

LAKE PONTCHARTRAIN, L.A.
AND VICINITY
**LAKE PONTCHARTRAIN
HIGH LEVEL PLAN**

US G E - C PROPERTY OF THE
UNITED STATES GOVERNMENT

**DESIGN MEMORANDUM NO. 20
GENERAL DESIGN**

**ORLEANS PARISH
JEFFERSON PARISH
17th. St. Outfall Canal
(Metairie Relief)**

**IN TWO VOLUMES
VOLUME I**

**DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA**

MARCH 1990

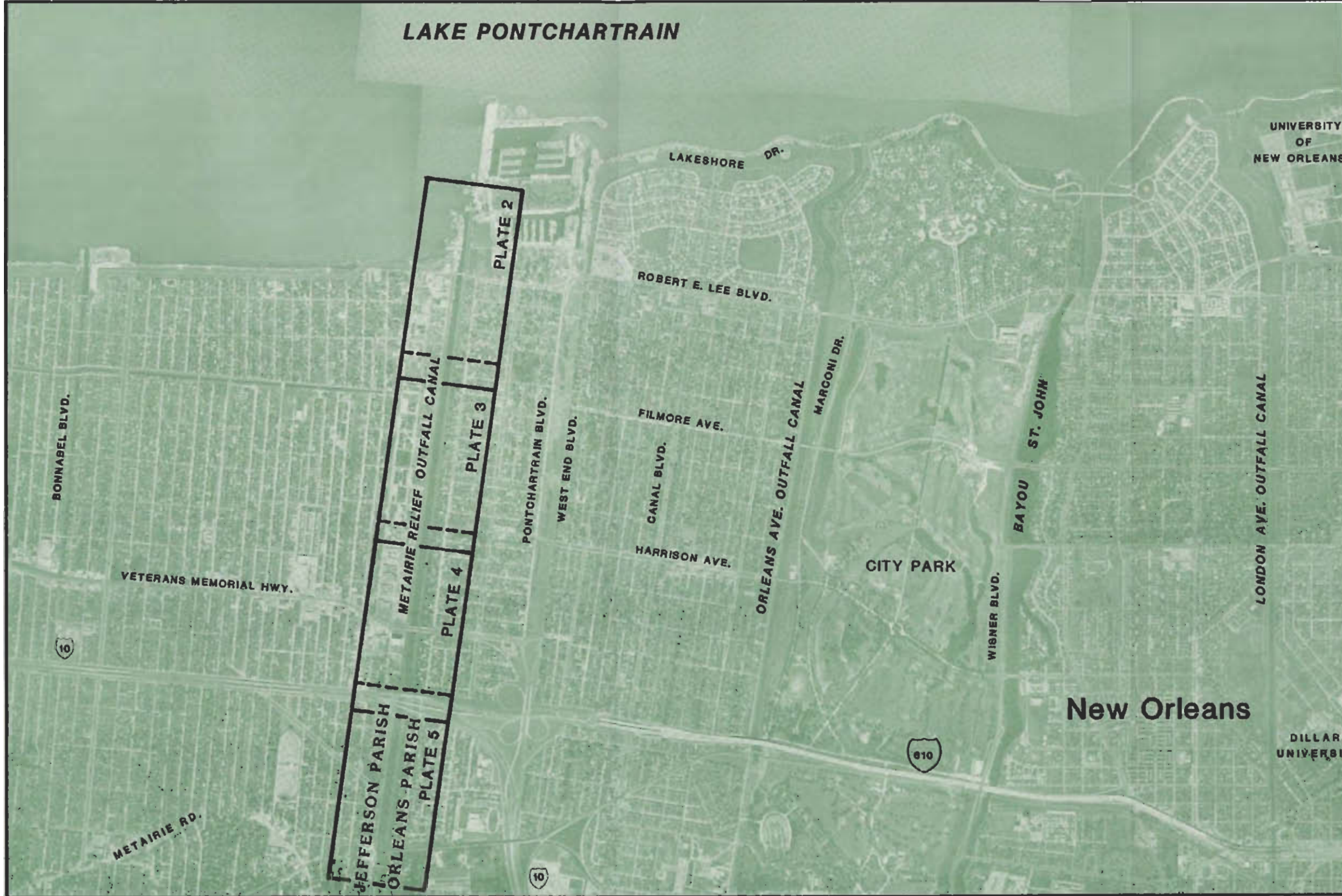
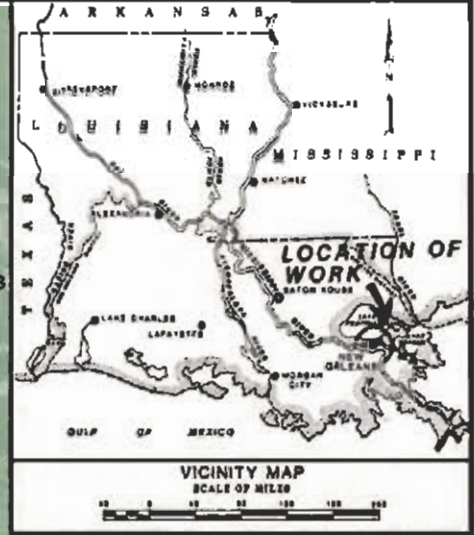


**US Army Corps
of Engineers**
New Orleans District

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US ARMY ENGINEER WATERWAYS
EXPERIMENT STATION
VICKSBURG, MISSISSIPPI

SERIAL NO.

LAKE PONTCHARTRAIN

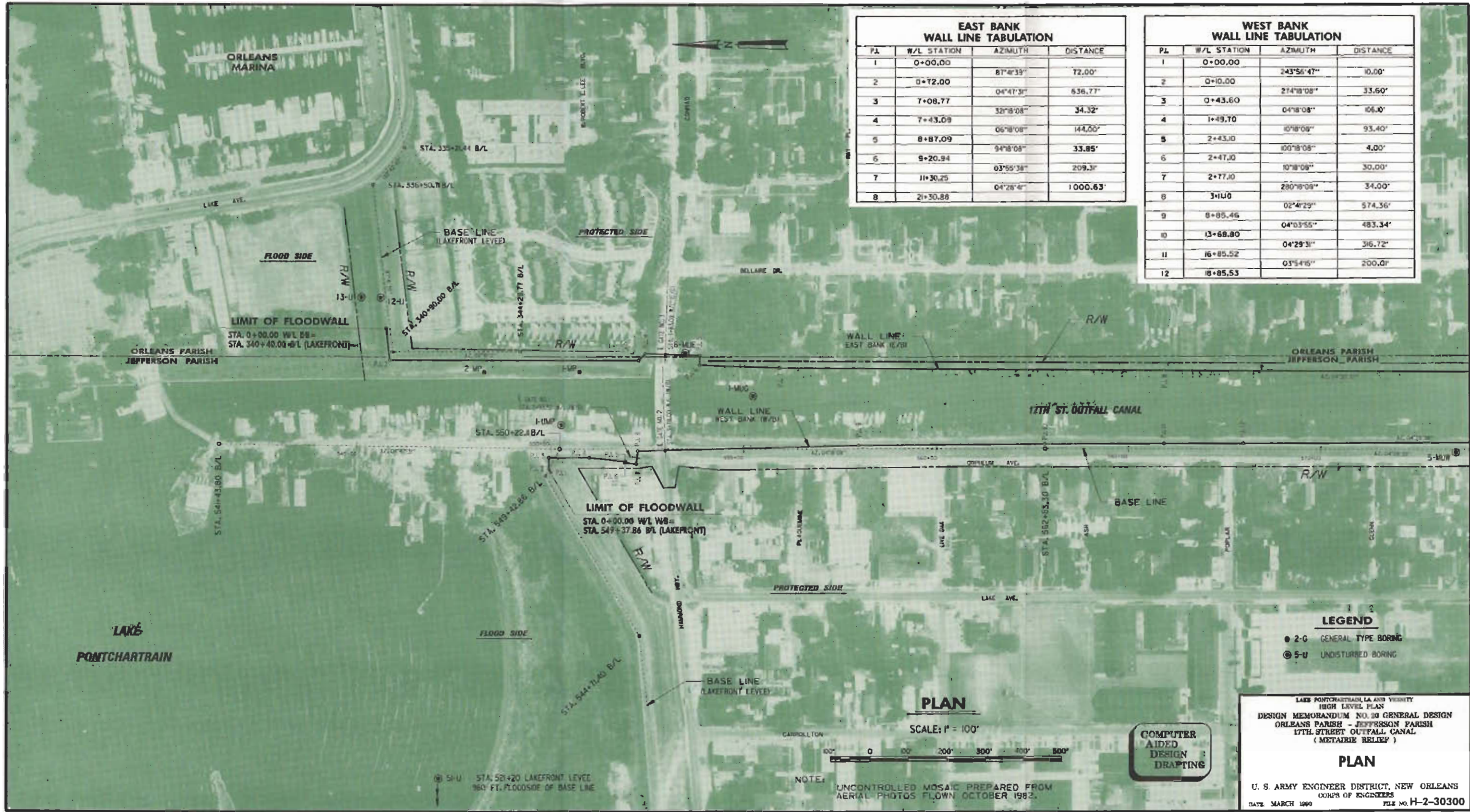


INDEX MAP

SCALE IN FEET



LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 29
GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17TH STREET OUTFALL CANAL
METAIRIE RELIEF
INDEX AND VICINITY MAP
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
DATE MARCH 1990 FILE NO. H-2-30300



PL	W/L STATION	AZIMUTH	DISTANCE
1	0+00.00	81°47'33"	72.00'
2	0+72.00	04°47'31"	636.77'
3	7+08.77	32°18'08"	34.32'
4	7+43.09	06°18'08"	144.00'
5	8+87.09	94°18'08"	33.85'
6	9+20.94	03°55'38"	209.31'
7	11+30.25	04°28'41"	1000.63'
8	21+30.88		

PL	W/L STATION	AZIMUTH	DISTANCE
1	0+00.00	243°56'47"	10.00'
2	0+10.00	214°18'08"	33.60'
3	0+43.60	04°18'08"	106.00'
4	1+49.70	10°18'08"	93.40'
5	2+43.10	00°18'08"	4.00'
6	2+47.10	10°18'08"	30.00'
7	2+77.10	280°18'08"	34.00'
8	3+11.00	02°41'29"	574.36'
9	8+85.46	04°03'55"	483.34'
10	13+68.80	04°29'31"	316.72'
11	16+85.52	03°54'15"	200.01'
12	18+85.53		

LEGEND
 ● 2-G GENERAL TYPE BORING
 ⊙ 5-U UNDISTURBED BORING

LAKES PONTCHARTRAIN, LA AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METAIRIE RELIEF)
PLAN
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1990 FILE NO. H-2-30300

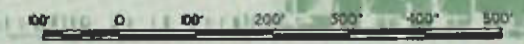
PLAN
 SCALE: 1" = 100'
 0 100 200 300 400 500

NOTE: UNCONTROLLED MOSAIC PREPARED FROM AERIAL PHOTOS FLOWN OCTOBER 1983.



PLAN

SCALE: 1" = 100'



NOTE: UNCONTROLLED MOSAIC PREPARED FROM AERIAL PHOTOS FLOWN DECEMBER 1985.

