

# DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Walton County Board of County Commissioners  
117 Montgomery Circle  
Defuniak Springs, Florida 32435

**Permit No:** SAJ-2014-00326 (SP-SWA)

**Issuing Office: U.S. Army Engineer District, Jacksonville**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** Establish a nearshore artificial reef network in the Gulf of Mexico offshore of Walton County, Florida. The reef network will consist of nine ¼-nautical mile square deployment areas. Each deployment site is 52.9 acres in size and will include a deployment buffer of no less than 25 feet on each internal side to ensure deployed material remains within the permitted area. Though each deployment site encompasses 52.9 acres, the individual reef deployments will be spaced such that reef material will cover less than 10 acres of seafloor within each ¼–nautical mile reef area. Material to be deployed would consist of clean concrete or rock, heavy gauge steel products (¼-inch thickness or greater), and prefabricated structures that are a mixture of clean concrete and heavy gauge steel. The material to be deployed will have a maximum profile height of no more than 25 feet and would result in a minimum authorized depth of -30 feet at Mean Lower Low Water (MLLW). The applicant would implement a monitoring plan. The work described above is to be completed in accordance with the 5 pages of drawings affixed at the end of this permit instrument.

**Project Location:** The artificial reef sites are located in the Gulf of Mexico, approximately 0.44 – 0.67 nautical mile offshore of the Walton County shoreline and approximately 3.6 – 9.5 nautical miles north to northeast of the Safety Fairway. The reef sites are all ¼-nautical mile square (52.9 acres) and are dispersed across the County's 26 miles of shoreline offshore adjacent to public beach accesses.

**Approximate Coordinates:**

<b>Miramar Beach Fish/Dive Reef</b>	<b>Longitude</b>	<b>Latitude</b>
Northwest Corner	86.3917° W	30.3667° N
Northeast Corner	86.3869° W	30.3667° N
Southeast Corner	86.3869° W	30.3625° N
Southwest Corner	86.3917° W	30.3625° N
Centroid	86.3893° W	30.3646° N
<b>Topsail Bluff Fish/Dive Reef</b>	<b>Longitude</b>	<b>Latitude</b>
Northwest Corner	86.3250° W	30.3583° N
Northeast Corner	86.3202° W	30.3583° N
Southeast Corner	86.3202° W	30.3542° N
Southwest Corner	86.3250° W	30.3542° N
Centroid	86.3226° W	30.3562° N
<b>Fort Panic Fish/Dive Reef</b>	<b>Longitude</b>	<b>Latitude</b>
Northwest Corner	86.2583° W	30.3417° N
Northeast Corner	86.2535° W	30.3417° N
Southeast Corner	86.2535° W	30.3375° N
Southwest Corner	86.2583° W	30.3375° N
Centroid	86.2559° W	30.3396° N
<b>Ed Walline Fish/Dive Reef</b>	<b>Longitude</b>	<b>Latitude</b>
Northwest Corner	86.2333° W	30.3350° N
Northeast Corner	86.2285° W	30.3350° N
Southeast Corner	86.2285° W	30.3308° N
Southwest Corner	86.2333° W	30.3308° N
Centroid	86.2309° W	30.3329° N
<b>Blue Mountain Fish/Dive Reef</b>	<b>Longitude</b>	<b>Latitude</b>
Northwest Corner	86.2033° W	30.3250° N
Northeast Corner	86.1985° W	30.3250° N
Southeast Corner	86.1985° W	30.3208° N
Southwest Corner	86.2033° W	30.3208° N
Centroid	86.2009° W	30.3229° N
<b>Grayton Beach Fish/Dive Reef</b>	<b>Longitude</b>	<b>Latitude</b>

Northwest Corner	86.1633° W	30.3133° N
Northeast Corner	86.1585° W	30.3133° N
Southeast Corner	86.1585° W	30.3092° N
Southwest Corner	86.1633° W	30.3092° N
Centroid	86.1609° W	30.3112° N
Santa Clara	Longitude	Latitude
Fish/Dive Reef		
Northwest Corner	86.1250° W	30.3033° N
Northeast Corner	86.1202° W	30.3033° N
Southeast Corner	86.1202° W	30.2992° N
Southwest Corner	86.1250° W	30.2992° N
Centroid	86.1226° W	30.3012° N
Deer Lake	Longitude	Latitude
Fish/Dive Reef		
Northwest Corner	86.0833° W	30.2917° N
Northeast Corner	86.0785° W	30.2917° N
Southeast Corner	86.0785° W	30.2875° N
Southwest Corner	86.0833° W	30.2875° N
Centroid	86.0809° W	30.2896° N
Inlet Beach	Longitude	Latitude
Fish/Dive Reef		
Northwest Corner	86.0167° W	30.2633° N
Northeast Corner	86.0119° W	30.2633° N
Southeast Corner	86.0119° W	30.2592° N
Southwest Corner	86.0167° W	30.2592° N
Centroid	86.0143° W	30.2612° N

## Permit Conditions

### General Conditions:

1. The time limit for completing the work authorized ends on **February 9, 2025**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith

transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature and the mailing address of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. **Reporting Addresses:** The Permittee shall reference this permit number, SAJ-2014-00326, on all correspondence. Unless specifically notified to the contrary, the Permittee shall use the following addresses for transmitting correspondence to the referenced agencies:

- a. U.S. Army Corps of Engineers  
41 North Jefferson Street, Suite 301  
Pensacola, FL 32502

or by email at [CESAJ-ComplyDocs@usace.army.mil](mailto:CESAJ-ComplyDocs@usace.army.mil)

- b. National Oceanic and Atmospheric Administration  
Marine Chart Division  
Office of Coast Survey, N/CS26, Sta. 7317  
1315 East-West Highway

PERMIT NUMBER: SAJ-2014-00326 (SP-SWA)  
PERMITTEE: Walton Board of County Commissioners  
PAGE 5 of 12

Silver Springs, MD 20910-3282

or email at ocs.ndb@noaa.gov

- c. Commander, U.S. Coast Guard (USCG)  
8<sup>th</sup> Coast Guard District  
Hale Boggs Federal Building  
500 Poydras Street  
New Orleans, LA 70130
  
- d. Florida Fish and Wildlife Conservation Commission  
Artificial Reef Program  
620 S. Meridian Street, Box 4B2  
Tallahassee, Florida 32399

Or email at artificialreefdeployments@MyFWC.com

**2. Initial Agency Notification:** The Permittee shall provide to the U.S. Army Corps of Engineers (Corps), National Oceanic and Atmospheric Administration (NOAA), and U.S. Coast Guard (USCG) written notification of the planned deployment start date at least 2 weeks prior to the initial deployment on the authorized artificial reef site.

**3. Authorized Reef Materials:** No reef materials or module will weigh less than 500 pounds. Reef materials shall be clean and free from asphalt, petroleum, other hydrocarbons and toxic residues, loose free floating material or other deleterious substances. All artificial reef materials and/or structures will be selected, designed, constructed, and deployed to create stable and durable marine habitat. The Permittee shall deploy only the following authorized reef materials: clean concrete or rock, heavy gauge steel products (¼-inch thickness or greater), and prefabricated structures that are a mixture of clean concrete and heavy gauge steel.

**4. Reef Parameters:** The Permittee shall deploy all reef materials within the 25-foot buffer boundary as defined on attached permit drawings. A minimum clearance of 30 feet from the top of the deployed material relative to mean lower low water (MLLW) shall be maintained.

**5. Violation of Reef Parameters Notification:** In the event reef material is deployed in a location or manner contrary to the Reef Parameters Special Condition, the Permittee shall immediately notify the USCG Station and provide information as requested by the station. The Permittee shall notify NOAA, USCG and Corps in writing within 24 hours of the occurrence. At a minimum the written notification shall explain

how the deployed material exceeds the authorized reef parameters, a description of the material, a description of the vessel traffic in the area, the deployment location in nautical miles at compass bearing from obvious landmarks, the location of the unauthorized material in latitude and longitude coordinates (degree, minute, decimal minute format to the third decimal place), and the water depth above the material from MLW. The document will list the information provided by telephone to the USCG as noted above and include the time of the call and the name of the USCG personnel receiving the information.

**6. Protection of Existing Resources:** The Permittee shall not deploy artificial reef materials until an assessment of the bottom conditions have been accomplished by diver, submersible video camera, fathometer, depth/bottom sounder (e.g. "fish finder"), or side-scan sonar. The inspection of the deployment area may occur at the time of deployment, but no more than 1 year prior to deployment. The Permittee shall maintain a deployment buffer of at least 200 feet from any submerged beds of sea grasses, coral reefs, live bottom, areas supporting growth of sponges, sea fans, soft corals, and other sessile macroinvertebrates generally associated with rock outcrops, oyster reefs, scallop beds, clam beds, or areas where there are unique or unusual concentrations of bottom-dwelling marine organisms. Should the assessment find any evidence of cultural/archaeological resources such as sunken vessels, ballast, historic refuse piles, or careenage areas, the Permittee shall also maintain a deployment buffer of at least 200 feet from these resources.

The Permittee shall provide of the information obtained from the assessment to the Corps no less than 14 days prior to deployment of material on an artificial reef in conjunction with the pre-deployment notification.

**7. Pre-Deployment Notification:** No less than 14 days prior to deployment of material on an artificial reef, the Permittee shall transmit by electronic mail ("email") a complete and signed "Florida Artificial Reef Materials Cargo Manifest and Pre-Deployment Notification" form (Attached), to the Corps and Florida Fish and Wildlife Conservation Commission (FWC) to allow inspection of the proposed reef materials as deemed necessary by the agencies. Inspection is allowable at the staging area. By signing the Pre-Deployment Notification the Permittee certifies all materials are free from asphalt, petroleum, other hydrocarbons and toxic residues. The Permittee shall not deploy material if notified by the Corps or FWC that the material is questionable. The material needs to be evaluated before it is released for deployment. Any material deemed unacceptable for reef material will be disposed in an approved upland disposal site.

Deployment of the material shall not occur until after the end of the 14-day inspection period. The Permittee shall ensure both a copy of this permit and the signed "Florida

Artificial Reef Materials Cargo Manifest and Pre-Deployment Notification” form are maintained aboard the deployment vessel at all times during loading, transit, and deployment.

**8. Post-Deployment Placement Report/As-Built Drawing:** No less than 30 days after deployment at the reef site, the Permittee shall transmit by email to the Corps, FWC, and NOAA a complete and signed “Florida Artificial Reef Materials Placement Report and Post-Deployment Notification” form (Attached). Please note, the Corps requires the latitude and longitude to be accurate within 5 meters horizontal distance on the post-deployment report. Attach to the report an as-built drawing containing the approximate deployment configurations and the height of the material after placement. Depth shall be verified utilizing fathometer, depth sounder, or similar device accurate to within 1 meter. Also, include information on the condition of the material at the time of deployment. The report and drawing shall be limited to a few pages per deployment. Representative photographs and/or video, if available, should be submitted.

**9. Ownership/Maintenance/Liability:** By signing this permit, the Permittee certifies and acknowledges ownership of all artificial reef materials deployed on the reef, accepts responsibility for maintenance of the artificial reef, and possesses the ability to assume liability for all damages that may arise with respect to the artificial reef.

**10. Assurance of Navigation and Maintenance:** The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structures or work herein authorized, or if in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

**11. Sea Turtle/Sawfish/Sturgeon Guidelines:** The Permittee shall comply with the attached National Marine Fisheries Service’s “*Sea Turtle and Smalltooth Sawfish Construction Conditions*”, which also applies to sturgeon.

