



REPLY TO  
ATTENTION OF

Operations Division  
Eastern Evaluation Section

DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
7400 LEAKE AVENUE  
NEW ORLEANS, LOUISIANA 70118

3 September 2020

SUBJECT: MVN-2017-01015-EG

Coastal Protection and Restoration Authority  
Attn: Sydney Dobson  
P.O. Box 44027  
Baton Rouge, LA 70804

Dear Mr. Dobson,

The proposed work, to construct and restore marsh habitat within and adjacent to Lake Borgne, located at approximately 30.013461°N, -89.867881°W, in Orleans Parish and St. Bernard Parish, Louisiana, as shown on the enclosed drawings, is authorized under **Category II** of the **Programmatic General Permit** provided that all conditions of the permit are met.

**In addition, the following conditions are added to the permit:**

- 1. Our Real Estate Division has indicated that your project is located in an area over which the federal government holds real estate interest. No work may be performed under this permit until a real estate instrument is issued by our Real Estate Division. You must contact our Real Estate Division to initiate these procedures at: [Robert.J.Thomson@usace.army.mil](mailto:Robert.J.Thomson@usace.army.mil).**
- 2. You must comply with the enclosed: "STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES".**

This authorization has a blanket water quality certification from the Louisiana Department of Environmental Quality; therefore, no additional authorization from DEQ is required.

However, prior to commencing work on your project, you must obtain approvals from state and local agencies as required by law and by terms of this permit. These approvals include, but are not limited to, a permit, consistency determination or determination of "no direct or significant impact (NDSI) on coastal waters" from the Louisiana Department of Natural Resources, Office of Coastal Management.

This approval to perform work is valid for 5 years from the date of this letter. Permittee is aware that this office may reevaluate its decision on this permit at any time the circumstances warrant.

Should you have any further questions concerning this matter, please contact Angelle Greer at (504) 862-2279 or [angelle.v.greer@usace.army.mil](mailto:angelle.v.greer@usace.army.mil).

Sincerely,

for  
Martin S. Mayer  
Chief, Regulatory Branch

Enclosures

## **STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES**

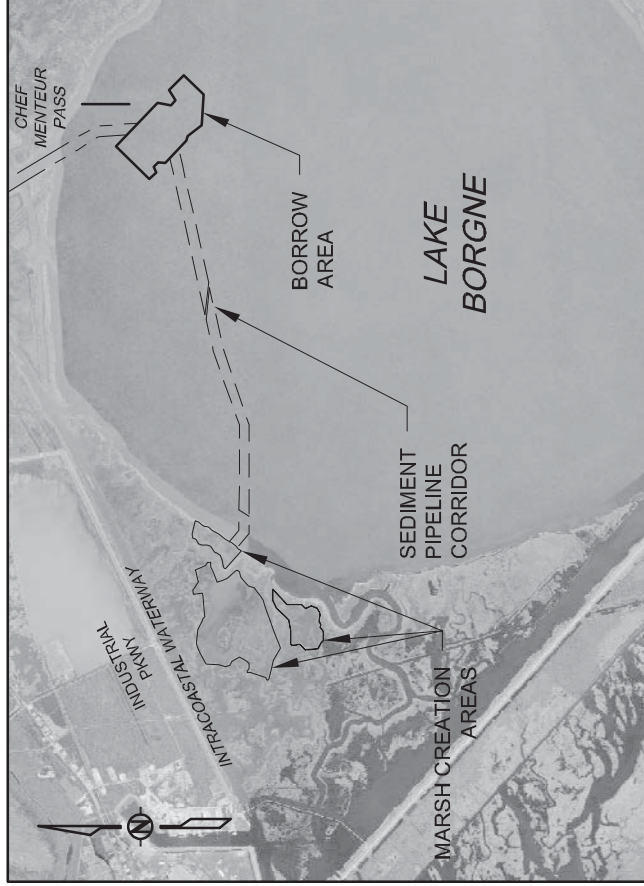
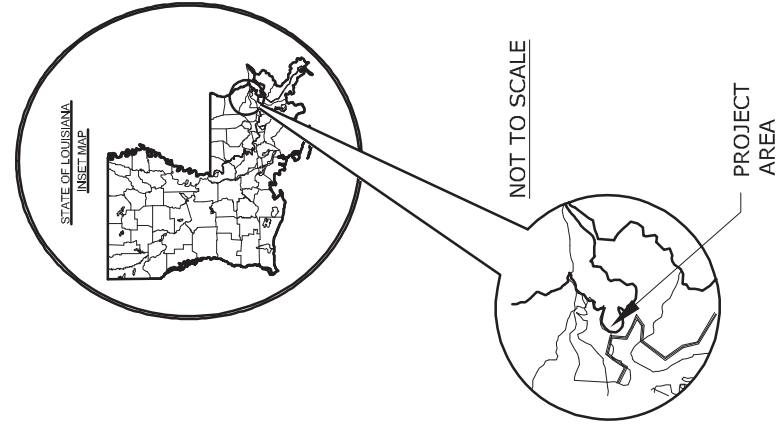
During in-water work in areas that potentially support manatees, all personnel associated with the project shall be instructed and aware of the potential presence of manatees, manatee speed zones, and the need to avoid collisions with, and injury to, manatee. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel shall be instructed not to attempt to feed or otherwise interact with the animal.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). To minimize potential impacts to manatees in areas of their potential presence, the permittee shall insure the following are adhered to:

- All work, equipment, and vessel operation shall cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- If a manatee(s) is sighted in or near the project area, all vessels associated with the project shall operate at “no wake/idle” speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels shall follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers shall be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- Temporary signs concerning manatees shall be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: “CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT”. A second temporary sign measuring 8½ " X 11" shall be posted at a location prominently visible to all personnel engaged in water-related activities and shall read language similar to the following: “CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION”.
- Collisions with, injury to, or sightings of manatees shall be immediately reported to the U.S. Fish and Wildlife Service’s, Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

STATE OF LOUISIANA  
 COASTAL PROTECTION AND RESTORATION AUTHORITY

**GOLDEN TRIANGLE  
 MARSH RESTORATION PROJECT**  
 PROJECT NO. PO-163  
 ORLEANS PARISH




**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WILLIAM F. HANCOCK  
 LICENSE NO. 34825

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APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA, 70802	 Aptim Coastal, Ports, & Marine 4177 SASSER LANE BATON ROUGE, LA 70809 225.932.2758 C.O.A., LA, #2531 www.aptim.com	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	TITLE SHEET AND SITE LOCATION
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 1 OF 28

**GENERAL NOTES:**

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) U.S. SURVEY FEET (FEET), GEOID 2012A. ALL HORIZONTAL COORDINATES ARE BASED ON THE GEOGRAPHIC COORDINATE SYSTEM (WORLD GEODETIC SYSTEM OF 1984 WGS84).
  2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING FROM A NAVIGABLE WATER BODY TO THE PROJECT AREA. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT PLAN AREA. THE CPRA PROJECT ENGINEER OR REPRESENTATIVE SHALL HAVE THE RIGHT TO MONITOR THE EQUIPMENT LOCATION DURING CONSTRUCTION.
  3. ALL EQUIPMENT SHALL BE FLOATING AT ALL TIMES DURING THE TRANSIT TO AND FROM THE PROJECT SITE. ACCESS DREDGING IS ONLY PERMITTED AT LOCATIONS SHOWN ON THE PLANS.
  4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING LAND OWNERS AND PIPELINE AND UTILITY OPERATORS 10 WORKING DAYS PRIOR TO MOBILIZATION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE MARKED WITH BOUYS OR FLAGGED STAKES DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE CLEARANCES FROM THE PIPELINES SET FORTH IN THE PLAN DRAWINGS OR IN THE BID DOCUMENTS. NO EXCAVATION IS ALLOWED WITHIN 50 FEET OF A PIPELINE UNLESS OTHERWISE STIPULATED IN AGREEMENT. THE FOLLOWING IS A LIST OF UTILITIES AND PIPELINE OPERATORS KNOWN TO HAVE PIPELINES IN THE VICINITY. PIPELINE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATIONS. THE OWNER IS NOT LIABLE FOR EXACT LOCATIONS. THE CONTRACTOR MUST CALL LOUISIANA ONE CALL AT 1-800-272-3020 AT LEAST 5 WORKING DAYS PRIOR TO MOBILIZATION.
  5. ELEVATIONS SHOWN ON THE PLANS ARE BASED ON SURVEYS PERFORMED OCTOBER 2017, DECEMBER 2017, JANUARY 2018, AND APRIL 2018. THE SURVEYS WERE CONDUCTED BY APTIM, FOR CPRA.
- ENERGY TRANSMISSION LINE  
 CONTACT: LEON HINSON  
 PHONE: (504) 595-3722


PBF ENERGY  
 CONTACT: JOSH BRISCOE  
 PHONE: (504) 250-2431

GOODRICH PETROLIUM COMPANY, LLC  
 CONTACT: TBD  
 PHONE: TBD

SOUTHERN NATURAL GAS COMPANY  
 CONTACT: KARL CASANOVA  
 PHONE: (985) 839-2393

PXP LOUISIANA  
 CONTACT: TBD  
 PHONE: TBD
6. THE ALIGNMENTS AND CONSTRUCTION VOLUMES MAY BE REVISED BY THE ENGINEER AT THE TIME OF CONSTRUCTION TO REFLECT CHANGES IN FIELD CONDITIONS.
  7. ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAIRED BY THE CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
  8. THE CONTRACTOR SHALL PERFORM A MAGNETOMETER SURVEY IN ALL AREAS OF EXCAVATION AND OTHER WORK THAT MAY POTENTIALLY DAMAGE OR INTERFERE WITH EXISTING INFRASTRUCTURE PRIOR TO ANY CONDUCTING WORK. LOCATION OF INFRASTRUCTURE (PIPELINES, WELL HEADS, ETC.) ARE PROVIDED IN THE CONTRACT DOCUMENTS FOR INFORMATIONAL PURPOSES ONLY.
  9. UPON COMPLETION OF THE PROJECT, THE PRIMARY DIKE MAY BE DEGRADED AT THE DIRECTION OF CPRA. THE CONTRACTOR SHALL EXERCISE CARE TO MAINTAIN THE PRIMARY DIKES AT THE DESIGN ELEVATION DURING THE PROJECT AND SHALL PREVENT ANY BREACHES OF THE DIKES FOR THE DURATION OF THE PROJECT. PRIMARY DIKES MAY BE GAPPED UPON DEMOBILIZATION AND WILL BE DEGRADED AFTER MARSH FILL MATERIAL IS CONSOLIDATED.
  10. AVOIDING IMPACTS TO EXISTING VEGETATION: FOR PROTECTION OF EXISTING VEGETATION, ACCESS TO OR MOVEMENT ACROSS THE PROJECT AREA OUTSIDE OF THE DEFINED PROJECT LIMITS SHALL GENERALLY BE PROHIBITED WITHIN VEGETATED AREAS FOR ALL PERSONNEL AND EQUIPMENT. VEGETATED AREAS SHALL NOT BE USED FOR EQUIPMENT, PERSONNEL, OR MATERIAL ACCESS OR STORAGE. THE DREDGED FILL SHALL BE DISCHARGED WITHIN THE CONTAINED AREAS IN A MANNER THAT WILL PROHIBIT OVERFLOW OF THE DREDGED MATERIAL FROM THE LIMITS OF THE FILL PLACEMENT AREA. STAGING AREA DENOTED ON THE PLANS IS TO BE USED FOR ACCESS AND EQUIPMENT STORAGE. THIS AREA SHALL BE RESTORED TO PRE-PROJECT CONDITIONS UPON DEMOBILIZATIONS.

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WINNIE J. HANCOCK  
 LA 00000-0000

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 <b>Aptim Coastal, Ports, &amp; Marine</b> APTIM ESSENCE 70909 WOODLAWN 225.932.2758 C.O.A. LA #2531 www.aptim.com	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	<b>GOLDEN TRIANGLE MARSH CREATION PROJECT</b>
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:
GENERAL NOTES AND SUMMARY OF QUANTITIES		DATE: 11/7/18 SHEET 2 OF 28	

BENCHMARK CONTROL POINTS			
MONUMENT	LONGITUDE	LATITUDE	ELEVATION
E3146	W 89° 48' 5.4"	N 30° 4' 14.05"	5.2
WES19	W 89° 56' 19.72"	N 30° 0' 25.42"	

MONUMENT WES19 IS USED FOR HORIZONTAL CONTROL ONLY.

BASELINE 1			
POINT	LONGITUDE	LATITUDE	
P.O.B	W 89° 52' 3.9"	N 29° 59' 56.69"	
P.O.E	W 89° 50' 41.53"	N 30° 1' 33.28"	


  

BASELINE 2			
POINT	LONGITUDE	LATITUDE	
P.O.B	W 89° 52' 41.38"	N 30° 1' 0.48"	
P.O.E	W 89° 52' 41.38"	N 30° 1' 0.48"	

TIDAL DATUMS AT PROJECT AREA	
TIDAL DATUM	ELEVATION
MEAN HIGH WATER (MHW)	1.01
MEAN LOW WATER (MLW)	-0.25

SOURCE: USGS STATION 73802339 NOTE: ELEVATIONS ARE REFERENCED TO NAVD 1988, U.S. SURVEY FEET, GEOID 2012A.

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 WITNESS NUMBER: 14825  
 LICENSE NO. 34825

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA, 70802	 APTIM Coastal, Ports, & Marine 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802 C.O.A. LA #2531 www.aptim.com	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	GENERAL NOTES AND SUMMARY OF QUANTITIES
				DATE: 11/17/18
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	FEDERAL PROJECT NUMBER:	SHEET 3 OF 28

**SETTLEMENT PLATE LOCATIONS**

LABEL	LONGITUDE	LATITUDE	STATION	RANGE	LOCATION
0.86099809					
SP-1	W 89° 50' 49.7"	N 30° 1' 13.76"	101+40	5+99	MARSH
SP-2	W 89° 50' 49.81"	N 30° 1' 20.1"	106+45	2+10	MARSH
MARSH CREATION AREA 2					
SP-3	W 89° 51' 44.5"	N 30° 0' 59.83"	50+00	0+00	MARSH
SP-4	W 89° 52' 13.15"	N 30° 0' 45.58"	25+00	14+74	MARSH
SP-5	W 89° 51' 48.13"	N 30° 0' 37.04"	47+05	23+07	DIKE
MARSH CREATION AREA 3					
SP-6	W 89° 51' 42.48"	N 30° 0' 16.56"	27+18	3+17	MARSH
SP-7	W 89° 52' 3.22"	N 30° 0' 14.72"	15+00	27	MARSH
SP-8	W 89° 51' 33.84"	N 30° 0' 30.1"	42+94	1+10	DIKE

**PROPOSED MARSH DEWATERING LOCATIONS**

LABEL	LONGITUDE	LATITUDE
MARSH CREATION AREA 1		
DL-1	W 89° 50' 44.77"	N 30° 1' 23.02"
	W 89° 50' 42.57"	N 30° 1' 22.51"
MARSH CREATION AREA 2		
DL-2	W 89° 51' 30.06"	N 30° 1' 23.84"
	W 89° 51' 27.79"	N 30° 1' 23.66"
DL-3	W 89° 51' 43.99"	N 30° 1' 16.93"
	W 89° 51' 41.72"	N 30° 1' 17.04"
DL-4	W 89° 52' 6.92"	N 30° 1' 22.08"
	W 89° 52' 9.05"	N 30° 1' 21.4"
DL-5	W 89° 52' 22.91"	N 30° 0' 35.46"
	W 89° 52' 25.09"	N 30° 0' 35.96"
D-6	W 89° 52' 4.98"	N 30° 0' 31.93"
	W 89° 52' 4.98"	N 30° 0' 32.62"
DL-7	W 89° 51' 55.42"	N 30° 0' 34.81"
	W 89° 51' 53.28"	N 30° 0' 35.46"
DL-8	W 89° 51' 46.08"	N 30° 0' 37.62"
	W 89° 51' 43.96"	N 30° 0' 38.34"

**PROPOSED MARSH DEWATERING LOCATIONS**

LABEL	LONGITUDE	LATITUDE
MARSH CREATION AREA 3		
DL-9	W 89° 51' 55.12"	N 30° 0' 24.19"
	W 89° 51' 52.85"	N 30° 0' 24.52"
DL-10	W 89° 52' 4.4"	N 30° 0' 23.76"
	W 89° 52' 2.14"	N 30° 0' 23.76"
DL-11	W 89° 52' 8.49"	N 30° 0' 21.02"
	W 89° 52' 8.47"	N 30° 0' 23"
DL-12	W 89° 52' 10.42"	N 30° 0' 16.09"
	W 89° 52' 8.83"	N 30° 0' 17.53"
DL-13	W 89° 52' 11.17"	N 30° 0' 8.24"
	W 89° 52' 11.42"	N 30° 0' 10.19"
DL-14	W 89° 51' 51.77"	N 30° 0' 5.98"
	W 89° 51' 53.8"	N 30° 0' 5.1"

NOTE: COORDINATES ARE BASED ON THE GEOGRAPHIC COORDINATE SYSTEM (WORLD GEODETIC SYSTEM OF 1984 WGS84).

