

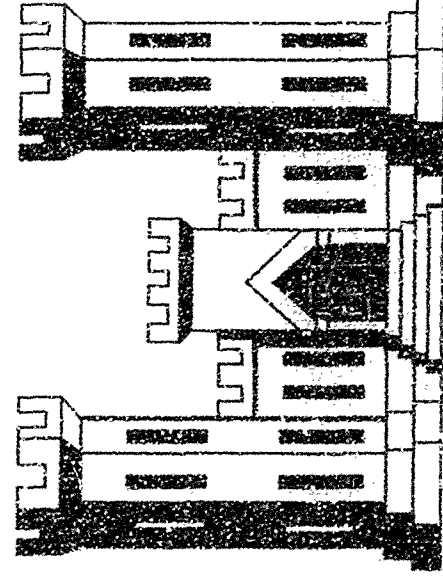
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN

PLANS
FOR CONSTRUCTION OF

STRUCTURE 96C AND STRUCTURE 96D



ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

1989

AS BUILT

RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

AS - BUILT		
SECTION	CHIEF'S SIGNATURE	DATE
MECH & ELEC	<i>[Signature]</i>	6/20/89
STRUCTURES	<i>[Signature]</i>	6/20/89
GEOTECHNICAL	<i>[Signature]</i>	6/20/89
CON. OPS.	<i>[Signature]</i>	6/20/89

TO ACCOMPANY INVITATION
NO. DACW17-89-B-0035
DATED 17 JULY 1989

AS-BUILT DRAWINGS
CONTRACT NO. DACW17-C-0042

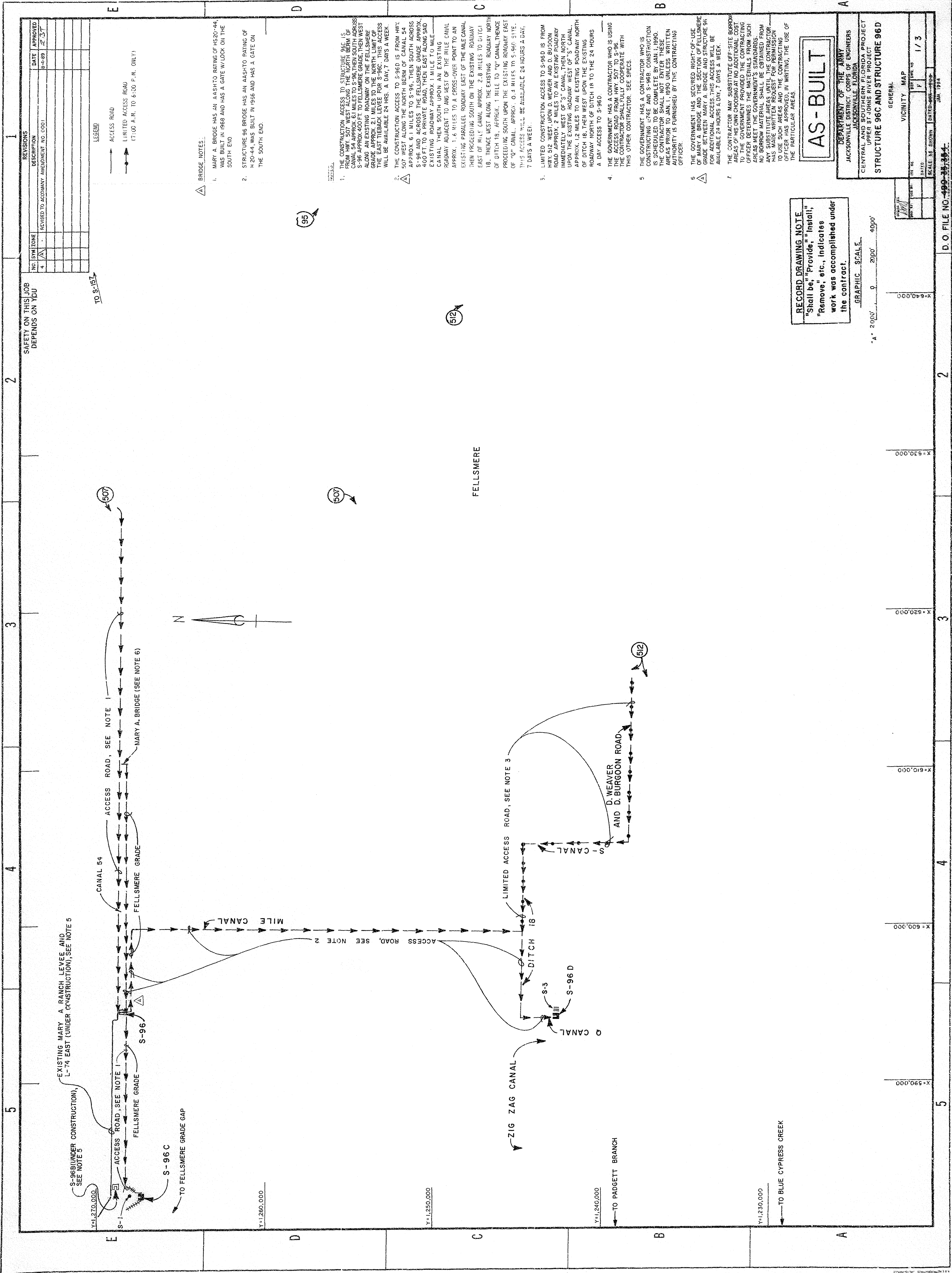
(VE) *INCREASE PROFIT --- SUBMIT VEEP'S*

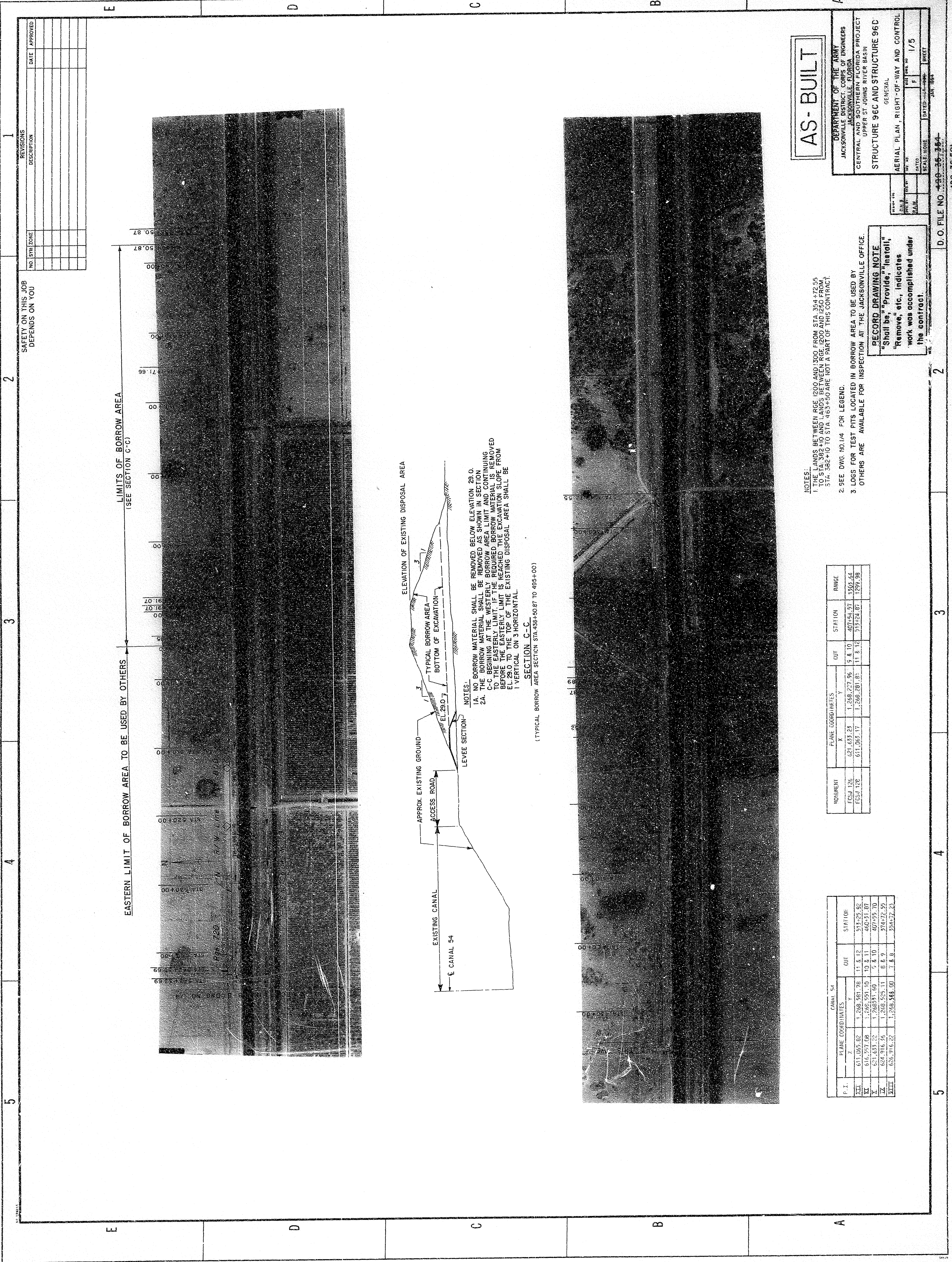
INDEX TO DRAWINGS

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install,"
 "Remove," etc., indicates
 work was accomplished under
 the contract.

PREPARED BY <i>W. H. B. Smith</i> CHECKED BY <i>W. H. B. Smith</i> DRAWING NO. SCALE DATE SHEET OF	DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA CENTRAL AND SOUTHERN FLORIDA PROJECT UPPER ST. JOHNS RIVER BASIN STRUCTURE 98C AND STRUCTURE 98D GENERAL INDEX TO DRAWINGS 1/1
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AS-BUILT

DEPARTMENT OF THE ARMY	
JACKSONVILLE DISTRICT CORPS OF ENGINEERS	
CENTRAL AND SOUTHERN FLORIDA PROJECT	
STRUCTURE 96C AND STRUCTURE 96D	
GENERAL	
AERIAL PLAN - RIGHT-OF-WAY AND CONTROL	
DATE	1/5
SCALE	1" = 100'
DATE	JAN 1984

NOTES:

1. THE LANDS BETWEEN RGE 1200 AND 1300 FROM STA 354+72.55 TO STA 354+72.55 ARE NOT A PART OF THIS CONTRACT.
2. SEE DWG NO 1/4 FOR LEGEND.
3. LOSS FOR TEST PITS LOCATED IN BORROW AREA TO BE USED BY OTHERS ARE AVAILABLE FOR INSPECTION AT THE JACKSONVILLE OFFICE.

RECORD DRAWING NOTE

"Shall be" "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

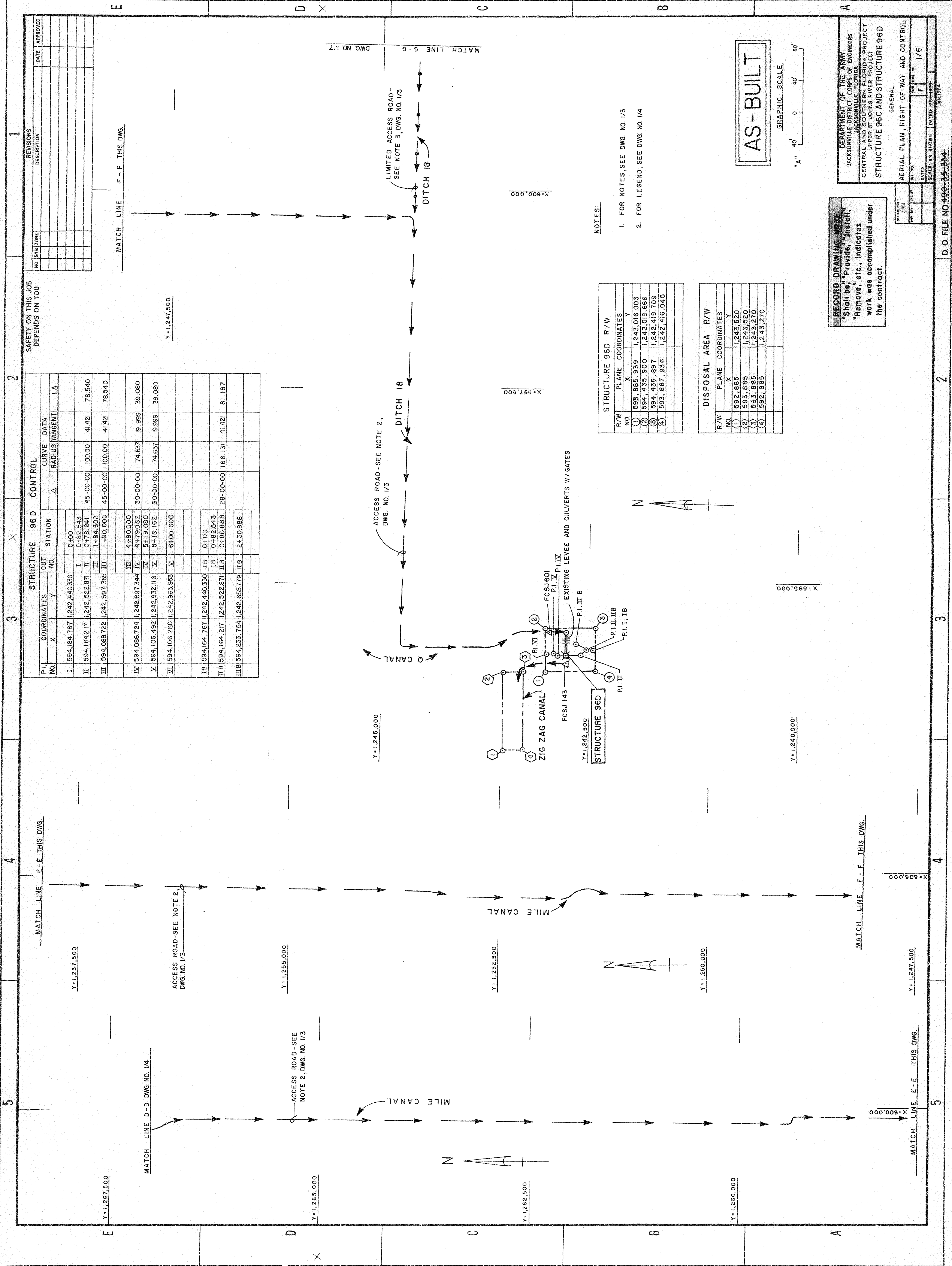
MEASUREMENT	PLANE COORDINATES		OUT	STATION	RANGE
	X	Y			
FCSJ 126	621,633.23	1,268,227.96	5.8 10	407+54.57	1303.64
FCSJ 128	611,063.17	1,268,280.83	11.8 12	513+24.87	1299.98

P. I.	PLANE COORDINATES		OUT	STATION
	X	Y		
III	611,065.87	1,268,581.70	11.8 12	513+25.82
IV	611,271.09	1,268,591.10	10.8 11	405+51.07
V	621,633.22	1,268,591.60	9.8 10	407+55.70
VI	628,916.26	1,268,595.11	8.8 9	374+72.55
VII	628,916.22	1,268,584.00	7.8 8	354+72.55

SECTION C-C
(TYPICAL BORROW AREA SECTION STA 436+50.87 TO 495+00)

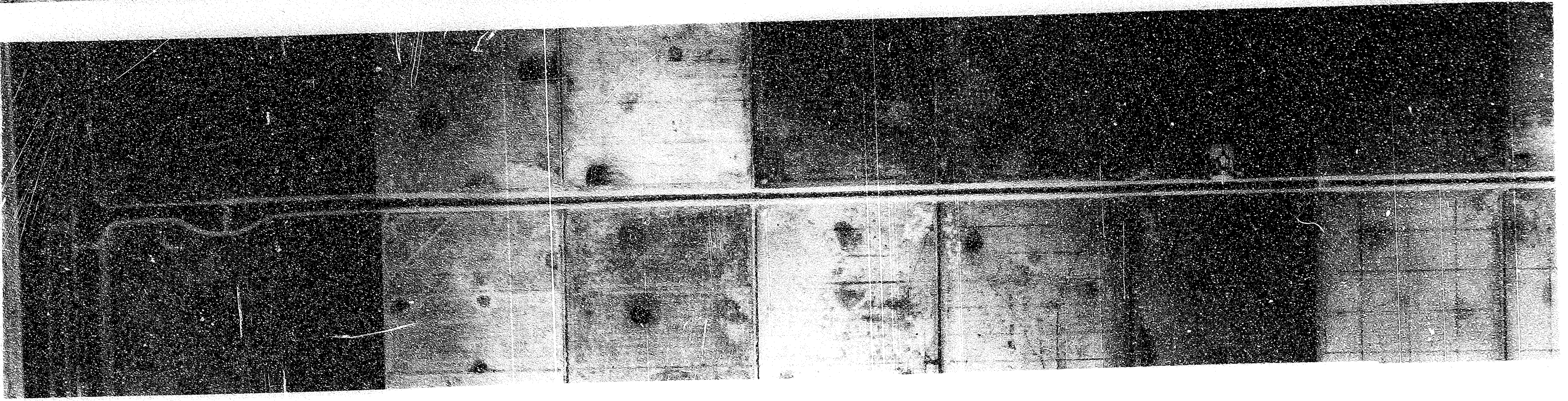
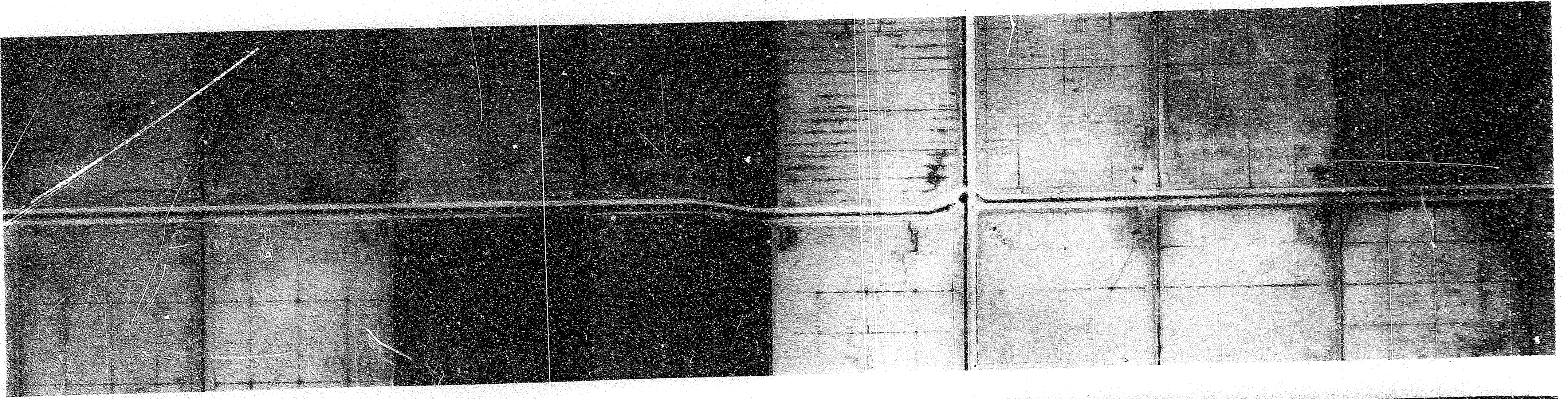
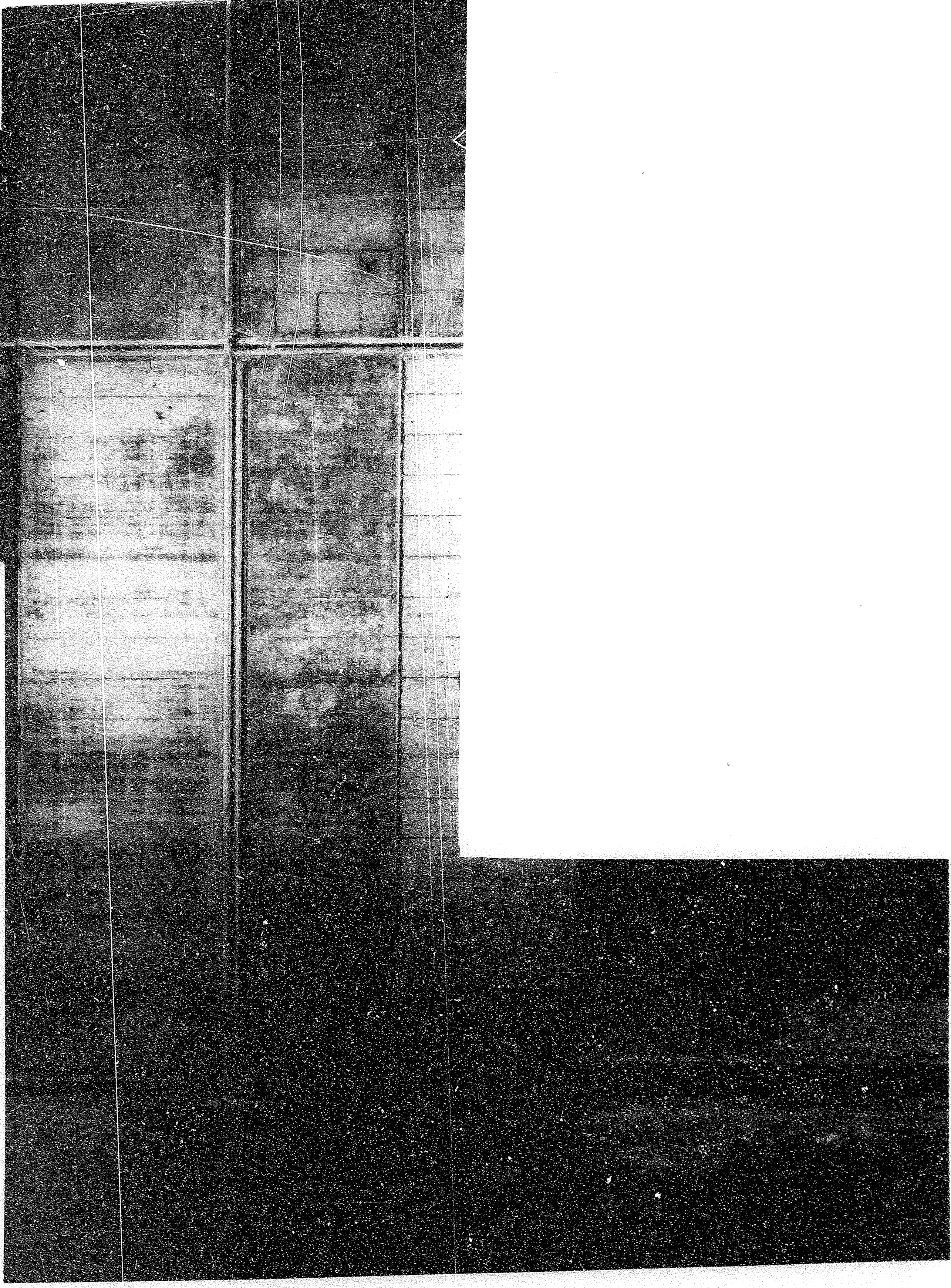
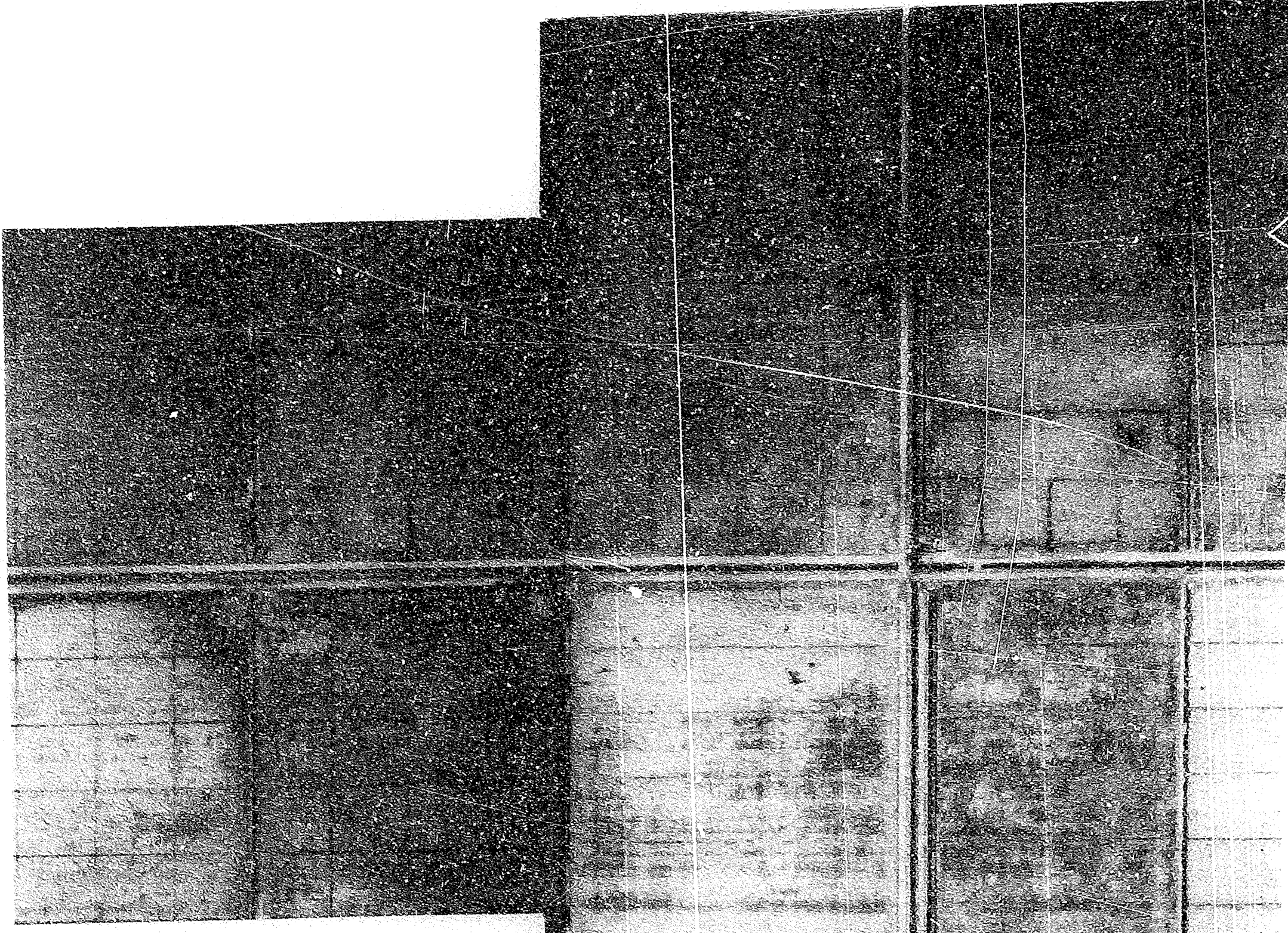
NOTES:

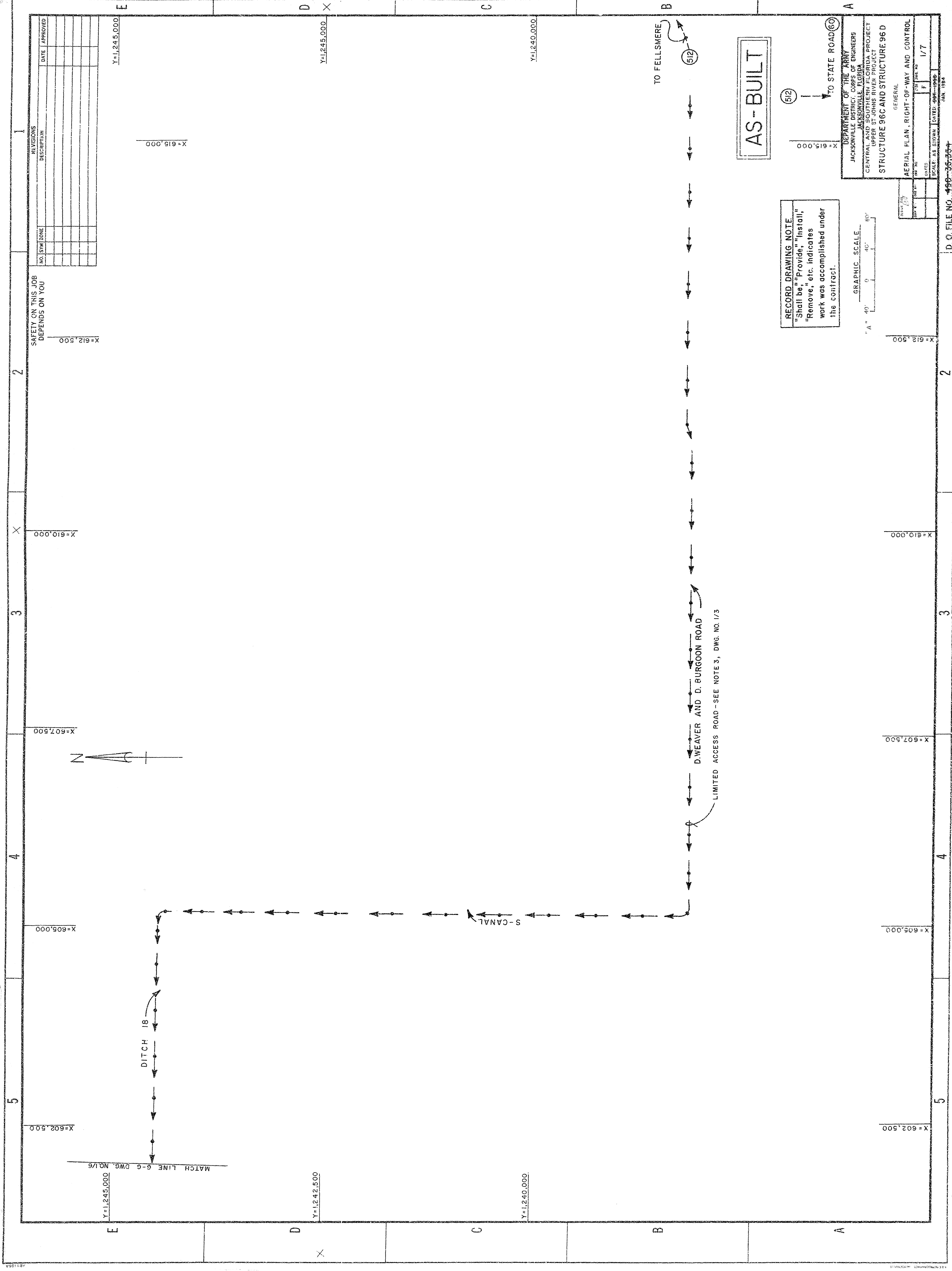
- 1A. NO BORROW MATERIAL SHALL BE REMOVED BELOW ELEVATION 29.0.
- 2A. THE BORROW MATERIAL SHALL BE REMOVED AS SHOWN IN SECTION C-C BEGINNING AT THE WESTERLY BORROW AREA LIMIT AND CONTINUING TO THE EASTERLY LIMIT. IF THE REQUIRED BORROW MATERIAL IS REMOVED BEFORE THE EASTERLY LIMIT IS REACHED, THE EXCAVATION SHALL BE FROM EL 29.0 TO THE TOP OF THE EXISTING DISPOSAL AREA SHALL BE 1 VERTICAL ON 3 HORIZONTAL.

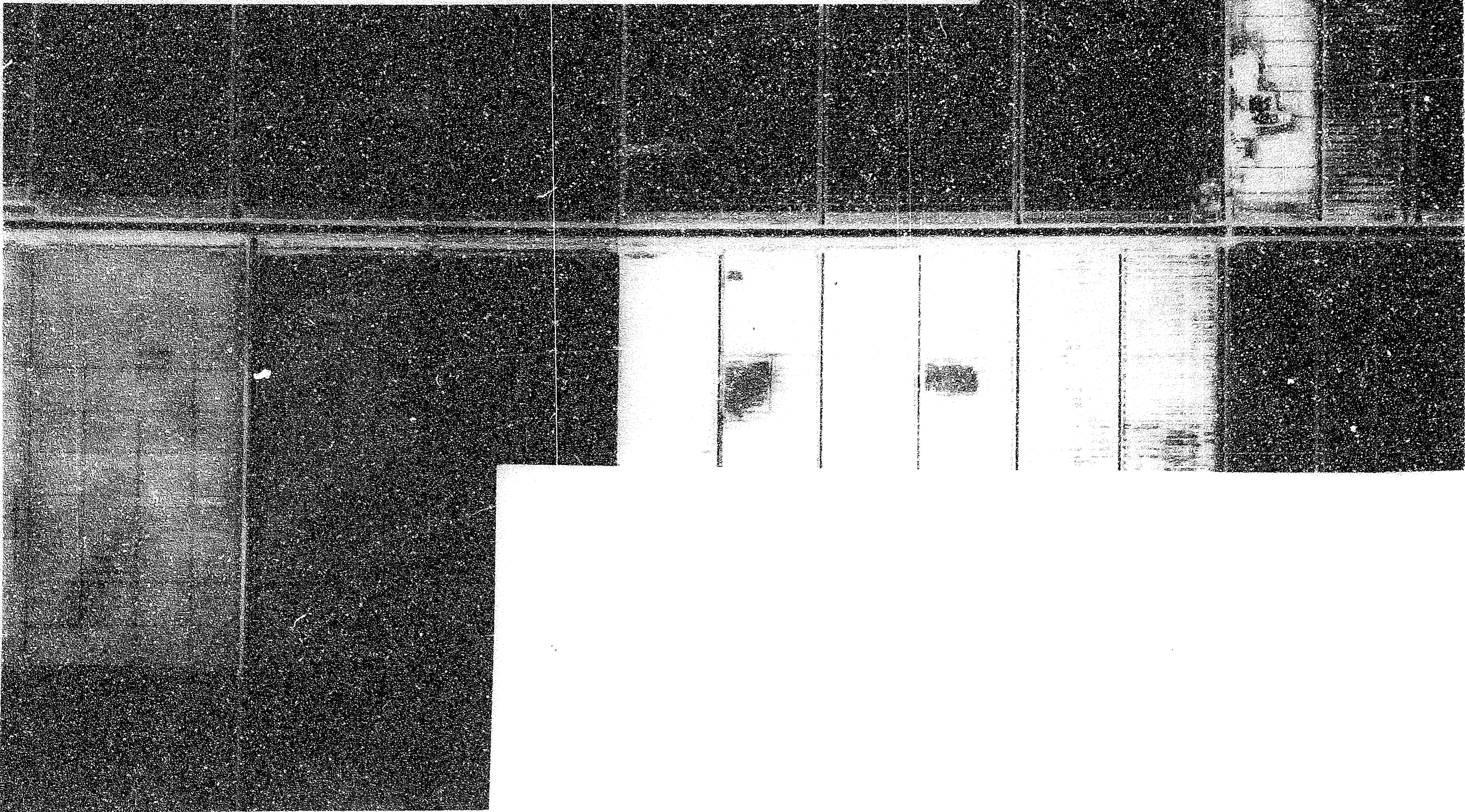


SAFETY ON THIS JOB
DEPENDS ON YOU

STRUCTURE 96 D CONTROL						
P.I. NO.	COORDINATES		CUT NO.	STATION	CURVE DATA	
	X	Y			Δ	RADIUS TANGENT
I	594,164.767	1,242,440.330		0+00		
			I	0+82.543		
II	594,164.217	1,242,522.871		0+178.241	45 -00-00	100.00
			II	1+84.302		41.421
III	594,088.722	1,242,597.565		1+50.000	45 -00-00	100.00
			III			41.421
			IV	4+80.000		
IV	594,086.724	1,242,697.544		4+79.032	30 -00-00	74.637
			IV	5+19.080		19.959
V	594,106.492	1,242,932.116		5+18.162	30 -00-00	74.637
			V			19.959
VI	594,106.280	1,242,963.953		6+00.000		
IS	594,164.767	1,242,440.330	IB	0+00		
			IB	0+82.543		
IIB	594,164.217	1,242,522.871	IIB	0+80.898	28 -00-00	166.131
						41.421
IIIB	594,233.764	1,242,655.779	IIB	2+30.888		
		</				







2-3/4" ϕ SST hex. head cap screws 90° between centers, with fitted boss welded to pipe.

