

ADDENDUM NO. 3 TO PLANS AND CONTRACT DOCUMENTS
FOR
GRAND LIARD MARSH AND RIDGE RESTORATION
(BA-68)
PLAQUEMINES PARISH, LOUISIANA



STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION
AUTHORITY

JANUARY 15, 2014



ADDENDUM NO. 3
Grand Liard Marsh and Ridge Restoration (BA-68)

This addendum shall be considered part of the Plans, Specifications, and Contract Documents (except as noted otherwise) and is issued to change, amplify, or delete from or otherwise explain these documents where provisions of this addendum differ from those of the original documents. This addendum shall have precedence over the original documents and shall govern.

I. Responses to Questions Submitted by Contractors:

Contractor Question/Comment (1): We respectfully request the bid date be extended a minimum of 1 week for this project.

CPRA Response (1): The Bid opening has been moved to January 28, 2014. (See Addendum No. 2)

Contractor Question/Comment (2): What are the neat line estimated volumes for each marsh creation area (A,B,C,D)?

CPRA Response (2): Neat line estimated fill volumes are as follows;

Marsh Creation Area	Volume (Cu. Yd.)
A	917,633
B	781,438
C	725,025
D	267,652

Contractor Question/Comment (3): Is the contractor required to dredge the offshore borrow area sections to grade before moving ahead?

CPRA Response (3): The Contractor is not required to dredge the Offshore Borrow Area sections to grade before moving to the next section within each borrow area.

Contractor Question/Comment (4): Regards to the acceptance of the Earthen Ridge & The Containment Dike: how finished should they be: can they be bucket dressed (from a bucket dredged) or do they need to be marsh hoe dressed?

CPRA Response (4): Means and methods are the responsibility of the Contractor. The Earthen Ridge and Containment Dikes shall be constructed to the lines, grades, and elevations shown on Plan Sheets 14 and 15, and as specified in TS-6 and TS-7. Additionally the Earthen Ridge shall be free from pockets, standing water, and gullies. See Revisions to Specifications below for clarification.

Contractor Question/Comment (5): The access route is given on page 3 of 54 in the plans. What is the name of the Bayou or access channel from the gulf (or borrow areas) to the disposal areas.

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CPRA Response (5): Based on available data we could not find a consistent name for that body of water.

Contractor Question/Comment (6): Will we be able to dredge (with a bucket dredge) into Marsh Creation A not just the Equipment Access but also the secondary Borrow Areas for Earthen Ridge & Containment Dike. For Area A we will enter just south of the Equipment Access and dredge in a clockwise route. This would be after we have dredged the primary borrow area for ridge creation as well as the Equipment access.

CPRA Response (6): The Contractor may enter Marsh Creation Area A through State Water Bottoms. Dredging of the interior borrow area is only allowed after full excavation of the Equipment Access/Primary Borrow Areas. Excavation from the interior borrow areas is limited to that required to generate adequate material for construction of the Earthen Ridge and Containment Dikes. The Contractor may use whatever equipment deemed necessary to construct these features. However, there shall not be deepening or widening of existing gaps, nor shall the Contractor create new gaps, through the existing Earthen Ridge or Earthen Containment Dike alignment to enter the Marsh Creation Area. See TS-6.3 and TS-7.3 of the Specifications and Plan Sheet 6 for equipment access details. Should the Contractor require access routes outside of those provided, it is their responsibility to acquire, and show proof of, those access agreements.

Contractor Question/Comment (7): A follow-up question from question 6 (was question 3 from Contractor): Will we be able to enter the remaining 3 marsh creation areas to bucket dredge the earthen containment dike as well as the secondary borrow areas? This would be included in our Work Plan.

CPRA Response (7): The Contractor may enter Marsh Creation Areas B, C, and D through State Water Bottoms. Dredging of the interior borrow areas is only allowed after full excavation of the Equipment Access/Primary Borrow Areas. Excavation from the interior borrow areas is limited to that required to generate adequate material for construction of the Earthen Ridge and Containment Dikes. The Contractor may use whatever equipment deemed necessary to construct these features. However, there shall not be deepening or widening of existing gaps, nor shall the Contractor create new gaps, through the existing Earthen Ridge or Earthen Containment Dike alignment to enter the Marsh Creation Areas. See TS-6.3 and TS-7.3 of the Specifications and Plan Sheets 7 and 8 for equipment access details. Should the Contractor require access routes outside of those provided, it is their responsibility to acquire, and show proof of, those access agreements.

Contractor Question/Comment (8): We request reasonable payment terms be incorporated into the contract. Payment within 30 days or less of submission of progress invoice is standard form for construction contracts, and is reasonable for inclusion in this contract.

CPRA Response (8): The State makes every attempt to pay approved invoices in a timely manner.

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Contractor Question/Comment (9): Reference General Provisions ¶ GP-59. This clause stipulates that 5% shall be reserved from any payments due Contractor until 45 days after final acceptance.

- a. Please consider substituting this reserve amount with a bond or other form of guarantee such as a Letter of Credit.
- b. We request a reasonable cap be placed on the max reserve amount retained. We suggest \$2.5M as a reasonable maximum retainage value.

CPRA Response (9): The terms outlined in GP-59 remain as stated.