**PRELIMINARY**  
THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
MAPS: 11/15/2014  
LA LICENSE NO.: 34825

APPLICATION BY:  
COASTAL PROTECTION AND RESTORATION AUTHORITY  
150 TERRACE AVENUE  
BATON ROUGE, LOUISIANA 70802

  
**APTIM**  
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**COASTAL PROTECTION AND RESTORATION AUTHORITY**  
150 TERRACE AVENUE  
BATON ROUGE, LOUISIANA 70802

GOLDEN TRIANGLE  
MARSH CREATION PROJECT

GENERAL NOTES AND SUMMARY OF QUANTITIES

DRAWN BY: GK

DESIGNED BY: CP

APPROVED BY: WT

STATE PROJECT NUMBER: PO-163

FEDERAL PROJECT NUMBER:

DATE: 11/17/18

SHEET 4 OF 28

EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-2	LONGITUDE	LATITUDE
	W89°51'27.11"	N30°01'23.25"
	W89°51'25.97"	N30°00'49.61"
	W89°51'23.04"	N30°01'08.63"
	W89°51'22.47"	N30°01'20.41"
	W89°51'21.88"	N30°00'52.64"
	W89°51'21.70"	N30°01'05.24"
	W89°51'21.63"	N30°01'09.15"
	W89°51'21.44"	N30°01'20.62"
	W89°51'20.57"	N30°01'02.37"
	W89°51'19.66"	N30°00'54.28"
	W89°51'16.15"	N30°00'54.97"
	W89°51'16.12"	N30°00'58.37"
	W89°51'15.92"	N30°01'11.26"
	W89°51'15.78"	N30°00'58.06"
	W89°51'15.74"	N30°01'21.79"
	W89°51'15.43"	N30°00'55.12"
	W89°51'14.69"	N30°00'56.46"
	W89°51'13.97"	N30°01'22.14"
	W89°51'11.91"	N30°01'12.73"
	W89°51'10.96"	N30°01'15.67"
	W89°51'08.71"	N30°01'12.52"
	W89°51'08.68"	N30°01'14.59"

EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-2	LONGITUDE	LATITUDE
	W89°52'12.64"	N30°01'19.91"
	W89°52'10.21"	N30°00'30.29"
	W89°52'09.71"	N30°01'21.18"
	W89°52'07.69"	N30°00'31.06"
	W89°52'06.93"	N30°01'22.08"
	W89°52'04.48"	N30°01'21.90"
	W89°52'01.98"	N30°00'32.81"
	W89°51'56.69"	N30°01'21.01"
	W89°51'56.26"	N30°00'34.56"
	W89°51'55.59"	N30°01'20.58"
	W89°51'50.55"	N30°00'36.31"
	W89°51'49.93"	N30°01'18.37"
	W89°51'48.80"	N30°01'17.91"
	W89°51'47.33"	N30°01'16.77"
	W89°51'44.84"	N30°00'38.05"
	W89°51'44.25"	N30°01'16.92"
	W89°51'39.12"	N30°00'39.80"
	W89°51'38.56"	N30°01'17.19"
	W89°51'36.38"	N30°00'40.32"
	W89°51'33.47"	N30°01'17.44"
	W89°51'33.41"	N30°00'42.04"
	W89°51'32.86"	N30°01'17.58"
	W89°51'31.58"	N30°01'23.72"
	W89°51'30.66"	N30°01'18.14"
	W89°51'28.36"	N30°01'24.00"
	W89°51'27.67"	N30°00'45.35"
	W89°51'27.56"	N30°00'45.41"

EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-2	LONGITUDE	LATITUDE
	W89°52'33.17"	N30°00'38.77"
	W89°52'33.04"	N30°00'38.39"
	W89°52'32.17"	N30°00'37.57"
	W89°52'31.14"	N30°00'39.45"
	W89°52'30.34"	N30°00'37.16"
	W89°52'30.25"	N30°00'41.69"
	W89°52'27.57"	N30°00'50.48"
	W89°52'27.27"	N30°00'48.74"
	W89°52'27.25"	N30°00'50.94"
	W89°52'26.52"	N30°00'50.86"
	W89°52'24.67"	N30°00'35.88"
	W89°52'24.48"	N30°00'49.57"
	W89°52'23.41"	N30°00'49.49"
	W89°52'23.30"	N30°01'04.33"
	W89°52'22.46"	N30°00'49.56"
	W89°52'22.33"	N30°01'01.58"
	W89°52'21.73"	N30°01'08.33"
	W89°52'21.21"	N30°00'49.80"
	W89°52'21.01"	N30°01'16.30"
	W89°52'19.56"	N30°00'50.79"
	W89°52'19.49"	N30°01'00.36"
	W89°52'18.92"	N30°00'34.58"
	W89°52'18.79"	N30°00'52.06"
	W89°52'18.75"	N30°00'59.14"
	W89°52'18.64"	N30°01'17.33"
	W89°52'16.59"	N30°00'55.66"
	W89°52'13.34"	N30°00'31.83"

EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-1	LONGITUDE	LATITUDE
	W89°51'02.18"	N30°01'08.98"
	W89°51'02.00"	N30°01'09.32"
	W89°51'01.45"	N30°01'10.27"
	W89°50'57.49"	N30°01'12.61"
	W89°50'56.43"	N30°01'14.28"
	W89°50'56.49"	N30°01'18.13"
	W89°50'55.47"	N30°01'19.88"
	W89°50'52.26"	N30°01'21.63"
	W89°50'51.31"	N30°01'23.47"
	W89°50'48.90"	N30°01'24.01"
	W89°50'44.73"	N30°01'23.01"
	W89°50'39.27"	N30°01'21.72"
	W89°50'40.10"	N30°01'19.98"
	W89°50'49.05"	N30°01'10.16"
	W89°50'49.05"	N30°01'07.12"
	W89°50'52.71"	N30°01'03.29"
	W89°50'55.60"	N30°00'58.96"
	W89°50'57.90"	N30°00'56.48"
	W89°51'01.13"	N30°00'53.69"
	W89°51'12.97"	N30°01'03.05"
	W89°51'13.33"	N30°01'03.48"
	W89°51'13.26"	N30°01'04.23"
	W89°51'12.22"	N30°01'04.69"
	W89°51'07.67"	N30°01'05.32"
	W89°51'06.00"	N30°01'05.74"
	W89°51'03.99"	N30°01'06.53"
	W89°51'02.18"	N30°01'08.98"
	W89°51'02.00"	N30°01'09.32"
	W89°51'01.45"	N30°01'10.27"
	W89°50'57.49"	N30°01'12.61"
	W89°50'56.43"	N30°01'14.28"
	W89°50'56.49"	N30°01'18.13"

EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-1	LONGITUDE	LATITUDE
	W89°50'55.47"	N30°01'19.88"
	W89°50'52.26"	N30°01'21.63"
	W89°50'51.31"	N30°01'23.47"
	W89°50'48.90"	N30°01'24.01"
	W89°50'44.73"	N30°01'23.01"
	W89°50'39.27"	N30°01'21.72"
	W89°50'40.10"	N30°01'19.98"
	W89°50'42.27"	N30°01'17.30"
	W89°50'43.16"	N30°01'15.72"
	W89°50'43.53"	N30°01'15.01"
	W89°50'44.05"	N30°01'13.39"
	W89°50'46.04"	N30°01'11.35"
	W89°50'47.03"	N30°01'10.16"
	W89°50'49.05"	N30°01'07.12"
	W89°50'52.71"	N30°01'03.29"
	W89°50'55.60"	N30°00'58.96"
	W89°50'57.90"	N30°00'56.48"
	W89°51'01.13"	N30°00'53.69"
	W89°51'12.97"	N30°01'03.05"
	W89°51'13.33"	N30°01'03.48"
	W89°51'13.26"	N30°01'04.23"
	W89°51'12.22"	N30°01'04.69"
	W89°51'07.67"	N30°01'05.32"
	W89°51'06.00"	N30°01'05.74"
	W89°51'03.99"	N30°01'06.53"
	W89°51'02.18"	N30°01'08.98"
	W89°51'02.00"	N30°01'09.32"
	W89°51'01.45"	N30°01'10.27"
	W89°50'57.49"	N30°01'12.61"
	W89°50'56.43"	N30°01'14.28"
	W89°50'56.49"	N30°01'18.13"

**PRELIMINARY**  
THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
WHITING, THOMPSON  
LA LICENSE NO. 34825



**APPLICATION BY:**  
COASTAL PROTECTION AND RESTORATION AUTHORITY  
150 TERRACE AVENUE  
BATON ROUGE, LOUISIANA 70802

**COASTAL PROTECTION  
AND RESTORATION  
AUTHORITY**  
150 TERRACE AVENUE  
BATON ROUGE, LOUISIANA 70802

**GOLDEN TRIANGLE  
MARSH CREATION PROJECT**

**ALIGNMENT TABLES**



EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-3	LONGITUDE	LATITUDE
	W89°52'11.83"	N30°00'14.81"
	W89°52'11.80"	N30°00'13.17"
	W89°52'11.61"	N30°00'13.96"
	W89°52'11.59"	N30°00'13.86"
	W89°52'11.00"	N30°00'07.01"
	W89°52'08.49"	N30°00'20.99"
	W89°52'08.46"	N30°00'23.03"
	W89°52'08.27"	N30°00'18.04"
	W89°52'07.70"	N30°00'18.54"
	W89°52'07.56"	N30°00'23.77"
	W89°52'06.58"	N30°00'04.75"
	W89°52'05.56"	N30°00'03.62"
	W89°51'59.17"	N30°00'03.65"
	W89°51'57.98"	N30°00'23.73"
	W89°51'57.22"	N30°00'04.68"
	W89°51'56.06"	N30°00'05.28"
	W89°51'54.17"	N30°00'04.93"
	W89°51'51.90"	N30°00'05.99"
	W89°51'50.31"	N30°00'24.91"
	W89°51'49.59"	N30°00'05.88"

EARTHEN DIKE CENTERLINE INFLECTION POINTS MARSH CREATION AREA-3	LONGITUDE	LATITUDE
	W89°51'49.19"	N30°00'05.87"
	W89°51'47.35"	N30°00'05.30"
	W89°51'46.30"	N30°00'28.48"
	W89°51'45.15"	N30°00'05.65"
	W89°51'42.53"	N30°00'14.41"
	W89°51'42.35"	N30°00'07.38"
	W89°51'42.28"	N30°00'32.05"
	W89°51'42.03"	N30°00'13.37"
	W89°51'40.73"	N30°00'10.79"
	W89°51'39.72"	N30°00'16.79"
	W89°51'39.71"	N30°00'18.04"
	W89°51'39.62"	N30°00'24.15"
	W89°51'39.59"	N30°00'25.72"
	W89°51'36.47"	N30°00'34.46"
	W89°51'36.38"	N30°00'28.20"
	W89°51'32.83"	N30°00'34.55"
	W89°51'31.99"	N30°00'31.52"
	W89°51'28.91"	N30°00'34.55"
	W89°51'28.42"	N30°00'34.45"

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825

APPLICATION BY:  
 COASTAL PROTECTION AND RESTORATION AUTHORITY  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

  
**APTIM**  
 Coastal, Ports, & Marine  
 817 PESSIER BLVD  
 BATON ROUGE, LA  
 70809-3275  
 C.O.A., LA #2531  
 www.aptim.com

**COASTAL PROTECTION  
 AND RESTORATION  
 AUTHORITY**  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

GOLDEN TRIANGLE  
 MARSH CREATION PROJECT

STATE PROJECT NUMBER: PO-163  
 FEDERAL PROJECT NUMBER:

ALIGNMENT TABLES

DATE: 11/17/18  
 SHEET 6 OF 28

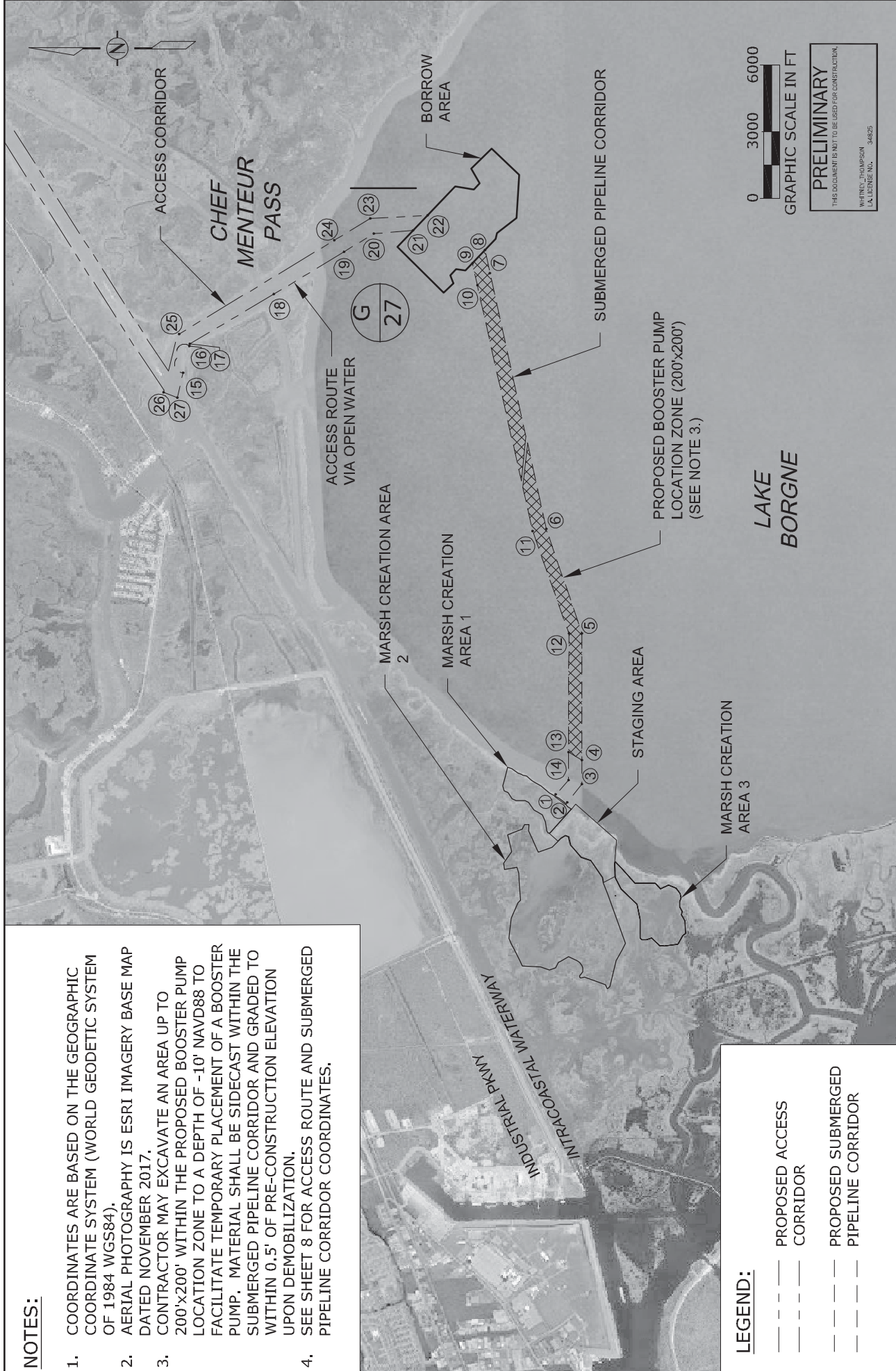
DESIGNED BY: CP

DRAWN BY: GK

APPROVED BY: WT

**NOTES:**

1. COORDINATES ARE BASED ON THE GEOGRAPHIC COORDINATE SYSTEM (WORLD GEODETIC SYSTEM OF 1984 WGS84).
2. AERIAL PHOTOGRAPHY IS ESRI IMAGERY BASE MAP DATED NOVEMBER 2017.
3. CONTRACTOR MAY EXCAVATE AN AREA UP TO 200'x200' WITHIN THE PROPOSED BOOSTER PUMP LOCATION ZONE TO A DEPTH OF -10' NAVD88 TO FACILITATE TEMPORARY PLACEMENT OF A BOOSTER PUMP. MATERIAL SHALL BE SIDECAST WITHIN THE SUBMERGED PIPELINE CORRIDOR AND GRADED TO WITHIN 0.5' OF PRE-CONSTRUCTION ELEVATION UPON DEMOBILIZATION.
4. SEE SHEET 8 FOR ACCESS ROUTE AND SUBMERGED PIPELINE CORRIDOR COORDINATES.



