

PLANS FOR  
LAKE PONTCHARTRAIN, LA.,  
AND VICINITY  
HURRICANE PROTECTION  
ORLEANS PARISH, LOUISIANA

*AS BUILT DRAWING*

**I. H. N. C. EAST AND WEST LEVEE  
AND CITRUS BACK LEVEE  
CAPPING FLOODWALL**

*Safety is a Part  
of Your Contract*

VALUE  
INCENTIVE  
CLAUSE  
ENGINEERING  
YOUR KEY TO  
HIGHER PROFITS



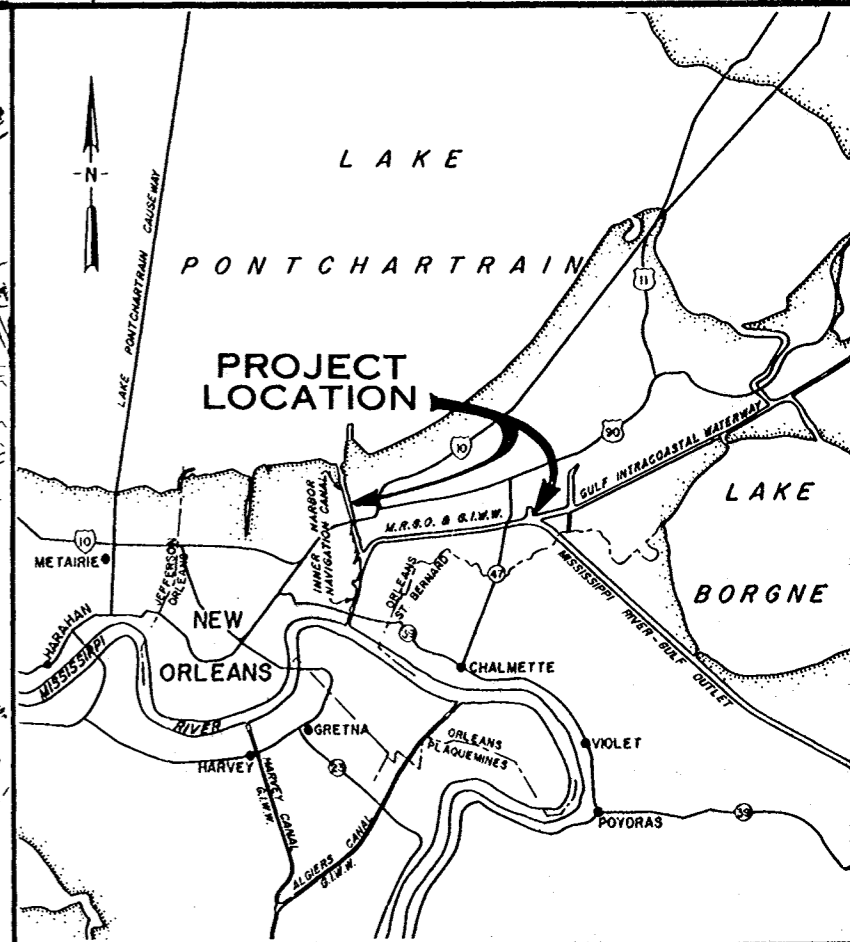
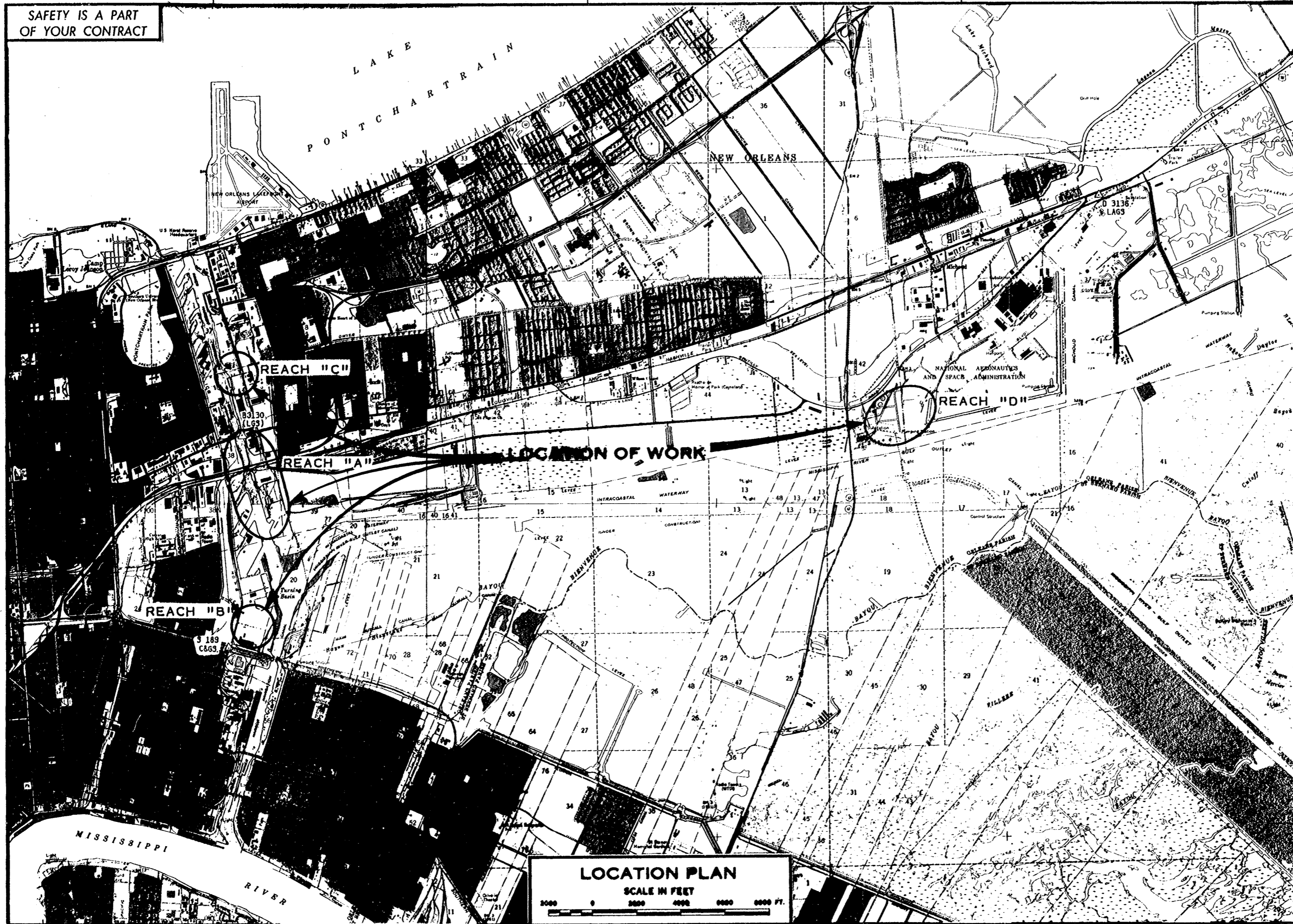
**US Army Corps  
of Engineers**

New Orleans District

1983

NOTE:  
DRAWINGS IN THIS FOLIO  
HAVE BEEN REDUCED ONE  
HALF THE ORIGINAL SCALE

SAFETY IS A PART OF YOUR CONTRACT



VICINITY MAP  
SCALE IN MILES

INDEX TO DRAWINGS

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1	LOCATION PLAN, VICINITY MAP, AND INDEX TO DRAWINGS
2	PLAN AND PROFILE-REACH "A"
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6	REACH "B"-TYPICAL SECTIONS AND WALL JOINTS
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8	TYPICAL DETAILS
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LOCATION PLAN  
SCALE IN FEET

BENCH MARK DESCRIPTION			BENCH MARK DESCRIPTION		
DESIGNATION	DESCRIPTION	ELEV. N.G.V.D.	DESIGNATION	DESCRIPTION	ELEV. N.G.V.D.
3 189 (C&GS)	AT NEW ORLEANS, AT THE INTERSECTION OF FLORIDA AVENUE AND FRANCE STREET, SET IN THE SOUTH END OF THE WEST CONCRETE ABUTMENT OF THE GULF, MOBILE AND OHIO RAILROAD BRIDGE OVER A CANAL, 87 FEET NORTH OF THE CENTER LINE OF FLORIDA AVENUE, 4.5 FEET EAST OF THE EAST RAIL AND ABOUT LEVEL WITH FLORIDA AVENUE.	2.789'	8 3130 (LGS)	AT NEW ORLEANS, IN THE NORTHEAST PART OF THE CITY, SET ON THE TOP OF THE WEST END OF THE NORTH PEDESTRIAN WALK ACROSS THE U.S. 90 BRIDGE OVER THE INNER HARBOR NAVIGATION CANAL, 4.4 FEET NORTH OF THE NORTH CURB OF THE BRIDGE, 1.2 FEET EAST OF THE WEST END OF THE WALKWAY AND 1 FOOT ABOVE THE BRIDGE FLOOR.	18.487'
			0 3136 LAGS	6.9 MILES ALONG U.S. HWY. 90 FROM THE INTERSTATE HWY. 10 OVERPASS, ALSO 1.85 MILES EAST ALONG U.S. HWY. 90, THENCE 3.55 MILES SOUTH-EAST ALONG GENTILLY ROAD, 0.1 MILE EAST ALONG U.S. HWY. 90 FROM THE JUNCTION OF GENTILLY ROAD, 136 FEET SOUTH OF THE CENTER LINE OF THE EAST BOUND LANES OF THE HIGHWAY, 25.5 FEET NORTH OF THE CENTER LINE OF AN ABANDONED PAVED ROAD, 103 FEET NORTHEAST AND ACROSS THE ROAD FROM A JUNCTION POWER LINE POLE WITH ONE GUY WIRE, NUMBER 246C3/310. A 0.13X SET IN THE TOP OF A CONCRETE POST PROJECTING 8 INCHES, ABOUT LEVEL WITH HWY.	2.467'

REVISION	DATE	DESCRIPTION	BY

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

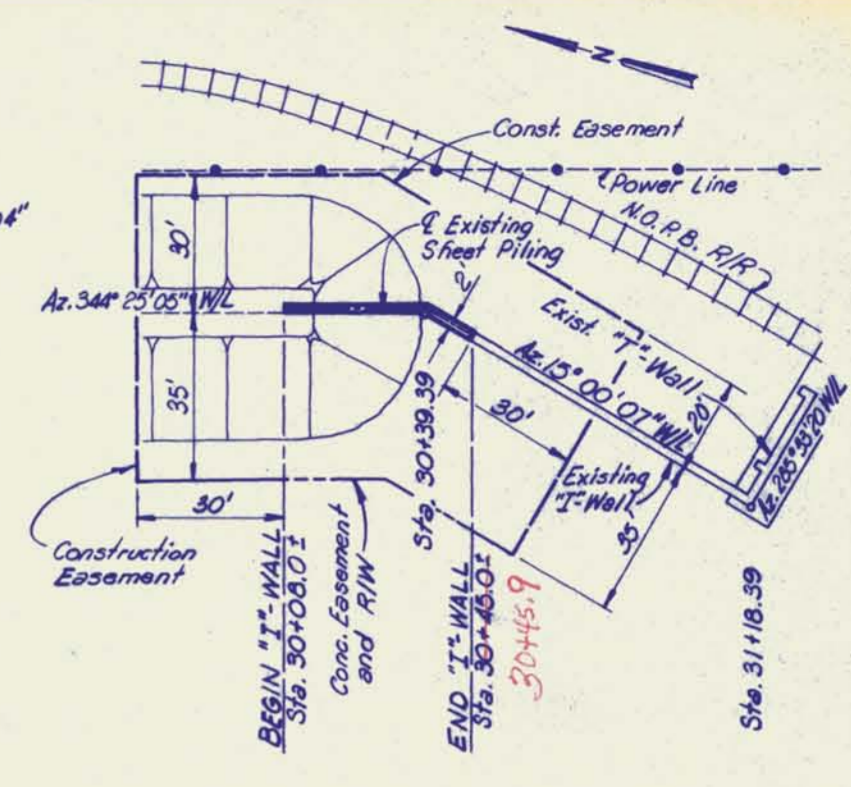
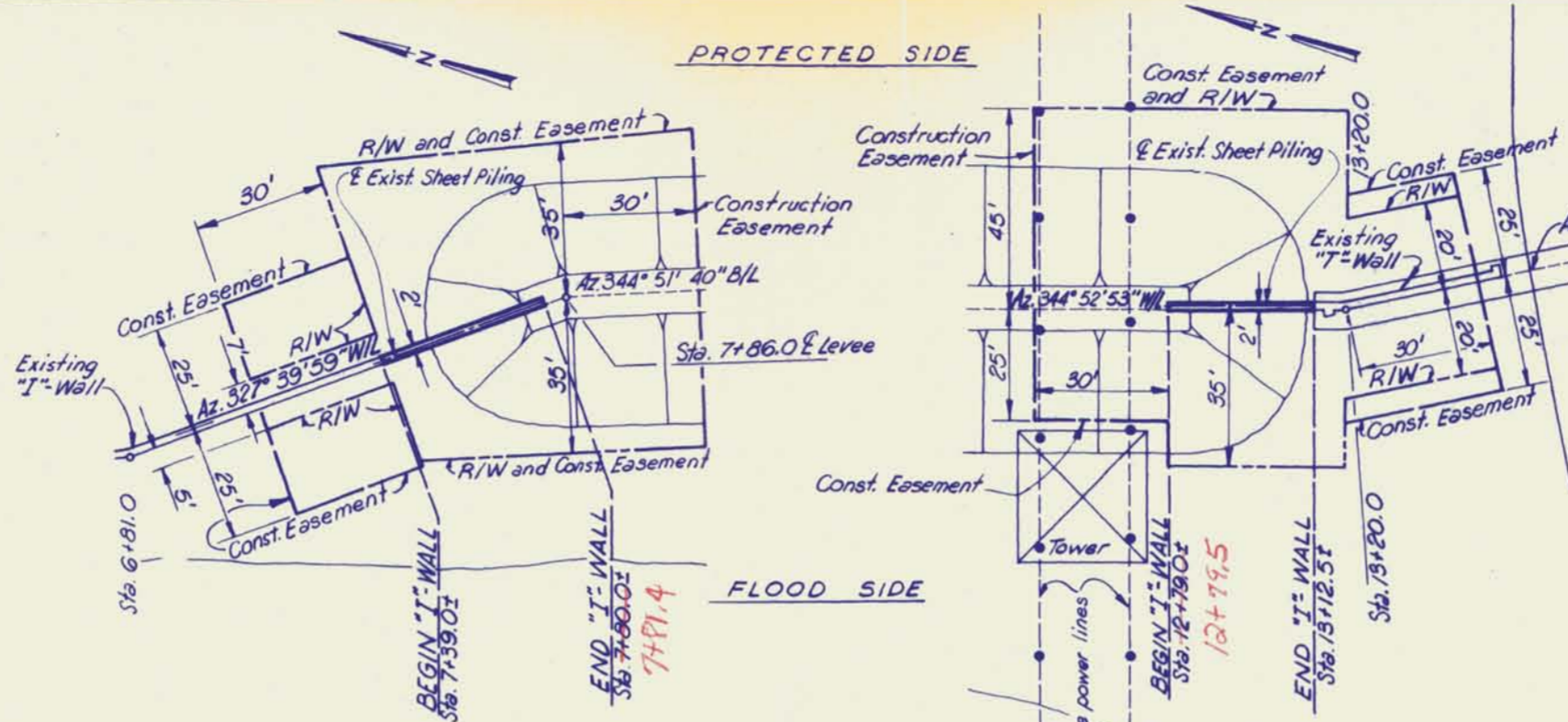
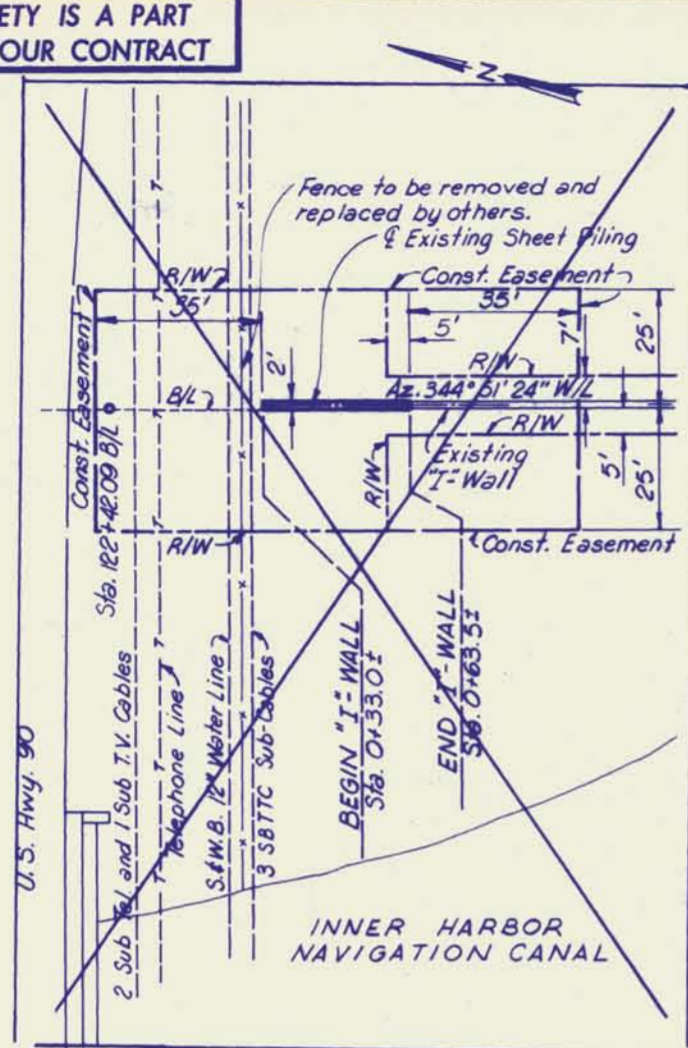
ORLEANS PARISH, LOUISIANA  
**LOCATION PLAN, VICINITY MAP,  
AND INDEX TO DRAWINGS**

DESIGNED: B.H.D. DRAWN: B.H.D. CHECKED: J.A.R. DATE: MARCH 1983 SCALE: AS SHOWN FILE NO.: H-4-29518

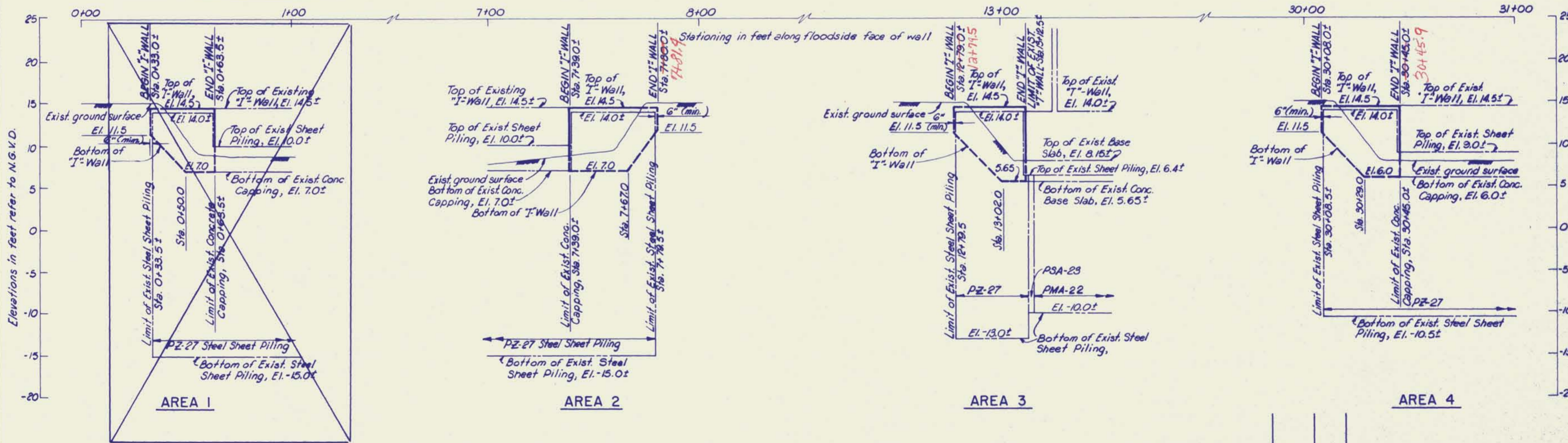
SUBMITTED: Carl E. Buggenheimer SPEC NO.: DACW29-83-R-0056 DWG 1 OF 11



