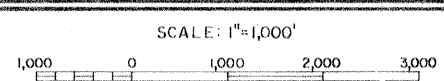


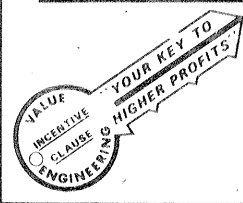
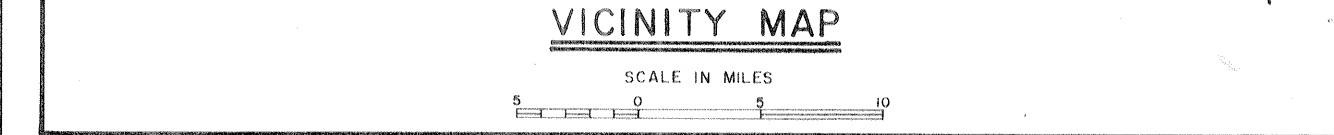
TABULATION OF BENCH MARKS		
BENCH MARK	LOCATION	DESCRIPTION & ELEVATION
B.M. A3135 U.S.C. & G.S. (1971 VALUE) PAGE 4 OF LINE 101 QUAD. 300893	2.65 MILES EAST ALONG U.S. HIGHWAY 90 FROM THE BRIDGE OVER INNER HARBOR NAVIGATION CANAL, THENCE ABOUT 5.1 MILES EAST ALONG GENTLY ROAD (OLD U.S. HIGHWAY 90), ABOUT 0.65 MILE NORTHEAST OF THE MAIN ENTRANCE TO LACELLE STEEL COMPANY - MICHOUID, ABOUT 0.4 MILE SOUTHWEST OF THE JUNCTION OF U.S. HIGHWAY 90 AT MICHOUID, SET IN THE TOP OF THE SOUTHEAST EDGE OF THE PAVEMENT OF HIGHWAY, 20 FEET SOUTHWEST OF THE CENTER LINE OF THE ROAD, 40 FEET NORTH OF POWER POLE NO. 82, 1/2 FOOT NORTHWEST OF SOUTHEAST EDGE OF HIGHWAY PAVEMENT.	L.A. GEODETIC SURVEY DISK ELEVATION IS 2.500 M.S.L.
B.M. A3137 U.S.C. & G.S. (1971 VALUE) PAGE 9 OF LINE 101 QUAD. 300893	8.95 MILES EAST ALONG U.S. HIGHWAY 90 FROM THE BRIDGE OVER INNER HARBOR NAVIGATION CANAL AT NEW ORLEANS, AT MIKE'S RESTAURANT, SERVICE STATION AND BAR, SET ON THE HIGHWAY SHOULDER, 20 FEET SOUTHWEST OF THE CENTER LINE OF THE HIGHWAY, 9 FEET SOUTHWEST OF A L.A. GEODETIC SURVEY REFERENCE DISK THAT IS SET IN THE SOUTHWEST CORNER OF HIGHWAY PAVEMENT, 60 FEET WEST OF THE WEST CORNER OF MIKE'S PLACE, 1/2 FOOT NORTHWEST OF POWER POLE NO. 357 (THE SECOND POWER POLE NORTHEAST OF A POLE WITH A TRANSFORMER), ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE TOP OF A CONCRETE POST ABOUT 2 INCHES UNDERGROUND.	L.A. GEODETIC SURVEY DISK ELEVATION IS 2.356 M.S.L.

LOCATION SITE MAP



INDEX TO DRAWINGS

DWG.	TITLE	DWG.	TITLE	DWG.	TITLE
	GENERAL DRAWINGS	7	TYPICAL LEVEE SECTIONS	15	SOIL BORING LEGEND
1	LOCATION SITE MAP, VICINITY MAP AND INDEX		WALL MONOLITHS	16	BORROW AREA LOCATION, HOWZE BEACH
2	PLAN AND PROFILE	8	WALL MONOLITHS, MONOLITHS 3 AND 5		
3	CONSTRUCTION SEQUENCE, STAGES I THRU III	9	WALL MONOLITHS, MONOLITH 4		
4	CONSTRUCTION SEQUENCE, STAGES IV THRU VII	10	WALL MONOLITHS, MONOLITHS 1, 2, 6 AND 7		
	SHEET PILING AND MONOLITH LAYOUTS AND LEVEE SECTIONS		MISCELLANEOUS		
5	STEEL SHEET PILING LAYOUT AND TYPICAL SECTIONS	11	DISCHARGE PIPE REMOVAL DETAILS		
6	PILING AND MONOLITH LAYOUT	12	WALL SECTIONS AND PILING DETAILS		
		13	PIPE SADDLE AND LADDER DETAILS AND BORINGS		
		14	MISCELLANEOUS WALL DETAILS		



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NOTE: DRAWING REDUCED TO ONE HALF SCALE

REVISION	DATE	DESCRIPTION	BY

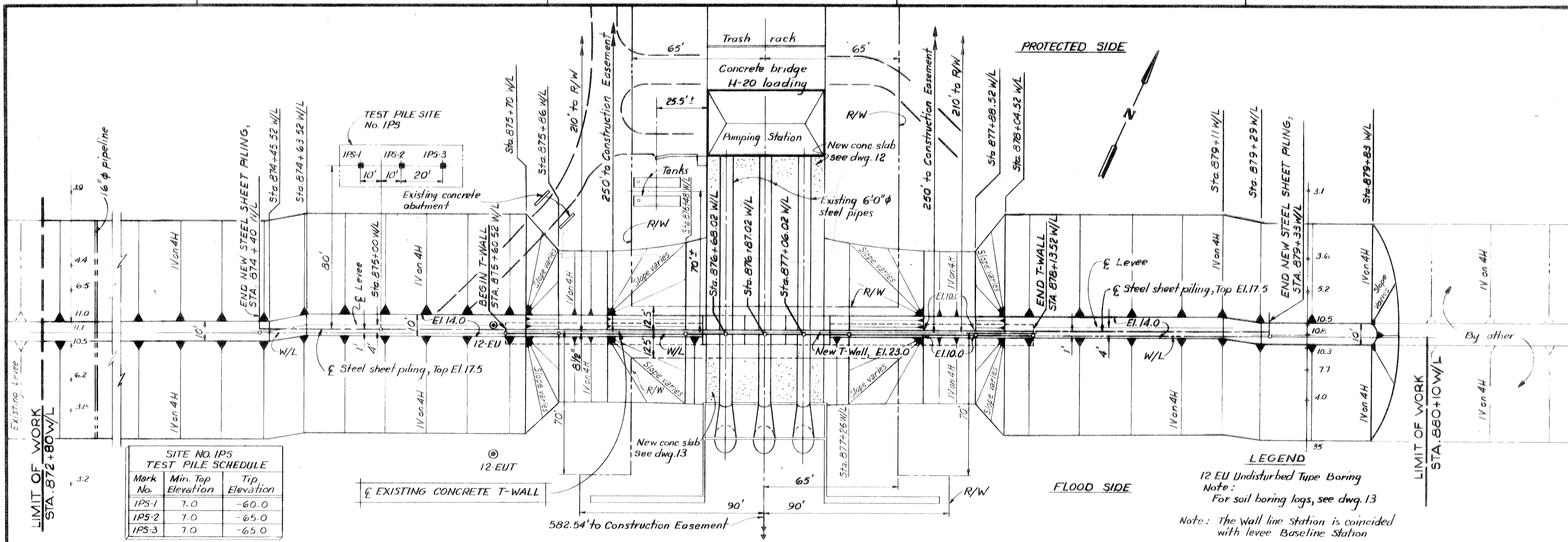
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LA.

APPROVED: [Signature]
APPROVED: [Signature]

DESIGNED BY: J.G.B. DRAWN BY: R.G.S. H.L.B. CHECKED BY: [Signature]

DATE: AUG. 1976 SCALE: AS SHOWN FILE NO: H-4-25835

SPEC. NO. DACW 29-76-B-0283 DWG. 16 of 16

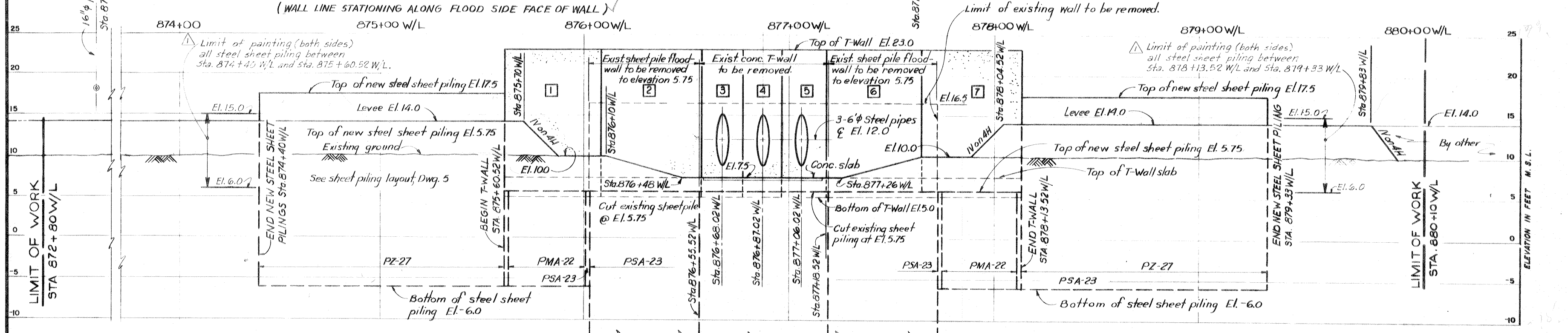


SITE NO. IPS
TEST PILE SCHEDULE

Mark No.	Min. Top Elevation	Tip Elevation
IPS-1	7.0	-60.0
IPS-2	7.0	-65.0
IPS-3	7.0	-65.0

LEGEND
 12 EU Undisturbed Type Boring
 Note:
 For soil boring logs, see dwg. 13
 Note: The wall line station is coincided with levee Baseline Station

PLAN
 Scale: 1" = 20'

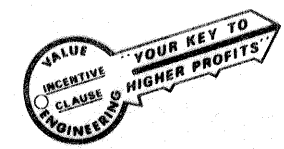


LEGEND
 4 Wall monolith numbers

PROFILE
 Scale: 1" = 20' Horiz.
 1" = 5' Vert.

NOTE:
 DRAWING REDUCED
 TO ONE HALF SCALE

**THIS PLAN ACCOMPANIES
 MODIFICATION 00001 TO
 CONTRACT NO. DACW29-
 77-C-0037**



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

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
 HURRICANE PROTECTION BARRIER PLAN
 NEW ORLEANS EAST BACK LEVEE
 FLOODWALL AT INTRACOASTAL PUMPING STATION
 ORLEANS PARISH, LA.

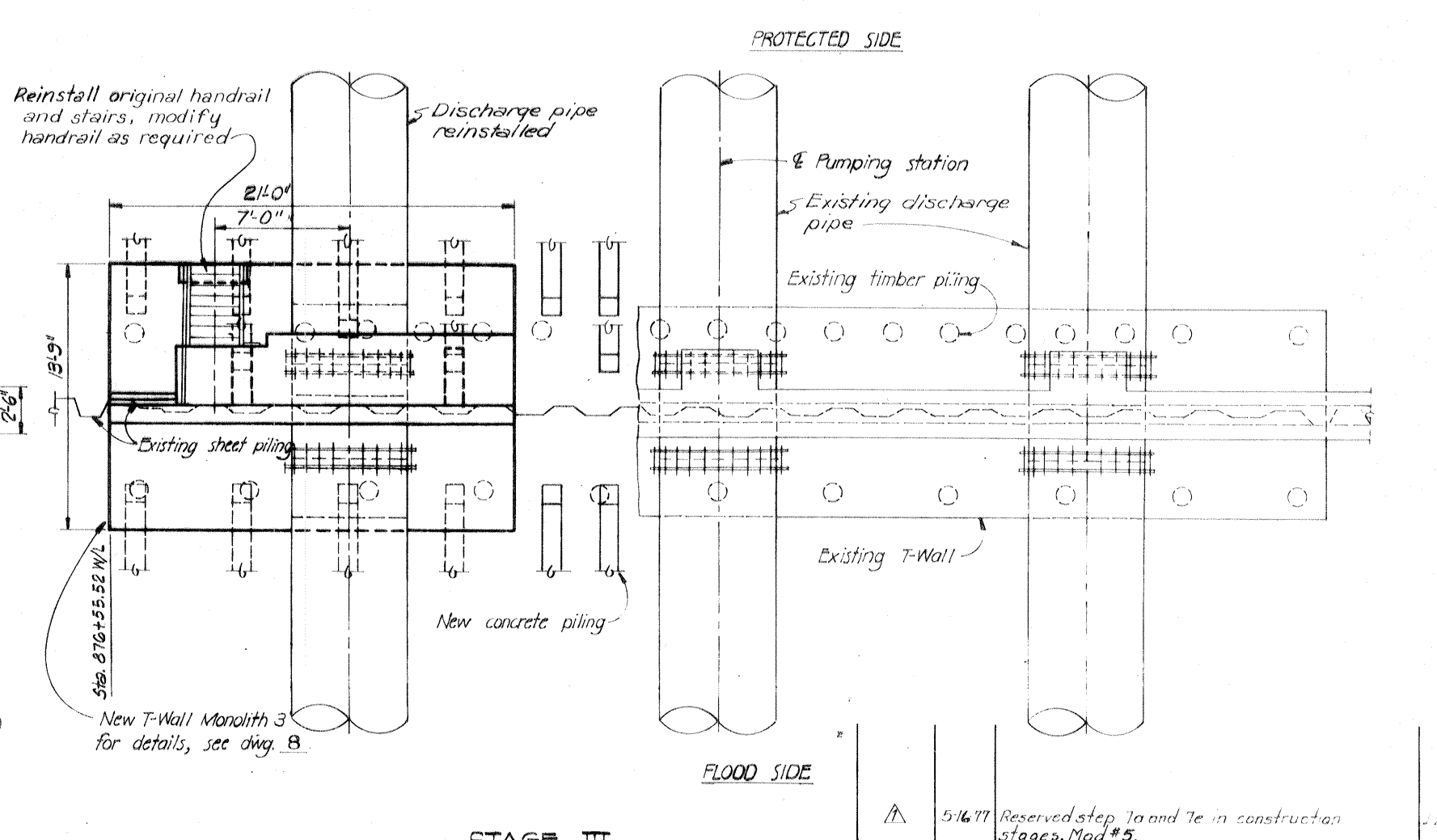
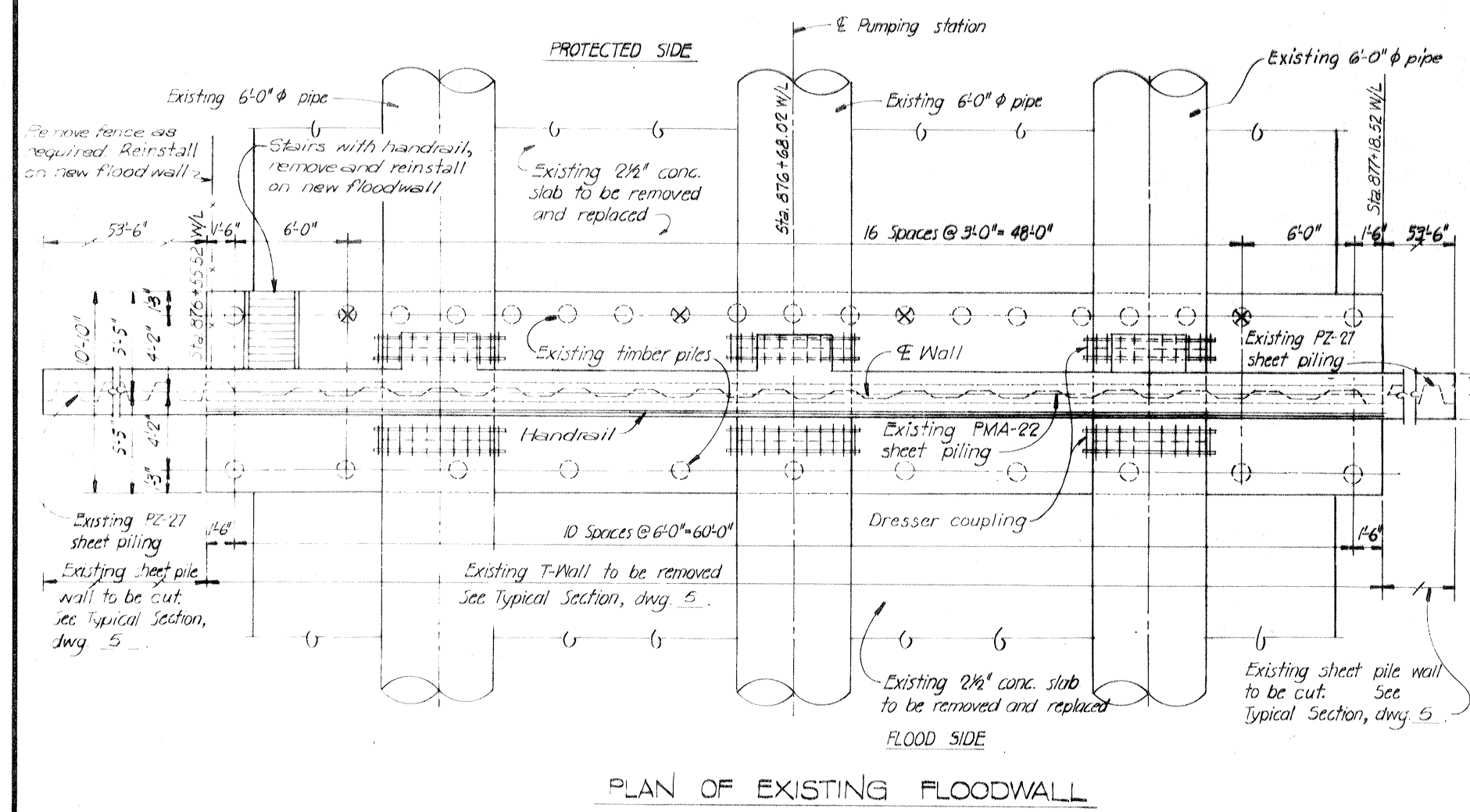
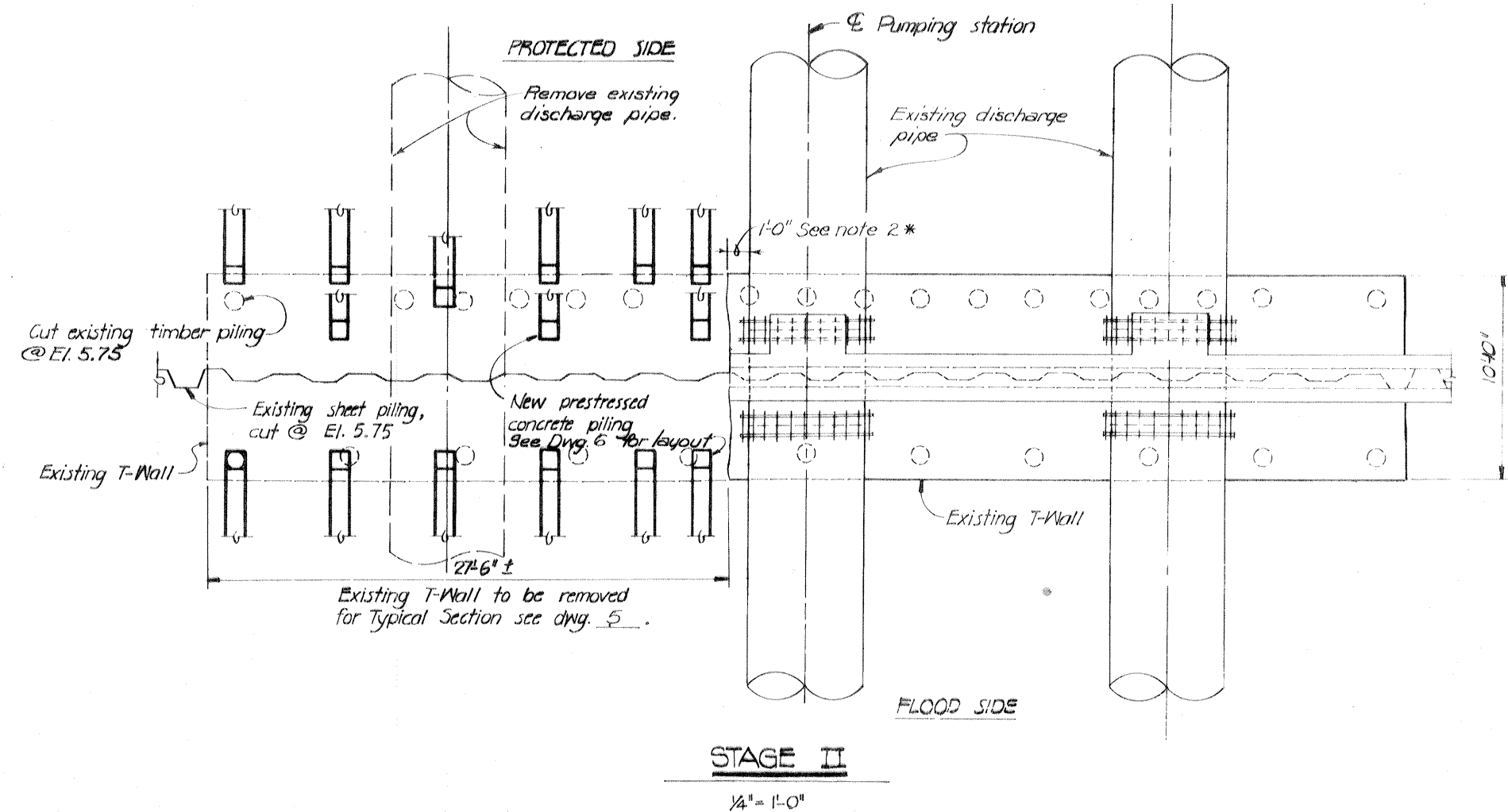
PLAN AND PROFILE

DESIGNED	DRAWN	CHECKED	DATE	SCALE	FILE NO.
T.H.T.	T.W.W.	T.S.T.	AUG. 1976	AS SHOWN	H-4-25835
SUBMITTED			APPROVED	BY	
DACW29-76-B-0283			DATE	BY	
			DATE	DESCRIPTION	
			12-6-76	Added sheet piling painting note, Mod. # 1	H.J.H.

2 OF 16

CONSTRUCTION PROCEDURE STAGES I THRU VII

STEP	OPERATION	STAGE
1	Remove existing 2 1/2" concrete slab on grade as required.	I
2	Cut existing sheet pile wall, construct temporary bents, install pipe saddles & shim to support two outer and center discharge pipes.	
MONOLITH 3		
a	Remove outer discharge pipe by following Pipe Removal Procedure outlined in specifications.	II
b	Remove existing concrete wall and footing to limit shown.	II
c	Remove all timber piles that interfere with the driving of new concrete piles. (Interfering piles are shown by ⊗ in stage I.)	II
d	Trim off tops of all remaining existing timber piles to El.+5.75 or as required to miss concrete piling.	II
e	Drive new concrete piles. (See Stage II on drawing).	II
f	Construct Monolith 3	III
g	Reinstall Discharge Pipe by following Pipe Reinstallation Procedure outlined in specifications.	III
4	Remove temporary bents and pull all temporary piling for monolith # 3	
MONOLITH 5		
a	Cut existing sheet pile wall, construct temporary bents, install pipe saddles and shim to support discharge pipe.	IV
b	Remove discharge pipe by following Pipe Removal Procedure outlined in specifications.	IV
c	Remove existing concrete wall and footing to limit shown.	IV
d	Pull all timber piles that interfere with the driving of new concrete piles. (Interfering piles are shown by ⊗ in Stage I.)	IV
e	Trim off tops of all remaining existing timber piles to El.+5.75 or as required to miss concrete piling.	IV
f	Drive new concrete piles. (See Stage IV on drawing)	IV
g	Construct Monolith 5	V
h	Reinstall Discharge Pipe by following Pipe Reinstallation Procedure outlined in specifications.	V
6	Remove temporary bents and pull all temporary piles for monolith # 5	
MONOLITH 4		
a	Reserved	
b	Remove existing concrete wall and footing.	VI
c	Trim off tops of timber piles to El.+5.75 or as required to miss concrete piling.	VI
d	Construct Monolith 4	VI
e	Reserved	
8	Remove temporary bents and pull all temporary piling for monolith # 4	
9	Place new concrete slab on grade after removing remaining slab.	



5/16/77 Reserved step 7a and 7e in construction stages. Mod #5.