**12. Manatee Conditions:** The Permittee shall comply with the attached “*Standard Manatee Conditions for In-Water Work – 2011.*”

**13. Marine Life Entrapment:** Neither reef structure nor material or the method of design or deployment should pose more than minimal risk of entrapping fish, marine turtles, or marine mammals. The Permittee shall take all necessary action to minimize

this risk. Any observation of entrapped marine turtles or marine mammals on this artificial reef site should be reported immediately to the Enforcement Section by telephone at 850-433-8860 and the National Marine Fisheries Service by telephone at 727-824-5301.

14. **Protected Species Guidance:** The Permittee shall comply with the attached “Vessel Strike Avoidance Measures and Injured or Dead Protected Species Reporting”, for marine turtles and marine mammals.

15. **Monitoring:** As part of the yearly monitoring program the Permittee will conduct a visual inspection, fathometer scan, or conduct underwater videography once per year for the life of the sites to verify material location and condition and compare to such information from previous monitoring events to distinguish changes in either. The monitoring report should include a spreadsheet representation of the site inspected and data gained with a written narrative and submitted in accordance with Special Condition 1.

**Further Information:**

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

Section 404 of the Clean Water Act (33 U.S.C. 1344)

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.



3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

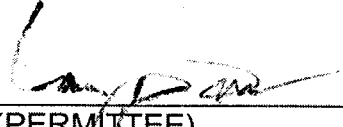
Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in

PERMIT NUMBER: SAJ-2014-00326 (SP-SWA)  
PERMITTEE: Walton Board of County Commissioners  
PAGE 10 of 12

certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

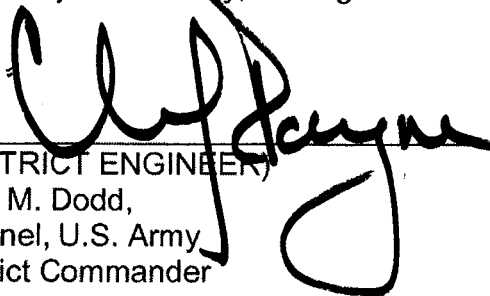
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

  
\_\_\_\_\_  
(PERMITTEE)

2/10/2015  
\_\_\_\_\_  
(DATE)

Lanny D. Jones  
\_\_\_\_\_  
(PERMITTEE NAME-PRINTED)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_  
(DISTRICT ENGINEER)  
Alan M. Dodd,  
Colonel, U.S. Army  
District Commander

11 Feb 2015  
\_\_\_\_\_  
(DATE)

PERMIT NUMBER: SAJ-2014-00326 (SP-SWA)  
PERMITTEE: Walton Board of County Commissioners  
PAGE 11 of 12

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE-SIGNATURE)

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(NAME-PRINTED)

\_\_\_\_\_  
(ADDRESS)

\_\_\_\_\_  
(CITY, STATE, AND ZIP CODE)

PERMIT NUMBER: SAJ-2014-00326 (SP-SWA)  
PERMITTEE: Walton Board of County Commissioners  
PAGE 12 of 12

***Attachments to Department of the Army  
Permit Number SAJ-2014-00326***

1. PERMIT DRAWINGS: Eleven (11) pages, dated 9 February 2015.
2. WATER QUALITY CERTIFICATION: Specific Conditions of the water quality permit/certification in accordance with General Condition number 5 on page 2 of this DA permit. Nineteen (19) pages.
3. SEA TURTLE, SAWFISH AND STURGEON CONDITIONS: One (1) page.
4. MANATEE CONDITIONS: One (1) page.
5. VESSEL STRIKE AVOIDANCE MEASURES: Two (2) pages.
6. FLORIDA ARTIFICIAL REEF MATERIALS CARGO MANIFEST AND PRE-DEPLOYMENT NOTIFICATION FORM: Two (2) pages.
7. FLORIDA ARTIFICIAL REEF MATERIALS PLACEMENT REPORT AND POST-DEPLOYMENT NOTIFICATION FORM: One (1) page.
8. SELF-CERTIFICATION FORM: One (1) page.
9. PRELIMINARY JURISDICTION FORM: Three (3) pages.

## STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at [ImperiledSpecies@myFWC.com](mailto:ImperiledSpecies@myFWC.com)



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**NATIONAL MARINE FISHERIES SERVICE**  
Southeast Regional Office  
263 13th Avenue South  
St. Petersburg, FL 33701

## **SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS**

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc





## FLORIDA ARTIFICIAL REEF MATERIALS CARGO MANIFEST AND PRE-DEPLOYMENT NOTIFICATION (Issued pursuant to Ch. 379.249(6)(b), Florida Statutes)



I, \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
Name of individual managing reef deployment (print)

whose address is \_\_\_\_\_, (\_\_\_\_) \_\_\_\_ - \_\_\_\_  
Street City State Zip Code Phone

declare that I am staging and transporting the following artificial reef construction materials allowable pursuant to the U.S. Army Corps of Engineers Artificial Reef Permit referenced below and agree to comply with all permit conditions in the permit listed below and attached to this manifest. I understand this artificial reef site is open to public access and this authorization does not provide any rights or exclusive private use over those rights or uses to the general public.

The address of the land based reef materials staging area is: \_\_\_\_\_

Transporting Vessel Registration Number: \_\_\_\_\_

Vessel Owner: \_\_\_\_\_ Vessel Operator: \_\_\_\_\_

**The following items are to be deployed as reef material (attach additional sheets when more than four locations):**

MATERIAL TAG ID NUMBER(S), if applicable	Descriptions of material (number of pieces, type, dimension, weight)	GPS Coordinates degrees, minutes, decimal minutes (DD°MM.mmm')
		Lat: _____ ° _____ ' _____ ' Lon: _____ ° _____ ' _____ '
		Lat: _____ ° _____ ' _____ ' Lon: _____ ° _____ ' _____ '
		Lat: _____ ° _____ ' _____ ' Lon: _____ ° _____ ' _____ '
		Lat: _____ ° _____ ' _____ ' Lon: _____ ° _____ ' _____ '

**A copy of the below referenced permit(s) and all associated conditions is attached to this manifest and shall be carried on board the vessel during loading, storing, or transporting artificial reef material.**

**-- OFFICIAL USE ONLY --**  
(TO BE COMPLETED BY PERMIT HOLDER, OR AUTHORIZED ARTIFICIAL REEF INSPECTOR)

Permit Holder: \_\_\_\_\_  
Name of U.S. Department of the Army, Corps of Engineers (ACOE) Permit Holder

ACOE permit number \_\_\_\_\_, permitted site name \_\_\_\_\_

issued on \_\_\_\_\_ and has an expiration date of \_\_\_\_\_.

Local tracking number (if applicable): \_\_\_\_\_

\_\_\_\_\_  
(Name of FWC authorized Artificial Reef Inspector, printed)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

# EXPLANATION SHEET FOR THE ARTIFICIAL REEF MATERIALS CARGO MANIFEST FORM

The attached artificial reef cargo manifest has been developed in compliance with subsection 379.249(6)(b), Florida Statutes, which states that:

“It is unlawful for any person to: store, possess or transport on or across state waters any materials reasonably suited for artificial reef construction and stored in such a manner providing ready access for use and placement as an artificial reef, unless a valid cargo manifest issued by the commission or a commission-certified inspector is onboard the transporting vessel. The manifest will serve as authorization to use a valid permitted site or land-based staging area, which will validate that the type of artificial reef construction material being transported is permissible for use at the permitted site, and will describe and quantify the artificial reef material being transported. The manifest will also include the latitude and longitude coordinates of the proposed deployment location, the valid permit number, and the copy off the permit conditions for the permitted site. The manifest must be available for inspection by any authorized law enforcement officer or commission employee.”

This requirement for a cargo manifest became part of the statutory revision of the artificial reef program statute Section 379.249 Florida Statutes (F.S.), modified during the 2000 State of Florida Legislature. The statutory language allows a “commission certified inspector” to complete and approve the artificial reef materials cargo manifest. Therefore, we are providing the attached cargo manifest form to all local coastal government artificial reef coordinators and eligible non-profit corporations who may physically construct artificial reefs with the approval of the permit holders.

## **INSTRUCTIONS**

**A separate cargo manifest form is to be completed for each load to be transported offshore (i.e., one manifest per voyage). The manifest is to list all, and only, the reef materials onboard.**

**The top of the form is to be filled out by the reef builder with his/her contact information and the information about the proposed reef materials to be deployed written into the boxes. If several materials are identical but have different tag numbers, please write “SAME” in the box for the other materials. Also put “SAME” under additional coordinates if all materials are going to the same deployment site.**

**The shaded portion of the form at the bottom is to be filled out by the materials inspector. The cargo manifest must be completed by an entity representing the holder of the applicable artificial reef permit to assure that all materials meet the requirements of the permit.**

### **Completion of the artificial reef materials cargo manifest is required for all construction activities.**

The requirement to complete this document is not intended to be an undue burden on entities wishing to legally construct artificial reefs within permitted sites, but is a tool to assist law enforcement personnel in preventing the illegal construction of artificial reefs without the knowledge of the permit holder or in areas outside of legally permitted sites. It is intended to allow law enforcement staff to determine whether or not a load of materials is legal under the permit conditions. Without a properly completed Cargo Manifest Form on board, reef builders will be returned to port pursuant to Chapter 379.249 (6) (b). It is not necessary to send a copy of the Cargo Manifest Form to the FWC artificial reef section in Tallahassee. Documentation of the reef building activity should be maintained by the entity issuing the manifest in the event of any FWC inquiries.

**Reminder:** the placement of all public artificial reefs in state or adjacent federal waters requires the submittal of a Materials Placement Report to the FWC artificial reef program within 30 days of public reef deployment in accordance with s. 379.249 F.S.





# FLORIDA ARTIFICIAL REEF MATERIALS PLACEMENT REPORT AND POST-DEPLOYMENT NOTIFICATION



US Army Corps  
of Engineers

## To Be Completed For Each Deployment Location or Date of Deployment

County or Municipality: \_\_\_\_\_

Date of Placement: \_\_\_\_\_

Grant No. FWC - \_\_\_\_\_  
(if applicable)

U.S. Army Corps Permit No.: \_\_\_\_\_

Total project cost: \$ \_\_\_\_\_ (Funding Source(s) and Amount(s): FWC \$ \_\_\_\_\_ Local \$ \_\_\_\_\_ Other \$ \_\_\_\_\_)

Name of Permitted Reef Site: \_\_\_\_\_

Location Name for This Deployment: \_\_\_\_\_

Latitude: \_\_\_\_\_° \_\_\_\_\_' \_\_\_\_\_" North  
Degrees minutes decimal minutes

Longitude: \_\_\_\_\_° \_\_\_\_\_' \_\_\_\_\_" West  
Degrees minutes decimal minutes

GPS Brand: \_\_\_\_\_ GPS Model number: \_\_\_\_\_

Geographical Location: \_\_\_\_\_ at \_\_\_\_\_ degrees from \_\_\_\_\_  
(nautical miles) (bearing) (reference inlet)

Water Depth: \_\_\_\_\_ feet (minus) Max. Material Height: \_\_\_\_\_ feet (equals) Actual Vertical Clearance: \_\_\_\_\_ feet

### TYPE AND AMOUNT OF MATERIAL DEPLOYED AT THE LOCATION DESCRIBED ABOVE:

(ATTACH A PHOTOGRAPH OF THE MATERIAL ON THE BARGE IMMEDIATELY PRIOR TO DEPLOYMENT)

Primary Type of Material: \_\_\_\_\_ Number of Pieces: \_\_\_\_\_

Dimensions: \_\_\_\_\_

Secondary Type of Material: \_\_\_\_\_ Number of Pieces: \_\_\_\_\_

Dimensions: \_\_\_\_\_

How was tonnage calculated?(Check all that apply, attach additional sheets if necessary):  Before & after barge draft calculation

Known weight of individual pieces

Trucking receipts

TOTAL TONNAGE FOR THIS DEPLOYMENT: \_\_\_\_\_

### I DO HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE

Observer's Name: \_\_\_\_\_  
(PLEASE PRINT)

Title: \_\_\_\_\_  
(PLEASE PRINT)

Observer's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Observer's Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### I DO HEREBY CERTIFY THAT THE ABOVE INFORMATION COMPLIES WITH THE ABOVE REFERENCED PERMIT CONDITIONS

Permittee's Staff Name: \_\_\_\_\_  
(PLEASE PRINT)

Title: \_\_\_\_\_  
(PLEASE PRINT)

Permittee's Staff Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Local Tracking number \_\_\_\_\_ FWC Tracking number \_\_\_\_\_ Entered by \_\_\_\_\_ on \_\_\_\_\_ date



## **Vessel Strike Avoidance Measures and Reporting for Mariners NOAA Fisheries Service, Southeast Region**

### **Background**

The National Marine Fisheries Service (NMFS) has determined that collisions with vessels can injure or kill protected species (e.g., endangered and threatened species, and marine mammals). The following standard measures should be implemented to reduce the risk associated with vessel strikes or disturbance of these protected species to discountable levels. NMFS should be contacted to identify any additional conservation and recovery issues of concern, and to assist in the development of measures that may be necessary.