COMPUTER
AIDED
DESIGN
DRAFTING

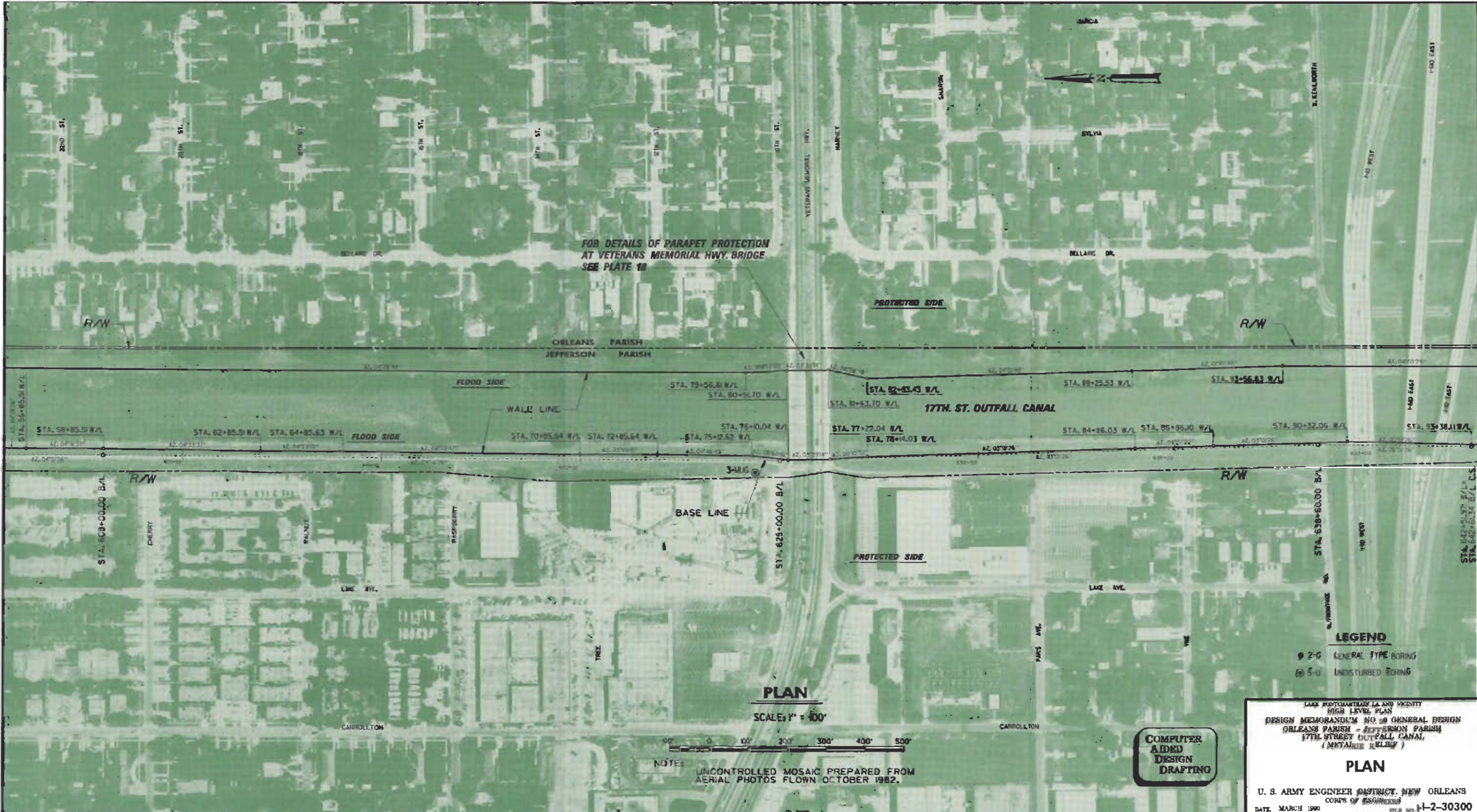
LEGEND

- 2-5 GENERAL TYPE BORING
- ⊙ 5-8 UNDISTURBED BORING

LAKE PORTCHARTRAI, LA. AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 90 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17TH STREET OUTFALL CANAL
(METAJRUE RELIEF)

PLAN

U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
DATE: MARCH 1990 FILE NO: H-2-30300



FOR DETAILS OF PARAPET PROTECTION
AT VETERANS MEMORIAL HWY. BRIDGE
SEE PLATE 10

PLAN

SCALE: 1" = 100'

NOTE: UNCONTROLLED MOSAIC PREPARED FROM
AERIAL PHOTOS FLOWN OCTOBER 1982.

COMPUTER
AIDED
DESIGN
DRAFTING

LEGEND

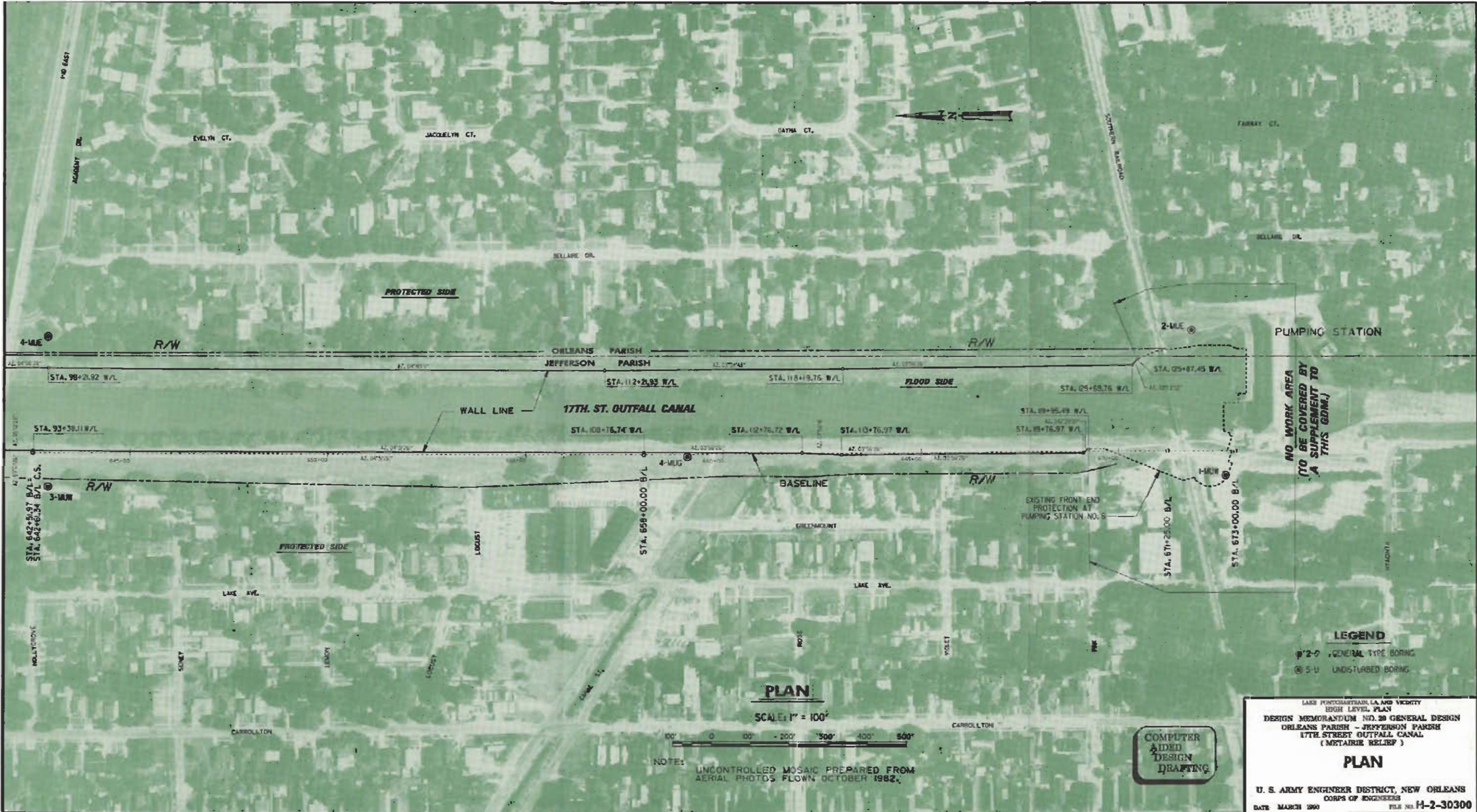
- 2-G GENERAL TYPE BORING
- ⊕ 5-U UNDISTURBED BORING

PLAN

LAKS PROJECT, ORLEANS PARISH, LA AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 09 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17TH STREET OUTFALL CANAL,
(MAINTAIN RELIEF)

PLAN

U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
DATE: MARCH 1990 FILE NO. 1-2-30300



NO WORK AREA
TO BE COVERED BY
A SUPPLEMENT TO
THIS GDM.

LEGEND
 Ⓟ 2-0 GENERAL TYPE BORING
 Ⓞ 5-U UNDISTURBED BORING

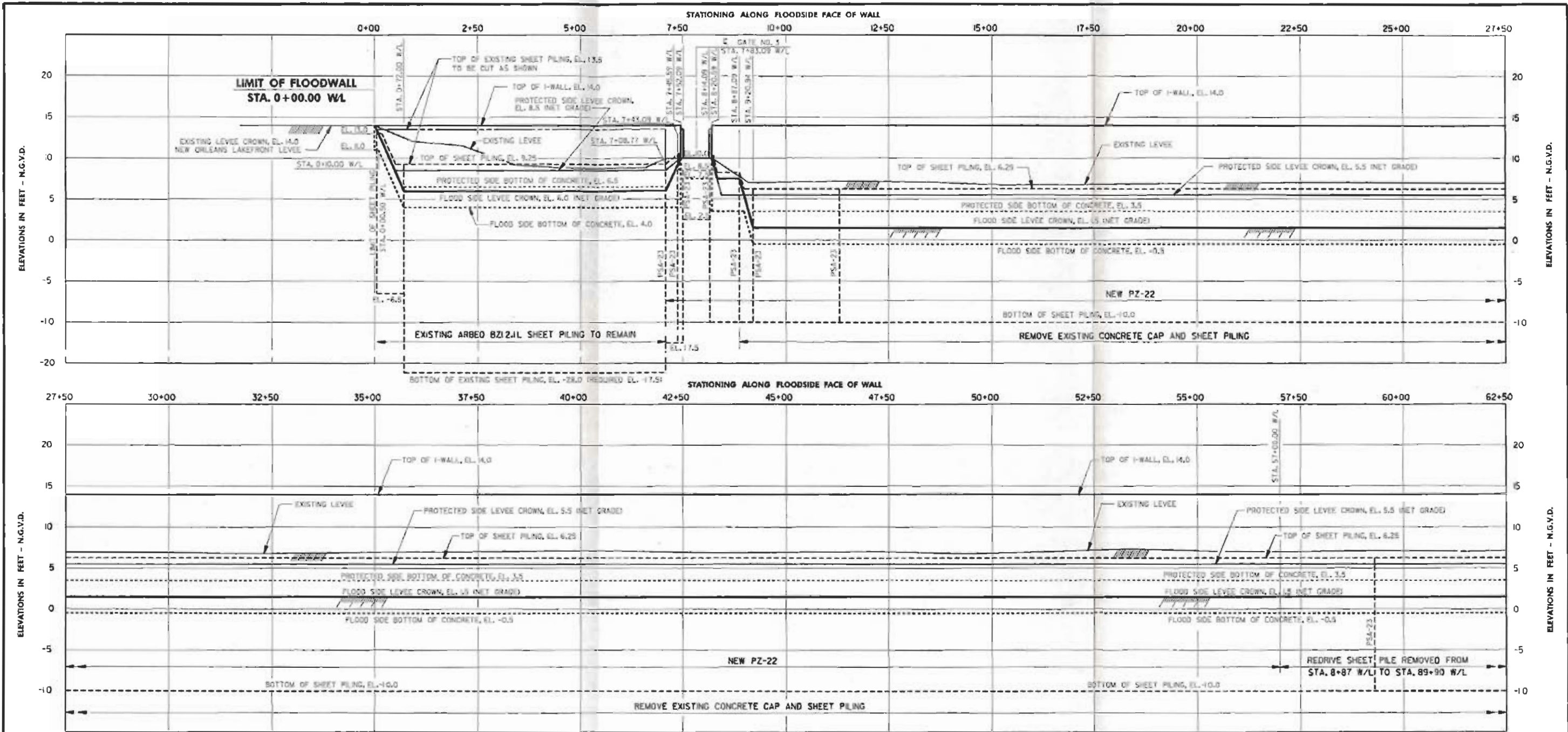
PLAN

SCALE: 1" = 100'

NOTE: UNCONTROLLED MOSAIC PREPARED FROM
AERIAL PHOTOS FLOWN OCTOBER 1982.