REVISION	DATE	DESCRIPTION	BY

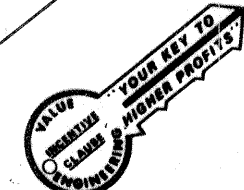
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LA.
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
HURRICANE PROTECTION BARRIER PLAN
NEW ORLEANS EAST BACK LEVEE
FLOODWALL AT INTRACOASTAL PUMPING STATION
ORLEANS PARISH, LA.
CONSTRUCTION SEQUENCE
STAGES I THRU III

DESIGNED	DRAWN	CHECKED	DATE	SCALE	FILE NO.
J.G.B.	M.L.B.	H.L.B.	AUG. 1976	AS SHOWN	H-4-25835
SUBMITTED					

SPEC. NO. DACW29-76-B-0283 DWG. 3 OF 16

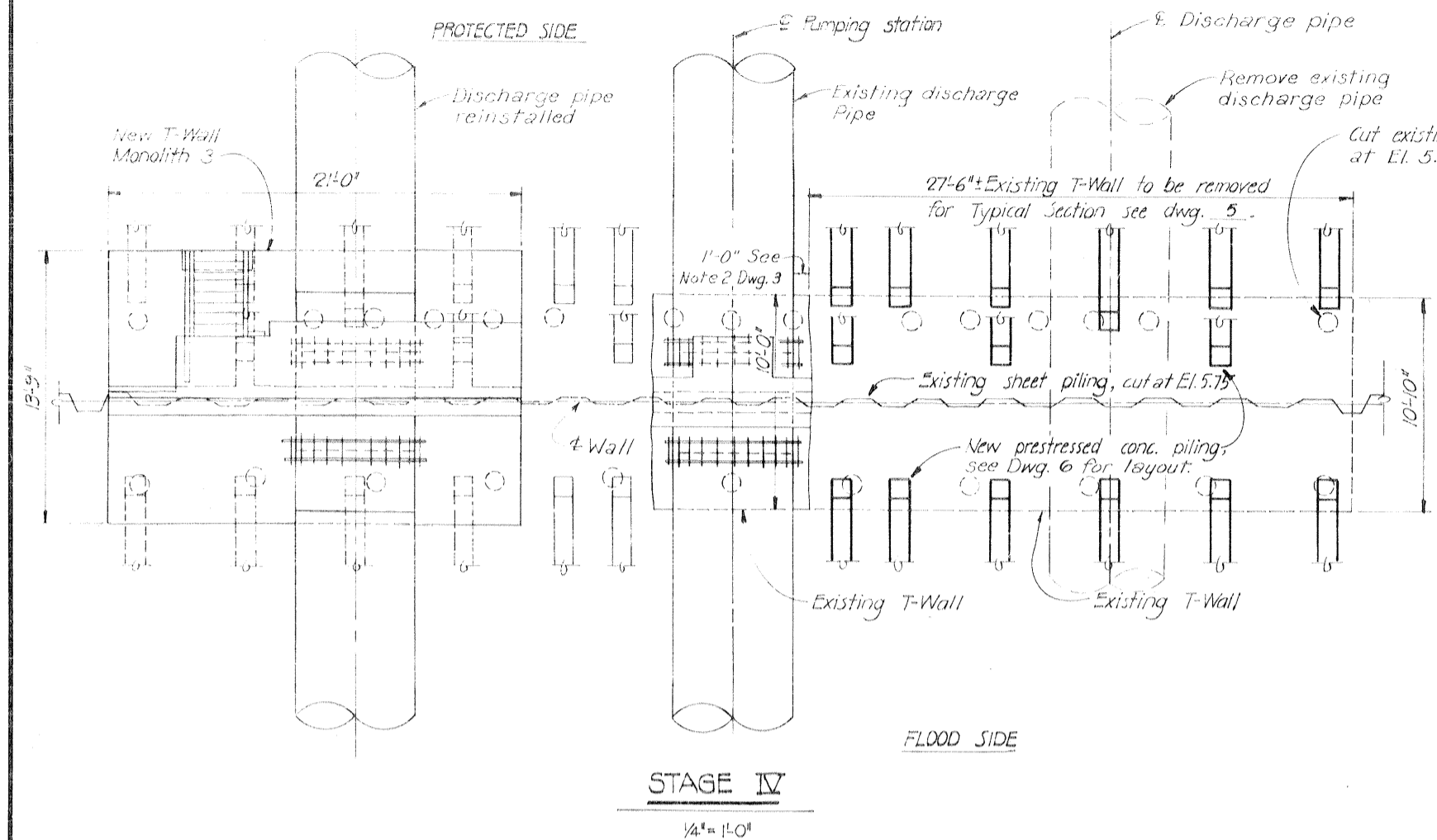
Notes:
1. Existing timber piling shown in accordance with original drawings. Contractor may pull or cut additional piling not specified above should they interfere with driving of new piling after approval of contracting officer.
2. Distance is to centerline of piling. Contractor shall locate piling before establishing limits on removing concrete T-Wall.

THIS PLAN ACCOMPANIES
MODIFICATION P00005 TO
CONTRACT NO. DACW29-
77-C-0037.

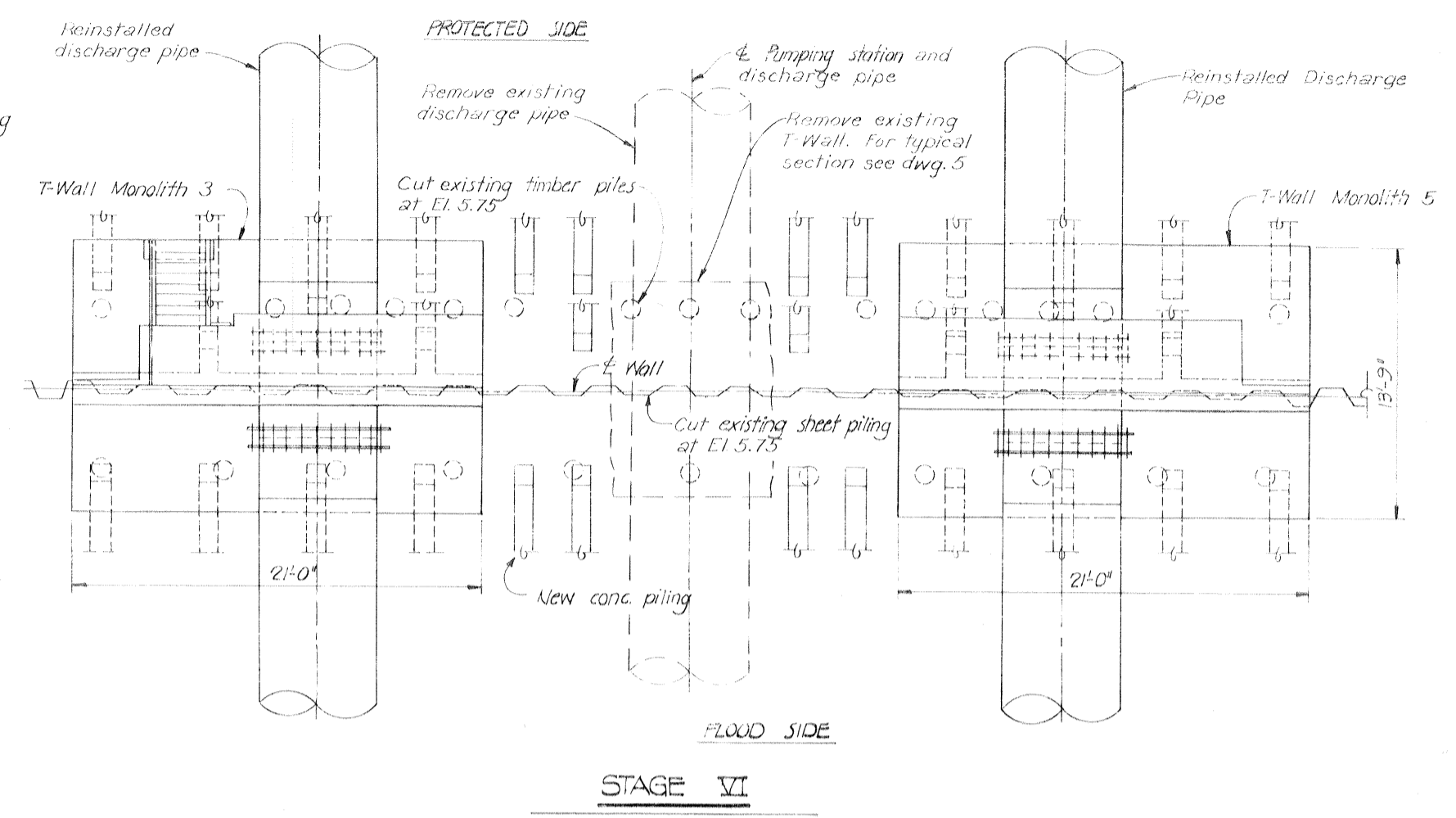


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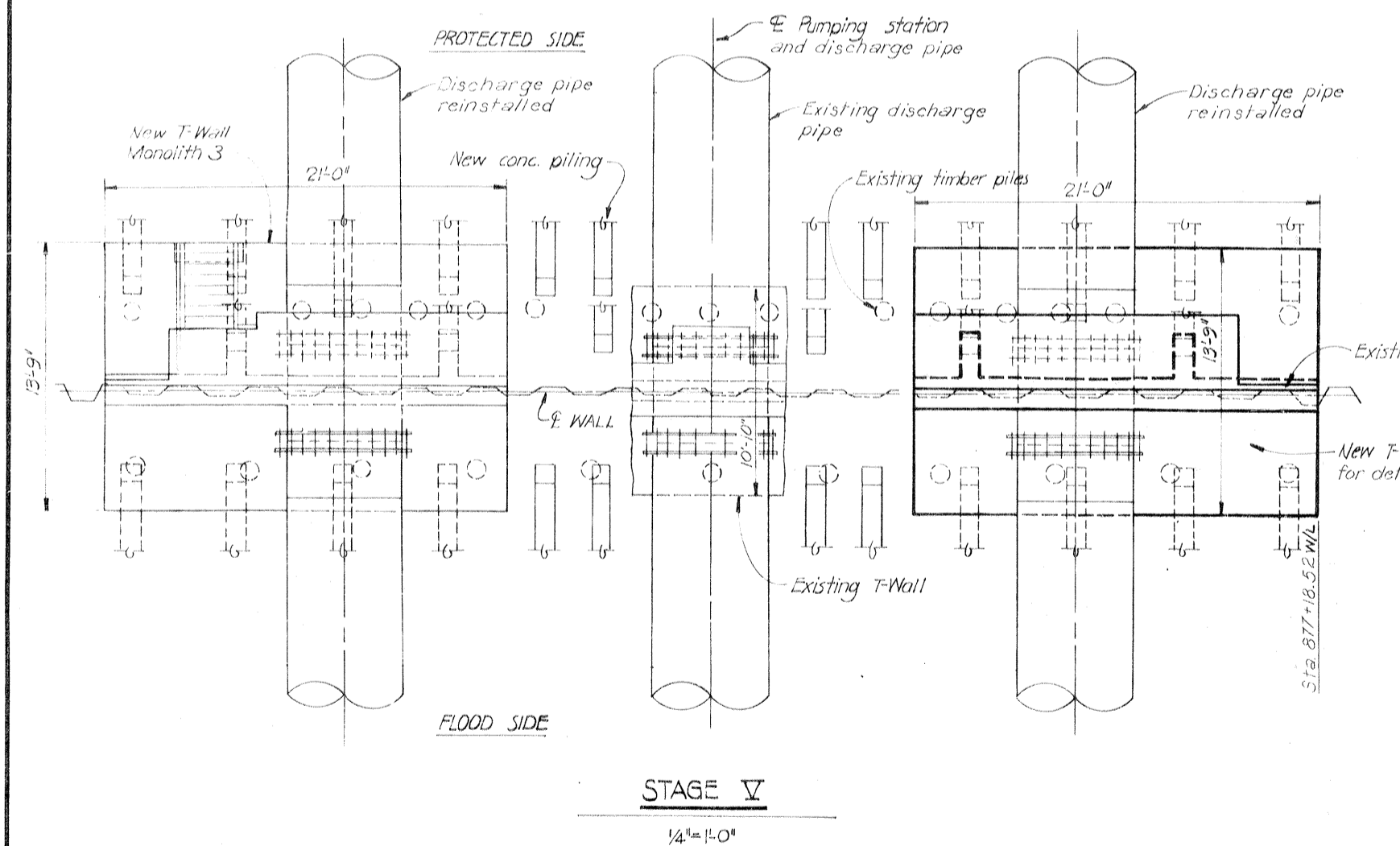
NOTE:
DRAWING REDUCED
TO ONE HALF SCALE



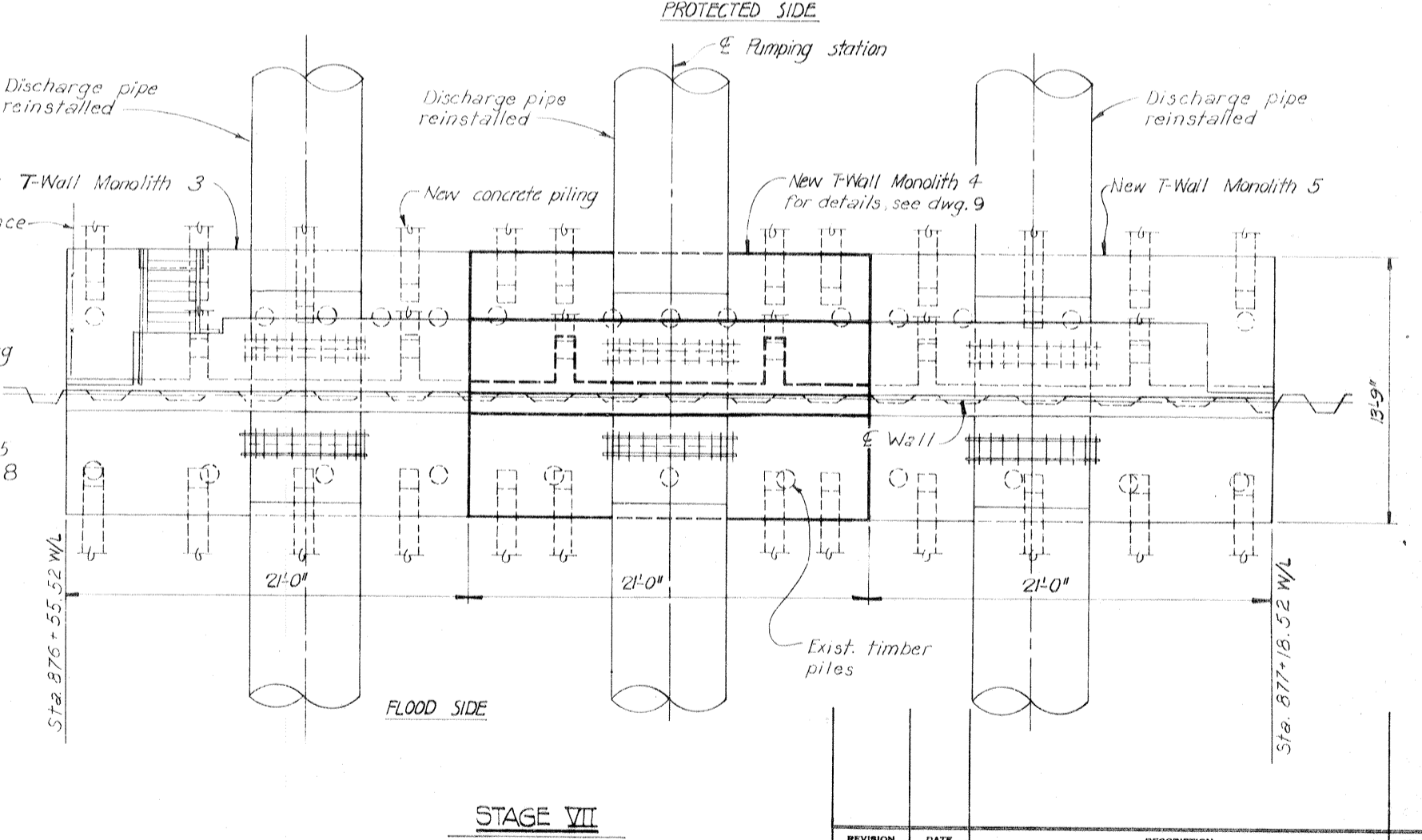
STAGE IV
1/4" = 1'-0"



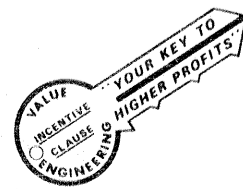
STAGE VI
1/4" = 1'-0"



STAGE V
1/4" = 1'-0"



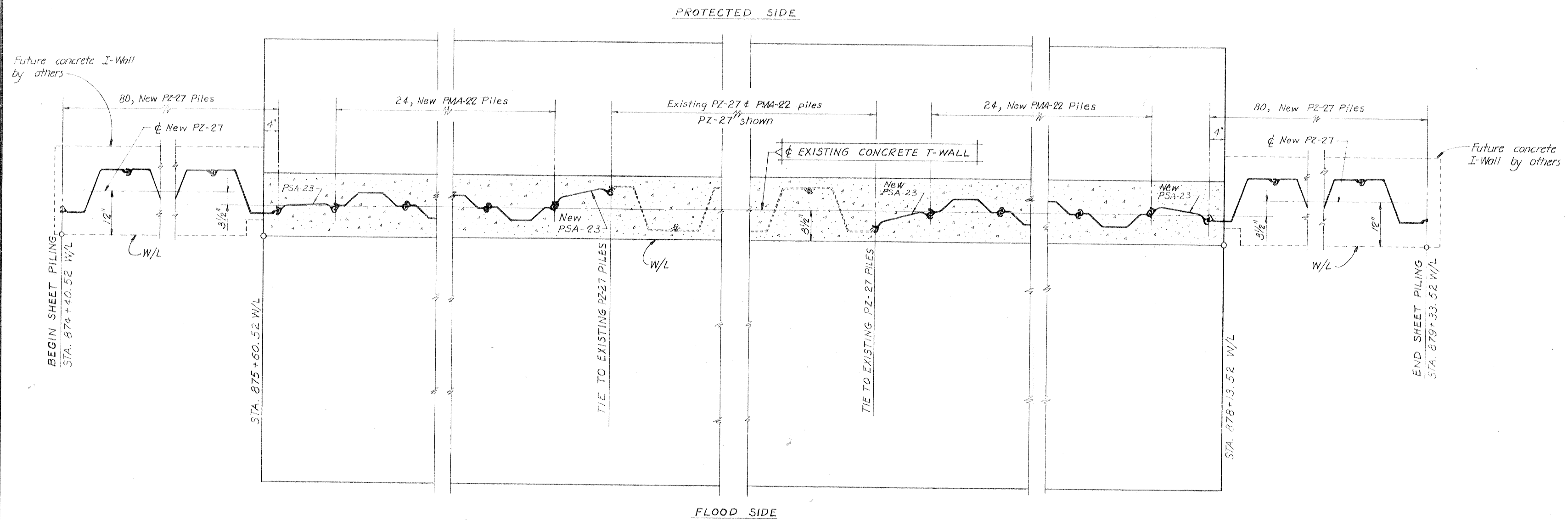
STAGE VII
1/4" = 1'-0"



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NOTE:
DRAWING REDUCED
TO ONE HALF SCALE

REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA. LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY HURRICANE PROTECTION BARRIER PLAN NEW ORLEANS EAST BACK LEVEE FLOODWALL AT INTRACOASTAL PUMPING STATION ORLEANS PARISH, LA. CONSTRUCTION SEQUENCE STAGES IV THRU VII			
DESIGNED	DRAWN	CHECKED	DATE
J.G.B.	R.D.B.	H.L.B.	AUG. 1976
SCALE:		AS SHOWN	FILE NO.
			H-4-25835
SUBMITTED		SPEC. NO.	DWG. 4 OF 16
		DACW29-76-B-0283	

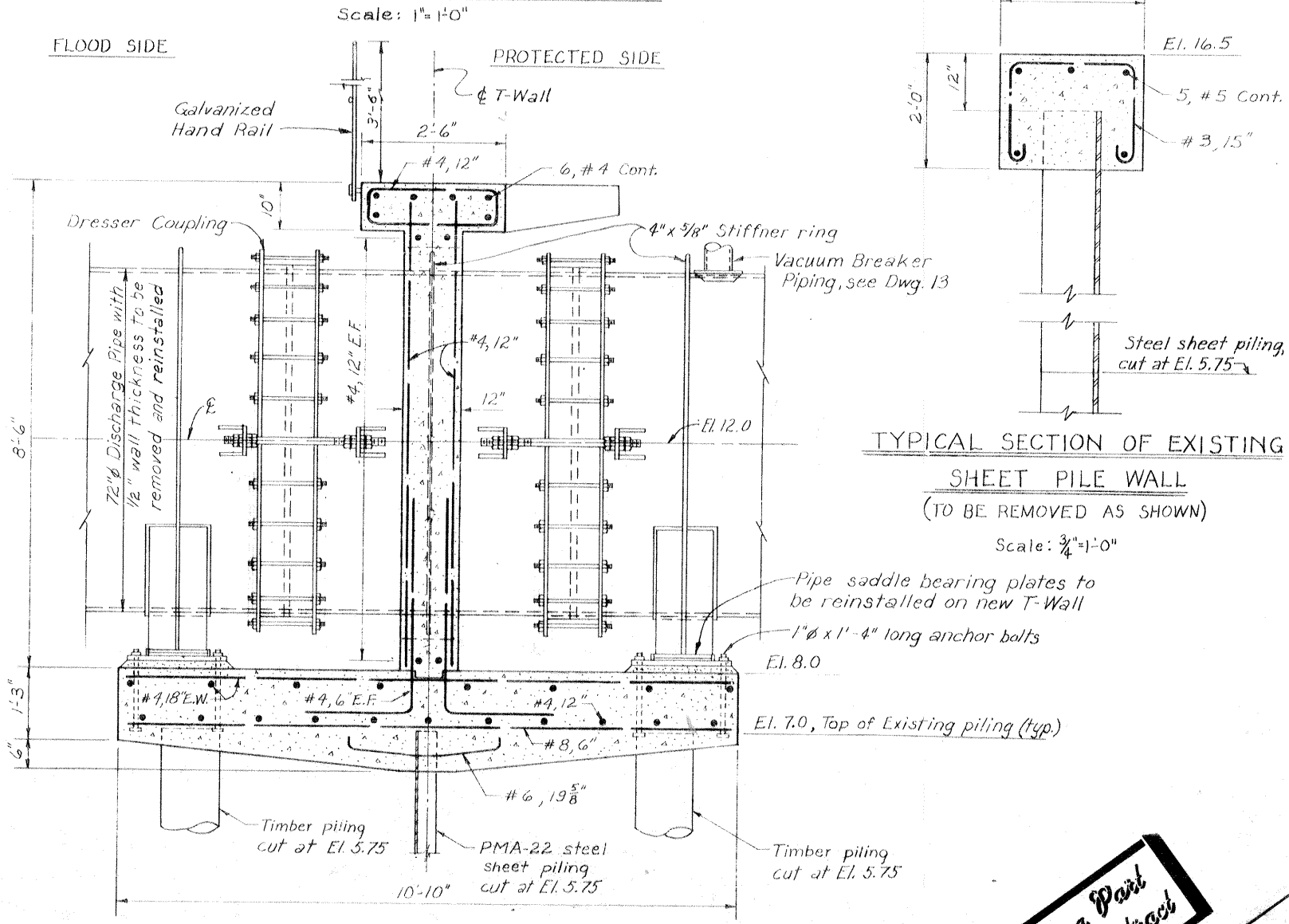


GENERAL NOTES:

- Elevations are expressed in feet and refer to mean sea level.
- Items marked C.R.S. shall be corrosion resisting steel.
- Federal Specification QQ 5 766 C, class 30A (annealed).
- All unformed surfaces shall be given a wood float finish.
- Unless otherwise indicated, all exterior formed surfaces not to be covered by backfill shall be Class 'A' Finish. All exterior formed surfaces to be covered by backfill shall be Class 'D' Finish.
- All exposed protected-side concrete surfaces shall have a wax-rubbed finish.
- All exposed joints, edges, external corners, vertical expansion joints shall be chamfered 3/4 inch and dummy chamfers and false joints shall be used to provide a neat and uniform appearance.
- All primary reinforcing shall have a minimum cover of 2 1/2". The cover of secondary reinforcing may be reduced from the above by the size of the size.
- Reinforcing bar designation numbers conform to the current numbering system of the Concrete Reinforcing.
- All reinforcing splices shall be lapped according to the following table shown below.