### **Protected Species Identification Training**

Vessel crews should use an Atlantic and Gulf of Mexico reference guide that helps identify protected species that might be encountered in U.S. waters of the Atlantic Ocean, including the Caribbean Sea, and Gulf of Mexico. Additional training should be provided regarding information and resources available regarding federal laws and regulations for protected species, ship strike information, critical habitat, migratory routes and seasonal abundance, and recent sightings of protected species.

### **Vessel Strike Avoidance**

In order to avoid causing injury or death to marine mammals and sea turtles the following measures should be taken when consistent with safe navigation:

1. Vessel operators and crews should maintain a vigilant watch for marine mammals and sea turtles to avoid striking sighted protected species.
2. When whales are sighted, maintain a distance of 100 yards or greater between the whale and the vessel.
3. When sea turtles or small cetaceans are sighted, attempt to maintain a distance of 50 yards or greater between the animal and the vessel whenever possible.
4. When small cetaceans are sighted while a vessel is underway (e.g., bow-riding), attempt to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until the cetacean has left the area.
5. Reduce vessel speed to 10 knots or less when mother/calf pairs, groups, or large assemblages of cetaceans are observed near an underway vessel, when safety permits. A single cetacean at the surface may indicate the presence of submerged animals in the vicinity; therefore, prudent precautionary measures should always be exercised. The vessel should attempt to route around the animals, maintaining a minimum distance of 100 yards whenever possible.

6. Whales may surface in unpredictable locations or approach slowly moving vessels. When an animal is sighted in the vessel's path or in close proximity to a moving vessel and when safety permits, reduce speed and shift the engine to neutral. Do not engage the engines until the animals are clear of the area.

### **Additional Requirements for the North Atlantic Right Whale**

1. If a sighted whale is believed to be a North Atlantic right whale, federal regulation requires a minimum distance of 500 yards be maintained from the animal (50 CFR 224.103 (c)).
2. Vessels entering North Atlantic right whale critical habitat are required to report into the Mandatory Ship Reporting System.
3. Mariners should check with various communication media for general information regarding avoiding ship strikes and specific information regarding North Atlantic right whale sighting locations. These include NOAA weather radio, U.S. Coast Guard NAVTEX broadcasts, and Notices to Mariners. Commercial mariners calling on United States ports should view the most recent version of the NOAA/USCG produced training CD entitled "A Prudent Mariner's Guide to Right Whale Protection" (contact the NMFS Southeast Region, Protected Resources Division for more information regarding the CD).
4. Injured, dead, or entangled right whales should be immediately reported to the U.S. Coast Guard via VHF Channel 16.

### **Injured or Dead Protected Species Reporting**

Vessel crews should report sightings of any injured or dead protected species immediately, regardless of whether the injury or death is caused by your vessel.

Report marine mammals to the Southeast U.S. Stranding Hotline: 877-433-8299

Report sea turtles to the NMFS Southeast Regional Office: 727-824-5312

If the injury or death of a marine mammal was caused by a collision with your vessel, responsible parties should remain available to assist the respective salvage and stranding network as needed. NMFS' Southeast Regional Office should be immediately notified of the strike by email ([takereport.nmfsser@noaa.gov](mailto:takereport.nmfsser@noaa.gov)) using the attached vessel strike reporting form.

### **For additional information, please contact the Protected Resources Division at:**

NOAA Fisheries Service  
Southeast Regional Office

263 13<sup>th</sup> Avenue South  
St. Petersburg, FL 33701

Tel: (727) 824-5312

Visit us on the web at <http://sero.nmfs.noaa.gov>

**SELF-CERTIFICATION STATEMENT OF COMPLIANCE**

**Permit Number: SAJ-2014-00326 (SP-SWA)**

Permittee's Name & Address (please print or type): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Location of the Work: \_\_\_\_\_

\_\_\_\_\_

Date Work Started: \_\_\_\_\_ Date Work Completed: \_\_\_\_\_

Description of the Work (e.g. bank stabilization, residential or commercial filling, docks, dredging, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Acreage or Square Feet of Impacts to Waters of the United States: \_\_\_\_\_

Describe Mitigation completed (if applicable): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

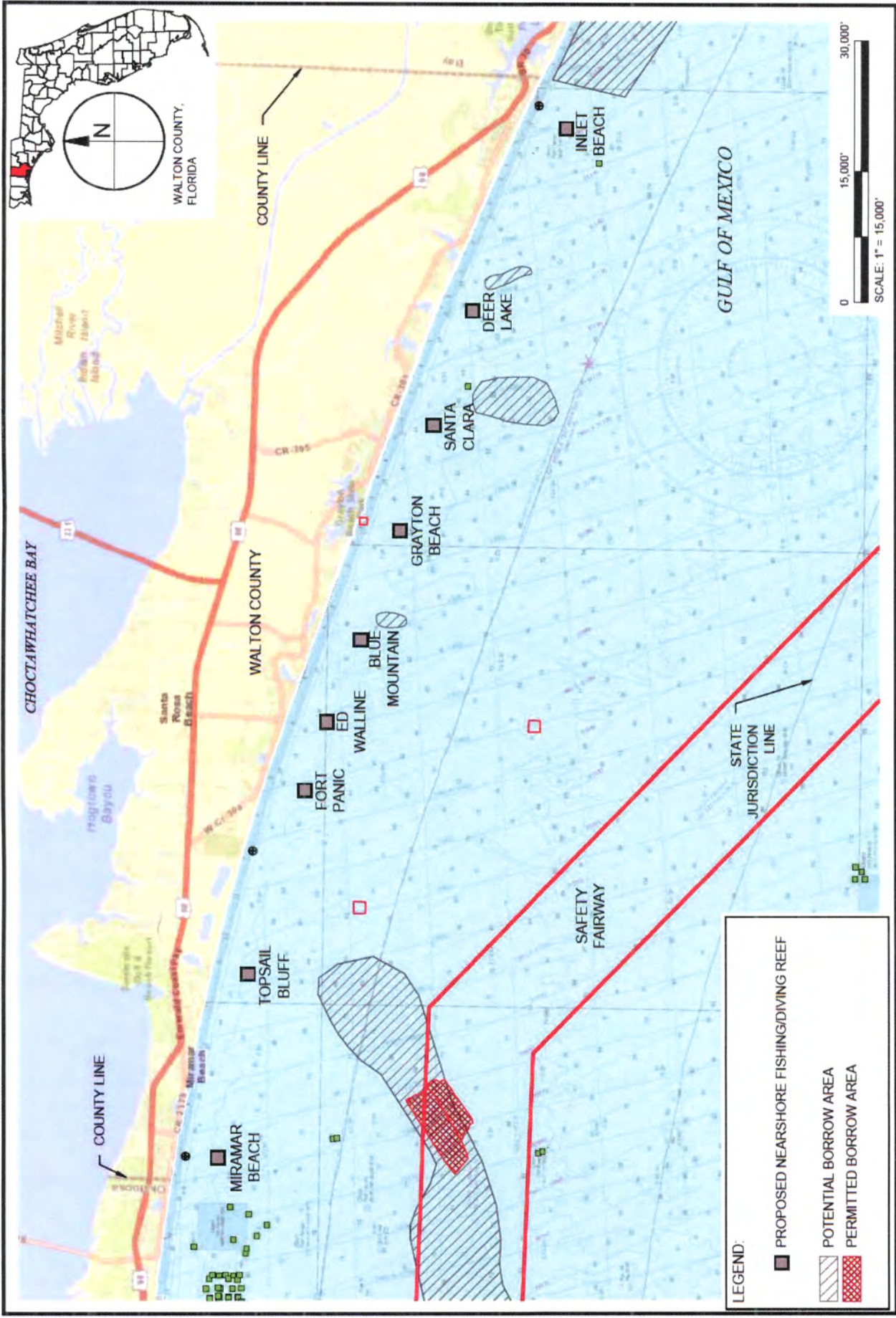
Describe any Deviations from the Permit (attach drawing(s) depicting the deviations):

\_\_\_\_\_  
\_\_\_\_\_

I certify that all work, and mitigation (if applicable) was done in accordance with the limitations and conditions as described in the permit. Any deviations as described above are depicted on the attached drawing(s).