**SAFETY IS A PART OF YOUR CONTRACT**



**PLAN**  
SCALE: 1" = 20'



**PROFILE**  
SCALE: 1" = 5' Vert.  
1" = 20' Horiz.

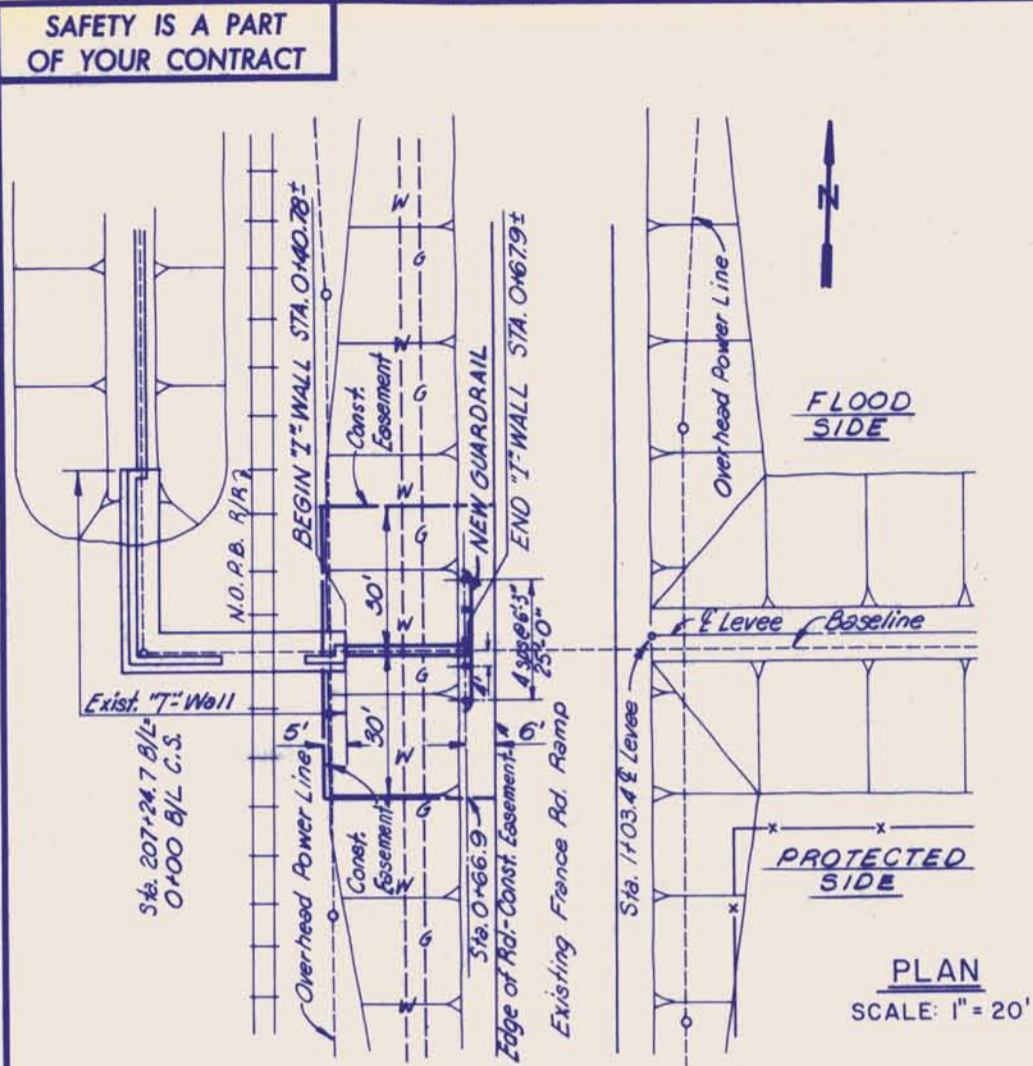
- NOTES:**
- ALL STATIONS (UNLESS OTHERWISE NOTED) REFER TO WALL LINE STATIONING IN FEET ALONG FLOOD SIDE FACE OF WALL.
  - FOR GENERAL NOTES, SEE DWG. 5.

**REACH "A" - I.H.N.C., EAST LEVEE**  
**U.S. HWY. 90 TO M.R.G.O.**

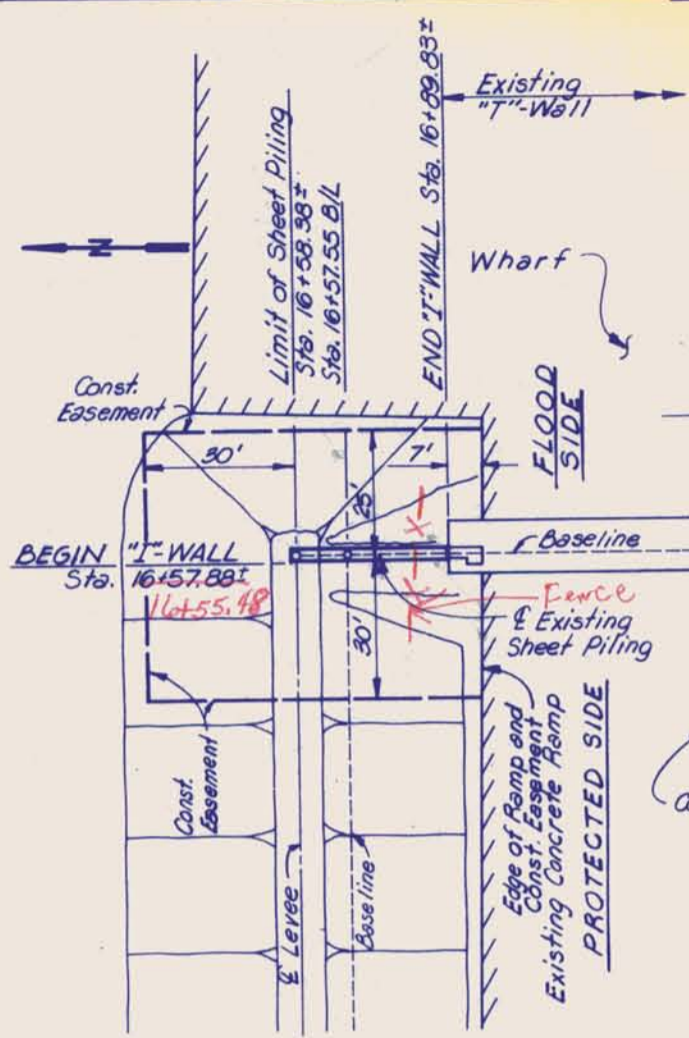
REVISION	DATE	DESCRIPTION	BY
<p><b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS</b> CORPS OF ENGINEERS NEW ORLEANS, LA.</p> <p>LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL - EAST AND WEST LEVEE AND CITRUS BACK LEVEE - PARIS RD. THRU N.O.P.S.I. REACH "A" - I.H.N.C., EAST LEVEE - U.S. HWY. 90 TO M.R.G.O. CAPPING FLOODWALL ORLEANS PARISH, LOUISIANA</p> <p><b>PLAN AND PROFILE</b></p>			
DESIGNED BY	B.H.D.	DRAWN BY	B.H.D.
CHECKED BY	J.A.R.	DATE	MARCH 1983
SCALE	AS SHOWN	FILE NO.	H-4-29518
SUBMITTED BY	Carl R. Bopp	SPEC. NO.	DACW29-83-R-0056
DATE	MARCH 1983	SHEET	2 OF 11



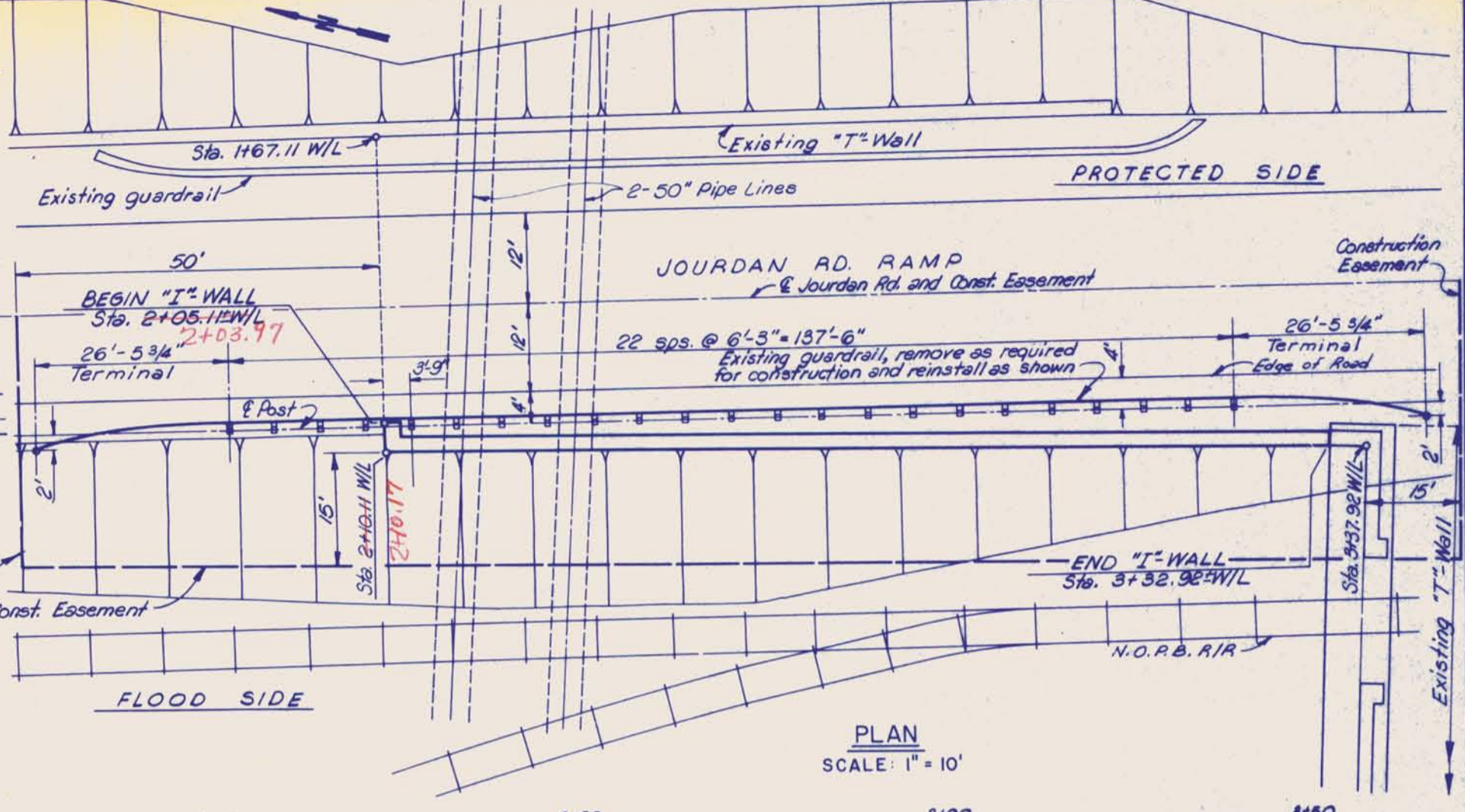
**SAFETY IS A PART OF YOUR CONTRACT**



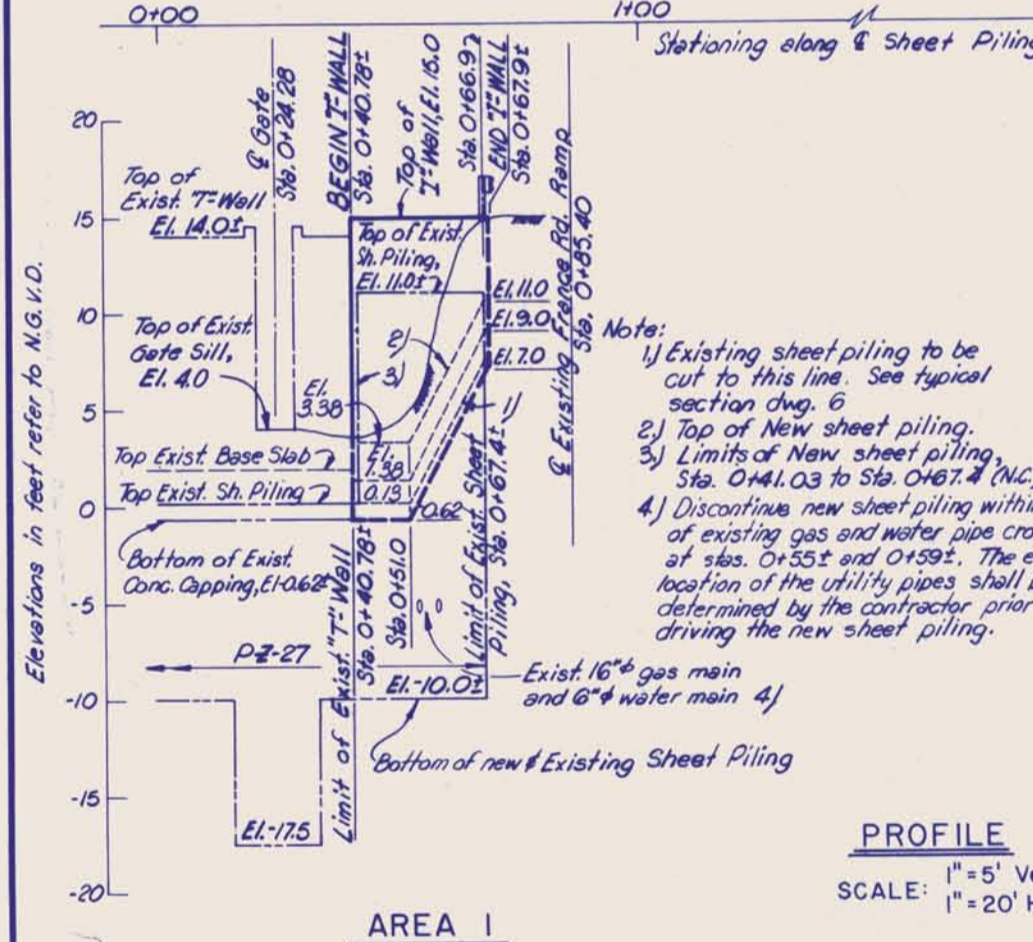
**PLAN**  
SCALE: 1" = 20'



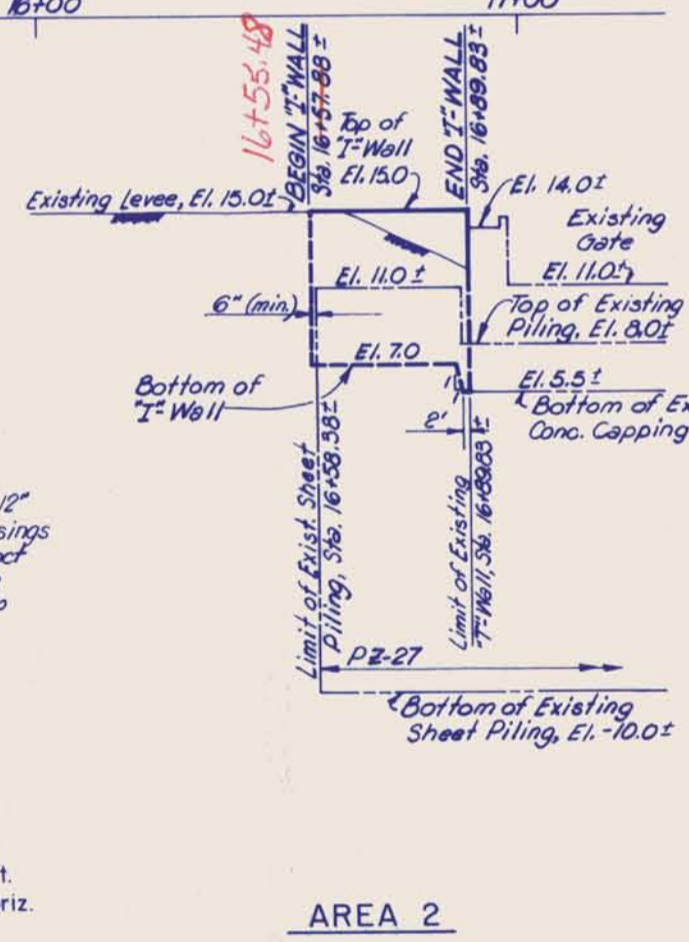
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SCALE: 1" = 10'



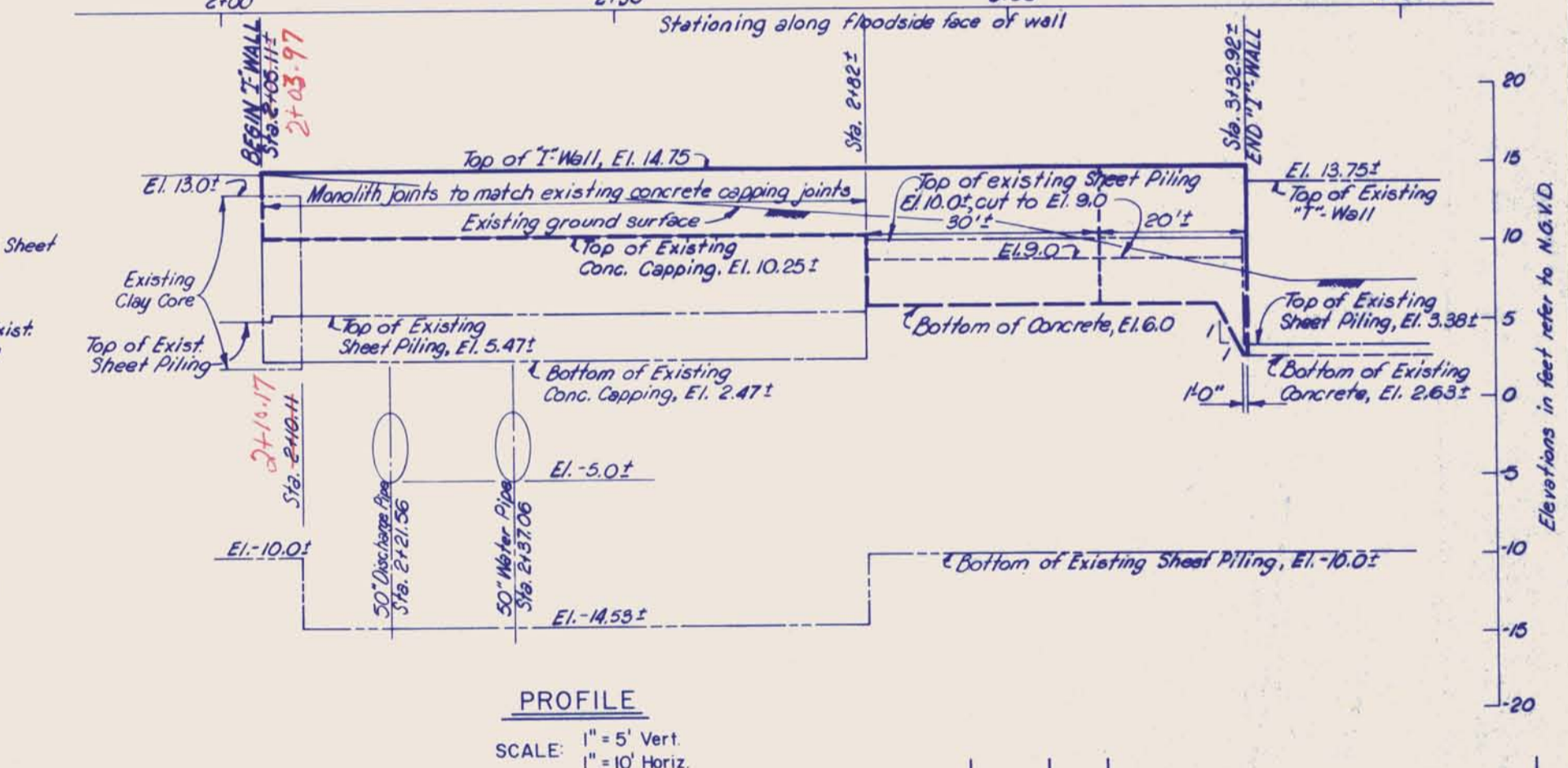
**PLAN**  
SCALE: 1" = 10'