COMPUTER
AIDED
DESIGN
DRAFTING

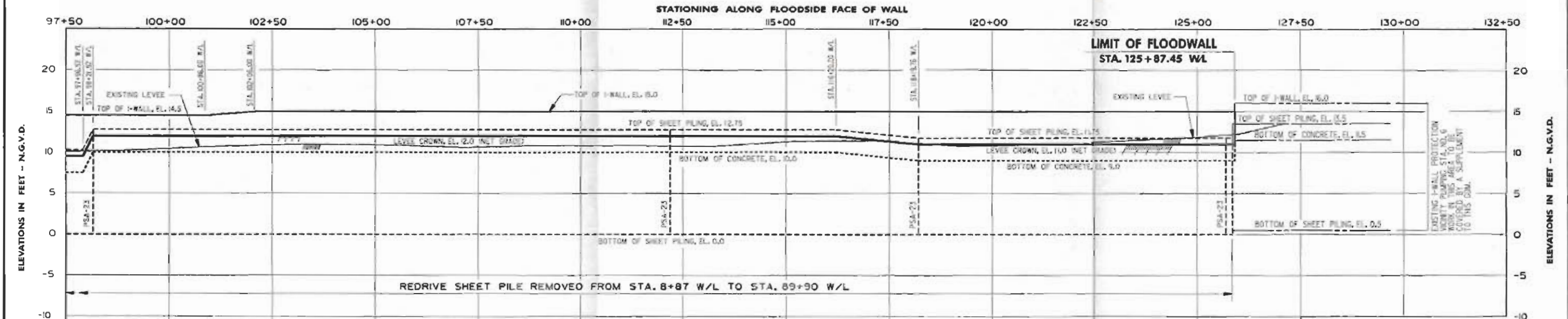
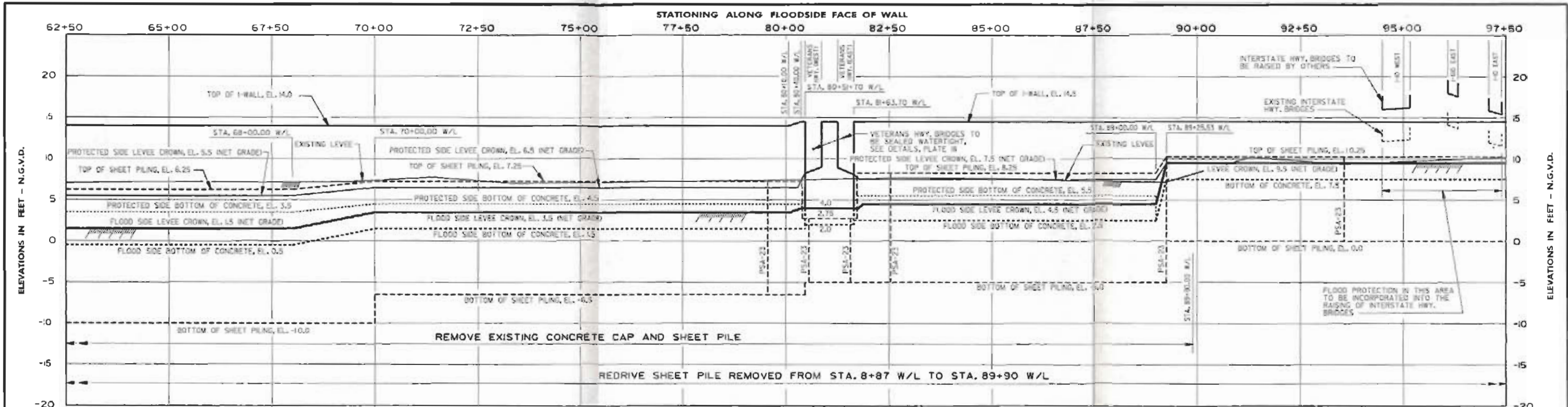
LAKE PONCHARTRAIL, LA. AND VICINITY
HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METAIRIE RELIEF)
PLAN
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1990 FILE NO. H-2-30300



PROFILE
 SCALE: HOR. 1" = 100'
 VERT. 1" = 5'

**COMPUTER
 AIDED
 DESIGN
 DRAFTING**

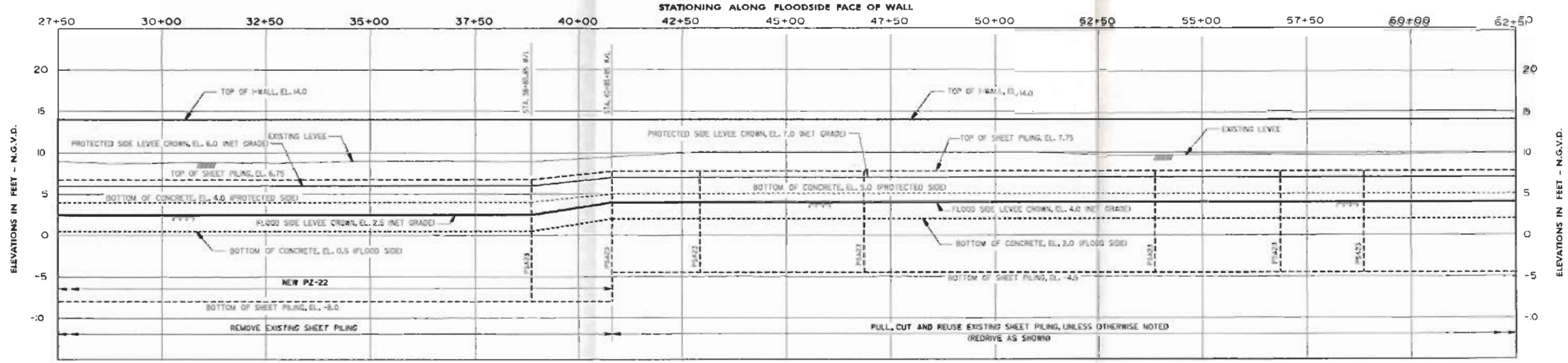
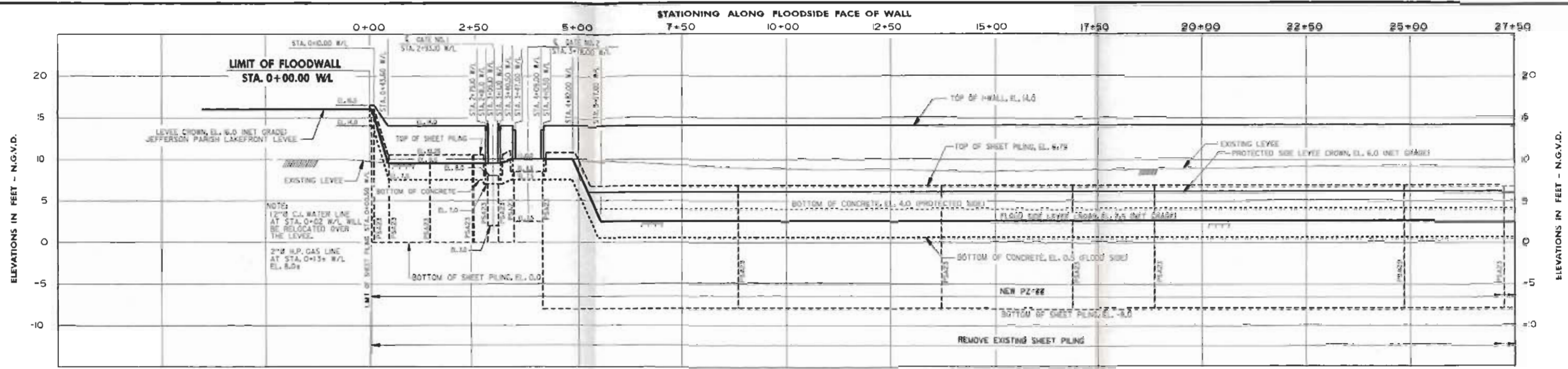
LOC. FORTCHARTRAIN, LA. AND VICINITY
 100% LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METABIE RELIEF)
PROFILE
 STA. 0+00.00 W/L TO STA. 62+50.00 W/L
 (EAST BANK)
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1990 FILE NO. H-2-30300



PROFILE
 SCALE: HOR. 1" = 100'
 VERT. 1" = 5'

COMPUTER
 AIDED
 DESIGN
 DRAFTING

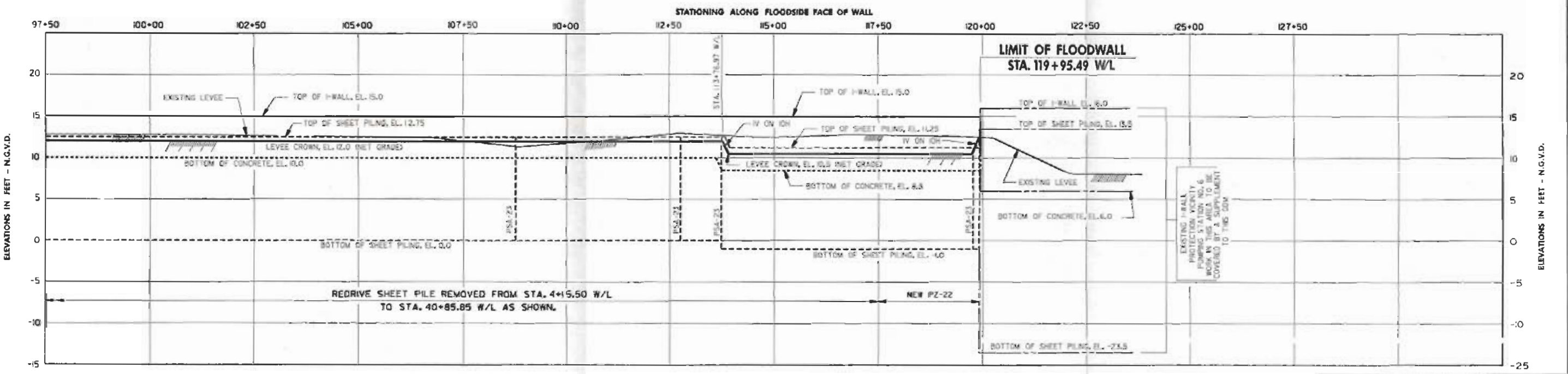
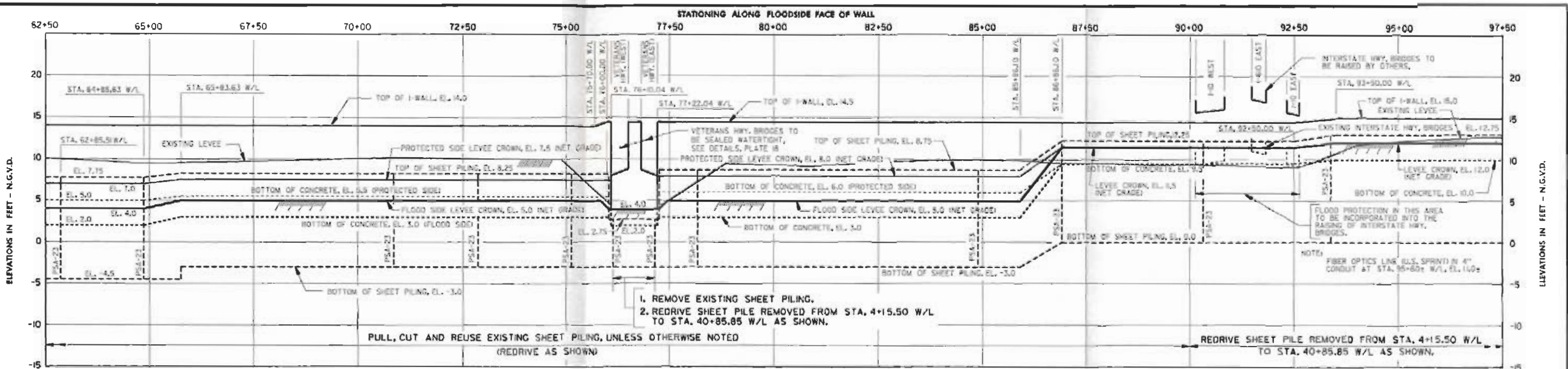
LAKE FORTCHASSEAN, LA. AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET CENTRAL CANAL
 (METAIRS RELIEF)
PROFILE
 STA. 62+50.00 W/L TO STA. 125+75.26 W/L
 (EAST BANK)
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1990 FILE NO. H-2-30360



