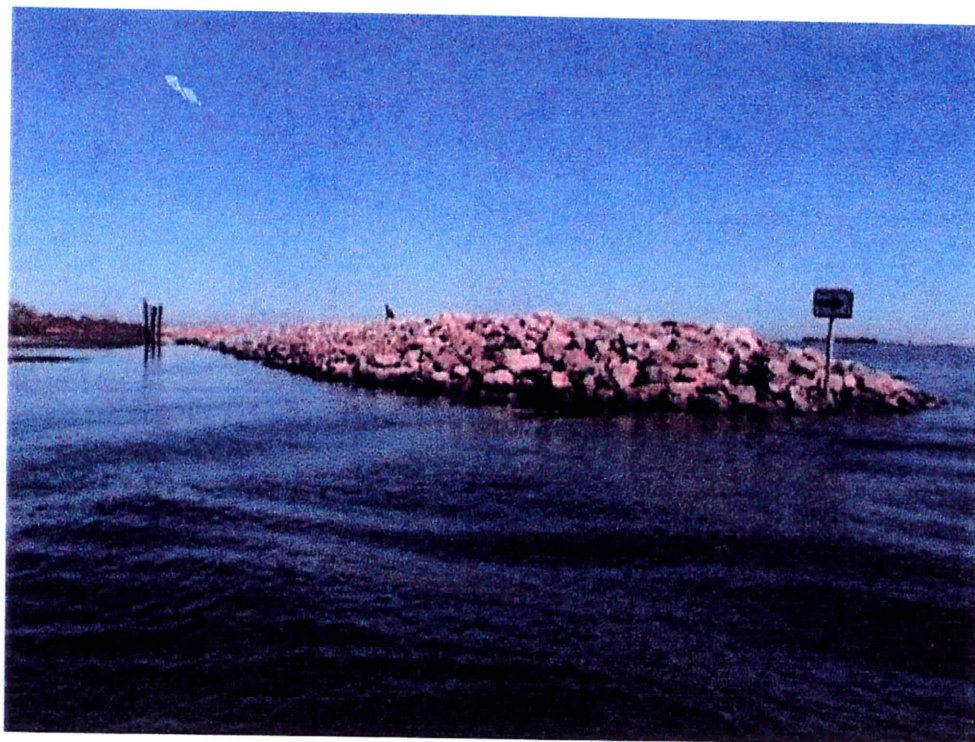


**OPERATION, MAINTENANCE, AND REHABILITATION
PLAN FOR THE
GIWW / CLOVELLY PROJECT
BA-02**



JULY 30, 2002



**OPERATION, MAINTENANCE, AND REHABILITATION
PLAN FOR GIWW TO CLOVELLY HYDROLOGIC
RESTORATION
BA-02**

JULY 30, 2002

Prepared by:
Louisiana Department of Natural Resources
Coastal Restoration Division
Baton Rouge, Louisiana

and

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Table of Contents

History of Revisions	iii
Section 1. Project Description, Purpose, and Location	1
Section 2. Construction Completion	2
Section 3. Project Permits	3
Section 4. Items Requiring Operation, Maintenance, and Rehabilitation	3
Section 5. Operation and Maintenance Budget	5
Section 6. Water Management - Operation of Structures	5
Section 7. Responsibilities – Operation	6
Section 8. Responsibilities – Maintenance and Rehabilitation	6
Signature Sheet	8
Attachment I. Cost Sharing Agreement	
Attachment II. Project Features	
Attachment III. Project Completion Report	
Attachment IV. As-built Drawings	
Attachment V. Project Permits & Permit Amendments	
Attachment VI. Operation, Maintenance and Rehabilitation Budget	
Attachment VII. Structure Operations	
Attachment VIII. Annual Inspections	

History of Revisions

05/31/01	Pyburn & Odom submit draft plan to LDNR.
09/10/01	LDNR submitted draft plan to NRCS for comments.
04/02	Attachment VII - Spring 2002 Structure Operations Report
11/02	Attachment VII - Fall 2002 Structure Operations Report
04/03	Attachment VII - Spring 2003 Structure Operations Report
11/03	Attachment VII - Fall 2003 Structure Operations Report
04/04	Attachment VII - Spring 2004 Structure Operations Report
04/05	Attachment VII - Spring 2005 Structure Operations Report
2/9/07	Permit No. MVN 23007-548-CY - Programmatic General Permit issued by the COE to the Lafourche Parish Council to re-establish flow through an existing channel behind Structure No.35. (See Appendix V)
11/07	Attachment VII - Fall 2007 Structure Operations Report
3/10/08	Permit No. MVN 2007-4248-CY - Overall maintenance permit issued by the COE to the Lafourche Parish Council for the purpose of maintaining the constructed features of the GIWW to Clovelly Hydrologic Restoration Project (BA-02).
05/08	Attachment VII - Spring 2008 Structure Operations Report
12/08	Attachment VII - Fall 2008 Structure Operations Report
05/09	Attachment VII - Spring 2009 Structure Operations Report

OPERATION, MAINTENANCE, AND REHABILITATION PLAN

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

(BA-02)

The Louisiana Department of Natural Resources (LDNR) and the Natural Resources Conservation Service (NRCS) agree to carry out the terms of this Operation, Maintenance, Repair, and Rehabilitation Plan (hereinafter referred to as the "Plan") of the accepted, completed project features in accordance with the Cost Sharing Cooperative Agreement 68-7217-4-57, DNR Agreement No. 25030-93-11 dated November 13, 1992 (Attachment I).

The project features covered by this plan are inclusive of and are identified as the GIWW to Clovelly Hydrologic Restoration Project (BA-02). The intention of the provisions of this plan is to maintain this project in a condition that will provide the anticipated benefits that the project was based on. There is no requirement that this project function to any standard beyond the economic life; except that it is not left as a hazard to navigation or a detriment to the environment.

Construction of the GIWW to Clovelly project was authorized by Section 303(a) of Title III Public Law 101-646, the Coastal Wetlands Planning Protection and Restoration act (CWPPRA) enacted on November 29, 1990 as amended. The GIWW to Clovelly Project was approved on the first Priority Project List.

Nine (9) property owners are associated with the GIWW to Clovelly Project including General AG Services LTD., and Little Lake Land Co., LA Delta Farms, James Peltier et al, Ada Sabatier et al, Ovide Cheramie Estate, Allain Leverton Co., Warren Baker, Jr. et al, ExxonMobile Corporation and Williams Mason HRS.

1. PROJECT DESCRIPTION, PURPOSE, AND LOCATION

The GIWW to Clovelly Hydrologic Restoration Project consists of 14,948 acres (6,049 ha) located in the Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Gulf Intracoastal Waterway to the north and to the northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east (Attachment II)

The GIWW to Clovelly Hydrologic Restoration Project involves the installation and maintenance of structures in 2 phases. Phase I structures were completed in November 1997 and Phase II structures were completed in October 2000. These structures were designed to reduce the

adverse tidal effects in the project area and promote freshwater introduction to better utilize available freshwater and sediment retention. If these objectives are met, it is anticipated that the rate of shoreline erosion will be reduced and a hydrologic regime, conducive to sediment and nutrient deposition, will encourage the re-establishment of emergent and submergent vegetation in eroded areas to a more historic low energy environment.

Phase I, Construction Unit No. 1, has a twenty-year (20 year) economic life which began in November 1997 and Phase II, Construction Unit No.2, begins its 20 year economic life in October 2000.

The principal project features of Construction Unit No.1 include:

- Site 2 - Fixed crest rock weir with boat bay.
- Site 4 - Fixed crest rock weir with boat bay.
- Site 7 - Fixed crest rock weir with boat bay.
- Site 8 - Rock rip rap channel plug.
- Site 43 - Rock rip rap channel plug.
- Site 91 - Rock plug with culvert and flap gate.
- Site 8A - Rock rip rap channel lining.
- Site 4A- Rock rip rap channel plug.

The principal project features of Construction Unit No. 2 include:

- Site 1 - Fixed crest rock weir with boat bay.
- Site 4B - Rock rip rap channel plug.
- Site 14A - Fixed crest rock weir with barge bay.
- Site 35 - Variable crest weir, water control structure.
- Site 90 - Rock rip rap channel plug.
- 5,665 LF Lake Rim Restoration.
- 5,023 LF Rock Bank Stabilization
- 11,711 LF Earthen Bank Stabilization

2. CONSTRUCTION COMPLETION

The GIWW to Clovelly Project Completion Report is included in Attachment III of this Plan and the “As-Built” drawings are included in Appendix IV. Within this completion report is a summary of information and significant events including: project personnel; final as-built project features and benefitted acres; construction cost and CWPPRA project estimates; construction oversight costs; construction activities and change orders; pipeline and utility crossing owner information; and other significant milestone dates and comments.

The project “as-built” construction drawings are updated with all field changes and modifications that occurred.

3. **PROJECT PERMITS**

Project permit applications were completed and submitted to appropriate agencies and permits were received prior to construction. These permits and permit amendments are included in Attachment V. Provisions for renewal of certain Federal and State Permits may be required.

4. **ITEMS REQUIRING MAINTENANCE AND REHABILITATION**

The following completed structural components project features jointly accepted by LDNR and NRCS will require operation, maintenance, repair, and /or rehabilitation throughout the 20 year life of the project.

Phase I, Construction Unit No.1

- A. **Site/Structure #2** - 200 linear ft. rock riprap fixed crest weir with a 15 linear ft. boat bay located south of the Clovelly Canal, west of Bay L'Ours and northeast of Superior Canal and Site 91. The crest of the weir is set at 2.3 ft. The invert of the boat bay is set at -5.1 ft. Aluminum warning signs (4 each) supported by pipes, gussets and base plates are galvanized or painted.
- B. **Site/Structure #4** - 160 linear ft. rock riprap fixed crest weir with a 20 ft. boat bay located south of Clovelly Canal, west of Bay L'Ours, just north of Site 2, and northeast of Superior Canal and Site 91. The crest of the weir is set at 2.4 ft. The invert of the boat bay is set at -3.9 ft. Aluminum warning signs (4 each) supported by pipes, gussets and base plates are galvanized or painted.
- C. **Site/Structure #7** - 200 linear ft. rock riprap fixed crest weir with a 20 ft. boat bay located south of the Clovelly Canal, west of Little Lake and north of Site 4 in Bayou De La Gauche. The crest of the weir is set at 2.4 ft. The invert of the boat bay is set at -4.4 ft. Aluminum warning signs (4 each) supported by pipe, gusset and base plates are galvanized or painted.
- D. **Site/Structure #8** - 65 linear ft. rock riprap fixed crest weir with an 8' wide boat bay located in a pipeline channel south of the Clovelly Canal and west of Little Lake. The crest of the weir was set at +1.0 ft. AML (above marsh level). Marsh level was determined to be 1.8 ft. The invert of the boat bay was set at -3.5 ft. Aluminum warning signs (2 each) supported by pipe, gusset and base plates are galvanized or painted.
- E. **Site/Structure #43** - 85 linear ft. rock riprap channel plug located in a pipeline channel, south of the Clovelly Canal, east of Clovelly Farms, and west of Little Lake. The crest of the plug is set at an elevation of 2.45 ft. An aluminum warning sign supported by pipe, gusset and base plate are galvanized or painted.
- F. **Site/Structure #91** - 120 linear ft. rock filled channel plug located in a pipeline channel off of

Superior Canal, south of Clovelly Canal, west of Brenton Canal and east of Superior Canal, with a 10 gauge corrugated aluminum pipe (36" in diameter) through the plug embankment. The invert of the pipe is set at an invert elevation of -2.87ft. The pipe is approximately 44 ft. long supported by 8 - 12" diameter creosote coated timber piles 50 ft. long. An aluminum flap gate is attached to the canal side of the structure. A 16 ft. by 21 ft. rock riprap scour pad 2 ft. thick is located at the opening of the corrugated pipe on the canal side of the structure. The crest of the rock riprap plug is set at an elevation of 3.2 ft.

- G. Site/Structure #4A** - 90 linear ft. rock riprap channel plug located along the bank of Little Lake northeast of Site No. 4. The channel plug has an 8 ft. wide crest with 3:1 side slopes.. The crest was set at +2.0 ft. AML (above marsh level). Marsh level was determined to be +1.47'. Prior to placement of riprap material, the existing channel bottom was lined with a 84 ft. x 30 ft. geogrid mat.
- H. Site/Structure #8A** - 50 linear ft. rock riprap channel plug located along the bank of Little Lake north of the Clovelly Canal and the Exxon Pipeline right-of-way. The channel plug has an 8 ft. wide crest with 3:1 side slopes. The crest was set at +2.0 ft. AML (above marsh level). Marsh level was determined to be +1.51'. Prior to placement of the riprap material, the existing channel bottom was lined with a 84 ft. x 30 ft. geogrid mat.

Phase II, Construction Unit No.2

- A. Site/Structure #1** - 263 linear ft. rock riprap fixed crest weir with a 20 ft. boat bay across Superior Canal located east of the west fork of Bayou L' Ours, south of Clovelly Farms, Clovelly Canal and site 90, and west of Brusle Lake. The crest of the weir is set at 4.0 ft.. The invert of the boat bay is set at -6.4 ft. NAVD. Navigation Aid Signs (4 each) and warning signs (4 each) supported by pipes, gussets and base plates are galvanized or painted.
- B. Site/Structure #90** - 213 linear ft. Rock riprap channel plug located across a pipeline channel north of Site 1, south of Clovelly Farms and Clovelly Canal, and west of Brusle Lake. The crest of the plug is set at an elevation of 4.0 ft. Aluminum warning signs (4 each) supported by pipes, gussets and base plates are galvanized or painted.
- C. Site/Structure #4B** - 511 linear ft. rock riprap plug along the west bank of Little Lake northeast of Site 4. The crest of the plug is set at 3.5 ft. Aluminum warning signs (3 each) supported by pipes, gussets and base plates are galvanized or painted.
- D. Site/Structure #14A** - 1,665 linear ft. rock riprap weir with a 80 ft. barge bay crossing Clovelly Canal is located west of Little Lake and east of Clovelly Farms. The crest of the weir is set at 3.0 ft. The invert of the 80 ft. barge bay is set at -6.5'. Navigational aid signs (4 each) along with lights and batteries (4 each) supported by 12 inch diameter wood pile cluster are secured by stainless steel clamps and brackets and galvanized rods. Aluminum warning signs (4 each) supported by galvanized pipes, gussets and base plates are located on either side of

the structure.

- E. Site/Structure #35** - 80 linear ft. sheet pile variable crest weir with an ten (10) ft. wide variable crest section located in a pipeline channel off of the Benton Canal ,south of Clovelly Canal, west of Brenton Canal and east of Superior Canal. The structure consist of one (1) - 10 ft. wide variable crest section containing an ten (10) ft. wide stop log bay with twelve (12) - 6" x 6" x 9'-8" long stop logs secured by log guides, locking channels and locks. The stop logs can be adjusted from 1.0 ft. to -3.0 ft. To access, install, and remove stop logs is a rotatable crane with a hand winch mounted on a steel deck, walkway grating, lifting bars and chain hoist. On either side of the fixed crest sections of the structure is an earthen wing wall section set at elevation 3.0 ft. to tie-in to the existing embankments. Aluminum warning signs (2 each) are set at the variable crest section and stop log bay.
- F. Lake Rim Restoration and Bank Stabilization** - maintenance of approximately 22,399 linear ft. of rock armored earthen embankment along Brenton Canal, Bay L' Ours and various oil field canals.

All elevations above are based on the NAVD88 datum.

5. OPERATION AND MAINTENANCE BUDGET

The cost associated with Operations, Maintenance, and Rehabilitation of the features outlined in Section 4 for the twenty (20) year project life is included and summarized in Attachment VI.

Cost for Operations - original Operation and Maintenance Budget does not include cost for operation of variable crest weir structure at Site No. 35. Operation and Maintenance Budget amendment will be required to include these cost.

6. WATER MANAGEMENT - OPERATION OF STRUCTURES

Water Control Structure Operational Schedule:

The structures shall be operated according to the following operational schedule:

1. The sill height of the rock weirs shall be at least 0.5 ft. below marsh level (BML) or lower.
2. Variable Crest Weir - the stop logs will be set at 0.5ft. BML from April to November and removed from November to April (weir sill level = 2.0 ft. BML) to allow for sediment and nutrient inflow during spring.

7. **RESPONSIBILITIES – OPERATIONS**

A. LDNR will:

1. In accordance with the Cost Share Cooperative Agreement 68-7217-4-57, DNR Cooperative Agreement No. 25030-93-11, assume all responsibilities for maintenance and rehabilitation of the accepted and completed project features identified in Section 4.
2. Submit an annual report to NRCS detailing the structural operations completed for that year.
3. Jointly approve any variations in the Structure Operation Schedule outlined in Section 6 with NRCS.
4. Provide a total contribution equal to the amount outlined in the Cost Sharing Agreement for the operation cost needed for the twenty (20) year life of the project.

B. NRCS will:

1. Jointly approve any variations in the Structure Operation Schedule outlined in Section 6 with LDNR.
2. Provide a total contribution equal to the amount outlined in the Cost Sharing Agreement for the operation cost needed for the twenty (20) year life of the project.
3. Upon the request of LDNR and to the extent its resources allow, provide consultation assistance for the operation of the project.

8. **RESPONSIBILITIES - MAINTENANCE AND REHABILITATION**

A. LDNR will:

1. In accordance with the Cost Sharing Agreement, assume all responsibilities for maintenance and rehabilitation of the accepted completed project features identified in Section 4.
2. Conduct joint site inspections with NRCS of the project site at least annually and after major storm events if determined to be necessary by LDNR and/or NRCS. LDNR will submit to NRCS a report detailing the condition of the project features and recommendations for any corrective action. If LDNR recommends that corrective actions are needed, the report will include the entire estimated cost for engineering and design, supervision and inspection, construction, contingencies, and an assessment of the urgency

of such action. Annual inspection reports may be compiled under attachment VIII - Annual Inspections.

3. Perform or have performed any corrective actions needed, if such corrections have been approved by LDNR and NRCS. NRCS will participate with LDNR, or its appointed representative, in the engineering and design phases of the corrective actions for the project. Oversight of engineering and construction of the corrective actions for the project will be the responsibility of LDNR or its appointed representative. At least 30 calendar days prior to the date of formal request for construction bids, LDNR or its appointed representative shall provide NRCS with final copies of all project corrective action designs and specifications for review and concurrence by NRCS. LDNR or its appointed representative shall approve the final designs and specifications prior to proceeding with bid solicitations on all project corrective action construction contracts in coordination with NRCS. Any plan and/or specification changes both before and after award of construction contracts, shall be approved by LDNR in coordination with NRCS.
4. LDNR and NRCS representatives shall schedule meetings as necessary during the period of construction for corrective actions and shall make such recommendations as they deem necessary.
5. Provide a total contribution equal to the amount outlined in the Cost Share Agreement for the maintenance and rehabilitation cost needed for the 20-year life of the project.

B. NRCS will:

1. Conduct joint inspections with LDNR of the project site at least annually and after major storm events if determined to be necessary by LDNR or NRCS.
2. Provide guidance for the development of plans and implementation of the project, review final copies of any maintenance and rehabilitation project designs and specifications, and provide review and approval of all planning and construction details prior to formal request for construction bids or any corrective actions for the project.
3. Provide a total contribution equal to the amount outlined in the Cost Share Agreement for the maintenance and rehabilitation cost needed for the twenty (20) year life of the project.

The undersigned parties, acting on behalf of their respective agencies, agree to operate, maintain, and rehabilitate the GIWW to Clovelly Hydrologic Restoration (BA-02) according to this document, referenced Cooperative Agreement, plans, and all applicable permits and laws.

NATURAL RESOURCES CONSERVATION SERVICE

By: Donald W. Gohmert Date: 8/12/02
Title: State Conservationist

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

By: [Signature] Date: 9/16/02
Title: Deputy Assistant Secretary

ATTACHMENT I

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

COST SHARE AGREEMENT

BA-02

COST SHARING AGREEMENT

9/23/92

SEP 24 10:10

BETWEEN

USDA - SOIL CONSERVATION SERVICE
DIVISION

AND

STATE OF LOUISIANA

FOR CONSTRUCTION, OPERATION, MAINTENANCE, REHABILITATION
AND MONITORING OF THE

GIWW TO CLOVELLY HYDROLOGIC RESTORATION PROJECT

THIS AGREEMENT, entered into this 13th day of November, 1992,
by and between the U.S. Department of Agriculture, represented by the Soil Conservation
Service, (hereinafter referred to as "SCS"), acting by and through the State Conservationist, and
State of Louisiana (hereinafter referred to as the "DNR"), acting by and through the Secretary,
Department of Natural Resources (DNR).

WITNESSED, THAT:

WHEREAS, construction of the GIWW to Clovelly Hydrologic Restoration Project (BA-
2) was authorized by the Federal Coastal Wetlands Planning Protection and Restoration Act of
1990 (Public Law 101-646, Title III) and for local sponsorship by the Louisiana Coastal
Wetlands Conservation and Restoration Plan by the State in April, 1990; and

WHEREAS, Section 303(f) of the Coastal Wetlands Planning Protection and Restoration
Act of 1990 (CWPPRA), specifies the cost-sharing requirements applicable to the Project, and
states that total project costs including construction, operation, maintenance, rehabilitation, and
monitoring is to be 75% Federal (SCS) and 25% non-Federal (DNR); and

WHEREAS, Section 303 (e) of the CWPPRA states that the Secretary of the Army shall
not fund the identified project unless said project is subject to such terms and conditions
necessary to ensure that wetlands restored, enhanced, or managed through the project will be
administered for the long-term conservation of such lands and waters and dependent fish and
wildlife populations; and

WHEREAS, the SCS is authorized by Federal law to enter into a cost sharing agreement
with the DNR to provide financial cost-share assistance for the construction, operation,
maintenance, monitoring, and rehabilitation of the Project; and

ORIGINAL

WHEREAS, La. R.S. 49:213 and La. R.S. 49:214 state that the Secretary of the DNR may enter into cost-sharing agreements with the federal government in order to conserve, restore, create and enhance vegetated wetlands in coastal Louisiana in accordance with prescribed legislative oversight; and

WHEREAS, the DNR, has agreed to pay 5% of the total Project(s) cost in actual cash and the remaining balance (20%) of its share in the form of in-kind contributions; and

WHEREAS, the DNR is willing to participate in cost-sharing and financing in accordance with the terms of this Agreement;

NOW, THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS

For purposes of this Agreement:

a. The term "Project" shall mean that work authorized by Congress as specified above for the construction of the BA-2 GIWW to Clovelly Hydrologic Restoration Project. The BA-2 Project is located in central LaFourche Parish--southeast of the GIWW. The project encompasses about 41,000 acres of emergent fresh to brackish marsh and 19,000 acres of open water. The project would restore historic hydrologic conditions by the construction of plugs in abandoned oil field canals, weirs, low level dikes, and vegetative plantings to reduce shoreline erosion. Pre- and post-project monitoring will also be included in order to evaluate the effectiveness of project implementation/operation in achieving desired vegetative response.

b. The term "total Project costs" shall mean all costs incurred by the DNR and the SCS directly related to implementation of the Project. Such costs shall be those costs incurred after November 18, 1991; and which shall, but not necessarily be limited to such following: actual costs of applicable geotechnical, detailed engineering and design; actual construction costs; construction management costs; operation costs; monitoring costs; the cost of landrights acquisition, easements, servitudes, rights-of-way; utility and facility alterations or relocations; maintenance; and rehabilitation for the Project.

c. The term "total first costs" shall mean all costs incurred by the DNR and the SCS directly related to completion of the construction phase of the project as identified in the official CWPPRA authorization document prepared by the CWPPRA Task Force (November 18, 1991) and submitted to Congress for approval.

d. The term "period of construction" shall mean the time from the advertisement of the first construction contract to the time of acceptance of the Project by the Contracting Officer. Construction of the Project or a functional portion shall not be considered complete until accepted by the Contracting Officer.

e. The term "Contracting Officer" shall mean the warranted Contracting Officer of the SCS awarding the contract.

f. The term "relocations" shall mean alteration, modifications, lowering or raising in place, and/or new construction related to, but not limited to, existing: buildings, pipelines, public utilities (such as municipal water and sanitary sewer lines, telephone lines, and storm drains), aerial utilities, cemeteries, and other facilities, structures, and improvements determined by the SCS to be necessary for the construction, operation, maintenance, monitoring, and rehabilitation of the Project.

g. The term "fiscal year" shall mean one fiscal year of the United States Government, unless otherwise specifically indicated. The Government fiscal year begins on October 1 and ends on September 30.

h. The term "construction management costs" shall mean costs incurred by the SCS directly supervising and administering a construction contract, to include related overhead costs, as specified in applicable contracting regulations.

i. All project monitoring requirements will be identified in a project monitoring plan developed specifically for the project and mutually agreed to by the SCS and the DNR. The DNR will be responsible for collection of monitoring data and assimilation as part of the local cost-share responsibilities. Monitoring will be conducted for the expected life of the project or as agreed by the SCS and the DNR.

j. The term "utility" shall mean pipelines, cables, and similar facilities.

k. The term "maintenance" shall mean any action completed after the construction period that is required to maintain the project at "as built" standards, and costing less than twenty percent of original construction cost.

l. The term "rehabilitation" shall mean any action completed after the construction period that is required to maintain the project at "as built" standards, and costing twenty percent or more of the original construction cost.

m. The term "operations" shall mean any action associated with the actual operations of the completed project as described in the Operations Plan and Schedule. Said Operations Plan and Schedule will be jointly developed and approved by SCS and DNR prior to letting any construction bid relative to the Project.

n. The term "operation, maintenance, rehabilitation, and monitoring cost" shall include all costs directly related to operation, maintenance, rehabilitation, and monitoring of the Project as specified in Article VIII of this Agreement.

o. The term "Obligation" refers to amount of orders placed, contracts awarded, services rendered, or other commitments made during a given period which will require outlay during the same or some future period.

p. The term "monitoring Plan" shall mean a specific plan prepared and mutually agreed to by SCS and the DNR to provide specific direction and guidance concerning all monitoring requirements parameters and procedures for the Project.

ARTICLE II - OBLIGATIONS OF THE PARTIES

a. No Federal funds may be used to meet the DNR share of Project cost under this agreement unless the expenditure of such funds is expressly authorized by statute as verified in writing by the granting agency.

b. The DNR shall:

1. As further specified during the period of construction, fund a total contribution equal to 25 percent of the total Project cost. Said contributions will include cash and/or credit granted from landrights, easements, servitudes, and rights-of-way obtained through or owned by the DNR, or relocations credit granted for Project features furnished by the DNR, and all administrative and management costs required by the DNR to fulfill the obligations specified in this Agreement including pre- and post-project monitoring, geotechnical investigation, some engineering services, and operating, maintenance, and/or rehabilitation responsibilities accepted by the DNR.

2. Implement the project monitoring plan in accordance with a plan jointly developed with SCS and as further specified in Article VIII(b), assure the performance of the long-term monitoring plan.

3. Provide the necessary geotechnical investigations and specific engineering services associated with the project, subject to the cost-sharing provisions identified (75% Federal/25% non-Federal) and as mutually agreeable to both DNR and SCS or its engineering representative. Specific engineering services to be provided by DNR may include design surveys, plan preparation, post-construction surveys, etc. All such services will be approved by and subject to the supervision and guidance of the SCS engineering representative. DNR services related to these items will not exceed \$150,000 dollars.

4. Acquire all landrights, servitudes, rights-of-way, easements and borrow and disposal areas associated with the project which are determined to be necessary, subject to cost-sharing terms previously identified (75% Federal/25% non-Federal).

5. Jointly develop and approve a Project Operations Plan and Schedule which will identify operations to achieve desired vegetative response and establish operation actions for

cost-sharing. Provide for 25% of operational costs identified in this plan according to Article VIII.

6. Assume all responsibilities for operation, maintenance and rehabilitation of the Project upon acceptance of the completed Project. SCS will reimburse DNR for 75% of such costs subject to availability of funds (Article XVI).

c. The SCS shall:

1. As further specified during the period of construction, fund 75% of the total project costs related to construction, including any relocation costs associated with the Project.

2. Subject to the limitations set forth in Article VIII, and subject to the availability of appropriations, reimburse the DNR for 75% of the approved cost of monitoring the Project upon receipt of the request for reimbursement.

3. Reimburse the DNR for 75% of the actual costs incurred associated with all geotechnical and engineering services provided for the project, and acquiring all landrights (easements, servitudes, and rights-of-way, including suitable borrow and dredged material disposal areas) as determined by the SCS to be necessary for Project construction, operations, monitoring, maintenance, and rehabilitation.

4. Provide all engineering, design, and construction services associated with the project, subject to the cost-sharing provisions identified (75% Federal/25% non-Federal).

5. Contract for the construction of the project measure in accordance with the Federal Acquisition Regulation (FAR), Agriculture Acquisition Regulation (AGAR) and Soil Conservation Service Acquisition Regulation (SCSAR).

6. Provide authorized technical services, including but not limited to obtaining basic information; preparation of drawings, design, and specifications; and performance of layout, inspection services, and quality assurance during construction.

7. Arrange for and conduct final inspection of the completed works of improvement with the DNR to determine whether all work has been performed in accordance with the contractual requirements. Accept work from the contractor and notify the DNR of acceptance.

ARTICLE III - LANDRIGHTS, FACILITIES, AND PUBLIC LAW 91-646 RELOCATION ASSISTANCE

a. On Non-Federal Lands:

The DNR shall acquire all landrights, easements, servitudes, rights-of-way, and dredged material disposal areas determined to be necessary for construction of the Project and as mutually agreed to by SCS. Prior to the advertisement of any construction contract, the DNR shall provide certification to the SCS that all landrights, easements, servitudes, rights-of-way and dredged material disposal areas required have been acquired as part of this Agreement and shall furnish to the SCS evidence supporting the DNR actual rights-of-way acquired for project construction, operation, monitoring, and maintenance.

b. The State shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring landrights, easements, and rights-of-way for construction and subsequent operation and maintenance of the Project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

ARTICLE IV - VALUE OF LANDRIGHTS AND FACILITIES

a. The value of the landrights, easements, servitudes, and rights-of-way to be included in total Project costs and credited towards the DNR's share of total Project costs will be determined in accordance with the following procedures:

1. The costs associated with securing all landrights, easements, servitudes, and rights-of-way to be acquired by the DNR (IIIa) shall be the actual costs, including but not limited to expenses, associated with securing legal landrights instruments from all sources (legal reviews, recording fees, etc.) associated with project activities. An estimate of such costs will be prepared by DNR and approved by SCS for credit allowance as part of the DNR cost-share. Credit allowance for any costs above this estimate must be approved by SCS.

2. Any costs incurred for relocations will be included in total Project costs and will be accomplished as part of project construction through the agreed to cost-share arrangements (75% Federal, 25% non-Federal).

ARTICLE V - CONSTRUCTION PHASING AND MANAGEMENT

a. To provide for consistent and effective communication between the DNR and the SCS during the period of construction, the DNR and the SCS shall appoint representatives to coordinate scheduling, plans, specifications, modifications, contract costs, and other matters relating to construction of the Project.

b. The DNR will participate with the SCS, or its appointed representative, in the engineering and design phases of the Project. Oversight of engineering and construction of the Project will be the responsibility of the SCS or its appointed representative.

c. The representatives appointed above shall meet as necessary during the period of construction and shall make such recommendations as they deem warranted to the Contracting Officer.

d. The Contracting Officer shall consider the recommendations of the representatives in all matters relating to construction of the Project, but the Contracting Officer, having ultimate responsibility for construction of the Project, has complete discretion to accept, reject, or modify the recommendations.

ARTICLE VI - METHOD OF PAYMENT

a. DNR shall provide, during the period of construction, the cash payments required under Article II of this Agreement. Total project costs are presently estimated to be \$8,142,000. In order to meet its share, DNR will contribute, in-kind or in cash, 25% of the total project costs presently estimated to be \$2,035,500. DNR's minimum cash contribution (5%) based on the present project cost estimate will be \$407,100. The dollar amounts set forth in this Article are based upon SCS's best estimates which reflect projection of costs, price level changes, and anticipated inflation. Such cost estimates are subject to adjustments based upon cost actually incurred and are not to be construed as the total financial responsibilities of SCS or DNR.

b. DNR shall provide its required cash contribution in proportion to the rate of Federal expenditures during the period of construction in accordance with the following provisions:

1. For purposes of budget planning, SCS shall notify DNR by October 1 of each year of the estimated funds that will be required from DNR to meet its share of total project costs for the subsequent fiscal year.

2. No later than 60 calendar days prior to the award of the first construction contract, SCS shall notify DNR of the DNR's share of total project costs, including its share of costs attributable to the Project incurred prior to the initiation of construction, for the first fiscal year of construction. No later than 30 calendar days thereafter, DNR shall verify to the satisfaction of SCS or its representative that it has deposited the requisite amount in an escrow account with interest accruing to DNR.

3. For the second and subsequent fiscal years of project implementation, no later than 60 calendar days prior to the beginning of the fiscal year, DNR shall make the necessary funds available to SCS through the funding mechanism specified in Article VI.b.2. of this Agreement. As construction of the Project proceeds, SCS shall adjust the amounts required to be provided under this paragraph to reflect actual costs.

4. If at any time during the period of construction SCS determines that additional funds will be needed from DNR, SCS shall so notify DNR, and DNR, no later than 45 calendar days from receipt of such notice, shall make the necessary funds available through the funding mechanism specified in Article VI.b.2. of this Agreement.

c. SCS will draw on the escrow account provided by DNR through the Corps (see VI.g) such sums as SCS deems necessary to cover contractual and in-house fiscal obligations attributable to the Project as they are incurred, as well as costs incurred by SCS prior to the initiation of construction.

d. The escrow account will be managed for SCS by the New Orleans District, U.S. Army Corps of Engineers. Funds will be withdrawn from the account and disbursed to SCS as requested.

e. Upon completion of the Project and resolution of all relevant contract claims and appeals, SCS shall compute the total project costs and tender to DNR a final accounting of DNR's share of project costs. In the event the total contribution by DNR is less than its minimum required share of total project costs, DNR shall, no later than 90 calendar days after receipt of written notice, make a cash payment to the SCS of whatever sum is required to meet its minimum required share of total project costs, subject to the availability of appropriations.

f. In the event DNR has made cash contributions in excess of 5 percent of total project costs which result in DNR having provided more than its required 25 percent share of total project costs, SCS shall, no later than 90 calendar days after the final accounting is complete, subject to the availability of appropriations, return said excess to DNR; however, DNR shall not be entitled to any refund of the 5 percent cash contribution required pursuant to Article II.c. of this Agreement.

g. If DNR's total contribution under this Agreement (including landrights, easements, rights-of-way, relocations, dredged material disposal areas, and work-in-kind provided by DNR and approved by SCS) exceeds 25 percent of total project costs, SCS shall verify the actual exceeded costs and direct the U.S. Army Corps of Engineers, subject to the availability of appropriations for that purpose, and the minimum 5 percent cash requirement, refund the excess to DNR no later than 90 calendar days after the final accounting is complete.

ARTICLE VII - DISPUTES

Before any party to this Agreement may bring suit in any court concerning an issue relating to this Agreement, such party must first seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative dispute resolution mutually acceptable to the parties.

ARTICLE VIII - MONITORING, OPERATING, MAINTENANCE, AND REHABILITATION

a. After the SCS has accepted the completed Project, or the functional portion of the Project, the DNR shall assume long-term monitoring responsibilities. At this same time, DNR will also assume responsibilities for operations, maintenance and rehabilitation of the completed Project or functional portion of the Project. These responsibilities will remain in effect for the

expected life of the Project which is twenty years from the date of acceptance of the completed Project or functional portion of the Project.

b. DNR grants SCS the right to enter, at reasonable times and in a reasonable manner, upon land which it owns or maintains access easements to the Project for the purpose of inspection related to monitoring, operating, maintaining, replacing, or rehabilitating the Project. If an inspection shows that DNR for any reason is failing to fulfill its obligations under this Agreement, SCS will send a written notice to DNR concerning a need for compliance. If the DNR persists in such failure for 30 calendar days after receipt of the notice, then SCS shall have a right to cancel the federal assistance portion of this Agreement for any additional expenses related to monitoring, operation, maintenance and rehabilitation costs of the Project.

ARTICLE IX - RELEASE OF CLAIMS

The SCS shall hold and save the DNR free from all damages arising from the construction, monitoring, operation, maintenance, and rehabilitation of the Project, except for damages due to the fault or negligence of the DNR or its contractors.

ARTICLE X - MAINTENANCE OF RECORDS

The SCS and the DNR shall keep books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement to the extent and in such detail as will properly reflect total Project costs. The SCS and the DNR shall maintain such books, records, documents, and other evidence for a minimum of three years after completion of construction of the Project and resolution of all relevant claims arising therefrom, and shall make available at their offices at reasonable times, such books, records, documents, and other evidence for inspection and audit by authorized representatives of the parties to this Agreement. In addition, the SCS and DNR shall keep books, records, documents, and other evidence pertaining to cost and expenses incurred pursuant to this Agreement to the extent and such detail as will properly reflect all monitoring, operation, maintenance, and rehabilitation costs in the same manner as above and for three years after final operation of the Project and resolution of all claims arising therefrom.

ARTICLE XI - GOVERNMENT AUDIT

The SCS shall conduct an audit when appropriate of the DNR's records for the Project to ascertain the reasonableness and allowability of its costs for inclusion as credit against the non-Federal share of Project costs.

ARTICLE XII - STATE AUDIT

The DNR shall conduct an audit when appropriate of the SCS's records for the Project to ascertain the reasonableness and allowability of its costs for inclusion as credit against the Federal share of Project costs.

ARTICLE XIII - RELATIONSHIP OF PARTIES

The parties to this Agreement act in an independent capacity in the performance of their respective functions under this Agreement, and neither party is to be considered the officer, agent, or employee of the other.

ARTICLE XIV - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

ARTICLE XV - COVENANT AGAINST CONTINGENT FEES

The DNR warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the DNR for the purpose of securing business. For breach or violation of this warranty, the SCS shall have the right to annul this Agreement without liability, or, in its discretion, to add to the Agreement or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XVI - TERMINATION OR SUSPENSION

a. If the SCS or DNR fails to receive annual appropriations for the Project in amounts sufficient to meet Project expenditure for the then-current or upcoming fiscal year, the SCS or DNR shall so notify the other party. After 60 calendar days either party may elect without penalty to terminate this Agreement pursuant to this Article or to defer future performance hereunder; however, deferral of future performance under this Agreement shall not affect existing obligations or relieve the parties of liability for any obligation previously incurred. In the event that either party elects to terminate this Agreement pursuant to this Article, both parties shall conclude their activities relating to the Project and proceed to a final accounting in accordance with Article VI of this Agreement. In the event that either party elects to defer future performance under this Agreement pursuant to this Article, such deferral shall remain in effect until such time as the SCS or DNR receives sufficient appropriations or until either party elects to terminate this Agreement.

b. Notwithstanding any other provisions of this Agreement, if the award of any contract for construction of the Project would result in the total obligations and expenditures for construction of the Project exceeding 125% of the authorized total first costs of \$4,301,000 the award of that contract and subsequent contracts shall be deferred until such time as all parties to this Agreement agree to resume construction of the Project.

c. In the event any hazardous substances are discovered on any land or water areas required to construct, operate and maintain the project, the SCS and DNR shall mutually

determine whether to initiate construction of the Project. If such a discovery is made after initiation of construction, either party (SCS or DNR) may elect to terminate additional project construction obligations. A decision to terminate construction shall not relieve either party of obligations and responsibilities encumbered prior to the date of notification of such action on previously completed portions of the project.

ARTICLE XVII - OBLIGATIONS OF FUTURE APPROPRIATIONS

Nothing herein shall constitute, or be deemed to constitute, an obligation of future appropriations by the legislature of the State of Louisiana when obligating future appropriations would be inconsistent with the State's constitutional or statutory limitations.

ARTICLE XVIII - NOTICES

a. All notices, requests, demands, and other communications required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally, given by prepaid telegram, or mailed by first-class (postage pre-paid), registered, or certified mail, as follows:

If to the Local Sponsor:

Secretary, Department of Natural Resources
P.O. Box 94396
Baton Rouge, LA 70804-9396

If to the Government:

USDA Soil Conservation Service
3737 Government Street
Alexandria, LA 71302

b. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

c. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at such time as it is personally delivered or seven calendar days after it is mailed, as the case may be.

ARTICLE XIX - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE XX - PROJECT COST LIMITS

The DNR and SCS are aware that the PL 101-646 Task Force has established a total Project cost of \$8,142,000 for this particular Project. Any costs in excess of 125% of this established figure will require review and approval of the Task Force, and Amendment of this Agreement.

ARTICLE XXI - EQUAL OPPORTUNITY AND CIVIL RIGHTS

a. The program or activities conducted under this agreement will be in compliance with the nondiscrimination provision contained in the Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, and the Age Discrimination Act of 1975. They will also be in accordance with regulations of the Secretary of Agriculture (7 CFR-15, Subparts A & B), which provide that no person in the United States shall on the grounds of race, color, national origin, age, sex, religion, marital status, or handicap be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial assistance from the Department of Agriculture or any agency thereof.

b. SCS shall not discriminate on the basis of sexual orientation.

USDA - SOIL CONSERVATION SERVICE

JOHN F. ALES, SECRETARY
DEPARTMENT OF NATURAL RESOURCES

BY: *[Signature]*
(signature)

BY: *N.J. Damico*
(signature)

Horace J. Austin
(typed name)

N.J. Damico, Deputy Secretary
(typed name)

State Conservationist

(title in full)

(title in full)

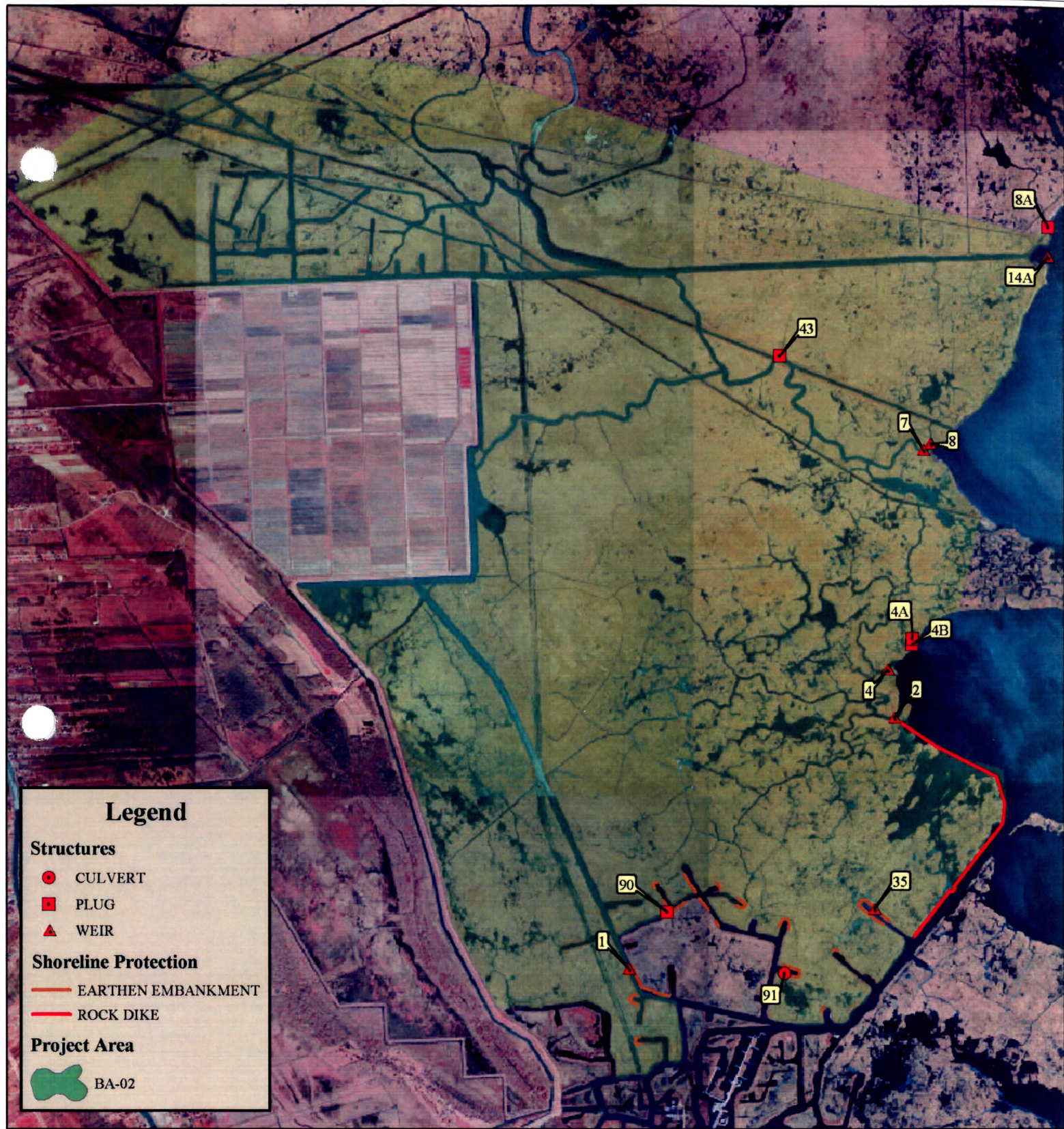
DATE: 10-22-92

DATE: 11-13-92

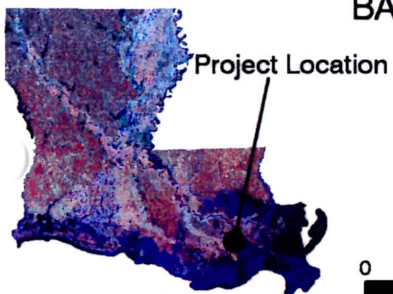
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ATTACHMENT II
GIWW TO CLOVELLY HYDROLOGIC RESTORATION

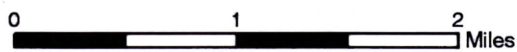
PROJECT FEATURES



BA02 - GIWW to Clovelly Hydrologic Restoration



PROJECT FEATURES MAP



Data Source:

LA Dept. Natural Resources
Coastal Engineering Division
Thibodaux Field Office

1998 DOQQ

Date: March 3, 2005

Map ID: 2005-TFO-011

ATTACHMENT III

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

PROJECT COMPLETION REPORT



United States
Department of
Agriculture

Natural Resources
Conservation Service

3737 Government Street
Alexandria, Louisiana
71302

July 26, 2002

Mr. George Boddie
Project Manager
Coastal Restoration Division
UNO Box 1102
New Orleans, LA 70148

Mr. Tom Podany
Chief, CWPPRA Program Manager
US Army Engineer District, New Orleans
P.O. Box 60267
New Orleans, Louisiana 70506

Gentlemen:

Re: PL-646 – BA-2
GIWW to Clovelly Hydrologic Restoration Project

The referenced project has been completed. Enclosed are a Project Completion Report and a copy of the As-Built drawings for the project.

Please direct any questions concerning this Project Completion Report to my attention at (318) 473-7791.

Sincerely,

/s/

Bradley A. Sticker, P.E.
Civil Engineer

Enclosure

cc: Bruce Lehto, ASTC/Water Resources, NRCS, Alexandria, LA (electronic distribution)
Britt Paul, Water Resources Planning Staff Leader, NRCS, Alexandria, LA (electronic distribution)
Dr. Bill Good, LDNR – CRD, Baton Rouge, LA (electronic distribution)
Garrett Broussard, LDNR – CRD, Baton Rouge, LA (electronic distribution)
Ed Giering, State Conservation Engineer, NRCS, Alexandria, LA (electronic distribution)
Gene Loupe, District Conservationist, Thibodaux, LA (electronic distribution)
Charles Phillips, Contracting Officer, NRCS, Alexandria, LA (electronic distribution)
Dale Garber, COTR, NRCS, Thibodaux, LA (electronic distribution)
Cherie LaFleur, Design Engineer, NRCS, Alexandria, LA (electronic distribution)
Ronnie Faulkner, Design Engineer, NRCS, Alexandria, LA (electronic distribution)

PROJECT COMPLETION REPORT¹

PROJECT NAME	GIWW to Clovelly Hydrologic Restoration
CWPPRA/STATE PROJECT NO.	BA 2

Report Date: July 26, 2002 BY: Natural Resources Conservation Service

1. Project Managers/Contracting Officer:

DNR Project Manager	George Boddie	Telephone	(504) 288-7153
DNR Construction Project Manager	Brian Babin	Telephone	(985) 447-0956
DNR Monitoring Manager	John Rapp	Telephone	(985) 447-0993
Federal Agency Project Manager	Britt Paul	Telephone	(318) 473-7816
Federal Agency Contracting Officer	Charles Phillips	Telephone	(318) 473-7796

2. Location and description of projects as approved for construction by Task Force.

West Fork Bayou L'Ours Watershed (BA-2 Portion) is a wetland protection and enhancement project that encompasses the marshes of Lafourche Parish southeast of the Gulf Intracoastal Waterway (GIWW), east of Bayou Lafourche, and north of the Superior Canal. The project area contains approximately 60,000 acres of fresh and low-salinity wetlands. The project is in the West Fork Bayou L'Ours watershed which comprises 133,900 acres in the southeastern portion of Lafourche Parish, Louisiana, and is bounded on the west and south by West Fork Bayou L'Ours; on the east by Bayou Perot, Little Lake and Bay L'Ours; and on the north by the GIWW.

This project has several purposes: reduce marsh erosion; reduce saltwater intrusion and subsequent land loss; increase economic returns from trapping, recreational opportunities, and commercial fisheries; sustain marsh habitat for the continued existence of territorial, migratory, and threatened or endangered wildlife; improve water quality; and to achieve marsh reclamation.

3. Final, as-built features, boundaries and resulting acreage (use attachments if necessary).

Construction Unit #1 consisted of the installation of 8 structures to the west of Little Lake and Bay Lours. The installation consisted of 3 rock plugs, 4 rock weirs, and a 36" diameter corrugated aluminum pipe with a flap gate supported by pilings. The previously submitted "As Built" plans identify the locations and features as installed.

Construction Unit #2 consisted of the installation of 2 rock plugs, 2 rock weirs, 1 variable crested sheet pile weir, approximately 5665 linear feet of shore protection on the southwest shore of Bay Lours, and approximately 11711 linear feet of earthen bank stabilization and 5023 linear feet of rock bank stabilization. The locations and constructed dimensions of the features of Construction Unit #2 can be seen in the attached "As Built" plans

Actual Benefited Acres 2,052

4. Key project cost elements

	CWPPRA Project Cost Estimates** (TOTAL PROJECT)	Cost Incurred as of Construction Completion (TOTAL PROJECT)
Construction	\$ 4,870,000.00	\$ 5,453,607.52
E & D	\$ 602,020.00	\$ 612,705.00
Landrights	\$ 384,880.00	\$ 373,064.00
Monitoring	\$ 1,236,624.00	\$ 277,073.00
O & M	\$ 1,235,079.00	\$ 6,977.43
Total	\$ 8,328,603.00	\$ 6,723,426.95

** Most recent estimate from CWPPRA Project estimates Report produced by USACOE.

5. Items of Work (Construction Unit #2 Only)

BASE BID

CLIN	Work	Est. Quan.	Unit	Estimated Unit Price	Estimated Amount	Final Quan.	Bid Unit Price	Final Amount	% Over or -under
1	Mobil & Demobil	1	Job	\$75,000.00	\$ 75,000.00	1	\$ 195,000.00	\$ 190,000.00 *	0%
2	Pollution Ctrl	1	Job	\$ 10,000.00	\$ 10,000.00	1	\$ 2,000.00	\$ 2,000.00	0%
3	Steel Sheet Piling	1890	S.F.	\$ 22.00	\$ 41,580.00	1899	\$ 30.00	\$ 56,961.00	0.5%
4	Rnd Tim Pile 60 Ft	32	EA	\$ 870.00	\$ 27,840.00	33	\$ 1,100.00	\$ 36,300.00	3.1%
5	Rnd Tim Pile 50 Ft	36	EA	\$ 725.00	\$ 26,100.00	35	\$ 900.00	\$ 31,500.00	2.8%
6	Earthfill	2995	CY	\$ 20.00	\$ 59,900.00	8823	\$ 6.00	\$ 52,936.74	194.6%
7	Rockfill	16865	Tons	\$ 35.00	\$ 590,275.00	23369	\$ 42.50	\$ 993,182.50	38.6%
8	Rockriprap 650#	47865	Tons	\$ 36.00	\$ 1,723,140.00	34991	\$ 36.50	\$ 1,277,171.50	26.9%
9	Rockriprap 200#	15380	Tons	\$ 36.00	\$ 553,680.00	18593	\$ 35.50	\$ 660,051.50	20.9%
10	Metal Fab Warning Sign Support	30	EA	\$ 500.00	\$ 15,000.00	30	\$ 1,000.00	\$ 30,000.00	0%
11	Metal Fab Site 35	1	Job	\$20,400.00	\$ 20,400.00	1	\$ 15,000.00	\$ 15,904.60 **	0%
12	Metal Fab Settlement Plates	8	EA	\$ 500.00	\$ 4,000.00	8	\$ 1,000.00	\$ 8,000.00	0%
13	Geotextile	56950	S.Y.	\$ 2.70	\$ 153,765.00	65466	\$ 6.00	\$ 392,794.68	15%
14	Construction Surveys	1	Job	\$20,000.00	\$ 20,000.00	1	\$ 25,000.00	\$ 25,000.00	0%

ADDITIVE A

15	Earthfill	4,290	CY	\$ 22.00	\$ 94,380.00	6088	\$ 6.00	\$ 36,525.60	41.9%
16	Rockfill	550	Tons	\$ 36.00	\$ 19,800.00	0	\$ 45.00	\$ - ***	
17	Rnd. Timber Piling, 50 ft	3	EA	\$ 725.00	\$ 2,175.00	3	\$ 1,100.00	\$ 3,300.00	0%
18	Rock Riprap, 650#	1,970	Tons	\$ 38.00	\$ 74,860.00	2597	\$ 39.00	\$ 101,283.00	31.8%
19	Metal Fabrication, Warning Sign Supports	3	EA	\$ 500.00	\$ 1,500.00	3	\$ 1,000.00	\$ 3,000.00	0%
20	Metal Fabrication, Settlement Plates	1	EA	\$ 500.00	\$ 500.00	1	\$ 1,000.00	\$ 1,000.00	0%
21	Geotextile	11170	S.Y.	\$ 3.00	\$ 33,510.00	6778	\$ 6.00	\$ 40,666.74	39.3%
22	Construction Surveying	1	Job	\$ 3,000.00	\$ 3,000.00	1	\$ 5,000.00	\$ 5,000.00	0%

ORIGINAL ESTIMATED AMOUNT \$3,550,405 ORIG. BID AMOUNT \$3,975,435.00

MODIFICATION #13

23	Rock Rip rap 650# Site 14 A Ext	300	Tons	\$ 36.50	\$ 10,950.00	300	\$ 36.50	\$ 10,950.00	0%
24	Geotextile	178	S.Y.	\$ 6.00	\$ 1,068.00	178	\$ 6.00	\$ 1,068.00	0%

MODIFICATION #14

25	650# Rock Site 4 B	120	Tons	\$ 39.00	\$ 4,680.00	403	\$ 39.00	\$ 15,717.00	-70%
26	650 # Rock Lake Rim	1230	Tons	\$ 36.50	\$ 44,895.00	1,478	\$ 36.50	\$ 53,947.00	-17%
27	Rock Riprap 200#	3375	Tons	\$ 35.50	\$ 119,812.50	2,354	\$ 35.50	\$ 83,567.00	43%
28	Rockfill	1400	Tons	\$ 42.50	\$ 59,500.00	1,010	\$ 42.50	\$ 42,925.00	39%

MODIFICATION #15

29	Negotiated Equitable Adjustment							\$ 665,753.00	-70%
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TOTAL FINAL AMOUNT \$ 4,836,504.62

*Modification #5 – reduced item by \$5000

**Modification #6 – increased item by 904.60

***Modification # 11 – Removed bid CLIN 16 reduced by \$24,750, increased CLIN 18 by \$21,450

6. Construction and construction oversight

ITEM	Constr. Unit #1	Constr. Unit #2
Prime construction contractor	All South General Contractor	Regency Construction
Subcontractor	N/A	Bertucci Contracting Corp.
Subcontractor	N/A	Jag Construction
Original construction contract	\$394,788.00	\$ 3,975,435.00
Change orders	\$17,760.00	\$879,831.60
Over/Under Runs	\$32,974.60	- \$18,761.98
Damages	-\$821.72	\$0.00
Total Construction Contract Cost	\$444,700.88	\$4,836,504.62*

*With navigation lights small purchase added to CU#2, the total cost is \$4,850,980.64

Const. oversight contractor	N/A	Const. amt.	\$ ----
Cons. O.S./Admin. agency	<u>USDA NRCS</u>	Est. amt.	<u>\$ ----</u>

7. Major equipment used (Construction Unit #2 Only).

AB-3 Spud Barge with Bucyrus Erie 88-B Crane
 AB-4 Spud Barge with Bucyrus Erie 88-B Crane
 AB-11 Spud Barge with Bucyrus Erie 88-B Crane
 BB-105 Spud Barge with Linkbelt CS2800 Long Reach Excavator
 FS-117 Spud Barge with Linkbelt 3400 Long Reach Excavator
 Marsh buggy Excavator
 Front End Loader
 3 – Tug Boats
 Spud Barge with Link – Belt Crane (subcontractor)
 Rock Barges

8. Discuss construction sequences and activities, problems encountered, solutions to problems, etc. (CU #2 Only)

1. The Contractor started placing geotextile and rockfill at Sites 14-A, 1, and 90 to allow for the 40 day waiting period.
2. Started placing earthfill material along the embankment stabilization.
3. Started placing geotextile and rockfill along the bank stabilization which had a 40 day waiting period.
4. Once the rockfill was placed they began placing riprap along the bank stabilization starting at the mouth of the Briton Canal. Also, placed riprap on the structures and along the lake rim stabilization.
5. Began driving sheet piles for Site 35 variable crest weir.
6. Completed placing rock at sites 1 and 90 and began placing riprap at site 4-B.
7. Completed placing riprap at the lake rim restoration and the bank stabilization.
8. Completed site 35 and installed the stoplogs.
9. Completed site 14-A and 4-B.
10. Completed placing earthen material along the bank stabilization.
11. Installed the warning signs and supports.
12. Cleaned up the sites and removed all equipment.

9. Construction change orders and field changes (Construction Unit #2 Only).

- Modification #1 – Increased performance time from 256 to 289 calendar days due to Additive A being awarded.
- Modification #2 – Corrected “Type C” sign details on sheet 23 of the drawings. (No cost or time change)
- Modification #3 – Required contractor to measure partial barges where materials were being placed on multiple CLIN’s. (No cost or time change)

- Modifications #4 – Allowed use of originally specified epoxy coated cable or stainless steel cable for the navigation pile clusters. (No cost or time change)
- Modification #5 – Allowed prime contractor to reduce his required workforce from 50% to 25%. CLIN 1 Mobilization was reduced from \$195,000 to \$190,000 for a total of \$5,000 reduction in the contract amount. (No time change)
- Modification #6 – Strengthened the crane base plate and supports at site 35. CLIN 11 was increased from \$15,000 to \$15,904.60 for an increase of \$904.60 in the contract amount. (No time change)
- Modification #7 – Not issued
- Modification #8 – Unilateral modification requiring the contractor to place the rockfill for the lake rim restoration portion of the work to the lines as shown in the revised sheet 22 and revised specification page 25-5 and 25-6. This was done to correct an error in the original specification that required the contractor to place more rockfill in the lake rim restoration section than was intended. (No cost or time change at the time of issuance)
- Modification #9 – Unilateral modification that limited the contractor to ordering no more than 23,253 tons of rockfill for CLIN 7. (No cost or time change at the time of issuance)
- Modification #10- Unilateral modification that removed geotextile from beneath the earthen embankment with the exception where the fill height exceeded 3'. The quantities for CLIN 13 and 21 were reduced by 7,675 s.y. and 4,705 s.y. respectively. (No cost or time change at the time of issuance)
- Modification #11- Changed requirement for a rockfill core at site 4b and utilized all rock riprap for the structure construction. CLIN 16 was removed from the contract for a \$24,750 reduction. Increased CLIN 18 by 550 tons at \$39.00 per ton for an increase of \$21,450.
- Modification #12- Changed the location of the warning sign placement along the lake rim restoration to align with the center of the fish dips in the area. (No cost or time change)
- Modification #13- Added CLIN's 23 (Rock riprap 650# site 14A extension) and 24 (Geotextile site 14A extension) in order to extend the length of site 14A. The total dollar value of the contract was increased by \$12,018 and one additional day was added to the performance time.
- Modification #14- Added four CLIN's (25, 26, 27, & 28) to add additional rockfill and riprap to various locations to bring the structures to required grades. The total dollar value of the contract was increased by \$228,887.50 and the performance time was increased by 10 days.
- Modification #15- Added CLIN 29 which was a negotiated equitable adjustment to the contract for change orders 8, 9, and 10, and other negotiated changes to the contract. The total dollar value of the contract was increased by \$665,753 and the performance time was increased by 42 days.

10. Pipeline and other utility crossings.

Structure	Owner	Rep. To Contact
Oyster Leases in Project Access Route	Whitney Lombas	Whitney Lombas (504)572-2897 (Pager)
Lake Rim and Bank Stabilization	Entergy	Claude Maralda (504)670-3780
14-A	Exxon Pipeline	Benton Arcement (504)537-4805
Bank Stabilization	Stone Energy	Phillip Lalande (318)237-0410
Bank Stabilization	Ridgelake Energy, Inc	John Rubin (504)837-0444

11. Safety and Accidents (Construction Unit #2 Only).

Excellent Safety Record with no Accidents Reported.

Two Tug Boats pumped their bilge and created an oil spill that was cleaned up promptly and reported to Coast Guard.

12. Additional comments pertaining to construction, completed project, etc.

Lafourche Parish expressed their concern that navigation lights were not installed at site 14-A. A small purchase contract was awarded to install four navigation lights on the existing pile clusters. Also, conspicuity tape was installed on all piles for additional safety to keep boaters from running into the structures. The cost for this additional work was \$14,476.02.

13. Significant Construction Dates:

ACTION	Construction Unit #1 Date	Construction Unit #2 Date
Bid I.D. (Construction, Vegetation, etc.)	Construction	Construction
Bid Opening	3/6/1997	12/15/1999
Construction Contract Award	3/12/1997	1/18/2000
Preconstruction Conference	3/19/1997	2/15/2000
Notice to Proceed	4/1/1997	2/22/2000
Mobilization	4/21/1997	4/13/2000
Construction Start	4/21/1997	4/14/2000
Construction Completion	10/6/1997	10/13/2000
Final Acceptance	10/9/1997	11/8/2000

Other significant Project Dates

	<u>Date</u>
Project Implementation closeout**	_____
Start of Preconstruction Monitoring***	_____
Preconstruction Aerial Photography	_____
Monitoring Plan Completion***	_____

** Final implementation closeout is made by either the DNR Project Manager or the Federal Agency Contracting Officer depending on which organization had lead role for construction of project.

*** To be completed by DNR Project Manager.

NRCS SUPPLEMENT TO COMPLETION REPORT

CONTRACT ADMINISTRATION

List any significant problems encountered in the administration of the construction contract and recommended solution for future contract of like nature.

DESCRIPTION OF PROBLEM ENCOUNTERED	RECOMMENDATIONS FOR FUTURE CONTRACTS
1. Unilateral modifications were issued (change orders) and no equitable adjustment was made at the time the order was given.	In the event unilateral modifications are required, an equitable adjustment of time and dollars should be included in the modification if appropriate.

CONSTRUCTION PLANS

List any items pertinent to the plans that caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN PLANS	RECOMMENDATIONS FOR FUTURE CONTRACTS
1. Navigation Aids	<ol style="list-style-type: none"> 1. Recommend using 3/4" Stainless Steel cable to wrap pilings and using two - 1" diameter Stainless Steel rods to bolt the pilings together. The rods shall be spaced approximately 8" apart so the cable can be wrapped between the rods and thus held in place. 2. Install warning lights on Navigation Aids for safety purposes.
2. Directional Signs and Temporary Warning Signs	<ol style="list-style-type: none"> 1. Recommend using 6" diameter pipe for support of directional signs at boat or barge bays. 2. Require contractor to install temporary sign supports of sufficient strength and height. Require contractor to maintain these according to planned height and location during construction.
3. Settlement Pipes	<ol style="list-style-type: none"> 1. Install a minimum 3" diameter pipe for settlement plates. 2. If a threaded cap is used, require the contractor to cold galvanize the threads prior to final inspection.
4. Paint Schedule	<ol style="list-style-type: none"> 1. Recommend having a paint schedule on plans for steel work to clarify the requirements.
5. Fish Dips	<ol style="list-style-type: none"> 1. Where fish access dips are required, the warning signs need to be shown on the plans to be located at the center of each dip in order to protect boaters from the underwater obstructions.
6. Typical Sections	<ol style="list-style-type: none"> 1. Ensure that the typical sections in the plans and placement methods described in the specifications are consistent with the sections and methods used to estimate quantities.

CONSTRUCTION SPECIFICATIONS

List any significant items in the construction specifications which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN SPECIFICATIONS	RECOMMENDATIONS FOR FUTURE CONTRACTS
1. Rockfill	<ol style="list-style-type: none"> 1. For structures with rockfill cores for reduced permeability, it is recommended not to overbuilding the rockfill portion above the final lines and grades for the rockfill. This is because the amount of anticipated settlement that may not occur leaving excess rockfill. If the rockfill settles, it is recommended the difference by made up in additional riprap to avoid having to remobilize more rockfill to the site. 2. If possible, recommend only building rock section with one size riprap and not using rockfill and riprap. 3. If permeability is a concern, consider using alternative methods such as a vinyl sheet pile cutoff wall or lightweight bagged materials in the center of the rock riprap structure to reduce permeability.
2. Rip-Rap	<ol style="list-style-type: none"> 1. The specification should require that rip-rap should be built to grade plus a specified vertical tolerance and the final grade shall meet the planned grade at time of final inspection, therefore if settlement does occur the contractor may have to come back and place more rip-rap prior to final inspection. The exception to this would be where staged construction is required for foundation stability.
2. Earth Embankment	<ol style="list-style-type: none"> 1. Do not recommend using geotextile under earthfill sections when the fill height is 3 feet or less. 2. Recommend bidding this work by the linear feet and specifying the contractor to place multiple lifts to meet final planned grade. 3. Recommend seeding any earthfill areas placed.

GENERAL COMMENTS

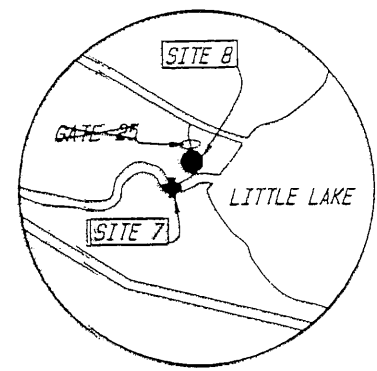
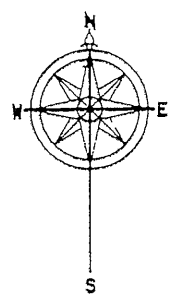
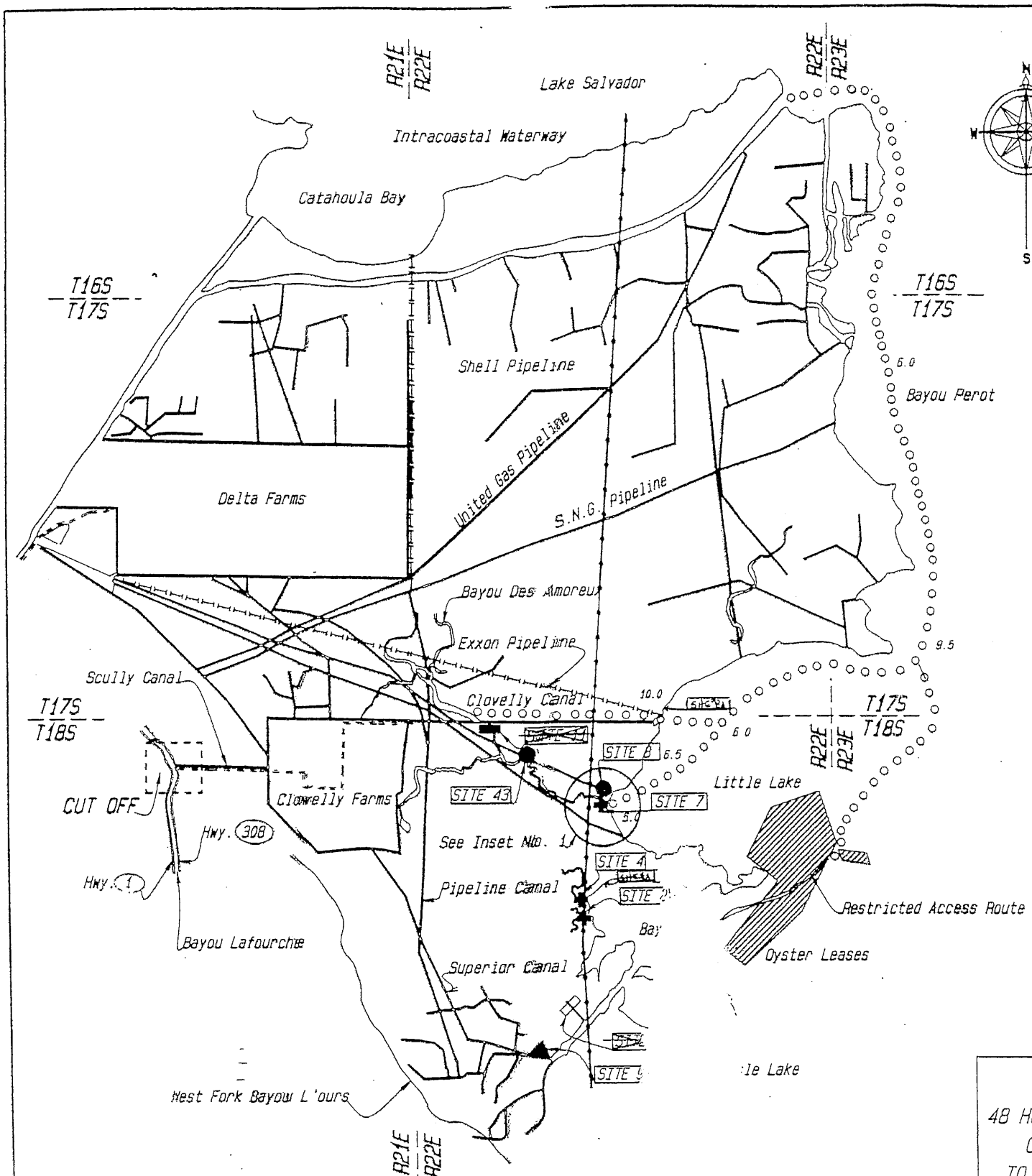
List any significant items which worked well and should be repeated or which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM	RECOMMENDATIONS FOR FUTURE CONTRACTS
1. Geotextile	<ol style="list-style-type: none"> 1. In estimating the quantity of geotextile required for linear features (foreshore dikes, etc.), the length of the geotextile needs to be determined by measuring the outside lengths of curves and PI's. Also if soft foundation soils are present, the length of the geotextile required needs to be increased due to the differential settlement that will occur by approximately 10%. This will be site specific.
2. Excavation for Floatation	<ol style="list-style-type: none"> 1. If possible in future contracts consideration to increasing floatation access channel widths to 80' to allow larger equipment access and possibly increase competition.

ATTACHMENT IV

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

AS-BUILT DRAWINGS



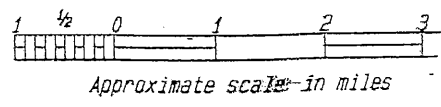
LEGEND

- Pipeline
- 0.0 — Average Available Draft
- — Proposed Access Route
- Township/Range Line
- Existing Channel
- SITE NO. — Site Number
- ▶ — Proposed Channel Plug w/ Culvert
- ⊕ — Proposed Rock Weir
- — Proposed Fixed Crest Weir
- — Proposed Variable Crest
- — Proposed Channel Plug

NOTICE:
 48 HOURS BEFORE MOBI
 CALL 1-800-272-3
 TO LOCATE UTILITY

NOTE: Intracoastal Waterway meets within project area. draft depths

LOCATION MAP



NOTE: Known pipelines and utilities are shown. However, it is possible that some pipelines and utilities have not been shown. The contractor should verify the location of such pipelines and utilities immediately to the Contractor.

"AS SHOWN"

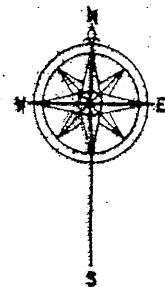
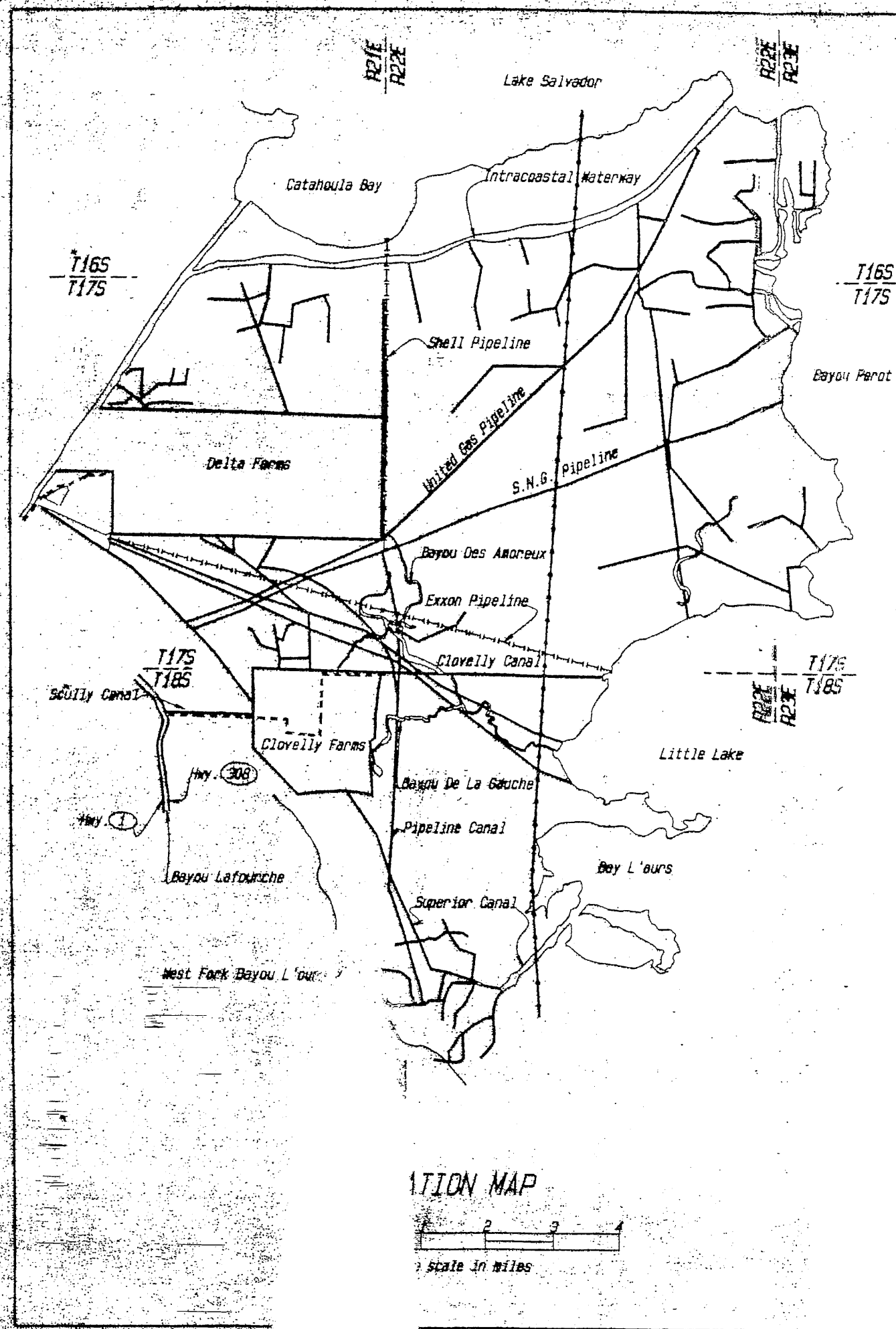
ACCESS - CONSTRUCTION
 WEST FORK BAYOU LAFOURCHE
 LAFOURCHE DISTRICT

U. S. DEPARTMENT OF AGRICULTURE
 NATURAL RESOURCE CONSERVATION SERVICE

DESIGNED BY: J. HENRY
 DRAWN BY: A. GREENMILLION
 CHECKED BY: J. MOORE

STATE OF LOUISIANA
 E. J. GIERING, III
 REG. NO. 2483
 PROFESSIONAL ENGINEER
 IN
 CIVIL ENGINEERING

DATE: 12/17/96



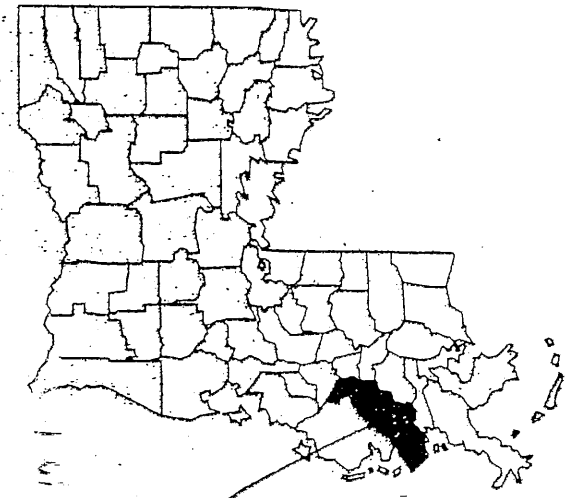
West Fork Bayou L'Ours Watershed
 Project BA-2, Construction Unit 1
 Built Under The Coastal Wetlands, Planning,
 Protection & Restoration Act
 Public Law 101-646

By
 Lafourche Parish Council
 Lafourche - Terrebonne Soil & Water Conservation District
 Louisiana Department Of Natural Resources
 With The Assistance Of
NATURAL RESOURCES CONSERVATION SERVICE
 OF THE
U. S. DEPARTMENT OF AGRICULTURE
 1996

"AS-BUILT PLANS"
 SUBMITTED BY: *Dale J. Adams* 11/19/97
 DATE
 APPROVED BY: *Emily J. Stetson* 12/15/97
 DATE
 STATE CONSERVATION ENGINEER 12/15/97
 DATE

LEGEND

- State Highway
- Unimproved Road
- Township / Range Line
- Parish Line
- Pipeline
- Aerial Power Lines
- Canals (Existing)
- "A-A/5" Section/Page Section Was Taken
- A/5 Section/Page Section Is Shown



Location in Louisiana

INDEX TO DRAWINGS

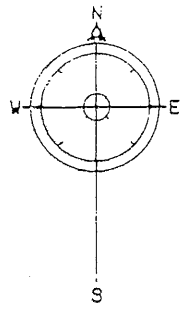
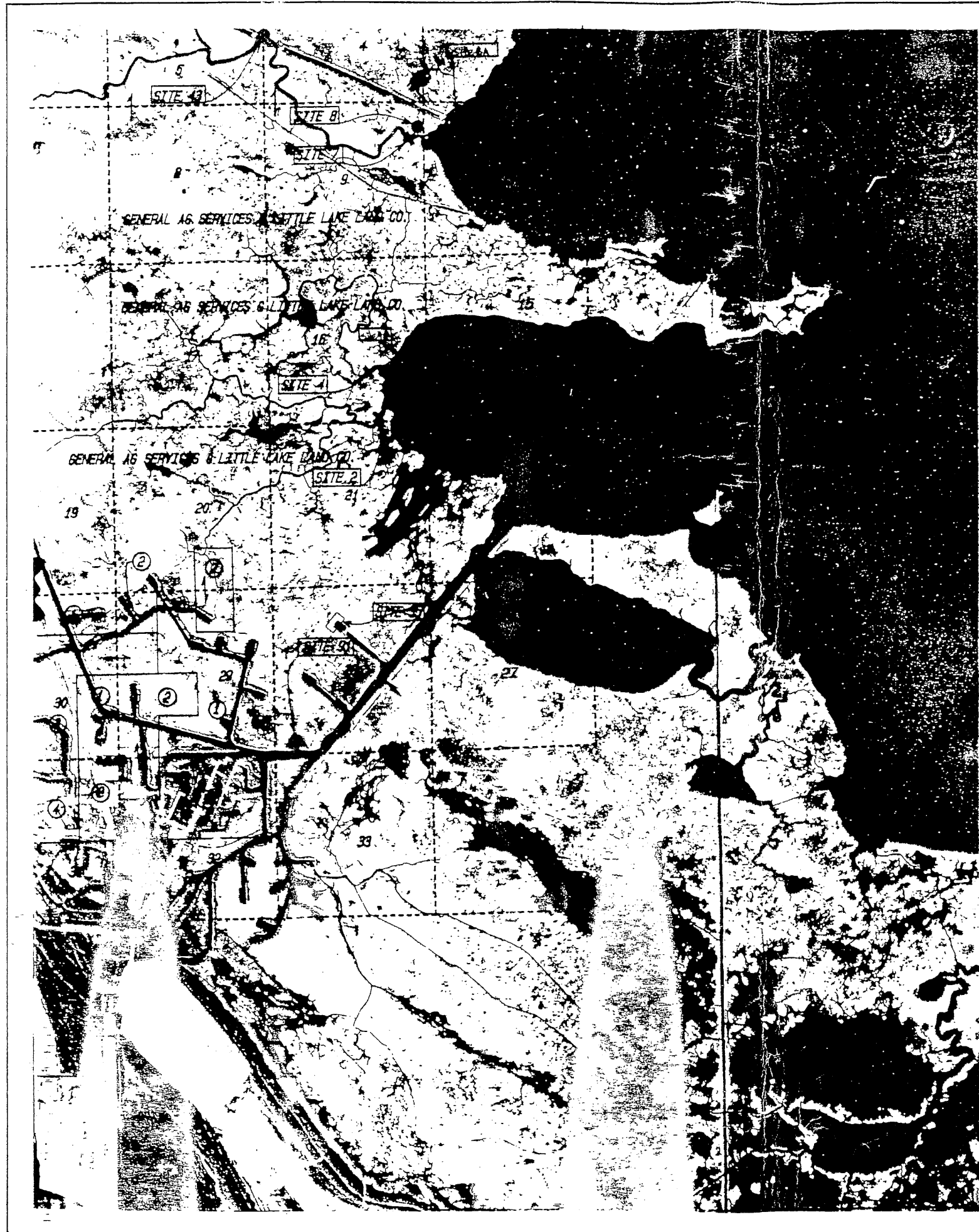
Description
Cover Sheet & Location Map
Access Location Map
Land Rights Work Map
Details - Rock Weirs (Sites 2, 4, & 7)
Details - Plug With Culvert (Site 9)
Details - Channel Plugs (Sites 8 & 43)
Details - Fixed And Variable Crest Weirs (Sites 1 & 2)
Details - Warning Sign and Pipe Fence



"AS-BUILT"

CONSTRUCTION DRAWINGS APPROVED

Emily J. Stetson
 STATE CONSERVATION ENGINEER
 11-1-96



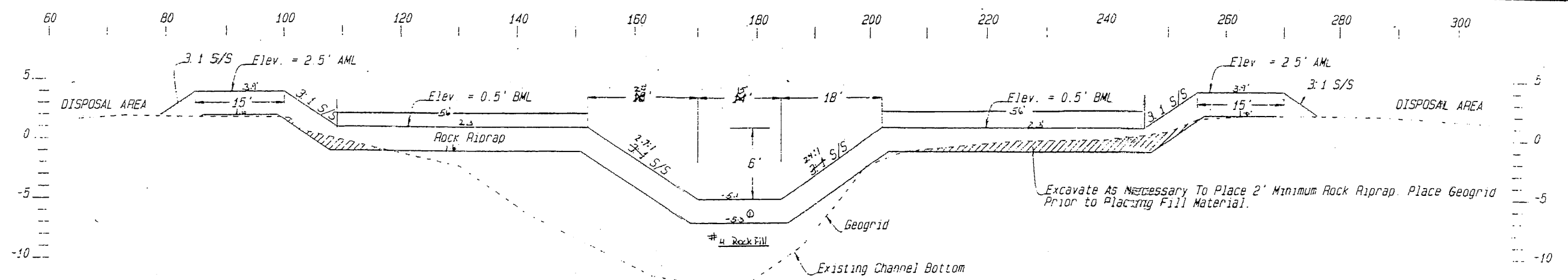
- ① GENERAL AG SERVICES & LITTLE LAKE LAND CO.
- ② ALLAIN - LEBRETON CO.
- ③ JAMES PELTIER et als
- ④ WARREN BARKER JR. et als
- ⑤ EXXON CORPORATION

NOTE:
 THE SERVICE DOES NOT GUARANTEE THE COMPLETENESS AND ACCURACY OF OWNERSHIP SHOWN. APPARENT OWNERSHIP HAS BEEN OBTAINED FROM MAPS IN THE OFFICE OF PARISH CLERK OF COURT OR TAX ASSESSOR WHERE AN APPARENT PROPERTY LINE IS SHOWN NEAR THE CENTERLINE OF A CHANNEL, ITS LOCATION IS NOT DEFINITE.

"AS-BUILT"

LAND RIGHT CONSTRUCTION		SHEC	
WEST FORK BAYOU LAFOURCHE		LOUISIANA	
U. S. DEPARTMENT OF NATURAL RESOURCES COMMISSION		SERVICE	
Designed	J. PELBY	DATE	07.93
Drawn	A. DREWILLIA	DATE	08.93
Traced		DATE	
Checked	J. MELBY	DATE	11.93

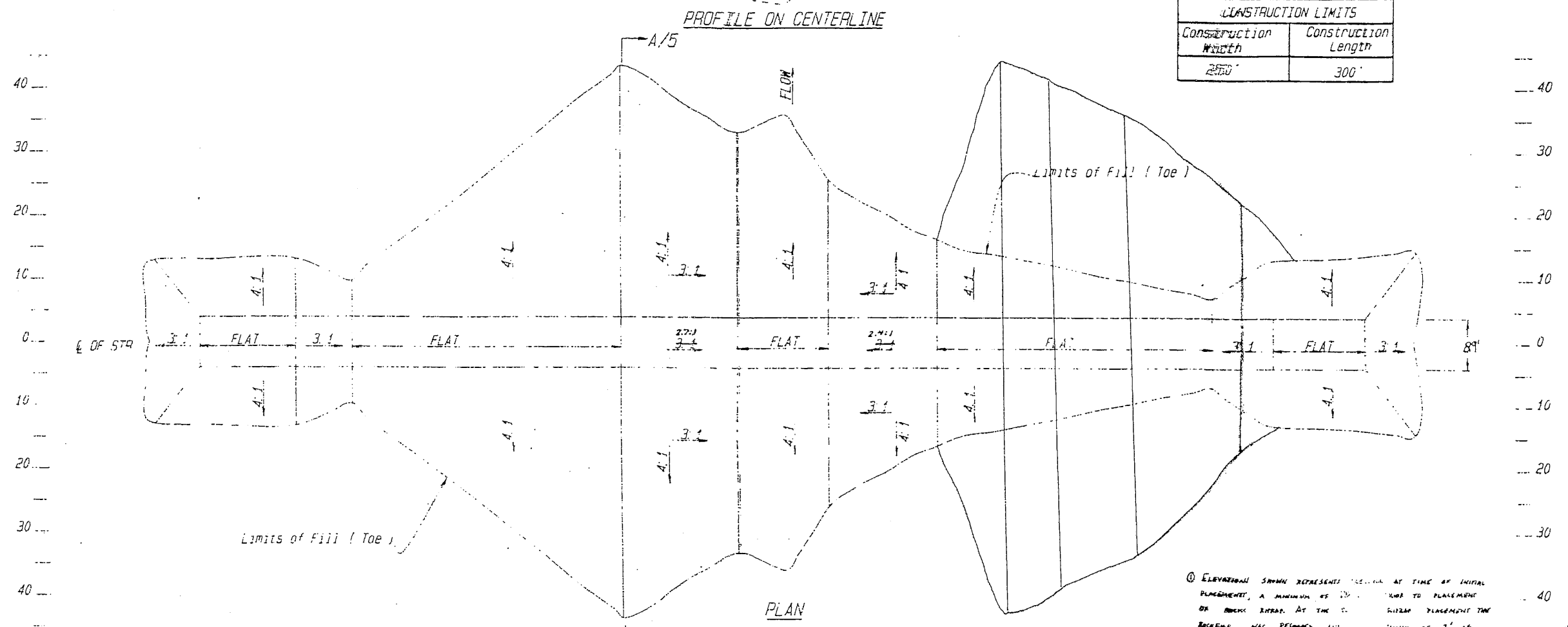
Handwritten signature or initials.



Excavate As Necessary To Place 2' Minimum Rock Riprap. Place Geogrid Prior to Placing Fill Material.

CONSTRUCTION LIMITS	
Construction Width	Construction Length
250'	300'

(ALL SCALES ARE IN FEET.)

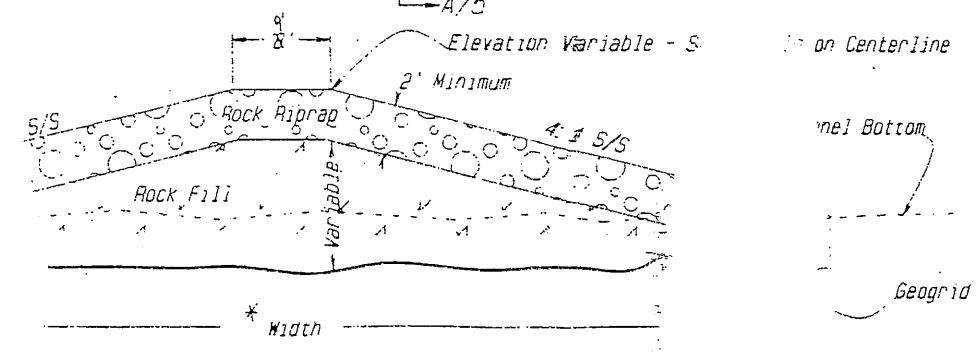
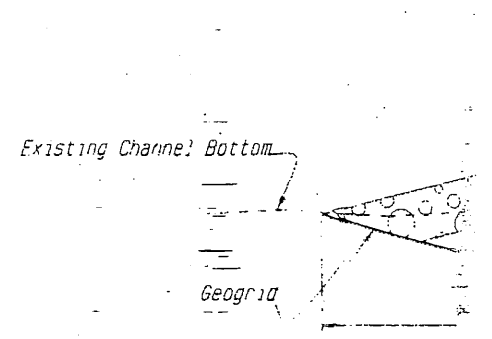


① ELEVATIONS SHOWN REPRESENTS ELEVATION AT TIME OF INITIAL PLACEMENT, A MINIMUM OF 10' BELOW TOE TO PLACEMENT OF ROCK RIPRAP. AT THE TIME OF RIPRAP PLACEMENT THE ROCKFILL WAS RETAINED TO A MINIMUM OF 2' OF ROCK RIPRAP WAS PLACED.

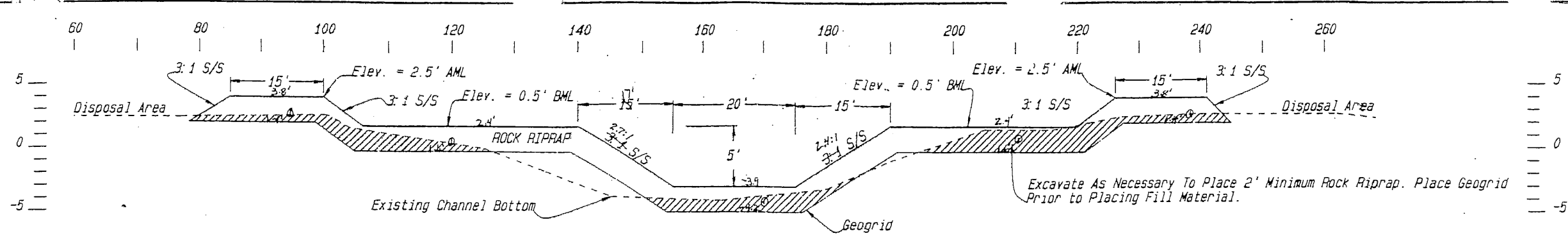
ALL AS-BUILT ELEVATIONS ARE HAND SET DATA

- MARSH LEVEL = 1.26
- NOTES:
1. BML - BELOW MARSH LEVEL
 2. AML - ABOVE MARSH LEVEL
 3. ELEVATIONS ARE SITE SPECIFIC, AND BASED ON ASSUMED H.I.'S
 4. C.O.T.R. WILL ESTABLISH MARSH LEVEL IN THE FIELD.
 5. GEOGRID TO CONFORM TO EXISTING CHANNEL BOTTOM.

DETAILS SITE 2 - ROCK WEIR
CONSTRUCTION UNIT NO. 4
FORK BAYOU L'OURS WATERSHED
LAFOURCHE, PARISH
LOUISIANA
DEPARTMENT OF AGRICULTURE
RESOURCES CONSERVATION SERVICE



Width of Fill Limits Vary - See Plan View

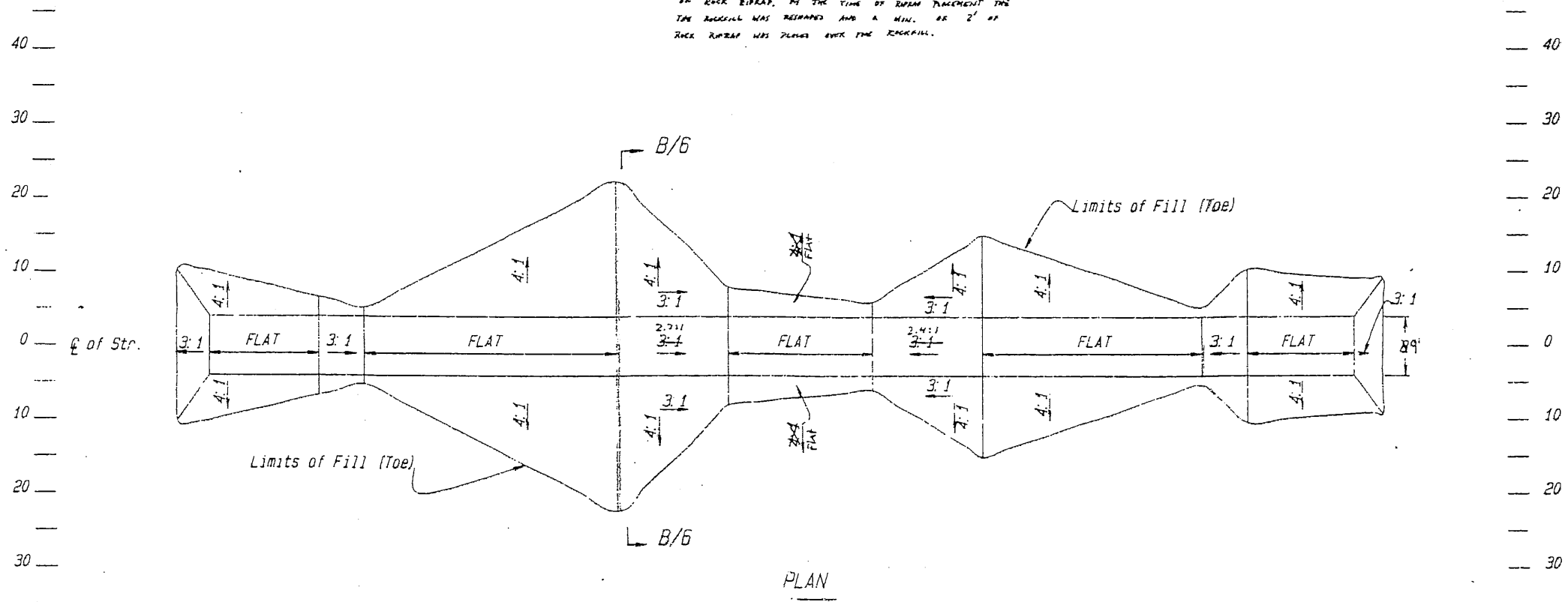


PROFILE ON CENTERLINE

① ELEVATIONS SHOWN REPRESENTS DRAINAGE AT TIME OF INITIAL PLACEMENT, A MIN. OF 70 DAYS PRIOR TO PLACEMENT OF ROCK RIPRAP. AT THE TIME OF RIPRAP PLACEMENT THE TOP SURFACE WAS REGRADED AND A MIN. OF 2' OF ROCK RIPRAP WAS PLACED OVER THE REGRAD.

CONSTRUCTION LIMITS	
Construction Width	Construction Length
250'	300'

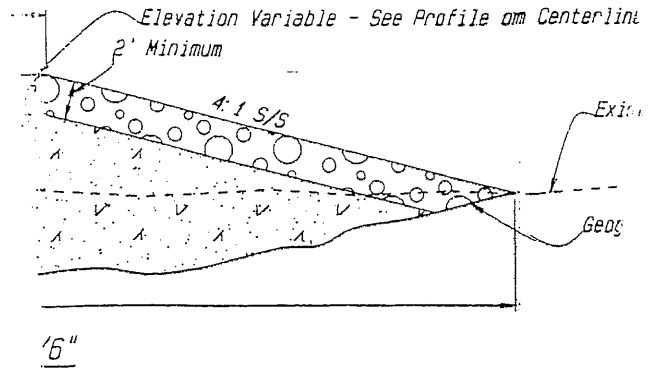
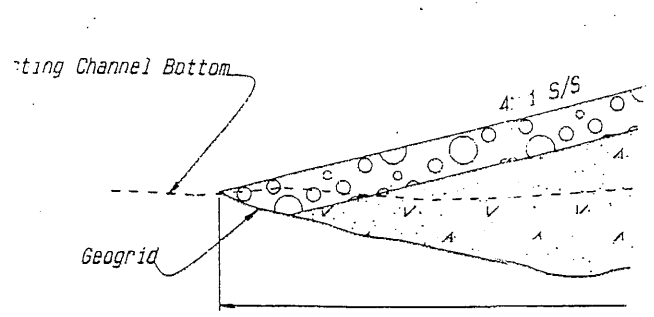
(ALL SCALES ARE IN FEET)



PLAN

NOTES:

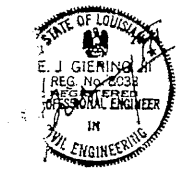
1. BML - BELOW MARSH LEVEL
2. AML - ABOVE MARSH LEVEL
3. ELEVATIONS ARE SITE SPECIFIC, AND BASED ON ASSUMED HI'S.
4. C.O.T.R. WILL ESTABLISH MARSH IN THE FIELD.
5. GEGRID TO CONFORM TO EXISTING BOTTOM.



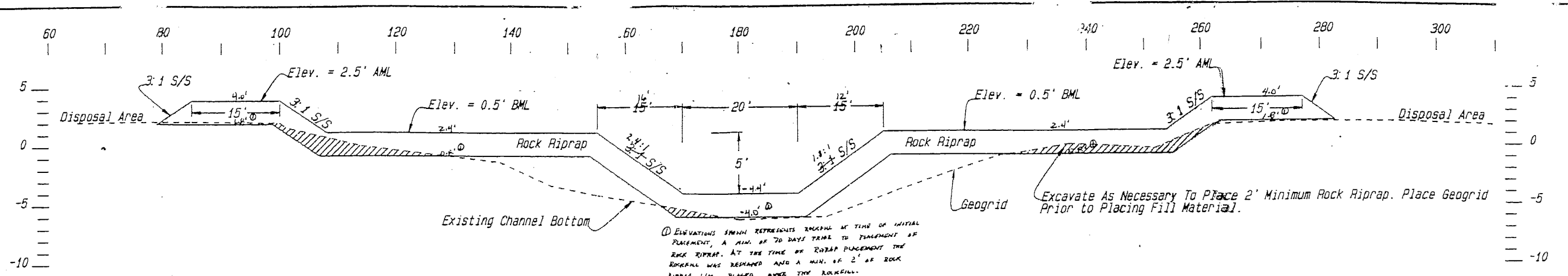
"AS-BUILT"

ALL AS-BUILT ELEVATIONS ARE NAVD-88 DATUM
 Marsh Level = 1.35
 DETAILS SITE 4 - ROCK
 CONSTRUCTION UNIT NO
 WEST FORK BAYOU L'OURS WA
 LAFOURCHE, PARISH
 LOUISIANA

U. S. DEPARTMENT OF AGRIC
 NATURAL RESOURCES CONSERVATI

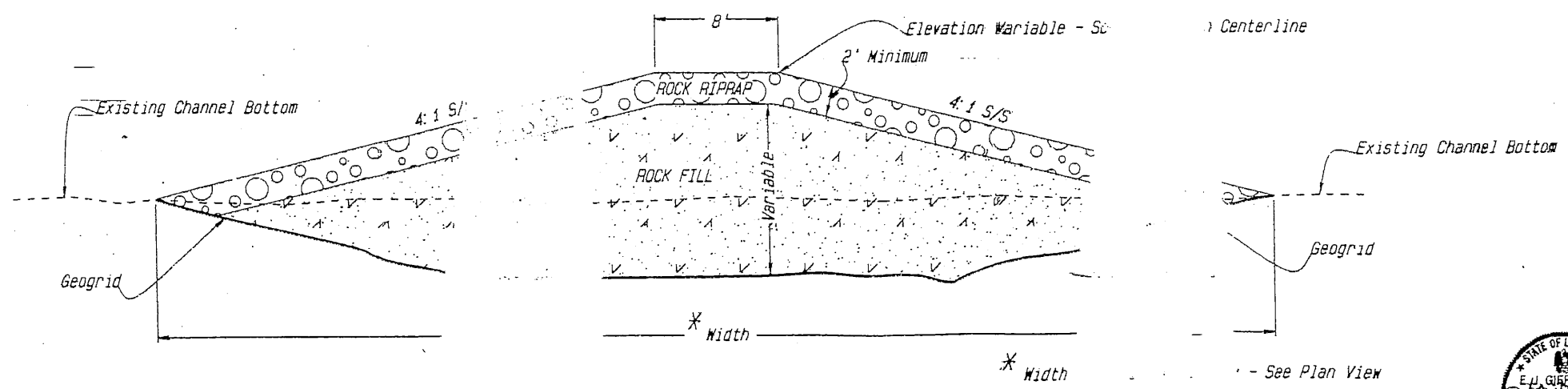
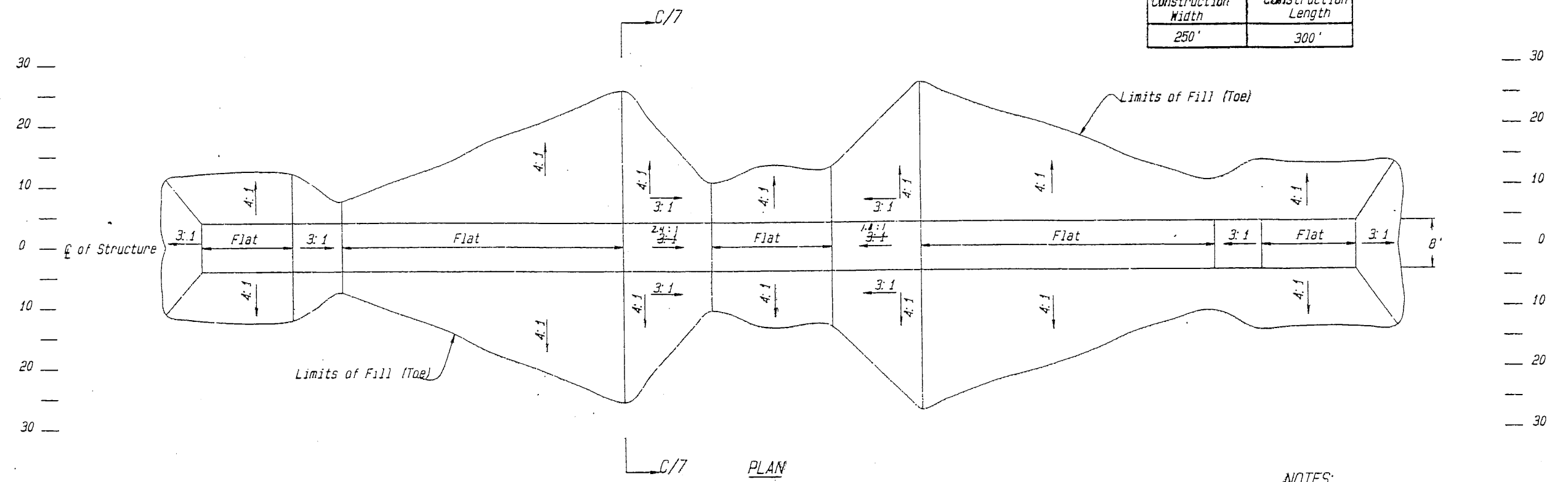


DATE	BY	REVISION
08/23	J. MOORE	STATE COPY
09/23	A. GREGG	ALEXANDRI
10/23	J. MOORE	26
		27



CONSTRUCTION LIMITS	
Construction Width	Construction Length
250'	300'

(ALL SCALES ARE IN FEET)



- NOTES:
1. BML ... MARSH LEVEL
 2. ELEV ... MARSH
 3. ELI ... SITE SPECIFIC, AND ARE BASED ON ... H.I.'S.
 4. C. ... ESTABLISH MARSH LEVEL IN ...
 5. GLO ... FORM TO EXISTING CHANNEL BOTTOM

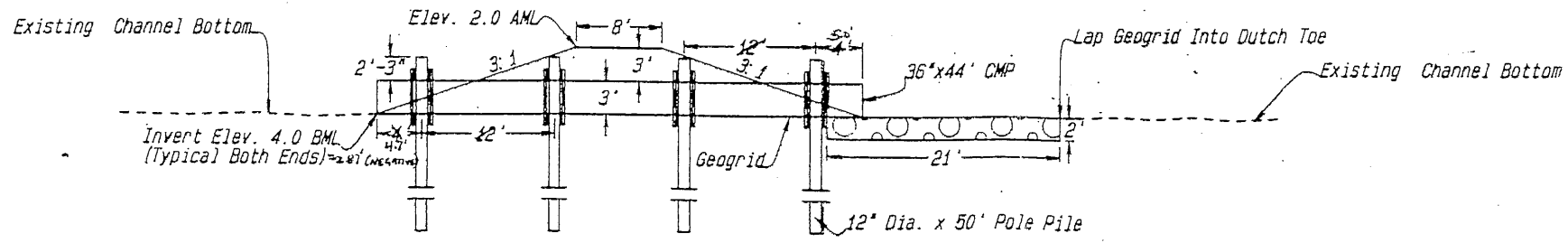


AS-BUILT

LA 249

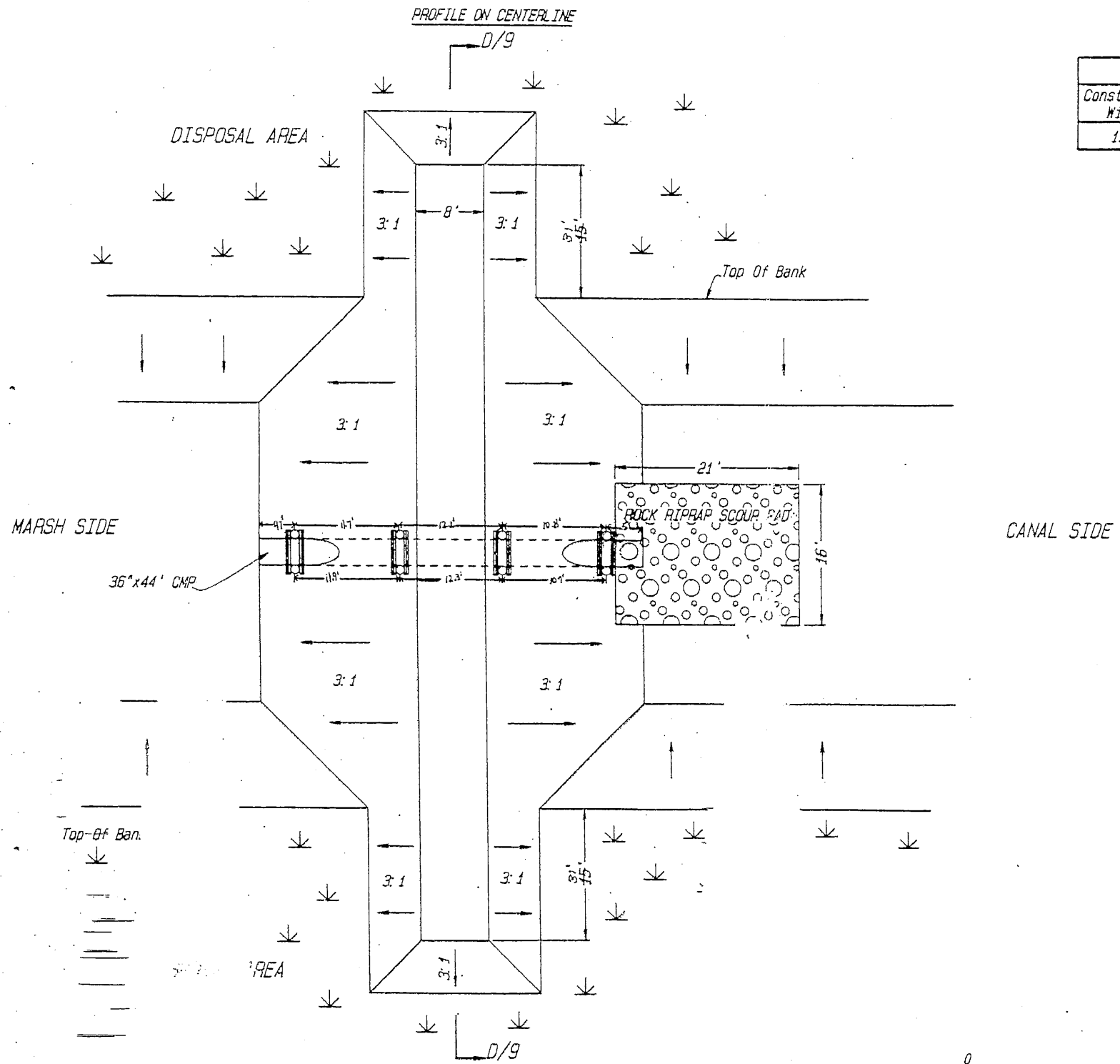
STATE OF AGRICULTURE
CONSERVATION SERVICE

LA 249

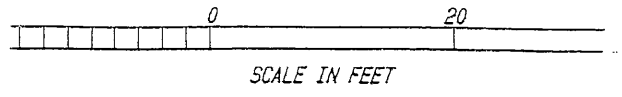


CONSTRUCTION LIMITS	
Construction Width	Construction Length
150'	300'

- NOTES:**
1. BML - Below Marsh Level; AML - Above Marsh Level
 2. Elevations Are Site Specific, And Are Based On Assumed HI'S.
 3. C.O.T.R Will Establish Marsh Level In The Field.
 4. Geogrid To Conform To Existing Channel Bottom.
 5. Install Aluminum Flap Gate And Rock Riprap Scour Pad Only On Canal Side Of Structure.
 6. See Sheet 10 Of 23 For Timber Support Details.
 7. The Corrugated Aluminum Pipe Shall Be 10 Gauge Aluminum With 3 X 1 Corrugations.
 8. All Timber Shall Be #2 Or Better Southern Yellow Pine And Pressure Treated To A Minimum Of 20#/CF Net Retention With A Creosote Tar Solution.



PILE NO.	IN-PILE LENGTH
1	48.4'
2	49.6'
3	43.1'
4	49.5'
5	47.6'
6	48.1'
7	49.2'
8	47.2'



"AS-BUILT"

All As-Built Elevations per 440-89 Detail.
MARSH LEVEL = 1.17

PLUG W/CULVERT DETAILS - SITE 91
CONSTRUCTION UNIT NO. 1
WEST FORK BAYOU L'OURS WATERSHED
LAFOURCHE PARISH
LOUISIANA

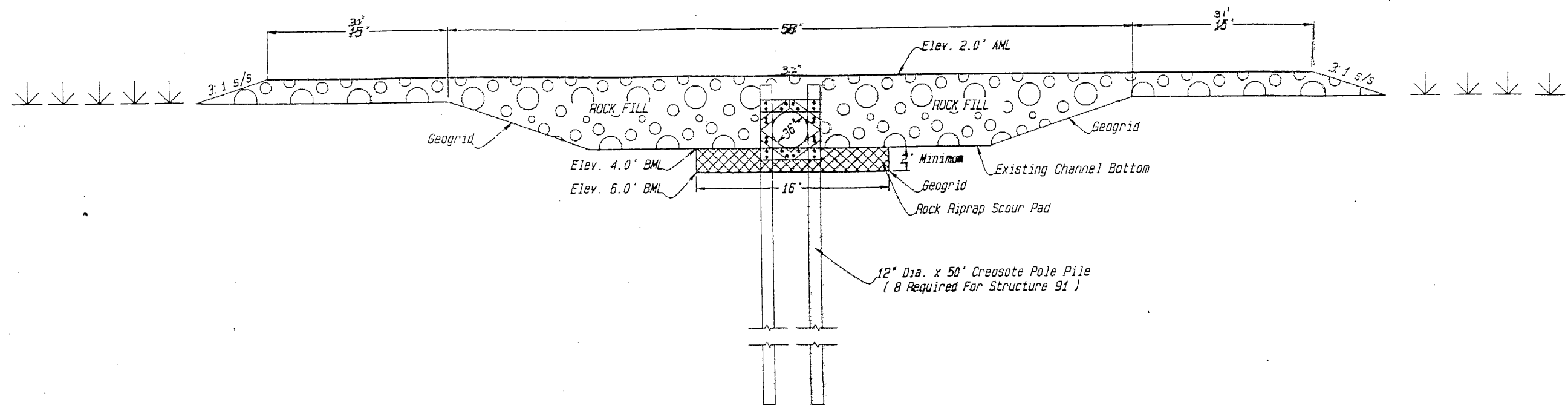
**U. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERV**

DATE	BY	CHECKED BY	DATE
09/24	T. HENRY	STATE CONSERVATION ENG	09/24
02/24	A. GREENLONDON	ALEXANDRIA, LOUISIANA	02/24
07/23	J. MOORE		07/23

LA. 24

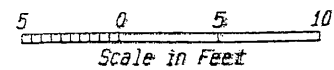


SITE 91

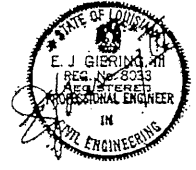


SECTION D-D/B

Site 91



- NOTES: All Elevations and NAVD - 88 Datum
Marsh Level = 1.17
- (1) Type E (helical corrugations) pipe shall have ends reformed to annular corrugations. The reformed annular corrugations shall have the same pitch and depth as the helical corrugations.
 - (2) Anchor Geogrid As Per Manufacturers Recommendation.



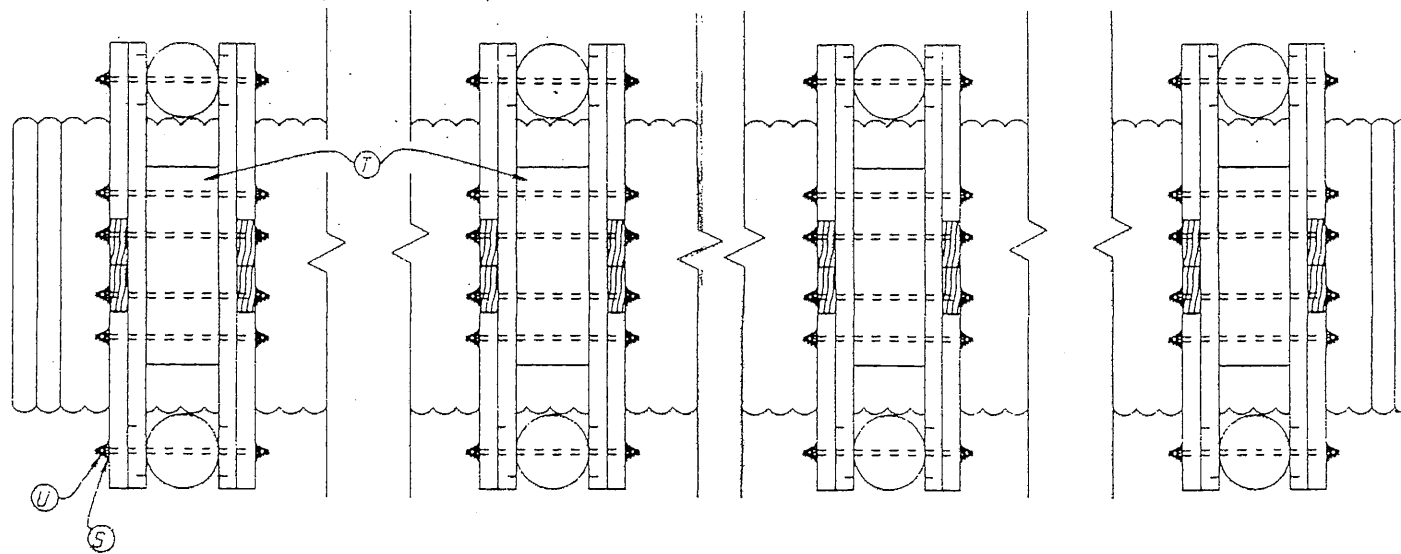
P.LUG W/C... CON... WEST FOR... LA...	AILS - SITE 91 UNIT NO. 1 OURS WATERSHED PARISH NA
U. S. ... NATURAL RES...	AGRICULTURE SERVATION SERVICE
J. HENRY A. GREN MOOR	STATE CONSERVATION ENGINEER ALEXANDRIA, LOUISIANA
	LA. 249

Item	Number	Length
① 12" CRESOTE POLE PILE	8	50'
② 3"X 12" TIMBER (NOMINAL)	16	60"
③ 3"X 8" TIMBER (NOMINAL)	48	VARIABLE
④ 3/4" DIA. BOLT (ALL THREAD)	96	30"
⑤ O.G. WASHERS FOR 3/4" DIA. BOLTS	192	-
⑥ FLAT WASHERS FOR 3/4" DIA. BOLTS	192	-
⑦ 12"x12" TIMBER BLOCKING SPACER	8	24"
⑧ NUTS FOR 3/4" DIA. BOLTS	192	-

TABLE 1
(PIPE SUPPORT FOR 36" DIA. PIPE)

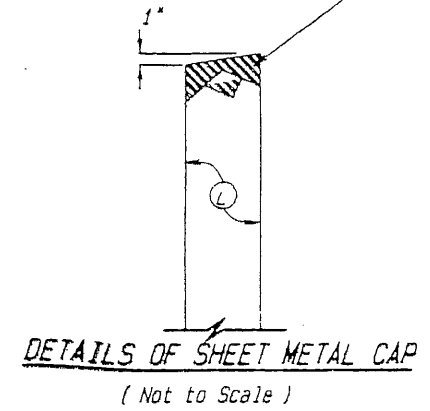
NOTES:

1. ALL METAL HARDWARE (TANK RODS, NUTS, BOLTS, WASHERS, LUGS, ETC.) SHALL BE GALVANIZED AND CONFORM TO MATERIAL SPECIFICATIONS 581 AND 582.
2. PAINT ALL EXPOSED METAL WITH COAL TAR EPOXY.



