

PKB As-built

Gerald Rambo  
504-467-8262  
504-487-7426 Cellular



INDEX OF DRAWINGS	
DWG.	DESCRIPTION
1.	LOCATION MAP, VICINITY MAP AND INDEX OF DRAWINGS
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BENCH MARK DESCRIPTION (PBM-MARSH) ELEV. 2.38 PRE 83 N.G.V.D.  
7.3 MILES SOUTH ALONG LA. HWY 1 FROM THE CENTER OF THE DRAWBRIDGE OVER BAYOU LAFOURCHE @ LEEVILLE, 0.35 MILES NORTHWEST OF THE GULF STATES UTILITY STATION, 0.2 MILES NORTHWEST OF THE JUNCTION OF LA. HWY 1 AND A DIRT ROAD LEADING SOUTH, 58 FEET SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY, 2 1/2 FEET NORTHEAST OF TELEPHONE POLE NO. 630, 1.5 FEET SOUTHWEST OF A WOODEN WITNESS POST, ABOUT 2 FEET BELOW THE LEVEL OF THE HIGHWAY, AND SET IN THE TOP OF A CONCRETE POST PROJECTING 1 FOOT, AND SET IN THE TOP OF A CONCRETE POST PROJECTING 1 FOOT, AND 94.0 FEET SOUTH OF THE SOUTH EDGE OF A SMALL CANAL RUNNING WEST. APPROX. LAT: 29°09'34", LONG: 90°10'51"

2.38 N.G.V.D.  
0.78  
3.16 M.L.G.

THIS PROJECT WAS DESIGNED BY THE NEW ORLEANS DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS. THE INITIALS OR SIGNATURES AND REGISTRATION DESIGNATIONS OF INDIVIDUALS APPEAR ON THESE PROJECT DOCUMENTS WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER 1110-1-8152.

DACW29-98-C-0015  
T.L. James  
Dredge George D. Williams 504 884 1614  
504 462 8807 (812-285-3672 FAX)

Rick Broussard  
Fax 862-1585

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA)

WEST BELLE PASS HEADLAND RESTORATION  
FEDERAL PROJECT FM-215, STATE PROJECT TE-23

LAFOURCHE PARISH, LA.

Blain Bice 318 446 1219 Mobil  
John Wilson 800 253 0869  
Luhr Barge 318 451 1598  
Luhr-Alexandria 318 487 9263  
J. Cormier ofc 504-396-3881  
Joe Cormier 318 288 0453

SYMBOL	DESCRIPTION	DATE	APPROVED
REVISIONS			
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA) WEST BELLE PASS HEADLAND RESTORATION FEDERAL PROJECT FM-215 STATE PROJECT TE-23 LAFOURCHE PARISH, LA			
LOCATION MAP, VICINITY MAP AND INDEX OF DRAWINGS			
DESIGNED BY: W.W.W.	SOLICITATION NO. DACW29-97-B-0092	CADD FILE: 446704.DGN	PROJ DATE: OCT 97
DRAWN BY: S.A.C.	APPROVED BY: [Signature]	PROJ SCALE: 1"=2000'	FILE NO. H-16-44870
CHECKED BY: R.W.B.	DATE: NOV 97	ENGINEERING DIVISION	DWG. 1 OF 10
DATE: NOV 97	APPROVED BY: [Signature]	U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS	

Safety is Part of Your Contract



San  
of Y

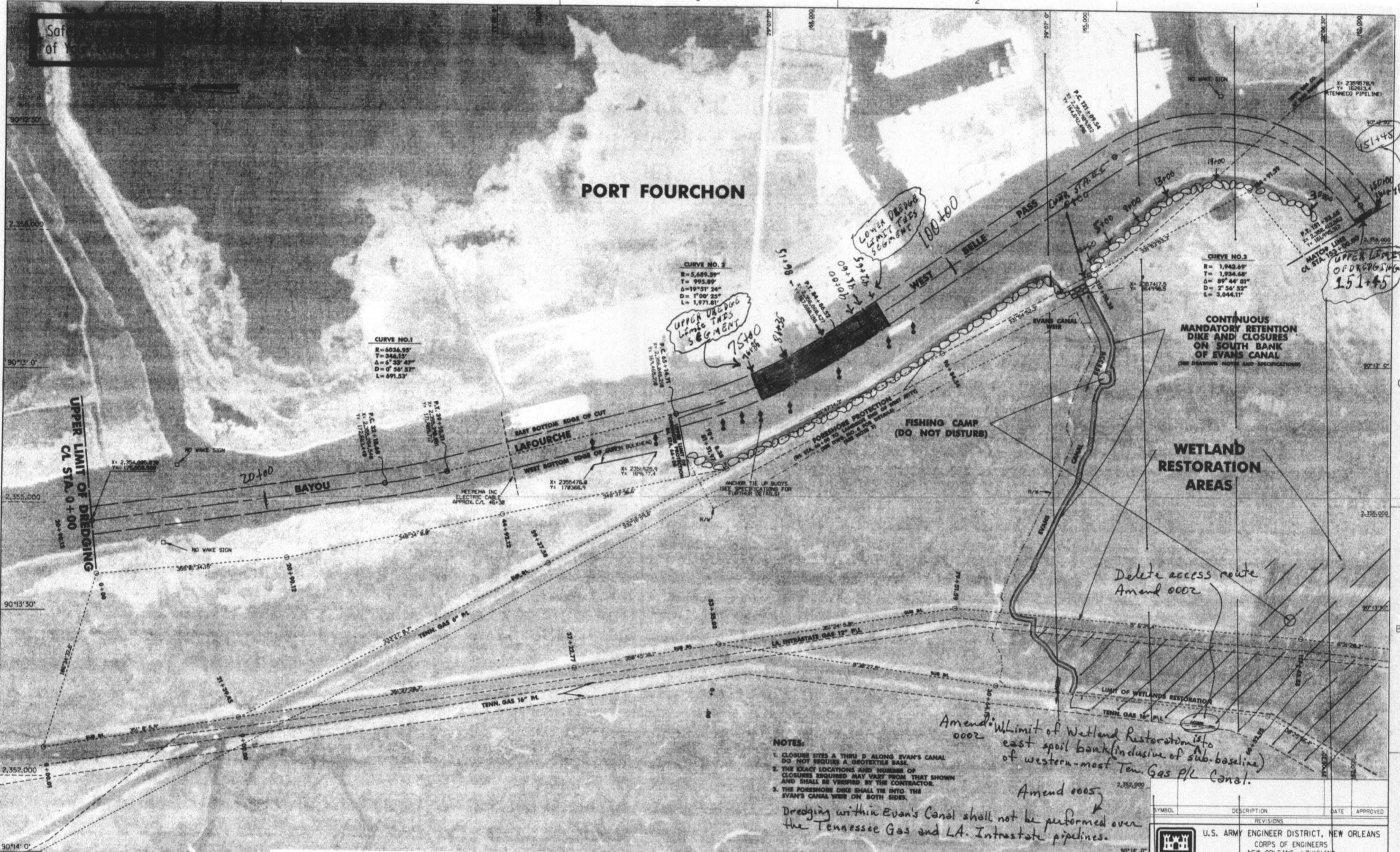
# PORT FOURCHON

**CURVE NO. 1**  
 R=6036.95'  
 T=344.15'  
 Δ=6°33'43"  
 D=0°56'57"  
 L=891.53'

**CURVE NO. 2**  
 R=5,489.29'  
 T= 995.89'  
 Δ=19°51'24"  
 D=1°00'25"  
 L=1,971.81'

**CURVE NO. 3**  
 R= 1,943.67'  
 T= 1,934.68'  
 Δ= 89°44'01"  
 D= 2°56'52"  
 L= 3,044.11'

UPPER LIMIT OF DREDGING  
CL STA. 0+00



**CONTINUOUS MANDATORY RETENTION DIKE AND CLOSURES ON SOUTH BANK OF EVANS CANAL**  
 (SEE DRAWING NOTES AND SPECIFICATIONS)

**WETLAND RESTORATION AREAS**

**FISHING CAMP (DO NOT DISTURB)**

Delete access route  
Amend 0002

Amend 0002  
 Limit of Wetland Restoration is to east spoil bank (inclusive of sub-baseline) of western-most Tenn. Gas P/L Canal.

**NOTES:**  
 1. CLOSURE SITES A THRU D ALONG EVAN'S CANAL DO NOT REQUIRE A GEOTEXTILE BASE.  
 2. THE EXACT LOCATIONS AND NUMBER OF CLOSURES REQUIRED MAY VARY FROM THAT SHOWN AND SHALL BE VERIFIED BY THE CONTRACTOR.  
 3. THE FORESHORE DIKE SHALL TIE INTO THE EVAN'S CANAL WEIR ON BOTH SIDES.  
 Dredging within Evans Canal shall not be performed over the Tennessee Gas and LA. Intrastate pipelines.

SCALE: 1" = 400'  
 400' 0 400' 800' 1200' 1600'  
**NOTE:**  
 INSIDE THE PLAN AREA, POLYCONIC PROJECTION-1927 NORTH AMERICAN DATUM IS SHOWN BY SOLID TICKS AND LAMBERT CONFORMAL CONIC PROJECTION GRID IS SHOWN BY DASHED TICKS. PREPARED FROM INFRARED PHOTOS TAKEN 1995.