**LEGEND:**

- PROPOSED ACCESS CORRIDOR
- PROPOSED SUBMERGED PIPELINE CORRIDOR

APPLICATION BY:  
 COASTAL PROTECTION AND RESTORATION AUTHORITY  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

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 C.O.A., LA. #2531  
 www.aptim.com

DRAWN BY: GK

DESIGNED BY: CP

APPROVED BY: WT

**COASTAL PROTECTION AND RESTORATION AUTHORITY**  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

GOLDEN TRIANGLE  
 MARSH CREATION PROJECT

STATE PROJECT NUMBER: PO-163

FEDERAL PROJECT NUMBER:

PROJECT OVERVIEW

DATE: 11/7/18

SHEET 7 OF 28

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825


SUBMERGED PIPELINE CORRIDOR COORDINATE LOCATIONS		
POINT NO.	LONGITUDE	LATITUDE
1	W 89°50'53.6"	N 30°01'00.6"
2	W 89°50'57.7"	N 30°00'55.5"
3	W 89°50'48.6"	N 30°00'48.8"
4	W 89°50'36.3"	N 30°00'48.7"
5	W 89°49'31.4"	N 30°00'47.9"
6	W 89°48'37.7"	N 30°01'03.1"
7	W 89°46'26.3"	N 30°01'26.7"
8	W 89°46'14.5"	N 30°01'28.7"
9	W 89°46'21.3"	N 30°01'34.5"
10	W 89°46'32.6"	N 30°01'32.5"
11	W 89°48'38.7"	N 30°01'09.2"
12	W 89°49'31.3"	N 30°00'53.7"
13	W 89°50'32.0"	N 30°00'54.6"
14	W 89°50'46.4"	N 30°00'54.8"

ACCESS CORRIDOR COORDINATE LOCATIONS		
POINT NO.	LONGITUDE	LATITUDE
15	W89° 47' 15.28"	N 30° 03' 43.93"
16	W89° 47' 01.61"	N 30° 03' 41.03"
17	W89° 47' 00.60"	N 30° 03' 40.82"
18	W89° 46' 35.70"	N 30° 03' 02.98"
19	W89° 46' 14.56"	N 30° 02' 31.59"
20	W89° 46' 05.47"	N 30° 02' 18.23"
21	W89° 46' 04.19"	N 30° 02' 00.76"
22	W89° 45' 56.37"	N 30° 01' 54.08"
23	W89° 45' 57.68"	N 30° 02' 19.68"
24	W89° 46' 08.50"	N 30° 02' 35.76"
25	W89° 46' 55.50"	N 30° 03' 45.53"
26	W89° 47' 25.23"	N 30° 03' 52.84"
27	W89° 47' 28.09"	N 30° 03' 46.64"

STAGING AREA COORDINATE LOCATIONS		
POINT NO.	LONGITUDE	LATITUDE
150	W 89° 51' 38.98"	N 30°00'39.6"
151	W 89° 51' 35.92"	N 30°00'34.6"
152	W 89° 51' 28.18"	N 30°00'34.5"
153	W 89° 51' 17.43"	N 30°00'33.6"
154	W 89° 50' 58.75"	N 30°00'51.6"
155	W 89° 51' 01.10"	N 30°00'53.5"
156	W 89° 51' 13.55"	N 30°01'03.5"
157	W 89° 51' 17.32"	N 30°00'59.8"

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825

APPLICATION BY:  
 COASTAL PROTECTION AND RESTORATION AUTHORITY  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

  
**Aptim** Coastal, Ports, & Marine  
 150 TERRACE AVENUE  
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 225.932.2758  
 C.O.A., LA, #2531  
 www.aptim.com

**COASTAL PROTECTION  
 AND RESTORATION  
 AUTHORITY**  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

GOLDEN TRIANGLE  
 MARSH CREATION PROJECT

STATE PROJECT NUMBER: PO-163  
 FEDERAL PROJECT NUMBER:

SUBMERGED PIPELINE &  
 ACCESS CORRIDOR, AND  
 STAGING AREA  
 COORDINATE LOCATIONS

DATE: 11/7/18  
 SHEET 8 OF 28

DRAWN BY: GK  
 DESIGNED BY: CP  
 APPROVED BY: WT

**LEGEND:**

- DL-1 DEWATERING LOCATION AND ID
- POTENTIAL DEWATERING IMPACT AREA
- MAGNETIC ANOMALY
- SETTLEMENT PLATE AND ID
- MARSH FILL AREA
- EARTHEN CONTAINMENT DIKE
- FILL SOURCE
- SECTION ID
- SECTION PAGE LOCATION
- STAGING AREA
- PROPOSED BOOSTER PUMP LOCATION ZONE

**NOTES:**

1. DATE OF AERIAL IMAGERY: NOVEMBER 2017.
2. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 50 FEET OF ANY PIPELINE WITHOUT WRITTEN PERMISSION FROM THE INFRASTRUCTURE OWNER.
3. SEE SHEET 4 FOR COORDINATES OF PROPOSED MARSH DEWATERING LOCATIONS.
4. POINT OF BEGINNING (P.O.B. = STATION 0+00).
5. SEE SHEET 8 FOR STAGING AREA COORDINATES. CONTRACTOR SHALL RESTORE STAGING AREA TO PRE-PROJECT CONDITIONS UPON DEMOBILIZATION.
6. THE STAGING AREA SIZE AND LOCATION WAS CHOSEN TO FACILITATE ACCESS TO ALL OF THE MARSH CREATION AREAS FROM LAKE BORGNE. ANTICIPATED EQUIPMENT INCLUDES MARSH BUGGIES, AIRBOATS, AND ANCILLARY SEDIMENT PIPELINE EQUIPMENT (Y-VALVES, ADDITIONAL SECTIONS OF PIPE, ETC.).

**APTIM**  
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 www.aptim.com

APPLICATION BY:  
 COASTAL PROTECTION AND RESTORATION AUTHORITY  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

**COASTAL PROTECTION AND RESTORATION AUTHORITY**  
 150 TERRACE AVENUE  
 BATON ROUGE, LOUISIANA 70802

GOLDEN TRIANGLE  
 MARSH CREATION PROJECT

MARSH CREATION AREAS  
 PLAN VIEW

DRAWN BY: GK

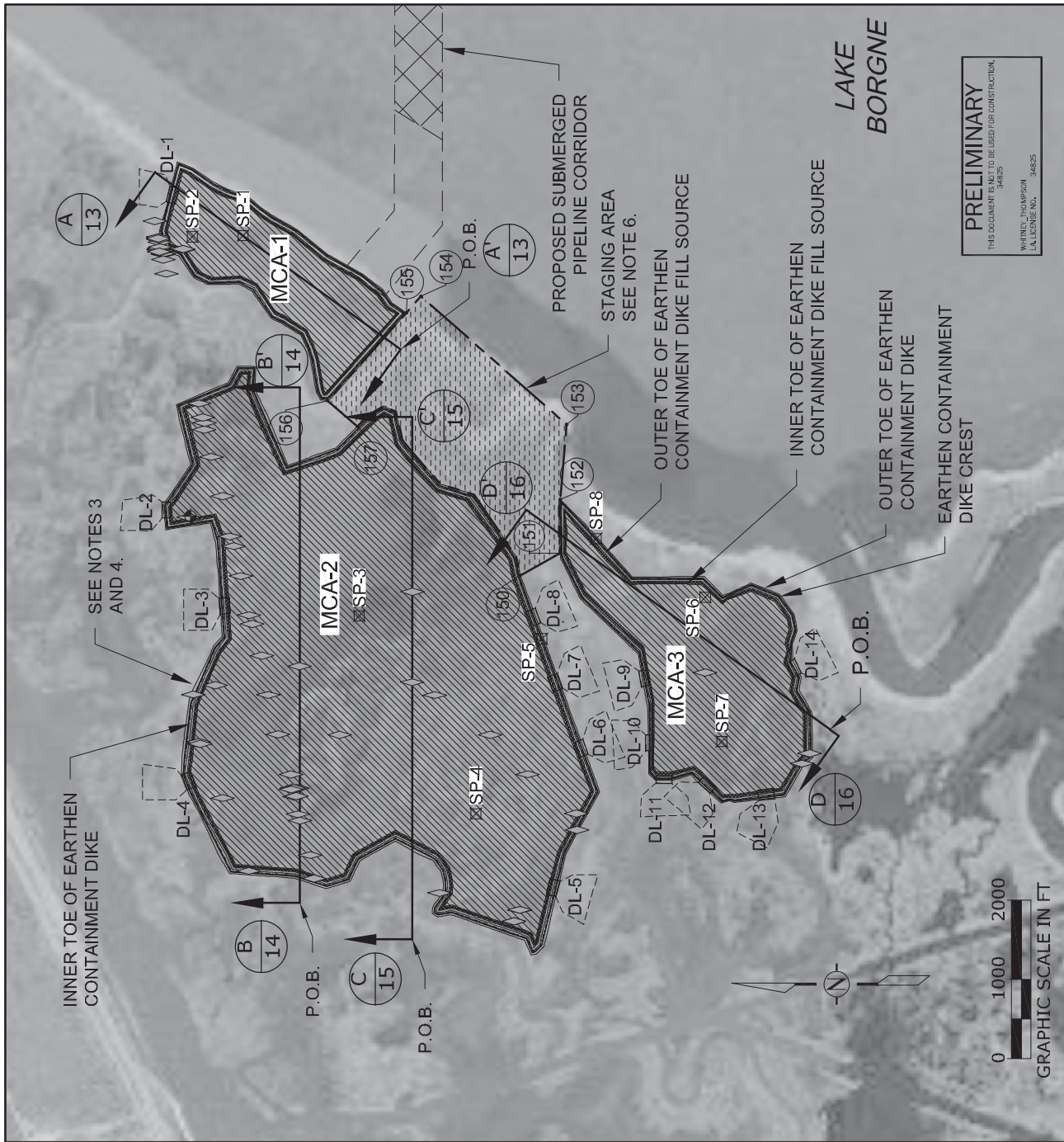
DESIGNED BY: CP

APPROVED BY: WT

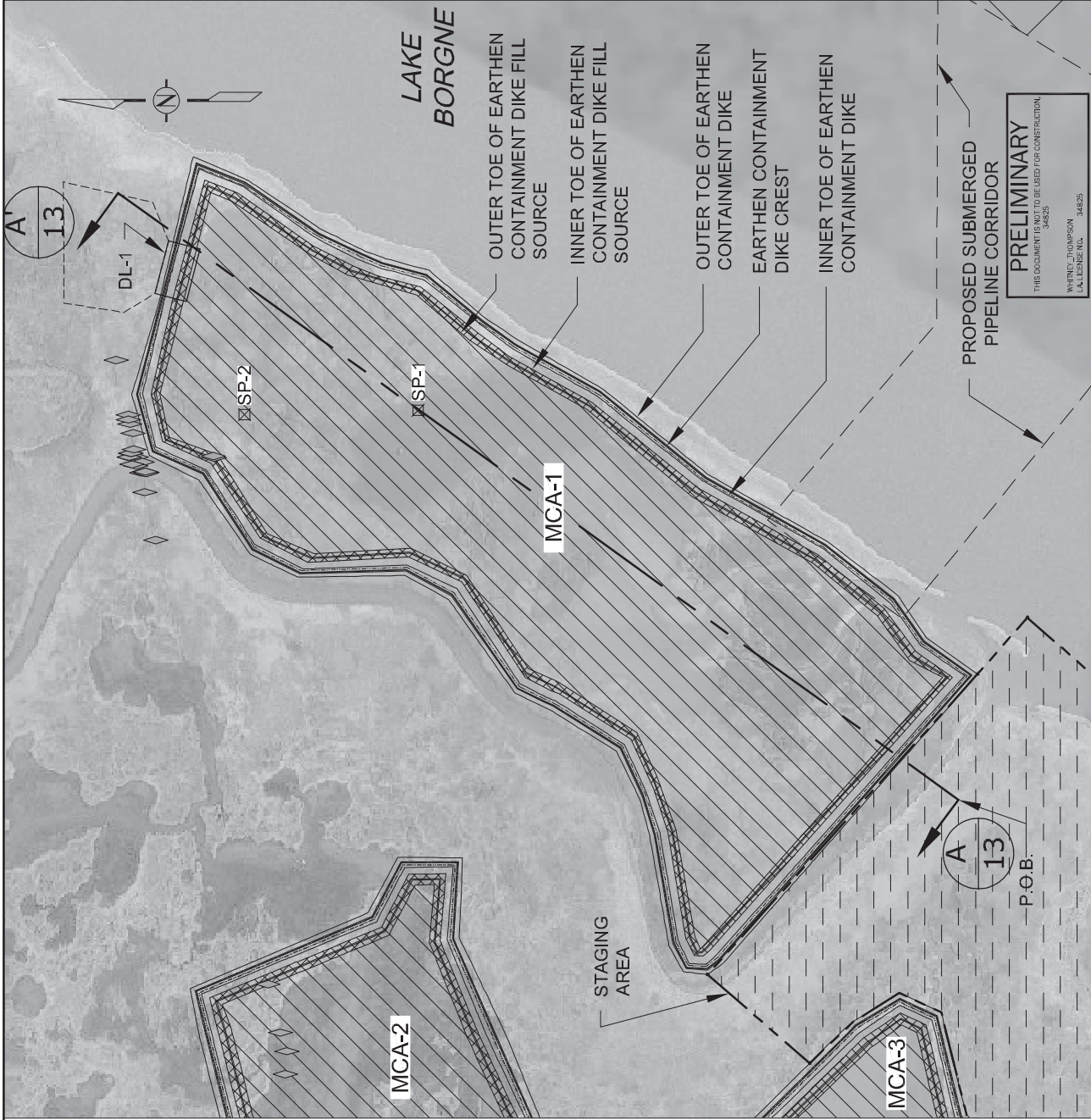
FEDERAL PROJECT NUMBER:

STATE PROJECT NUMBER: PO-163

DATE: 11/7/18  
 SHEET 9 OF 28



**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 3/8/20  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825



**LEGEND:**

- DL-1
- POTENTIAL DEWATERING IMPACT AREA
- MAGNETIC ANOMALY
- SETTLEMENT PLATE AND ID
- MARSH FILL AREA
- EARTHEN CONTAINMENT DIKE
- FILL SOURCE
- SECTION ID
- SECTION PAGE LOCATION
- STAGING AREA

**NOTES:**

1. DATE OF AERIAL IMAGERY: NOVEMBER 2017.
2. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 50 FEET OF ANY PIPELINE WITHOUT WRITTEN PERMISSION FROM THE INFRASTRUCTURE OWNER.
3. SEE SHEET 4 FOR COORDINATES OF PROPOSED MARSH DEWATERING LOCATIONS. THE CONTRACTOR MAY CHOOSE BETWEEN THESE PROPOSED LOCATIONS AND IS NOT REQUIRED TO USE EACH ONE.
4. POINT OF BEGINNING (P.O.B. = STATION 0+00).
5. SEE SHEET 8 FOR STAGING AREA COORDINATES. CONTRACTOR SHALL RESTORE STAGING AREA TO PRE-PROJECT CONDITIONS UPON DEMOBILIZATION.

