

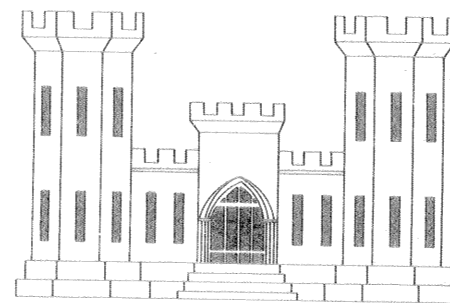
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY  
LAKE PONTCHARTRAIN BARRIER PLAN  
ORLEANS PARISH, LA.

# INNER HARBOR NAVIGATION CANAL EAST LEVEE

HAYNE BLVD. TO DWYER ROAD (STA. 33+95 TO STA. 83+00)

PLANS FOR

## LEVEE AND FLOODWALL CAPPING



STRUCTURAL DESIGN  
SECTION

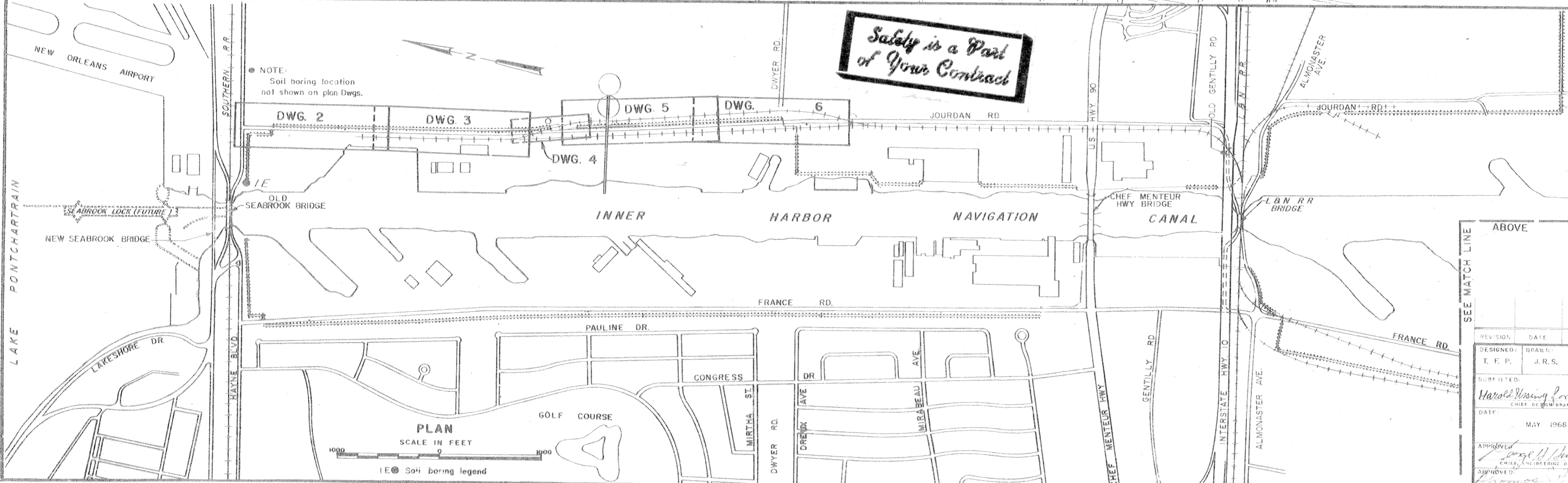
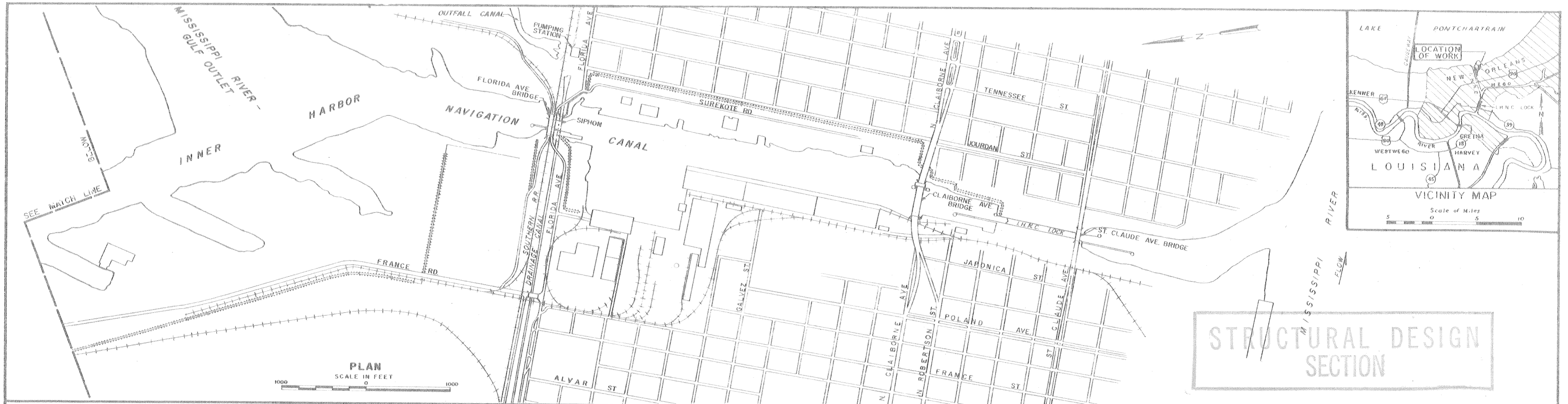
DRAWINGS IN THIS FOLIO  
HAVE BEEN REDUCED ONE  
HALF THE ORIGINAL SCALE

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

1968

*Safety is a Part  
of Your Contract*

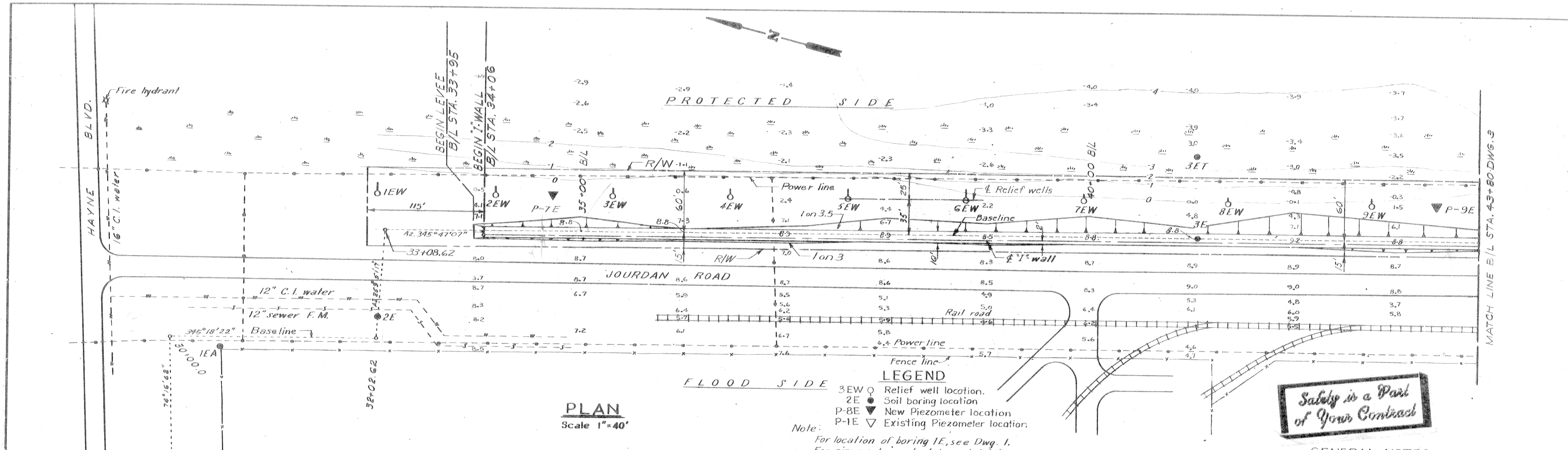
H-4-24530



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INDEX TO DRAWINGS	
DWG.	TITLE
1	LOCATION PLAN, VICINITY MAP AND INDEX
2	PLAN AND PROFILE
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7	LOG OF BORINGS
8	TYPICAL SECTIONS
9	TYPICAL WALL SECTIONS
10	REFERENCE BOLT AND PIEZOMETER SCHEDULES
11	RELIEF WELLS
12	COLLECTOR PIPE DETAILS
13	ADDITIONAL BORROW AREA LOCATION

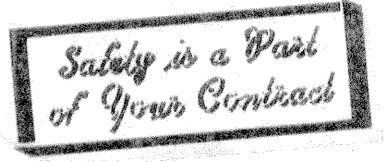
DESIGNED BY T. F. P.	DATE	CHECKED BY J. R. S.	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.					
SUBMITTED BY <i>Harold Hasing for R. S. Franklin</i> CHIEF DESIGN BRANCH			LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY LAKE PONTCHARTRAIN BARRIER PLAN INNER HARBOR NAVIGATION CANAL - EAST LEVEE HAYNE BLVD. TO DWYER ROAD LEVEE AND FLOODWALL CAPPING		
DATE MAY 1968			CODE IDENT. NO. SIZE FILE NO. <b>H-4-24530</b>		
APPROVED BY <i>George W. Jackson</i> CHIEF, ENGINEERING DIVISION			SCALE SHOWN SPEC. NO. DACW 20-68-B-048 DWG. NO. 1 OF 13		



**PLAN**  
Scale 1"=40'

**LEGEND**  
 3EW ○ Relief well location.  
 2E ● Soil boring location  
 P-8E ▼ New Piezometer location  
 P-1E ▽ Existing Piezometer location.

Note:  
 For location of boring 1E, see Dwg. 1.  
 For piezometer schedule and details, see Dwg. 10.

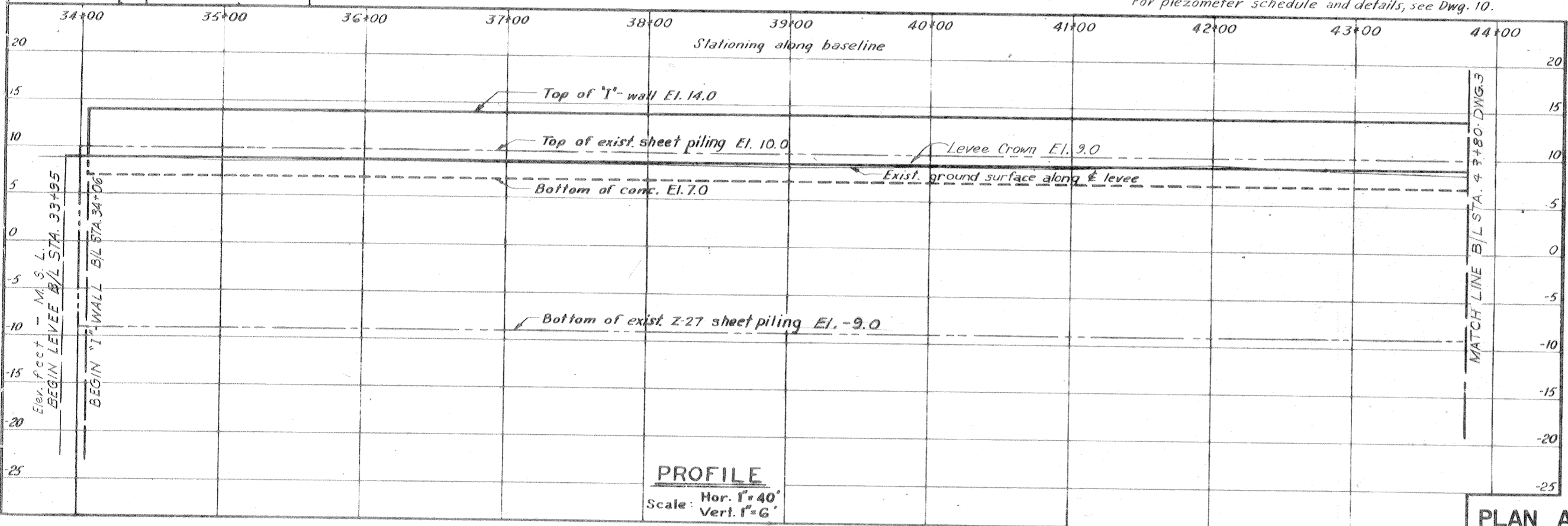


**GENERAL NOTES**

Elevations are expressed in feet and refer to mean sea level.  
 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 corners of concrete shall be chamfered 3/4 inch unless otherwise indicated. All horiz. joints to have 3/4 inch chamfer. Sack rub finish on flood side only.  
 All primary reinforcement shall have a minimum cover of 2 1/2 inches with a tolerance of +1/4" unless otherwise indicated.  
 Reinforcing bar designation numbers conform to the current numbering system of the Concrete Reinforcing Steel Institute.  
 All reinforcement splices shall be lapped according to the following table.

TENSION LAP SPLICE		
Bar size	Minimum lap length, in.	
No.	Top bars	Other bars
4	14	14
6	24	22

All relief wells shall carry an identification number corresponding to numbers shown on plan. See dwg. 11 for location. Well numbers to be (min. 1/2" clearly stamped on a 1/2" X 3" X 10 ga. corrosion resistant steel tag.  
 For sizes of collector pipes see Dwg. 12.  
 All "I" wall monoliths shall be 30'±. Each monolith shall begin and end at sheet pile interlocks.