Contractor Question/Comment (10): Reference Technical Specification ¶ TS-3. There is no clear definition of potential hazardous materials within the pipelines to be removed. There is no apparent responsibility on the actual owners of these pipelines to dispose of potential hazardous materials. Disclosure of any such hazardous materials and proper disposal is ultimately the pipeline owners' "cradle to grave" responsibility. The specification improperly transfers this responsibility to Contractor. The owners of the pipelines must be involved in the chain of custody, removal, and disposal since they are ultimately responsible for those materials and the potential environmental impacts.

- a. Please provide copies of the Coastal Use Permits referenced in ¶ TS-3.2.
- b. Please identify the responsible owners of the pipelines and provide a point of contact for each.
- c. Please specify a baseline scenario for the pipeline removal requirement, i.e. no asbestos or other hazardous materials, etc.
- d. Please clarify Contractor will be reimbursed on a cost plus basis if conditions differ from the baseline scenario above.

CPRA Response (10):

- a. The Coastal Use Permits for the pipelines to be removed per TS-3 can be found at the following web addresses.

<http://ucmwww.dnr.state.la.us/ucmsearch/FindDocuments.aspx?idx=xrefnum&val=P19850368>

<http://ucmwww.dnr.state.la.us/ucmsearch/FindDocuments.aspx?idx=xrefnum&val=P19841123>

<http://ucmwww.dnr.state.la.us/ucmsearch/FindDocuments.aspx?idx=xrefnum&val=P19860021>

- b. The Pipelines were declared orphaned and abandoned through the LDNR Office of Conservation-Oilfield Site Restoration (OSR) Program (link below). A viable responsible party could not be located for these pipelines.

<http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=155>

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- c. The Contractor shall assume asbestos and naturally occurring radioactive material (NORM) is present as the baseline condition.
- d. See GP-42 and GP-43 of the Specifications.

Contractor Question/Comment (11): Reference Technical Specification ¶ TS-8.5. Tables 3 and 4 specify two possible marsh fill construction sequences. Would it be acceptable to meet the intent of this specification by primarily discharging in the order of a selected sequence, but having flexibility to temporarily discharge out of designated sequence into a different marsh cell on a relief line for limited periods of time? In this manner, dredge operating efficiency could be significantly improved resulting in lower construction cost.

CPRA Response (11): No.

Contractor Question/Comment (12): Reference Technical Specification ¶ TS-8.4. Please clarify Engineer will approve primary use of the West Borrow Area if requested by Contractor. If certain stipulations must be met in order to gain this approval, please provide such stipulations.

CPRA Response (12): The Contractor shall choose Offshore Borrow Area East or West as their primary borrow area for hydraulic dredging. Should the Contractor deem it a necessity to move to the remaining Offshore Borrow Area, they shall notify the Engineer and perform a Pre-Construction Survey the prior to remobilization. See Revisions to Specifications for further clarification.

Contractor Question/Comment (13): Please confirm the survey data provided in Appendix G is referenced to the North American Vertical Datum 1988 (NAVD88).

CPRA Response (13): Survey data provided in Appendix G is referenced to NAVD 88.

Contractor Question/Comment (14): The survey data provided in Appendix G does not follow the alignment of the Dredge Pipeline Corridor indicated on Sheet 29 of 54 of the drawings. The most significant deviations are at approximate Dredge Pipeline Corridor stations 50+00 to 65+00 and 125+00 to 250+00. Please see attached drawing for January 2, 2014 comparison. Can the Dredge Pipeline Corridor be realigned to follow the course of the survey data as provided? If not, please provide survey data throughout the actual alignment of the specified Dredge Pipeline Corridor.

CPRA Response (14): See Addendum 1.

Contractor Question/Comment (15): Regarding sheet pile installation, will drop hammers and/or insertion by excavator bucket be acceptable installation methods?

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CPRA Response (15): Yes.

Contractor Question/Comment (16): Will the contractor be allowed to utilize a vibratory hammer for template pile installation or removal?

CPRA Response (16): No.

Contractor Question/Comment (17): Is there a minimum template pile offset distance from the sheet piles?

CPRA Response (17): A sheet pile construction template is not specified. The Contractor shall submit their construction process in the Work Plan for approval by the Engineer.

Contractor Question/Comment (18): Will a floating template be allowed for sheet pile installation?

CPRA Response (18): See CPRA Response 17.

Contractor Question/Comment (19): Can Bid Item 8, Sand Fill's, measurement be changed to barge displacement (Ton)?

CPRA Response (19): Bid Item 8 measurement and payment will remain as specified.

Contractor Question/Comment (20): Can the State release any reports regarding the orphan pipelines designated for removal?

CPRA Response (20): See CPRA Response 10.

Contractor Question/Comment (21): Are depths and height of cover of the pipelines known?

CPRA Response (21): The magnetometer survey data is located online in Appendix G– Design Survey Data. The web address is listed below and in Appendix G of the Specifications.

<ftp://ftp.coastal.la.gov/BA-68%20Grand%20Liard%20Marsh%20and%20Ridge%20Restoration/>

Contractor Question/Comment (22): Is there a minimum borrow area dredge elevation that must be achieved before advancing to the west borrow area, or can the contractor determine his target dredge elevation depth that will provide enough tolerance to prevent over-dredge permit violations?

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CPRA Response (22): The Engineer has estimated that either Offshore Borrow Area contains a sufficient quantity of material to construct this project. Also, see CPRA Response 12 pertaining to Offshore Borrow Area advancement.

Contractor Question/Comment (23): Is the disturbance of material below the maximum borrow area elevation by the bottom of the cutter head a permit violation?