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date



**TAYLOR ENGINEERING INC.**  
 1221 AIRPORT ROAD  
 SUITE 210  
 DESTIN, FL 32541  
 CERTIFICATE OF AUTHORIZATION # 4815

**FIGURE 1**  
 PROJECT OVERVIEW  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

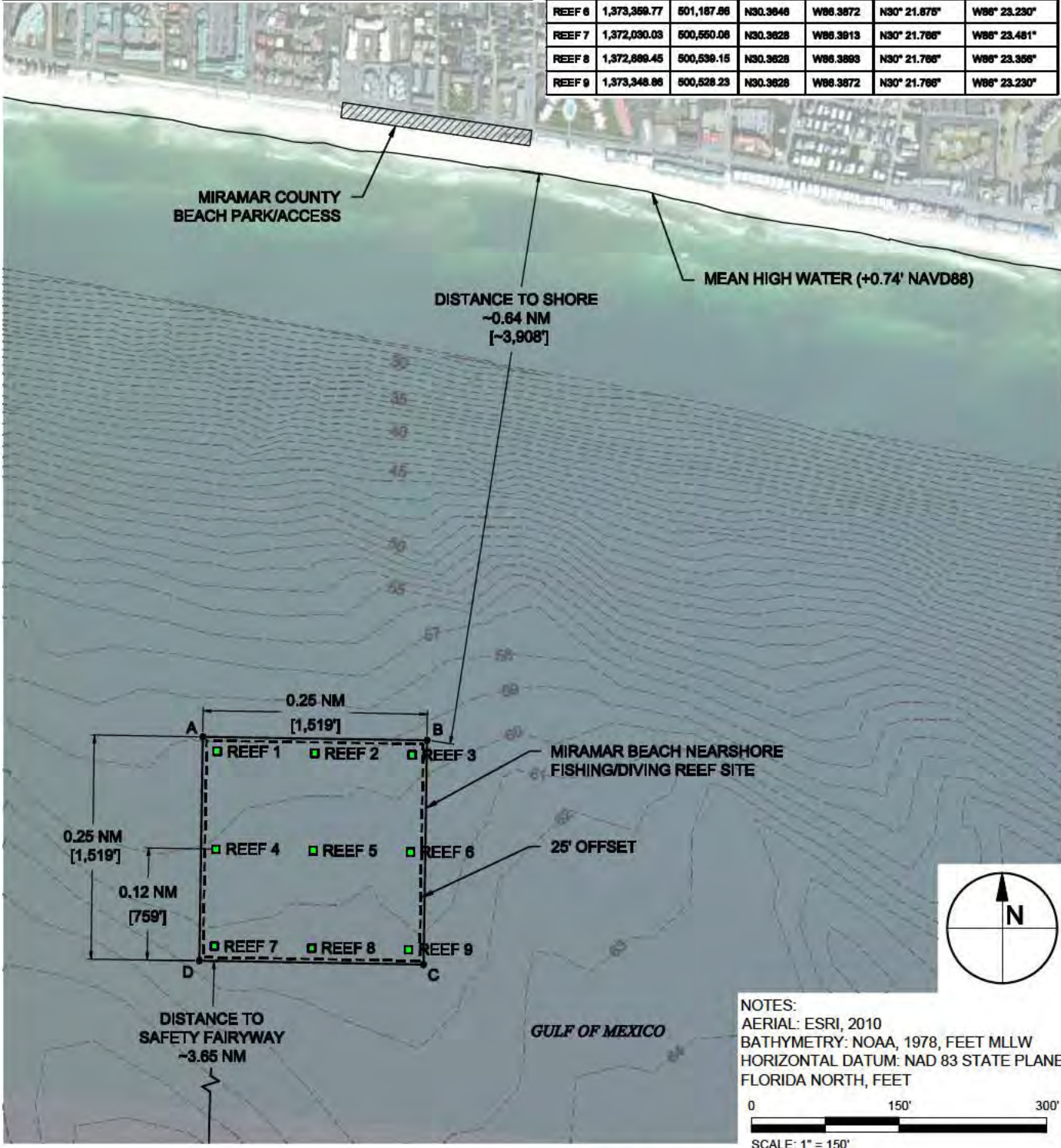
PROJECT	DRAWN BY	SHEET	DATE

Applicant: Walton BOCC  
 File: 2014-00326 (SP-SWA)  
 Date: 9 February 2015  
 Page 1 of 11

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
A	1,371,883.89	501,870.69	N30.3687	W86.3917	N30° 22.000"	W86° 23.500"
B	1,373,472.33	501,945.43	N30.3687	W86.3869	N30° 22.000"	W86° 23.211"
C	1,373,447.19	500,428.68	N30.3625	W86.3869	N30° 21.749"	W86° 23.211"
CENTROID	1,372,700.36	501,198.59	N30.3646	W86.3893	N30° 21.875"	W86° 23.356"
D	1,371,928.39	500,451.75	N30.3625	W86.3917	N30° 21.749"	W86° 23.500"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
REEF 1	1,372,051.81	501,870.75	N30.3684	W86.3913	N30° 21.984"	W86° 23.481"
REEF 2	1,372,711.30	501,888.02	N30.3684	W86.3893	N30° 21.984"	W86° 23.358"
REEF 3	1,373,370.89	501,847.10	N30.3684	W86.3872	N30° 21.984"	W86° 23.230"
REEF 4	1,372,040.98	501,209.82	N30.3646	W86.3913	N30° 21.875"	W86° 23.481"
REEF 5	1,372,700.36	501,198.59	N30.3646	W86.3893	N30° 21.875"	W86° 23.356"
REEF 6	1,373,359.77	501,187.86	N30.3646	W86.3872	N30° 21.875"	W86° 23.230"
REEF 7	1,372,030.03	500,550.06	N30.3625	W86.3913	N30° 21.766"	W86° 23.481"
REEF 8	1,372,699.45	500,539.15	N30.3625	W86.3893	N30° 21.766"	W86° 23.358"
REEF 9	1,373,348.86	500,528.23	N30.3625	W86.3872	N30° 21.766"	W86° 23.230"



NOTES:  
 AERIAL: ESRI, 2010  
 BATHYMETRY: NOAA, 1978, FEET MLLW  
 HORIZONTAL DATUM: NAD 83 STATE PLANE  
 FLORIDA NORTH, FEET

0 150' 300'  
 SCALE: 1" = 150'

ANTON\_X:\S\PROJECTS\CD\14-007 SWARA REEF\PERMIT\FIG2\FIG2\MIRAMAR\PLANDWG 1/28/2014 2:24:42 PM

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 1221 A RPORT ROAD  
 SUITE 210  
 DEST N, FL 32541  
 CERTIFICATE OF AUTHORIZATION # 4815

**FIGURE 2**  
 MIRAMAR BEACH FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT: C2014-007 DRAWN BY: AF SHEET: 2 of 11 DATE: JAN 2014

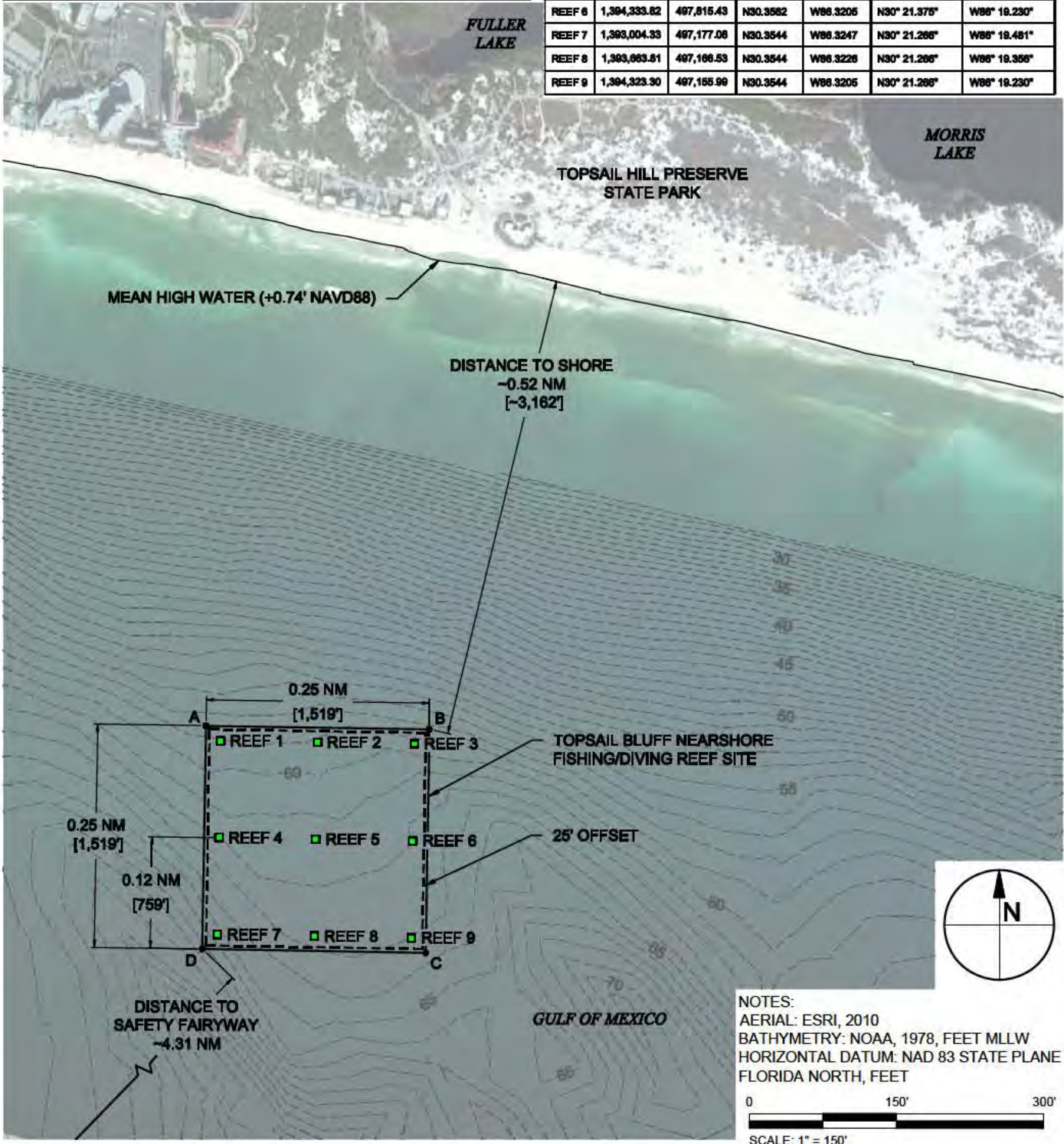
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**DRAFT**

ENG: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEC, DEC MIN)	LONG (DEC, DEC MIN)
A	1,392,927.05	496,697.54	N30.3583	W86.3250	N30° 21.500"	W86° 19.500"
B	1,394,445.94	496,573.26	N30.3583	W86.3202	N30° 21.500"	W86° 19.211"
C	1,394,421.89	497,064.41	N30.3542	W86.3202	N30° 21.248"	W86° 19.211"
CENTROID	1,393,674.34	497,525.97	N30.3562	W86.3226	N30° 21.376"	W86° 19.356"
D	1,392,902.74	497,078.99	N30.3542	W86.3260	N30° 21.248"	W86° 19.500"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEC, DEC MIN)	LONG (DEC, DEC MIN)
REEF 1	1,393,025.44	496,465.96	N30.3561	W86.3247	N30° 21.484"	W86° 19.481"
REEF 2	1,393,684.90	496,488.41	N30.3561	W86.3226	N30° 21.484"	W86° 19.356"
REEF 3	1,394,344.35	496,474.87	N30.3561	W86.3205	N30° 21.484"	W86° 19.230"
REEF 4	1,393,014.88	497,636.82	N30.3562	W86.3247	N30° 21.375"	W86° 19.481"
REEF 5	1,393,674.34	497,525.97	N30.3562	W86.3226	N30° 21.375"	W86° 19.356"
REEF 6	1,394,333.82	497,515.43	N30.3562	W86.3205	N30° 21.375"	W86° 19.230"
REEF 7	1,393,004.33	497,177.06	N30.3544	W86.3247	N30° 21.268"	W86° 19.481"
REEF 8	1,393,663.81	497,166.53	N30.3544	W86.3226	N30° 21.268"	W86° 19.356"
REEF 9	1,394,323.30	497,155.99	N30.3544	W86.3205	N30° 21.268"	W86° 19.230"



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**TAYLOR ENGINEERING INC.**  
 1221 A RPORT ROAD  
 SUITE 210  
 DEST N, FL 32541  
 CERTIFICATE OF AUTHORIZATION # 4815

