

**BID DOCUMENTS
FOR
OYSTER BAYOU MARSH RESTORATION
PROJECT (CS-59)**

CAMERON PARISH, LOUISIANA



**STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION
AUTHORITY**

APRIL 2016



Whitney C. Thompson
4/20/16

TABLE OF CONTENTS

<u>GENERAL REQUIREMENTS</u>	Pages Included
Project Title Page	1
Table of Contents	5
List of Drawings	1
Procurement Requirements	
Advertisement for Bids	2
Instruction for Procurement	
Instructions to Bidders	8
Procurement Forms and Supplements	
Louisiana Uniform Public Works Bid Form	3
Bid Security Form	1
Attestations	2
Contracting Requirements	
Example Contract Between Owner & Contractor & Performance & Payment Bond & Affidavit	5

SECTION TITLEPAGE NO.

GP-1	DEFINITION OF TERMS.....	1
GP-2	BID REQUIREMENTS	4
GP-3	AVAILABILITY OF PLANS AND SPECIFICATIONS.....	5
GP-4	LAWS, REGULATIONS, STANDARDS, SPECIFICATIONS, AND CODES.....	5
GP-5	PRE-BID CONFERENCE AND SITE VISIT	6
GP-6	NOTICE OF AWARD	6
GP-7	NOTICE TO PROCEED AND CONTRACT TIME	6
GP-8	WORK PLAN	7
GP-9	PROGRESS SCHEDULE.....	7
GP-10	DAILY PROGRESS REPORTS.....	8
GP-11	HURRICANE AND SEVERE STORM PLAN	9
GP-12	HEALTH AND SAFETY PLAN AND INSPECTIONS.....	10
GP-13	PROGRESS MEETINGS AND REPORTS.....	10
GP-14	PRE-CONSTRUCTION CONFERENCE	10
GP-15	CONTRACT INTENT.....	11
GP-16	ENGINEER AND AUTHORITY OF ENGINEER	11
GP-17	CONFORMITY WITH PLANS AND SPECIFICATIONS	11
GP-18	CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS	11
GP-19	SUBCONTRACTS	12
GP-20	WORKERS, METHODS, AND EQUIPMENT.....	12
GP-21	ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING	13
GP-22	PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC.	13
GP-23	PROTECTION OF THE WORK, MATERIALS, AND EQUIPMENT	14
GP-24	LAND RIGHTS	14

GP-25	UTILITIES	14
GP-26	PERMITS	15
GP-27	PROJECT SITE CLEAN-UP	15
GP-28	OWNER INSPECTION	15
GP-29	DUTIES OF RESIDENT PROJECT REPRESENTATIVE	15
GP-30	CONSTRUCTION STAKES, LINES, AND GRADES	16
GP-31	CONTRACTOR'S RESPONSIBILITY FOR WORK	16
GP-32	ENVIRONMENTAL PROTECTION	16
GP-33	SANITARY PROVISION	17
GP-34	PAYMENT OF TAXES	17
GP-35	RADIO AND TELEPHONES	17
GP-36	NAVIGATION	17
GP-37	OBSTRUCTION TO NAVIGATION	18
GP-38	MARINE VESSELS AND MARINE ACTIVITIES	18
GP-39	RECORD KEEPING	18
GP-40	CERTIFICATES OF COMPLIANCE	18
GP-41	SUBMITTALS	19
GP-42	CLAIMS FOR EXTRA COST	19
GP-43	ALTERATION OF THE CONTRACT AND COMPENSATION	19
GP-44	EXTENSION OF CONTRACT TIME	20
GP-45	OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE	20
GP-46	TEMPORARY SUSPENSION OF WORK	21
GP-47	NON-CONFORMING AND UNAUTHORIZED WORK	22
GP-48	CONTRACTOR'S RIGHT TO TERMINATE CONTRACT	22
GP-49	BREACH OF CONTRACT	22
GP-50	NO WAIVER OF LEGAL RIGHTS	22
GP-51	LIABILITY FOR DAMAGES AND INJURIES	22
GP-52	LIABILITY FOR LOSSES BY ACTS OF THE GOVERNMENT	23
GP-53	SUBSTANTIAL COMPLETION	23
GP-54	FINAL INSPECTION AND ACCEPTANCE	24
GP-55	AS-BUILT DRAWINGS	25
GP-56	COMPLETION OF CONTRACT	25
GP-57	CONTRACTOR'S GUARANTEE	25
GP-58	DISPUTE RESOLUTION	26
GP-59	PAYMENT	26
GP-60	PAYMENTS WITHHELD	27
GP-61	LIENS	28
GP-62	EQUAL EMPLOYMENT OPPORTUNITY	28
GP-63	ANTI-KICKBACK CLAUSE	28
GP-64	SUSPENSION/DEBARMENT	28
GP-65	LOUISIANA FIRST HIRING ACT	29
PART II	SPECIAL PROVISIONS	30
SP-1	PRECEDENCE OF CONTRACT DOCUMENTS	30
SP-2	LOCATION OF WORK	30
SP-3	WORK TO BE DONE	30
SP-4	GENERAL REQUIREMENTS	31
SP-5	CONTRACT DATES AND MILESTONES	34
SP-6	DELIVERABLES	34
SP-7	LANDOWNER AND LEASEHOLDER REQUIREMENTS	38
SP-8	THREATENED AND ENDANGERED SPECIES	41
SP-9	WORK PLAN SUPPLEMENTAL	41
SP-10	FAILURE TO COMPLETE ON TIME	41
SP-11	PROTECTION OF WORK	42

SP-12	PROJECT SCHEDULING.....	42
SP-13	SAFETY REQUIREMENTS.....	42
SP-14	TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION.....	45
SP-15	COMMENCEMENT, EXECUTION, AND COMPLETION.....	45
SP-16	TRANSPORTATION.....	45
SP-17	DREDGE DATA SHEET.....	46
SP-18	OFFICE FOR ENGINEER AND RESIDENT PROJECT REPRESENTATIVE.....	46
SP-19	ACCOMMODATION FOR THE RESIDENT PROJECT REPRESENTATIVE.....	47
SP-20	CONSTRUCTION OFFICE.....	47
SP-21	CONTRACTOR INFORMATION.....	47
SP-22	INSURANCE AND BONDS.....	47
SP-23	EMPLOYEE WHISTLEBLOWER PROTECTION.....	51
PART III	TECHNICAL SPECIFICATIONS.....	52
TS-1	MOBILIZATION AND DEMOBILIZATION.....	52
TS-2	PRE-CONSTRUCTION SURVEYS.....	52
TS-3	POST-CONSTRUCTION, PROCESS, CHECK, AND AS-BUILT SURVEYS.....	56
TS-4	HYDRAULIC DREDGING – MARSH CREATION.....	57
TS-5	PRIMARY CONTAINMENT DIKE CONSTRUCTION.....	61
TS-6	SECONDARY POND CONTAINMENT CONSTRUCTION.....	62
TS-7	TRENASSE CONSTRUCTION.....	63
TS-8	EARTHEN TERRACE CONSTRUCTION.....	64
TS-9	SETTLEMENT PLATES.....	64
TS-10	CONVEYANCE CORRIDOR.....	65
TS-11	WATERLINE RELOCATION.....	69
TS-12	LOUISIANA HIGHWAY 27/82 CROSSING.....	75
TS-13	BORROW AREA AND SEDIMENT PIPELINE BUOYS AND MARKERS.....	79
TS-14	EXCAVATION.....	81
TS-15	TRANSPORT OF EXCAVATED MATERIALS.....	83
TS-16	WATER DISCHARGE AREA AND OPEN WATER DISCHARGE.....	84
TS-17	MISPLACED MATERIALS.....	85
TS-18	WORK WITHIN THE VICINITY OF EXISTING PIPELINES.....	85
TS-19	VESSEL-SHORE TRANSFERS.....	85
TS-20	WORK AREA AND TEMPORARY FENCING.....	85
TS-21	CONSTRUCTION ACCESS.....	86
TS-22	MISPLACED MATERIAL, PLANT MACHINERY, EQUIPMENT, OR APPLIANCE.....	86
TS-23	FINAL CLEAN-UP.....	86
PART IV	ENVIRONMENTAL PROTECTION PROVISIONS.....	88
EP-1.	SCOPE.....	88
EP-2.	QUALITY CONTROL.....	88
EP-3.	PERMITS.....	88
EP-4.	SUBCONTRACTORS.....	88
EP-5.	NOTIFICATION.....	88
EP-6.	PROTECTION OF ENVIRONMENTAL RESOURCES.....	89
EP-7.	POST CONSTRUCTION CLEAN-UP.....	91
EP-8.	RESTORATION OF LANDSCAPE DAMAGE.....	91
EP-9.	MAINTENANCE OF POLLUTION CONTROL FACILITIES.....	91
EP-10.	FUEL OIL TRANSFER OPERATIONS.....	92
EP-11.	SUBMITTALS.....	92
EP-12.	NOISE CONTROL.....	93

List of Appendices

APPENDIX I	SUPPLEMENTAL INFORMATION
APPENDIX II	DAILY PROGRESS REPORT
APPENDIX III	SURVEY DATA FORMATS
APPENDIX IV	GEOTECHNICAL REPORTS
APPENDIX V	USACE PROJECT PERMIT
APPENDIX VI	LDNR COASTAL USE PERMIT
APPENDIX VII	DOTD PERMIT
APPENDIX VIII	DOTD STANDARD SPECIFICATIONS
APPENDIX IX	PREVAILING WAGE DETERMINATION SCHEDULE
APPENDIX X	FIELD ADJUSTMENT REPORT
APPENDIX XI	REQUEST FOR INTERPRETATION
APPENDIX XII	LAND RIGHTS APPENDIX
APPENDIX XIII	SURVEY MONUMENTS
APPENDIX XIV	U.S. COAST GUARD NOTICE OF INTENT TO DREDGE INFORMATION REQUIREMENTS
APPENDIX XV	LOUISIANA ADMINISTRATIVE CODE – TITLE 51
APPENDIX XVI	WATERLINE RELOCATION DETAILS
APPENDIX XVII	DHH PERMIT
APPENDIX XVIII	LDWF PERMIT

LIST OF DRAWING SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	GENERAL NOTES
3	ALIGNMENT TABLES
4	EARTHEN TERRACE COORDINATE LOCATIONS
5	PROJECT OVERVIEW
6	PLAN VIEW
7	MARSH CREATION PLAN VIEW
8	EARTHEN TERRACE PLAN VIEW
9	BORROW AREA PLAN VIEW
10	MARSH CREATION TYPICAL SECTIONS A-A' AND B-B'
11	MARSH CREATION TYPICAL SECTION C-C'
12	MARSH CREATION TYPICAL SECTION BL
13	MARSH CREATION TYPICAL SECTION D-D'
14-15	MARSH CREATION DETAILS
16	TYPICAL EARTHEN TERRACE DETAIL
17	TYPICAL EARTHEN TERRACE CROSS SECTION
18	BORROW AREA CROSS SECTION E-E'
19	BORROW AREA CROSS SECTION F-F'
20	LA 27/82 CROSSING PLAN VIEW AND PAVEMENT PATCH DETAIL
21	LA 27/82 TEMPORARY WATERLINE BYPASS PLAN AND DETAIL
22	LA 27/82 WATERLINE RELOCATION PLAN AND DETAIL
23	LA 27/82 PHASE 1 PLAN VIEW CASING PIPE INSTALLATION: SEQUENCE OF CONSTRUCTION
24	LA 27/82 PHASE 2 PLAN VIEW CASING PIPE INSTALLATION: SEQUENCE OF CONSTRUCTION
25	LA 27/82 PHASE 3 PLAN VIEW DREDGING OPERATIONS: SEQUENCE OF CONSTRUCTION
26	LA 27/82 CROSSING OPEN CUT EXCAVATION SECTIONS G-G' AND H-H'
27	LA 27/82 WATERLINE RELOCATION DETAILS
28	LA 27/82 CROSSING PHASE 1 SECTION J-J' CASING PIPE INSTALLATION
29	LA 27/82 CROSSING PHASE 1 SECTION K-K' CASING PIPE INSTALLATION
30	TEMPORARY TRAFFIC CONTROL - TTC-00 (A)
31	TEMPORARY TRAFFIC CONTROL - TTC-00 (B)
32	TEMPORARY TRAFFIC CONTROL - TTC-00 (C)
33	TEMPORARY TRAFFIC CONTROL - TTC-00 (D)
34	TEMPORARY TRAFFIC CONTROL - TTC-02
35	TEMPORARY TRAFFIC CONTROL - TTC-04
36	TEMPORARY PIPELINE MARKER AND CASING PIPE CAP/MARKER DETAIL
37	SURVEY PROFILE LOCATIONS
38-42	EXISTING CONDITIONS PROFILES
43-53	MARSH CREATION CONSTRUCTION PROFILES
54-57	TERRACE FIELD CONSTRUCTION PROFILES
58	ACCESS ROUTES PLAN VIEW
59	ACCESS ROUTE "CL1"
60	ACCESS ROUTE "CL1"
61	ACCESS ROUTE "CL2"
62-65	ACCESS ROUTE "CL3"
66-69	ACCESS ROUTE "CL4"

ADVERTISEMENT FOR BIDS

Sealed bids will be received for the State of Louisiana by the Division of Administration, Office of Facility Planning and Control, Claiborne Office Building, 1201 North Third Street, Conference Room 1-145, Post Office Box 94095, Baton Rouge, Louisiana 70804-9095 until 2:00 P.M., **Thursday, June 23, 2016.**

ANY PERSON REQUIRING SPECIAL ACCOMMODATIONS SHALL NOTIFY FACILITY PLANNING AND CONTROL OF THE TYPE(S) OF ACCOMMODATION REQUIRED NOT LESS THAN SEVEN (7) DAYS BEFORE THE BID OPENING.

FOR: **Oyster Bayou
Marsh Restoration Project
Cameron Parish, Louisiana**

PROJECT NUMBER: **CS-59**

Complete Bidding Documents for this project are available in electronic form. They may be obtained without charge and without deposit from coastal.la.gov/resources/doing-business-with-cpra/bids/.com. Printed copies are not available from the Designer but arrangements can be made to obtain them through most reprographic firms. Plan holders are responsible for their own reproduction costs. Questions about this procedure shall be directed to the Designer at:

Coastal Protection and Restoration Authority (CPRA)
P.O. Box 44027
Baton Rouge, LA 70804
Telephone: 225-342-0811
Fax: 225-342-4674
E-mail: cpra.bidding@la.gov

All bids shall be accompanied by bid security in an amount of five percent (5.0%) of the sum of the base bid and all alternates. The form of this security shall be as stated in the Instructions to Bidders included in the Bid Documents for this project. The successful Bidder shall be required to furnish a Performance and Payment Bond written as described in the Instructions to Bidders included in the Bid Documents for this project.

**A MANDATORY PRE-BID CONFERENCE WILL BE HELD
at 10:00 AM on Monday, June 13, 2016 at Johnsons Bayou Multi-Purpose Building, 5556 Gulf Beach Highway, Cameron,
Louisiana 70631.**

BIDS SHALL BE ACCEPTED ONLY FROM CONTRACTORS THAT ATTEND THE ENTIRE PRE-BID CONFERENCE.

Bids shall be accepted only from those bidders who attend the Mandatory Pre-Bid Conference in its entirety.

A HIGHLY ENCOURAGED JOBSITE VISIT WILL BE HELD immediately following the conclusion of the Mandatory Pre-Bid Conference at Johnsons Bayou Multi-Purpose Building, 5556 Gulf Beach Highway, Cameron, Louisiana 70631. The jobsite visit is not mandatory, but is highly encouraged for those submitting a bid. The jobsite visit being conducted by CPRA will facilitate access to project features that are located on private property. Outside of the recommended site visit, the Contractor may not have access to the features located on private property. The jobsite visit will begin with the portion of the project area accessible only by airboat. Contractors shall be responsible for providing their own airboat and any rental and boat launching fees. Contact Vida Carver at (225) 342-2799 if directions are needed to the Mandatory Pre-Bid Conference or the Highly Encouraged Jobsite Visit.

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2192 for the classification of **Heavy Construction**. In accordance with LA R.S. 37:2163(D), anyone objecting to the classification must send a certified letter to both the Louisiana State Licensing Board for Contractors and the CPRA at the address listed above. The letter must be received no later than ten (10) working days prior to the day on which bids are to be opened.

Bidder is required to comply with provisions and requirements of LA R.S. 38:2212(B)(5). No bid may be withdrawn for a period of forty-five (45) days after receipt of bids, except under the provisions of LA. R.S. 38:2214.

The Owner reserves the right to reject any and all bids for just cause. In accordance with La. R.S. 38:2212(B)(1), the provisions and requirements of this Section and those stated in the bidding document shall not be waived by any entity.

When this project is financed either partially or entirely with State Bonds or financed in whole or in part by federal or other funds which are not readily available at the time bids are received, the award of this Contract is contingent upon the granting of lines of credit, or the sale of bonds by the Bond Commission or the availability of federal or other funds. The State shall incur no obligation to the Contractor until the Contract Between Owner and Contractor is fully executed.

Coastal Protection and Restoration Authority is a participant in the Small Entrepreneurship (SE) Program (the Hudson Initiative) and the Veteran-Owned and Service-Connected Disabled Veteran-Owned (LaVet) Small Entrepreneurships Program. Bidders are encouraged to consider participation. Information is available from the Office of Facility Planning and Control or on its website at www.coastal.la.gov.

STATE OF LOUISIANA
DIVISION OF ADMINISTRATION
FACILITY PLANNING AND CONTROL
MARK A. MOSES, DIRECTOR

INSTRUCTIONS TO BIDDERS

COMPLETION TIME:

The Bidder shall agree to fully complete the contract within **Three Hundred Forty-Five (345)** consecutive calendar days for the Base Bid, subject to such extensions as may be granted under Section GP-44 of the General Provisions and acknowledges that this construction time will start on or before the date specified in the written "Notice to Proceed" from the Owner.

LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of **Five Thousand Dollars (\$5,000.00)** for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the "Notice to Proceed" or as amended by change order.

ARTICLE 1

DEFINITIONS

1.1 The Bid Documents include the following:

Advertisement for Bids
Instructions to Bidders
Bid Form
Bid Bond
General Provisions
Special Provisions
Technical Specifications
Construction Drawings
Contract Between Owner and Contractor
and Performance and Payment Bond
Affidavit
User Agency Documents (if applicable)
Change Order Form
Recommendation of Acceptance
Other Documents (if applicable)
Addenda issued during the bid period and
acknowledged in the Bid Form

1.2 All definitions set forth in the General Provisions and the Special Provisions are applicable to the Bid Documents, unless otherwise specifically stated or written.

1.3 Addenda are written and/or graphic instruments issued by the Engineer prior to the opening of bids which modify or interpret the Bid Documents by additions, deletions, clarifications, corrections and prior approvals.

1.4 A bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.

1.5 Base bid is the sum stated in the bid for which the Bidder offers to perform the work described as the base, to which work may be added, or deleted for sums stated in alternate bids.

1.6 An alternate bid (or alternate) is an amount stated in the bid to be added to the amount of the base bid if the corresponding change in project scope or materials or methods of construction described in the Bid Documents is accepted.

1.7 A Bidder is one who submits a bid for a prime Contract with the Owner for the work described in the Bid Documents.

1.8 A Sub-bidder is one who submits a bid to a Bidder for materials and/or labor for a portion of the work.

1.9 Where the word "Engineer" is used in any of the documents, it shall refer to the Prime Designer of the project, regardless of discipline.

ARTICLE 2

PRE-BID CONFERENCE

2.1 A Pre-Bid Conference may be held at the time

and location described in the Advertisement for Bids. The purpose of the Pre-Bid Conference is to familiarize Bidders with the requirements of the Project and the intent of the Bid Documents, and to receive comments and information from interested Bidders. If the Pre-Bid Conference and/or Job Site Visit is stated in the Advertisement for Bids to be a Mandatory Pre-Bid Conference and/or Mandatory Job Site Visit, bids shall be accepted only from those bidders who attend the Pre-Bid Conference and/or Job Site Visit. Contractors who are not in attendance for the entire Pre-Bid Conference and/or Job Site Visit will be considered to have not attended.

2.2 Any revision of the Bid Documents made as a result of the Pre-Bid Conference shall not be valid unless included in an addendum.

ARTICLE 3

BIDDER'S REPRESENTATION

3.1 Each Bidder by making his bid represents that:

3.1.1 He has read and understands the Bid Documents and his bid is made in accordance therewith.

3.1.2 He has visited the site and has familiarized himself with the local conditions under which the work is to be performed.

3.1.3 His bid is based solely upon the materials, systems and equipment described in the Bid Documents as advertised and as modified by addenda.

3.1.4 His bid is not based on any verbal instructions contrary to the Bid Documents and addenda.

3.1.5 He is familiar with the Code of Governmental Ethics requirement that prohibits public servants and/or their immediate family members from bidding on or entering into contracts; he is aware that the Designer and its principal owners are considered Public Servants under the Code of Governmental Ethics for the limited purposes and scope of the Design Contract with the State on this Project (see Ethics Board Advisory Opinion, No. 2009-378 and 2010-128); and neither he nor any principal of the Bidder with a controlling interest therein has an immediate family relationship with the Designer or any principal within the Designer's firm. (see La.

R.S. 42:1113). Any Bidder submitting a bid in violation of this clause shall be disqualified and any contract entered into in violation of this clause shall be null and void.

3.2 The Bidder must be fully qualified under any State or local licensing law for Contractors in effect at the time and at the location of the work before submitting his bid. In the State of Louisiana, Revised Statutes 37:2150, et seq. will be considered, if applicable.

The Contractor shall be responsible for determining that all of his Sub-bidders or prospective Subcontractors are duly licensed in accordance with law.

ARTICLE 4

BID DOCUMENTS

4.1 Copies

4.1.1 Bid Documents may be obtained from the Coastal Protection and Restoration Authority as stated in the Advertisement for Bids.

4.1.1.2 In addition to the availability of printed Bid Documents, the Coastal Protection and Restoration Authority will provide the Bid Documents in electronic format. They may be obtained without charge and without deposit as stated in the Advertisement for Bids.

4.1.1.2.2 Where electronic distribution is provided, all other plan holders are responsible for their own reproduction costs.

4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

4.1.3 The Owner or Engineer in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining bids on the work and do not confer a license or grant for any other use.

4.2 Interpretation or Correction of Bid Documents

4.2.1 Bidders shall promptly notify the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids of any ambiguity, inconsistency or error which they may discover upon examination of the Bid Documents or of the site and local conditions.

4.2.2 Bidders requiring clarification or interpretation of the Bid Documents shall make a written request to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids, to reach him at least seven days prior to the date for receipt of bids.

4.2.3 Any interpretation, correction or change of the Bid Documents will be made by addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding and Bidders shall not rely upon such interpretations, corrections and changes.

4.3 Substitutions

4.3.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitutions shall be allowed after bids are received.

4.3.2 No substitution will be considered unless written request for approval has been submitted by the Proposer and has been received by the Engineer at least seven (7) working days prior to the opening of bids. (RS38:2295C) Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including model numbers, drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It shall be the responsibility of the proposer to include in his proposal all changes required of the Bid Documents if the proposed product is used. Prior approval is given contingent upon supplier being responsible for any costs which may be necessary to modify the space or facilities needed to accommodate the materials and equipment approved.

4.3.3 If the Engineer approves any proposed substitution, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner.

4.4 Addenda

4.4.1 Addenda will be mailed or delivered to all who are known by the Coastal Protection and Restoration Authority to have received a complete set of Bid Documents.

4.4.2 Copies of addenda will be made available for inspection wherever Bid Documents are on file for that purpose.

4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying the Bid Documents within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven but no more than twenty-one (21) working days, without the requirement of re-advertising. The revised time and date for the opening of bids shall be stated in the addendum.

4.4.4 Each Bidder shall ascertain from the Coastal Protection and Restoration Authority prior to submitting his bid that he has received all addenda issued, and he shall acknowledge their receipt on the Bid Form.

4.4.5 The Owner shall have the right to extend the bid date by up to (30) thirty days without the requirement of re-advertising. Any such extension shall be made by addendum issued by the Coastal Protection and Restoration Authority.

ARTICLE 5

BID PROCEDURE

5.1 Form and Style of Bids

5.1.1 Bids shall be submitted on the Louisiana Uniform Public Work Bid Form provided by the Engineer.

5.1.2 All blanks on the Bid Form shall be filled in manually in ink or typewritten.

5.1.3 Bid sums shall be expressed in both words and figures, and in case of discrepancy between the two, the written words shall govern.

5.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the bid or his authorized representative.

5.1.5 Bidders are cautioned to complete all alternates should such be required in the Bid Form. Failure to submit alternate prices will render the bid non responsive and shall cause its rejection.

5.1.6 Bidders are cautioned to complete all unit prices should such be required in the Bid Form. Unit prices represent a price proposal to do a specified quantity and quality of work.

5.1.7 Bidders are strongly cautioned to ensure that all blanks on the bid form are completely and accurately filled in.

5.1.8 Bidder shall make no additional stipulations on the Bid Form nor qualify his bid in any other manner.

5.1.9 The bid shall include the legal name of Bidder. Written evidence of the authority of the person signing the bid shall be submitted at the time of bidding.

The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable under any of the following conditions:

(a) Signature on bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability partnership, or other legal entity listed in the most current business records on file with the Secretary of State.

(b) Signature on bid is that of authorized representative as documented by the legal entity certifying the authority of the person.

(c) Legal entity has filed in the appropriate records of the Secretary of State, an affidavit, resolution or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect

and shall be binding upon the principal until specifically rescinded and canceled from the records of the office. A bid submitted by an agency shall have a current Power of Attorney attached certifying agent's authority to bind Bidder. The name and license number on the envelope shall be the same as the entity identified on the Bid Form.

5.1.10 On any bid in excess of fifty thousand dollars (\$50,000.00), the Contractor shall certify that he is licensed under R.S. 37: 2150-2173 and show his license number on the bid above his signature or his duly authorized representative.

5.2 Bid Security

5.2.1 No bid shall be considered or accepted unless the bid is accompanied by bid security in an amount of five percent (5.0%) of the base bid and all alternates.

The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a Bid Bond written by a surety company licensed to do business in Louisiana and signed by the surety's agent or attorney-in-fact. The Bid Bond shall be written on the Coastal Protection and Restoration Authority Bid Bond Form, and the surety for the bond must meet the qualifications stated thereon. The Bid Bond shall include the legal name of the bidder be in favor of the State of Louisiana, Coastal Protection and Restoration Authority, and shall be accompanied by appropriate power of attorney. The Bid Bond must be signed by both the bidder/principal and the surety in the space provided on the Coastal Protection and Restoration Authority Bid Bond Form. Failure by the bidder/principal or the surety to sign the bid bond shall result in the rejection of the bid.

Bid security furnished by the Contractor shall guarantee that the Contractor will, if awarded the work according to the terms of his proposal, enter into the Contract and furnish Performance and Payment Bonds as required by these Bid Documents, within ten (10) days after written notice that the instrument is ready for his signature.

Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as penalty.

5.2.2 The Owner will have the right to retain the

bid security of Bidders until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

5.3 Submission of Bids

5.3.1 The Bid shall be sealed in an opaque envelope. The bid envelope shall be identified on the outside with the name of the project, and the name, address, and license number of the Bidder.

The envelope shall contain **only one bid form** and will be received until the time specified and at the place specified in the Advertisement for Bids. It shall be the specific responsibility of the Bidder to deliver his sealed bid to Facility Planning and Control Department at the appointed place and prior to the announced time for the opening of bids. Late delivery of a bid for any reason, including late delivery by United States Mail, or express delivery, shall disqualify the bid.

If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "Bid Enclosed" on the face thereof. Such bids shall be sent by Registered or Certified Mail, Return Receipt Requested, addressed to:

Facility Planning and Control,
P. O. Box 94095
Baton Rouge, Louisiana, 70804-9095.

Bids sent by express delivery shall be delivered to:

Facility Planning and Control
Suite 7-160
Claiborne Office Building
1201 North Third Street
Baton Rouge, Louisiana 70802

5.3.2 Bids shall be deposited at the designated location prior to the time on the date for receipt of bids indicated in the Advertisement for Bids, or any extension thereof made by addendum. Bids received after the time and date for receipt of bids will be returned unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at location designated for receipt of bids.

5.3.4 Oral, telephonic or telegraphic bids are invalid and shall not receive consideration. Owner shall not consider notations written on outside of bid envelope which have the effect of amending the bid. Written modifications enclosed in the bid envelope, and signed or initialed by the Contractor or his representative, shall be accepted.

5.4 Modification or Withdrawal of Bid

5.4.1 A bid may not be modified, withdrawn or canceled by the Bidder during the time stipulated in the Advertisement for Bids, for the period following the time and bid date designated for the receipt of bids, and Bidder so agrees in submitting his bid, except in accordance with R.S. 38:2214 which states, in part, "Bids containing patently obvious mechanical, clerical or mathematical errors may be withdrawn by the Contractor if clear and convincing sworn, written evidence of such errors is furnished to the public entity within forty eight hours of the Bid Opening excluding Saturdays, Sundays and legal holidays".

5.4.2 Prior to the time and date designated for receipt of bids, bids submitted early may be modified or withdrawn only by notice to the party receiving bids at the place and prior to the time designated for receipt of bids.

5.4.3 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.

5.4.4 Bid Security shall be in an amount sufficient for the bid as modified or resubmitted.

ARTICLE 6

CONSIDERATION OF BIDS

6.1 Opening of Bids

6.1.1 The properly identified Bids received on time will be opened publicly and will be read aloud, and a tabulation abstract of the amounts of the base bids and alternates, if any, will be made available to Bidders.

6.2 Rejection of Bids

6.2.1 The Owner shall have the right to reject any or all bids and in particular to reject a bid not accompanied by any required bid security or data required by the Bid Documents or a bid in any way incomplete or irregular.

6.3 Acceptance of Bid

6.3.2 It is the intent of the Owner, if he accepts any alternates, to accept them in the order in which they are listed in the Bid Form. Determination of the Low Bidder shall be on the basis of the sum of the base bid and the alternates accepted. However, the Owner shall reserve the right to accept alternates in any order which does not affect determination of the Low Bidder.

ARTICLE 7

POST-BID INFORMATION

7.1 Submissions

7.1.1 The Contractor shall submit all required deliverables in conformance with Section SP-4 of the Special Provisions.

It is the preference of the Owner that, to the greatest extent possible or practical, the Contractor utilize Louisiana Subcontractors, manufacturers, suppliers and labor.

7.1.2 The Contractor will be required to establish to the satisfaction of the Engineer the reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the sections of the Specifications pertaining to such proposed Subcontractor's respective trades. The General Contractor shall be responsible for actions or inactions of Subcontractors and/or material suppliers.

The General Contractor is totally responsible for any lost time or extra expense incurred due to a Subcontractor's/or Material Supplier's failure to perform. Failure to perform includes, but is not limited to, a Subcontractor's financial failure, abandonment of the project, failure to make prompt delivery, or failure to do work up to standard. Under no circumstances shall the Owner mitigate the General Contractor's losses or reimburse the General Contractor for losses caused by these events.

7.1.3 Subcontractors and other persons and organizations selected by the Bidder must be used on the work for which they were proposed and shall not be changed except with the written approval of the Owner and the Engineer.

In accordance with La. R.S. 38:2227, LA. R.S. 38:2212.10 and LA. R.S. 23:1726(B) the low bidder on this project must submit the completed Attestations Affidavit (Past Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package. The Attestations Affidavit form shall be submitted to Coastal Protection and Restoration Authority contact person listed in the Advertisement For Bids within 10 days after the opening of bids.

ARTICLE 8

PERFORMANCE AND PAYMENT BOND

8.1 Bond Required

8.1.1 The Contractor shall furnish and pay for a Performance and Payment Bond written by a company licensed to do business in Louisiana, which shall be signed by the surety's agent or attorney-in-fact, in an amount equal to 100% of the Contract amount. Surety must be listed currently on the U. S. Department of Treasury Financial Management Service List (Treasury List) as approved for an amount equal to or greater than the contract amount, or must be an insurance company domiciled in Louisiana or owned by Louisiana residents. If surety is qualified other than by listing on the Treasury list, the contract amount may not exceed fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance and may not exceed the amount of \$500,000. However, a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A. M. Best's Key Rating Guide shall not be subject to the \$500,000 limitation, provided that the contract amount does not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide nor fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance. The Bond shall be signed by the surety's

agent or attorney-in-fact. The Bond shall be in favor of the Coastal Protection and Restoration Authority.

8.2 Time of Delivery and Form of Bond

8.2.1 The Bidder shall deliver the required bond to the Owner simultaneous with the execution of the Contract.

8.2.2 Bond shall be in the form furnished by the Coastal Protection and Restoration Authority, entitled CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND, a copy of which is included in the Bid Documents.

8.2.3 The Bidder shall require the Attorney-in-Fact who executes the required bond on behalf of the surety to affix thereto a certified and current copy of his power of Attorney.

9.2.3 When this project is financed either partially or entirely with State Bonds, the award of this Contract is contingent upon the sale of bonds by the State Bond Commission. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is duly executed.

ARTICLE 9

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

9.1.1 Form of the Contract to be used shall be furnished by the Coastal Protection and Restoration Authority, an example of which is bound in the Bid Documents.

9.2 Award

9.2.1 Before award of the Contract, the successful Bidder shall furnish to the Owner a copy of a Disclosure of Ownership Affidavit stamped by the Secretary of State, a certified copy of the minutes of the corporation or partnership meeting which authorized the party executing the bid to sign on behalf of the Contractor.

9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the Non-Collusion Affidavit included in the Contract Documents

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Oyster Bayou
Marsh Restoration Project
(CS-59)
Cameron Parish, Louisiana
(Owner to provide name of project and other identifying information)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: _____

CB&I and dated: Month Day, YEAR
(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) _____ .

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" * but not alternates) the sum of:

_____ Dollars (\$ _____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

Not Applicable Dollars (\$ Not Applicable)

Alternate No. 2 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

Not Applicable Dollars (\$ Not Applicable)

Alternate No. 3 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

Not Applicable Dollars (\$ Not Applicable)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(A)(1)(c) or RS 38:2212(O) .

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Facility Planning and Control
P.O. Box 94095
Clatborne Building
Baton Rouge, LA. 70804
(Owner to provide name and address of owner)

BID FOR: Oyster Bayou
Marsh Restoration Project
(CS-59)
Cameron Parish, Louisiana
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Mobilization and Demobilization	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
1	1 Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Pre-Construction Surveys	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
2	1 Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# As-Built Surveys	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
3	1 Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Hydraulic Dredging – Marsh Creation	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
4	3,481,700 Cubic Yard		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Primary Containment Dikes	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
5	45,041 Linear Foot		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Secondary Pond Containment	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
6	2,543 Linear Foot		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Trenches	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
7	9,491 Linear Foot		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# Earthen Terraces	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: UNIT OF MEASURE:		
8	17,550 Linear Foot		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner

LOUISIANA UNIFORM PUBLIC WORK BID FORM UNIT PRICE FORM

TO: Facility Planning and Control
P.O. Box 94095
Clatborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Oyster Bayou
Marsh Restoration Project
(CS-59)
Cameron Parish, Louisiana
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Settlement Plates</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
9	7	Each	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Temporary Waterline Bypass</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
10	1	Lump Sum	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Waterline Relocation</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
11	1	Lump Sum	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Traffic Control</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
12	1	Lump Sum	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Highway Crossing Mobilization</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
13	1	Lump Sum	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Highway Embankment (DOTD 203-03-00100)</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
14	270	Cubic Yard	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Highway Excavation (DOTD 203-01-00100)</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
15	470	Cubic Yard	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Geotextile Fabric (DOTD 203-08-00100)</u>		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE EXTENSION (Quantity times Unit Price)
16	63	Square Yard	

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Oyster Bayou
Marsh Restoration Project
(CS-59)
Cameron Parish, Louisiana
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Pavement Patching 12 in Thick (DOTD 510-01-00100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
17	63	Square Yard	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Bedding Material (DOTD 726-01-00100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
18	11	Cubic Yard	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Concrete Drain Pipe (51" O.D. Reinforced Concrete Pipe) (DOTD 701-01-N)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
19	43	Linear Foot	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Flowable Fill (DOTD 710-01-00100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
20	115	Cubic Yard	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Plastic Pavement Markings (Solid Line)(4" Width)(DOTD 732-02-00100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
21	80	Linear Foot	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Plastic Pavement Markings (Broken Line)(4" Width)(DOTD 732-03-00100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
22	40	Linear Foot	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Raised Pavement Markers (DOTD 731-02-00100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
23	4	Each	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u> </u> Casing Pipe Cap	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	
24	2	Each	

Wording for "DESCRIPTION" is to be provided by the Owner.
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

BID BOND
FOR
COASTAL PROTECTION AND RESTORATION AUTHORITY PROJECTS

Date: _____

KNOW ALL MEN BY THESE PRESENTS:

That _____ of _____, as Principal, and _____, as Surety, are held and firmly bound unto the State of Louisiana, Coastal Protection and Restoration Authority (Obligee), in the full and just sum of five (5%) percent of the total amount of this proposal, including all alternates, lawful money of the United States, for payment of which sum, well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Surety represents that it is listed on the current U. S. Department of the Treasury Financial Management Service list of approved bonding companies as approved for an amount equal to or greater than the amount for which it obligates itself in this instrument or that it is a Louisiana domiciled insurance company with at least an A - rating in the latest printing of the A. M. Best's Key Rating Guide. If surety qualifies by virtue of its Best's listing, the Bond amount may not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide.

Surety further represents that it is licensed to do business in the State of Louisiana and that this Bond is signed by surety's agent or attorney-in-fact. This Bid Bond is accompanied by appropriate power of attorney.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas said Principal is herewith submitting its proposal to the Obligee on a Contract for:

NOW, THEREFORE, if the said Contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the Contract in writing and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract with surety acceptable to the Obligee, then this obligation shall be void; otherwise this obligation shall become due and payable.

PRINCIPAL (BIDDER)

SURETY

BY: _____
AUTHORIZED OFFICER-OWNER-PARTNER

BY: _____
AGENT OR ATTORNEY-IN-FACT(SEAL)

OYSTER BAYOU MARSH RESTORATION
PROJECT (CS-59)
Name of Project

CS-59
Project No.

STATE OF _____

PARISH OF _____

ATTESTATIONS AFFIDAVIT

Before me, the undersigned notary public, duly commissioned and qualified in and for the parish and state aforesaid, personally came and appeared Affiant, who after being duly sworn, attested as follows:

LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

(a) Public bribery (R.S. 14:118)

(c) Extortion (R.S. 14:66)

(b) Corrupt influencing (R.S. 14:120)

(d) Money laundering (R.S. 14:23)

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

(a) Theft (R.S. 14:67)

(f) Bank fraud (R.S. 14:71.1)

(b) Identity Theft (R.S. 14:67.16)

(g) Forgery (R.S. 14:72)

(c) Theft of a business record
(R.S.14:67.20)

(h) Contractors; misapplication of
payments (R.S. 14:202)

(d) False accounting (R.S. 14:70)

(i) Malfeasance in office (R.S. 14:134)

(e) Issuing worthless checks (R.S. 14:71)

LA. R.S. 38:2212.10 Verification of Employees

A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new hires in the state of Louisiana are legal citizens of the United States or are legal aliens.

B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

OYSTER BAYOU MARSH RESTORATION
PROJECT (CS-59)
Name of Project

CS-59
Project No.

LA. R.S. 23:1726(B) Certification Regarding Unpaid Workers Compensation Insurance

- A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.
- B. By signing this bid /proposal, Affiant certifies that no such assessment is in effect against the bidding / proposing entity.

NAME OF BIDDER

NAME OF AUTHORIZED SIGNATORY OF BIDDER

DATE

TITLE OF AUTHORIZED SIGNATORY OF BIDDER

**SIGNATURE OF AUTHORIZED
SIGNATORY OF BIDDER/AFFIANT**

Sworn to and subscribed before me by Affiant on the ____ day of _____, 20__ .

Notary Public

FOR INFORMATION ONLY

This document will be prepared by the Coastal Protection and Restoration Authority in the form appropriate for the project.

CONTRACT BETWEEN OWNER AND CONTRACTOR
AND PERFORMANCE AND PAYMENT BOND

This agreement entered into this _____ day of _____, 2016, by (CONTRACTOR NAME) hereinafter called the "Contractor", whose business address is _____, and the State of Louisiana Coastal Protection and Restoration Authority, herein represented by its Executive Director executing this contract, and hereinafter called the "Owner".

Witnesseth that the Contractor and the Owner, in consideration of premises and the mutual covenants; consideration and agreement herein contained, agree as follows:

Statement of Work: The contractor shall furnish all labor and materials and perform all of the work required to build, construct and complete in a thorough and workmanlike manner:

Project No. _____
State ID No. _____ Site Code _____

in strict accordance with Contract Documents prepared by Owner.

It is recognized by the parties herein that said Contract Documents, including by way of example and not of limitation, the Plans, Specifications (including General Provisions, Special Provisions, and Technical Specifications), Any Addenda thereto, Instructions To Bidders, this Contract, Advertisement For Bids, Affidavit, Bid Form, Bonds (Bid, Performance, and Payment), any Submitted Post-Bid Documentation, Notice of Award, Notice to Proceed, Change Orders, and Claims, if any, impose duties and obligations upon the parties herein, and said parties thereby agree that they shall be bound by said duties and obligations. For these purposes, all of the provisions contained in the aforementioned Contract Documents are incorporated herein by reference with the same force and effect as though said Contract Documents were herein set out in full.

Time for Completion: The work shall be commenced on a date to be specified in a written order of the Owner and shall be completed within _____ consecutive calendar days from and after the said date.

Liquidated Damages: Contractor shall be assessed Liquidated Damages in the amount of \$_____ per day for each consecutive calendar day which work is not complete beginning with the first day beyond the completion time.

Compensation to be paid to the Contractor: The Owner will pay and the Contractor will accept in full consideration for the performance of the contract the sum of _____ **Dollars (\$)** which sum represents the Contract Price.

Performance and Payment Bond: To these presents personally came and intervened _____, herein acting for _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business in the State of Louisiana, as surety, who declared that having taken cognizance of this contract and of the Construction Documents mentioned herein, he hereby in his capacity as its Attorney in Fact obligates his said company, as Surety for the said Contractor, unto the said Owner, up to the sum of _____ **Dollars (\$)**. By issuance of this bond, the surety acknowledges they are in compliance with R.S. 38:2219.

The condition of this performance and payment bond shall be that should the Contractor herein not perform the contract in accordance with the terms and conditions hereof, or should said Contractor not fully indemnify and save harmless the Owner, from all cost and damages which he may suffer by said Contractor's non-performance or should said Contractor not pay all persons who have and fulfill obligations to perform labor and/or furnish materials in the prosecution of the work provided for herein, including by way of example workmen, laborers, mechanics, and furnishers of materials, machinery, equipment and fixtures, then said Surety agrees and is bound to so perform the contract and make said payment(s).

Provided, that any alterations which may be made in the terms of the contract or in the work to be done under it, or the giving by the Owner of any extensions of time for the performance of the contract, or any other forbearance on the part of either the Owner or the Contractor to the other shall not in any way release the Contractor or the Surety from their liability hereunder, notice to the Surety of any such alterations, extensions or other forbearance being hereby waived.

The Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1972, and contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Contractor agrees not to discriminate in its employment practices, and will render services under this contract without regard to race, color, sex, religion, national origin, genetic information, age or disabilities. Any act of discrimination committed by Contractor or failure to comply with these statutory obligations when applicable shall be grounds for termination of this contract.

In Witness whereof, the parties hereto on the day and year first above written have executed this agreement in eight (8) counterparts, each of which shall, without proof or accountancy for the other counterparts, be deemed an original thereof.

WITNESSES:

**STATE OF LOUISIANA
COASTAL PROTECTION AND
RESTORATION AUTHORITY**

BY: _____
Michael Ellis, Executive Director

BY: _____

SURETY: _____

BY: _____
ATTORNEY IN FACT

ADDRESS

TELEPHONE NUMBER

STATE OF LOUISIANA
PARISH OF _____

PROJECT NO. _____

NAME _____

LOCATION: _____

A F F I D A V I T

Before me, the undersigned authority, duly commissioned and qualified within and for the State and Parish aforesaid, personally came and appeared _____ representing who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

PART I.

Section 2224 of Part II of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the Contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.

PART II.

Section 2190 of Part I of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

That affiant, if an architect or engineer, or representative thereof, does not own a substantial financial interest, either directly or indirectly, in any corporation, firm, partnership, or other organization which supplies materials for the construction of a public work when the architect or engineer has performed architectural or engineering services, either directly or indirectly, in connection with the public work for which the materials are being supplied.

For the purposes of this Section, a "substantial financial interest" shall exclude any interest in stock being traded on the American Stock Exchange or the New York Stock Exchange.

That affiant, if subject to the provisions of this section, does hereby agree to be subject to the penalties involved for the violation of this section.

AFFIANT

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____, 2016.

NOTARY

PART I GENERAL PROVISIONS

GP-1 DEFINITION OF TERMS

Whenever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to the singular or plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs and the titles of other documents or forms.

Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

- a. Acceptance: A written approval from the Engineer which certifies that specific items of work in the Contract have been completed and/or obligations have been fulfilled by the Contractor.
- b. Addenda: Those written or graphic documents which are issued prior to opening of Bids in accordance with the Bidding Requirements and clarify or change the bidding requirements or the proposed Contract Documents.
- c. Application of Payment: That form which is used by the Contractor to request partial and final payment and is deemed acceptable to the Owner. It shall be accompanied by any supporting documentation required by the Contract Documents.
- d. A.S.T.M.: American Society for Testing and Materials.
- e. Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.
- f. Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.
- g. Bidding Requirements: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.
- h. Change Order: A written order which is submitted to the Contractor, signed by the Owner, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time issued after the effective date of the Contract.
- i. Claim: A written demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both or other relief with respect to the terms of the Contract.
- j. Contract: The written agreement between the Owner and the Contractor which defines the work to be completed and shall be understood to also include all Contract Documents.
- k. Contract Documents: The Contract, all addenda which pertains to the Contract Documents, Bid Documents and specified Attachments accompanying the Bid and any

post-bid documentation submitted prior to the Notice of Award, Contractor's Bid when attached as an exhibit to the Agreement, the Bonds (Bid and Performance/Payment), General Provisions, Special Provisions, Technical Specifications, Plans, and all Field or Change Orders issued after the execution of the Agreement. Shop Drawings and other submittals by the Contractor are not Contract Documents.

- l. Contract Price: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.
- m. Contract Time: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.
- n. Contractor: The person, association of persons, firm, or corporation entering into the duly awarded Contract.
- o. Contracting Agency: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).
- p. Day: When any period of time is referred to in the Contract Documents using days, it will be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, that day will be omitted from the computation. A calendar day is measured as twenty-four (24) hour period starting at midnight and ending the following midnight.
- q. Design Report: A written report by the Engineer which provides the design methodology for the Work.
- r. Effective Date of the Contract: The date indicated in the Contract on which it becomes effective.
- s. Engineer: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.
- t. Equipment: All machinery, implements, and power-tools, in conjunction with the necessary supplies for the operation, upkeep, maintenance, and all other tools and apparatuses necessary for the proper construction and acceptable completion of the Work.
- u. Extension of Contract: Any extension of time for completion of Work beyond the Contract Time which is granted by the Owner, recommended by the Engineer and approved by the Coastal Protection and Restoration Authority in the form of a Change Order.
- v. Federal Sponsor: The federal agency which has been tasked, if applicable, to manage the implementation of the project.
- w. Field Order: A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or Contract Time.
- x. Laboratory: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.

- y. Laws and Regulations; Laws or Regulations: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- z. Materials: Any substance used in the Work to build structures, but does not include material used in false work or other temporary structures not incorporated in the Work.
- aa. Milestone: A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.
- bb. Notice of Award: A written notice to the successful Bidder stating that the Bid has been accepted by the Owner and that the successful Bidder is required to execute the Contract and furnish the Payment and Performance Bond and Non-Collusion Affidavit.
- cc. Notice to Proceed: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.
- dd. Owner: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.
- ee. Performance and Payment Bond: The approved form of security furnished by the Contractor and Surety for the faithful performance of the Work, and the payment for all labor, materials, and/or obligations incurred by the Contractor in the prosecution thereof.
- ff. Plans: That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, intent, and character of the Work to be completed by the Contractor.
- gg. Project Site: The location where the Work is to be performed as stated in the Contract Documents.
- hh. Resident Project Representative: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.
- ii. Right-of-way: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.
- jj. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portions of the Work will be judged.
- kk. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work to be performed.
- ll. Specifications: That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work to be performed and certain administrative details applicable thereto.
- mm. State: The State of Louisiana.

- nn. Structures: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.
- oo. Subcontractor: Any person, association of persons, firm, or corporation who contracts with the Contractor to perform any part of the project covered by the Contract.
- pp. Submittals: Certificates, samples, shop drawings, and all other project data which are submitted to the Engineer in order to verify that the correct products will be installed on the project.
- qq. Successful Bidder: The lowest responsible Bidder whom the Owner makes an award.
- rr. Special Provisions: That part of the Contract Documents which amends or supplements these General Provisions.
- ss. Surety: The corporate body, licensed to do business in Louisiana, bound with and for the Contractor's primary liability, and engages to be responsible for payment of all obligations pertaining to acceptable performance of the Work contracted.
- tt. Temporary Structures: Any non-permanent structure required while engaged in the prosecution of the Contract.
- uu. Work: All work specified herein or indicated on the Plans.
- vv. Work Plan: A written plan by the Contractor that details how the Work will be provided including layout drawings, projected schedule (Initial Progress Schedule), and a list of labor hours, materials, and equipment.

GP-2 BID REQUIREMENTS

The Contract and Bonds which govern the Work shall be performed in accordance with the Plans, Specifications, and the Louisiana Standard Specifications for Roads and Bridges, 2006 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

- 2.1. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;
- 2.2. Visit the Project Site to become familiar with the local conditions if they are believed to affect cost, progress, or the completion of the Work;
- 2.3. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;
- 2.4. Study and correlate all information known to the Bidder including observations obtained from Bidder's visits, if any, to the Project Site, with the Bidding Documents;

- 2.5. Submit a written notice to the Engineer within three (3) days regarding any conflicts, errors, ambiguities, or discrepancies discovered in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and
- 2.6. Determine that the Bidding Documents are generally sufficient to convey an understanding of all terms and conditions for completing the required Work.

The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of these Specifications. The Bidder shall comply with all other requirements specified in the Advertisement For Bids and the Instruction To Bidders.

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

One (1) set of Plans and Specifications shall be furnished to each Bidder. Three (3) sets of the Plans and Specifications shall be furnished to the Contractor upon award of the Contract. Additional sets may be furnished to the Contractor upon request from the Engineering Division of the Coastal Protection and Restoration Authority, 450 Laurel Street, 11th Floor, Baton Rouge, Louisiana 70801.

GP-4 LAWS, REGULATIONS, STANDARDS, SPECIFICATIONS, AND CODES

Bidders are required to become familiar and remain in compliance with all Federal, State, and local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority which may affect those employed for the execution of the Work or which may affect the conduct of the Work. The Contractor shall indemnify the Owner and its representatives against any claim or liability arising from all violations of any laws, bylaws, ordinances, codes, regulations, orders, or decrees, whether by the Contractor or by the Contractor's employees. The filing of a bid will be presumptive evidence that the Bidder has complied with this requirement. The Owner will not be responsible for any inaccurate interpretations or conclusions drawn by the Contractor from information and documentation provided by the Owner.

References to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws and Regulations, whether such reference be specific or by implication, may not be in effect at the time of opening the Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents. No provision of any such standard, specification, manual, or code, or any instruction of a supplier shall be effective to change the duties or responsibilities of the Owner or Engineer, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Bid Documents. No such provision shall be effective to assign to the Owner or Engineer, or any of their consultants, agents, or employees any duty or authority to supervise or direct the performance of the Contractor's obligations or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

The obligations imposed by these specifications are in addition to and are not to be construed in any way as a limitation of any rights available to the Engineer or Owner which are otherwise imposed by any laws or regulations or other provisions within the Contract Documents.

The Contractor shall abide by laws set forth in the Davis-Bacon Act of 1931 which states that all laborers and mechanics employed by recipients, the recipient's contractors, or subcontractors on this project shall be paid wages at rates no less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with Subchapter IV of Chapter 31 of Title 40 United States Code. Additionally, with respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Number 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and The Copeland Act of Title 40 (40 U.S.C. § 3145). Prevailing Wage Determination Schedules, as determined by the United States Department of Labor, are provided in the Appendix. Prevailing Wage Determination Schedules are subject to modification by the United States Department of Labor. The Contractor is responsible for utilizing the most current Prevailing Wage Determination Schedule. These documents can be downloaded from the following link: <http://www.wdol.gov/dba.aspx#3>. Modifications to Prevailing Wage Determination Schedules shall be effective if received (or posted) no less than 10 days prior to bid opening.

GP-5 PRE-BID CONFERENCE AND SITE VISIT

A Pre-Bid Conference will be held at the location and on the date provided in the Advertisement For Bids. If the Pre-Bid Conference is stated in the Advertisement for Bids to be a MANDATORY Pre-Bid Conference, bids shall be accepted only from those bidders who attend the Pre-Bid Conference in its entirety. Failure to attend a mandatory Pre-Bid Conference in its entirety will result in a null or void Bid.

A site visit may also be held at the Project Site as specified in the Advertisement For Bids or at the Pre-Bid conference. If held, bidders will be required to furnish their own transportation to the Project Site. Representatives of the Owner and Engineer will attend the Pre-Bid conference and site visit, if held, to discuss the Work.

All questions shall be in writing and faxed or emailed to the Coastal Protection and Restoration contact person listed in the Advertisement For Bids after the Pre-Bid Conference and by the due date announced at the Pre-Bid conference. In order to ensure adequate response time, all questions and/or requests for clarification or interpretation of the Bid Documents should be received by the Coastal Protection and Restoration Authority at least seven days prior to the date for receipt of bids. Oral statements will not be binding or legally effective. The Coastal Protection and Restoration Authority will issue addenda in response to all questions arising at the Pre-Bid Conference and site visit to all prospective Bidders on record. All prospective Bidders on record may contact the Coastal Protection and Restoration Authority contact person for any additional information.

GP-6 NOTICE OF AWARD

The Owner, or its designated bidding agent, shall provide written notice to the Successful Bidder stating that the Owner will sign and deliver the Contract upon compliance with the conditions enumerated therein and within the time specified.

GP-7 NOTICE TO PROCEED AND CONTRACT TIME

The Contractor shall start the Work and begin the Contract Time on the dates provided in the Notice to Proceed. The Work shall be conducted using sufficient labor, materials, and equipment as necessary to ensure completion within the Contract Time. The Contract Time for

completion of the Base Bid for the Work is provided in the Instructions To Bidders, unless an extension is granted to the Contract Time as specified in GP-44. If the Bid contains an Alternate Bid(s), and the Alternate Bid(s) is awarded and included in the Contract, the Contract Time associated with the Alternate Bid(s) will be as provided in the Instructions To Bidders.

GP-8 WORK PLAN

The Contractor shall develop a written Work Plan which accounts for all of the construction activities required by the Contract Documents. The Work Plan shall include a list of the individual construction tasks to be completed and the estimated dates for beginning and completing the tasks. It shall also include all other items which are applicable to completing the Work such as, but not limited to, the following:

- a. Typical report form for the Bi-Weekly Progress Meeting;
- b. Typical form for Daily Progress Report;
- c. Hurricane and Severe Storm Plan;
- d. Site-specific Health and Safety Plan;
- e. The delivery method and source(s) of all construction materials (company or producer name, mailing and physical address, phone number, and name of contact person).
- f. The personnel, material, subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction;
- g. Shop drawings, test results, and sample submittals;
- h. Survey layout and stakeout;
- i. All supplemental items specified in the Special Provisions.

The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall review the Work Plan and have the Contractor make any necessary revisions prior to acceptance of the plan. **No payment for mobilization will be made until the Work Plan has been accepted by the Engineer.**

GP-9 PROGRESS SCHEDULE

The Contractor shall develop a written Progress Schedule which provides for an orderly progression of the Work, submittals, tests, and deliveries in order to complete the Work within the specified Milestones and Contract Time. All of the items listed in the Work Plan shall be integrated into the Progress Schedule. The format of the schedule shall be composed using Microsoft Project®, or any other software deemed acceptable by the Engineer. It shall be updated weekly by the Contractor, at a minimum. The Progress Schedule shall also include, but not be limited to the following:

- a. All of the elements in the Work Plan, including updates;
- b. A work order issued from Louisiana One Call ordering all their subscribers in the project area to mark their utilities;
- c. A telephone log verifying that all property owners and utilities have been contacted. This log should list the time, date, and names of the personnel representing the property owners, utilities, and Contractor;

The following table defines the monthly anticipated adverse weather days that are expected to occur during the Contract Time and will constitute the baseline monthly weather time for evaluations. The schedule is based upon National Oceanic and Atmospheric Administration (NOAA) or similar data for the regional geographic area.

Monthly Anticipated Adverse Weather Calendar Days											
Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5	5	4	4	4	5	7	7	5	3	3	4

The Progress schedule must reflect these anticipated adverse weather delays on all weather dependent activities. Adverse weather days must prevent Work for fifty percent (50%) or more of the work day and delay work critical to the timely completion of the project. The number of actual adverse weather days shall be calculated chronologically from the first to the last day of each month.

The Progress Schedule shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall perform a review and have the Contractor make any necessary revisions prior to acceptance of the schedule. Acceptance will not impose responsibility on the Owner or Engineer for the sequencing, scheduling, or progression of the Work. The Contractor is fully responsible for progression of the Work in order to maintain the compliance with the Progress Schedule.

GP-10 DAILY PROGRESS REPORTS

The Contractor shall record the following daily information on Daily Progress Reports:

- a. Date and signature of the author of the report;
- b. Dollar amount of all bid items that are fabricated, installed, backfilled, pumped, constructed, damaged, replaced, etc. The amount of material shall be expressed in the units stated in the bid;
- c. Field notes of all surveys;
- d. Notes on all inspections;
- e. Details of Health and Safety meetings;
- f. A brief description of any Change Orders, Field Orders, Claims, Clarifications, or Amendments;

- g. Condition of all navigation aides (I.E., warning signs, lighted marker buoys) and any repairs performed on them;
- h. Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);
- i. The amount of time lost to severe weather or personnel injury, etc;
- j. Notes regarding compliance with the Progress Schedule;
- k. Visitor log (Instructions for format will be furnished by the Field Engineer).

The daily progress reports shall be submitted to the Engineer at the Bi-Weekly Progress Meetings specified in GP-13 in both hard copy and digital format (Adobe Acrobat® Format, or approved equal). The typical form for Daily Progress Reports shall be developed by the Contractor and incorporated into the Work Plan.

GP-11 HURRICANE AND SEVERE STORM PLAN

The Contractor shall develop and maintain a written Hurricane and Severe Storm Plan. The Plan shall include, but not be limited to, the following:

- a. What type of actions will be taken before storm strikes at the Project Site. The plan should specify what weather conditions or wave heights will require shutdown of the Work and removal of equipment, personnel, etc.
- b. Notes from continuous monitoring of NOAA marine weather broadcasts and other local commercial weather forecasts.
- c. Equipment list with details on their ability to handle adverse weather and wave conditions.
- d. List of safe harbors or ports and the distance and travel time required to transfer equipment from the Project Site.
- e. Hard copies of any written approvals or operations schedules associated with the use of the safe harbors or ports.
- f. Method of securing equipment at the safe harbors or ports.
- g. List of tug boats and work boats and their respective length, horsepower, etc. which will adequately transfer the equipment to safe harbor or port under adverse weather conditions.
- h. Methods which will be used to secure equipment left onsite during adverse weather conditions.

- i. Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.
- j. Operations procedures which will be used to secure critical dredging equipment such as spuds, swing wires, anchor wires, or tugs during adverse weather conditions.
- k. Communications protocol with local law enforcement and fire and rescue agencies.

The Contractor shall incorporate the Hurricane and Severe Storm Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

The Contractor shall develop and maintain a written Health and Safety Plan which allows the Work to be performed in compliance with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the safety of personnel or property. This includes maintaining compliance with the Code of Federal Regulations, Title 29, Occupational Safety and Health Administration (OSHA) and all applicable Health and Safety Provisions of the State of Louisiana.

The Contractor shall institute a daily inspection program to assure that the requirements of the Health and Safety Plan are being fulfilled. Inspections shall include the nature of deficiencies observed, corrective action taken or to be taken, location of inspection, date, and signature of the person responsible for its contents. The results of the inspections shall be recorded on Daily Progress Reports and kept at the Project Site during the Work.

The Contractor shall incorporate the Health and Safety Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-13 PROGRESS MEETINGS AND REPORTS

The Engineer shall schedule meetings to review the progress of the Work, coordinate future efforts, discuss compliance with the Progress Schedule and resolve miscellaneous problems. The Engineer or Resident Project Representative, Contractor, and all Subcontractors actively working at the Project Site shall attend each meeting. Representatives of suppliers, manufacturers, and other Subcontractors may also attend at the discretion of the Contractor. The Contractor shall record the details of each meeting in a Progress Report. The format of this report shall be developed by the Contractor, approved by the Engineer, and included in the Work Plan. The progress meetings and reports shall be scheduled according to the Special Provisions.

GP-14 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be held by the Contractor, Owner, Engineer, local stakeholders, and other appropriate personnel prior to starting construction on the date specified in the Special Provisions. This conference shall serve to establish a mutual understanding of the Work to be performed, the elements of the Progress Schedule and Work Plan, expectations for bi-weekly progress meetings, the Plans and Specifications, processing Applications for

Payment, and any other items of concern. If any subcontractors are not present, another pre-construction conference will be required.

GP-15 CONTRACT INTENT

The Bid Documents are complementary; what is called for by one is as binding as if called for by all. Clarifications and interpretations or notifications of minor variations and deviations of the Contract Documents will be issued by Engineer as provided in these Specifications. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Bid Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided at no additional cost to the Owner.

GP-16 ENGINEER AND AUTHORITY OF ENGINEER

The Engineer will be the designated representative of the Owner, the initial interpreter of the Contract Documents and the judge over acceptability of all the Work. Claims, disputes, and other matters relating to the acceptability of the Work, performance by the Contractor or the interpretation of the requirements of the Contract Documents must be submitted to the Engineer in writing. Upon written request from the Contractor, the Engineer shall issue written clarifications or interpretations which are consistent with the overall intent of the Contract Documents. Such written clarifications and interpretations will be binding on the Owner and the Contractor. Either the Owner or the Contractor may make a Claim if a written clarification or interpretation justifies an adjustment in the Contract Price or Contract Times.

The Engineer has the authority to suspend the Work in whole or in part due to failure of the Contractor to correct conditions unsafe for workmen or the general public, carry out provisions of the Contract, perform conformance work, or to carry out orders. The Engineer shall submit a written order to the Contractor for work which must be suspended or resumed. Nothing in this provision shall be construed as establishing responsibility on the part of the Engineer for safety which is the responsibility of the Contractor.

The Engineer or Resident Project Representative shall keep a daily record of weather and flood conditions and may suspend the Work as deemed necessary due to periods of unsuitable weather, conditions considered unsuitable for execution of the Work, or for any other condition or reason deemed to be in the public interest.

GP-17 CONFORMITY WITH PLANS AND SPECIFICATIONS

All work and materials involved with the Work shall conform with the lines, grades, cross sections, dimensions, and other requirements shown on the Plans or indicated in these Specifications unless otherwise approved by the Engineer.

GP-18 CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS

The Contract Documents may be clarified or amended by the Engineer to account for additions, deletions, and revisions to the Work after the Effective Date of the Contract. The clarifications and amendments shall be addressed by either a Change Order or a written clarification by the Engineer. The Contractor shall not proceed with the Work until the Change Order or clarification has been issued by the Engineer. The Contractor shall not be liable to the Owner

or Engineer for failure to report any such discrepancy unless the Contractor had reasonable knowledge.

The Contractor may request a clarification or amendment for the following:

- a. Any conflict, error, ambiguity, or discrepancy within the Contract Documents; or
- b. Any conflict, error, ambiguity, or discrepancy between the Bid Documents and the provision of any Law or Regulation applicable to the performance of the Bid; or
- c. Any standard, specification, manual, or code (whether or not specifically incorporated by reference in the Bid Documents); or
- d. Instructions by a supplier.

The official form for a written clarification is provided in Appendix B. This form shall be filled out appropriately by the Contractor and submitted to the Engineer. The Engineer shall clarify the issue in writing on either the clarification form, Field Order or a Change Order and submit it to the Contractor.

GP-19 SUBCONTRACTS

The Contractor shall provide the names of all Subcontractors to the Engineer in writing before awarding any Subcontracts. The Contractor shall be responsible for the coordination of the trades and Subcontractors engaged in the Work. The Contractor is fully responsible to the Owner for the acts and omissions of all the Subcontractors. The Owner and Engineer will not settle any differences between the Contractor and Subcontractors or between Subcontractors. The Contractor shall have appropriate provisions in all Subcontracts to bind Subcontractors to the Contractor by the terms of the General Provisions and other Contract Documents, as applicable to the Work of Subcontractors. The provisions should provide the Contractor the same power regarding termination of Subcontracts that the Owner may exercise over the Contractor under any provisions of the Contract Documents.

GP-20 WORKERS, METHODS, AND EQUIPMENT

The Contractor shall provide competent, qualified, and trained personnel to perform the Work. The Contractor shall not employ any person found objectionable by the Engineer. Any person employed by the Contractor or any Subcontractor who, in the opinion of the Engineer, does not perform the Work in a proper, skillful, and orderly manner shall be immediately removed upon receiving a written order by the Engineer. The Engineer may also suspend the Work until the Contractor removes the employee or provides a suitable replacement. Such an employee shall not be re-employed in any portion of the Work without written approval from the Engineer.

The on-site superintendent for the Contractor shall be competent, English-speaking, and qualified to receive orders, supervise, and coordinate all Work for the Contractor and any Subcontractors. The qualifications of the superintendent must be established and approved by the Engineer prior to commencement of the Work. The superintendent shall be furnished by the Contractor regardless of how much Work may be sublet. In the performance of the Work under this Contract, the Contractor shall conduct operations to avoid interference with any other Contractors.

All equipment, products, and material incorporated into the Work shall be as specified, or if not specified, shall be new, of good quality, and protected, assembled, used, connected, applied, cleaned, and conditioned in accordance with the manufacturer's instructions, except as otherwise may be provided in the Bid Documents. All equipment shall be of sufficient size and mechanical condition to meet the requirements of the Work and produce a satisfactory quality of work. Equipment shall not damage adjacent property throughout the performance of the Work. The Plant and Equipment Schedule should be completed by the Contractor.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures used to complete the Work in conformance with the Contract Documents.

The Contractor shall obtain permission from the Engineer if a method or type of equipment other than specified in the Contract is desired. The request shall be in writing and shall include a full description of the methods, equipment proposed, and reasons for the modification. A proposed item of material or equipment may be considered by the Engineer to be functionally equal to an item specified in the Contract if:

- a. It is at least equal in quality, durability, appearance, strength, and design characteristics;
- b. There is no increase in any cost including capital, installation, or operating to the Owner;
- c. The proposed item will conform substantially, even with deviations, to the detailed requirements of the item named in the Bid Documents.

If, after trial use of the substituted methods or equipment, the Engineer determines that the Work produced does not meet Contract requirements, the Contractor shall discontinue use of the substituted methods or equipment and shall complete the Work with the specified methods and equipment. The Contractor shall remove the deficient Work and replace it with Work of specified quality or take other corrective action as directed. No change will be made in basis of payment for construction items involved or in Contract Time as a result of authorizing a change in methods or equipment.

GP-21 ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING

The Contractor shall be responsible to develop and maintain all safeguards and safety precautions necessary to prevent damage, injury, or loss throughout the performance of the Work. All accidents at the Project Site shall be investigated by the immediate supervisor of employee(s) involved and reported to the Engineer or Resident Project Representative within one (1) working day. A complete and accurate written report of the accident including estimated lost time days shall be submitted to the Engineer within four (4) calendar days. A follow-up report shall be submitted to the Engineer if the estimated lost time days differ from the actual lost time days.

GP-22 PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC.

The Contractor shall comply with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the preservation and protection of public and private property. The Contractor shall install and maintain suitable safeguards and safety precautions during the Work as necessary to prevent damage, injury, or loss to property. This

responsibility shall remain with the Contractor until the Work has been completed and accepted. Any damage, injury, or loss to property which is caused by the Contractor or Subcontractors shall be repaired or replaced at the expense of the Contractor.

The Contractor shall protect all land monuments, State and United States bench marks, geodetic and geological survey monuments, and property markers from disturbance or damage until an authorized agent has witnessed or otherwise referenced their location. The Contractor shall also provide protection for all public and private property including trees, utilities, pipes, conduits, structures, etc. These items shall not be removed unless directed by the Engineer.

The Contractor shall be responsible to completely repair all damages to public or private property due to any act, omission, neglect, or misconduct in the execution of the Work unless it is due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, public enemies, or governmental authorities. The damage must be repaired at the expense of the Contractor before final acceptance of the Work can be granted by the Engineer. If the Contractor fails to repair the damage within forty-eight (48) hours, the Owner may independently proceed with the repairs at the expense of the Contractor by deducting the cost from the Contract. If the Contractor cannot provide for the cost of repairs, the Surety of the Contractor shall be held until all damages, suits, or claims have been settled.

GP-23 PROTECTION OF THE WORK, MATERIALS, AND EQUIPMENT

It shall be the responsibility of the Contractor to protect the Work, materials, and equipment from damages or delays due to inflows, tidal rise, and storm water runoff which may occur at the Project Site. The Owner shall not be held liable or responsible for these types of delays or damages.

GP-24 LAND RIGHTS

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from public and private landowners in order to perform the Work. A land rights memorandum which lists all known responsible contacts and required stipulations is provided in Appendix C. The Contractor is responsible to notify all of the contacts and abide by stipulations listed in that memorandum.

GP-25 UTILITIES

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from known public and private utilities in order to perform the Work. The utilities include, but are not limited to telephone, telegraph, power poles or lines, water or fire hydrants, water or gas mains and pipelines, sewers, conduits, and other accessories or appurtenances of a similar nature which are fixed or controlled by a city, public utility company or corporation.

The Contractor shall conduct the Work in such a manner as to cooperate and minimize inconveniences with utilities. Prior to commencement of the Work, the Contractor is responsible to notify all of the utilities and abide by stipulations required by the utility company(s). The Contractor shall also call Louisiana One Call at 1-800-272-3020 a minimum of 5 working days prior to construction to locate existing utilities at the Project Site.

Any damage to utilities that is caused by the Contractor within the Project Site shall be repaired at the expense of the Contractor. The Owner will not be responsible for any delay or damage incurred by the Contractor due to working around or joining the Work to utilities left in place or for making adjustments.

Any unidentified pipes or structures which may be discovered within the limits of the Project Site shall not be disturbed and shall be reported to the Engineer as soon as possible. Construction or excavation shall not be performed around unidentified utilities without prior approval from the Engineer.

GP-26 PERMITS

Federal and State permits that are required to perform the Work, such as the Department of the Army Permit, Coastal Use Permit, LDEQ Clean Water Permit, LDWF Fill Material License, and LADOTD highway crossing permit have been secured by the Owner. Permit conditions affecting the construction processes have been included in these Specifications. Copies of these permits will be provided to the Contractor at the pre-construction conference. These permits will not relieve the responsibility of the Contractor from obtaining any additional permits which may be needed to complete the Work. Copies of any special permits that are obtained by the Contractor must be submitted to the Owner. The Contractor shall conform to the requirements therein and display copies of the permits in a public setting at the Project Site at all times.

GP-27 PROJECT SITE CLEAN-UP

The Contractor shall keep the Project Site free from accumulations of waste material or trash at all times. All trash and waste materials shall be removed by the Contractor and disposed off-site in an approved waste disposal facility. In addition, all equipment, tools, and non-conforming work shall also be removed prior to the Work being accepted. No materials shall be placed outside of the Project Site.

GP-28 OWNER INSPECTION

The Owner, Resident Project Representative, and Federal Sponsor shall have the right to perform reasonable inspections and testing of the Work at the Project Site. Access shall be granted to the entire Project Site including all materials intended for use in the Work. The Contractor shall allow reasonable time for these inspections and tests to be performed. The inspections shall not relieve the Contractor from any obligation in accordance with the requirements of the Contract.

