

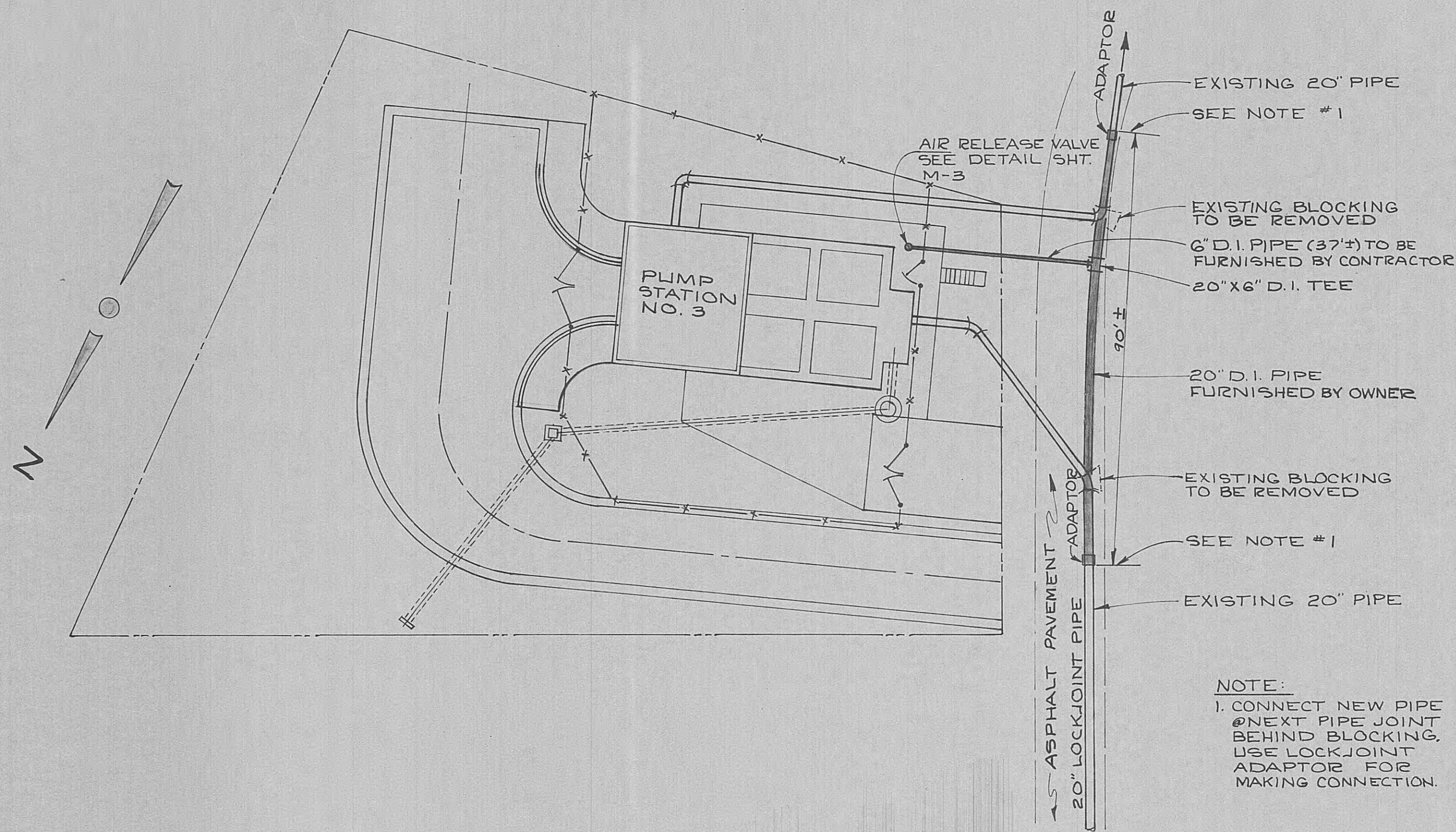
**SANITARY SEWERAGE  
FACILITIES  
FOR  
CITY OF  
HARRIMAN, TENNESSEE**



BLACK, CROW & EIDSNESS, INC.  
ENGINEERS  