BAR SIZE NO.	MINIMUM LAP LENGTH, INCHES	BAR SIZE NO.	MINIMUM LAP LENGTH, INCHES
2	25	7	25
3	12	8	30
4	14	9	39
5	18	10	49
6	22	11	61

STEEL SHEET PILING LAYOUT

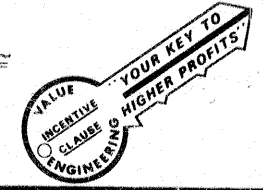


TYPICAL SECTION OF EXISTING T-WALL

(TO BE REMOVED AS SHOWN)
Scale: 3/4" = 1'-0"

TYPICAL SECTION OF EXISTING SHEET PILE WALL

(TO BE REMOVED AS SHOWN)
Scale: 3/4" = 1'-0"



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NOTE:
DRAWING REDUCED TO ONE HALF SCALE

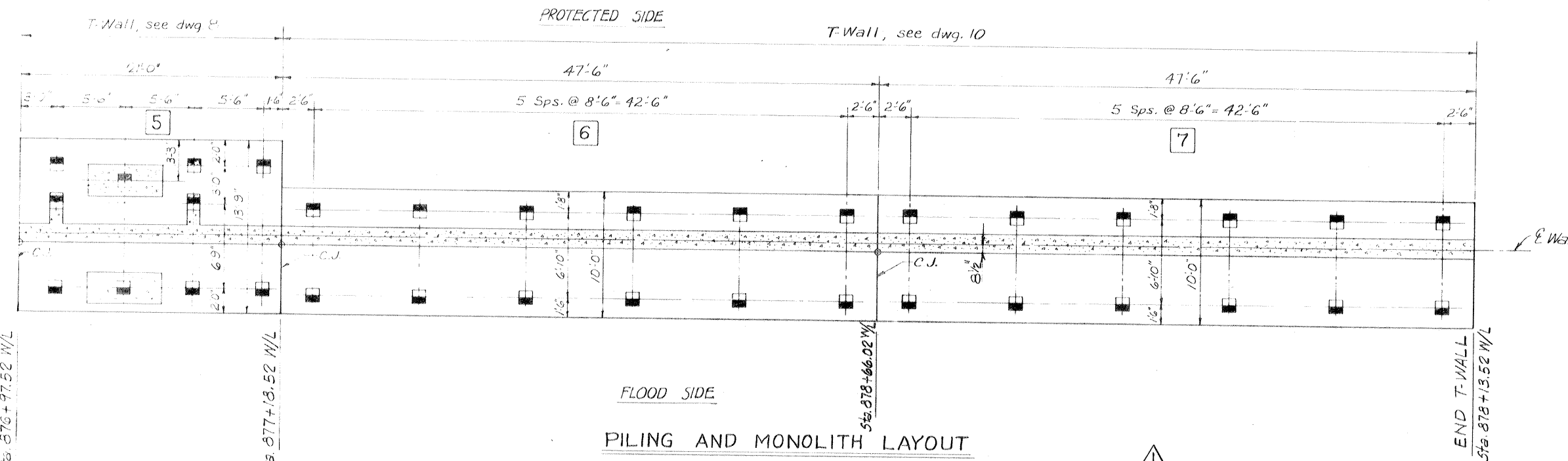
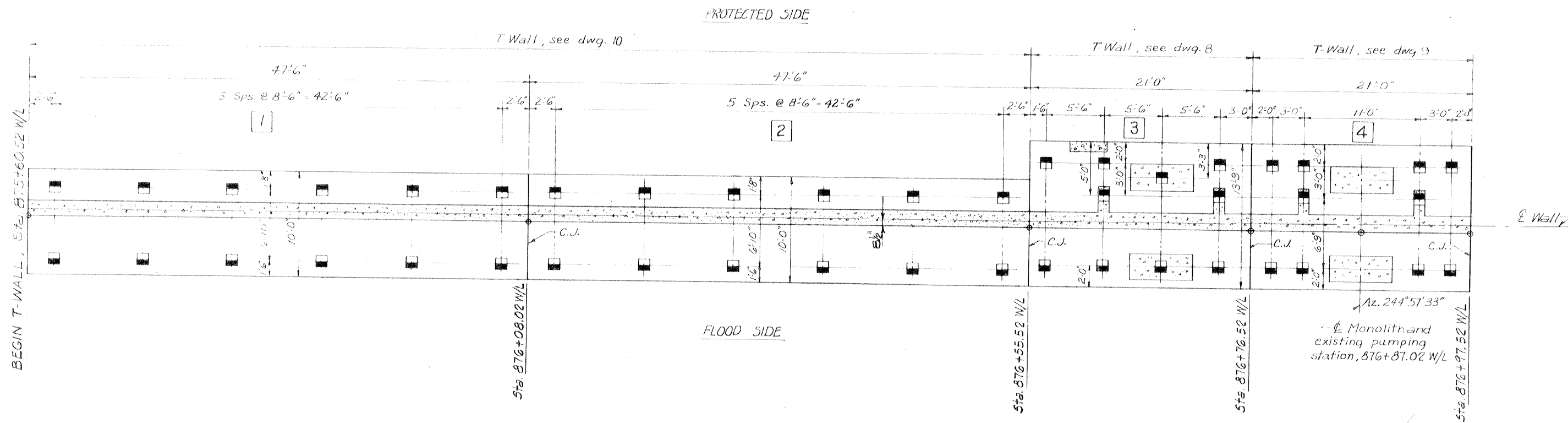
REVISION	DATE	DESCRIPTION	BY

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



LAKE PONCHARTRAIN, LOUISIANA AND VICINITY
HURRICANE PROTECTION BARRIER PLAN
NEW ORLEANS EAST BACK LEVEE
FLOODWALL AT INTRACOASTAL PUMPING STATION
ORLEANS PARISH, LA.

STEEL SHEET PILING LAYOUT AND TYPICAL SECTIONS

DESIGNED: L.L.W.	DRAWN: J.G.B.	CHECKED: C.L.R.	H.L.B.	DATE: AUG. 1976	SCALE: AS SHOWN	FILE NO. H-4-25835
SUBMITTED: <i>Robert J. Guyton</i>				SPEC. NO. DACW29-76-B-0283	DWG. NO. 5	OF 16



PILING AND MONOLITH LAYOUT
Scale: 1"=5'

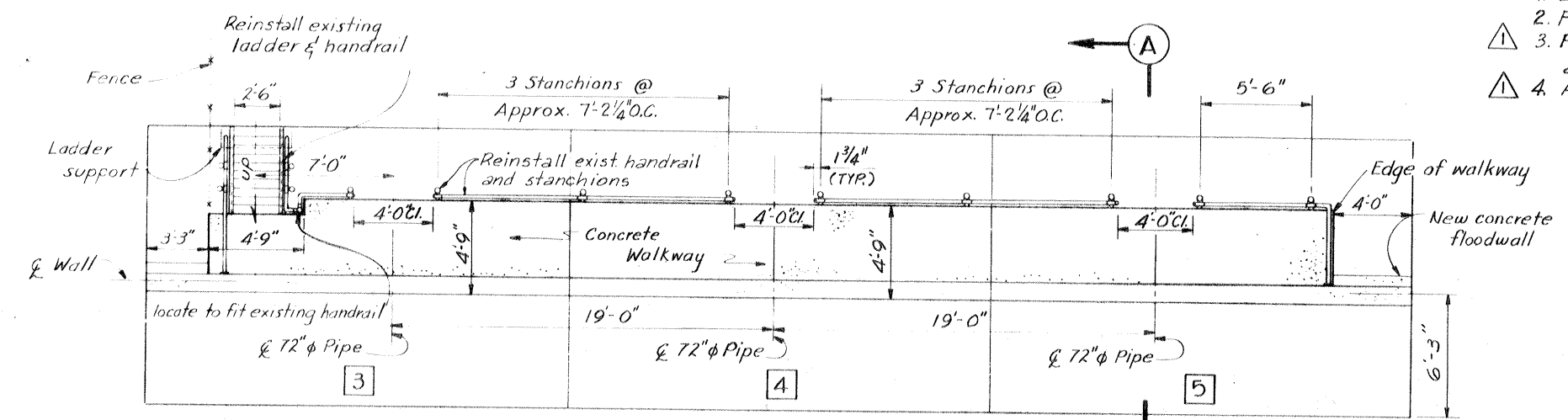
LEGEND
 Prestressed concrete batter piles, shaded side indicates direction of batter.
 Wall monolith numbers

PILE SCHEDULE				
MONOLITH NO.	PILE BATTER	PILE TIP ELEVATION	PILE LENGTH	
			FLOOD SIDE	PROTECTED SIDE
1	1 on 2	-60.0	74.0	74.0
2	1 on 2	-60.0	74.0	74.0
3	1 on 2 1/2	-60.0	71.0	71.0
4	1 on 2 1/2	-60.0	71.0	71.0
5	1 on 2 1/2	-60.0	71.0	71.0
6	1 on 2	-60.0	74.0	74.0
7	1 on 2	-60.0	74.0	74.0

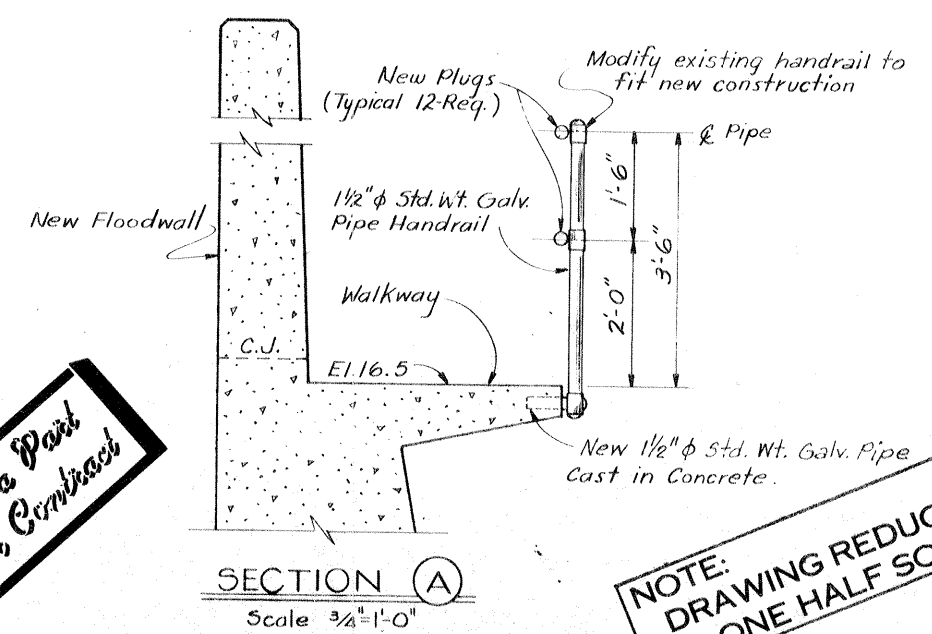
Note
 Pile tip elev. and pile lengths shown in this table are for purpose of canvassing bids only. See PILE NOTES for pile sizes and new tip elevation.

- PILE NOTES**
- Existing timber piles and sheet pile not shown, see dwg. 3 & 4 for location
 - For sheet piling on each side of T-wall monoliths, see dwg. 5
 - Prestressed concrete piles in Monoliths 1, 2, 6 and 7 shall be 14" x 14" and prestressed concrete piles in Monoliths 3, 4 and 5 shall be 12" x 12".
 - All concrete piles to be driven to tip El. -65.0.

THIS PLAN ACCOMPANIES MODIFICATION P00002 TO CONTRACT NO. DACW29-77-C-0037



HANDRAIL LOCATION PLAN
Scale: 1/4"=1'-0"



SECTION A-A
Scale: 3/4"=1'-0"

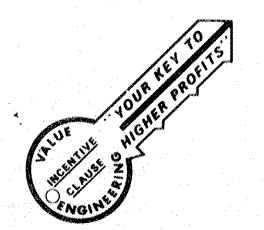
NOTE: DRAWING REDUCED TO ONE HALF SCALE

REVISION	DATE	DESCRIPTION	BY
1	2-25-77	Added note to Pile Schedule; added notes 3 and 4 to PILE NOTES, Mod. #2	HJH

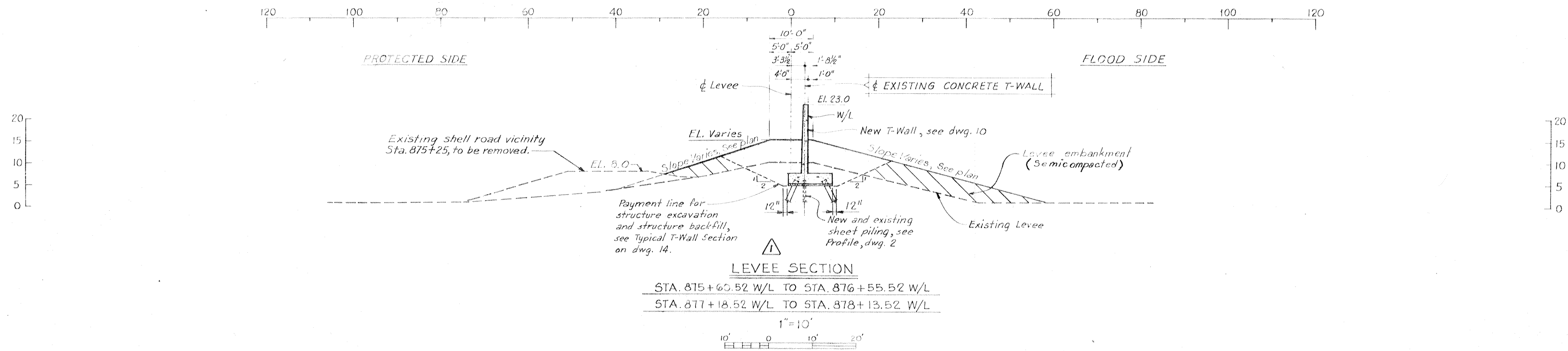
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 NEW ORLEANS, LA.

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
 HURRICANE PROTECTION BARRIER PLAN
 NEW ORLEANS EAST BACK LEVEE
 FLOODWALL AT INTRACOASTAL PUMPING STATION
 ORLEANS PARISH, LA.
 PILING AND MONOLITH LAYOUT

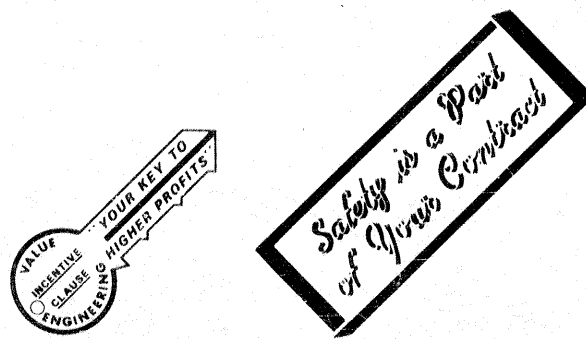
DESIGNED	DRAWN	CHECKED	DATE	SCALE	FILE NO.
L.L.W.	T.W.W.	H.L.B.	AUG. 1976	AS SHOWN	H-4-25835
SUBMITTED BY	APPROVED BY	SPEC. NO.	DWG. NO.	OF	16
		DACW29-76-B-0283	6		



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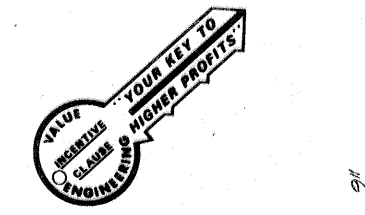
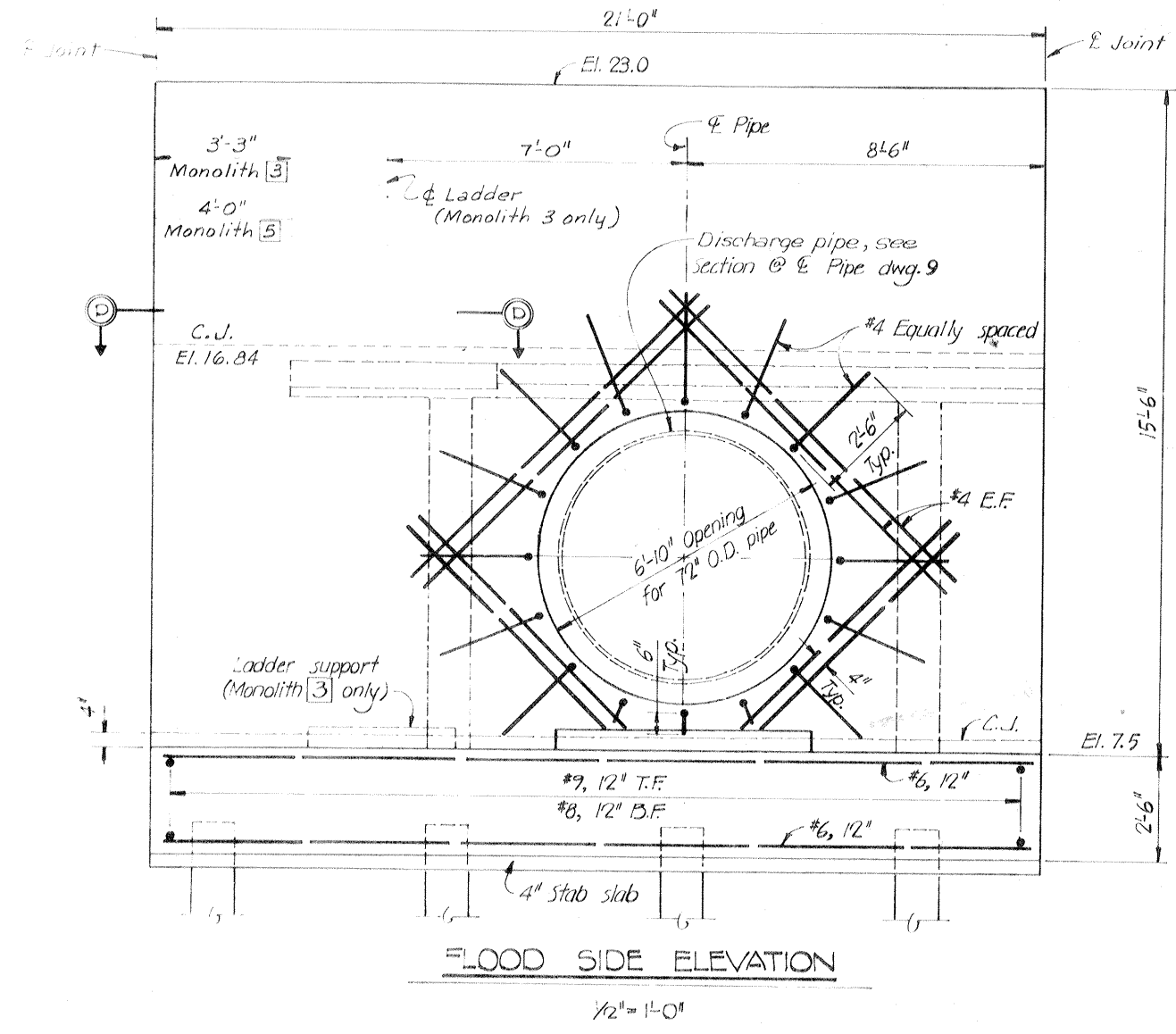
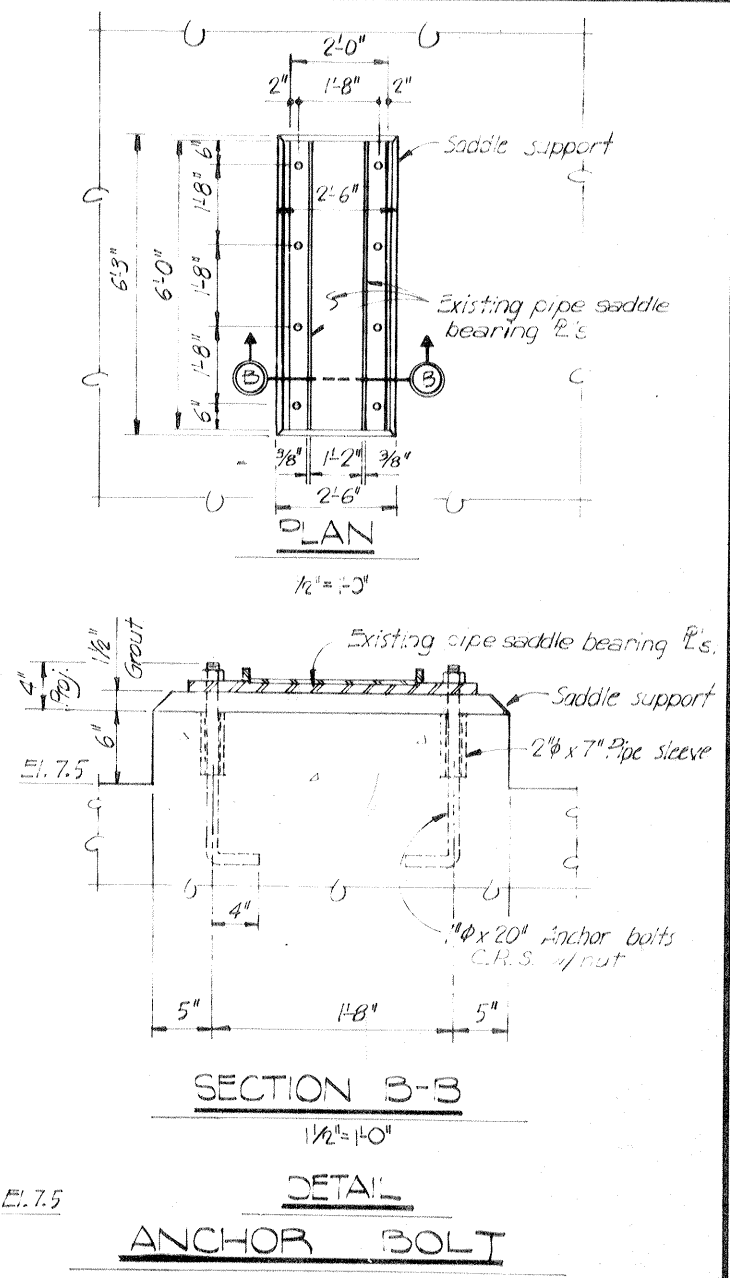
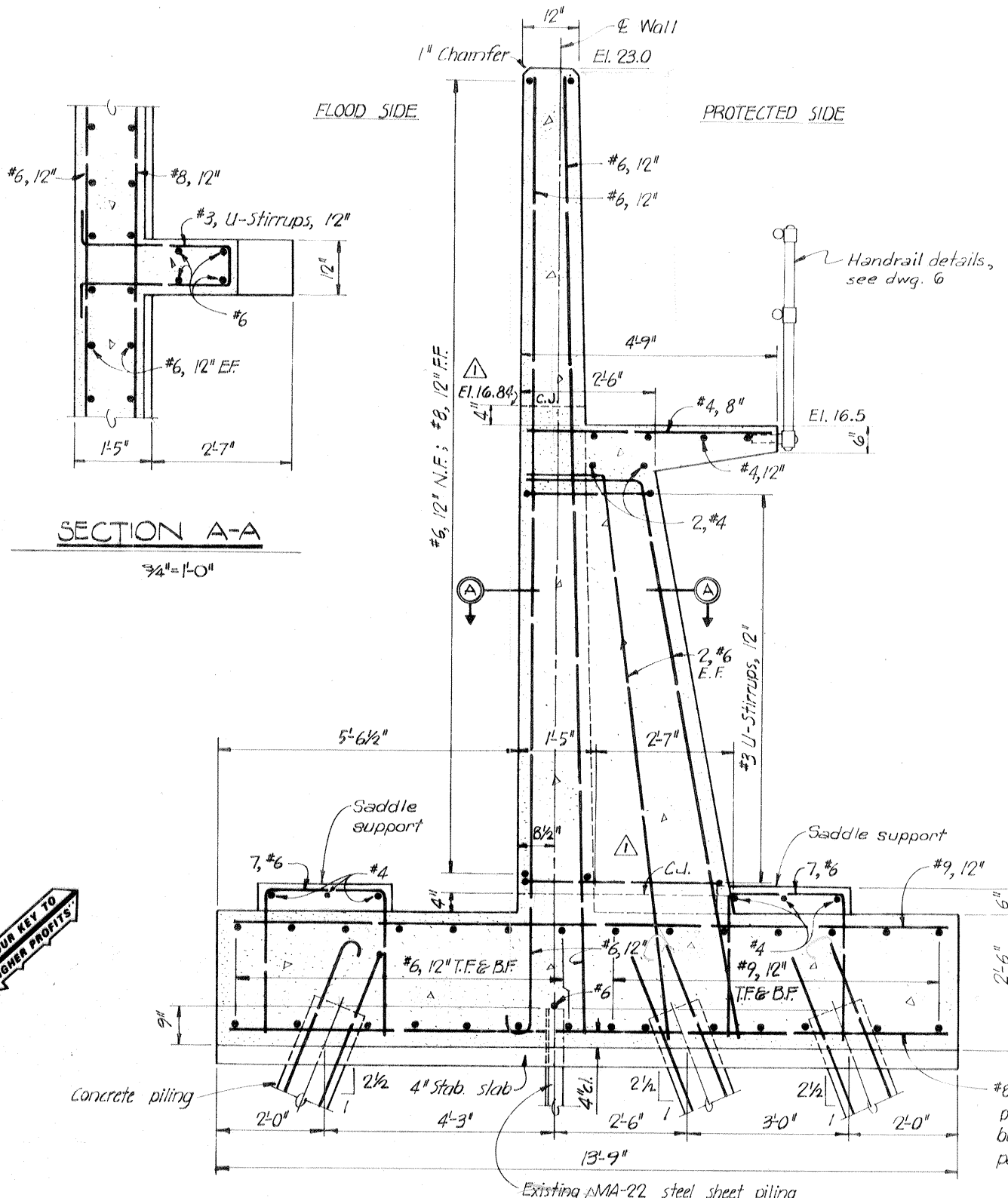
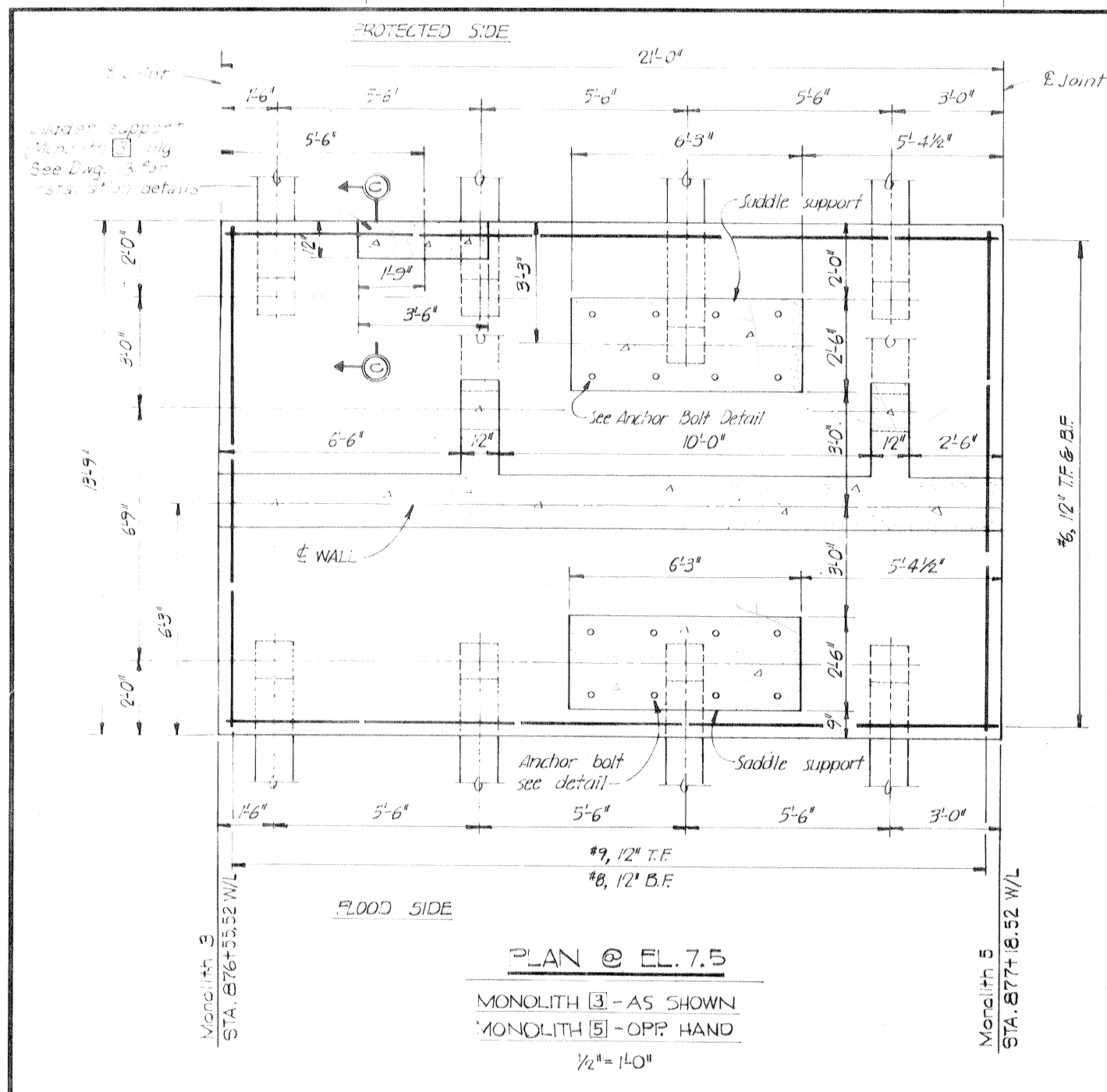