CPRA Response (23): No. However, the Process/As-Built Survey cut elevations shall not exceed the elevations shown on the permit and Plan Sheet 4.

Contractor Question/Comment (24): We request a two week bid date extension due to the holidays.

CPRA Response (24): See CPRA Response 1.

Contractor Question/Comment (25): Specification Section TS-3, Pipeline Removal, paragraphs 3.1 and 3.2, mention the removal of approximately 3,400 feet of pipeline; however, the distances between the points listed on plan sheet 7 and associated C.U.P.s total about 2,500 feet. Is the Contractor required to remove quantity listed in TS-3, 3.2, or only the portions between the points on plan sheet 7?

CPRA Response (25): There are two pipelines located between points C and D. The Contractor is only required to remove the pipelines between the points listed on Plan Sheet 7 (A-B and C-D-E-F). Pipeline sections between points B-C shall be flushed, capped, and remain in-place.

Contractor Question/Comment (26): Are the pipeline segments entering the Chevron pipeline corridor, between points B and C on plan sheet 7, to be removed or will they be capped and remain in-place, at point B and point C?

CPRA Response (26): See CPRA Response 25.

Contractor Question/Comment (27): Specification Section TS-3, Pipeline Removal, paragraphs 3.2, permit no. P19841123 and plan sheet 7 indicate a 2" pipeline; however, our research of C.U.P. P841123 documents only indicate a 3" pipeline. What is the correct diameter of the pipeline?

CPRA Response (27): Per Permit No. P19841123, the correct diameter is 3". See Revisions to Specifications.

Contractor Question/Comment (28): Specification Section TS-3, Pipeline Removal, is silent regarding what party will be listed as the "Generator" on the pipeline disposal manifest. Will a party other than the Contractor be listed as the "Generator" on the disposal manifest?

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CPRA Response (28): The State of Louisiana.

Contractor Question/Comment (28): Does the Buy America Act apply to permanent materials installed on this contract, or will foreign materials be acceptable?

CPRA Response (28): All bidders must comply with all applicable state and Federal laws, rules, regulations, and guidelines. Since this Project is funded through a state and Federal cost share, the Buy American Act (41 USC §10, et seq.) is applicable to this Project.

II. Revisions to Specifications:

1. **Page 39, SP-11 LANDOWNER AND PIPELINE REQUIREMENTS:** Southern Natural Gas was recently bought out by Kinder Morgan. Replace the Southern Natural Gas Contact Information with the following:

*“Southern Natural Gas
Rick Sellers
(713) 369-9000”*

2. **Page 49, TS-2.3.7 Offshore Borrow Areas:** Replace the first paragraph with the following:

“The Offshore Borrow Area Pre-Construction Survey shall consist of transects taken in a grid configuration spacing no more than 100 feet apart for the Primary Offshore Borrow Area chosen by the Contractor, as shown on Sheets 26 or 27 of the Plans. These transects shall extend 100 feet beyond the limit of pay with shots recorded every 20 feet.”

3. **Page 54, TS-2.5.4 Offshore Borrow Area:** Replace the first 3 sentences of this paragraph with the following:

“The Offshore Borrow Area As-Built Survey shall incorporate the accepted Process Surveys of the Offshore Borrow Areas utilized during Construction. The Contractor shall also resurvey transects P1 through P36 (see Plan Sheet 26) and/or P77 through P109 (see Plan Sheet 27) of the borrow areas as part of this As-Built Survey submittal.”

4. **Page 56, TS-3.2 Method:** Replace the first paragraph with the following:

The Contractor shall locate and remove pipelines, as shown on Plan Sheet 7, associated with the following Coastal Use Permits (the approximate locations of these pipelines are shown on Sheet 7 of the Plans):

- P19860021 (Approximately 1,000 feet of 4” Pipeline)
- P19841123 (Approximately 1,501 feet of 3” Pipeline)
- P19850368 (Approximately 888 feet of 4” Pipeline)

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5. **Page 64, TS-7.6 Acceptance:** Replace the first sentence of this paragraph with the following:

“The Earthen Ridge shall be constructed to the tolerance stated in TS-7.4 and be free of pockets, standing water, and gullies.”

6. **Page 65, TS-8.1 Scope:** Replace the second sentence of this paragraph with the following:

“Offshore Borrow Area East and West dredging elevations are between -33.5 to -39.5 feet NAVD 88 as shown on Plan Sheet 4.”

7. **Page 66, TS-8.4 Borrow Area:** Replace this paragraph with the following:

“The Contactor shall choose Offshore Borrow Area East or West, shown on Sheet 4 of the Plans, as their primary borrow area for hydraulic dredging. Should the Contractor require use of the secondary borrow area, they shall notify the Engineer and perform a Pre-Construction Survey of that borrow area prior to remobilization. All cost associated with this remobilization shall be incurred by the Contractor. Both Offshore Borrow Areas have been permitted for use by the Contractor. A description of expected offshore borrow use shall be included in the Work Plan.”

8. **Page 71, TS-9.5 Acceptance:** Add the following sentence to the end of this paragraph:

“Acceptance of the Sand Fill does not release the Contractor of their responsibility to maintain the minimum Sand Fill elevation until the sheet piling is driven for the corresponding closure structure location.”

9. **Page 72, TS-10.4 Driving Sheet Piles:** Add the following sentence to the end of this Paragraph:

“The Contractor shall submit their sheet pile driving process in the Work Plan.”

