STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

LAKE CHAPEAU HYDROLOGIC RESTORATION PROJECT (TE-26) STRUCTURE 3 DEMOLITION TERREBONE PARISH, LA

PROJECT COMPLETION REPORT



Royal Engineers & Consultants, LLC 3909 Ambassador Caffery Parkway, Suite A Lafayette, LA 70503 Tel.: 337.456.5351 Fax.: 337.456.5356



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PROJECT COMPLETION REPORT

PROJECT NAME: Lake Chapeau Hydrologic Restoration Project (TE-26)

Structure 3 Demolition

CWPPRA/State Project No. TE-26

Report Date: 9 May 2012 By: Royal Engineers and Consultants, LLC

1. Project Managers/Contracting Officer

OCPR Construction Project Manager	Shane Triche	Telephone	985-449-5073
Royal Construction Administrator	Beau Tate, P.E.	Telephone	337-456-5351
Royal Construction Inspector	Bryon Richard	Telephone	337-456-5351
Federal Agency Project Manager	Joy Merino	Telephone	337-291-2109

2. Location and Description of Projects as Approved for Construction by OCPR

The Lake Chapeau Hydrologic Restoration and Marsh Creation project is located on Point au Fer Island approximately 30 miles south of Morgan City, Louisiana. The project is bounded by Four League Bay to the northeast, Atchafalaya Bay to the west, Locust Bayou and a network of canals to the south, and Wildcat Bayou to the east. Structure #3 of the Lake Chapeau Project is located along the southwest shoreline of Four League Bay north of Structure #4.

The rock weir structure was originally constructed in 1997 to a finished crown elevation of -4' NAVD. In 2005, maintenance to the existing structure was performed. Additional 250 lbs class riprap was placed on the southern end of the structure, also placed were 4 - 20' long by 8' wide articulated concrete maps.

Damages to the adjacent marsh caused by Hurricanes Gustav and Ike caused a breech in the marsh adjacent to the weir and made the weir in effective. Post storm inspections of the breach at Structure #3 revealed that the breach was now 250' wide and it was determined that the cost to repair the structure would be too great. Therefore it was decided to demolish Structure #3.

Royal Engineers and Consultants was tasked to perform all design engineering, bidding, construction oversight and inspection for the weir degradation of the Lake Chapeau – Structure #3 Demolition Project. The project consisted of the demolition of the existing weir from the -4' NAVD constructed elevation to the -8' elevation and the removal of all articulated concrete mats. Placement of rock during the degradation process was located within the deep holes on the marsh side (south side) of the structure. Any geotextile fabric encountered along with all warning signs and articulated concrete mats were loaded on barges and disposed of offsite.

Post construction surveys were performed by Great Southern Dredging, Inc. to verify the final elevation of the degraded weir.



3. Final As-Built Features, Measurements, Drawings, and Photographs

The project was constructed as described above and was completed on May 13, 2011. For additional information see pictures, pre- and post-construction survey, and as-built schematics.

4. Key Project Cost Elements

Task or Phase	OCPR O&M Project Estimates	Cost Incurred as of July 1, 2011
Construction	\$220,000.00	\$150,000.00
Engineer & Design	\$10,000.00	\$29,601.50
Survey	\$7,000.00	\$6,098.00
Construction Administration	\$6,000.00	\$9,271.72
OCPR Admin	\$5,000.00	\$5,000.00
To	stal \$248,000.00	\$188,872.72

5. Items of Work

	Schedule of Items						
Item No.	Work	Unit	Est. Quan.	OCPR Estimated Amount	Bid Quan.	Bid Unit Price	Bid Amount
Base B	id						
5.1	Mobilization / Demobilization	Lump Sum	1	\$150,000.00	1	\$60,000.00	\$60,000.00
5.2	Weir Degradation	Lump Sum	1	\$70,000.00	1	\$90,000.00	\$90,000.00
OCPR Estimated Amount			\$220,000.00	Original	Base Bid Amount	\$150,000.00	

6. Construction and Construction Oversight

Prime Construction Contractor	Great Southern Dredging Inc.
Subcontractor	N/A
Original Construction Contract	\$150,000.00
Change Orders	\$0.00
Final Construction Amount	\$150,000.00
Construction Oversight	Royal Engineers and Consultants, LLC
Construction Administration Fees to Date	\$9,271.72

7. Major Equipment Used

- (1) 600 hp Tugboat; The MV Drew Griffin
- (1) 120'x40' Spud Barge
- (2) Barge-Mounted Long Reach Excavators (one with thumb)
- (1) Crew Boat



(1) Small Personnel Boat

8. Construction Sequences and Activities, Problems Encountered, Solutions to Problems, Etc.

- May 9, 2011 (1200 hours CDT): Begin *Mobilization* of The MV Drew Griffin tugboat and 120'x40' Spud Barge with (2) Barge-Mounted Long Reach Excavators from the Port Fourchon, Louisiana area to reach jobsite travelling behind Timbalier Island, across Terrebonne Bay, behind Isles Dernieres along the coast and around Point au Fer/North Point, into Locust Bayou to Lake Chapeau.
- May 11, 2011 (0600 hours CDT): Crew and inspector arrive at landing south of Theriot,
 Louisiana near the end of LA Highway 315 to be ferried by boats approximately 30 miles from that point to the jobsite for work day no.1.
- May 11, 2011 (0750 hours CDT): Crew and inspector arrive at jobsite, discussed plans, surveyed location, established baseline, mobilized barge to proper location, established scour location, began degrading existing structure, discussed plans to remove and recover geotextile fabric, discussed plan for executing proper paperwork, removed signage from structure, and established schedule for next day of work.
- May 11, 2011 (1750 hours CDT): Crew and inspector depart jobsite.
- May 11, 2011 (1850 hours CDT): Crew and inspector return to landing for end of work day no.1.
- May 12, 2011 (0600 hours CDT): Crew and inspector arrive at landing for start of work day no.2, discussed job schedule, discussed safety procedures, and mobilized to jobsite via small boat.
- May 12, 2011 (0750 hours CDT): Crew and inspector arrived at jobsite and established work plan, verified depth of previous structure to depth established in plans, discussed proper procedure for removal of rock and mats at bank surface, obtained paperwork, discussed future plan for obtaining paperwork, established plan for final depth confirmations, and established schedule for next day of work.
- May 12, 2011 (1750 hours CDT): Crew and inspector depart jobsite.
- May 12, 2011 (1850 hours CDT): Crew and inspector return to landing for end of work day no.2.