**PROFILE**  
SCALE: 1" = 5' Vert.  
1" = 20' Horiz.



**PROFILE**  
SCALE: 1" = 5' Vert.  
1" = 20' Horiz.



**PROFILE**  
SCALE: 1" = 5' Vert.  
1" = 10' Horiz.

**REACH "B" - I.H.N.C., WEST LEVEE  
VICINITY FLA. AVE. CONTAINER PLANT**

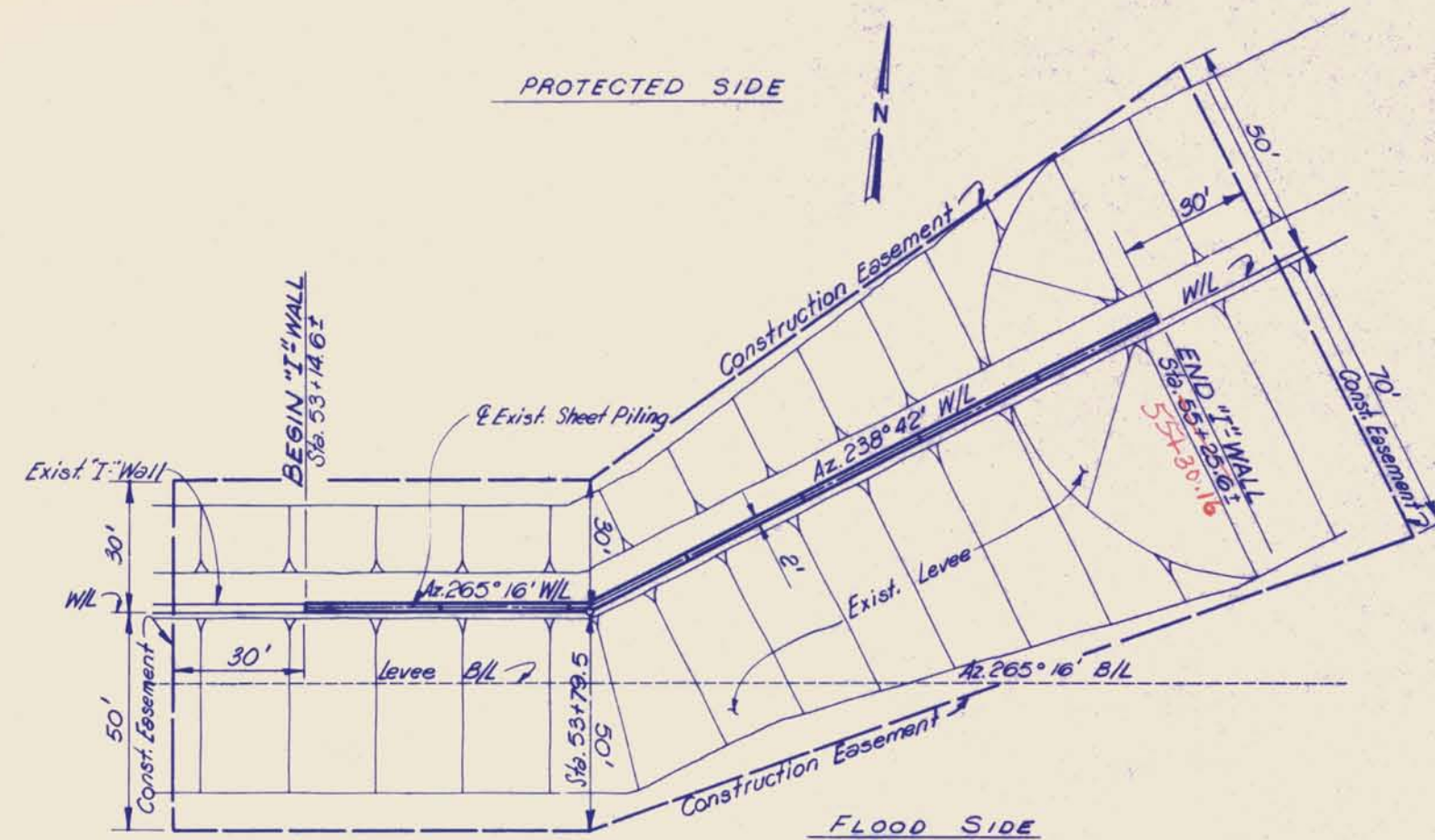
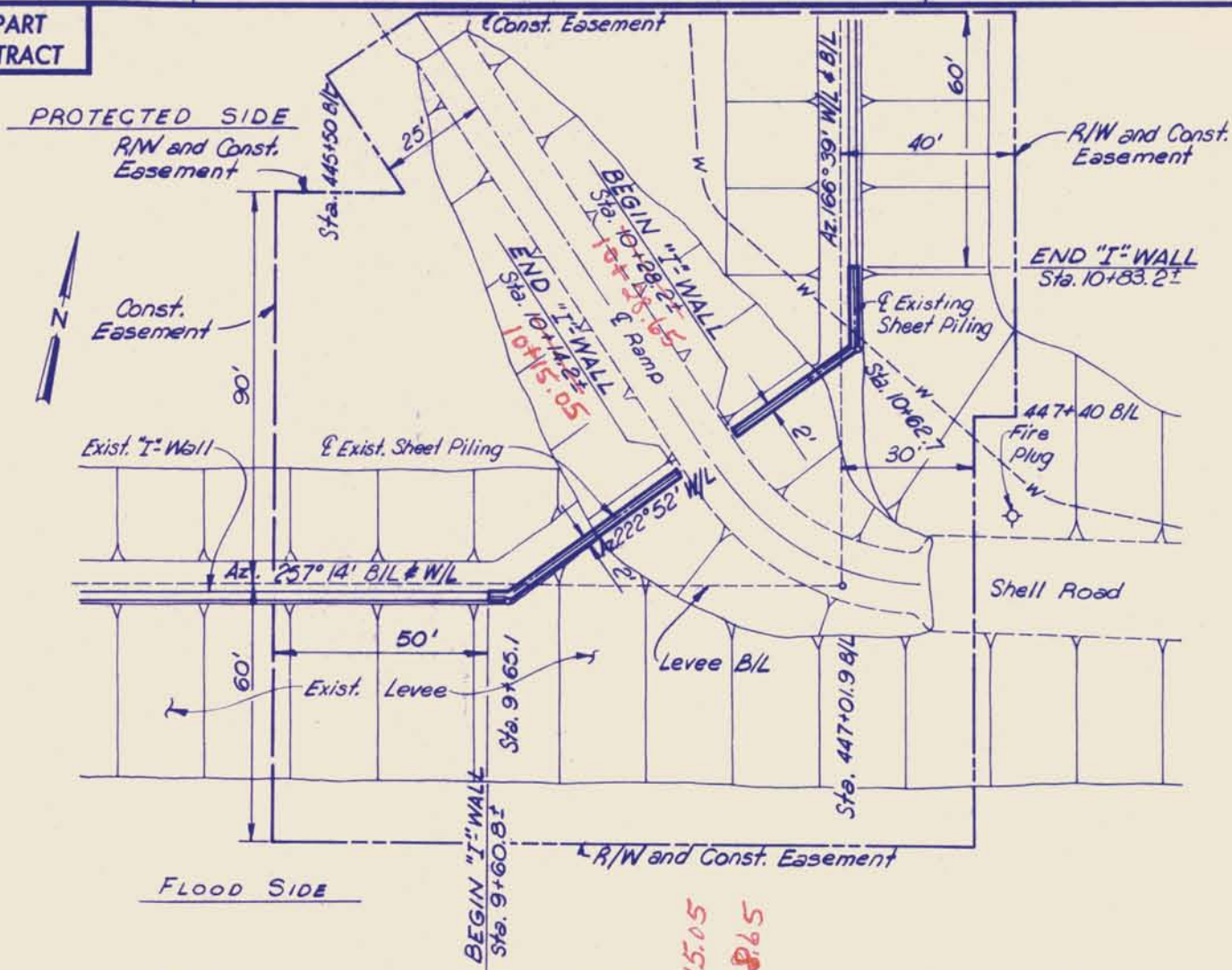
**REACH "C" - I.H.N.C., EAST LEVEE  
DWYER RD. TO U.S. 90**

- NOTES:**
- ALL STATIONS (UNLESS OTHERWISE NOTED) REFER TO WALL LINE STATIONING IN FEET ALONG FLOOD SIDE FACE OF WALL.
  - FOR GENERAL NOTES, SEE DWG. 5.

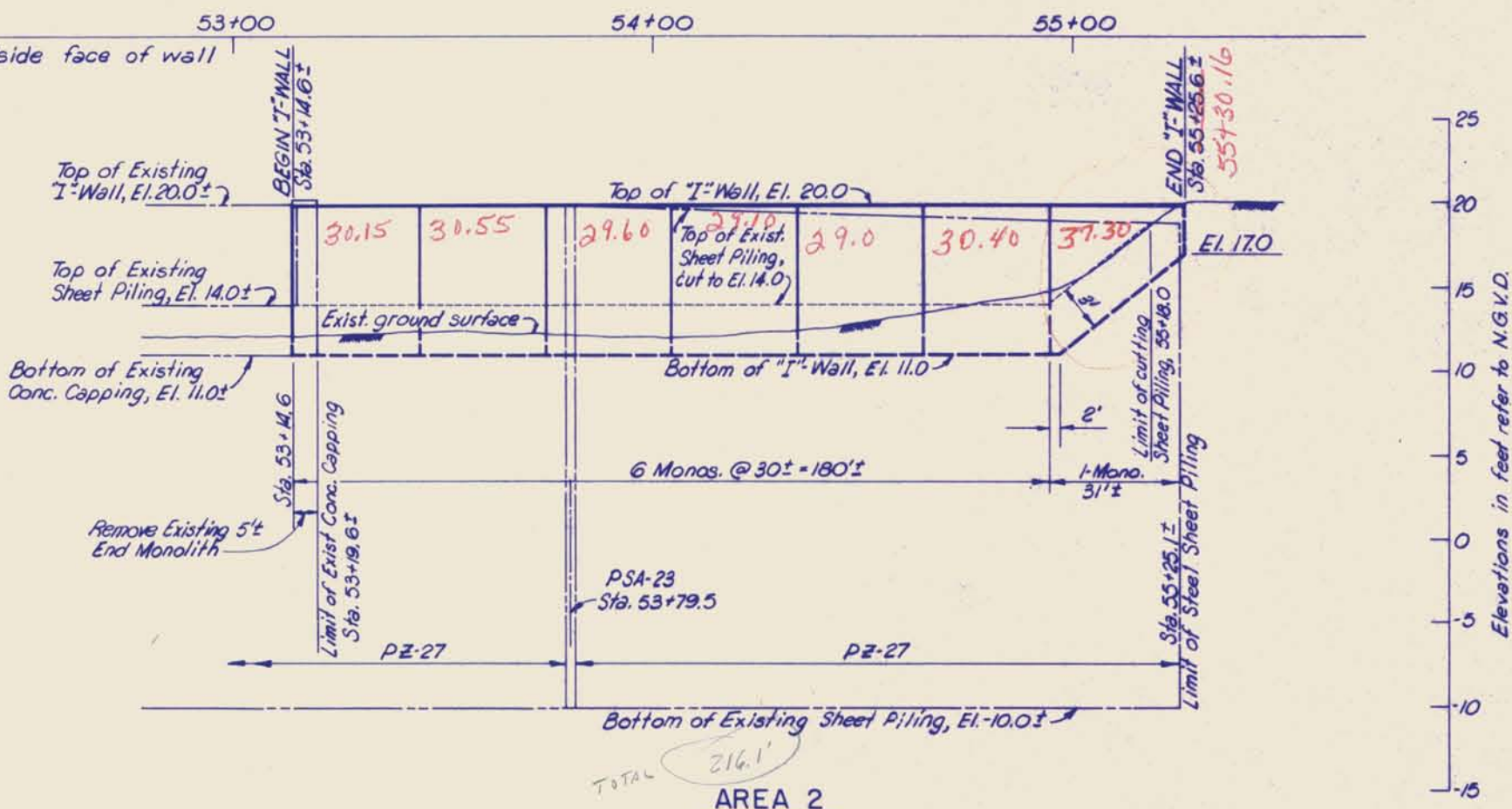
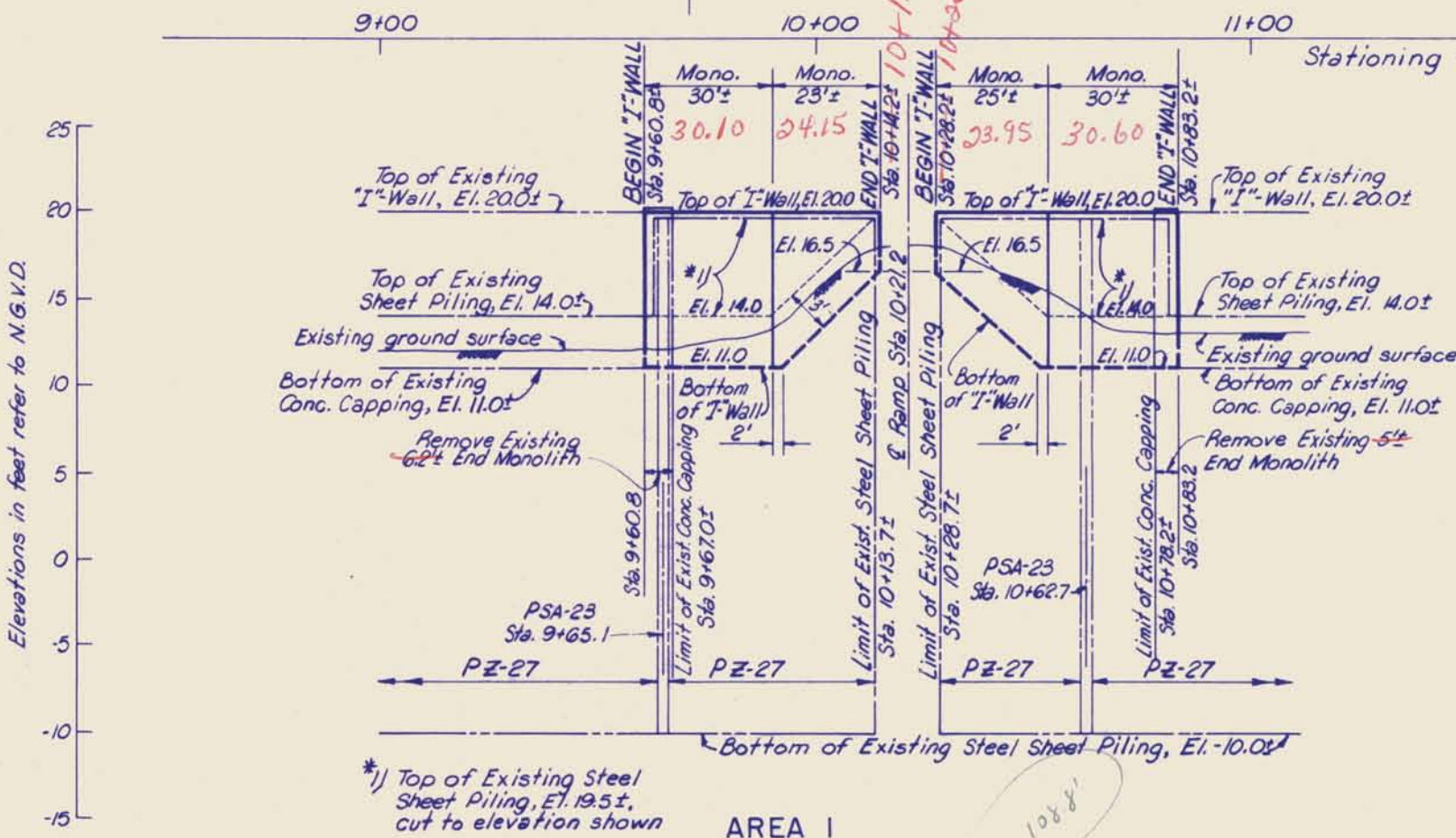
REVISION	DATE	DESCRIPTION	BY
<b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.</b>			
<small>LAKE PONCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL - EAST AND WEST LEVEE AND CITRUS BACK LEVEE - PARIS RD. THRU N.O.P.S.I.</small>			
<b>REACH "B" - I.H.N.C., WEST LEVEE - VIC. FLA. AVE. CONTAINER PLANT REACH "C" - I.H.N.C., EAST LEVEE - DWYER RD. TO U.S. 90 CAPPING FLOODWALL ORLEANS PARISH, LOUISIANA</b>			
<b>PLAN AND PROFILE</b>			
DESIGNED:	DRAWN:	CHECKED:	DATE:
B.H.D.	B.H.D.	J.A.R.	MARCH 1983
SUBMITTED:	DATE:	SCALE:	FILE NO.:
Carl R. Huggins	MARCH 1983	AS SHOWN	H-4-29518
SPEC NO.:	DWG NO.:	PAGE NO.:	
DACW29-63-R-0056	3	OF 11	



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**PLAN**  
SCALE: 1" = 20'



**PROFILE**  
SCALE: 1" = 5' Vert.  
1" = 20' Horiz.

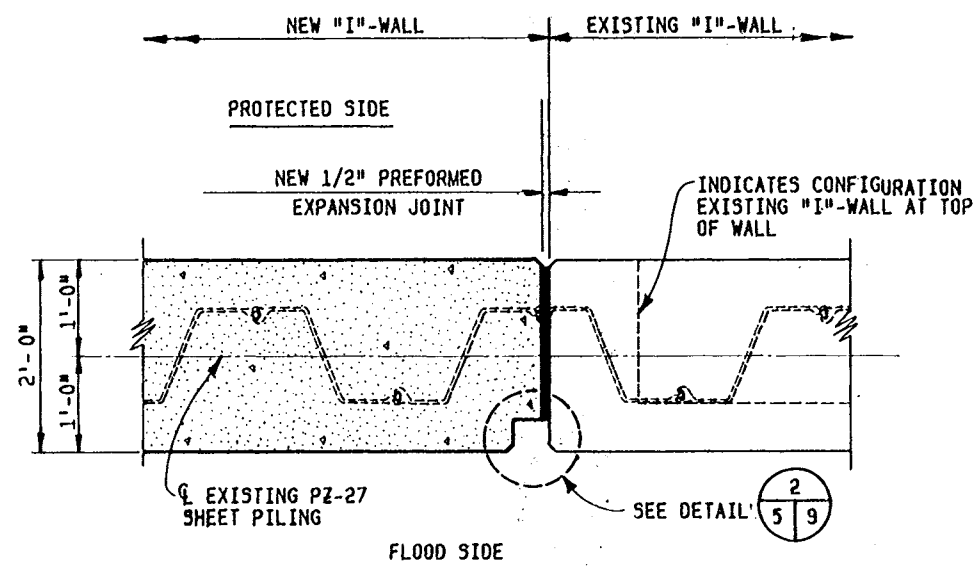
- NOTES:**
1. ALL STATIONS (UNLESS OTHERWISE NOTED) REFER TO WALL LINE STATIONING IN FEET ALONG FLOOD SIDE FACE OF WALL.
  2. FOR GENERAL NOTES, SEE DWG. 5.