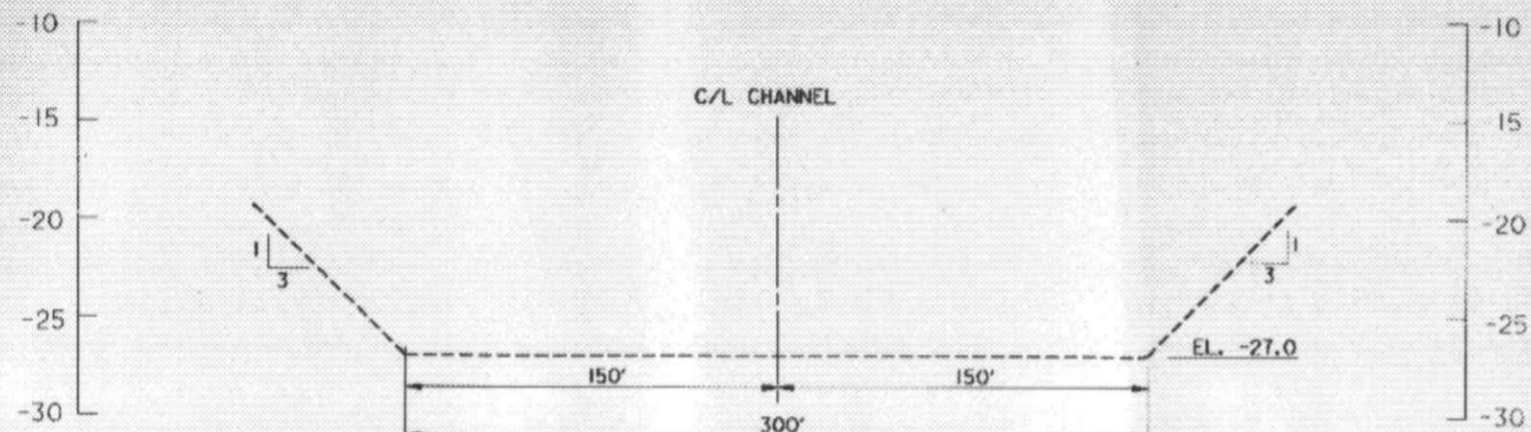
**LEGEND**

	DREDGED MATERIAL PLACEMENT FOR WETLANDS RESTORATION
	BASELINE
	CENTERLINE OF CHANNEL
	FORESHORE PROTECTION AND WEIR
	CLOSURE AREAS
	VIBRACORE BORING
	RETAINING DIKE (MANDATORY)
	OUTER LIMITS OF WETLAND RESTORATION AREA

SYMBOL	DESCRIPTION	DATE	APPROVED
REVISIONS			
	U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA		
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPRA)			
WEST BELLE PASS HEADLAND RESTORATION			
FEDERAL PROJECT FM-215 STATE PROJECT TE-23			
LAFOURCHE PARISH, LA			
<b>PLAN</b>			
DESIGNED BY: N.W.W.	DATE: NOV 97	PLOT SCALE: 1"=400"	PLOT DATE: OCT 97
DRAWN BY: S.A.C.	CADD FILE: 4448702A.DGN		FILE NO. H-16-44870
CHECKED BY: R.W.B.			DRG. 2 OF 10
SUBMITTED BY: R. BROUSSARD	SOLICITATION NO. DACW29-97-B-0092		







THEORETICAL CHANNEL SECTION  
C/L STA. 0+00 TO C/L STA. 280+00

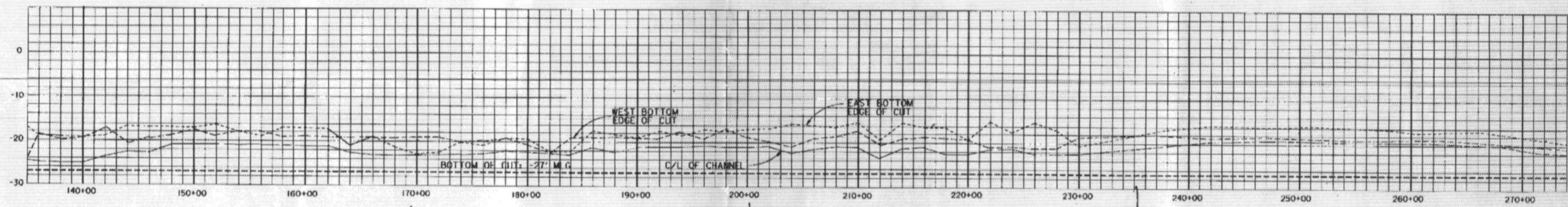
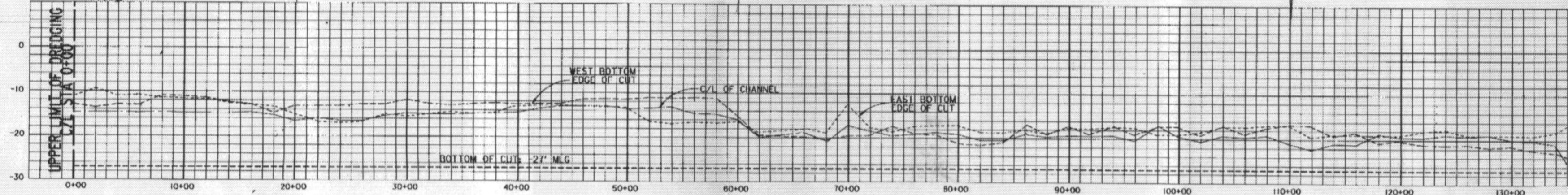
14 x 1000 x 343  
177333  
13.5 x 1000 x 340.5  
170250  
12' cut  
149333  
14'  
355000  
13'  
163222

CENTERLINE STATIONS

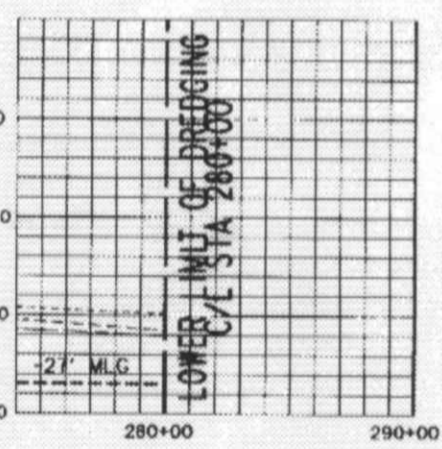
8' cut  
480,000  
5000'

7'  
208,000

ELEVATIONS IN FEET - MEAN LOW GULF DATUM (M.L.G.)



ELEVATIONS IN FEET - MEAN LOW GULF DATUM (M.L.G.)



NOTE:  
CHANNEL CONDITIONS SHOWN ARE REPRESENTATIVE  
OF CONDITIONS THAT EXISTED IN APR 97.

