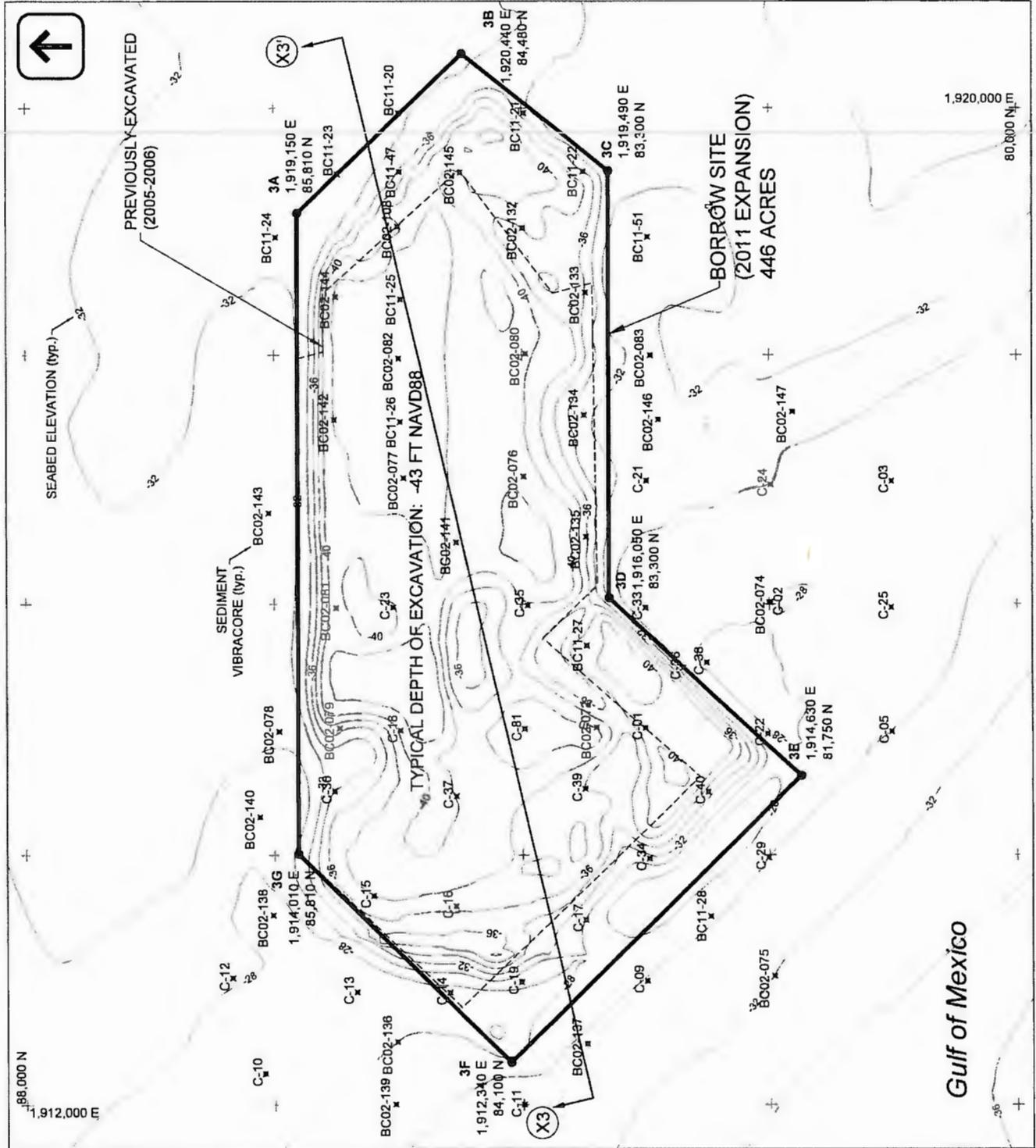


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03/29/2019

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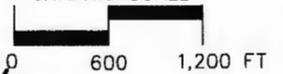
29 Mar 19