NOTES:
 For general notes, see Dwg. 5.
 For typical levee section from Sta. 876+55.52 to Sta. 877+18.52, see Dwg. 12.

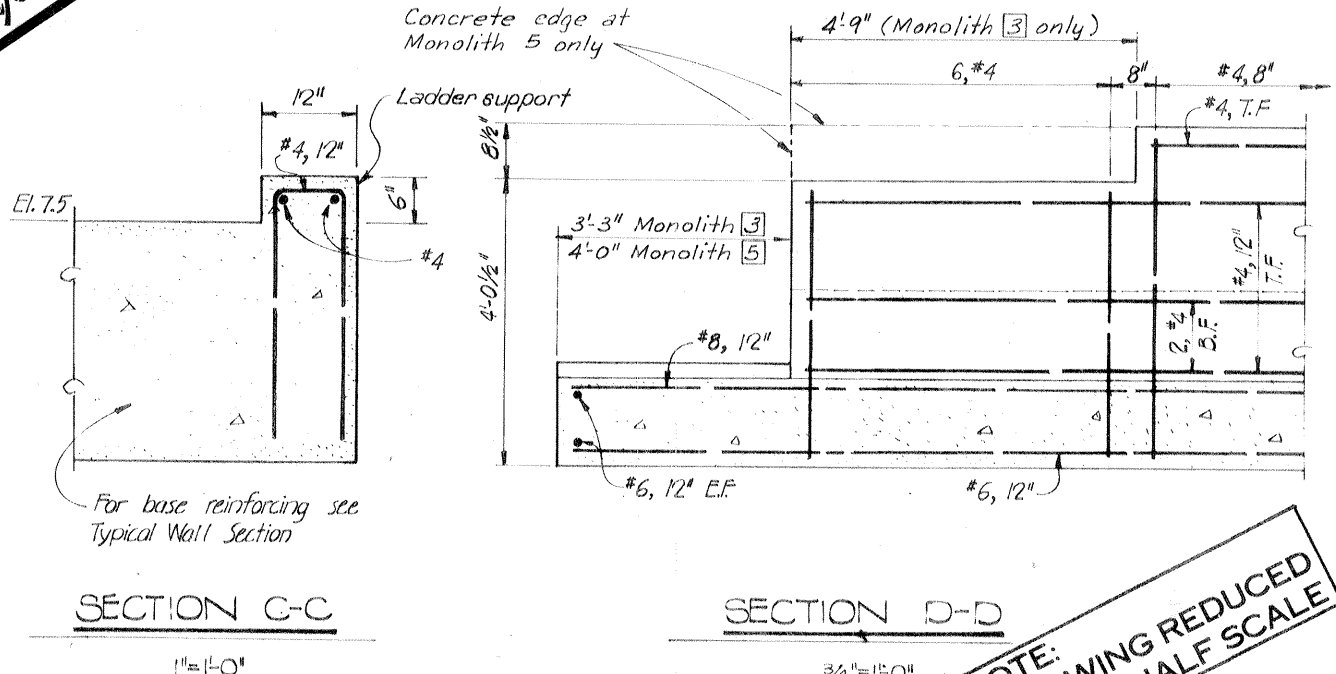


NOTE:
 DRAWING REDUCED TO ONE HALF SCALE

1	10-14-76	Revised Levee Section, Amend. #1	HJH
REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY HURRICANE PROTECTION BARRIER PLAN NEW ORLEANS EAST BACK LEEVE FLOODWALL AT INTRACOASTAL PUMPING STATION ORLEANS PARISH, LA. TYPICAL LEEVE SECTIONS			
DESIGNED: J.G.B.	DRAWN: R.G.S.	CHECKED: T.S.T.	DATE: AUG 1976
SCALE: AS SHOWN		FILE NO. H-4-25835	
SUBMITTED BY: Robert J. Nguyen		SPEC. NO. DACW29-76-B-0283	
DWG. 7		OF 16	



Safety is a Part of Your Contract



THIS PLAN ACCOMPANIES MODIFICATION P0003 TO CONTRACT NO. DACW29-77-C-0037

NOTES:
For general notes, see dwg. 5.
Exact lengths of prestressed concrete piling shall be determined after pile tests are conducted. Lengths shown are for estimating purposes only.
All holes in steel sheet piling shall not exceed 2" φ.
All exterior formed surfaces not to be covered by backfill shall be class "A" finish. All exterior formed surfaces to be covered by backfill shall be class "D" finish.
Back-rust finish protected side only.

REVISION	DATE	DESCRIPTION	BY
1	12-6-76	Deleted vertical wall reinf. splices, Mod # 3	H.J.H.

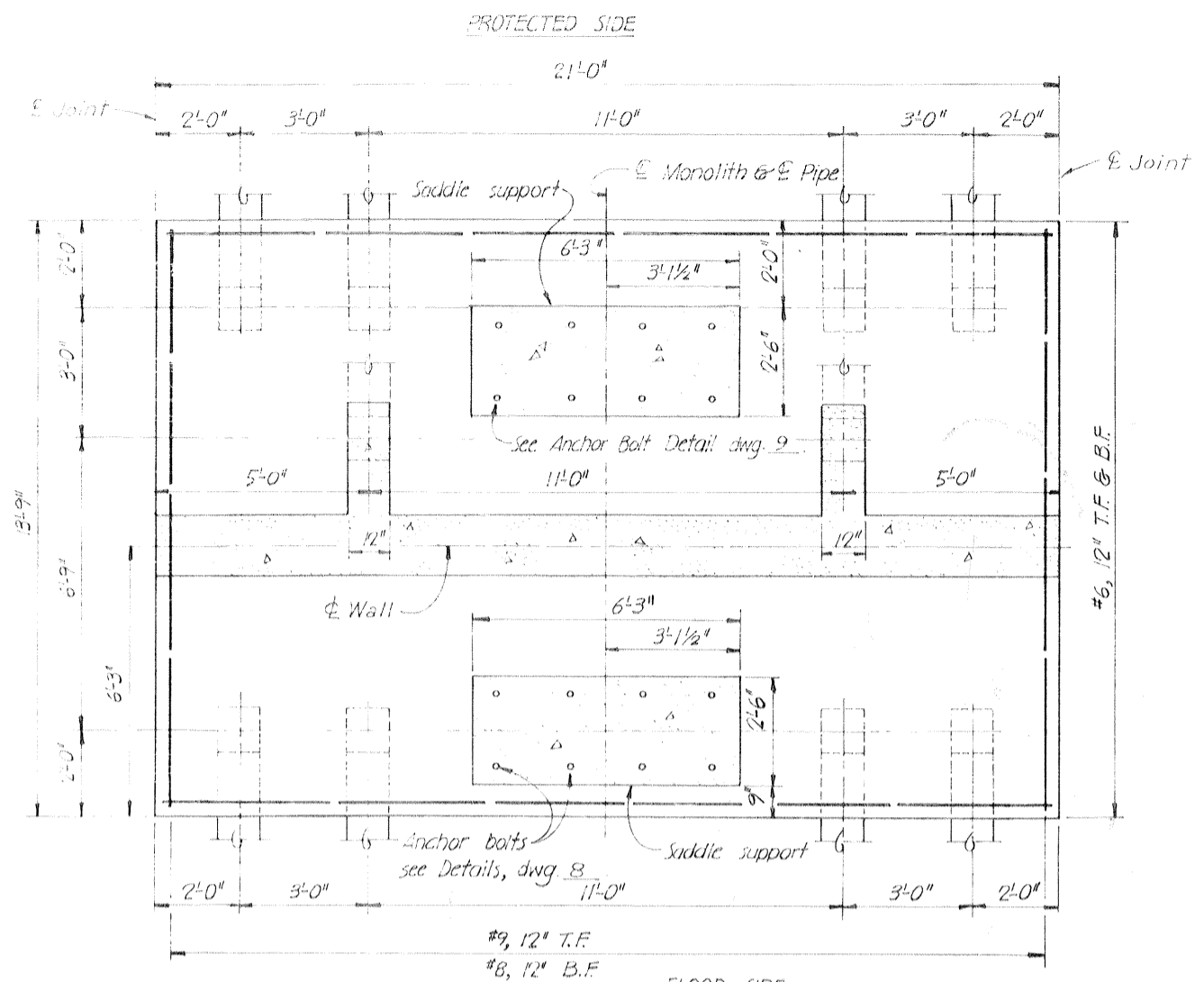
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LA.

LAKE PONCHARTRAIN, LOUISIANA AND VICINITY
HURRICANE PROTECTION BARRIER PLAN
NEW ORLEANS EAST BACK LEVEL
FLOODWALL AT INTRACOASTAL PUMPING STATION
ORLEANS PARISH, LA.
WALL MONOLITHS
MONOLITHS 3 AND 5

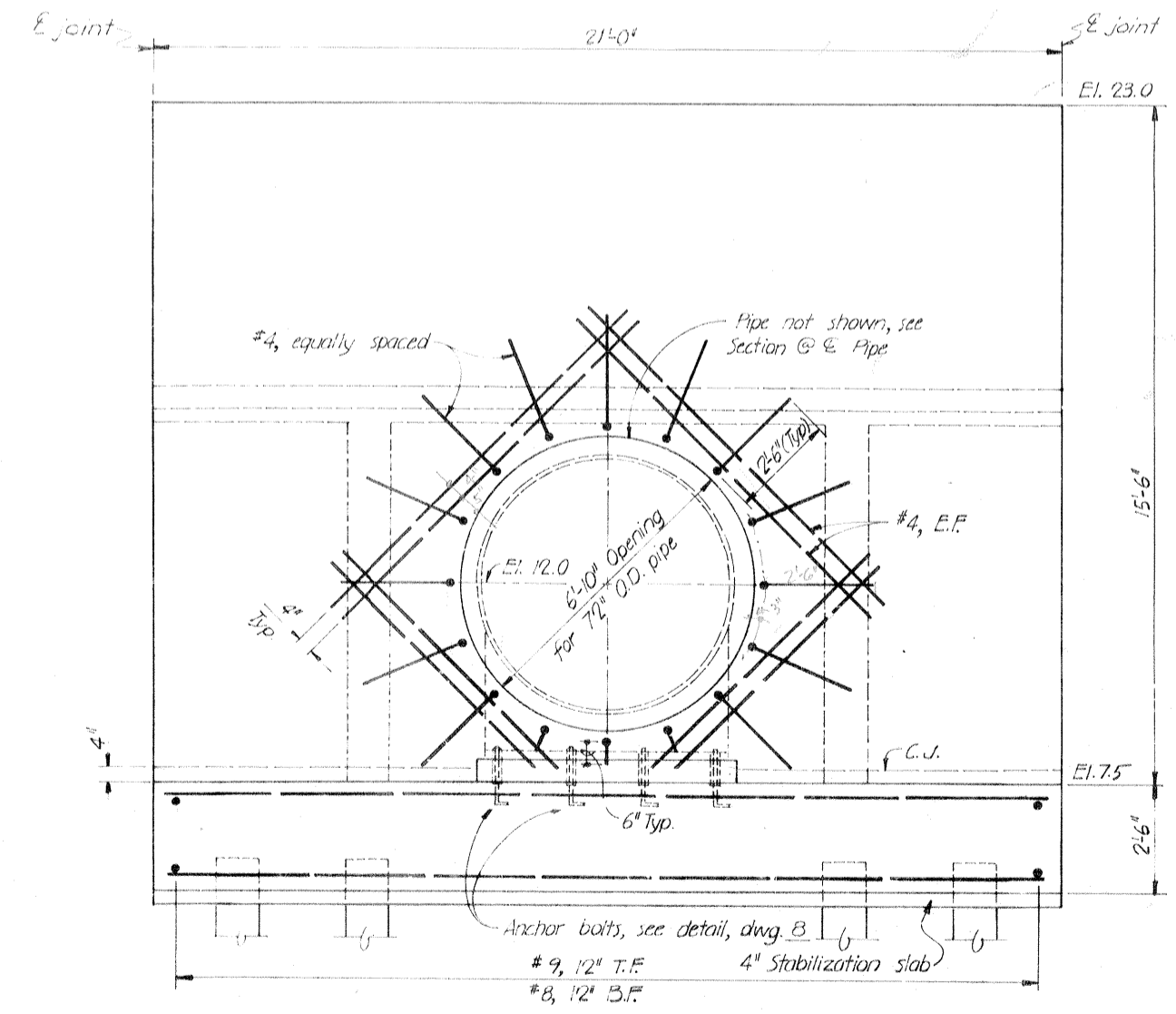
DESIGNED: TFP
DRAWN: RDM
CHECKED: H.L.B.
DATE: AUG. 1976
SCALE: AS SHOWN
FILE NO.: H-4-25835

SUBMITTED: [Signature]
SPEC. NO.: DACW29-76-B-0283
DWG. 8 OF 16

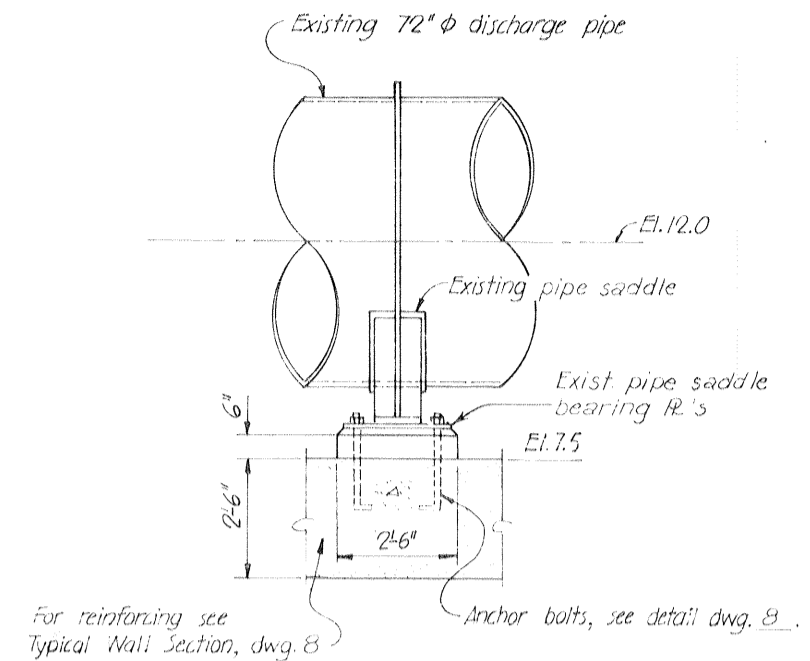
NOTE: DRAWING REDUCED TO ONE HALF SCALE



PLAN @ EL. 7.5
Monolith [4]
Scale: 1/2" = 1'-0"

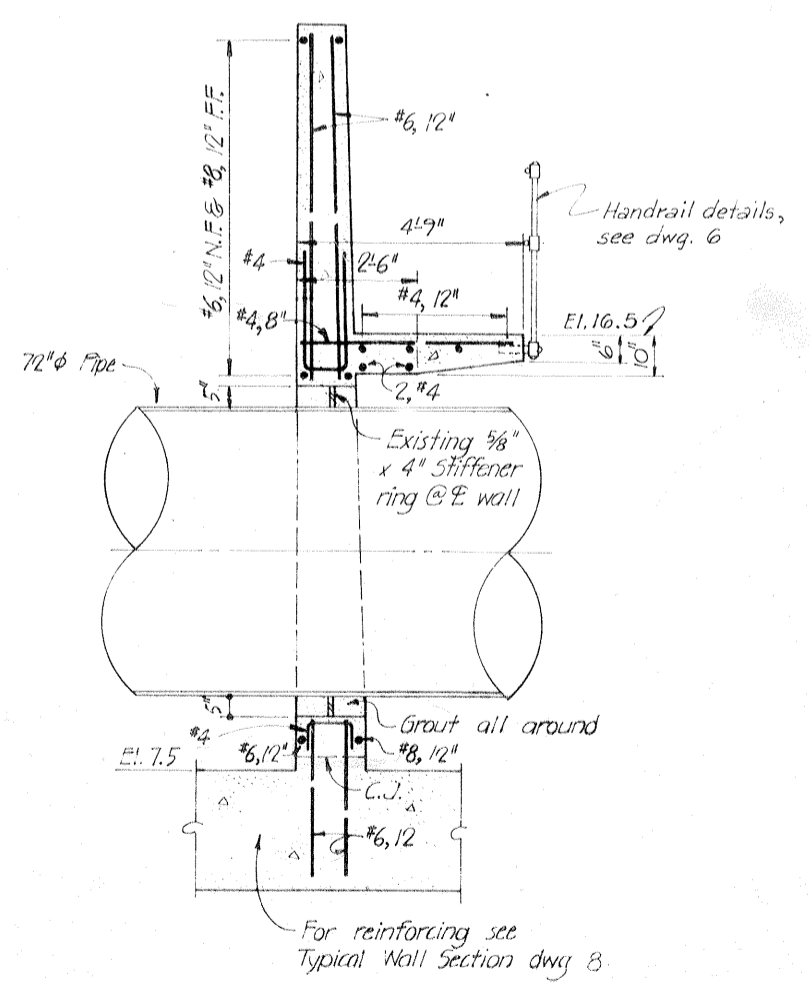
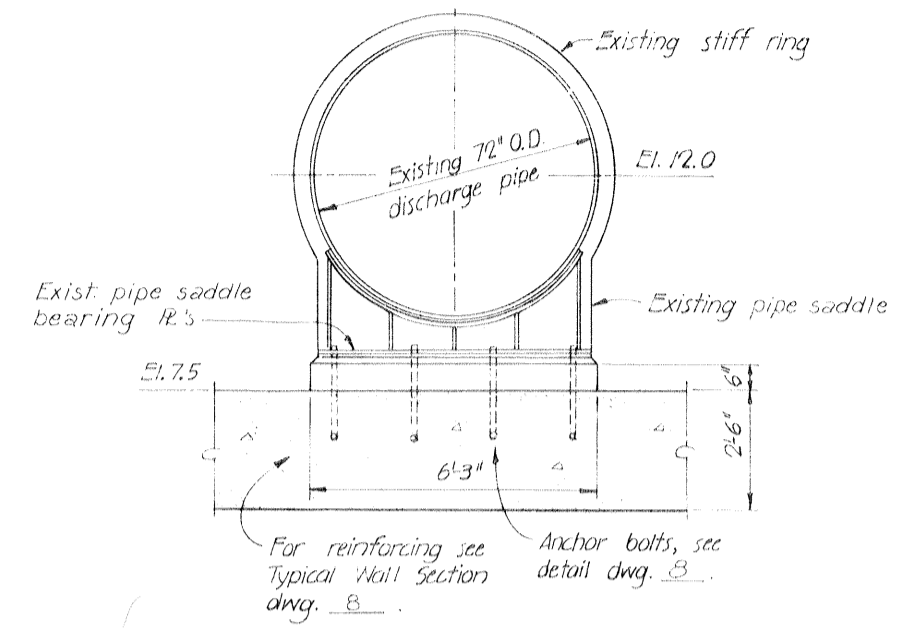


FLOOD SIDE ELEVATION
1/2" = 1'-0"



TYPICAL SECTIONS AT SADDLE SUPPORTS

1/2" = 1'-0"

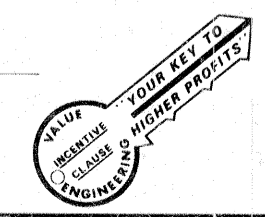


SECTION @ E PIPE

1/2" = 1'-0"

NOTES:

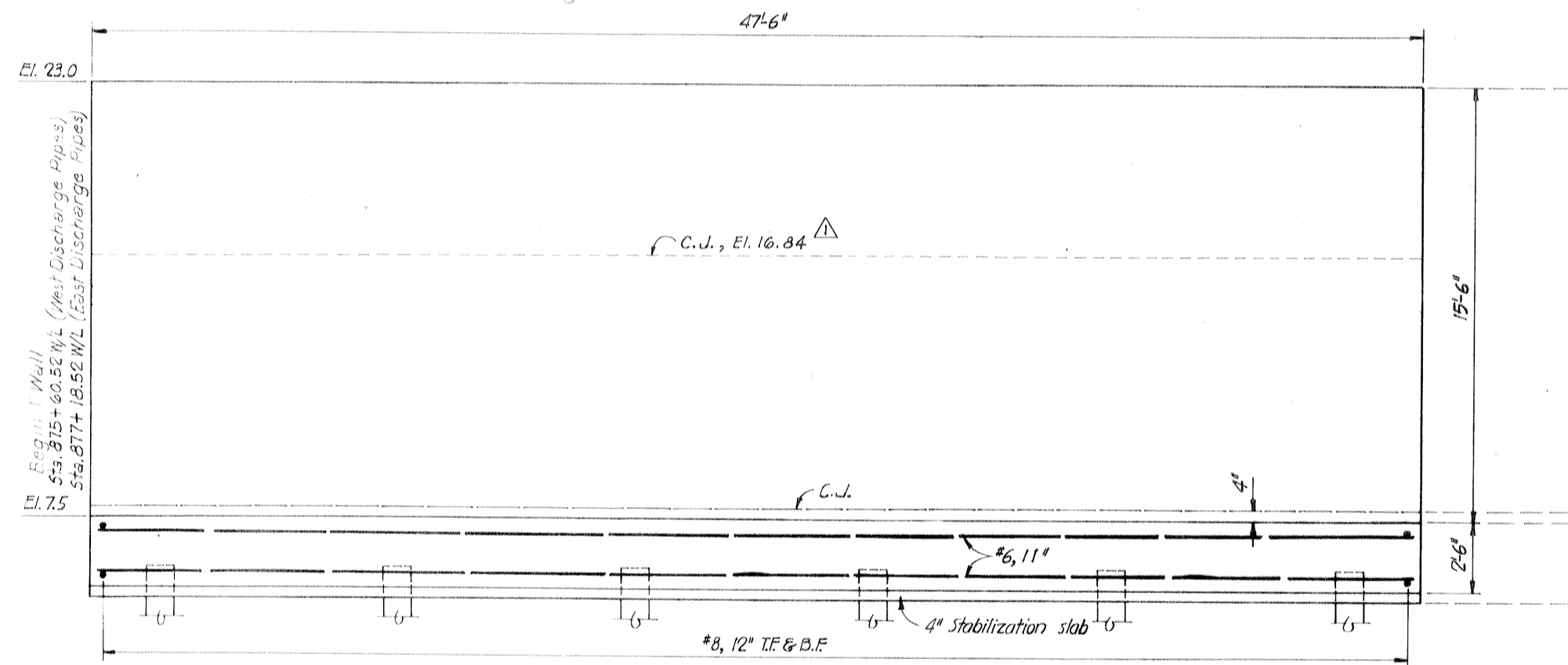
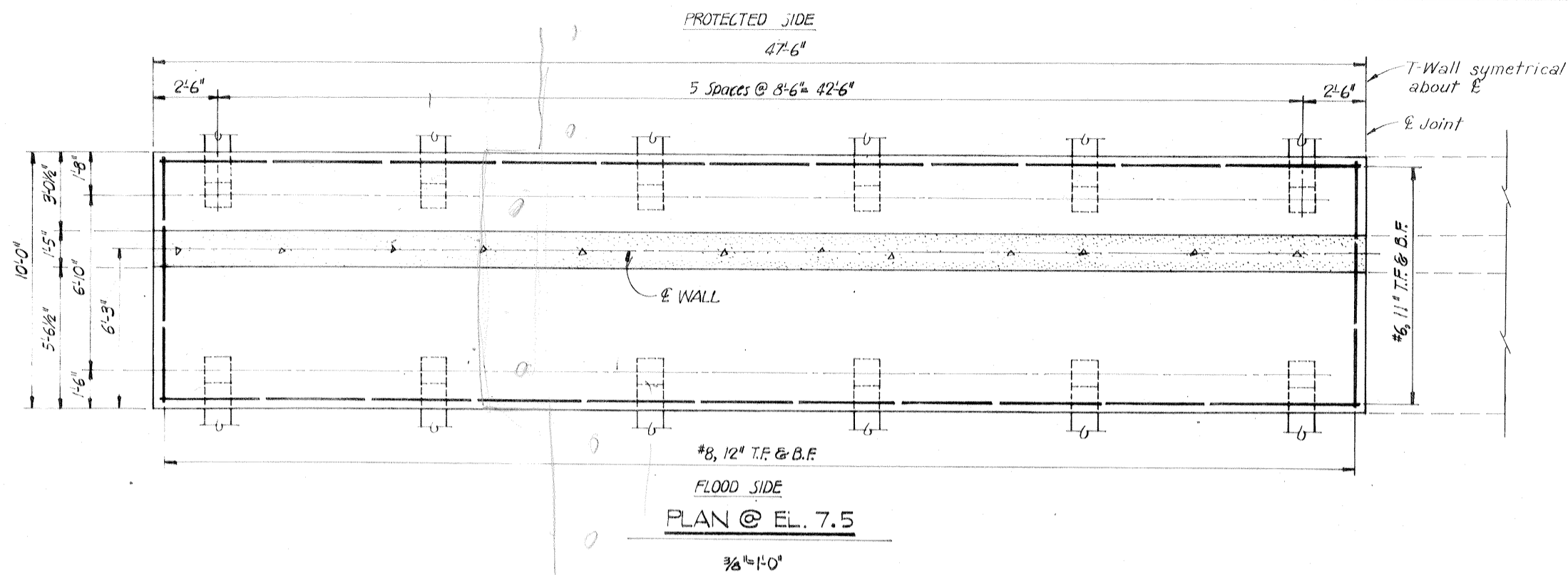
- For general notes see dwg. 5.
- Exact lengths of prestressed concrete pilings shall be determined after pile tests are conducted.
- For wall reinforcing see Typical Wall Section dwg. 8.
- All holes in steel sheet piling shall not exceed 2".



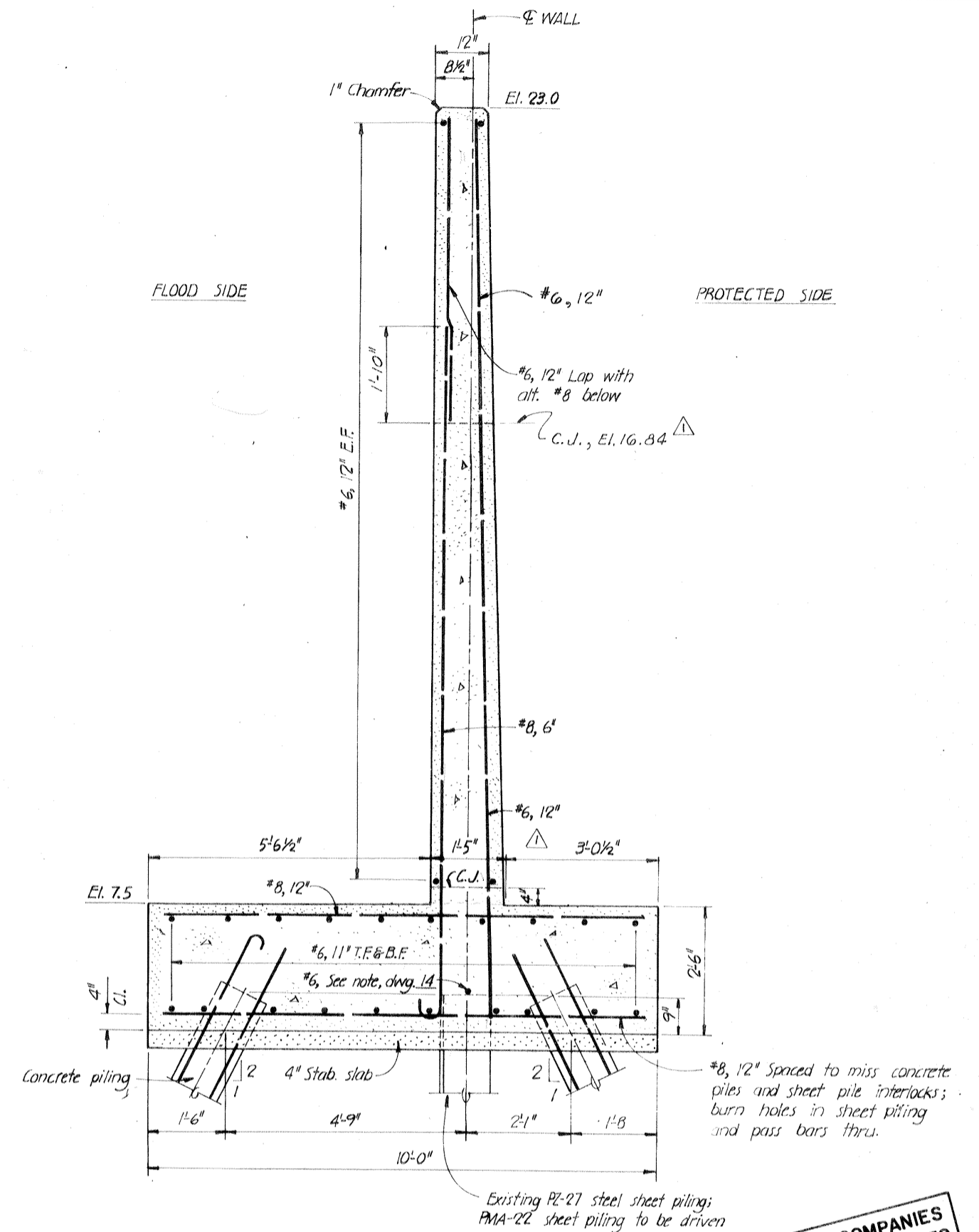
Safety is a Part of Your Contract

NOTE: DRAWING REDUCED TO ONE HALF SCALE

REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA. LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY HURRICANE PROTECTION BARRIER PLAN NEW ORLEANS EAST BACK LEVEE FLOODWALL AT INTRACOASTAL PUMPING STATION ORLEANS PARISH, LA. WALL MONOLITHS MONOLITH [4]			
DESIGNED: T.F.P.	DRAWN: R.D.M.	CHECKED: T.S.T. H.L.B.	DATE: AUG. 1976
SCALE: AS SHOWN		FILE NO. H-4-25835	
SUBMITTED: <i>[Signature]</i>		SPEC. NO. DACW29-76-B-0283	
		DWG. 9 OF 16	



FLOOD SIDE ELEVATION
3/8" = 1'-0"



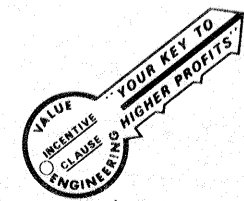
TYPICAL T-WALL SECTION
STA. 875+60.52 W/L TO STA. 876+55.52 W/L
STA. 877+18.52 W/L TO STA. 878+13.52 W/L
3/4" = 1'-0"

THIS PLAN ACCOMPANIES
MODIFICATION P0003 TO
CONTRACT NO. DACW29-
77-C-0037

NOTES:

For general notes, see dwg. 5.
Exact lengths of prestressed concrete pilings shall be determined after pile tests are conducted. Lengths shown are for estimating purposes only. All holes in steel sheet piling for reinforcing shall not exceed 2 inches.

NOTE:
DRAWING REDUCED
TO ONE HALF SCALE



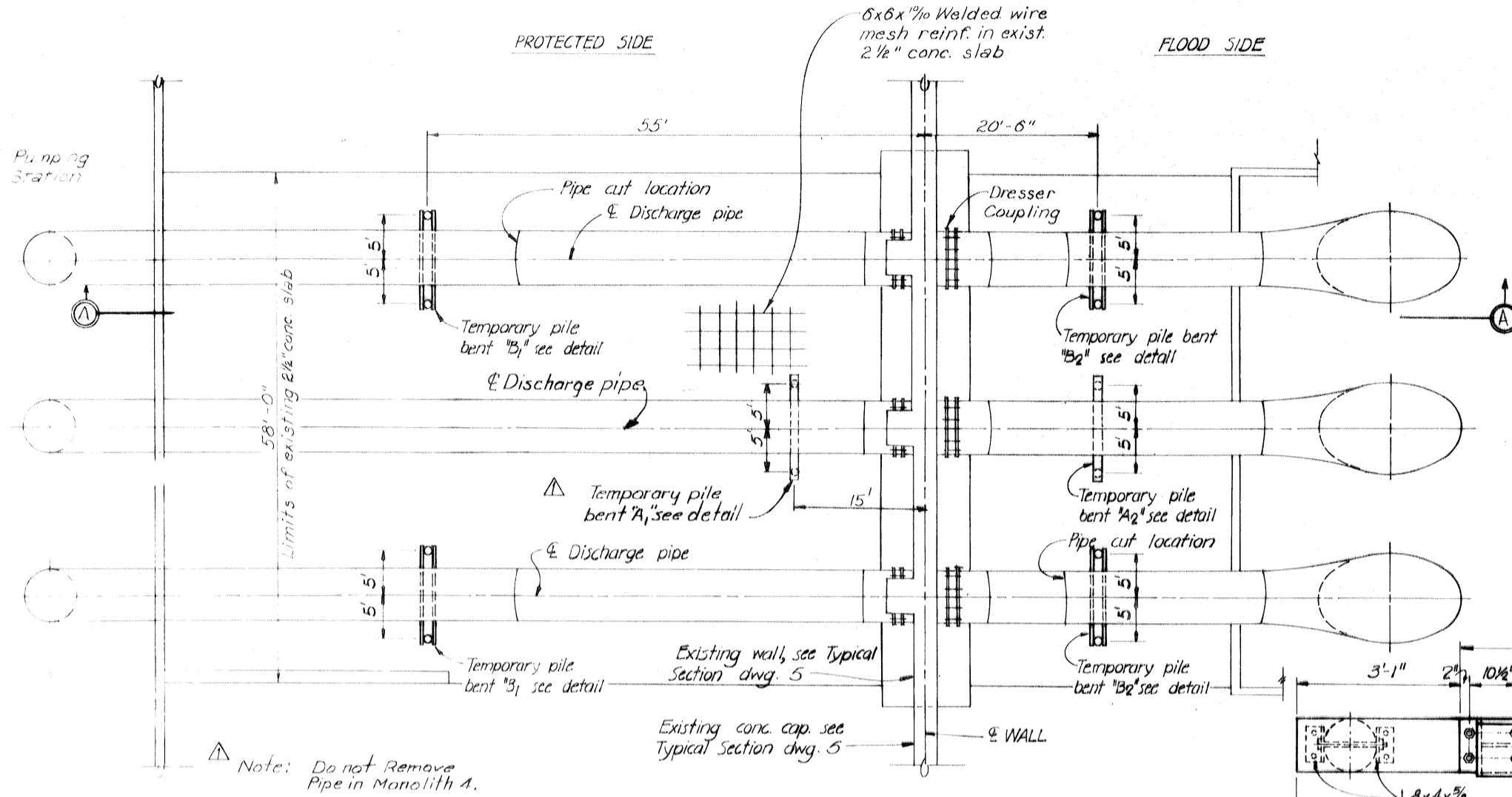
Safety is a Part
of Your Contract

REVISION	DATE	DESCRIPTION	BY
1	12-6-76	Added C.J. and deleted vertical wall reinf. splices, Mod #3	H.J.H.

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

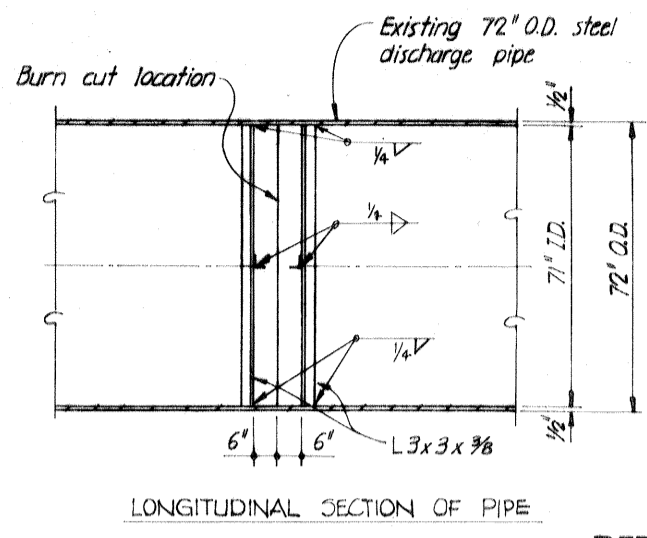
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
HURRICANE PROTECTION BARRIER PLAN
NEW ORLEANS EAST BACK LEVEE
FLOODWALL AT INTRACOASTAL PUMPING STATION
ORLEANS PARISH, LA.
WALL MONOLITHS
MONOLITHS 1, 2, 6 AND 7

DESIGNED: T.F.P.	DRAWN: H.L.B.	CHECKED: T.S.T. H.L.B.	DATE: AUG. 1976	SCALE: AS SHOWN	FILE NO. H-4-25835
SUBMITTED: H. J. H.			SPEC. NO. DACW29-76-B-0283	DWG. 10 OF 16	

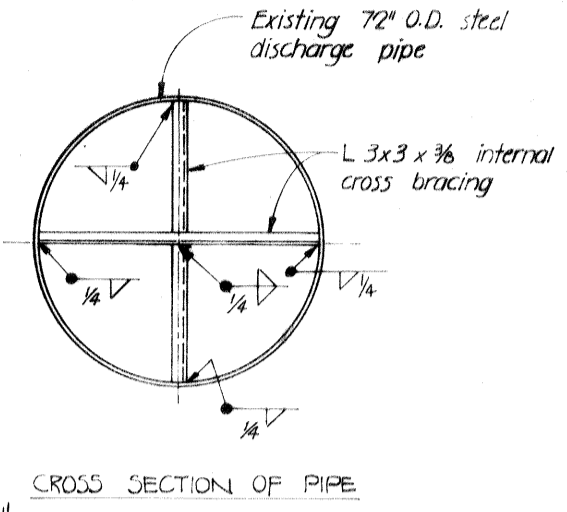


PLAN OF EXISTING PUMPING STATION DURING CONSTRUCTION

1/8"=1'



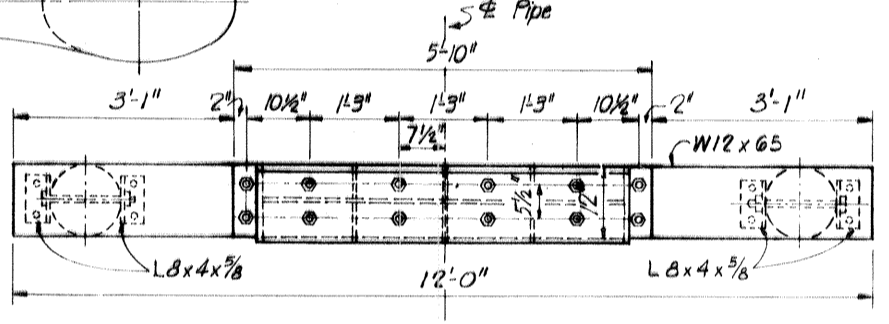
LONGITUDINAL SECTION OF PIPE



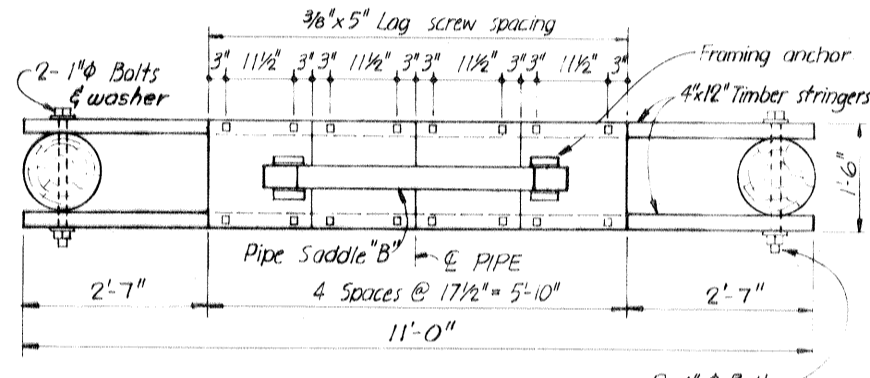
CROSS SECTION OF PIPE

DETAIL "B1"

1/2"=1'

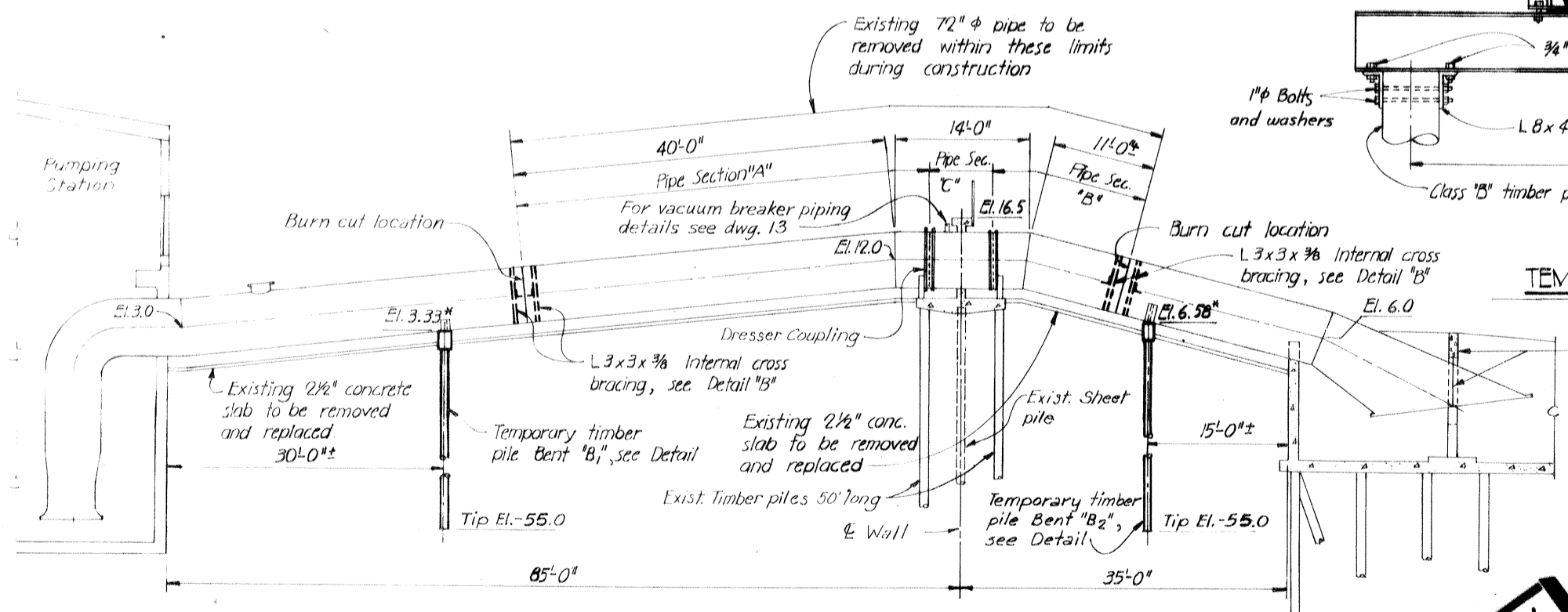


PLAN



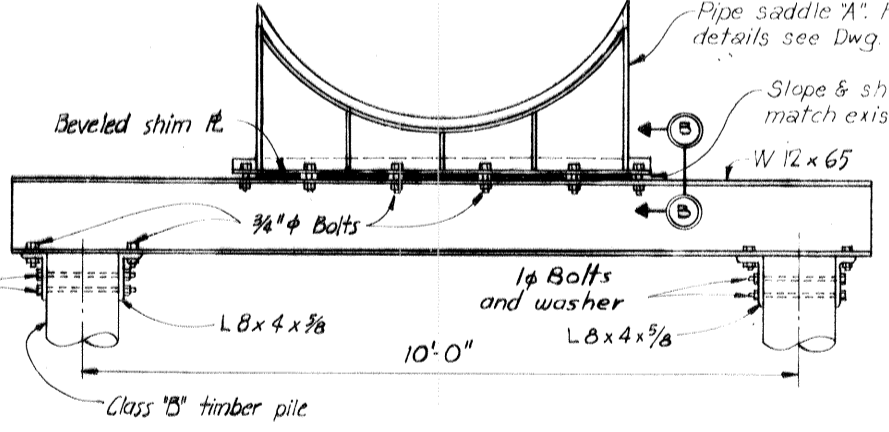
PLAN

2-1" bolts and washers



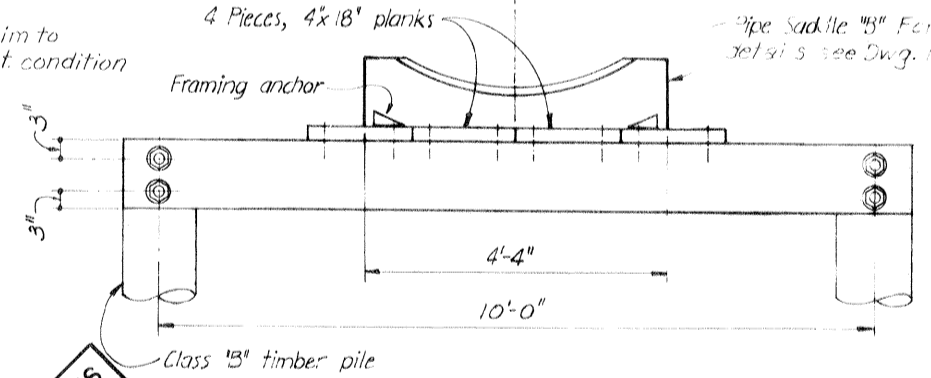
SECTION A-A

1/8"=1'



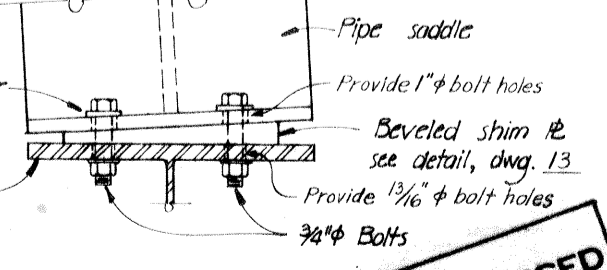
ELEVATION TEMPORARY PILE BENT "A1" & "A2"

3/4"=1'



ELEVATION TEMPORARY PILE BENT "B1" & "B2"

3/4"=1'



SECTION B-B

3'-10"

THIS PLAN ACCOMPANIES MODIFICATION P00005 TO CONTRACT NO. DACW29-77-C-0037.

