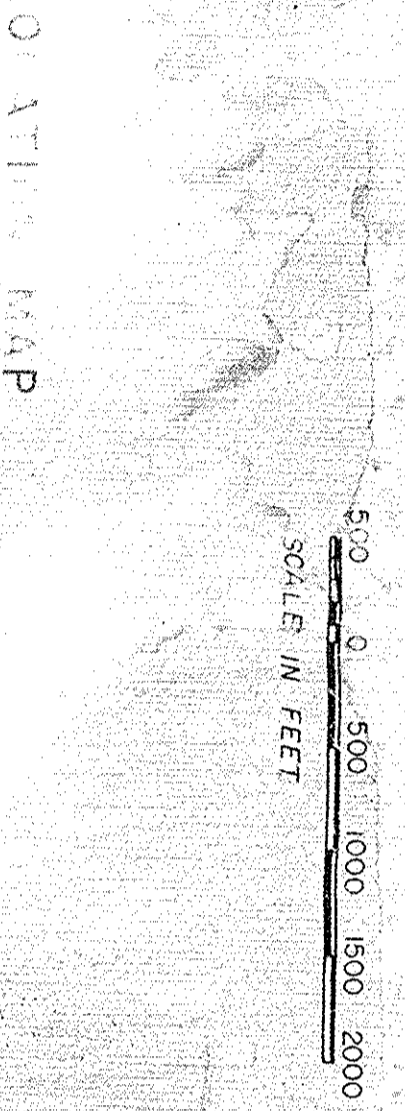
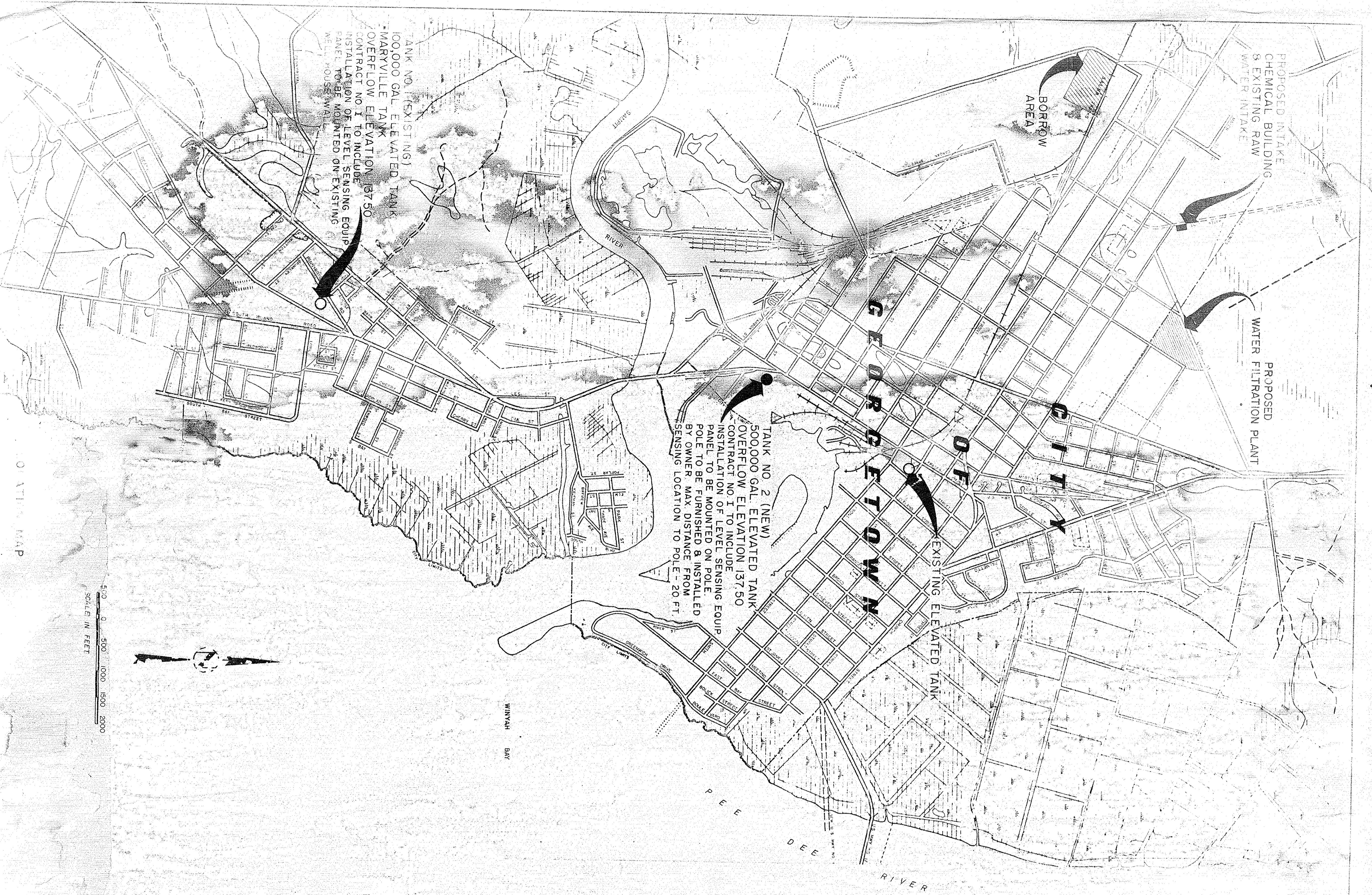


**GEORGETOWN  
WATER FILTRATION PLANT**

**GEORGETOWN, SOUTH CAROLINA**

**DIVISION A - WATER FILTRATION PLANT  
DIVISION B - OPERATIONAL BUILDING  
DIVISION C - INTAKE CHEMICAL BUILDING**

**E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. 1**



# INDEX

## DIVISION A

- GENERAL**
- C-1 LOCATION PLAN
  - G-2 SITE PLAN
  - G-3 PIPING LAYOUT & DETAILS
  - G-4 HYDRAULIC PROFILE
  - G-5 PROCESS FLOW SCHEMATIC
  - G-6

## ARCHITECTURAL

- A-1 ADMINISTRATION & CHEMICAL BUILDINGS
- A-2 ADMINISTRATION & CHEMICAL BUILDING
- A-3 ADMINISTRATION & CHEMICAL BUILDING
- A-4 FILTER BUILDING
- A-5 HIGH SERVICE PUMP STATION
- A-6 SCHEDULES (DIV. B & C)
- A-7 WALL SECTIONS (DIV. B & C)
- A-8 RESERVOIR ROOF
- A-9

## MECHANICAL

- M-1 ADMINISTRATION & CHEMICAL BUILDING
- M-2 ADMINISTRATION & CHEMICAL BUILDING
- M-3 ADMINISTRATION & CHEMICAL BUILDING
- M-4 ADMINISTRATION & CHEMICAL BUILDING
- M-5 ADMINISTRATION & CHEMICAL BUILDING
- M-6 HIGH SERVICE PUMP STATION
- M-7 HIGH SERVICE PUMP STATION
- M-8 FILTER BUILDING
- M-9 FILTER BUILDING
- M-10 UPFLOW CLARIFIER
- M-11 SCHEMATICS
- M-12 BACKWASH REUSE PUMP STATION & MISCELLANEOUS
- M-13 INSTRUMENTATION & CONTROL SCHEMATIC

## STRUCTURAL

- S-1 TYPICAL DETAILS, NOTES, & SCHEDULES
- S-2 ADMINISTRATION & CHEMICAL BUILDING - FOUNDATION PLAN & DETAILS
- S-3 ADMINISTRATION & CHEMICAL BUILDING - SECOND FLOOR PLAN & DETAILS
- S-4 ADMINISTRATION & CHEMICAL BUILDING - ROOF PLAN & DETAILS
- S-5 HIGH SERVICE PUMP STATION - PLAN & DETAILS
- S-6 FILTER BUILDING - PLANS & DETAILS
- S-7 FILTER BUILDING - ROOF PLAN & DETAILS AND CHEMICAL INTAKE BUILDING FOUNDATION & ROOF PLAN (DIV. C)
- S-8 UPFLOW CLARIFIER
- S-9 RESERVOIR PLANS & DETAILS

## ELECTRICAL

- E-1 SITE PLAN
- E-2 FIRST FLOOR ADMINISTRATION & CHEMICAL BUILDING
- E-3 SECOND FLOOR ADMINISTRATION & CHEMICAL BUILDING
- E-4 CLARIFIERS & FILTER BUILDING
- E-5 HIGH SERVICE PUMP STATION & INTAKE CHEMICAL BUILDING (DIV. C)
- E-6 POWER DISTRIBUTION ONE LINE DIAGRAM

## DIVISION B

- ARCHITECTURAL**
- B-1 OPERATIONS BUILDING
  - B-2 OPERATIONS BUILDING

## STRUCTURAL

- B-3 OPERATIONS BUILDING

## ELECTRICAL

- B-4 OPERATIONS BUILDING

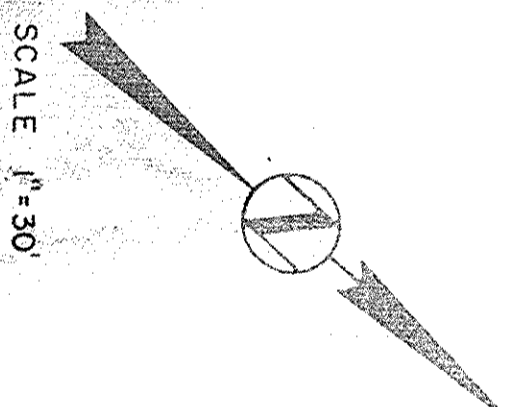
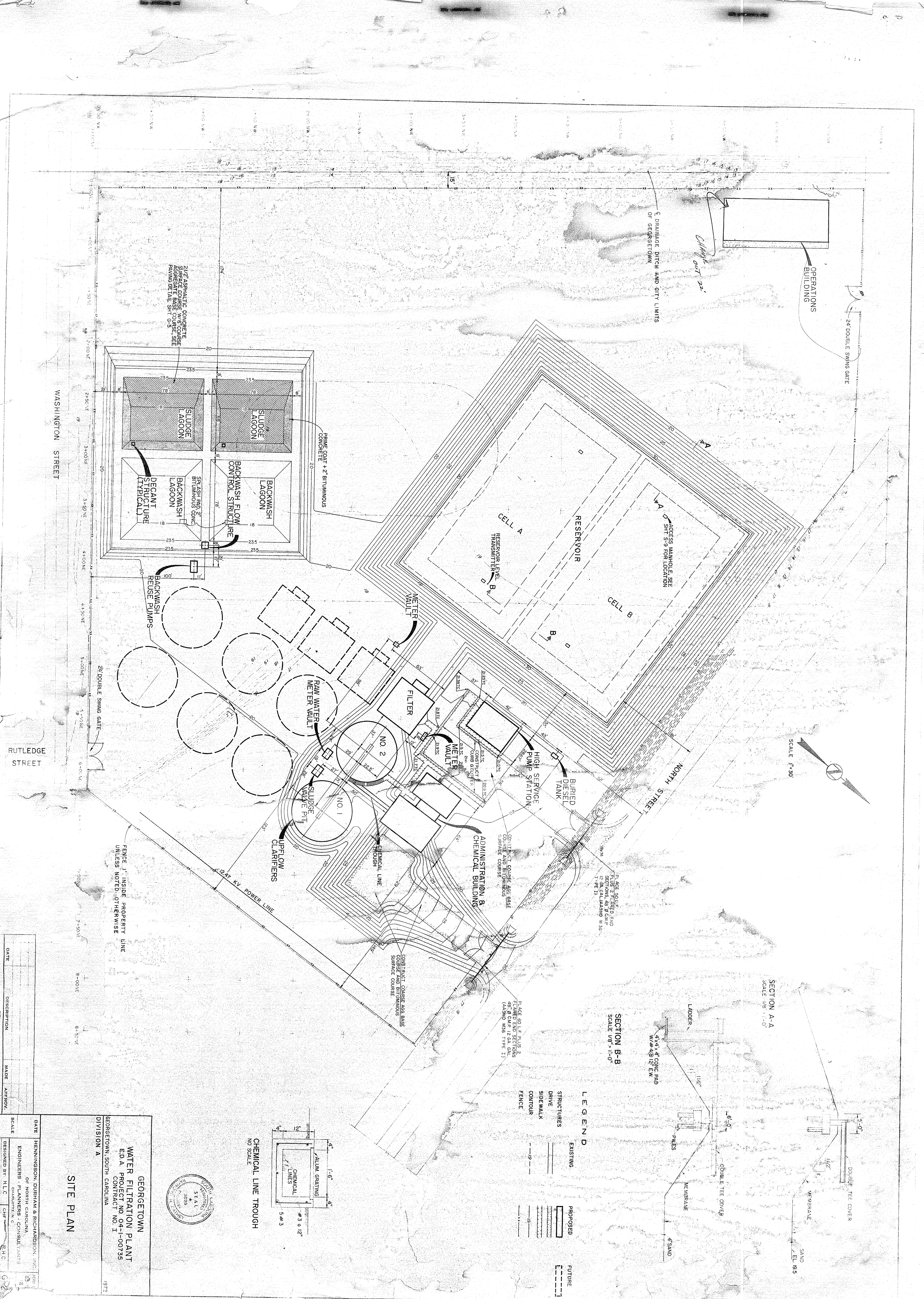
## DIVISION C

- ARCHITECTURAL**
- C-1 INTAKE BUILDING (DIV. A)

## MECHANICAL

- C-2 INTAKE BUILDING & MISCELLANEOUS DETAILS (DIV. A)
- C-3 INTAKE BUILDING (DIV. A)

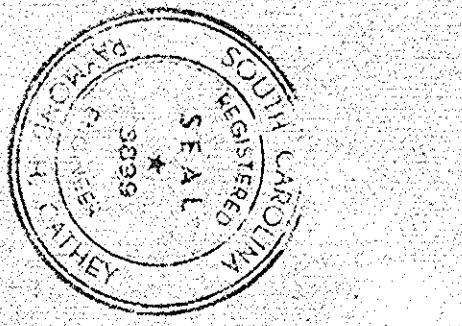
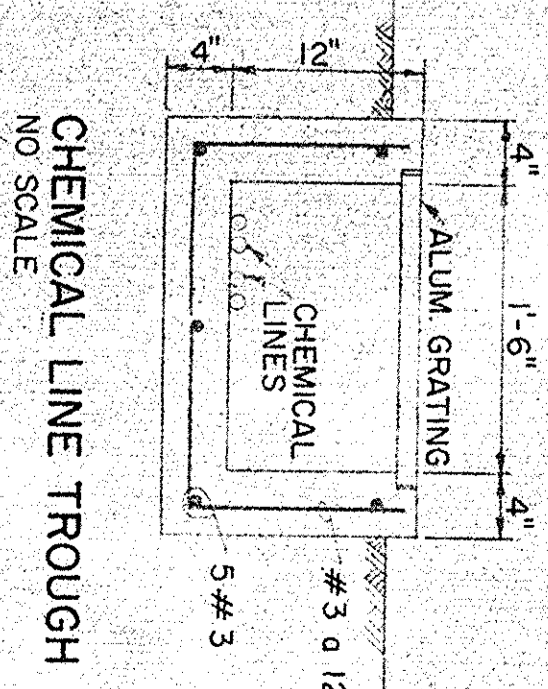
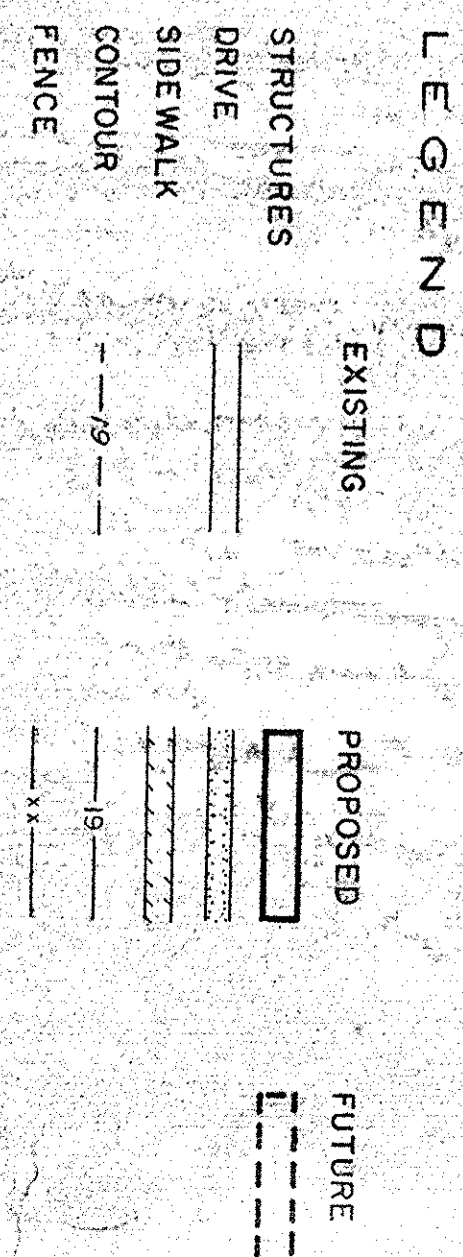
GEORGETOWN  
 WATER FILTRATION PLAN  
 E. & A. PROJECT NO. 94-1-1073  
 CONTRACT NO. 1  
 GEORGE OWEN SOUTH CAROLINA  
 LOCATION PLAN



SCALE 1/8"=1'-0"

SECTION A-A  
SCALE 1/8"=1'-0"

SECTION B-B  
SCALE 1/8"=1'-0"



**GEORGETOWN WATER FILTRATION PLANT**  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. I  
DIVISION A  
GEORGETOWN, SOUTH CAROLINA  
1972

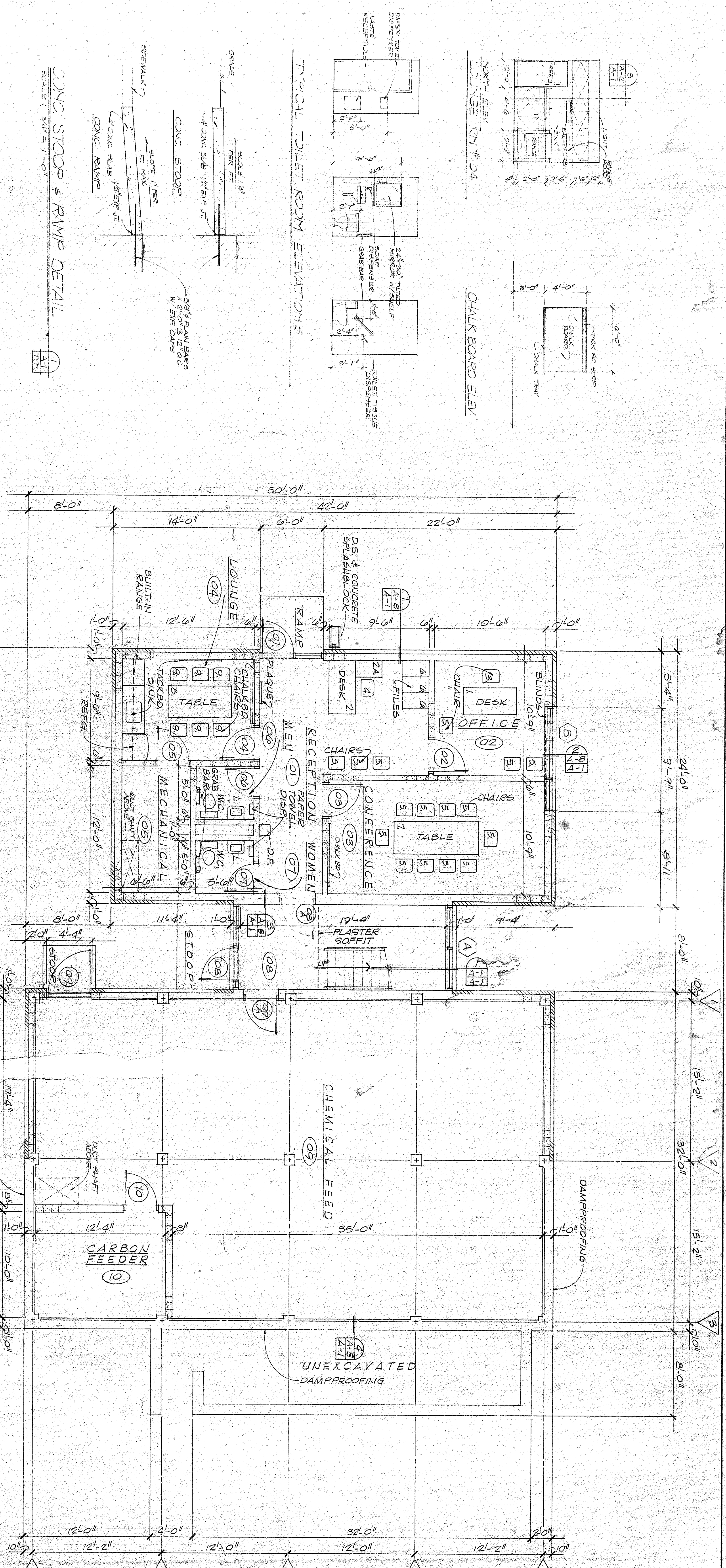
**SITE PLAN**

DATE	DESCRIPTION	MADE BY	APPROVED BY

DATE	SCALE	DESIGNED BY	CHECKED BY	SCALE

HENNINGSON, DURHAM & RICHARDSON, INC.  
OF NORTH CAROLINA  
ENGINEERS, PLANNERS & CONSULTANTS  
DESIGNED BY: H.C. CLINE  
CHECKED BY: M.L.C.  
SCALE: 1/8"=1'-0"





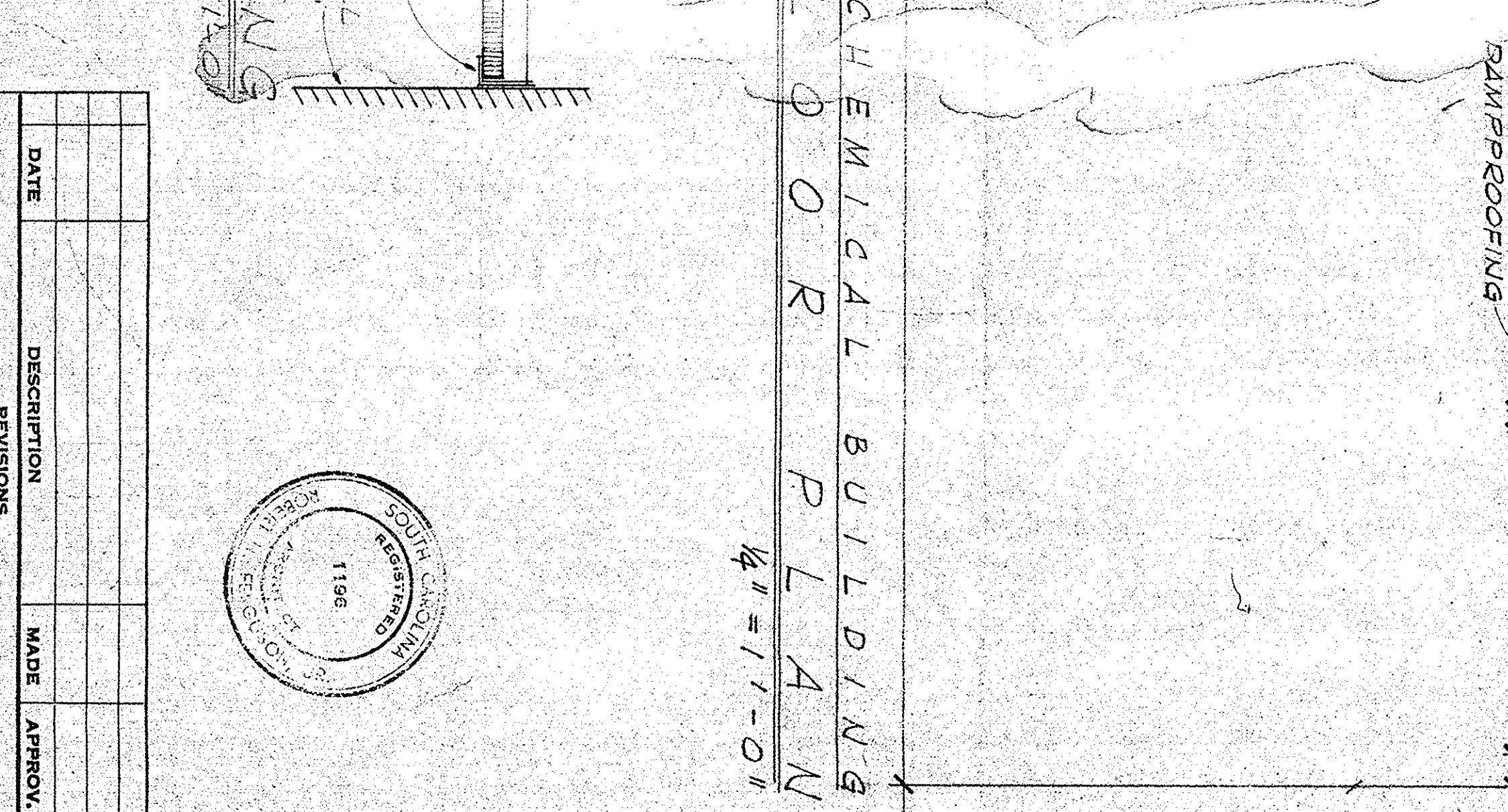
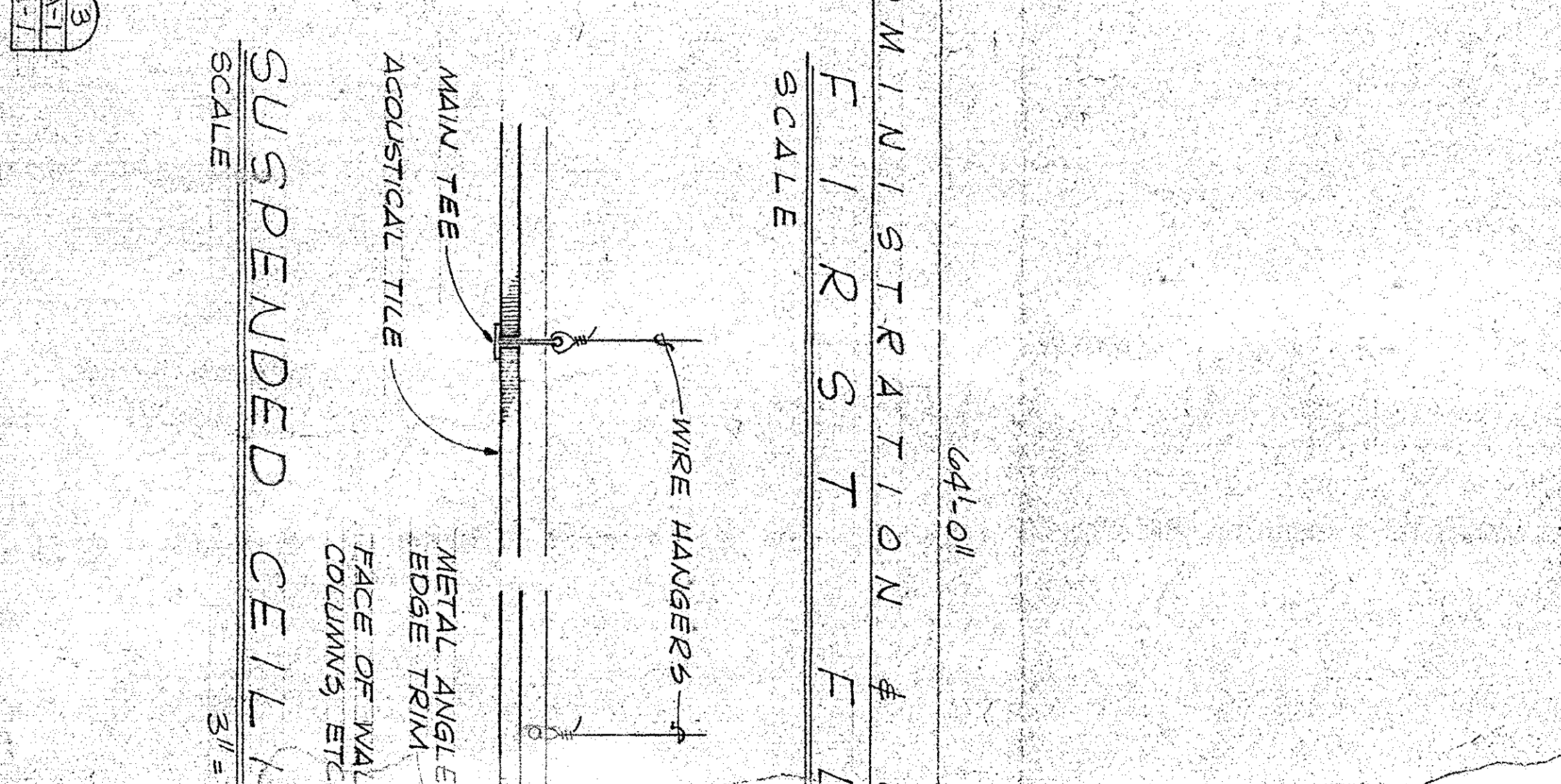
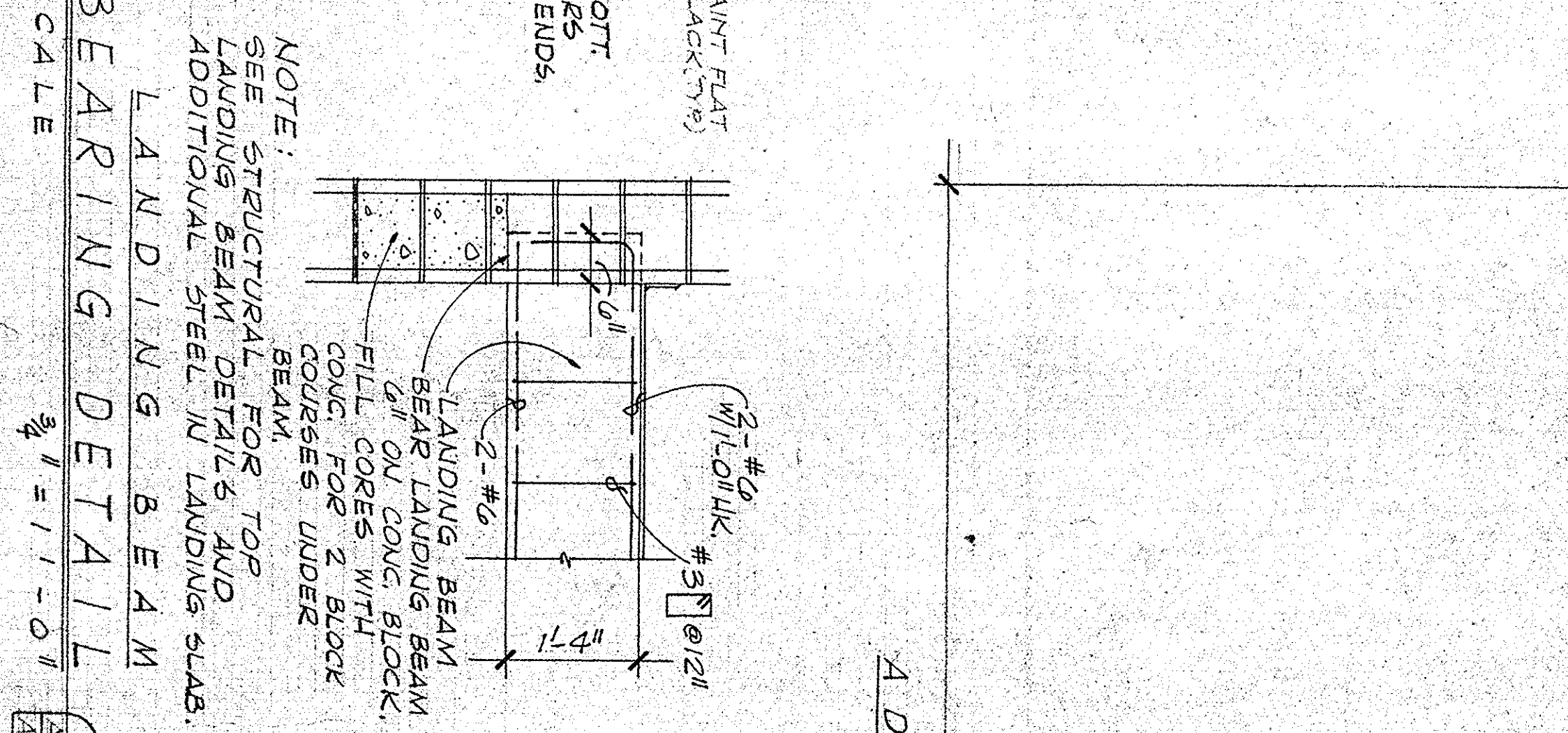
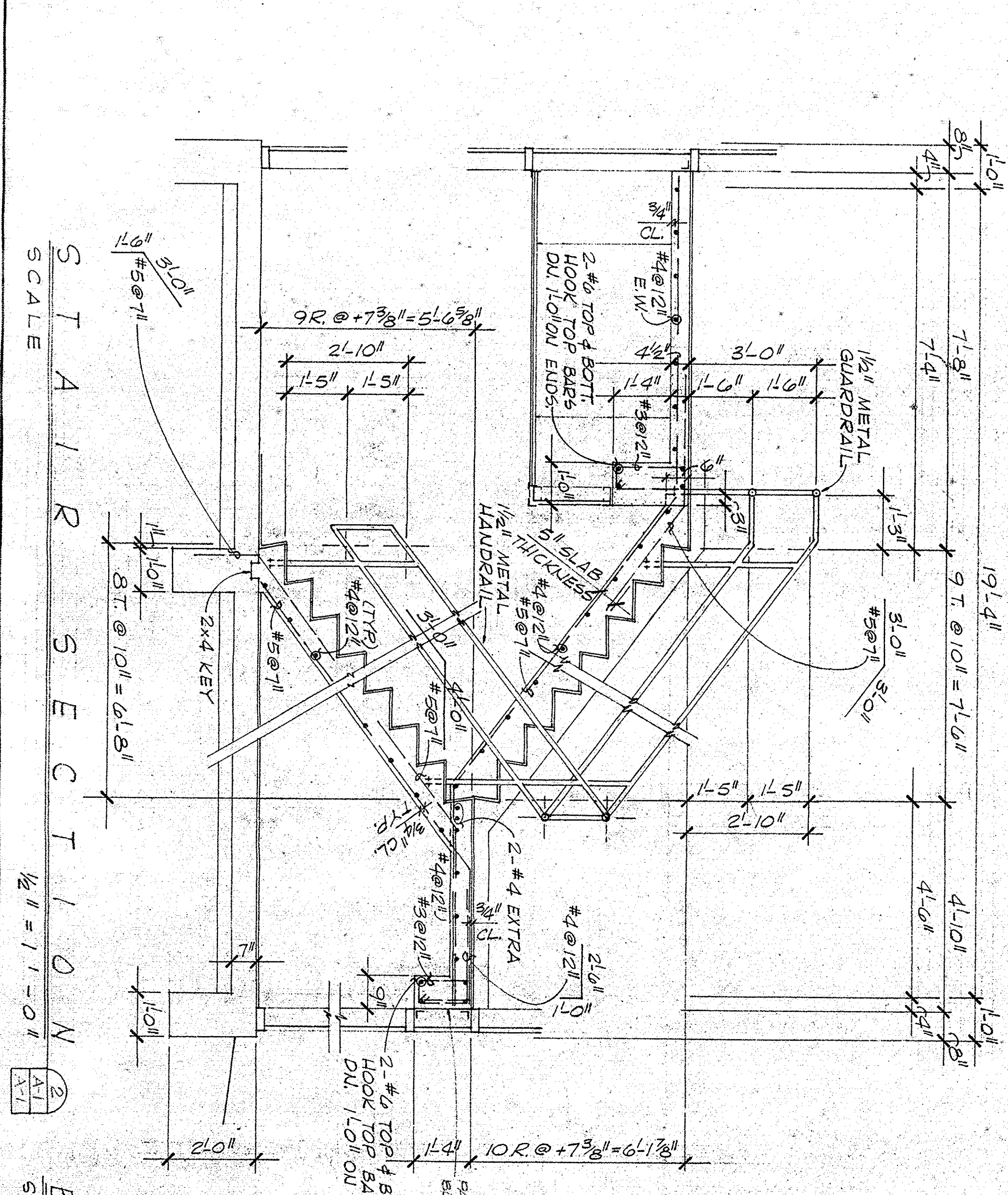
CONC. STOOP & RAMP DETAIL  
SCALE: 3/4" = 1'-0"

LOCAL TOILET ROOM ELEVATIONS  
SCALE: 1/4" = 1'-0"

CHALK BOARD ELEV.  
SCALE: 1/4" = 1'-0"

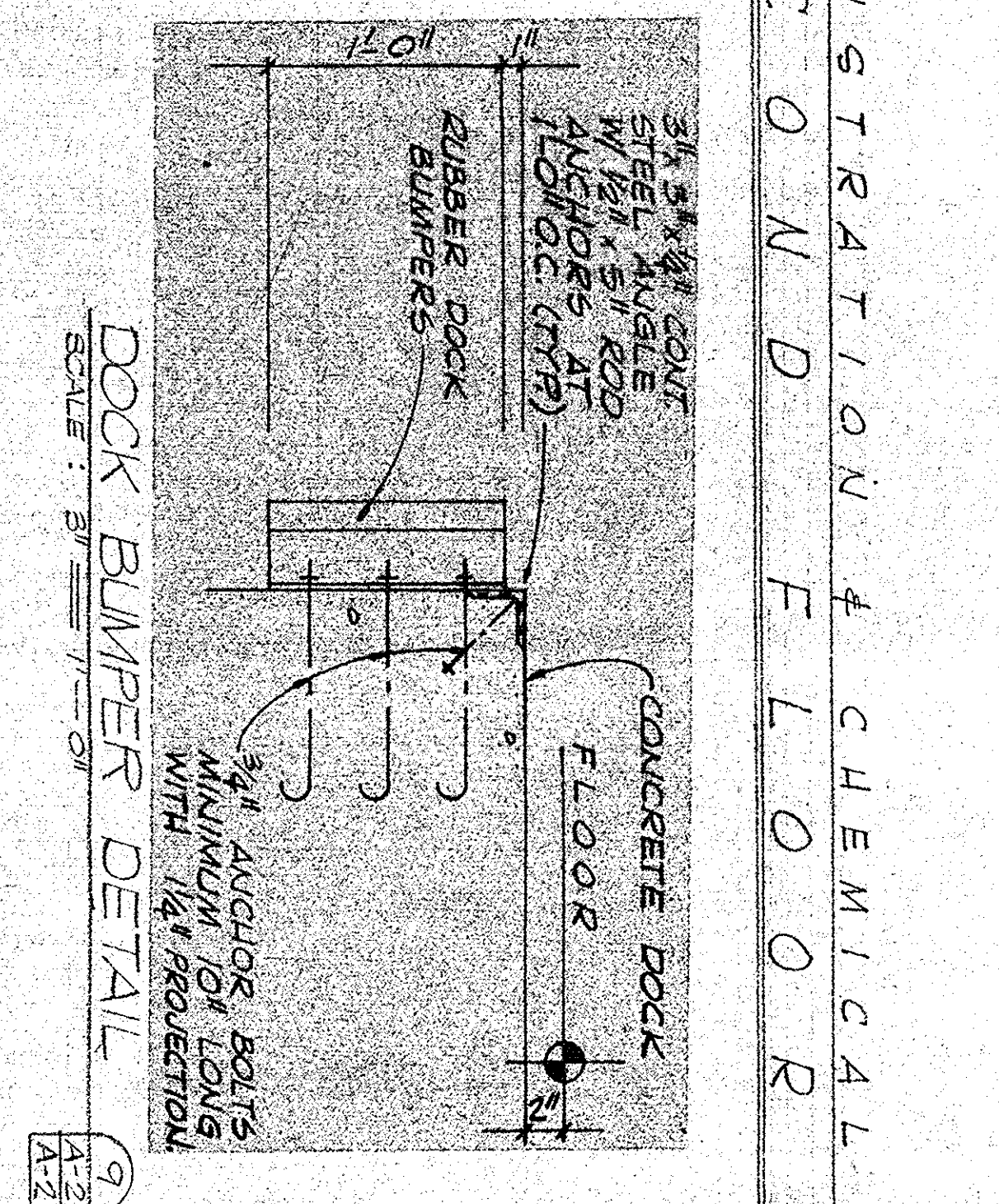
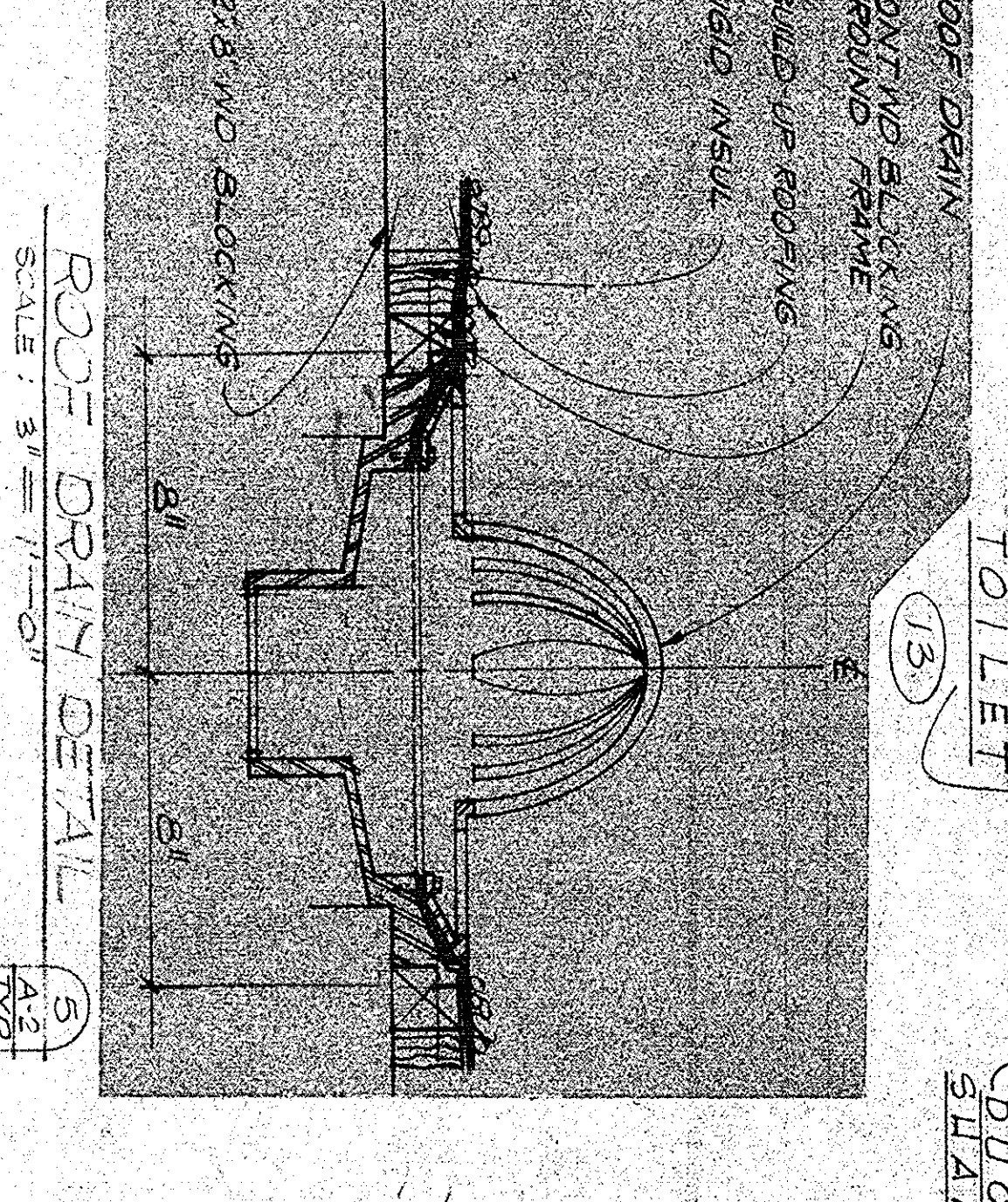
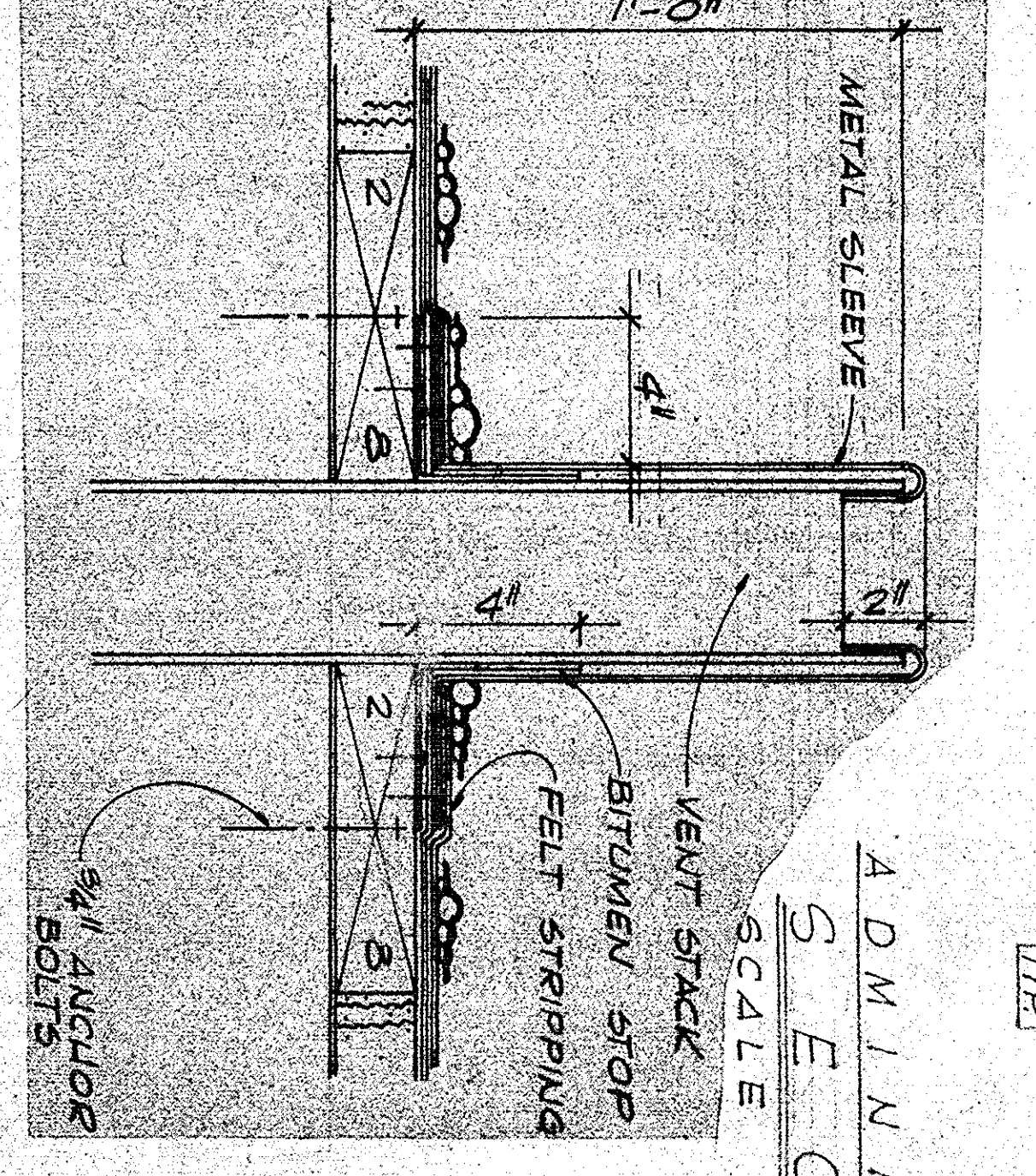
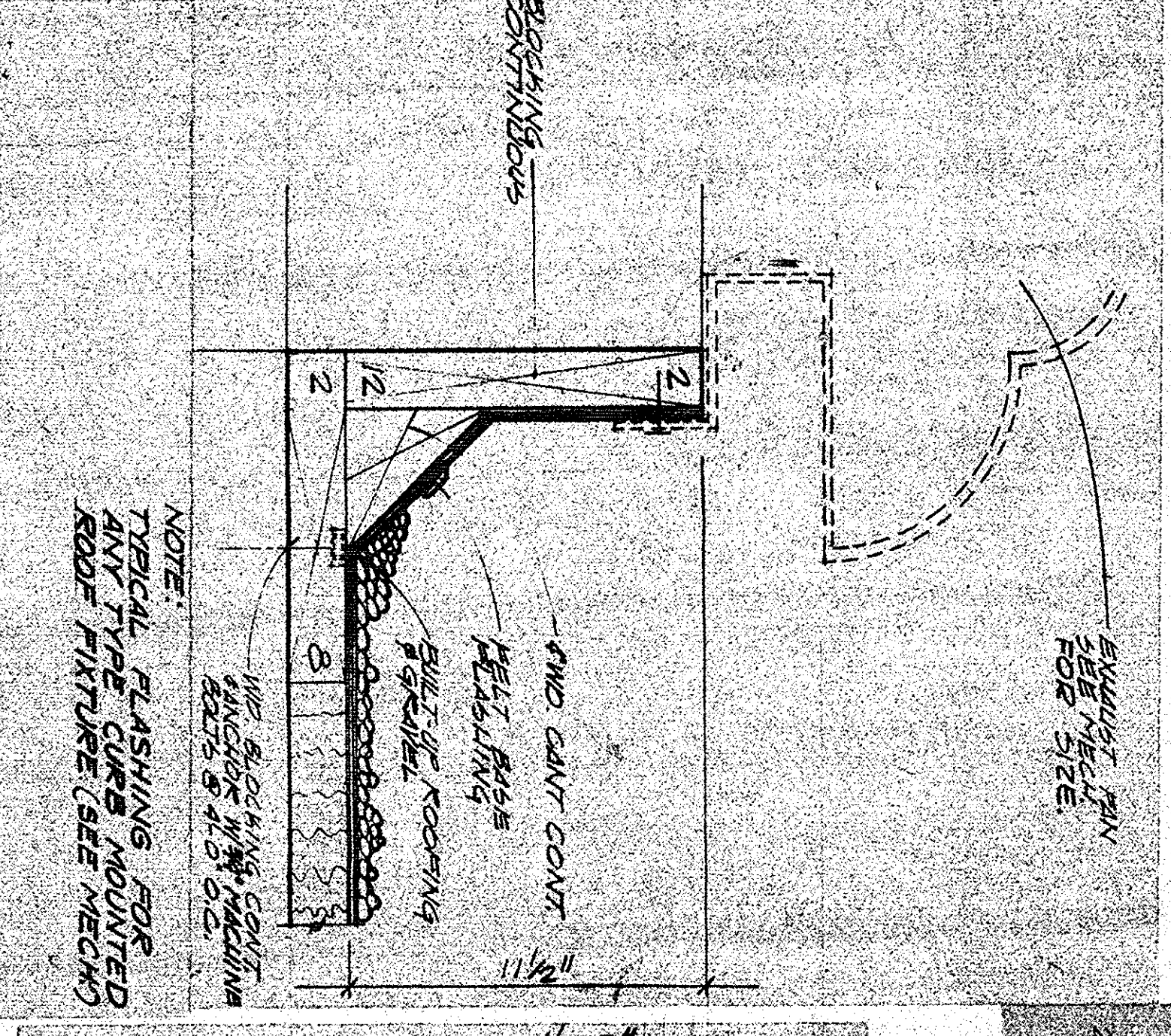
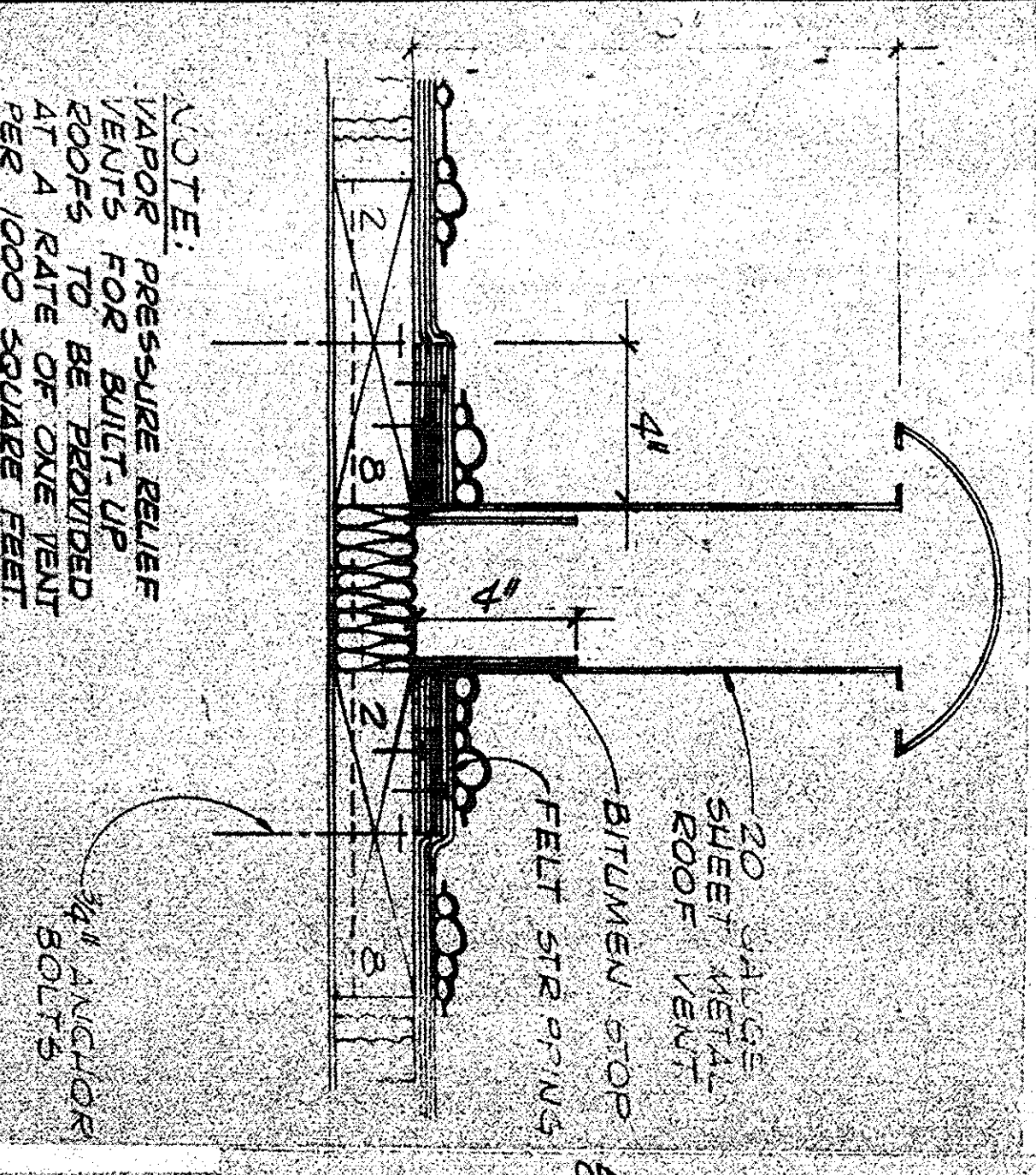
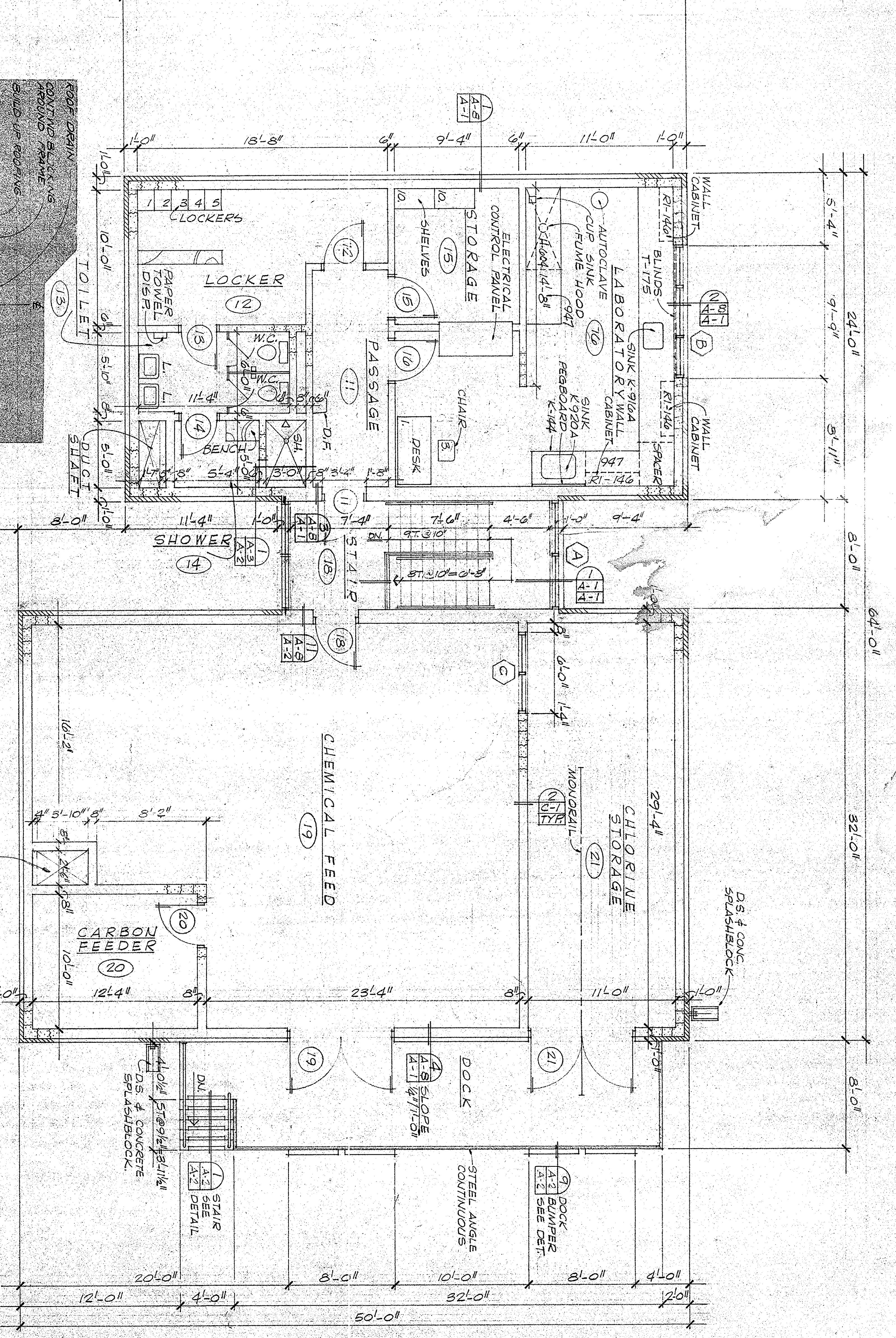
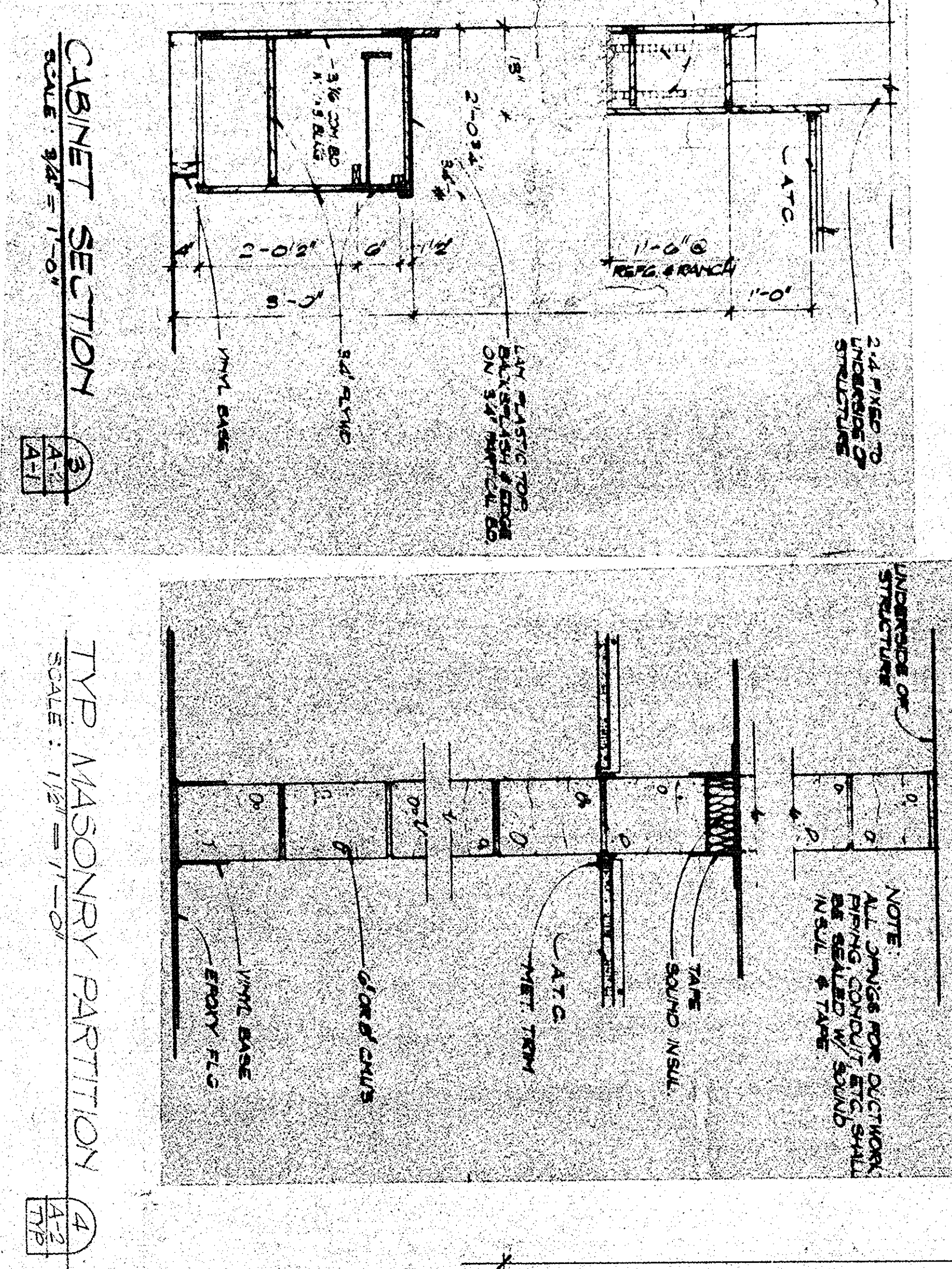
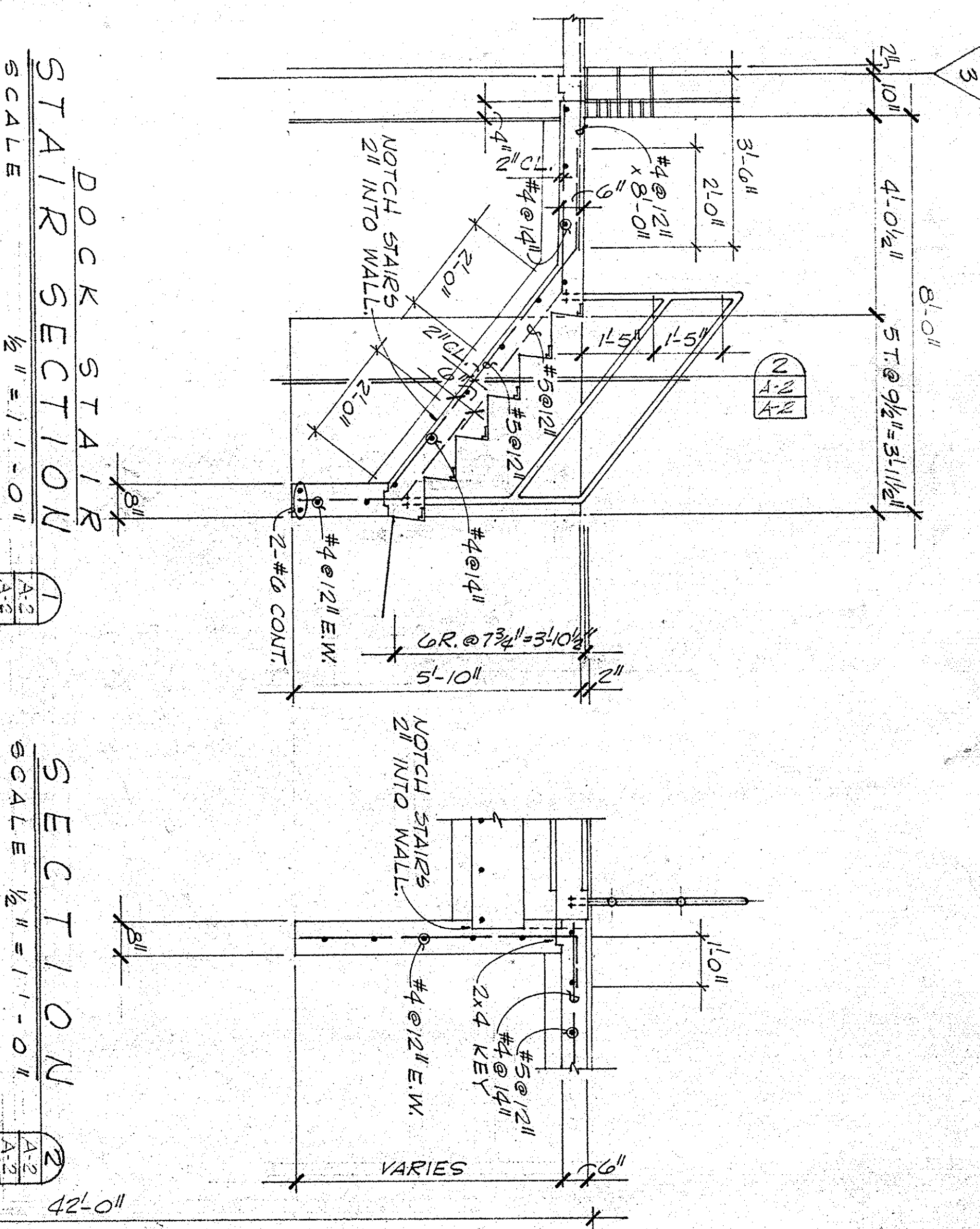
BEARING DETAIL  
SCALE: 3/4" = 1'-0"