The Owner shall notify the Contractor prior to all tests, inspections, and approvals of the Work which are to be conducted at the Project Site. The Owner shall also provide the Contractor with the written results of all inspections and tests. Inspections, tests, or Payments made by the Owner shall not constitute acceptance of non-conforming Work of prejudice the Owner's rights under the Contract.

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

A Resident Project Representative shall be assigned by the Engineer to the Project Site to observe the Contractor and monitor the progress and manner in which the Work is being

performed. The Resident Project Representative will also report to the Engineer and Contractor whenever materials or Work fail to comply with the Contract. The Resident Project Representative is authorized to reject any materials or suspend work which does not comply with the Contract until the issue is resolved by the Engineer.

However, the Resident Project Representative is not authorized to revoke, alter, enlarge, relax, or release any requirements of the Contract, or to approve or accept any portion of the Work, or to issue instructions contrary to the Plans and Specifications. The Resident Project Representative shall not manage or perform duties for the Contractor.

GP-30 CONSTRUCTION STAKES, LINES, AND GRADES

The Engineer shall direct the Contractor to all control points necessary for setting stakes and establishing lines and grades as shown on the Plans. The Contractor shall be responsible for laying out all of the Work. All layouts shall be witnessed and verified by the Engineer or Resident Project Representative prior to beginning the Work. The Contractor shall be responsible for proper execution of the Work according to the layouts after receiving verification from the Engineer.

The Contractor shall be responsible for furnishing and maintaining stakes such that the Work can be verified for acceptance. The Engineer may suspend the Work at any time if it cannot be adequately verified due to the number, quality, or condition of the stakes.

GP-31 CONTRACTOR'S RESPONSIBILITY FOR WORK

The Contractor shall execute all items covered by the Contract, and shall furnish, unless otherwise definitely provided in the Contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to complete the Work. The Contractor shall pay constant attention to the progress of the Work and shall cooperate with the Engineer in every way possible. The Contractor shall maintain a complete copy of the Contract at all times, including the Plans, Specifications, and any authorized modifications.

GP-32 ENVIRONMENTAL PROTECTION

The Contractor shall comply with and abide by all federal, state, and local laws and regulations controlling pollution of the environment, including air, water, and noise. The Contractor shall take precautions to prevent pollution of waters and wetlands with fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials and contaminants, and to prevent pollution of the atmosphere from particulate and gaseous matter, in accordance with all terms and conditions of federal, state, and local air and water pollution control laws and programs and their rules and regulations, including the federal Clean Air Act and the federal Clean Water Act.

The Contractor shall adhere to the provisions which require compliance with all standards, orders, or requirements contained under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, which prohibit the use under non-exempt Federal contracts, grants, or loans, of facilities included on the Environmental Protection Agency (EPA) list of Violating Facilities.

Construction operations in rivers, streams, lakes, tidal or coastal waters, reservoirs, canals, wetlands, and any other impoundments shall be restricted to areas where it is necessary to accomplish the Work and performed in accordance with any applicable federal, state, and local laws,

regulations, permit requirements, and guidelines, and the Contractor shall conduct the Work in a manner that will not cause damaging concentrations of silt or pollution to water.

Contractor shall maintain and operate equipment to minimize noise, dust, and vibration near noise, dust and vibration-sensitive areas such as churches, hospitals, schools, and residential areas, and assure that any activities conducted near such areas are not unduly disruptive. Contractor shall maintain all equipment with properly functioning mufflers.

The Contractor shall be responsible for determining and utilizing any erosion and pollution control features or methods that may be necessary to comply with all federal, state, and local laws and regulations.

GP-33 SANITARY PROVISION

The Contractor shall provide and maintain sanitary accommodations for use by all employees and Subcontractors. Facilities shall comply with the requirements of the Louisiana State Board of Health and Hospitals and other authorities having jurisdiction. Committing public nuisance on the Project Site is prohibited.

GP-34 PAYMENT OF TAXES

The Contractor shall be responsible for all taxes and duties that maybe levied under existing State, Federal, and local laws during the completion of the Work. The Owner will presume that the amount of such taxes is included in the unit prices bid by the Contractor and will not provide additional reimbursement.

GP-35 RADIO AND TELEPHONES

The Contractor shall furnish and maintain radio and telephone equipment throughout the Contract Time which will allow communication between the Contractor and the Engineer or Resident Project Representative.

GP-36 NAVIGATION

All marine vessels shall comply with the following Federal Laws and Regulations:

- a. The International Navigational Rules Act of 1977 (Public Law 95-75, 91 Stat. 308, or 33 U.S.C. 1601-1608); and
- b. The Inland Navigation Rules Act of 1980 (Public Law 96-591, 94 Stat. 3415, 33 U.S.C. 2001-2038).

These rules can be found on the Internet at:
<http://www.navcen.uscg.gov/?pageName=navRulesContent>.

All marine vessels shall display the lights and day shapes required by Part C- Lights and Shapes of the Inland Navigation Rules. The location, type, color, and size of the lights and day shape shall be in accordance with Annex I - Positioning and Technical Details of Lights and Shapes. Any vessel engaged in dredging is considered a "Vessel restricted in her ability to maneuver" and shall display all the lights and shapes required in Rule 27, "Vessel Not Under Control."

GP-37 OBSTRUCTION TO NAVIGATION

The Contractor shall minimize all obstructions to navigation in compliance with pertinent U. S. Coast Guard regulations while conducting the Work. The Contractor shall promptly move any floating equipment or marine vessels which obstruct safe passage of other marine vessels. Upon completion of the Work, the Contractor shall remove all marine vessels and other floating equipment such as temporary ranges, buoys, piles, and other marks or objects that are not permanent features of the Work.

GP-38 MARINE VESSELS AND MARINE ACTIVITIES

All marine vessels regulated by the USCG shall have the required USCG documentation that is current before being placed in service. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be made available to the Owner and Engineer and a copy shall be on board the vessel. All officers and crew shall possess valid USCG licenses as required by USCG regulations. These certificates, classifications, and licenses shall be posted in a public area on board each vessel.

All dredges and quarter boats not subject to USCG inspection and certification or not having a current ABS classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least 5 years' experience in commercial marine plant and equipment. The inspection certificate shall be posted in a public area on board each dredge and/or quarter boat.

All other plant and support vessels shall be inspected before being placed in service and at least annually by a qualified person. The inspection certificate shall be posted in a public area on board each plant and/or vessel.

GP-39 RECORD KEEPING

The Contractor shall maintain orderly records of the Progress Schedule, Daily Progress Reports, Progress Meetings, correspondence, submittals, reproductions of original Contract Documents, Change Orders, Field Orders, certificates, additional drawings issued subsequent to the executed Contract, clarifications and interpretations of the Contract Documents by the Engineer, and other related documents at the Project Site until all of the Work is accepted by the Engineer.

GP-40 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in three (3) copies. Each certificate shall be certified by an authorized agent of the supplying company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date of shipment. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the testing date. The Contractor shall also certify that all materials and test reports conform to the requirements of the Contract. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material if the material is tested and determined to be in nonconformance.

GP-41 SUBMITTALS

The Contractor shall review all Submittals for compliance with the requirements of the Contract prior to delivery to the Engineer. Each Submittal shall contain a signed statement by the Contractor that it complies with the Contract requirements with any exceptions explicitly listed. The Contractor shall comply with these requirements for Submittals from Subcontractors, manufacturers, and suppliers.

All Submittals shall include sufficient data to demonstrate that the requirements of the Contract are met or exceeded. All submittals shall be legible and marked with the project title and clearly identify the item submitted. Each submittal package shall include an itemized list of the items submitted.

All Submittals will be reviewed within fourteen (14) days after being received by the Engineer. The Contractor shall allow the Engineer sufficient time for review, corrections, and resubmission of all Submittals prior to beginning the associated Work. The Contract Time shall not be extended based on incorrect or incomplete Submittals.

GP-42 CLAIMS FOR EXTRA COST

The Contractor is expected to complete the Work according to the Contract Price specified in the Bid Documents. If the Contractor deems additional compensation is due for work, materials, delays or other additional costs/or expenses not covered in the Contract or not ordered as extra work, the Contractor shall give the Engineer written notice thereof within fourteen (14) calendar days after the receipt of such instructions and, in any event, before commencing the procedure. The Contractor shall justify the claim for extra cost by providing supporting data and calculations. The Engineer shall determine whether the Contractor is entitled to be compensated for such extra cost and shall make any required adjustments of the Contract in accordance with GP-43. If no written claim is made within this fourteen (14) calendar-day period, the Contractor will be deemed to have waived any claim for extra cost for such work.

Claim for damages or delays of the Work shall not be made by the Contractor for a relocation of the construction operation or portions thereof to other locations within the geographical scope of the project, when in the opinion of the Engineer, such relocation is necessary for the most effective prosecution of the Work and may be accomplished without undue hardship.

GP-43 ALTERATION OF THE CONTRACT AND COMPENSATION

Using Change Orders, Field Orders, or Written Amendments, the Owner may order extra work or make changes by altering the details of construction, add to or deduct from the Work. The requirements and stipulations of these documents shall be binding on the Owner and Contractor throughout the remainder of the Contract. Any claim for an extension of Contract Time caused thereby shall be adjusted at the time of ordering such change.

The value of any such extra work or change shall be determined in one or more of the following ways and in the following priority:

- a. By application of the unit prices in the Contract to the quantities of the items involved or subsequently agreed upon; or

- b. By mutual acceptance between the Owner and Contractor of a lump sum.

If none of the above methods is agreed upon, the Contractor, provided he is so ordered by the Owner in writing, shall proceed with the Work on a "force account" basis. In such a case, the Contractor shall keep and preserve in such form as the Engineer may direct, a correct itemized account of the direct cost of labor, materials, equipment, together with vouchers bearing written certification by the Contractor. In any case, the Engineer shall certify to the amount, including an allowance of fifteen percent (15%) for jobsite and home office overhead indirect expenses and profit due to the Contractor. Where such change involves a subcontractor, an allowance of fifteen percent (15%) for overhead and profit shall be due the subcontractor and an allowance of ten percent (10%) shall be due the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate and as approved in an executed Change Order.

If the Contractor is prevented from completing the Work according to the Contract Price due to the Owner, the Contractor may be entitled to any reasonable and necessary addition of cost as determined by the Engineer. Neither the Owner nor the Contractor shall be entitled to any damages arising from events or occurrences which are beyond their control, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, acts of war, and other like matters. The provisions of this section exclude recovery for damages caused by the Contractor and compensation for additional professional services by either party.

GP-44 EXTENSION OF CONTRACT TIME

The Contractor is expected to complete the Work within the Contract Time specified in the Bid Documents. A legitimate increase of the Contract time may be requested by the Contractor throughout the course of the Work. This Claim must be submitted to the Engineer in writing within fourteen (14) days of the event which caused the time delay to the Contractor. If an extension of Contract Time involves an increase in Contract Price, both claims shall be submitted together. The Contractor shall justify the increase of the Contract Time in the Claim using supporting data and calculations. The Engineer may deny the claim if there is insufficient information to make a determination. If the Claim is approved, the Engineer shall issue a Change Order within thirty (30) days of the Claim. The Contract Time shall be increased on a basis that is commensurate with the amount of additional or remaining Work. For example, the Contract Time can be increased where the number of actual adverse weather days exceeds the number of days estimated in the Contract.

GP-45 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE

45.1 TERMINATION FOR CAUSE

The Owner shall submit a written notice to the Contractor and Surety which justifies placement of the Contractor in default if:

- a. The Work is not begun within the time specified in the Notice to Proceed; or
- b. The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion; or

- c. The Contractor performs unsuitable, neglected or rejected work, refuses to remove materials; or
- d. The Work is discontinued; or
- e. The Work is not completed within the Contract Time or time extension; or
- f. Work is not resumed within a reasonable time after receiving a notice to continue; or
- g. The Contractor becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or
- h. The Contractor allows any final judgment to stand unsatisfied for a period of ten (10) days; or
- i. The Contractor makes an assignment for the benefit of creditors; or
- j. The Work is not performed in an acceptable manner.

If the Contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the Contractor will be in default and the Owner shall remove the Contractor from the Work. If the Contractor is placed into default, the Owner may obtain the necessary labor, materials, and equipment or enter into a new Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the Contractor. If the expense exceeds the sum payable under the Contract, the Contractor and Surety shall be liable to pay the Owner the difference.

45.2 TERMINATION FOR CONVENIENCE

Owner may, at any time, terminate this Contract or any portion thereof, for Owner's convenience, upon providing written notice to the Contractor. In such case, Contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the Contractor be entitled to payment of overhead and profit on work not performed. In the event it is determined that the Contractor was wrongfully terminated for cause, pursuant to Section GP 45.1 above, such termination shall be automatically converted to a termination for convenience under and payment made as provided under this Section.

GP-46 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to temporarily suspend the Work in whole or in part. A Field Order shall be issued to the Contractor for any of the Work that is suspended for periods exceeding one (1) calendar day. The Field Order shall include the specific reasons and details for the suspension. The Contract Time shall not be extended if the Work is suspended due to failure by the Contractor to comply with a Field Order or with the Plans and Specifications. If

the Work is suspended in the interest of the Owner, the Contractor shall make due allowances for the lost time.

GP-47 NON-CONFORMING AND UNAUTHORIZED WORK

Work not conforming to the Plans, Specifications, Field Orders, or Change Orders shall not be accepted for payment. Unacceptable or unauthorized work shall be removed and replaced in an acceptable manner at the expense of the Contractor in order to obtain final acceptance of the Work.

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner after seven (7) calendar days written notice to the Contractor, may correct such deficiencies itself or by use of other contractors without prejudice to any other remedy it may have, and may deduct the cost thereof from the payment then or thereafter due to the Contractor.

GP-48 CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

The Contractor may terminate the Contract or Work and recover payment from the Owner for labor and materials if the Work is stopped through no act or fault of the Contractor for more than three (3) months. For example, such an occurrence could be caused by a court order or other public authority. In any case, the Contractor shall submit a written notice to the Engineer at the beginning of the occurrence, and a written Claim to the Owner at the end of the occurrence.

GP-49 BREACH OF CONTRACT

The Owner shall submit a written Claim to the Contractor regarding any breach of the Contract. The Contractor must provide a written response to the Owner regarding the breach of Contract within ten (10) days after the Claim. This response must provide either an admission to the Claim or a detailed denial based on relevant data and calculations. The failure of the Contractor to provide a proper response within ten (10) days shall result in justification of the Claim by default.

GP-50 NO WAIVER OF LEGAL RIGHTS

The Owner shall not be prevented from recovering costs from the Contractor, Surety, or both due to failure of the Contractor to fulfill all of the obligations under the Contract. If a waiver is provided to the Contractor for a breach of Contract by the Owner, it shall not apply to any other breach of Contract. Final acceptance of the Work shall not prevent the Owner from correcting any measurement, estimate, or certificate. The Contractor shall be liable to the Owner without prejudice to the terms of the Contract or any warranty for latent defects, fraud, or gross negligence.

GP-51 LIABILITY FOR DAMAGES AND INJURIES

To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner, Engineer, and their officers, employees, representatives, and/or agents from all suits, actions, claims, costs, losses, demands, and judgments (including but not

limited to fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) brought because of injuries or damage sustained by a person or property due to the operations of Contractor; due to negligence in safeguarding the Work, or use of unacceptable materials in constructing the Work,; or any negligent act, omission, or misconduct of the Contractor; or claims or amounts recovered under the Workmen's Compensation Act or other law, ordinance, order, or decree; any money due the Contractor as considered necessary by the Owner for such purpose may be retained for use of the State or in case no money is due, the performance and payment bond may be held until such suits, actions, claims for injuries or damages have been settled and suitable evidence to that effect furnished to the Owner; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that adequate Workman's Compensation, Public Liability, and Property Damage Insurance are in effect.

The indemnification obligations of the Contractor shall not extend to the liability of the Owner, Engineer, and their affiliates arising out of the preparation or approval of the Plans, Specifications, maps, opinions, reports, surveys, or Change Orders, or for providing directions or instructions which are the primary cause of the injury or damage.

Should the Owner or Contractor suffer from any injury or damage due to an error, omission, or act of the other party or their legally liable affiliates, a written Claim shall be submitted to the other party within ten (10) days. The Claim shall provide all details regarding the injury or damage, the results of any investigations, and the action to be taken to prevent any reoccurrence.

GP-52 LIABILITY FOR LOSSES BY ACTS OF THE GOVERNMENT

The Owner shall not be liable for any loss or damage suffered by the Contractor arising out of a cessation of Work under this Contract due to any act or order of any local, state, or federal government agency. If this cessation occurs, the Contractor may request an extension of the Contract Time according to the provisions in GP-44.

GP-53 SUBSTANTIAL COMPLETION

Upon notice from the Contractor that it believes the project has reached substantial completion, and before final acceptance, the Engineer will make an inspection of the Work. "Substantial Completion" is defined as the date on which the Work is complete in accordance with the Contract Documents in order that the Owner can occupy and use the project for its intended use. The date of Substantial Completion shall be specified in the Notice of Acceptance.

If the Owner or its representative determines the Project is substantially complete, the Owner will issue a Notice of Acceptance identifying the date the Project reached Substantial Completion and attach a punch list, if applicable, identifying the remaining items that must be completed before final payment. The Contractor shall then file the executed Notice of Acceptance with the Clerk of Court in the Parish(s) where the work is performed and shall forward one complete copy of the recorded acceptance to the Owner and Engineer.

If the inspection discloses any work as being unsatisfactory or incomplete and such work generates a formal punch list, the Engineer will give the Contractor instructions for correction of same, and the Contractor shall immediately comply with such instructions. Upon satisfactory completion of the corrections, when a "Punch List" is generated, the Engineer shall

prepare a "Recommendation of Acceptance" incorporating the punch list and submit to the Owner. Upon approval of the Recommendation of Acceptance, the Owner may issue a Notice of Acceptance of the Contract which shall establish the date of Substantial Completion.

Any punch list generated by the Engineer shall be accompanied by a cost estimate to correct the particular items of work the Engineer has developed. The cost estimate shall be developed based on mobilization, labor, material, and equipment costs of correcting each punch list item and shall be retained from monies owed to the Contractor, above and beyond the standard retainage. The Engineer shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The Owner shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five (45) day lien period. After that payment, none of the remaining funds shall be due the Contractor until all punch list items are completed and are accepted by the Engineer.

If the dollar value of the punch list exceeds the amount of funds, less retainage amount, in the remaining balance of the Contract, the Project shall not be accepted as Substantially Complete. If the funds remaining are less than required to complete the punch list work, the Contractor shall pay the difference. The provisions listed above shall not be subject to waiver.

Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work/project as provided in the Notice of Acceptance, unless otherwise agreed to in writing by the Owner and Contractor. In the instance where the Owner has accepted the Work/project as substantially complete and issued a Notice of Acceptance, and the Contractor must remain on the premises to complete the "Punch List" or for whatever reason, the Contractor shall maintain Commercial General Liability insurance, Auto Liability insurance and Worker's Compensation insurance as set forth herein until the expiration of the forty-five (45) day lien period or upon the completion of the work/project, whichever is later. Builder's Risk insurance, if applicable, may be cancelled only with the written permission of the Owner or the Owner's representative at Substantial Completion.

If the punch list is not completed within forty-five (45) days, through no fault of Owner or Engineer, the Owner may, but is not required, to place the Contractor in default. Thereafter, the Owner shall notify the Surety. If the Surety has not completed the punch list within forty-five days of receipt of notification, the Owner may, but is not required to, complete the remaining punch list items. Any costs incurred shall be paid for first out of any remaining Contract funds. If the costs incurred exceed the remaining Contract funds, the Contractor and its Surety shall be liable for such costs.

Upon completion of the punch list, Contractor shall request Final Inspection.

GP-54 FINAL INSPECTION AND ACCEPTANCE

Whenever the work provided for, or contemplated by the contract, have been satisfactorily completed, all punch list items completed and the final cleaning up is performed, the Engineer shall be notified in writing that said work is completed and ready for final inspection. The Engineer shall, unless otherwise provided, make the final inspection within a reasonable length of time after the receipt of such notification.

If all construction provided for in the contract is found completed to the Engineer's satisfaction, that inspection shall constitute the final inspection and the Engineer will make recommendation to the Owner for final acceptance and notify the Contractor in writing of this recommendation of acceptance.

GP-55 AS-BUILT DRAWINGS

The Contractor shall submit all originals and copies of the As-Built Drawings to the Engineer for review and acceptance in accordance with the Special Provisions. The As-Built Drawings shall provide complete data for quantities, dimensions, specified performance and design criteria, and similar items which clearly represent the services, materials, and equipment the Contractor has provided. All revision sheets shall be clearly stamped with the words "As-Built".

GP-56 COMPLETION OF CONTRACT

Notwithstanding any other provision of this Contract and all applicable and necessary time delays under Louisiana law, completion of the Contract requires all of the Work to be complete, inspected by the Engineer, accepted by the Owner as recommended by the Engineer, and after final payment is made. After the Contract is complete, the Contractor will then be released from further obligation except as set forth in the Contract Bond and Contractor's Guarantee.

GP-57 CONTRACTOR'S GUARANTEE

The Contractor is obligated to provide a written guarantee to the Owner that all of the Work conforms to the Contract Documents. The Work shall be guaranteed to survive for a minimum period of 1 year after final acceptance, unless otherwise specified in the Technical Specifications.

- a. The guarantee shall include:
 1. A written warranty by the manufacturer for each piece of installed project equipment or apparatus furnished under the Contract.
 2. Any necessary repair or replacement of the warranted equipment during the guarantee period at no cost to the Owner.
 3. Satisfactory operation of installed equipment including, but not limited to, any mechanical and electrical systems furnished and constructed under the Contract during the guarantee period. The Contractor shall repair all equipment which fails due to defective materials or faulty workmanship during the guarantee period. The Contractor shall also be liable for all other ancillary expenses incurred by the Owner due to the failure.
- b. The guarantee shall exclude defects or damage caused by:
 1. Abuse or improper modification, maintenance, or operation by anyone other than the Contractor; or
 2. Wear and tear under normal usage.

- c. This obligation by the Contractor shall be absolute. The following actions will not constitute acceptance of non-conformance Work or release the Contractor from obligation to furnish the Work in accordance with the Contract Documents:
1. Observations by the Owner or Engineer; or
 2. Recommendations by the Engineer or payment by the Owner; or
 3. Use of the Work by the Owner; or
 4. Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-53, or failure to do so; or
 5. Any inspection, test, or approval by others; or
 6. Any correction to non-conforming work by the Owner.

GP-58 DISPUTE RESOLUTION

The parties shall use their best efforts to resolve all disputes in an amicable fashion. Prior to filing suit by either party with respect to any claims, or disputes arising between the parties, the disputes shall be submitted first to non-binding mediation. The mediation shall be conducted in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. If the parties cannot agree to a private mediator, then the mediator shall be selected by the American Arbitration Association, upon the filing of a demand for mediation.

If the dispute is not resolved by mediation within 60 days from the request for mediation, then either party may institute legal proceedings. Any litigation involving the Owner and arising under or related to the Contract or the bidding or award thereof shall be instituted exclusively in the 19th Judicial District Court in and for the Parish of East Baton Rouge, State of Louisiana.

GP-59 PAYMENT

The Owner hereby agrees to pay to the Contractor as full compensation for all work performed under the contract, and/or supplemental agreements thereto, the monetary value of the actual quantities in the completed work according to the schedule of unit prices and/or lump sum prices set forth in attached bid proposal and/or duly authorized supplements thereto, and made a part of the Contract.

Partial payments under the Contract shall be made at the request of the Contractor not more than once each month, based upon partial estimates agreed to by the Contractor and Engineer and shall be furnished to the Engineer and approved by the Engineer prior to transmittal to the Owner for approval and payment.

The partial estimates will be approximately stated, and all partial estimates and payments shall be subject to corrections in the estimate rendered following the discovery of any error in any previous estimates.

The payment of the partial estimate shall be taken as verification that the work has been performed and that its quality is satisfactory, however it will in no way serve as a release to the Contractor for the responsibility of any portions thereof. The work and any particulars relating thereto shall be subject to revision and adjustment by the Engineer and/or the Owner at any time prior to final payment, regardless of any previous action taken.

There shall be reserved from the payments provided for the Contract ten percent (10%) for contracts less than \$500,000 or five percent (5%) for contracts of \$500,000 or more, of the estimates submitted, said sum to constitute a trust fund for the protection of and payment to any person or persons, mechanic, subcontractor or materialmen who shall perform any labor upon such contract, or the doing of said work, and all persons who shall supply such person or persons or subcontractors with provisions and supplies for the carrying on of such work, and shall be withheld for a minimum of forty-five (45) calendar days after final acceptance of the completed contract.

After the expiration of the forty-five (45) calendar day period, the reserve in excess of a sum sufficient to discharge the claims of materialmen and laborers who have filed their claims, together with a sum sufficient to defray the cost of such action and to pay attorneys' fees, shall be paid to the Contractor.

The Contractor shall be responsible for obtaining and furnishing a clear lien and privilege certificate to the Owner at the expiration of the retainage period, and prior to payment of any reserve withheld.

GP-60 PAYMENTS WITHHELD

In addition to the percentage provided for in Section GP-58 of these General Provisions and in accordance with any other provision of this Contract, the Owner may withhold such amounts from any payment as may be necessary to protect himself from loss on account of:

- a) Defective work not remedied;
- b) Claims filed or reasonable evidence indicating probable filing of claims;
- c) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- d) Reasonable evidence that the Work will not be completed within the Contract time and that the unpaid balance would not be adequate to cover damages for the anticipated delay;
- e) A reasonable doubt that the contract can be completed within the time period remaining under the contract;
- f) Damage to another contractor;
- g) Failure to submit required reports; or
- h) Modifications of the contract which necessitate the execution of change orders prior to payment of funds.

Furthermore, nothing contained in this Section shall be deemed to limit the right of the Owner to withhold liquidated damages, as stated in the Instructions to Bidders, from any amounts which may be due and owed the Contractor for work performed under the contract.

GP-61 LIENS

Neither the final payment nor any part of the retained percentage shall come due until the Contractor shall deliver to the Owner a complete release of all liens arising out of this contract, or receipts in full in lieu thereof, and, if required by the Owner, an affidavit that so far as he has knowledge or information, the releases and receipts include all labor and material for which a lien could be filed; but if any subcontractor refuses to furnish a release or receipt in full, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against any lien, construction cost, or attorney's fees.

GP-62 EQUAL EMPLOYMENT OPPORTUNITY

The State of Louisiana is an equal opportunity employer, and looks to its Contractor, subcontractors, vendors and suppliers to take affirmative action to effect this commitment in its operations.

By submitting the bid proposal and executing the Contract, the Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veterans Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, and the Age Act of 1975, and the Contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

The Contractor agrees not to discriminate in its employment practices, and will render services the Contract, without regard to their race, age, color, religion, sex, national origin, veteran status, political affiliation or disabilities. Any act of discrimination committed by the Contractor, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of the Contract.

GP-63 ANTI-KICKBACK CLAUSE

The Contractor agrees to adhere to the mandate dictated by the Copeland "Anti-Kickback" Act which provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the completion of the work, to give up any part of the compensation to which he is otherwise entitled.

GP-64 SUSPENSION/DEBARMENT

Contractor certifies, by signing and submitting any bid, that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133. A list of parties who have been suspended or debarred can be viewed via the internet at www.epls.gov.

Contractor agrees to secure from any contractor(s) and subcontractor(s) for the captioned project, certification that such contractor(s) and subcontractor(s) are not suspended, debarred or

declared ineligible from entering into contracts with any department or agency of the Federal Government or of the State of Louisiana, or in receipt of a notice of proposed debarment or suspension.

Contractor shall provide immediate notice to Owner in the event of it or its contractor(s) or any subcontractor(s) being suspended, debarred or declared ineligible by any department or agency of the Federal Government or of the State of Louisiana, or upon receipt of a notice of a proposed debarment or suspension, either prior to or after execution of this Contract.

Upon receipt of notice of suspension, debarment, or declaration that Contractor or its contractor(s) or any subcontractor(s) is/are ineligible to enter into contracts with any department or agency of the Federal Government or of the State of Louisiana, either prior to or after execution of this Contract, Owner reserves the right to review cause for said debarment, suspension, or declaration of ineligibility, and to terminate this Contract pursuant to the terms of GP-45 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE, or take such other action it deems appropriate under this Contract.

GP-65 LOUISIANA FIRST HIRING ACT

Contractor shall comply with the Louisiana First Hiring Act (La. R.S. 39:2201-2204), which requires that within ten (10) days of executing the Contract, Contractor shall submit the following information to the Louisiana Workforce Commission:

1. The number and types of jobs anticipated for the Work.
2. The skill level of the jobs anticipated for the Work.
3. The wage or salary range for each job anticipated for the Work.
4. Methods, if any, that the Contractor will use to recruit unemployed persons or person employed in low wage jobs to fill job openings for the Work.

END OF PART I - GENERAL PROVISIONS

PART II SPECIAL PROVISIONS

SP-1 PRECEDENCE OF CONTRACT DOCUMENTS

These Contract Provisions, Specifications, Plans, Bid Forms, Appendices, and supplementary documents are essential parts of the Contract. A requirement occurring in one is as binding as though occurring in all. These documents are intended to be complementary and to describe and provide for a complete work. In the case where a conflict occurs, the order of precedence of the Contract Documents is as follows:

- Permits from other agencies as may be required by law
- Change Orders
- Contract Agreement
- Addenda
- Bid Forms
- Notice to Bidders
- Instructions to Bidders, Policies, and Procedures
- Special Provisions
- Technical Specifications
- General Provisions
- Plans
- Appendices

Calculated dimensions will govern over scaled dimensions. Follow GP-2 if any conflicts, errors, ambiguities, or discrepancies are discovered within the listed documents.

SP-2 LOCATION OF WORK

The Oyster Bayou Marsh Restoration Project is located in Cameron Parish, Louisiana between Mud Lake and the Calcasieu River, north of Louisiana Highway 27/82 (LA 27/82). The project area is located approximately 3 miles east of the community of Holly Beach. The marsh creation fill area is located in the southern portion of the project area with the terrace field in the northern portion. The borrow area is located in the Gulf of Mexico, approximately 3.5 miles south-southeast of the project area.

SP-3 WORK TO BE DONE

The Work to be performed under these Plans and Specifications shall include, but not be limited to, furnishing all labor and materials including mobilization and demobilization at or to the Project Site, to dredge fill material to create the design fill template, to construct containment dikes, earthen terraces, ponds, and trunnasses, and to install settlement plates, a permanent highway crossing, and a waterline relocation.

The Work shall be performed in accordance with these Specifications and in conformity to lines, grades, and elevations shown on the Plans or as directed by Engineer. Quantity calculations, layouts, shop drawings, and construction sequencing of these items shall be provided in the Work Plan. The major tasks associated with the Work are described as follows:

- 3.1 Hydraulic Dredging: Approximately 3,481,700 cubic yards of marsh fill material shall be hydraulically dredged and placed in the locations and to the elevations depicted in the plans.
- 3.2 Sediment Pipeline Corridor and Highway Crossing: Dredge pipe used by the Contractor to facilitate the placement of the marsh fill material shall be placed in the proposed submerged pipeline corridor and within the construction limits shown on the plans. This corridor includes the installation of a

40 linear foot permanent casing pipe as well as a waterline relocation to facilitate the temporary sediment pipeline across LA 27/82.

- 3.3 Primary Containment Dikes: Containment dikes are mandatory and shall be constructed from in-situ soils in order to contain the marsh fill areas. The Contractor may construct internal training dikes as necessary to improve containment or dewatering of the fill containment areas, but at no cost to the Owner. The Contractor shall maintain the integrity of the containment dikes during construction. Approximately 45,041 linear feet of containment dikes shall be constructed and maintained in the fill area, as shown on the plans.
- 3.4 Secondary Pond Containment: Where indicated on the plans, pond containment is mandatory and shall be constructed from in-situ soils in order to retain the marsh fill and create ponds. Approximately 2,543 linear feet of secondary pond containment shall be constructed and maintained within the fill area, as shown on the plans.
- 3.5 Earthen Terraces: Approximately 17,550 linear feet of earthen terraces shall be constructed in an open water area north of the marsh fill areas. Terraces will be constructed in a similar manner as the containment dikes, using in-situ material.
- 3.6 Trenasses: Approximately 9,491 linear feet of trenasses shall be excavated prior to placement of marsh fill material as shown on the Plans. Trenasse excavation will be backfilled with hydraulic fill material. It is anticipated that differential settlement will create trenasses within the marsh creation areas over time.
- 3.7 Settlement Plates: Seven (7) settlement plates shall be installed as shown in the Plans. Settlement plates shall be surveyed during installation and throughout construction.
- 3.8 Pre-construction Survey: This item includes surveying the profiles shown on the plans and required in these specifications prior to construction. Prior to construction, the survey profiles established in the design survey shall be resurveyed for bathymetry and topography. Prior to construction, the Contractor shall perform a magnetometer survey in the borrow areas, fill sources for containment dikes, and any areas to be excavated along the pipeline corridor to verify pipeline or obstruction locations and ensure no unknown pipelines exist within the project area. The magnetometer survey shall be submitted to the Engineer prior to excavation of material. During construction, marsh fill area surveys for quality control shall be performed as deemed necessary by the Contractor and as requested by the Engineer.
- 3.9 As-built Survey: This item includes surveying the profiles and borrow areas shown on the plans and required in these specifications following construction.
- 3.10 Use of Equipment: The Equipment used for the Work shall be operated within the boundaries of the Project Construction Limits and away from existing vegetated wetlands or any other sensitive areas. The Contractor shall be responsible for returning all disturbed wetlands to pre-existing conditions at no expense to the Owner.

SP-4 GENERAL REQUIREMENTS

- 4.1 Scope: The Work covered under these Plans and Specifications consists of furnishing all plant, labor, materials, and equipment for performing all required Work for the mobilization, demobilization, hydraulic dredging, and placement of spoils in accordance with these Specifications and in conformity to the lines, grades, and elevations shown in the Plans or as directed by the Engineer. Major tasks associated with this Work include, but may not necessarily be limited to, the following:

- 4.1.1 Surveying: This item includes surveying the marsh profiles shown in the Plans. This item also includes performing a magnetometer survey of all access routes to the Project Site and temporary access channels, and surveying the access channels, fill sources, and the borrow areas. All quality control and acceptance surveys shall be performed by approved Contractor personnel at no direct pay.
 - 4.1.2 Containment Dikes: Construction and maintenance of containment dikes in water areas as shown in the Plans.
 - 4.1.3 Hydraulic Dredging: Hydraulically dredged fill material shall be placed in the location and to the slopes and elevations depicted in the Plans.
 - 4.1.4 Grading: All dredged material shall be graded to the tolerances stated in the Plans.
 - 4.1.5 Settlement Plates: Settlement plates shall be installed at locations shown in the Plans.
 - 4.1.6 Highway Crossing: A section of waterline shall be relocated, and a permanent casing pipe shall be installed across LA 27/82 to facilitate the placement of the sediment pipeline.
- 4.2 Site Examination: Bidders are required to examine the Project Site and determine the character of the material to be dredged from the borrow areas, access and dike excavation channels, existing infrastructure, and the nature of the terrain. Further investigation of the site may show that logs, stumps, snags, debris, and other obstructions may be encountered. No separate payment for removal and disposal of these obstructions shall be made.

Before submitting a Bid, each Bidder should: (a) examine the Bid Documents thoroughly; (b) visit the Project Site to familiarize himself with local conditions that may in any manner affect cost, progress, or performance of the Work; (c) familiarize himself with Federal, State, and Local laws, ordinances, rules, and regulations that may in any manner affect cost, progress, or performance of the Work; (d) review such geotechnical data that is on file in the Engineering Division of the Coastal Protection and Restoration Authority or available from other sources and which concerns the area from which materials are to be dredged; and (e) study and carefully correlate Bidder's observations with the Bid Documents.

A highly encouraged pre-bid site visit will be held. Bidders must inspect the Project Site prior to Bid Submittal. Bidders may access the Project Site to conduct such observations, investigations, and tests as the Bidder deems necessary for submission of his Bid. He shall, however, conform to such restrictions as may be imposed by agreements, permits, etc. See SP-7 Landowner and Leaseholder Requirements of the Special Provisions for details of other restrictions and requirements.

- 4.3 Permits: The Owner has obtained a Coastal Use Permit from the Louisiana Department of Natural Resources, Office of Coastal Management; Clean Water Certificate from Louisiana Department of Environmental Quality; 404 Corps of Engineers Permit; Louisiana Department of Transportation and Development Highway Crossing Permit; and a LDWF Fill Area permit. The Contractor will be furnished with a copy of these permits and shall be responsible for compliance with all provisions and conditions. These permits do not relieve the responsibility of the Contractor from obtaining additional permits that may be needed to complete the Work. Copies of any special permits obtained by the Contractor to complete the Work must be submitted to the Owner.
- 4.4 Removal of Trash: The Contractor shall remove all debris, trash, and garbage resulting from construction activities at the site within three (3) Days after completion of the construction activities. The Contractor must keep project area clean at all times.
- 4.5 Placement of Dredged Material: The Contractor shall not deposit dredged material into areas other than those shown in the Plans or stated in the permits without approval of the Engineer.

- 4.6 Navigation: All operations in connection with the Work shall be in accordance with Subsection 107.09, Navigable Waters and Wetlands, of the Louisiana Standard Specification for Roads and Bridges, 2006. Failure of the Contractor to familiarize himself with all terms, conditions, and provisions of the rules and regulations applicable to the Work shall not relieve him of his responsibility under the Contract. Navigable depths shall not be impaired except as allowed by laws regulating navigation in the area.
- 4.7 Existing Features: The Contractor shall be responsible for investigating, locating, and protecting all existing facilities, structures, services, and pipelines on, above, or under the surface of the area where dredging operations are to be performed. The Owner will not be held responsible for damage to the Contractor's Equipment, employees, Subcontractors, adjacent property owners, or anyone else connected with the project due to encountering objects above and/or below the water line.

An existing bridge structure is located between Marsh Creation Areas 2 and 3 as well as a section of Amoco pipeline that is elevated. The Contractor shall provide methodology for working around these features in the Work Plan for approval by the Engineer. Containment shall be constructed adjacent and parallel to the bridge structure.

Existing features indicated in the Plans are shown only to the extent that such information was made available to or discovered by the Engineer during preparation of the Plans. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for the accuracy and completeness is expressly disclaimed. If the Contractor fails to discover an underground installation and damages the same, he shall be responsible for the cost of the repair.

SP-5 CONTRACT DATES AND MILESTONES

Milestone	Location or Recipient	Date Due
Bid Advertisement	Publication	As Advertised
Pre-Bid Conference and Site Visit	Advertisement for bids	As Advertised
Questions on Bid Documents	cpa.bidding@la.gov	Provided in Instruction to Bidders (or as announced at the Pre-Bid Conference)
Effective Date of Contract	Contractor and Owner	Stated in Contract
Start of Contract Time	Contractor and Owner	As stated in Notice to Proceed
Work Plan	Submit to Engineer	At least 14 days prior to the pre-construction conference
Progress Schedule	Contractor and Engineer	At least 14 days prior to the pre-construction conference, bi-weekly thereafter
Superintendent Qualifications	Engineer	Prior to pre-construction conference
List of Subcontractors	Engineer	Prior to awarding subcontracts
Pre-Construction Conference	Contractor and Engineer	As determined by the Engineer after the Notice to Proceed is issued
Progress Meetings and Reports	At Project Site	Bi-weekly or as determined at the Pre-Construction Conference (See GP-13, GP-39)
Written Notice of Completion of Work	Engineer	Upon substantial completion of Work
Pre-construction Survey	Engineer	After pre-construction meeting and 21 days prior to the start of construction
As-Built Survey and Drawings	Deliver to Engineer	Prior to Final Inspection as scheduled by the Engineer
End of Contract Time	Project Site	345 calendar Days after Notice to Proceed

SP-6 DELIVERABLES

6.1 Prior to Construction

6.1.1 The Contractor shall submit all documents to the Engineer prior to the Pre-Construction Conference required by GP-8, GP-9, GP-10, GP-11, and GP-12:

6.1.1.1 Turbidity Control Plan as specified in Section TS-16.

6.1.1.2 Environmental Protection Plan as specified in Section EP-11.

6.1.2 The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference specified in GP-14:

6.1.2.1 Updates to all plans and schedules based on comments from the Engineer;

6.1.2.2 Potential construction corridors (other than from what is provided, if needed) which may be approved on an as needed basis.

6.1.3 The Contractor shall submit a pre-construction survey a minimum of twenty-one (21) calendar days prior to the start of excavation or dredging as specified in Section TS-2 of the Technical Specifications.

6.2 During Construction

The Contractor shall deliver copies of the following documents upon request by the Engineer, or as specified in these provisions:

6.2.1 The results of all surveys and calculations as specified in TS-3;

6.2.2 Progress Schedule as specified in GP-9;

6.2.3 Daily Progress Reports as specified in GP-10;

Daily Progress Reports shall be submitted daily following issuance of the Notice to Proceed until project completion. A copy of the typical Daily Progress Report shall be submitted to the Engineer with the Work Plan.

6.2.4 Progress Meeting Reports as specified in Section GP-13 of the General Provisions;

6.2.5 Copies of all inspection reports;

6.2.6 All Change Orders, Field Orders, Claims, clarifications, and amendments;

6.2.7 Results of any Materials testing.

6.3 Administrative Records

6.3.1 Notice of Intent to Dredge: At least thirty (30) Days prior to commencement of Work on this Contract, the Contractor shall notify the U.S. Coast Guard, Sector New Orleans Command Center, at the address below, of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least seven (7) Days prior to the commencement of this dredging operation. A copy of the Department of the Army Permit and drawings shall be provided to the U.S. Coast Guard. A copy of the notification shall be provided to the Owner and Engineer prior to the commencement of dredging.

U.S. Coast Guard
Commander, Eighth Coast Guard District
Hale Boggs Federal Building
500 Poydras Street
New Orleans, LA 70130
504-671-2107

6.3.2 National Ocean Service Notification: At least thirty (30) Days prior to commencement of Work on this Contract, the Contractor shall notify the National Ocean Service (NOS) in writing of activity in navigable waters. Upon completion of the work, the NOS shall be notified and a drawing certifying the location and configuration of the completed activity shall be included (a certified permit drawing may be used). A copy of the notification shall

be provided to the Owner and Engineer prior to the commencement of dredging.

Director National Ocean Service
Office of Coast Survey, N/CS261
1315 East West Highway
Silver Springs, Maryland 20910-3282

- 6.3.3 Relocation of Navigational Aids: Temporary removal of any navigation aids located within or near the areas required to be dredged or filled and material stockpile areas shall be coordinated by the Contractor with the U.S. Coast Guard prior to removal. The Contractor shall not otherwise remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Eighth U.S. Coast Guard District, New Orleans, Louisiana, in writing, with a copy to the Owner and Engineer, seven (7) Days in advance of the time he plans to dredge or Work adjacent to any aids which require relocation to facilitate the Work. The Contractor shall contact the U.S. Coast Guard for information concerning the position to which the aids will be relocated.
- 6.3.4 Private Aids to Navigation: The Contractor shall obtain approval for all dredging aids, including, but not limited to, temporary navigation aids, warning signs, buoys, and lights, required to conduct the Work specified in this Contract. The Contractor shall obtain a temporary permit from the U.S. Coast Guard for all buoys or dredging aid markers to be placed in the water prior to installation. The permit application shall state the position, color, and dates to be installed and removed for all dredging aid markers and be submitted to the U.S. Coast Guard. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids. Copies of the application and permit shall be submitted to the Owner and Engineer seven (7) Days prior to commencement of dredging operations.
- 6.3.5 Notification of Discovery of Historical or Cultural Sites: If during construction activities the Contractor observes items that may have prehistoric, historical, archeological, or cultural value, the Contractor shall immediately cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources. Such observations shall be reported immediately to the Owner, Engineer, and Resident Project Representative so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special dispositions of the finds should be made. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Owner and Engineer so the appropriate State of Louisiana authorities can be notified. The Contractor shall not resume Work at the site in question until State authorities have rendered judgment concerning the artifacts of interest.
- 6.4 Post Construction: The Contractor shall contact the Engineer by phone a minimum of five (5) working Days prior to the anticipated completion of the Work in order to schedule the Final Inspection and gain Acceptance by the Engineer. As-Built Drawings as specified in Section GP-55 of the General Provisions shall also be submitted to the Engineer.
- 6.5 Summary of Project Submittals: The following table is a summary of Submittals required of the Contractor as part of this section and other sections of these Specifications:

Specification	Deliverable	Submittal
GP-8	Work Plan	At least 14 Days prior to the pre-construction conference
GP-8	Work Plan Updates	Pre-Construction Conference
GP-9	Progress Schedule	Within 15 days of Notice to Proceed
GP-9	Progress/Work Schedule	Prior to Pre-construction conference
GP-9	Progress Schedule	Bi-weekly as determined at the Pre-Construction Conference
GP-10	Typical Daily Progress Report	At least 14 Days prior to the pre-construction conference
GP-10	Daily Progress Reports	Daily by 12:00 PM (noon) to the Resident Project Representative and Engineer
GP-11	Hurricane and Severe Storm Plan	At least 14 Days prior to the pre-construction conference
GP-12	Health and Safety Plan	At least 14 Days prior to the pre-construction conference
GP-13	Typical Progress Meeting Report	At least 14 Days prior to the pre-construction conference
GP-19	Names of all Subcontractors	Prior to awarding subcontracts
GP-53	Written Notice of Completion of Work	Upon substantial completion of work
GP-55	As-Built Drawings	Prior to Final Acceptance
SP-6	Copies of Inspection Reports	During Construction
SP-6	Potential Construction Corridors	Pre-Construction Conference
SP-6	Results of Materials Testing	During Construction
SP-6	Notice of Intent to Dredge	30 Days Prior to Commencement of Work with a request to publish the Notice to Mariners 7 days prior to commencement of work. Submit to Coast Guard with copy to Owner and Engineer
SP-6	National Ocean Service Notification	30 Days Prior to Commencement of Work
SP-6	Relocation of Navigation Aids	At least 7 Days prior to relocating navigation aids
SP-6	Dredging Aids Permit	At least 7 Days prior to the commencement of offshore dredging
SP-6	Historic Cultural Sites	Immediately upon discovery. Submit to Engineer, Owner, and Resident Project Representative
SP-6	Notice to Mariners	7 Days Prior to Start of Dredging

SP-13	Accident Prevention Plan	At least 14 Days prior to the pre-construction conference
TS-4	Results of Surveys and Calculations	At least 4 Days prior to Acceptance notification
TS-14.10	Dredge Mobilization Notification	At least 3 days prior to mobilization of the Dredge and other Equipment
TS-16	Turbidity Control Plan	At least 14 Days prior to the pre-construction conference
TS-5	Dike Construction Plan	At least 14 Days prior to the pre-construction conference
TS-12.4	Pavement Patch Shop Drawing	At least 14 Days prior to the pre-construction conference
TS-12.8	LA 27/82 Crossing Lighting Plan	At least 30 Days prior to night operations
TS-12.10	Truck Advisory	At least 14 Days prior to the pre-construction conference
TS-12.11	Waterline Relocation and Temporary Bypass Plan	At least 14 Days prior to the pre-construction conference
TS-3.1.1	Marsh As-Built Survey Methodology	At least 14 Days prior to the pre-construction conference
TS-2	Pre-Construction Survey	21 Days Prior to the Start of Construction
TS-2.2	Magnetometer Survey	3 Days Prior to the Start of Excavation or Dredging
EP-11	Environmental Protection Plan	At least 14 Days prior to the pre-construction conference

SP-7 LANDOWNER AND LEASEHOLDER REQUIREMENTS

The Owner has obtained temporary easement, servitude, and right-of-way agreements required for construction of the project. The agreements executed with landowners and leaseholders for the Work at the site contain special requirements pertaining to access routes and insurance. Additional land rights information and maps are included in Appendix XII. The Contractor shall abide by the following stipulations as set forth by the Owner and respective landowners (Grantors):

Louisiana Department Wildlife and Fisheries: No activities will be allowed within 100 feet of nesting bird colonies unless approved by Program Manager.

Landowners: The Contractor shall give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring, and maintaining the Project. See Appendix XII for list of land owners.

Landowner notification requirements:

- A. The following notice language is in Paragraph 6 of the State Land Office, Division of Administration's Grant of Particular Use and Right of Entry for Construction: "Pursuant to the Permits and Responsibilities clause, you are required to contact the Administrator of the State Land Office or his representative at (225) 342-4575, to notify the Office when construction will commence on the State-owned seashore, State lands and/or State water bottoms."
- B. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

Landowner General Provisions:

- A. Article III: in the agreements includes that should work on (landowner's) Lands be performed via contract, STATE shall ensure that the contractor lists GRANTORS as an additional insured on any policies carried by the contractor, including completed operations coverage.
- B. Article IV: includes that **STATE through its Contractor shall be responsible for repair...such repair shall be to that condition and value which existed immediately prior to Contractor's activities.** STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.
- C. Article X: includes that the **Agreement shall become effective upon the date of the signature of State, and shall remain in effect for a term of twenty-five (25) years** unless sooner released by STATE.
- D. The Contractor shall add the landowners listed above as additional insured to their certificate of insurance. It is also agreed and understood that the Contractor will at all times indemnify and hold harmless all landowners from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal injury, death (including but not limited to injuries to and death of employees of the landowners and the Contractor's employees), or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of your rights hereunder, or to your presence upon or use of the landowners' premises above referred to, or to the use or existence of your facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim, or cause of action is caused by the negligence of the landowners, their employees, agents, or representatives.

Special Conditions in Servitude Agreements:

None

Additional Provisions:

In addition to obligations of Contractor set forth in GP-24: Contractor shall provide to the CPRA Landrights Project Land Manager listed below within thirty (30) calendar days after the bid contract's notice to proceed is issued: certificate of insurance that lists all landowners provided above as additional insured; and certified mail receipts of project construction notification letters sent to all landowner(s) and pipeline owner(s)/operator(s).

Angela Thomas
450 Laurel Street
Suite 1200
Baton Rouge, LA 70801

Pipeline Operators:

Amoco Production Company/Oleum Operating Company:
Contact: Andrew Snell
Phone: 903-758-9896

Cameron Parish Waterworks:

Contact: Mark Young
Phone: 337-569-2110

Cameron Telephone Company:

Contact: Bobby Bult
Phone: 337-496-6530

Cheniere Creole Trail Pipeline, LP:

Contact: Joey Mahmoud
Phone: 713-375-5000

Department of Energy Pipeline:

Contact: Dale Marcantel
Phone: 337-558-3362

Kinetica Pipeline:

Contact: Shane Lopez
Phone: 337-485-1825

Targa Pipeline Company:

Contact: Todd Morrison
Phone: 337-569-2307

Infrastructure Provisions

- A. The Contractor shall notify all pipeline companies at least ten (10) working days prior to mobilization. All pipelines located within 150 feet of the dike alignments, marsh fill areas, borrow area, excavation area, and sediment pipeline corridor shall be probed and their locations marked, prior to excavation and/or installation of the sediment pipeline, for the duration of construction activities. No excavation shall be permitted within 50 feet of any oil and gas pipeline. No excavation shall be permitted within 50 feet of any exposed pipeline unless the Contractor acquires an agreement to the contrary with the pipeline owner. Tracked equipment may only traverse the Kinetica pipeline shown on the Plans at the oil field road crossing. Construction of a temporary gravel crossing or use of timber matting may be required by the pipeline owner. The Contractor shall coordinate with the pipeline owner regarding crossing requirements and secure an agreement from the pipeline owner to cross the Kinetica pipeline. The Plans indicate pipelines that were obtained from databases and those that were field verified. It is the Contractor's responsibility to locate all pipelines for purposes of determining areas where excavation is not permitted.
- B. NOTE: Special care and extremely close coordination by the construction contractor with the pipeline companies will be crucial in order to avoid impacting the pipelines within or near the project area. Due to the extensive numbers of oil and gas lines in the area, and the limited time available to obtain landrights coverage for same, the contractor(s) will need to acquire any permission for crossings of lines outside of those that may not have been previously found/covered. It is recommended that confirmation in the field, including, but not limited to, use of a magnetometer survey/s be a requirement of the contractor/s to ensure that any lines in the area are identified and will not be impacted. No dredging over any pipeline rights-of-ways can be permitted. The conveyance pipeline will need to be floated over pipelines that may potentially be impacted by same. Verification of pipelines, their depths and draft of the equipment to be used will be essential. The assumption resulting from current investigations does not include oil and gas operations that might commence in the future.
- C. The construction contractor will also need to contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.

- D. Any damage to utilities that is caused by the Contractor within the Project Site shall be repaired at the expense of the Contractor. This includes but is not limited to telephone lines, power lines, fiber optic lines, waterlines, etc.

SP-8 THREATENED AND ENDANGERED SPECIES

The Environmental Assessment for this project identifies Pallid Sturgeon, Brown Pelicans, Bald Eagles, and West Indian Manatees as threatened and endangered species which have the potential to exist within the boundaries of the Project Site. The Contractor shall review and comply with the restrictions listed below regarding construction activities.

- 8.1 West Indian Manatee – The following precautions will be implemented from May to October, when manatees have the greatest potential for entering the project area:
 - 8.1.1 All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s).
 - 8.1.2 All personnel associated with the project shall be instructed about the possible presence of manatees and the need to avoid collisions with and injury to manatees. Any sighting of, collision with, or injury to a manatee shall be immediately reported to the Engineer.

The following special operating conditions shall be implemented upon the sighting of a manatee within 100 yards of the active work zone:

- 9.1.2.1 No operation of moving equipment within 50 feet of a manatee;
- 9.1.2.2 All vessels shall operate at no wake/idle speeds within 100 yards of the work area; and
- 9.1.2.3 Siltation barriers, if used, shall be re-secured and monitored.

SP-9 WORK PLAN SUPPLEMENTAL

The following items shall be included in the Work Plan in addition to those requirements outlined in GP-8:

- 9.1 Dredge Data Sheet as specified in SP-17;
- 9.2 Layout and construction schedule for internal training dikes and/or containment dikes, earthen terraces, and trenasses;
- 9.3 Layout and construction schedule for sediment pipeline; and
- 9.4 Layout and construction schedule for discharge and dewatering of marsh creation areas.
- 9.5 Borrow area cuts sequence as specified in TS-14.4.

SP-10 FAILURE TO COMPLETE ON TIME

For each Day the Work remains incomplete beyond the Contract Time, as specified in SP-5, or Extension of Contract Time, as specified in GP-44, the sum of five thousand dollars (\$5,000) per calendar Day will be

deducted from any money due to the Contractor as liquidated damages. The Contractor and Surety shall be liable for any liquidated damages that are in excess of the amount due the Contractor.

SP-11 PROTECTION OF WORK

The construction area may be subject to flows of water during construction. It will be the responsibility of the Contractor to protect his Work and Equipment from damages due to waves, increases in Gulf of Mexico and/or project area water levels, ground water, and local rain water. The Owner shall not be held liable or responsible for delays or damages to the Contractor's Work or Equipment resulting from inflows of tidal, surface, or ground water or other conditions.

SP-12 PROJECT SCHEDULING

Within fourteen (14) calendar Days after the Notice to Proceed, the Contractor shall submit to the Engineer for review and Acceptance an updated Progress Schedule indicating the starting and completion dates of the various stages of the Work and a preliminary schedule of values of the Work.

Bi-weekly Progress Meetings will be held at which time changes in the schedule will be discussed, as specified in Sections GP-9 and GP-13 of the General Provisions.

SP-13 SAFETY REQUIREMENTS

- 13.1 Contractor Responsibility for Safety: The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
- 13.1.1 State and Federal personnel, Resident Project Representative, the public, all employees and Subcontractors involved in the Work, and all other persons who may be affected thereby;
 - 13.1.2 All Work and all Materials or Equipment to be incorporated therein, whether in storage on or off the project site; and,
 - 13.1.3 Other property at the site or adjacent thereto, including trees, shrubs, natural vegetation, walks, Structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- 13.2 Compliance with Safety Laws: The Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction over the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection; and shall have at the work site at all times a dedicated safety and flag person. The Contractor shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all Work is completed and the Owner has notified the Contractor that the Work is complete.
- 13.3 Familiarity with Safety Standards: The Contractor shall review the accident prevention clause of the Contract, the Corps of Engineers Manual, General Safety Requirements, EM 385-1-1, dated November 2003 (or most recent version), and all changes and amendments thereto, and the latest Occupational Safety and Health Agency (OSHA) standards, to assure himself that he has full knowledge of the personal protective equipment that must be provided workmen and that he is

familiar with the safety standards applicable to the prevention of accidents during the construction of this project and shall comply with all applicable provisions.

- 13.4 Submittals: When requested, submit to the Owner in accordance with the General Provisions Submittals section. Submittals are for the record or approval, as indicated.
- 13.5 Diving Plan: The Contractor shall submit to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference, as part of their health and safety plan (GP-12), a diving plan if diving is included as a part of the planned operations. The intent of this requirement is to assure safe diving, particularly when emergencies, marine maintenance, or underwater problems occur which require diving. Additionally, the Contractor is to determine that placement of spuds, anchors, pipes, etc. will not impact existing submerged pipelines, a procedure that may require diving. All diving shall be conducted in accordance with the requirements of the most recent versions of the following documents:
 - 13.5.1 U.S. Navy Diving Manual, Volume I and II (NAVSEA 0994-LP-001-9010 and NAVSEA 0094-LP-001-9020).
 - 13.5.2 U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, Section 30.
 - 13.5.3 U.S. Army Corps of Engineers, Jacksonville District Regulation CESAJR 385-1-1, Appendix P, "Contract Diving Operations".
 - 13.5.4 29 CFR, Part 1910, Subpart T, OSHA Regulations.

The Diving Plan is to include all items specified in paragraph 30.A.13 of EM 385-1-1. This plan shall contain information specific to the diving operations to be performed. Submission of the plan does not constitute an endorsement on the part of the Owner or Engineer that the Contractor's diving procedures are safe. The plan is intended to provide a method by which the Contractor demonstrates an awareness of diving standards.

- 13.6 Accident Prevention Plan: The Contractor is required to submit an Accident Prevention Plan as part of the Work Plan to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference. The accident prevention plan must be in accordance with all Federal safety standards as specified in EM 385-1-1, dated November 2003, entitled "Safety & Health Requirements Manual." Submission of the plan does not constitute an endorsement on the part of the Owner or Engineer of the Contractor's Accident Prevention Plan. The plan is intended to provide a method by which the Contractor demonstrates an awareness of Federal safety standards.
- 13.7 Hazard Communication: The Contractor shall comply with the requirements of OSHA 1910.1200, the Hazard Communication Standard. General requirements are as follows:
 - 13.7.1 Provide a written program describing the implementation method of the previously referenced standard. This shall be provided to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference.
 - 13.7.2 Ensure that the Contractor's personnel are informed about health and physical hazards associated with Materials to be used.
 - 13.7.3 Ensure that a hazardous material inventory is available to the Owner and Engineer upon request.
 - 13.7.4 Ensure proper labeling of hazardous material containers.

13.7.5 Ensure availability of a Material Safety Data Sheet on site.

13.8 Oil and Hazardous Material Spills and Containment: The Contractor shall ensure that all hazardous material spills are immediately reported to the proper authorities and to the Resident Project Representative, Engineer, and Owner. All hazardous material spills shall be immediately cleaned up in accordance with the U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1. In accordance with EM 381-1-1, the Contractor shall use suitable methods such as dikes or curbs to prevent the spread of hazardous materials from above ground storage tanks and piping in case of leakage.

13.9 Confined Space Entry: The Contractor shall submit a confined space entry plan as part of their written proposal for accident prevention. The confined space entry plan shall be submitted to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference.

Confined space is any space having limited openings for entry and exit, not intended for continuous occupancy, and unfavorable natural ventilation which could contain or produce dangerous concentrations of airborne contaminants or asphyxiates. Confined spaces may include but are not limited to storage tanks, holds of vessels, manholes, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, trenches, vats, and open top spaces more than 4 feet in depth such as pits, tubs, vaults and vessels, or any other place with limited ventilation.

Prior to entering a confined space, the work environment shall be tested by a competent person using properly calibrated approved Equipment to determine the extent of potential hazards. If the atmosphere cannot be determined by testing, an immediately Dangerous to Life and Health situation shall be assumed. The evaluation shall consider the potential for evolution of toxic substances as well as oxygen content. Testing for toxic substances shall be performed prior to each entry and on a continuous or frequent (as stipulated in the Confined Space Entry Procedure) basis while personnel are working in confined spaces.

13.10 Activity Hazard Analysis: The Contractor is required, as part of its written plan for quality control, to submit an Activity Hazard Analysis to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference. The Activity Hazard Analysis is outlined in U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, Section 01.A., Figure 1-1.

13.11 Safety Person Requirement: The Contractor shall employ at the Project Site a permanent Safety and Occupational Health person (Safety Officer) to manage the Contractor's accident prevention program. The Safety Officer shall be on duty during any Work of a complex nature including, but not limited to, the relocation of utilities; Work on or around Structures; Work on or around existing fill area dikes; fill placement in the fill area; or when blasting or other potentially hazardous activities are occurring. The principal Safety Officer shall report to and work directly for the Contractor's superintendent or the corporate safety office. The Safety Officer shall have the authority to take immediate steps to correct unsafe or unhealthful conditions. The presence of the Safety Officer will not abrogate safety responsibilities of other personnel.

13.12 Qualifications for Safety Officer:

13.12.1 Shall have a degree in a technical or scientific field or safety in a four-year, or longer, program from an accredited school; or

13.12.2 Shall have at least one (1) year of experience in safety and occupational health work.

13.12.3 Fourteen (14) Days prior to the Pre-Construction Conference, the Contractor shall submit

to the Engineer, for approval, the name and qualifications of the proposed Safety Officer(s) and a functional description of duties as part of the Health and Safety Plan. The Safety Officer may be assigned additional duties by the Contractor as long as those additional duties do not preclude or prevent completion of the Safety Officer duties.

- 13.13 Record Keeping: The Contractor shall maintain all required OSHA records. Records of safety performance shall be available at the Project Site for inspection upon request of the Owner.
- 13.14 Discovery of Unknown Potentially Hazardous Conditions and Materials/Substances: In the event conditions, materials, or substances are encountered during the course of the Work that cause the Contractor to reasonably suspect the presence of asbestos, polychlorinated biphenyl (PCB), or other hazardous materials, the Contractor shall cease all work in the affected area immediately and notify the Owner, Engineer, and Resident Project Representative. The affected area will be cordoned off and signage placed in order to prevent access by any personnel. The Contractor shall not proceed with further work of any kind in the affected area until instructions are received from the Owner. Upon identification of the material or substance and receipt of written instructions from the Owner, the Contractor may proceed only in accordance with the instructions of the Owner and the applicable code or regulation pertaining to the specific material identified.

SP-14 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION

The Contractor shall train all Subcontractors and personnel in all phases of environmental protection. Personnel and Subcontractors will be familiar with permit requirements and with the necessity of protection of all habitats. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and Contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment and shall be thoroughly knowledgeable of Federal, State, and Local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with the General Conditions.

SP-15 COMMENCEMENT, EXECUTION, AND COMPLETION

The Contractor will be required to commence Work at the site under the Contract within thirty (30) calendar Days of the effective date of the Notice to Proceed. He shall conduct Work in such a manner and with sufficient materials, equipment, and labor as is considered necessary to ensure its completion within the time limit specified.

SP-16 TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation around the Project Site for the Resident Project Representative and Engineer for the duration of the Work. The Contractor shall transport the Resident Project Representative and Engineer around the project site fill area as requested within a reasonable timeframe. The schedule and pickup location shall be arranged by the Engineer/Resident Project Representative and the Contractor prior to mobilization. Periodic transport to and from the dredge will be requested but will be scheduled one day in advance.

The Contractor shall provide a boat and land transportation for the exclusive use of the Engineer and/or Resident Project Representative to tour the Project Site during the Work.

The boat shall have the following features:

- 16.1 An enclosed cabin space;
- 16.2 Capable of maintaining 25 knots (29 mph);
- 16.3 Six (6) passenger capacity;
- 16.4 Coast Guard certified;
- 16.5 Operable marine radio;
- 16.6 All safety equipment required by the Coast Guard for the size and type of that boat;
- 16.7 Draft of two feet (2') or less/

The Contractor shall supply the fuel and maintain the boat and land transportation resources. All mechanical malfunctions shall be repaired within twelve (12) hours.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other necessary transportation at the expense of the Contractor. The costs associated with providing transportation shall be included in the lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-17 DREDGE DATA SHEET

The Contractor shall complete the dredge data sheet located in front of the Specifications for each dredge that is proposed to be used to perform the Work and include it in the Work Plan. Submittal of a dredge data sheet shall constitute a certification that the described Equipment is available to, and under control of, the Contractor. The Dredge Data Sheet is not mandatory and is for informational purposes only. The data is pertinent to the evaluation of the proposed dredges and their ability to perform the Work. The Bidder may only omit data or information that is considered to be proprietary.

SP-18 OFFICE FOR ENGINEER AND RESIDENT PROJECT REPRESENTATIVE

The Contractor shall provide a separate office at the fill site, acceptable to the Owner and Engineer, for the Engineer and Resident Project Representative. The office shall be separate from the Contractor's office, work, and storage areas. The office shall be for the sole use of the Engineer and Resident Project Representative, suitably sized, and provided with lighting, heat, and air conditioning. The office furnishings shall include a work table, drafting table, stool, and two (2) chairs. Adequate lighting and electrical services shall be provided to operate office equipment supplied by the Owner. Internet access within the office shall be provided by the Contractor.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other offices at the expense of the Contractor. The cost for providing and furnishing this office shall be included in the Contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-19 ACCOMMODATION FOR THE RESIDENT PROJECT REPRESENTATIVE

If the Contractor provides on-site boarding facilities (i.e. a quarters barge) immediately adjacent to the project site, then boarding facilities shall be provided for the resident project representative. Quarters, sanitary facilities, and meals, which are acceptable to the Owner, shall be included for the resident project representative. The quarters and sanitary facilities shall be separate from the Contractor's quarters, office, work, storage, and common areas. If on-site accommodations are not provided, the Contractor shall only be responsible for providing transportation to and from the work area for the resident project representative. The cost for providing and furnishing these facilities shall be included in the Contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-20 CONSTRUCTION OFFICE

The Contractor shall maintain a construction office at or near the Project Site. The Contractor shall staff the office between 8:00 am and 5:00 pm, seven (7) Days per week.

SP-21 CONTRACTOR INFORMATION

Prior to Bid opening date, the Contractor shall send all questions and requests for clarification or interpretation of the Bid Documents in writing to the attention of Renee McKee of the Coastal Protection and Restoration Authority. The address and contact information is as follows:

Coastal Protection and Restoration Authority (CPRA)
450 Laurel Street, Suite 1501
Baton Rouge, LA 70801
Attn. : Renee McKee
Phone: 225-342-0811
Fax: 225-342-4674
Email : cpra.bidding@la.gov

After execution of the Contract Between Owner and Contractor, the successful Contractor shall contact the Engineers concerning bid documentation or questions. The addresses and contact information for the Engineers are listed as follows:

CPRA Project Engineer
Kodi Guillory, P.E.
P.O. Box 4407
Baton Rouge, Louisiana 70804-4027

Phone: 225-342-5175
Fax: 225-342-3733
E-mail: Kodi.Guillory@la.gov

CPRA Construction Manager
Stan Aucoin
635 Cajundome Blvd.
Suite 203A
Lafayette, Louisiana 70506
Phone: 337-482-0681
Fax: 337-482-0687
E-mail: Stanley.Aucoin@la.gov

The Owner and Engineer shall deliver all written Claims, Notices, Submittals, Plans, and other documents to the Contractor at the address indicated on the Bid.

SP-22 INSURANCE AND BONDS

The Contractor shall purchase and maintain without interruption, for the duration of the contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, its agents, representatives, employees or subcontractors. The duration of the contract shall be from the inception of the contract until the date of final payment.

22.1 Minimum Scope and Limits of Insurance

22.1.1 Worker's Compensation

Worker's Compensation insurance shall be in compliance with the Worker's Compensation law of the State of Louisiana. Employers Liability is included with a minimum limit of \$500,000 per accident/per disease/per employee. If Work is to be performed over water and involves maritime exposure, applicable LHWCA, Jones Act or other maritime law coverage shall be included and the Employers Liability limit increased to a minimum of \$1,000,000. A.M. Best's insurance company rating requirement may be waived for Worker's compensation coverage only.

22.1.2 Commercial General Liability

Commercial General Liability insurance, including Personal and Advertising Injury Liability and Products and Completed Operations Liability, shall have a minimum limit per occurrence based on the project value. The Insurance Services Office (ISO) Commercial General Liability occurrence coverage form CG 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. Claims-made form is unacceptable.

The aggregate loss limit must apply to each project. ISO form CG 25 03 (current form approved for use in Louisiana), or equivalent, shall also be submitted. The State project number, including part number, and project name shall be included on this endorsement.

COMBINED SINGLE LIMIT (CSL) PER OCCURRENCE

The required minimum combined single limit amount of insurance shall be as provided below:

<u>Initial Contract Amount</u>	<u>Minimum Insurance</u>
Up to \$1,000,000	\$1,000,000
From \$1,000,001 to \$2,000,000	\$2,000,000
Over \$2,000,000	\$5,000,000

22.1.3 Automobile and Watercraft Liability

Automobile Liability Insurance and Watercraft Liability Insurance shall have a minimum combined single limit per occurrence of \$1,000,000. ISO form number CA 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. This insurance shall include third-party bodily injury and property damage liability for owned, hired and non-owned automobiles and/or watercraft. If any non-licensed motor vehicles and/or watercraft are engaged in operations within the terms of the contract on the site of the work to be performed thereunder, such insurance shall cover the use of any such vehicles.

NOTE: If the Contractor does not own an automobile and/or watercraft and such vehicles are utilized in the execution of the contract, then hired and non-owned coverage is acceptable. If an automobile and/or watercraft is not utilized in the execution of the contract, then automobile and/or watercraft coverage is not required.

22.1.4 Excess Umbrella

Excess Umbrella Insurance may be used to meet the minimum requirements for General Liability, Automobile Liability, and Watercraft Liability only.

22.1.5 Pollution Liability (*required when asbestos or other hazardous material abatement is included in the contract*)

Pollution Liability insurance, including gradual release as well as sudden and accidental, shall have a minimum limit of not less than \$1,000,000 per claim. A claims-made form will be acceptable. A policy period inception date of no later than the first day of anticipated Work under this contract and an expiration date of no earlier than 30 days after anticipated completion of all Work under the contract shall be provided. There shall be an extended reporting period of at least 24 months, with full reinstatement of limits, from the expiration date of the policy. The policy shall not be cancelled for any reason, except non-payment of premium.

22.1.6 Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and accepted by the Owner. The Contractor shall be responsible for all deductibles and self-insured retentions.

22.2 Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

22.2.1 Worker's Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the Owner, its officers, agents, employees, and volunteers for losses arising from Work performed by the Contractor for the Owner.

22.2.2 General Liability Coverage

The Owner, its officers, agents, employees and volunteers are to be added as additional insureds as respects liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor, premises owned, occupied or used by the Contractor. ISO Form CG 20 10 (current form approved for use in Louisiana), or equivalent, is to be used.

The Contractor's insurance shall be primary as respects the Owner, its officers, agents, employees and volunteers. The coverage shall contain no special limitations on the scope of protection afforded to the Owner, its officers, officials, employees or volunteers. Any insurance or self-insurance maintained by the Owner shall be excess and non-contributory of the Contractor's insurance.

The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the policy limits.

22.2.3 All Coverages

Coverage shall not be canceled, suspended, or voided by either party (the Contractor or the insurer) or reduced in coverage or in limits except after 30 days written notice has been given to the Owner. Ten-day written notice of cancellation is acceptable for non-payment of premium. Notifications shall comply with the standard cancellation provisions in the Contractor's policy.

Neither the acceptance of the completed Work nor the payment thereof shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.

The insurance companies issuing the policies shall have no recourse against the Owner for payment of premiums or for assessments under any form of the policies.

Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Owner, its officers, agents, employees and volunteers.

22.2.4 Acceptability of Insurers

All required insurance shall be provided by a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located. Insurance shall be placed with insurers with an A.M. Best's rating of **A-:VI or higher**. This rating requirement may be waived for Worker's compensation coverage only.

If at any time an insurer issuing any such policy does not meet the minimum A.M. Best rating, the Contractor shall obtain a policy with an insurer that meets the A.M. Best rating and shall submit another certificate of insurance as required in the contract.