7'  
540,944

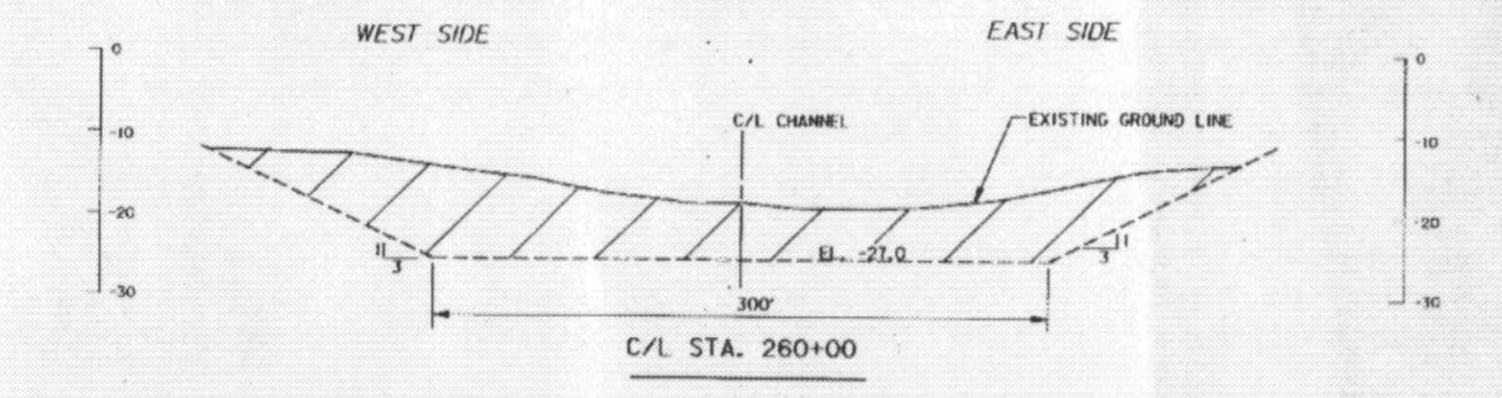
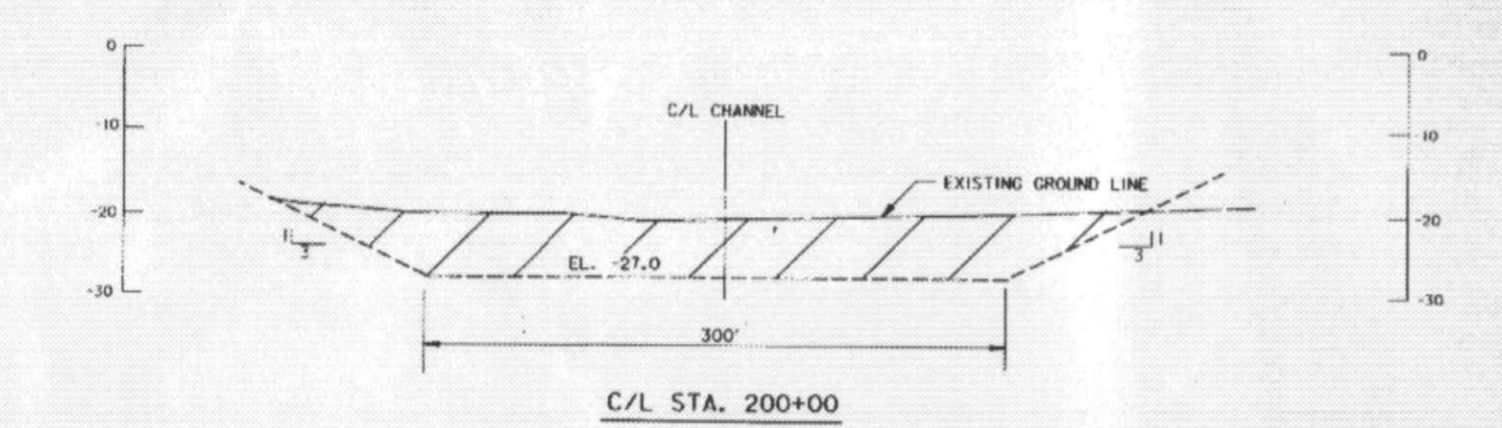
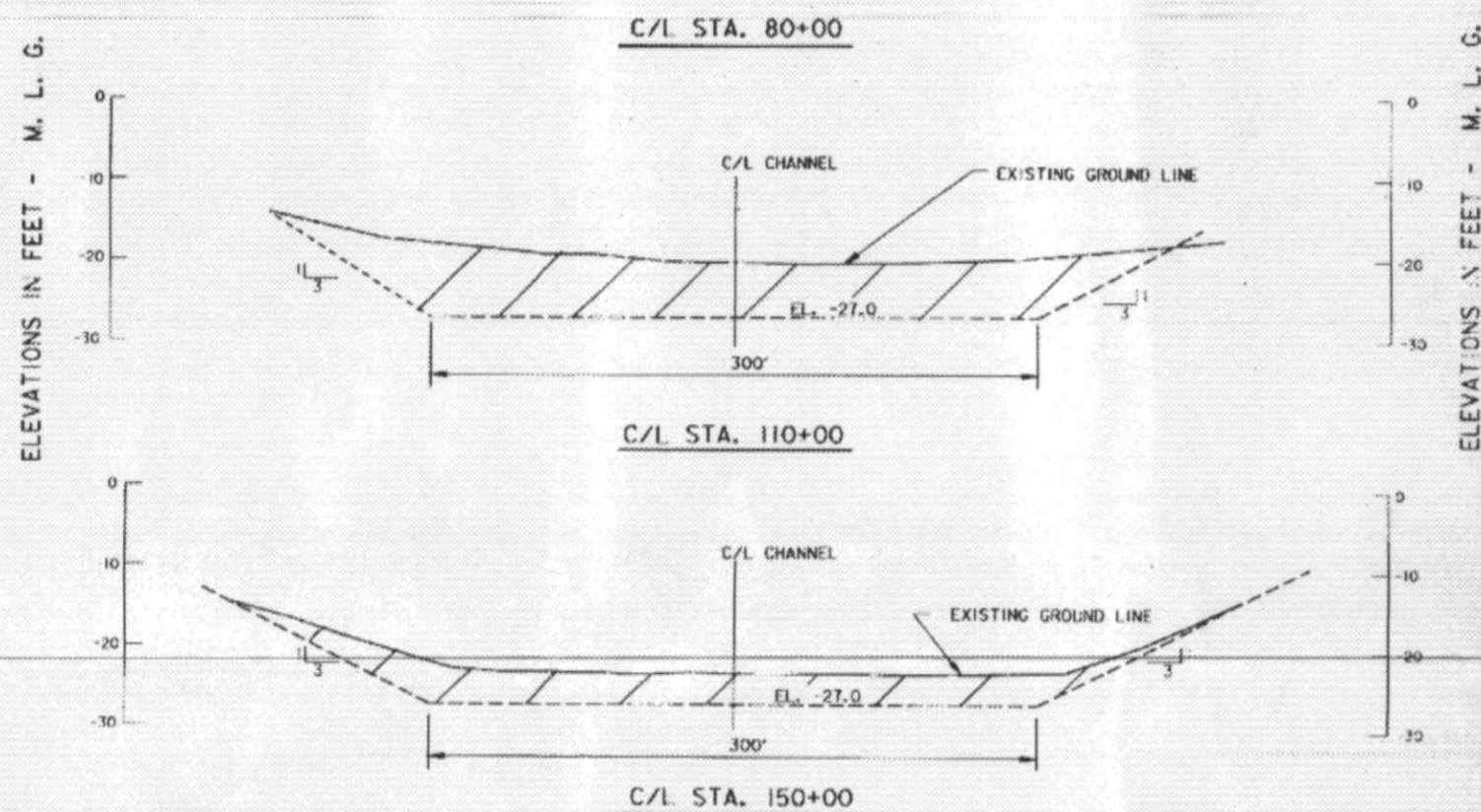
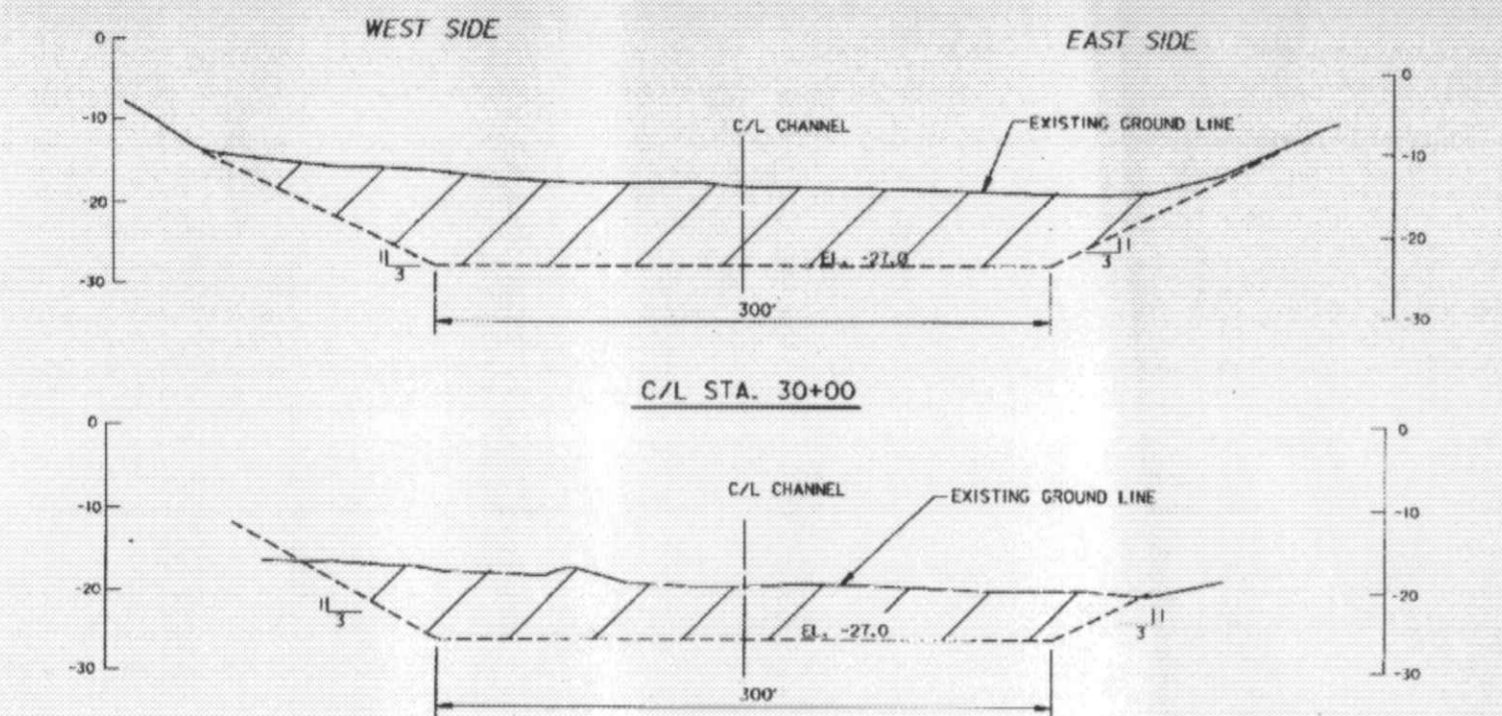
8'  
336,000

8'  
4000'  
384,000

Very Rough Est.  
2,999,415  
3,000,000 cy  
PKB  
4/17/98

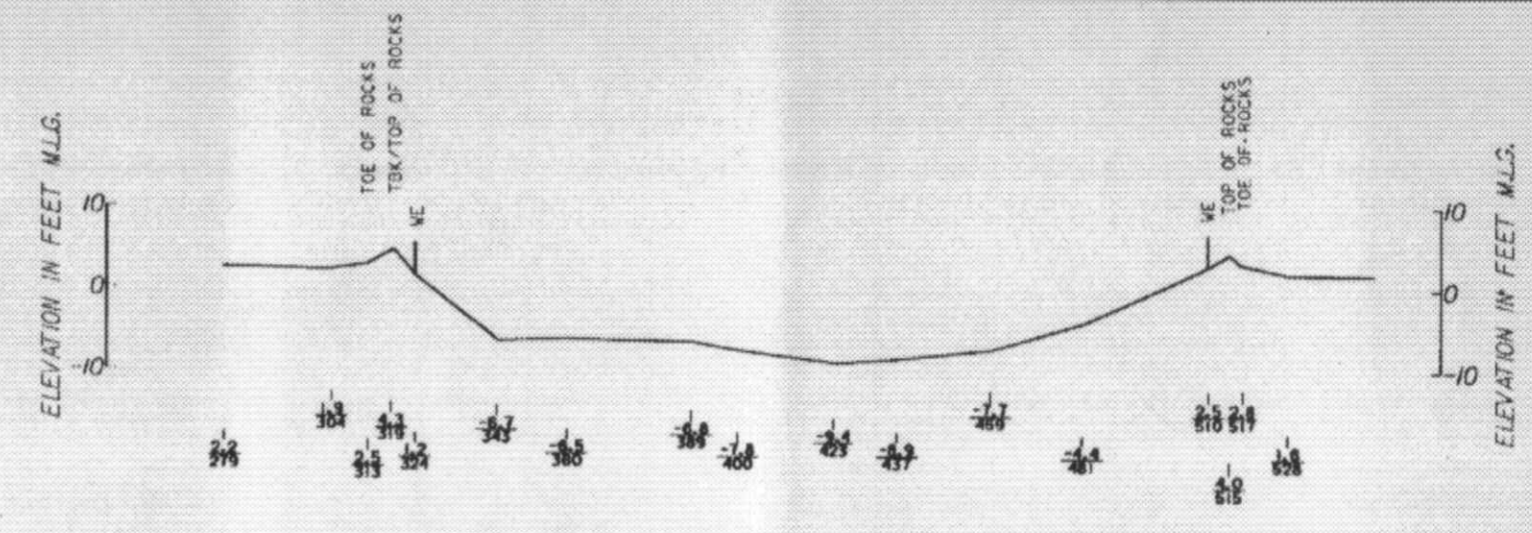
35333  
6'