ATLANTA, GEORGIA      GAINESVILLE, FLORIDA

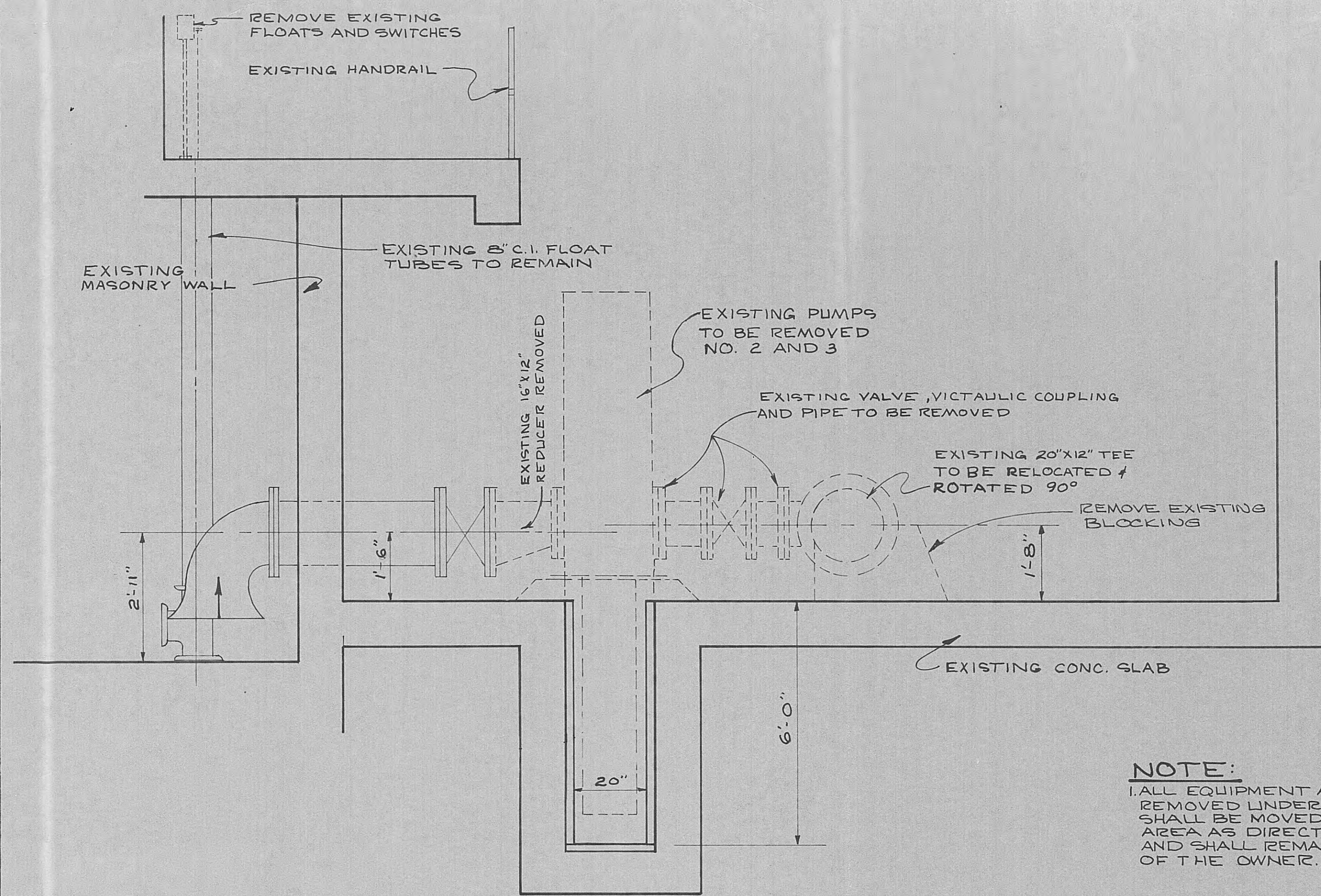
PHASE II OF  
MODIFICATIONS TO  
EFFLUENT PUMPING SYSTEM  
PROJECT NO. 479-68-2

2/13/68



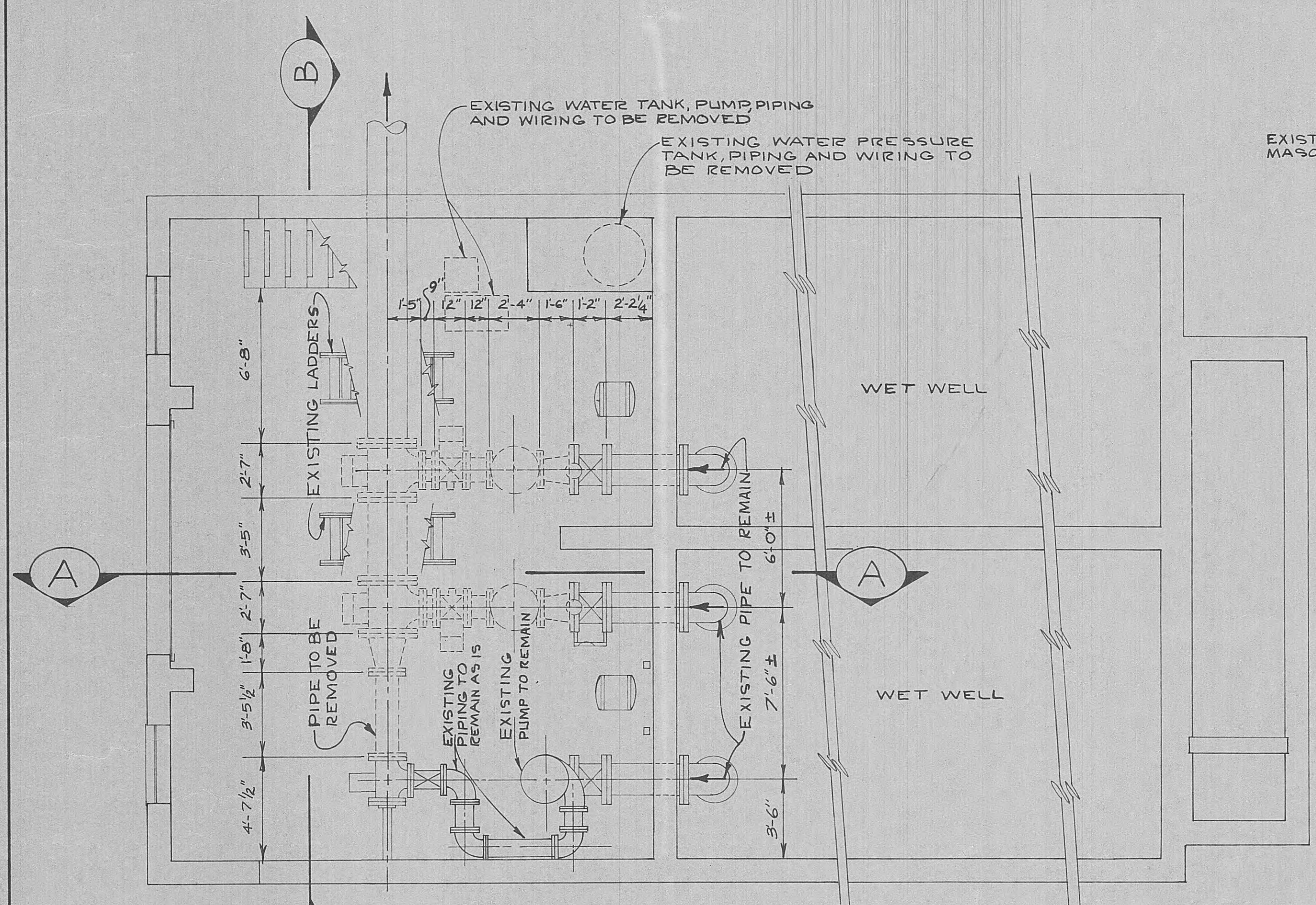
**MODIFICATIONS TO PUMP STATION #3**  
SCALE 1"=20'-0"

NOTE:  
1. CONNECT NEW PIPE @ NEXT PIPE JOINT BEHIND BLOCKING. USE LOCKJOINT ADAPTOR FOR MAKING CONNECTION.