NOTE: For general notes, see dwg. 5

5-16-77 Relocated temporary pile bent "A1" and added note. Mod # 5. J.H.H.

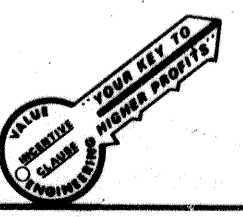
REVISION	DATE	DESCRIPTION	BY

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

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
HURRICANE PROTECTION BARRIER PLAN
NEW ORLEANS EAST BACK LEVEE
FLOODWALL AT INTRACOASTAL PUMPING STATION
ORLEANS PARISH, LA.
DISCHARGE PIPE
REMOVAL DETAILS

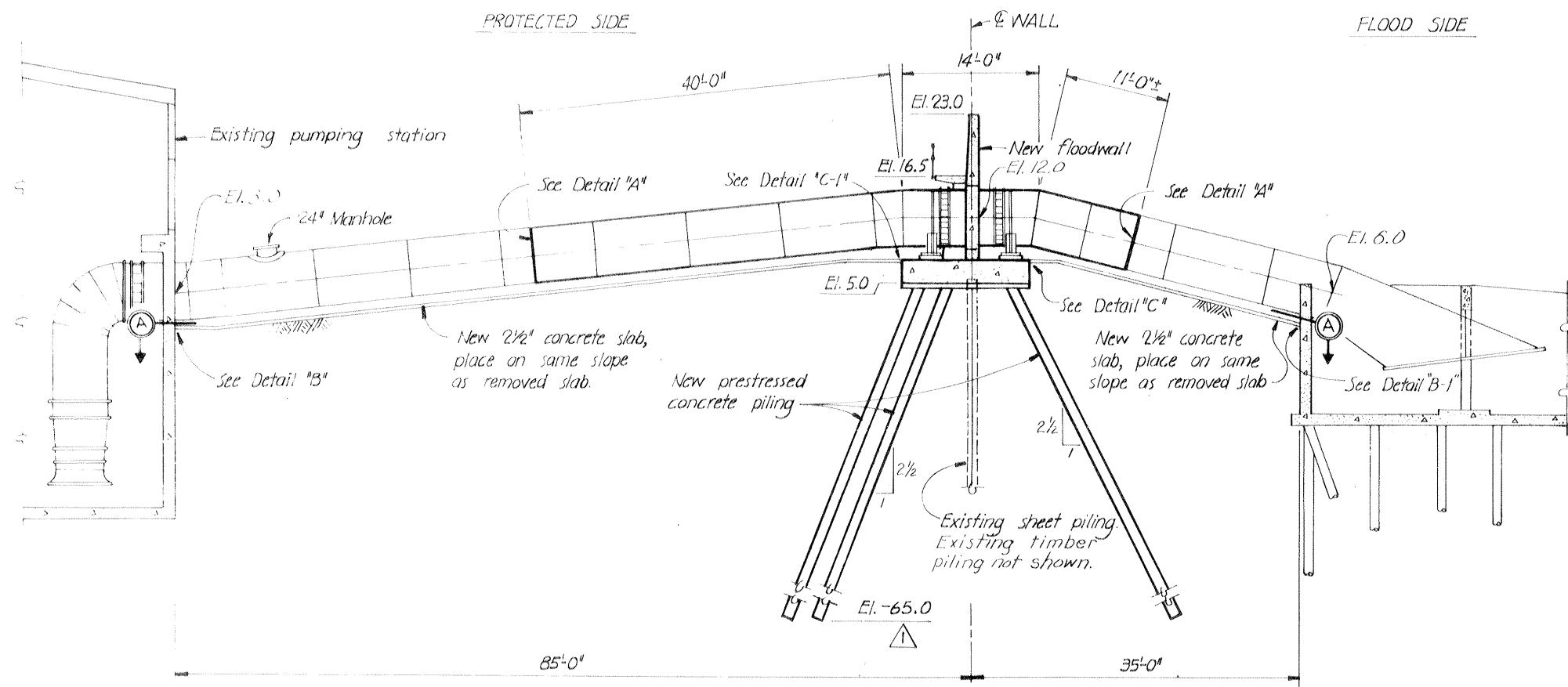
DESIGNED	DRAWN	CHECKED	DATE	SCALE	FILE NO.
J.G.B.	R.D.M.	T.S.T.	AUG. 1976	AS SHOWN	H-4-25835

SUBMITTED BY: [Signature] SPEC. NO. DACW29-76-B-0283 DWG. 11 OF 16



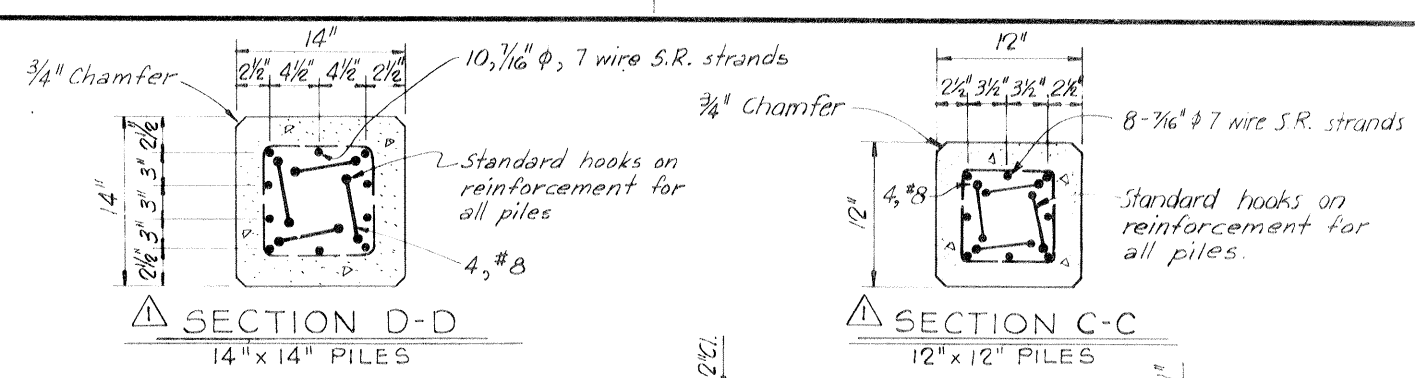
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NOTE: DRAWING REDUCED TO ONE HALF SCALE



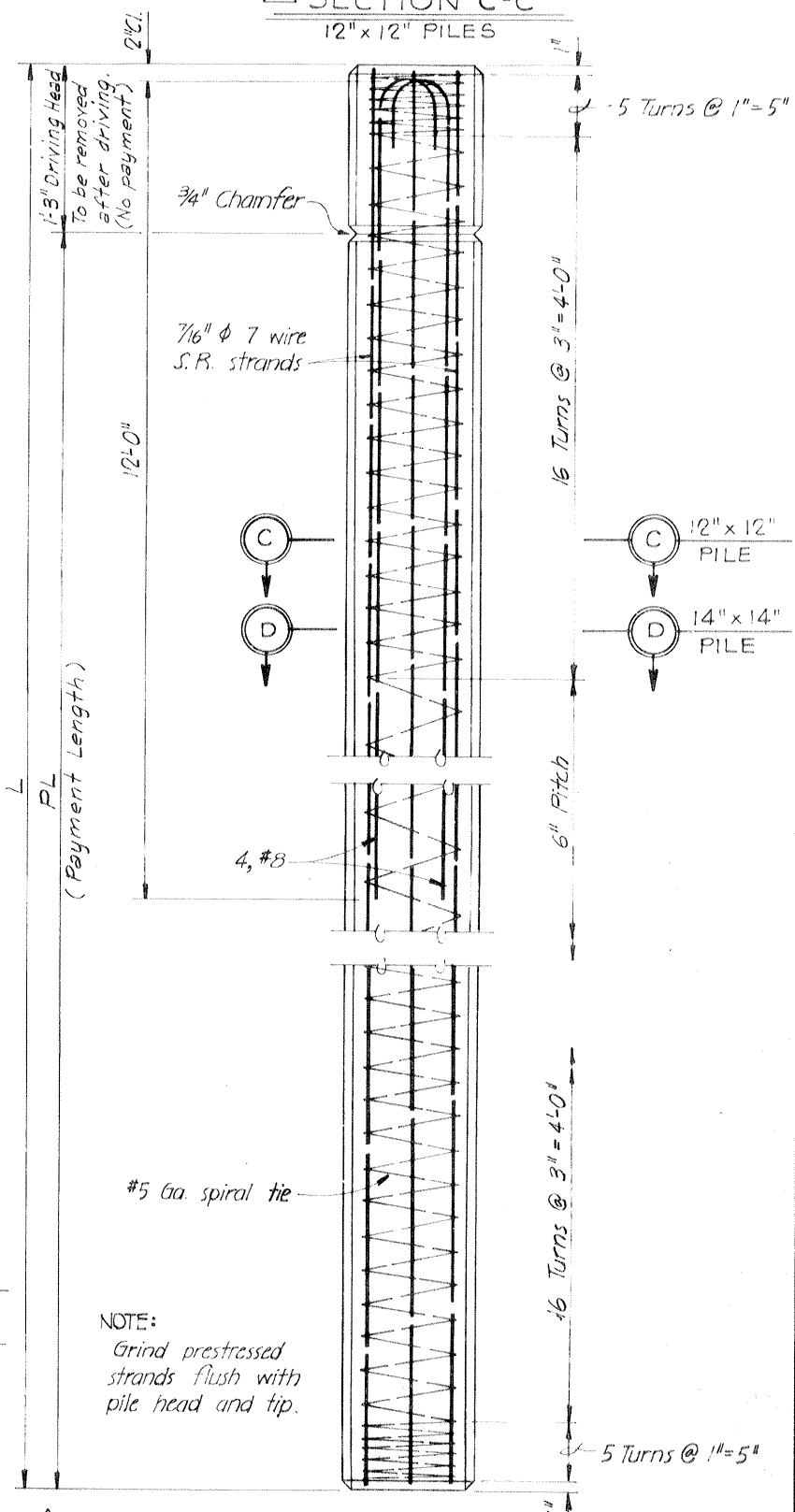
SECTION THRU PUMPING STATION AFTER CONSTRUCTION

STA. 876+55.52 W/L TO STA. 877+18.52 W/L
 $\frac{1}{8}'' = 1'-0''$



Note
 See note on dwg. 6
 for piles location.

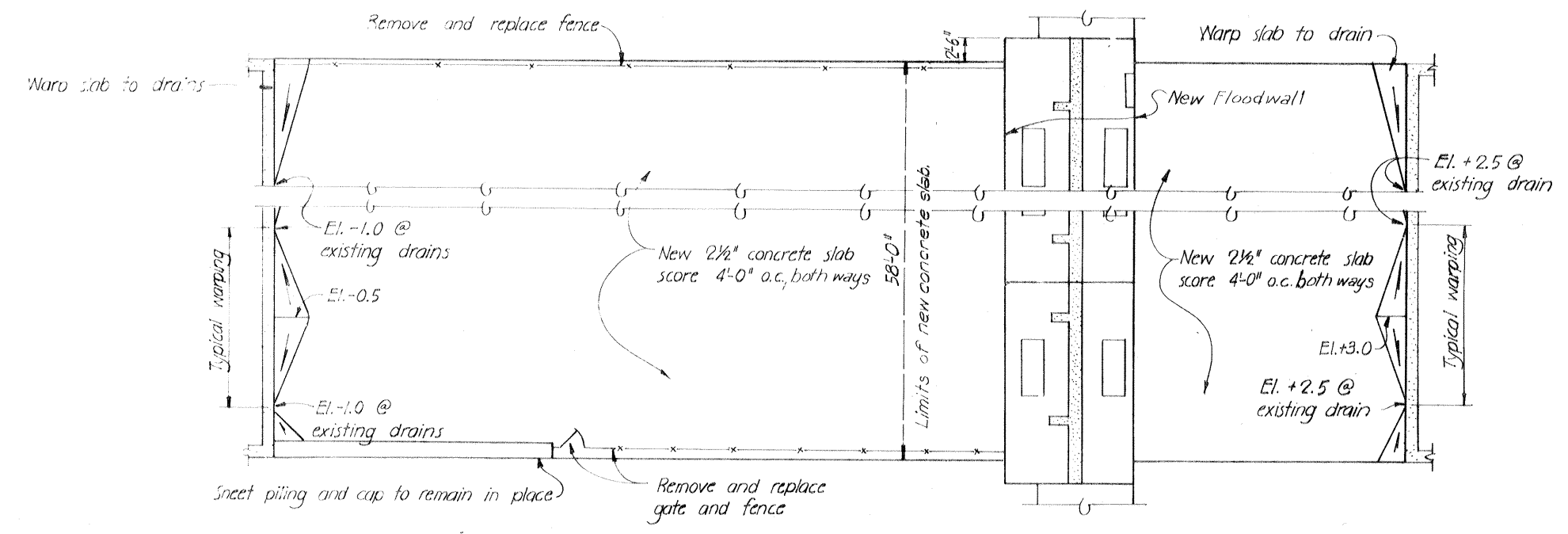
THIS PLAN ACCOMPANIES
 MODIFICATION P00002 TO
 CONTRACT NO. DACW29-
 77-C-0037



NOTE:
 Grind prestressed
 strands flush with
 pile head and tip.

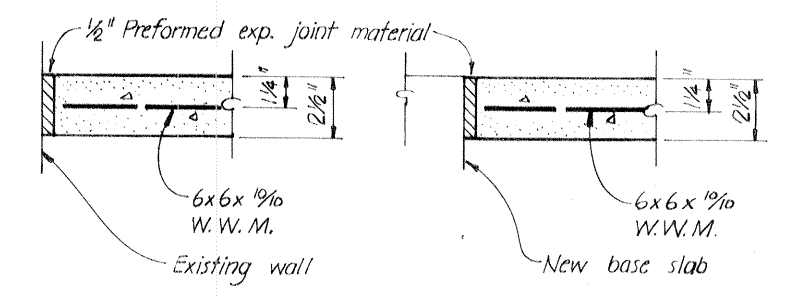
PRESTRESSED PRECAST CONCRETE PILES

Note
 For general notes, see dwg. 5.



SECTION A-A

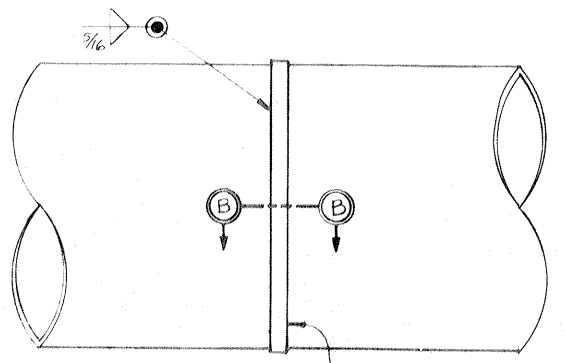
$\frac{1}{8}'' = 1'-0''$



DETAIL "B" (AS SHOWN)
 DETAIL "B-1" (OPP. HAND)
 3" = 1'-0"

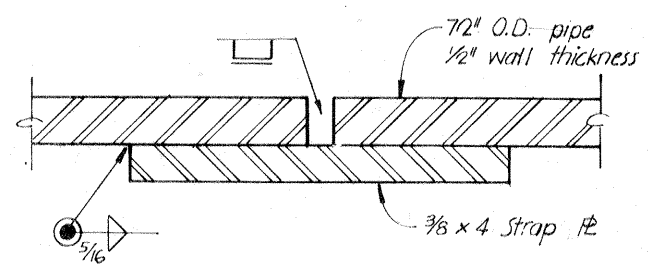
YOUR KEY TO
 HIGHER PROFITS
 VALUE
 INCREASE
 RELEASE
 ENGINEERING

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DETAIL "A"

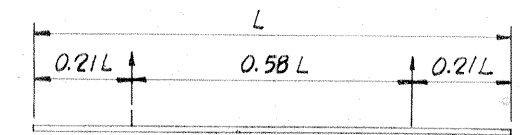
$\frac{1}{2}'' = 1'-0''$



SECTION B-B

FULL SCALE

ONE POINT PICKUP (L ≤ 54') - 12" x 12" PILES
 ONE POINT PICKUP (L ≤ 57') - 14" x 14" PILES



TWO POINT PICKUP (L ≤ 78') - 12" x 12" PILES
 TWO POINT PICKUP (L ≤ 82') - 14" x 14" PILES

Note: Pickup points to be plainly marked on piles.

PILE LIFTING DETAIL

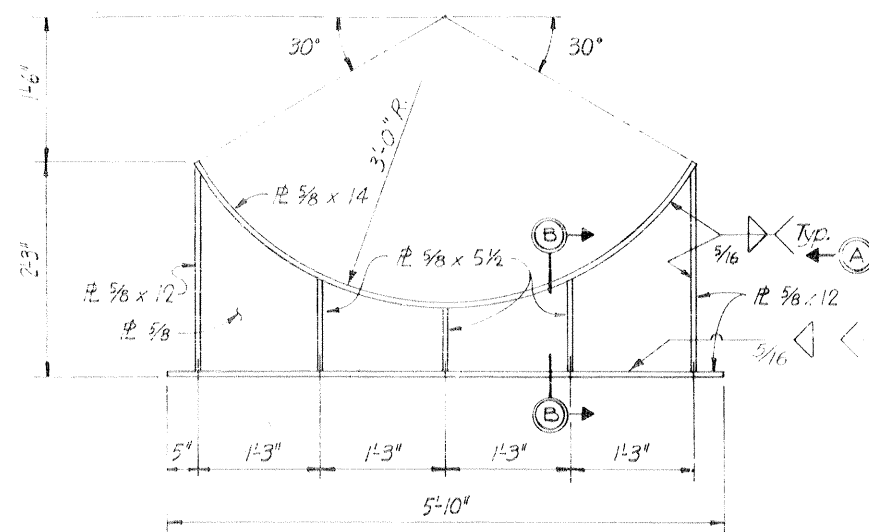
NOTE:
 DRAWING REDUCED
 TO ONE HALF SCALE

REVISION	DATE	DESCRIPTION	BY
2-05-77		Changed pile tip Elev. in Sect., revised Pile Detail and Pile Lifting Detail, Mod. # 2	HUH

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

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
 HURRICANE PROTECTION BARRIER PLAN
 NEW ORLEANS EAST BACK LEVEE
FLOODWALL AT INTRACOASTAL PUMPING STATION
 ORLEANS PARISH, LA.
**WALL SECTIONS
 AND PILING DETAILS**

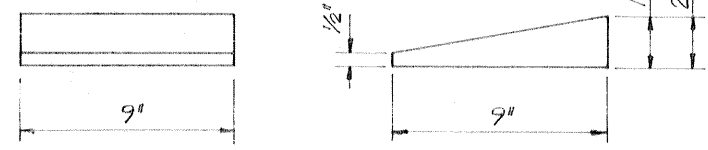
DESIGNED J.G.B.	DRAWN R.D.M.	CHECKED H.L.B.	DATE AUG. 1976	SCALE AS SHOWN	FILE NO. H-4-25835
SUBMITTED Robert J. ...			SPEC. NO. DACW29-76-B-0283	DWG. 12	OF 16



SADDLE 'A'

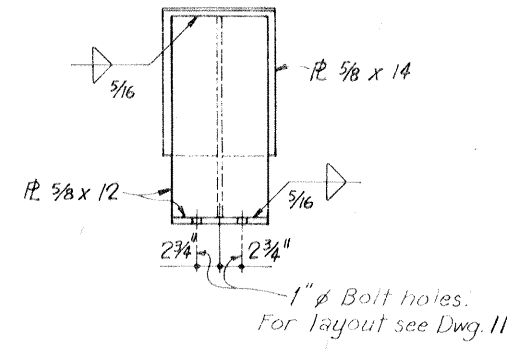
1" = 1'-0"

Note: Dimensions were taken from contract drawings. Contractor shall verify in field.



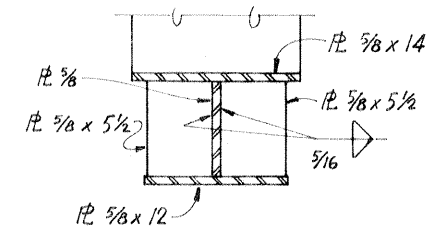
STEEL SHIM PLATE DETAILS

3" = 1'-0"



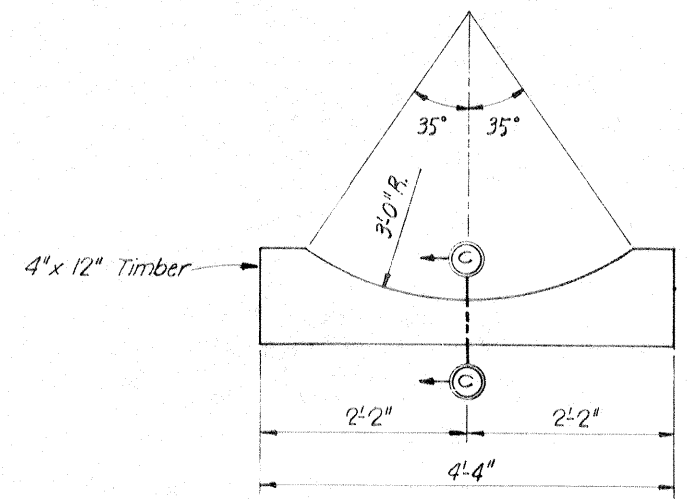
VIEW 'A'

1" = 1'-0"



SECTION B-B

1 1/2" = 1'-0"



SADDLE 'B'

1" = 1'-0"

SECTION C-C

1" = 1'-0"

PIPE SADDLE DETAILS

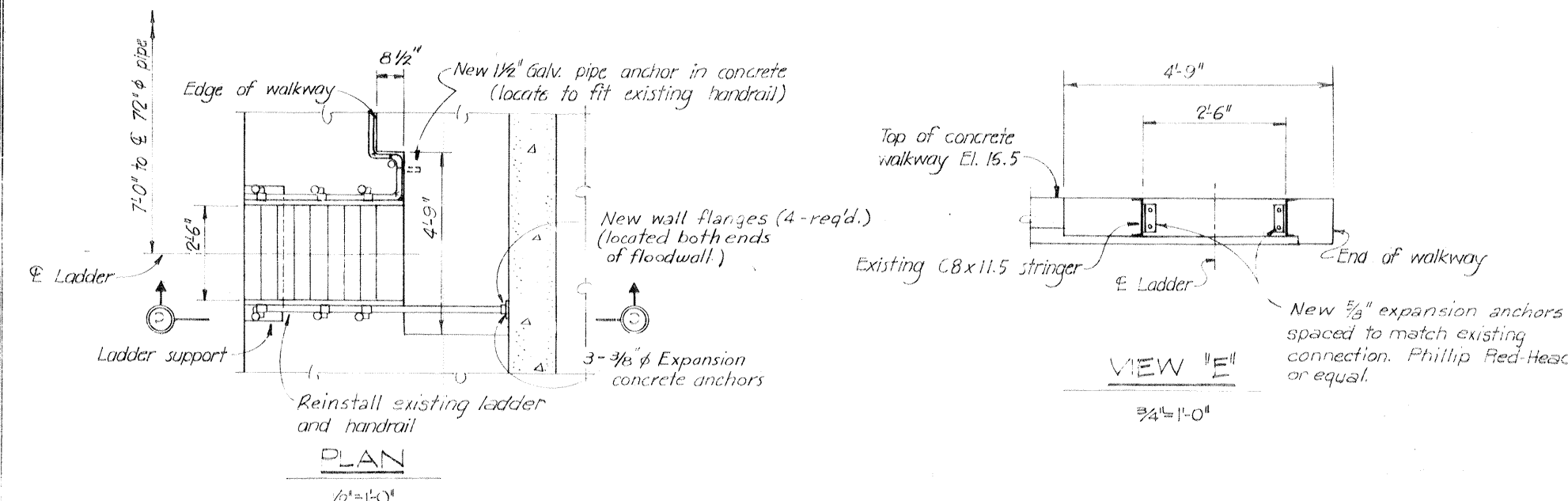
*Note: Contractor shall verify in field.