PROFILE
 SCALE: HOR. 1" = 100'
 VERT. 1" = 5'

COMPUTER
 AIDED
 DESIGN
 DRAFTING

LAKE FORTCHARTRAC, LA AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 30 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METAIRS BELIEF)
PROFILE
 STA. 0+00.00 WL TO STA. 62+50.00 WL
 (WEST BANK)
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1990 FILE NO. H-2-30309

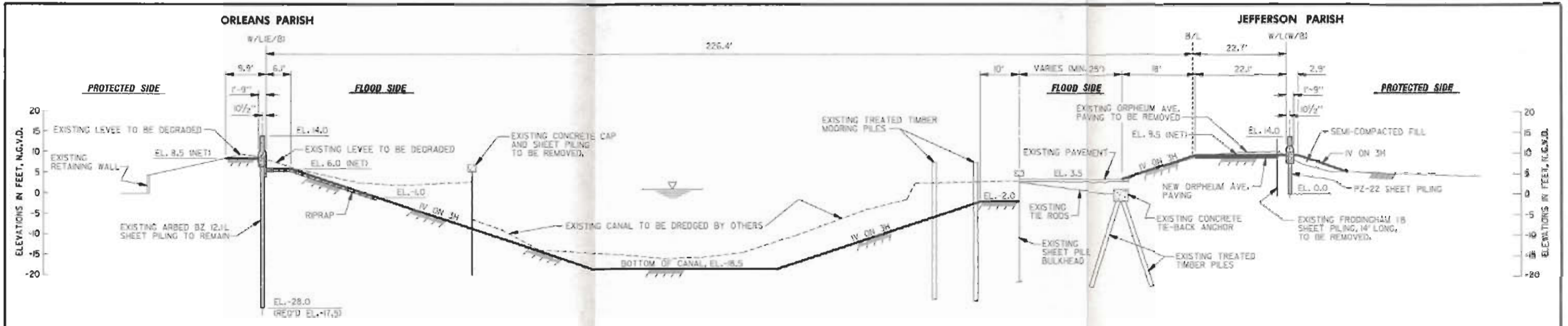


PROFILE

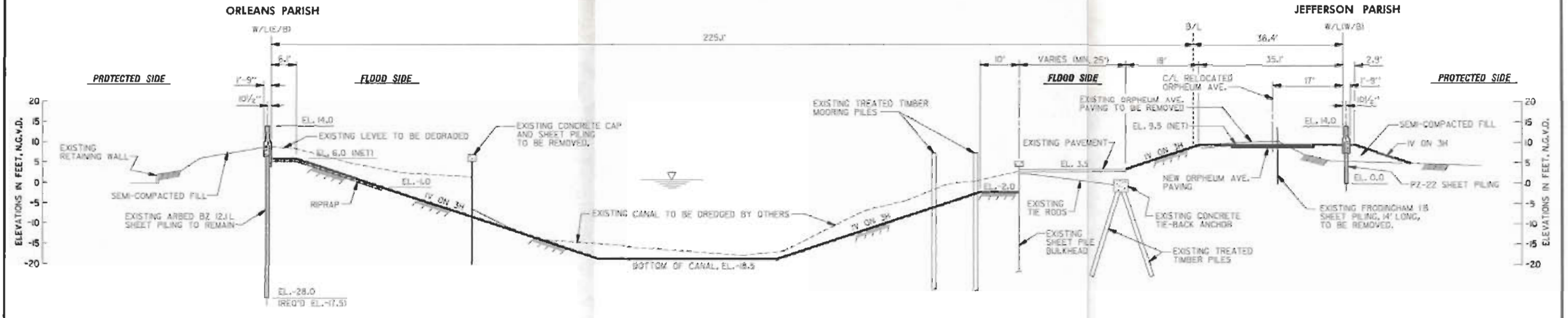
SCALE: HOR. 1" = 100'
VERT. 1" = 5'

COMPUTER
AIDED
DESIGN
DRAFTING

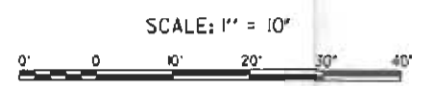
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
FTH. STREET OUTFALL CANAL,
(METAIRIE RELIEF)
PROFILE
STA. 62+50.00 W/L TO STA. 136+00.00 W/L
(WEST BANK)
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
DATE: MARCH 1980 FILE NO. H-2-30360



TYPICAL SECTION
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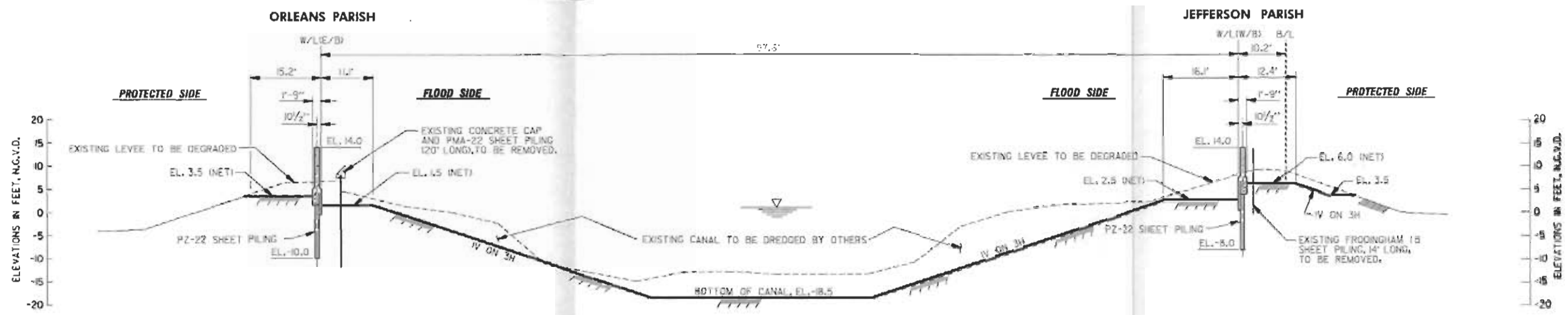


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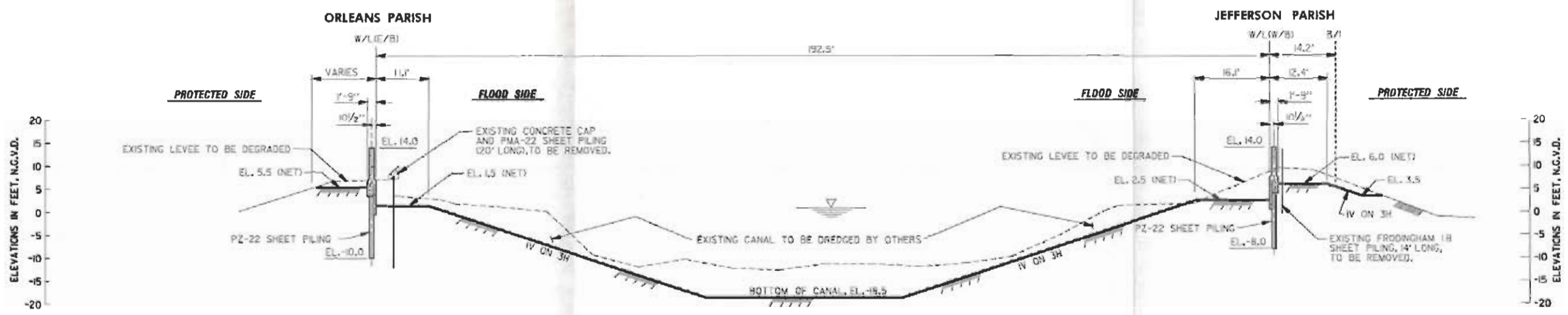


**COMPUTER
AIDED
DESIGN
DRAFTING**

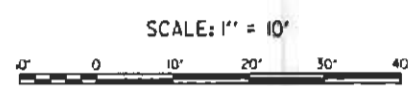
LAKE BOUTCHARTRAUD LA AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17TH STREET OUTFALL CANAL
(MORTARIS RELIEF)
TYPICAL SECTIONS
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
DATE: MARCH 1990 FILE NO. H-2-30300



TYPICAL SECTION
VICINITY STA. 15+40.00 WL (E/B) AND STA. 10+85.00 WL (W/B)

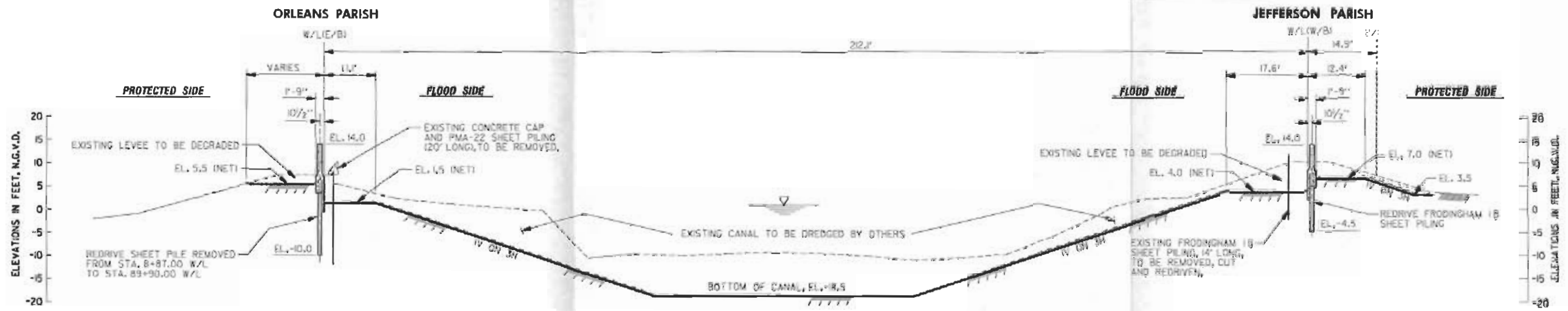


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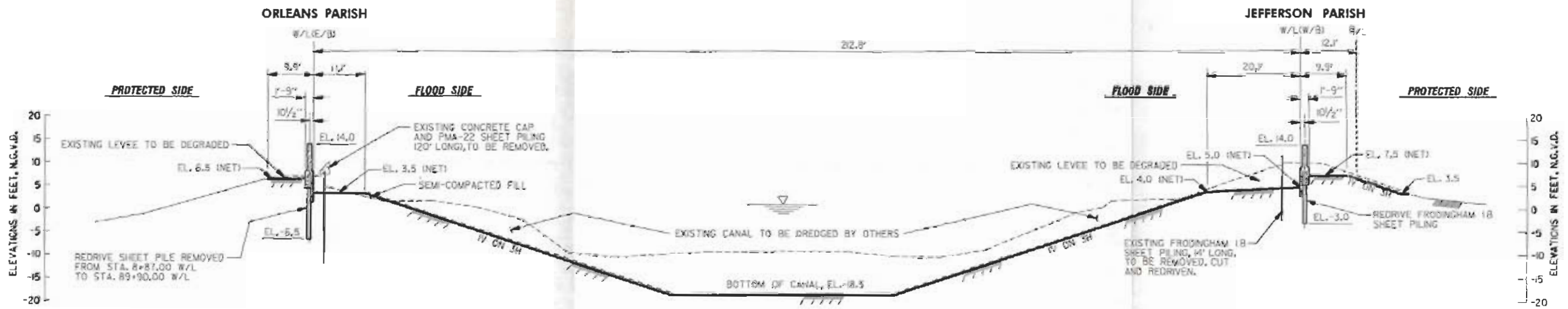