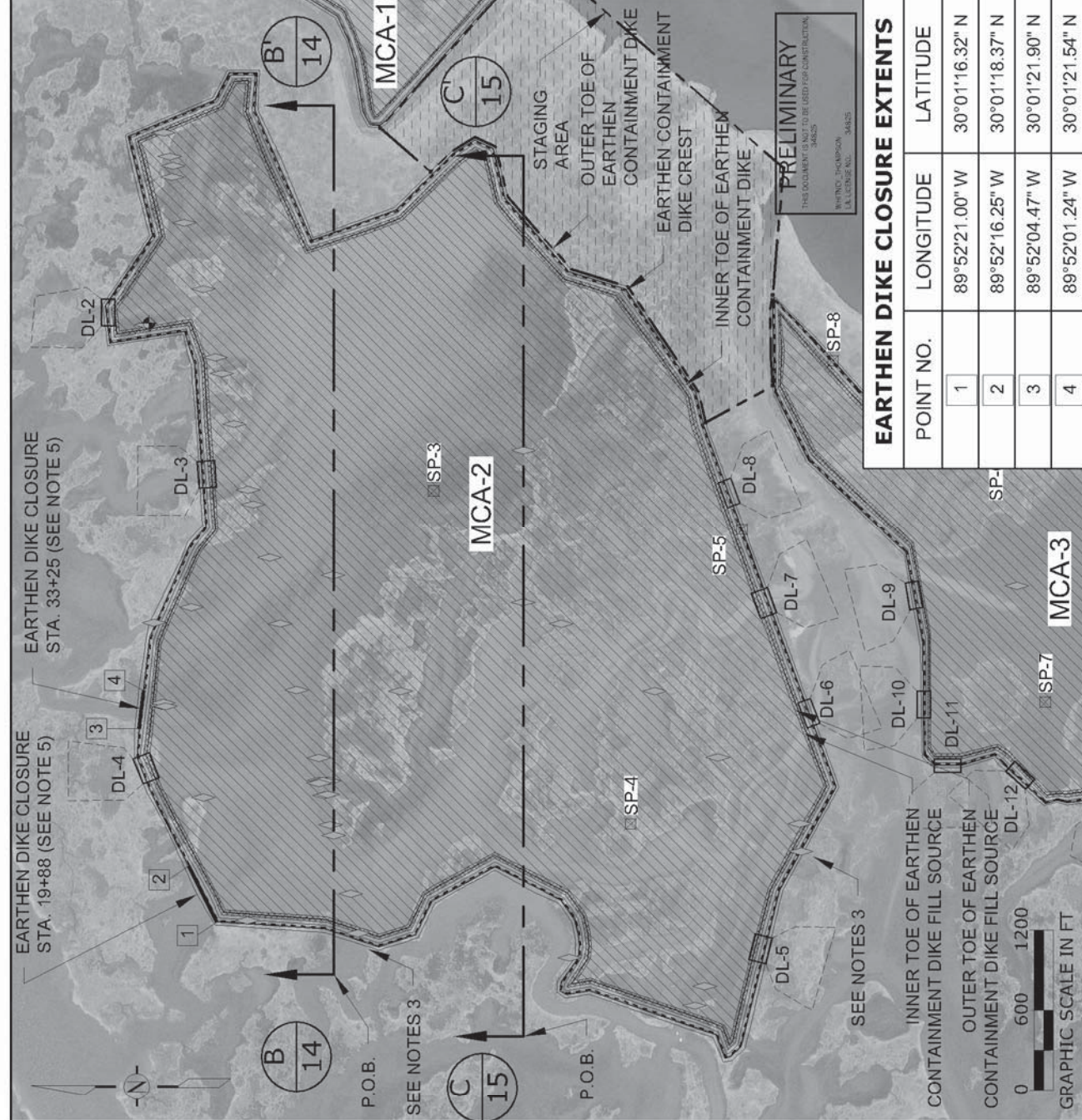
<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	 <p>Aptim Coastal, Ports, &amp; Marine          1477 ESSEX AVE          BATON ROUGE, LA          70809          225.932.2758          C.O.A., LA, #2531          www.aptim.com</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b>          150 TERRACE AVENUE          BATON ROUGE, LOUISIANA 70802</p>	<p>GOLDEN TRIANGLE          MARSH CREATION PROJECT</p>	<p>MARSH CREATION          AREA 1          PLAN VIEW</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>STATE PROJECT NUMBER: PO-163          FEDERAL PROJECT NUMBER:</p>	<p>DATE: 11/7/18          SHEET 10 OF 28</p>

**LEGEND:**

- DL-1 DEWATERING LOCATION AND ID
- POTENTIAL DEWATERING IMPACT AREA
- MAGNETIC ANOMALY
- SP-1 SETTLEMENT PLATE AND ID
- MARSH FILL AREA
- EARTHEN CONTAINMENT DIKE
- FILL SOURCE
- SECTION ID
- SECTION PAGE LOCATION
- STAGING AREA

**NOTES:**

1. DATE OF AERIAL IMAGERY: NOVEMBER 2017.
2. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 50 FEET OF ANY PIPELINE WITHOUT WRITTEN PERMISSION FROM THE INFRASTRUCTURE OWNER.
3. SEE SHEET 4 FOR COORDINATES OF PROPOSED MARSH DEWATERING LOCATIONS. THE CONTRACTOR MAY CHOOSE BETWEEN THESE PROPOSED LOCATIONS AND IS NOT REQUIRED TO USE EACH ONE.
4. POINT OF BEGINNING (P.O.B. = STATION 0+00).
5. SEE SHEET 21 FOR EARTHEN DIKE CLOSURE DETAILS.
6. SEE SHEET 8 FOR STAGING AREA COORDINATES. CONTRACTOR SHALL RESTORE STAGING AREA TO PRE-PROJECT CONDITIONS UPON DEMOBILIZATION.



**EARTHEN DIKE CLOSURE EXTENTS**

POINT NO.	LONGITUDE	LATITUDE
1	89°52'21.00" W	30°01'16.32" N
2	89°52'16.25" W	30°01'18.37" N
3	89°52'04.47" W	30°01'21.90" N
4	89°52'01.24" W	30°01'21.54" N

<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>
 <small>APTIM 117 S. SHERIDAN LANE BATON ROUGE, LA 70809 225.932.2755 C.O.A. LA #2531 www.aptim.com</small>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>
<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>		<p>MARSH CREATION AREA 2 PLAN VIEW</p>
<p>DRAWN BY: GK</p>		<p>DATE: 11/7/18</p>
<p>STATE PROJECT NUMBER: PO-163</p>		<p>FEDERAL PROJECT NUMBER:</p>
<p>SHEET 11 OF 28</p>		

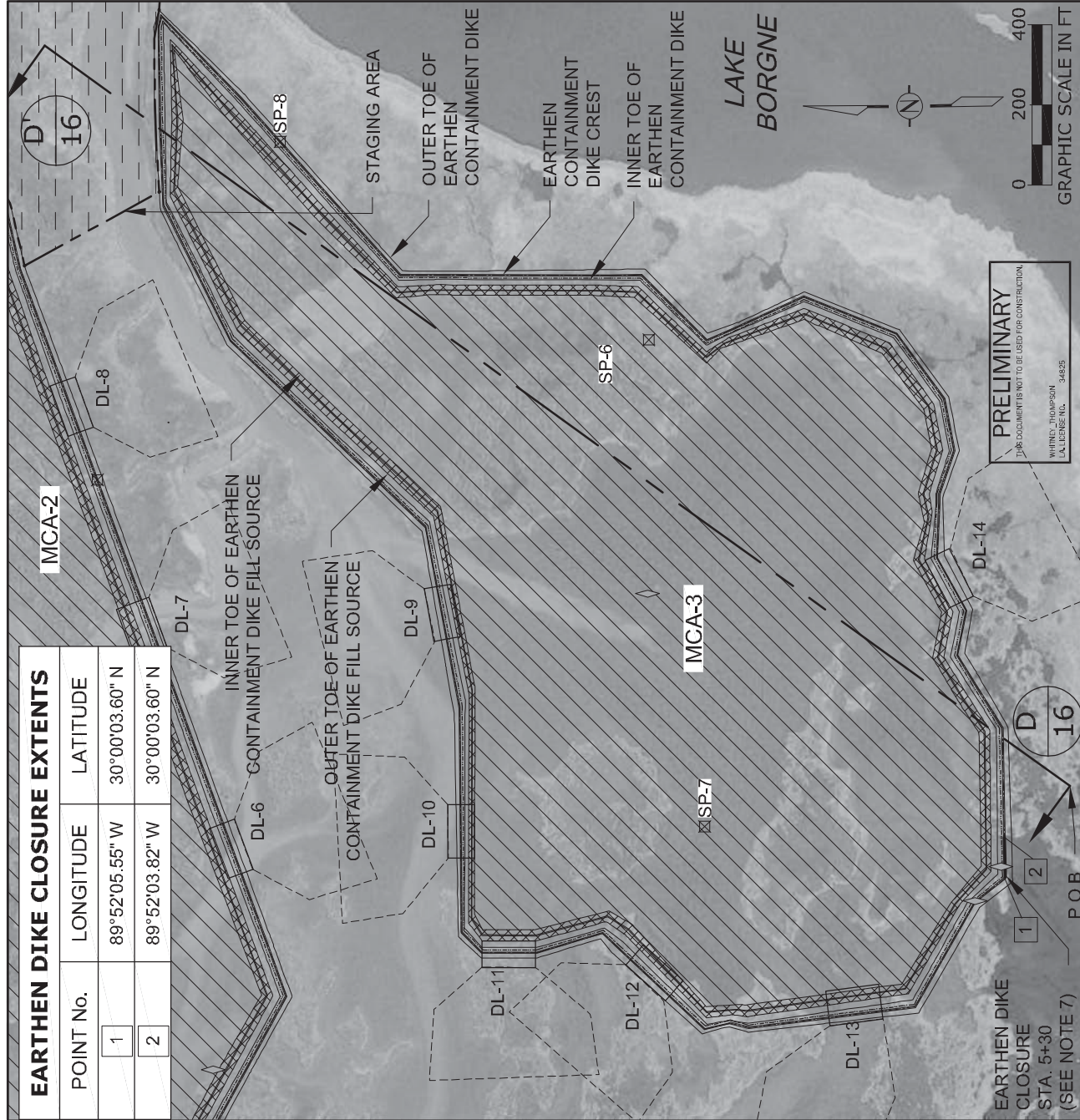
**LEGEND:**

- DL-1 [Symbol]
- POTENTIAL DEWATERING IMPACT AREA [Symbol]
- MAGNETIC ANOMALY [Symbol]
- SETTLEMENT PLATE AND ID [Symbol]
- MARSH FILL AREA [Symbol]
- EARTHEN CONTAINMENT DIKE [Symbol]
- FILL SOURCE [Symbol]
- SECTION ID [Symbol]
- SECTION PAGE LOCATION [Symbol]
- STAGING AREA [Symbol]

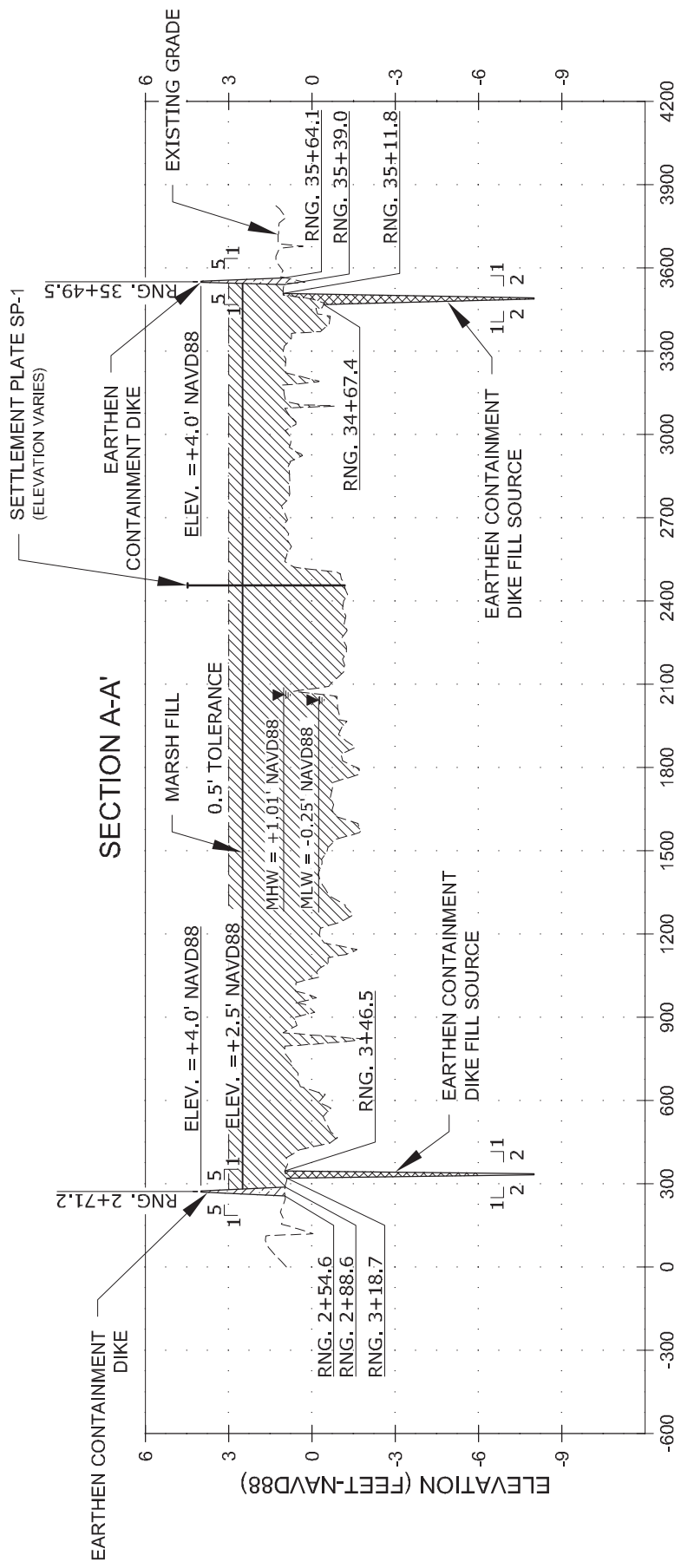
**NOTES:**

1. DATE OF AERIAL IMAGERY: NOVEMBER 2017.
2. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 50 FEET OF ANY PIPELINE WITHOUT WRITTEN PERMISSION FROM THE INFRASTRUCTURE OWNER.
3. SEE SHEET 4 FOR COORDINATES OF PROPOSED MARSH DEWATERING LOCATIONS. THE CONTRACTOR MAY CHOOSE BETWEEN THESE PROPOSED LOCATIONS AND IS NOT REQUIRED TO USE EACH ONE.
4. POINT OF BEGINNING (P.O.B. = STATION 0+00).
5. SEE SHEET 21 FOR EARTHEN DIKE CLOSURE DETAILS.
6. SEE SHEET 8 FOR STAGING AREA COORDINATES. CONTRACTOR SHALL RESTORE STAGING AREA TO PRE-PROJECT CONDITIONS UPON DEMOBILIZATION.

EARTHEN DIKE CLOSURE EXTENTS		
POINT No.	LONGITUDE	LATITUDE
1	89°52'05.55" W	30°00'03.60" N
2	89°52'03.82" W	30°00'03.60" N



<p>APPLICATION BY:</p> <p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p> <p>C.O.A. - LA #2531 BATON ROUGE, LA www.aptim.com</p>	<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>	<p>MARSH CREATION AREA 3 PLAN VIEW</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>STATE PROJECT NUMBER: PO-163</p>	<p>DATE: 11/7/18</p>
<p>APPROVED BY: WT</p>	<p>FEDERAL PROJECT NUMBER:</p>	<p>FEDERAL PROJECT NUMBER:</p>	<p>SHEET 12 OF 28</p>



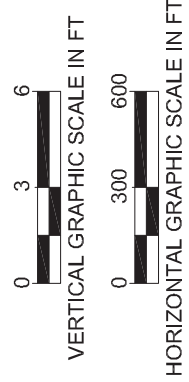
DISTANCE ALONG PROFILE (FEET)

**LEGEND:**

- EARTHEN CONTAINMENT DIKE
- EARTHEN CONTAINMENT DIKE FILL SOURCE
- MARSH FILL

**NOTES:**

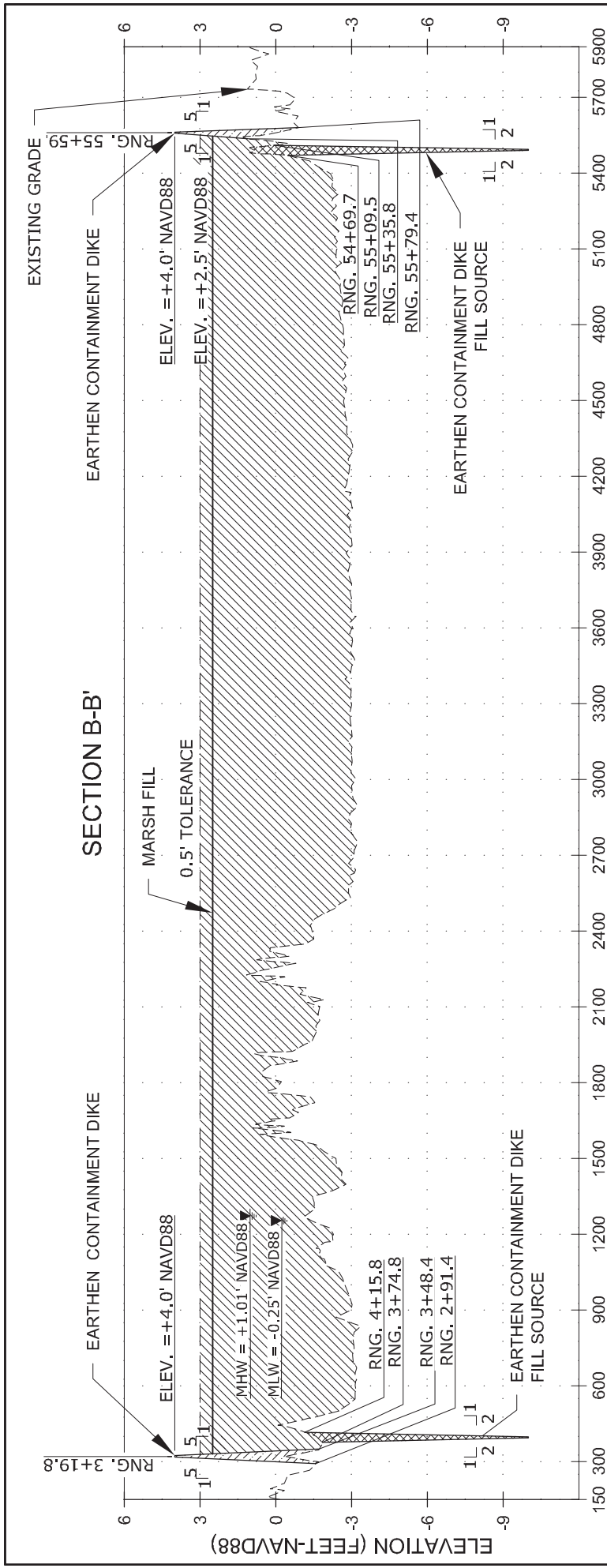
1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012a.
2. DISTANCES ARE ALONG SECTION LINE.