**SECTION A-A**  
SCALE 1/2"=1'-0"

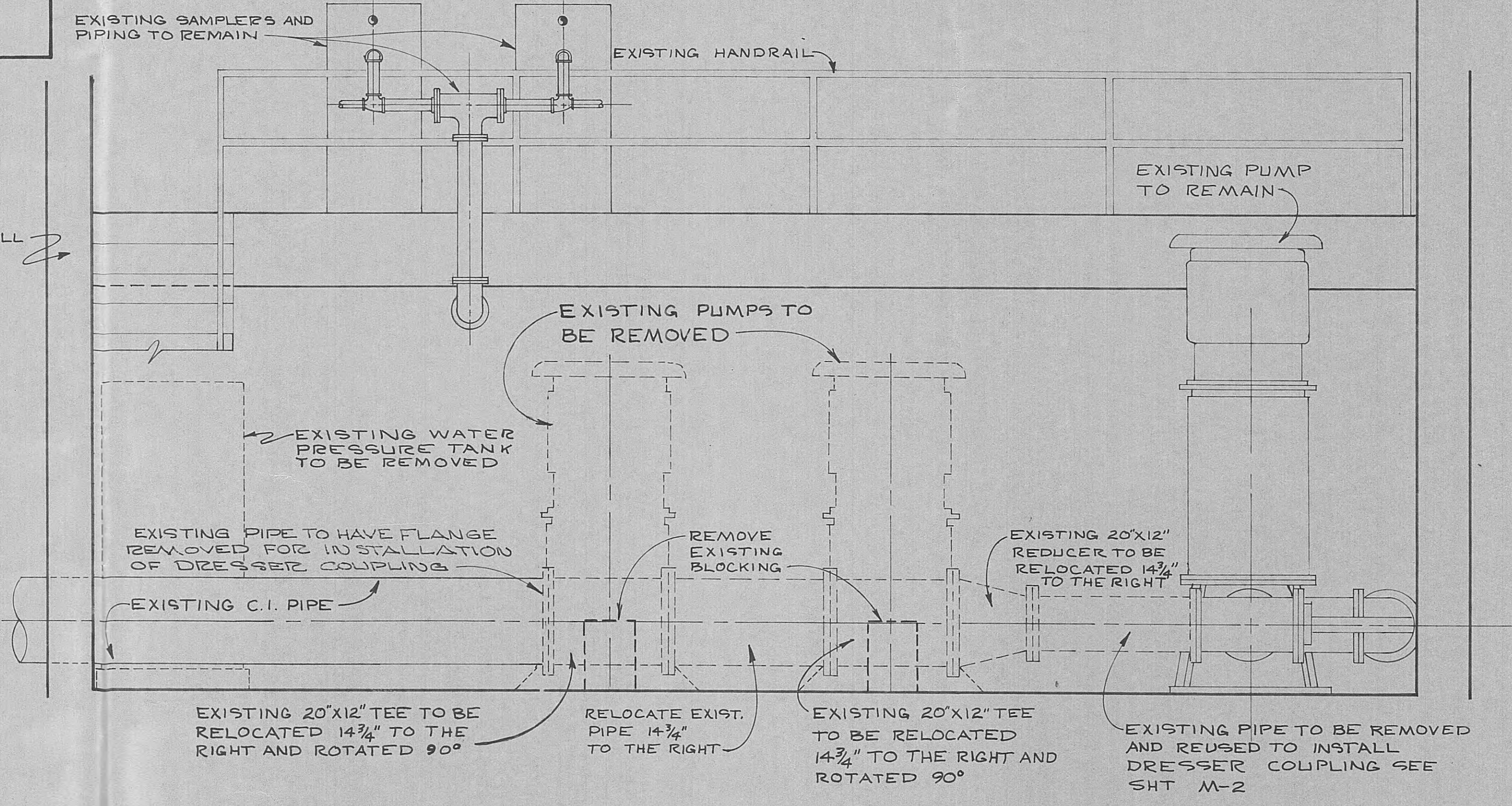
NOTE:  
ALL EQUIPMENT AND MATERIALS REMOVED UNDER THIS CONTRACT SHALL BE MOVED TO STORAGE AREA AS DIRECTED BY THE OWNER AND SHALL REMAIN THE PROPERTY OF THE OWNER.