**FIGURE 3**  
 TOPSAIL BLUFF FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT	C2014-007	DRAWN BY	AF	SHEET	3 of 11	DATE	JAN 2014
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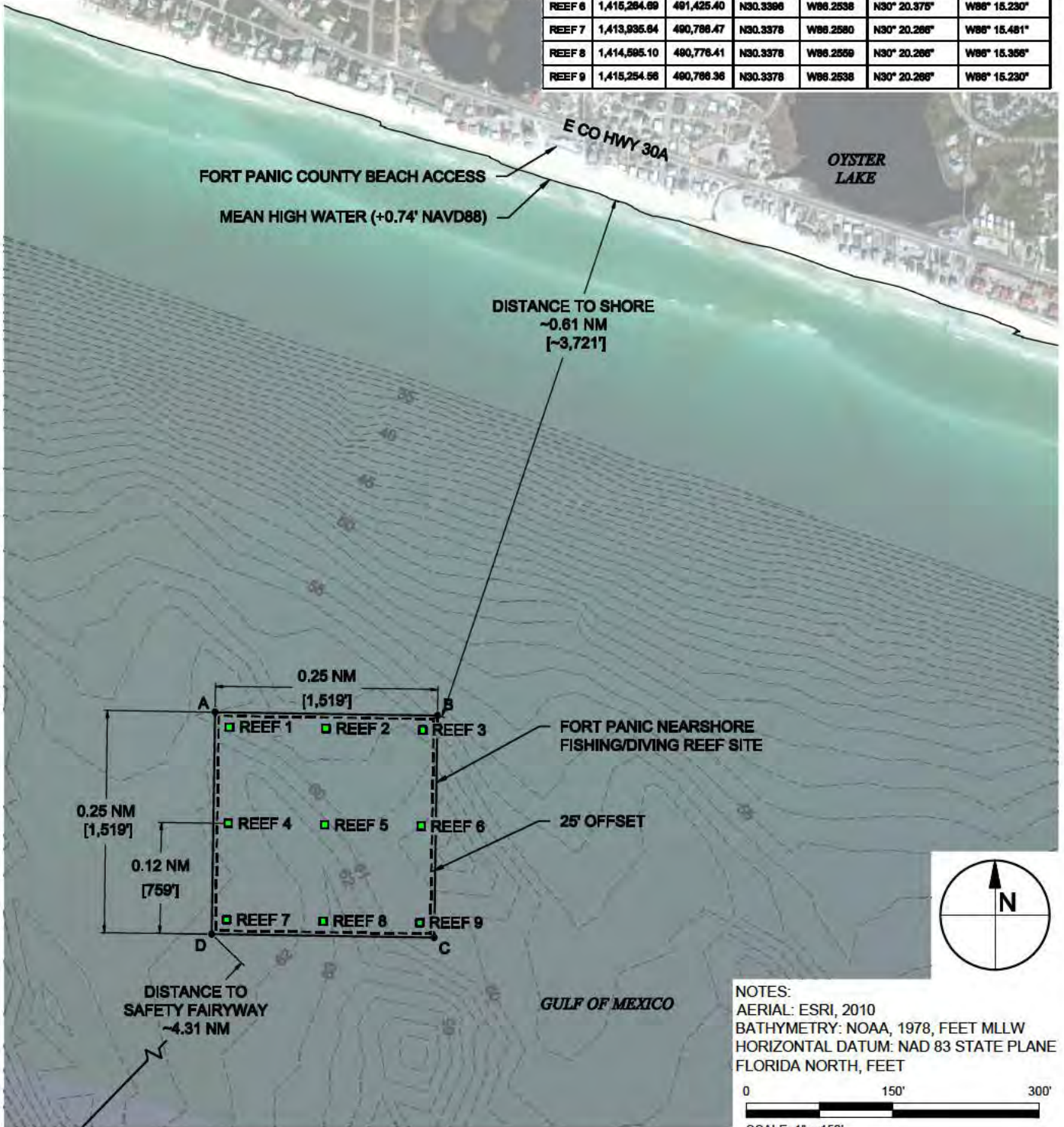
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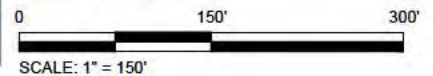
ENG \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
A	1,413,857.82	492,206.34	N30.3417	W86.2583	N30° 20.500"	W86° 15.500"
B	1,415,378.35	492,182.88	N30.3417	W86.2535	N30° 20.500"	W86° 15.211"
C	1,415,363.01	490,884.85	N30.3375	W86.2535	N30° 20.280"	W86° 15.211"
CENTROID	1,414,605.23	491,435.45	N30.3396	W86.2569	N30° 20.376"	W86° 15.356"
D	1,413,834.11	490,886.01	N30.3375	W86.2583	N30° 20.246"	W86° 15.500"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
REEF 1	1,413,955.96	492,103.80	N30.3414	W86.2580	N30° 20.483"	W86° 15.481"
REEF 2	1,414,815.39	492,084.82	N30.3414	W86.2559	N30° 20.483"	W86° 15.358"
REEF 3	1,415,274.82	492,084.43	N30.3414	W86.2538	N30° 20.483"	W86° 15.230"
REEF 4	1,413,945.80	491,445.84	N30.3396	W86.2580	N30° 20.375"	W86° 15.481"
REEF 5	1,414,605.23	491,435.45	N30.3396	W86.2569	N30° 20.375"	W86° 15.356"
REEF 6	1,415,284.89	491,425.40	N30.3396	W86.2538	N30° 20.375"	W86° 15.230"
REEF 7	1,413,935.64	490,786.47	N30.3375	W86.2580	N30° 20.266"	W86° 15.481"
REEF 8	1,414,595.10	490,776.41	N30.3375	W86.2569	N30° 20.266"	W86° 15.356"
REEF 9	1,415,254.56	490,766.36	N30.3375	W86.2538	N30° 20.266"	W86° 15.230"



NOTES:  
 AERIAL: ESRI, 2010  
 BATHYMETRY: NOAA, 1978, FEET MLLW  
 HORIZONTAL DATUM: NAD 83 STATE PLANE  
 FLORIDA NORTH, FEET



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**TAYLOR ENGINEERING INC.**

1221 A RPORT ROAD  
 SUITE 210  
 DEST N, FL 32541

CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 4

FORT PANIC FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF  
 NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT C2014-007 DRAWN BY AF SHEET 4 of 11 DATE JAN 2014

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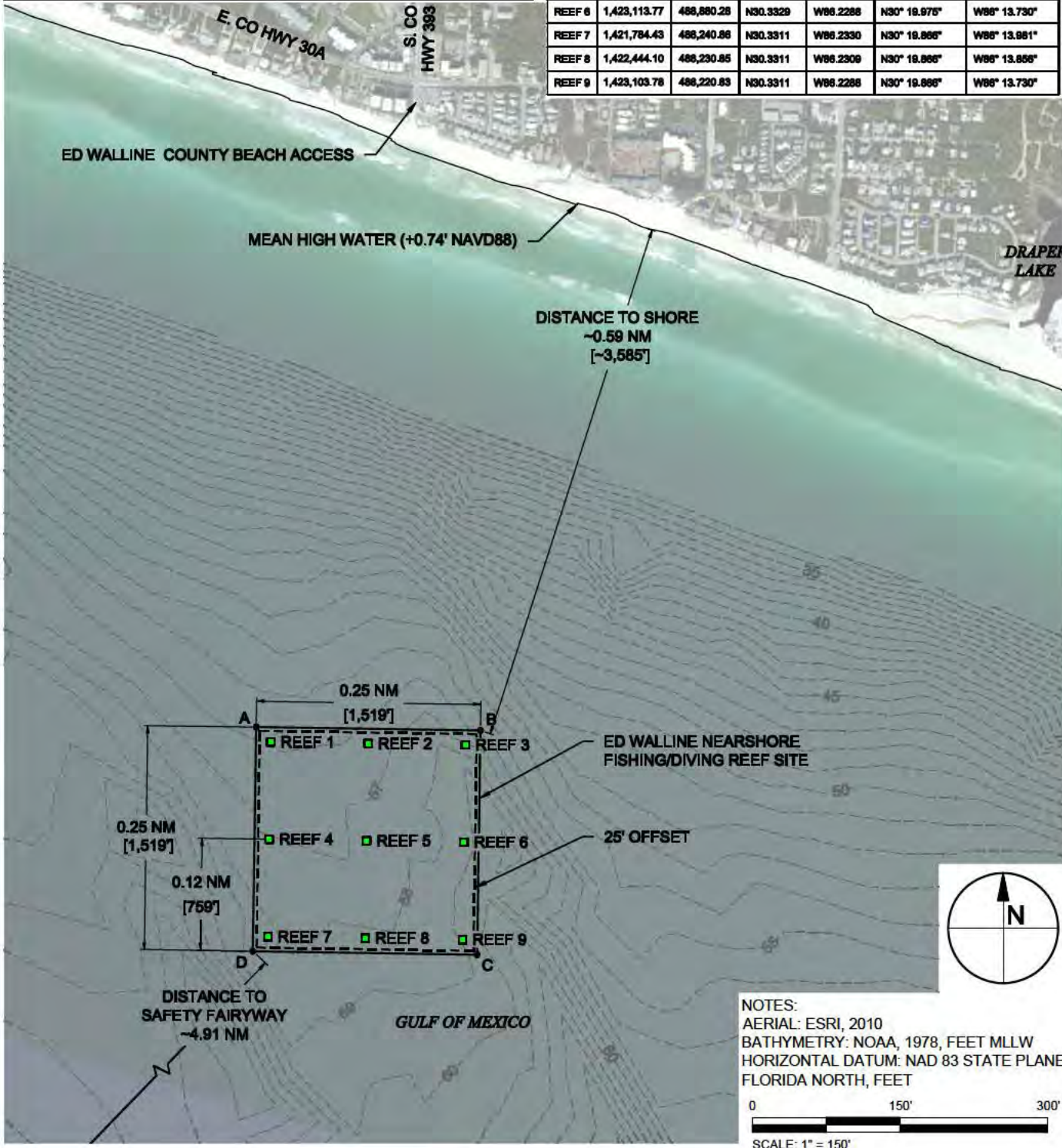
**DRAFT**

ENG DATE



PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
A	1,421,706.02	488,661.26	N30.3350	W86.2333	N30° 20.100"	W86° 14.000"
B	1,423,225.25	488,638.35	N30.3350	W86.2285	N30° 20.100"	W86° 13.711"
C	1,423,202.25	488,119.33	N30.3308	W86.2285	N30° 19.848"	W86° 13.711"
CENTROID	1,422,454.10	488,690.29	N30.3329	W86.2309	N30° 19.975"	W86° 13.856"
D	1,421,682.93	488,142.43	N30.3308	W86.2333	N30° 19.848"	W86° 14.000"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
REEF 1	1,421,804.48	488,558.75	N30.3347	W86.2330	N30° 20.084"	W86° 13.981"
REEF 2	1,422,464.13	488,548.74	N30.3347	W86.2309	N30° 20.084"	W86° 13.856"
REEF 3	1,423,123.77	488,539.72	N30.3347	W86.2288	N30° 20.084"	W86° 13.730"
REEF 4	1,421,794.46	488,900.31	N30.3329	W86.2330	N30° 19.975"	W86° 13.981"
REEF 5	1,422,454.10	488,690.29	N30.3329	W86.2309	N30° 19.975"	W86° 13.856"
REEF 6	1,423,113.77	488,680.28	N30.3329	W86.2288	N30° 19.975"	W86° 13.730"
REEF 7	1,421,784.43	488,240.86	N30.3311	W86.2330	N30° 19.868"	W86° 13.981"
REEF 8	1,422,444.10	488,230.85	N30.3311	W86.2309	N30° 19.868"	W86° 13.856"
REEF 9	1,423,103.78	488,220.83	N30.3311	W86.2288	N30° 19.868"	W86° 13.730"



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**TAYLOR ENGINEERING INC.**  
 1221 A RPORT ROAD  
 SUITE 210  
 DEST N, FL 32541  
 CERTIFICATE OF AUTHORIZATION # 4815

**FIGURE 5**  
 ED WALLINE FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT: C2014-007 DRAWN BY: AF SHEET: 5 of 11 DATE: JAN 2014