**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 NATHAN S. THOMPSON  
 LA LICENSE NO. 34825




APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	<b>APTIM</b> Coastal, Ports, & Marine <small>BATON ROUGE, LOUISIANA 70802          C.O.A. LA. #2531          WWW.APTIM.COM</small>	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	<b>MARSH CREATION PROFILE A-A'</b>
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	GOLDEN TRIANGLE MARSH CREATION PROJECT
STATE PROJECT NUMBER: PO-163	FEDERAL PROJECT NUMBER:	DATE: 11/7/18	SHEET 13 OF 28





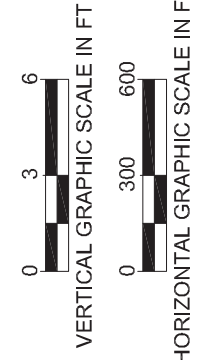
DISTANCE ALONG PROFILE (FEET)

**LEGEND:**


-  EARTHEN CONTAINMENT DIKE
-  EARTHEN CONTAINMENT DIKE FILL SOURCE
-  MARSH FILL

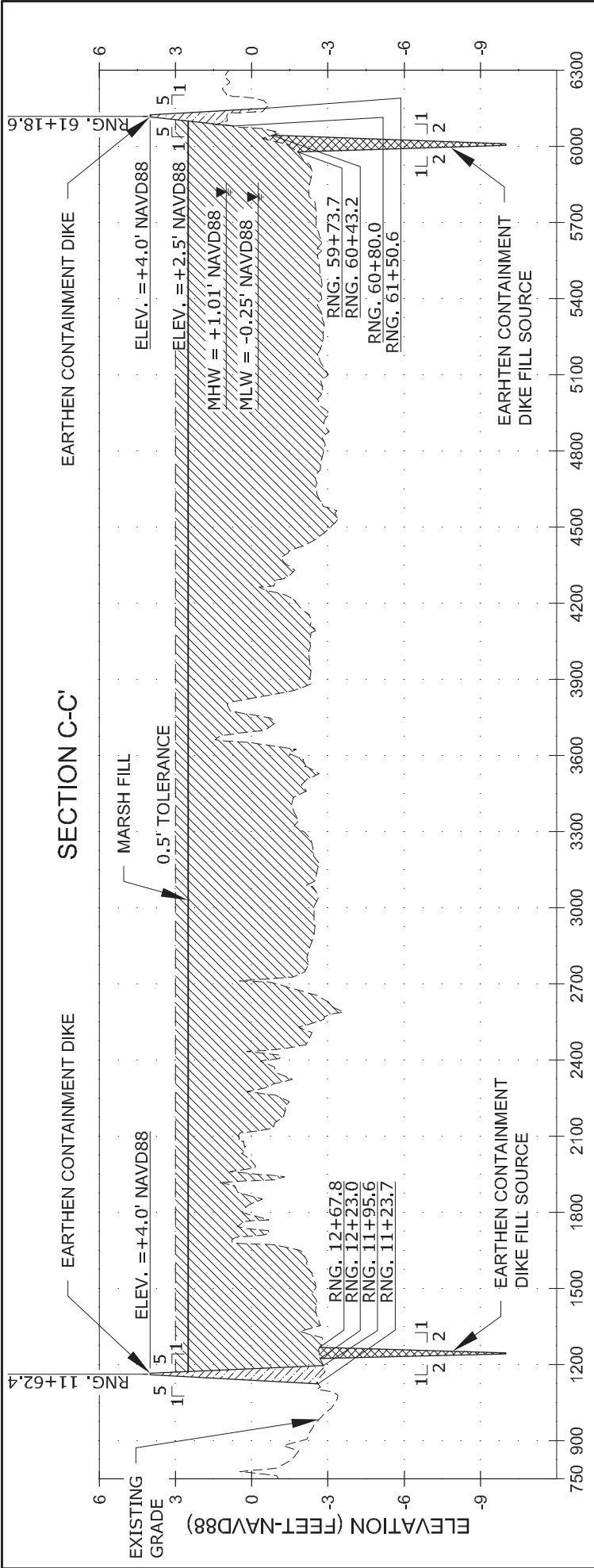
**NOTES:**

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.
2. DISTANCES ARE ALONG SECTION LINE.
3. LOCATIONS OF PIPELINES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO EXCAVATION.
4. NO EXCAVATION IS ALLOWED WITHIN 50 FEET OF A PIPELINE.




**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WALTER T. THOMPSON  
 LICENSE NO. 34825

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 <b>APTIM</b> Coastal, Ports, & Marine 817 BISSONNETTE BATON ROUGE, LA 70809-932-2758 C.O.A. LA. #2531 www.aptim.com	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	MARSH CREATION PROFILE B-B'
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 14 OF 28



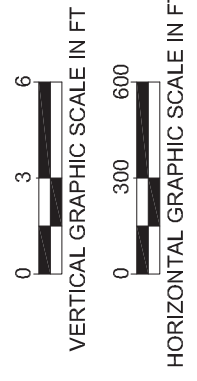
DISTANCE ALONG PROFILE (FEET)

**LEGEND:**


-  EARTHEN CONTAINMENT DIKE
-  EARTHEN CONTAINMENT DIKE FILL SOURCE
-  MARSH FILL

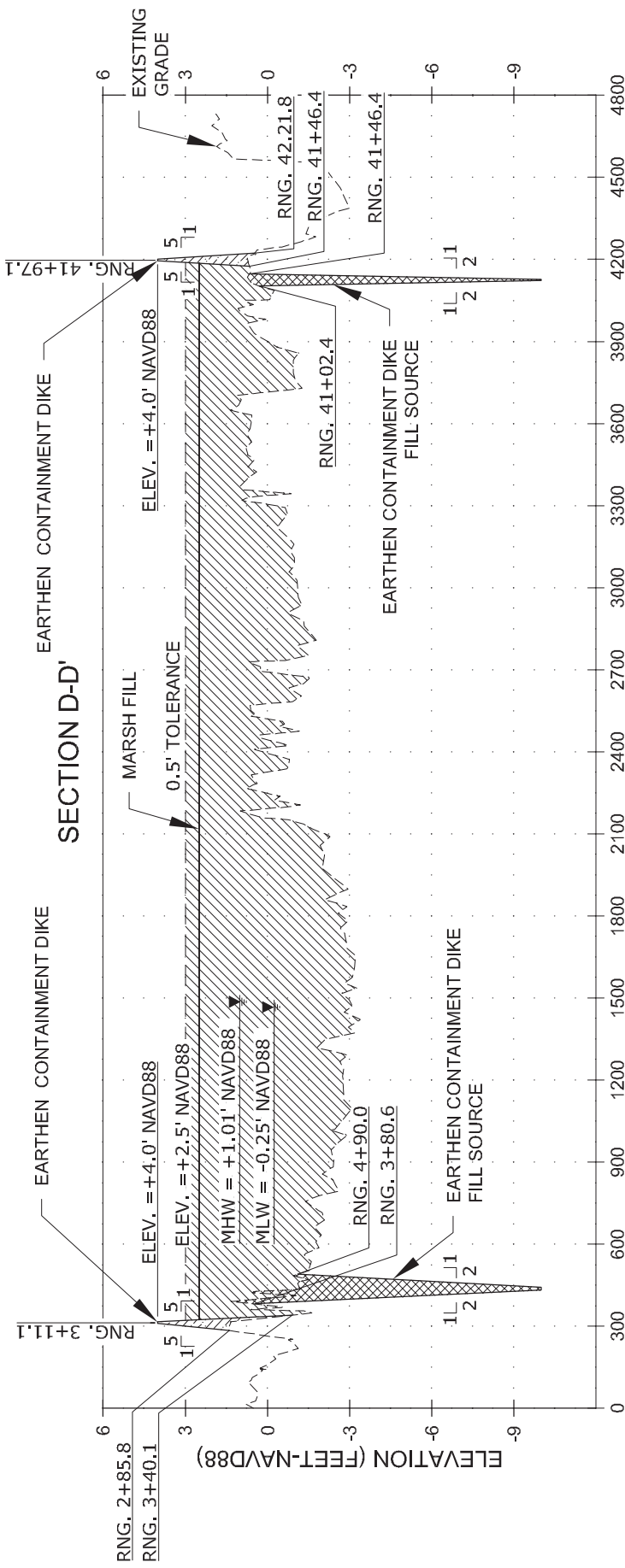
**NOTES:**

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.
2. DISTANCES ARE ALONG SECTION LINE.
3. LOCATIONS OF PIPELINES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO EXCAVATION.
4. NO EXCAVATION IS ALLOWED WITHIN 50 FEET OF A PIPELINE.



**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 W. HINDS, JR.  
 LA LICENSE NO. 34425

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 <b>APTIM</b> Coastal, Ports, & Marine 817 BASSIER BLVD BATON ROUGE, LA 70809-9326 225.932.2758 C.O.A. LA #2351 www.aptim.com	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	MARSH CREATION PROFILE C-C'
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 15 OF 28



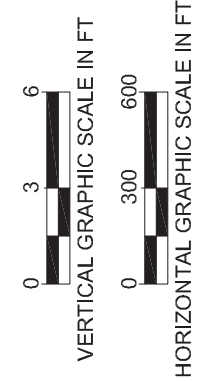
DISTANCE ALONG PROFILE (FEET)

**LEGEND:**


-  EARTHEN CONTAINMENT DIKE
-  EARTHEN CONTAINMENT DIKE FILL SOURCE
-  MARSH FILL

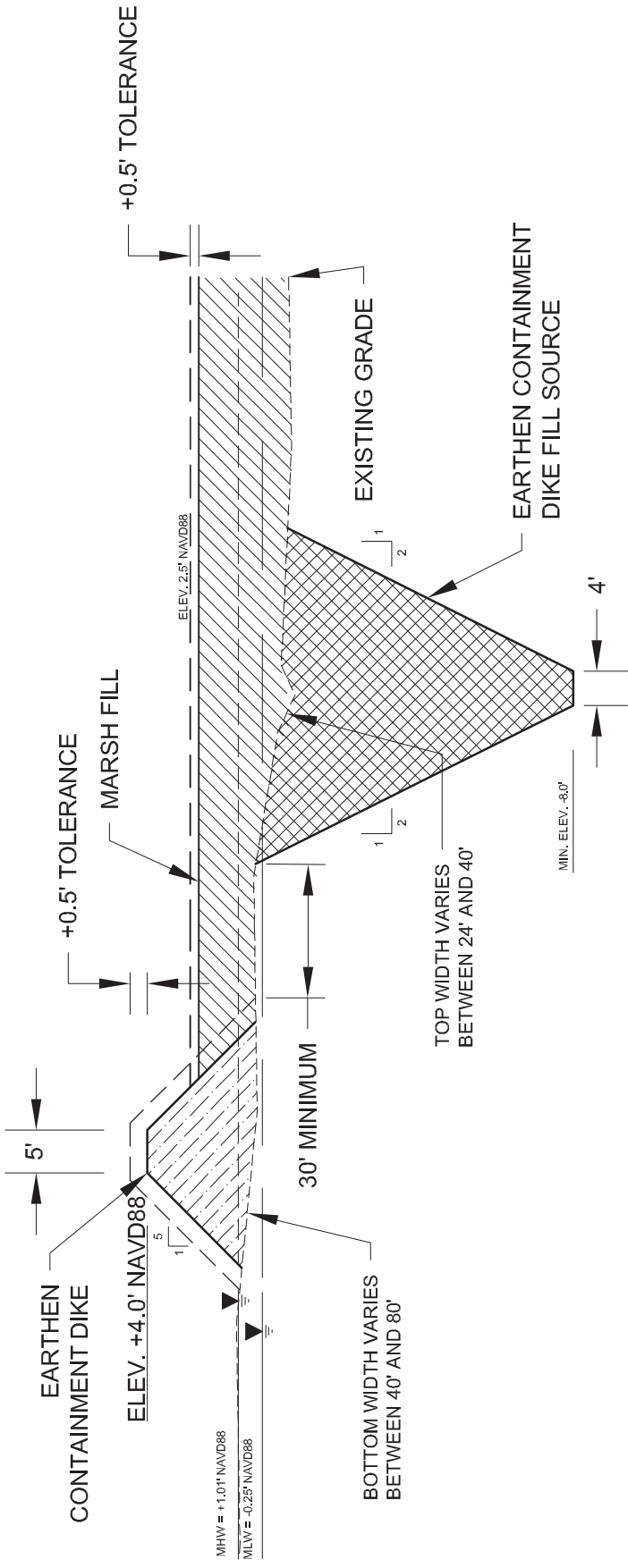
**NOTES:**

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.
2. DISTANCES ARE ALONG SECTION LINE.

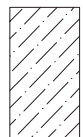
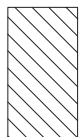
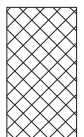


**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WITING, THOMPSON  
 LA LICENSE NO. 34625

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 <b>APTIM</b> Coastal, Ports, & Marine 817 BISSON LANE BATON ROUGE, LA 70809-0614 225.932.2758 C.O.A. LA #2531 www.aptim.com	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	MARSH CREATION PROFILE D-D'
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 16 OF 28



**LEGEND:**

-  EARTHEN CONTAINMENT DIKE FILL
-  MARSH FILL
-  EARTHEN CONTAINMENT DIKE FILL SOURCE


**NOTES:**

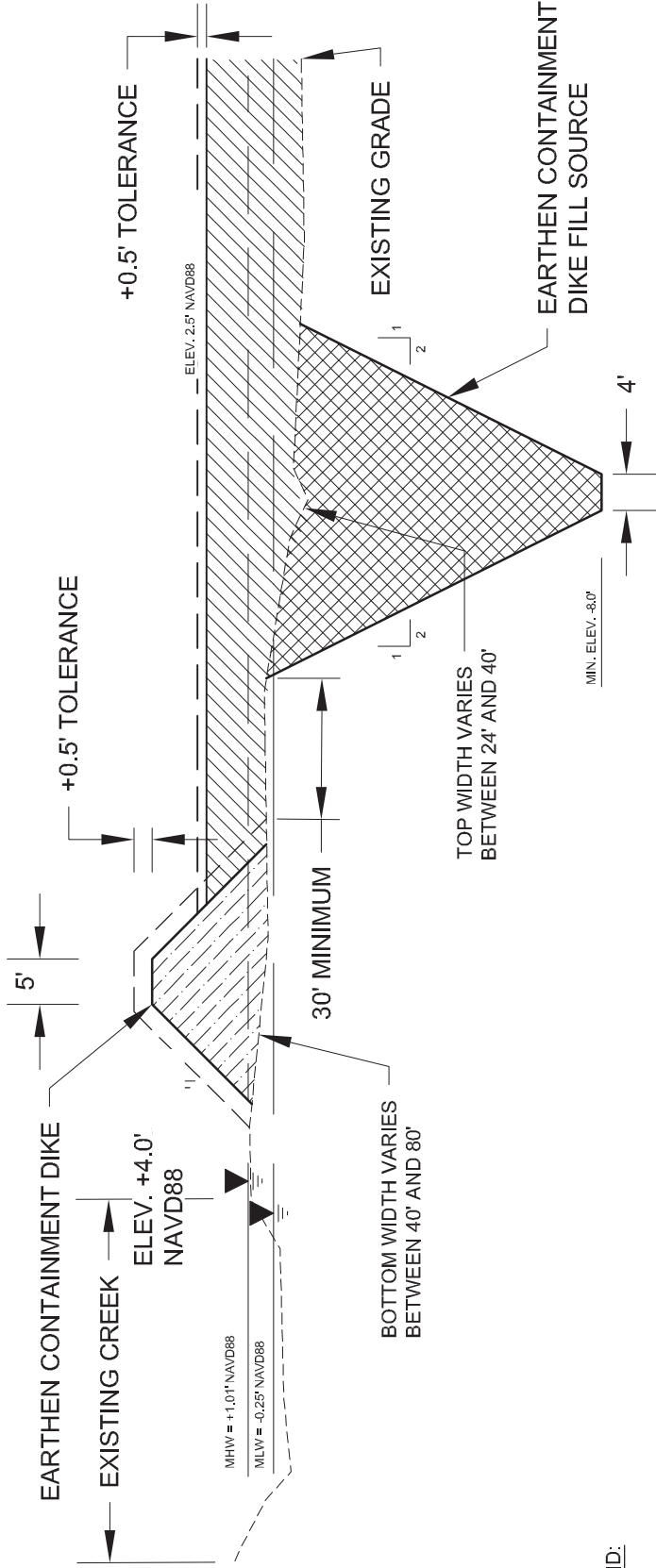
1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.