- May 13, 2011 (0600 hours CDT): Crew and inspector arrive at landing for start of work day no.3, discussed job schedule, discussed safety procedures, and mobilized to jobsite via small boat.
- May 13, 2011 (0700 hours CDT): Crew and inspector arrive at jobsite, established work plan, confirmed work from previous day, discussed plan for verifying depths achieved, lined out grids, obtained exact depth measurements in 25' increments both adjacent to and across entire location, performed Davis Bacon Interviews, received and reviewed final paperwork.
- May 13, 2011 (1100 hours CDT): Begin <u>Demobilization</u> of all crew, inspector, and equipment from jobsite.

9. Construction Change Orders and Field Changes

No change orders or field orders occurred

10. Pipeline and Other Utility Crossings:

Quantity	Type of Structure	Owner	Rep. To Contact
0	NONE	NONE	NONE

11. Safety and Accidents

There were no accidents reported during the TE-26 Structure 3 Demolition Project.

12. Lessons Learned from Completed Project and Additional Comments Pertaining to Design and Construction

1. Issue: Tidal Flow and Currents

<u>Discussion</u>: Tidal flow and currents were significant at the structure. This required soundings to be performed by attaching a heavy anchor dead weight to the end of the sounding line in order to maintain a plumb, vertical positioned sounding line for accurate depth readings.

2. <u>Issue</u>: Backup Reserve Crew Transportation Vessel

<u>Discussion</u>: A backup plan for crew transportation should be pre-arranged prior to mobilization in case the primary crew transportation boat fails. This could save time during construction and/or emergency situations if the primary boat cannot be used.



13. Significant Construction Dates:

<u>Action</u>	<u>Date</u>
Bid Opening	March 17, 2011
Construction Contract	April 27, 2011
Preconstruction Conference	April 26, 2011
Notice to Proceed	April 27, 2011
Mobilization	May 9, 2011
Construction Start	May 11, 2011
Construction Completion	May 13, 2011
Final Acceptance	June 24, 2011

14. Other Significant Project Dates:

<u>Action</u>	<u>Date</u>
Great Southern Dredging Invoice/survey received	June 17, 2011

APPENDIX A PROJECT PERMITS

BOBBY JINDAL GOVERNOR



ROBERT D. HARPER SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL MANAGEMENT

July 30, 2010

Richard Hartman NOAA National Marine Fisheries Service Louisiana Stat Universit6 Baton Rouge, Louisiana 70803

RE: C19970313, Coastal Zone Consistency Modification 4

National Marine Fisheries Service

Direct Federal Action

Lake Chapeau Marsh Creation and Hydrologic Restoration CWPPRA Project TE-26; modification to lower the existing rock-weir at Site #3, with deposition of the removed rock for an adjacent scour pad, Terrebonne Parish, Louisiana

Dear Mr. Hartman:

The above referenced modification has been reviewed for consistency with the approved Louisiana Coastal Resources Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The modification, as proposed in the application, is consistent with the LCRP.

If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225)342-7939 or 1-800-267-4019.

Sincerely yours,

Gregory J. DuCot
Administrator

Interagency Affairs/Field Services Division

GJD/JH/bgm

cc: Pete Serio, COE-NOD

Ralph Libersat, Royal Engineering

Dave Burkholder, OCPR Rod Pierce, CMD FI Dave Butler, LDWF

James Miller, Terrebonne Parish



DEPARTMENT OF THE ARMY

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

AUG 1 9 2010

REPLY TO ATTENTION OF Operations Division Western Evaluation Section

SUBJECT: MVN-1997-04707-WOO

National Marine Fisheries Service c/o Louisiana State University (Richard Hartman) Baton Rouge, LA 70803

Gentlemen:

The proposed work, consisting of removing an existing rock weir and placing it at an adjacent area as a scour bed, for the Lake Chapeau Marsh Creation and Hydrologic Restoration (TE-26) project, in Four League Lake, in Terrebonne Parish, as shown on the enclosed drawings, is authorized under Category I of the Programmatic General Permit provided that all conditions of the permit are met.

This authorization has a blanket water quality certification from the Louisiana Department of Environmental Quality (DEQ), Office of Water Resources. As such, no additional authorization from DEQ is required.

Prior to commencement of work, you must obtain approvals from state and local agencies as required by law and the terms of this permit. These approvals include, but are not limited to, a permit or waiver from the Coastal Management Division of the Louisiana Department of Natural Resources.

If the work is **initiated within two (2) years** of the date of this letter, the authorization remains **valid** for a total of **five (5) years** from the date of this letter. If the work is not initiated within two (2) years, this authorization becomes null and void.