NOTES:

- 1 DATUMS: Horizontal - NAD83, SPC AL West Zone (ft) Vertical - NAVD88 (ft)
- 2 SITE TO BE SUBDIVIDED PRIOR TO EXCAVATION TO CONSERVE MATERIAL
- 3 DEPTH OF EXCAVATION VARIES (BASED ON VIBRACORE/SUB-BOTTOM SONAR DATA)
- 4 SURVEY DATE JUNE 2016 (POST 2012-2013 EXCAVATION)

GRAPHIC SCALE



DATE	APPR	REVISION	DATE	APPR	REVISION



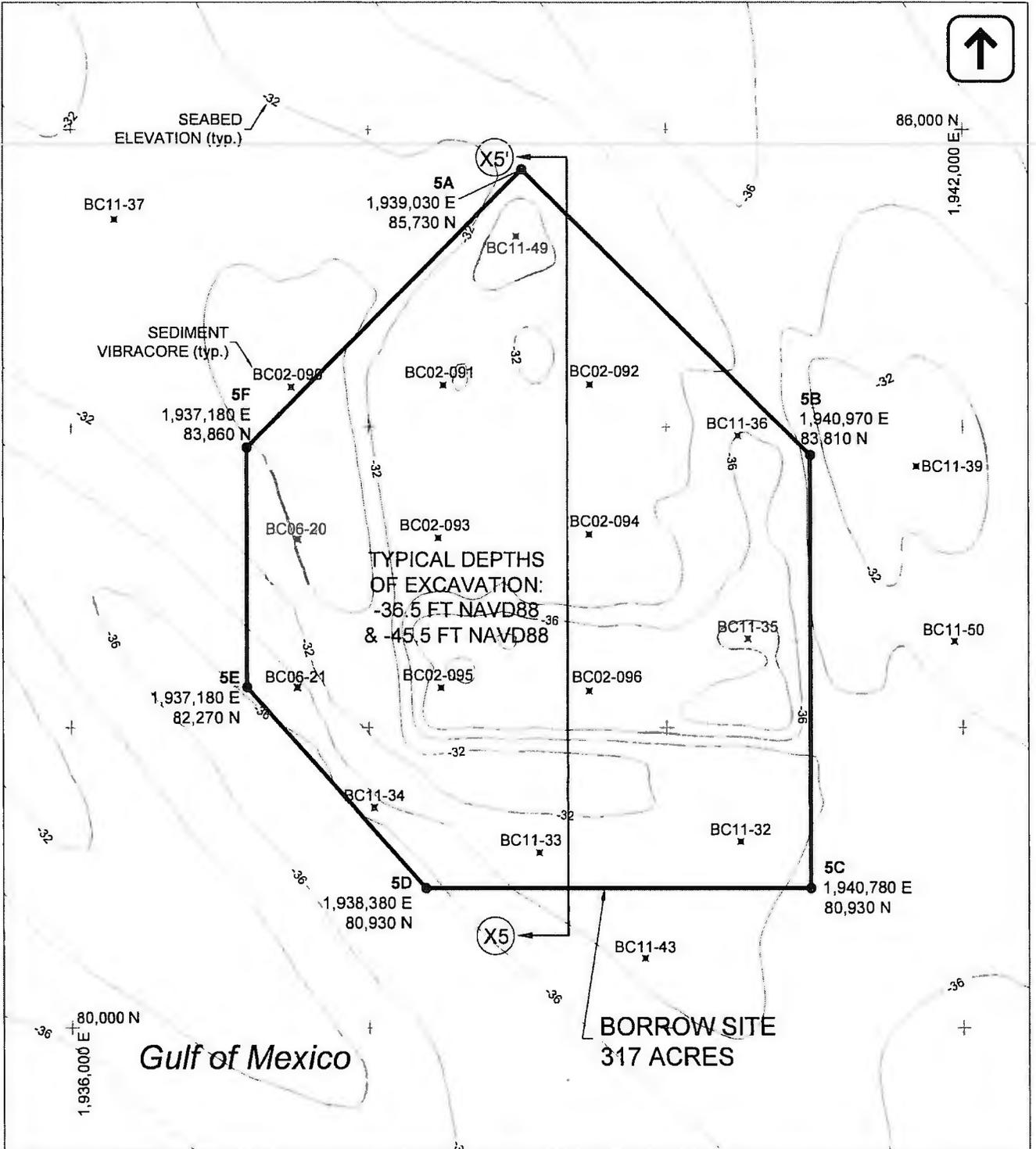
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PERIODIC RENOURISHMENT:  
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**BORROW SITE #3**