BOR. 12-EU		BOR. 12-EUT	
STA. 875+55		STA. 875+55	
C/L OF LEVEE		60 FT. C.S. OF TOE	
2-7 SEPT. 66		7-9 SEPT. 66	
W or Dip	GROUND EL. 12.0	W or Dip	GROUND EL. 2.0
29	3.98	29	2.00
30	3.98	30	2.00
31	3.98	31	2.00
32	3.98	32	2.00
33	3.98	33	2.00
34	3.98	34	2.00
35	3.98	35	2.00
36	3.98	36	2.00
37	3.98	37	2.00
38	3.98	38	2.00
39	3.98	39	2.00
40	3.98	40	2.00
41	3.98	41	2.00
42	3.98	42	2.00
43	3.98	43	2.00
44	3.98	44	2.00
45	3.98	45	2.00
46	3.98	46	2.00
47	3.98	47	2.00
48	3.98	48	2.00
49	3.98	49	2.00
50	3.98	50	2.00
51	3.98	51	2.00
52	3.98	52	2.00
53	3.98	53	2.00
54	3.98	54	2.00
55	3.98	55	2.00
56	3.98	56	2.00
57	3.98	57	2.00
58	3.98	58	2.00
59	3.98	59	2.00
60	3.98	60	2.00
61	3.98	61	2.00
62	3.98	62	2.00
63	3.98	63	2.00
64	3.98	64	2.00
65	3.98	65	2.00
66	3.98	66	2.00
67	3.98	67	2.00
68	3.98	68	2.00
69	3.98	69	2.00
70	3.98	70	2.00
71	3.98	71	2.00
72	3.98	72	2.00
73	3.98	73	2.00
74	3.98	74	2.00
75	3.98	75	2.00
76	3.98	76	2.00
77	3.98	77	2.00
78	3.98	78	2.00
79	3.98	79	2.00
80	3.98	80	2.00
81	3.98	81	2.00
82	3.98	82	2.00
83	3.98	83	2.00
84	3.98	84	2.00
85	3.98	85	2.00
86	3.98	86	2.00
87	3.98	87	2.00
88	3.98	88	2.00
89	3.98	89	2.00
90	3.98	90	2.00
91	3.98	91	2.00
92	3.98	92	2.00
93	3.98	93	2.00
94	3.98	94	2.00
95	3.98	95	2.00
96	3.98	96	2.00
97	3.98	97	2.00
98	3.98	98	2.00
99	3.98	99	2.00
100	3.98	100	2.00

Borings were taken with a 5" dia. steel tube piston type sample.

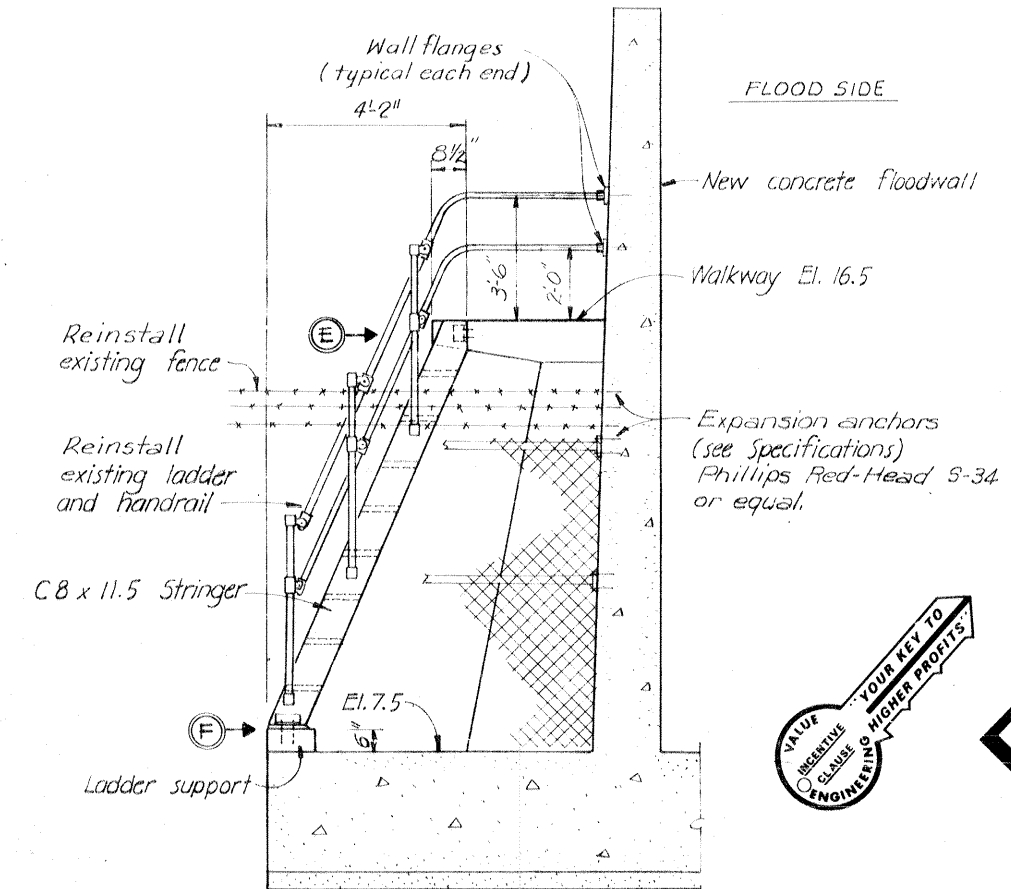
BORINGS

Vert. Scale: 1" = 10'



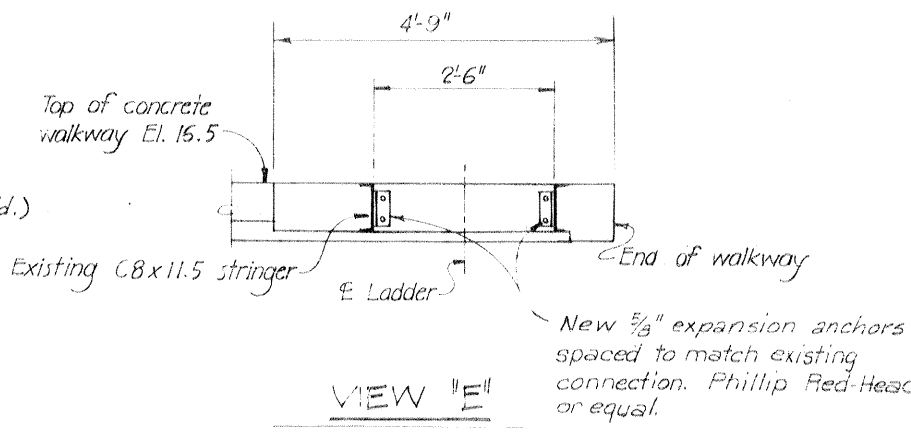
PLAN

1/2" = 1'-0"



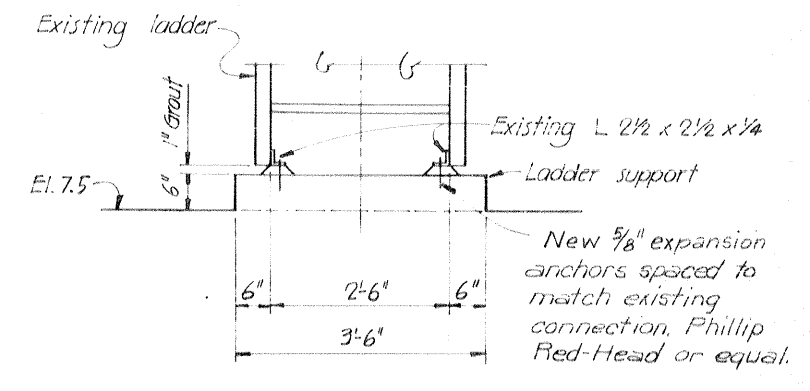
SECTION D-D

1/2" = 1'-0"



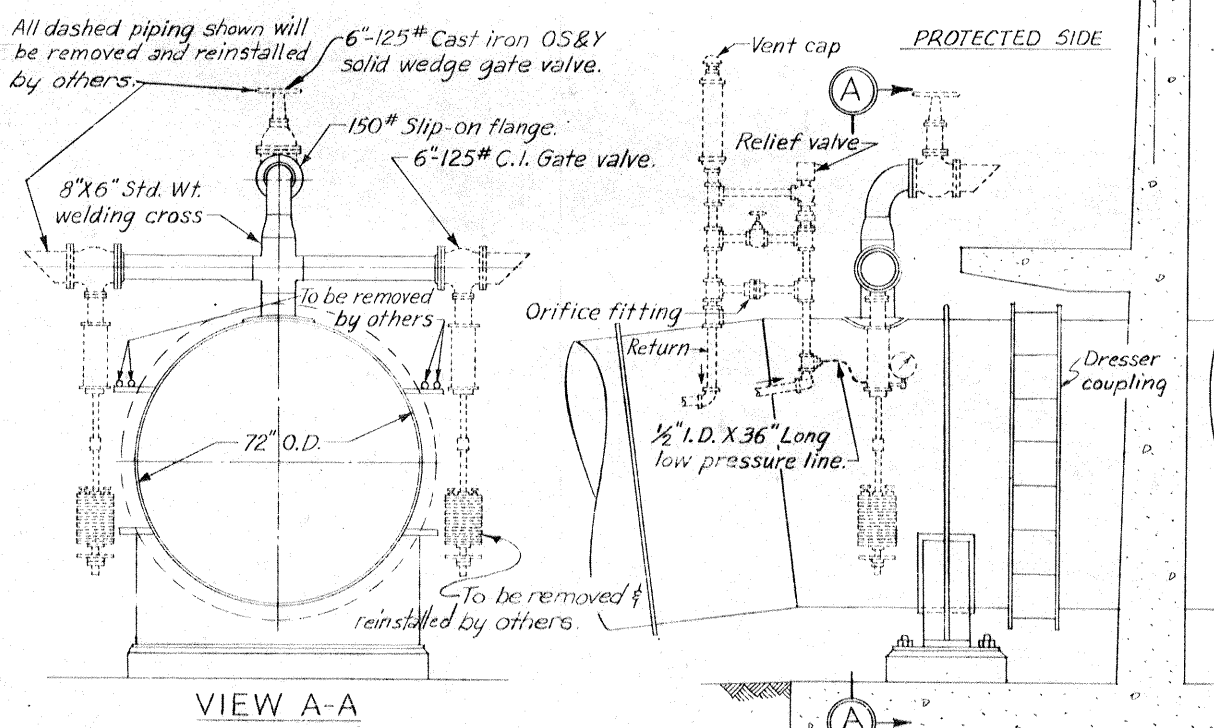
VIEW 'E'

3/4" = 1'-0"



VIEW 'F'

3/4" = 1'-0"



VIEW A-A

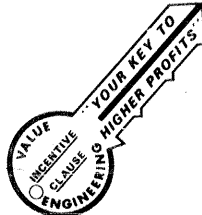
VACUUM BREAKER PIPING ON 72" PIPE

LADDER DETAILS

FLOOD SIDE

NOTE: For general notes, see dwg. 5

NOTE: DRAWING REDUCED TO ONE HALF SCALE

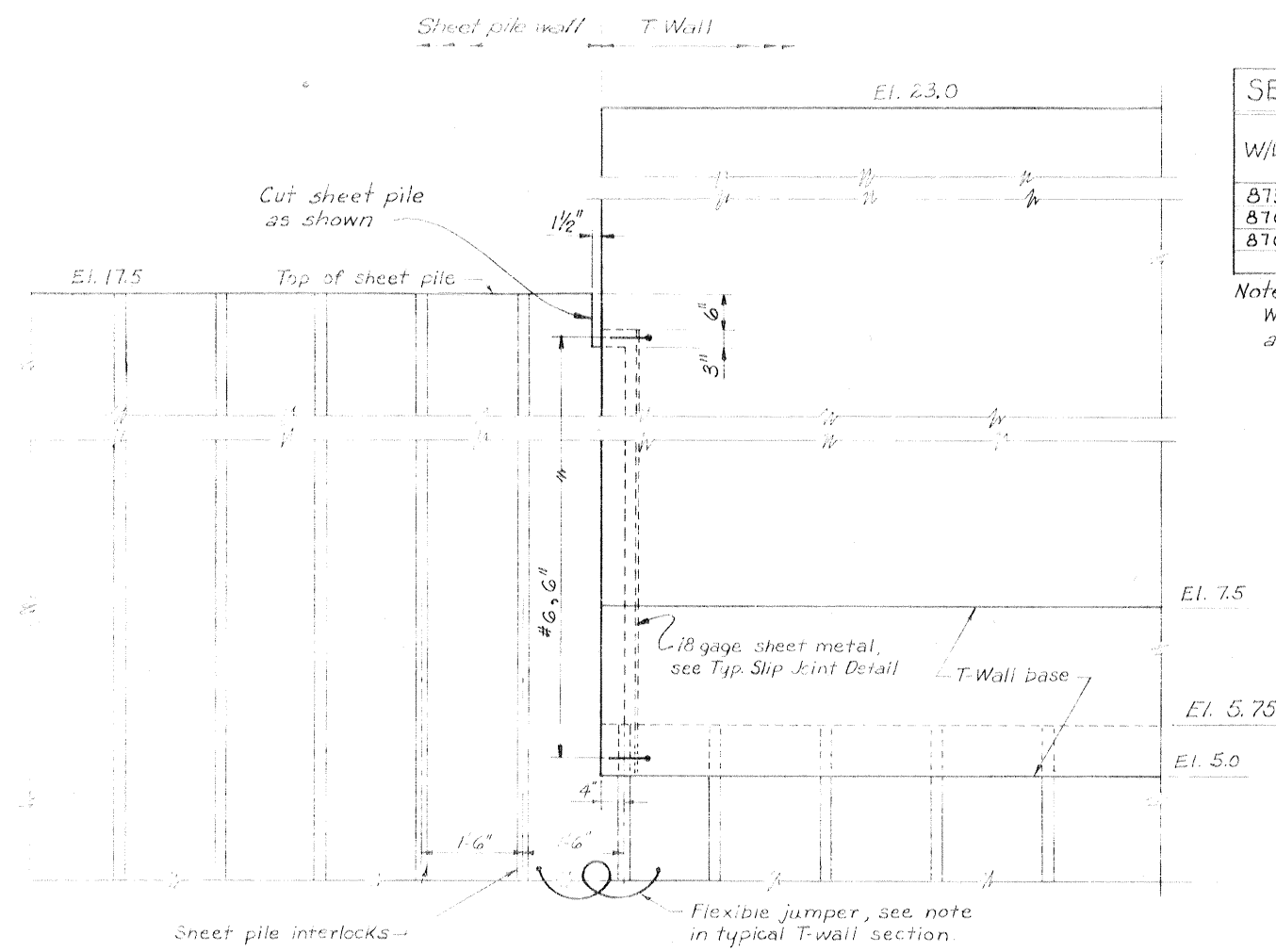


REVISION	DATE	DESCRIPTION	BY

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

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
HURRICANE PROTECTION BARRIER PLAN
NEW ORLEANS EAST BACK LEVEE
FLOODWALL AT INTRACOASTAL PUMPING STATION
ORLEANS PARISH, LA.
PIPE SADDLE AND LADDER
DETAILS AND BORINGS

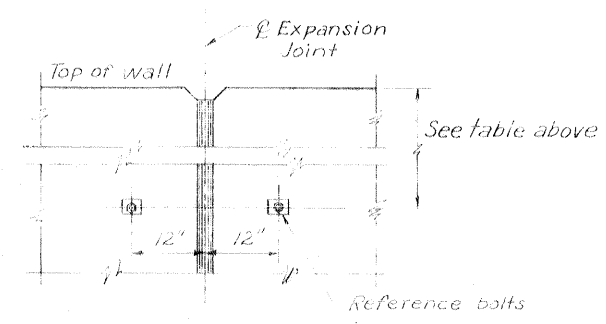
DESIGNED	DRAWN	CHECKED	DATE	SCALE	FILE NO.
J.G.B.	[Signature]	H.L.B.	AUG. 1976	AS SHOWN	H-4-25835
SUBMITTED	[Signature]	SPEC. NO.	DWG. NO.	OF	OF
[Signature]	[Signature]	DACW29-76-B-0283	13	OF	16



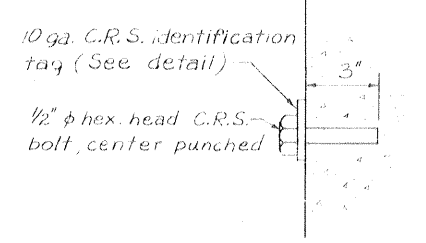
DETAIL OF TRANSITION FROM SHEET PILE WALL TO T-WALL
Scale: 3/4" = 1'-0"

SETTLEMENT REFERENCE BOLT SCHEDULE			
W/L STATION	DISTANCE BELOW TOP OF WALL	W/L STATION	DISTANCE BELOW TOP OF WALL
875 + 60.54	10.0'	877 + 16.52	12.5'
876 + 53.52	12.5'	877 + 20.52	12.5'
876 + 57.52	12.5'	878 + 11.52	10.0'

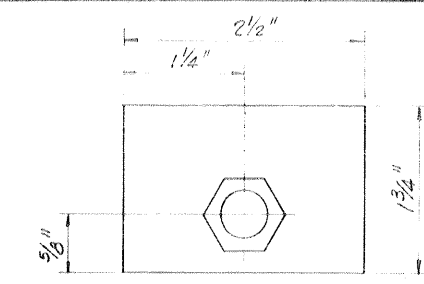
Note: Monolith joints fall at steel sheet pile interlocks. W/L Stations are approximate. Locate reference bolts at nearest W/L Station to those shown.



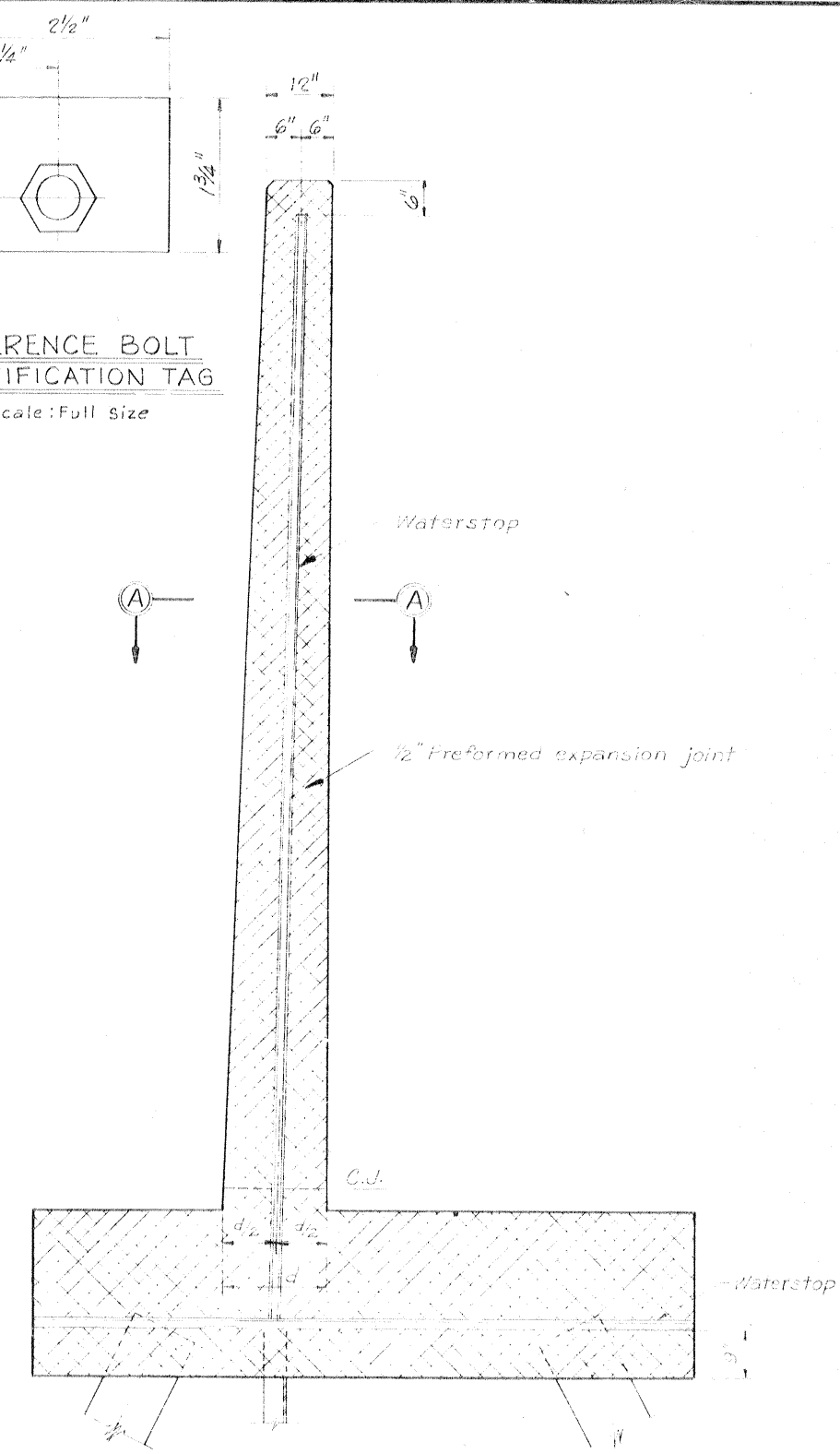
TYPICAL ELEVATION OF REFERENCE BOLT
Scale: 3/4" = 1'-0"



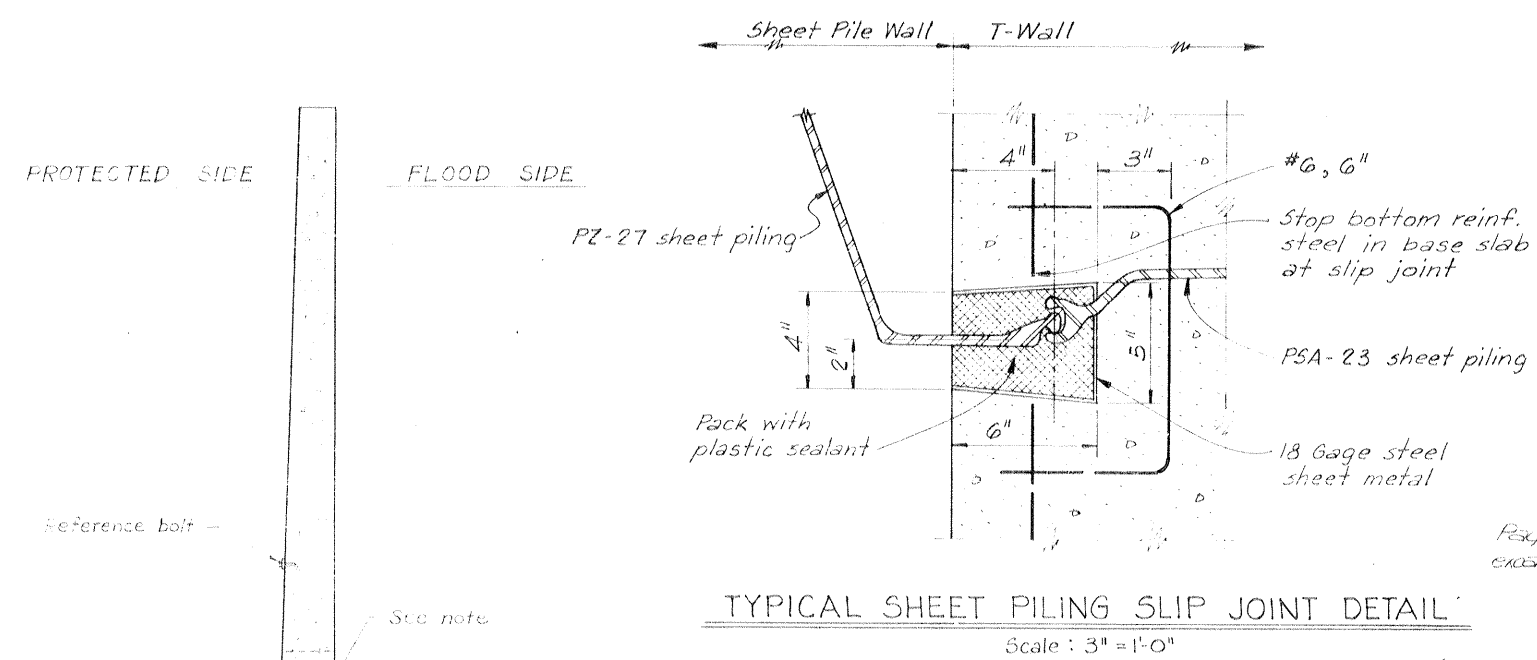
REFERENCE BOLT
Scale: 3/4" = 1'-0"