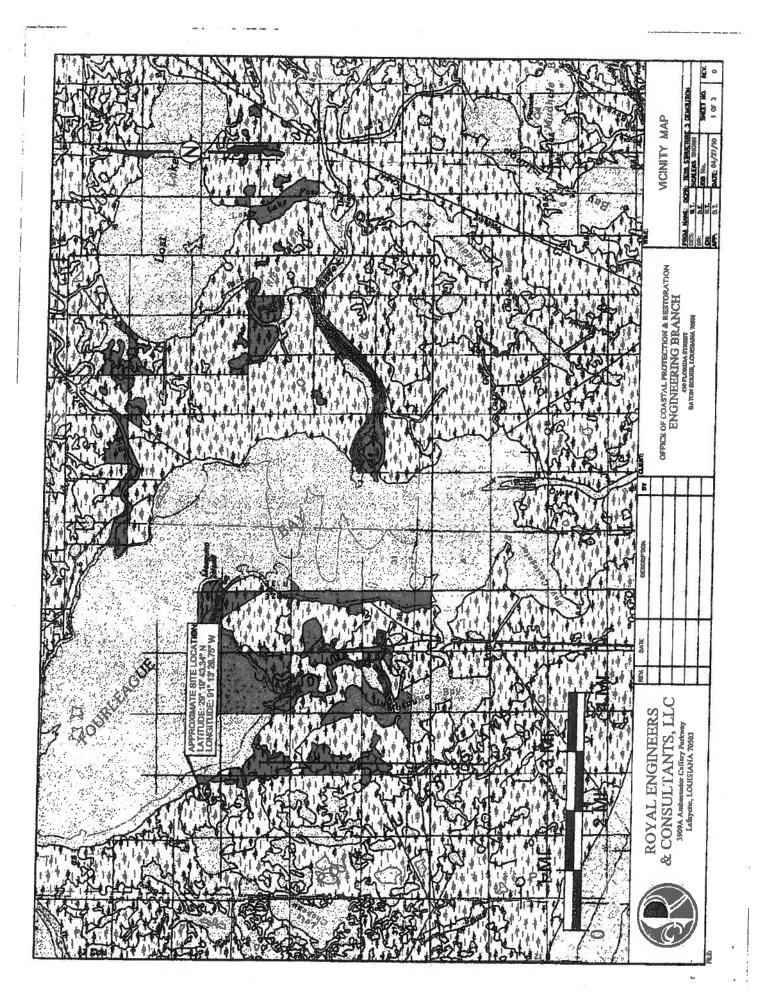
Should you have any further questions concerning this matter, please contact Mr. Donald Rodrigue of this office at (504) 862-1445.

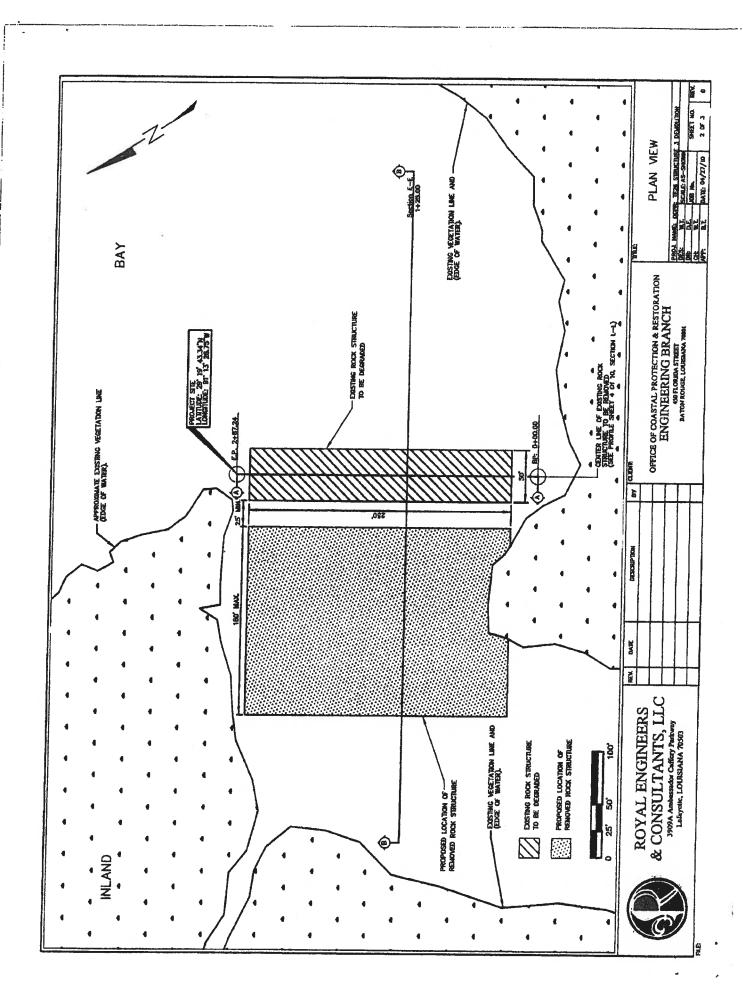
The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete and return the attached Customer Service Survey or go to the survey found on our web site at http://per2.nwp.usace.army.mil/survey.html.