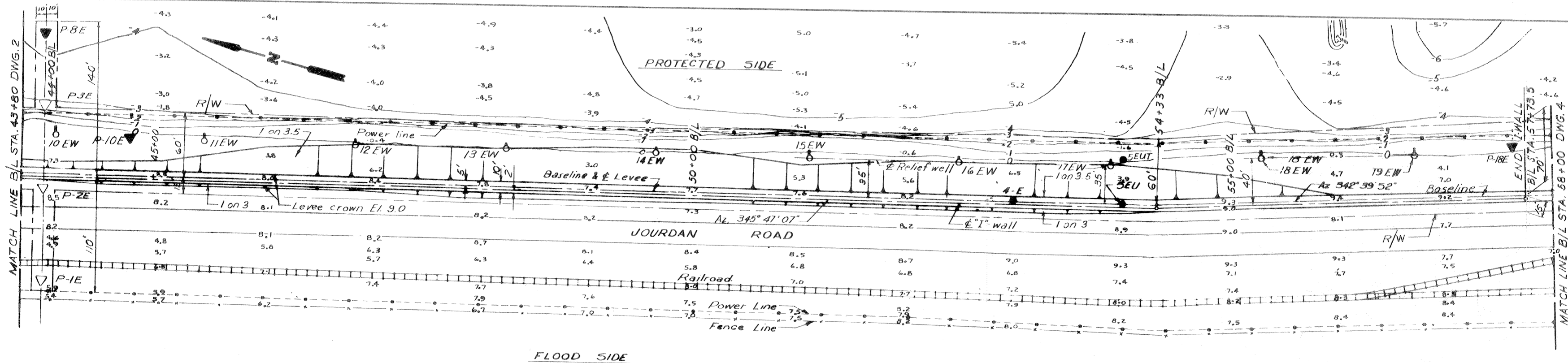


**PROFILE**  
Scale: Hor. 1"=40'  
Vert. 1"=6'

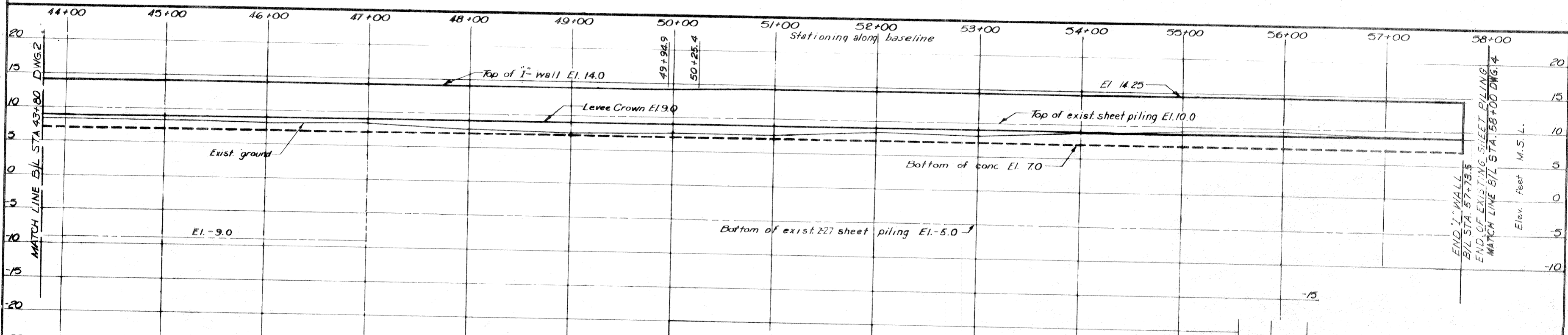
**PLAN AND PROFILE**

REVISION	DATE	DESCRIPTION	BY
DESIGNED BY	DRAWN BY	CHECKED BY	CODE IDENT NO
T. F. P.	D. J. H.	H. L. B.	SIZE
DATE MAY 1968			SCALE SHOWN
SPEC. NO. DACW29-68-B-0148			DWG. NO. 2 OF 13

**H-4-24530**



PLAN  
Scale: 1" = 40'

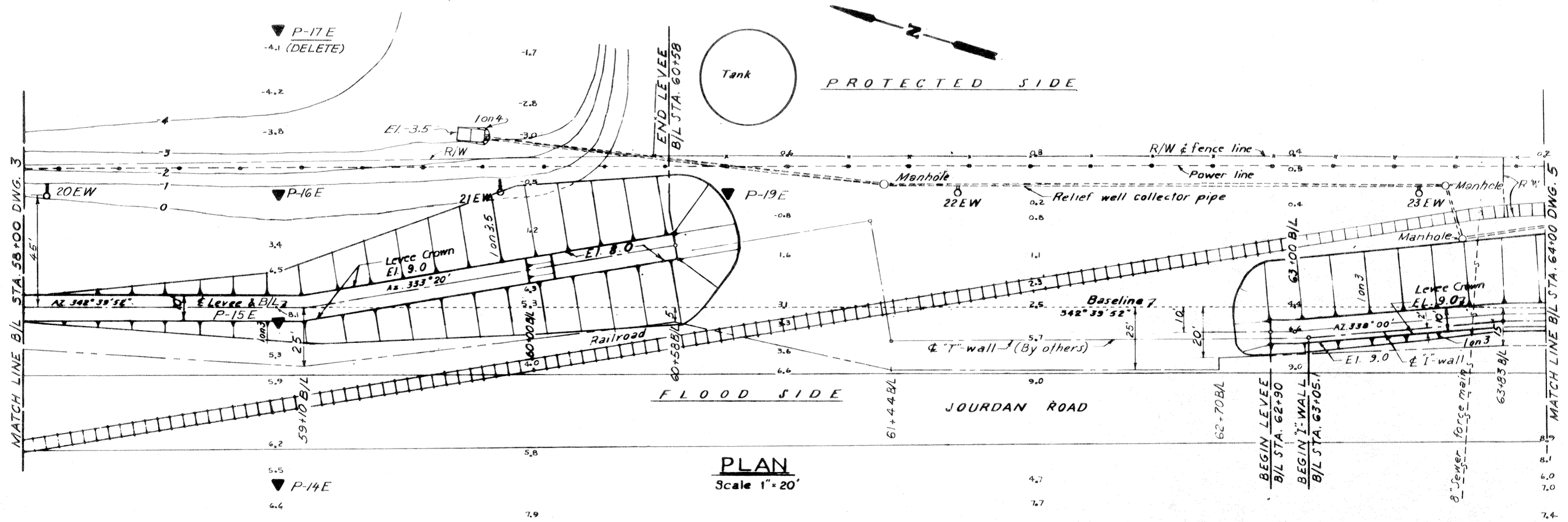


PROFILE  
Scale: Hor. 1" = 40'  
Vert. 1" = 6'

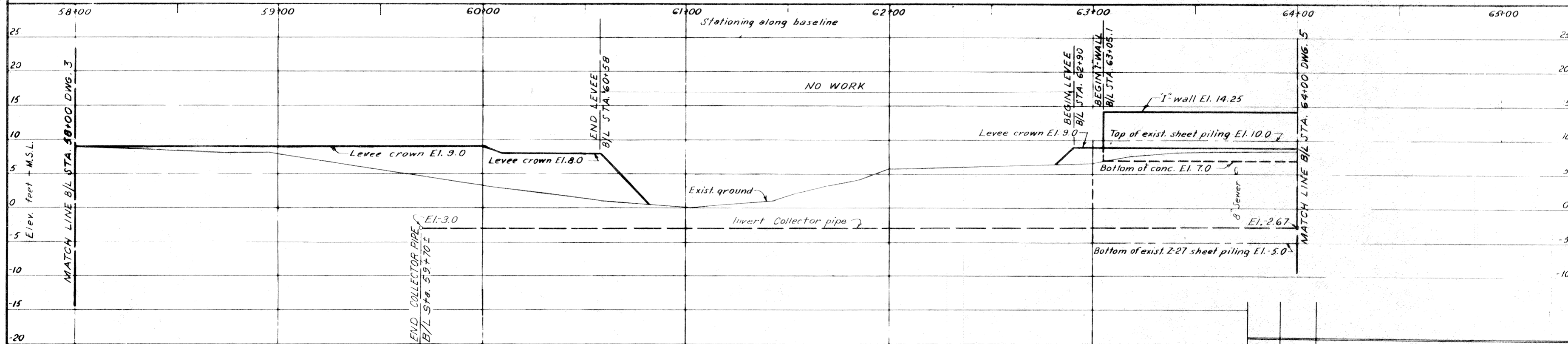
PLAN AND PROFILE

REV. NO.	DATE	DESCRIPTION	BY
DESIGNED BY	DRAWN BY	CHECKED BY	CODE
T. F. P.	D. J. H.	H. L. B.	
DATE MAY 1968			SPEC NO. CACW29-68-B-014B
AS CONST			3 OF 13





**PLAN**  
Scale 1" = 20'



**PROFILE**  
Scale: Hor. 1" = 20'  
Vert. 1" = 6'

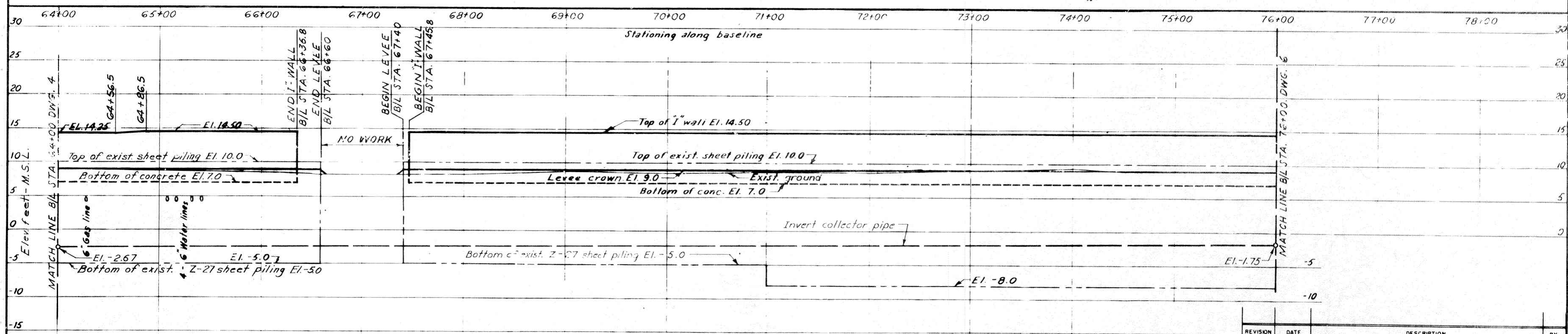
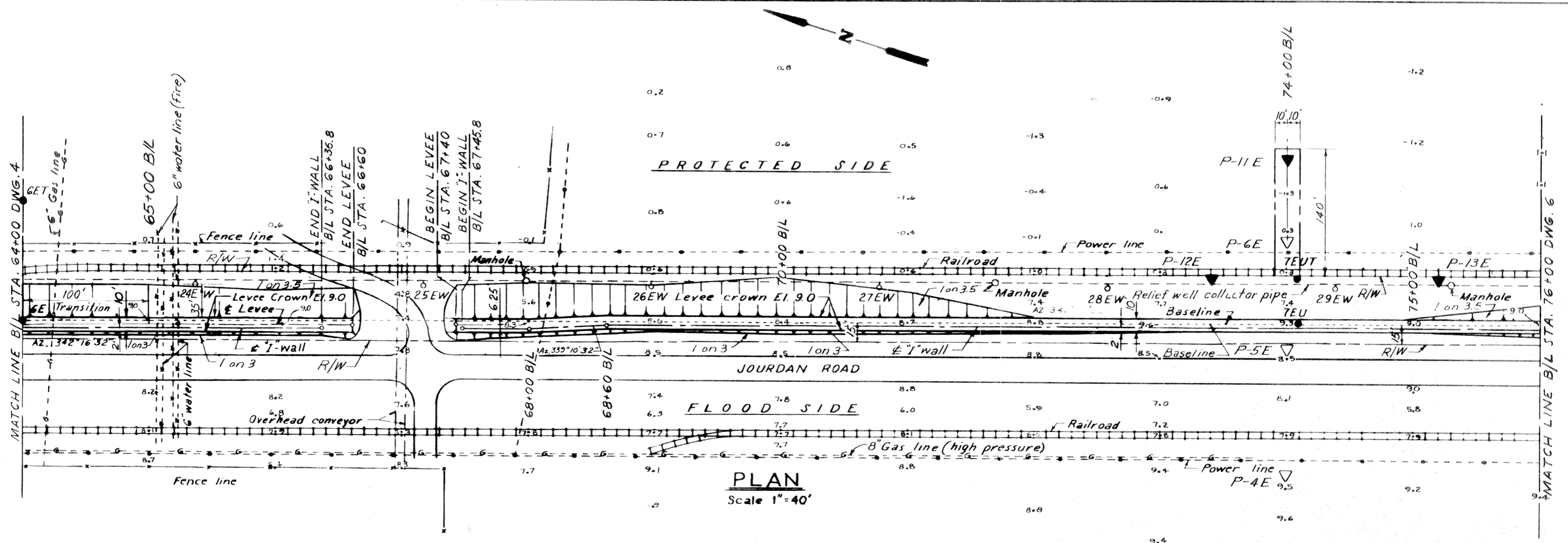
**PLAN AND PROFILE**

REVISION	DATE	DESCRIPTION	BY
DESIGNED BY	DRAWN BY	CHECKED BY	CODE IDENT. NO.
T. F. P.	R. J. C.	H. L. B.	
DATE	MAY 1968	SCALE SHOWN	SPEC. NO. DACW29-68-B-0148
			DWG NO. 4 OF 13

**H-4-24530**

AS CONST

IHNC EAST LEVEE (HAYNE BLVD. TO DWYER RD.)