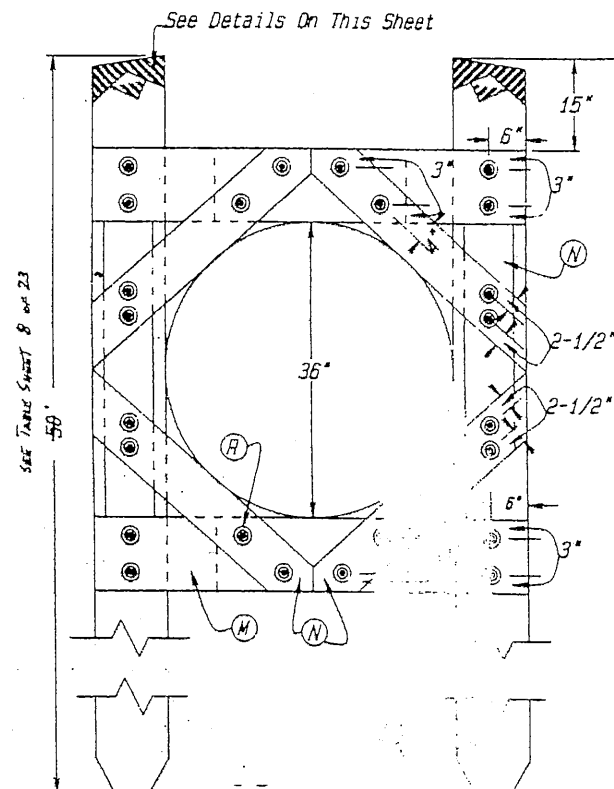
PLAN VIEW

24"x 24"x26 ga. Galvanized Flashing
(Attach Using Galvanized Nails)



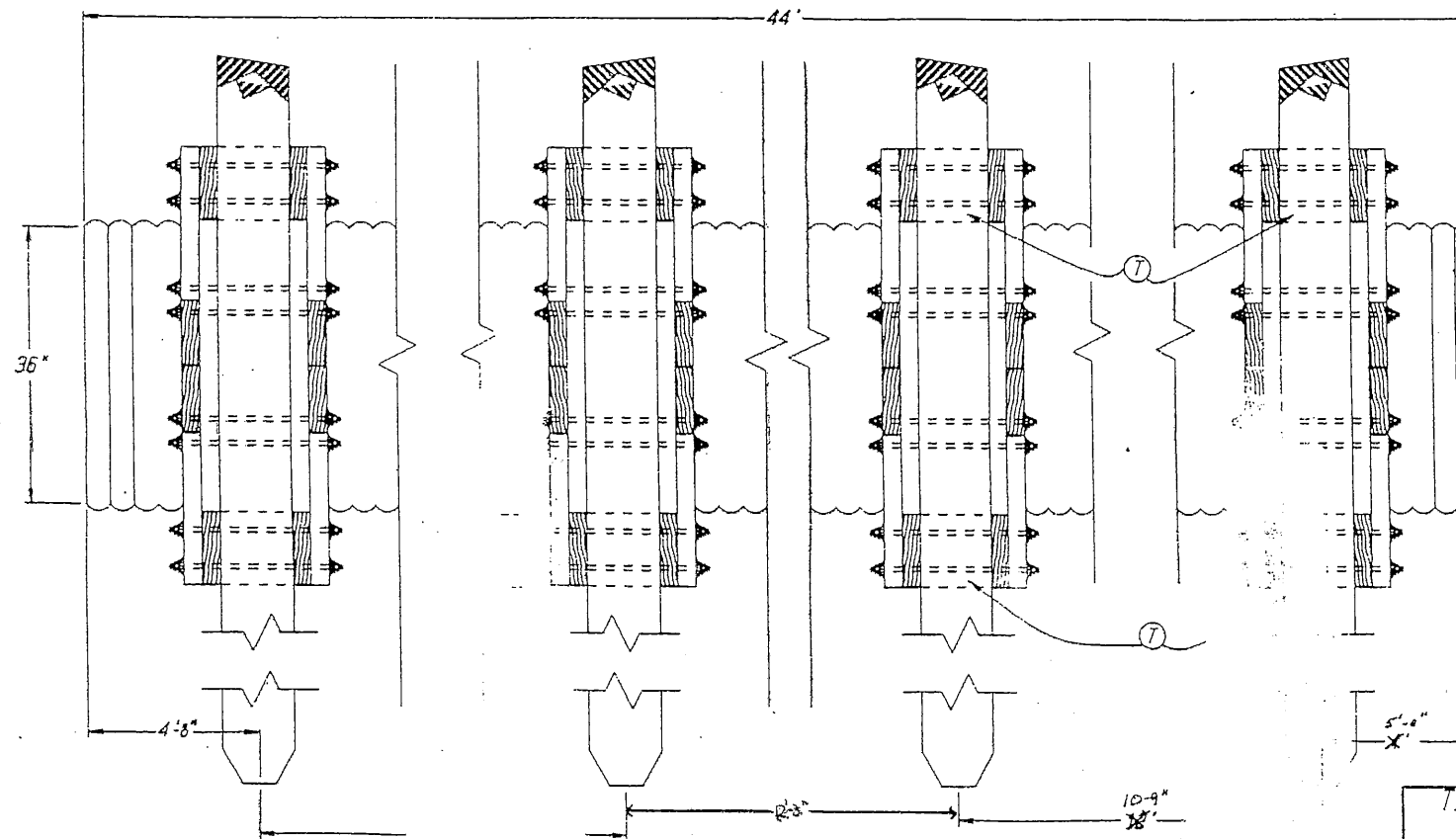
DETAILS OF SHEET METAL CAP
(Not to Scale)

Dimensions For Pipe Support are Symmetrical Along Vertical Axis



END VIEW

(Not To Scale)



ELEVATION VIEW

(Not To Scale)

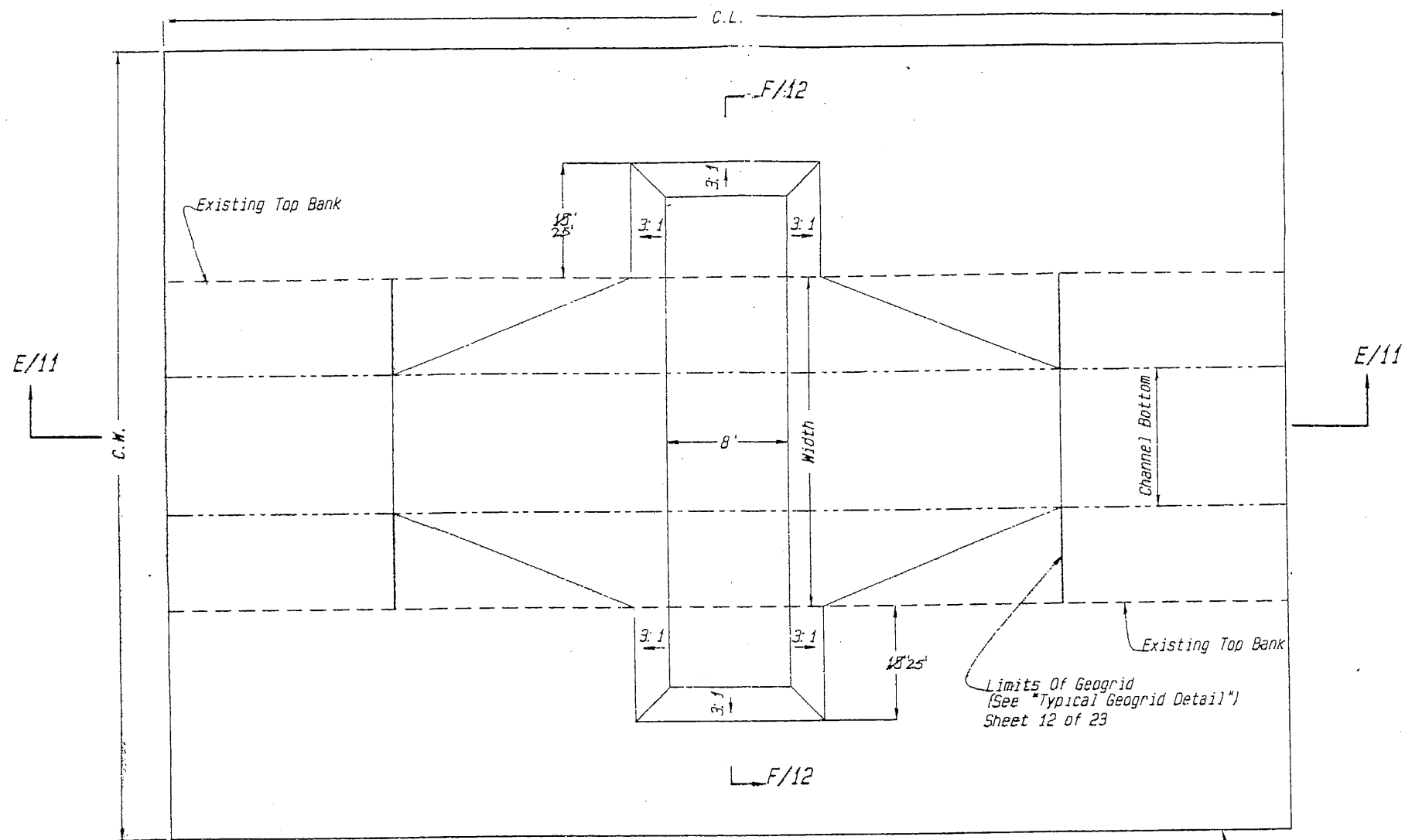
Aluminum Flap Gate To Be Attached

"AS-BUILT"

TIMBER SUPPORT DETAILS - SITE 91
CONSTRUCTION UNIT NO. 1
WEST FORK BAYOU L'OURS WATERSHED
LAFOURCHE PARISH
LOUISIANA

U. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Drawn by T. MENN	09/93	Checked by STATE CONSERVATION ENGINEER
Drawn by A. BREMILLION	09/93	Checked by ALEXANDRIA, LOUISIANA
Drawn by J. MOORE	10/93	Checked by
Sheet No. 10	22	Project No. LA. 249

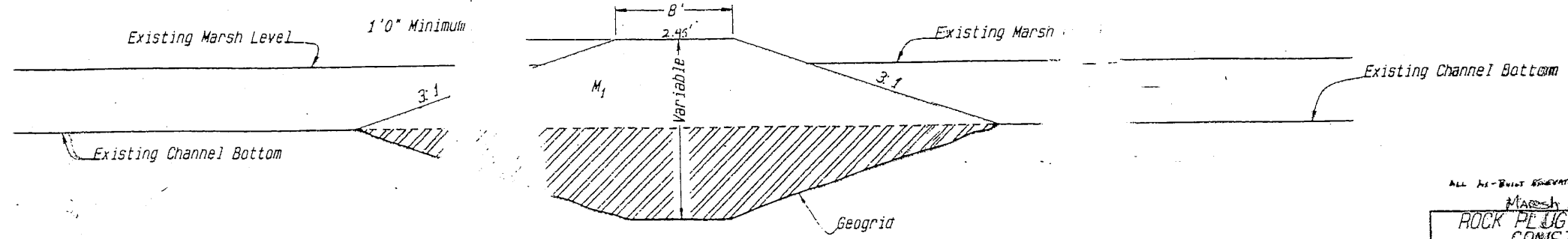


NOTES:
 1. See Sheet 12 of 23 For Section "E-E/11".
 2. Hatched Area Within Section "E-E/11" Represents Anticipated Displacement Of Muck During Rock Placement Activities.
 3. See Sheet 12 of 23, Table For Channel Plug Variables.

Limits Of Geogrid
 (See "Typical Geogrid Detail")
 Sheet 12 of 23

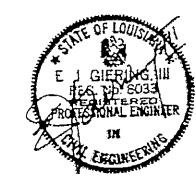
PLAN

See sheet 12 of 23 for construction limits (C.W. = Construction Width, C.L. = Construction Length) Construction length and construction width extend equal distance from center of proposed channel plug.



SECTION E-E/11

TYPICAL CHANNEL PLUG



(NOT TO SCALE)

ALL AS-BUILT OBSERVATIONS ARE NOTED

Marsh Level: 1.1

ROCK PLUG DETAIL
 CONSTRUCT.
 WEST FORK BAYOU
 LAFOUCHE, LA

U. S. DEPARTMENT OF
 NATURAL RESOURCES

5 8 & 43
 1.1
 WATERSHED

CULTURE
 SERVICE

1. 249

BUILT

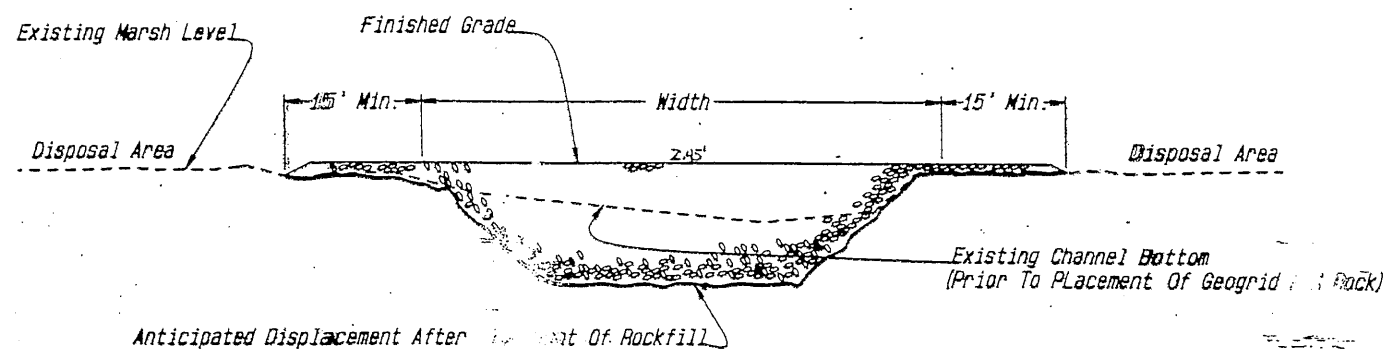
CHANNEL PLUG SCHEDULE

SITE NO.	WIDTH	M ₁	ESTIMATED QUANTITIES (TONS)	CONSTRUCTION LIMITS		REMARKS
				C.W.	C.L.	
8	50'	ROCKFILL	415	130'	200'	1/
43	35'	ROCKFILL	305	130'	250'	1/

1/ SITE NOT LOCATED ON A KNOWN PIPELINE.

SITE NUMBER	D1	D2	D3	D4
8	58	54	15	20
43	33	34	15	20

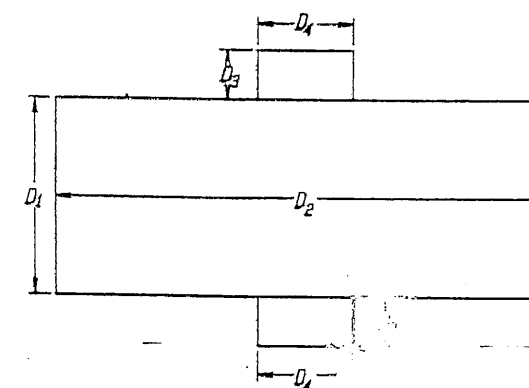
TABLE 2



SECT. F/11-TYPICAL CHANNEL PLUG

NOTES:

- See Section F/11 for typical section on channel plug.
- Excavation necessary to place two feet minimum rockfill. Place rockfill before placing rockfill.



TYPICAL GEOGRID DETAIL

"AS-BUILT"



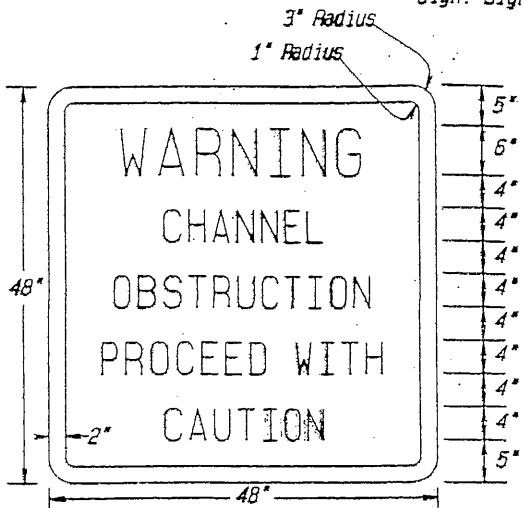
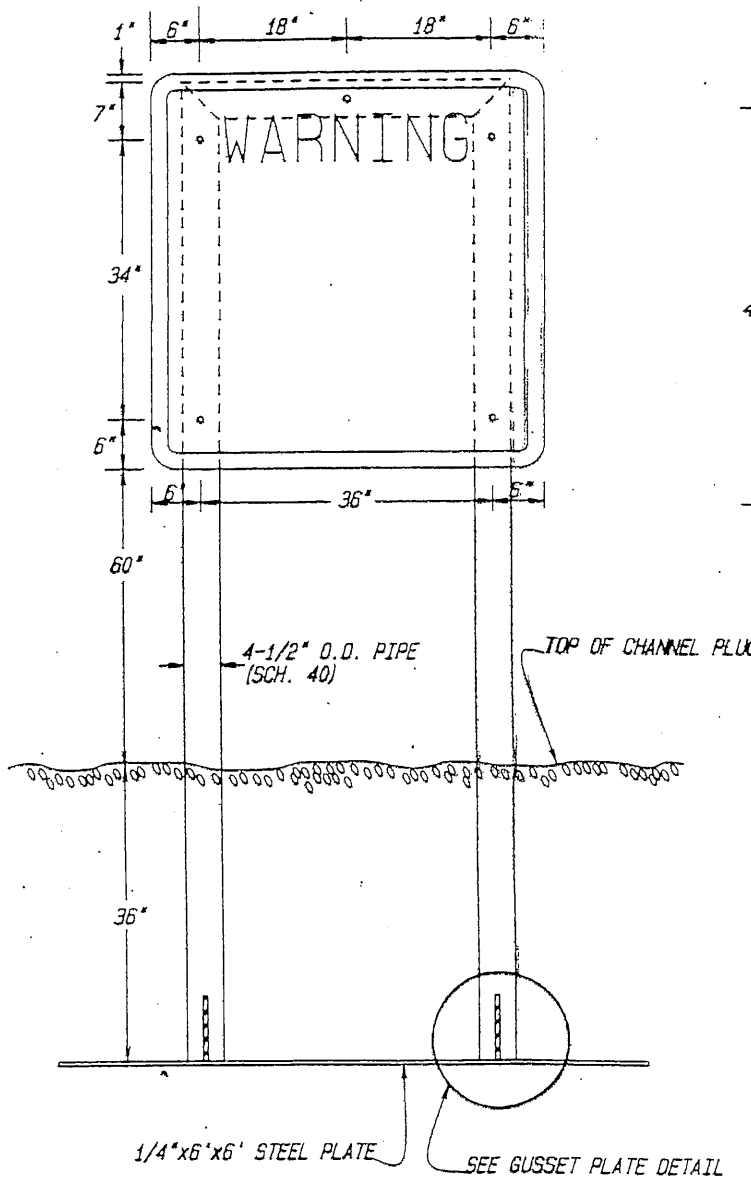
NOT TO SCALE

CHANNEL PLUG SCHEDULE, DETAILS SITES 8 & 43
CONSTRUCTION UNIT NO. 1
WEST FORK BAYOU L'OURS WATERSHED
LAFOURCHE PARISH
LOUISIANA

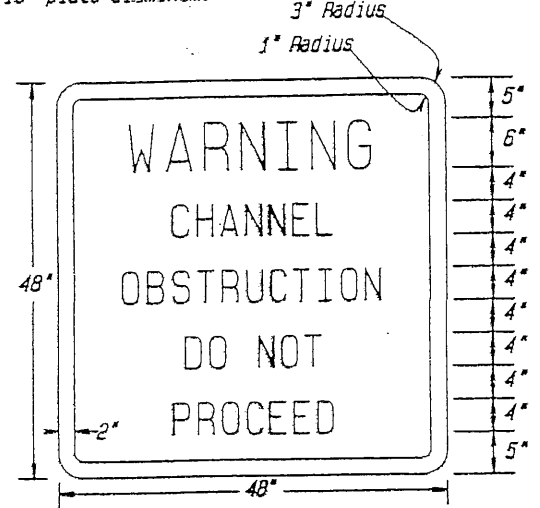
I. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

DATE	10/93	APPROVED BY	STATE CONSERVATION ENGINEER
BY	GREENLITTON	DATE	ALEXANDRIA, LOUISIANA
DATE	10/93	PROJECT NO.	L.A. 249
BY	MOORE	DATE	23

NOTE: Neoprene washers shall be placed between steel frame and aluminum sign. Signs shall be made from 3/16" plate aluminum.



SIGN DETAIL - TYPE "A"
(Shown Without Pipe Frame)



SIGN DETAIL - TYPE "B"
(Shown Without Pipe Frame)

SITE NO.	X ₁	X ₂	SUPPORT TYPE
2	155'	45'	II
4	125'	40'	II
7	160'	45'	II

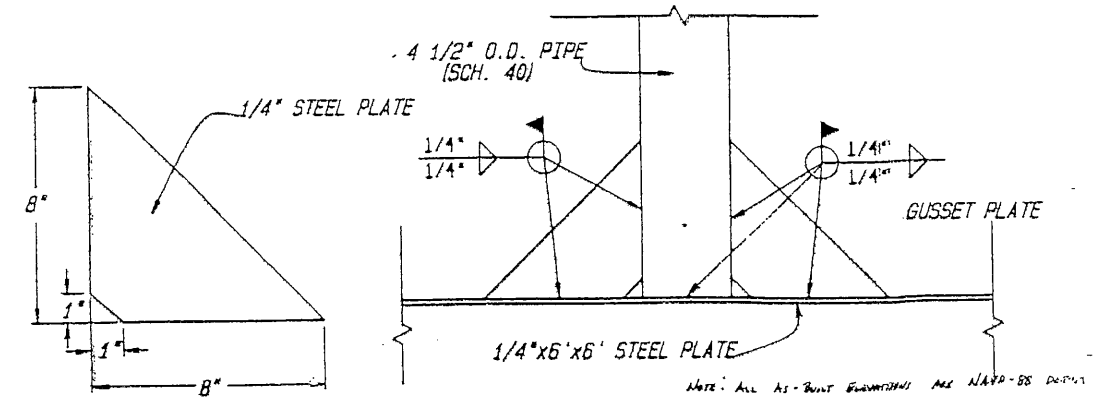
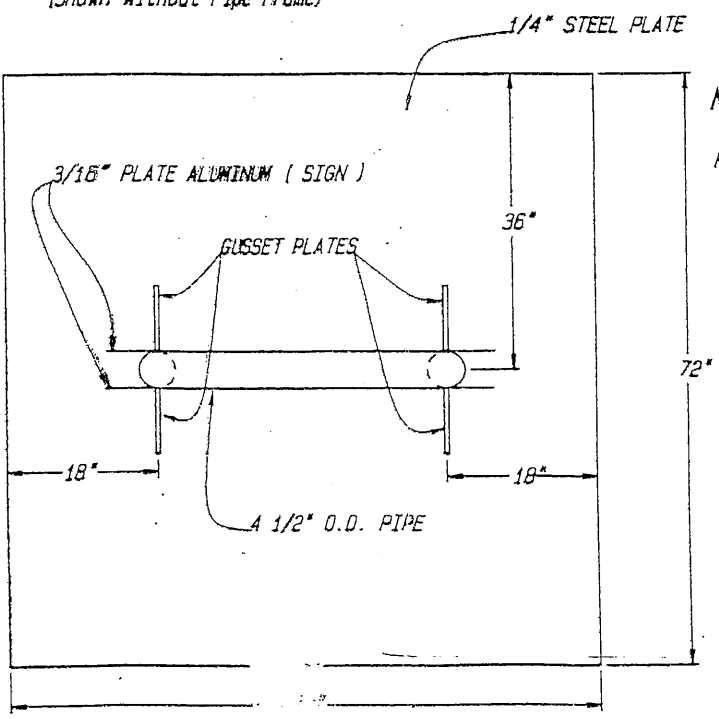
TABLE 6
(TYPE "A" SIGN PLACEMENT)

SITE NO.	X ₁	X ₂	SUPPORT TYPE
8	-	23'	XI
43	-	-	II
91	40'	20'	II

TABLE 7
(TYPE "B" SIGN PLACEMENT)

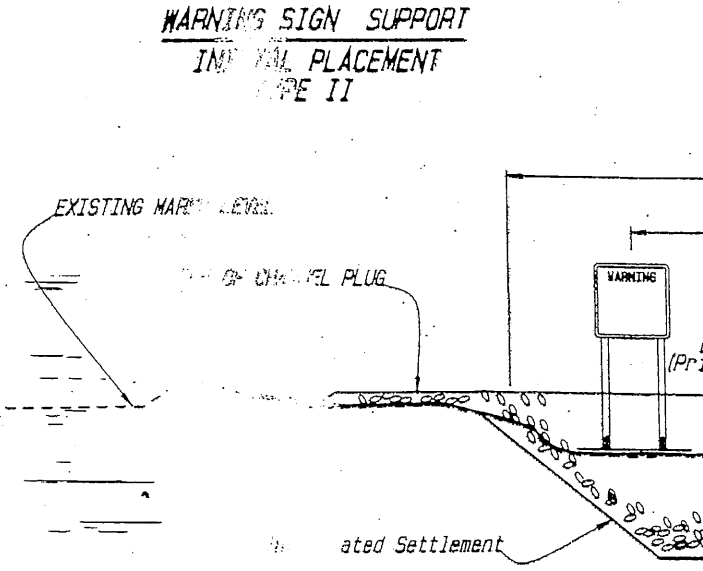
NOTE: ~~SITE 8~~ AND ~~SITE 43~~ ^{HAS} ONLY 1 WARNING SIGN PLACED AT THE CENTERLINE OF THE STRUCTURE. ~~SITE 91 HAS ONLY 1 WARNING SIGN ON LEFT.~~ ~~SITE 2 HAS ONLY 1 WARNING SIGN ON RIGHT.~~

NOTE: The Signs Shall Not Be Attached To The Sign Support Prior To The Final Fill Placement.



TYPICAL GUSSET PLATE

ELEVATION



SIGN PLACEMENT DETAIL

NOTE: Signs Shall Be Placed Following the Placement Of The Geogrid. (SEE TABLE 6 AND 7 ON THIS SHEET FOR PLACEMENT)

NOTE: The 2" border on the warning sign shall be retroreflective material of orange color. The lettering field will be a retroreflective material of white color. The lettering on the warning sign will be black. Warning signs will be placed on the upstream and downstream side of all structures.

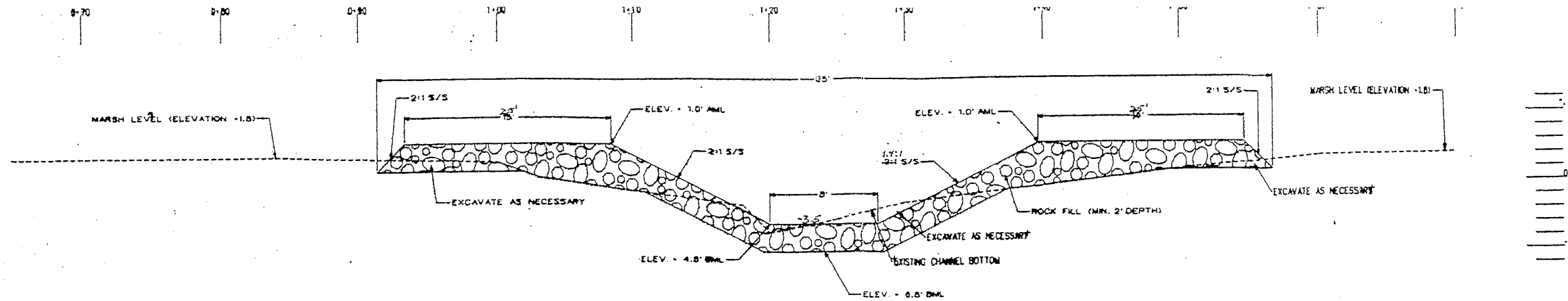


(NOT TO SCALE)

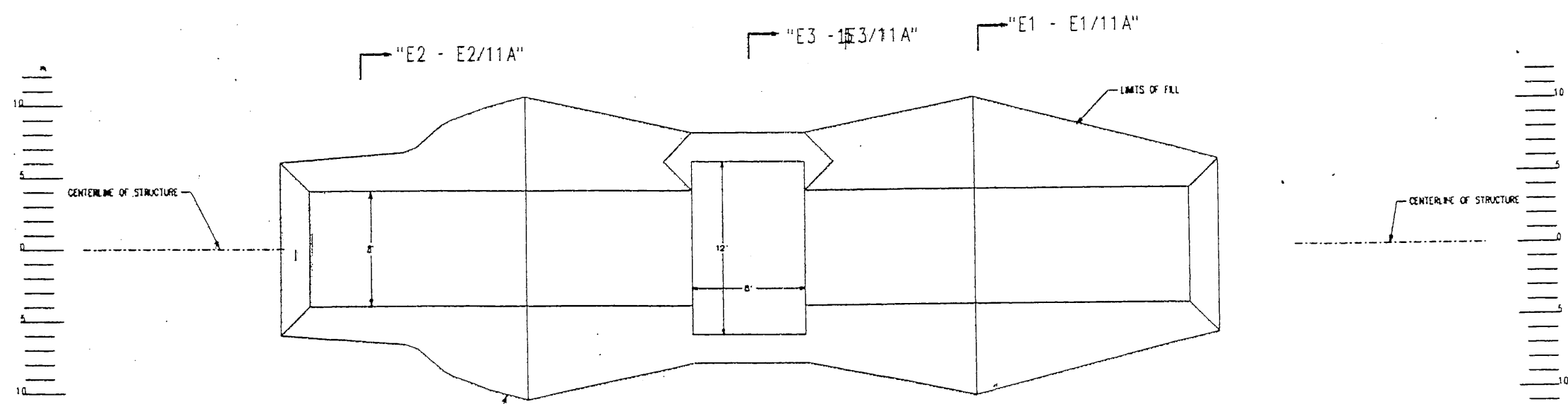
SITE NO.	X ₁	X ₂
2	155'	45'
4	125'	40'
7	160'	45'
8	-	23'
43	-	-
91	40'	20'

SIGN DETAILS - SITES 2, 4, 7
CONSTRUCTION UNIT NO. 1
WEST FORK BAYOU LAFOURCHE
LAFOURCHE PARISH
LOUISIANA
U. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION

NAME	DATE	SCALE
T. HENRY	07/88	AS SHOWN
A. GREENLAW	08/88	AS SHOWN
J. MOORE	10/88	AS SHOWN



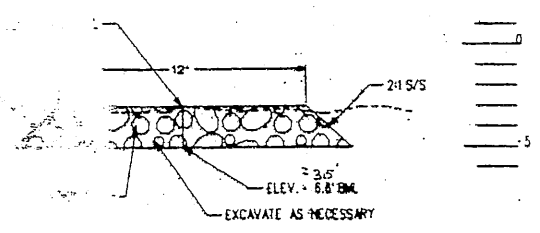
SITE NO. 8 - PROFILE ON CENTERLINE



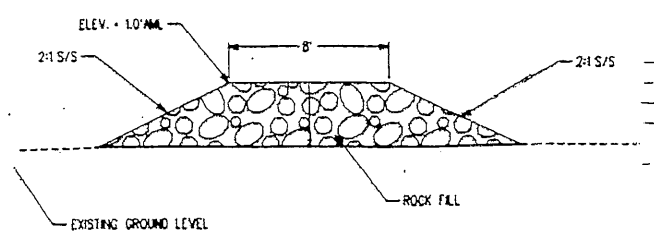
SITE NO. 8 - PLAN VIEW

1. ALL ABOVE MARSH LEVEL
2. ELEVATIONS ARE SITE SPECIFIC AND BASED ON ADJACENT H.T.S. CORR WILL ESTABLISH MARSH LEVEL IN THE FIELD

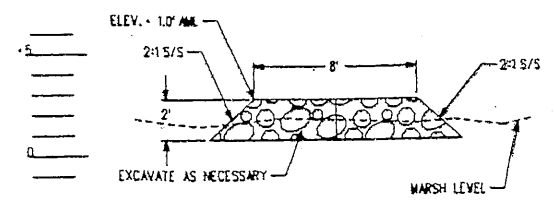
All - ~~As-Built~~ Elevations are NAVD-88 DATUM
MARSH LEVEL = 1.8



"E3 - E3/11A"



SECTION "E1 - E1/11A"



SECTION "E2 - E2/11A"

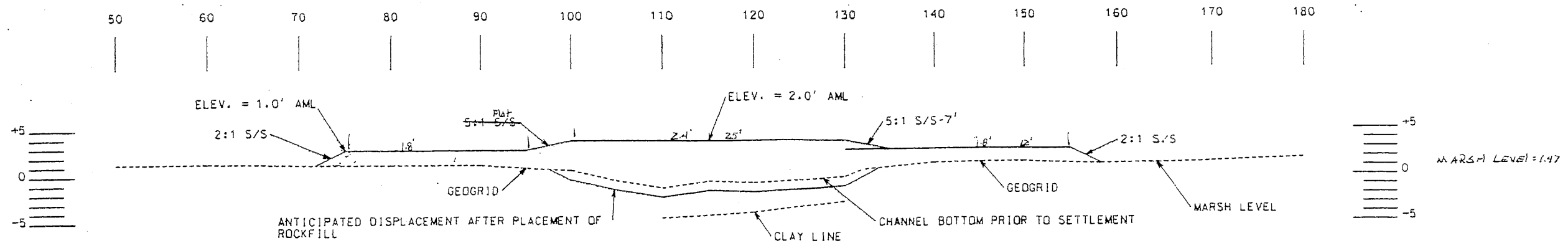
"AS-BUILT"

Designed By	B. STICKER	Date	4/95
Drawn	A. CREWELLON	Date	5/95
Checked	E. GERBERG	Date	5/95
Approved By	STATE CONSERVATION ENGINEER		
	ALEXANDER LOUISIANA		

DETAILS FOR SITE NO. 8
CONSTRUCTION UNIT NO. 1
WEST FORK BAYOU L'OURS WATERSHED
LAFORCHE PARISH, LOUISIANA

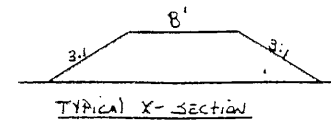
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CHIT FILE NO. La000000
DRAWING NO. LA 249
Sheet No. 13 of 15

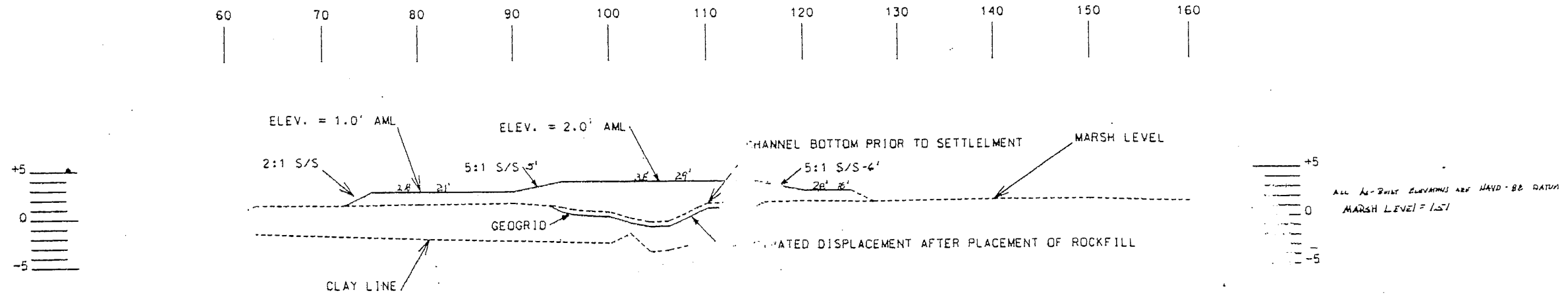


THE GEOGRID SHALL EXTEND A MINIMUM OF 5' PAST THE LIMITS OF THE ROCKFILL; THE DIMENSIONS OF THE GEOGRID FOR SITE 4A ARE: 88' x 33'

PROFILE ON CENTERLINE - SITE NO. 4A

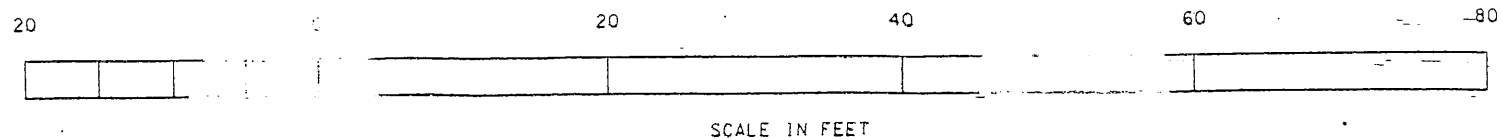


1. AML - ABOVE MARSH LEVEL
2. BML - BELOW MARSH LEVEL
3. ELEVATIONS ARE SITE SPECIFIC AND ARE BASED ON ASSUMED H₁'S.
4. CDTR WILL ESTABLISH MARSH LEVEL IN THE FIELD.



THE GEOGRID SHALL EXTEND A MINIMUM OF 5' PAST THE LIMITS OF THE ROCKFILL; THE DIMENSIONS OF THE GEOGRID FOR SITE 8A ARE: 56' x 33'

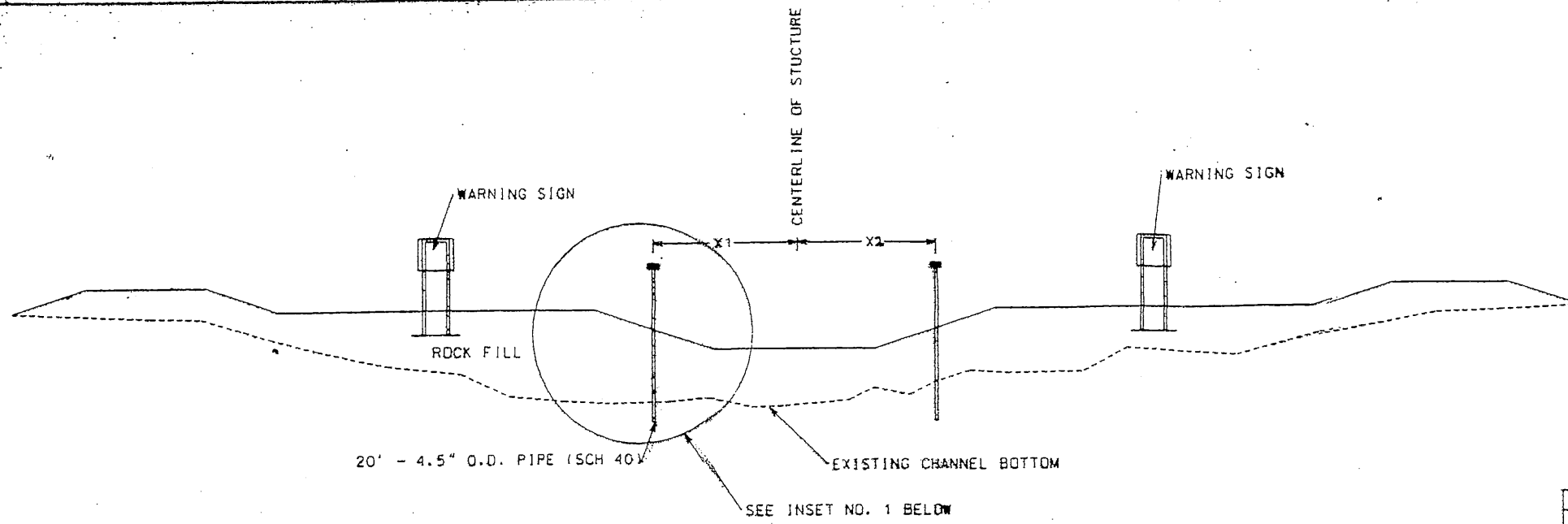
PROFILE ON CENTERLINE - SITE NO. 8A



"AS-BUILT"

REVISIONS	DATE	APPR.	TITLE
CAD FILE #			
DRAWING #			
SHEET NO.			
DESIGNED	B. STICKER	DATE	5/97
DRAWN	A. GREMILLION	DATE	5/97
TRACED			
CHECKED	B. STICKER	DATE	5/97
APPROVED BY		DATE	
TITLE			

DETAILS FOR SITES 8A & 4A
CONSTRUCTION UNIT NO. 1
WEST FORK BAYOU L'OURS WATERSHED
LAFORCHE PARISH, LOUISIANA
NATURAL RESOURCES CONSERVATION SERVICE

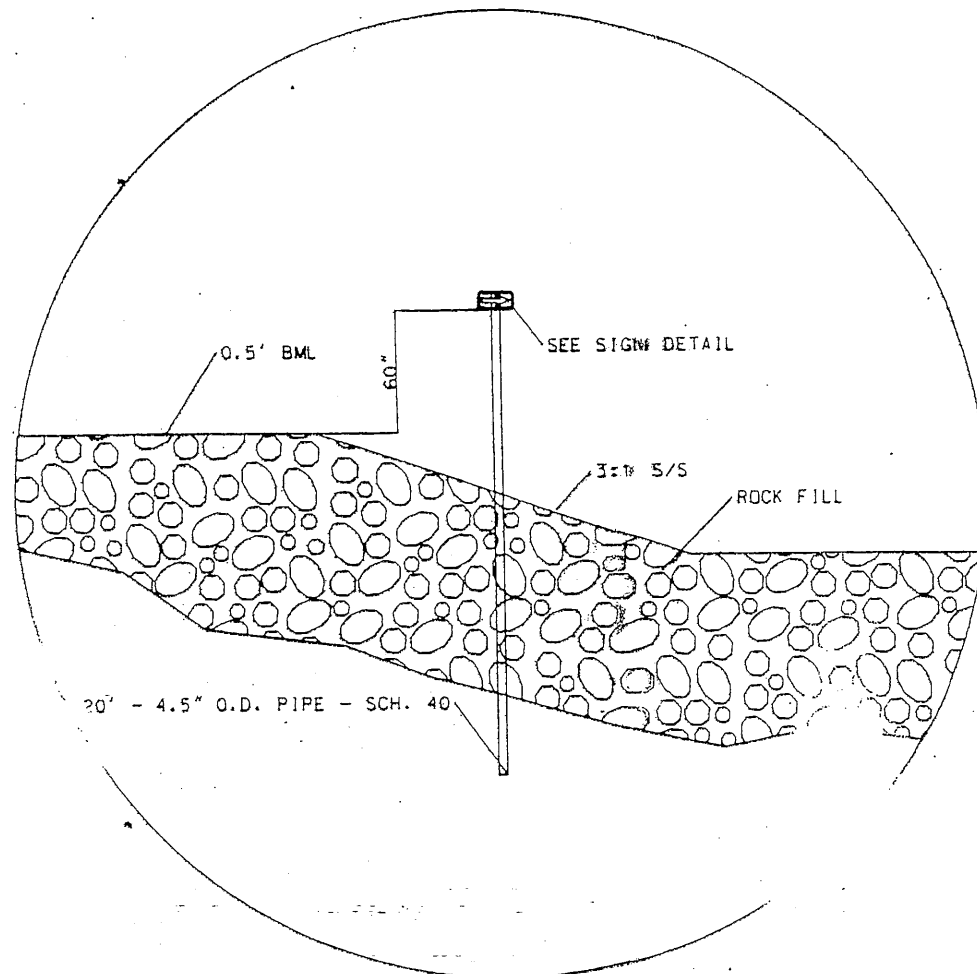


TYPICAL CROSS SECTION

SITE NO.	X1	X2
2	15'	16'
4	16'	17.5'
7	16'	17.5'

DIRECTIONAL SIGN PLACEMENT

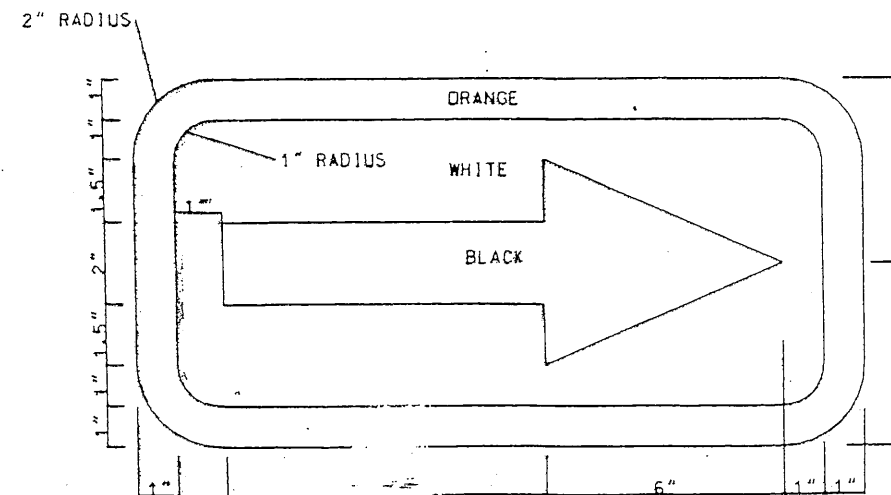
1. NEOPRENE WASHERS SHALL BE PLACED BETWEEN STEEL FRAME AND ALUMINUM SIGN. SIGNS SHALL BE MADE FROM 3/16" PLATE ALUMINUM.



INSET NO. 1

SITE NO.	Elevation outtop of Directional sign
2	5.92
4	5.88
7	5.57

ALL ARE POINT ELEVATIONS NEG NAVD -83 DATUM



DIRECTIONAL SIGN DETAIL

Date	Approved by	Title
5/97	L. S. GARNER	
5/97	A. GREMILLION	
5/97	B. STICKER	

DIRECTIONAL SIGN DETAILS
 CONSTRUCTION UNIT NO. 1
 WEST FORK BAYOU L'OURS WATERSHED
 LAFOURCHE PARISH, LOUISIANA
 U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

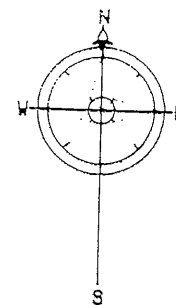
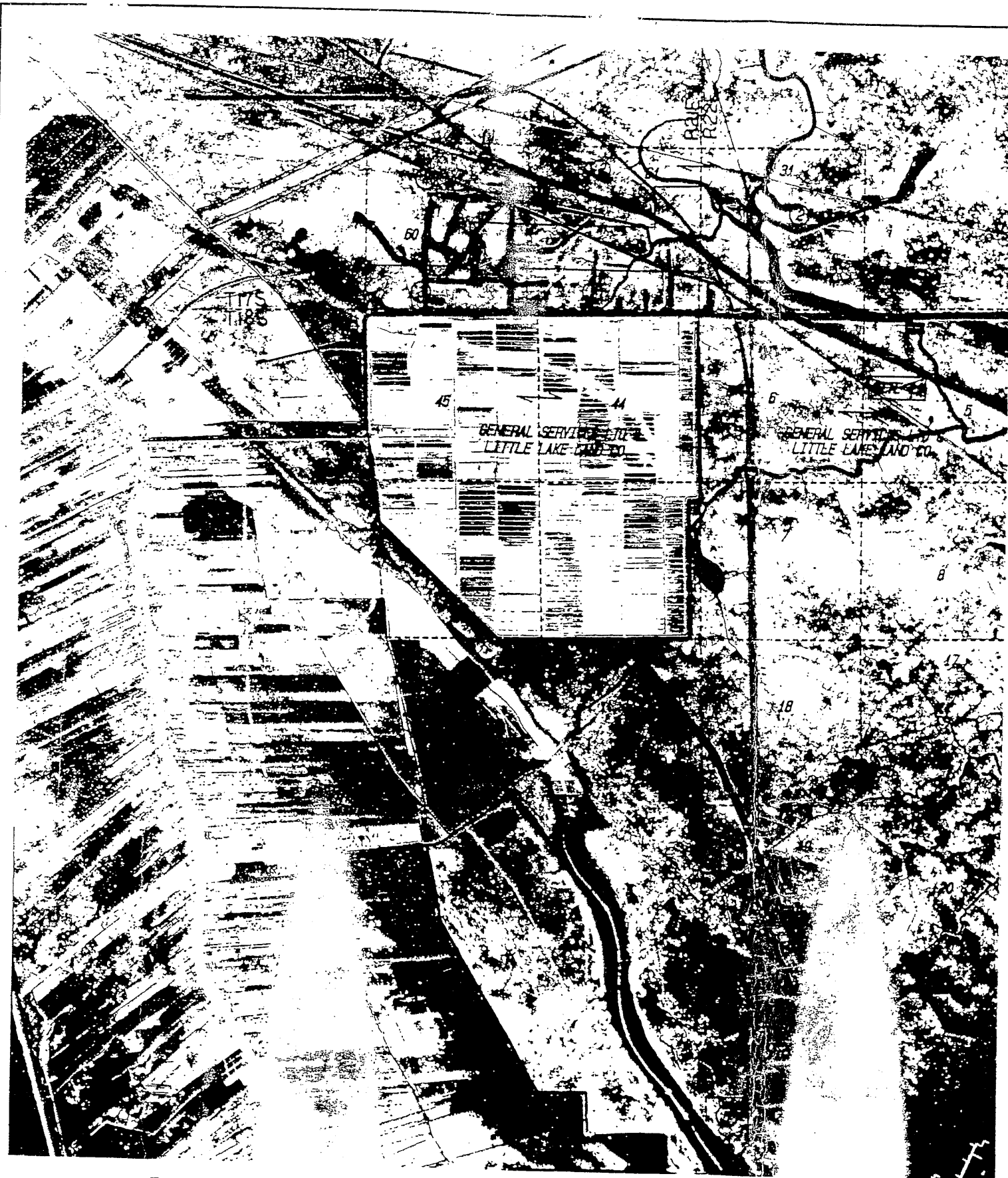
REVISIONS	DATE	APPR.	TITLE

CAD FILE NO. _____

DRAWING NO. LA-249

NOT TO SCALE

"AS SHOWN"



- ① GENERAL SERVICES LTD & LITTLE LAKE LAND CO.
- ② LA DELTA FARMS
- ③ JAMES PELTIER et als
- ④ ADA SABATIER et als
- ⑤ OYIDE CHERAMIE ESTATE

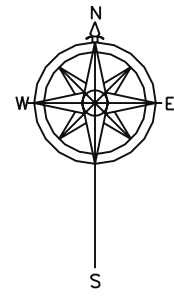
NOTE:
 THE SERVICE DOES NOT GUARANTEE THE COMPLETENESS AND ACCURACY OF OWNERSHIP SHOWN. APPARENT OWNERSHIP HAS BEEN OBTAINED FROM MAPS IN THE OFFICE OF PARISH CLERK OF COURT OR TAX ASSESSOR. WHERE APPARENT PROPERTY LINE IS SHOWN NEAR THE CENTERLINE OF A CHANNEL, ITS LOCATION IS NOT DEFINITIVE.

"AS-BUILT"

LAND RIGHTS MAP
 CONSTRUCTION UNIT NO. 1
 WEST FORK BAYOU L'OURS WATERSHED
 LAFOURCHE PARISH
 LOUISIANA

**U. S. DEPARTMENT OF AGRICULTURE
 NATURAL RESOURCES CONSERVATION SERVICE**

Designed by T. HENRY	Date 07/83	Approved by	Title STATE CONSERVATION ENGINEER
Drawn by A. GREENLICH	Date 08/83	Title ALEXANDRIA, LOUISIANA	
Checked by	Date	Sheet	Drawing No
Checked by MOORE	Date 10/83	No 03 of 23	LA. 249



West Fork Bayou L'Ours Watershed Project BA-2, Construction Unit 2

Built Under The Coastal Wetlands, Planning,
Protection & Restoration Act
Public Law 101-646

"AS-BUILT"

By
Lafourche Parish Council
Lafourche - Terrebonne Soil & Water Conservation District
Louisiana Department Of Natural Resources
With The Assistance Of
NATURAL RESOURCES CONSERVATION SERVICE
OF THE
U. S. DEPARTMENT OF AGRICULTURE
1998

PROJECT AREA

LEGEND

- State Highway
- Unimproved Road
- Township / Range Line
- Approximate Depth
- Pipeline
- Aerial Power Lines
- Canals Existing
- Public Boat Launch
- Proposed Access Routes
- Project Area

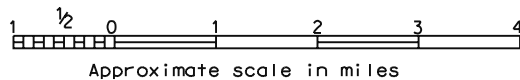


INDEX TO DRAWINGS

Sheet No.	Description
1	Cover Sheet & Location Map
2	Site Location, Access & Land Rights Map
3	Sites 1 & 90 - Details
4	Sites 1 & 90 - Details
5	Site 4B - Details
6	Site 14A - Details
7	Site 14A - Details
8	Site 35 - General Views
9	Site 35 - Structural Layout
10	Site 35 - Sheet Pile Details
11	Site 35 - Work Platform
12	Site 35 - Steel Details
13	Site 35 - Pipe Rail
14	Site 35 - Stop Log Details
15	Lake Rim Restoration & Bank Stabilization
15A	Utilities Plan Map
11A	SITE 35 CRANE BASE PLATE DETAILS

Sheet No.	Description
16	Lake Rim Shoreline Protection Profile And Fish Dip Details
17	Profile - Bank Stabilization Sta. 0+00 - Sta. 160+00
18	Profile - Bank Stabilization Sta. 160+00 - Sta. 320+00
19	Profile - Bank Stabilization Sta. 320+00 - 480+15
20	Profile - Bank Stabilization Sta. 480+00 - Sta. 660+00
21	Profile Island Bank Stabilization Sta. 0+00 - Sta. 77+83
22	Lake Rim Restoration And Bank Stabilization Typical X-Sections
23	Warning Sign Details
24	Warning Sign Details
25	Navigation Obstruction Light
25A1	SITES 1, 90, & 98 SECTIONS - AS-BUILT
25A2	SITE 14A PLAN & PROFILE - AS-BUILT
25A3	SITE 14A SECTIONS - AS-BUILT
25A4	SITE 14A SECTIONS - AS-BUILT
25A5	SITE 14A SECTIONS - AS-BUILT
25A6	SITE 14A SECTIONS - AS-BUILT
25A7	LAKE RIM RESTORATION SECTIONS - AS-BUILT
25A8	LAKE RIM RESTORATION SECTIONS - AS-BUILT
25A9	BANK STABILIZATION SECTIONS - AS-BUILT
25A10	BANK STABILIZATION SECTIONS - AS-BUILT
25A11	BANK STABILIZATION SECTIONS - AS-BUILT
25A12	ISLAND BANK STABILIZATION SECTIONS - AS-BUILT

LOCATION MAP



Date	Approved by	Title
03/98	E. J. GIERING, III	STATE CONSERVATION ENGINEER
03/98	Steve Garner	DESIGNED
03/98	A. Gremillion-PCole	DRAWN
03/98	Jimmy Moore	CHECKED

COVER SHEET & LOCATION MAP
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

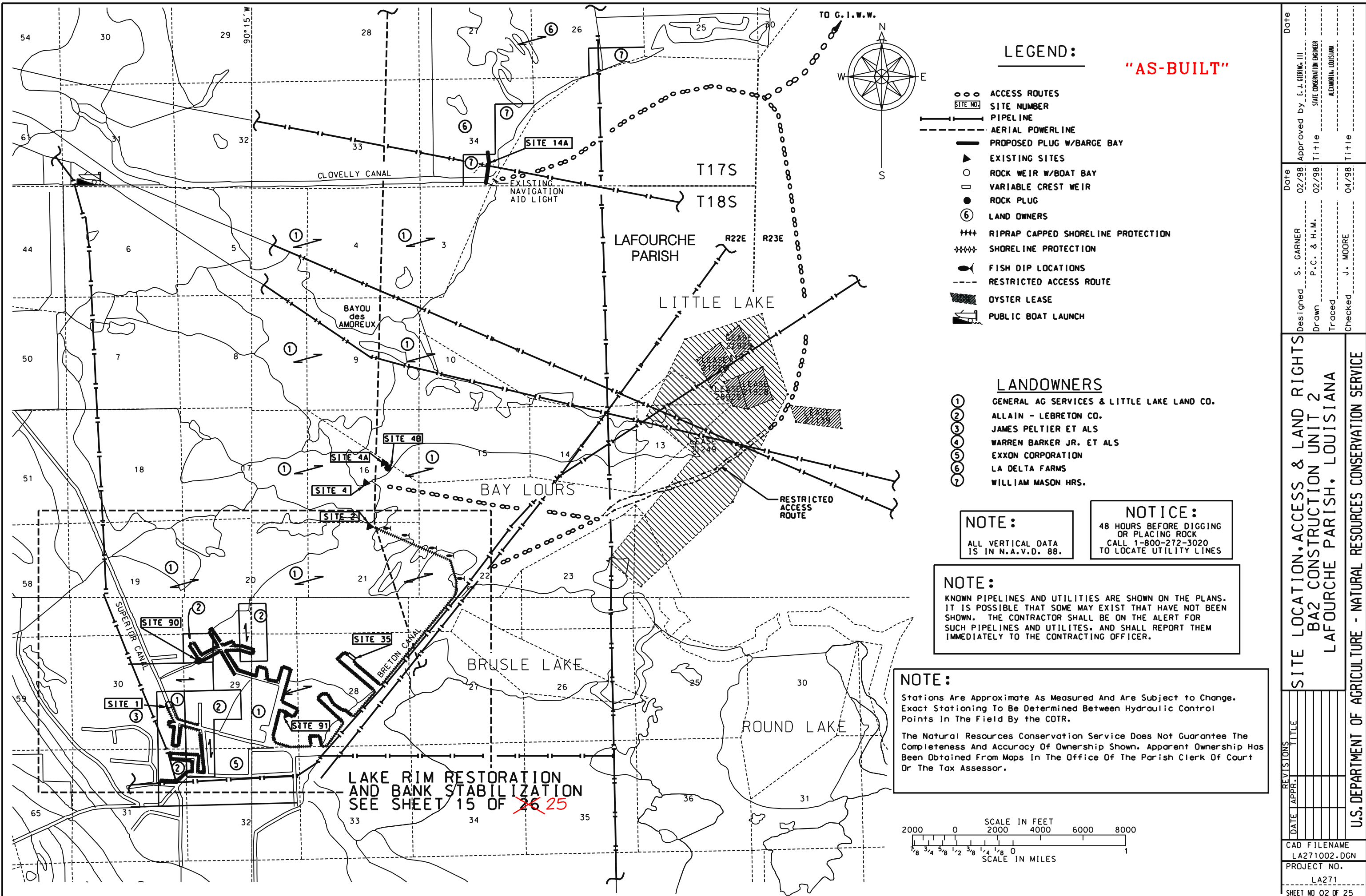
"AS-BUILT PLANS"

SUBMITTED BY: DALE J. GARBER 11/28/01
GOVERNMENT REPRESENTATIVE DATE
APPROVED BY: BRADLEY A. STICKER ??/??/??
ASSISTANT STATE CONSERVATION ENGINEER DATE
E. J. GIERING III ??/??/??
STATE CONSERVATION ENGINEER DATE

CONTRACT NO. 50-7217-0-3 DATE 1/18/00
CONTRACTOR REGENCY CONSTRUCTION
INSPECTOR ROBERT PAYTON
DATE OF COMPLETION 10/16/0001

DATE	APPR.	TITLE
4/23/99	E.G.	AS-BUILT

CAD FILENAME
LA271001.DGN
PROJECT NO.
LA271
SHEET NO. 1 OF 25



LEGEND:

- ACCESS ROUTES
- SITE NUMBER
- PIPELINE
- - - AERIAL POWERLINE
- PROPOSED PLUG W/BARGE BAY
- ▲ EXISTING SITES
- ROCK WEIR W/BOAT BAY
- VARIABLE CREST WEIR
- ROCK PLUG
- ⑥ LAND OWNERS
- +++ RIPRAP CAPPED SHORELINE PROTECTION
- ~ SHORELINE PROTECTION
- 🐟 FISH DIP LOCATIONS
- - - RESTRICTED ACCESS ROUTE
- ▨ OYSTER LEASE
- 🚤 PUBLIC BOAT LAUNCH

LANDOWNERS

- ① GENERAL AG SERVICES & LITTLE LAKE LAND CO.
- ② ALLAIN - LEBRETON CO.
- ③ JAMES PELTIER ET ALS
- ④ WARREN BARKER JR. ET ALS
- ⑤ EXXON CORPORATION
- ⑥ LA DELTA FARMS
- ⑦ WILLIAM MASON HRS.

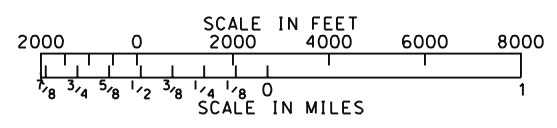
NOTE:
ALL VERTICAL DATA IS IN N.A.V.D. 88.

NOTICE:
48 HOURS BEFORE DIGGING OR PLACING ROCK CALL 1-800-272-3020 TO LOCATE UTILITY LINES

NOTE:
KNOWN PIPELINES AND UTILITIES ARE SHOWN ON THE PLANS. IT IS POSSIBLE THAT SOME MAY EXIST THAT HAVE NOT BEEN SHOWN. THE CONTRACTOR SHALL BE ON THE ALERT FOR SUCH PIPELINES AND UTILITIES, AND SHALL REPORT THEM IMMEDIATELY TO THE CONTRACTING OFFICER.

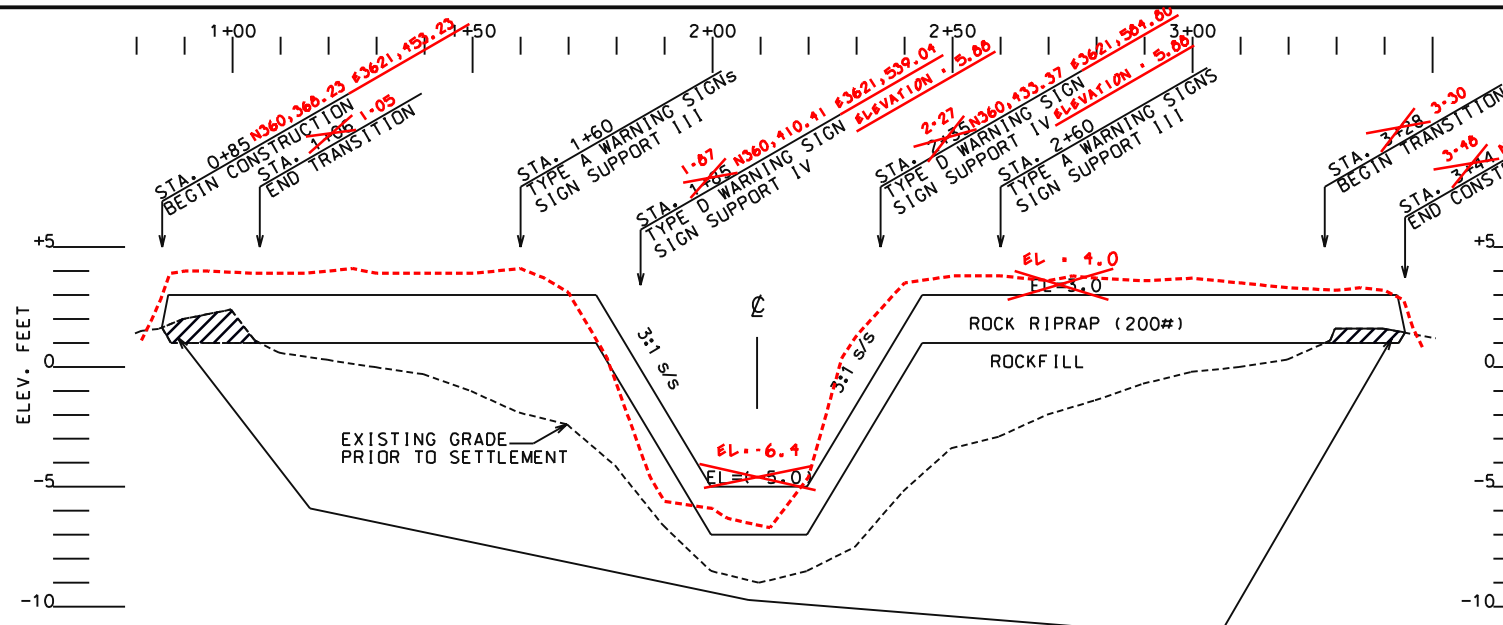
NOTE:
Stations Are Approximate As Measured And Are Subject to Change. Exact Stationing To Be Determined Between Hydraulic Control Points In The Field By the COTR.

The Natural Resources Conservation Service Does Not Guarantee The Completeness And Accuracy Of Ownership Shown. Apparent Ownership Has Been Obtained From Maps In The Office Of The Parish Clerk Of Court Or The Tax Assessor.



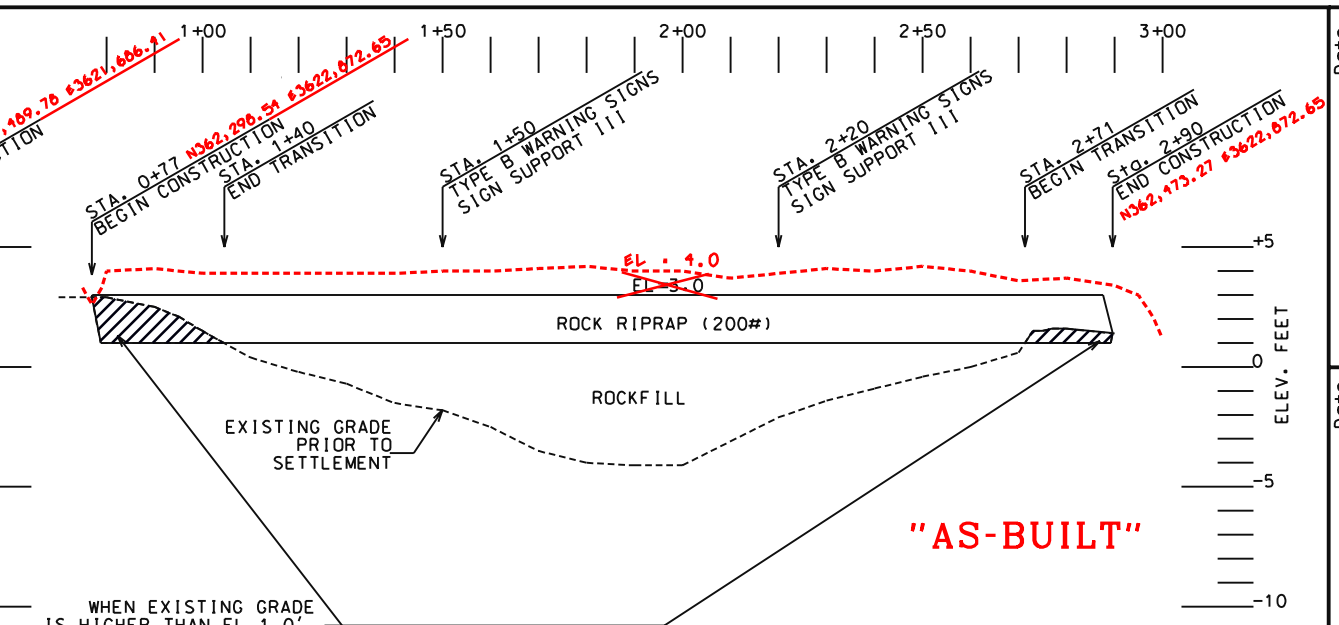
"AS-BUILT"

Date		Approved by: E. J. GIERING, III	
Date		Approved by: P. C. & H. M.	
Designed	S. GARNER	Title	STATE CONSERVATION ENGINEER
Drawn	P. C. & H. M.	Title	ALEXANDRIA, LOUISIANA
Traced	J. MOORE	Title	
Checked	J. MOORE	Title	
SITE LOCATION, ACCESS & LAND RIGHTS			
B2 CONSTRUCTION UNIT 2			
LAFOURCHE PARISH, LOUISIANA			
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE			
DATE	APPR.	REV.	TITLE
CAD FILENAME LA271002.DGN			
PROJECT NO. LA271			
SHEET NO. 02 OF 25			



SITE 1 - LONGITUDINAL SECTION
X-SECTION TAKEN AT ORANGE POST - FROM WEST TO EAST
1xHORIZ.. 5xVERT.

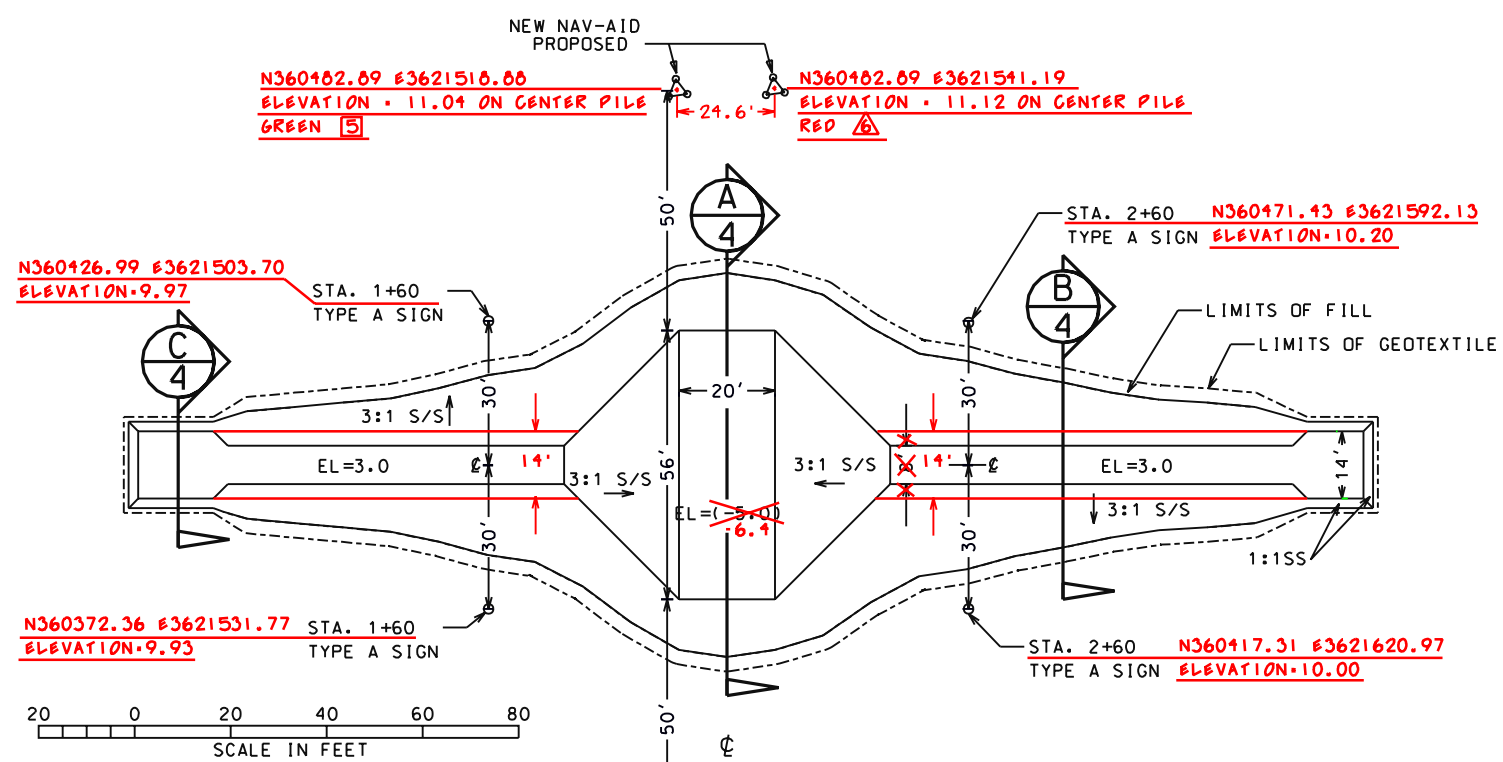
WHEN EXISTING GRADE IS HIGHER THAN EL. 1.0', EXCAVATE TO EL. 1.0' AND PLACE 14' TOP SECTION



SITE 90 - LONGITUDINAL SECTION
X-SECTION TAKEN 50' EAST OF ORANGE POST
1xHORIZ.. 5xVERT.

WHEN EXISTING GRADE IS HIGHER THAN EL. 1.0', EXCAVATE TO EL. 1.0' AND PLACE 14' TOP SECTION

"AS-BUILT"

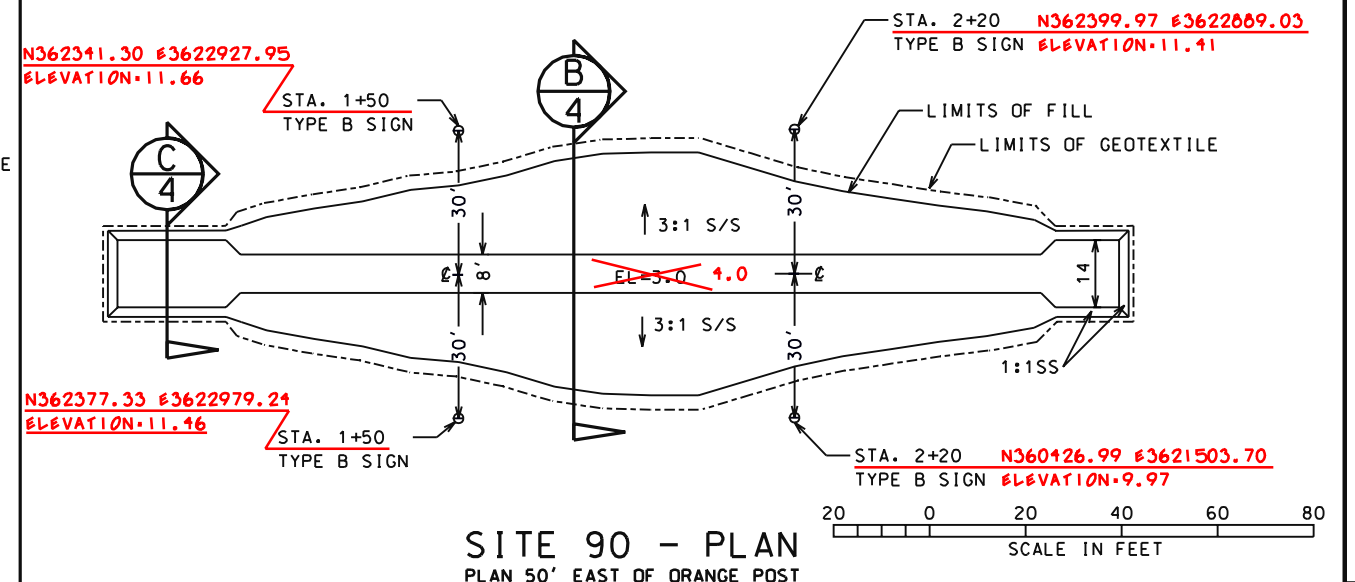


SITE 1 - PLAN
X-SECTION TAKEN AT ORANGE POST

- NOTES:**
- SEE SHEETS 23 AND 24 FOR SIGN DETAILS.
 - TIE-IN BETWEEN STRUCTURES AND BANK STABILIZATION TO BE DETERMINED IN THE FIELD BY THE COTR.
 - TRANSITION FROM 14' CREST WIDTH TO 4' CREST WIDTH AT ONE FOOT LONGITUDINAL TO ONE FOOT NORMAL ALONG LONGITUDINAL AXIS.

SITE 1 CONSTRUCTION LIMITS	
CONSTRUCTION WIDTH	CONSTRUCTION LENGTH
500 FT	500 FT
ESTIMATED QUANTITIES	
ROCK RIPRAP (200#)	1205 TONS
ROCK FILL	1290 TONS
GEOTEXTILE	1350 SY
	1723.6

N360342.50 #3621531.77 ELEVATION = 10.94 ON CENTER PILE GREEN [3]
PROPOSED NEW NAV-AID
N360353.91 #3621606.99 ELEVATION = 10.98 ON CENTER PILE RED [A]



SITE 90 - PLAN
PLAN 50' EAST OF ORANGE POST

SITE 90 CONSTRUCTION LIMITS	
CONSTRUCTION WIDTH	CONSTRUCTION LENGTH
300 FT	300 FT
ESTIMATED QUANTITIES	
ROCK RIPRAP (200#)	1195 TONS
ROCK FILL	980 TONS
GEOTEXTILE	1132 SY
	1067

- NOTES:**
- SEE SHEETS 23 AND 24 FOR SIGN DETAILS.
 - TIE-IN BETWEEN STRUCTURES AND BANK STABILIZATION TO BE DETERMINED IN THE FIELD BY THE COTR.
 - TRANSITION FROM 14' CREST WIDTH TO 4' CREST WIDTH AT ONE FOOT LONGITUDINAL TO ONE FOOT NORMAL ALONG LONGITUDINAL AXIS.

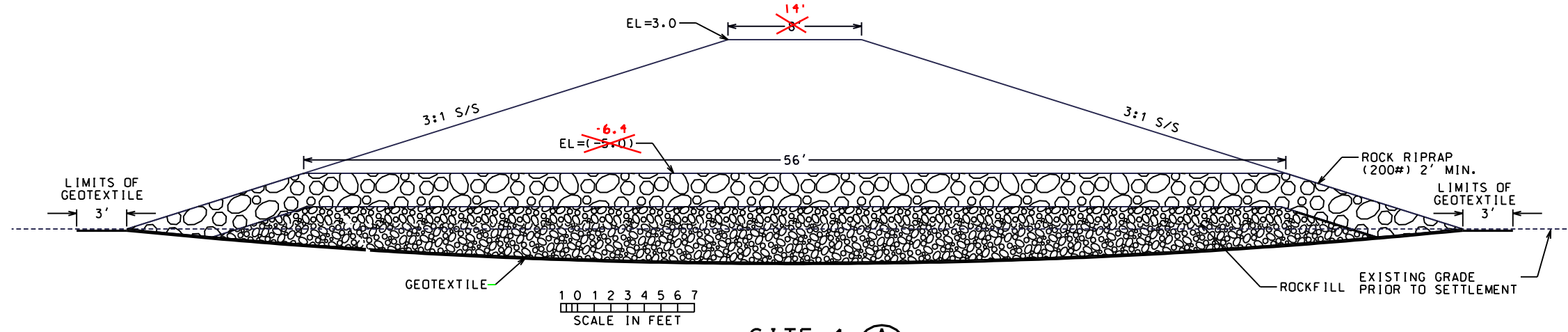
SITES 1 & 90 DETAILS
B&Z CONSTRUCTION UNIT 2
LAFORCHE PARISH, LOUISIANA
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

Designed	S. CARNER	Date	04/98
Drawn	H. MOORE	Approved by	L. J. CIRILING, III
Traced	J. MOORE	Title	STATE CONSERVATION ENGINEER
Checked	J. MOORE	Title	ALCOUARIA, LOUISIANA

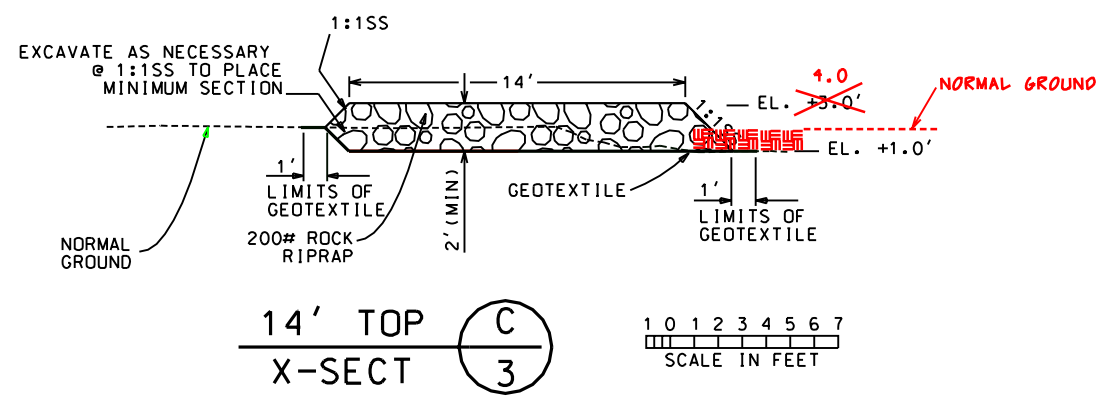
DATE	APPR.	TITLE

CAD FILENAME: LA271003.DGN
PROJECT NO.: LA271
SHEET NO. 3 OF 25

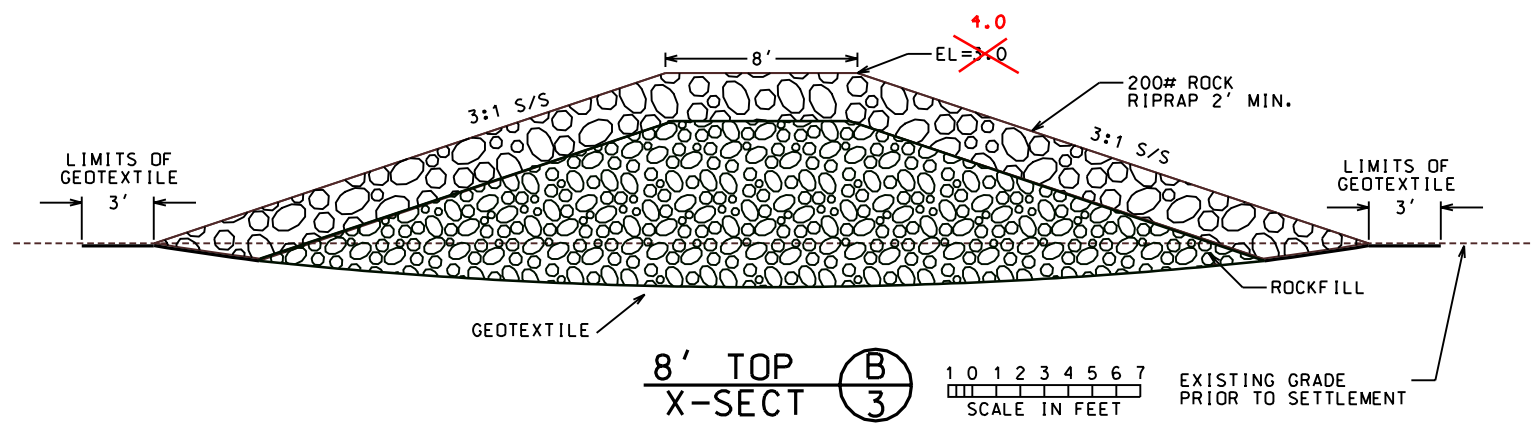
"AS-BUILT"



SITE 1 (A)
X-SECT (3)



14' TOP (C)
X-SECT (3)



8' TOP (B)
X-SECT (3)

Date	04/98	Approved by	E. J. GERNE, III
Designed	S. GARNER	Title	SITE CONSTRUCTION ENGINEER
Drawn	H. MOORE	Title	ALABAMA, LOUISIANA
Traced		Title	
Checked	J. MOORE	Title	

SITES 1 & 90 DETAILS
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

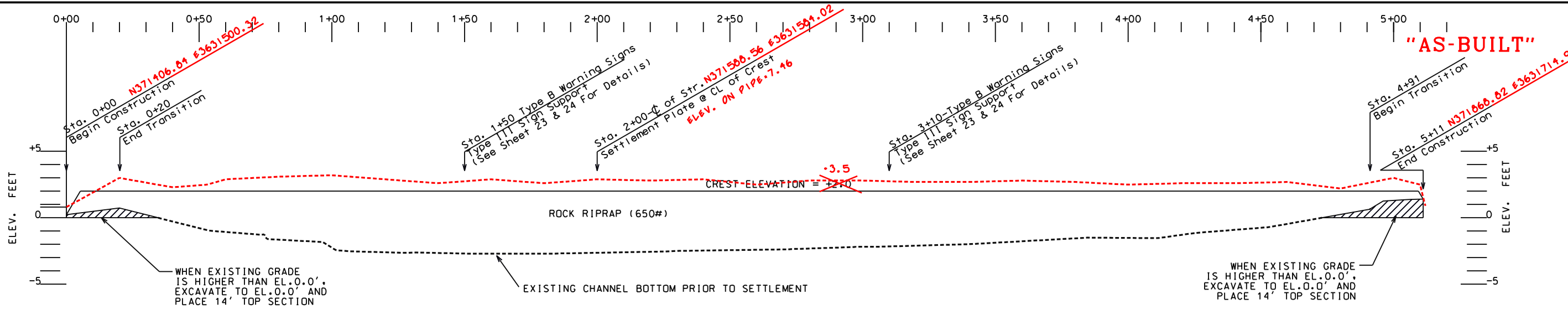
REVISONS	DATE	APPR.	TITLE

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

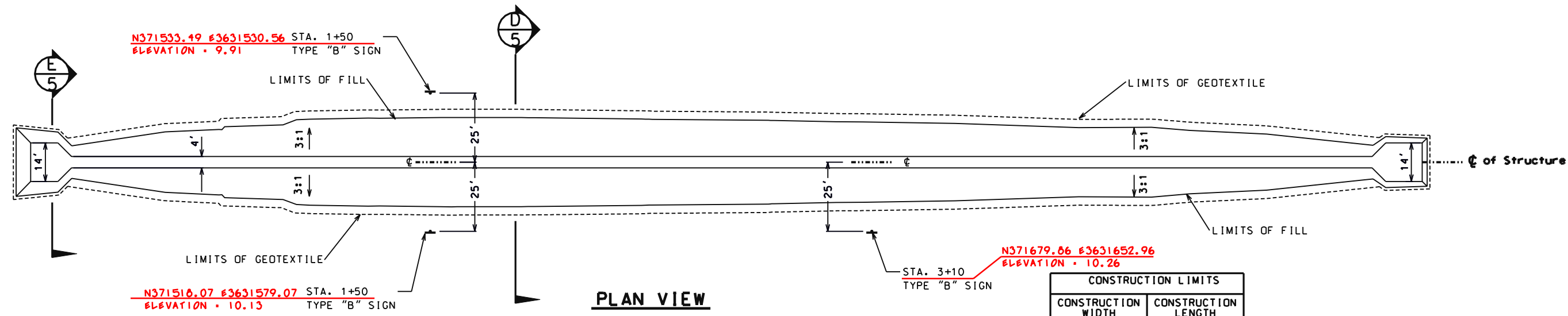
CAD FILENAME
LA271004.DGN

PROJECT NO.
LA271

SHEET NO. 4 OF 25



**PROFILE ON CENTERLINE
(SCALE AS SHOWN)**

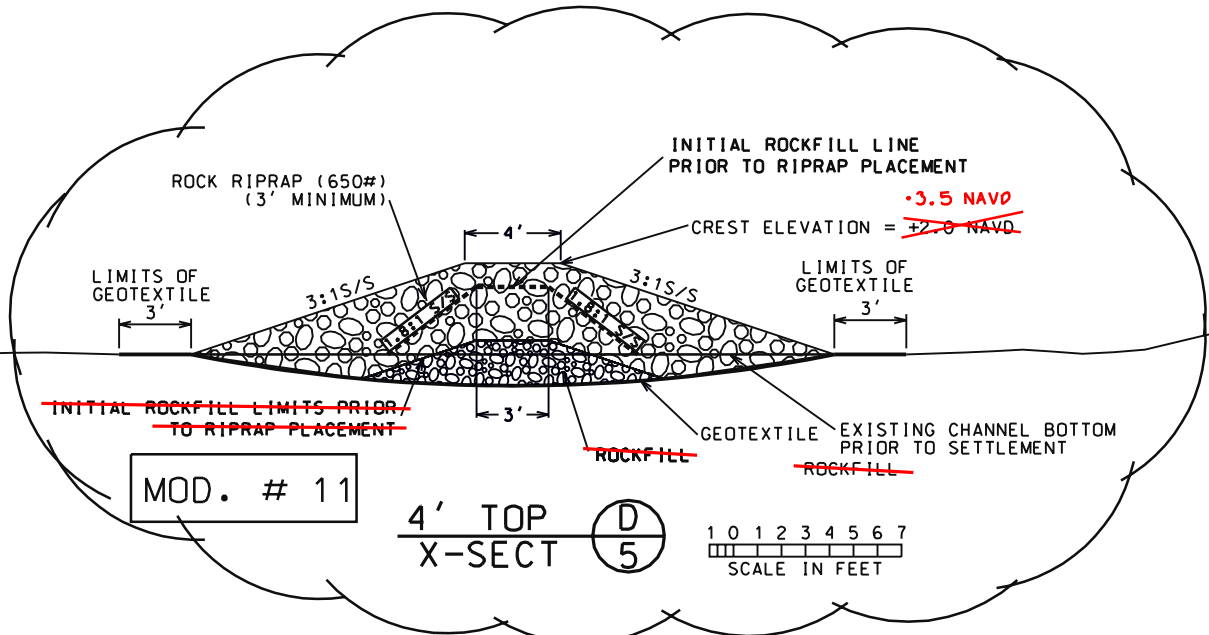


PLAN VIEW

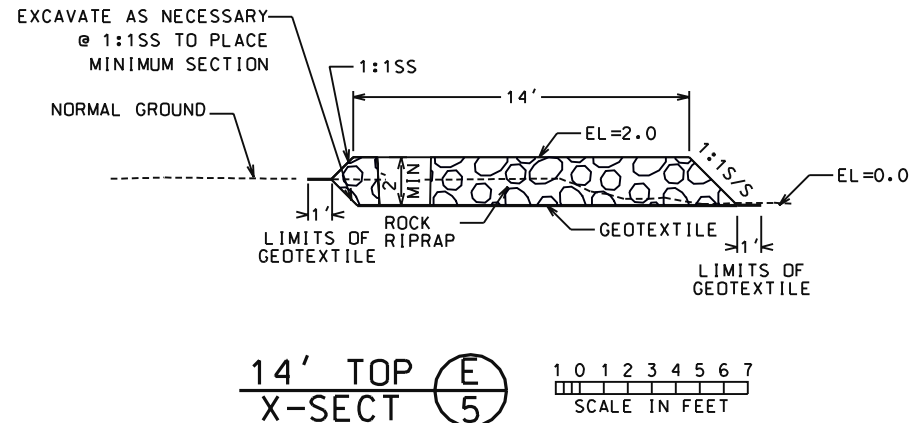
CONSTRUCTION LIMITS	
CONSTRUCTION WIDTH	CONSTRUCTION LENGTH
500 FT	700 FT
ESTIMATED QUANTITIES	
ROCK RIPRAP 650	2528 TONS 2597 TONS
ROCKFILL	0 TONS
ROCK RIPRAP 200	403 TONS 403 TONS
GEOTEXTILE	2130 SF 2168.9 SF

NOTE:

- SITE 4B IS INCLUDED IN ADDITIVE A.
- TRANSITION FROM 14' CREST WIDTH TO 4' CREST WIDTH AT ONE FOOT LONGITUDINAL TO ONE FOOT NORMAL ALONG LONGITUDINAL AXIS.



4' TOP X-SECT



14' TOP X-SECT

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

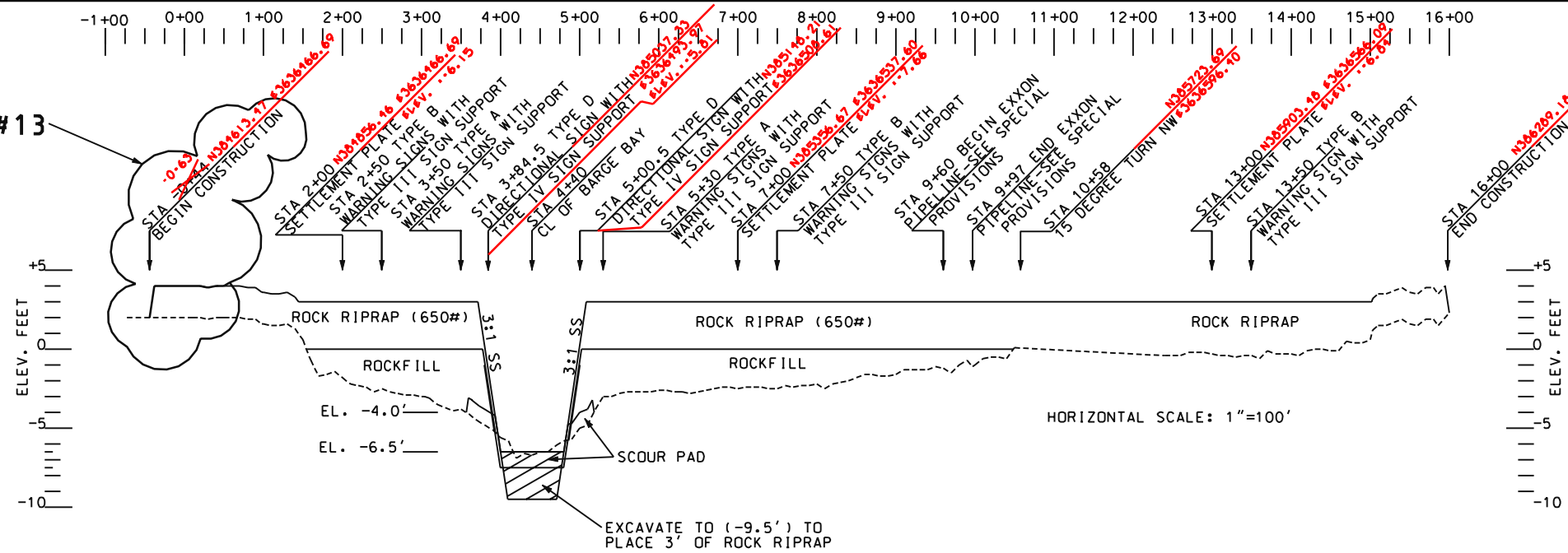
**SITE 4B DETAILS
BA2 CONSTRUCTION UNIT 2
LAFORCHE PARISH, LOUISIANA**

Designed	S. GARNER	Date	4/98
Drawn	A. GREMILLION	Approved by	L.J. GIERING, III
Traced	J. MOORE	Title	STATE CONSERVATION ENGINEER
Checked	J. MOORE	Title	ALABAMA, LOUISIANA

DATE	APPR.	TITLE
5/9/00	E.G.	ASTC/ES MOD. #7
7/3/00	E.G.	ASTC/ES MOD. #11

CAD FILE NO. LA271005
DRAWING NO. LA271
SHEET NO 5 OF 25

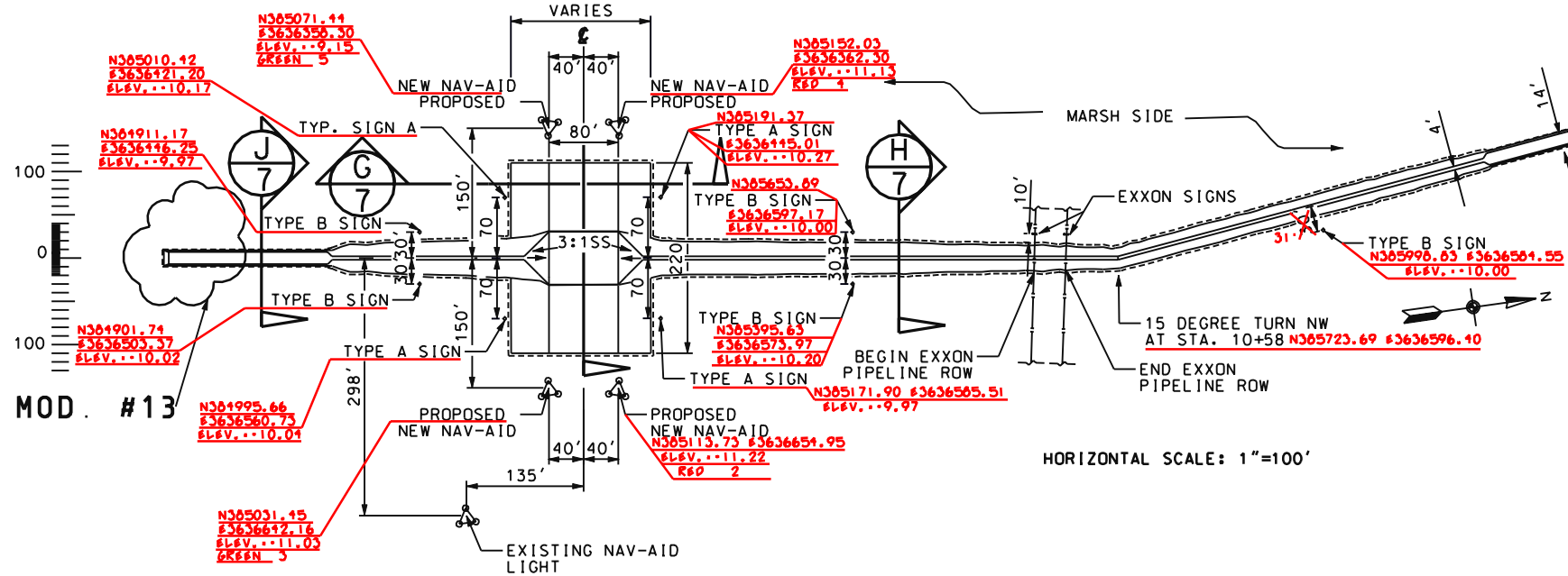
MOD. #13



"AS-BUILT"

SITE 14A - LONGITUDINAL SECTION

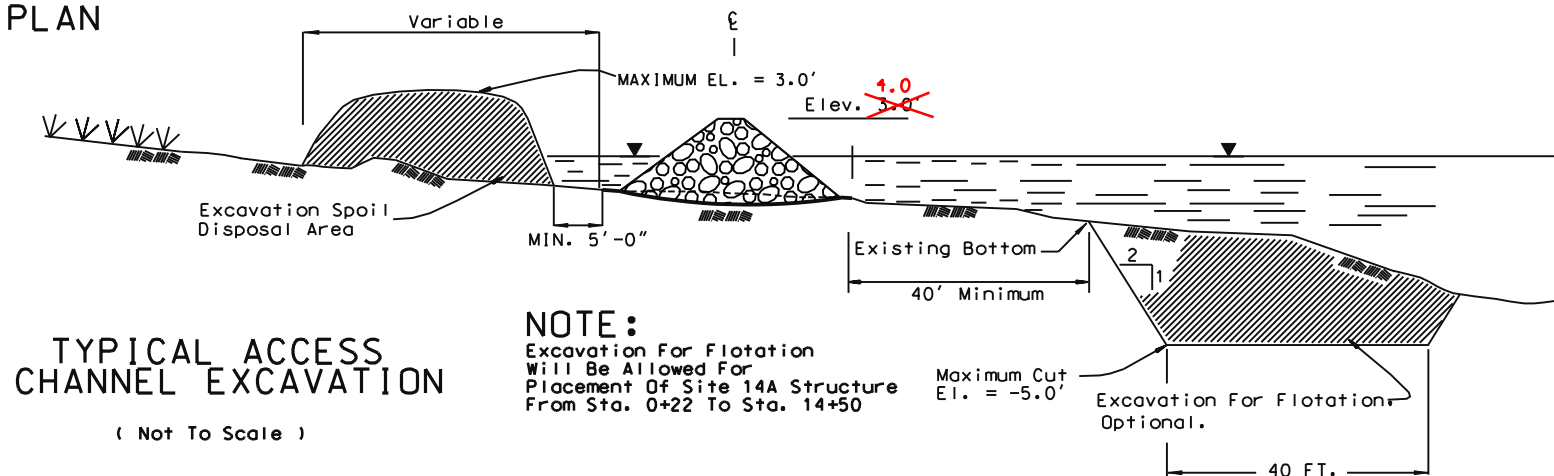
- NOTE:**
- SEE SHEETS 23, 24 & 25 FOR SIGN AND SIGN SUPPORT DETAILS
 - TYPE IV SIGN SUPPORTS TO BE PLACED ALONG THE CENTERLINE AT THE STATIONS INDICATED IN THE PROFILE.
 - SCOUR AREA SHALL BE EXCAVATED ONLY WITHIN THE LIMITS OF THE 80' BARGE BAY. THE INLET AND OUTLET AREAS SHALL BE TAPERED UP TO NORMAL GROUND WITH 1.5 FT. MIN. OF ROCK RIPRAP (200#).
 - TRANSITION FROM 14' CREST WIDTH TO 4' CREST WIDTH AT ONE FOOT LONGITUDINAL TO ONE FOOT NORMAL ALONG LONGITUDINAL AXIS.



SITE 14A - PLAN

SITE 14A CONSTRUCTION LIMITS	
CONSTRUCTION WIDTH	CONSTRUCTION LENGTH
600 FT	1800 FT
ESTIMATED QUANTITIES	
ROCK RIPRAP (650#)	10360 TONS 8212
ROCK RIPRAP (200#)	2400 TONS 4716
ROCKFILL	3195 TONS
GEOTEXTILE	5800 SY 10,934.1
EXCAVATION	2800 CY

MODIFICATION # 13	
ROCK RIPRAP 650 #	300 TONS
GEOTEXTILE	178 C.Y.



TYPICAL ACCESS CHANNEL EXCAVATION

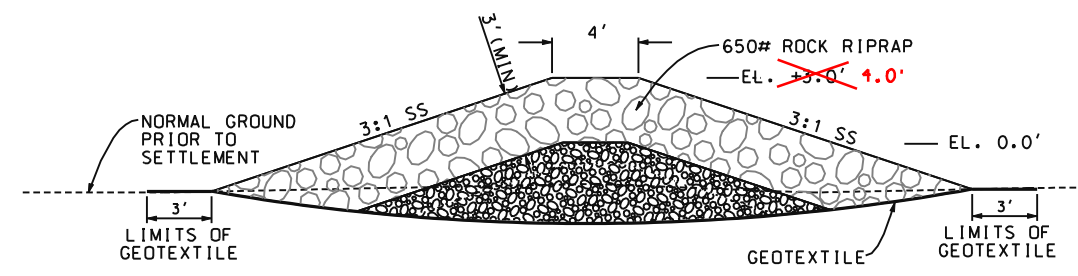
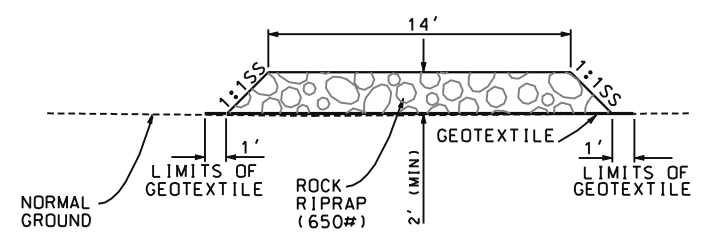
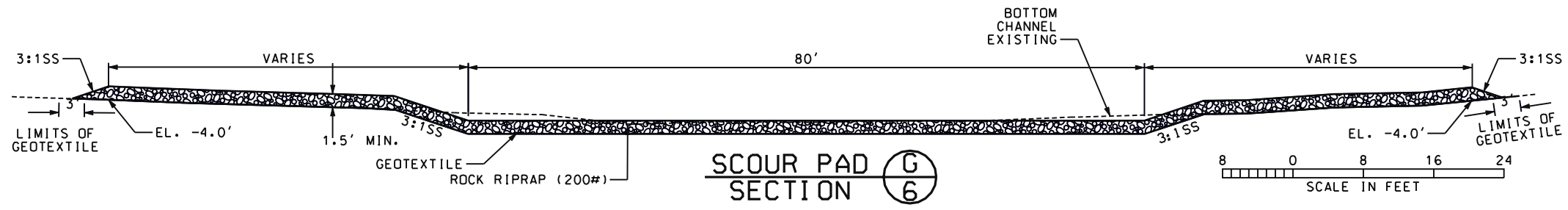
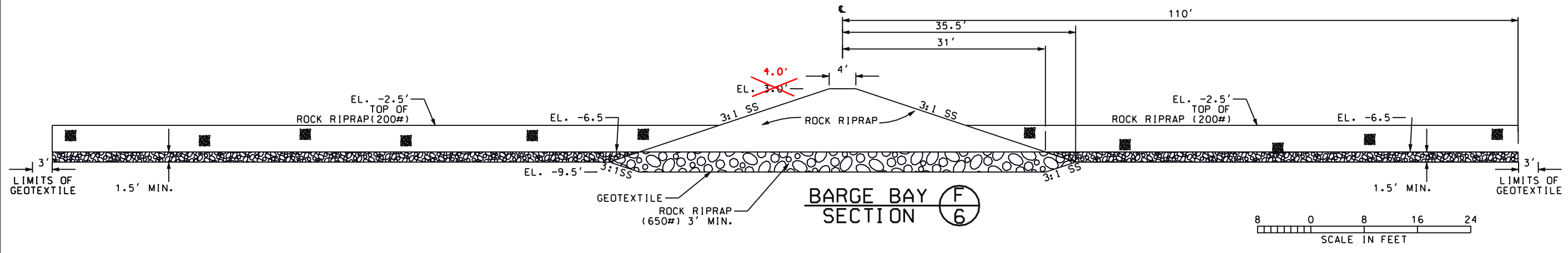
(Not To Scale)

NOTE:
Excavation For Flotation Will Be Allowed For Placement Of Site 14A Structure From Sta. 0+22 To Sta. 14+50

Date	04/98
Approved by	E. J. GERBER, III
DESIGNED	S. CARNER
Drawn	DESIGN GROUP
Traced	J. MOORE
Checked	J. MOORE
Title	STATE CONSERVATION ENGINEER
Title	ALEXANDRIA, LOUISIANA
Title	mm/yy

SITE 14A DETAILS	
BA2 CONSTRUCTION UNIT 2	
LAFOURCHE PARISH, LOUISIANA	
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE	
NO.	TITLE
DATE	APPR.
4/23/98	E.G. ASTC/BS
MOD 13 12/14/00	E.G. ASTC/BS
CAD FILENAME	
271S14A.DGN	
PROJECT NO.	
LA271	
SHEET NO. 6 OF 25	

"AS-BUILT"



NOTES:
 1. GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 2. SEE SHEET 6 FOR ESTIMATED QUANTITIES.

Date	03/98
Approved by	J. J. GIERING, III
Title	STATE CONSERVATION ENGINEER
Date	04/98
Designed	S. CARNER
Drawn	H.M., P.C.
Traced	J. MOORE
Checked	J. MOORE

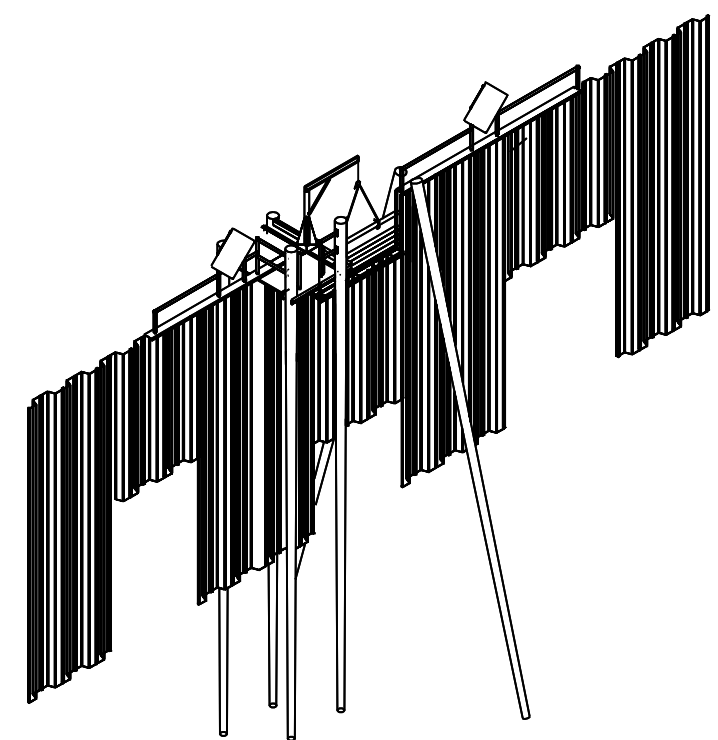
SITE 14A DETAILS
 BA2 CONSTRUCTION UNIT 2
 LAFOURCHE PARISH, LOUISIANA

REVISITONS	TITLE
DATE	APPR.
4/23/99	E.G.
CAD FILENAME	
LA271007	
PROJECT NO.	
LA271	
SHEET NO. 7 OF 25	

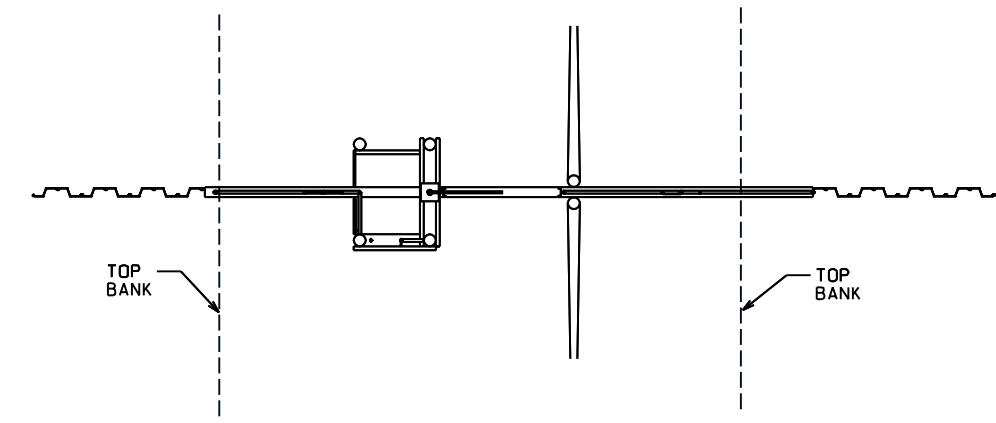
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION LIMITS	
CONSTRUCTION WIDTH	CONSTRUCTION LENGTH
200 FT	200 FT

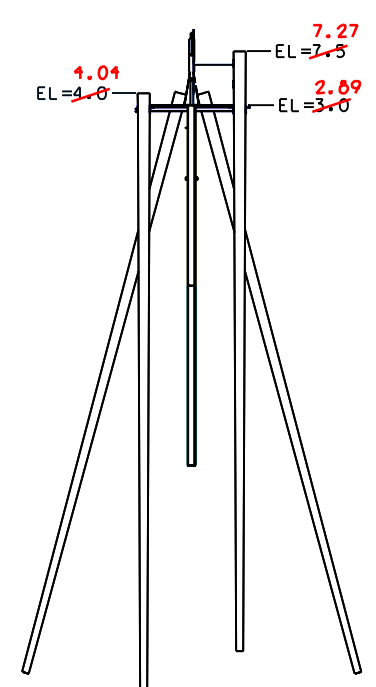
"AS-BUILT"



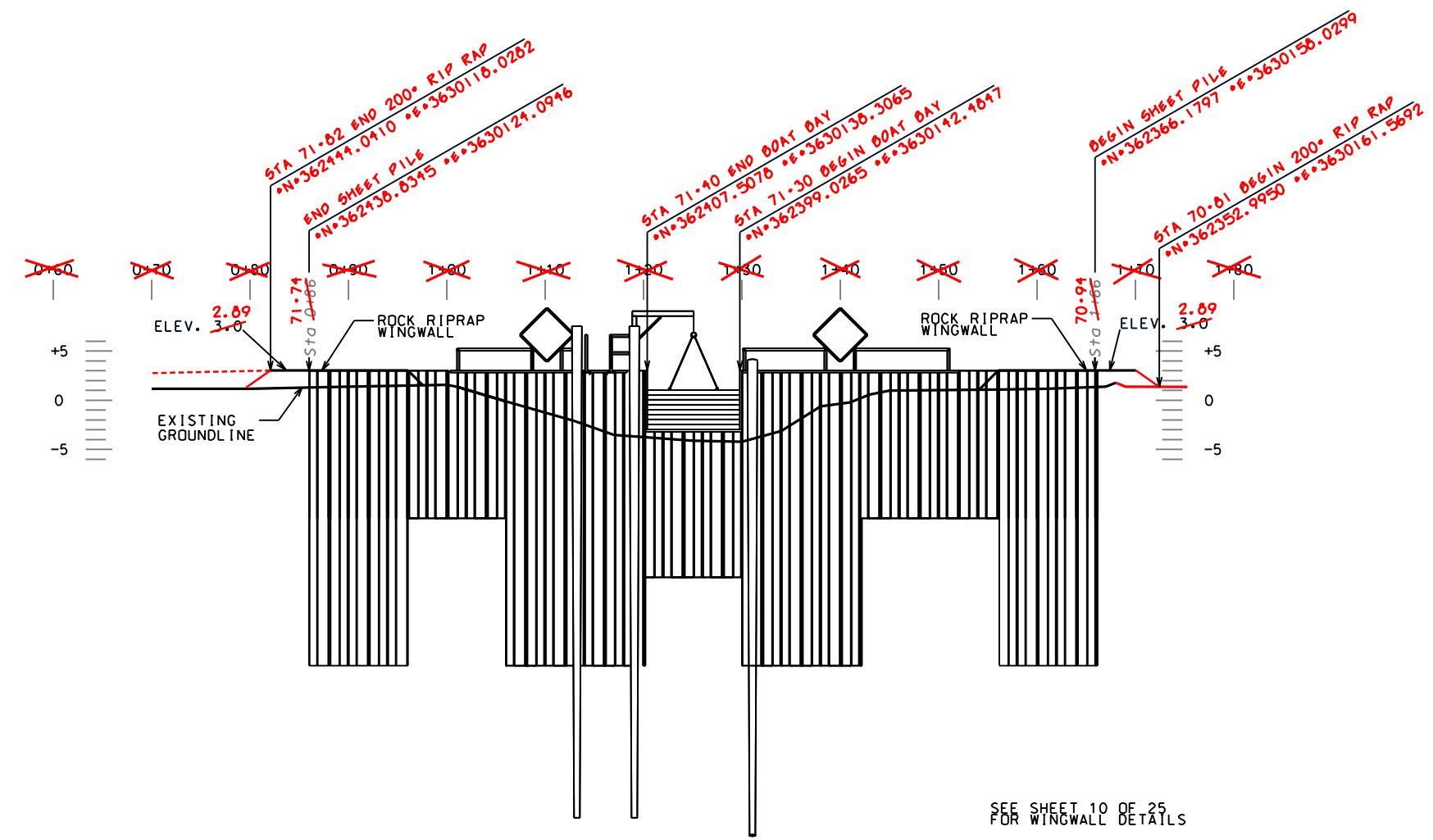
STRUCTURE ISOMETRIC



STRUCTURE PLAN

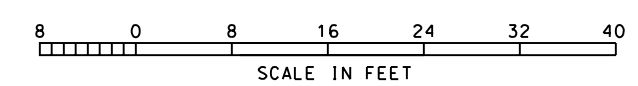


STRUCTURE LEFT ELEVATION



STRUCTURE FRONT ELEVATION

SEE SHEET 10 OF 25 FOR WINGWALL DETAILS

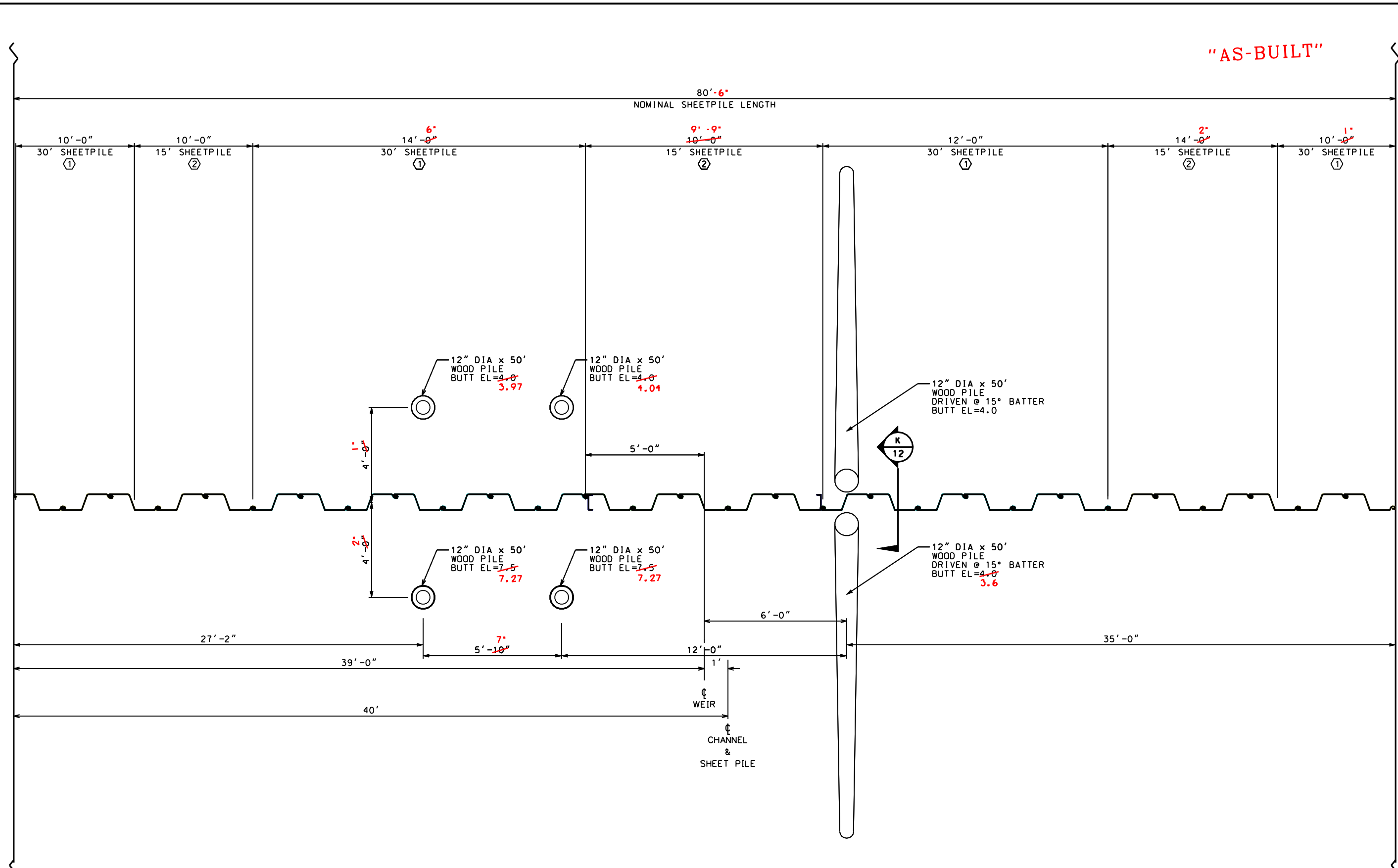


Date	Approved by	Title
10/98	E. JEROME, III	STATE CONSERVATION ENGINEER
03/98	S. CARNER	DESIGNED
03/98	H. MOORE	DRAWN
03/98	J. MOORE	TRACED
10/98	J. MOORE	CHECKED

SITE 35 - GENERAL VIEWS
 BA2 CONSTRUCTION UNIT 2
 LAFOURCHE PARISH, LOUISIANA
 U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

REVISIONS	DATE	APPR.	TITLE

CAD FILENAME
 LA271008
 PROJECT NO.
 LA271
 SHEET NO 8 OF 25

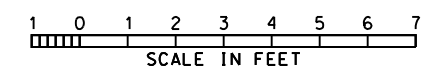


NOTE:

1. STEEL SHEET PILE SHALL CONFORM TO ASTM SPECIFICATION A572, GR 50 AND HAVE MINIMUM SECTION MODULUS OF 8.0 IN³ PER FOOT OF PILING WALL. ALL CHANNELS, ANGLES, AND PLATE SHALL CONFORM TO ASTM A572 GR 50
2. ALL SHEET AND CHANNEL DIMENSIONS ARE TYPICAL, AND ARE SUBJECT TO CHANGE BASED ON MANUFACTURER/SUPPLIER.
3. MINIMUM WEB AND FLANGE THICKNESS OF SHEET PILES SHALL BE 0.25".
4. SHEET PILES WILL BE DRIVEN IN THE "NORMAL CONFIGURATION" AS SHOWN.