**TYPICAL EARTHEN CONTAINMENT DIKE SECTION (MCA 1)**

NOT TO SCALE

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825


<p>APPLICATION BY:          COASTAL PROTECTION AND RESTORATION AUTHORITY          150 TERRACE AVENUE          BATON ROUGE, LOUISIANA 70802</p>	<p>  <b>APTIM</b>          Coastal, Ports, &amp; Marine          617 BISSONNETTE          BATON ROUGE, LA          70809          225.932.2758          C.O.A. LA #2351          www.aptim.com</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b>          150 TERRACE STREET          BATON ROUGE, LOUISIANA 70802</p>	<p>GOLDEN TRIANGLE          MARSH CREATION PROJECT</p>	<p>MARSH CREATION DETAILS</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>STATE PROJECT NUMBER: PO-163          FEDERAL PROJECT NUMBER:</p>	<p>DATE: 11/7/18          SHEET 17 OF 28</p>



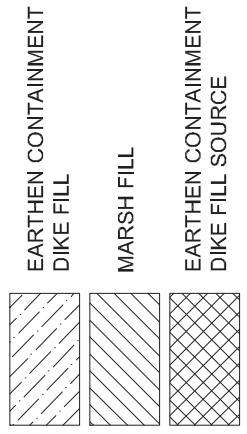
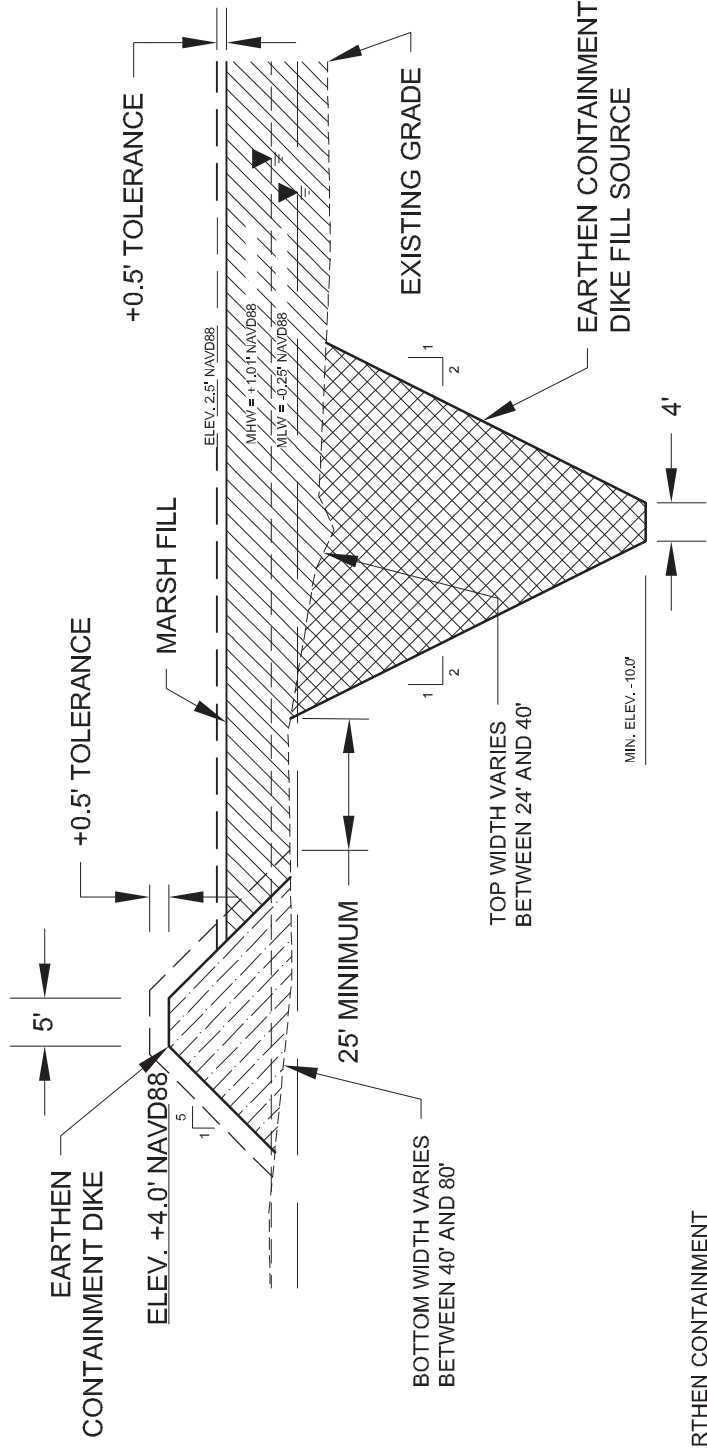
**TYPICAL EARTHEN CONTAINMENT DIKE SECTION  
(MCA 1 ADJACENT TO TIDAL CREEK)**

NOT TO SCALE

**PRELIMINARY**  
THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
WHITNEY THOMPSON  
LA LICENSE NO. 34825

<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	 <p><b>APTIM</b> Coastal, Ports, &amp; Marine 617 BISSONNETTE BATON ROUGE, LA 70809 225.932.2758 www.aptim.com</p> <p>C.O.A. LA #2351 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b></p>	<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>	<p>MARSH CREATION DETAILS</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:</p>	<p>DATE: 11/7/18 SHEET 18 OF 28</p>

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.



**LEGEND:**


- EARTHEN CONTAINMENT DIKE FILL
- MARSH FILL
- EARTHEN CONTAINMENT DIKE FILL SOURCE

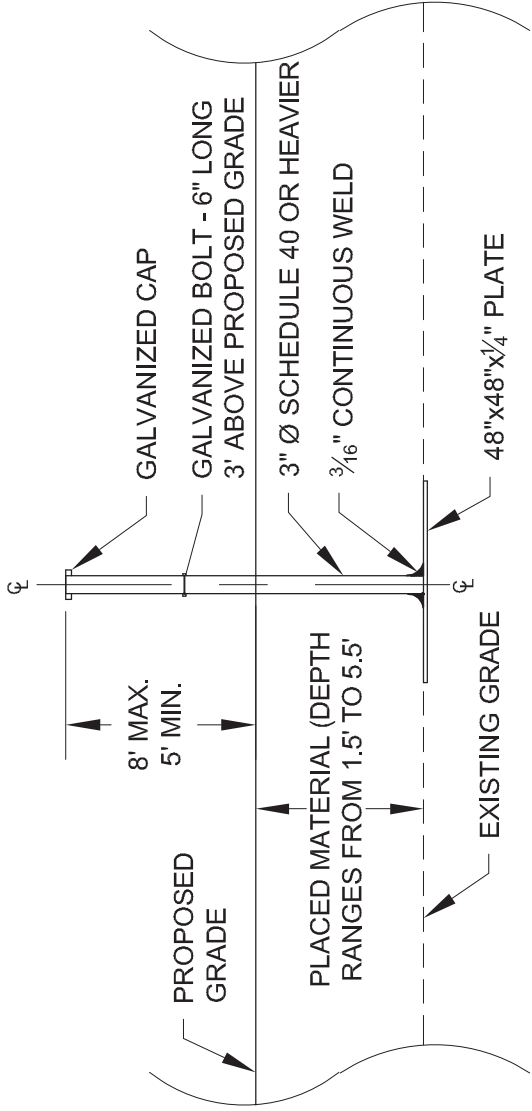
**NOTES:**

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.

**TYPICAL EARTHEN CONTAINMENT DIKE SECTION  
(MCA 2 AND MCA 3)**  
NOT TO SCALE

**PRELIMINARY**  
THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
WHITNEY THOMPSON  
LA LICENSE NO. 34825

<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	 <p><b>APTIM</b> Coastal, Ports, &amp; Marine 417 BISSONNETTE BATON ROUGE, LA 70809-3206 225.932.2758 C.O.A. LA #2351 www.aptim.com</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802</p>	<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>	<p>MARSH CREATION DETAILS</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:</p>	<p>DATE: 11/7/18 SHEET 19 OF 28</p>




**SETTLEMENT PLATE DETAIL**

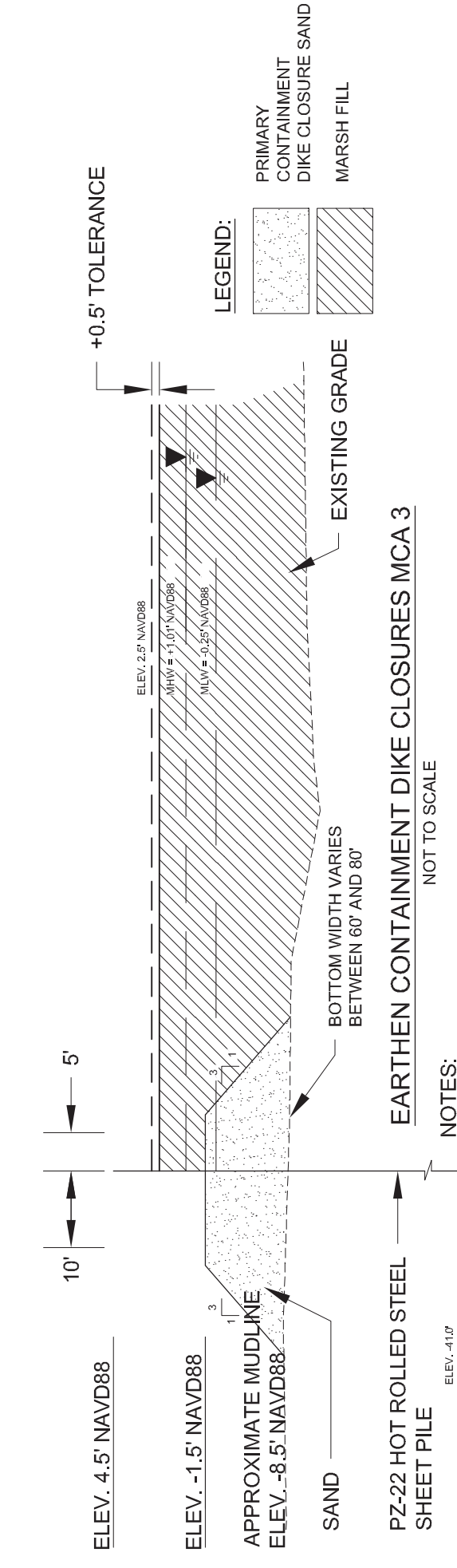
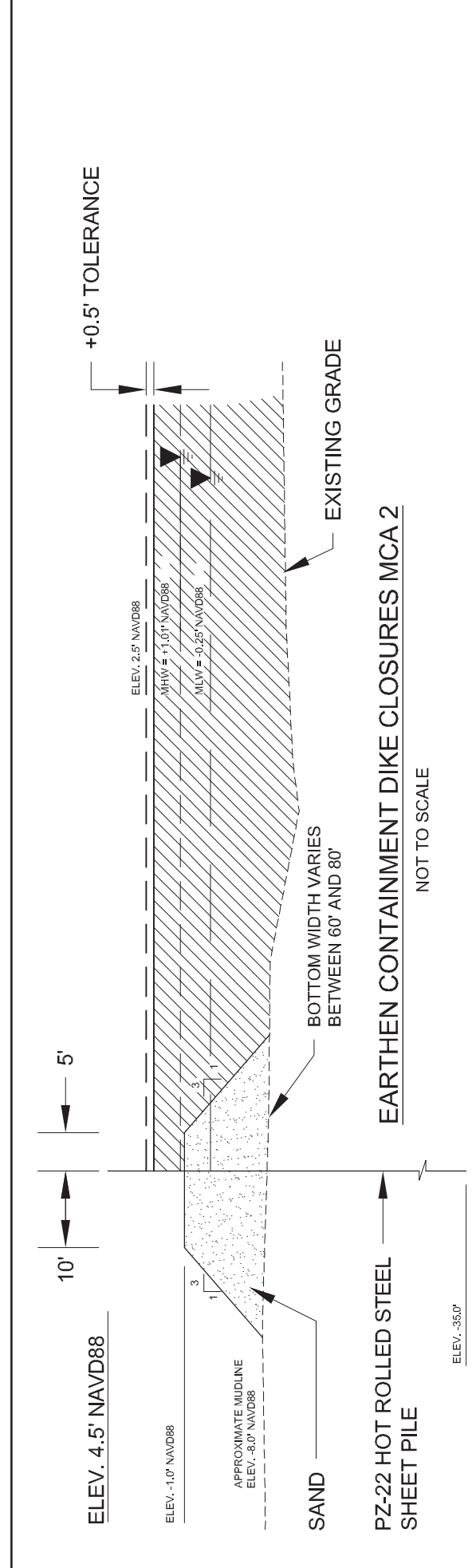
NOT TO SCALE

**NOTES:**



1. SETTLEMENT PLATES SHALL BE BUILT USING ASTM A36 STEEL AND HOT-DIPPED GALVANIZED AFTER FABRICATION. A 6" LONG HHMB HOT-DIPPED GALVANIZED BOLT & WASHER SHALL BE INSTALLED 3' ABOVE PROPOSED GRADE.