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



ITEM NO.	DESCRIPTION
1.	DESK (60" x 30")
2.	DESK WITH L.H. EXTENSION
3.	SWIVEL CHAIR
4.	SECRETARIAL CHAIR
5.	GUEST CHAIR
6.	FILE CABINET
7.	90" x 30" TABLE
8.	60" x 30" TABLE
9.	STACKING CHAIR
10.	SHelves 72" x 30" x 12"

GEORGETOWN WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. 1  
DIVISION A  
ADMINISTRATION & CHEMICAL BUILDING  
ARCHITECTURAL  
HENNINGSON, DURHAM & RICHARDSON, INC.  
ENGINEERS - PLANNERS - CONSULTANTS  
CHAMBERT N.C.  
DATE: 1972  
SCALE: AS SHOWN  
DESIGNED BY: C.C.C.  
CHECKED BY: D.S.I.  
APPROVED BY: A-1



DATE	DESCRIPTION	MADE	APPROVED

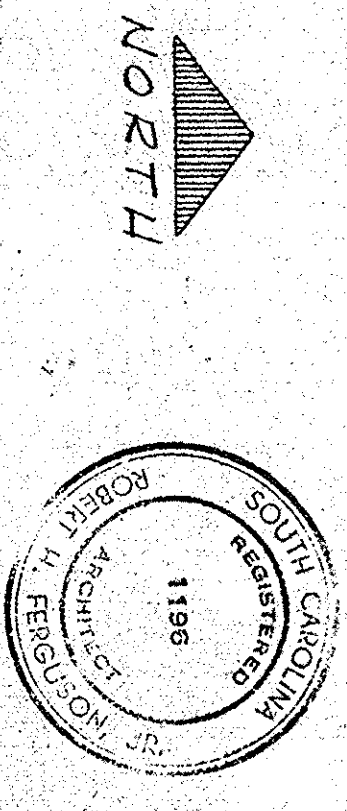
**GEORGETOWN WATER FILTRATION PLANT**  
E.D.A. PROJECT NO. 04-1-00735  
GEORGETOWN, SOUTH CAROLINA  
DIVISION A

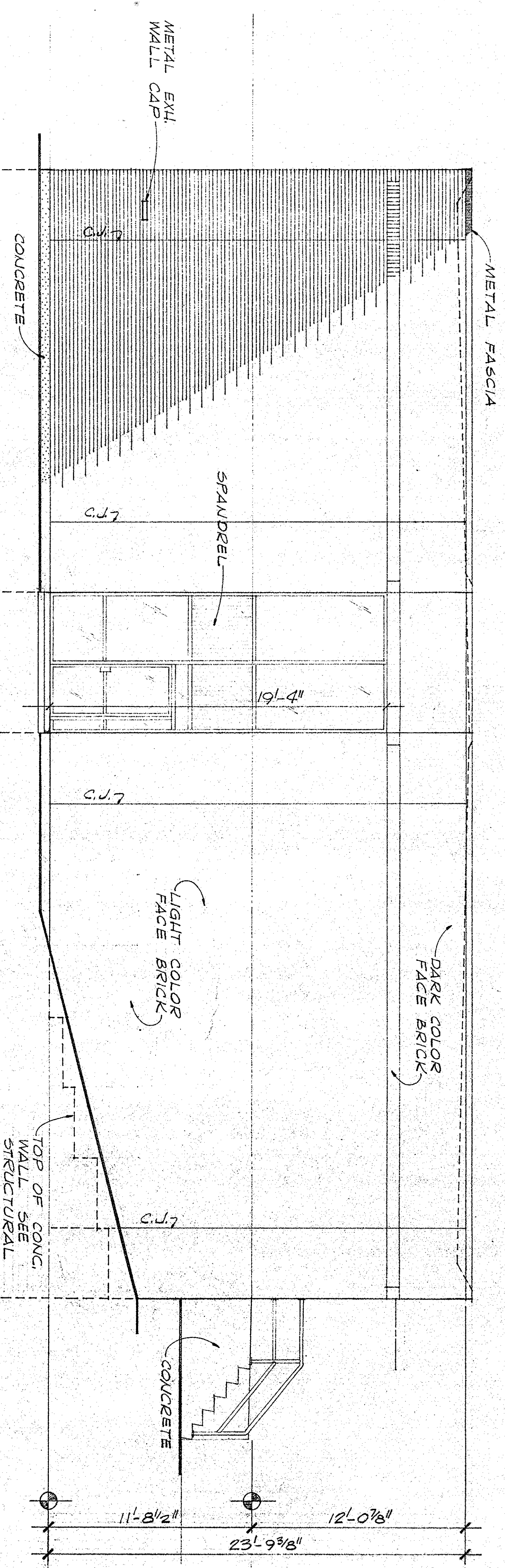
**ADMINISTRATION & CHEMICAL BUILDING**  
ARCHITECTURAL

HENNINGSON, DURHAM & RICHARDSON, INC.  
ENGINEERS - PLANNERS - CONSULTANTS  
CHARLOTTE, N.C.

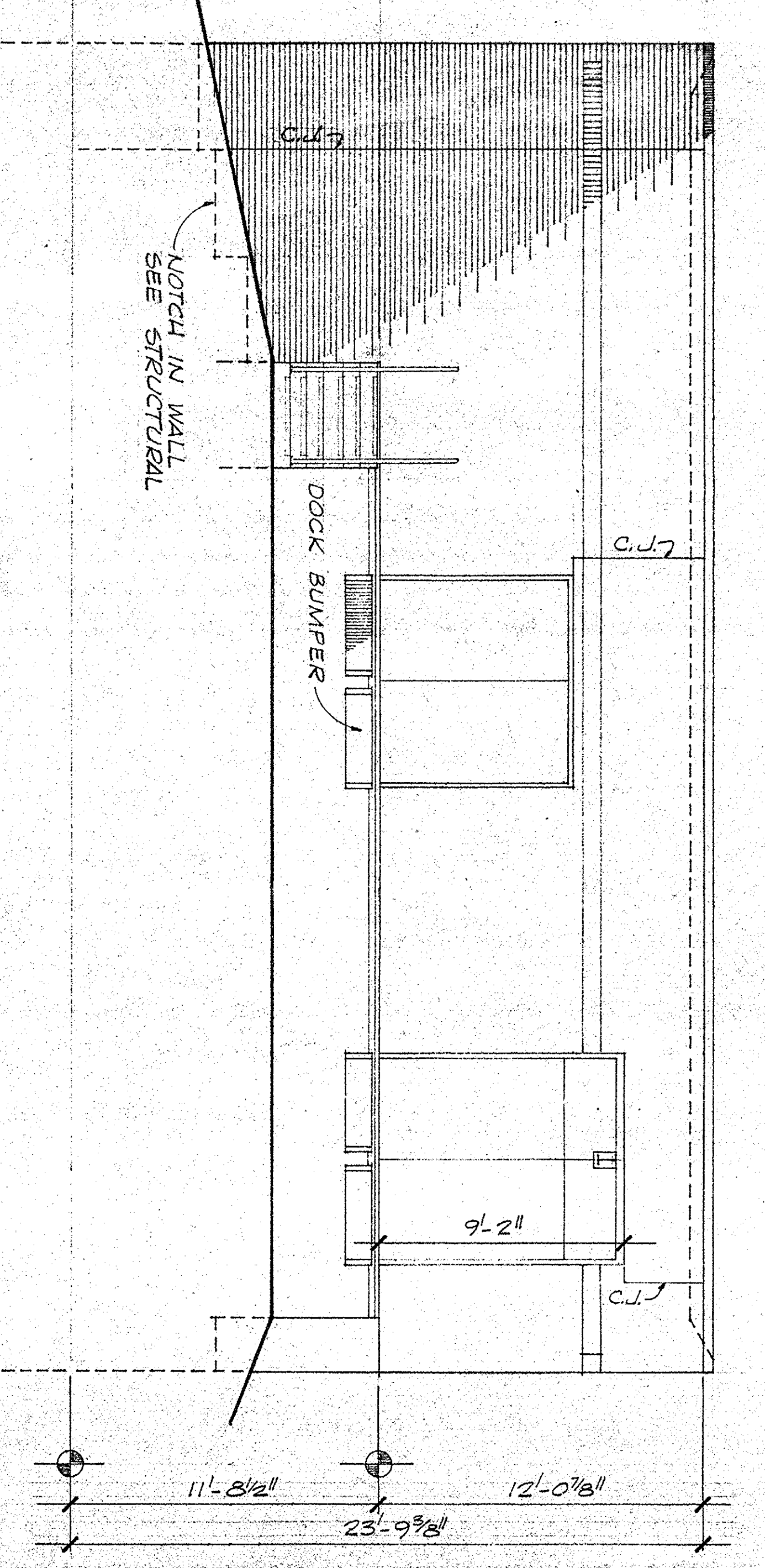
DESIGNED BY: C.C.I.  
CHECKED BY: D.S.I.  
APPROVED BY: [Signature]

DATE: 8-18-72  
SCALE: A-2

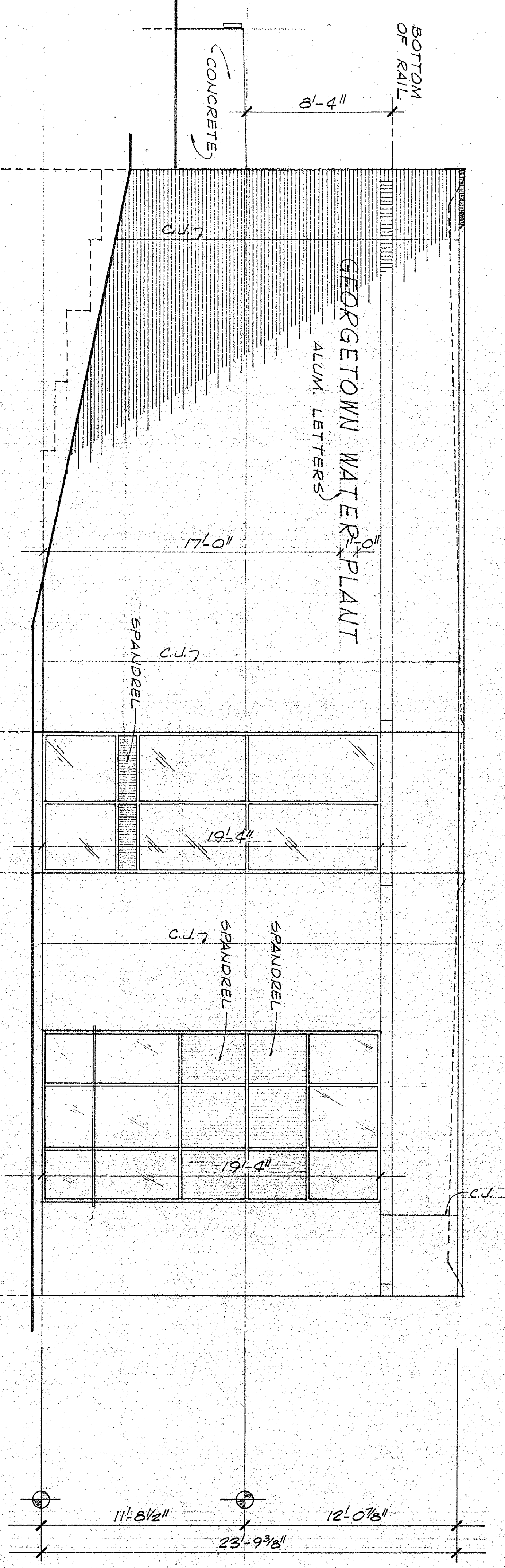




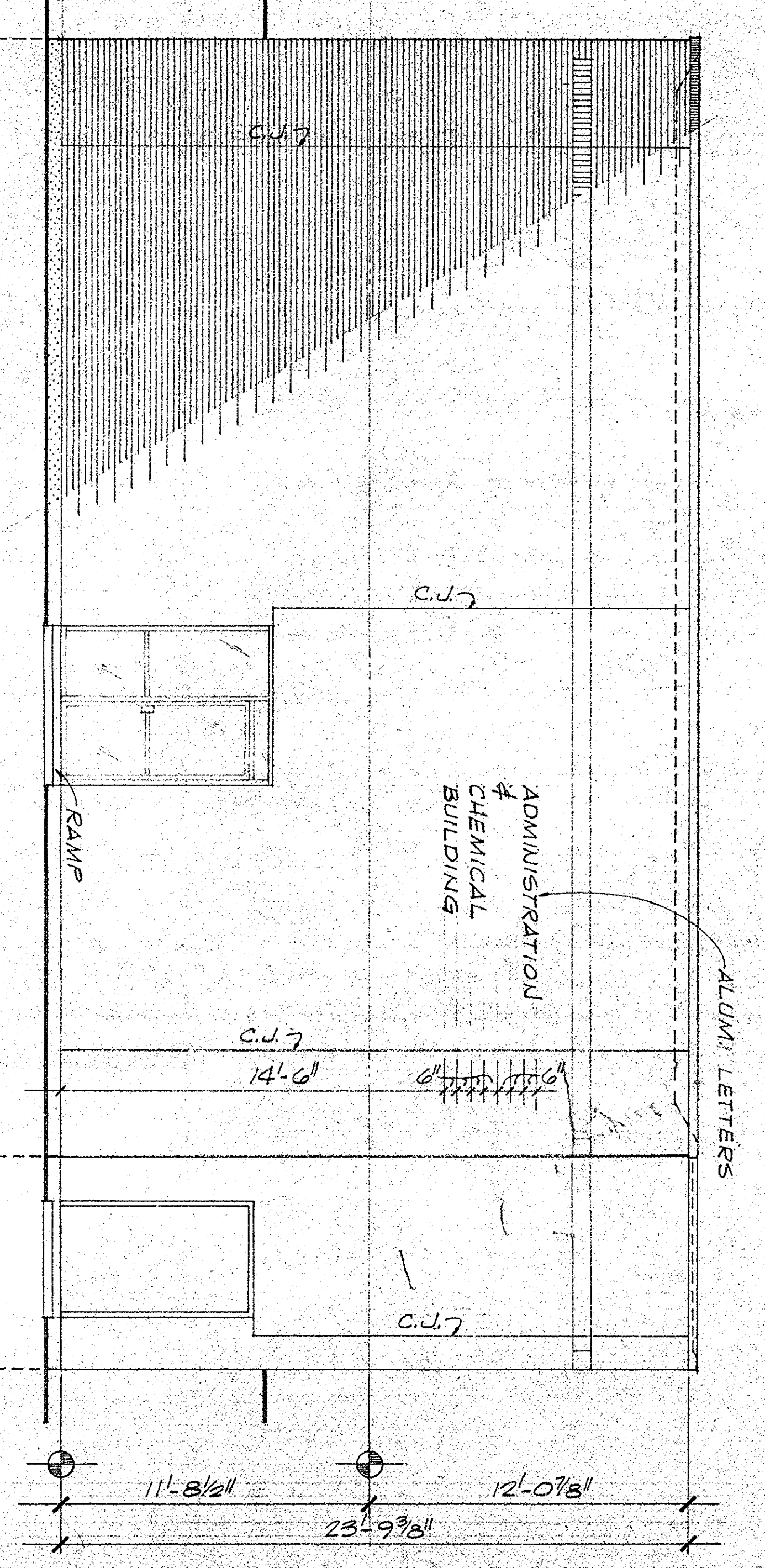
**SOUTH ELEVATION**  
SCALE: 1/4" = 1'-0"



**EAST ELEVATION**  
SCALE: 1/4" = 1'-0"

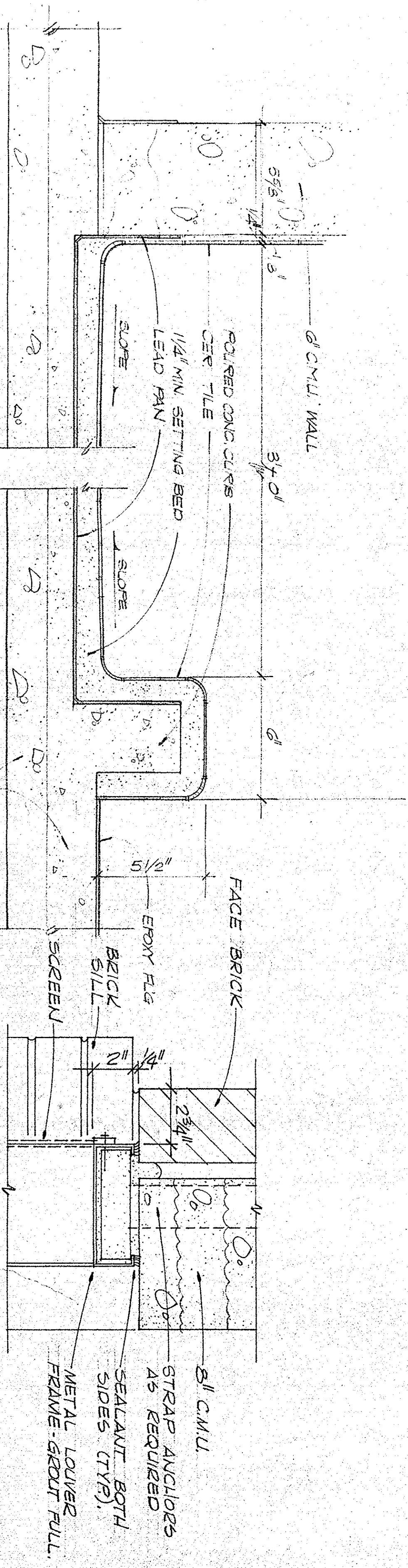


**NORTH ELEVATION**  
SCALE: 1/4" = 1'-0"



**WEST ELEVATION**  
SCALE: 1/4" = 1'-0"

NOTE: HORIZONTAL JOINT REINFORCEMENT AT L/D JOG VERTICALLY (EVERY OTHER CONCRETE BLOCK COURSE)

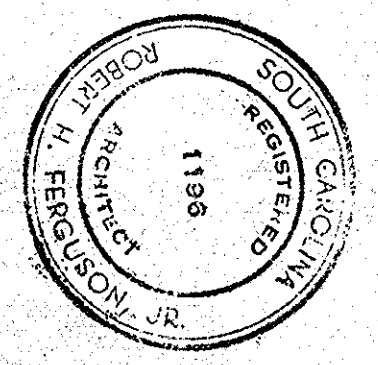


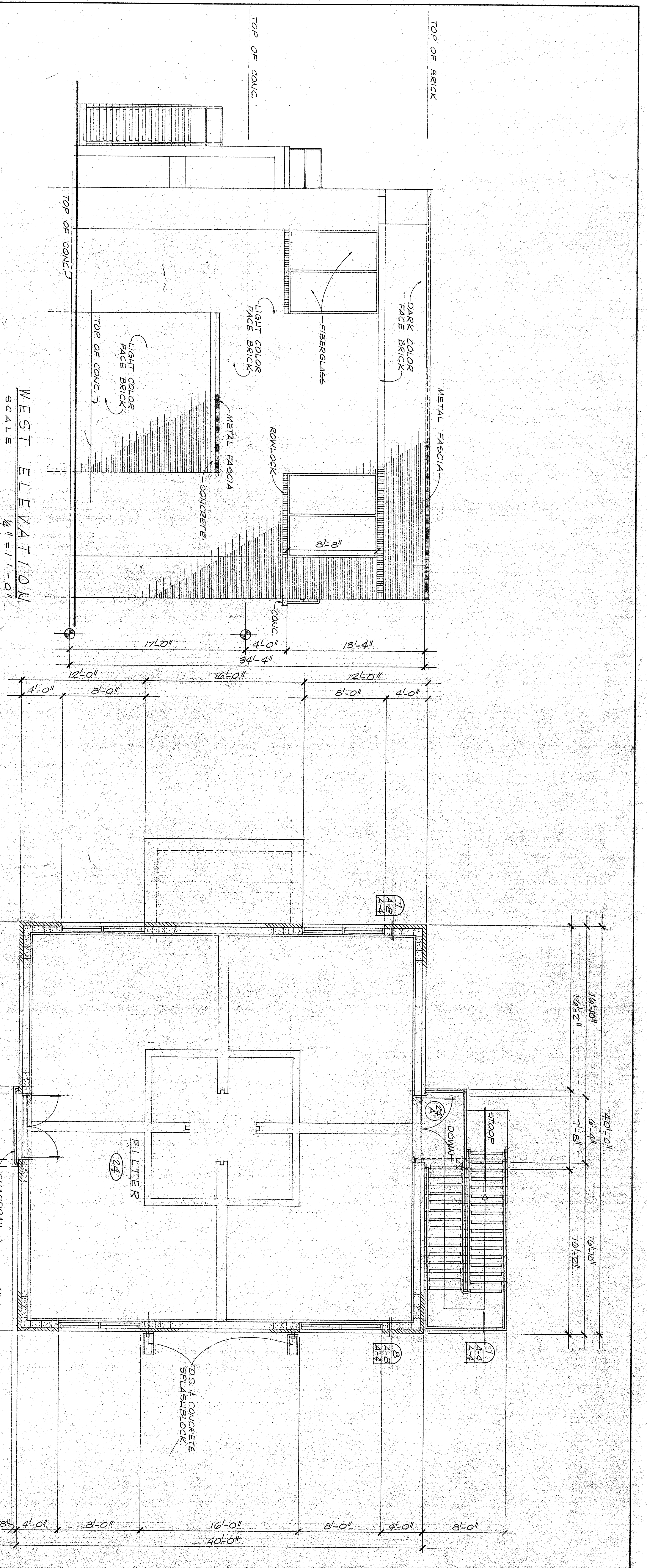
**SHOWER SHALL DETAIL**  
SCALE: 3/8" = 1'-0"

**LOUVER DET.**  
SCALE: 3/8" = 1'-0"

DATE	DESCRIPTION	MADE	APPROV.

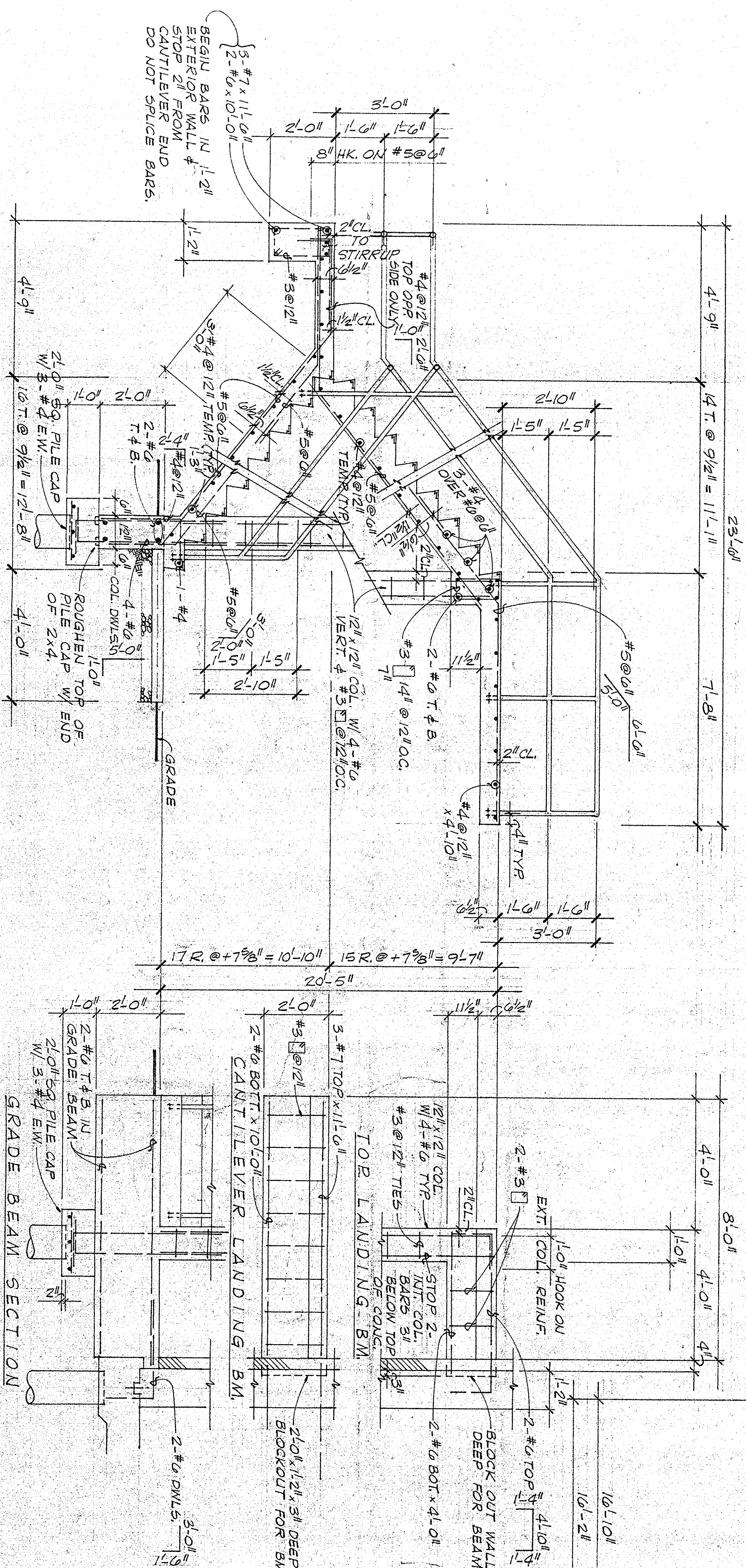
GEORGETOWN WATER FILTRATION PLANT  
 ADMINISTRATION & CHEMICAL BUILDING  
 ARCHITECTURAL  
 HENNINGSON, DURHAM & RICHARDSON, INC.  
 ENGINEERS - PLANNERS - CONSULTANTS  
 OF NORTH CAROLINA  
 GEORGETOWN, SOUTH CAROLINA  
 CONTRACT NO. 04-1-00735  
 DIVISION A  
 1972





WEST ELEVATION  
SCALE 1/4" = 1'-0"

FILTER BUILDING FLOOR PLAN  
SCALE 1/4" = 1'-0"



STAIR SECTION  
SCALE 1/2" = 1'-0"

DATE	DESCRIPTION	MADE	APPROV.

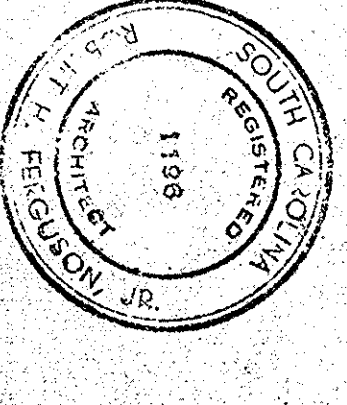
GEORGETOWN  
 WATER FILTRATION PLANT  
 E.D.A. PROJECT NO. 04-1-00735  
 GEORGETOWN, SOUTH CAROLINA  
 DIVISION A

ARCHITECTURAL

HENNINGSON, DURHAM & RICHARDSON, INC.  
 OF NORTH CAROLINA  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N.C.

DATE: 1972  
 DESIGNED BY: C.C.  
 CHECKED BY: D.S.  
 DRAWN BY: D.S.

JOB NO. 83-18  
 18  
 A-4



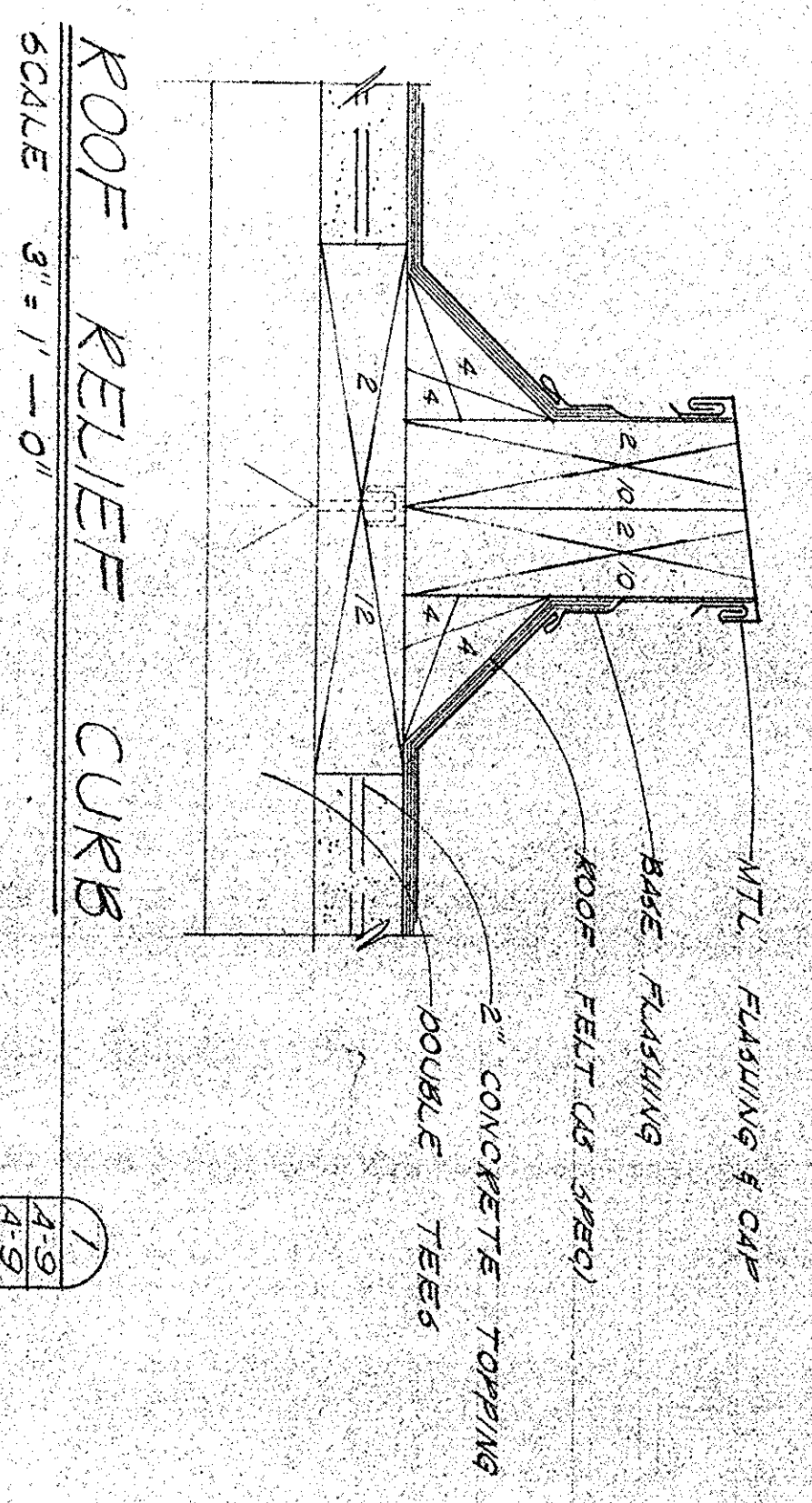




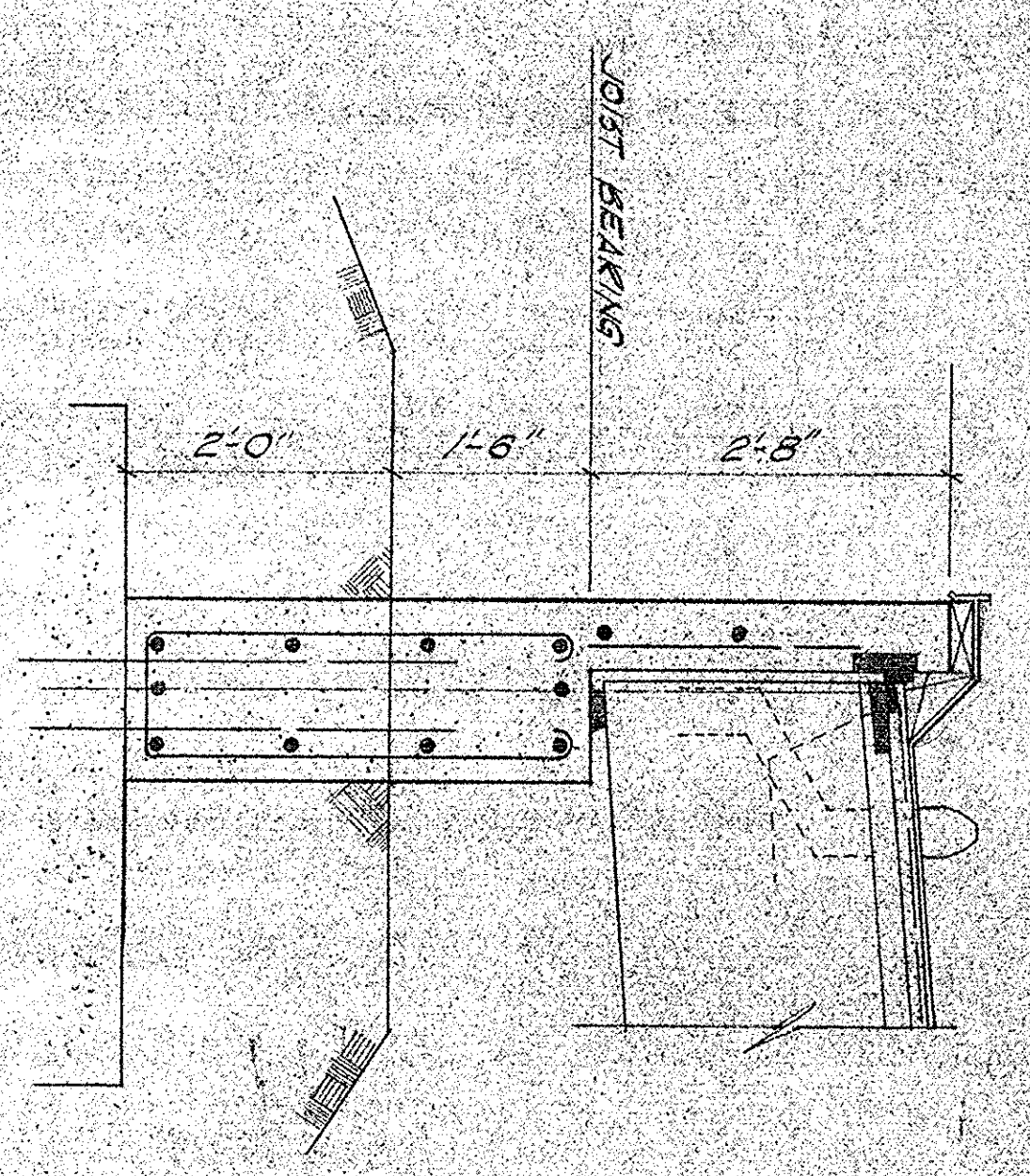




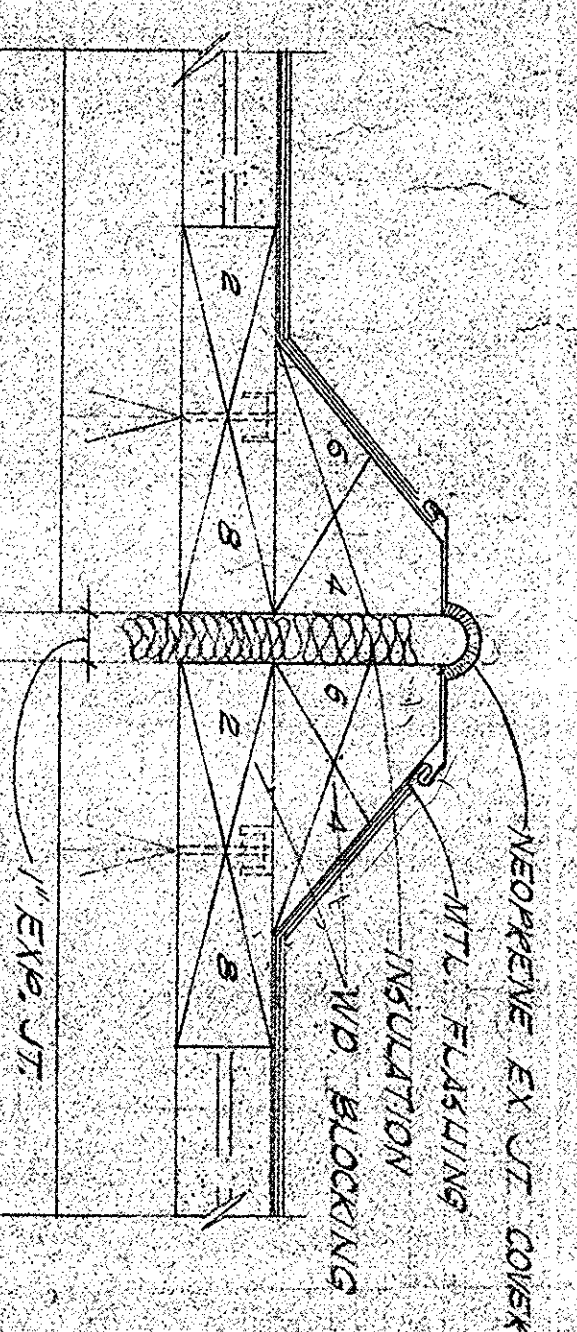




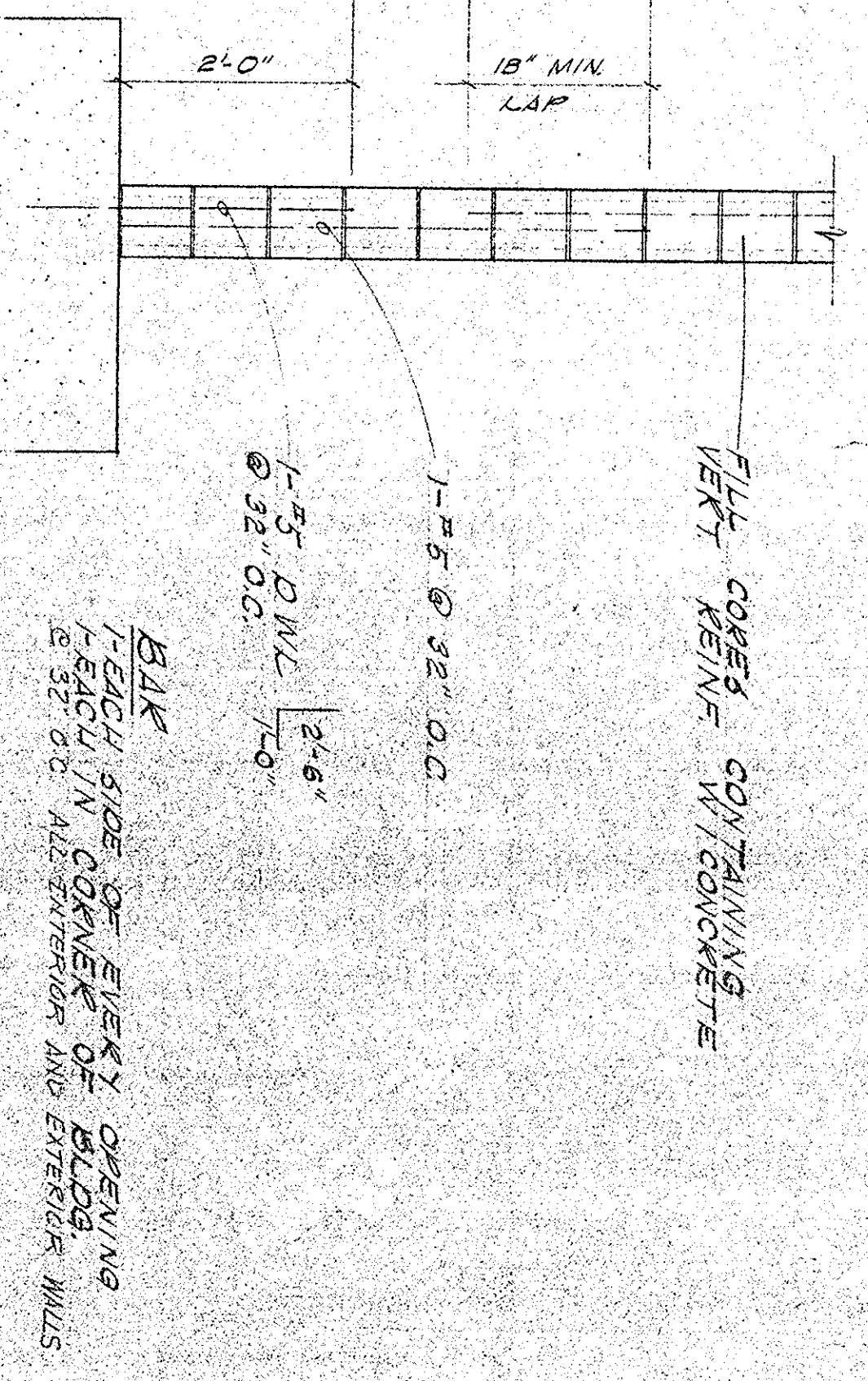
ROOF RELIEF CURB  
SCALE 3/4" = 1'-0"



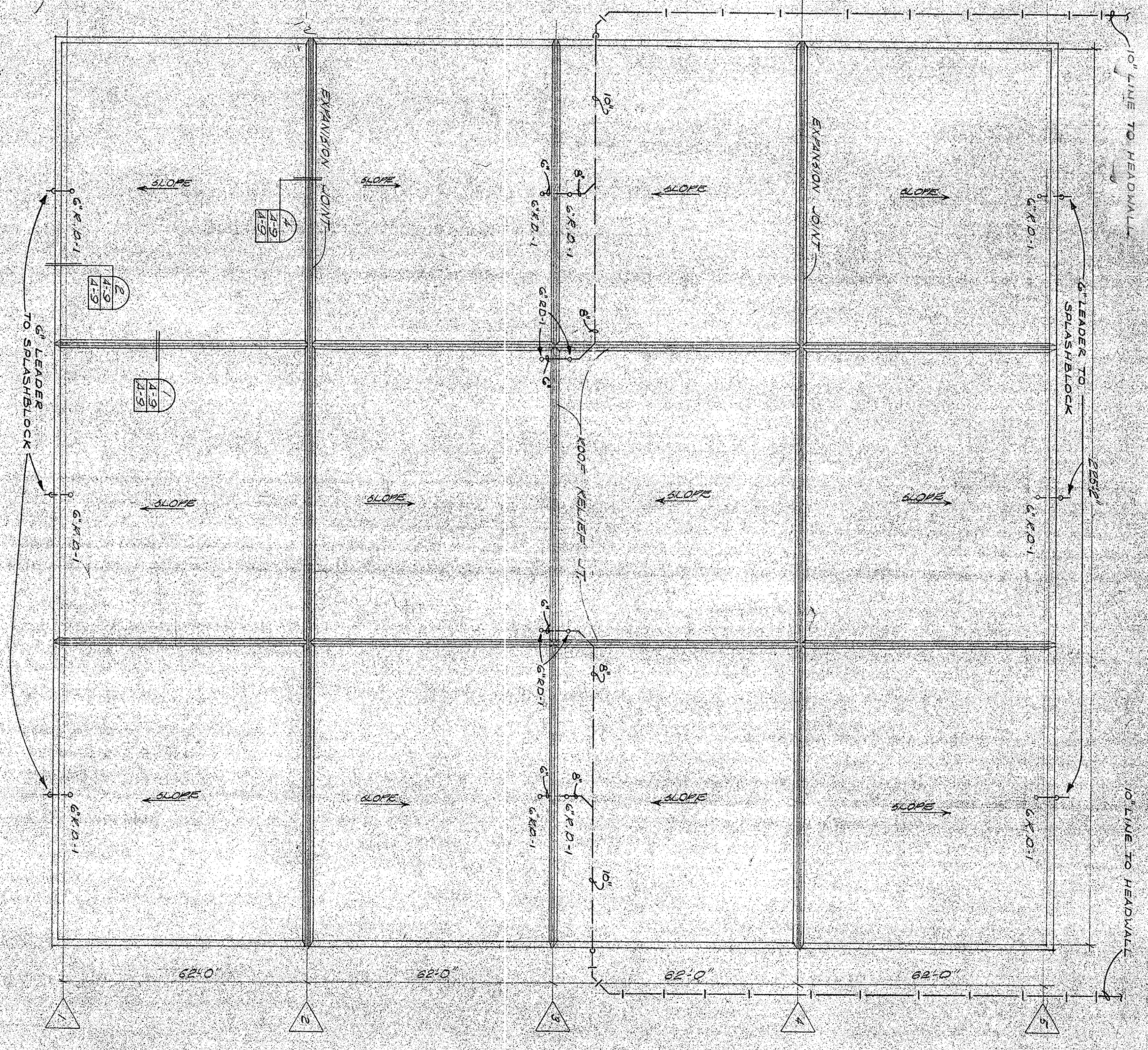
WALL SECTION  
SCALE 3/4" = 1'-0"



EXPANSION JT. DETAIL  
SCALE 3/4" = 1'-0"

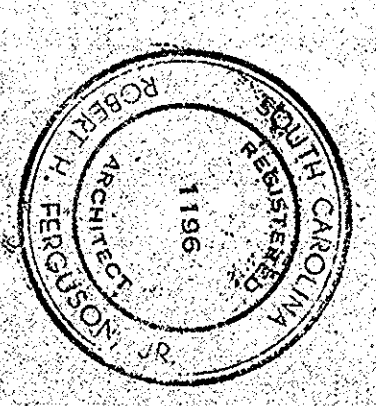


TYP. MASONRY REINFE. DETAIL  
SCALE 3/4" = 1'-0"



RESERVOIR ROOF PLAN  
SCALE 1/8" = 1'-0"

NOTE: SEE SHEET 103 FOR LOCATION OF 4 MINUTE GULLIES IN ROOF



GEORGETOWN  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. I  
DIVISION A

RESERVOIR ROOF  
ARCHITECTURAL

DATE	DESCRIPTION	MADE	APPROV.
	REVISIONS		

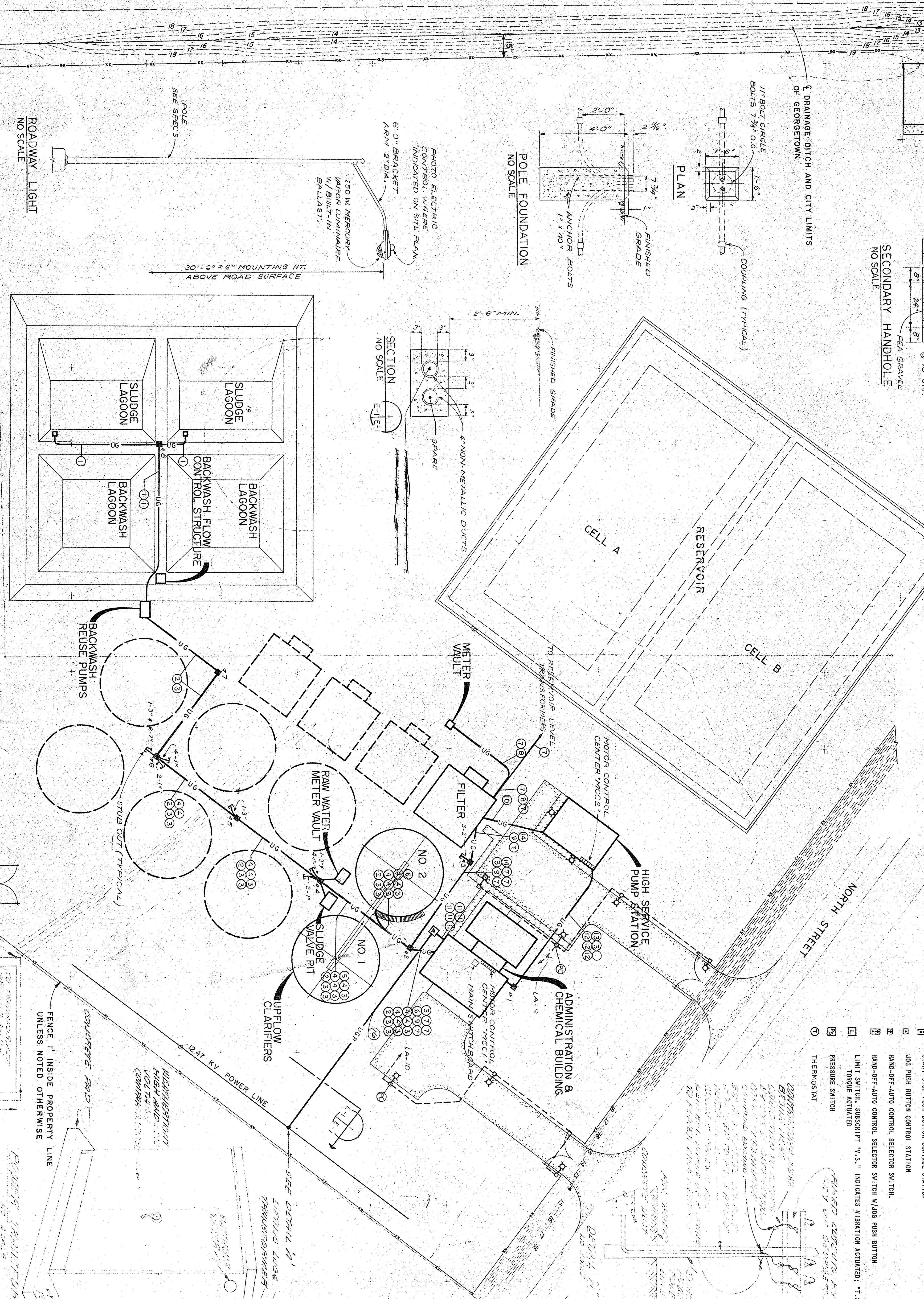
  

DATE	HENNINGSON, DURHAM & RICHARDSON, INC.	JOB NO.	85-18
SCALE	OF NORTH CAROLINA	ENGINEERS - PLANNERS - CONSULTANTS	SHALLOTTE, N.C.
DRAWN BY	BT	CHECKED BY	B.H.C.
		APPROVED BY	B.H.C.

MARK	SIZE	NO. & SIZE	CONDUCTORS & CABLE
1.	1"	2 #8, 1 #8 GRND.	
2.	2"	3 #8, 1 #8 GRND., 2-1/2" C. #12 CABLE	
3.	3"	EMPTY	
4.	2 1/2"	EMPTY	
5.	2 1/2"	4-5/8" #12 CABLE	
6.	3"	3 #8, 1 #8 GRND., 1-1/2" C. #12 CABLE	
7.	2"	EMPTY	
8.	2"	3 #8, 1 #8 GRND., 1-1/2" C. #12 CABLE	
9.	2"	3 #8, 1 #8 GRND., 1-1/2" C. #12 CABLE	
10.	1"	1-3/8" #12 CABLE	
11.	3/4"	3 #500 MCH., 1 #170 GRND.	
12.	3/4"	3 #500 MCH., 1 #170 GRND.	
13.	3"	5-3/8" & 2-1/2" #12 CABLE	
14.	2"	3/8" & 1/2" #12 CABLE	
15.	3"	3#250 MCH., 1 #2 GRND., 3# ALUMINUM CONCENTRIC NEUTRAL	
16.	3/2"	3# ALUMINUM CONCENTRIC NEUTRAL	

MARK	DESCRIPTION
○	CEILING FIXTURE OUTLET.
○	WALL FIXTURE OUTLET.
○	FLUORESCENT FIXTURE OUTLET
○	SINGLE POLE SWITCH
○	DOUBLE POLE SWITCH
○	THREE WAY SWITCH
○	JUNCTION BOX # 30, CAST METAL W/THREADS HUBS AND GASKETED BLANK COVERS UNLESS OTHERWISE INDICATED
○	DUPLEX RECEPTACLE OUTLET
○	DUPLEX RECEPTACLE OUTLET WEATHERPROOF
○	BRANCH CIRCUIT PANEL
○	DISCONNECT SWITCH, TYPE & RATINGS AS NOTED WEATHERPROOF
○	HAND MOTOR STARTER W/OVERLOAD DEVICE & W/PILLOT LIGHT WHERE SUBSCRIPT "P" APPEARS.
○	START-STOP PUSH BUTTON CONTROL STATION
○	STOP PUSH BUTTON CONTROL STATION
○	HAND-OFF-AUTO CONTROL SELECTOR SWITCH.
○	HAND-OFF-AUTO CONTROL SELECTOR SWITCH W/LOG PUSH BUTTON
○	LIMIT SWITCH, SUBSCRIPT "V.S." INDICATES VIBRATION ACTIVATED. "I.S." TORQUE ACTIVATED
○	PRESSURE SWITCH
○	THEMISTAT

MARK	DESCRIPTION
○	ELECTRIC HEATING ELEMENT
○	MOTOR, A-C INDUCTION TYPE, ENCLOSED NUMERALS DENOTE HORSEPOWER.
○	CONTROL PANEL, INTEGRAL PART OF OR FURNISHED W/MECHANICAL EQUIPMENT, BRANCH CIRCUIT OR FEEDER, TWO WIRE CIRCUITS UNLESS INDICATED AS FOLLOWS: -#4-3 WIRE, -#4-4 WIRE, ETC.
○	CONDUIT TURNING UP, SOLID CIRCLE INDICATES CONDUIT TURNING DOWN, HOME RUN TO PANEL, NUMBER OF ARROWS INDICATES NO. OF CIRCUITS.
○	TELEPHONE CONDUIT
○	TELEPHONE OUTLET
○	INULDED CASE CIRCUIT BREAKER RATING & NO. OF POLES INDICATED.
○	COMBINATION MANDRETO MOTOR STARTER, CIRCUIT BREAKER TYPE, BREAKER RATING & NO. OF POLES INDICATED, SIZE I FULL VOLTAGE NON-BREAKING DISCONNECTING DEVICE FOR DRAW OUT EQUIPMENT.
○	POTENTIAL TRANSFORMER, RATIO AS INDICATED.
○	CURRENT TRANSFORMER, RATIO AS INDICATED.
○	PHASE SELECTOR SWITCH, ENCLOSED LETTERS INDICATE FUNCTION AS FOLLOWS: -A - AMMETER W/ -WATTMETER "ON-OFF" SWITCH TO -VOLTMETER
○	METER OR RELAY-ENCLOSED LETTERS INDICATE FUNCTION AS FOLLOWS: -V - AC VOLTMETER F - FREQUENCY METER A - AC AMMETER W - WATTMETER
○	TRANSFORMER, TYPE & RATING AS NOTED.
○	FUSE, SIZE & QUANTITY AS INDICATED.
○	SOLENOID VALVE
○	PANPOINT TRANSFORMER
○	UNDERGROUND DUCTS, CONCRETE ENCASED, NUMERALS INDICATES QUANTITY OF DUCTS, SIZE OF CONDUITS & NO. & SIZE OF CONDUCTORS OR CABLES AS INDICATED.
○	UNDERGROUND LIGHTING CIRCUIT IN NON-METALLIC DIRECT BURIAL CONDUIT, HASH MARKS INDICATE NUMBER OF CONDUCTORS INCLUDING GROUND CONDUCTOR, ALL #8 AWG, UNLESS OTHERWISE INDICATED.
○	UNDERGROUND PRIMARY, NO. & SIZE OF CONDUCTORS, & CONDUIT AS INDICATED.
○	UNDERGROUND SECONDARY OR CONTROL CIRCUIT, NO. & SIZE OF CONDUCTORS, & CONDUIT AS INDICATED.
○	ROADWAY LIGHT.
○	PHOTO-ELECTRIC CONTROL.
○	SECONDARY HANDHOLE.