SYMBOL	DESCRIPTION	DATE	APPROVED
REVISIONS			
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
COASTAL WETLANDS PLANNING, PROTECTION & RESTORATION ACT (CWPPRA) WEST BELLE PASS HEADLAND RESTORATION FEDERAL PROJECT FM-215, STATE PROJECT TE-23 LAFOURCIE PARISH, LA.			
PROFILES AND THEORETICAL			
DESIGNED BY: W.W.W.	DATE: NOV 1997	PLOT SCALE: AS SHOWN	PLOT DATE: OCT 1997
DRAWN BY: W.W.W./M.C.E.	CHECKED BY: R.W.B.	FILE NO. H-18-44870	
SUBMITTED BY:	SOLICITATION NO. DACW29-97-B-0092	DWG. 4	OF 10



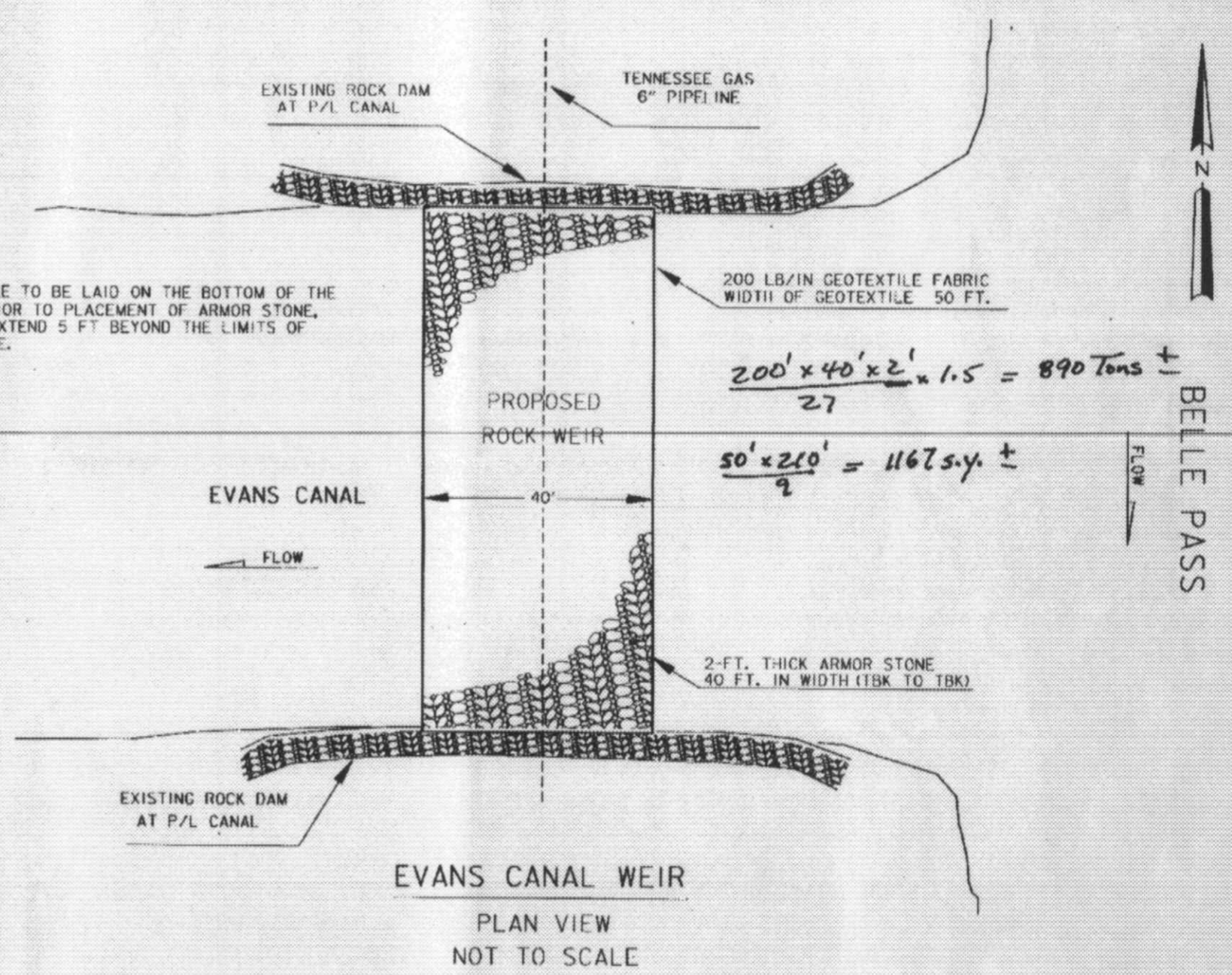
LEGEND — REQUIRED DREDGING PRISM

NOTE: CROSS SECTIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS THAT EXISTED APRIL - JUNE 1997.



CROSS SECTION AT EVANS CANAL WEIR  
WEIR TO BE CONSTRUCTED AT  
CENTERLINE OF TENNESSEE GAS P/L DAMS

NOTE:  
GEOTEXTILE TO BE LAID ON THE BOTTOM OF THE CANAL PRIOR TO PLACEMENT OF ARMOR STONE, AND TO EXTEND 5 FT BEYOND THE LIMITS OF THE STONE.



$$\frac{200' \times 40' \times 2' \times 1.5}{27} = 890 \text{ Tons} \pm$$

$$\frac{50' \times 200'}{2} = 1175 \text{ yd} \pm$$

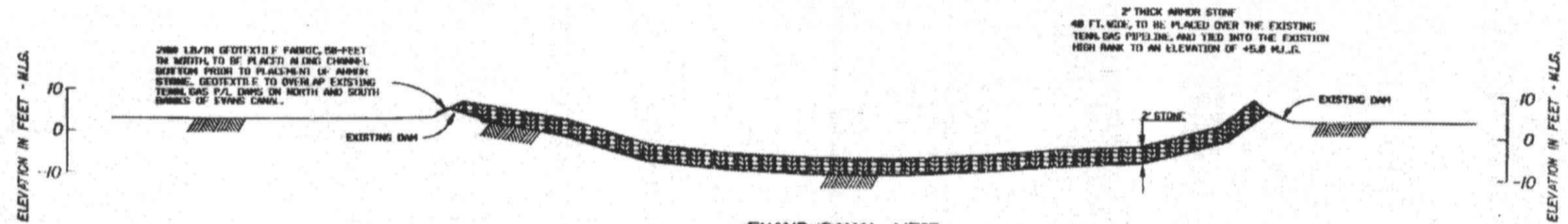
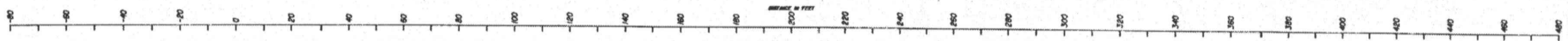
FLOW



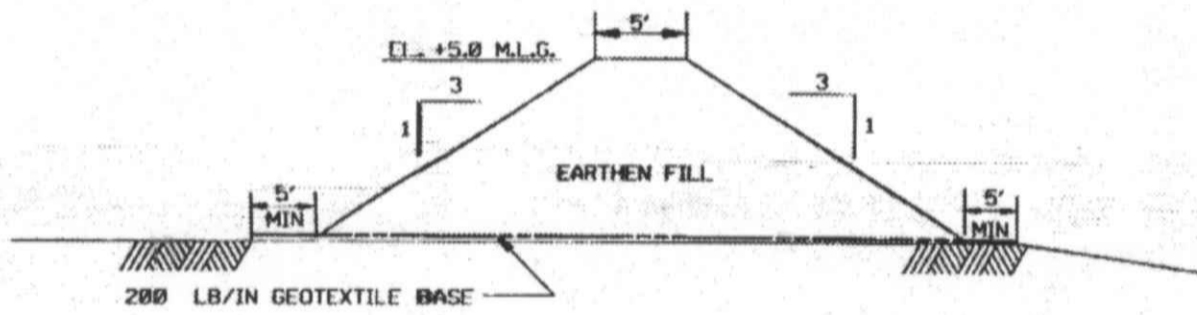
BELLE PASS

EVANS CANAL WEIR  
PLAN VIEW  
NOT TO SCALE

SYMBOL	DESCRIPTION	DATE	APPROVED
REVISIONS			
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS LAFOURCHE PARISH, LA. NEW ORLEANS, LOUISIANA			
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWP/PRR) WEST BELLE PASS HEADLAND RESTORATION FEDERAL PROJECT FM-215 STATE PROJECT TE-23 LAFOURCHE PARISH, LA.			
<b>TYPICAL CHANNEL SECTIONS,            PLAN VIEW AND SECTION OF WEIR</b>			
DESIGNED BY: W.W.W.	DATE: NOV 97	PLOT SCALE: AS SHOWN	PLOT DATE: OCT 1997
DRAWN BY: W.W.W./M.C.E.	CADD FILE: 44870.DGN	FILE NO. H-16-44870	
CHECKED BY: H.W.B.	SUBMITTED BY: R.W. BROUSSARD	SOLICITATION NO. DACW29-97-B-0092	DWG. 5 of 10
DESIGN ENGINEER			