STRUCTURE LAYOUT

SHEET PILE MARK	MINIMUM IN ³ /FT	SHEET PILE THICKNESS	PILE LENGTH	LINEAR FEET OF WALL	SUBTOTALS (SF)
①	8.0	0.25"	30'	46	780
②	8.0	0.25"	15'	34	810



**SITE 35 STRUCTURE LAYOUT
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA**

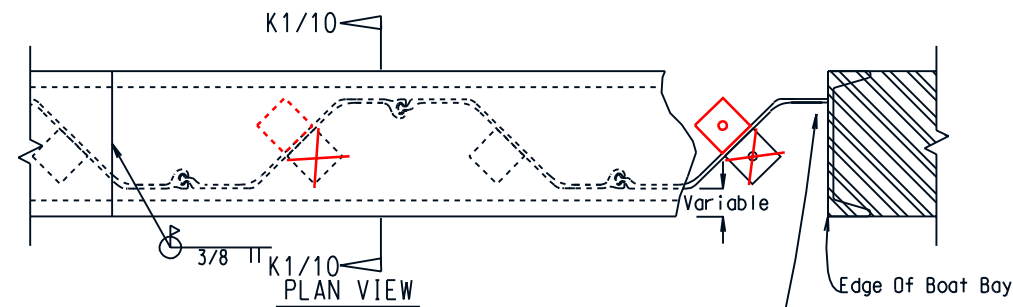
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

DATE	APPR.	TITLE
03/98	S. GARNER	DESIGNED
03/98	H. MOORE	DRAWN
03/98	J. MOORE	TRACED
10/98	J. MOORE	CHECKED

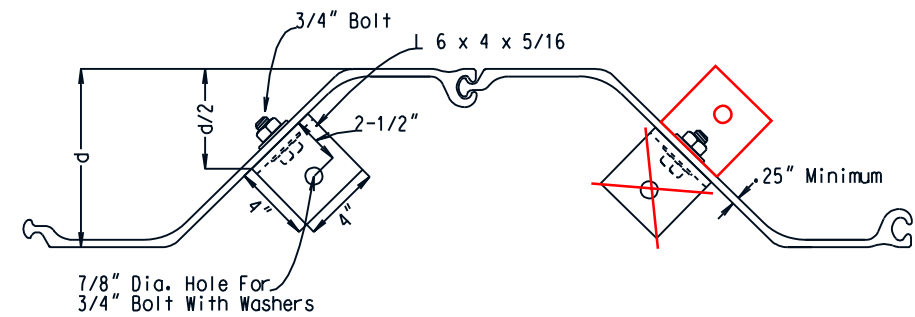
Approved by: E. GIERING, III
Title: STATE CONSERVATION ENGINEER

Date: 10/98

CAD FILENAME: LA271009
PROJECT NO.: LA271
SHEET NO. 9 OF 25

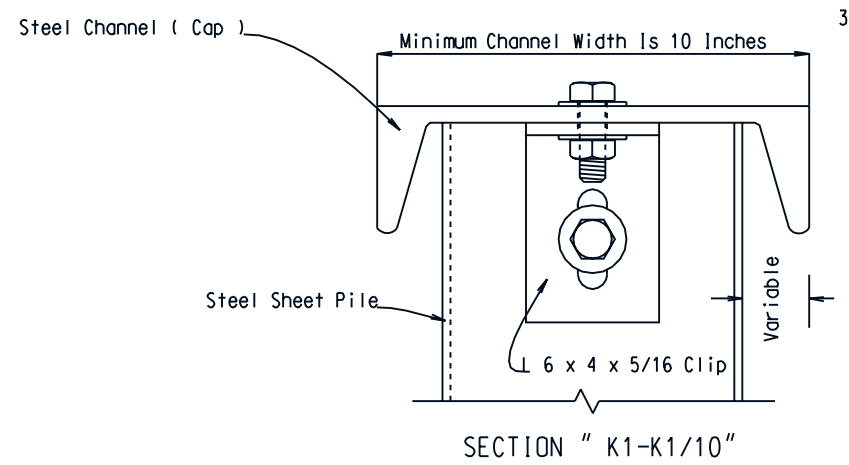


NOTE:
 This Connection Varies Based On The Location Of The Channel Cap With Respect To The Pile And Cannot Be Designed Until The Pile Is In Place And The Location Of The Opening Has Been Identified. The Contractor Shall Submit A Method Of Connecting The Channel Cap To The Pile And All Drawings For Approval Prior To Fabrication. The Contractor May Request The Assistance Of The NRCS State Design Staff When Developing This Connection.

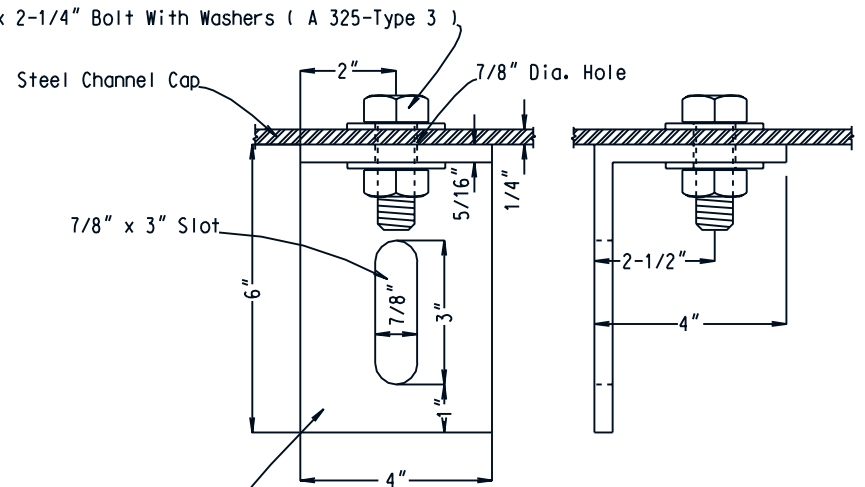


NOTE:
 L 6 x 4 x 5/16 Clips To Be Placed On The Middle Section Of Each Pile As Shown.

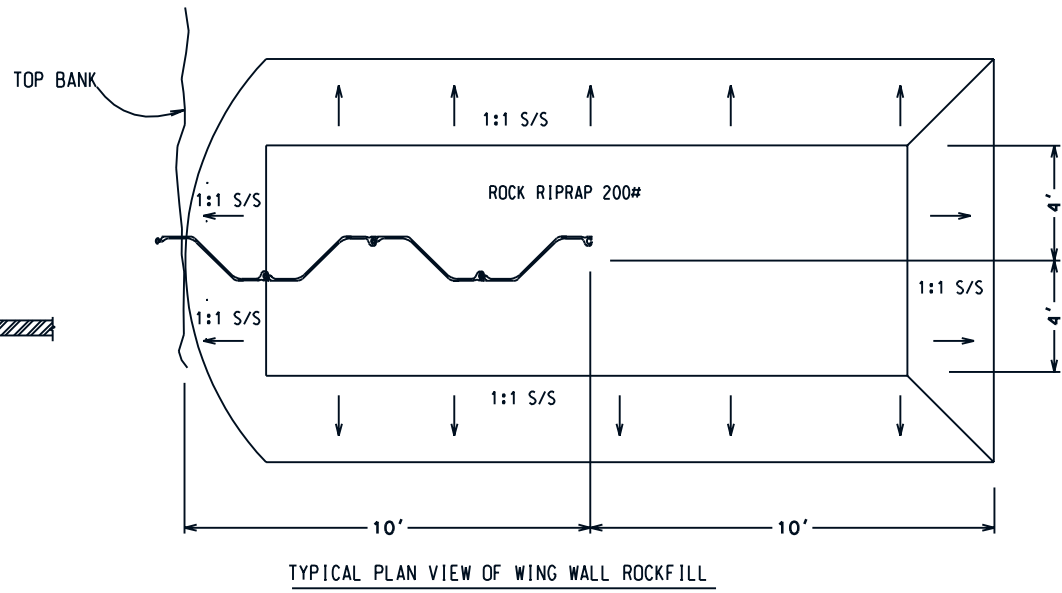
NOTE:
 Connection Of Channel Cap To Sheet Pile At Bottom Of Variable Crest Weir For Weir No. 35 Shall Be Made As Follows: The L 6x 4x2" Shall Be Welded To The Bottom Of The Channel Cap Prior To Installation. The Holes In The Sheet Pile Shall Be Field Drilled.



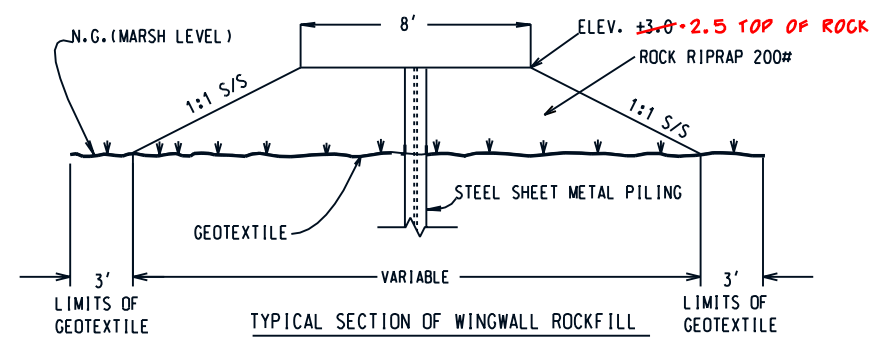
TYPICAL CHANNEL CAP TO SHEET PILE CONNECTION



FRONT SIDE
 L 6 x 4 x 5/16" (Clip)



TYPICAL PLAN VIEW OF WING WALL ROCKFILL



TYPICAL SECTION OF WINGWALL ROCKFILL
 WINGWALL DETAILS

- NOTE:**
1. STEEL SHEET PILE SHALL CONFORM TO ASTM SPECIFICATION A572, GR 50 AND HAVE MINIMUM SECTION MODULUS OF 8.0 IN³ PER FOOT OF PILING WALL. ALL CHANNELS, ANGLES, AND PLATE SHALL CONFORM TO ASTM A572 GR 50
 2. ALL SHEET AND CHANNEL DIMENSIONS ARE TYPICAL, AND ARE SUBJECT TO CHANGE BASED ON MANUFACTURER/SUPPLIER.
 3. MINIMUM WEB AND FLANGE THICKNESS OF SHEET PILES SHALL BE 0.25".
 4. SHEET PILES WILL BE DRIVEN IN THE "NORMAL CONFIGURATION" AS SHOWN.

"AS-BUILT"

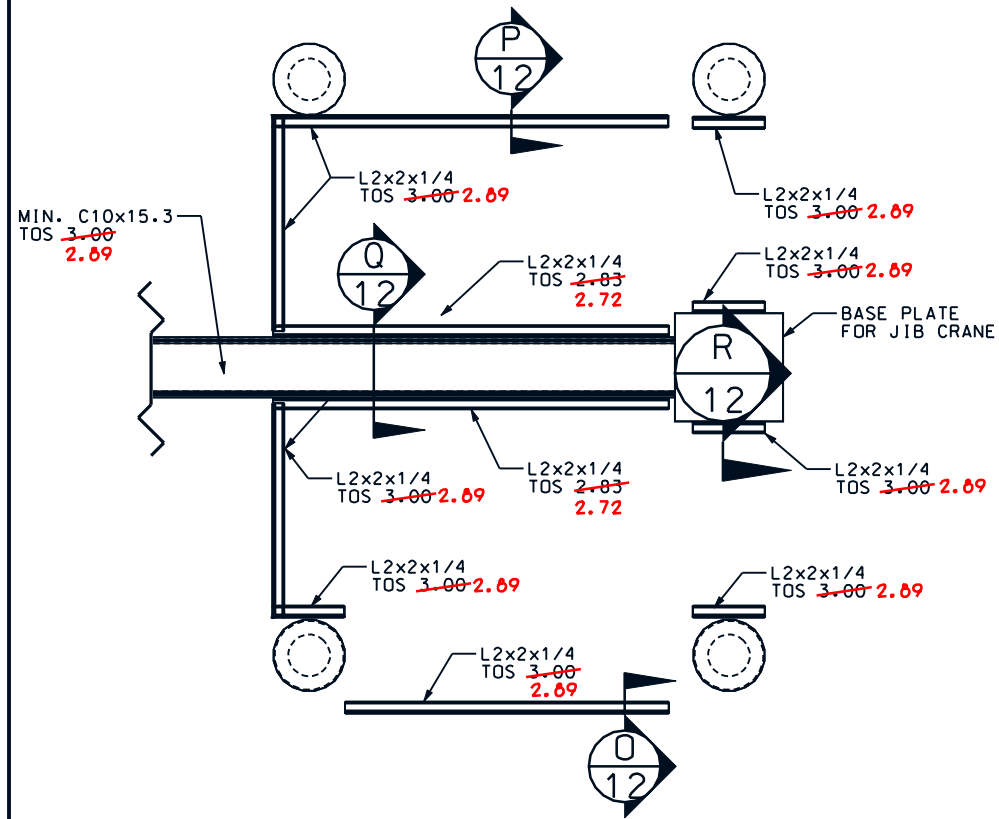
Date	05/92	Date	09/98
Approved by	E. J. GIERING, III	Checked	J. MOORE
Title	STATE CONSERVATION ENGINEER	Traced	
	ALEXANDRIA, LOUISIANA	Drawn	A. GREMILLION
		Designed	T. HENRY

SITE 35 - SHEET PILE DETAILS
 BA2 CONSTRUCTION UNIT 2
 LAFOURCHE PARISH, LOUISIANA

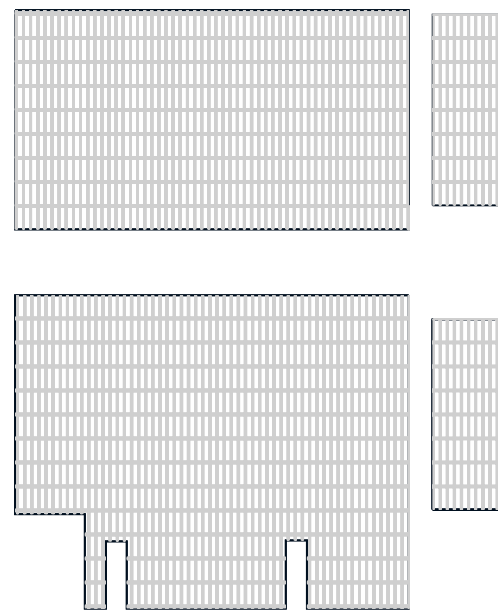
REVISIONS	TITLE
DATE	APPR.
4/22/99	E.G.

CAD FILENAME
 LA271010
 PROJECT NO.
 LA271
 SHEET NO. 10 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE



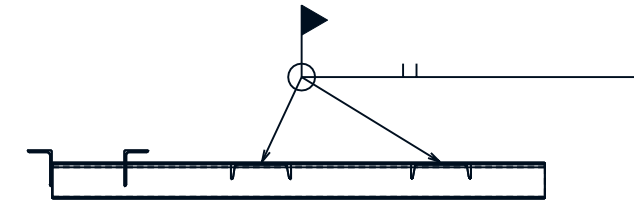
PLAN - SECONDARY STEEL



PLAN - STEEL GRATING

BAR GRATING TO BE 19W4, SERRATED, GALVANIZED, 1 3/4" x 3/16". SECURE GRATING PER MANUFACTURER'S RECOMMENDATION ie ~~J-BOLT~~, SADDLE CLIP, etc. ALL FASTENERS SHALL BE STAINLESS STEEL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FASTENER DETAILS TO THE C.O.T.R. 14 DAYS PRIOR TO PURCHASING AND/OR FABRICATING.

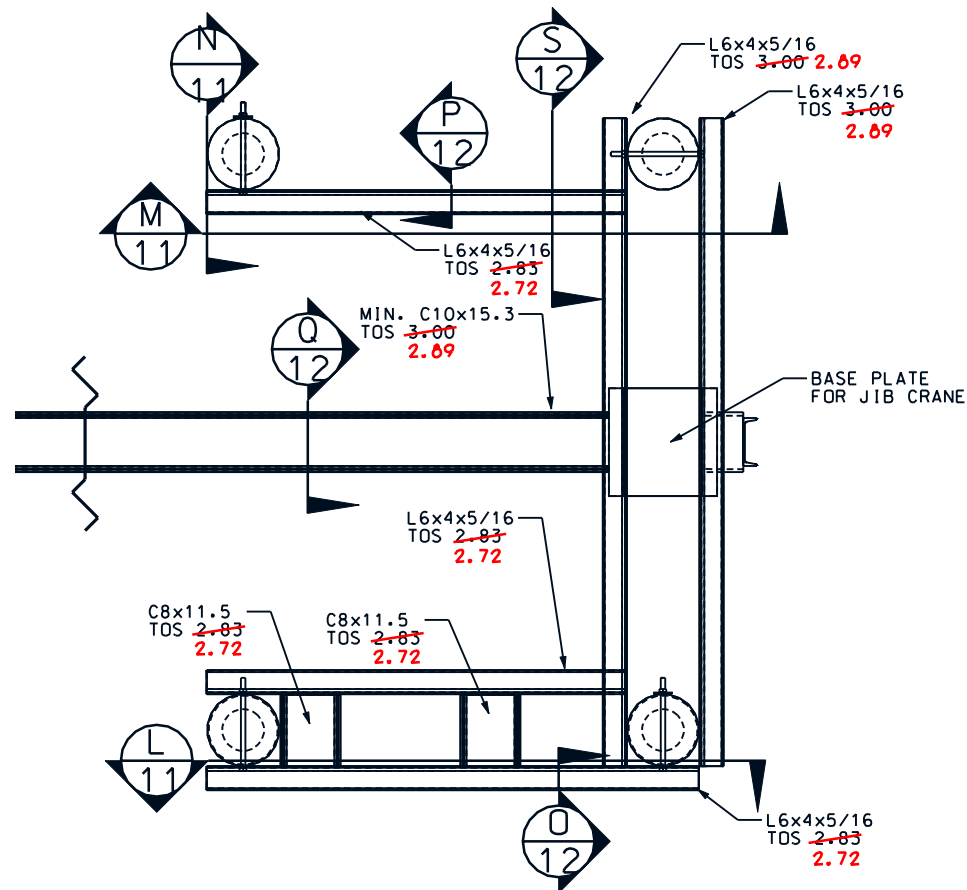
"AS-BUILT"



L6x4 @ WATER SECTION (L 11)



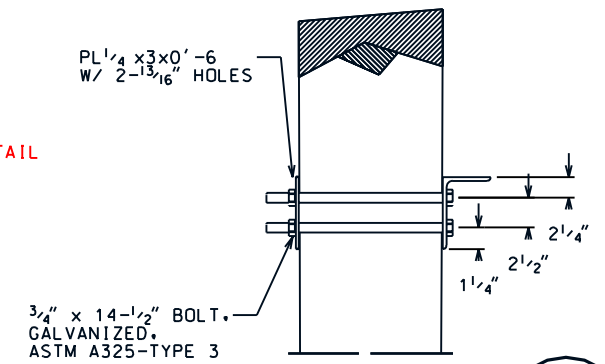
L6x4 @ MARSH SECTION (M 11)



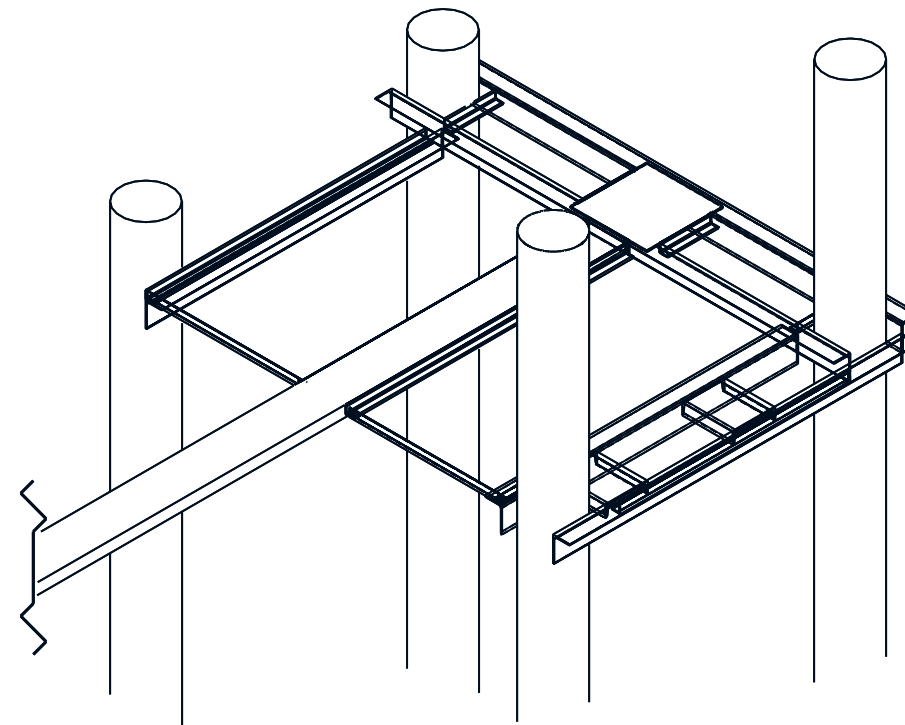
PLAN - PRIMARY STEEL



SADDLE CLIP DETAIL



BOLTING DETAIL (N 11)



ISOMETRIC - SUPPORT STEEL

NOTE: ALL DIMENSIONS THIS SHEET ARE CONTINGENT UPON "AS-DRIVEN" PILE LOCATIONS. VERIFY DIMENSIONS ON JOB BEFORE FABRICATION.



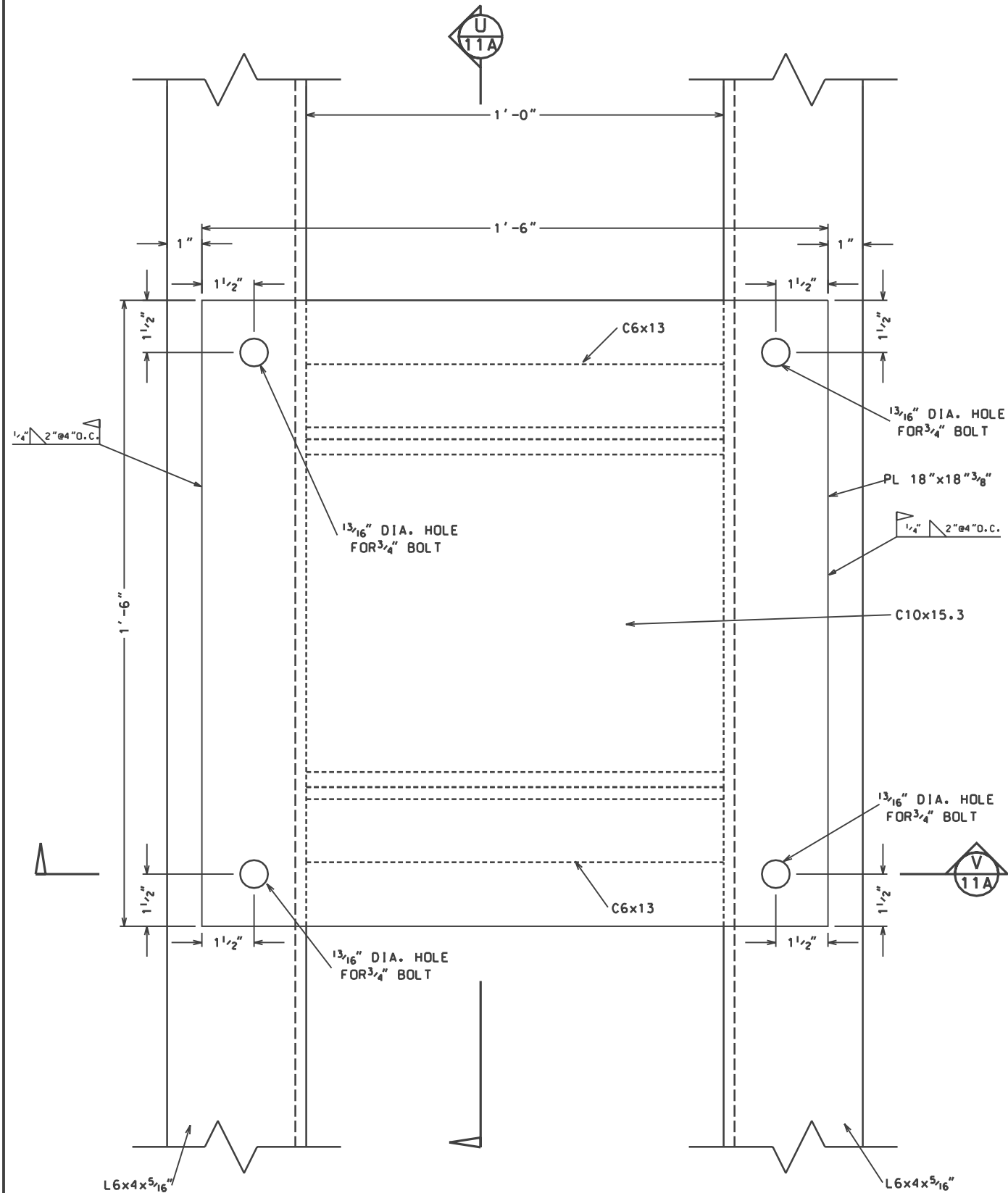
DATE	03/98	DATE	10/98
DESIGNED BY	S. GARNER	APPROVED BY	E. GERBER, III
DRAWN BY	H. MOORE	TITLE	STATE CONSERVATION ENGINEER
TRACED BY	J. MOORE	TITLE	
CHECKED BY	J. MOORE	TITLE	

SITE 35 WORK PLATFORM
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

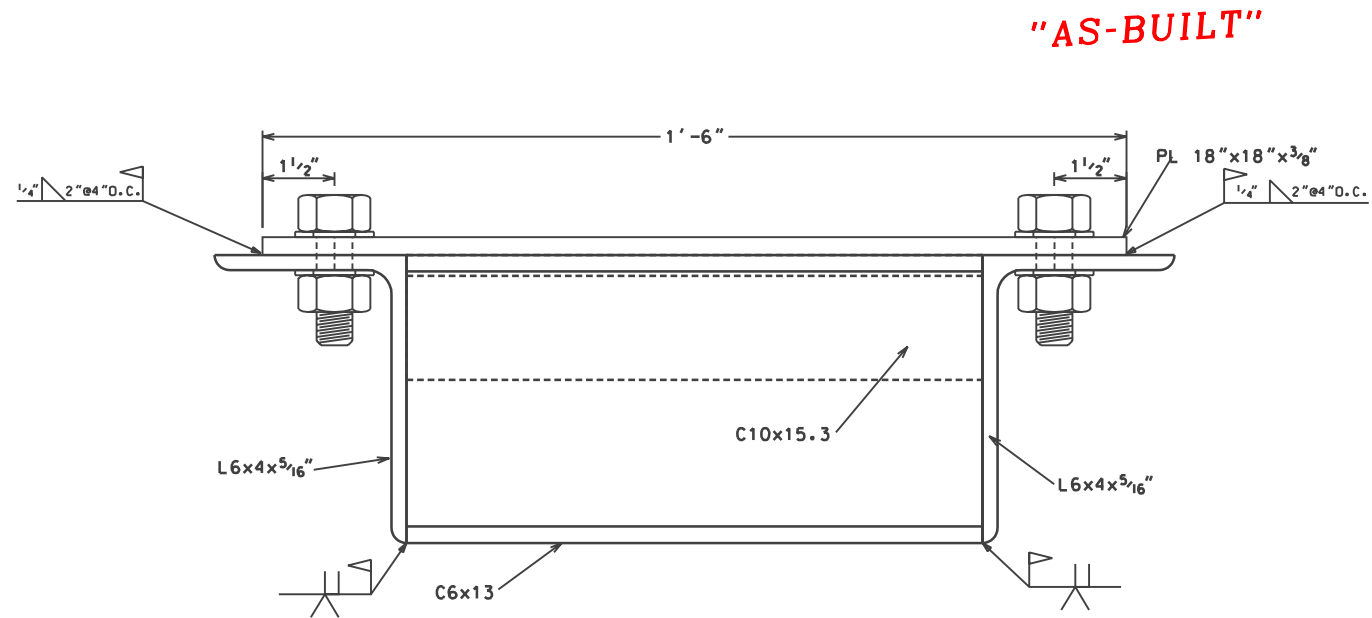
REV.	DATE	APPR.	TITLE

CAD FILENAME: LA271011
PROJECT NO.: LA271
SHEET NO 11 OF 25

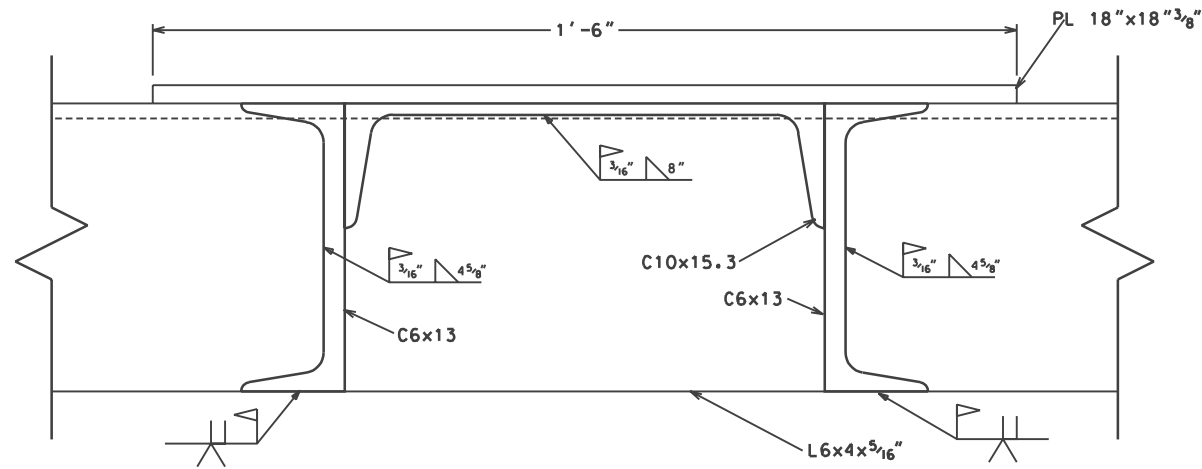
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE



**CRANE BASE PLATE SUPPORT
PLAN VIEW**



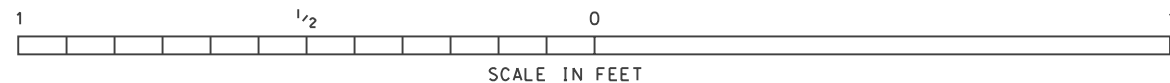
**SECTION AS SHOWN V
11A**



**SECTION AS SHOWN U
11A**

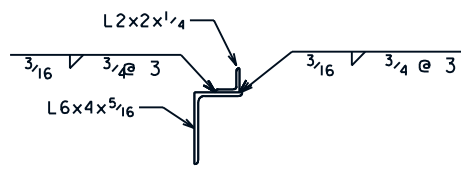
NOTES:

1. STEEL SHEET PILING SHALL BE NOTCHED FOR L6x4x5/16" LEG TO PASS THROUGH CONTINUOUS.
2. CRANE BASE PIPE AND GUSSETS, SHEET PILING, L2x2x1/4" AND GRATING NOT SHOWN FOR CLARITY.

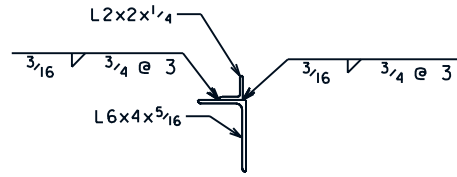


"AS-BUILT"

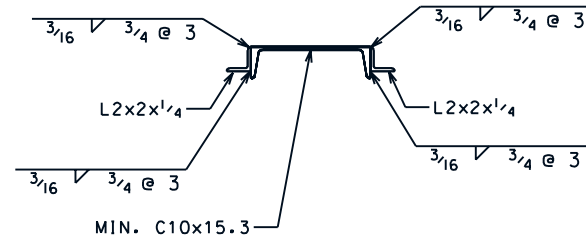
Date: _____ Approved by: _____ Title: _____		Date: _____ Approved by: _____ Title: _____	
Date: 4/00 Designed: L.S. GARNER Drawn: A.J. CREMILLON Traced: _____ Checked: J. MOORE		Date: 4/00 Approved by: _____ Title: _____	
CRANE BASE PLATE DETAILS BA2 CONSTRUCTION UNIT 2 LAFOURCHE PARISH, LOUISIANA			
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE			
REVISIONS DATE APPR. E.G. 4/27/00	TITLE A.S.T.C. MOD. #5	CAD FILE NO. LA271011A	DRAWING NO. LA 271
		Sheet 11A OF 25	



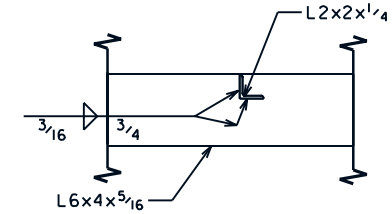
GRATING PAST PILE CONNECTION DETAIL (O) 11



GRATING TO PILE CONNECTION DETAIL (P) 11



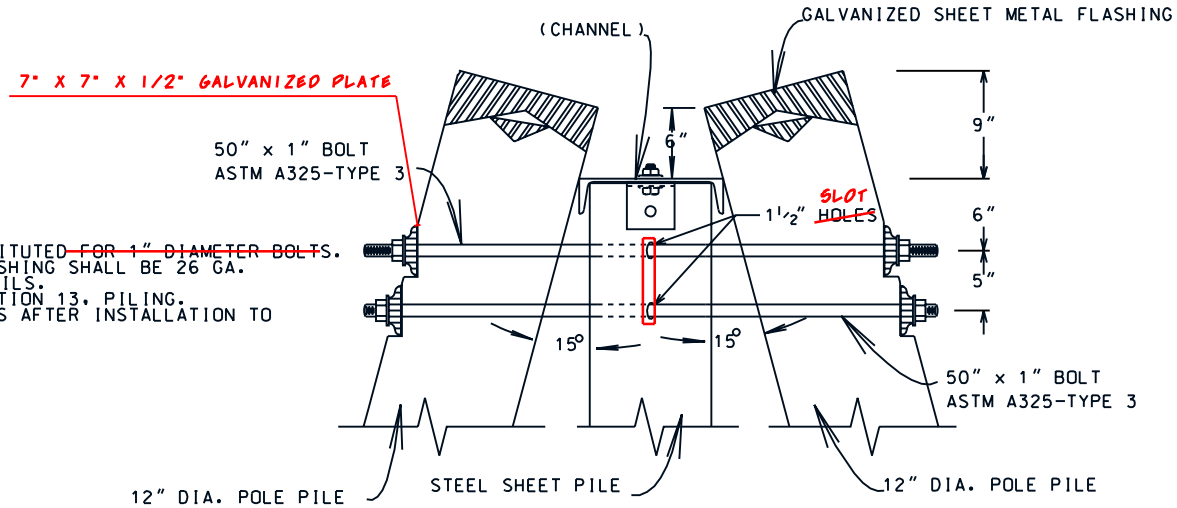
GRATING TO CHANNEL CONNECTION DETAIL (Q) 11



L2x2 TO L6x4 CONNECTION DETAIL (R) 11

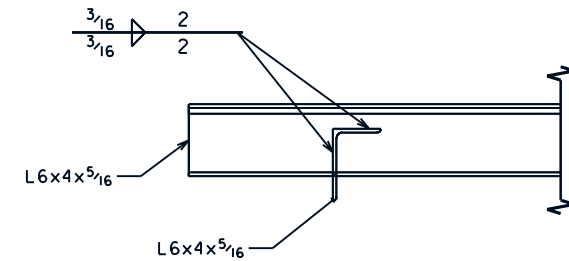
NOTES:

1. 1" ALL-THREAD MAY BE SUBSTITUTED FOR 1" DIAMETER BOLTS.
2. GALVANIZED SHEET METAL FLASHING SHALL BE 26 GA. ATTACHED USING GALVANIZED NAILS.
3. SEE CONSTRUCTION SPECIFICATION 13, PILING.
4. TACK WELD ALL THROUGH BOLTS AFTER INSTALLATION TO PREVENT REMOVAL.

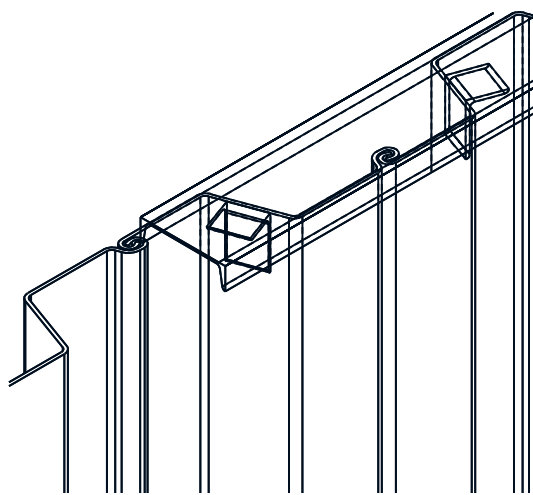


BATTER PILES SECTION (K) 9

"AS-BUILT"

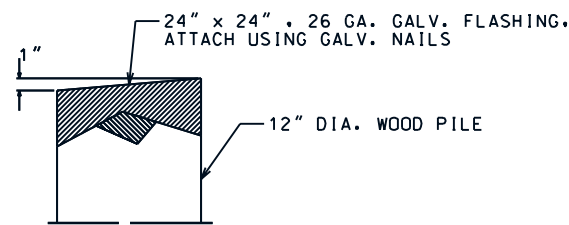


L6x4 (LOW) TO L6x4 (HIGH) CONNECTION DETAIL (S) 11

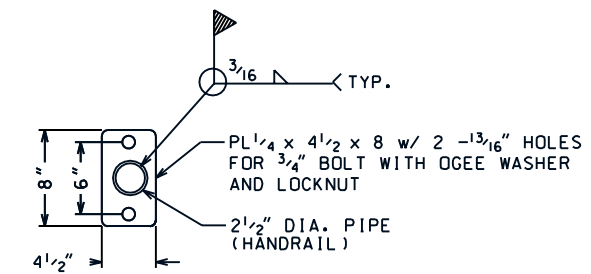


ISOMETRIC SHEET PILE CAP

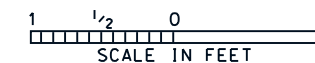
PILE CAP TO BE A MINIMUM C10x15.3 ATTACHED TO EACH SHEET PILE SECTION WITH ONE L6x4x5/16x0'-4 CLIP AT THE NEUTRAL AXIS OF EACH PILE, ATTACHED BY BOLTING OR WELDING AT CONTRACTOR'S OPTION. TWO FILLET WELDS 3/16"x3/4" OR ONE BOLT 3/4" DIA. EACH LEG. LONG SLOTS ACCEPTABLE WITH BOLTED CONNECTION. PILE CAP AND CLIPS TO BE ASTM A-572.GR 50 STEEL.



TYPICAL WOOD PILE CAP



RAIL ATTACH. PLATE CONNECTION DETAIL (T) 13



Date	10/98
Approved by	E. JEROME, III
Title	STATE CONSERVATION ENGINEER
Date	03/98
Designed	S. GARNER
Title	
Date	03/98
Drawn	H. MOORE
Title	
Date	10/98
Traced	J. MOORE
Title	
Checked	J. MOORE
Title	

SITE 35 - STEEL DETAILS
 BA2 CONSTRUCTION UNIT 2
 LAFOURCHE PARISH, LOUISIANA

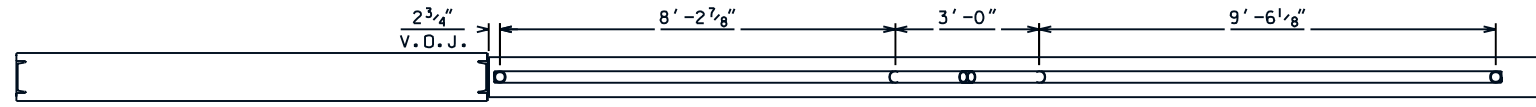
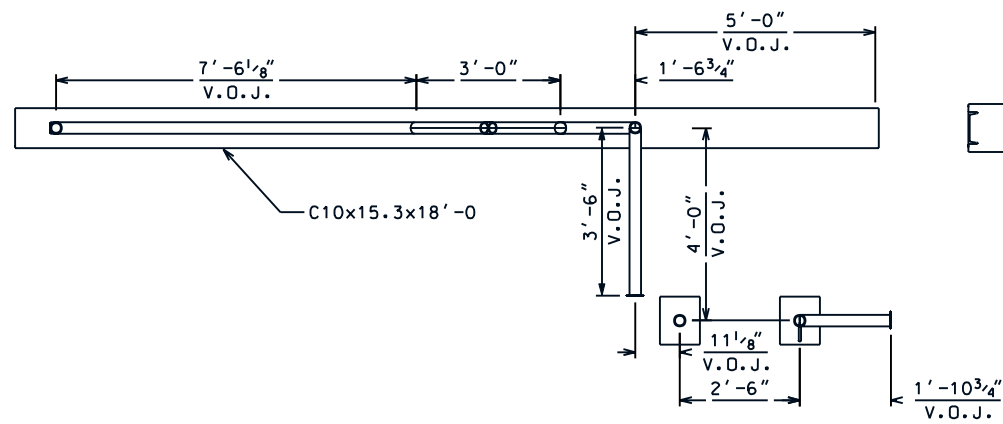
REVISIONS	TITLE
DATE	APPR.

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CAD FILENAME
LA271012

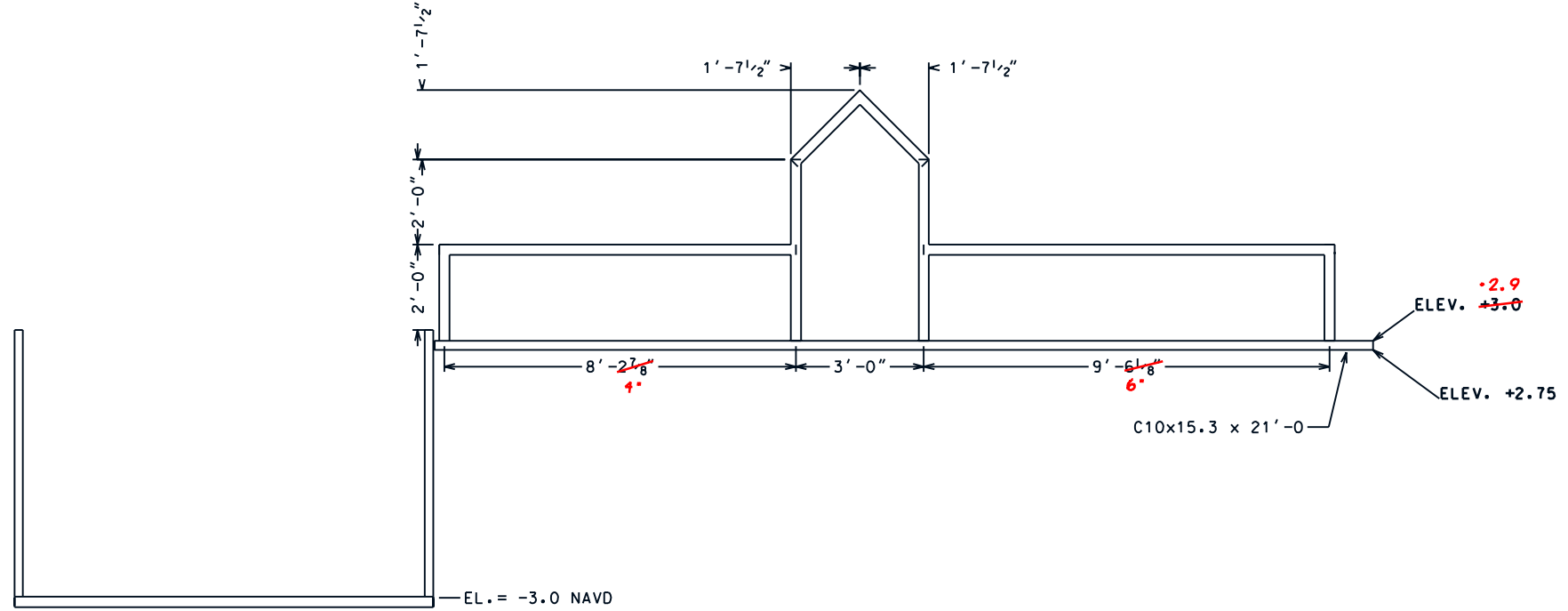
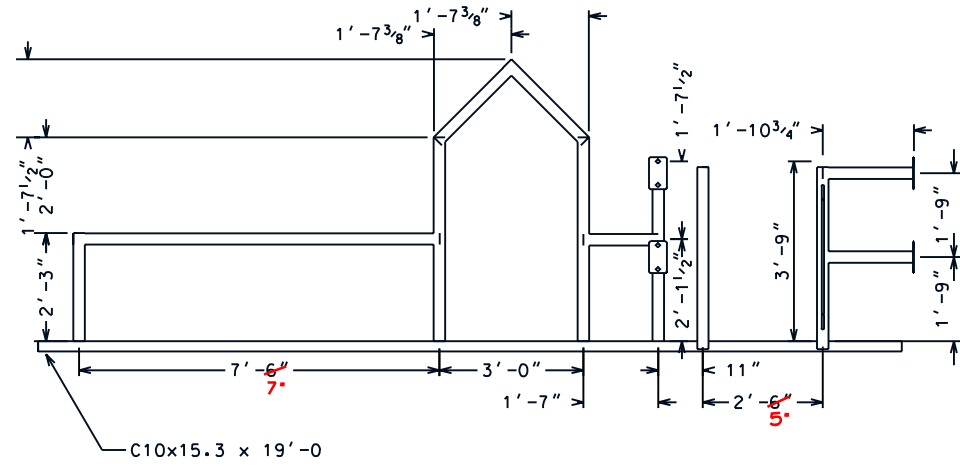
PROJECT NO.
LA271

SHEET NO 12 OF 25



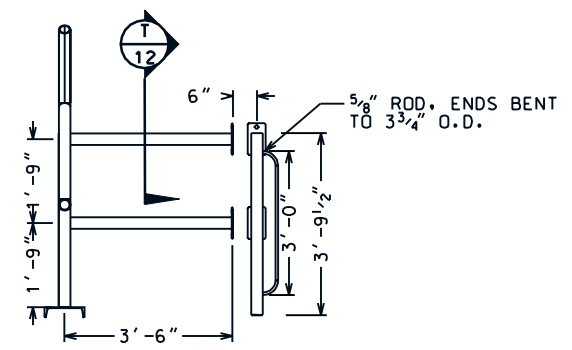
PIPE RAIL PLAN

"AS-BUILT"

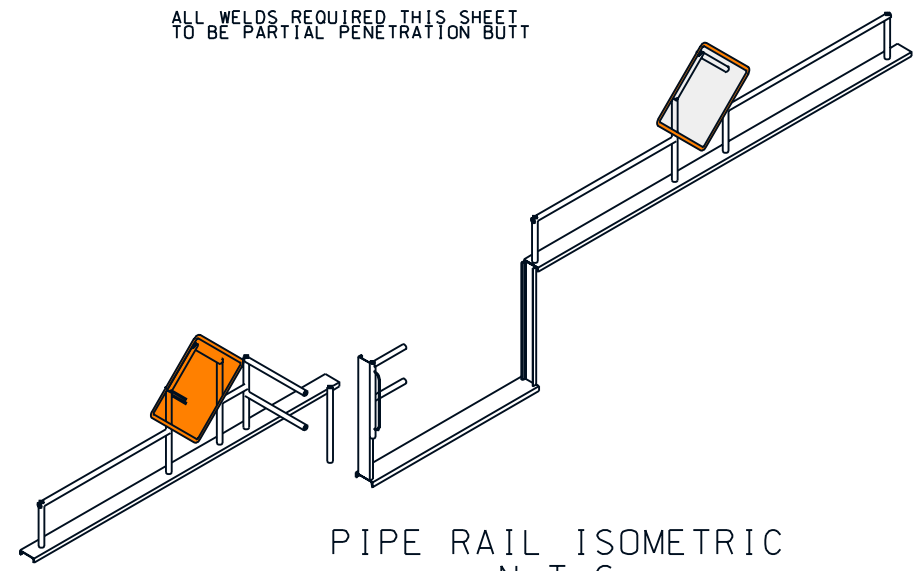


PIPE RAIL FRONT ELEVATION

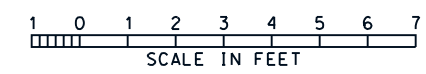
ALL PIPE SHOWN THIS SHEET TO BE 2 1/2" NOMINAL, SCHEDULE 40
ALL WELDS REQUIRED THIS SHEET TO BE PARTIAL PENETRATION BUTT



PIPE RAIL LEFT ELEVATION



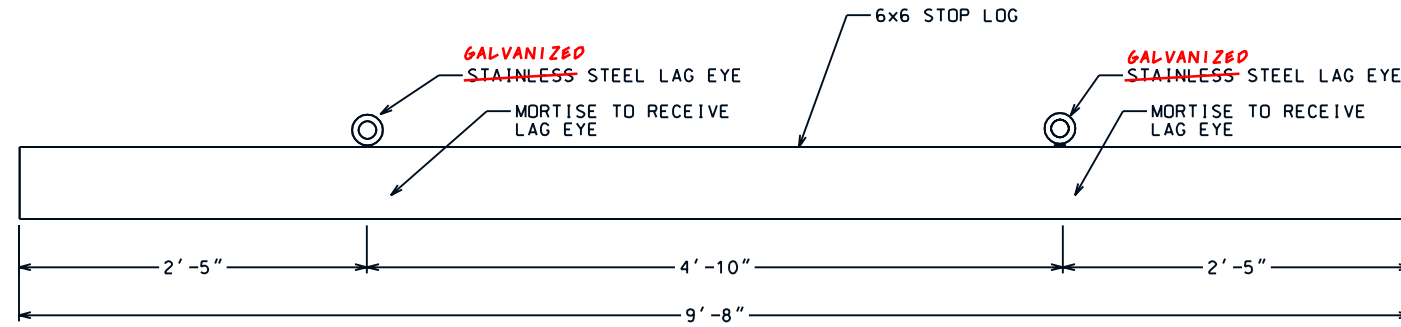
PIPE RAIL ISOMETRIC
N.T.S



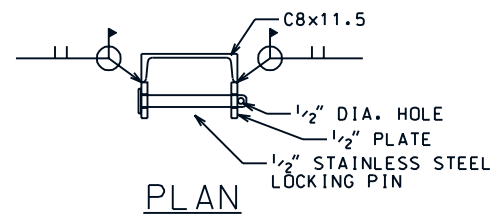
DESIGNED	S. GARNER	DATE	03/98
DRAWN	H. MOORE	APPROVED BY	E. GERBER, III
TRACED	J. MOORE	TITLE	STATE CONSERVATION ENGINEER
CHECKED	J. MOORE	DATE	10/98

REVISIONS	TITLE
DATE	APPR.

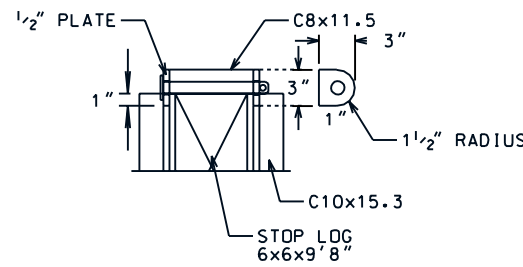
CAD FILENAME	LA271013
PROJECT NO.	LA271
SHEET NO	13 OF 25



STOP LOG
(8 REQUIRED)
12

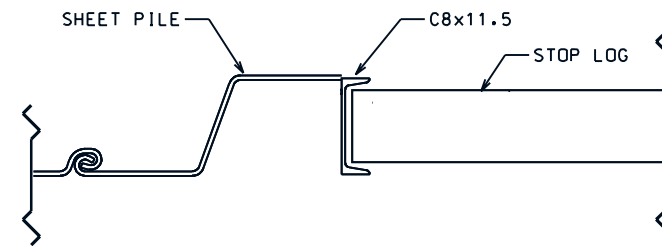
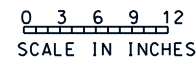


PLAN



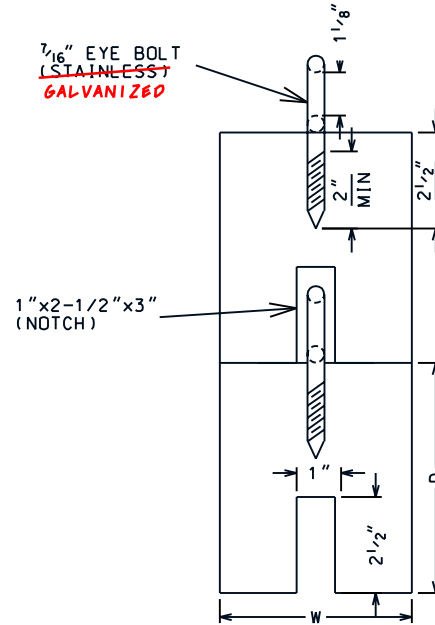
ELEVATION

STOP LOG LOCKING MECHANISM (2 REQ.)



NOTE:
THIS CONNECTION VARIES BASED ON THE LOCATION OF THE CHANNEL CAP WITH RESPECT TO THE PILE AND CANNOT BE DESIGNED UNTIL THE PILE IS IN PLACE AND THE LOCATION OF THE OPENING HAS BEEN IDENTIFIED. THE CONTRACTOR SHALL SUBMIT A METHOD OF CONNECTING THE CHANNEL CAP TO THE PILE AND ALL DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. THE CONTRACTOR MAY REQUEST THE ASSISTANCE OF THE NRCS STATE DESIGN STAFF WHEN DEVELOPING THIS CONNECTION.

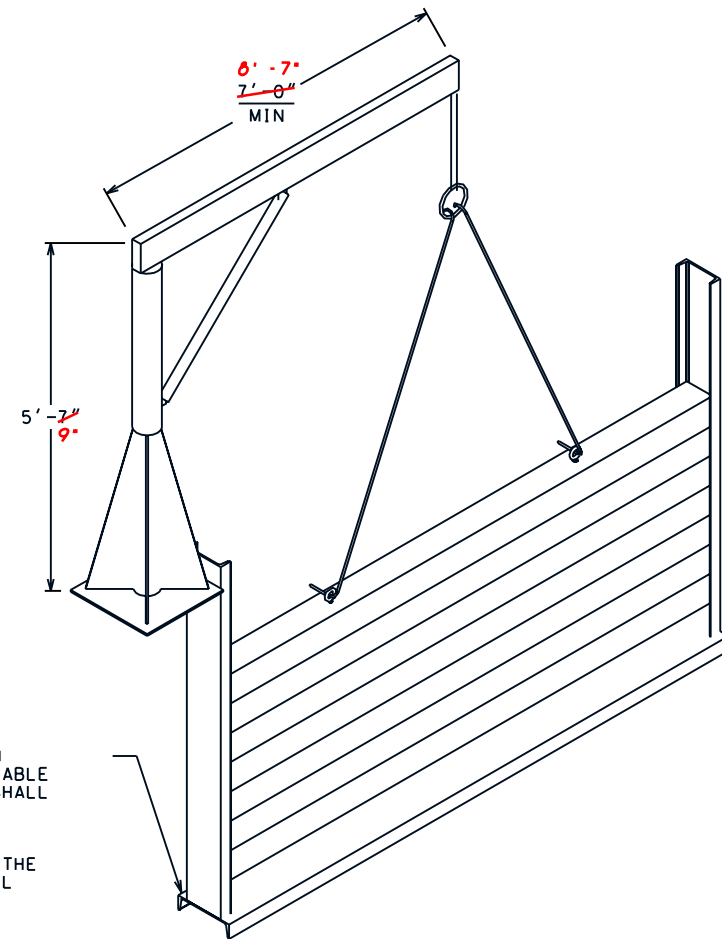
STOP LOG
GUIDE



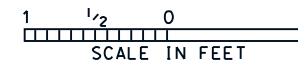
DETAILS OF
7/16" EYE BOLT

CONNECTION OF CHANNEL CAP TO SHEET PILE AT BOTTOM OF VARIABLE CREST WEIR FOR WEIR NO. 35 SHALL BE MADE AS FOLLOWS: THE L6x4x3/16" SHALL BE WELDED TO THE BOTTOM OF THE CHANNEL CAP PRIOR TO INSTALLATION. THE HOLES IN THE SHEET PILE SHALL BE FIELD DRILLED.

Hand winch shall be rated at 1500 lbs minimum and shall be stainless steel and include an automatic brake. Winch shall be configured for right-handed operators, and attached according to Manufacturer's recommendations. Hand winch shall have a lock-down device to prevent un-authorized operation. Contractor shall provide shop drawings of the hand winch including all connections, prior to ordering and a minimum of 14 days prior to installation. Winch cable shall be 316 grade 1/4 inch stainless steel, and shall be a minimum of 28ft in length. Thread winch cable through center link of lift hook chain and secure with four stainless steel cable clamps. Crane mast and boom shall have 360 degree operation capability. Crane boom shall be adjustable and include a ratchet style screw-jack. Crane base plate shall be 3/8 inch thick, 18 inch square, gusseted base plate.



ISOMETRIC
STOP LOGS
& CRANE



"AS-BUILT"



STOP LOG
HOOK
(2 REQUIRED)

Designed	S. GARNER	Date	03/98
Drawn	H. MOORE	Approved by	E. GIERING, III
Traced		Title	STATE CONSERVATION ENGINEER
Checked	J. MOORE	Date	10/98
		Title	

SITE 35 - STOP LOG DETAILS
BA2 CONSTRUCTION UNIT 2
LAFORCHE PARISH, LOUISIANA

DATE	APPR.	TITLE

CAD FILENAME
LA271014
PROJECT NO.
LA271
SHEET NO 14 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

NOTICE:
48 HOURS BEFORE DIGGING OR PLACING ROCK CALL 1-800-272-3020 TO LOCATE UTILITY LINES

NOTE:
KNOWN PIPELINES AND UTILITIES ARE SHOWN ON THE PLANS. IT IS POSSIBLE THAT SOME MAY EXIST THAT HAVE NOT BEEN SHOWN. THE CONTRACTOR SHALL BE ON THE ALERT FOR SUCH PIPELINES AND UTILITIES, AND SHALL REPORT THEM IMMEDIATELY TO THE CONTRACTING OFFICER.

COORDINATES FOR P.I.'S ON LAKE RIM

P.I. #1 N. 367987.2028 E. 3632935.0089	P.I. #3 N. 366014.3757 E. 3634729.6613
P.I. #2 N. 366959.0865 E. 3634481.1952	P.I. #4 N. 365336.7883 E. 3634654.3889



LAKE RIM RESTORATION

APPROX. STATIONS	DESCRIPTION OF WORK
0+00	BEGIN LAKE RIM SHORELINE PROTECTION WITH RIPRAP CAP
2+00	TYPE B III SIGN
3+59	END TRANSITION BEGIN TYPICAL
5+00	CL FISH DIP # TYPE B III SIGN
7+00	TYPE B III SIGN
8+00 9+00	SETTLEMENT PLATE # TYPE B III SIGN
12+00	TYPE B III SIGN
13+00	CL FISH DIP # TYPE B III SIGN
17+00	TYPE B III SIGN
20+00	CL FISH DIP # TYPE B III SIGN
22+00	TYPE B III SIGN
24+00	SETTLEMENT PLATE # TYPE B III SIGN
27+00	TYPE B III SIGN
28+00	CL FISH DIP # TYPE B III SIGN
32+00	TYPE B III SIGN & SETTLEMENT PLATE
36+00	CL FISH DIP # TYPE B III SIGN
37+00	TYPE B III SIGN
42+00	TYPE B III SIGN & SETTLEMENT PLATE
47+00	TYPE B III SIGN
48+00	CL FISH DIP # TYPE B III SIGN
52+00	TYPE B III SIGN & SETTLEMENT PLATE
56+65	END LAKE RIM SHORELINE AND TIE INTO BRETON CANAL SHORELINE AT STA. 3+40

Date _____

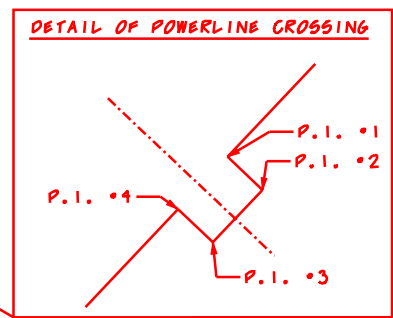
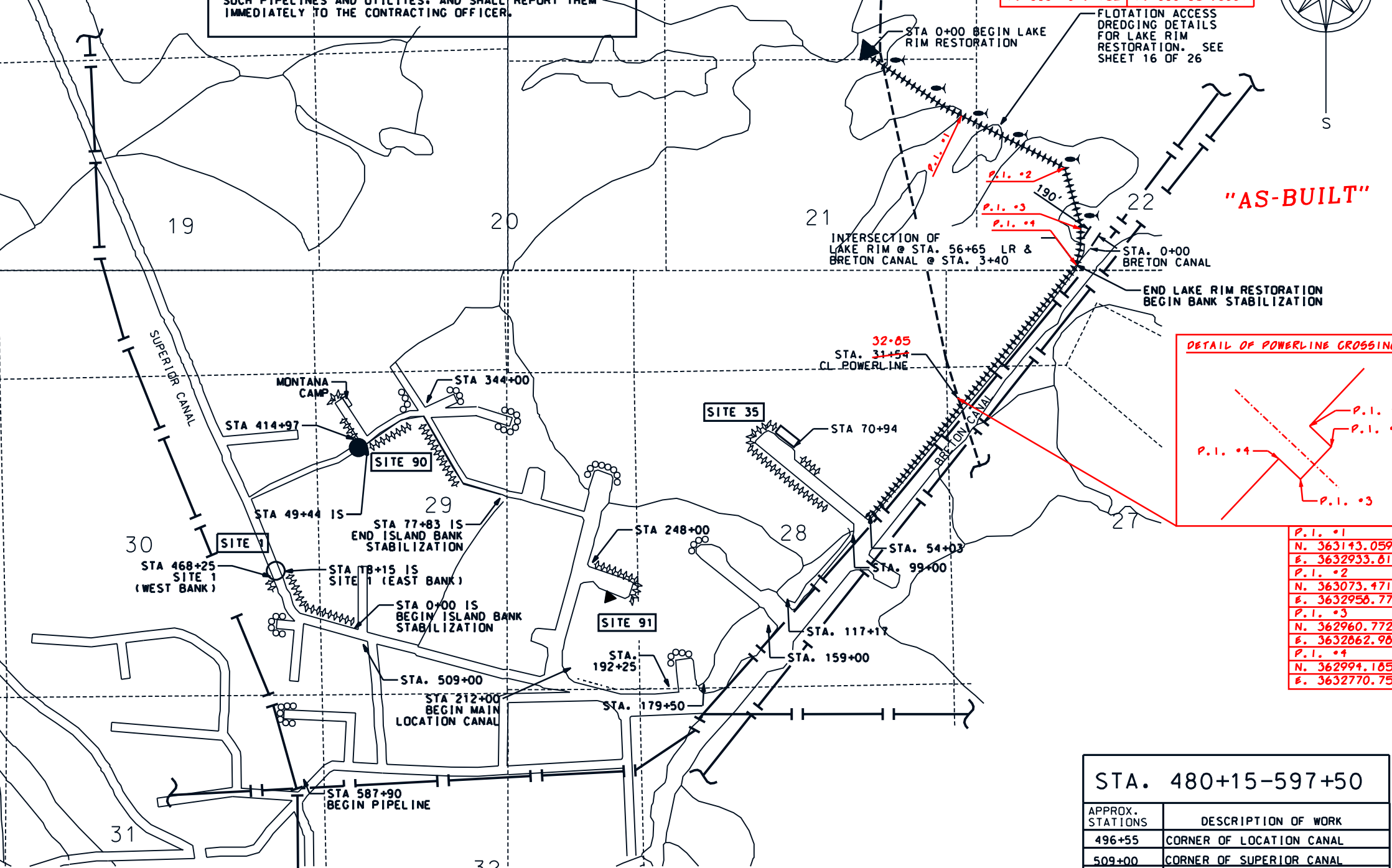
Approved by: I. J. GIERING, III, mm/yj

DESIGNED: S. CARNER, P.C. & H.M., STATE CONSERVATION ENGINEER, ALEXANDRIA, LOUISIANA

DRAWN: P.C. & H.M., STATE CONSERVATION ENGINEER, ALEXANDRIA, LOUISIANA

TRACED: J. MOORE, STATE CONSERVATION ENGINEER, ALEXANDRIA, LOUISIANA

CHECKED: J. MOORE, STATE CONSERVATION ENGINEER, ALEXANDRIA, LOUISIANA



COORDINATES FOR P.I.'S ON LAKE RIM

P.I. #1 N. 363143.0595 E. 3632933.8131	P.I. #3 N. 362960.7722 E. 3632862.9877
P.I. #2 N. 363073.4716 E. 3632958.7712	P.I. #4 N. 362994.1853 E. 3632770.7572

STA. 480+15-597+50

APPROX. STATIONS	DESCRIPTION OF WORK
496+55	CORNER OF LOCATION CANAL
509+00	CORNER OF SUPERIOR CANAL
538+80	CORNER OF LOCATION CANAL
542+38	BEGIN LOCATION CANAL
573+20	END LOCATION CANAL
587+90	BEGIN EXXON/SHELL PIPELINE
590+40	END EXXON/SHELL PIPELINE
597+50-660+00	NO WORK PERFORMED

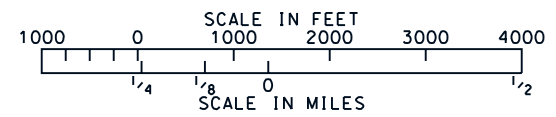
BANK STABILIZATION

APPROX. STATIONS	DESCRIPTION OF WORK
03+40	BEGIN ALONG BRETON CANAL TO SITE 35
31+54 32+85	CL OF POWERLINE
54+03	BEGIN LOCATION CANAL
70+94	BEGIN SITE 35
71+74	END SITE 35
99+00	END LOCATION CANAL
117+17	BEGIN LOCATION CANAL
159+00	END LOCATION CANAL
179+50	BEGIN LOCATION CANAL
192+25	END LOCATION CANAL
212+00	BEGIN MAIN LOCATION CANAL
231+00	BEGIN LOCATION CANAL
232+29	BEGIN SITE 91 (EXISTING SITE)
232+93	END SITE 91
248+00	END LOCATION CANAL
264+82	BEGIN LOCATION CANAL
273+25	END LOCATION CANAL
280+87	BEGIN LOCATION CANAL
293+66	END LOCATION CANAL
322+00	BEGIN LOCATION CANAL
331+34	END LOCATION CANAL
344+00	PT. BETWEEN 2 LOCATION CANALS
347+14	END LOCATION CANAL
392+30	BEGIN LOCATION CANAL
399+50	BEGIN MONTANA CAMP - NO WORK
402+17	END MONTANA CAMP
413+80	END LOCATION CANAL
414+97	BEGIN SITE 90, END WORK
414+97-468+25	NO WORK TO BE PERFORMED
468+25	BEGIN AT SITE 1 (WEST SIDE)
479+65	CORNER OF DEAD END CANAL

ISLAND-BANK STABILIZATION

APPROX. STATIONS	DESCRIPTION OF WORK
0+00 IS	BEGIN ISLAND TO SITE 1 STATIONING
18+15 IS	END EMBANKMENT AT SITE 1 (EAST BANK)
STA. 18+15-49+44	NO WORK TO BE PERFORMED
49+44 IS	BEGIN EMBANKMENT AT SITE 90 ON ISLAND SIDE (SOUTH SIDE)
77+83 IS	END EMBANKMENT (ISLAND SIDE)

NOTE:
Stations Are Approximate As Measured From Aerial Photographs And Are Subject To Change. Exact Stationing To Be Determined Between Hydraulic Control Points In The Field By The COTR



- LEGEND:**
- SITE NO. SITE NUMBER
 - AERIAL POWERLINE PIPELINE
 - EXISTING SITES
 - PROPOSED PLUG W/BOAT BAY
 - PROPOSED VARIABLE CREST WEIR
 - PROPOSED CHANNEL PLUG
 - LAND OWNERS
 - RIPRAP CAPPED SHORELINE PROTECTION
 - SHORELINE PROTECTION
 - SHORELINE PROTECTION (ADDITIVE A)
 - FISH DIP LOCATIONS

LAKE RIM RESTORATION & BANK STABILIZATION
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

DATE APPR. 4/23/99 E.G.
REVISONS TITLE AS7CZES

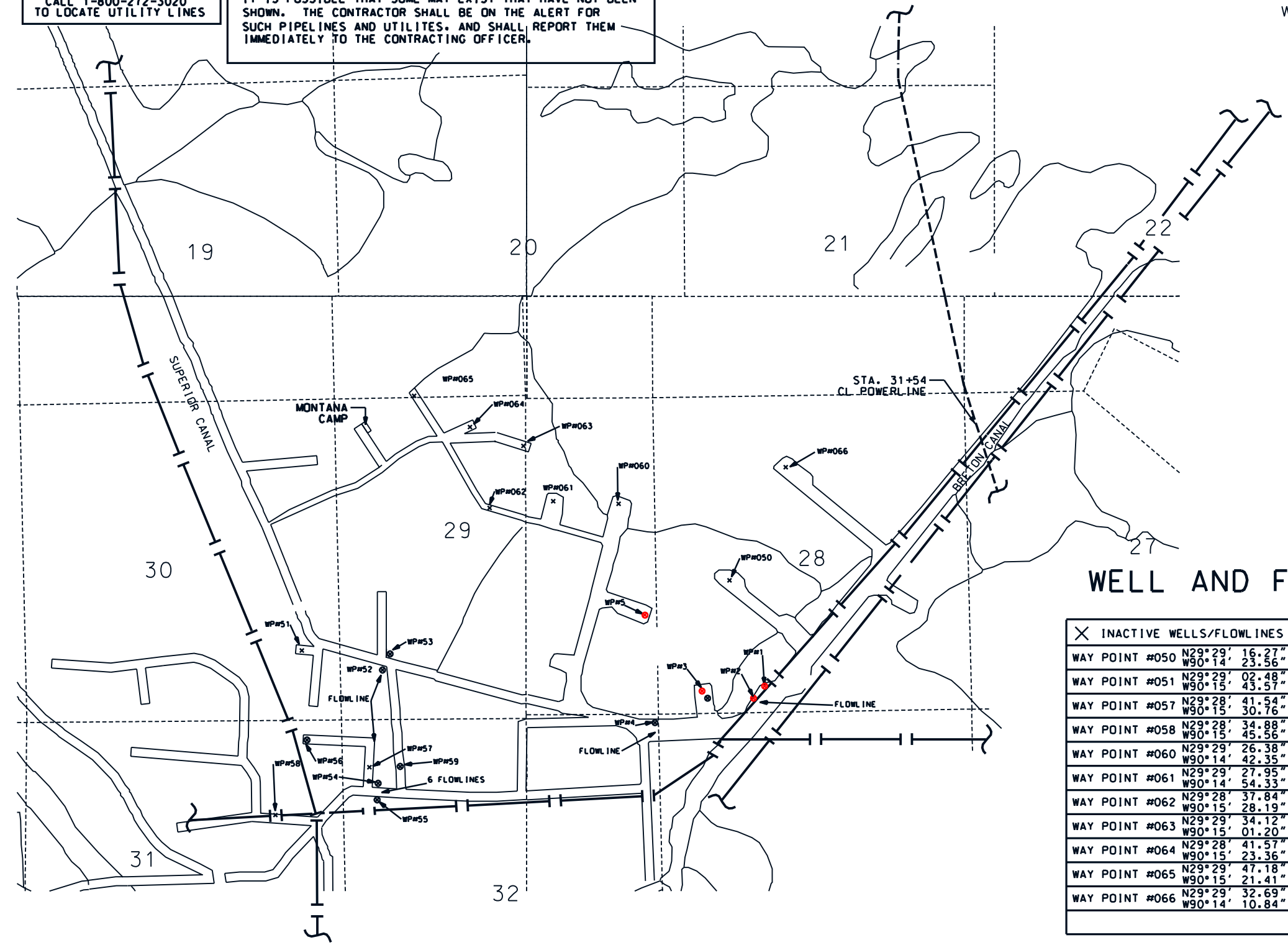
CAD FILENAME LA271015
PROJECT NO. LA271
SHEET NO. 15 OF 25

NOTICE:
48 HOURS BEFORE DIGGING
OR PLACING ROCK
CALL 1-800-272-3020
TO LOCATE UTILITY LINES

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IT IS POSSIBLE THAT SOME MAY EXIST THAT HAVE NOT BEEN
SHOWN. THE CONTRACTOR SHALL BE ON THE ALERT FOR
SUCH PIPELINES AND UTILITIES, AND SHALL REPORT THEM
IMMEDIATELY TO THE CONTRACTING OFFICER.



"AS-BUILT"

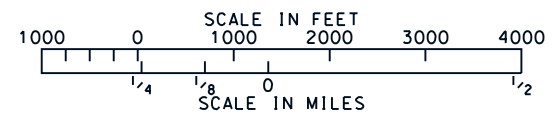


WELL AND FLOWLINE INFORMATION

×	INACTIVE WELLS/FLOWLINES	OWNER
WAY POINT #050	N29°29' 16.27" W90°14' 23.56"	STONE
WAY POINT #051	N29°29' 02.48" W90°15' 43.57"	STONE
WAY POINT #057	N29°28' 41.54" W90°15' 30.76"	FLASH
WAY POINT #058	N29°28' 34.88" W90°15' 45.56"	FLASH
WAY POINT #060	N29°29' 26.38" W90°14' 42.35"	STONE
WAY POINT #061	N29°29' 27.95" W90°14' 54.33"	STONE
WAY POINT #062	N29°28' 37.84" W90°15' 28.19"	STONE
WAY POINT #063	N29°29' 34.12" W90°15' 01.20"	FLASH
WAY POINT #064	N29°28' 41.57" W90°15' 23.36"	STONE
WAY POINT #065	N29°29' 47.18" W90°15' 21.41"	STONE
WAY POINT #066	N29°29' 32.69" W90°14' 10.84"	STONE

⊗	LIVE WELLS / FLOWLINES	OWNER
WAY POINT #1	N29°28' 54.95" W90°14' 17.76"	STONE
WAY POINT #2	N29°28' 52.70" W90°14' 18.35"	STONE
WAY POINT #3	N29°28' 56.11" W90°14' 25.69"	STONE
WAY POINT #4	N29°28' 51.40" W90°14' 35.09"	STONE
WAY POINT #5	N29°29' 08.40" W90°14' 38.14"	STONE
WAY POINT #052	N29°29' 59.06" W90°15' 26.61"	
WAY POINT #053	N29°29' 01.42" W90°15' 25.95"	
WAY POINT #054	N29°28' 39.85" W90°15' 28.04"	
WAY POINT #055	N29°28' 37.84" W90°15' 28.19"	
WAY POINT #056	N29°28' 48.20" W90°15' 40.29"	FLASH
WAY POINT #059	N29°28' 41.57" W90°15' 23.36"	FLASH

UTILITIES PLAN MAP
(SCALE AS SHOWN)



Date	Designed	Drawn	Traced	Checked
02/98	S. CARNER	A. GREMILLION	J. MOORE	J. MOORE
Date	Title	Title	Title	Title
02/98	STATE CONSERVATION ENGINEER	STATE CONSERVATION ENGINEER	STATE CONSERVATION ENGINEER	STATE CONSERVATION ENGINEER
04/98				

UTILITIES PLAN MAP
B&2 CONSTRUCTION UNIT 2
LAFORCHE PARISH, LOUISIANA

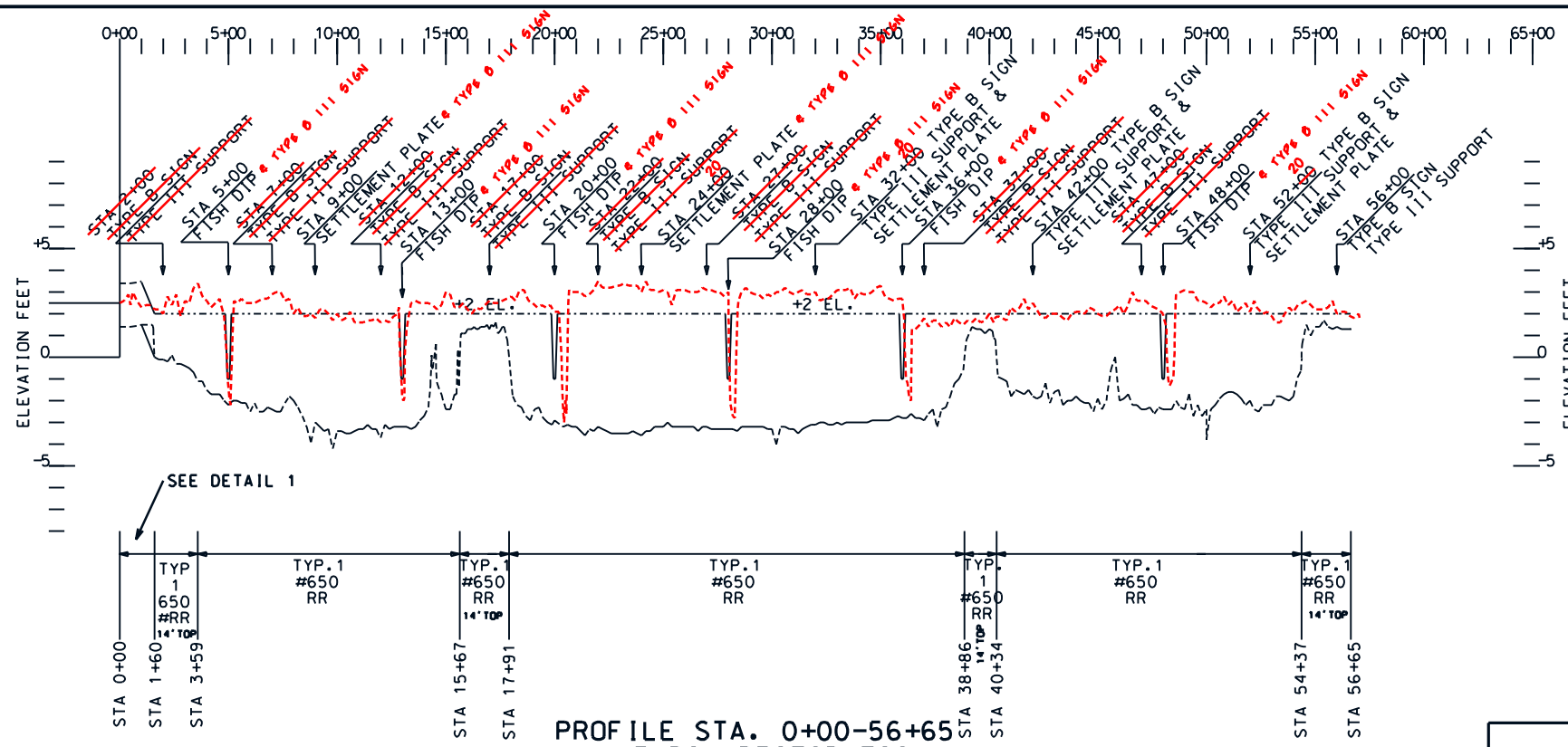
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

DATE	APPR.	TITLE
4/23/99	E.C.	ASTC/ES

CAD FILENAME
LA271015A

PROJECT NO.
LA271

SHEET NO 15 A OF 25

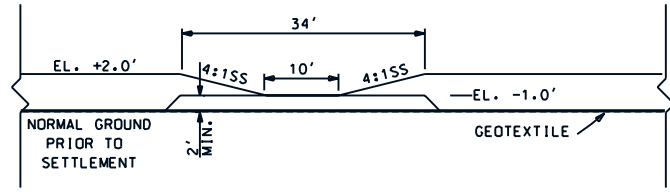


CONSTRUCTION LIMITS		
CONSTRUCTION WIDTH	CONSTRUCTION LENGTH	
600 FT	6000 FT	
ESTIMATED	QUANTITIES	ACTUAL QUANTITIES
ROCK RIPRAP (650#)	35,105 TONS	21,501 TONS
ROCKFILL	40,236 TONS	11,972 TONS
GEOTEXTILE	20,010 SY	27,516.5 SY
EXCAVATION	33,240 CY	

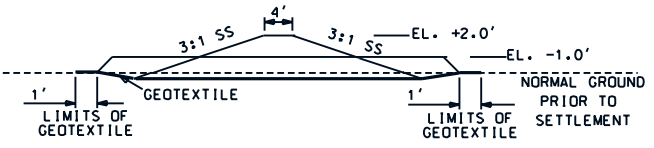
- NOTES:**
- SIGNS NOT SHOWN FOR CLARITY. SIGNS SHALL BE TYPE B AND SIGN SUPPORTS SHALL BE AS NOTED. SEE SHEETS 23, 24, & 25 FOR SIGN DETAILS.
 - BEGIN PLACING SIGNS AT STA. 2+00 AND PLACE EVERY 500 FEET.
 - GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 - ALL SECTIONS WITH EXCAVATION REQUIRE A MINIMUM OF 2 FT. OF ROCK RIPRAP (650#).
 - TYPE III SIGN SUPPORTS TO BE PLACED 10 FT. FROM BAY L'OURS TOE OF STRUCTURE.
 - SEE SHEET 22 FOR TYPICAL X-SECTIONS

"AS-BUILT"

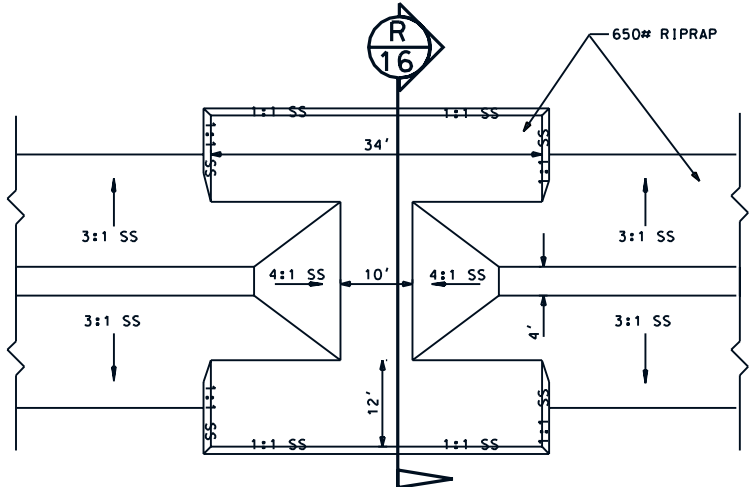
PROFILE STA. 0+00-56+65
LAKE RIM RESTORATION



FISH DIP ELEVATION



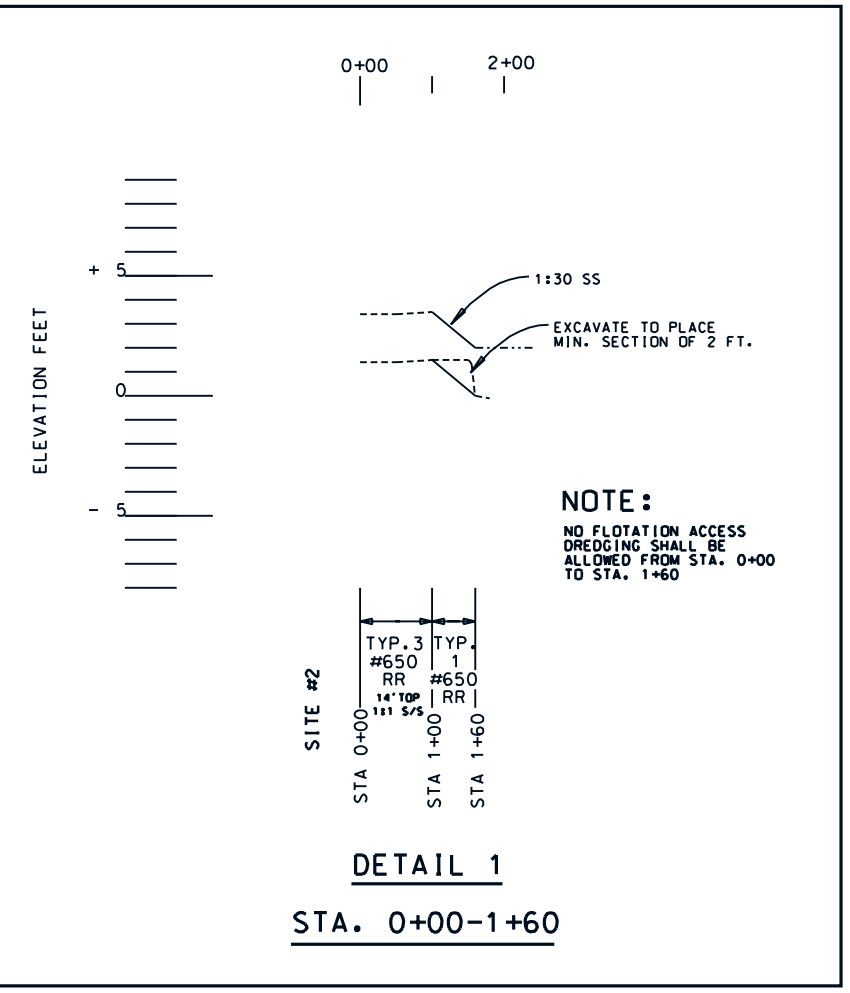
FISH DIP SECTION



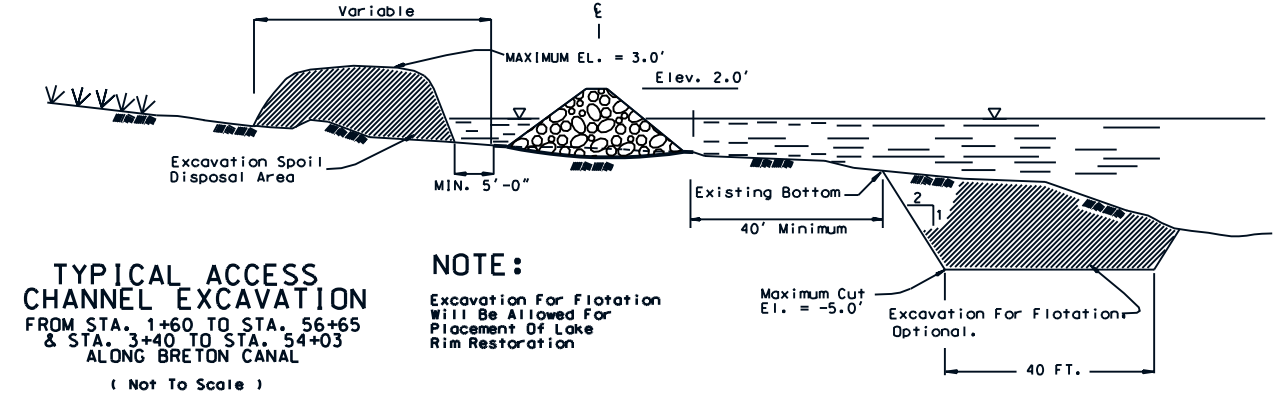
FISH DIPS PLAN

COORDINATES ON WARNING SIGNS, SETTLEMENT PLATES AND POINTS OF INTEREST

WARNING SIGN AT STA 5-00
N. 360711.9416
E. 363130.3157 ELEV. -9.05
SETTLEMENT PLATE AT STA 9-20
N. 360451.0216
E. 3631753.7593 ELEV. -0.66
WARNING SIGN AT STA 9-20
N. 360476.2000
E. 3631770.7491 ELEV. -9.95
WARNING SIGN AT STA 13-00
N. 360251.4500
E. 3632099.6947 ELEV. -10.07
WARNING SIGN AT STA 20-00
N. 367877.7006
E. 3632716.7509 ELEV. -10.11
SETTLEMENT PLATE AT STA 24-20
N. 367603.4605
E. 3633032.6942 ELEV. -0.36
WARNING SIGN AT STA 24-20
N. 367707.7504
E. 3633046.9370 ELEV. -10.26
WARNING SIGN AT STA 28-00
N. 367529.7704
E. 3633396.7166 ELEV. -10.19
SETTLEMENT PLATE AT STA 32-20
N. 367324.4606
E. 3633740.4799 ELEV. -0.91
WARNING SIGN AT STA 32-20
N. 367349.2443
E. 3633750.6100 ELEV. -9.99
WARNING SIGN AT STA 36-00
N. 367160.4109
E. 3634129.7333 ELEV. -9.95
SETTLEMENT PLATE AT STA 42-20
N. 366766.0105
E. 3634514.0559 ELEV. -9.70
WARNING SIGN AT STA 42-20
N. 366
E. 3634543.1692 ELEV. -9.91
WARNING SIGN AT STA 48-00
N. 366191.3774
E. 3634721.1976 ELEV. -10.02
SETTLEMENT PLATE AT STA 52-20
N. 365790.7344
E. 3634711.3659 ELEV. -9.63
WARNING SIGN AT STA 52-20
N. 365793.7054
E. 3634741.0061 ELEV. -9.96
WARNING SIGN AT STA 56-00
N. 365390.6015
E. 3634602.4300 ELEV. -10.09



DETAIL 1
STA. 0+00-1+60



TYPICAL ACCESS CHANNEL EXCAVATION
FROM STA. 1+60 TO STA. 56+65
& STA. 3+40 TO STA. 54+03
ALONG BRETON CANAL
(Not To Scale)

NOTE:
Excavation For Flotation Will Be Allowed For Placement Of Lake Rim Restoration

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

LAKE RIM SHORELINE PROTECTION
PROFILE AND FISH DIP DETAILS
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

DATE APPR. _____ TITLE _____

DATE 3/98 TITLE STATE CONSERVATION ENGINEER

DESIGNED S. GARNER 3/98 TITLE STATE CONSERVATION ENGINEER

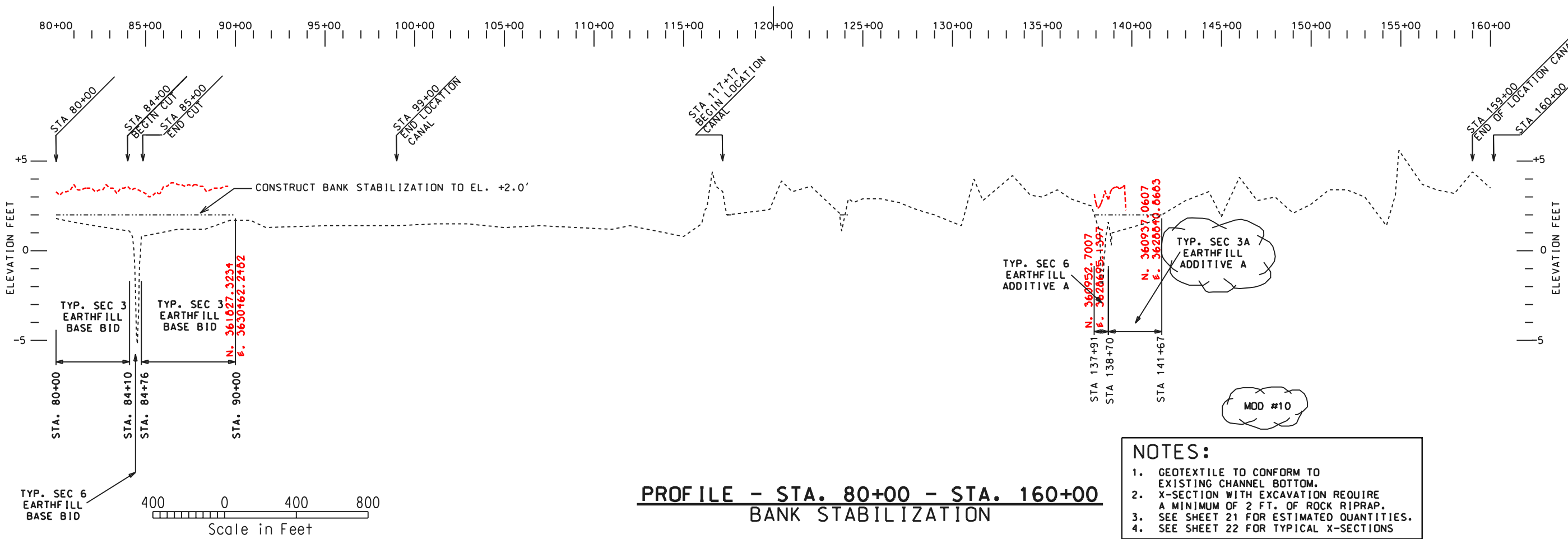
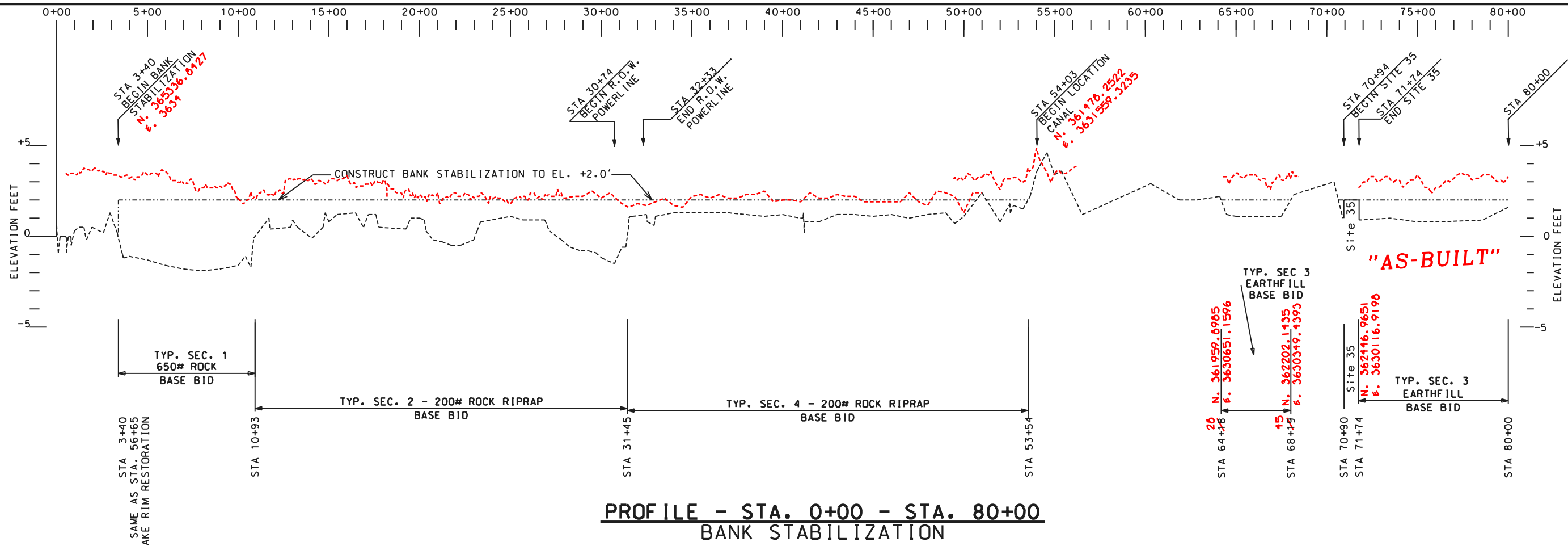
DRAWN A.G. P.C. 3/98 TITLE ALABAMA, LOUISIANA

TRACED J. MOORE 6/98 TITLE

CAD FILENAME LA271016

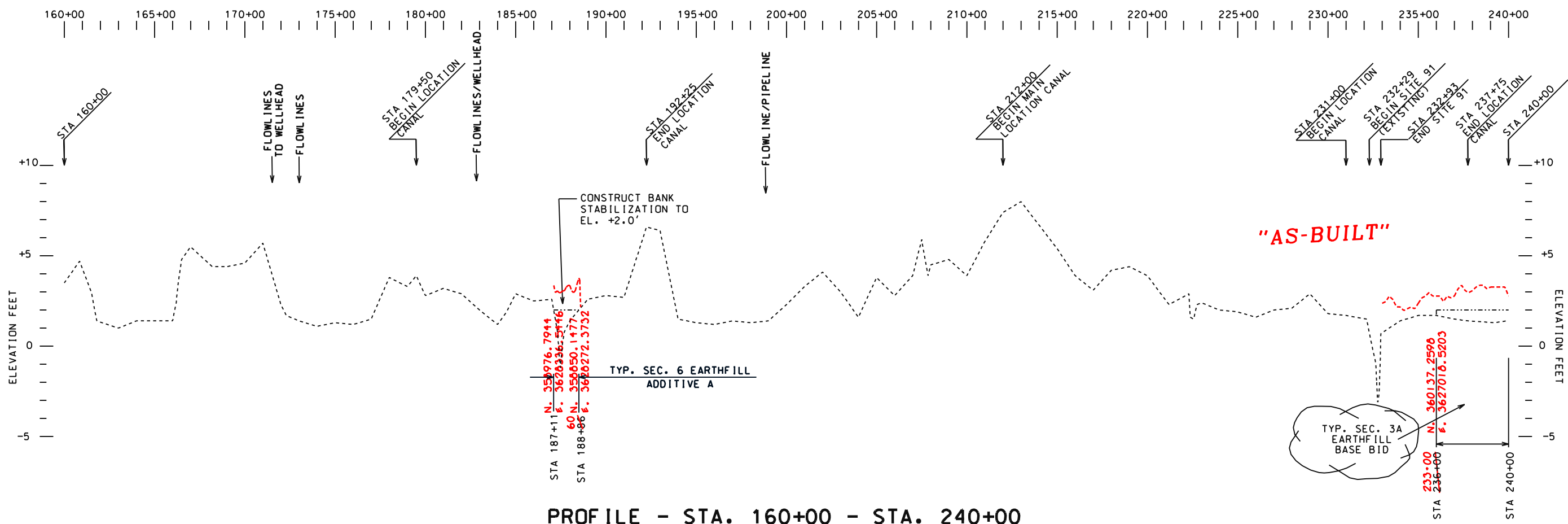
PROJECT NO. LA271

SHEET NO. 16 OF 25

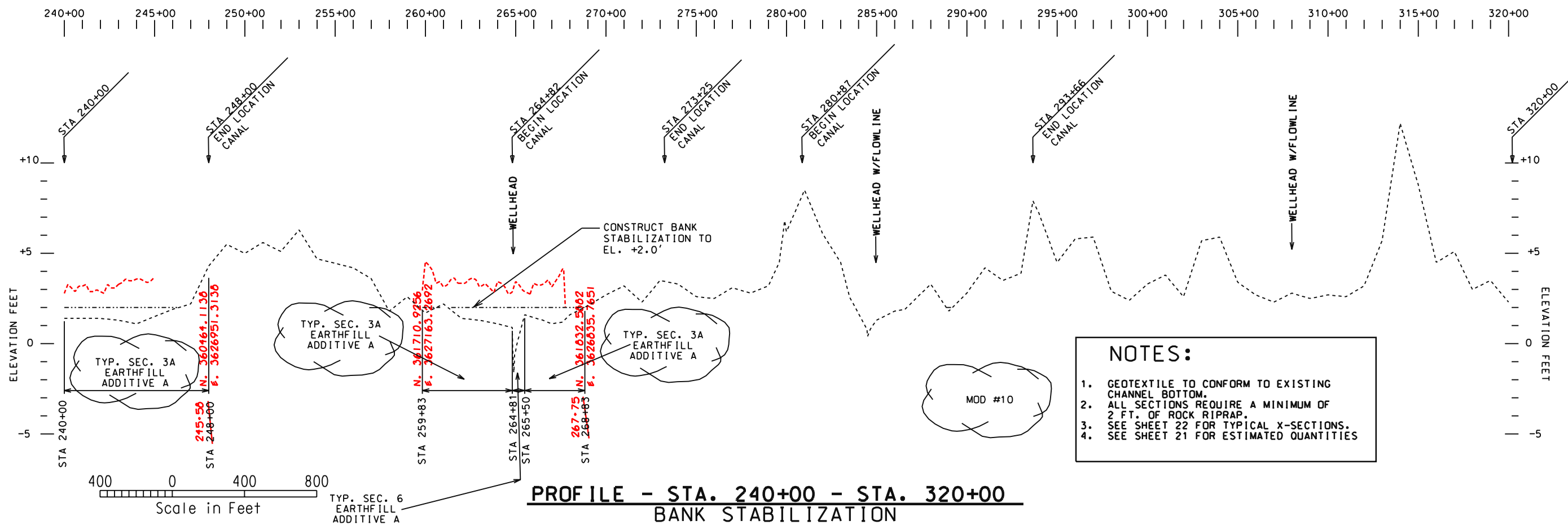


- NOTES:**
1. GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 2. X-SECTION WITH EXCAVATION REQUIRE A MINIMUM OF 2 FT. OF ROCK RIPRAP.
 3. SEE SHEET 21 FOR ESTIMATED QUANTITIES.
 4. SEE SHEET 22 FOR TYPICAL X-SECTIONS

PROFILE - BANK STABILIZATION STA 0+00-160+00 BA2 CONSTRUCTION UNIT 2 LAFOURCHE PARISH, LOUISIANA		Date: 03/98 Approved by: J. J. GIERING, III Title: STATE CONSERVATION ENGINEER Location: MEMPHIS, LOUISIANA
Designed: S. GARNER Drawn: PAT COLE Traced: Checked: J. MOORE	Date: 03/98 Title: STATE CONSERVATION ENGINEER Location: MEMPHIS, LOUISIANA	Date: 04/98 Title:
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE		
REVISIONS DATE APPR. TITLE 12/6/99 E.G. ASTC/ES 6/15/00 E.G. ASTC/ES	CAD FILENAME LA271017	PROJECT NO. LA271
SHEET NO. 17 OF 25		



PROFILE - STA. 160+00 - STA. 240+00
BANK STABILIZATION



PROFILE - STA. 240+00 - STA. 320+00
BANK STABILIZATION

- NOTES:**
1. GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 2. ALL SECTIONS REQUIRE A MINIMUM OF 2 FT. OF ROCK RIPRAP.
 3. SEE SHEET 22 FOR TYPICAL X-SECTIONS.
 4. SEE SHEET 21 FOR ESTIMATED QUANTITIES

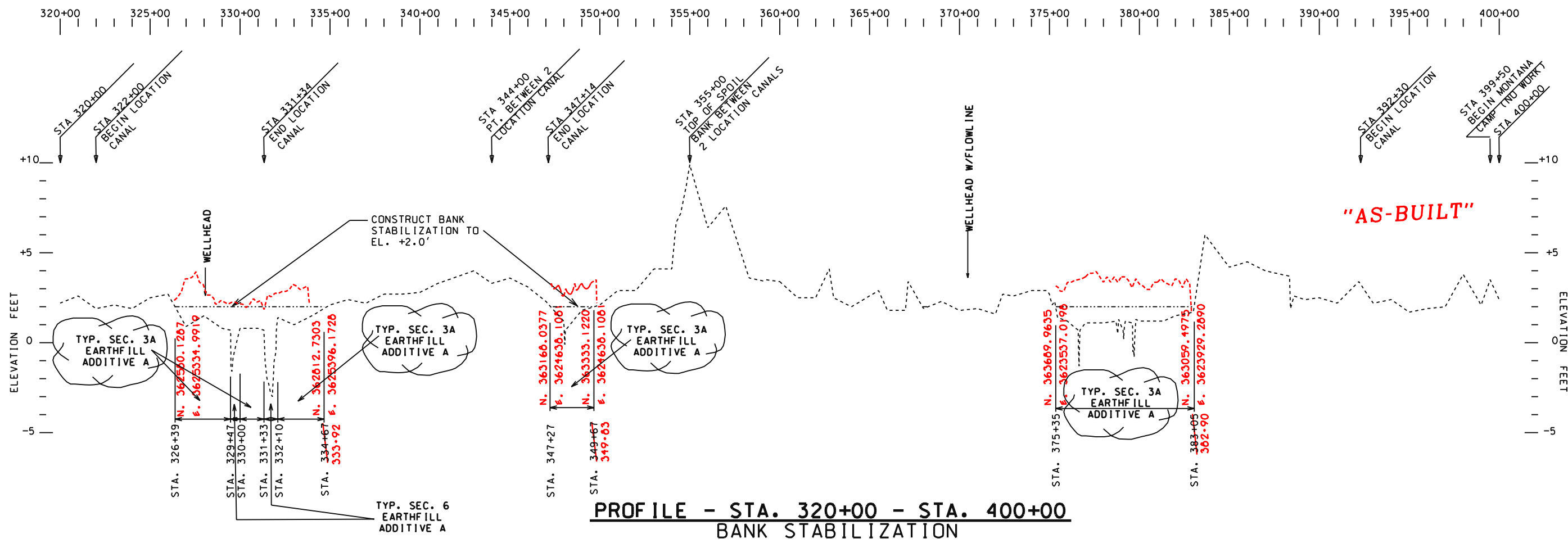
Date		Approved by: E.J. BIRING, III	
Designed: S. CARNER	Date: 03/98	Title: STATE CONSERVATION ENGINEER	
Drawn: A.G. & P.C.	Date: 03/98	Title: ALEXANDRIA, LOUISIANA	
Traced:	Date:	Title:	
Checked: J. MOORE	Date: 04/98	Title:	

PROFILE - BANK STABILIZATION
STA. 160+00 - STA. 320+00
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

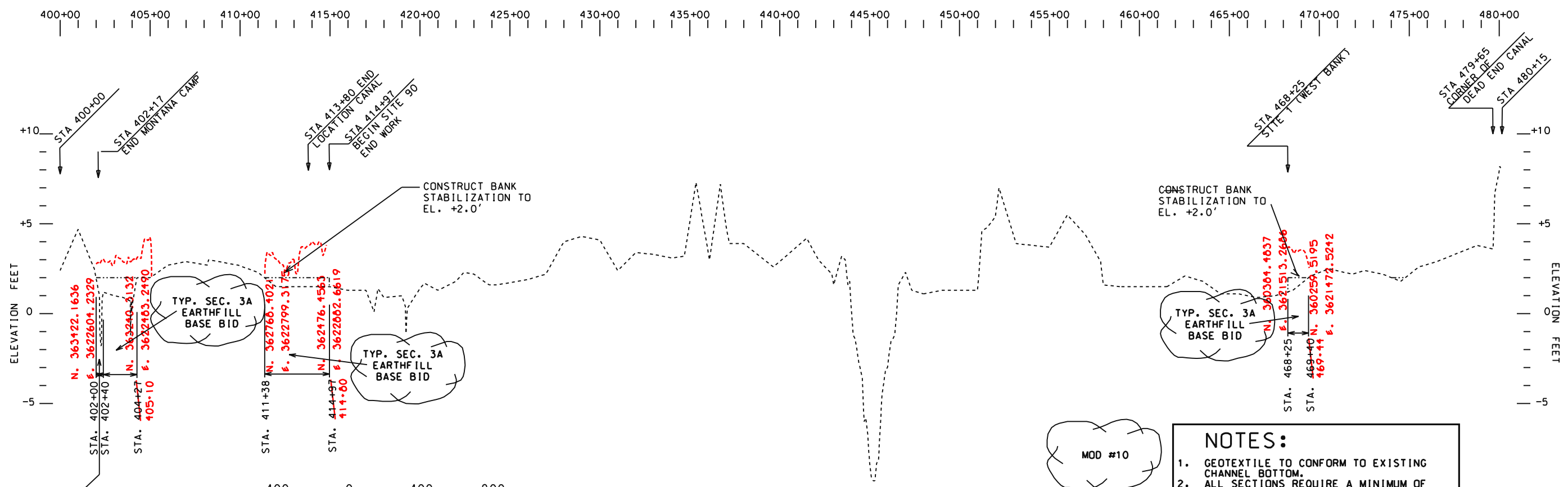
DATE	APPR.	TITLE
4/23/99	E.G.	ASTC/ES
12/8/99	E.G.	ASTC/ES
8/15/00	E.G.	ASTC/ES

CAD FILENAME: LA271018
PROJECT NO.: LA271
SHEET NO. 18 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

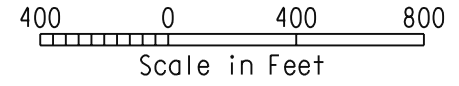


PROFILE - STA. 320+00 - STA. 400+00
BANK STABILIZATION



PROFILE - STA. 400+00 - STA. 480+00
BANK STABILIZATION

- NOTES:**
1. GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 2. ALL SECTIONS REQUIRE A MINIMUM OF 2 FT. OF ROCK RIPRAP.
 3. SEE SHEET 22 FOR TYPICAL X-SECTIONS.
 4. SEE SHEET 21 FOR ESTIMATED QUANTITIES

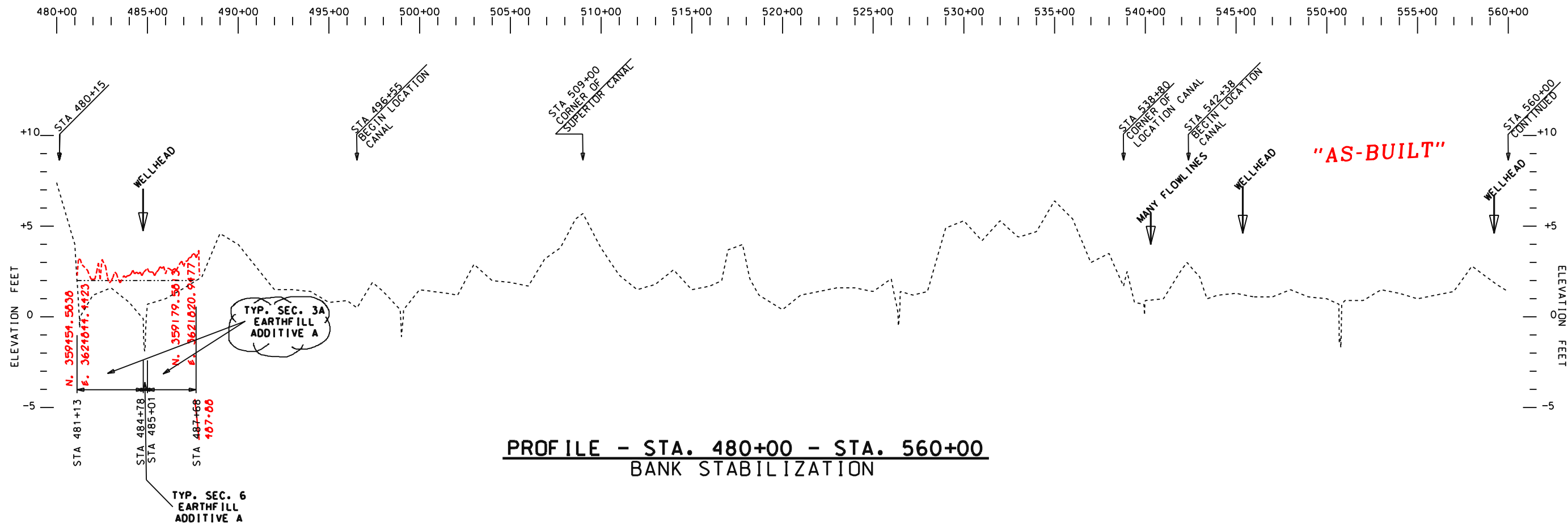


DATE APPR. 6/15/00	TITLE AS7C/FES	DESIGNED S. CARNER	DATE 03/98	APPROVED BY I. J. GERIM, III
		DRAWN A. G. & P. C.		TITLE SITE CONSERVATION ENGINEER
		TRACED		TITLE ALEXANDRIA, LOUISIANA
		CHECKED J. MOORE		TITLE
				DATE 04/98

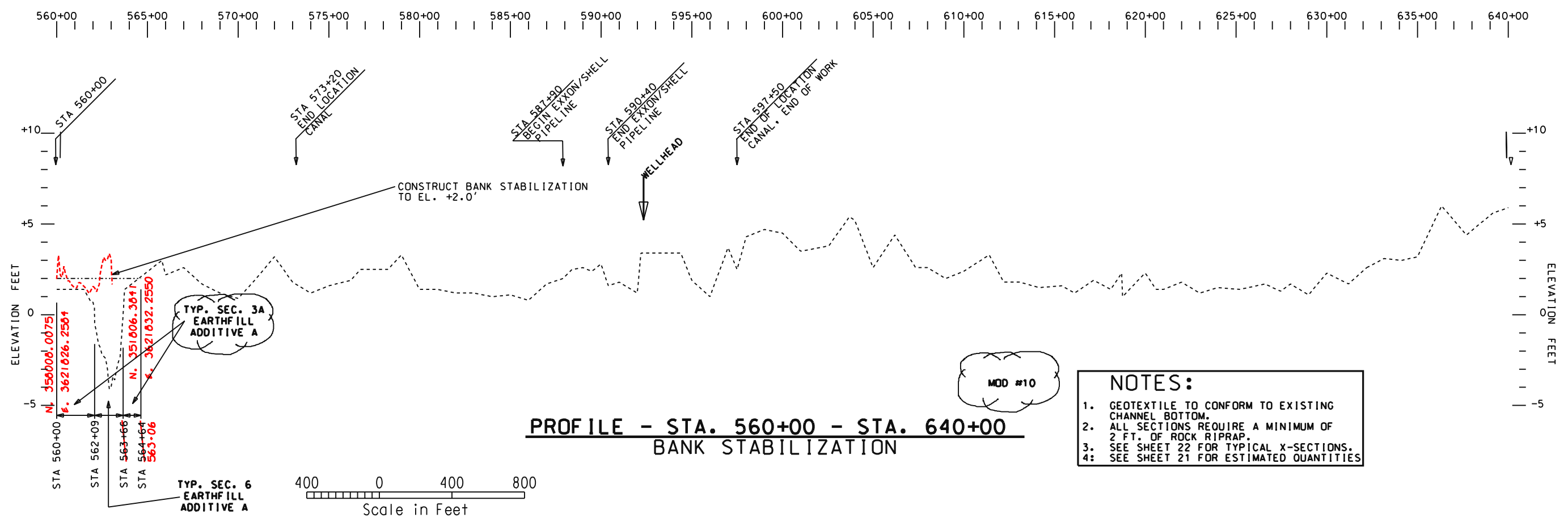
REVISIONS

CAD FILENAME LA271019
PROJECT NO. LA271
SHEET NO. 19 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

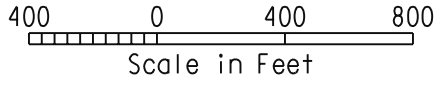


PROFILE - STA. 480+00 - STA. 560+00
BANK STABILIZATION



PROFILE - STA. 560+00 - STA. 640+00
BANK STABILIZATION

- NOTES:**
1. GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 2. ALL SECTIONS REQUIRE A MINIMUM OF 2 FT. OF ROCK RIPRAP.
 3. SEE SHEET 22 FOR TYPICAL X-SECTIONS.
 4. SEE SHEET 21 FOR ESTIMATED QUANTITIES.