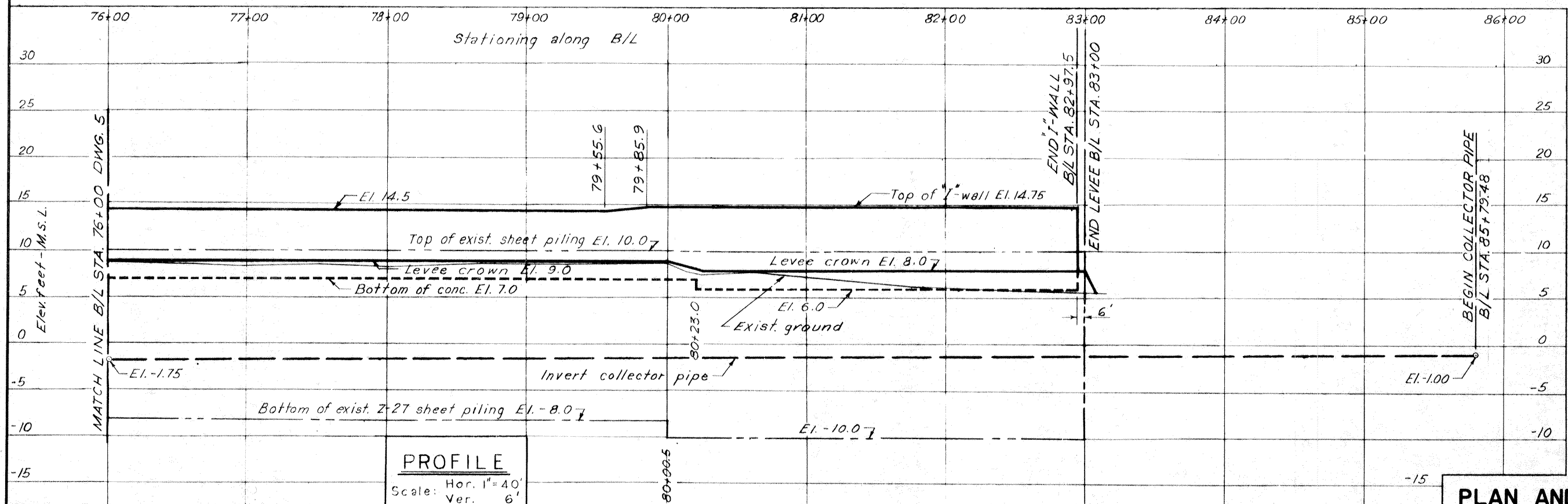
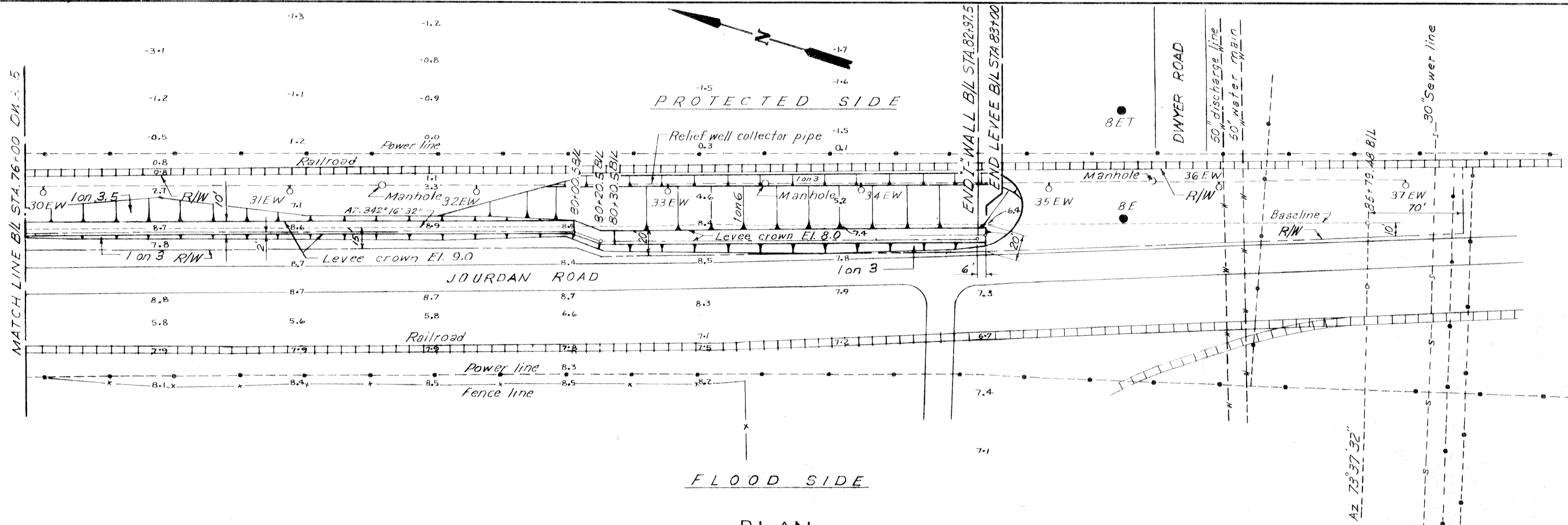
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DESIGNED BY	DRAWN BY	CHECKED BY	CODE IDENT NO.
T. F. P.	D. J. H.	H. L. B.	
DATE	MAY 1968	SCALE SHOWN	SPEC NO DACW29-68-B-0148
		DWG NO.	5 OF 13

**PLAN AND PROFILE**

AS CONST

IHC EAST LEVEE (HAYNE BLVD. TO DWYER RD.)

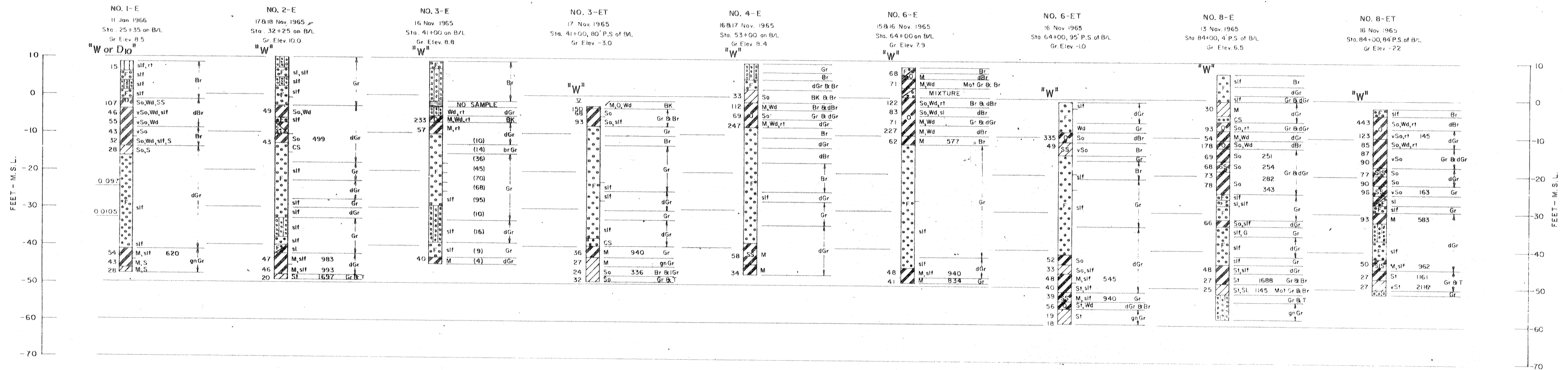
**H-4-24530**



REVISION	DATE	DESCRIPTION	BY
DESIGNED:	T.F.P.	DRAWN:	E.L.C.
CHECKED:	H.L.B.	CODE IDENT. NO.	SIZE
FILE NO.	H-4-24530	DATE:	MAY 1968
SPEC. NO.	DACW29-68-B-0148	DWG. NO.	6 OF 13

PLAN AND PROFILE

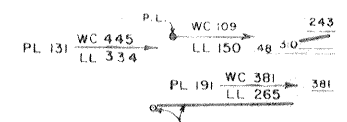
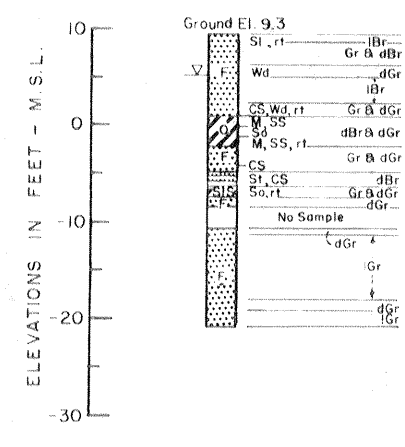
AS CONST. IHC EAST LEVEE (HAYNE BLVD. TO DWYER RD.)



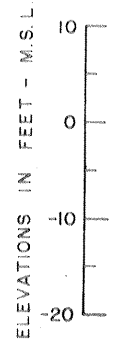
WATER CONTENT, "W"  
(Percent dry weight)



5-EU  
STA. 54+00  
ON B/L  
30 March 1966



5-EUT  
STA. 54+00  
42' P.S. B/L  
29 March 1966

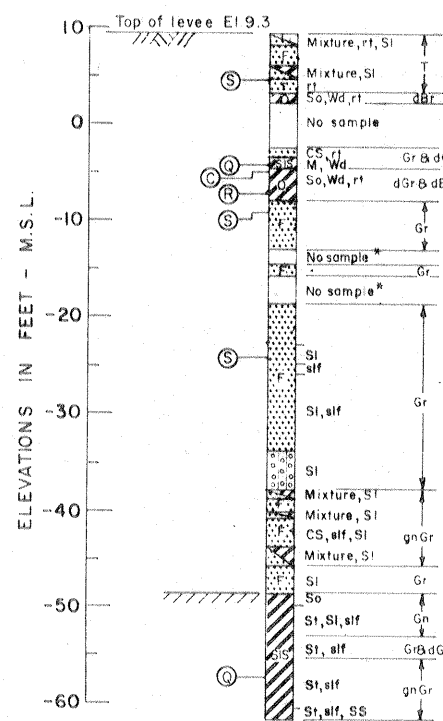
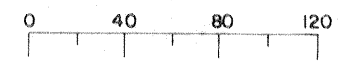


WATER CONTENT, "W"  
(Percent dry weight)



7-EU  
STA. 74+00  
ON B/L  
9-10 Nov. 1965

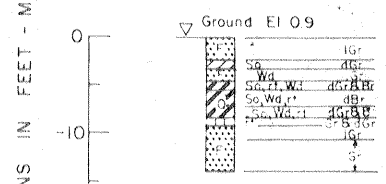
WATER CONTENT, "W"  
(Percent dry weight)



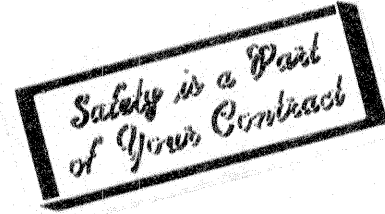
WATER CONTENT, "W"  
(Percent dry weight)



7-EUT  
STA. 74+00  
38' P.S. B/L  
29 March 1966



ELEVATIONS IN FEET - M.S.L.