**REACH "D" - CITRUS BACK LEVEE  
PARIS RD. THRU N.O.P.S.I.**

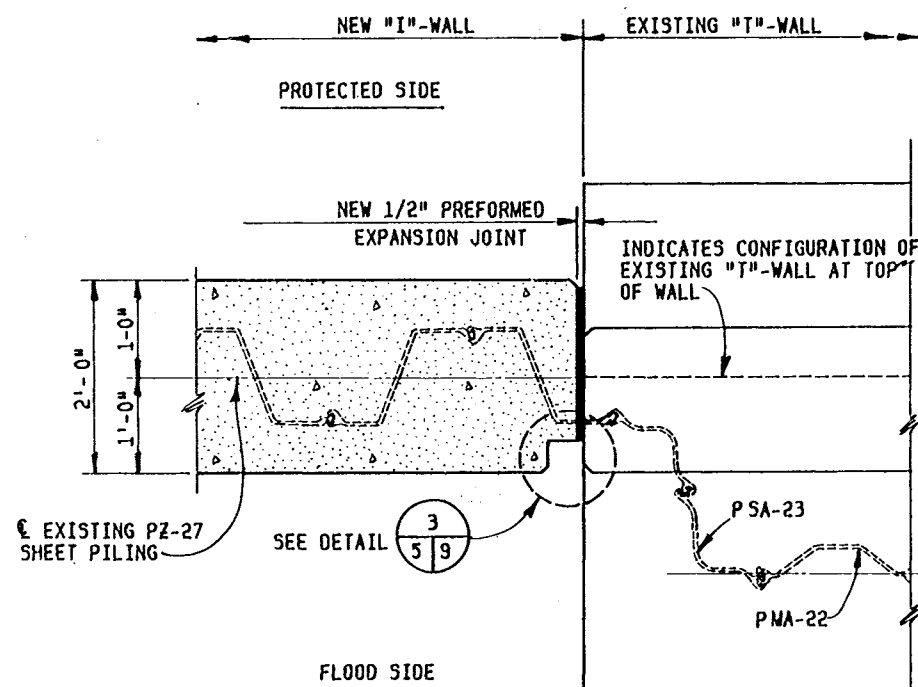
REVISION	DATE	DESCRIPTION	BY
<b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.</b>			
LAKE PONTCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL - EAST AND WEST LEVEE AND CITRUS BACK LEVEE - PARIS RD. THRU N.O.P.S.I. REACH "D" - CITRUS BACK LEVEE-PARIS RD. THRU N.O.P.S.I. CAPPING FLOODWALL ORLEANS PARISH, LOUISIANA			
<b>PLAN AND PROFILE</b>			
DESIGNED: B.H.D.	DRAWN: B.H.D.	CHECKED: J.A.R.	DATE: MARCH 1983
SCALE: AS SHOWN		FILE NO.: H-4-29518	
SPEC NO.: DACW29-83-R-0056		DWS 4 OF 11	



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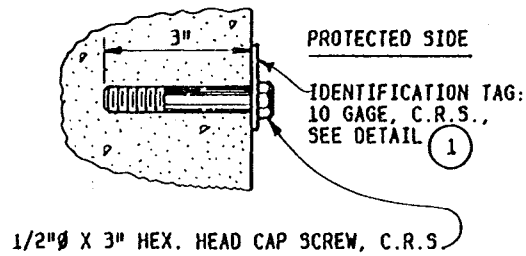
**AREA 1, AREA 2, AND AREA 4**



**AREA 3**

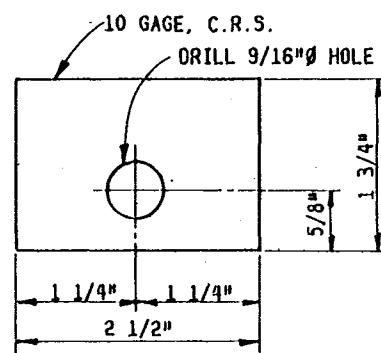
**REACH "A" EXISTING WALL TO NEW WALL JOINTS**

SCALE: 1" = 1'-0"



**REFERENCE BOLT**

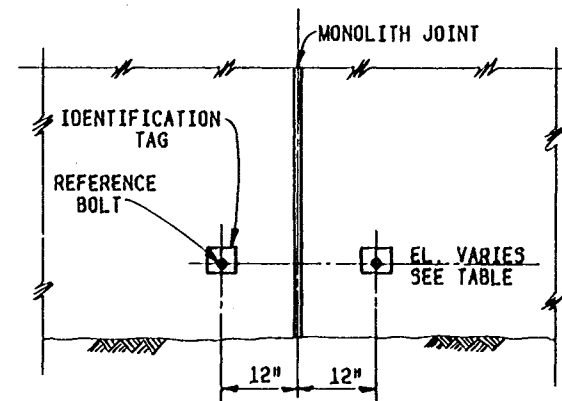
NO SCALE



**DETAIL 1 IDENTIFICATION TAG**

SCALE: 12" = 1'-0"

\*MONOLITH JOINTS FALL AT STEEL SHEET INTERLOCKS, W/L STATIONS ARE APPROXIMATE. LOCATE REFERENCE MARKERS AT NEAREST W/L STATION TO THOSE SHOWN.

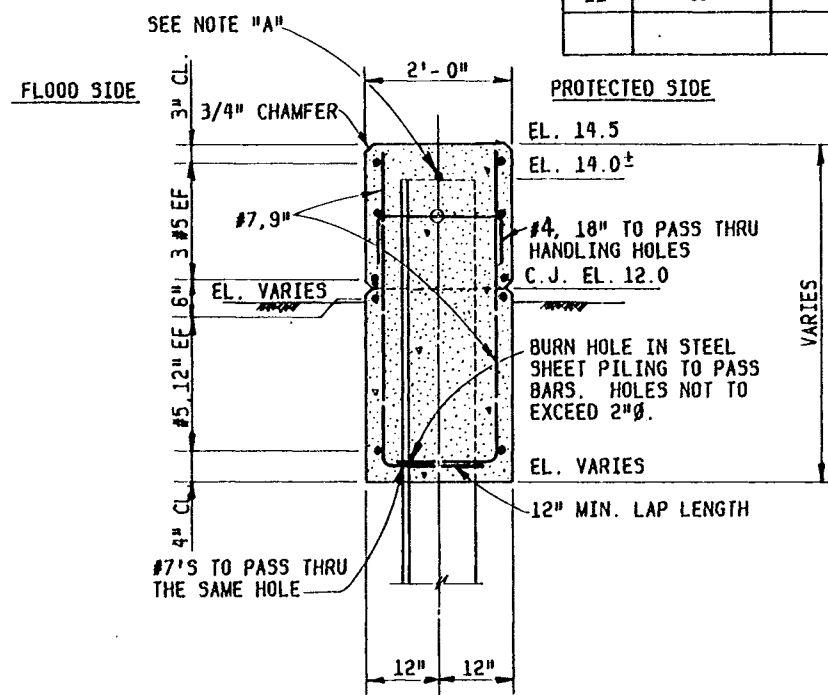


**TYPICAL LOCATION OF SETTLEMENT REFERENCE MARKER**

NO SCALE

REACH "A"		REACH "C"	
W/L STATION	ELEVATION	W/L STATION	ELEVATION
0+62.5	13.0	2+06.0	13.5
0+64.5	13.0	3+31.92	13.5
7+38.0	13.0	REACH "D"	
7+40.0	13.0	9+59.8	17.5
13+11.5	13.0	9+61.8	17.5
13+13.5	13.0	10+13.2	17.5
30+44.0	13.0	10+29.2	17.5
		10+82.2	17.5
		10+84.2	17.5
REACH "B"		53+13.6	17.5
0+41.78	13.5	53+15.6	17.5
16+88.83	13.0	54+93.6	17.5
		54+95.6	17.5

BAR SIZE NO.	MINIMUM LAP LENGTH INCHES		BAR SIZE NO.	MINIMUM EMBEDMENT LENGTH, INCHES	
	TOP BARS	OTHER BARS		TOP BARS	OTHER BARS
3	12	12	3	6	6
4	14	14	4	7	6
5	18	18	5	11	7
6	24	22	6	15	11
7	33	25	7	21	15
8	43	30	8	27	19
9	55	39	9	34	24
10	69	49	10	43	31
11	85	61	11	53	38



**TYPICAL I-WALL SECTION**

**REACH "A"**

SCALE: 3/4" = 1'-0"

NOTE "A"

#6 REINFORCING BAR WELDED TO THE TOP OF EACH STEEL SHEET PILE. INSTALL FLEXIBLE JUMPERS AT ALL MONOLITH JOINTS. JUMPERS SHALL BE INSULATED NO. 1/0 AWG COPPER INSULATED WITH 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 A MOISTURE PROOF JOINT. SEE SPECIFICATIONS.

**GENERAL NOTES:**

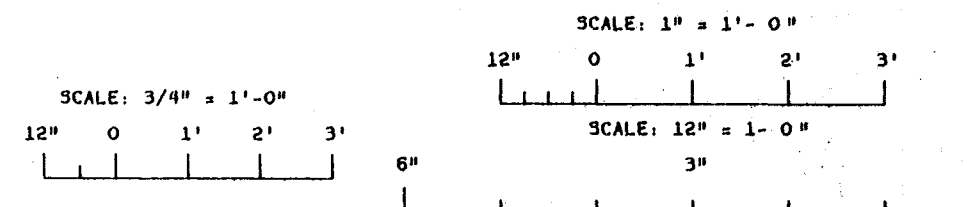
1. ALL AZIMUTHS ARE TURNED IN A CLOCKWISE DIRECTION FROM 0° (DUE SOUTH).
2. ELEVATIONS ARE IN FEET AND REFER TO NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.).
3. DIMENSIONS AND/OR ELEVATIONS MARKED THUS (±) ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ACTUAL DIMENSIONS IN THE FIELD.
4. DIMENSIONS AND/OR ELEVATIONS MARKED THUS (N.T.S.) ARE NOT SHOWN TO SCALE.
5. DRAWINGS ARE GENERALLY TO SCALE, BUT SHOULD NOT BE SCALED. N.T.S. IS SHOWN ONLY WHERE DRAWING IS OBVIOUSLY OUT OF SCALE.
6. BENCH MARKS AND BASE LINES WILL BE ESTABLISHED AT THE SITE BY THE GOVERNMENT.

**STEEL NOTES:**

1. ALL STRUCTURAL STEEL SHALL BE ASTM A36, UNLESS OTHERWISE NOTED.
2. TO PREVENT CORROSION BY MOISTURE BETWEEN STEEL SURFACES IN CONTACT, ALL SUCH CONTACTS SHALL BE SEALED WATERTIGHT BY RUNNING A CONTINUOUS 1/8" FILLET WELD ALONG ALL EDGES OF THE CONTACT.
3. ALL WELDING SHALL BE ELECTRIC WELDING. WORKMANSHIP AND TECHNIQUE, WHERE APPLICABLE, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY SPECIFICATIONS AWS D1.1 REV.-1-76 STRUCTURAL WELDING CODE.
4. WELDING SYMBOLS SHOWN ARE THOSE ADOPTED BY THE AMERICAN WELDING SOCIETY AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAILED INFORMATION SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED BY THE CONTRACTOR FOR APPROVAL.
5. DIMENSIONS SHOWN OR CALLED FOR ARE FINAL DIMENSIONS; ALLOWANCES MUST BE MADE FOR MACHINING.
6. ITEMS MARKED C.R.S. SHALL BE CORROSION RESISTANT STEEL (STAINLESS STEEL). SEE SPECIFICATIONS.

**CONCRETE NOTES:**

1.  $f'_c = 3000$  PSI,  $f_y = 40,000$  PSI.
2. ALL UNFORMED SURFACES SHALL BE GIVEN A FLOAT FINISH. (SEE SPECIFICATIONS)
3. ALL EXTERIOR FORMED SURFACES NOT COVERED BY BACKFILL SHALL BE CLASS "A" FINISH AND SURFACES COVERED BY BACKFILL SHALL BE CLASS "D" FINISH UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE NOTED, ALL I-WALL MONOLITHS SHALL BE 30"±, SEE DRAWING 8 FOR TYPICAL I-WALL JOINT DETAIL.
5. CONSTRUCTION JOINTS SHALL BE PROVIDED WHERE SHOWN. WHERE NOT SHOWN, CONSTRUCTION JOINTS SHALL BE PLACED AT LOCATIONS LEAST LIKELY TO IMPAIR THE INTEGRITY OF THE CONCRETE STRUCTURE. CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE CONTRACTING OFFICER.
6. UNLESS OTHERWISE NOTED, PROVIDE 3/4" CHAMFER AT ALL EXPOSED JOINTS, EDGES, EXTERNAL CORNERS, VERTICAL EXPANSION JOINTS, AND HORIZONTAL CONSTRUCTION JOINTS.
7. ALL PRIMARY REINFORCEMENT SHALL HAVE A MINIMUM COVER OF 2 1/2" UNLESS OTHERWISE NOTED. THE COVER FOR SECONDARY REINFORCEMENT MAY BE REDUCED FROM THE ABOVE BY THE DIAMETER OF THE BAR.
8. ALL BENDS OF REINFORCEMENT AND ALL BAR SPACES AND SUPPORTS SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" IN EFFECT AT THE TIME OF FABRICATION.
9. REINFORCING BAR DESIGNATION NUMBERS CONFORM TO THE CURRENT NUMBERING SYSTEM OF THE CONCRETE REINFORCING STEEL INSTITUTE.
10. ALL REINFORCING SHALL BE LAPPED OR EMBEDDED ACCORDING TO THE TABLES ON THIS DRAWING, UNLESS OTHERWISE NOTED.



REVISION	DATE	DESCRIPTION	BY

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

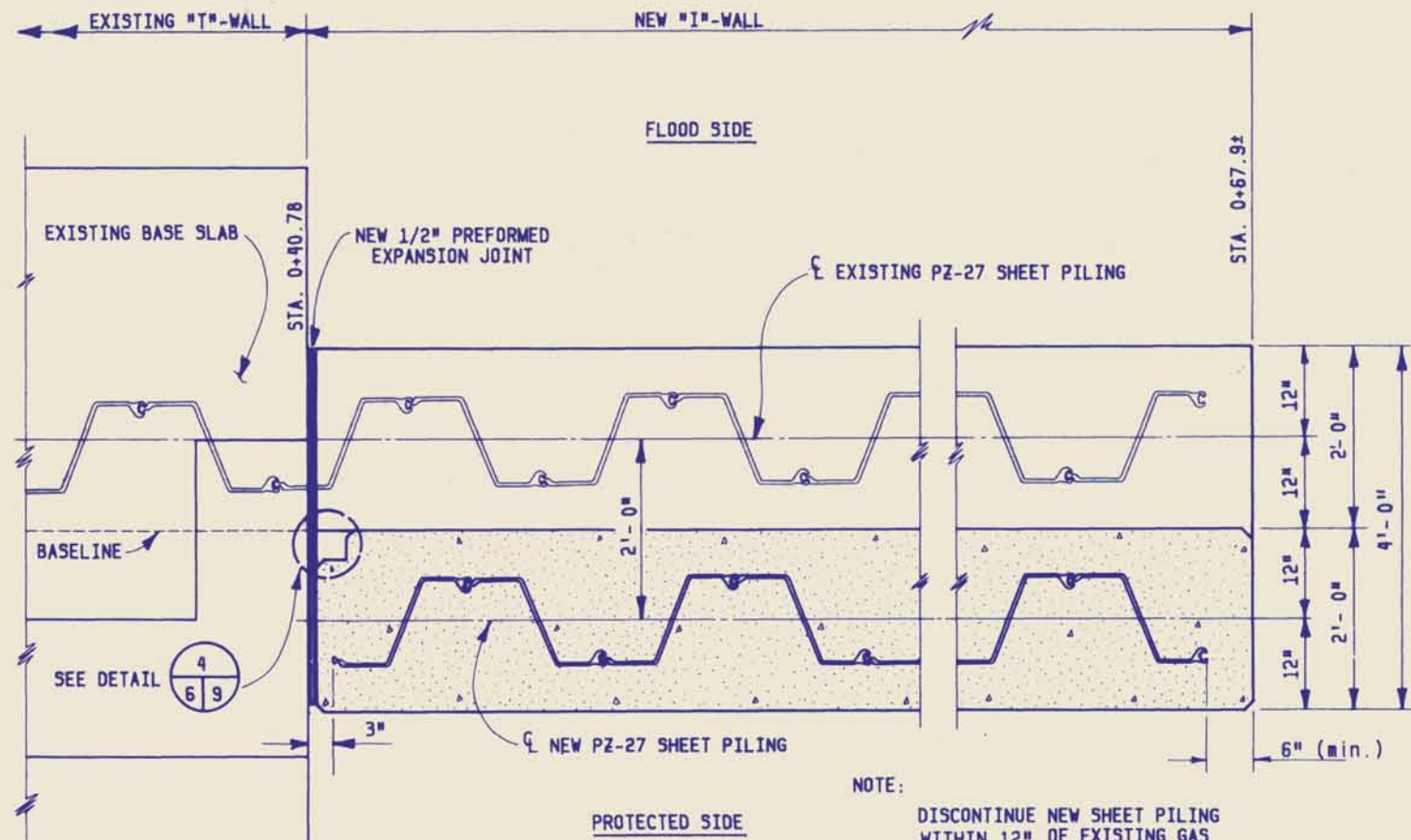
LAKE PONCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION)  
INNER HARBOR NAVIGATION CANAL-EAST AND WEST LEVEE  
AND CITRUS BACK LEVEE-PARIS RD. THRU N.O.P. 3.1.  
CAPPING FLOODWALL  
ORLEANS PARISH, LOUISIANA

**GENERAL NOTES, TYPICAL DETAILS, AND REACH "A"-TYPICAL SECTION AND WALL JOINTS**

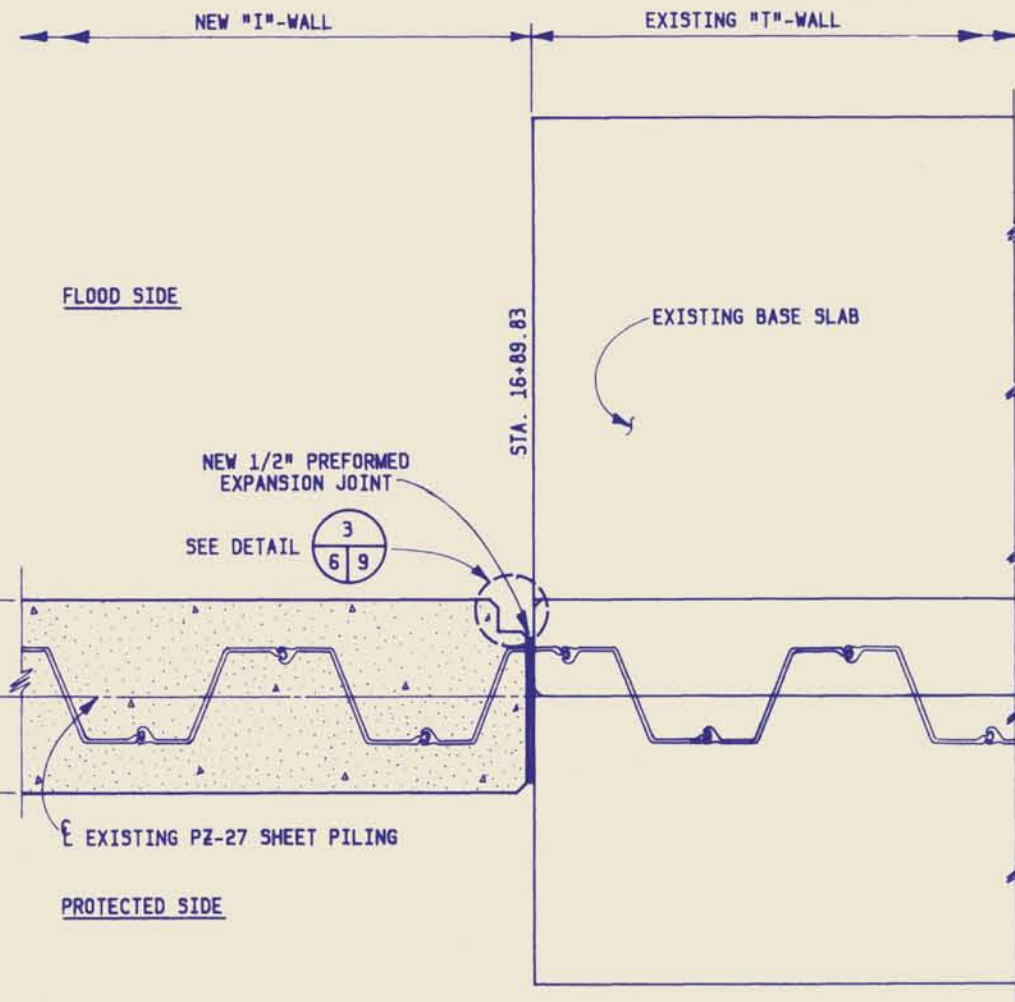
DESIGNED: B.H.O.	DRAWN: B.H.O.	CHECKED: J.A.R.	DATE: MARCH 1983	SCALE: AS SHOWN	FILE NO.: H-4-29518
SUBMITTED: Carl R. Huggins			SPEC NO.: DACW29-83-R-0056	DWG: 5	OF 11



**SAFETY IS A PART OF YOUR CONTRACT**



NOTE:  
DISCONTINUE NEW SHEET PILING WITHIN 12" OF EXISTING GAS AND WATER PIPE CROSSINGS AT STATIONS 0+55± AND 0+59±. THE EXACT LOCATION OF THE UTILITY PIPES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO DRIVING THE NEW SHEET PILING.