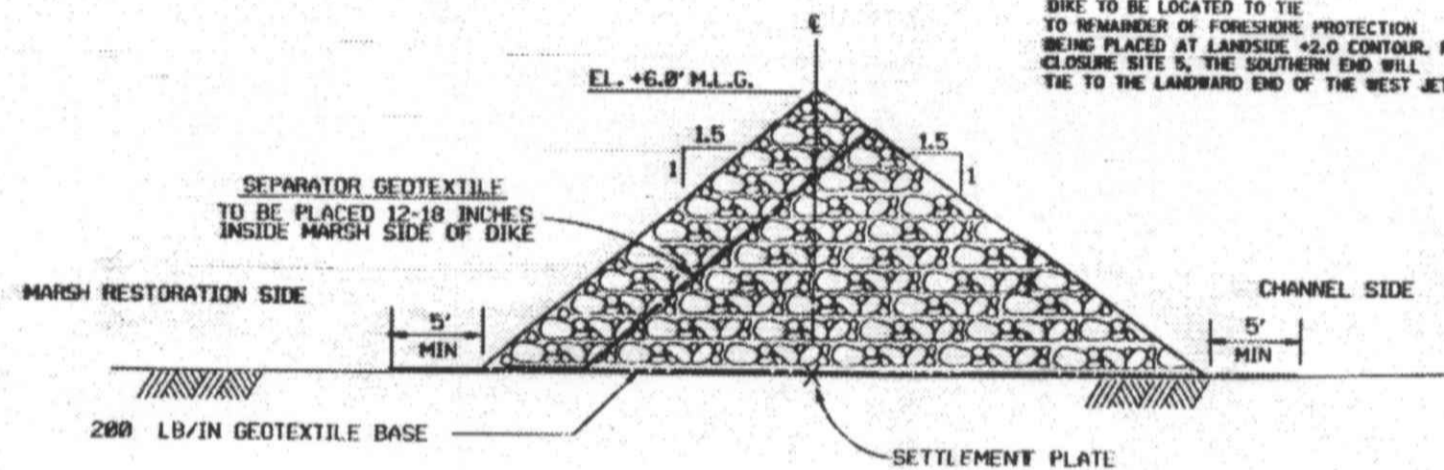


**EVANS CANAL WEIR**  
**THEORETICAL SECTION**  
 LOOKING AT EVANS CANAL FROM BELLE PASS  
 NOT TO SCALE  
 FOR LOCATION SEE DWG. 2



**CLOSURE SITES 1 THRU 3**  
**ALL EARTHEN THEORETICAL SECTION**

**SECTION B - B, DWG. 3**  
 NOT TO SCALE

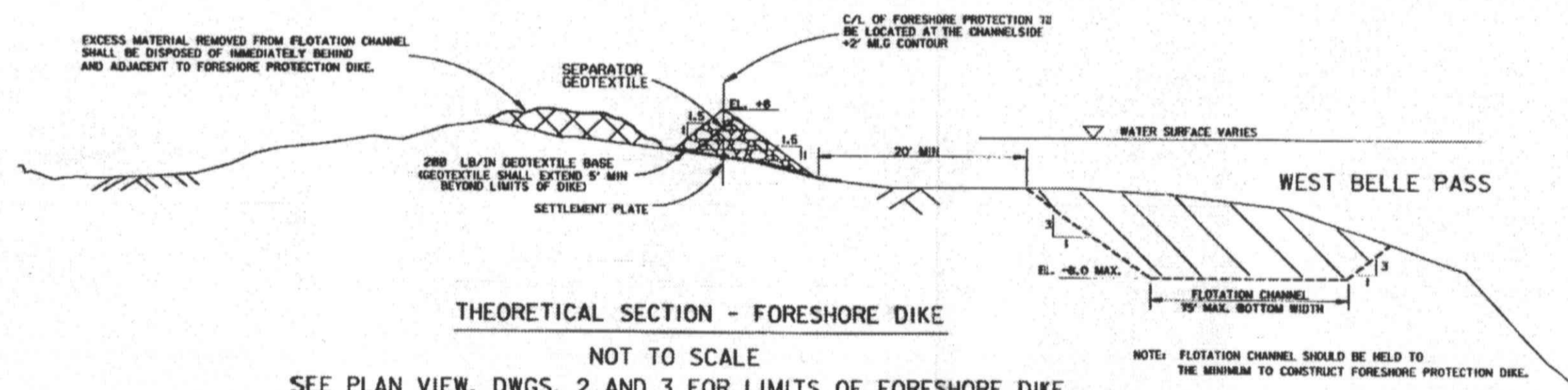


**THEORETICAL SECTION FOR CLOSURE SITES 4 & 5**

**SECTION A - A, DWG. 3**  
 NOT TO SCALE

DIKE TO BE LOCATED TO TIE TO REMAINDER OF FORESHORE PROTECTION BEING PLACED AT LANDSIDE +2.0 CONTOUR. FOR CLOSURE SITE 5, THE SOUTHERN END WILL TIE TO THE LANDWARD END OF THE WEST JETTY.

*98C0015*  
*As-built*



**THEORETICAL SECTION - FORESHORE DIKE**

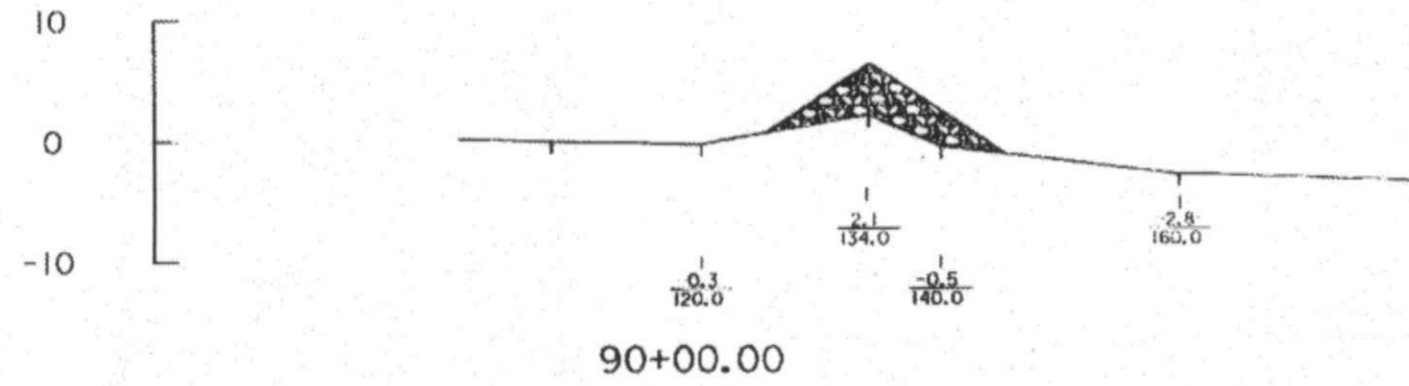
**NOT TO SCALE**  
**SEE PLAN VIEW, DWGS. 2 AND 3 FOR LIMITS OF FORESHORE DIKE**



REVISIONS	DATE	APPROVED
REVISOR	DATE	APPROVED
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA		
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION AREAS (CWPPRA) <b>WEST BELLE PASS HEADLAND RESTORATION</b> FEDERAL PROJECT FM-215, STATE PROJECT TE-23 LAFOURCHE PARISH, LA.		
<b>THEORETICAL SECTIONS</b> <b>CLOSURES, FORESHORE DIKE &amp; WEIR</b>		
DESIGNED BY: R.W.W.	DATE: NOV 1997	PLOT SCALE: AS SHOWN
DRAWN BY: M. ESCARRA	CAD FILE: H-16-44870	PLOT DATE: 4 MAR 1998
CHECKED BY: R. BROUSSARD	SOLICITATION NO. DACW29-B-97-0092	FILE NO. H-16-44870
SUBMITTED BY: R. BROUSSARD	DESIGN ENGINEER	DWG. 6 OF 10