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

**REMOVAL OF EXISTING EQUIPMENT FOR MODIFICATIONS TO EXISTING PUMP STATION #2**

**LEGEND**  
--- EXISTING EQUIPMENT TO BE REMOVED  
— EXISTING EQUIPMENT TO REMAIN



**SECTION B-B**  
SCALE 1/2"=1'-0"

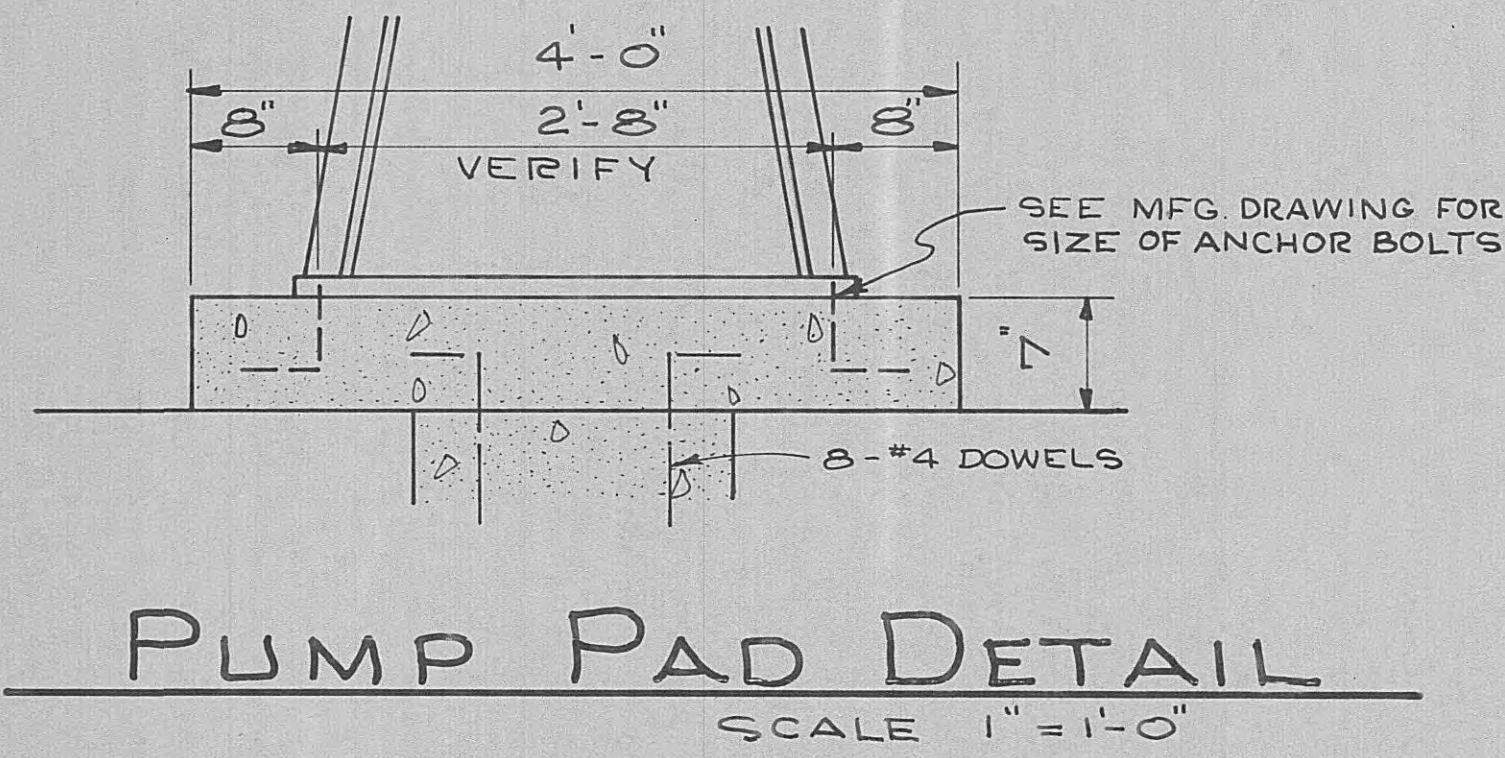
PHASE II OF  
MODIFICATIONS TO  
EFFLUENT PUMPING SYSTEM  
FOR CITY OF HARRIMAN TENNESSEE  
ROANE COUNTY