**LEGEND**

○ CEILING FIXTURE OUTLET.  
 ○ WALL FIXTURE OUTLET.  
 ○ FLUORESCENT FIXTURE OUTLET  
 ○ SINGLE POLE SWITCH  
 ○ DOUBLE POLE SWITCH  
 ○ THREE WAY SWITCH  
 ○ JUNCTION BOX # 30, CAST METAL W/THREADS HUBS AND GASKETED BLANK COVERS UNLESS OTHERWISE INDICATED  
 ○ DUPLEX RECEPTACLE OUTLET  
 ○ DUPLEX RECEPTACLE OUTLET WEATHERPROOF  
 ○ BRANCH CIRCUIT PANEL  
 ○ DISCONNECT SWITCH, TYPE & RATINGS AS NOTED WEATHERPROOF  
 ○ HAND MOTOR STARTER W/OVERLOAD DEVICE & W/PILLOT LIGHT WHERE SUBSCRIPT "P" APPEARS.  
 ○ START-STOP PUSH BUTTON CONTROL STATION  
 ○ STOP PUSH BUTTON CONTROL STATION  
 ○ HAND-OFF-AUTO CONTROL SELECTOR SWITCH.  
 ○ HAND-OFF-AUTO CONTROL SELECTOR SWITCH W/LOG PUSH BUTTON  
 ○ LIMIT SWITCH, SUBSCRIPT "V.S." INDICATES VIBRATION ACTIVATED. "I.S." TORQUE ACTIVATED  
 ○ PRESSURE SWITCH  
 ○ THEMISTAT

○ ELECTRIC HEATING ELEMENT  
 ○ MOTOR, A-C INDUCTION TYPE, ENCLOSED NUMERALS DENOTE HORSEPOWER.  
 ○ CONTROL PANEL, INTEGRAL PART OF OR FURNISHED W/MECHANICAL EQUIPMENT, BRANCH CIRCUIT OR FEEDER, TWO WIRE CIRCUITS UNLESS INDICATED AS FOLLOWS: -#4-3 WIRE, -#4-4 WIRE, ETC.  
 ○ CONDUIT TURNING UP, SOLID CIRCLE INDICATES CONDUIT TURNING DOWN, HOME RUN TO PANEL, NUMBER OF ARROWS INDICATES NO. OF CIRCUITS.  
 ○ TELEPHONE CONDUIT  
 ○ TELEPHONE OUTLET  
 ○ INULDED CASE CIRCUIT BREAKER RATING & NO. OF POLES INDICATED.  
 ○ COMBINATION MANDRETO MOTOR STARTER, CIRCUIT BREAKER TYPE, BREAKER RATING & NO. OF POLES INDICATED, SIZE I FULL VOLTAGE NON-BREAKING DISCONNECTING DEVICE FOR DRAW OUT EQUIPMENT.  
 ○ POTENTIAL TRANSFORMER, RATIO AS INDICATED.  
 ○ CURRENT TRANSFORMER, RATIO AS INDICATED.  
 ○ PHASE SELECTOR SWITCH, ENCLOSED LETTERS INDICATE FUNCTION AS FOLLOWS: -A - AMMETER W/ -WATTMETER "ON-OFF" SWITCH TO -VOLTMETER  
 ○ METER OR RELAY-ENCLOSED LETTERS INDICATE FUNCTION AS FOLLOWS: -V - AC VOLTMETER F - FREQUENCY METER A - AC AMMETER W - WATTMETER  
 ○ TRANSFORMER, TYPE & RATING AS NOTED.  
 ○ FUSE, SIZE & QUANTITY AS INDICATED.  
 ○ SOLENOID VALVE  
 ○ PANPOINT TRANSFORMER  
 ○ UNDERGROUND DUCTS, CONCRETE ENCASED, NUMERALS INDICATES QUANTITY OF DUCTS, SIZE OF CONDUITS & NO. & SIZE OF CONDUCTORS OR CABLES AS INDICATED.  
 ○ UNDERGROUND LIGHTING CIRCUIT IN NON-METALLIC DIRECT BURIAL CONDUIT, HASH MARKS INDICATE NUMBER OF CONDUCTORS INCLUDING GROUND CONDUCTOR, ALL #8 AWG, UNLESS OTHERWISE INDICATED.  
 ○ UNDERGROUND PRIMARY, NO. & SIZE OF CONDUCTORS, & CONDUIT AS INDICATED.  
 ○ UNDERGROUND SECONDARY OR CONTROL CIRCUIT, NO. & SIZE OF CONDUCTORS, & CONDUIT AS INDICATED.  
 ○ ROADWAY LIGHT.  
 ○ PHOTO-ELECTRIC CONTROL.  
 ○ SECONDARY HANDHOLE.

DATE	DESCRIPTION	MADE	APPROV.

**NOTES**

1. CONFIGURATION OF CONDUITS IN DUCT BANKS BETWEEN MANHOLES SHALL CORRESPOND TO CONFIGURATION OF MARK NUMBERS SHOWN ON SITE PLAN FOR THE VARIOUS BANS.
2. NON-METALLIC CONDUITS IN DUCT BANKS FOR THE VARIOUS SECTIONS TO BUILDINGS & STRUCTURES SHALL BE TERMINATED 5 FEET FROM OUTSIDE WALL IN DIRECTION OF RUN AND, USING SUITABLE ADAPTER FITTINGS, COUPLED TO RIGID STEEL CONDUITS OF LIKE SIZE FOR EXTENSION OF RACKS TO EQUIPMENT WITHIN BUILDINGS OR AT STRUCTURES AS INDICATED OR REQUIRED.

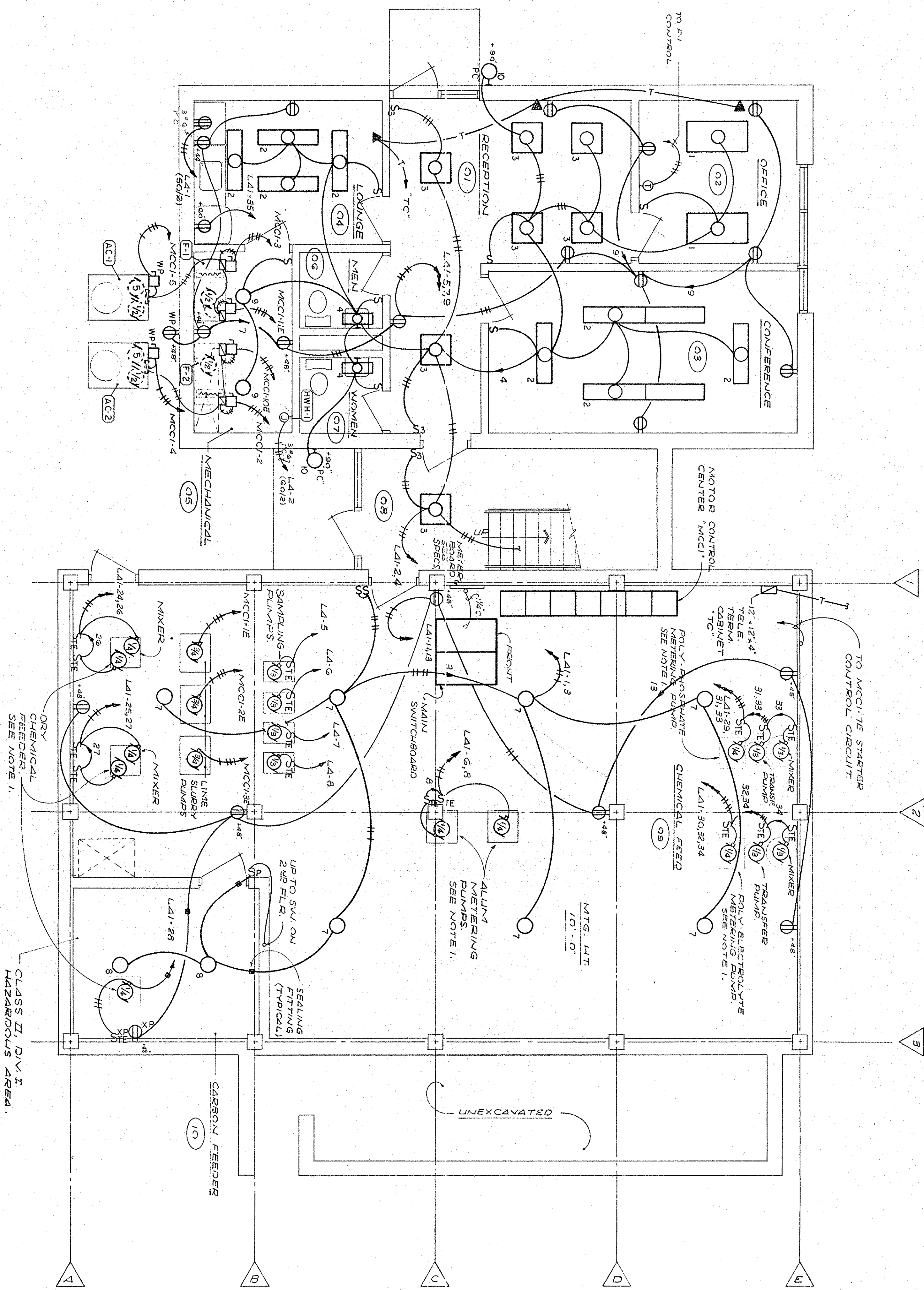
**GEORGETOWN WATER FILTRATION PLANT**  
 E.D.A. PROJECT NO. 04-1-00735  
 GEORGETOWN, SOUTH CAROLINA  
 DIVISION A

**SITE PLAN**  
 ELECTRICAL

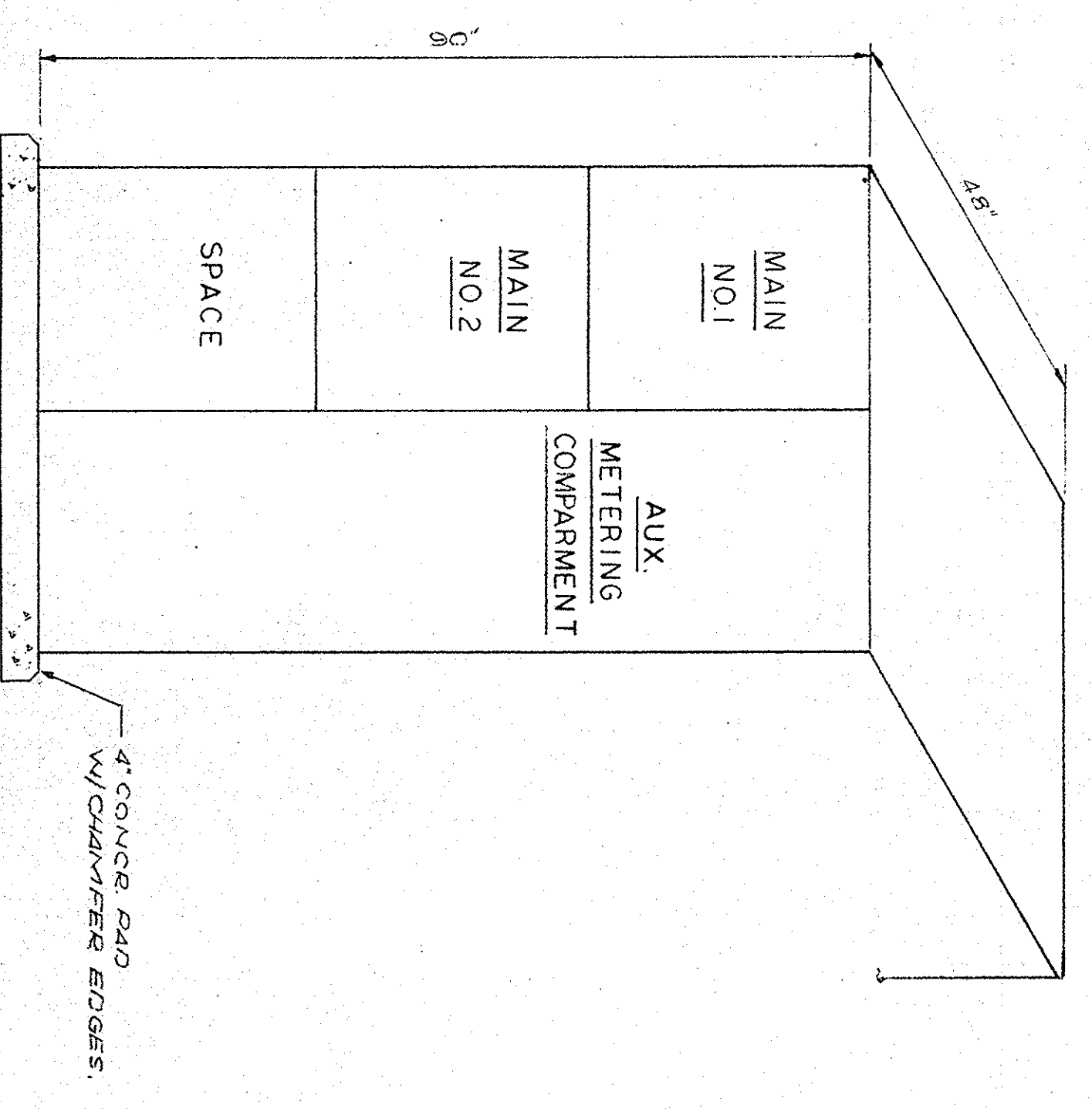
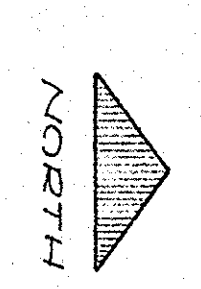
HEINNINGSON, DUNHAM & RICHARDSON, INC.  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N. C.

DESIGNED BY: H.L.C. CHECKED BY: R.H.C.  
 DRAWN BY: M.L.C. APPROVED BY: C.L.B.

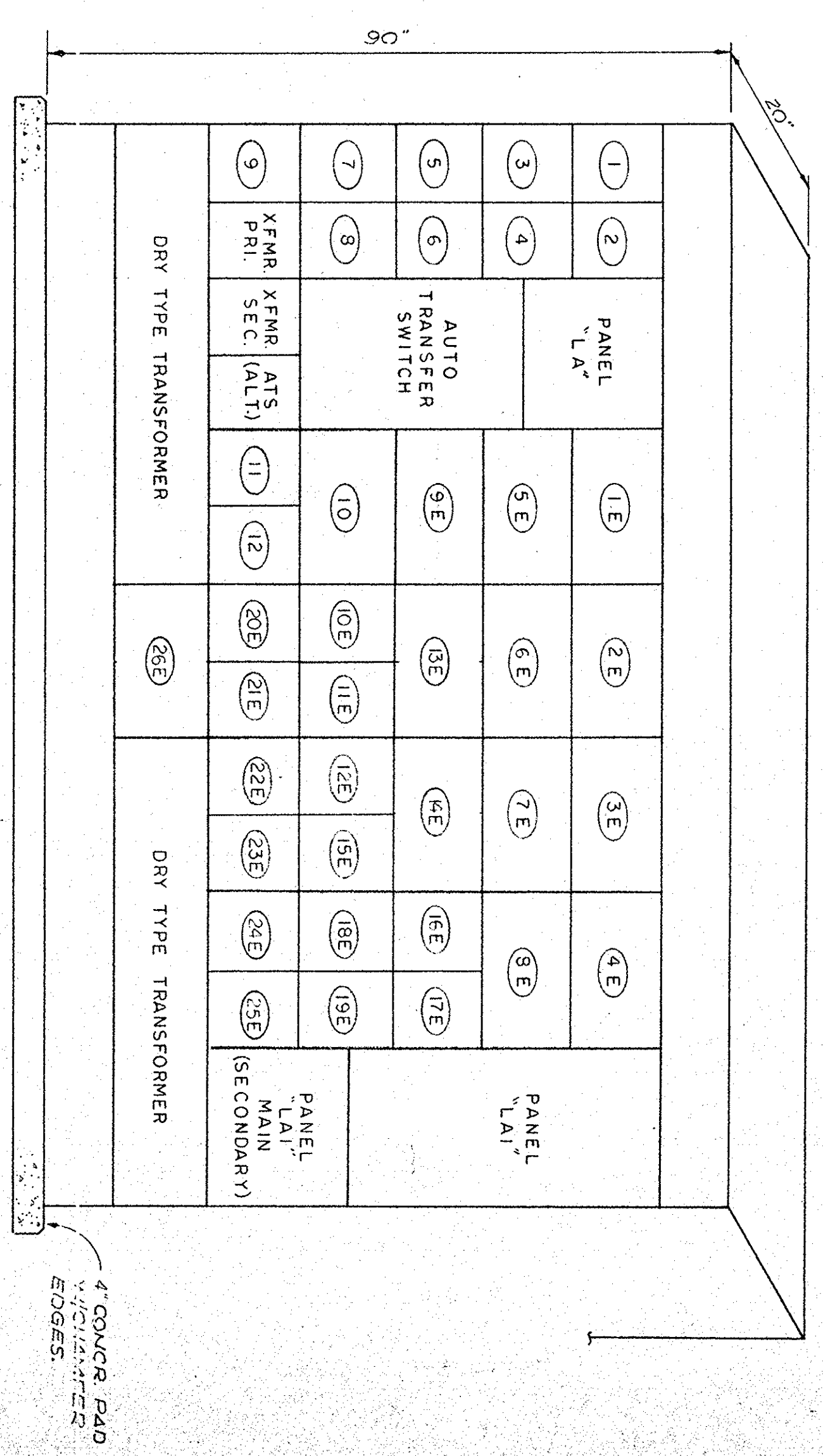
DATE: 8-18-72  
 SCALE: E-1



ADMINISTRATION & CHEMICAL BUILDING  
FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"



FRONT ELEVATION  
MAIN SWITCHBOARD  
SCALE: 1/4" = 1'-0"



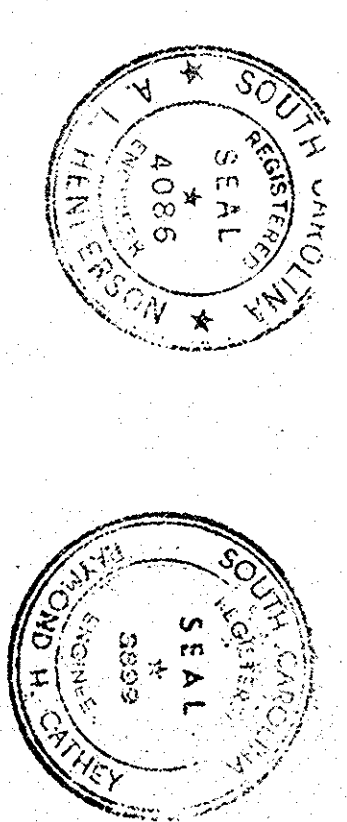
FRONT ELEVATION  
MOTOR CONTROL CENTER MCC1  
NO SCALE

NOTES:  
1. BRANCH CIRCUITS INDICATED TO SUPPLY PUMP MOTORS SHALL BE EXTENDED TO MAIN CONTROL PANEL ON SECOND FLOOR & CONNECTED TO APPROPRIATE MOTOR STARTERS. ALL BRANCH CIRCUITS SHALL BE EXTENDED TO EACH MOTOR FROM BRANCH CONTROL IN PANEL.

GEORGETOWN  
 WATER FILTRATION PLANT  
 E.D.A. PROJECT NO. 04-1-00735  
 CONTRACT NO. I  
 GEORGETOWN, SOUTH CAROLINA  
 DIVISION A  
**FIRST FLOOR**  
**ADMINISTRATION & CHEMICAL BUILDING**  
 ELECTRICAL

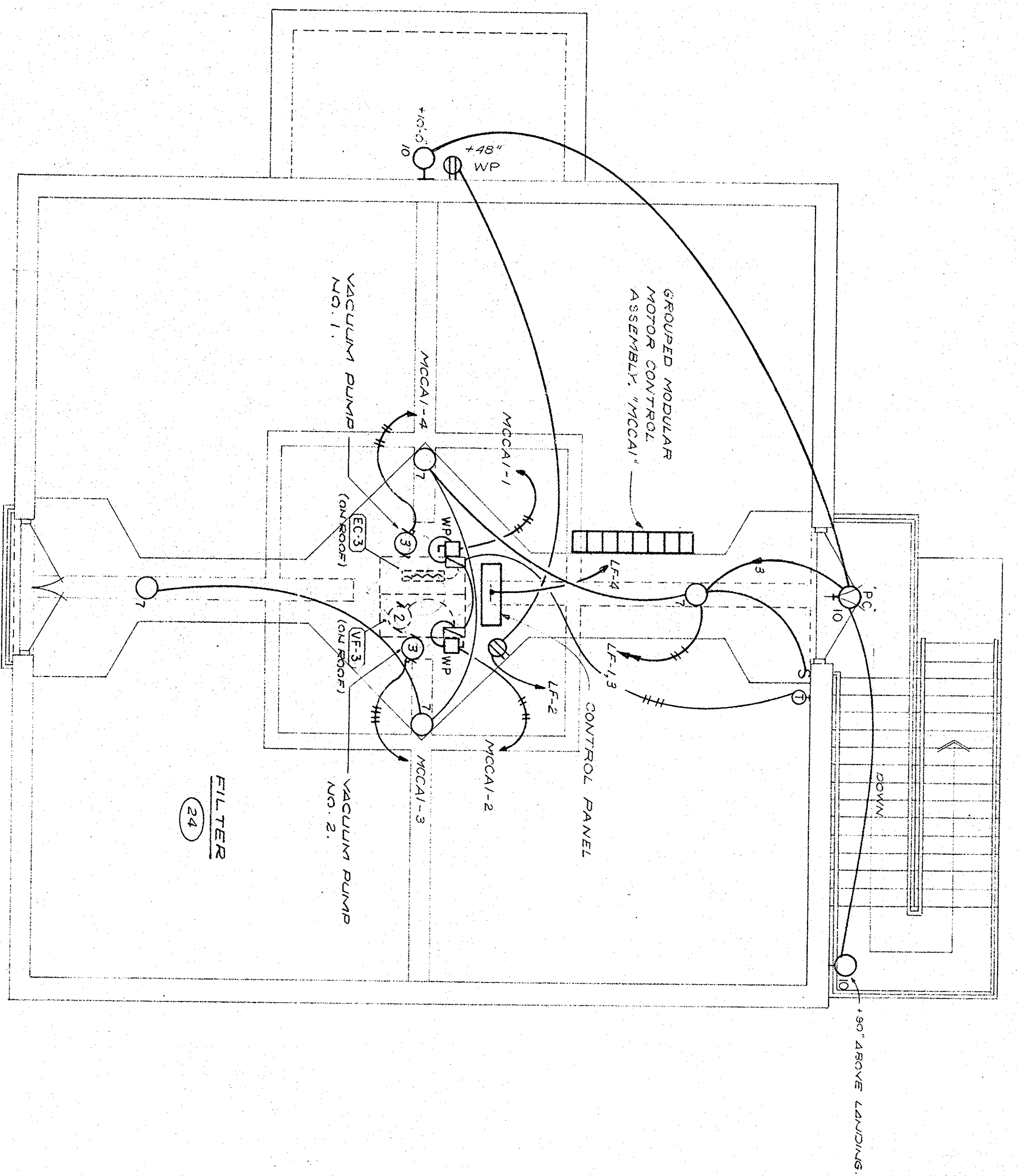
DATE: \_\_\_\_\_  
 SCALE: \_\_\_\_\_  
 ENGINEERS: HENNINGSON, DURHAM & RICHARDSON, INC.  
 OF NORTH CAROLINA  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N. C.  
 DESIGNED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_

JOB NO. 03-18  
 1972  
 E-2

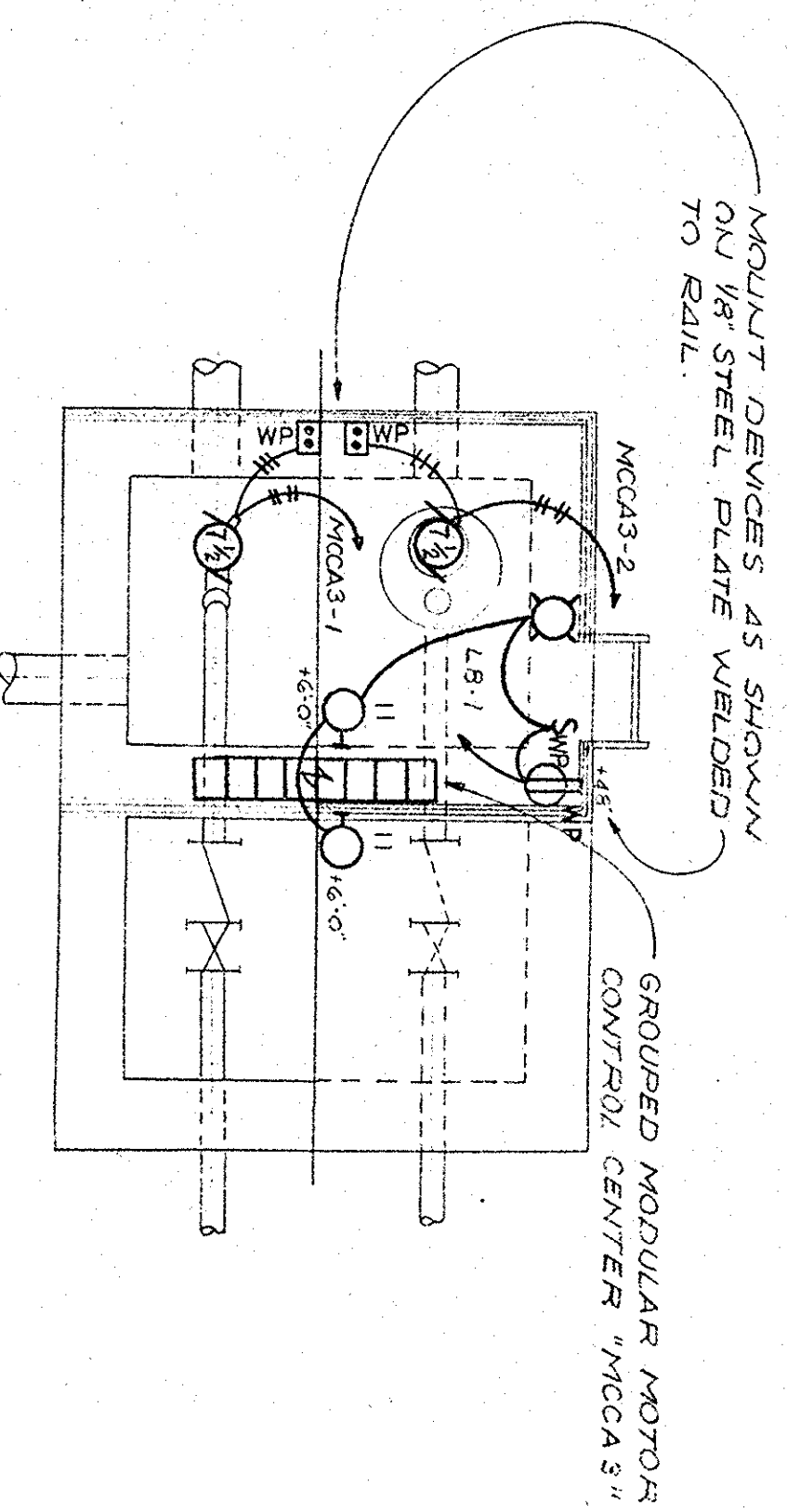
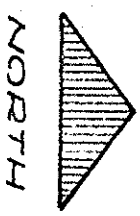




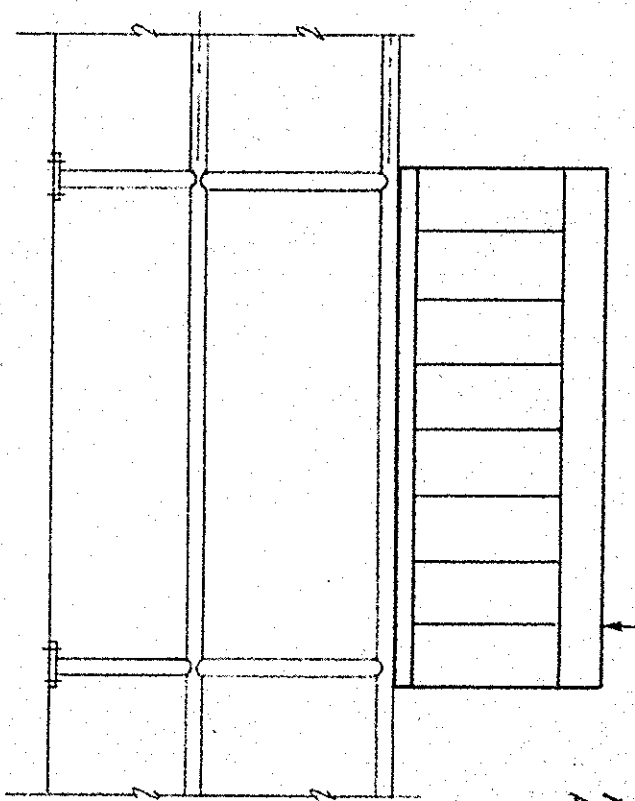




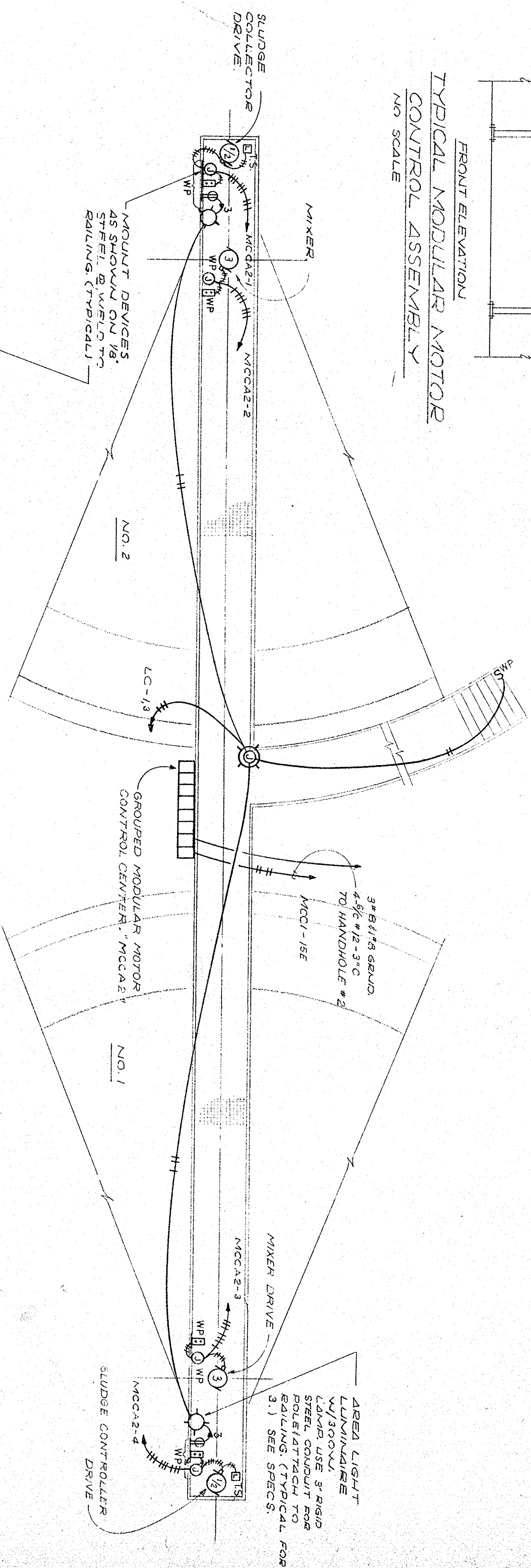
FILTER BUILDING FLOOR PLAN  
SCALE: 1/4" = 1'-0"



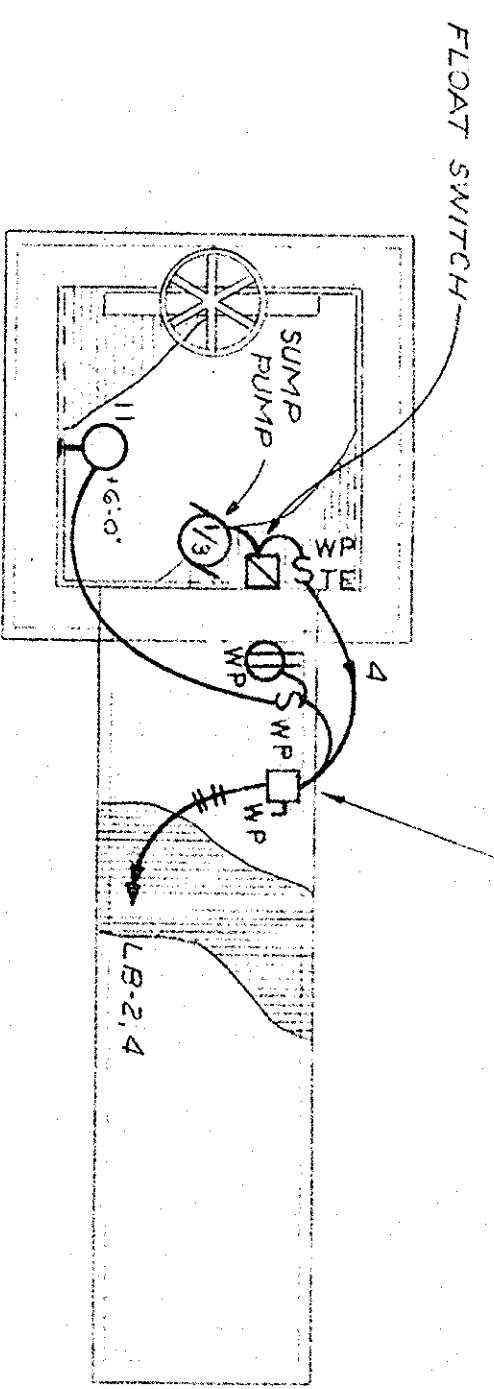
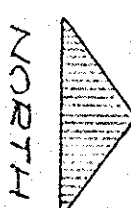
BACKWASH REUSE PUMP STATION PLAN  
SCALE: 3/8" = 1'-0"



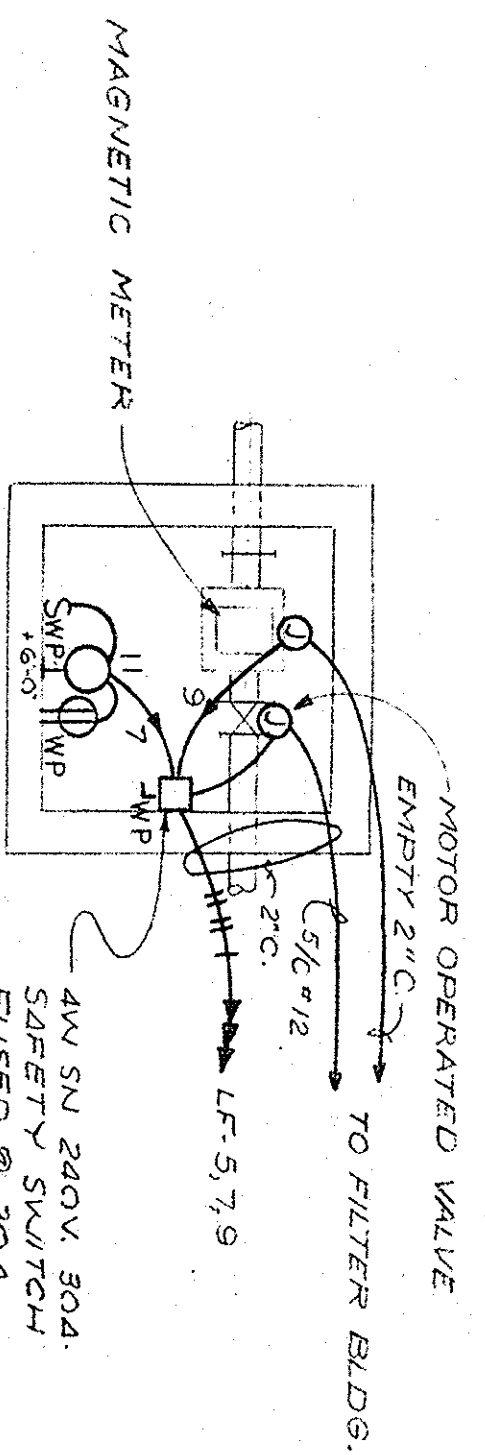
MOTOR CONTROL ASSEMBLY 'MCCA1' TO BE IDENTICAL TO MCCA2 SIMILAR EXCEPT FOR WIRING. SEE SHEET E-4 FOR WIRING. BOTH SHALL HAVE DUST & MOISTURE RESISTANT ENCLOSURES.



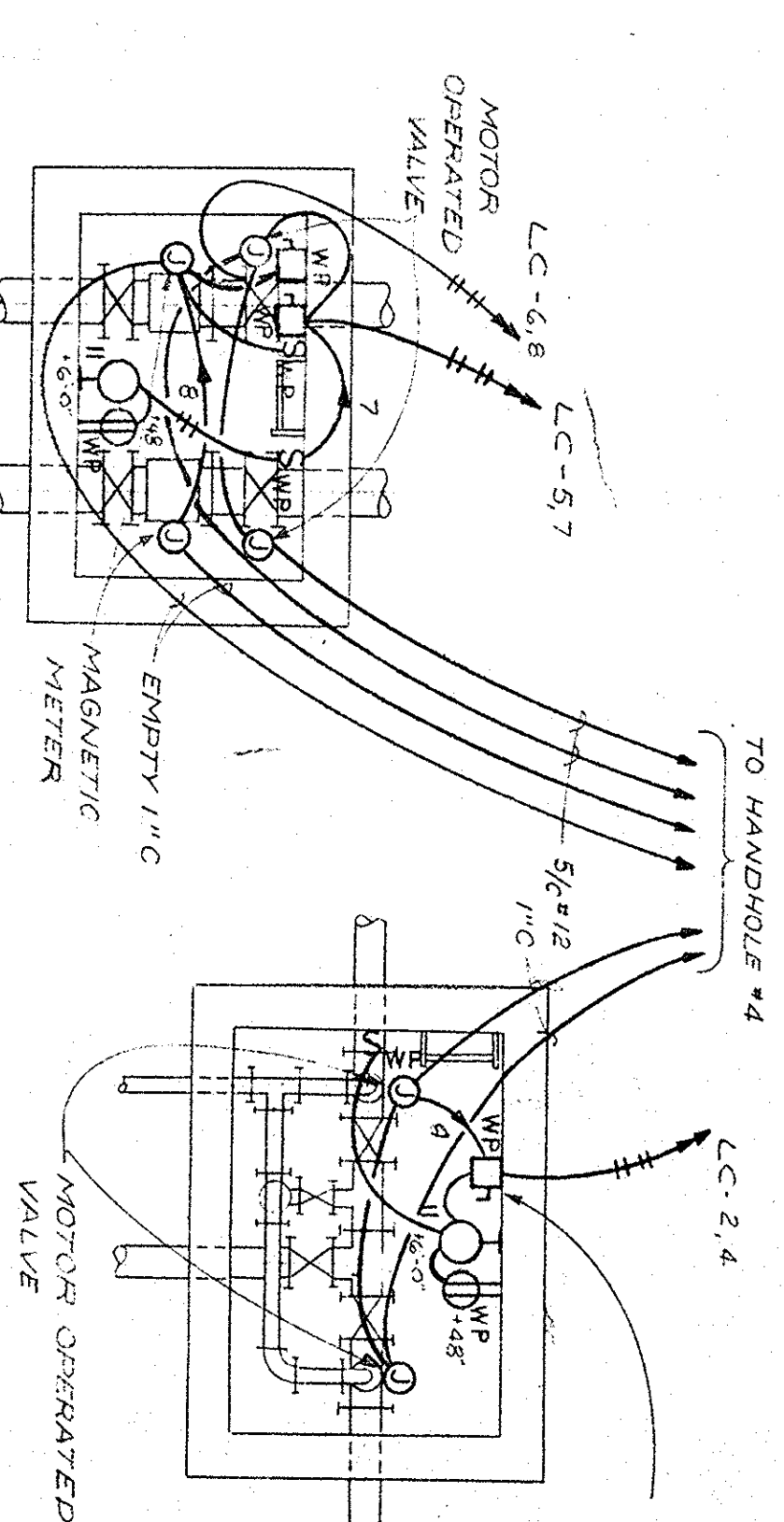
UPFLOW CLARIFIERS PARTIAL PLAN  
SCALE: 1/4" = 1'-0"



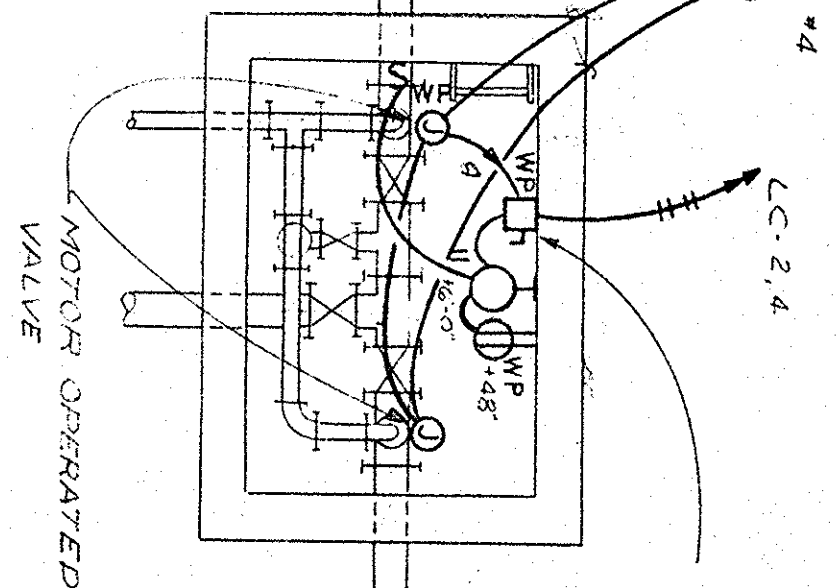
DECANT STRUCTURE PLAN (TYPICAL FOR TWO)  
SCALE: 3/8" = 1'-0"



BACKWASH REUSE METER VAULT PLAN  
NO SCALE

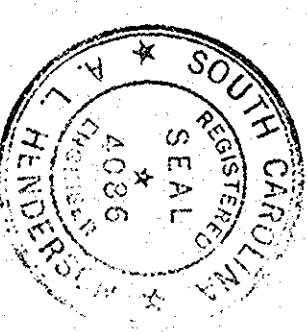


RAW WATER METER VAULT PLAN  
NO SCALE



SLUDGE VALVE PIT PLAN  
NO SCALE

30V 50/60HZ 30A SAFETY SWITCH FUSED & 30A PROVIDE IDENTICAL SWITCHES WHERE APPLICABLE IN METER VAULT & AT DECANT STRUCTURE.



GEORGETOWN WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. 1  
DIVISION A  
GEORGETOWN, SOUTH CAROLINA  
1972

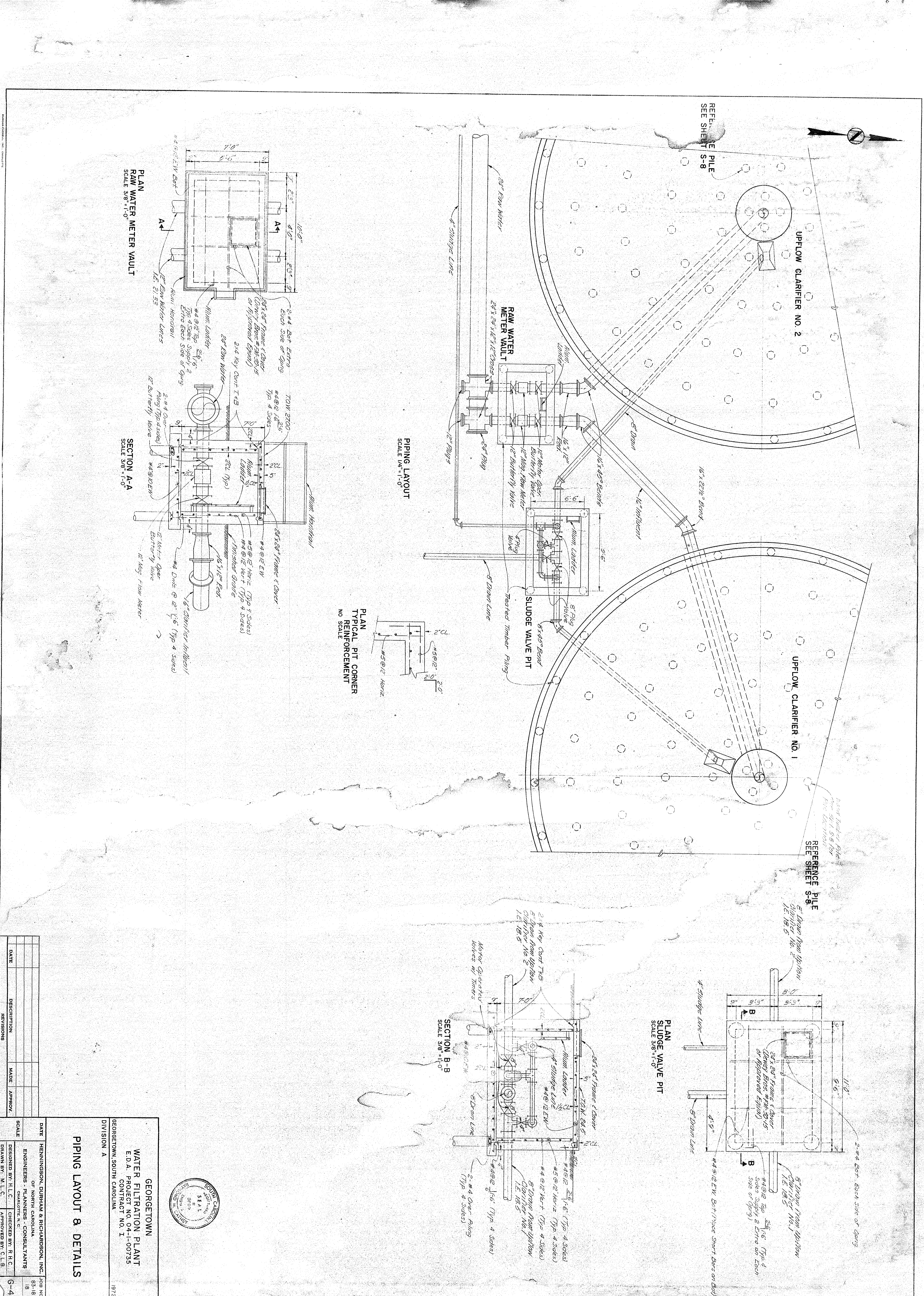
CLARIFIERS AND FILTER BUILDING ELECTRICAL

DATE	DESCRIPTION	MADE	APPROV.

DATE	SCALE	DESIGNED BY:	CHECKED BY:	APPROVED BY:

E-4





PLAN  
RAW WATER METER VAULT  
SCALE 3/8" = 1'-0"

SECTION A-A  
SCALE 3/8" = 1'-0"

PIPING LAYOUT  
SCALE 1/4" = 1'-0"

PLAN  
TYPICAL PIT CORNER  
REINFORCEMENT  
NO SCALE

PLAN  
SLUDGE VALVE PIT  
SCALE 3/8" = 1'-0"

SECTION B-B  
SCALE 3/8" = 1'-0"

DATE	DESCRIPTION	MADE	APPROV.

**GEORGETOWN**

WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-I-00735  
CONTRACT NO. I

GEORGETOWN, SOUTH CAROLINA

DIVISION A

**PIPING LAYOUT & DETAILS**

1972

DATE: HENNINGSON, DURHAM & RICHARDSON, INC. JOB NO. 83-18

ENGINEERS - PLANNERS - CONSULTANTS

CHAMLOTTE, N. C.

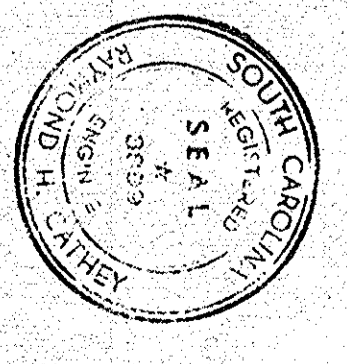
DESIGNED BY: H.L.C. CHECKED BY: R.H.C.

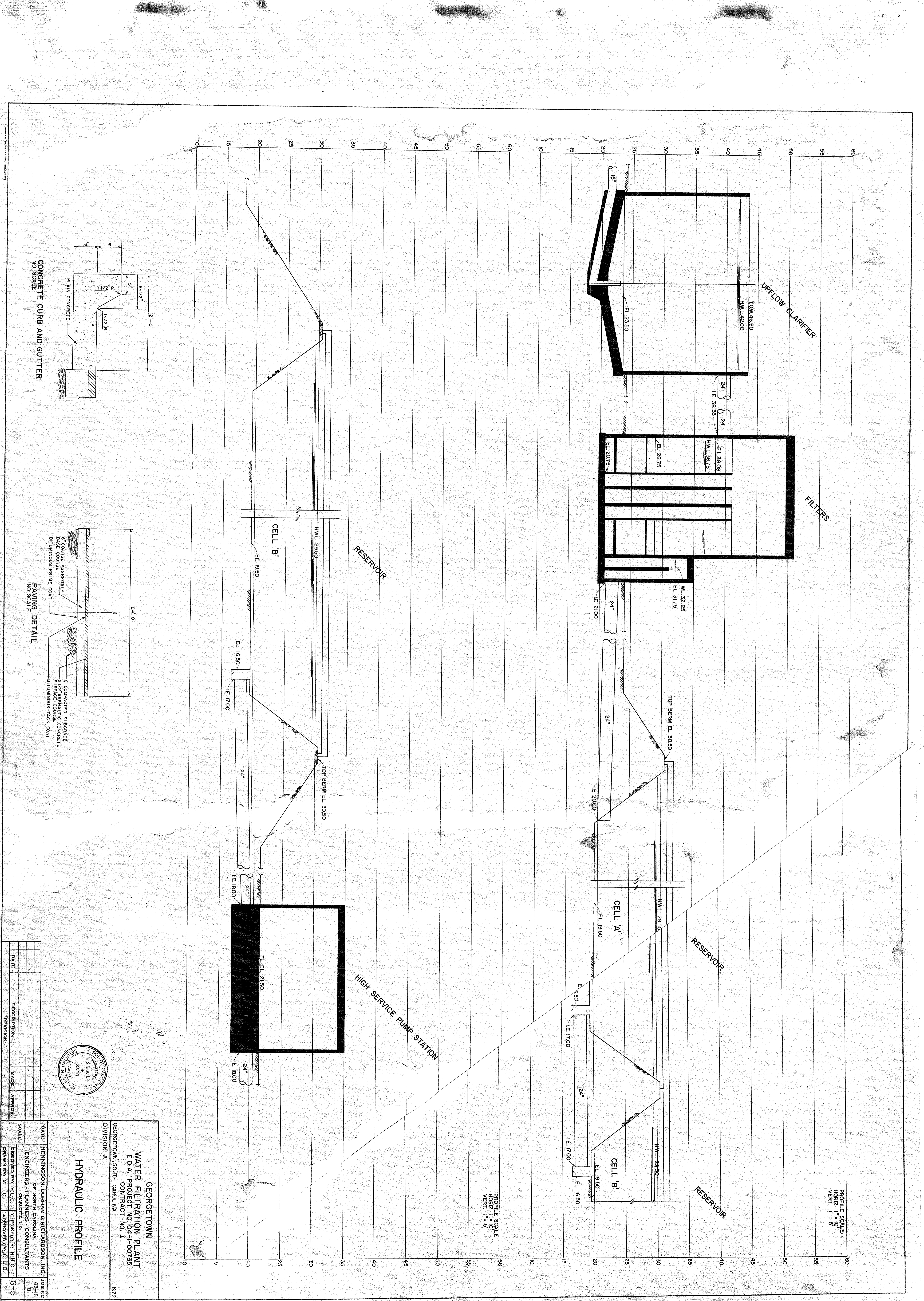
DRAWN BY: M.L.C. APPROVED BY: C.L.B.

SCALE: 1/8" = 1'-0"

18

G-4





DATE	DESCRIPTION	MADE	APPROV.