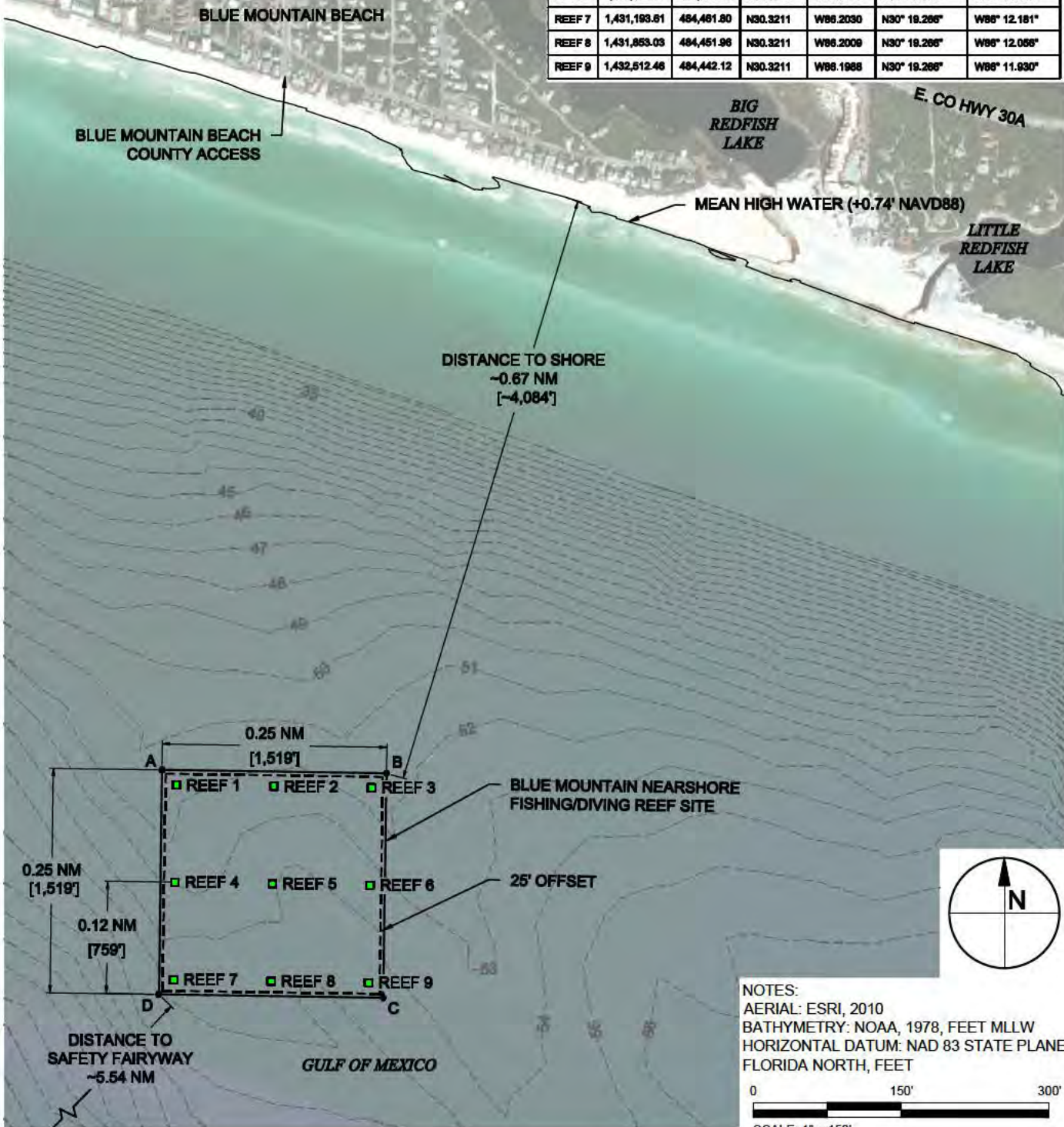
SEAL

**DRAFT**

ENG: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEC, DEC MIN)	LONG (DEC, DEC MIN)
A	1,431,114.78	486,882.13	N30.3250	W86.2033	N30° 19.500"	W86° 12.200"
B	1,432,633.62	486,869.47	N30.3250	W86.1986	N30° 19.500"	W86° 11.911"
C	1,432,610.96	484,340.64	N30.3208	W86.1986	N30° 19.248"	W86° 11.911"
CENTROID	1,431,662.87	486,111.39	N30.3229	W86.2009	N30° 19.376"	W86° 12.066"
D	1,431,082.07	484,363.30	N30.3208	W86.2033	N30° 19.248"	W86° 12.200"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEC, DEC MIN)	LONG (DEC, DEC MIN)
REEF 1	1,431,213.28	486,780.66	N30.3247	W86.2030	N30° 19.484"	W86° 12.181"
REEF 2	1,431,872.71	486,770.81	N30.3247	W86.2009	N30° 19.484"	W86° 12.066"
REEF 3	1,432,532.13	486,780.98	N30.3247	W86.1986	N30° 19.484"	W86° 11.930"
REEF 4	1,431,203.44	486,121.23	N30.3229	W86.2030	N30° 19.376"	W86° 12.181"
REEF 5	1,431,662.87	486,111.39	N30.3229	W86.2009	N30° 19.376"	W86° 12.066"
REEF 6	1,432,522.30	486,101.55	N30.3229	W86.1986	N30° 19.376"	W86° 11.930"
REEF 7	1,431,193.61	484,461.80	N30.3211	W86.2030	N30° 19.266"	W86° 12.181"
REEF 8	1,431,663.03	484,461.96	N30.3211	W86.2009	N30° 19.266"	W86° 12.066"
REEF 9	1,432,612.46	484,442.12	N30.3211	W86.1986	N30° 19.266"	W86° 11.930"



NOTES:  
 AERIAL: ESRI, 2010  
 BATHYMETRY: NOAA, 1978, FEET MLLW  
 HORIZONTAL DATUM: NAD 83 STATE PLANE  
 FLORIDA NORTH, FEET

0 150' 300'  
 SCALE: 1" = 150'

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FIGURE 6

BLUE MOUNTAIN FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF  
 NETWORK  
 WALTON COUNTY, FLORIDA

SEAL

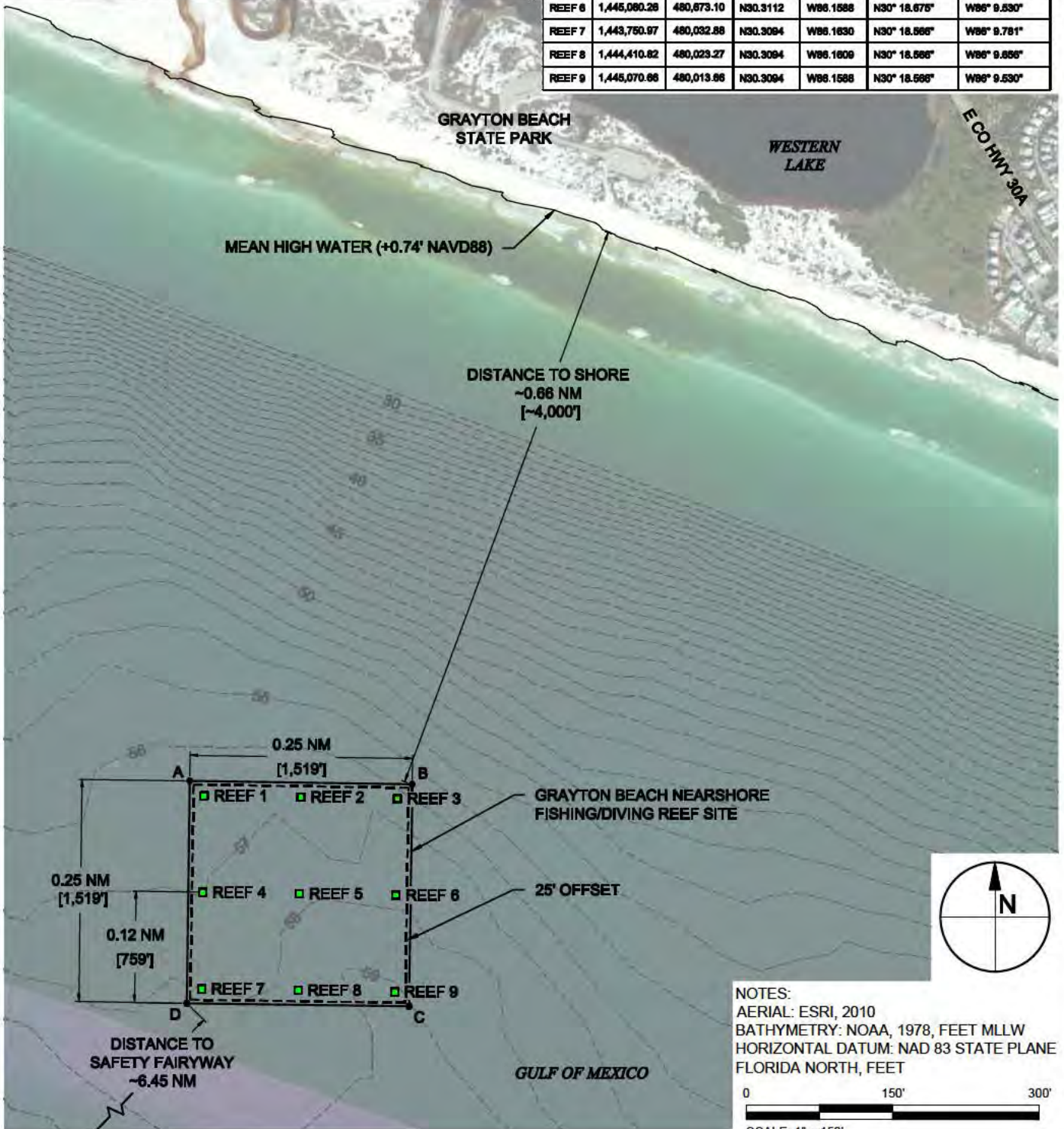
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PROJECT: C2014-007 DRAWN BY: AF SHEET: 6 of 11 DATE: JAN 2014

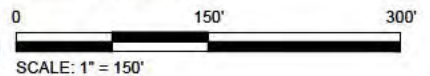
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PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
A	1,443,671.89	481,483.22	N30.3133	W86.1633	N30° 18.800"	W86° 9.800"
B	1,445,191.29	481,431.06	N30.3133	W86.1585	N30° 18.800"	W86° 9.511"
C	1,445,169.20	479,912.21	N30.3092	W86.1585	N30° 18.549"	W86° 9.511"
CENTROID	1,444,420.41	480,682.72	N30.3112	W86.1609	N30° 18.575"	W86° 9.556"
D	1,443,649.53	479,934.35	N30.3092	W86.1633	N30° 18.549"	W86° 9.800"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
REEF 1	1,443,770.22	481,351.78	N30.3131	W86.1630	N30° 18.784"	W86° 9.781"
REEF 2	1,444,430.03	481,342.16	N30.3131	W86.1609	N30° 18.784"	W86° 9.556"
REEF 3	1,445,089.85	481,332.55	N30.3131	W86.1588	N30° 18.784"	W86° 9.530"
REEF 4	1,443,760.60	480,682.33	N30.3112	W86.1630	N30° 18.675"	W86° 9.781"
REEF 5	1,444,420.41	480,682.72	N30.3112	W86.1609	N30° 18.675"	W86° 9.556"
REEF 6	1,445,080.28	480,673.10	N30.3112	W86.1588	N30° 18.675"	W86° 9.530"
REEF 7	1,443,750.97	480,032.88	N30.3094	W86.1630	N30° 18.566"	W86° 9.781"
REEF 8	1,444,410.82	480,023.27	N30.3094	W86.1609	N30° 18.566"	W86° 9.556"
REEF 9	1,445,070.66	480,013.66	N30.3094	W86.1588	N30° 18.566"	W86° 9.530"