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 <p><b>APTIM</b>          Coastal, Ports, &amp; Marine          617 S. SHERBROOKE          BATON ROUGE, LA          70809-1006/USA          225.932.2758          C.O.A., LA, #2531          www.aptim.com</p>	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	MARSH CREATION DETAILS
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 20 OF 28



**LEGEND:**

	PRIMARY CONTAINMENT DIKE CLOSURE SAND
	MARSH FILL

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 L.A. LICENSE NO. 34825

**NOTES:**

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988, GEOID 2012A.
2. SHEET PILE SHALL BE REMOVED IN A FUTURE MAINTENANCE EVENT AFTER MARSH FILL MATERIAL HAS CONSOLIDATED

<p>ELEV. 4.5' NAVD88</p> <p>10'</p> <p>5'</p> <p>ELEV. -1.0' NAVD88</p> <p>APPROXIMATE MUDLINE ELEV. -8.0' NAVD88</p> <p>SAND</p> <p>PZ-22 HOT ROLLED STEEL SHEET PILE</p> <p>ELEV. -35.0'</p>	<p>ELEV. 2.5' NAVD88</p> <p>MHW = +1.0' NAVD88</p> <p>MLW = -0.25' NAVD88</p> <p>EXISTING GRADE</p> <p>BOTTOM WIDTH VARIES BETWEEN 60' AND 80'</p> <p>EARTHEN CONTAINMENT DIKE CLOSURES MCA 2</p> <p>NOT TO SCALE</p>	<p>ELEV. 2.5' NAVD88</p> <p>MHW = +1.0' NAVD88</p> <p>MLW = -0.25' NAVD88</p> <p>EXISTING GRADE</p> <p>BOTTOM WIDTH VARIES BETWEEN 60' AND 80'</p> <p>EARTHEN CONTAINMENT DIKE CLOSURES MCA 3</p> <p>NOT TO SCALE</p>	<p>EARTHEN CONTAINMENT DIKE CLOSURES</p>
<p>ELEV. 4.5' NAVD88</p> <p>10'</p> <p>5'</p> <p>ELEV. -1.5' NAVD88</p> <p>APPROXIMATE MUDLINE ELEV. -8.5' NAVD88</p> <p>SAND</p> <p>PZ-22 HOT ROLLED STEEL SHEET PILE</p> <p>ELEV. -41.0'</p>	<p>ELEV. 2.5' NAVD88</p> <p>MHW = +1.0' NAVD88</p> <p>MLW = -0.25' NAVD88</p> <p>EXISTING GRADE</p> <p>BOTTOM WIDTH VARIES BETWEEN 60' AND 80'</p> <p>EARTHEN CONTAINMENT DIKE CLOSURES MCA 2</p> <p>NOT TO SCALE</p>	<p>ELEV. 2.5' NAVD88</p> <p>MHW = +1.0' NAVD88</p> <p>MLW = -0.25' NAVD88</p> <p>EXISTING GRADE</p> <p>BOTTOM WIDTH VARIES BETWEEN 60' AND 80'</p> <p>EARTHEN CONTAINMENT DIKE CLOSURES MCA 3</p> <p>NOT TO SCALE</p>	<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>
<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>DESIGNED BY: CP</p> <p>APPROVED BY: WT</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802</p>	<p>STATE PROJECT NUMBER: PO-163</p> <p>FEDERAL PROJECT NUMBER:</p>
<p>DRAWN BY: GK</p>	<p>DATE: 11/7/18</p>	<p>DATE: 11/7/18</p>	<p>SHEET 21 OF 28</p>

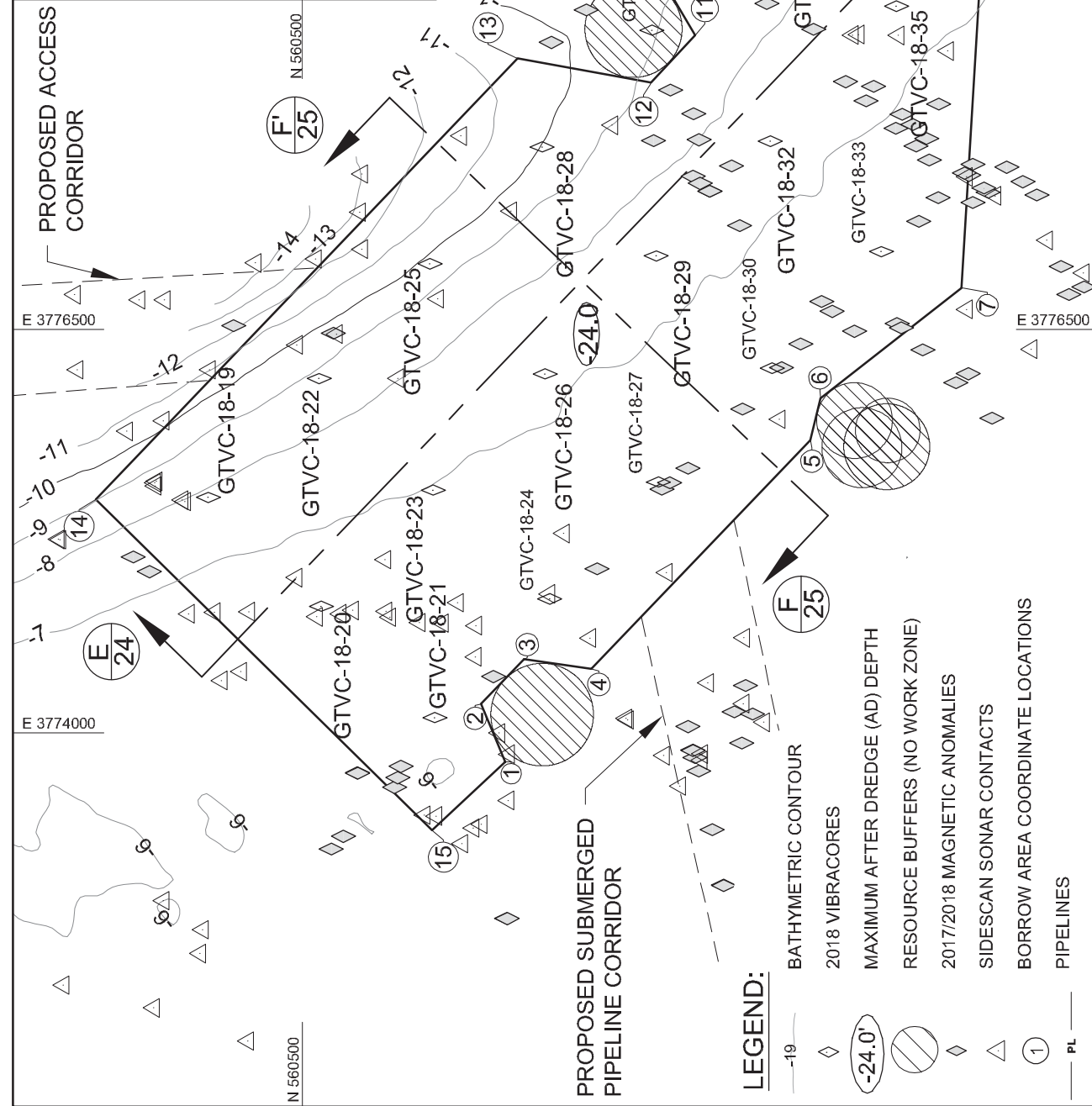


**NOTES:**

- COORDINATES ARE BASED ON THE GEOGRAPHIC COORDINATE SYSTEM (WORLD GEODETIC SYSTEM OF 1984 WGS84). LATITUDE AND LONGITUDE ARE SHOWN ON SHEET 23.
- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88, GEOID 2012A.
- DATE OF BATHYMETRIC SURVEY IS DECEMBER 15-16 & 20-21, 2017 CONDUCTED BY APTIM.
- THE MAXIMUM AFTER DREDGE (AD) DEPTHS SHOWN HEREON ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE POST-CONSTRUCTION SURVEY.
- THE CONTRACTOR MAY DISTURB UP TO 3 FEET BENEATH THE MAX POST-CONSTRUCTION DEPTH WITH THEIR EQUIPMENT.
- CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

BORROW AREA ACREAGE = 378 AC  
 BORROW AREA WIDTH = 2235' TO 6126'  
 BORROW AREA THICKNESS = 11' TO 18'  
 BORROW AREA VOLUME = 10.0314 MCY


GOLDEN TRIANGLE BORROW AREA



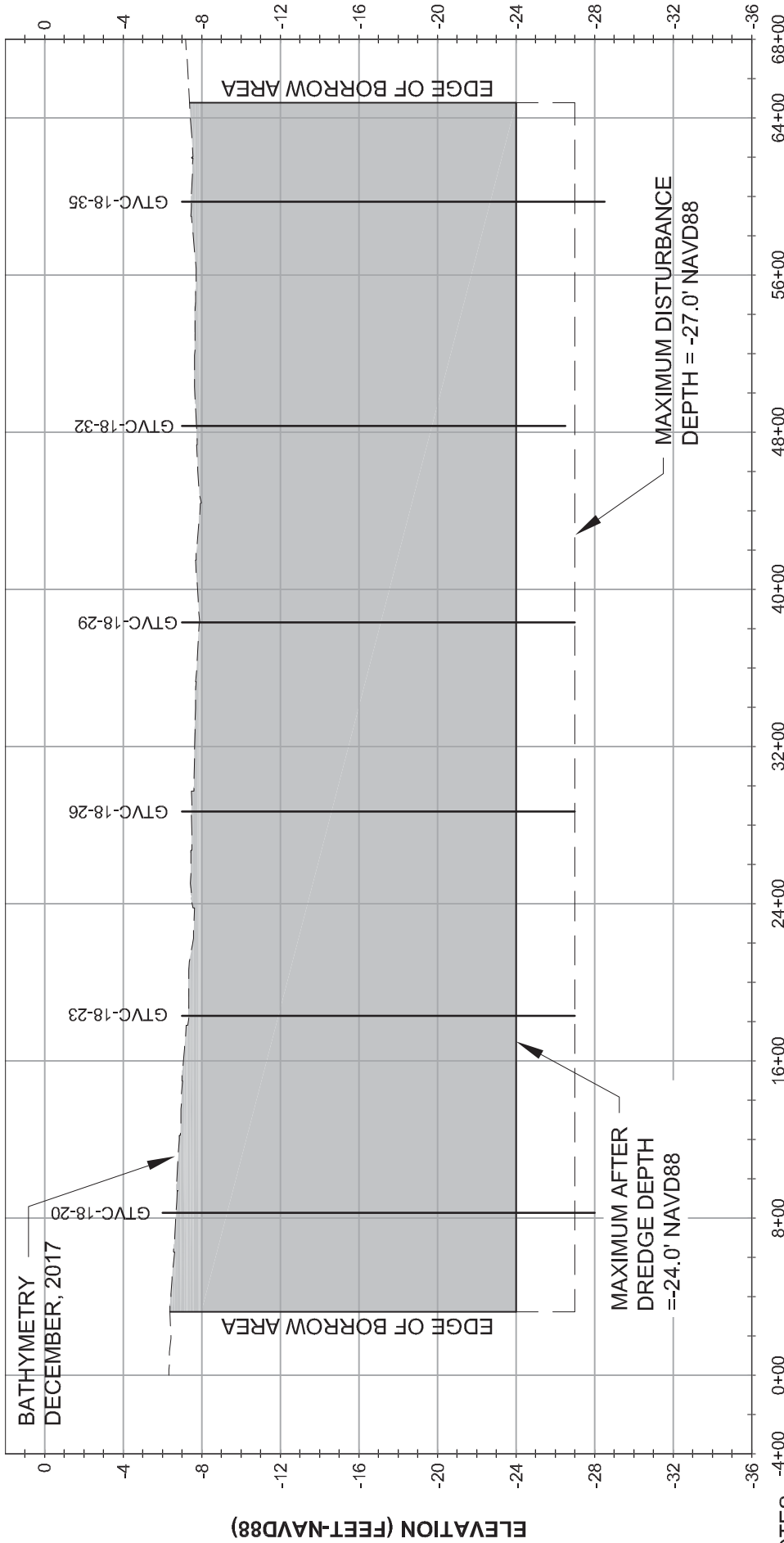
<p>APPLICATION BY:          COASTAL PROTECTION AND RESTORATION AUTHORITY          150 TERRACE AVENUE          BATON ROUGE, LOUISIANA 70802</p>	<p><b>APTIM</b>          Coastal, Ports, &amp; Marine          417 LESSEN LANE          SUITE 100          BATON ROUGE, LA 70809          225.932.2758          C.O.A., LA, #2531          www.aptim.com</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b>          150 TERRACE STREET          BATON ROUGE, LOUISIANA 70802</p>	<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>	<p>BORROW AREA PLAN VIEW</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>STATE PROJECT NUMBER: PO-163          FEDERAL PROJECT NUMBER:</p>	<p>DATE: 11/7/18          SHEET 22 OF 28</p>

BORROW AREA COORDINATE LOCATIONS		
POINT NO.	LONGITUDE	LATITUDE
1	W 89°46'31.4"	N 30°01'43.0"
2	W 89°46'27.3"	N 30°01'44.4"
3	W 89°46'24.1"	N 30°01'41.7"
4	W 89°46'24.9"	N 30°01'37.6"
5	W 89°46'09.0"	N 30°01'24.0"
6	W 89°46'06.0"	N 30°01'23.3"
7	W 89°45'58.4"	N 30°01'14.6"
8	W 89°45'36.4"	N 30°01'13.2"
9	W 89°45'22.7"	N 30°01'25.2"
10	W 89°45'33.0"	N 30°01'34.4"
11	W 89°45'40.3"	N 30°01'30.7"
12	W 89°45'43.6"	N 30°01'33.5"
13	W 89°45'41.8"	N 30°01'41.6"
14	W 89°46'12.5"	N 30°02'07.8"
15	W 89°46'36.1"	N 30°01'47.5"

**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 LA LICENSE NO. 34635

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 <b>APTIM</b> Coastal, Ports, & Marine 417 LESSEN LANE BATON ROUGE, LA 70809 225.932.2758 C.O.A., LA, #2531 www.aptim.com	<b>COASTAL PROTECTION          AND RESTORATION          AUTHORITY</b> 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	BORROW AREA COORDINATE LOCATIONS
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 23 OF 28

SECTION E-E'



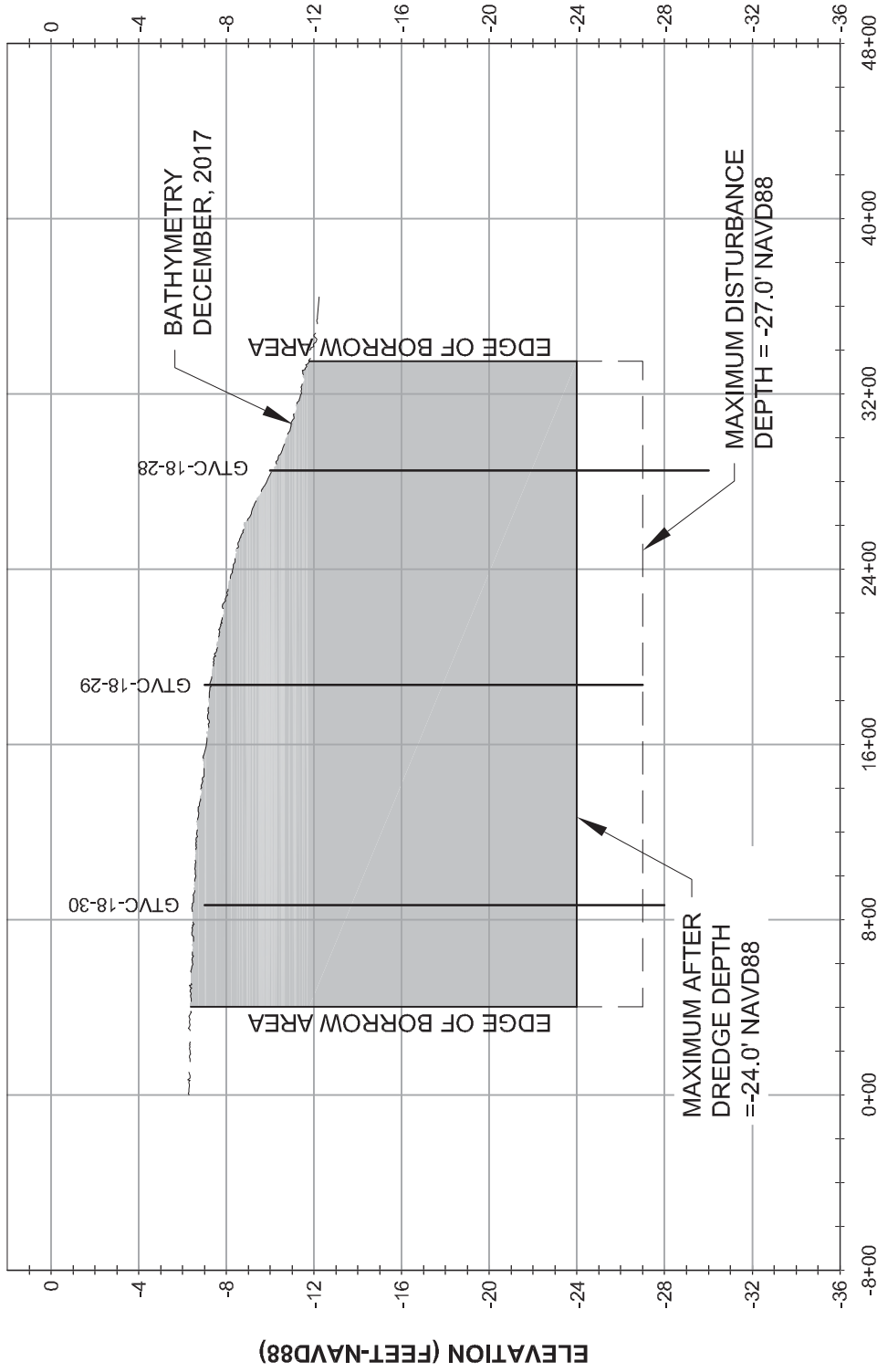
**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 LICENSE NO. 34625

**NOTES:**

1. SEE SHEET 22 FOR LOCATION OF CROSS SECTION LINE.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88, GEOID 2012A.
3. DATE OF BATHYMETRIC SURVEY IS DECEMBER 15-16 & 20-21, 2017 CONDUCTED BY APTIM.
4. THE MAXIMUM AFTER DREDGE (AD) DEPTHS SHOWN HEREON ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE AD SURVEY.
5. THE CONTRACTOR MAY DISTURB UP TO 3 FEET BENEATH THE MAX AD DEPTH WITH THEIR EQUIPMENT.
6. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
7. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
8. WATER DEPTHS AT BORROW AREA VARY BETWEEN APPROXIMATELY 6 AND 13 FEET.