Sincerely,

Pete J. Serio
Chief, Regulatory Branch

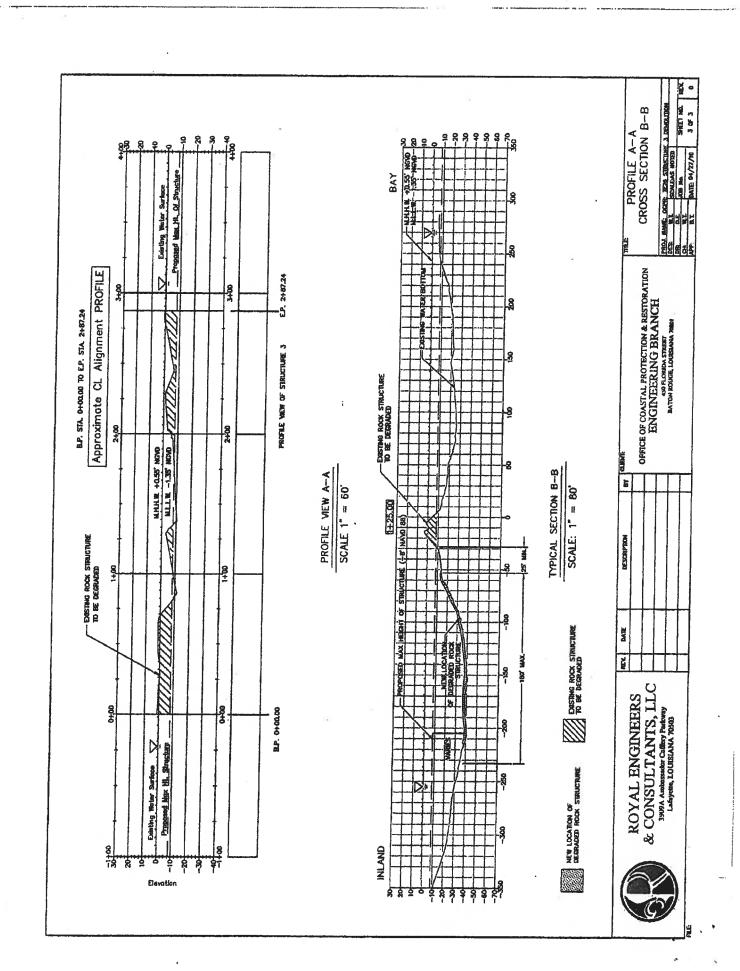
Enclosure





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- 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 NOD-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 applicant will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and the Army Corps of Engineers, New Orleans District (NOD) Regulatory Branch. NOD 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 U.S. Coast Guard, Sector New Orleans Command Center, 201 Hammond Highway, Metairie, Louisiana 70005, 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 US Coast Guard, Sector New Orleans Command Center, 201 Hammond Highway, Metairie, Louisiana 70005, about 1 month before you plan to start work. Telephone inquiries can be directed to (504) 846-5923.
- 9. All activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters if 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 either 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 NOD-PGP.
- 15. The permittee shall permit the District Engineers 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 this permit 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 Engineer at any time. If additional conditions are added, the public will be advised by public notice. Individual authorizations under this PGP may include special conditions deemed necessary to ensure minimal impact and compliance with this PGP.

- 21. A review of cumulative losses under the general permit will be accomplished yearly in or around the month of October. A report of losses will be furnished to the Environmental Protection Agency, the 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 Engineer make a determination not to incorporate a change proposed by a reviewing agency, after normal negotiations between the respective agencies, the District Engineer will explain in writing to the reviewing agency the basis and rationale for his decision.
- 22. The New Orleans District will periodically review NOD-PGP and its terms, conditions, and processing procedures and will decide to either modify, reissue, or revoke the permit. If the PGP is not modified or reissued within 5 years of its effective date, it automatically expires and becomes null and void. Activities which have commenced or are under contract to commence in reliance upon prior authorization of NOD-PGP will remain authorized provided the activity is completed within 12 months of the date of NOD-PGP expiration, modification, or revocation, unless the Corps of Engineers has determined that the specific activity does not qualify for authorization under NOD-PGP and exercises Corps authority to modify, suspend, or revoke the authorization in accordance with DOA regulations at 33 CFR 325.7.
- 23. Activities which qualify as non reporting nationwide permits and which commenced or were under contract to commence prior to June 1, 1998, are valid for a period of two years from the commencement/contract date. Those activities which have received authorization under the nationwide and regional general permit programs expire as indicated on the permit authorization. Requests received on or after June 1, 1998, will be evaluated for compliance under NOD-PGP.
- 24. 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.
- 25. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 26. 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.
- 27. 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.
- 28. 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.
- 29. 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.



APPENDIX B NOTICE OF ACCEPTANCE



June 24, 2011

Mr. Shane Triche
O & M Manager
LDNR Office of Coastal Protection & Restoration
1440 Tiger Drive, Suite B
Thibodaux, LA 70301

Subject:

TE-26 Lake Chapeau - Structure No. 3 Demolition

Project Acceptance

Dear Shane:

Demolition of the Lake Chapeau structure No. 3 was completed on Friday, May 13, 2011. Final deliverables were received on June 21, 2011. Royal has reviewed the final survey submitted by Great Southern Dredging Inc. and concludes that construction has been completed according to the plans and specifications. We therefore recommend acceptance of the project.

Please do not hesitate to contact me at (337) 456-5351 if you have any questions.

Sincerely,

ROYAL ENGINEERS & CONSULTANTS, LLC

Beau J. Tate, P.E.



APPENDIX C AS-BUILT DRAWINGS

INDEX TO SHEETS

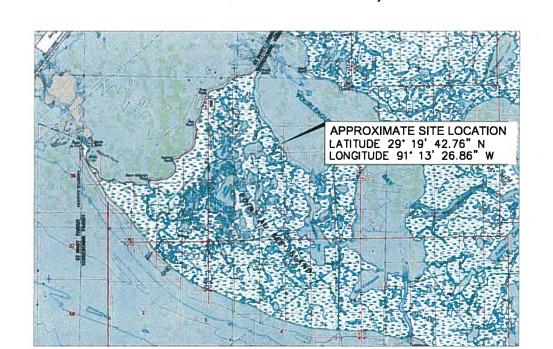
DESCRIPTION TITLE SHEET **GENERAL NOTES** PLAN VIEW PROFILE VIEW **CROSS SECTIONS A & B** CROSS SECTIONS C & D

CROSS SECTIONS E & F CROSS SECTIONS G & H

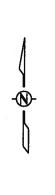
CROSS SECTIONS I & J CROSS SECTIONS K

STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

LAKE CHAPEAU HYDROLOGIC RESTORATION PROJECT (TE-26) STRUCTURE 3 DEMOLITION - AS BUILT DRAWINGS TERREBONNE PARISH, LA



20,000'







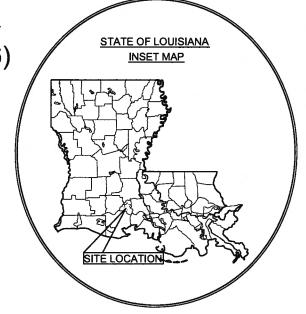
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STATE **PROJECT SPONSOR**