COMPUTER
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 DESIGN
 DRAFTING

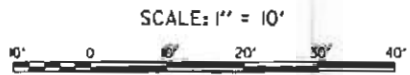
LAKE PONTCHARTRAIN, LA AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METABOLIC RELIEF)
TYPICAL SECTIONS
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1990 FILE NO. H-2-30300



TYPICAL SECTION
VICINITY STA. 67+10.00 W/L (E/B) AND STA. 62+85.00 W/L (W/B)

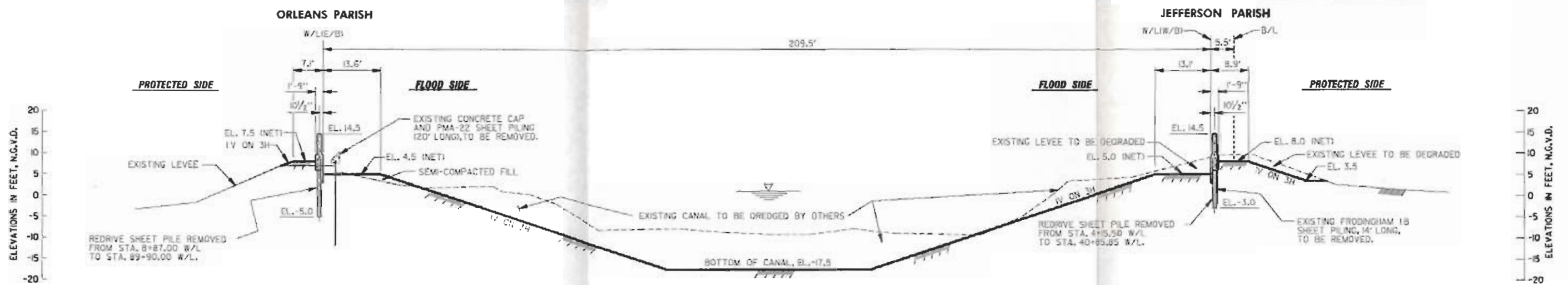


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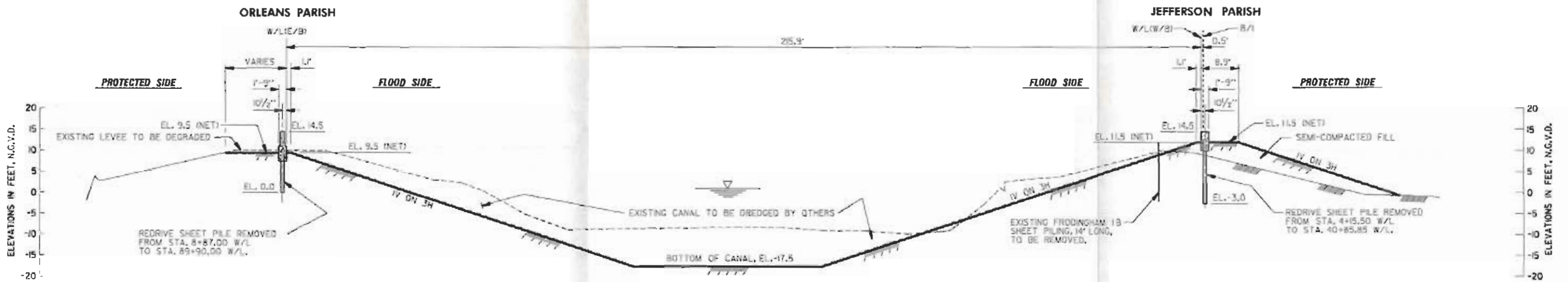


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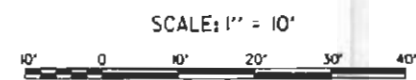
LAKE FORTCHARLES, LA AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET (47TH A.D.) CANAL
 (MONTAIGNE RELIEF)
TYPICAL SECTIONS
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1989 FILE NO. H-2-30306



TYPICAL SECTION
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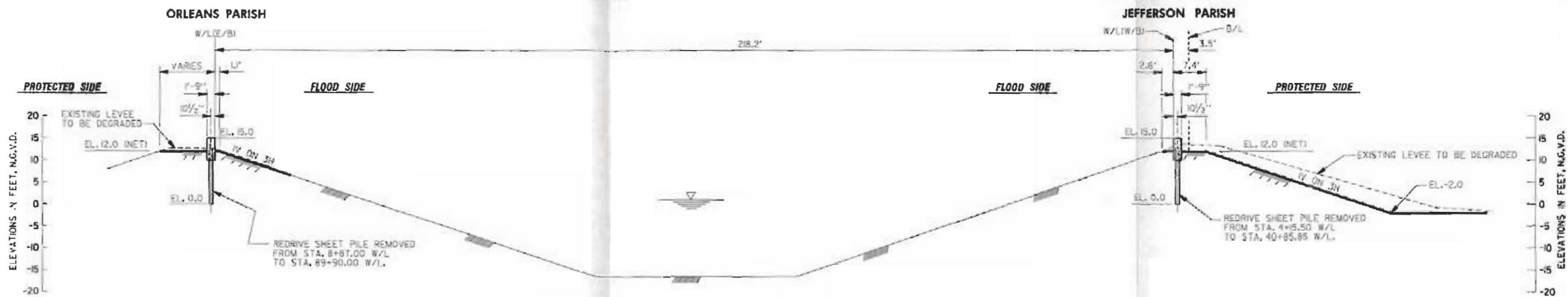


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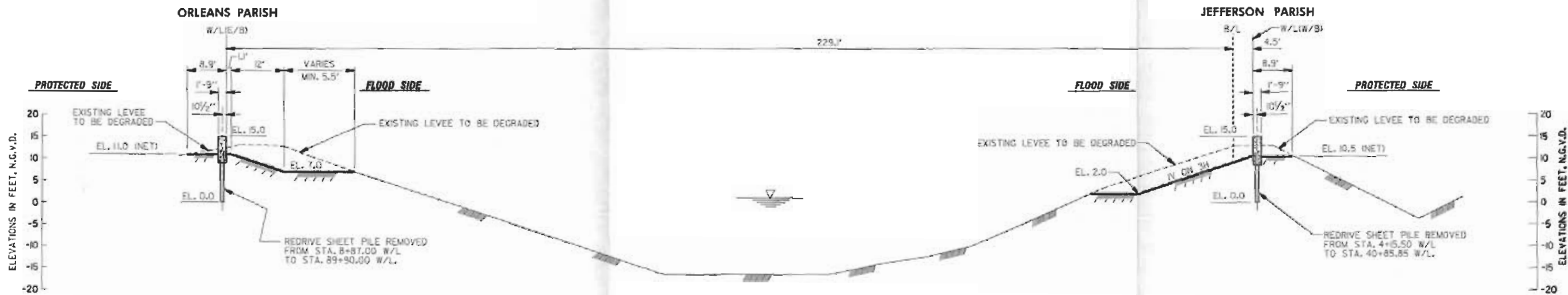


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 DESIGN
 DRAFTING

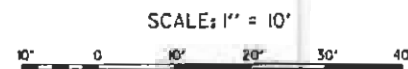
LAKE FORTCHARTRAIN, LA AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METABRIE RELIEF)
TYPICAL SECTIONS
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE MARCH 1990 FILE NO. H-2-30300



TYPICAL SECTION
VICINITY STA. 103+30.00 WL (EB) AND STA. 98+90.00 WL (WB)