1/2" ϕ Extra strong pipe post

1/2" ϕ Std. pipe

1/4" Typ.

1/4"

3/4" Bevel each end

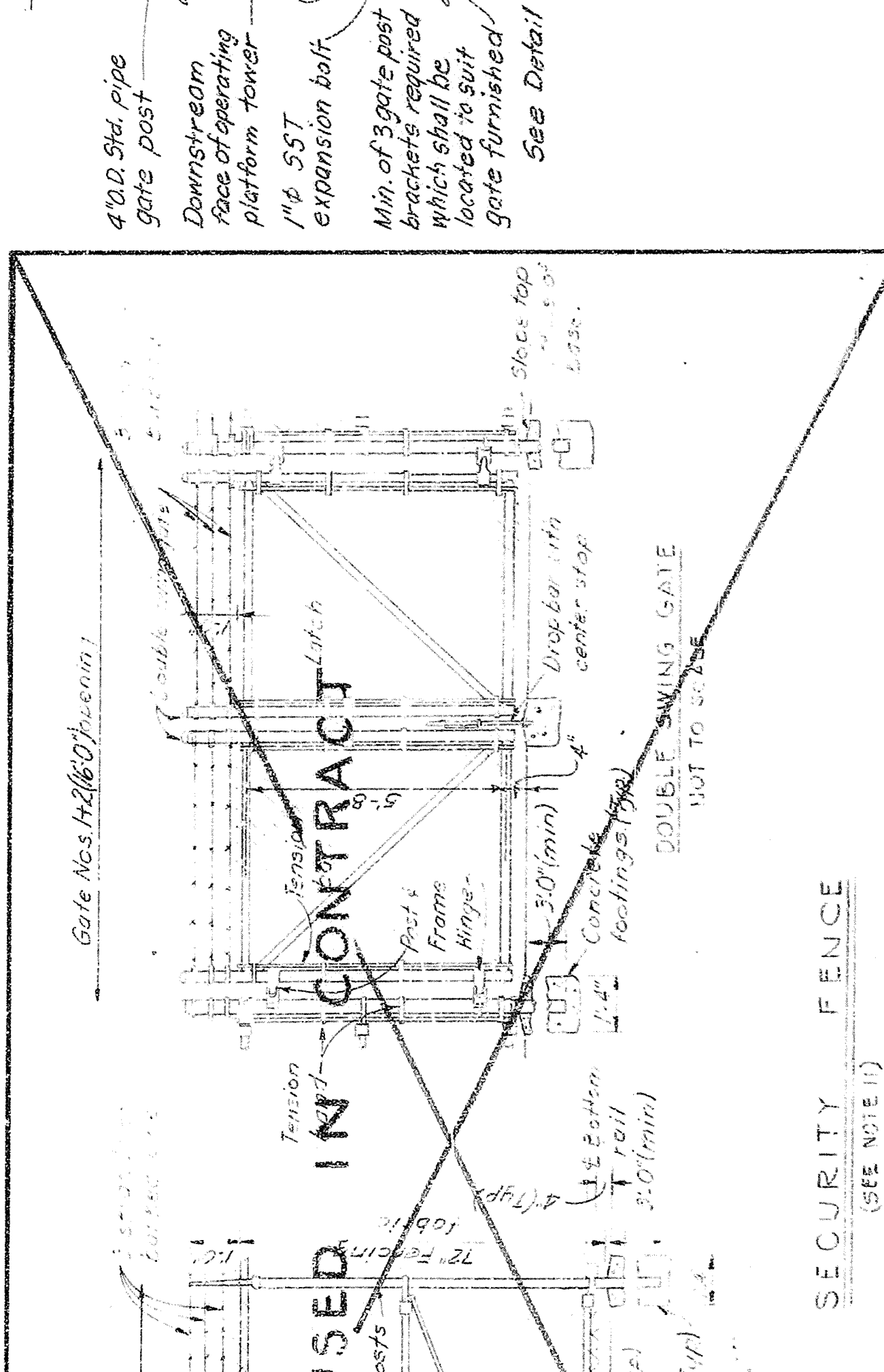
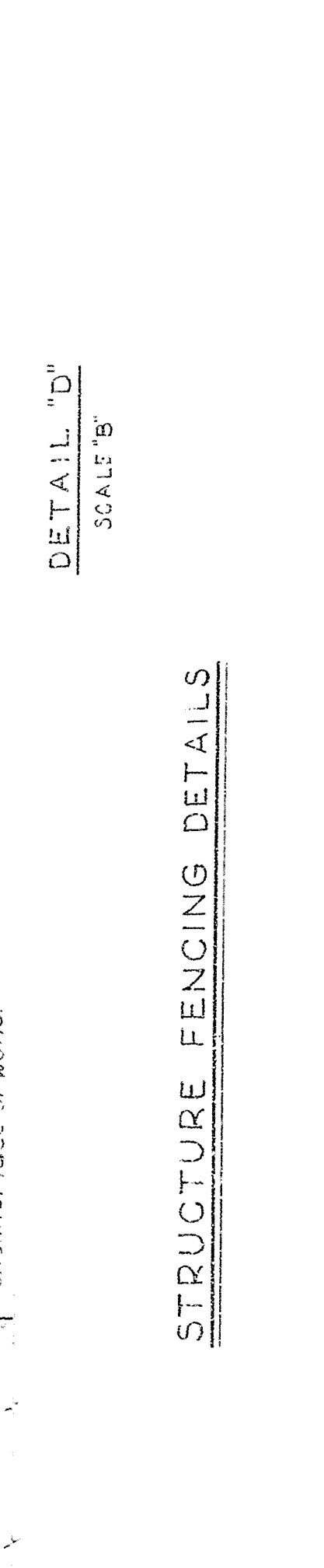
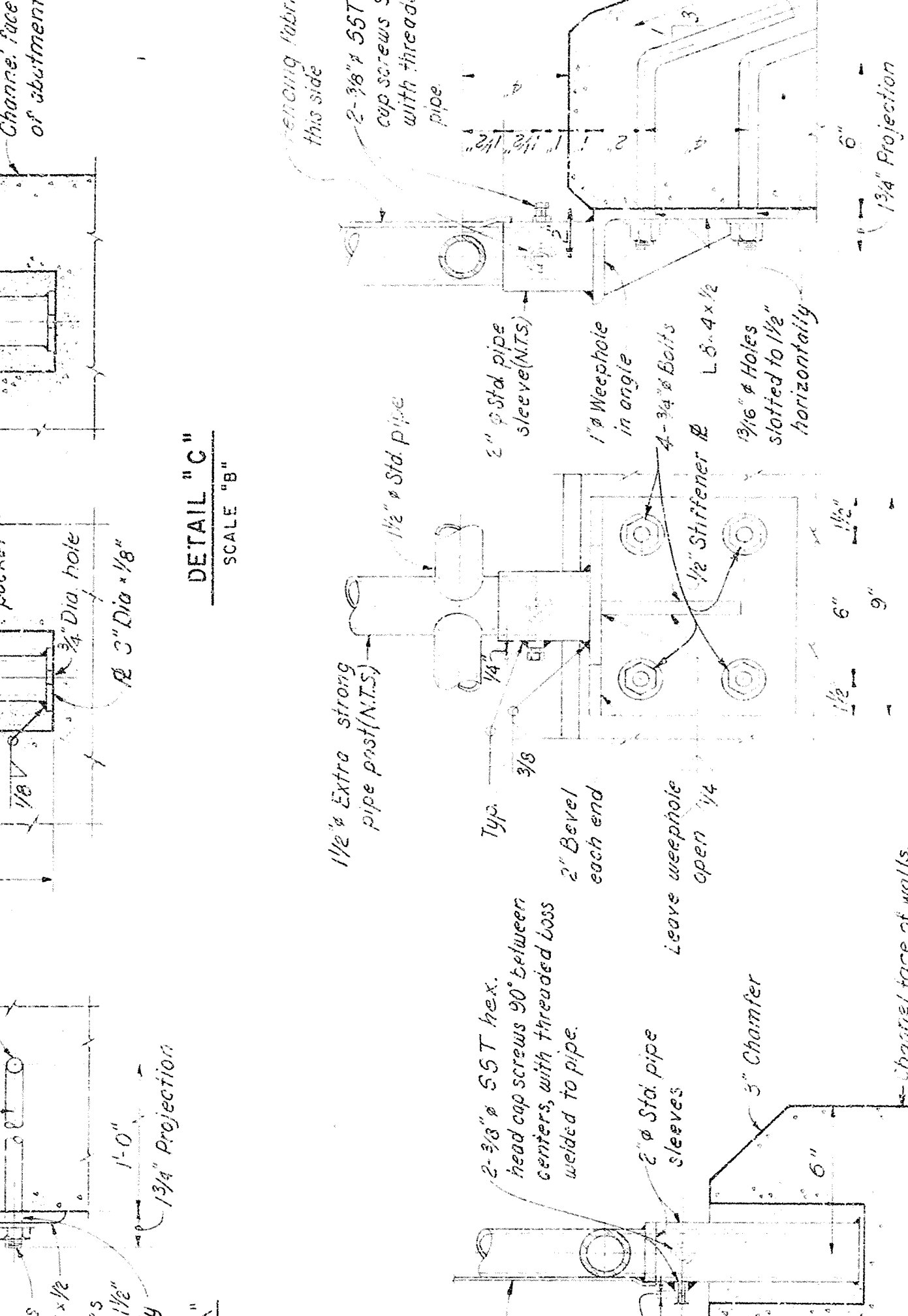
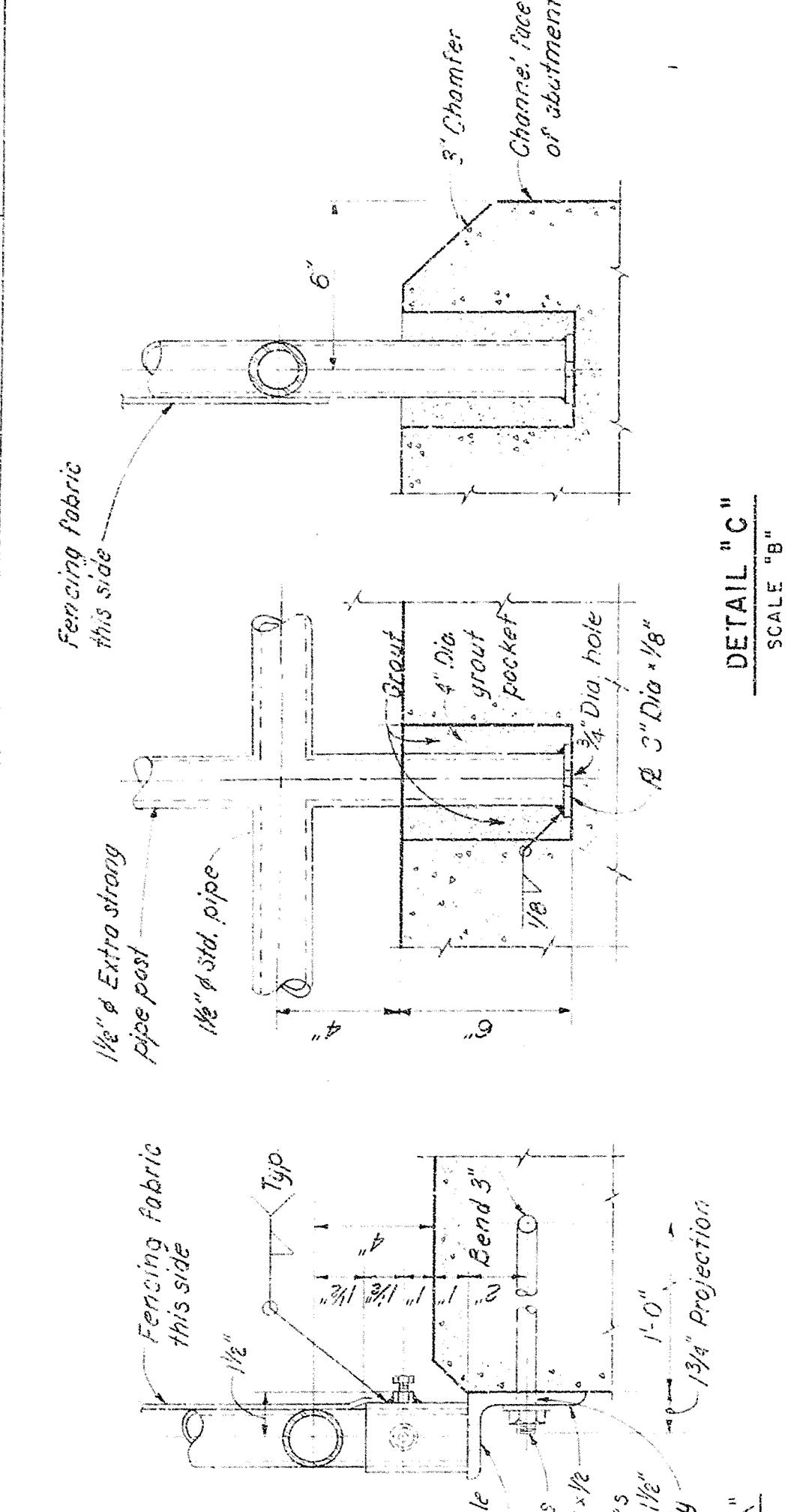
3/4" x 3/4" Hex head in angle

2-3/4" ϕ Bolt L 4 1/2

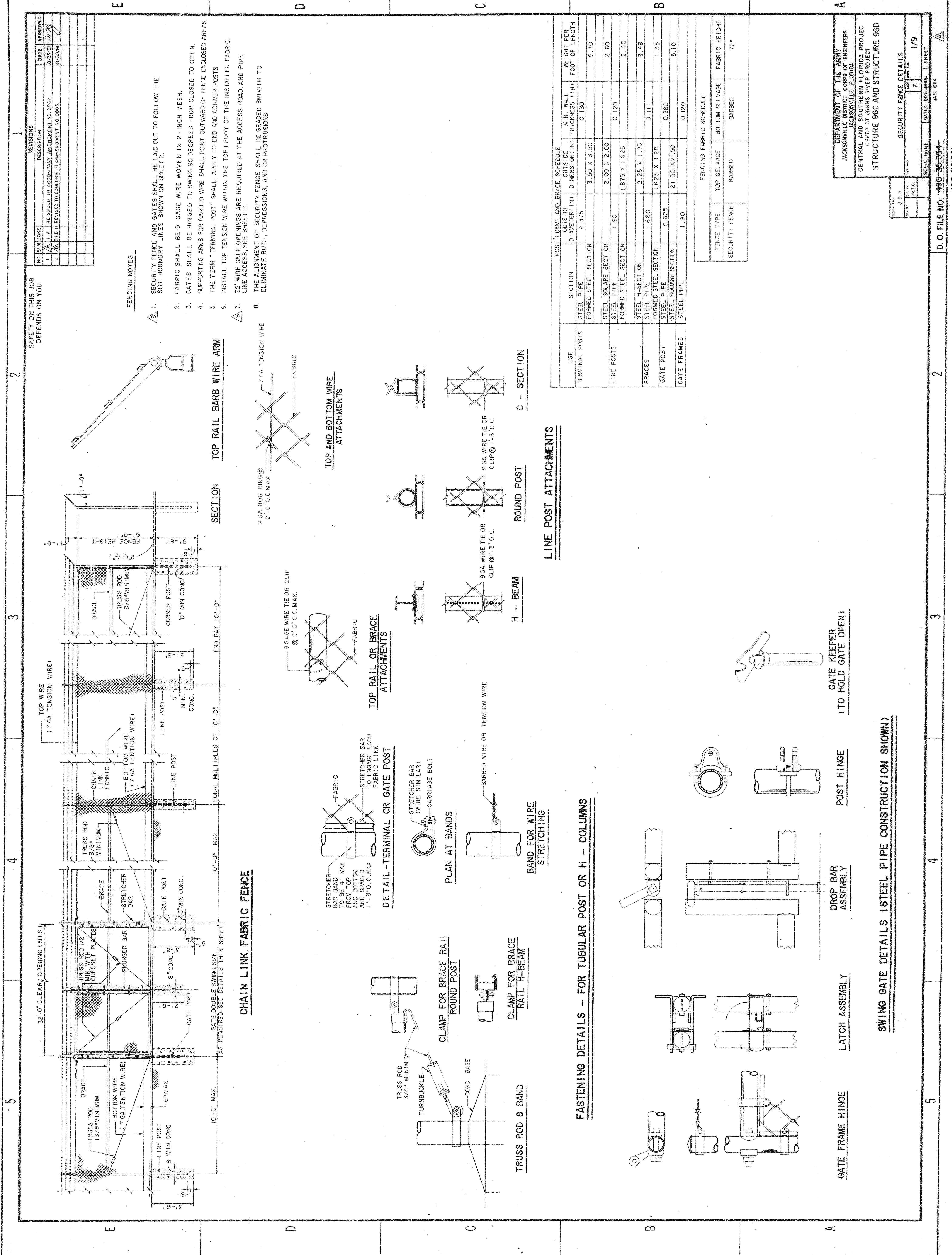
13/16" ϕ Hole slotted to horizontal

DETAIL "A"

SCALE "B"



Author's address: Department of Psychology, University of California, San Diego, 3542 La Jolla Village Drive, San Diego, CA 92093, USA.



REVISIONS		
NO.	DESCRIPTION	DATE
1	1-A	8/23/91
2	1-A	8/23/91
3	1-A	8/23/91
4	1-A	8/23/91
5	1-A	8/23/91
6	1-A	8/23/91
7	1-A	8/23/91
8	1-A	8/23/91
9	1-A	8/23/91
10	1-A	8/23/91

FENCING NOTES.

1. SECURITY FENCE AND GATES SHALL BE LAID OUT TO FOLLOW THE SITE BOUNDARY LINES SHOWN ON SHEET 2.
2. FABRIC SHALL BE 9 GAGE WIRE WOVEN IN 2-INCH MESH.
3. GATES SHALL BE HINGED TO SWING 90 DEGREES FROM CLOSED TO OPEN.
4. SUPPORTING ARMS FOR BARBED WIRE SHALL POINT OUTWARD OF FENCE ENCLOSED AREAS.
5. THE TERM "TERMINAL POST" SHALL APPLY TO END AND CORNER POSTS.
6. INSTALL TOP TENSION WIRE WITHIN THE TOP 1 FOOT OF THE INSTALLED FABRIC.
7. 32" WIDE GATE OPENINGS ARE REQUIRED AT THE ACCESS ROAD, AND PIPE LINE ACCESS, SEE SHEET 2.
8. THE ALIGNMENT OF SECURITY FENCE SHALL BE GRADED SMOOTH TO ELIMINATE RUTS, DEPRESSIONS, AND OR PROTRUSIONS.

TOP RAIL BARB WIRE ARM

SECTION

CHAIN LINK FABRIC FENCE

TOP AND BOTTOM WIRE ATTACHMENTS

TOP RAIL OR BRACE ATTACHMENTS

DETAIL - TERMINAL OR GATE POST

PLAN AT BANDS

CLAMP FOR BRACE RAIL ROUND POST

CLAMP FOR BRACE RAIL H-BEAM

TRUSS ROD & BAND

H - BEAM

ROUND POST

C - SECTION

LINE POST ATTACHMENTS

FASTENING DETAILS - FOR TUBULAR POST OR H - COLUMNS

POST HINGE

DROP BAR ASSEMBLY

LATCH ASSEMBLY

GATE FRAME HINGE

GATE KEEPER (TO HOLD GATE OPEN)

POST HINGE

DROP BAR ASSEMBLY

LATCH ASSEMBLY

GATE FRAME HINGE

GATE KEEPER (TO HOLD GATE OPEN)

POST, FRAME AND BRACE SCHEDULE			
USE	SECTION	MIN. WALL THICKNESS (IN)	WEIGHT PER FOOT OF LENGTH
TERMINAL POSTS	STEEL PIPE	2.375	3.50 X 3.50
	FORMED STEEL SECTION	2.00 X 2.00	2.60
LINE POSTS	STEEL PIPE	1.90	1.875 X 1.625
	FORMED STEEL SECTION	1.660	2.25 X 1.70
BRACES	STEEL PIPE	1.660	1.625 X 1.25
	FORMED STEEL SECTION	1.625 X 1.25	1.35
GATE POST	STEEL PIPE	5.625	21.50 X 21.50
	FORMED STEEL SECTION	21.50 X 21.50	5.10
GATE FRAMES	STEEL PIPE	1.90	0.120
	FORMED STEEL SECTION	0.120	0.120

FENCING FABRIC SCHEDULE			
FENCE TYPE	TOP SELVAGE	BOTTOM SELVAGE	FABRIC HEIGHT
SECURITY FENCE	BARBED	BARBED	72"

DEPARTMENT OF THE ARMY	
JACKSONVILLE DISTRICT CORPS OF ENGINEERS	
JACKSONVILLE, FLORIDA	
CENTRAL AND SOUTHERN FLORIDA PROJECT	
UPPER ST. JOHNS RIVER PROJECT	
STRUCTURE 96C AND STRUCTURE 96D	
SECURITY FENCE DETAILS	
SCALE: 1/4" = 1'-0"	1/9
DATE: 8/23/91	1/9
BY: J.D.H.	1/9
CHECKED: J.D.H.	1/9
APPROVED: J.D.H.	1/9

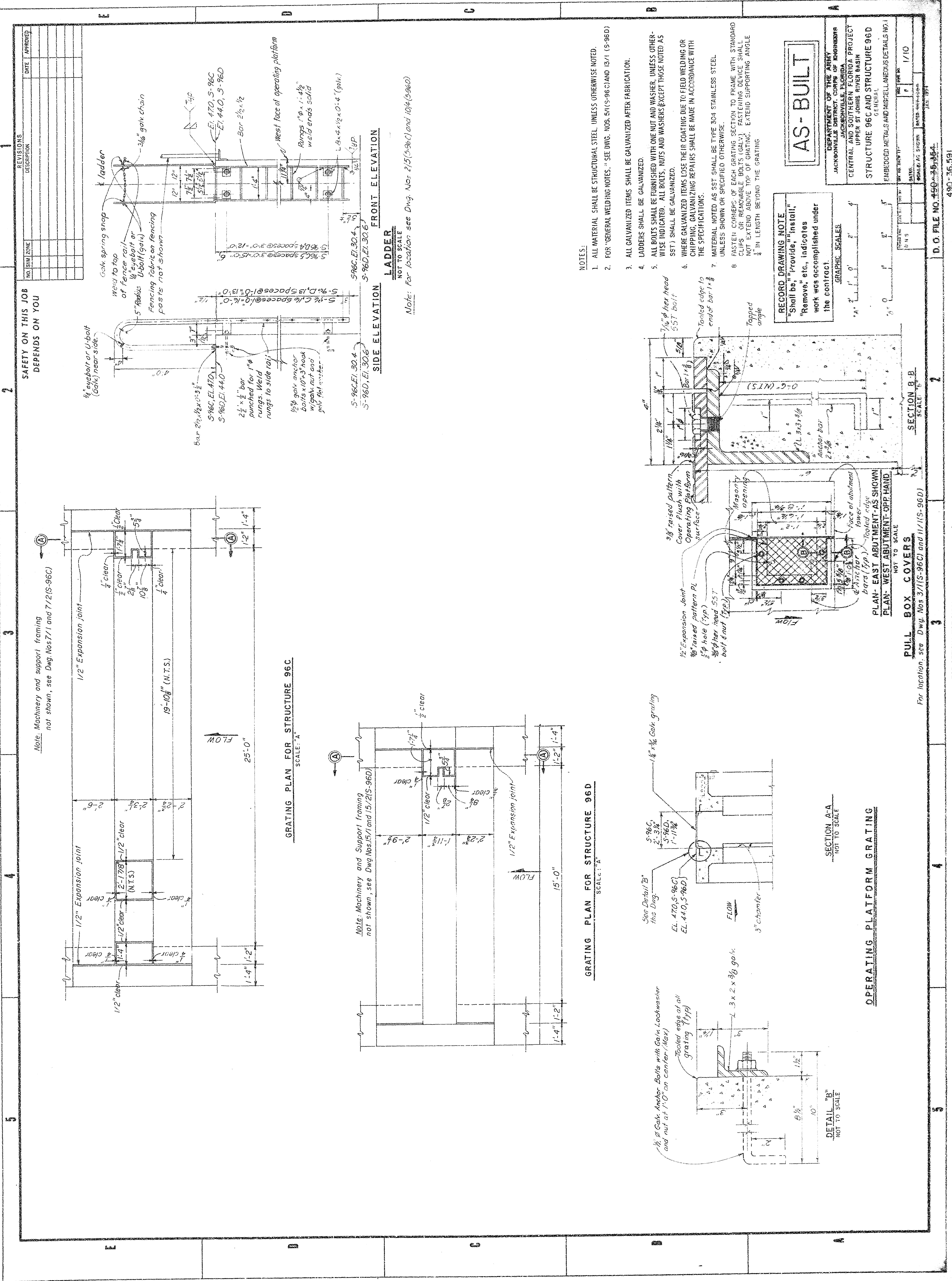


Table with 3 columns: NO., DATE, APPROVED. It contains a list of revisions for the drawing.

SAFETY ON THIS JOB DEPENDS ON YOU

1

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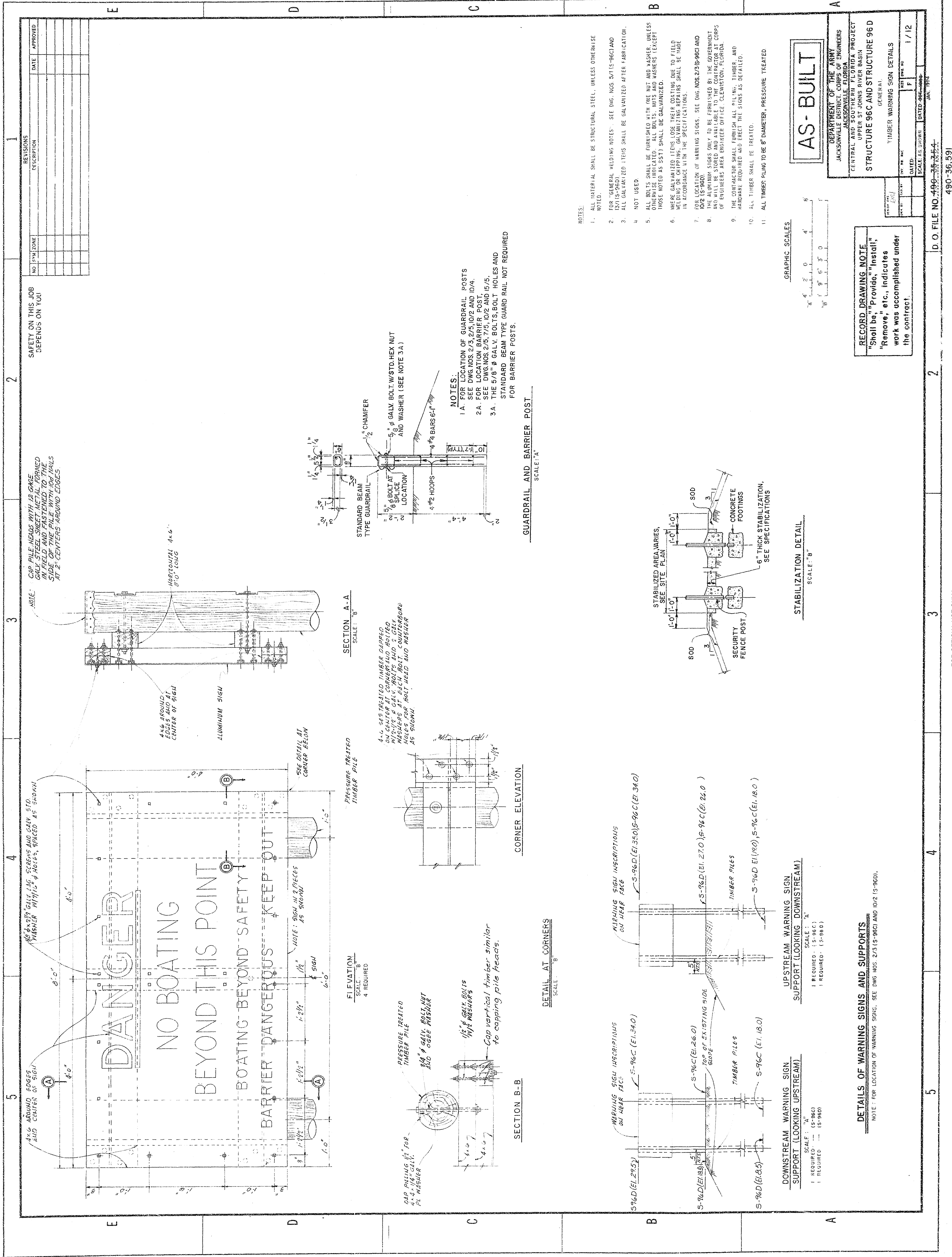
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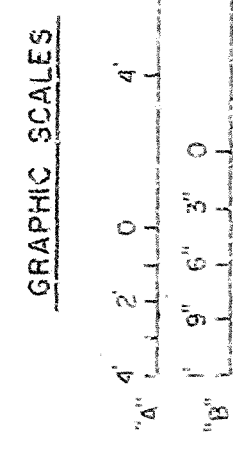
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2	REVISIONS		
3			
4			
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9			
10			
11			

SAFETY ON THIS JOB
DEPENDS ON YOU

AS-BUILT

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96C AND STRUCTURE 96D
TIMBER WARNING SIGN DETAILS
GENERAL
1/12

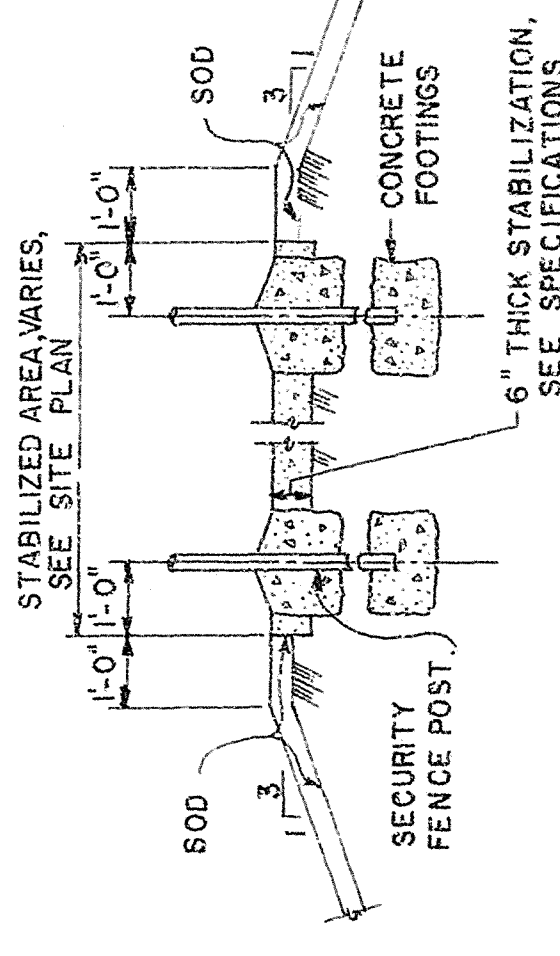
RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.



- NOTES:
1. ALL MATERIAL SHALL BE STRUCTURAL STEEL, UNLESS OTHERWISE NOTED.
 2. FOR "GENERAL WELDING NOTES", SEE DWG. NOS. 3/1 (S-96C) AND 13/1 (S-96D).
 3. ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
 4. NOT USED.
 5. ALL BOLTS SHALL BE FURNISHED WITH ONE NUT AND WASHER, UNLESS OTHERWISE INDICATED. ALL BOLTS, NUTS AND WASHERS (EXCEPT THOSE NOTED AS SST) SHALL BE GALVANIZED.
 6. WHERE GALVANIZED ITEMS LOSE THEIR COATING DUE TO FIELD WELDING OR CHIPPING, GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
 7. FOR LOCATION OF WARNING SIGNS, SEE DWG. NOS. 2/3 (S-96C) AND 13/2 (S-96D).
 8. ALL WARNING SIGNS ONLY TO BE FURNISHED BY THE GOVERNMENT AND WILL BE STORED AND AVAILABLE TO THE CONTRACTOR AT CORPS OF ENGINEERS AREA ENGINEER OFFICE, CLEWISTON, FLORIDA.
 9. THE CONTRACTOR SHALL FURNISH ALL PILING, TIMBER, AND HARDWARE REQUIRED AND ERECT THE SIGNS AS DETAILED.
 10. ALL TIMBER SHALL BE TREATED.
 11. ALL TIMBER PILING TO BE 8" DIAMETER, PRESSURE TREATED

- NOTES:
- 1A. FOR LOCATION OF GUARDRAIL POSTS SEE DWG. NOS. 2/3, 2/5, 10/2 AND 10/4.
 - 2A. FOR LOCATION BARRIER POST, SEE DWG. NOS. 2/5, 7/5, 10/2 AND 10/5.
 - 3A. THE 5/8" Ø GALV. BOLTS, BOLT HOLES AND STANDARD BEAM TYPE GUARD RAIL NOT REQUIRED FOR BARRIER POSTS.