AS-BUILT



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OFFICE OF COASTAL PROTECTION & RESTORATION **ENGINEERING BRANCH**

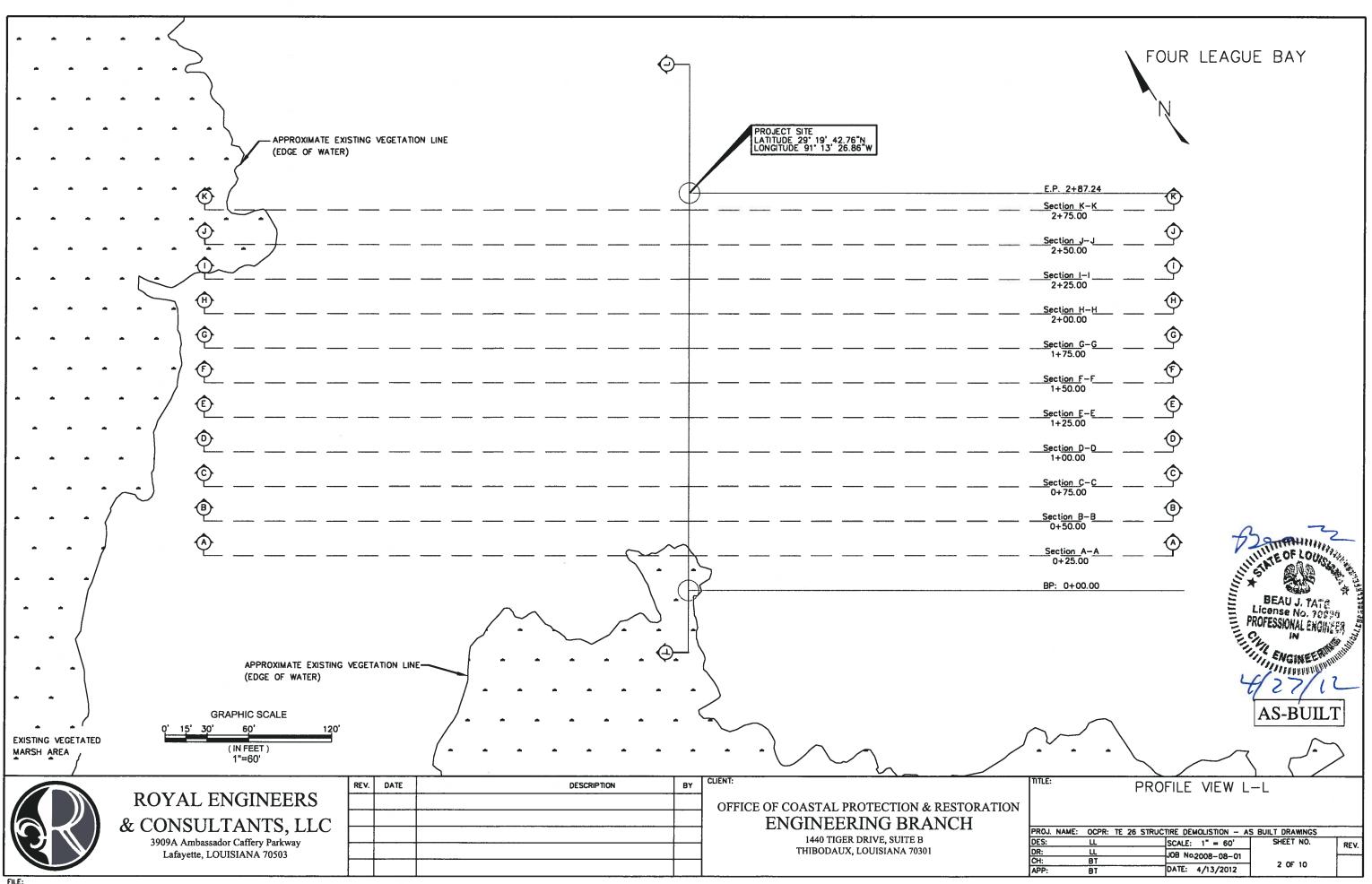
1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301

PROJ. NAME:	OCPR:	TE26 STRU	CTURE 3 DEMOLITION - A	S BUILT DRAWNGS	
DES:	LL		SCALE: AS SHOWN	SHEET NO.	REV.
DR:	LL		JOB No.2009-08-01		
CH:	BT		200 M05008-08-01	1 OF 10	
APP:	BT		DATE: 4/13/2012	1 07 10	

TITLE SHEET



PROJECT SPONSOR



GENERAL NOTES

- 1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM ON 1988 (NAVD 88). ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT PLAN AREA. THE ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE LOCATION DURING CONSTRUCTION.
- 3. THE CONTRACTOR SHALL NOT, AT ANYTIME, TREAD ON EXISTING MARSH OR VEGETATIVE WETLANDS UNLESS OTHERWISE DIRECTED BY THE OCPR PROJECT ENGINEER.
- 4. THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL AT 1-800-272-3020 A MINIMUM OF 5 WORKING DAYS PRIOR TO THE CONSTRUCTION TO LOCATE EXISTING UTILITIES AT THE PROJECT SITE.
- 5. ALL SURVEYING AND MEASUREMENTS BY THE CONTRACTOR FOR VERIFICATION OF WORKED PERFORMED WILL BE MONITORED BY THE OCPR PROJECT ENGINEER OR HIS REPRESENTATIVE. THE OCPR PROJECT ENGINEER SHALL REVIEW ALL SURVEYS, MEASUREMENTS AND PAYMENT CALCULATIONS. IF A DISCREPANCY CANNOT BE RESOLVED, THE CONSTRUCTION MANAGER SHALL PERFORM A CROSS-SECTION SURVEY TO VERIFY THE CONTRACTORS WORK.
- 6. DELINEATION OF ROCK IS APPROXIMATE AS PER SURVEY OF DATE 5/20/2010. CONTRACTOR TO VERIFY FULL EXTENT OF ROCK DEGRADATION IN THE FIELD PRIOR TO BIDDING.

- 7. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL GEOTEXTILE FABRIC ABOVE (-) 8 FEET NAVD 88 THAT IS ENCOUNTERED DURING DEGRADATION OF WEIR.
- 8. THE CONTRACTORS SHLL REMOVE AND DISPOSE OF ALL EXISTING WARNING SIGNS RELATING TO WEIR OFFSITE.
- 9. THE CONTRACTOR SHALL NOT DREDGE BELOW EXISTING MARSH OR WATER BOTTOM. TOLERANCE IN THESE AREAS SHALL BE (+) 1 FEET.