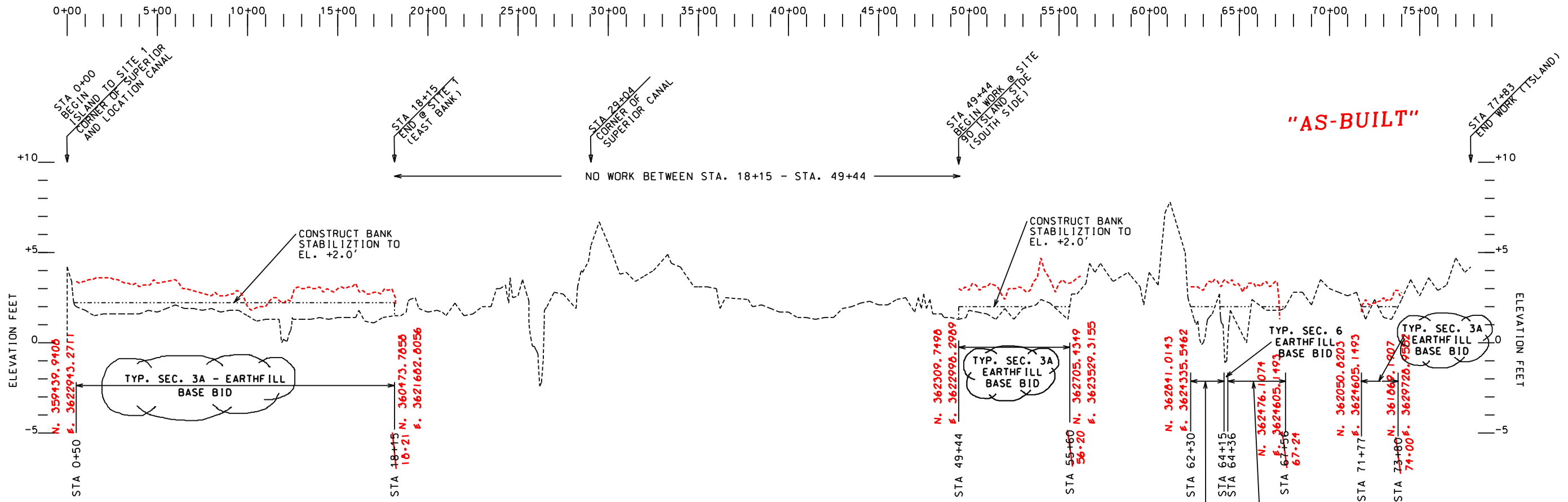
Date		Date	
Approved by	I. J. GIERING, III	03/98	03/98
Title	STATE CONSERVATION ENGINEER	Designed	S. CARNER
	ALEXANDRIA, LOUISIANA	Drawn	A. G. & P. C.
		Traced	J. MOORE
		Checked	J. MOORE
Date		Date	
Approved by	I. J. GIERING, III	03/98	03/98
Title	STATE CONSERVATION ENGINEER	Designed	S. CARNER
	ALEXANDRIA, LOUISIANA	Drawn	A. G. & P. C.
		Traced	J. MOORE
		Checked	J. MOORE

PROFILE - BANK STABILIZATION
STA. 480+00 - STA. 640+00
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

DATE	APPR.	TITLE
4/23/99	E.G.	ASTC/ES
8/15/00	E.G.	ASTC/ES

CAD FILENAME: LA271020
PROJECT NO.: LA271
SHEET NO 20 OF 25



PROFILE-STA. 0+00-77+83
ISLAND BANK STABILIZATION

BANK STABILIZATION STA. 3+40 - 160+00	
ACTUAL BASE BID	
ESTIMATED QUANTITIES	
ROCK RIPRAP (650#)	2794 2-380 TONS
ROCK RIPRAP (200#)	13617 9-900 TONS
ROCKFILL	4265 1-245 TONS
EARTHFILL	3730 1-580 CY
GEOTEXTILE	24513 15-950 SY
EXCAVATION	0 3-040 CY
ADDITIVE A	
ESTIMATED QUANTITIES	
EARTHFILL	305 CY
GEOTEXTILE	540 SY

BANK STABILIZATION STA. 160+00 - 320+00	
BASE BID	
ESTIMATED QUANTITIES	
EARTHFILL	811 175 CY
GEOTEXTILE	0 SY
ADDITIVE A	
ESTIMATED QUANTITIES	
EARTHFILL	1659 640 CY
GEOTEXTILE	1250 1-430 SY

BANK STABILIZATION STA. 320+00 - 480+00	
BASE BID	
ESTIMATED QUANTITIES	
EARTHFILL	1207 275 CY
GEOTEXTILE	166.67 295 SY
ADDITIVE A	
ESTIMATED QUANTITIES	
EARTHFILL	29661 570 CY
GEOTEXTILE	13001 085 SY

BANK STABILIZATION STA. 480+00 - 640+00	
ADDITIVE A	
ESTIMATED QUANTITIES	
EARTHFILL	2256 1-775 CY
GEOTEXTILE	2100 1-710 SY

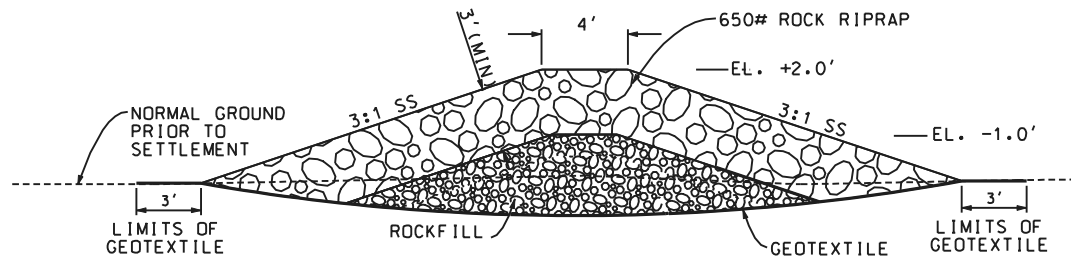
ISLAND BANK STABILIZATION STA. 0+00 - 77+83	
BASE BID	
ESTIMATED QUANTITIES	
EARTHFILL	1060 965 CY
GEOTEXTILE	110 110 SY

- NOTES:**
- GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 - SEE SHEET 22 FOR TYPICAL X-SECTIONS.

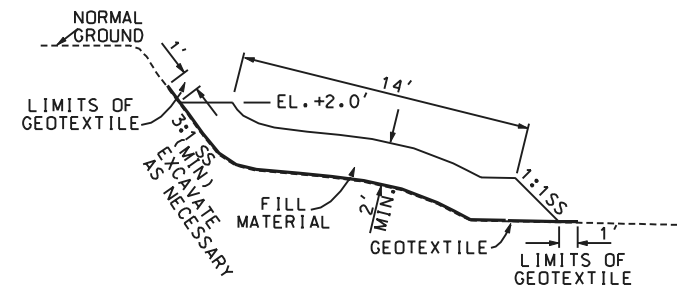
MOD #10
GEOTEXTILE QUANTITIES IN TABLES
TO LEFT HAVE CHANGED DUE TO THIS
MODIFICATION



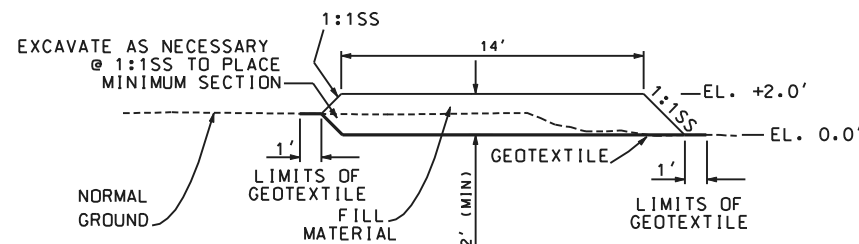
DESIGNED	S. CARNER	DATE	03/98
DRAWN	A.G. & P.C.	DATE	03/98
TRACED	J. MOORE	DATE	04/98
CHECKED	J. MOORE	DATE	04/98
APPROVED BY	J. J. SIERING, III	TITLE	STATE CONSERVATION ENGINEER
		TITLE	ALEXANDRIA, LOUISIANA
PROFILE ISLAND BANK STABILIZATION STA. 0+00 - STA. 77+83 B2 CONSTRUCTION UNIT 2 LAFORCHE PARISH, LOUISIANA			
REVISIONS	TITLE		
DATE	APPR.	EG	AS7C/ES
6/15/00			
CAD FILENAME			
LA271021			
PROJECT NO.			
LA271			
SHEET NO. 21 OF 25			
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE			



TYPE 1
X-SECTION

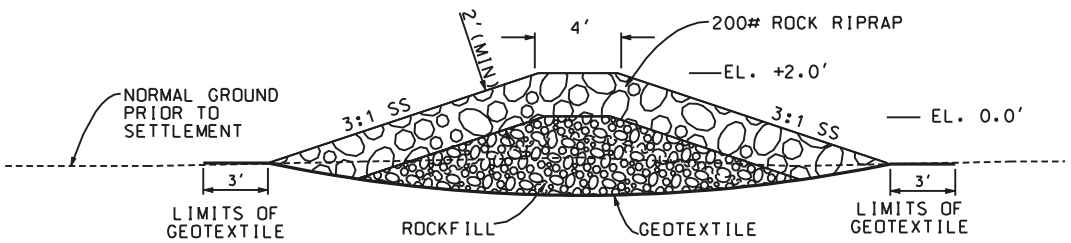


TYPE 5
X-SECTION

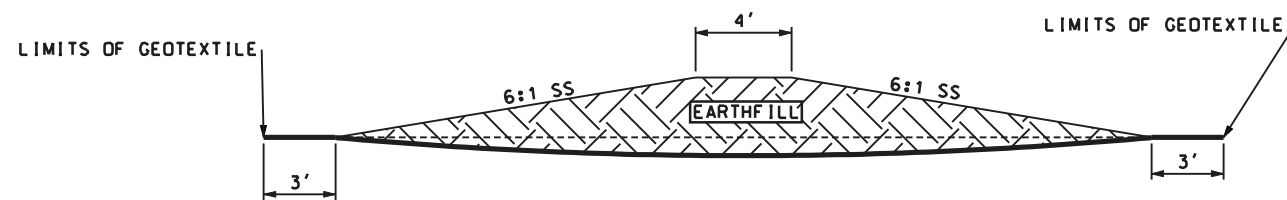


TYPE 4
X-SECTION

"AS-BUILT"

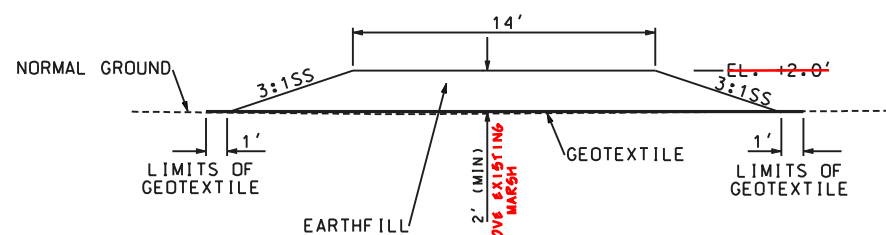


TYPE 2
X-SECTION

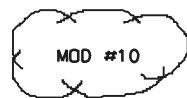


TYPE 6
X-SECTION

TYPE 6 X-SECTION ONLY APPLIES WHEN
FILL IS GREATER THAN 2'

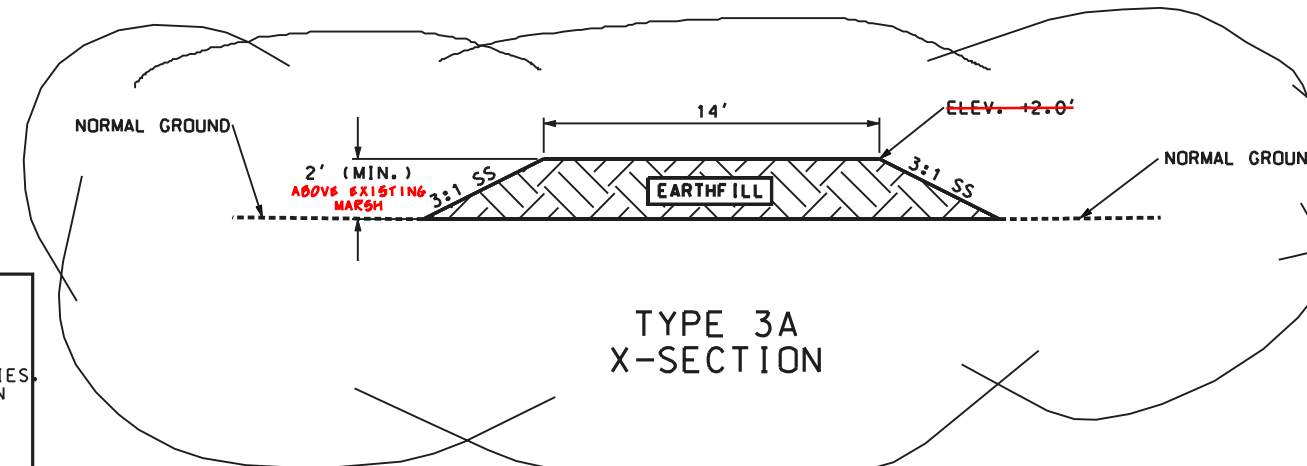


TYPE 3
X-SECTION



- NOTES:**
1. GEOTEXTILE TO CONFORM TO EXISTING CHANNEL BOTTOM.
 2. SEE SHEET 21 FOR ESTIMATED QUANTITIES.
 3. TIE-IN BETWEEN SHORELINE PROTECTION AND STRUCTURES TO BE DETERMINED IN THE FIELD BY THE CONTR.

NOT TO SCALE



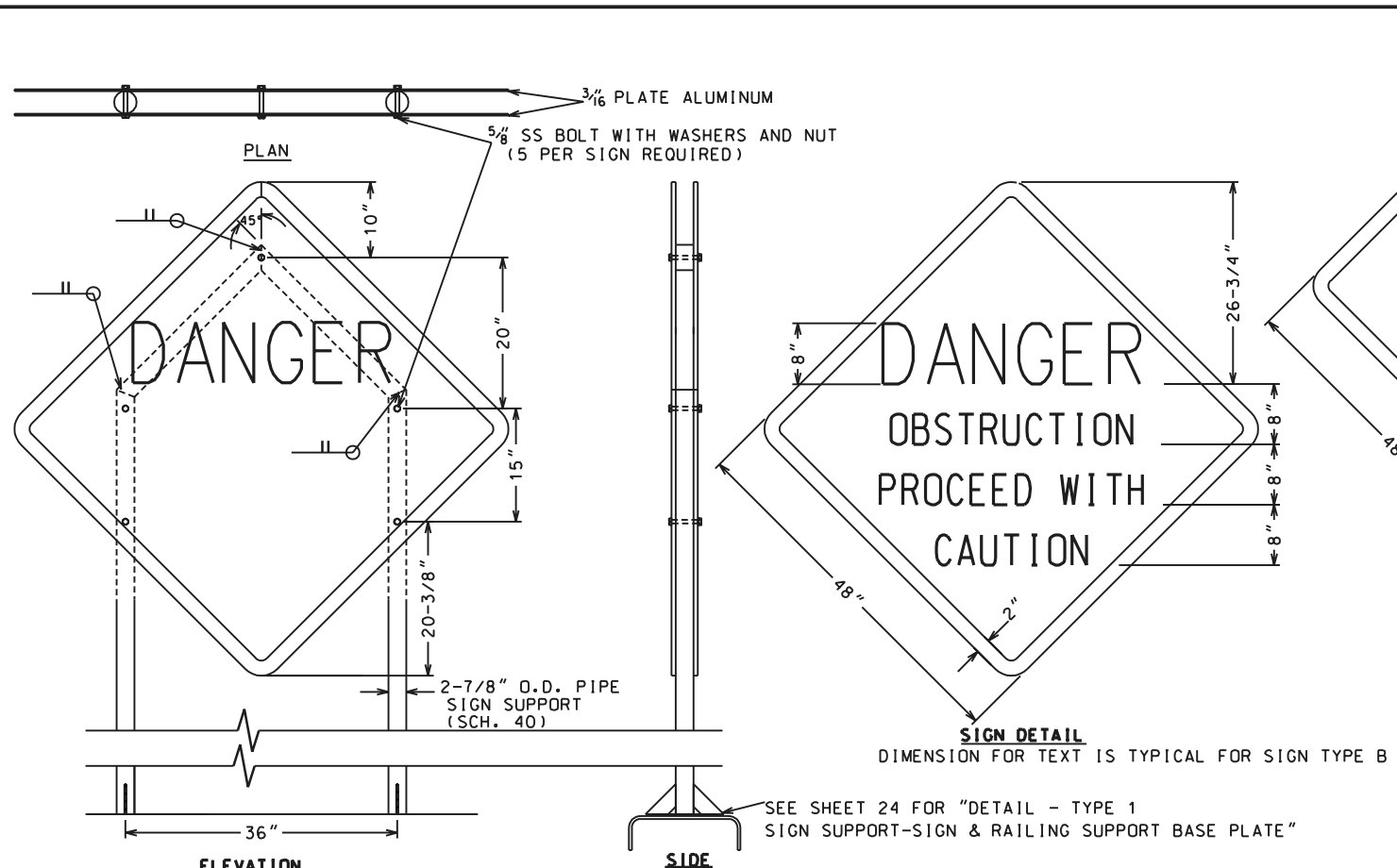
TYPE 3A
X-SECTION

DATE	6/15/00	TITLE	EG
DATE	03/98	TITLE	AS/CS
DESIGNED BY	S. GARNER	APPROVED BY	I. J. GERING, III
DRAWN BY	A. G. P. C.	TITLE	STATE CONSERVATION ENGINEER
TRACED BY	J. MOORE	TITLE	ALEXANDRIA, LOUISIANA
CHECKED BY	J. MOORE	TITLE	
DATE	04/98	TITLE	

LAKE RIM RESTORATION AND BANK STABILIZATION TYPICAL X-SECTIONS
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

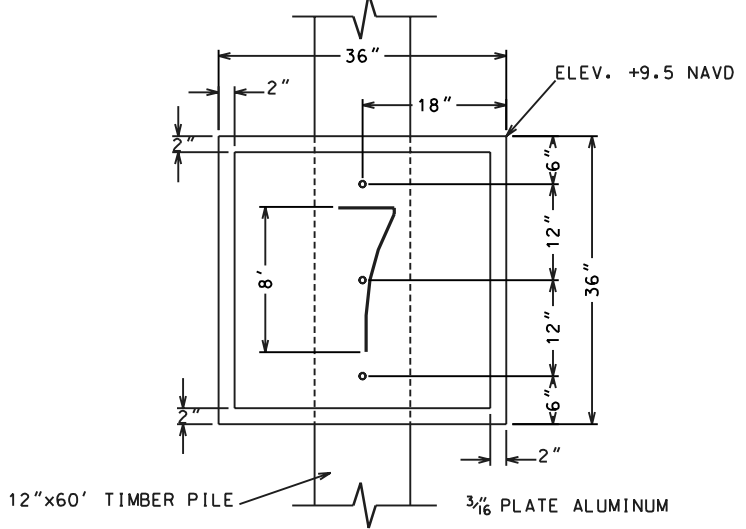
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CAD FILENAME	LA271022
PROJECT NO.	LA271
SHEET NO	22 OF 25



**SIGN DETAIL - TYPE "A"
SIGN SUPPORT - TYPE "I"**

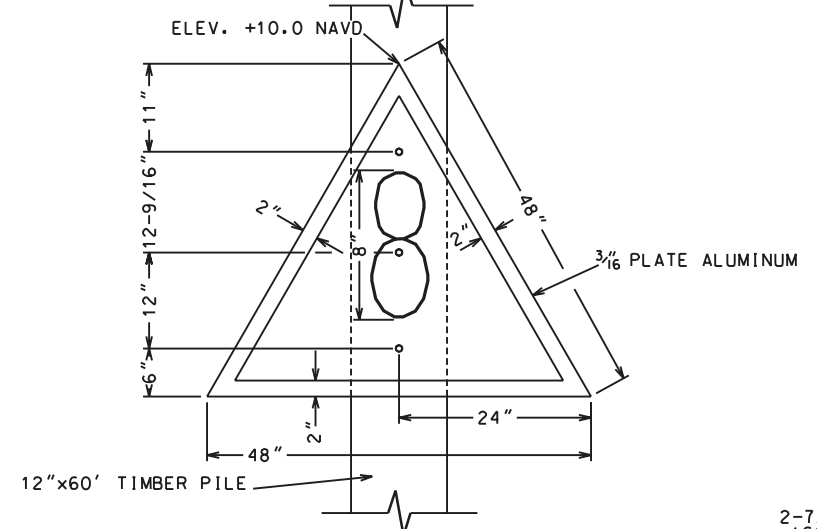
- NOTES:**
1. THE 2" BORDER ON THE TYPE "A" WARNING SIGN SHALL BE A RETRO-REFLECTIVE MATERIAL OF ORANGE COLOR. THE LETTERING FIELD SHALL BE A RETRO-REFLECTIVE MATERIAL OF WHITE COLOR. THE LETTERING FOR THE WARNING SIGNS SHALL BE BLACK. WARNINGS SIGNS SHALL BE PLACED ON THE UPSTREAM AND DOWNSTREAM FACE OF THE STRUCTURE.
 2. NEOPRENE WASHERS SHALL BE PLACED BETWEEN THE SIGN AND STEEL PIPE AT ALL POINTS OF CONTACT.
 3. SECURE NUTS BY TACK WELDING.



**DAYMARK NAVIGATION AID
(PORT SIDE - ODD NUMBER)**

- NOTES:**
1. THE BORDER ON THE STARBOARD DAYMARK WILL BE A RETRO-REFLECTIVE MATERIAL OF RED COLOR. THE AREA INSIDE THE BORDERS WILL BE A RETRO-REFLECTIVE MATERIAL OF WHITE COLOR. THE NUMBERS WILL BE BLACK.
 2. THE BORDER ON THE PORT SIDE DAYMARK WILL BE A RETRO-REFLECTIVE MATERIAL OF GREEN COLOR. THE AREA INSIDE THE BORDER WILL BE A RETRO-REFLECTIVE MATERIAL OF WHITE COLOR. THE NUMBERS WILL BE BLACK.
 3. ALL DAYMARK NAVIGATION AIDS SHALL ABIDE BY U.S.C.G. REGULATIONS.
 4. SIGNS SHALL BE SECURED TO TIMBER PILE WITH 3-5/8"x8" STAINLESS STEEL LAG SCREWS WITH 1-1/4" O.D. S.S. WASHER.

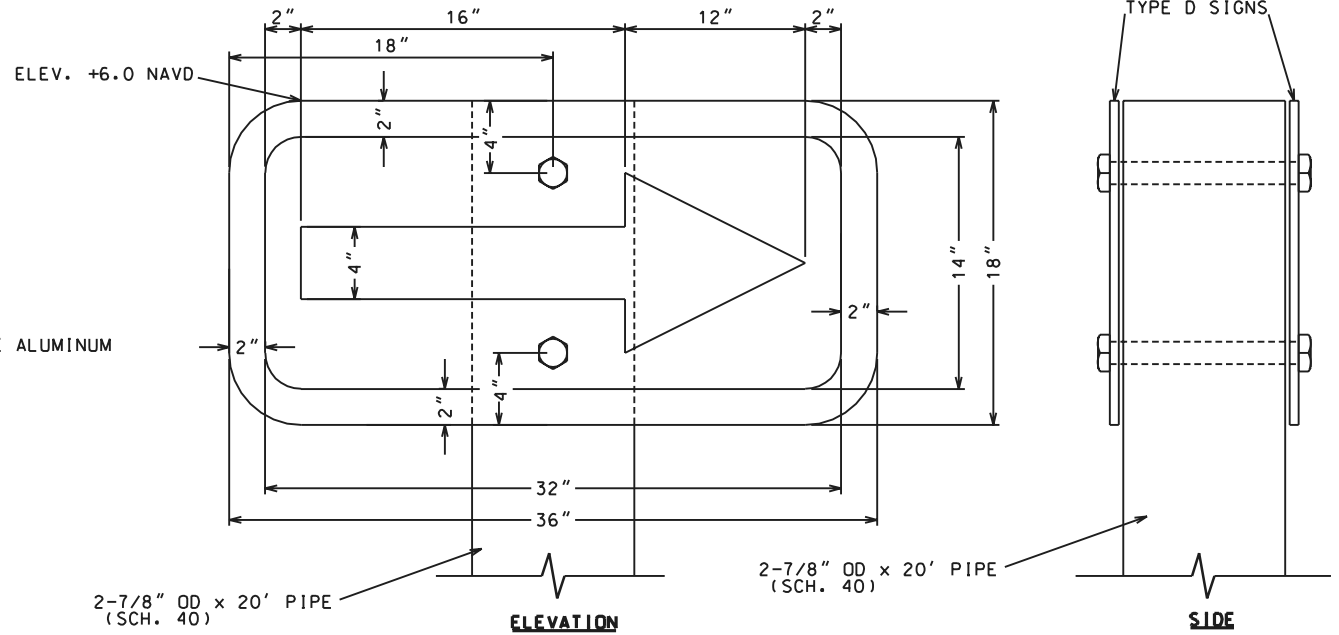
SIGN DETAIL - TYPE "C"



**DAYMARK NAVIGATION AID
(STARBOARD SIDE - EVEN NUMBER)**

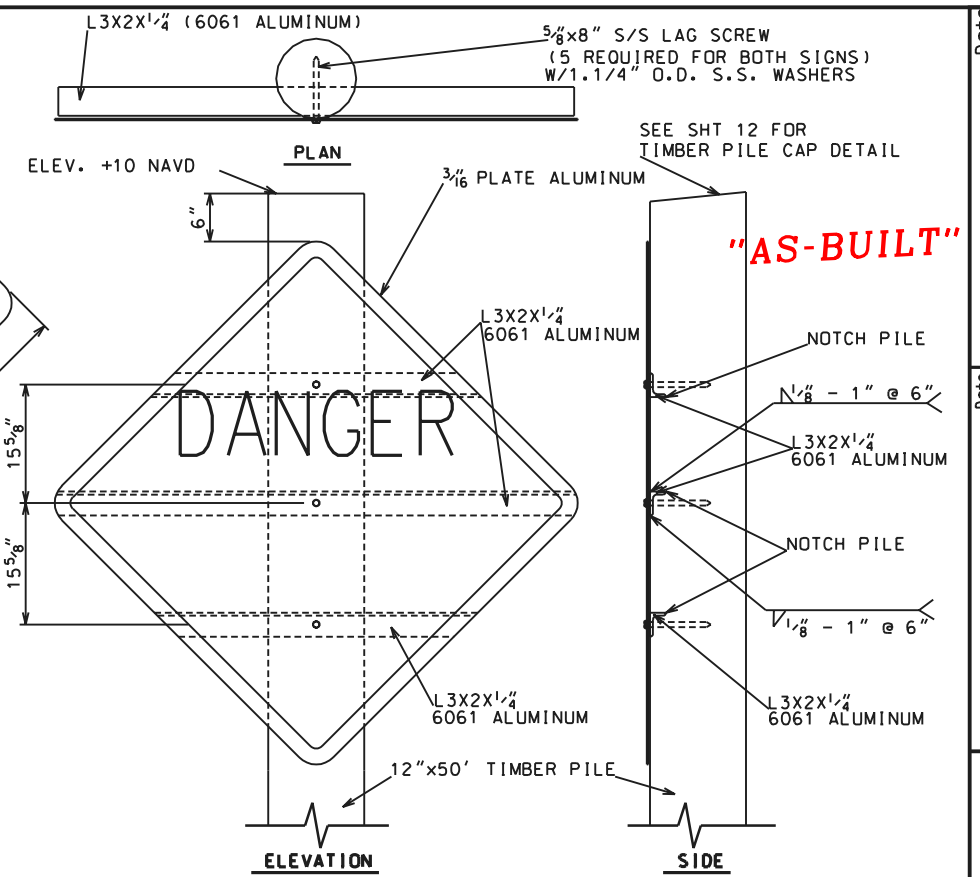
- NOTES:**
1. SIGNS SHALL BE CONSTRUCTED USING 3/16 PLATE ALUMINUM.
 2. NEOPRENE WASHERS SHALL BE PLACED BETWEEN STEEL PIPE AND ALUMINUM SIGNS.
 3. THE BORDER SHALL BE A RETRO-REFLECTIVE MATERIAL OF ORANGE COLOR.
 4. THE ARROW FIELD SHALL BE A RETRO-REFLECTIVE MATERIAL OF WHITE COLOR.
 5. THE ARROW WILL BE BLACK.
 6. SIGN WILL BE SECURED TO PIPE USING 2-5/8" S/S BOLTS, WASHERS AND NUTS.
 7. SIGNS TO PLACED ON THE LONGITUDINAL CENTERLINE OF THE STRUCTURE.
 8. SECURE NUTS BY TACK WELDING.

**SIGN DETAIL - TYPE "D"
SIGN SUPPORT - TYPE "IV"**



**SIGN DETAIL - TYPE "B"
SIGN SUPPORT - TYPE "III"**

- NOTES:**
1. THE 2" BORDER ON THE TYPE "B" WARNING SIGN SHALL BE A RETRO-REFLECTIVE MATERIAL OF ORANGE COLOR. THE LETTERING FIELD SHALL BE A RETRO-REFLECTIVE MATERIAL OF WHITE COLOR. THE LETTERING FOR THE WARNING SIGNS SHALL BE BLACK. WARNINGS SIGNS SHALL BE PLACED ONLY ON THE SIDE FACING THE BAY.
 2. NEOPRENE OR TEFLON WASHERS SHALL BE PLACED BETWEEN STEEL ANGLE AND ALUMINUM SIGNS.

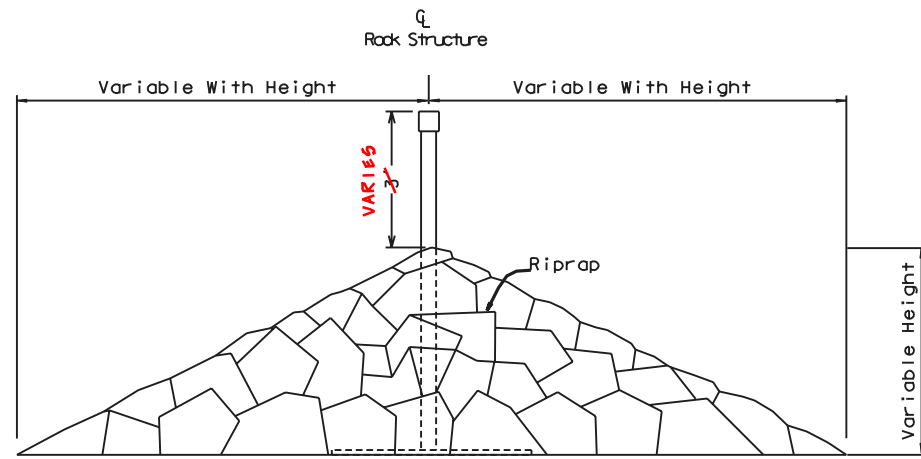


"AS-BUILT"

Date	3/98	Approved by	L. J. GIERING, III
Designed	S. Garner	Title	STATE CONSERVATION ENGINEER
Drawn	A. J. Gremillion	Title	ALABAMA, LOUISIANA
Traced	J. Moore	Title	
Checked	J. Moore	Title	

WARNING SIGN DETAILS	
BA2 CONSTRUCTION UNIT 2	
LAFOURCHE PARISH, LOUISIANA	
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE	
DATE	TITLE
CAD FILE NO.	LA271023
DRAWING NO.	LA-271
SHEET NO	23 OF 25

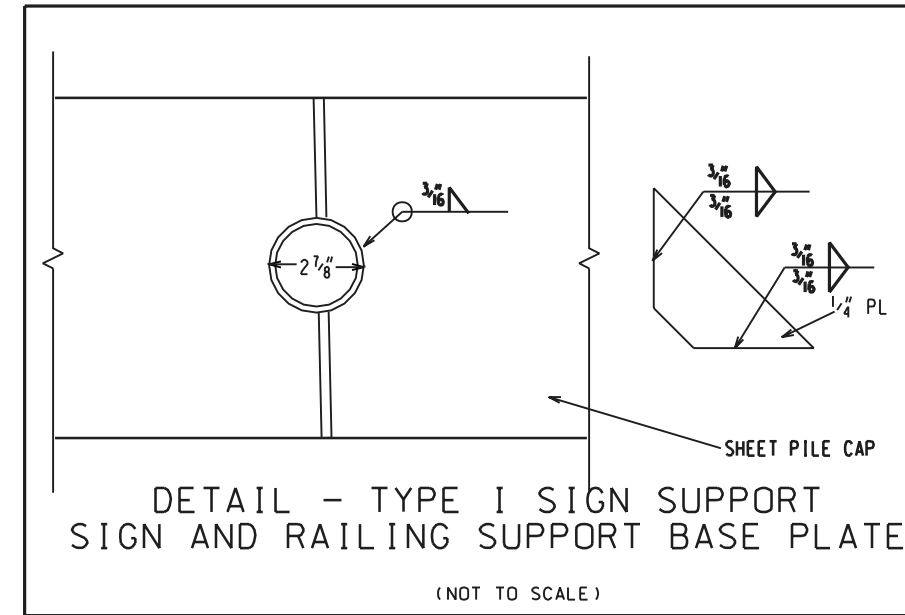
NOT TO SCALE



TYPICAL SECTION - ROCK BREAKWATER

(NOT TO SCALE)

NOTE 1:
Place Settlement Plate Above Geotextile

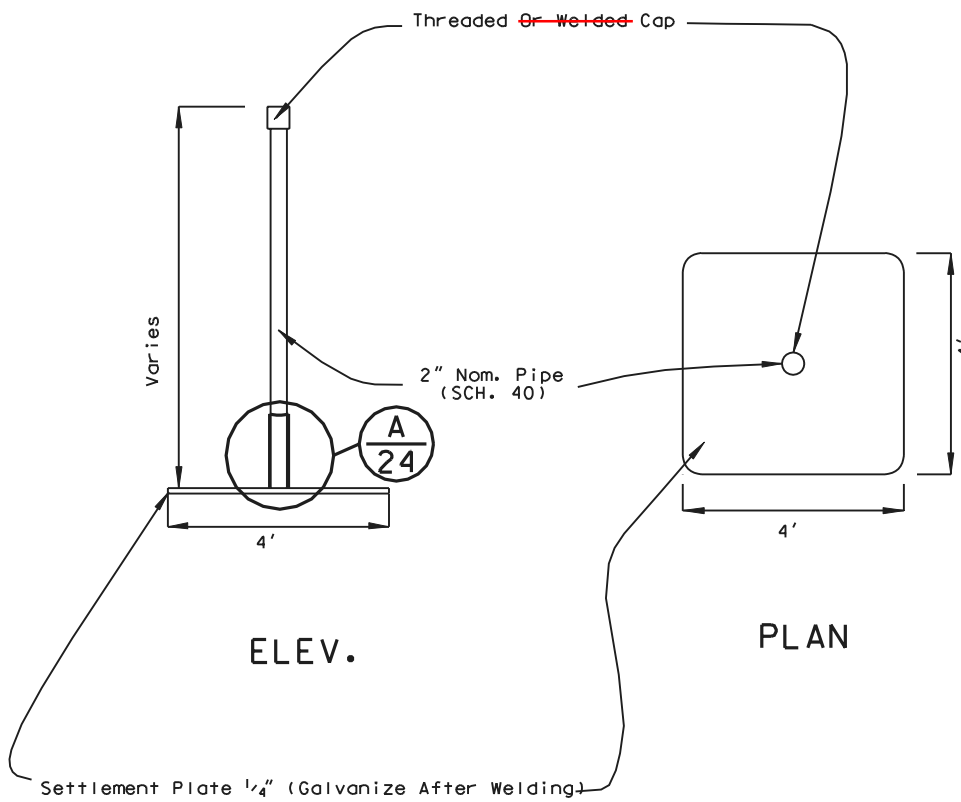


DETAIL - TYPE I SIGN SUPPORT
SIGN AND RAILING SUPPORT BASE PLATE

(NOT TO SCALE)

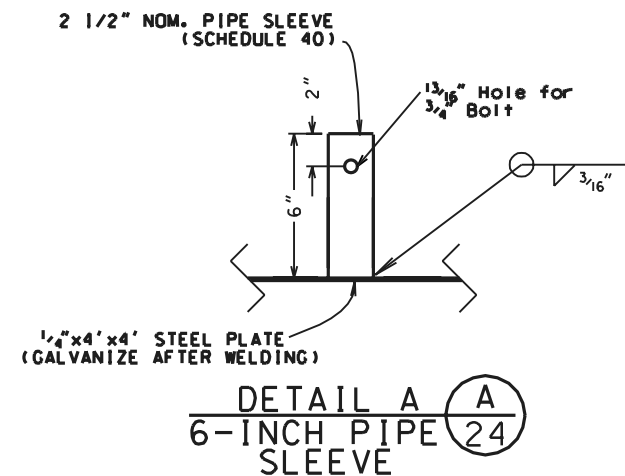
SITE NO.	SIGN TYPE	SUPPORT TYPE	DESCRIPTION	NUMBER OF SIGNS
1	A	III	PROCEED W/CAUTION	4
1	D	IV	DIRECTIONAL	2
1	C	V	NAVIGATION AIDES	4
14A	A	III	PROCEED W/CAUTION	4
14A	B	III	DO NOT PROCEED	6
14A	D	IV	DIRECTIONAL	2
14A	C	V	NAVIGATION AIDES	4
4B	B	III	DO NOT PROCEED	3
35	B	I	DO NOT PROCEED METAL PIPE	2
90	B	III	DO NOT PROCEED	4
LAKE RIM SHORELINE	B	III	DO NOT PROCEED TIMBER SUPPORT	12

"AS-BUILT"



SETTLEMENT PLATE DETAILS

(NOT TO SCALE)



DETAIL A
6-INCH PIPE SLEEVE

(NOT TO SCALE)

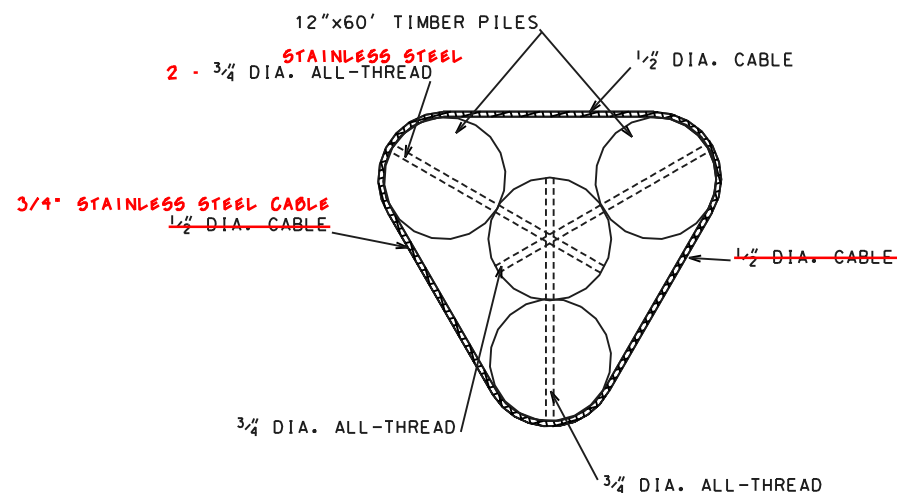
NOTES:

1. ALL STEEL PLATE SHALL CONFORM TO ASTM A572 Gr50.
2. SECURE 2" PIPE TO 2 1/2" PIPE SLEEVE USING A 2" X 4" A307 GALVANIZED BOLT AND NUT.
3. SECURE NUTS BY TACK WELDING.

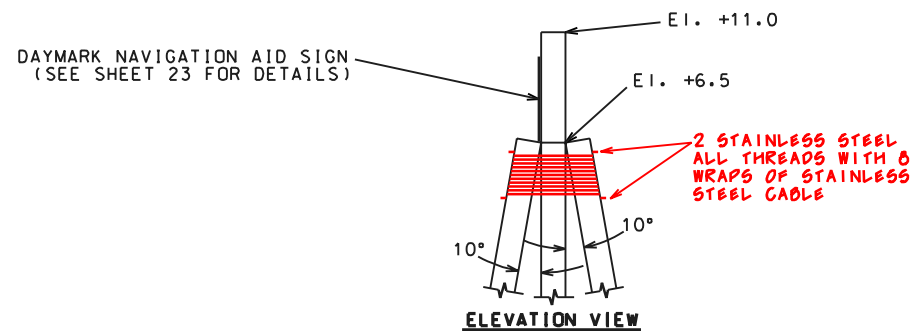
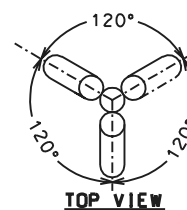
Date	3/98	Approved by	J. J. GORMAN, III
Designed	S. Garner	Title	STATE CONSTRUCTION ENGINEER
Drawn	A. J. Gremillion	Title	ARCHITECT
Traced	J. Moore	Title	ARCHITECT
Checked	J. Moore	Title	ARCHITECT

WARNING SIGN DETAILS
BA2 CONSTRUCTION UNIT 2
LAFORCHE PARISH, LOUISIANA
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CAD FILE NO.	LA271024
DRAWING NO.	LA271
SHEET NO	24 OF 25



PLAN
TYPE V - NAVIGATION AID SUPPORT



TYPE V SUPPORT
NAVIGATION AID SUPPORT DETAIL

NOTES:

1. ALL $3/4$ " DIA. ALL THREAD TIE RODS SHALL BE SECURED BY NOTCHED IN PLACE OGEE WASHERS AND TACK WELDED NUTS.
2. 8 WRAPS OF $1/2$ " DIA. CABLE MEETING ASTM A-416 AND ASTM A-882/A-882M-92 BETWEEN THE $3-3/4$ " DIA. ALL-THREAD ASTM A-615 GR60 GALVANIZED AND EPOXY COATED TIE RODS.
3. THE $1/2$ " DIA. CABLE SHALL BE SECURED USING 3 STAINLESS STEEL CLAMPS.
4. THE $3/4$ " DIA. ALL-THREAD TIE RODS SHALL BE A MINIMUM OF 6" BELOW TOP OF BATTER PILE AND 3" VERTICAL CLEARANCE FROM ADJACENT TIE ROD.
5. ALL TIMBER PILES FOR FOUR PILE NAVIGATION AID DOLPHIN SHALL BE 12" x 60'.

"AS-BUILT"

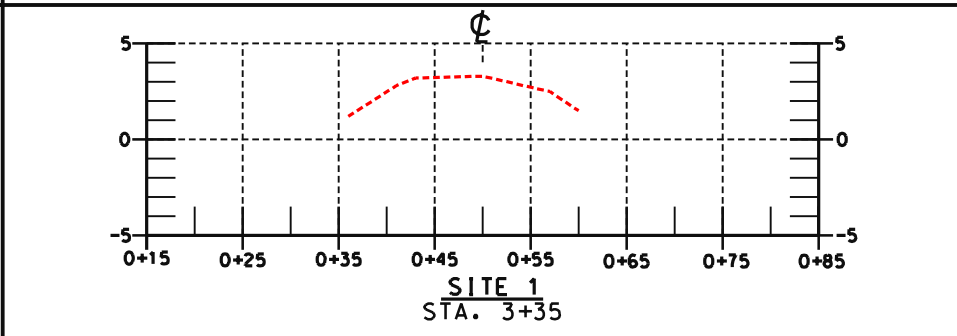
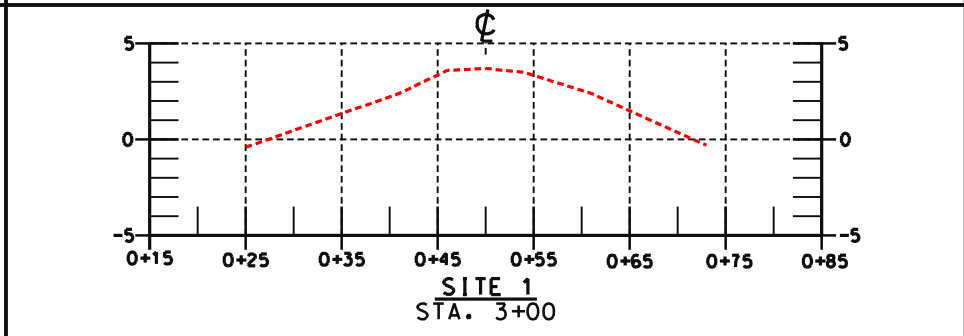
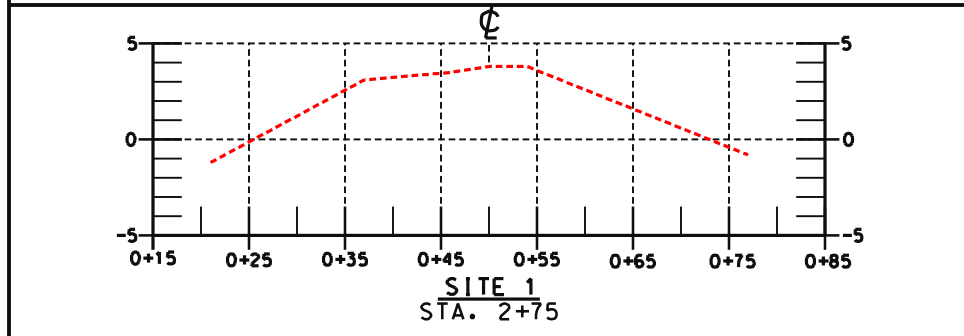
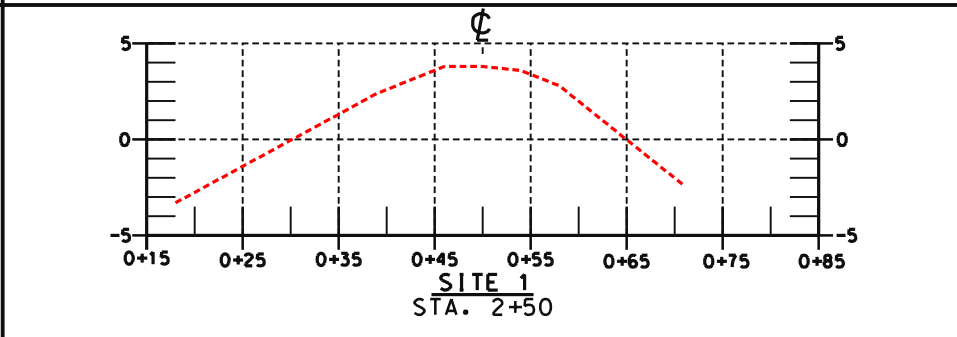
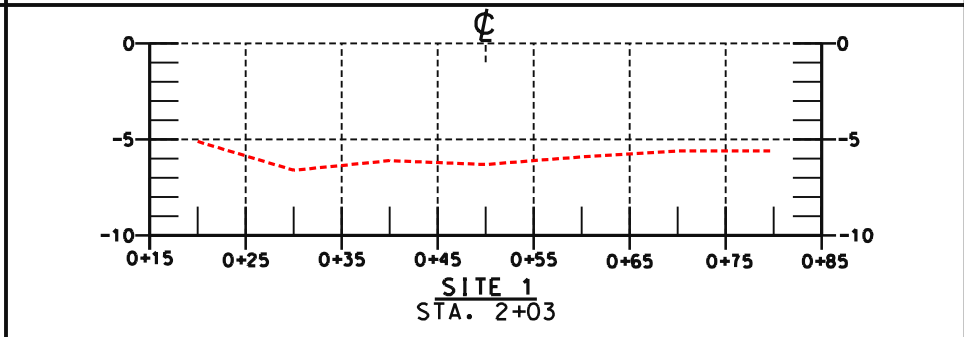
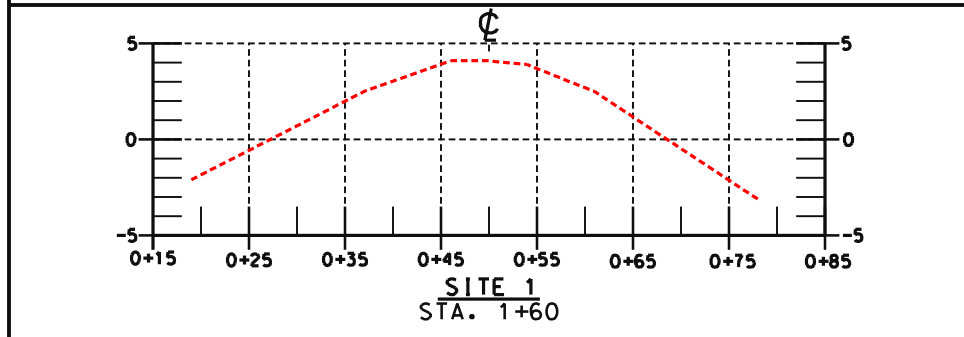
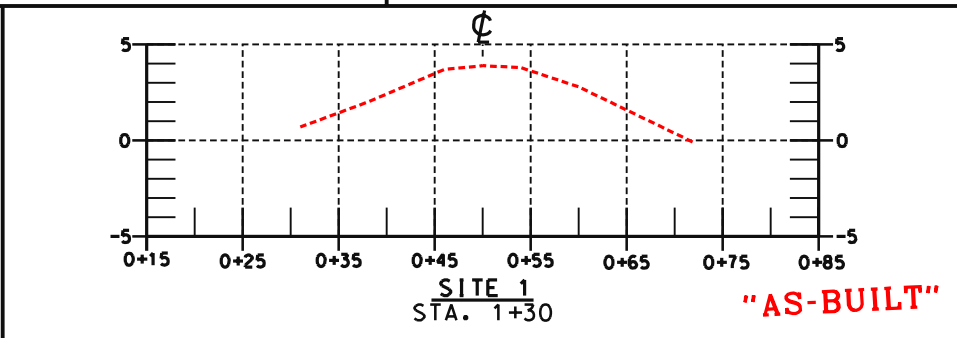
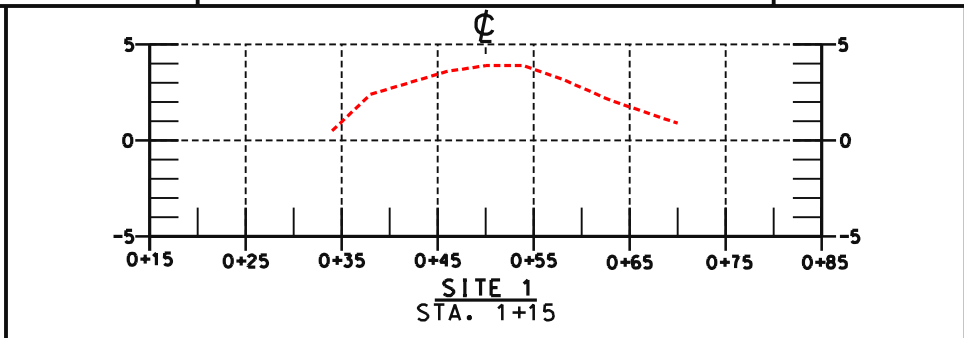
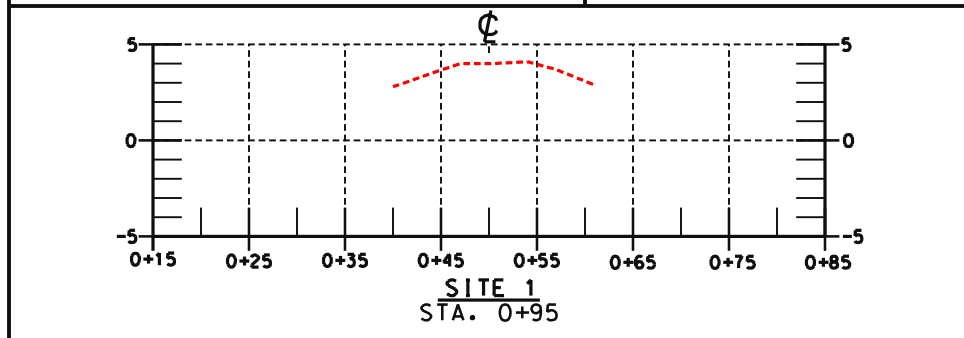
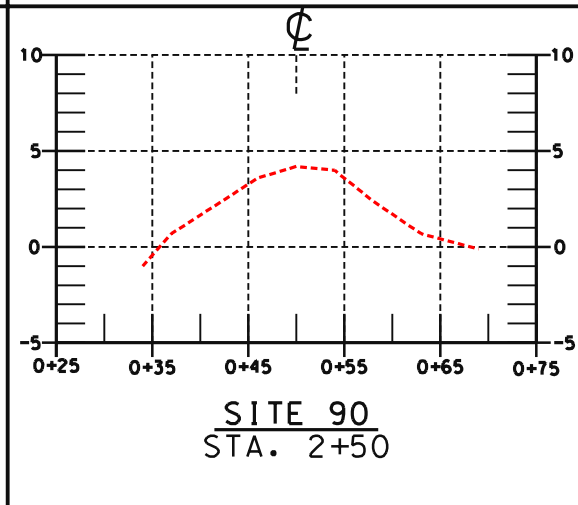
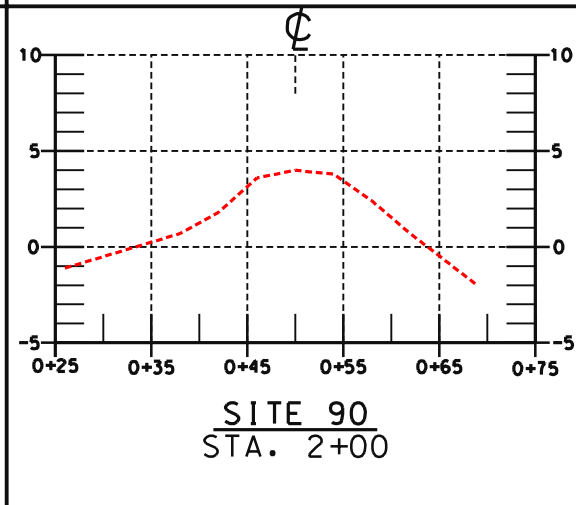
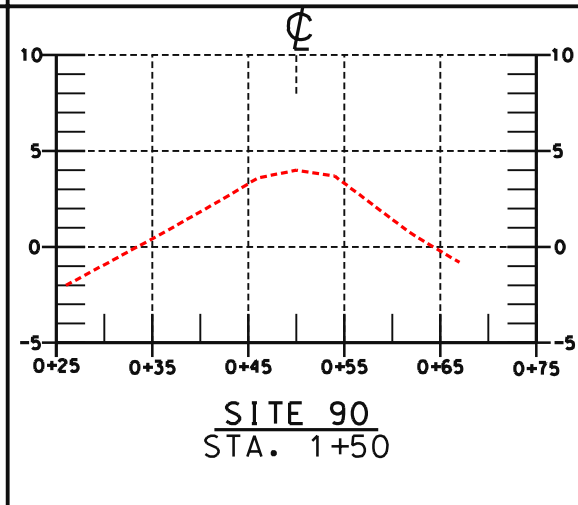
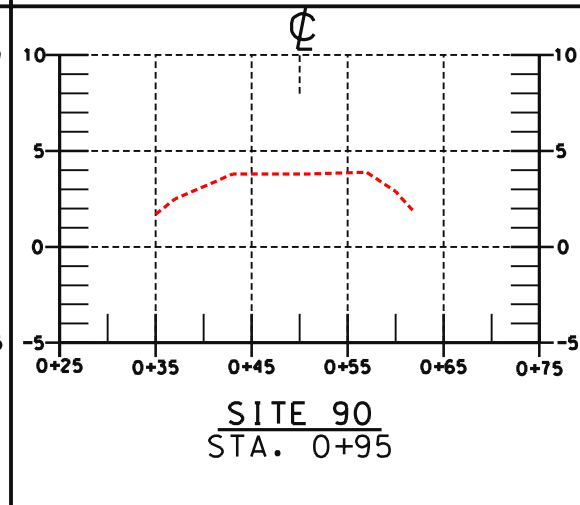
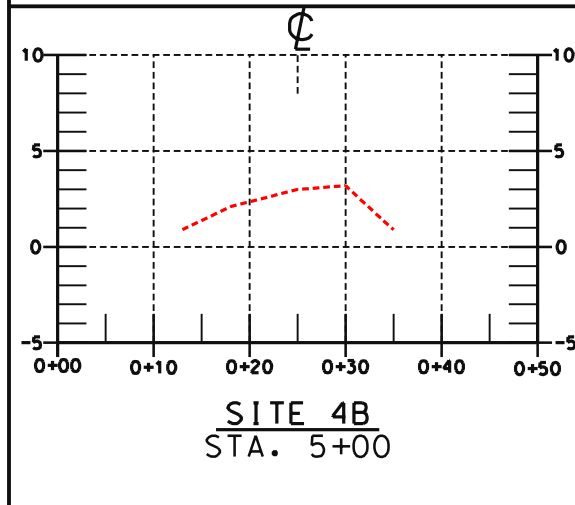
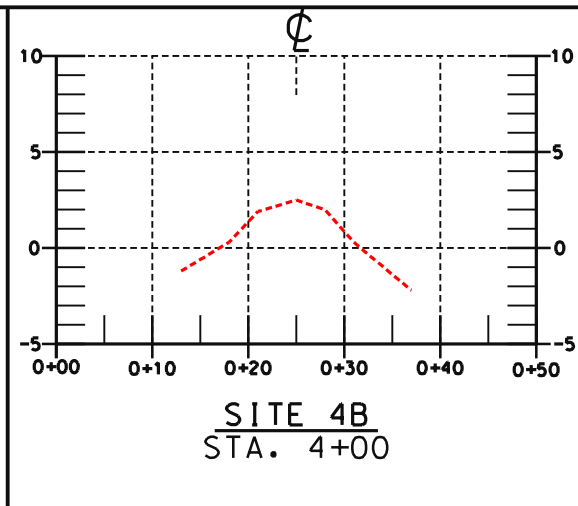
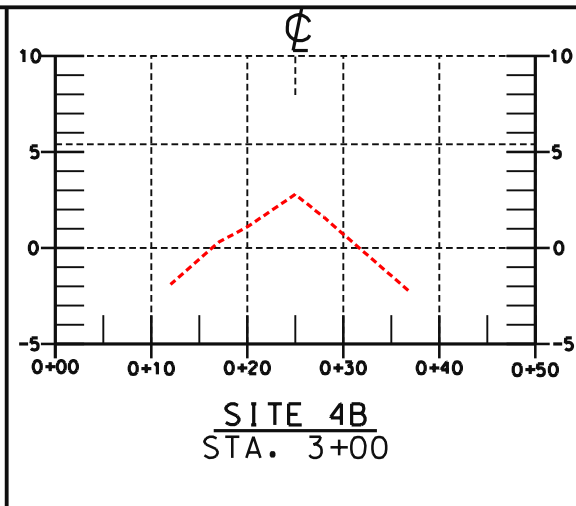
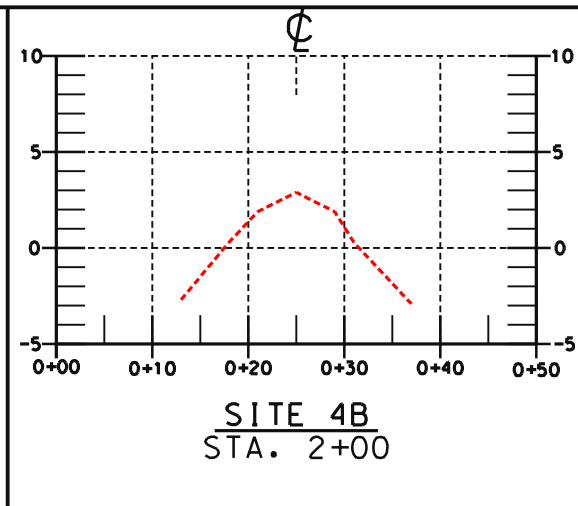
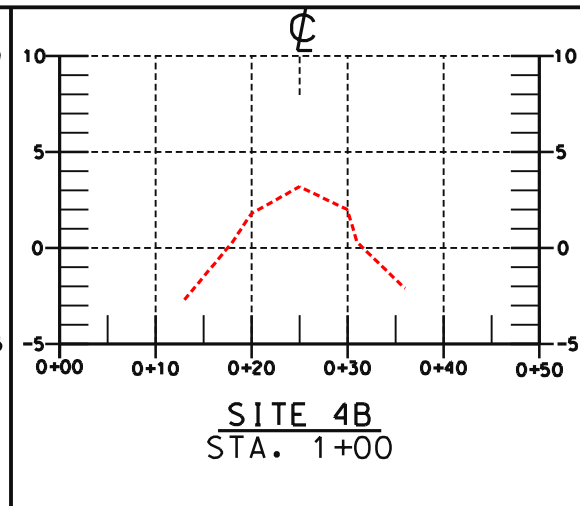
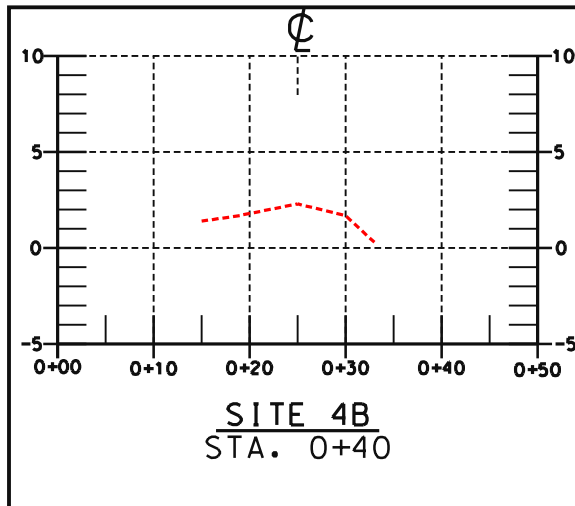
Designed	S. Garner	Date	3/98
Drawn	A. G. & P. C.	Approved by	J. J. GIERING, III
Traced	J. Moore	Title	STATE CONSERVATION ENGINEER
Checked	J. Moore	Title	ALEXANDRIA, LOUISIANA
		Date	4/98
		Title	

NAVIGATION AID SUPPORT DETAIL
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

REVISITONS	TITLE
DATE	APPR.

CAD FILE NO.
LA271025
DRAWING NO.
LA-271
SHEET NO 25 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE



Approved by: E. J. BIRING, III
 Date: 06/00
 Title: STATE CONSERVATION ENGINEER

Designed: L. S. GARNER
 Date: 01/02
 Title: STATE CONSERVATION ENGINEER

Drawn: A. J. GREMILLION
 Traced: B. STICKER
 Checked: B. STICKER
 Date: 01/02
 Title: STATE CONSERVATION ENGINEER

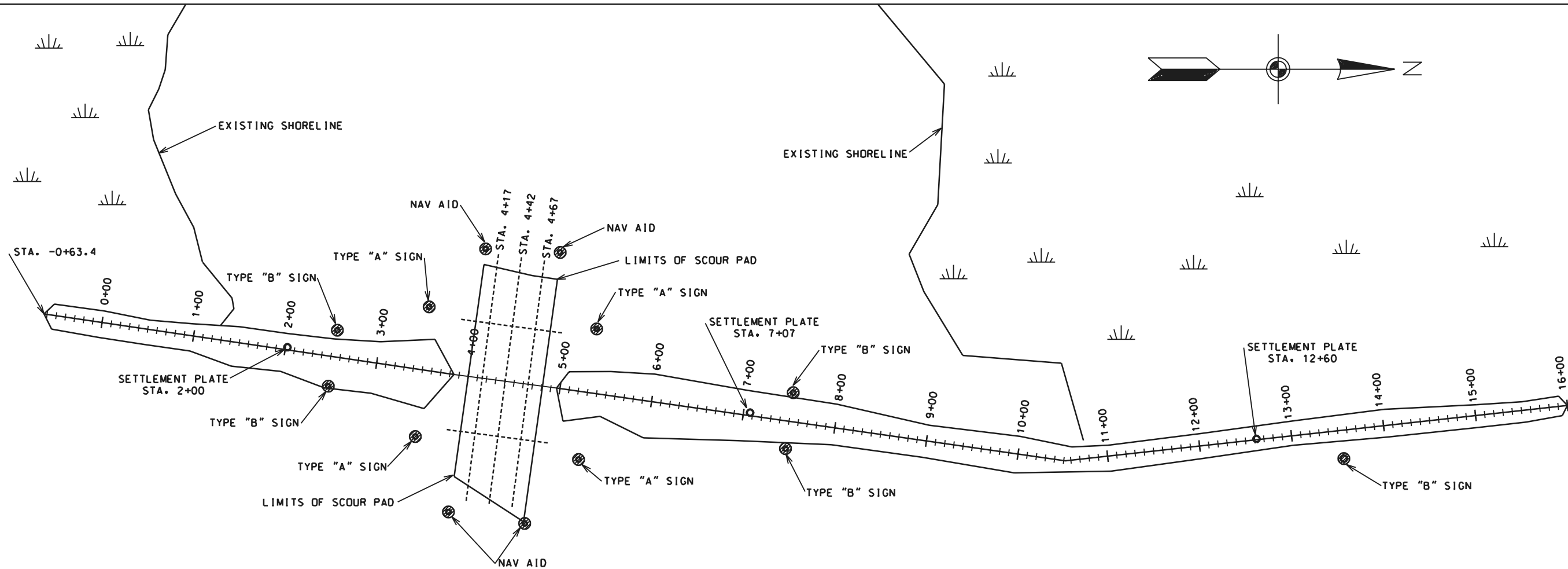
ALABAMA, LOUISIANA

**AS-BUILT SECTIONS - SITES 1, 90, & 4B
 BAZ CONSTRUCTION UNIT 2
 LAFOURCHE PARISH, LOUISIANA**

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

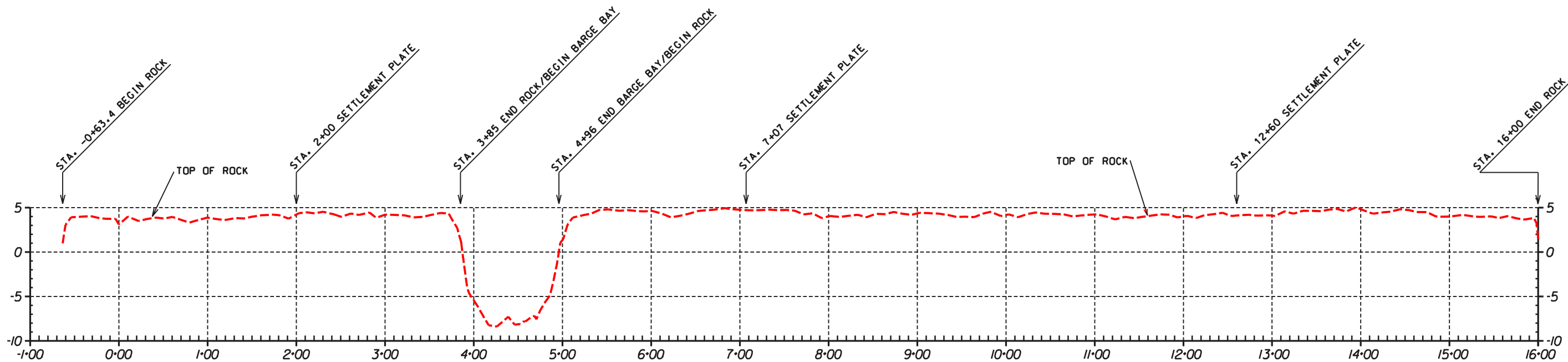
NO.	DATE	APPR.	TITLE

CAD FILENAME
 LA271025A1.DGN
 PROJECT NO.
 LA271
 SHEET NO 25A1 OF 25



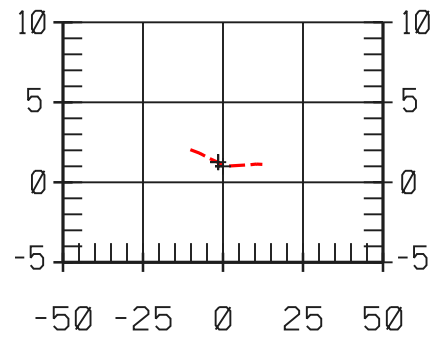
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PLAN VIEW

"AS-BUILT"

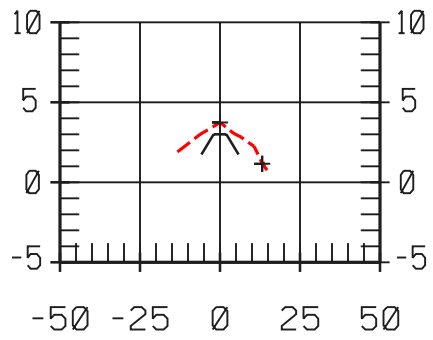


BA-2 - CU#2 - SITE 14A
PROFILE ALONG CENTERLINE

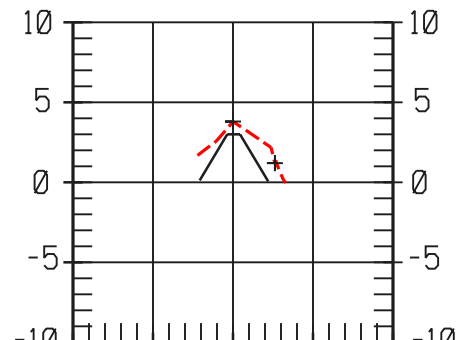
DESIGNED	STEVE GARNER	DATE	7/01
DRAWN	ABBEY GREMLION	APPROVED BY	
TRACED		TITLE	
CHECKED		TITLE	
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<p>U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE</p>			
<p>CAD FILE NO. LA271025A2.DGN</p>			
<p>DRAWING NO. LA-271</p>			
<p>SHEET NO 25&2 OF 25</p>			



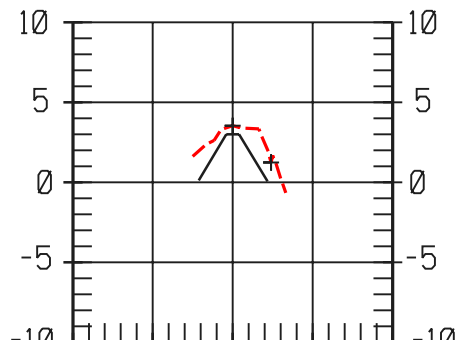
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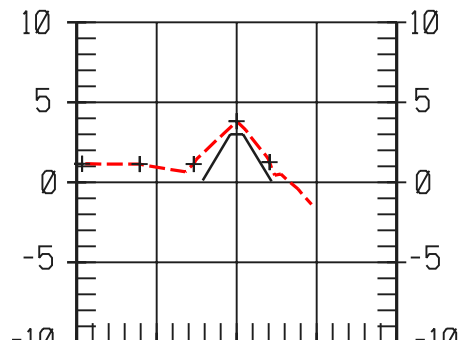
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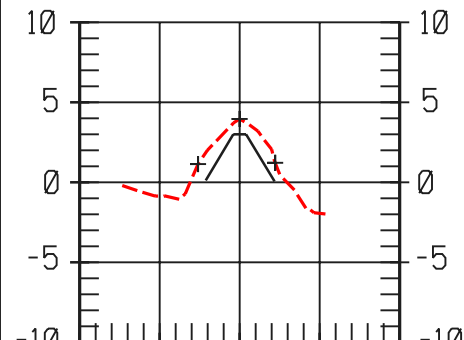
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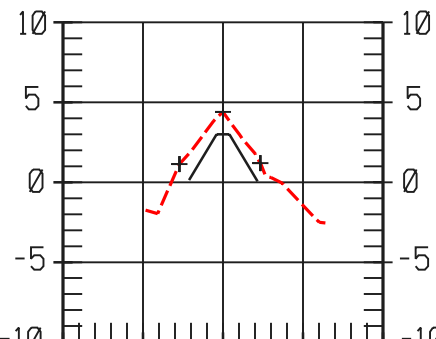
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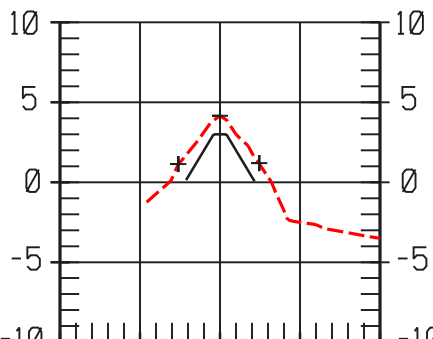
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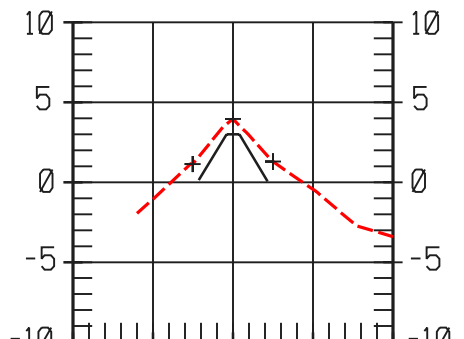
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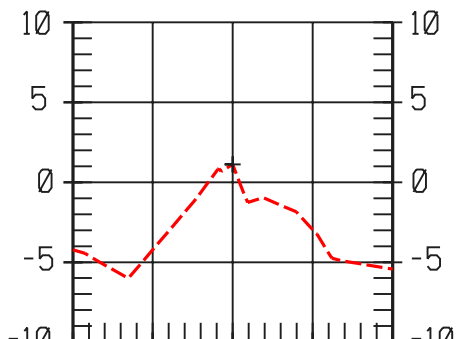
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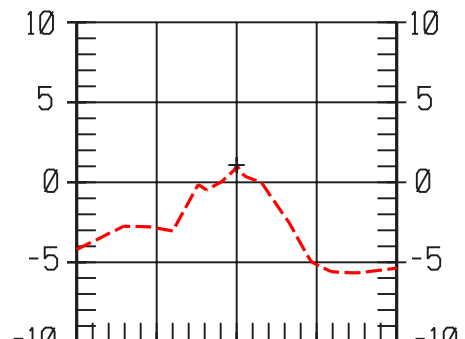
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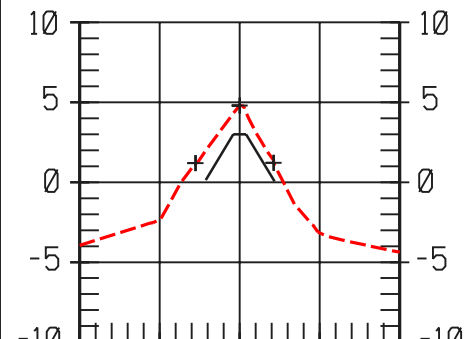
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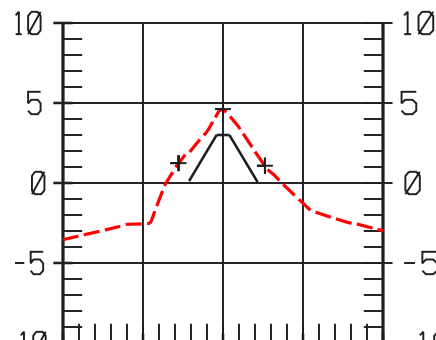
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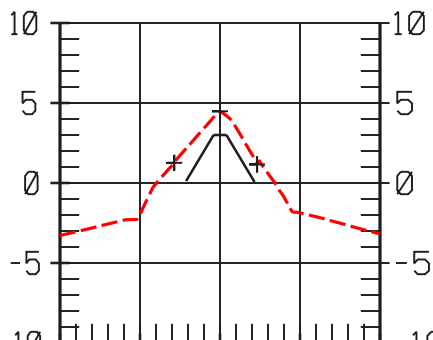
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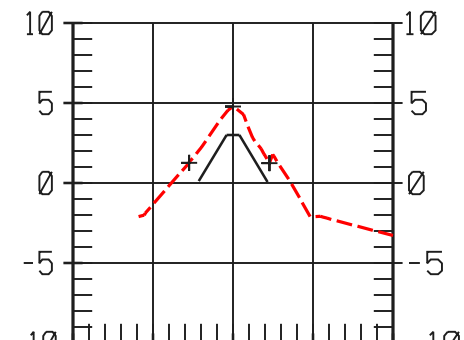
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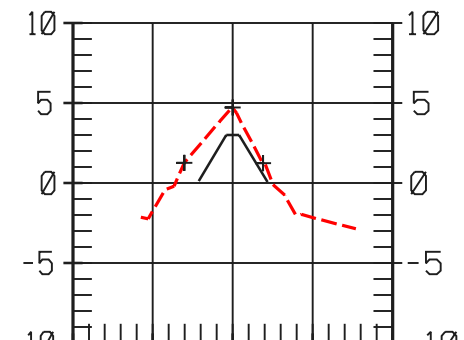
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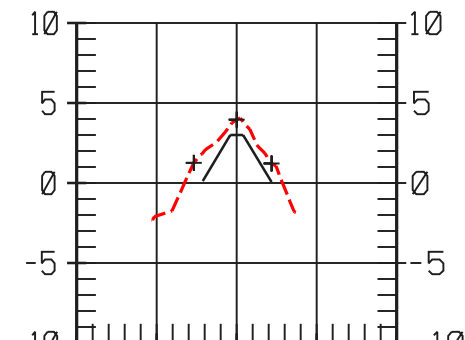
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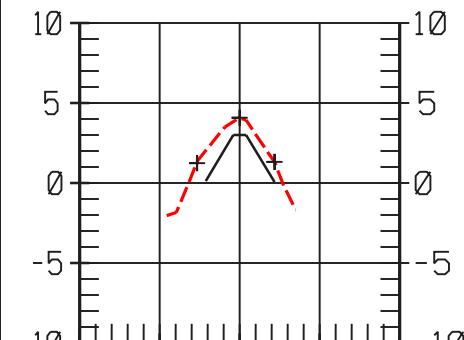
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7+96.3



8+46.3

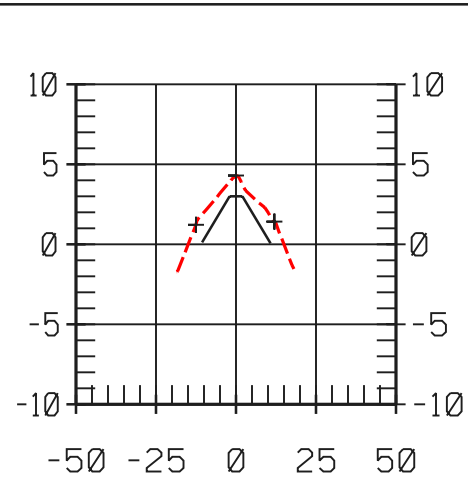
"AS-BUILT"

Designed	STEVE GARNER	Date	7/01
Drawn	ABBIE GREMLION	Approved by	
Traced		Title	
Checked		Title	

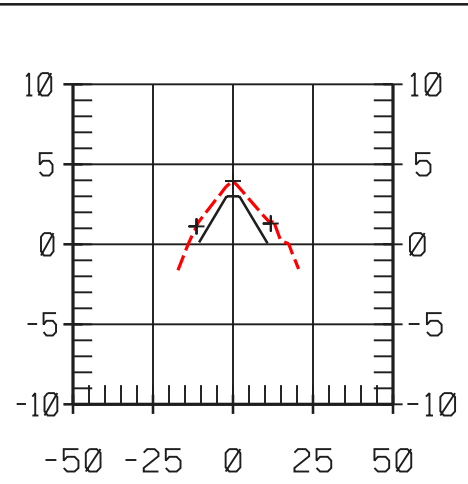
SITE 14A - SECTIONS
 BA2 - CONSTRUCTION UNIT #2
 AS-BUILT DRAWINGS
 LAFOURCHE PARISH, LOUISIANA

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

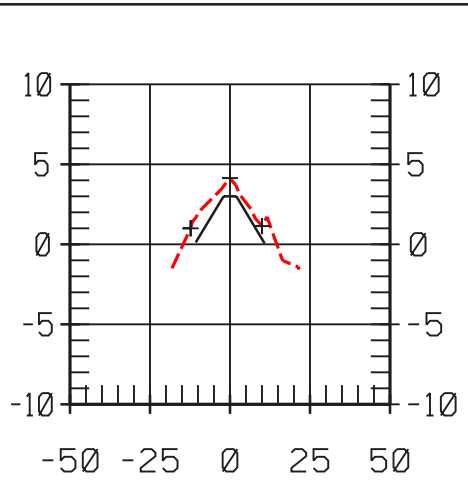
CAD FILE NO.	LA271025A3.DGN
DRAWING NO.	LA-271
SHEET NO	25A3 OF 25



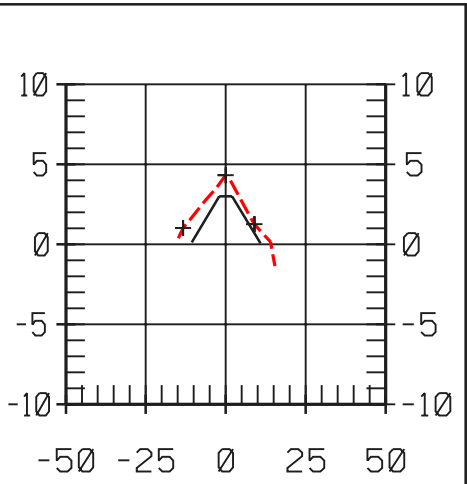
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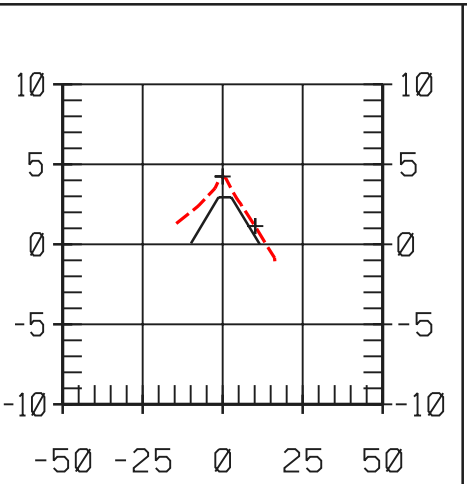
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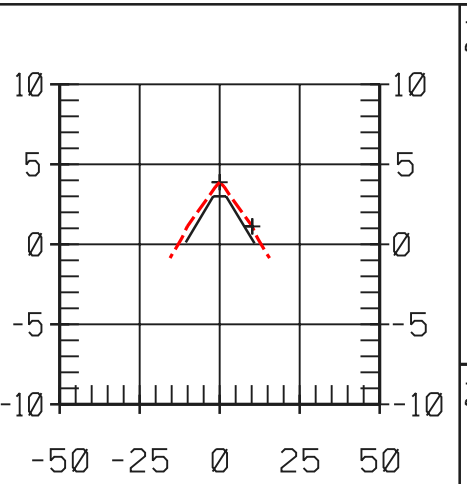
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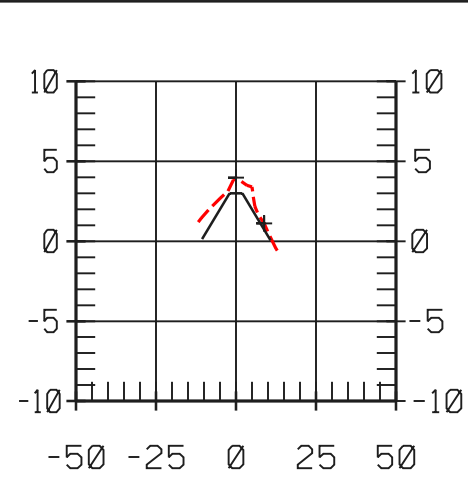
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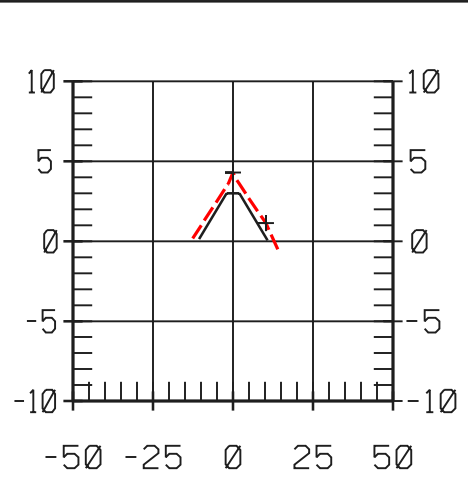
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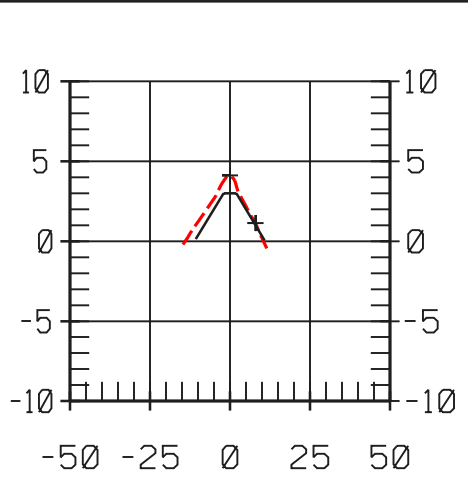
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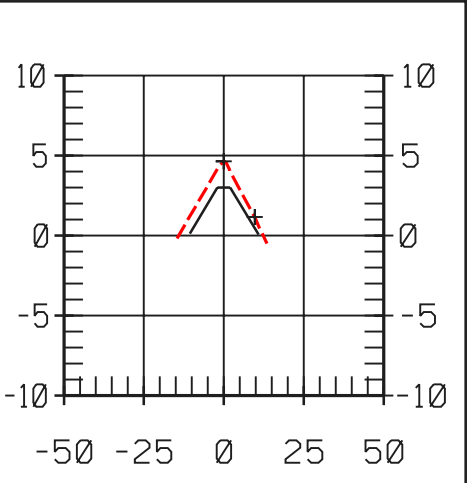
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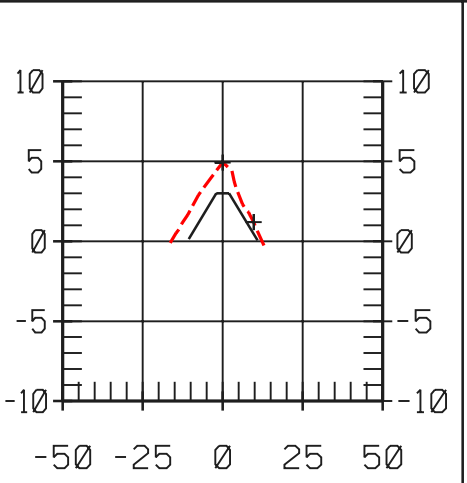
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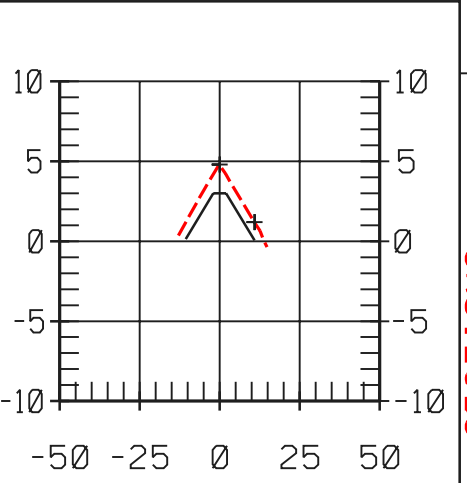
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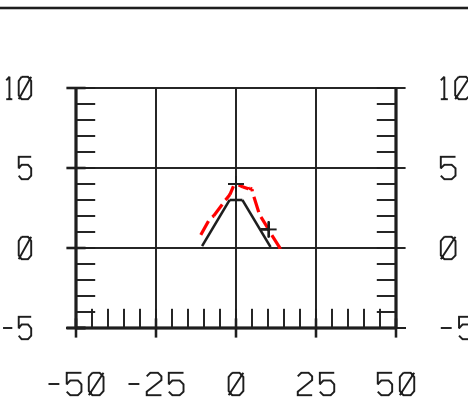
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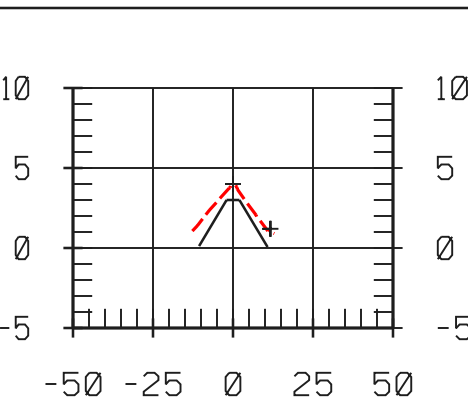
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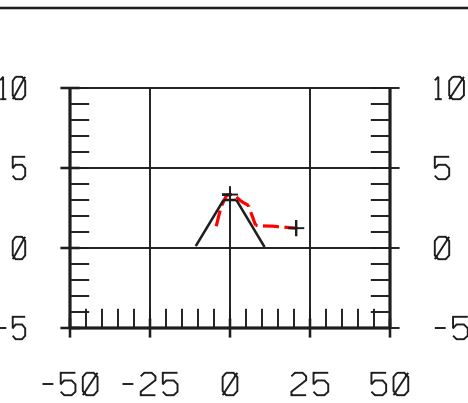
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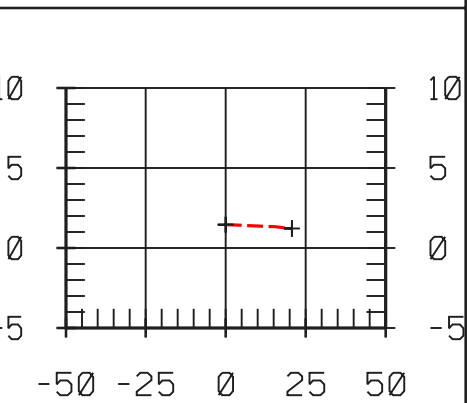
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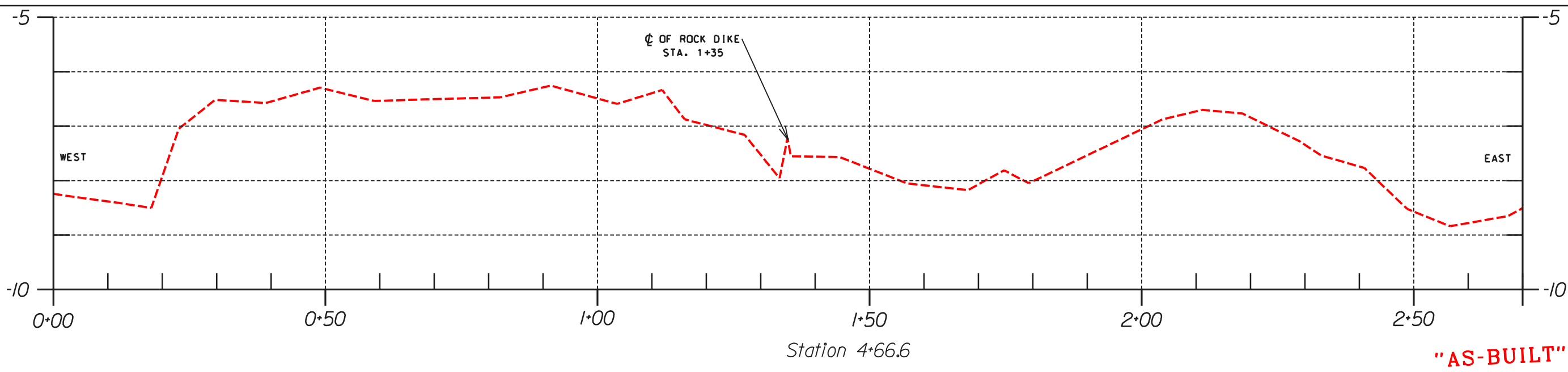
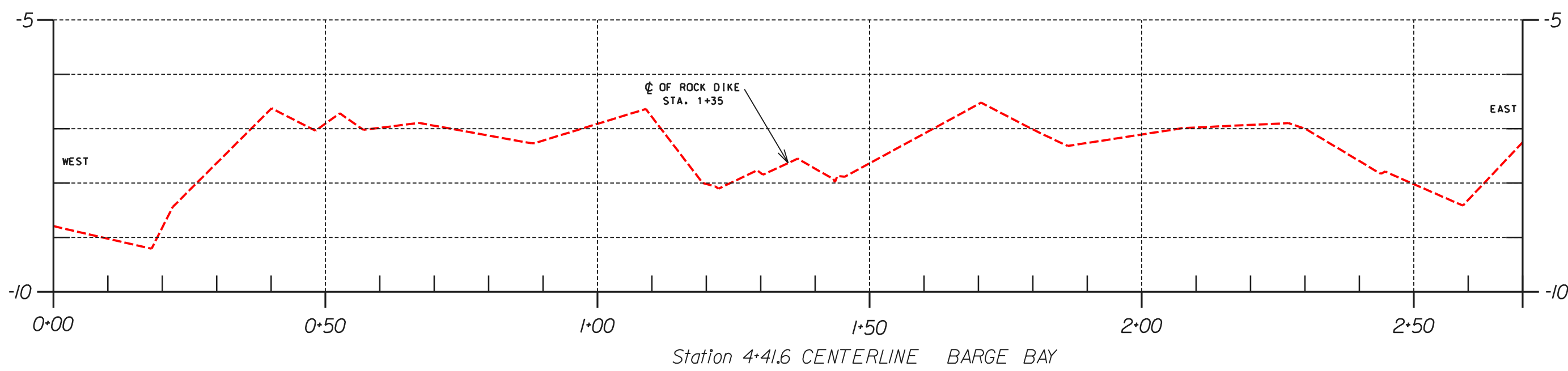
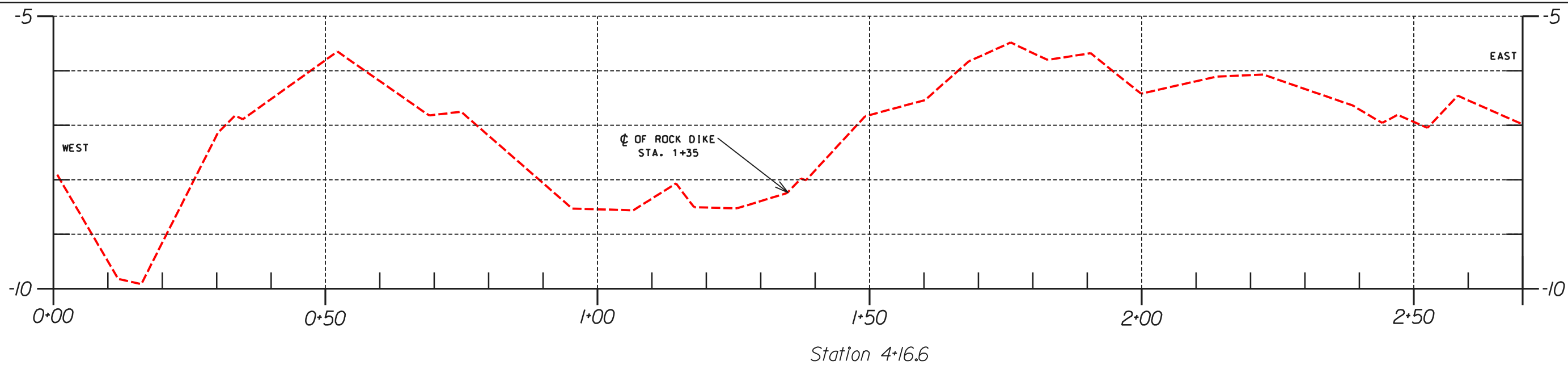


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"AS-BUILT"

Designed	STEVE GARNER	Date	7/01
Drawn	ABBIE GREMLION	Approved by	
Traced		Title	
Checked		Date	7/01
		Title	

<p style="text-align: center;">SITE 14A - SECTIONS BA2 - CONSTRUCTION UNIT #2 AS-BUILT DRAWINGS LAFOURCHE PARISH, LOUISIANA</p>	
<p>U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE</p>	
REVISIONS	TITLE
DATE	APPR.
<p>CAD FILE NO. LA271025A4.DGN</p>	
<p>DRAWING NO. LA-271</p>	
<p>SHEET NO 2544 OF 25</p>	



"AS-BUILT"

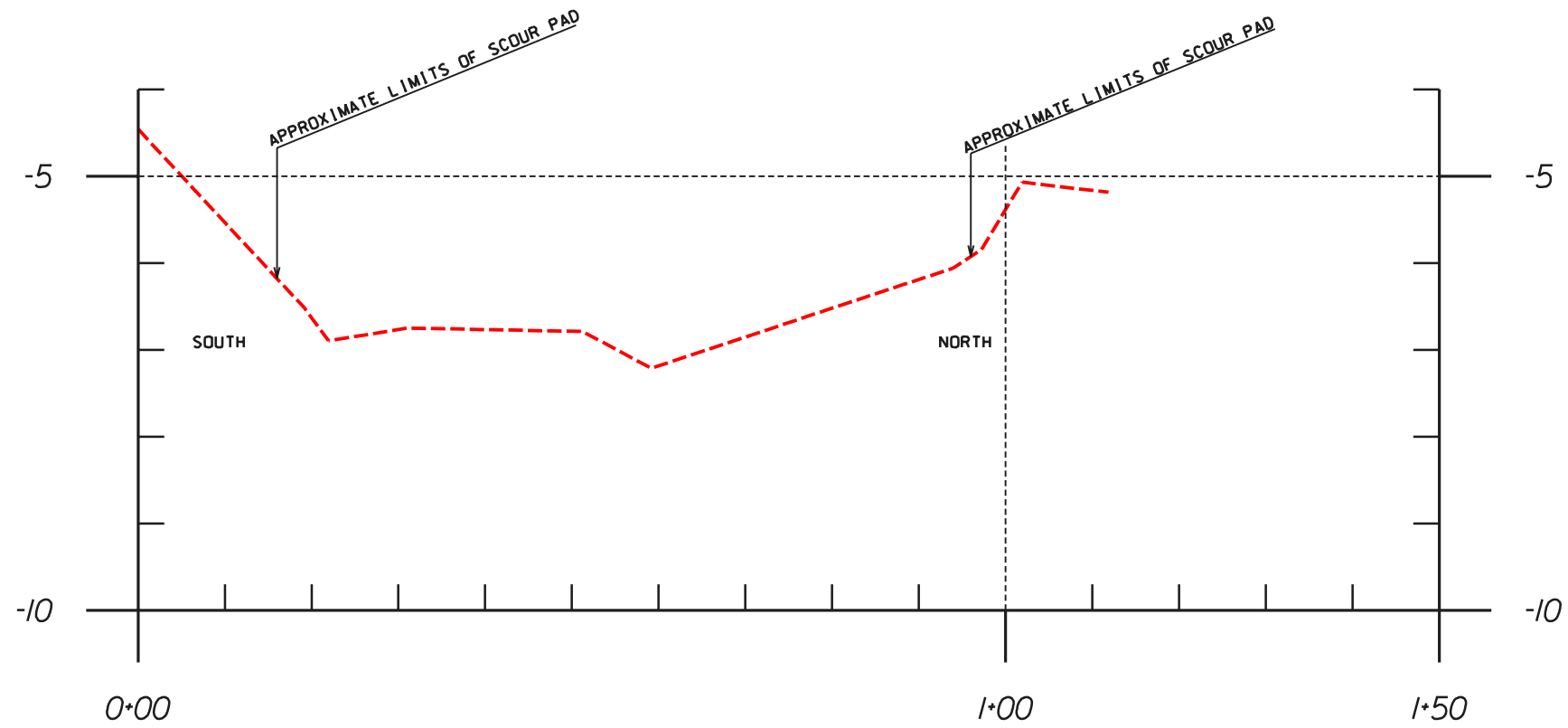
DESIGNED	STEVE GARNER	DATE	7/01
DRAWN	ABBIE GREMILLION	APPROVED BY	
TRACED		TITLE	
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**SITE 14A - SECTIONS
BA2 - CONSTRUCTION UNIT #2
AS-BUILT DRAWINGS
LAFOURCHE PARISH, LOUISIANA**

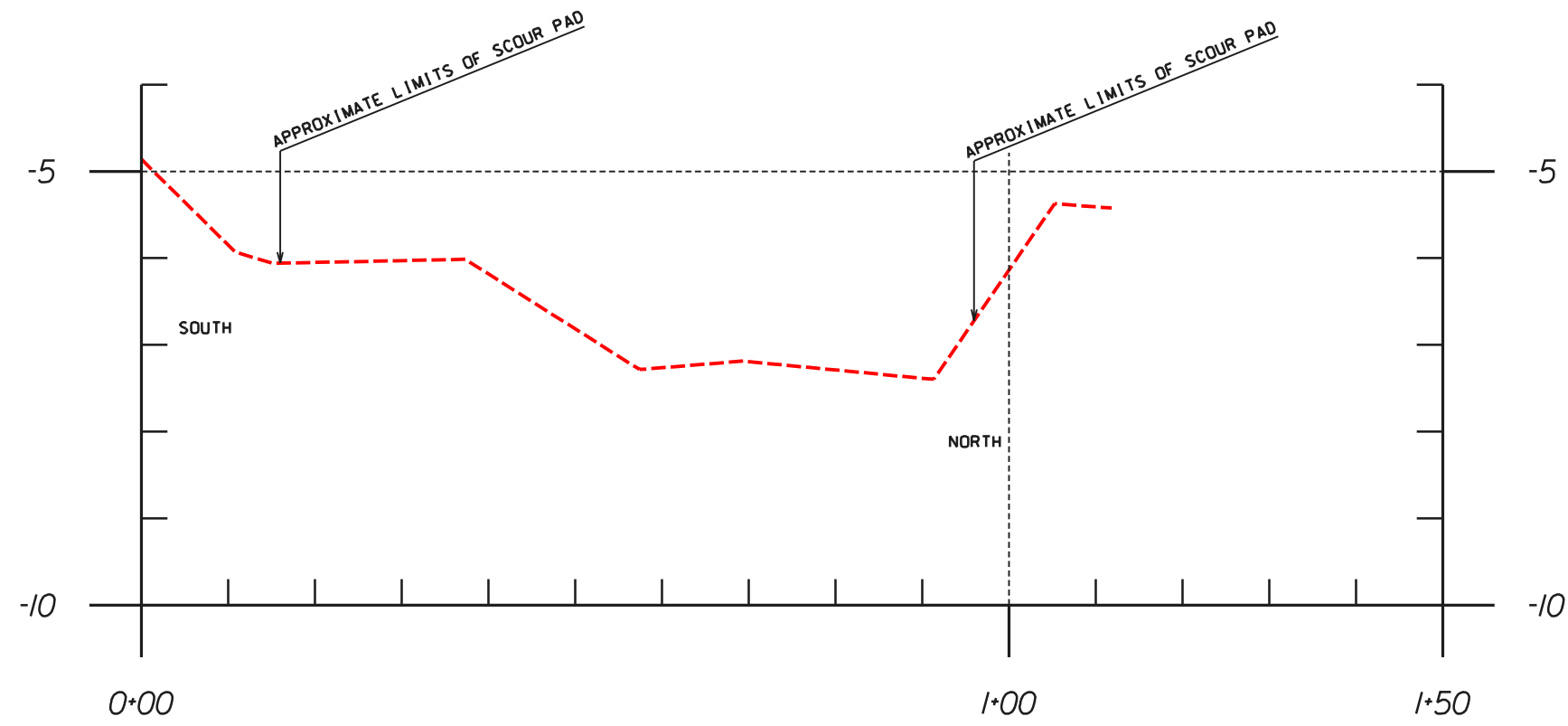
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

DATE	APPR.	TITLE

CAD FILE NO.
LA271025A5.DGN
DRAWING NO.
LA-271
SHEET NO 25 OF 25



X-SECTION
60' WEST OF ϕ OF DIKE



X-SECTION
60' EAST OF ϕ OF DIKE

"AS-BUILT"

Designed	STEVE GARNER	Date	7/01
Drawn	ABBIE GREMLIN	Approved by	
Traced		Title	
Checked		Title	

**SITE 14A - SECTIONS
BA2 - CONSTRUCTION UNIT #2
AS-BUILT DRAWINGS
LAFOURCHE PARISH, LOUISIANA**

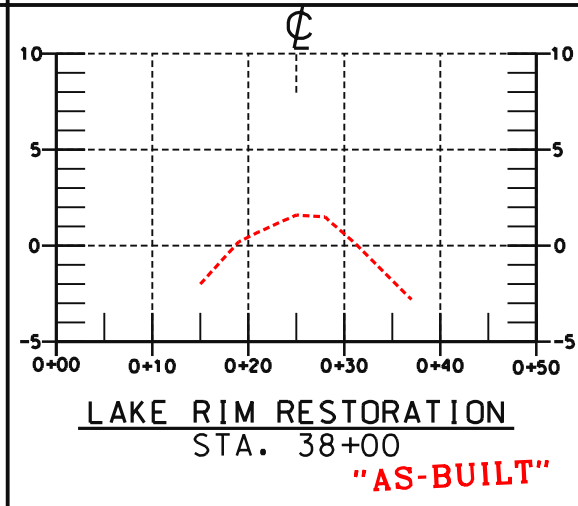
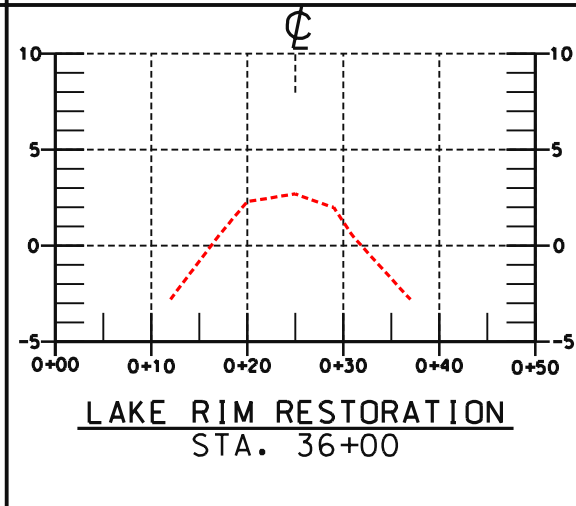
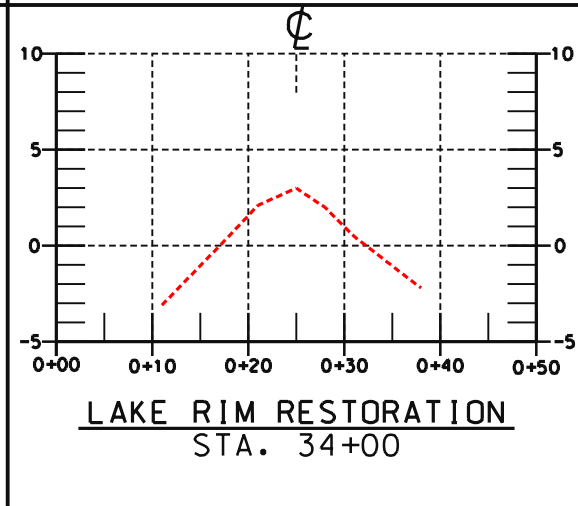
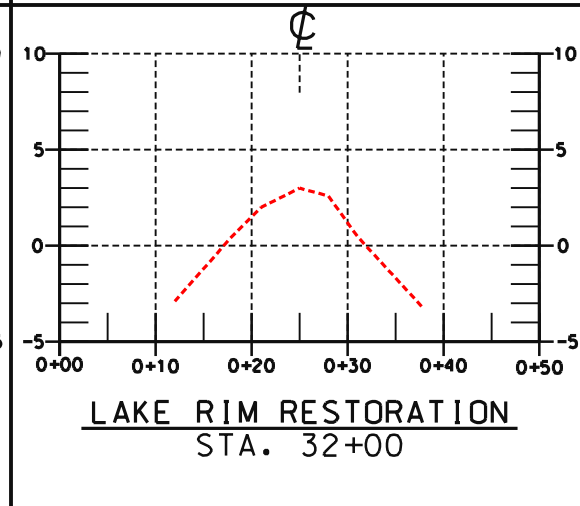
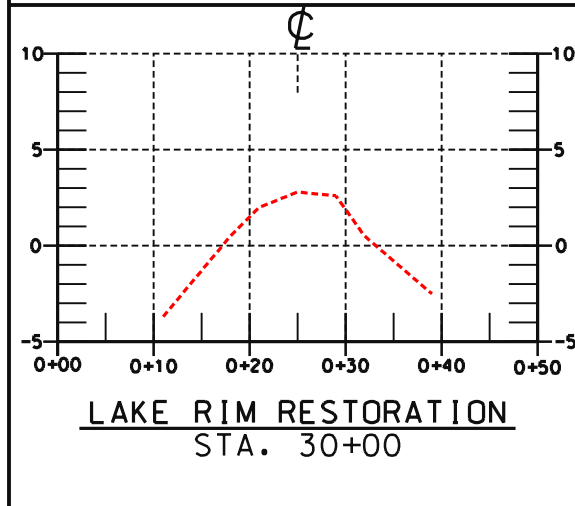
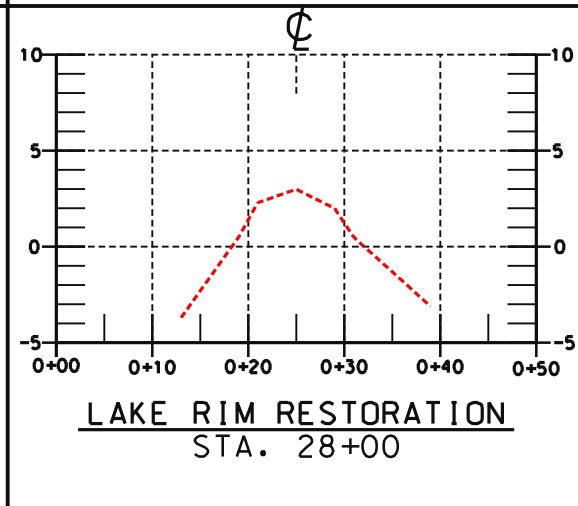
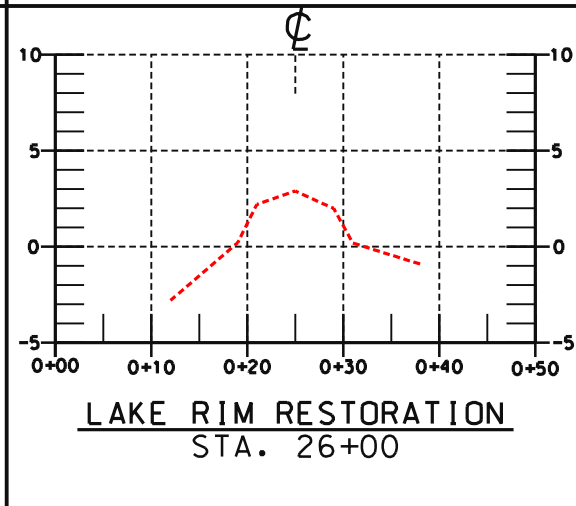
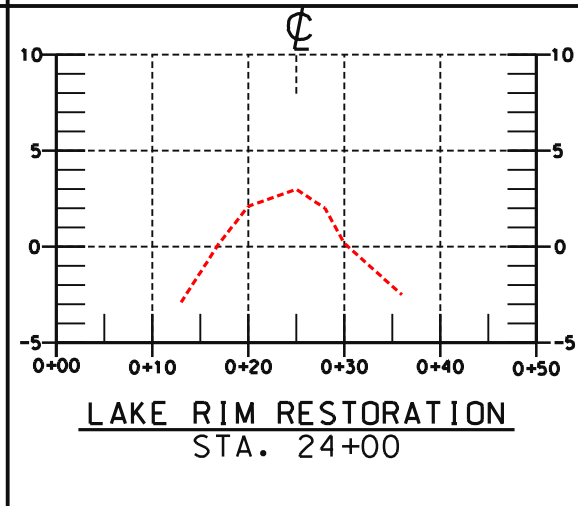
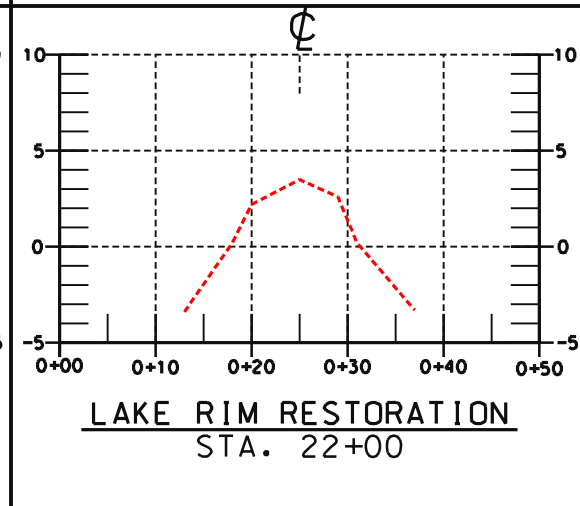
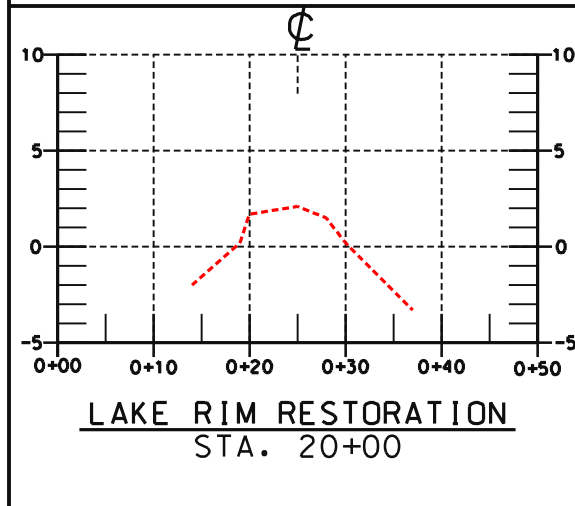
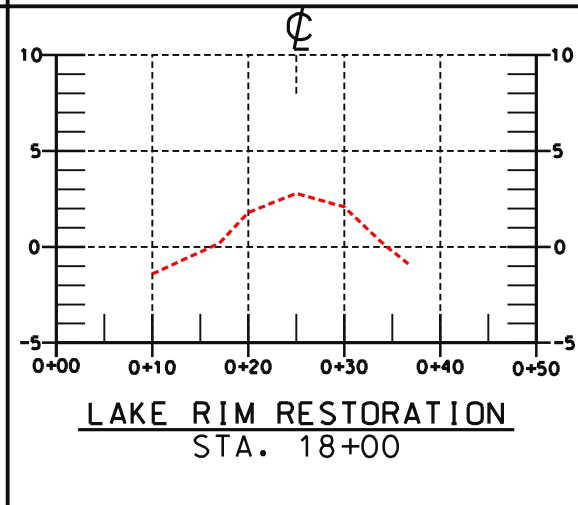
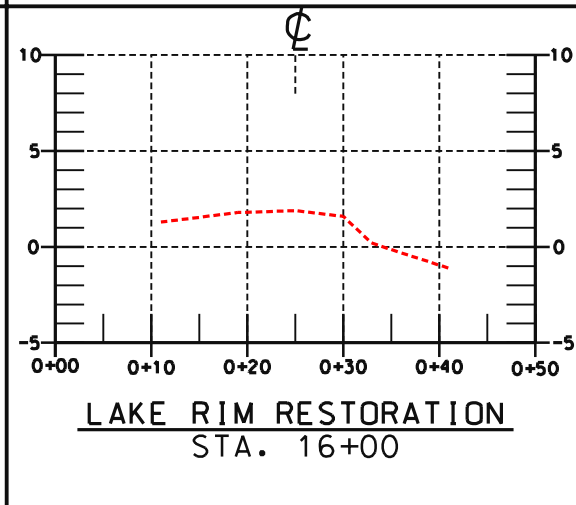
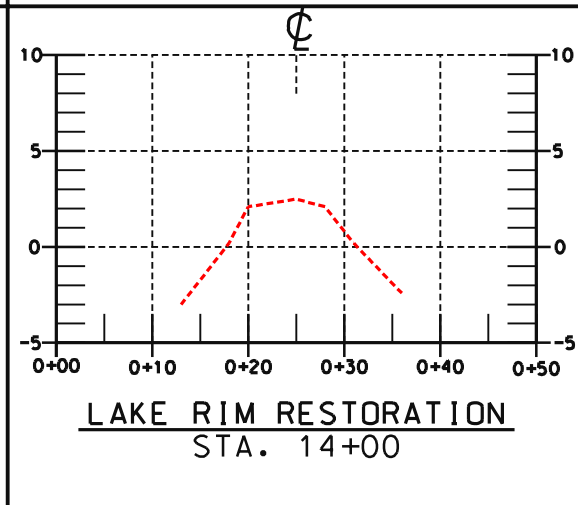
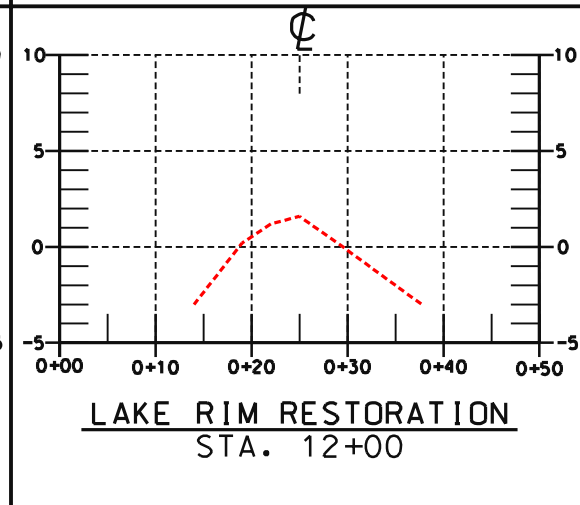
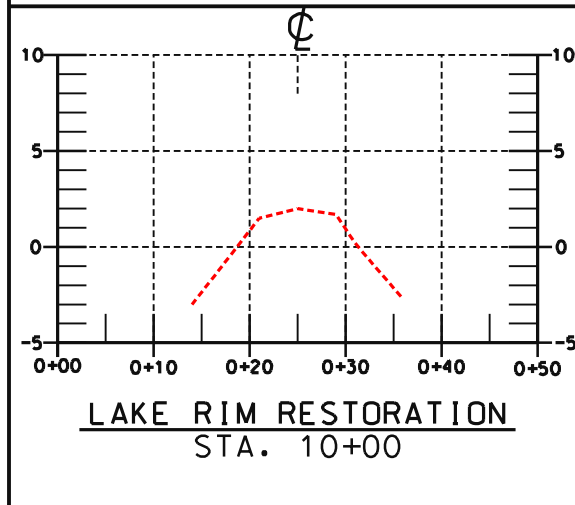
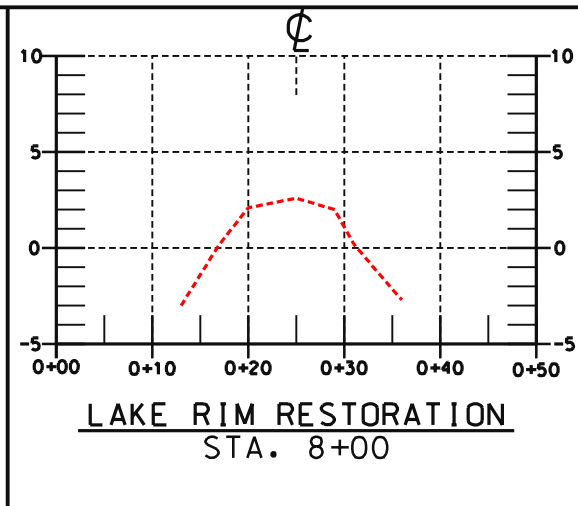
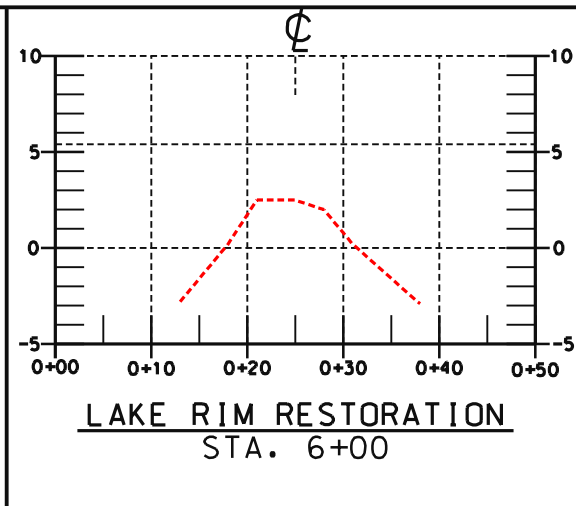
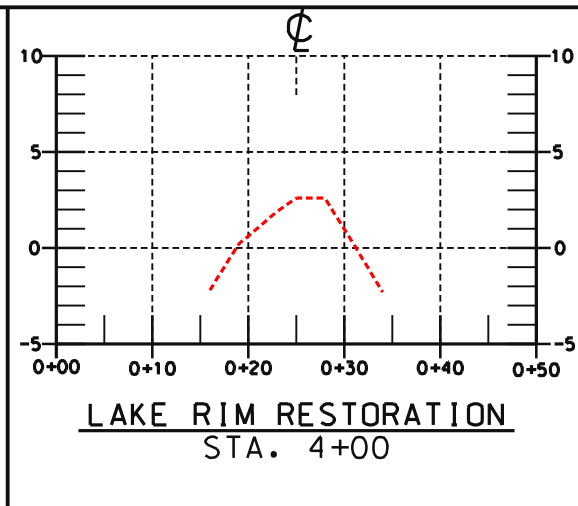
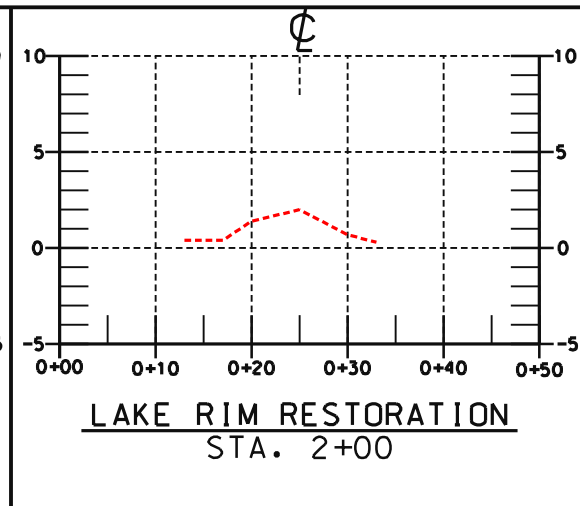
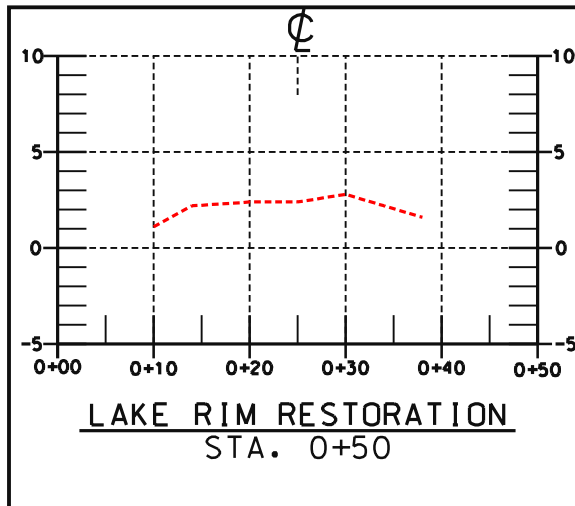
DATE	APPR.	TITLE