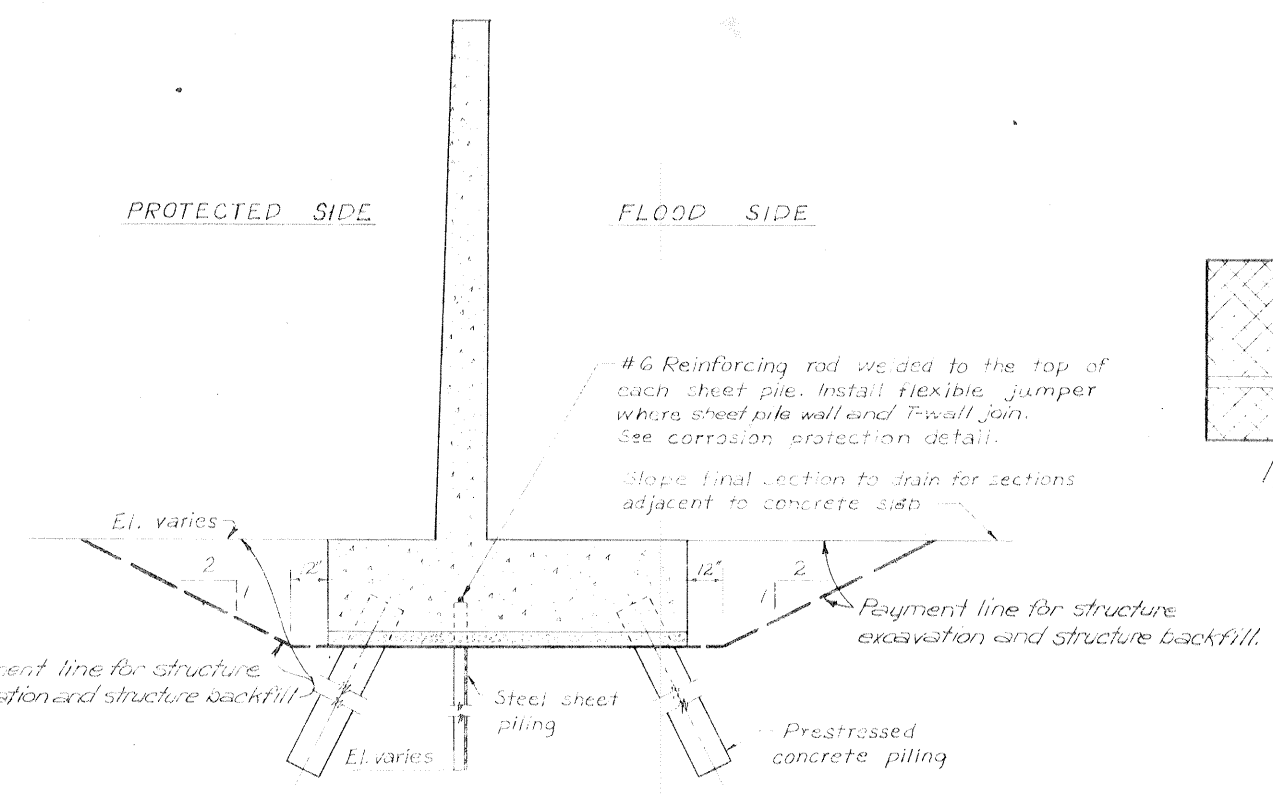
REFERENCE BOLT IDENTIFICATION TAG
Scale: Full Size



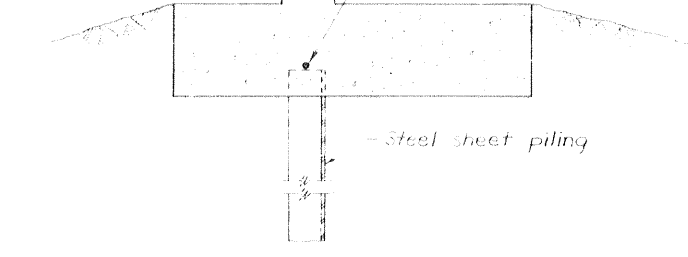
T-WALL JOINT
Scale: 3/4" = 1'-0"



TYPICAL SHEET PILING SLIP JOINT DETAIL
Scale: 3" = 1'-0"

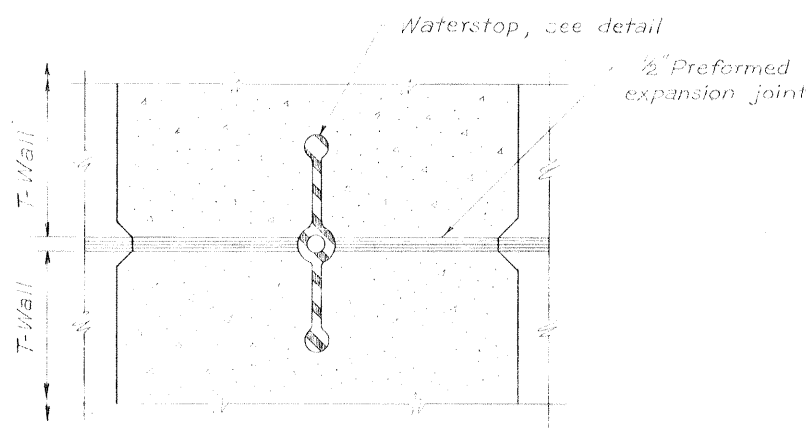


TYPICAL T-WALL SECTION
Scale: 3/8" = 1'-0"

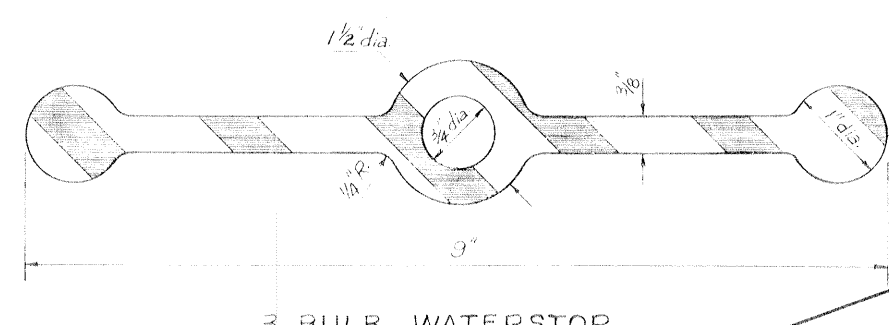


CORROSION PROTECTION
Scale: 3/8" = 1'-0"

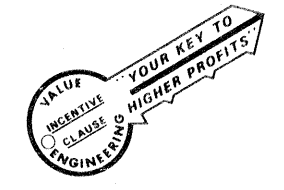
Note: No. 6 reinforcing rod to be welded to the top of each steel sheet pile. Install flexible jumper at all monolith joints. Jumpers shall be insulated No. 16 AWG copper type USE insulated with a min. of 95 mils. of polyethylene formed in an 8" dia. trap. Jumper shall be welded as specified to adjacent steel sheet piles 3 inches below the bottom of the concrete slab. Welded connections shall be coated with splicing epoxy to obtain moisture proof joints. Bonding of piling is to be installed only between Stations 875+60.52 and 878+13.52.



SECTION A-A
Scale: 3" = 1'-0"



3 BULB WATERSTOP
Scale: Full size



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NOTE: DRAWING REDUCED TO ONE HALF SCALE

REVISION	DATE	DESCRIPTION	BY
<p>U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.</p> <p>LAKE PONCHARTRAIN, LOUISIANA AND VICINITY HURRICANE PROTECTION BARRIER PLAN NEW ORLEANS EAST BACK LEVEE FLOODWALL AT INTRACOASTAL PUMPING STATION ORLEANS PARISH, LA.</p> <p>MISCELLANEOUS WALL DETAILS</p>			
DESIGNED	DRAWN	CHECKED	DATE
T.S.T.	CL.R.	J.G.B.	AUG. 1976
SUBMITTED	SCALE	FILE NO.	
	AS SHOWN	H-4-25835	
SPEC. NO.		DWG. 14 OF 16	
DACW29-76-B-0283			

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 More than half of coarse fraction is larger than No. 4 sieve size	CLEAN GRAVEL (Little or No Fines)	GW	GRAVEL, Well Graded, gravel-sand mixtures, little or no fines	
		GRAVEL WITH FINES (Appreciable Amount of Fines)	GP	GRAVEL, Poorly Graded, gravel-sand mixtures, little or no fines	
	SANDS More than half of coarse fraction is smaller than No. 4 sieve size	CLEAN SAND (Little or No Fines)	SW	SAND, Well-Graded, gravelly sands	
		SANDS WITH FINES (Appreciable Amount of Fines)	SP	SAND, Poorly-Graded, gravelly sands	
	FINE-GRAINED SOILS More than half of material is smaller than No. 200 sieve size	SILTS AND CLAYS (Liquid Limit < 50)	SILT & very fine sand, silty or clayey fine sand or clayey silt with slight plasticity	ML	SILT & very fine sand, silty or clayey fine sand or clayey silt with slight plasticity
			LEAN CLAY; Sandy Clay; Silty Clay; of low to medium plasticity	CL	LEAN CLAY; Sandy Clay; Silty Clay; of low to medium plasticity
			ORGANIC SILTS and organic silty clays of low plasticity	OL	ORGANIC SILTS and organic silty clays of low plasticity
		SILTS AND CLAYS (Liquid Limit > 50)	SILT, fine sandy or silty soil with high plasticity	MH	SILT, fine sandy or silty soil with high plasticity
			FAT CLAY, inorganic clay of high plasticity	CH	FAT CLAY, inorganic clay of high plasticity
			ORGANIC CLAYS of medium to high plasticity, organic silts	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 D₁₀"
Are natural water contents in percent dry weight
When underlined denotes D₁₀ 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
 (C) Denotes location of consolidation test**
 (S) Denotes location of consolidated-drained direct shear test**
 (R) Denotes location of consolidated-undrained triaxial compression test**
 (Q) Denotes location of unconsolidated-undrained triaxial compression test**
 (T) Denotes location of sample subjected to consolidation test and each of the above three types of shear tests**
 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 3/8" 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 D₁₀ size of a soil is the grain diameter in millimeters of which 10% of the soil is finer, and 90% coarser than D₁₀
 **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			MODIFICATIONS	
COLOR	SYMBOL	FOR COHESIVE SOILS			MODIFICATION	SYMBOL
		CONSISTENCY	COHESION IN LBS./SQ. FT. FROM UNCONFINED COMPRESSION TEST	SYMBOL		
TAN	T	VERY SOFT	< 250	vSo	Traces	Tr-
YELLOW	Y	SOFT	250 - 500	So	Fine	F
RED	R	MEDIUM	500 - 1000	M	Medium	M
BLACK	BK	STIFF	1000 - 2000	St	Coarse	C
GRAY	Gr	VERY STIFF	2000 - 4000	vSt	Concretions	cc
LIGHT GRAY	lGr	HARD	> 4000	H	Rootlets	rt
DARK GRAY	dGr				Lignite fragments	lg
BROWN	Br				Shale fragments	sh
LIGHT BROWN	lBr				Sandstone fragments	sds
DARK BROWN	dBr				Shell fragments	sif
BROWNISH - GRAY	br Gr				Organic matter	O
GRAYISH - BROWN	gy Br				Clay strata or lenses	CS
GREENISH - GRAY	gn Gr				Silt strata or lenses	SIS
GRAYISH - GREEN	gy Gn				Sand strata or lenses	SS
GREEN	Gn				Sandy	S
BLUE	Bl				Gravelly	G
BLUE - GREEN	Bl Gn				Boulders	B
WHITE	Wh				Slickensides	SL
MOTTLED	Mot				Wood	Wd
					Oxidized	Ox

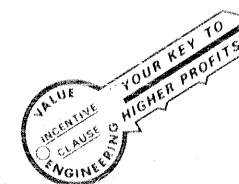
PLASTICITY CHART
For classification of fine-grained soils

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 clause 4 of the contract.

Ground-water elevations shown on the boring logs represents ground-water surfaces encountered on the dates shown. Absence of water surface data on certain borings implies that no ground-water data is available, but does not necessarily mean that ground water will not be encountered at the locations or within the vertical reaches of these borings.

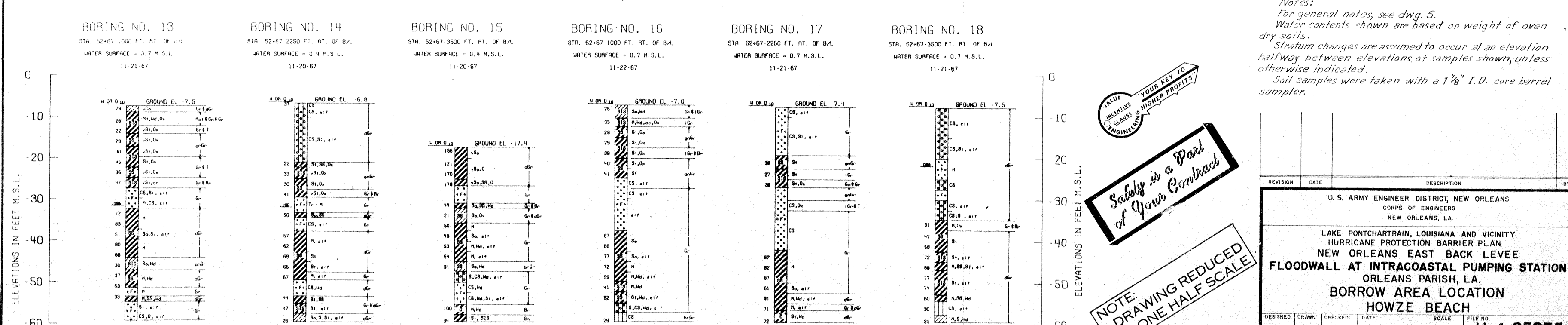
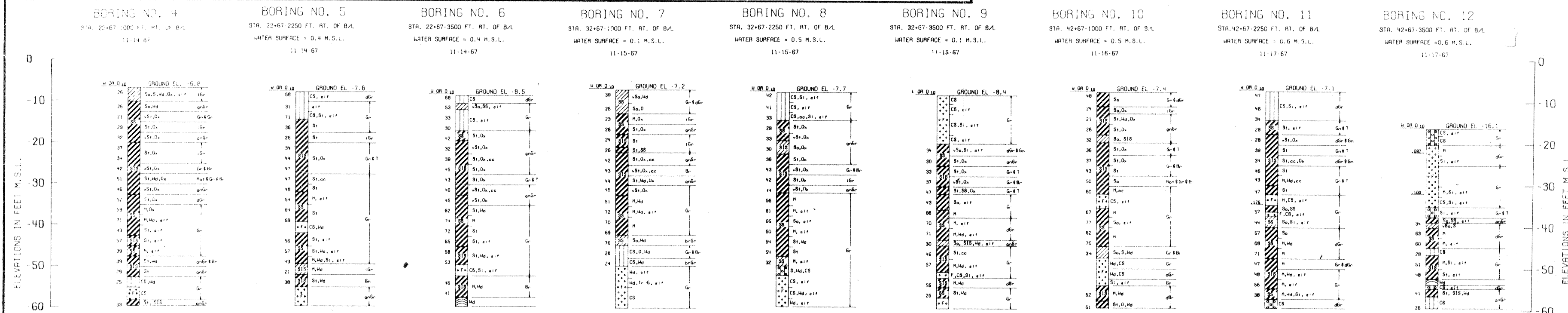
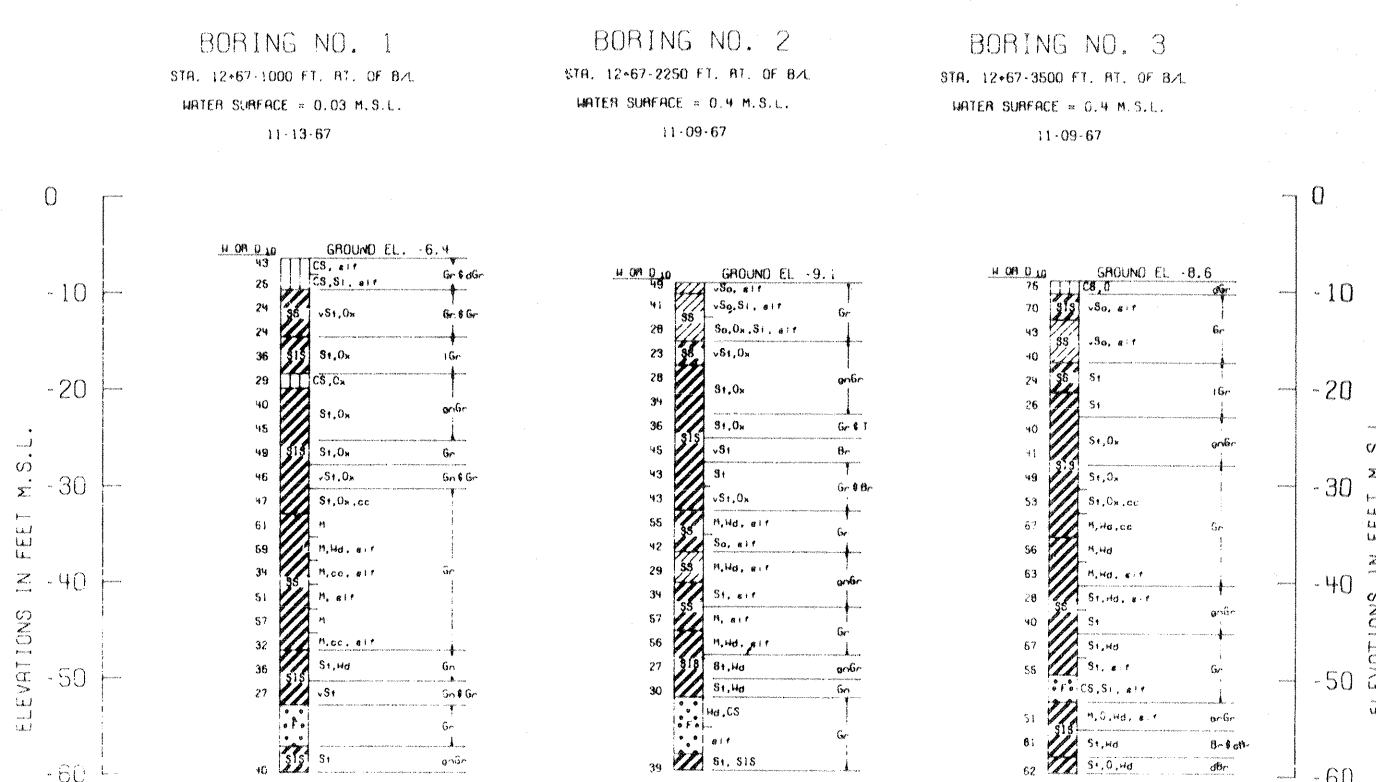
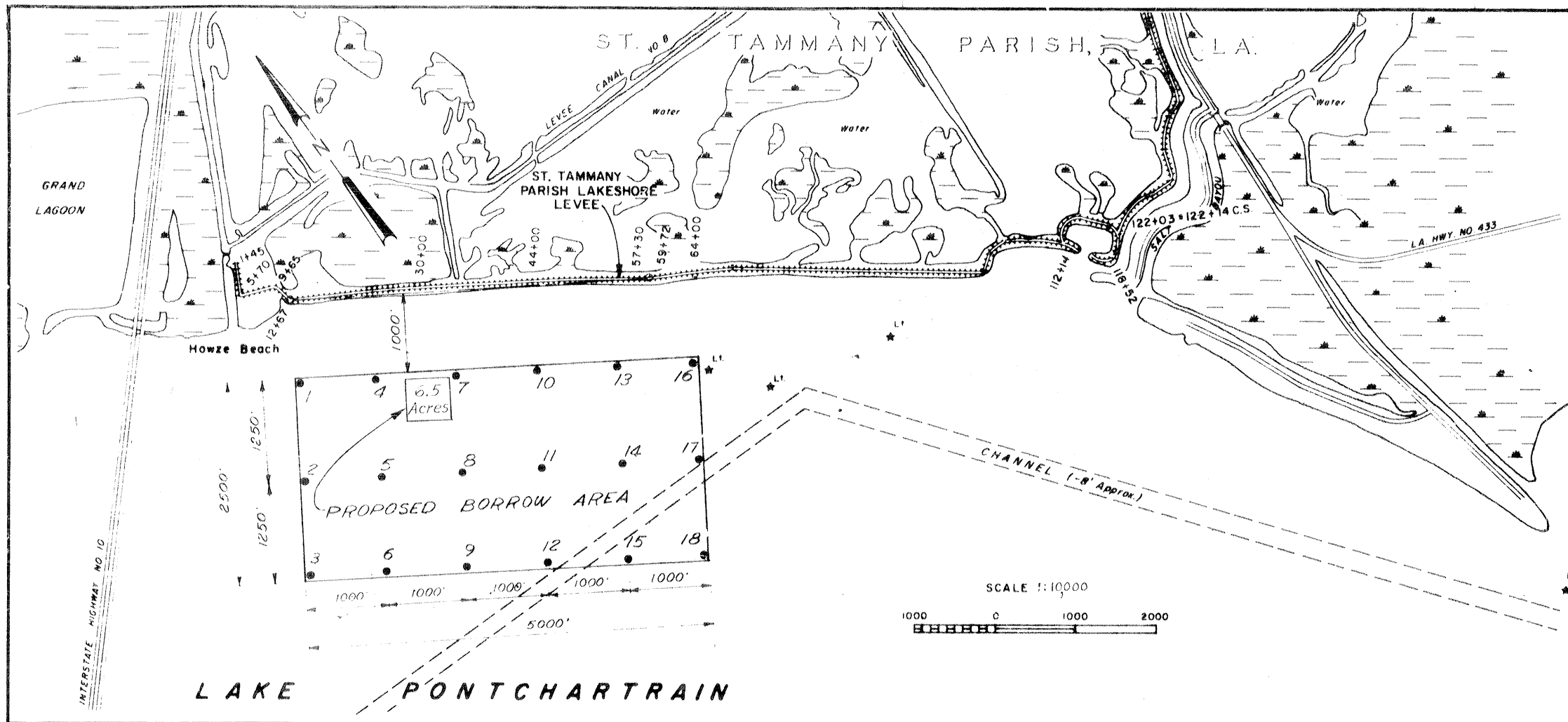
Consistency of cohesive soils shown on the boring logs is based on driller's log and visual examination and is approximate, except within those vertical reaches of the borings where shear strengths from unconfined compression tests are shown.



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U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA. LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY HURRICANE PROTECTION BARRIER PLAN NEW ORLEANS EAST BACK LEVEE FLOODWALL AT INTRACOASTAL PUMPING STATION ORLEANS PARISH, LA. SOIL BORING LEGEND			
DESIGNED: T.S.T.	DRAWN: E.M.M.	CHECKED: L.L.W.	DATE: AUG 1976
SCALE: AS SHOWN		FILE NO. H-4-25835	
SUBMITTED BY: <i>Robert J. Angier</i>		SPEC. NO. DACW29-76-B-0283	
DWG. NO. 15		OF 16	



Notes:
For general notes, see dwg. 5.
Water contents shown are based on weight of oven dry soils.
Stratum changes are assumed to occur at an elevation halfway between elevations of samples shown, unless otherwise indicated.
Soil samples were taken with a 1 7/8" I.D. core barrel sampler.

MAKE INCREASE CHANGE ENGINEERING YOUR KEY TO HIGHER PROFITS

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U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY HURRICANE PROTECTION BARRIER PLAN NEW ORLEANS EAST BACK LEVEE FLOODWALL AT INTRACOASTAL PUMPING STATION BORROW AREA LOCATION HOWZE BEACH			
DESIGNED T.S.T.	DRAWN E.M.M.	CHECKED L.L.W.	DATE AUG. 1976
SCALE AS SHOWN		FILE NO. H-4-25835	
SUBMITTED [Signature]		SPEC. NO. DACW 29-76-B-0283	DWG. 16 OF 16