SUMMARY OF ESTIMATED QUANTITIES

BASE BID

ITEM No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
2	WEIR DEGRADATION	LUMP SUM	1



AS-BUILT



REV.	DATE	DESCRIPTION	BY	CL
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OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

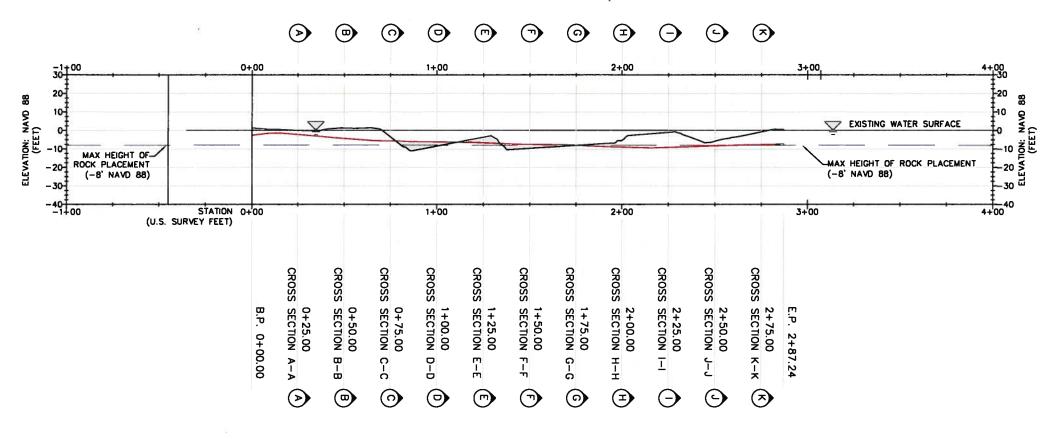
1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301

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PROFILE VIEW L-L

B.P. STA. 0+00.00 TO E.P. STA. 2+87.24

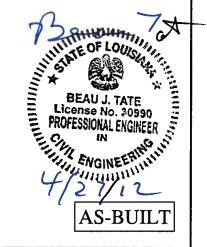
APPROXIMATE CL ALIGNMENT PROFILE



POST CONSTRUCTION SURVEY

- PRE CONSTRUCTION SURVEY

PROFILE VIEW L-L
SCALE: 1" = 50"





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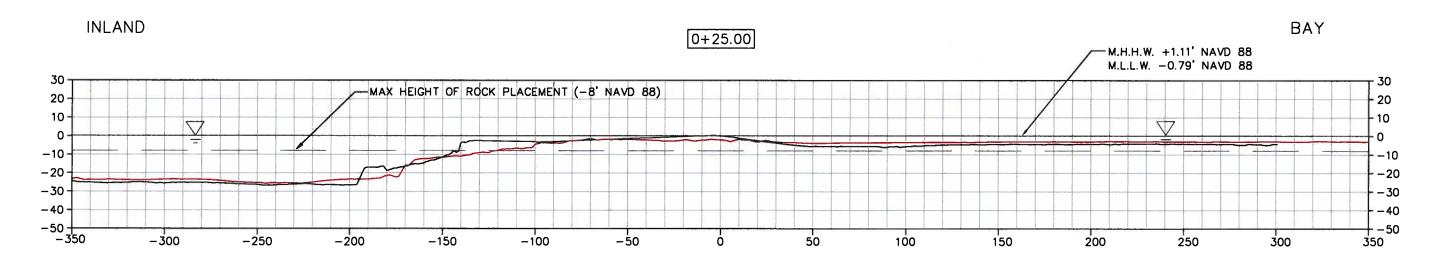
OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301

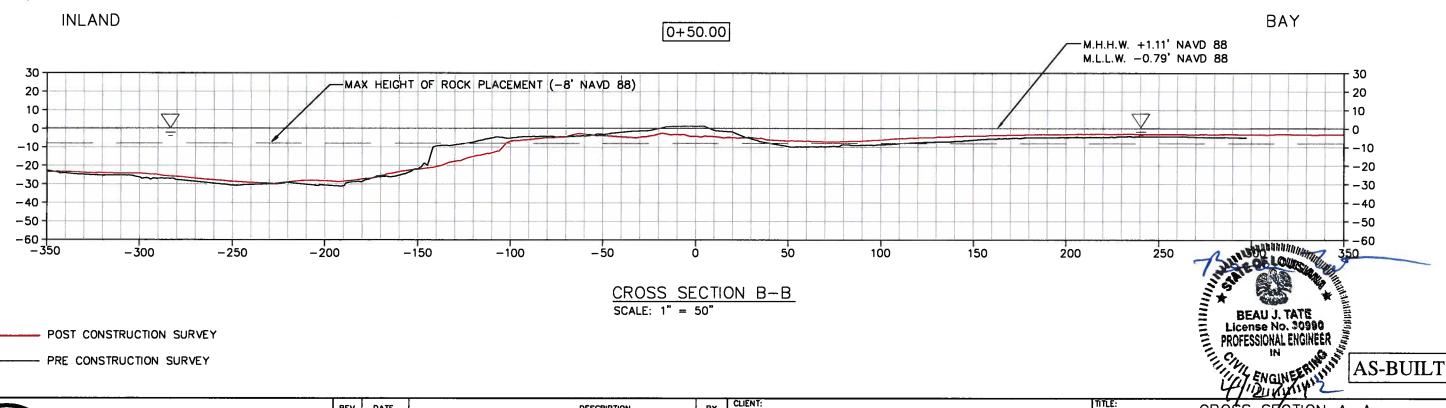
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PROFILE VIEW L-L

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CROSS SECTION A-A
SCALE: 1" = 50"





ROYAL ENGINEERS & CONSULTANTS, LLC

3909A Ambassador Caffery Parkway Lafayette, LOUISIANA 70503

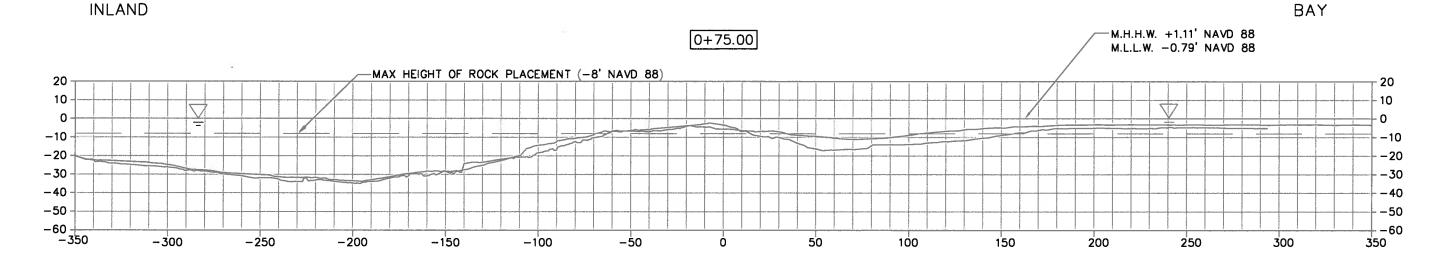
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OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301