BLACK, CROW AND EIDSNES, INC.  
ENGINEERS  
GAINESVILLE FLORIDA

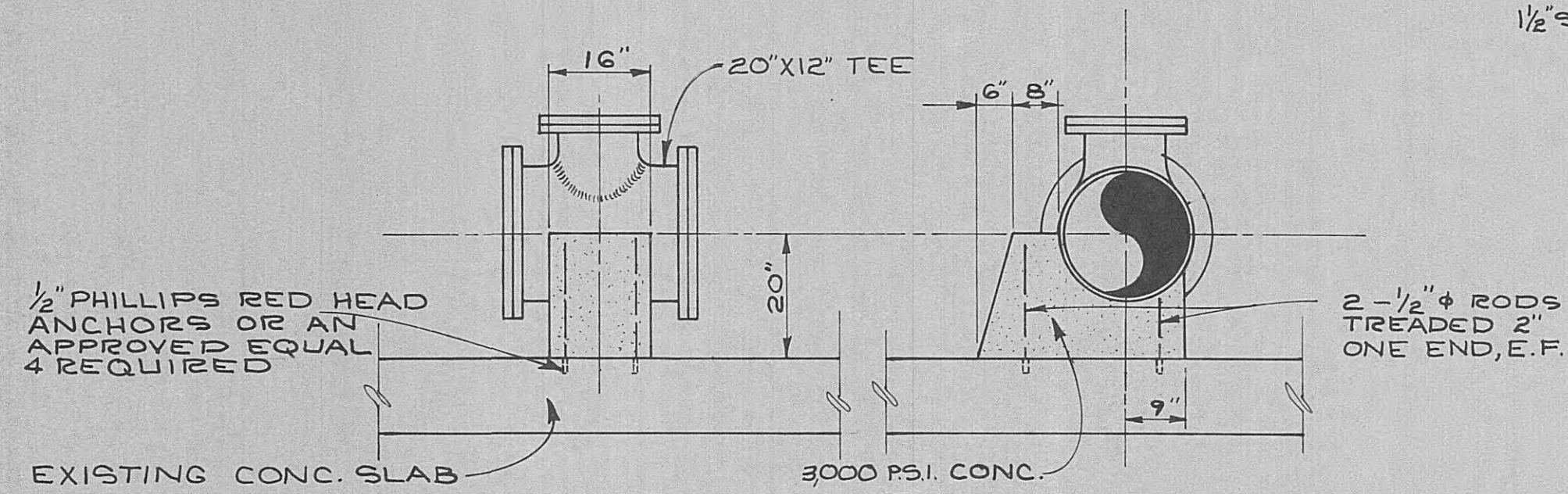
DRAWN BY: BOE DATE: JUNE 13, 1968  
CHECKED BY: FILE NO. 47F-68-2