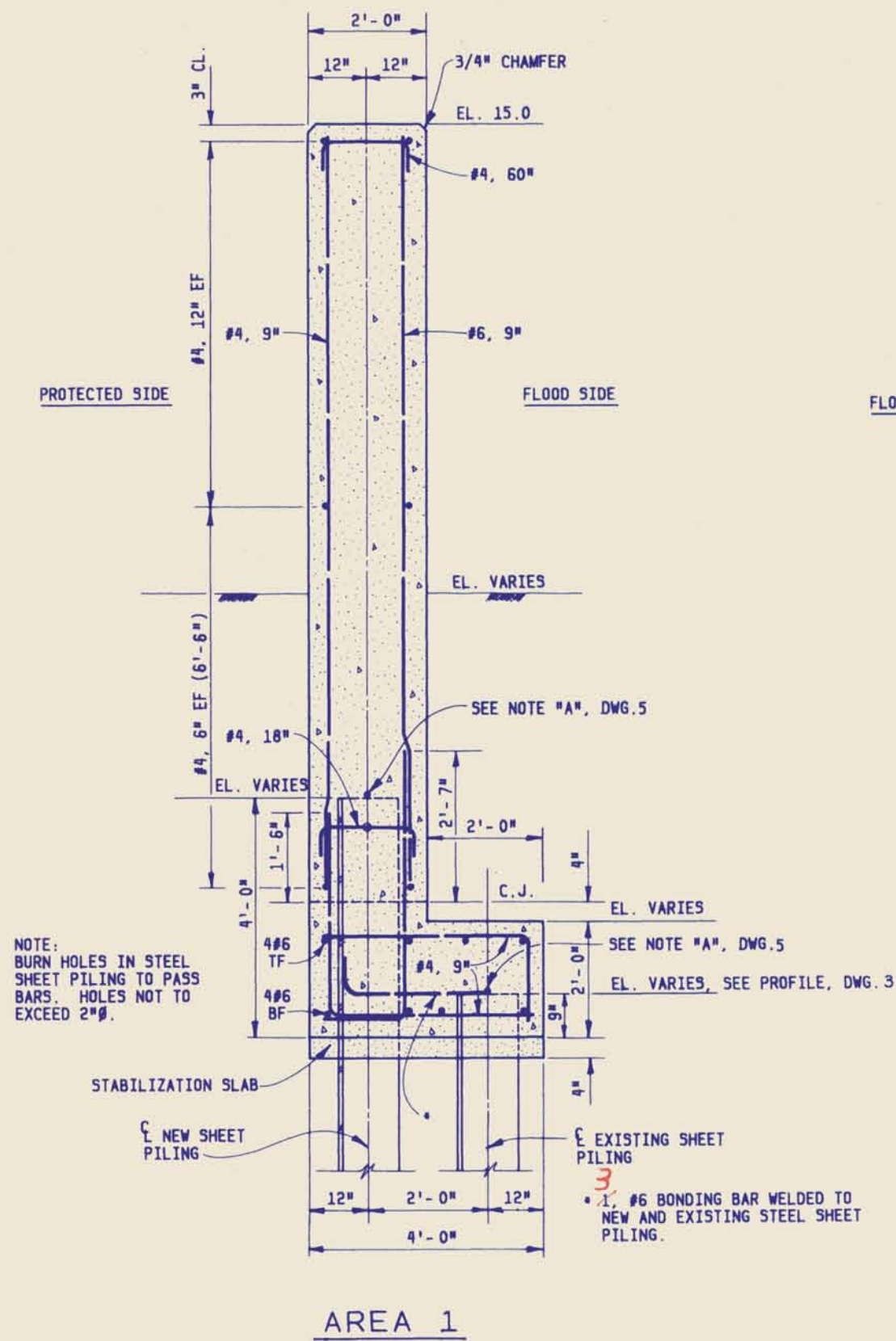


AREA 2

REACH "B"

EXISTING WALL TO NEW WALL JOINTS

SCALE: 1" = 1'-0"



NOTE:  
BURN HOLES IN STEEL SHEET PILING TO PASS BARS. HOLES NOT TO EXCEED 2"Ø.

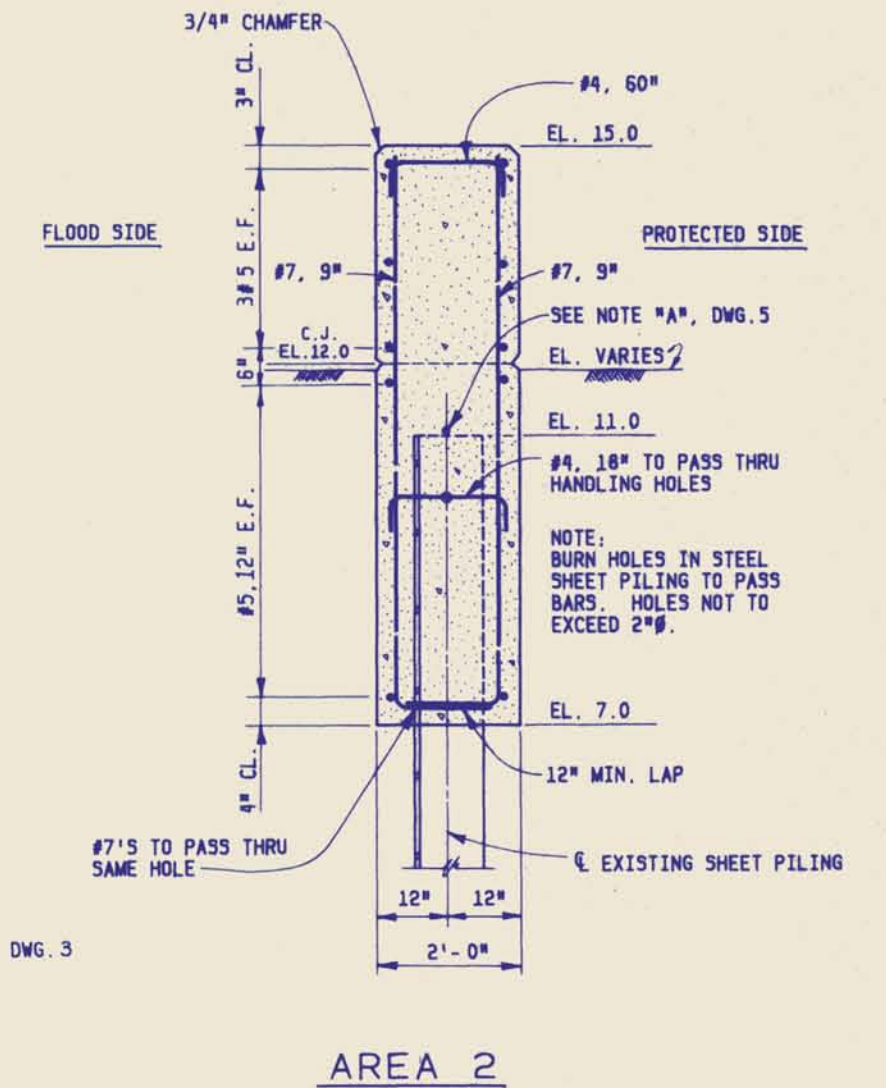
• 1. #6 BONDING BAR WELDED TO NEW AND EXISTING STEEL SHEET PILING.

AREA 1

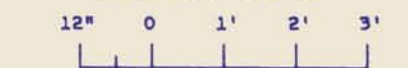
REACH "B"

TYPICAL SECTIONS

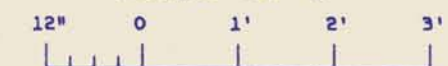
SCALE: 3/4" = 1'-0"



SCALE: 3/4" = 1'-0"



SCALE: 1" = 1'-0"

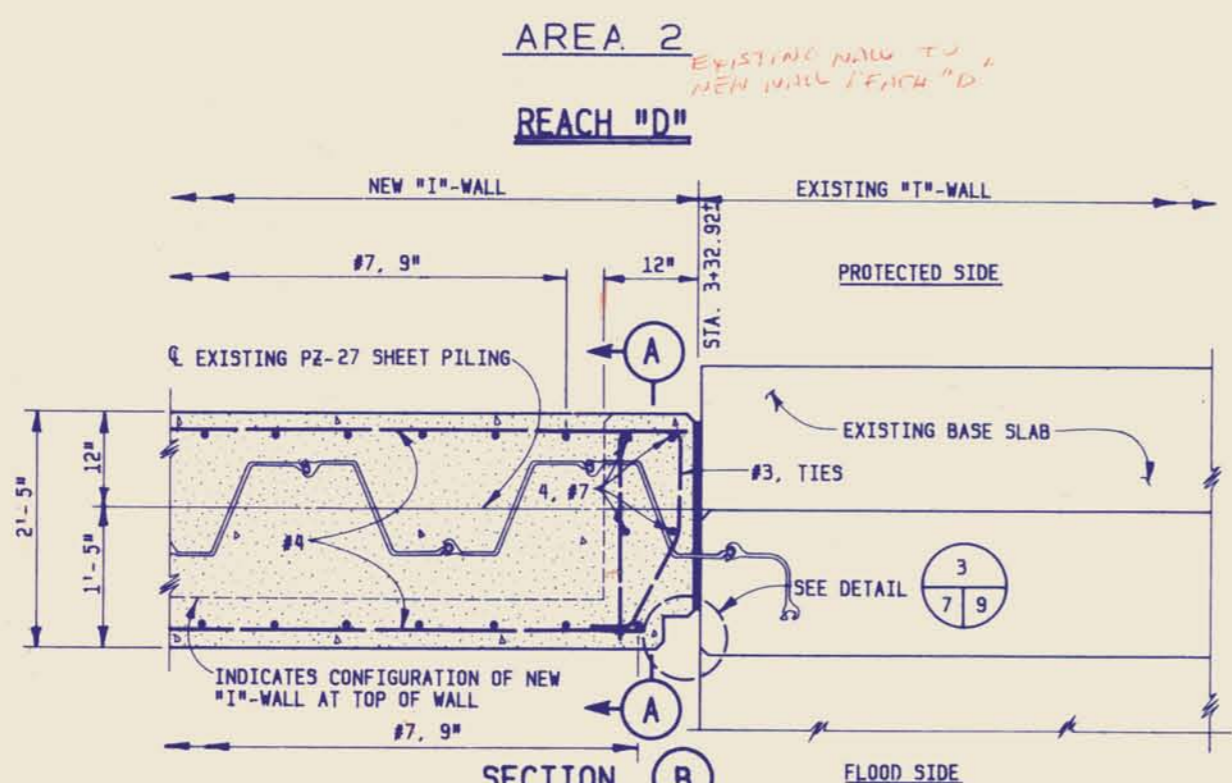
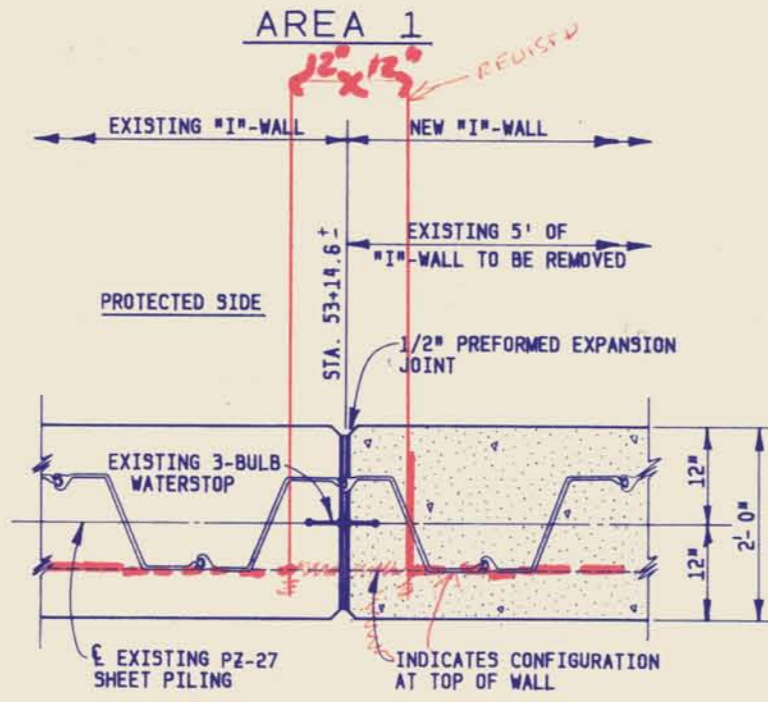
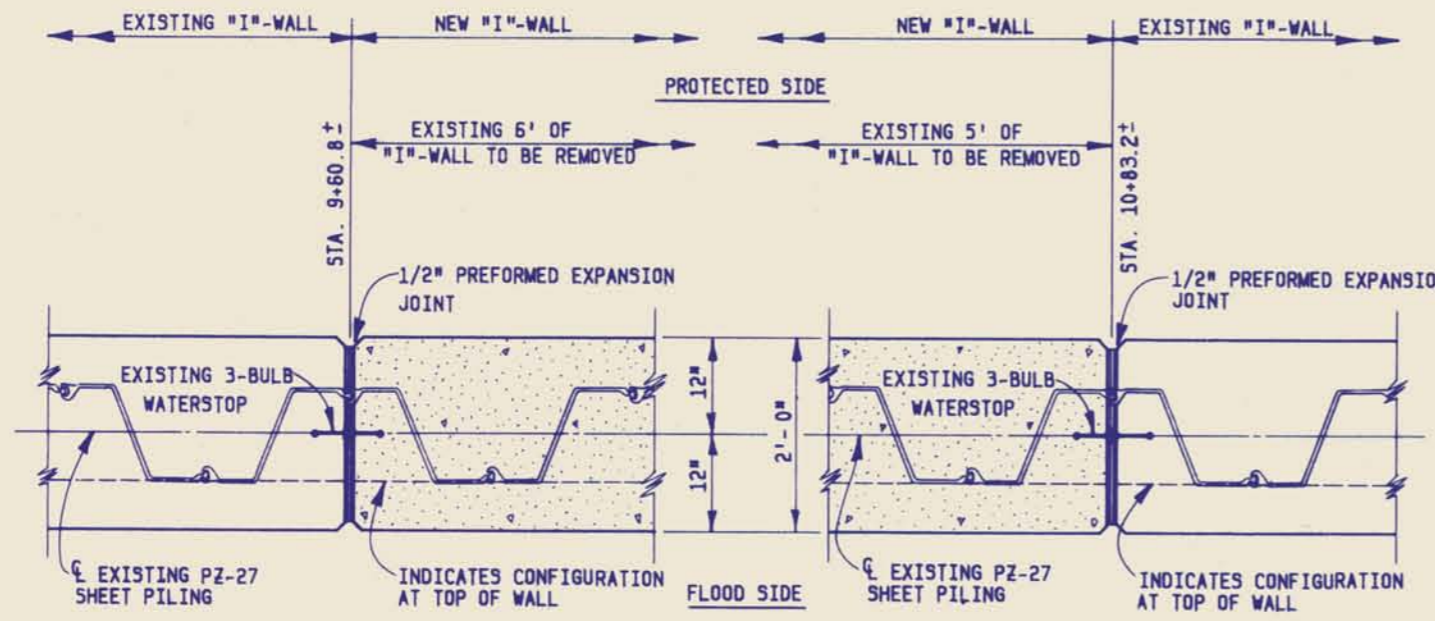


NOTES:

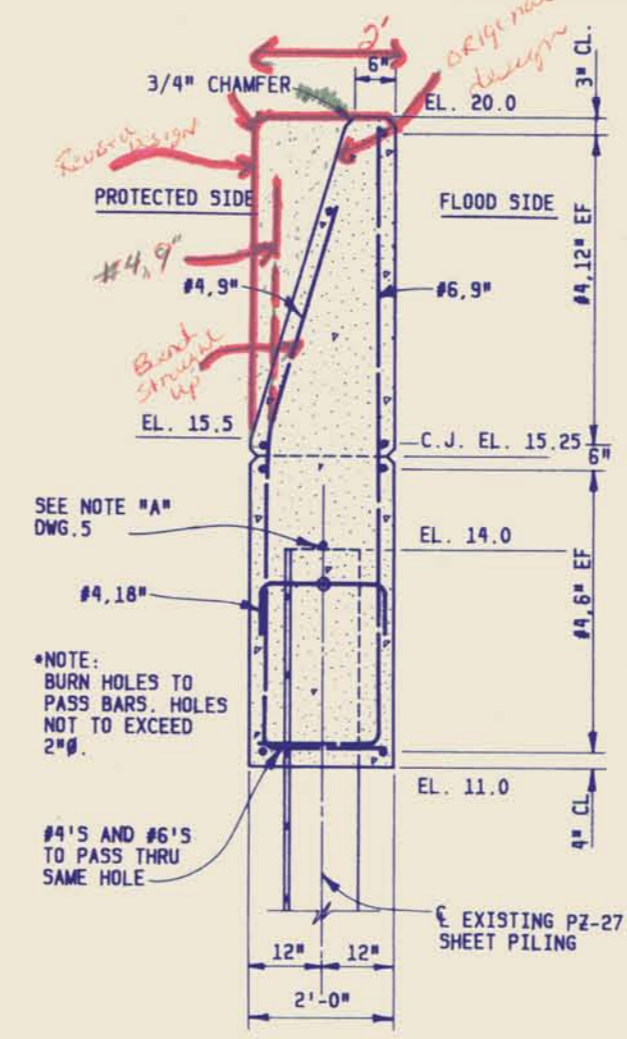
1. FOR GENERAL NOTES, SEE DWG. 5.
2. FOR ELEVATIONS, SEE PROFILE DWG. 3.

REVISION	DATE	DESCRIPTION	BY
<p align="center"><b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS</b> CORPS OF ENGINEERS NEW ORLEANS, LA.</p> <p align="center">LAKE PONCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL - EAST AND WEST LEVEE AND CITRUS BACK LEVEE - PARIS RD. THRU N.O.P.S.I.</p> <p align="center">CAPPING FLOODWALL ORLEANS PARISH, LOUISIANA</p> <p align="center"><b>REACH "B"-TYPICAL SECTIONS AND WALL JOINTS</b></p>			
DESIGNED:	DRAWN:	CHECKED:	DATE:
B.H.D.	B.H.D.	J.A.R.	MARCH 1983
SCALE:	FILE NO.:		
AS SHOWN	H-4-29518		
SUBMITTED:	SPEC NO.:		
<i>Carl R. ...</i>	DACW29-83-R-0056	DWG 6 OF 11	

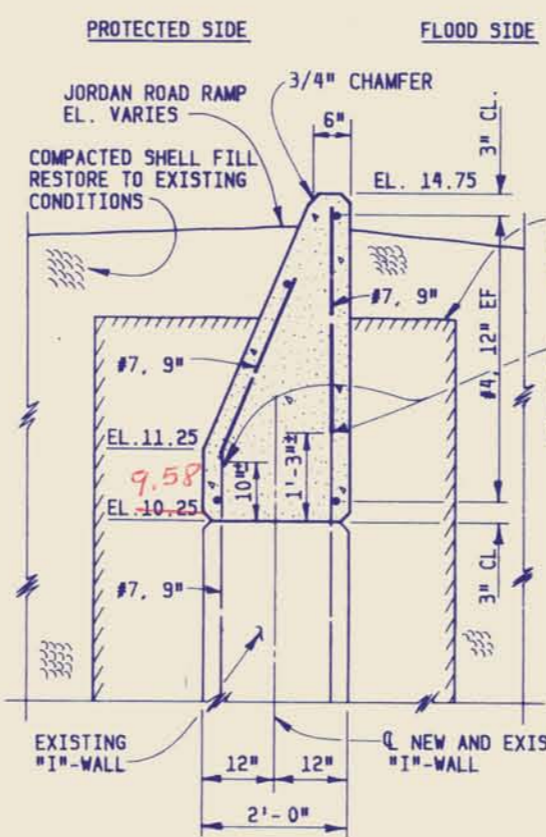




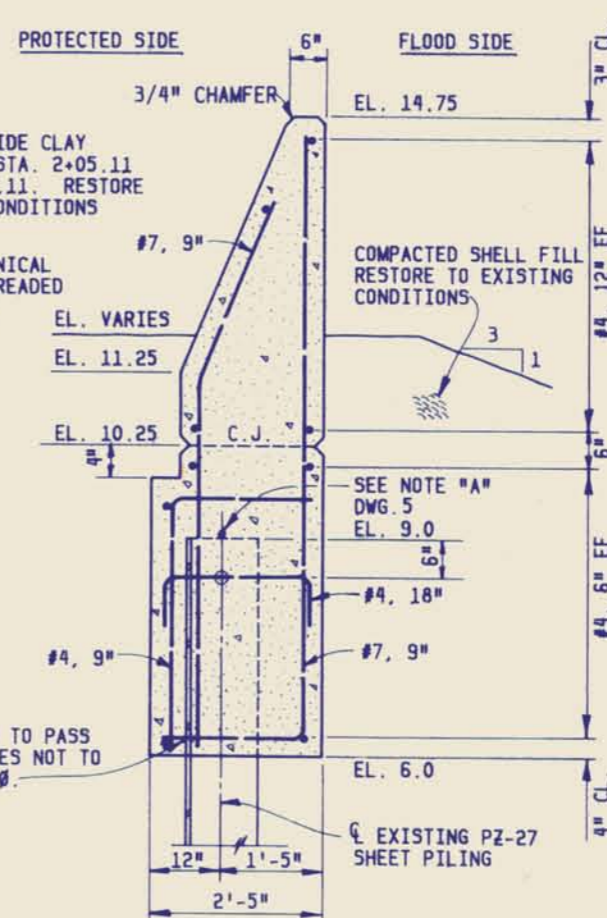
**SECTION B**  
REACH "C"  
EXISTING WALL TO NEW WALL JOINTS  
SCALE: 1" = 1'-0"