TITLE:	CROSS SECTION A-A
	CROSS SECTION B-B

PROJ. NAME:	OCPR: TE 26 STRUC	TIRE DEMOLISTION - A	S BUILT DRAWINGS	
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CROSS SECTION C-C
SCALE: 1" = 50"

INLAND BAY -M.H.H.W. +1.11' NAVD 88 1+00.00 M.L.L.W. -0.79' NAVD 88 -MAX HEIGHT OF ROCK PLACEMENT (-8' NAVD 88) 20 10 -10 -10 -20 -20 -30 -- 30 -40 --40 -50 -50 -60 -60 -70 + -350 -70 300 111111111111 350 -300 -250 -200 -150 -100 -50 50 100 150 200 350 CROSS SECTION D-D BEAU J. TATE License No. 20990 PROFESSIONAL ENGINEER SCALE: 1" = 50" POST CONSTRUCTION SURVEY - PRE CONSTRUCTION SURVEY AS-BUILT DEV DATE CLIENT:



ROYAL ENGINEERS & CONSULTANTS, LLC

3909A Ambassador Caffery Parkway Lafayette, LOUISIANA 70503

REV.	DATE	DESCRIPTION	BY	

OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301 CROSS SECTION C-C
CROSS SECTION D-D

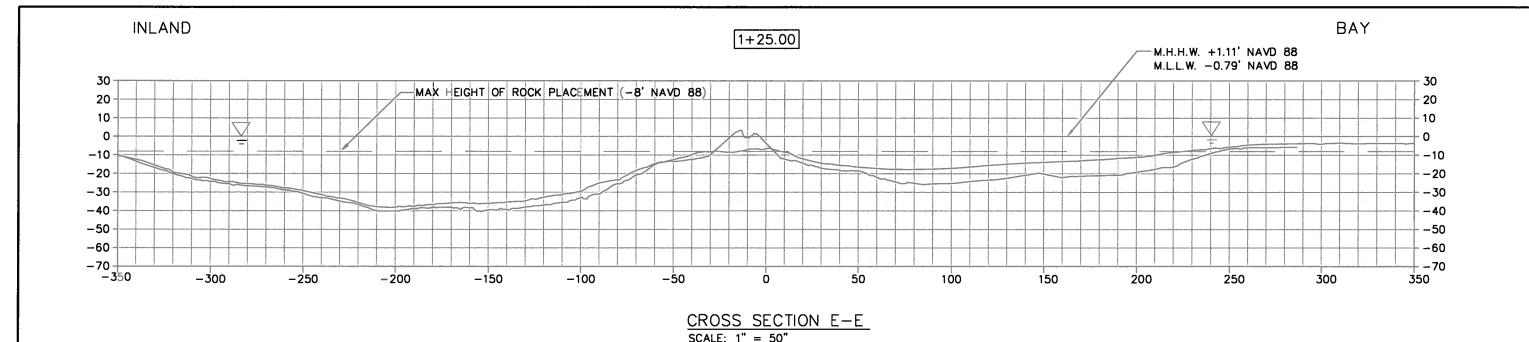
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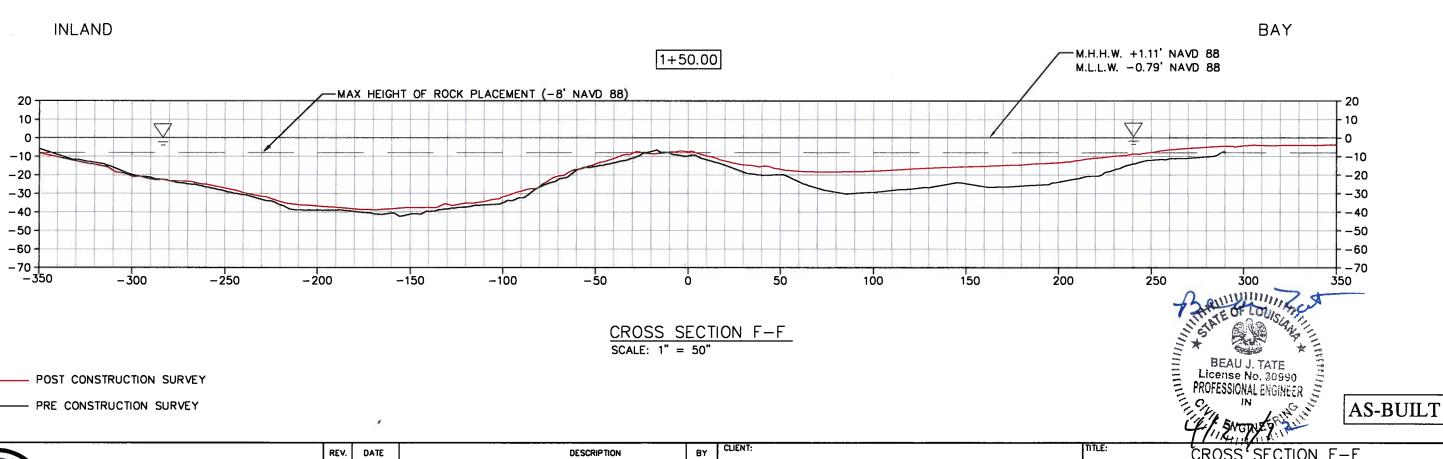
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OFFICE OF COASTAL PROTECTION & RESTORATION **ENGINEERING BRANCH**

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301 ČROSS'SECTION E-E

CROSS SECTION F-F

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INLAND BAY M.H.H.W. +1.11' NAVD 88 1+75.00 M.L.L.W. -0.79' NAVD 88 -MAX HEIGHT OF ROCK PLACEMENT (-8' NAVD 88) 20 20 10 10 - 0 -10 -20 -20 -30-30 -40-40 -50 -50 -60 -60 350 -250 -200 50 150 200 250 300 -300 -150 -100 -50 100 350

CROSS SECTION G-G

SCALE: 1" = 50"