GUARDRAIL AND BARRIER POST
SCALE: "A"



STABILIZATION DETAIL
SCALE: "B"

SECTION A-A
SCALE: "B"

CORNER ELEVATION

DETAIL AT CORNERS
SCALE: "B"

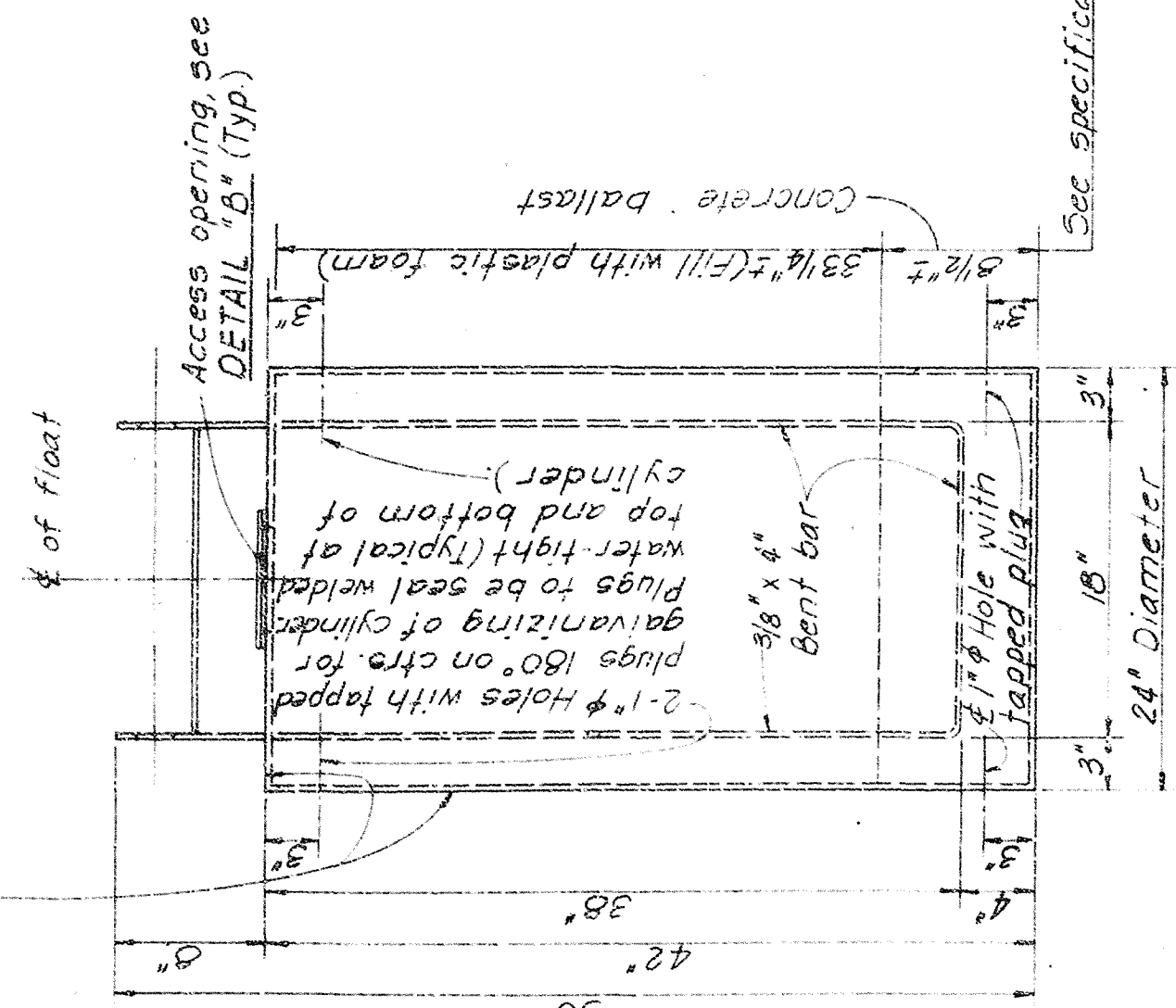
SECTION B-B

UPSTREAM WARNING SIGN
SUPPORT (LOOKING DOWNSTREAM)

DOWNSTREAM WARNING SIGN
SUPPORT (LOOKING UPSTREAM)

DETAILS OF WARNING SIGNS AND SUPPORTS
NOTE: FOR LOCATION OF WARNING SIGNS, SEE DWG. NOS. 2/3 (S-96C) AND 10/2 (S-96D).

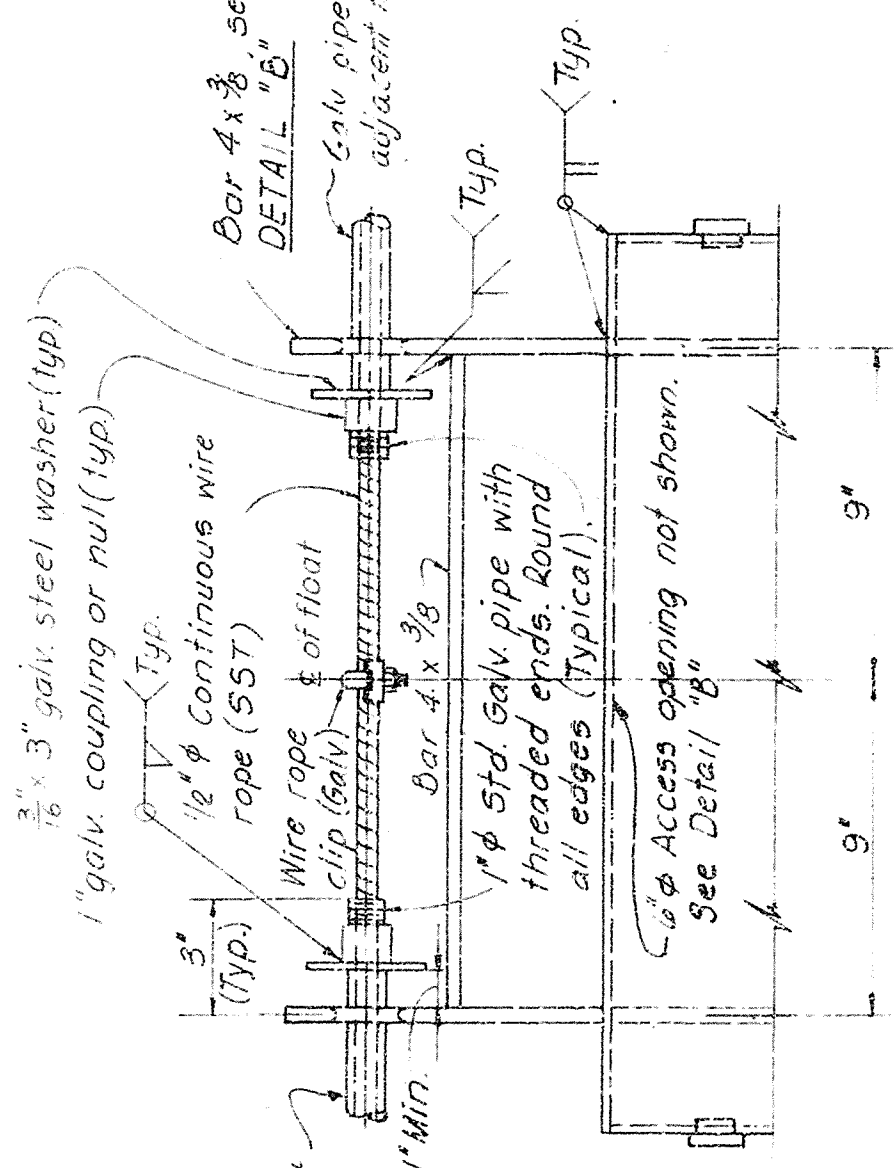
Note: Cylinder to be fabricated from 12 gage steel plates. All joints shall be welded in such a manner to provide a completely water-tight cylinder.



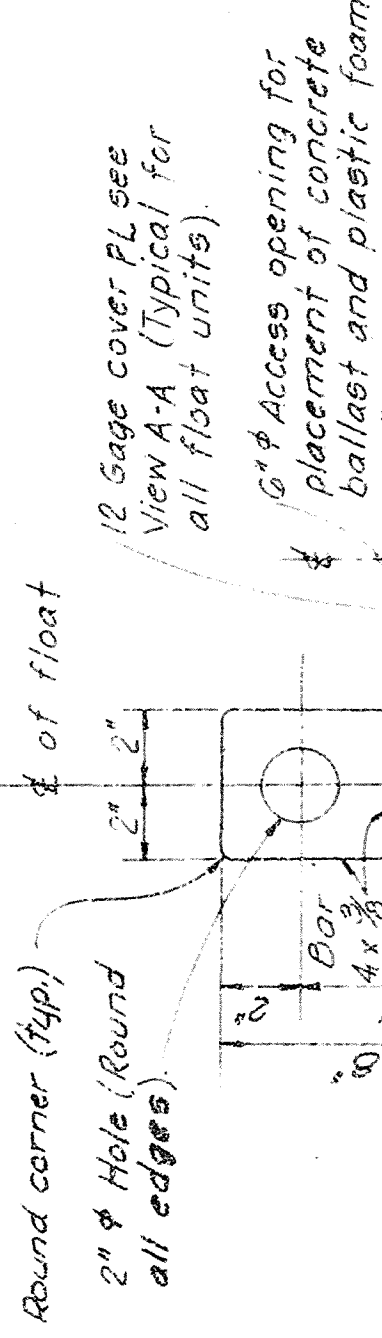
TYPE A FLOAT ELEVATION
SCALE: "B"
10 REQUIRED FOR S-96C
8 REQUIRED FOR S-96D

Note: Refer to Note No. 3 this sheet.

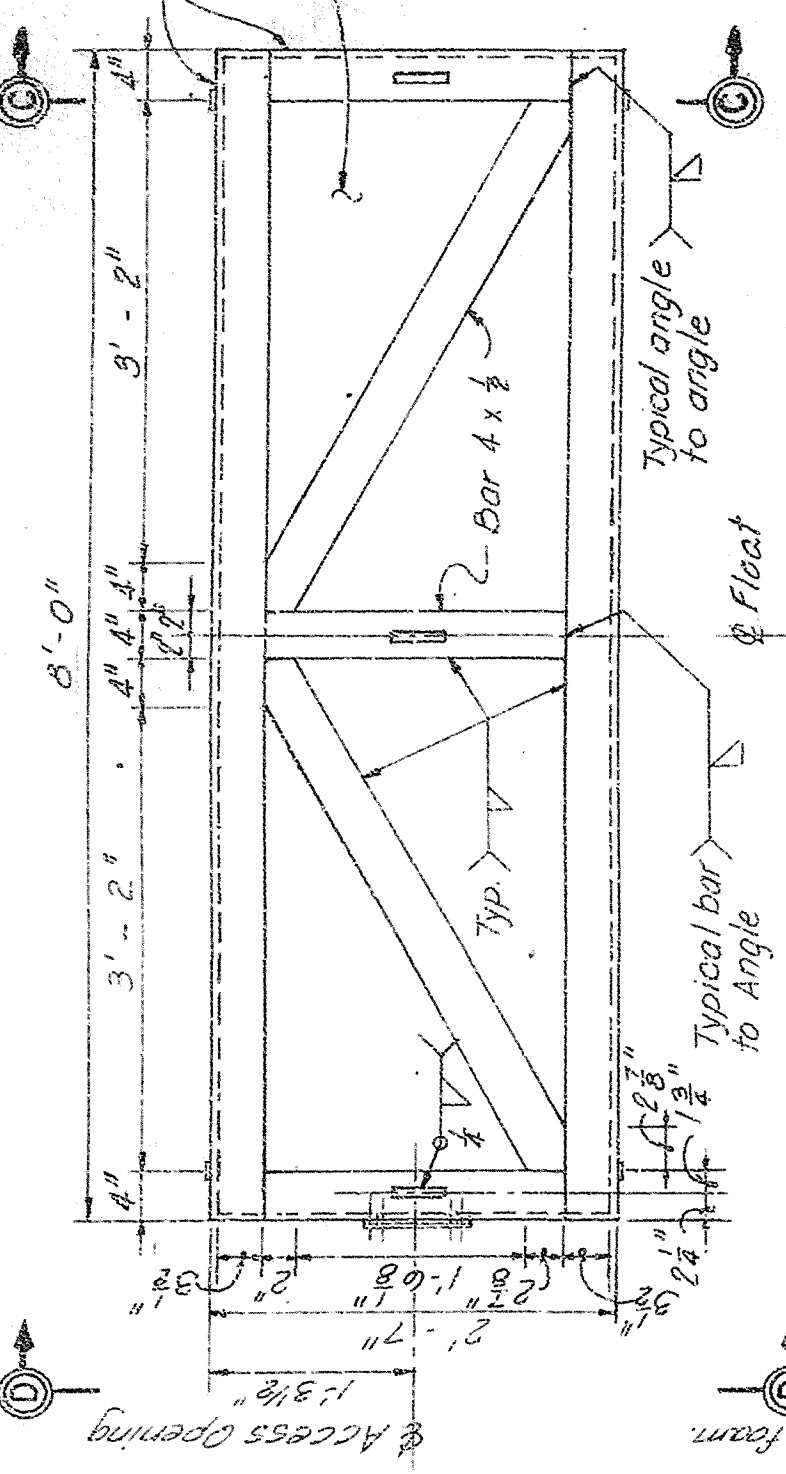
NOTE A:
IN LIEU OF THE ARRANGEMENT AND NUMBER OF 1" HOLES FOR GALVANIZING THE CYLINDER SHOWN ABOVE, THE CONTRACTOR MAY USE A MINIMUM OF 2-1/2" HOLES OR A MAXIMUM OF 4-1/2" HOLES. THE HOLES FOR GALVANIZING THE CYLINDER MAY BE RELOCATED AT THE CONTRACTOR'S OPTION. HOWEVER, ANY CHANGES IN NUMBER OR LOCATION OF HOLES IS SUBJECT TO APPROVAL OF THE CONTRACTING OFFICER.



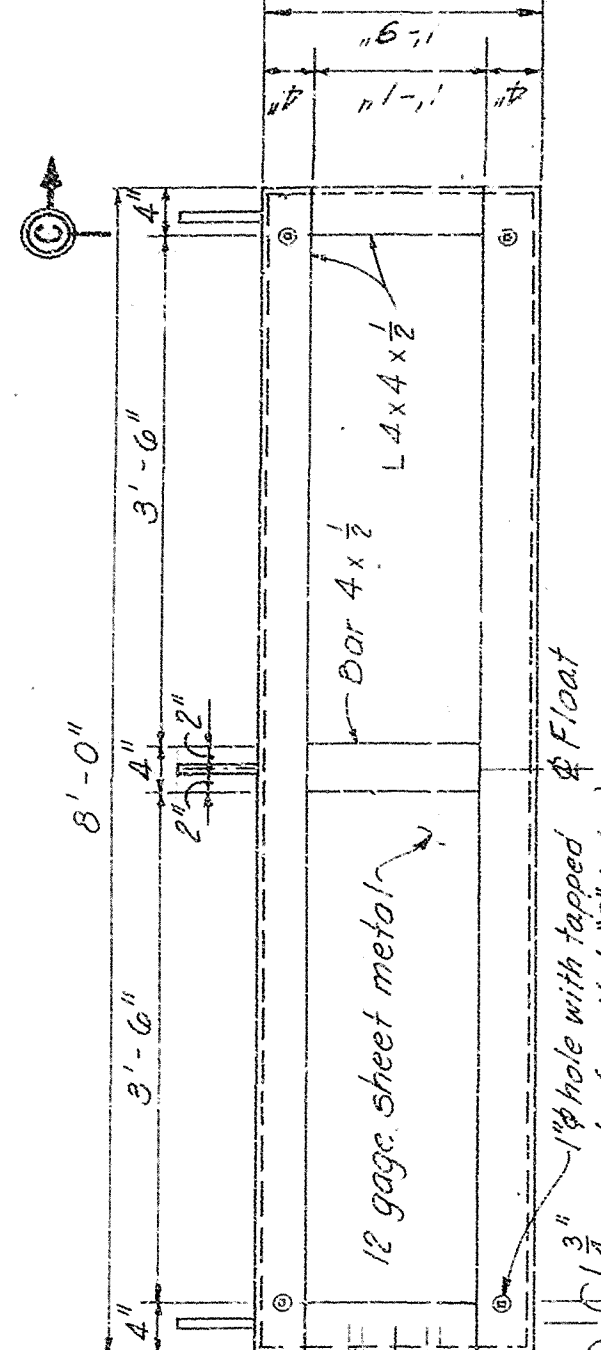
DETAIL A
SCALE: "C"



DETAIL B
SCALE: "C"

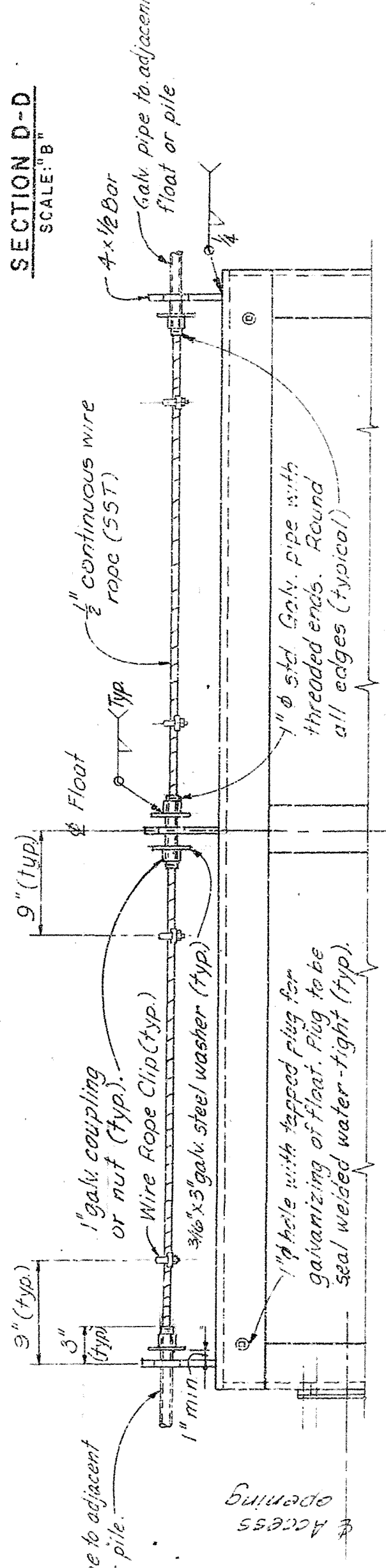


PLAN
SCALE: "A"



TYPE B FLOAT ELEVATION
SCALE: "A"
8 REQUIRED FOR S-96C
8 REQUIRED FOR S-96D

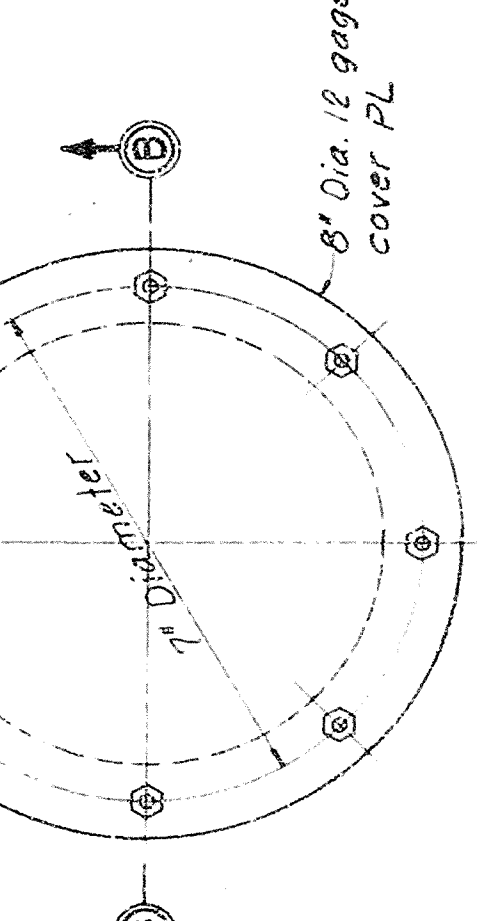
Note: Refer to Note No. 3 this sheet.



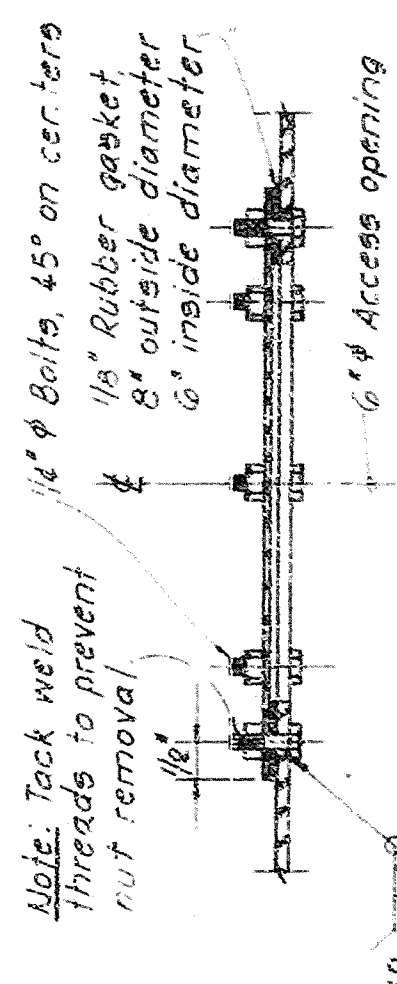
DETAIL C
SCALE: "B"

IN LIEU OF THE ARRANGEMENT AND NUMBER OF 1" HOLES FOR GALVANIZING TYPE "B" FLOAT, THE CONTRACTOR MAY USE A MINIMUM OF 4-1/2" HOLES OR A MAXIMUM OF 8-1/2" HOLES. THE HOLES FOR GALVANIZING THE CYLINDER MAY BE RELOCATED AT THE CONTRACTOR'S OPTION. HOWEVER, ANY CHANGES IN NUMBER OR LOCATION OF HOLES IS SUBJECT TO APPROVAL OF THE CONTRACTING OFFICER.

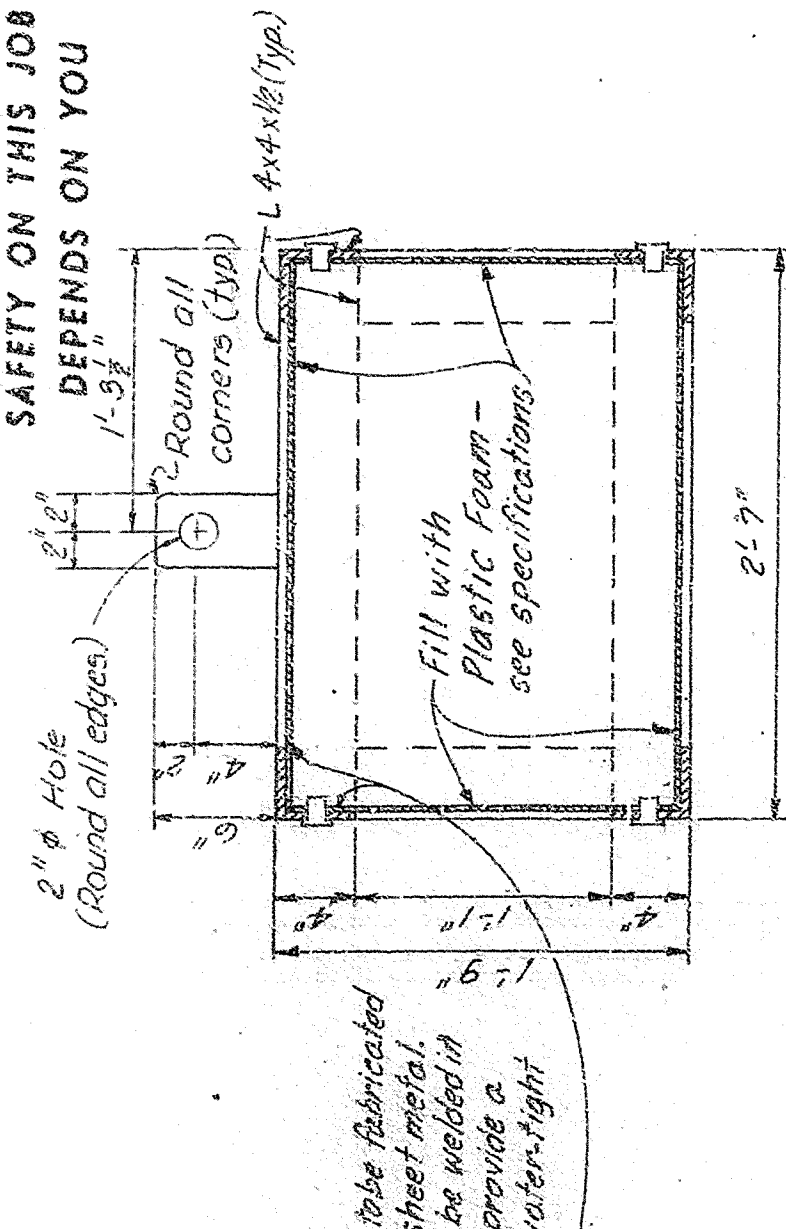
NOTE: "B"



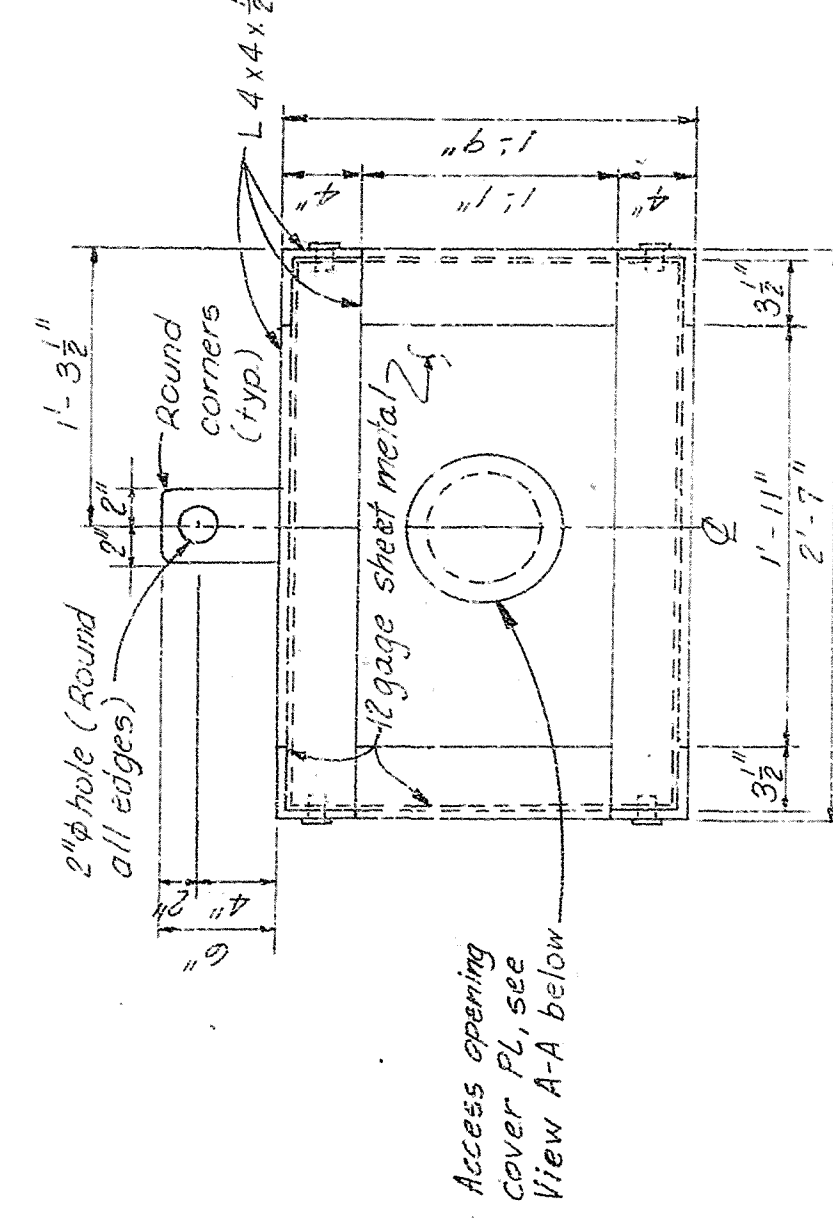
VIEW A-A
SCALE: "D"



SECTION B-B
SCALE: "D"



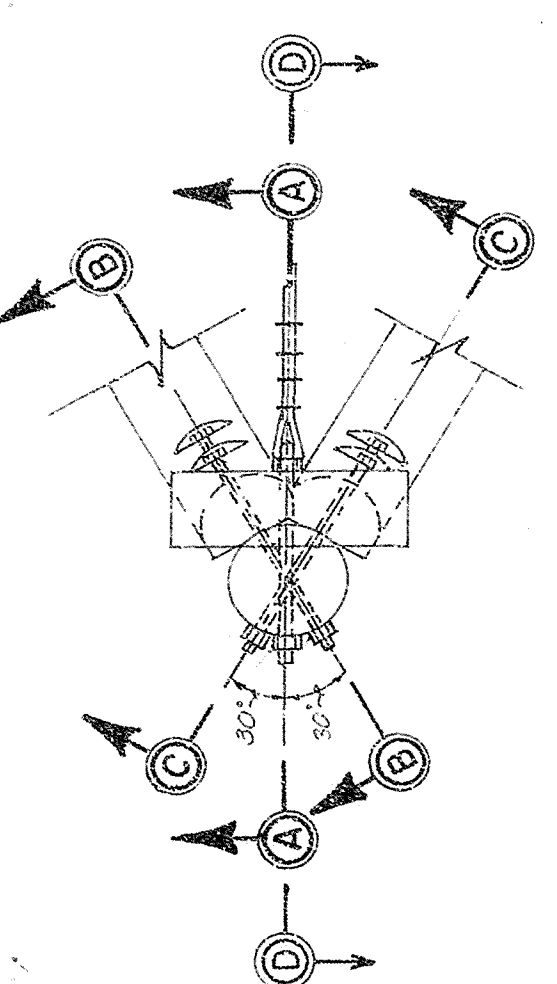
SECTION C-C
SCALE: "B"



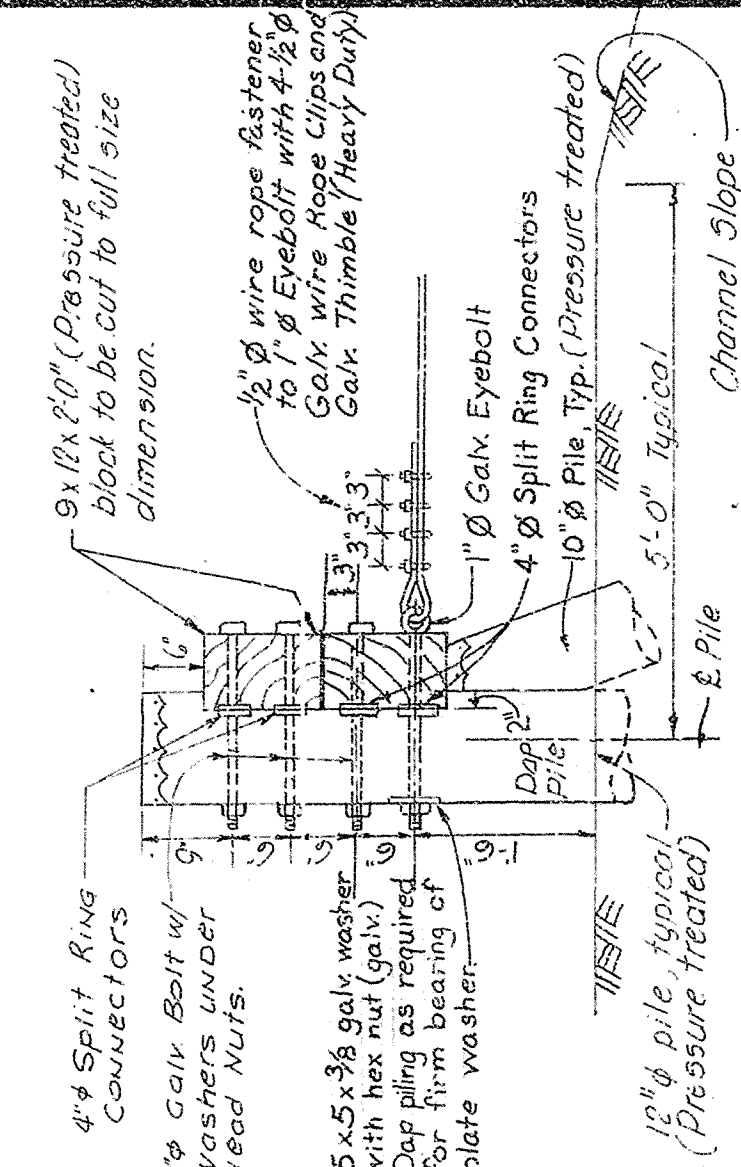
SECTION D-D
SCALE: "B"