NOTES:  
 AERIAL: ESRI, 2010  
 BATHYMETRY: NOAA, 1978, FEET MLLW  
 HORIZONTAL DATUM: NAD 83 STATE PLANE  
 FLORIDA NORTH, FEET



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FIGURE 7

GRAYTON BEACH FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF  
 NETWORK  
 WALTON COUNTY, FLORIDA

SEAL

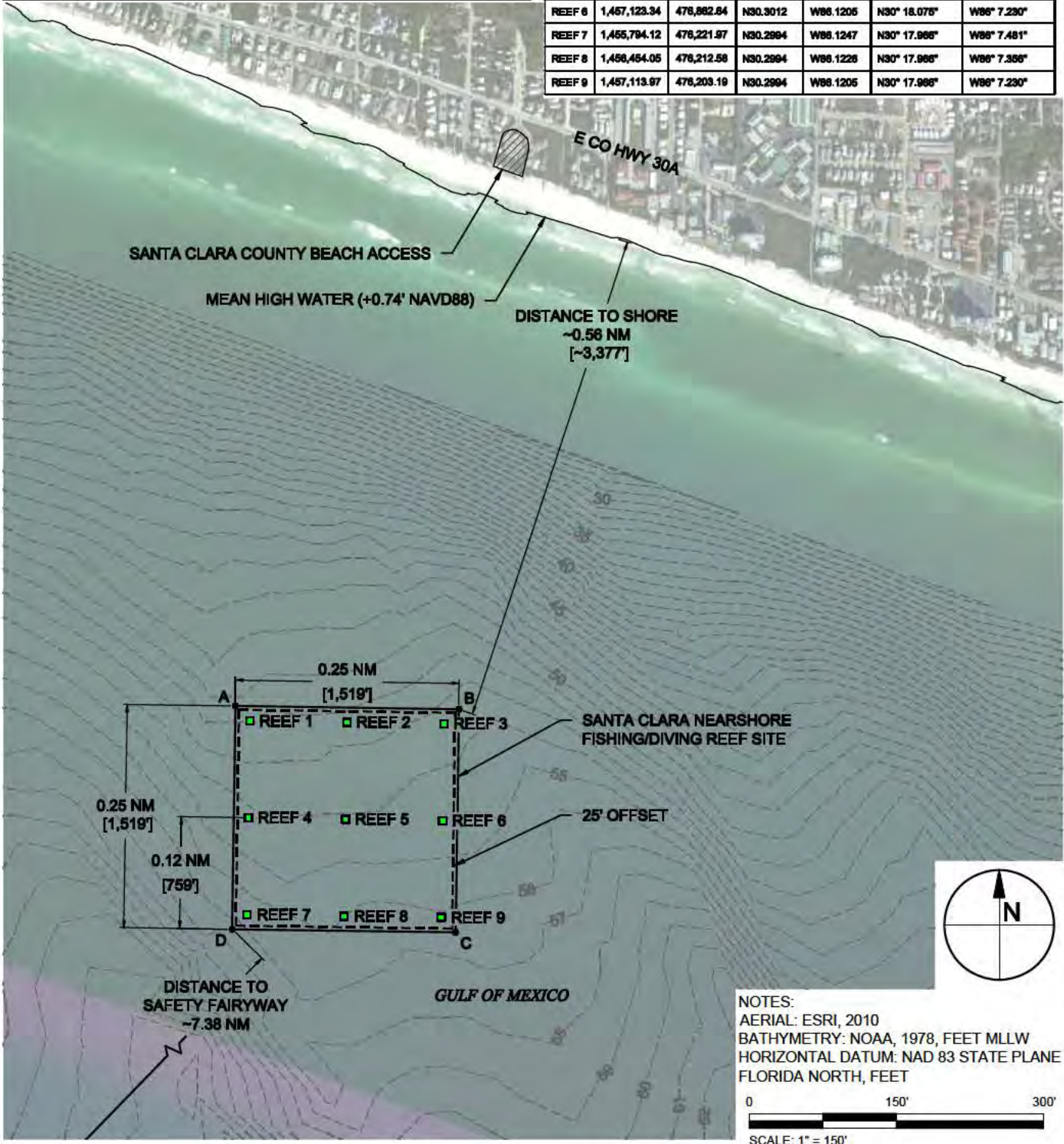
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PROJECT: C2014-007 DRAWN BY: AF SHEET: 7 of 11 DATE: JAN 2014

ENG: DATE:

PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
A	1,455,714.36	477,642.29	N30.3033	W86.1250	N30° 18.200"	W86° 7.500"
B	1,457,234.12	477,620.86	N30.3033	W86.1202	N30° 18.200"	W86° 7.211"
C	1,457,212.54	476,101.78	N30.2992	W86.1202	N30° 17.949"	W86° 7.211"
CENTROID	1,456,463.42	476,672.03	N30.3012	W86.1226	N30° 18.076"	W86° 7.366"
D	1,455,692.71	476,123.41	N30.2992	W86.1250	N30° 17.949"	W86° 7.500"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
REEF 1	1,455,812.82	477,540.87	N30.3031	W86.1247	N30° 18.184"	W86° 7.481"
REEF 2	1,456,472.82	477,531.48	N30.3031	W86.1226	N30° 18.184"	W86° 7.356"
REEF 3	1,457,132.71	477,522.09	N30.3031	W86.1205	N30° 18.184"	W86° 7.230"
REEF 4	1,455,803.82	476,881.42	N30.3012	W86.1247	N30° 18.076"	W86° 7.481"
REEF 5	1,456,463.42	476,672.03	N30.3012	W86.1226	N30° 18.076"	W86° 7.356"
REEF 6	1,457,123.34	476,882.84	N30.3012	W86.1205	N30° 18.076"	W86° 7.230"
REEF 7	1,455,794.12	476,221.97	N30.2994	W86.1247	N30° 17.966"	W86° 7.481"
REEF 8	1,456,454.05	476,212.58	N30.2994	W86.1226	N30° 17.966"	W86° 7.356"
REEF 9	1,457,113.87	476,203.19	N30.2994	W86.1205	N30° 17.966"	W86° 7.230"



NOTES:  
 AERIAL: ESRI, 2010  
 BATHYMETRY: NOAA, 1978, FEET MLLW  
 HORIZONTAL DATUM: NAD 83 STATE PLANE  
 FLORIDA NORTH, FEET

0 150' 300'  
 SCALE: 1" = 150'

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**FIGURE 8**  
 SANTA CLARA FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF  
 NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT: C2014-007 DRAWN BY: AF SHEET: 8 of 11 DATE: JAN 2014

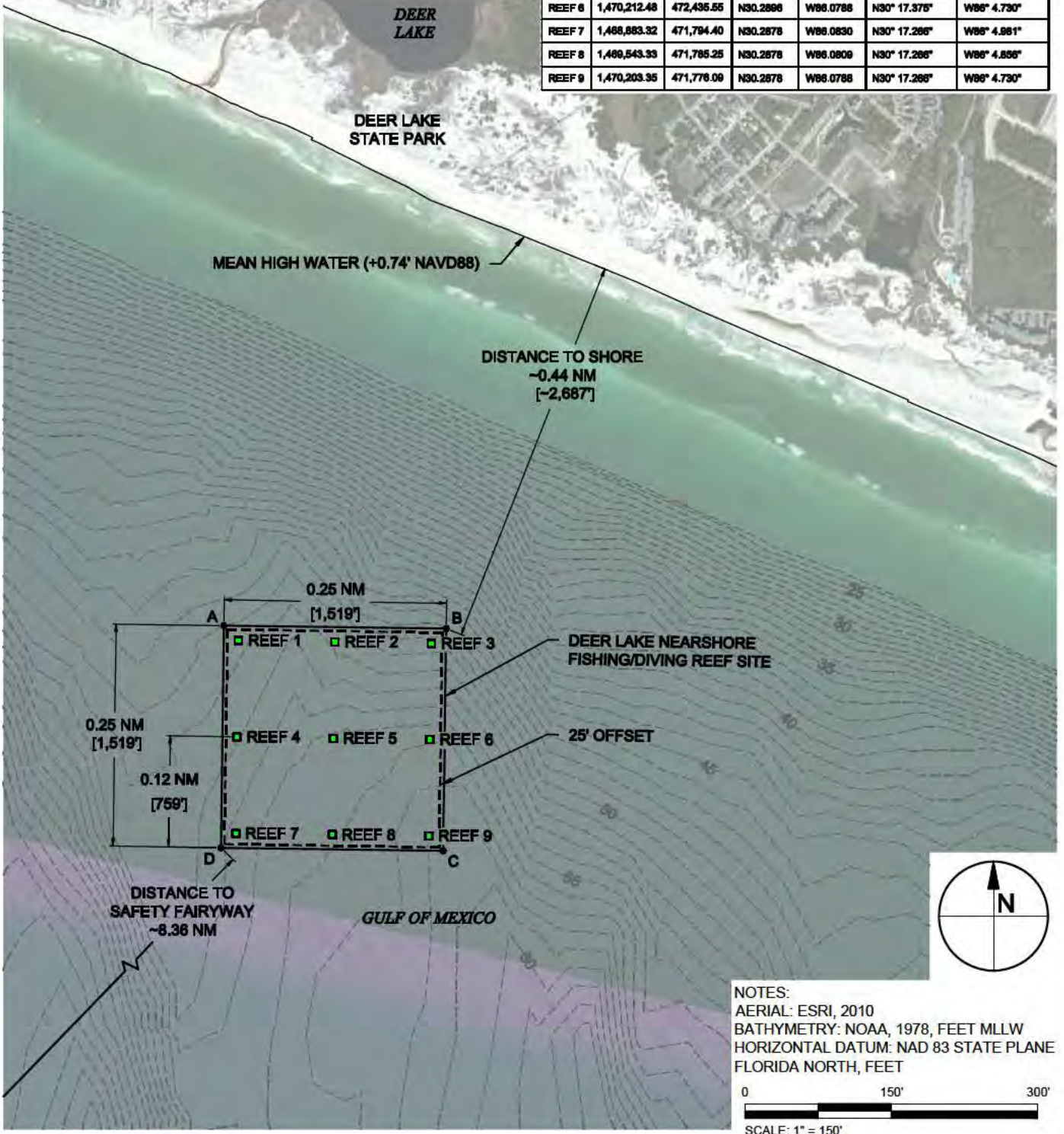
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PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEC, DEC MIN)	LONG (DEC, DEC MIN)
A	1,468,803.03	473,214.88	N30.2917	W86.0833	N30° 17.500"	W86° 5.000"
B	1,470,322.99	473,193.80	N30.2917	W86.0785	N30° 17.500"	W86° 4.711"
C	1,470,301.96	471,874.72	N30.2875	W86.0785	N30° 17.248"	W86° 4.711"
CENTROID	1,469,552.46	472,444.70	N30.2896	W86.0809	N30° 17.375"	W86° 4.856"
D	1,468,781.94	471,895.80	N30.2875	W86.0833	N30° 17.248"	W86° 5.000"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEC, DEC MIN)	LONG (DEC, DEC MIN)
REEF 1	1,468,901.63	473,113.30	N30.2914	W86.0830	N30° 17.484"	W86° 4.981"
REEF 2	1,469,561.62	473,104.15	N30.2914	W86.0809	N30° 17.484"	W86° 4.856"
REEF 3	1,470,221.61	473,085.00	N30.2914	W86.0788	N30° 17.484"	W86° 4.730"
REEF 4	1,468,892.47	472,453.85	N30.2896	W86.0830	N30° 17.375"	W86° 4.981"
REEF 5	1,469,552.46	472,444.70	N30.2896	W86.0809	N30° 17.375"	W86° 4.856"
REEF 6	1,470,212.48	472,435.55	N30.2896	W86.0788	N30° 17.375"	W86° 4.730"
REEF 7	1,468,883.32	471,794.40	N30.2878	W86.0830	N30° 17.268"	W86° 4.981"
REEF 8	1,469,543.33	471,785.25	N30.2878	W86.0809	N30° 17.268"	W86° 4.856"
REEF 9	1,470,203.35	471,776.09	N30.2878	W86.0788	N30° 17.268"	W86° 4.730"