22.2.5 Verification of Coverage

Contractor shall furnish the Owner with Certificates of Insurance reflecting proof of required coverage. The Certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The Certificates are to be received and approved by the Owner before Work commences and upon any contract renewal thereafter.

The Certificate Holder must be listed as follows:

State of Louisiana

Name of Owner

Owner Address

City, State, Zip

Attn: Project # _____

In addition to the Certificates, Contractor shall submit the declarations page and the cancellation provision endorsement for each insurance policy. The Owner reserves the right to request complete certified copies of all required insurance policies at any time.

Upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be suspended, discontinued or terminated. Failure of the Contractor to purchase and/or maintain any required insurance shall not relieve the Contractor from any liability or indemnification under the contract.

If the Contractor does not meet the insurance requirements at policy renewal, at the option of the Owner, payment to the Contractor may be withheld until the requirements have been met, OR the Owner may pay the renewal premium and withhold such payment from any monies due the Contractor, OR the contract may be suspended or terminated for cause.

22.2.6 Subcontractors

Contractor shall include all subcontractors as insureds under its policies OR shall be responsible for verifying and maintaining the certificates provided by each subcontractor. Subcontractors shall be subject to all of the requirements stated herein. The Owner reserves the right to request copies of subcontractor's certificates at any time.

If Contractor does not verify subcontractors' insurance as described above, Owner has the right to withhold payments to the Contractor until the requirements have been met.

22.2.7 Worker's Compensation Indemnity

In the event Contractor is not required to provide or elects not to provide Worker's compensation coverage, the parties hereby agree the Contractor, its Owners, agents and employees will have no cause of action against, and will not assert a claim against, the State of Louisiana, its departments, agencies, agents and employees as an employer, whether pursuant to the Louisiana Worker's

Compensation Act or otherwise, under any circumstance. The parties also hereby agree that the State of Louisiana, its departments, agencies, agents and employees shall in no circumstance be, or considered as, the employer or statutory employer of Contractor, its Owners, agents and employees. The parties further agree that Contractor is a wholly independent Contractor and is exclusively responsible for its employees, Owners, and agents. Contractor hereby agrees to protect, defend, indemnify and hold the State of Louisiana, its departments, agencies, agents and employees harmless from any such assertion or claim that may arise from the performance of this contract.

22.2.8 Indemnification/Hold Harmless Agreement

Contractor agrees to protect, defend, indemnify, save, and hold harmless, the State of Louisiana, all State Departments, Agencies, Boards and Commissions, its officers, agents, servants, employees and volunteers, from and against any and all claims, damages, expenses and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur, or in any way grow out of, any act or omission of Contractor, its agents, servants and employees, or any and all costs, expenses and/or attorney fees incurred by Contractor as a result of any claims, demands, suits or causes of action, except those claims, demands, suits or causes of action arising out of the negligence of the State of Louisiana, all State Departments, Agencies, Boards, Commissions, its officers, agents, servants, employees and volunteers.

Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands, suits or causes of action at its sole expense and agrees to bear all other costs and expenses related thereto, even if the claims, demands, suits, or causes of action are groundless, false or fraudulent.

22.3 Performance and Payment Bond

Recordation of Contract and Bond [38:2241A(2)]

The Contractor shall record within thirty (30) days the Contract Between Owner and Contractor and Performance and Payment Bond with the Clerk of Court in the Parish(s) in which the Work is to be performed. The Contractor shall obtain a Certificate of Recordation from the Clerk of Court and forward this Certificate immediately to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids. No requests for payment will be processed until receipt of the Certificate of Recordation.

SP-23 EMPLOYEE WHISTLEBLOWER PROTECTION

This Contract and employees working on this Contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections established at 41 U.S.C. 4712 by Section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and Federal Acquisition Regulation (F.A.R.) 3.908.

The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the F.A.R.

The Contractor shall insert the substance of this clause, including this paragraph, in all subcontracts over the simplified acquisition threshold.

End of PART II SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-1 MOBILIZATION AND DEMOBILIZATION

- 1.1 Description: Mobilization consists of preparatory work and operations, including those necessary for movement of personnel, equipment, supplies, and incidentals to the Project Site, constructing pipeline, and any other work necessary to access the Project Site for the duration of the project; the establishment of offices, buildings, and other facilities necessary for the Work on the project; the cost of Bonds and any required insurance; and other pre-construction expenses necessary for the start of the Work, excluding the cost of construction Materials.
- 1.2 Arbitrary Mobilization by Contractor: The Owner will pay for mobilization and demobilization only once. Should the Contractor demobilize prior to completing the project, such mobilization and subsequent remobilization shall be at no cost to the Owner.
- 1.3 Ratio of Mobilization and Demobilization Effort: Fifty percent (50%) of the lump sum price will be paid to the Contractor after commencement of dredging and the placement of at least 5,000 cubic yards of material within the marsh fill template in twenty-four (24) hours, or less, time. Ten percent (10%) of the lump sum price will be paid to the Contractor after commencement of excavation and construction of at least 500 feet of primary dike or earthen terrace. The remaining forty percent (40%) will be paid in the final payment for the Work under this Contract upon the removal of the temporary sediment pipeline.
- 1.4 Justification of Mobilization Costs: In the event that the Engineer considers the amount in this item does not bear a reasonable relation to the cost of the Work in this Contract, the Engineer may require the Contractor to produce cost data to justify this portion of the Bid. Failure to justify such price to the satisfaction of the Engineer will result in payment of actual mobilization costs, as determined by the Engineer at the completion of mobilization, and actual demobilization costs, as determined by the Engineer at the completion of demobilization, and payment of the remainder of this item in the final payment under this Contract. The determination of the Engineer is not subject to appeal.
- 1.5 Payment: All costs connected with mobilization and demobilization of the entire Contractor's plant, Equipment, personnel, and those of his Subcontractors and such other costs as may be denoted in the Contract Documents shall be paid for at the Contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization". Payment shall constitute full compensation for moving personnel, equipment, supplies, and incidentals to and from the job site and establishing offices, buildings, and other facilities for work, obtaining bonds, insurance, permit application fees, and any other associated expenses. Mobilization shall include all appropriate costs associated with constructing all features listed in the Specifications and/or shown in the Plans.

TS-2 PRE-CONSTRUCTION SURVEYS

- 2.1 Pre-Construction Marsh Survey: The Contractor shall conduct a pre-construction survey and submit it to the Engineer for use in the calculation of marsh fill volumes. The survey shall be used to verify the alignment of the various project features, determine fill volumes, quantities, and make modifications or adjustments as deemed necessary by Engineer. Drawings of the plan views, cross sections, and calculations of project quantities of materials shall be developed from this survey by the Contractor and submitted to the Engineer for review. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum. The Contractor shall not commence construction of the marsh fill until all cross-sections, based upon the Contractor's marsh fill area pre-construction survey, have been incorporated into the Plans for the project and accepted by the Engineer, unless permission to proceed is provided in writing by the Engineer. A minimum of 14

working Days will be required to update the project Plans upon receipt of the pre-construction survey data.

2.1.1 Survey Requirements: All profile surveys shall be conducted using either differential leveling techniques or GPS with RTK (real time kinetic) correction. If differential leveling techniques are used, the Contractor shall close all level loops and the closure shall be less than four hundredths of a foot (0.04'). All onshore points shall be within five feet (+/- 5') horizontally of the established profile line. All offshore points shall be within twenty feet (+/- 20') horizontally of the established profile line. Both the pre-construction and as-built surveys shall extend at least two hundred feet (200') outward of the outside toe of the primary dikes. A six inch (6") diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking into the bottom when a survey rod is used to conduct marsh surveys. It may be feasible to survey the marsh pre-construction profiles with a fathometer. If the Contractor elects to survey with a fathometer, verification of its accuracy in shallow water shall be accomplished with rod and level or RTK GPS points every three hundred feet (300') along each profile. Submission of the fathometer record may be required to verify quality data was collected.

2.1.2 Profile Line Azimuths: Profile line surveys shall be conducted along the azimuth shown in the Plans. The survey baseline on each profile line is Range 0+00. Data points collected west of the baseline shall be reported as a positive offset while data points east of the baseline shall have a negative offset (profiles viewed looking south). A sufficient number of points shall be taken along each line to ensure adequate description of topographic features, such as the primary and secondary dikes, slope breaks, dike crests, and intersections of the fill with the existing grade or bottom, and containment dikes, with a maximum elevation difference of one foot (1') between adjacent points. Data points shall be taken at a spacing of not more than fifty feet (50'). The product shall be a continuous line representing the entire fill template of the marsh.

2.1.3 Grade Stakes: Any and all grade stakes used in the project area shall be composed of cane poles or metal conduit pipe to facilitate recovery of the stakes. The Contractor shall remove all grade stakes from each completed section immediately after the section has been completed. The Contractor will not be eligible for payment until the Contractor certifies that all grade stakes have been removed. Sections of the marsh upon which the search for, and removal of, grade stakes is complete shall be documented in the Daily Progress Report. Any grade stakes left in the fill area will be the sole responsibility and liability of the Contractor. Any injuries to people that may occur because grade stakes were left in the fill area by the Contractor will be the responsibility and the liability of the Contractor. If the Contractor fails to remove grade stakes in a timely manner following completion of the work, the Owner may have the stakes removed and deduct the cost from the Contractor's final payment. Stakes should be embedded sufficiently to be stable through the fill process and to be vertically stable and not subject to settlement. These stakes shall have the minimum and maximum tolerance elevation delineated in non-identical colors. A reference elevation shall be recorded on the top of each stake to enable verification that the stake has not settled during construction. Each stake shall clearly indicate the target marsh elevation of +2.5 feet NAVD88. The Contractor shall maintain a log of the grade stakes documenting the placement and removal of each grade stake. The grade stakes shall be marked with the number, Station, and Range to facilitate logging.

2.2 Magnetometer Survey: Prior to any excavation, the Contractor shall call Louisiana One Call at 1-800-272-3020 to locate any utility lines in the area. The Contractor shall then perform a magnetometer survey of the excavation areas, conveyance corridor, submerged pipeline corridor, and Gulf of Mexico borrow area. The survey shall be conducted using a Geometrics G-882 magnetometer or equivalent. A minimum of two (2) magnetometer survey lines shall be run along the length of the primary and secondary dike excavation areas. The Contractor shall perform, at a minimum, three

(3) magnetometer survey lines within the conveyance corridor, perpendicular to the LA 27/82 crossing, and one (1) line along the proposed alignment of the LA 27/82 crossing. The Contractor shall perform a magnetometer survey within any borrow area prior to excavating. Survey lines shall be spaced sufficiently to adequately detect pipelines, utilities, or obstructions within the conveyance corridor, excavation areas, or borrow area. The Contractor shall submit the proposed survey alignment with the Work Plan along with a listing and description of the equipment to be used in the Work Plan for approval by the Engineer prior to conducting surveys. The Contractor shall submit the results and interpretation of the magnetometer survey at least three (3) Days prior to any excavation. This does not relieve the Contractor of responsibilities set forth in GP-25

All pipelines located within one hundred fifty feet (150') of the earthen containment dike alignments, marsh fill areas, borrow area(s), and dredge pipeline corridor shall be probed for depth and their locations marked prior to excavation, dredging, and installation of the sediment pipeline, for the duration of construction activities.

2.3 Gulf of Mexico Borrow Area

2.3.1 **Survey:** The Contractor shall perform pre-construction and post-construction (pay) bathymetric surveys of the borrow area to determine pay quantities for hydraulic placement of fill. The surveys may be either single-beam or multi-beam bathymetry. For single-beam, the bathymetric survey lines shall be no more than 100 feet apart with sufficient tie lines to verify the survey lines (survey lines shall be oriented north-south and east-west). The survey lines shall extend a minimum of 100 feet outside of the edge of the area to be surveyed. The multi-beam survey shall have 100% coverage with sufficient tie lines to verify the data. A bathymetric plot and an electronic copy of the bathymetric survey shall be furnished to the Engineer in a format provided in Appendix III (preferably format #3). Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer. Bathymetric surveys not tide corrected in real-time will not be accepted. The bathymetric survey shall be performed using a Model 449 Innerspace depth sound recorder or equivalent using a single beam at 209 KHz. Hydrographic surveys shall be performed in accordance with EM 1110-2-1003, dated 30 November 2013.

2.3.2 **Tide Correction:** All vertical measurements shall be tide corrected and reported in NAVD88; predicted tides will not be accepted. The Contractor shall use measured tides for all hydrographic surveying tidal corrections. Tidal measurements shall be made within 3 miles of the area to be surveyed along the open Gulf of Mexico coast and not within a navigation channel (such as Calcasieu Pass) unless a tide study conducted by the Contractor and accepted by the Engineer supports the use of tide gages in the navigation channels or in the bay. Tides shall be corrected in real-time using a telemetry based system. Data will only be accepted when the signal is present allowing for real-time tidal corrections.

2.4 Earthen Terrace Field

2.4.1 **Survey:** The terrace field (TF) profiles shown on the plans shall be surveyed prior to construction to verify to alignment of the project features and make modifications or adjustments as deemed necessary by the Engineer. All profile surveys shall be conducted using either differential leveling techniques or GPS with RTK (real time kinetic) correction. If differential leveling techniques are used, the Contractor shall close all level loops and the closure shall be less than four hundredths of a foot (0.04'). All points shall be within five feet (+/- 5') horizontally of the established profile line. A six inch (6") diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking into the bottom when a survey rod is used to conduct preconstruction surveys. It may be feasible to survey the TF pre-construction profiles with a fathometer. If the Contractor elects

to survey with a fathometer, verification of its accuracy in shallow water shall be accomplished with rod and level or RTK GPS points every three hundred feet (300') along each profile. Submission of the fathometer record may be required to verify quality data was collected. A sufficient number of points shall be taken along each line to ensure adequate description of topographic features, such as slope breaks, earthen terrace crests, and intersections of the fill with the existing grade or bottom, and borrow sources, with a maximum elevation difference of one foot (1') between adjacent points. Data points shall be taken at a spacing of not more than twenty-five feet (25). The product shall be a continuous line representing the earthen terrace fill template.

- 2.4.2 Grade Stakes: The earthen terrace layout shall be, at a minimum, staked out at points of inflection of each earthen terrace as shown in the Plans and at the corners of the top of cut for each borrow area. All grade stakes used in the terrace field area shall be composed of cane poles.
- 2.5 LA 27/82 Crossing: The LA 27/82 crossing shall be surveyed prior to construction. Profile lines shall be surveyed parallel to the conveyance corridor alignment. Profiles shall include a survey line along the conveyance corridor alignment centerline and three (3) survey lines spaced at twenty-five foot (25') intervals from, and to each side of, the conveyance corridor alignment. Survey lines shall extend 100' seaward of the LA 27/82 seaward edge of pavement and 100' landward of the landward edge of pavement. Two lines shall also be surveyed perpendicular to the proposed casing pipe, 25' to each side of LA 27/82, one seaward and one landward of LA 27/82.
- 2.6 Survey Documentation: All survey work shall be documented with copies supplied to the Engineer. The as-built surveys may be conducted in the presence of the Engineer or their representative, at the option of the Engineer. The Contractor shall provide three (3) working Days advance notice to the Engineer prior to conducting surveys. The Contractor shall submit survey field notes to the Engineer upon completion of each survey to expedite review of payment requests. All field notes, survey and volume computations, and the records used by the Contractor to compute the Contractor's estimate of payment fill quantity shall be furnished to the Engineer with the Application for Progress Payment and Final Application for Payment.
- 2.7 Deliverables to the Engineer: Deliverables to the Engineer shall include hard copy form and electronic format of the survey in one of the ASCII formats appearing in Appendix III (preferably format #3). No other formats are acceptable. Additional information to be provided to the Engineer shall include any corrections and field notes.
- 2.8 Survey Field Notes Submittal: The Contractor shall submit survey field notes to the Engineer upon completion of each survey to expedite review of payment requests. All field notes, survey and volume computations, and the records used by the Contractor to compute the payment fill quantity shall be furnished to the Engineer with the Application for Progress Payment and Final Application for Payment.
- 2.9 Survey Discrepancy: If there is a discrepancy between surveys conducted by the Contractor and the Engineer, the respective surveyors will attempt to resolve the survey discrepancy. If an agreement cannot be reached, the Engineer's survey will be used as the basis for payment.
- 2.10 Payment: The pre-construction survey shall consist of hydrographic, topographic, and magnetometer surveying of the marsh fill areas, earthen terrace field, LA 27/82 crossing, submerged pipeline corridor, and borrow areas according to the Specifications and Plans. All costs connected with the pre-construction survey will be paid for at the Contract lump sum price for Pre-Construction Survey (Bid Item No. 2), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.

- 2.11 Surveyor: All surveys shall be certified by a surveyor or professional engineer registered in the State of Louisiana. The licensed professional will be responsible for all survey Work. The licensed professional is not obligated to perform the field work but shall perform sufficient oversight to exhibit responsible charge. The professional engineer or land surveyor must be a primary employee of a firm that is registered by the Louisiana Professional Engineering and Land Surveying board to perform survey work.
- 2.12 Payment Request: The Contractor may apply for payment for the pre-construction survey once the completed survey has been submitted to the Engineer in a survey format provided in Appendix III. Thirty percent (30%) of the lump sum cost will be paid following Submittal and Acceptance of the marsh pre-construction survey, thirty percent (30%) of the lump sum cost will be paid following Submittal and Acceptance of the earthen terrace field pre-construction survey, and forty percent (40%) of the lump sum cost will be paid following Submittal and Acceptance of the borrow area pre-construction survey.

TS-3 POST-CONSTRUCTION, PROCESS, CHECK, AND AS-BUILT SURVEYS

- 3.1 The Contractor shall perform post-construction, process, check, and as-built surveys and submit data in accordance with the same requirements of the pre-construction surveys. Post-construction, process, check, and as-built surveys shall maintain the same layouts as the pre-construction surveys unless otherwise directed in these Specifications or by the Engineer.
- 3.1.1 Marsh: The as-built survey is the final survey of the entire marsh creation area used for documentation purposes and shall cover the entire marsh creation area. The Contractor shall perform the as-built survey no earlier than thirty (30) Days following completion of marsh fill placement within a fill section. The Contractor may perform the as-built survey in a similar manner as to the pre-construction survey. However, it is anticipated that the constructed marsh may be in a semi-liquid state and conventional surveying may be difficult. The Contractor must propose their marsh as-built survey method at least 14 Days prior to the Pre-Construction Conference and demonstrate that it will provide acceptable results before the Engineer approves this surveying method.
- The Contractor shall collect check profiles in the marsh fill areas as required by the Engineer to document permit compliance and adherence to the contract documents. Check surveys will not be used to estimate fill volumes for payment. The Contractor shall collect check profiles to document the construction of the primary and secondary containment dike fill sources. Two parallel profiles along the length of the each fill source shall be collected after construction of containment and prior to marsh fill.
- 3.1.2 Gulf of Mexico Borrow Area: The Contractor shall perform pre-construction, post-construction (pay), and as-built bathymetric surveys of the borrow area to determine pay quantities for hydraulic placement of fill. The post-construction survey is defined as the survey for pay and does not have to cover the entire borrow area. The as-built survey is the final survey of the entire borrow area used for documentation purposes and shall cover the entire borrow area. The as-built survey must be multibeam and shall have 100% coverage with sufficient tie lines to verify the data. The Contractor shall delineate the area to be surveyed for pay; all sections of the borrow area may be surveyed once to determine pay volumes for hydraulic placement of fill. A final as-built borrow area survey shall be conducted and the data submitted prior to payment for as-built surveys.
- 3.1.3 LA 27/82 Crossing: The LA 27/82 crossing shall be surveyed subsequent to casing pipe installation, as well as after sediment pipeline removal, pit backfilling, and site restoration to document the as-built location of the permanent casing pipe.

- 3.1.4 Earthen Terrace Field: Process surveys shall include profiles along the centerline of each earthen terrace fill area and borrow area as well as perpendicular profiles of each earthen terrace fill area and adjacent borrow area at the crest ends and at least every fifty (50') feet along the earthen terrace centerline. The profiles along each centerline shall extend at least twenty-five feet (25') beyond the toe of fill on each end of each earthen terrace. The perpendicular profiles shall extend at least twenty-five feet (25') beyond the earthen terrace toe of fill or borrow area toe in each direction. This survey shall be used for acceptance and payment of the earthen terraces and to make modifications or adjustments as deemed necessary by the Engineer. The process surveys shall include survey points at a minimum of every twenty-five feet (25') and at points of inflection or grade change. Points of inflection include the crown, toe of fill, and the borrow area top and bottom of cut.

The Contractor shall submit a compilation of all process surveys that have been accepted by the Engineer, and this will be considered the as-built survey. Final payment will not be received until the as-built survey has been accepted by the Engineer.

Trenasses: As-built surveys to document the construction of the trenasses shall be collected prior to marsh fill. One profile along the length of each trenasse shall be surveyed as well as perpendicular profiles every three hundred feet (300') along the length of each trenasse.

- 3.2 Surveyor: All surveys shall be certified by a surveyor or professional engineer registered in the State of Louisiana. The licensed professional will be responsible for all survey Work. The licensed professional is not obligated to perform the field work but shall perform sufficient oversight to exhibit responsible charge. The professional engineer or land surveyor must be a primary employee of a firm that is registered to perform survey work by the Louisiana Professional Engineer and Land Surveying board.
- 3.3 Payment: The as-built survey shall consist of hydrographic and topographic surveying of the marsh fill areas, earthen terrace field, trenasses, LA 27/82 crossing, and borrow areas according to the Specifications and Plans. All costs connected with the as-built survey will be paid for at the Contract lump sum price for As-Built Survey (Bid Item No. 3), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 3.4 Payment Request: The Contractor may apply for payment for the as-built survey once the completed surveys of the marsh fill area and borrow area have been submitted to the Engineer in a survey format provided in Appendix III. Forty percent (40%) of the lump sum cost will be paid following Submittal and Acceptance of the borrow area survey, thirty percent (30%) of the lump sum cost will be paid following Submittal and Acceptance of the earthen terrace field surveys, and thirty percent (30%) of the lump sum cost will be paid following Submittal and Acceptance of the marsh fill area as-built surveys.

TS-4 HYDRAULIC DREDGING – MARSH CREATION

- 4.1 General: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, water quality monitoring, debris removal, excavating, transporting, overflow weir devices, tertiary dike construction, tertiary containment leveling, site restoration and repairs, hydraulic marsh fill placement, and other Materials and Work shall be included in the Contract unit price per cubic yard for Hydraulic Dredging – Marsh Creation on the Bid Form (Bid Item No. 4), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.

- 4.2 Fill Placement Requirements: All marsh fill excavated from the offshore borrow area shall be transported to and hydraulically deposited on the marsh within the lines and grades shown in the Plans, unless otherwise provided for herein or directed by the Engineer. The topography of the fill area is subject to change and the elevations in the marsh at the time the Work is done may vary from the elevations shown in the Plans. The Contractor is to place the hydraulic fill in the fill areas in such a manner as to establish a uniform marsh platform between adjacent check profile lines. Sections located between check profiles will not be underfilled, as defined in the Contract Documents. The Contractor shall maintain and protect the fill and primary containment dike in a satisfactory condition at all times until final completion and Acceptance of the Work.
- 4.3 Right to Vary the Filled Area: The Owner reserves the right to vary the width or grade of the marsh from the lines and grades shown in the Plans or observed at the Project Site in order to establish a uniform fill area between adjacent check profile lines or for the entire length of the project, as shown in the Plans for the project. The hydraulic fill cross-sections shown in the Plans are for the purpose of estimating the amount of hydraulic fill needed and will be used by the Engineer in making any change in the lines and grades. Quantities are estimates based on surveys conducted in August 2012, September 2012, and March 2015. Where the quantity of Work with respect to any item is covered by a unit price, such quantities are estimated quantities to be used when comparing bids and the right is reserved by the owner to increase/decrease such quantities as may be necessary to complete the Work and remain within funding limits. In the event of material overruns/underruns by less than twenty-five percent (25%), the bid unit costs will be used to determine payment to the Contractor. If the actual quantity of the unit-priced item varies more than twenty-five percent (25%) above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party.
- 4.4 Control of Fill: The Contractor shall retain placed fill within the fill template until Acceptance of the check section. The Contractor shall construct primary and secondary containment dikes along the lines shown in the Plans. The Contractor may construct tertiary dikes at their discretion at other locations within the marsh platform to control the fill. These tertiary dikes must be degraded prior to final acceptance of the project. Tertiary dikes and spreader and pocket pipe can be used as necessary to prevent gulying and erosion of the fill, to retain the hydraulic fill in the marsh within the limits of the hydraulic fill template cross-section, and to control water turbidity. Tertiary dikes may be constructed to direct the pipeline discharge longitudinally to build the marsh platform to the design grade of +2.5 feet NAVD88. Tertiary dikes may be used but will be at no cost to the Owner.
- 4.5 Construction Elevations: The Plans and Contract Documents for the project delineate a construction marsh elevation of +2.5 feet NAVD88. The marsh fill area will be inspected after a minimum of thirty (30) Days subsequent to material placement to evaluate initial settling, completeness, elevation, and width. If the inspected area has undergone settlement in excess of the allowable tolerances, the Engineer may require the Contractor to place additional material prior to Acceptance.
- 4.6 Layout for Hydraulic Fill Placement:
- 4.6.1 Profile Lines: The Contractor may use any control deemed necessary for the layout of Work. The Contractor may establish any profile cross-sections deemed necessary for the layout of Work. The profile lines and azimuths to be surveyed are shown in the Plans.
- 4.6.2 Contractor Acceptance of Survey Control: No physical monumentation of the check profile lines currently exist in the project area. The Contractor is required to establish survey control for each check profile line sufficient for the construction of the project. The Contractor shall immediately contact the Engineer if any discrepancies are discovered in any of the information presented concerning all survey control. If the Engineer is not contacted by the Contractor it is understood that the Contractor agrees with all information presented in the Plans related to survey control information.

- 4.6.3 Surveyor: All surveys shall be certified by a surveyor or professional engineer registered in the State of Louisiana. The licensed professional will be responsible for all survey work. The licensed professional is not obligated to perform the field work but shall perform sufficient oversight to exhibit responsible charge. The professional engineer or land surveyor must be a primary employee of a firm that is registered to perform survey work by the Louisiana Professional Engineering and Land Surveying board.
- 4.6.4 Work Layout: Utilizing control data provided by the Engineer and verified by the Contractor, the Contractor shall complete the layout of the Work and shall be responsible for all measurements that may be required for the execution of the layout of the Work, subject to such modifications as the Engineer may require to meet changed conditions or as a result of necessary modifications to the Contract Work. The Contractor shall furnish, at their own expense, such stakes, templates, platforms, Equipment, tools, Material, and all labor as may be required in laying out any part of the Work from the survey monuments, control data, and elevations provided by the Engineer and verified by the Contractor, the cost of which is included in the unit cost for marsh creation. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks unless and until they are no longer needed to construct the project. All temporary marking stakes (including grade stakes) placed by the Contractor in the marsh must be completely removed upon completion of the project.
- 4.6.5 Site Layout Prior to Construction: Prior to the initiation of heavy construction, excavation, dredging, or disposal activities within 500 feet of the previously listed activity, the Contractor shall survey and layout the following items: the project baseline, centerlines and extents of the containment dikes, and the centerlines of trenasses. The layout shall be surveyed and staked adequately to depict the limits and location of the Work. Layout stakes shall include grade information (i.e., fill heights, vertical tolerance) for the containment dikes. The Contractor shall maintain stakes and grades for the duration of the construction Contract to the Engineer's satisfaction. The Contractor shall also coordinate with utilities, landowners, and leaseholders as required by this Contract to ensure identification, location, and marking of all public and private infrastructure that may exist at the Project Site.
- 4.6.6 Survey Monumentation: Permanent markers or survey monuments will not be disturbed, damaged, or destroyed by the Contractor. Disturbed, damaged, or destroyed survey monuments will be replaced by the Owner, at their discretion, and the expense of replacement will be deducted from any amounts due, or to become due, to the Contractor.
- 4.6.7 Survey Datum: The horizontal datum for the baseline provided in the Plans is in feet referenced to the Louisiana South State Plane Coordinate System (NAD, 1983). The vertical datum for the elevations provided in the Plans is in feet referenced to the North American Vertical Datum of 1988 using the 2009 Geoid (NAVD of 1988, Geoid 2009).
- 4.7 Removal of All Debris from the Fill Area: Prior to placement of fill, the Contractor shall remove all trash, and other non-natural items, as directed by the Engineer, from the marsh fill areas. All materials removed shall be disposed of in an appropriate and legal manner and at the expense of the Contractor. No separate payment for removal and disposal of these materials shall be made. All costs shall be incorporated into the unit costs for marsh creation.
- 4.8 Dredge Location Control
- 4.8.1 Continuous Electronic Positioning on the Dredge: The Contractor is required to have in continuous operation on the dredge electronic positioning equipment that will accurately and continuously compute and plot the position of the dredge. A geographic positioning system (GPS), Differential Global Positioning System (DGPS), or equivalent, shall be used

to maintain precise positioning of the dredge. Whenever dredging operations are underway, the location of the dredge shall be continuously monitored and its position within the borrow area shall be recorded in the Louisiana South State Plane Coordinate System NAD 1983 (Lambert Conformal Conic) at intervals not to exceed thirty (30) seconds. The Contractor shall be running a dredge location and management program, DREDGEPACK or equivalent. The Owner and Engineer shall have unrestricted access to the bridge GPS and depth recording units to enable onboard real time review at any time during construction. Plotters shall also continuously record, at intervals not to exceed thirty (30) seconds, the X, Y, Z (with respect to NAVD88) position of the dredge's excavator. Such fixes, and the accompanying plots, shall be furnished to the Engineer daily in an electronic format as part of the Daily Progress Report. Daily Progress Reports will be provided to the Engineer the next day, as discussed in Section GP-10 of the General Provisions. All vertical measurements shall be tide stage corrected and reported in NAVD88; predicted tides will not be accepted. The dredge operator should have visual controls that depict the location and depth of the dredge's excavation device within the specified borrow area. The electronic positioning equipment shall be calibrated, maintained, and operated so that the maximum error for the fixes recorded do not exceed tolerances in the horizontal position (± 3 feet) or vertical position (± 0.1 foot). The location of the master antenna on the dredge and the distance and direction from the master antenna to the dredge's excavation device shall be reported in the Daily Progress Reports. Mobilization, progress, and/or final payment to the Contractor will be withheld until all of the required information is provided to the Engineer.

- 4.8.2 Tides: The Contractor shall use measured tides for all hydrographic surveying and tide corrections of the cutterhead or drag arms (predicted tides are not acceptable). Measured tides shall be along the open Gulf of Mexico coast and not within a navigation channel (such as Calcasieu Ship Channel) or bay unless a tide study conducted by the Contractor and accepted by the Engineer supports the use of tide gages in the navigation channels or in a bay. A standalone tide gauge located in the Gulf shall be lit and follow USCG regulations for markings, lighting and notification to the public.
- 4.9 Payment Surveys: Payment will be based on the result of the comparison of the Marsh Fill Borrow Area pre-construction and post-construction surveys. The Engineer will verify the pay quantities provided by the Contractor based on the pre-construction and post-construction surveys conducted by the Contractor and accepted by the Engineer. The Engineer, at its discretion, may verify the post-construction survey results of the Contractor. The Engineer's survey will be used for payment purposes if, in the Engineer's opinion, a significant difference is found between the Contractor's as-built survey and the Engineer's survey.
- 4.10 Acceptance Notification: The notification of rejection or acceptance of fill placement will be based on written notification provided by the Engineer to the Contractor after the Engineer has reviewed the submitted survey data. Check surveys may be reviewed to ensure fill tolerances are being met prior to approving payment request. After the survey data has been received by the Engineer, the Engineer will have four (4) working days to review the data and prepare a written response indicating whether the fill has been accepted or rejected, and the reason for rejection, if applicable.
- 4.11 Computation of Payment Volumes: The volume of material eligible for pay shall be the volumetric difference between the pre-construction and post-construction surveys of the Marsh Fill Borrow Area less over dredging in the borrow area, overfill in the placement area, and misplaced material volumes. The borrow area shall be surveyed according to the specifications outlined in sections TS-2.3 and TS-3.1.2. The volume shall be calculated by comparing the surfaces of the pre-construction and post-construction surveys within the boundary of an area denoted by the Contractor that has been dredged and requested for payment. The volume calculation shall be performed by creating surfaces in Surfer, or approved equivalent software, using grid spacing of 50 feet or less with the grid extending no more than 100 feet beyond the area of dredging. Surfaces shall be created using both north-south and east-west survey lines. The Kriging method shall be used to create the grid

surface using an anisotropic value of 1 (i.e. equal weighting in all directions). Should check surveys show that the marsh fill upper tolerance elevation has been exceeded, this fill volume exceeding the upper tolerance elevation will be deducted from the requested payment cut volume. The Contractor shall provide their calculations of volumes along with their invoice to the Engineer. Payment recommendations will be based on computations made by the Engineer of volumes dredged from the borrow area.

- 4.12 Fill Tolerances: The vertical tolerance is 0.5 feet above the template elevation for the marsh. The required marsh fill template is +2.5 feet NAVD88. Hydraulic fill placement must at least meet the template. The Contractor shall fill any deficient segment to meet the template everywhere within the fill area.
- 4.13 Payment Requests: The Contractor may request payment for hydraulic marsh fill placement on a monthly basis, based on measurements of the Marsh Fill Borrow Area. The Contractor shall submit to the Engineer for review, on a monthly basis, an Application for Progress Payment filled out and signed by the Contractor covering the Work completed as required by the Contract Documents and accompanied by such supporting documentation as is required by the Contract Documents and also as the Engineer may reasonably require, which includes the results of any surveys and calculations.
- 4.14 Infilling of the Borrow Area: It is recognized that infilling of the borrow area may occur during construction. The Contractor is not required to resurvey areas of the borrow area that have been previously surveyed for pay, except for the final as-built survey, which will not be used as a basis for payment unless requested by the Contractor and approved by the Engineer. The Contractor shall bear all risks associated with infilling of the borrow area prior to surveying of that section of the borrow area for payment.
- 4.15 Payment: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, water quality monitoring, excavating, transporting fill, and marsh construction shall be included in the Contract unit price per cubic yard of Hydraulic Dredging – Marsh Creation (Bid Item No. 4), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.

TS-5 PRIMARY CONTAINMENT DIKE CONSTRUCTION

- 5.1 General: The boundaries of the primary containment dikes appear in the Plans. Fill material to construct the primary containment dikes may be excavated from within the borrow sources shown in the Plans. The primary containment dikes shall be erected as shown in the Plans to prevent discharge of turbid water into adjacent water bodies and interior marsh. The Contractor is required to provide continual maintenance of the primary containment dikes so that they function as intended during the construction period for which they are needed.
- 5.2 Excavation of Fill Sources: The Contractor may excavate the fill sources shown in the Plans to construct the primary containment dikes. The Contractor may excavate the fill sources as necessary but within the limits shown within the Plans to provide fill to construct the primary containment dikes. The Contractor may transport fill excavated from one part of the fill source and use it to construct the primary containment dikes elsewhere in the project footprint. However, it is estimated that there is sufficient fill within the fill sources to allow construction of the primary containment dikes without the transport of fill material within the project area.
- 5.3 Dimensions: The primary containment dikes shall be constructed to a minimum elevation of +4.0 feet NAVD88 with an upper tolerance of +0.5 feet. The primary containment dikes shall have a minimum crest width of five (5) feet. Side slopes shall be 1(V):4(H), and a minimum offset between the primary dike toe and the primary dike fill source shall be twenty (20) feet. The Contractor is required to build and maintain the primary containment dikes until completion of the project. Data regarding existing geotechnical site conditions are provided in Appendix IV. The Contractor must

provide a plan for primary containment dike construction including a representative drawing of dike dimensions at least fourteen (14) Days prior to the Pre-Construction Conference.

- 5.4 Rehandling: For multiple Work areas, the excavation of material and placement of the material within the limits of temporary sidecast disposal areas may require double handling of the material. Accordingly, the cost of double handling of the material shall be included in the bid. Double handling shall be at no additional cost to the Owner and shall not be a basis of claim for additional costs or time.
- 5.5 Containment Dike Degradation: Earthen containment dikes must be the same elevation as the marsh creation platform upon completion of the project. Degradation of earthen containment dikes shall be required upon completion of the project to achieve consistent marsh elevations, unless otherwise directed by the Engineer. Spoil from dike degradation shall be used to fill any low lying areas over the containment dike borrow areas. After spreading to marsh elevation, remaining spoil shall be placed in adjacent canals or adjacent open water. All costs associated with the degradation of the containment dikes should be included in Bid Item No. 5 "Earthen Containment Dikes".
- 5.6 Payment: Costs associated with the project, including costs associated with, but not limited to, layout, magnetometer surveys, surveying and reporting, water quality monitoring, excavating, transporting, refilling of fill source, construction, and maintenance of primary containment dikes shall be included in the Contract unit price per linear foot of Primary Containment Dike (Bid Item No. 5), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Any tertiary dikes constructed by the Contractor will be at no cost to the Owner.
- 5.7 Payment Request: The Contractor shall survey the centerlines of the primary containment dikes along the lines shown in the Plans as a basis for payment. Data points shall be taken at a spacing of not more than fifty feet (50'). Check surveys perpendicular to the centerline of the primary containment dikes at four hundred foot (400') spacing are required for reference but will not be used as a basis for payment. Perpendicular profiles shall extend fifty feet (50') inward of the inner limit of the primary dike fill source and fifty feet (50') outward of the outer limit of the primary containment dike footprint. Seventy-five percent (75%) of the Contract linear footage will be paid to the Contractor for primary containment dike constructed on a monthly basis. The remaining twenty-five percent (25%) will be paid to the Contractor when the marsh fill area contained by the section of primary dike has been accepted. However, all required maintenance of the primary containment dikes shall be performed by the Contractor at no cost to the Owner.

TS-6 SECONDARY POND CONTAINMENT CONSTRUCTION

- 6.1 General: The boundaries of the secondary containment dikes appear in the Plans. Fill material to construct the secondary containment dikes may be excavated from within the borrow sources shown in the Plans. The secondary containment dikes shall be erected as shown in the Plans to divert the flow of marsh fill material out of proposed pond footprints. Ponds will be contained by the existing marsh shoreline where possible and by low containment dikes where the perimeter traverses an open water area. Some overtopping of the secondary containment is anticipated as this will facilitate more natural pond habitat formation. When discharging hydraulically dredged material near secondary containment dikes, the Contractor shall pump in a manner to avoid damage to the dike (i.e. diffusers, etc.). If damage to the secondary dikes occurs due to directly pumping marsh fill material nearby, the Contractor shall move or redirect the discharge as directed by the Engineer. The Contractor shall propose hydraulic fill methodology to minimize damage to the secondary containment dikes near the ponds in the containment dike construction plan at least fourteen (14) Days prior to the Pre-Construction Conference.

- 6.2 Excavation of Fill Sources: The Contractor may excavate the fill sources shown in the Plans to construct the secondary containment dikes. The Contractor may excavate the fill sources as necessary but within the limits shown within the Plans to provide fill to construct the secondary containment dikes. The Contractor may transport fill excavated from one part of the fill source and use it to construct the secondary containment dikes elsewhere in the project footprint. However, it is estimated that there is sufficient fill within the fill sources to allow construction of the secondary containment dikes without the transport of fill material within the project area.
- 6.3 Dimensions: The secondary containment dikes shall be constructed to an elevation of +2.5 feet NAVD88 with an upper tolerance of +5.0 foot. The secondary containment dikes shall have a minimum crest width of five (5) feet. Other dike dimensions including side slope and base width are at the discretion of the Contractor provided the structure is substantial enough to redirect discharge of fill material. The Contractor is required to build and maintain the secondary containment dikes until completion of the project at the discretion of the Owner and Engineer. Data regarding existing geotechnical site conditions are provided in Appendix IV. The Contractor must provide a plan for secondary containment dike construction including a representative drawing of dike dimensions at least fourteen (14) Days prior to the Pre-Construction Conference.
- 6.4 Payment: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, excavating, transporting, construction, and maintenance of secondary pond containment dikes shall be included in the Contract unit price per linear foot of Secondary Pond Containment (Bid Item No. 6), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Any tertiary dikes constructed by the Contractor will be at no cost to the Owner.
- 6.5 Payment Request: The Contractor shall survey the centerlines of the secondary pond containment dikes along the lines shown in the Plans as a basis for payment. Seventy-five percent (75%) of the Contract linear footage will be paid to the Contractor for secondary pond containment constructed on a monthly basis. The remaining twenty-five percent (25%) will be paid to the Contractor when the marsh pay section adjacent to the section of secondary pond containment has been accepted. However, all required maintenance of the secondary pond containment shall be performed by the Contractor at no cost to the Owner.

TS-7 TRENASSE CONSTRUCTION

- 7.1 General: The boundaries of the trenasses appear in the Plans. Trenasses shall be excavated as shown in the Plans, and spoil material shall be spread out in the adjacent marsh and/or open water areas. Placement of the dredged material shall be at least 15 feet away from the outer toe of the trenasse but is not defined by the construction template. At the time of trenasse payment surveys, no adjacent spoil shall be above elevation +1.5' NAVD88. Trenasses shall be excavated prior to the pumping of marsh fill and will be filled with hydraulically placed marsh fill material. It is expected that the differential settlement between the excavated areas and neighboring marsh elevation will become sufficient to form a small trenasse. The contractor may be required to track the length of the trenasses after the marsh creation areas are filled with marsh fill material prior to demobilization to facilitate trenasse formation.
- 7.2 Dimensions: The trenasses shall be excavated to a minimum elevation of -2.5' NAVD88 and shall have a minimum top width of 10'. The Contractor must provide a plan for trenasse construction including a representative drawing of trenasse dimensions at least fourteen (14) Days prior to the Pre-Construction Conference.
- 7.3 Payment: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, excavating, material transport, and construction of the trenasses shall be included in the Contract unit price per linear foot of Trenasses (Bid Item No. 7), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental

to performing the Work.

- 7.4 Payment Request: The Contractor shall survey the centerlines of the trenasses along the lines shown in the Plans as a basis for payment prior to placement of marsh fill. Perpendicular profiles every three hundred feet (300') along the length of each trenasse shall be surveyed to ensure spoil material has been spread evenly in the marsh fill areas. One hundred percent (100%) of the Contract linear footage will be paid to the Contractor for trenasses constructed on a monthly basis.

TS-8 EARTHEN TERRACE CONSTRUCTION

- 8.1 General: Earthen terraces shall be constructed using in-situ fill material to the lines, grades, and elevations specified in the Plans and these Specifications or as directed by the Engineer. The earthen terraces shall be maintained by the Contractor until the entire terrace field has been completed and accepted for payment in accordance with the Plans and these Specifications.
- 8.2 Fill Material: The material utilized for the construction of the earthen terraces shall consist of uniform in-situ material in the fill sources delineated on the Plans. Examples of unsuitable material include but are not limited to tree trunks, other large vegetative debris, stone, and trash. If unsuitable material is found within the designated borrow areas, the material shall be disposed of at an appropriate offsite location. If any material is questionable, the Contractor shall submit a Request for Interpretation to the Engineer.
- 8.3 Dimensions: The earthen terraces shall be constructed to a minimum elevation of +3.5 feet NAVD88 with a vertical tolerance of +1.0 foot. The earthen terraces shall have a minimum crest width of fifteen feet (15'). Material placed above the maximum vertical tolerance elevation of +4.5' NAVD88 may be required to be removed. Earthen terrace side slopes shall be constructed at 1(V):5(H) to the extent possible. Fill sources are delineated adjacent to earthen terrace alignments with an offset of fifteen feet (15'). The maximum excavation elevation within each borrow area is -10.4' NAVD88. Data regarding existing geotechnical site conditions are provided in Appendix IV.
- 8.4 Payment: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, water quality monitoring, excavating, transporting, construction, and maintenance of the earthen terraces shall be included in the Contract unit price per linear foot of Earthen Terrace (Bid Item No. 8), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 8.5 Payment Request: Process surveys may be conducted no sooner than fourteen (14) days after construction of each earthen terrace. The Contractor shall survey the centerlines of the earthen terraces along the lines shown in the Plans as a basis for payment. Three cross sections shall be surveyed at 150' intervals along each earthen terrace to verify construction tolerances. One hundred percent (100%) of the Contract linear footage will be paid to the Contractor for earthen terraces constructed on a monthly basis.

TS-9 SETTLEMENT PLATES

- 9.1 Scope: This Work consists of furnishing and assembling the materials needed to construct and install settlement plates in accordance with these Specifications and the project Plans or as directed by the Engineer. It should be noted that the settlement plates are intended for CPRA's long term monitoring of the project area.
- 9.2 Materials: Settlement plates shall be fabricated with a four foot by four foot by one-quarter inch (4'x4'x 1/4") steel plate with a three inch (3") diameter galvanized riser pipe connected to the center of the plate with a three-sixteenth inch (3/16") continuous fillet weld. The pipe shall be of sufficient length to facilitate the placement in the areas as shown in the Plans, extending a minimum of five feet (5') and a maximum of eight feet (8') above finished grade. The top of the pipe shall be closed

with a galvanized cap prior to installation and immediately after adding extension sections. A bolt shall be placed in the riser pipe three feet (3') above the as-built grade. The bolt shall be hot dipped galvanized as shall the associated nuts and washers.

- 9.3 Zinc Coating: After fabrication, the settlement plate shall be hot dipped galvanized. Zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In all cases where zinc coating is destroyed by cutting or installation of the survey bolt, the affected areas shall be regalvanized with a suitable low-melting zinc base alloy, similar to the recommendations of the American Hot-Dip Galvanizers Association, to the thickness and quality specified for the original zinc coating. Coatings less than two (2) ounces shall be regalvanized by a repair compound.
- 9.4 Installation: The settlement plates shall be installed at the locations as shown in the Plans prior to fill placement (marsh and dike) in the immediate vicinity. For settlement plates located where excavation is necessary, the plate should be installed after excavation and prior to the fill placement in the immediate vicinity. The top of the pipe shall be between five feet (5') and eight feet (8') above the as-built surface. The pipe shall be at an angle of no more than 10.5° from normal. The Contractor shall exercise care when placing fill material in the vicinity of the settlement plates. Any damaged settlement plates shall be replaced by the Contractor at no expense to the Owner. Damaged settlement plates are defined as plates that would not accurately locate the primary dike centerline, sand dune centerline, and marsh locations as determined by the Engineer. Leveling of the plate bed shall be accomplished by removing the minimum amount of earth or debris necessary to produce an even foundation and in such manner that the density of the sediment under the plate will remain at the same density as the undisturbed adjacent ground. Leveling of the plate bed by the addition of fill will not be permitted.
- 9.5 Surveys: The Contractor shall survey the grade, bolt elevation, and top of pipe of the settlement plates immediately after placement, three (3) Days after placement, and every seven (7) Days until Final Acceptance of the project. Settlement plates shall also be surveyed any time they are altered or impacted. Elevations shall be recorded and reported to the nearest tenth of a foot (0.1') NAVD88. The Contractor shall provide the data to the Engineer in a survey format provided in Appendix III, along with a time stamp.
- 9.6 Payment: This Work consists of furnishing and assembling the materials needed to construct, layout, install, and survey settlement plates in accordance with these Specifications and the project Plans or as directed by the Engineer. All costs connected with the settlement plates will be paid for at the Contract unit price per each Settlement Plate (Bid Item No. 9), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. The Contractor may request payment for the installation of settlement plates on a monthly basis.

TS-10 CONVEYANCE CORRIDOR

The conveyance corridor is defined as the Work Area from the Gulf of Mexico borrow area to the marsh fill areas. This Work consists of furnishing and assembling the materials needed to construct, install, and survey the sediment pipeline in accordance with these Specifications and the project Plans or as directed by the Engineer. All costs connected with the sediment pipeline will be included in the Contract unit price for Mobilization and Demobilization (Bid Item No. 1), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the work.

- 10.1 Conveyance Corridor Construction Limits: All construction equipment must be located within the conveyance corridor construction limits shown in the Plans. The construction limits of the proposed conveyance corridor shall be no greater than one hundred (100) feet in width on land, except where the submerged pipeline corridor comes ashore, and four hundred (400) feet offshore as shown in the Plans. All Work must take place within the conveyance corridor construction limits. All equipment

staging areas shall be described in the Work Plan and approved by the Engineer prior to construction and mobilization. Excess Plant and Materials shall not be stored within the conveyance corridor limits. It shall be the Contractor's responsibility to coordinate and secure appropriate staging areas and facilities. Staging is permitted on the Gulf beach within the conveyance corridor limits shown on the Plans. If it is necessary to remove existing sand fencing to facilitate access, sand fencing shall be returned to pre-construction conditions at the Contractor's expense prior to demobilization to the satisfaction of the Owner and individual controlling agencies where applicable. The oil field road shown in the Plans is available to facilitate access to the marsh fill areas. This road shall be accessible to landowners and infrastructure operators during construction. The conveyance corridor (including the oil field road) shall be returned to pre-construction conditions at the Contractor's expense prior to demobilization to the satisfaction of the Owner and individual controlling agencies where applicable. Photographs documenting the pre-construction condition of the oil field road shown in the Plans shall be provided by the Contractor to provide a baseline for restoration of damages.

- 10.2 Equipment and Construction Access: Access to the borrow area is only available through use of a boat through Federal and State authorized water bottoms. The submerged line shall be placed in the submerged pipeline corridor. The Contractor may be required to cross existing submerged oil and gas infrastructure located at or near the ocean floor. If a pipeline is used to transport material, the pipeline seaward of the beach landing shall be submerged except at the dredge, booster pumps (if required), and at oil and gas infrastructure crossings. In these instances, the pipeline shall be floated unless written permission has been obtained from the pipeline owner to place the submerged pipeline on the ocean floor. A copy of this permission shall be provided to the Owner. If the sediment pipeline is not floated across existing infrastructure, the Contractor shall use appropriate methods to place the temporary sediment pipeline across existing infrastructure (i.e. bridging, matting, etc.) and shall provide a detailed description of proposed construction methods in the Work Plan for approval by the Engineer. The Contractor shall coordinate with all infrastructure owners and obtain approval to cross existing infrastructure using such methods from the owner or leaseholder.

The Conveyance Corridor shown in the Plans may be used during construction to temporarily transport construction equipment, materials, and labor to the fill areas and shall meet the landowner requirements specified in SP-7. The sediment pipeline used to transport sediment to the fill areas shall be placed within the conveyance corridor construction limits shown in the Plans. The Contractor's equipment access route and sediment pipeline location within the conveyance corridor shall be submitted in the Work Plan for approval prior to mobilization. The Contractor may use the oil field road for marsh buggy access. The Contractor shall stay within the project area with the marsh buggy and at no time shall the Contractor traverse across existing vegetation that is outside the project area.

Specific to the conveyance corridor, the Contractor is prohibited from travel across marsh vegetation outside the designated construction limits. Additional information regarding repair of areas damaged from the land-based equipment can be found in TS-10.4.

There shall be no excavations by the Contractor allowed within fifty (50) feet of any oil or gas pipeline. Written approval from the pipeline/utility owner defining any allowances and/or restrictions placed on the Contractor by the pipeline/utility owner must be submitted to the Owner and Engineer seventy-two (72) hours prior to any excavation within the fifty (50) foot pipeline buffer.

- 10.3 Vehicular Crossings (not LA 27/82): Vehicular sediment pipeline crossings shall be constructed as needed and shall be sufficient to accommodate vehicle traffic during construction including maintenance and inspection. Any vehicular sediment pipeline crossing shall be constructed using earthen fill material as a base; either crushed aggregate, recycled crushed concrete, or recycled asphalt pavement as the road surface; and all other materials necessary. Road surface aggregate shall conform to the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1003.04. The Contractor shall provide proper drainage of any impounded areas created during

the construction of vehicular sediment pipeline crossings for the duration of the Project. If drainage becomes a problem, the Contractor shall make modifications to improve the drainage such that water does not pond. The Contractor's typical crossing plans shall be submitted in the Work Plan prior to mobilization.

- 10.4 Restoration of Marsh Damages: The Contractor will be responsible for the restoration of any damages caused by unpermitted, unapproved, and/or careless operation during construction. This covers, but is not limited to the conveyance corridor or any other routes used for access. Restoration may include the placement of dredged sediment and/or vegetation to pre-construction elevations and/or conditions within the areas of damage at the expense of the Contractor and will be performed at the discretion and direction of the Owner and Engineer.
- 10.5 Restoration of Beach Damages: The Contractor will be responsible for the restoration of any damages caused by unpermitted, unapproved, and/or careless operation during construction. Restoration may include the placement of sand and/or vegetative plantings to pre-construction elevations and/or conditions within the areas of damage at the expense of the Contractor and will be performed at the discretion and direction of the Owner and Engineer.
- 10.6 Alternate Conveyance Corridor Alignment: The conveyance corridor has been identified in the Plans. Deviations from or relocation of these corridors are subject to review and approval by the Owner, Engineer, and State and Federal regulatory agencies. Should the Contractor request a deviation or relocation of the conveyance corridor, it shall be the responsibility of the Contractor to apply for and obtain the required Permit modifications from the Louisiana Department of Natural Resources, Office of Coastal Management and the USACE in addition to approvals from the applicable property owners, oyster lease holders, and/or utility operators. The Contractor shall provide the approved permit modifications and approvals to the Owner and Engineer prior to excavation and installation of the sediment pipeline and/or booster pumps and/or any Work done within the proposed alternate conveyance corridor construction limits.
- 10.7 LA 27/82 Crossing: The Contractor shall furnish all materials, labor, and equipment to install one permanent concrete casing pipe underneath LA 27/82 via open-cut methods as described in TS-12. This task includes the relocation of a 10" nominal PVC main waterline along LA 27/82 to facilitate the installation of the permanent casing pipe as described in TS-11. Any alternate sediment pipeline placement methods shall be included in the Work Plan for approval by the Engineer. The highway crossing location within the conveyance corridor is shown in the Plans. The Contractor shall notify Louisiana Department of Transportation and Development (DOTD) representatives prior to construction and after work is complete. Contact information for these representatives is as follows:

Roger Moses
LA DOTD District 07 Lake Charles
337-437-9130

The Contractor shall perform a survey to locate, probe, identify, and mark any utilities within the conveyance corridor limits in the vicinity of the proposed excavation and alignments for operations. If existing utility infrastructure is damaged by the Contractor during construction, the lines shall be repaired immediately to pre-construction conditions by the Contractor at no cost to the Owner.

Permanent casing pipe markers are to be installed on each side of the highway as shown on the Plans to mark the crossing location. Permanent casing pipe markers shall be made and installed in accordance with Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 729, and as shown on the Plans prior to demobilization. Prior to demobilization, casing pipe shall be capped, construction pits shall be backfilled, and the conveyance corridor shall be restored to pre-construction conditions.

- 10.8 Casing Pipe Caps: After the marsh fill has been accepted and the sediment pipeline has been removed from the casing pipe, each end of the casing pipe shall be capped. Caps shall be constructed in accordance with the Plans. Caps shall be attached to the casing pipe and shall not be water tight. The Contractor shall provide the Owner and Engineer notice of the completion of installation of the caps 72 hours prior to backfilling of the construction pits to provide for inspection. The Contractor shall have a licensed Professional Engineer in the State of Louisiana submit written certification to the Owner and Engineer that the sediment pipeline was removed without damage to the casing pipe.
- 10.9 Payment for Casing Pipe Caps: Steel casing pipe caps shall be included in Bid Item No. 24 "Casing Pipe Caps" and shall include all materials, labor, tools, equipment, and incidentals required to install the casing pipe caps. This Work consists of furnishing and assembling the materials needed to construct and install steel casing pipe caps in accordance with these Specifications and the project Plans or as directed by the Engineer. All costs connected with the casing pipe caps will be paid for at the Contract unit price per each Casing Pipe Cap (Bid Item No. 24), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. One hundred percent (100%) of the price of the bid item will be paid to the Contractor after caps are installed in accordance with these Specifications or as directed by the Engineer.
- 10.10 Overhead Utilities Compliance: Construction activities may take place near power and distribution lines and precautions shall be taken to avoid impeding regular operations. It is understood and agreed that the wires supported by structures on the right of way are conductors of, and at all times have in them, high voltage electricity. No person, or object in contact with a person, may touch or be near to said wires or other fixtures on said structures, because to do so or to permit such would be dangerous to the life of the party so doing, as well as anyone else in the area where such occurred. The Contractor agrees to inform each and every individual of such facts before such party enters upon any part of the easement area shown on Plans during the time such work is being prepared, done or completed, or any equipment moved to, upon or from said property and the energy company shall be indemnified by the Contractor from any injury or death resulting there from. The area within the right of way is to be used only for the purposes relative to the project and disclosed to the energy company, and no buildings or components of buildings are to be located or protruding into the right-of-way. Any Work performed in this area must be done in accordance with all National Electric Safety Code (NESC) requirements concerning clearances from energized facilities, grounding of any installations and any other applicable code requirements. All OSHA regulations must be met and maintained during the construction, operation, and maintenance of all facilities within the right-of-way. It is also agreed and understood that Contractor will at all times indemnify and hold harmless the energy company from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal injury, death (including but not limited to injuries and death to employees of the energy company and Contractor's employees) or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of the Contractor's rights hereunder, or to the Contractor's presence upon or use of the energy company's premises above referred to, or to the use or existence of the Contractor's facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim or cause of action is caused by the sole negligence of the energy company, its employees, agents, or representatives. All equipment used on the property shall have a maximum height not to exceed NESC clearances allowed, or shall be provided with guard chains limiting moveable parts of the equipment to that maximum height. No fencing, tents, jack-up lighting, or light poles of any kind are permitted inside the right-of-way at any time. The energy company will have full access and use of the right-of-way at all times for any work projects or maintenance and shall not be responsible for any damage to the proposed sediment pipeline crossing the right of way. The energy company must approve any additional improvements to the right-of-way area. Upon termination of the use of the Right-of-Way, the Contractor shall restore the property to pre-construction conditions following construction.

- 10.11 Measurement and Payment: All costs incurred by the Contractor for the placement, maintenance, and removal of the sediment pipeline within the conveyance corridor shown in the Plans shall be included in Bid Item No. 1, "Mobilization and Demobilization".

TS-11 WATERLINE RELOCATION

- 11.1 Scope: This work consists of furnishing and assembling all of the materials needed to construct, layout, and install a 6" diameter ductile iron temporary bypass line and then remove a section of the existing 10" nominal diameter polyvinyl chloride (PVC) waterline adjacent to LA 27/82 and replacing the section with a 12" nominal diameter high density polyethylene (HDPE) pipe along approximately 54' of length near the proposed casing pipe installation as shown on the Plans. Service shall be maintained during the temporary bypass installation through the use of tapping sleeves. The Contractor shall name the Cameron Parish Waterworks District No. 10 as an additional insured on any required insurance policies. In the event that any functional appurtenances located on the waterline become damaged, altered, or destroyed as a result of relocation activities or any activity within the relocation area during the project conducted by CPRA, its Contractor, or other designee or representative, then the Contractor shall repair or replace same in like manner, and to equal condition, function, service, and utility that existed prior to commencement of the relocation activities. Specified joint restraints are located in Appendix XVI.

- 11.2 Construction Sequence: The Contractor must notify CPRA at least 72 hours prior to initiating the waterline relocation. Waterline relocation consists of the process detailed in TS-11 and shown in the Plans. The Contractor shall first install tapping sleeves and valves, joint restraints on all pipe and fittings, flushing and testing risers, chlorination points, and a temporary bypass (6" ductile iron) pipe. The temporary bypass pipe shall be chlorinated per TS-11.9. Water in the bypass line shall be sampled and submitted to a Department of Health and Hospitals (DHH)-approved laboratory for testing. Upon written notice from the Engineer notifying the Contractor that the sample has been approved, the Contractor shall place the temporary bypass line in service with only personnel from Cameron Parish Waterworks District No. 10 operating the tapping valves.

Afterwards, the two (2) 10" line stop fittings shall be installed with plugs to temporarily stop flow in the existing 10" PVC waterline so that it can be removed from service and the new 12" PE waterline installed in the same trench, but at the depth as indicated on the Plans. The new 12" PE waterline shall be chlorinated per TS-11.9. Water from the new HDPE section shall be sampled and submitted to a DHH-approved laboratory for testing. Upon written notice from the Engineer notifying the Contractor that the sample has been approved, service shall be transferred to the newly relocated line and the 6" bypass line shall be removed up to the 6" bypass valve (the tapping valve and sleeve installed on each end of the existing 10" PVC waterline shall remain in place).

- 11.3 References:

- 11.3.1 AWWA C104 Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water
11.3.2 AWWA C105 Polyethylene Encasement for Ductile-Iron Pipe Systems
11.3.3 AWWA C111 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
11.3.4 AWWA C150 Thickness Design of Ductile-Iron Pipe
11.3.5 AWWA C151 Ductile-Iron Pipe for Water or Other Liquids
11.3.6 AWWA C651 Disinfecting Water Mains

- 11.3.7 AWWA C605 Underground Installation of PVC Pressure Pipe and Fittings for Water
- 11.3.8 AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution)
- 11.3.9 AWWA C906 Polyethylene (PE) Pressure Pipe and Fittings, 4 In. through 63 In. for Water Transmission and Distribution

11.4 Materials:

- 11.4.1 Ductile Iron Push-On Pipe Joint Pipe: Ductile iron water pipe shall be designed in accordance with AWWA C150, and have push-on joints. All pipe joints shall be restrained with manufactured restraints as specified herein.

Pipe shall be manufactured in accordance with AWWA C151, latest revision, except the minimum nominal wall thickness shall be as shown on the following table:

<u>Size</u>	<u>Pressure Class</u>	<u>Thickness Class</u>
6"	350	50

Pipe shall be standard cement lined and seal coated on the inside with a bituminous coat in accordance with AWWA C104, latest revision. The exterior of the pipe shall be coated with an asphaltic coating approximately 1 mm thick in accordance with AWWA C151, latest revision. Ductile iron pipe shall be as manufactured by American Cast Iron Pipe Company, Clow Corporation, U.S. Pipe and Foundry Company, or approved equal.

- 11.4.2 High Density Polyethylene Pipe (HDPE Pipe): Pipe shall be manufactured in accordance with AWWA C906 and be SDR 11, PE 4710 High Density, Ductile Iron Pipe Size (DIPS) with Cell Classification 345434C, in accordance with ASTM D3350. HDPE pipe shall be manufactured by Performance Pipe, Poly Pipe, JM Eagle, or approved equal.
- 11.4.3 PVC Push-On Joint Pipe: Pipe shall be manufactured in accordance with AWWA C900 and be DR 18 with push-on joints. Pipe shall be blue in color. All pipe joints shall be restrained with manufactured restraints as specified herein. PVC pipe shall be manufactured by Certainteed, JM Eagle, NAPCO, or approved equal.
- 11.4.4 Fittings for PVC, Ductile Iron, and Polyethylene Pipe: All fittings shall be ductile iron manufactured in accordance with AWWA C153 and have mechanical joints. The rated working pressure shall be 350 psi. Sufficient quantities of gaskets, glands, bolts, and nuts shall be furnished to provide for each fitting. Bolts and nuts shall be stainless steel. All fittings shall be asphalt coated outside and cement lined and seal coated inside in accordance with AWWA C104. All fittings shall be restrained with manufactured restraints as specified herein. Fittings shall be manufactured by American, Tyler Union, U.S. Pipe, or approved equal.
- 11.4.5 Transition Fitting for PE Pipe: The transition from PE pipe to PVC pipe (or ductile iron mechanical joint fittings) shall be made with the use of a mechanical joint adapter and kit (aka "Harvey Adapter"). The "Harvey Adapter" shall have a pre-positioned stainless steel stiffener and shall offer full axial restraint. Transition fittings shall be manufactured by Performance Pipe or approved equal.
- 11.4.6 Tapping Saddles for C900 PVC Pipe (For Chlorination, Flushing and Sampling): Utilize NSF 61 certified bronze body saddle with controlled OD and outlet tapped for AWWA IPT. Provide full support around the circumference of the pipe. Provide bearing area of

sufficient width along the axis of the pipe (minimum 2-inch width for taps up to 1 inch diameter). Gaskets shall be EPDM or nitrile o-ring in recessed groove. Tapping saddles shall be Mueller model H-13000 series or approved equal.

- 11.4.7 Tapping Sleeves for C900 PVC Pipe: Tapping sleeves shall be mechanical joint sleeves.

Sleeves shall be stainless steel and have an outlet flange with the dimensions of Class 150 flange. Bolts and nuts shall be Type 304SS. Sleeves shall be capable of withstanding a 200 psi working pressure. Tapping sleeves shall be Romac Sleeve Number STS420 or approved equal.

- 11.4.8 Tapping Valves: Tapping valves shall meet the requirements of Resilient Seat Gate Valves, except that units shall be flange by mechanical joint ends. Valves shall be compatible with tapping sleeves as specified above and specifically designed for pressure connection operations.

- 11.4.9 Service Ball Valve (For Chlorination, Flushing and Sampling): Service ball valves shall be full port ball valves, made of brass, cast and machined in accordance with specifications in AWWA C800, AWWA C901, and compliant with NSF-61. Service ball valves shall be Mueller model 300 or approved equal.

- 11.4.10 Resilient Seat Gate Valves: Gate valves shall be resilient seat gate valves manufactured to meet or exceed the requirements of AWWA C509 / C515, latest revision, and in accordance with these specifications. Valves shall have an unobstructed waterway equal to or greater than the full nominal diameter of the valve. Valves shall have a minimum pressure rating of 250 psig.

Gate valves shall be installed as indicated on the Plans. The valve body, bonnet, and bonnet cover shall be ductile iron ASTM A536. All ferrous surfaces inside and outside shall have a fusion-bonded epoxy coating in accordance with AWWA C550. A two-inch wrench nut shall be provided for operating the valve. All valves are to be tested in strict accordance with AWWA C515.

All valves shall open left or counter clockwise. The valves shall be non-rising stems with the stem made of cast, forged, or rolled bronze as specified in AWWA C509. Two stem seals shall be provided and shall be of the o-ring type. The stem nut must be independent of the gate. The resilient sealing mechanism shall provide zero leakage at test and normal working pressure when installed with the line flow from either direction. Resilient seat gate valves shall be Series 2360 produced by Mueller Inc. or approved equal.

- 11.4.11 Valve Boxes: Valve boxes for permanent valves shall be two-piece cast iron with suitable heavy bonnets and shall extend to such elevation at the finished grade surface. The barrel shall be screw type only, having 5-1/4-inch shaft. The upper section shall have a flange at the bottom having sufficient bearing area to prevent settling. Covers shall have "WATER" cast into the top for all water mains. Valve collars shall be 24" x 24" round or square and poured in place with 3000 psi concrete or made out of a fiberglass re-enforced concrete polymer material. Valve boxes shall be Series 6850 produced by Tyler Union or approved equal.

- 11.4.12 Line Stop Fitting: Line stopping fittings installed on the existing 10" PVC waterline shall be manufactured in accordance with AWWA C223. They shall be constructed of ASTM A36 carbon steel with outlet seal gasket and threaded plug. They shall be coated with epoxy coating in accordance with AWWA C213. The blind flange shall be ANSI 150, constructed of ASTM A36 carbon steel, and be epoxy coated. The nuts and bolts shall be Type 304SS. The line stopping fittings shall be JCM 440 Type 2 manufactured by JCM

Industries, Inc. or approved equal.

- 11.4.13 Joint Restraints: All joints for pipe and fittings shall be restrained with the following products or approved equal:

EBAA Iron 1100 MEGALUG: Shall be installed with all DI MJ fittings that are installed. The typical follower gland furnished with DI MJ fittings will be replaced with this joint restraint.

EBAA Iron 1600 Split Serrated Restraint Harness: Shall be installed at the push-on joints of all PVC pipe installed. Additionally, this restraint shall be installed on the pipe joints of the existing PVC pipe. The Plans specify that at least the first two pipe joints on the existing waterline immediately upstream and downstream of the newly relocated waterline be restrained.

EBAA Iron 1700 MEGALUG Harness: Shall be installed at the push-on joints of all DI pipe installed.

- 11.4.14 Polyethylene Encasement: All permanent underground ductile iron pipe, fittings (includes tapping sleeves and line stop fittings), and valves shall be wrapped in a tube type polyethylene encasement in accordance with AWWA C105, Method A. Polyethylene encasement shall be either linear low-density polyethylene (LLDPE) with a minimum thickness of 8 mils or high density, cross laminated polyethylene (HDCLPE) film with a minimum thickness of 4 mils.

- 11.4.15 Tracer Wire: All underground PVC and PE pipe shall be installed with No. 10 AWG stranded copper tracer wire.

- 11.5 Trench and Backfill: Backfill materials shall be identical to the material specified for the proposed casing pipe or the sediment pipeline.

- 11.6 Submittals: The Contractor shall submit a proposed construction plan for the waterline relocation, for approval by the Engineer at least 14 days prior to the pre-construction conference. A layout drawing and narrative description of the 6" ductile iron bypass and new 12" HDPE pipeline section and associated valves and fittings installation shall be included in the Work Plan for approval by the Engineer. The Contractor shall submit manufacturer's certifications, cut sheets, brochures, and technical data that the materials proposed for use on the project meet these specifications and the applicable referenced standards (ANSI/AWWA, ASTM, NSF). Submittals shall be forwarded to the Engineer for approval. Submittals of materials not meeting the specifications will be rejected and will require re-submittal and approval before use on the project.

- 11.7 Installation: Waterline relocation shall conform to the Plans, these Specifications, and Louisiana Administrative Code (LAC) Title regulations where applicable, as detailed in Appendix VIII and Appendix XV respectively. The Contractor shall give sufficient notice to the interested utility of his intention to remove or disturb any other pipe or conduit and shall abide by their regulations governing such work. Less than 48 hour notice for approved disconnection to customers shall be the responsibility of the Contractor. Water service to customers shall be maintained without interruption.

The Contractor shall perform a survey to locate, probe, identify, and mark any utilities within the vicinity of the proposed excavation and alignments for waterline relocation operations. The Contractor shall be responsible for the protection of existing utilities and restoration of existing conditions in accordance with GP-22 and GP-25. It is the responsibility of the Contractor to obtain any additional permits required to complete the work. The Contractor shall conform to the requirements stated in GP-26. No excavation shall take place within five (5) feet of the adjacent fiber optic line.

The waterline relocation shall be performed by methods that will not interfere with or endanger the roadway surface or activity thereon. The Contractor shall be responsible for all settlement resulting from operations and shall repair and restore the damage at no cost to the Owner. Trenches shall be excavated and trench boxes shall be installed to prevent failure and loss of roadway or embankment material. The waterline relocation trench shall have dimensions of approximately 81' by 4' maximum as shown on the Plans.

The Contractor shall excavate access pits as shown in the Plans and furnish all equipment necessary for pumping water accumulated in the trenches. Trenches and other excavations shall be kept clear of water while pipe is being installed. No pipe or appurtenances shall be laid in water. Temporary sheeting along the length of the relocation trench may be necessary to protect the existing roadway pavement. The Contractor shall maintain the existing roadway pavement along the length of the relocation trench throughout construction.

The Contractor shall temporarily bypass the waterline using a tapping sleeve and valve connection as shown in the Plans. The line shall be fully restrained through the use of manufactured restraints as specified herein. The inside of the tapping sleeve and valve, the outside of the main and the tapping machine shall be cleaned and swabbed or sprayed with one percent liquid chlorine solution prior to beginning installation for the water system pressure connections and must comply with the AWWA C-651-99 or most current version. The Contractor shall use stainless steel tapping sleeves as detailed in the Plans. The method of installation requires, but is not limited to, the following: installation of gate valves and temporary 6" diameter nominal restrained ductile iron bypass waterline, chlorination of the temporary bypass line in accordance with LAC Title 51, Part XII (see TS-11.9 for chlorination requirements), and sampling and testing of temporary bypass line by an independent, State-approved laboratory to confirm water is safe for use prior to diverting service through the temporary bypass line. Service shall be transferred to the temporary bypass line upon written approval by the Engineer and the valves operated by District personnel only.

The Contractor shall connect the HDPE pipe section to the existing water main by fusing sections and installing mechanical joints as shown in the Plans. The relocated section shall be located at least 3' below the proposed casing pipe location as shown in the Plans. The interior of the pipe shall be thoroughly cleaned before lowering into the trench, and pipe shall be kept free of foreign matter during laying operations. When work is not in progress, the ends of the pipe and fittings shall be sealed so foreign material cannot enter pipe.

Manufactured joint restraints shall be provided at all fittings where a change of direction occurs or as specified by the Engineer for all pipe three inches (3") in diameter or greater.