SAFETY ON THIS JOB
DEPENDS ON YOU

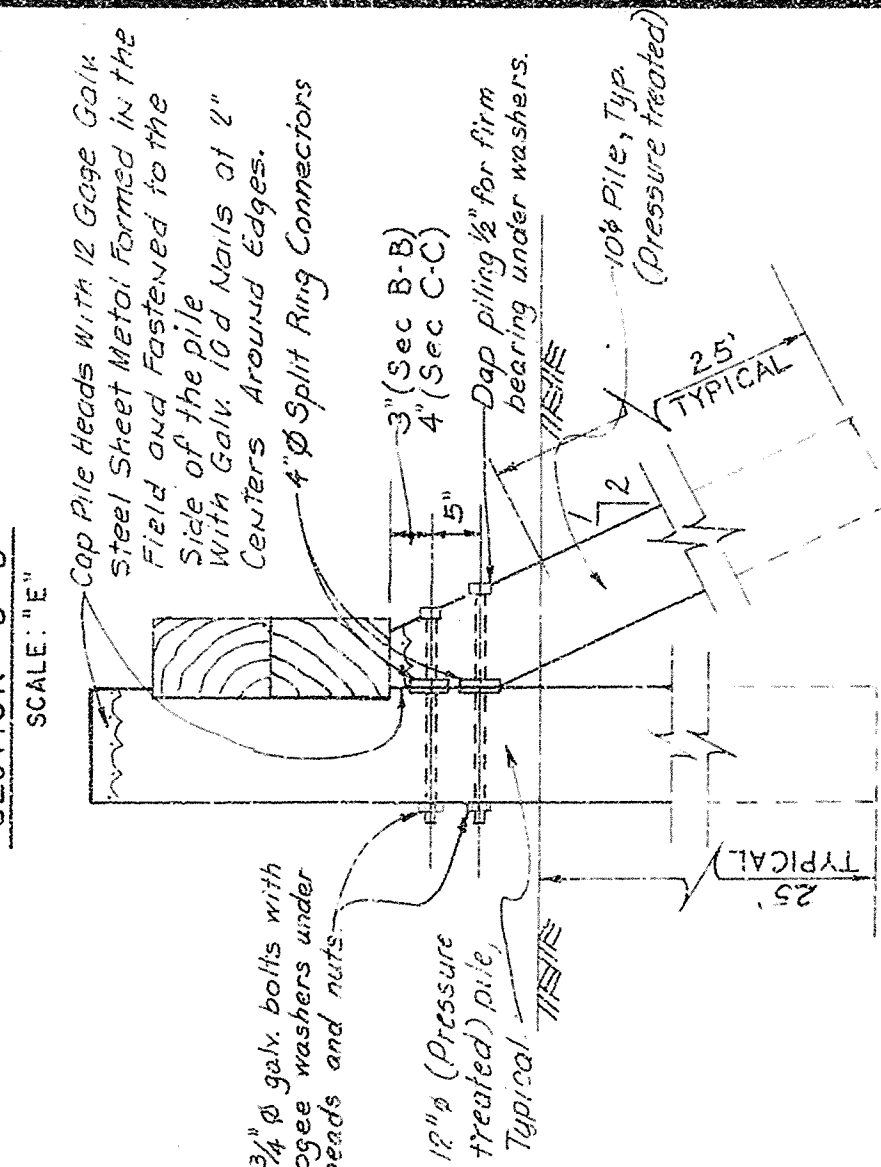
NO.	SYN.	ZONE	REVISIONS	DATE	APPROVED
1					
2					
3					
4					
5					



PLAN
SCALE: "E"



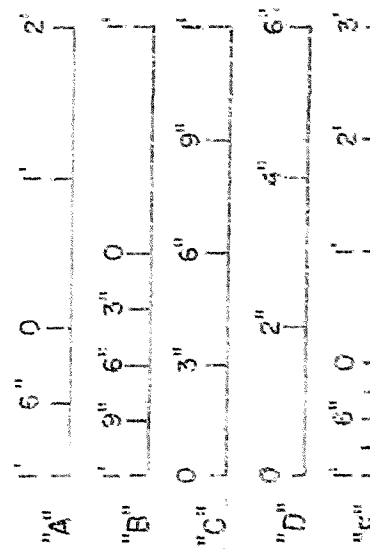
SECTION A-A
SCALE: "E"



SECTION B-B
SCALE: "E"

ANCHOR PILE DETAILS
(SAFETY BARRIERS)

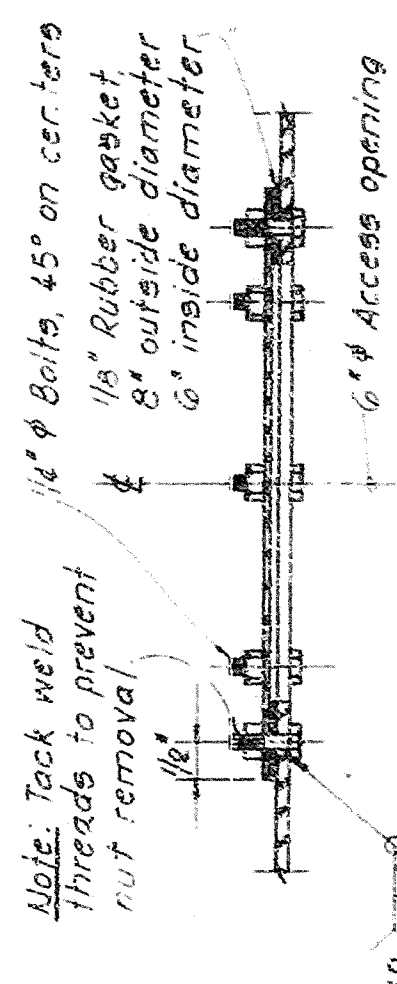
GRAPHIC SCALES



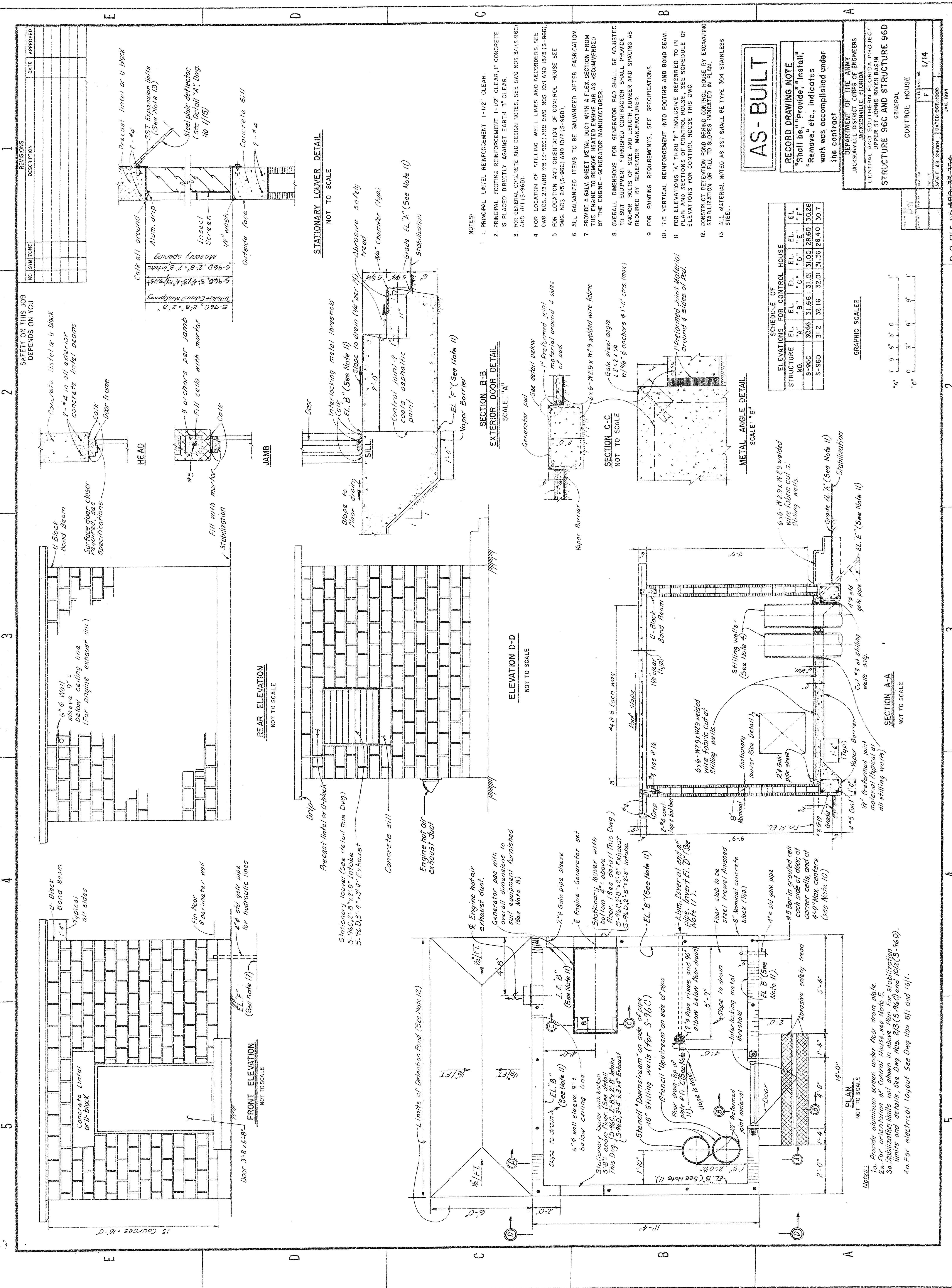
NOTE: 1. FOR SAFETY BARRIER LAYOUT, SEE Dwg. NOS. 2/3 (S-96C) AND 10/21 (S-96D).
2. ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
3. ALL SAFETY BARRIER FLOATS SHALL BE GALVANIZED. WHERE GALVANIZED ITEMS LOSE THEIR COATING DUE TO FIELD WELDING OR CHIPPING, GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. FOR "GENERAL WELDING NOTES", SEE DWG. IPS, S/1 (S-96C) AND 13/1 (S-96D).

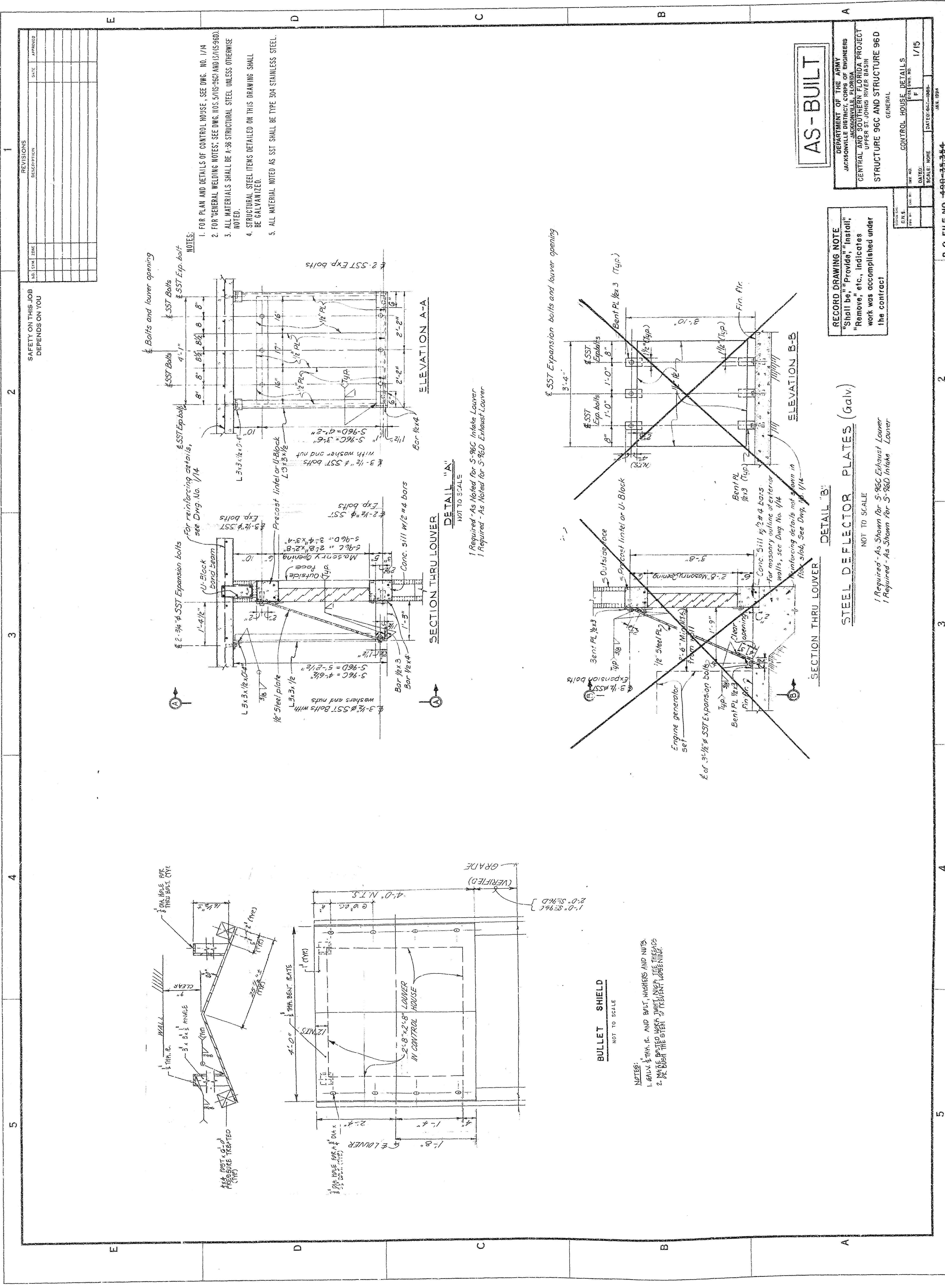
RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

NOTE: 1. FOR SAFETY BARRIER LAYOUT, SEE Dwg. NOS. 2/3 (S-96C) AND 10/21 (S-96D).
2. ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
3. ALL SAFETY BARRIER FLOATS SHALL BE GALVANIZED. WHERE GALVANIZED ITEMS LOSE THEIR COATING DUE TO FIELD WELDING OR CHIPPING, GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. FOR "GENERAL WELDING NOTES", SEE DWG. IPS, S/1 (S-96C) AND 13/1 (S-96D).



DETAIL C
SCALE: "C"





REVISIONS		
NO.	SYMBOL	DESCRIPTION
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SAFETY ON THIS JOB
DEPENDS ON YOU

AS-BUILT

DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	
CENTRAL AND SOUTHERN FLORIDA PROJECT UPPER ST. JOHNS RIVER BASIN	
STRUCTURE 96C AND STRUCTURE 96D	
GENERAL	
CONTROL HOUSE DETAILS	DATE: 1/15
SCALE: NONE	DATE: 1/15
BY: [Signature]	DATE: 1/15
CHECKED: [Signature]	DATE: 1/15
APPROVED: [Signature]	DATE: 1/15

RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract

STEEL DEFLECTOR PLATES (Galv)

NOT TO SCALE
1 Required - As Shown for S-96C Exhaust Louver
1 Required - As Shown for S-96D Intake Louver

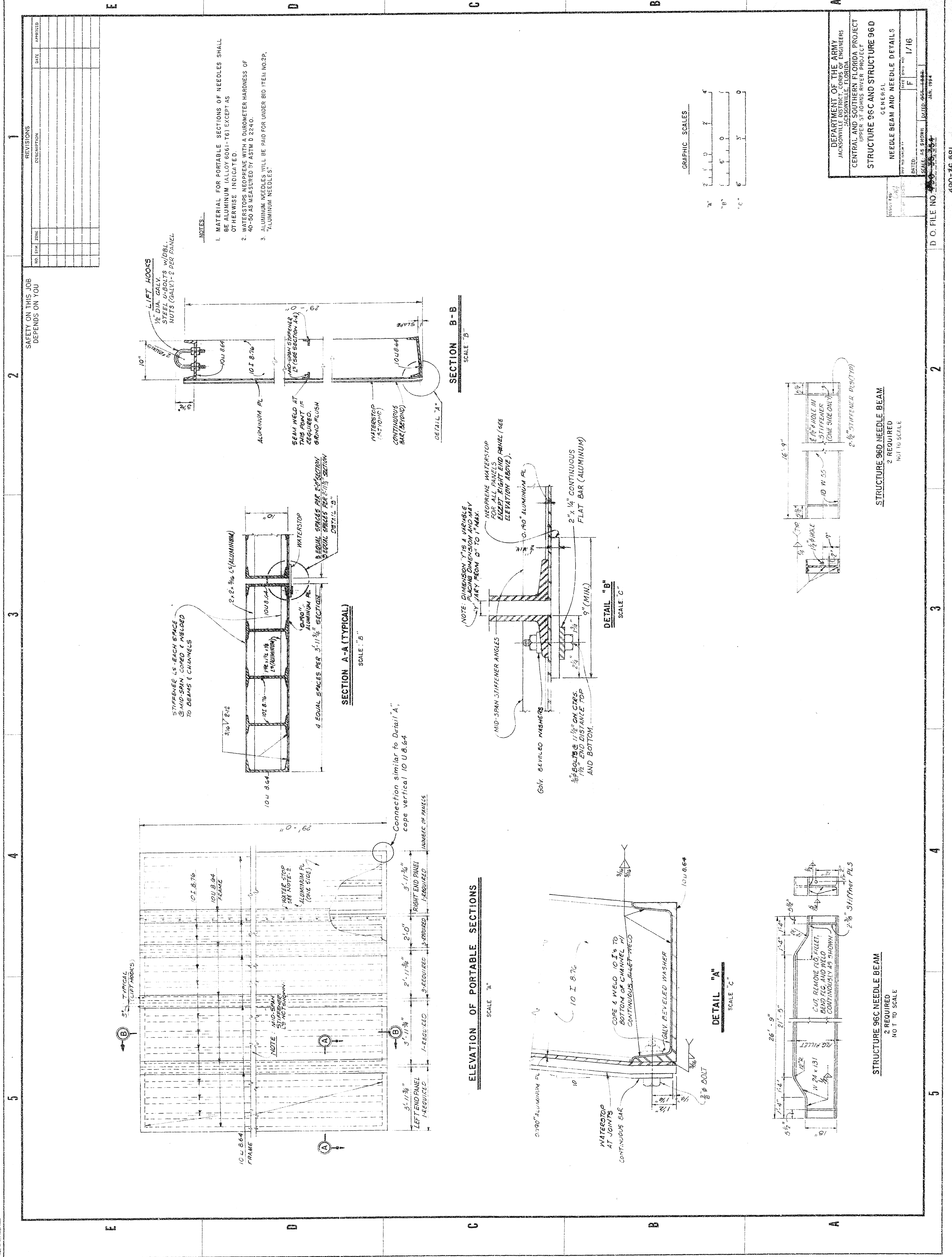
DETAIL "A"
NOT TO SCALE

1 Required - As Shown for S-96C Intake Louver
1 Required - As Shown for S-96D Exhaust Louver

DETAIL "B"
NOT TO SCALE

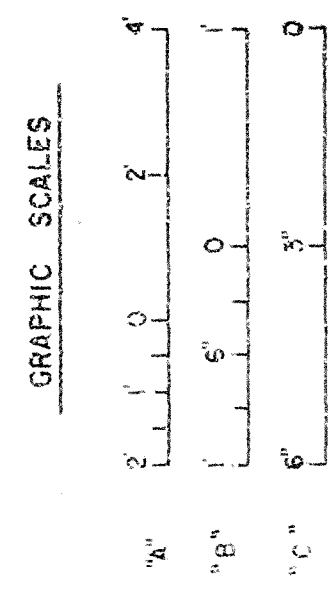
BULLET SHIELD
NOT TO SCALE

NOTES:
1. GALV. 1/4" TH. PL. AND BOLT, WASHERS AND NUTS.
2. MAKE BOLTED WORK JOINTS WITH THE TRENCH
OR BUSH THE STEEL TREATMENT WORKING



REVISIONS		
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- NOTES:
1. MATERIAL FOR PORTABLE SECTIONS OF NEEDLES SHALL BE ALUMINUM (ALLOY 6061-T6) EXCEPT AS OTHERWISE INDICATED.
 2. WATERSTOPS NEOPRENE WITH A DUROMETER HARDNESS OF 40-50 AS MEASURED BY ASTM D 2240.
 3. ALUMINUM NEEDLES WILL BE PAID FOR UNDER BID ITEM NO. 2P, "ALUMINUM NEEDLES".



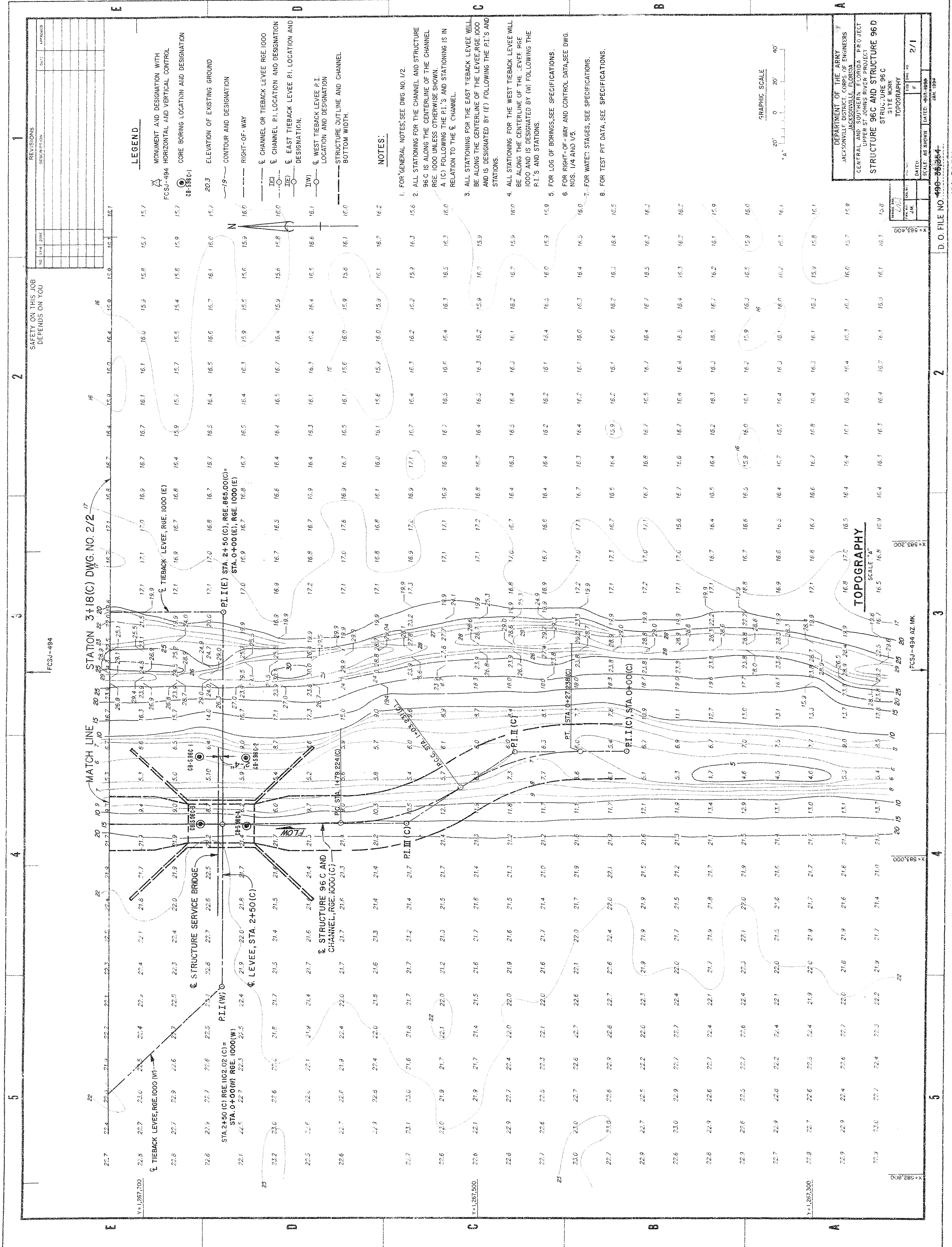
DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	GENERAL NEEDLE BEAM AND NEEDLE DETAILS
CENTRAL AND SOUTHERN FLORIDA PROJECT UPPER ST. JOHNS RIVER PROJECT STRUCTURE 96C AND STRUCTURE 96D	SCALE: AS SHOWN DATE: 1/16

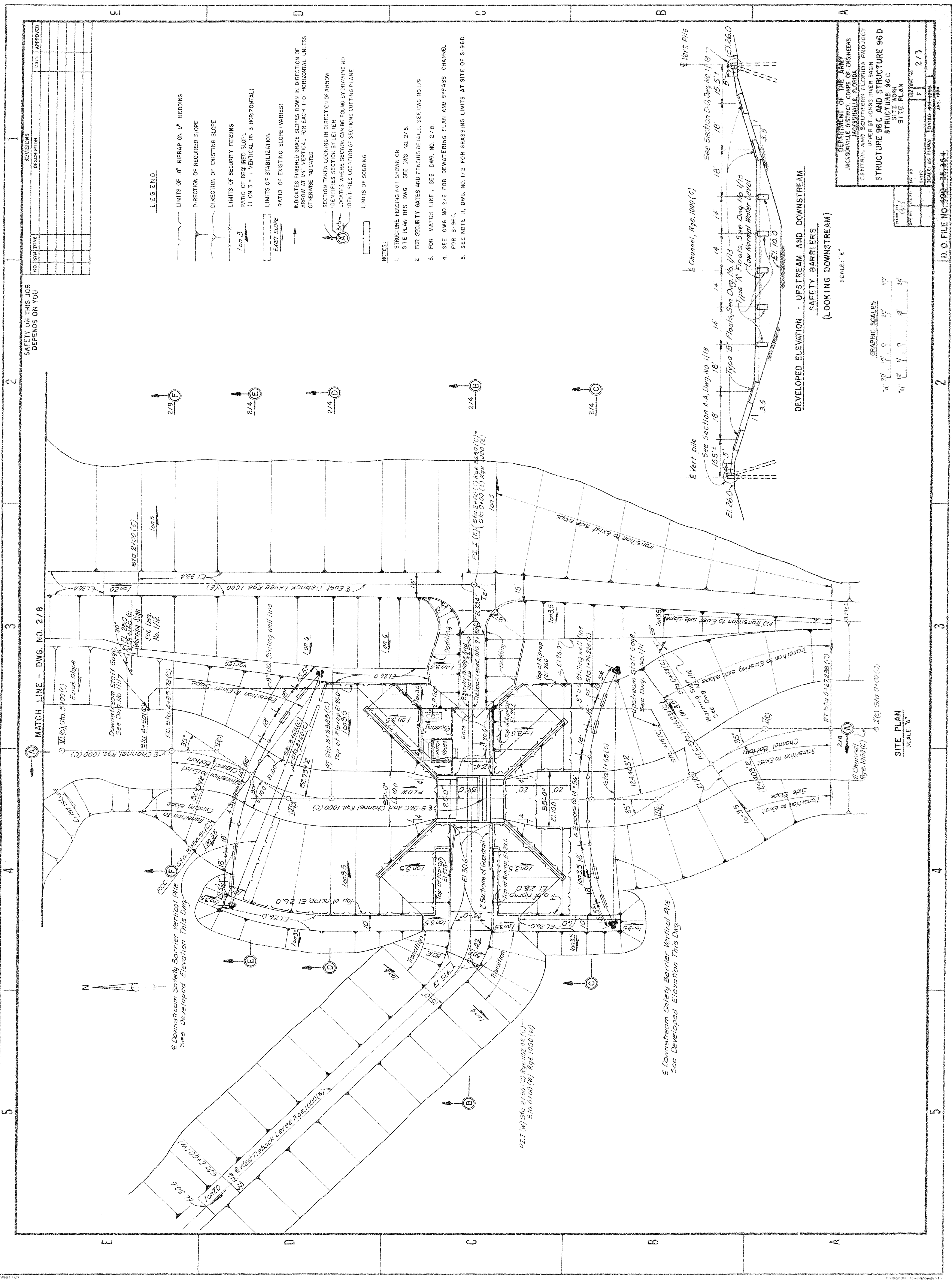
D. O. FILE NO. 490-36,591

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SAFETY ON THIS JOB
DEPENDS ON YOU

MATCH LINE - DWG. NO. 2/8

VI(c) Sta 5+00 (C)

Downstream Staff Gage

See Dwg. No. 1/11/7

Warning Sign

See Dwg. No. 1/1/2

PC Sta 4+35.78 (C)

Station 4+30 (C)

Transition to Existing Slope

Channel Bottom

Transition to Existing Slope

Channel Bottom

Transition to Existing Slope

Channel Bottom

Transition to Existing Slope

Channel Bottom

Transition to Existing Slope

Channel Bottom

Transition to Existing Slope

Channel Bottom

Transition to Existing Slope

Channel Bottom

LEGEND

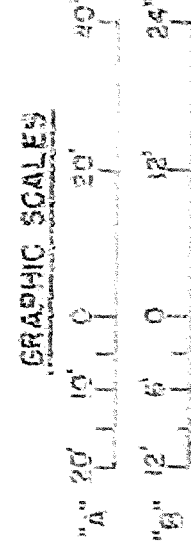
- LIMITS OF 18" RIPRAP ON 9" BEDDING
- DIRECTION OF REQUIRED SLOPE
- DIRECTION OF EXISTING SLOPE
- LIMITS OF SECURITY FENCING
- RATIO OF REQUIRED SLOPE
(1 ON 3 = 1 VERTICAL ON 3 HORIZONTAL)
- LIMITS OF STABILIZATION
- RATIO OF EXISTING SLOPE (VARIES)
- INDICATES FINISHED GRADE SLOPES DOWN IN DIRECTION OF ARROW 1/4" VERTICAL FOR EACH 1'-0" HORIZONTAL UNLESS OTHERWISE INDICATED
- SECTION TAKEN LOOKING IN DIRECTION OF ARROW IDENTIFIES SECTION BY LETTER
- LOCATES WHERE SECTION CAN BE FOUND BY DRAWING NO IDENTIFIES LOCATION OF SECTIONS CUTTING PLANE
- LIMITS OF SODDING

NOTES

- STRUCTURE FENCING NOT SHOWN ON SITE PLAN THIS DWG. SEE DWG. NO. 2/5
- FOR SECURITY GATES AND FENCING DETAILS, SEE Dwg. NO. 1/9
- FOR MATCH LINE, SEE DWG. NO. 2/8
- SEE DWG. NO. 2/6 FOR DEWATERING PLAN AND BYPASS CHANNEL FOR S-96C.
- SEE NOTE 11, DWG. NO. 1/2 FOR GRASSING LIMITS AT SITE OF S-96C.

DEVELOPED ELEVATION - UPSTREAM AND DOWNSTREAM
SAFETY BARRIERS
(LOOKING DOWNSTREAM)

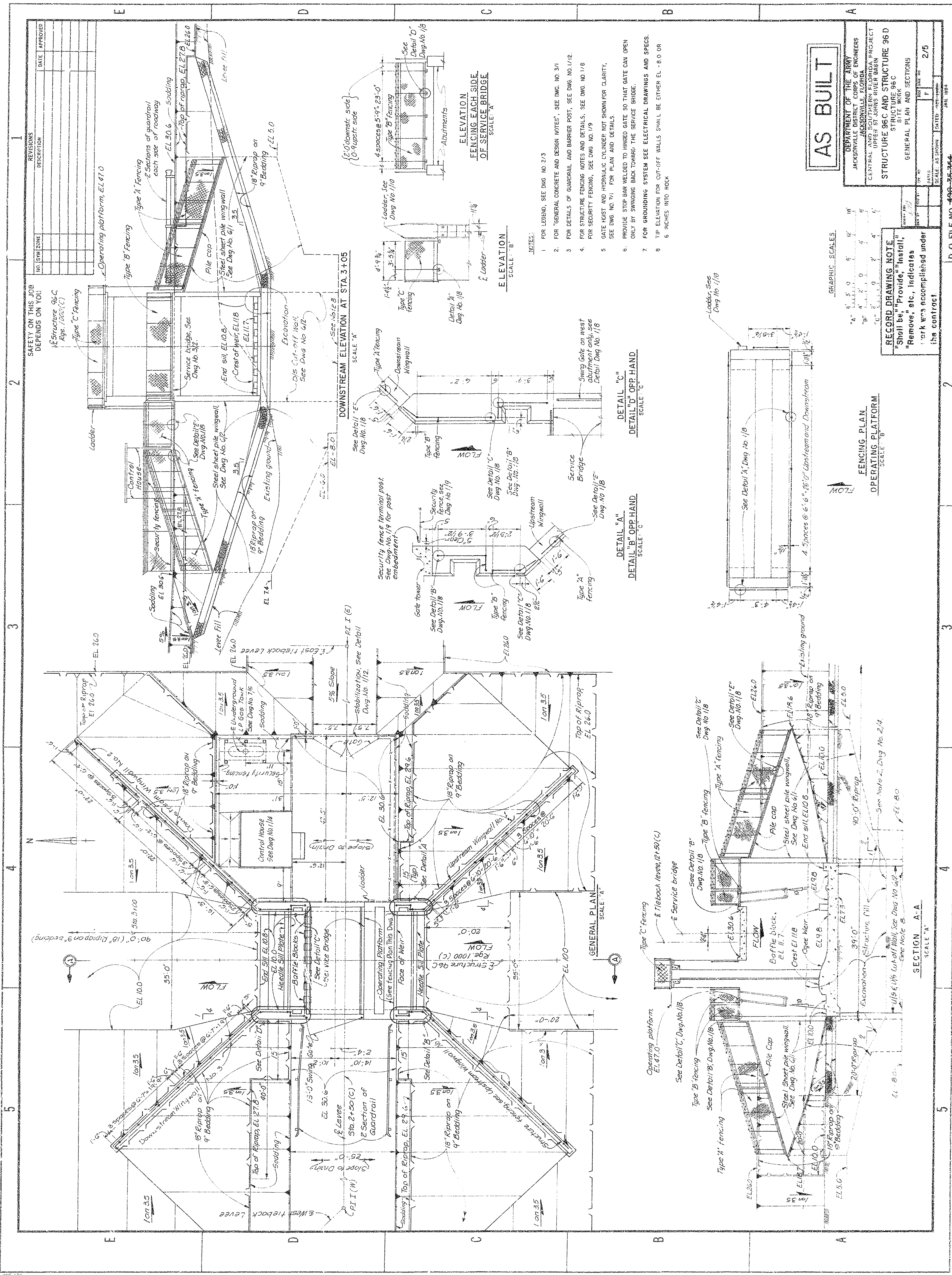
SCALE: "E"



SITE PLAN
SCALE: "A"

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96C AND STRUCTURE 96D
SITE WORK
SITE PLAN

DATE: 04-19-89
SCALE: AS SHOWN
D.W.G. NO. 2/3



NO.	SYMBOL	DESCRIPTION	DATE	APPROVED
1		Structure 96C, Ege. 1000 (C)		
2		Type 'C' Fencing		
3		Type 'B' Fencing		
4		Type 'A' Fencing		
5		Operating platform, EL 47.0		
6		Structure 96C, Ege. 1000 (C)		
7		Type 'C' Fencing		
8		Type 'B' Fencing		
9		Type 'A' Fencing		
10		Operating platform, EL 47.0		

SAFETY ON THIS JOB
DEPENDS ON YOU!