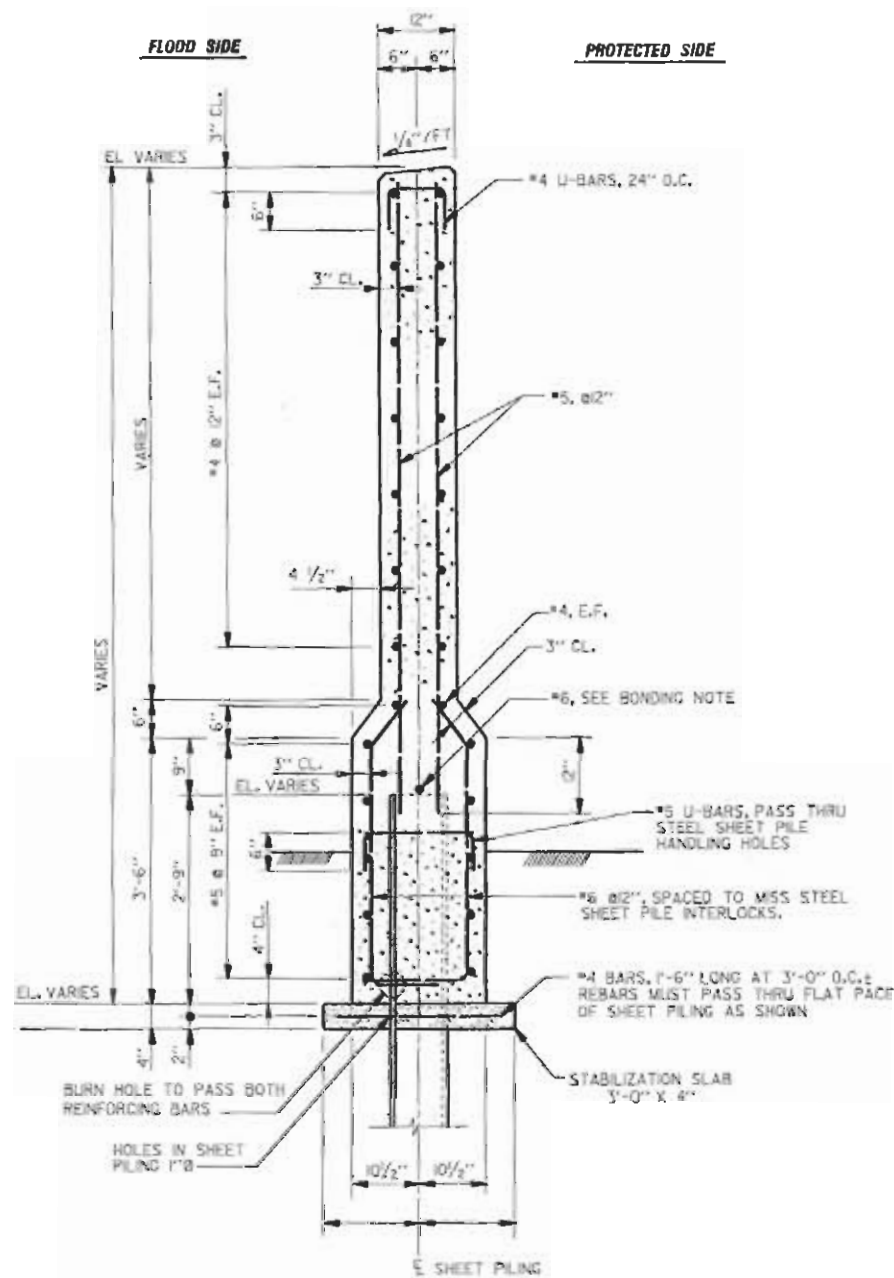


TYPICAL SECTION
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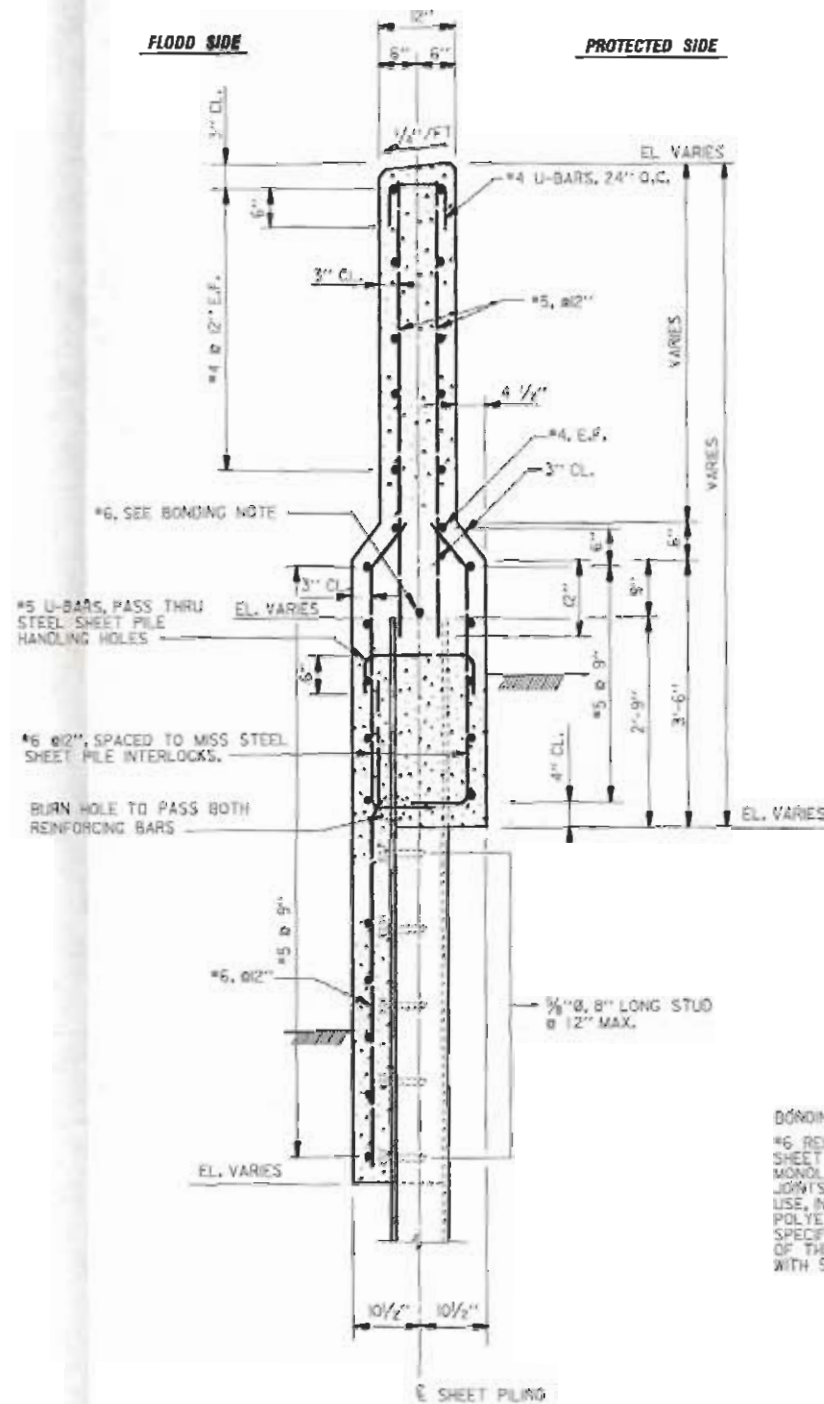


COMPUTER
 AIDED
 DESIGN
 DRAFTING

LAKE PONCHARTRAIN, LA. AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METAIRIE RELIEF)
TYPICAL SECTIONS
 U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: MARCH 1946 FILE NO: H-2-30300



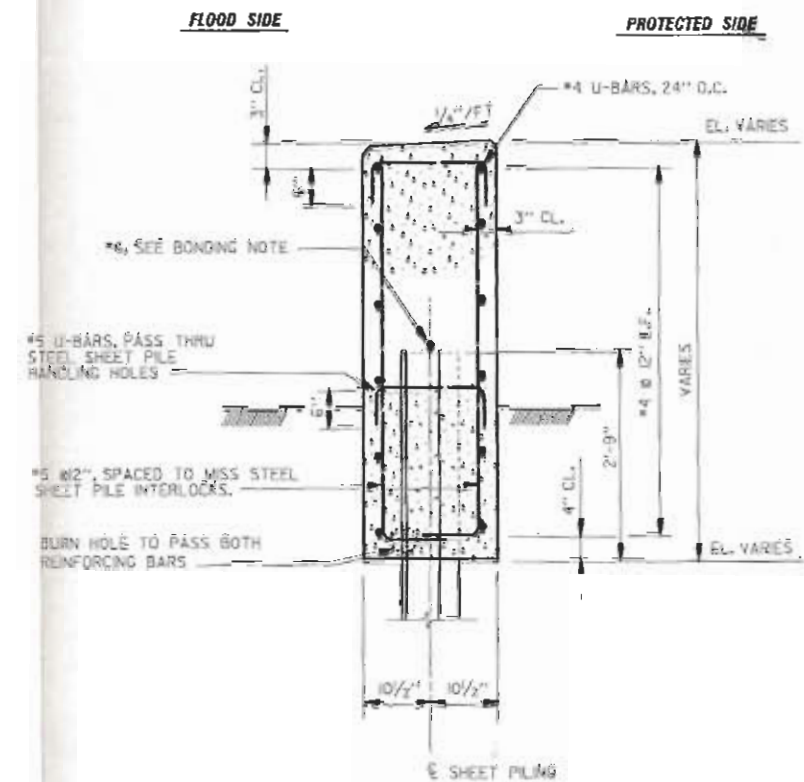
TYPICAL I-WALL SECTION
SCALE: 1" = 1'-0"



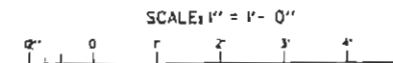
TYPICAL I-WALL SECTION
SCALE: 1" = 1'-0"

BONDING NOTE:

#6 REINFORCING BAR SHALL BE WELDED ACROSS THE TOP OF EACH SHEET PILE. #6 REINFORCING BAR SHALL NOT EXTEND ACROSS THE MONOLITH JOINT. INSTALL FLEXIBLE JUMPER AT ALL MONOLITH JOINTS. JUMPERS SHALL BE INSULATED NO. 1/0 AWG COPPER TYPE USE, INSULATED WITH A MINIMUM OF 95 MILS OF CROSS LINKED POLYETHYLENE IN A 8" DIA. LOOP. JUMPERS SHALL BE WELDED AS SPECIFIED TO ADJACENT STEEL SHEET PILES 3" BELOW THE BOTTOM OF THE CONCRETE CAP. WELDED CONNECTIONS SHALL BE COATED WITH SPLICING EPOXY TO OBTAIN MOISTURE PROOF JOINTS.



TYPICAL I-WALL SECTION
SCALE: 1" = 1'-0"



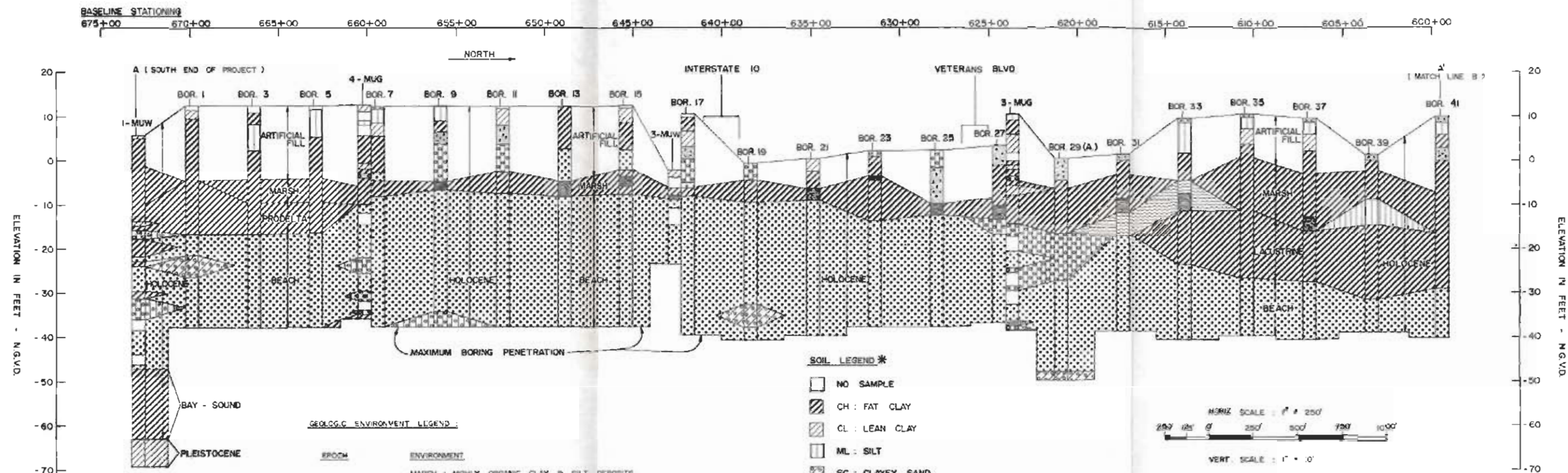
COMPUTER
AIDED
DESIGN
DRAFTING

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17TH STREET OUTFALL CANAL
(NORTH/SOUTH RELIEF)

TYPICAL WALL SECTIONS

U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MADE BY ENGINEERS
DATE: MARCH 1988 FILE NO. H-2-30300

17TH STREET OUTFALL CANAL - WEST LEVEE (SOUTHERN HALF)



LAKE PONTCHARTRAIN, LA. AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
 ORLEANS PARISH & JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METABOLIC RELIEF)