DATE	DESIGNED BY	CHECKED BY	SCALE

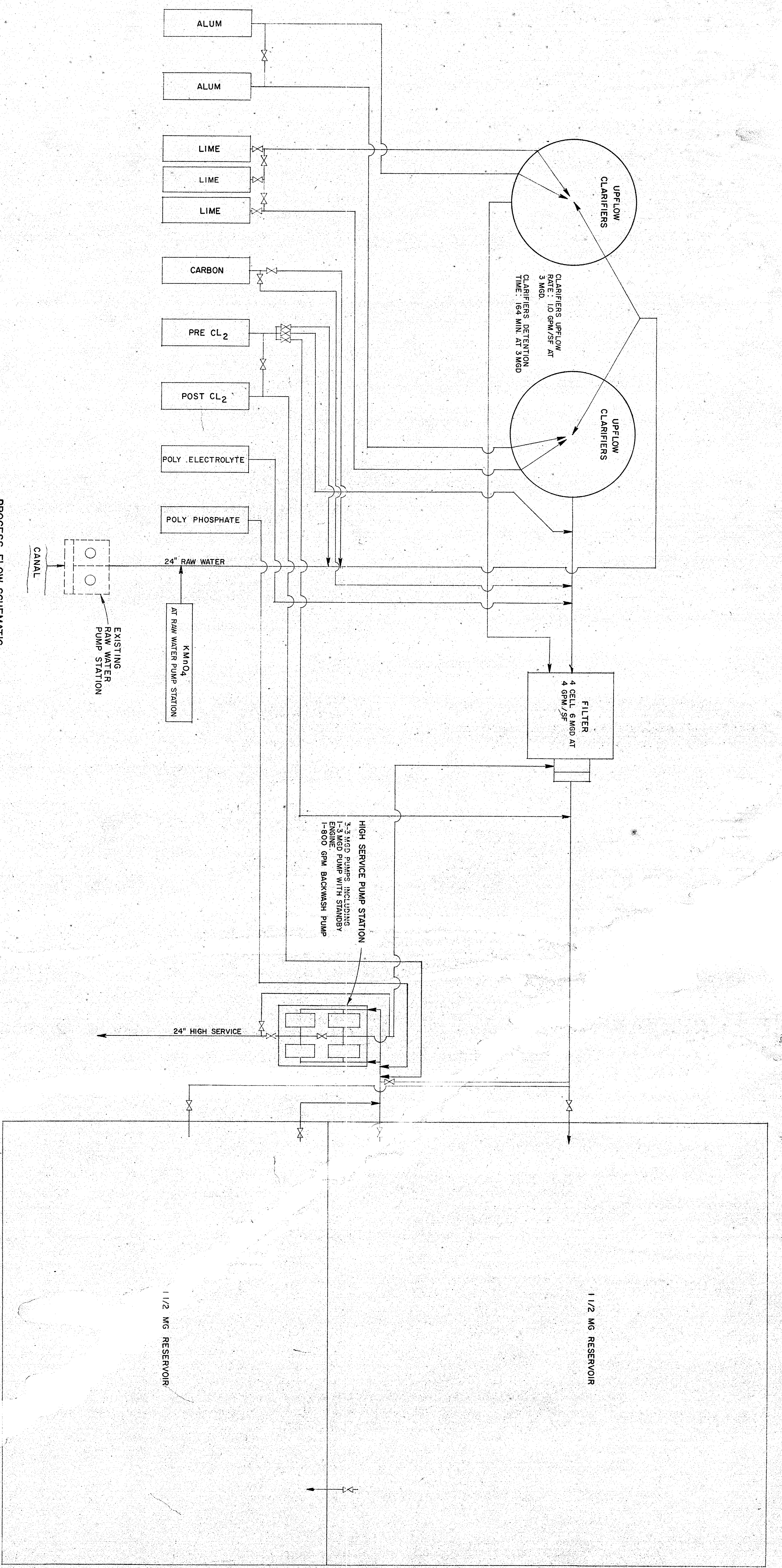
DATE	DESIGNED BY	CHECKED BY	APPROVED BY

GEORGETOWN WATER FILTRATION PLANT E.D.A. PROJECT NO. 04-1-00735 CONTRACT NO. 1 DIVISION A 1972	HENNINGSON, DURHAM & RICHARDSON, INC. OF NORTH CAROLINA ENGINEERS - PLANNERS - CONSULTANTS CHARLOTTE, N.C.	JOB NO. 83-18 18 G-5
---------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------	-------------------------------

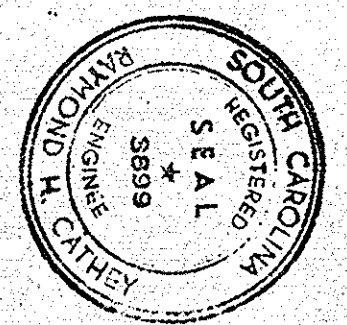


**HYDRAULIC PROFILE**



PROCESS FLOW SCHEMATIC  
NO SCALE

<p>SEAL REGISTERED PROFESSIONAL ENGINEER STATE OF NORTH CAROLINA H. L. C. 100735</p>		<p>DATE: 8-18-72 SCALE: 1/8" = 1'-0"</p>
<p>DATE: 8-18-72</p>	<p>DESCRIPTION: WATER FILTRATION PLANT</p>	<p>JOB NO: 83-18</p>
<p>DESIGNED BY: H.L.C.</p>	<p>ENGINEERS - PLANNERS - CONSULTANTS CHARLOTTE, N.C.</p>	<p>1972</p>
<p>DRAWN BY: L.R.H.</p>	<p>CHECKED BY: R.H.C.</p>	<p>5-6</p>
<p>APPROVED BY: C.L.B.</p>	<p>APPROVED BY: C.L.B.</p>	

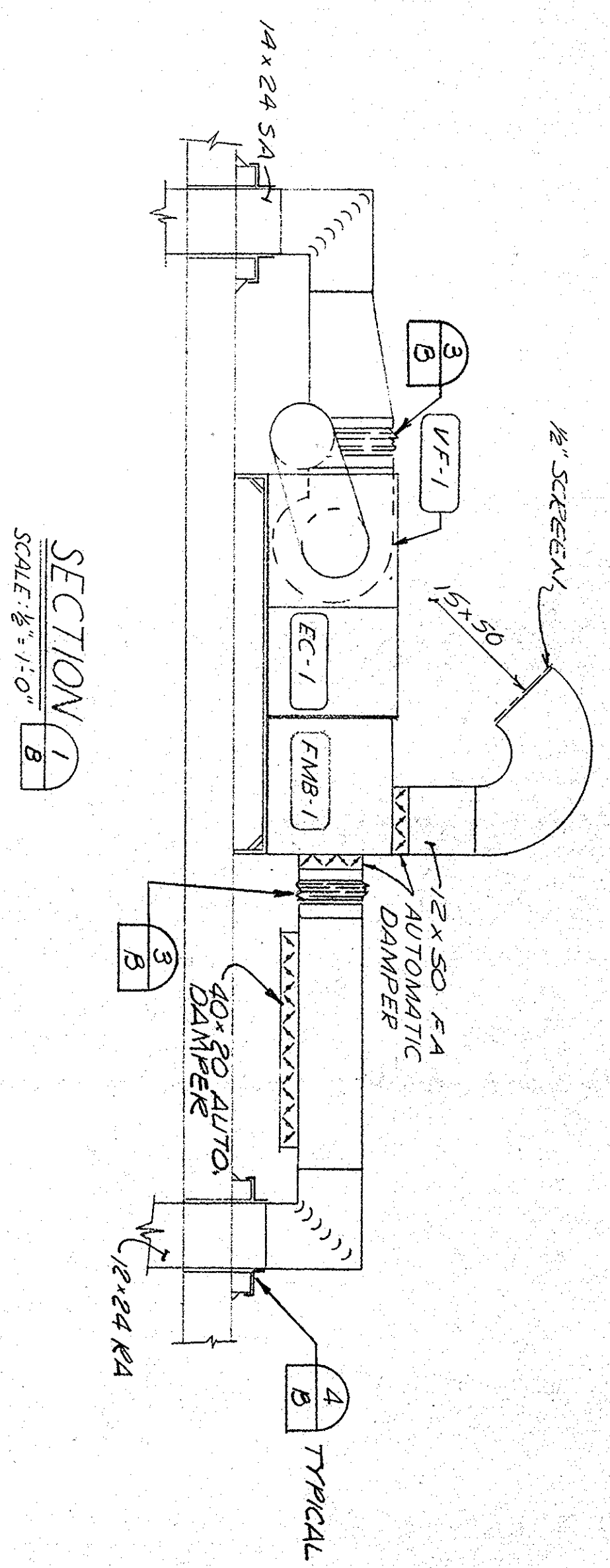


GEORGETOWN  
 WATER FILTRATION PLANT  
 E.D.A. PROJECT NO. 04-1-00735  
 CONTRACT NO. 1  
 DIVISION A  
 GEORGETOWN, SOUTH CAROLINA  
 1972

**PROCESS FLOW SCHEMATIC**

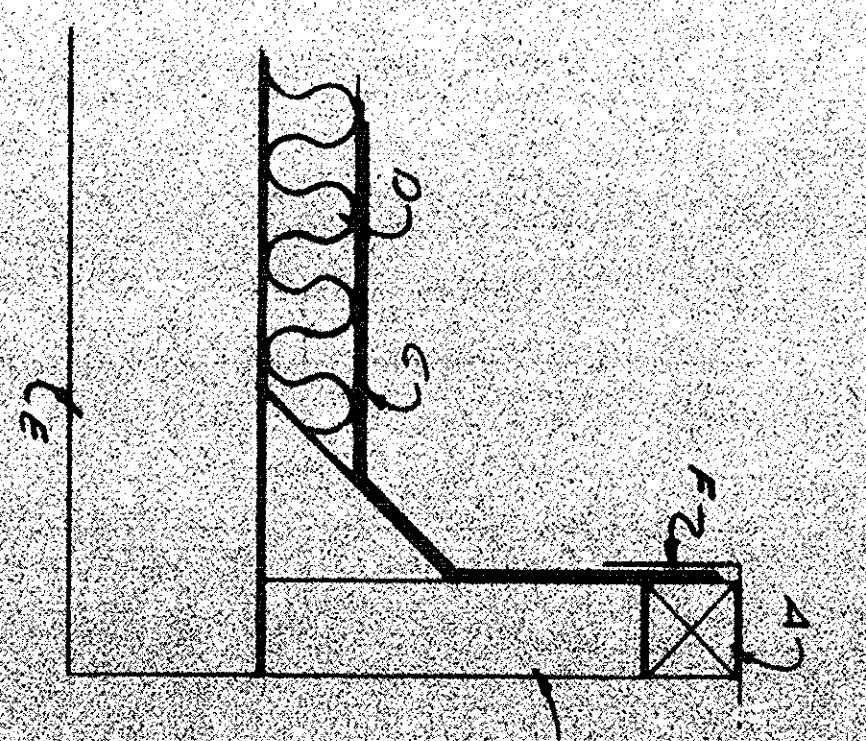






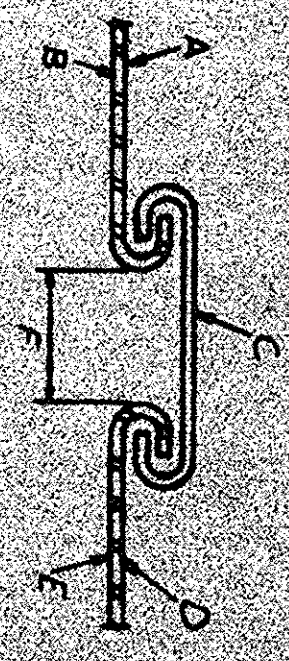
- A EXHAUST FAN
- B EXHAUST DUCT
- C PRE-FABRICATED CURB
- D BUILT-UP ROOF
- E ROOF CONSTRUCTION
- F SECURE DUCT TO CURB

EXHAUST FAN MOUNTING DETAIL



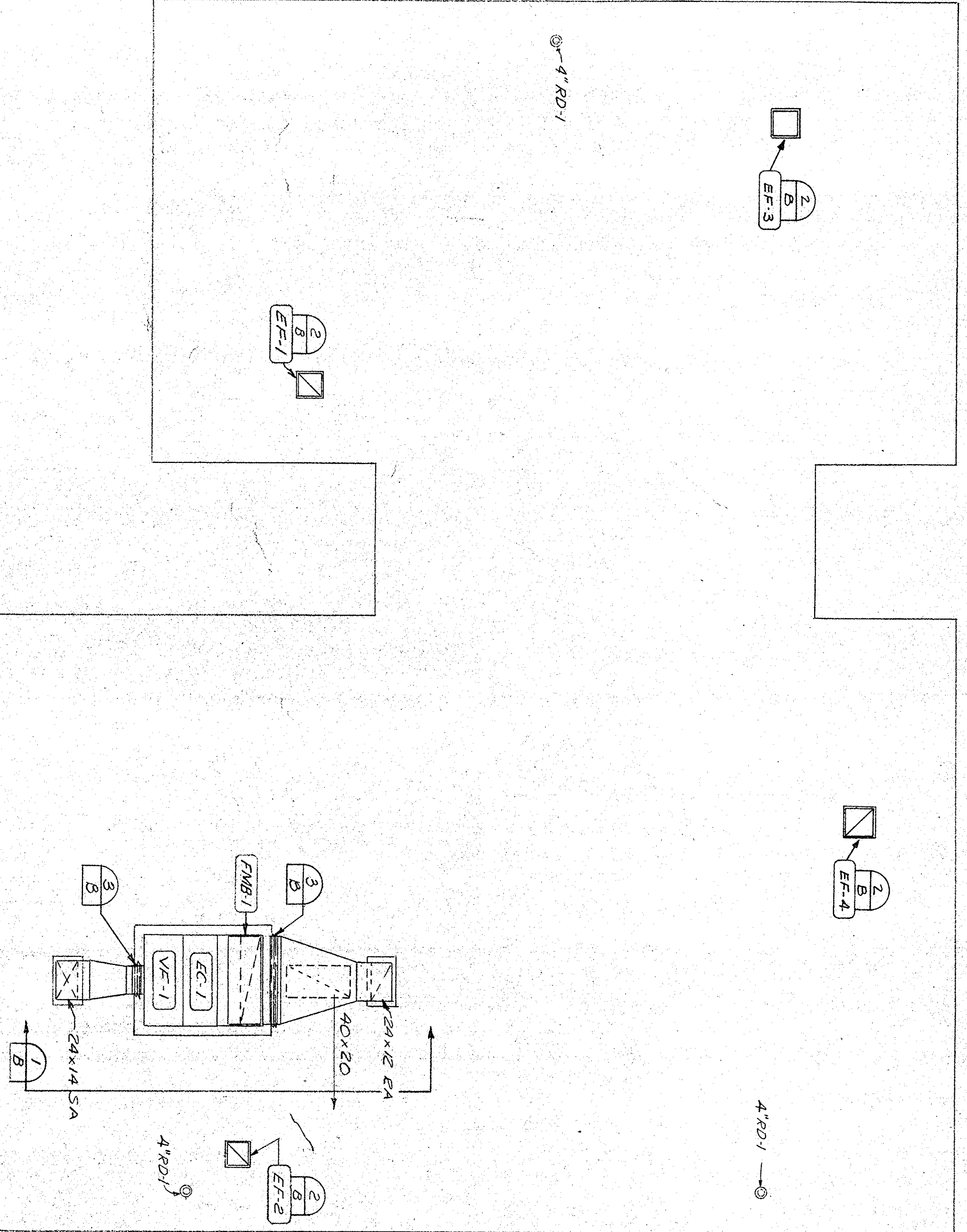
- A 2x4 TREATED WOOD JOIST BLOCK
- B 1/2\"/>
- C ROOF INSULATION
- D ROOF MEMBRANE
- E ROOF FLASHING

EQUIPMENT ROOF CURB DETAIL

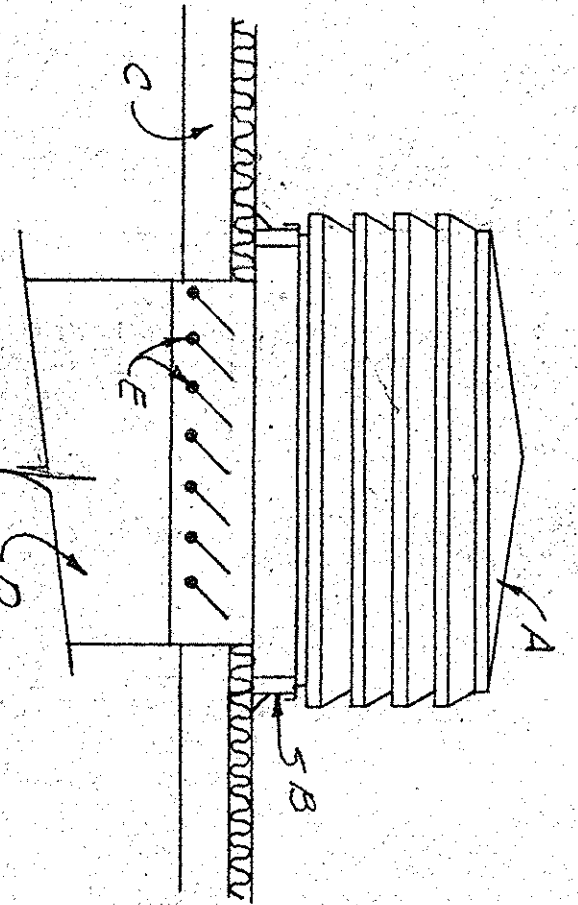


- NOTE: FLAT OR ANGLE METAL EDGE TO SLIT EQUIPMENT OR DUCT CONNECTION.
- A POSITIVE PRESSURE
  - B NEGATIVE OR ATMOSPHERIC SIDE
  - C DOUBLE CORNER WENT GLASS OR ANNEALED EQUAL
  - D 2x4 GALV STEEL OR 032 PL SEE SPECS
  - E DUCT TYPE
  - F RECTANGULAR OR CIRCULAR TO SLIT OPENING
  - G 2\"/>

FLEXIBLE CONNECTION DETAIL



ADMINISTRATION & CHEMICAL BUILDING  
ROOF PLAN



- A EXHAUST PENTHOUSE
- B 1/2\"/>
- C ROOF INSULATION
- D ROOF MEMBRANE
- E ROOF FLASHING

DETAIL OF EXHAUST PENTHOUSE ON  
PUMP STATION ROOF



GEORGETOWN  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. I  
DIVISION A

ADMINISTRATION & CHEMICAL  
BUILDING  
MECHANICAL

DATE: \_\_\_\_\_  
DESIGNED BY: W.W.C.  
CHECKED BY: R.H.C.  
DRAWN BY: D.H.N.  
APPROVED BY: C.L.B.

1972

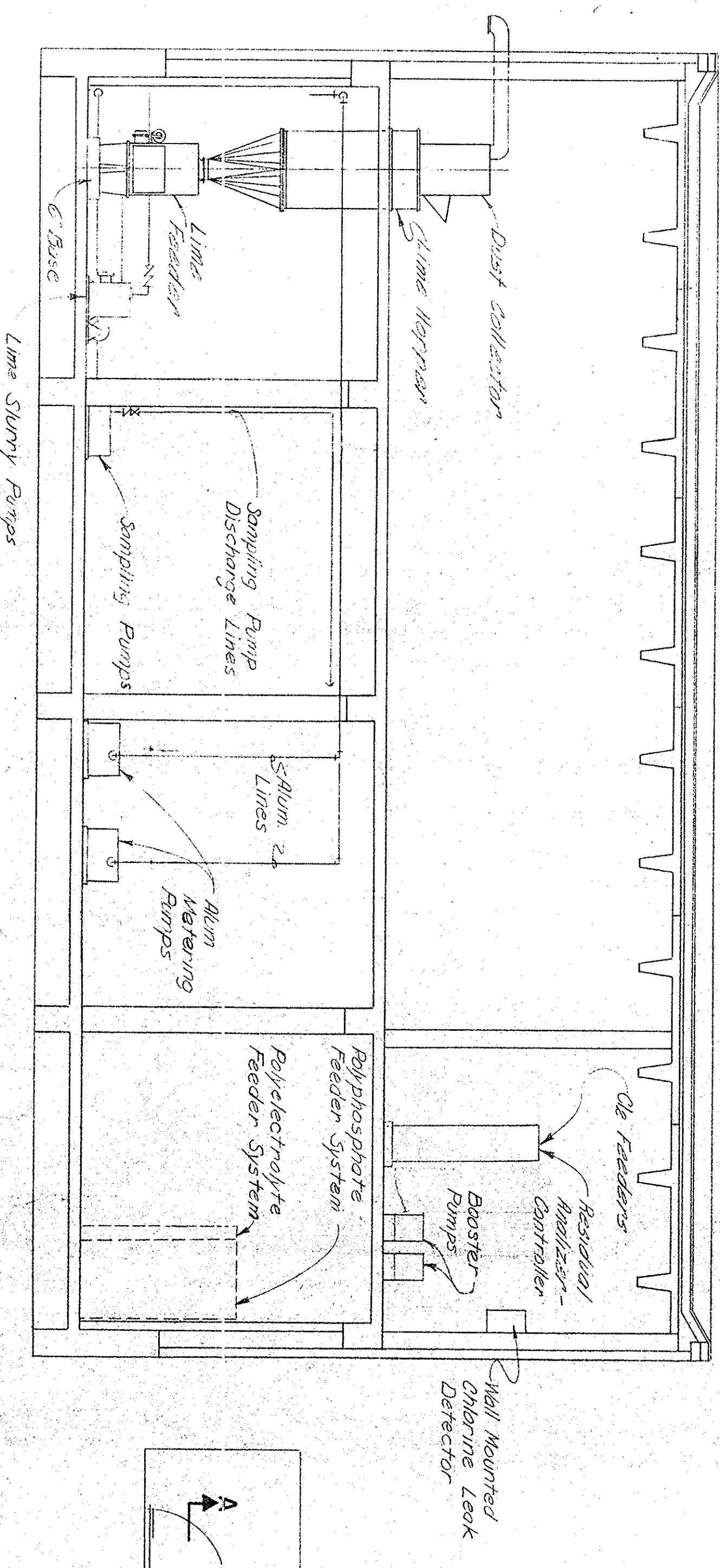
DATE	DESCRIPTION	MADE	APPROV.

SCALE: \_\_\_\_\_

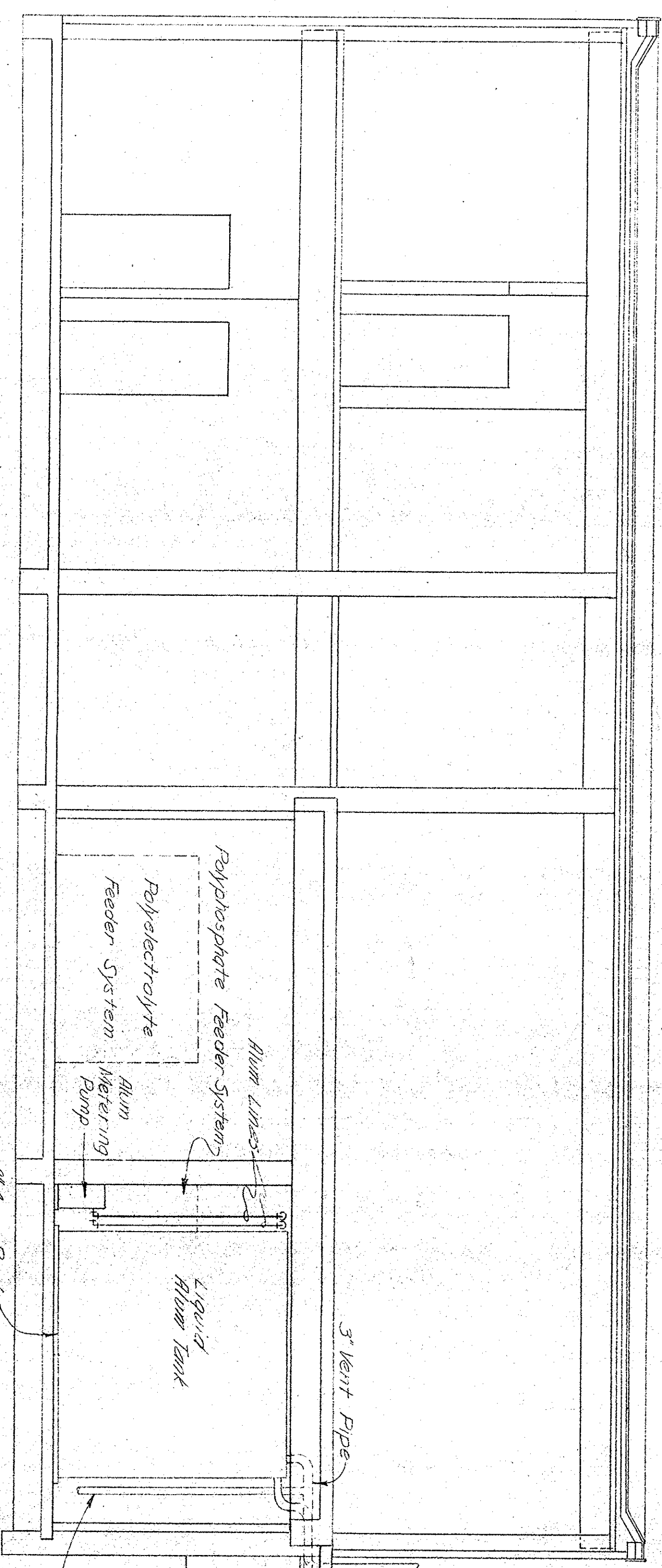
JOB NO. 83-18  
18

M-3

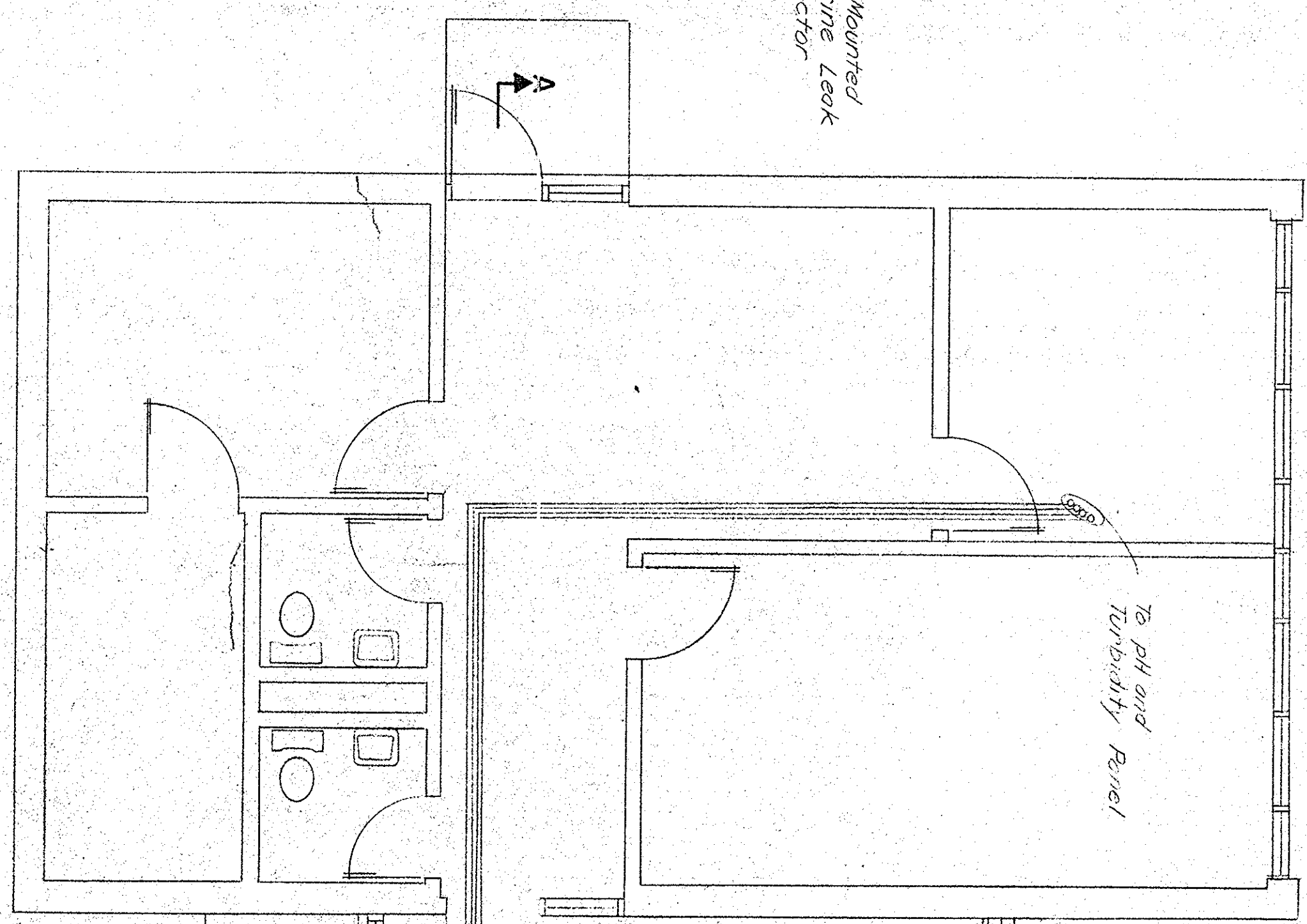




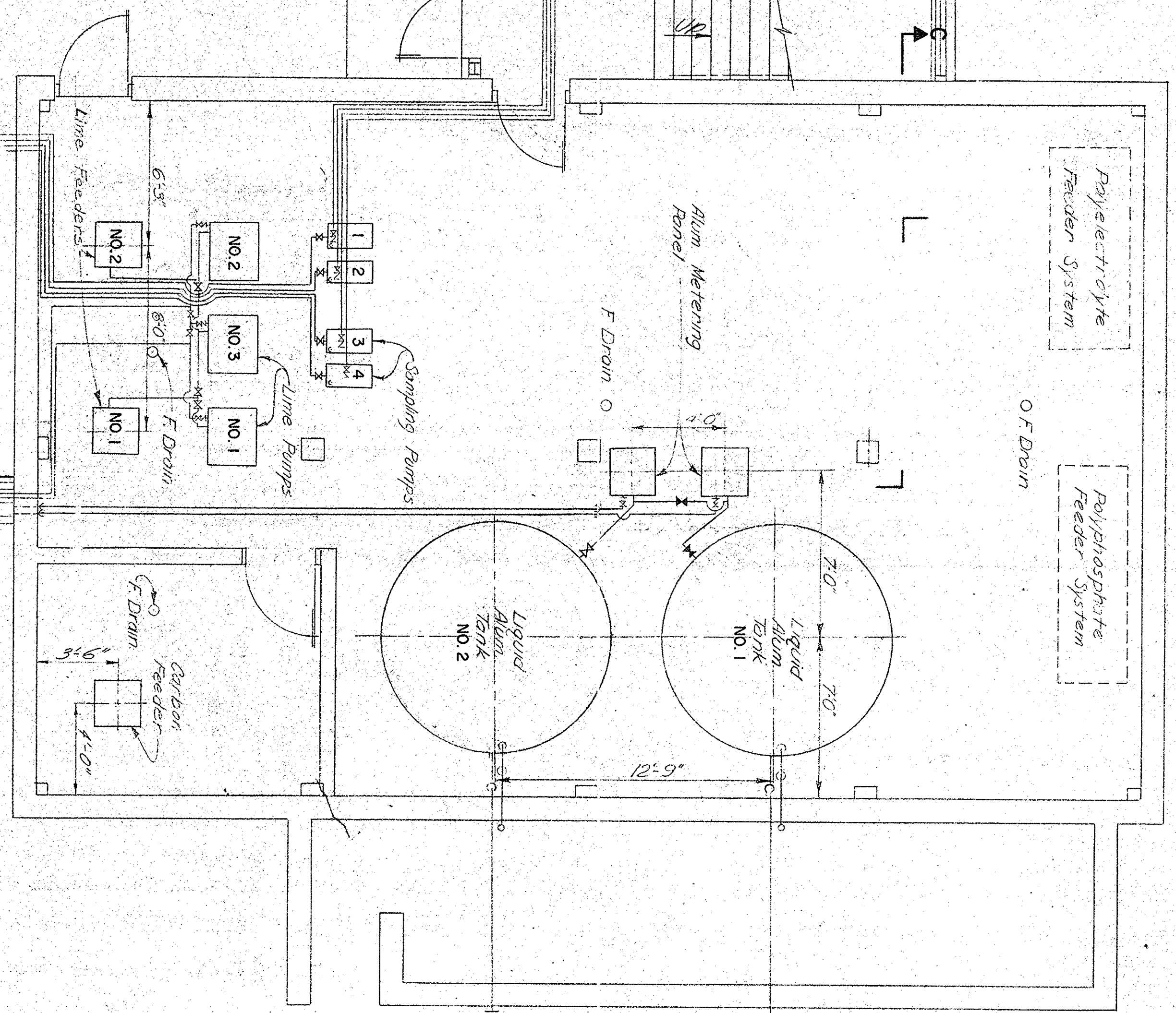
SECTION B-B  
SCALE 1/4" = 1'-0"



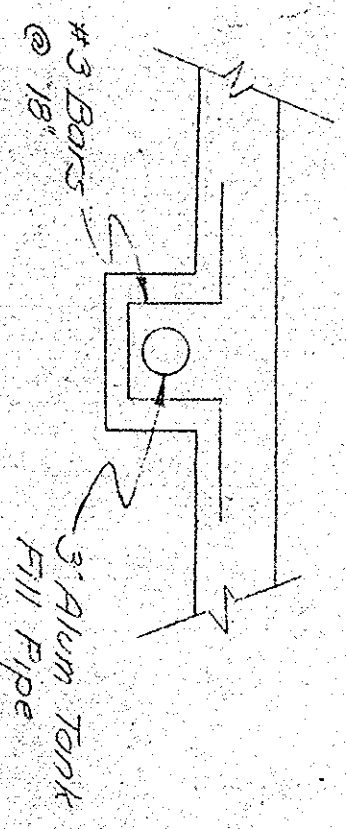
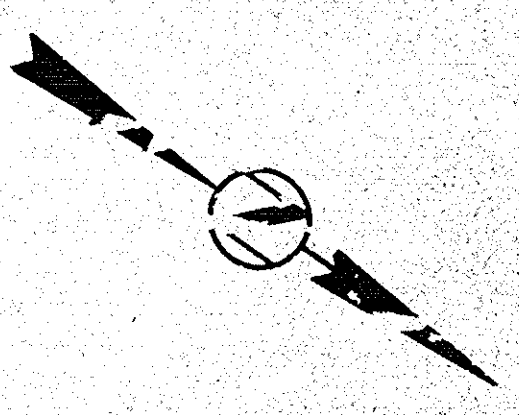
SECTION A-A  
SCALE 1/4" = 1'-0"



FIRST FLOOR PLAN  
SCALE 1/4" = 1'-0"



Note: Put sample checks each chemical solution into clean jar and test to permit draining



SECTION D-D  
NO SCALE

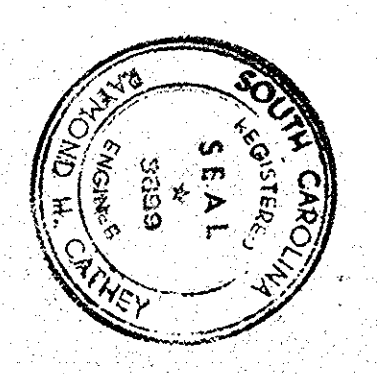
DATE	DESCRIPTION	MADE	APPROV.
	REVISIONS		

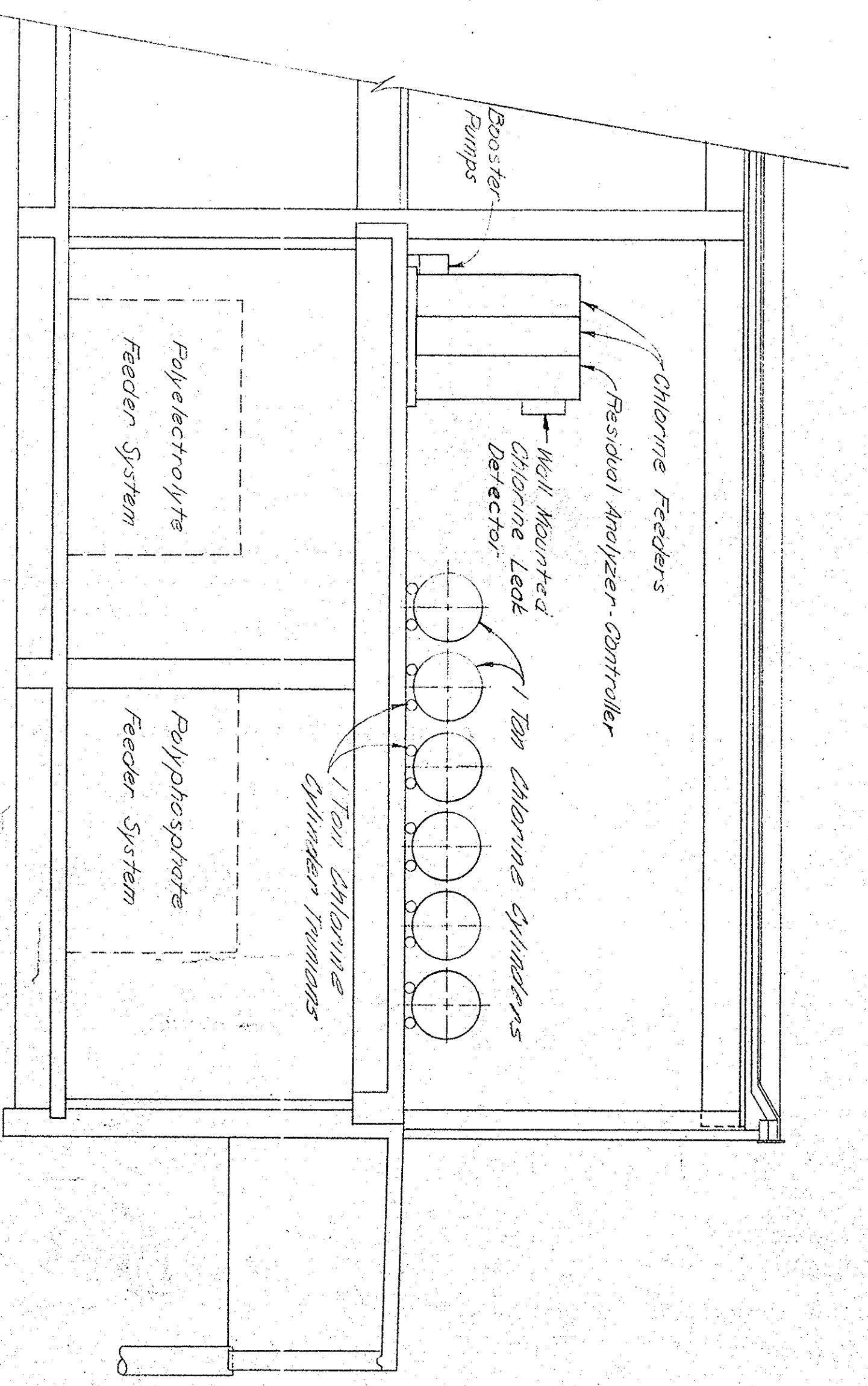
**GEORGETOWN**  
**WATER FILTRATION PLANT**  
 E.D.A. PROJECT NO. 04-1-00735  
 CONTRACT NO. I  
 GEORGETOWN, SOUTH CAROLINA  
 1972

**DIVISION A**  
**ADMINISTRATION & CHEMICAL**  
**BUILDING**  
 MECHANICAL

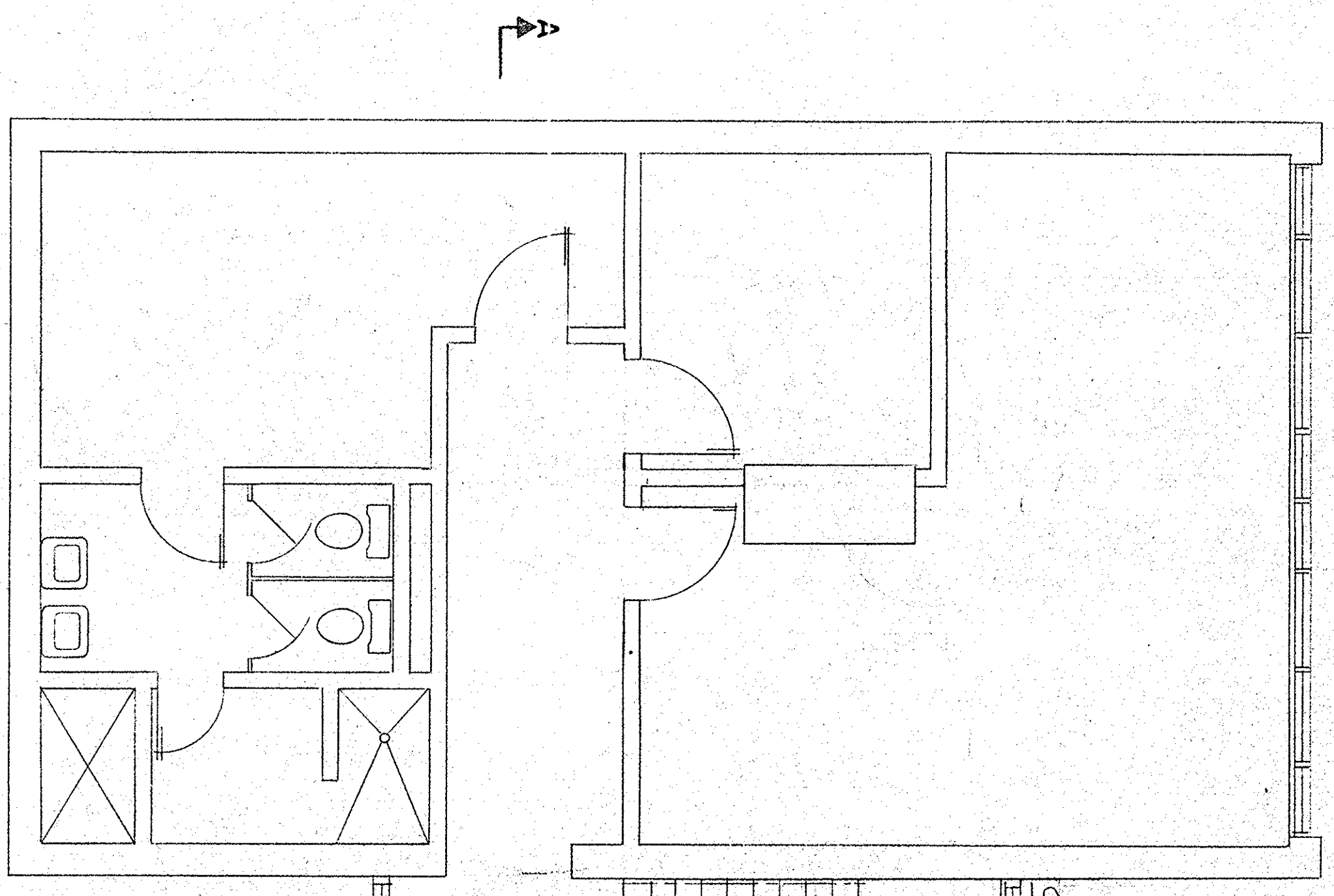
DATE: HENNINGSON, DURHAM & RICHARDSON, INC.  
 OF NORTH CAROLINA  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N. C.  
 DESIGNED BY: H.L.C. CHECKED BY: R.H.C.  
 DRAWN BY: L.H. APPROVED BY: C.L.B.

SCALE: JOB NO. 83-18  
 18  
**M-4**

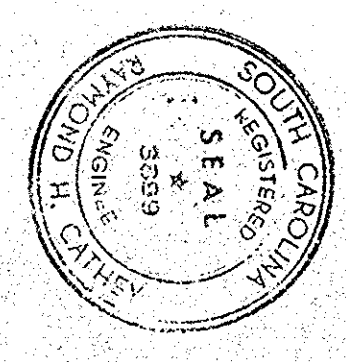
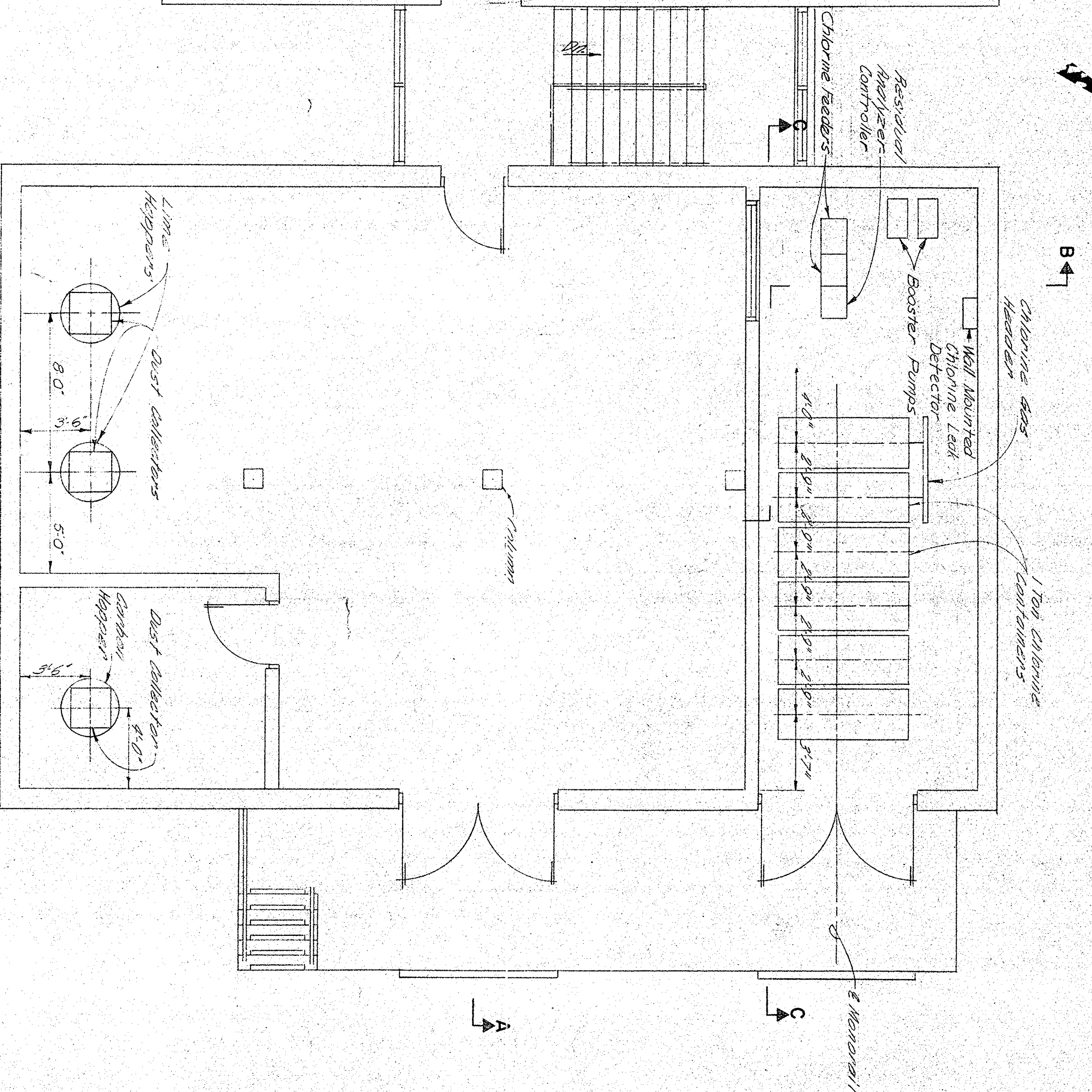




SECTION C-C  
SCALE 1/4" = 1'-0"

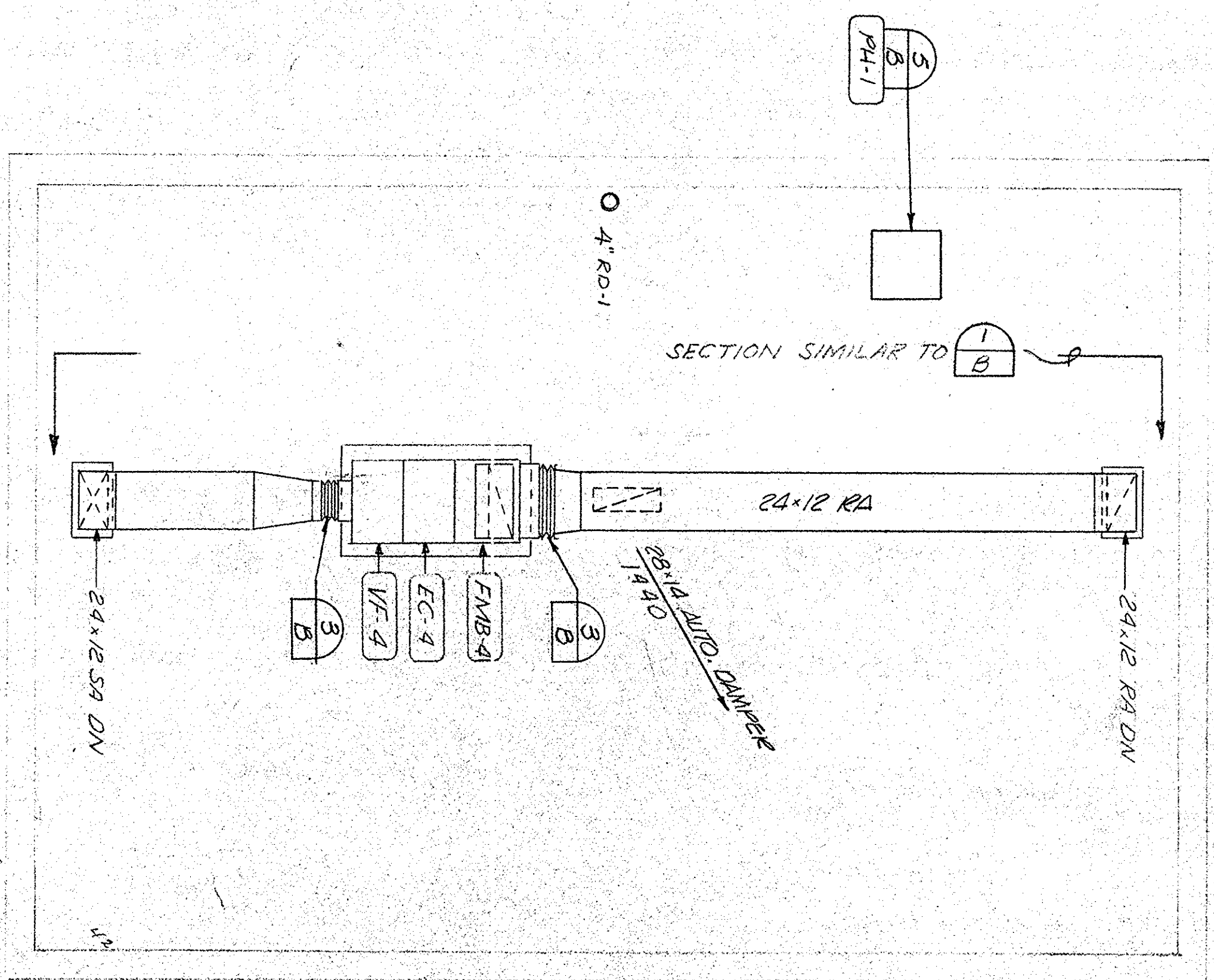


SECOND FLOOR PLAN  
SCALE 1/4" = 1'-0"

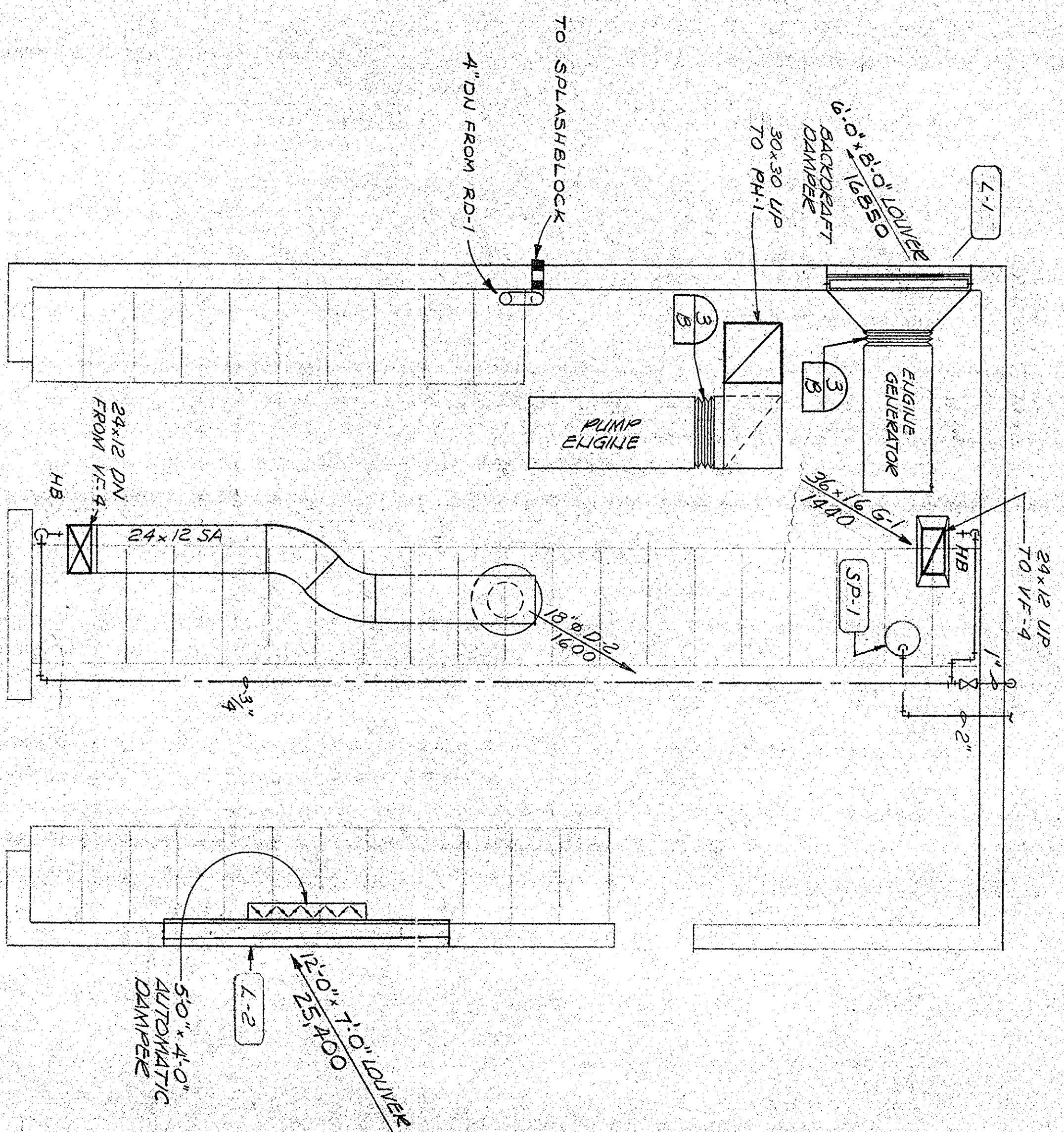


DATE	DESCRIPTION	MADE	APPROV.

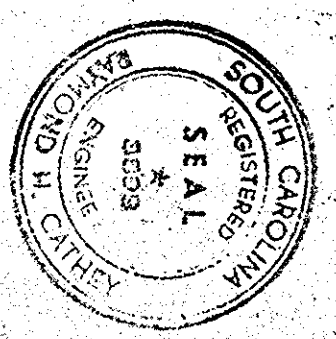
GEORGETOWN  
 WATER FILTRATION PLANT  
 E.D.A. PROJECT NO. 04-1-00735  
 CONTRACT NO. I  
 GEORGETOWN, SOUTH CAROLINA  
 DIVISION A  
**ADMINISTRATION & CHEMICAL BUILDING**  
 MECHANICAL  
 HENNINGSON, DURHAM & RICHARDSON, INC.  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N.C.  
 DESIGNED BY: H.L.C. CHECKED BY: R.H.C.  
 DRAWN BY: L.R.H. APPROVED BY: C.L.B.  
 JOB NO. 83-18  
 18  
 M-5  
 1972



ROOF PLAN  
SCALE: 1/4" = 1'-0"



PUMP STATION  
FLOOR PLAN  
SCALE: 1/4" = 1'-0"



GEORGETOWN  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-1-00735  
GEORGETOWN, SOUTH CAROLINA  
DIVISION A

HIGH SERVICE PUMP STATION

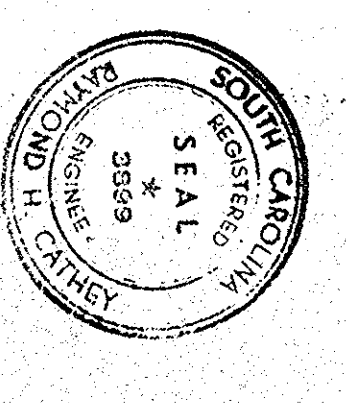
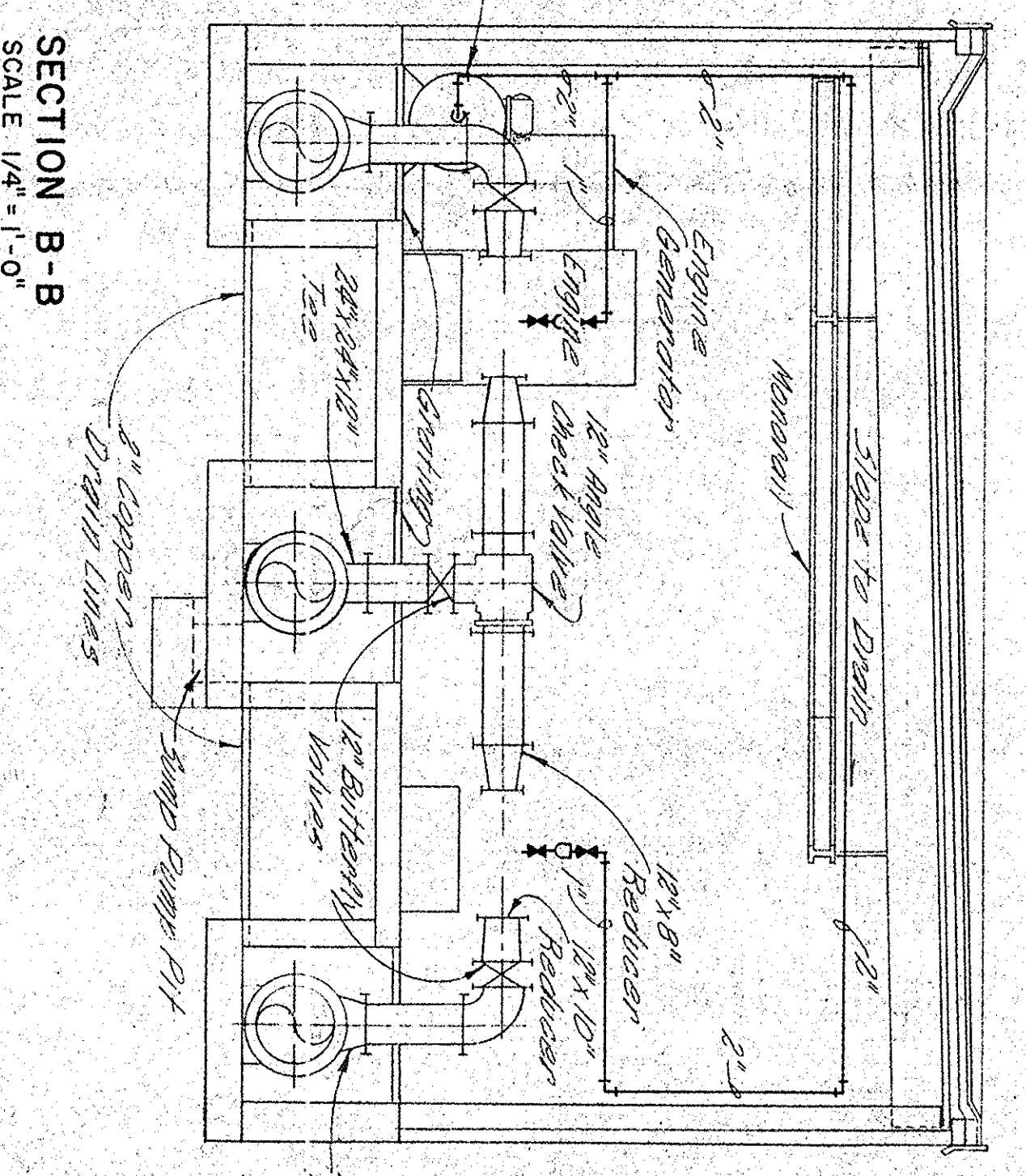
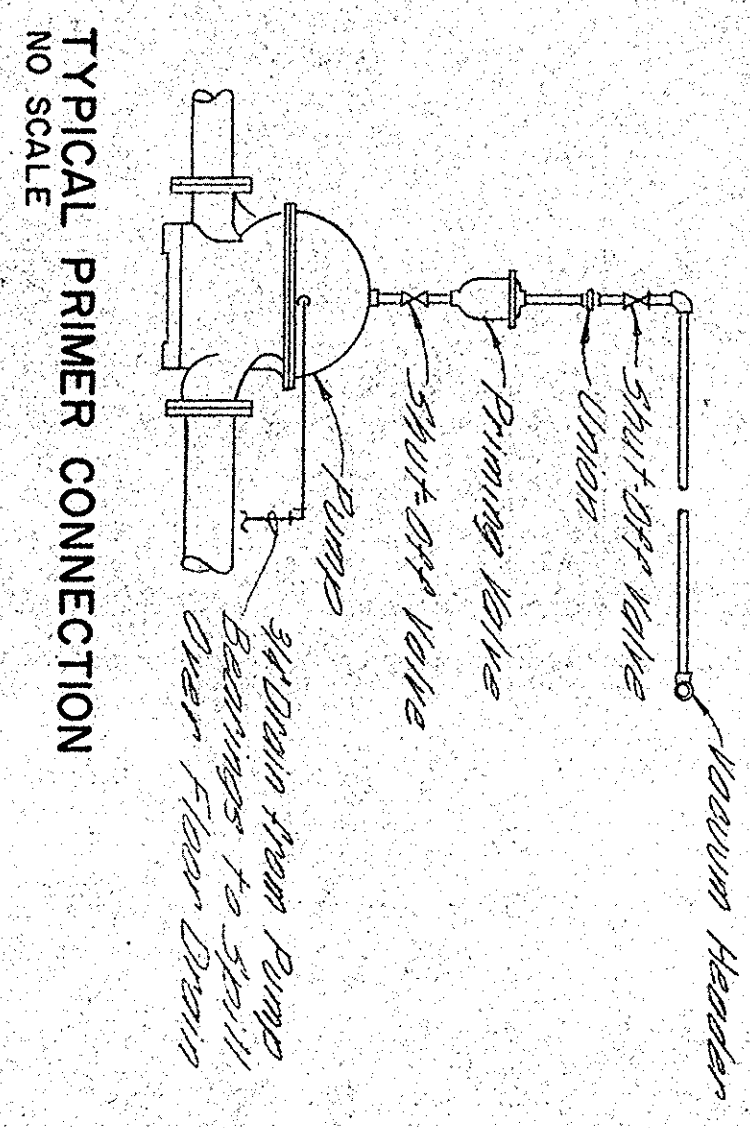
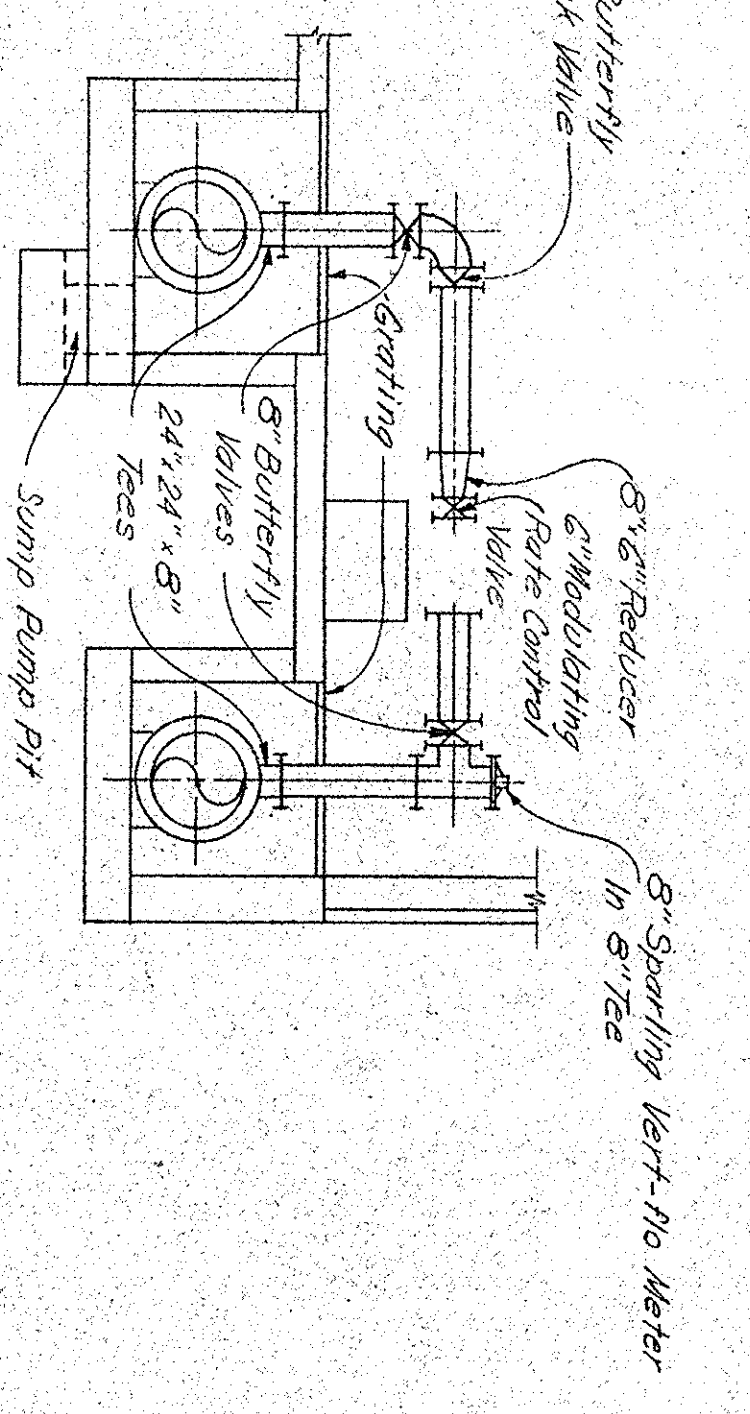
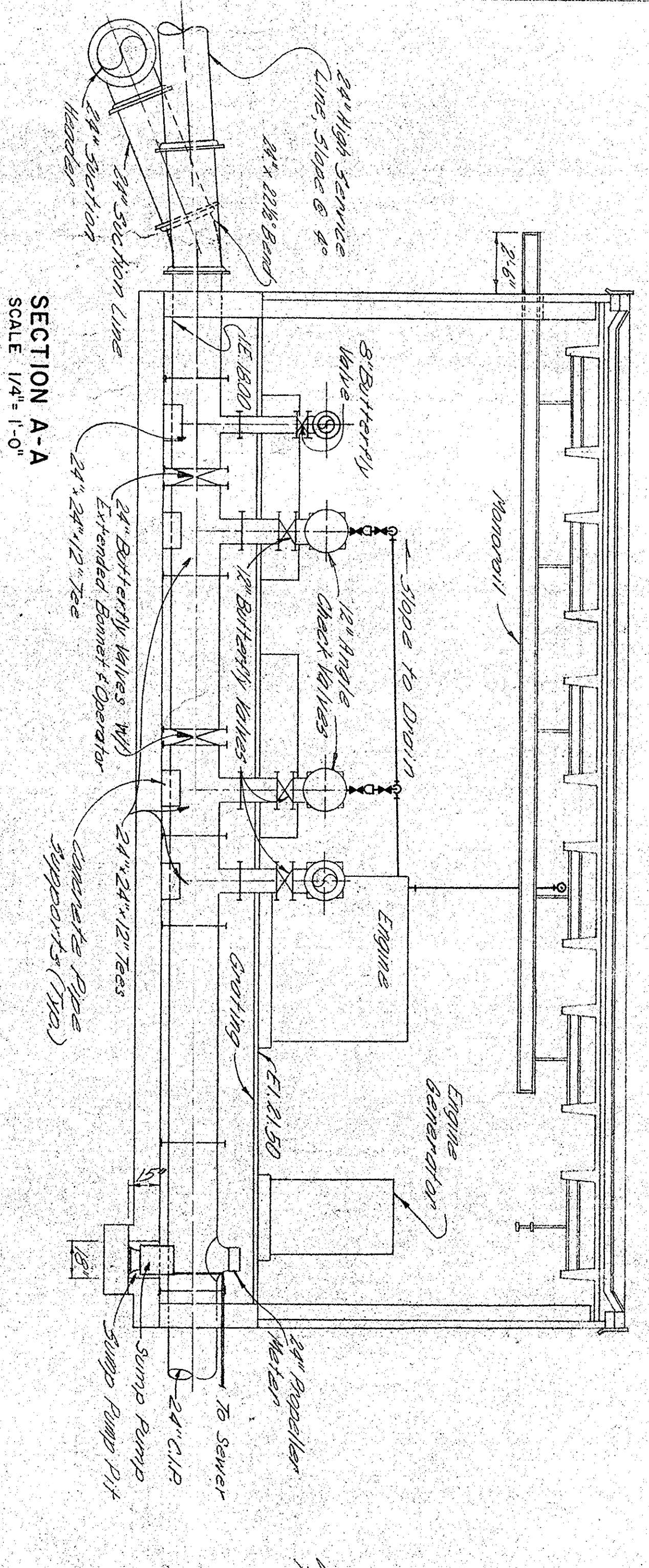
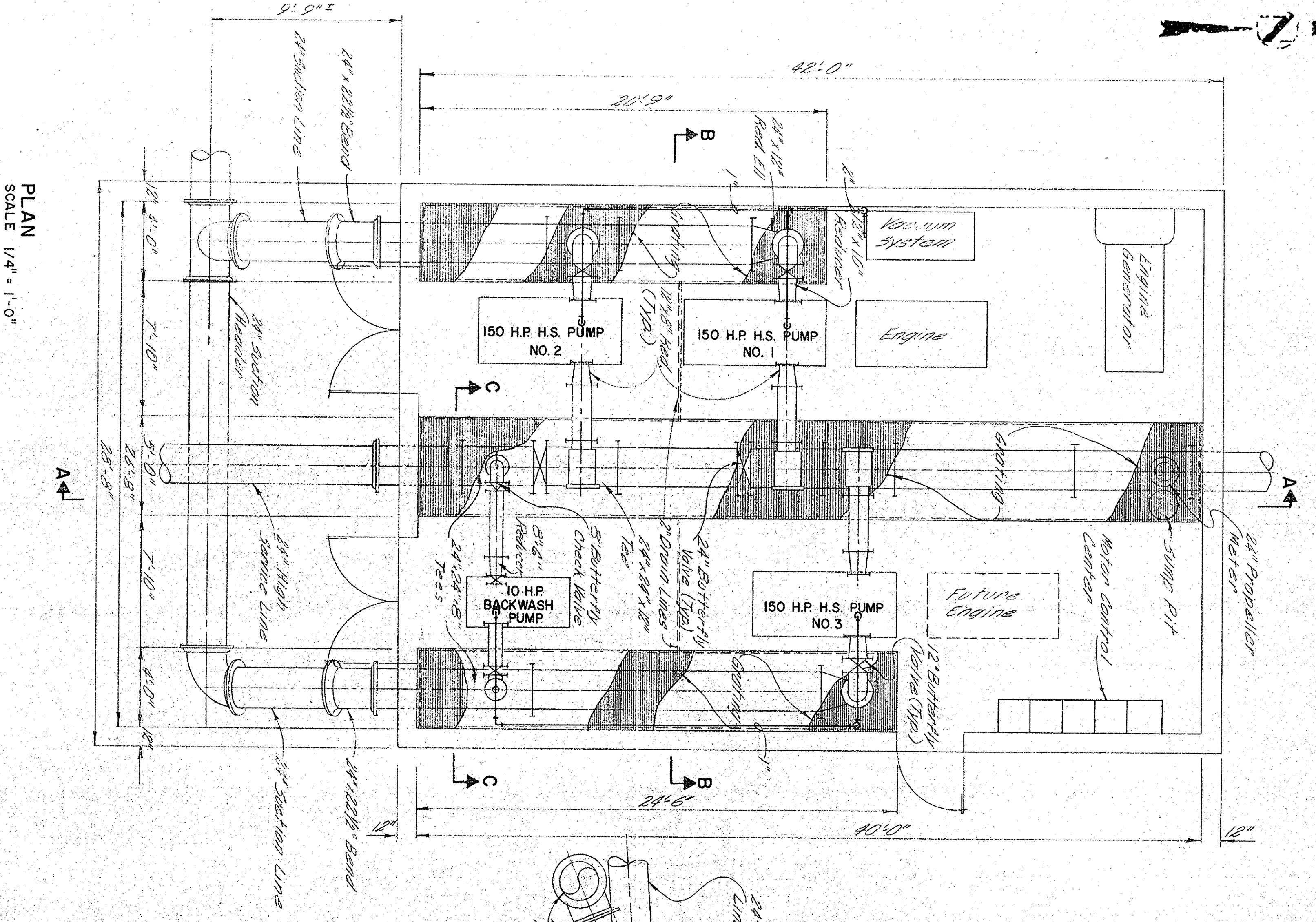
MECHANICAL

DATE	DESCRIPTION	MADE	APPROV.