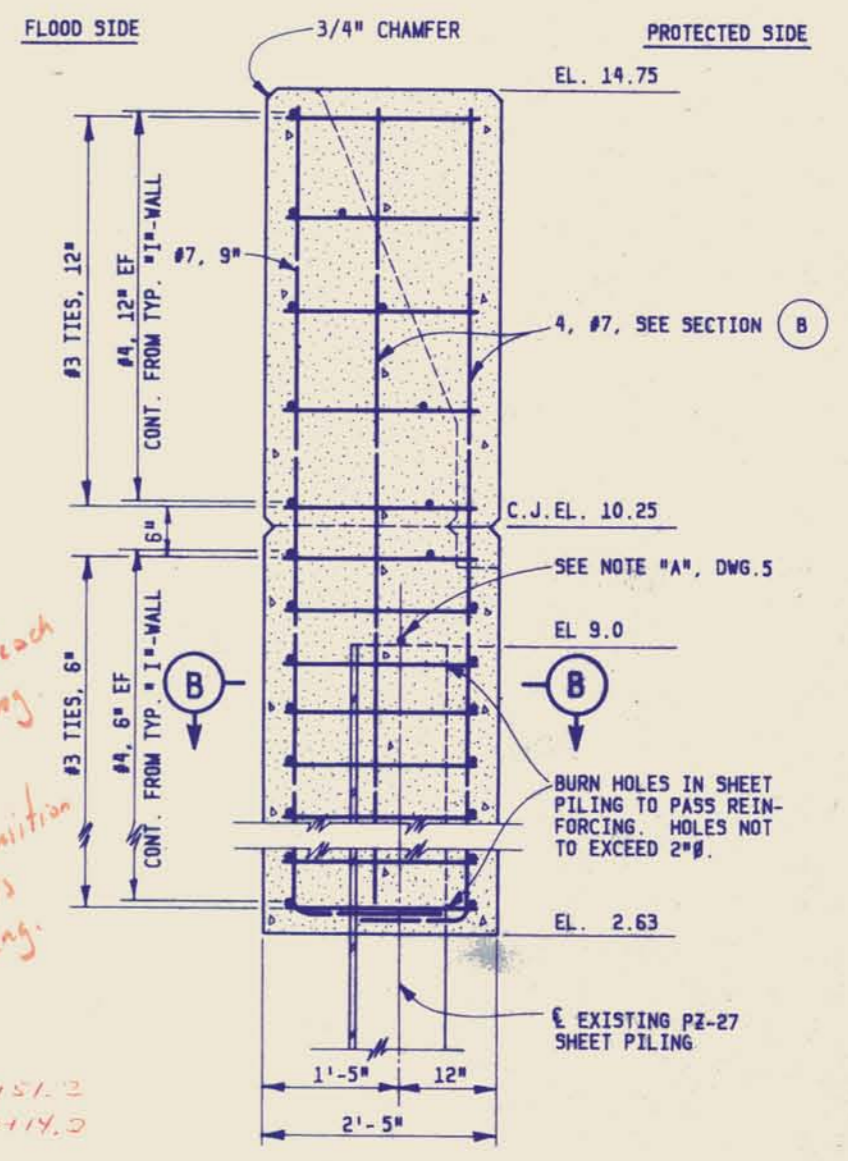
**AREA 1 AND AREA 2**  
REACH "D"  
TYPICAL SECTION  
SCALE: 3/4" = 1'-0"



STA. 2+05.11 TO STA. 2+82±  
REACH "C"  
TYPICAL SECTIONS  
SCALE: 3/4" = 1'-0"



STA. 2+82± TO STA. 3+31.92



**SECTION A**  
SCALE: 1" = 1'-0"

*AREA 1*  
Entire reach is rectangular.

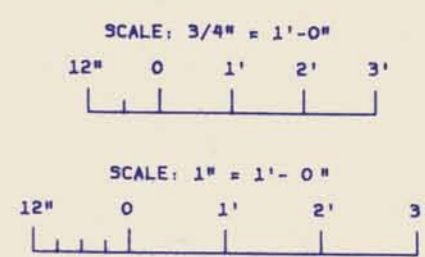
*AREA 2*  
Only transition mono is rectangular.

*REVISED DESIGN*

*AREA 1*  
STA. 10103.2 - 10151.2  
1493.2 - 10114.2

*AREA 2*  
STA. 24196 - 55125

NOTES:  
1. FOR GENERAL NOTES, SEE DWG. 5.

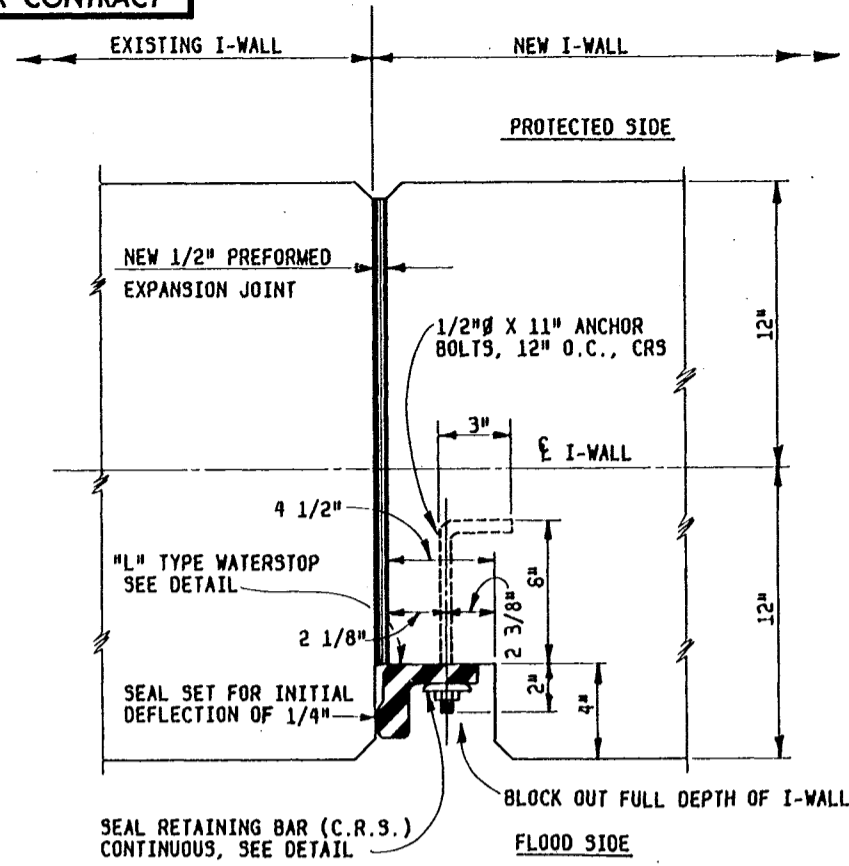


REVISION	DATE	DESCRIPTION	BY
<b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS</b> CORPS OF ENGINEERS NEW ORLEANS, LA. LIKE PONTCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL-EAST AND WEST LEVEE AND CITRUS BACK LEVEE-PARIS RD. THRU N.O.P.S.I. CAPPING FLOODWALL ORLEANS PARISH, LOUISIANA <b>REACH "C" AND REACH "D"</b> <b>TYPICAL SECTIONS AND WALL JOINTS</b>			
DESIGNED:	DRAWN:	CHECKED:	DATE:
B.H.D.	B.H.D.	J.A.R.	MARCH 1963
SCALE:	FILE NO.:		
AS SHOWN	H-4-29518		
SPEC NO.:		DWC 7 OF 11	
DACW29-63-R-0056			

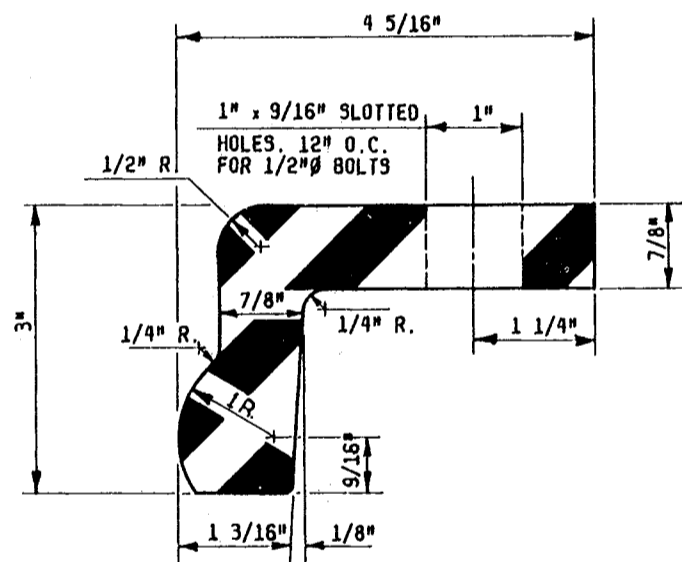




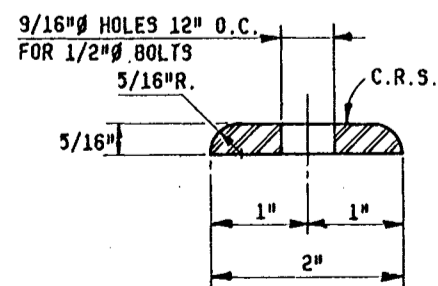
**SAFETY IS A PART OF YOUR CONTRACT**



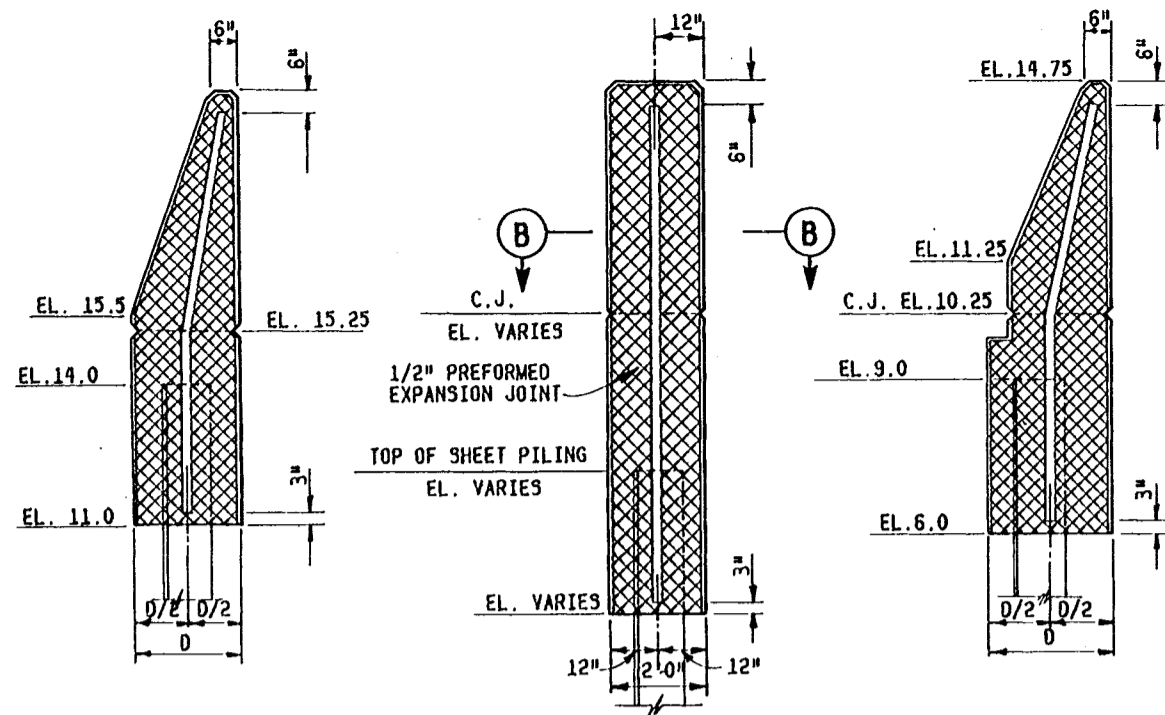
**DETAIL 2-4**  
SCALE: 3" = 1'-0"



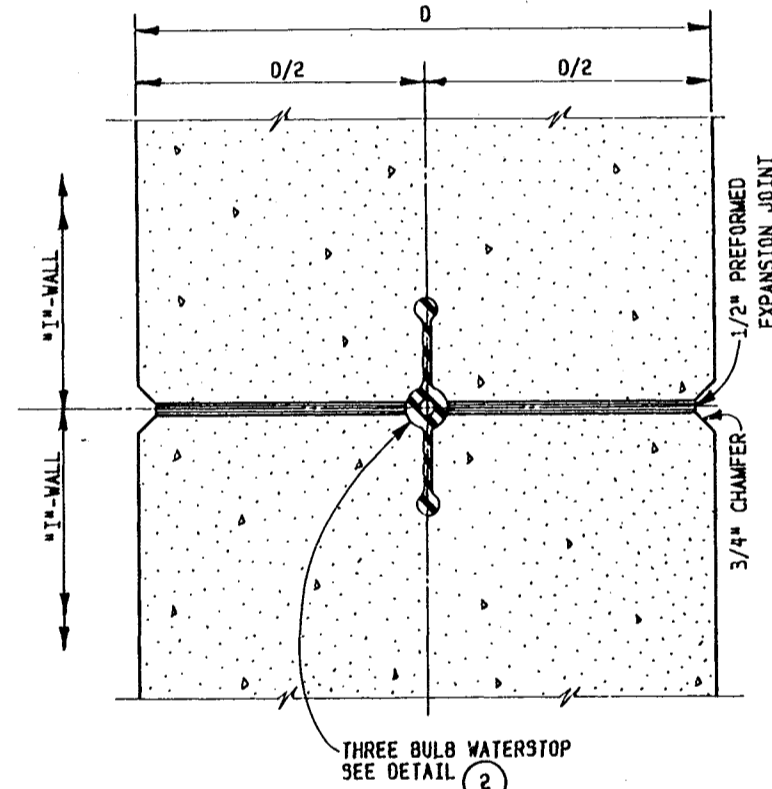
**"L" TYPE WATERSTOP**  
SCALE: 12" = 1'-0"



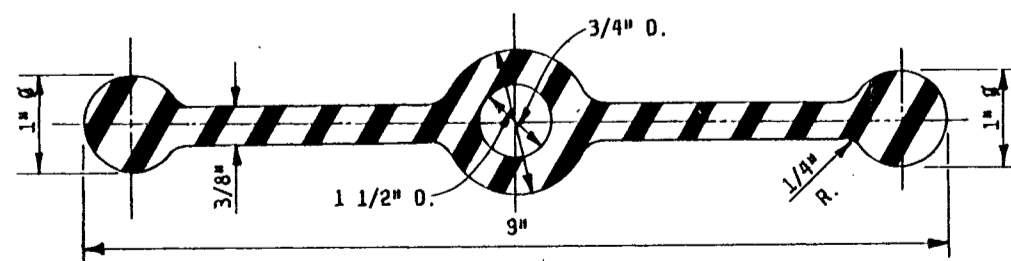
**SEAL RETAINING BAR**  
SCALE: 12" = 1'-0"



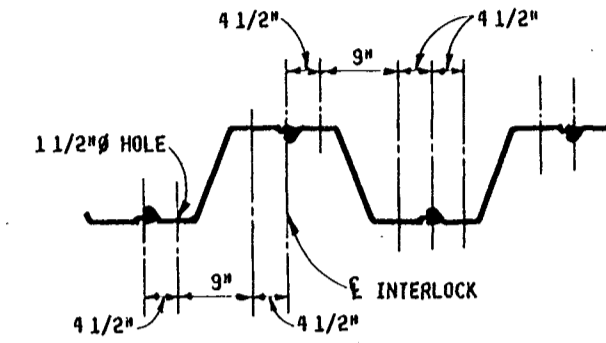
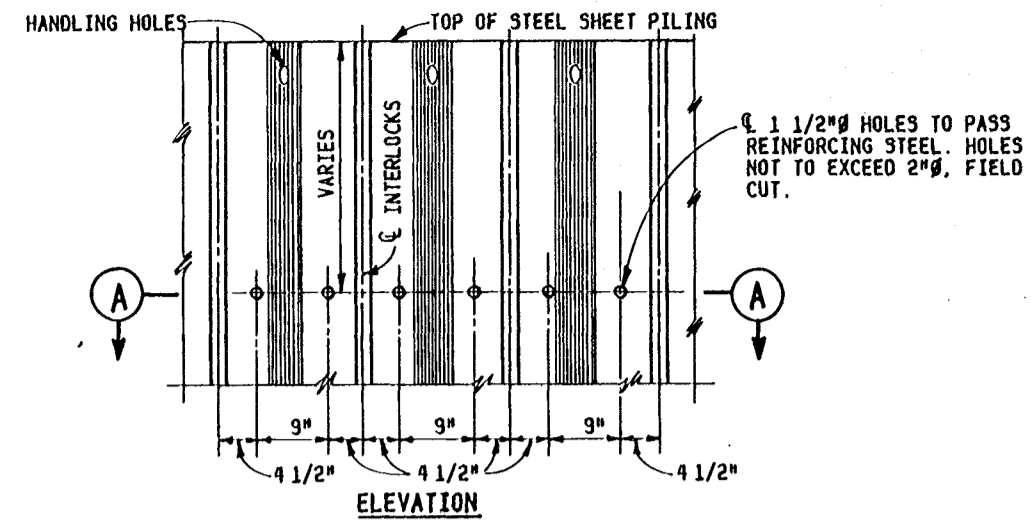
**TYPICAL MONOLITH JOINTS**  
SCALE: 1/2" = 1'-0"



**SECTION B**  
SCALE: 3" = 1'-0"

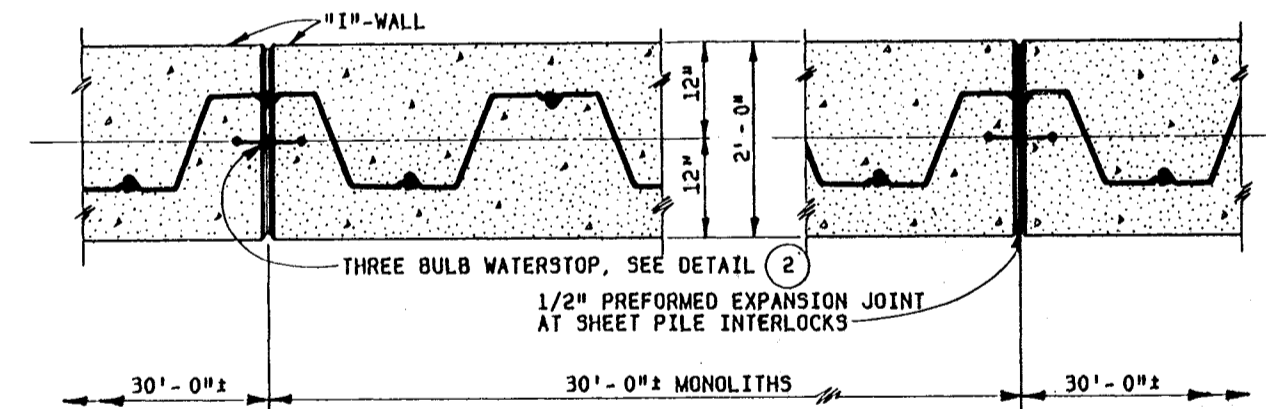


**DETAIL 2**  
**THREE BULB WATERSTOP**  
SCALE: 12" = 1'-0"

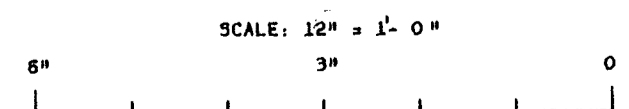
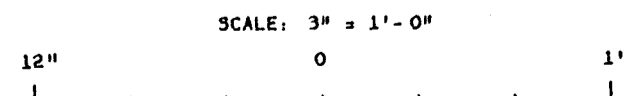
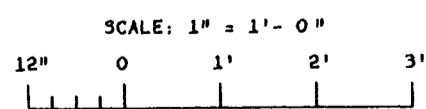
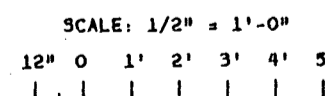


**SECTION A**  
**DETAIL 1 FIELD CUT HOLES IN PZ-27 SHEET PILING**  
SCALE: 1" = 1'-0"

NOTES:  
FOR GENERAL NOTES, SEE DWG. 5.  
I-WALL MONOLITHS SHALL BE 30' ± UNLESS OTHERWISE INDICATED ON THE PROFILE.  
EACH MONOLITH SHALL END AT CENTER OF NEAREST SHEET PILE INTERLOCK.