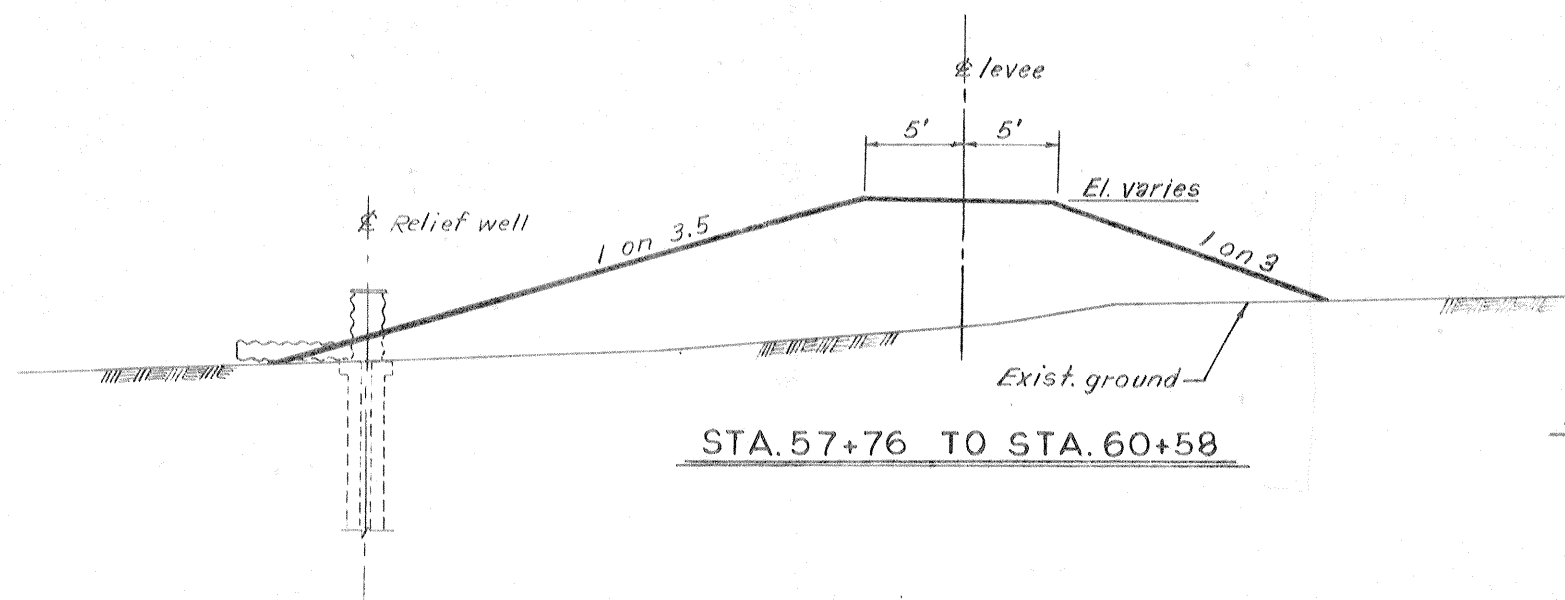
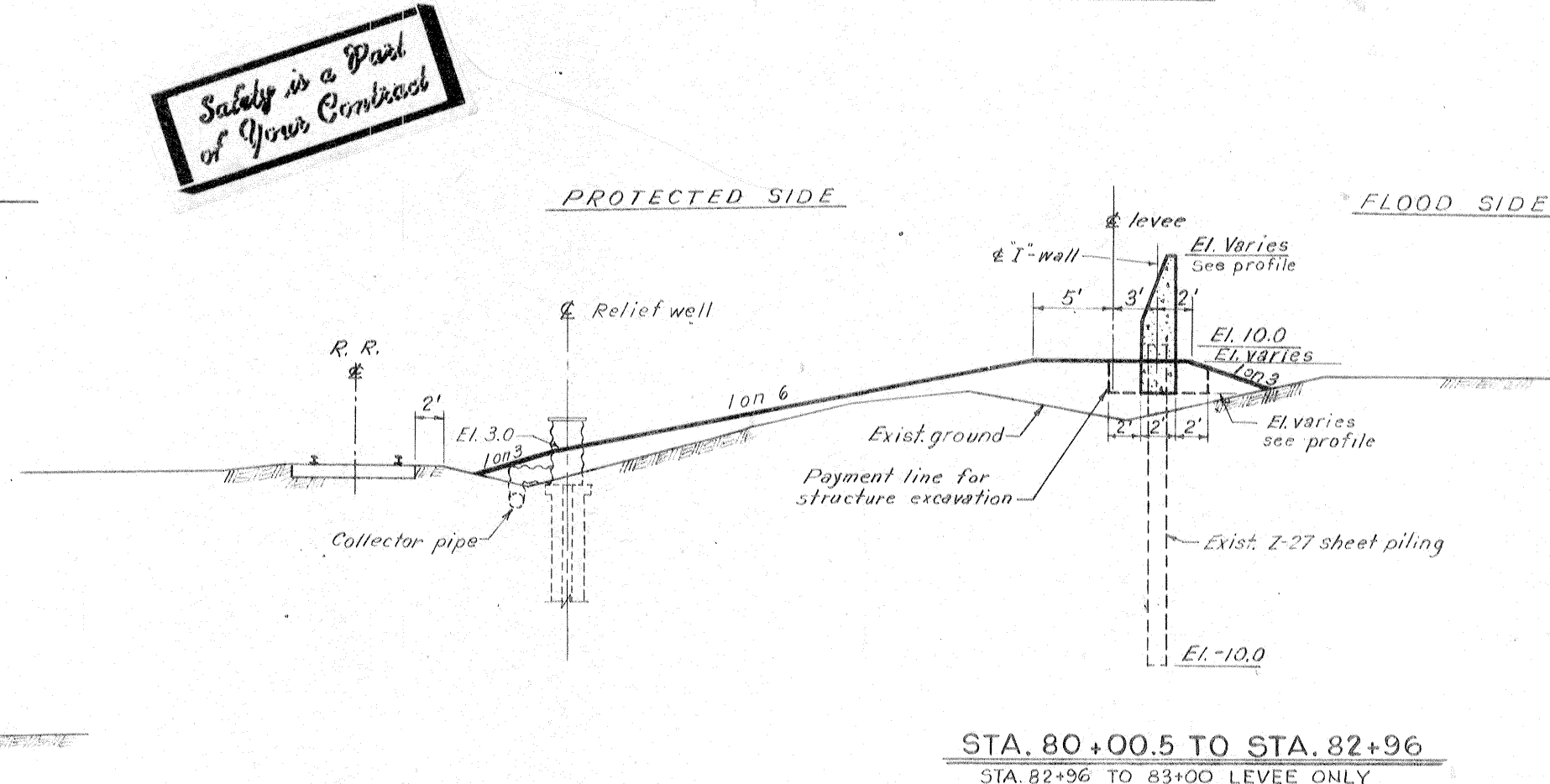
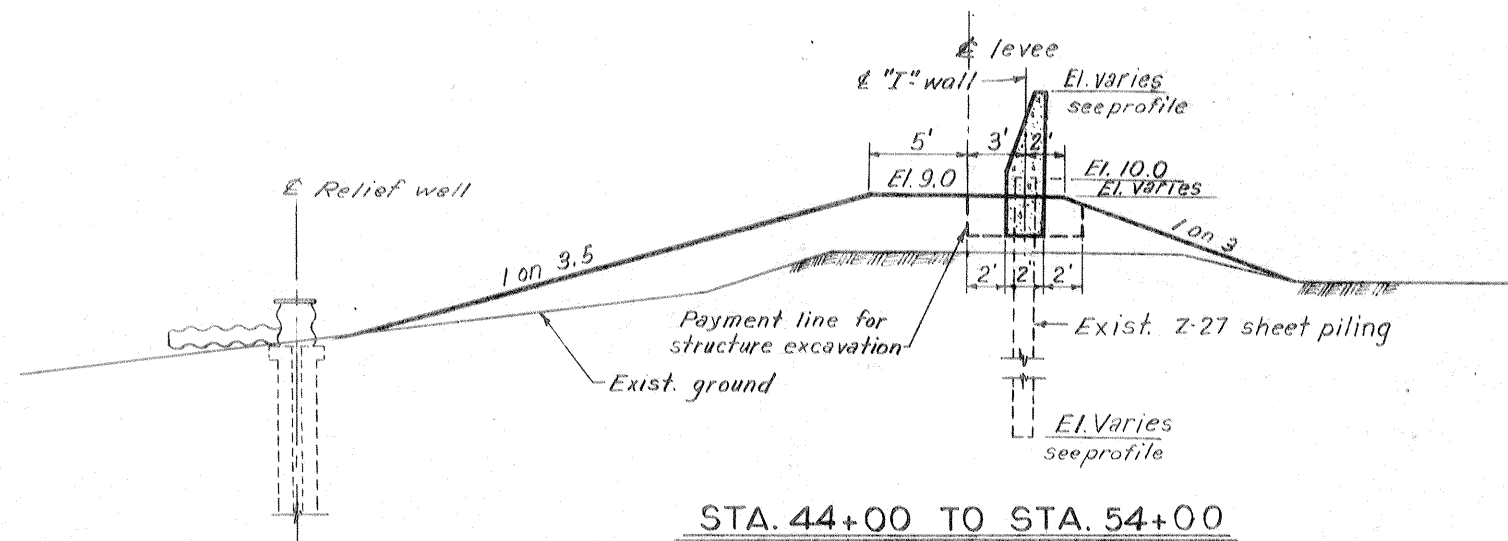
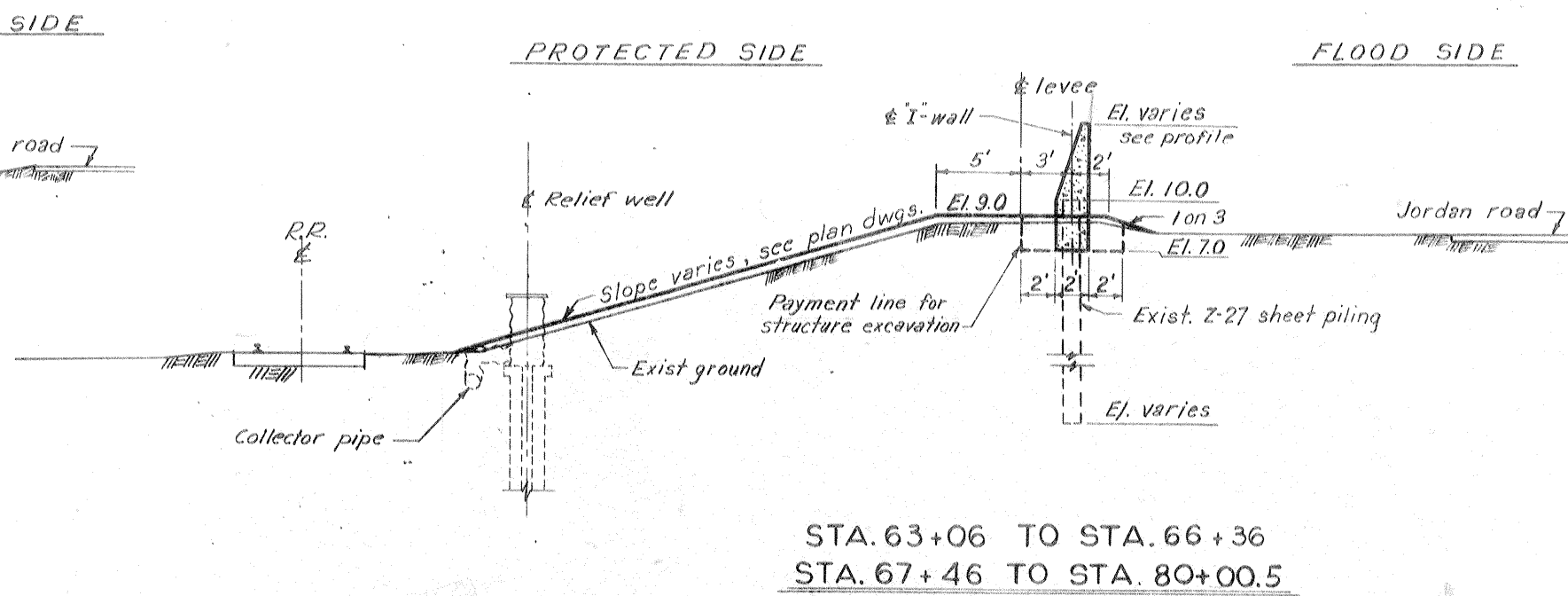
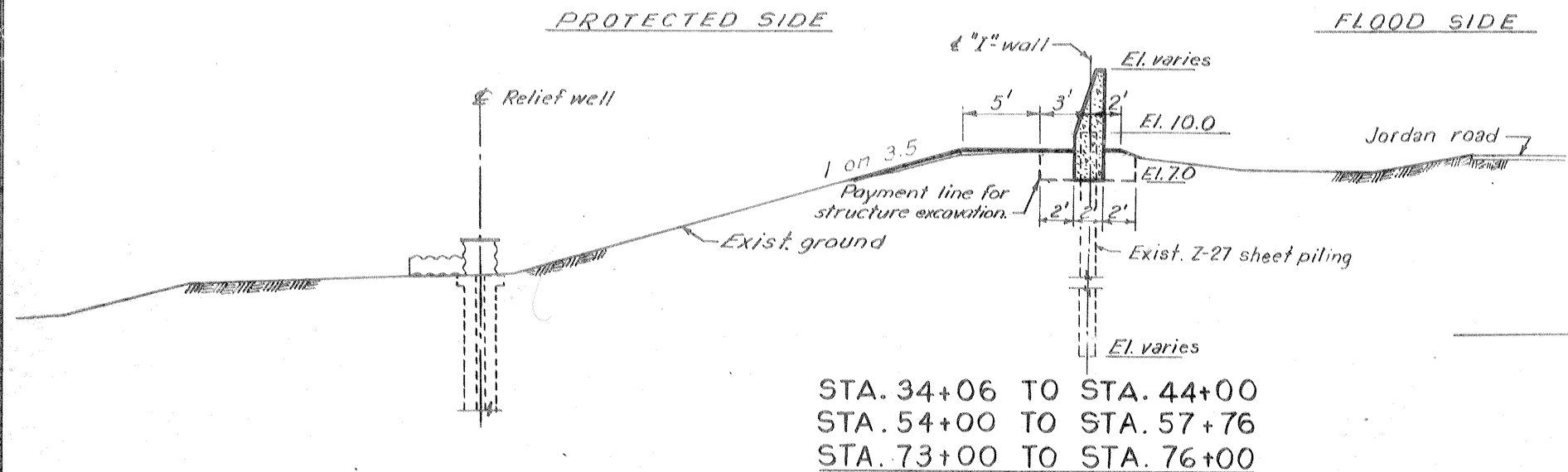
NOTE:  
General type borings were taken with a 1 7/8" I.D. core barrel sampler.  
Where driving resistances are shown, samples were taken with a 1 7/8" I.D., 2" O.D. split spoon sampler using a 140 lb. hammer and a 30" drop.  
For soil boring legend see dwg. File No. H-2-21800.  
For location of borings 1-E see Dwg. 1.  
Undisturbed soil borings were taken with a 5" dia. steel tube piston type sampler.

LOG OF BORINGS

REVISION	DATE	DESCRIPTION	BY
DESIGNED	DRAWN	CHECKED	CODE IDENT NO
K. J. C.	B. H. D.	H. L. B.	
DATE MAY 1968	SCALE SHOWN	SPEC NO DACW29 68-B-0148	DWG NO 7 OF 13

H-4-24530





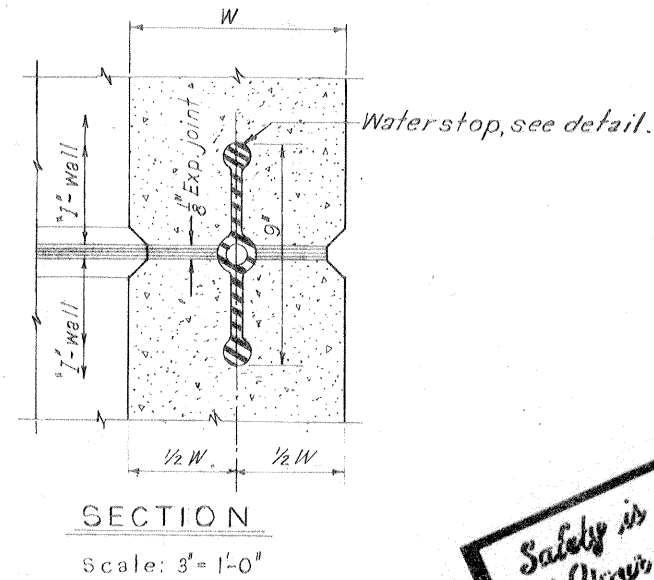
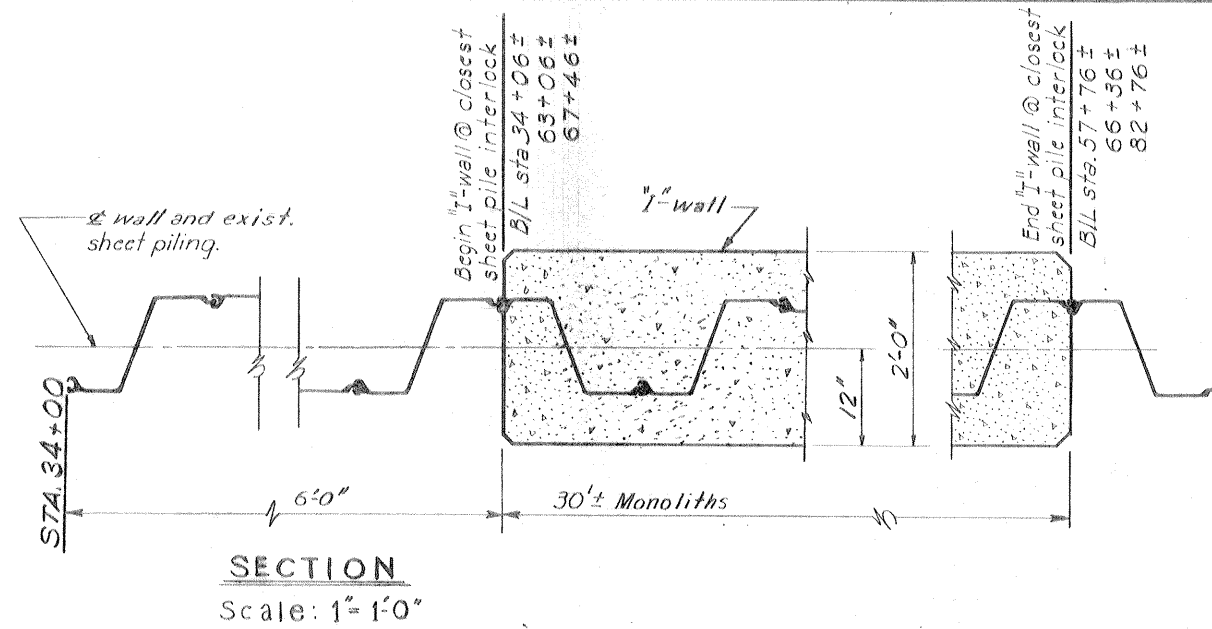
**Safety is a Part of Your Contract**