The Contractor shall not operate any valves that will allow water to flow or stop the flow of water. These valves will be operated by the Cameron Parish Waterworks personnel only.

The Contractor shall perform backfill operations as soon as practicable. The Contractor shall leave only the minimum length of trench open as necessary for construction. Re-excavation of the trench for replacement of pipe, tapping, testing, or disinfecting shall be done by the Contractor at no additional cost to the Owner. The Owner reserves the right to order any trench or trenches backfilled at any time after installation of pipe if the particular trench remaining open constitutes a public nuisance.

Upon completion of the installation of the waterline relocation, trench shall be backfilled with the same backfill material specified for the proposed casing pipe for the sediment pipeline, and disturbed areas shall be seeded or protected from erosion. Items of work not mentioned specifically herein shall be performed in compliance with the current revision of AWWA C605, "Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water." The area shall be restored to pre-construction conditions.

After installation of the relocated section is complete, the Contractor shall flush, pressure test, and chlorinate the relocated pipeline per TS-11.9 and perform water sampling and testing of the relocated section by an independent, State-approved laboratory to confirm water is safe for use. Service shall be transferred to the relocated pipeline upon written approval by the Engineer.

- 11.8 Flushing and Hydrostatic Testing of Water Main: All water mains shall be flushed before testing and sampling of the water system. Provide properly sized riser pipes for flushing when hydrant outlets are not convenient. The duration of the flushing shall be determined in the field by the Engineer. The size of the flushing outlet shall be one 6" riser.

The Contractor shall furnish all materials, equipment, and labor to satisfactorily test the pipe at no cost to the Owner. The Contractor shall supply water for testing purposes if unable to use existing system water. The allowable leakage for push-on or mechanical joint ductile iron pipe per inch of diameter, per mile, per twenty-four (24) hour day, when tested at one hundred fifty (150) pounds per square inch pressure, shall not be more than twenty-three point three (23.3) gallons, based on nominal lengths of eighteen (18) or twenty (20) feet.

- 11.9 Disinfection and Chlorination Requirements: Pumps, pipes, wells, tanks, and other parts of new systems or temporary systems shall be thoroughly disinfected by the use of chlorine or chlorine compounds before being placed in use per LAC Title 51, Part XII. The rate of application of chlorine shall be in such proportion to the rate of water entering the pipe or other appurtenances that the chlorine dose applied to the water shall be at least 50 mg/l. Chlorinated water shall be retained long enough to destroy non-spore-forming bacteria. The period shall be at least three hours and preferably longer, as may be directed. After the chlorine treated water has been retained for the required time, the chlorine residual at pipe extremities and at other representative points shall be at least 5 mg/l. If the residual is less than 5 mg/l, the disinfection procedure shall be repeated until a 5 mg/l residual is obtained, as required above. For additional details on the chlorination requirements of the DHH, see Appendix XV.

- 11.10 Sampling Requirements: Samples shall be taken from the temporary bypass waterline and the relocated water main to ensure that the quality of water is safe for consumption. The Contractor shall coordinate water sampling. Water samples shall be delivered to a laboratory approved by both the Engineer and the Louisiana DHH for testing, or the sample may be delivered to a designated DHH drop-off location, as determined by the Engineer. Only after testing confirms that the water is safe for consumption may service be diverted to the temporary bypass waterline or the relocated water main. Upon restoring service to the newly located water main, the temporary bypass line may be removed.

- 11.11 Traffic Control: Traffic Control shall be in accordance with DOTD specifications and TS-12.5 of these specifications.

- 11.12 Site Restoration: The Contractor shall be responsible for restoring the project site to pre-construction conditions including the removal of any debris, restoration of pre-project grade, and seeding in accordance with GP-22, GP-25, TS-23, and TS-11.5.

- 11.13 Measurement and Payment: All costs incurred by the Contractor for the installation of the temporary waterline bypass as shown in the Plans shall be included in Bid Item No. 10 "Temporary Waterline Bypass". All costs incurred by the Contractor for the installation of the relocated waterline as shown in the Plans shall be included in Bid Item No. 11 "Waterline Relocation".

- 11.14 Temporary Waterline Bypass Payment: This work includes furnishing and assembling the materials needed to construct, layout, and install a temporary bypass line per the Plans and these Specifications or as directed by the Engineer to maintain service during the relocation work. All costs connected with the waterline relocation will be paid to the Contractor at the Contract unit price for Temporary Waterline Bypass (Bid Item No. 10), which payment shall also include all other items

of overhead, profit, labor, material, and any other costs incidental to performing the Work. Fifty percent (50%) of the price of the bid item will be paid to the Contractor after temporary bypass is installed and service is restored via the bypass. Fifty percent (50%) of the price of the bid item will be paid to the Contractor upon removal of the temporary bypass.

- 11.15 Waterline Relocation Payment: This Work consists of furnishing and assembling the materials needed to construct, layout, and install a relocated waterline parallel to LA 27/82 to facilitate placement of the permanent casing pipe in the location shown in the Plans and in accordance with these Specifications or as directed by the Engineer. All costs connected with the waterline relocation will be paid to the Contractor at the Contract unit price for Waterline Relocation (Bid Item No. 11), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. One hundred percent (100%) of the price of the bid item will be paid to the Contractor after relocated waterline is installed and service is restored to the relocated PE section.

TS-12 LOUISIANA HIGHWAY 27/82 CROSSING

- 12.1 Scope: Work consists of furnishing and assembling the materials needed to construct, layout, install, and survey one permanent concrete casing pipe via open-cut methods underneath LA 27/82 in accordance with these Plans and the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, including Supplemental Specifications (hereinafter referred to as DOTD Specifications) or as directed by the Engineer.
- 12.2 Control of Work: Control of work shall be in accordance with these Plans and DOTD Specification Section 105.
- 12.3 Materials: The casing pipe shall be made of reinforced concrete drain pipe, in accordance with DOTD Specification Section 701, Culverts and Storm Drains. See Appendix VIII for DOTD Specifications. The casing pipe shall have a minimum inside diameter of 42" and a minimum wall thickness of 4.5".

Class II Base Course, Superpave Asphaltic Concrete Mixtures, Flowable Fill, and Bedding Material shall conform to DOTD Specification Sections 302, 502, 710, and 726, respectively. See Appendix VIII for DOTD Specifications.

Permanent pipeline markers shall be placed on each side of the highway as shown on the Plans to mark the crossing locations. Markers shall be placed prior to demobilization. The pipeline marker signs shall be made in accordance with DOTD Specification Section 729. See Appendix VIII for DOTD Specifications. A proposed drawing of the permanent markers shall be included in the Work Plan for approval by the Engineer.

- 12.4 Installation: Casing pipe installation shall conform to the Plans and DOTD Specification Section 701, as detailed in Appendix VIII of these Specifications.

The Contractor shall perform a survey to locate, probe, identify, and mark any utilities within the conveyance corridor limits in the vicinity of the proposed excavation and alignments for casing pipe installation operations and shall submit a proposed construction plan for open-cut installation of the permanent casing pipe in the Work Plan for approval by the Engineer.

If existing utility infrastructure is damaged by the Contractor during construction, the utilities shall be repaired immediately to pre-construction conditions by the Contractor at no cost to the Owner.

Sediment pipeline installation shall be performed in a way that will not interfere with or endanger the roadway surface and activity thereon, and minimize subsidence of the surface and utilities above and in the vicinity of the operations. The Contractor shall be responsible for all settlement resulting

from operations and shall repair and restore damaged road surfaces or utilities to pre-construction conditions at no cost to the Owner. Trenches shall be excavated, and trench boxes shall be installed to prevent failure and loss of roadway base materials.

Pavement saw-cutting, excavation, backfilling, and pavement patch shall conform to the Plans and DOTD Specifications. The Contractor shall submit a shop drawing of the proposed pavement patch for DOTD approval prior to the Pre-construction conference. Excavation and Embankment shall conform to DOTD Specification Section 203. Backfill shall consist of embankment material, flowable fill, and bedding material as shown in the plans and shall conform to DOTD Specification Sections 203, 710, and 726, respectively. Pavement patch shall conform to DOTD Specification Section 510, Asphaltic Concrete Pavement Patching, Widening, and Joint Repair. See Appendix VIII for DOTD Specifications.

Upon completion of the installation of the sediment pipeline, disturbed areas shall be seeded or protected from erosion. The area shall be restored to pre-construction conditions.

DOTD may require materials inspections and/or sampling prior to installation. This may include but is not limited to asphalt mix, embankment, concrete pipe, and flowable fill. Shop drawings shall be provided for DOTD approval prior to the Pre-Construction conference. Certificates of inspection shall be submitted prior to material installation.

- 12.5 Traffic Control: One lane shall remain open at all times during casing pipe installation. The westbound lane shall be widened using 5' of crushed aggregate conforming to DOTD Specification Sub-section 1003.04(a) to provide minimum 12' travel lane width during installation of the casing pipe across the eastbound lane. Geotextile fabric shall be placed beneath the crushed aggregate conforming to DOTD Specification Section 1019. A triton barrier or approved equivalent shall be installed along the limit of excavation, as shown on the Plans, to separate vehicular traffic from the open-cut. Steady burning lights shall be installed on top of barriers to provide sufficient lighting at night. Traffic control shall be conducted per the Plans. Crossing construction sequencing shall conform with TS-12.6.
- 12.6 LA 27/82 Crossing Construction Sequence: The sediment pipeline casing pipe to be installed underneath LA 27/82 shall be installed in phases. All construction aspects of this installation shall conform to DOTD Specifications and TS-12 of these specifications.
- 12.6.1 Phase 1: Phase 1 consists of the closure of the eastbound lane of LA 27/82 and installation of one section of casing pipe as shown on the Plans. The westbound lane shall be widened using 5' of crushed aggregate to facilitate passing traffic during restricted lane width. The Contractor shall clear the existing grade of vegetation and topsoil prior to widening, place geotextile fabric and crushed aggregate, and maintain the temporarily widened section so that it is suitable to facilitate travel throughout the installation. Temporary traffic control (TTC) shall be installed throughout the duration of the work. The eastbound section of casing pipe shall be installed via open highway cut as shown on the Plans. Trenches shall be excavated, and trench boxes shall be installed to prevent failure and loss of roadway base materials. The concrete casing pipe shall be installed, followed by a pavement patch conforming to requirements described in TS-12.4.
- 12.6.1.1 The dimensions of the open highway cut and trench excavation shall be in accordance with the Plans.
- 12.6.1.2 All temporary traffic control devices including flaggers, triton barriers, and temporary signage shall be in accordance with DOTD TTC-04 as shown on the Plans. Flagging operations shall continue 24 hours per day until two-way travel is reinstated in Phase 3. Flaggers shall have radio communication capabilities during flagging operations.

- 12.6.1.3 All temporary traffic control devices shall be used in accordance with DOTD Specification Section 713 and the MUTCD and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices as shown on the Plans.
- 12.6.1.4 Portable light plants shall be installed and operational overnight for the duration of the roadway crossing construction at the locations shown on the Plans, including two flagger stations.
- 12.6.1.5 Channelizing devices shall be installed at the locations shown in the Plans and shall be lit at night in accordance with DOTD TTC-00(c).
- 12.6.2 Phase 2: Phase 2 consists of the closure of the westbound lane of LA 27/82 and encompasses the following work: temporary traffic control installation, open highway cut of the westbound lane, trench excavation, placement of the concrete casing pipe, backfilling of the trench, and asphalt pavement patching.
 - 12.6.2.1 The dimensions of the open highway cut and trench excavation shall be in accordance with the Plans.
 - 12.6.2.2 All temporary traffic control devices including flaggers, triton barriers, and temporary signage shall be in accordance with DOTD TTC-04 as shown on the Plans. Triton barriers used to shield the temporary dredge pipeline shall be installed with a minimum flare rate of 14:1 in accordance to the AASHTO Roadside Design Guide, Table 5.9. Flagging operations shall continue 24 hours per day until two-way travel is reinstated in Phase 3. Flaggers shall have radio communication capabilities during flagging operations.
 - 12.6.2.3 All temporary traffic control devices shall be used in accordance with DOTD Specification Section 713 and the MUTCD and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices as shown on the Plans.
 - 12.6.2.4 Portable light plants shall be installed and operational overnight for the duration of the roadway crossing construction at the locations shown on the Plans, including two flagger stations.
 - 12.6.2.5 Channelizing devices shall be installed at the locations shown in the Plans and shall be lit at night in accordance with DOTD TTC-00 (c).
- 12.6.3 Sediment Pipeline Installation and Dredging Operation Phase (Phase 3): Temporary traffic control devices shall be installed and maintained as shown on the Plans until after the marsh fill areas have been accepted, the temporary sediment pipeline removed, and the access pits backfilled.

Following installation, the temporary sediment pipeline will be located within the Clear Zone. Tri-ton barriers shall be used to shield formidable obstacles from pipeline and equipment within the Clear Zone as shown on the Plans and in accordance with the Roadside Design Guide (AASHTO 4th Edition, 2011). Triton barriers used to shield the temporary dredge pipeline shall be installed with a minimum flare rate of 14:1 in accordance to the AASHTO Roadside Design Guide, Table 5.9, as shown in the Plans. Sufficient signage identifying the work area shall be installed and remain throughout the duration of the project. The contractor shall be liable for any damage to pipeline and/or equipment by formidable obstacles and shall immediately repair any damage to the sediment pipeline caused

by such.

- 12.6.3.1 All temporary traffic control devices including flaggers, triton barriers, and temporary signage shall be in accordance with DOTD TTC-04 as shown on the Plans.
 - 12.6.3.2 All temporary traffic control (TTC) devices shall be used in accordance with DOTD Specifications and the MUTCD and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices as shown on the Plans.
 - 12.6.3.3 The Contractor may widen the existing turnout located at the intersection of the oil field road and Highway 27/82 as necessary to facilitate access to the project area. The Contractor shall submit a proposed widening plan for the turnout of the oil field road in the Work Plan for approval by the Engineer at least 14 days prior to the pre-construction conference.
- 12.7 Maintenance of Traffic: Traffic shall be maintained by the Contractor in accordance with DOTD Specification 104.03. All lane closures shall be authorized by the Engineer, and unless otherwise authorized, lane closures will only be allowed while work is being performed. The Contractor shall provide the Engineer a five (5) calendar day notice prior to any lane closure. A late lane opening rental will be charged to the Contractor for any lane closure that extends beyond the allowed closure times. The maximum allowed closure time for the open roadway cut shall be fourteen (14) days. The rental rate for late lane openings shall be assessed at a rate of two hundred and fifty (250) dollars per hour beginning fourteen (14) calendar days after the first lane closure for the open highway cut. The rental rate shall also apply to any unauthorized lane closures by the Contractor. Any rental monies for late lane openings or unauthorized lane closures shall be deducted from payments due to the Contractor in accordance with DOTD specification 104.03.
- 12.8 Nighttime Operations: Nighttime construction operations shall conform to DOTD Specification Subsection 105.20. Nighttime operations are defined as work performed after sunset and before sunrise. The contractor shall submit a lighting plan to the Engineer for approval 30 days prior to the start of night time operations.
- 12.9 Pavement Markings: Plastic pavement markings and raised pavement markers shall be restored over the newly placed pavement patch to pre-project layout in accordance with DOTD Specification Sections 731 and 732, provided in Appendix VIII.
- 12.10 Truck Advisory: The Contractor shall submit notice of work at least two (2) weeks prior to casing pipe installation to the oversized truck permit section of DOTD headquarters in Baton Rouge to facilitate the issuance of a truck advisory.
- 12.11 Construction Window: As this work requires restricting access on a state Hurricane Evacuation Route, the installation shall be done outside of the peak of the Atlantic/Gulf hurricane season, or August 1st to October 20th. Should a tropical system enter the Gulf during operations, both lanes shall be reopened as soon as practicable.
- 12.12 Casing Pipe Capping and Site Restoration: After the marsh fill has been accepted and the sediment pipeline has been removed from the casing pipe, each end of the casing pipe shall be capped as described in TS-10.7. The Contractor shall provide the Owner and Engineer notice of the completion of installation of the caps 72 hours prior to backfilling of the construction pits to provide for inspection.
- 12.13 Payment: This Work consists of furnishing and assembling the materials needed to construct, layout, and install a permanent casing pipe to facilitate temporary placement of the sediment pipeline

in the location shown in the Plans, in accordance with these Specifications. All costs connected with the highway crossing will be paid to the Contractor at the Contract unit price for Traffic Control (Bid Item No. 12), Highway Crossing Mobilization (Bid Item No. 13), Highway Embankment (Bid Item No. 14), Highway Excavation (Bid Item No. 15), Geotextile Fabric (Bid Item No. 16), Pavement Patching (Bid Item No. 17), Bedding Material (Bid Item No. 18), Concrete Drain Pipe (Bid Item No. 19), Flowable Fill (Bid Item No. 20), Plastic Pavement Markings (Solid Line) (Bid Item No. 21), Plastic Pavement Markings (Broken Line) (Bid Item No. 22), and Raised Pavement Markers (Bid Item No. 23) which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Payment for widening the westbound lane using crushed aggregate shall be included in the Contract unit price for Traffic Control (Bid Item No. 12).

- 12.14 **Measurement:** Highway Embankment (Bid Item No. 14) shall be measured based on the area of the open highway cut. For highway embankment material placed within the limits of the roadway, a depth of 1 foot shall be used to determine the payment quantity in cubic yards of embankment material. For areas outside of the limits of the roadway, including the waterline relocation embankment, the area and depth of fill shall be measured for payment in cubic yards. Highway Excavation (Bid Item No. 15) shall be measured by the area of the cut and depth of cut. Payment shall be by the cubic yard. Geotextile Fabric (Bid Item No. 16) shall be measured for payment by the area of the open highway cut, within the limits of the roadway, in square yards. Pavement Patching 12" Thick (Bid Item No. 17) shall be measured based on the area of the open highway cut, within the limits of the roadway. Payment shall be by the square yard. Haul Truck tickets shall be used to confirm the quantity of asphalt patching placed onsite. Bedding Material (Bid Item No. 18) shall be measured based on the area of the open highway cut, within the limits of the roadway. A depth of 6 inches shall be used to determine volume in cubic yards for payment. Concrete Drain Pipe (Bid Item No. 19) shall be measured for payment by linear foot of concrete pipe installed. Flowable Fill (Bid Item No. 20) shall be measured for payment based on the cross sectional area (excluding the volume of the casing pipe) of the open highway cut multiplied by the depth of cut (cubic yard) within the limits of the roadway. Haul tickets shall be used to confirm the quantity of flowable fill placed onsite. Plastic Pavement Markings (Bid Items No. 21 and 22) shall be measured based on linear foot of striping replaced within the open highway cut and within the vicinity of the highway cut. Raised Pavement Markers (Bid Item No. 22) shall be paid per each pavement marker replaced. All quantities shall be measured by the Contractor and verified by the Engineer prior to payment.
- 12.15 **Payment Request:** Seventy-five percent (75%) of the price of each of these bid items (Bid Items 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23) will be paid to the Contractor after permanent casing pipe is installed to facilitate placement of the temporary sediment pipeline at the location of the crossing shown in the Plans in accordance with these Specifications or as directed by the Engineer. Twenty-five percent (25%) of the price of each of these bid items will be paid to the Contractor upon removal of the temporary sediment pipeline from the casing pipe and the installation of the casing pipe caps, completion of pavement patch, removal of crushed aggregate and geotextile fabric adjacent to the westbound lane shoulder, and backfilling of access pits.

TS-13 BORROW AREA AND SEDIMENT PIPELINE BUOYS AND MARKERS

- 13.1 **Borrow Area Buoys:** No lighting is required for the marking of the perimeter of the borrow area. The dredge, anchor buoys, and floating dredge lines in the area must be marked in accordance with U.S. Coast Guard (USCG) Navigation Rules.
- 13.2 **Sediment Pipeline:** All sediment pipeline markers must meet USCG regulations. The Contractor shall obtain a temporary Permit from the USCG for all buoys or markers to be placed in the water prior to installation. The Permit application shall state the position, color, and the dates to be installed and removed for all sediment pipeline markers and be submitted to the USCG. Sediment pipeline markers and lights shall not be colored or placed in a manner that they will obstruct or be

confused with navigation aids. Copies of application and Permit shall be submitted to the Owner and Engineer seven (7) days prior to commencement of dredging operations. Signal lights, signage, and markings shall be utilized to designate the pertinent Work Areas including, but not limited to, the conveyance corridors and sediment pipelines and shall be displayed and operated in accordance with the regulations of the USCG.

- 13.2.1 Submerged Sediment Pipeline Markers: Any submerged sediment pipeline not covered by at least 20 feet of water must be marked with yellow buoys displaying a yellow 2.5 second flashing light. The lights must have a one mile nominal range and should be spaced according to USCG regulations. The lighted buoys shall be maintained by the Contractor in the proper location, floating, upright, and with functioning lights throughout the duration of the project. Electronic positioning shall be employed to set the buoys and to check the positional integrity of the buoys on a daily basis. The results of these checks shall be reported in the Daily Progress Report. The Contractor shall submit a Private Aids to Navigation Application for the required aids to navigation, as discussed in Section SP-6 Deliverables. Latitude and longitude coordinates for every mile of the submerged pipeline shall be submitted to the Engineer and U.S. Coast Guard so that it can be charted. All submerged sediment pipelines installed within channels shall be marked with fluorescent orange buoys and signs stating "DANGER SUBMERGED PIPELINE" in accordance with the USCG regulations. "DANGER SUBMERGED PIPELINE" signs shall also be placed at the beginning and end of all submerged sediment pipelines and at all abrupt changes of direction. Unless otherwise specified by the USCG, submerged sediment pipelines are considered to require special marks and shall have USCG approved flashing yellow all-around lights.
- 13.2.2 Floating Sediment Pipeline Markers: Should any portion of the sediment pipeline not rest on the mudline, it will be considered a floating sediment pipeline and shall be required to be made visible on the water's surface and clearly marked. In no case shall the sediment pipeline be allowed to fluctuate between the surface and the bottom or lie partly submerged. Lights shall be installed on the floating sediment pipeline as required by the USCG. The lights shall be supported either by buoys or by temporary piling. Where the sediment pipeline does not cross a navigable channel, flashing yellow all-around lights shall be spaced and installed in accordance with the USCG regulations.
- 13.2.3 Temporary Pipeline Markers: Temporary pipeline markers shall be placed and maintained during construction on each side of the LA 27/82 crossing. The markers shall be in line with the sediment pipeline crossing indicating owner, size, number of lines, contents, and the address for contacting the owner. The temporary pipeline markers shall be made in accordance with Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1015.04 (b) for sign panels and Standards Specification 1015.02 (a) (2) & (3) for posts, and as shown in the Plans. The Contractor shall submit a proposed design with material and details in the Work Plan for approval.
- 13.2.4 Installation: The sediment pipeline markers shall be lighted for twenty-four (24) hour operation. The Contractor shall notify the USCG in accordance with subparagraph "Notice of Intent to Dredge" as specified in SP-6.3.1. The notification shall contain maps and descriptions of lighted sediment pipeline markers for inclusion in the Notice to Mariners.
- 13.2.5 Operation and Maintenance: The Contractor shall operate and maintain all the sediment pipeline markers. Sediment pipeline markers shall be checked daily for any that may be missing, damaged, incorrectly positioned, or have inoperable lighting. Missing, damaged, or inoperable markers shall be replaced within twenty-four (24) hours. Should markers leave positioned locations, the Contractor shall relocate immediately. If any of the buoys are not maintained in the proper location, the Contractor shall cease dredging until the buoys are maintained, replaced, or repositioned. Failure to maintain buoys will result in a withholding of retainage from payments to the Contractor until the buoys meet permit,

Coast Guard, and Contract Document requirements and are satisfactory to the Engineer.

- 13.2.6 Removal: The Contractor shall remove all sediment pipeline markers, piles, chains, anchors, etc. from the Work Area upon completion of this Project.

TS-14 EXCAVATION

- 14.1 Character of Material Within the Borrow Area: The descriptions of the material are based on remote site investigations and site-specific core borings. The material descriptions are provided in the appendices of this section and only describe the materials obtained from those investigations. The Contractor is solely responsible for any interpretation or conclusions drawn there from. Based on limited information provided by the core borings, the materials found within the borrow area consist of very soft to medium soft clay.
- 14.2 Potential Differing Borrow Area Characteristics: The characteristics of the materials in the borrow areas may be as generally indicated by the sediment boring logs and grain size distribution curves contained in Appendix IV. The material found in each of the borrow area sediment core borings (vibracores) is indicative only of the material at that discrete location. The Contractor should be aware that it is possible for material of differing characteristics to be present in the borrow area, including material differing from that contained in the vibracores.
- 14.3 Borrow Area Excavation Limitations: All excavation shall be performed within the horizontal and vertical limits of the borrow areas shown in the Plans. The permits have a three-foot allowable disturbance depth specified for all cut depths in the borrow area. The equipment may not extend beneath this disturbance depth. The material located below the indicated dredge depth may not be suitable for placement. Compliance with permit conditions will be based on the excavated as-built survey. The Contractor is responsible for ensuring that placing equipment up to three feet below the permitted depth does not result in permit violations based upon the as-built survey bathymetry being below the permitted depth. The Contractor will be required to certify in each Daily Progress Report that the excavation has occurred within the limits of the Plans. The Contractor shall submit to the Engineer any check surveys performed in the borrow areas to verify that the final bathymetry is not below the permitted depth, though these surveys will not be considered to be the as-built survey. If excavation occurs outside of the permitted borrow area or below the depth as shown in the Plans, the Contractor will pay any and all permit fines for the permit violation. If the Contractor does not pay any costs, fines, or other expenses related to dredging outside the borrow area limits and/or for permit violations, the Engineer will withhold retainage from payments due to the Contractor from the Owner, or they may be recovered from the Contractor's Bond to cover all costs, fines, or expenses related to excavating outside borrow area limits and/or deeper than allowed within the borrow area. The Engineer may deduct quantities of material dredged outside of and/or below the allowable dredge depths from pay quantities based on the as-built borrow area survey.
- 14.4 Borrow Area Cut Sequence: Borrow area contours and the location of the borrow area are shown in the Plans. The Contractor shall dredge each section of the borrow area as completely as practical prior to dredging other sub-sections of the borrow area. Excavation of sediment from the borrow area shall be in accordance with these Specifications and in conformity to the lines, grades, and elevations shown in the Plans or as directed by the Owner and Engineer. The borrow area does not have a side slope though natural sloughing of material will not be considered a permit violation.

The Contractor shall supply to the Engineer weekly updates to the proposed borrow area cut sequence supplied in the Work Plan as specified in SP-9.5. These updates shall show previous excavations within the borrow area since beginning construction in addition to any planned excavations for the next seven (7) days.

For dredge vessels wherein the Code of Federal Regulations (CFR) does not require a USCG licensed U.S. Merchant Marine Officer for operations, qualified person(s) shall be required to stand

watch and monitor the required marine radio channels for vessel-to-vessel communications for passing as well as the operational safety of the dredge, Plant, and supporting vessels during mobilization, construction, and demobilization.

- 14.5 Uniform Excavation: To the greatest extent practicable, all excavation shall be performed in a uniform and continuous manner so as to avoid creating multiple holes, valleys, or ridges within the borrow area. The borrow area shall be dredged to maximize the removal of suitable material from each sub-area of the borrow area.
- 14.6 Acceptable and Unacceptable Materials: The Contractor will NOT be paid for any material placed in the fill areas that comes from a source other than the authorized borrow area. Unacceptable material includes hard clays, debris, and rocks or rubble larger than 1.9 mm in diameter. If the Engineer has reason to believe that the material being placed in the fill areas does not meet the above standards, the Engineer may require the Contractor to collect samples under the Engineer's direction and supervision and at the Contractor's expense. The sieve analysis will be conducted by an independent, pre-approved Laboratory.
- 14.7 Encountering Unacceptable Material in the Borrow Area: Unacceptable material shall not be placed in the fill areas. The Contractor shall continuously monitor the fill material for unacceptable materials in the fill being placed. If unacceptable materials are encountered during dredging, the Contractor shall immediately cease operation and relocate to another portion of the borrow area to eliminate the unacceptable materials. The Contractor shall immediately notify the Engineer verbally and report the encounter with the unacceptable materials in the Daily Progress Report, providing location in State Plane Coordinates of the area of the unacceptable materials. Unacceptable materials that are excavated and placed in the fill areas may be required to be removed from the fill areas by the Contractor, at the Contractor's own cost. If the Contractor fails to remove the unacceptable materials to the satisfaction of the Engineer, such materials may be removed by the Owner and the cost of such removal may be deducted from any money due, or to become due, to the Contractor or may be recovered under their Bond. The Engineer has the authority to determine if the quality of the material being placed in the fill areas is acceptable. If the Engineer makes a specific determination that material being placed is unacceptable, the Contractor will adjust their construction operation to avoid this material. This does not relieve the Contractor of responsibility for all placed material, including unacceptable material, rock, rubble, and debris.
- 14.8 Preservation of Historical, Archeological, and Cultural Resources: A cultural resource study has been conducted within the borrow area. Those areas with magnetic anomalies that have been judged to possibly be of historical, archeological, or cultural value have been excluded from the borrow area. If during construction activities the Contractor observes items that may have historical, cultural, or archeological value, the Contractor shall immediately cease all activities that may result in the destruction of these resources and shall prevent their employees and Subcontractors from trespassing on, removing, or otherwise damaging such resources. Such observations shall be reported immediately to the Engineer, Owner, and Resident Project Representative so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Engineer and appropriate State of Louisiana authorities. The Contractor will relocate the dredge to another area within the borrow area and resume construction of the project, and not return to the site in question until State authorities have rendered judgment concerning the artifacts of interest.
- 14.9 Preservation of Existing Natural Resources: Equipment operators shall be instructed by the Contractor with regards to avoiding damage to the submerged lands and existing vegetation outside the fill areas as marked in the Plans during all phases of the Work.

- 14.10 Dredge Mobilization/Demobilization Notification: The Contractor shall notify the Engineer at least three (3) Days in advance of the date the dredge and other Equipment will be mobilized and demobilized to and from the project area.

TS-15 TRANSPORT OF EXCAVATED MATERIALS

- 15.1 Hydraulic Placement of Fill: All marsh fill shall be placed hydraulically. The method of transport and hydraulic placement will be at the discretion of the Contractor. However, methods and Equipment will have to comply with all permit, production, environmental, and Contractual requirements.
- 15.2 Pipeline Transport of Fill: If a pipeline is used to transport material from the Gulf borrow area, the pipeline seaward of the beach landing shall be submerged except at the dredge, booster pumps (if required), and at oil and gas infrastructure crossings (if required) unless otherwise specified in the Plans. In these instances, the pipeline shall be floated. A description of sediment pipeline placement shall be included in the Work Plan.

A submerged pipeline corridor is specified on the Plans to facilitate dredging of the Gulf borrow area during placement of marsh fill. Regardless, it is the Contractor's responsibility to obtain all easements, right of ways, and permits required along with conducting any field investigations necessary.

The Contractor may be required to cross existing submerged oil and gas infrastructure located at or near the ocean floor. If a pipeline is used to transport material, the pipeline seaward of the beach landing shall be submerged except at the dredge, booster pumps (if required), and at oil and gas infrastructure crossings. In these instances, the pipeline shall be floated unless written permission has been obtained from the pipeline owner to place the submerged pipeline on the ocean floor. A copy of this permission shall be provided to the Owner. If the sediment pipeline is not floated across existing infrastructure, the Contractor shall use appropriate methods to place the temporary sediment pipeline across existing infrastructure (i.e. bridging, matting, etc.) and shall provide a detailed description of proposed construction methods in the Work Plan for approval by the Engineer. The Contractor shall coordinate with all infrastructure owners and obtain approval to cross existing infrastructure using such methods from the owner or leaseholder.

Conveyance and transport corridors have been identified in the Plans. Deviations from or relocation of these corridors are subject to review and approval by the State and Federal regulatory agencies. Should the Contractor request a deviation or relocation of these corridors, it shall be the responsibility of the Contractor to apply for and obtain the required Permit modifications from the Louisiana Department of Natural Resources, Office of Coastal Management and the U.S. Army Corps of Engineers in addition to approvals from the applicable property owners, oyster lease holders, and/or utility operators. The Contractor shall provide the approved permit modifications and approvals to the Owner and Engineer prior to installing the sediment pipeline and/or booster pumps.

No use of spud-type anchors or driving of piles shall be allowed within fifty (50) feet of pipelines. No anchoring shall be allowed outside of the approved Work Area unless approved by the Owner. If pilings are used for anchorage, the pilings shall be well marked and removed in their entirety upon completion of the Contractor's operations. If piles cannot be removed completely, they must be removed to ten (10) feet below the existing mudline.

Any damages to private or public property resulting from the Contractor's operations shall be repaired by the Contractor at his expense. Costs incurred by the Contractor for compliance with this section should be included in the mobilization and demobilization cost in the Bid Price for each applicable section.

Pipeline Corridor Survey: The pipeline corridor shall be surveyed weekly to determine alignment, stability, and integrity issues with the sediment pipeline and if there are any leaks in the submerged

line. The weekly check survey shall consist of two (2) lines running the length of the submerged pipeline. If a leak, or elevated area, is detected, the area in the immediate vicinity of the mound shall be surveyed at a grid spacing of no more than 50 feet (survey lines shall be orientated north-south and east-west). The survey lines shall extend a minimum of 100 feet from the edge of the mound. The results of the gridded survey will be used to calculate the volume of material contained in the mound, which will be deducted from the cut volume for payment purposes. The surveys shall be repeatable and compared to prior surveys for any alignment, stability, and integrity issues. Initial underwater inspection survey shall be conducted following sediment pipeline installation and prior to utilization of the sediment pipeline for the transport of dredged sediments. Plots depicting the comparisons of successive inspection surveys to the initial inspection survey shall be submitted to the Owner and Engineer within seven (7) days of the most recent survey. The Contractor shall submit a survey plan for submerged sediment pipeline inspection in the Work Plan for approval by the Owner and Engineer. The presence of any such issues or deviations shall be required to be documented, locations plotted, and reported immediately.

A bathymetric plot and an electronic copy of the pipeline corridor survey shall be furnished to the Engineer in a format provided in Appendix III (preferably format #3). Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer. Bathymetric surveys not tide corrected in real-time will not be accepted. The bathymetric survey shall be performed using a Model 449 Innerspace depth sound recorder or equivalent using a single beam at 209 KHz. Hydrographic surveys shall be performed in accordance with EM 1110-2-1003, dated January 2002. A final as-built pipeline corridor survey shall be conducted and the data submitted prior to payment for as-built surveys.

- 15.3 Pipeline Leaks: The Contractor shall maintain a tight discharge pipeline at all times. The joints shall be so constructed as to preclude spillage and leakage. Leaks shall be promptly repaired. The Contractor will transport the Engineer to the leak repair site for visual inspection, if so requested by the Engineer. Failure to repair leaks or change the method of operation that is resulting in leakage and wastes marsh compatible material or exceeds turbidity and water quality standards during transport to the discharge site will result in a requirement to suspend dredging operations and require immediate repair or change of operation to prevent leakage as a prerequisite to the resumption of dredging.
- 15.4 Submerged Line Approvals: Should the Contractor choose to use an alternate submerged line from the borrow area to the placement area, the Contractor shall obtain all easements, rights of way, and permits required. The Contractor is required to conduct any field investigations or surveys necessary to establish the pipeline corridor.

TS-16 WATER DISCHARGE AREA AND OPEN WATER DISCHARGE

- 16.1 Turbidity Control: The Contractor is required to discharge water from the marsh fill area into the interior marsh to avoid impoundment of water. Predetermined dewatering locations have been identified as shown in the Plans. Any dewatering locations that deviate from that shown on the Plans may be proposed by the Contractor, in writing, for approval by the Engineer. The Contractor must provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint, including, if applicable, a description of any water control structures proposed for use. Turbidity curtains shall be used at all outflow areas around water control structures. The plan must contain methods to limit turbidity and sedimentation in open water. Additional dewatering areas may be proposed by the Contractor and shall be included in the Turbidity Control Plan. The Turbidity Control Plan shall be submitted to the Engineer in the Work Plan.

In the event that the Engineer, Resident Project Representative, or the Owner observes signs of the discharge of turbid waters which form noticeable plumes outside the limits of the Work, the Owner

may, at its sole discretion, require that the Contractor immediately initiate twice daily turbidity sampling with reports submitted to the Engineer. No additional compensation shall be paid to the Contractor for this work.

- 16.2 Water Control Structures: The Contractor may use any number or design of water control structures for water discharge provided the structure is of sufficient size to discharge an appropriate volume of water. Approved dewatering locations are shown in the Plans; the Contractor may propose additional dewatering locations for approval by the Engineer. Each dewatering area is 250 feet long, measured along the primary dike, and centered on the coordinates provided in the Plans. The rate of discharge must be manually controllable with the ability to completely shut off discharge through the structure. The Turbidity Control Plan should also describe the method and timing of removal of any proposed water control structures.

TS-17 MISPLACED MATERIALS

The Contractor shall not deposit dredged material within navigation channels or on the existing shores, beaches, or existing open water areas or marshes, except within the fill areas shown in the Plans, without approval of the Engineer. If any material is deposited other than in places designated or approved, the Contractor may be required to remove such misplaced material and redeposit it where directed by the Engineer at the Contractor's expense. This will include materials in the borrow area, as discussed in Section TS-14 of the Technical Specifications. The Contractor is responsible with all costs associated with placement of material outside of the fill area shown in the Plans.

TS-18 WORK WITHIN THE VICINITY OF EXISTING PIPELINES

Oil and gas infrastructure are present in the project area. Project construction requires work in the immediate vicinity of oil and gas pipelines. The Contractor is required to independently locate infrastructure. Under the terms of this Contract, the Contractor shall not excavate within 50 feet of any active and/or abandoned pipeline without written permission from the oil and gas infrastructure owners. At the Contractor's discretion, equipment may float over the pipelines if the Contractor deems that there is sufficient water depth and clearance as to not disturb the lines.

TS-19 VESSEL-SHORE TRANSFERS

For shore-to-vessel and vessel-to-shore transfers of personnel and supplies, the Contractor may utilize any commercial, public, or private facility for shallow draft vessels. It is the responsibility of the Contractor to obtain the required permission from the facility owner and to pay any costs associated with the use of the sites. The Contractor shall be responsible for any damages caused by the use of any site for landing and transfers and shall maintain navigation through all navigable waterways and boat ramps. The Contractor shall use any landing site, transfer area, or staging area at their own risk. For informational purposes, the Contractor will be required to inform the Engineer of the site that the Contractor will be using for vessel transfers.

TS-20 WORK AREA AND TEMPORARY FENCING

The construction and borrow area limits available to the Contractor for accomplishing the Work are shown in the Plans. The Contractor shall accomplish the Work in such a manner so as to minimize disruption to boat traffic. The Contractor will be required to exclude the public, for safety purposes, from the Work areas in the immediate vicinity of the hydraulic fill placement, grading and transporting operations, or any other area that may be dangerous to the public. The storage areas shall be kept neat, orderly, and in a safe manner. Temporary fencing and cautionary signage shall be used by the Contractor, if necessary, to exclude the public from Work and storage areas.

TS-21 CONSTRUCTION ACCESS

The Contractor shall limit construction access to the fill area to the locations shown in the Plans or as approved by the Engineer. No dredging for access is permitted. The access features (ramps, roads, etc.) must be restored to the pre-construction condition upon project completion at the cost of the Contractor, except as noted in the Plans. The Contractor shall exercise caution when accessing and driving in the project area with vehicles or Equipment. In the event that damage is caused by the Contractor outside the authorized dredge and fill areas, the Contractor shall restore all damage to inlet jetties, roads, vegetation, or any other structure or natural feature to pre-construction conditions or better. The Contractor will not receive final payment until all damage is restored to the satisfaction of the Owner and Engineer.

TS-22 MISPLACED MATERIAL, PLANT MACHINERY, EQUIPMENT, OR APPLIANCE

Should the Contractor, during the progress of the Work, lose, discard, throw overboard, sink, or misplace any material, plant, machinery, equipment, or appliance, which in the opinion of the Engineer should be removed, the Contractor shall recover and remove the same with the utmost dispatch. The Contractor shall give immediate notice, with description and location of such material, plant, machinery, equipment, or appliance, to the Engineer. Should the Engineer discover such material, plant, machinery, equipment, or appliance, the Engineer may locate through electronic means or buoy the material, plant, machinery, equipment, or appliance, and may notify the Contractor of its location. Removal of the material, plant, machinery, equipment, or appliance shall be the responsibility of the Contractor and cost of the removal will be paid for by the Contractor. Should the Contractor refuse, neglect, or delay compliance with the above requirements, such material, plant, machinery, equipment, or appliance may be removed by the Owner, and the cost of such removal may be deducted from any money due or to become due to the Contractor or may be recovered under the Contractor's Bond. The liability of the Contractor for the removal of a vessel wrecked or sunk without fault or negligence shall be limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33-U.S.C. 410 et.seq.), or most recent version, if any.

TS-23 FINAL CLEAN-UP

Final clean-up shall include the removal of the Contractor's plant and all Equipment or Materials either for disposal or reuse. The Contractor shall remove all non-perishable debris, trash, and garbage from the site of Work prior to Final Acceptance. Plant and/or Equipment or Materials to be disposed of shall only be disposed of in a manner and at locations approved by the Engineer. Unless otherwise approved in writing by the Engineer, the Contractor is not permitted to abandon pipelines, cables, pipeline supports, pontoons, or other Equipment or Materials in the disposal area, pipeline access areas, water areas, underwater in the Gulf of Mexico, the interior marsh, or in any harbors, passes, bayous, lakes, or inlets, or other areas adjacent to the Work site. Any stakes or other markers placed by the Contractor must be removed as a part of the final clean-up. All stakes, including grade stakes, placed during the fill operation shall be completely removed and shall not be left buried in the fill.

End of PART III TECHNICAL SPECIFICATIONS

PART IV ENVIRONMENTAL PROTECTION PROVISIONS

EP-1. SCOPE

The Environmental Protection of the Contract Documents address Contractor responsibilities for the prevention of pollution and other environmental damage as the result of construction operations under the Contract Documents, including those measures set forth in the Technical Specifications. For the purpose of this Specification, pollution and other environmental damage are defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; degrade the utility of the environment for aesthetic, cultural, and/or historical purposes; or unnecessarily damage/destroy environmental resources. The control of pollution and damage requires consideration of air, water, land, and the marine environment and includes management of construction activities, visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants. The Contractor shall fulfill these Environmental Protection Provisions at the Contractor's expense.

EP-2. QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection for all items set forth herein. The Contractor shall record in the Daily Progress Report any problems in complying with laws, regulations, and ordinances, as well as project permits, and corrective action taken.

EP-3. PERMITS

The Contractor shall comply with all requirements under the terms and conditions set out in all permits applicable to the Work. The Owner has received the appropriate permits and approvals from the Louisiana Department of Natural Resources (LDNR), the U.S. Army Corps of Engineers (USACE), the Louisiana Department of Environmental Quality (DEQ), the Louisiana Department of Wildlife and Fisheries (LDWF), the Louisiana Department of Transportation and Development (DOTD), and the Louisiana Department of Health and Hospitals (DHH). These permits are included in the Appendices and are part of the Contract Documents. Specifically, the Contractor will familiarize themselves with general and specific conditions contained in the LDNR Coastal Use permit, the USACE 404 permit, and the Louisiana DEQ permit. Any other licenses, easements, or approvals required, including, but not limited to, those which may be required by Cameron Parish, or the Owner, shall be secured and paid for by the Contractor.

EP-4. SUBCONTRACTORS

Assurance of compliance with all sections of the Contract by Subcontractors shall be the responsibility of the Contractor, including compliance with all environmental and permit requirements.

EP-5. NOTIFICATION

The Engineer will notify the Contractor of any known noncompliance with the aforementioned Federal, State, or Local laws or regulations, permits, and other elements of the Contractor's environmental protection plan. Nevertheless, it remains the sole responsibility of the Contractor to comply with all applicable Federal, State, or Local Laws and Regulations, permits, and all elements of the Environmental Protection Plan (EPP). If there is known non-compliance, the Engineer will determine what action will be taken and such response will be transmitted to the Contractor by the Engineer, which may include stopping construction of the project

until the Contractor complies with the EPP. It will also be the Contractor's responsibility that all Subcontractors shall comply with all applicable laws, regulations, permit requirements, and all elements of the EPP.

EP-6. PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent Work under this Contract shall be protected during the entire period of this Contract. To meet this requirement, the Contractor shall confine all activities to areas defined by the Plans and Specifications. The Contractor shall, at all times, maintain adequate stakes or other markers required to delineate and layout work areas, access areas and corridors, protected land or environmental resources, no entrance areas, and sensitive areas to ensure the protection of resources. The disturbance of lands and waters that are outside the limits of construction as marked in the Plans is prohibited, except as found necessary and approved by the Engineer. The Contractor shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials into streams, lakes, marshlands, bays, or the Gulf of Mexico. The Contractor shall also conduct his work in such manner as to prevent the placement of any fill material and the discharge of project-related discharges of turbid effluent and runoff into streams, lakes, marshlands, bays, or the Gulf of Mexico. All waterways shall be cleared as soon as practicable of false work, stakes, piling, debris, or other obstructions placed during construction operations and not a part of the finished Work. Details regarding environmental protection shall be as stated in the following subparagraphs.

- 6.1 Protection of Land Resources: Prior to the beginning of any construction, and at the request of the Contractor, the Owner and Engineer shall identify land resources (if any) to be preserved within the Contractor's Work area. Unless indicated in the Plans or directed by the Owner, the Contractor shall not remove, cut, deface, injure, or destroy land resources including sand dune, marsh or berm vegetation, trees, shrubs, vines, grasses, topsoil, and landforms without direct written permission from the Engineer. No ropes, cables, or guys shall be fastened or attached to any trees for anchorage unless specifically authorized by the Engineer. Where such special emergency use is allowed, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following paragraphs. The Contractor will be responsible for the replacement of any damaged or destroyed vegetation outside the fill area and the restoration of any water bottoms and land forms to the satisfaction of the Engineer. Failure to replace damaged or destroyed vegetation or failure to restore damaged water bottoms and land forms outside the fill area by the Contractor may result in replacement by the Owner; the cost of replacement will be deducted from monies due to the Contractor or from monies that will be due to the Contractor by the Owner.
- 6.2 Work Area Limits: Isolated areas (if any) within the Work area that are to be saved and protected shall be identified by the Engineer and marked or fenced by the Contractor. All survey monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be made visible by lighting. The Contractor shall convey to all Subcontractors and personnel the purpose of marking and/or protection for all necessary objects.
- 6.3 Retardation and Control of Runoff: Runoff from the construction site shall be controlled by the Contractor by the construction, maintenance, and operation of primary and secondary retention dikes, temporary water control structures or spill boxes, routing of effluent and discharge through fill and water discharge areas, use of turbidity control measures such as silt curtains, and active management of all effluent, discharge, and runoff. Dikes will be constructed as shown in the Plans and described in the Technical Specifications and maintained in continuous repair to allow settling of fine materials from dredging, or as required by permit documents.
- 6.4 Disposal of Solid Wastes: Solid wastes (including cleared debris) and rubbish resulting from the Contractor's activities shall be picked up daily and placed in containers. These containers shall be removed from the project area and emptied on a regular schedule. The Contractor shall empty containers when three-quarters full and will avoid overflow conditions. The Contractor shall not

burn any rubbish at the Project Site. Disposal of rubbish shall be at an approved off-site location and in a manner that complies with State and Local Laws and Regulations. The Contractor shall be solely responsible for all costs associated with the collection, removal, and disposal of rubbish. All handling and disposal shall be conducted to prevent contamination. No steel, cables, wire, pipe, drums or any other solid waste or debris shall be permitted to be disposed overboard into the waters of the Gulf of Mexico or any other water body. Disposal of solid wastes or debris in the Gulf of Mexico is a violation of State and Federal laws. If such debris is found, the debris shall be removed by the Contractor at his own cost, or the Owner shall remove the debris and the cost of removal will be deducted from monies due, or will become due, to the Contractor from the Owner.

- 6.5 Disposal of Chemical Waste: Chemical waste shall be stored in corrosion resistant containers, removed from the work area, and disposed of in accordance with Federal, State, and Local regulations. The Contractor shall perform all maintenance of Equipment, including, but not limited to, refueling, filter changes, and replacement of hydraulic lines in a manner so as not to contaminate soils, ground or surface waters, or any other natural resources.
- 6.6 Disposal of Discarded Materials: Discarded materials other than those which can be included in the solid waste category will be handled by the Contractor as directed by the Engineer.
- 6.7 Use of Equipment: Outside the fill areas as marked in the Plans, any wheeled or tracked vehicle used on the Project Site is prohibited in and adjacent to existing vegetated wetlands, bay shorelines, gulf shorelines, or any other sensitive areas, unless authorized by the Engineer. Any damage to wetland vegetation or change in the existing elevation (e.g., ruts, tracks, inappropriate excavation) of greater than six inches (6") in wetland areas, bay bottom, flats, etc., occurring on the site or adjacent property, as a result of construction operations, shall be repaired by the Contractor, at no additional expense to the Owner. Marsh buggy use on existing vegetated areas and wetlands outside of the fill areas is strictly prohibited.
- 6.8 Siltation / Turbidity Control: The Contractor shall conduct Work in a manner that will not cause damaging siltation or pollution of any water bodies. All applicable Federal and State regulations of agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the Contract.
- 6.9 Protection of Water, Fish, and Wildlife Resources: The Contractor shall keep construction activities under continued surveillance, management, and control to minimize interference with, disturbance to, and damage of water, fish, and wildlife resources. Species that require specific consideration, as well as measures for their protection, will be addressed in the Contractor's EPP prior to the beginning of project construction.
- 6.10 Protection of Commercial Fisheries: The Contractor shall note that bays, water bottoms, creeks, and ponds in the vicinity of the project may include numerous publicly and privately-issued leases for the cultivation and harvest of commercial fishery resources. The Contractor shall conduct all aspects of its operations to avoid any and all impacts to such leases.
- 6.11 Water Discharge: Water overflow from marsh construction activities may be discharged into the interior open water. The dewatering locations are shown in the Plans, but the number of discharges is at the discretion of the Contractor. The Contractor must provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains may be required at all outflow areas at the discretion of the Engineer. The Turbidity Control Plan must be submitted to the Owner fourteen (14) Days prior to the Pre-Construction Conference.
- 6.11.1 The Contractor may use any number or design of water control structures for water discharge provided the structure is of sufficient size to discharge an appropriate volume of water. The rate of discharge must be manually controllable with the ability to completely shut off discharge through the structure.

- 6.11.2 In the event that the Owner or Engineer observes signs of the discharge of turbid waters which form noticeable plumes outside the limits of work, the Owner may, at its sole discretion, require that the Contractor immediately initiate twice daily turbidity sampling with reports submitted to the Owner. No additional compensation will be paid to the Contractor for this work.
- 6.12 Protection of Air Resources: The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, Equipment, processes, and Work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Louisiana and all Federal emission and performance laws and standards.
- 6.13 Dispensing of Fuel: Secondary containment, which is capable of holding at a minimum 110% of the tank contents, must be provided by the Contractor for each fuel storage tank. Fuel dispensers shall have a four foot by four foot (4'x4'), 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be eight inches (8") minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately contain the spill and contact the Owner and the appropriate local authorities. The Contractor will be solely responsible for any fines, penalties, or other legal activities related to fuel spills.
- 6.14 Temporary Sanitary Facility: The Contractor shall furnish and maintain chemical toilets for use by its employees, Subcontractors, Engineer, Resident Project Representative, and the Owner on the Project Site. Chemical toilets shall be cleaned on a regular basis to ensure that odor does not become a nuisance. The Contractor shall be responsible to coordinate, maintain, and monitor a cleaning schedule that is appropriate for the number of Contractor personnel on site.
- 6.15 Storage of Lubricants: All lubricants and other potential liquid pollutants shall be stored in sealed, non-corrosive containers. Individual containers shall be stored in metal pans with borders banded up and welded at the corners right below the bibb. Pans shall be deep enough to prevent contamination of the ground. Pans shall be kept clean of all spillage or leakage.

EP-7. POST CONSTRUCTION CLEAN-UP

The Contractor shall clean-up any area used for construction as stated in General Provisions.

EP-8. RESTORATION OF LANDSCAPE DAMAGE

The Contractor shall restore all landscape features, land resources, water resources, and fish and wildlife resources damaged or destroyed during construction operations outside the limits of the approved Work areas. Such restoration shall be in accordance with a plan submitted for approval by the Engineer. This Work will be accomplished at the Contractor's expense. Final payment to the Contractor shall not occur until the Engineer is satisfied with the Contractor's effort to restore landscape or any other damage caused by the Contractor or his Subcontractors.

EP-9. MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain constructed facilities and portable pollution control devices for the duration of the Contract or for that length of time construction activities create the particular pollutant.

EP-10. FUEL OIL TRANSFER OPERATIONS

In accordance with the U.S. Coast Guard regulations (33 CFR 156.120, or as revised or updated), couplings used in fuel oil transfer operations on any vessel with a capacity of two hundred fifty (250) or more barrels of oil (or fuel) shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker man shall be completed for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling.

EP-11. SUBMITTALS

- 12.1 Environmental Protection Plan (EPP): At least fourteen (14) Days prior to the Pre-Construction Conference, the Contractor shall submit in writing an Environmental Protection Plan to the Engineer. Acceptance of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. The EPP shall include, but not be limited to, the following:
 - 12.1.1 Methods for protection of features and habitats to be preserved within authorized Work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e. all vegetation, trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological and cultural resources, and environmental resources.
 - 12.1.2 Procedures to be implemented by the Contractor to assure compliance with the environmental protection requirements outlined in Section EP-6 of the Environmental Protection Provisions and to comply with the applicable permits, laws, and regulations. The Contractor shall address each element of Environmental Protection described in Section EP-6 of the Environmental Protection Provisions. The Contractor shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the EPP.
 - 12.1.3 Procedures to be implemented by the Contractor to assure compliance with protection of water, fish and wildlife resources requirements of Section EP-6 of the Environmental Protection Provisions and to comply with the applicable permits, Laws and Regulations. The Contractor shall address each element of Protection of Water, Fish and Wildlife described in Section EP-6 of the Environmental Protection Provisions. The Contractor shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the EPP.
 - 12.1.4 A list of Federal, State, and Local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.
 - 12.1.5 Drawings showing locations of any proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.
 - 12.1.6 Environmental monitoring plans for the jobsite, including land, water, air, and noise monitoring.
 - 12.1.7 Turbidity Control Plan which describes measures to be taken by the Contractor to avoid the discharge of turbid, silt-laden, water from the project area sufficient to ensure that water bodies, wildlife, and fisheries resources, including commercial fisheries resources,

will not be damaged. The Contractor must provide a Turbidity Control Plan detailing means and methods for controlling any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas.

12.1.9 Oil spill contingency plan.

12.1.10 A protection plan for threatened and/or endangered species within the project area.

12.1.11 Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The plan should include measures for marking the limits of use areas.

12.1.12 The location of the solid waste disposal area.

12.1.13 A statement as to the person who will be responsible for implementation of the EPP. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.

12.1.14 A statement acknowledging that the Contractor is responsible for environmental protection, including all of the Contractor's personnel and Subcontractors.

12.1.15 The EPP will be dated and signed by an individual of top management in charge of the construction.

EP-12. NOISE CONTROL

The Contractor shall comply with all Federal, State, and Local sound control and noise level ordinances, regulations, and laws that apply to the Project Site. All hauling and excavating Equipment, including dredges, used on this Work shall be equipped with satisfactory mufflers or other noise abatement devices. Booster pumps used on this Work shall be equipped with either or both satisfactory mufflers and other sound abatement devices to reduce engine noise. The Engineer may request the Contractor to construct a sound barrier landward of booster pumps in order to reflect noise offshore.

End of PART IV ENVIRONMENTAL PROTECTION PROVISIONS

APPENDIX I SUPPLEMENTAL INFORMATION

DREDGE DATA SHEET AND EQUIPMENT SCHEDULE

NOTE: The Contractor shall complete the following data sheets for the Equipment proposed to perform the Work under this Contract. Separate *Dredge Data Sheets* for each dredge are required if the Contractor plans to utilize multiple dredges. The dredge data sheet Submittal shall constitute a certification that the described Equipment is available to, and under control of, the Contractor.

The Dredge Data Sheet is not mandatory. The Dredge Data Sheet is for informational purposes only and will not be used as a basis for award. The information submitted is pertinent to the evaluation of the proposed dredges and their capability to perform the Work as required and as agreed to by the Bidder through the submittal of a proposal. The Bidder may only omit data or information that he considers proprietary.

OYSTER BAYOU MARSH RESTORATION PROJECT (CS-59)

ATTACHMENT A1 - EQUIPMENT SCHEDULE

EQUIPMENT CATEGORY: _____

Type	Capacity	Manufacturer	Age & Condition	Location

EQUIPMENT CATEGORY: _____

Type	Capacity	Manufacturer	Age & Condition	Location

EQUIPMENT CATEGORY: _____

Type	Capacity	Manufacturer	Age & Condition	Location

NOTE: The Plant and Equipment Schedule is Mandatory. The Plant and Equipment Schedule is for information purposes only and will not be used as a basis for award. The information submitted is pertinent to the evaluation of the proposed dredges and their capability to perform the Work as required and as agreed to by the Bidder through the submittal of a Proposal. The Bidder may only omit information that he/she considers proprietary. Provide separate table for each category of equipment including mechanical dredging, excavating, material handling, pile driving, barges, loading, grading, earthworks, trucking, etc. Specify production rate of equipment. Use separate line for each major item. Use additional pages if necessary. Hydraulic cutterhead and hopper dredge equipment shall be listed on the Dredge Data Sheets.

ATTACHMENT A2 - DREDGE INFORMATION:

Owned: _____ Leased: _____ Leased From: _____

Dredge name: _____

Minimum width of channel in which dredge can successfully operate and make a 180 degree turn: _____

Maximum draft of dredge: _____

Loaded freeboard: _____

Minimum depth in which the dredge can successfully operate: _____

Depth range to which dredge will dig:

Maximum: _____ Minimum: _____

Length and beam of dredge hull: _____

Inside diameter of pump discharge: _____

Inside diameter of pump suction inlet: _____

Suction lift (Elevation of main dredge pump relative to the water surface level): _____

Diameter of pump impeller eye: _____

Outside diameter of pump impeller: _____

Brake horsepower and corresponding engine RPMs (during dredging operations) applied to pump impeller at rated drive of the prime mover, during dredging operations: _____

Pump engine(s) horsepower and corresponding RPM: _____

Completion date of each dredge pump engine re-build: _____

Expected production rate for this project:

Marsh Fill _____ cubic yards/day

IF A CUTTERHEAD DREDGE IS USED:

Maximum effective dredge swing, in degrees: _____

Length of dredge spuds: _____

Length of dredge ladder: _____

Cutterhead type and diameter: _____

Brake horsepower applied to cutterhead during dredging operations: _____

IF A HOPPER DREDGE IS USED:

Length of drag arms: _____

Sailing speed (unloaded): _____

Sailing speed (loaded): _____

Drafted of dredge (unloaded): _____

Drafted of dredge (loaded): _____

Drag arm head type: _____

Brake horsepower applied to drag arm head during dredging operations: _____

Will a booster pump be required to complete this work? If yes, please specify horsepower.

Type(s) of production rate monitoring equipment on-board the dredge (measuring cy/hr of material dredged): _____

THE DREDGE MAY BE INSPECTED AT (List current location of equipment):

DREDGE OWNER INFORMATION:

Firm name: _____

Point of contact: _____

Title: _____

Business address:

Street: _____

City: _____

Parish/County: _____

State: _____ Zip+4: _____

Telephone no.: _____ Facsimile no.: _____

APPENDIX II DAILY PROGRESS REPORT

DAILY PROGRESS REPORT

Date: _____ Report No. _____
Report is due by 12:00 P.M. (Noon) of the following day

PROJECT: Oyster Bayou Marsh Restoration Project (CS-59)

WEATHER:

(Clear) (P. Cloudy)

(Cloudy) (Rain)

TEMPERATURE:

Min. _____

Max. _____

Wind Speed: _____ mph Direction _____

Wave Height:

Borrow Site _____ feet

Fill Area _____ feet

Direction _____

Borrow Site being dredged: _____

Location of discharge(s): Station _____ Range _____
Station _____ Range _____

Contractor/Subcontractor and area of responsibility:

1. Work Performed Today: (Indicate location and description of work performed. Provide marsh fill advance over last twenty-four (24) hours. Attach dredge position printouts and plot to this report.)

2. Results of Surveillance: (Include satisfactory work completed or deficiencies with action to be taken.)

3. Buoy Check: Were submerged pipeline buoys checked today (Yes/No)? _____
Did buoys require resetting (Yes/No)? _____

4. Water Quality Monitoring: Was water quality monitoring conducted today in compliance with project permit requirements of the Louisiana Department of Natural Resources Permit No. _____ and water quality protection laws, and the results provided to the Engineer (Yes/No)? _____

5. Verbal Instructions Received: (List any instructions given by the Owner or Engineer, construction deficiencies, retesting required, etc., with action to be taken.)

6. Remarks: (Cover delays and any conflicts in Plans, Specifications, or instructions.)

7. Safety Inspection: (Report violations noted; corrective instructions given; and corrective actions taken.)

8. Equipment Data: (Indicate items of construction equipment other than hand tools at job site and whether or not used and if operable.)

9. Dredge Status: (Is the dredge working, not operating due to weather/sea state, or is it under repair?)

10. Avoidance of Overdredging: Do you certify that the dredge has excavated within the limits of the borrow areas, as shown in the Plans (Yes/No)? _____. Also, do you certify that the borrow area has not been excavated below the limit as shown in the Plans (Yes/No)? _____

11. Progress Summary:

	This Day	To Date
Worked Hours		
Downtime Hours (Explain Below)		
Length of Discharge Advance (Ft.)		
Volume Pumped (Estimated c.y.)		
Volume Pay (c.y. accepted sections only)		
Volume % Completed		

Explanation of Downtime:

Contractor's Verification: The above report is complete and correct and equipment used and work performed during this reporting period are in compliance with the contract drawings and specifications except as noted above.

Contractor's Approved Authorized Representative

Note: This form must include continuous plots of dredge locations and depths.

APPENDIX III SURVEY DATA FORMATS

SURVEY DATA FORMATS

Format 1:

Louisiana Department of Natural Resources
Strategic Online Natural Resources Information System
SONRIS 2000
Coastal Restoration Division
(See <http://www.savelawetlands.org/site/Descriptors.pdf>)

This format is an ASCII comma-delimited format. The arrangement of the columns is as follows:

Project Number: Alphanumeric value assigned to a project by LDNR used for identification purposes.

Station Number: Alphanumeric value assigned to a station by LDNR used for identification purposes. For survey data, the station is actually the center of the area where surveying occurs.

Group: A classification given to a group of stations that share a common characteristic. For this project, the Group name is the name of the profile line.

Status: Generally describes whether data were collected in the Pre- or Post-construction period.

Date (mm/dd/yyyy): Date the data were collected.

Time (hh:mm:ss): Time the data were collected.

Point Number: Identification number assigned to data point by survey team. In many cases data are collected at points along transects and a station might consist of several transects.

Easting utm83 (m): Horizontal coordinate.

Northing utm83 (m): Horizontal coordinate.

Elevation NAVD88 (m): Elevation relative to North American Vertical Datum of 1988.

Example:

```
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,01,829997.02,3241533.14,-0.91
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,02,829991.87,3241512.72,-1.13
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,03,829991.52,3241511.46,-1.07
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,04,829988.26,3241498.42,-2.23
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,05,829985.45,3241487.40,-2.74
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,06,829985.16,3241486.17,-3.60
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,07,829985.02,3241485.56,-3.63
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,08,829982.27,3241474.66,-3.90
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,09,829982.18,3241474.51,-3.90
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,10,829980.30,3241467.10,-4.24
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,11,829979.81,3241465.17,-4.30
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,12,829978.51,3241459.81,-4.24
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,13,829976.63,3241452.34,-4.63
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,14,829976.34,3241451.27,-4.57
BA38-1,38-1, SG1,Post-cons.,06/01/2004,13:00,15,829974.89,3241445.75,-4.72
```

Format 2:

**U.S. Army Corps of Engineers
Beach Morphology Analysis Program - Free Format**

This format is an ASCII format listing the profile line name, the number of points on each profile, and the distance and elevation values:

<Profile Name #1	Easting of Origin	Northing of Origin,	Azimuth of Origin	Date>
<Number of Points>				
<Distance Value #1>	<Elevation Value #1>			
<Distance Value #2>	<Elevation Value #2>			
<Distance Value #3>	<Elevation Value #3>			
(etc.)				
<Profile Name #2	Easting of Origin	Northing of Origin,	Azimuth of Origin	Date>
<Number of Points>				
<Distance Value #1>	<Elevation Value #1>			
<Distance Value #2>	<Elevation Value #2>			
<Distance Value #3>	<Elevation Value #3>			
(etc.)				

All of the above values are to be reported in State Plane NAD83 / NAVD88 feet. Meters or UTM coordinates are not acceptable. Distance values may be calculated according to the following formula:

$$\text{Distance Value} = \begin{aligned} &[(\text{Easting of Point}) - (\text{Easting of Origin})] \cdot \sin(\text{Azimuth of Origin}) + \\ &[(\text{Northing of Point}) - (\text{Northing of Origin})] \cdot \cos(\text{Azimuth of Origin}) \end{aligned}$$

Example:

```
SG01 3831677.3 278768.2 195.0 06-01-2004
6
-154.2 -1.1
-133.7 3.0
197.4 3.0
332.4 6.0
542.4 6.0
938.4 -2.8
SG02_PI1 3832115.0 278650.1 195.0 06-01-2004
5
-553.1 3.0
113.9 3.0
248.9 6.0
458.9 6.0
936.5 -4.6
SG03 3832553.5 278531.7 195.0 06-01-2004
6
-454.4 1.5
-447.0 3.0
54.6 3.0
189.6 6.0
399.6 6.0
873.6 -4.5
```

Format 3:

X, Y, Z, Profile Line Comma Delimited format

This format is an ASCII comma-delimited format. The arrangement of the columns is as follows

Easting (State Plane NAD83, feet)

Northing (State Plane NAD83, feet)

Elevation (Elevation relative to North American Vertical Datum of 1988 in feet)

Profile Line Name

Example:

3832117.8,	280412.5,	-3.0,	SG1
3832100.0,	280345.8,	-3.7,	SG1
3832098.8,	280341.7,	-3.5,	SG1
3832087.5,	280299.1,	-7.3,	SG1
3832077.8,	280263.1,	-9.0,	SG1
3832076.8,	280259.1,	-11.8,	SG1
3832076.3,	280257.1,	-11.9,	SG1
3832066.8,	280221.5,	-12.8,	SG1
3832066.5,	280221.0,	-12.8,	SG1
3832060.0,	280196.8,	-13.9,	SG1
3832058.3,	280190.5,	-14.1,	SG1
3832053.8,	280173.0,	-13.9,	SG1
3832047.3,	280148.6,	-15.2,	SG1
3832046.3,	280145.1,	-15.0,	SG1
3832041.3,	280127.1,	-15.5,	SG1

APPENDIX IV GEOTECHNICAL REPORTS

PROVIDED ELECTRONICALLY at the following link:

<ftp://ftp.coastal.la.gov/CS-59%20Oyster%20Bayou%20Marsh%20Creation/Construction%20Documents/>

APPENDIX V

USACE PROJECT PERMIT



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

RECEIVED

2015 AUG 10 P 1:46

CPRA

REPLY TO
ATTENTION OF
Operations Division
Western Evaluation Section

AUG 03 2015

SUBJECT: MVN-2012-01709-WPP

Coastal Protection and Restoration Authority
450 Laurel Street, Suite 1200
Baton Rouge, Louisiana 70801

Dear Gentlemen:

The proposed work, to dredge and fill for implementing the Oyster Bayou Marsh Restoration Project (CS-59), in Cameron Parish, Louisiana, as shown on the attached drawings, is authorized under **Category II** of the **Programmatic General Permit** provided that all conditions of the permit are met.

The following special conditions are made part of this authorization:

1. This permit does not authorize the conversion of wetlands to uplands, or impacts to existing aquatic resources.
2. 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 authorized activities with local floodplain ordinances, regulations or permits.
3. 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.

4. If the authorized project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.
5. That structures will not be placed across any state-owned water bottoms without approval of the Louisiana Office of Administration, State Lands Office. The permittee will be responsible for contacting the State Lands Office to ascertain if the structure will be placed over state-owned water bottoms.
6. The (attached) Standard Manatee Conditions for In-Water Activities are hereby made a part of this authorization.
7. Equipment access shall be through open water and limited to within the marsh creation areas and pipeline and equipment corridors shown on the permit drawings.

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 and a water quality certification from the Louisiana Department of Environmental Quality.

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 Johnny Duplantis of this office at (504) 862-2548.

Sincerely,

Darrell S. Barbara

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 made 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 US 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.

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 CEMVN-PGP authorization will be revoked if it is determined that cultural resources would be adversely affected, and an individual permit may be necessary.

3. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and CEMVN. CEMVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.

4. 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.

5. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to block or impound water.

6. If the proposed 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 Springs, Maryland 20910-3282.

7. For pipelines under an anchorage or a designated fairway in the Gulf of Mexico the following is applicable:

The National Ocean Service 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 Springs, Maryland 20910-3282. The plans must include the location, configuration and actual burial depth of the completed pipeline project.

8. If the proposed 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 a federally maintained 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 (504) 671-2112.

9. 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.

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

11. 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.

12. 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.

13. The Corps of Engineers may suspend, modify, or revoke this general permit if it is found in

the public interest to do so.

14. 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 CEMVN-PGP.
15. 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.
16. 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.
17. 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.
18. 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.
19. Any modification, suspension, or revocation of CEMVN-PGP, or any individual authorization granted under this permit, will not be the basis for any claim for damages against the United States.
20. 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 CEMVN-PGP may include special conditions deemed necessary to ensure minimal impact and compliance with CEMVN-PGP.
21. CEMVN-PGP is subject to periodic formal review by CEMVN 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.

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

23. 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.

24. 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 26 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.

25. 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.

26. 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 owners agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.

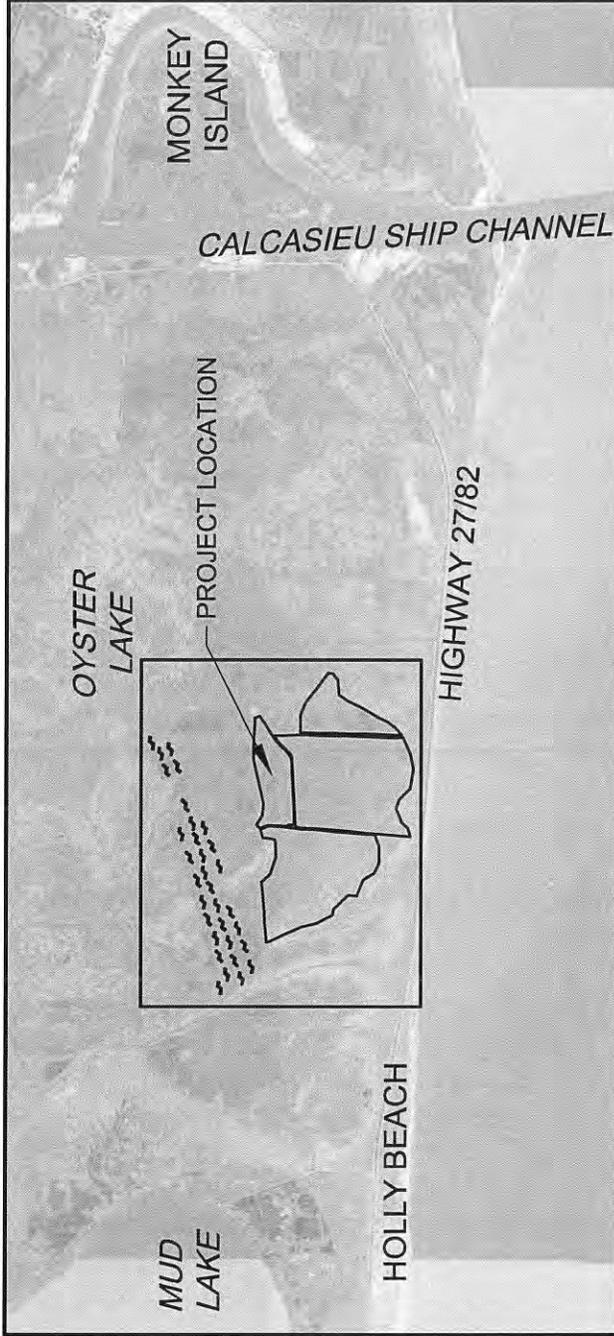
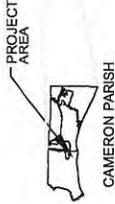
27. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.