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	APTIM Coastal, Ports, & Marine 417 LESSEN LANE SUITE 100 BATON ROUGE, LA 70809 225.932.2758 C.O.A., LA, #2531 www.aptim.com	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT BORROW AREA CROSS SECTION E-E'
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:
DATE: 11/7/18	SHEET 24 OF 28		

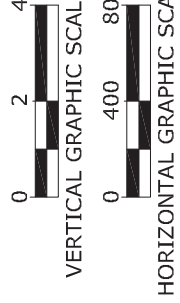
SECTION F-F'




**NOTES:**

1. SEE SHEET 22 FOR LOCATION OF CROSS SECTION LINE.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88, GEOID 2012A.
3. DATE OF BATHYMETRIC SURVEY IS DECEMBER 15-16 & 20-21, 2017 CONDUCTED BY APTIM.
4. THE MAXIMUM AFTER DREDGE (AD) DEPTHS SHOWN HEREON ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE AD SURVEY.
5. THE CONTRACTOR MAY DISTURB UP TO 3 FEET BENEATH THE MAX AD DEPTH WITH THEIR EQUIPMENT.
6. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
7. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
8. WATER DEPTHS AT BORROW AREA VARY BETWEEN APPROXIMATELY 6 AND 13 FEET.

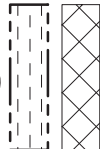
**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.  
 WHITNEY THOMPSON  
 LICENSE NO. 34655



APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	 APTIM Coastal, Ports, & Marine 417 LESSEN LANE SUITE 200 BATON ROUGE, LA 70809 225.932.2758 C.O.A., LA #2531 www.aptim.com	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE STREET BATON ROUGE, LOUISIANA 70802	GOLDEN TRIANGLE MARSH CREATION PROJECT	BORROW AREA CROSS SECTION F-F'
DRAWN BY: GK	DESIGNED BY: CP	APPROVED BY: WT	STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:	DATE: 11/7/18 SHEET 25 OF 28

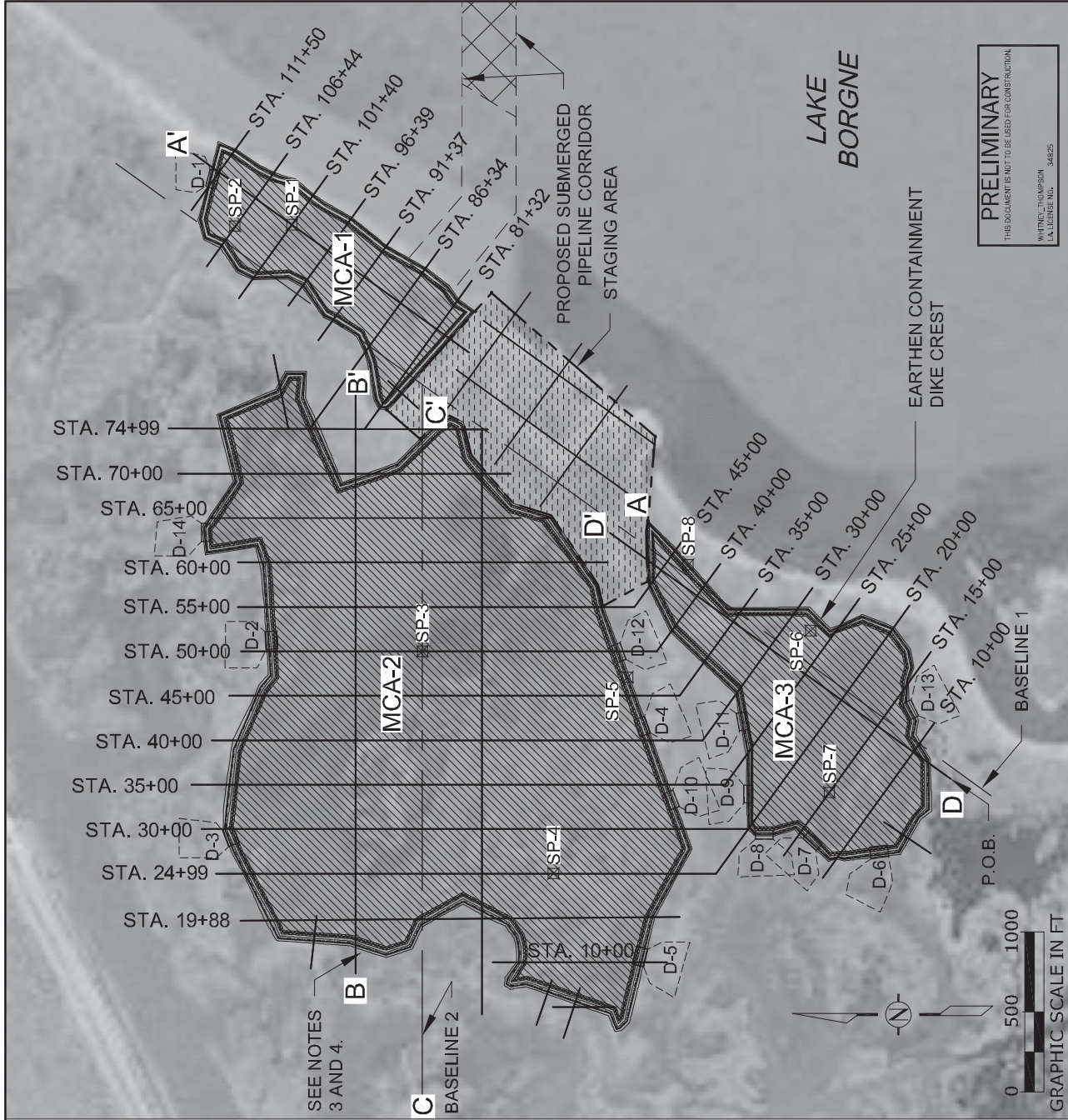
**LEGEND:**

- DL-1 DEWATERING LOCATION AND ID
- POTENTIAL DEWATERING IMPACT AREA
- MAGNETIC ANOMALY
- SP-1 SETTLEMENT PLATE AND ID
- MARSH FILL AREA
- EARTHEN CONTAINMENT DIKE
- FILL SOURCE
- PROPOSED SUBMERGED PIPELINE CORRIDOR
- SECTION ID
- SECTION PAGE LOCATION
- STAGING AREA
- PROPOSED BOOSTER PUMP LOCATION ZONE



**NOTES:**

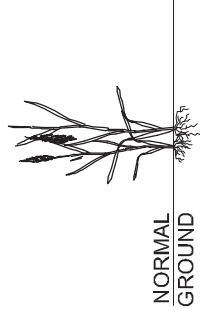
1. DATE OF AERIAL IMAGERY: NOVEMBER 2017.
2. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 50 FEET OF ANY PIPELINE WITHOUT WRITTEN PERMISSION FROM THE INFRASTRUCTURE OWNER.
3. SEE SHEET 4 FOR COORDINATES OF PROPOSED MARSH DEWATERING LOCATIONS.
4. POINT OF BEGINNING (P.O.B. = STATION 0+00).



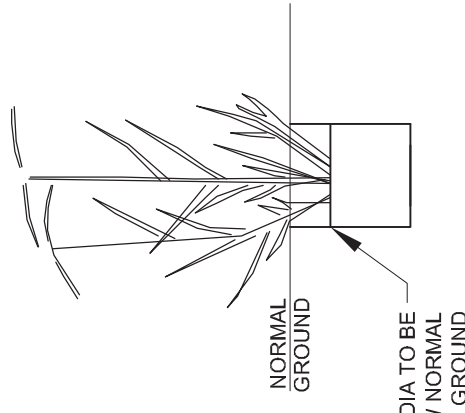
**PRELIMINARY**  
 THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION  
 WATKINS - THOMPSON  
 LA. LICENSE NO. 34825

<p>APPLICATION BY:                  COASTAL PROTECTION AND RESTORATION AUTHORITY                  150 TERRACE AVENUE                  BATON ROUGE, LOUISIANA 70802</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b>                  150 TERRACE AVENUE                  BATON ROUGE, LOUISIANA 70802</p>	<p>GOLDEN TRIANGLE                  MARSH CREATION PROJECT</p>	<p>MARSH CREATION AREA                  SURVEY PROFILE LOCATIONS</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>DATE: 11/7/18                  SHEET 26 OF 28</p>

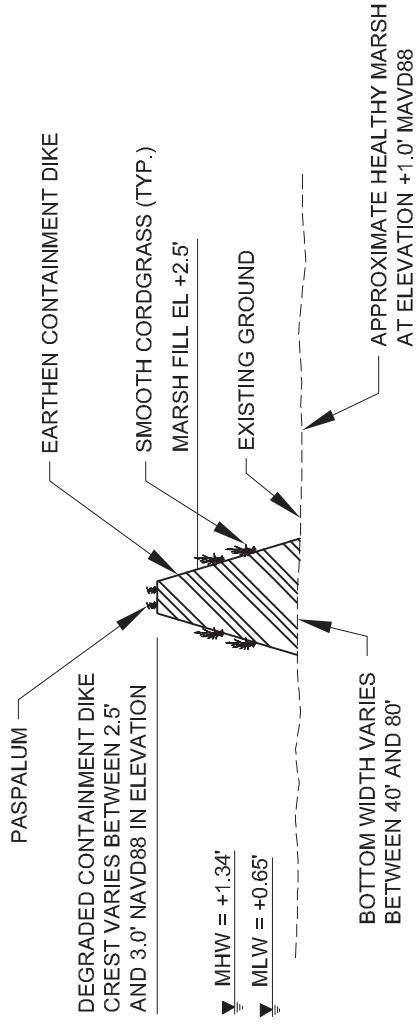




**TYPICAL PLANTING  
SMOOTH CORDGRASS PLUG**  
NOT TO SCALE




**TYPICAL PLANTING  
SEASHORE PASPALUM  
4" CONTAINER**  
NOT TO SCALE



**TYPICAL PLANTING SECTION**  
NOT TO SCALE

**NOTES:**

1. EXACT LOCATION OF THE PLANTS SHALL BE DETERMINED ON SITE BY CPRA DURING PRE-CONSTRUCTION LAYOUT.
2. NO EQUIPMENT MAY ALTER THE EXISTING CONDITIONS OF THE NEWLY CREATED MARSH OR DISTURB EXISTING VEGETATION.
3. THE SMOOTH CORDGRASS SHALL BE PLANTED ON THREE FOOT CENTERS IN ROWS.
4. THE PASPALUM SHALL BE PLANTED ON FIVE FOOT CENTERS IN ROWS.
5. EARTHEN CONTAINMENT DIKES SHALL BE DEGRADED UPON DEMOBILIZATION TO THE EXTENT ALLOWED BY THE FILL MATERIAL PROPERTIES.

<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	 <p><b>APTIM</b> Coastal, Ports, &amp; Marine 417 PESSIER BLVD BATON ROUGE, LA 70809-9306-104 225.932.2758 C.O.A., LA, #2531 www.aptim.com</p>	<p><b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>GOLDEN TRIANGLE MARSH CREATION PROJECT</p>	<p>PLANTING LAYOUT AND DETAIL</p>
<p>DRAWN BY: GK</p>	<p>DESIGNED BY: CP</p>	<p>APPROVED BY: WT</p>	<p>STATE PROJECT NUMBER: PO-163 FEDERAL PROJECT NUMBER:</p>	<p>DATE: 11/7/18 SHEET 28 OF 28</p>

1. Activities authorized under this general permit shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single and complete project shall be treated together as constituting one single and complete project. All planned phases of multi-phased projects shall be treated together as constituting one single and complete project. This general permit shall not be used for any activity that is part of an overall project for which an individual permit is required.
2. No activity is authorized under this general permit which may adversely affect significant cultural resources listed or eligible for listing in the National Register of Historic Places until the requirements for Section 106 of the National Historic Preservation Act are met. Upon discovery of the presence of previously unknown historic and/or prehistoric cultural resources, all work must cease and the permittee must notify the State Historic Preservation Office and the Corps of Engineers. The authorization is suspended until it is determined whether or not the activity will have an adverse effect on cultural resources. The authorization may be reactivated or modified through specific conditions if necessary, if it is determined that the activity will have no adverse effect on cultural resources. The PGP authorization will be revoked if it is determined that cultural resources would be adversely affected, and an individual permit may be necessary.
3. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. The permittee will, at his or her expense, install and maintain any safety lights, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.
4. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the activity's primary purpose is to block or impound water.
5. If the **authorized** activity involves the installation of aerial transmission lines, submerged cable, or submerged pipelines across navigable waters of the United States the following is applicable:

The National Ocean Service (NOS) has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Your notification of completion must include a drawing which certifies the location and configuration of the completed activity (a certified permit drawing may be used). Notification to NOS will be sent to the following address: National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Spring, Maryland 20910-3282.



6. For pipelines under an anchorage or a designated fairway in the Gulf of Mexico the following is applicable: The NOS has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Within 30 days of completion of the pipeline, 'as built' drawings certified by a professional engineer registered in Louisiana or by a registered surveyor shall be furnished to this office, the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, and to the Director, National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Spring, Maryland 20910-3282. The plans must include the location, configuration and actual burial depth of the completed pipeline project.

7. If the **authorized** project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2107.

8. All activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters of the United States, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards and management practices established pursuant to the Clean Water Act (PL 92-500:86 Stat 816), or pursuant to applicable state and local laws.

9. Substantive changes to the Louisiana Coastal Resources Program may require immediate suspension and revocation of this permit in accordance with 33 CFR 325.7.

10. Irrespective of whether a project meets the other conditions of this permit, the Corps of Engineers retains discretionary authority to require an individual Department of the Army permit when circumstances of the proposal warrant this requirement.

11. Any individual authorization granted under this permit may be modified, suspended, or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest.

12. The Corps of Engineers may suspend, modify, or revoke this general permit if it is found in the public interest to do so.

13. Activities proposed for authorization under the PGP must comply with all other necessary federal, state, and/or local permits, licenses, or approvals. Failure to do so would result in a violation of the terms and conditions of PGP.

14. The permittee shall permit the District Commander or his authorized representative(s) or designee(s) to make periodic inspections of the project site(s) and disposal site(s) if different from the project site(s) at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

15. This general permit does not convey any property rights, either in real estate or material, or any exclusive privileges; and it does not authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations nor does it obviate the requirements to obtain state or local assent required by law for the activity authorized herein.

16. In issuing authorizations under this permit, the federal government will rely upon information and data supplied by the applicant. If, subsequent to the issuance of an authorization, such information and data prove to be false, incomplete, or inaccurate, the authorization may be modified, suspended, or revoked, in whole or in part.

17. For activities resulting in sewage generation at the project site, such sewage shall be processed through a municipal sewage treatment system or, in areas where tie-in to a municipal system is not practical, the on-site sewerage system must be approved by the local parish sanitarian before construction.

18. Any modification, suspension, or revocation of the PGP, or any individual authorization granted under this permit, will not be the basis for any claim for damages against the United States.

19. Additional conditions deemed necessary to protect the public interest may be added to the general permit by the District Commander at any time. If additional conditions are added, the public will be advised by public notice. Individual authorizations under the PGP may include special conditions deemed necessary to ensure minimal impact and compliance with the PGP.

20. The PGP is subject to periodic formal review by MVN and OCM in coordination with the Environmental Protection Agency, US Fish and Wildlife Service, the National Marine Fisheries Service, and the Louisiana Department of Wildlife and Fisheries. Comments from reviewing agencies will be considered in determination as to whether modifications to the general permit are needed. Should the District Commander make a determination not to incorporate a change proposed by a reviewing agency, after normal negotiations between the respective agencies, the District Commander will explain in writing to the reviewing agency the basis and rationale for his decision.

21. CEMVN retains discretion to review the PGP, its terms, conditions, and processing procedures, and decide whether to modify, reissue, or revoke the permit. If the PGP is not modified or reissued within 5 years of its effective date, it automatically expires and becomes null and void.

22. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure 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 of Engineers, 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.

23. 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 as described in Special Condition 25 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.

24. 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.

25. If you sell the property associated with this permit, you must provide this office with a copy of the permit and a letter noting your agreement to transfer the permit to the new owner and the new owner's agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.

26. Many local governing bodies have instituted laws and/or ordinances in order to regulate dredge and/or fill activities in floodplains to assure maintenance of floodwater storage capacity and avoid disruption of drainage patterns that may affect surrounding properties. Your project involves dredging and/or placement of fill; therefore, you must contact the local municipal and/or parish governing body regarding potential impacts to floodplains and compliance of your proposed activities with local floodplain ordinances, regulations or permits.

27. In issuing authorizations under this permit, the federal government does not assume any liability for: damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; 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; damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit, and; design or construction deficiencies associated with the permitted work.