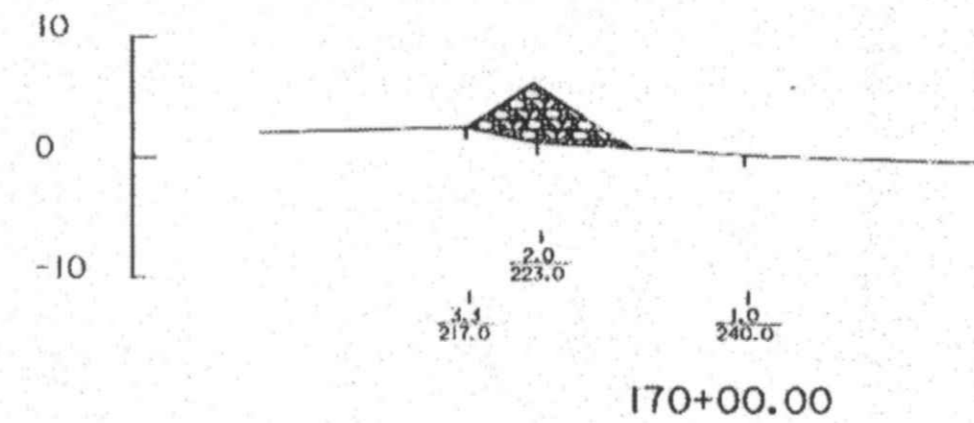
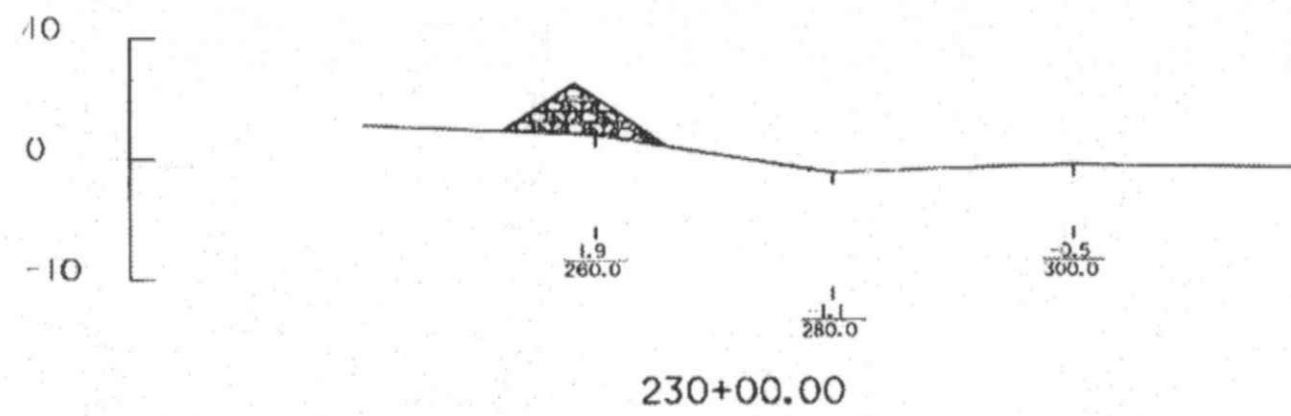
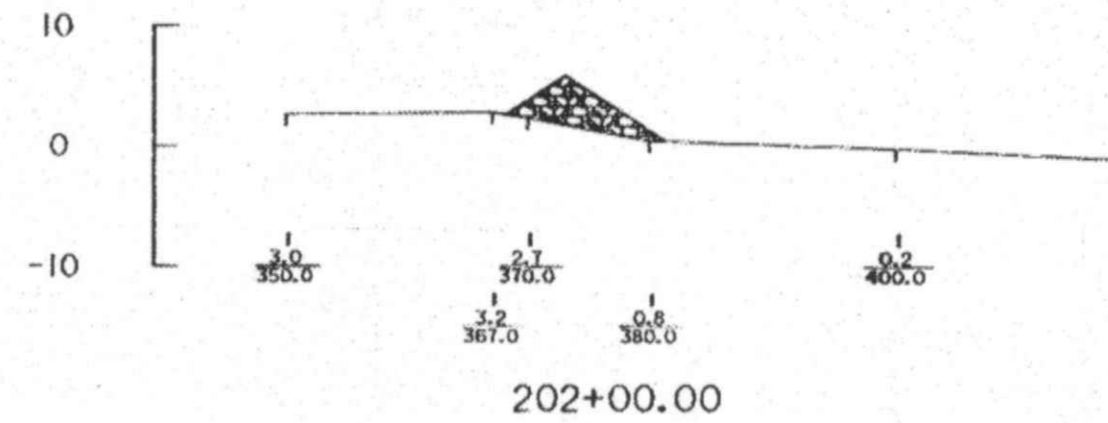
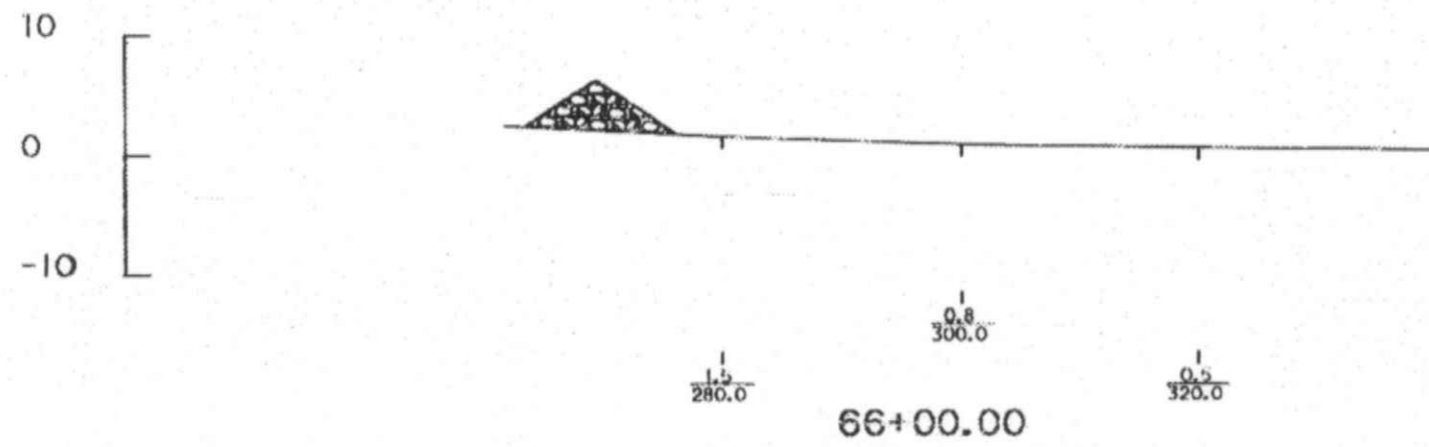
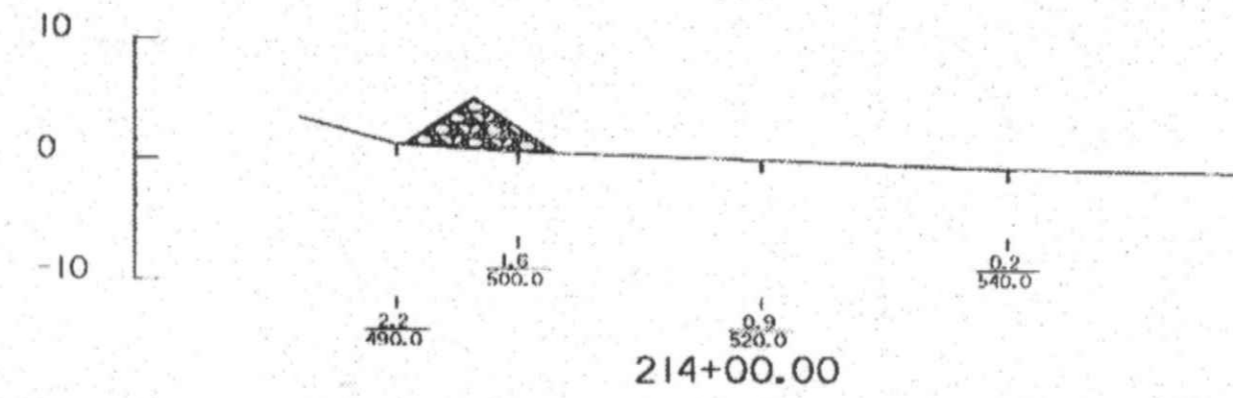
LAND SIDE

CHANNEL SIDE



LAND SIDE

CHANNEL SIDE



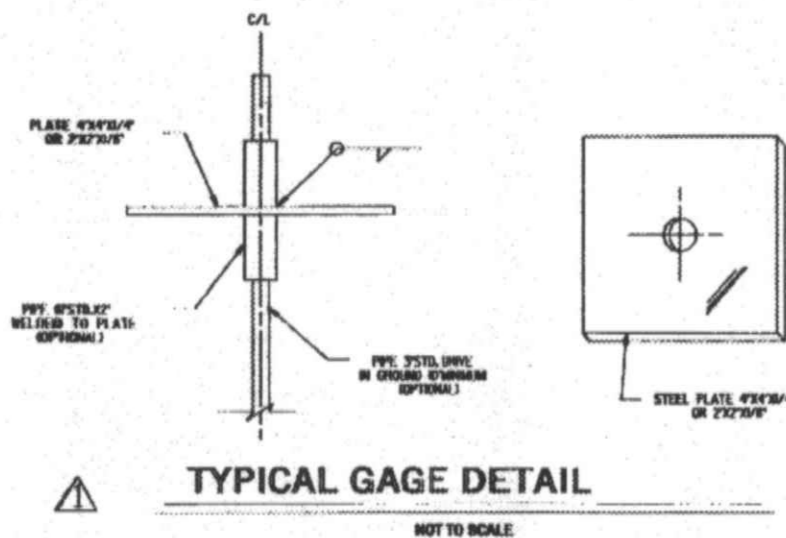
ELEVATIONS IN FT. M.L.G.

ELEVATIONS IN FT. M.L.G.

*98c 0015  
As-built*

LEGEND	
	ARMOR STONE

- NOTES: 1. ALL STATIONS SHOWN ARE REFERENCED TO BASELINE STATIONING AND SECTIONS TAKEN NORMAL TO THE BASELINE.  
 2. C/L OF FORESHORE ROCK DIKE SHALL BE LOCATED AT THE CHANNELSIDE +2' MLG CONTOUR.  
 3. CROSS SECTIONS ARE REPRESENTATIVE OF CONDITIONS THAT EXISTED IN 1993 TO BE UPDATED WITH A SURVEY PRESENTLY BEING PERFORMED.



**SETTLEMENT MEASUREMENT GAGES**

SHOULD THE CONTRACTOR DESIRE PAYMENT FOR PLACING AZERTONAL (P.S.) DUE TO FOUNDATION SETTLEMENT DURING CONSTRUCTION, HE SHALL FURNISH AND INSTALL SETTLEMENT GAGES AT LOCATIONS SHOWN ON THE DESIGN SECTION AND AS SPECIFIED IN THE CONTRACT SPECIFICATIONS. THE SETTLEMENT MEASUREMENT RANGE FOR EACH SETTLEMENT GAGE SHALL BE FOR A DISTANCE OF 80 FEET IN EACH DIRECTION FROM EACH SETTLEMENT GAGE MEASURED ALONG THE CENTERLINE OF THE LEVEE SECTION EXCEPT WHERE SETTLEMENT GAGES ARE PLACED AT LESS THAN 300 FEET INTERVALS, IN WHICH CASE, THE SETTLEMENT MEASUREMENT RANGE SHALL BE TO A POINT THE DISTANCE BETWEEN SETTLEMENT GAGES. WHEN PIPES ARE PLUMBLED ON SETTLEMENT GAGES, LOCATION OF SETTLEMENT GAGES MAY BE MOVED HORIZONTALLY ON THE EXISTING LEVEE CHOWN AT CONTRACTOR'S OPTION WITH THE APPROVAL OF THE CONTRACTING OFFICE.