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CAD FILE NO.
LA271025A6.DGN

DRAWING NO.
LA-271

SHEET NO 25 OF 25



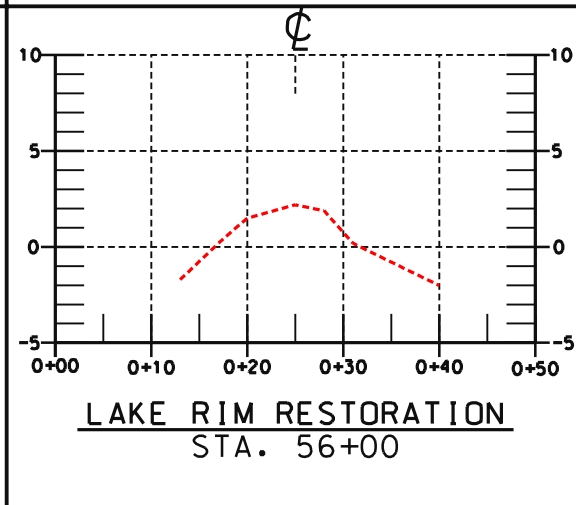
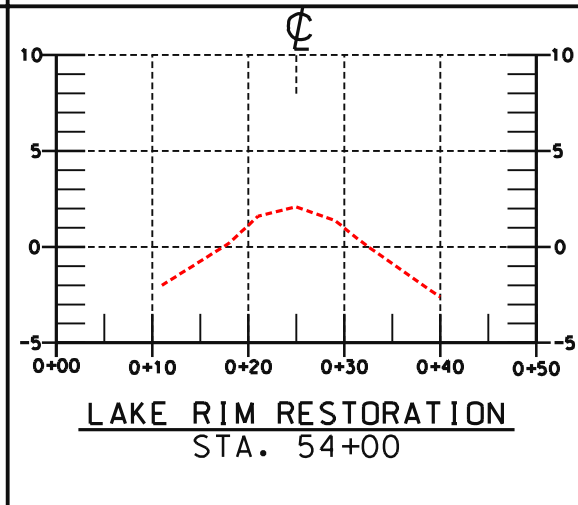
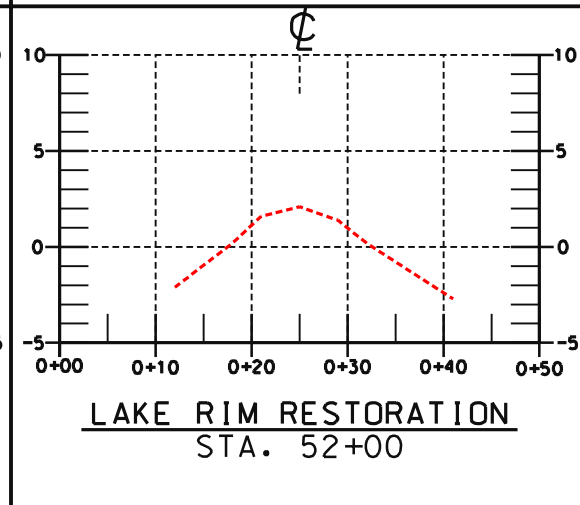
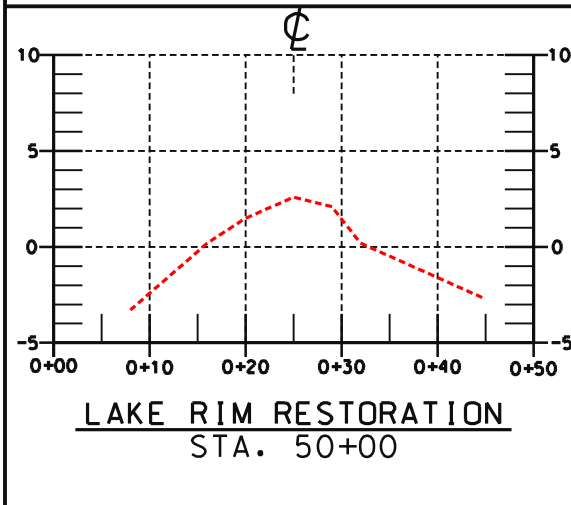
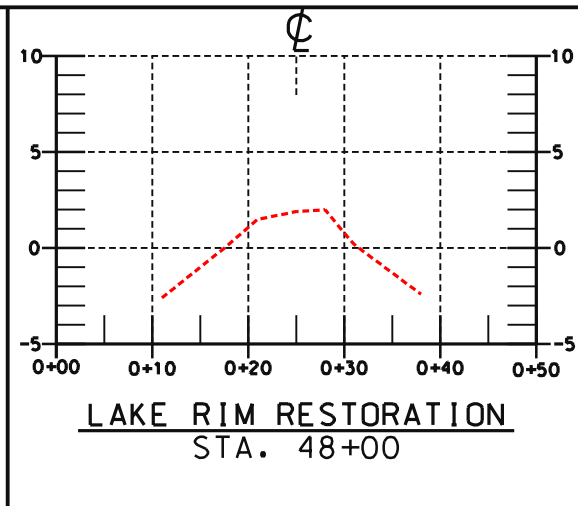
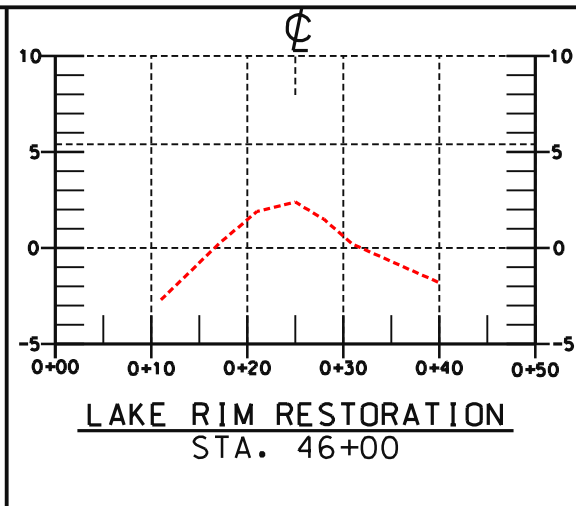
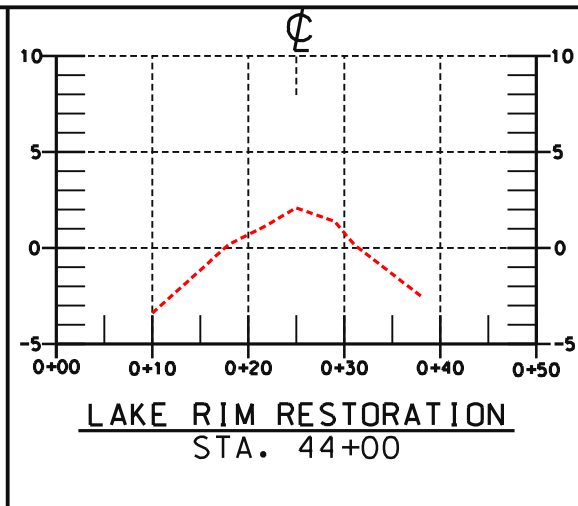
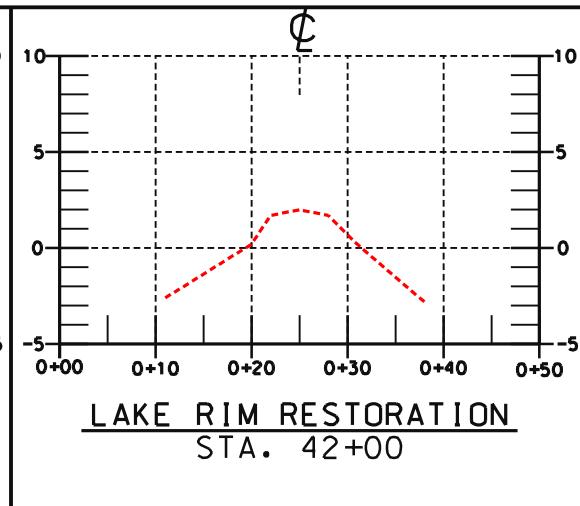
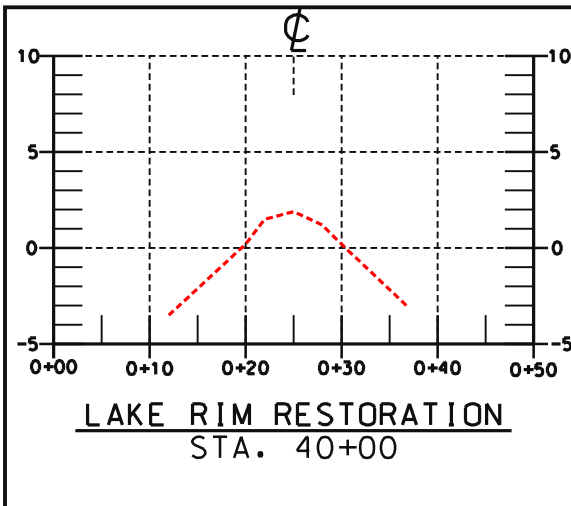
Approved by	E. J. BIRING, III	Date	06/00
Designed	L. S. GARNER	Traced	B. STICKER
Drawn	A. J. GREMILLION	Checked	B. STICKER
Title	STATE CONSERVATION ENGINEER	Date	01/02
	ALABAMA, LOUISIANA	Title	01/02

**LAKE RIM RESTORATION - SECTIONS
BA2 - CONSTRUCTION UNIT #2
AS-BUILT DRAWINGS
LAFOURCHE PARISH, LOUISIANA**

NO.	DATE	APPR.	TITLE

CAD FILENAME
LA271025A7.DGN
PROJECT NO.
LA271
SHEET NO 25A7 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE



"AS-BUILT"

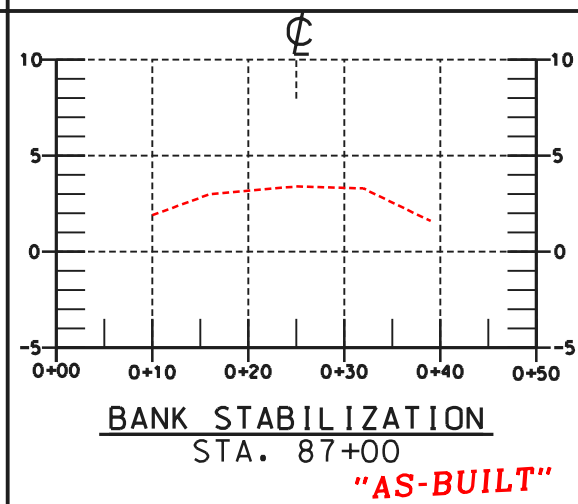
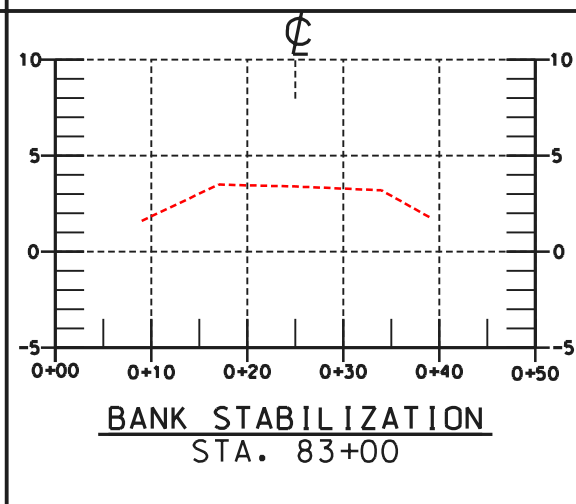
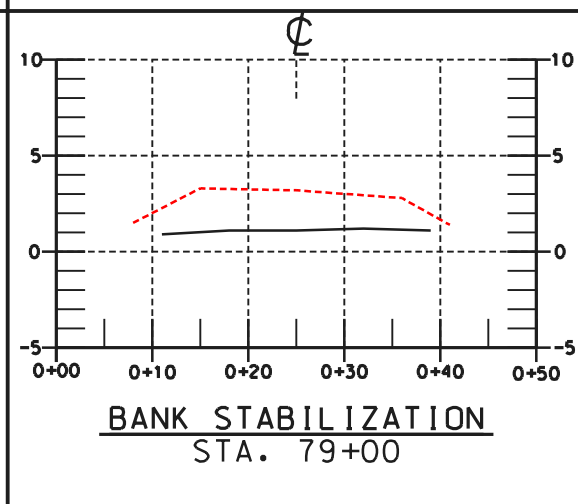
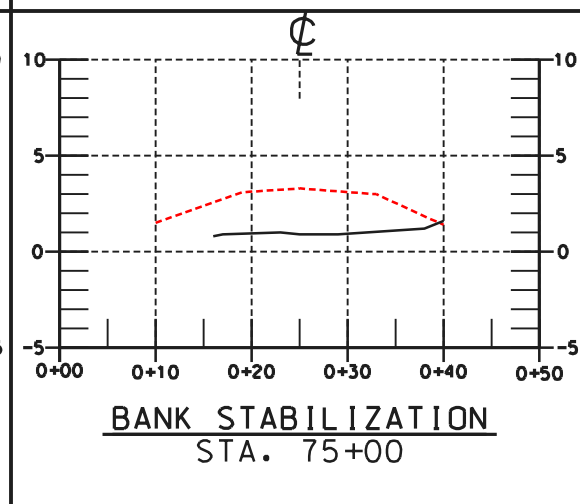
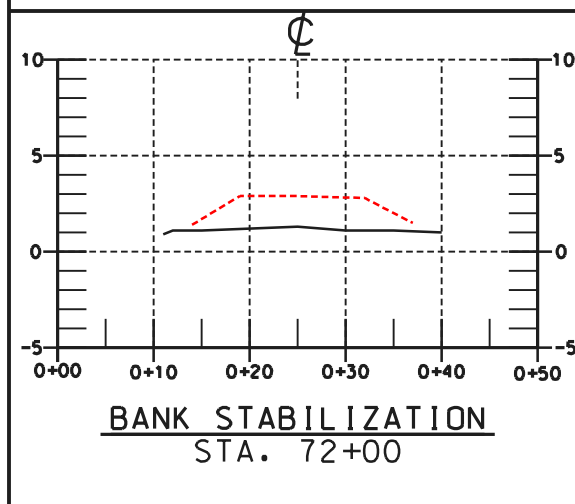
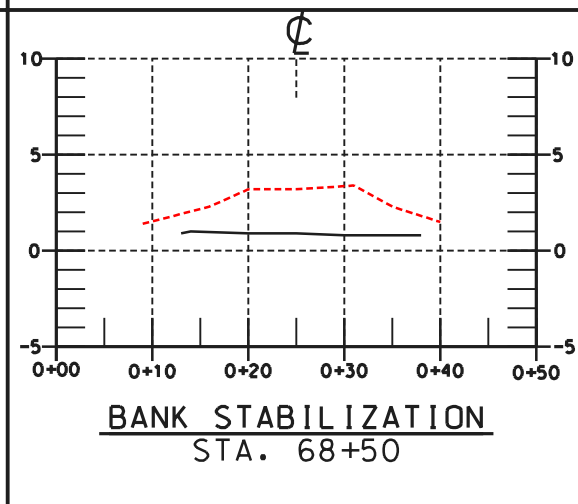
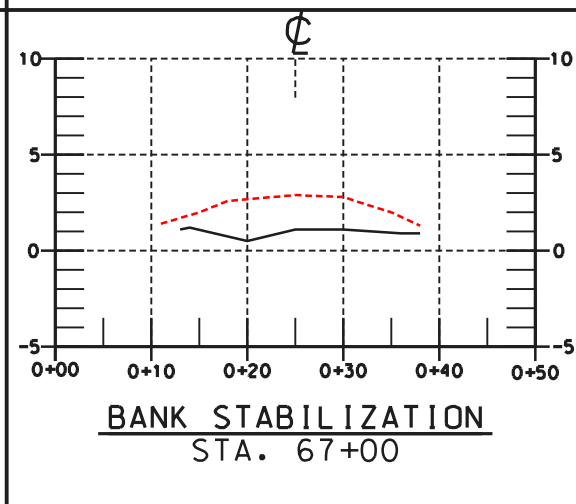
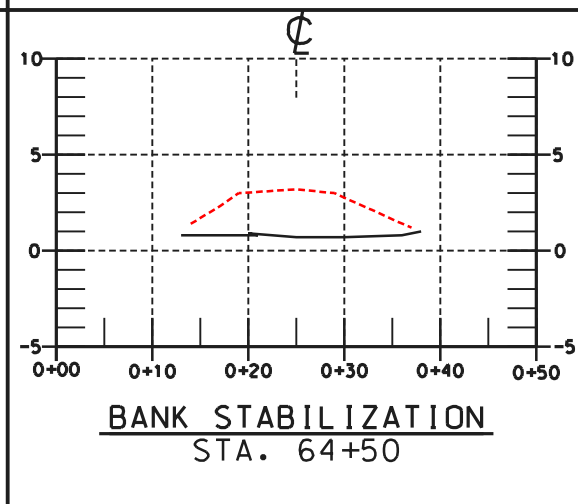
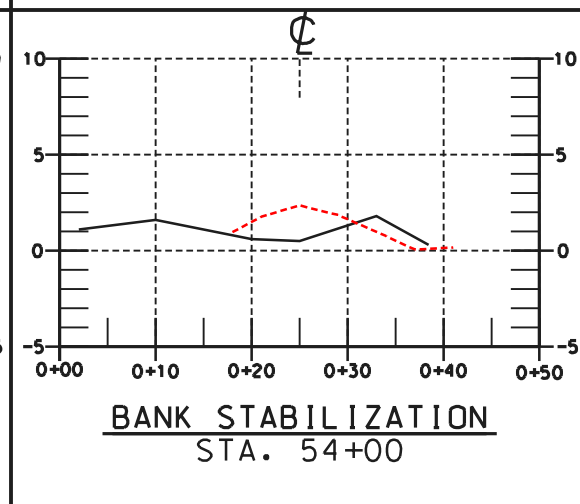
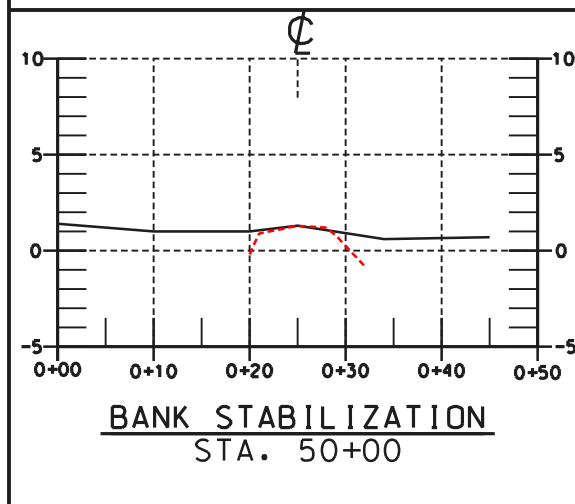
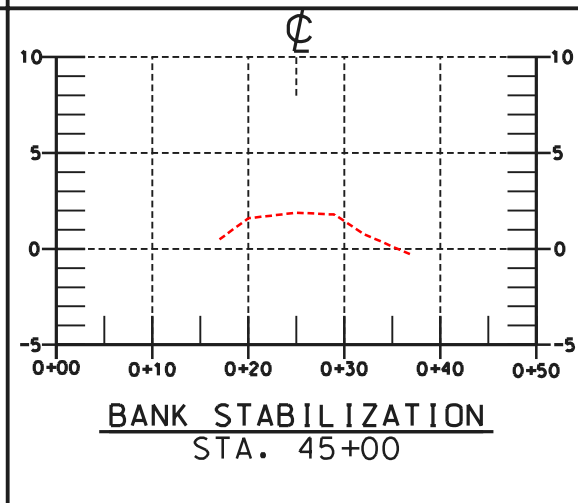
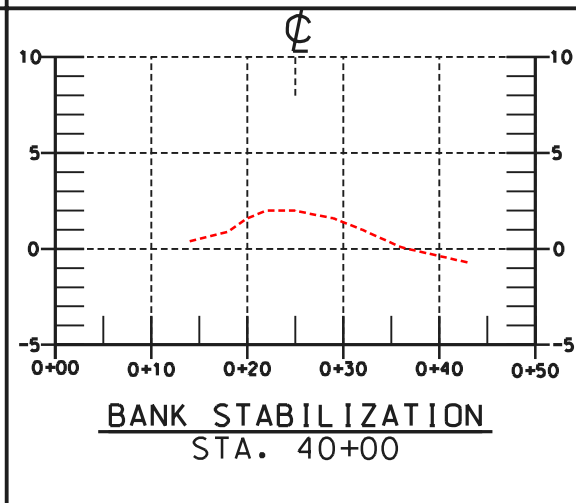
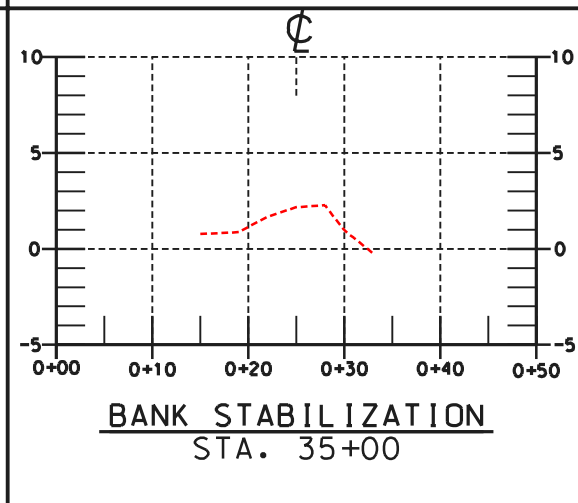
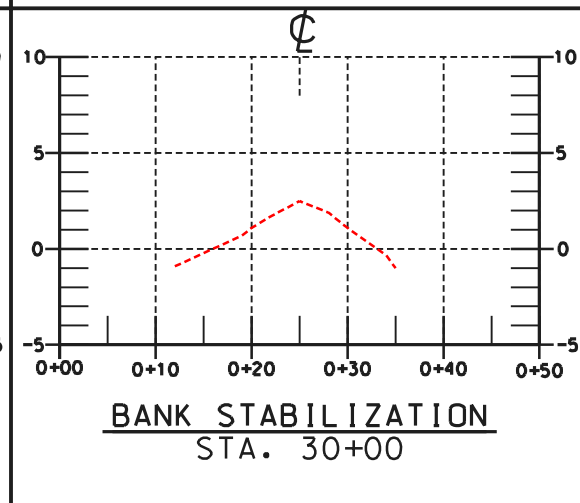
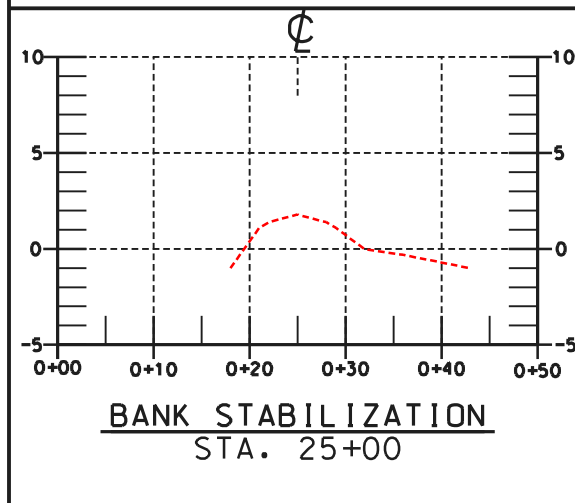
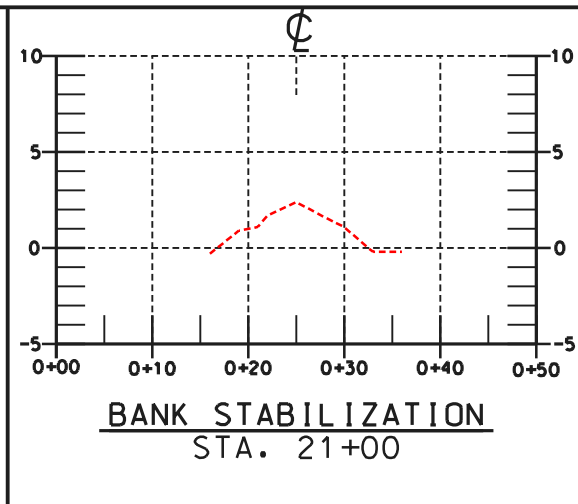
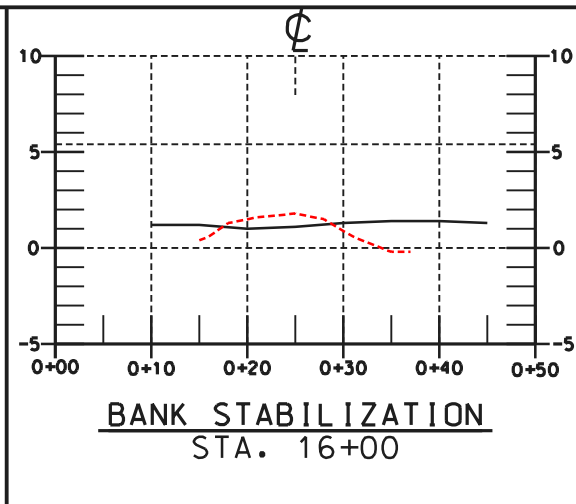
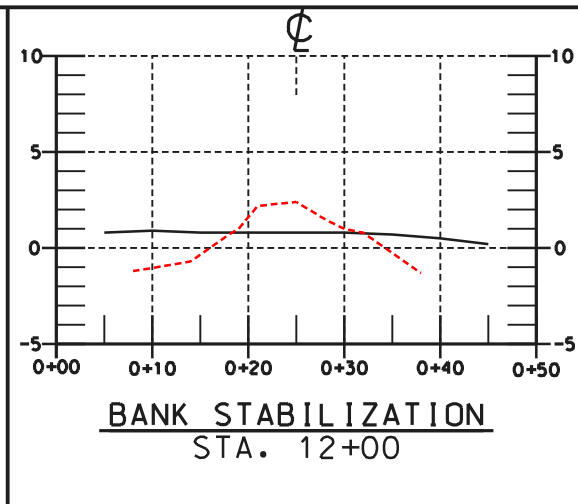
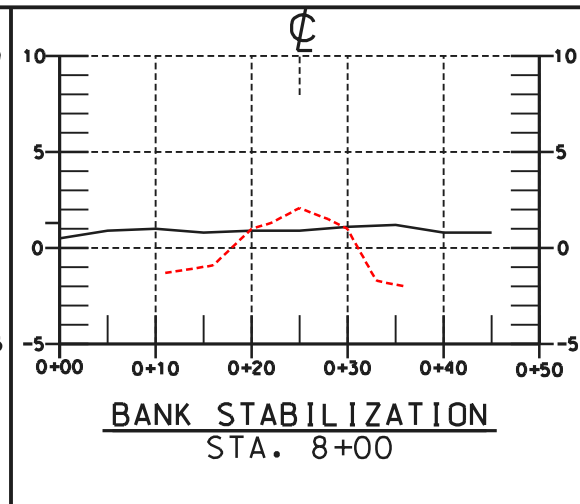
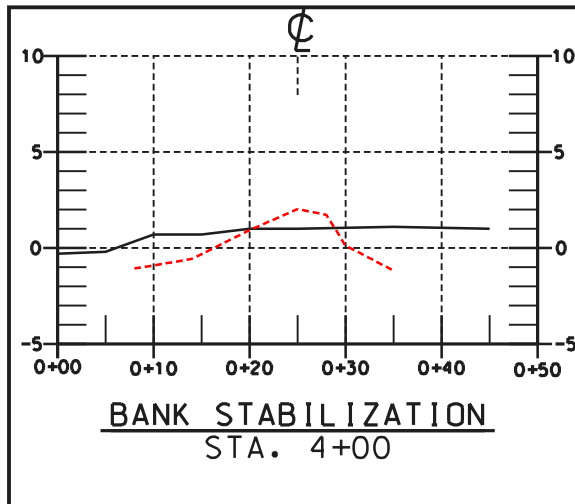
Designed	L.S. GARNER	Date	06/00
Drawn	A.J. GREMILLION	Approved by	E.J. BERING, III
Traced		Title	STATE CONSERVATION ENGINEER
Checked	B. STICKER		ALEXANDRIA, LOUISIANA

LAKE RIM RESTORATION - SECTIONS
BA2 - CONSTRUCTION UNIT #2
AS-BUILT DRAWINGS
LAFOURCHE PARISH, LOUISIANA

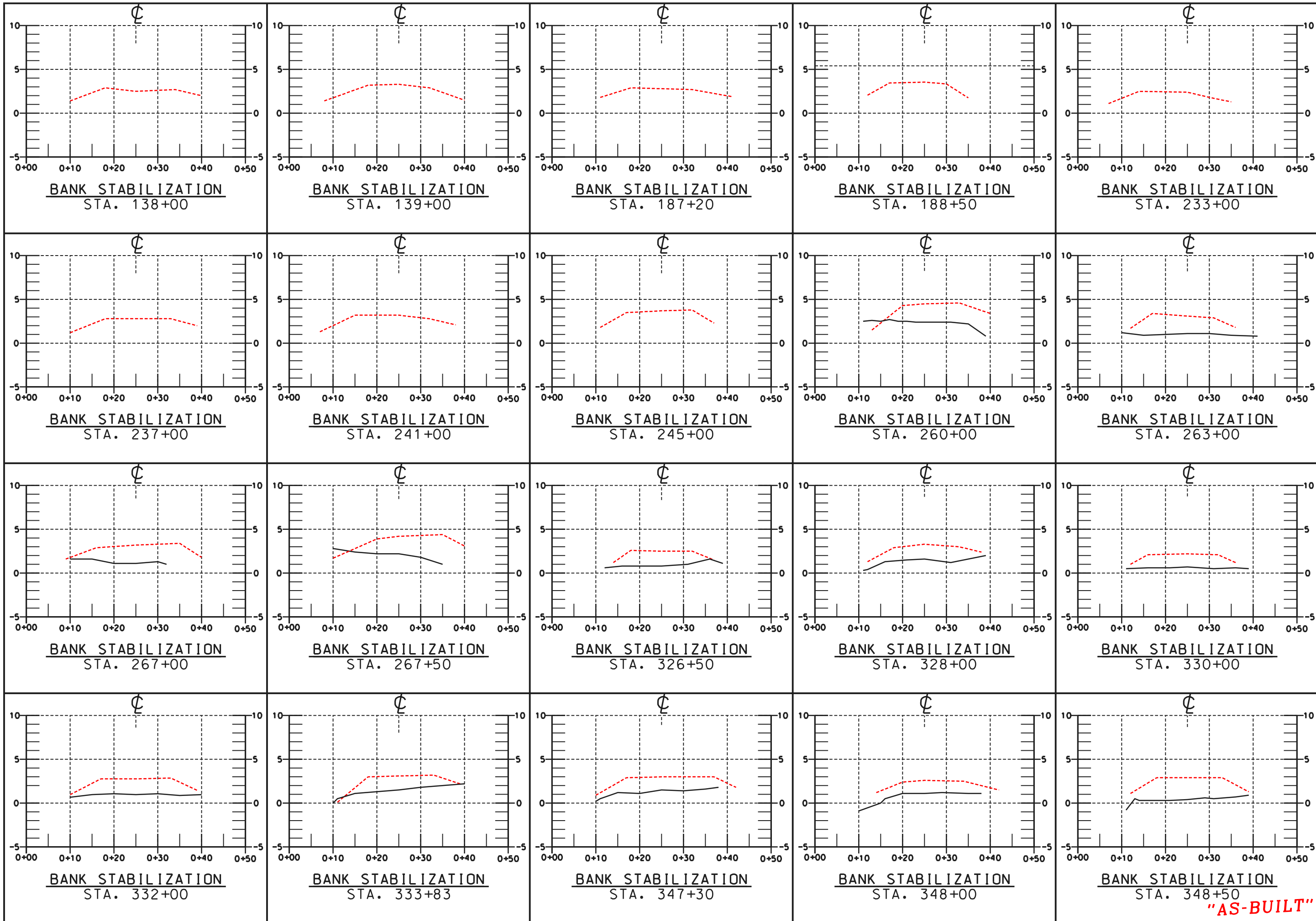
NO.	DATE	APPR.	TITLE

CAD FILENAME
LA271025A8.DGN
PROJECT NO.
LA271
SHEET NO 25A8 OF 25

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE



Date: 06/00 Approved by: E. J. BERING, III STATE CONSERVATION ENGINEER ALEXANDRIA, LOUISIANA	
Date: 01/02 Designed: L. S. GARNER Drawn: A. J. GREMILLION Traced: B. STICKER Checked: B. STICKER	Title:
SECTIONS-BANK STABILIZATION - AS-BUILT STA 4+00 - 87+00 B&Z CONSTRUCTION UNIT 2 LAFOURCHE PARISH, LOUISIANA	
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE	
REVISIONS NO. DATE APPR. TITLE	CAD FILENAME LA271025A9.DGN PROJECT NO. LA271 SHEET NO 25A9 OF 25



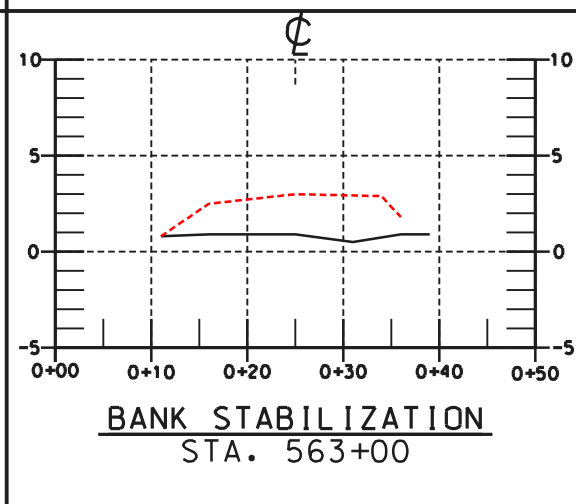
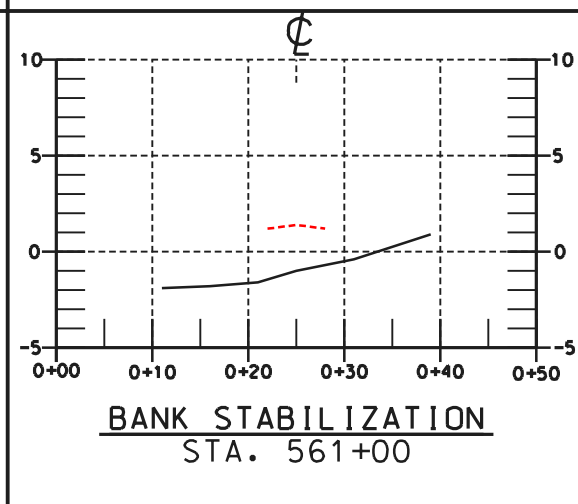
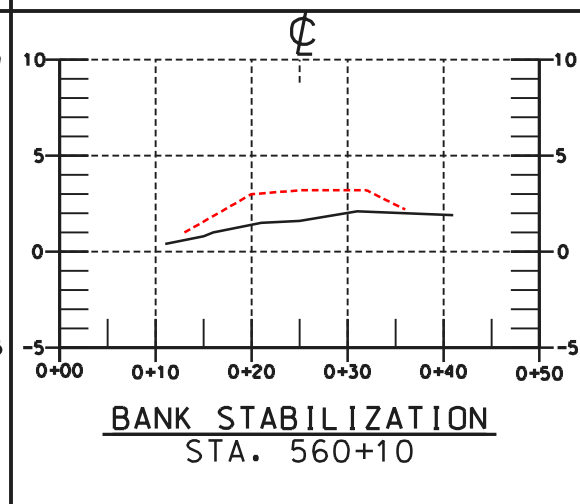
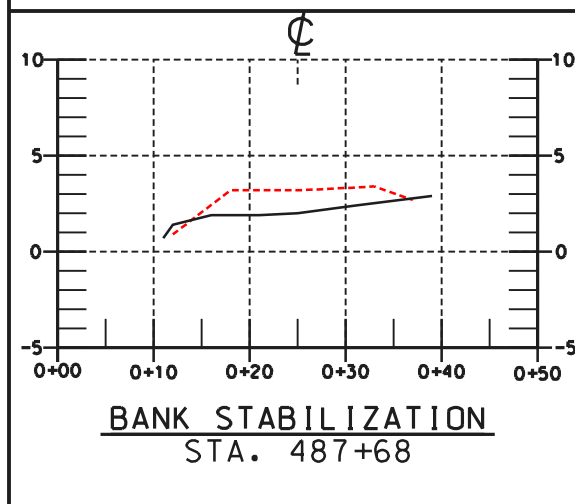
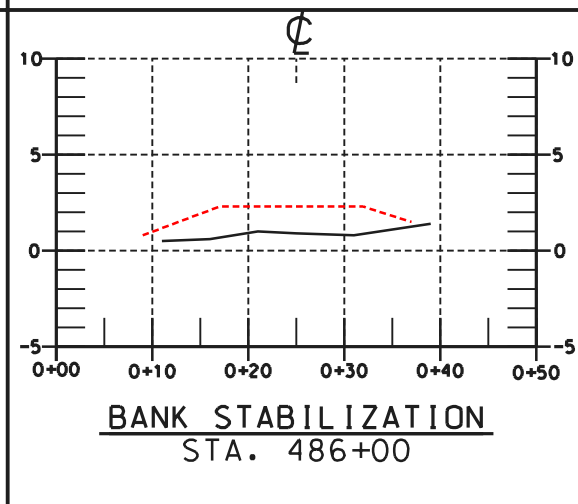
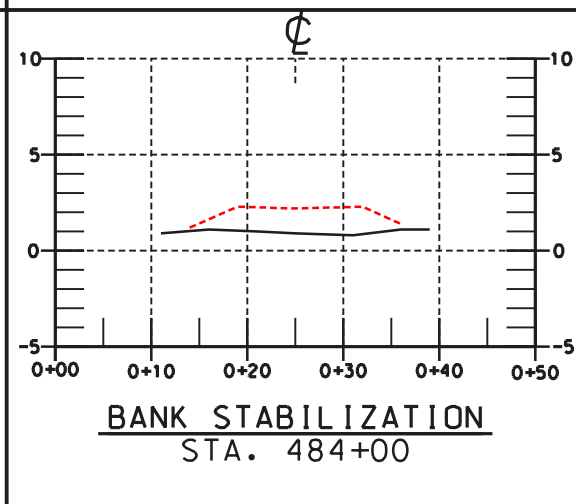
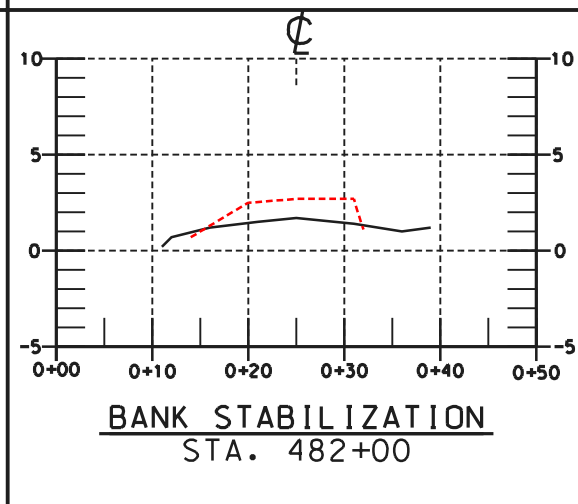
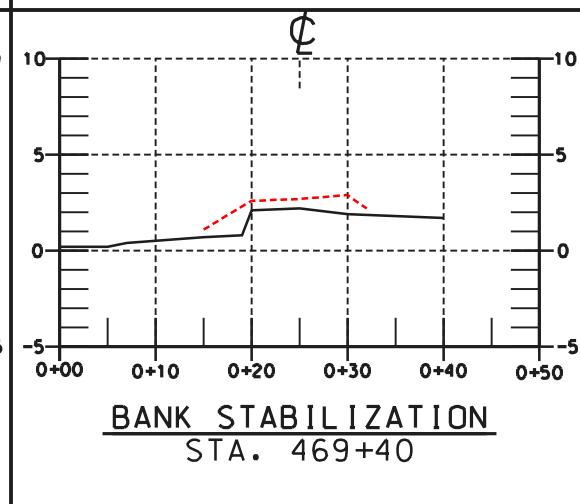
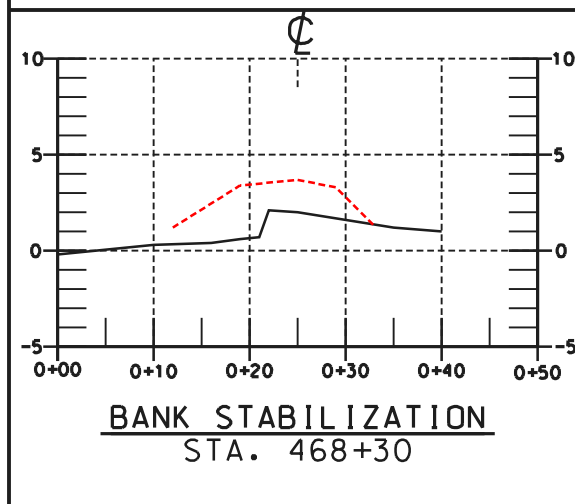
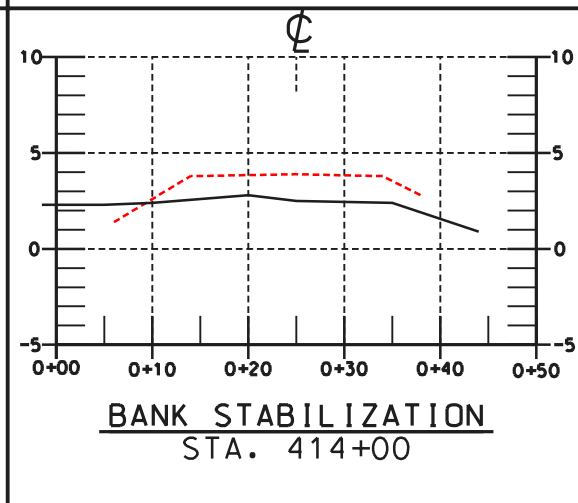
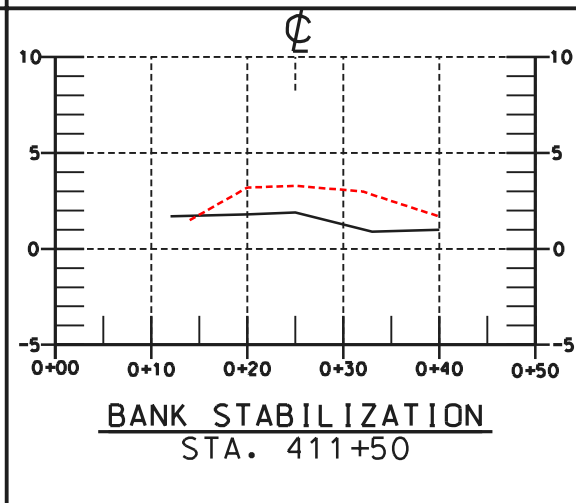
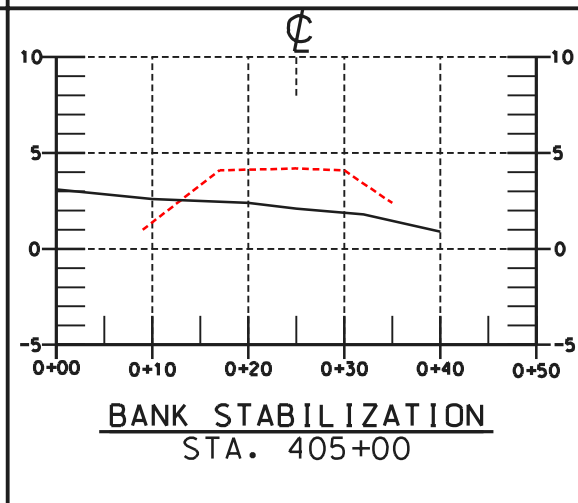
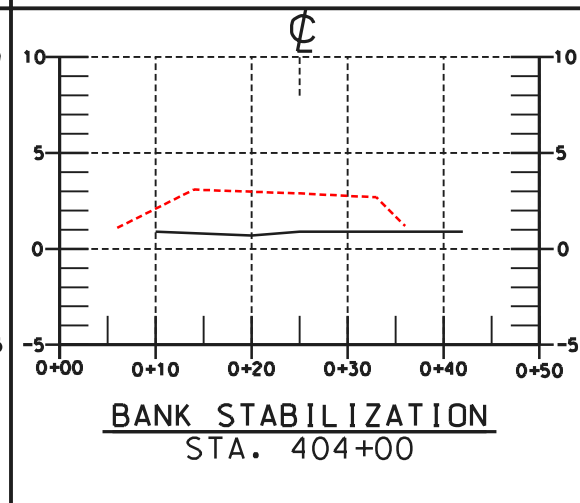
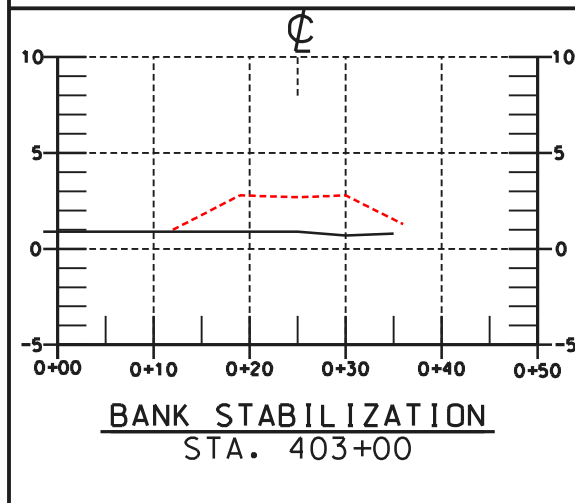
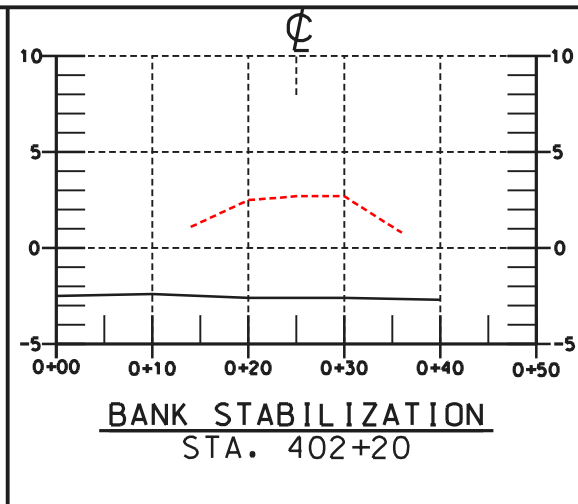
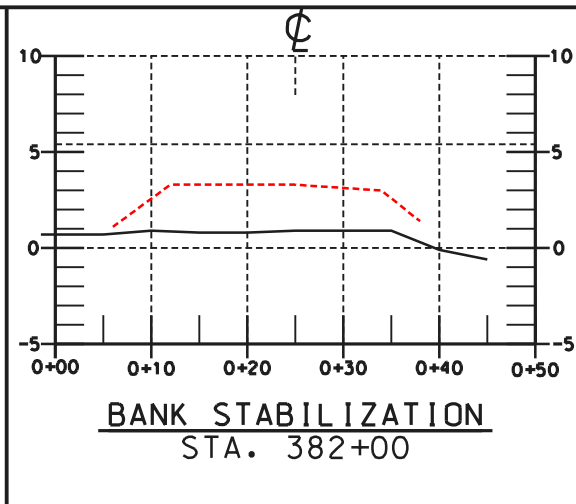
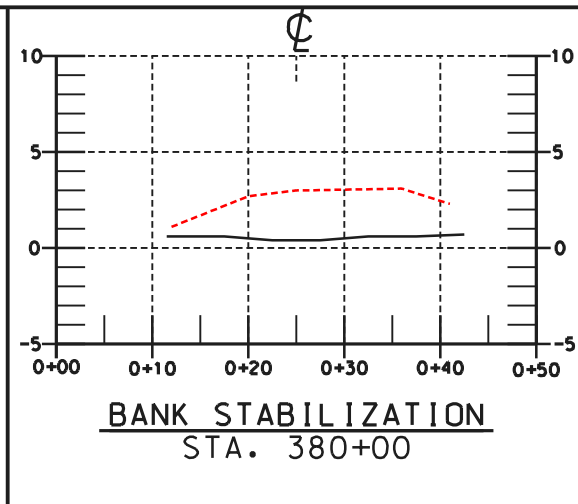
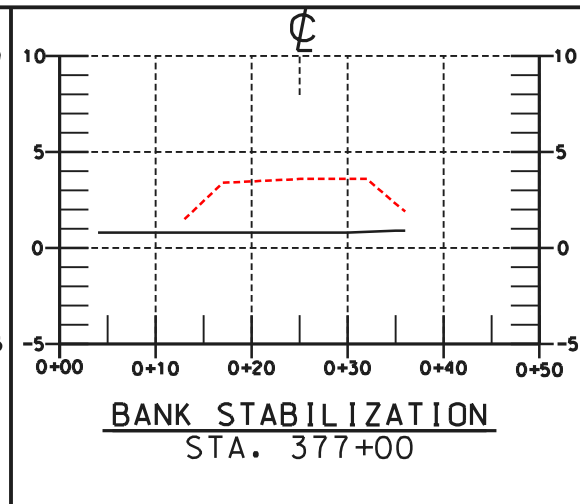
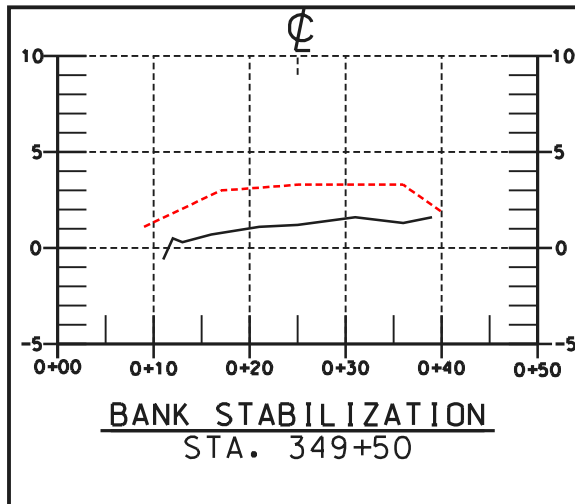
SECTIONS-BANK STABILIZATION - AS-BUILT
STA 138+00 - 348+50
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA

NO.	DATE	APPR.	TITLE

Date	06/00
Approved by	E. J. BIRING, III
Date	01/02
Drawn	A. J. GREMILLION
Traced	
Checked	B. STICKER
Title	STATE CONSERVATION ENGINEER
Title	ALABAMA, LOUISIANA

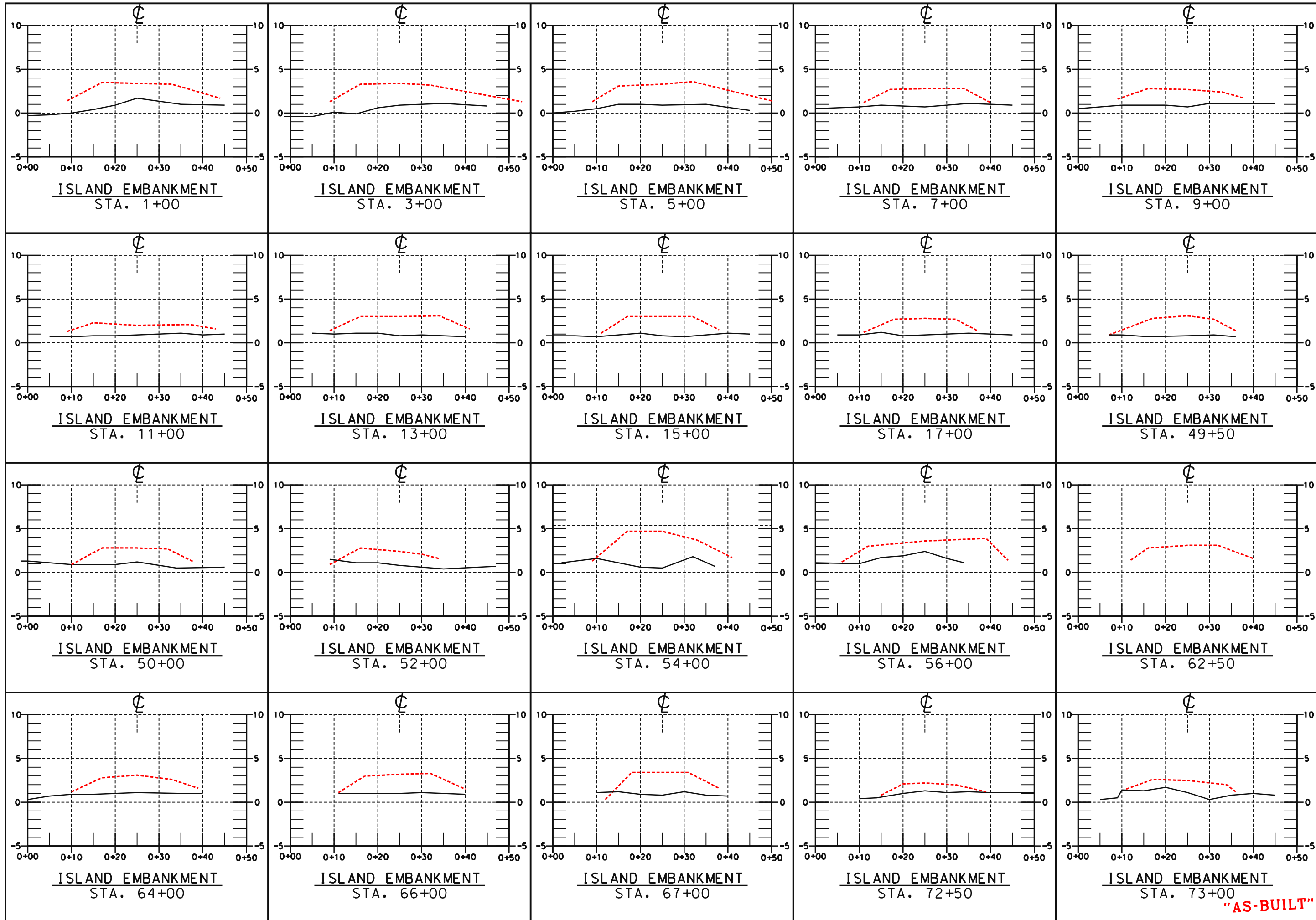
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CAD FILENAME
LA271025A10.DGN
PROJECT NO.
LA271
SHEET NO25A10 OF 25



"AS-BUILT"

REVISIONS NO. DATE APPR. TITLE	<p style="text-align: center; color: red; font-weight: bold;">SECTIONS-BANK STABILIZATION - AS-BUILT STA 349+50 - 563+00 BA2 CONSTRUCTION UNIT 2 LAFOURCHE PARISH, LOUISIANA</p>
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE	<p style="text-align: center; color: red; font-weight: bold;">"AS-BUILT"</p>
CAD FILENAME LA271025A11.DGN PROJECT NO. LA271 SHEET NO 25A11 OF 25	<p style="text-align: center; color: red; font-weight: bold;">"AS-BUILT"</p>
Date 06/00 01/02 01/02	Approved by: E. J. BERING, III STATE CONSERVATION ENGINEER ALEXANDRIA, LOUISIANA Title
Designed: L.S. GARNER Drawn: A.J. GREMILLION Traced: Checked: B. STICKER	Title



**SECTIONS - ISLAND BANK STABILIZATION
STA. 1+00 - STA. 73+00
BA2 CONSTRUCTION UNIT 2
LAFOURCHE PARISH, LOUISIANA**

Date	06/00	Approved by	E. J. BIERING, III	Title	STATE CONSERVATION ENGINEER
Date	01/02	Designed	L. S. GARNER	Title	ALABAMA, LOUISIANA
		Drawn	A. J. GREMILLION		
		Traced			
		Checked	B. STICKER		

NO.	DATE	APPR.	TITLE

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

CAD FILENAME
LA271025A12.DGN
PROJECT NO.
LA271
SHEET NO25A12 OF 25

"AS-BUILT"

ATTACHMENT V

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

**PROJECT PERMITS
&
PERMIT AMENDMENTS**

Construction Unit No. 1

LAFOURCHE PARISH COUNCIL

VERNON F. GALLIANO, President



December 13, 1991

Mr. Benny Landreneau, Assistant
Conservationist for Water Resources
3737 Government Street
Alexandria, Louisiana 71302

REF: PARTICIPANT LAFOURCHE PARISH - COASTAL ZONE MANAGEMENT
ADVISORY COMMITTEE MEETING ON DECEMBER 10, 1991, GALLIANO, LA

Dear Mr. Landreneau:

The purpose of this letter is just to say **"THANK YOU!"** As you know, we've taken special pride in our "Plan of Action" in Lafourche Parish; but, I have always felt that you provide us, in turn, the additional support needed toward our continuing efforts to permit, fund, and implement the Plan of Action.

Also, as per your request at the meeting, enclosed please find a copy of our signed Corps of Engineers permit for our "Plan of Action".

With many thanks and holiday good wishes, I am,

Sincerely,

LAFOURCHE PARISH COUNCIL

A handwritten signature in cursive script that reads "Harold J. Bergeron".

Harold "Hal" J. Bergeron
CZM Coordinator

HJB/ddo

Enclosure

P. O. DRAWER 5548 • THIBODAUX, LOUISIANA 70302 • 504-446-8427

STEVEN M. GREMILLON, Administrator
ROBERT K. SMITH, Sec. Treasurer

MARY C. FLOWERS, Dist. 1
ROLAND J. SOIGNET, Dist. 2
ISAAC JOHNSON, JR., Dist. 3

ROBERT P. MAGUIN, Dist. 4
ERNEST "TBBY" BOUDREAU, Dist. 5
TERRY J. ORDOYNE, Dist. 6

RAY ZERINGUE, Dist. 7
RAPHAEL A. CHAUVIN, JR., Dist. 8
GERALD J. "BUZZ" BREAU, Dist. 9

LOUIS A. BREAU, Dist. 10
ANDREW "DREW" JOHNSON, Dist. 11
HENRY BRUNET, Dist. 12

JOHN DANDS, Dist. 13
ERRDL CHERAMIE, Dist. 14
DANIEL LORRAINE, Dist. 15

It is necessary that you notify the District Engineer, in writing, prior to commencement of work and also upon its completion. The enclosed Notice of Authorization, ENG Form 4336, is to be conspicuously displayed at the site of work.

Sincerely,



Albert J. Guillot
Assistant Chief
Operations and Readiness Division

Enclosure

DEPARTMENT OF THE ARMY PERMIT

Permittee Lafourche Parish Council

Permit No. SE(Lafourche Parish Wetlands)743

Issuing Office New Orleans District

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

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

Project Description: To dredge for material to construct and maintain overflow banks, marsh areas, and plugs, and install and maintain culverts, fixed crest weirs with boat bays, a variable crest weir and rock weirs with navigation openings, in accordance with the drawings attached in 42 sheets, undated, and revised June 14, 1991.

Project Location: In Lafourche Parish, in an area southerly from U.S. Highway 90 and between Raceland and Des Allemands, Louisiana to the Clovelly Oil and Gas Field, and easterly from the Bayou Lafourche Ridge and westerly from Bayou Des Allemands, Lake Salvador, Bayou Perot, and Little Lake.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on November 30, 1996. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

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

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

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

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

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

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

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

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

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

Vernon P. Galliano
(PERMITTEE)

Nov. 22, 1991
(DATE)

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

Albert J. Guillot
~~CONTRACT ENGINEER~~

Dec 4, 1991
(DATE)

Albert J. Guillot, Assistant Chief, Operations and Readiness Division
for James V. Hall, Deputy District Engineer

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

(TRANSFEREE)

(DATE)

NOTE :

PAGE 2 IS BLANK - *[Signature]*

SPECIAL CONDITIONS:

7. The permittee shall operate the water control structures according to the following schedules:
 - a. The flapgates on the inside of the culverted structures along the Gulf Intracoastal Waterway (GIWW) shall remain in the down position (flapping) at all times. The screwgates shall remain open at all times except when the GIWW salinity exceeds 2 ppt. at site number 71. Monitoring of the salinities shall be done on a weekly basis when the screwgates are closed. After one year of monitoring data has been collected, an interagency team composed of representatives from the U.S. Army Corps of Engineers (CE), Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), Soil Conservation Service (SCS), Louisiana Coastal Management Division (CMD), Louisiana Coastal Restoration Division (CRD), Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Department of Environmental Quality (DEQ) and the Lafourche Parish Council (LPC) shall reassess the salinity closure limits to insure that the structures remain open 75% of the time.
 - b. Rock weir elevations shall not exceed a height of 0.5 of a foot below marsh elevation (BML). The navigation channels shall be of sufficient depth and width and maintained to provide boat passage at mean low water.
 - c. The stop logs in the variable crest weir shall be set at 0.5 of a foot BML from April to November and removed from November to April to allow for sediment and nutrient inflow during the spring.
8. Construction of the overflow bank shall not block natural tidal channels into the marsh. Only those channels resulting from shoreline erosion or retreat into interior ponds and/or waterways or in broken marsh areas shall be blocked. Overflow banks shall not be constructed on top of existing solid marsh where the natural bank is equal to or greater than 0.5 of a foot above marsh elevation. Vegetated shorelines and tidal waterways that are not in an eroded condition shall not have dredged material deposited on them. Overflow banks shall not exceed adjacent marsh elevations by more than 0.5 of a foot under any circumstance.
9. In areas of "no channelized water exchange", the permittee shall deposit dredged material only in shallow open water areas where depths do not exceed -2.0 feet NGVD. The height and width of the deposited material shall not exceed that of the existing spoil bank which it ties into.
10. The permittee shall install a flapgated culvert in the earthen plug at site No. 72 should an impounded situation arise in the marsh adjacent to the site.
11. Final plug heights shall not exceed 3.0 feet NGVD or the height of the spoil bank which it ties into, which ever is greater.
12. The permittee shall obtain dredged material from open waters outside of the marsh area. The permittee shall avoid dredging in areas supporting submergent vegetation.

13. Retention dikes around marsh restoration sites along Temple Bay, Little Lake and Bay L'Ours shall not exceed an elevation of 2.0 feet NGVD during hydraulic placement of dredged material. The dikes shall be allowed to settle or erode to an elevation not to exceed 0.5 of a foot above natural marsh elevation after the initial placement of the material is complete.
14. Should a review of the area indicate waterlogging or impoundment conditions exist as a result of project implementation, the permittee shall take corrective action (i.e. gapping spoil banks and/or adding control structures) to return the area to a more normal hydrologic regime after obtaining the necessary authorization from the CMD and the CE.
15. The permittee shall monitor the management area as outlined in the Coastal Restoration Division and Lafourche Parish documents entitled "Monitoring Plan for BA-2 GIWW to Clovelly Project" and "Monitoring Plan Project No. BA-6 U.S. 90 to GIWW Wetland (copy attached)". Should monitoring of the project area cease for any reason, abandonment of the management will be assumed to have occurred.
16. The permittee shall provide an annual report to the CE, CMD and other interested resource and regulatory agencies. The annual report shall include water level readings and salinity data, control structure operation and maintenance, changes in emergent vegetation and habitats, and land/water ratios based on the analysis of aerial photography. The annual report shall also evaluate whether the management goals of salt water intrusion, erosion control, land loss prevention, freshwater and sediment introduction and water level control are being achieved.
17. The management plan shall be reviewed by the interagency team composed of the permittee and representatives of the regulatory and resource agencies within five years of permit issuance or as requested by the permittee and/or by members of the team to discuss the contents of the annual report. The interagency team will have the opportunity to participate in and contribute to the formulation and modifications of the monitoring efforts as well as any modifications to the plan itself as required to reduce project related direct and secondary adverse impacts.
18. All future modifications in the character of work or control structure operation shall be submitted to the CMD or CE for possible permit modification or revision.
19. The permittee is aware that implementation of mariculture practices within the management area shall require authorization under separate individual permit where the project requires dredging or installation of structures requiring Section 10 and Section 404 permits.
20. Maintenance dredging for material to maintain overflow banks, plugs and marsh restoration areas is authorized under this permit for a period of ten (10) years from the date of permit issuance. Maintenance operations shall not exceed specifications as shown on permit drawings without proper authorization from the regulatory agencies. Material for maintenance of these structures shall be obtained from open water sites not supporting submergent vegetation and outside of the management area or hauled from nonwetland sites.

21. The permittee shall be required to remove, or make inoperable, structures authorized by this permit to assure unimpeded water exchange should the management plan be abandoned. Maintenance activities of overflow banks and plugs shall be discontinued if the plan is abandoned unless authorization of such activities is obtained under separate individual permit.
22. Wetlands that are not specifically part of the project site but are disturbed during construction, including the temporary crossing of wetland areas, shall be restored by the permittee to their preproject elevations and conditions including replanting if deemed necessary.
23. The permittee shall utilize mats and confine activities to matted areas when work is done by heavy equipment in wetland areas. When work is completed, the mats will be removed.
24. The permittee shall be aware that no work may be performed under this permit that impacts real interests under the jurisdiction of the New Orleans District until a waiver or real estate instrument is issued to the permittee by the Real Estate Division of this District.
25. The permittee shall not place structures across any state-owned water bottom without the approval of the Louisiana Department of Natural Resources, Division of State Lands. The permittee will be responsible for contacting the Division of State Lands to ascertain which, if any, of the structures will be placed over state-owned water bottoms.
26. Barriers will be visible to the boating public both day and night so as to reduce the possibility of boat collision with the barriers.
27. The permittee shall be aware that under 33 CFR 330.4(a)(1), signs may be placed as aids to navigation warning boaters of upcoming barriers in the waterways provided they are approved and installed with the requirements of the US Coast Guard.
28. You must install and maintain, at your expense, any safety lights, signs and signals prescribed by the US Coast Guard, through regulations or otherwise, on your authorized facilities.
29. The permittee shall make such changes in the permitted project or in its configuration as may be necessary to satisfactorily meet future changes in the location or the section of existing Federal and/or state project waterways or levees, or changes in the generally prevailing conditions in the vicinity that may be required in the public interest. The permittee shall bear the cost of such changes.
30. The permittee shall coordinate with the State Historic Preservation Officer to assure that the proposed project does not inadvertently adversely affect archeological sites that occur along the shores of Bayou Des Allemands, Lake Salvador, the Gulf Intracoastal Waterway and Little Lake.

31. The permittee shall provide to the Corps of Engineers a schedule of construction (timeframe) for the Clovelly Canal closure prior to commencement of project construction.
32. The permittee is aware that the Section E hurricane protection levee will be raised beginning in Jan 93, with another raising in 1998. The use of the Clovelly Canal will be requested of the levee board as a bucket dredged water access route. (NOTE: the Section E HPL extends from Breton Canal, north of the NW corner of Clovelly Farms).
33. The permittee is advised that work shown on maps D-5, D-6, D-7, E-5, and F-5 are within areas where the Government has disposal easements and the Government intends to exercise its rights to utilize these areas during maintenance dredgings.



This notice of authorization must be conspicuously displayed at the site of work.

United States Army Corps of Engineers

December 4 19 91

A permit to dredge for material to construct and maintain overflow banks, marsh areas and plugs and install and maintain culverts, fixed crest weirs with boat bays, a variable crest weir and rock weirs with navigation openings, in Lafourche Parish, in an area southerly from U.S. Hwy. 90 between Raceland and Des Allemands, Louisiana to the Clovelly Oil and Gas Field, and easterly from the Bayou Lafourche Ridge and westerly from Bayou Des Allemands, Lake Salvador, Bayou Perot and Little Lake, has been issued to Lafourche Parish Council on 12-04 19 91

Address of Permittee Post Office Drawer 5548 Thibodaux, Louisiana 70301

Permit Number

SE(Lafourche Parish Wetlands)743

Albert J. Guillot
Albert J. Guillot
For the District Commander

MONITORING PLAN

Project No. BA-2 GIWW to Clovelly Wetland

October 7, 1991

Project Objective - Re-establish hydrologic conditions that existed before major land use alterations (i.e.: oil field canals)

Measure effectiveness
with data from
monitoring element #:

Project Goals:

- | | |
|---------------|---|
| 1, 2, 5, 6, 7 | 1) Greater freshwater retention to prevent rapid salinity increases and resultant loss of vegetation. |
| 3, 5, 6, 7 | 2) Water exchange through sheet-flow as opposed to an expanding network of tidal channels with progressive erosion of the dissected wetlands. |
| 3, 4 | 3) Enhance sediment input. |

Monitoring elements needed to evaluate progress in meeting the project objective and goals:

- *1) Salinity. (All 4 monitoring stations)
- 2) Measure emergent vegetation to open water ratio by comparison of aerial photography.
- 3) Measure marsh surface elevation changes (accretion, erosion) by installing feldspar marker plots throughout the project area. See monitoring station Location Map for proposed locations.
- 4) Soil samples taken from project and analysis (analysis needed but not limited to - pH, O.M., extractable cations, total acidity and heavy metal analysis)
- *5) Water level. (All 4 monitoring stations)
- *6) Flow (velocity and direction)-(at 1 monitoring station)
- *7) Rainfall (at 1 monitoring station)
- * Monitoring stations will be equipped to measure these parameters. Four stations, one outside the project and three inside, will be installed and maintained by DNR/CRD. See monitoring station Location Map.

MONITORING PLAN (continued)

NOTE: Location of monitoring stations and marker plots are proposed. CRD will accept suggestions on alternate sites.

NOTE: Evaluating sheet flow will be done by comparison of water levels and existing marsh levels (MSL marsh level elevation will be established.)

NOTE: Monitoring requirements from CUP and 404 Permits will be included in the final plan.

DEPARTMENT OF THE ARMY PERMIT

Permittee Lafourche Parish Council

Permit No. SE(Lafourche Parish Wetlands)743

Issuing Office New Orleans District

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

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

Project Description: To dredge for material to construct and maintain overflow banks, marsh areas, and plugs, and install and maintain culverts, fixed crest weirs with boat bays, a variable crest weir and rock weirs with navigation openings, in accordance with the drawings attached in 42 sheets, undated, and revised June 14, 1991.

Project Location: In Lafourche Parish, in an area southerly from U.S. Highway 90 and between Raceland and Des Allemands, Louisiana to the Clovelly Oil and Gas Field, and easterly from the Bayou Lafourche Ridge and westerly from Bayou Des Allemands, Lake Salvador, Bayou Perot, and Little Lake.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on November 30, 1996. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

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

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

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

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

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

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

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

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

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

Vernon P. Galliano
(PERMITTEE)

Nov. 22, 1991
(DATE)

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

Albert J. Guillot
~~CONSTRUCTION DIVISION~~

Dec 4, 1991
(DATE)

Albert J. Guillot, Assistant Chief, Operations and Readiness Division
for James V. Hall, Deputy District Engineer

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

(TRANSFEREE)

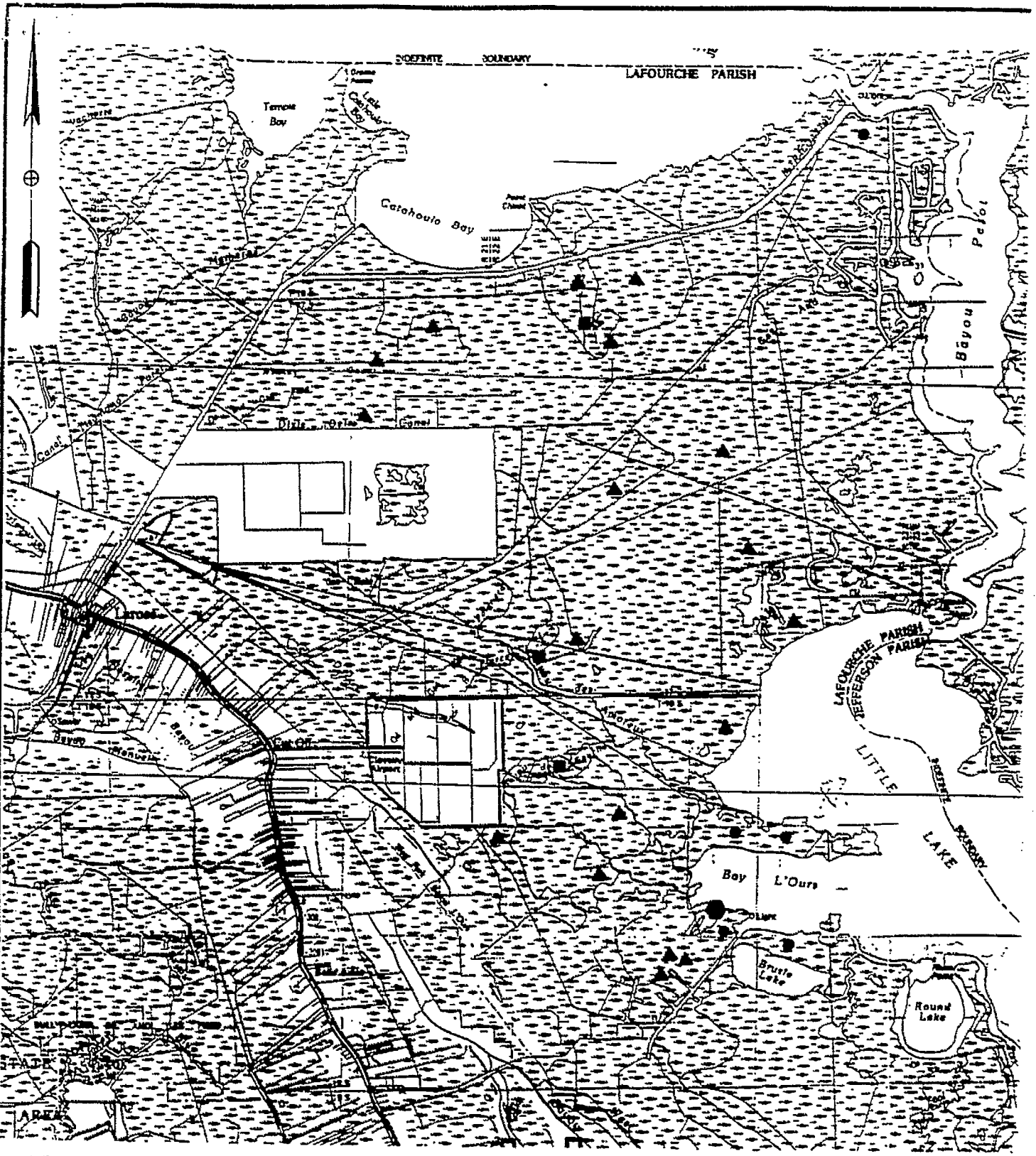
(DATE)

NOTE :

PAGE 2 IS BLANK - JAGB

SPECIAL CONDITIONS:

7. The permittee shall operate the water control structures according to the following schedules:
 - a. The flapgates on the inside of the culverted structures along the Gulf Intracoastal Waterway (GIWW) shall remain in the down position (flapping) at all times. The screwgates shall remain open at all times except when the GIWW salinity exceeds 2 ppt. at site number 71. Monitoring of the salinities shall be done on a weekly basis when the screwgates are closed. After one year of monitoring data has been collected, an interagency team composed of representatives from the U.S. Army Corps of Engineers (CE), Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), Soil Conservation Service (SCS), Louisiana Coastal Management Division (CMD), Louisiana Coastal Restoration Division (GRD), Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Department of Environmental Quality (DEQ) and the Lafourche Parish Council (LPC) shall reassess the salinity closure limits to insure that the structures remain open 75% of the time.
 - b. Rock weir elevations shall not exceed a height of 0.5 of a foot below marsh elevation (BML). The navigation channels shall be of sufficient depth and width and maintained to provide boat passage at mean low water.
 - c. The stop logs in the variable crest weir shall be set at 0.5 of a foot BML from April to November and removed from November to April to allow for sediment and nutrient inflow during the spring.
8. Construction of the overflow bank shall not block natural tidal channels into the marsh. Only those channels resulting from shoreline erosion or retreat into interior ponds and/or waterways or in broken marsh areas shall be blocked. Overflow banks shall not be constructed on top of existing solid marsh where the natural bank is equal to or greater than 0.5 of a foot above marsh elevation. Vegetated shorelines and tidal waterways that are not in an eroded condition shall not have dredged material deposited on them. Overflow banks shall not exceed adjacent marsh elevations by more than 0.5 of a foot under any circumstance.
9. In areas of "no channelized water exchange", the permittee shall deposit dredged material only in shallow open water areas where depths do not exceed -2.0 feet NGVD. The height and width of the deposited material shall not exceed that of the existing spoil bank which it ties into.
10. The permittee shall install a flapgated culvert in the earthen plug at site No. 72 should an impounded situation arise in the marsh adjacent to the site.
11. Final plug heights shall not exceed 3.0 feet NGVD or the height of the spoil bank which it ties into, whichever is greater.
12. The permittee shall obtain dredged material from open waters outside of the marsh area. The permittee shall avoid dredging in areas supporting submergent vegetation.



NOT TO SCALE

LEGEND

- ▲ — FELDSPAR MARKER HORIZON PLOTS
- — CONTROL FELDSPAR MARKER HORIZON PLOTS
- — MONITORING STATIONS
- — CONTROL MONITORING STATION

PROJECT NO. BA-2
 GIWW TO CLOVELLY WETLAND
MONITORING PLAN
 LA. DEPT. OF NATURAL RESOURCES
 COASTAL RESTORATION DIVISION
 CROWLEY PLANNING STAFF

MONITORING PLAN

Project No. BA-6 U. S. 90 to GIWW Wetland

October 7, 1991

Project Objective - Re-establish hydrologic conditions that existed before major land use alterations (i.e. - oil field canals)

Measure effectiveness
with data from
monitoring element #:

Project Goals:

- | | |
|---------|--|
| 2, 3, 4 | 1) Prevent loss of vegetated wetlands |
| 1, 5 | 2) Maintain the area as fresh marsh |
| 4, 5 | 3) Prevent excessive water levels (ponding) |
| 4 | 4) Encourage water exchange through sheet flow as opposed to discharge through the existing network of canals. |

Monitoring elements needed to evaluate progress in meeting the project objective and goals:

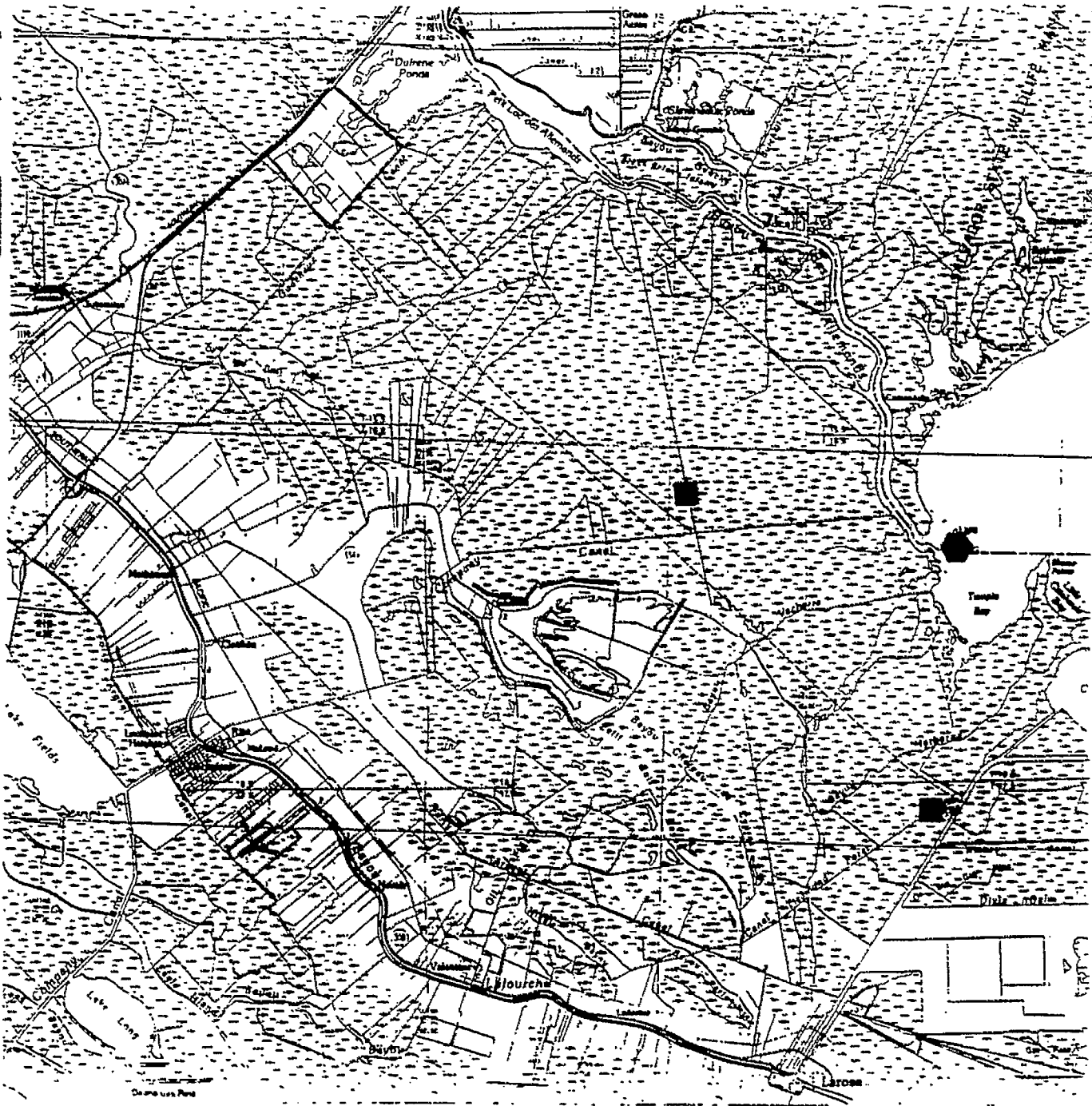
- *1) Salinity. (All 3 monitoring stations)
- 2) Measure emergent vegetation to open water ratio by comparison of aerial photography.
- 3) Soil samples taken from project and analysis (analysis needed but not limited to - pH, O.M., extractable cations, total acidity and heavy metal analysis)
- *4) Water level. (All 3 monitoring stations)
- *5) Rainfall
- * Monitoring stations will be equipped to measure these parameters. Three stations, one outside the project and two inside, will be installed and maintained by DNR/CRD. See monitoring station Location Map.

NOTE: Location of monitoring stations are proposed. CRD will accept suggestions on alternate sites.

MONITORING PLAN (continued)

NOTE: Evaluating sheet flow will be done by comparison of water levels and existing marsh levels (MSL marsh level elevation will be established.)

NOTE: Monitoring requirements from CUP and 404 Permits will be included in the final plan.

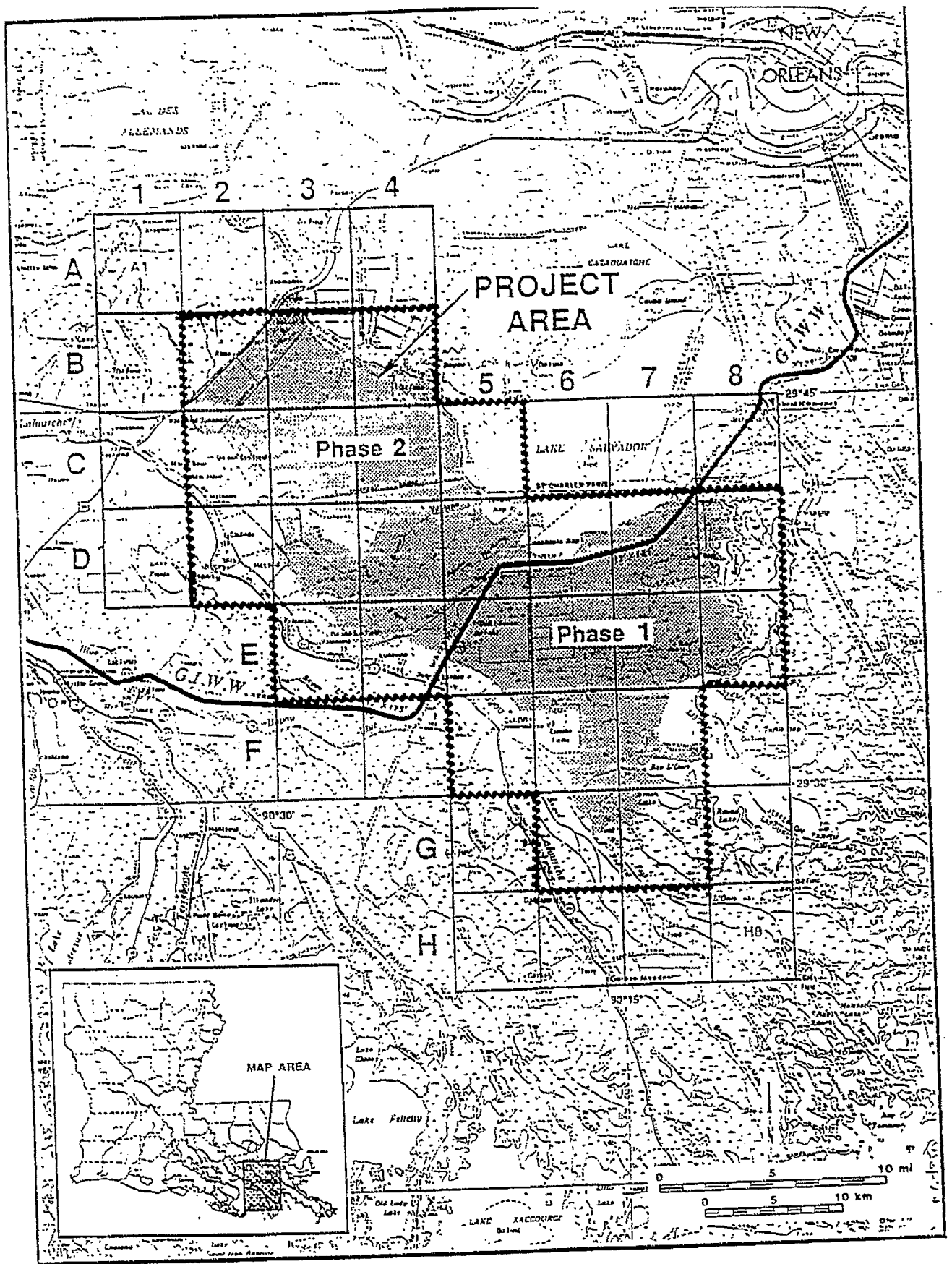


NOT TO SCALE

LEGEND

- — MONITORING STATIONS
- — CONTROL MONITORING STATION

PROJECT NO. BA-8
 U.S. 90 TO GIWW WETLAND
MONITORING PLAN
 LA. DEPT. OF NATURAL RESOURCES
 COASTAL RESTORATION DIVISION
 CROWLEY PLANNING STAFF

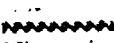


KEY

PROPOSED MARSH CREATION/RESTORATION  (See page 3)

BORROW AREAS FOR MARSH CREATION/RESTORATION 

PROPOSED OVERFLOW BANK  (See page 4)

NO CHANNELIZED WATER EXCHANGE  (See page 5)
(continuous marsh bank or spoil)

PROPOSED PLUG ○ (See page 6 and 7)

PROPOSED PLUG WITH CULVERT ⊗ (See page 8)
(to allow for sediment import)

PROPOSED WATER CONTROL STRUCTURE △ (See page 9, 10, & 11)

PUMP STATION ★ (See page 12)

PUMP STATION DISCHARGE → (See page 12)

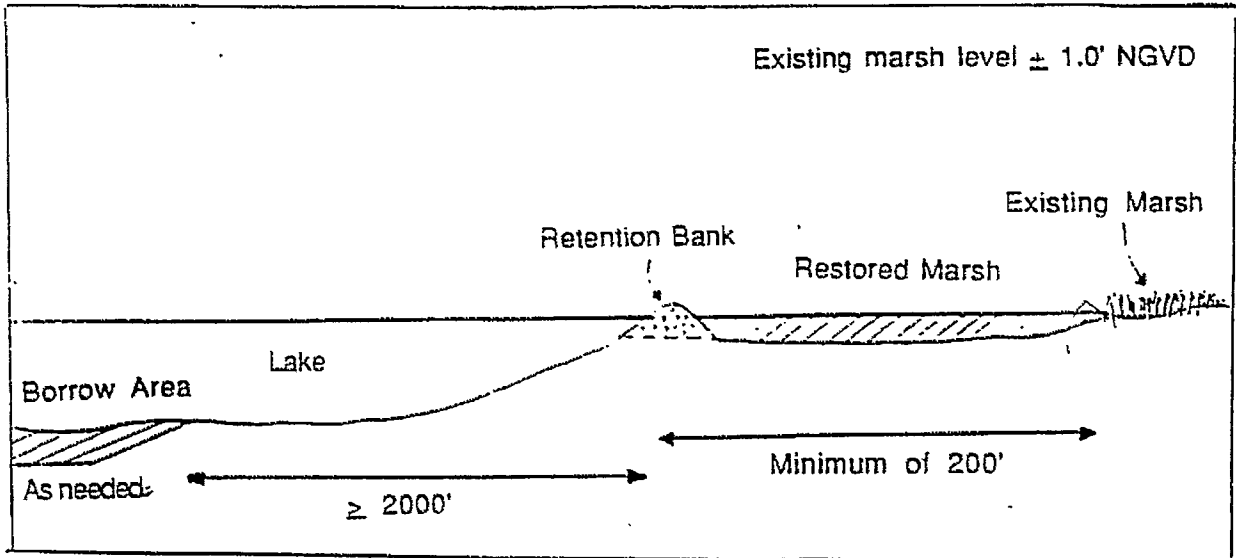
EXISTING WATER CONTROL STRUCTURE ▲

EXISTING PLUG ●

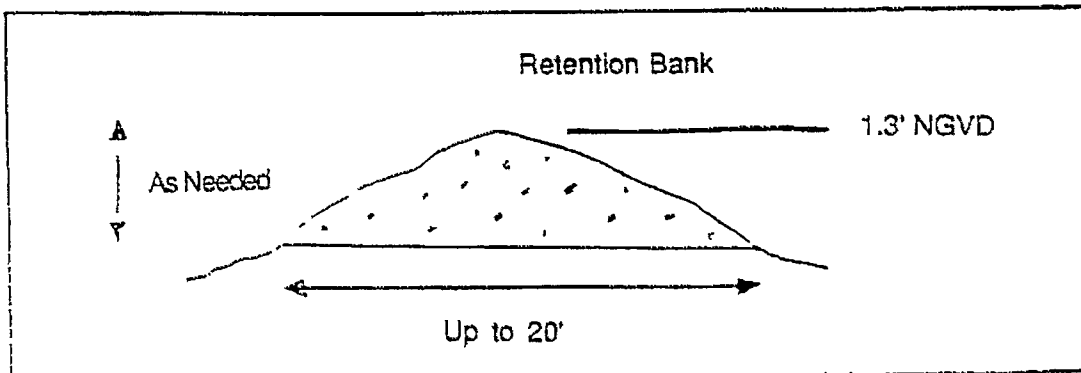
PLEASE USE DESIGNATED NUMBERS OR LETTERS ON MAPS TO IDENTIFY
UNITS ON ATTACHED SCHEDULES.



MARSH CREATION/RESTORATION



Turbidity screens will be used to limit turbidity to the area being restored

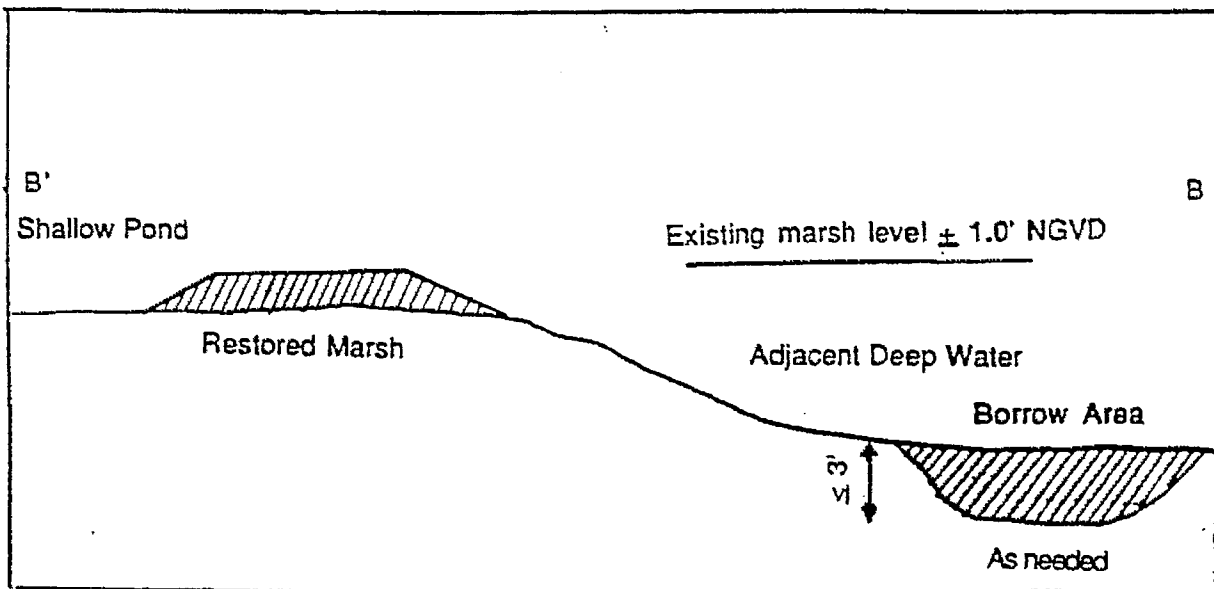
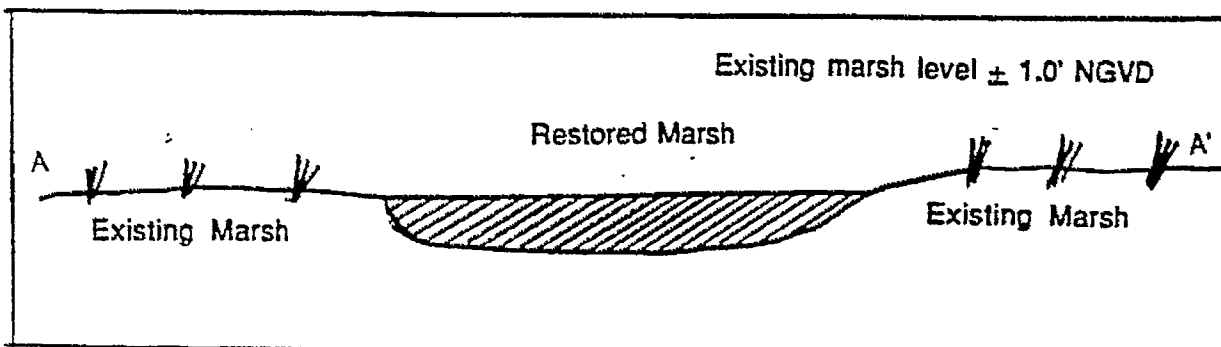
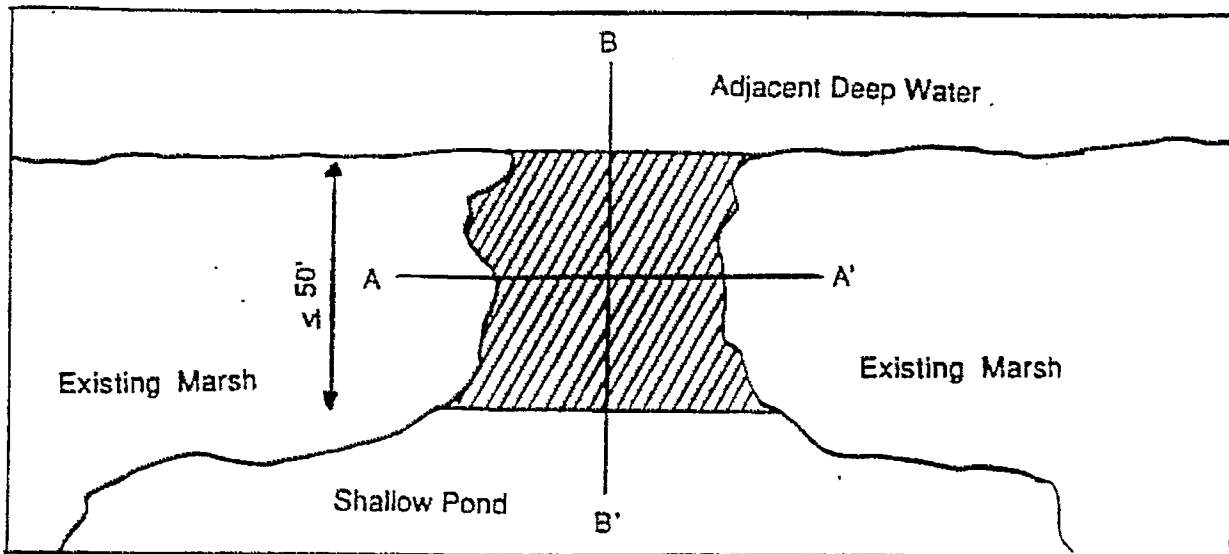


Lafourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70301

WETLAND PROTECTION AND MAINTENANCE WITH
U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS

Phase 1: 61WW to Clovelly Wetlands
Phase 2: U.S. 90 to 61WW

OVERFLOW BANK



NATURAL OVERFLOW BANK WILL BE RESTORED

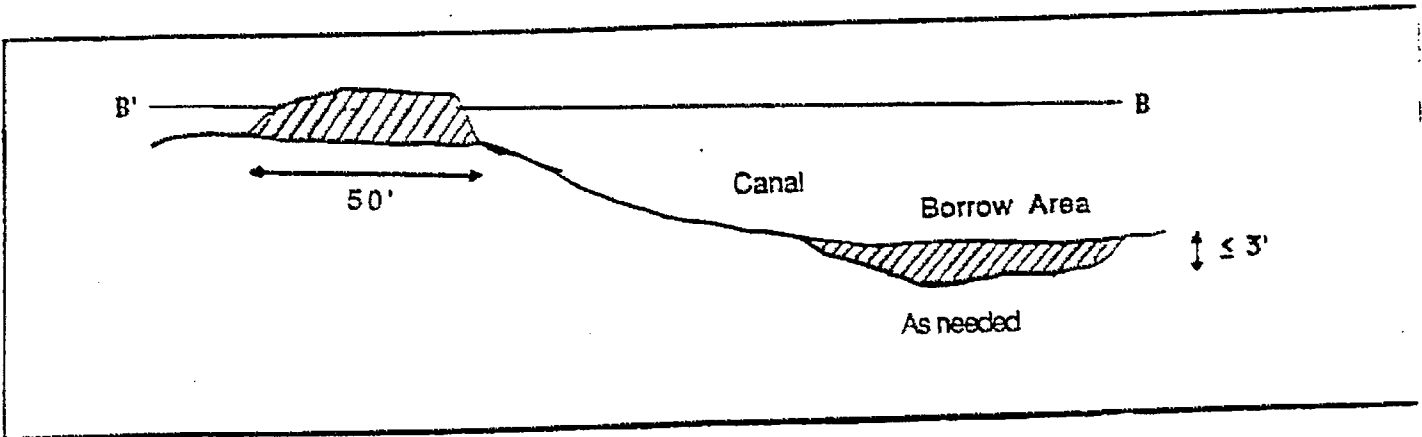
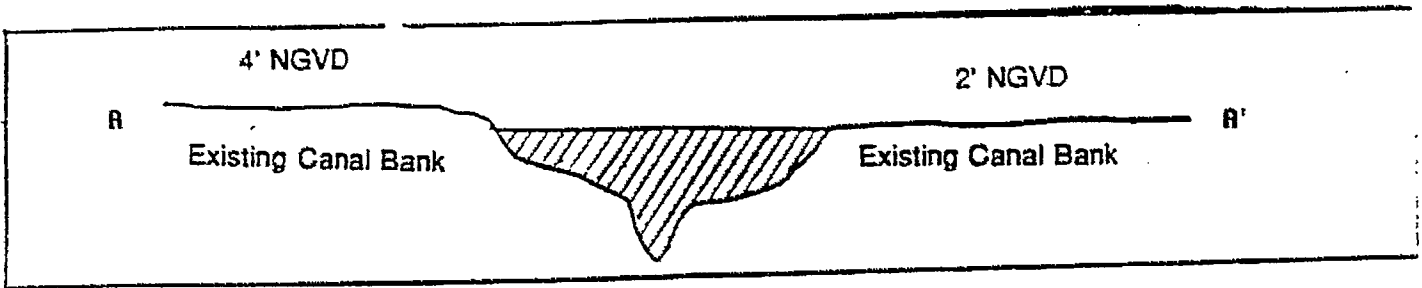
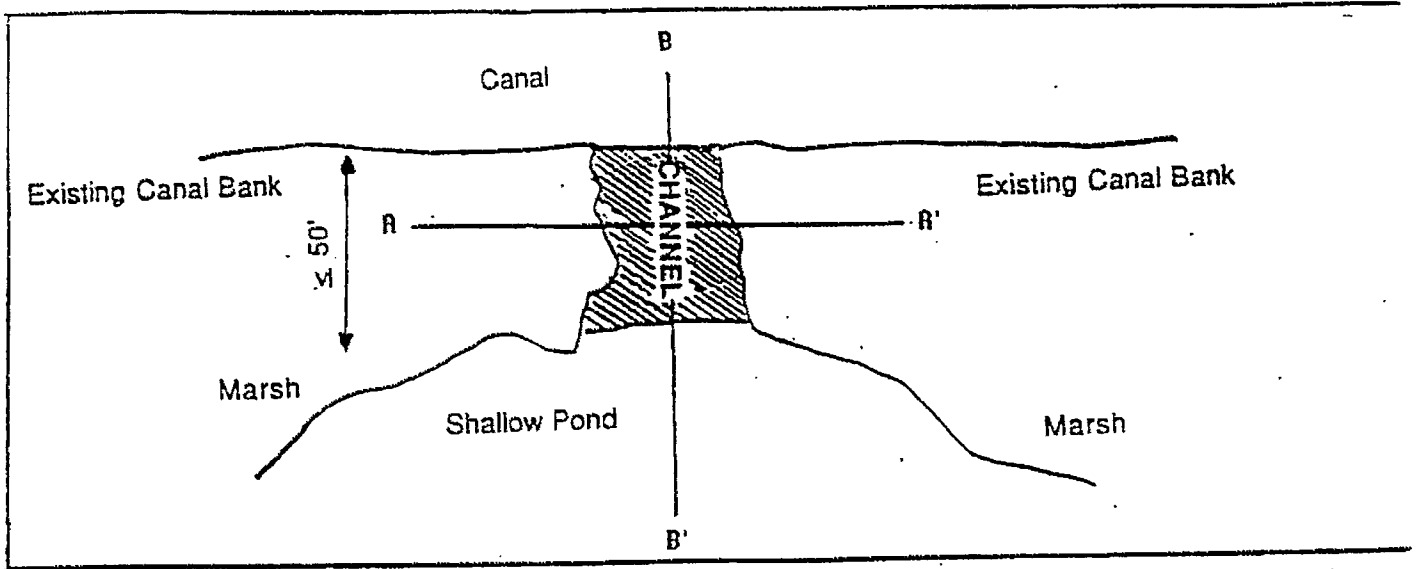
Only breaches into open pond areas will be plugged.
 Natural tidal channels that do not go into shallow pond areas will be left open.

Lafourche Parish Council
 Post Office Drawer 5549
 Thibodaux, LA 70301

**WETLAND PROTECTION AND MAINTENANCE BETWEEN
 U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS**

Phase 1: 6100' to Clovelly Wetlands
 Phase 2: U.S. 90 to 6100'

NO CHANNELIZED WATER EXCHANGE



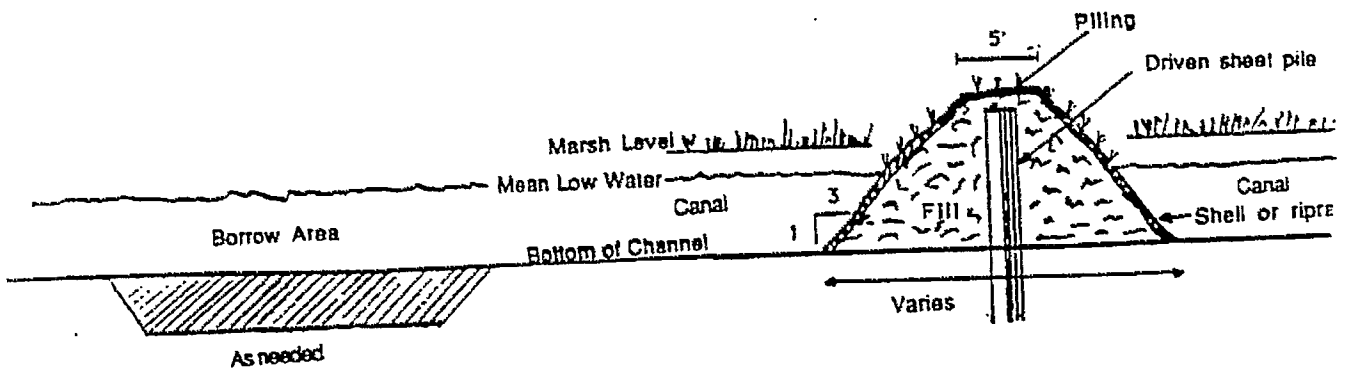
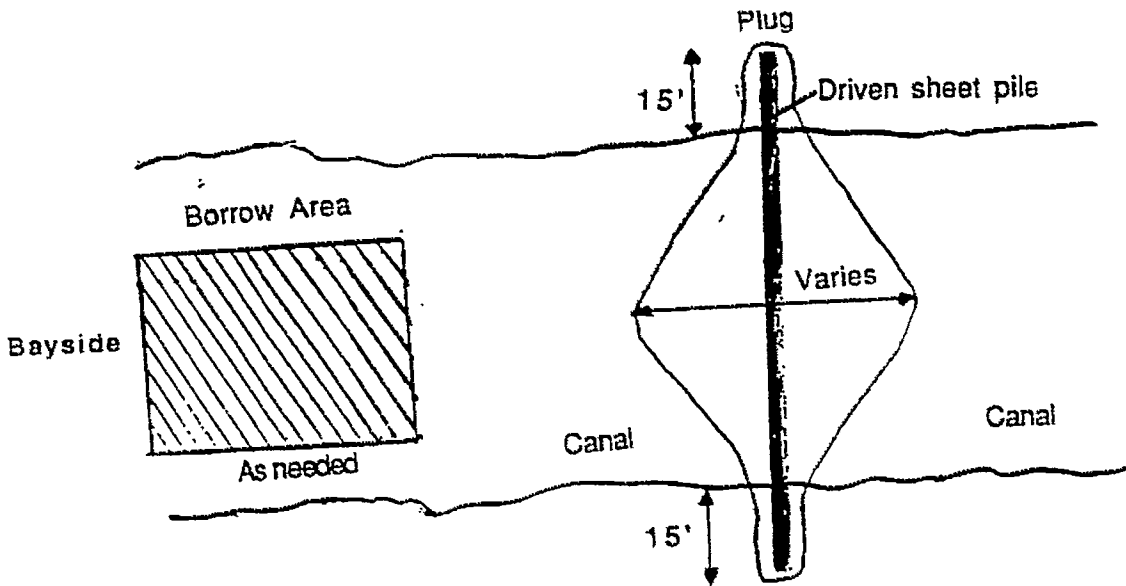
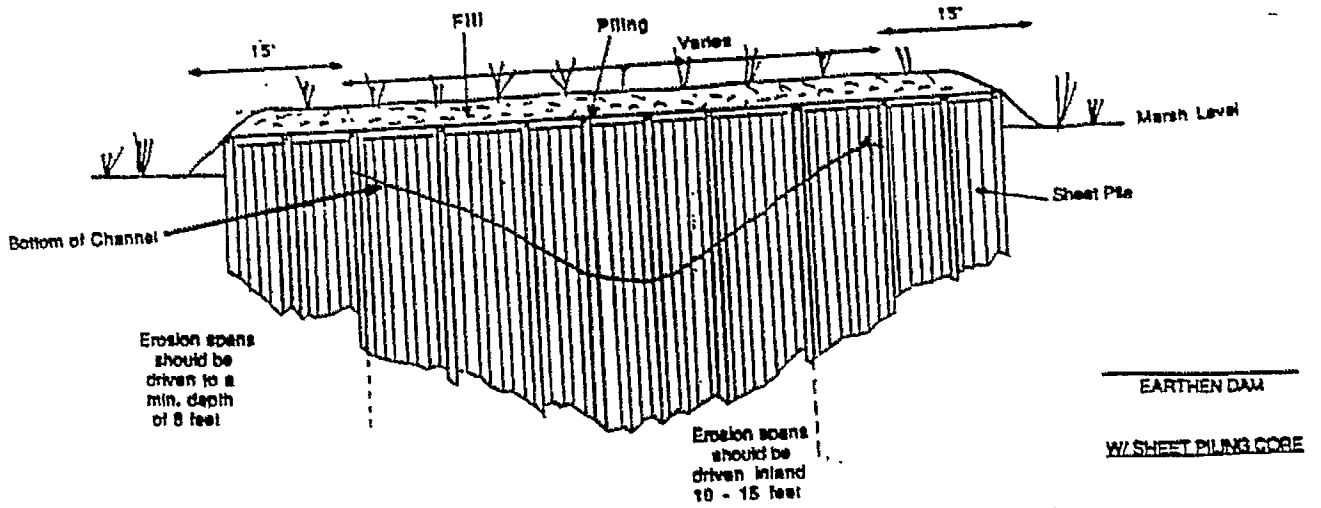
To be filled to existing adjacent spoil - Not to exceed + 3.0' NGVD

Lafourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70301

**WETLAND PROTECTION AND MAINTENANCE BETW
U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS**

Phase 1: **6100' to Clovelly Wetlands**
Phase 2: **U.S. 90 to 6100'**

PLUGS



LaFourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70301

WETLAND PROTECTION AND MAINTENANCE
U.S. HIGHWAY 90 AND THE CLOVELLY WET

Phase 1: 61W to Clovelly Wetlands
Phase 2: U.S. 90 to 61W

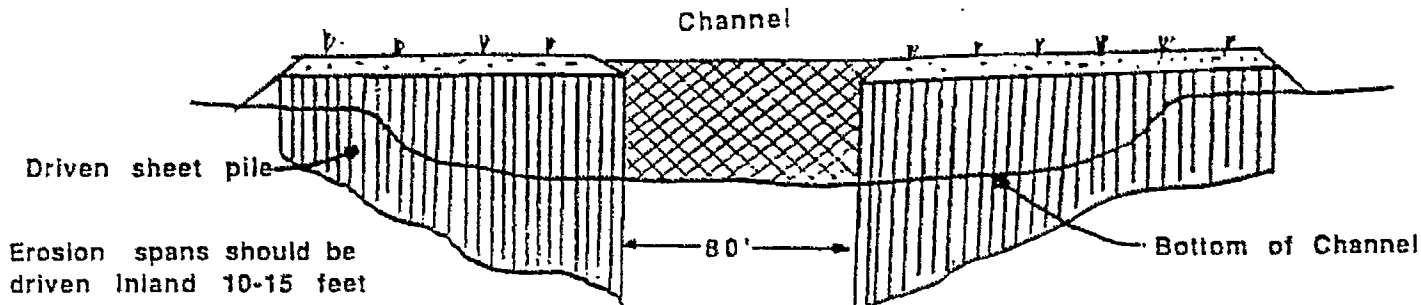
PROPOSED PLUG IN CLOVELLY CANAL

SITE 14

REVISED: 6/14/91

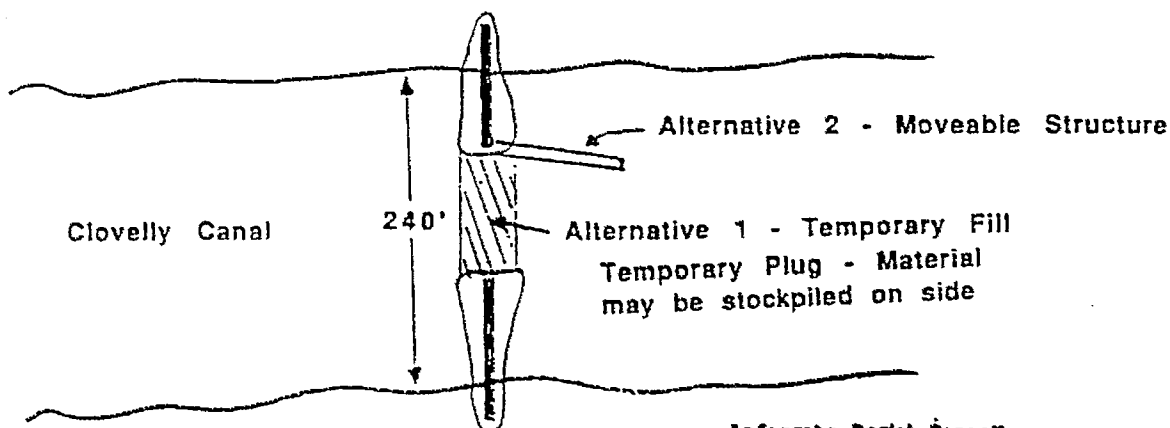
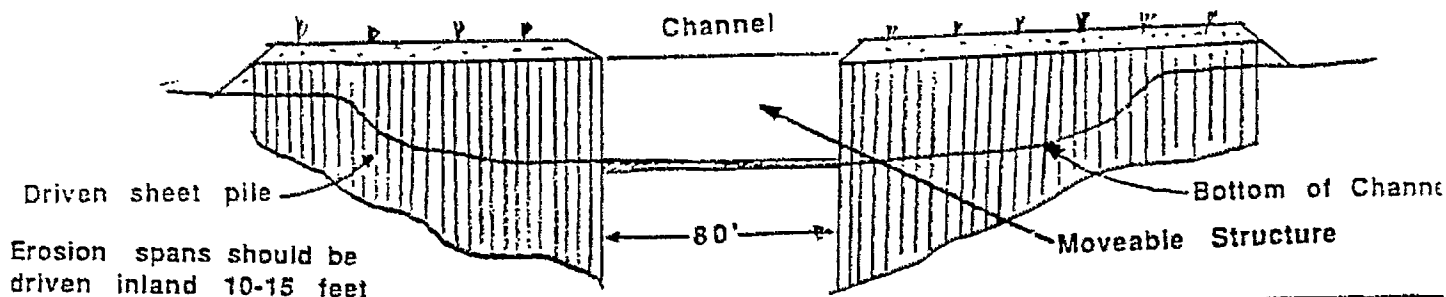
ALTERNATIVE NO. 1 - Temporary plug which can be opened with material being stockpiled. Plug can be closed as needed.

See Page 6 for additional dredge/fill information



ALTERNATIVE NO. 2 - Moveable structure can be moved to allow for passage.

This alternative may be: 1) a gate/lock structure; 2) a barge that can be sunk and floated; or 3) other moveable apparatus which creates a seal when closed and can be opened as needed.