III. Revisions to Plans (Revised sheets attached):

1. **Sheet 5 of 54:**

- a. Revised 2” GULF pipeline callout in Marsh Creation Areas A and B to:

“3” LGS/4” GULF”

- b. Removed erroneous 2” LGS callout in Marsh Creation Area B.

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2. Sheet 6 of 54:

- a. Removed erroneous 2” LGS callout in Marsh Creation Area B.
- b. Revised 2” GULF pipeline callout in Marsh Creation Areas A to:

“3” LGS”

- c. Note 7 was revised to:

“THE 3” AND 4” LOUISIANA STATE GAS CORPORATION PIPELINES SHALL BE CUT AND REMOVED BY THE CONTRACTOR. SEE TS-3 OF THE SPECIFICATIONS AND SHEET 7 FOR MORE DETAILS.”

3. Sheet 7 of 54:

- a. Revised 2” GULF pipeline callout in Marsh Creation Areas B to:

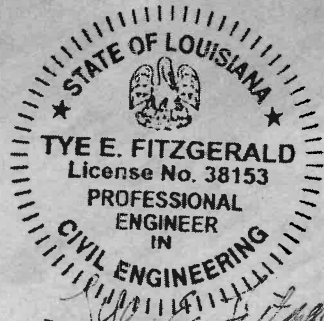
“3” LGS/4” GULF TO BE REMOVED (SEE NOTES 6 AND 7)”

- b. Note 6 was revised to:

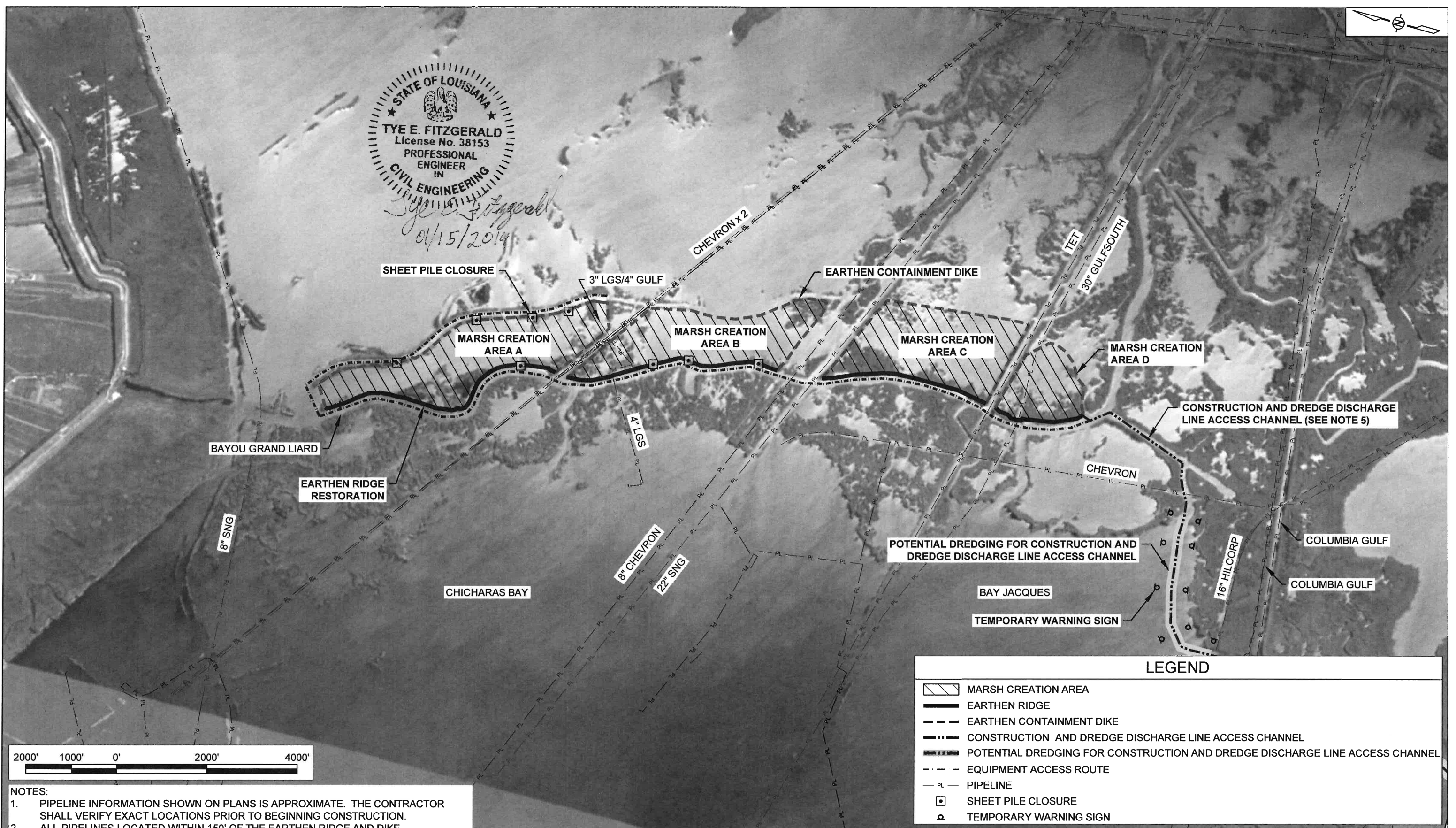
“THE 3” AND 4” LOUISIANA STATE GAS CORPORATION PIPELINES SHALL BE CUT AND REMOVED BY THE CONTRACTOR. SEE TS-3 OF THE SPECIFICATIONS FOR MORE DETAILS.”