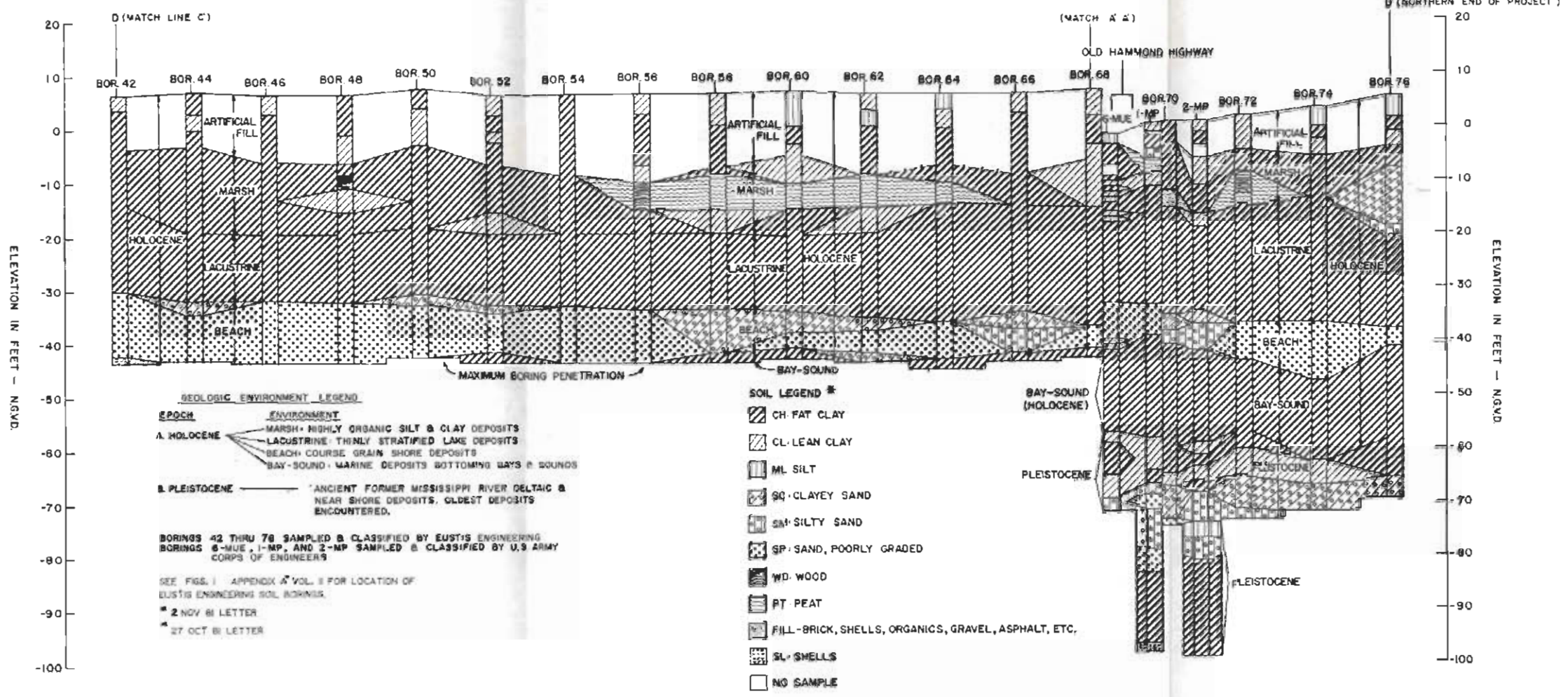
SOIL AND GEOLOGICAL PLATE

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: March 1980 FILE NO. H-2-30300

17TH STREET OUTFALL CANAL - EAST LEGE (NORTHERN HALF)

BASELINE STATIONING
 600+00 595+00 590+00 585+00 580+00 575+00 570+00 565+00 560+00 555+00 550+00 545+00 540+00

NORTH



GEOLOGIC ENVIRONMENT LEGEND

EPOCH	ENVIRONMENT
A. HOLOCENE	MARSH - HIGHLY ORGANIC SILT & CLAY DEPOSITS
	LACUSTRINE - THINLY STRATIFIED LAKE DEPOSITS
	BEACH - COURSE GRAIN SHORE DEPOSITS
	BAY-SOUND - MARINE DEPOSITS BOTTOMING BAYS & BOUNDS
B. PLEISTOCENE	ANCIENT FORMER MISSISSIPPI RIVER DELTAIC & NEAR SHORE DEPOSITS, OLDEST DEPOSITS ENCOUNTERED.

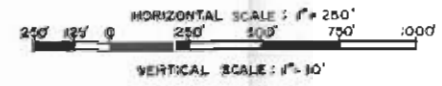
BORINGS 42 THRU 78 SAMPLED & CLASSIFIED BY EUSTIS ENGINEERING
 BORINGS 6-MUE, 1-MP, AND 2-MP SAMPLED & CLASSIFIED BY U.S. ARMY CORPS OF ENGINEERS

SEE FIGS. 1 APPENDIX A VOL. 3 FOR LOCATION OF EUSTIS ENGINEERING SOIL BORINGS.
 * 2 NOV 81 LETTER
 * 27 OCT 81 LETTER

SOIL LEGEND *

- CH - FAT CLAY
- CL - CLEAN CLAY
- ML - SILT
- SQ - CLAYEY SAND
- SM - SILTY SAND
- SP - SAND, POORLY GRADED
- WD - WOOD
- PT - PEAT
- FILL - BRICK, SHELLS, ORGANICS, GRAVEL, ASPHALT, ETC.
- SL - SHELLS
- NO SAMPLE

* EUSTIS ENGINEERING COMBINED SOIL SYMBOLS WERE MODIFIED TO ACCOMMODATE THE PREDOMINANT SOIL TYPE

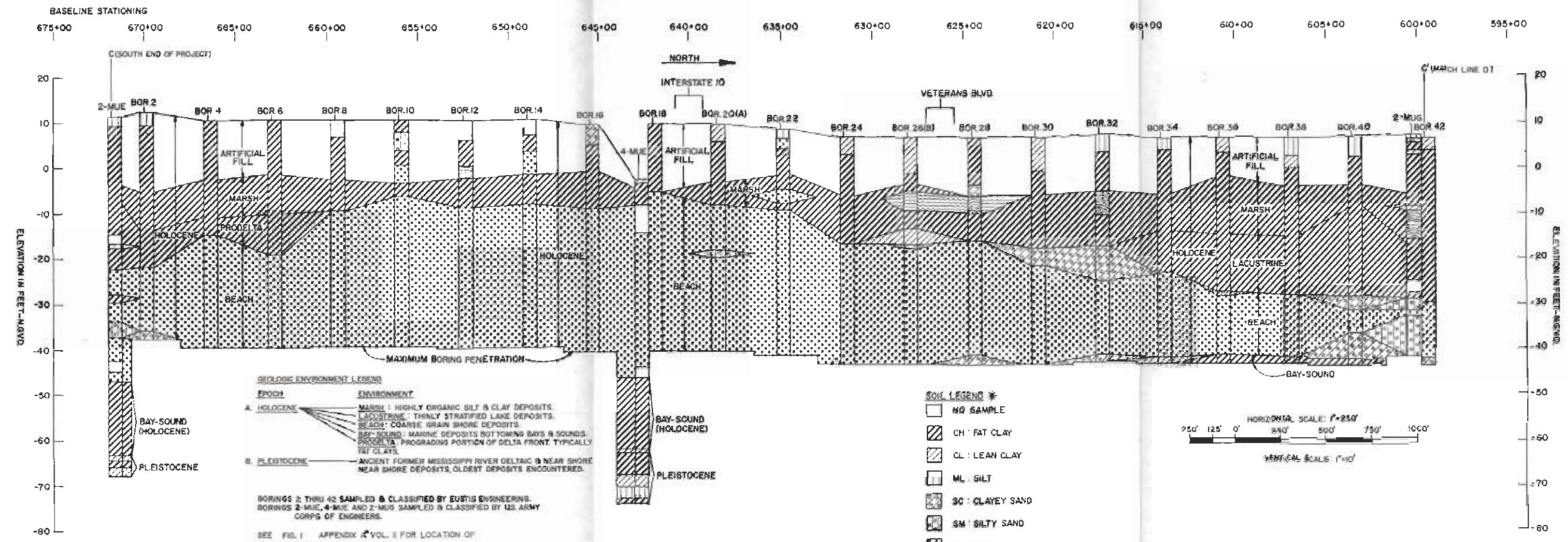


LAKE PONTCHARTRAIN, LA. AND VICINITY
 HIGH LEVEL PLAN
 DESIGN MEMORANDUM NO. 30 GENERAL DESIGN
 ORLEANS PARISH - JEFFERSON PARISH
 17TH STREET OUTFALL CANAL
 (METAIRIE RELIEF)

SOIL AND GEOLOGICAL PLATE

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 DATE: March 1980 FILE NO: H-2-20300

17 TH STREET OUTFALL CANAL - EAST LEVEE (SOUTHERN HALF)



GEOLOGIC ENVIRONMENT LEGEND

EPOCH	ENVIRONMENT
A. HOLOCENE	MARSH: HIGHLY ORGANIC SILT & CLAY DEPOSITS. LACUSTRINE: THINLY STRATIFIED LAKE DEPOSITS. BEACH: COARSE GRAIN SHORE DEPOSITS. BAY-SOUND: MARINE DEPOSITS BOTTOMING BAYS & SOUNDS. PRODELTA: PROGRADING PORTION OF DELTA FRONT, TYPICALLY FAT CLAYS.
B. PLEISTOCENE	ANCIENT FORMER MISSISSIPPI RIVER DELTAIC & NEAR SHORE NEAR SHORE DEPOSITS, OLDEST DEPOSITS ENCOUNTERED.

BORINGS 2 THRU 42 SAMPLED & CLASSIFIED BY EUSTIS ENGINEERING.
BORINGS 2-MUG, 4-MUG AND 2-MUG SAMPLED & CLASSIFIED BY U.S. ARMY CORPS OF ENGINEERS.

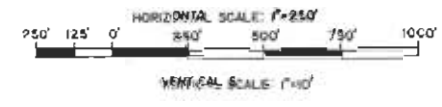
SEE FIG. 1 APPENDIX A VOL. 1 FOR LOCATION OF EUSTIS ENGINEERING SOIL BORINGS.
A - 2 NOV 88 LETTER

- SOIL LEGEND ***
- NO SAMPLE
 - ▨ CH: FAT CLAY
 - ▩ CL: LEAN CLAY
 - ▧ ML: SILT
 - ▦ SC: CLAYEY SAND
 - ▥ SM: SILTY SAND
 - ▤ SP: SAND, POORLY GRADED
 - ▣ WD: WOOD
 - ▢ PT: PEAT
 - FILL- BRICK, SHELL, ORGANICS, ETC -ARTIFICIALLY PLACED
 - SL: SHELLS

* EUSTIS ENGINEERING COMBINED SOIL SYMBOLS WERE MODIFIED TO ACCOMMODATE THE PREDOMINANT SOIL TYPE AND THE APPROPRIATE UNIFIED SOIL CLASSIFICATION SYMBOL.