DATE	DESIGNED BY	CHECKED BY	APPROVED BY
	W.M.C.	R.L.C.	C.L.B.

JOB NO. M-6  
 HENNINGSON, DURHAM & RICHARDSON, INC.  
 OF NORTH CAROLINA  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N.C.



GEORGETOWN  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. I  
DIVISION A  
1972

HIGH SERVICE PUMP STATION

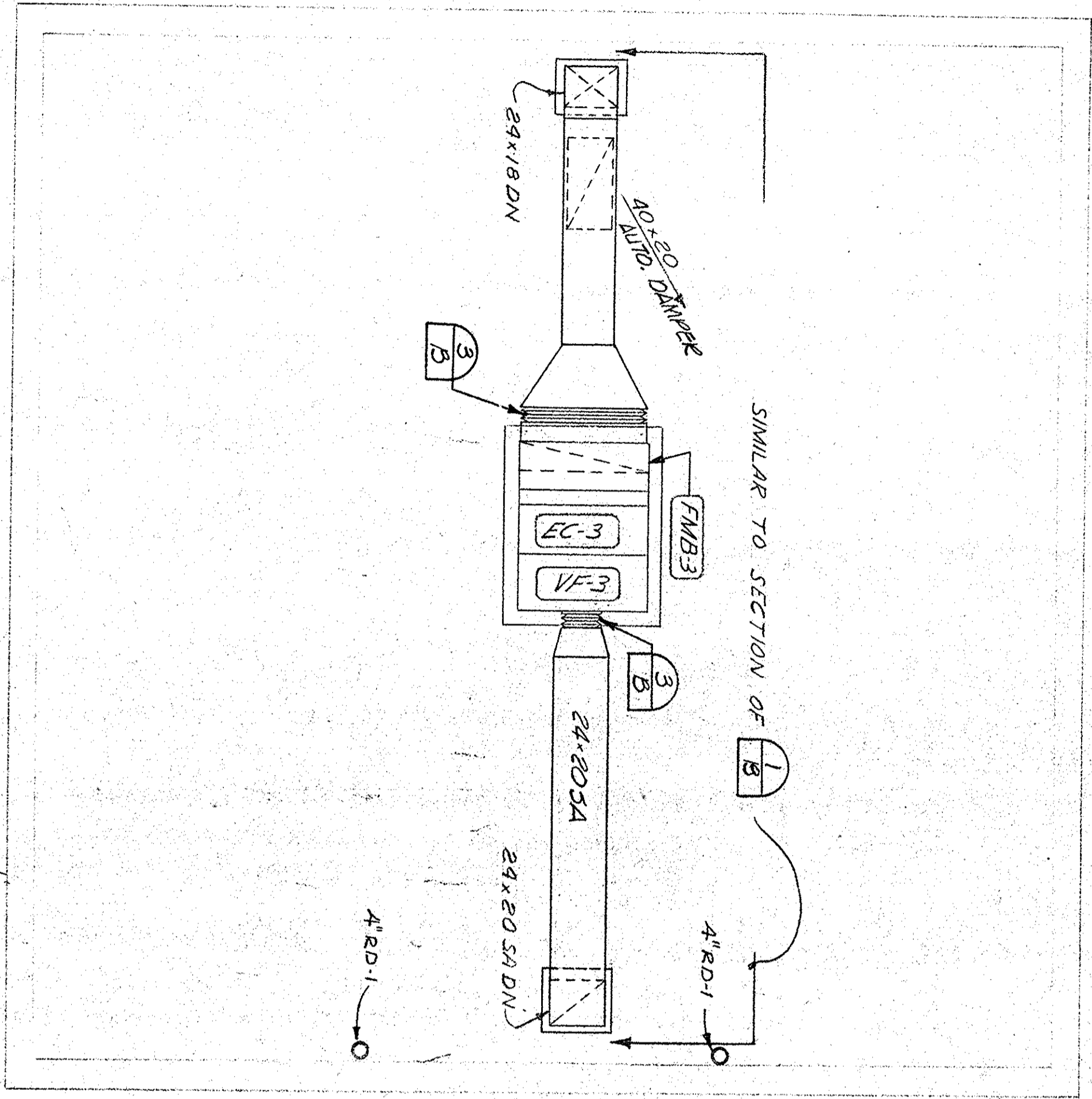
DATE	DESCRIPTION	MADE	APPROV.

MECHANICAL

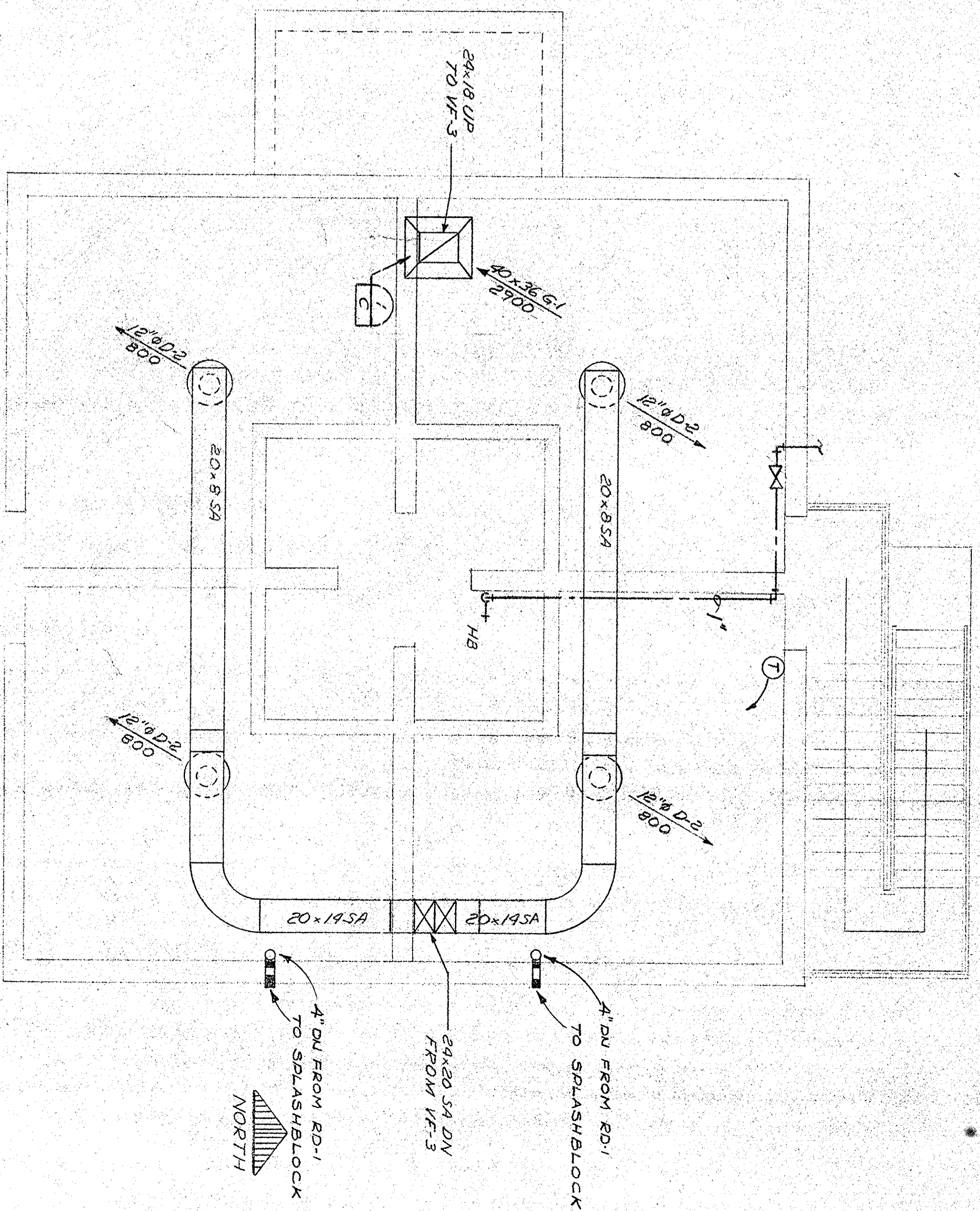
HENNINGSON, DURHAM & RICHARDSON, INC.  
ENGINEERS - PLANNERS - CONSULTANTS  
DESIGNED BY: H.L.C. CHECKED BY: R.H.C.  
DRAWN BY: L.R.H. APPROVED BY: C.L.B.

DATE: 1972  
SCALE: AS SHOWN  
JOB NO: 3529  
19

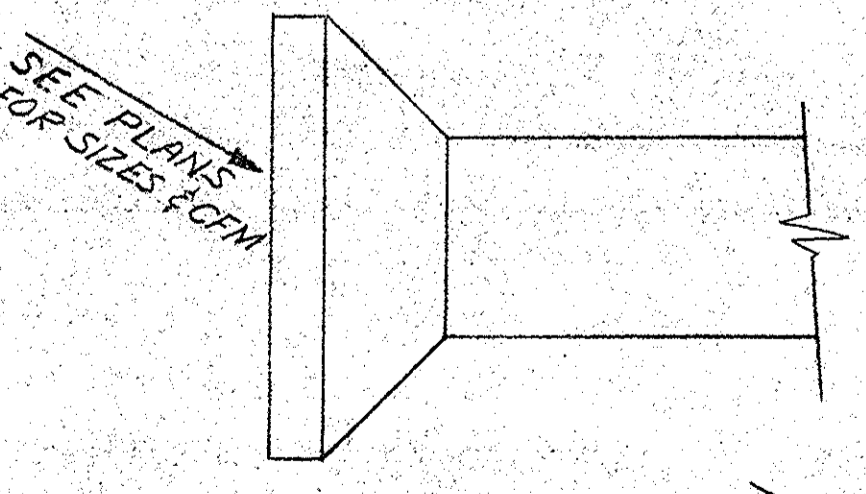
W-7



*FILTER BUILDING  
ROOF PLAN  
SCALE: 1/4" = 1'-0"*

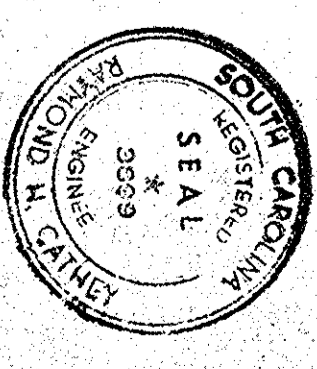


*FILTER BUILDING  
FLOOR PLAN  
SCALE: 1/4" = 1'-0"*



NOTE: TYPICAL FOR ALL RETURN AIR

*RETURN AIR GRILLE  
COLLECTOR DETAIL  
SCALE: 1/2" = 1'-0"*



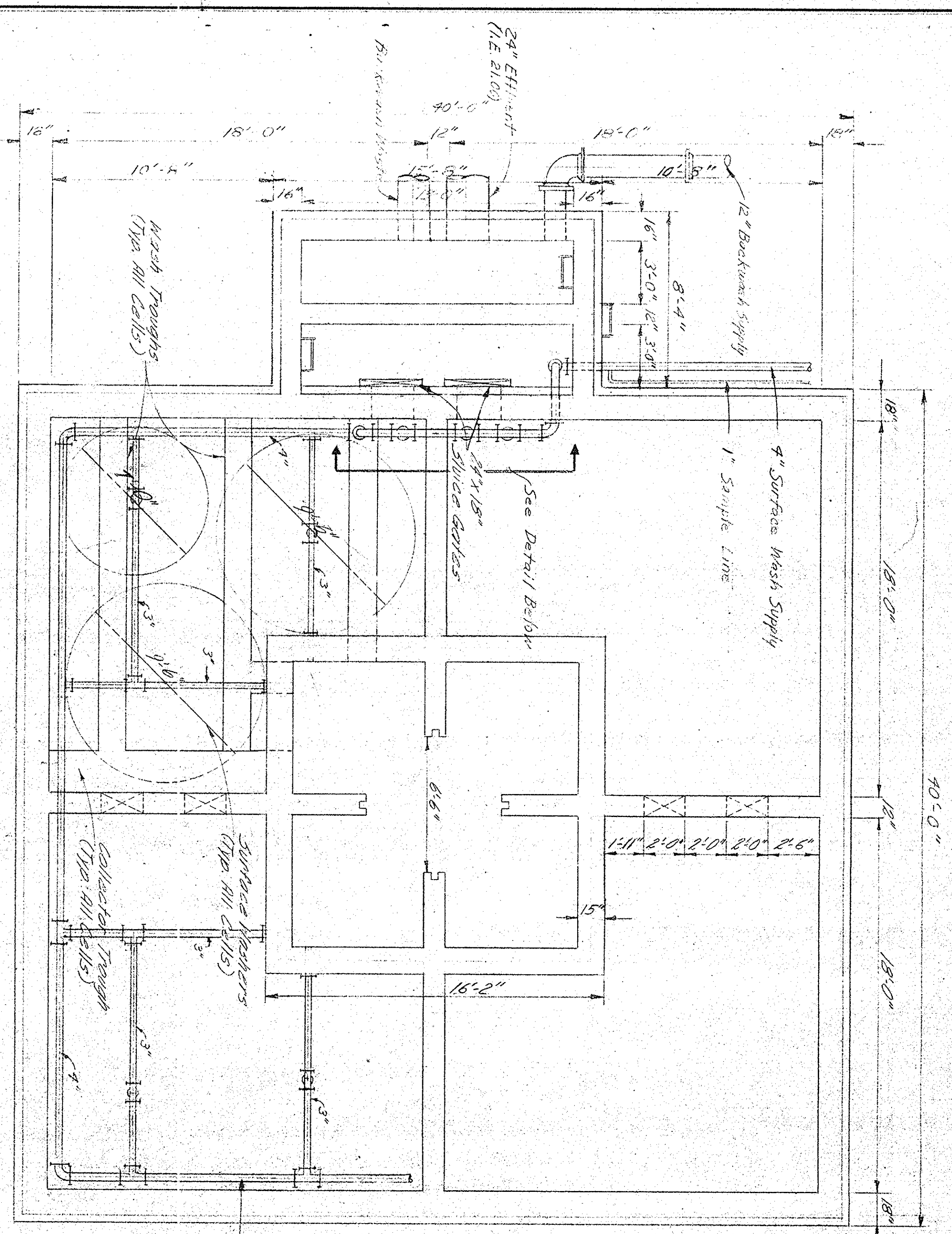
GEORGETOWN  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00795  
CONTRACT NO. I  
DIVISION A

**MECHANICAL  
FILTER BUILDING**

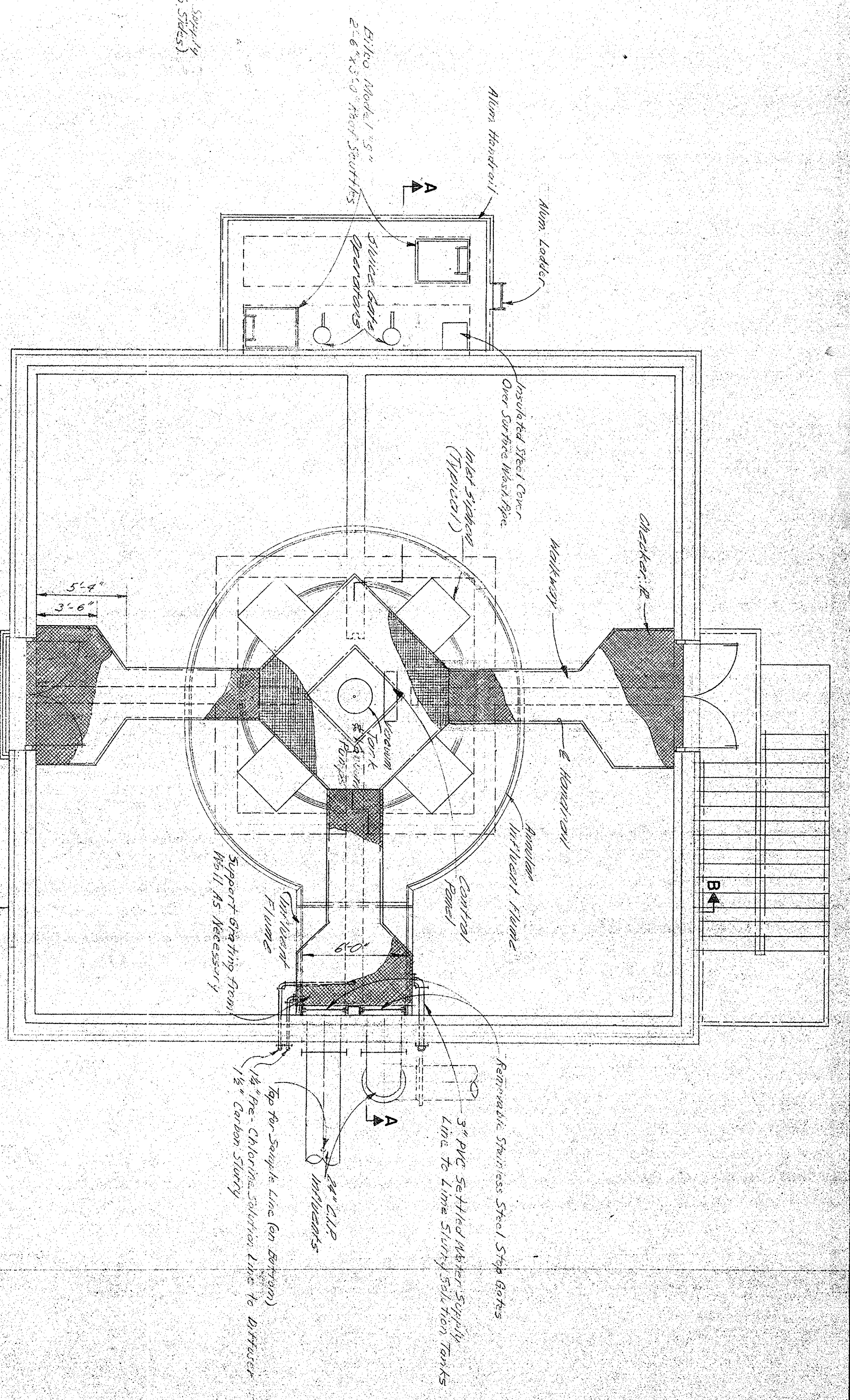
DATE	DESCRIPTION	MADE	APPROV.

DATE	DESCRIPTION	MADE	APPROV.

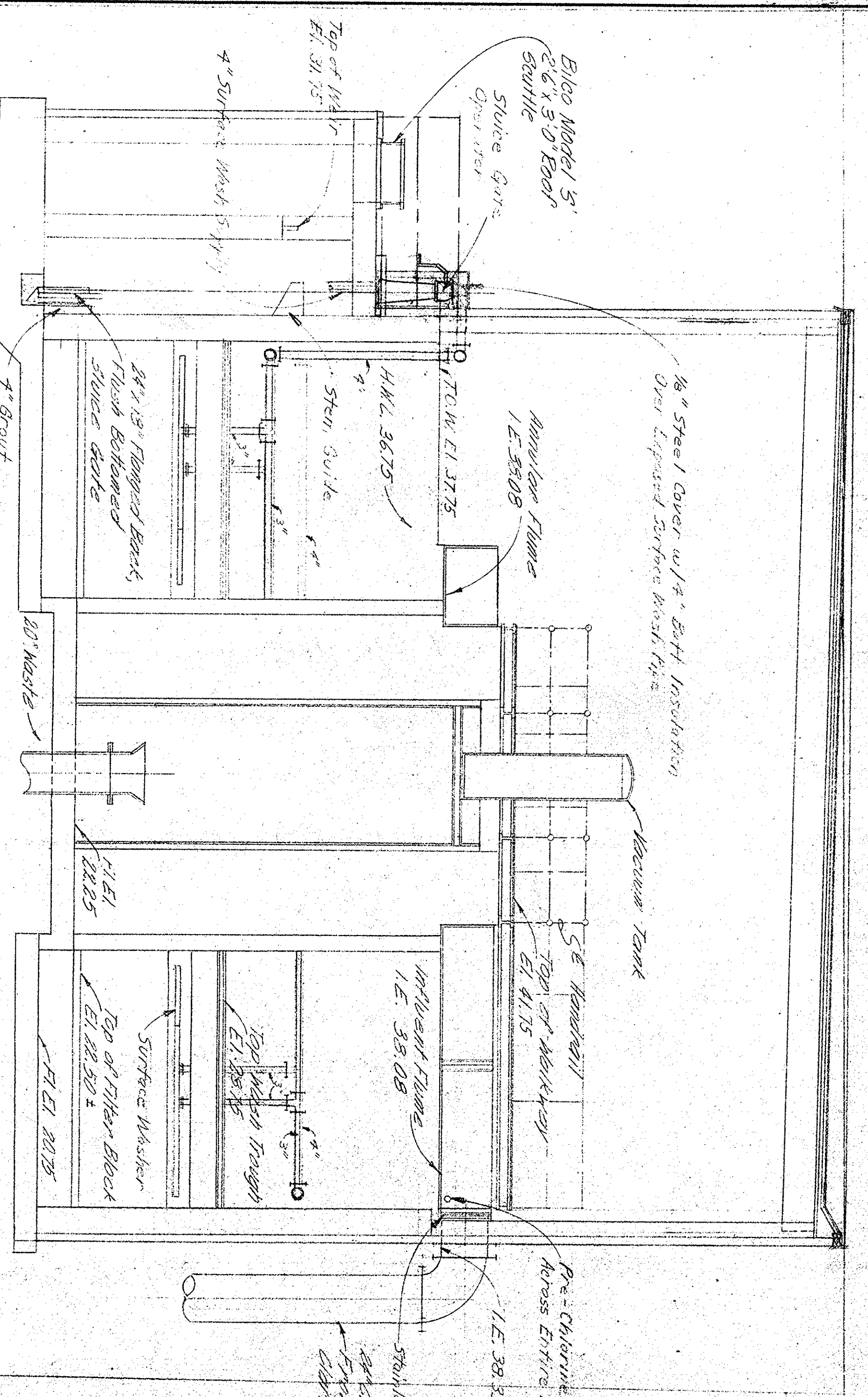
DATE: 83-18  
JOB NO: 18  
SCALE: M-8



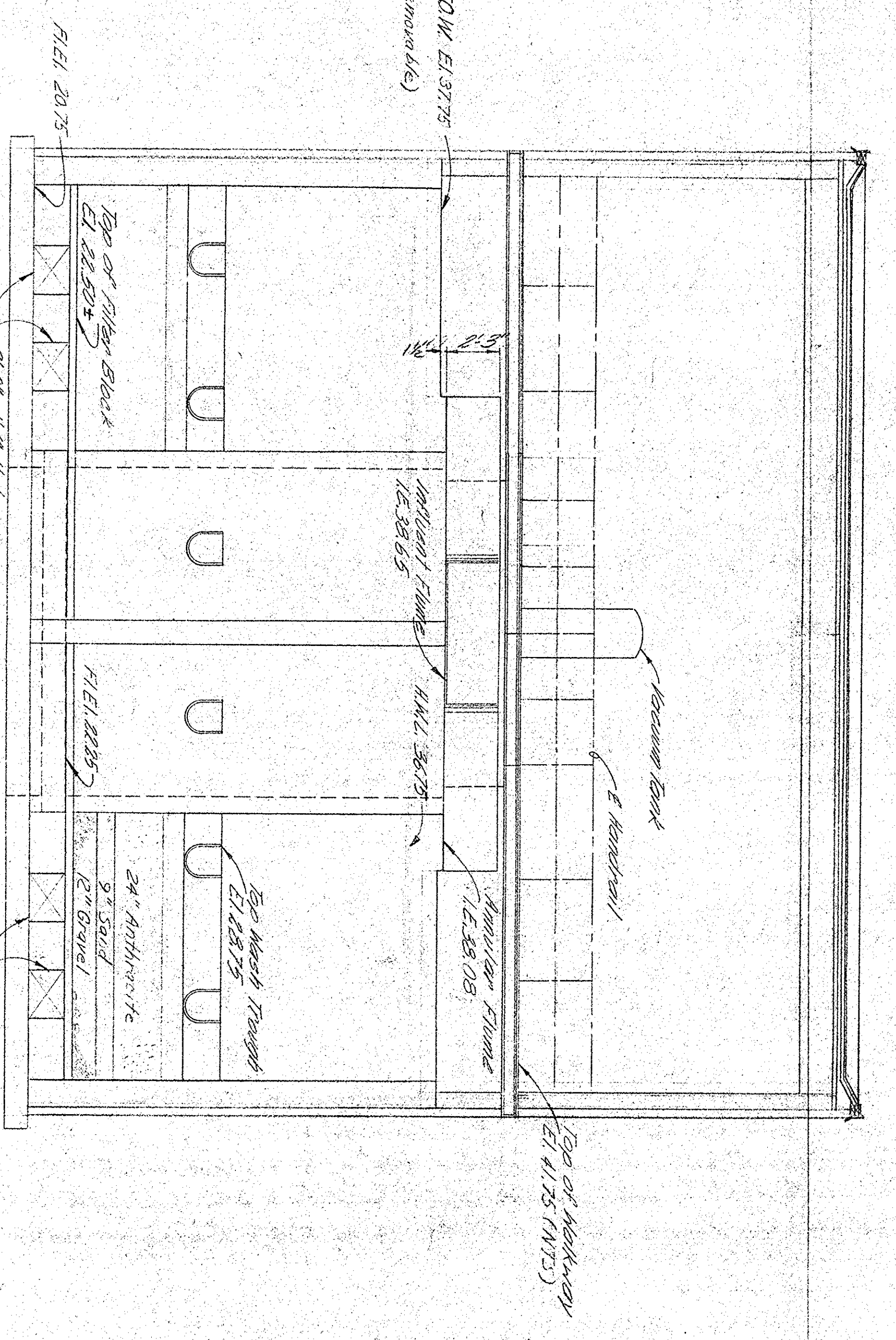
PLAN AT ELEVATION 32.75  
SCALE 1/4" = 1'-0"



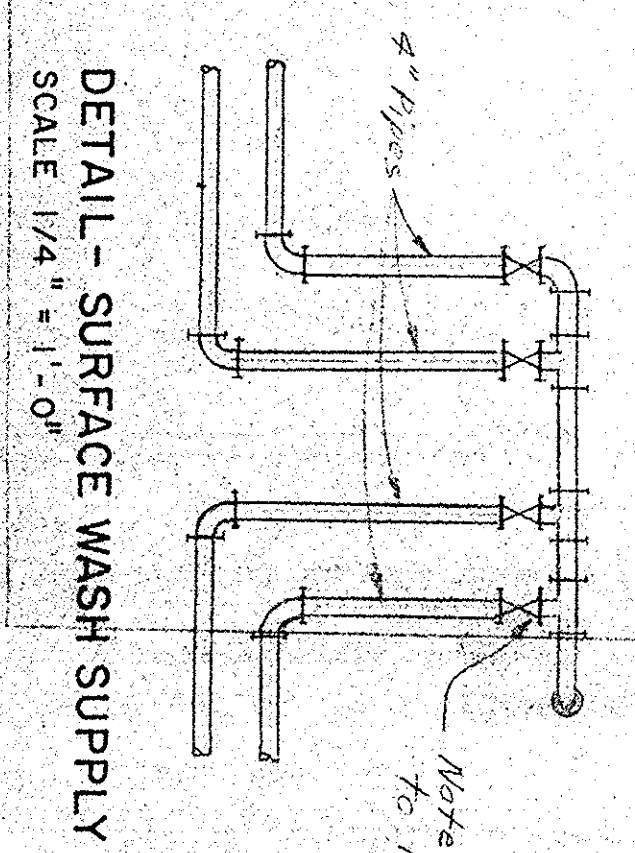
PLAN AT ELEVATION 45.00  
SCALE 1/4" = 1'-0"



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

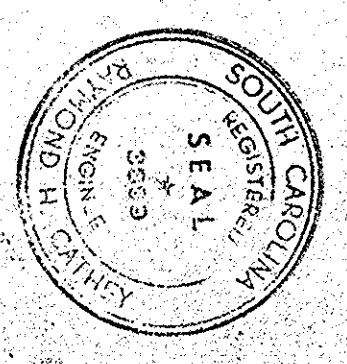


SECTION B-B  
SCALE 1/4" = 1'-0"

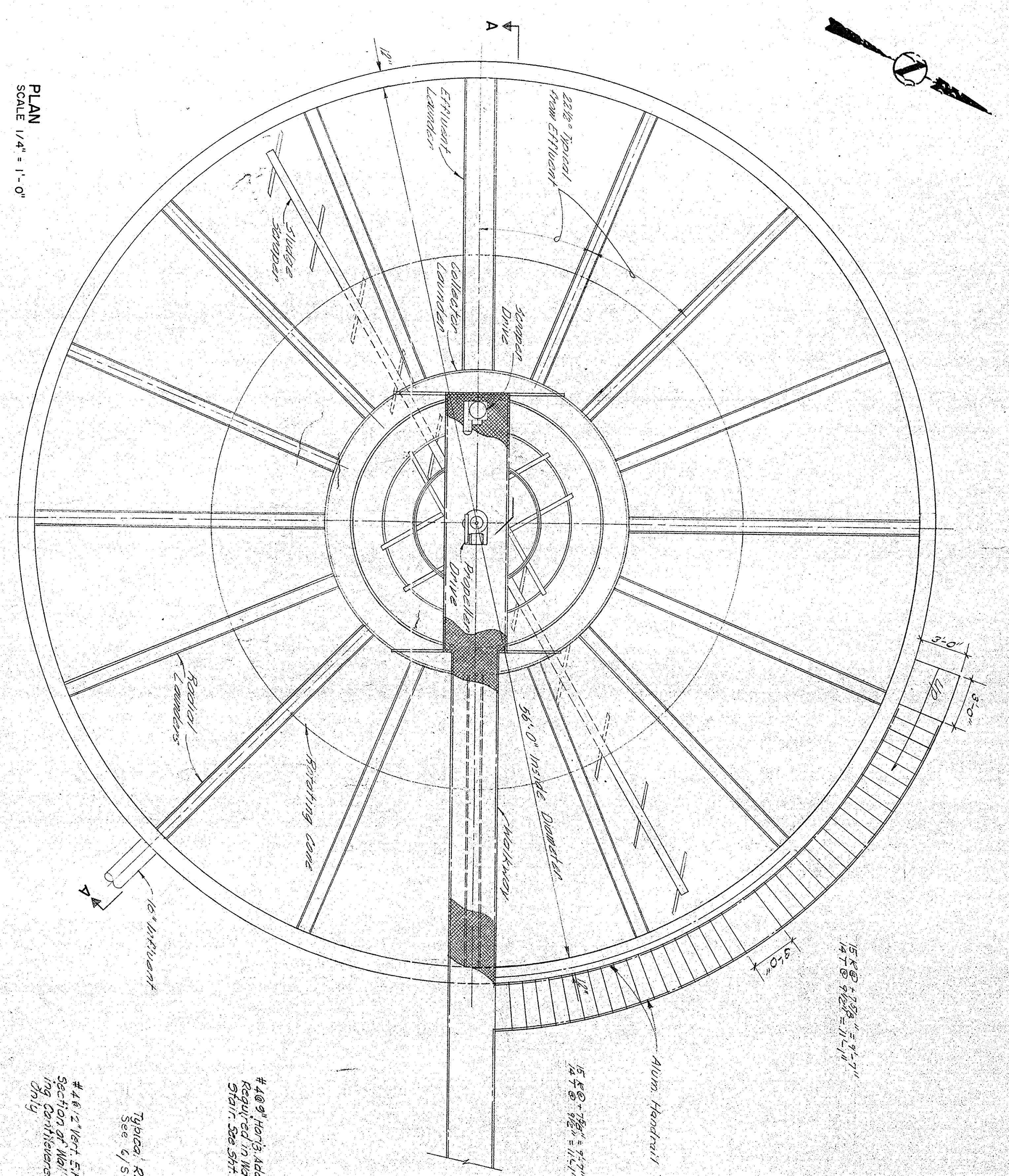
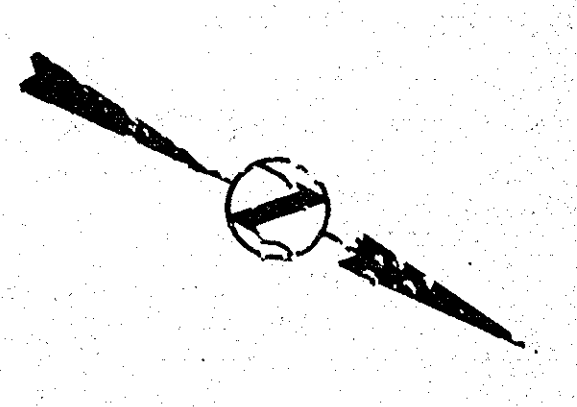


DETAIL - SURFACE WASH SUPPLY  
SCALE 1/4" = 1'-0"

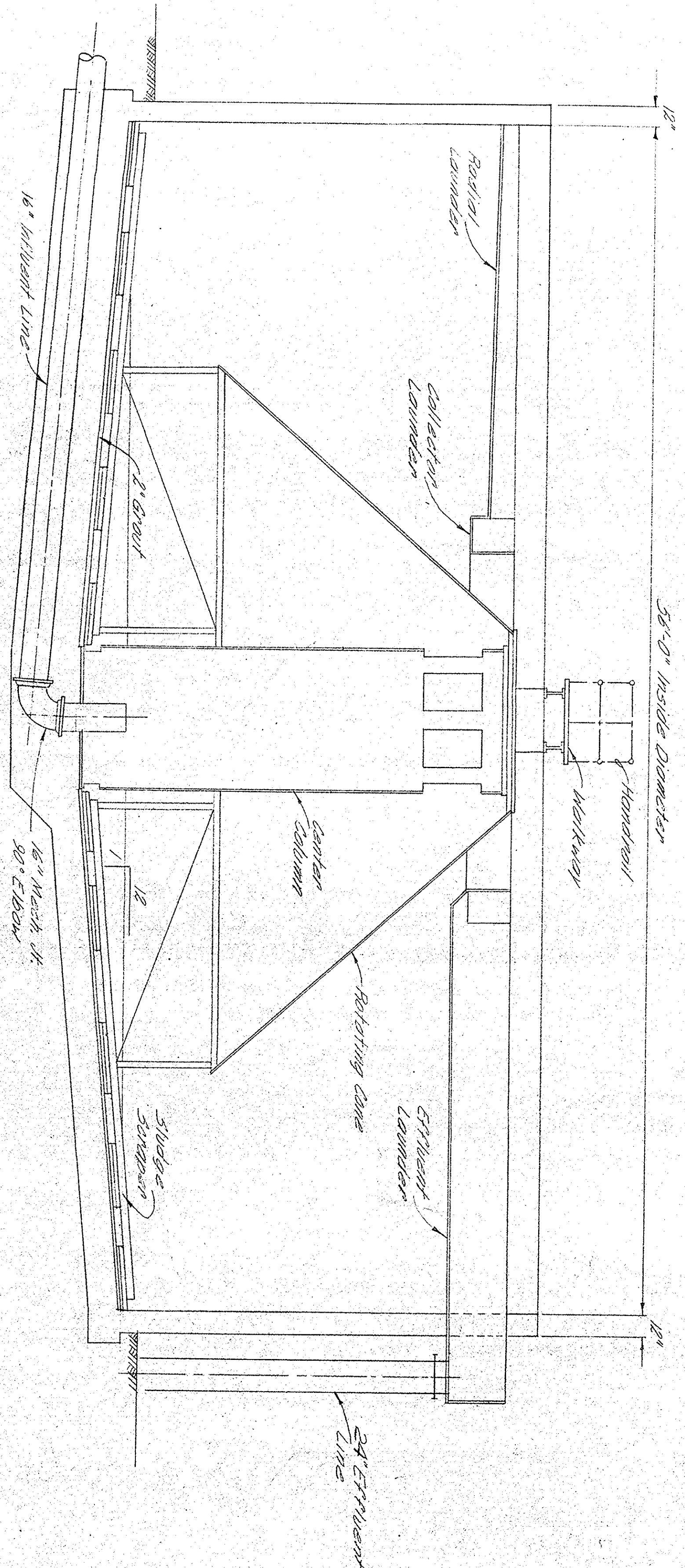
Note: Contractor to coordinate with Electrical Engineer for structure with equipment manufacturers.



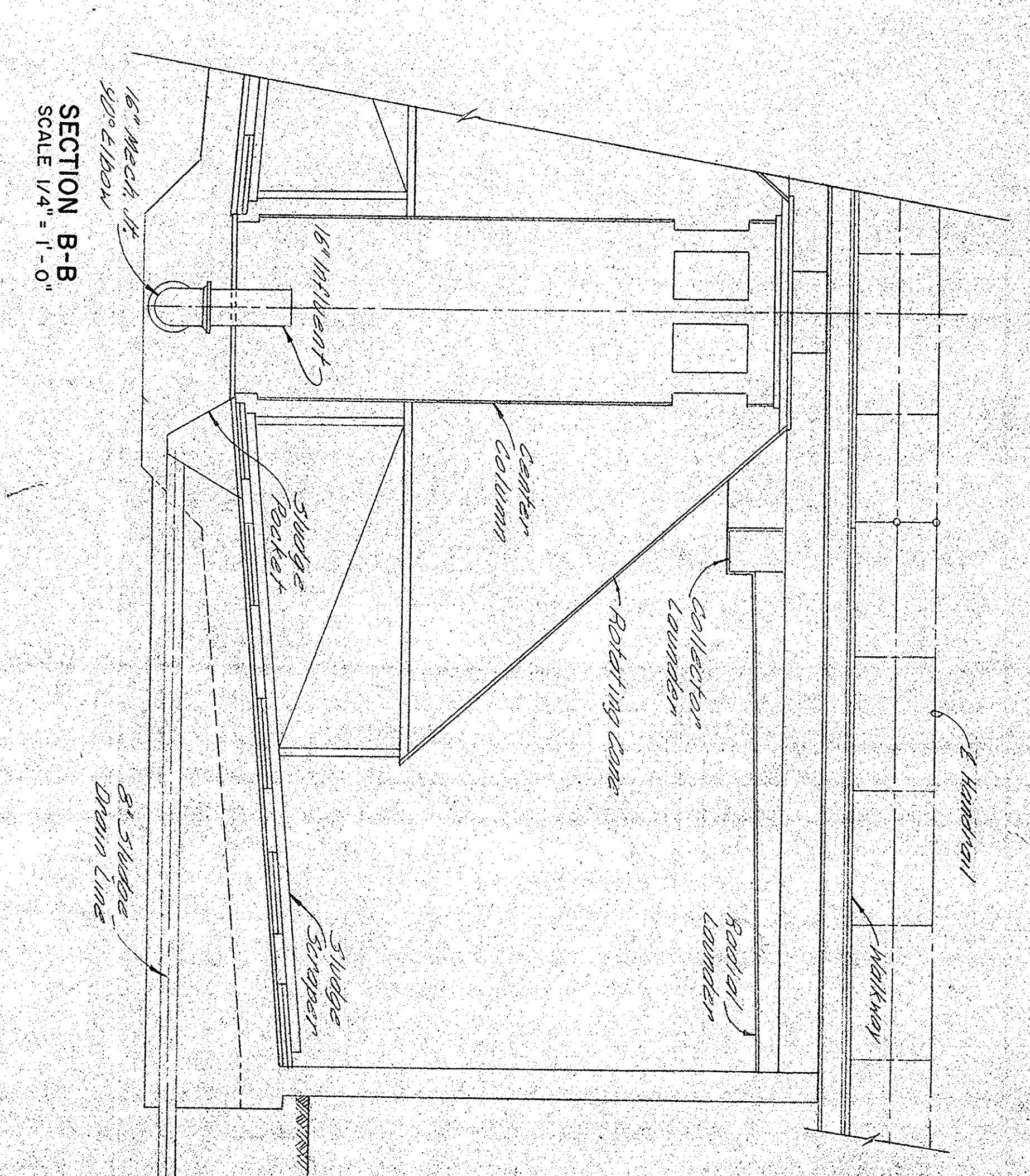
<p>GEORGETOWN WATER FILTRATION PLANT E.D.A. PROJECT NO. 04-1-00795 CONTRACT NO. I DIVISION A</p>		<p>1972</p>
<p>MECHANICAL FILTER BUILDING</p>		
<p>DATE: HENNINGSON, DURHAM &amp; RICHARDSON, INC. OF NORTH CAROLINA ENGINEERS - PLANNERS - CONSULTANTS CHARLOTTE, N. C.</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>JOB NO: 83-18 18</p>
<p>DESIGNED BY: H.L.C. DRAWN BY: L.R.H.</p>	<p>CHECKED BY: S.H.C. APPROVED BY: C.L.B.</p>	<p>M-9</p>



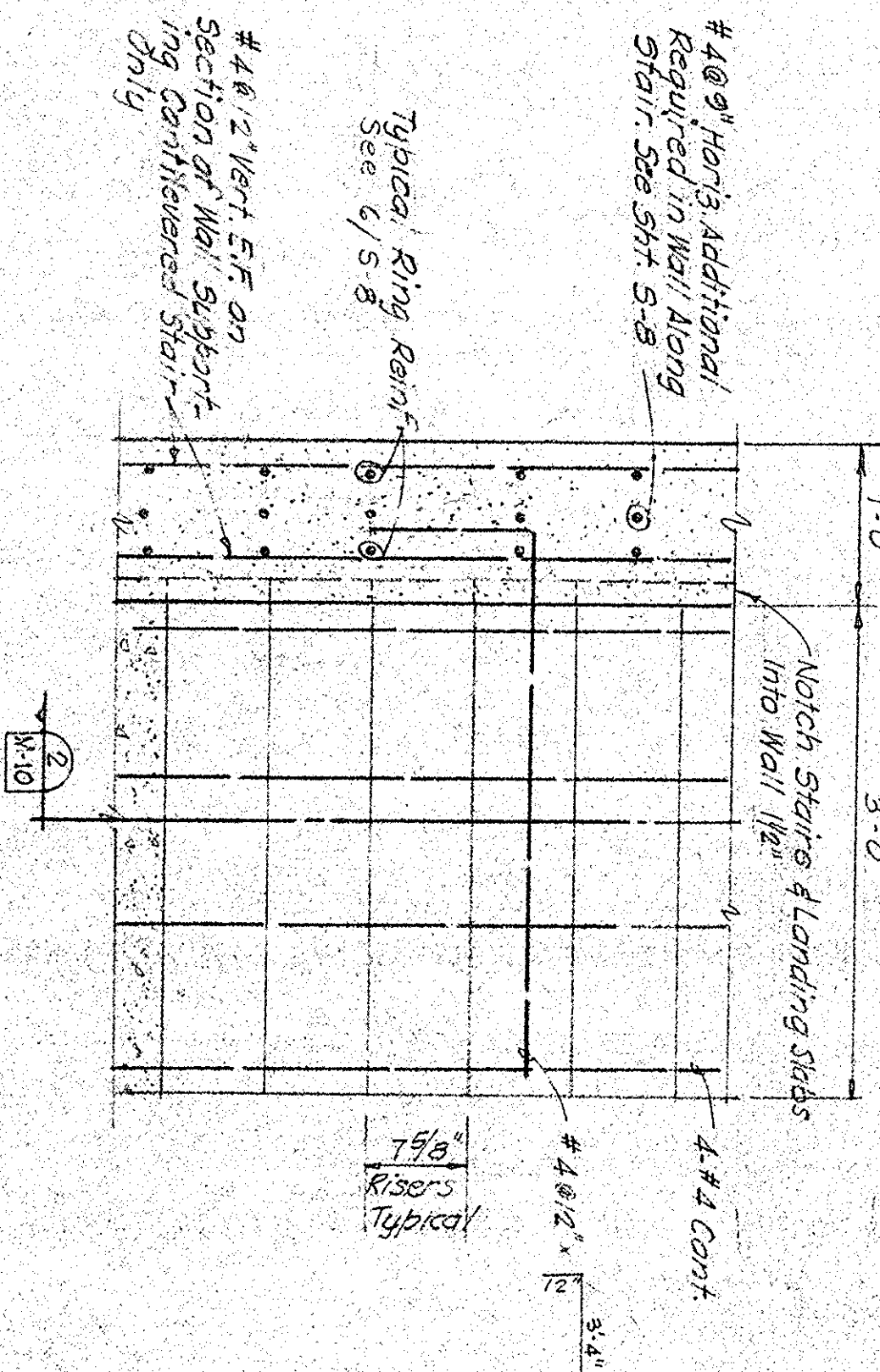
PLAN  
SCALE 1/4" = 1'-0"



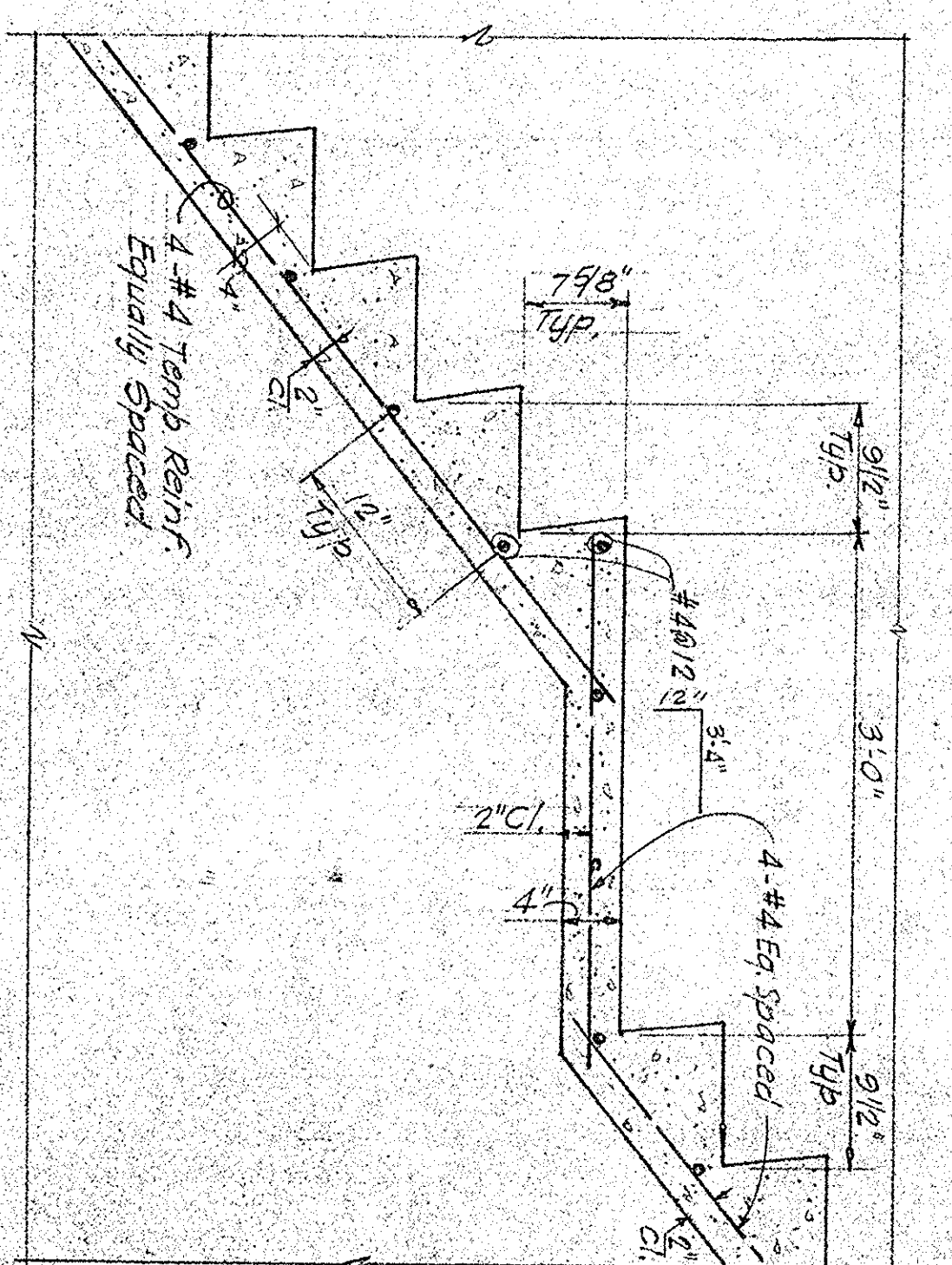
SECTION A-A  
SCALE 1/4" = 1'-0"



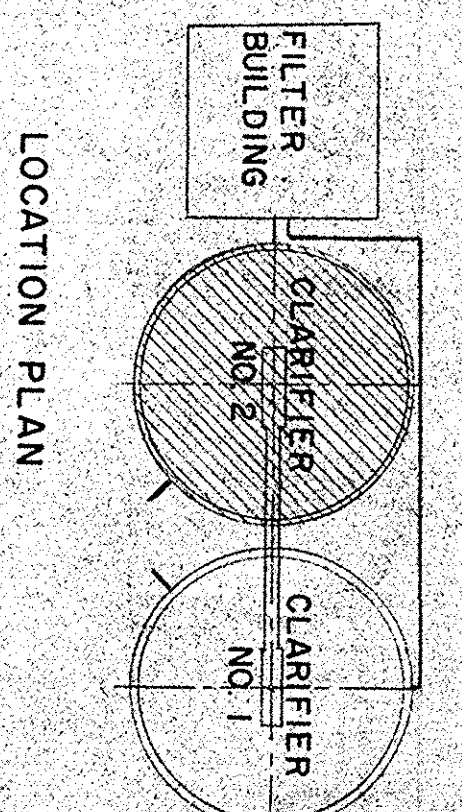
SECTION B-B  
SCALE 1/4" = 1'-0"



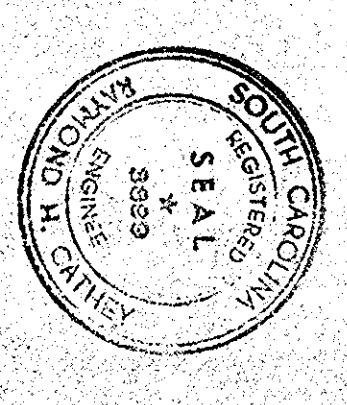
SECTION THRU STAIR ON CLARIFIER #2 ONLY  
SCALE: 1" = 1'-0"



SECTION THRU STAIR ON CLARIFIER #2 ONLY  
SCALE: 1" = 1'-0"



LOCATION PLAN



GEORGETOWN  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. I  
DIVISION A  
1972

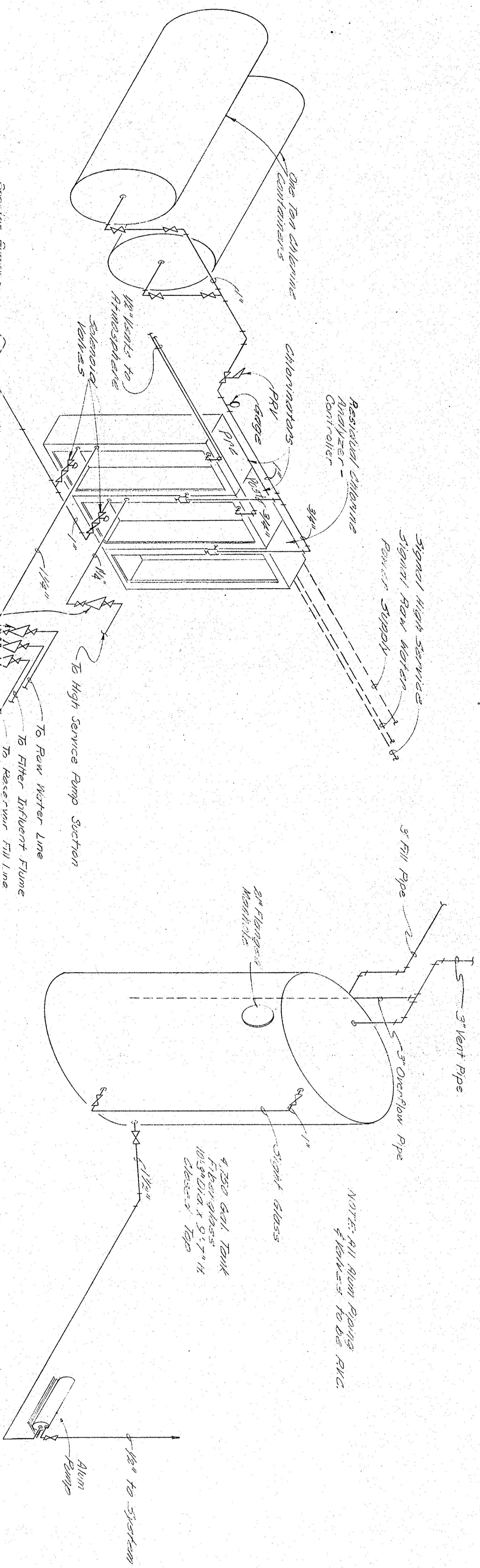
UPFLOW CLARIFIER

DATE	DESCRIPTION	MADE	APPROV.