28. 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.

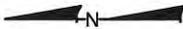
29. In issuing authorizations under this permit, the federal government does not assume any liability for: damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; damages to the permitted project or uses thereof as a result of 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.

**STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY**

**OYSTER BAYOU MARSH
RESTORATION PROJECT
CS-59 CAMERON PARISH**



NOT TO SCALE



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**COASTAL PROTECTION & RESTORATION
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OYSTER BAYOU MARSH
RESTORATION PROJECT

TITLE SHEET

DRAWN BY: G KRYSZYNIAK

DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

DATE: 9/19/14
STATE PROJECT NUMBER: CS-59
SHEET 1 OF 52

INDEX TO SHEETS

SHEET NO.

DESCRIPTION

1	TITLE SHEET
2	SHEET INDEX
3-5	GENERAL NOTES
6-10	ALIGNMENT TABLES
11-14	EARTHEN TERRACE COORDINATE LOCATIONS
15	PROJECT OVERVIEW
16	PLAN VIEW
17	MARSH CREATION SURVEY PROFILE LOCATIONS
18	EARTHEN TERRACE PLAN VIEW
19-34	MARSH RESTORATION CONSTRUCTION PROFILES
35-41	TERRACE FIELD CONSTRUCTION PROFILES
42	BORROW AREA PLAN VIEW
43	BORROW AREA CROSS SECTION A-A'
44	BORROW AREA CROSS SECTION B-B'
45	TYPICAL EARTHEN TERRACE PLAN VIEW
46	TYPICAL EARTHEN TERRACE CROSS SECTION
47	PLANTING LAYOUT AND DETAIL
48-49	CONSTRUCTION DETAILS
50	HIGHWAY 27/82 CROSSING PLAN VIEW
51	HIGHWAY CROSSING 27/82 CROSSING DETAIL
52	TEMPORARY PIPELINE MARKER AND CASING PIPE CAP/MARKER DETAIL

<p>CB&I COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOGA RATON BOULEVARD BOGA RATON, FLORIDA 32610 PH: (851) 381-6162 FAX: (851) 381-6116 C.O.A. FL #0028 C.O.A. LA. #221 www.CoastalPlanEng.net</p>	<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL ST., SUITE 1500 BATON ROUGE, LOUISIANA 70801 PH: (225) 342-2799 FAX: (225) 342-8801</p>
<p>DRAWN BY: G KRYSZYNYIAK</p>	<p>DESIGNED BY: W THOMPSON</p>
<p>APPROVED BY: G THOMPSON</p>	

<p>COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>OYSTER BAYOU MARSH RESTORATION PROJECT</p>	<p>SHEET INDEX</p>
<p>STATE PROJECT NUMBER: CS-59</p>		<p>DATE: 9/19/14</p>
<p>DESIGNED BY: W THOMPSON</p>		<p>SHEET 2 OF 52</p>

GENERAL NOTES

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) U.S. SURVEY FEET (FEET), GEOID 2009. ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD '83, LOUISIANA STATE PLANE SOUTH ZONE) U.S. SURVEY FEET (FEET).
2. THE MARSH FILL BORROW AREA CONTAINS APPROXIMATELY 6,688,000 CY OF MATERIAL. IT IS ESTIMATED THAT 3,607,425 CY WILL NEED TO BE DREDGED TO CONSTRUCT THE 2,205,000 CY MARSH TEMPLATE AND BACKFILL. THE FILL SOURCE FOR THE PRIMARY CONTAINMENT DIKE, THE BORROW AREA EXCEEDS THE CONSTRUCTION TEMPLATE VOLUME AND CPRA REQUESTS TO PERMIT THIS ENTIRE AREA TO ALLOW THE CONTRACTOR FLEXIBILITY IN CONSTRUCTION METHODOLOGY, TO ALLOW BUFFER FOR ANY UNEXPECTED ANOMOLIES THAT MAY BE ENCOUNTERED, TO ALLOW FOR INCONSISTENCIES IN THE QUALITY OF THE MATERIAL, FOR LIMITATIONS OF THE CONTRACTOR'S EQUIPMENT, ETC.
3. CPRA WILL PROVIDE AS-BUILT EXCAVATION AND PLACEMENT VOLUMES UPON THE COMPLETION OF CONSTRUCTION.
4. PLANS AND BID DOCUMENTS ARE COMPLEMENTARY; WHAT IS REQUIRED IN ONE IS AS BINDING AS IF REQUIRED BY ALL. CLARIFICATIONS AND INTERPRETATIONS OF, OR NOTIFICATIONS OF MINOR VARIATIONS AND DEVIATIONS IN THE CONTRACT DOCUMENTS WILL BE ISSUED BY THE ENGINEER.
5. ELEVATIONS SHOWN ON THE PLANS ARE BASED ON SURVEYS PERFORMED IN AUGUST AND SEPTEMBER OF 2012. THE SURVEYS WERE CONDUCTED BY LONNIE G. HARPER AND ASSOCIATES, INC. FOR CPRA.
6. MEAN HIGH WATER (MHW) AND MEAN LOW WATER (MLW) ARE BASED ON THE TIDE STATION AT CALCASIEU PASS, LOUISIANA. ELEVATION ARE REFERENCED TO NAVD '88, US FEET.
7. 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 WORK. LOCATION OF INFRASTRUCTURE (PIPELINES, WELL HEADS, ETC.) ARE PROVIDED IN THE CONTRACT DOCUMENTS FOR INFORMATIONAL PURPOSES ONLY.
8. AVOIDING IMPACTS TO EXISTING VEGETATION: FOR PROTECTION OF EXISTING VEGETATION, ACCESS TO OR MOVEMENT ACROSS THE MARSH OUTSIDE OF THE DEFINED PROJECT AREA 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 MINIMIZE OVERFLOW OF THE DREDGED MATERIAL FROM THE BOUNDS OF ITS PLACEMENT AREA.

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DESIGNED BY: W THOMPSON APPROVED BY: G THOMPSON

OYSTER BAYOU MARSH
 RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 3 OF 52

GENERAL NOTES

SUMMARY OF ESTIMATED BID QUANTITIES

ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
2	PRE-CONSTRUCTION SURVEYS	LUMP SUM	1
3	AS-BUILT SURVEYS	LUMP SUM	1
4	MARSH FILL	CUBIC YARD	3,307,600
5	PRIMARY CONTAINMENT DIKE	LINEAR FEET	45,000
6	TERRACES	LINEAR FEET	17,550
7	SETTLEMENT PLATES	EACH	7
8	TRENASSES	LINEAR FEET	9,490
9	POND CONTAINMENT	LINEAR FEET	2,540
10	TRAFFIC CONTROL	LUMP SUM	1
11	HIGHWAY CROSSING MOBILIZATION	LUMP SUM	1
12	HIGHWAY EMBANKMENT (DOTD 203-03-00100)	CUBIC YARD	65
13	HIGHWAY EXCAVATION (DOTD 203-01-00100)	CUBIC YARD	100
14	GEOTEXTILE FABRIC (DOTD 203-08-00100)	SQUARE YARD	270
15	CLASS II BASE COURSE (302-01-00100)	SQUARE YARD	25
16	PAVEMENT PATCHING (DOTD 510-01-00100)	SQUARE YARD	25
17	BEDDING MATERIAL (DOTD 726-01-00100)	CUBIC YARD	5
18	CONCRETE DRAIN PIPE (51" O.D. REINFORCED CONCRETE PIPE) (DOTD 701-01-N)	LINEAR FEET	40
19	CONCRETE PIPE CAP	EACH	2

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SHEET 4 OF 52

GENERAL NOTES

PROPOSED MARSH DEWATERING LOCATIONS

LABEL	EASTING	NORTHING
MARSH CREATION AREA 1		
DL-1	2619945.3 2620074.4	471986.9 472195.9
DL-2	2623207.0 2623455.7	472293.5 472371.8
MARSH CREATION AREA 2		
DL-3	2624783.8 2625027.5	472399.0 472454.3
DL-4	2626393.3 2626642.9	472584.5 472570.7
MARSH CREATION AREA 3		
DL-5	2624008.1 2624257.9	471275.9 471286.4
DL-6	2626566.9 2626562.2	470404.8 470154.9
MARSH CREATION AREA 4		
DL-7	2627275.7 2627506.3	471029.1 470932.5

- NOTE:
 1. COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.
 2. SEE TS-18 OF THE CONSTRUCTION SPECIFICATIONS

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OYSTER BAYOU MARSH RESTORATION PROJECT

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SHEET 5 OF 52

SETTLEMENT PLATE LOCATIONS

	EASTING	NORTHING	LOCATION
MARSH CREATION AREA 1			
SP-1	2620912.8	472256.6	DIKE
SP-2	26222191.6	470095.6	MARSH
MARSH CREATION AREA 2			
SP-3	2624668.4	471595.2	MARSH
MARSH CREATION AREA 3			
SP-4	2624235.5	470595.1	MARSH
SP-5	2624807.3	469095.4	MARSH
MARSH CREATION AREA 4			
SP-6	2627298.5	470595.8	MARSH
SP-7	2627318.8	469096.3	DIKE

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET

TIDAL DATUMS AT OYSTER BAYOU, LOUISIANA

TIDAL DATUM	ELEVATION
MEAN HIGH WATER (MHW)	1.34
MEAN LOW WATER (MLW)	0.65

SOURCE: CPRA NOAA STATION 8768094 NOTE: ELEVATIONS ARE REFERENCED TO NAVD 1988, U.S. SURVEY FEET, GEOID 2009.

BASELINE

BEND POINT	EASTING	NORTHING
P.O.B	2625411.4	466992.2
P.O.E	2625411.4	474781.6

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET

BENCHMARK CONTROL POINT

MONUMENT	LATITUDE	LONGITUDE	ELEVATION
CS-20-SM-03	2625833.2	486444.9	4.15

NOTE: MONUMENT IS LOCATED NEAR THE INTERSECTION OF STEP CANAL AND MUD BAYOU AND NOT WITHIN THE PROJECT AREA SHOWN IN THE PLANS. COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD 1988, U.S. SURVEY FEET, GEOID 1999.

PRIMARY DIKE CENTERLINE INFLECTION POINTS

EASTING	NORTHING
MARSH CREATION AREA 1	
2619868.1	472181.0
2621768.8	472318.6
2622031.4	472052.9
2622597.3	471873.8
2623047.5	471891.5
2623157.6	471920.5
2623207.0	472293.5
2623455.7	472371.8
2623559.9	472128.9
2623560.2	472094.9
2623520.8	471594.9
2623469.7	471094.9
2623432.9	470594.9
2623379.3	470094.9
2623346.9	469594.9
2623302.0	469094.9
2623270.6	468745.1
2622926.9	468594.9
2622386.1	468594.9
2622073.2	468764.4
2621863.9	469094.9
2621359.9	469317.9
2621370.7	469595.3
2620911.4	470054.8
2620716.2	470094.6
2620470.6	470594.9
2620343.9	471094.9
2619897.0	472094.9

EASTING	NORTHING
MARSH CREATION AREA 2	
2623497.8	472395.5
2623617.3	472492.8
2623911.4	472314.6
2624270.7	472280.1
2625411.4	472541.5
2625691.4	472594.9
2626203.4	472594.9
2627029.3	472550.8
2627084.8	472430.1
2626911.4	472299.5
2626609.5	472094.9
2626329.2	471928.7
2626122.2	471759.3
2625977.8	471594.9
2625837.1	471466.4
2625778.8	471435.3
2625742.5	471413.1
2625672.0	471410.4
2625660.0	471509.9
2625546.4	471496.3
2625541.4	471400.6
2625411.4	471390.9
2623911.4	471316.9
2623617.8	471314.6
2623625.9	471501.4
2623584.2	471531.4
2623571.5	471594.9
2623607.6	472094.9
2623613.6	472174.8

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NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.

	COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OYSTER BAYOU MARSH RESTORATION PROJECT	ALIGNMENT TABLES
DESIGNED BY: W THOMPSON	APPROVED BY: G THOMPSON	STATE PROJECT NUMBER: CS-59	DATE: 9/19/14
		SHEET 6 OF 52	

PRIMARY DIKE CENTERLINE INFLECTION POINTS

EASTING	NORTHING
MARSH CREATION AREA 3	
2623541.1	471206.7
2623592.9	471250.1
2623663.0	471261.0
2623911.4	471271.8
2625411.4	471347.0
2625814.4	471367.7
2625867.3	471391.6
2626050.6	471594.9
2626254.8	471792.5
2626390.1	471895.0
2626463.4	471936.0
2626467.9	471594.9
2626462.1	471094.9
2626453.1	470594.9
2626440.4	470094.9
2626427.8	469594.9
2626415.1	469094.9
2626402.4	468594.9
2626386.4	468094.9
2626386.4	467841.8
2625881.6	467594.7
2625411.4	467503.3
2624783.1	467594.9
2624412.3	467953.1
2624115.2	468066.8
2623911.4	467960.4
2623680.1	467889.1
2623510.2	467672.7

EASTING	NORTHING
MARSH CREATION AREA 3	
2623242.4	467596.0
2623281.6	468094.9
2623322.9	468594.9
2623364.3	469094.9
2623418.9	469594.9
2623457.7	470094.9
2623499.6	470594.9
2623532.5	471094.9
MARSH CREATION AREA 4	
2626579.8	471094.9
2627118.6	471094.9
2627506.3	470932.5
2627940.4	470594.9
2628446.0	470224.0
2628427.9	470094.9
2628245.5	469936.9
2627765.5	469890.1
2627559.3	469594.9
2627318.2	469094.9
2627027.1	468594.9
2626905.0	468333.6
2626730.5	468094.9
2626506.8	467889.0
2626506.7	468094.9
2626521.2	468594.9
2626536.6	469094.9
2626551.9	469594.9
2626561.1	470094.9
2626570.4	470594.9

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

DESIGNED BY: W THOMPSON APPROVED BY: G THOMPSON

DRAWN BY: G KRYSZYNAK

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.

OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 7 OF 52

ALIGNMENT TABLES

TRENASSE INFLECTION POINTS

EASTING	NORTHING
MARSH CREATION AREA 1	
2621341.9	472233.4
2621202.9	472025.0
2621176.7	471889.3
2621264.9	471769.3
2621624.6	471695.8
2621745.5	471597.2
2621722.0	471496.7
2621713.6	471237.4
2622032.1	471211.6
2622125.1	471169.0
2622125.1	471046.5
2622094.0	471019.8
2622027.2	470704.3
2622053.2	470626.4
2622465.7	470240.1
2622791.4	470240.1
2623237.5	470461.4
2623346.1	470700.9
2623303.8	470834.5
2623105.6	470919.4
2623006.0	471146.8
2623137.6	471342.1
2623354.1	471416.6
2623448.1	471415.7

NORTHING	NORTHING
MARSH CREATION AREA 2	
2623677.3	471531.1
2623845.9	471586.8
2623983.4	471554.9
2624065.3	471432.8
2624088.9	471379.8
2624341.4	472240.9
2624346.3	472197.5
2624311.9	472172.9
2624108.0	472136.1
2624056.4	471902.8
2624095.7	471627.8
2624100.6	471401.8
2624104.8	471380.6
MARSH CREATION AREA 3	
2624135.4	471227.1
2624135.0	471227.5
2624464.2	470896.0
2624532.9	470449.1
2624223.4	469638.7
2624223.4	469324.4
2624459.8	468885.5
2624883.8	468668.6
2625216.3	468817.1

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COASTAL PROTECTION & RESTORATION AUTHORITY
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DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.

POND INFLECTION POINTS

	NORTHING	EASTING
MARSH CREATION AREA 1		
SECONDARY POND	2621039.3	471527.1
DIKE	2621104.9	471221.5
MARSH EDGE	2621382.9	471342.6
CONTAINMENT	2621478.2	471281.1
SECONDARY POND	2621601.3	471072.7
DIKE	2621756.2	471338.6
MARSH EDGE	2621752.2	471406.1
CONTAINMENT	2621774.1	471487.4
	2621684.7	471503.3
	2621551.7	471503.3
	2621363.0	471596.5
	2621271.7	471552.9
	2621261.7	471515.2
	2621178.3	471493.4
	2621150.5	471521.1

	NORTHING	EASTING
MARSH CREATION AREA 3		
MARSH EDGE	2622763.0	470506.0
CONTAINMENT	2623081.9	470506.0
	2623139.3	470445.5
	2623183.9	470461.4
	2623327.4	470461.4
	2623356.1	470340.3
	2623406.0	470335.1
	2623394.7	470226.5
	2623314.6	470251.1
SECONDARY POND	2623268.6	470043.9
DIKE	2622995.8	470008.9
MARSH EDGE	2622941.5	470165.1
CONTAINMENT	2622788.5	470241.5
	2622788.5	470359.4
	2622890.5	470349.9
	2622896.9	470439.1

	NORTHING	EASTING
MARSH CREATION AREA 3		
SECONDARY POND	2625235.6	469378.9
DIKE	2625288.7	469401.4
	2625387.0	469381.8
	2625496.9	469258.9
	2625542.5	469149.4
	2625527.7	469018.2
	2625528.8	468918.7
	2625462.0	468841.7
	2625378.3	468799.9
	2625318.1	468782.0
	2625229.1	468822.9
	2625206.5	468876.0
	2625205.1	468919.7
	2625217.4	468981.2
	2625210.5	469036.2
	2625143.6	469123.7
	2625130.3	469198.0
	2625149.5	469268.3

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NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983,
 LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.
 SECONDARY POND DIKE COORDINATES PROVIDED
 MARK LOCATIONS OF CENTERLINE

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

DESIGNED BY: W THOMPSON APPROVED BY: G THOMPSON OYSTER BAYOU MARSH RESTORATION PROJECT ALIGNMENT TABLES

DRAWN BY: G KRYSZYNAK STATE PROJECT NUMBER: CS-59 DATE: 9/19/14 SHEET 9 OF 52

MARSH CHECK PROFILES

BASLINE STATION	EASTING	NORTHING	AZIMUTH	PERPENDICUAR DISTANCE TO NEXT STATION (FT)
85+00	2625411.4	467594.9	270	500
80+00	2625411.4	468094.9	270	500
75+00	2625411.4	468594.9	270	500
70+00	2625411.4	469094.9	270	500
65+00	2625411.4	469594.9	270	500
60+00	2625411.4	470094.9	270	500
55+00	2625411.4	470594.9	270	500
50+00	2625411.4	471094.9	270	500
45+00	2625411.4	471594.9	270	500
40+00	2625411.4	472094.9	270	500
35+00	2625411.4	472594.9	270	500

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COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
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OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

DESIGNED BY: G KRYSYNYAK

APPROVED BY: G THOMPSON

ALIGNMENT TABLES

SHEET 10 OF 52

TERRACE CROWN INFLECTION POINTS		
TERRACE	EASTING	NORTHING
T1	2618220.0	473658.1
	2618359.1	473634.4
	2618454.8	473749.9
	2618570.0	473730.3
	2618567.5	473715.5
	2618460.8	473733.7
	2618365.1	473618.2
	2618217.4	473643.3
	2618374.6	473383.4
	2618513.7	473359.7
T2	2618609.5	473475.2
	2618724.7	473455.6
	2618722.2	473440.8
	2618615.5	473458.9
	2618519.8	473343.4
	2618372.1	473368.6
	2618981.8	473582.6
	2619057.5	473671.7
	2619205.0	473644.7
	2619296.4	473752.3
T3	2619307.8	473742.6
	2619210.9	473628.4
	2619063.3	473655.3
	2618993.2	473572.9
	2619568.5	473800.0
	2619707.6	473776.4
	2619803.3	473891.8
	2619918.6	473872.2
	2619916.1	473857.5
	2619809.4	473875.6
T4	2619713.6	473760.1
	2619566.0	473785.2

TERRACE CROWN INFLECTION POINTS		
TERRACE	EASTING	NORTHING
T5	2618763.0	473240.5
	2618902.1	473216.8
	2618997.8	473332.3
	2619113.0	473312.7
	2619110.5	473297.9
	2619003.8	473316.1
	2618908.1	473200.6
	2618760.4	473225.7
	2619342.9	473408.2
	2619418.5	473497.3
T6	2619566.1	473470.3
	2619657.5	473577.9
	2619668.9	473568.2
	2619571.9	473454.0
	2619424.4	473481.0
	2619354.3	473398.5
	2619923.6	473625.7
	2620062.7	473602.0
	2620158.5	473717.5
	2620273.7	473697.9
T7	2620271.2	473683.1
	2620164.5	473701.3
	2620068.8	473585.8
	2619921.1	473610.9
	2620458.1	473911.5
	2620533.7	474000.5
	2620681.3	473973.6
	2620772.7	474081.2
	2620784.1	474071.4
	2620687.1	473957.3
T8	2620539.6	473984.2
	2620469.5	473901.7

TERRACE CROWN INFLECTION POINTS		
TERRACE	EASTING	NORTHING
T9	2620962.2	474193.3
	2621101.3	474169.7
	2621197.0	474285.2
	2621312.2	474265.6
	2621309.7	474250.8
	2621203.0	474268.9
	2621107.3	474153.4
	2620959.6	474178.6
	2621650.4	474323.1
	2621726.0	474412.2
T10	2621873.6	474385.2
	2621964.9	474492.8
	2621976.4	474483.1
	2621879.4	474368.9
	2621731.8	474395.8
	2621661.8	474313.4
	2622378.9	474617.4
	2622454.5	474706.4
	2622602.1	474679.5
	2622693.5	474787.1
T11	2622704.9	474777.3
	2622607.9	474663.2
	2622460.4	474690.1
	2622390.3	474607.7
	2622996.4	474869.2
	2623135.6	474845.5
	2623231.3	474961.0
	2623346.5	474941.4
	2623344.0	474926.6
	2623237.3	474944.8
T12	2623141.6	474829.3
	2622993.9	474854.4

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TERRACES ARE LABELED STARTING AT THE
 NORTHWESTERN MOST POINT AND MOVING
 CLOCKWISE AROUND THE TERRACE CROWN.

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

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983,
 LOUISIANA SOUTH ZONE, U.S. SURVEY FEET

DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 11 OF 52

OYSTER BAYOU MARSH
 RESTORATION PROJECT

EARTHEN TERRACE
 COORDINATE LOCATIONS

TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T13	2618609.1	472875.3
	2618748.3	472851.6
	2618844.0	472967.1
	2618959.2	472947.5
	2618956.7	472932.7
	2618850.0	472950.8
T14	2618754.3	472835.4
	2618606.6	472860.5
	2619189.0	473043.0
	2619264.7	473132.0
	2619412.3	473105.1
	2619503.6	473212.6
T15	2619515.1	473202.9
	2619418.1	473088.8
	2619270.5	473115.7
	2619200.5	473033.2
	2619769.8	473260.5
	2619908.9	473236.8
T16	2620004.6	473352.3
	2620119.9	473332.7
	2620117.4	473317.9
	2620010.7	473336.0
	2619914.9	473220.5
	2619767.3	473245.7

TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T17	2620851.6	473748.3
	2620990.7	473724.6
	2621086.5	473840.1
	2621201.7	473820.5
	2621199.2	473805.7
	2621092.5	473823.9
T18	2620996.8	473708.4
	2620849.1	473733.5
	2621393.0	473947.7
	2621468.6	474036.7
	2621616.2	474009.8
	2621707.6	474117.3
T19	2621719.0	474107.6
	2621622.0	473993.5
	2621474.5	474020.4
	2621404.4	473937.9
	2621872.6	474111.7
	2622011.7	474088.0
T20	2622107.5	474203.5
	2622222.7	474183.9
	2622220.2	474169.1
	2622113.5	474187.3
	2622017.8	474071.8
	2621870.1	474096.9

TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T21	2623225.9	474658.7
	2623301.5	474747.7
	2623449.1	474720.8
	2623540.5	474828.3
	2623551.9	474818.6
	2623454.9	474704.5
T22	2623307.4	474731.4
	2623237.3	474648.9
	2623713.8	474869.8
	2623852.9	474846.2
	2623948.6	474961.7
	2624063.9	474942.1
T23	2624061.3	474927.3
	2623954.7	474945.4
	2623858.9	474829.9
	2623711.3	474855.0
	2618903.8	472651.7
	2619042.9	472628.1
T24	2619138.6	472743.6
	2619253.8	472724.0
	2619251.3	472709.2
	2619144.6	472727.3
	2619048.9	472611.8
	2618901.2	472636.9

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TERRACES ARE LABELED STARTING AT THE NORTHWESTERN MOST POINT AND MOVING CLOCKWISE AROUND THE TERRACE CROWN.

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET

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DESIGNED BY: G KRYSZYNIAK
 APPROVED BY: G THOMPSON
 STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 12 OF 52

OYSTER BAYOU MARSH RESTORATION PROJECT
 EARTHEN TERRACE COORDINATE LOCATIONS

TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T25	2620129.1	473084.9
	2620268.2	473061.2
	2620363.9	473176.7
	2620479.1	473157.1
	2620476.6	473142.3
	2620369.9	473160.4
T26	2620274.2	473045.0
	2620126.6	473070.1
	2620732.6	473243.1
	2620808.3	473332.1
	2620955.8	473305.2
	2621047.2	473412.8
T27	2621058.6	473403.1
	2620961.6	473288.9
	2620814.1	473315.8
	2620744.0	473233.4
	2621835.2	473793.5
	2621974.3	473769.8
T28	2622070.0	473885.3
	2622185.2	473865.7
	2622182.7	473850.9
	2622076.0	473869.1
	2621980.3	473753.6
	2621832.6	473778.7

TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T29	2623044.4	474295.6
	2623120.1	474384.7
	2623267.7	474357.8
	2623359.0	474465.3
	2623370.5	474455.6
	2623273.5	474341.4
T30	2623125.9	474368.4
	2623055.9	474285.9
	2623529.3	474471.2
	2623668.4	474447.5
	2623764.1	474563.0
	2623879.3	474543.4
T31	2623876.8	474528.6
	2623770.1	474546.8
	2623674.4	474431.3
	2623526.8	474456.4
	2624094.5	474651.1
	2624170.2	474740.2
T32	2624317.8	474713.3
	2624409.1	474820.8
	2624420.6	474811.1
	2624323.6	474696.9
	2624176.0	474723.9
	2624106.0	474641.4
T33	2622172.2	473669.8
	2622311.4	473646.2
	2622407.1	473761.7
	2622522.3	473742.1
	2622519.8	473727.3
	2622413.1	473745.4
T34	2622317.4	473629.9
	2622169.7	473655.1
	2625201.8	475336.7
	2625277.4	475425.7
	2625425.0	475398.8
	2625516.3	475506.4
T35	2625527.8	475496.6
	2625430.8	475382.5
	2625283.2	475409.4
	2625213.2	475326.9
	2625773.6	475525.1
	2625912.7	475501.5
T36	2626008.5	475617.0
	2626123.7	475597.4
	2626121.2	475582.6
	2626014.5	475600.7
	2625918.8	475485.2
	2625771.1	475510.4

TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T33	2622815.9	473894.9
	2622891.6	473984.0
	2623039.1	473957.0
	2623130.5	474064.6
	2623141.9	474054.9
	2623044.9	473940.7
T34	2622897.4	473967.7
	2622827.3	473885.2
	2623335.6	474151.3
	2623474.7	474127.6
	2623570.5	474243.1
	2623685.7	474223.5
T35	2623683.2	474208.7
	2623576.5	474226.9
	2623480.8	474111.4
	2623333.1	474136.5
	2625201.8	475336.7
	2625277.4	475425.7
T36	2625425.0	475398.8
	2625516.3	475506.4
	2625527.8	475496.6
	2625430.8	475382.5
	2625283.2	475409.4
	2625213.2	475326.9

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

DESIGNED BY: G KRYSZYNYAK
APPROVED BY: G THOMPSON

APPLICATION BY:
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 450 LAUREL ST., SUITE 1500
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STATE PROJECT NUMBER: CS-59
DATE: 9/19/14
SHEET 13 OF 52

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APPROVED BY: G THOMPSON

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TERRACE CROWN INFLECTION POINTS

TERRACE	EASTING	NORTHING
T37	2626047.5	475864.9
	2626186.7	475841.2
	2626282.4	475956.7
	2626397.6	475937.1
	2626395.1	475922.3
	2626288.4	475940.5
	2626192.7	475825.0
	2626045.0	475850.1
	2625478.8	475125.7
	2625554.5	475214.8
T38	2625702.0	475187.8
	2625793.4	475295.4
	2625804.8	475285.7
	2625707.8	475171.5
	2625560.3	475198.5
	2625490.2	475116.0
	2626086.8	475281.8
	2626226.0	475258.1
T39	2626321.7	475373.6
	2626436.9	475354.0
	2626434.4	475339.2
	2626327.7	475357.4
	2626232.0	475241.9
	2626084.3	475267.0

NOTE: COORDINATES ARE IN STATE PLANE, NAD 1983, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET

TERRACES ARE LABELED STARTING AT THE NORTHWESTERN MOST POINT AND MOVING CLOCKWISE AROUND THE TERRACE CROWN.

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COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
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OYSTER BAYOU MARSH RESTORATION PROJECT
 STATE PROJECT NUMBER: CS-59

EARTHEN TERRACE COORDINATE LOCATIONS
 DATE: 9/19/14

DESIGNED BY: W THOMPSON APPROVED BY: G THOMPSON
 DRAWN BY: G KRYSZYNIAK SHEET 14 OF 52

OYSTER BAYOU PROJECT

FILL VOLUMES

MARSH FILL VOLUME = 2,405 MCY
 PRIMARY DIKE VOLUME = 133,000 CY
 TERRACES VOLUME = 98,150 CY

MARSH FILL AREA = 592 ACRES
 CONTAINMENT DIKE AREA = 33 ACRES
 TERRACES AREA = 23 ACRES
 FILL SOURCE FOR
 CONTAINMENT DIKES = 39 ACRES

**OYSTER BAYOU DELINEATED
 BORROW AREA VOLUMES**

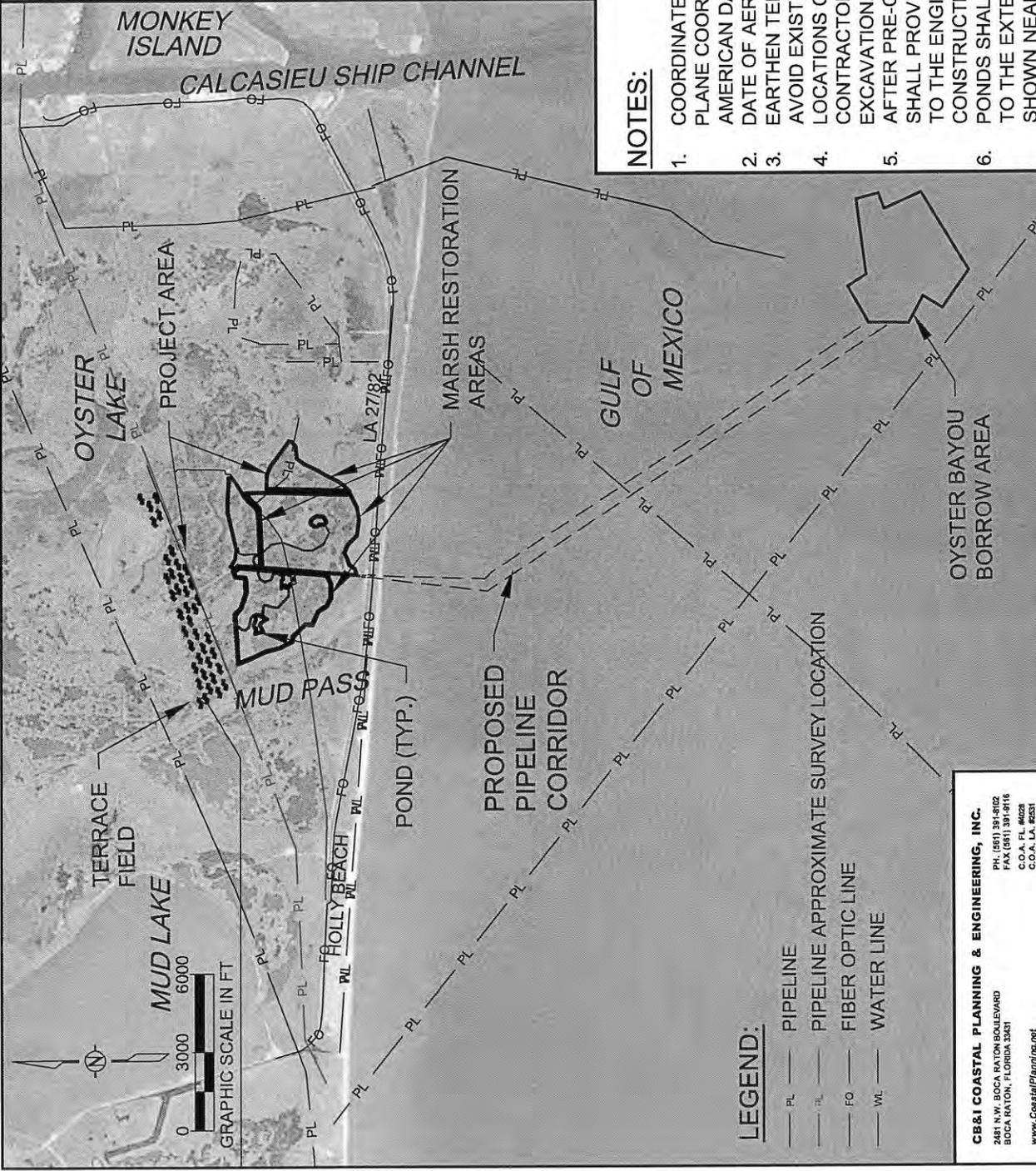
GULF BORROW AREA VOLUME =
 6.69 MCY; 359 ACRES

OYSTER BAYOU EXCAVATION VOLUMES

MARSH FILL EXCAVATION
 VOLUME = 3,607 MCY
 CONTAINMENT DIKE EXCAVATION
 VOLUME = 207,150 CY
 TRENASSE EXCAVATION VOLUME = 12,650 CY
 TERRACE EXCAVATION VOLUME = 147,225 CY

NOTES:

- COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
- DATE OF AERIAL IMAGERY: 2013.
- EARTHEN TERRACES SHALL BE CONSTRUCTED TO AVOID EXISTING VEGETATED WETLANDS.
- LOCATIONS OF PIPELINES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO EXCAVATION.
- AFTER PRE-CONSTRUCTION SURVEY, THE CONTRACTOR SHALL PROVIDE A REVISED EARTHEN TERRACE LAYOUT TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- PONDS SHALL BE CONTAINED BY NATURAL FEATURES TO THE EXTENT POSSIBLE. CONTAINMENT IS NOT SHOWN NEAR MARSH TO BE USED AS CONTAINMENT.



LEGEND:

- PL — PIPELINE
- FL — PIPELINE APPROXIMATE SURVEY LOCATION
- FO — FIBER OPTIC LINE
- WL — WATER LINE

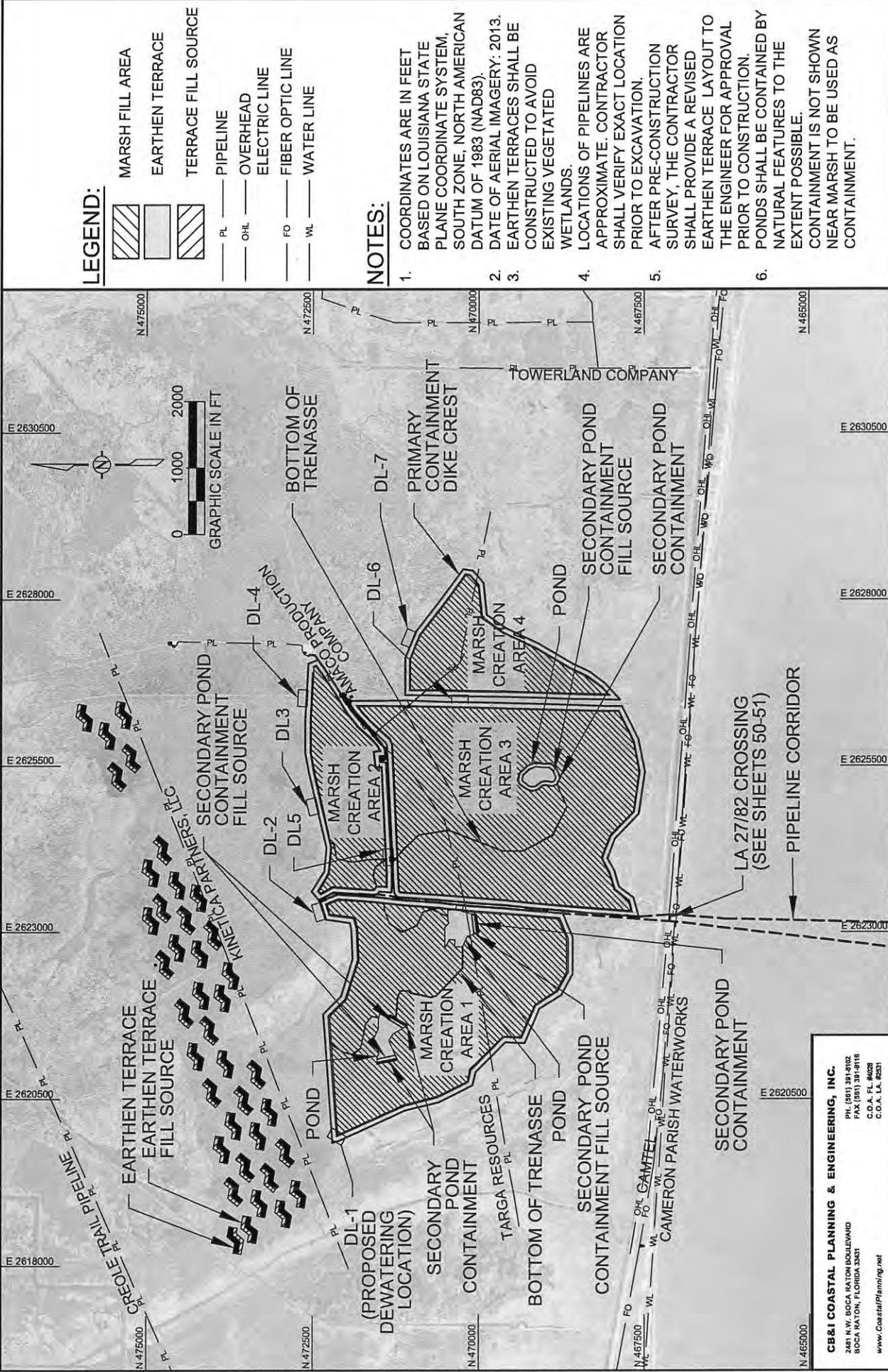
CB&I COASTAL PLANNING & ENGINEERING, INC.
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**COASTAL PROTECTION & RESTORATION
 AUTHORITY**
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

DRAWN BY: G KRYSZYNIAK **DESIGNED BY:** W THOMPSON **APPROVED BY:** G THOMPSON

OYSTER BAYOU MARSH RESTORATION PROJECT	PROJECT OVERVIEW
STATE PROJECT NUMBER: CS-59	DATE: 9/19/14
	SHEET 15 OF 52



LEGEND:

- MARSH FILL AREA
- EARTHEN TERRACE
- TERRACE FILL SOURCE
- PIPELINE
- OVERHEAD ELECTRIC LINE
- FIBER OPTIC LINE
- WATER LINE

NOTES:

1. COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
2. DATE OF AERIAL IMAGERY: 2013.
3. EARTHEN TERRACES SHALL BE CONSTRUCTED TO AVOID EXISTING VEGETATED WETLANDS.
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5. AFTER PRE-CONSTRUCTION SURVEY, THE CONTRACTOR SHALL PROVIDE A REVISED EARTHEN TERRACE LAYOUT TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
6. PONDS SHALL BE CONTAINED BY NATURAL FEATURES TO THE EXTENT POSSIBLE. CONTAINMENT IS NOT SHOWN NEAR MARSH TO BE USED AS CONTAINMENT.

PLAN VIEW

OYSTER BAYOU MARSH RESTORATION PROJECT

COASTAL PROTECTION & RESTORATION AUTHORITY
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 BATON ROUGE, LOUISIANA 70801

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DRAWN BY: G KRYSYNYIAK

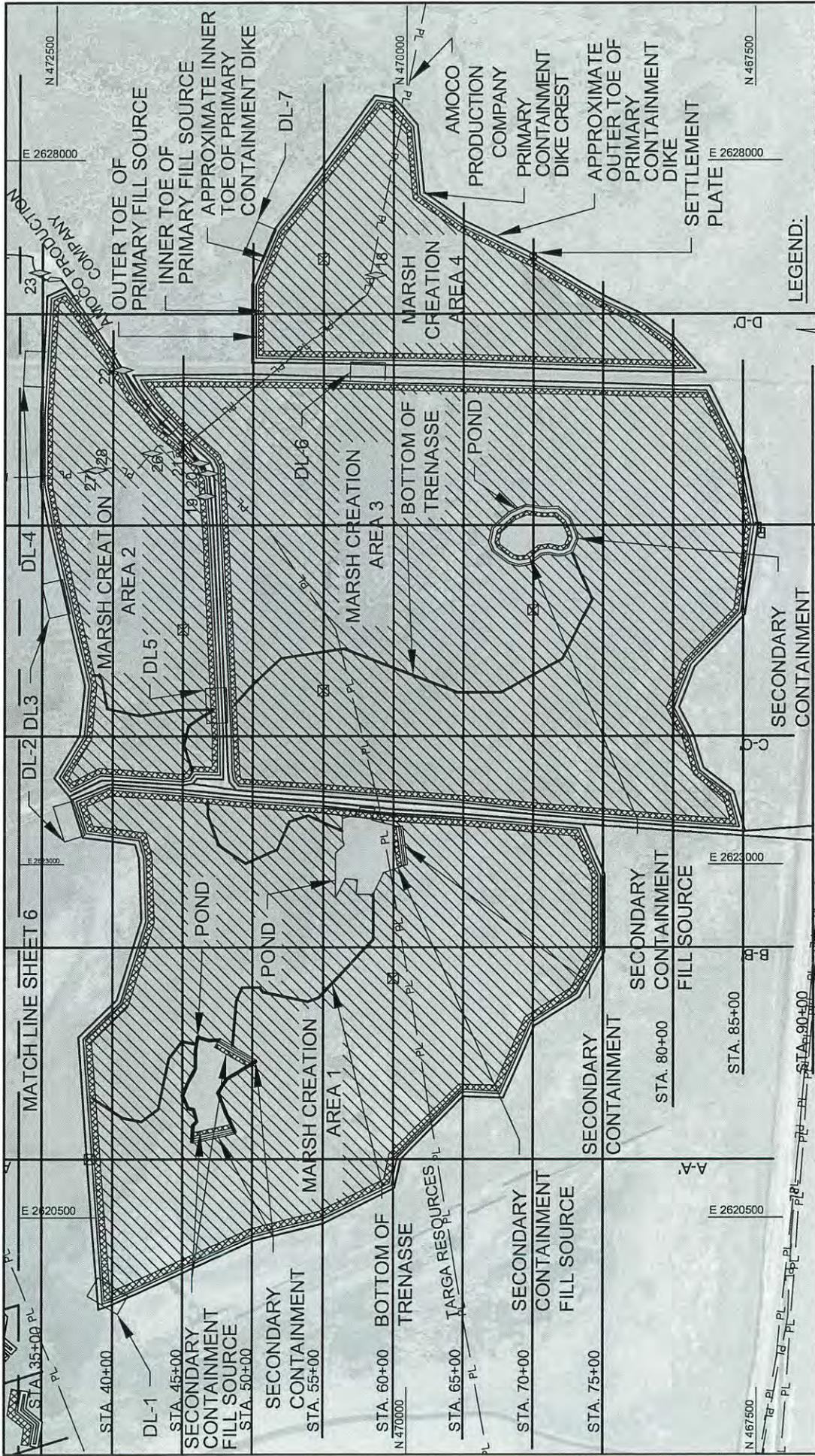
DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

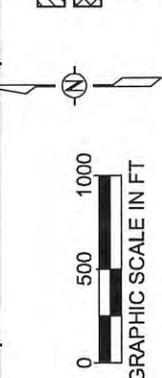
DATE: 9/19/14

SHEET 16 OF 52



LEGEND:

- ⊠ SETTLEMENT PLATE
- ▨ MARSH FILL AREA
- ▩ FILL SOURCE
- ⬆ 18 MAGNETIC ANOMALY



NOTES:

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2. DATE OF AERIAL IMAGERY: 2013.

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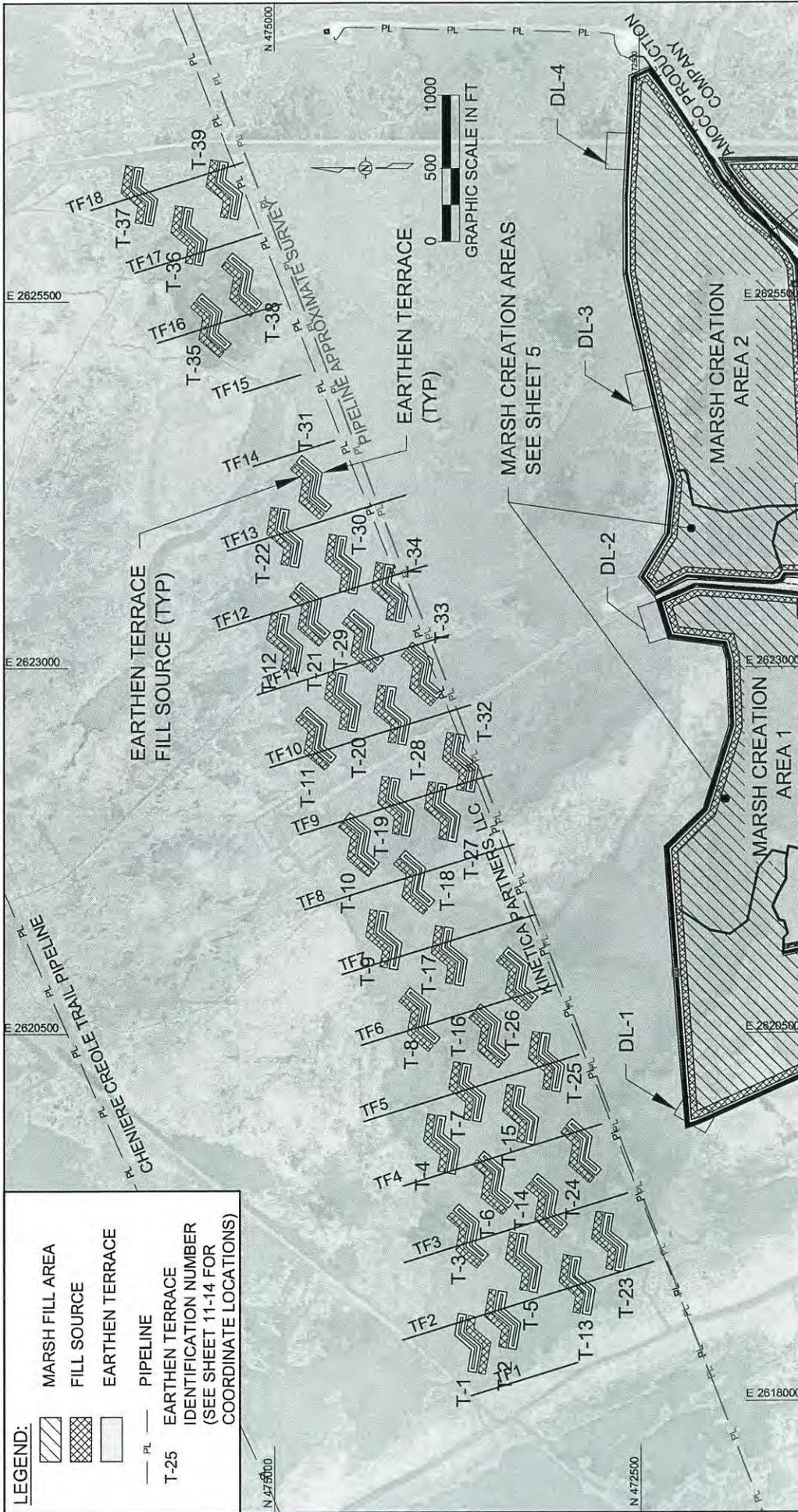
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OYSTER BAYOU MARSH RESTORATION PROJECT

MARSH CREATION SURVEY PROFILE LOCATIONS

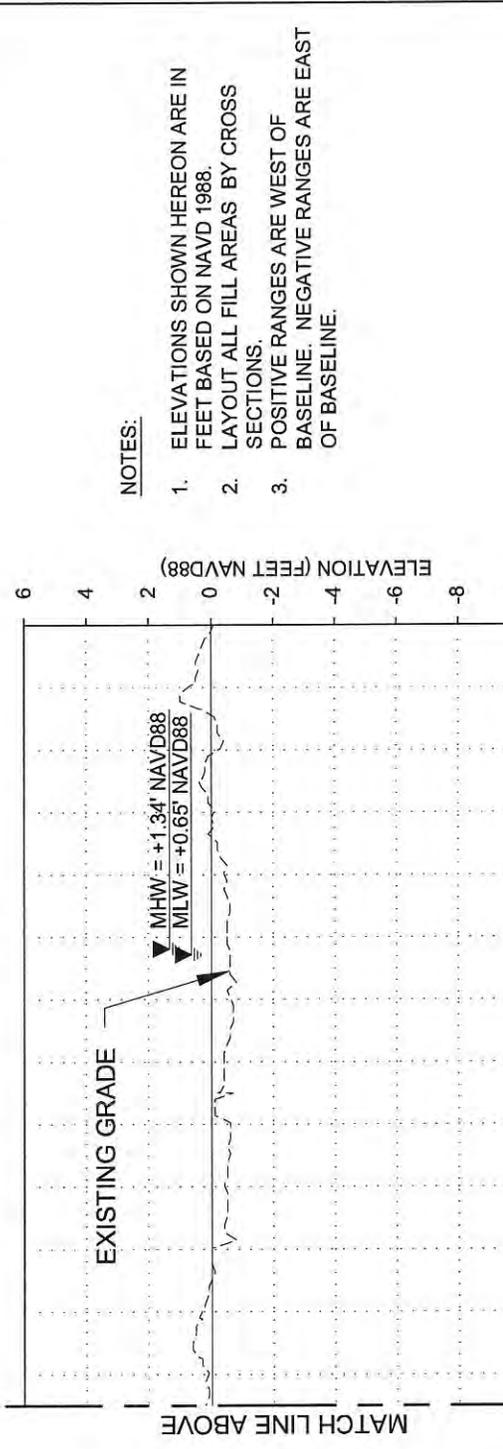
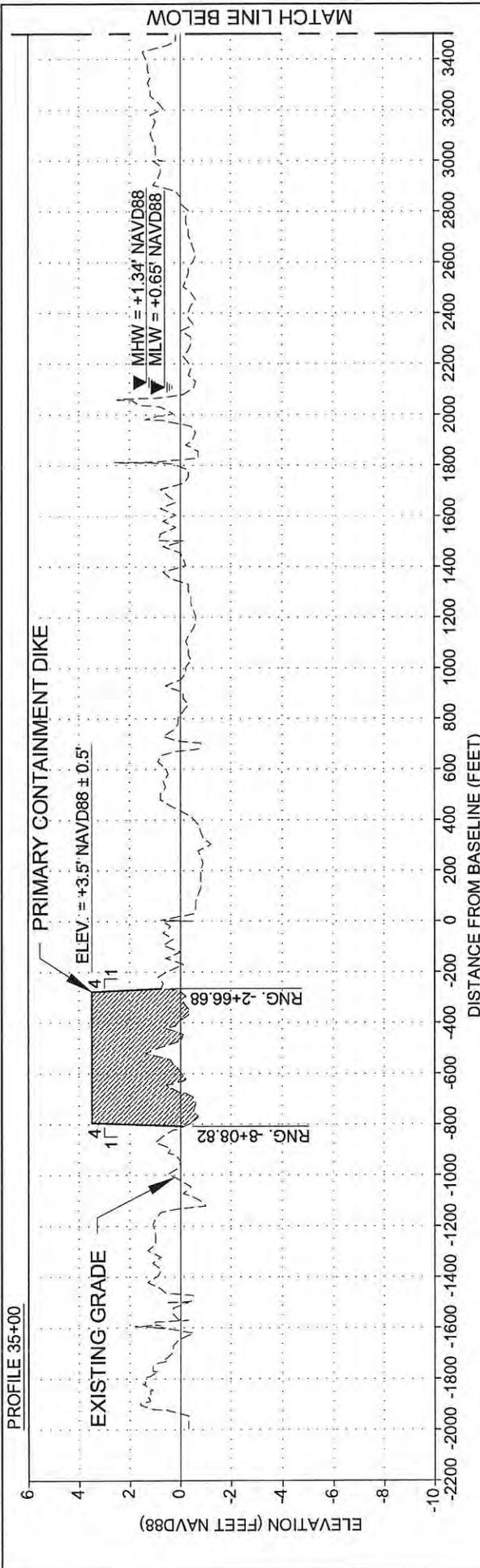
DRAWN BY: G KRYSZYNAK	DESIGNED BY: W THOMPSON	APPROVED BY: G THOMPSON
STATE PROJECT NUMBER: CS-59		
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SHEET 17 OF 52		



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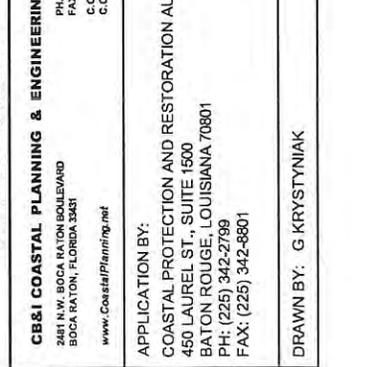
<p>CB&I COASTAL PLANNING & ENGINEERING, INC. 2465 N.W. BOCCA BAYON BOULEVARD BOCCA RATON, FLORIDA 33431 PH: (851) 384-6102 FAX: (851) 381-9116 C.O.A. FL. #0298 C.O.A. LA. #231 www.CoastalPlanning.net</p>	<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL ST., SUITE 1500 BATON ROUGE, LOUISIANA 70801 PH: (225) 342-2799 FAX: (225) 342-8801</p>
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<p>DESIGNED BY: G KRYSYNYIAK</p>	<p>EARTHEN TERRACE PLAN VIEW</p>
<p>DRAWN BY: G KRYSYNYIAK</p>	<p>DATE: 9/19/14</p>
<p>DESIGNED BY: W THOMPSON</p>	<p>STATE PROJECT NUMBER: CS-59</p>
<p>APPROVED BY: G THOMPSON</p>	<p>SHEET 18 OF 52</p>

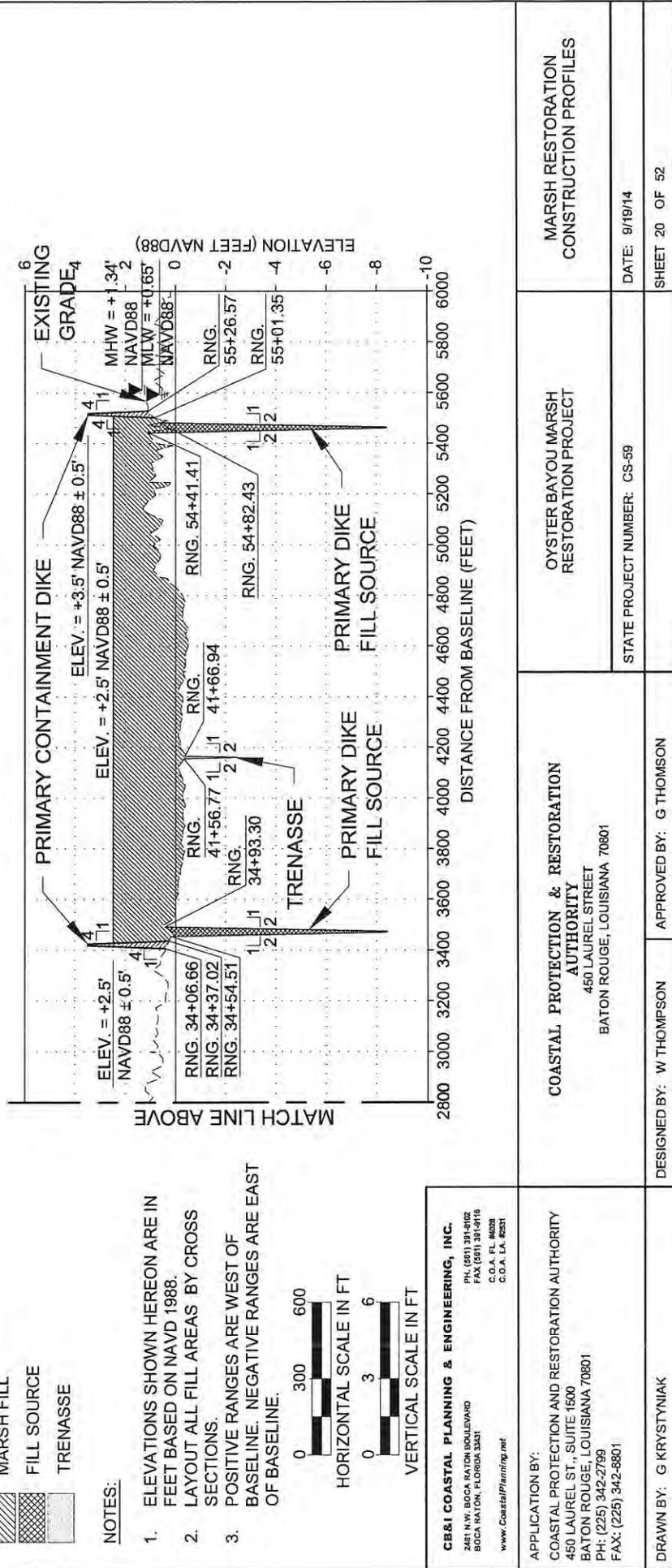
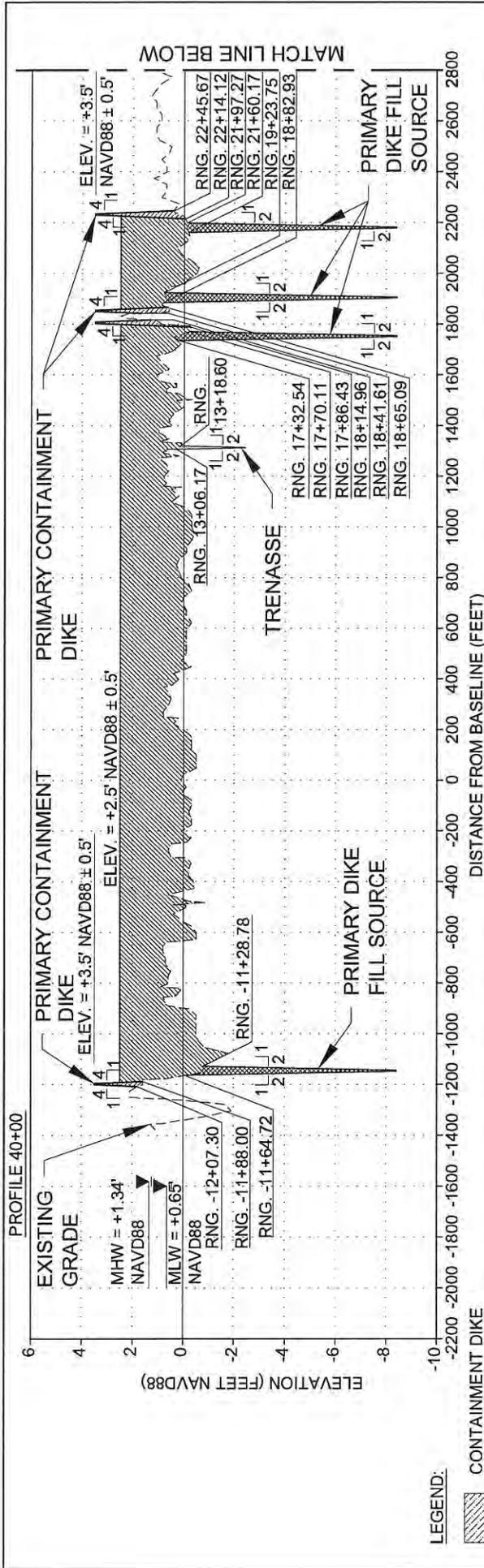


- NOTES:**
1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
 2. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
 3. POSITIVE RANGES ARE WEST OF BASELINE. NEGATIVE RANGES ARE EAST OF BASELINE.

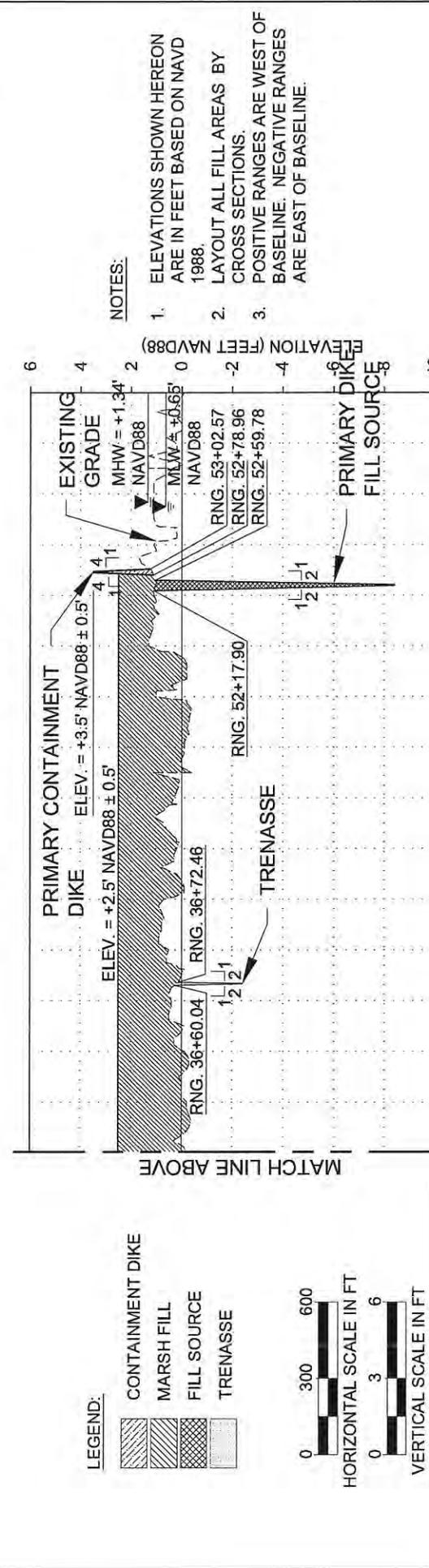
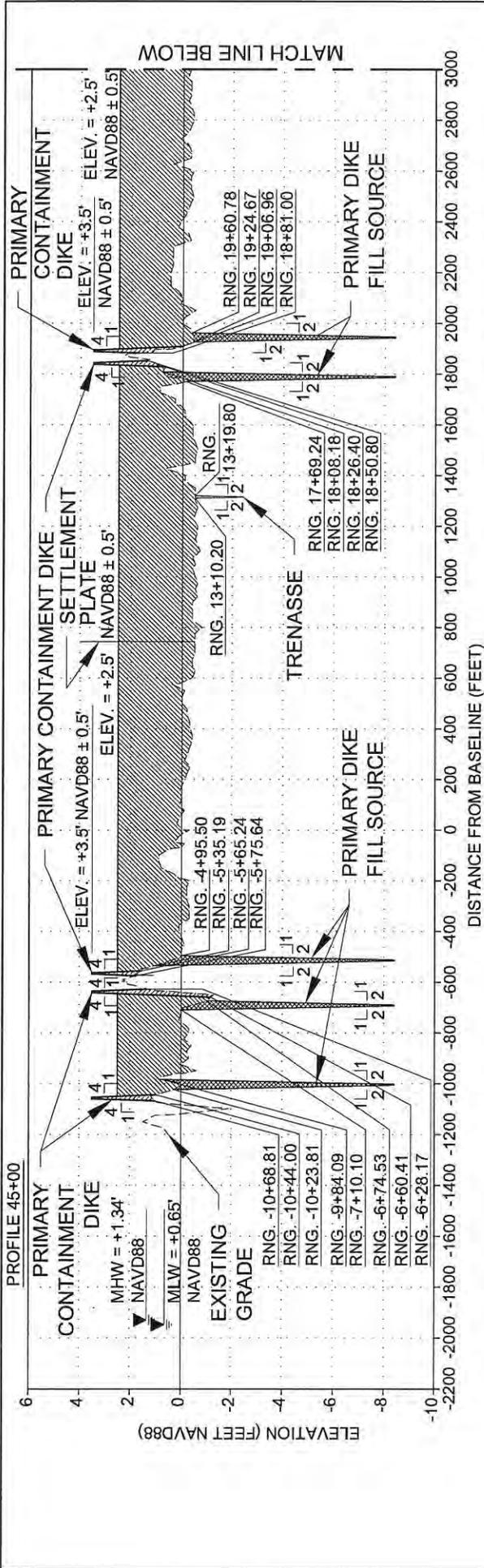
<p>CB&I COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOCA RATON BOULEVARD BOCA RATON, FLORIDA 33431 PH: (561) 391-6002 FAX: (561) 391-9116 C.O.A. FL #0028 C.O.A. LA #6251 www.CoastalPlanning.net</p>	<p>COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>		<p>OYSTER BAYOU MARSH RESTORATION PROJECT</p>	<p>MARSH RESTORATION CONSTRUCTION PROFILES</p>
	<p>DESIGNED BY: G KRYSYNYAK</p>	<p>APPROVED BY: G THOMPSON</p>	<p>STATE PROJECT NUMBER: CS-59</p>	<p>DATE: 9/19/14</p>

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

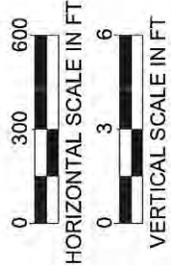




CB&I COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOCA RATON BOULEVARD BOCA RATON, FLORIDA 33431 PH: (561) 391-8102 FAX: (561) 391-9116 C.O.A. FL. #0028 C.C.A. LA. #2331 www.CoastalPlanning.net	COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		OYSTER BAYOU MARSH RESTORATION PROJECT	MARSH RESTORATION CONSTRUCTION PROFILES
	APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL ST., SUITE 1500 BATON ROUGE, LOUISIANA 70801 PH: (225) 342-2799 FAX: (225) 342-8801	DESIGNED BY: W THOMPSON APPROVED BY: G THOMPSON	STATE PROJECT NUMBER: CS-59	DATE: 9/19/14



- LEGEND:**
- CONTAINMENT DIKE
 - MARSH FILL
 - FILL SOURCE
 - TRENCHASSE
- NOTES:**
1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
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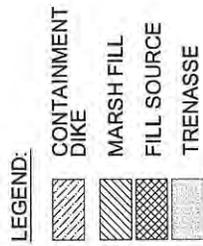
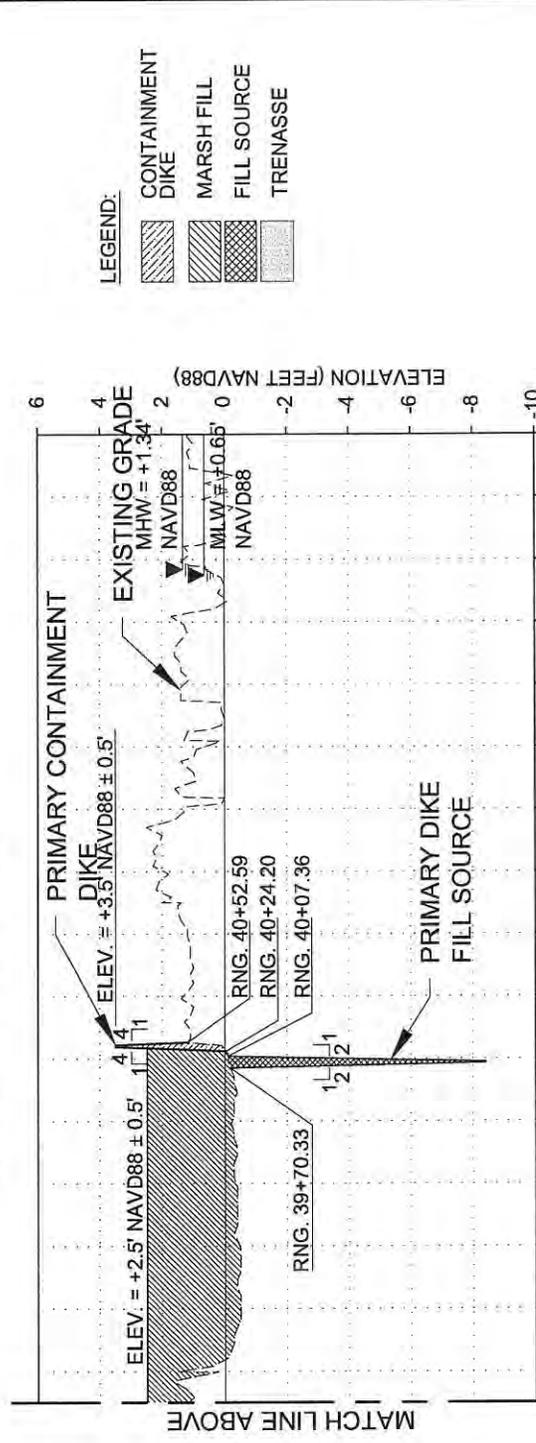
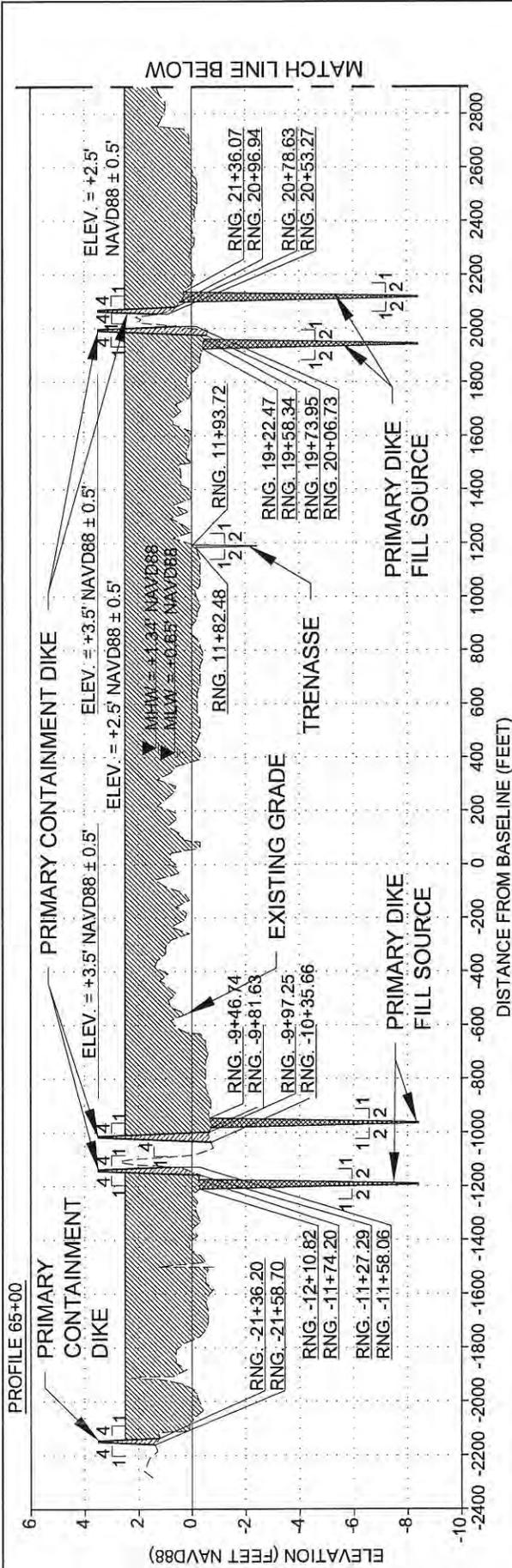


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 2481 N.W. BOCA RATON BOULEVARD
 BOCA RATON, FLORIDA 33431
 www.CoastalPlanning.net
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 FAX: (561) 351-5116
 C.O.A. FL. #0208
 C.O.A. LA. #2331