SCALE: AS NOTED

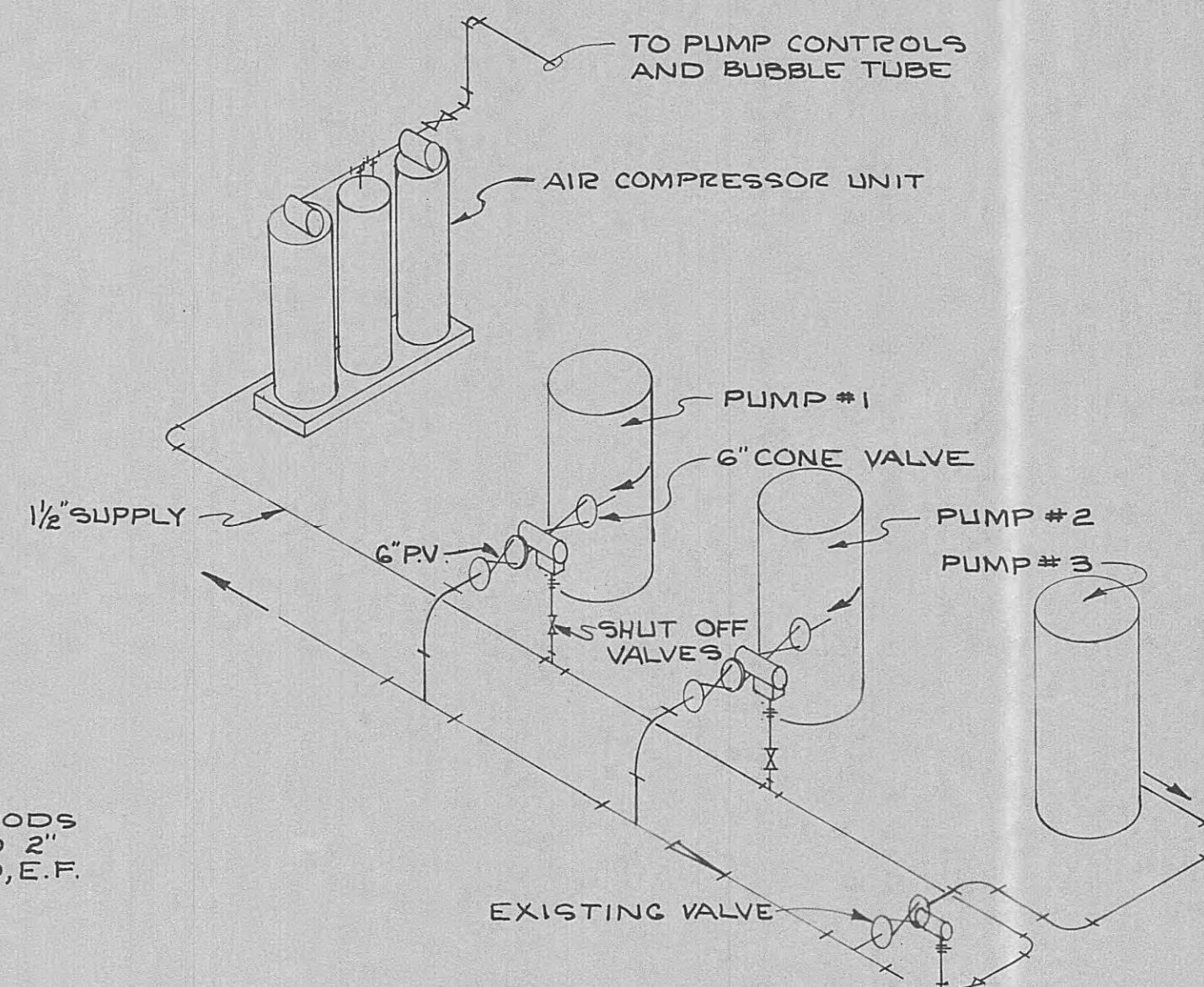
NO.	DESCRIPTION	DATE	SHEET NO.
	EXISTING EQUIPMENT REMOVAL FOR MODIFICATIONS TO EXISTING PUMP STATION #2		M-1
	REVISIONS		