A. BOR. 20 - SIEVE ANALYSIS INDICATED SM AT DEPTHS OF 28.5' TO 30.0'. THE SP SYMBOL WAS CHANGED TO ACCOMMODATE THE DATA.

B. BOR. 26 - SIEVE ANALYSIS INDICATED SM AT DEPTHS OF 23.5' TO 25.0'. THE SP SYMBOL WAS CHANGED TO ACCOMMODATE THE DATA.



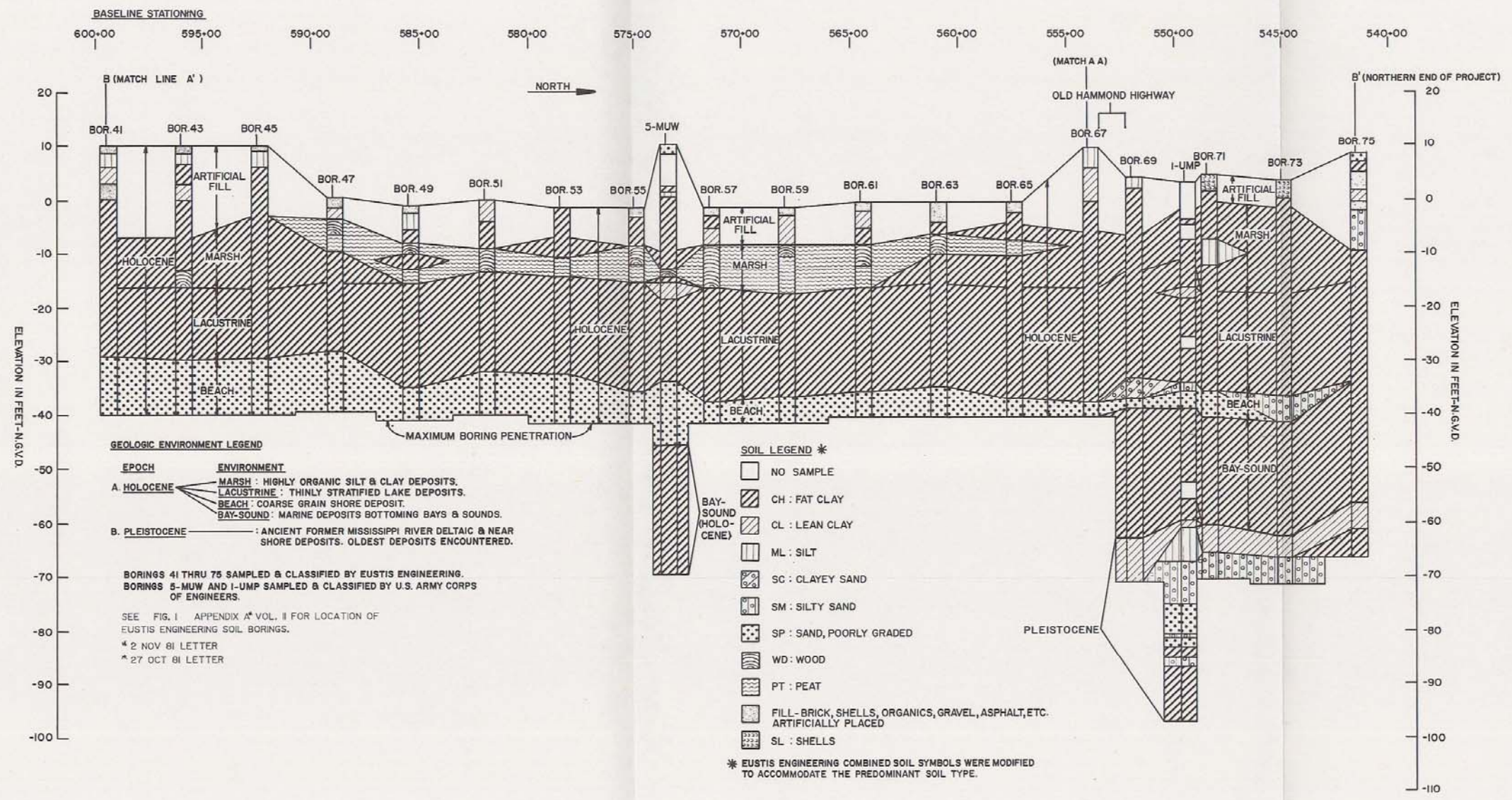
LAKE PONCHARTRAIN, LA. 200 MILENIT
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 20 - GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17 TH STREET OUTFALL CANAL
(METABOLIC RELIEF)

SOIL AND GEOLOGICAL PLATE

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

DATE: March 1990 FILE NO. H-2-30300

17 TH STREET OUTFALL CANAL - WEST LEVEE (NORTHERN HALF)



GEOLOGIC ENVIRONMENT LEGEND

EPOCH	ENVIRONMENT
A HOLOCENE	MARSH : HIGHLY ORGANIC SILT & CLAY DEPOSITS. LACUSTRINE : THINLY STRATIFIED LAKE DEPOSITS. BEACH : COARSE GRAIN SHORE DEPOSIT. BAY-SOUND : MARINE DEPOSITS BOTTOMING BAYS & SOUNDS.
B. PLEISTOCENE	: ANCIENT FORMER MISSISSIPPI RIVER DELTAIC & NEAR SHORE DEPOSITS. OLDEST DEPOSITS ENCOUNTERED.

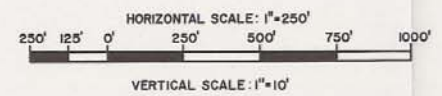
BORINGS 41 THRU 75 SAMPLED & CLASSIFIED BY EUSTIS ENGINEERING.
BORINGS 5-MUW AND I-UMP SAMPLED & CLASSIFIED BY U.S. ARMY CORPS OF ENGINEERS.

SEE FIG. 1 APPENDIX A VOL. II FOR LOCATION OF EUSTIS ENGINEERING SOIL BORINGS.
* 2 NOV 81 LETTER
^ 27 OCT 81 LETTER

SOIL LEGEND *

- NO SAMPLE
- ▨ CH : FAT CLAY
- ▩ CL : LEAN CLAY
- ▧ ML : SILT
- ▦ SC : CLAYEY SAND
- ▥ SM : SILTY SAND
- ▤ SP : SAND, POORLY GRADED
- ▣ WD : WOOD
- ▢ PT : PEAT
- FILL - BRICK, SHELLS, ORGANICS, GRAVEL, ASPHALT, ETC. ARTIFICIALLY PLACED
- SL : SHELLS

* EUSTIS ENGINEERING COMBINED SOIL SYMBOLS WERE MODIFIED TO ACCOMMODATE THE PREDOMINANT SOIL TYPE.

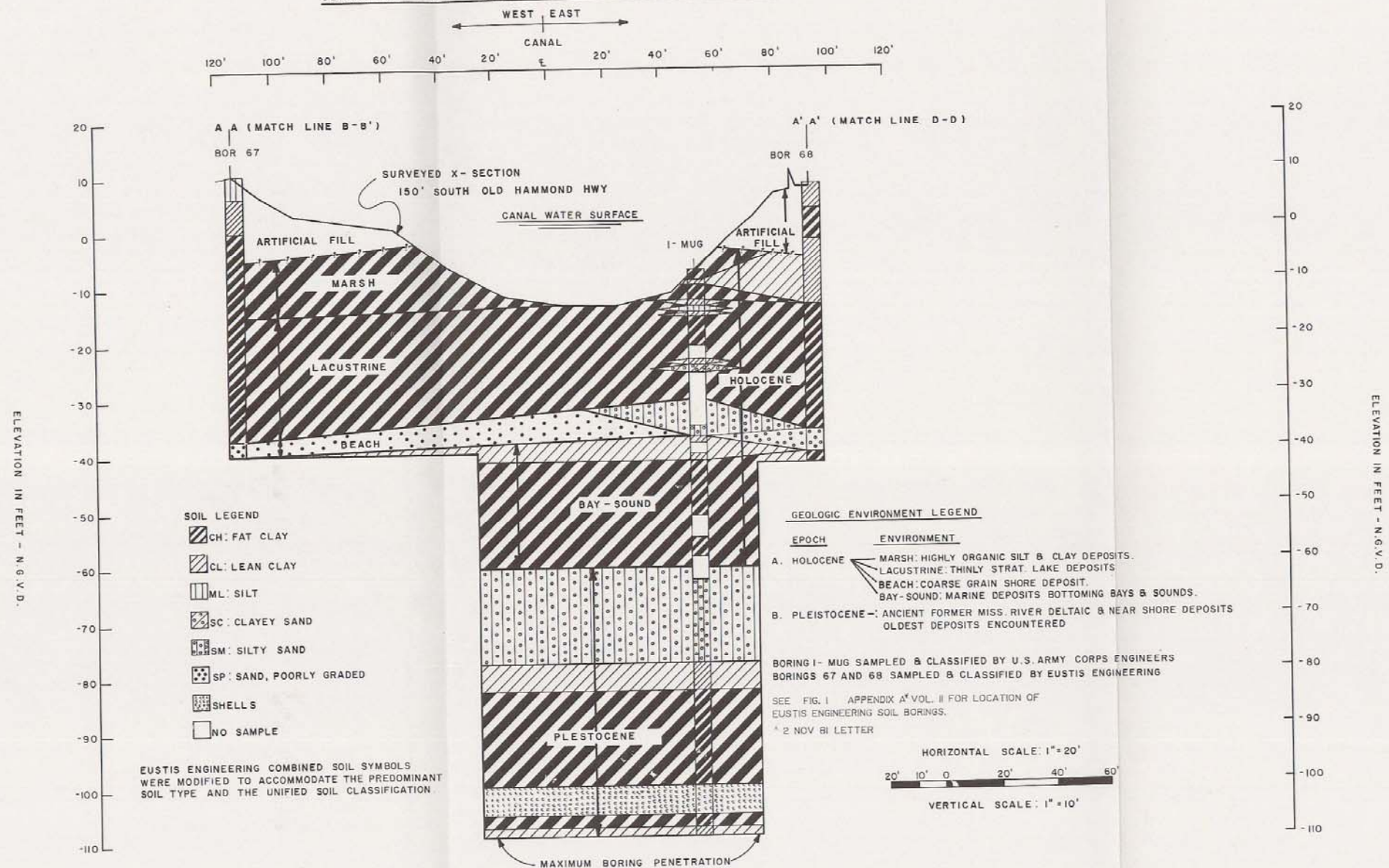


LAKE PONTCHARTRAIN, LA AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17 TH. STREET OUTFALL CANAL
(METAIRIE RELIEF)

SOIL AND GEOLOGICAL PLATE

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
DATE: MARCH 1990 FILE NO. H-2-30300

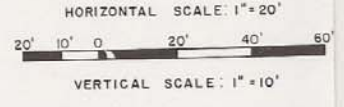
SEVENTEENTH STREET OUTFALL CANAL APPROXIMATE STATION 554+00



- SOIL LEGEND**
- CH: FAT CLAY
 - CL: LEAN CLAY
 - ML: SILT
 - SC: CLAYEY SAND
 - SM: SILTY SAND
 - SP: SAND, POORLY GRADED
 - SHELLS
 - NO SAMPLE

EUSTIS ENGINEERING COMBINED SOIL SYMBOLS WERE MODIFIED TO ACCOMMODATE THE PREDOMINANT SOIL TYPE AND THE UNIFIED SOIL CLASSIFICATION

- GEOLOGIC ENVIRONMENT LEGEND**
- | | |
|----------------|--|
| EPOCH | ENVIRONMENT |
| A. HOLOCENE | MARSH: HIGHLY ORGANIC SILT & CLAY DEPOSITS. |
| | LACUSTRINE: THINLY STRAT. LAKE DEPOSITS. |
| | BEACH: COARSE GRAIN SHORE DEPOSIT. |
| | BAY-SOUND: MARINE DEPOSITS BOTTOMING BAYS & SOUNDS. |
| B. PLEISTOCENE | ANCIENT FORMER MISS. RIVER DELTAIC & NEAR SHORE DEPOSITS OLDEST DEPOSITS ENCOUNTERED |
- BORING I-MUG SAMPLED & CLASSIFIED BY U.S. ARMY CORPS ENGINEERS
BORINGS 67 AND 68 SAMPLED & CLASSIFIED BY EUSTIS ENGINEERING
- SEE FIG. 1 APPENDIX A' VOL. II FOR LOCATION OF EUSTIS ENGINEERING SOIL BORINGS.
- 2 NOV 61 LETTER



LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
DESIGN MEMORANDUM NO. 20 GENERAL DESIGN
ORLEANS PARISH - JEFFERSON PARISH
17 TH. STREET OUTFALL CANAL
(METAIRIE RELIEF)

SOIL AND GEOLOGICAL PLATE

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

DATE: MARCH 1990 FILE NO. H-2-30300