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**FIGURE 9**  
 DEER LAKE FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT	C2014-007	DRAWN BY	AF	SHEET	9 of 11	DATE	JAN 2014
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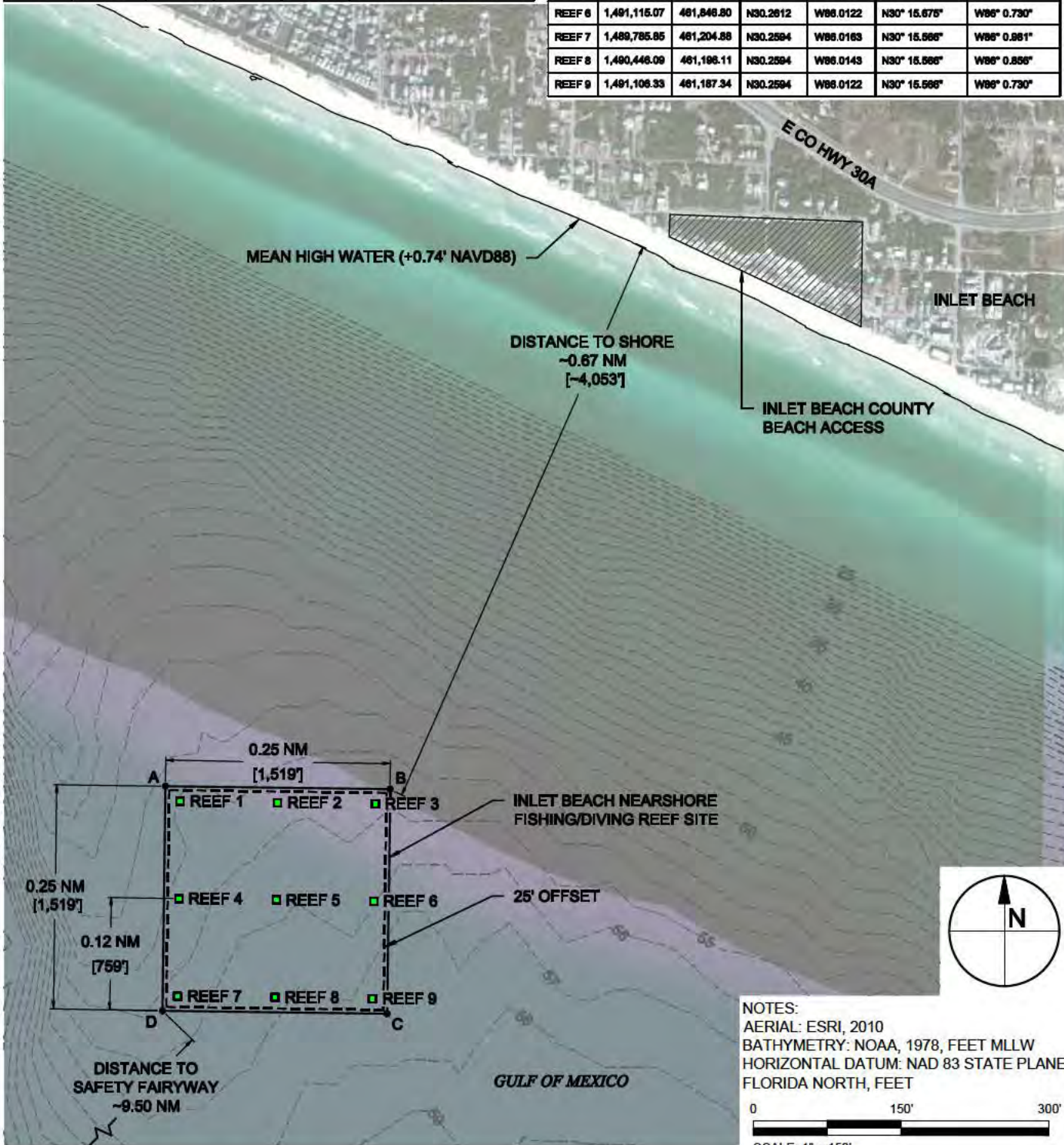
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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

PROJECT AREA						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
A	1,489,704.73	462,625.11	N30.2633	W86.0167	N30° 15.800"	W86° 1.000"
B	1,491,225.13	462,604.91	N30.2633	W86.0119	N30° 15.800"	W86° 0.711"
C	1,491,204.99	461,086.03	N30.2592	W86.0119	N30° 15.549"	W86° 0.711"
CENTROID	1,490,454.83	461,855.57	N30.2612	W86.0143	N30° 15.876"	W86° 0.868"
D	1,489,684.62	461,108.22	N30.2592	W86.0167	N30° 15.549"	W86° 1.000"

REEF TABLE						
POINT	EASTING	NORTHING	LAT (DEC DEG)	LONG (DEC DEG)	LAT (DEG, DEC MIN)	LONG (DEG, DEC MIN)
REEF 1	1,489,803.39	462,523.79	N30.2631	W86.0163	N30° 15.794"	W86° 0.981"
REEF 2	1,490,463.60	462,515.02	N30.2631	W86.0143	N30° 15.794"	W86° 0.856"
REEF 3	1,491,123.82	462,506.25	N30.2631	W86.0122	N30° 15.794"	W86° 0.730"
REEF 4	1,489,794.82	461,884.34	N30.2612	W86.0163	N30° 15.675"	W86° 0.981"
REEF 5	1,490,454.83	461,855.57	N30.2612	W86.0143	N30° 15.675"	W86° 0.856"
REEF 6	1,491,115.07	461,846.80	N30.2612	W86.0122	N30° 15.675"	W86° 0.730"
REEF 7	1,489,785.85	461,204.88	N30.2594	W86.0163	N30° 15.568"	W86° 0.981"
REEF 8	1,490,446.09	461,196.11	N30.2594	W86.0143	N30° 15.568"	W86° 0.856"
REEF 9	1,491,106.33	461,187.34	N30.2594	W86.0122	N30° 15.568"	W86° 0.730"



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**FIGURE 10**  
 INLET BEACH FISH/DIVE REEF PLAN  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

PROJECT	C2014-007	DRAWN BY	AF	SHEET	10 of 11	DATE	JAN 2014
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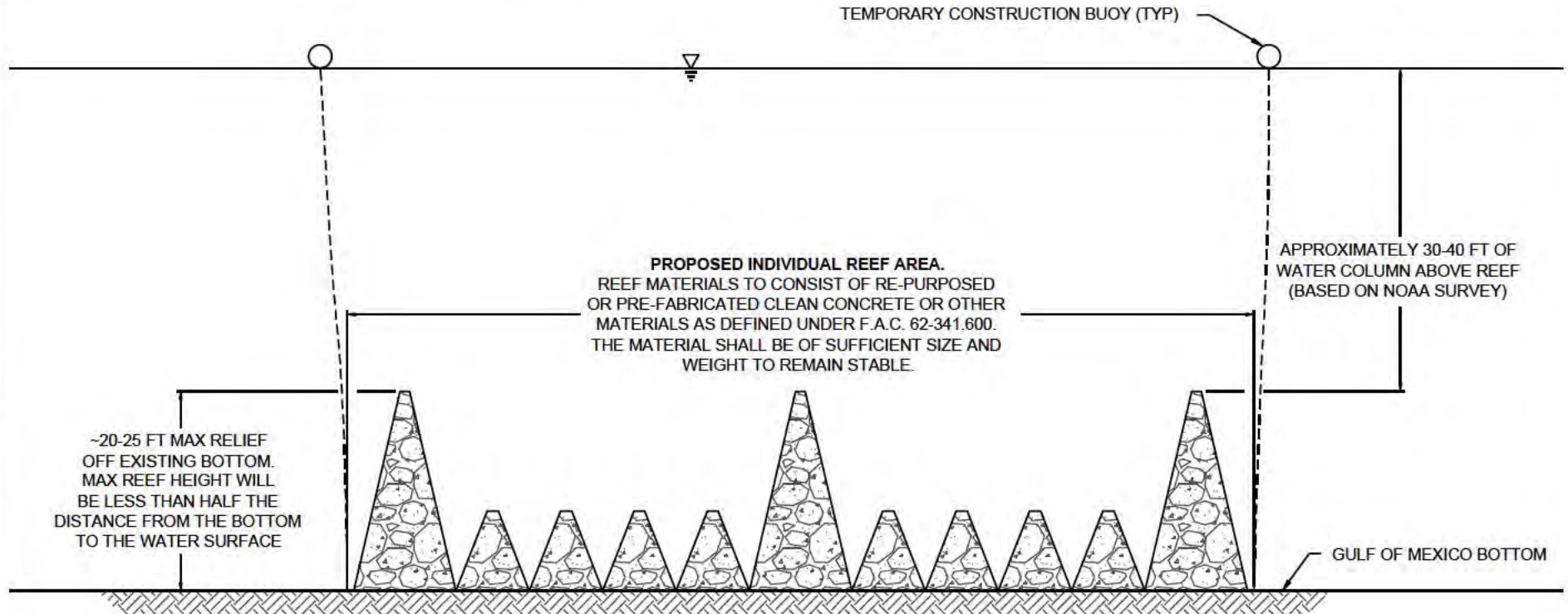
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**NOTES:**

1. MARKER BUOYS WILL BE SECURED ALONG THE PERIMETER OF THE INDIVIDUAL REEF SITES PRIOR TO MATERIAL PLACEMENT TO DEFINE THE DROP AREA AND TO ENSURE ACCURATE PLACEMENT WITHIN THE APPROVED SITE.
2. QUALITY CONTROL DIVES WILL BE PERFORMED AS NECESSARY TO ENSURE PROPER MATERIAL PLACEMENT AND RELIEF.



**PROPOSED INDIVIDUAL REEF AREA.**  
 REEF MATERIALS TO CONSIST OF RE-PURPOSED OR PRE-FABRICATED CLEAN CONCRETE OR OTHER MATERIALS AS DEFINED UNDER F.A.C. 62-341.600. THE MATERIAL SHALL BE OF SUFFICIENT SIZE AND WEIGHT TO REMAIN STABLE.

~20-25 FT MAX RELIEF OFF EXISTING BOTTOM. MAX REEF HEIGHT WILL BE LESS THAN HALF THE DISTANCE FROM THE BOTTOM TO THE WATER SURFACE

APPROXIMATELY 30-40 FT OF WATER COLUMN ABOVE REEF (BASED ON NOAA SURVEY)

GULF OF MEXICO BOTTOM

**TYPICAL REEF SECTION**  
 NOT TO SCALE

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FIGURE 11  
 TYPICAL REEF CROSS-SECTION  
 SWARA NEARSHORE FISH/DIVE ARTIFICIAL REEF NETWORK  
 WALTON COUNTY, FLORIDA

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