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

DESIGNED BY: W. THOMPSON
 APPROVED BY: G. THOMPSON

COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OYSTER BAYOU MARSH RESTORATION PROJECT	MARSH RESTORATION CONSTRUCTION PROFILES
DESIGNED BY: W. THOMPSON	STATE PROJECT NUMBER: CS-59	DATE: 9/19/14
APPROVED BY: G. THOMPSON		SHEET 21 OF 52

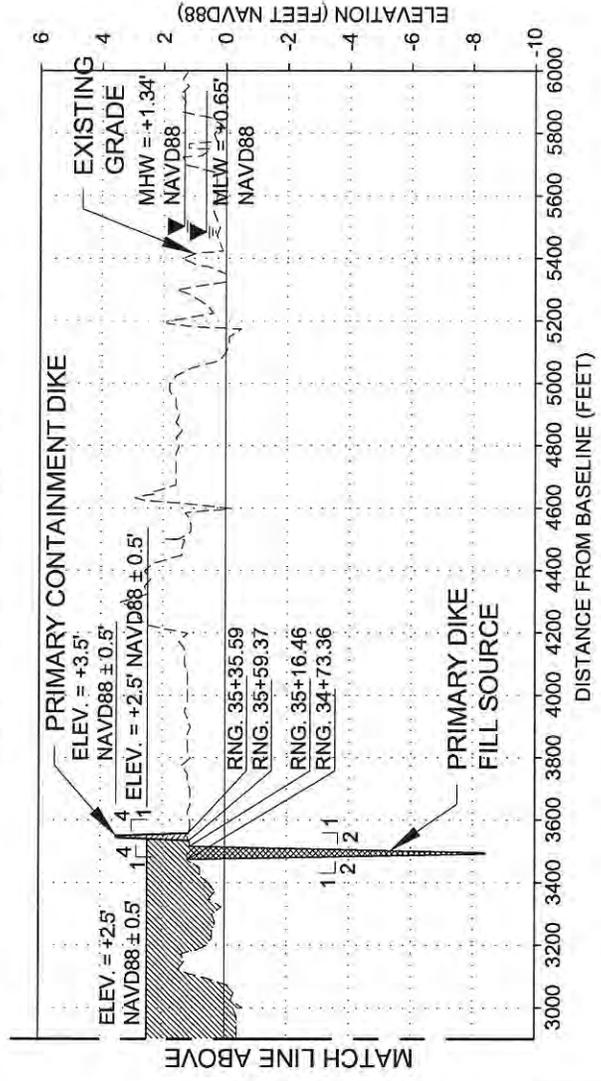
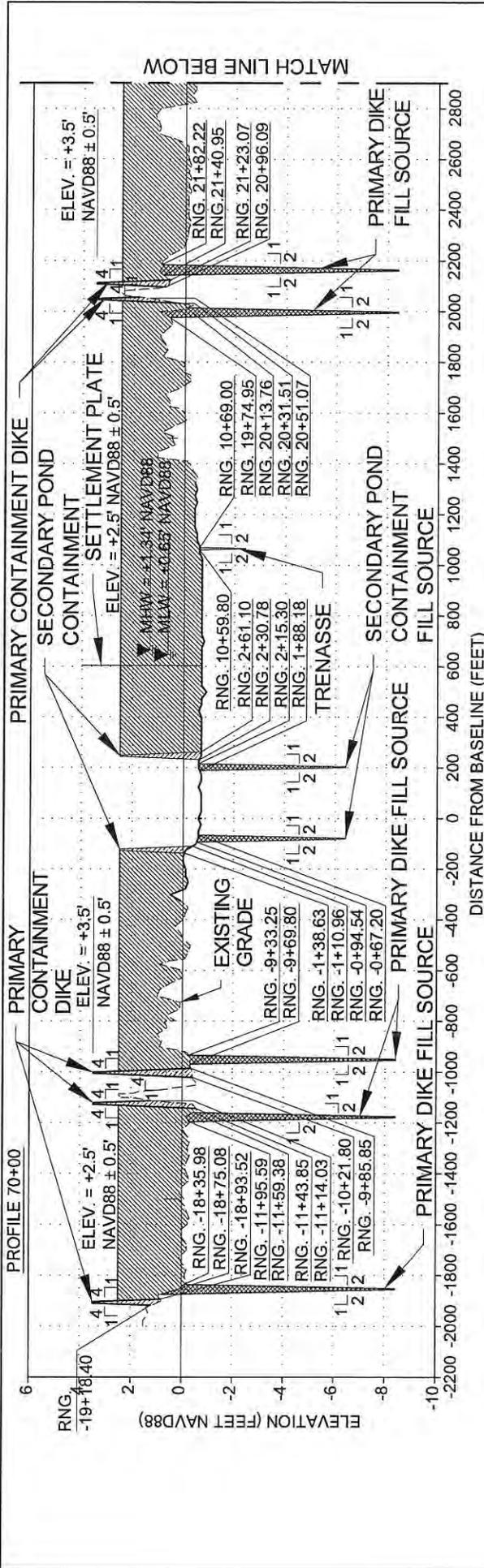


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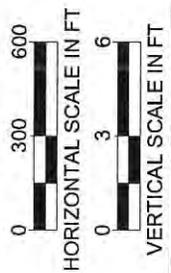
- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
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<p>CB&I COASTAL PLANNING & ENGINEERING, INC. 2881 N.W. 80th AVENUE BOULEVARD BOCA RATON, FLORIDA 33431 PH: (561) 384-4100 FAX: (561) 394-9116 C.O. # 11 8803 C.O.A. # A 8201 www.CoastalPlanning.net</p>	<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL ST., SUITE 1500 BATON ROUGE, LOUISIANA 70801 PH: (225) 342-2799 FAX: (225) 342-8801</p>	<p>DESIGNED BY: G KRYSYNYAK</p>	<p>APPROVED BY: G THOMPSON</p>	<p>STATE PROJECT NUMBER: CS-59</p>	<p>DATE: 9/19/14</p> <p>SHEET 25 OF 52</p>
<p>COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>		<p>OYSTER BAYOU MARSH RESTORATION PROJECT</p>		<p>MARSH RESTORATION CONSTRUCTION PROFILES</p>	



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 FAX (951) 391-8116
 C.O.A. FL. #0208
 C.O.A. LA. #2321

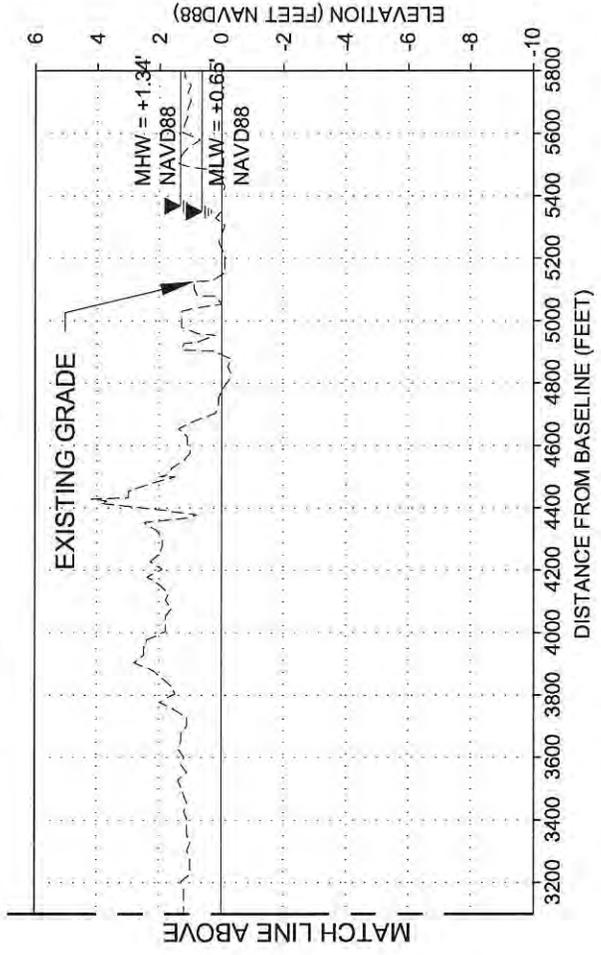
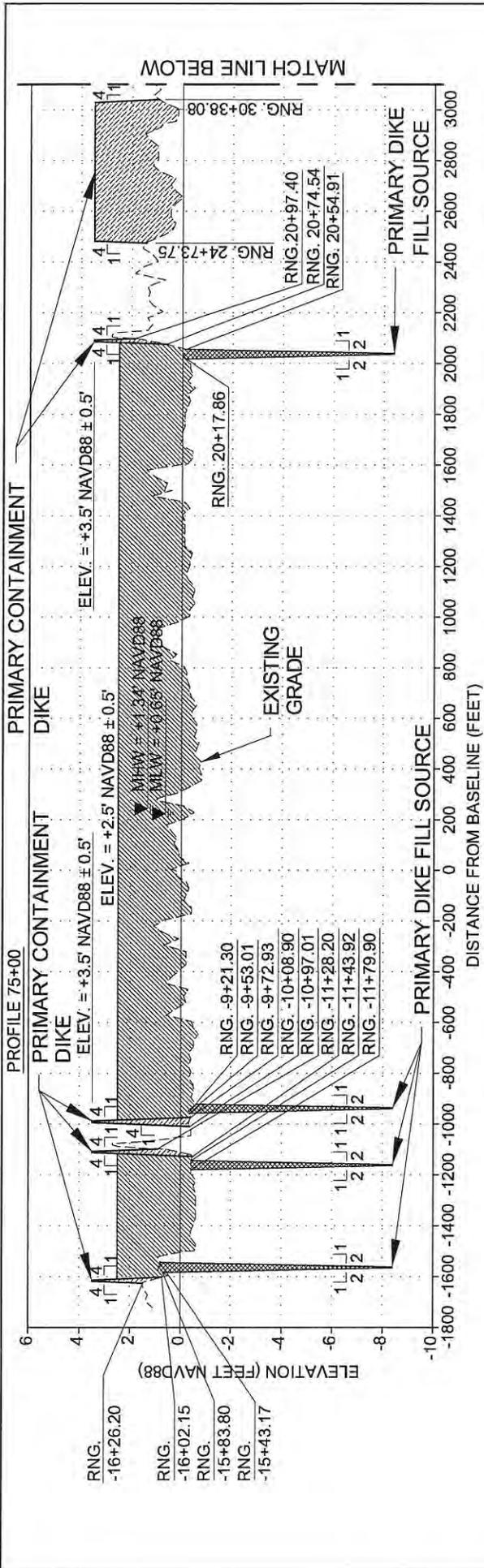
APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2789
 FAX: (225) 342-8801

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

OYSTER BAYOU MARSH RESTORATION PROJECT

MARSH RESTORATION CONSTRUCTION PROFILES

DESIGNED BY: W THOMPSON	APPROVED BY: G THOMPSON	STATE PROJECT NUMBER: CS-59	DATE: 9/19/14
DRAWN BY: G KRYSZYNIAK			SHEET 26 OF 52



- NOTES:**
- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
 - LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
 - POSITIVE RANGES ARE WEST OF BASELINE. NEGATIVE RANGES ARE EAST OF BASELINE.



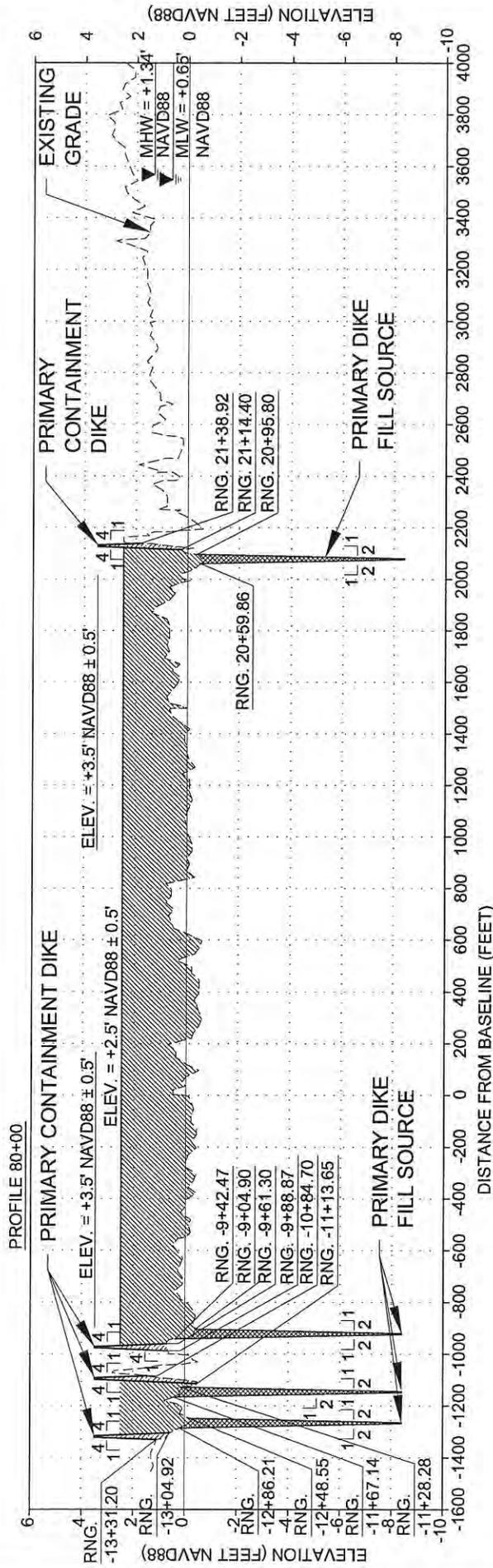
CB&I COASTAL PLANNING & ENGINEERING, INC.
 2481 N.W. BOCA RATON BOULEVARD
 BOCA RATON, FLORIDA 33431
 www.Cb&IPlanning.net
 PH: (951) 394-9102
 FAX (951) 394-9116
 C.O.A. FL #0209
 C.O.A. LA #2321

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
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 PH: (225) 342-2799
 FAX: (225) 342-8801

DESIGNED BY: W THOMPSON
APPROVED BY: G THOMPSON

DRAWN BY: G KRYSZYNIAK

COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OYSTER BAYOU MARSH RESTORATION PROJECT	MARSH RESTORATION CONSTRUCTION PROFILES
STATE PROJECT NUMBER: CS-59	DATE: 9/19/14	SHEET 27 OF 52



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 C.O.A. LA. #2331

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 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

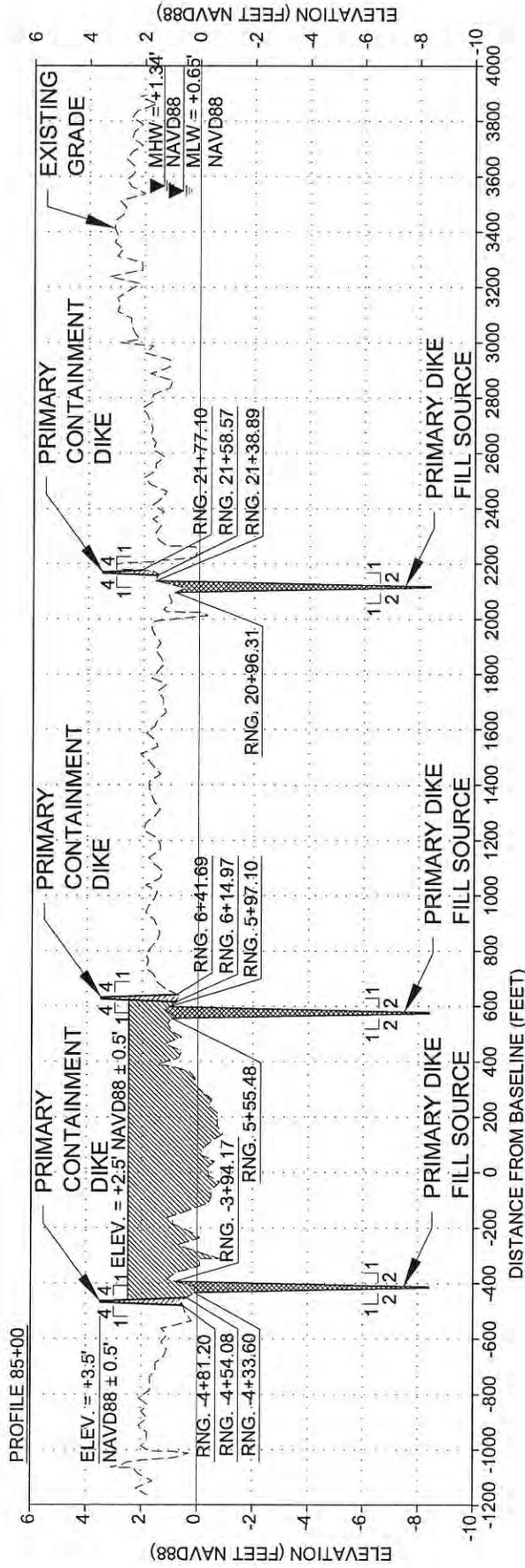
DESIGNED BY: W THOMPSON
APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 28 OF 52

<p>COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>OYSTER BAYOU MARSH RESTORATION PROJECT</p>	<p>MARSH RESTORATION CONSTRUCTION PROFILES</p>
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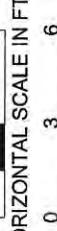


LEGEND:

-  CONTAINMENT DIKE
-  MARSH FILL
-  FILL SOURCE

NOTES:

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
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CB&I COASTAL PLANNING & ENGINEERING, INC.
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 C.O.A. LA. #2321
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APPLICATION BY:
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 450 LAUREL ST., SUITE 1500
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 PH: (225) 342-2789
 FAX: (225) 342-8801

DESIGNED BY: W THOMPSON
APPROVED BY: G THOMPSON

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

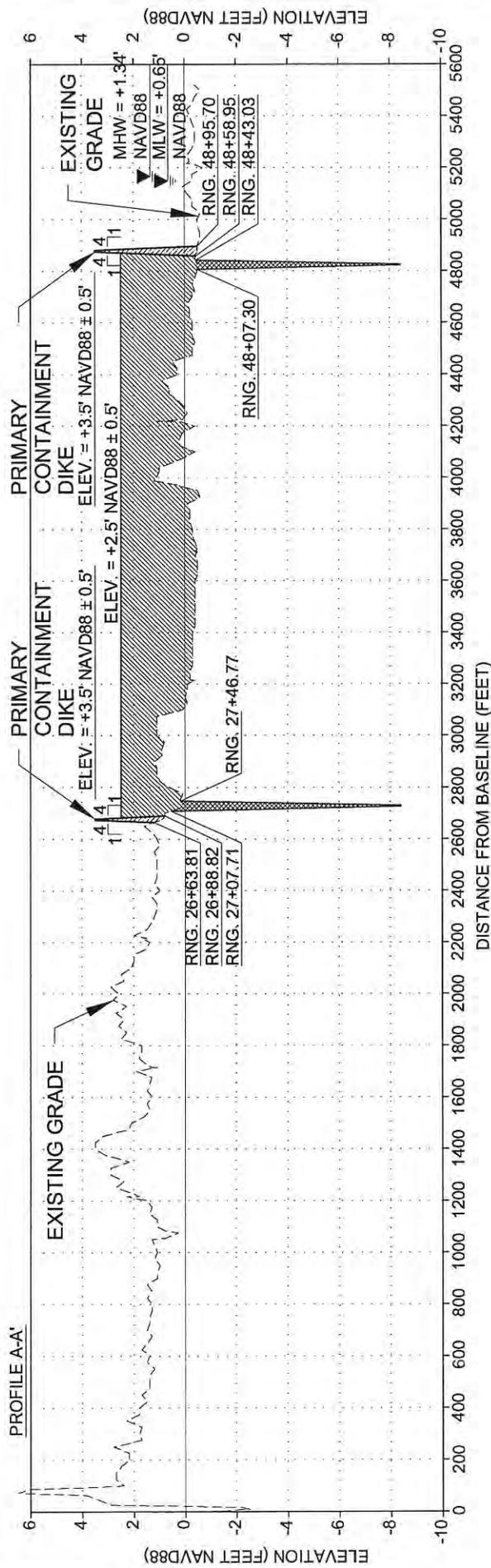
OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 29 OF 52

MARSH RESTORATION CONSTRUCTION PROFILES



NOTES:

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
3. DISTANCES ARE ALONG SECTION LINE.

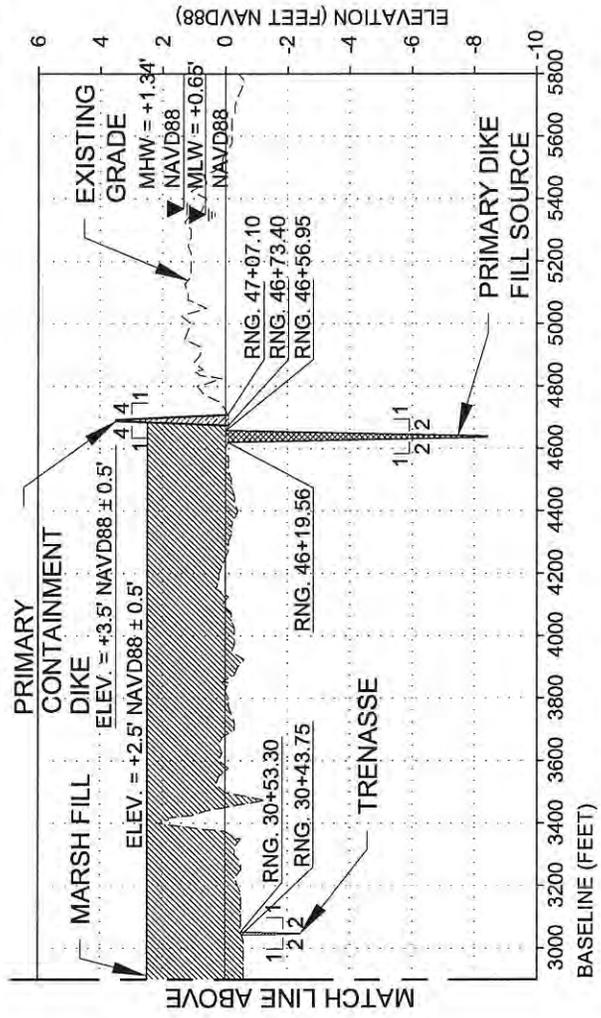
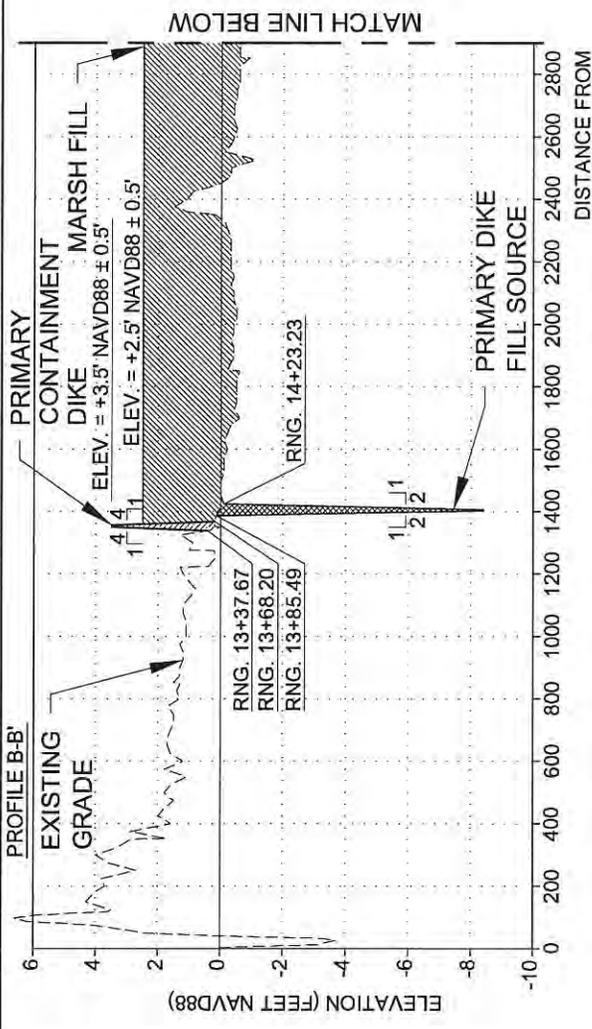
LEGEND:

- CONTAINMENT DIKE
- MARSH FILL
- FILL SOURCE



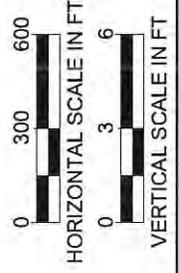
CB&I COASTAL PLANNING & ENGINEERING, INC. 2465 N.W. BOCCA BATON BOULEVARD BOCCA BATON, FLORIDA 33091 www.CoastalPlanning.net PH: (851) 381-5100 FAX (851) 381-8118 C.O.A. TEL. #0208 C.O.A. LA. #231	APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL ST., SUITE 1500 BATON ROUGE, LOUISIANA 70801 PH: (225) 342-2799 FAX: (225) 342-8801
DESIGNED BY: G KRYSZYNIAK	APPROVED BY: G THOMPSON

COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OYSTER BAYOU MARSH RESTORATION PROJECT	MARSH RESTORATION CONSTRUCTION PROFILES
DESIGNED BY: W THOMPSON	STATE PROJECT NUMBER: CS-59	DATE: 9/19/14
DRAWN BY: G KRYSZYNIAK	SHEET 30 OF 52	APPROVED BY: G THOMPSON



- LEGEND:**
- CONTAINMENT DIKE
 - MARSH FILL
 - FILL SOURCE
 - TRENASSE

- NOTES:**
1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
 2. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
 3. DISTANCES ARE ALONG SECTION LINE.



CB&I COASTAL PLANNING & ENGINEERING, INC.
 5481 N.W. BOCA RATON BOULEVARD
 BOCA RATON, FLORIDA 33497
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 FAX: (561) 381-8116
 C.O.A. FL #4028
 C.O.A. LA #2531
www.CoastalPlanning.net

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

DRAWN BY: G KRYSZTYNIAK

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

DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

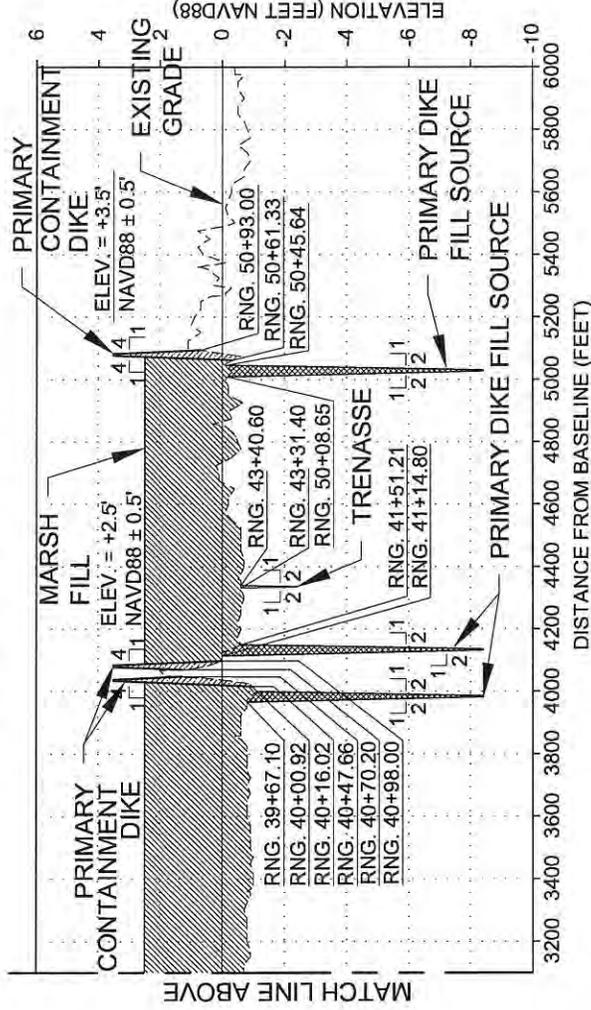
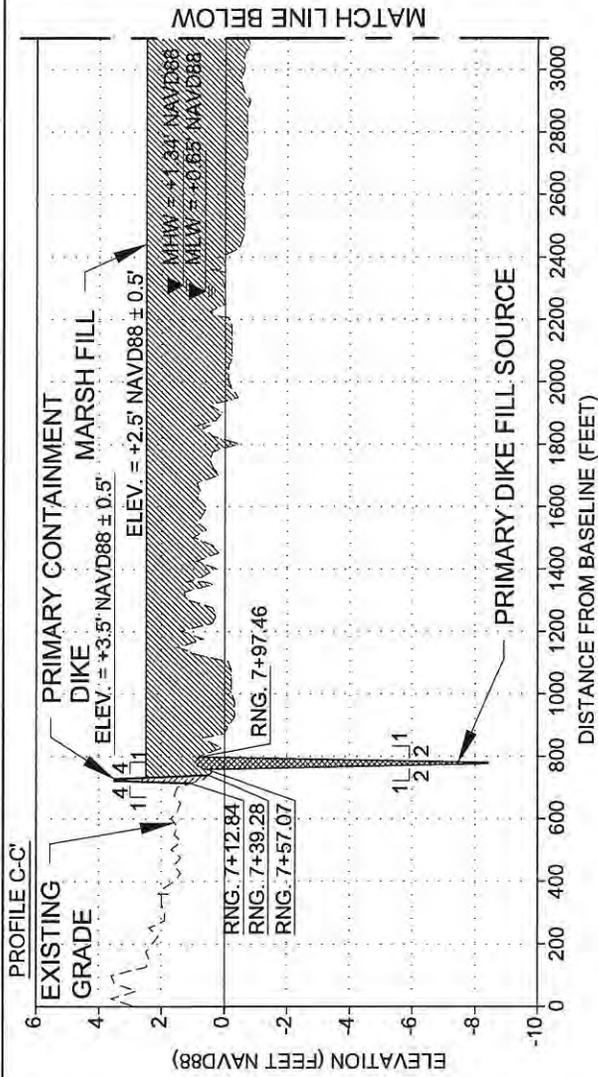
OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

MARSH RESTORATION CONSTRUCTION PROFILES

DATE: 9/19/14

SHEET 31 OF 52



- LEGEND:**
- CONTAINMENT DIKE
 - MARSH FILL
 - FILL SOURCE
 - TRENASSE

- NOTES:**
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 2. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
 3. DISTANCES ARE ALONG SECTION LINE.



CB&I COASTAL PLANNING & ENGINEERING, INC.
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 C.O.A. LA #2531
www.CoastalPlanning.net

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

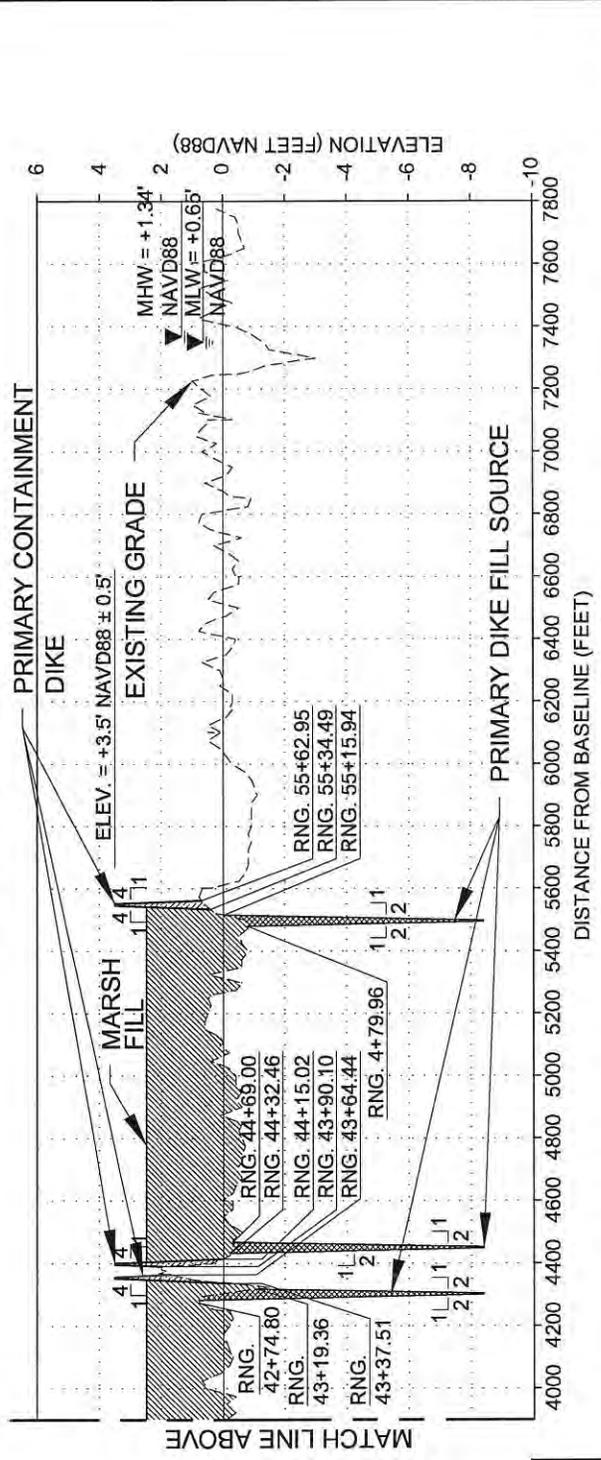
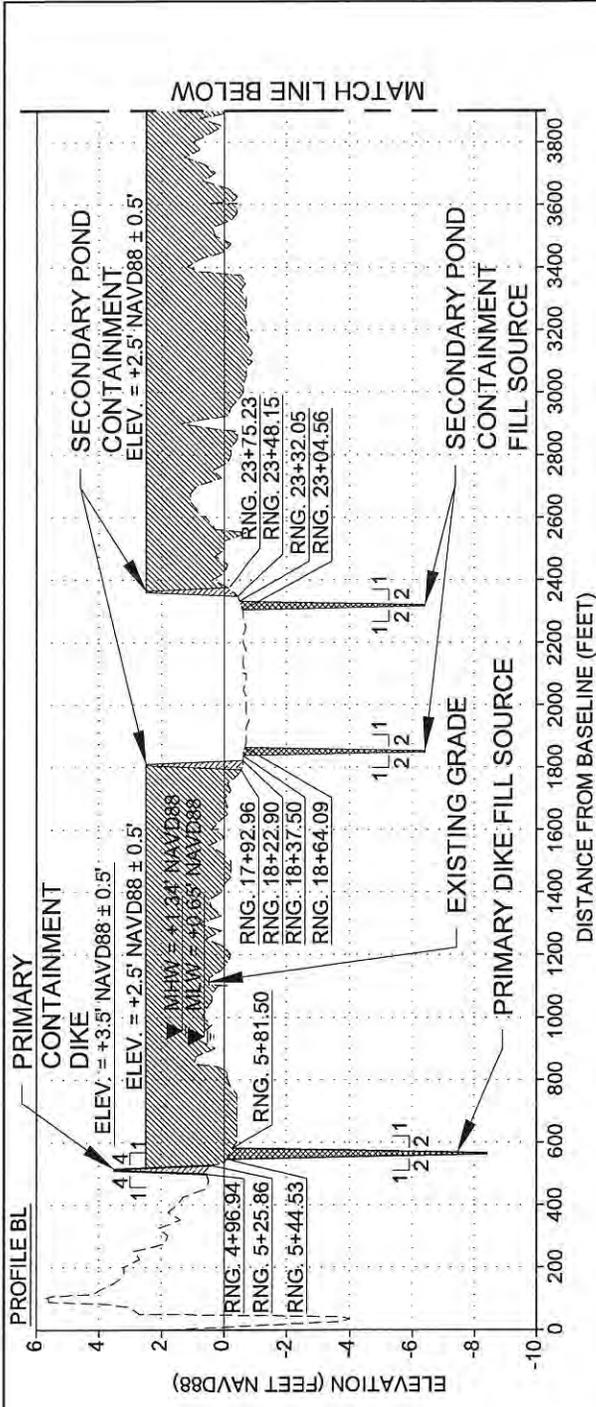
DRAWN BY: G KRYSZYNAK

DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

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

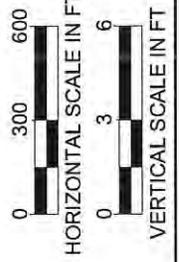
RESTORATION PROJECT 40
 MARSH RESTORATION CONSTRUCTION PROFILES

STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 32 OF 52



- LEGEND:**
- CONTAINMENT DIKE
 - MARSH FILL
 - FILL SOURCE
 - TRENASSE

- NOTES:**
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CB&I COASTAL PLANNING & ENGINEERING, INC.
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 C.O.A. FL #0028
 C.O.A. LA #2531

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
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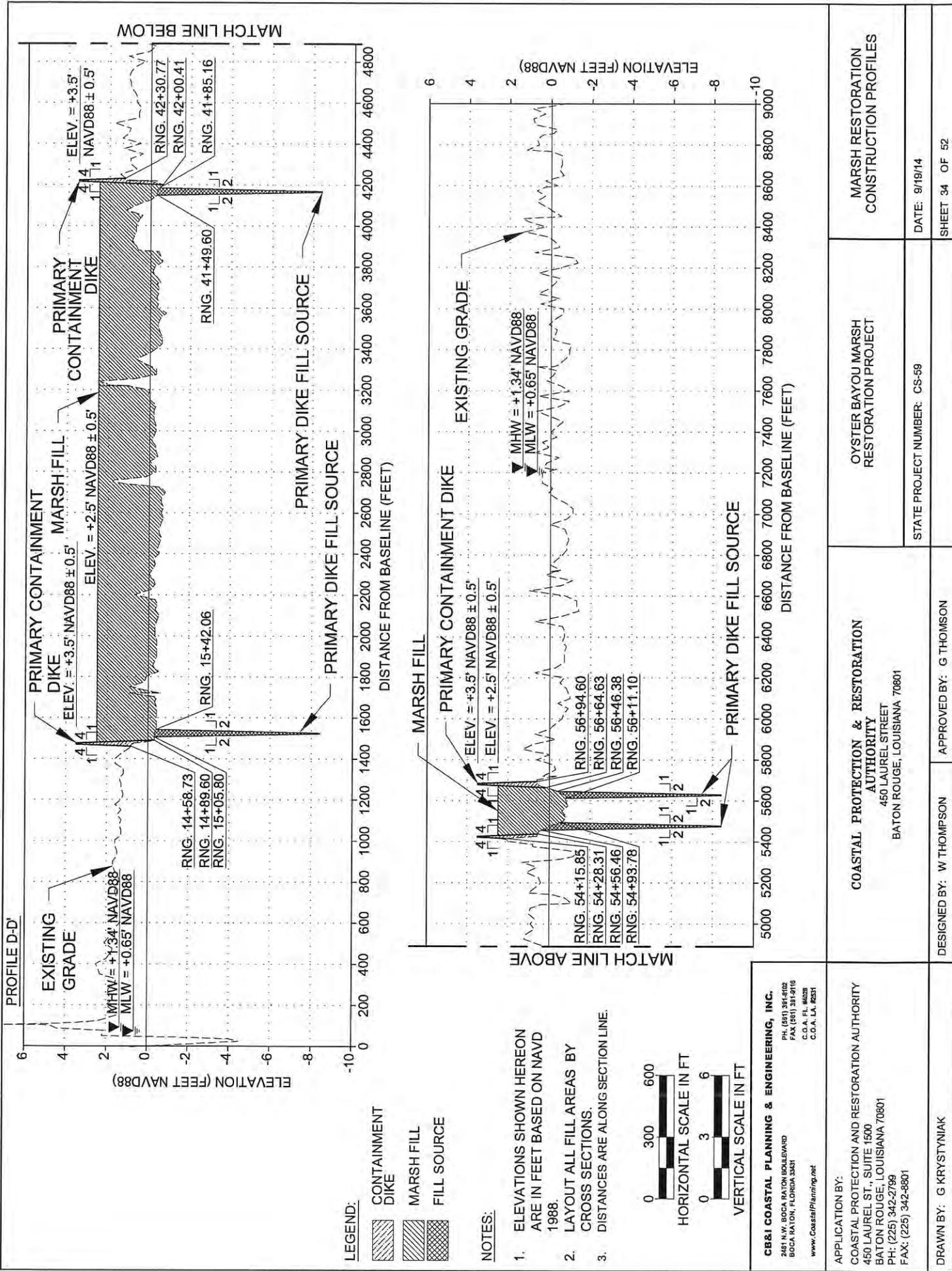
DRAWN BY: G KRYSZYNIAK

DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

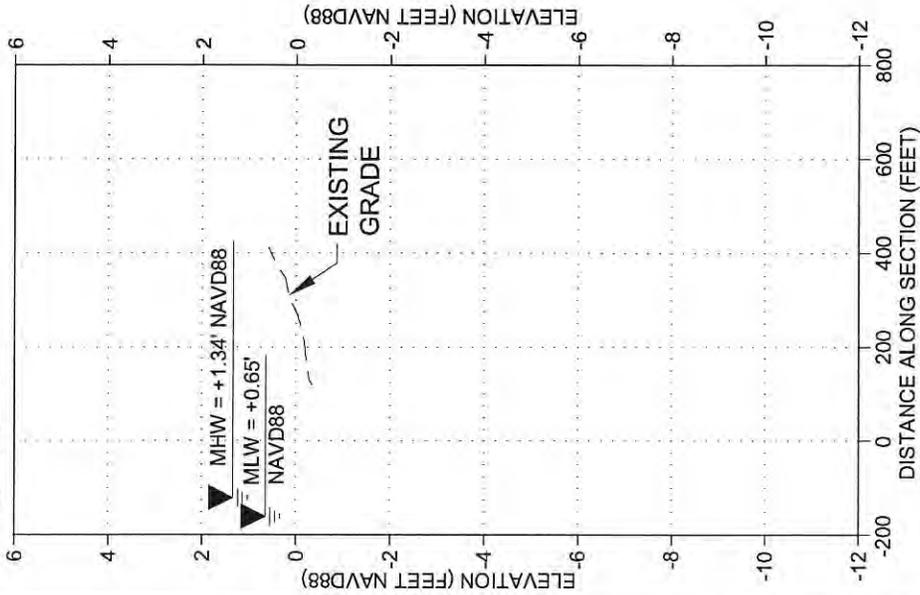
COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

OYSTER BAYOU MARSH RESTORATION PROJECT
 MARSH RESTORATION CONSTRUCTION PROFILES

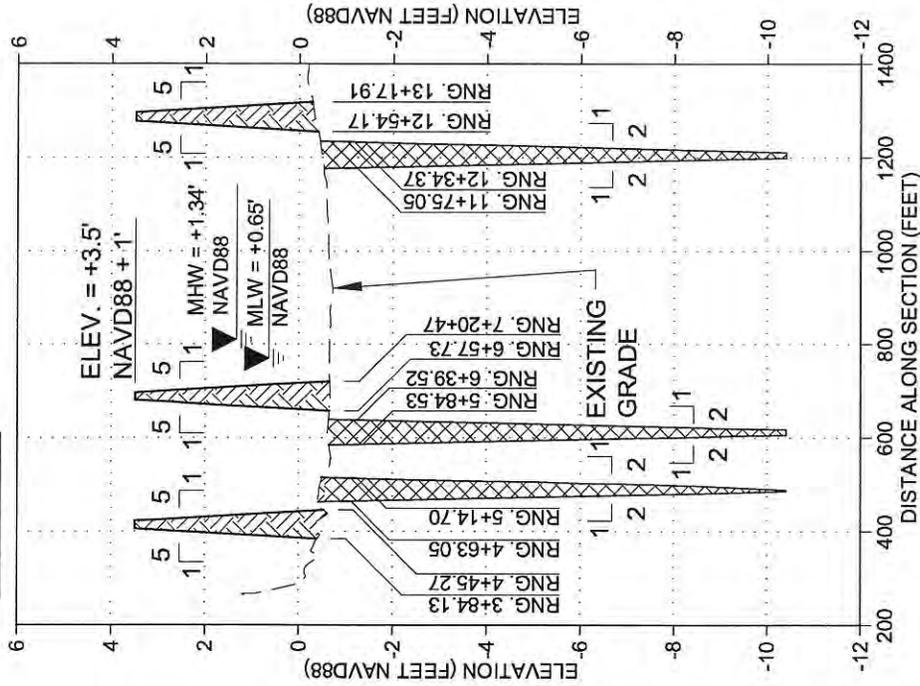
STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 33 OF 52



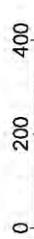
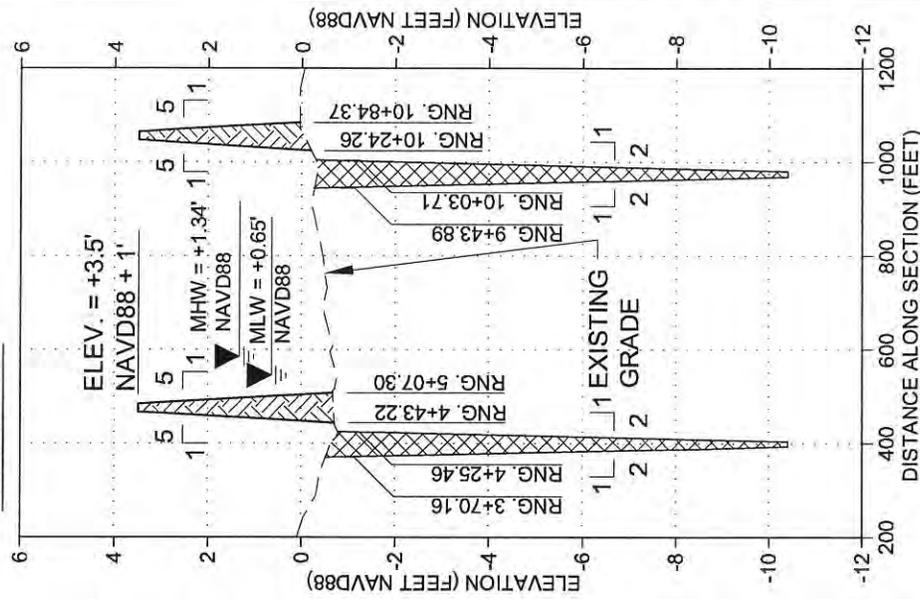
PROFILE TF1



PROFILE TF2



PROFILE TF3



HORIZONTAL SCALE IN FT



VERTICAL SCALE IN FT

NOTES:

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. LAYOUT ALL FILL AREAS BY ALIGNMENT TABLE ON SHEET 6-10.
3. DISTANCES ARE ALONG SECTION LINE.

LEGEND:



EARTHEN TERRACE ELEV. +3.5'

EARTHEN TERRACE BORROW AREA ELEV. -10.4' (MAX)

CB&I COASTAL PLANNING & ENGINEERING, INC.
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 C.O.A. FL. #0208
 C.O.A. LA. #2331
www.CoastalPlanning.net

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

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

OYSTER BAYOU MARSH RESTORATION PROJECT

TERRACE FIELD CONSTRUCTION PROFILES

DRAWN BY: G KRYSYNYIAK

DESIGNED BY: W THOMPSON

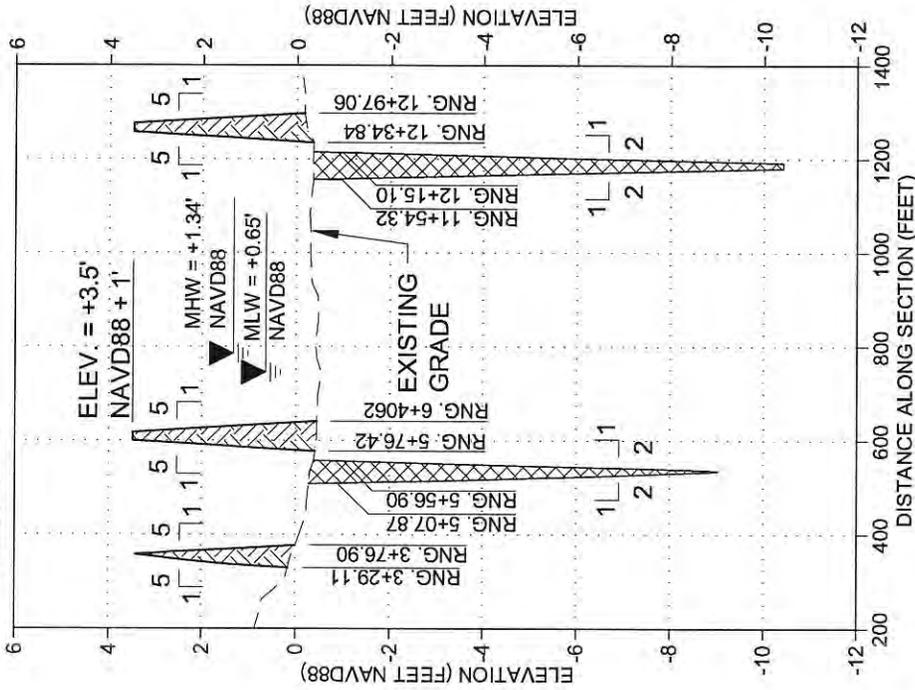
APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

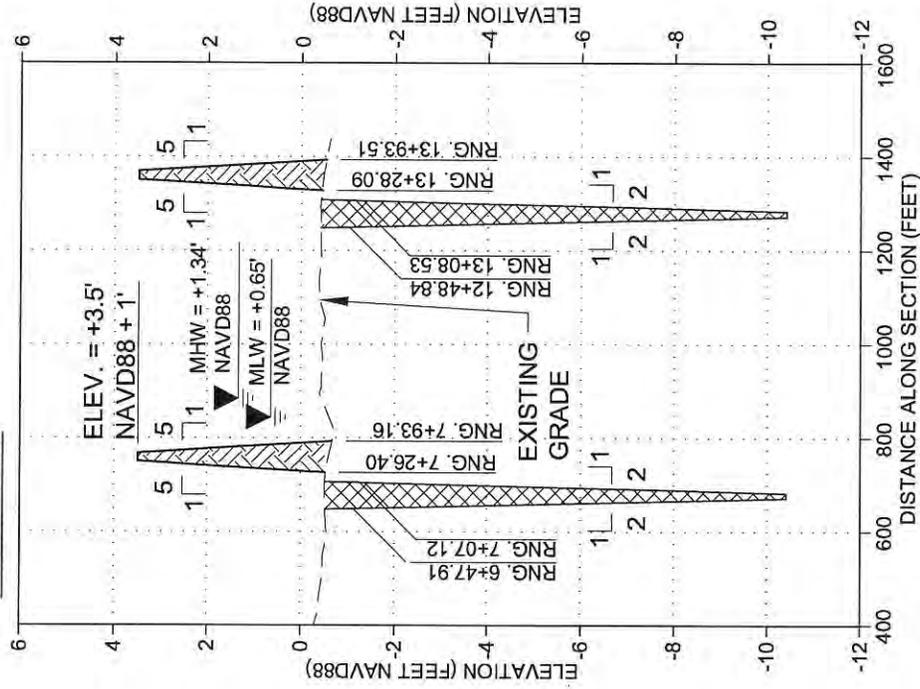
DATE: 9/19/14

SHEET 35 OF 52

PROFILE TF4



PROFILE TF5



NOTES:

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. LAYOUT ALL FILL AREAS BY ALIGNMENT TABLE ON SHEET 6-10.
3. DISTANCES ARE ALONG SECTION LINE.

LEGEND:



HORIZONTAL SCALE IN FT



VERTICAL SCALE IN FT



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 2481 N.W. BOCA BATON BOULEVARD
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 FAX (851) 381-9116
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 C.O.A. LA. #2321
www.CoastalPlanning.net

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-8801

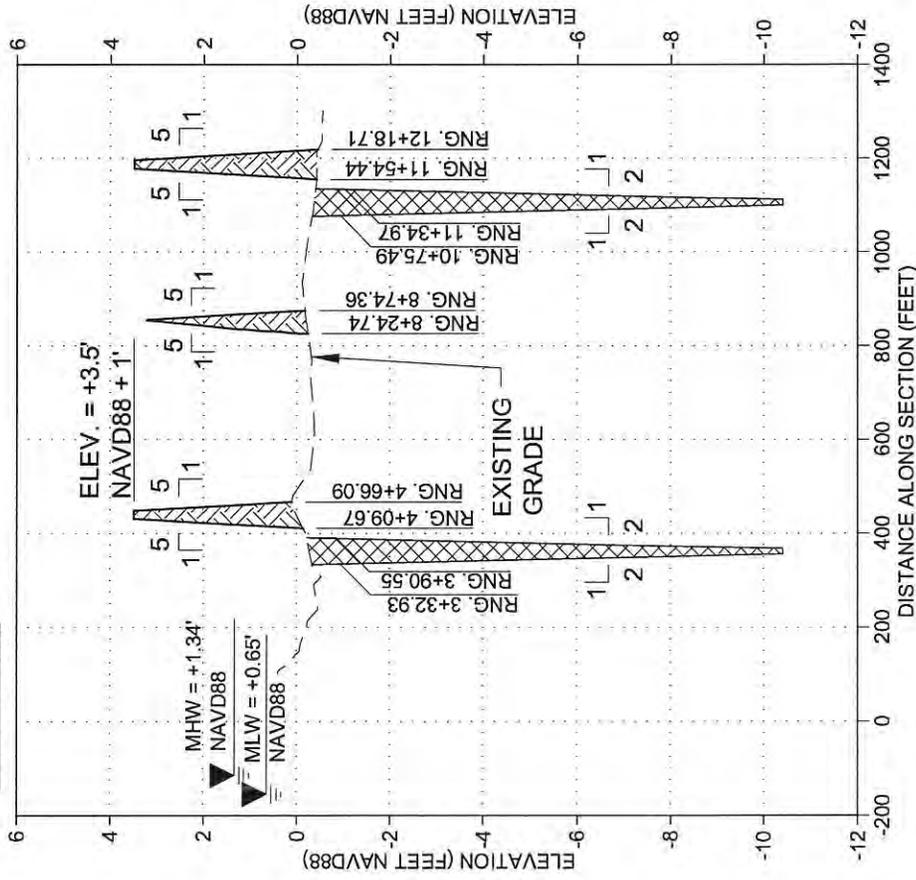
DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON
 COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

STATE PROJECT NUMBER: CS-99
 DATE: 9/19/14
 SHEET 36 OF 52

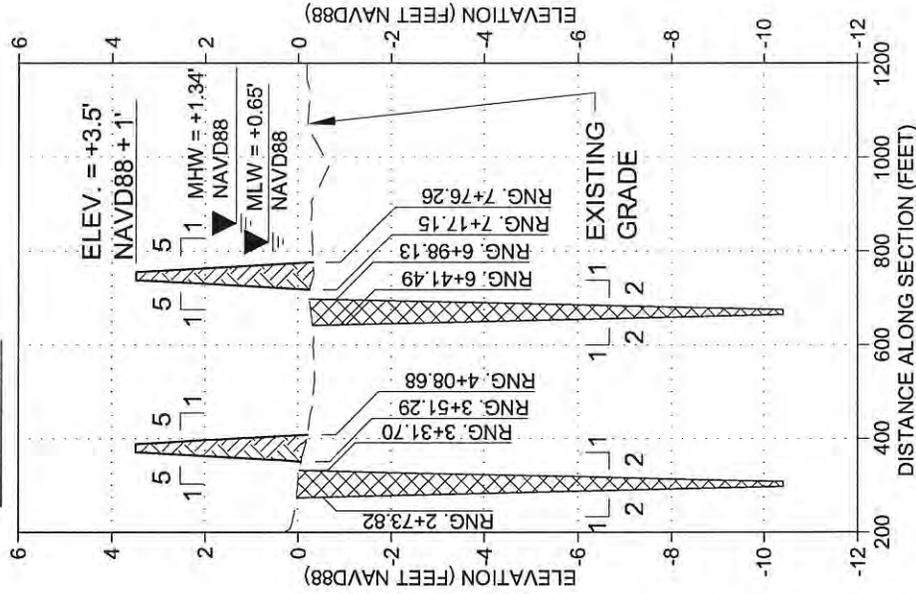
OYSTER BAYOU MARSH RESTORATION PROJECT
 TERRACE FIELD CONSTRUCTION PROFILES

DRAWN BY: G KRYSZYNAK

PROFILE TF6



PROFILE TF7



LEGEND:



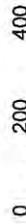
EARTHEN TERRACE ELEV. +3.5'

EARTHEN TERRACE BORROW AREA ELEV. -10.4' (MAX)

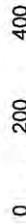
NOTES:

- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
- LAYOUT ALL FILL AREAS BY ALIGNMENT TABLE ON SHEET 6-10.
- DISTANCES ARE ALONG SECTION LINE.

HORIZONTAL SCALE IN FT



VERTICAL SCALE IN FT



CR&I COASTAL PLANNING & ENGINEERING, INC.
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 450 LAUREL ST., SUITE 1500
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COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

OYSTER BAYOU MARSH RESTORATION PROJECT

TERRACE FIELD CONSTRUCTION PROFILES

DRAWN BY: G KRYSZTYNIAK

DESIGNED BY: W THOMPSON

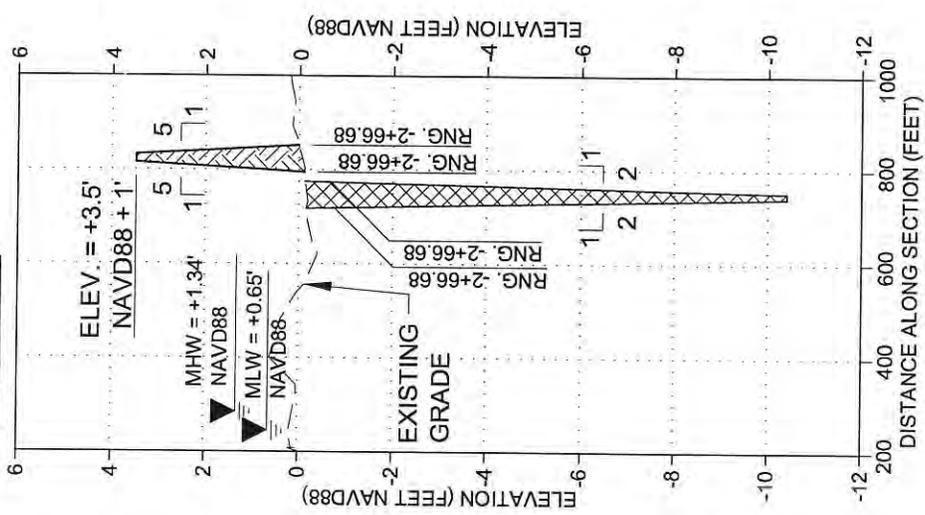
APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

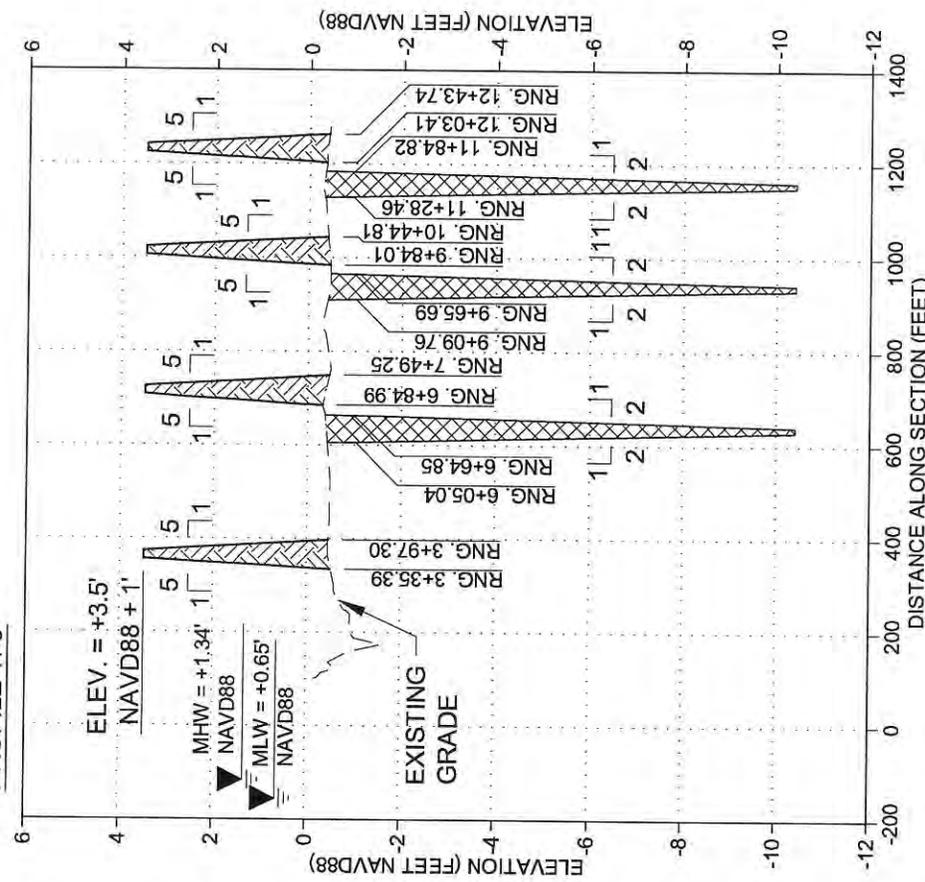
DATE: 9/19/14

SHEET 37 OF 52

PROFILE TF8



PROFILE TF9



HORIZONTAL SCALE IN FT



VERTICAL SCALE IN FT

NOTES:

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. LAYOUT ALL FILL AREAS BY ALIGNMENT TABLE ON SHEET 6-10.
3. DISTANCES ARE ALONG SECTION LINE.

LEGEND:

- EARTHEN TERRACE ELEV. +3.5'
- EARTHEN TERRACE BORROW AREA ELEV. -10.4' (MAX)

CB&I COASTAL PLANNING & ENGINEERING, INC.
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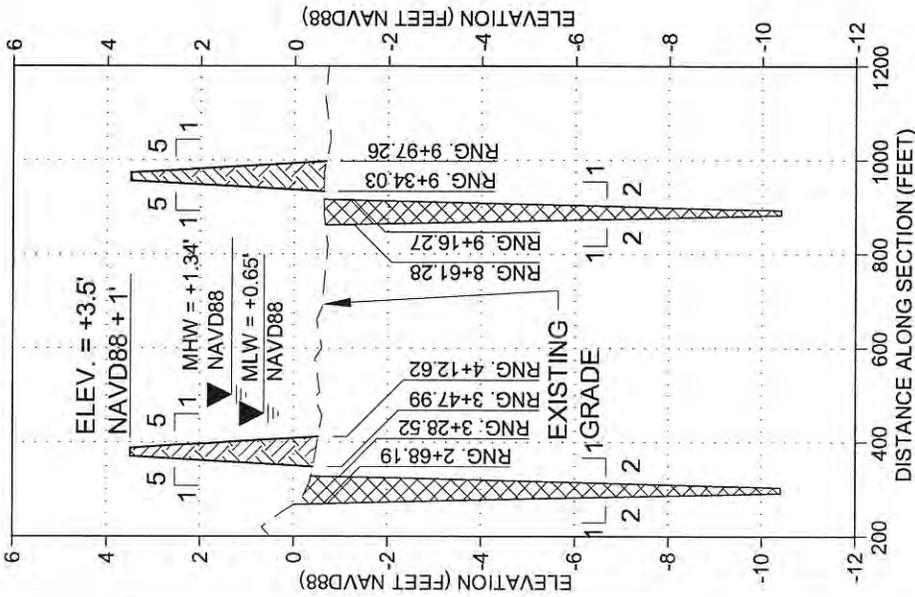
APPLICATION BY:
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DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON
 COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

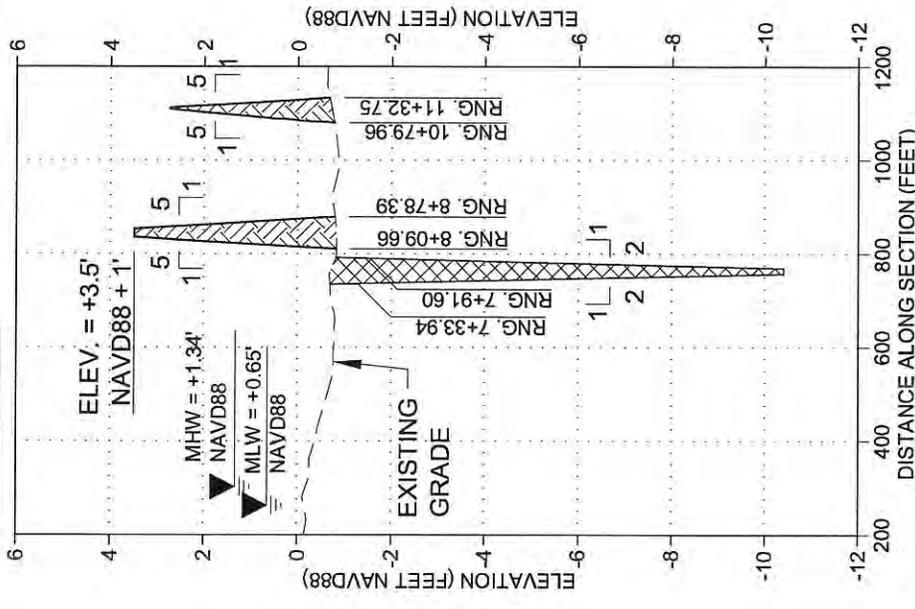
STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 38 OF 52
 OYSTER BAYOU MARSH RESTORATION PROJECT
 TERRACE FIELD CONSTRUCTION PROFILES

DRAWN BY: G KRYSYNYIAK

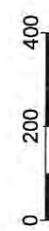
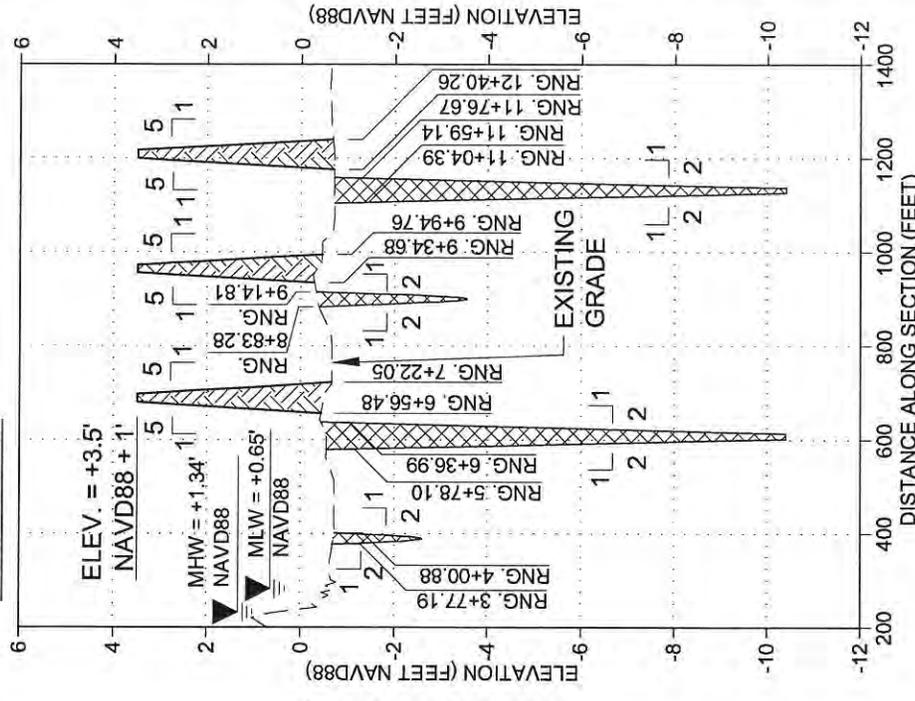
PROFILE TF10



PROFILE TF11



PROFILE TF12



VERTICAL SCALE IN FT
0 2 4

NOTES:

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- DISTANCES ARE ALONG SECTION LINE.

LEGEND:



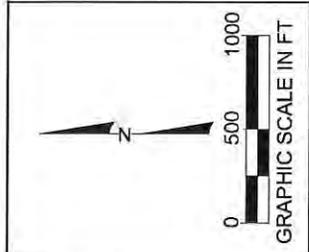
CB&I COASTAL PLANNING & ENGINEERING, INC.
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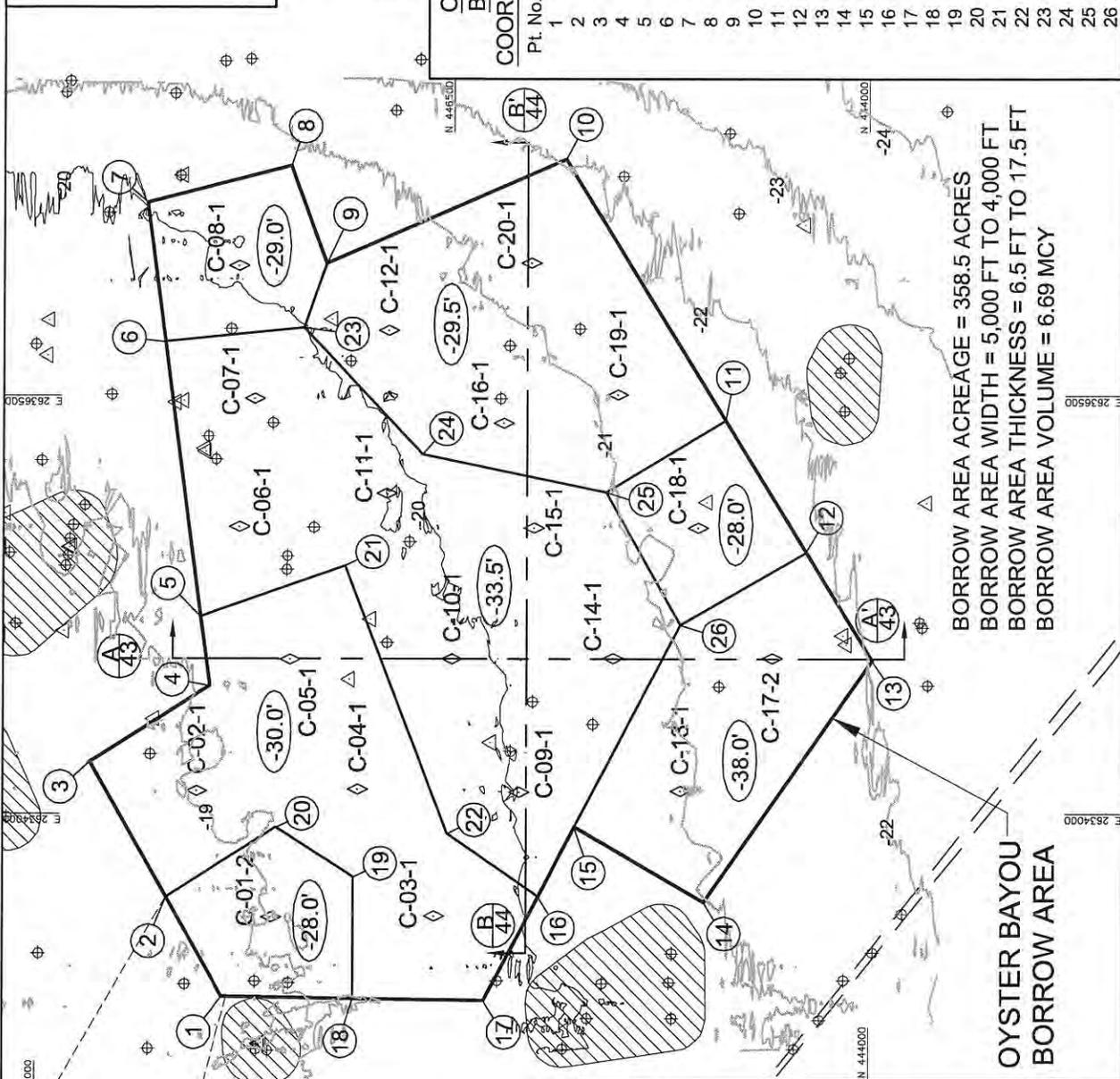
DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

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

OYSTER BAYOU MARSH RESTORATION PROJECT
 TERRACE FIELD CONSTRUCTION PROFILES



GULF OF MEXICO



OYSTER BAYOU BORROW AREA COORDINATE LOCATIONS

Pl. No.	EASTING	NORTHING
1	2632908.1	447884.1
2	2633503.6	448220.9
3	2634310.7	448677.2
4	2634765.4	447959.7
5	2635179.1	448015.0
6	2636822.2	448233.0
7	2637653.7	448343.4
8	2637874.7	447477.9
9	2637289.9	447266.4
10	2637913.6	445825.1
11	2636353.2	444863.9
12	2635563.6	444377.5
13	2634916.3	443978.7
14	2633472.9	444988.9
15	2633922.6	445766.3
16	2633506.0	445984.1
17	2632884.9	446308.8
18	2632896.5	447097.2
19	2633621.9	447097.2
20	2633917.8	447558.5
21	2635483.4	447148.8
22	2633882.1	446533.7
23	2636906.8	447398.2
24	2636150.9	446687.5
25	2635923.5	445578.4
26	2635130.3	445134.9

BORROW AREA ACREAGE = 358.5 ACRES
BORROW AREA WIDTH = 5,000 FT TO 4,000 FT
BORROW AREA THICKNESS = 6.5 FT TO 17.5 FT
BORROW AREA VOLUME = 6.69 MCY

LEGEND:

- 16 BATHYMETRIC CONTOUR
- ◇ GEOENGINEERS 2013 VIBRACORES
- (-28.0') MAXIMUM AFTER DREDGE (AD) ELEVATION
- ▨ TAR 2013 CULTURAL RESOURCE BUFFERS (NO WORK ZONE)
- ⊕ TAR 2013 MAGNETIC ANOMALIES
- △ CB&I 2013 SIDESCAN SONAR CONTACTS
- (1) BORROW AREA COORDINATE LOCATIONS
- PIPELINES

SUBMERGED PIPELINE CORRIDOR

NOTES:

- COORDINATES AND CONTOURS SHOWN HEREON ARE BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88, GEOID 2009.
- DATE OF BATHYMETRIC SURVEY IS MARCH 2013 AND CONDUCTED BY CB&I COASTAL PLANNING & ENGINEERING, INC. (CB&I).
- THE MAXIMUM AFTER DREDGE (AD) ELEVATIONS SHOWN HEREON ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE AD SURVEY.
- THE CONTRACTOR MAY DISTURB UP TO 3 FEET BENEATH THE MAX AD ELEVATION WITH THEIR EQUIPMENT.