Lafourche Parish Council
Post Office Drawer 5504
Thibodaux, LA 70381

WETLAND PROTECTION AND MAINTENANCE BETWEEN
U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS

PAGE 1: SIDE TO CLOVELLY WETLANDS

SCHEDULE FOR PROPOSED PLUGS
(Phase 1)

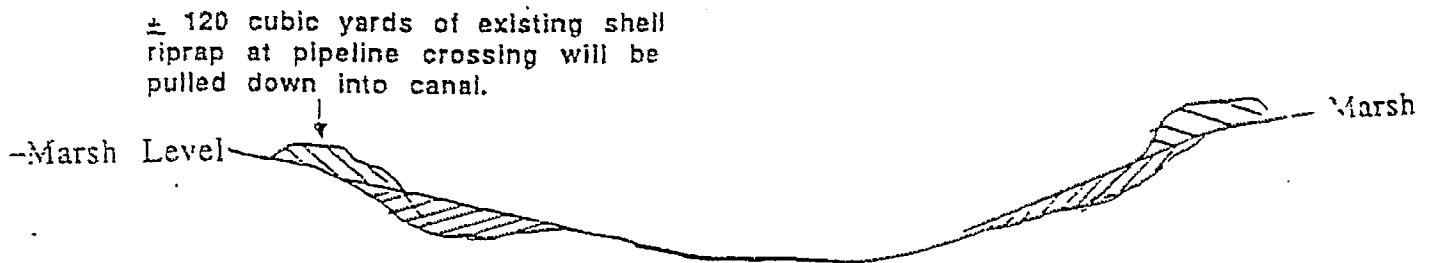
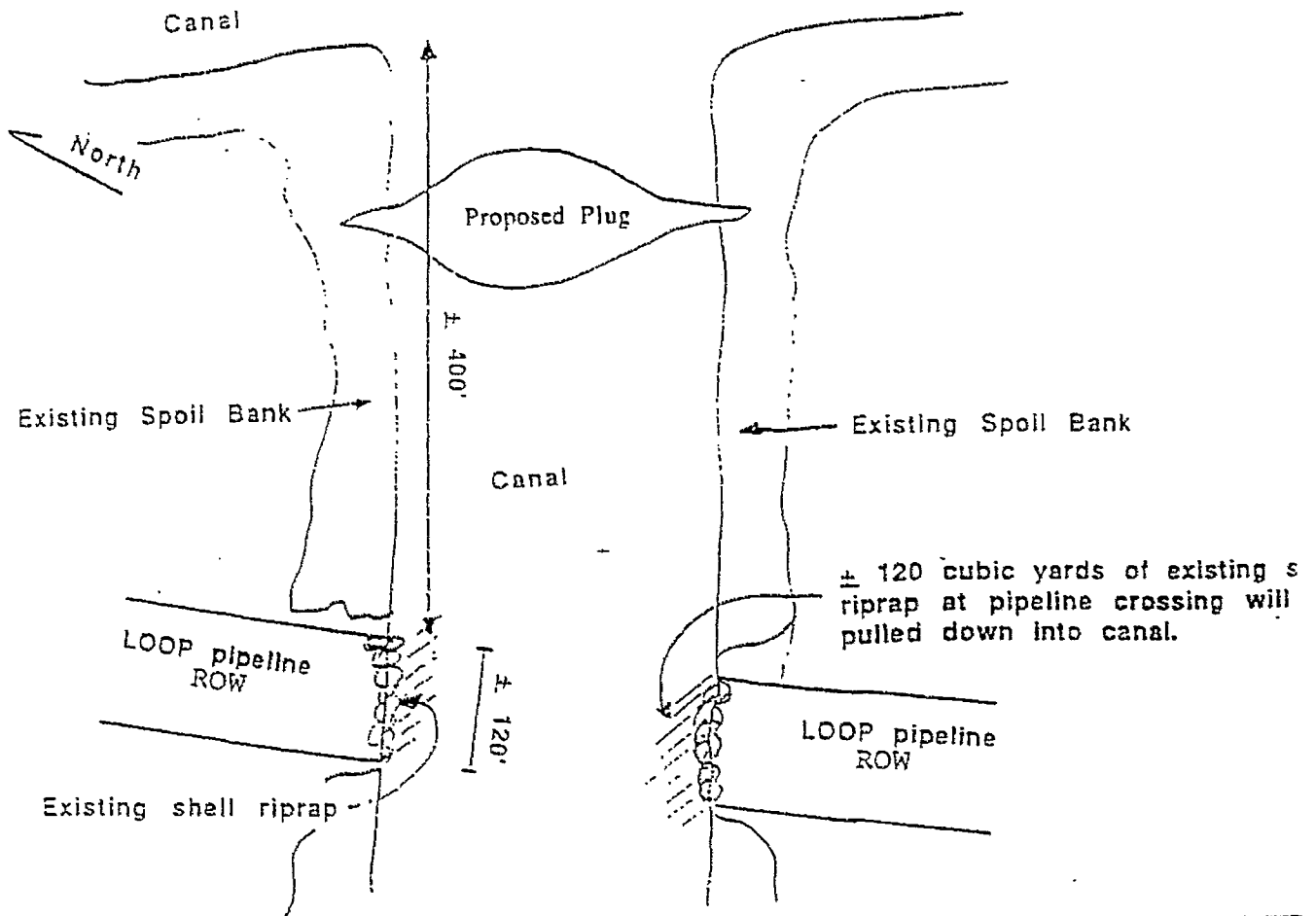
Site No.	Width ft.	Depth ft.	Total Length ft.	Volume cu. ft.	Width of Plug
11	255	9	275	2375	77
8	50	4.5	70	149	50
12	112	5	132	466	53
13	163	5.5	183	769	56
14	240	9	260	2216	77
15	120	5.5	140	542	56
16	100	6	120	479	59
17	100	6	120	479	59
18	175	5	195	744	53
19	145	5	165	604	53
20	50	2	70	79	25
43	40	4	60	128	47
53	185	7.5	265	1295	66
54	90	2	110	142	35
55	150	5	170	628	53
56	150	8	170	1094	71
58	65	3	85	158	41
60	80	3.5	100	223	44
85	80	6	100	383	59
86	25	3.5	45	70	44
87	110	4.5	130	276	50
90	90	5	110	359	53

SCHEDULE FOR PROPOSED PLUGS
(Phase 2)

Site No.	Width ft.	Depth ft.	Total Length ft.	Volume cu. ft.	Width of Plug
61	153	9	173	1295	77
72	85	3	105	198	41
73	30	6	50	64	59
88	125	6	145	599	59
89	80	6	100	383	59

DETAIL OF RIPRAP DEGRADATION
AT LOOP PIPELINE CROSSING
SITE 90

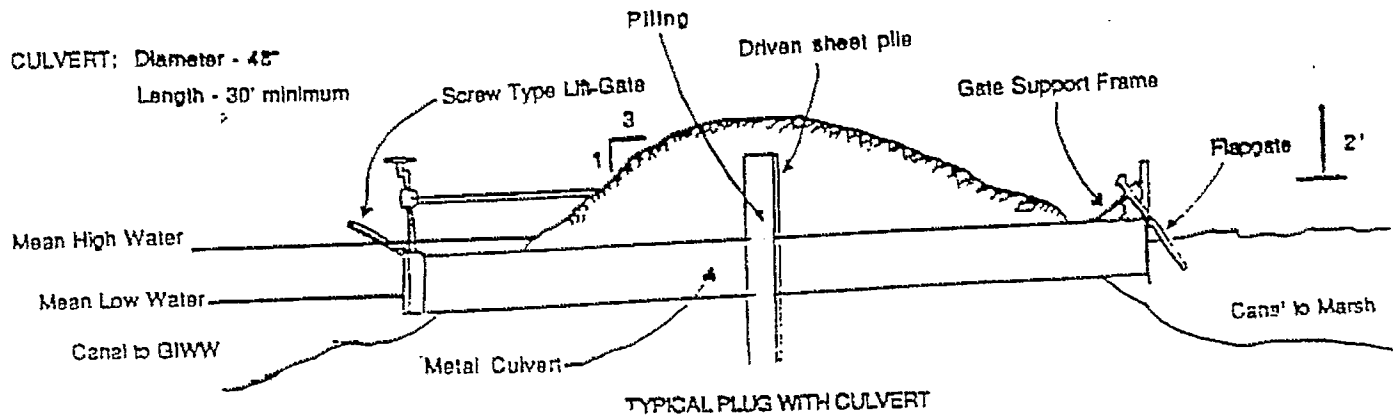
REVISED: 6A.



**SCHEDULE FOR
PROPOSED PLUGS WITH CULVERTS**
(to allow for sediment import)
(Phase 1)

REVISED: 6/14/9.

Site No.	Width ft.	Depth ft.	Total Length ft.	Volume cu. yd.	Maximum Width of Base
70	111	6	131	544	59
71	145	5	165	604	53
80	121	5.5	141	547	56
81	94	4	114	292	47
82	85	4.5	105	292	50



FOR PLANNING USE ONLY. NOT
TO BE USED FOR DESIGN

NOTE: Screw gates will remain open and closed only
when salinity levels in the GIWW exceed 2ppt.

Lafourche Parish Council
Post Office Box 5548
Thibodaux, LA 70301

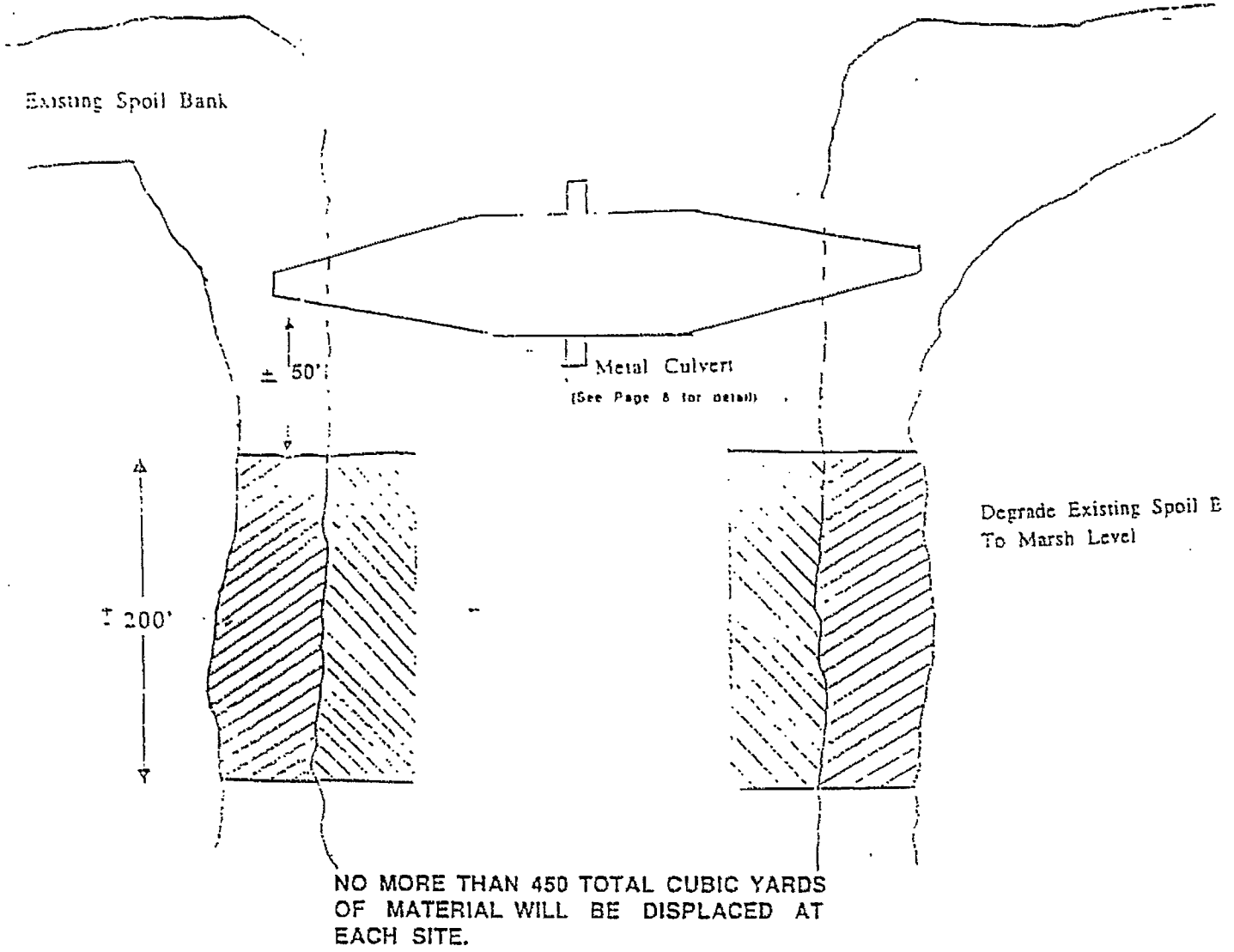
**WETLAND PROTECTION AND MAINTENANCE WITH
U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS**

PAGE 1: GIWW to Clovelly Wetlands

DETAIL OF SPOIL BANK DEGRADATION
FOR SITES 71, 80, 81 & 82

GIWW

REVISED: 6A



Degrade Existing Spoil Banks To Marsh Level



Existing Spoil Banks Will Be Pulled Into Canal

Lafourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70381

WETLAND PROTECTION AND MAINTENANCE
U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS

Phase 1: GIWW to Clovelly Wetlands

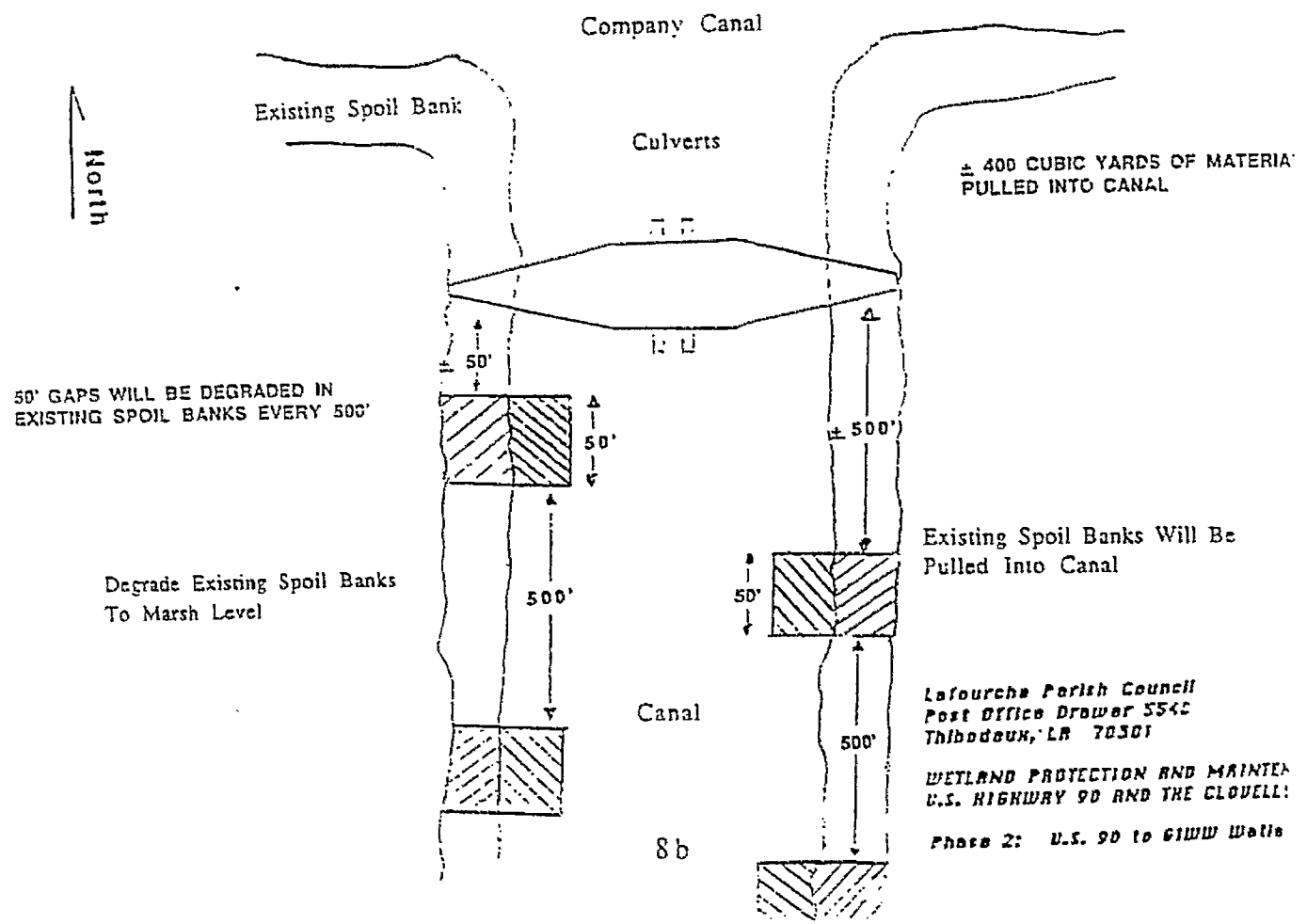
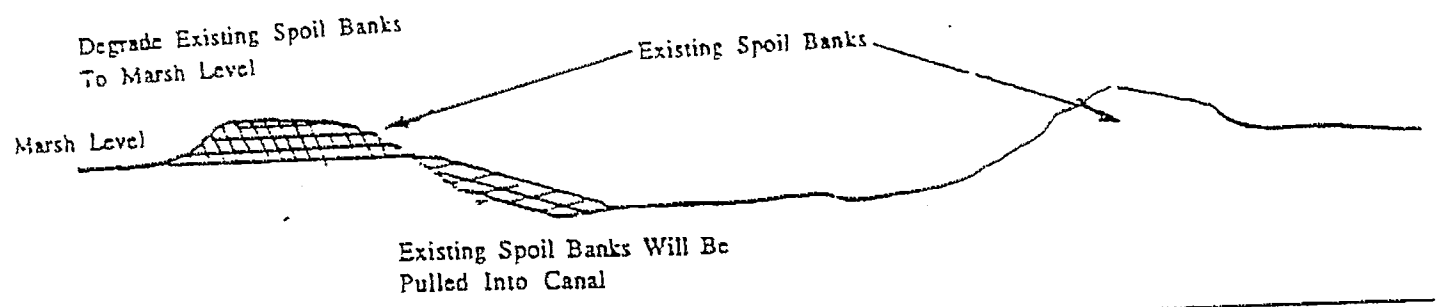
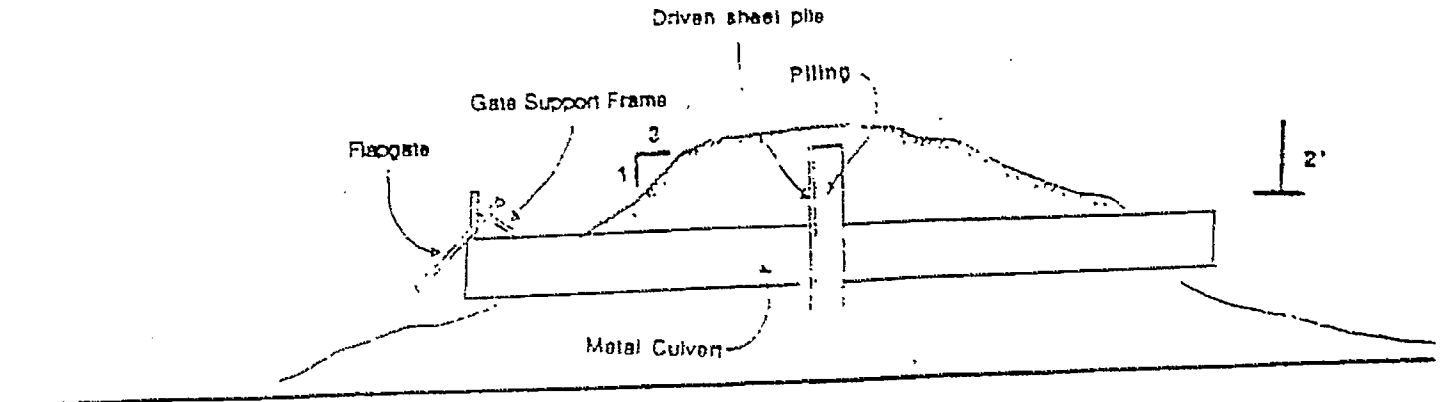
PROPOSED PLUG WITH TWO FLAPGATED CULVERTS

SITE 88

REVISED: 6/14/9

CULVERTS: Diameter-48
Length-30 minimum

Length	Length	Length	Length	Length
100'	100'	100'	100'	100'

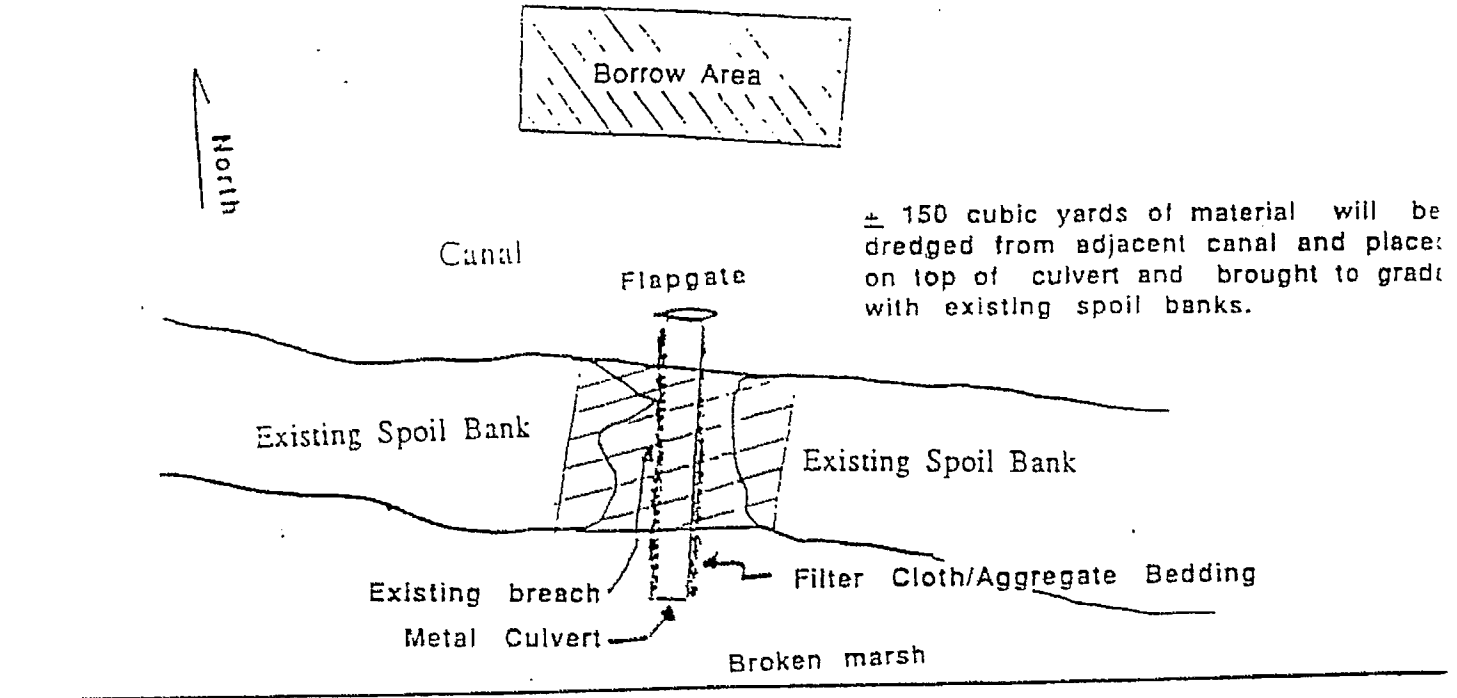


FLAPGATED CULVERT

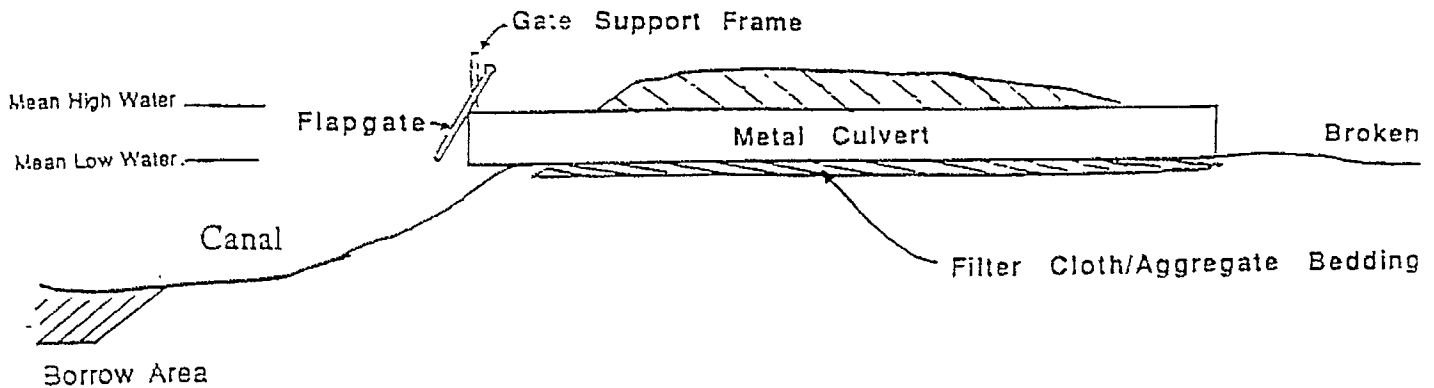
REVISED: 6/14/9

SITE 91

Flapgated culvert will be installed in existing breach (hydrological connection) between broken marsh and canal.



Culvert: Diameter - 36"
Length - 30' minimum



Lafourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70301

WETLAND PROTECTION AND MAINTENANCE #
U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS

Phase 1: VIEW to Clovelly Wetlands

**SCHEDULE FOR PROPOSED
WATER CONTROL STRUCTURES
ROCK WEIRS
(Phase 1)**

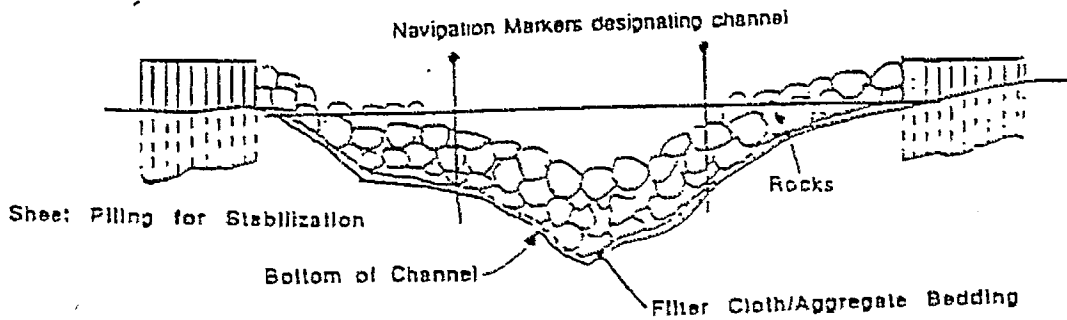
REVISED: 6/14/91

SITE NO.	WIDTH - FT.	DEPTH FT.	EXISTING AREA CU. YD.	MAXIMUM WIDTH OF BASE
2	135	9	815	35
4	112	7	421	23
7	145	9.5	669	38

**SCHEDULE FOR PROPOSED
WATER CONTROL STRUCTURES
ROCK WEIRS
(Phase 2)**

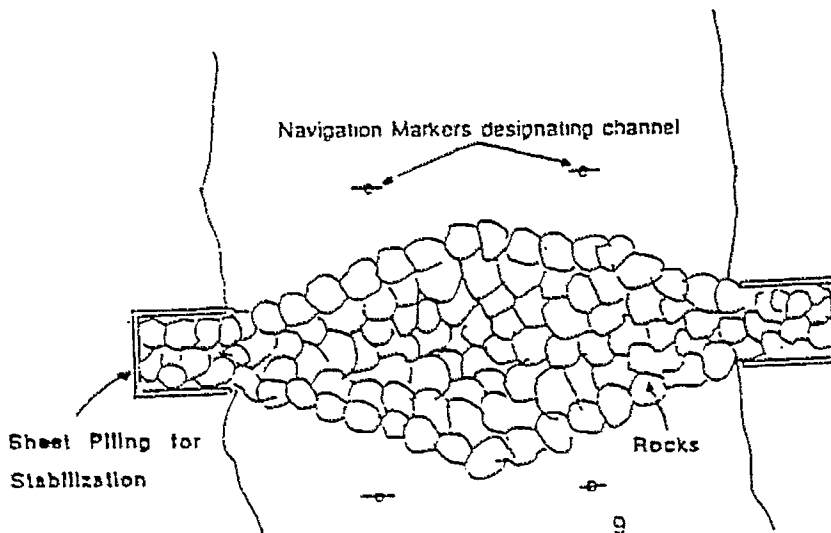
SITE NO.	WIDTH FT.	DEPTH FT.	EXISTING AREA CU. YD.	MAXIMUM WIDTH OF BASE
74	115	9	792	35
75	100	11.5	753	48
76	95	9	680	35
77	135	6	702	17
78	140	6	732	17

TYPICAL ROCK WEIR



FOR PLANNING USE ONLY

No Scale



CHANNEL OPENINGS
VERTICAL: $\geq 4'$ DEPTH AT LOW T
HORIZONTAL: $\geq 50'$ WIDTH AT LOW T

Lafourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70301

WETLAND PROTECTION AND MAINTENANCE BY
U.S. HIGHWAY 90 AND THE CLOVELLY WETLAND

Phase 1: E1WW to Clovelly Wetlands
Phase 2: U.S. 90 to E1WW

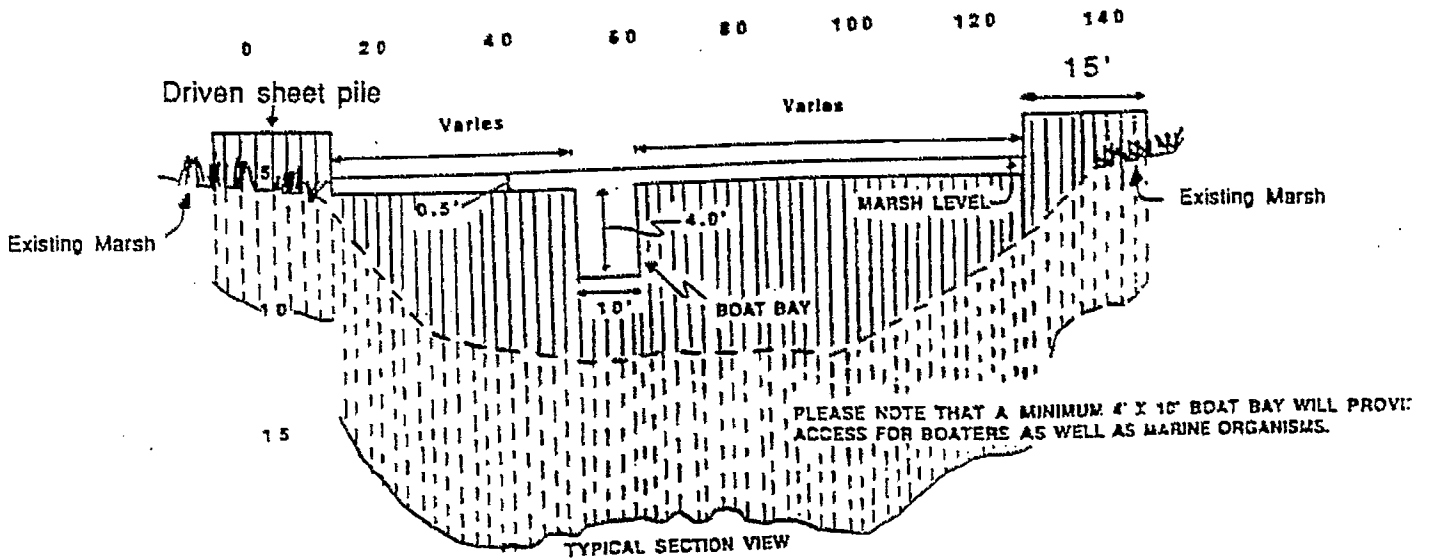
**SCHEDULE FOR PROPOSED
WATER CONTROL STRUCTURES
FIXED CREST WEIRS WITH BOAT BAYS
(Phase 1)**

Site No.	Width ft.	Depth ft.	Existing Area sq. ft.	Total Crest Length (ft.)	Access Slot Length (ft.)	Access Slot Area (sq. ft.)	Normal Crest Area (ft.)	Normal Crest Area (sq. ft.)	Total Weir Area (sq. ft.)	Ratio Weir Area to Existing (%)
111	150	9	534	130	10	40	120	60	100	18.7
79	410	7.5	1186	210	10	40	200	100	140	11.8
21	180	7	1162	150	10	40	140	70	110	9.5
22	130	6	672	110	10	40	100	50	90	13.4
57	70	3.5	208	50	10	40	40	20	60	28.8
59	75	4	252	55	10	40	45	22.5	62.5	24.8
68	133	9	954	113	10	40	103	51.5	91.5	9.6
69	134	8	880	114	10	40	104	52	92	10.5

**SCHEDULE FOR PROPOSED
WATER CONTROL STRUCTURES
FIXED CREST WEIRS WITH BOAT BAYS
(Phase 2)**

Site No.	Width ft.	Depth ft.	Existing Area sq. ft.	Total Crest Length (ft.)	Access Slot Length (ft.)	Access Slot Area sq. ft.	Normal Crest Area (ft.)	Normal Crest Area (sq. ft.)	Total Weir Area (sq. ft.)	Ratio Weir Area to Existing (%)
63	114	5.5	536	94	10	40	84	42	82	15.3

TYPICAL WATER CONTROL STRUCTURE



LaFourche Parish Council
Post Office Drawer 5548
Thibodaux, LA 70301

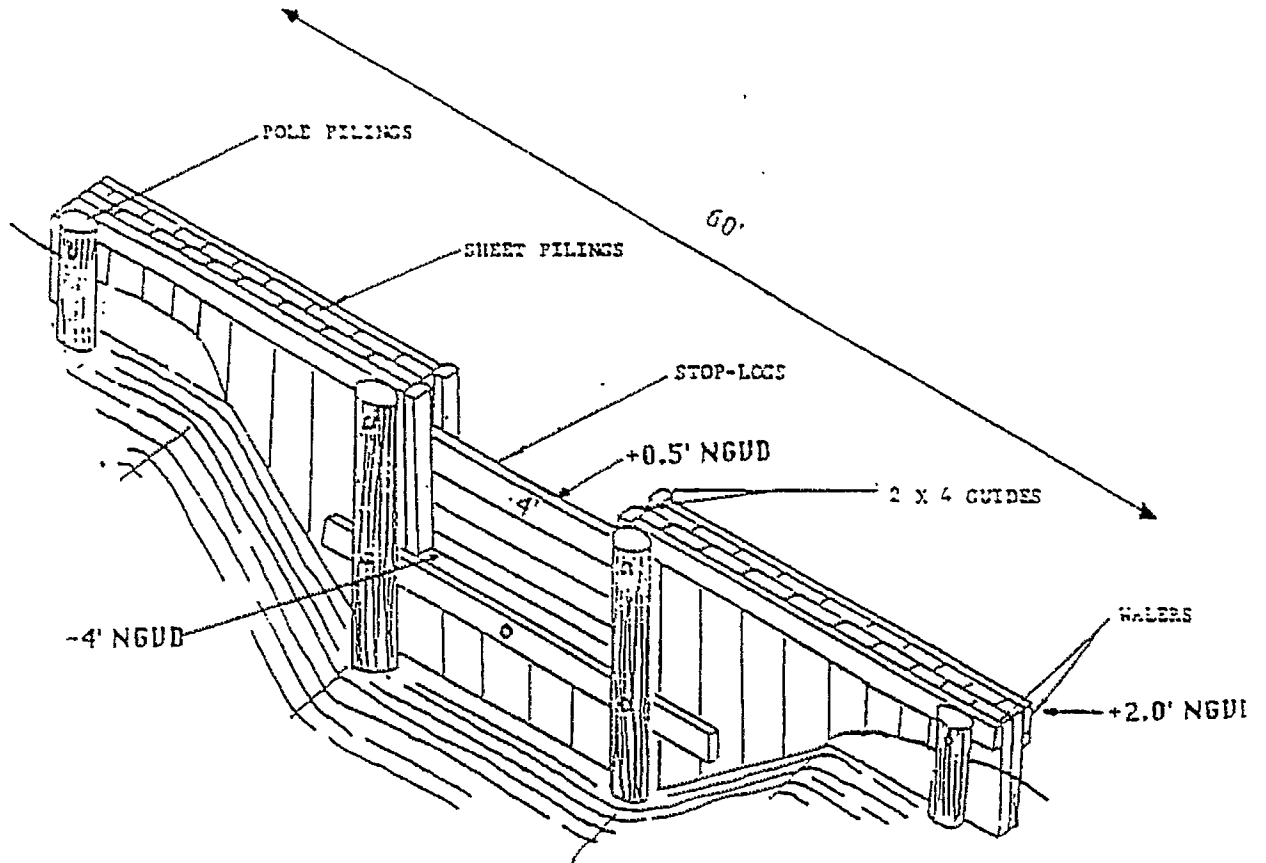
WETLAND PROTECTION AND MAINTENANCE
U.S. HIGHWAY 90 AND THE CLOVELLY WET

Phase 1: 6100 to Clovelly Wetlands
Phase 2: U.S. 90 to 6100

PROPOSED WATER CONTROL STRUCTURE
 VARIABLE CREST WEIR - See page G-7
 (Phase 1)

REVISED: 6.7

SITE NO.	WIDTH FT	DEPTH FT	EXISTING AREA SQ. FT
351	301	51	1501



LOW LEVEL WATER CONTROL STRUCTURE
 "VARIABLE CREST"

FOR PLANNING USE ONLY - NOT
 TO BE USED FOR DESIGN.

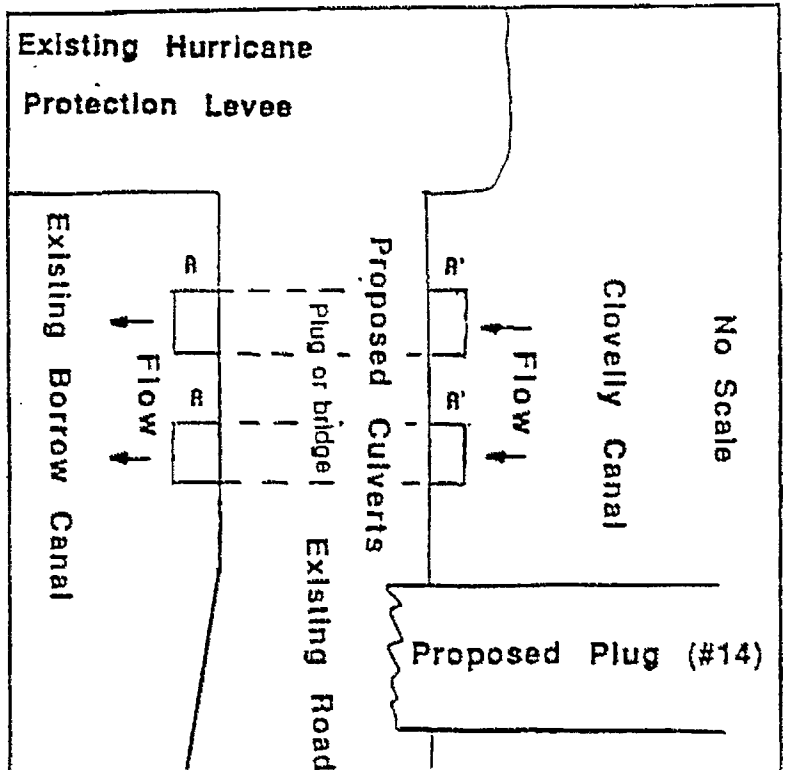
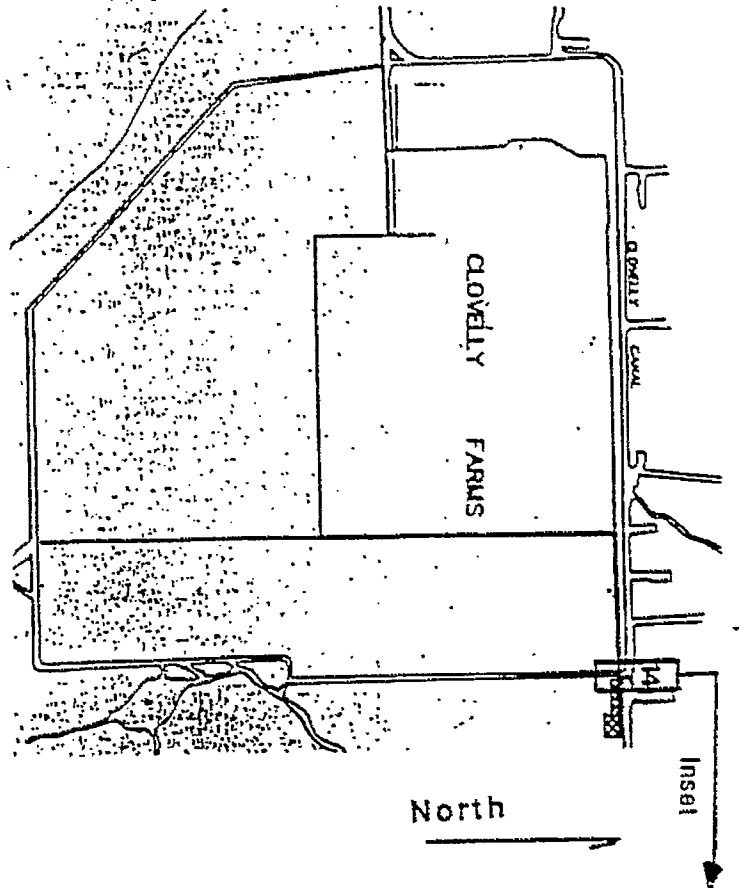
NOTE: Weir is proposed for sediment introduction and will remain open from November to April. Stop logs will be set at .5 ft. below marsh level from April to November. Operation is not related to salinity levels.

*Lafourche Parish Council
 Post Office Drawer 5548
 Thibodaux, LA 70301*

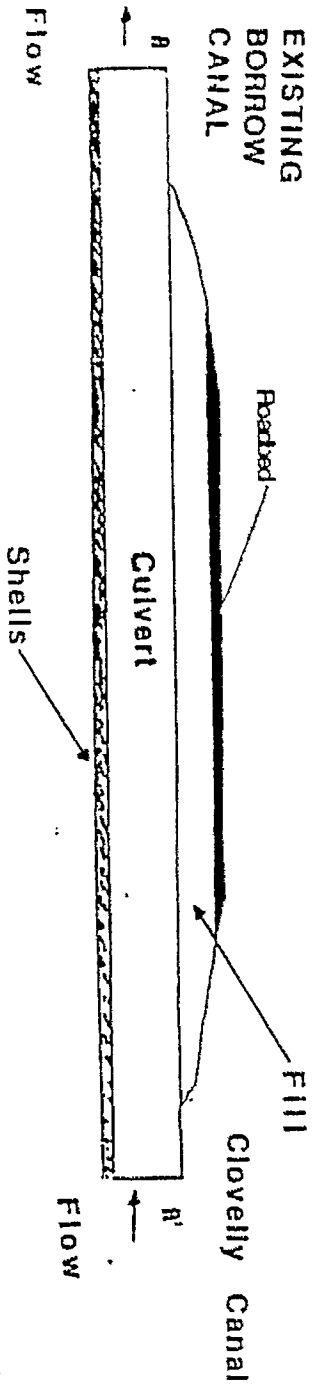
*WETLAND PROTECTION AND MAINTENANCE
 U.S. HIGHWAY 90 AND THE CLOVELLY WETL*

*Phase 1: 61WW to Clovelly Wetland
 Phase 2: U.S. 90 to 61WW Wetland*

PROPOSED PROVISIONS FOR PROVIDING ADDITIONAL FRESHWATER INPUT TO THE CLOVELLY WETLANDS



Typical Section



NOTE: TIMBER BRIDGE MAY BE USED AS AN ALTERNATIVE TO CULVERTS

FOR PLANNING ONLY

Lafourche Parish Council
 Post Office Drawer 5338
 Thibodaux, LA 70301
 WETLAND PROTECTION AND MAINTENANCE BETWEEN
 U.S. HIGHWAY 90 AND THE CLOVELLY WETLANDS
 Phase I: SIMU to Clovelly Wetlands

(REGION C - NORTH OF GIWW)

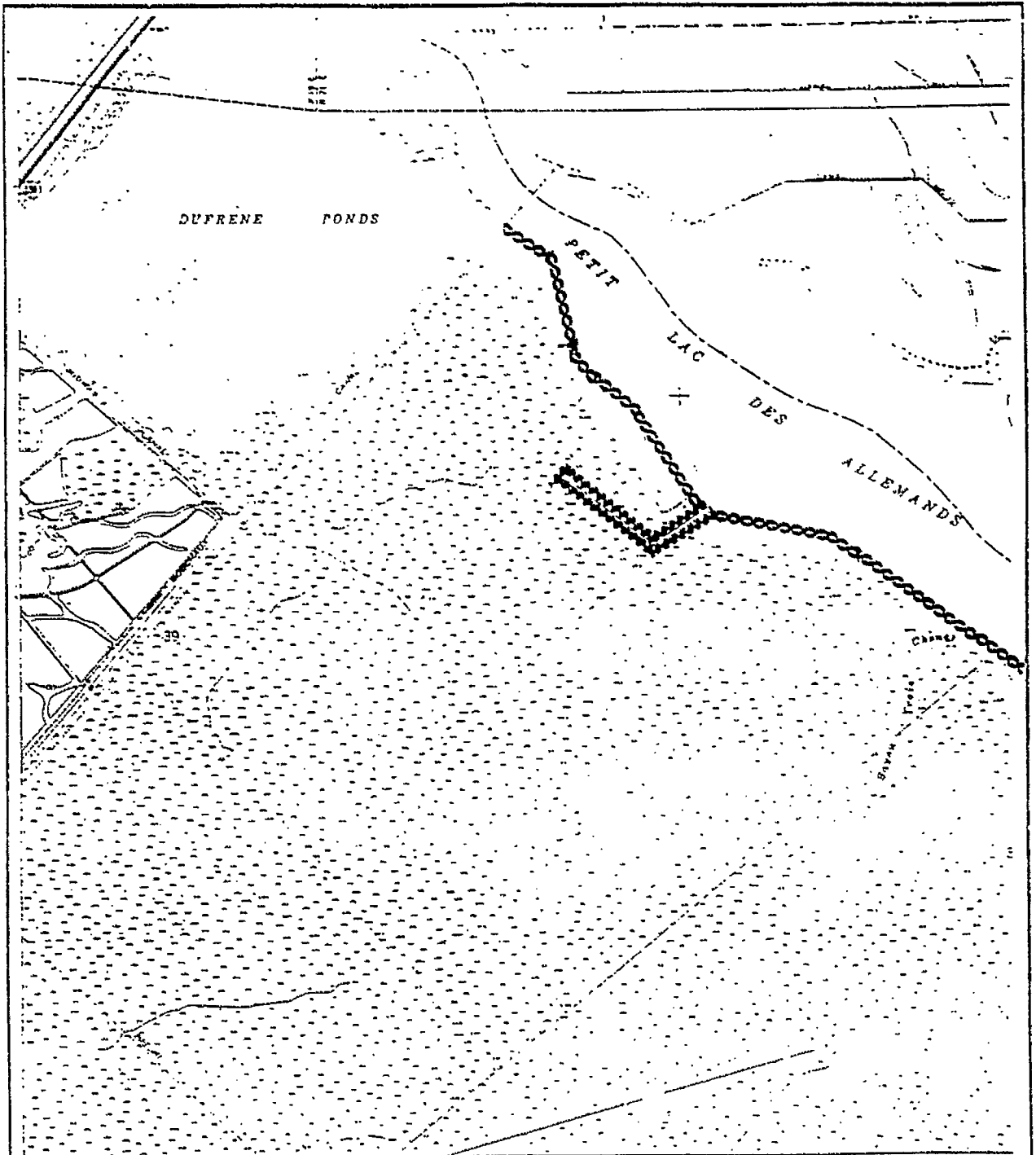
<u>DESIGNATION</u>	<u>STATION NO.</u>	<u>PUMP NAME</u>	<u>DISCHARGE</u>	<u>OUTFALL</u>
A	21	Des Allemands	2,600 GPM	Into waterway adjacent to Bayou Des Allemand
B	22	Clothilda	55,000 GPM	Into canal which in turn outfalls into the Company Canal
C	22	Little Clothilda	1,500 GPM	Into canal which in turn outfalls into the Company Canal
D	23	Homeplace	27,500 GPM	Into adjacent bottomland hardwoods
E	24	Natural Gas	55,000 GPM	Into adjacent cypress/tupelo swamp
F	25	Jessie Duirene	55,000 GPM	Into adjacent cypress swamp
G	26	Ravenwood	34,500 GPM	Into the Company Canal
H	19	Rita	10,000 GPM	Into the Company Canal
I	13	Valentine (old)	142,000 GPM	Into canal which in turn outfalls into the GIWW
	14	Valentine (new)	27,500 GPM	Into canal which in turn outfalls into the GIWW
J	8	T-Bois	49,500 GPM	Into canal which in turn outfalls into the GIWW
K	9	T-Bois (Eunice Allenand)	20,500 GPM	Into canal which in turn outfalls into the GIWW

PUMP STATION INFORMATION
(REGION D - SOUTH OF GIWW)

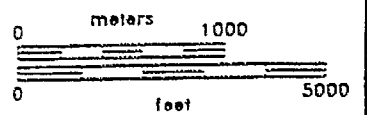
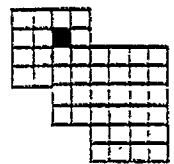
<u>DESIGNATION</u>	<u>STATION NO.</u>	<u>PUMP NAME</u>	<u>DISCHARGE</u>	<u>OUTFALL</u>
L		Delta Clovelly	42,500 GPM	Into the United Gas Pipeline Canal
M		Bayou L'Ours	55,000 GPM	Into adjacent waterway which in turn outfalls into the Superior Canal
N	South Lafourche Levee District #6 (proposed)		130,000 GPM	Into Breton Canal, which in turn outfalls into the Superior Canal
V		Clovelly	1,225 GPM	Into the Clovelly Canal
W		Delta Farms		Into the GIWW

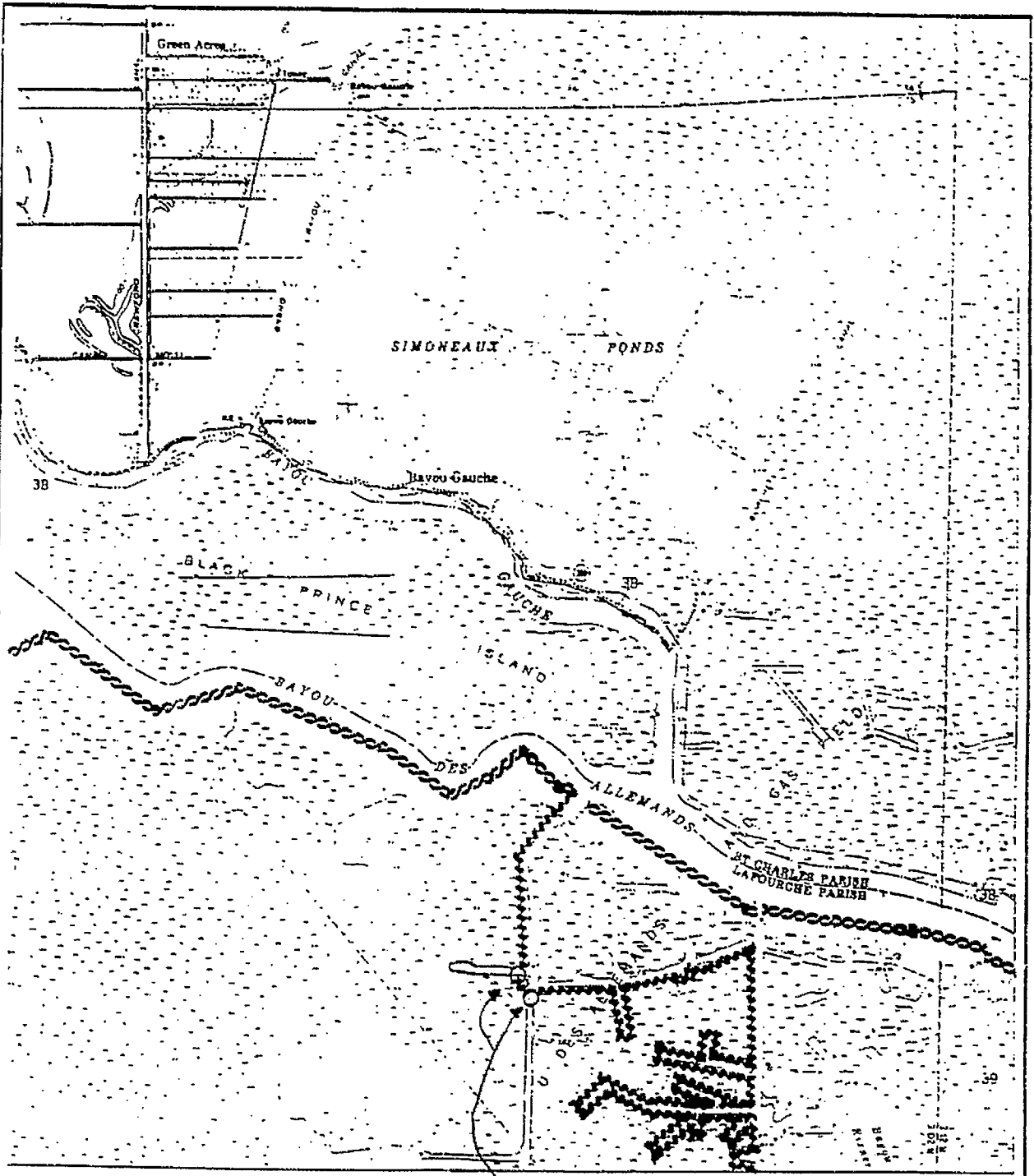
PUMP STATION INFORMATION
(PRIVATELY OPERATED)

<u>DESIGNATION</u>	<u>OWNER</u>	<u>PUMP NAME</u>	<u>DISCHARGE</u>	<u>OUTFALL</u>
O	South Coast Sugars, Inc.	Utopia	36,000 GPM	Into canal which in turn outfalls into the Godchaux Canal
P	South Coast Sugars, Inc.	New Hope	60,000 GPM	Into canal which in turn outfalls into the Godchaux Canal
Q	South Coast Sugars, Inc.	Pecan Tree	12,000 GPM	Into canal which in turn outfalls into the Company Canal
R	Gheens Foundation	#1	25,000 GPM	Into canal which in turn outfalls into the Company Canal
S	Gheens Foundation	#2	83,500 GPM	Into canal which in turn outfalls into the Company Canal
T	Gheens Foundation	#3	21,000 GPM	Into adjacent cypress swamp
U	General Agricultural Services, LTD.	Clovelly	105,000 GPM	Into the Clovelly Canal



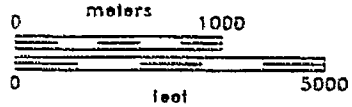
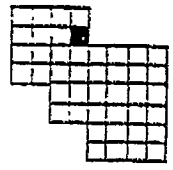
MAP
B3

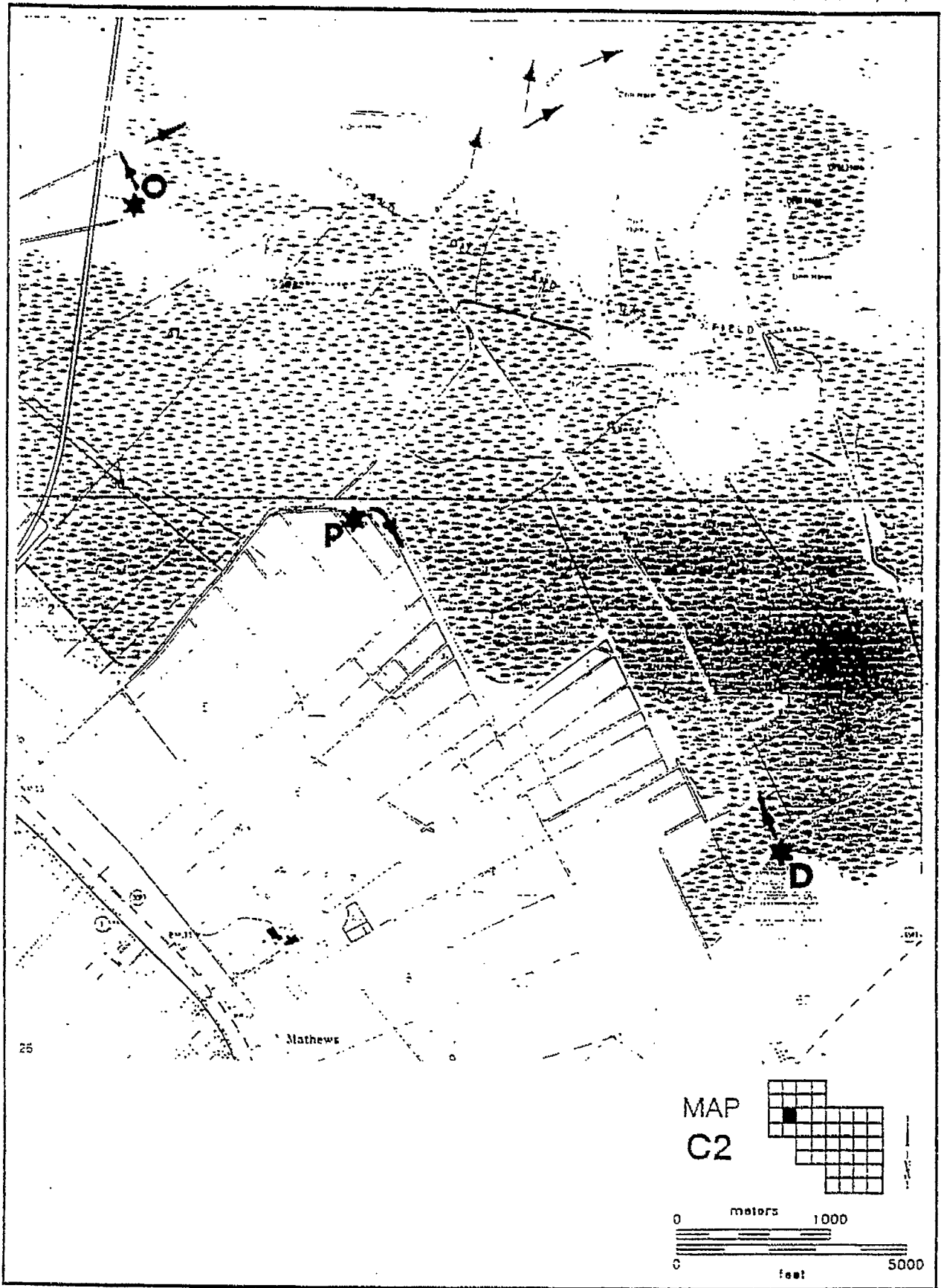


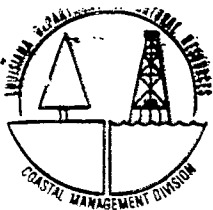


Proposed plugs permitted by
SE(Lafourche Parish Wetlands)732

MAP
B4







DEPARTMENT OF NATURAL RESOURCES
COASTAL MANAGEMENT DIVISION

P. O. BOX 44487

BATON ROUGE, LOUISIANA 70804-4487

(504) 342-7591

Bill Savant
CRD

016 BA-2

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No. P901117(Amended)

C.O.E. No. LMKOD-SE(Lafourche Parish Wetlands)743

NAME AND ADDRESS: LAFOURCHE PARISH COUNCIL: P.O. Drawer 5548, Thibodaux, LA 70301

LOCATION: LAFOURCHE PARISH, LA: T15S-R19-21E, T16S-R19-23E, T17S-R20-22E, T18S-R21 & 22E. The project area is South of U.S. Hwy. 90 to the Clovelly Oil and Gas Field, East of the Bayou Lafourche Ridge, and West of Bayou Des Allemands, Lake Salvador, Bayou Perot and Little Lake.

PROJECT DESCRIPTION:

SEE NEXT PAGE

AMENDED PERMIT

(Supersedes Permit Issued June 20, 1991)

In accordance with the rules and regulations of the Louisiana Coastal Resources Program and Louisiana R.S. 49, Sections 213.1 to 213.21, the State and Local Coastal Resources Management Act of 1978, as amended, the permittee agrees to:

1. Carry out or perform the use in accordance with the plans and specifications approved by 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 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 Coastal Management Division of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Coastal Management Division 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 purposes of this permit, means the actual physical beginning of the use 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. This Coastal Use Permit authorizes periodic maintenance, but such maintenance activities must be conducted pursuant to the specifications and conditions of this permit.
12. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:

C.U.P. No.

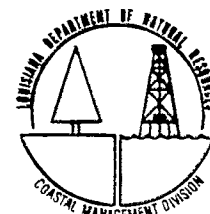
P901117(Amended)

C.O.E. No.

LMN00-SE(Lafourche Parish Wetlands)743

PROJECT DESCRIPTION:

Implement five types of measures to restore natural hydrologic conditions and to better utilize available freshwater resources for the purpose of protecting and maintaining 123,000 acres of vegetated coastal wetlands. Project implementation will be sequenced as Phase I below the GIWW and Phase II above the GIWW. The objectives are to: 1) enhance the overland-flow component of water exchange (sheetflow) between bays and adjacent wetlands and reduce rapid water exchange through canals; 2) route freshwater from direct rainfall and forced drainage through the marsh to provide greater freshwater residence for abatement of saltwater intrusion and to improve water quality; 3) isolate major oil-field complexes and associated transportation and pipeline canals from the adjacent wetland complex to reduce rapid loss of freshwater and saltwater introduction; 4) restore wetlands along bay boundaries to maintain wetland integrity, and 5) prevent adverse increases of tidal water exchange through enlargement of tidal channels and breaching into ponds. To reduce rapid water exchange and loss of fresh water through canals, 31 plugs will be installed or restored at canal entrances using 15,007 cu. yds. of dredged material derived from adjacent canal bottoms. Plugs along the GIWW will have culverts for introduction of sediment laden water. Integrity of the marsh boundary of the project area will be restored and maintained through restoration of the marsh shore up to 1,000' wide along Temple Bay, Little Lake and Bay l'Ours using up to 999,666 cu. yds. of dredged material from nearby bay bottoms and through closure of those breaches that adversely affect integrity of the project marsh. Such breaches will also be closed along Bayou des Allemands and Delta Farms, through placement of dredged material up to 50' wide and not to exceed natural marsh elevations. Natural overflow across the project area boundary will be maintained. Channelized water exchange between selected mineral industry canals and the marsh will be eliminated by closure of breaches in the canal banks associated with the following oil and gas fields: Bayou des Allemands, Delta Farms, Larose, Little Temple, Clovelly, and Cutoff, and along the Company Canal and Clovelly Canal. Access through natural tidal channels will be maintained, but 8 entrances stabilized with rock weirs with navigation openings of no less than 50' x 4'. To reduce the rate of channelized water exchange 10 fixed crest weirs with 4' x 10' boat bays will be installed at locations along Bayou Amoreaux, Delta Farms, and the GIWW. A variable crested weir will be installed along a Clovelly Oil Field canal to provide for suspended solid introduction from that source. Movement through the marsh and utilization of freshwater is improved by the installation of 2 large culverts adjacent to Clovelly Farms and by utilization and routing of freshwater from 23 pumping stations. Only that portion of the activity occurring in the Louisiana Coastal Zone is subject to permitting by the Coastal Management Division.



C.U.P. No.

P901117(Amended)

C.O.E. No.

LMN00-SE(Lafourche Parish Wetlands)743

- a. The water control structures, spoil bank maintenance and repair and other restoration plan components shall be constructed and operated according to the management plan of April 1989, the revisions of January 18, 1991 and the final revisions submitted on June 18, 1991.
- b. Natural tidal channels that do not connect with shallow pond areas will be left open. Overflow banks will not be constructed on top of existing solid marsh where the natural bank is greater than 0.5 ft. or more above marsh level. Vegetated shorelines and tidal waterways which are not in an eroded condition will not have spoil deposited on them.
- c. Should a La. Dept. of Natural Resources review of the area indicate that waterlogging or impoundment conditions exist as a result of structures installed due to this plan being implemented, Lafourche Parish shall be directed to take corrective actions (i.e. gapping spoil banks and/or adding control structures) to return the area to a more normal hydrologic regime according to the provisions of condition "n".
- d. The plug planned for site No. 72 adjacent to Pump Station R shall be replaced with a flapgated culvert should an impoundment situation arise in the marsh.
- e. Spoil taken for marsh creation in open water areas shall not be borrowed from areas which support submergent vegetation.
- f. Water Control Structure Operational Schedule:

The structures shall be operated according to the following operational schedule:

1. Freshwater and Sediment Diversion Flapgated Culverted Structures near the Gulf Intracoastal Waterway (GIWW).
The outside screwgates on culverts on the southern bank of the GIWW shall be open at all times except when the salinity exceeds 2 parts per thousand (ppt) at site Number 71.
2. The sill height of the rock weirs shall be at least 0.5 ft. Below Marsh Level (BML) or lower.
3. Variable Crest Weir.
The stop logs will be set at 0.5 BML from April to November and removed from November to April (weir sill level = 2 ft. BML) to allow for sediment and nutrient inflow during the spring.



C.U.P. No.

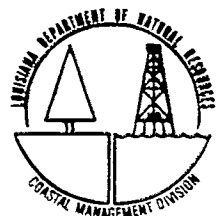
P901117(Amended)

C.O.E. No.

LMNOD-SE(Lafourche Parish Wetlands)743

g. Monitoring Provisions:

1. The management area shall be monitored to adequately evaluate whether the management goals of salt water intrusion, erosion, and land loss prevention in addition to freshwater, sediment introduction and water level control are being achieved.
 2. An annual report, which evaluates the degree to which these goals are being achieved, shall be submitted to CMD, the U.S. Army Corps of Engineers (COE) and all other interested regulatory advisory agencies. The annual report shall include monthly water level and salinity data, control structure operation and maintenance and changes in emergent vegetation, habitats and land/water ratios based on the analysis of aerial photography taken every three years.
 3. The monitoring plan will be that presented by the Coastal Restoration Division and Larourche Parish in their document entitled "Monitoring Plan for BA-2 GIMW to Clovelly" project. DNR shall have the flexibility to allow changes in monitoring program in the future as long as the plan's goals are being sufficiently monitored.
- h. The plan area shall be evaluated after five years by the Interagency Review Team to determine if a change in the management plan or control structure operational scheme is needed.
- i. Should the management plan be abandoned, all water control structures shall have their stop logs removed and/or their flaps either removed or placed in the open locked position so that water is allowed to exchange through the structures unimpeded.
- j. All logs and stumps unearthed during dredging will be buried beneath the bottom of the waterway, placed on shore, or removed to a disposal site on land.
- k. That should changes in the location or the section of the existing waterways, or in the generally prevailing conditions in the vicinity be required in the future, in the public interest, the applicant shall make such changes in the project concerned or in the arrangement thereof as may be necessary to satisfactorily meet the situation and shall bear the cost thereof.



C.U.P. No.

P901117(Amended)

C.O.E. No.

LNR00-SE(Lafourche Parish Wetlands)743

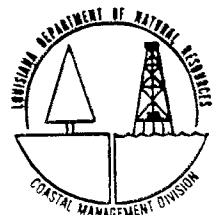
1. (i) The expiration date of this amended permit is five (5) years from the date of the signature of the Secretary or his designee on the original permit which was June 20, 1991.
- (ii) Upon expiration of this amended permit, a new Coastal Use Permit will be required for completion of any unfinished 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.
- m. Maintenance activities to include dredging are authorized by this permit for five years after permit issuance. All maintenance activities authorized by this permit shall be conducted pursuant to the specifications and conditions of the permit.
- n. All future modifications in the character of work or control structure operation shall be submitted to the CMD for possible permit modification or revision. Implementation of mariculture practices within the management area shall require permit modification and interagency review prior to commencement.
- o. The permittee shall notify CMD of the date on which the approved work began on site using the enclosed green commencement card upon initiation of the permitted activity.
- p. Prior to the commencement of work, Lafourche Parish shall obtain the necessary La. Department of Wildlife and Fisheries permits or authorizations for a Scenic Streams permit for work on Bayou des Allemands.
- q. In order to ensure the safety of all parties, the location of the Chevron Pipe Line Company pipeline that runs from the Venice Plant to the Faustina Meter Station shall be verified and staked prior to commencing work. Additionally, D. C. Breland (504)396-3325, shall be contacted to coordinate verification of the line stakeout once completed.

By accepting this permit the applicant agrees to its terms and conditions.

I affix my signature and issue this permit this 19th day of February, 1993

DEPARTMENT OF NATURAL RESOURCES

Terry W. Howey
TERRY W. HOWEY, DIRECTOR
Coastal Management Division



This agreement becomes binding when signed by the Director of the Coastal Management Division, Department of Natural Resources.

BA

George Fadden

DMR Coastal Restoration

Construction Unit No. 2

- STC
- DSTC
- ACTC/AMR
- ASTC/P
- SAO
- SPC
- SCH
- SSS
- ESC
- WSS
- REC
- REC
- REC
- REC

Butt



This notice of authorization must be conspicuously displayed at the site of work.

United States Army Corps of Engineers

March 20 19 97

A permit to install and maintain two plugs, a weir and 6400 feet of rock weir and dredge and maintain access canal in Little Lake, Clovelly Canal and canals in the Clovelly Oil and Gas Field at

has been issued to Lafourche Parish Council on March 20 19 97

Address of Permittee Office of Coastal Zone Management 101 West 112th Street Cut Off, Louisiana 70345

Permit Number
EB-19-970-0428

Donald J. Clement
Donald J. Clement

for the District Commander



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

REPLY TO
ATTENTION OF:

Operations Division
Eastern Evaluation Section

MAR 20 1997

SUBJECT: SE(Lafourche Parish Wetlands)743
EB-19-970-0428

Lafourche Parish Council
Office of Coastal Zone Management
101 West 112th Street
Cut Off, Louisiana 70345

Gentlemen:

Additional drawings attached in nine sheets, furnished with your application dated May 14, 1996, covering the installation and maintenance of two plugs, a weir and about 6,400 feet of rock weir and dredging and maintenance of an access channel in the Little Lake, Clovelly Canal, and canals in the Clovelly Oil and Gas Field, are approved and will be included in your plans for the work authorized by the Secretary of the Army in permit dated December 4, 1991, from the District Engineer at New Orleans, Louisiana.

The following special condition is added to the permit:

34. The permittee shall not operate heavy equipment within the limits of site 16LF24 as identified on the attachment to the State of Louisiana Office of Cultural Development, Division of Archaeology's letter dated December 23, 1996, and attached to this letter of approval.

All other conditions to which the work is made subject remain in full force and effect.

The attached Notice of Authorization, ENG Form 4336, is to be conspicuously displayed at the site of work.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Donald J. Clement
Acting Assistant Chief
Operations Division
for
William L. Conner
Colonel, U.S. Army
District Engineer

Attachments

KEY

PROPOSED MARSH CREATION/RESTORATION



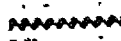
BORROW AREAS FOR MARSH CREATION/RESTORATION



PROPOSED OVERFLOW BANK



NO CHANNELIZED WATER EXCHANGE
(continuous marsh bank or spoil)



PROPOSED PLUG ○

PROPOSED PLUG WITH CULVERT ●
(to allow for sediment import)

PROPOSED WATER CONTROL STRUCTURE ▲

PUMP STATION ★

PUMP STATION DISCHARGE →

EXISTING WATER CONTROL STRUCTURE ▲

EXISTING PLUG ●

CANAL BANK RESTORATION

LAKE RIM RESTORATION

(including flotation canal and spoil)

PLEASE USE DESIGNATED NUMBERS OR LETTERS ON MAPS TO IDENTIFY
UNITS ON ATTACHED SCHEDULES.

REPLACES PAGE 8
OF MAY 96 REVISION
PACKET

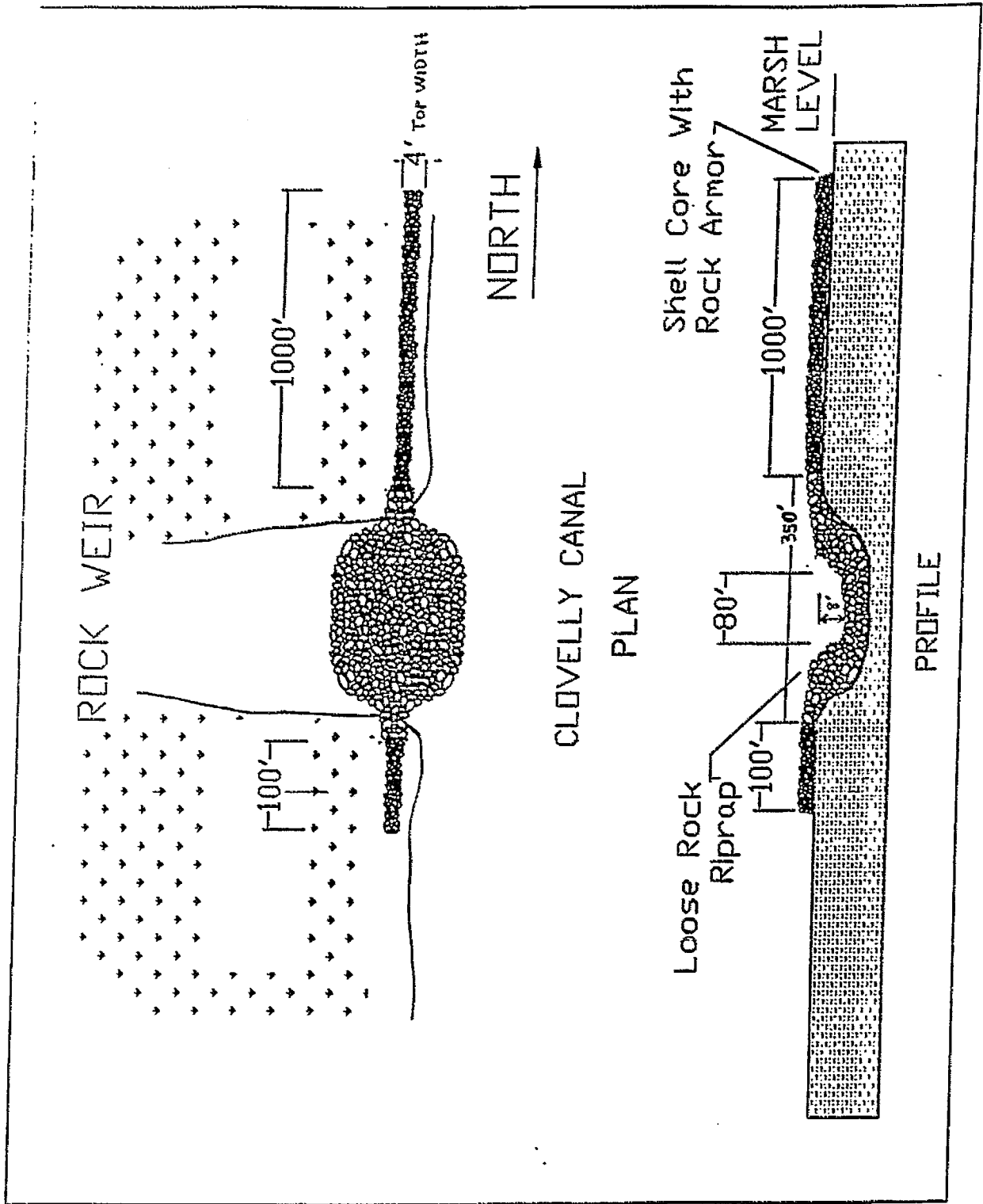
SCHEDULE FOR PROPOSED PLUGS
(Phase 1)

Site No.	Width ft.	Depth ft.	Total Length ft.	Volume cu. yd.	Width of Plug
* 1	260	8	295	4244	88 *
8	50	4.5	70	149	50
12	112	5	132	466	53
13	163	5.5	183	769	56
14	240	9	260	2216	77
15	120	5.5	140	542	56
16	100	6	120	479	59
17	100	6	120	479	59
18	175	5	195	744	53
19	145	5	165	604	53
20	50	2	70	79	35
43	40	4	60	128	47
53	185	7.5	265	1295	68
54	90	2	110	142	35
55	150	5	170	628	53
56	150	8	170	1094	71
58	65	3	85	158	41
60	80	3.5	100	223	44
85	80	6	100	383	59
86	25	3.5	45	70	44
87	110	4.5	130	276	50
* 90	250	5	295	2530	64 *

REPLACES page 29
of May 96 REVISION
packet.

SITE 14A

WEIR W/ 80-FOOT-WIDE, 8-FOOT-DEEP BARGE BAY



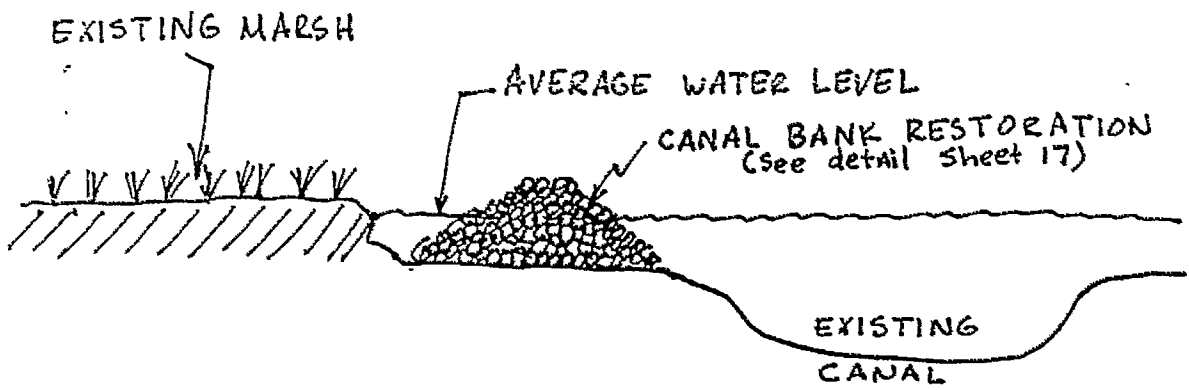
CHANNEL WIDTH	CHANNEL DEPTH	STRUCTURE LENGTH	STRUCTURE WIDTH	CUBIC YARDS
350	8	1450	75	5900

REPLACES PAGES 36+37 of May 96 Revision Packet

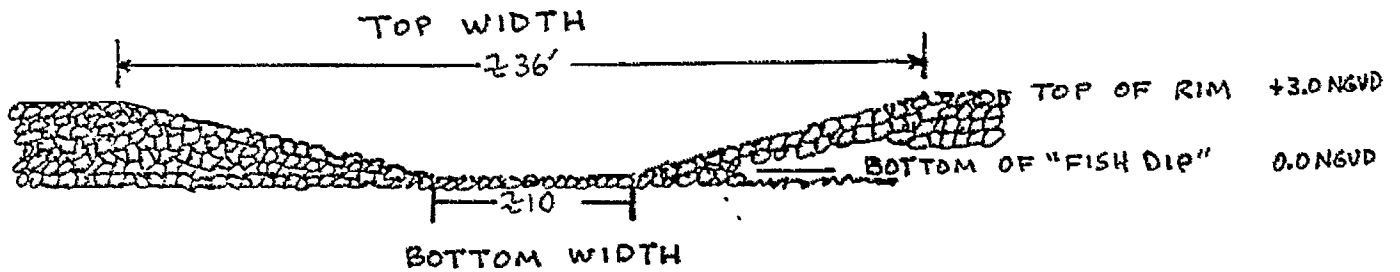
CANAL BANK RESTORATION

LENGTH	BOTTOM WIDTH	HEIGHT	CUBIC YARDS
5000'	Approx. 30' - 40'	3.0' MSL	18,200

CROSS SECTION
(NOT TO SCALE)



SIDE VIEW OF "FISH DIP"



ADD AS PAGE 38
to MAY 1996 REVISION PACKET

LAKE RIM RESTORATION

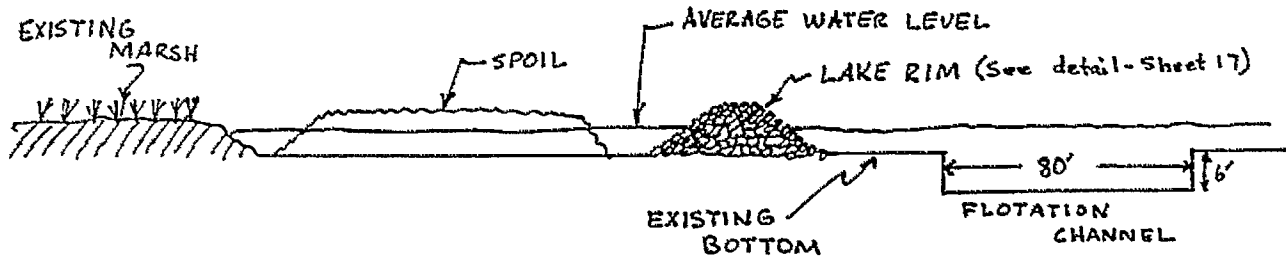
LAKE RIM

LENGTH	BOTTOM WIDTH	HEIGHT	CUBIC YARDS
6400'	Approx. 30' - 40'	3.0' MSL	23,230

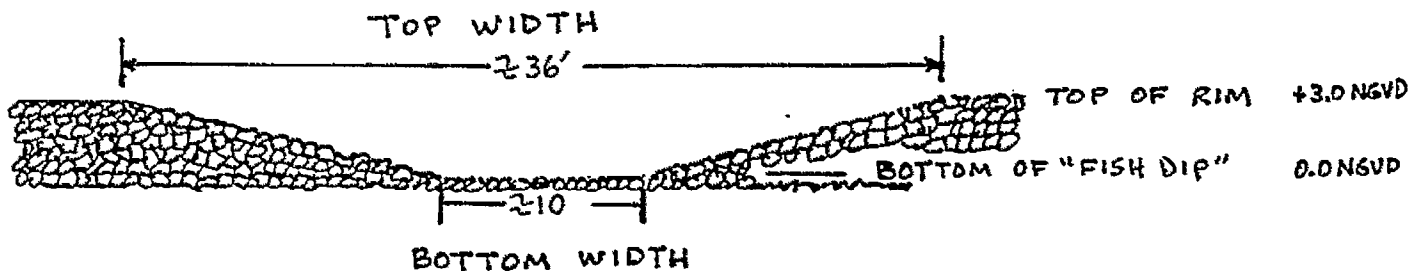
FLOTATION CHANNEL

LENGTH	WIDTH	DEPTH	CUBIC YARDS
6400'	80'	6'	114,000'

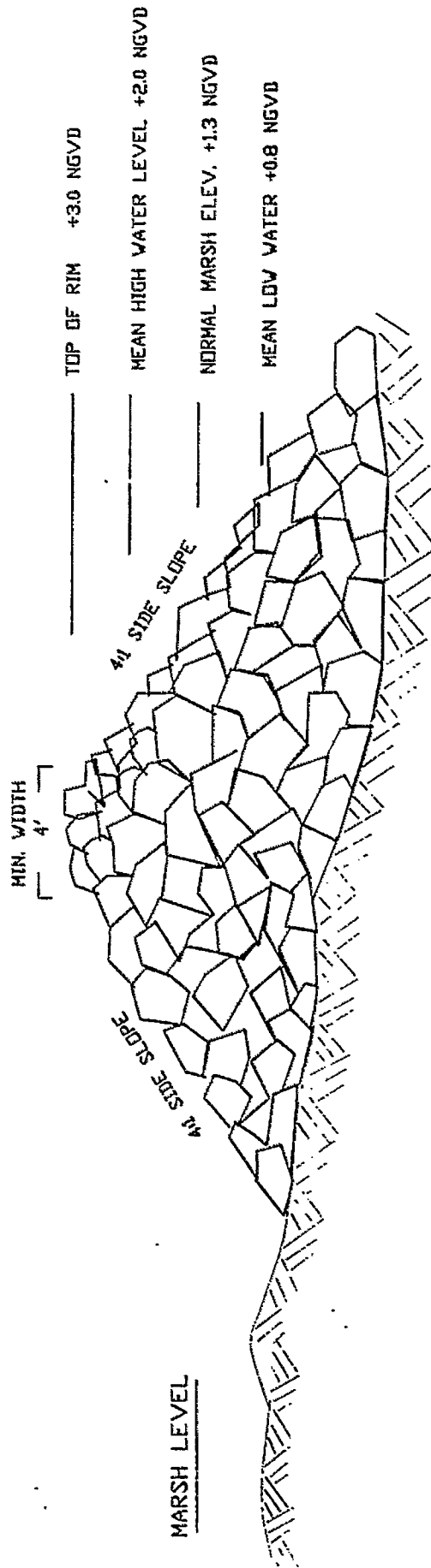
CROSS SECTION
LAKE RIM, FLOTATION CHANNEL, SPOIL DEPOSITION
(NOT TO SCALE)



SIDE VIEW OF "FISH DIP"

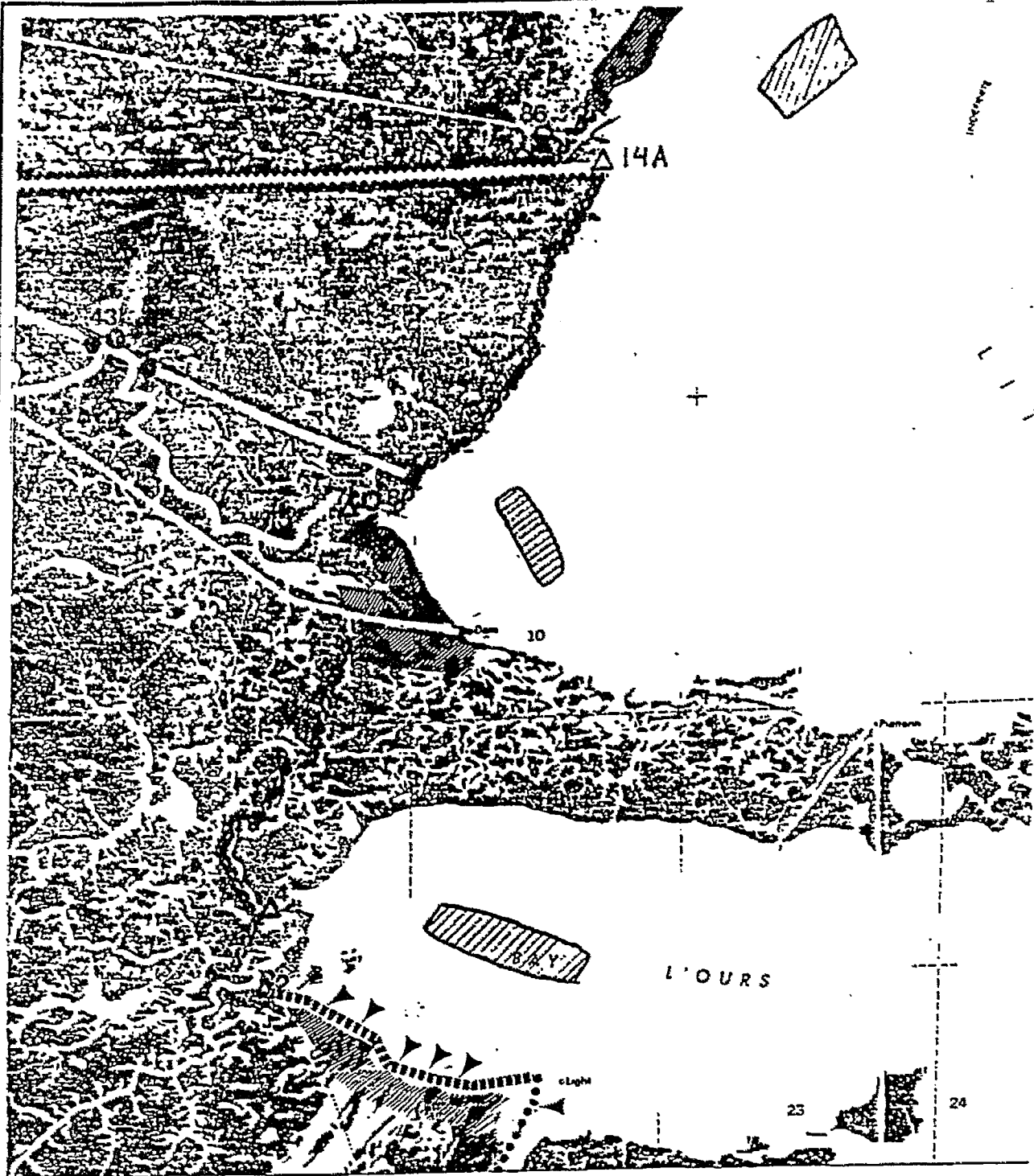


ADD AS PAGE 39
to MAY 1996 REVISION PACKET



LAKE RIM AND CANAL BANK RESTORATION
 BAYOU L'OURS BA-2 SOUTH UNIT

ADD AS PAGE 40
 to MAY 1996
 REVISION PACKET

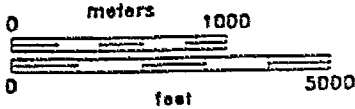
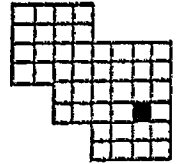


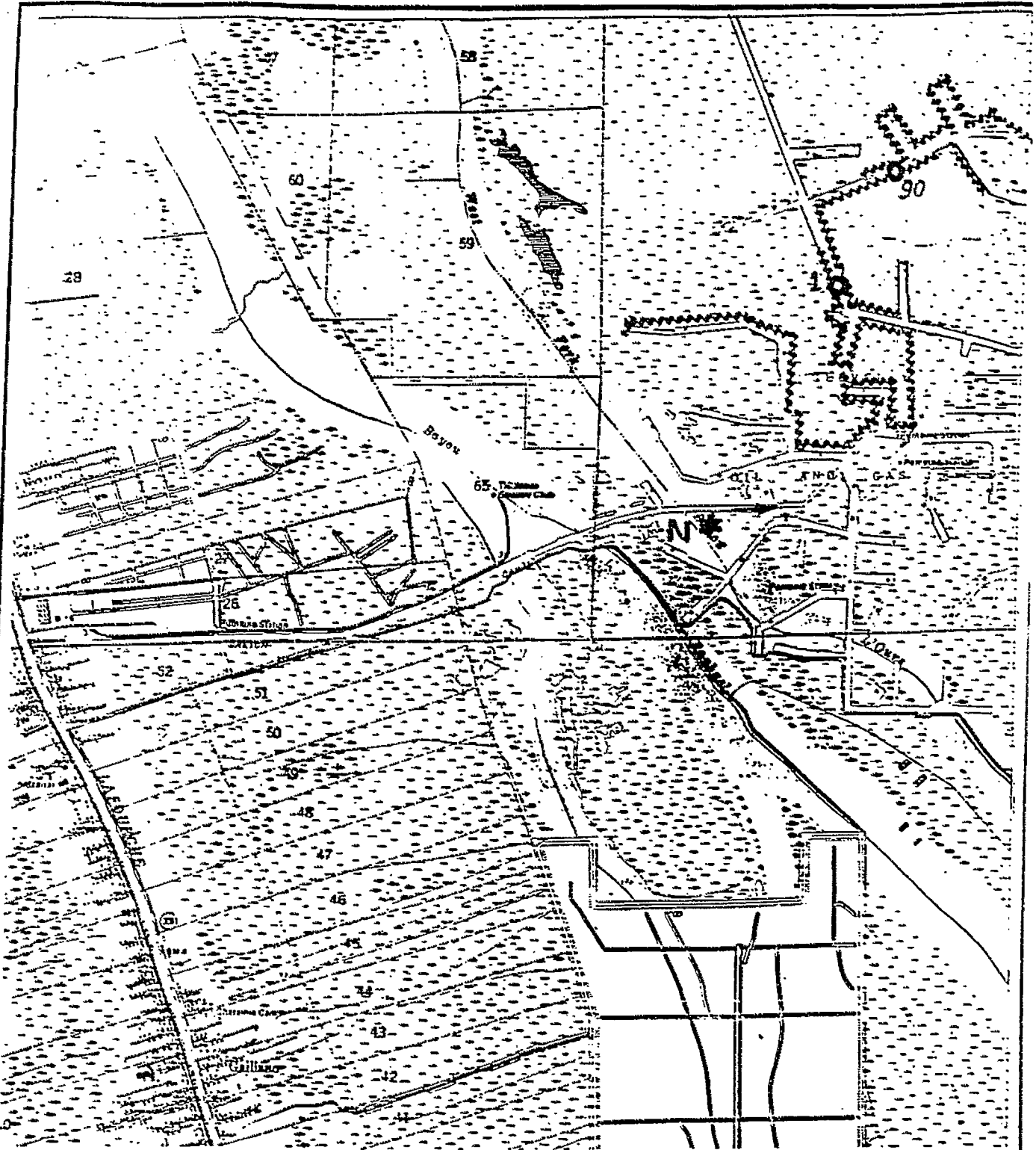
10/96 REVISION INCLUDES:

- Add Structure 14A
- Add Lake Rim
- Add Canal Bank Restoration

"FISH DIP" LOCATIONS

MAP F7

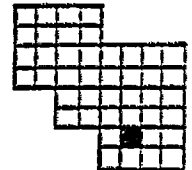


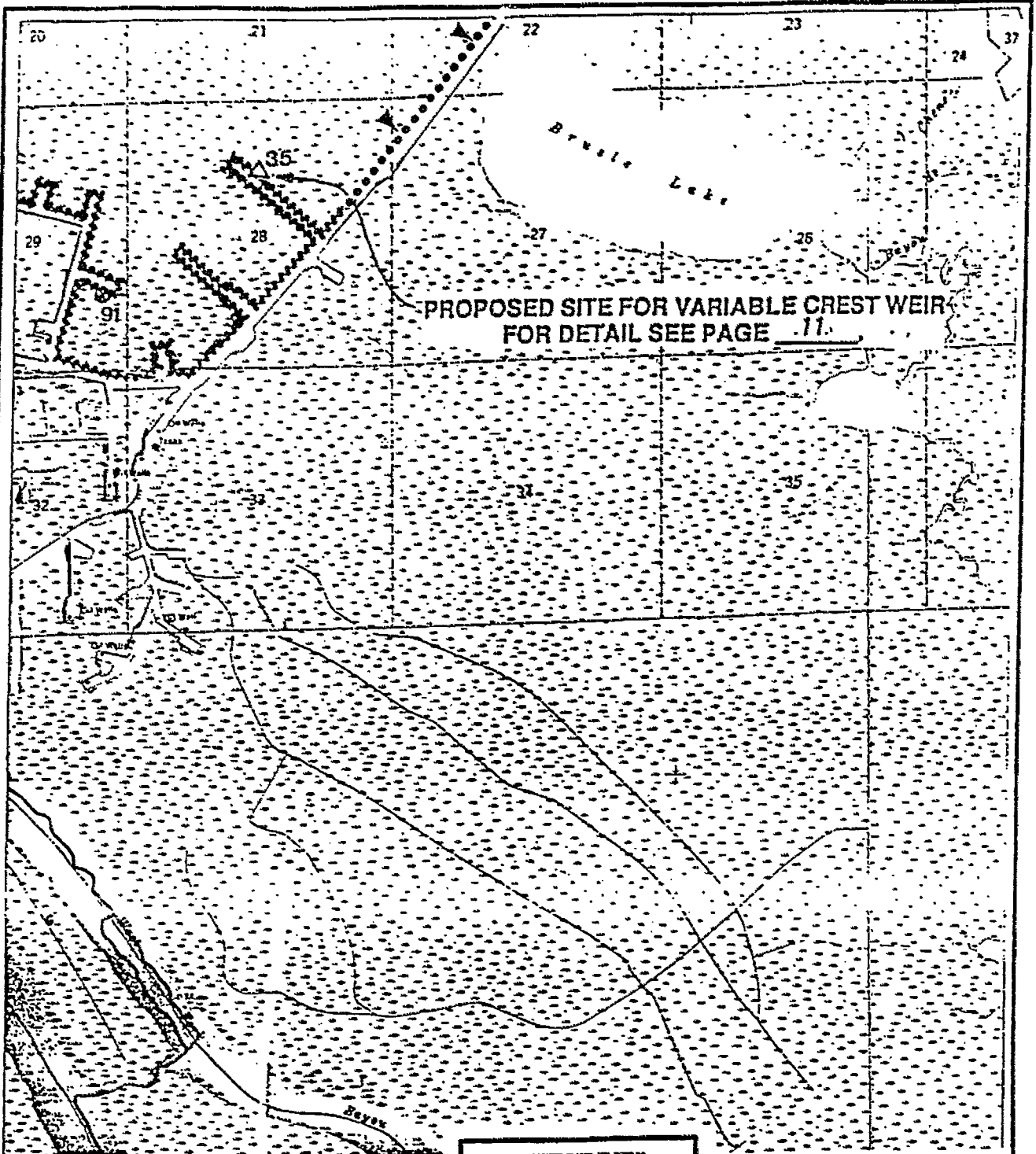


10/96 REVISION INCLUDES:

- Revised Locations for Plugs 1 and 90
- Revised Locations for "No Channelized Water Exchange"
(continuous marsh bank or spoil)

MAP
G6





PROPOSED SITE FOR VARIABLE CREST WEIR
FOR DETAIL SEE PAGE 11.

▲ "FISH DIP"
LOCATIONS

10/96 REVISION INCLUDES:

- Revised Locations for "No Channelized Water Exchange"
(continuous marsh bank or spoil)
- Add Canal Bank Restoration

MAP
G7

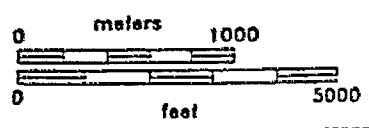
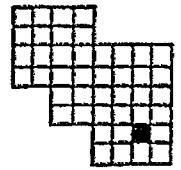


EXHIBIT "B"

Name of Waterbody, if known or applicable

-The project is from South of the Gulf Intracoastal Waterway to the Clovelly Oil and Gas Field, East of the Bayou Lafourche Ridge, and West of the Bayou Des Allemands, Lake Salvador, Bayou Perot, and Little Lake shores.

T-16-S,R-21-E,T-16-S,R-22-E,T-16-S,R-23-E,
T-17-S,R-20-E,T-17-S,R-21-E,T-17-S,R-22-E,
T-18-S,R-21-E,T-18-S,R-22-E

-With regard to questions 20-22, the following information is supplied from the original permit application (P901117) modified by the relocation of two structures (1 & 90), the addition of one structure (14A), and the deletion of BA- structures.

Plugs	+ - 17,690 cubic yards
Plugs with culverts	+ - 2279 cubic yards
Fixed Crest Weirs w/boat bay	+ - 450 cubic yards
Variable crest weir	+ - 50 cubic yards
Fixed crest Plug w/boat bay	+ - 5900 cubic yards
Rock weirs	+ - 1905 cubic yards
Overflow banks	Up to 200,000 cubic yards
Continuous spoil bank	Up to 20,000 cubic yards
Marsh Creation:	
Canal bank restoration	+ - 18,200 cubic yards
Lake Rim Restoration	+ - 23,230 cubic yards
Flotation Channel	+ - 114,000 cubic yards



State of Louisiana

KATHLEEN BABINEAUX BLANCO
LIEUTENANT GOVERNOR

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

PHILLIP J. JONES
SECRETARY

GERRI HOB DY
ASSISTANT SECRETARY

December 23, 1996

Dr. James Barlow
Department of the Army
Corps of Engineers, New Orleans District
Regulatory Functions Branch
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Re: EB-19-970-0428
Plugs, Weirs, and Shoreline Protection
Lafourche Parish Council
Lafourche Parish, Louisiana

Dear Dr. Barlow:

Reference is made to the Joint Public Notice dated November 25, 1996, regarding the above. A review of our files indicates that there is one archaeological site, 16LF24, located in one of the areas designated for marsh creation/restoration (see enclosed map and site form). In order to avoid affecting this site, we request that no heavy equipment be allowed to enter the site boundaries as shown on the map. The placement of spoil and rip-rap on this site will have no effect, and as such, we have no objections to either of these activities.

Should you have any questions, please contact Mr. Mike Mahady in the Division of Archaeology at (504) 342-8170.

Sincerely,

Gerri Hobdy
State Historic Preservation Officer

Enc: as stated

c: Lafourche Parish Council
101 West 12th Street
Cut Off, Louisiana 70345



LF 20

LF 206 - NE

LF 22 - NE

- NE

BAYOU
DES
AMOUREUX

LF 24 - PE

Dam

+

INDEFINITE

LF 25

x1

LF 26

Platform

LF 24

STATE OF LOUISIANA
SITE RECORD UPDATE FORM

Site Name Little Lake #10 State Survey No. 16 LF 24

Other Site Designations _____

Instructions for Reaching Site Put boat in at Clovelly Public Boat Launch, head west out of Clovelly Canal. Then head southwest into Little Lake. Site is located on western shore of Little Lake just south of Bayou Des Amoureux. Parish Lafourche

USGS Quad: (name, date series) Bay L'Ours, Louisiana, 1973, 7.5 min. (34-751)

_____ of the _____ of the _____ of Section 10 Township 18S Range 22E

UTM Coordinates: Zone 15 Easting _____ Northing _____

Geographical Coordinates: Latitude _____ Longitude _____

PHYSICAL SETTING

Land Form Natural Levee Geologic Processes Erosion /subsidence

Elevation 0 ft (MSL)

Slope _____ Site Position with Respect to Terrain Edge of marsh at lakeshore.

Nearest Water Little Lake Flooding _____

Soil Characteristics Lafitte-Clovelly

Floral Communities Deltaic species

Faunal Communities Deltaic species

Other Potential Resources _____

Nearest known Site 16 LF 25

SITE DESCRIPTION

Site Size 350 x 20 m Plan Linear

Orientation North-south trend Stratigraphy _____

Artifact Density Moderate to High Artifact Distribution Scattered

Cultural Features Wave washed shell ridge and intact shell midden.

Cultural Affiliation Prehistoric - possible Baytown; Coles Creek

Presumed Function Extraction Locale

COLLECTIONS

Survey Method Pedestrian survey, probing, and auguring.

Assessment of Collecting Conditions Good

Description of Material Prehistoric aboriginal sherds, historic material

CONDITIONS

Present Use None Erosion or Disturbance Erosion and subsidence

16 LF 24
(2 of 3)

Probable Future Destruction Erosion, subsidence, and construction disturbance for marsh restoration.

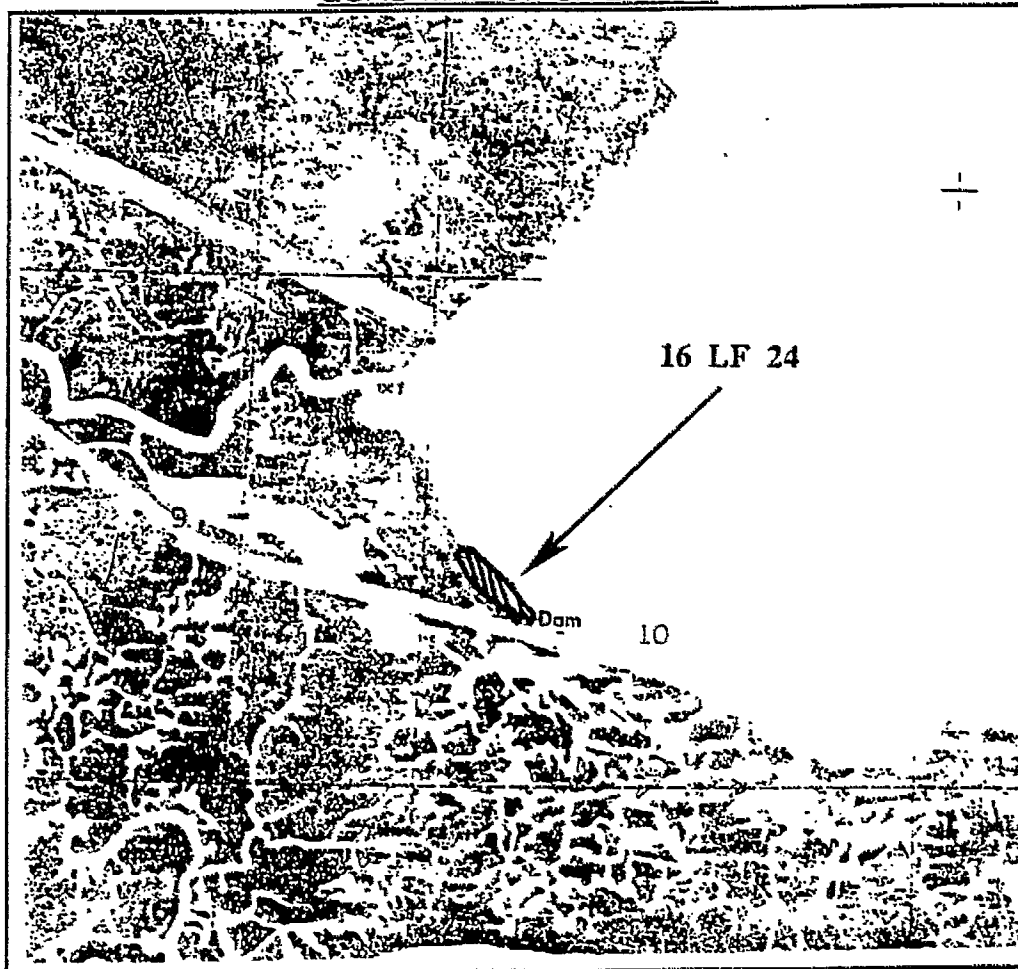
SITE EVALUATION

Research Potential This site could yield information on subsistence patterns, regional chronology, and the relation of archaeological sites to the geomorphology of the area.

State or National Register Eligibility Potentially eligible

Recommendations No further work is recommended at this time. However if future construction were to endanger the site testing procedures should be implemented.

QUAD MAP OF SITE AREA



RECORDS

Owner and Address General Ag. Services and Land Co.

Tenant and Address _____

Informants None

Previous Investigations McIntire 1952

Previous Collections and Availability LSU 52-235

References 22-1706

Photographs and Maps CEI topos and photos

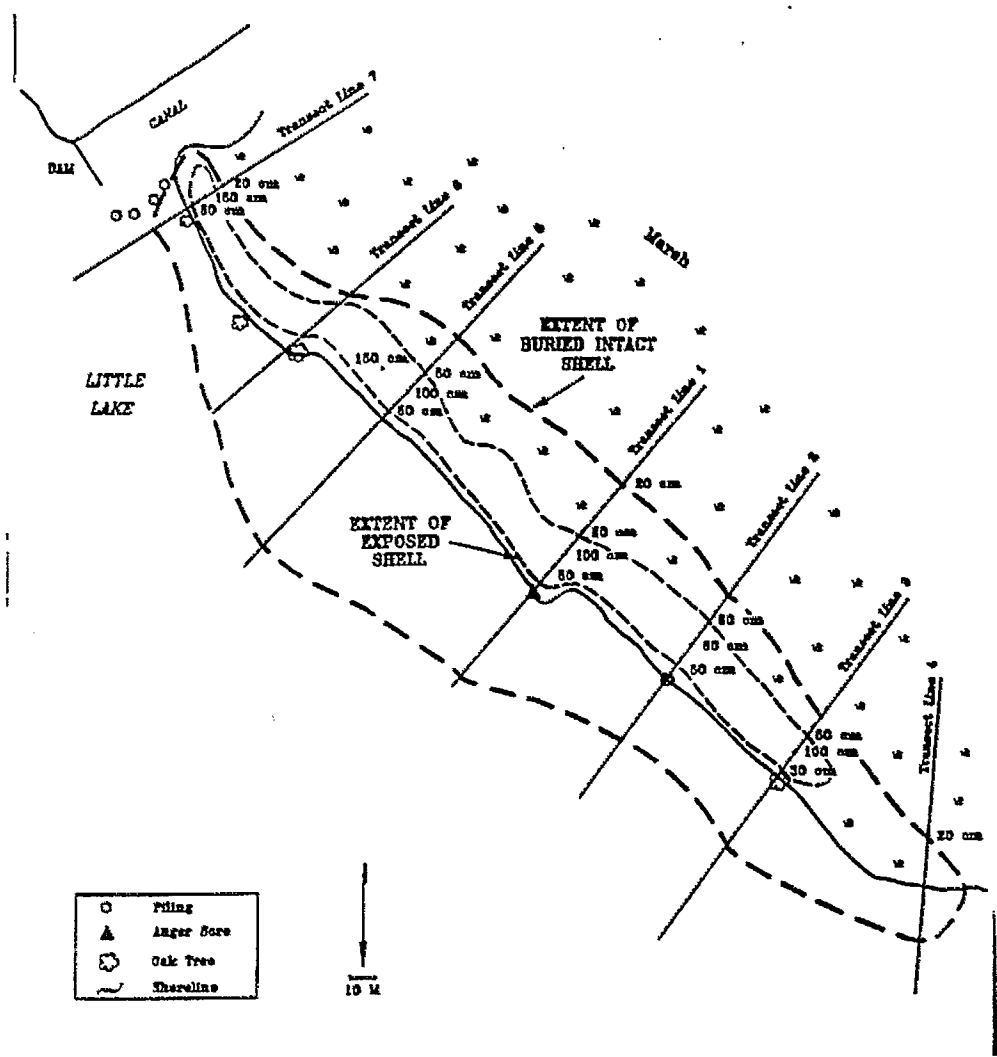
Remarks This site is in fairly good condition and has intact midden present. It is potentially eligible for inclusion on the National Register. If further disturbance is to take place, the site should be tested.

Recorded by Stephanie L. Perrault (CEI)

Date October 1993

STATE OF LOUISIANA
SITE MAP FORM

Site Name _____ Site Survey Number 16LF24



Scale _____
Drawn by CEI
Date May 1994

Aaron Caillouet, Parish President

"Progress Through Unity"

March 22, 1999

Mr. James Barlow
Regulatory Functions Branch
U.S. Army Corps of Engineers
PO Box 60267
New Orleans, LA 70160-0267

Dr. Terry W. Howey
Director of Natural Resources
Coastal Management Division
PO Box 44487
Baton Rouge, LA 70804-4487

Mr. Larry Wiesepape
Certificate Coordinator
Department of Environmental Quality
Office of Water Resources
PO Box 82215
Baton Rouge, LA 70884-2215.

Gentlemen:

RE: Permit Modification; COE Permit LMNOD-SE (Lafourche Parish Wetlands) 743
Coastal Zone Consistency C960223
Water Quality Certification 960716-09

As we are nearing construction of the 2nd and final unit of the GIWW to Clovelly Project (BA-2) under PL-646, I am requesting the following modifications to the above referenced permit:

- 1) Addition of an access channel at site 14A
- 2) Addition of an access channel along Breton Canal

The locations and details of these two additions are shown on the attached drawings.

Your swift attention to this request would be greatly appreciated. If you have any questions or need further information, please contact Mr. Britt Paul, NRCS Project Manager at (318) 473-7816.

Sincerely,



LAFOURCHE PARISH COUNCIL
Grady Galiano
CZM Administrator

Council Members:

DISTRICT 1
Mary Flowers
DISTRICT 2
Roland Soignet
DISTRICT 3
Jerry Jones

DISTRICT 4
Robert P. Naquin
DISTRICT 5
Ernest "Tibby" Boudreaux
DISTRICT 6
Audie T. Levron

DISTRICT 7
Marvin P. Robichaux
DISTRICT 8
Barry Uzee
DISTRICT 9
Lindel Toups

DISTRICT 10
Thomas W. Guidry
DISTRICT 11
Kenneth "Matt" Matherne
DISTRICT 12
Darryl F. Marlborough

DISTRICT 13
V. J. "Vince" Melvin
DISTRICT 14
Rod Toups
DISTRICT 15
Daniel Lorraine

Attachment

cc: Britt Paul, Water Resources, Alexandria, LA
Quin Kinler, NRCS-Baton Rouge, LA
Tim Landreneau, Thibodaux Field Office, Thibodaux, LA
George Boddie, LDNR-CRD, Baton Rouge, LA

State of Louisiana



KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

April 3, 2007

Donald W. Gohmert,
State Conservationist
Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

RE: **C960223**, Coastal Zone Consistency Modification
Natural Resources Conservation Service
Direct Federal Action
Modification of the GIWW to Clovelly Hydrologic Restoration CWPPRA Project (BA-2), to
remove vegetation in a conveyance channel blocking water flow to structure #35, **Lafourche
Parish, Louisiana**

Dear Mr. Gohmert:

The above referenced project 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,

Jim Rives
Acting Administrator

JR/JH/bgm

cc: Vince Melvin, Lafourche Parish CZM
Brian Babin, CRD
John Herman, NOD-COE
Venise Ortego, LDWF
Kirk Kilgen, CMD/FI

RECEIVED

APR 11 2007

ced
.....

State of Louisiana



KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

July 10, 2007

Dorothy S. Harris
Acting State Conservationist
Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

RE: **C960223**, Coastal Zone Consistency Modification
Natural Resources Conservation Service
Direct Federal Action
Modification of the GIWW to Clovelly Hydrologic Restoration CWPPRA Project (BA-2), to
repair several breaches caused by hurricanes Katrina and Rita, **Lafourche Parish, Louisiana**

Dear Ms. Harris:

The above referenced project 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,

Jim Rives
Acting Administrator

JR/JH/bgm

cc: Vince Melvin, Lafourche Parish CZM
Brian Babin, CRD
John Herman, NOD-COE
Venise Ortego, LDWF
Kirk Kilgen, CMD/FI

RECEIVED

JUL 12 2007

CD



REPLY TO
ATTENTION OF

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

February 9, 2007

Operations Division
Central Evaluation Section

SUBJECT: MVN 2007-548-CY

Lafourche Parish Council
101 West 112th Street
Cut Off, Louisiana 70345

Gentlemen:

The proposed work, to re-establish flow through an existing channel by unplugging flotant marsh that had been pushed in by Hurricanes Katrina and Rita, near Galliano, Louisiana, in Lafourche Parish, as shown on the attached 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 Environmental Services. As such, no additional authorization from DEQ is required.

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

The following special conditions are being made a part of this authorization:

1. The permittee shall limit cleanout activities and fill activities to areas essential to the project.
2. If the proposed project requires any additional work not expressly permitted herein, or impacts any wetlands other than the areas indicated on the attached drawings, the permittee must apply for an amendment to this authorization prior to commencement of work.

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.

RECEIVED

FEB 13 2007

CE
.....

Should you have any further questions concerning this matter, please contact John M. Herman of this office at (504) 862-1581.

Sincerely,

Martin S. Mayer
Ronald J. Ventola
Chief, Regulatory Branch

Enclosures

February 9, 2007

Operations Division
Central Evaluation Section

SUBJECT: MVN 2007-548-CY

Lafourche Parish Council
101 West 112th Street
Cut Off, Louisiana 70345

Gentlemen:

The proposed work, to re-establish flow through an existing channel by unplugging floatant marsh that had been pushed in by Hurricanes Katrina and Rita, near Galliano, Louisiana, in Lafourche Parish, as shown on the attached drawings, is authorized under **Category I** of the **Programmatic General Permit** provided that all conditions of the permit are met.

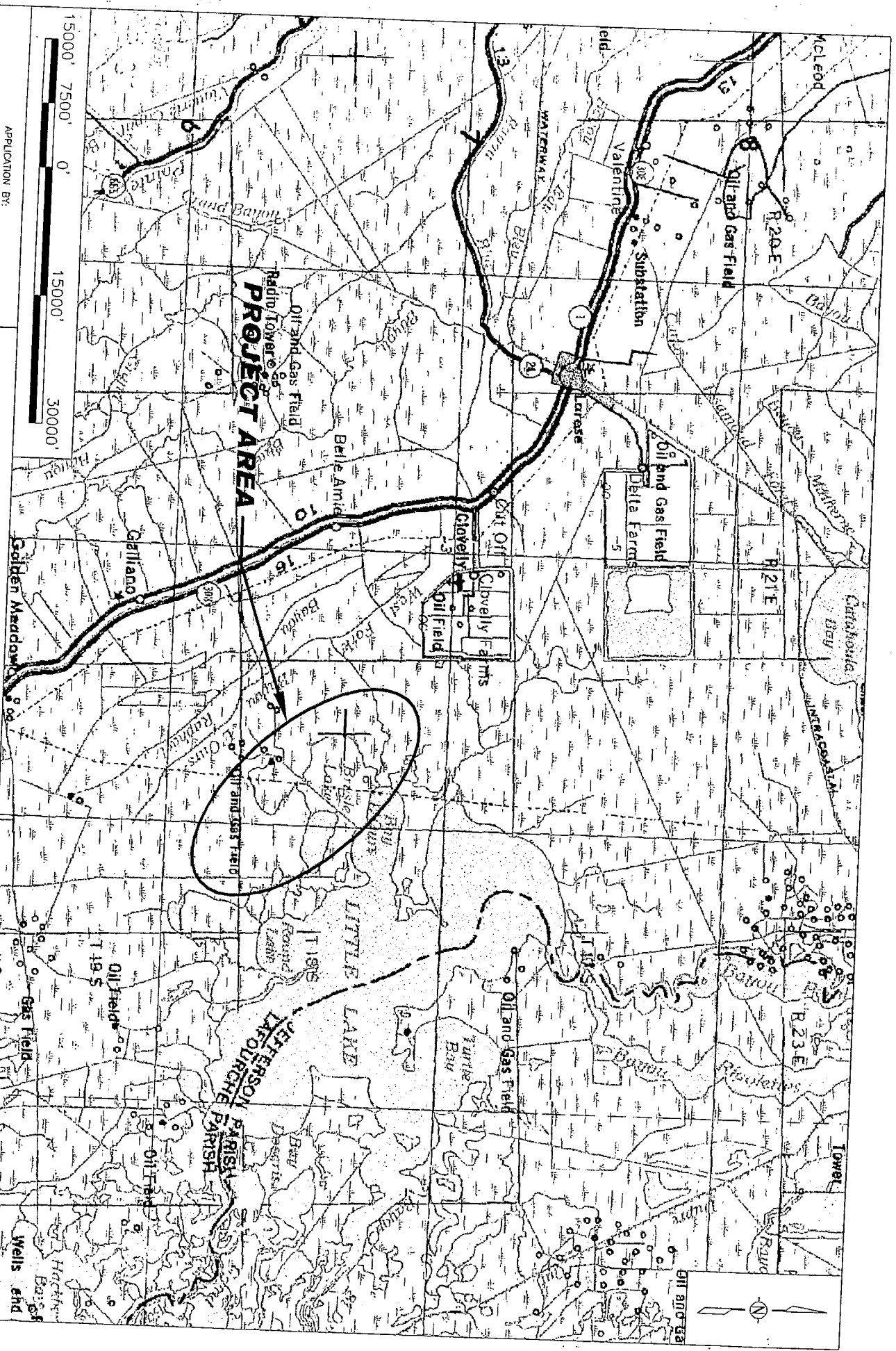
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APPLICATION BY:
 LAFOURCHE PARISH COUNCIL
 101 WEST 117TH STREET
 OUTH, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
 COASTAL ENGINEERING DIVISION
 617 NORTH 3RD STREET
 BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic Restoration
 Structure 35 Cleen-out

VICINITY MAP

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

FEDERAL PROJECT NUMBER: BA-02

DATE: JANUARY 2007

SHEET 1 OF 5

Clovelly Farms

T 4 S
R 22 E

18 S

PROJECT AREA

Bay L'Ours

R 22 E
R 23 E

Little Lake

Round Lake

JEFFERSON PARISH
LAFOURCHE PARISH

APPLICATION BY:
LAFOURCHE PARISH COUNCIL
101 WEST 112TH STREET
CUT OFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic Restoration
Structure 35 Clean-out

SECTION, TOWNSHIP,
AND RANGE



DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN, P.E.

APPROVED BY: D. BURKHOLDER, P.E.

STATE PROJECT NUMBER: BA-02

FEDERAL PROJECT NUMBER: BA-02

DATE: JANUARY 2007

SHEET 2 OF 5

APPLICATION BY:
 LAFOURCHE PARISH COUNCIL
 101 WEST 112TH STREET
 CUT OFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
 COASTAL ENGINEERING DIVISION
 617 NORTH 3RD STREET
 BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic Restoration
 Structure 35 Clean-out

STRUCTURE 35
 PROJECT SITE

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN, P.E.




APPROVED BY: D. BURKHOLDER, P.E.