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NOTES:

- 1 DATUMS Horizontal - NAD83, SPC AL West Zone (ft), Vertical - NAVD88 (ft)
- 2 SITE TO BE SUBDIVIDED PRIOR TO EXCAVATION TO CONSERVE MATERIAL
- 3 DEPTH OF EXCAVATION VARIES (BASED ON VIBRACORE/SUB-BOTTOM SONAR DATA)
- 4 SURVEY DATE: JUNE 2016 (POST 2012-2013 EXCAVATION)

GRAPHIC SCALE



DATE	APPR	REVISION	DATE	APPR	REVISION



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COA 2011-E

PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT

**BORROW SITE #5**

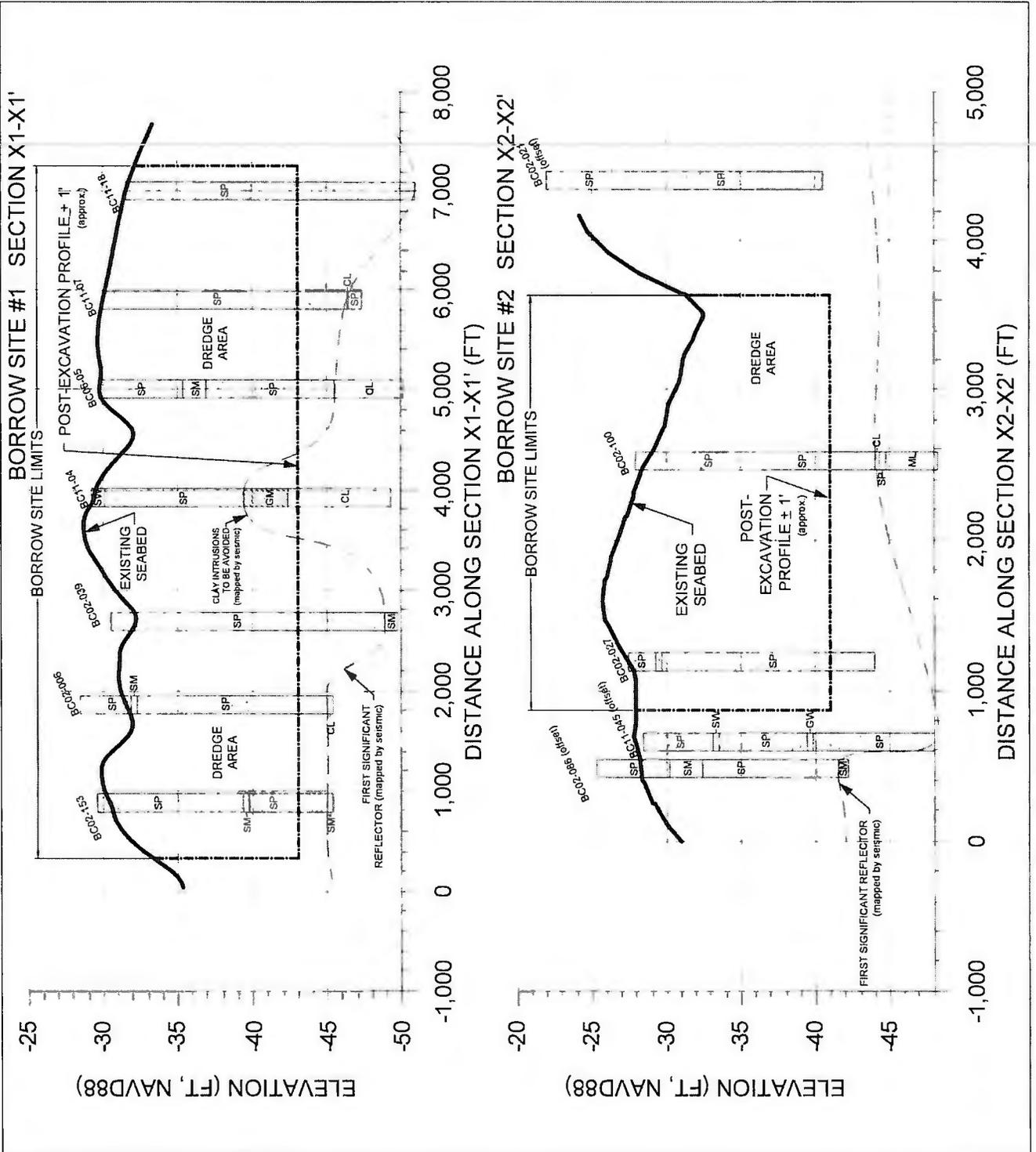


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**03/29/2019**

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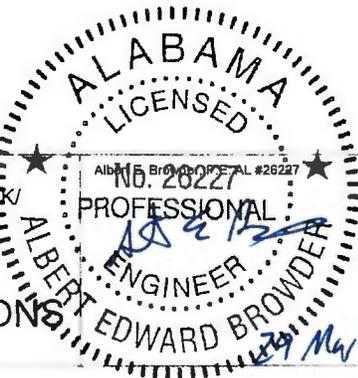
- NOTES:
- 1 SITE TO BE SUBDIVIDED PRIOR TO EXCAVATION TO CONSERVE MATERIAL
  - 2 SUBDIVISION MAY INCLUDE CHANGES IN MAX EXCAVATION DEPTH
  - 3 SEE SHEETS 14-17 FOR VIBRACORE LOCATIONS AND OFFSETS FROM SECTION LINES