Scale: 1" = 5'

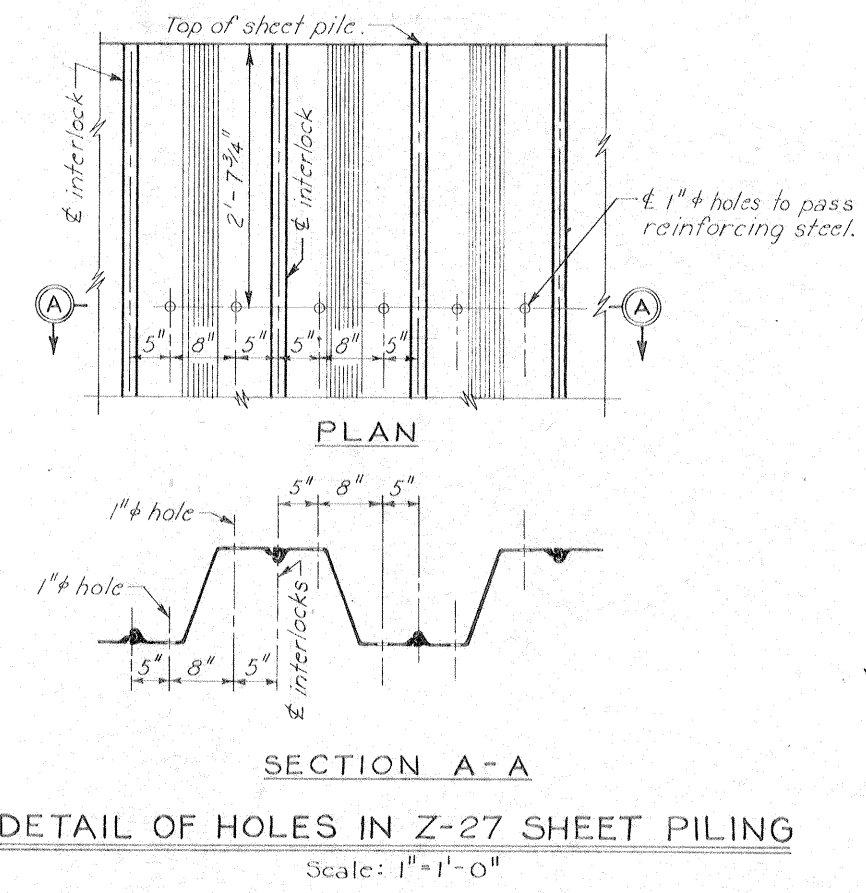
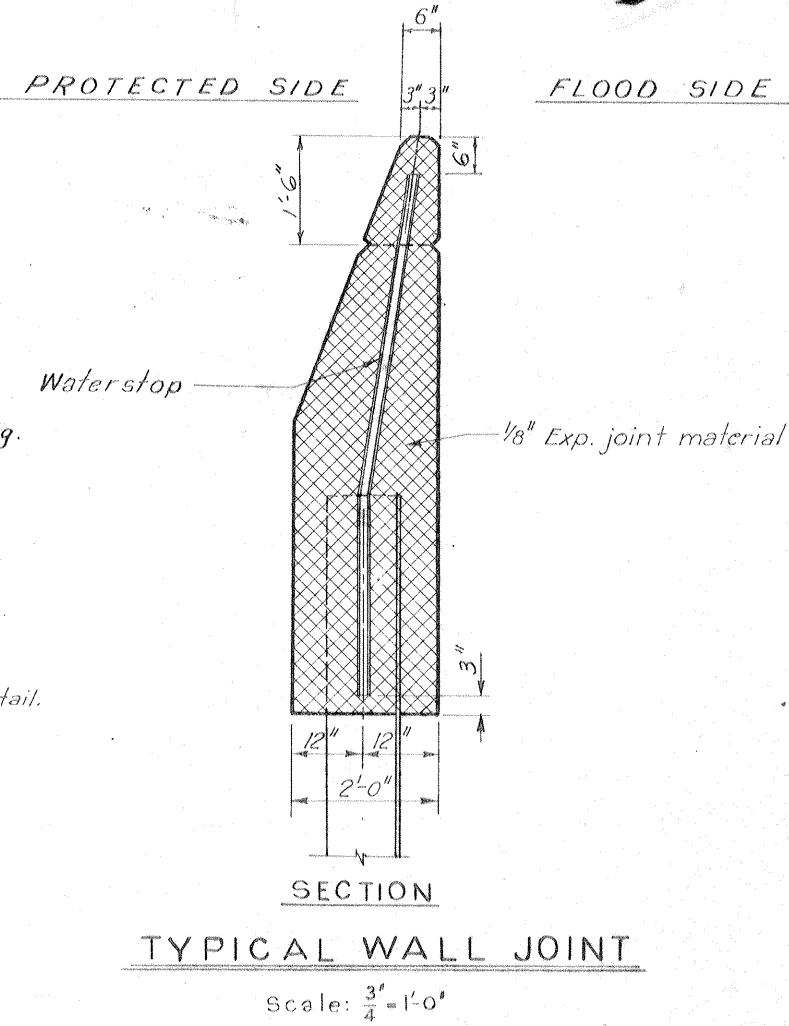
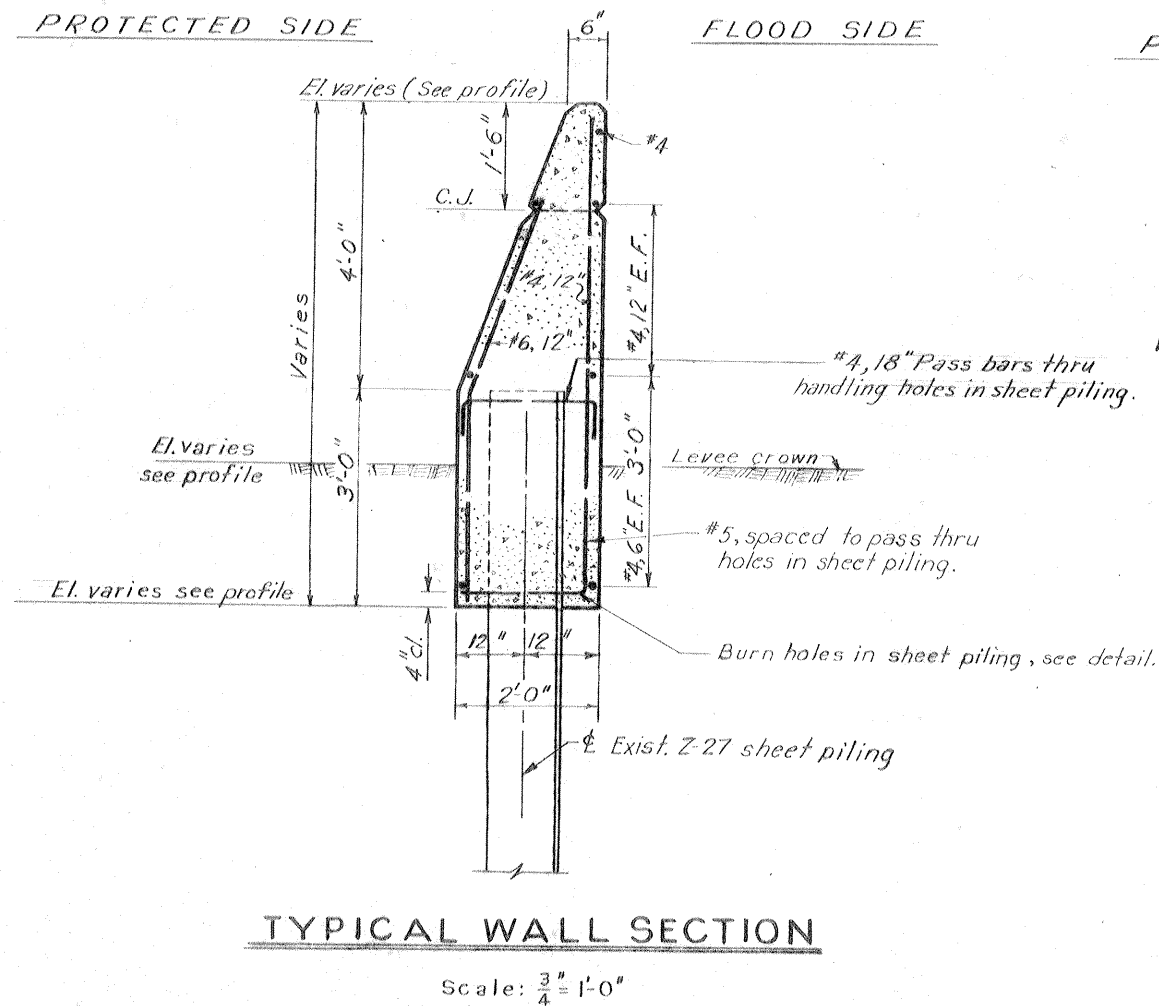
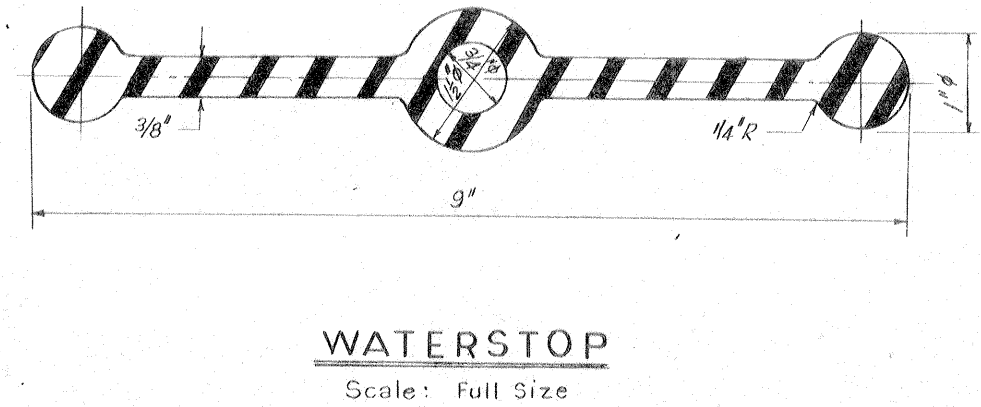
NOTE:  
For location of additional borrow area location see Dwg. 13.

**TYPICAL SECTIONS**

REVISION	DATE	DESCRIPTION	BY
DESIGNED:	DRAWN:	CHECKED:	CODE IDENT. NO. SIZE FILE NO.
T. E. P.	J. J. P.	H. L. B.	<b>H-4-24530</b>
DATE: MAY 1968		SCALE: SHOWN	BPEC. NO. DACW29-68-B-0148 DWG. NO. 8 OF 13

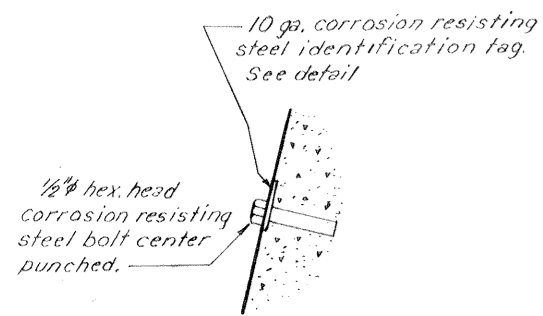


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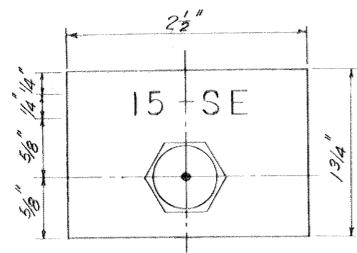


TYPICAL WALL SECTIONS

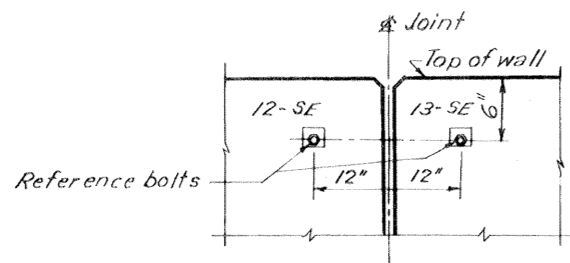
REVISION	DATE	DESCRIPTION	BY
DESIGNED:	DRAWN:	CHECKED:	CODE IDENT. NO. SIZE FILE NO.
T. F. P.	J. J. P.	H. L. B.	H-4-24530
DATE: MAY 1968		SCALE: SHOWN	SPEC. NO. DACW29-68-B-0148 DWG. NO. 9 OF 13



REFERENCE BOLT



REFERENCE BOLT IDENTIFICATION TAG



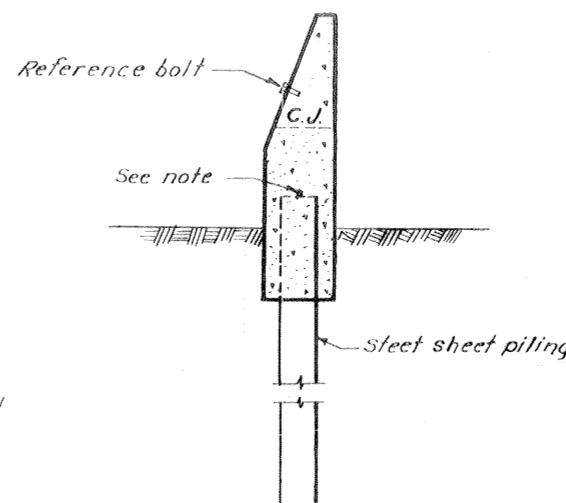
ELEVATION TYPICAL REFERENCE BOLT

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

Note:  
No. 6 reinf. rod welded to the top of each sheet pile. Install flexible jumpers at all monolith joints. Jumpers shall be insulated No. 10 AWG copper, formed in a 8" dia. loop. Jumper shall be welded or brazed to adjacent sheet piles 3 inches below the bottom of the concrete cap. Welded or brazed joints shall be coated with splicing epoxy to obtain a moisture proof joint.