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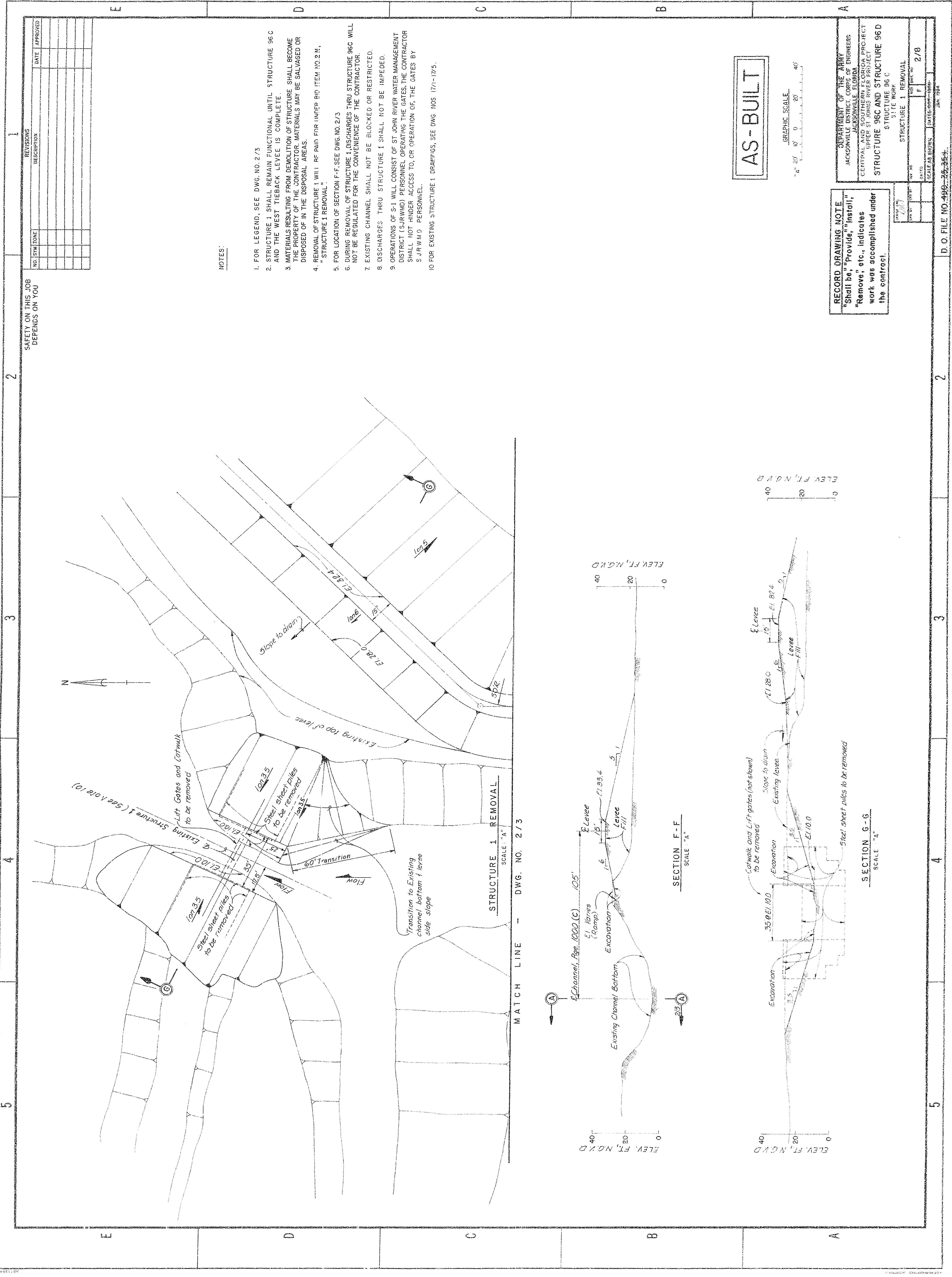
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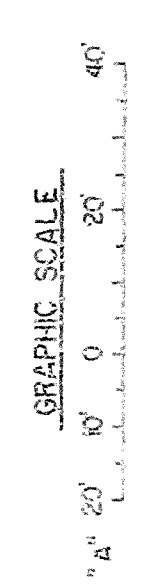


REVISIONS		DATE	APPROVED
NO.	SYM. ZONE	DESCRIPTION	

NOTES:

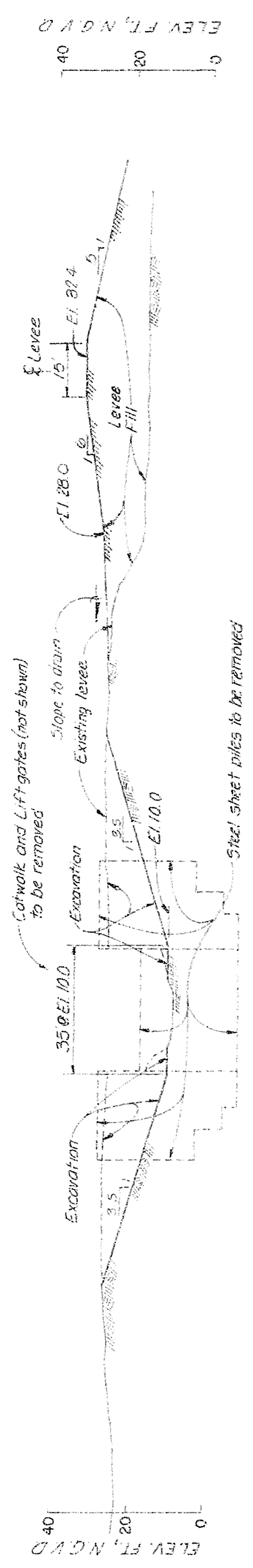
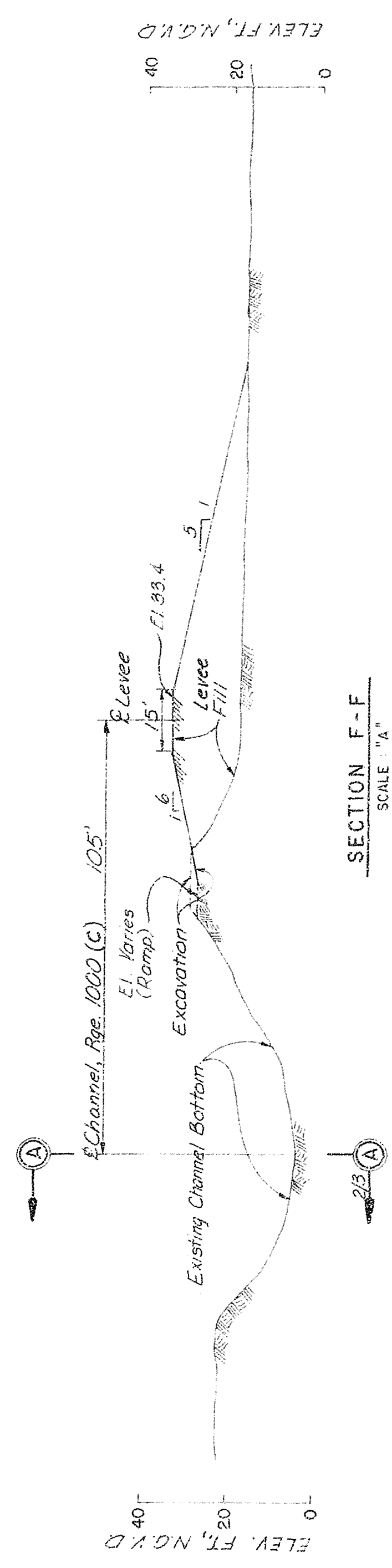
1. FOR LEGEND, SEE DWG. NO. 2/3
2. STRUCTURE 1 SHALL REMAIN FUNCTIONAL UNTIL STRUCTURE 96C AND THE WEST TIEBACK LEVEE IS COMPLETE.
3. MATERIALS RESULTING FROM DEMOLITION OF STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR. MATERIALS MAY BE SALVAGED OR DISPOSED OF IN THE DISPOSAL AREAS.
4. REMOVAL OF STRUCTURE 1 WILL BE PAID FOR UNDER BID ITEM NO. 2 N, "STRUCTURE 1 REMOVAL."
5. FOR LOCATION OF SECTION F-F, SEE DWG. NO. 2/3
6. DURING REMOVAL OF STRUCTURE 1, DISCHARGES THRU STRUCTURE 96C WILL NOT BE REGULATED FOR THE CONVENIENCE OF THE CONTRACTOR.
7. EXISTING CHANNEL SHALL NOT BE BLOCKED OR RESTRICTED.
8. DISCHARGES THRU STRUCTURE 1 SHALL NOT BE IMPEDED.
9. OPERATIONS OF S-1 WILL CONSIST OF ST. JOHN RIVER WATER MANAGEMENT DISTRICT (SJRWMD) PERSONNEL OPERATING THE GATES. THE CONTRACTOR SHALL NOT HINDER ACCESS TO, OR OPERATION OF, THE GATES BY SJRWMD PERSONNEL.
10. FOR EXISTING STRUCTURE 1 DRAWINGS, SEE DWG. NOS. 17/1-17/5.

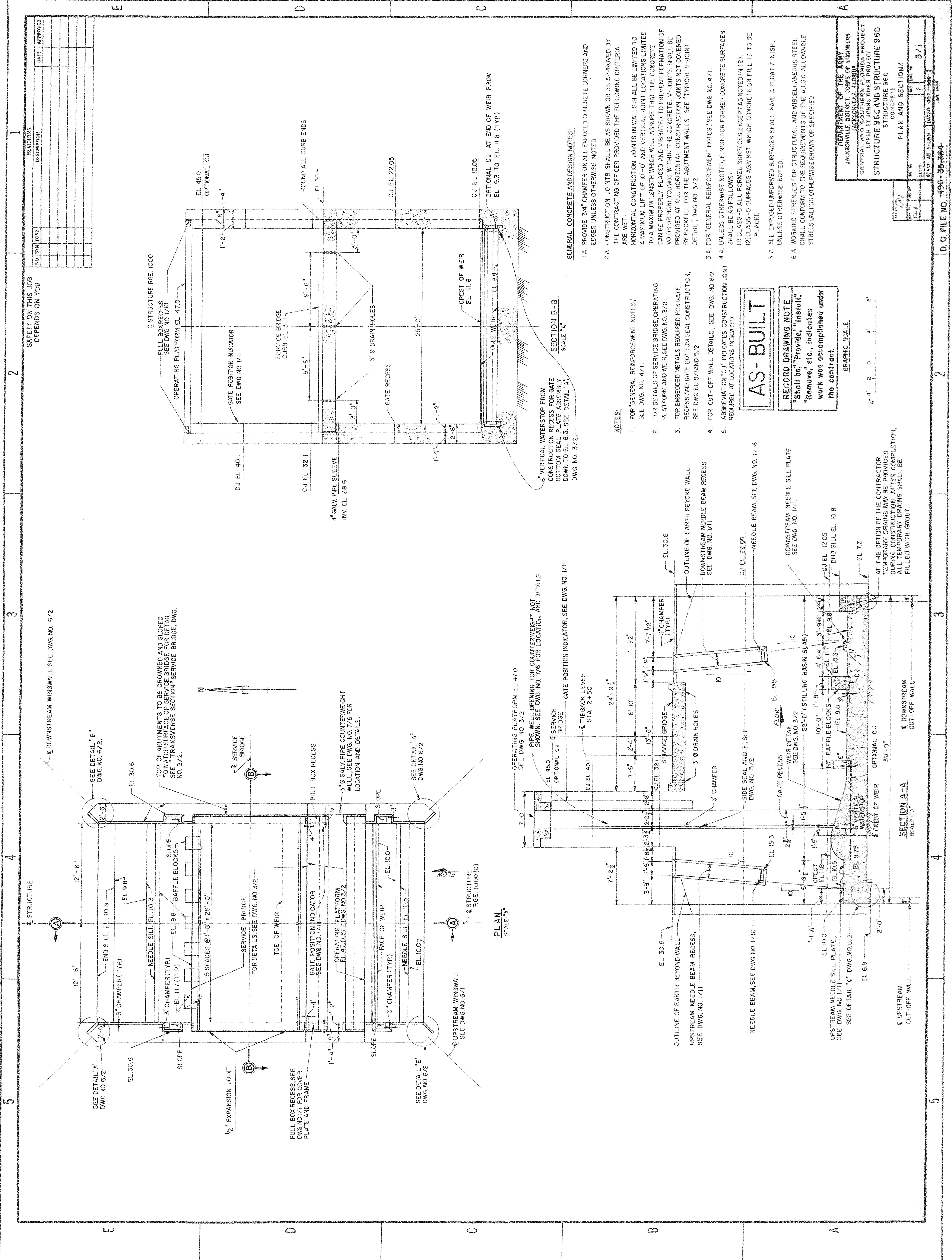
AS-BUILT



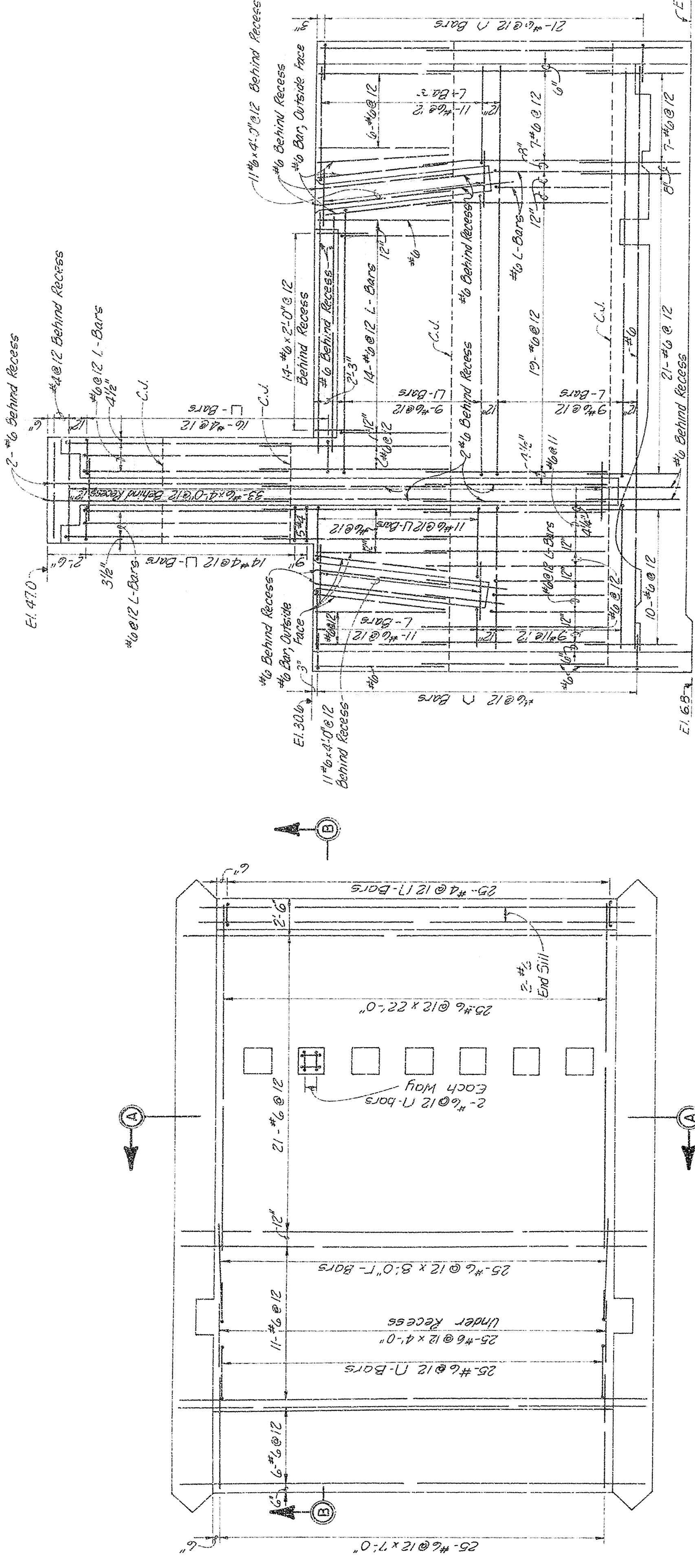
RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT CORPS OF ENGINEERS CENTRAL AND SOUTHERN FLORIDA PROJECT UPPER ST. JOHN RIVER PROJECT STRUCTURE 96C AND STRUCTURE 96D SITE WORK	
SCALE: AS SHOWN	DATE: 10-1-1984
NO. 21	DATE: 10-1-1984
NO. 22	DATE: 10-1-1984
NO. 23	DATE: 10-1-1984
NO. 24	DATE: 10-1-1984
NO. 25	DATE: 10-1-1984
NO. 26	DATE: 10-1-1984
NO. 27	DATE: 10-1-1984
NO. 28	DATE: 10-1-1984
NO. 29	DATE: 10-1-1984
NO. 30	DATE: 10-1-1984



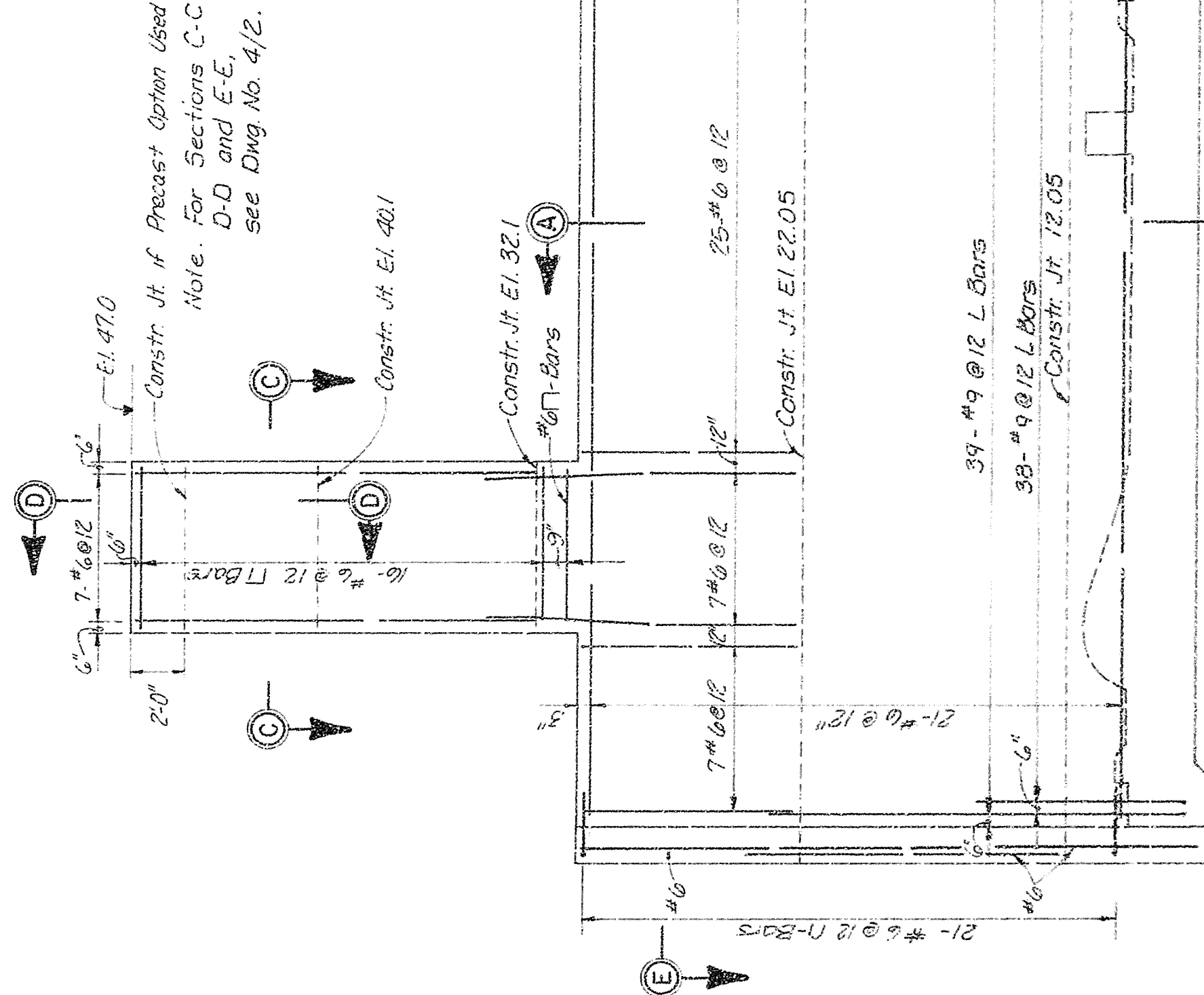


**SAFETY ON THIS JOB
DEPENDS ON YOU**

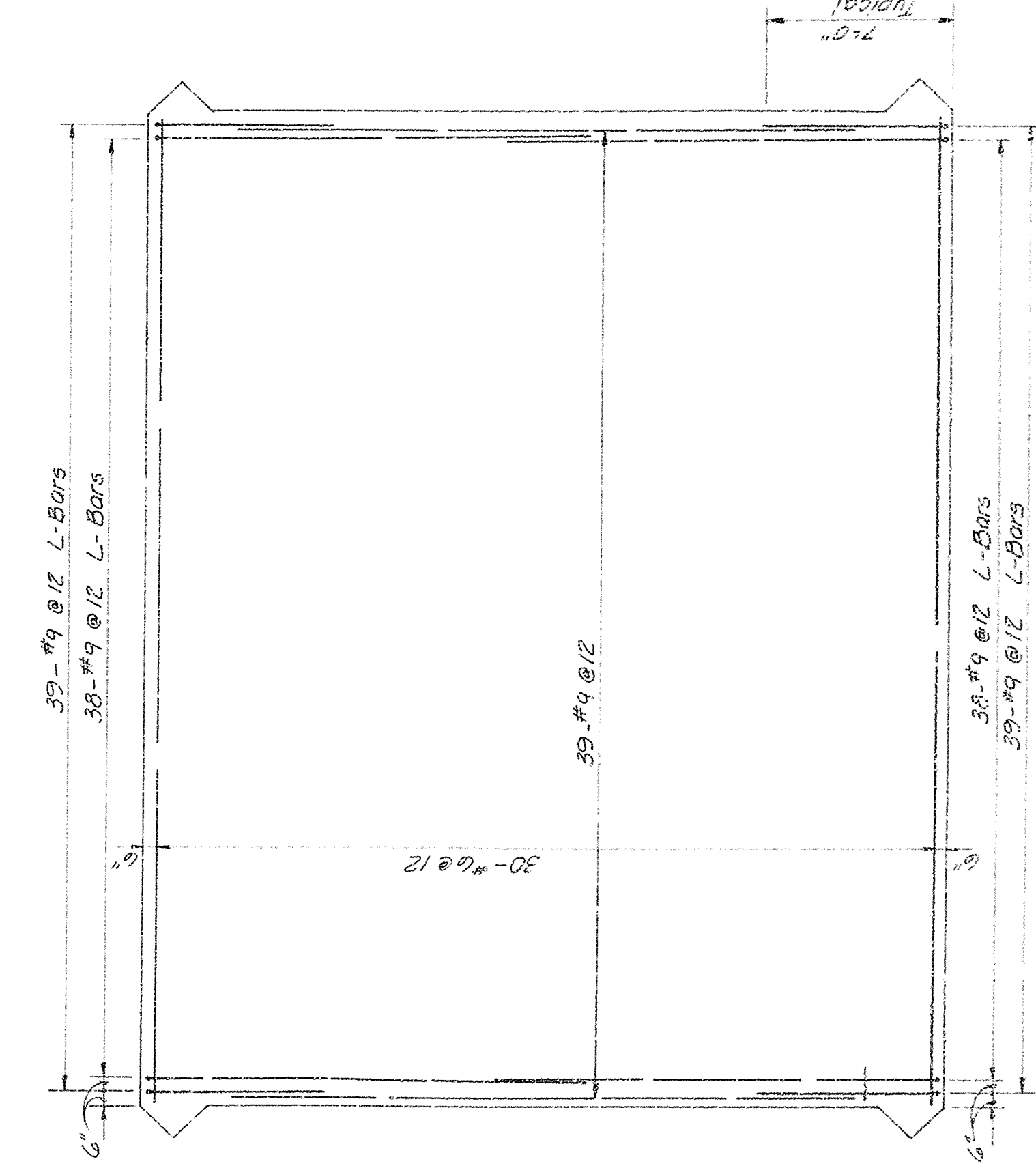


PLAN - BASE SLAB - TOP FACE

ABUTMENT ELEVATION - INSIDE FACE



ABUTMENT ELEVATION -- OUTSIDE FACE



PLAN - BASE SLAB - BOTTOM FACE

GENERAL REINFORCEMENT NOTES:

1. The clear distance between the face of the concrete and reinforcing bars shall be $2\frac{1}{2}''$ for formed surfaces and 4 where concrete is placed against earth or rack unless otherwise shown.
2. Unless otherwise shown, the length of lap and embedment shall be in accordance with table:

Bar Size	#3	#4	#5	#6	#7	#8	#9	#10	#11
Lapped Splice	1'0"	1'2"	1'6"	1'10"	2'1"	2'6"	3'3"	4'1"	5'0"
Embedment	0'6"	1'0"	1'0"	1'1"	1'6"	1'11"	2'5"	3'1"	3'10"

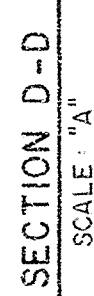
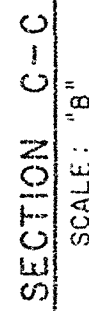
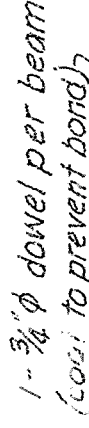
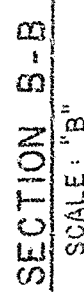
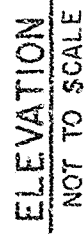
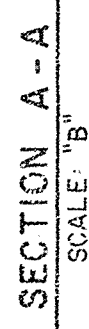
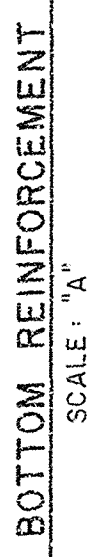
- A For different size bars, the splice length shall be based on the smaller bar.
- B Embedment means the amount of bar extension beyond the face of intersecting concrete members.

AS-BUILT

GRAPHIC SCALE

RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

DEPARTMENT OF THE ARMY	JACKSONVILLE DISTRICT CORPS OF ENGINEERS		JACKSONVILLE, FLORIDA	
CENTRAL AND SOUTHERN FLORIDA PROJECT				
UPPER ST JOHNS RIVER PROJECT				
STRUCTURE 96C AND STRUCTURE 96D				
ALIGNMENT				
DETAILS NO. 1				
DATE	1952	NO.	100	
SCALE	AS SHOWN	DATE	NOV 1952	BY
F		4 / 1		



SCALE: "A"

1. For location of Sections C-C, D-D and E-E, see Divg No. 4/1

2. For "General Reinforcement Notes",
see Dwg No. 4/1

RECORD DRAWING NOTE

"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

0-71000-218-6

[illegible]

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER DIVISION

STRUCTURE 96C AND STRUCTURE 96C
STRUCTURE 96C

REINFORCEMENT
DETAILS NO. 2

4/2

D. Q. FILE NO. 499-35-344-6

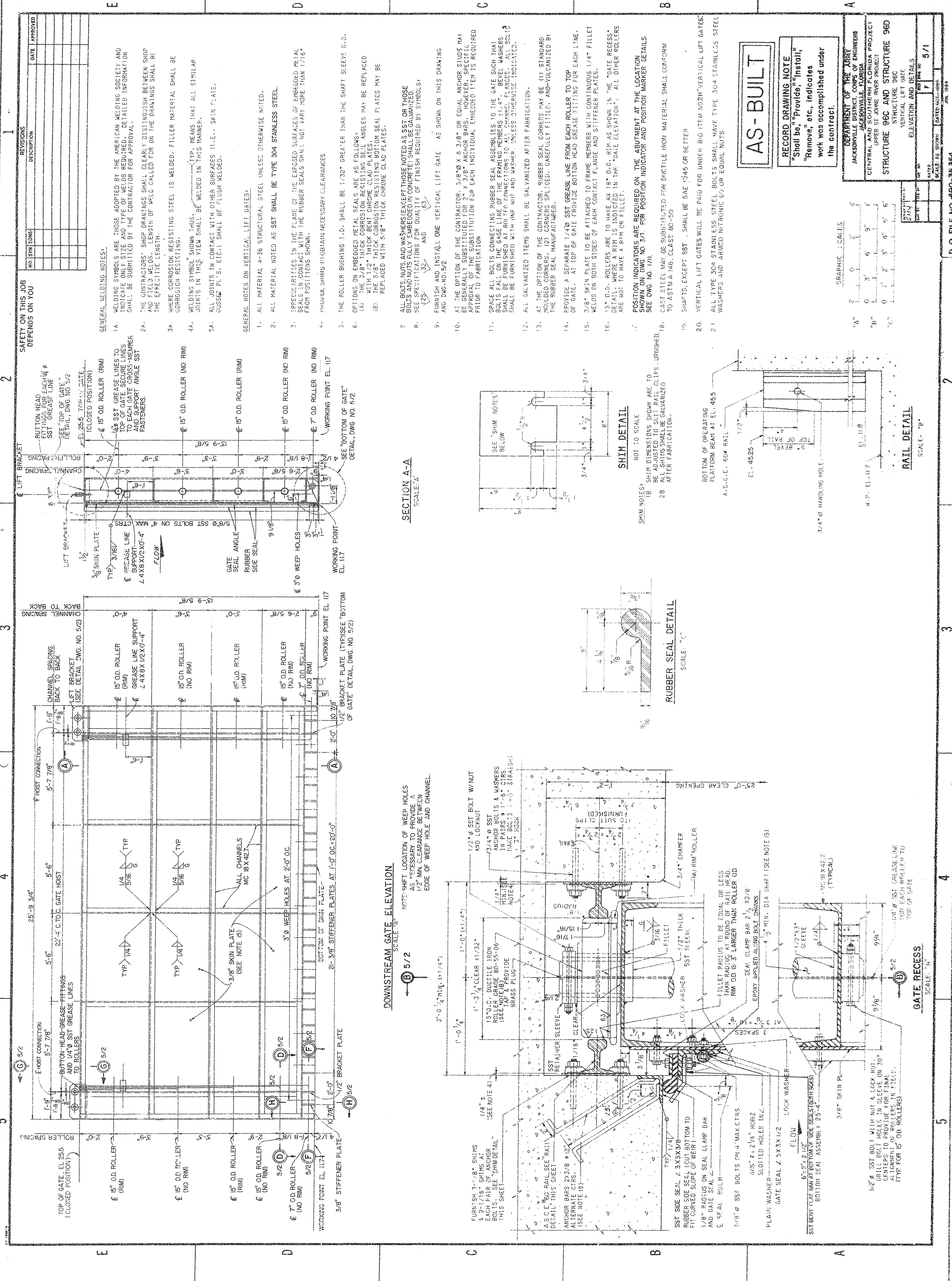
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1993). The following are the main findings of the study:



SECTION A-A
SCALE: 1/4" = 1'-0"

DOWNSTREAM GATE ELEVATION
SCALE: 1/4" = 1'-0"

NOTE: SHOWN LOCATION OF WEAP HOLES
AS NECESSARY TO PROVIDE A
1/2" MIN. CLEARANCE BETWEEN
EDGE OF WEAP HOLE AND CHANNEL.

SHIM DETAIL
NOT TO SCALE

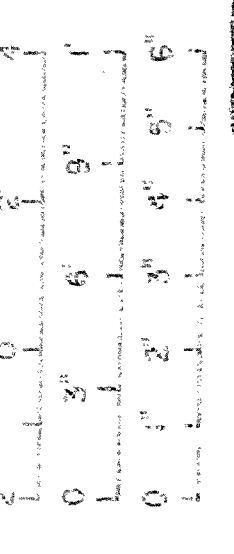
SHIM NOTES:
1. SHIM DIMENSIONS SHOWN ARE TO
BE ADJUSTED TO SUIT RAIL CLIPS. UNFINISHED
2. ALL SHIMS SHALL BE GALVANIZED
AFTER FABRICATION.