- c. Note 7 was add:

“THE 4” GULF SOUTH PIPELINE SHALL BE CUT AND REMOVED BETWEEN POINTS C AND D BY THE CONTRACTOR. SEE TS-3 OF THE SPECIFICATIONS FOR MORE DETAILS.”



Tye E. Fitzgerald
01/15/2014



LEGEND	
	MARSH CREATION AREA
	EARTHEN RIDGE
	EARTHEN CONTAINMENT DIKE
	CONSTRUCTION AND DREDGE DISCHARGE LINE ACCESS CHANNEL
	POTENTIAL DREDGING FOR CONSTRUCTION AND DREDGE DISCHARGE LINE ACCESS CHANNEL
	EQUIPMENT ACCESS ROUTE
	PIPELINE
	SHEET PILE CLOSURE
	TEMPORARY WARNING SIGN

- NOTES:**
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
 2. ALL PIPELINES LOCATED WITHIN 150' OF THE EARTHEN RIDGE AND DIKE ALIGNMENTS, FILL AREAS, BORROW AREA, OR SHEET PILE CLOSURES SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SP-11 OF THE SPECIFICATIONS FOR DETAILS.
 3. NO EXCAVATION SHALL OCCUR WITHIN 50.0' OF A PIPELINE.
 4. THE CONTRACTOR SHALL CONSTRUCT THE MARSH CREATION AREAS IN A TWO CONSTRUCTION LIFT SEQUENCE AS SPECIFIED IN TS-8.5.
 5. THE DREDGE DISCHARGE LINE MAY BE LAID WITHIN THE EQUIPMENT ACCESS ROUTE.

REV.	DATE	DESCRIPTION	BY
1	1/9/2014	REMOVED ERRONEOUS 2" LGS CALLOUT IN MARSH CREATION AREA B.	KC
2	1/9/2014	REVISED 2" GULF CALLOUT TO 3" LGS/4" GULF FOR PIPELINE IN MARSH CREATION AREAS A & B.	KC

COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: KRISTI CANTU DESIGNED BY: TYE FITZGERALD, P.E.

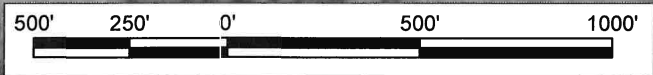
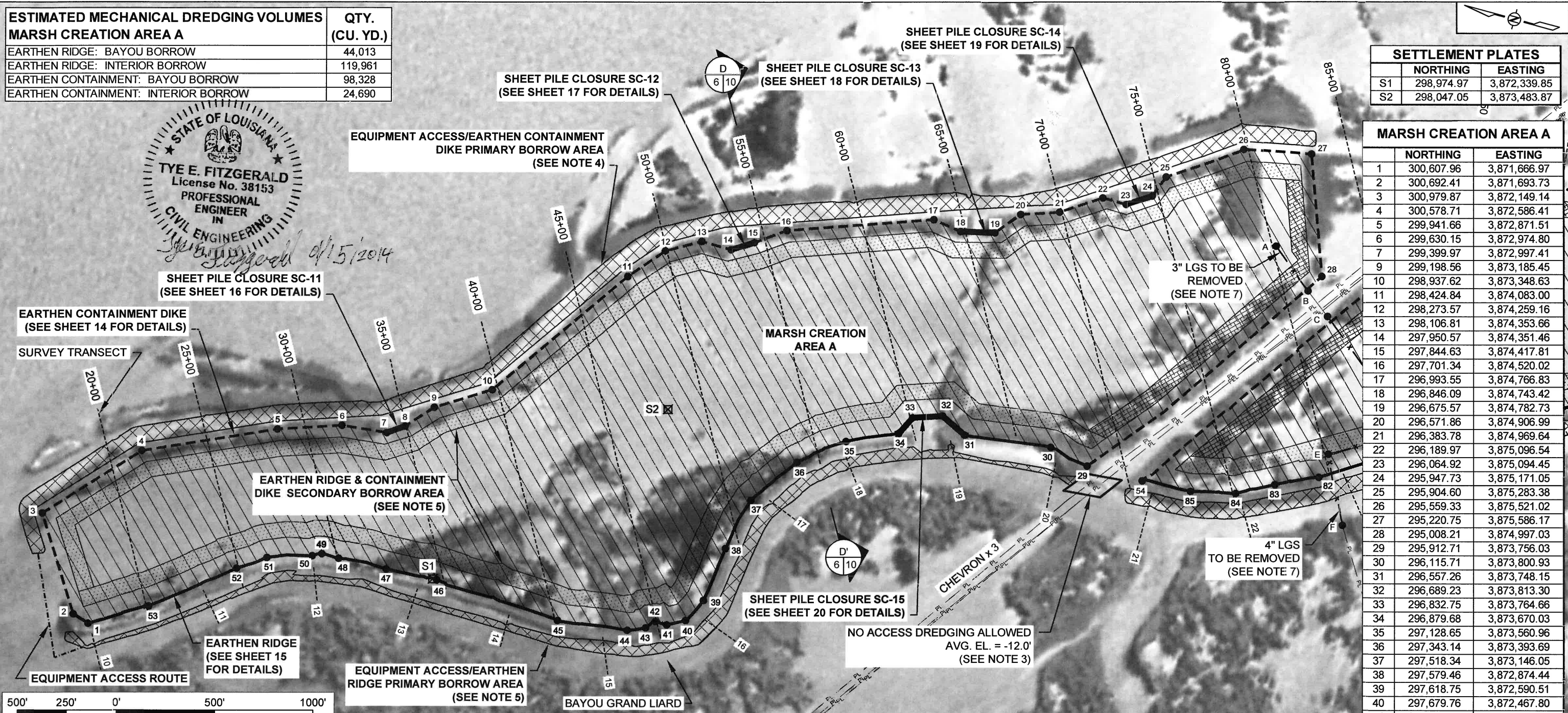
GRAND LIARD MARSH AND RIDGE RESTORATION		MARSH CREATION AREA LAYOUT
STATE PROJECT NUMBER: BA-68	DATE: OCTOBER 2013	
FEDERAL PROJECT NUMBER: BA-68	APPROVED BY: RUDOLPH SIMONEAUX, P.E.	SHEET 5 OF 54