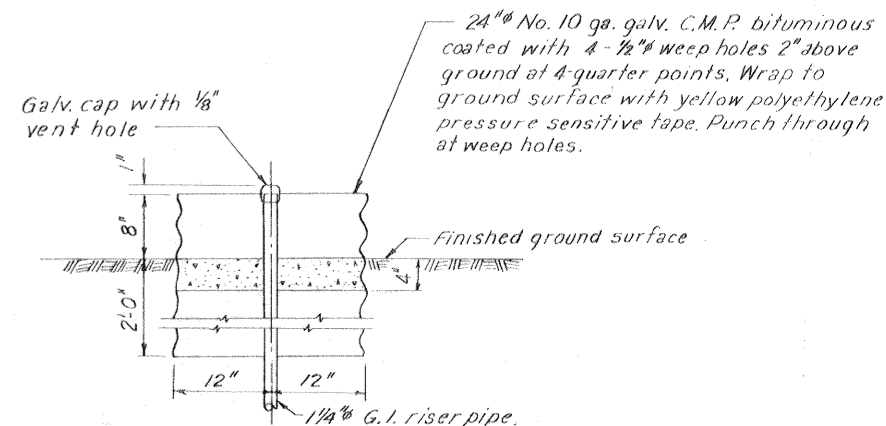
PROTECTED SIDE

FLOOD SIDE



CORROSION PROTECTION

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



DETAIL "A"

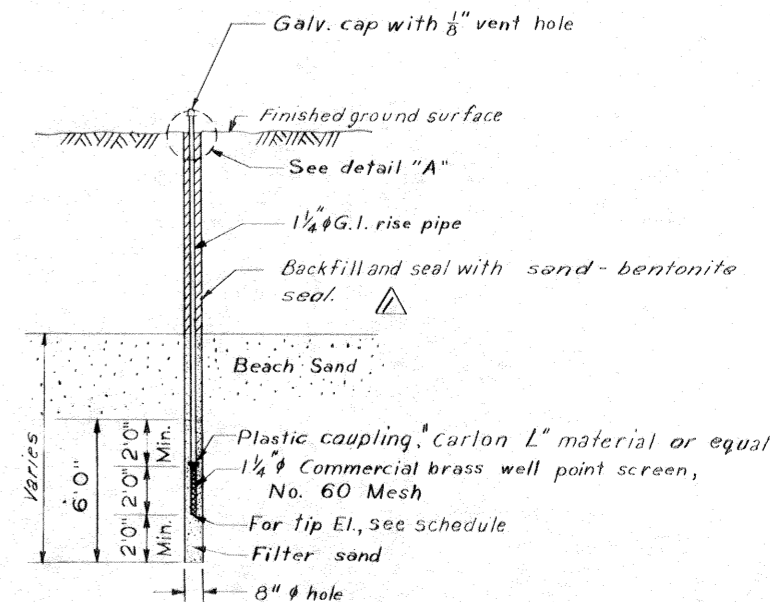
Scale: 1" = 1'-0"

BOLT ELEV. M.S.L.	SETTLEMENT REFERENCE BOLT SCHEDULE LAKE PONT. TO JOURDAN RD. RAMP						BOLT ELEV. M.S.L.
	REFERENCE BOLT	DISTANCE BELOW TOP OF WALL	B/L STATION	REFERENCE BOLT	DISTANCE BELOW TOP OF WALL	B/L STATION	
13.61	1-SE	0.5'	34+06	*	0.5	71+06	14.03
13.61	2-SE		37+05			71+08	14.04
13.56	3-SE		37+07			74+09	14.06
13.59	4-SE		40+09			74+11	14.01
13.57	5-SE		40+11			77+12	14.17
13.58	6-SE		43+07			77+14	14.09
13.57	7-SE		43+09			80+15	14.49
13.69	8-SE		46+95			80+17	14.46
13.71	9-SE		46+97			82+96	14.43
13.69	10-SE		49+04				
13.67	11-SE		49+06				
13.85	12-SE		52+03				
13.82	13-SE		52+05				
13.82	14-SE		55+01				
13.82	15-SE		55+03				
13.88	16-SE		57+71				
	17-SE		58+06				
	18-SE		60+59				
	19-SE		60+61				
	20-SE		63+04				
13.91	28-SE		63+05				
14.08	29-SE		66+36				
	23-SE	OMIT	66+58				
14.14	24-SE		67+44				
		0.5'	67+45				

\* Due to monolith joints falling at sheet pile interlocks B/L stations are approximate. Locate reference bolts at nearest B/L station to those shown.

INSTALLED LENGTH	PIEZOMETER SCHEDULE				TIP ELEV. (M.S.L.)
	NUMBER	B/L STATION	LOCATION		
	EXISTING	NEW			
	P-1E		44+00	100' Rt. B/L	-14.82
	P-2E			14' Rt. B/L	-14.68
	P-3E			65' Lt. B/L	-15.07
	P-4E			120' Rt. B/L	-14.9
	P-5E		74+00	20' Rt. B/L	-11.4
	P-6E			65' Lt. B/L	-13.00
16.5		P-7E	34+72.5	35' Lt. B/L	-15.00
11.6		P-8E	44+00	130' Lt. B/L	-15.00
17.0		P-9E	43+40	35' Lt. B/L	-15.00
16.9		P-10E	44+80	35' Lt. B/L	-15.00
13.1		P-11E	74+00	130' Lt. B/L	-13.00
17.2		P-12E	73+40	35' Lt. B/L	-13.00
18.3		P-13E	75+20	35' Lt. B/L	-13.00
20.7		P-14E		70' Rt. B/L	-15.00
23.8		P-15E	59+00	6' Rt. B/L	-15.00
15.7		P-16E		45' Lt. B/L	-15.00
15.8		P-18E	57+60	45' Lt. B/L	-15.00
15.7		P-19E	60+80	45' Lt. B/L	-15.00
Total			202.3		

Note: \* See piezometer detail  
New and existing piezometers to be preserved and protected from damage at all times.  
Place extension with cap on existing piezometers pipe (P-5E and P-6E)



PIEZOMETER DETAIL

Scale: 1/4" = 1'-0"

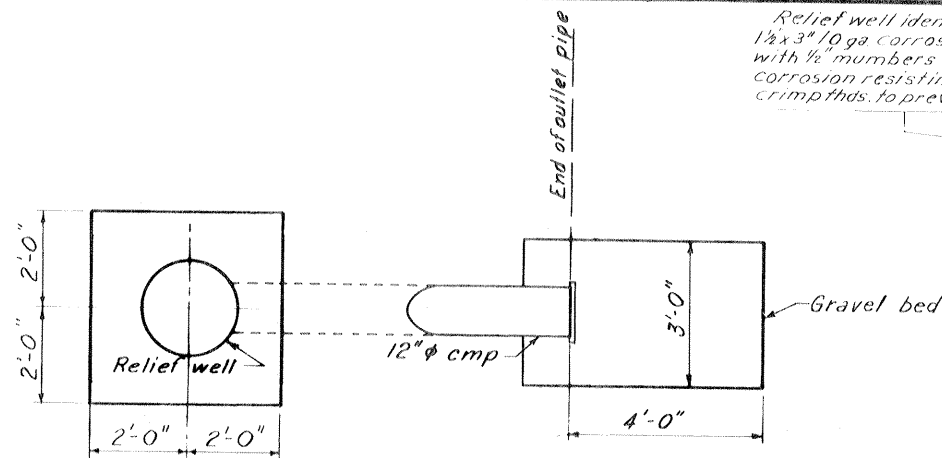
THIS PLAN ACCOMPANIES MODIFICATION P005 TO CONTRACT NO. DACW29-68-C-0251

REVISION	DATE	DESCRIPTION	BY
2-27-69		Deleted P17E (Mod.#5)	A.M.
9/18/68		Changed clay pellets to sand-bentonite seal Mod. P002	CT
DESIGNED:	DRAWN:	CHECKED:	CODE IDENT. NO. SIZE FILE NO.
T.F.P.	E.J.C.	H.L.B.	H-4-24530
DATE: MAY 1968	SCALE: SHOWN	SPEC. NO. DACW29-68-B-0148	DWG. NO. 10 OF 13

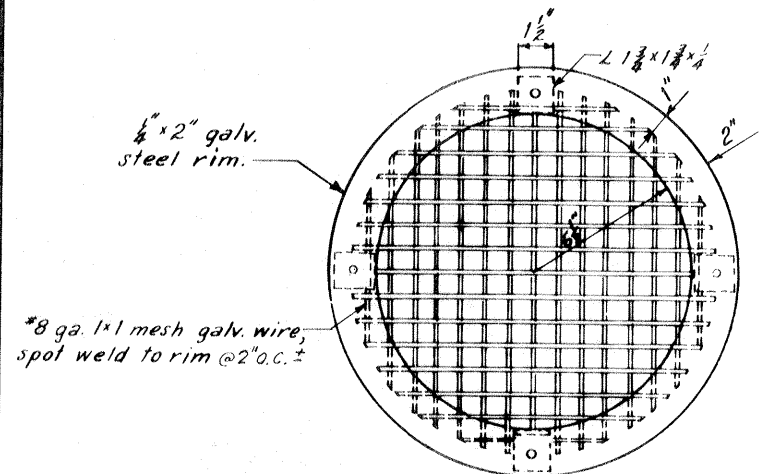
REFERENCE BOLT AND PIEZOMETER SCHEDULES

A.S. CONST

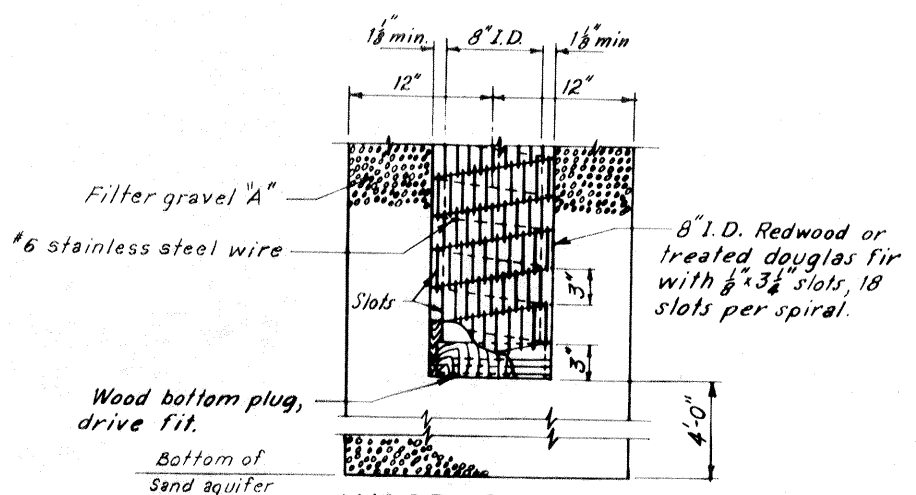
IHNC EAST LEVEE (HAYNE BLVD. TO DWYER RD.)



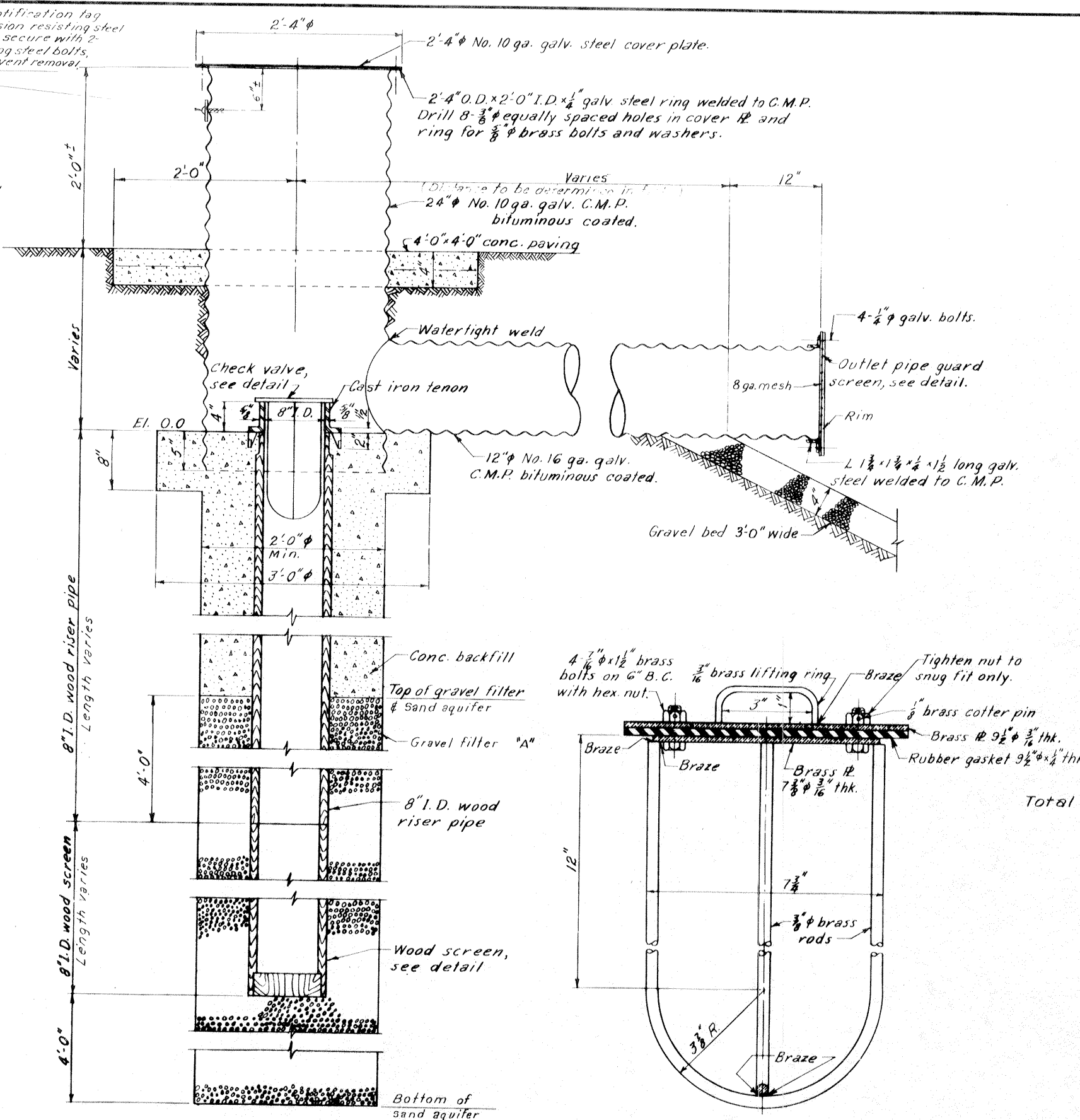
**PLAN**  
Scale 1/2"=1'-0"