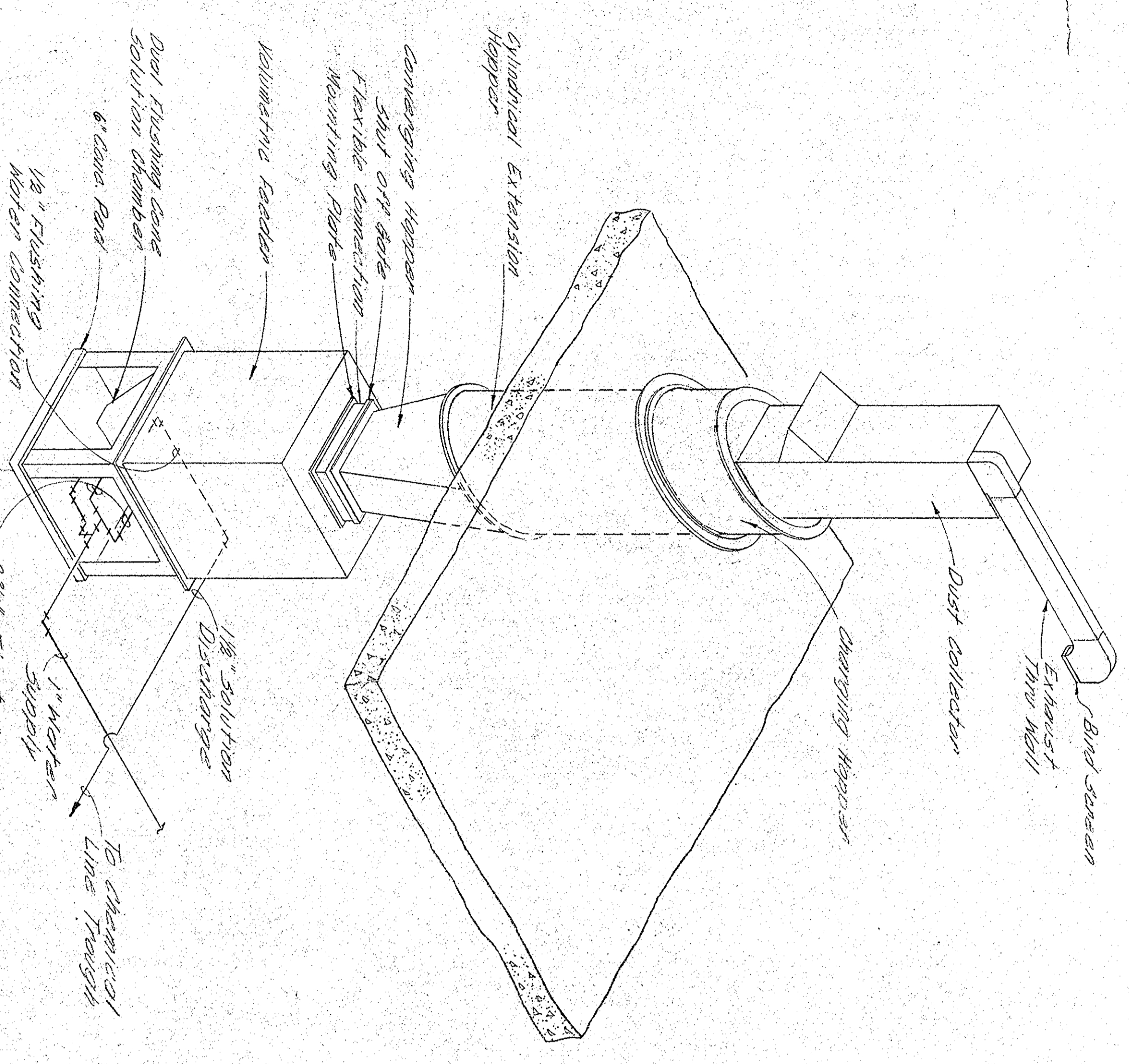
DATE	SCALE	DESIGNED BY	CHECKED BY	DRAWN BY	APPROVED BY

MECHANICAL  
HENNINGSON, DURHAM & RICHARDSON, INC.  
OF NORTH CAROLINA  
ENGINEERS - PLANNERS - CONSULTANTS  
CHARLOTTE, N. C.  
JOB NO. 93-18  
18  
M-10

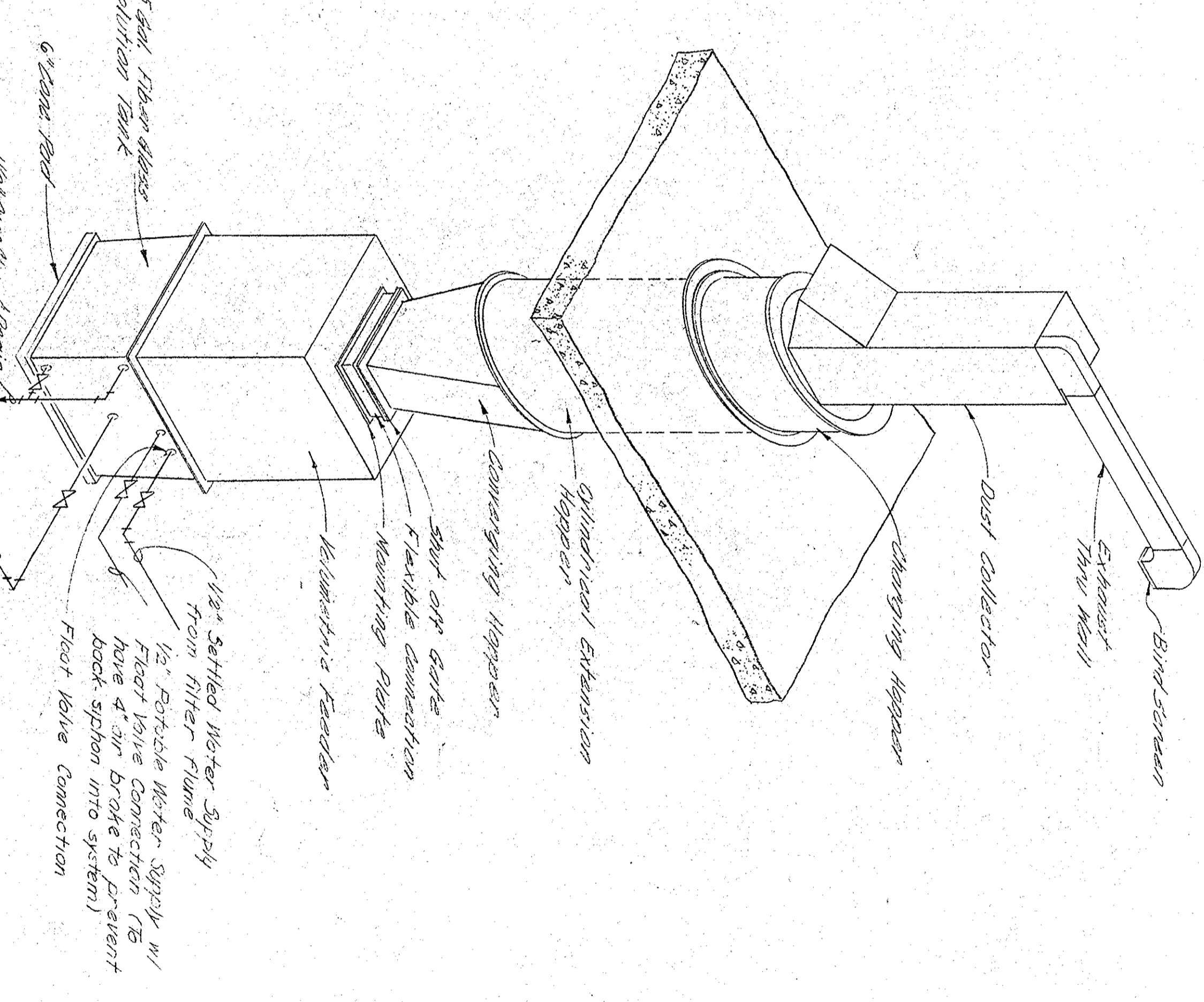


**CHLORINE FEED SCHEMATIC**  
NO SCALE

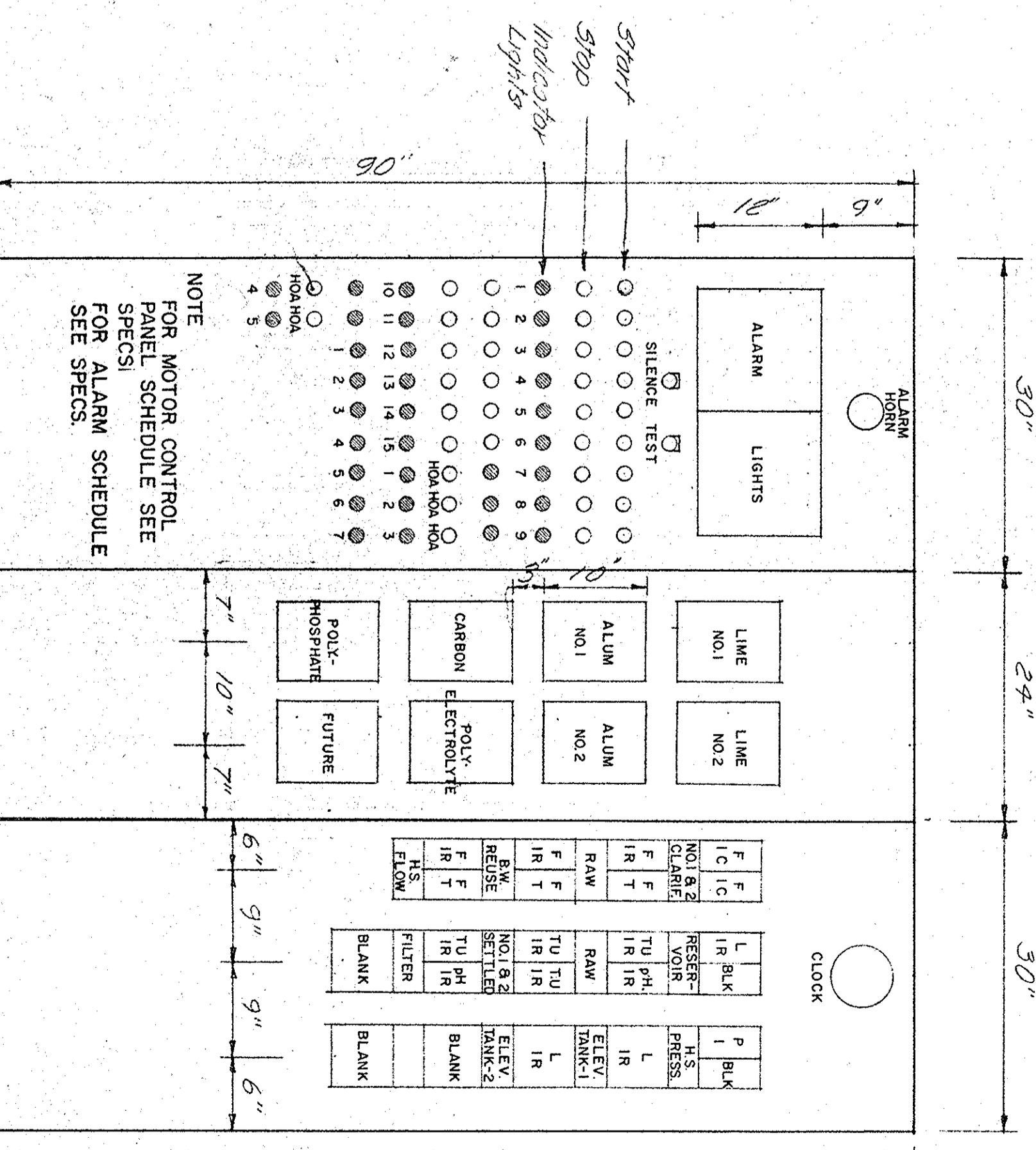
**ALUM FEED SCHEMATIC**  
NO SCALE



**CARBON FEED SCHEMATIC**  
NO SCALE



**LIME FEED SCHEMATIC**  
NO SCALE

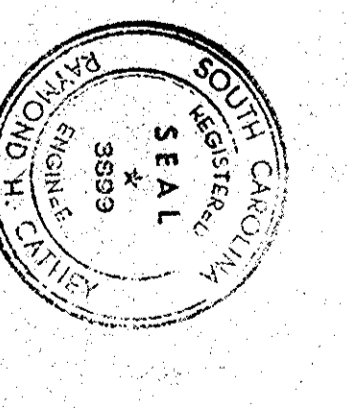


**CONTROL & OBSERVATION PANELS**  
NO SCALE

**LEGEND**  
OBSERVATION AND FLOW CONTROL PANEL

F FLOW  
T TOTALIZER  
I INDICATOR  
R RECORDER  
C CONTROLLER  
P PRESSURE  
B BLANK

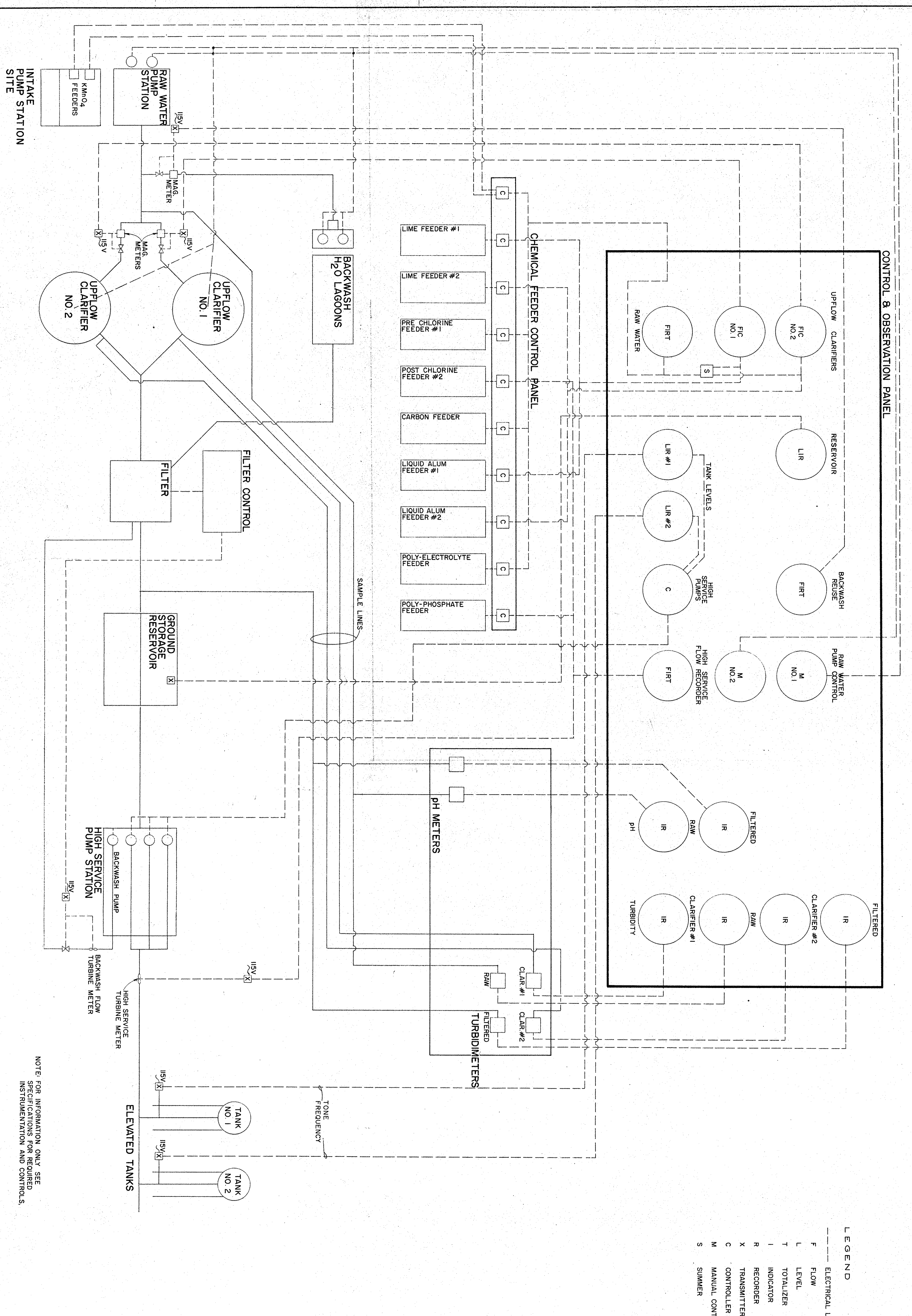
L LEVEL  
TU TURBIDITY



<p>GEORGETOWN WATER FILTRATION PLANT E.D.A. PROJECT NO. 04-1-00735 CONTRACT NO. I GEORGETOWN, SOUTH CAROLINA</p>		<p>DATE: 1972</p>
<p>DIVISION A</p>		<p>SCALE: M-11</p>
<p><b>SCHEMATICS</b></p>		<p>DESIGNED BY: H.L.C. CHECKED BY: R.H.G. DRAWN BY: L.R.H.</p>
<p>HENNINGSON, DURHAM &amp; RICHARDSON, INC. OF NORTH CAROLINA ENGINEERS - PLANNERS - CONSULTANTS CHARLOTTE, N. C.</p>		<p>JOB NO. 83-18</p>
<p>APPROVED BY: C.L.B.</p>		<p>DATE: 1972</p>







**LEGEND**

--- ELECTRICAL LINES

F FLOW

L LEVEL

T TOTALIZER

I INDICATOR

R RECORDER

X TRANSMITTER

C CONTROLLER

M MANUAL CONTROL

S SUMMER

NOTE: FOR INFORMATION ONLY. SEE SEPARATE SHEETS FOR INSTRUMENTATION AND CONTROLS.

DATE	DESCRIPTION	MADE	APPROV.

**GEORGETOWN**  
**WATER FILTRATION PLANT**  
 E.D.A. PROJECT NO. 04-1-00735  
 CONTRACT NO. I

**INSTRUMENTATION & CONTROL SCHEMATIC**

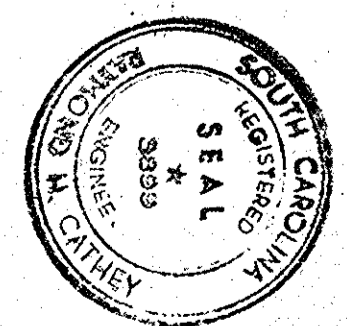
DIVISION A

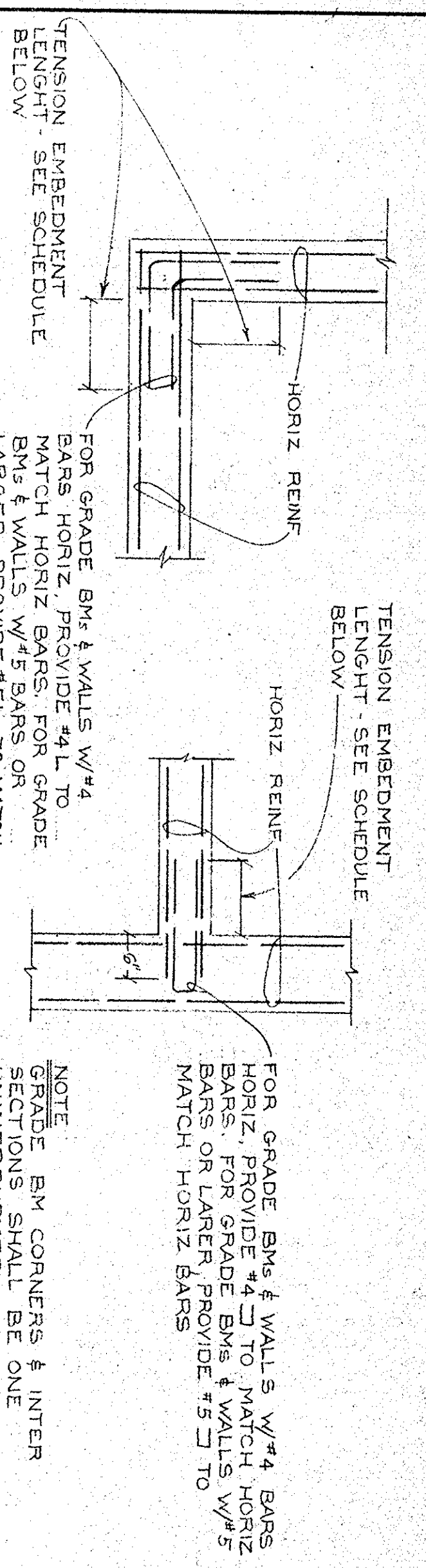
1972

HENNINGSON, DURHAM & RICHARDSON, INC.  
 ENGINEERS - PLANNERS - CONSULTANTS  
 OF NORTH CAROLINA  
 CHARTERED PROFESSIONAL ENGINEERS

DESIGNED BY: H.L.C.    CHECKED BY: R.H.C.  
 DRAWN BY: M.L.C.    APPROVED BY: C.L.B.

JOB NO. 83-18  
 18  
 M-3





TENSION EMBEDMENT & LAP LENGTHS DETAILS  
NO SCALE

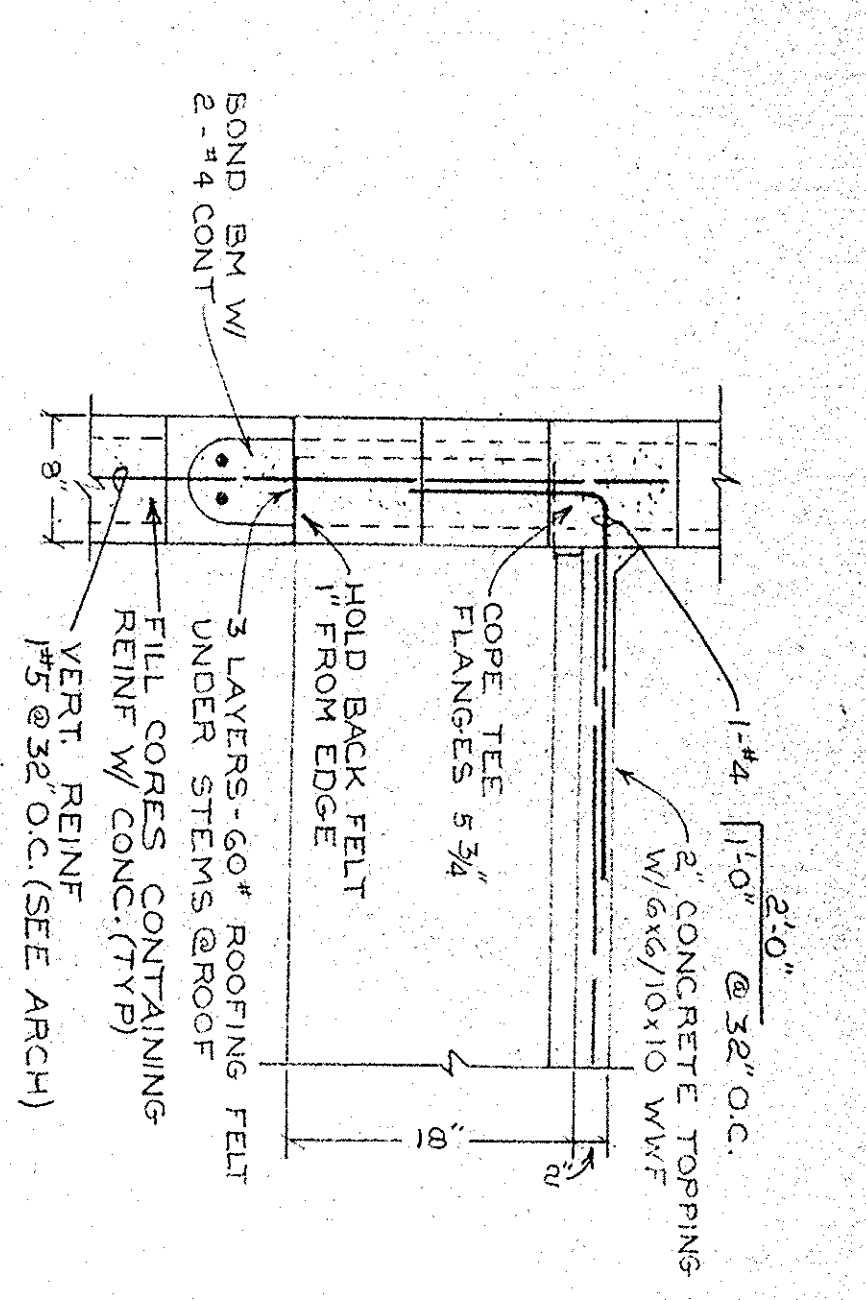
MIN. EMBEDMENT LENGTHS		MIN. LAP LENGTHS (IN)	
BAR	TOP*	BAR	TOP*
#3	13IN	#3	21
#4	17	#4	24
#5	21	#5	26
#6	25	#6	31
#7	32	#7	34
#8	42	#8	41
#9	55	#9	51

NOTES:  
1. ALL TENSION EMBED LENGTHS OR TENSION LAP LENGTHS AS SHOWN ON DRAWINGS ARE CLASSIFIED AS TENSION OTHERS UNLESS THEY MEET OR EXCEED THE REQUIREMENT FOR TENSION TOP BARS.  
\*2. TENSION TOP BARS ARE HORIZONTAL BARS 50 PLACED THAT MORE THAN 12 IN OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

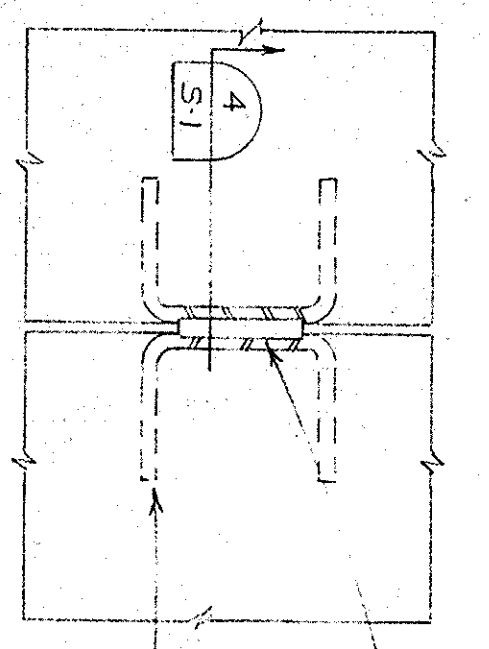
**PRESTRESSED MEMBER SCHEDULE**

MARK	DESCRIPTION	SUPERIMPOSED LOAD	REMARKS
DT1		150 psf	
DT2		TO psf	
DT3		TO psf	
DT4		5500 lb MOVING LOAD	SEE PLAN FOR DISTRIBUTION OF 5500 LB MOVING LOAD. DOUBLE TEE SHALL BE CAPABLE OF CARRYING 5500 LB MOVING LOAD ON A SINGLE STEEL
DT5		TO psf	
DT6		TO psf	
DT9		5000 lb MOVING LOAD	SEE PLAN FOR LOCATION
DT10		TO psf	
FBI		LIVE LOAD: 112.4 psf DEAD LOAD: 6.2 psf INCLUDING BEAM DEAD LOAD	
PCI		LIVE LOAD: 155 psf	
S1		TO psf	
S2		TO psf	

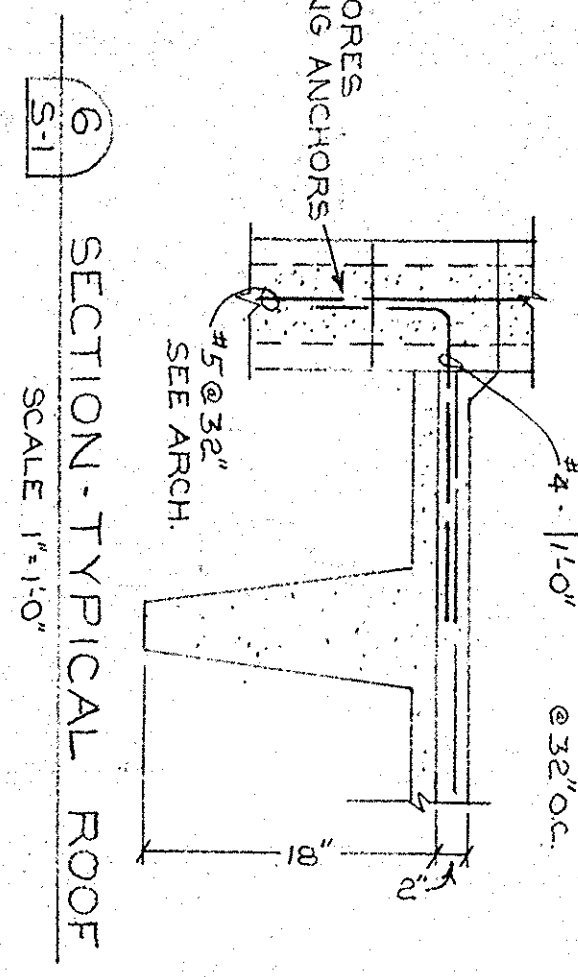
NOTES:  
1. THE 5500 LB SUPERIMPOSED LOAD psf DEAD LOAD INCLUDING TOPPING.  
2. THE 155 psf SUPERIMPOSED LOAD ON DT1 CONSISTS OF 100 psf DEAD LOAD & 55 psf LIVE LOAD INCLUDING TOPPING.  
3. THE 55 psf SUPERIMPOSED LOAD ON DT10 CONSISTS OF 20 psf DEAD LOAD & 35 psf LIVE LOAD INCLUDING TOPPING.  
4. ALL LOADS ARE WORKING LOADS.



TYPICAL ROOF DOUBLE TEE SECTION  
SCALE 1/4"=1'-0"



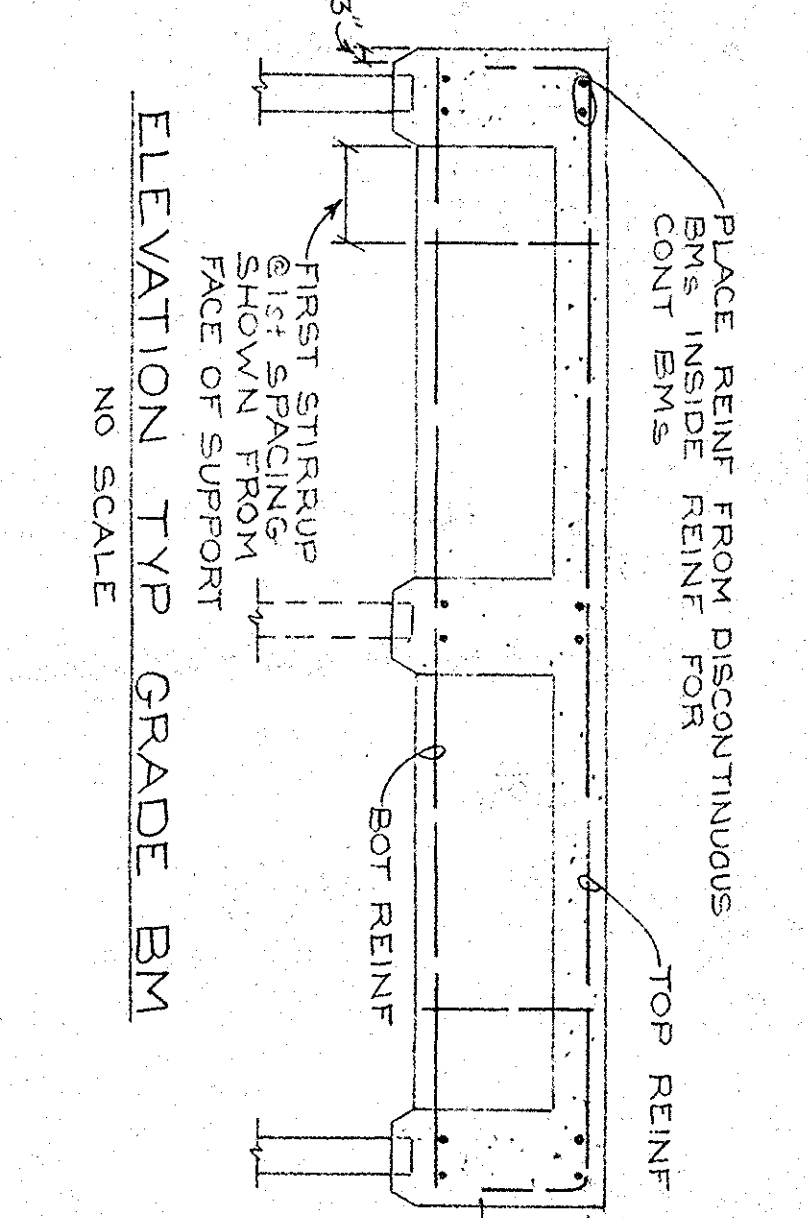
CONNECTION DETAIL  
SCALE 1/4"=1'-0"



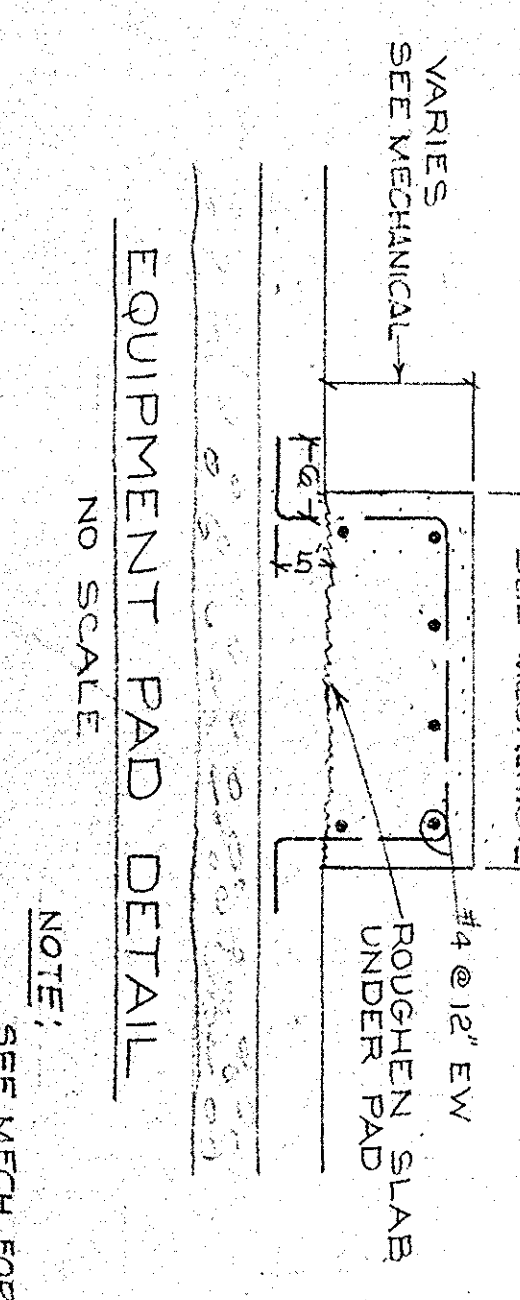
LIVEL - TYPICAL  
SCALE 1/4"=1'-0"

**GRADE BM SCHEDULE**

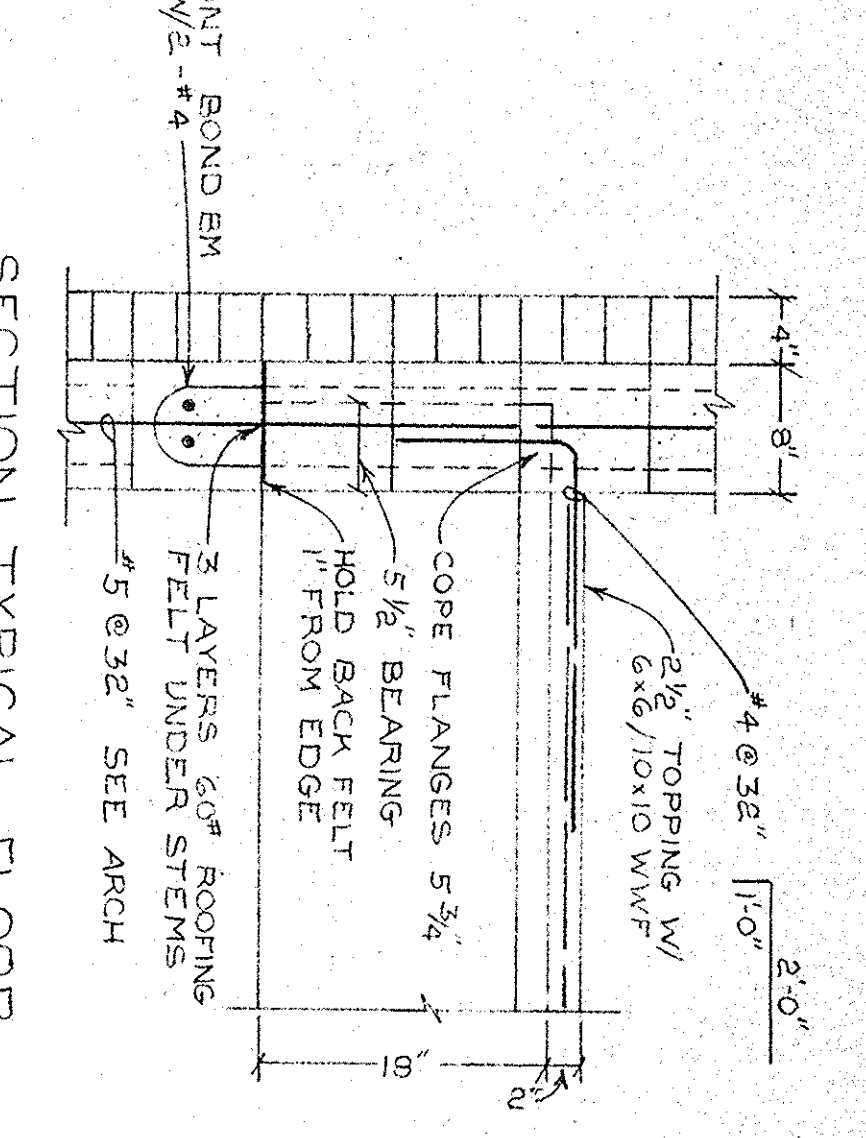
MARK	W	D	# & SIZE	LENGTH	# & SIZE	LENGTH	STIRRUPS	REMARKS
GB1	12"	24"	2-#7	22'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB2	12"	24"	2-#7	9'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB3	12"	24"	2-#7	40'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB4	12"	24"	VARIES	SEE DETAIL 1/3-2	SEE DETAIL 1/3-2			RUN TOP BARS INTO ADJACENT SLABS
GB5	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB6	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB7	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB8	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB9	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB10	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB11	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB12	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB13	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	
GB14	12"	24"	2-#7	2'-0"	2-#7	2'-0"	6" @ 12" O.C.	



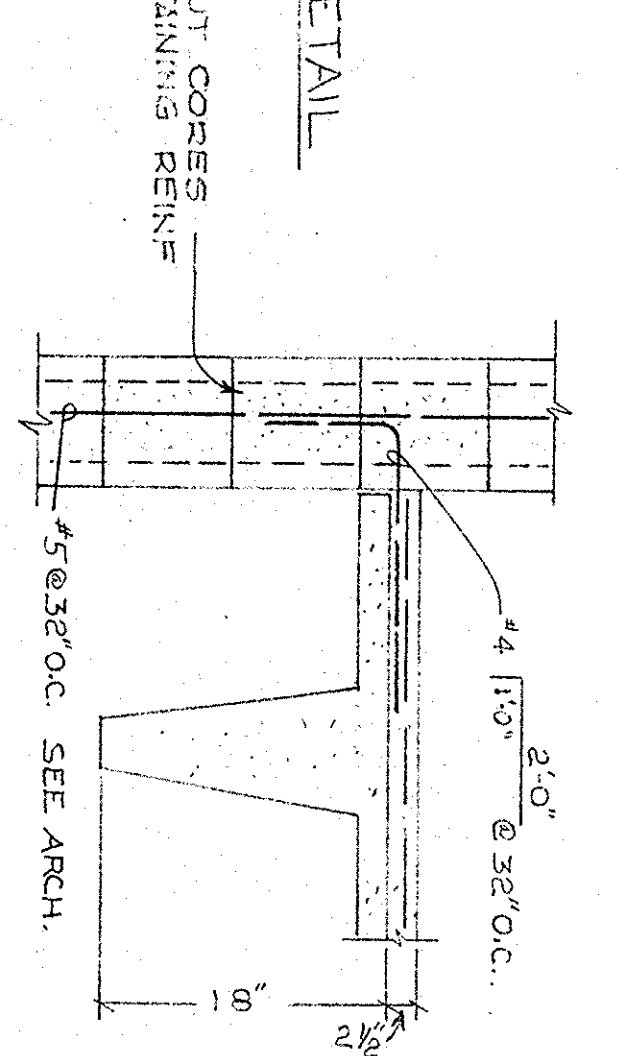
SECTION - TYPICAL INTERIOR GRADE BM  
SCALE 1/4"=1'-0"



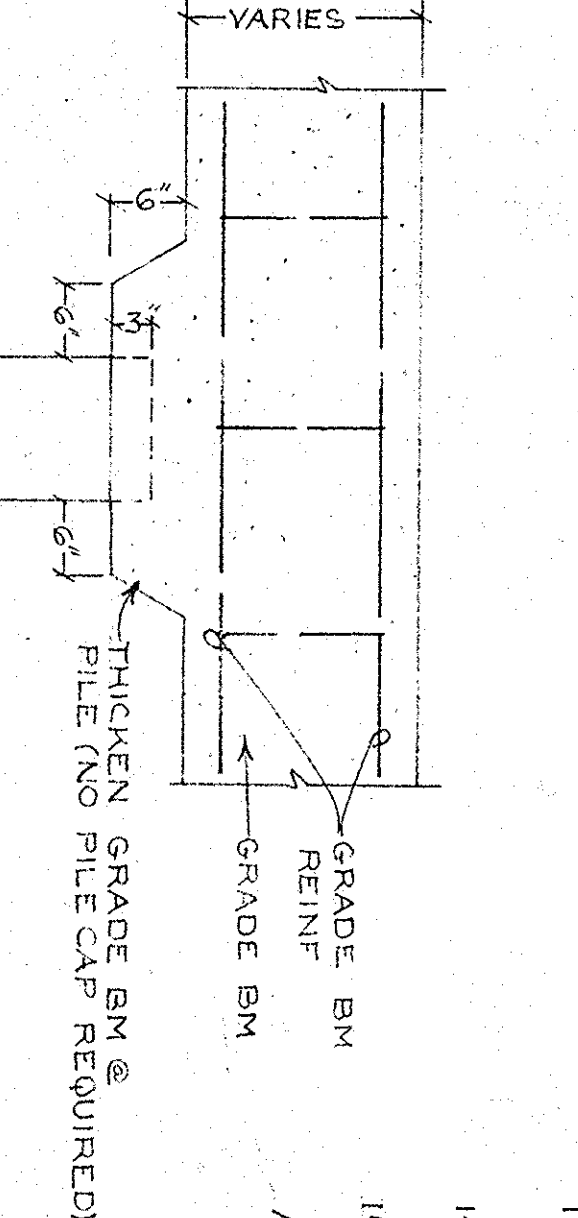
SECTION - TYPICAL EXTERIOR GRADE BM  
SCALE 1/4"=1'-0"



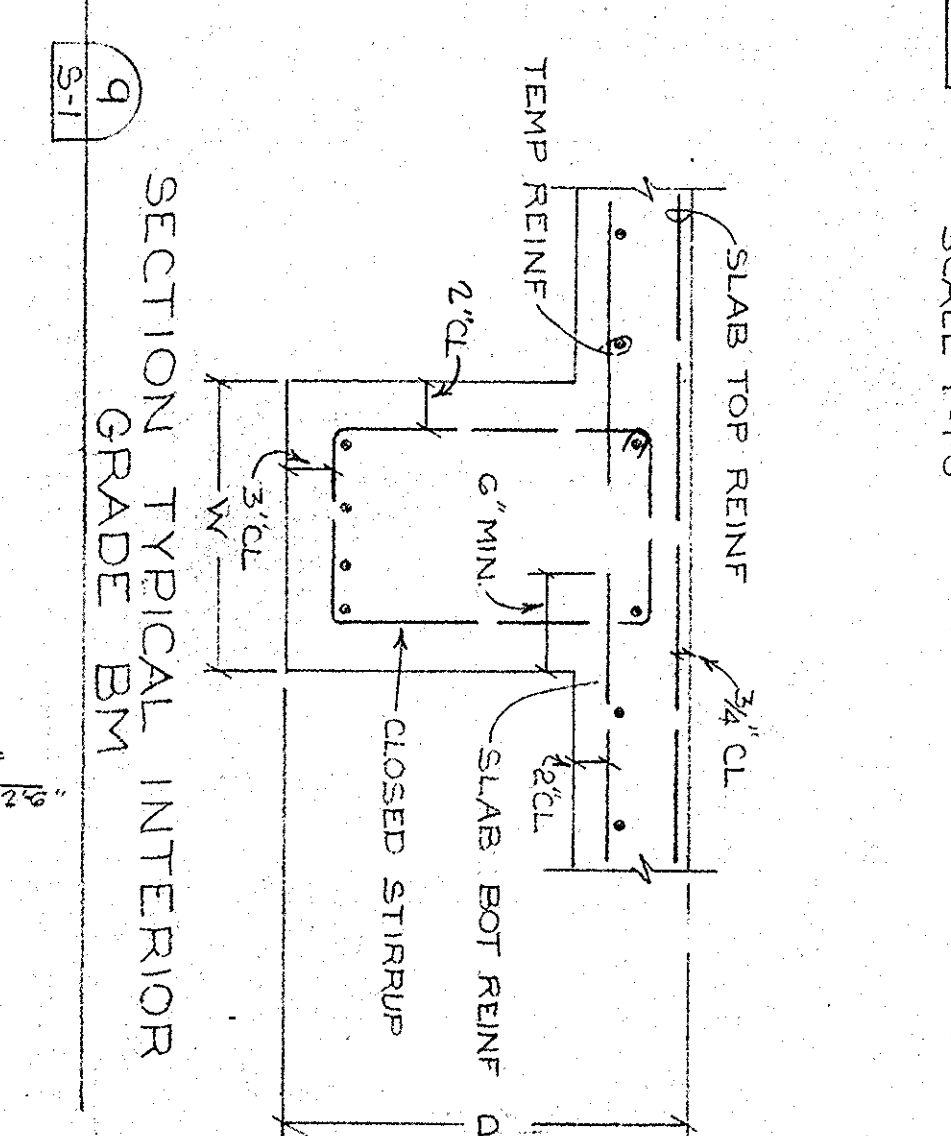
SECTION - TYPICAL INTERIOR GRADE BM  
SCALE 1/4"=1'-0"



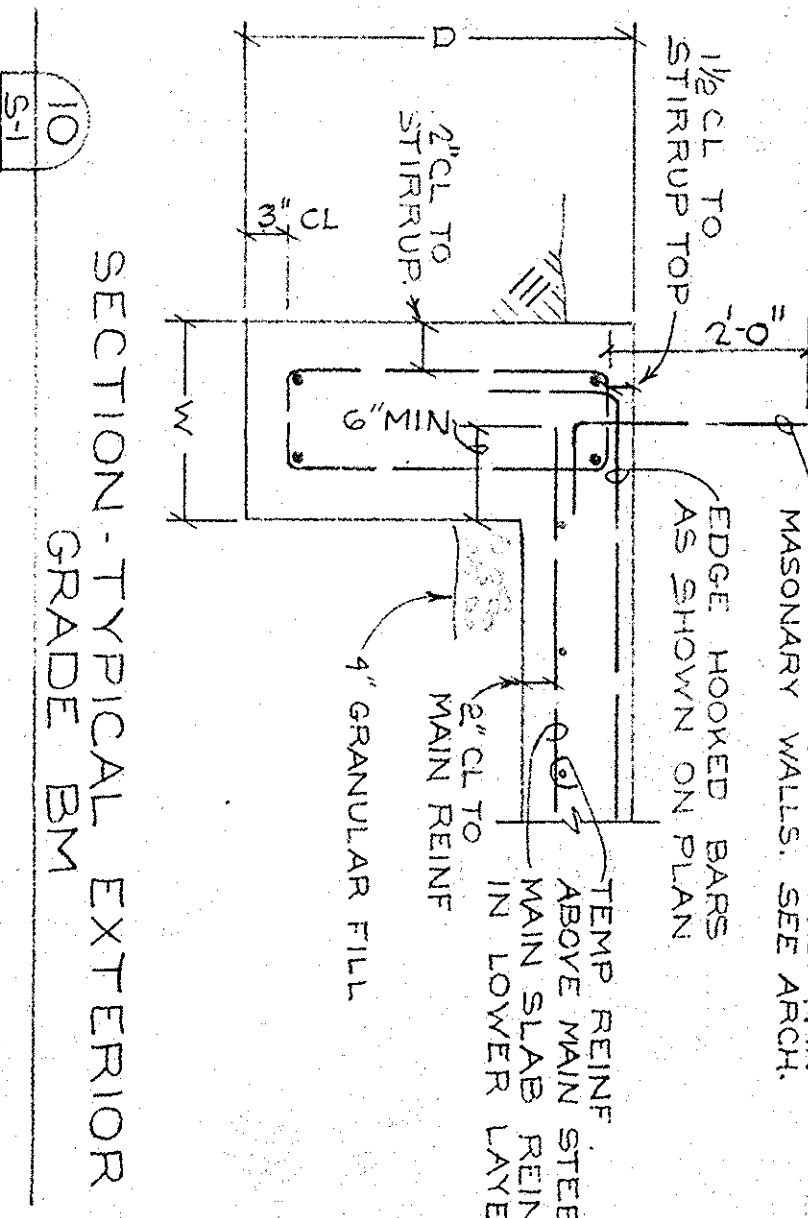
SECTION - TYPICAL INTERIOR GRADE BM  
SCALE 1/4"=1'-0"



SECTION - TYPICAL INTERIOR GRADE BM  
SCALE 1/4"=1'-0"



SECTION - TYPICAL INTERIOR GRADE BM  
SCALE 1/4"=1'-0"



SECTION - TYPICAL INTERIOR GRADE BM  
SCALE 1/4"=1'-0"

**STRUCTURAL DESIGN CRITERIA**

DESIGN LIVE LOADS	300 PSF
1. DECK SLABS	250 PSF
2. OFFICE SPACE	80 PSF
3. STAIRWAYS	100 PSF

**MATERIALS**

CONCRETE (28 DAY COMPRESSIVE STRENGTH)	5000 PSI
2. ALL OTHER CONCRETE	4000 PSI
3. CLARIFIERS AND FILTER BUILDING OPERATIONS	4000 PSI WITH SHrink COMPENSATING AGENT
4. REINFORCING STEEL	ASTM A-615 GRADE 60
5. STRUCTURAL STEEL	ASTM A-36
6. PILING	20 TON CHARACTER WOOD TREATED PILE.

- GENERAL NOTES**
- LONGITUDINAL BARS IN WALLS AND TEMP. REIN. IN SLABS SHALL BE CONTINUOUS WITH TENSION LAP SPICES.
  - STEELS THROUGH GRADE BMS, WALLS AND SLABS SHALL BE FINISHED AND INSTALLED BY RESPECTIVE TRADES.
  - REINFORCING STEEL SHALL BE DETAILED, FABRICATED, SUPPORTED AND HELD ACCURATELY IN PLACE AS RECOMMENDED BY ACI 318-LATEST.
  - PROVIDE 3" CHAMFER ON ALL EXPOSED CONCRETE CORNERS UNLESS OTHERWISE NOTED.
  - ALL WALLS WHICH REQUIRE TYING INTO A SLAB FOR STABILITY SHALL BE ADEQUATELY BRACED DURING RAFTING OPERATIONS. ALL BRACES SHALL BE LEFT IN PLACE UNTIL SUPPORT SLABS HAVE REACHED THEIR DESIGN STRENGTHS.
  - PROVIDE 2x4s EXTRA ON EACH SIDE OF OPENINGS IN WALLS AND SLABS. EXTEND THESE EXTRA BARS 2'-0" PAST OPENING ON BOTH SIDES.
  - PROVIDE CONTINUOUS 6 MIL POLYETHYLENE WATER BARRIER SHEET UNDER ALL SLABS ON GRADE AND AROUND GRADE BMS. (SEE SPECS.)
  - ALL SLABS ON GRADE SHALL BE PLACED ON 4" GRANULAR FILL.
  - PROVIDE HORIZONTAL WALL DOWELS AT ALL WALL INTERSECTIONS OF THE SAME NUMBER AND SIZE AS WALL HORIZONTAL BARS. SEE DETAILS THIS SHEET.
  - PROVIDE WATER STOPS IN WALLS WHERE INDICATED. THE WATER STOPS SHALL BE CONTINUOUS IN BOTH THE VERTICAL AND HORIZONTAL DIRECTIONS. SEE SPECS. FOR FURTHER INFORMATION.
  - PROVIDE CONTINUOUS REMAINS AS INDICATED AT ALL WALL VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS.
  - CONSTRUCTION JOINTS SHALL BE LOCATED ONLY WHERE SHOWN ON THE DRAWINGS, WHERE NOT INDICATED THEIR LOCATION SHALL BE APPROVED BY THE ARCHITECT.
  - FLOOR SLABS SHALL NOT BE POWERED UNTIL SUBGRADE HAS BEEN APPROVED BY THE ARCHITECT AND THE ARCHITECT GIVES APPROVAL TO POUR SLABS.
  - ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH #5 @ 32" O.C. SEE ARCH. FOR DETAILS OF MASONRY REIN.
  - CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND THE ARCHITECT GIVES MECHANICAL CONTRACTORS.
  - ROOFING FELT FOR BEARING FLOOR SHALL BE 60#

- PRESTRESSED DOUBLE TEES AND PRECAST SLABS**
- ALL PRESTRESSED DOUBLE TEE LEGS SHALL BEAR ON THREE LAYERS OF 60 LB. ROOFING FELT. PROVIDE ADDITIONAL LAYERS WHERE NECESSARY TO PREVENT CONTACT BETWEEN DOUBLE TEE LEG AND CONCRETE BEARING SURFACE.
  - THE PRESTRESSED DOUBLE TEES WITHOUT TOPPING SHALL NOT EXCEED 55 PSF, UNLESS APPROVED BY THE ARCHITECT.
  - THE DOUBLE TEES SHALL BE DESIGNED FOR THE SUPERIMPOSED LOADS SHOWN IN THE SCHEDULE.

DATE	DESCRIPTION	MADE	APPROV.

**GEORGETOWN**  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. I

**GEORGETOWN, SOUTH CAROLINA**

**TYPICAL DETAILS & SCHEDULES**  
STRUCTURAL

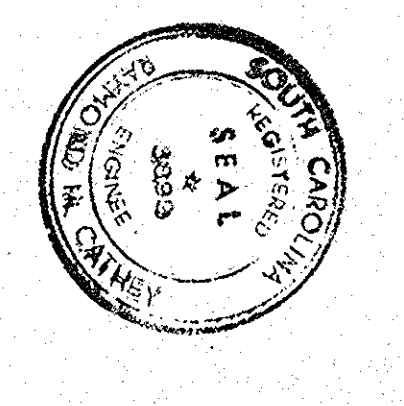
DESIGNED BY: *MM*  
CHECKED BY: R.H.C.  
APPROVED BY: C.L.B.

DATE: HENNINGSON, DURHAM & RICHARDSON, INC.  
OF NORTH CAROLINA  
ENGINEERS - PLANNERS - CONSULTANTS  
GIAULOTTE, N.C.

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

JOB NO: 83-18

1972



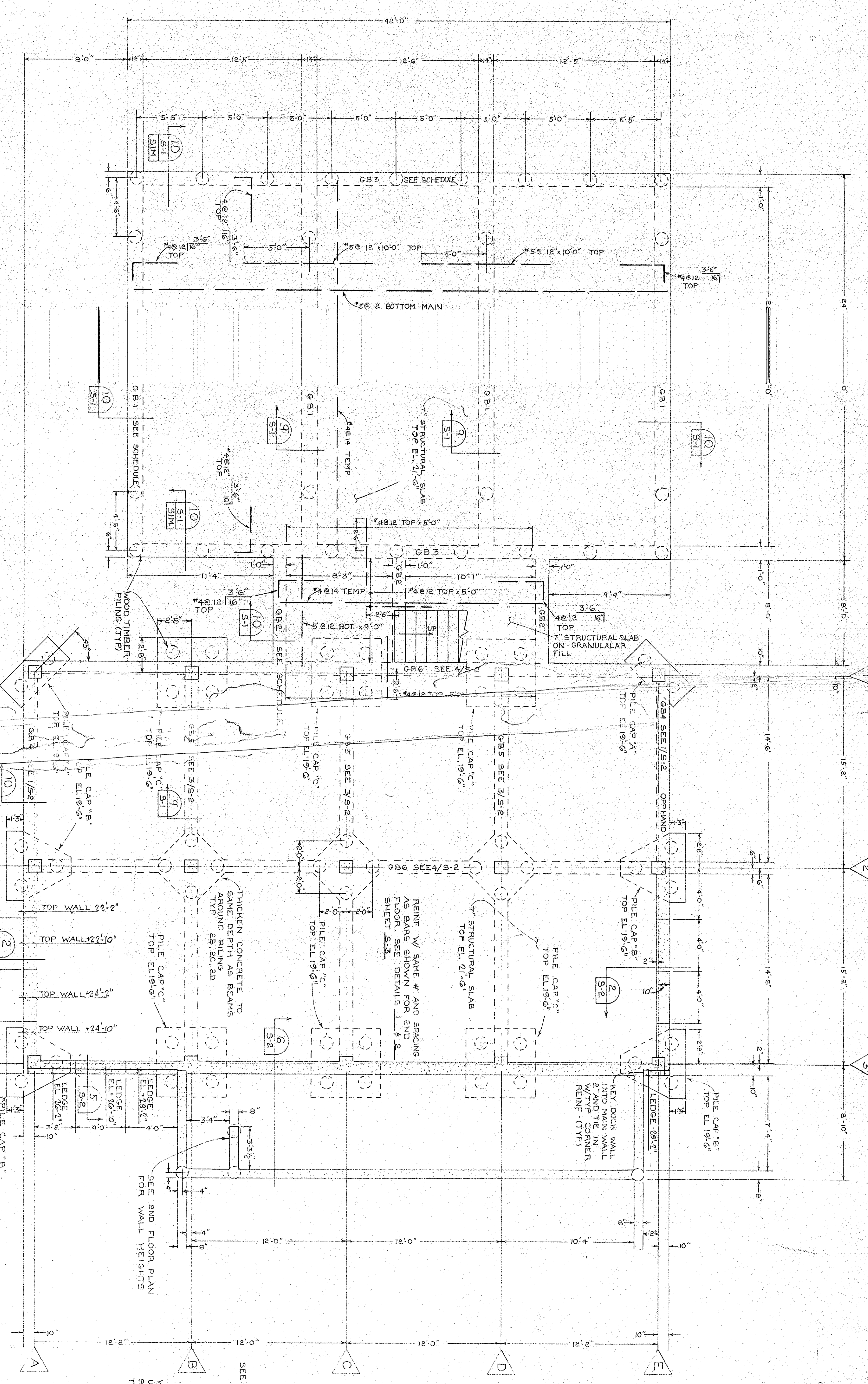
ADMINISTRATION & CHEMICAL BUILDING  
FOUNDATION & FIRST FLOOR PLAN

SCALE 1/8"=1'-0"

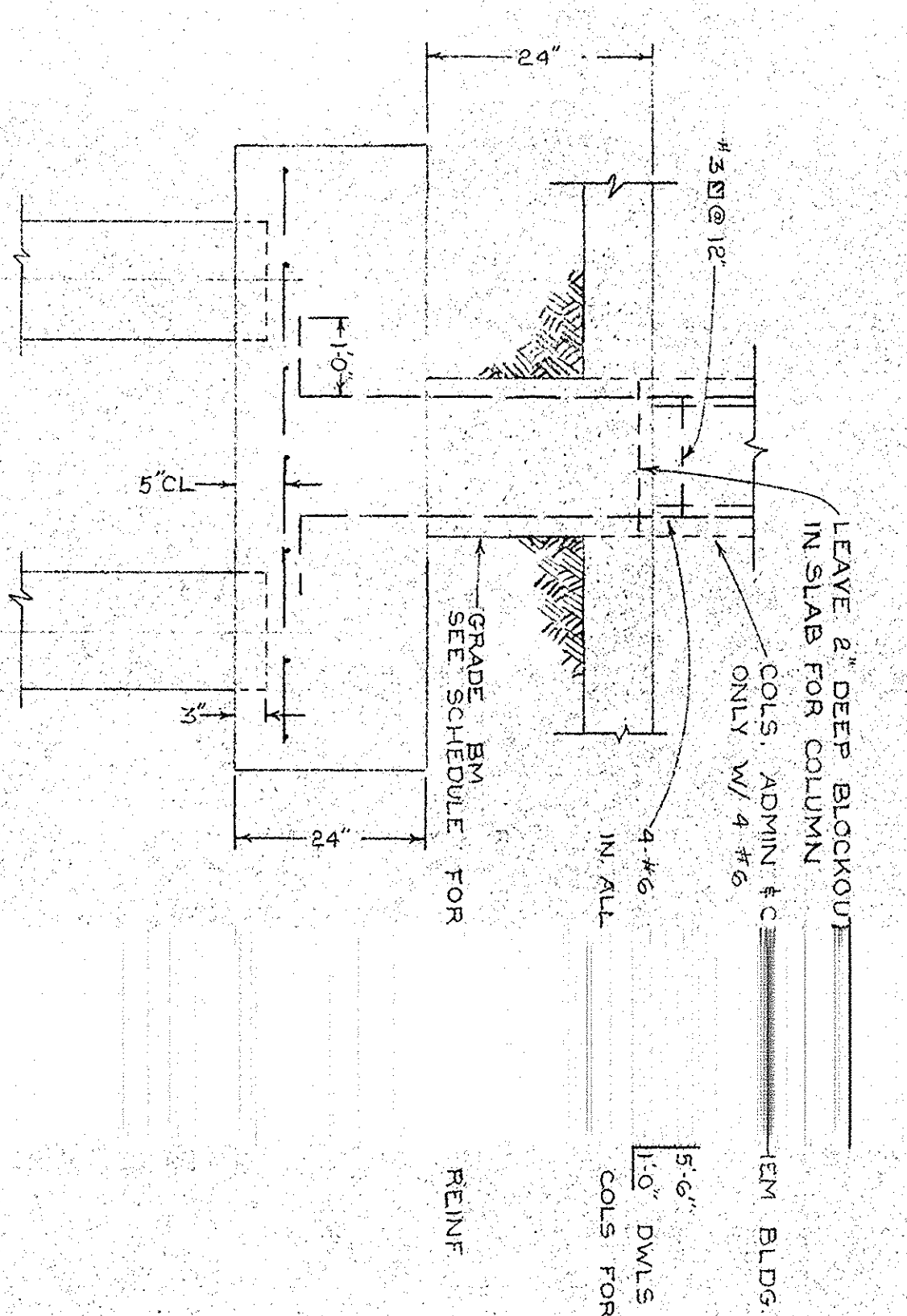
TOTAL PILING REQUIRED=82

SECTION A-A TO DOCK  
SCALE 1/8"=1'-0"

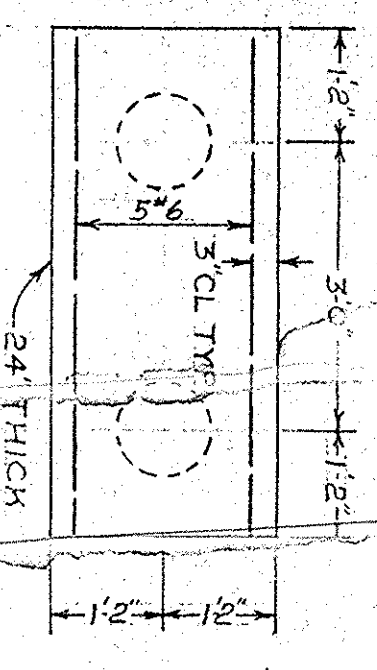
SECTION B-B DOCK  
SCALE 1/8"=1'-0"