DATE	APPR	REVISION	DATE	APPR	REVISION



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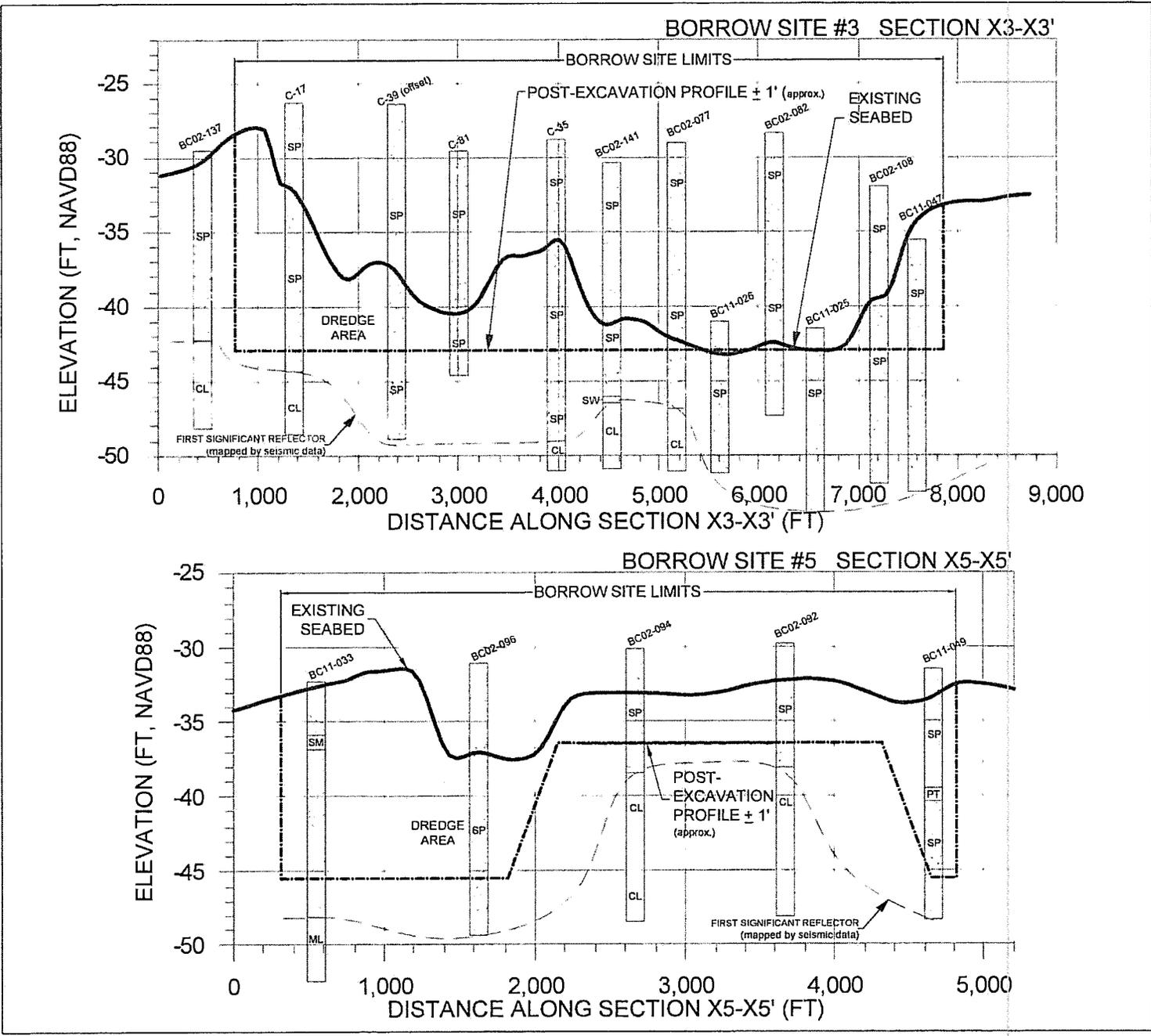
PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK/  
GULF SHORES  
BEACH RESTORATION PROJECT



ALBERT EDWARD BROWDER  
No. 28227  
ALABAMA LICENSED PROFESSIONAL ENGINEER

DATE	03/29/2019
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SHEET	18 OF 19

**BORROW SITE SECTIONS**



- NOTES:
- 1 SITE TO BE SUBDIVIDED PRIOR TO EXCAVATION TO CONSERVE MATERIAL
  - 2 SUBDIVISION MAY INCLUDE CHANGES IN MAX EXCAVATION DEPTH
  - 3 SEE SHEETS 14-17 FOR VIBRACORE LOCATIONS AND OFFSETS FROM SECTION LINES

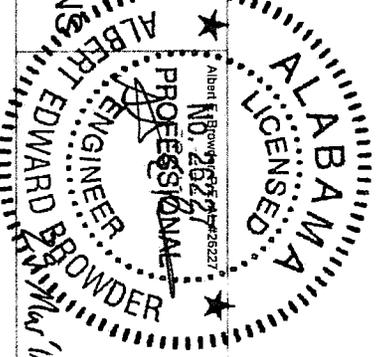
DATE	APPR	REVISION	DATE	APPR	REVISION



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PERIODIC RENOURISHMENT:  
ORANGE BEACH/GULF STATE PARK  
GULF SHORES  
BEACH RESTORATION PROJECT

**BORROW SITE SECTIONS**



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