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 C.O.A. LA #231

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 FAX: (225) 342-8601

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

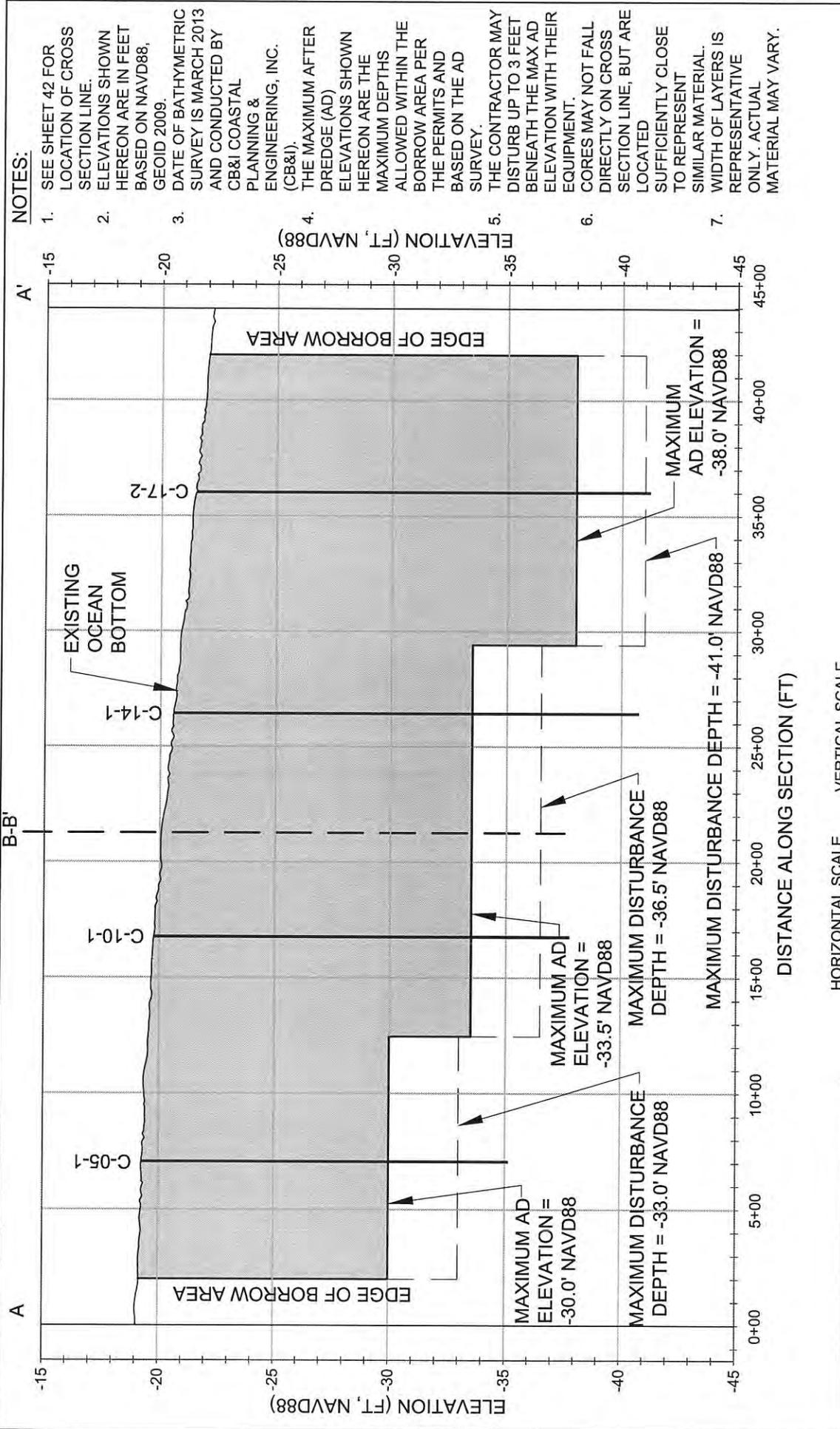
OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59

BORROW AREA PLAN VIEW

DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

DATE: 9/19/14
 SHEET 42 OF 52



CB&I COASTAL PLANNING & ENGINEERING, INC.
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 C.O.A. LA #231
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 PH: (225) 342-2799
 FAX: (225) 342-8801

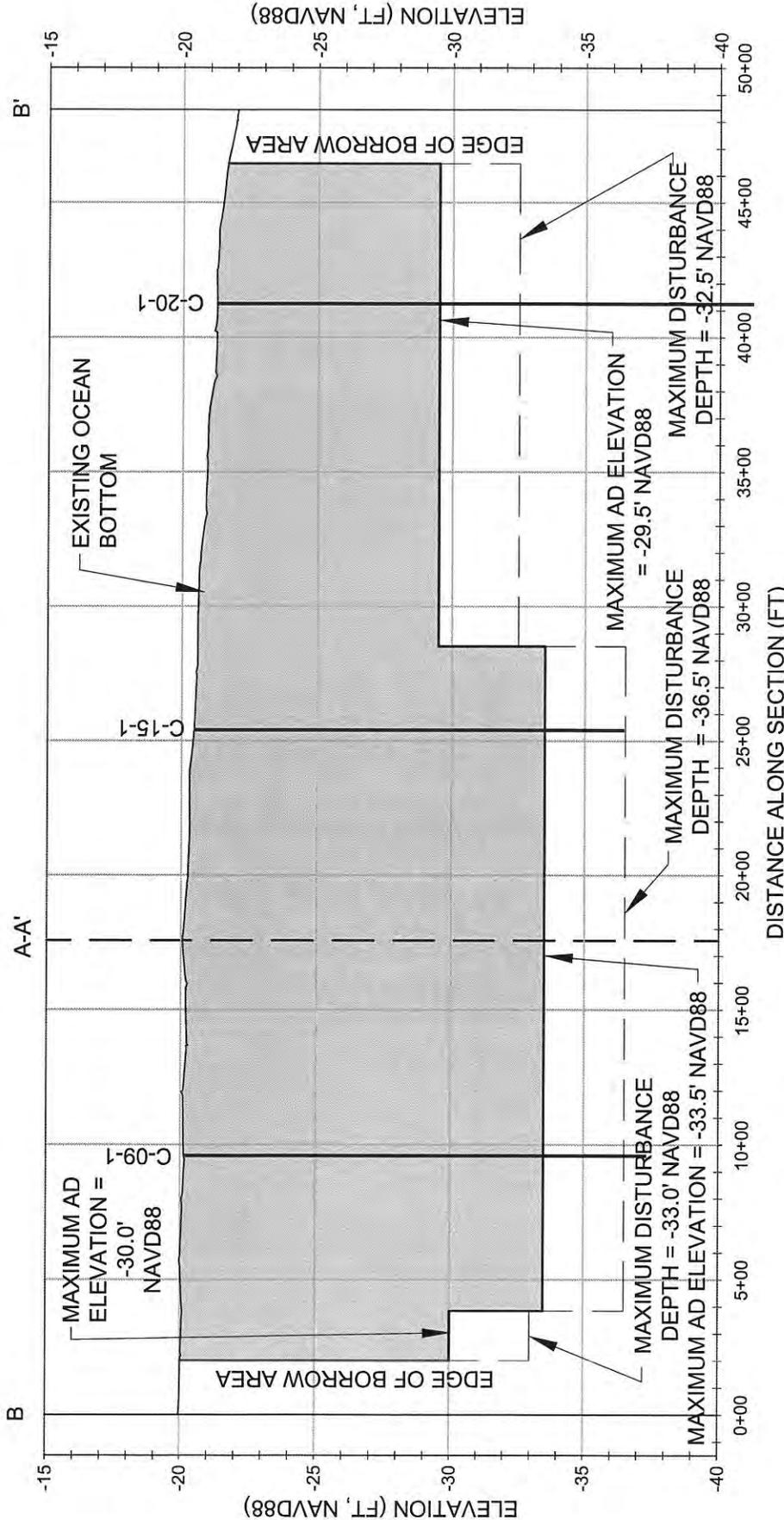
DRAWN BY: G KRYSZYNAK



NOTES:

- SEE SHEET 42 FOR LOCATION OF CROSS SECTION LINE. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88, GEOID 2009.
- DATE OF BATHYMETRIC SURVEY IS MARCH 2013 AND CONDUCTED BY CB&I COASTAL PLANNING & ENGINEERING, INC. (CB&I).
- THE MAXIMUM AFTER DREDGE (AD) ELEVATIONS SHOWN HEREON ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE AD SURVEY.
- THE CONTRACTOR MAY DISTURB UP TO 3 FEET BENEATH THE MAX AD ELEVATION WITH THEIR EQUIPMENT.
- CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
- WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.

COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OYSTER BAYOU MARSH RESTORATION PROJECT STATE PROJECT NUMBER: CS-59	BORROW AREA CROSS SECTION A-A' DATE: 9/19/14 SHEET 43 OF 52
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NOTES:

1. SEE SHEET 42 FOR LOCATION OF CROSS SECTION LINE.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88, GEOID 2009.
3. DATE OF BATHYMETRIC SURVEY IS MARCH 2013 AND CONDUCTED BY CB&I COASTAL PLANNING & ENGINEERING, INC. (CB&I).
4. THE MAXIMUM AFTER DREDGE (AD) ELEVATIONS 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 ELEVATION 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.



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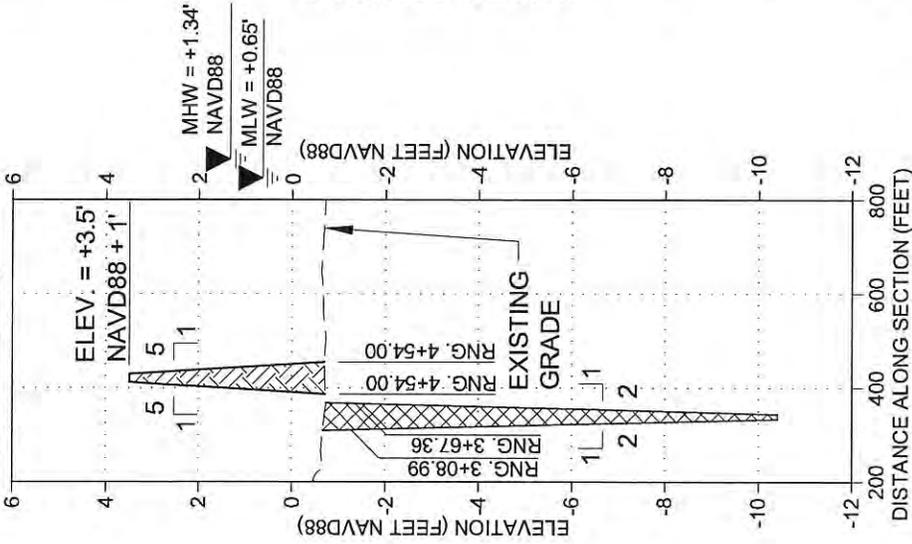
APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2789
 FAX: (225) 342-8801

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

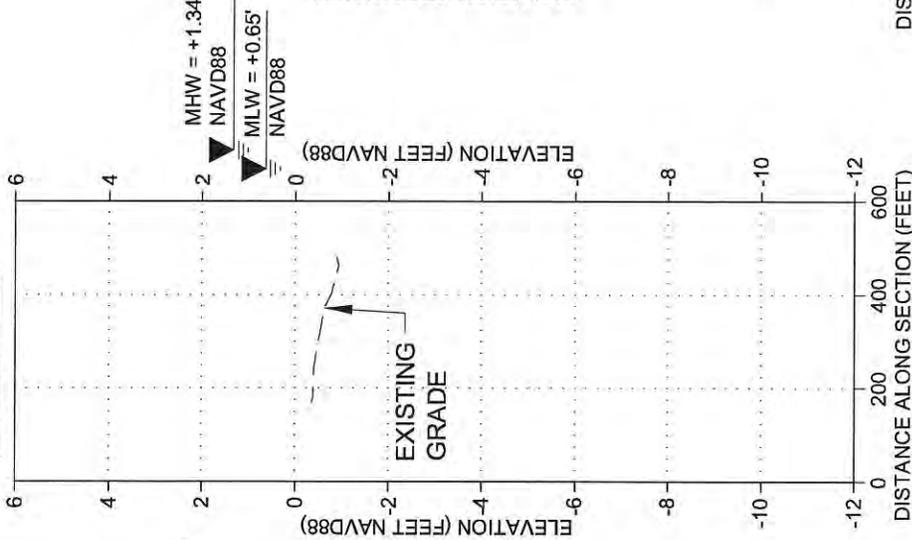
OYSTER BAYOU MARSH RESTORATION PROJECT

BORROW AREA CROSS SECTION B-B'

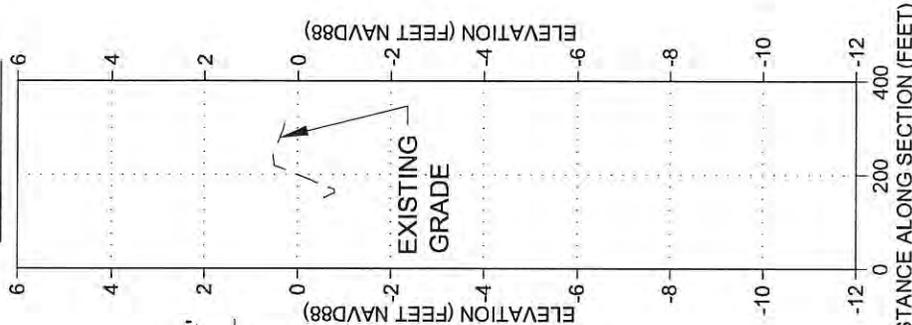
PROFILE TF13



PROFILE TF14



PROFILE TF15



HORIZONTAL SCALE IN FT



VERTICAL SCALE IN FT

NOTES:

- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
- LAYOUT ALL FILL AREAS BY ALIGNMENT TABLE ON SHEET 6-10.
- DISTANCES ARE ALONG SECTION LINE.

LEGEND:



- EARTHEN TERRACE ELEV. +3.5'
- EARTHEN TERRACE BORROW AREA ELEV. -10.4' (MAX)

CB&I COASTAL PLANNING & ENGINEERING, INC.
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 450 LAUREL ST., SUITE 1500
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DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON
 COASTAL PROTECTION & RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 40 OF 52

OYSTER BAYOU MARSH RESTORATION PROJECT
 TERRACE FIELD CONSTRUCTION PROFILES

DRAWN BY: G KRYSZYNYAK

DESIGNED BY: W THOMPSON

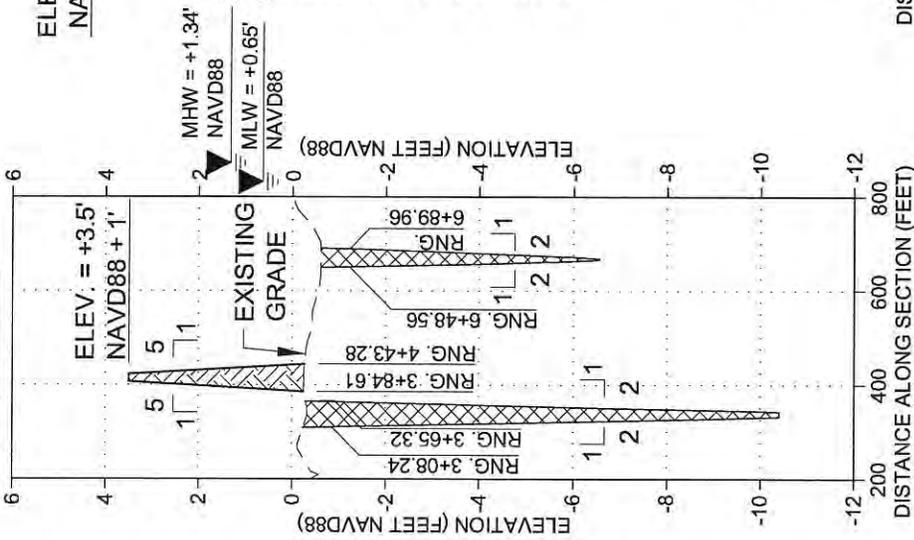
APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

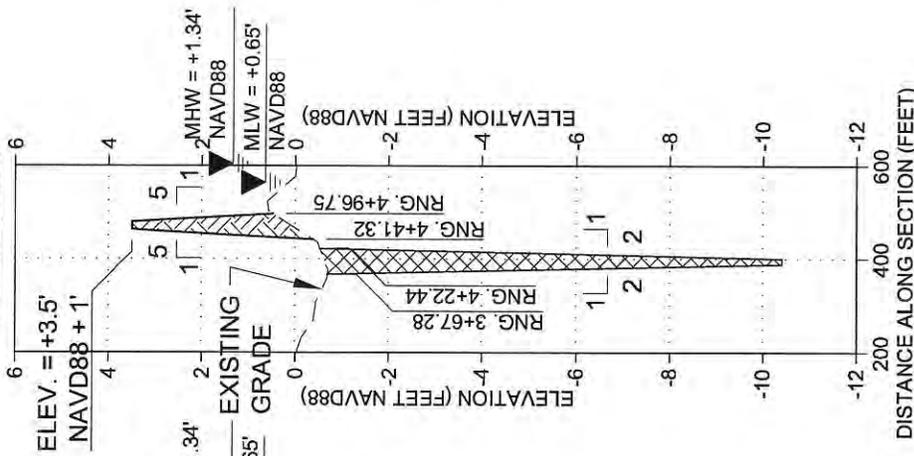
DATE: 9/19/14

SHEET 40 OF 52

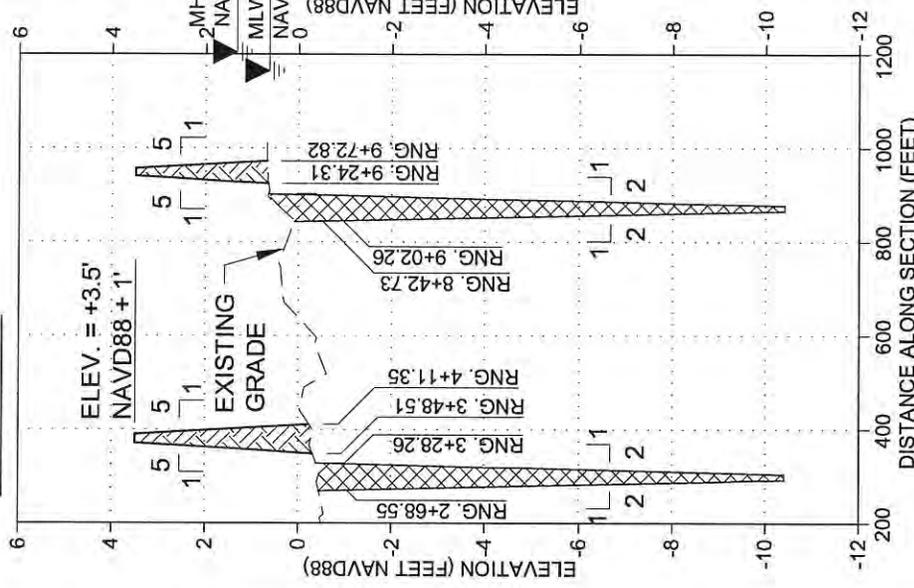
PROFILE TF16



PROFILE TF17



PROFILE TF18



LEGEND:

- EARTHEN TERRACE ELEV. +3.5'
- EARTHEN TERRACE BORROW AREA ELEV. -10.4' (MAX)

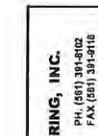
NOTES:

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3. DISTANCES ARE ALONG SECTION LINE.

HORIZONTAL SCALE IN FT



VERTICAL SCALE IN FT



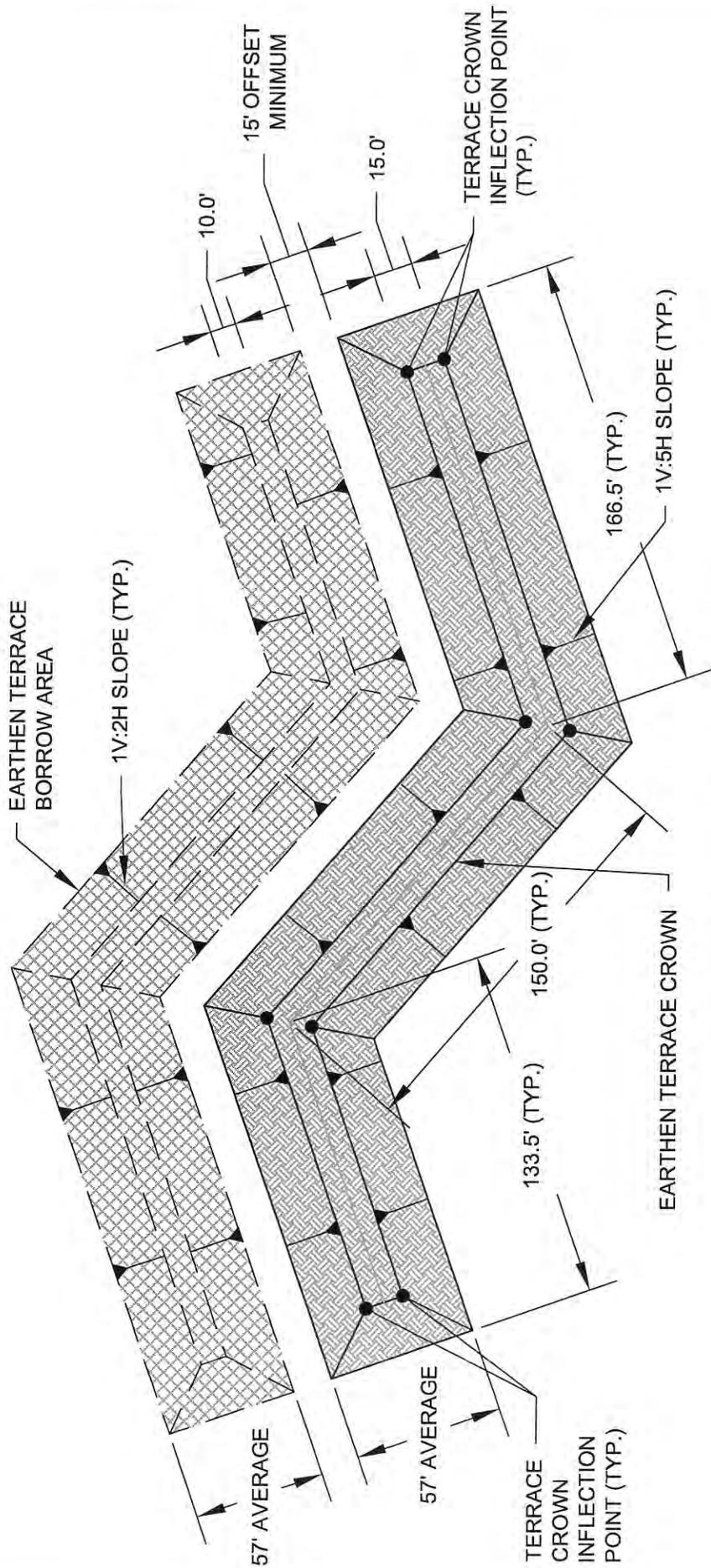
CB&I COASTAL PLANNING & ENGINEERING, INC.
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 450 LAUREL STREET
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STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 41 OF 52

OYSTER BAYOU MARSH RESTORATION PROJECT
 TERRACE FIELD CONSTRUCTION PROFILES



TYPICAL EARTHEN TERRACE DETAIL
PLAN VIEW

LEGEND:

- EARTHEN TERRACE
- EARTHEN TERRACE BORROW AREA



NOTES:
SEE SHEET 6-10 FOR TERRACE CROWN INFLECTION POINTS.

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450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

OYSTER BAYOU MARSH RESTORATION PROJECT

TYPICAL EARTHEN TERRACE PLAN VIEW

DRAWN BY: G KRYSZTYNIAK

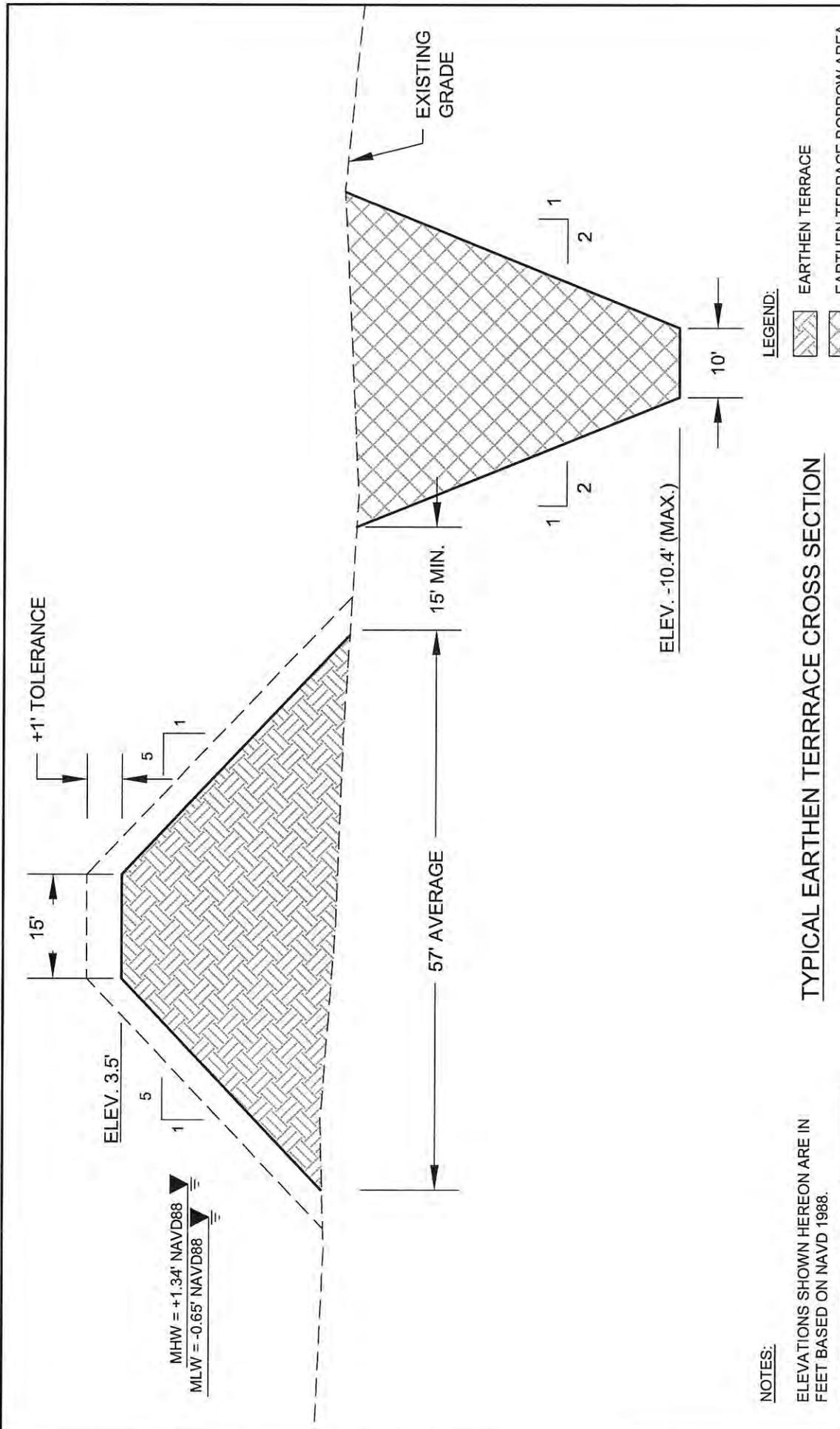
DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

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DATE: 9/19/14

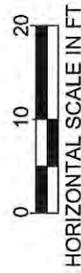
SHEET 45 OF 52



TYPICAL EARTHEN TERRACE CROSS SECTION

LEGEND:

- EARTHEN TERRACE
- EARTHEN TERRACE BORROW AREA



NOTES:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

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OYSTER BAYOU MARSH RESTORATION PROJECT

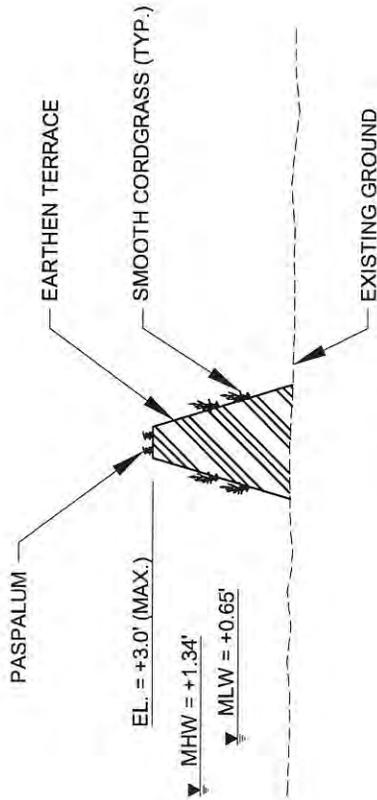
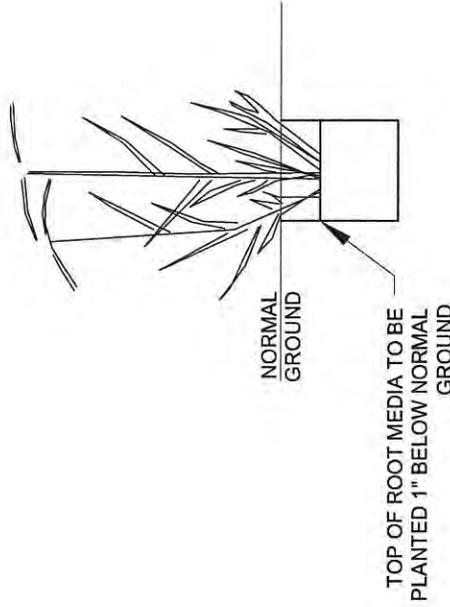
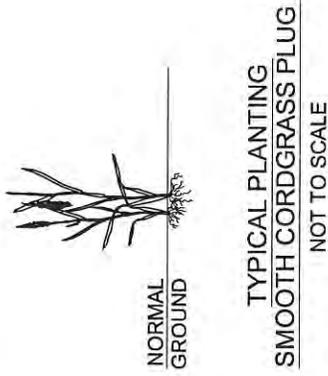
TYPICAL EARTHEN TERRACE CROSS SECTION

DRAWN BY: G KRYSZYNIAK

DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59
 DATE: 9/19/14
 SHEET 46 OF 52



TYPICAL TERRACE 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 TERRACE OR DISTURB EXISTING VEGETATION.
3. THE SMOOTH CORDGRASS SHALL BE PLANTED ON THREE FOOT CENTERS IN ROWS AS SHOWN ON THE PLANS.
4. THE PASPALUM SHALL BE PLANTED ON FIVE FOOT CENTERS IN ROWS AS SHOWN ON THE PLANS.

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DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

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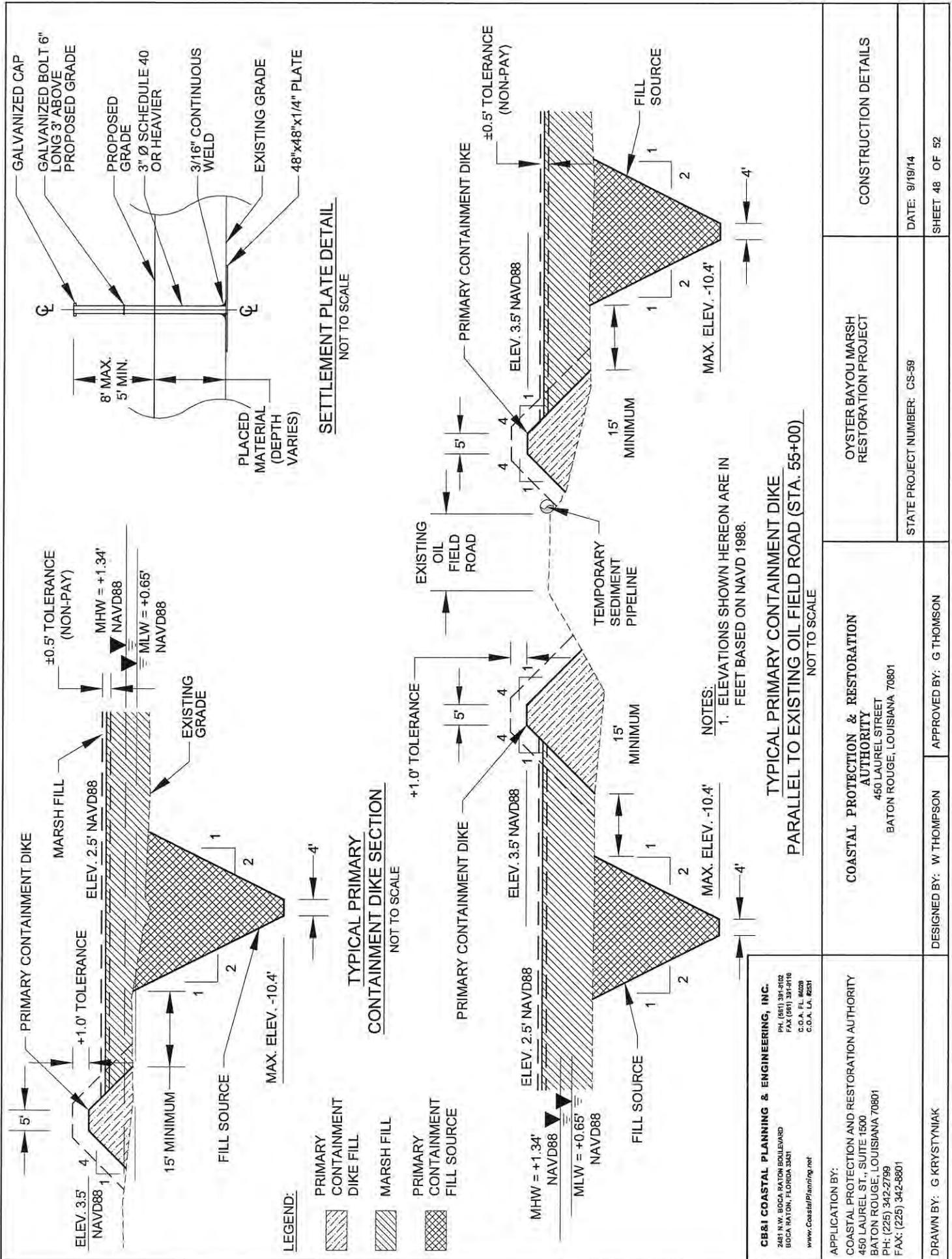
OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-99

DATE: 9/19/14

SHEET 47 OF 52

PLANTING LAYOUT AND DETAIL



SETTLEMENT PLATE DETAIL
NOT TO SCALE

TYPICAL PRIMARY CONTAINMENT DIKE SECTION
NOT TO SCALE

TYPICAL PRIMARY CONTAINMENT DIKE
PARALLEL TO EXISTING OIL FIELD ROAD (STA. 55+00)

NOTES:
1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

- LEGEND:**
- PRIMARY CONTAINMENT DIKE FILL
 - MARSH FILL
 - PRIMARY CONTAINMENT FILL SOURCE

CB&I COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
www.CoastalPlanning.net

PH: (951) 394-9102
FAX (951) 394-9116
C.O.A. FL. #029
C.O.A. LA. #231

APPLICATION BY:
COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL ST., SUITE 1500
BATON ROUGE, LOUISIANA 70801
PH: (225) 342-2799
FAX: (225) 342-8801

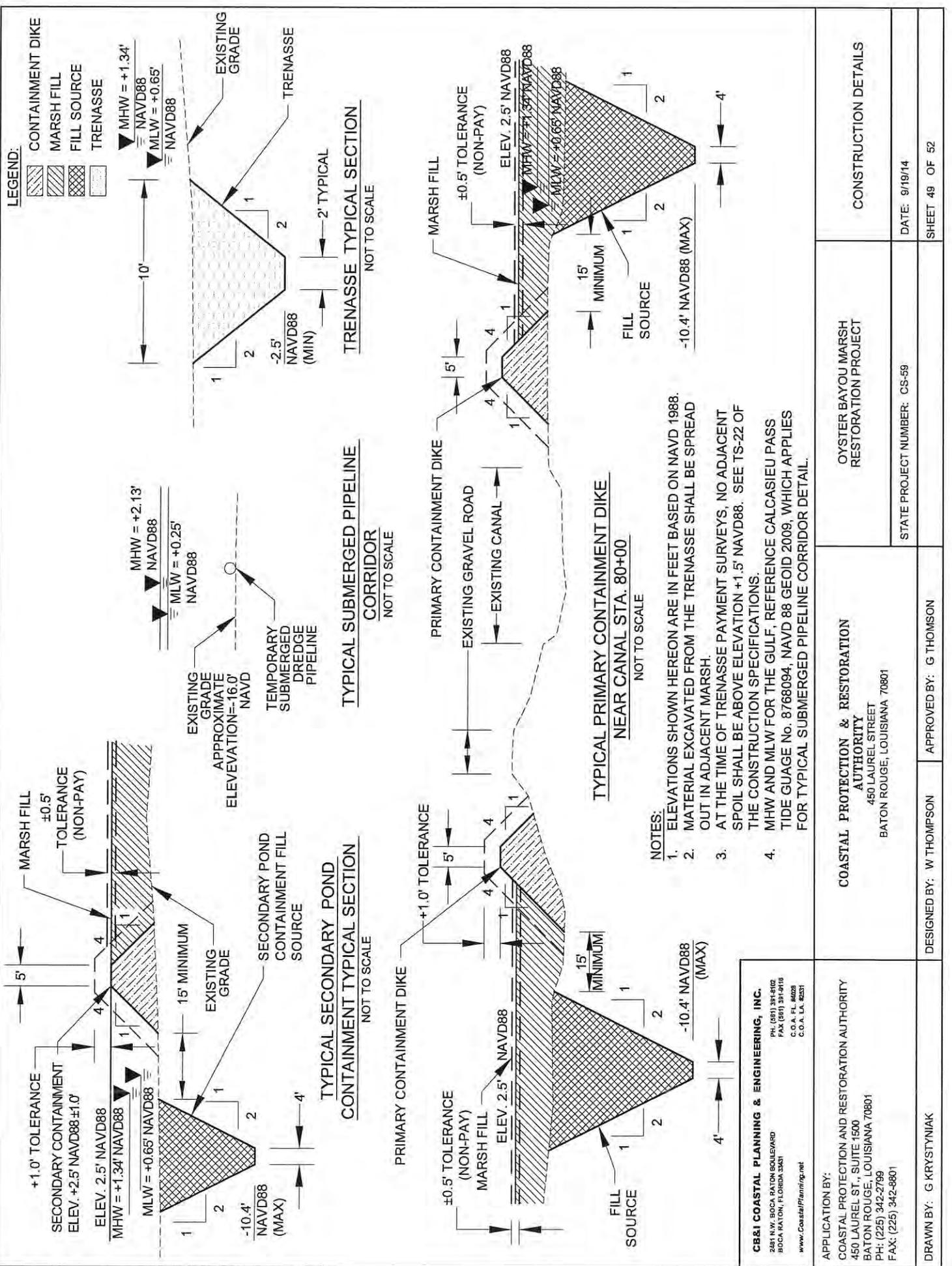
DESIGNED BY: W THOMPSON
APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 48 OF 52

COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OYSTER BAYOU MARSH RESTORATION PROJECT	CONSTRUCTION DETAILS
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C.O.A. LA. #2321

APPLICATION BY:
COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL ST., SUITE 1500
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PH: (225) 342-2799
FAX: (225) 342-5801

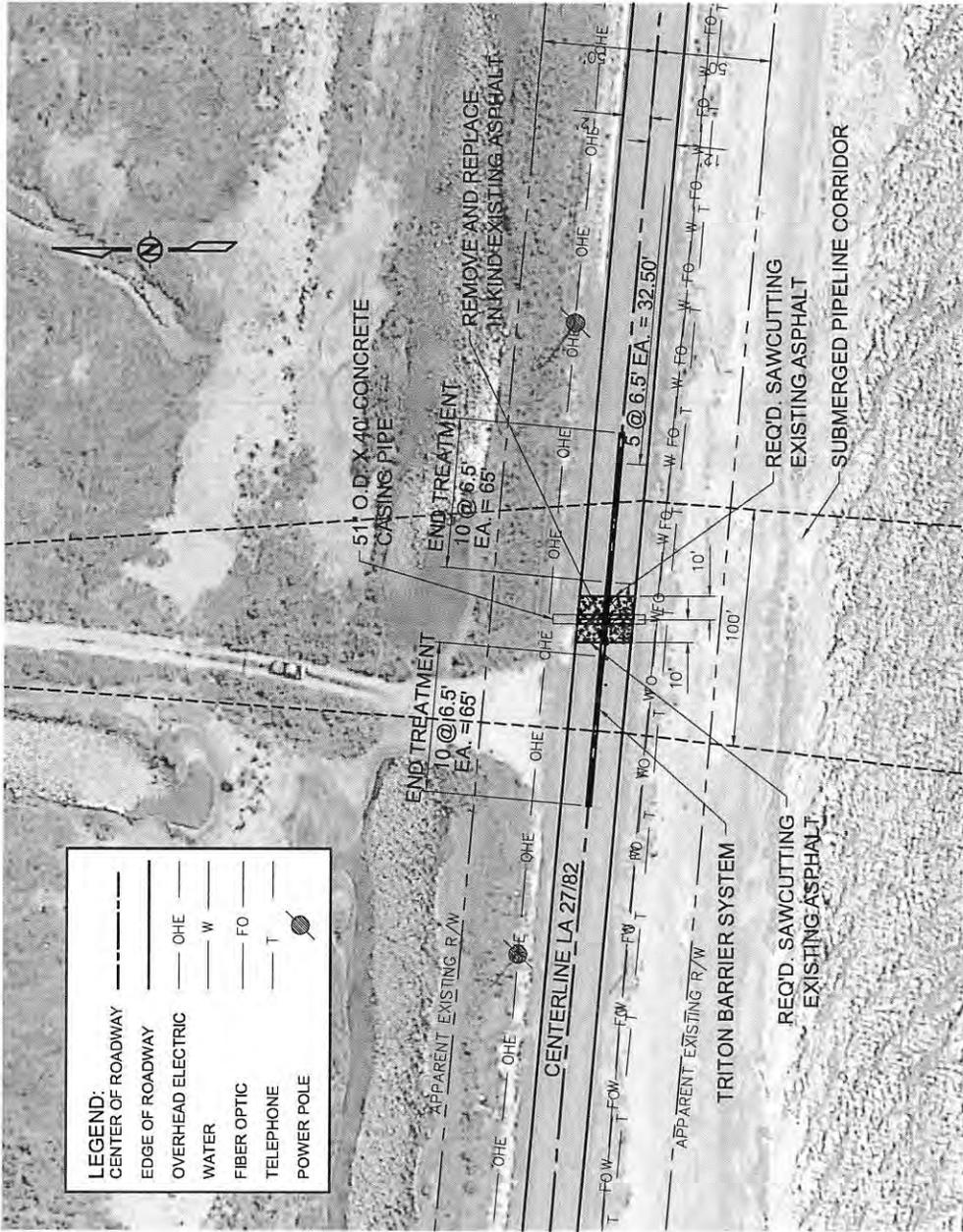
DESIGNED BY: W THOMPSON
APPROVED BY: G THOMPSON

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

OYSTER BAYOU MARSH RESTORATION PROJECT

STATE PROJECT NUMBER: CS-59
DATE: 9/19/14
SHEET 49 OF 52

CONSTRUCTION DETAILS



NOTES:

1. EXISTING ELEVATIONS, STRUCTURES AND FEATURES SHOWN TAKEN FROM LONNIE G. HARPER AND ASSOCIATES TOPOGRAPHIC SURVEY CONDUCTED IN 2012.
2. ADDITIONAL UTILITIES AND/OR PIPELINES NOT SHOWN COULD BE PRESENT IN THE VICINITY OF THE CONVEYANCE CORRIDOR CROSSING LA 27/82.
3. PIPELINE INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION PER THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY EXISTING UTILITIES, STRUCTURES, AND OTHER EXISTING FEATURES PRIOR TO CONSTRUCTION AND COORDINATE CONSTRUCTION ACTIVITIES WITH THE RESPECTIVE OWNERS FOR THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MAY BE ATTRIBUTED TO FAILURE TO ACCURATELY LOCATE AND PRESERVE EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES.
4. SEE SHEET 52 FOR CONCRETE PIPE DETAIL.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF ANY PIPELINE(S) PREVIOUSLY UNIDENTIFIED SO THAT THE OWNER MAY ISSUE A NOTICE(S) OF CONSTRUCTION PRIOR TO WORK. THE CONTRACTOR SHALL ALSO NOTIFY LOUISIANA ONE CALL AT 1-800-272-3020 REGARDING THE PREVIOUSLY UNIDENTIFIED PIPELINE(S) PRIOR TO WORK.
6. ALL PIPELINES AND UTILITIES LOCATED WITHIN 150' OF THE CONVEYANCE CORRIDOR AND FILL AREAS SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES PER THE SPECIFICATIONS.
7. MATERIALS EXCAVATED FROM THE OPEN HIGHWAY CUT WILL BE TRANSPORTED OFF-SITE.



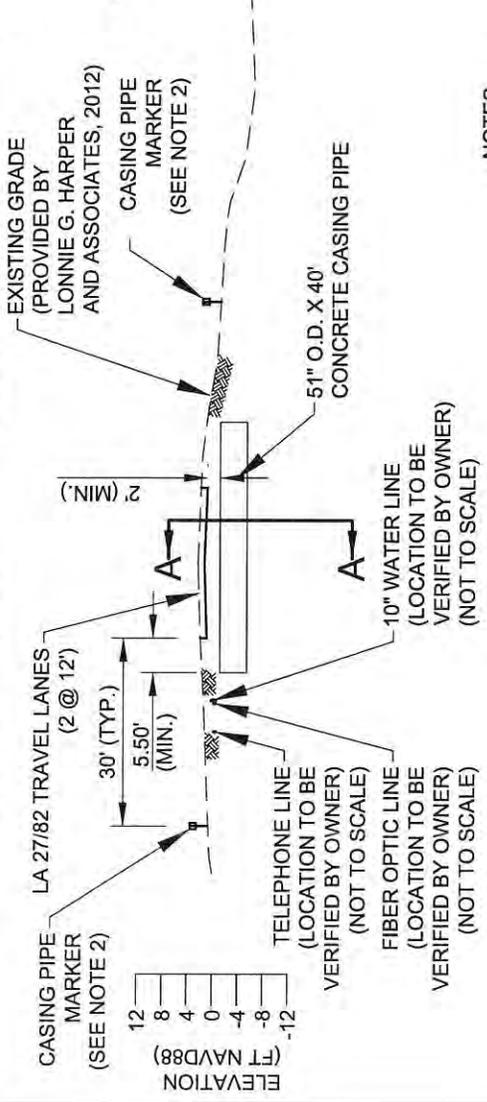
<p>CB&I COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOCA RATON BOULEVARD BOCA RATON, FLORIDA 33421 www.CoastalPlanning.net</p>	<p>PH: (861) 391-8102 FAX: (861) 391-8116 C.O.A. FL #029 C.O.A. LA #2351</p>	<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL ST., SUITE 1500 BATON ROUGE, LOUISIANA 70801 PH: (225) 342-2799 FAX: (225) 342-8801</p>
<p>DRAWN BY: G KRYSZYNIAK</p>	<p>DESIGNED BY: W THOMPSON</p>	<p>APPROVED BY: G THOMPSON</p>

<p>COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>OYSTER BAYOU MARSH RESTORATION PROJECT</p>
<p>STATE PROJECT NUMBER: CS-59</p>	<p>DATE: 9/19/14</p>
<p>LA 27/82 CROSSING PLAN VIEW</p>	

<p>COASTAL PROTECTION & RESTORATION AUTHORITY</p>	<p>OYSTER BAYOU MARSH RESTORATION PROJECT</p>
<p>STATE PROJECT NUMBER: CS-59</p>	<p>DATE: 9/19/14</p>
<p>LA 27/82 CROSSING PLAN VIEW</p>	

MARSH RESTORATION AREA

GULF OF MEXICO



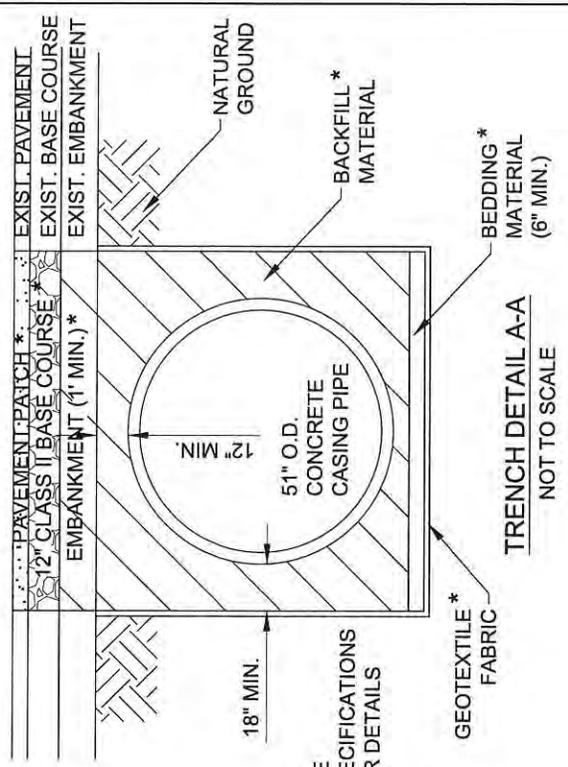
* SEE SPECIFICATIONS FOR DETAILS

NOTES:

1. SEE TS-25 OF THE CONSTRUCTION SPECIFICATIONS FOR INFORMATION REGARDING SEDIMENT PIPELINE HIGHWAY CROSSING REQUIREMENTS.
2. SEE SHEET 52 FOR CASING PIPE MARKER CONSTRUCTION DETAILS.
3. ADDITIONAL UTILITIES AND/OR PIPELINES NOT SHOWN COULD BE PRESENT IN THE VICINITY OF THE CONVEYANCE CORRIDOR CROSSING OF LA 27/82.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING FEATURES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MAY BE ATTRIBUTED TO FAILURE TO ACCURATELY LOCATE AND PRESERVE EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES.
5. EXISTING ELEVATIONS SHOWN WERE TAKEN FROM LONNIE G. HARPER AND ASSOCIATES TOPOGRAPHIC SURVEY CONDUCTED IN 2012.
6. SEE SPECIFICATION SECTION 203 FOR EXCAVATION, EMBANKMENT, AND GEOTEXTILE FABRIC. SEE SPECIFICATION SECTION 302 FOR CLASS II BASE COURSE. SEE SPECIFICATION SECTIONS 502 AND 510 FOR ASPHALTIC CONCRETE PATCHING. SEE SPECIFICATION SECTION 701 FOR CONCRETE CASING PIPE. SEE SPECIFICATION SECTION 726 FOR BEDDING MATERIAL. THESE SPECIFICATIONS ARE FROM LOUISIANA STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE 2006 EDITION FROM THE LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT.
7. MATERIALS EXCAVATED FROM THE OPEN HIGHWAY CUT WILL BE TRANSPORTED OFF-SITE.

LA 27/82 CROSSING DETAIL

1" = 30' VERTICAL
1" = 30' HORIZONTAL



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APPLICATION BY:
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 450 LAUREL ST., SUITE 1500
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2789
 FAX: (225) 342-8801

DESIGNED BY: W THOMPSON
 APPROVED BY: G THOMPSON

DRAWN BY: G KRYSZYNIAK

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

OYSTER BAYOU MARSH RESTORATION PROJECT

LA 27/82 CROSSING DETAIL

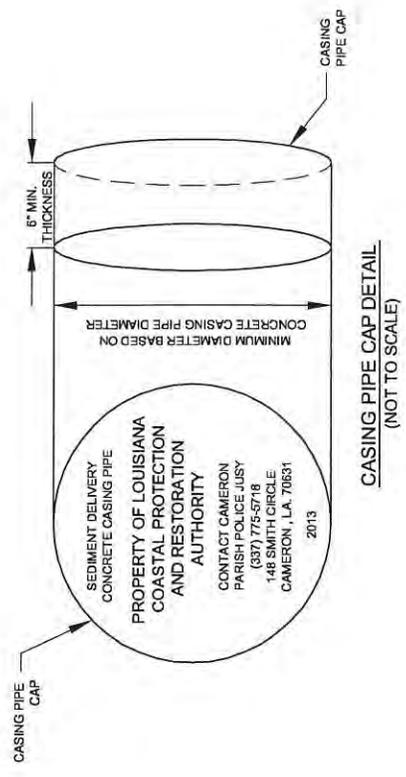
STATE PROJECT NUMBER: CS-59

DATE: 9/19/14

SHEET 51 OF 52

SEDIMENT DELIVERY PIPELINE CONTENTS
 PIPE SIZE
 CONTACT: CONTRACTOR
 PHONE NUMBER
 STREET ADDRESS
 CITY, STATE, ZIP CODE

51 INCH SEDIMENT DELIVERY CONCRETE CASING PIPE
 PROPERTY OF
 LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY
 CONTACT CAMERON PARISH POLICE JURY
 (337) 775-5718
 148 SMITH CIRCLE
 CAMERON, LA. 70631



CASING PIPE CAP DETAIL
 (NOT TO SCALE)

TEMPORARY PIPELINE MARKER DETAIL
 (NOT TO SCALE)

- TEMPORARY PIPELINE MARKER NOTES:**
1. MARKERS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH LADOTD 2006 STANDARD SPECIFICATION 729.
 2. PROPOSED DRAWING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL IN THE WORK PLAN PRIOR TO CONSTRUCTION.
 3. MARKERS SHALL BE PLACED PRIOR TO SEDIMENT PIPELINE INSTALLATION AND REMOVAL FOLLOWING SEDIMENT PIPELINE REMOVAL.
 4. SEE THE SPECIFICATIONS FOR TEMPORARY PIPELINE MARKER DETAILS.

CASING PIPE MARKER DETAIL
 (NOT TO SCALE)

- CASING PIPE MARKER NOTES:**
1. CASING PIPE MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH LADOTD 2006 STANDARD SPECIFICATION 729.
 2. PROPOSED DRAWING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL IN THE WORK PLAN PRIOR TO CONSTRUCTION.
 3. MARKERS SHALL BE REPLACED SUBSEQUENT TO BACKFILLING THE PIT AND PRIOR TO DEMOBILIZATION.
 4. SEE THE SPECIFICATIONS FOR CASING PIPE MARKER DETAILS.

CASING PIPE CAP NOTES:

1. CAPS SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS. CAPS SHALL BE WELDED TO CASING PIPE AND CAPS SHALL BE WATER TIGHT.
2. SEE THE SPECIFICATIONS FOR CASING CAP DETAILS.

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 2481 N.W. BOCCA RATON BOULEVARD
 BOCCA RATON, FLORIDA 33431
 PH: (561) 384-6100
 FAX (561) 391-9116
 C.O.A. FL. #0209
 C.O.A. LA. #2331
 www.CoastalPlanning.net

APPLICATION BY:
 COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL ST., SUITE 1600
 BATON ROUGE, LOUISIANA 70801
 PH: (225) 342-2799
 FAX: (225) 342-9801

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

OYSTER BAYOU MARSH RESTORATION PROJECT

TEMPORARY PIPELINE MARKER AND CASING PIPE CAP/MARKER DETAIL

DRAWN BY: G KRYSZTYNIAK

DESIGNED BY: W THOMPSON

APPROVED BY: G THOMPSON

STATE PROJECT NUMBER: CS-59
DATE: 9/19/14
SHEET 52 OF 52

APPENDIX VI LDNR COASTAL USE PERMIT



DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487
(225)342-7591
1-800-267-4019

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No.: P20150158

C.O.E. No.: MVN- 2012- 01709- WPP

NAME: COASTAL PROTECTION AND RESTORATION AUTHORITY
c/o COASTAL PROTECTION AND RESTORATION AUTHORITY
P.O. BOX 44027, CAPITAL STATION
BATON ROUGE, LA 70804
Attn: Sydney Dobson

LOCATION: Cameron Parish, LA
Oyster Bayou Marsh Restoration (CS-59) @ Lat. 29° 46' 38.00"N, Long. -93° 24' 14.00"W; Section 4-17
T14S R10W; Holly Beach

DESCRIPTION: Proposed construction of ±458 acres of saline marsh and ±17,550 linear feet of earthen terraces for the CPRA Project: Oyster Bayou Marsh Restoration (CS-59). Approx. 3,974,700 cy. of native material will be excavated and approx. 2,654,100 cy. of the excavated material (1.5:1 ratio) will be placed on-site for construction of marsh, containment dikes, and terraces. Approx. 211 cy. of native material will be removed at the LA 27/82 crossing during discharge pipe installation. Approx. 168 cy. of crushed stone/gravel and 37 cy. of top soil will be required to re-construct the LA/82 upon the completion of the discharge pipeline installation.

In accordance with the rules and regulations of the Louisiana Coastal Resources Program and Louisiana R.S. 49, Sections 214.21 to 214.41, the State and Local Coastal Resources Management Act of 1978, as amended, the permittee agrees to:

1. Carry out, perform, and/or operate the use in accordance with the permit conditions, plans and specifications approved by the Department of Natural Resources.
2. Comply with any permit conditions imposed by the Department of Natural Resources.
3. Adjust, alter or remove any structure or other physical evidence of the permitted use if, in the opinion of the Department of Natural Resources, it proves to be beyond the scope of the use as approved or is abandoned.
4. Provide, if required by the Department of Natural Resources, an acceptable surety bond in an appropriate amount to ensure adjustment, alteration, or removal should the Department of Natural Resources determine it necessary.
5. Hold and save the State of Louisiana, the local government, the department, and their officers and employees harmless from any damage to persons or property which might result from the use, including the work, activity, or structure permitted.
6. Certify that the use has been completed in an acceptable and satisfactory manner and in accordance with the plans and specifications approved by the Department of Natural Resources. The Department of Natural Resources may, when appropriate, require such certification to be given by a registered professional engineer.
7. All terms of the permit shall be subject to all applicable federal and state laws and regulations.
8. This permit, or a copy thereof, shall be available for inspection at the site of work at all times during operations.
9. The applicant will notify the Office of Coastal Management of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Office of Coastal Management by mailing the enclosed green initiation card on the date of initiation of the coastal use.
10. Unless specified elsewhere in this permit, this permit authorizes the initiation of the coastal use described under "Coastal Use Description" for two years from the date of the signature of the Secretary or his designee. If the coastal use is not initiated within this two year period, then this permit will expire and the applicant will be required to submit a new application. Initiation of the coastal use, for the purposes of this permit, means the actual physical beginning of the use of activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the coastal use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, the permittee must, in good faith, and with due diligence, reasonably progress toward completion of the project once the coastal use has been initiated.
11. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:
 - a. This permit does not convey any property rights, mineral rights, or exclusive privileges; nor does it authorize injury to property.
 - b. Benefits to offset impacts are based on the proposed creation of marsh achieving 80% vegetative coverage and



fisheries access re-established by year 3 of the project life, and shall be determined after the third full growing season (March 1 to November 1) following the completion of permitted activities. This assessment shall include both primary impacts and secondary impacts which may result from the permitted activities.

Permittee shall notify OCM of the date of completion of permitted activities within 5 working days of completion.

Should the permitted project not provide the anticipated benefits, OCM may determine that compensatory mitigation is required, permittee shall submit a compensatory mitigation plan for approval within 30 days of notification of the compensatory mitigation requirements by OCM. All necessary approvals shall be obtained for the compensatory mitigation plan and the plan shall be implemented as directed by OCM. Permittee should be aware that compensatory mitigation projects may be required to be maintained for as many as 20 years for marsh mitigation projects and 50 years for forested wetland mitigation projects. A processing fee will be assessed for the determination of compensatory mitigation requirements and evaluation of the proposed compensatory mitigation plan in accordance with LAC Title 43, Part I, Chapter 7, §724.D. This fee shall apply regardless of which compensatory mitigation option is selected and does not include the cost incurred to implement the required compensatory mitigation.

- c. All equipment utilized to perform activities authorized under this permit shall stay within the access routes and work areas designated on the permit plats utilizing the least damaging route and/or open water areas.

- d. Louisiana Natural Heritage Program

The piping plover (*Charadrius melodus*) may occur within one mile of the project area. This species is federally listed as threatened with its critical habitat designated along the Louisiana coast. Piping plovers winter in Louisiana feeding at intertidal beaches, mudflats, and sand flats with sparse emergent vegetation. Primary threats to this species are destruction and degradation of winter habitat, habitat alteration through shoreline erosion, woody species encroachment of lake shorelines and riverbanks, and human disturbance of foraging birds. For more information on piping plover critical habitat, visit the U.S. Fish and Wildlife website: <http://endangered.fws.gov>.

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project.

The Louisiana Natural Heritage Program (LNHP) reports summarize the existing information known at the time of the request regarding the location in question. LNHP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time LNHP tracked species are encountered within the project area, please contact our biologist at 225-765-2643.

- e. All structures built under the authorization and conditions of this permit shall be removed from the site within 120 days of abandonment of the facilities for the herein permitted use, or when these structures fall into a state of disrepair such that they can no longer function as intended. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities.
- f. All fill material shall be clean and free of contaminants and shall not contain hazardous materials such as asbestos or asbestos residue, shingles, tires, oil/grease residue, exposed rebar, protruding objects, etc.
- g. All logs, stumps and other debris encountered during dredging activities shall be removed from the site during or immediately after the activity and disposed of in accordance with all applicable laws and regulations.
- h. That permittee shall insure that all sanitary sewage and/or related domestic wastes generated during the subject project activity and at the site, thereafter, as may become necessary shall receive the equivalent of secondary treatment (30 mg/l BOD5) with disinfection prior to discharge into any of the streams or adjacent waters of the area or,



in the case of total containment, shall be disposed of in approved sewerage and sewage treatment facilities, as is required by the State Sanitary Code. Such opinion as may be served by those comments offered herein shall not be construed to suffice as any more formal approval(s) which may be required of possible sanitary details (i.e. provisions) scheduled to be associated with the subject activity. Such shall generally require that appropriate plans and specifications be submitted to the Department of Health and Hospitals for purpose of review and approval prior to any utilization of such provisions.

- i. Structures must be marked/lighted in accordance with U. S. Coast Guard regulations.
- j. As-built drawings and/or plats shall have written on them the date of completion of said activities and shall be submitted to the Louisiana Department of Natural Resources, Office of Coastal Management, P.O. Box 44487, Baton Rouge, LA 70804-4487 within 30 days following project completion.
- k. Permittee is subject to all applicable state laws related to damages which are demonstrated to have been caused by this action.
- l. Permittee shall allow representatives of the Office of Coastal Management or authorized agents to make periodic, unannounced inspections to assure the activity being performed is in accordance with the conditions of this permit.
- m. Permittee shall comply with all applicable state laws regarding the need to contact the Louisiana One Call (LOC) system (1-800-272-3020) to locate any buried cables and pipelines.
- n. This permit authorizes the initiation of the Coastal Use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee. Initiation of the Coastal Use, for purposes of this permit, means the actual physical beginning of the use or activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated. If the Coastal Use is not initiated within this two (2) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (Title 43:1.723.D). Please note that a request for permit extension MUST be made no sooner than one hundred eighty (180) days and no later than sixty (60) days prior to the expiration of the permit.

The expiration date of this permit is five (5) years from the date of the signature of the Secretary or his designee. If the Coastal Use is not completed within this five (5) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (LAC 43:1.723(D)).

Upon expiration of this permit, a new Coastal Use Permit will be required for completion of any unfinished or uncommenced work items and for any maintenance activities involving dredging or fill that may become necessary. Other types of maintenance activities may also require a new Coastal Use Permit.

- o. This determination does not eliminate the need to obtain a permit from the United States Army, Corps of Engineers or any other Federal, state or local approval that may be required by law. The drawings submitted with your referenced application are attached hereto and made a part of the record.

***** End of Conditions *****

Page: 4 of 5
C.U.P. No.: P20150158
C.O.E. No.: MVN-2012-01709-WPP



By accepting this permit the applicant agrees to its terms and conditions.

I affix my signature and issue this permit this 10th day of June, 2015.

THE DEPARTMENT OF NATURAL RESOURCES

Karl L. Morgan, Administrator
Office of Coastal Management

This agreement becomes binding when signed by Administrator of the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments

Page: 5 of 5
C.U.P. No.: P20150158
C.O.E. No.: MVN-2012-01709-WPP



Final Plats:

1) P20150158 Final Plats 05/20/2015

cc: Martin Mayer, COE w/attachments
Dave Butler, LDWF w/attachments
Lynn Hohensee, WCalcP w/attachments
Ernest Broussard, WCamPC w/attachments
Channing Hayden, Jr., PortLC w/attachments
Clair Hebert, Other w/attachments
Stephen Broussard, LED w/attachments
Jessica Diez, OCM w/attachments
Kaili Mills, OCM/FI w/attachments
Cameron Parish w/attachments

COASTAL PROTECTION AND RESTORATION AUTHORITY w/attachments

APPENDIX VII DOTD PERMIT

Three (3) copies of the drawings must accompany this permit application.

When applicable, the following supplement is also required and shall become a part of this permit: Railroad Supplement

Permit Number 153267
CONTROL 031 SECTION 01

ENTERED IN COMPUTER FILE

DJ 1/22/16
INITIAL AND DATE

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PROJECT PERMIT

(Required by State Law) Rev 5/13

A copy of this permit shall be available at the site where and when work is performed.

Whereas Coastal Protection and Restoration Authority,
(Print or type name of applicant)

hereinafter termed applicant, requests a permit for the use and occupancy of the right-of-way of State Highway No. 27/82

in Cameron Parish, located as follows:

from: _____ Lat: 29.768204 Long: 93.406308
to: _____ Lat: 29.768104 Long: 93.406308
(in Decimal Degrees, e.g. Lat:-30.459, Long: -91.178)

for the installation, operation and maintenance of the following described project (use additional sheets as necessary):

A permanent concrete casing pipe and temporary steel sediment pipeline to be installed across LA 27/82 to facilitate marsh creation using Gulf sediment. (See attachments.)

Estimated number of times this facility will be accessed each year after construction has been completed, including meter readings: 1

By signing this permit, applicant/permittee hereby acknowledges receiving a copy of the permit, the general conditions and standards, and the Standards for Installation of Facilities on State Highways, and agrees to comply with all provisions contained therein and all applicable laws, rules and regulations.

DOTD USE ONLY:

Permit is subject to the following conditions (use additional sheets as necessary):

[Empty box for conditions]

RECOMMENDED FOR APPROVAL
(Check box if review required)

[Signature] 7-16-15
District Permit Specialist / Date

[Signature]
District Area Engineer / Date

District Water Resources Engineer / Date

[Signature]
District Administrator (or Designee) / Date
Print Name TODD S LANDRY

Applicant must notify District Permit Specialist at phone number: 337-487-9130 prior to beginning work and after work is completed. Final inspection and approval by: _____

Issue Date: 1-21-2016

Installation to be completed by: 7-21-2016
(Date)

HEADQUARTERS (original)

pc: DISTRICT

Permit must be signed by the owner or lessee of the property. Contractor may NOT acquire permit

Vida Carver 7/14/15
(Agency Representative Signature) (Date)

Vida Carver
(Name of Person Signing Permit) (Printed or Typed)
Project Manager
(Title)

450 Laurel St., Suite 1200
(Street or P.O. Box)

Baton Rouge LA 70801
(City or Town) (State) (Zip Code)

225-342-2799
(Telephone Number)

Vida.Carver@la.gov
(E-mail Address)

DOTD APPROVAL:

[Signature] 1-4-16
Headquarters Right-of-Way Permit Engineer / Date or District Administrator (or Designee) / Date

Print Name Beyong Lim

pc: PERMITTEE
Page 1 of 3

The following general conditions and standards shall apply:

FIRST: That, the rights and privileges granted herein shall be nonexclusive and shall not be construed to be any broader than those expressly set out in Acts of the Legislature of the State of Louisiana, regardless of the language used in this permit and that any facilities placed on the highway right-of-way shall be placed in accordance with existing laws and the standards of the Department.

SECOND: That, all facilities thereto, after having been erected, shall at all times be subject to inspection and the right is reserved to require such changes, additions, repairs, relocations and removal as may at anytime be considered necessary to permit the relocation, reconstruction, widening and maintaining of the highway and to provide proper and safe protection to life and property on or adjacent to the highway, or in the interest of safety to traffic on the highway and that the cost of making such changes, additions, repairs and relocations shall be borne by the applicant, and that all of the cost of the work to be accomplished under this permit shall be borne by the permittee who agrees to hold the Department harmless therefor.

THIRD: That, the proposed facilities or their operation or their maintenance shall not unreasonably interfere with the facilities or the operation or maintenance of the facilities of other persons, firms or corporations previously issued permits of use and occupancy, and the proposed facilities shall not be dangerous to persons or property using or occupying the highway or using facilities constructed under previously granted permits of use and occupancy; and that the Department's records of prior permits are available, it being the duty of the applicant to determine the existence and location of all facilities within the highway right-of-way.

FOURTH: That, installations within the highway right-of-way shall be in accordance with applicable provisions contained in the following: AASHTO Guide for Accommodating Utilities within Highway Right of Way, Code of Federal Regulations 23 (CFR 23), National Electrical Safety Code C2, and the 1996 Federal Telecommunications Act. Those facilities not included in the above mentioned documents shall be in accordance with accepted practice. Where standards of the Department exceed those of the above cited codes, the standards of the Department shall apply, The Department reserves the right to modify its policies as may be required if conditions warrant.

FIFTH: That, data relative to the proposed location, relocation and design of fixtures or appurtenances as may be required by the Department shall be furnished to the Department by the applicant free of cost, and that the permit applicant shall make any and all changes or additions necessary to make the proposed facilities thereto satisfactory to the Department.

SIXTH: That, cutting and trimming of trees, shrubs, etc., shall be in accordance with the Department's EDMS IV.2.1.6 and Vegetation Manual, as revised.

SEVENTH: That, the applicant agrees to defend, indemnify, and hold harmless the Department and its duly appointed agents and employees from and against any and all claims, suits, liabilities, losses, damages, costs or expenses, including attorneys' fees sustained by reason of the exercise of this permit, whether or not the same may have been caused by the negligence of the Department, its agents or employees, provided, however, that the provisions of this last clause (whether or not the same may have been caused by the negligence of the Department, its agents or employees) shall not apply to any personal injury or property damage caused by the sole negligence of the Department, its agents or employees, unless such sole negligence shall consist or shall have consisted entirely and only of negligence in the granting of a permit or permits.

EIGHTH: That, the applicant is the owner of the facility for which a permit requested, and is responsible for maintenance of such: and any permit granted by the Department is granted only insofar as the Department had the power and right to grant the same.

NINTH: That, any permit granted by the Department is subject to revocation at any time.