RUBBER SEAL DETAIL
SCALE: 1/4" = 1'-0"

AS-BUILT

RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

GRAPHIC SCALES



RAIL DETAIL
SCALE: 1/4" = 1'-0"

GATE RECESS
SCALE: 1/4" = 1'-0"

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
CENTRAL AND SOUTHERN FLORIDA
UPPER ST. JOHN'S RIVER PROJECT
STRUCTURE 96C AND STRUCTURE 96D
STRUCTURE 96C
VERTICAL LIFT GATE
ELEVATION AND DETAILS
DRAWING NO. 490-36.591
DATE 10/1/54
SCALE AS SHOWN
GATED SECTION
5/1

NO.	DATE	REVISIONS
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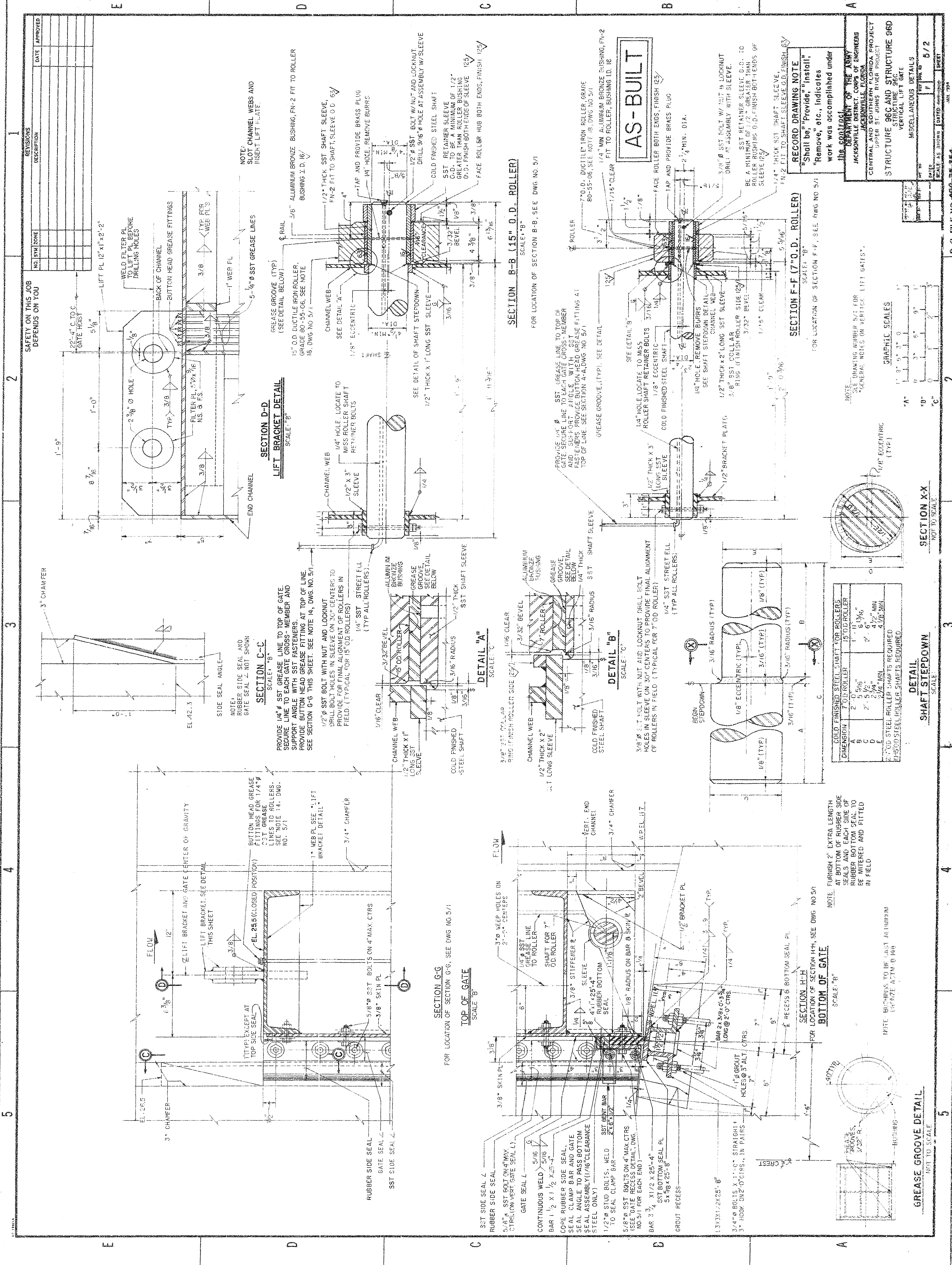
GENERAL WELDING NOTES:

1. WELDING SYMBOLS ARE THOSE ADOPTED BY THE AMERICAN WELDING SOCIETY AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAILED INFORMATION SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL.
2. THE CONTRACTORS' SHOP DRAWINGS SHALL CLEARLY DISTINGUISH BETWEEN SHOP AND FIELD WELDS. LENGTH OF WELD CALLED FOR ON THE DRAWINGS SHALL BE THE EFFECTIVE LENGTH.
3. WHERE CORROSION RESISTING STEEL IS WELDED, FILLER MATERIAL SHALL BE CORROSION RESISTING.
4. WELDING SYMBOL SHOWN THUS: TYP. MEANS THAT ALL SIMILAR JOINTS IN THIS VIEW SHALL BE WELDED IN THIS MANNER.
5. ALL JOINTS IN CONTACT WITH OTHER SURFACES (I.E., SKIN PLATE, GUSSET PLATE, ETC.) SHALL BE FLUSH WELDED.

GENERAL NOTES ON VERTICAL LIFT GATES:

1. ALL MATERIAL A-36 STRUCTURAL STEEL UNLESS OTHERWISE NOTED.
2. ALL MATERIAL NOTED AS SST SHALL BE TYPE 304 STAINLESS STEEL.
3. IRREGULARITIES IN THE PLANE OF THE EXPOSED SURFACES OF EMBEDDED METAL SEALS IN CONTACT WITH THE RUBBER SEALS SHALL NOT VARY MORE THAN 1/16" FROM POSITIONS SHOWN.
4. PROVIDE SHIMS TO OBTAIN NECESSARY CLEARANCES.
5. THE ROLLER BUSHING I.D. SHALL BE 1/32" GREATER THAN THE SHAFT SLEEVE O.D.
6. OPTIONS ON EMBEDDED METAL SEALS ARE AS FOLLOWS:
(A) THE 3/8" THICK CORROSION RESISTING SEAL ANGLES MAY BE REPLACED WITH 1/2" THICK BENT CHROME CLAD PLATES.
(B) THE 5/8" THICK CORROSION RESISTING BOTTOM SEAL PLATES MAY BE REPLACED WITH 5/8" THICK CHROME CLAD PLATES.

7. ALL BOLTS AND NUTS (EXCEPT THOSE NOTED AS SST OR THOSE BOLTS AND NUTS FULLY EMBEDDED IN CONCRETE) SHALL BE GALVANIZED.
8. SEE SPECIFICATIONS FOR QUALITY OF FINISH REQUIRED BY SYMBOLS: AND .
9. FURNISH AND INSTALL ONE VERTICAL LIFT GATE AS SHOWN ON THIS DRAWING AND DWG. NO. 5/2.
10. AT THE OPTION OF THE CONTRACTOR, 5/8" O.D. X 6 3/8" OR EQUAL ANCHOR STUDS MAY BE GENERALLY SUBSTITUTED FOR 2" X 3/8" ANCHOR BARS. HOWEVER, SPECIFIC APPROVAL FOR THE SUBSTITUTION FOR EACH INDIVIDUAL EMBEDDED ITEM IS REQUIRED PRIOR TO FABRICATION.
11. SPACE ALL BOLTS CONNECTING RUBBER SEAL ASSEMBLIES TO THE GATE SUCH THAT BOLTS FALL ON THE GAGE LINE OF THE FRAMING MEMBERS 1/4" BEVEL HASHES SHALL BE FURNISHED AT BOLT CONNECTIONS TO ALL CHANNEL FLANGES. ALL BOLTS SHALL BE FURNISHED WITH ONE NUT AND WASHER, UNLESS OTHERWISE INDICATED.
12. ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
13. AT THE OPTION OF THE CONTRACTOR, RUBBER SEAL CORNERS MAY BE (1) STANDARD ROUNDED CORNERS, (2) CORNERS SPLICED, CAREFULLY FITTED, AND GALVANIZED BY THE RUBBER SEAL MANUFACTURER.
14. PROVIDE A SEPARATE 1/4" SST GREASE LINE FROM EACH ROLLER TO TOP OF GATE. AT TOP OF GATE PROVIDE BOTTOM HEAD GREASE FITTING FOR EACH LINE.
15. 3/8" SKIN PLATE TO BE ATTACHED TO FRAME MEMBERS WITH CONTINUOUS 1/4" FILLET WELDS ON BOTH SIDES OF EACH CONTACT FLANGE AND STIFFENER PLATES.
16. 1 1/2" O.D. ROLLERS ARE TO HAVE AN 18" O.D. RIM AS SHOWN IN THE "GATE RECESS" DETAIL. WHERE A RIM IS INDICATED IN THE "GATE ELEVATION", ALL OTHER ROLLERS ARE TO HAVE A RIM OR FILLET.
17. POSITION INDICATORS ARE REQUIRED ON THE ABUTMENT AT THE LOCATION SHOWN IN DWG. NO. 3/1. FOR POSITION INDICATOR AND POSITION MARKER DETAILS. SEE DWG. NO. 1/11.
18. CAST STEEL MAY BE SUBSTITUTED FOR DUCTILE IRON MATERIAL SHALL CONFORM TO ASTM A 148, CLASS 80-50.
19. SHAFTS, EXCEPT SST, SHALL BE SAE 1045 OR BETTER.
20. VERTICAL LIFT GATES WILL BE PAID FOR UNDER BID ITEM 802H "VERTICAL LIFT GATES".
21. ALL TYPE 304 STAINLESS STEEL BOLTS SHALL HAVE TYPE 304 STAINLESS STEEL WASHERS AND ARMCO NITRONIC 67 OR EQUAL NUTS.



REVISIONS		DATE	APPROVED
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JACKSONVILLE DISTRICT CORPS OF ENGINEERS	
CENTRAL AND SOUTHERN FLORIDA PROJECT	
UPPER ST. JOHNS RIVER PROJECT	
STRUCTURE 96C AND STRUCTURE 96D	
VERTICAL LIFT GATE	
MISCELLANEOUS DETAILS	
DATE	5/2
BY	
CHECKED	
DESIGNED	
UNIT	724

GRAPHIC SCALES	
1" = 3' 0"	0 3' 6' 9'
1" = 6' 0"	0 6' 12' 18'
1" = 12' 0"	0 12' 24' 36'

COLD FINISHED STEEL SHAFT FOR ROLLERS	
DIMENSION	7" O.D. ROLLER
A	2" 0" 5/8"
B	2" 0" 5/8"
C	2" 0" 5/8"
D	2" 0" 5/8"
E	2" 0" 5/8"

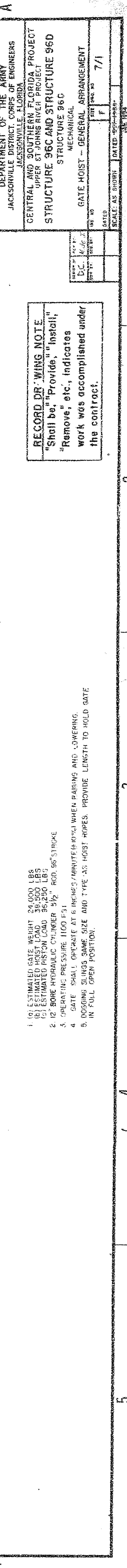
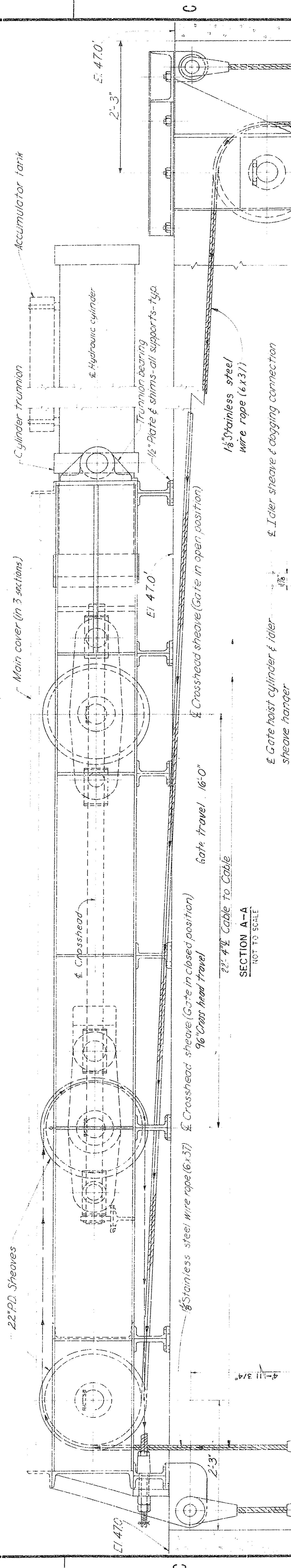
DETAIL SHAFT STEPDOWN	
DIMENSION	7" O.D. ROLLER
A	2" 0" 5/8"
B	2" 0" 5/8"
C	2" 0" 5/8"
D	2" 0" 5/8"
E	2" 0" 5/8"

DETAIL GREASE GROOVE	
DIMENSION	7" O.D. ROLLER
A	2" 0" 5/8"
B	2" 0" 5/8"
C	2" 0" 5/8"
D	2" 0" 5/8"
E	2" 0" 5/8"

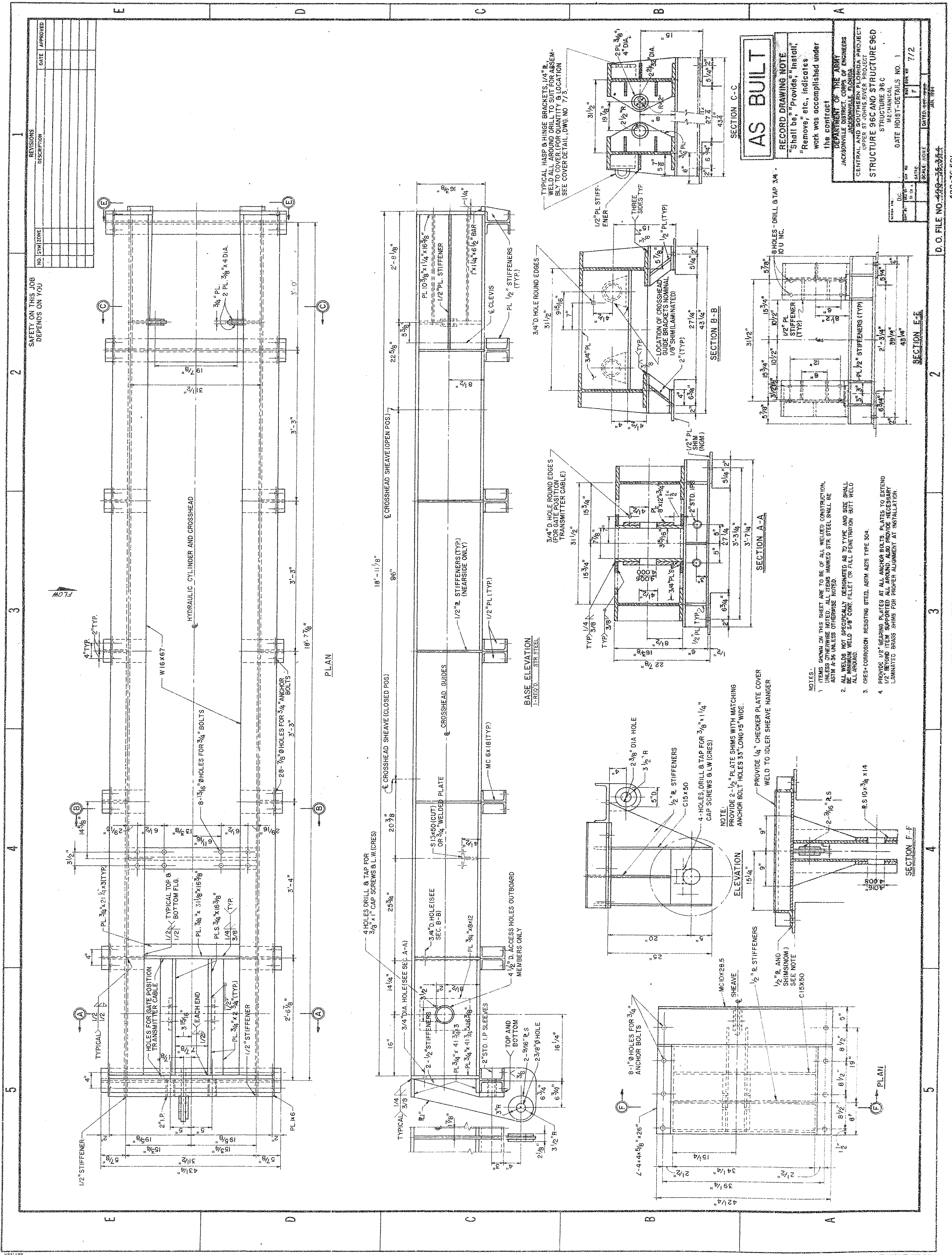
DETAIL ASSEMBLY	
DIMENSION	7" O.D. ROLLER
A	2" 0" 5/8"
B	2" 0" 5/8"
C	2" 0" 5/8"
D	2" 0" 5/8"
E	2" 0" 5/8"

DETAIL ROLLER	
DIMENSION	7" O.D. ROLLER
A	2" 0" 5/8"
B	2" 0" 5/8"
C	2" 0" 5/8"
D	2" 0" 5/8"
E	2" 0" 5/8"

Note: Guide position transmitter not shown.
Locate on hoist base as shown on
Dwg. No. 716.



3. (c) ESTIMATED GATE WEIGHT 30,000 LBS
- (d) ESTIMATED HOIST LOAD 30,512 LBS
4. (a) SOPE HYDRAULIC CYLINDER 57" HOI, 56" STROKE
- (b) OPERATING PRESSURE 1100 P.S.I.
5. (a) GATE SHALL OPERATE AT 6 INCHES / MINUTE (60%) WHEN RAISING AND LOWERING
- (b) DOORING 30 INCHS. SAME SIZE AND TYPE AS HOIST HOSES. PROVIDE LENGTH TO HOLD GATE IN FULL OPEN POSITION.



NO.	DATE	APPROVED
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SAFETY ON THIS JOB
DEPENDS ON YOU

REVISIONS
DESCRIPTION

NO. DATE

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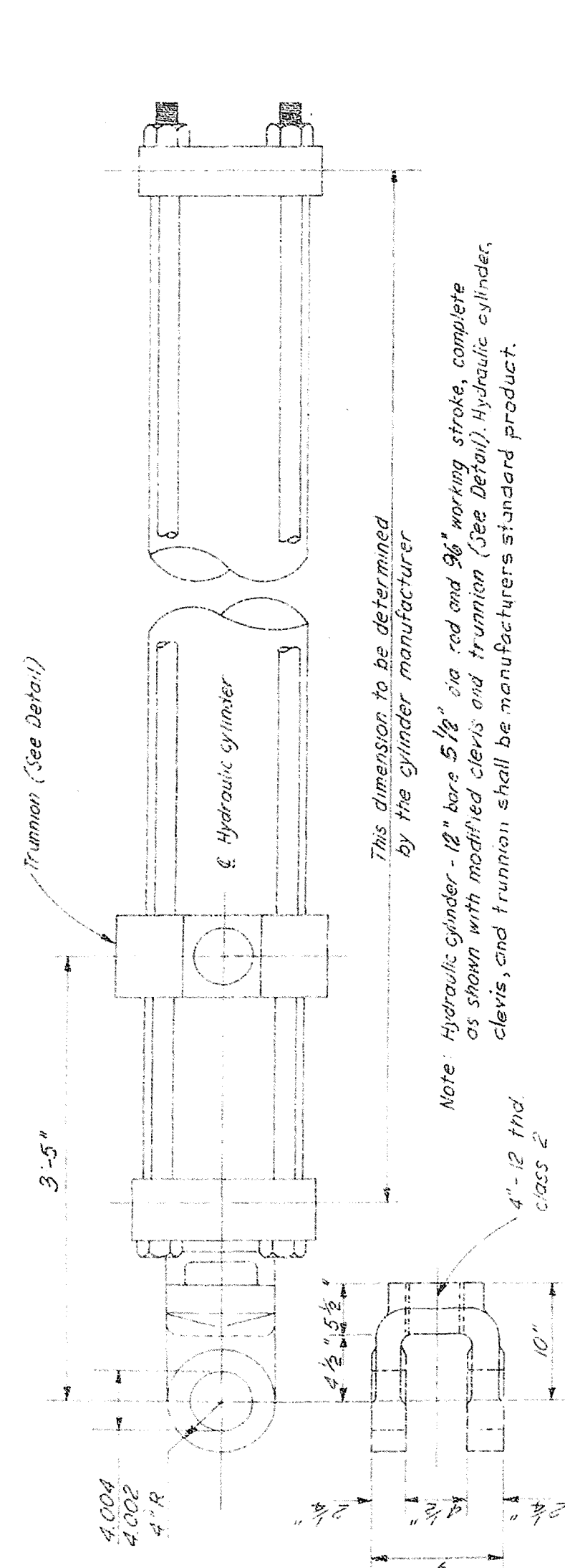
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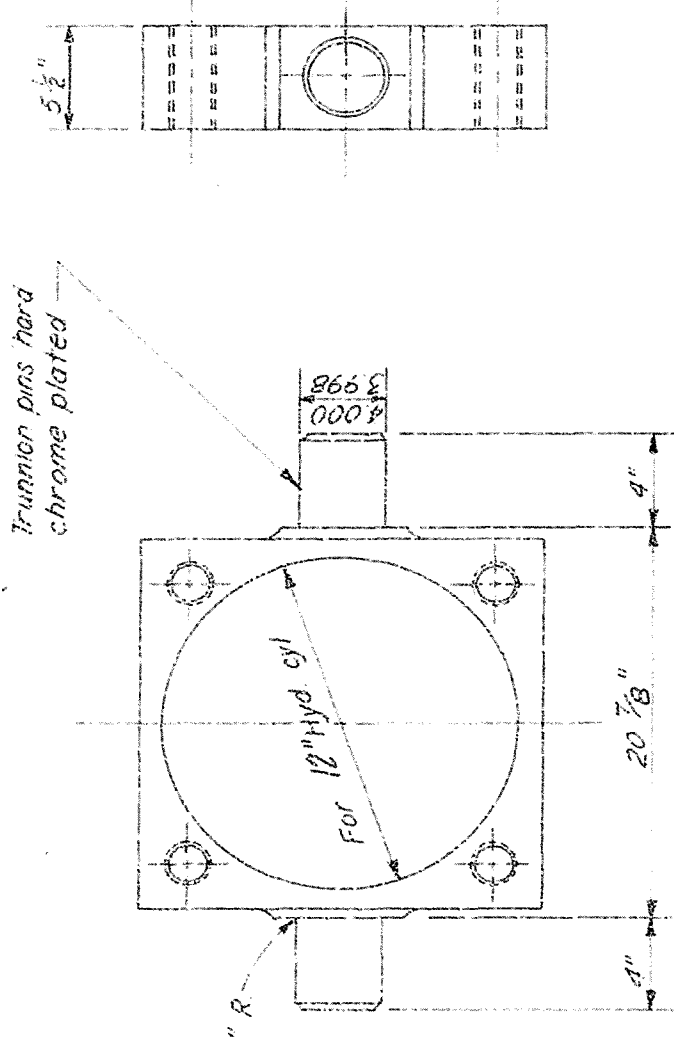
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**SAFETY ON THIS JOB
DEPENDS ON YOU**



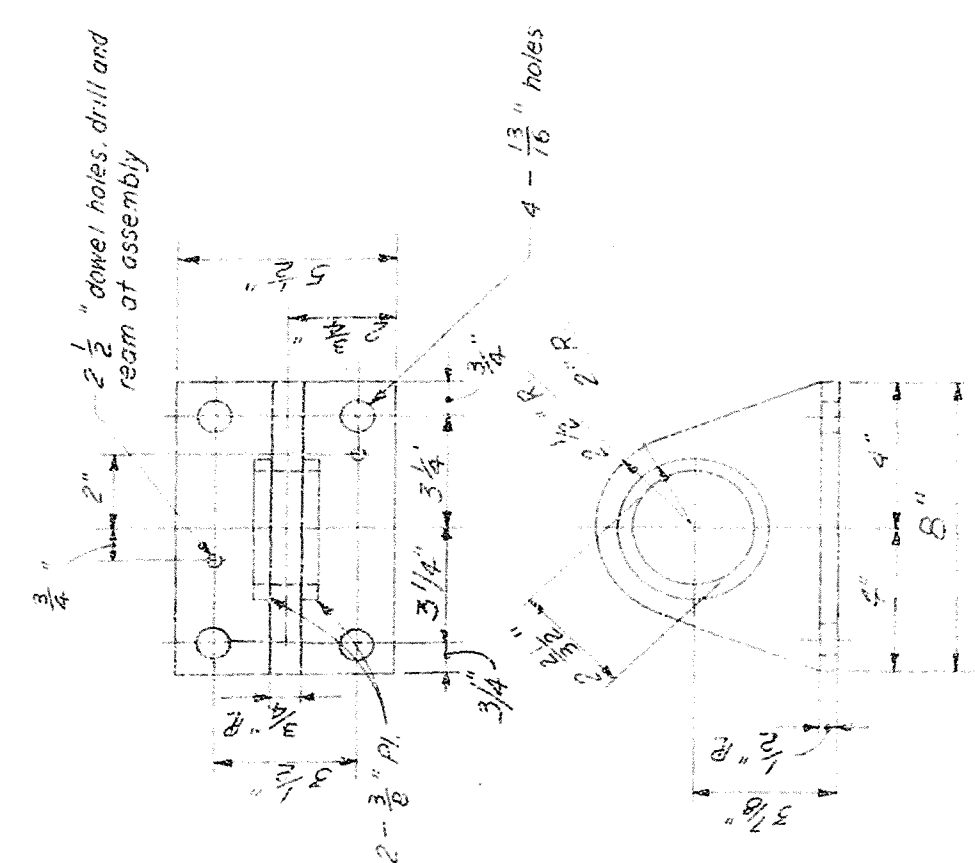
HYDRAULIC CYLINDER

MARK	I REQUIRED	MFRS. STANDARDS
		NOT TO SCALE



HYDRAULIC CYLINDER TRUNNION

MARK I REQUIRED STR. STEEL
NOT TO SCALE

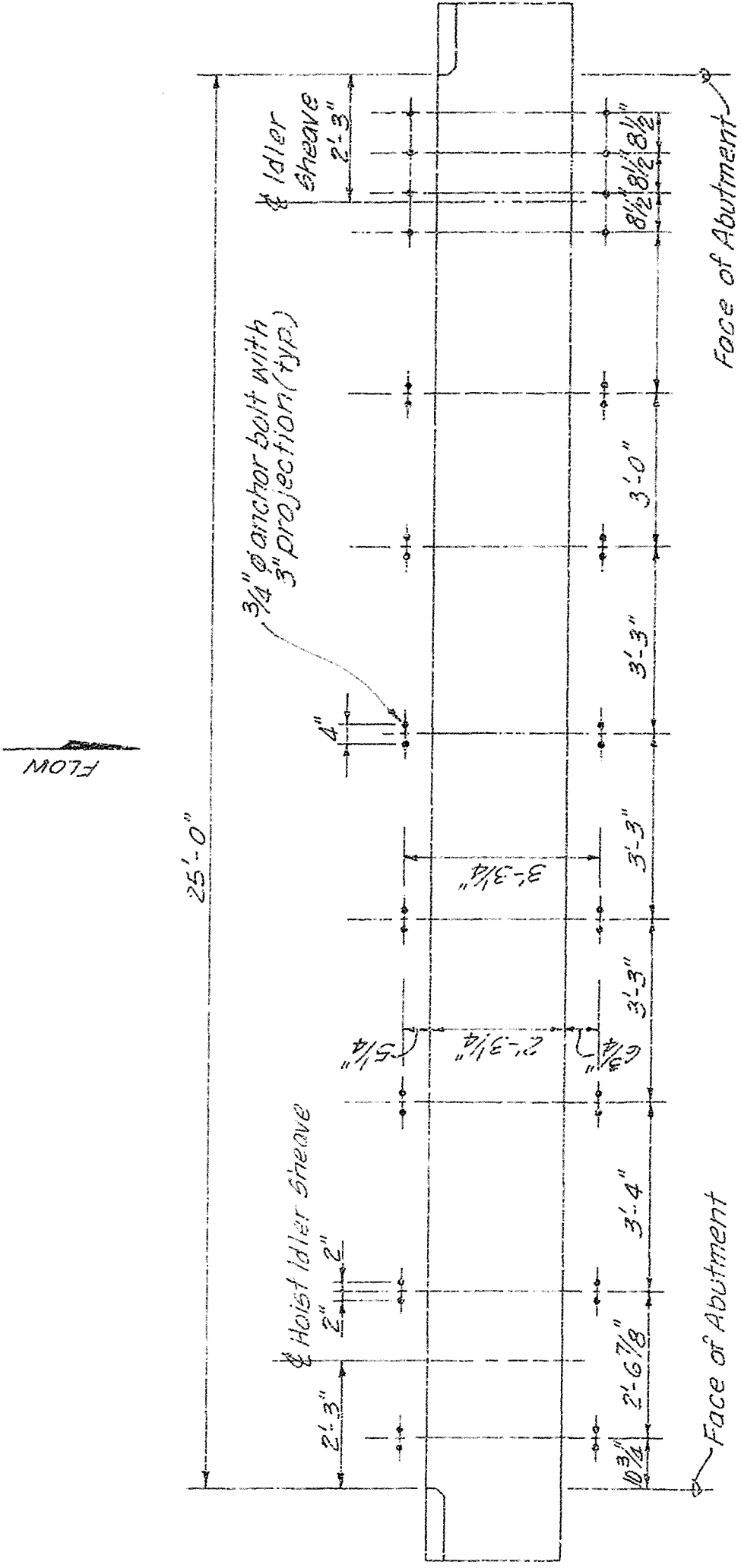


CROSSHEAD GUIDE BRACKET

MARK	2 REQUIRED	STR. STEEL
	NOT TO SCALE	

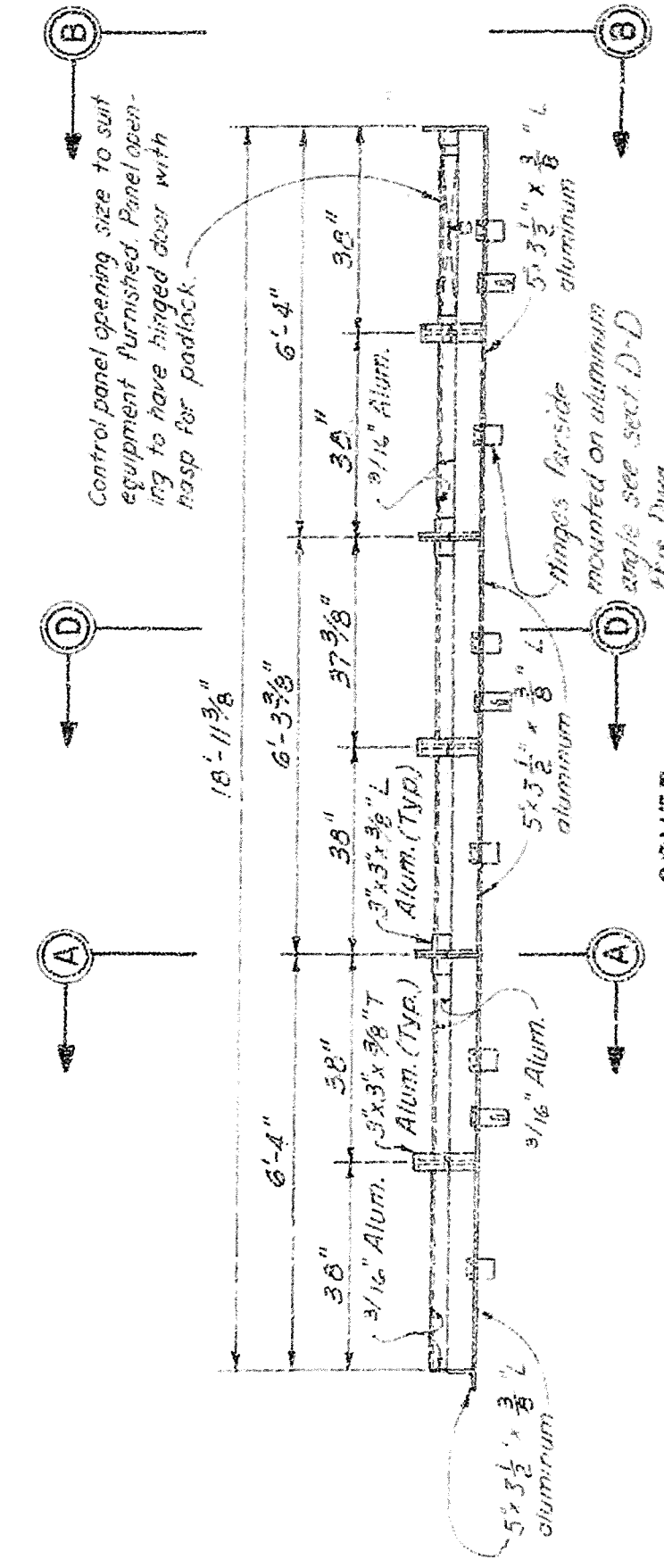
NOTES :

- 2 The galvanized fittings for the interconnecting links shall be equal in strength to the $\frac{1}{8}$ (6x 37 Wire Ropes (5, 5))



ANCHOR BOLT SETTING

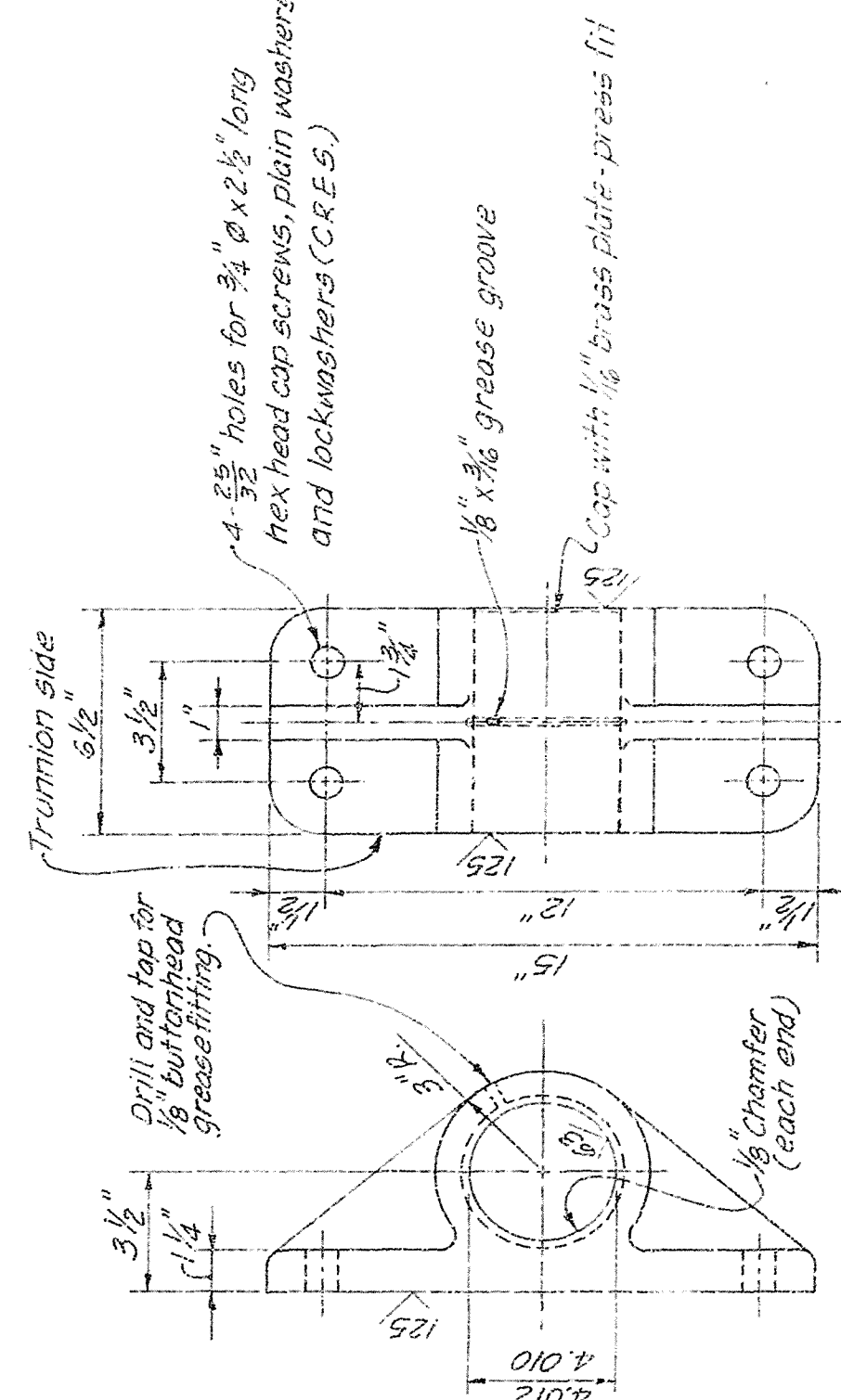
SCALE: "A"