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISED DIKE DESIGN AND LOCATION AND ADDED SETTLEMENT GAGE DETAIL	3/4/98	R.W.B.

REVISORS

**U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS**  
 CORPS OF ENGINEERS  
 NEW ORLEANS, LOUISIANA

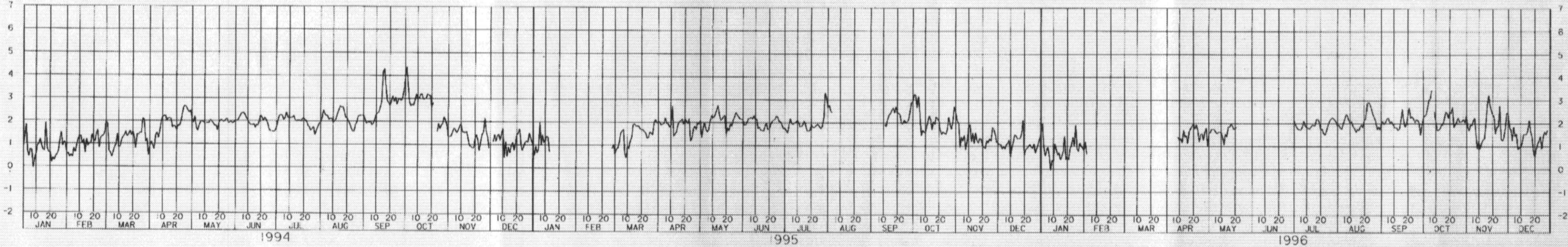
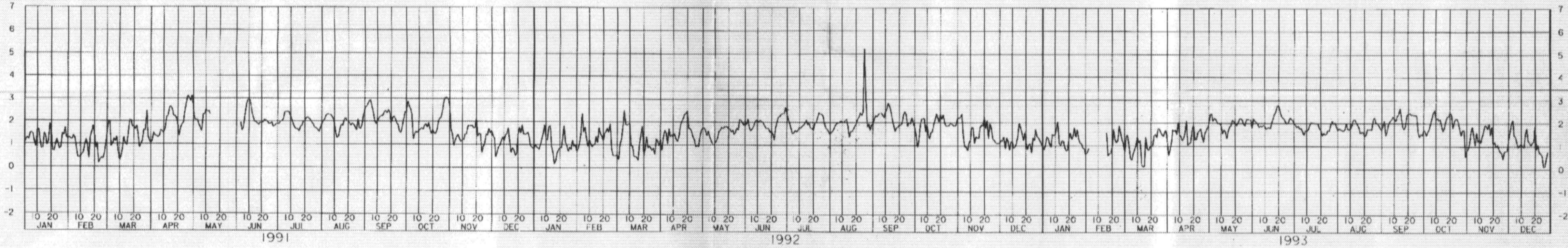
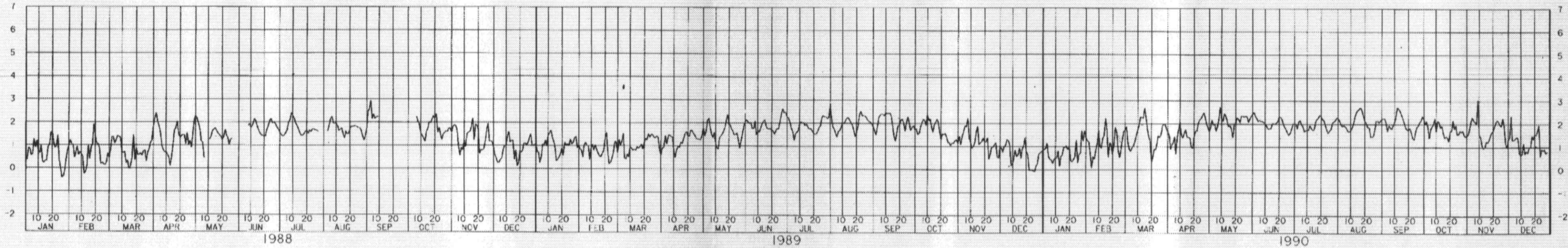
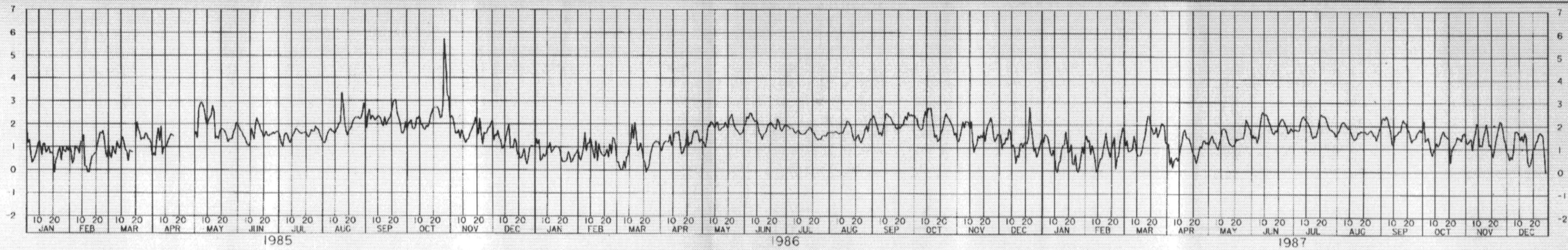
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION AREAS  
**WEST BELLE PASS HEADLAND RESTORATION**  
 FEDERAL PROJECT FM-26, STATE PROJECT TE-23  
 LAFORCHE PARISH, LA.

**TYPICAL SECTIONS**  
**FORESHORE ROCK DIKE**

DESIGNED BY: W.W.W.	DATE: NOV 1997	1:0T SCALE: AS SHOWN	PLOT DATE: 4 MAR 1998
DRAWN BY: M. ESCARRA	CADD FILE: H-16-44870		FILE NO: H-16-44870
CHECKED BY: R.W.B.	SUBMITTAL NO. DACW29-97-B-0092		DWG. 7 OF 10
SUBMITTED BY: R. BROUSSARD DESIGN ENGINEER			

GAGE READINGS IN FT NGVD

GAGE READINGS IN FT NGVD



NOTE: TO CONVERT N.G.V.D. READINGS SHOWN  
TO M.L.G., ADD 0.78 FEET.  
LEEVILLE: 29°14'52" 90°12'32"

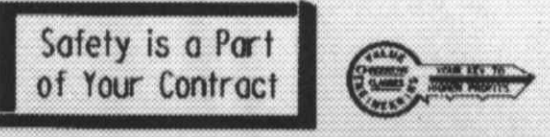
**U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS**  
CORPS OF ENGINEERS  
NEW ORLEANS, LOUISIANA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA)

**WEST BELLE PASS HEADLAND RESTORATION**  
FEDERAL PROJECT FM-215 STATE PROJECT TE-23  
LAFOURCHE PARISH, LA

**STAGE HYDROGRAPH**  
LAFOURCHE AT LEEVILLE

DESIGNED BY: W.W.W.	DATE: NOV 97	PLOT SCALE: 1	PLOT DATE: 14 OCT 97
DRAWN BY: S.A.C.	CADD FILE: H45FORM.DWG		FILE NO: H-16-44870
CHECKED BY: H.W.H.			
SUBMITTED BY: R. BROUSSARD DESIGN ENGINEER	SOLICITATION NO. DACW29-97-B-0092	DWG. 8	OF 10





Safety is a Part  
of Your Contract

*Inside wetland restoration area  
west of off sta 200 ± in  
L.A. Interstate Gas P/L Canal*

BORING NUMBER: BOR. 1  
DATE BORING TAKEN: 03MAR97

*column # 5*

BOR. 2  
03MAR97

BOR. 3  
03MAR97

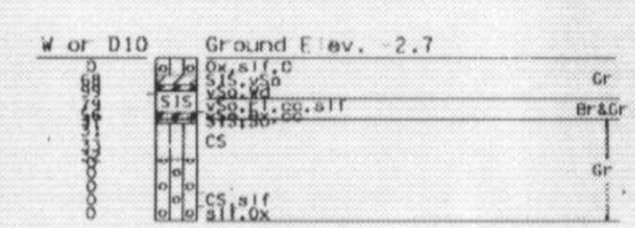
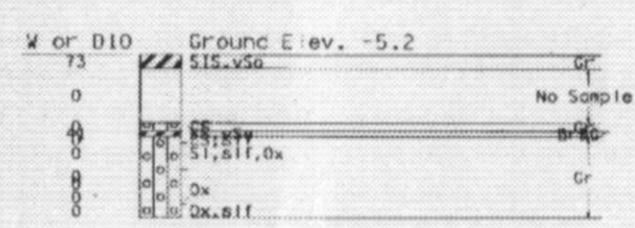
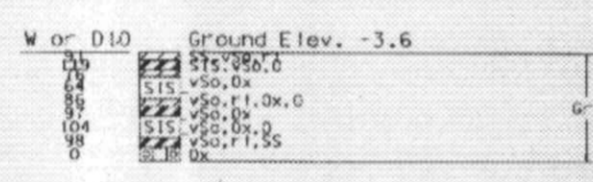
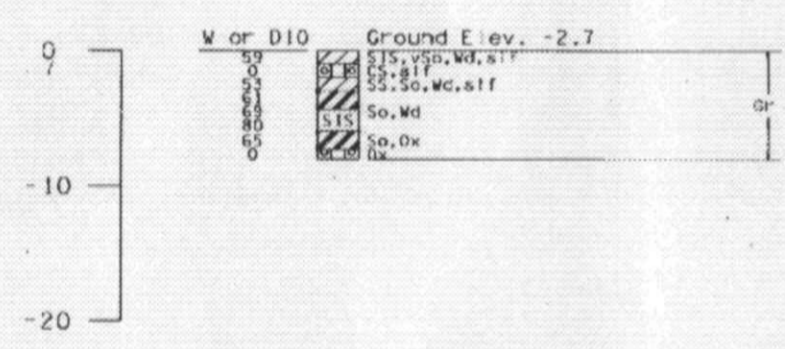
*column # 1*

BOR. 4  
03MAR97




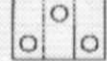
*column # 3*

BORING NUMBER:  
DATE BORING TAKEN:



ELEVATIONS IN FEET N.G.V.D.