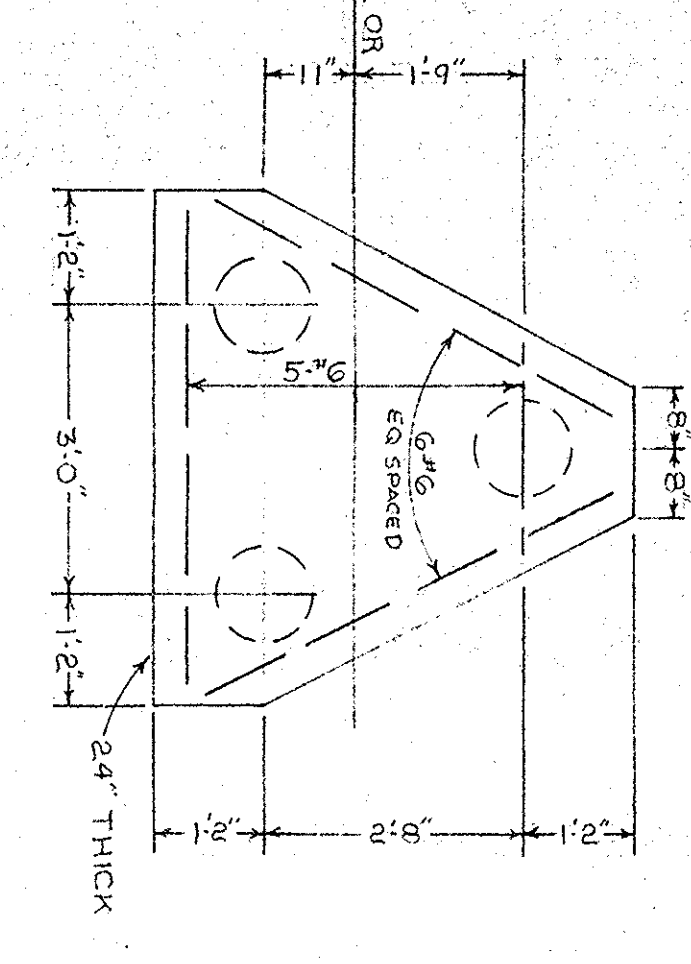
TYP. PILE CAP DETAIL  
NO SCALE



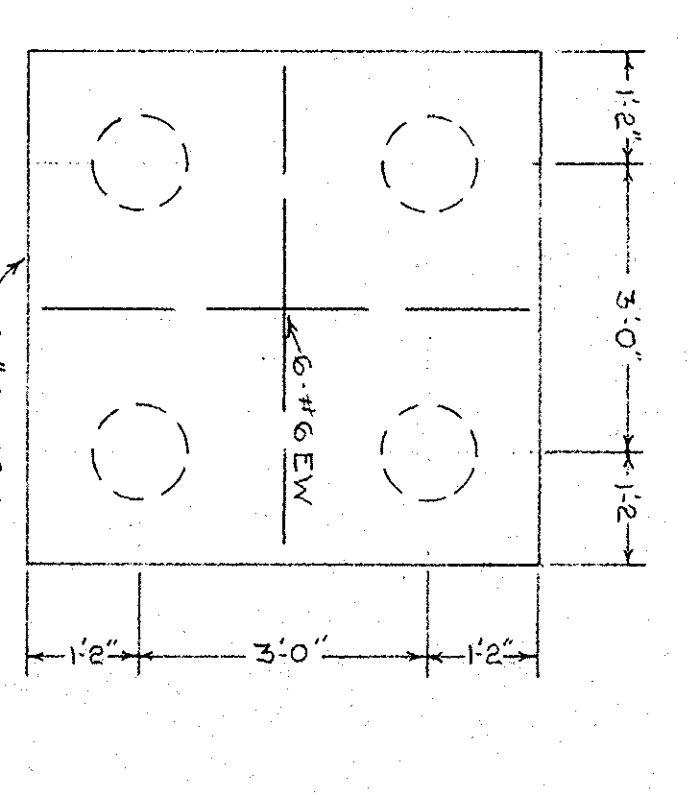
DETAIL - PILE CAP A (2 PILE)  
SCALE 1/8"=1'-0"



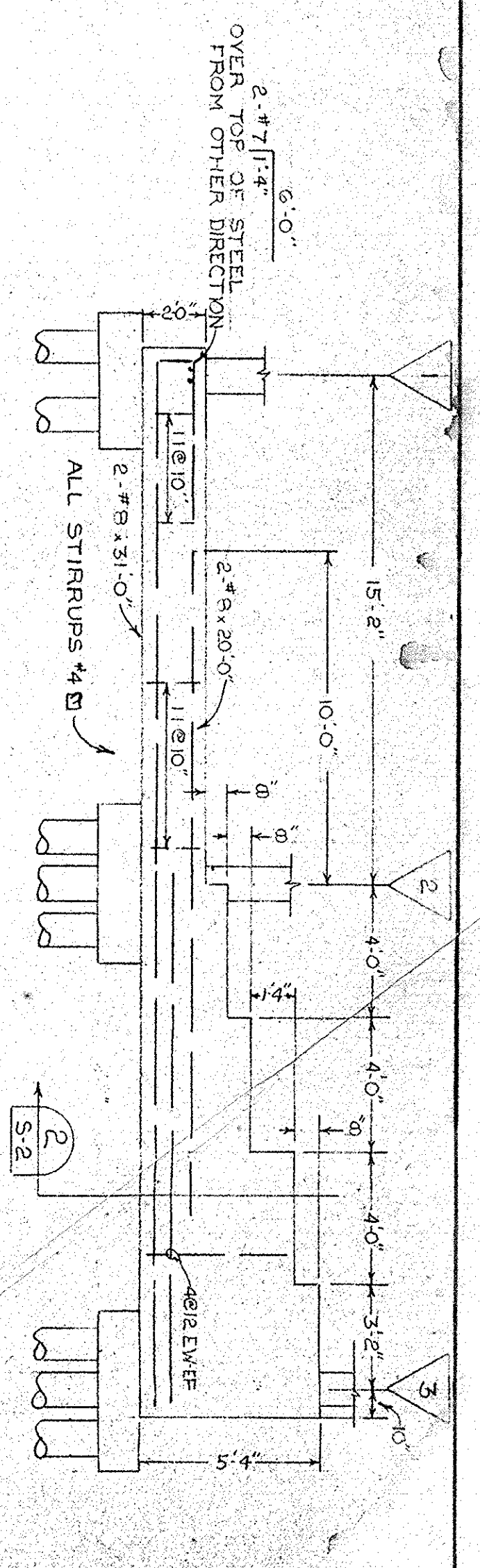
DETAIL - PILE CAP B (3 PILE)  
SCALE 1/8"=1'-0"



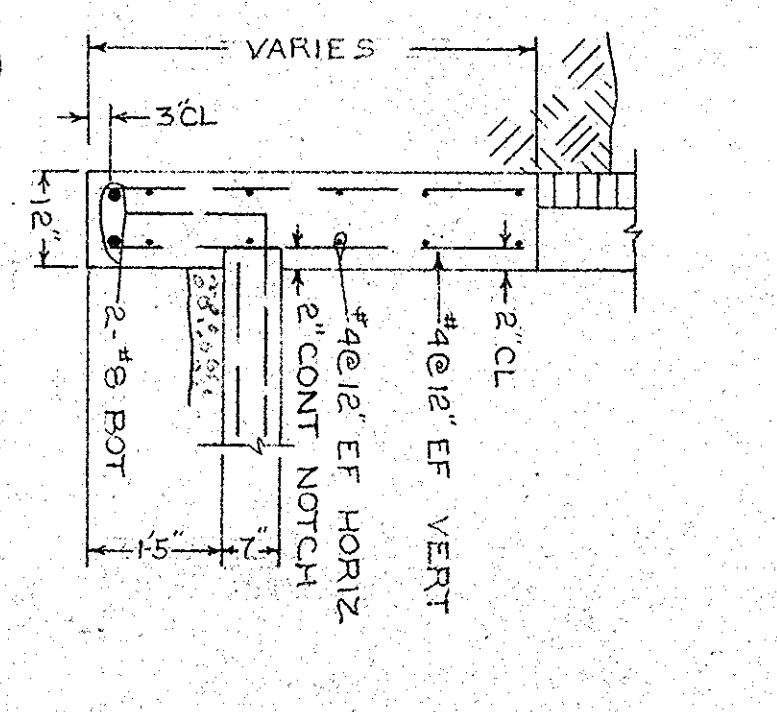
DETAIL - PILE CAP C (4 PILE)  
SCALE 1/8"=1'-0"



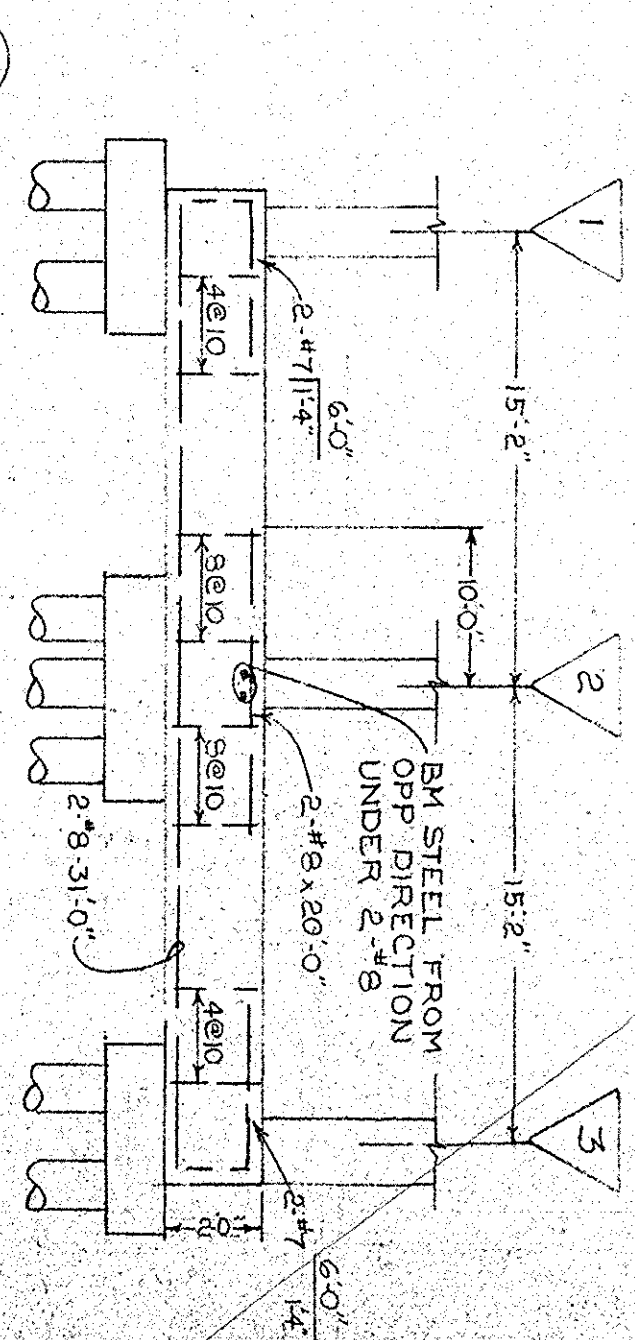
DETAIL - GB4  
NO SCALE



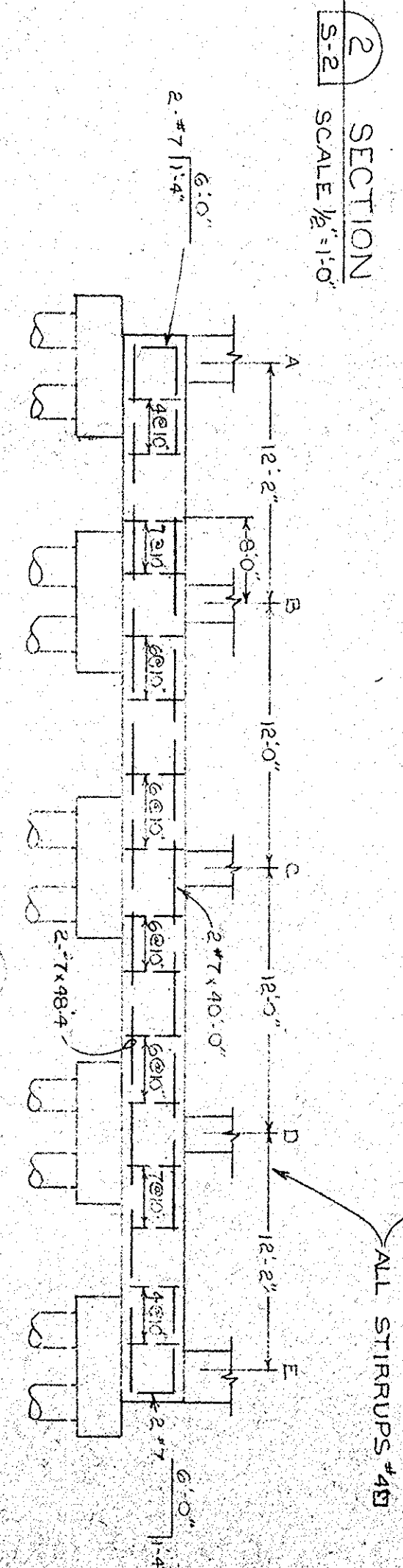
SECTION 2  
SCALE 1/8"=1'-0"



DETAIL - GB5  
NO SCALE



DETAIL - GB6  
NO SCALE

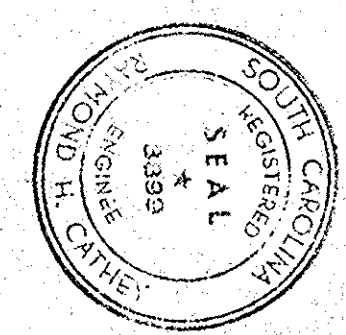


DATE	DESCRIPTION	MADE	APPROV.

**GEORGETOWN**  
**WATER FILTRATION PLANT**  
 E.D.A. PROJECT NO. 04-1-00735  
 GEORGETOWN, SOUTH CAROLINA  
 DIVISION A  
**ADMINISTRATION AND CHEMICAL BUILDING FOUNDATION PLAN & DETAILS**  
 STRUCTURAL

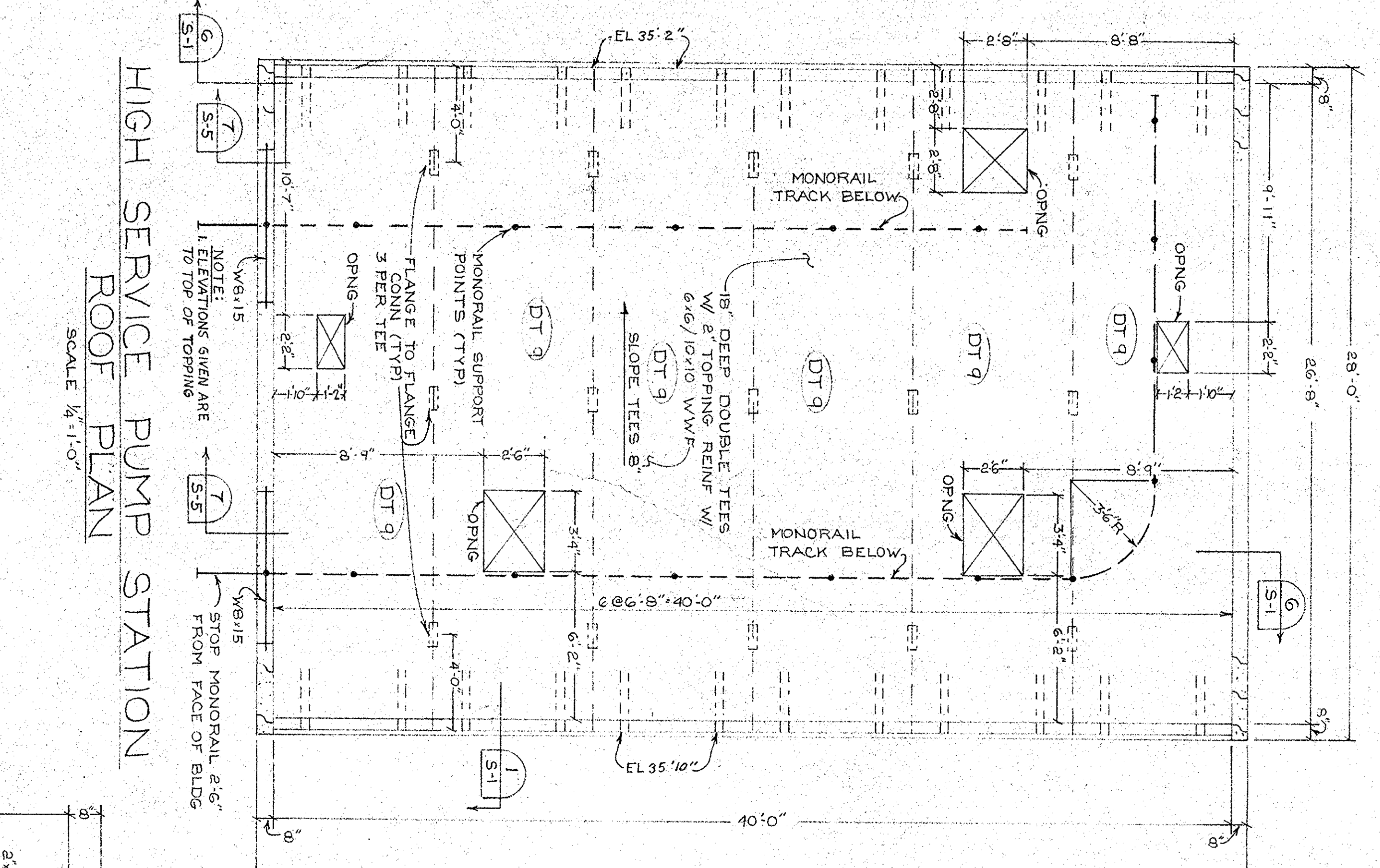
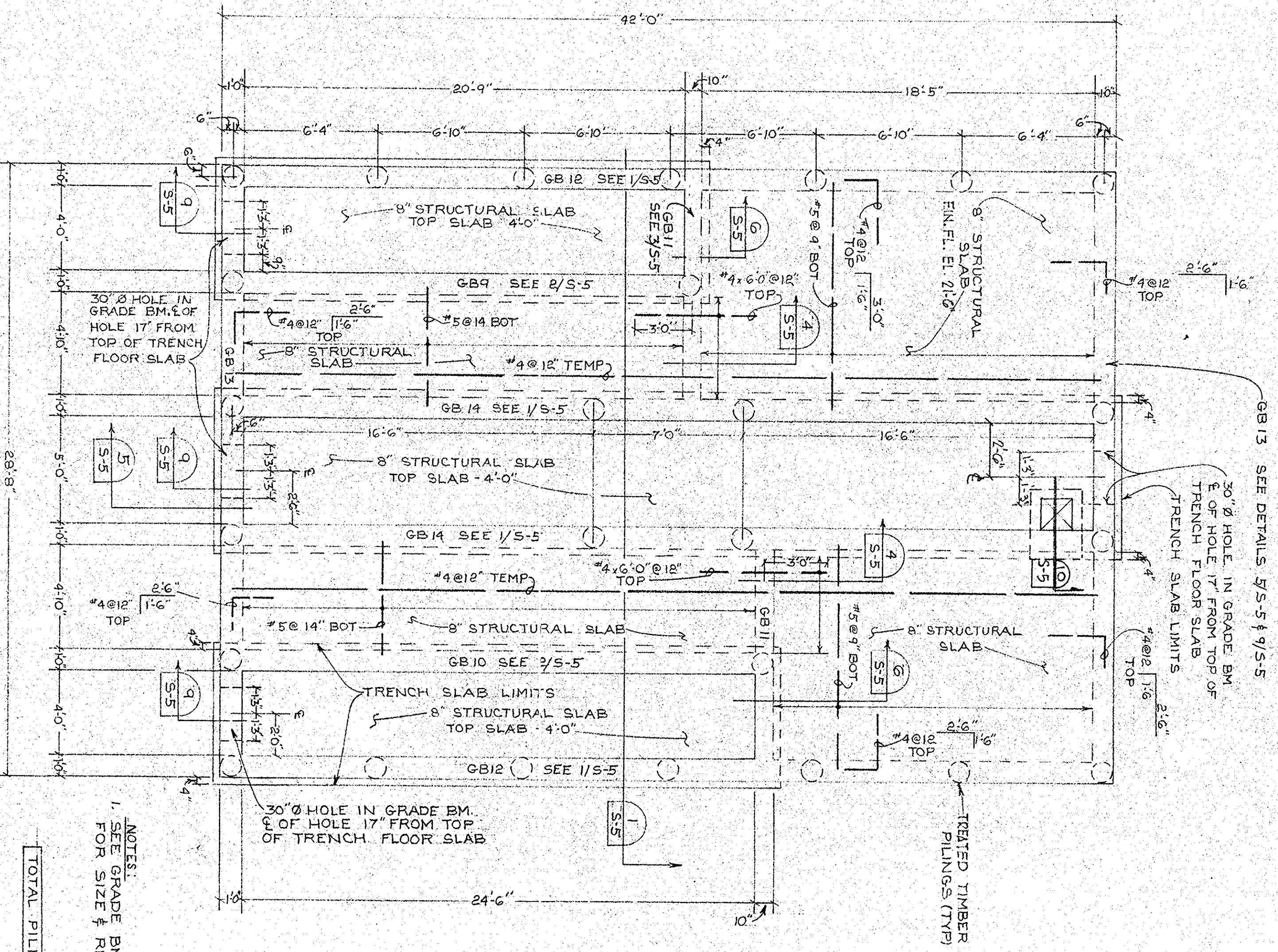
DATE: HENNINGSON, DURHAM & RICHARDSON, INC.  
 OF NORTH CAROLINA  
 ENGINEERS - PLANNERS - CONSULTANTS  
 CHARLOTTE, N.C.  
 DRAWN BY: M.M.L. CHECKED BY: R.H.C. APPROVED BY: C.L.B.

JOB NO. 83-18  
 SCALE S-2







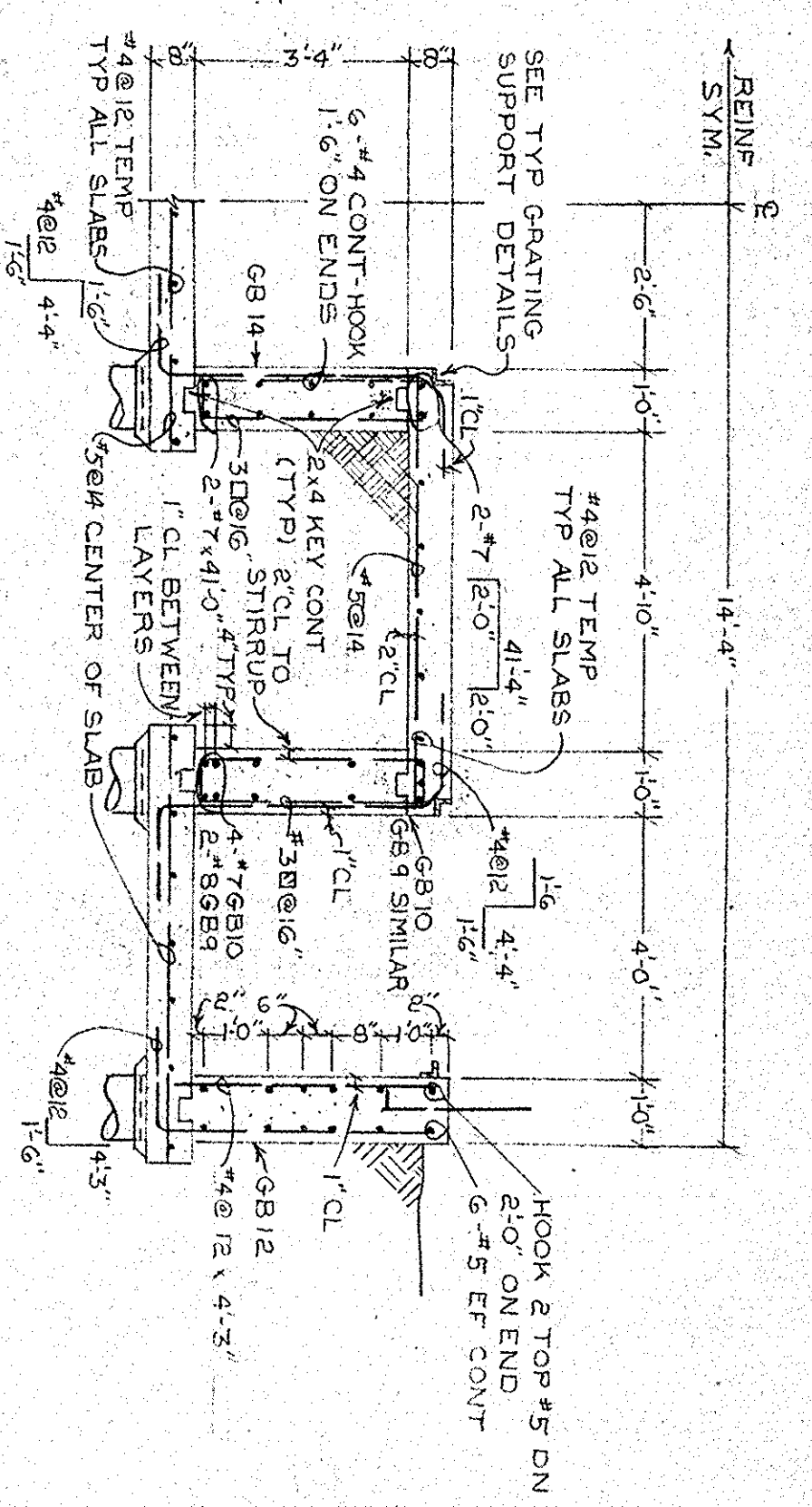


**HIGH SERVICE PUMP STATION FLOOR & FOUNDATION PLAN**  
SCALE 1/4"=1'-0"

**HIGH SERVICE PUMP STATION ROOF PLAN**  
SCALE 1/4"=1'-0"

**MONORAIL & HOIST NOTES**

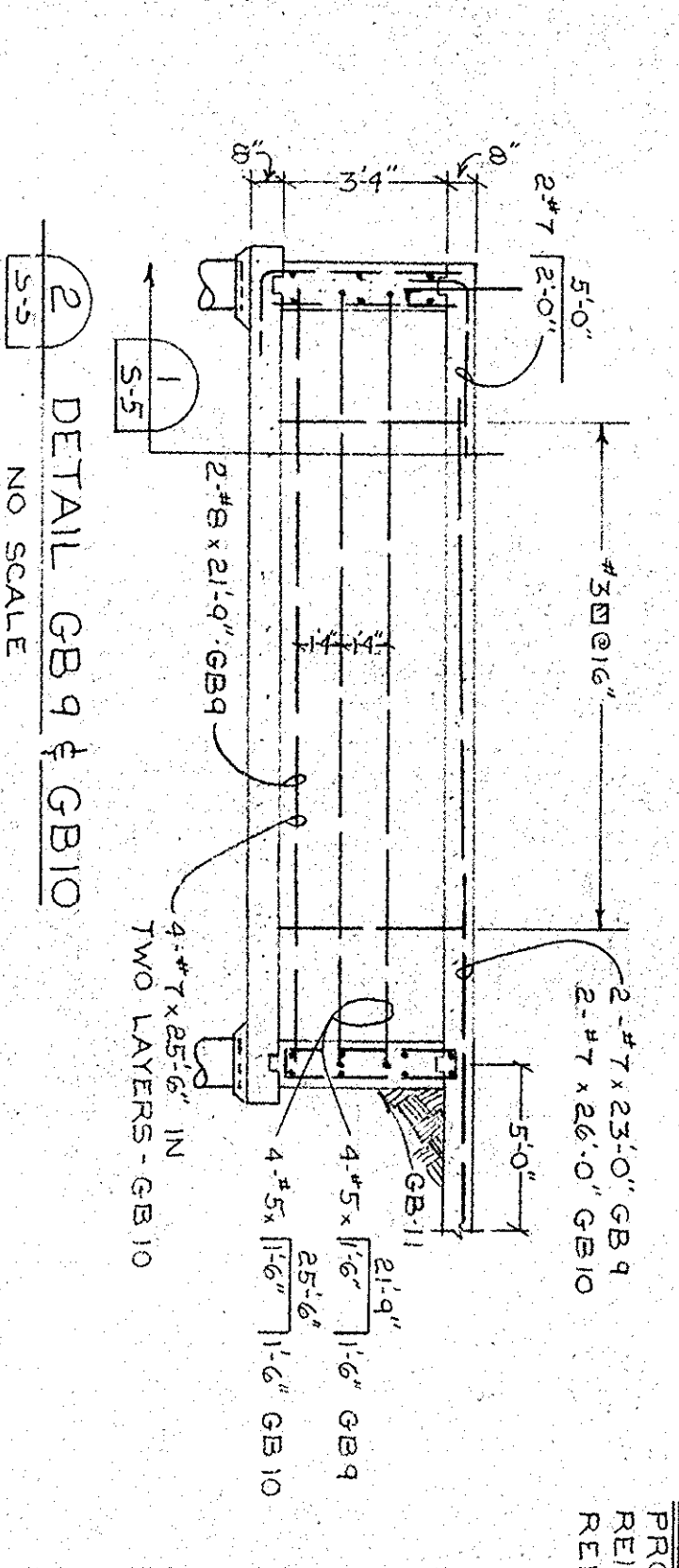
1. MONORAIL CLAMPS & HANGER BOLTS SHALL HAVE A CAPACITY OF 5000 LB. HOIST WT. & TRACK & ACCESSORY WT.
2. CLAMPS & BOLTS SHALL BE STANDARD ITEMS OF THE MONORAIL SUPPLIER & THE CLAMPS SHALL BE A MINIMUM OF 2" WIDE. STANDARD W/ THE MANUFACTURER'S HANGER RODS SHALL BE GALVANIZED.
3. MONORAIL TRACK SHALL BE CAPABLE OF SUPPORTING THE SAME LOAD AS CALLED OUT IN NOTE 4 WITHOUT EXCEEDING THE ALLOWABLE STRESS OF THE MATERIAL. SPLICES SHALL BE AT POINTS OF SUPPORT. TRACK & ACCESSORIES SHALL HAVE A CORROSION RESISTANT FINISH STANDARD W/ TRACK MANUF.
4. THE HOIST HOOK SHALL TRAVEL VERTICALLY A CLEAR HEIGHT OF 12'-0" MINUS THE HEIGHT OF THE TRACK & HOIST.
5. THE ANCHORS W/ 1/2" DIA. & 1/2" DIA. SHALL CONFORM TO ASTM A307. UNLESS NOTED OTHERWISE THEY SHALL BE GIVEN A COAT OF RED LEAD PRIMER CONFORMING TO FED. SPEC. TT-P-66.9, TYPE II OR ID PAINT; RED-LEAD BASE, READY-MIXED.
6. GAL BOLTS, NUTS & WASHERS SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED.
7. ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
8. AFTER ERECTION ALL ITEMS SHALL BE TOUCHED UP WITH CORROSION RESISTANT PAINT SIMILAR TO SHOP COAT THIS APPLIES TO GALVANIZED ITEMS ALSO.
9. PROVIDE END STOPS @ ALL ENDS OF TRACK.
10. SUBMIT SHOP DRAWINGS FOR ALL HOIST, TRACKS, TROLLEYS, & CONNECTIONS.



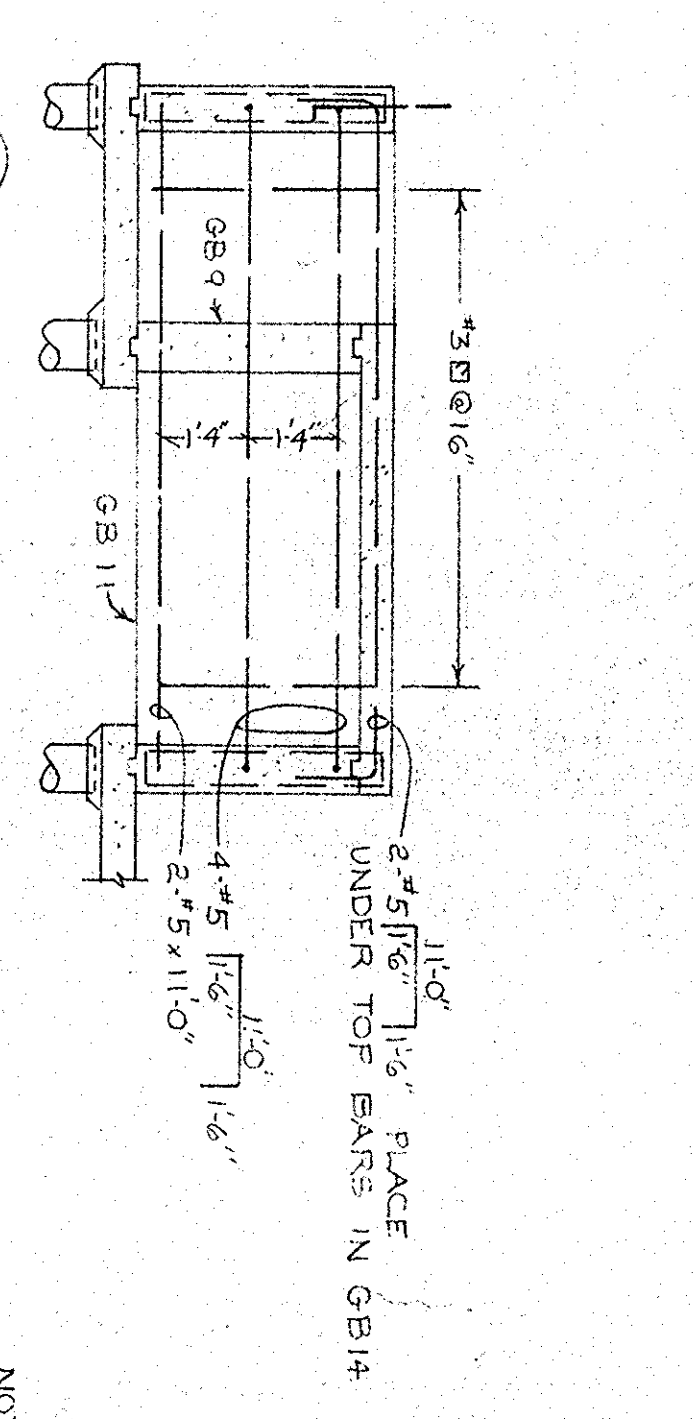
**SECTION 1 THRU PUMP STATION FDN**  
SCALE 3/4"=1'-0"

NOTE: ALL WALLS SHALL BE SHORED UNTIL SUPPORT SLABS HAVE REACHED THEIR DESIGN STRENGTH.

NOTE: PROVIDE CORNER BARS TO MATCH HOIST REINFORCING ALL GRADE BARS SEE TYP CORNER REINFORCING.



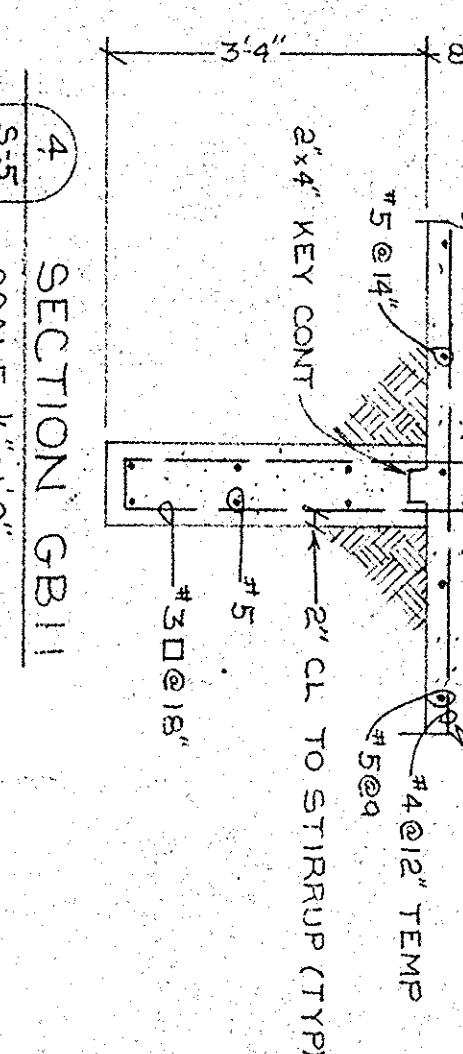
**DETAIL 2 GB 9 & GB 10**  
NO SCALE



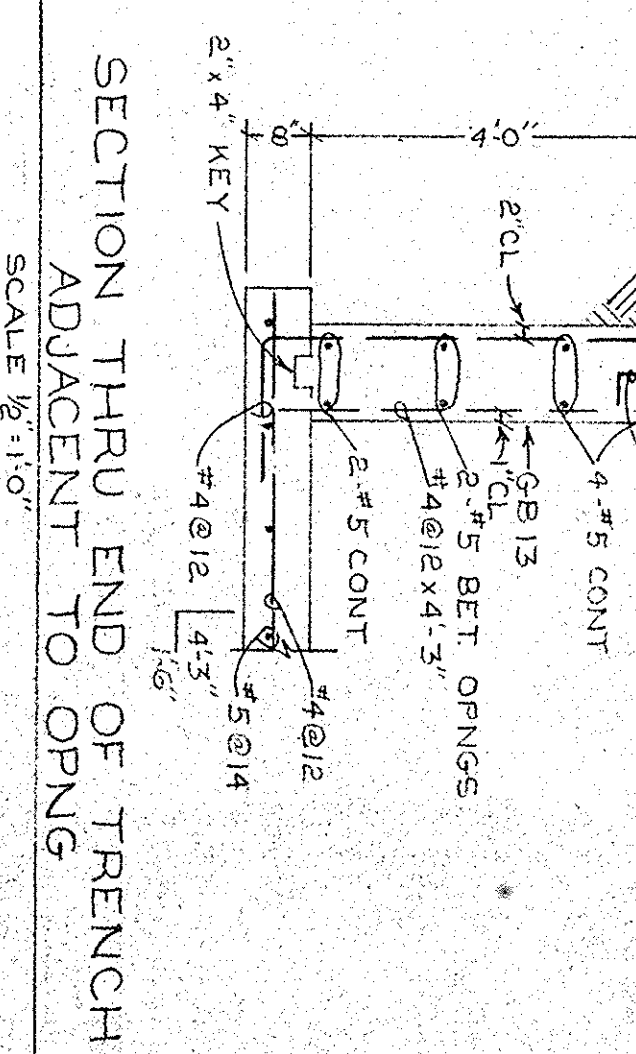
**DETAIL 3 GB 11**  
NO SCALE

NOTE: PROVIDE AN EXTRA VERTICAL BARS EACH SIDE OF TRACK GROUND CONTACT POINTS. MATCH THOSE SHOWN AS PAK AS BEING BENT OR STRAIGHT.

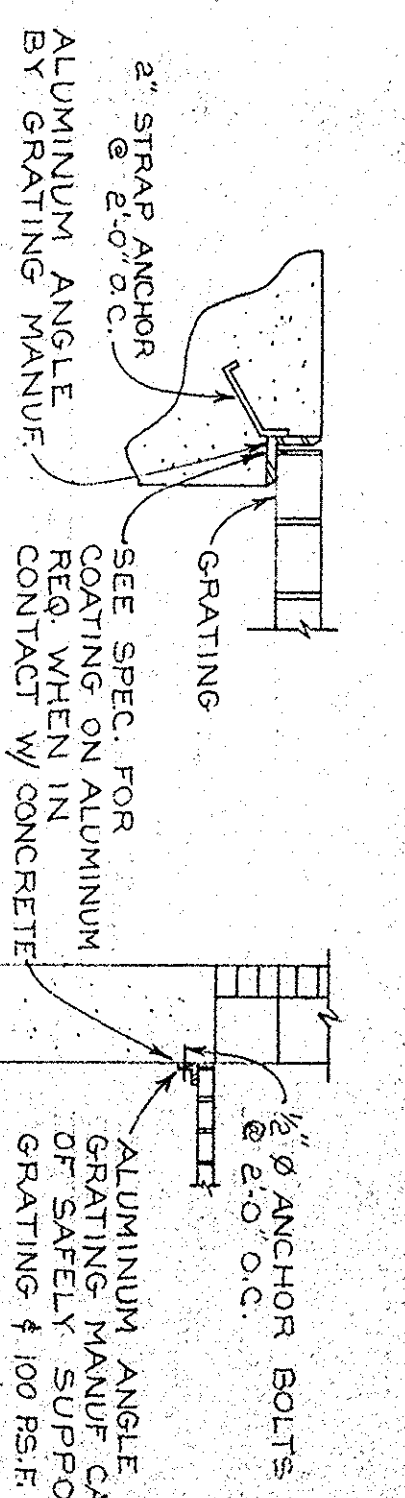
NOTE: SEE TYP GRATING SUPPORT DETAILS. SEE ARCH. FOR DIMS. REQUIRED FOR REINFORCING.



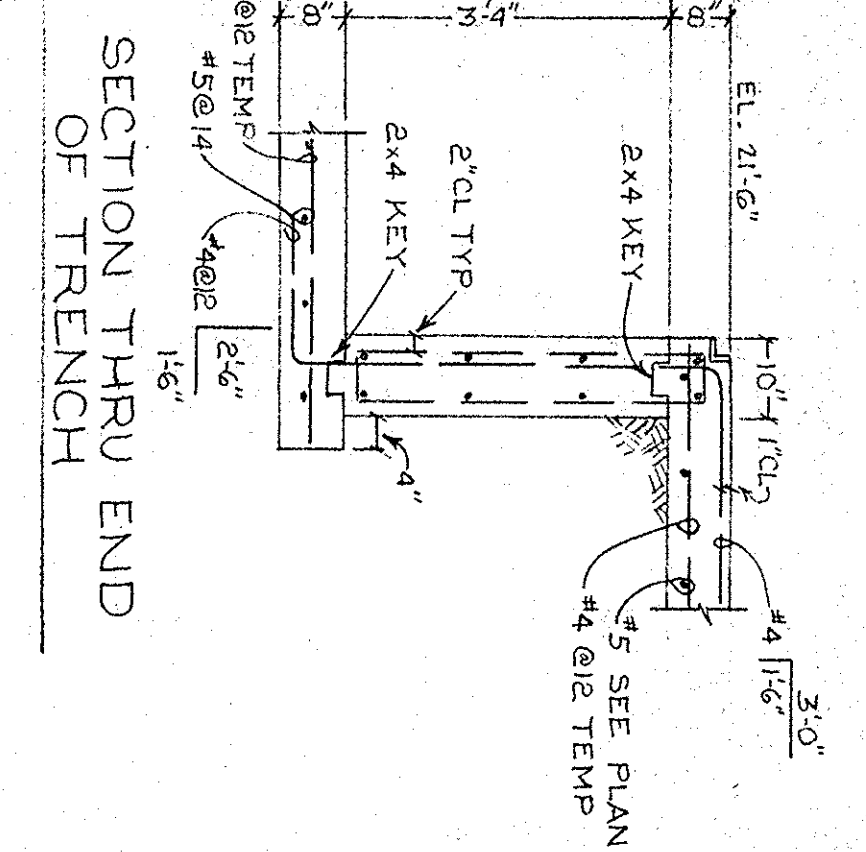
**SECTION 4 GB 11**  
SCALE 1/2"=1'-0"



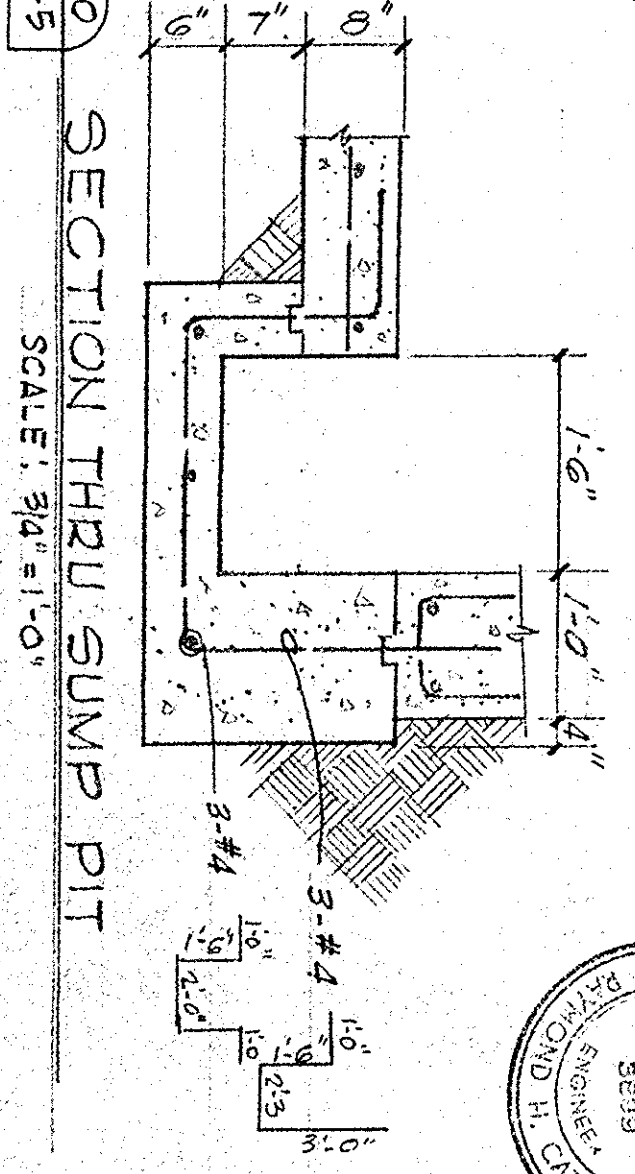
**SECTION 5 THRU END OF TRENCH ADJACENT TO OPNG**  
SCALE 1/2"=1'-0"



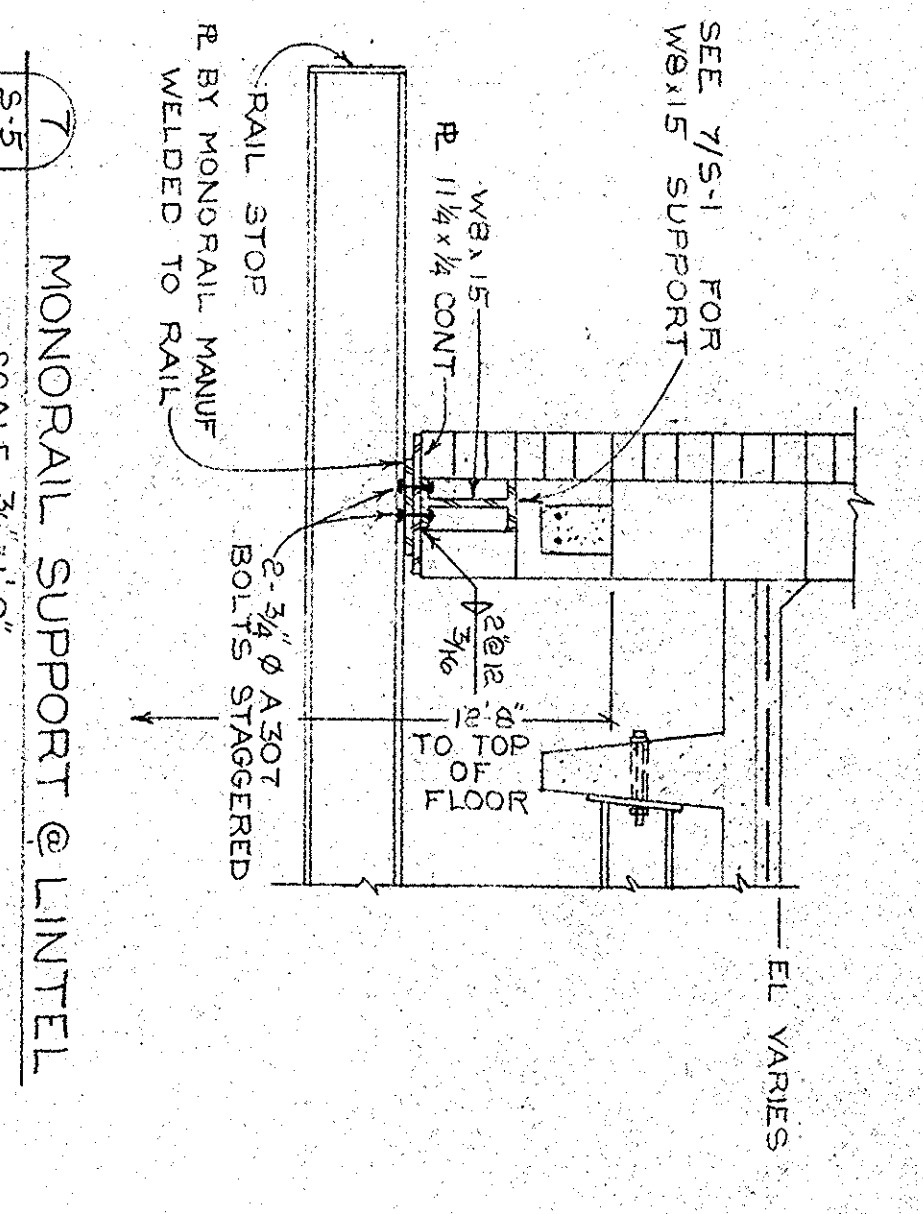
**TYPICAL GRATING SUPPORT DETAILS**  
NO SCALE



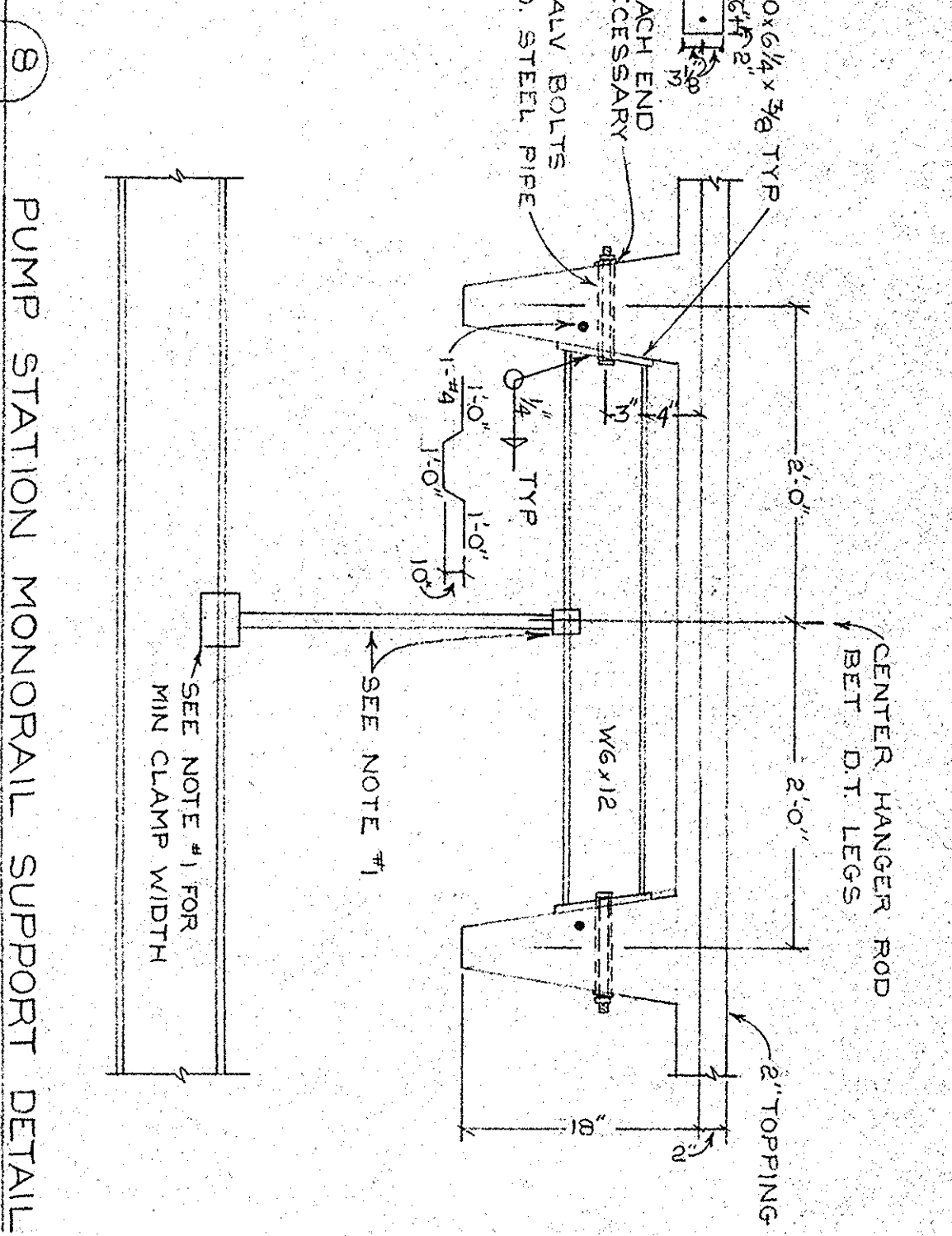
**SECTION 6 THRU END OF TRENCH**  
SCALE 3/4"=1'-0"



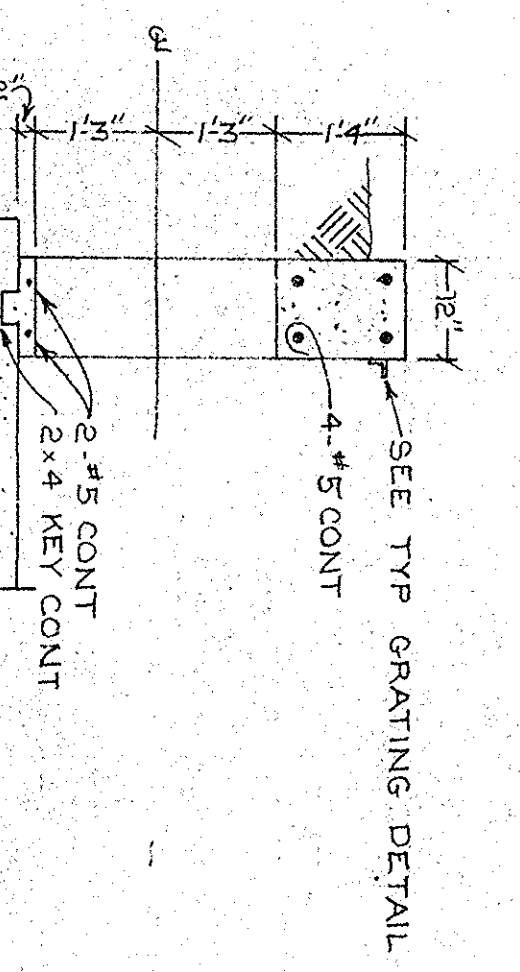
**SECTION 7 THRU SUMP PIT**  
SCALE 3/4"=1'-0"



**MONORAIL SUPPORT @ LINTEL**  
SCALE 3/4"=1'-0"



**PUMP STATION MONORAIL SUPPORT DETAIL**  
SCALE 1"=1'-0"



**SECTION 8 THRU END @ 30\"/>**

**GEORGETOWN WATER FILTRATION PLANT**  
E.D.A. PROJECT NO. 04-1-00735  
GEORGETOWN, SOUTH CAROLINA  
DIVISION A

**HIGH SERVICE PUMP STATION PLAN & DETAILS**  
STRUCTURAL

DATE: HENNINGSON, DURHAM & RICHARDSON, INC. JOB NO. 831-8  
OF NORTH CAROLINA  
ENGINEERS - PLANNERS - CONSULTANTS  
CHARLOTTE, N.C.  
DESIGNED BY: J.A.C. CHECKED BY: R.H.C.  
DRAWN BY: M.M.L. APPROVED BY: C.L.B.

DATE	DESCRIPTION	REVISIONS	MADE	APPROV.