2019

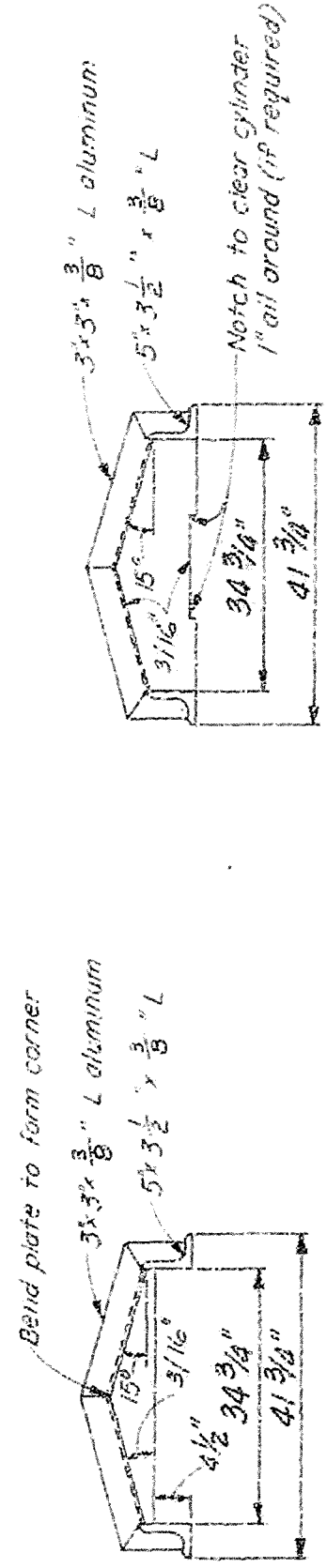
(REQUIRED (3 SECTIONS) ALUMINUM
SCALE : "A"

Note: Cover, three (3) sections to be all welded construction unless otherwise noted. Each section to have 2 extra heavy stainless steel hangers and 1 extra heavy stainless steel nut required to cover with stainless steel fasteners. The stainless steel hanger shall be a 5/8" Type 316LH #451H HANGING TO or approved equal. Cover to be installed on base with stainless steel fasteners, unless fastener threads differ in which case

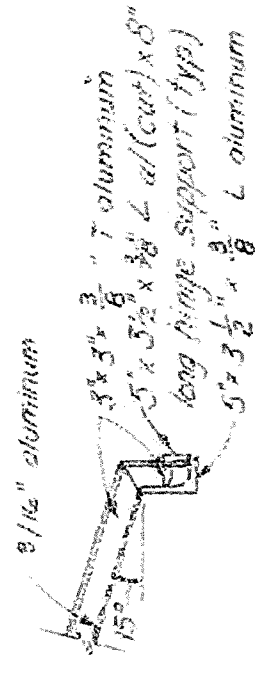


TRUNNION BEARING

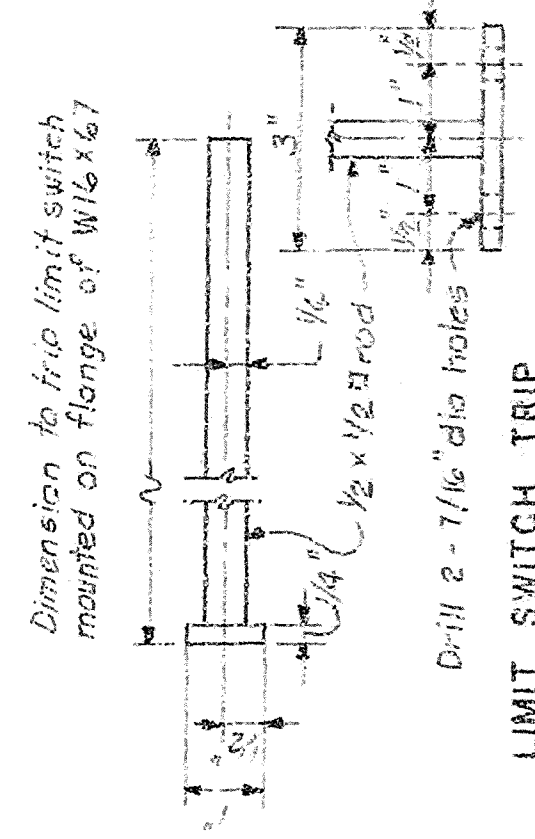
MARK	2 REQUIRED SCALE: "B"	DUCTILE IRON OR CAST STEEL
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SECTION A - A



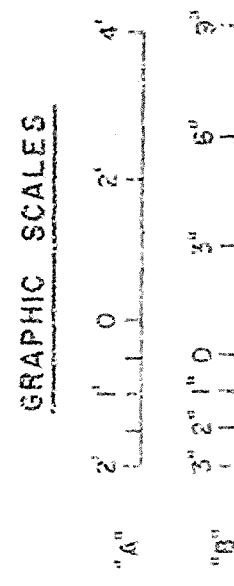
SECTION D-D



LIMIT SWITCH TRIP
MARK 1-REQ'D 1/2" x 1/2" 50.

NOT TO SCALE

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install,"
 "Remove," etc., indicates
 work was accomplished under
 the contract.



AS-BUILT

JACKSONVILLE DISTRICT CARDS OF ENGINEERS
JACKSONVILLE, FLORIDA

CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JONAS RIVER BASIN

STRUCTURE 96C
STRUCTURE 96D
STRUCTURE 96E

MICROFILMED

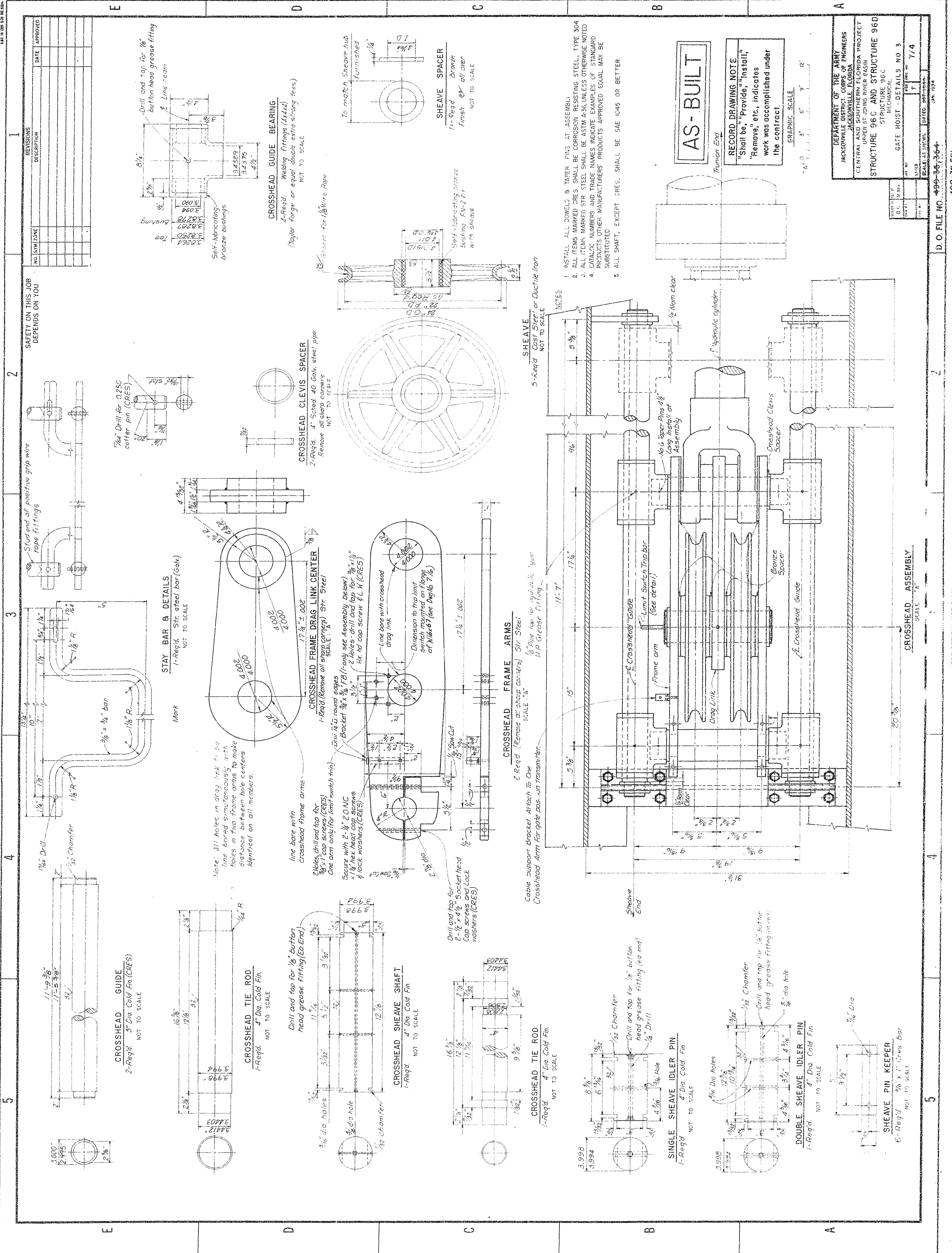
GATE HOIST - DETAILS NO 2

DATE 08-17-73

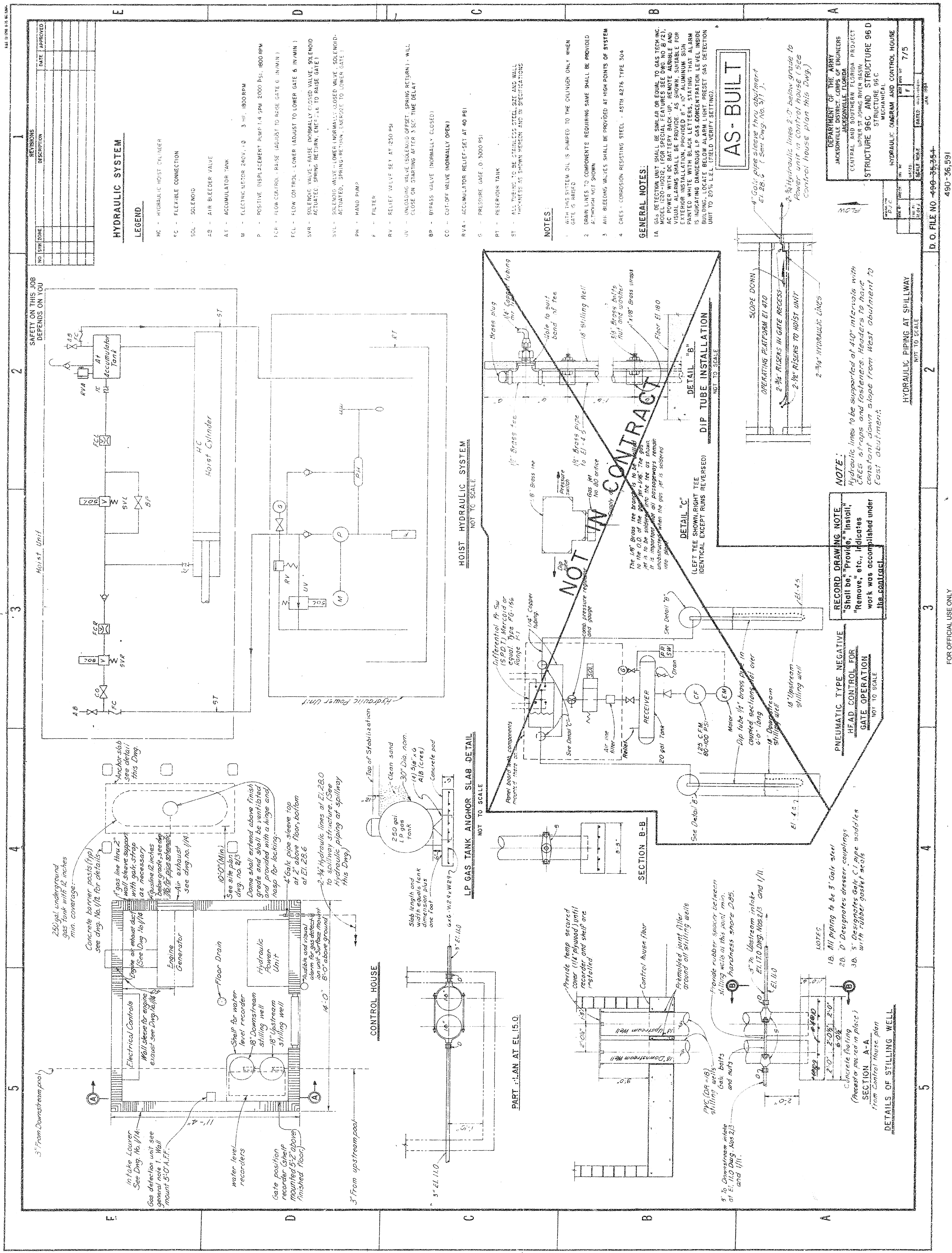
FILED IN 107-20

DATE AS SHOWN 1943 DEC 29-1944

F 713



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
JACKSONVILLE FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96C AND STRUCTURE 96D
MECHANICAL
GATE HOIST - DETAILS NO. 3
SCALE: AS SHOWN
DATE: SEP-1950
DRAWN BY: J. H. B. JR.
CHECKED BY: J. H. B. JR.
APPROVED BY: J. H. B. JR.
D.O. FILE NO. 490-35-354
490-35-591



HYDRAULIC SYSTEM

LEGEND

- HC - HYDRAULIC HOIST CYLINDER
- FC - FLEXIBLE CONNECTION
- SOL - SOLENOID
- AB - AIR BLEEDER VALVE
- AT - ACCUMULATOR TANK
- M - ELECTRIC MOTOR 240V, 10 3 HP, 1800 RPM
- P - POSITIVE DISPLACEMENT PUMP 1.4 GPM, 2000 PSI, 1800 RPM
- FCV - FLOW CONTROL - RAISE (ADJUST TO RAISE GATE 6 IN/MIN)
- FCV - FLOW CONTROL - LOWER (ADJUST TO LOWER GATE 6 IN/MIN)
- SVR - SOLENOID VALVE - RAISE (NORMALLY CLOSED VALVE, SOLENOID ACTUATED, SPRING RETURN, ENERGIZE TO RAISE GATE)
- SVL - SOLENOID VALVE - LOWER (NORMALLY CLOSED VALVE, SOLENOID ACTUATED, SPRING RETURN, ENERGIZE TO LOWER GATE)
- PH - HAND PUMP
- F - FILTER
- RV - RELIEF VALVE SET AT 250 PSI
- UV - UNLOADING VALVE (SOLENOID OFFSET, SPRING RETURN) - WILL CLOSE ON STARTING AFTER 3 SEC TIME DELAY
- BP - BYPASS VALVE (NORMALLY CLOSED)
- CO - CUT-OFF VALVE (NORMALLY OPEN)
- RVA - ACCUMULATOR RELIEF SET AT 40 PSI
- S - PRESSURE GAGE 0-3000 PSI
- PT - RESERVOIR TANK
- ST - ALL TUBING TO BE STAINLESS STEEL, SIZE AND WALL THICKNESS AS SHOWN HEREON, AND IN SPECIFICATIONS

NOTES

- WITH THIS SYSTEM OIL IS PUMPED TO THE CYLINDER ONLY WHEN GATE IS RAISED
- GRAN LINES TO COMPONENTS REQUIRING SAME SHALL BE PROVIDED ALTHOUGH NOT SHOWN
- AIR BLEEDING VALVES SHALL BE PROVIDED AT HIGH POINTS OF SYSTEM
- CHES - CORROSION RESISTING STEEL - ASTM A276 TYPE 304

GENERAL NOTES

1. GAS DETECTION UNIT SHALL BE SIMILAR OR EQUAL TO GAS TECH, INC. MODEL NO. 1000, FOR DETECTION OF LEAKS IN GAS LINES. THE UNIT SHALL BE INSTALLED IN THE CONTROL HOUSE AND SHALL BE CONNECTED TO THE HYDRAULIC SYSTEM. THE UNIT SHALL BE INSTALLED IN THE CONTROL HOUSE AND SHALL BE CONNECTED TO THE HYDRAULIC SYSTEM. THE UNIT SHALL BE INSTALLED IN THE CONTROL HOUSE AND SHALL BE CONNECTED TO THE HYDRAULIC SYSTEM.

AS-BUILT

4" Galv. pipe sleeve thru abutment
El. 28.6 (See Dwg. No. 3/1)

2" Hydraulic lines 2'-0" below grade to
Power unit in Control House (See
Control House plan this Dwg.)

DEPARTMENT OF THE ARMY	
JACKSONVILLE DISTRICT CORPS OF ENGINEERS	
CENTRAL AND SOUTHERN FLORIDA PROJECT	
UPPER ST. JOHNS RIVER BASIN	
STRUCTURE 96C AND STRUCTURE 96D	
MECHANICAL	
HYDRAULIC DIAGRAM AND CONTROL HOUSE	
DATE	7/75
BY	
CHECKED	
APPROVED	

D.O. FILE NO. 490-36,594
490-36,591

RECORD DRAWING NOTE:
"Shall be" "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
this contract.

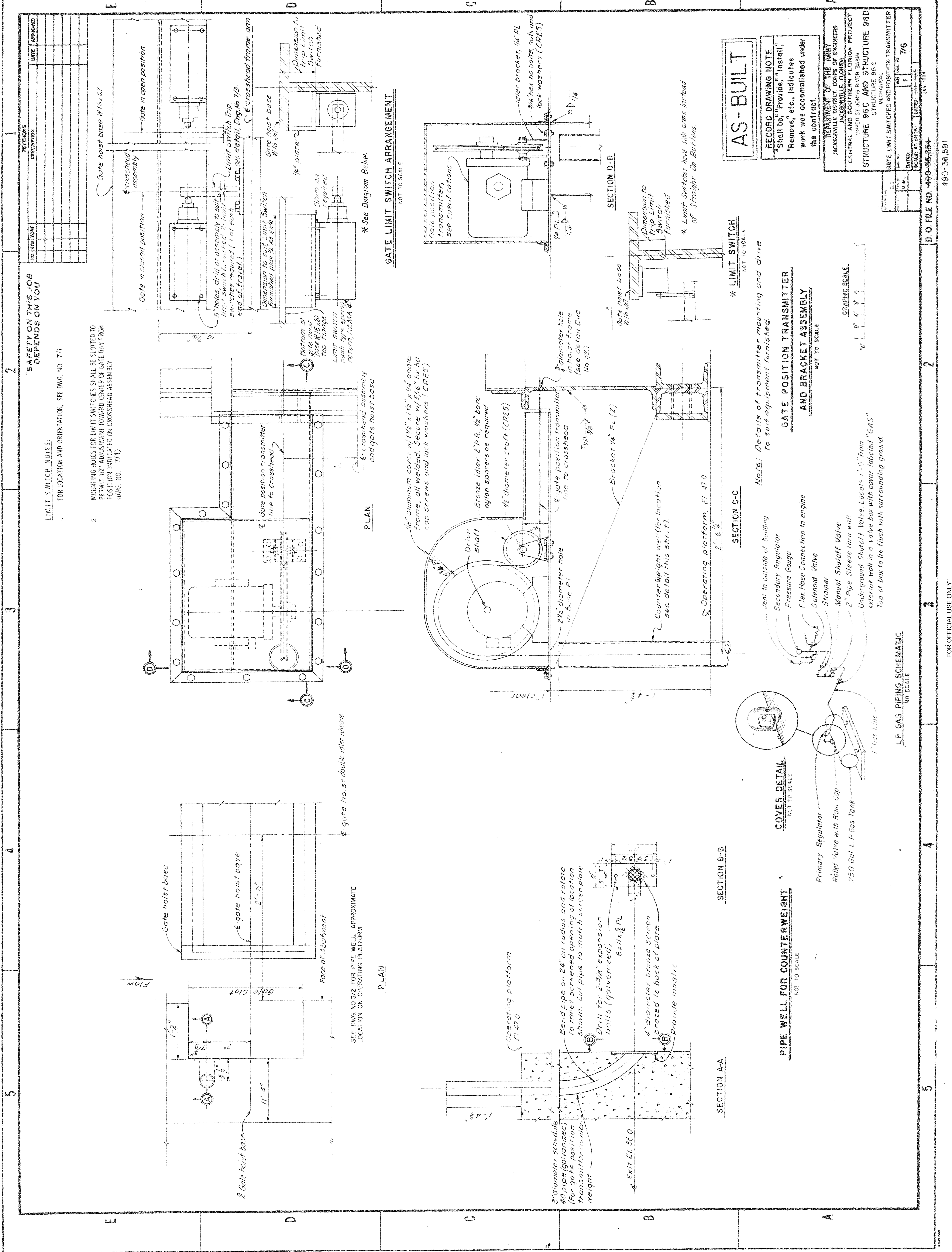
PNEUMATIC TYPE NEGATIVE
HEAD CONTROL FOR
GATE OPERATION
NOT TO SCALE

NOTE:
Hydraulic lines to be supported at 4'-0" intervals with
CHES struts and fasteners. Headers to have
constant down slope from West abutment to
East abutment.

DETAILS OF STILLING WELL

- 1. All piping to be 3" Galv. steel
- 2. 10" Designates dresser couplings
- 3. 5" Designates Galv. C.I. Pipe with rubber gasket seals

FOR OFFICIAL USE ONLY



REVISIONS		DATE	APPROVED
NO.	BY	DATE	APPROVED

LIMIT SWITCH NOTES:

1. FOR LOCATION AND ORIENTATION, SEE DWG. NO. 7/1

2. MOUNTING HOLES FOR LIMIT SWITCHES SHALL BE SLOTTED TO PERMIT 1/2" ADJUSTMENT TOWARD CENTER OF GATE BAY FROM POSITION INDICATED ON CROSSHEAD ASSEMBLY. (DWG. NO. 7/4)

AS-BUILT

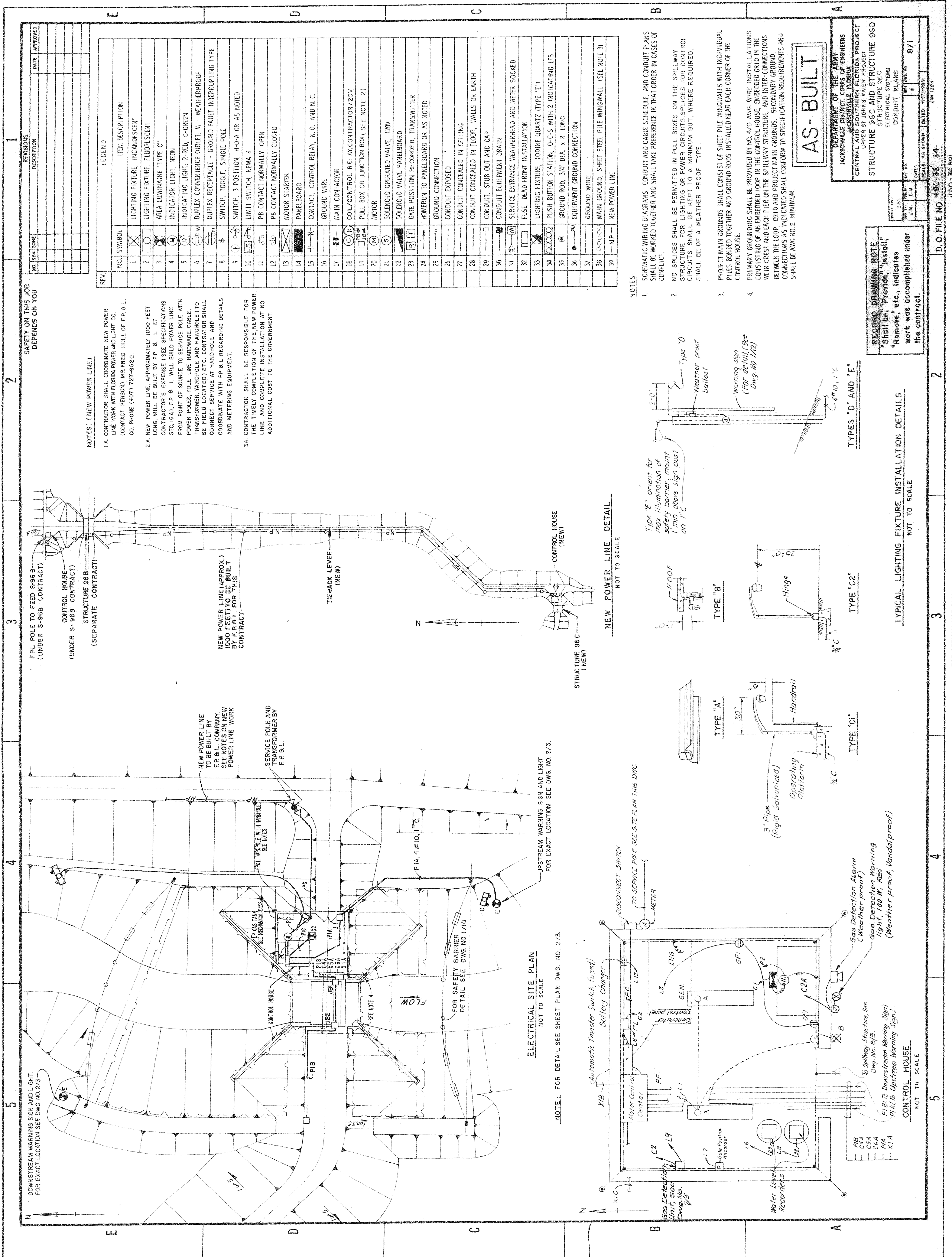
RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96C AND STRUCTURE 96D
STRUCTURE 96C
MECHANICAL
GATE LIMIT SWITCHES AND POSITION TRANSMITTER

DATE: 11/24/71
SCALE: AS SHOWN
SHEET NO. 7/6
JAN 1981

D.O. FILE NO. 490-36-354-2

490-36,591

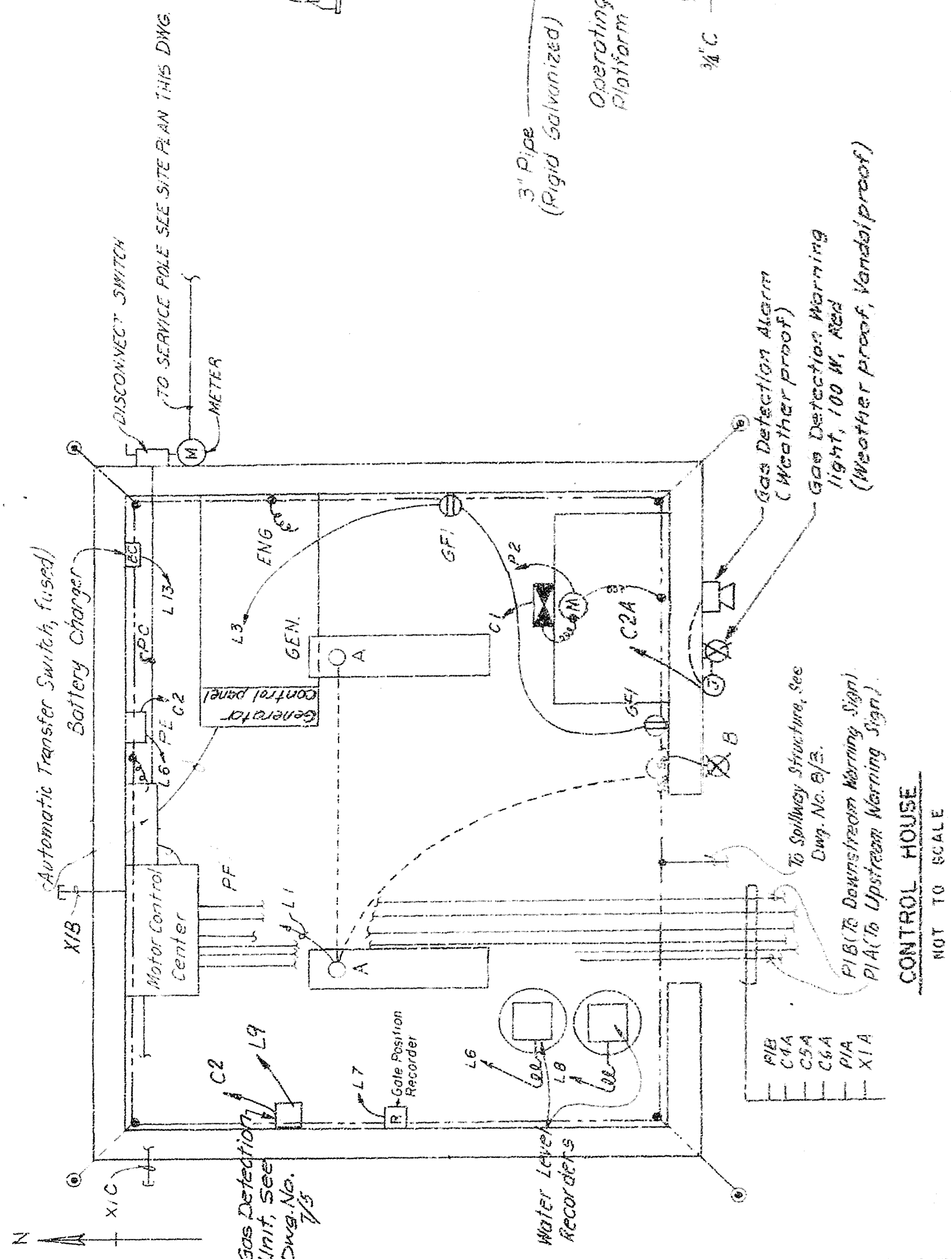


NOTES: (NEW POWER LINE)

- 1A. CONTRACTOR SHALL COORDINATE NEW POWER LINE WORK WITH FLORIDA POWER AND LIGHT CO. (CONTACT PERSON) MR. FRED HULL OF F.P. & L. CO. PHONE (407) 727-9520.
- 2A. NEW POWER LINE, APPROXIMATELY 1000 FEET LONG, WILL BE BUILT BY F.P. & L. AT CONTRACTOR'S EXPENSE (SEE SPECIFICATIONS SEC. 16A). F.P. & L. WILL BUILD POWER LINE FROM POINT OF SOURCE TO SERVICE POLE WITH POWER POLES, POLE LINE HARDWARE, CABLE, TRANSFORMER, YARDPOLE AND HANDHOLE (TO BE FIELD LOCATED) ETC. CONTRACTOR SHALL CONNECT SERVICE AT HANDHOLE AND COORDINATE WITH F.P. & L. REGARDING DETAILS AND METERING EQUIPMENT.
- 3A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY COMPLETION OF THE NEW POWER LINE AND COMPLETE INSTALLATION AT NO ADDITIONAL COST TO THE GOVERNMENT.

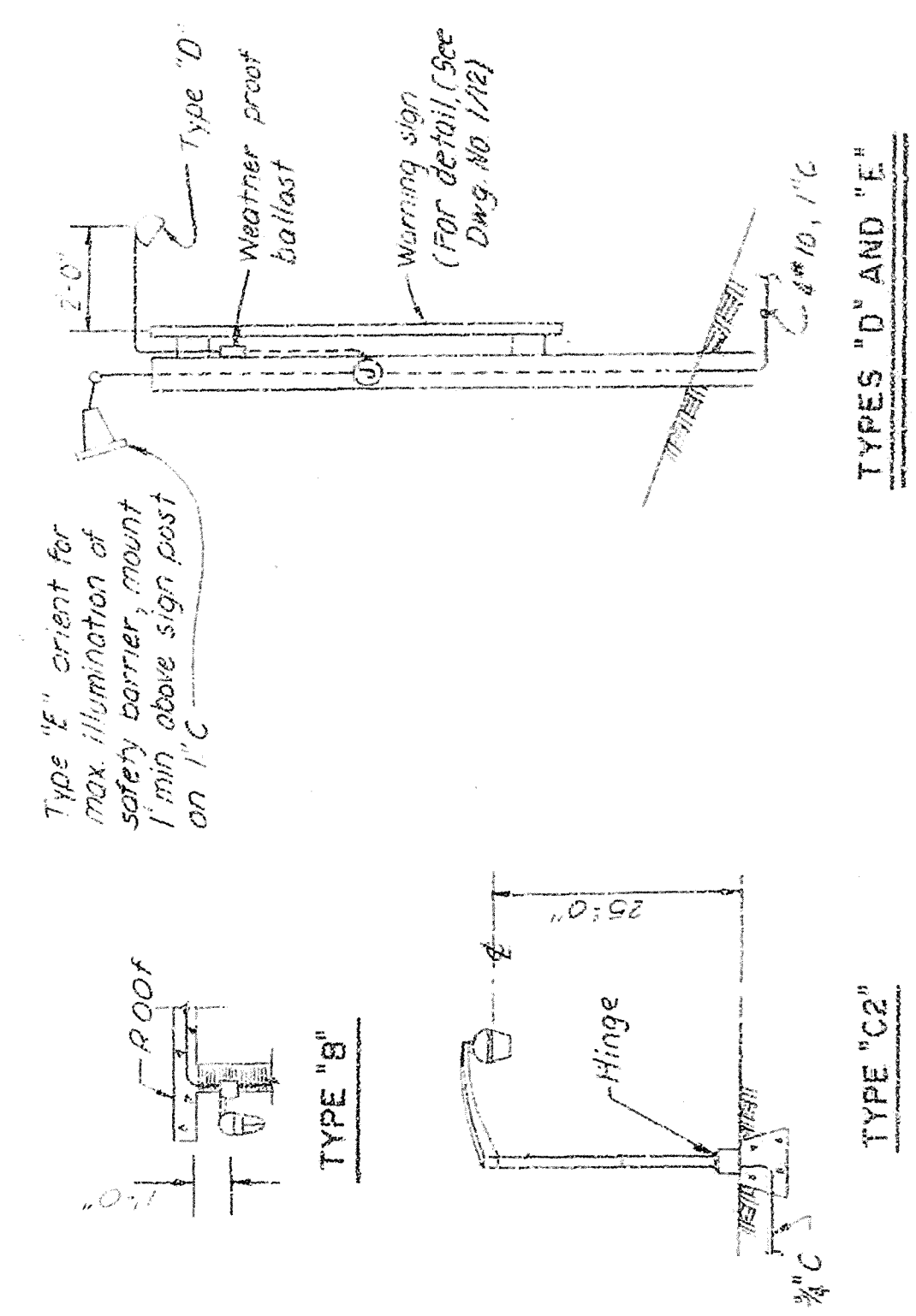
ELECTRICAL SITE PLAN

NOTE: FOR DETAIL SEE SHEET PLAN DWG. NO. 2/3.