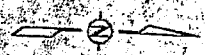
STATE PROJECT NUMBER: BA-02
 FEDERAL PROJECT NUMBER: BA-02

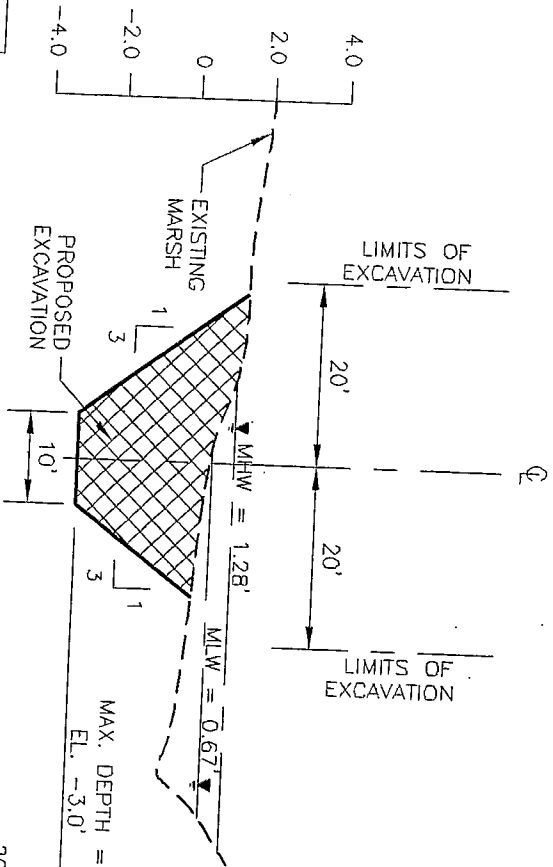
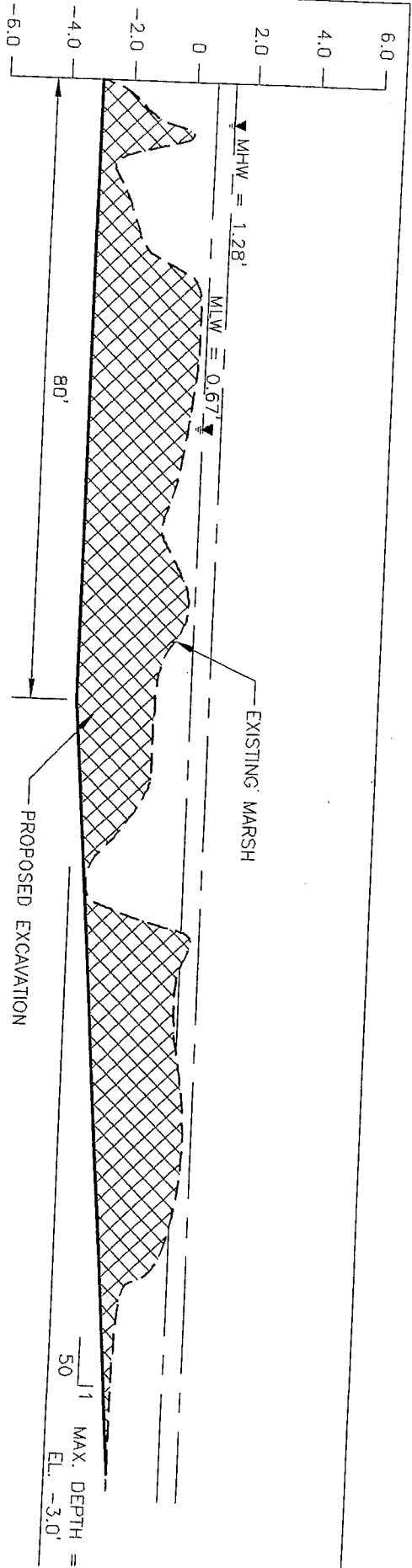
DATE: JANUARY 2007
 SHEET 3 OF 5



LEGEND

-  SPOIL AREA
-  CLEAN-OUT AREA
-  PROPOSED ACCESS





*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

APPLICATION BY:
LAFOURCHE PARISH COUNCIL
101 WEST 112TH STREET
CUT OFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic Restoration
Structure 35 Clean-out

CLEAN-OUT
PROFILES AND SECTIONS

DRAWN BY: S. TRICHE

DESIGNED BY: B. BAGIN, P.E.

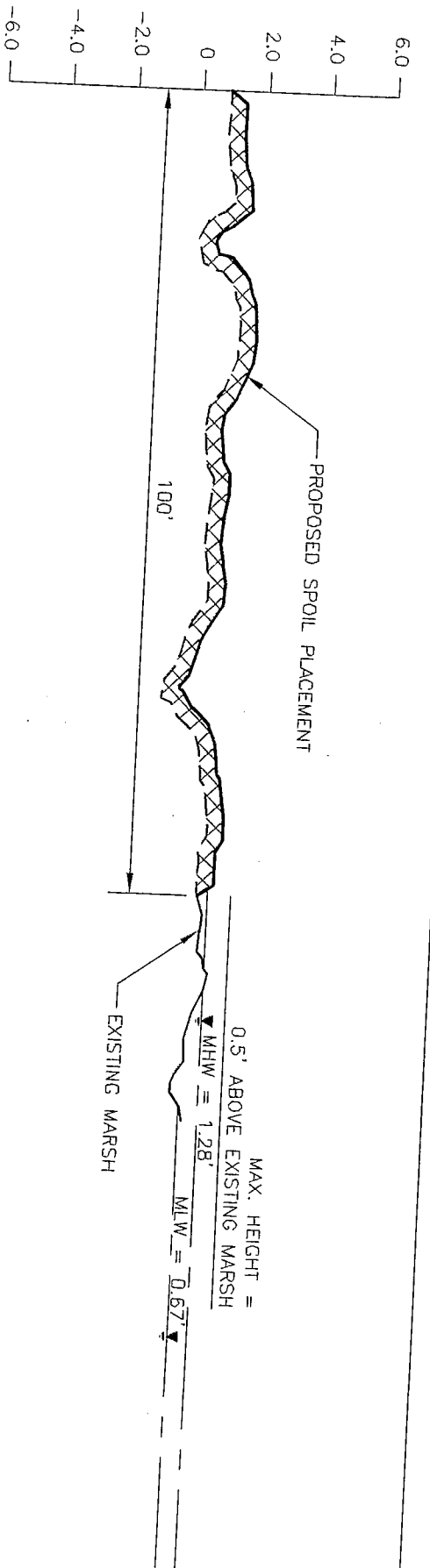
APPROVED BY: D. BURKHOLDER, P.E.

STATE PROJECT NUMBER: BA-02

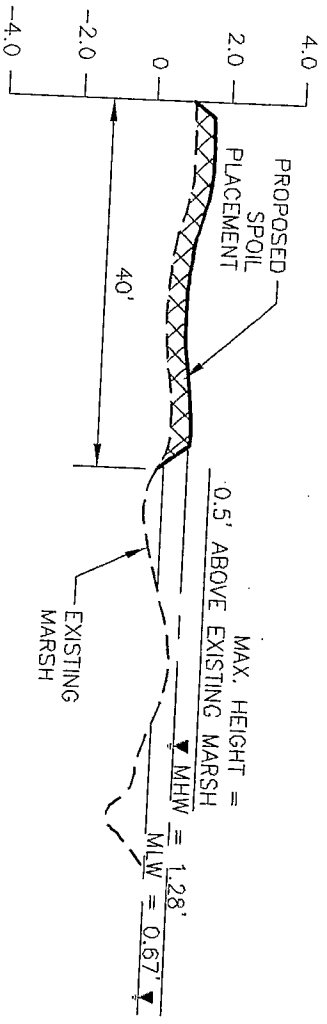
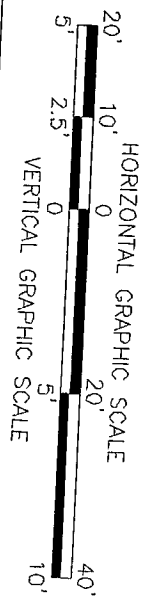
FEDERAL PROJECT NUMBER: BA-02

DATE: JANUARY 2007

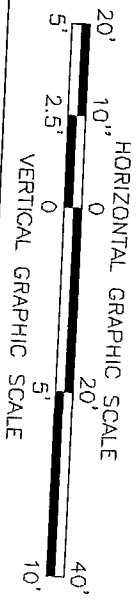
SHEET 4 OF 5



TYPICAL PROFILE



TYPICAL SECTION



*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

APPLICATION BY:
LAFOURCHE PARISH COUNCIL
101 WEST 112TH STREET
OUT OFF. LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic Restoration
Structure 35 Clean-out

SPOIL PLACEMENT
PROFILES AND SECTIONS

DRAWN BY: S. TRICHE

DESIGNED BY: B. BAGIN, P.E.

APPROVED BY: D. BURKHOLDER, P.E.

STATE PROJECT NUMBER: BA-02
FEDERAL PROJECT NUMBER: BA-02

DATE: JANUARY 2007
SHEET 5 OF 5

PGP SPECIAL CONDITIONS

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 (CEMVN) Regulatory Branch. 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 (m), Eighth Coast Guard District, ATTN: Vessel Traffic Management Branch, 501 Magazine Street, New Orleans, Louisiana 70130-3396, 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 U.S. Coast Guard 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 U.S. 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 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 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 U.S. 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.



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

Operations Division
Central Evaluation Section

MAR 10 2008

SUBJECT: MVN 2007-4248-CY

Lafourche Parish Council
101 West 112th Street
Cut Off, Louisiana 70345

Gentlemen:

Additional drawings enclosed in 17 sheets, furnished with your application dated October 29, 2007, requesting Department of the Army authorization to dredge and deposit fill and/or aggregate material, conduct maintenance of canal banks, and install and maintain rock weirs, rock shorelines, and navigational aids for the purpose of maintaining constructed features of the GIWW to Clovelly Hydrologic Restoration Project (CWPPRA Project BA-02) located in Lafourche Parish, are approved and will be included in your plans for the work authorized by the Secretary of the Army in permit dated December 4, 1991, and time extension dated October 10, 1996, from the District Engineer at New Orleans, Louisiana.

A copy of the first page of this permit approval letter must be conspicuously displayed at the project site. Also, you must keep a copy of this signed letter, with attached drawings, at the project site until the work is completed.

The time limit for completion of this work is extended to March 31, 2013.

The following special conditions are being made a part of this authorization. All other special conditions to which the work is made subject, remain in full force and effect:

1. 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 the US Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch. 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.

2. Maintenance dredging, including dredging for material to maintain project features authorized herein, is approved for a period of ten (10) years from the date of permit issuance. Maintenance operations shall not exceed specifications as shown on the permit drawings without prior approval from CEMVN.

RECEIVED

MAR 12 2008

[Handwritten signature]
.....

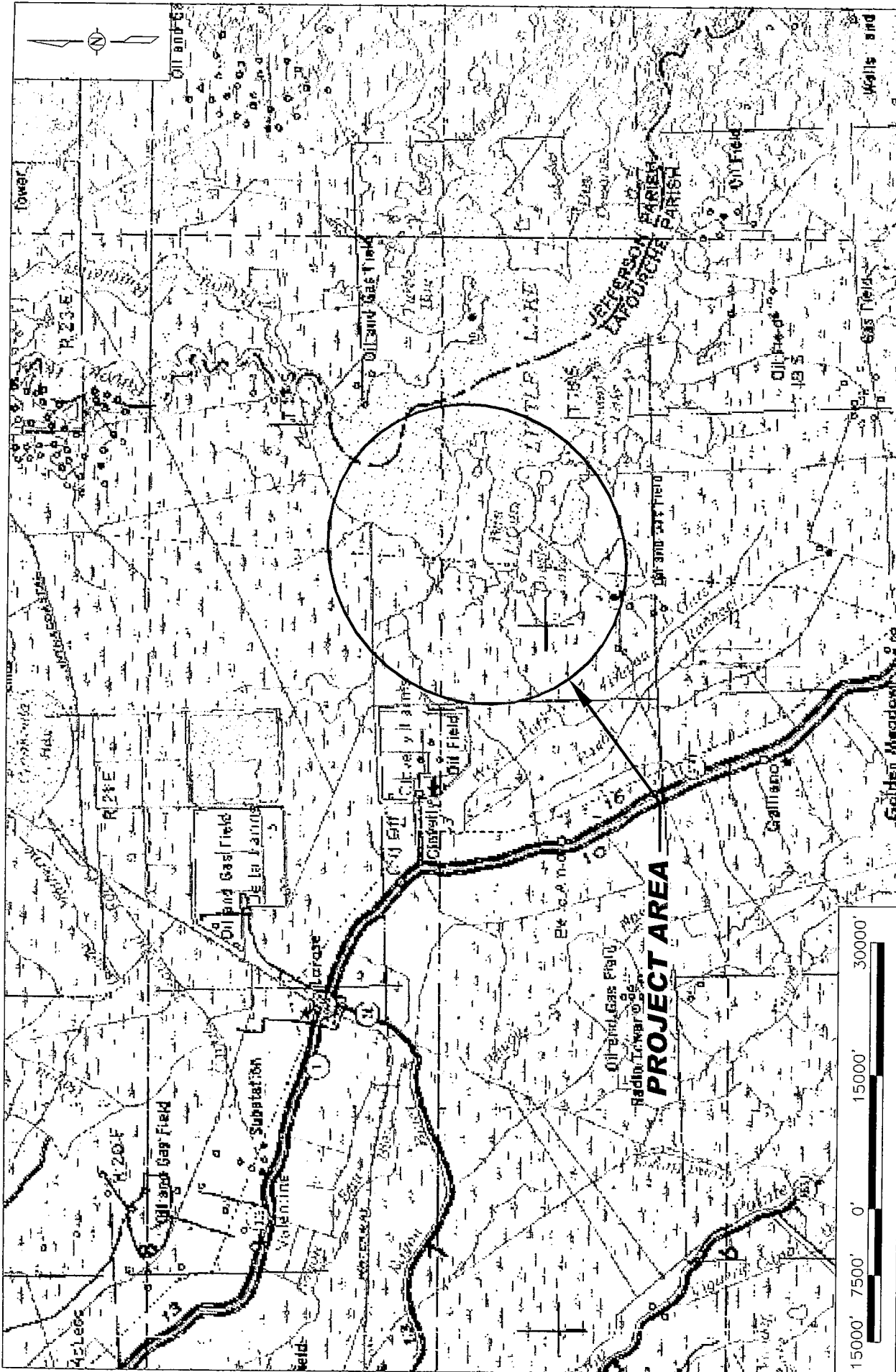
If the structure or work authorized is not completed on or before the date herein specified, this authorization, if not previously revoked or specifically further extended, will cease and become null and void.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

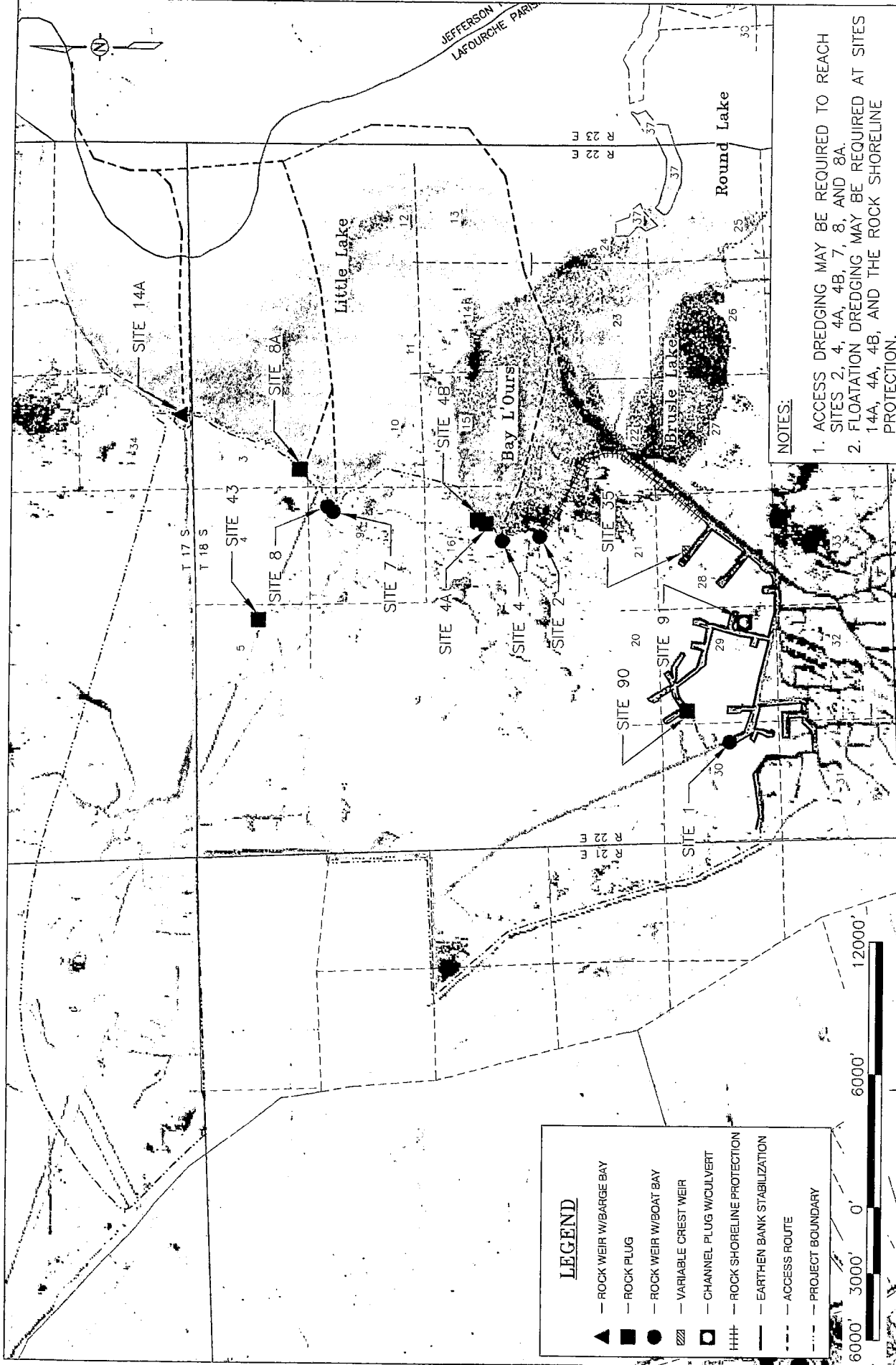


Pete J. Serio
Chief, Regulatory Branch
for
Alvin B. Lee
Colonel, U.S. Army
District Commander

Enclosures



<p>APPLICATION BY: LAFORCHE PARISH COUNCIL 101 WEST 112TH STREET CUTOFF, LA 70345</p>	<p>LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802</p>	<p>GIWW to Clavelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN</p>	<p>VICINITY MAP</p>
<p>DRAWN BY: S. TRICHE</p>	<p>DESIGNED BY: B. BAGIN</p>	<p>APPROVED BY: D. BURKHOLDER</p>	<p>DATE: OCTOBER 2007 Nov. 2007 STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02 SHEET 1 OF 17</p>



NOTES:

1. ACCESS DREDGING MAY BE REQUIRED TO REACH SITES 2, 4, 4A, 4B, 7, 8, AND 8A.
2. FLOATATION DREDGING MAY BE REQUIRED AT SITES 14A, 4A, 4B, AND THE ROCK SHORELINE PROTECTION.

GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	SECTION, TOWNSHIP AND RANGE MAP
LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02
APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET CUTOFF, LA 70345	DRAWN BY: S. TRICHE DESIGNED BY: B. BAGIN APPROVED BY: D. BURKHOLDER
DATE: OCTOBER 2007 Nov. 2007 SHEET 2 OF 17	



APPROXIMATE
LOCATIONS OF
KNOWN PIPELINES

Bay L'Ours

FLOATATION
DREDGING, SEE
SHEET 14 OF 17
FOR DETAILS

TYPE 1 X-SECTION,
SEE SHEET 4 OF 17
FOR DETAILS

TYPE 2 X-SECTION,
SEE SHEET 4 OF 17
FOR DETAILS

Brusle Lake

Bayou Canal

LEGEND

- ROCK SHORELINE RESTORATION
- ROCK SHORELINE PROTECTION
- FLOATATION DREDGING
- TEMPORARY STOCKPILE AREA
- FISH DIPS
- TYPE B SIGN W/TYPE III SUPPORT



APPLICATION BY:
LAFOURCHE PARISH COUNCIL
101 WEST 112TH STREET
CUTOFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
517 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
Restoration Project (BA-02)
MAINTENANCE PLAN

ROCK SHORELINE
PLAN VIEW

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

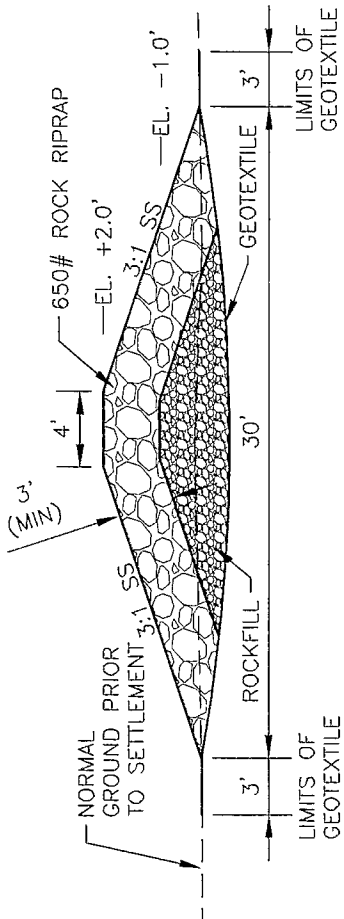
APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

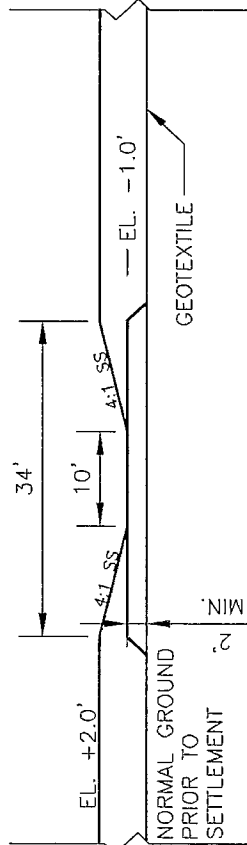
FEDERAL PROJECT NUMBER: BA-02

DATE: ~~OCTOBER 2007~~ **Nov. 2007**

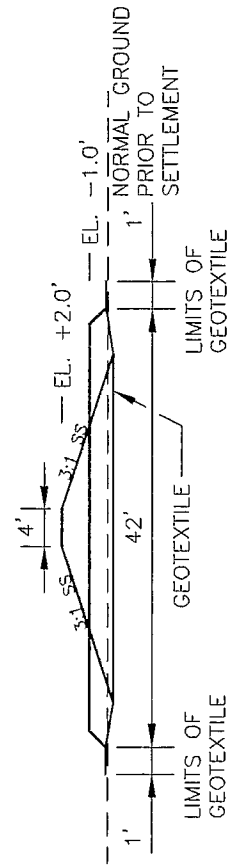
SHEET 3 OF 17



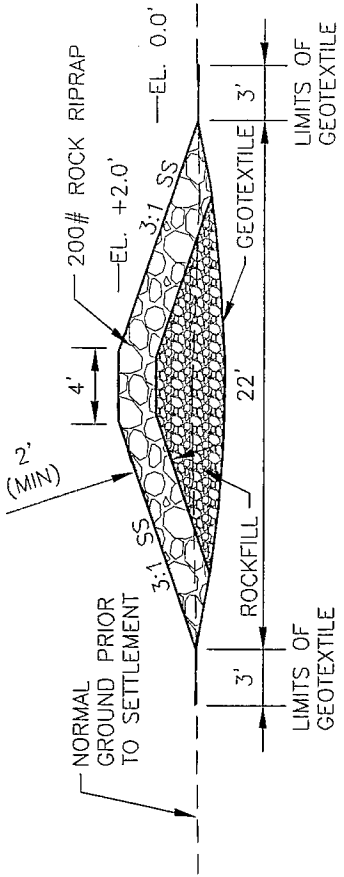
TYPE 1 X-SECTION
N.T.S.



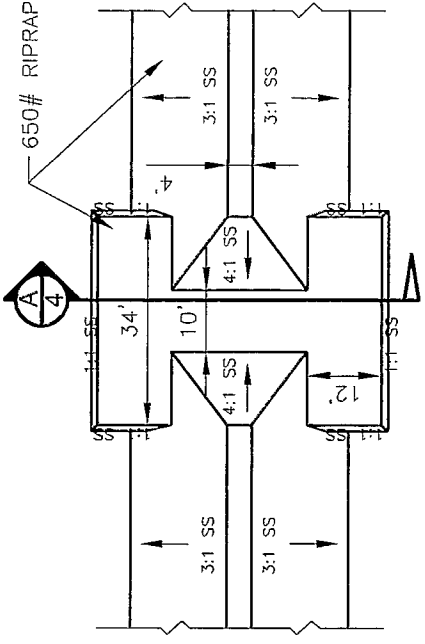
FISH DIP ELEVATION
N.T.S.



FISH DIP SECTION **A**
N.T.S.



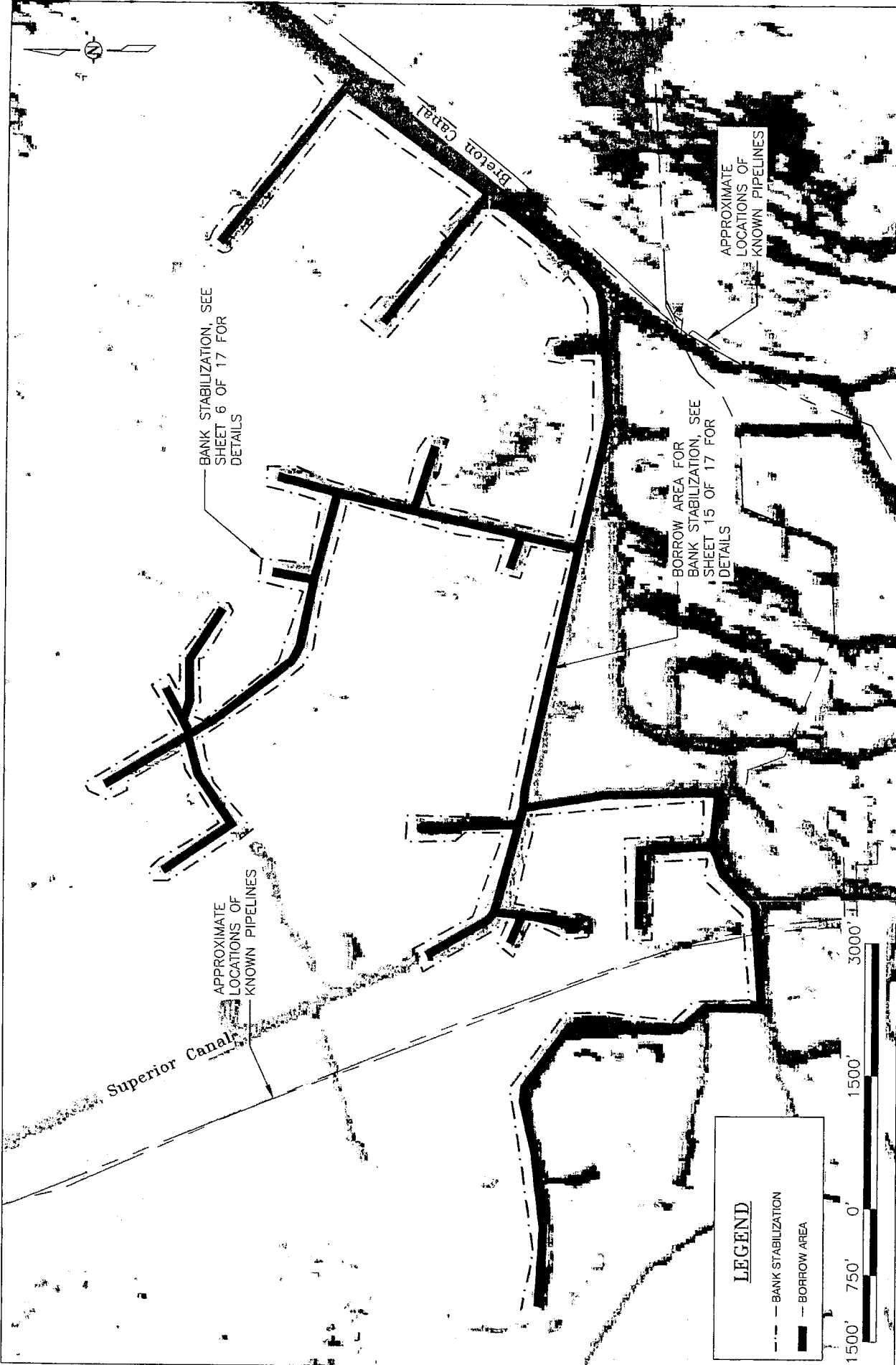
TYPE 2 X-SECTION
N.T.S.



FISH DIP PLAN
N.T.S.

*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET COTUIFF, LA 70345	LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	ROCK SHORELINE TYPICAL SECTIONS
DRAWN BY: S. TRICHE	DESIGNED BY: B. BABIN	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02	DATE: 06/05/07 11/07/07 SHEET 4 OF 17



BANK STABILIZATION, SEE SHEET 6 OF 17 FOR DETAILS

BORROW AREA FOR BANK STABILIZATION, SEE SHEET 15 OF 17 FOR DETAILS

APPROXIMATE LOCATIONS OF KNOWN PIPELINES

APPROXIMATE LOCATIONS OF KNOWN PIPELINES

Superior Canal

Breton Canal

LEGEND

- - - BANK STABILIZATION
- BORROW AREA



APPLICATION BY:
 LAFOURCHE PARISH COUNCIL
 101 WEST 112TH STREET
 CUTOFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
 COASTAL ENGINEERING DIVISION
 617 NORTH 3RD STREET
 BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
 Restoration Project (BA-02)
 MAINTENANCE PLAN

BANK STABILIZATION
 PLAN VIEW

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

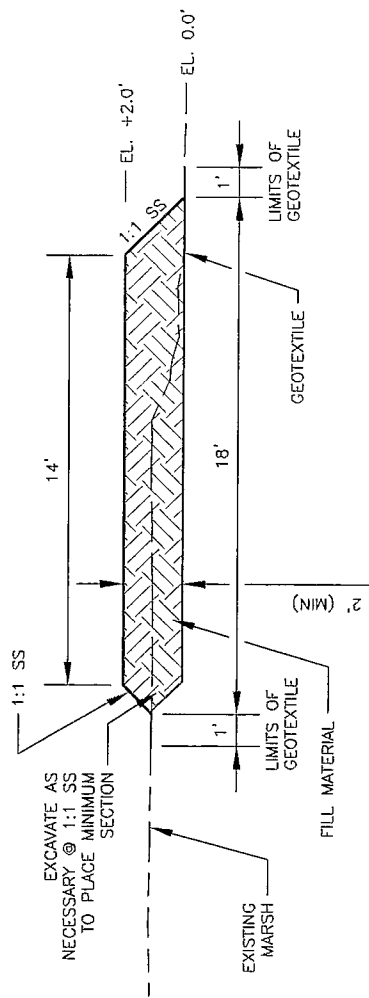
APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

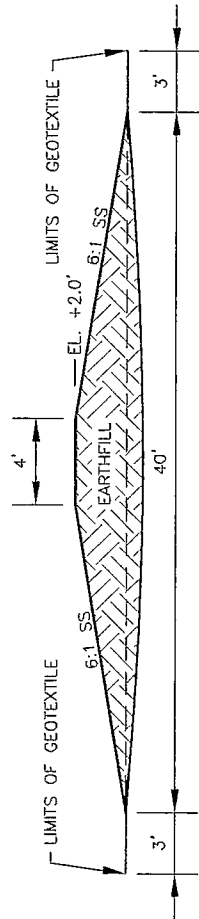
FEDERAL PROJECT NUMBER: BA-02

DATE: ~~06/05/05~~ 2007 Nov. 2007

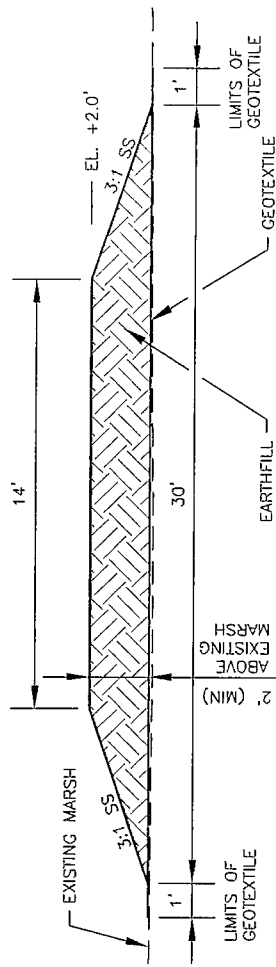
SHEET 5 OF 17



TYPE 3 X-SECTION
N.T.S.



TYPE 4 X-SECTION
N.T.S.



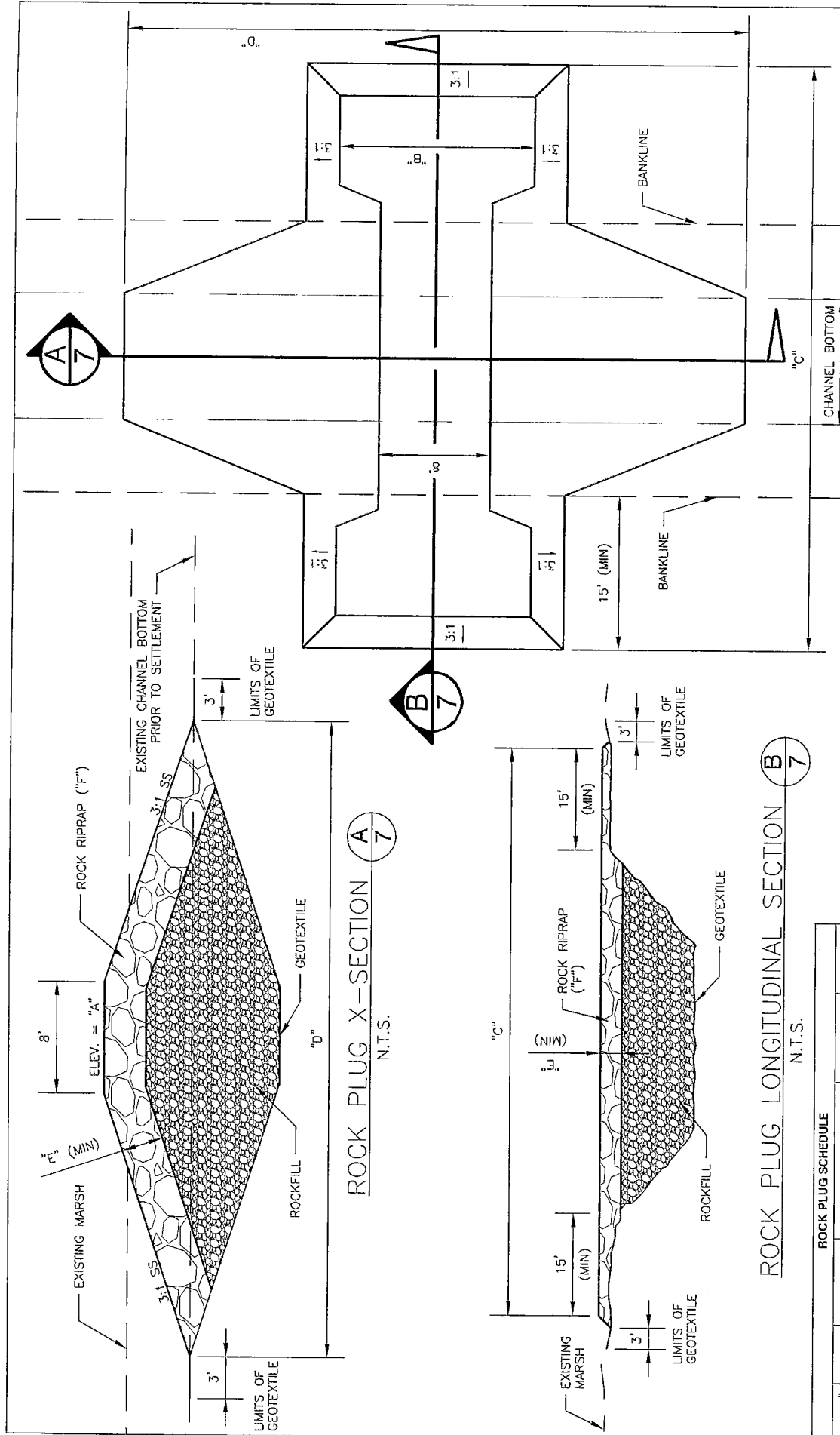
TYPE 5 X-SECTION
N.T.S.

NOTES:

1. TYPE 3 BANK STABILIZATION SHALL BE USED WHEN EXISTING BANK IS BELOW MARSH ELEVATION, LESS THAN 3' OF FILL IS NEEDED AND NO GEOTEXTILE IS REQUIRED.
2. TYPE 4 BANK STABILIZATION SHALL BE USED WHEN EXISTING BANK IS AT MARSH ELEVATION OR HAS ERODED BACK FROM ORIGINAL BANK LINE.
3. TYPE 5 BANK STABILIZATION SHALL BE USED WHEN EXISTING BANK IS BELOW MARSH ELEVATION AND MORE THAN 3' OF FILL IS REQUIRED.
4. TYPE 6 BANK STABILIZATION SHALL BE USED WHEN EXISTING BANK IS BELOW MARSH ELEVATION, LESS THAN 3' OF FILL IS NEEDED AND GEOTEXTILE IS REQUIRED.
5. ALL ELEVATIONS ARE IN NAVD 88 FEET.

TYPE 6 X-SECTION
N.T.S.

APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET COTUIFF, LA 70345	LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	GIWW to Clavelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	BANK STABILIZATION SECTIONS
DRAWN BY: S. TRICHE	DESIGNED BY: B. BABIN APPROVED BY: D. BURKHOLDER	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02	DATE: SEPTEMBER-2007 Nov. 2007 SHEET 6 OF 17



TYPICAL ROCK PLUG PLAN VIEW
N.T.S.

ROCK PLUG X-SECTION A
N.T.S.

ROCK PLUG LONGITUDINAL SECTION B
N.T.S.

*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

SITE #	ELEV. "A"	TOP WIDTH "B"	CONSTRUCTION "C"	LIMITS "D"	THICKNESS "E"	RIPRAP "F"
4A	+2.5'	8'	88'	30'	N/A	NONE
4B	+3.5'	14'	511'	33'	3'	650#
8A	+3.5'	8'	84'	60'	N/A	NONE
43	+2.5'	8'	250'	80'	N/A	NONE
90	+4.0'	14'	290'	50'	2'	200#

APPLICATION BY:
LAFORCHE PARISH COUNCIL
101 WEST 112TH STREET
CUDROFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
Restoration Project (BA-02)
MAINTENANCE PLAN

ROCK PLUG
SITE #'s 4A, 4B, 8A, 43, 90

DRAWN BY: S. TRICHE

DESIGNED BY: B. GABIN

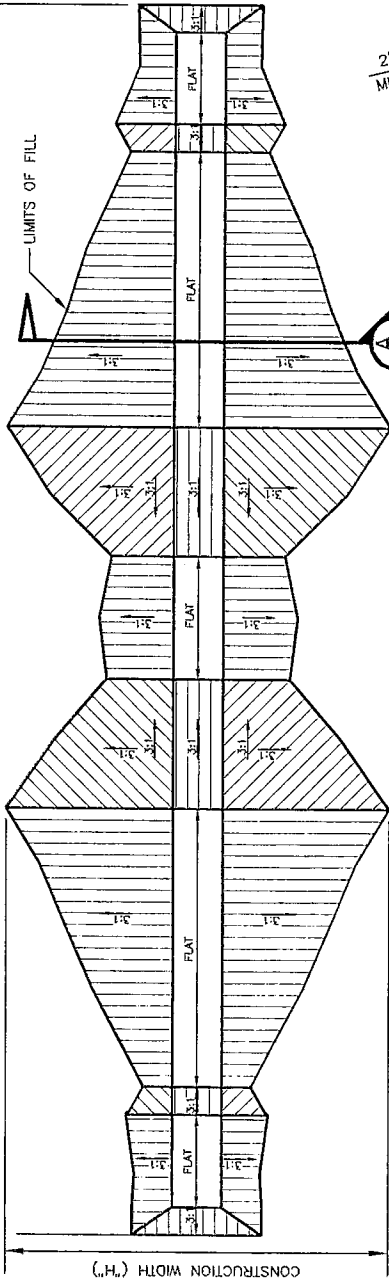
APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02
FEDERAL PROJECT NUMBER: BA-02

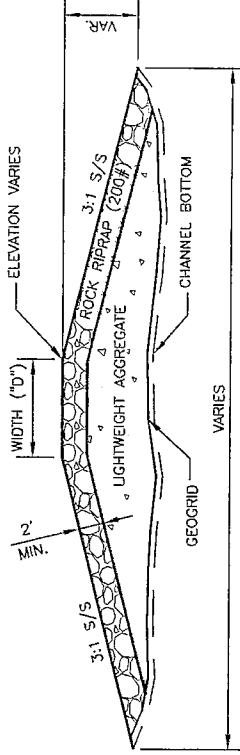
DATE: ~~09/08/07~~ 09/07/07
Nov. 2007

SHEET 7 OF 17

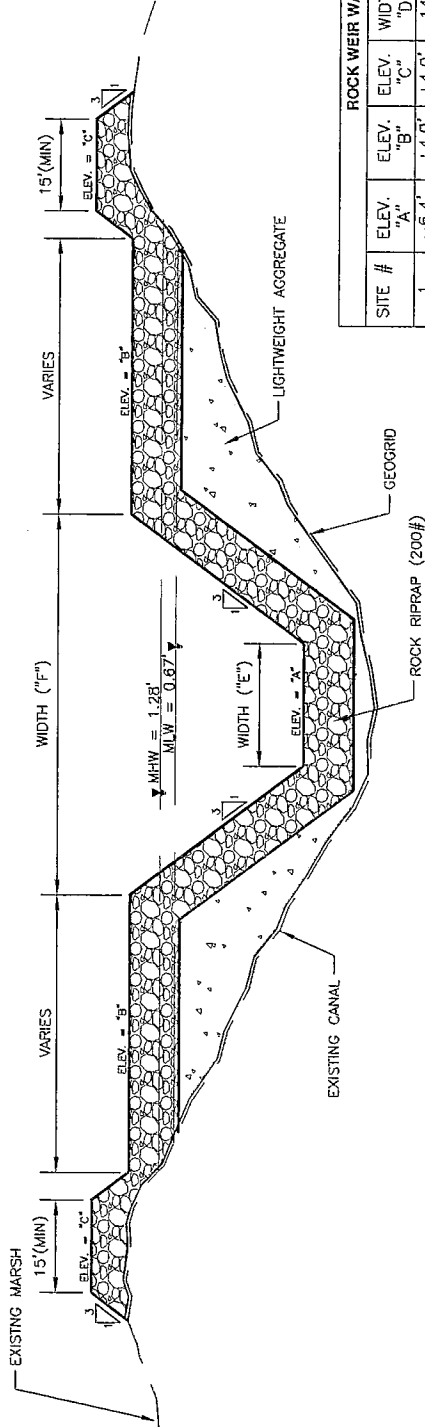
CONSTRUCTION LENGTH ("G")



PLAN VIEW
N.T.S.



X-SECTION A
N.T.S. 8



CENTERLINE PROFILE
N.T.S.

*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

ROCK WEIR W/BOAT BAY SCHEDULE

SITE #	ELEV. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"	WIDTH "E"	WIDTH "F"	CONSTRUCTION LIMITS	
							"G"	"H"
1	-6.4'	+4.0'	+4.0'	14'	26.7'	65'	263'	80'
2	-5.1'	+2.5'	+3.9'	8'	15'	53'	200'	85'
4	-3.9'	+2.4'	+3.8'	9'	20'	52'	170'	45'
7	-4.4'	+2.4'	+4.0'	8'	48'	200'	200'	55'
8	-3.5'	+2.8'	+2.8'	8'	30'	65'	65'	22'

APPLICATION BY:
LAFOURCHE PARISH COUNCIL
101 WEST 112TH STREET
CUTOFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
Restoration Project (BA-02)

MAINTENANCE PLAN

ROCK WEIR W/BOAT BAY
SITE #'s 1, 2, 4, 7, 8

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

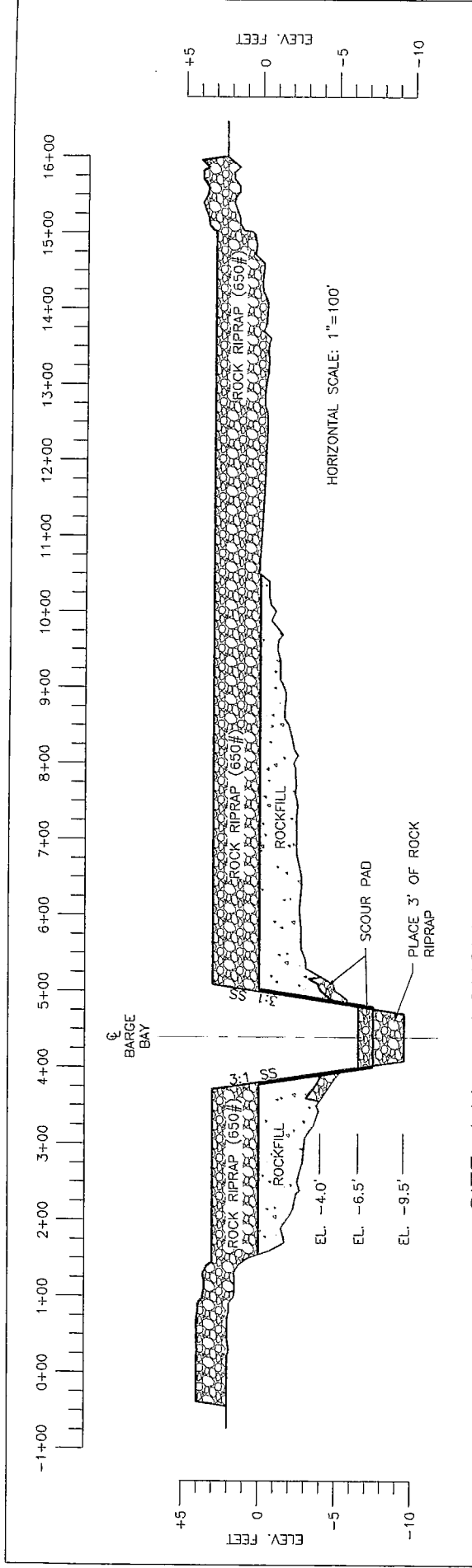
APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

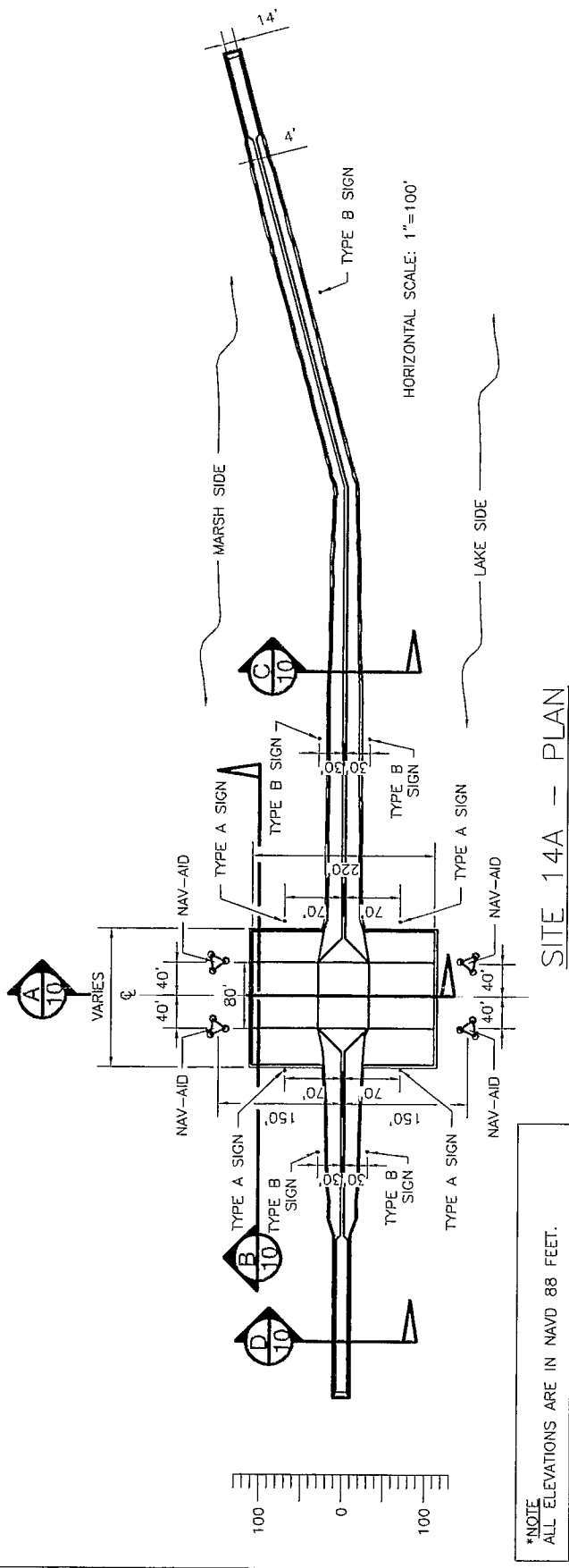
FEDERAL PROJECT NUMBER: BA-02

DATE: ~~06/05/07~~ 11/07/07

SHEET 8 OF 17



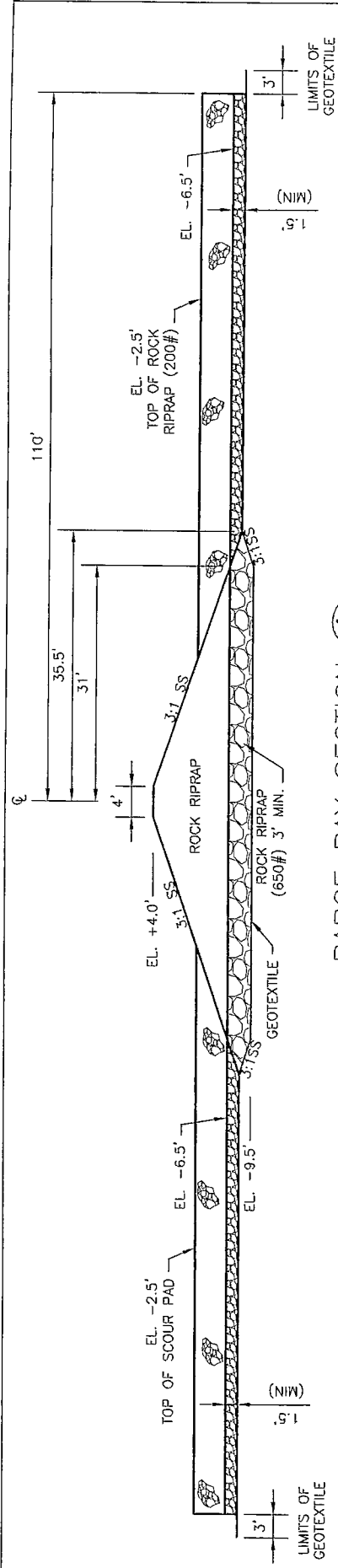
SITE 14A - LONGITUDINAL SECTION



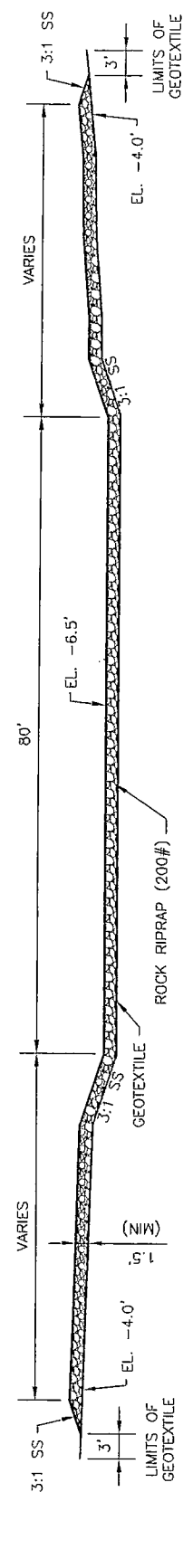
*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

SITE 14A - PLAN

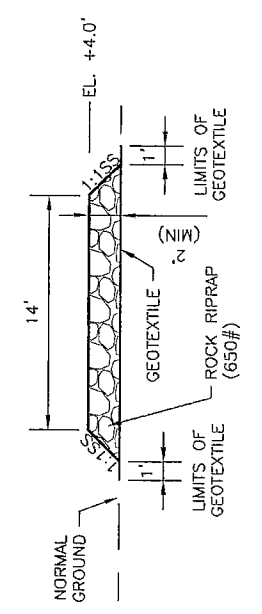
APPLICATION BY: LAFORCHE PARISH COUNCIL 101 WEST 112TH STREET CUTOFF, LA. 70345	LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	ROCK WEIR W/BARGE BAY SITE # 14A - PLAN
DRAWN BY: S. TRICHE	DESIGNED BY: B. BABIN	APPROVED BY: D. BURKHOLDER	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02
DATE: 08/08/07 - 08/07/07 - Nov. 2007		SHEET 9 OF 17	



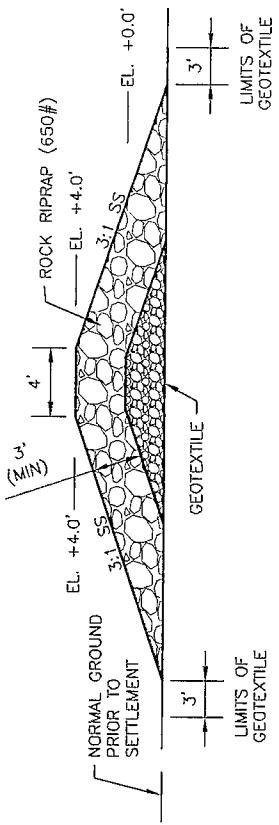
BARGE BAY SECTION A
N.T.S.



SCOUR PAD SECTION B
N.T.S.



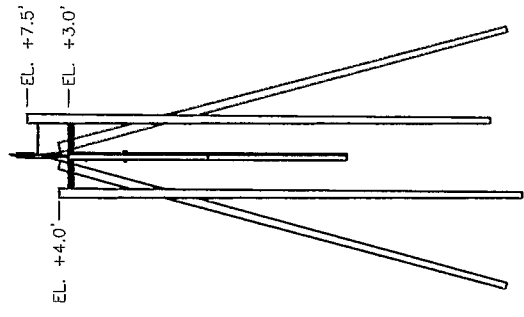
14' TOP X-SECTION C
N.T.S.



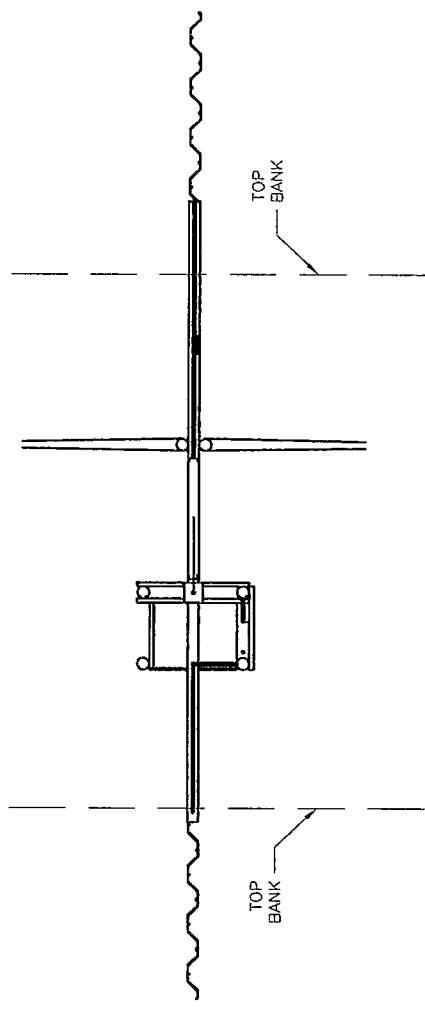
4' TOP X-SECTION D
N.T.S.

*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

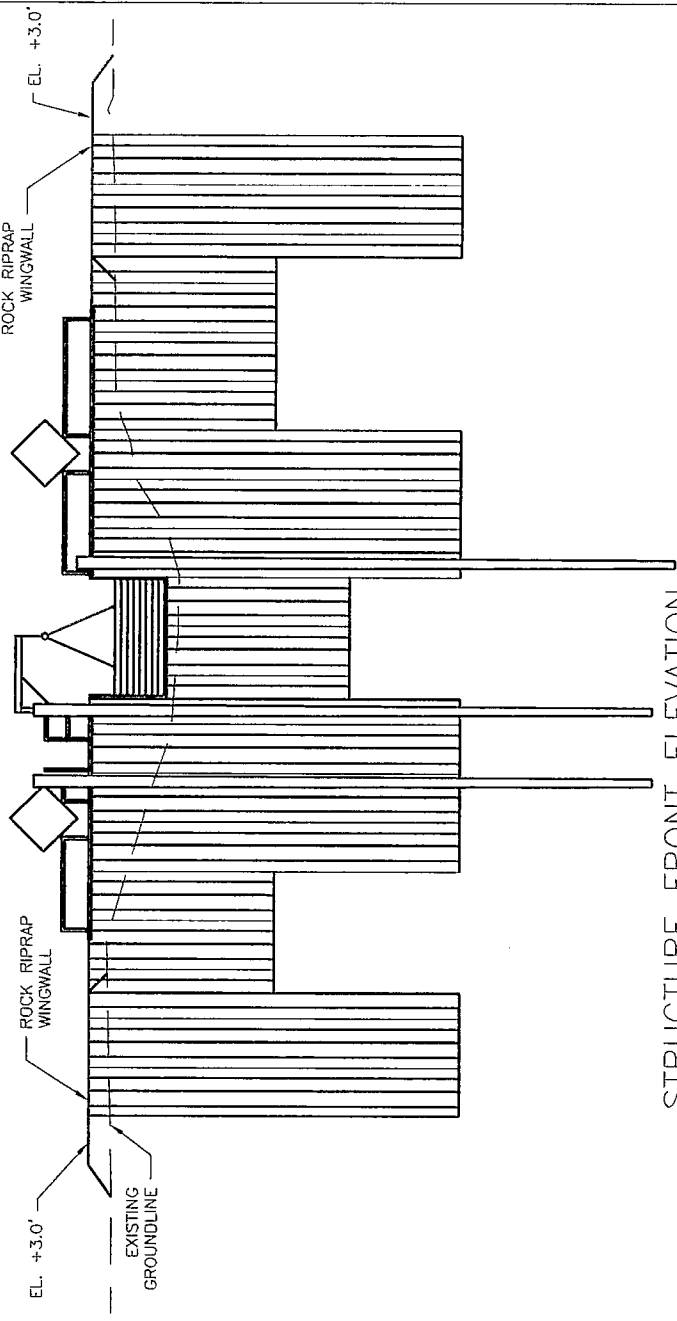
APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET COTOP, LA 70345	LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	GIWW to Clavelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	ROCK WEIR W/BARGE BAY SITE # 14A - SECTIONS
DRAWN BY: S. TRICHE	DESIGNED BY: B. BABIN	APPROVED BY: D. BURKHOLDER	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02
DATE: 06/08/07 Nov. 2007	SHEET 10 OF 17		



STRUCTURE LEFT ELEVATION
N.T.S.



STRUCTURE PLAN
N.T.S.



STRUCTURE FRONT ELEVATION
N.T.S.

APPLICATION BY:
LAFOURCHE PARISH COUNCIL
101 WEST 112TH STREET
CUTOFF, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
Restoration Project (BA-02)
MAINTENANCE PLAN

VARIABLE CREST WEIR
SITE # 35 - PLAN

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

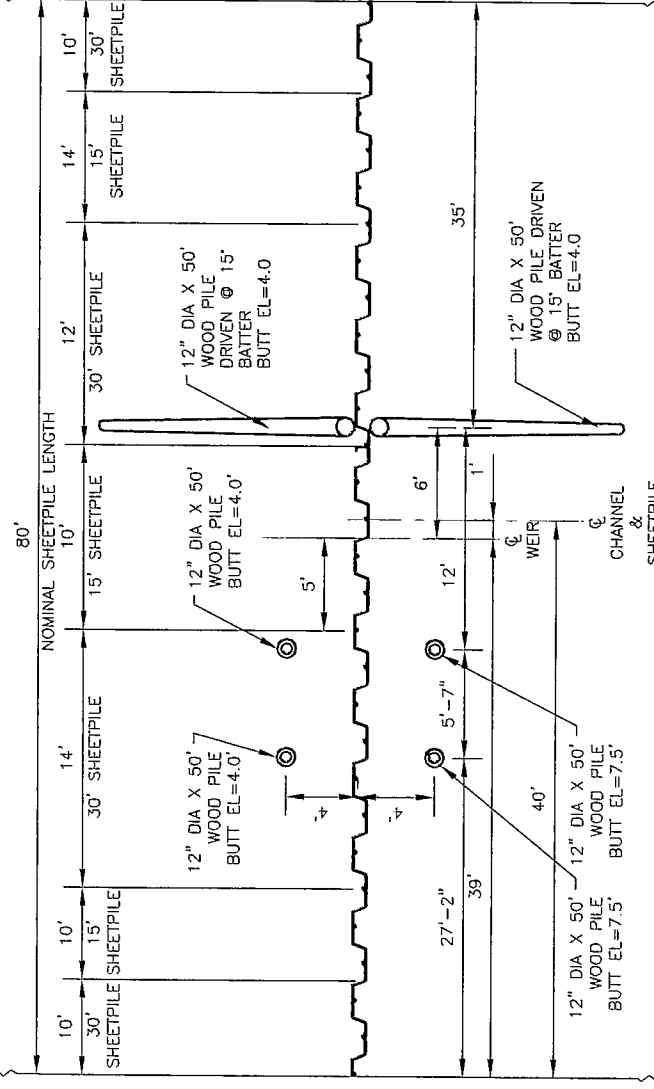
APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

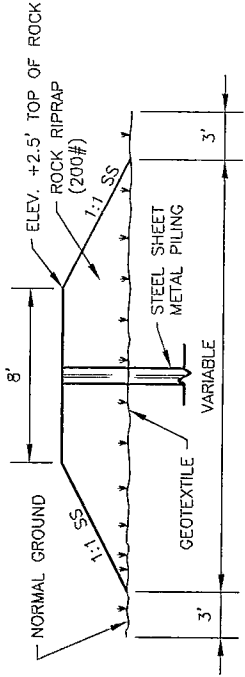
FEDERAL PROJECT NUMBER: BA-02

DATE: ~~October 2007~~ Nov. 2007

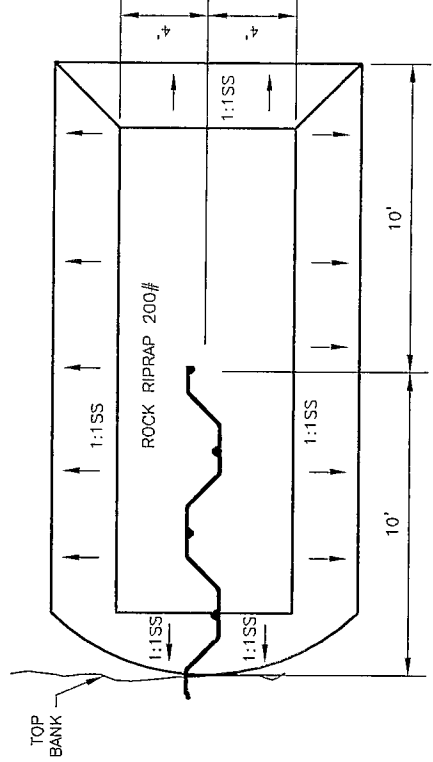
SHEET 11 OF 17



STRUCTURE LAYOUT
N.T.S.

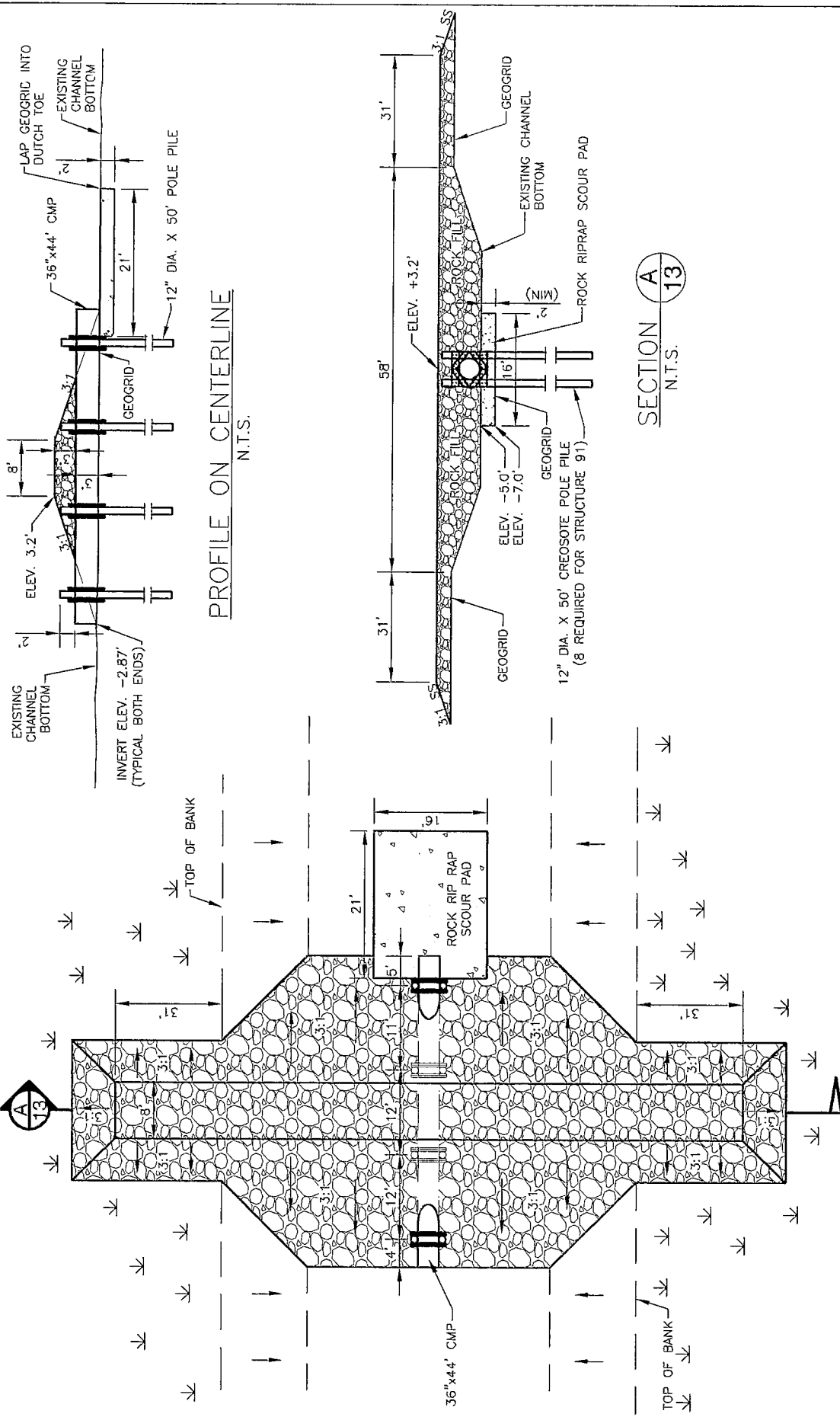


WING WALL ROCKFILL SECTION
N.T.S.



WING WALL ROCKFILL PLAN VIEW
N.T.S.

<p>APPLICATION BY: LAFORCHE PARISH COUNCIL 101 WEST 112TH STREET CUNOFF, LA 70345</p>	<p>LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802</p>	<p>GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN</p>	<p>VARIABLE CREST WEIR SITE # 35 - DETAILS</p>
<p>DRAWN BY: S. TRICHE</p>	<p>DESIGNED BY: B. BABIN</p>	<p>STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02</p>	<p>DATE: 06/26/88 06/27/87 Nov. 2007 SHEET 12 OF 17</p>



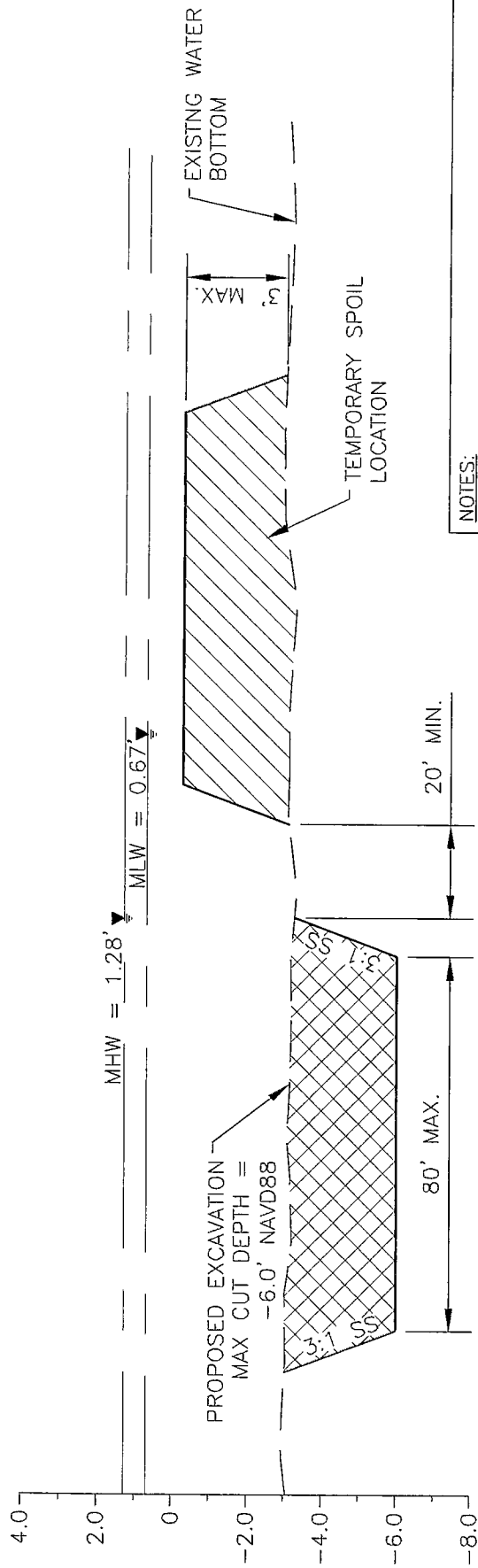
PROFILE ON CENTERLINE
N.T.S.

SECTION **A**
13
N.T.S.

PLAN VIEW
N.T.S.

*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET CUTOFF, LA 70045	GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	CHANNEL PLUG W/CULVERT SITE # 90
DRAWN BY: S. TRICHE	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02	DESIGNED BY: B. BABIN APPROVED BY: D. BURKHOLDER	DATE: October 2007 Nov. 2007 SHEET 13 OF 17

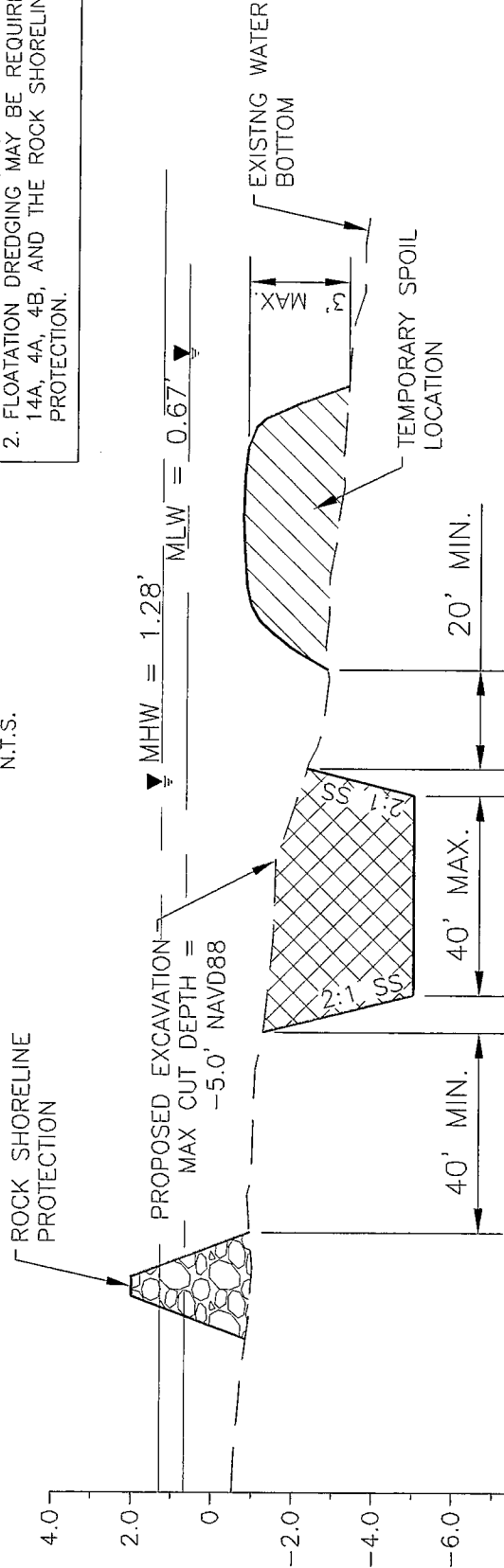


NOTES:

1. ACCESS DREDGING MAY BE REQUIRED TO REACH SITES 2, 4, 4A, 4B, 7, 8, AND 8A.
2. FLOATATION DREDGING MAY BE REQUIRED AT SITES 14A, 4A, 4B, AND THE ROCK SHORELINE PROTECTION.

TYPICAL ACCESS DREDGING

N.T.S.

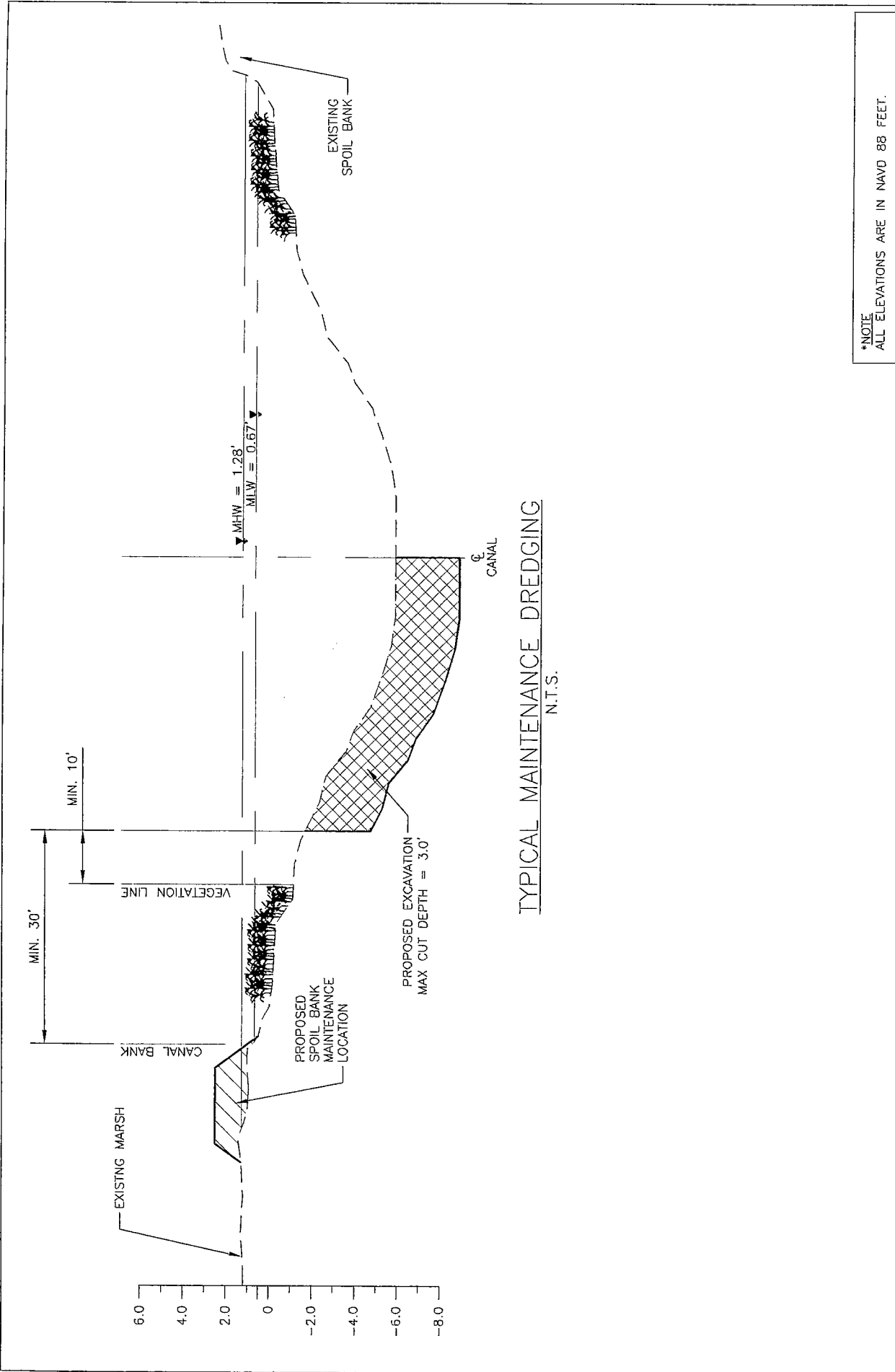


TYPICAL FLOATATION DREDGING

N.T.S.

*NOTE
ALL ELEVATIONS ARE IN NAVD 88 FEET.

APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET CUTOFF, LA 70345	LOUISIANA DEPARTMENT OF NATURAL RESOURCES COASTAL ENGINEERING DIVISION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	ACCESS DREDGING TYPICAL SECTIONS
DRAWN BY: S. TRICHE	DESIGNED BY: B. BABIN	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02	DATE: OCTOBER-2007 <i>Nov. 2007</i> SHEET 14 OF 17



TYPICAL MAINTENANCE DREDGING
N.T.S.

APPLICATION BY:
LAFORCHE PARISH COUNCIL
101 WEST 112TH STREET
COTOP, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
Restoration Project (BA-02)
MAINTENANCE PLAN

BANK STABILIZATION
TYPICAL MAINTENANCE DREDGING

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

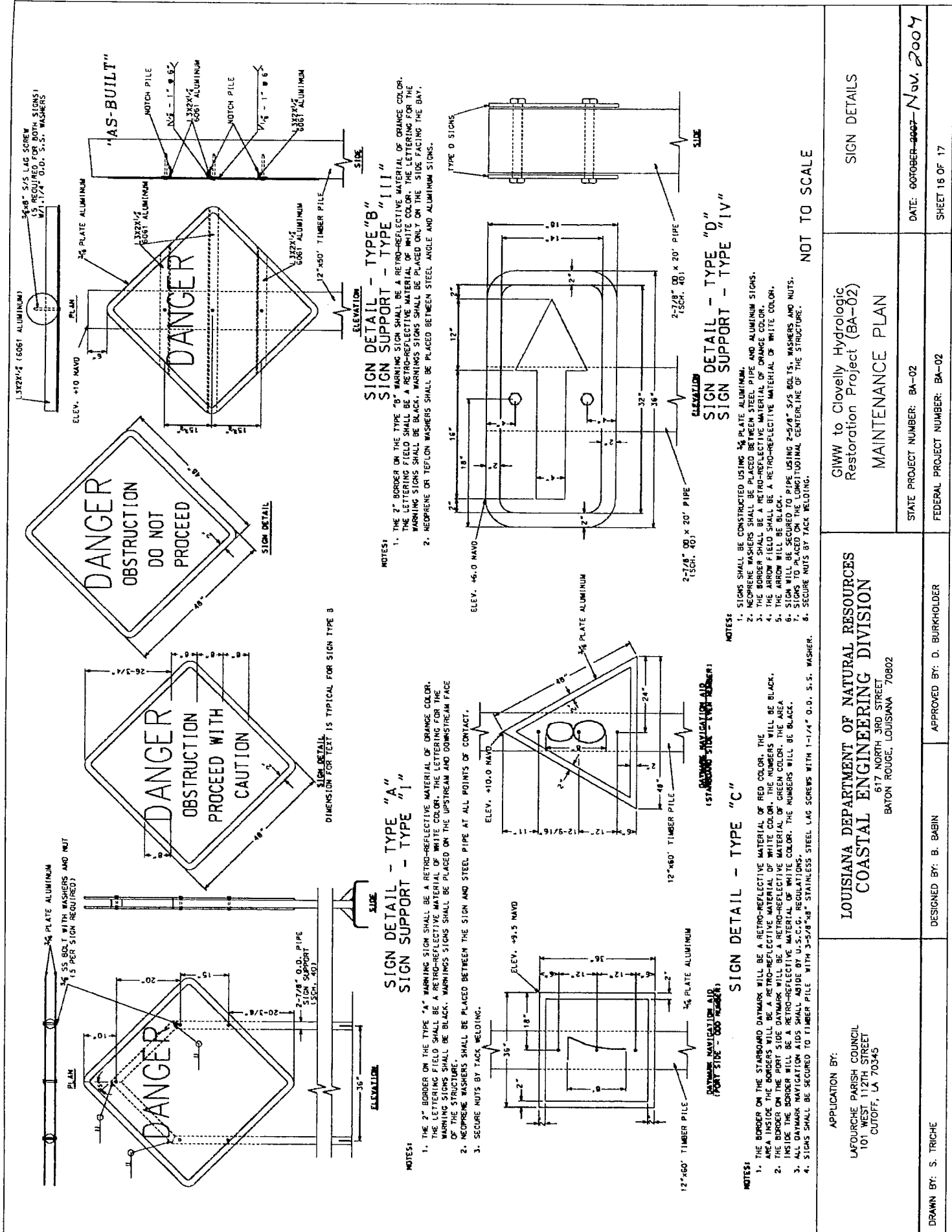
APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

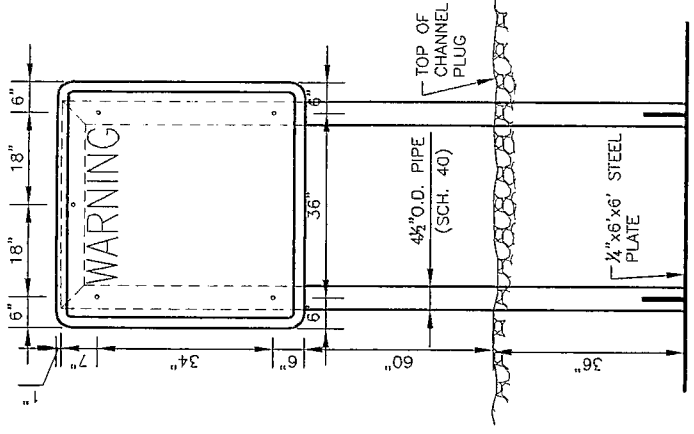
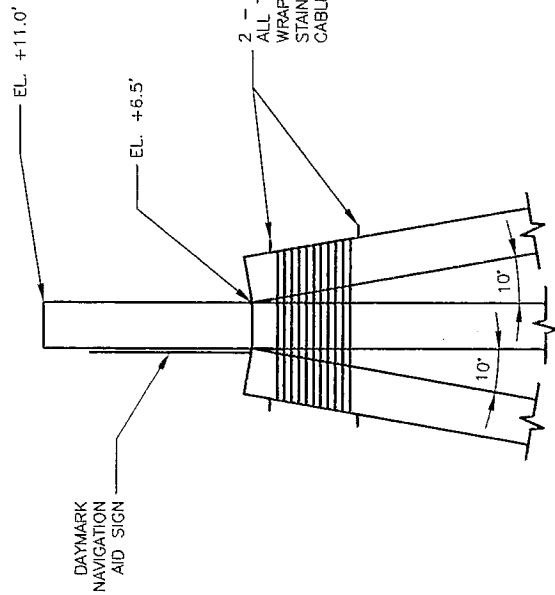
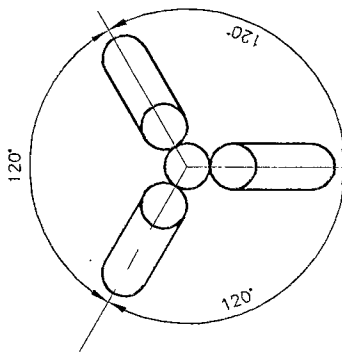
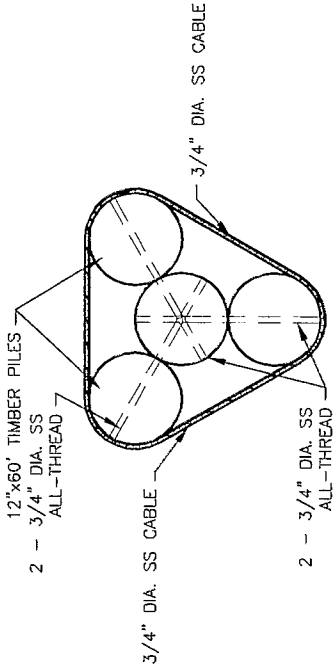
FEDERAL PROJECT NUMBER: BA-02

DATE: ~~08/06/07~~ **Nov. 2007**

SHEET 15 OF 17



APPLICATION BY: LAFOURCHE PARISH COUNCIL 101 WEST 112TH STREET CUTOFF, LA 70345	GIWW to Clovelly Hydrologic Restoration Project (BA-02) MAINTENANCE PLAN	SIGN DETAILS
DRAWN BY: S. TRICHE	STATE PROJECT NUMBER: BA-02 FEDERAL PROJECT NUMBER: BA-02	DATE: OCTOBER 2007 SHEET 16 OF 17



SITE NO.	SIGN TYPE	SUPPORT TYPE	DESCRIPTION	NUMBER OF SIGNS
1	A	III	PROCEED W/CAUTION	4
1	D	IV	DIRECTIONAL	2
1	C	V	NAVIGATION AIDS	4
2	A	II	PROCEED W/CAUTION	2
2	D	IV	DIRECTIONAL	2
4	A	II	PROCEED W/CAUTION	2
4	D	IV	DIRECTIONAL	2
4B	B	III	DO NOT PROCEED	3
7	A	II	PROCEED W/CAUTION	2
7	D	IV	DIRECTIONAL	2
8	B	II	PROCEED W/CAUTION	1
14A	A	III	PROCEED W/CAUTION	4
14A	B	III	DO NOT PROCEED	6
14A	C	V	NAVIGATION AIDS	4
14A	D	IV	DIRECTIONAL	2
35	B	I	DO NOT PROCEED	2
43	B	II	DO NOT PROCEED	1
90	B	III	DO NOT PROCEED	4
91	B	II	DO NOT PROCEED	1
LAKE RIM SHORELINE	B	III	DO NOT PROCEED	12

TYPE V - NAV AID SUPPORT DETAIL
N.T.S.

TYPE V - NAV AID SUPPORT
PLAN VIEW
N.T.S.

TYPE II - SIGN SUPPORT
N.T.S.

APPLICATION BY:
LAFORCHE PARISH COUNCIL
101 WEST 112TH STREET
COTRIFT, LA 70345

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

GIWW to Clovelly Hydrologic
Restoration Project (BA-02)
MAINTENANCE PLAN

NAVIGATIONAL AID SUPPORTS
DETAILS

DRAWN BY: S. TRICHE

DESIGNED BY: B. BABIN

APPROVED BY: D. BURKHOLDER

STATE PROJECT NUMBER: BA-02

FEDERAL PROJECT NUMBER: BA-02

DATE: ~~06/06/08~~ ~~2008~~ Nov. 2007

SHEET 17 OF 17

ATTACHMENT VI

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

**OPERATION, MAINTENANCE AND REHABILITATION
BUDGET**

OPERATION AND MAINTENANCE BUDGET

BA-02 GIWW TO CLOVELLY WETLAND RESTORATION

LEAD AGENCY: Natural Resources Conservation Service

PROJECT FEATURES:

- Canal Plugs
- Rock Weirs
- Fixed Crest Weir with boat bays
- Variable Crest Weir
- Rebuild low earthen overflow banks (changed to lake rim restoration with rock).

OPERATION AND MAINTENANCE / REHABILITATION ASSUMPTIONS

1. The plugs/weirs are functional with settlements up to one foot; if greater than one foot settlement occurs, these plugs will require additional capping with 250 lb. stone at 7 and 10 years:

Year 7 50% Cap Replacement (18" 250 lb. stone - 9,500 tons)

Year 15 50% Cap Replacement (18" 250 lb. stone - 9,500 tons)

2. Restore lake rim and canal banks at year 7 and lake rim only at year 15:

Year 7 25% lake rim and canal bank rehabilitation with rock (13,250 tons)

Year 15 lake rim rehabilitation with rock (7,000 tons)

3. Replace signage at each boat bay

Year 7 100% Replacement

Year 15 100% Replacement

OPERATION AND MAINTENANCE COST CONSIDERATIONS:

(Based on a 20 year project life; cost include inflation)

A.	ANNUAL INSPECTIONS: (2 Field day with 3 team members including federal participant, boat and report form Schedule A-2)	\$92,756
B.	ANNUAL COST OF OPERATIONS: (No operations required for this project)	\$0
C.	PREVENTATIVE MAINTENANCE (Not required for this project)	\$0
D.	COST FOR MAINTENANCE PROJECT AT YEAR 7 (2005) (Includes a ten percent construction contingency (cc) and inflation factor of 1.1968.)	
1.	Contractor Mobilization/Demobilization (\$75,000 x 1.1 cc)	\$82,500
2.	Cap 18" 250 lb. stone on plugs and weirs: (9,500 tons x \$20/ton x 40% x 1.1 cc)	\$83,600
3.	Replace warning signs, 2 at each boat bay (\$500/sign x 2 each x 5 boat bay x 1.1 cc)	\$5,500
4.	Rehabilitation lake rim with rock (13,250 tons x \$20/ton x 1.1cc)	\$291,500
	Contractor Subtotal	\$463,100
	Contractor Cost with Inflation (\$463,100 x 1.1968)	\$554,238
5.	Design Cost/ Administration (2 week project \$9,060 x 1.1968 from Schedule C-2)	\$10,843
6.	Engineering Consultant Design, Survey and Inspection	\$70,905
	Basic Services: (7.6% x 579,265, from Schedule E-2)	\$42,122
	Survey Supplemental Services: (7 days at \$1,250/day x 1.1968 from Schedule E-2)	\$10,472

Resident Inspection: \$18,311
(20 workday x \$765/day x 1.1968 from
Schedule E-3)

TOTAL FOR MAINTENANCE YEAR 7: \$625,143

E. COST FOR MAINTENANCE PROJECT AT YEAR 15 (2013)
(Includes a ten percent construction contingency (cc) and inflation
factor of 1.4696.)

1.	Contractor Mobilization/Demobilization	\$55,000	
	(\$50,000 x 1.1 cc)		
2.	Cap 18" 250 lb. stone on plugs and weirs:	\$83,600	
	(9,500 tons x \$20/ton x 40% x 1.1 cc)		
3.	Replace warning signs, 2 at each boat bay	\$5,500	
	(\$500/sign x 2 each x 5 boat bay x 1.1 cc)		
4.	Rehabilitation lake rim with rock	\$154,000	
	(7,000 tons x \$20/ton x 1.1cc)		
	Contractor Subtotal	\$298,100	
	Contractor Cost with Inflation (\$298,100 x 1.4696)		\$438,087
5.	Design Cost/ Administration		\$ 13,315
	(2 week project \$9,060 x 1.4696 from Schedule C-2)		
6.	Engineering Consultant Design, Survey and Inspection		\$65,778
	Basic Services:	\$39,428	
	(9% x 298,100 x 1.4696 from schedule E-2)		
	Survey Supplemental Services:	\$12,859	
	(7 days at \$1,250/day x 1.4696 from Schedule E-2)		
	Resident Inspection:	\$13,491	
	(12 workday x \$765/day x 1.4696 from Schedule E-3)		
	TOTAL FOR MAINTENANCE YEAR 15:		\$517,180

Previously Expended Funds (through June 10, 1998) \$ 25.03

TOTAL ESTIMATED OPERATION AND MAINTENANCE COST \$1,235,079

**OPERATION AND MAINTENANCE (O&M) BUDGET SUMMARY
BA-02 GIWW TO CLOVELLY WETLAND RESTORATION**

Original O&M Budget \$1,952,936

Revised O&M Budget \$1,235,079

Budget Increase (Decrease) \$717,857

CWPPRA Operation and Maintenance Funding Assessment Meeting of 2/12/98

Project No. BA-02 Project Name GIWWS to Clovelly

Attending:

<u>George Boddie</u>	<u>Burr Pine</u>	
<u>Debra James Buchtel</u>		
<u>Van Cook</u>		
<u>Gary Adridge</u>		

Project Completion:

Scheduled 9/30/95 Anticipated 9/30/98

Funding Impact 3 years behind schedule

Basis of O & M authorized funding Requirements:

Annulized But Project Scope Modified

Basis of P & O/LDNR assumption funding Requirements:

Used with Modification

Funding Impact None but Apparent ~~Major~~ Surplus Currently

DNR HAS RESPONSIBILITIES

Permit / Cost Share / Cooperative Agreement in concert with LDNR/Lead Agency Responsibilities with programmed funding:

YES

NO

Action Required: None

State vs. Federal O & M Cost Estimate:

DNR 1,391,699 Lead Agency 1,391,699

Current Estimate

Consensus Recommendation: Annual Inspections Used Current Estimated Rock Quantities for Lake Reim & Canal Banks @ years 7 & 15. Incomp Fed Participation in Contract Renewal, Increased Resident Inspection days. Provide for stationing. At end of construction review again.

Agency Representative: [Signature] LDNR Representative [Signature]

Permit: LAFORCKE PARISH COUNCIL.

ATTACHMENT VII

GIWW TO CLOVELLY HYDROLOGIC RESTORATION

STRUCTURE OPERATIONS

The purpose of this attachment is to compile structure operation reports for operable structures throughout the project life. Upon completion of structure adjustments, the contracting party tasked to perform the operations will be required to provide LDNR with a detailed report containing the following information:

- Condition of water control structures and stop logs with photos
- Description of structures in need of maintenance
- Dates and time of structure adjustments and weather conditions
- Number of stop logs removed and replaced
- Personnel and equipment used to perform work
- Elevations of stop logs before and after adjustments
- Water levels on either side of structures
- Person contacted for access to property and copy of access permit should one be required.

APRIL 2002
DNR CONTRACT NO. 2503-00-39
STRUCTURE OPERATION
AND
INSPECTION

BA-23 BARATARIA WATERWAY SHORELINE PROTECTION PROJECT
P&O JOB # 10-1630

BA-02 GIWW / CLOVELLY HYDROLOGIC RESTORATION PROJECT
P&O JOB # 10-1631

TE-28 BRADY CANAL HYDROLOGIC RESTORATION PROJECT
P&O JOB # 10-1632

BY

PYBURN & ODOM MCA
BATON ROUGE, LOUISIANA

APRIL 24, 2002



PYBURN & ODOM MCA

Engineering & Related Services Since 1948

April 25, 2002

Mr. Clark Allen
Coastal Restoration Division
Louisiana Department of Natural Resources,
P.O. Box 44027, Capital Station
Baton Rouge, LA 70804-4027

SUBJECT: DNR Contract No. 2503-00-39 – Surveying & Engineering Services
Structure Operation and Inspection
P&O Project Nos. 10-1630, 10-1631, & 10-1632

Dear Mr. Allen:

In accordance with your letter and scope of work dated March 1, 2002 and subsequent verbal instructions, our field party inspected and operated the following listed navigation lights, flap gates and weirs:

<u>PROJECT</u>	<u>ITEM OF WORK</u>
TE-28 Brady Canal	Inspected the condition of variable crest weirs at Sites 14, 21 & 23. Removed stoplogs at Sites 14, 21 & 23. Inspected condition of navigation lights at Site 6.
BA-23 Barataria Waterway	Inspected the condition of the crest weir and removed the stoplogs at Site 1.
Ba-02 GIWW / Clovelly Farms	Inspected & cleaned flap gate at Site 91. Inspected the variable crest weir and installed stoplogs at Site 35. Inspected navigation lights at Site 14A.

Enclosed please find three (3) bound reports showing the results and photographs of our inspection and operation of the above listed structures.

Mr. Clark Allen
Louisiana Department of Natural Division
April 25, 2002
Page Two

We appreciate having the opportunity of providing these services to DNR. Please contact us if you have any questions or require additional information.

Very truly yours,

PYBURN & ODOM MCA



Michael P. Maillet, P.L.S.
Chief Surveyor

cc. w/encl. Mr. Brian Babin
DNR/CRD
Nicholls State University
P.O. Box 2079
Thibodaux, LA 70310

I:\Projects\10-1630\Letters\02C113

SITES 14A, 91 & 35

FIELD TRIP REPORT

PROJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Lafourche Parish

PURPOSE: Inspect the four (4) navigation lights at Site 14a, inspect and test the flapgated culvert structure at Site 91, and operate and adjust the variable crest weir structure at Site 35.

PARTICIPANTS: Mike Maillet, Brian Miller and Joey Laville

DATES: March 28, 2002 and April 3, 2002

CONDITIONS: Sunny / Warm

Mike Maillet, Brian Miller, and Joey Laville arrived at the public boat launch at Clovelly Farms at approximately 10:30 a.m. Permission to gain access to the property was obtained from Mr. Carroll Adams on March 28, and April 3, 2002. The Field Data Report and field notes may be found in Appendix A.

NAVIGATION LIGHTS (SITE 14a):

On March 28, 2002, 11:15 a.m., we inspected the four (4) navigation lights at Site 14a, located at the end of the Clovelly Farms Canal at Little Lake. The four lights, as well as their pilings and solar panels, appeared to be in good condition. The lights and solar panels also appeared to be clean. An attempt was made to test the light by covering it and the solar panel at No. 4; however, the light would not come on. Photos of the navigation lights are shown in Appendix B.

FLAPGATED CULVERT STRUCTURE (SITE 91):

The flapgated culvert structure at Site 91 was inspected visually and mechanically at 12:30 p.m. The structure appeared to be in good condition, and when opened and closed fully, its function was unimpeded. The culvert was free of any obstructions. The flapgate hinges were just below the surface of the water, but were free of barnacles. A few barnacles near the hinges were scraped away. The Field Equipment Checklist and Operation Procedure can be found in Appendix C. Photos of the flapgated culvert structure are shown in Appendix D.

VARIABLE CREST WEIR (SITE 35):

We arrived at the Site 35 variable crest weir structure at 1:30 p.m. on March 25, 2002. The weir structure appeared to be in fairly good condition. The orange paint on the railing and platform is worn and peeling in some places. Also, the two (2) locks were frozen, and had to be broken. We attached a new cable to the crane.

It was determined that in order to raise the sill elevation of the structure to as close as possible to 0.5 feet below marsh elevation, three (3) stoplogs would have to be installed. Marsh level at the Site was 1.0 feet, based upon information provided by DNR. The three (3) stoplogs were installed leaving a finished sill elevation of 0.3 feet. It was discovered, however, that each aluminum channel that held the stoplogs in place had only one hole for the locking pin. Additional holes would have to be drilled into the channels in order to properly adjust the weir structure and keep the stoplogs in position. The channels were put in and the locking pins inserted into the existing holes. The locking pins were secured temporarily with wire before leaving the Site.

On April 3, 2002 at 11:00 a.m., we revisited the weir structure. We attempted to drill new holes in the channels with a handheld drill. When this proved impractical, we decided to remove the channels and take them to a machine shop. The top stoplog was temporarily secured to the weir structure with nylon rope. We returned to the structure at 2:20 p.m. and completed our work, including placing new locks on the locking pins. It was noted that water was transferring approximately 0.5 feet over the top stoplog with an easterly flow. The Field Equipment Checklist and Operation Procedure can be found in Appendix E. Photos of the variable crest weir structure are shown in Appendix F.

PREPARED BY: Joey Laville, Pyburn & Odom MCA

EDITED BY: Harry Rayner, Pyburn & Odom MCA
Mike Maillet, Pyburn & Odom MCA
Brian Miller, Pyburn & Odom MCA

DISTRIBUTION: Clark Allen, DNR, CRD (3 Copies)
Brian Babin, DNR, CRD (1 Copy)

APPENDIX A

FIELD DATA REPORT

Project (No. & Name) Site 35 BA-02 GIWW/Clovelly Hydrologic Restoration Project

Location: Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, LA.

Purpose of Site Visit (1) Inspect the 4 navigation lights at Site 14a (end of Clovelly Farms Canal at Little Lake; (2) inspect, test and clean the flapgate at Site 91 and, (3) operate/adjust the variable crest weir at Site 35 (add logs as needed). Plus attach new cable to lifting boom assembly.

Date: March 28, 2002

Participants: Mike Maillet, Joey Laville, and Brian Miller

Weather Conditions: Sunny / Warm

Persons Contacted for Access: Carroll Adams, Land Manager for Little Lake Co.

Site No.: 35

Structure Condition			
Item	Condition	Maintenance/Repair	
		*Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	Good		X
Pile Caps	Good		X
Corrugated Aluminum	Good		X
Grating/Metal Components	Grating - Good; platform & railing - orange paint flaking, faded	X	
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Rusted	X	
Lifting Boom	Good		X

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	Good, verdant growth

***Description of Maintenance/Repair Required:** Frame and railing need sanding and new coat of orange paint.

Stop Log Adjustment Date/Time March 28, 2002 1:30 p.m.

- Number of Logs Removed/Replaced: 3 (three)

Elevation: See Field Notes

Mudline Levels: See Field Notes

- Water Levels: See Field Notes

Tide Description: N/A - 3 stoplogs added.

NAME OF AFE:

PAGE NO

DATE

WEATHER

FENCES & ROADS

ANGLE INT

M.C. ELEVATION

LOCATION

STATION

ANGLE BS

CC HI

M.C. FS

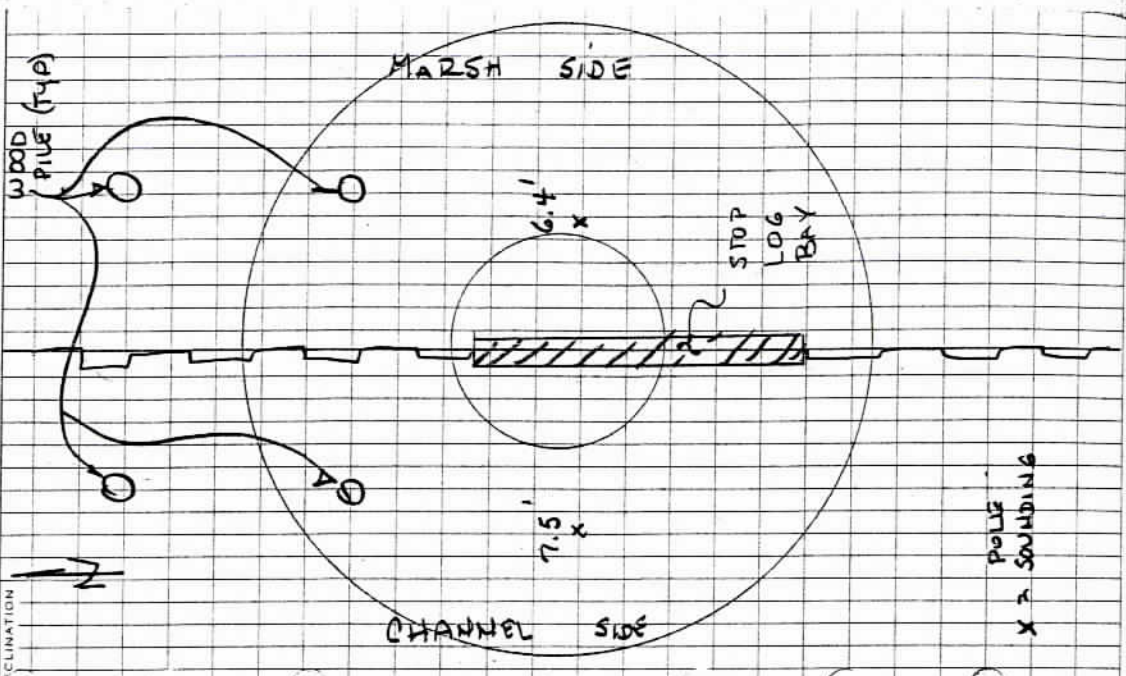
DECLINATION

GIWW / CLOVELLY
HYDROLOGIC RESTORATION
PROJECT. (BA-02)

STRUCTURE 35

800-0047 (PL-569) PAGE NO. P50 400 #
 NAME OF AFE: LA. DNR ID-1631

STRUCTURE 35



LOCATION: STN 35 DATE: 3/28/07 WEATHER: CLOUDY
 PAGE NO. R. 2
 FENCES & ROADS

STATION	ANGLE		MC		ELEVATION
	BS	HI	FS	MC	
TBM NE PILE	+	41	-		EL. 3.97
TBM SE PILE		4.09		8.13	4.04
AVG. H.I.				7.99	
TOP OF EXISTING LOGS				9.18	-1.19 (-1.2)
3 LOGS INSTALLED (4" X 6")					
					-1.2 + 1.5 = +0.3
					MARSH LEVEL = 1.0'

APPENDIX B



Photo 1 – Navigation Light No. 1 (Site 14a).



Photo 2 – Navigation Light No. 2 (Site 14a).



Photo 3 – Navigation Light No. 3 (Site 14a).



Photo 4 – Navigation Light No. 4 (Site 14a).

APPENDIX C

FIELD EQUIPMENT CHECKLIST AND PROCEDURE

BA-02 GIWW/CLOVELLY

SITE 90 – FLAPGATED CULVERT STRUCTURE

- _____ 1. 3" DIAMETER. STEEL PIPE
- _____ 2. TOOL TO CLEAN GATE ENTRANCE
- _____ 3. LOCK TO SECURE GATE OPEN IF NEEDED
- _____ 4. GLOVES
- _____ 5. HARD HATS

GENERAL NOTES:

1. Gate shall be checked for any obstructions.
2. Gate operation shall be checked.

OPERATION PROCEDURE:

TO CHECK GATE OPERATION:

1. Inspect the flapgate hinge system for barnacles or other debris. Scrape off barnacles and debris with a shovel.
2. Place 3" dia. Pipe in insert at the top of the gate.
3. Open and close gate fully to check gate function.
4. Hold gate open fully and probe the entrance and interior of the culvert with a shovel for possible obstructions.

APPENDIX D



Photo 5 – Flapgated Culvert Structure (Site 91).



Photo 6 – Operating the Flapgated Culvert Structure (Site 91) and scraping barnacles off the flapgate hinge system.



Photo 7 – Flapgated Culvert Structure (Site 91), view of operation check.

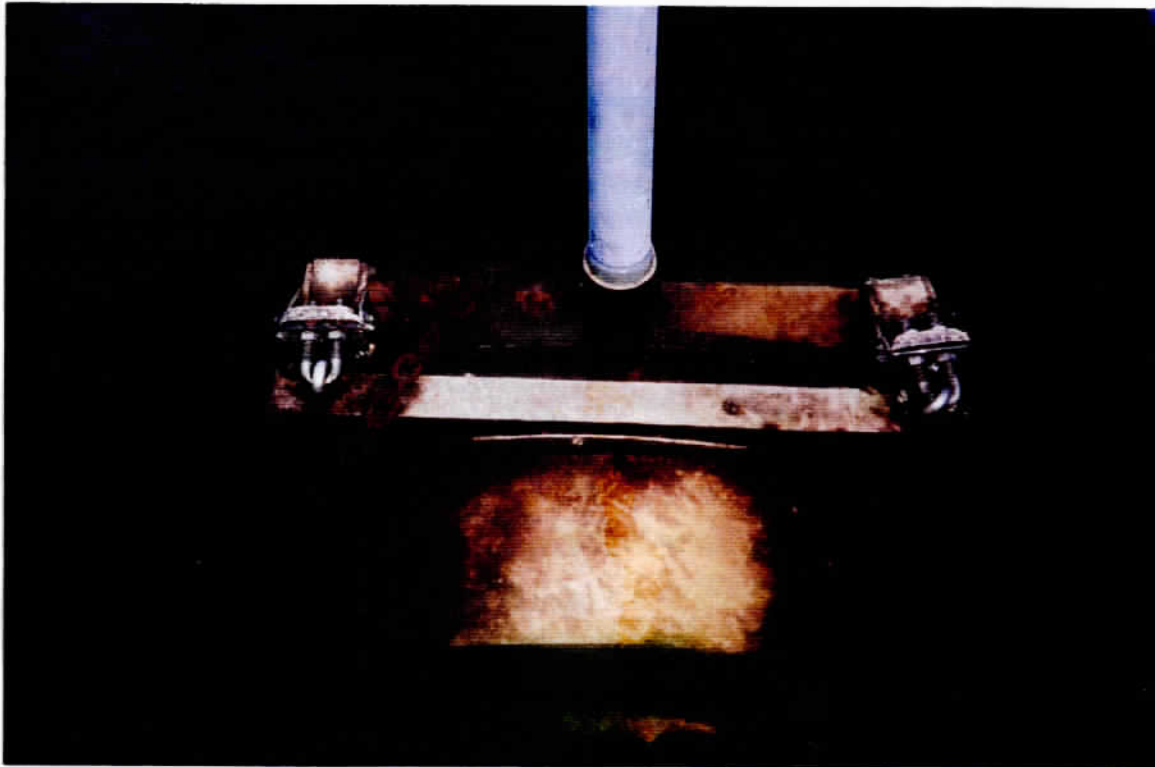


Photo 8 – Flapgated Culvert Structure (Site 91), view of flapgated hinge system, gate closed.

APPENDIX E

FIELD EQUIPMENT CHECKLIST

BA-02 GIWW/CLOVELLY

SITE 35 – ADJUSTABLE CREST WEIR

- _____ 1. CRANK HANDLE FOR CRANE BOOM
- _____ 2. STAINLESS STEEL LIFTING RODS
- _____ 3. KEYS FOR STOP LOG LOCKING MECHANISM
- _____ 4. ADDITIONAL LOCKING PINS
- _____ 5. GLOVES
- _____ 6. HARD HATS

GENERAL NOTES:

- 1. April to November – stoplogs shall be set at 0.5' below marsh elevation.
- 2. November to April – stoplogs shall be removed.

OPERATION PROCEDURE:

- 1. Install crank handle on crank boom.
- 2. Unlock and remove locking pins from each end of stoplogs.
- 3. Remove locking mechanism from each end of guide channel.
- 4. Hook stainless steel lifting rods to lifting ring.
- 5. Hook other end of stainless steel rods to lag eyes on stoplogs.
- 6. Lift stoplogs vertically using crane boom.

APPENDIX F



Photo 9 – Variable Crest Weir (Site 35),
side view of weir structure and lifting boom.



Photo 10 – Variable Crest Weir (Site 35),
view of control survey in progress

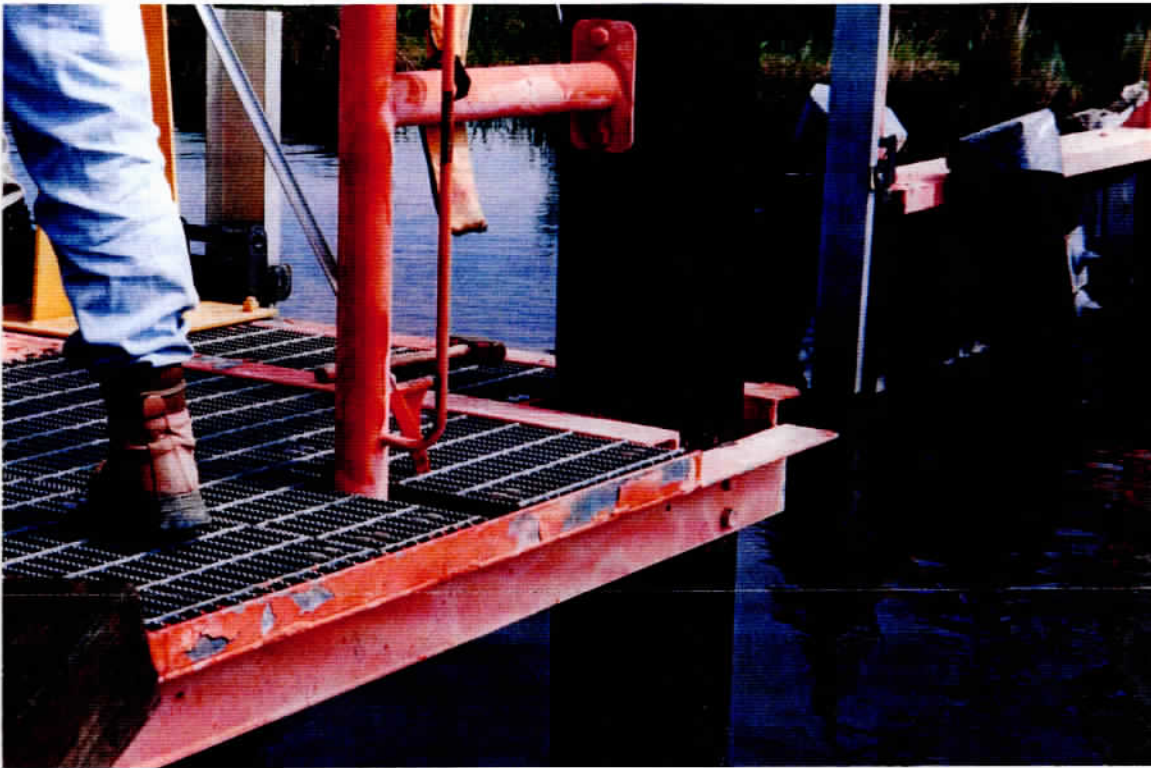


Photo 11 – Variable Crest Weir (Site 35),
view of worn and chipped paint on the platform.



Photo 12 – Variable Crest Weir (Site 35),
view of worn and chipped paint on the railing and weir.

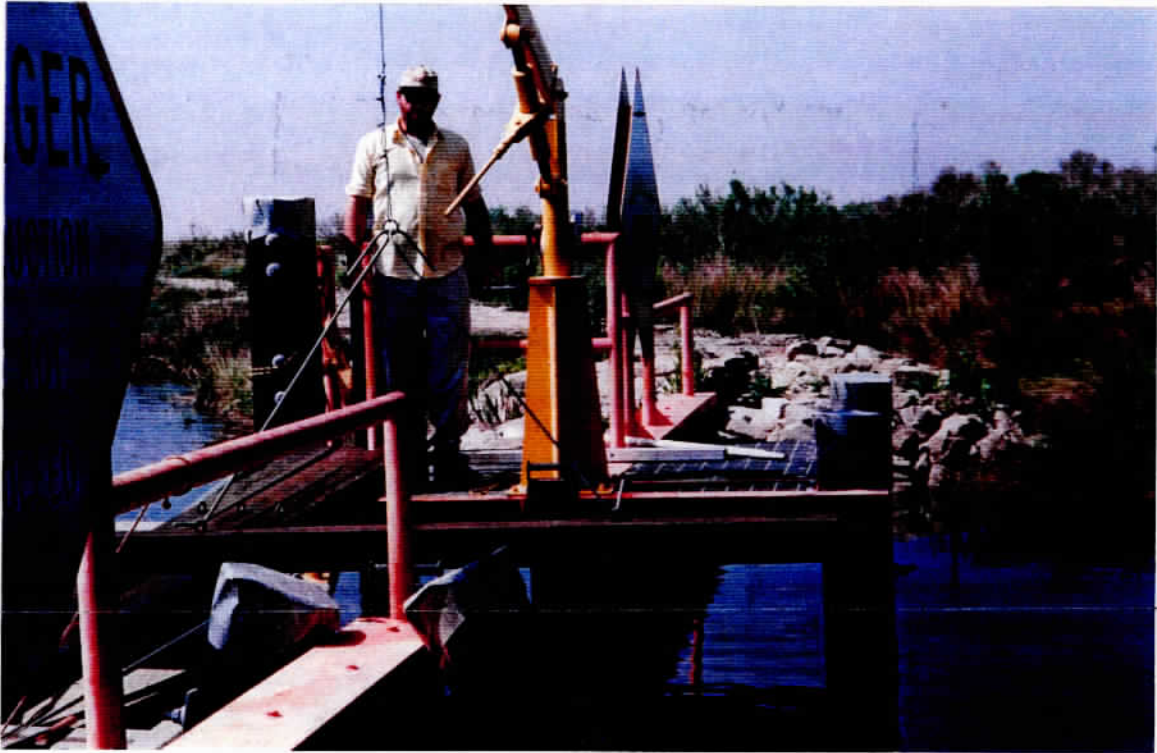


Photo 13 – Variable Crest Weir (Site 35), view of stoplogs being installed.



Photo 14 – Variable Crest Weir (Site 35), view of stoplogs being installed.

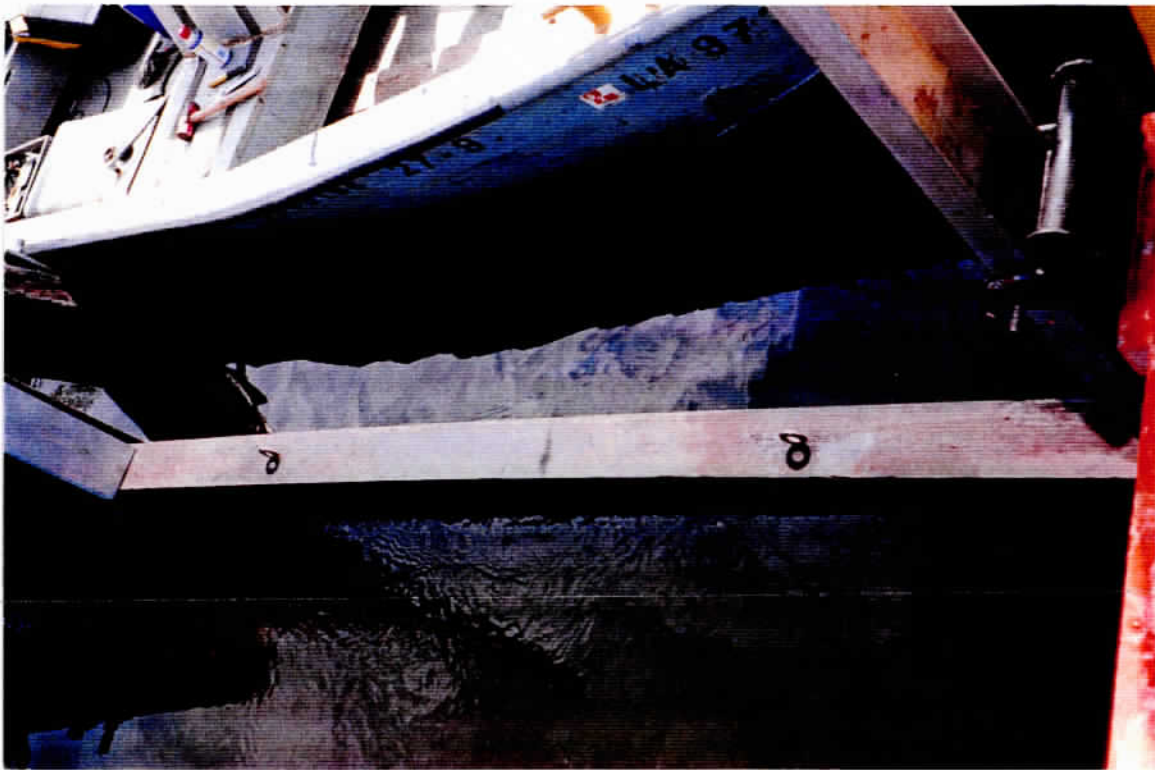


Photo 15 – Variable Crest Weir (Site 35), view of floating top stoplog.