ESTIMATED MECHANICAL DREDGING VOLUMES	QTY. (CU. YD.)
MARSH CREATION AREA A	
EARTHEN RIDGE: BAYOU BORROW	44,013
EARTHEN RIDGE: INTERIOR BORROW	119,961
EARTHEN CONTAINMENT: BAYOU BORROW	98,328
EARTHEN CONTAINMENT: INTERIOR BORROW	24,690



SETTLEMENT PLATES		
	NORTHING	EASTING
S1	298,974.97	3,872,339.85
S2	298,047.05	3,873,483.87

MARSH CREATION AREA A		
	NORTHING	EASTING
1	300,607.96	3,871,666.97
2	300,692.41	3,871,693.73
3	300,979.87	3,872,149.14
4	300,578.71	3,872,586.41
5	299,941.66	3,872,871.51
6	299,630.15	3,872,974.80
7	299,399.97	3,872,997.41
9	299,198.56	3,873,185.45
10	298,937.62	3,873,348.63
11	298,424.84	3,874,083.00
12	298,273.57	3,874,259.16
13	298,106.81	3,874,353.66
14	297,950.57	3,874,351.46
15	297,844.63	3,874,417.81
16	297,701.34	3,874,520.02
17	296,993.55	3,874,766.83
18	296,846.09	3,874,743.42
19	296,675.57	3,874,782.73
20	296,571.86	3,874,906.99
21	296,383.78	3,874,969.64
22	296,189.97	3,875,096.54
23	296,064.92	3,875,094.45
24	295,947.73	3,875,171.05
25	295,904.60	3,875,283.38
26	295,559.33	3,875,521.02
27	295,220.75	3,875,586.17
28	295,008.21	3,874,997.03
29	295,912.71	3,873,756.03
30	296,115.71	3,873,800.93
31	296,557.26	3,873,748.15
32	296,689.23	3,873,813.30
33	296,832.75	3,873,764.66
34	296,879.68	3,873,670.03
35	297,128.65	3,873,560.96
36	297,343.14	3,873,393.69
37	297,518.34	3,873,146.05
38	297,579.46	3,872,874.44
39	297,618.75	3,872,590.51
40	297,679.76	3,872,467.80
41	297,765.95	3,872,421.68
42	297,826.20	3,872,423.32
43	297,865.77	3,872,378.98
44	297,953.37	3,872,342.50
45	298,308.22	3,872,298.96
46	298,954.32	3,872,338.49
47	299,219.90	3,872,326.14
48	299,467.75	3,872,315.65
49	299,555.85	3,872,316.49
50	299,600.47	3,872,293.63
51	299,820.68	3,872,225.11
52	299,955.97	3,872,132.42
53	300,336.11	3,871,830.71



- NOTES:**
- PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
 - ALL PIPELINES LOCATED WITHIN 150' OF THE EARTHEN RIDGE AND DIKE ALIGNMENTS, FILL AREAS, BORROW AREA, OR SHEET PILE CLOSURES SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SP-11 OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - NO EXCAVATION SHALL OCCUR WITHIN 50.0' OF A PIPELINE.
 - DREDGING OF EQUIPMENT ACCESS/BORROW CHANNEL EAST OF FILL AREA A WILL BE PERFORMED FOR EQUIPMENT ACCESS AND SHALL NOT EXCEED THE TEMPLATE SHOWN ON SHEET 14. SPOIL SHALL BE USED TO CONSTRUCT THE EASTERN EARTHEN CONTAINMENT DIKE ALIGNMENT OF MARSH CREATION FILL AREA A.
 - THE CONTRACTOR SHALL CONSTRUCT THE EARTHEN RIDGE AND EARTHEN CONTAINMENT DIKES BY DREDGING FROM BOTH PRIMARY AND SECONDARY BORROW AREAS. SEE TS-6.2 AND TS-7.2 OF THE SPECIFICATIONS FOR MORE DETAILS.
 - ESTIMATED BORROW VOLUMES SHOWN FOR THE EARTHEN RIDGE AND EARTHEN CONTAINMENT DIKES ARE FOR INFORMATIONAL PURPOSES ONLY.
 - THE 3" AND 4" LOUISIANA STATE GAS CORPORATION PIPELINES SHALL BE CUT AND REMOVED BY THE CONTRACTOR. SEE TS-3 OF THE SPECIFICATIONS AND SHEET 7 FOR MORE DETAILS.