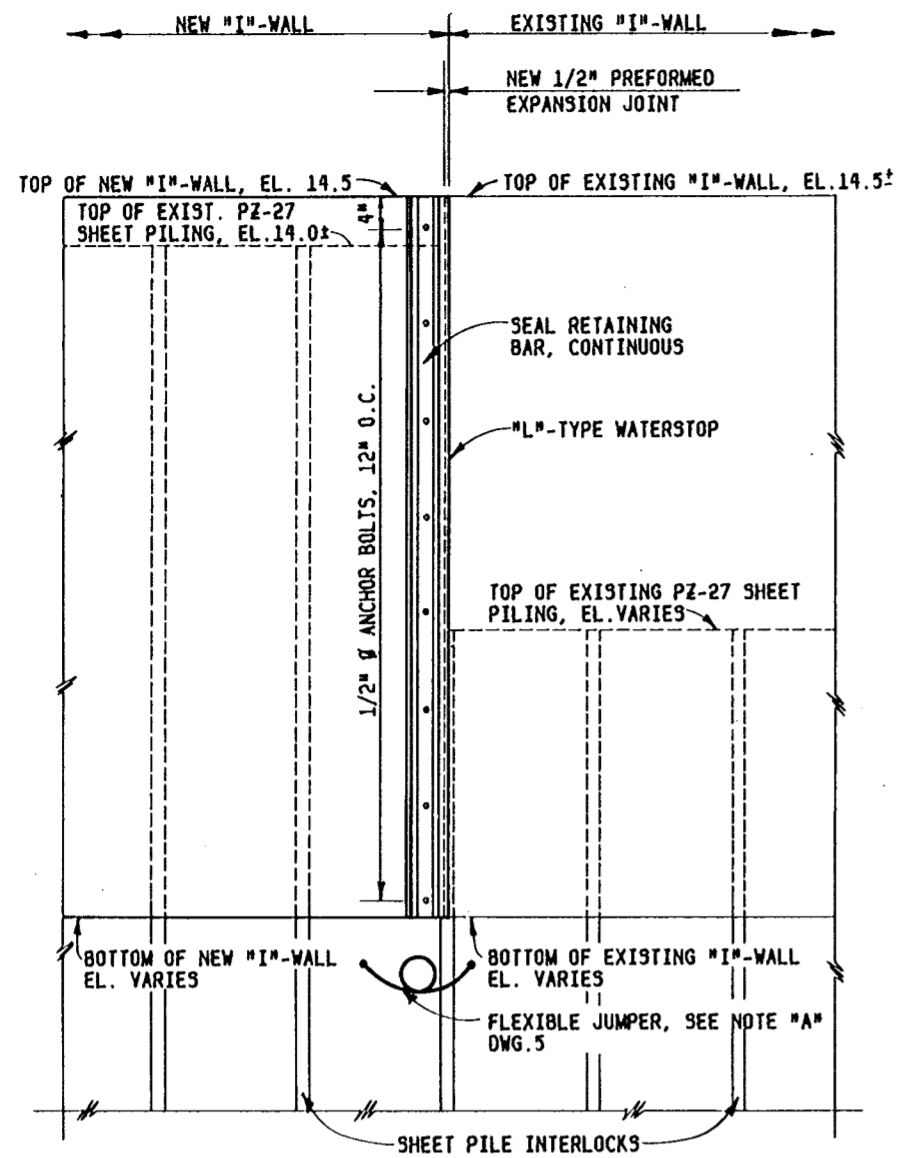
**TYPICAL MONOLITH AT SHEET PILE INTERLOCKS**  
SCALE: 1" = 1'-0"



REVISION	DATE	DESCRIPTION	BY
<b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS</b> <b>CORPS OF ENGINEERS</b> <b>NEW ORLEANS, LA.</b>			
LAKE PONCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL-EAST AND WEST LEVEE AND CITRUS BACK LEVEE- PARIS RD. THRU N.O.P.S.I. <b>CAPPING FLOODWALL</b> ORLEANS PARISH, LOUISIANA			
<b>TYPICAL DETAILS</b>			
DESIGNED:	DRAWN:	CHECKED:	DATE:
B.H.D.	B.H.D.	J.A.R.	MARCH 1983
SUBMITTED:		SCALE:	FILE NO.:
Carl R. Suggs		AS SHOWN	H-4-29518
SPEC. NO.:		DWG. NO.:	OF:
DACW29-63-R-0056		8	11



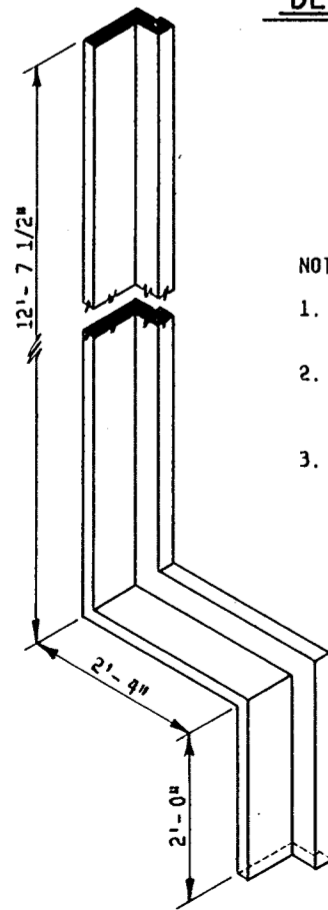
**SAFETY IS A PART OF YOUR CONTRACT**



**REACH "A" - AREA 1, AREA 2, AND AREA 4  
DETAIL OF JOINT BETWEEN NEW AND EXISTING "I"-WALL**

SCALE: 1" = 1'-0"

DETAIL 2/59

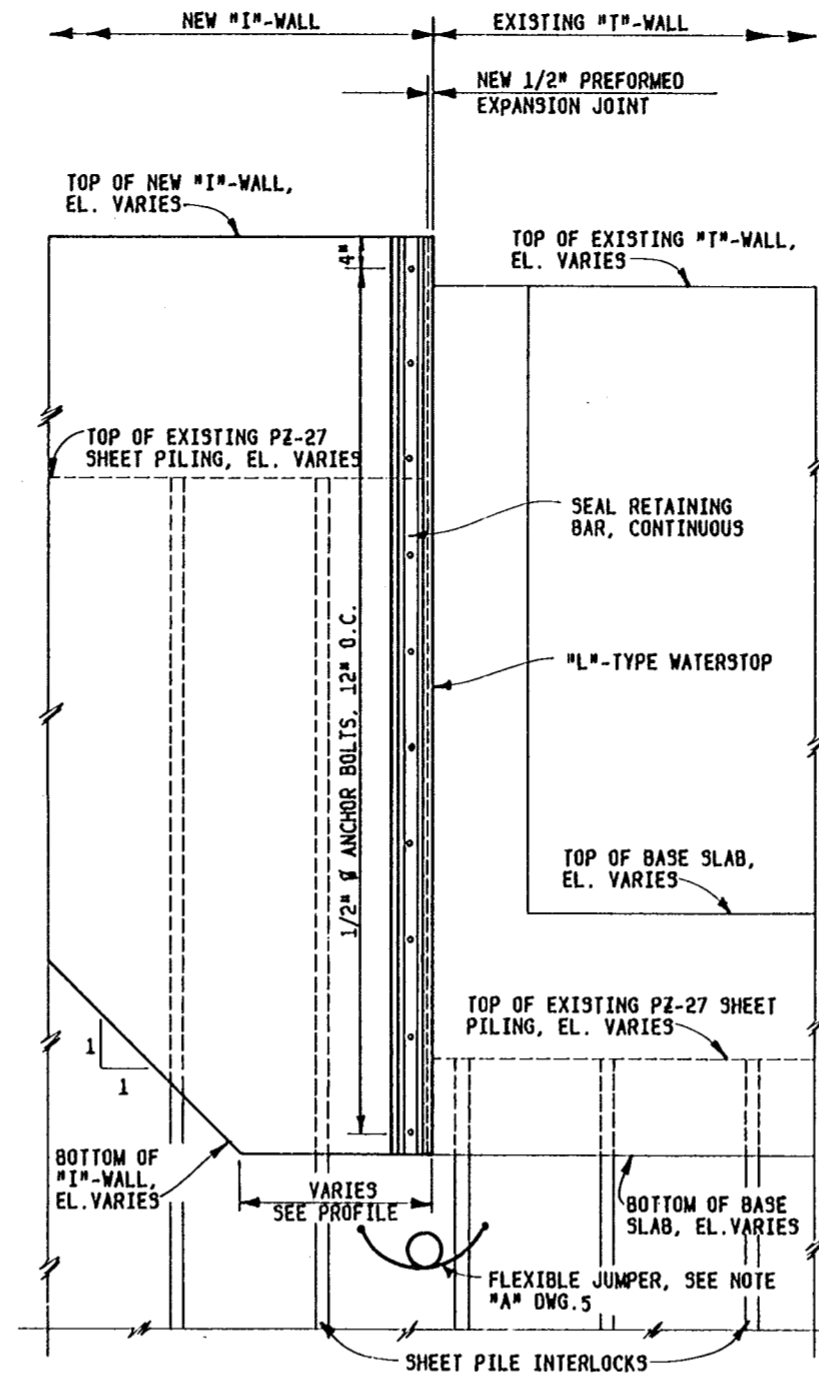


**DETAIL 1  
"L"-TYPE WATERSTOP  
REACH "B" - AREA 1**

N.T.S.

NOTE:

1. ALL INDIVIDUAL 90° CORNER INTERSECTIONS WILL BE FULLY MOLDED.
2. ALL SPLICES WILL BE FACTORY MADE IN HEAVY STEEL PRESS TYPE MOLDS UNDER PRESSURE AND HEAT.
3. ALL SPLICE JOINTS MUST DEVELOP A STRENGTH OF AT LEAST 50% OF THE MINIMUM TENSILE STRENGTH REQUIRED OF THE RUBBER.



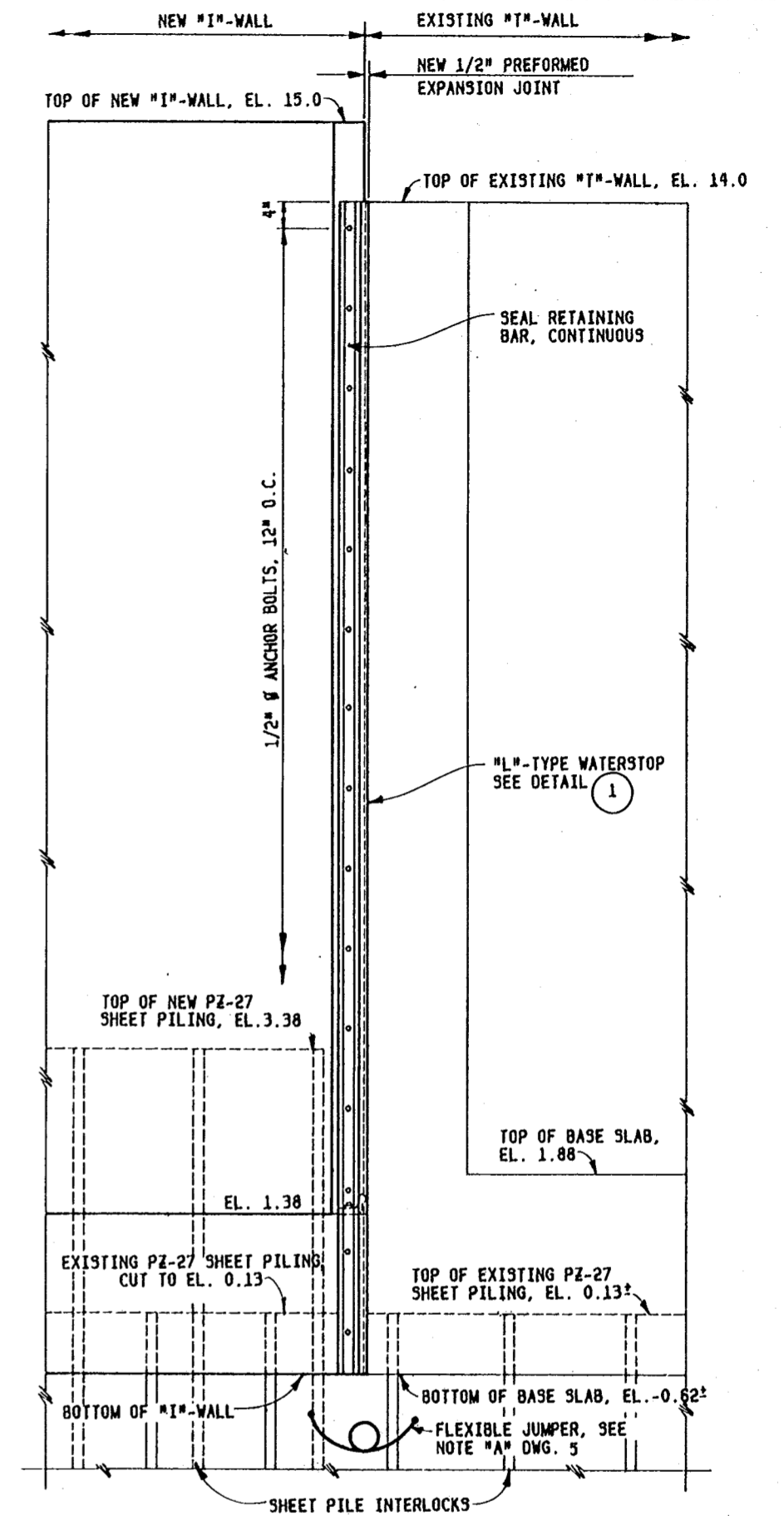
**REACH "A" - AREA 3, REACH "B" - AREA 2,  
AND REACH "C"  
DETAIL OF JOINT BETWEEN NEW AND EXISTING "I"-WALL**

SCALE: 1" = 1'-0"

DETAIL 3/59 3/69 3/79

NOTES:

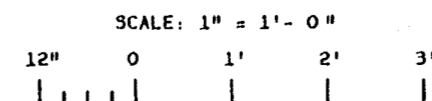
1. FOR GENERAL NOTES, SEE DWG. 5.
2. FOR DETAILS OF L-TYPE WATERSTOP, SEAL RETAINING BAR, AND ANCHOR BOLTS, SEE DWG. 8.



**REACH "B" - AREA 1  
DETAIL OF JOINT BETWEEN NEW "I"-WALL  
AND EXISTING "T"-WALL**

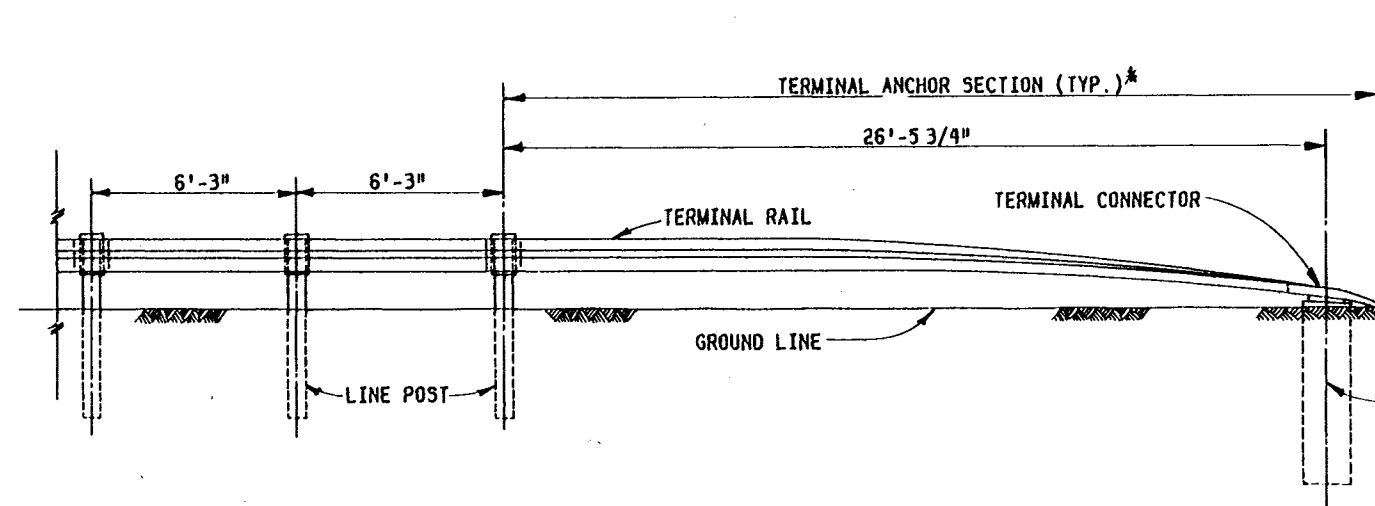
SCALE: 1" = 1'-0"

DETAIL 4/69



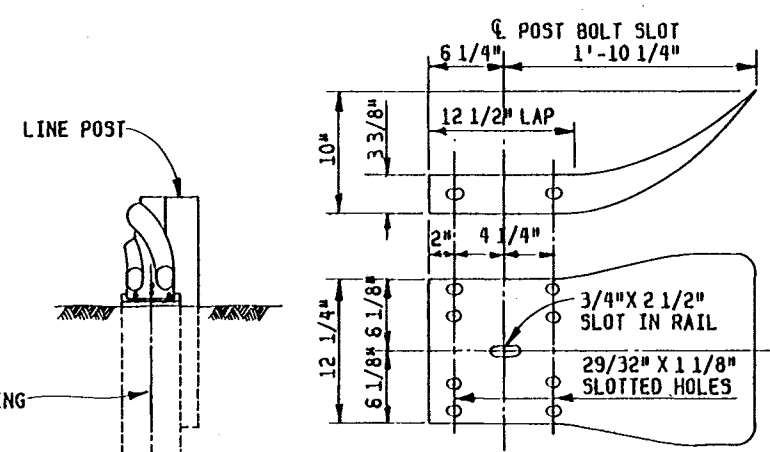
REVISION	DATE	DESCRIPTION	BY
<b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.</b>			
<small>LAKE PONCHARTRAIN LOUISIANA AND VEITCHY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL - EAST AND WEST LEVEE AND CITRUS BACK LEVEE-PARIS RD. THRU N.O.P. 5.1. CAPPING FLOWWALLS ORLEANS PARISH, LOUISIANA</small>			
<b>TYPICAL JOINT DETAILS</b>			
DESIGNED: B.H.O.	DRAWN: B.H.O.	CHECKED: J.A.R.	DATE: MARCH 1983
SUBMITTED: <i>Carl R. Ruppel</i>		SCALE: AS SHOWN	FILE NO.: H-4-29518
SPEC NO.: DACW29-83-R-0056		DWG NO.: 9	OF 11





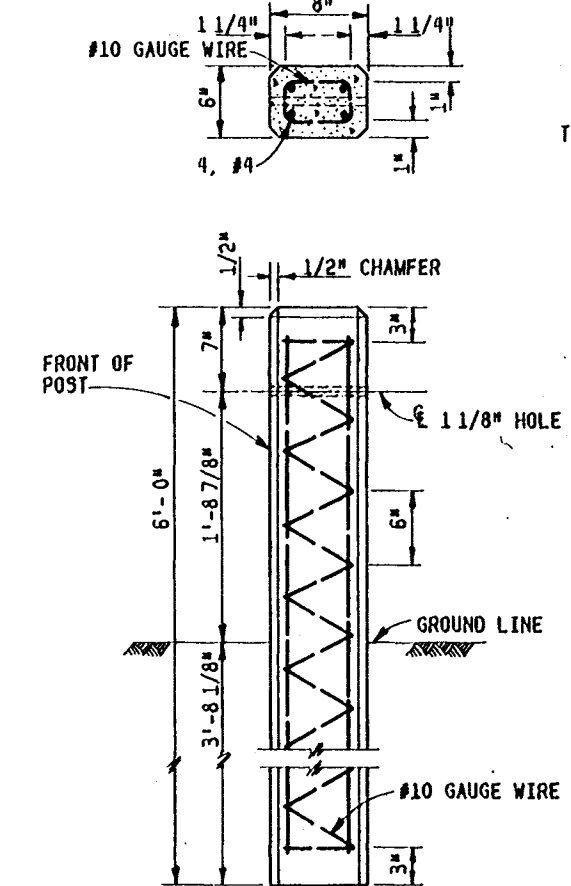
**ELEVATION**  
**GUARDRAIL LAYOUT**  
NOT TO SCALE

\* NOTE: DETAILS OF TERMINAL ANCHOR SECTION ARE SHOWN FOR REFERENCE PURPOSES ONLY.