**OUTLET PIPE GUARD SCREEN**  
Scale 3/4"=1'-0"



**WOOD SCREEN**  
Scale 1/2"=1'-0"



**SECTION**  
Scale 1 1/2"=1'-0"

**CHECK VALVE**  
Scale 6"=1'-0"

INSTALLED LENGTH		RELIEF WELL SCHEDULE									
SCREEN	RISER	WELL		LENGTHS IN FEET						CORR. M/PIPE	
		NO	B/L STATION	B/L OFFSET	GRAVEL FILTER	WOOD PIPE SCREEN	RISER	CONC. B/FILL	24" $\phi$	12" $\phi$	
22.0	17.0	1EW	33+05	35'	31'	23'	16'	12'	12'	5'	
21.3	17.3	2EW	34+15	35'	31'	23'	16'	12'	12'	3'	
21.4	15.5	3EW	35+30	35'	31'	23'	16'	12'	12'	3'	
21.6	16.6	4EW	36+45	35'	31'	23'	16'	12'	12'	3'	
21.3	14.6	5EW	37+60	35'	32'	24'	15'	11'	2'		
19.2	17.9	6EW	38+75	35'	32'	24'	15'	11'	2'		
21.3	17.6	7EW	39+90	35'	32'	24'	15'	11'	2'		
21.3	15.8	8EW	41+30	35'	32'	24'	14'	10'	2'		
23.3	13.9	9EW	42+70	35'	32'	24'	14'	10'	3'		
17.3	15.9	10EW	44+10	35'	32'	24'	14'	10'	4'		
19.3	17.9	11EW	45+50	35'	31'	23'	13'	9'	3'		
21.3	14.5	12EW	46+90	35'	31'	23'	13'	9'	3'		
19.3	15.8	13EW	48+30	35'	31'	23'	13'	9'	3'		
19.3	15.8	14EW	49+70	35'	30'	22'	12'	8'	3'		
23.5	14.5	15EW	51+10	35'	30'	22'	12'	8'	3'		
19.3	15.7	16EW	52+50	35'	30'	22'	12'	8'	3'		
21.4	15.8	17EW	53+90	35'	30'	22'	12'	8'	3'		
23.2	11.9	18EW	55+30	40'	31'	23'	13'	9'	2'		
23.3	11.9	19EW	56+70	40'	32'	24'	13'	9'	2'		
23.2	11.9	20EW	58+10	45'	31'	23'	15'	11'	2'		
23.2	11.9	21EW	59+90	45'	32'	24'	15'	11'	2'		
25.3	11.9	22EW	61+70	45'	32'	24'	16'	12'	3'		
15.7	19.9	23EW	63+50	45'	33'	25'	16'	12'	3'		
23.2	11.9	24EW	65+30	29'	36'	28'	15'	11'	3'		
22.9	11.9	25EW	67+10	29'	36'	28'	15'	11'	3'		
22.9	11.9	26EW	68+90	29'	38'	30'	14'	10'	3'		
24.7	9.9	27EW	70+70	29'	38'	30'	14'	10'	3'		
24.7	10.9	28EW	72+50	29'	40'	32'	12'	8'	3'		
26.9	9.8	29EW	74+30	29'	40'	32'	12'	8'	3'		
23.0	9.9	30EW	76+10	29'	36'	28'	15'	11'	3'		
24.9	9.9	31EW	77+90	29'	35'	27'	15'	11'	3'		
22.9	9.9	32EW	79+30	29'	28'	20'	19'	15'	3'		
27.1	7.9	33EW	80+70	29'	28'	20'	19'	15'	3'		
19.3	15.9	34EW	82+10	29'	27'	19'	19'	15'	3'		
19.3	15.8	35EW	83+50	29'	27'	19'	19'	15'	3'		
19.3	15.6	36EW	84+65	29'	27'	19'	19'	15'	3'		
17.3	17.4	37EW	0+30 A	29'	27'	19'	19'	15'	3'		
<b>Total</b>	<b>805.7</b>				<b>520.1</b>	Note: The above chart indicates approximate lengths only and should not be used for determining the well depths. The actual lengths shall be determined as stated in the specifications.					

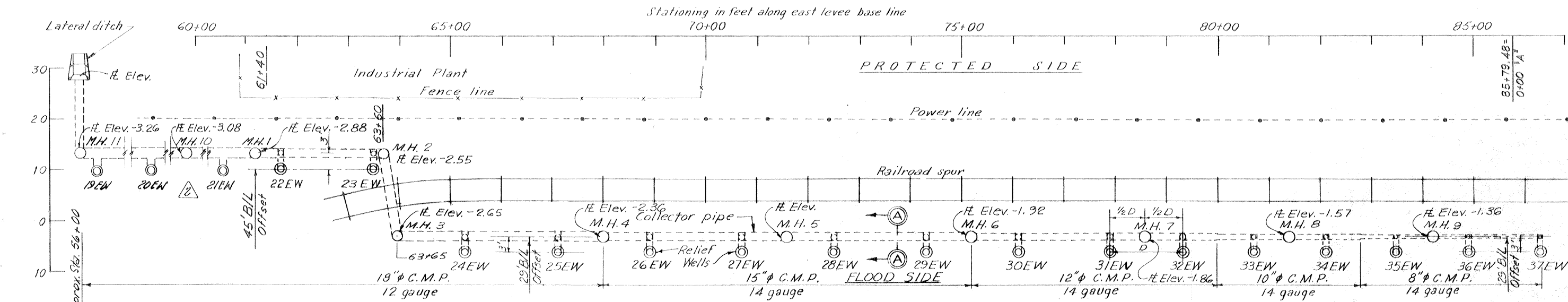
REVISION	DATE	DESCRIPTION	BY
DESIGNED:	DRAWN:	CHECKED:	CODE IDENT. NO.
T. F. P.	D. J. H.	H. L. B.	FILE NO.
DATE: MAY 1968		SCALE: SHOWN	SPEC. NO. DACW89-60-B-0143
		DWG. NO. 11	OF 13

AS CONST

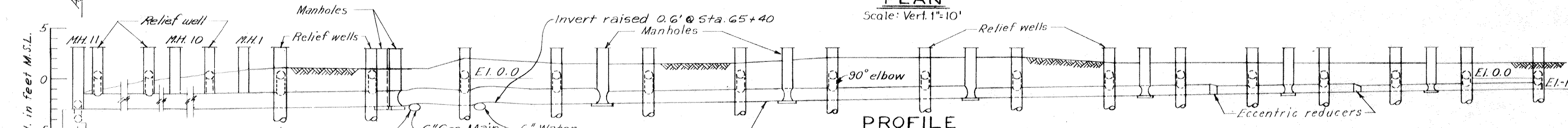
**RELIEF WELLS**

**H-4-24530**





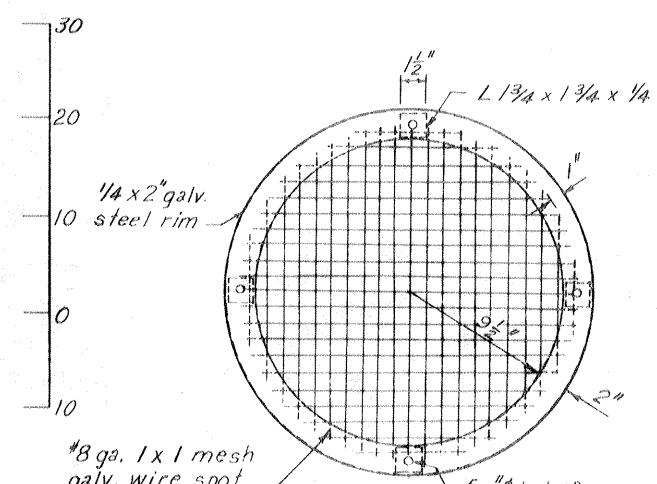
**PLAN**  
Scale: Vert. 1"=10'



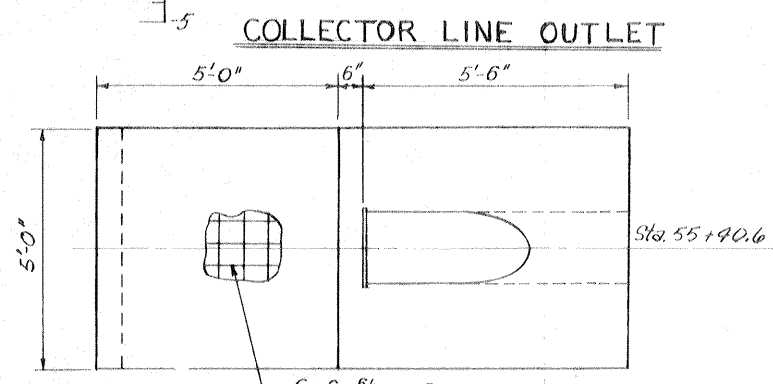
**PROFILE**  
Scales: Hor. 1"=100'  
Vert. 1"=5'

Note: For relief well locations, see schedule Dwg. 11.

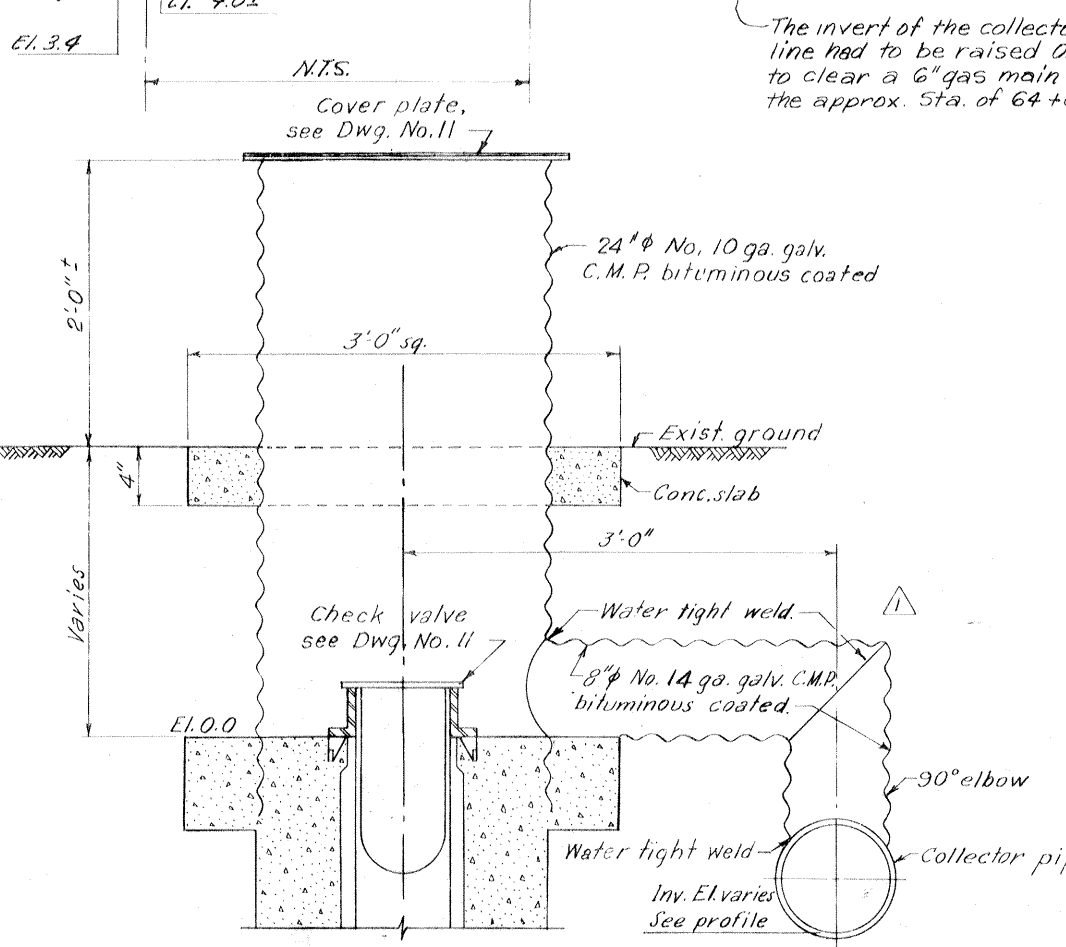
**THIS PLAN ACCOMPANIES  
MODIFICATION PO05 TO  
CONTRACT NO. DACW29-  
68-C-0251**