LEGEND	
	MARSH CREATION AREA
	EQUIPMENT ACCESS/PRIMARY BORROW AREA FOR EARTHEN RIDGE & CONTAINMENT DIKE
	SECONDARY BORROW AREA FOR EARTHEN RIDGE & EARTHEN CONTAINMENT DIKE
	SOLE BORROW AREA FOR CONTAINMENT DIKE
	EARTHEN RIDGE
	EARTHEN CONTAINMENT DIKE
	SHEET PILE CLOSURE
	EQUIPMENT ACCESS ROUTE
	PIPELINE
	PIPELINE REMOVAL
	SURVEY TRANSECT
	SETTLEMENT PLATE

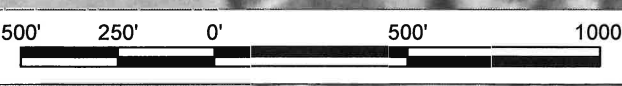
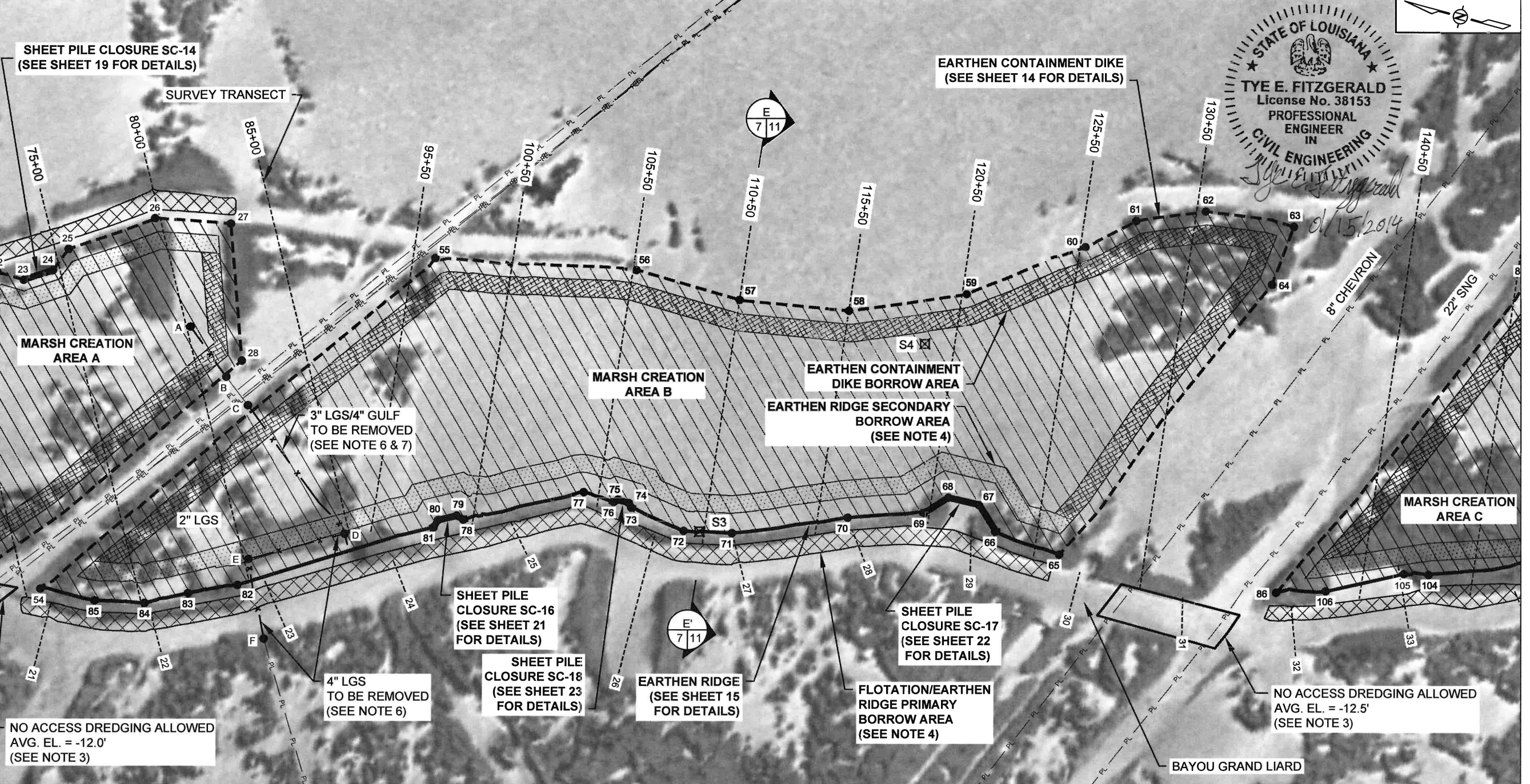
REV.	DATE	DESCRIPTION	BY
1	1/9/2014	REMOVED ERRONEOUS 2" LGS CALLOUT IN MARSH CREATION AREA B.	KC
2	1/9/2014	REVISED PIPELINE REMOVAL CALLOUT SHOWN IN MC AREA A. 2" GULF WAS REVISED TO 3" LGS.	KC
3	1/9/2014	2" GULF SOUTH WAS REVISED TO 3" & 4" LOUISIANA STATE GAS CORPORATION IN NOTE 7.	KC