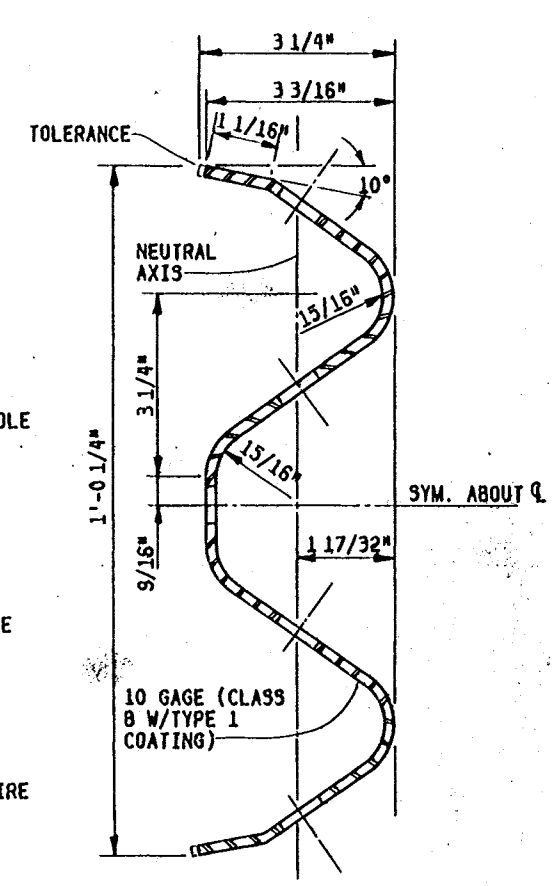


**END SECTION**  
SCALE: 1 1/2" = 1'-0"

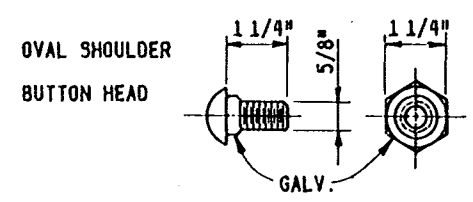
**LINE POST**  
**END VIEW**



**ELEVATION**  
**TYPICAL CONCRETE POST**  
SCALE: 1 1/2" = 1'-0"

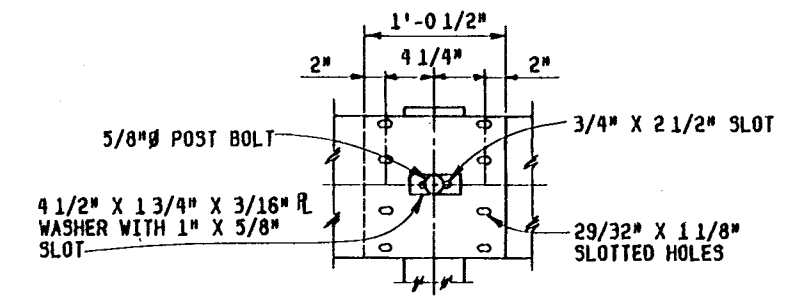


**SECTION THRU RAIL ELEMENT**  
N.T.S.

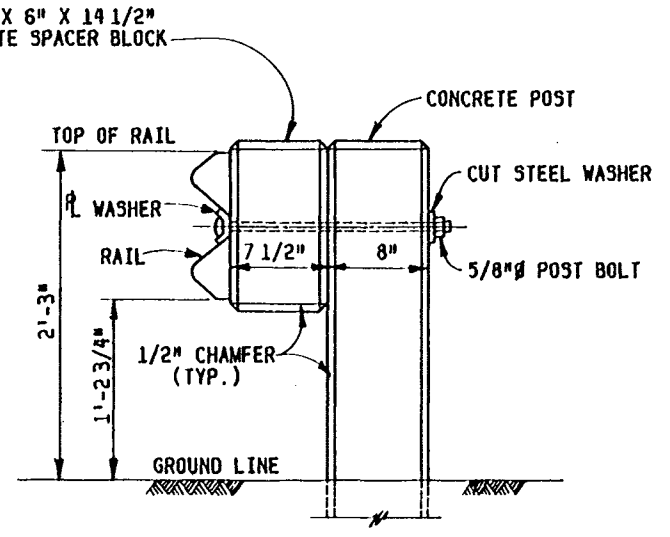


**SPLICE BOLT** SHOWN **NUT**  
**POST BOLT** SIMILAR EXCEPT LENGTH  
SCALE: 6" = 1'-0"

NOTE: BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT. RECTANGULAR WASHERS AS INDICATED WILL BE USED.

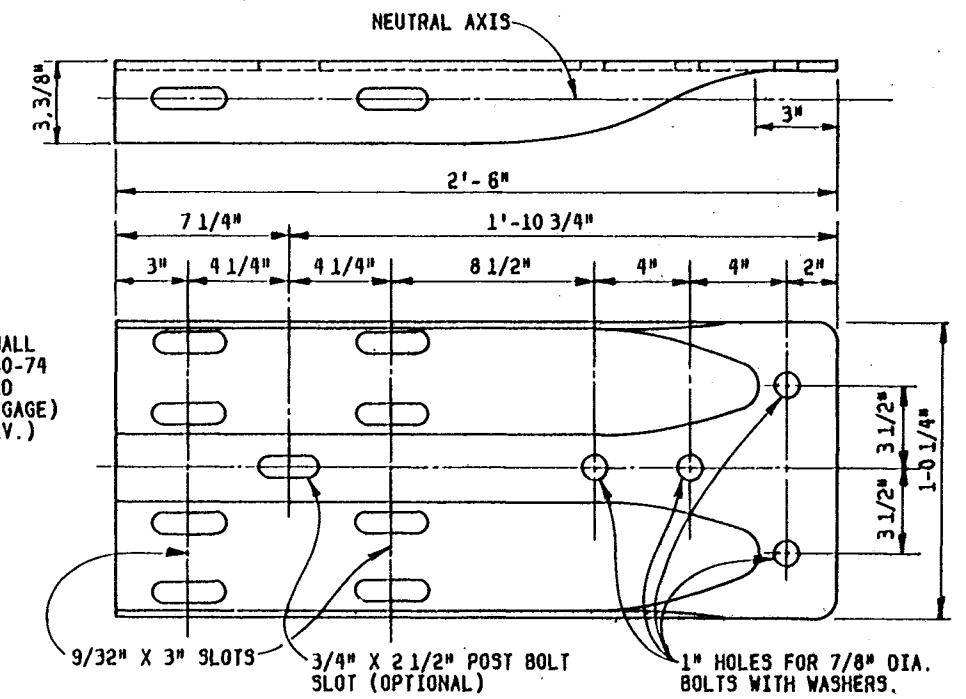


**RAIL SPLICE**  
(LAP IN DIRECTION OF TRAFFIC)  
SCALE: 1 1/2" = 1'-0"



**LINE POST**  
SCALE: 1 1/2" = 1'-0"

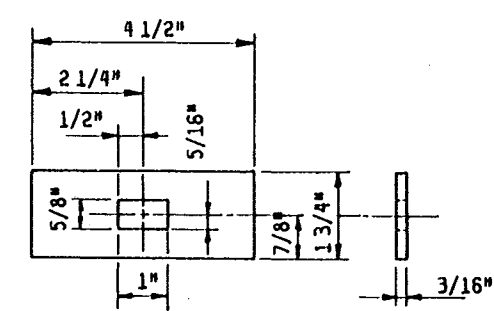
NOTE: TERMINAL CONNECTOR SHALL CONFORM TO AASHTO M180-74 OR LATEST REVISION AND SHALL BE CLASS B (10 GAGE) W/TYPE 1 COATING (GALV.)



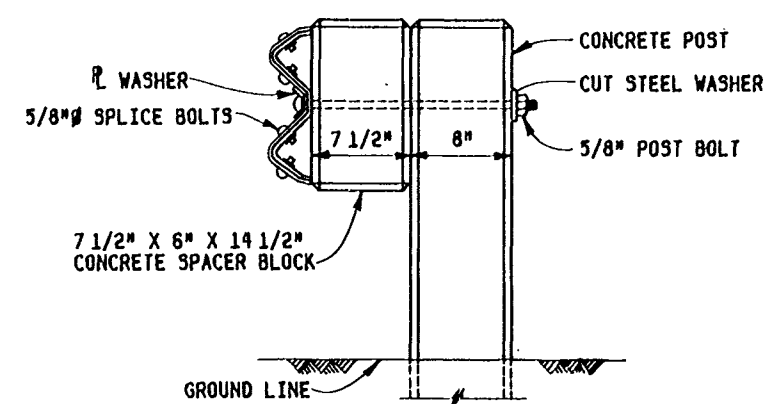
**TERMINAL CONNECTOR FOR USE WITH GUARDRAIL TERMINAL ANCHOR SECTIONS**

NOTE: DETAIL SHOWN FOR REFERENCE PURPOSES ONLY.

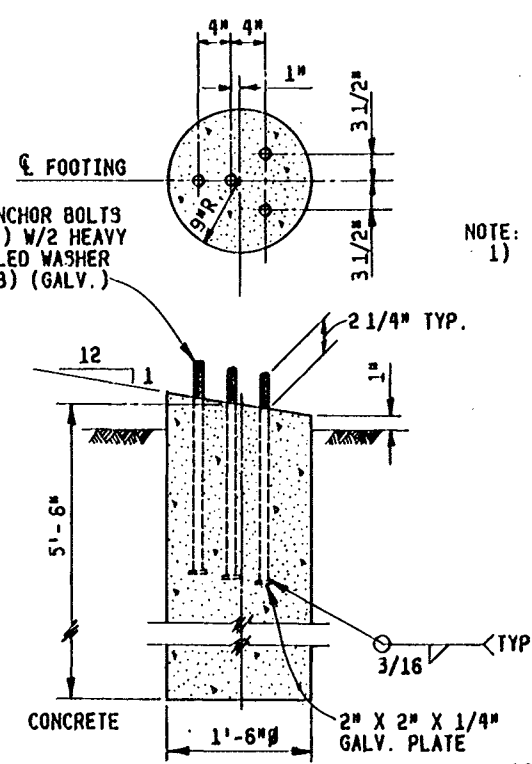
SCALE: 3" = 1'-0"



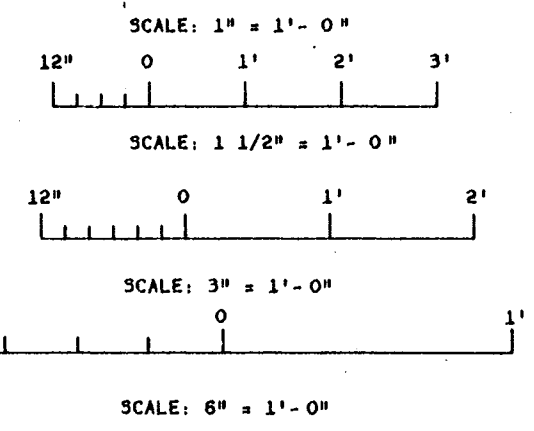
**WASHER DETAILS**  
SCALE: 6" = 1'-0"



**RAIL SPLICE POST**  
SCALE: 1 1/2" = 1'-0"



**FOOTING DETAIL**  
SCALE: 1" = 1'-0"  
(DETAIL SHOWN FOR REFERENCE PURPOSES ONLY)

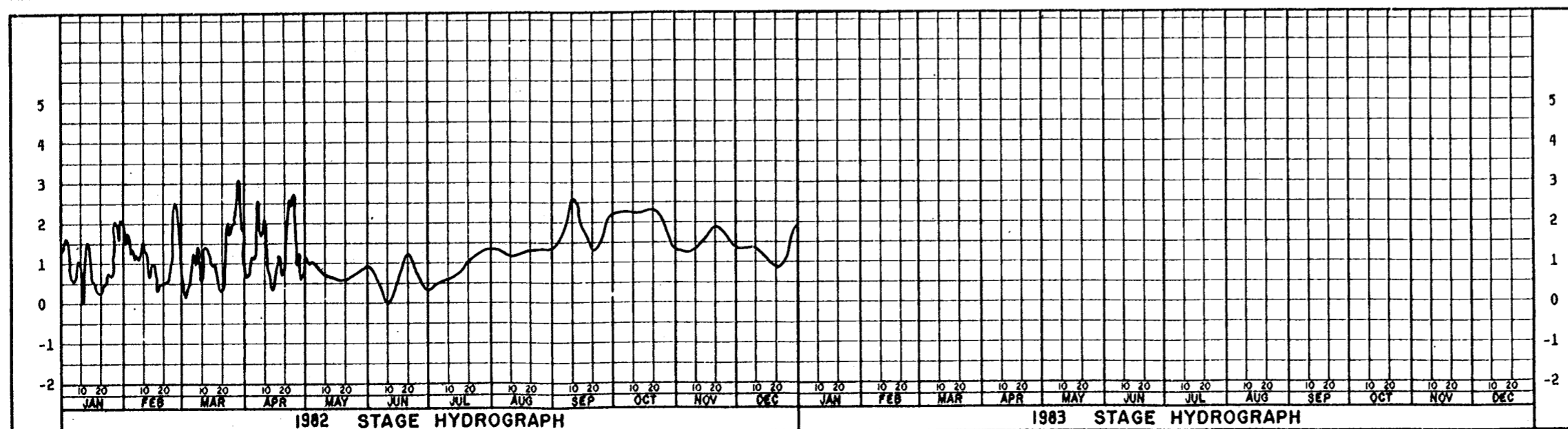
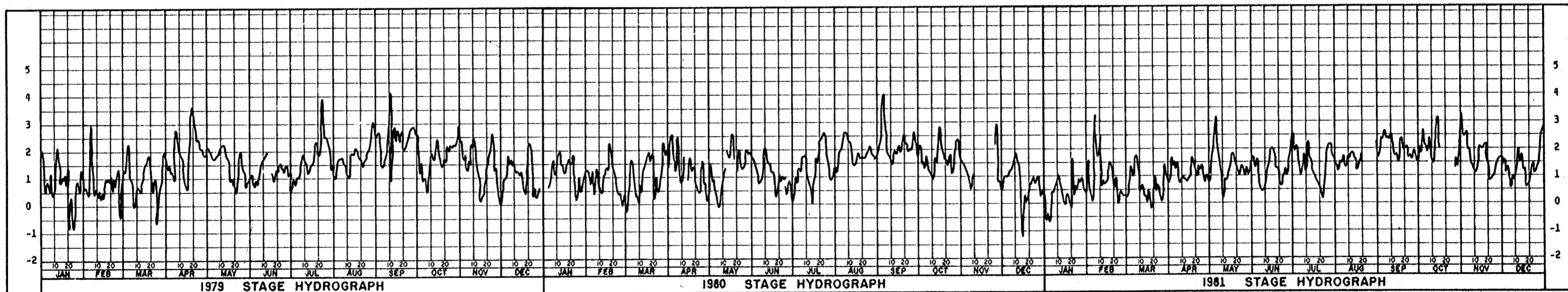
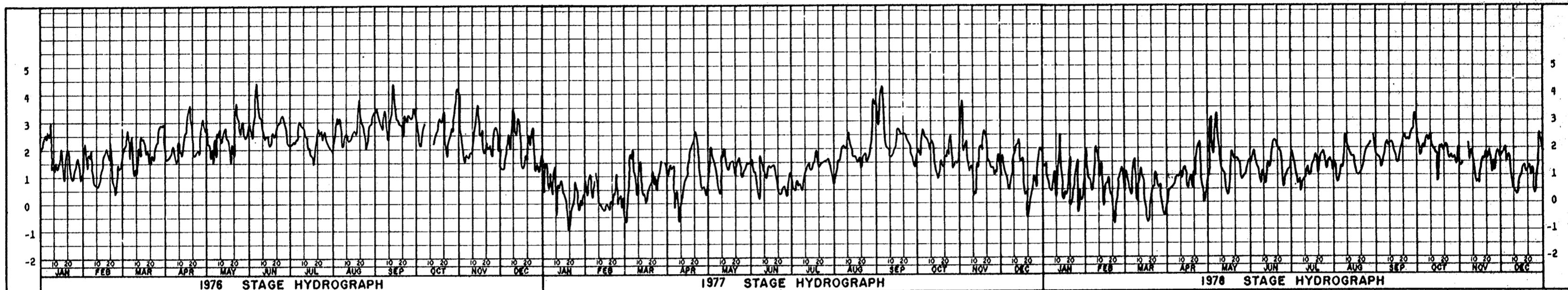
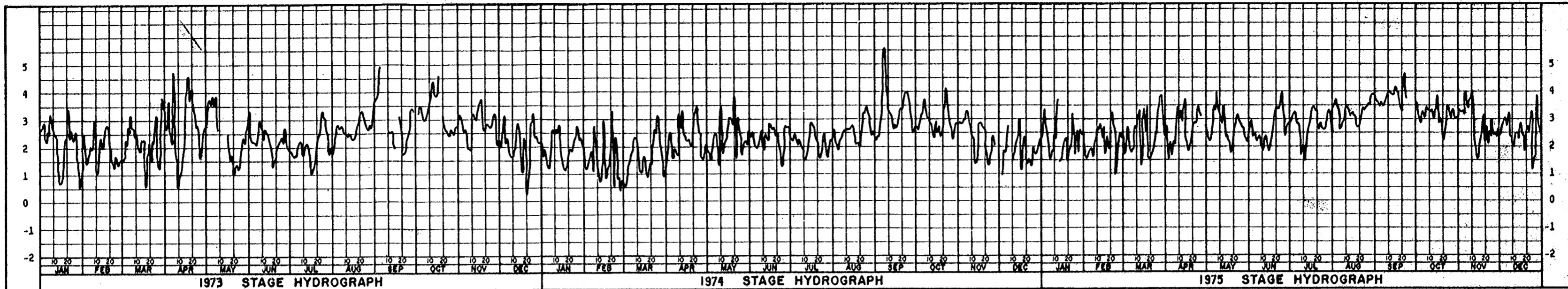


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<b>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS, LA.</b> <b>CORPS OF ENGINEERS</b> <b>NEW ORLEANS, LA.</b> LAKE PONTCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL-EAST AND WEST LEVEE AND CITRUS BACK LEVEE-PARIS RD. THRU N.O.P. 3. I. <b>CAPPING FLOODWALL</b> ORLEANS PARISH, LOUISIANA <b>GUARDRAIL DETAILS</b>			
DESIGNED:	DRAWN:	CHECKED:	DATE:
B.H.D.	B.H.D.	J.A.R.	MARCH 1983
SCALE:	FILE NO.:		
AS SHOWN	H-4-29518		
QUANTITY:	SPEC. NO.:		
1	DACW29-83-R-0055		
		DATE:	BY:
		MARCH 1983	H-4-29518
		SCALE:	FILE NO.:
		AS SHOWN	H-4-29518
		QUANTITY:	SPEC. NO.:
		1	DACW29-83-R-0055
		DATE:	BY:
		MARCH 1983	H-4-29518
		SCALE:	FILE NO.:
		AS SHOWN	H-4-29518
		QUANTITY:	SPEC. NO.:
		1	DACW29-83-R-0055
		DATE:	BY:
		MARCH 1983	H-4-29518
		SCALE:	FILE NO.:
		AS SHOWN	H-4-29518
		QUANTITY:	SPEC. NO.:
		1	DACW29-83-R-0055



GAGE READINGS IN FEET

GAGE READINGS IN FEET



INTRACOASTAL WATERWAY NEAR  
PARIS RD. BRIDGE  
NEW ORLEANS, LA.  
GAGE ZERO, N.G.V.D.



*Safety is a Part of Your Contract*

REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.			
LAKE PONCHARTRAIN LOUISIANA AND VICINITY (HURRICANE PROTECTION) INNER HARBOR NAVIGATION CANAL-EAST AND WEST LEVEE AND CITRUS BACK LEVEE-PARIS RD. THRU N.O.P.S.I. CAPPING FLOODWALL ORLEANS PARISH, LOUISIANA <b>HYDROGRAPHS</b>			
DESIGNED	DRAWN	CHECKED	DATE
B.H.D.	B.H.D.	J.A.R.	MARCH 1983
SCALE		FILE NO.	
AS SHOWN		H-4-29518	
SPEC. NO.		DWG. NO.	
DACW29 - 83-R-0056		11 OF 11	