TENTH: That, signing for warning and protection of traffic in instances where workmen, equipment or materials are in close proximity to the roadway surfacing, shall be in accordance with requirements contained in the Department's Manual on Uniform Traffic Control Devices. No vehicles, equipment and/or materials shall operate from, or be parked, stored or stock piled on any highway, median, or in an area extending from the outer edge of the shoulder of the highway on one side to the outer edge of the shoulder of the highway on the opposite side or in the median of any divided highway.

ELEVENTH: That, all provisions and standards contained herein relative to the installation of utilities shall apply to future operation, service and maintenance of utilities.

TWELFTH: That, drainage in highway side and cross ditches must be maintained at all times. The entire highway right-of-way affected by work under a permit must be restored to as good a condition as existed prior to beginning work to the complete satisfaction of the Departments R/W Permit Engineer.

THIRTEENTH: Any non-metallic or non-conductive underground facility must be installed with a non-corrosive metallic wire or tape placed directly over and on the center of the facility for its entire length within highway right-of-way. Wire or tape must be connected to all facilities.

FOURTEENTH: Prior to performing any excavations, the applicant is required to call Louisiana One Call. If installing any underground facilities such as cable or conduits, the applicant must be a member of Louisiana One Call. In addition, the applicant must contact DOTD at 1-800-259-4929 or DOTD-FiberLocates@la.gov at least 24 hours prior to performing any excavation on DOTD Right-of-way (either for installation or maintenance).

STANDARDS FOR INSTALLATION OF FACILITIES ON STATE HIGHWAYS

GENERAL

- (1) All materials and workmanship shall conform to the requirements of the applicable industry code and to Department specifications.
- (2) All safety precautions for the protection of the traveling public must be observed. Undue delay to traffic will not be tolerated.
- (3) All excavations within the limits of the right-of-way shall be backfilled and tamped in six inch layers to the density of the adjacent undisturbed soil. Where sod is removed or destroyed, it shall be replaced within one week. Where existing spoil material is, at the discretion of the Department, unsuitable for backfill, select material shall be furnished in lieu thereof and the existing material disposed of by approved methods.
- (4) Any clearing and grubbing which may be required by the applicant shall be represented by a plan covering any such actions as well as erosion control measures which may be required to vegetate the area under such clearing and grubbing. The applicant is authorized to retain all cleared timber. The applicant shall follow-up with an erosion control, seeding plan approved by DOTD.
- (5) Access to the lines shall be first from the land side, second from the interchange (longitudinally) and third from the highway (to be approved in each instance).
- (6) Repairs under the roadway will not be allowed if such repairs necessitate open cutting the highway. If a problem occurs with a line crossing, the utility company must install a new crossing. The utility company must bear 100% of the cost.
- (7) The DOTD District Permit Office shall be contacted and notified and shall give approval whenever the cable must be accessed, including routine maintenance. For routine maintenance, three (3) days notice shall be given. In emergency situations, as much notice as possible must be given.
- (8) Repeater boxes shall be placed as far outside of the right-of-way as possible, unless where otherwise approved by the Department, and in an area that will allow easy access for maintenance.
- (9) Parallel installations shall be located on a uniform alignment to the right-of-way line and within six (6) inches of the approved alignment.

Permit Number 153267
 CONTROL _____ SECTION _____

STATE OF LOUISIANA
 DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY PERMIT SUPPLEMENT
 Rev 3/13
PIPE DATA SHEET

Highway No. 27/82
 Owner of Proposed Facility DOTD

Data	Carrier Pipe	Casing (If Used)
Contents to be handled	Sediment	Sediment Pipe
Pipe Material	Steel	Concrete
Specification & Grade of Pipe	TBD	TBD
Outside Diameter (inches)	30"	51"
Dimension Ratio (DR) for Non-Metallic Pipe	N/A	N/A
Nominal Pipe Size (NPS) (inches)	30"	N/A
Wall Thickness (inches)	TBD	4.5"
Specified Minimum Yield Strength (SMYS) (PSI)	TBD	TBD
Hydrostatic Design Basis (HDB) (PSI) for Non-Metallic Carrier Pipe	TBD	TBD
*Maximum Allowable Operating Pressure (MAOP) (PSI)	TBD	TBD
Surge Pressure Allowance (PSI) for Pipe Carrying Liquid	TBD	TBD
Class Location	TBD	TBD
Type of Joint (welded, mechanical, etc.)	TBD	TBD
Method of Installation (bore, open cut, horizontal directional drilling, etc.)	Open Cut	Open Cut
Location (crossing or parallel) and Crossing Angle if crossing	Crossing, 90	Crossing, 90
Minimum Depth beneath roadway surface (feet)	2	2
Minimum Depth beneath ditches or drainage structures (feet)	N/A	N/A
Pipe Vertical Deflection by Spangler Equation (inches)	N/A	N/A
Coating Material	N/A	N/A
Cathodic Protection	N/A	N/A

*This is not design pressure. MAOP is the highest pressure a pipeline may be operated under DOTD regulations.

This proposed installation is in compliance with Department Standards.

 (Signature of Owner, required)

 (Date)

Headquarters (original)

pc: District

pc: Permittee

Permit Number 153267
 CONTROL _____ SECTION _____

STATE OF LOUISIANA
 DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY PERMIT SUPPLEMENT
 Rev 3/13
PIPE DATA SHEET

Highway No. 27/82
 Owner of Proposed Facility DOTD

Data	Carrier Pipe	Casing (If Used)
Contents to be handled	Water	
Pipe Material	HDPE	
Specification & Grade of Pipe	ANSI A21.5	
Outside Diameter (inches)	11.75	
Dimension Ratio (DR) for Non-Metallic Pipe	DR-11	
Nominal Pipe Size (NPS) (inches)	12"	
Wall Thickness(inches)	1.826	
Specified Minimum Yield Strength (SMYS) (PSI)	350 PSI	
Hydrostatic Design Basis (HDB) (PSI) for Non-Metallic Carrier Pipe	TBD	
*Maximum Allowable Operating Pressure (MAOP) (PSI)	TBD	
Surge Pressure Allowance (PSI) for Pipe Carrying Liquid	TBD	
Class Location	TBD	
Type of Joint (welded, mechanical, etc.)	Butt Fusion, Mech	
Method of Installation (bore, open cut, horizontal directional drilling, etc.)	Open Cut	
Location (crossing or parallel) and Crossing Angle if crossing	Parallel	
Minimum Depth beneath roadway surface (feet)	N/A	
Minimum Depth beneath ditches or drainage structures (feet)	N/A	
Pipe Vertical Deflection by Spangler Equation (inches)	N/A	
Coating Material	Asphaltic	
Cathodic Protection	N/A	

*This is not design pressure. MAOP is the highest pressure a pipeline may be operated under DOTD regulations.

This proposed installation is in compliance with Department Standards.

 (Signature of Owner, required)

 (Date)

Headquarters (original)

pc: District

pc: Permittee
 Page 1 of 1

STATE PROJECT:
 ROUTE: LA 27 / LA 82
 PROJECT NAME: HOLLY BEACH
 PARISH: CAMERON

1 5 3 2 6 7

ROADWAY AND SHOULDER BORING LAB TEST DATA

CSLM: 5.617 @ 8' LT CL

SAMPLE	DEPTH	MATERIAL	SOIL GROUP	CLASSIFICATION	LL/PI	PH	ORGANIC	GRADATION
S-1	0" - 9½"	ACP						***16,32,25
S-2	9½" - 20½"	SSC						**0,0,0,8,11,15,48,8,10
S-3	20½" - 26"	SAND SHELL	A-2-4 (00)	SHLY SDY LM	NP	7.8	1.0	*0,0,4,73,11,12
	BELOW	SOIL	A-2-4 (00)	SDY LM	NP	8.1	1.0	

NOTE: *(+4,+10,+40,+200,%SILT,%CLAY)
 **(+1,+3/4,+1/2,+4,+10,+40,+200,%SILT,%CLAY)
 ***(+10,+40,+200)

SHEET NUMBER	1 of 1	DESIGNED	CHECKED	PARISH	Cameron
		DETAILED	CHECKED	FEDERAL PROJECT	
		DATE	10-20-15	STATE PROJECT	
		SHEET	1 OF 1		
		LA 27		REVISION DESCRIPTION	
		ABBREVIATIONS FOR SOIL BORINGS		BY	

153267

ABBREVIATIONS FOR SOIL BORINGS

HMAC - HOT MIX ASPHALTIC CONCRETE
 ACP - ASPHALTIC CONCRETE PAVEMENT
 PCC - PORTLAND CEMENT CONCRETE
 SS - SAND SHELL
 SCG - SAND CLAY GRAVEL
 SSC - STABILIZED SOIL CEMENT
 SC - SOIL CEMENT
 RAP - RECYCLED ASPHALTIC CONCRETE PAVEMENT

STF - STIFF
 LT - LIGHT
 SFT - SOFT
 MED - MEDIUM
 STY - SILTY
 SDY - SANDY
 SHLY - SHELLY
 GRAY - GRAVELLY
 SD - SAND
 LM - LOAM
 CL - CLAY
 GR - GRAY
 BR - BROWN
 RD - RED
 YL - YELLOW
 DK - DARK



IN REPLY REFER TO
FILE NO.

Bobby Jindal, Governor
Sherri H. LeBas, P.E., Secretary

REFERRED TO

- _____ REFERRED FOR ACTION
- _____ ANSWER FOR MY SIGNATURE
- _____ FOR FILE
- _____ FOR YOUR INFORMATION
- _____ FOR SIGNATURE
- _____ RETURN TO ME
- _____ PLEASE SEE ME
- _____ PLEASE TELEPHONE ME
- _____ FOR APPROVAL
- _____ PLEASE ADVISE ME

BY _____ DATE _____
BY _____ DATE _____
BY _____ DATE _____

Memorandum

153267

To: Janice P. Williams, P.E.
Chief Engineer

From: Beyond Lim, P.E. *BSL*
HQ R/W Permit Engineer

Subject: Design Exception/Waiver Request in Project Permit Submitted by Sasol
Coastal Protection and Restoration Authority (CPRA) for LA 27/82, Control
Section 031-01, Cameron Parish

Date: December 21st 2015

We are respectfully requesting your approval for the above captioned design exception and waiver requested by CPRA regarding placement of the permanent concrete casing pipe (51" OD) crossing LA 27/82 using open cut methods and phasing construction keeping on lane open at all times in order to facilitate the temporary placement of a sediment pipeline.

This project aims to allow marsh fill material to be dredged from an offshore borrow area located in the Gulf of Mexico and pumped hydraulically via pipeline to the marsh fill area north of LA 27/82. The permanent concrete pipe will be capped after use and left in place for future coastal restoration projects. District 07 and HQ have performed their review since last August including a meeting with CPRA at HQ DOTD regarding the plans as well as the design exception and waiver request.

The CPRA's design exception/waiver request explains why the project permit requires the exception/waiver above. We agree that safety is not impacted by allowing the design exception/waiver. Based on the information provided, it is recommended this design exception/waiver be approved. Please note that we have attached the design exception and waiver form with District 07's ADA and HQ Road Design Administrator's signatures for recommendation of approval, maps, copy of project permit application package, and final plans for your review. Should you require additional information, please contact me.

BSL
ATTACHMENT

Sherri H. LeBas 12/22/15
RECOMMENDED FOR APPROVAL / DATE

RECOMMENDED FOR APPROVAL / DATE

Janice P. Williams 1-4-16
APPROVED / DATE



General Information

Type of Request: Design Exception
 Design Waiver

Route and Design Classification:

Rural	<input checked="" type="checkbox"/>	Local	<input type="checkbox"/>	1	<input type="checkbox"/>
Suburban	<input type="checkbox"/>	Collector	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
Urban	<input type="checkbox"/>	Arterial	<input type="checkbox"/>	3	<input checked="" type="checkbox"/>
Freeway	<input type="checkbox"/>			4	<input type="checkbox"/>

Traffic:	Posted Speed: 55 mph	Current ADT: 780
	Design Speed: 60 mph	Design ADT: 780
		D: 54.92 %
		K: 11.58 %
		T: 32.55 %

Other traffic considerations: As LA 27/82 is a hurricane evacuation route, this work will be specified to take place outside of the peak of hurricane season (August to mid-October). If a storm enters or forms within the Gulf, both lanes of LA27/82 will be reopened to facilitate evacuations.

Work Classification

<u>Work Type</u>	<u>System</u>	<u>FHWA Involvement</u>
<input checked="" type="checkbox"/> New / Reconstruction	<input checked="" type="checkbox"/> NHS	<input checked="" type="checkbox"/> Full Oversight
<input checked="" type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input checked="" type="checkbox"/> Delegated
<input checked="" type="checkbox"/> Structural Improvement		<input checked="" type="checkbox"/> None
<input checked="" type="checkbox"/> Spot Replacement		
<input checked="" type="checkbox"/> Minor Rehabilitation		
<input checked="" type="checkbox"/> Preventive Maintenance		

Applicable Design Guideline: Choose an item.

Provide supporting documentation/exhibits for the request. (Exhibits may include typical sections, geometric details, correspondence from other sections, agencies, etc.)

1. Design Exception/Design Waiver for the following element(s) of work. Mark all requested.

Controlling Criteria

Design Speed *	<input type="checkbox"/>	Clear Zone	<input type="checkbox"/>
Lane Width *	<input type="checkbox"/>	Cross Slope *	<input type="checkbox"/>
Super elevation *	<input type="checkbox"/>	Guardrail	<input type="checkbox"/>
Shoulder Width *	<input type="checkbox"/>	Vertical Clearance *	<input type="checkbox"/>
Vertical Alignment *	<input type="checkbox"/>	Bridge Width *	<input type="checkbox"/>
Horizontal Alignment *	<input type="checkbox"/>	Structural Capacity *	<input type="checkbox"/>
Stopping Sight Distance *	<input type="checkbox"/>	Horizontal Clearance	<input type="checkbox"/>
Grade *	<input type="checkbox"/>	Hydraulic Design Storm	<input type="checkbox"/>
Median Width	<input type="checkbox"/>		
Lateral Offset to Obstruction * (FHWA criteria only)	<input type="checkbox"/>		

* FHWA Controlling Design Criteria. An exception from FHWA is required. Note that FHWA only requires that the minimum values cited in the *Green Book* be met.

Other

Explain: This project involves work being performed to the existing pavement on LA 27/82. A concrete pipe will be installed underneath LA 27/82 using open cut methods and phased construction, keeping one lane open at all times. Existing conditions will be restored upon completion of construction.

2. *Provide a synopsis of the scope of the project, the situation you are encountering and the problem you are attempting to mitigate.*

The Oyster Bayou Marsh Restoration project is located in Cameron Parish, Louisiana between Mud Lake and the Calcasieu River, north of Louisiana Highway 27/82 (LA27/82). The project area is located approximately 3 miles east of the community of Holly Beach. Approximately 605 acres of marsh and 17,550 linear feet of earthen terraces are proposed.

The work includes installing a 51" O.D. permanent, concrete casing pipe underneath LA 27/82 to facilitate the temporary placement of a sediment pipeline. Marsh fill material will be dredged from an offshore borrow area located in the Gulf of Mexico and pumped hydraulically via pipeline to the marsh fill areas north of LA 27/82. The permanent casing pipe will be plugged after use and left in place for future coastal restoration projects.

It is proposed to place the permanent concrete casing pipe using open cut methods and phased construction keeping one lane open at all times. Flaggers and substantial lighting will be utilized to maintain safe operations. Following the installation of the concrete casing pipe, a temporary sediment pipeline will be placed within the casing pipe. The temporary sediment pipeline will be in place for a maximum of 200 days. During this time, the temporary sediment pipeline will be placed above ground within apparent DOTD Right of Way on

either side of the concrete casing pipe. In order to protect the temporary pipeline that is located within the clear zone, and to shield the obstacle from the traveling public, temporary Triton barriers will be installed. The Triton barrier system will remain in place for the entire duration that the temporary sediment pipeline is located within the apparent DOTD ROW. Upon completion of the Oyster Bayou Marsh Restoration Project, the temporary sediment pipeline will be removed and the concrete casing pipe will be loosely plugged (so as to allow for minimal water flow to prevent stress on the pipe) and buried using embankment material. The highway and embankment will be returned to pre-project conditions. The casing pipe installation is anticipated to take approximately one week and will occur outside of peak hurricane season. If a storm enters or develops within the Gulf of Mexico, both lanes will be reopened to traffic as soon as practicable.

The open cut method of casing pipe installation is proposed to mitigate several problems within the project area. Geotechnical boring logs at the proposed crossing indicate that jack and bore or microtunneling installation methods would not be feasible based on existing soil conditions. In addition, a subsurface fiber optic line is located on the south side of the highway. Installation via these two methods would not be possible without disturbing the fiber optic line. The proposed casing pipe installation design requires 36" of cover from the top of the pavement surface to the top of the concrete casing pipe. This depth of cover is required to allow sufficient space to install the temporary sediment pipeline without disrupting the fiber optic line south of the roadway. After the marsh creation project is complete, the permanent concrete casing pipe will be plugged, but not sealed. This will prevent stress on the pipe, allowing minimal water flow through the pipe due to potential groundwater. Both sides of the casing pipe will be buried following construction and will no longer be located within the clear zone. Therefore, the design of the concrete casing pipe has been conducted in accordance with LAC Title 70 Section 515, LADOTD Specification section 701, and the DOTD Hydraulics Manual. The temporary sediment pipeline will be located within the clear zone during the marsh creation project as indicated above. The temporary dredge pipeline will be shielded from traffic using triton barriers. The triton barriers will be installed at a flare rate of 14:1 as specified by the AASHTO Roadside Design Guide, Table 5.9. Following project completion, the temporary pipeline and triton barriers will be removed and no objects will remain within the clear zone.

3. *Describe the proposed design exception/waiver. Provide the proposed and standard values of the design exception/waiver element, citing DOTD, AASHTO, or other criteria.*

This design waiver is to install a pipe under the existing LA 27/82 using open-cut methods, with one lane open to traffic during the installation period, anticipated to take one week.

4. *Discuss the project's compatibility with adjacent roadway sections.*

The existing typical section will be maintained, and the road will be returned to its pre-construction condition.

5. *Discuss alternatives to the exception that were considered.*

Jack and bore and microtunneling installation methods were considered. Upon evaluation of geotechnical boring logs at the proposed crossing, it is advised to use open-cut methods.

6. *Provide a safety review of the project and as it relates to the proposed design exception/waiver. All Design Exceptions must have a Safety Review and Crash Analysis.*

The proposed exception/waiver involves using open cut methods that will necessitate closing one lane of traffic at a time. Triton barriers will be used to shield traffic from the open cut construction operations in accordance with DOTD TTC-00 (A,B,C,D), TTC-02, and TTC-04. Spacing of traffic control devices, signs, and channelizing devices are in accordance with these traffic control sheets and the Manual on Uniform Traffic Control Devices 2009 Edition (MUTCD). Flaggers with two-way radio communications will be employed 24/7 during construction operations that require lane closures. Light plants will be operational at night at both flagging locations and the project site to ensure nighttime visibility. Following the open cut and casing pipe installation, triton barriers will be utilized to shield traffic from the temporary dredge pipeline located within the clear zone. The triton barriers will be installed at a flare rate of 14:1 as specified by the AASHTO Roadside Design Guide, Table 5.9. Following the marsh creation project, the temporary dredge pipeline will be removed, and the casing pipe will be plugged and buried on both ends. Hence, following project completion, the casing pipe will be buried and not located within the clear zone. The road will be returned to its preconstruction state. Therefore the current safety level of the road will be maintained.

7. *Discuss the cost of the project (construction and right of way) and the cost differential between proposed design and a design that would meet guidelines.*

Existing geotechnical conditions prohibit installation of the casing pipe via jack and bore and microtunneling methods. Due to sandy conditions as well as proximity to the Gulf of Mexico, jack and bore and microtunneling methods are not advised by our consulting geotechnical engineer. The proposed method of casing pipe installation via open cut would mitigate these issues, and allow the casing pipe to be installed without potentially disrupting the adjacent fiber optic line.

8. *Discuss impacts other than costs of bringing the features up to standard (such as impacts to other design features, the natural and built environment, historical features, construction issues, social concerns, reduction of design life, etc.)*

Not Applicable

9. *Discuss proposed mitigation to address design exception feature, if applicable. Some possible countermeasures may include advisory signs, lighting, guardrail, signing, rumble strips, future work to address design exception, incremental improvement, etc.
See link: [FHWA - Mitigation Strategies for Design Exceptions](#)*

One lane will remain open to traffic at all times during pipe installation. Flaggers will be used 24/7. A triton barrier system will be installed between the two lanes when trenches are open. DOTD standard sheets TTC-00 (A, B, C, D), TTC-02, and TTC-04 will be

153267

Design Exception/Design Waiver Request



utilized. Triton barriers will be used to shield the temporary sediment pipeline and open trench locations north and south of the highway during the restoration project. Upon project completion, the roadway will be restored to pre-construction conditions.

Required Signatures

Prepared By: <i>Vida Carver</i>	Title: <i>Project Manager</i>	Date: <i>12/10/15</i>
------------------------------------	----------------------------------	--------------------------

For District Projects:

Approved By ADA of Engineering: <i>[Signature]</i>	Date: <i>12/10/2015</i>
---	----------------------------

For LPA Projects:

Approved By (LPA Official):	Title:	Date:
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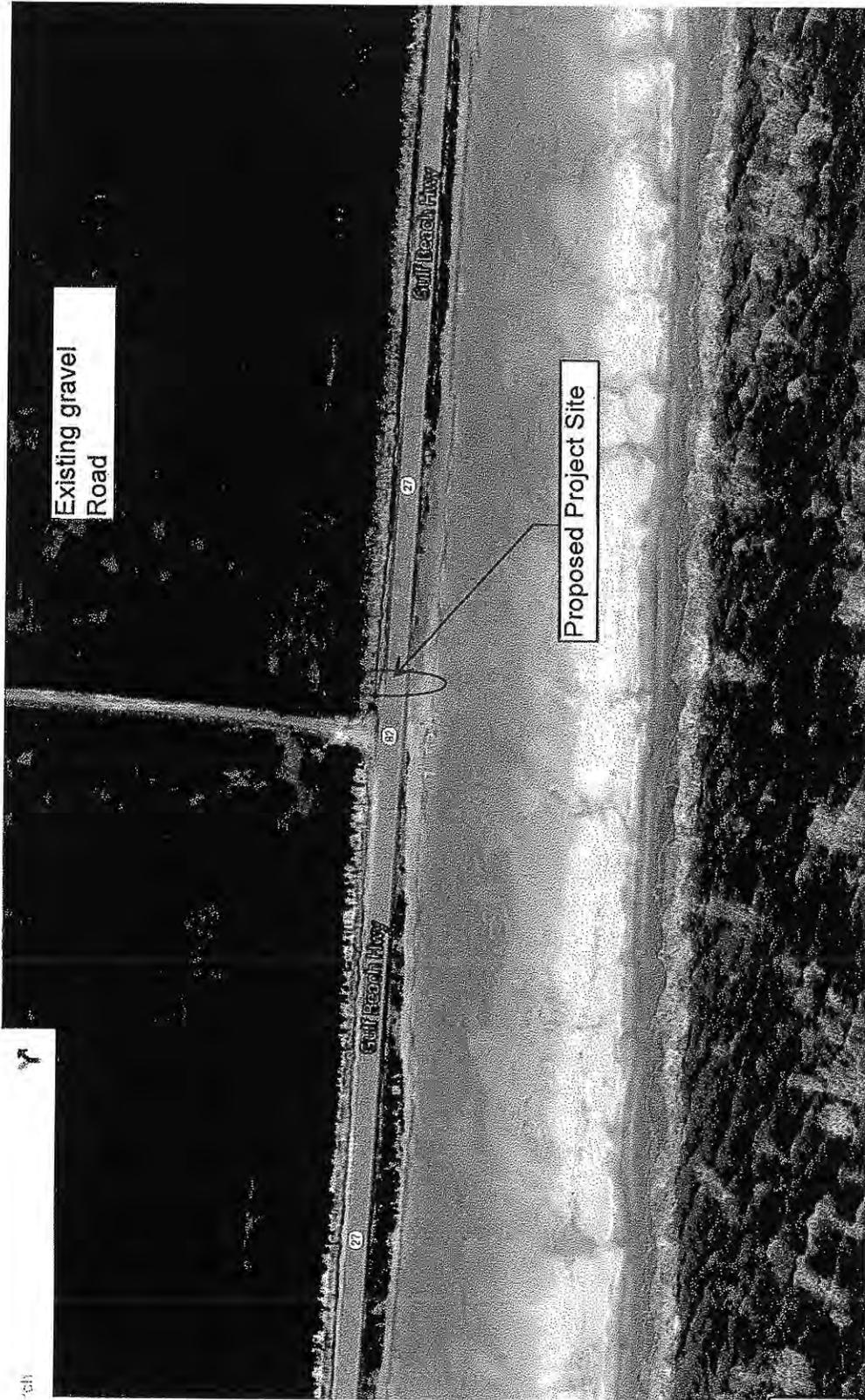
Requested by (DOTD PM):	Reviewed By (DOTD Section Head): <i>Simone Ardoin</i>
Signature:	Signature: <i>Simone Ardoin</i>
Date:	Date: <i>12/22/15</i>
Approved by Chief Engineer:	Approved by FHWA (Oversight Projects):
Signature: <i>Tance P Williams</i>	Signature:
Date: <i>1-4-16</i>	Date:

N ↑

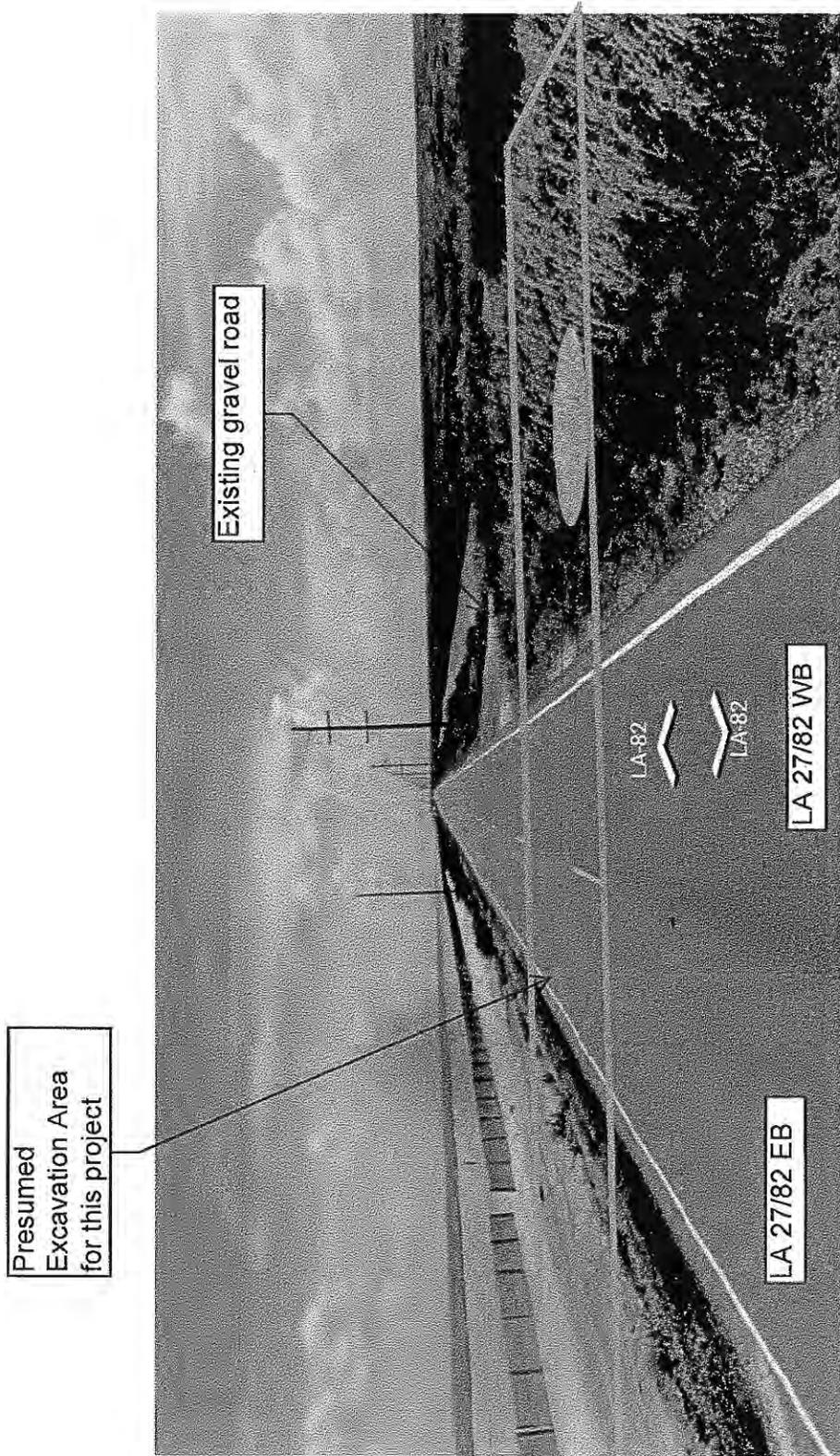
153267

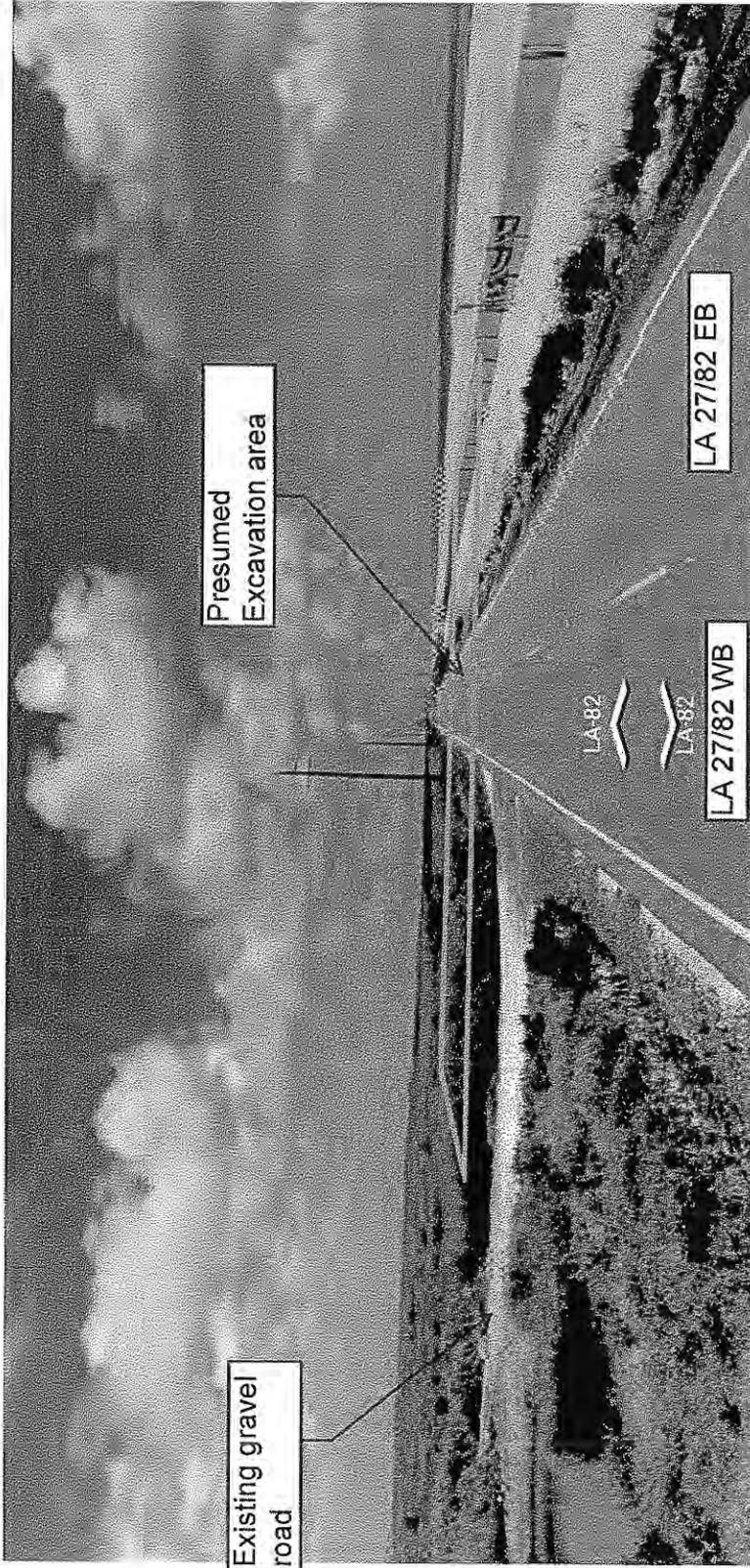


Proposed Project Site



7





Presumed
Excavation area

Existing gravel
road

LA-82

LA-82

LA 27/82 EB

LA 27/82 WB

Beyong Lim

From: Vida Carver
Sent: Wednesday, December 16, 2015 2:36 PM
To: Beyong Lim
Cc: Pat Landry (DOTD); Roger Moses; Simone Ardoin; Darrell Deville; Dawnyale Young; David S. Smith (DOTD - Section 24)
Subject: RE: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish
Attachments: Oyster Bayou DE Waiver signature 12.16.15.pdf

Beyong,

As requested, I have attached a signed DE Waiver form. CPRA has no objections to the 3 conditions mentioned below. We will be sure to invite Pat Landry and the District 07 Permit Project Manager to our preconstruction conference.

Thank you,



Vida S. Carver, P.E.
Project Management

Coastal Protection and Restoration Authority
 225.342.2799 (office)
Vida.Carver@la.gov

From: Beyong Lim
Sent: Wednesday, December 16, 2015 11:30 AM
To: Vida Carver
Cc: Pat Landry (DOTD); Roger Moses; Simone Ardoin; Darrell Deville; Dawnyale Young; David S. Smith (DOTD - Section 24)
Subject: FW: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Please see our District 07 ADA (Mr. Pat Landry) email below.
 As you see his email, there were two issues as following:

1. signature required from you (or your engineer) in page 6 of Design Exception (DE) Waiver form attached.
2. conditions are required below:
 - *A preconstruction conference is required.*
 - *A Permit Project Manager will be assigned by District 07 to inspect and coordinate the work performed with other activities in the area.*
 - *All concrete cross drain pipe shall be plugged and backfilled over the ends to the satisfaction of District 07.*

Regarding the 1st issue above, please email me a scanned copy of the page 6 of DE waiver form with your signature. Regarding the 2nd issue, it may work for us if you indicate by emailing me that you agree with the three conditions required.

As those two issues are resolved, I will request a final approval from DOTD Chief Engineer with HQ Road Design Administrator to complete this permit process.

Thanks,

1 5 3 2 6 7

Beyong Lim, P.E.
ROW Permits Engineer in LA DOTD

1201 Capitol Access Road, S-627
Baton Rouge, LA 70804-9245
Office: 225.379.1927, Fax: 225.379.1351
Beyong.Lim@LA.GOV

From: Vida Carver
Sent: Wednesday, December 16, 2015 11:08 AM
To: Beyong Lim
Subject: RE: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Beyong,

Do you have an update on this permit request?

Thank you,



Vida S. Carver, P.E.
Project Management

Coastal Protection and Restoration Authority
225.342.2799 (office)
Vida.Carver@la.gov

From: Pat Landry (DOTD)
Sent: Tuesday, December 15, 2015 4:43 PM
To: Beyong Lim; David S. Smith (DOTD - Section 24)
Cc: Roger Moses; Dawnyale Young; Simone Ardoin; Darrell Deville
Subject: RE: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Beyong,

The DE/DW Request has not been signed by the preparer. Have the "Prepared By" signature obtained and sent to me so that I may sign the document.

The district has no concerns with the concrete cross drain pipe plugging. The concrete cross drain will be plugged to District 07's satisfaction.

The following conditions are required:

- A preconstruction conference is required.
- A Permit Project Manager will be assigned by District 07 to inspect and coordinate the work performed with other activities in the area.

- All concrete cross drain pipe shall be plugged and backfilled over the ends to the satisfaction of District 07.

1 5 3 2 6 7

Thanks,



LADOTD Patrick J. Landry, PE, PLS
District 07 ADA-Engineering
Office (337) 437-9103 / 1-800-752-6706 / 07-103
Fax (337) 437-9260 / 07-260 Cell (337) 794-5711

From: Beyong Lim
Sent: Wednesday, December 09, 2015 2:14 PM
To: David S. Smith (DOTD - Section 24); Pat Landry (DOTD)
Cc: Roger Moses; Dawnyale Young; Simone Ardoin
Subject: FW: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

David,
Thanks for your response below.
I will check with District 07 regarding the "Minimal" drainage issue.
Best,

Pat,
As you see David's email below, he has no further comments regarding CPRA's responses and the revised Design Exception (DE) attached except concerning the "minimal" drainage (please see the yellow highlight below). Based on his suggestion, I would like to ensure that your District is not concerned with this issue. Please advise.

Also, please sign in page 6 of the DE attached and email me the scanned copy of this signature page if you have no further issue.
Once I get your signature, I will request an approval from Chief engineer including Simone regarding this Design Exception request.
Thanks,

Beyong Lim, P.E.
ROW Permits Engineer in LA DOTD

1201 Capitol Access Road, S-627
Baton Rouge, LA 70804-9245
Office: 225.379.1927, Fax: 225.379.1351
Beyong.Lim@LA.GOV

From: David S. Smith (DOTD - Section 24)
Sent: Wednesday, December 09, 2015 1:08 PM
To: Beyong Lim
Subject: RE: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

I have no further comments on the DE form.

Beyong Lim

From: David S. Smith (DOTD - Section 24)
Sent: Wednesday, December 09, 2015 1:08 PM
To: Beyong Lim
Subject: RE: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

I have no further comments on the DE form.

Concerning the "minimal" drainage that will be allowed through the pipe post-construction, I do not see how this will not eventually generate a void at the pipe end(s) after they are buried. I suggest that you make sure that the District is not concerned with this issue.

Thanks,
 David

From: Beyong Lim
Sent: Wednesday, December 09, 2015 9:00 AM
To: David S. Smith (DOTD - Section 24)
Subject: FW: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Good morning David,

As you see Vida's email below, CPRS seemed to provide their responses regarding your comments (Please note that your comments can be shown in the very bottom of the chain of this email).

Please review these response and advise if they addressed correctly your comments.

Thanks,

Beyong Lim, P.E.
 ROW Permits Engineer in LA DOTD

1201 Capitol Access Road, S-627
 Baton Rouge, LA 70804-9245
 Office: 225.379.1927, Fax: 225.379.1351
Beyong.Lim@LA.GOV

From: Vida Carver
Sent: Wednesday, December 09, 2015 8:45 AM
To: Beyong Lim
Cc: David S. Smith (DOTD - Section 24); Pat Landry (DOTD); Mark Chenevert; Simone Ardoin; Mitra Hashemieh; Roger Moses; Dawnyle Young; Kodi Guillory; 'whitney.thompson@cbi.com'; 'Paul, Christopher (christopher.paul@cbi.com)'; 'John D. Foret - NOAA/NMFS/SEFSC/EHCFC (john.foret@noaa.gov)'
Subject: RE: CPRA's Proejct Permit Reqeust with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Hi Beyong,

I have attached the responses to the latest comments and the final version of the design waiver. Please let me know if you need any more information.

1 5 3 2 6 7

Thank you,



Vida S. Carver, P.E.
Project Management

Coastal Protection and Restoration Authority
225.342.2799 (office)
Vida.Carver@la.gov

From: Beyong Lim

Sent: Monday, November 23, 2015 10:11 AM

To: Vida Carver

Cc: David S. Smith (DOTD - Section 24); Pat Landry (DOTD); Mark Chenevert; Simone Ardoin; Mitra Hashemieh; Roger Moses; Dawnyale Young; Kodi Guillory; 'whitney.thompson@cbl.com'; 'Paul, Christopher (christopher.paul@cbl.com)'

Subject: FW: CPRA's Project Permit Request with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Vida,

Mr. David Smith (HQ Assistant Road Design Administrator) provided his comments below regarding the above captioned permit request (in particular, the design exception/waiver request).

Please provide your responses to his comments.

Thanks,

Beyong Lim, P.E.

ROW Permits Engineer in LA DOTD

1201 Capitol Access Road, S-627

Baton Rouge, LA 70804-9245

Office: 225.379.1927, Fax: 225.379.1351

Beyong.Lim@LA.GOV

From: David S. Smith (DOTD - Section 24)

Sent: Monday, November 23, 2015 9:37 AM

To: Beyong Lim

Cc: Simone Ardoin; Mark Chenevert

Subject: RE: CPRA's Project Permit Request with Design Waiver regarding Open-Cut Installation for 51" Concrete Pipe under LA 27/82 at Cameron Parish

Beyong,

Below are a few suggestions for the proposed Design Exception/Design Waiver Request Form prepared by CPRA and/or their consultant CB&I:

Page 1

- Include the correct Control Section(s) for the route(s) as well as the specific location (log mile).
- The Description of Work should state that this is a permit project and that CPRA is the project owner.
- Normally, pipes are "plugged" and catch basins are "capped". For the purposes of this project, I suggest that the term "plugged" be used throughout.

- It is stated that the permanent concrete casing pipe will be capped and buried at the conclusion of the project. It is also stated that a minimal amount of water will be allowed to flow through the pipe once the project is completed. These two statements seem to conflict. If the intent is to plug and bury the pipe, then this should be clearly stated. If water will be allowed through the pipe once construction is completed, then the pipe ends will be exposed (within the clear zone) and a design exception will be required to allow this condition OR the permanent concrete casing pipe must be extended to the clear zone.

Page 2

- The Route and Design Classification for this roadway is Rural Collector 3.
- Include ADT and D,K,T under the Traffic Section. This information can be provided by the Planning Section.
- Under the Work Classification section, the System should be non-NHS.
- Select the applicable design exception/waiver criteria (if applicable) (see comment concerning clear zone above).

Page 4

- Item 6 requires some level of a safety analysis. The proposed exception/waiver is to use open cut methods, which will necessitate closing lanes of traffic and providing flagging operations. This section should be used to discuss safety concerns and mitigation associated with this type of work.
- Item 7 should include the cost difference between the proposed open cut method and other methods, such as jack/bore. Since jack/bore method is not practical as detailed in the geotechnical investigation, other methods (such as on-site diversion) should be discussed, with the various costs compared (construction servitude costs, utility relocation costs, construction costs, wetland permitting, constructability in marshy area, etc.). Is it possible that the jack/bore may work but is cost prohibitive due to location of adjacent utilities and/or soil conditions? If so, then this should be clearly stated with costs identified. This section should make it clear that open cut is really the only practical method of construction.

I am available if you have any other questions.

Thanks,

David

379-1348



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

153267
RECEIVED

2015 AUG 10 P 1:46

CPRA

REPLY TO
ATTENTION OF
Operations Division
Western Evaluation Section

AUG 03 2015

SUBJECT: MVN-2012-01709-WPP

Coastal Protection and Restoration Authority
450 Laurel Street, Suite 1200
Baton Rouge, Louisiana 70801

Dear Gentlemen:

The proposed work, to dredge and fill for implementing the Oyster Bayou Marsh Restoration Project (CS-59), in Cameron Parish, Louisiana, as shown on the attached drawings, is authorized under **Category II** of the **Programmatic General Permit** provided that all conditions of the permit are met.

The following special conditions are made part of this authorization:

1. This permit does not authorize the conversion of wetlands to uplands, or impacts to existing aquatic resources.
2. 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 authorized activities with local floodplain ordinances, regulations or permits.
3. 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.

4. If the authorized project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.
5. That structures will not be placed across any state-owned water bottoms without approval of the Louisiana Office of Administration, State Lands Office. The permittee will be responsible for contacting the State Lands Office to ascertain if the structure will be placed over state-owned water bottoms.
6. The (attached) Standard Manatee Conditions for In-Water Activities are hereby made a part of this authorization.
7. Equipment access shall be through open water and limited to within the marsh creation areas and pipeline and equipment corridors shown on the permit drawings.

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 and a water quality certification from the Louisiana Department of Environmental Quality.

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 Johnny Duplantis of this office at (504) 862-2548.

Sincerely,

Darrell S. Barbara

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 made 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 US 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.

CEMVN-PGP

SPECIAL CONDITIONS

16 May 2013

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 CEMVN-PGP authorization will be revoked if it is determined that cultural resources would be adversely affected, and an individual permit may be necessary.
3. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and CEMVN. CEMVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
4. 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.
5. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to block or impound water.
6. If the proposed 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 Springs, Maryland 20910-3282.

7. For pipelines under an anchorage or a designated fairway in the Gulf of Mexico the following is applicable:

The National Ocean Service 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 Springs, Maryland 20910-3282. The plans must include the location, configuration and actual burial depth of the completed pipeline project.

8. If the proposed 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 a federally maintained 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 (504) 671-2112.

9. 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.

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

11. 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.

12. 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.

13. The Corps of Engineers may suspend, modify, or revoke this general permit if it is found in

the public interest to do so.

14. 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 CEMVN-PGP.

15. 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.

16. 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.

17. 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.

18. 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.

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

20. 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 CEMVN-PGP may include special conditions deemed necessary to ensure minimal impact and compliance with CEMVN-PGP.

21. CEMVN-PGP is subject to periodic formal review by CEMVN 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.

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

23. 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.

24. 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 26 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.

25. 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.

26. 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 owners agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.

27. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.

28. 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.

29. 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.



1 5 3 2 6 7

Bobby Jindal
GOVERNOR

Kathy H. Kliebert
SECRETARY

State of Louisiana
Department of Health and Hospitals
Office of Public Health

October 8, 2015

Attn: CB&I
Ms. Whitney C. Thompson, P.E.
4171 Essen Lane
Baton Rouge, LA 70809

Coastal Protection and Restoration Authority
Ms. Vida Carver, P.E.
P.O. Box 44027
Baton Rouge, LA 70804

Cameron Parish Waterworks Dist. 10
Mr. Mark Young
6246 Gulf Beach Hwy
Johnson Bayou, LA 70631

Re: Cameron Parish Waterworks Dist. 10, PWS ID# LA 1023005
- Oyster Bayou Marsh Restoration Project (CS-59) (Proposed Waterline Relocation at LA Highway 27/82), lower approximately 60' section of 10" water line by 3'
Cameron Parish
P-15-05-023-007

Dear Applicant:

Plans and specifications of the above named project have been reviewed and found to be in substantial conformity with applicable provisions of the Sanitary Code.

This permit refers to the sanitary features of the design only, and is not to be taken as an approval of structural details, except insofar as they may affect sanitation.

This permit is given with the stipulation that the distribution system and its improvements, will be owned, operated, and maintained by Cameron Parish Waterworks Dist. 10, (PWS1023005), 6246 Gulf Beach Hwy, Johnson Bayou, LA 70631.

The plans and specifications are being sent to the Cameron Parish Health Unit.

1 5 3 2 6 7

Re: Cameron Parish Waterworks Dist. 10, PWS ID# LA 1023005
- Oyster Bayou Marsh Restoration Project (CS-59) (Proposed Waterline Relocation at LA Highway 27/82), lower approximately 60' section of 10" water line by 3'
Cameron Parish
P-15-05-023-007
Page 2

This permit is automatically canceled if construction of the project has not been started within two (2) years after the date of this letter.

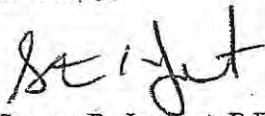
After construction is completed, the responsible party for the design of the project shall submit a Confirmation Letter to this office certifying that the project was constructed in accordance with the plans and specifications approved by this office. As of February 1, 2007 this Confirmation Letter shall be required prior to occupancy.

If construction commences before a permit is granted, a Notice of Violation will be issued for the project. A letter of "no objection" will not be issued on any pre-constructed project unless the project fully complies with the requirements of the Sanitary Code.

In the event that it is determined at some point in the future that a design error escaped our detection during our review of these plans and specifications, that oversight shall not relieve you, the applicant, of the responsibility for complete compliance with the applicable requirements of the Louisiana Administrative Code [particularly, LAC 51 (Public Health Sanitary Code) and LAC 48 (Public Health - General), specifically including correcting the violations inadvertently overlooked.

At the direction of the State Health Officer,

Sincerely,



Steven R. Joubert, P.E.
Region V Engineering

cc: Jennifer Kihlken, P.E., District III Engineer
Dane Thibodeaux, Region V Sanitarian Director
Ryan King, Cameron Parish Sanitarian Manager



DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487
(225)342-7591
1-800-267-4019

153267

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No.: P20150158
C.O.E. No.: MVN- 2012- 01709- WPP
NAME: COASTAL PROTECTION AND RESTORATION AUTHORITY
c/o COASTAL PROTECTION AND RESTORATION AUTHORITY
P.O. BOX 44027, CAPITAL STATION
BATON ROUGE, LA 70804
Attn: Sydney Dobson

LOCATION: Cameron Parish, LA
Oyster Bayou Marsh Restoration (CS-59) @ Lat. 29° 46' 38.00"N, Long. -93° 24' 14.00"W; Section 4-17
T14S R10W; Holly Beach

DESCRIPTION: Proposed construction of ±458 acres of saline marsh and ±17,550 linear feet of earthen terraces for the CPRA Project: Oyster Bayou Marsh Restoration (CS-59). Approx. 3,974,700 cy. of native material will be excavated and approx. 2,654,100 cy. of the excavated material (1.5:1 ratio) will be placed on-site for construction of marsh, containment dikes, and terraces. Approx. 211 cy. of native material will be removed at the LA 27/82 crossing during discharge pipe installation. Approx. 168 cy. of crushed stone/gravel and 37 cy. of top soil will be required to re-construct the LA/82 upon the completion of the discharge pipeline installation.

In accordance with the rules and regulations of the Louisiana Coastal Resources Program and Louisiana R.S. 49, Sections 214.21 to 214.41, the State and Local Coastal Resources Management Act of 1978, as amended, the permittee agrees to:

1. Carry out, perform, and/or operate the use in accordance with the permit conditions, plans and specifications approved by the Department of Natural Resources.
2. Comply with any permit conditions imposed by the Department of Natural Resources.
3. Adjust, alter or remove any structure or other physical evidence of the permitted use if, in the opinion of the Department of Natural Resources, it proves to be beyond the scope of the use as approved or is abandoned.
4. Provide, if required by the Department of Natural Resources, an acceptable surety bond in an appropriate amount to ensure adjustment, alteration, or removal should the Department of Natural Resources determine it necessary.
5. Hold and save the State of Louisiana, the local government, the department, and their officers and employees harmless from any damage to persons or property which might result from the use, including the work, activity, or structure permitted.
6. Certify that the use has been completed in an acceptable and satisfactory manner and in accordance with the plans and specifications approved by the Department of Natural Resources. The Department of Natural Resources may, when appropriate, require such certification to be given by a registered professional engineer.
7. All terms of the permit shall be subject to all applicable federal and state laws and regulations.
8. This permit, or a copy thereof, shall be available for inspection at the site of work at all times during operations.
9. The applicant will notify the Office of Coastal Management of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Office of Coastal Management by mailing the enclosed green initiation card on the date of initiation of the coastal use.
10. Unless specified elsewhere in this permit, this permit authorizes the initiation of the coastal use described under "Coastal Use Description" for two years from the date of the signature of the Secretary or his designee. If the coastal use is not initiated within this two year period, then this permit will expire and the applicant will be required to submit a new application. Initiation of the coastal use, for the purposes of this permit, means the actual physical beginning of the use of activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the coastal use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, the permittee must, in good faith, and with due diligence, reasonably progress toward completion of the project once the coastal use has been initiated.
11. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:
 - a. This permit does not convey any property rights, mineral rights, or exclusive privileges; nor does it authorize injury to property.
 - b. Benefits to offset impacts are based on the proposed creation of marsh achieving 80% vegetative coverage and



fisheries access re-established by year 3 of the project life, and shall be determined after the third full growing season (March 1 to November 1) following the completion of permitted activities. This assessment shall include both primary impacts and secondary impacts which may result from the permitted activities.

Permittee shall notify OCM of the date of completion of permitted activities within 5 working days of completion.

Should the permitted project not provide the anticipated benefits, OCM may determine that compensatory mitigation is required, permittee shall submit a compensatory mitigation plan for approval within 30 days of notification of the compensatory mitigation requirements by OCM. All necessary approvals shall be obtained for the compensatory mitigation plan and the plan shall be implemented as directed by OCM. Permittee should be aware that compensatory mitigation projects may be required to be maintained for as many as 20 years for marsh mitigation projects and 50 years for forested wetland mitigation projects. A processing fee will be assessed for the determination of compensatory mitigation requirements and evaluation of the proposed compensatory mitigation plan in accordance with LAC Title 43, Part I, Chapter 7, §724.D. This fee shall apply regardless of which compensatory mitigation option is selected and does not include the cost incurred to implement the required compensatory mitigation.

- c. All equipment utilized to perform activities authorized under this permit shall stay within the access routes and work areas designated on the permit plats utilizing the least damaging route and/or open water areas.

d. Louisiana Natural Heritage Program

The piping plover (*Charadrius melodus*) may occur within one mile of the project area. This species is federally listed as threatened with its critical habitat designated along the Louisiana coast. Piping plovers winter in Louisiana feeding at intertidal beaches, mudflats, and sand flats with sparse emergent vegetation. Primary threats to this species are destruction and degradation of winter habitat, habitat alteration through shoreline erosion, woody species encroachment of lake shorelines and riverbanks, and human disturbance of foraging birds. For more information on piping plover critical habitat, visit the U.S. Fish and Wildlife website: <http://endangered.fws.gov>.

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project.

The Louisiana Natural Heritage Program (LNHP) reports summarize the existing information known at the time of the request regarding the location in question. LNHP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time LNHP tracked species are encountered within the project area, please contact our biologist at 225-765-2643.

- e. All structures built under the authorization and conditions of this permit shall be removed from the site within 120 days of abandonment of the facilities for the herein permitted use, or when these structures fall into a state of disrepair such that they can no longer function as intended. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities.
- f. All fill material shall be clean and free of contaminants and shall not contain hazardous materials such as asbestos or asbestos residue, shingles, tires, oil/grease residue, exposed rebar, protruding objects, etc.
- g. All logs, stumps and other debris encountered during dredging activities shall be removed from the site during or immediately after the activity and disposed of in accordance with all applicable laws and regulations.
- h. That permittee shall insure that all sanitary sewage and/or related domestic wastes generated during the subject project activity and at the site, thereafter, as may become necessary shall receive the equivalent of secondary treatment (30 mg/l BOD5) with disinfection prior to discharge into any of the streams or adjacent waters of the area or,

1 5 3 2 6 7



in the case of total containment, shall be disposed of in approved sewerage and sewage treatment facilities, as is required by the State Sanitary Code. Such opinion as may be served by those comments offered herein shall not be construed to suffice as any more formal approval(s) which may be required of possible sanitary details (i.e. provisions) scheduled to be associated with the subject activity. Such shall generally require that appropriate plans and specifications be submitted to the Department of Health and Hospitals for purpose of review and approval prior to any utilization of such provisions.

- i. Structures must be marked/lighted in accordance with U. S. Coast Guard regulations.
- j. As-built drawings and/or plats shall have written on them the date of completion of said activities and shall be submitted to the Louisiana Department of Natural Resources, Office of Coastal Management, P.O. Box 44487, Baton Rouge, LA 70804-4487 within 30 days following project completion.
- k. Permittee is subject to all applicable state laws related to damages which are demonstrated to have been caused by this action.
- l. Permittee shall allow representatives of the Office of Coastal Management or authorized agents to make periodic, unannounced inspections to assure the activity being performed is in accordance with the conditions of this permit.
- m. Permittee shall comply with all applicable state laws regarding the need to contact the Louisiana One Call (LOC) system (1-800-272-3020) to locate any buried cables and pipelines.
- n. This permit authorizes the initiation of the Coastal Use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee. Initiation of the Coastal Use, for purposes of this permit, means the actual physical beginning of the use or activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated. If the Coastal Use is not initiated within this two (2) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (Title 43:1.723.D.). Please note that a request for permit extension MUST be made no sooner than one hundred eighty (180) days and no later than sixty (60) days prior to the expiration of the permit.

The expiration date of this permit is five (5) years from the date of the signature of the Secretary or his designee. If the Coastal Use is not completed within this five (5) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (LAC 43:1.723(D)).

Upon expiration of this permit, a new Coastal Use Permit will be required for completion of any unfinished or uncommenced work items and for any maintenance activities involving dredging or fill that may become necessary. Other types of maintenance activities may also require a new Coastal Use Permit.

- o. This determination does not eliminate the need to obtain a permit from the United States Army, Corps of Engineers or any other Federal, state or local approval that may be required by law. The drawings submitted with your referenced application are attached hereto and made a part of the record.

***** End of Conditions *****

Page: 4 of 5
C.U.P. No.: P20150158
C.O.E. No.: MVN-2012-01709-WPP

153267



By accepting this permit the applicant agrees to its terms and conditions.
I affix my signature and issue this permit this 10th day of June, 2015.

THE DEPARTMENT OF NATURAL RESOURCES

A handwritten signature in cursive script that reads "Karl L. Morgan".

Karl L. Morgan, Administrator
Office of Coastal Management

This agreement becomes binding when signed by Administrator of
the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments

Page: 5 of 5
C.U.P. No.: P20150158
C.O.E. No.: MVN-2012-01709-WPP

153267



Final Plats:

1) P20150158 Final Plats 05/20/2015

cc: Martin Mayer, COE w/attachments
Dave Butler, LDWF w/attachments
Lynn Hohensee, WCalcP w/attachments
Ernest Broussard, WCamPC w/attachments
Channing Hayden, Jr., PortLC w/attachments
Clair Hebert, Other w/attachments
Stephen Broussard, LED w/attachments
Jessica Diez, OCM w/attachments
Kaili Mills, OCM/FI w/attachments
Cameron Parish w/attachments

COASTAL PROTECTION AND RESTORATION AUTHORITY w/attachments

RECEIVED

MAY 04 2015 153267

POLICE JURY

PARISH OF CAMERON

P.O. BOX 1280
CAMERON, LOUISIANA 70631

(337) 775-5718
(337) 775-5567 Fax
www.parishofcameron.net

DISTRICT 1
CURTIS FOUNTAIN

DISTRICT 2
ANTHONY HICKS

DISTRICT 3
KIRK QUINN

DISTRICT 4
TERRY BEARD

DISTRICT 5
KIRK BURLEIGH

DISTRICT 6
JOE DUPONT

DISTRICT 7
DARRYL FAROUÉ

KIRK QUINN
PRESIDENT
CURTIS FOUNTAIN
VICE PRESIDENT
RYAN BOURRIQUE
ADMINISTRATOR
DARRELL WILLIAMS
SECRETARY-TREASURER

April 30, 2015

Coastal Protection and Restoration Authority (CPRA)
Attn: Sydney Dobson
450 Laurel St. Suite 1200
Baton Rouge, LA 70801

CUP: P20150158

Holly Beach, Section 4-17, T15-S T14S, R10W, (proposed Oyster Bayou
Marsh Restoration (CS-59); Approximately 605 acres of marsh habitat will be
restored and 17,550 linear feet of earthen terraces to be constructed),
Cameron Parish, Louisiana.

Dear Ms. Dobson:

This letter is to advise you that the Cameron Parish Police Jury has no objections to
the above captioned permit. You may proceed with the work detailed in your
permit application as long as drainage is not compromised to complete the project.
Please be advised that work cannot commence until all Federal and State permits
have been obtained.

We request that a copy of your permit application and letter of no objection from
the Police Jury be maintained on the job site at all times. Enclosed you will find a
copy of the Cameron Parish Permit Procedures for future reference.

Sincerely,

Kara Bonsall

Kara Bonsall, Coastal Zone Administrator
CAMERON PARISH POLICE JURY

Enclosure (1)

CAMERON PARISH POLICE JURY
P.O. BOX 1280 – 148 Smith Circle, CAMERON, LA 70631
Ph. (337) 775-5718 Fax (337) 775-5535

PERMIT PROCEDURES

The applicant for this permit shall make every effort to employ as many local persons as is reasonably possible for the construction of the project or work for which this permit is requested or given and shall further do all that is reasonably possible to encourage applicant's contractors and subcontractors to hire as many local employees and residents of Cameron Parish in their operations as is feasible.

When submitting a drilling permit to the Cameron Parish Police Jury, the location of the permit should be found by section, township and range. The location should be pictured on a clearly readable map. It should also indicate the type of drilling to be conducted, in e.g.; oil or gas.

A designated road route must be established to any well locations. If the applicant is using a parish road to get to the location a guarantee deposit or bond will be required and the amount will be set by the Parish Road Superintendent and pictures or a video will be made of the road condition prior to work commencing on the location to determine if any road damage occurs.

Seismic permits should include land owners permission, a copy of the program and every line you will shoot along with the line number, line length and a complete sketch of the program on a readable map stating the section, township and range. Include the type of charge to be used, depth of charge and the approximate time work will be completed. If shooting in the lakes or gulf, you must only use airguns or 160' of drilling charges. A lead boat must be present when shooting in the lakes with your company name. Applicants must be careful not to damage oyster beds. If applicants are doing work on land, the work must be done while hunting season is closed. Applicants must stay one mile away from public water wells and towers.

Contact Kara Bonsall for dates and times of the monthly scheduled Police Jury meetings. The Police Jury meetings are held at the West Annex Building located at 148 Smith Circle, Cameron, Louisiana. The permits will be put on the agenda and acted upon at the monthly scheduled meeting. The permits are sent to the various gravity drainage districts for their approval. Letters of no objection will be sent out after the meeting.

If you have any questions you may contact Kara Bonsall Coastal Zone Administrator or Myles Hebert @ (337) 775-5718. His email address is mh_cppj@camtel.net. Her email address is kb_cppj@camtel.net.

FEES:

COASTAL ZONE PERMITS: DREDGING, FILLING, GRADING, PAVING, EXCAVATIONS, BULKHEADS, TRENASSES, MITIGATION, ETC. \$30.00

DRILLING & PIPELINE:	DAMAGING	\$500.00	INLAND
	NON-DAMAGING	\$250.00	OFFSHORE

SEISMIC PERMITS:	PER LINE	\$25.00
	PERFORMANCE OR SURETY BOND	\$150,000

Meeting Minutes

October 19, 2015

10:00 am

DOTD HQ

CPRA meeting with DOTD to discuss "CPRA's Permit Request with Design Waiver regarding Open-Cut Installation for a temporary 30" dredge pipeline with 51" Concrete Casing Pipe within ROW of LA 27/82 at Cameron Parish"

Discussion:

Discussion regarding the pipeline extending from right-of-way to right-of-way

A fiber optic line prevents CPRA from burying the pipeline from right-of-way to right-of-way.

A waiver is needed for the temporary line to exist above ground within the right-of-way.

Barriers

Take into account deflection of the Triton barriers. Guardrails, concrete barriers, or other solutions may be better alternatives.

Updated Drawings

CPRA to submit updated drawings

CPRA to provide a drawing showing the temporary pipeline within the permanent line

Clearance of pipe and roadway

The minimal clearance should not be a concern if you consider the drain as a cross-drain. Maintain 9" from the bottom of base fill to top of pipe. This needs to be explained in the design waiver.



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245



Meeting Sign-in

Subject of Meeting:

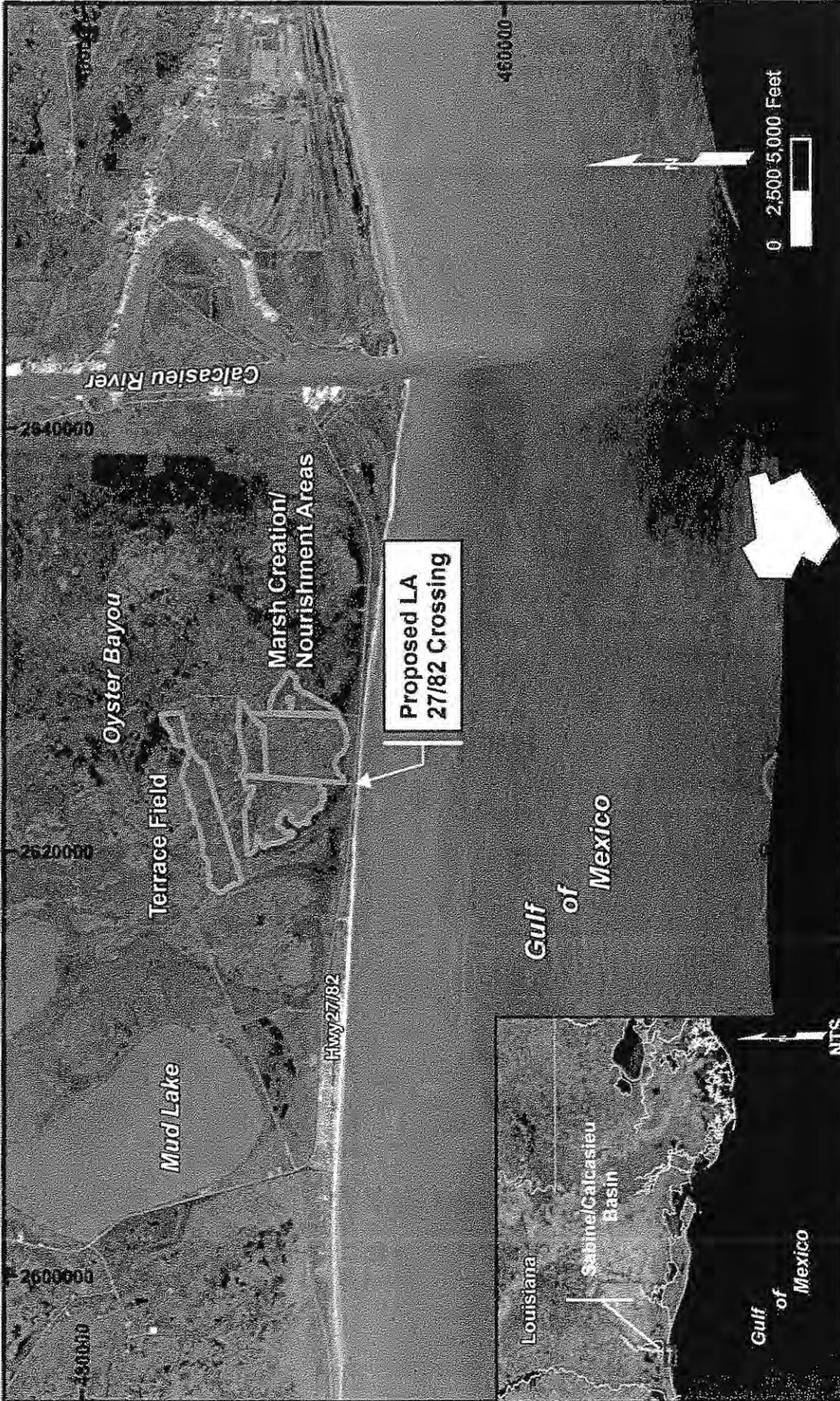
CPRA's Permit Request with Design Waiver regarding Open-Cut Installation for a temporary 30" dredge pipeline with 51" Concrete Casing Pipe within ROW of LA 27/82 at Cameron Parish

Date: 10: 00 AM, Oct. 19, 2015

Name	Agency-Dept-Co	Phone No.	e-mail address
Beyong Lim	HB DOTD	225-379-1927	Beyong.Lim@La.Gov
Pat Landry	OT DOTD	225 -337-437-9103	Pat.Landry@La.Gov (telephone)
VIDA CARVER	CPRA PM	342-2799	vida.carver@la.gov
MARK CHANDLER	HO DOTD	225-379-1591	Mark.Chandler@La.Gov
Kodi Guillory	CPRA - Engineering	906-342-0175	Kodi.guillory@la.gov
David S. Smith	DOTD - Road Design	(225) 379-1348	david.s.smith@la.gov
Simone Ardoin	DOTD/RD.DES	379-1951	simone.ardoin@la.gov
PAT LANDRY	DIST 07 (cell phone)		
Chris Paul	CBF	(225) 472-9926	christopher.paul@cbf.com
Whitney Thompson	CBF	225-932-2568	whitney.thompson@cbf.com
Mitra Hashemieh	HO DOTD	225-379-1482	mitra.hashemieh@la.gov

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ATTACHMENT A



Notes:

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South, North American Datum of 1983 (NAD 83).
2. 2011 background imagery is from Microsoft.

Legend:

-  Oyster Bayou Restoration Project
-  Oyster Bayou Borrow Area

Coastal Planning & Engineering, Inc.
 A CB&I Company
 2481 N. W. Boca Raton Blvd.
 Boca Raton, FL 33431
 Ph. (561) 391-8102
 Fax (561) 391 9116



Title:

Project Overview
Oyster Bayou Marsh Restoration Project CS-59
 Cameron Parish, Louisiana

153267

ATTACHMENT B



CB&I Coastal Planning & Engineering, Inc.
4171 Essen Ln.
Baton Rouge, LA
70809
Tel: +1 225 932 2568
www.CBI.com

October 29, 2015

Roger Moses
Louisiana Department of Transportation and Development
District 07
P.O. Box 1430
Lake Charles, LA 70602

**Subject: Oyster Bayou Marsh Restoration Project (CS-59)
LA Highway 27/82 Crossing Permit Application Revisions**

Dear Roger:

CPRA met with DOTD at the Baton Rouge headquarters on October 19, 2015 to discuss revisions to the Oyster Bayou permit request. Below is a summary of revisions made to the permit application.

1. Design Deflection / Flare Rate of Triton Barriers – The Triton barriers used to shield the temporary dredge pipeline while dredging is underway were redesigned to have a flare rate of 14:1. The 14:1 flare rate is recommended by the 2011 AASHTO Roadside Design Guide (Table 5.9) for semi-rigid barriers with a design speed of 60 MPH. Since the current posted speed of Highway 27/82 is less than the design speed, this flare rate should be adequate to protect the traveling public from the temporary dredge pipeline located within the clear zone. Permit drawings Sheets 3 and 4 were revised to reflect these changes.
2. Create Section and Plan View Showing Temporary Pipeline – The proposed marsh restoration design includes placing the temporary dredge pipeline at grade within the apparent DOTD Right of Way. Sheets 1 and 4 have been revised to show a plan view of where the temporary sediment pipeline will be located at grade, within apparent DOTD Right of Way. Sheet 5 has been revised to show a section view of where the temporary dredge pipeline will be placed at grade. Language has been added to the design exception/waiver request explaining why the crossing does not extend from apparent ROW to apparent ROW.
3. Depth of Cover of Permanent Concrete Casing Pipe – The permanent concrete casing pipe was designed with 36" of cover from the top of the pavement surface to the top of the concrete pipe. This depth of cover is required to allow sufficient space to install the temporary sediment pipeline without disrupting the fiber optic line south of the roadway. Following the completion of the marsh creation project, this permanent concrete casing pipe will act as a cross drain, allowing a small amount of water to flow through. The design of the concrete casing pipe has been conducted in accordance with LAC Title 70 Section 515, LA DOTD Specification Section 701, and the DOTD Hydraulics Manual. The design exception/waiver request has been modified to reflect the design criteria used to determine depth of cover. This depth of cover is shown in the permit drawings.
4. Asphalt Pavement Patch – The asphalt pavement patch was revised to show a 12" pavement patch or match existing. Class II Base course was removed from the design drawings as it is assumed that the asphalt patch will be used to match the existing layers of base course and asphalt wearing course. The pavement patch detail on Sheet 1 has been revised. The depth of the asphalt patch on Sheets 5, 6, and 7 has also been revised.



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5. Maintenance of Traffic Recommendation – A maintenance of traffic section has been added to the specifications as well as to permit drawing sheets 2, 3, and 4. In accordance with DOTD Specification Section 104.03 and Table 104-1, an unauthorized lane closure or late lane opening rental rate of \$250/hour has been included in the construction specifications as Highway 27/82 has an ADT of less than 10,000 vehicles per day.
6. Update Project Scope Within the Design Waiver – Language has been added to the design waiver/exception request form to more adequately define the scope of the project, and to define project specific situations that this design will mitigate.

Please review the attached permit application and design waiver/exception request revisions and contact me should you have any questions. Thank you.

Sincerely,

A handwritten signature in black ink that reads 'Whitney Thompson'.

Whitney C. Thompson, P.E.
Program Manager
CB&I Coastal Planning & Engineering, Inc.

cc: Beyond Lim, P.E., DOTD
Todd Landry, P.E., DOTD
Vida Carver, P.E., CPRA
Kodi Collins, P.E., CPRA
Christopher Paul, E.I., CB&I