COASTAL PROTECTION AND RESTORATION AUTHORITY		GRAND LIARD MARSH AND RIDGE RESTORATION	
450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		STATE PROJECT NUMBER: BA-68	
DRAWN BY: KRISTI CANTU		DESIGNED BY: TYE FITZGERALD, P.E.	
APPROVED BY: RUDOLPH SIMONEAUX, P.E.		MARSH CREATION AREA A LAYOUT	
		DATE: OCTOBER 2013	
		SHEET 6 OF 54	

MARSH CREATION AREA B		
	NORTHING	EASTING
54	295,620.54	3,873,756.03
55	294,278.89	3,875,676.90
56	293,379.59	3,875,861.69
57	292,890.82	3,875,852.49
58	292,396.88	3,875,934.06
59	291,897.55	3,876,146.08
60	291,431.08	3,876,493.14
61	291,239.17	3,876,668.24
62	290,943.97	3,876,792.46
63	290,535.37	3,876,829.47
64	290,564.87	3,876,548.30
65	291,181.87	3,875,110.36
66	291,490.34	3,875,135.48
67	291,592.21	3,875,233.54
68	291,736.47	3,875,230.78
69	291,826.20	3,875,134.35
70	292,156.07	3,875,023.43
71	292,646.85	3,874,818.21
72	292,860.77	3,874,771.89
73	293,119.46	3,874,811.67
74	293,135.64	3,874,829.07
75	293,187.32	3,874,830.95
76	293,203.00	3,874,816.37
77	293,346.92	3,874,823.63
78	293,843.66	3,874,560.32
79	293,876.65	3,874,569.94
80	293,953.43	3,874,527.81
81	293,964.15	3,874,491.03
82	294,758.31	3,874,004.92
83	294,964.12	3,873,911.27
84	295,144.20	3,873,816.75
85	295,368.59	3,873,768.14

SETTLEMENT PLATES		
	NORTHING	EASTING
S3	292,792.34	3,874,786.26
S4	292,024.04	3,875,878.98

PIPELINE REMOVAL		
	NORTHING	EASTING
A	295,271.69	3,875,085.87
B	295,056.97	3,874,907.98
C	294,927.93	3,874,808.28
D	294,347.66	3,874,357.75
E	294,741.54	3,874,131.98
F	294,577.90	3,873,799.67



- NOTES:**
- PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
 - ALL PIPELINES LOCATED WITHIN 150' OF THE EARTHEN RIDGE AND DIKE ALIGNMENTS, FILL AREAS, BORROW AREA, OR SHEET PILE CLOSURES SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SP-11 OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - NO EXCAVATION SHALL OCCUR WITHIN 50.0' OF A PIPELINE.
 - THE CONTRACTOR SHALL CONSTRUCT THE EARTHEN RIDGE BY DREDGING FROM BOTH PRIMARY AND SECONDARY BORROW AREAS. SEE TS-7.2 OF THE SPECIFICATIONS FOR MORE DETAILS.
 - ESTIMATED BORROW VOLUMES SHOWN FOR THE EARTHEN RIDGE AND EARTHEN CONTAINMENT DIKES ARE FOR INFORMATIONAL PURPOSES ONLY.
 - THE 3" AND 4" LOUISIANA STATE GAS CORPORATION PIPELINES SHALL BE CUT AND REMOVED BY THE CONTRACTOR. SEE TS-3 OF THE SPECIFICATIONS FOR MORE DETAILS.
 - THE 4" GULF SOUTH PIPELINE SHALL BE CUT AND REMOVED BETWEEN POINTS C AND D BY THE CONTRACTOR. SEE TS-3 OF THE SPECIFICATIONS FOR MORE DETAILS.

ESTIMATED MECHANICAL DREDGING VOLUMES		QTY.
MARSH CREATION AREA B		(CU. YD.)
EARTHEN RIDGE: BAYOU BORROW		77,785
EARTHEN RIDGE: INTERIOR BORROW		12,111
EARTHEN CONTAINMENT: INTERIOR BORROW		122,433

LEGEND	
	MARSH CREATION AREA
	EQUIPMENT ACCESS/PRIMARY BORROW AREA FOR EARTHEN RIDGE & CONTAINMENT DIKE
	SECONDARY BORROW AREA FOR EARTHEN RIDGE & EARTHEN CONTAINMENT DIKE
	SOLE BORROW AREA FOR CONTAINMENT DIKE
	EARTHEN RIDGE
	EARTHEN CONTAINMENT DIKE
	SHEET PILE CLOSURE
	PIPELINE REMOVAL
	PIPELINE
	SURVEY TRANSECT
	SETTLEMENT PLATE

REV.	DATE	DESCRIPTION	BY
1	1/9/2014	REVISED PIPELINE REMOVAL CALLOUT SHOWN IN MC AREA B. 2" GULF WAS REVISED TO 3" LGS/4" GULF.	KC
2	1/9/2014	2" GULF SOUTH WAS REVISED TO 3" & 4" LOUISIANA STATE GAS CORPORATION IN NOTE 6.	KC
3	1/9/2014	NOTE 7 WAS ADDED.	KC

COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		GRAND LIARD MARSH AND RIDGE RESTORATION		MARSH CREATION AREA B LAYOUT	
		STATE PROJECT NUMBER: BA-68		DATE: OCTOBER 2013	
DRAWN BY: KRISTI CANTU		DESIGNED BY: TYE FITZGERALD, P.E.		APPROVED BY: RUDOLPH SIMONEAUX, P.E.	
				FEDERAL PROJECT NUMBER: BA-68	
				SHEET 7 OF 54	