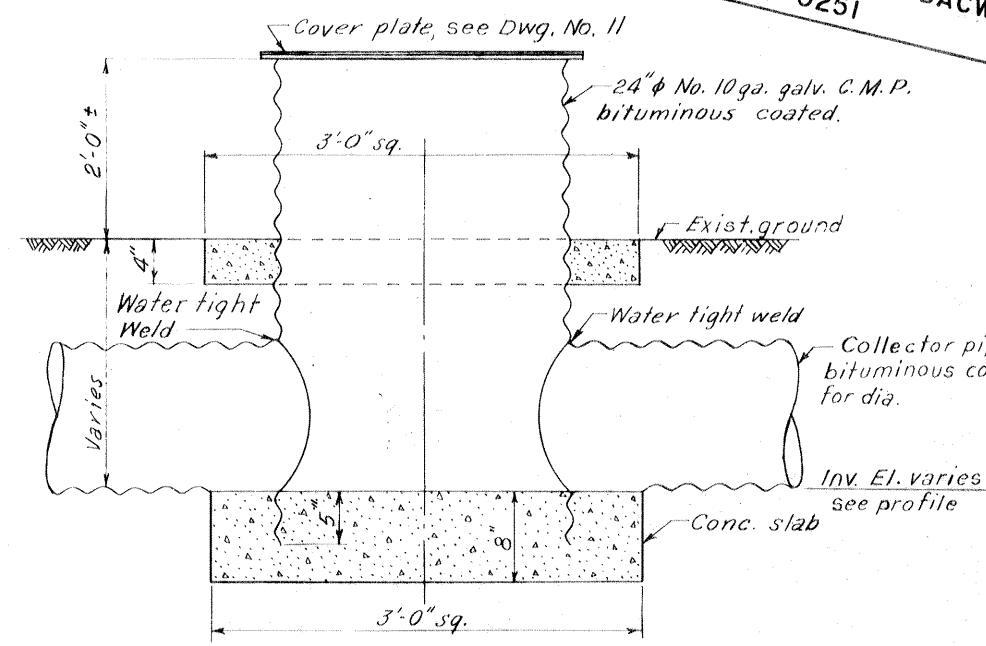
**COLLECTOR PIPE  
GUARD SCREEN**  
1 Required  
Scale: 2"=1'-0"



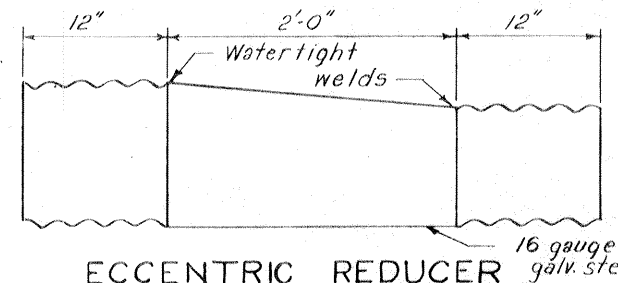
**COLLECTOR LINE OUTLET**  
Scale: 2"=1'-0"



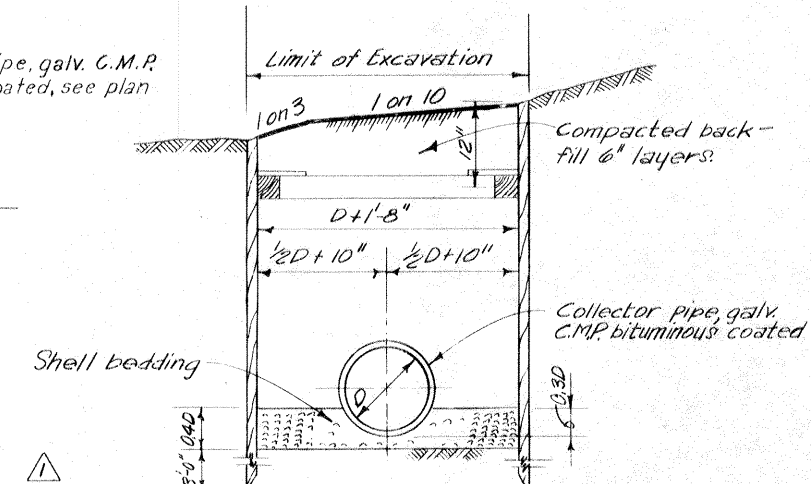
**DETAIL OF RELIEF WELL TO COLLECTOR LINE  
SECTION A-A**  
Scale: 1 1/2"=1'-0"



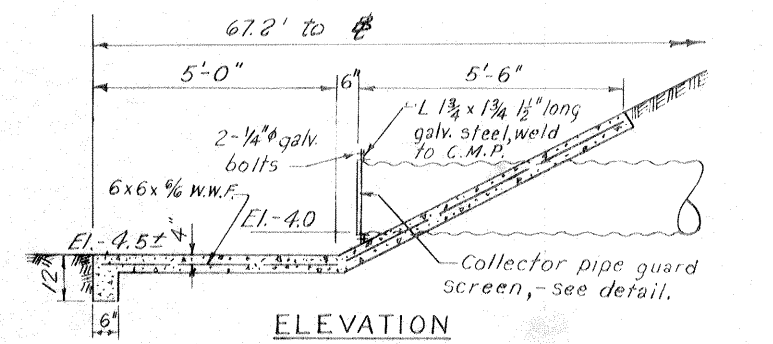
**MANHOLE DETAIL**  
Scale: 1 1/2"=1'-0"



**ECCENTRIC REDUCER**  
16 gauge galv. steel



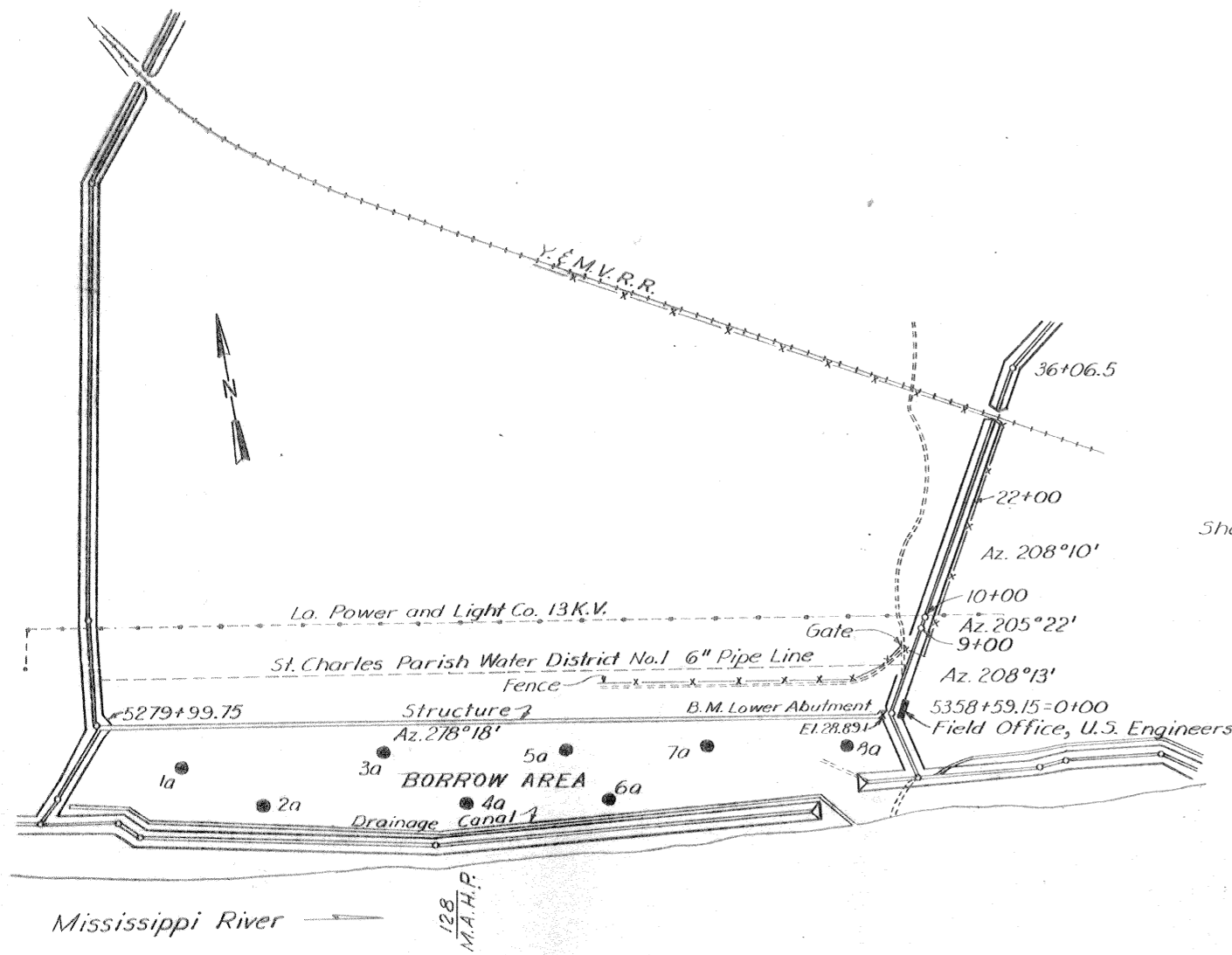
**DETAIL OF TRENCH SECTION AND SHORING  
COLLECTOR PIPE DETAILS**



**COLLECTOR LINE OUTLET**  
Scale: 1/2"=1'-0"

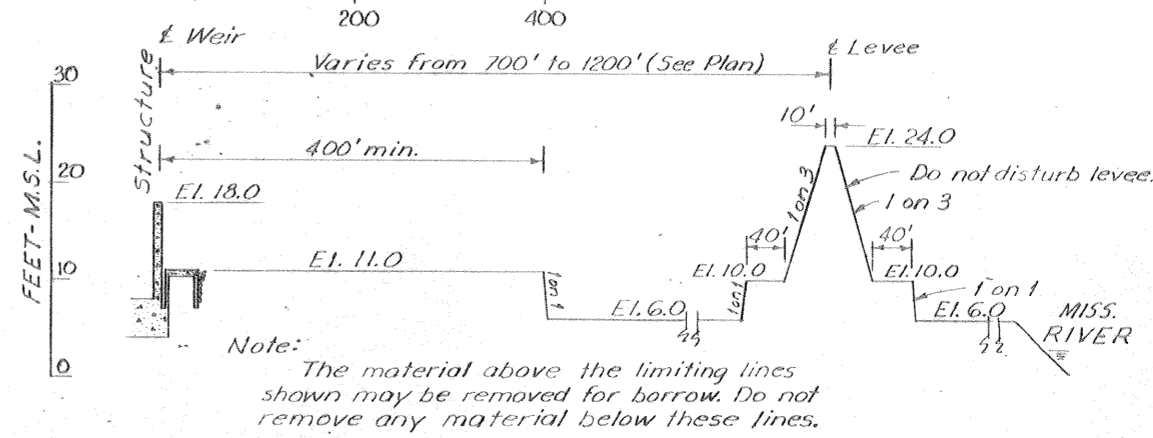
REVISION	DATE	DESCRIPTION	BY
3	2-27-69	Added sta. & diam. in collector line outlet (Mod. #5)	AM.
2	7-8-68	Added trench and shoring sec. and revisions (Mod. #1)	G.P.M.
1	12-12-68	Revised collector line (Mod. #3)	AL

DESIGNED:	DRAWN:	CHECKED:	CODE IDENT. NO.	SIZE	FILE NO.	BY
T. F. P.	D. J. H.	H. L. B.				
<b>H-4-24530</b>						
DATE: MAY 1968		SCALE: SHOWN		SPEC. NO. DACW29-68-B-0148		DWG. NO. 12 OF 13

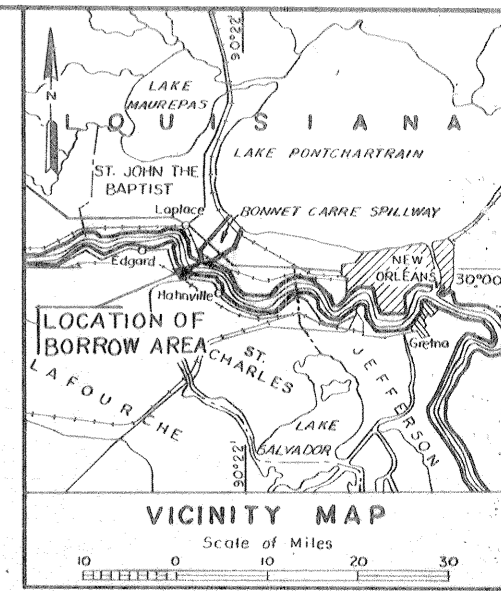


**PLAN**  
SCALE: 1" = 10,000'

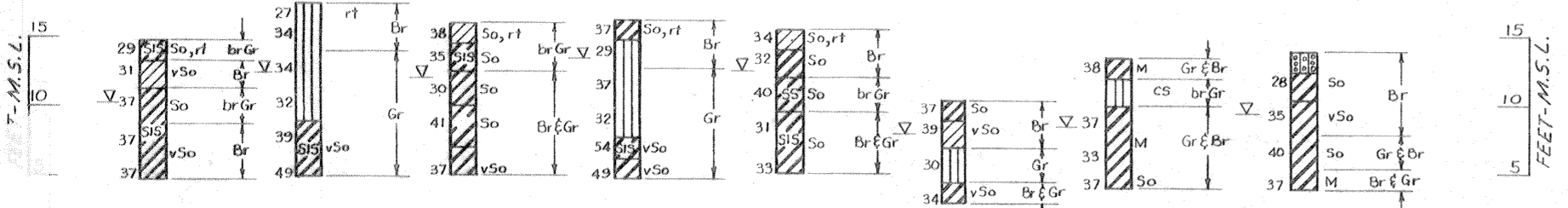
*Safety is a Part  
of Your Contract*



**TYPICAL SECTION FOR BORROW**



1a Sta. 5288+00 400' R.S. $\phi$ (weir) 20 Nov. '61	2a Sta. 5296+00 800' R.S. $\phi$ (weir) 20 Nov. '61	3a Sta. 5308+00 300' R.S. $\phi$ (weir) 20 Nov. '61	4a Sta. 5316+00 800' R.S. $\phi$ (weir) 20 Nov. '61	5a Sta. 5326+00 300' R.S. $\phi$ (weir) 17 Nov. '61	6a Sta. 5330+00 800' R.S. $\phi$ (weir) 17 Nov. '61	7a Sta. 5340+00 300' R.S. $\phi$ (weir) 17 Nov. '61	8a Sta. 5354+00 300' R.S. $\phi$ (weir) 17 Nov. '61
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**BORINGS**  
VERT. SCALE: 1" = 6'

Note: Borings 1a to 8a incl.: Soil samples were taken with a 4" dia. Post Hole Auger.  
For Soil Boring Legend see Dwg. File No. H-2-21800.

**ADDITIONAL BORROW AREA LOCATION**

REVISION	DATE	DESCRIPTION	BY
DESIGNED:	DRAWN:	CHECKED:	CODE IDENT. NO.
T.F.P.	C.E.M.	H.L.B.	SIZE
			FILE NO.
<b>H-4-24530</b>			
DATE: MAY 1968		SCALE: SHOWN	SPEC. NO. DAC29-68-B-0148
		DWG. NO. 13	OF 13