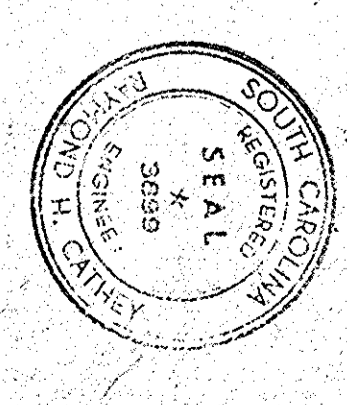
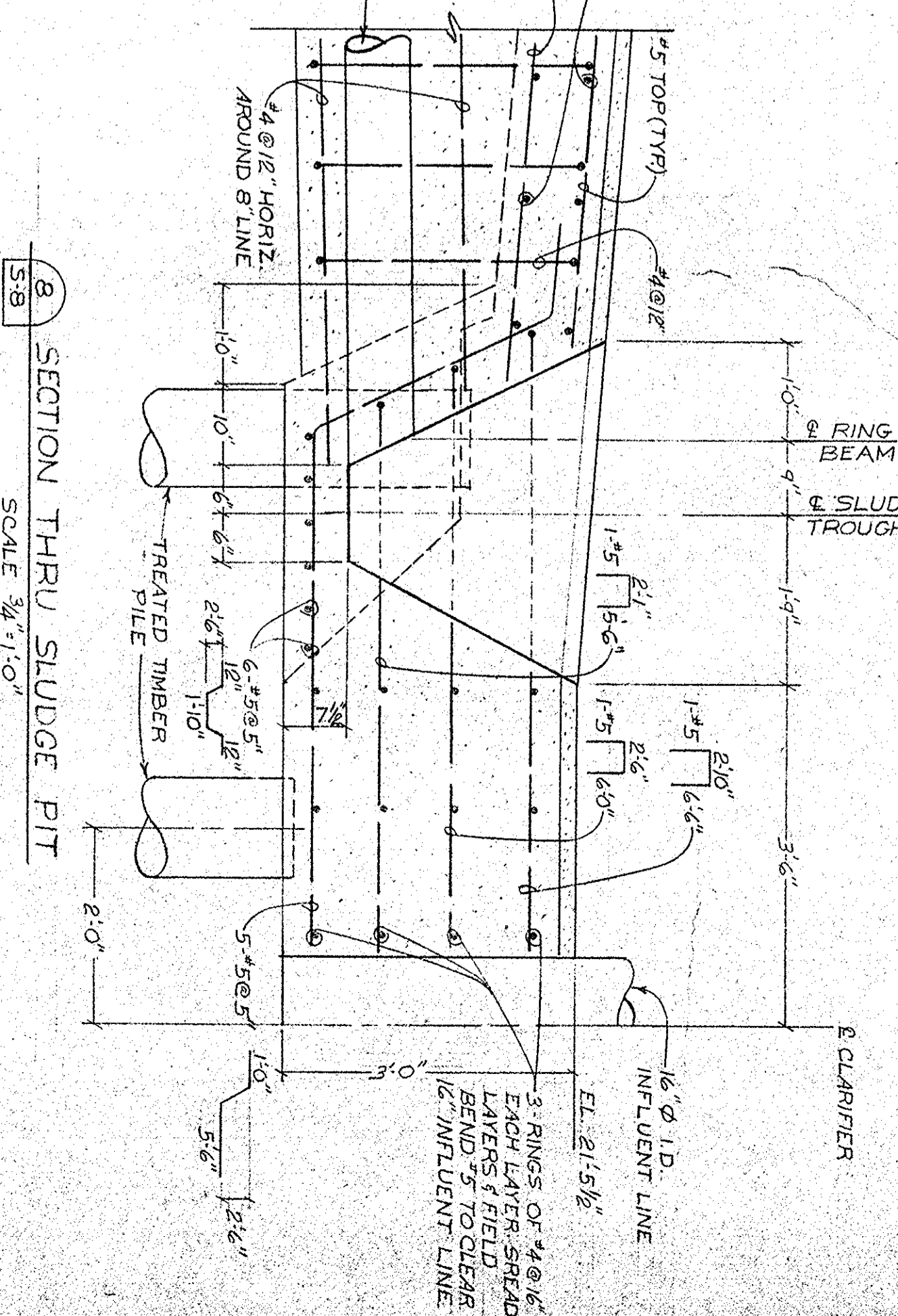
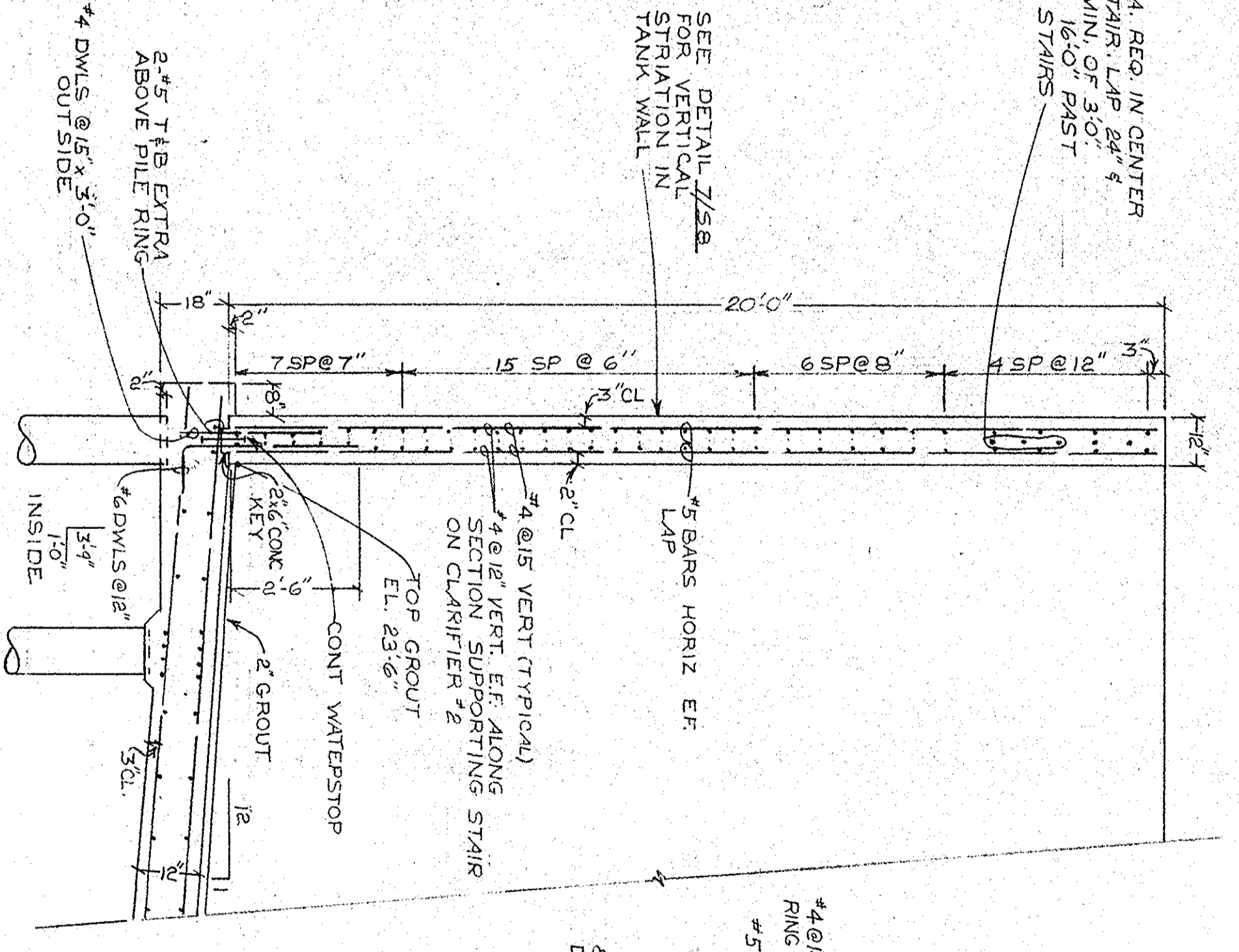
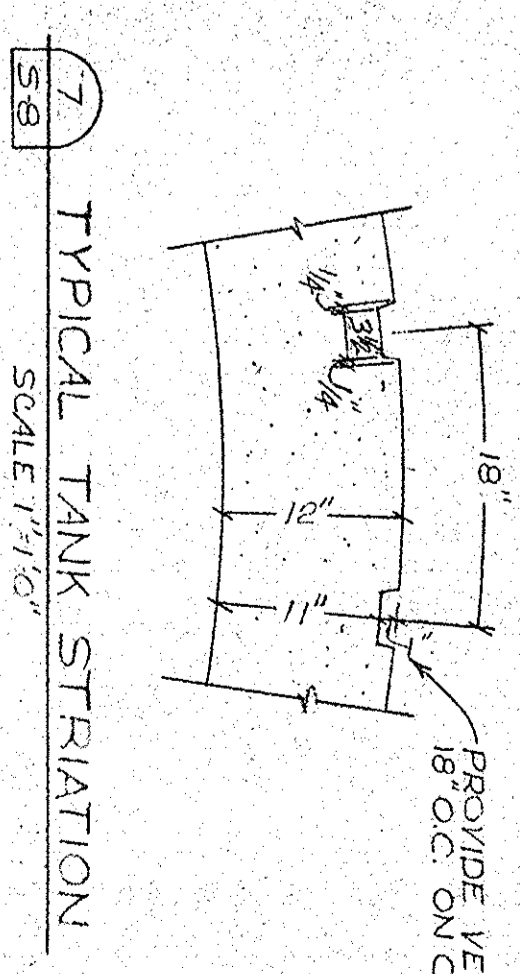
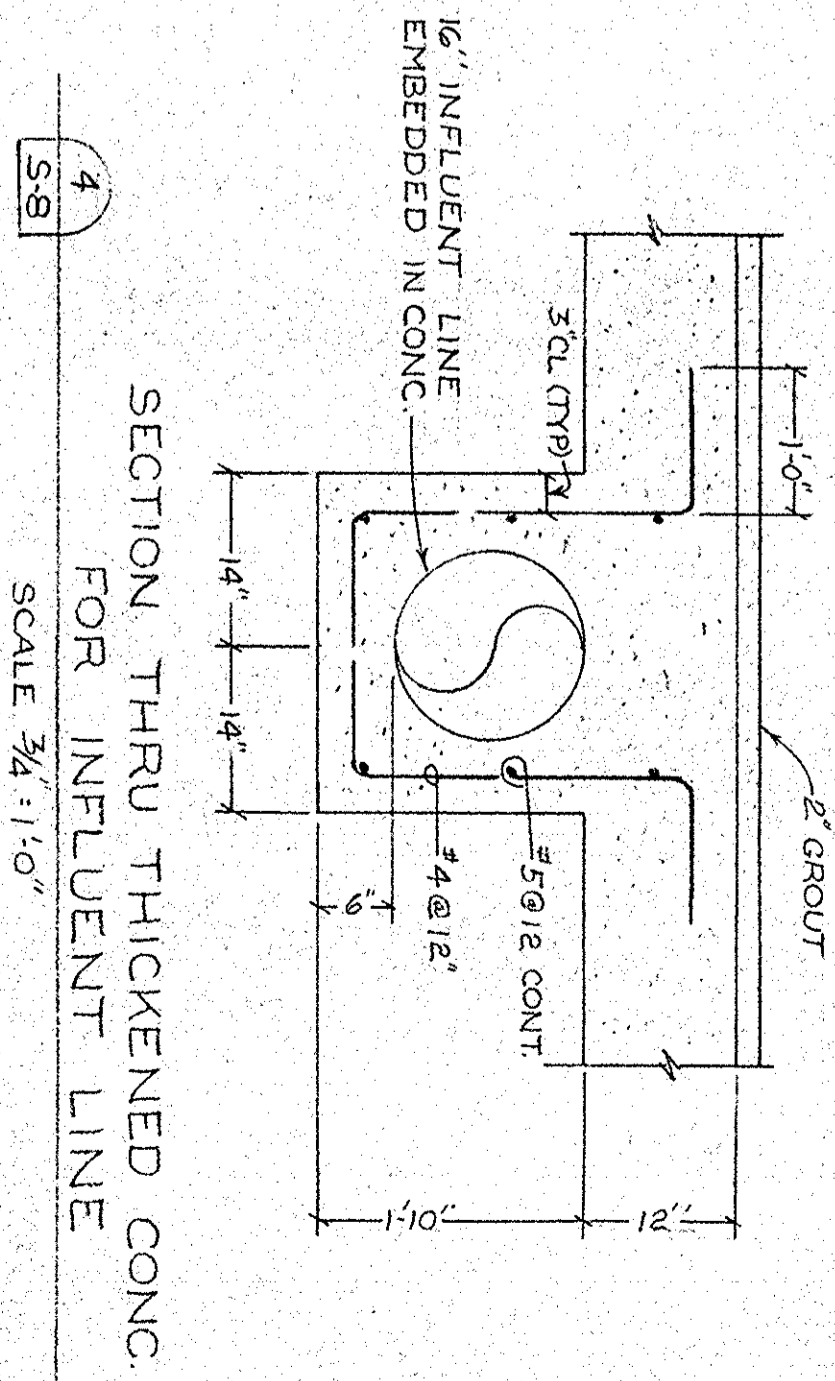
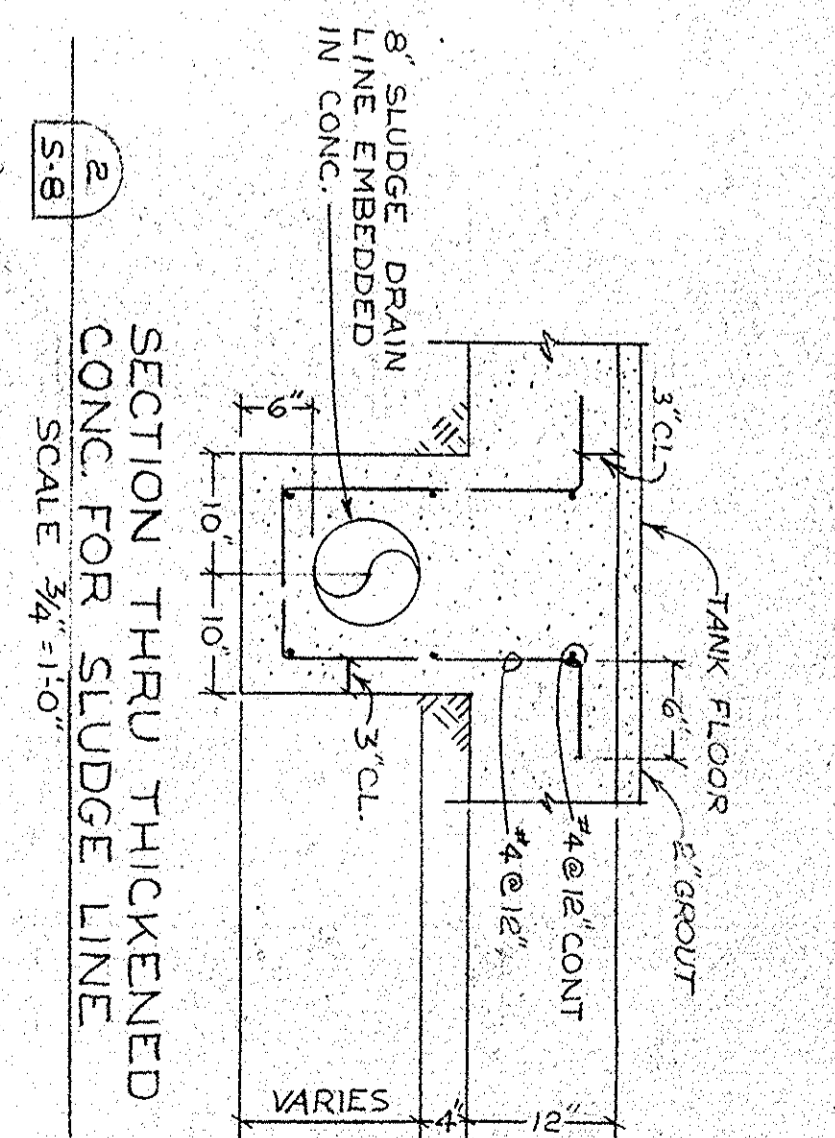
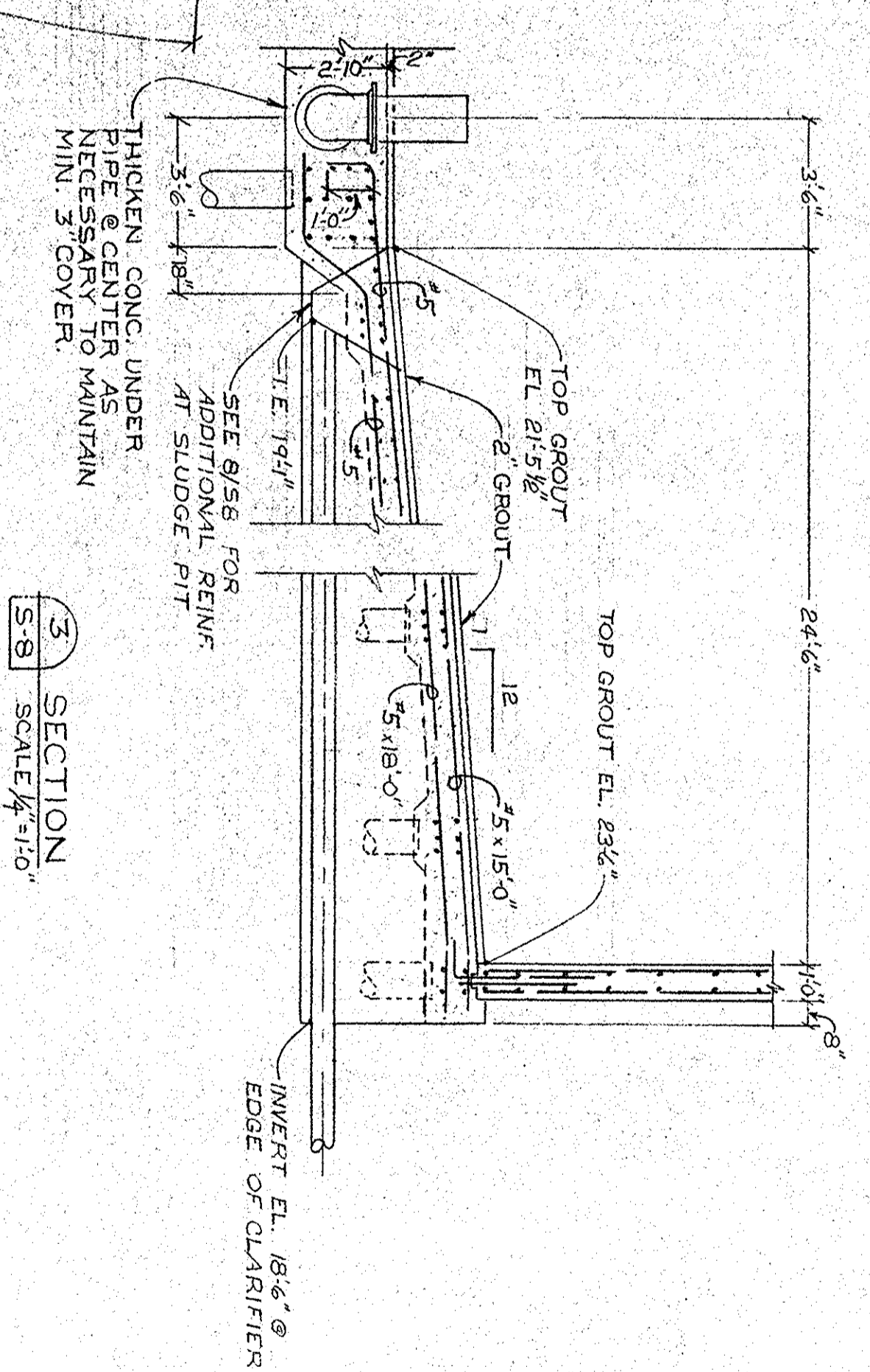
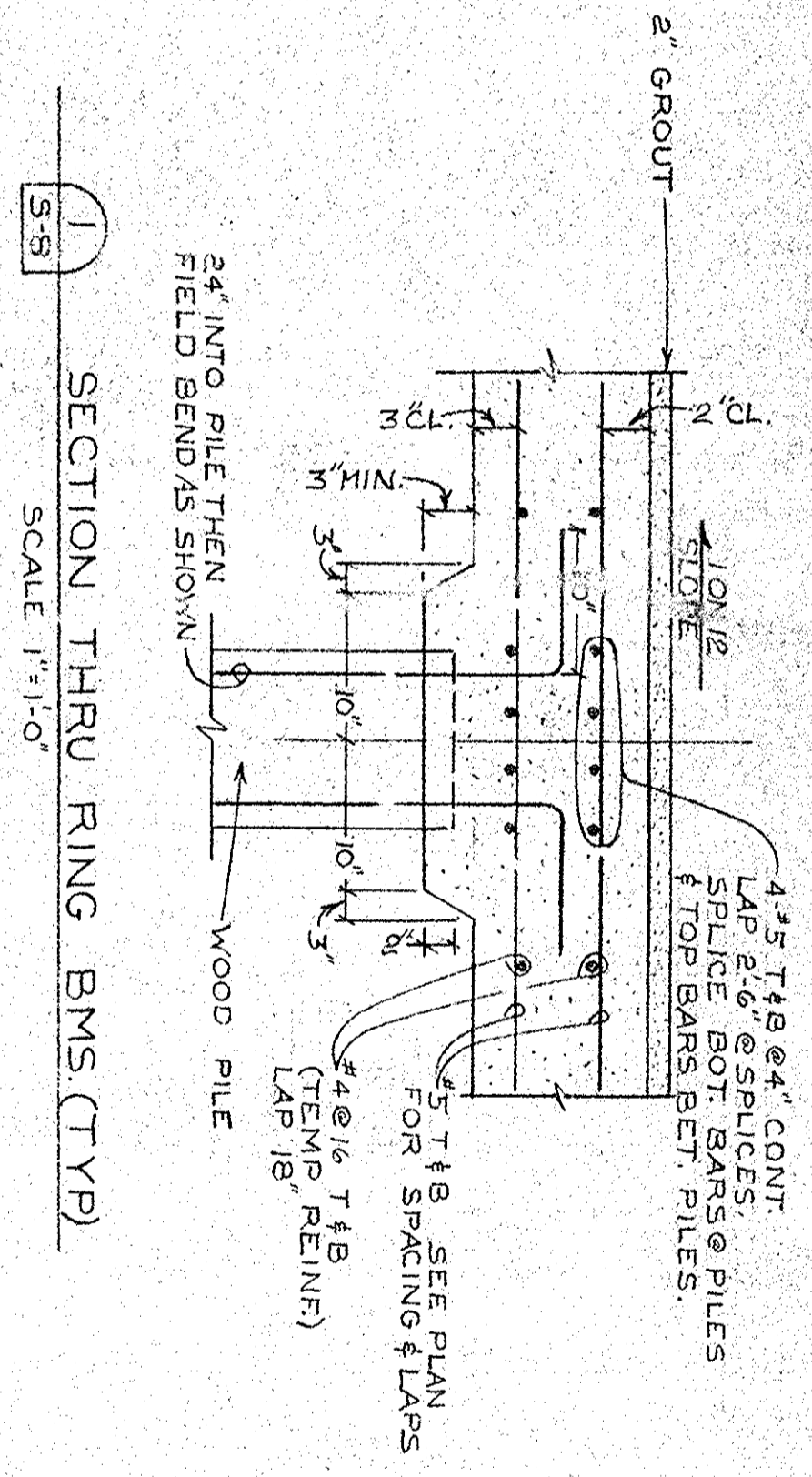
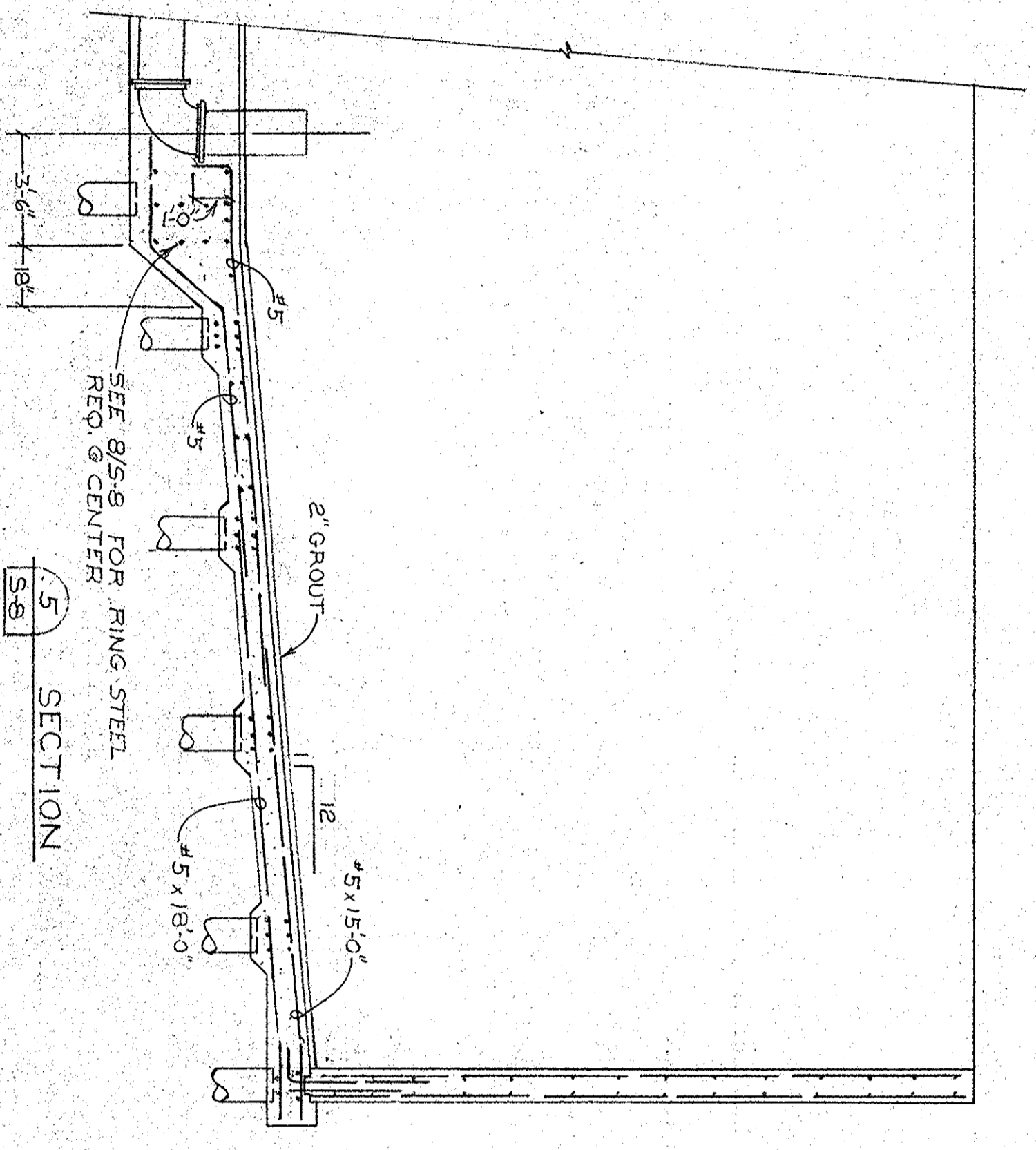
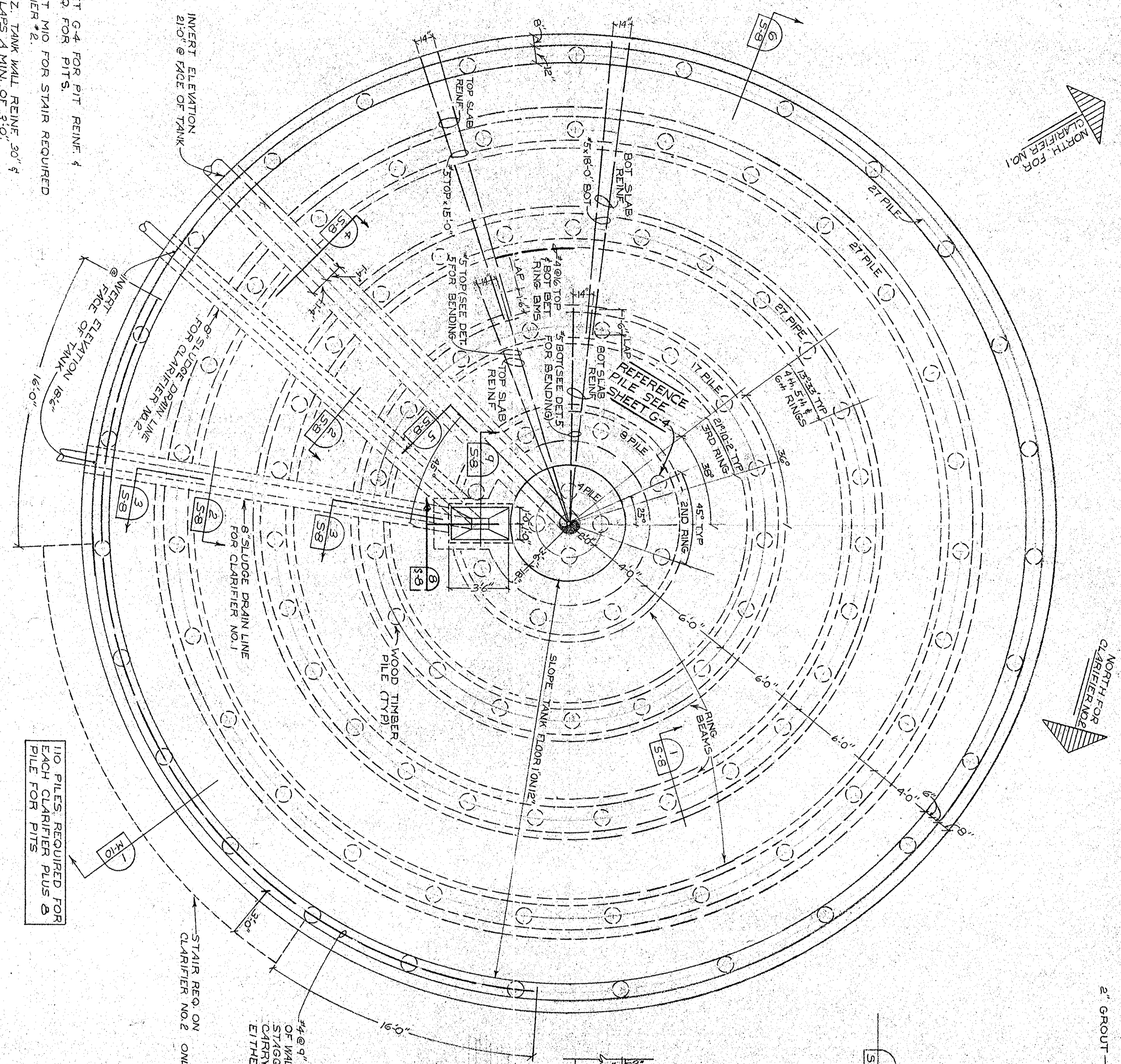






NOTE:  
 1. SEE SHEET C-4 FOR PIT REINF. & PILING REQ. FOR PITS.  
 2. SEE SHEET M-10 FOR STAIR REQUIRED ON CLARIFIER #2.  
 3. LAP HORIZ. TANK WALL REINF. 30" & STAGGER LAPS A MIN. OF 3'-0".

CLARIFIER FOUNDATION PLAN  
 SCALE 3/8" = 1'-0"



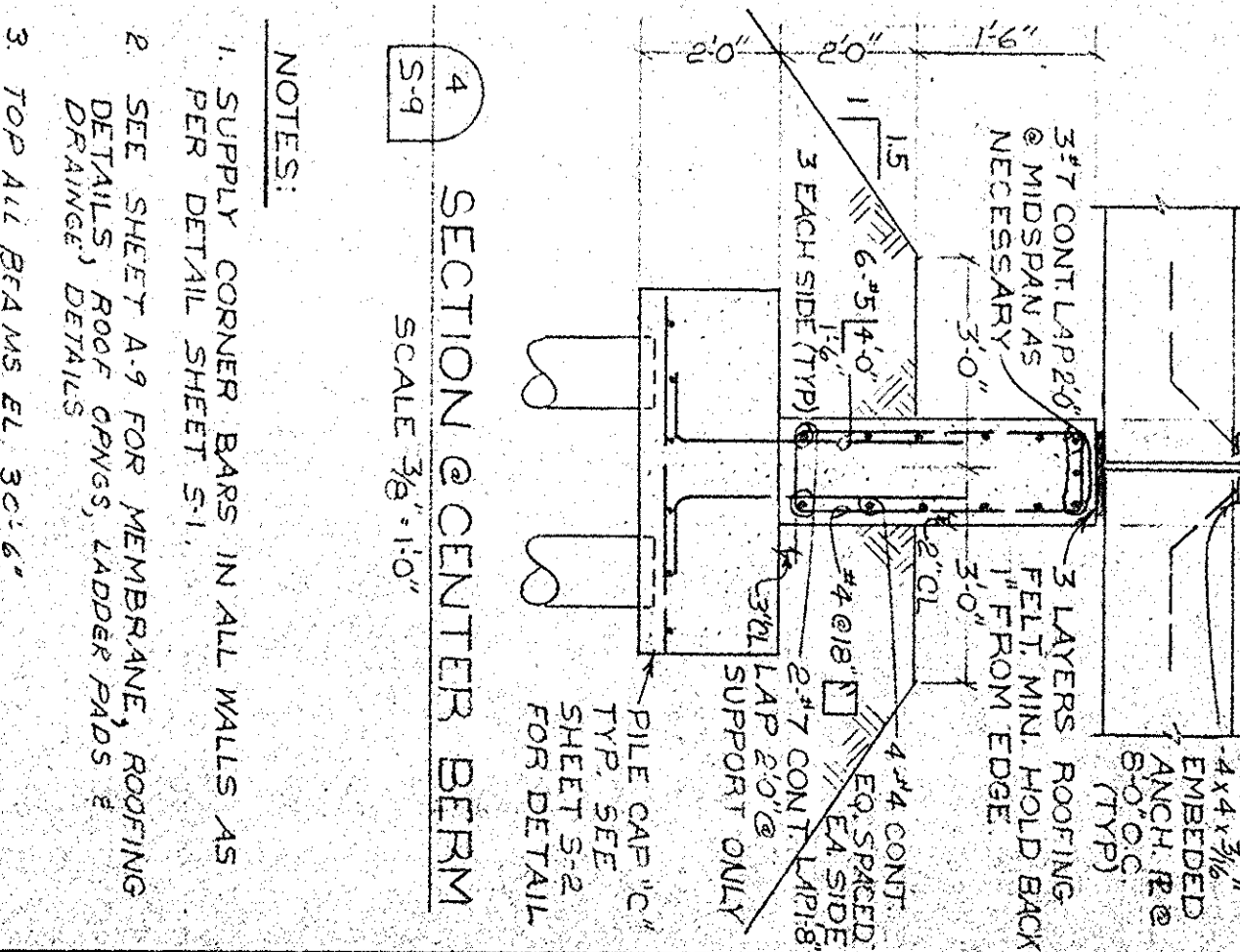
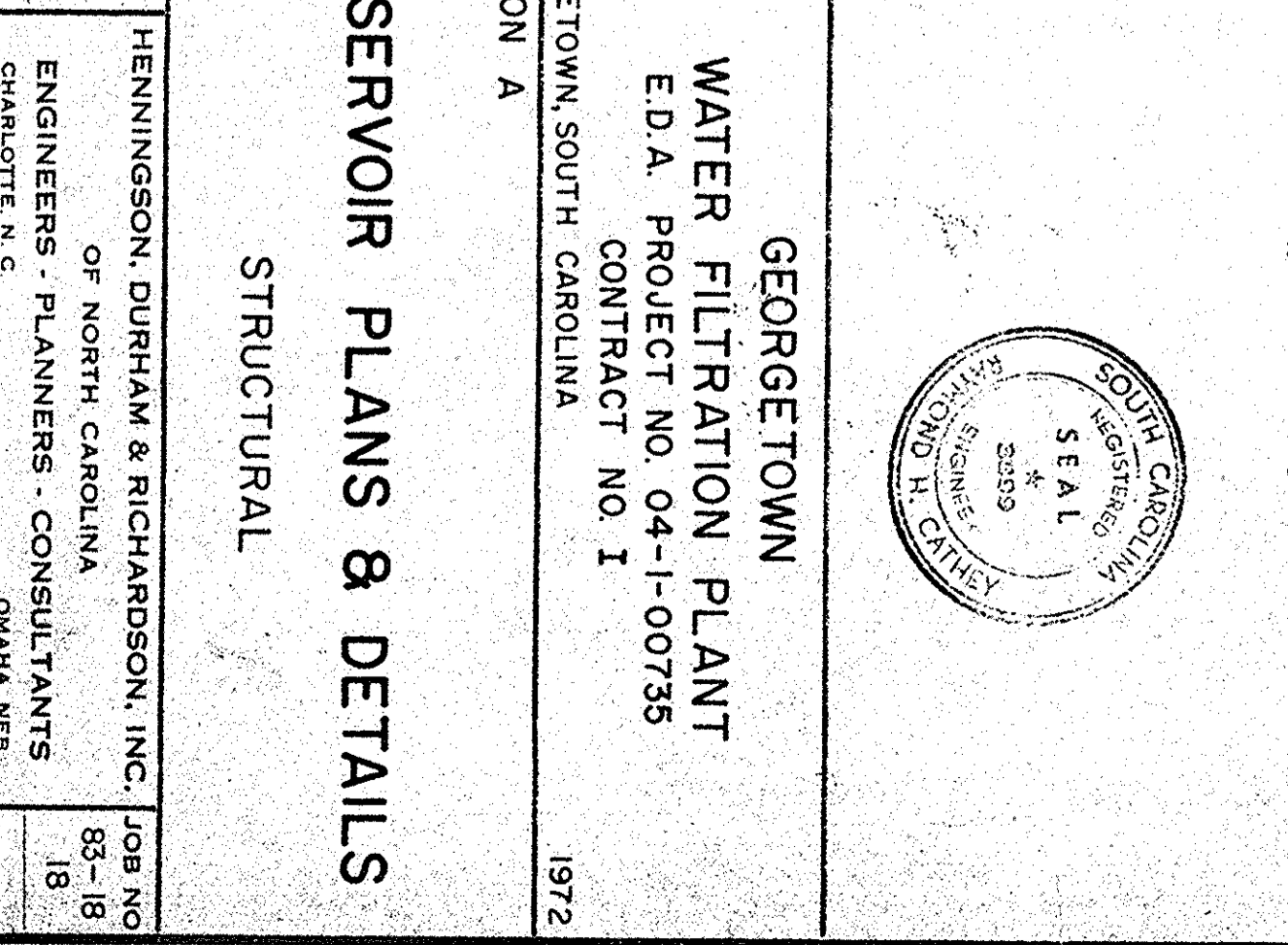
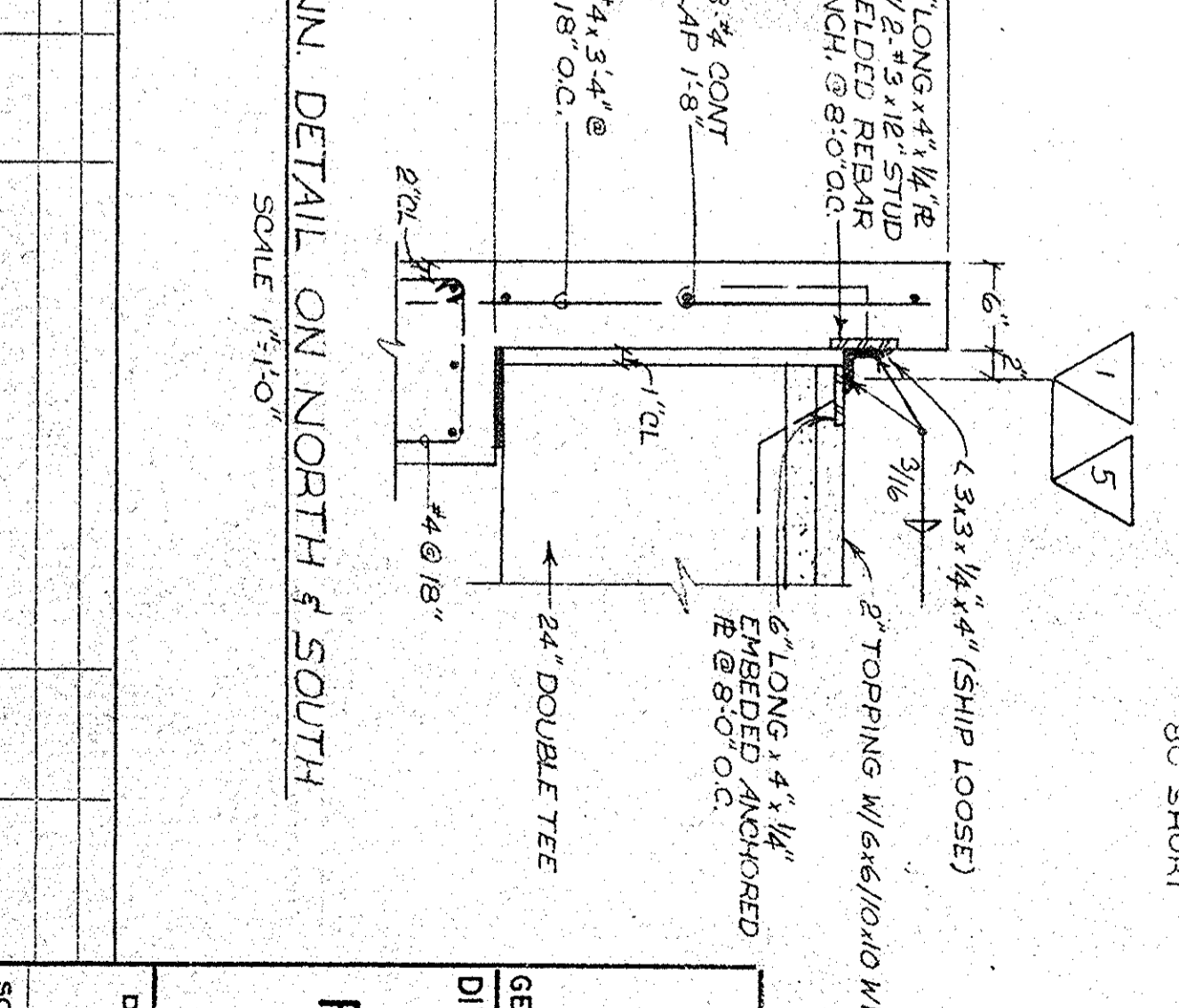
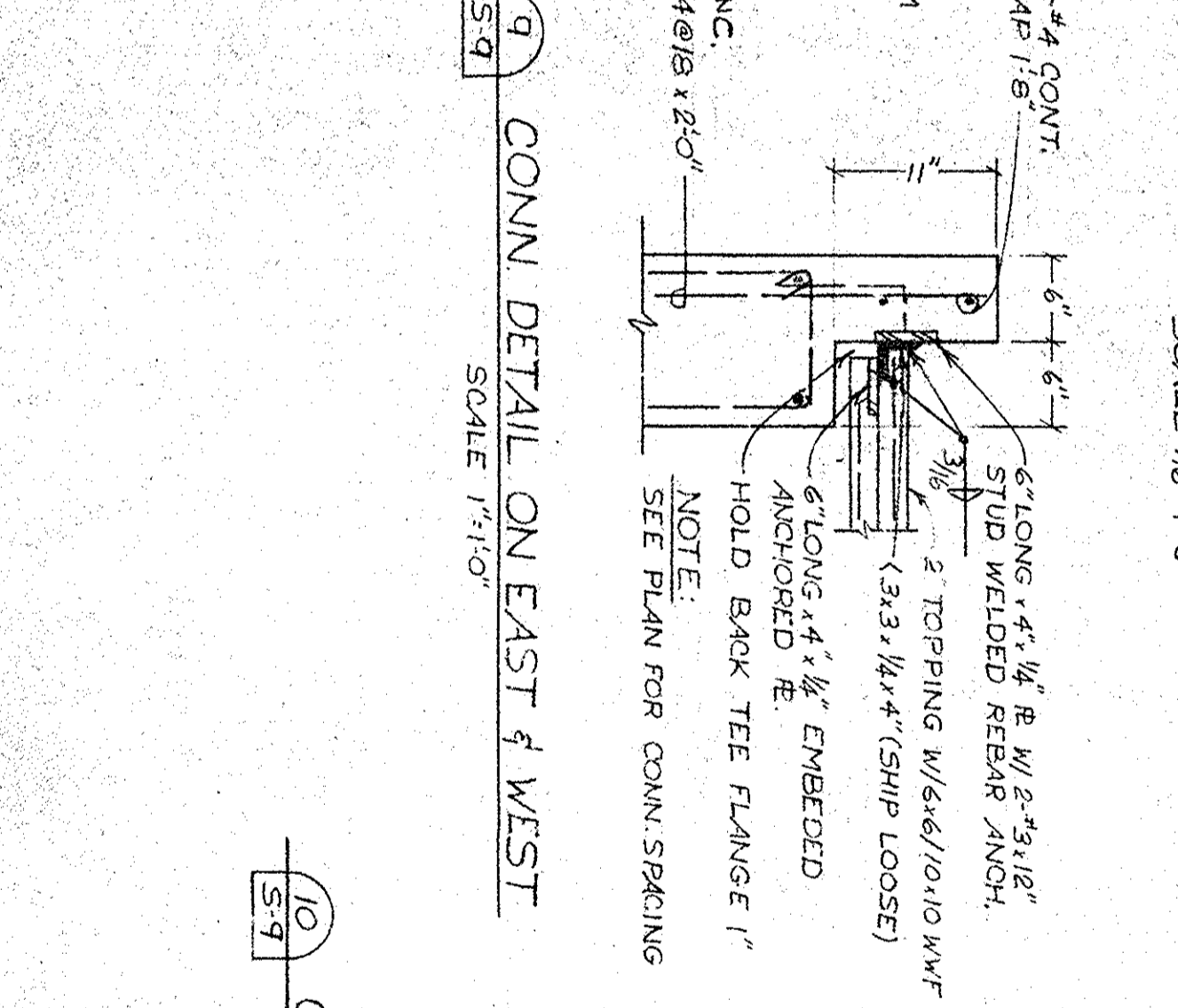
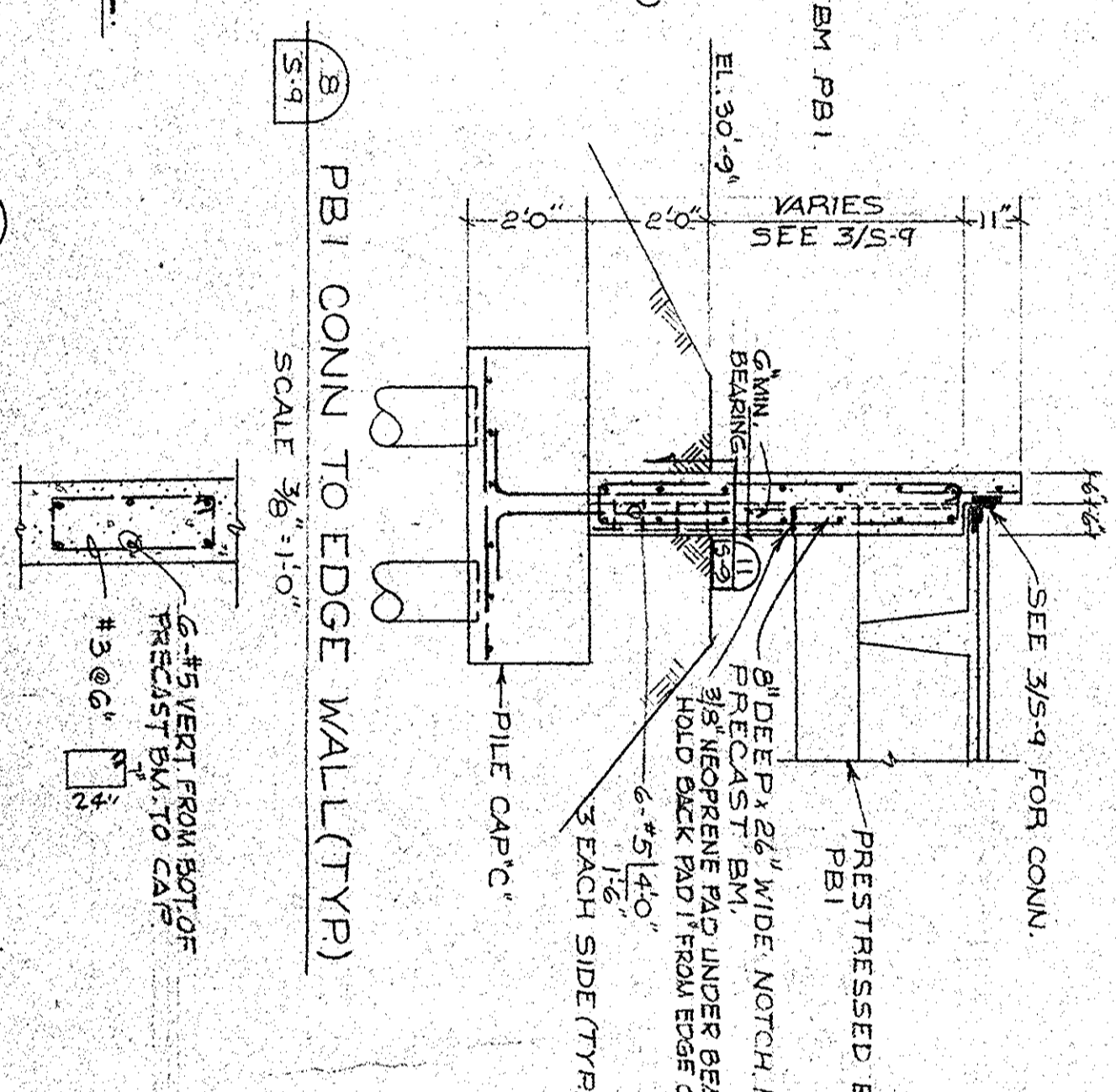
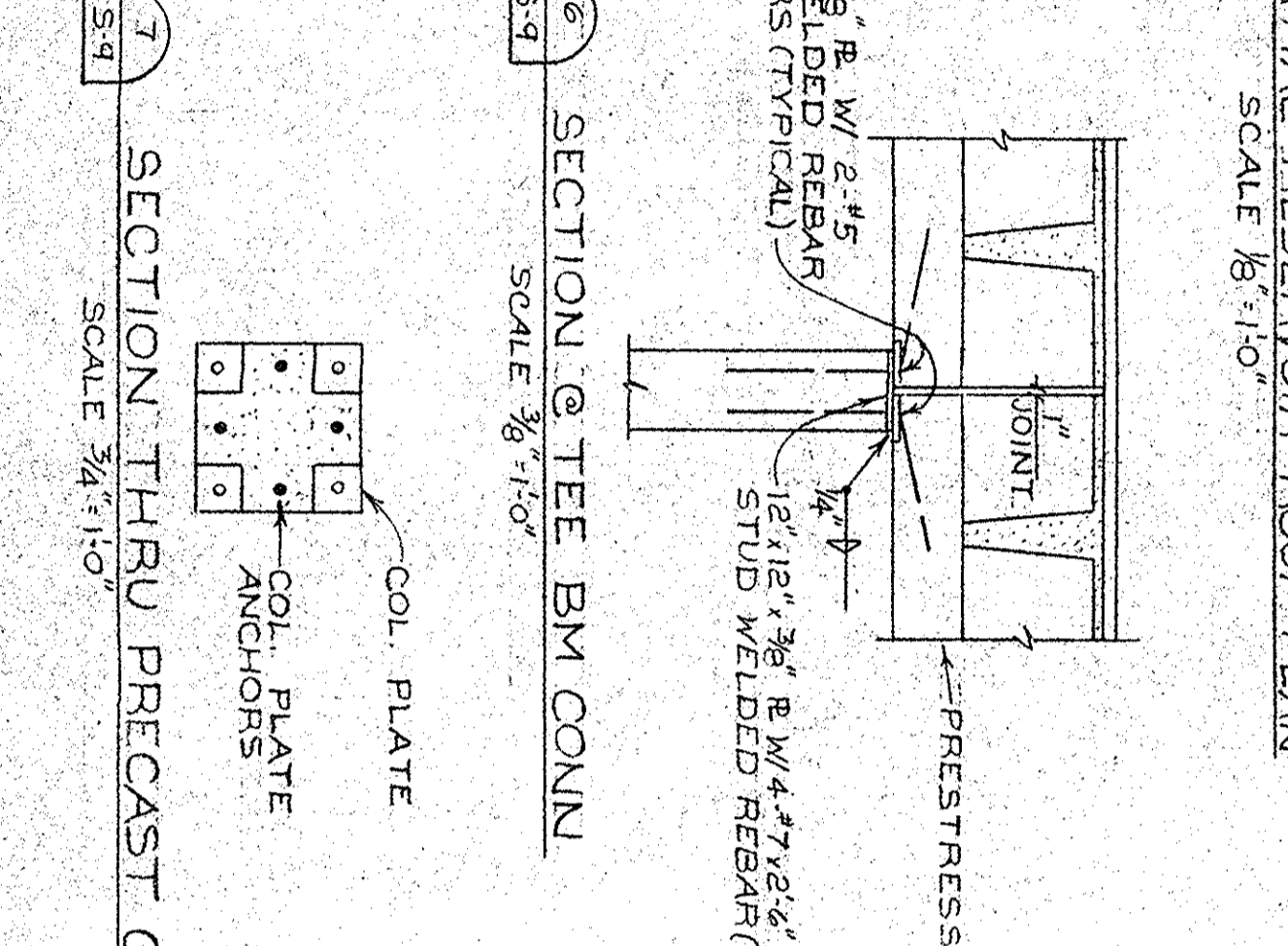
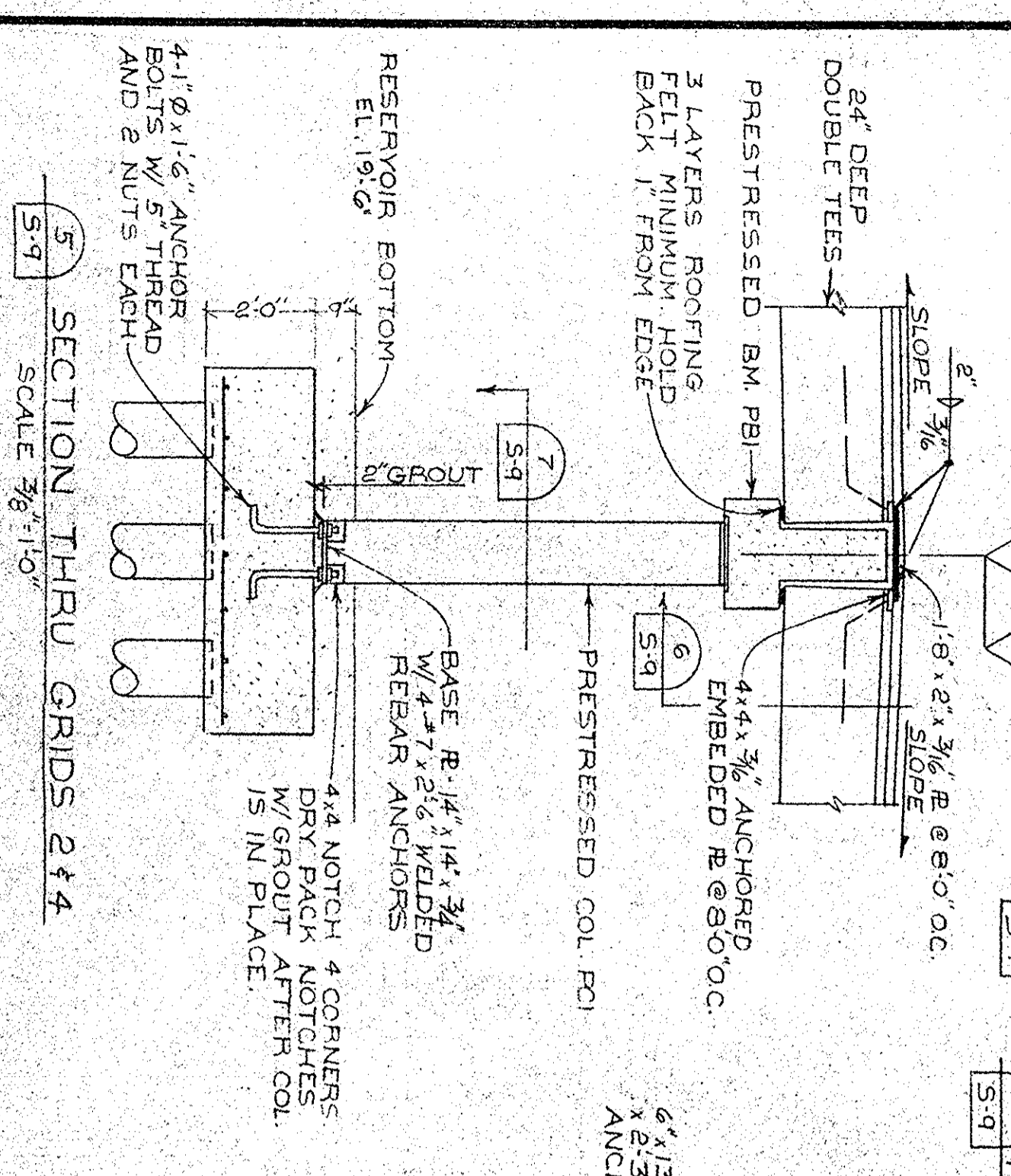
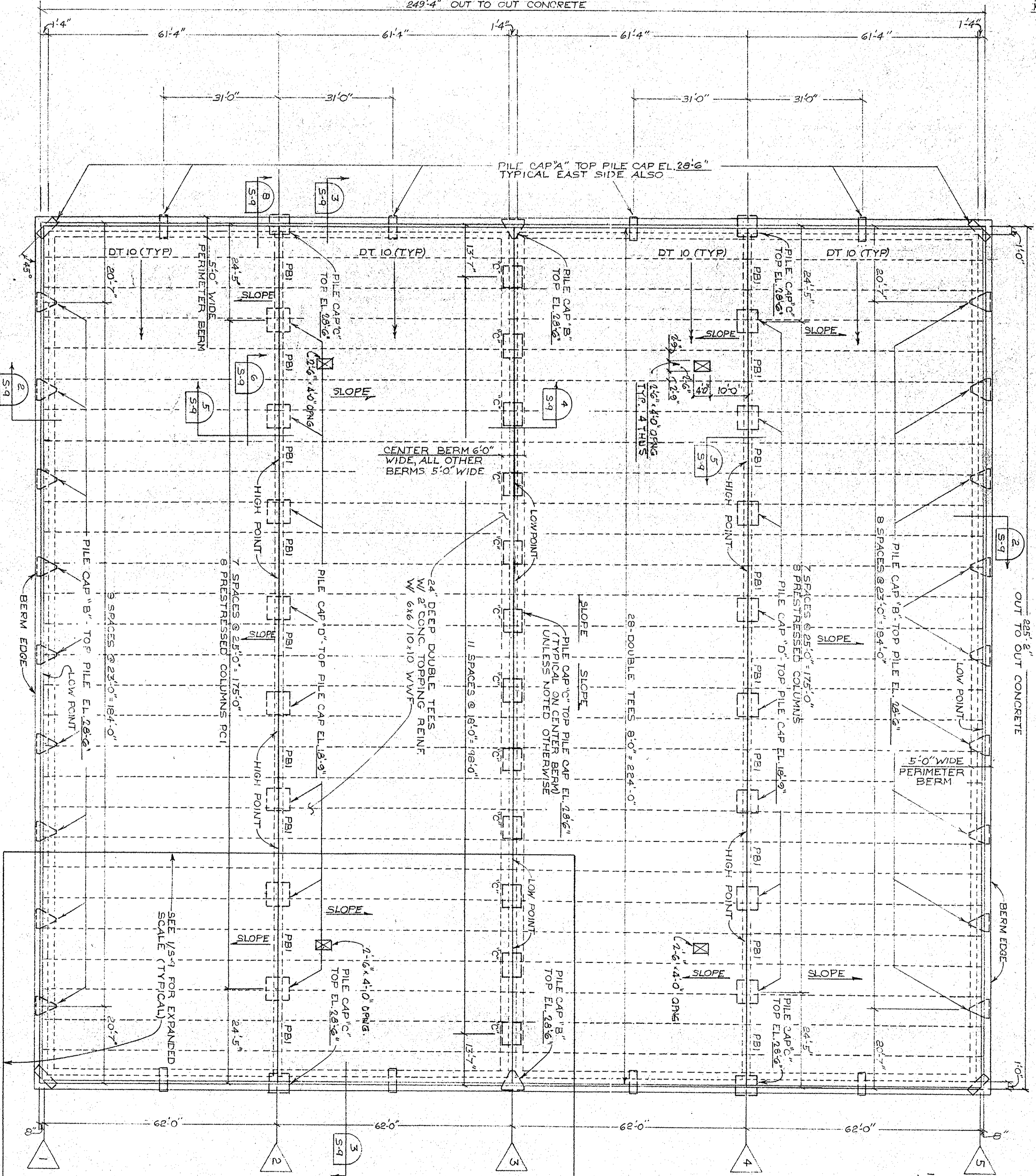
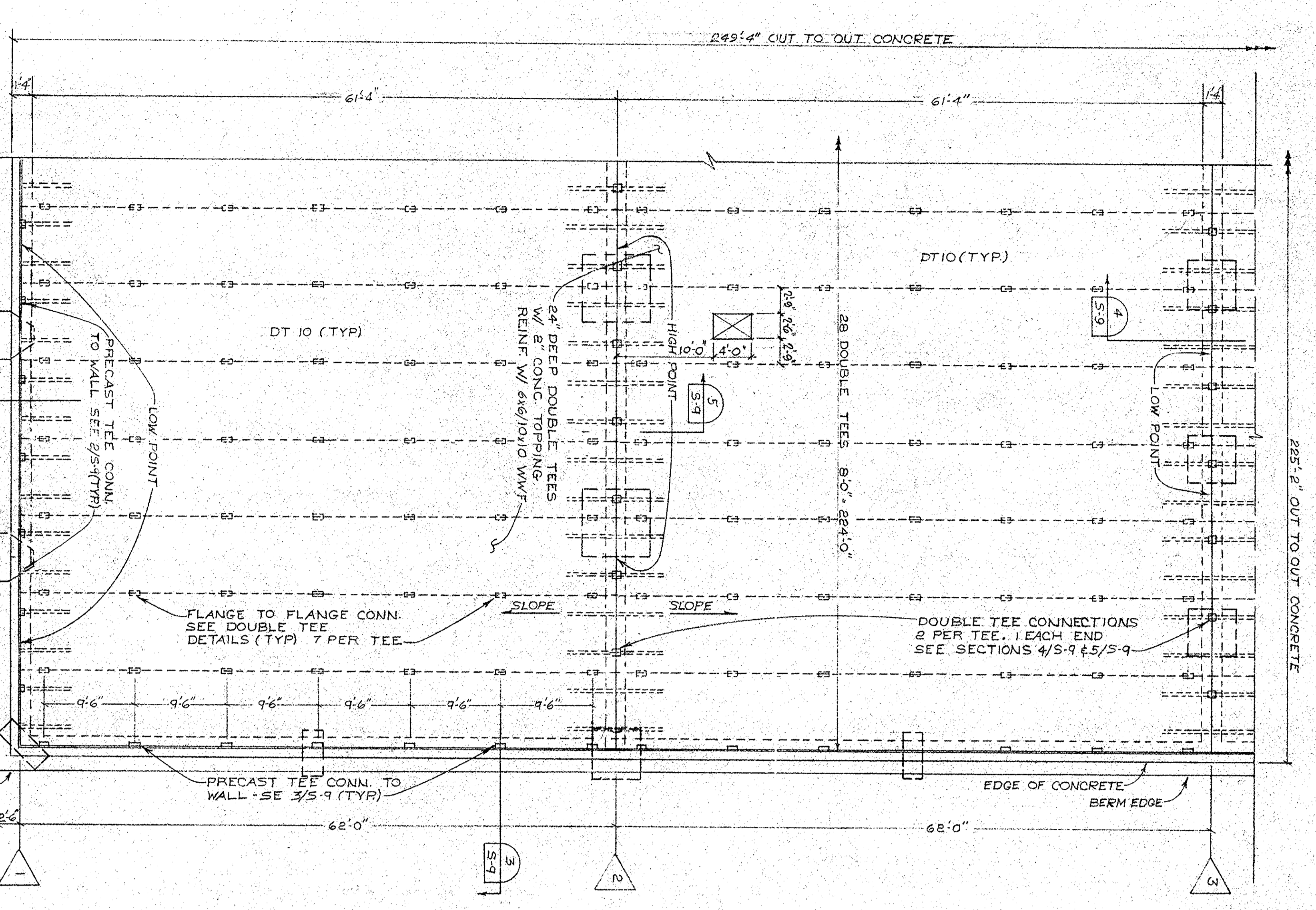
GEORGETOWN  
 WATER FILTRATION PLANT  
 E.O.A. PROJECT NO. 04-1-00735  
 CONTRACT NO. I  
 GEORGETOWN, SOUTH CAROLINA  
 DIVISION A  
 1972

UPFLOW CLARIFIER  
 STRUCTURAL

DATE	DESCRIPTION	MADE	APPROV.

DATE	DESIGNED BY	CHECKED BY	APPROVED BY



RESERVOIR ROOF & FDN PLAN  
SCALE 1/8"=1'-0"

TOTAL PILING REQUIRED: 288 LONG  
80 SHORT

NOTES:  
1. SUPPLY CORNER BARS IN ALL WALLS AS PER DETAIL SHEET S1.  
2. SEE SHEET A-9 FOR MEMBRANE, ROOFING DETAILS, ROOF CMPS, LABOR PAIDS &  
3. TOP ALL FCMS EL. 30'-6"

**GEORGETOWN**  
WATER FILTRATION PLANT  
E.D.A. PROJECT NO. 04-1-00735  
CONTRACT NO. 1  
GEORGETOWN, SOUTH CAROLINA  
DIVISION A

**RESERVOIR PLANS & DETAILS**  
STRUCTURAL

DATE: 10-18-72  
DESIGNED BY: J.A.R.  
CHECKED BY: R.H.C.  
APPROVED BY: C.L.B.

DATE: 10-18-72  
DESIGNED BY: J.A.R.  
CHECKED BY: R.H.C.  
APPROVED BY: C.L.B.

DATE: 10-18-72  
DESIGNED BY: J.A.R.  
CHECKED BY: R.H.C.  
APPROVED BY: C.L.B.