INLAND BAY M.H.H.W. +1.11' NAVD 88 2+00.00 M.L.L.W. -0.79' NAVD 88 -MAX HEIGHT OF ROCK PLACEMENT (-8' NAVD 88) 20 20 10 10 - 0 -10 -10 -20-20 -30-30 -40 -40 -50 -50-60 -60 -350 -300 -250 150 200 250 -200 -150 -100 -50 50 100 300 350 Ó BANK OF LOUISING CROSS SECTION H-H SCALE: 1" = 50" BEAU J. TATE License No. 30990 POST CONSTRUCTION SURVEY PROFESSIONAL ENGINEER ENGINEERING AS-BUILT PRE CONSTRUCTION SURVEY

ROYAL ENGINEERS & CONSULTANTS, LLC

3909A Ambassador Caffery Parkway Lafayette, LOUISIANA 70503

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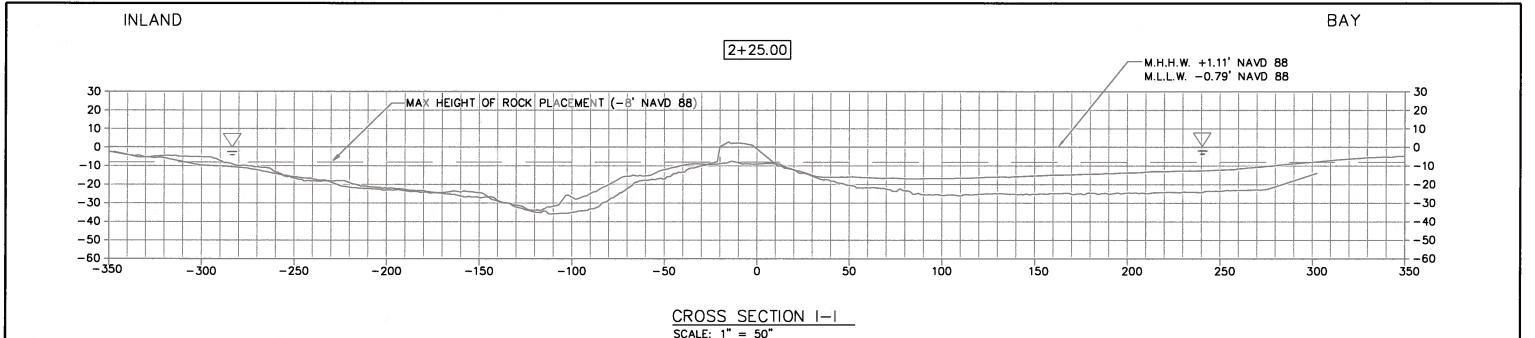
OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301 TITLE: CROSS SECTION G-G CROSS SECTION H-H

PROJ. NAME: OCPR: TE 26 STRUCTIRE DEMOLISTION - AS BUILT DRAWINGS SHEET ND. SCALE: 1" = 50' JOB No.2008-08-01 8 OF 10

DATE: 4/13/2012

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INLAND DAI M.H.H.W. +1.11' NAVD 88 2+50.00 M.L.L.W. -0.79' NAVD 88 -MAX HEIGHT OF ROCK PLACEMENT (-8' NAVD 88) - 20 10 - 10 ∇ - 0 -10 -10 -20 -20 -30 -30 -40 -40 -50 -50 -60 | -350 -60 -100 -50 50 100 250 350 -300 -250 -200 -150 150 200 300 CROSS SECTION J-J SCALE: 1" = 50" BEAU J. TATE License No. 30990 PROFESSIONAL ENGINEER POST CONSTRUCTION SURVEY AS-BUILT PRE CONSTRUCTION SURVEY



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3909A Ambassador Caffery Parkway Lafayette, LOUISIANA 70503

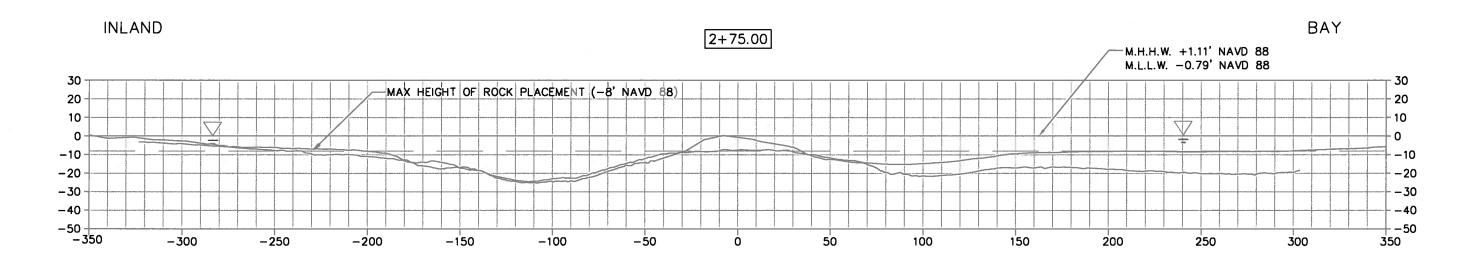
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OFFICE OF COASTAL PROTECTION & RESTORATION **ENGINEERING BRANCH**

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301

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TITLE:	CROSS	SECTION	1-1
	CROSS	SECTION	J-J

PROJ. NAME:	OCPR: TE 26 STRUC	TIRE DEMOLISTION - A	S BUILT DRAWINGS	
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APP:	BT	DATE: 4/13/2012	3 01 10	



CROSS SECTION K-K SCALE: 1" = 50"

POST CONSTRUCTION SURVEY

PRE CONSTRUCTION SURVEY



AS-BUILT



ROYAL ENGINEERS & CONSULTANTS, LLC

3909A Ambassador Caffery Parkway Lafayette, LOUISIANA 70503

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OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH

1440 TIGER DRIVE, SUITE B THIBODAUX, LOUISIANA 70301

CROSS	SECTION	K-K

PROJ. NAME:	OCPR: TE 26	STRUCTIRE DEMOLISTION - AS	BUILT DRAWINGS	
DES:	LL	SCALE: 1" = 50'	SHEET NO.	REV.
DR:	LL	JOB No.2008-08-01		
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APPENDIX D CONSTRUCTION PHOTOGRAPHS

