ELEVATIONS IN FEET N.G.V.D.

-  CH - Fat Clay
-  CL - Lean Clay
-  ML - Silt, Low Plasticity
-  SM - Silty Sand

- NOTES:
1. WATER EL. WAS ASSUMED TO BE AT EL. 0.
  2. GROUND EL. WAS CALCULATED FROM WATER DEPTH AT THE TIME THE BORING WAS TAKEN.
  3. SEE DWG. 10 OF 10 FOR SOIL BORING LEGEND.
  4. METHOD OF SAMPLING IS BY VIBRACORE.

SYMBOL	DESCRIPTION	DATE	APPROVED
REVISIONS			
 <b>U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS</b> CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA) <b>WEST BELLE PASS HEADLAND RESTORATION</b> FEDERAL PROJECT FM-215, STATE PROJECT TE-23 LAFOURCHE PARISH, LA.			
<b>SOIL BORINGS</b>			
DESIGNED BY: N.R.W.	DATE: NOV 97	PLOT SCALE: 1	PLOT DATE: 14 OCT 97
DRAWN BY: S.A.C.	CADD FILE: 44709B.DWG	FILE NO. H-16-44870	
CHECKED BY: R.W.B.	SUBMITTED BY: R. BROUSSARD	SOLICITATION NO. DACW29-97-B-0092	DWG. 9 OF 10
			





# UNIFIED SOIL CLASSIFICATION

MAJOR DIVISION	TYPE	LETTER SYMBOL	SYM BOL	TYPICAL NAMES	
COARSE - GRAINED SOILS More than half of material is larger than No. 200 sieve size.	GRAVELS	CLEAN GRAVEL (Little or No Fines)	GW	GRAVEL, Well Graded, gravel-sand mixtures, little or no fines	
		GRAVEL (Little or No Fines)	GP	GRAVEL, Poorly Graded, gravel-sand mixtures, little or no fines	
		GRAVEL WITH FINES (Appreciable Amount of Fines)	GM	SILTY GRAVEL, gravel-sand-silt mixtures	
	SANDS More than half of coarse fraction is coarse fraction No. 4 sieve size.	CLAYEY GRAVEL (Appreciable Amount of Fines)	GC	CLAYEY GRAVEL, gravel-sand-clay mixtures	
		CLEAN SAND (Little or No Fines)	SW	SAND, Well-Graded, gravelly sands	
		CLEAN SAND (Little or No Fines)	SP	SAND, Poorly-Graded, gravelly sands	
		SANDS WITH FINES (Appreciable Amount of Fines)	SM	SILTY SAND, sand-silt mixtures	
		SANDS WITH FINES (Appreciable Amount of Fines)	SC	CLAYEY SAND, sand-clay mixtures	
		FINE - GRAINED SOILS More than half of material is smaller than No. 200 sieve size.	SILTS AND CLAY (Liquid Limit < 50)	ML	SILT & very fine sand, silty or clayey fine sand or clayey silt with slight plasticity
				CL	LEAN CLAY, Sandy Clay; Silty Clay; of low to medium plasticity
OL	ORGANIC SILTS and organic silty clays of low plasticity				
SILTS AND CLAY (Liquid Limit > 50)	MH		SILT, fine sandy or silty soil with high plasticity		
	CH		FAT CLAY, inorganic clay of high plasticity		
	OH		ORGANIC CLAYS of medium to high plasticity, organic silts		
HIGHLY ORGANIC SOILS	Pt	PEAT, and other highly organic soil			
WOOD	Wd	WOOD			
SHELLS	SI	SHELLS			
NO SAMPLE					

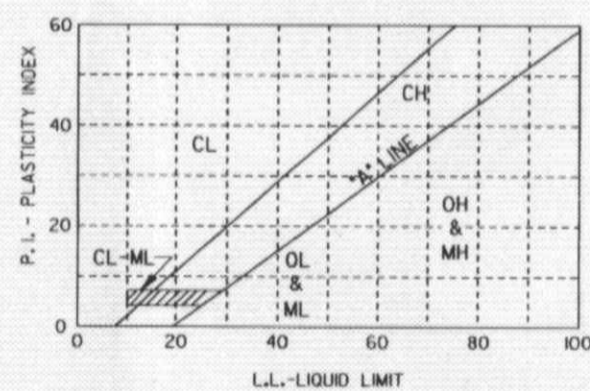
NOTE: Soils possessing characteristics of two groups are designated by combinations of group symbols

## NOTES:

- FIGURES TO LEFT OF BORING UNDER COLUMN "W OR D<sub>10</sub>"
  - Are natural water contents in percent dry weight
  - When underlined denotes D<sub>10</sub> size in mm \*
- FIGURES TO LEFT OF BORING UNDER COLUMNS "LL" AND "PL"
  - Are liquid and plastic limits, respectively
- SYMBOLS TO LEFT OF BORING
  - ∇ Ground-water surface and date observed
  - ⊙ Denotes location of consolidation test \*\*
  - ⊕ Denotes location of consolidated-drained direct shear test \*\*
  - ⊗ Denotes location of consolidated-undrained triaxial compression test \*\*
  - ⊖ Denotes location of unconsolidated-undrained triaxial compression test \*\*
  - ⊙ Denotes location of sample subjected to consolidation test and each of the above three types of shear test \*\*
  - FW Denotes free water encountered in boring or sample
- FIGURES TO RIGHT OF BORING
  - Are values of cohesion in lbs./sq.ft. from unconfined compression tests
  - In parenthesis are driving resistances in blows per foot determined with a standard split spoon sampler (1 1/8" I.D., 2" O.D.) and a 140 lb. driving hammer with a 30" drop
  - Where underlined with a solid line denotes laboratory permeability in centimeters per second of undisturbed sample
  - Where underlined with a dashed line denotes laboratory permeability in centimeters per second of sample remoulded to the estimated natural void ratio
- \* The D<sub>10</sub> size of a soil is the grain diameter in millimeters of which 10% of the soil is finer, and 90% coarser than D<sub>10</sub>
- \*\* Results of these tests are available for inspection in the U.S. Army Engineer District Office, if these symbols appear beside the boring logs on the drawings

## DESCRIPTIVE SYMBOLS

COLOR		CONSISTENCY FOR COHESIVE SOILS			MODIFICATIONS	
COLOR	SYMBOL	CONSISTENCY	COHESION IN LBS./SQ.FT. FROM UNCONFINED COMPRESSION TEST	SYMBOL	MODIFICATION	SYMBOL
TAN	T	VERY SOFT	< 250	vSo	Traces	Tr-
YELLOW	Y				Fine	F
RED	R	SOFT	250-500	So	Medium	M
BLACK	BK				Coarse	C
GRAY	Gr	MEDIUM	500-1000	M	Concretions	cc
LIGHT GRAY	lGr				Rootlets	rt
DARK GRAY	dGr	STIFF	1000-2000	St	Lignite fragments	lg
BROWN	Br				Shale fragments	sh
LIGHT BROWN	lBr	VERY STIFF	2000-4000	vSt	Sandstone fragments	sds
DARK BROWN	dBr				Shell fragments	slf
BROWNISH-GRAY	br Gr	HARD	> 4000	H	Organic matter	O
GRAYISH-BROWN	gy Br				Clay strata or lenses	CS
GREENISH-GRAY	gn Gr	CL	20-40	CL-ML	Silt strata or lenses	SIS
GRAYISH-GREEN	gy Gr				Sand strata or lenses	SS
GREEN	Gn	OH & MH	40-60	OH & MH	Sandy	S
BLUE	Bl				Gravelly	G
BLUE-GREEN	Bl Gn	ML	60-80	ML	Boulders	B
WHITE	Wh				Silts and clays	SL
MOTTLED	Mo t	OX	80-100	OX	Wood	Wd
					Oxidized	Ox



PLASTICITY CHART  
For classification of fine-grained soils

## TYPICAL NOTES:

- While the borings are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local variations characteristic of the subsurface materials of the region are anticipated and, if encountered, such variations will not be considered as differing materially within the purview of the contract clause entitled "Differing Site Conditions."
- Ground-water elevations shown on the boring logs represents ground-water surfaces encountered in such borings on the dates shown. Absence of water surface data on certain borings indicates that no ground-water data are available from the boring but does not necessarily mean that ground-water will not be encountered at the locations or within the vertical reaches of such borings.
- Consistency of cohesive soils shown on the boring logs is based on driller's log and visual examination and is approximate, except within those vertical reaches of the borings where shear strengths from unconfined compression tests are shown.

Safety is a Part of Your Contract



SYMBOL	DESCRIPTION	DATE	APPROVED
REVISIONS			
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPR)			
WEST BELLE PASS HEADLAND RESTORATION FEDERAL PROJECT FM-215, STATE PROJECT TE-23 LAFOURCHE PARISH, LA.			
SOIL BORING LEGEND			
DESIGNED BY: W.W.W.	DATE: OCT 97	PLOT SCALE: 1	PLOT DATE: 14 OCT 97
DRAWN BY: S.A.C.	CADD FILE: 4487010.DGN	FILE NO. H-16-44870	
CHECKED BY: R.W.D.	SUBMITTED BY: R. BROUSSARD	SOLICITATION NO. DACW29-97-B-0092	DWG. 10 OF 10