Photo 16 – Variable Crest Weir (Site 35), looking east at the temporarily secured weir structure.

**BA-02 GIWW / CLOVELLY HYDROLOGIC
RESTORATION PROJECT**

**DNR CONTRACT NO. 2503-01-30
CEEC PROJECT NO. 2076**

OPERATION AND INSPECTION REPORT

Site No. 35



NOVEMBER 2002

**Prepared For:
Louisiana Department of Natural Resources**

Prepared By:
Coastal Engineering and Environmental Consultants, Inc.
197 Elysian Drive
Houma, Louisiana 70363

Site No. 35
Variable Crest Weir Structure

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish, Louisiana

PURPOSE: Operate and adjust the variable crest weir at Site No. 35

PARTICIPANTS: Brian Brunet, Randy Mouton and Willie Radau

DATES: November 1, 2002

CONDITIONS: Partly cloudy and Windy (70°)

Permission to gain access to Site No. 35 was obtained from Mr. Harold Werner (Attorney, 504-522-7496) and Mr. Carroll Adams (Land Manager - Little Lake Land Co., 504-691-1627) on November 1, 2002.

The weir structure is located in the Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes eye hook and crank handle needed on stiff arm hoist (see photographs). The TBM used for this site in the determination of elevation was the top of timber pile at the northeast corner of the structure platform (3.97 NAVD88). The water surface elevation at the site was determined to be 1.31 feet. The ground elevation on the east side of the weir was -5.80 feet and the ground elevation on the west side was -6.59 feet.

It was determined through coordination with Louisiana Department of Natural Resources personnel that the required elevation of the stop logs would be approximately 0.5 feet Below Marsh Level (BML). This would require the removal of three (3) stop logs. The elevation of the stop logs prior to placement was 0.20 feet and elevation -1.24 after placement. The field data report, photographs and field notes are attached.

FIELD DATA REPORT

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish, Louisiana

Purpose of Site Visit: To remove three (3) stop logs.

Date: November 1, 2002

Participants: Brian A. Brunet, Randy Mouton and Willie Radau

Weather Conditions: Partly cloudy, Windy (70°)

Persons Contacted for Access: Mr. Harold Werner (504-522-7496), and Mr. Carroll Adams (504-691-1627)

Site No.: 35

Structure Condition			
Item	Condition	Maintenance/Repair	
		Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	N/A Stiff Arm Hoist Has Handle Missing	X	
Pile Caps	Good		X
Corrugated Aluminum	Good		X
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Good, Lock Holders Are Bent But Operational		X

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Hoist Needs Eye Hook and Crank Handle.

Stop Log Adjustment **Date/Time:** November 1, 2002 - 2:30 P.M.

- **Number of Logs Removed/Replaced:** Removed 3 Logs

- **Elevation:** See Field Notes

- **Mudline Levels:** See Field Notes

- **Water Levels:** See Field Notes

Flag Description: Blue

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project

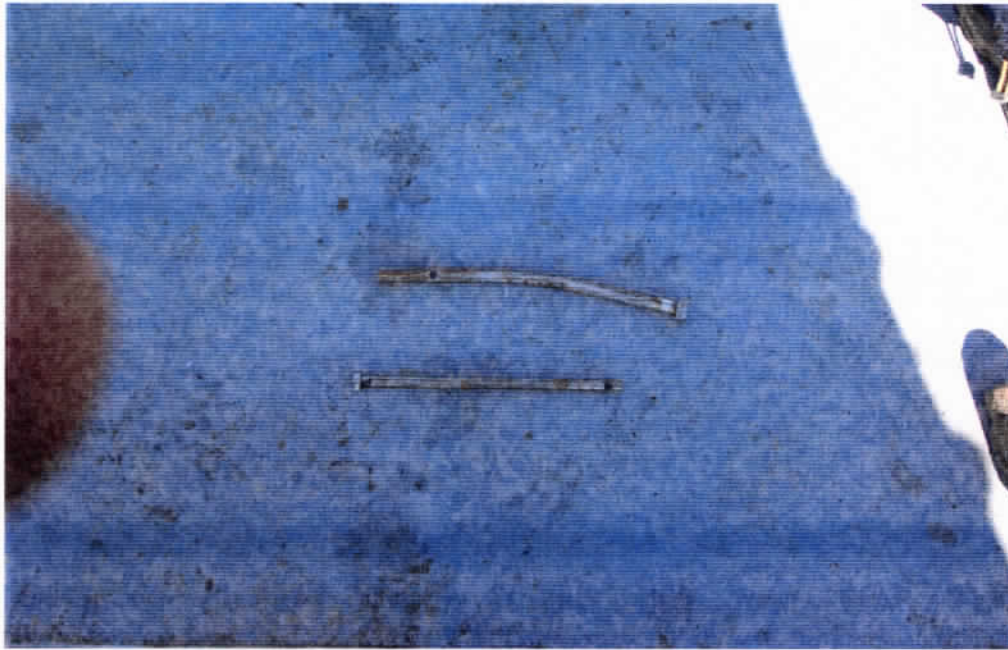


Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project





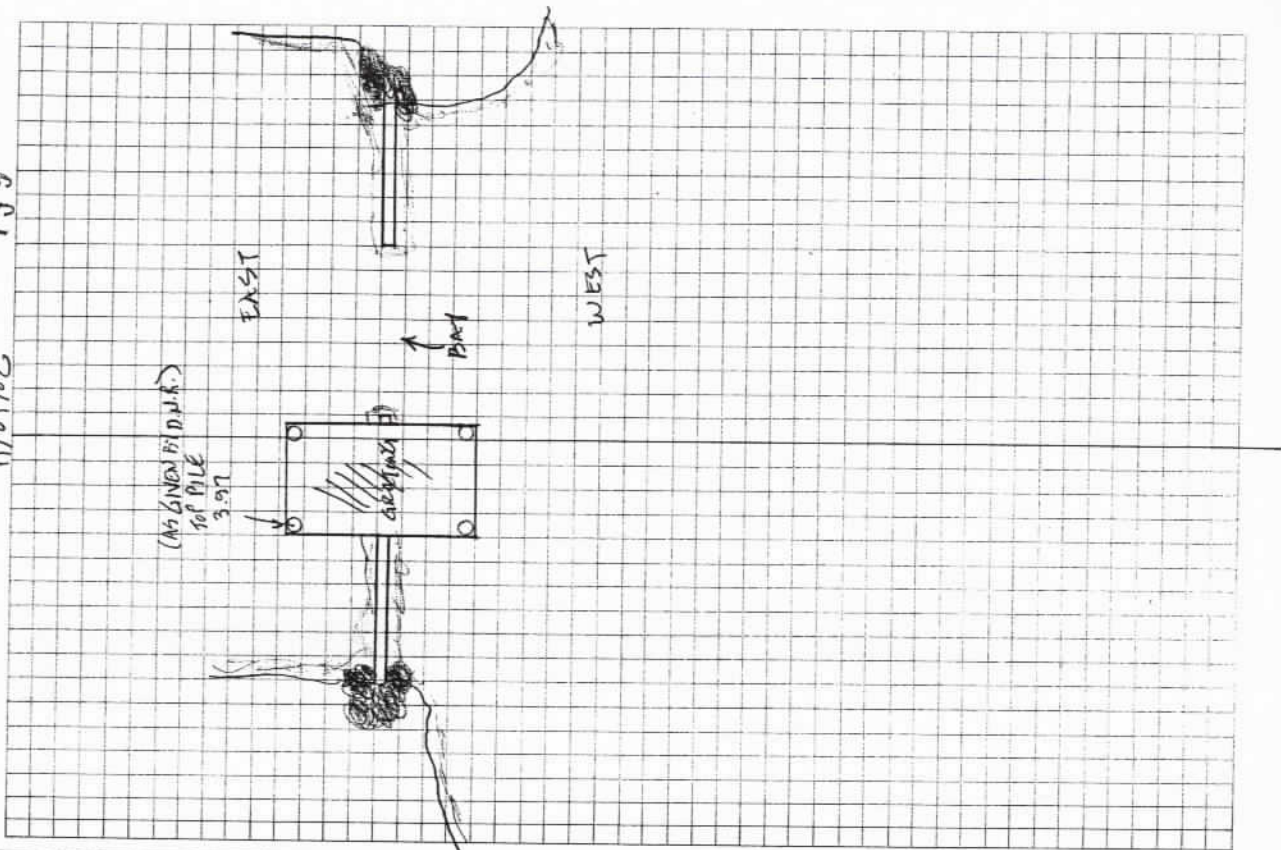
76

P.C. 5 M.I.D
700 F

139

11/01/02

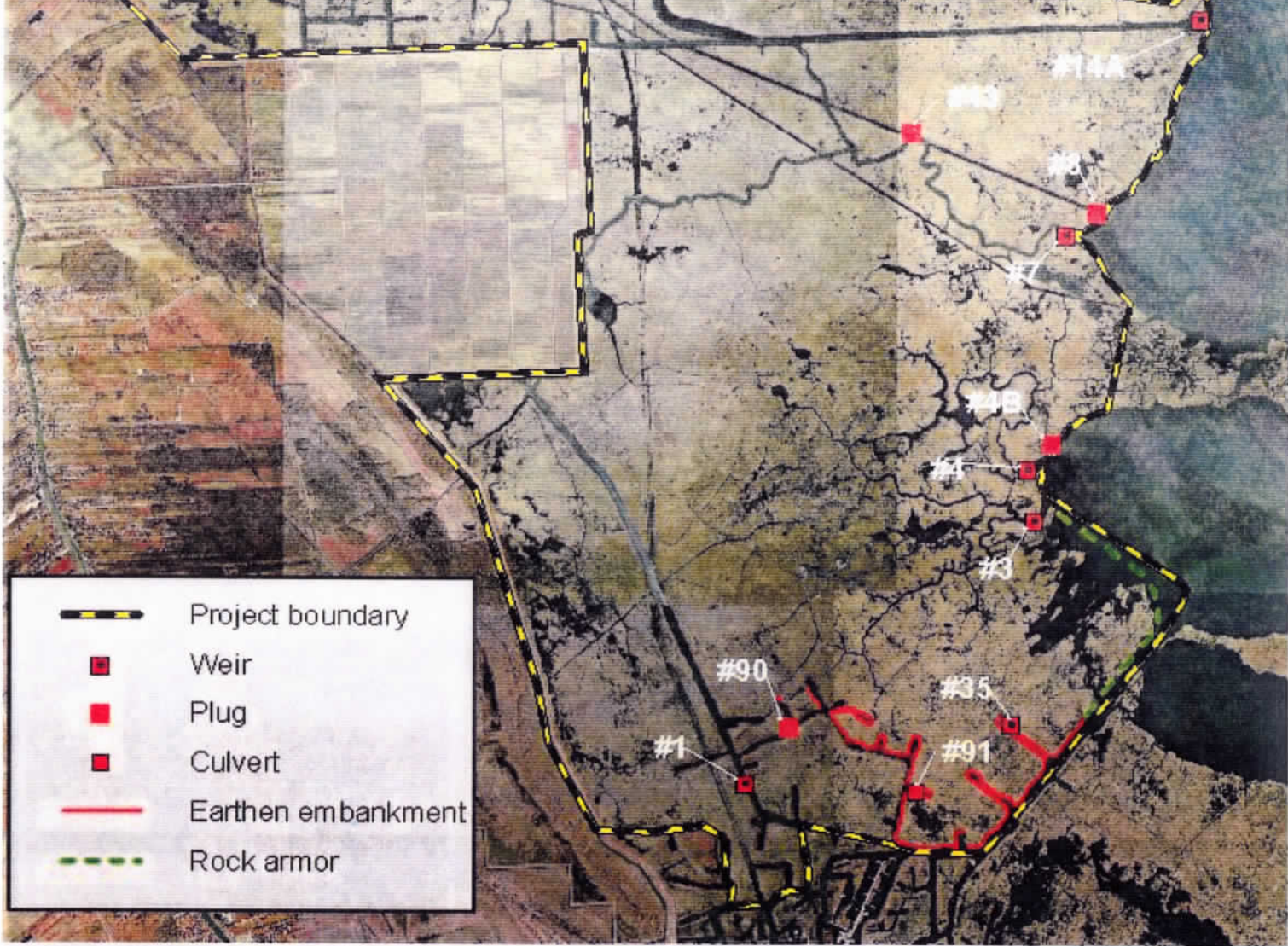
B. A. BRUNET
E. MONTON
W. RADAW









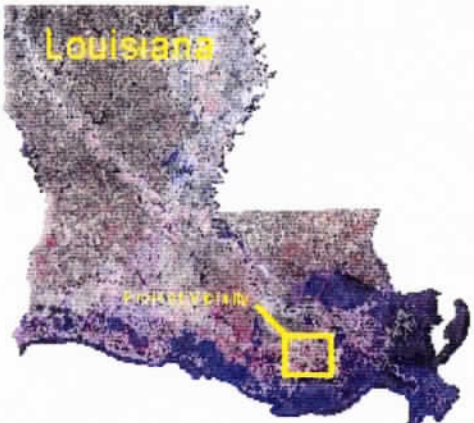
LOCATION	JOB # 2076	DEPARTMENT OF NATURAL RESOURCES	REMARKS
BA-02	GIWW/CLONELLI RESTORATION		
STOP LOG REMOVAL			
+	H. I.	NAT. H.S. ELEV.	
3.24	7.21	3.97	
		7.01	TOP EXISTING STOP LOGS
		5.90	BOTH SIDES OF WATER
		13.01	NAT. BOTTOM EAST SIDE
		13.80	NAT. BOTTOM WEST SIDE
		8.45	TOP STOP LOGS AFTER REMOVAL
		-1.24	
		-5.80	
		-6.59	

Provided Information

GIWW to Clovelly Farms Hydrologic Restoration Project (BA-02)



	Project boundary
	Weir
	Plug
	Culvert
	Earthen embankment
	Rock armor



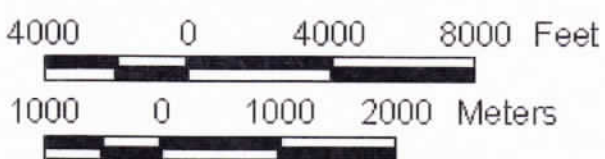
Data Source:

LA Department of Natural Resources
Coastal Restoration Division
Biological Monitoring Section
Thibodaux Field Office

1998 DOQQ's

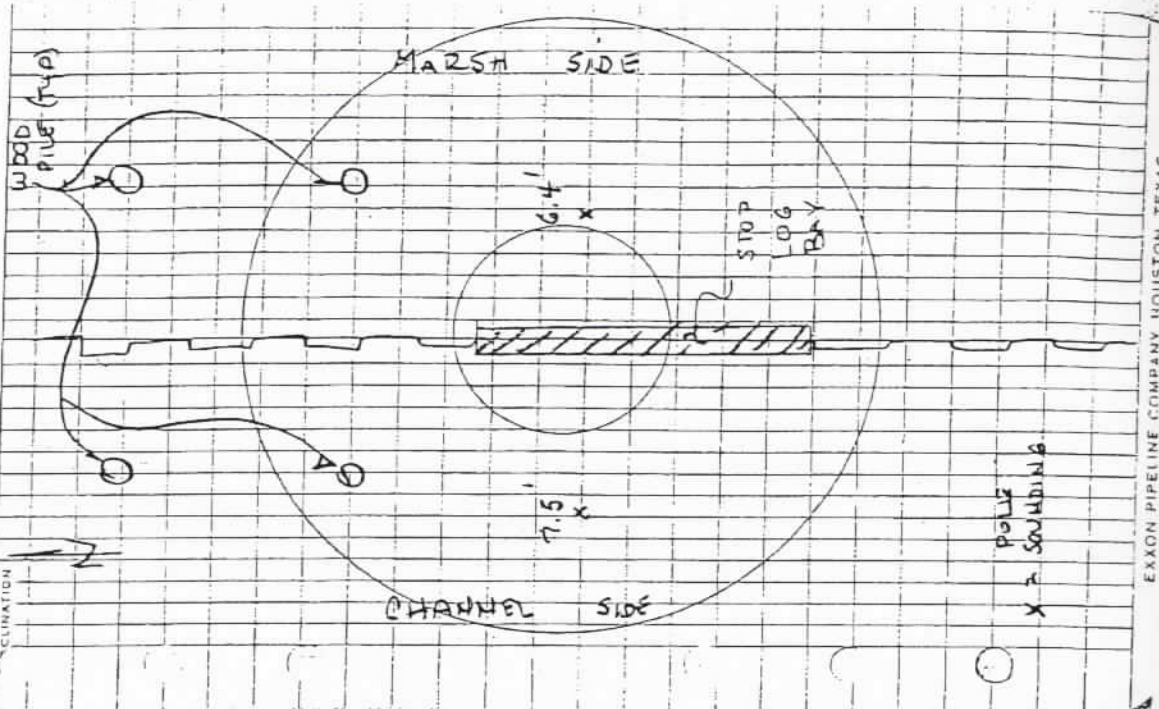
Date: July 30, 2001

Map ID: 2001-TFO-012



800-0047 (PL-5691) PAGE NO. **P10 400 #**
 NAME OF AFE: **LA. DNR 1D-1681**

STRUCTURE 35



STATION	ANGLE BS	C.C. HI	M.C. FS	WEATHER (WMM)		FENCES & ROADS	
				ANGLE INT.	ELEVATION	MC ELEVATION	MC ELEVATION
TBM NE PILE	3.88	7.85	-	ELI			
TBM SE PILE	4.09	8.13		3.97			
AVG. H.I.		7.99		4.04			
TOP OF EXISTING LOGS			9.18	-1.19			(-1.2)
3 LOGS INSTALLED (4" X 6")							
				-1.2 + 1.5 = +0.3			
MARSH LEVEL = 1.0'							

**BA-02 GIWW / CLOVELLY HYDROLOGIC
RESTORATION PROJECT**

**DNR CONTRACT NO. 2503-03-21
CEEC PROJECT NO. 2145**

OPERATION AND INSPECTION REPORT

Site No. 35



APRIL 2003

**Prepared For:
Louisiana Department of Natural Resources**

Prepared By:
Coastal Engineering and Environmental Consultants, Inc.
197 Elysian Drive
Houma, Louisiana 70363

Site No. 35
Variable Crest Weir Structure

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish, Louisiana

PURPOSE: Operate and adjust the variable crest weir at Site No. 35

PARTICIPANTS: Brian Brunet, Randy Mouton and Willie Radau

DATES: March 20, 2003

CONDITIONS: Partly cloudy and Warm (78° F)

Permission to gain access to Site No. 35 was obtained from Mr. Harold Werner (Attorney, 504-522-7496) and Mr. Carroll Adams (Land Manager - Little Lake Land Co., 504-691-1627) on March 14, 2003 and March 14, 2003 respectively.

The weir structure is located in the Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Eye hook on stiff arm hoist requires maintenance/repair (see photographs). The TBM used for this site in the determination of elevation was the top of timber pile at the northeast corner of the structure platform (3.97 NAVD88). The water surface elevation at the site was determined to be 1.29 feet. The ground elevation on the marsh side of the weir was -5.92 feet and the ground elevation on the canal side was -6.43 feet.

It was determined through coordination with Louisiana Department of Natural Resources personnel and review of previous operations that the required elevation of the stop logs would be approximately 0.5 feet Below Marsh Level (BML). This would require placement of three (3) stop logs. The elevation of the stop logs prior to placement was -1.21 feet and elevation 0.18 after placement. The field data report, photographs and field notes are attached.

FIELD DATA REPORT

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish, Louisiana

Purpose of Site Visit: To replace three (3) stop logs.

Date: March 20, 2003

Participants: Brian A. Brunet, Kevin Giles, Willie Radau, IV, and Jesse Bonvillain

Weather Conditions: Partly Cloudy and Warm (78° F)

Persons Contacted for Access: Mr. Harold Werner (504-522-7496), and Mr. Carroll Adams (504-691-1627)

Site No.: 35

Structure Condition			
Item	Condition	Maintenance/Repair	
		Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	N/A Stiff Arm Hoist Has Handle and Eye Hook Missing	X	
Pile Caps	Good		X
Corrugated Aluminum	N/A		
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Good, Lock Holders Are Bent But Operational		X

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Hoist Needs Eye Hook and Crank Handle.

Stop Log Adjustment **Date/Time:** March 20, 2003 (11:30 A.M.)

- **Number of Logs Removed/Replaced:** Replaced 3 Logs
- **Elevation:** See Field Notes
- **Mudline Levels:** See Field Notes
- **Water Levels:** See Field Notes

Flag Description: Blue





66

188 P.C. & WARM
78°F

P.A. BRUNET
K. GILES
W. RADAU
J. BONVILLE

03/20/03

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
BA-02 GIWW/CLOVELL RESTORATION PROJECT

REPLACEMENT OF STOP LOGS

	H.I.	ELEV	REMARKS
+	7.62	3.97	TOP NH PILING ON STRUCTURE 8:30 A.M.
	6.33	1.29	TOP WATER
	8.83	-1.21	TOP STOP LOGS IN PLACE
	13.54	-5.92	NAT. BOTTOM MARSH SIDE
	14.05	-6.43	NAT. BOTTOM CANAL SIDE
	7.44	0.18	TOP STOP LOGS AFTER PLACEMENT
	3.65	3.97	CL TO H
	6.31	1.31	11:30 A.M. TOP WATER

MARSH AREA

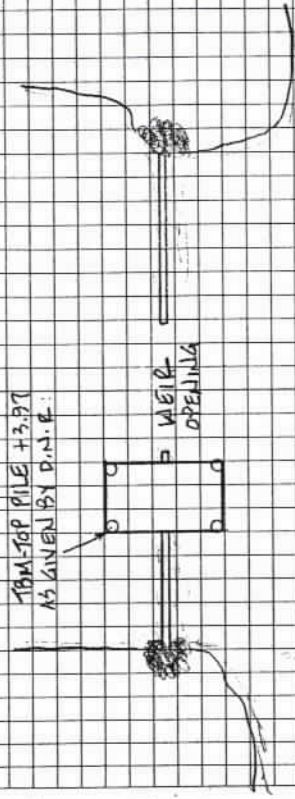
EAST

TOP-STOP PILE +3.97
AS GIVEN BY P.N.E.

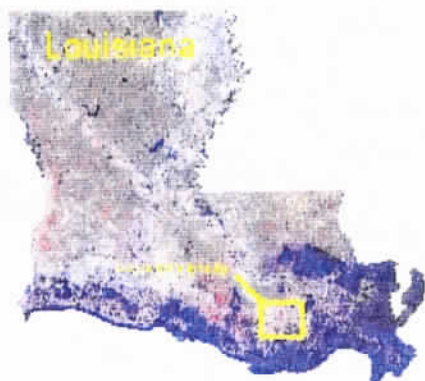
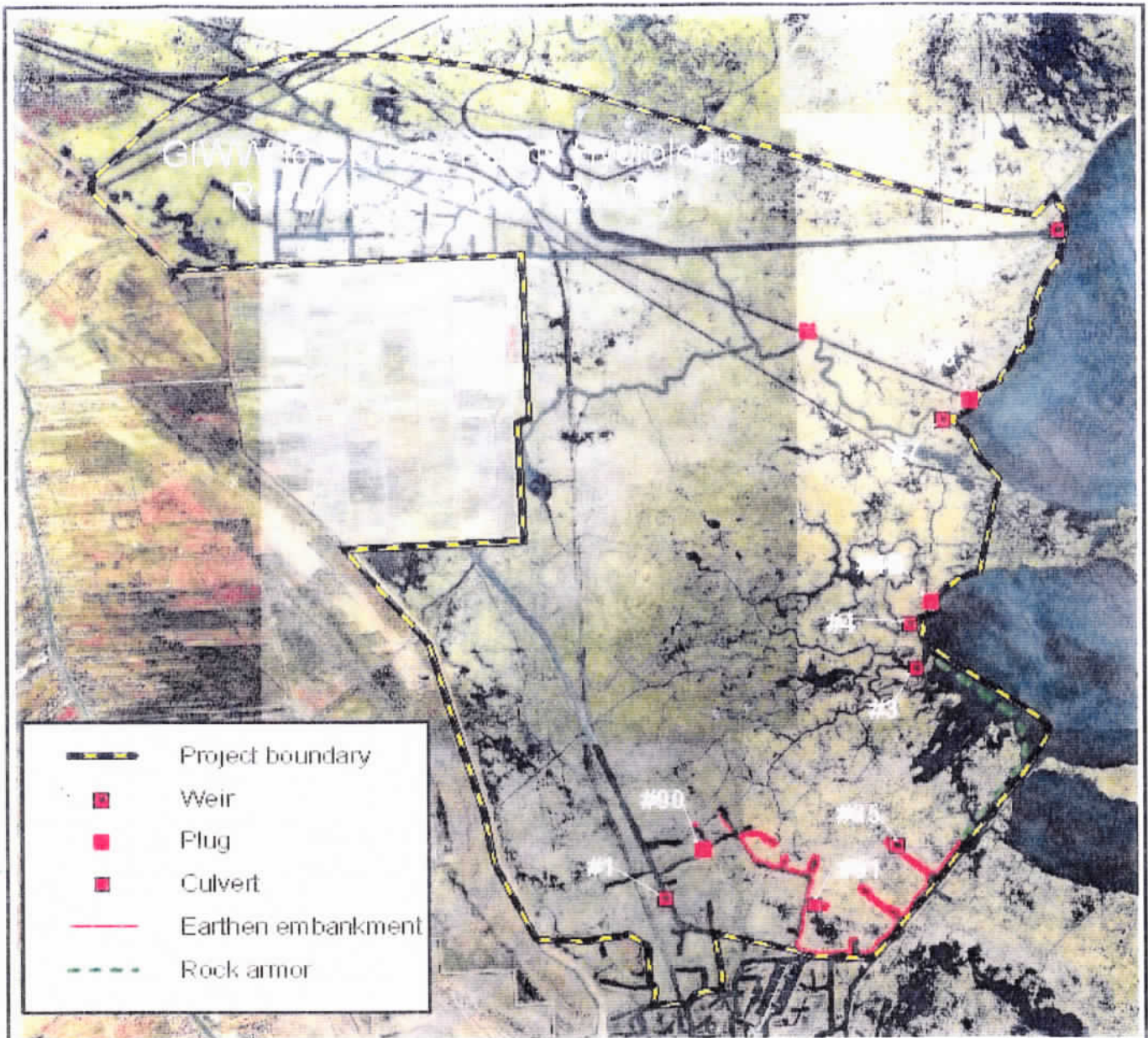
WEIR
OPENING

WEST

LOCATION CANAL



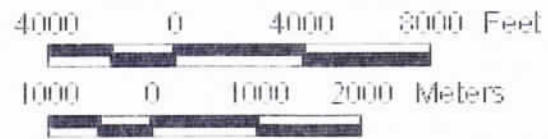
Provided Information



Data Source:
 LA Department of Natural Resources
 Coastal Restoration Division
 Biological Monitoring Section
 Thibodaux Field Office

1998 DOQQ's
 Date: July 30, 2001

Map ID: 2001-TFO-012



BA02-SM-02

VICINITY MAP Scale: 1" = 2000'

Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29 29' 26.264853" N
Long. 90 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

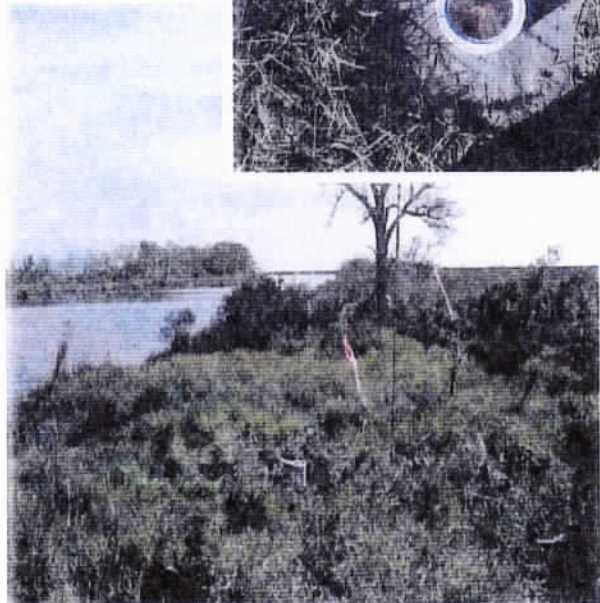
N= 361,933.78
E= 3,630,318.64


Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.





**COASTAL
ENGINEERING AND
ENVIRONMENTAL
CONSULTANTS, INC.**

Engineers — Scientists — Planners — Environmental Consultants

November 20, 2003

Louisiana Department of Natural Resources
Coastal Restoration Division
1440 Tiger Drive, Suite B
Thibodaux, Louisiana 70301

Attention: Mr. Brian Babin

Subject: Operation and Inspection Report

**Reference: Louisiana Department of Natural Resources
BA-02 GIWW / Clovelly Hydrologic Restoration Project
DNR Contract No. 2503-03-21
CEEC Project No. 2245**

Dear Mr. Babin:

In accordance with your scope of services delivered on October 22, 2003, Coastal Engineering and Environmental Consultants, Inc.'s (CEEC) field party inspected and operated the following listed weirs:


Site No. 35 - Operate and adjust the variable crest weir at site.

Enclosed please find four (4) bound reports demonstrating the results and photographs of our inspection and operation of the above listed structure.

CEEC is pleased to provide professional engineering services for this project. Should you have any questions, please call me at (985) 868-3434.

Sincerely,

**COASTAL ENGINEERING AND
ENVIRONMENTAL CONSULTANTS, INC.**



Jeffery M. Peña, P.E.
Project Manager

JMP:mmb

Enclosures

cc: Hilary Thibodeaux - DNR (w/ Enclosures)

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RECEIVED
NOV 26 2003


**BA-02 GIWW / CLOVELLY HYDROLOGIC
RESTORATION PROJECT**

**DNR CONTRACT NO. 2503-01-30
CEEC PROJECT NO. 2245**

OPERATION AND INSPECTION REPORT

Site No. 35



NOVEMBER 2003

**Prepared For:
Louisiana Department of Natural Resources**

Prepared By:
Coastal Engineering and Environmental Consultants, Inc.
197 Elysian Drive
Houma, Louisiana 70363

Site No. 35
Variable Crest Weir Structure

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish, Louisiana

PURPOSE: Operate and adjust the variable crest weir at Site No. 35

PARTICIPANTS: Brian Brunet and Willie Radau

DATES: November 5, 2003

CONDITIONS: Partly cloudy and Warm (85°)

Permission to gain access to Site No. 35 was obtained from Mr. Harold Werner (Attorney, 504-522-7496) and Mr. Carroll Adams (Land Manager - Little Lake Land Co., 504-691-1627) on October 28, 2003.

The weir structure is located in the Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes eye hook, bent locking pins and crank handle needed on stiff arm hoist (see photographs). The TBM used for this site in the determination of elevation was the top of timber pile at the northeast corner of the structure platform (3.97 NAVD88). The water surface elevation at the site was determined to be 1.18 feet. The ground elevation on the east side of the weir was -5.78 feet and the ground elevation on the west side was -7.03 feet.

It was determined through coordination with Louisiana Department of Natural Resources personnel that the required elevation of the stop logs would be approximately 2.0 feet Below Marsh Level (BML). This would require the removal of three (3) stop logs. The elevation of the stop logs prior to removal was 0.20 feet and elevation -1.23 after removal. The field data report, photographs and field notes are attached.

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



BA-02 Pre-Log Removal



BA-02 Pre-Log Removal

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



BA-02 Bent Lock Pin



BA-02 Missing Crank Handle on Crane Hoist

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



BA-02 Missing Eye Hook on End Lifting Cable



BA-02 Bent Lock Pin

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



BA-02 Post-Log Removal



BA-02 Post-Log Removal

FIELD DATA REPORT

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish, Louisiana

Purpose of Site Visit: To remove three (3) stop logs in one (1) bay opening.

Date: November 5, 2003

Participants: Brian A. Brunet and Willie Radau

Weather Conditions: Partly cloudy, Warm (85°)

Persons Contacted for Access: Mr. Harold Werner (504-522-7496), and Mr. Carroll Adams (504-691-1627)

Site No.: 35

Structure Condition

Item	Condition	Maintenance/Repair	
		Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	Hoist Needs Handle and Eye Hook for End of Cable	X	
Pile Caps	Good		X
Corrugated Aluminum	Good		X
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Fair - Lock Pins Bent, but Usable	X	

Levee Condition

Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Crane hoise needs crane handle and eye hook for end of cable. Lock pins are bent, but are usable.

Stop Log Adjustment **Date/Time:** November 5, 2003 (12:00 p.m.)

- **Number of Logs Removed/Replaced:** Removed three (3) logs
- **Elevation:** See Field Notes
- **Mudline Levels:** See Field Notes
- **Water Levels:** See Field Notes

Log Description: Pink

195
11-9-03

B. W. RUNET
DAU

(34)

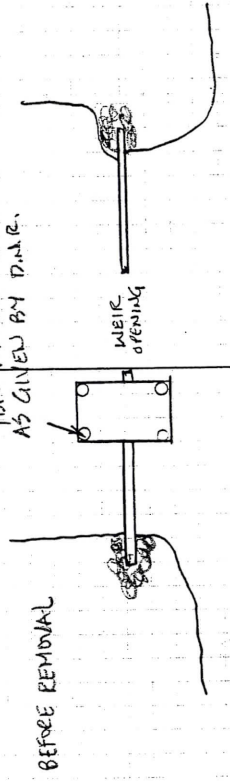
P.C. 2 MILD
857

SEE BOOK 139, PAGE 76 FOR PREVIOUS SURVEY
IN MINN., 2002 & BOOK 188, PAGE 66 FOR
SURVEY OF MARCH, 2003.

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
BA-02 GILWIS/CLAYVELL RESTORATION PROJECT

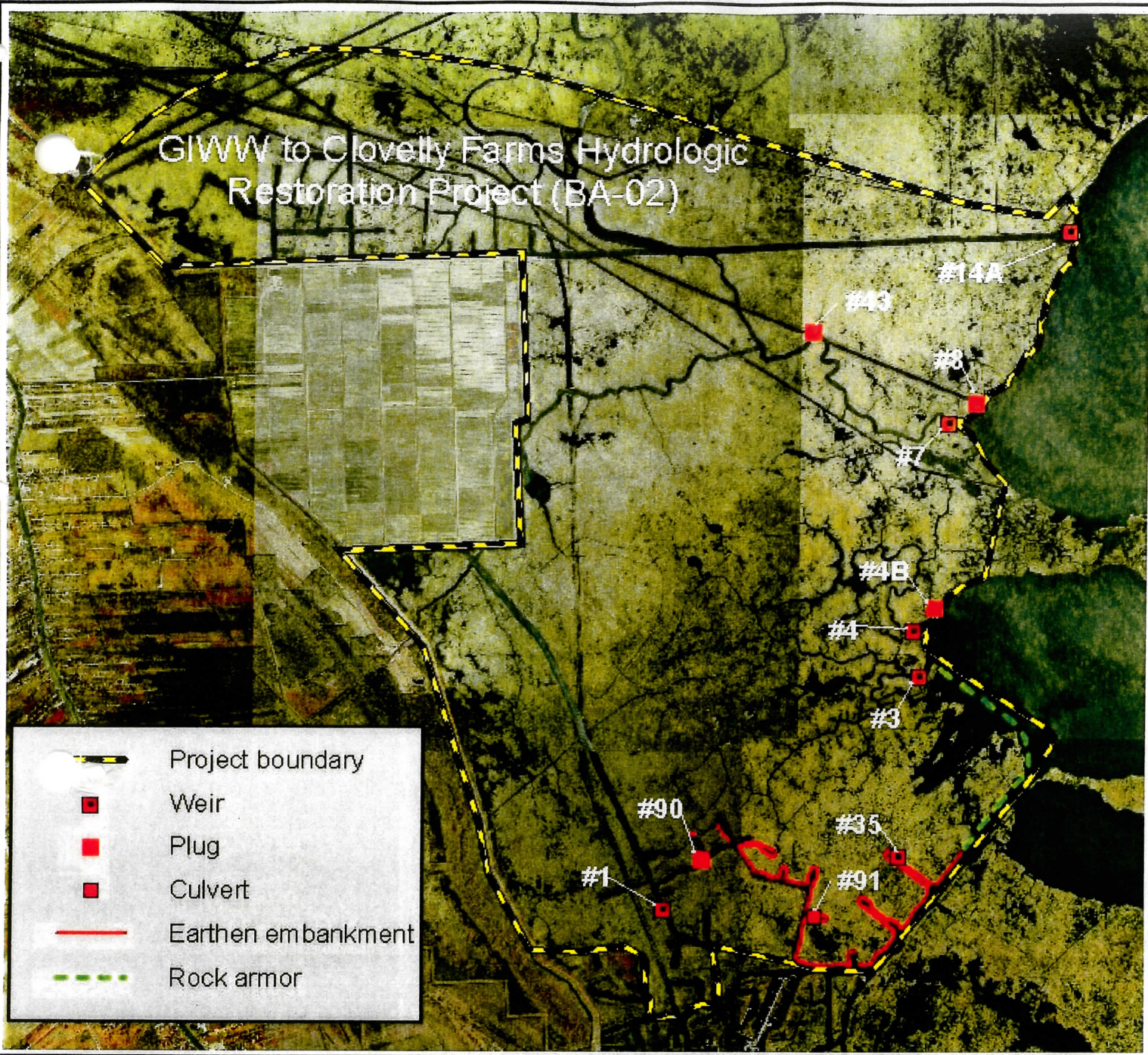
STOP LOG REMOVAL

	ELEN.	REMARKS
+	H. I.	TOP NEW PILING ON STRUCTURE
1.36	5.33	TOP WATER
	4.15	TOP STOP LOGS
	5.13	IN PLACE
	11.11	NAT. BOTTOM
	-5.78	MARSH SIDE
	12.30	NAT. BOTTOM
	-7.03	CANAL SIDE
	-1.23	TOP STOP LOGS
		AFTER REMOVAL
	1.36	
	3.97	CL 184

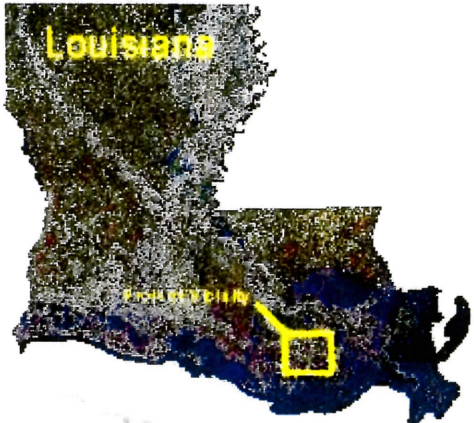


Provided Information

GIWW to Clovelly Farms Hydrologic Restoration Project (BA-02)



	Project boundary
	Weir
	Plug
	Culvert
	Earthen embankment
	Rock armor

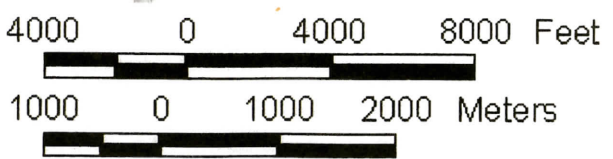


Data Source:
 LA Department of Natural Resources
 Coastal Restoration Division
 Biological Monitoring Section
 Thibodaux Field Office

1998 DOQQ's

Date: July 30, 2001

Map ID: 2001-TFO-012



**BA-02 GIWW / CLOVELLY HYDROLOGIC
RESTORATION PROJECT**

**LDNR CONTRACT NO. 2503-01-30
SCI PROJECT NO. 2282**

OPERATION AND INSPECTION REPORT

Site No. 35



APRIL 2004

**Prepared For:
Louisiana Department of Natural Resources**

Prepared By:
Shaw Coastal, Inc.
197 Elysian Drive
Houma, Louisiana 70363

Site No. 35
Variable Crest Weir Structure

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish, Louisiana

PURPOSE: Operate and adjust the variable crest weir at Site No. 35

PARTICIPANTS: Brian Brunet and John Helm

DATES: March 29, 2004

CONDITIONS: Partly cloudy and Hot (80°)

Permission to gain access to Site No. 35 was obtained from Mr. Harold Werner (Attorney, 504-522-7496) and Mr. Carroll Adams (Land Manager - Little Lake Land Co., 504-691-1627) on March 26, 2004.

The weir structure is located in the Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes bent locking pin on one side (still operable) and installed new locks (5404). The TBM used for this site in the determination of elevation was the top of timber pile at the northeast corner of the structure platform (3.97 NAVD88). The water surface elevation at the site was determined to be 0.92 feet on the canal side of the structure and 0.99 on the marsh side of the structure. The ground elevation on the east side of the weir was -5.49 feet and the ground elevation on the west side was -6.44 feet.

It was determined through coordination with Louisiana Department of Natural Resources personnel that the required elevation of the stop logs would be approximately 0.5 feet Below Marsh Level (BML). This would require the replacement of three (3) stop logs. The elevation of the stop logs prior to removal was -1.21 feet and elevation 0.19 after placement. The field data report, photographs and field notes are attached. There are no navigation lights or timber dolphins located at this structure.

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



Pre Stop Log Installation



Post Stop Log Installation

Site No. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



Pre Stop Log Installation with Old Lock and Slightly Bent Lock Pin



Pre Stop Log Installation with Old Lock and Bent Lock Pin



Post Stop Log Installation with New Lock



Post Stop Log Installation with New Lock

FIELD DATA REPORT

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish, Louisiana

Purpose of Site Visit: To replace three (3) stop logs in one (1) bay.

Date: March 29, 2004

Participants: Brian A. Brunet and John Helm

Weather Conditions: Partly cloudy Hot (80°)

Persons Contacted for Access: Mr. Harold Werner (504-522-7496), and Mr. Carroll Adams (504-691-1627)

Site No.: 35

Structure Condition		Maintenance/Repair	
Item	Condition	Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	Good		X
Pile Caps	Good		X
Corrugated Aluminum	N/A		
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Locks	Changed This Date		X

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Lock pin on one side bent but operable.

Stop Log Adjustment **Date/Time:** March 29, 2004 (12:30 p.m.)

- **Number of Logs Removed/Replaced:** Three (3) Stop Logs Replaced
- **Elevation:** See Field Notes
- **Mudline Levels:** See Field Notes
- **Water Levels:** See Field Notes

Flag Description: N/A

JOB# 2382

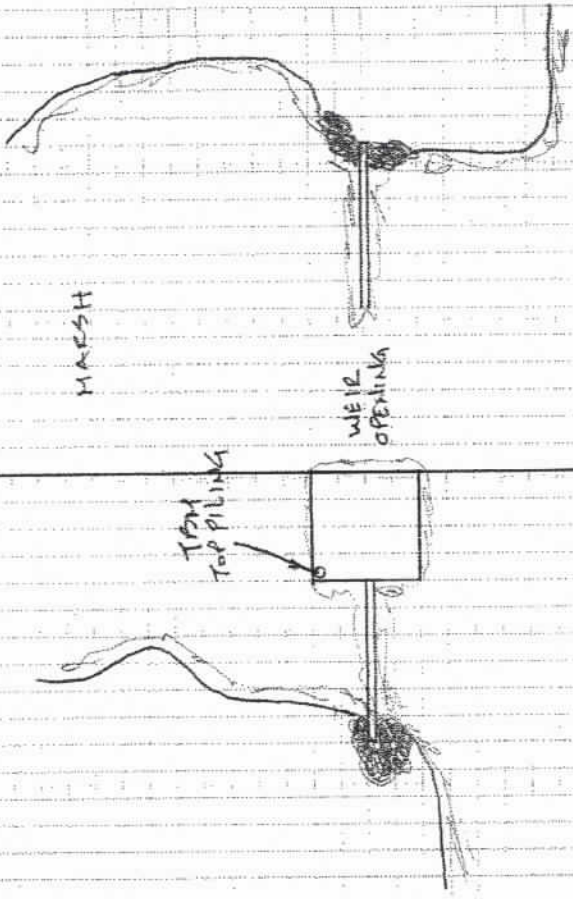
LOUISIANA DEPARTMENT OF NATURAL RESOURCES
BA-02 GAIW/CLOVELLY RESTORATION PROJECT

STOP LOG REPLACEMENT

	NAVD'88 ELEV	REMARKS
+	H.1.	SEC. MON.
2.14	2.97	"BA02-SH-02"
	0.99	TOP WATER
4.12	0.92	MARSH SIDE
4.19	3.98	TOP WATER
1.13	-5.49	CANAL SIDE
10.60	-6.44	USED AS TEMP
11.55	-1.21	MAT BOTTOM
6.32	0.19	MARSH SIDE
4.92		CANAL SIDE
		PRE-STOP
		LOG PLACEMENT
		POST-STOP
		LOG PLACEMENT

2.14 2.39 6K MON

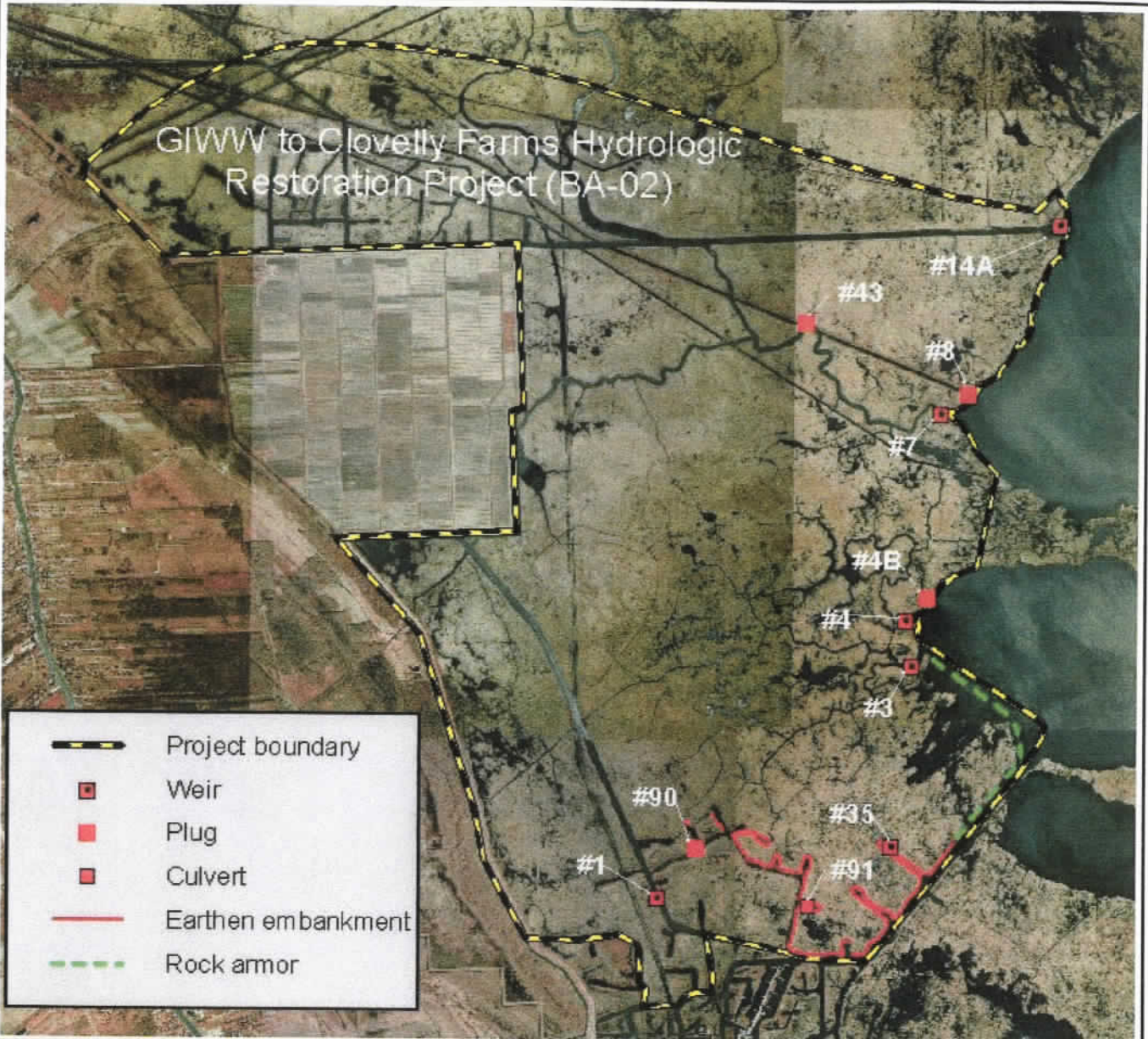
03/29/04









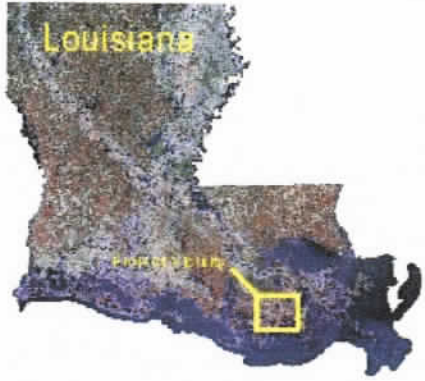
NOTE: AS INSTRUCTED BY MR. BICKEN (BA02-SH-02) FROM THE LOCKS OFFICE OF L.DNR, THE LOCKS ON THE STRUCTURE (5402) WERE REMOVED AND REPLACED BY NEW LOCKS (5404).
ALSO, THE SECONDARY MON. "BA02-SH-02" WAS USED IN LIEU OF THE TEMPORARY MARK PREVIOUSLY ESTABLISHED ON THE STRUCTURE PILING.

Provided Information

GIWW to Clovelly Farms Hydrologic Restoration Project (BA-02)



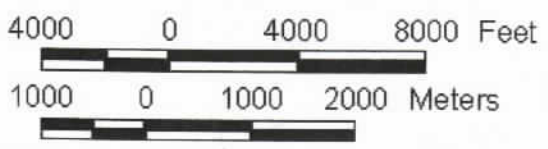
-  Project boundary
-  Weir
-  Plug
-  Culvert
-  Earthen embankment
-  Rock armor



Data Source:
LA Department of Natural Resources
Coastal Restoration Division
Biological Monitoring Section
Thibodaux Field Office

1998 DOQQ's
Date: July 30, 2001

Map ID: 2001-TFO-012





VICINITY MAP

Scale: 1" = 2000'

Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29° 29' 26.264853" N

Long. 90° 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

N= 361,933.78

E= 3,630,318.64

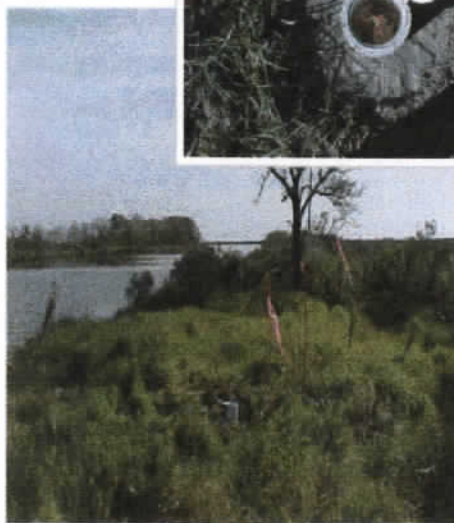
Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.

Adjusted CCRS Height = 2.97 ft (0.894 mtrs)



Adjusted Position Established for Louisiana Department of Natural Resources, Coastal Restoration Division

FIELD TRIP REPORT

For

**GIWW to Clovelly Hydrologic Restoration Project (BA-02)
Operation of Variable Crest Weir Structures
DNR Contract No. 2503-05-28**



Prepared For

**Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301**

Prepared By



T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913

April 2005

FIELD TRIP REPORT

For

**GIWW to Clovelly Hydrologic Restoration Project (BA-02)
Operation of Variable Crest Weir Structures
DNR Contract No. 2503-05-28**



Prepared For

**Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301**

Prepared By



April 2005

LIST OF ATTACHMENTS

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	Structure No. 35	A-1
2	Benchmarks – Data Sheets	A-2

ATTACHMENT NO. 1

Structure No. 35

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project
LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish Louisiana
PURPOSE: Operate and adjust the variable crest weirs at Site No. 35
PARTICIPANTS: Jody Ledet, Arturo Baez, Joe Boquet
DATES: April 12, 2005
CONDITIONS: Clear & Sunny (83°)

Permission to gain access to Site No. 35 was obtained verbally from Mr. Harold Werner (Attorney, 504-522-7496) and Mr. Randy Moertle (985-532-6388) of Little Lake Land Co. on April 8, 2005.

The weir structure is located on Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes bent locking pin on one side and cleaned padlocks with WD40. The TBM used for this site in the determination of elevation was the supplied "BA02-SM-02" (2.97 feet NAVD88). The water surface elevation at the site was determined to be 1.20 feet on the canal side and 1.23 feet on the marsh side of the structure. The natural canal bottom elevation at the site was determined to be -6.34 feet on the canal side and -5.32 feet on the marsh side of the structure.

It was determined through coordination with Louisiana Department of Natural Resources personnel that the required elevation of the stop logs would be approximately 0.5 feet Below Marsh Level (BML). This would require the placement of (3) stop logs. The elevation of the pre-stop log placement was -1.29 feet and post-stop log placement was 0.11 feet. There are no navigational lights at this structure location.

For all elevations please refer to the attached field notes. Also attached are the field data report and photographs.

FIELD DATA REPORT

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish

Purpose of Site Visit: Placement of three (3) stop logs in one (1) bay and structure assessment at Site No. 35

Date: Tuesday, April 12, 2005

Participants: Jody Ledet, Arturo Baez, Joe Boquet

Weather Conditions: Clear & Sunny (83°)

Persons Contacted for Access: Mr. Harold Werner (504-522-7496) and Mr. Randy Moertle (985-532-6388)

Site No.: Structure No. 35

Structure Condition		Maintenance/Repair	
Item	Condition	Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	Good		X
Pile Caps	Good		X
Corrugated Aluminum	N/A		
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Good (cleaned)	X	

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Cleaned master locks with WD-40.

Stop Log Adjustment **Date/Time:** April 12, 2005; 12:30 p.m.

- **Number of Logs Removed/Replaced:** Placement of three (3) stop logs
- **Elevation:** See Field Notes
- **Mudline Levels:** See Field Notes
- **Water Levels:** See Field Notes

Flag Description: N/A

Job # 2005.1184

LA DEPARTMENT OF NATURAL RESOURCES
BA-02 GIN/W/CLONELY RESTORATION PROJECT

STOP LOG REPLACEMENT
SITE NO. 35

	+	H.I.	-	ELEV	REMARKS
Bm	4.25	7.22		2.97	MONUMENT 10A-02-5m-02" TOW
TOP OF WATER			5.99	1.23	MARSH SIDE
TOP OF WATER			6.02	1.20	TOW
TBM			3.33	3.89	CANAL SIDE CHECK TOP OF PILING
NATURAL BOTTOM			12.54	-5.32	NB MARSH SIDE
NATURAL BOTTOM			13.56	-6.34	NB CANAL SIDE
PRE-LOG			8.51	-1.29	PRE-STOP LOG PLACEMENT
POST-LOG			7.11	0.11	POST-STOP LOG PLACEMENT

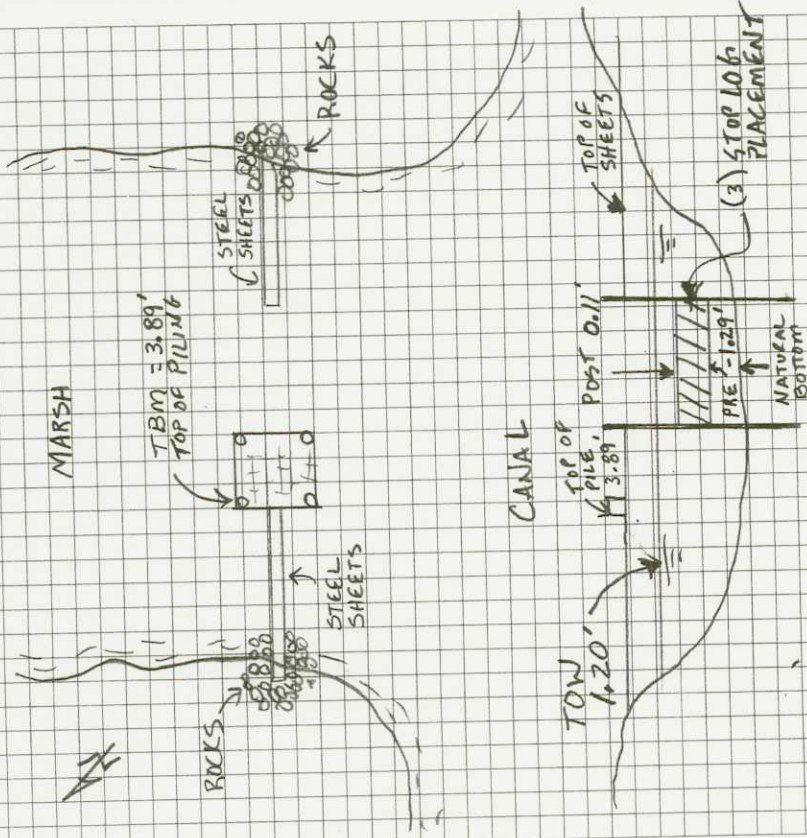
Bm	4.25	2.97	CHECK TO Bm
TOP OF WATER	5.92	1.30	TOW POST PLACEMENT

JLEDET
JZOUET
A BAEZ

4/12/05

Bm & TBM - SUPPLIED BY LDNR







24
Sunny, 83°

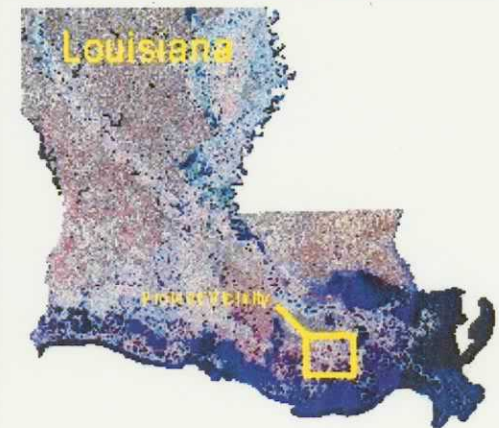


NOTES: PLACED (3) ~~4~~ X 6 X 8' STOP LOGS
PAD LOCK IN GOOD CONDITION (USED ND40)
STOP LOGS IN GOOD CONDITION
BEFORE PLACEMENT

• 3381

GIWW to Clovelly Farms Hydrologic Restoration Project (BA-02)

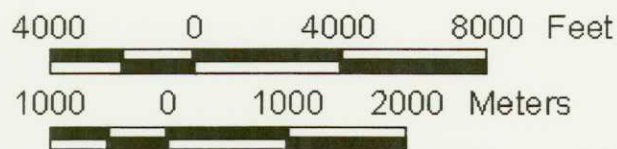
	Project boundary
	Weir
	Plug
	Culvert
	Earthen embankment
	Rock armor



Data Source:
 LA Department of Natural Resources
 Coastal Restoration Division
 Biological Monitoring Section
 Thibodaux Field Office

1998 DOQQ's
 Date: July 30, 2001

Map ID: 2001-TFO-012



SITE NO. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



Pre Stop Log Installation (4/12/05)



Post Stop Log Installation (4/12/05)

SITE NO. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



Water Control Structure Condition (4/12/05)



Crane, Winch & Hoist Condition (4/12/05)



Grating/Metal Components & Pile Caps Condition (4/12/05)

SITE NO. 35
BA-02 GIWW / Clovelly Hydrologic Restoration Project



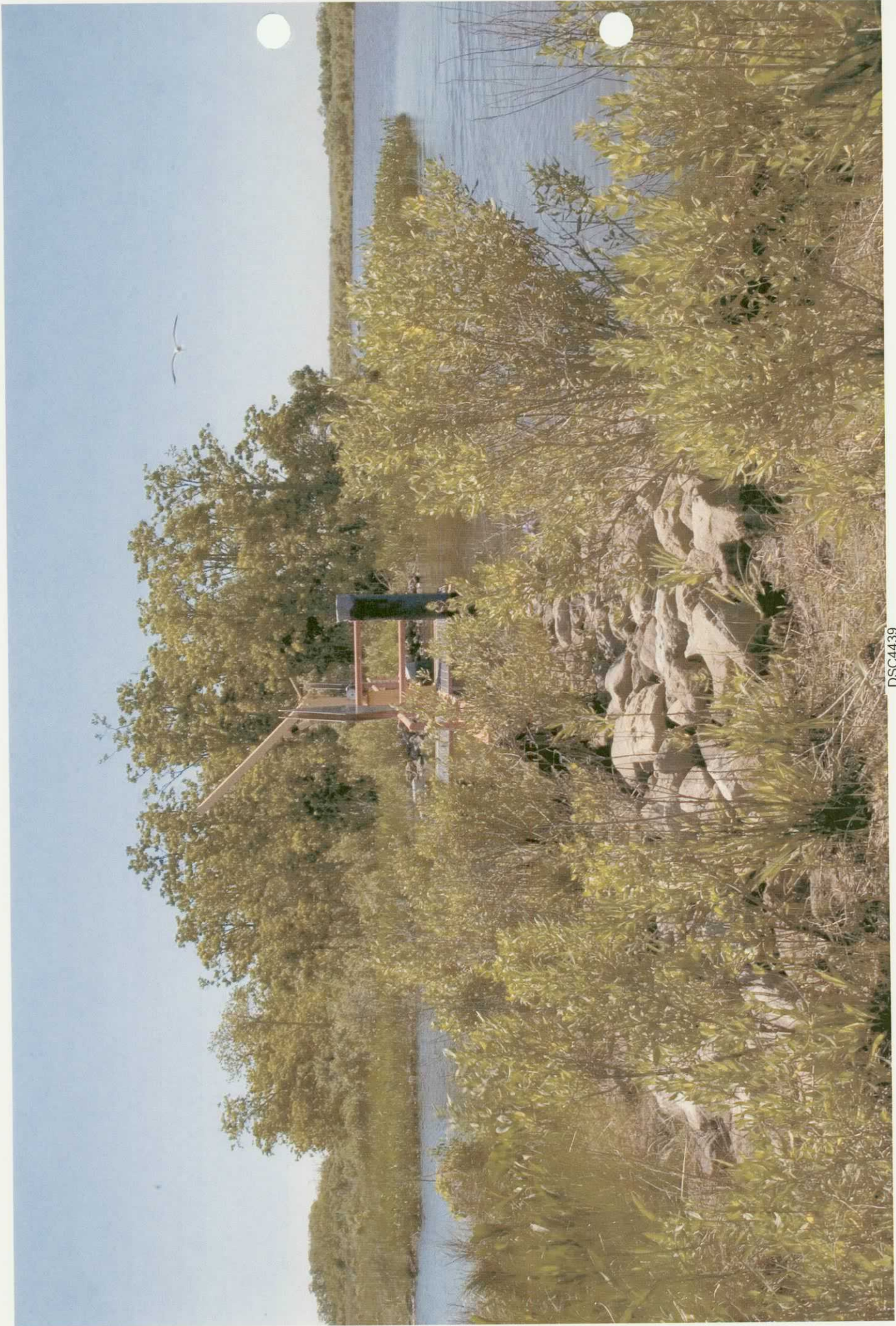
Water Control Structure Condition (4/12/05)



Lock & Bent Lock Pin (4/12/05)



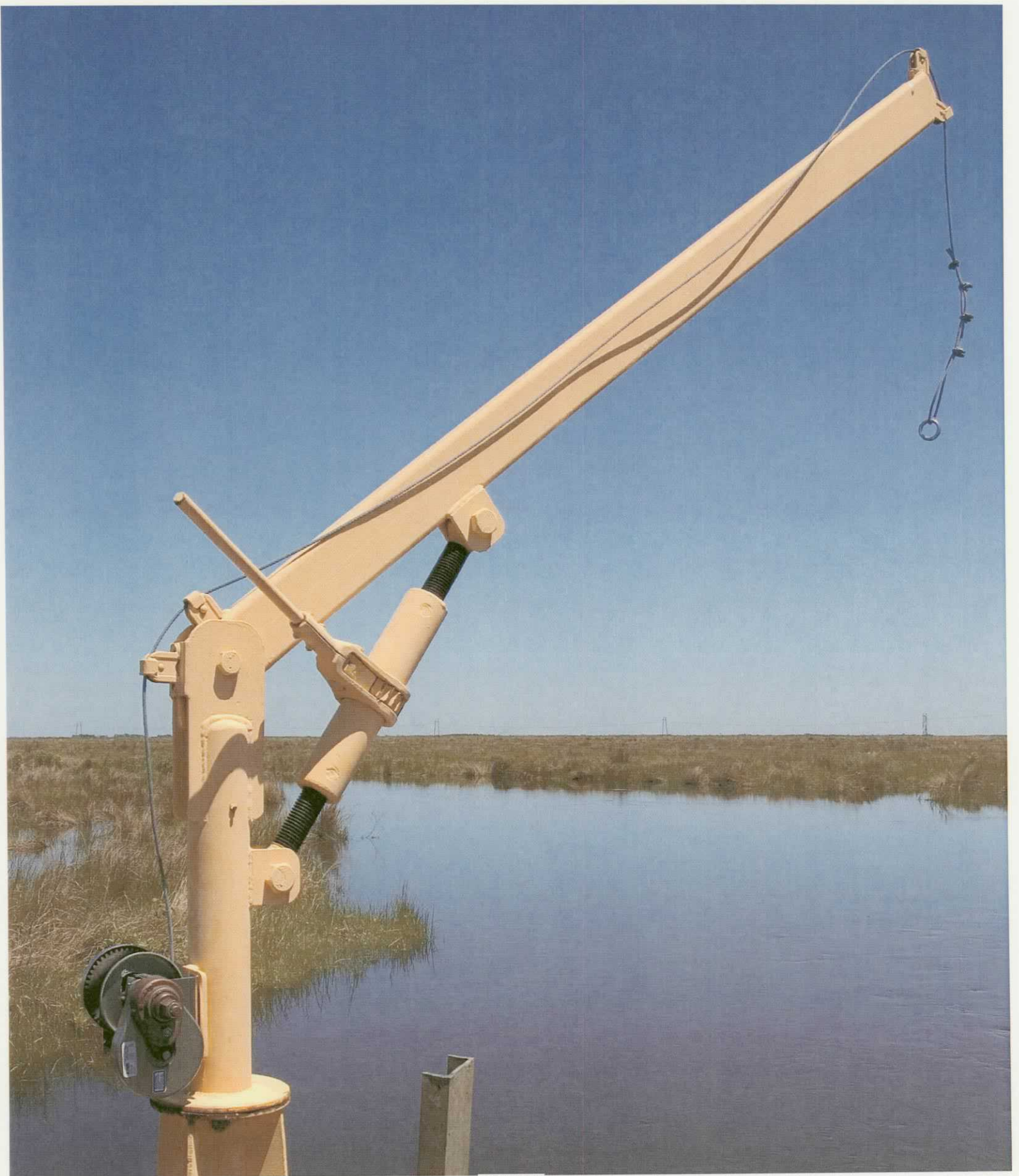
Lock & Slightly Bent Lock Pin (4/12/05)



_DSC4439



DSC_4455



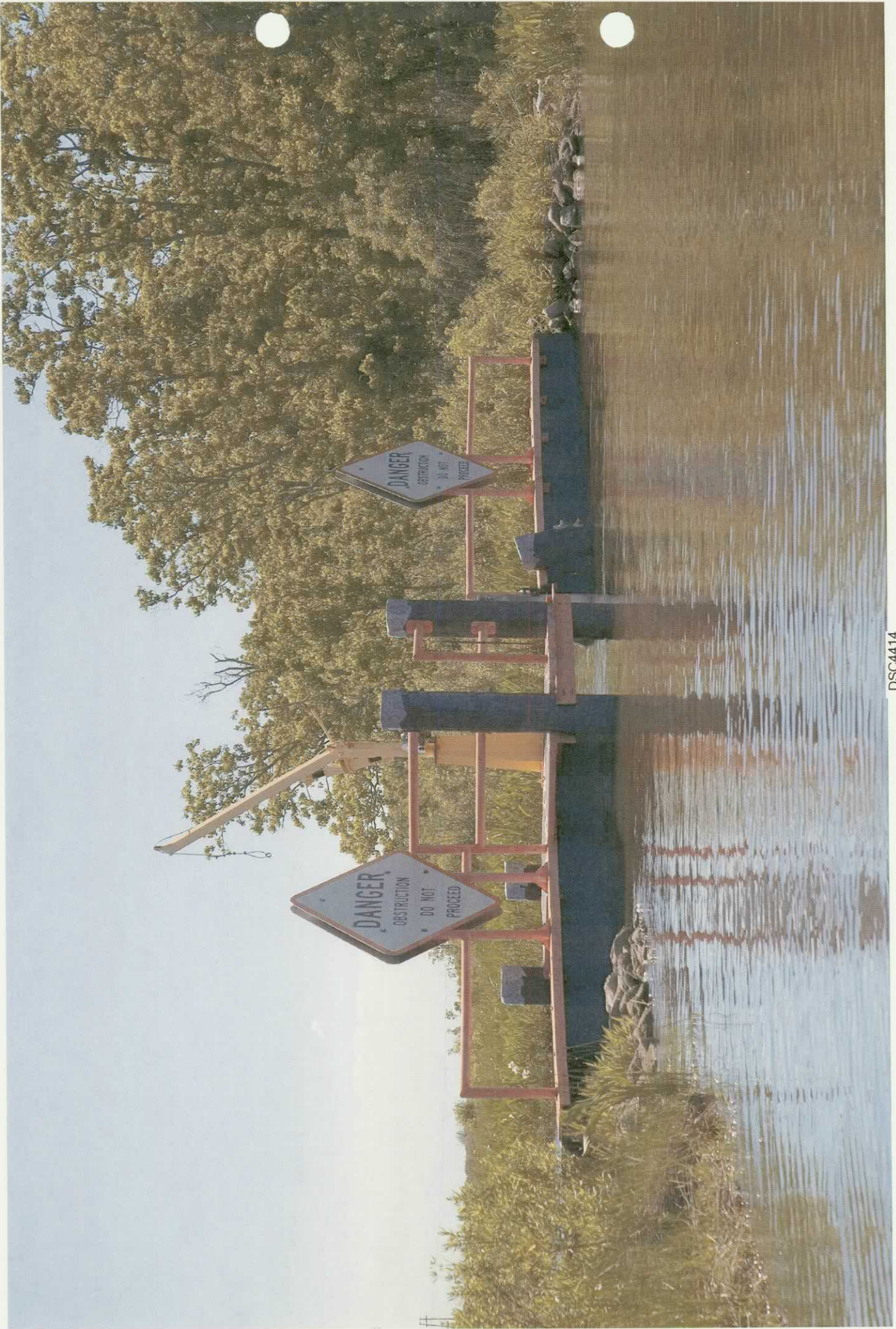
DSC_4451



DSC_4411



DSC 4452



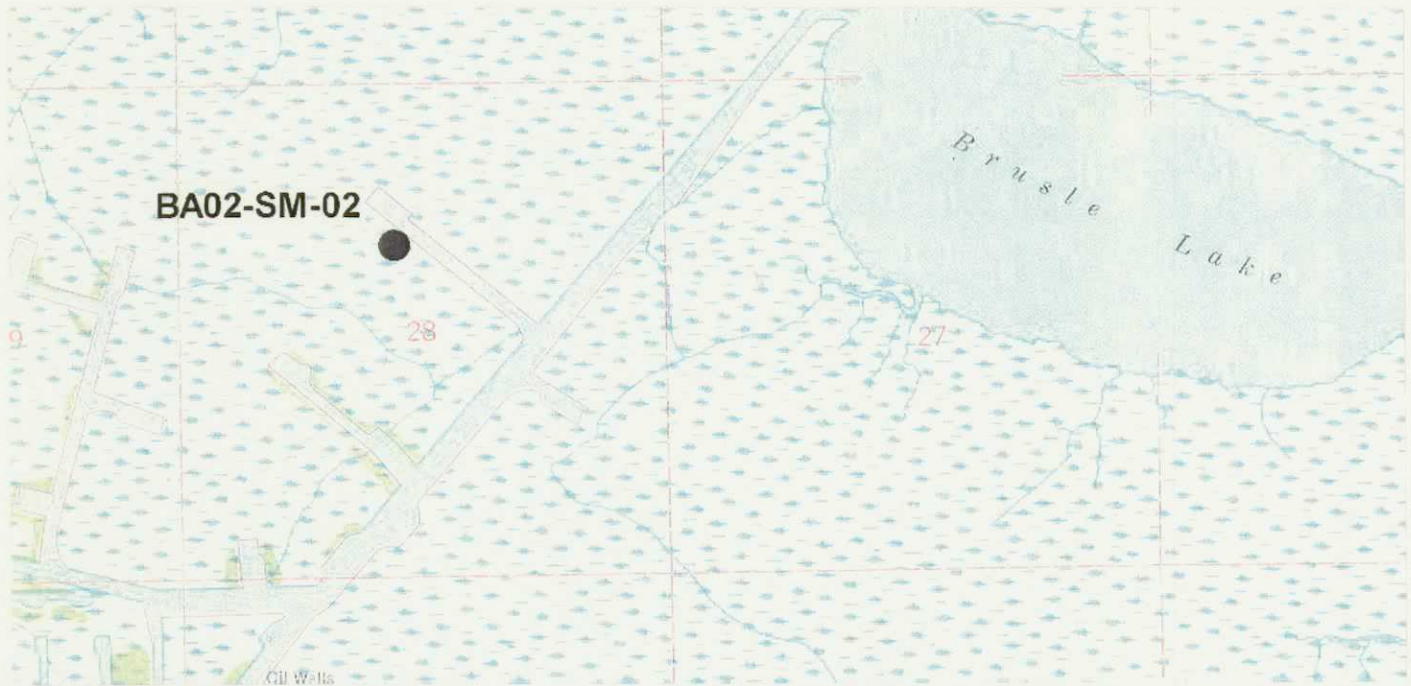
_DSC4414



DSC_4461

ATTACHMENT NO. 2

Benchmarks - Datasheets



VICINITY MAP

Scale: 1" = 2000'

Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29° 29' 26.264853" N

Long. 90° 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

N= 361,933.78

E= 3,630,318.64

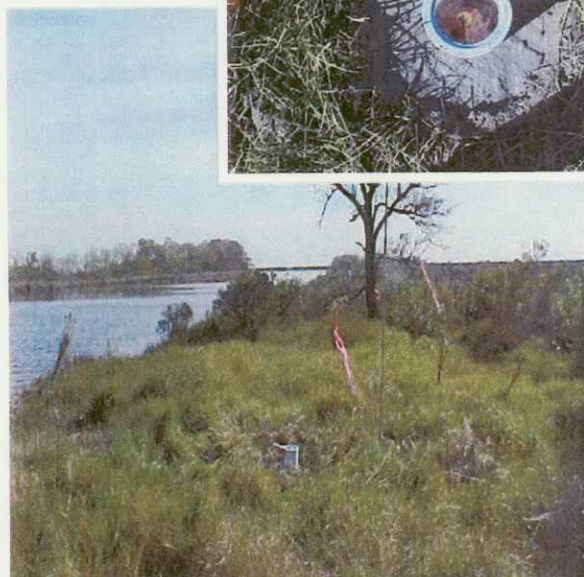
Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.

Adjusted CORS Height = 2.93 ft (0.894 mtrs)



Environmental Dept. Check List

Job Number _____

Date prepared _____

Date of Field Trip _____

By _____

<input checked="" type="checkbox"/>	JSA	<input checked="" type="checkbox"/>	Pencils
<input checked="" type="checkbox"/>	Float Plan	<input checked="" type="checkbox"/>	Data Sheet
<input checked="" type="checkbox"/>	Cell Phone		GPS
<input checked="" type="checkbox"/>	TBS Phone List		GPS Batteries / Charger
<input checked="" type="checkbox"/>	Phone Number & Directions to Nearest Hospital		Soil Survey Books
<input checked="" type="checkbox"/>	Client Phone Numbers		Munsell Color Chart
<input checked="" type="checkbox"/>	Vehicle		Hydric Soil List
	ATV	<input checked="" type="checkbox"/>	Delineation Field Manual
<input checked="" type="checkbox"/>	Boat		Plant Keys
<input checked="" type="checkbox"/>	Gas, Oil		Plant Indicator List
<input checked="" type="checkbox"/>	Special Safety Equipment (i.e. ATV Gear, Air Boat Gear)	<input checked="" type="checkbox"/>	Plant Press
<input checked="" type="checkbox"/>	Life Vest		Permanent Markers
	Safety Orange Field Vest	<input checked="" type="checkbox"/>	Blank Notepads
	Per-Diem	<input checked="" type="checkbox"/>	Iron Test
	Credit Card	<input checked="" type="checkbox"/>	Camera
<input checked="" type="checkbox"/>	First Aid Kit / Safety Kit	<input checked="" type="checkbox"/>	Camera Batteries / Charger
<input checked="" type="checkbox"/>	Hard Hat		Film / CDs / 3-1/2" disks
<input checked="" type="checkbox"/>	Safety Glasses		Toilet Paper
<input checked="" type="checkbox"/>	Hearing Protection		Soil Probe
<input checked="" type="checkbox"/>	Safety Toe Boots	<input checked="" type="checkbox"/>	Sharpshooter
<input checked="" type="checkbox"/>	Gloves		Compass
	Road Cones / Triangles	<input checked="" type="checkbox"/>	Flagging
	Binoculars	<input checked="" type="checkbox"/>	Rain Gear
	Laptop Computer	<input checked="" type="checkbox"/>	Sunscreen
	Laptop Charger	<input checked="" type="checkbox"/>	Bug Spray
<input checked="" type="checkbox"/>	Base Maps	<input checked="" type="checkbox"/>	Snake Chaps
<input checked="" type="checkbox"/>	Road Maps	<input checked="" type="checkbox"/>	Boots / Hat
<input checked="" type="checkbox"/>	Aerials		Rags
<input checked="" type="checkbox"/>	Quads		Knife
	Permission Letters	<input checked="" type="checkbox"/>	300ft. Tape Measure
<input checked="" type="checkbox"/>	Field Case	<input checked="" type="checkbox"/>	Sling Blade / Sweeper
<input checked="" type="checkbox"/>	Field Notebook	<input checked="" type="checkbox"/>	Ice Chest
		<input checked="" type="checkbox"/>	Ice
		<input checked="" type="checkbox"/>	Cooler / Water

Glynn Ave

Sledgehammer
WASP spray

Dawn

Stop Log

Tool Box

Bart Dupre 209-7926
Bruce Pelligrin 804-3443
Marshall Faulk 852-3431
Kenny Smith 852-3433

M:\Env\STANDARD FORMS\Job Safety Analysis\Env Field Check List

Horace Thibodaux 852-3446
Randy Landry 852-4207
Earl Eues 804-5455



T. Baker Smith & Son, Inc.

Professional Consultants

PLANNING - DESIGN - CONSTRUCTION MANAGEMENT - OPERATIONS COMPLIANCE
SURVEYING - ENGINEERING - ENVIRONMENTAL SERVICES

MAIN FACILITY - 412 SOUTH VAN AVE. • HOUMA, LOUISIANA 70363 • P.O. BOX 2266 • HOUMA, LOUISIANA 70361

MAIN TELEPHONE NO. - (985) 868-1050 • MAIN FAX NO. - (985) 868-5843 • WEBSITE: www.tbsmith.com

April 21, 2005

Mr. Brian Babin
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301

RE: Field Trip Report
GIWW to Clovelly Hydrologic Restoration Project (BA-02)
DNR Contract No. 2503-05-28

Dear Mr. Babin:

Enclosed are four (4) copies of the above referenced report. It has been a pleasure working with you on this project.

If there is anything else we can assist you with, please contact me at 985-223-9288 or via email at kodib@tbsmith.com.

Very truly yours,
T. BAKER SMITH & SON, INC.

Kodi J. Babin, Project Manager
Environmental Business Unit

KJB/esh
Enclosure(s)



412 South Van Avenue Houma, Louisiana 70363 • Post Office Box 2266 Houma, Louisiana 70361
Main Line: (985) 868-1050 • Toll Free: 1 (866) 357-1050 • Fax: (985) 868-5843 • Online: www.tbsmith.com

November 16, 2007

Hand Delivered

Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301

**RE: Field Trip Report
GIWW to Clovelly Hydrologic Restoration Project (BA-02) - Operation
of Variable Crest Weir Structures – Fall 2007
DNR Contract No. 2503-08-13**

Dear Mr. Babin:

Enclosed are four copies of the Field Trip Report for work performed on the above referenced project. This report includes findings, field notes, data and photographs as required in the contract.

Thank you for the opportunity of working with you on this project. For comments or questions, I can be reached at 985-223-9288 or email kodib@tbsmith.com.

Sincerely,

T. BAKER SMITH, INC.

Kodi J. Babin, Project Manager
Environmental Discipline

KJB/esh
Enclosure(s)

071810 Brian Babin deliv.

FIELD TRIP REPORT

For

**GIWW to Clovelly Hydrologic Restoration Project (BA-02)
Operation of Variable Crest Weir Structures
DNR Contract No. 2503-08-13**



Prepared For

**Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301**

November 2007

Prepared By



Houma, LA

Lafayette, LA

Baton Rouge, LA

Thibodaux, LA

Houston, TX

1 (866) 357-1050

www.tbsmith.com

LIST OF ATTACHMENTS

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	Site No. 35	A-1
2	Benchmarks – Data Sheets	A-2

ATTACHMENT NO. 1

Site No. 35

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish Louisiana

PURPOSE: Operate and adjust the variable crest weirs at Site No. 35

PARTICIPANTS: Richard Fontenot and Jude Chenier

DATES: November 8, 2007

CONDITIONS: Cloudy (68°)

Permission to gain access to Site No. 35 was obtained verbally from Mr. Randy Moertle (985-532-6388) of Little Lake Land Co. on November 6, 2007.

The weir structure is located on Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes bent locking pin on one side and cleaned padlocks with WD40. The TBM used for this site in the determination of elevation was the supplied "BA02-SM-02" (2.97 feet NAVD88). The water surface elevation at the site was determined to be 0.58 feet on the canal and marsh sides of the structure. The natural canal bottom elevation at the site was determined to be -4.41 feet on the canal side and -3.09 feet on the marsh side of the structure.

It was determined through coordination with Louisiana Department of Natural Resources Scope of Services that the required elevation of the stop logs would be approximately -2.00 feet Below Marsh Level (BML). This would require the removal of three (3) stop logs. The elevation of the pre-stop log removal was 0.17 feet and post-stop log removal was -1.23 feet. There are no navigational lights at this structure location.

For all elevations please refer to the attached field notes. Also attached are the field data report and photographs.

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish

Purpose of Site Visit: Removal of three (3) stop logs in one (1) bay and structure assessment at Site No. 35

Date: Thursday, November 8, 2007

Participants: Richard Fontenot and Jude Chenier

Weather Conditions: Cloudy (68°)

Persons Contacted for Access: Mr. Randy Moertle

Site No.: Structure No. 35

Structure Condition		Maintenance/Repair	
Item	Condition	Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	Good		X
Pile Caps	Good		X
Corrugated Aluminum	N/A		
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Good (cleaned)	X	

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Cleaned master locks with WD-40.

Stop Log Adjustment Date/Time: November 8, 2007; 12:30 p.m.

- Number of Logs Removed/Replaced: Removal of three (3) stop logs
- Elevation: See Field Notes
- Mudline Levels: See Field Notes
- Water Levels: See Field Notes

Flag Description: N/A

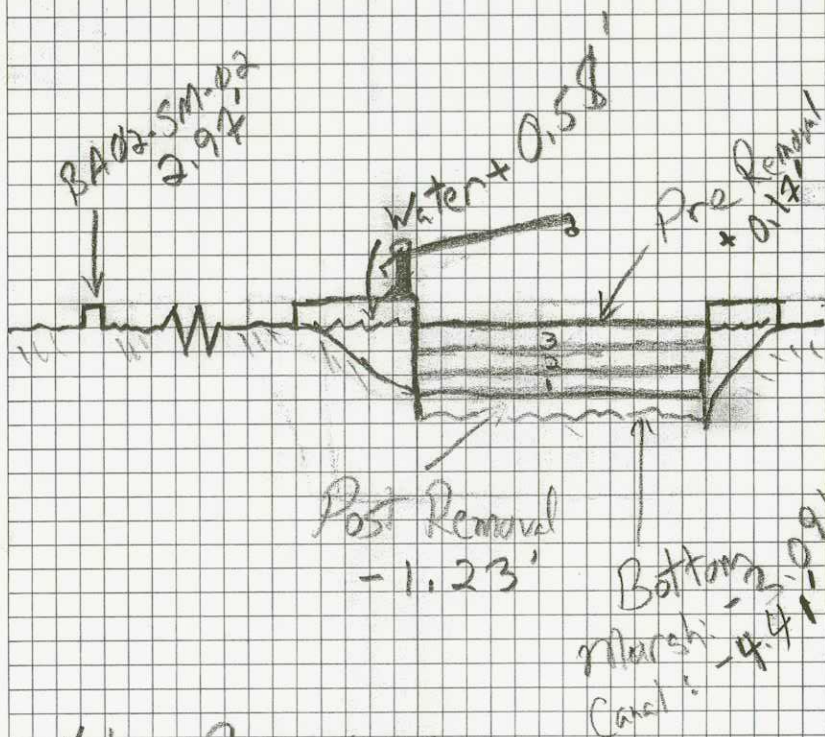
06.1228

G/WW to Clovelly Hydro Rest.
Sta. 35

	BS	HI	FS	Elev	Desc.
	4.09	7.06		2.97	BA02-SM-02
Water			6.48	0.58	
	BS2	HI2	FS2	Elev2	Desc 2
	6.81	7.39		0.58	Water
Pre Removal			7.22	+0.19	
Canal			11.80	-4.41	
Marsh			10.48	-3.09	
Post Removal			9.62	-1.23	

Nov. 8, 2007

27

R. Fontenot
J. Chenier

Note: Removed 3 logs
Padlocks in Working Condition

N. 3669

BA-02 GIWW – Site No. 35



Benchmark Overall Condition (11-8-07)



Benchmark Overall Condition (11-8-07)



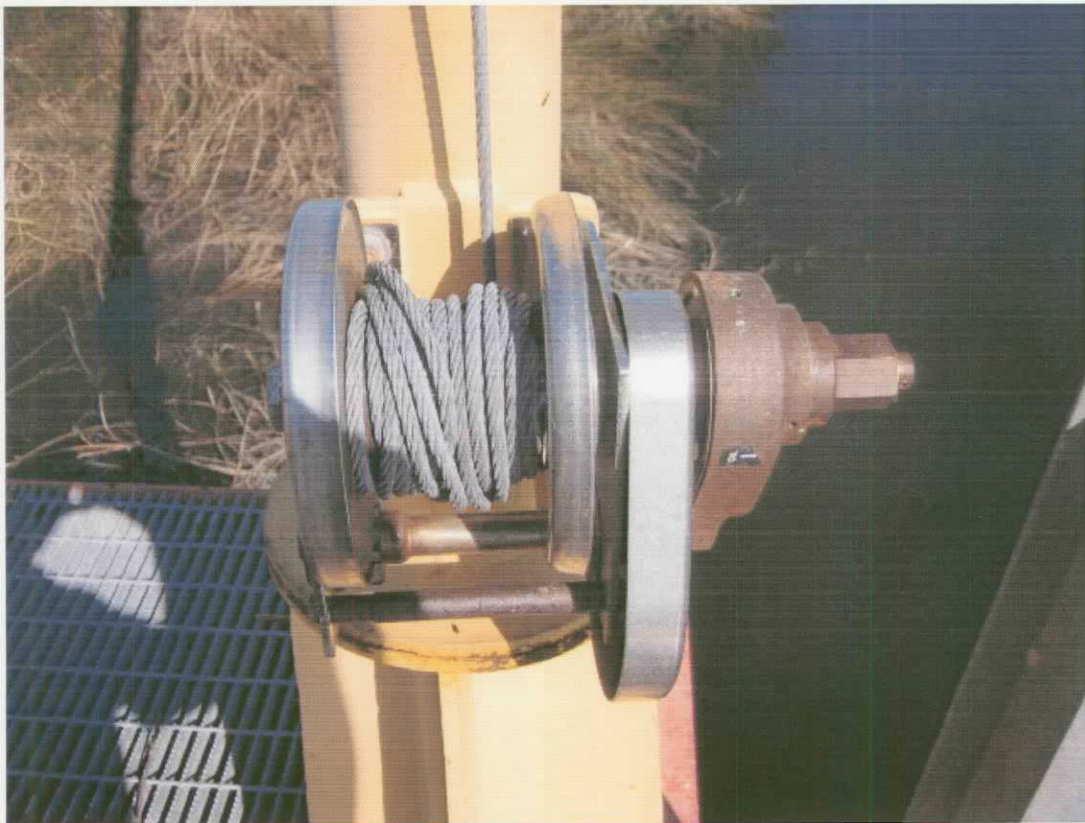
Pre Stop Log Removal (11-8-07)



Structure Condition: Winch, Crane, Hoist, and Pile Caps (11-8-07)



Winch Condition (11-8-07)



Winch Condition (11-8-07)



Pin and Lock Condition (11-8-07)



Bent Pin and Pile Cap (11-8-07)



Condition of Stop Logs Pre-removal (11-8-07)



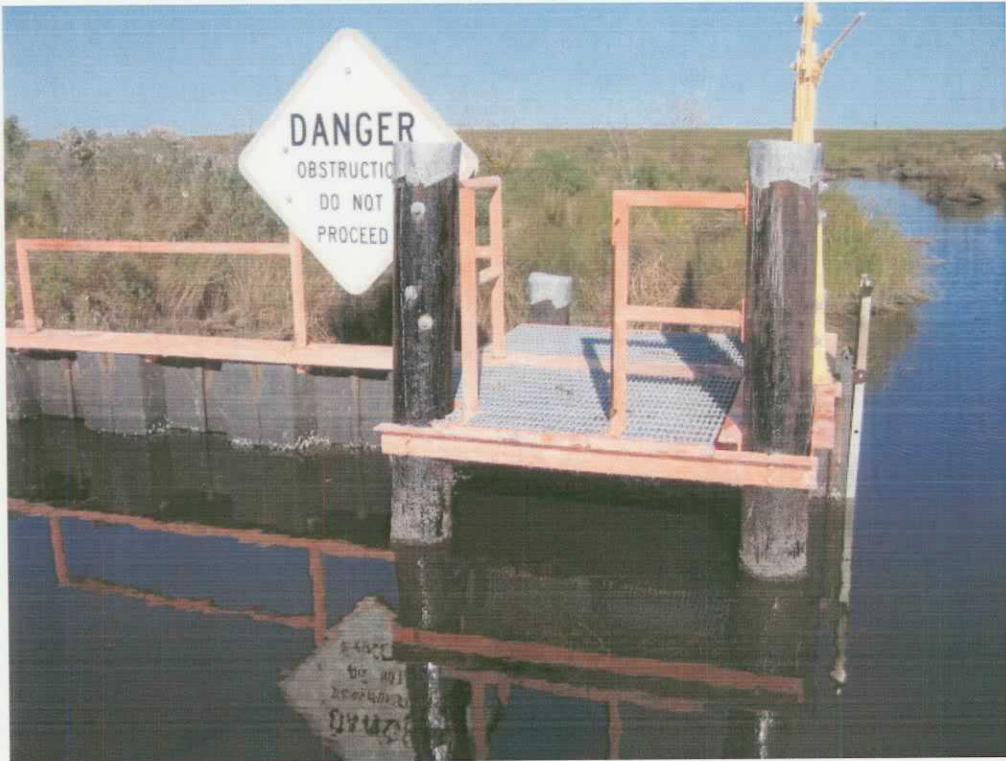
Condition of Stop Logs Pre-removal (11-8-07)



Top Stop Log Without Pad eyes (11-8-07)



Bent Pin (11-8-07)



North Side Structure Condition (11-8-07)



South Side Structure Condition (11-8-07)



Overall Structure Condition (11-8-07)



Overall Structure Condition (11-8-07)



Stop Log Condition Post-removal (11-8-07)



Stop Log Condition Post-removal (11-8-07)

ATTACHMENT NO. 2

Benchmarks – Data Sheets



VICINITY MAP

Scale: 1" = 2000'

Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29° 29' 26.264853" N
 Long. 90° 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

N= 361,933.78
 E= 3,630,318.64

Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.

Adjusted CORS Height = 2.93 ft (0.894 mtrs)



Adjusted Position Established for Louisiana Department of Natural Resources, Coastal Restoration Division

FIELD TRIP REPORT

For

**GIWW to Clovelly Hydrologic Restoration Project (BA-02)
Operation of Variable Crest Weir Structures
DNR Contract No. 2503-08-13**



Prepared For

**Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301**

May 2008

Prepared By



Houma, LA

Lafayette, LA

Baton Rouge, LA

Thibodaux, LA

Houston, TX

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LIST OF ATTACHMENTS

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	Site No. 35	A-1
2	Benchmarks – Data Sheets	A-2

ATTACHMENT NO. 1

Site No. 35

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish Louisiana

PURPOSE: Operate and adjust the variable crest weirs at Site No. 35

PARTICIPANTS: Richard Fontenot and Kodi Babin

DATES: April 30, 2008

CONDITIONS: Sunny (69°)

Permission to gain access to Site No. 35 was obtained verbally from Mr. Randy Moertle (985-532-6388) of Little Lake Land Co. on April 29, 2008.

The weir structure is located on Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes bent locking pin on one side and cleaned padlocks with WD40. The TBM used for this site in the determination of elevation was the supplied "BA02-SM-02" (2.97 feet NAVD88). The water surface elevation at the site was determined to be 1.05 feet on the canal and marsh sides of the structure. The natural canal bottom elevation at the site was determined to be -4.25 feet on the canal side and -3.13 feet on the marsh side of the structure.

It was determined through coordination with Louisiana Department of Natural Resources Scope of Services that the required elevation of the stop logs would be approximately -0.50 feet Below Marsh Level (BML). This would require the installation of three (3) stop logs. The elevation of the pre-stop log installation was -1.19 feet and post-stop log installation was +0.19 feet. There are no navigational lights at this structure location.

For all elevations please refer to the attached field notes. Also attached are the field data report and photographs.

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish

Purpose of Site Visit: Installation of three (3) stop logs in one (1) bay and structure assessment at Site No. 35

Date: Wednesday, April 30, 2008

Participants: Richard Fontenot and Kodi Babin

Weather Conditions: Sunny (69° F)

Persons Contacted for Access: Mr. Randy Moertle

Site No.: Structure No. 35

Structure Condition			
Item	Condition	Maintenance/Repair	
		Yes	No
Timber Pile	Good		X
Timber Hoist/Lag Eyes	Good		X
Pile Caps	Good		X
Corrugated Aluminum	N/A		
Grating/Metal Components	Good		X
Wood Access Ramp	N/A		
Stop Logs	Good		X
Master Locks	Good (cleaned)	X	

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Cleaned master locks with WD-40.

Stop Log Adjustment Date/Time: Wednesday, April 30, 2008; 12:00 p.m.

- Number of Logs Removed/Replaced: Installation of three (3) stop logs
- Elevation: See Field Notes
- Mudline Levels: See Field Notes
- Water Levels: See Field Notes

Flag Description: N/A

2008.1390

GIWN to Clovelly

Str. 35

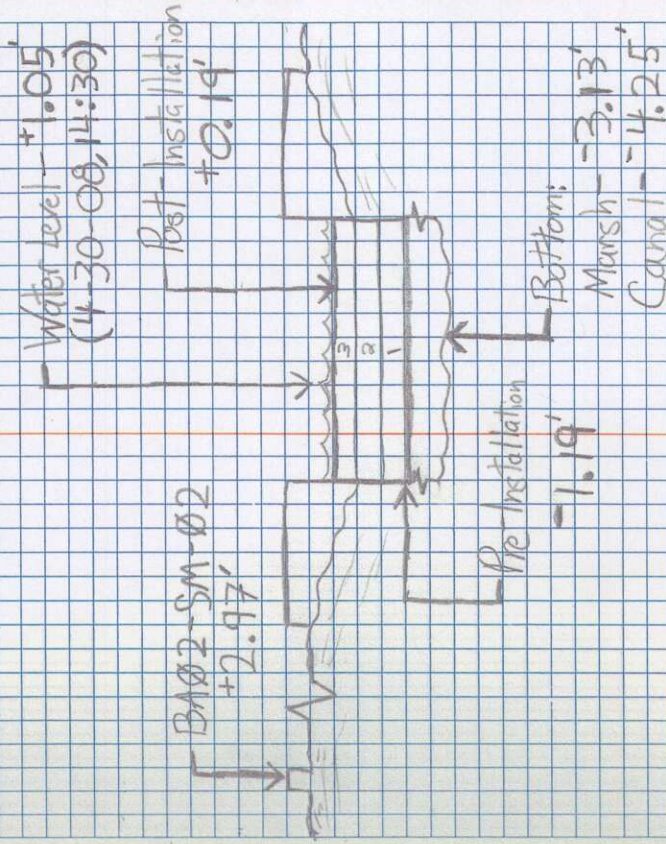
BS ₁	HI ₁	FS ₁	Elev.	Desc.
3.96	6.93	5.88	2.97	BA02-SM-02
			1.05	Water

BS ₂	HI ₂	FS ₂	Elev.	Desc.
6.65	7.70	8.89	1.05	Water
		10.83	-1.19	
		11.95	-3.13	
		7.51	-4.25	
			+0.19	

Pre-inst
Marsh
Canal
Post-inst

April 30, 2008

Richard K. Fontenot
Kath. J. Babin



Note: Installed 3 Strip Logs on
April 30, 2008.

BA-02 GIWW – Site No. 35



Winch Condition (4-30-08)



Winch Condition (4-30-08)

BA-02 GIWW – Site No. 35



North Side Structure Condition (4-30-08)



South Side Structure Condition (4-30-08)

BA-02 GIWW – Site No. 35



Overall Structure Condition (4-30-08)



Overall Structure Condition (4-30-08)

BA-02 GIWW – Site No. 35



Benchmark Overall Condition (4-30-08)



Benchmark Overall Condition (4-30-08)

ATTACHMENT NO. 2

Benchmarks – Data Sheets



VICINITY MAP Scale: 1" = 2000' Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29° 29' 26.264853" N
 Long. 90° 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

N= 361,933.78
 E= 3,630,318.64

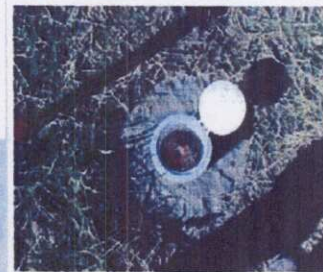
Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.

Adjusted CORS Height = 2.93 ft (0.894 mtrs)



Adjusted Position Established for Louisiana Department of Natural Resources, Coastal Restoration Division

FIELD TRIP REPORT

For

**GIWW to Clovelly Hydrologic Restoration Project (BA-02)
Operation of Variable Crest Weir Structures
DNR Contract No. 2503-08-13**



Prepared For

**Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301**

December 2008

Prepared By



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LIST OF ATTACHMENTS

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	Site No. 35.....	A-1
2	Benchmarks – Data Sheets.....	A-2

ATTACHMENT NO. 1

Site No. 35

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish Louisiana

PURPOSE: Operate and adjust the variable crest weirs at Site No. 35

PARTICIPANTS: Kiley Cressionie, Trevis Olivier, and Jacob Daigle

DATES: November 25, 2008

CONDITIONS: Sunny (61°)

Permission to gain access to Site No. 35 was obtained verbally from Mr. Randy Moertle (985-532-6388) of Little Lake Land Co. on November 20, 2008.

The weir structure is located on Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes bent locking pin on one side and cleaned padlocks with WD40. The TBM used for this site in the determination of elevation was the supplied "BA02-SM-02" (2.97 feet NAVD88). The water surface elevation at the site was determined to be 0.69 feet on the canal and marsh sides of the structure. The natural canal bottom elevation at the site was determined to be -5.27 feet on the canal side and -2.67 feet on the marsh side of the structure.

It was determined through coordination with Louisiana Department of Natural Resources Scope of Services that the required elevation of the stop logs would be approximately -2.00 feet Below Marsh Level (BML). This would require the removal of three (3) stop logs. The elevation of the pre-stop log removal was +0.22 feet and post-stop log removal was -1.11 feet. There are no navigational lights at this structure location.

For all elevations please refer to the attached field notes. Also attached are the field data report and photographs.

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish

Purpose of Site Visit: Removal of three (3) stop logs in one (1) bay and structure assessment at Site No. 35

Date: Tuesday, November 25, 2008

Participants: Kiley Cressionie, Trevis Olivier, and Jacob Daigle

Weather Conditions: Sunny (61° F)

Persons Contacted for Access: Mr. Randy Moertle

Site No.: Structure No. 35

Structure Condition				
Item		Condition	Maintenance/Repair	
			Yes	No
Timber Pile		Good		X
Timber Hoist/Lag Eyes		Good (lubricated)	X	
Pile Caps		Good		X
Corrugated Aluminum		N/A		
Grating/Metal Components		Good		X
Wood Access Ramp		N/A		
Stop Logs		Good		X
Master Locks		Good (cleaned/lubricated)	X	

Levee Condition	
Item	Condition
Erosion	N/A
Vegetation	N/A

Description of Maintenance/Repair Required: Cleaned and lubricated master locks and timber hoist with WD-40.

Stop Log Adjustment **Date/Time:** Tuesday, November 25, 2008; 11:30 p.m.

- **Number of Logs Removed/Replaced:** Removal of three (3) stop logs
- **Elevation:** See Field Notes
- **Mudline Levels:** See Field Notes
- **Water Levels:** See Field Notes

Flag Description: N/A

11/25/08

2008.2032

Cloveilly

B.S.	H.I.	F.S.	Elev.	Desc.
4.47	7.44		2.97	BAD2-SM-18

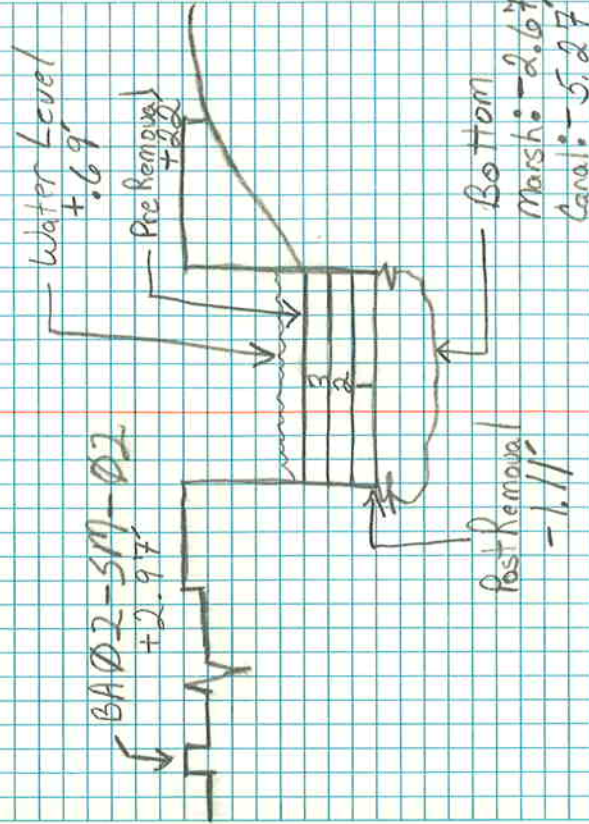
Water 6.75 .69 water

B.S.	H.I.	F.S.	Elev.	Desc.
5.29	5.88		.69	water

Pre-Removal	Marsh	Canal	Post-Removal
5.76	8.65	11.25	7.09
+2.22	-2.67	-5.27	-1.11

Nov. 25, 2008

Kiley Crossanic
 Trevis Olivier
 Jacob Daigle



Note: Removed two stop logs on
 Nov. 25, 2008

BA-02 GIWW – Site No. 35



Benchmark Overall Condition (11-25-08)



Benchmark Overall Condition (11-25-08)

BA-02 GIWW – Site No. 35



Winch Condition (11-25-08)



Winch Condition (11-25-08)

BA-02 GIWW – Site No. 35

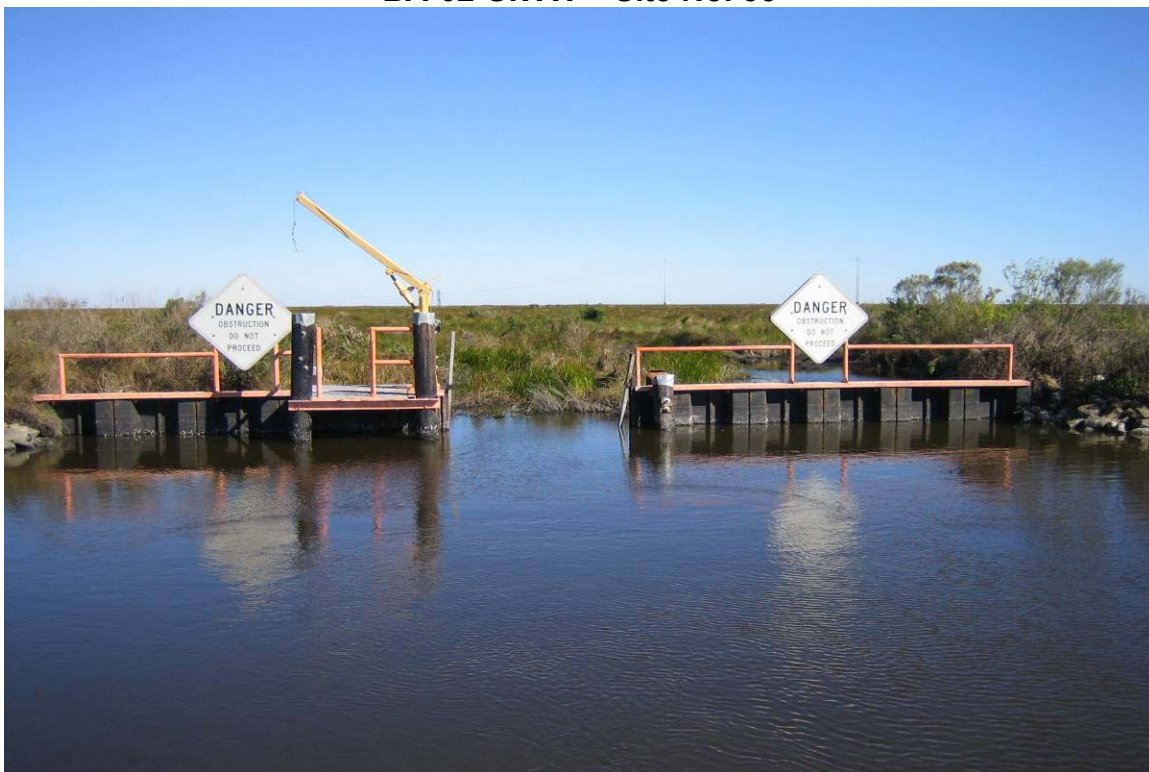


North Side Structure Condition (11-25-08)



South Side Structure Condition (11-25-08)

BA-02 GIWW – Site No. 35



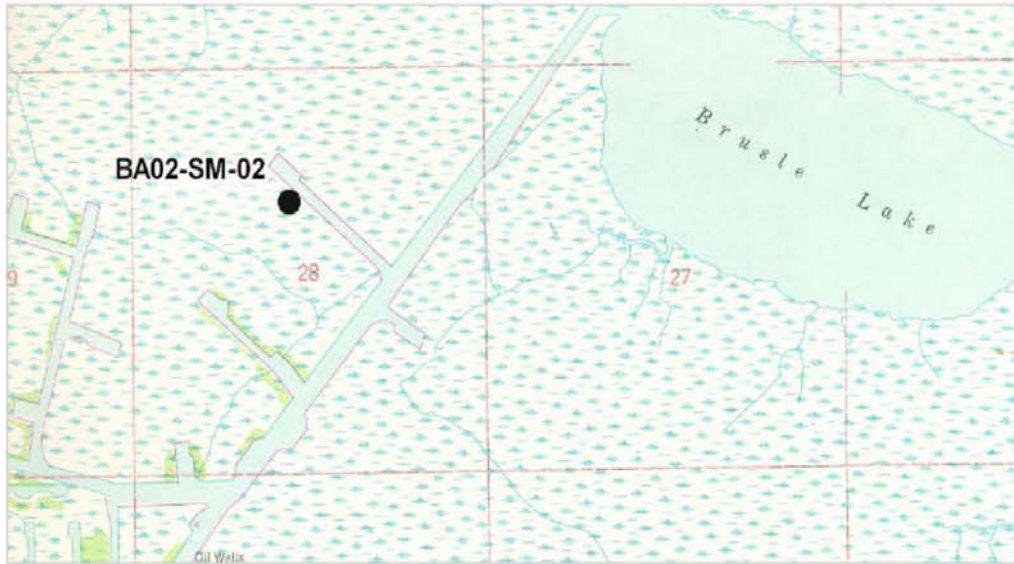
Overall Structure Condition (11-25-08)



Overall Structure Condition (11-25-08)

ATTACHMENT NO. 2

Benchmarks – Data Sheets



VICINITY MAP Scale: 1" = 2000' Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29° 29' 26.264853" N
 Long. 90° 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

N= 361,933.78
 E= 3,630,318.64

Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.

Adjusted CORS Height = 2.93 ft (0.894 mtrs)



Adjusted Position Established for Louisiana Department of Natural Resources, Coastal Restoration Division

FIELD TRIP REPORT

For

**GIWW to Clovelly Hydrologic Restoration Project (BA-02)
Operation of Variable Crest Weir Structures
DNR Contract No. 2503-08-13**



Prepared For

**Mr. Brian J. Babin, P.E.
La. Dept. of Natural Resources
1440 Tiger Drive, Suite B
Thibodaux, LA 70301**

May 2009

Prepared By



Houma, LA Lafayette, LA Baton Rouge, LA Thibodaux, LA Houston, TX

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LIST OF ATTACHMENTS

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	Site No. 35.....	A-1
2	Benchmarks – Data Sheets.....	A-2

ATTACHMENT NO. 1

Site No. 35

FIELD TRIP REPORT

SUBJECT: BA-02 GIWW / Clovelly Hydrologic Restoration Project

LOCATION: Barataria Basin, Near Little Lake in Lafourche Parish Louisiana

PURPOSE: Operate and adjust the variable crest weirs at Site No. 35

PARTICIPANTS: Jacob Morrison, Ronnie Duke, Jr., Nicholas Gaspard

DATES: May 14, 2009

CONDITIONS: Sunny (78°)

Permission to gain access to Site No. 35 was obtained verbally from Mr. Randy Moertle (985-532-6388) of Little Lake Land Co. on May 13, 2009.

The weir structure is located on Barataria Basin near the Gulf Intracoastal Waterway (GIWW) in Lafourche Parish, Louisiana. The project is bounded by the Intracoastal Waterway to the north and northeast, Bayou Lafourche to the west, Superior Canal to the south, Bayou Perot, Little Lake and Bayou L'Ours to the east. The weir structure appeared to be in good condition. Description of maintenance / repair required includes cleaned padlocks with WD40. The TBM used for this site in the determination of elevation was the supplied "BA02-SM-02" (2.97 feet NAVD88). The water surface elevation at the site was determined to be 1.36 feet on the canal and marsh sides of the structure. The natural canal bottom elevation at the site was determined to be -3.52 feet on the canal side and -3.01 feet on the marsh side of the structure.

It was determined through coordination with Louisiana Department of Natural Resources Scope of Services that the required elevation of the stop logs would be approximately 0.5 feet Below Marsh Level (BML). This would require the replacement of three (3) stop logs. The elevation of the pre-stop log replacement was -1.21 feet and post-stop log replacement was +0.12 feet. There are no navigational lights at this structure location.

For all elevations please refer to the attached field notes. Also attached are the field data report and photographs.

Project (No. & Name): BA-02 GIWW / Clovelly Hydrologic Restoration Project

Location: Near Little Lake in Lafourche Parish

Purpose of Site Visit: Replacing of three (3) stop logs in one (1) bay and structure assessment at Site No. 35

Date: Thursday, May 14, 2009

Participants: Jacob Morrison, Ronnie Duke, Jr., Nicholas Gaspard

Weather Conditions: Sunny (78° F)

Persons Contacted for Access: Mr. Randy Moertle

Site No.: Structure No. 35

Structure Condition				
Item	Condition	Maintenance/Repair		
		Yes	No	
Timber Pile	Good		X	
Timber Hoist/Lag Eyes	Good (lubricated)	X		
Pile Caps	Good		X	
Corrugated Aluminum	N/A			
Grating/Metal Components	Good		X	
Wood Access Ramp	N/A			
Stop Logs	Good		X	
Master Locks	Good (cleaned/lubricated)	X		

Levee Condition	
Item	Condition
Erosion	No erosion has taken place.
Vegetation	Vegetation along the structure on the bank is thick and healthy.

Description of Maintenance/Repair Required: Cleaned and lubricated master locks with WD-40.

Stop Log Adjustment **Date/Time:** Thursday, May 14, 2008; 11:00 a.m.

- **Number of Logs Removed/Replaced:** Replacal of three (3) stop logs
- **Elevation:** See Field Notes
- **Mudline Levels:** See Field Notes
- **Water Levels:** See Field Notes

Flag Description: N/A

2009.0292

Cleavelly

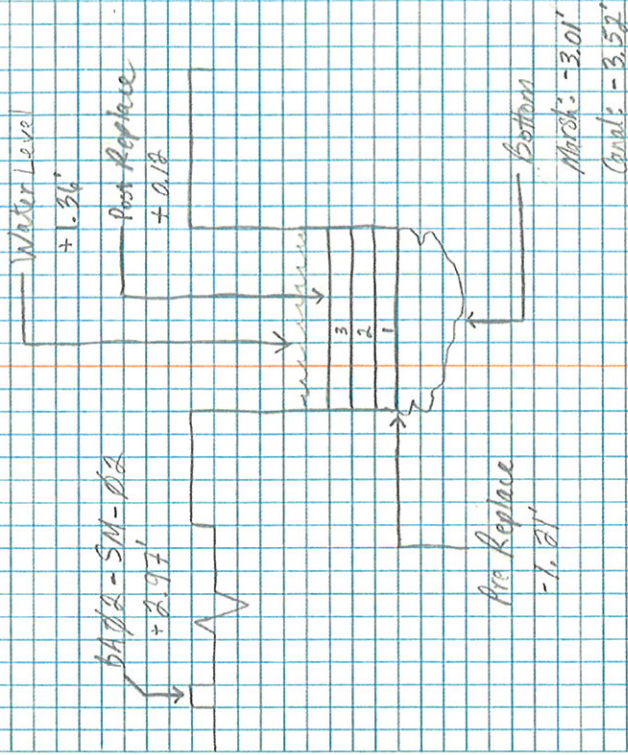
B.S.	H.I.	F.S.	Elev.	Desc.
4.47	7.44	6.08	2.97	BH02-SM-C2
			+1.36	Water
B.S. 5.61	H.I. 6.97	F.S. 8.18	+1.36	Water
			-1.21	top of board
			-3.01	water bottom
			-3.52	water bottom
			+0.12	top of board

Pre Replace
Marsh
Canal
Post Replace

71

May 14, 2009

J. Morrison
M. Gansward
R. Cujke



Note: Replaced 3 step logs
on May 14, 2009.

Mo. 3669

BA-02 GIWW – Site No. 35



Benchmark Overall Condition (05-14-09)



Benchmark Overall Condition (05-14-09)

BA-02 GIWW – Site No. 35



Winch Condition (05-14-09)



Winch Condition (05-14-09)

BA-02 GIWW – Site No. 35



North Side Structure Condition (05-14-09)



South Side Structure Condition (05-14-09)

BA-02 GIWW – Site No. 35



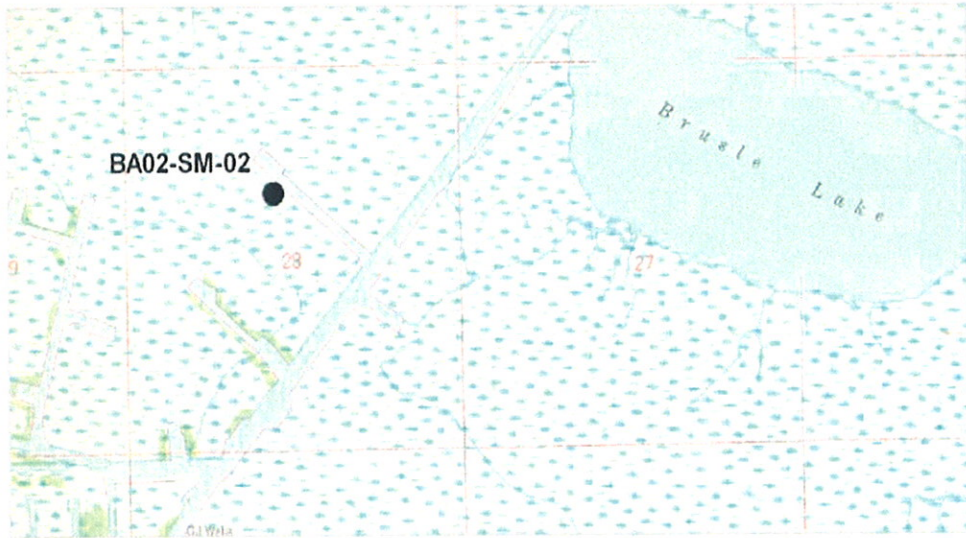
Overall Structure Condition (05-14-09)



Overall Structure Condition (05-14-09)

ATTACHMENT NO. 2

Benchmarks – Data Sheets



VICINITY MAP

Scale: 1" = 2000'

Reproduced from USC&GS "Golden Meadow Farm, LA" Quadrangle

Station Name: "BA02-SM-02"

Location: From La Highway 308 at Cutoff, Louisiana, proceed east on east 36th Street for approximately 5 miles and follow the signs for North Dock. Once at the boat landing, by boat, proceed approximately 3 miles east to Little Lake. Turn right and proceed southeasterly in Little Lake for about 3 miles around a point, then southwesterly for about 2.5 miles to a Slip Canal at Clovelly Oil and Gas Field, then about 1.5 miles in the Slip Canal to a Canal on the right. Turn right and proceed northwesterly in the Canal for about 2000 feet to the monument on the left.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 52 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA02-SM-02

Installation Date: 12/11/02 **Date of Survey:** January 2003

Monument Established By: John Chance Land Surveys, Inc.

For: Louisiana Department of Natural Resources, CRD

Adjusted NAD 83 Geodetic Position

Lat. 29° 29' 26.264853" N
 Long. 90° 14' 05.347549" W

Adjusted NAD 83 Datum LSZ (1702) Feet

N= 361,933.78
 E= 3,630,318.64

Adjusted NAVD88 Height

Elevation = 2.97 feet (0.906 mtrs)

Geoid99 Height = -24.944 mtrs.

Ellipsoid Height = -24.038 mtrs.

Adjusted CORS Height = 2.93 ft (0.894 mtrs)



Adjusted Position Established for Louisiana Department of Natural Resources, Coastal Restoration Division