NEW POWER LINE DETAIL

NOT TO SCALE



TYPICAL LIGHTING FIXTURE INSTALLATION DETAILS

NOT TO SCALE

REV.	NO.	SYMBOL	ITEM DESCRIPTION
	1		LIGHTING FIXTURE, INCANDESCENT
	2		LIGHTING FIXTURE, FLUORESCENT
	3		AREA LUMINAIRE TYPE C
	4		INDICATOR LIGHT, NEON
	5		INDICATING LIGHT, R-RED, G-GREEN
	6		DUPLEX CONVENIENCE OUTLET, W-WEATHERPROOF
	7		DUPLEX RECEPTACLE - GROUND FAULT INTERRUPTING TYPE
	8		SWITCH, TOGGLE, SINGLE POLE
	9		SWITCH, 3 POSITION, H-O-A OR AS NOTED
	10		LIMIT SWITCH, NEMA 4
	11		PB CONTACT NORMALLY OPEN
	12		PB CONTACT NORMALLY CLOSED
	13		MOTOR STARTER
	14		PANEL BOARD
	15		CONTACT, CONTROL RELAY, N.O. AND N.C.
	16		GROUND WIRE
	17		MAIN CONTACTOR
	18		COIL/CONTROL RELAY, CONTRACTOR/120V.
	19		PULL BOX OR JUNCTION BOX (SEE NOTE 2)
	20		MOTOR
	21		SOLENOID OPERATED VALVE, 120V.
	22		SOLENOID VALVE PANEL BOARD
	23		GATE POSITION RECORDER, TRANSMITTER
	24		HOMERUN TO PANEL BOARD OR AS NOTED
	25		GROUND CONNECTION
	26		CONDUIT EXPOSED
	27		CONDUIT CONCEALED IN CEILING
	28		CONDUIT CONCEALED IN FLOOR, WALLS OR EARTH
	29		CONDUIT, STUB OUT AND CAP
	30		CONDUIT EQUIPMENT DRAIN
	31		SERVICE ENTRANCE WEATHERHEAD AND METER SOCKET
	32		FUSE, DEAD FRONT INSTALLATION
	33		LIGHTING FIXTURE, IODINE QUARTZ (TYPE "E")
	34		PUSH BUTTON STATION, O-C-S WITH 2 INDICATING LIS
	35		GROUND ROD, 3/4" DIA. x 8' LONG
	36		EQUIPMENT GROUND CONNECTION
	37		GROUND WIRE
	38		MAIN GROUND, SHEET STEEL PILE WINGWALL (SEE NOTE 3)
	39		NEW POWER LINE

NOTES:

- 1. SCHEMATIC WIRING DIAGRAMS, CONDUIT AND CABLE SCHEDULE, AND CONDUIT PLANS SHALL BE WORKED TOGETHER AND SHALL TAKE PREFERENCE IN THAT ORDER IN CASES OF CONFLICT.
- 2. NO SPLICES SHALL BE PERMITTED IN PULL BOXES ON THE SPILLWAY STRUCTURE FOR LIGHTING OR POWER CIRCUITS. SPLICES FOR CONTROL CIRCUITS SHALL BE KEPT TO A MINIMUM BUT, WHERE REQUIRED, SHALL BE OF A WEATHER PROOF TYPE.
- 3. PROJECT MAIN GROUNDS SHALL CONSIST OF SHEET PILE WINGWALLS WITH INDIVIDUAL PILES BONDED TOGETHER AND GROUND RODS INSTALLED NEAR EACH CORNER OF THE CONTROL HOUSE.
- 4. PRIMARY GROUNDING SHALL BE PROVIDED BY NO. 4/0 AWG. WIRE INSTALLATIONS CONSISTING OF AN EMBEDDED LOOP IN THE CONTROL HOUSE, AND INTER-CONNECTIONS WITH EACH PIER ON THE SPILLWAY STRUCTURE, AND INTER-CONNECTIONS BETWEEN THE LOOP, GRID AND PROJECT MAIN GROUNDS. SECONDARY GROUND CONNECTIONS AS INDICATED SHALL CONFORM TO SPECIFICATION REQUIREMENTS AND SHALL BE AWG NO. 2 MINIMUM.

AS-BUILT

RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN RIVER PROJECT
UPPER ST. JOHNS RIVER PROJECT
STRUCTURE 96C AND STRUCTURE 96D
ELECTRICAL SYSTEMS
CONDUIT PLANS
DATE: 10/1/88
BY: J.M. 8/M
CHECKED: J.M. 8/M
SCALE: AS SHOWN
DRAWN: J.M. 8/M
DATE: 10/1/88
JUN 1988

100A GEN

100A DISCONNECT SWITCH
FUSED 100A MO
100A FUSE

100A CIRCUIT BREAKER

100A CIRCUIT BREAKER

100A DISCONNECT SWITCH

100A FUSE

CONTROL CENTER

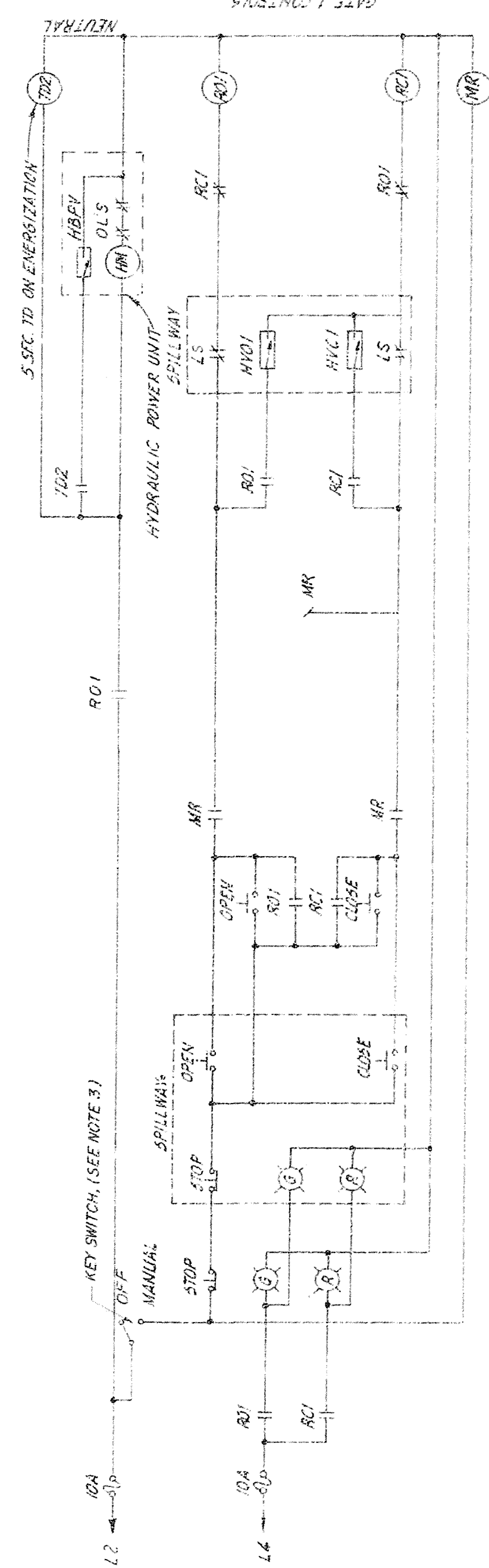
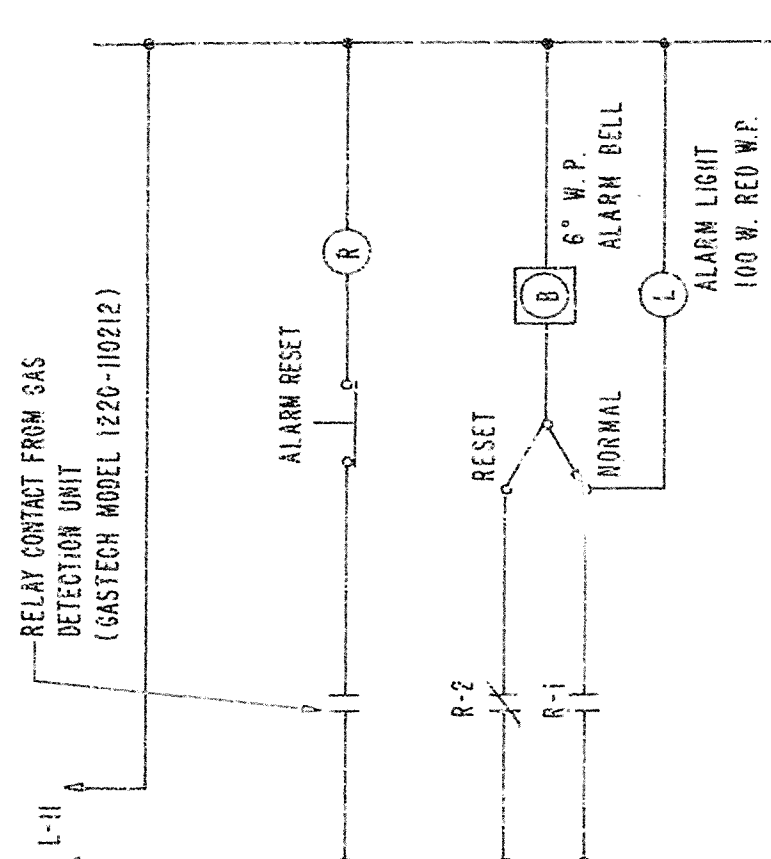
EXTERNAL LIGHTING
(SEE DETAIL 4)

SAFETY ON THIS JOB
DEPENDS ON YOU

100A CIRCUIT BREAKER

1. TIME DELAY RELAY - "TD" SHALL PROVIDE A FIVE-SECOND ENERGIZATION DELAY TO A "TURNER" SOLENOID VALVE TO PERMIT NO LOAD STARTING OF THE HYDRAULIC UNIT MOTORS.
2. GAS DETECTION UNIT SHALL BE, AS SPECIFIED ON DWG. NO. 7/5 AND SHALL BE GAS TEST MODEL 122D-10212 OR EQUAL. THE UNIT COMES WITH MANUFA. TURNER - FURNISHED AUDIBLE ALARM AND LIGHT. THE SPECIAL FEATURE SHALL BE THAT THE UNIT SHOULD INCLUDE A RESET BUTTON TO TURN THE AUDIBLE ALARM OFF, KEEPING THE LIGHT ON TILL THE PROBLEM IS SOLVED THIS AVOIDS UNNECESSARY NOISE DURING PROBLEM SOLVING.

GAS DETECTION REMOTE INDICATION
CONTROL CIRCUIT



LEGEND	
(T) TIME 22.4V	HYDRAULIC WAVE OPEN
(H) RELAY OPEN NO	RELAY CLOSE NO.
(R) HYDRAULIC WAVE CLOSE	HYDRAULIC MOTOR STARTER
(H) HYDRAULIC WAVE WAVE	MANUAL RELAY
(M) GREEN IND. LIGHT	RED IND. LIGHT

CONTROL CENTER
SCALING: "A"

AS-BUILT

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DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96C AND STRUCTURE 96D
STRUCTURE 96C
ELECTRICAL SYSTEMS
WIRING DIAGRAMS

GRAPHIC SCALE

18. 100%

3

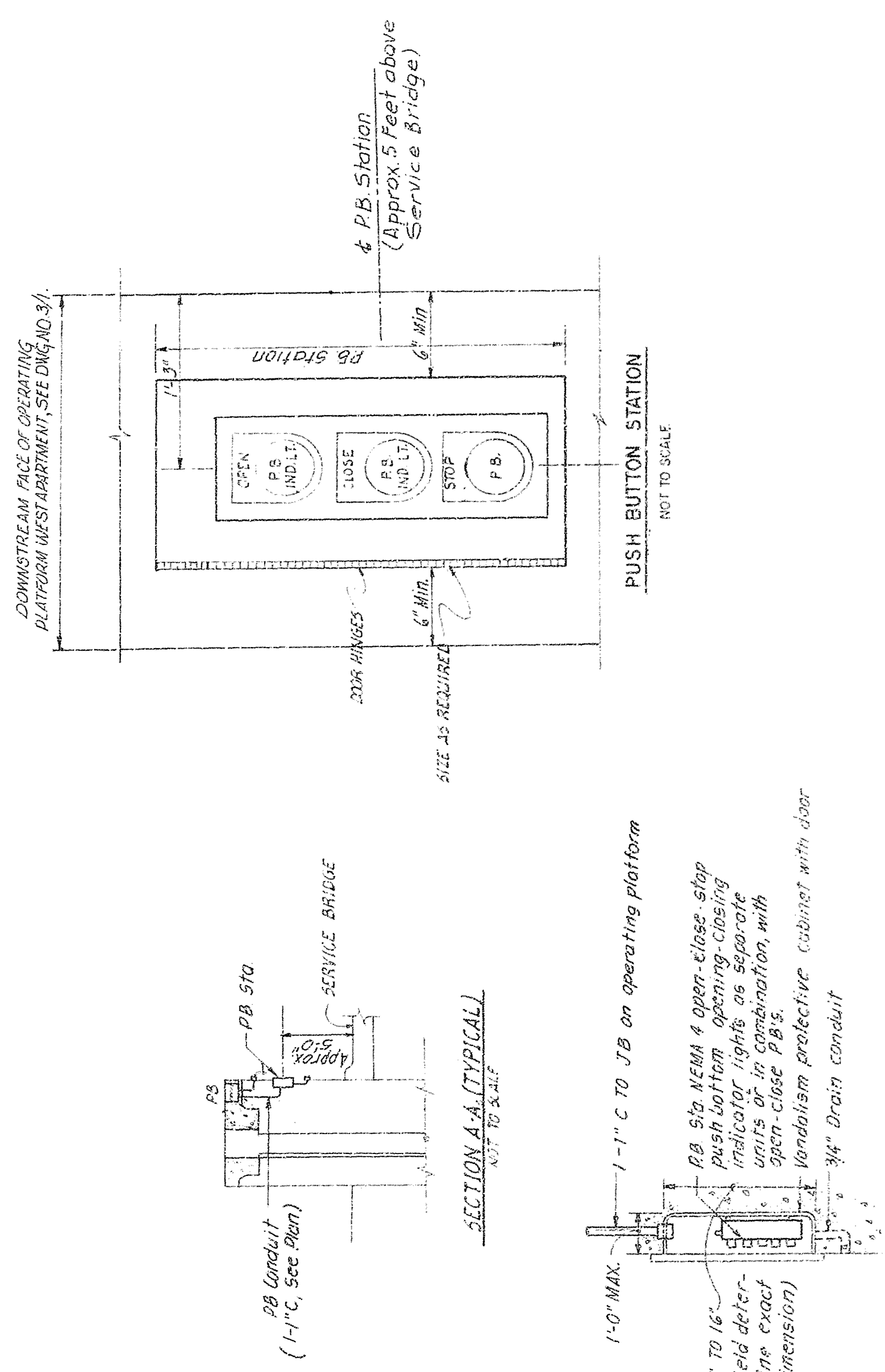
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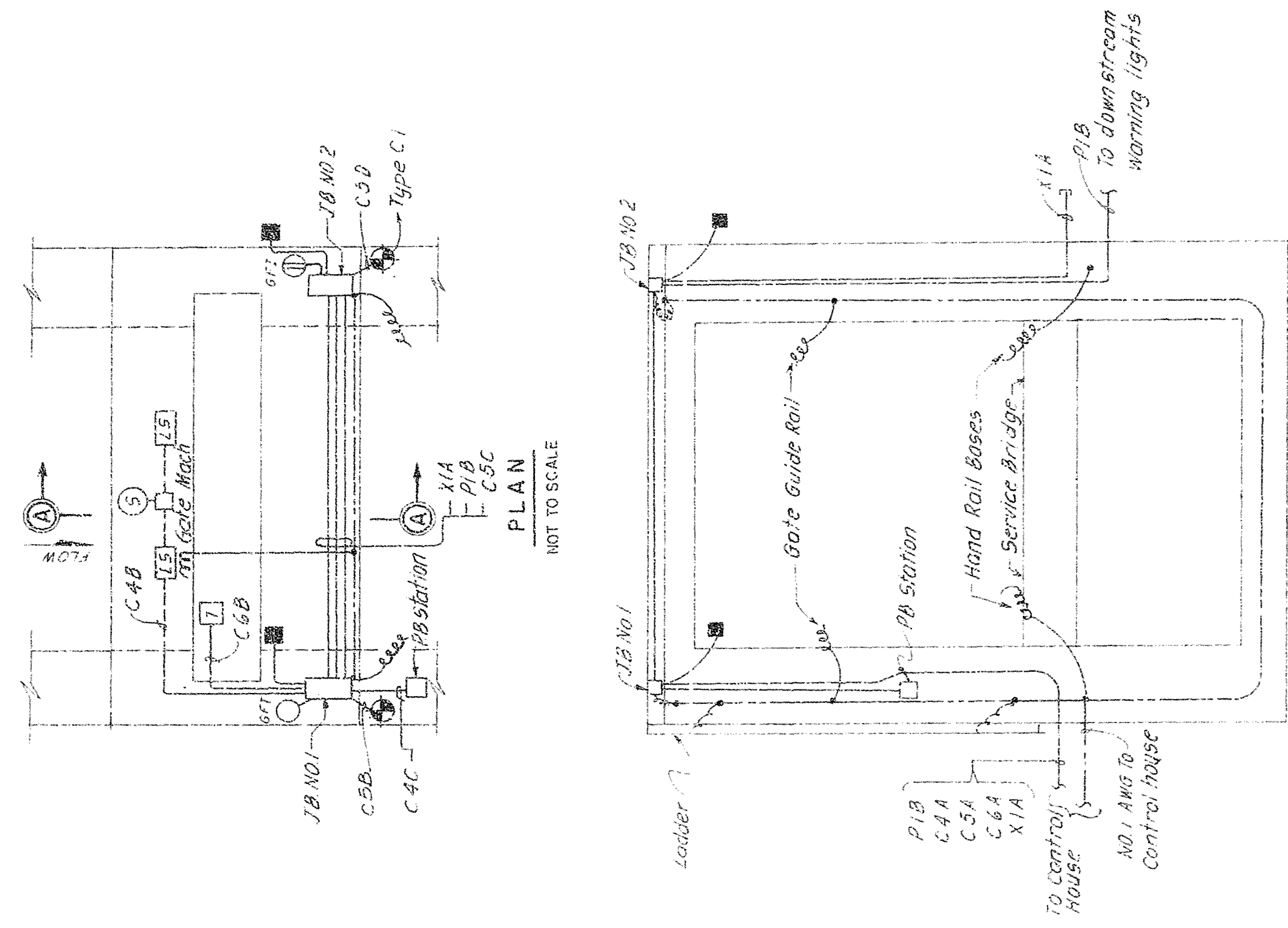
D. O. FILE NO. 44-38861-354
490-36,591

FOR OFFICIAL USE ONLY

CONDUIT AND CABLE SCHEDULE					REMARKS	
MARK	WIRE DATE	CONDUIT SIZE	CONDUIT	FROM	TO	
PC	3 # 2	1" x 2"	COMMERCIAL SERVICE	SERVICE ENTRANCE	AUTO TRANSFER SWITCH	THRU 100A DISCONNECT SWITCH
PE	3 # 2	1" x 2"	EMERGENCY SERVICE	ENG. GEN. PANEL	AUTO TRANSFER SWITCH	
PF	3 # 2	1" x 2"	FEEDER, CONTROL CENTER	AUTO TRANSFER SWITCH	CONTROL CENTER	
PIA	3 # 10	1" x 10"	EXTERIOR LTG. UPSTREAM	CONTROL CENTER	LIGHTING FIXTURE "D" & "E"	UPSTREAM
PIB	3 # 10	1" x 10"	EXTERIOR LTG. DOWNSTREAM	CONTROL CENTER	LIGHTING FIXTURE "D" & "E"	THRU JBI AND JB2
PIC	2 # 10	1" x 10"	EXTERIOR LIGHT	CONTROL CENTER	LIGHTING FIXTURE C2	
PID	4 # 12	1" x 12"	CONTROL	CONTROL CENTER	PHOTO ELECTRIC SWITCH	CONTAINS LI
P2	2 # 8	1" x 8"	HYDRAULIC POWER UNIT	CONTROL CENTER	HPU	
C1	3 # 12	1" x 12"	GATE CONTROL	CONTROL CENTER	SOLENOID VALVES	OR HYDRAULIC POWER UNIT
C2	2 # 12	1" x 12"	GAS DETECTION REMOTE ALARM G1	CONTROL CENTER	RELAY POINT OF GAS DETECTION UNIT	
C3A	3 # 12	1" x 12"	GAS DETECTION REMOTE LIGHT AND ALARM	CONTROL CENTER	ALARM AND HORN	POWER AND CONTROL CIRCUIT
CHA	13 # 12	2" x 12"	LIMIT SWITCHES & P.C. STATIONS	CONTROL CENTER	JB 1	
CHB	6 # 12	1" x 12"	LIMIT SWITCHES GATE 1	JB 1	GATE NO. 1 LIMIT SWITCHES	
CHC	7 # 12	1" x 12"	PUSH BUTTON STA. GATE 1	JB 1	GATE NO. 1 P.B. STATION	
C5A	5 # 10	1" x 10"	SPILLWAY LIGHTING	CONTROL CENTER	JB 1	CONTAINS 3 # 10 FOR RECEPTACLES
C5B	2 # 12	1" x 12"	SPILLWAY LIGHTING	JB 1	TO LIGHTING FIXTURE	
C5C	5 # 10	1" x 10"	SPILLWAY LIGHTING	JB 1	JB 2	CONTAINS 3 # 10 FOR RECEPTACLES
C5D	2 # 12	1" x 12"	SPILLWAY LIGHTING	JB 1	LIGHTING FIXTURE	
C6A	7 # 12	1" x 12"	TRANSMITTER GATE 1	CONTROL CENTER	JB 1	INCLUDES 2 SPARES
C6B	10 # 12	2" x 12"	TRANSMITTER GATE 1	JB 1	TO GATE TRANSMITTER	CONTAINS 5 # 12 FOR POS INDICATOR
X-1A	1" x 12"	1"	SPARE	CONTROL HOUSE	STUD OUT AND CAP	THRU JB 1
X-1B	1" x 12"	1"	SPARE	CONTROL HOUSE	STUD OUT AND CAP	
X-1C	1" x 12"	1"	SPARE	CONTROL HOUSE	STUD OUT AND CAP	



TYPICAL P.B. STATION INSTALLATION
NOT TO SCALE
(See Note on this Sheet)



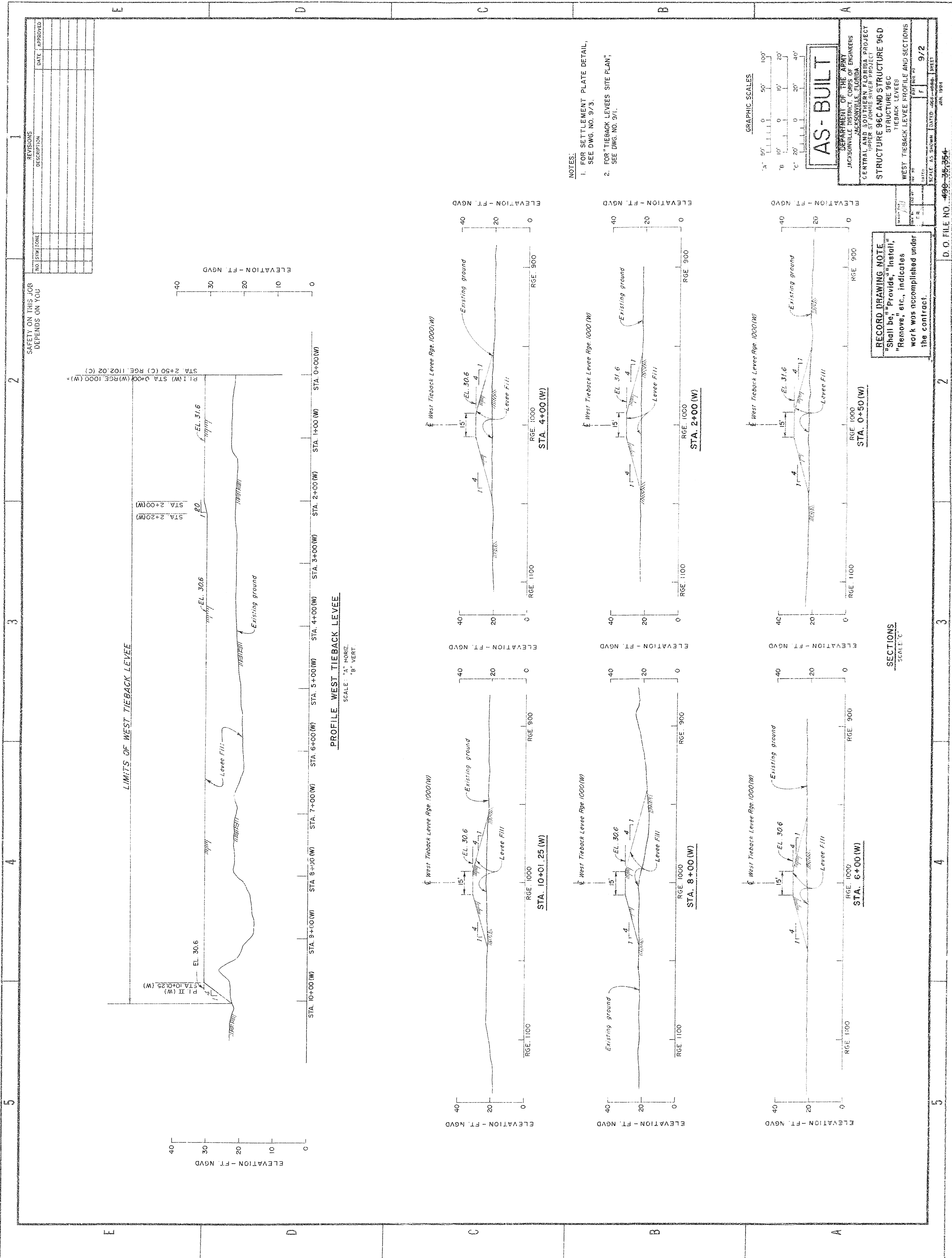
ELEVATION
CONDUIT AND GROUNDING-SPILLWAY STRUCTURE
NOT TO SCALE

- NOTES:
- SEE DWG. NO. 3/1 FOR EXACT LOCATION OF PUSH BUTTON RECESS IN WEST ABUTMENT.
 - ALL MACHINERY, FENCES, FUEL TANK, LADDER, ELECTRICAL EQUIPMENT AND OTHER METALLIC ITEMS SHALL BE BONDED AND GROUNDED PER SPECIFICATIONS AND NEC.

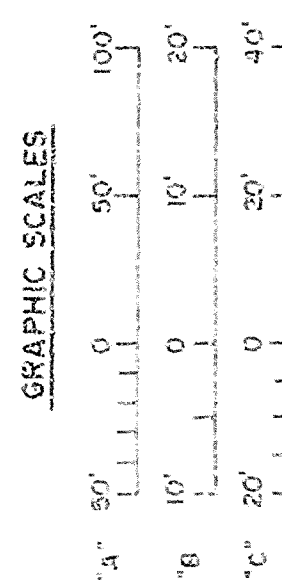
AS-BUILT

DEPARTMENT OF THE ARMY	
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS	
JACKSONVILLE FLORIDA	
CENTRAL AND SOUTHERN FLORIDA PROJECT	
UPPER ST. JOHNS RIVER BASIN	
STRUCTURE 96 C AND STRUCTURE 96 D	
ELECTRICAL SYSTEMS	
DETAILS	
SCALE: AS SHOWN	DATE: JAN 1984
BY: F	CHKD: B/3

RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.



NOTES:
1. FOR SETTLEMENT PLATE DETAIL,
SEE DWG. NO. 9/3.
2. FOR "TIEBACK LEVEES SITE PLAN",
SEE DWG. NO. 9/1.

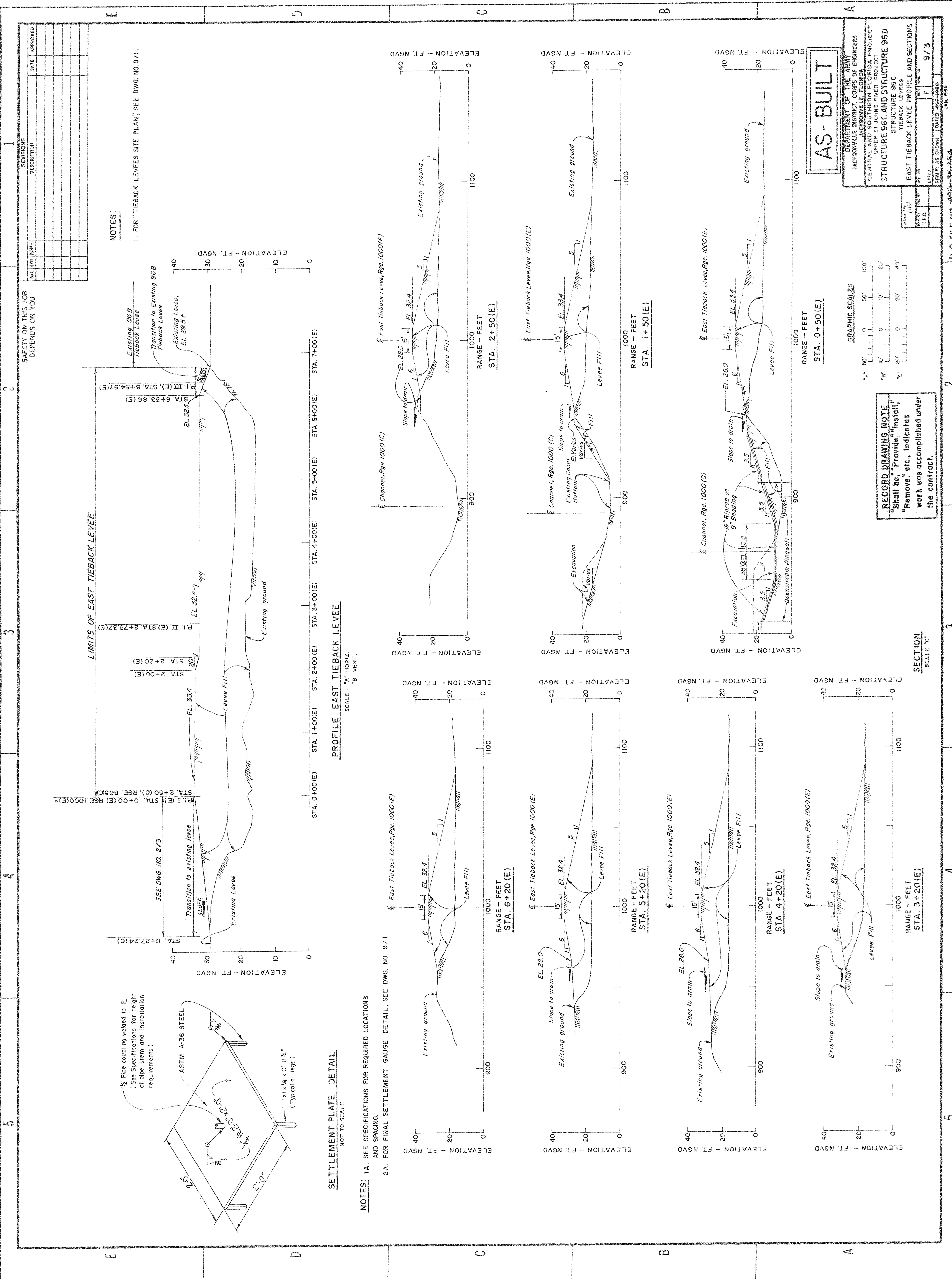


AS-BUILT

DEPARTMENT OF THE ARMY	
JACKSONVILLE DISTRICT CORPS OF ENGINEERS	
CENTRAL AND SOUTHERN FLORIDA PROJECT	
UPPER ST. JOHNS RIVER PROJECT	
STRUCTURE 96C AND STRUCTURE 96D	
TIEBACK LEVEES	
WEST TIEBACK LEVEE PROFILE AND SECTIONS	
DATE	9/2
SCALE AS SHOWN	DATE 4-23-1994
BY	WEST
CHECKED	WEST
APPROVED	WEST

RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

SECTIONS
SCALE: 1" = 100'



NOTES:

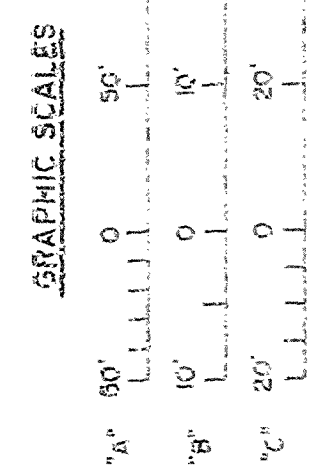
I. FOR "TIEBACK LEVEES SITE PLAN," SEE DWG. NO. 9/1.

SETTLEMENT PLATE DETAIL
NOT TO SCALE

NOTES: 1A. SEE SPECIFICATIONS FOR REQUIRED LOCATIONS AND SPACING.
2A. FOR FINAL SETTLEMENT GAUGE DETAIL, SEE DWG. NO. 9/1

AS-BUILT

DEPARTMENT OF THE ARMY
ENGINEERING DISTRICT OF FLORIDA
CENTRAL AND SOUTHERN DIVISION
UPPER ST. JOHNS RIVER PROJECT
STRUCTURE 96C AND STRUCTURE 96D
TIEBACK LEVEES
EAST TIEBACK LEVEE PROFILE AND SECTIONS
DATE: 9/3
SCALE: AS SHOWN
DOWNS: 9/3
JAN. 1992



RECORD DRAWING NOTE
"Shall be," "Provide," "Install,"
"Remove," etc., indicates
work was accomplished under
the contract.

SECTION
SCALE "C"

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D.O. FILE NO. 490-35-354
490-35-391