**PUMP PAD DETAIL**  
SCALE 1" = 1'-0"



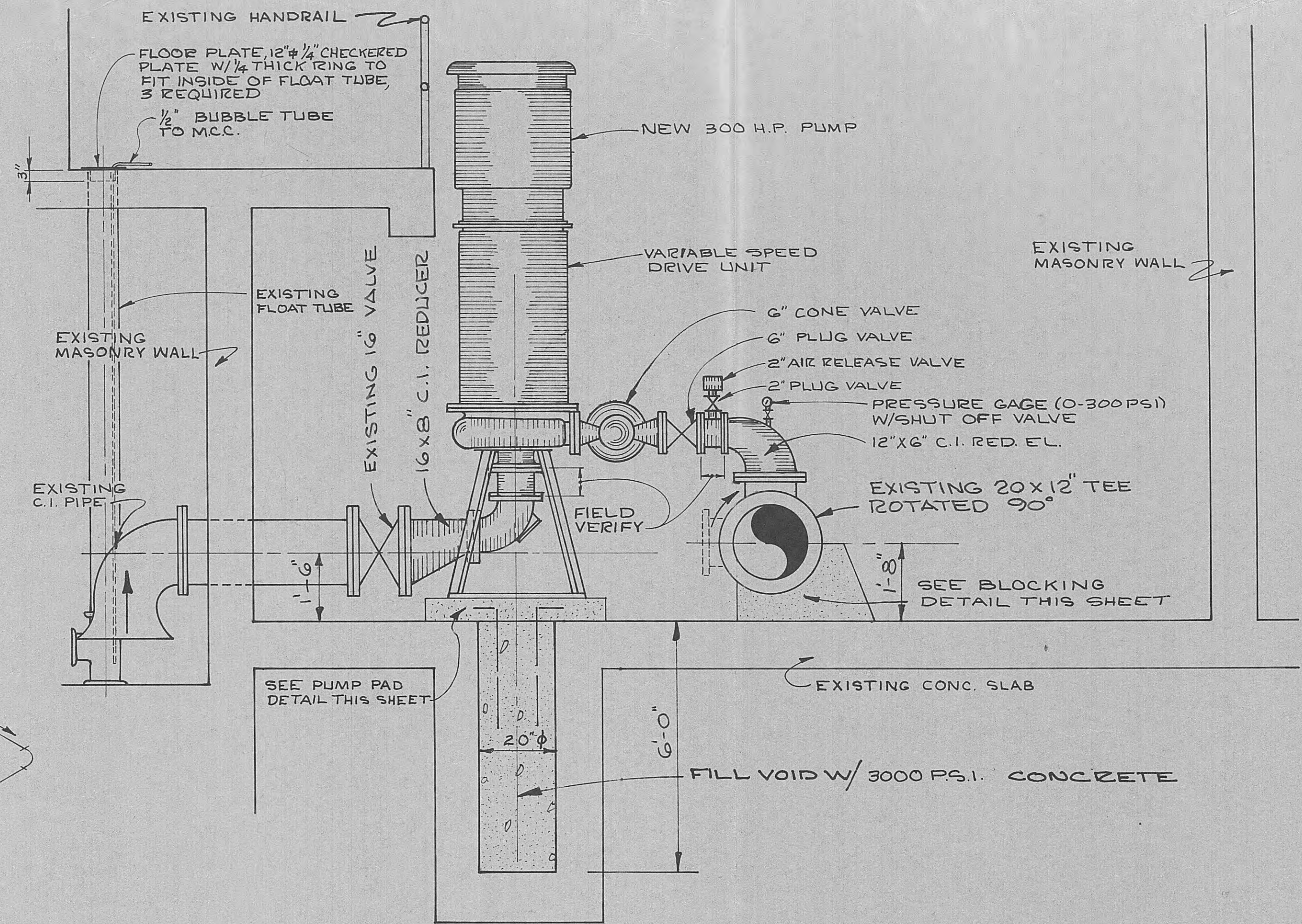
**BLOCKING DETAIL**  
SCALE 1/2" = 1'-0"



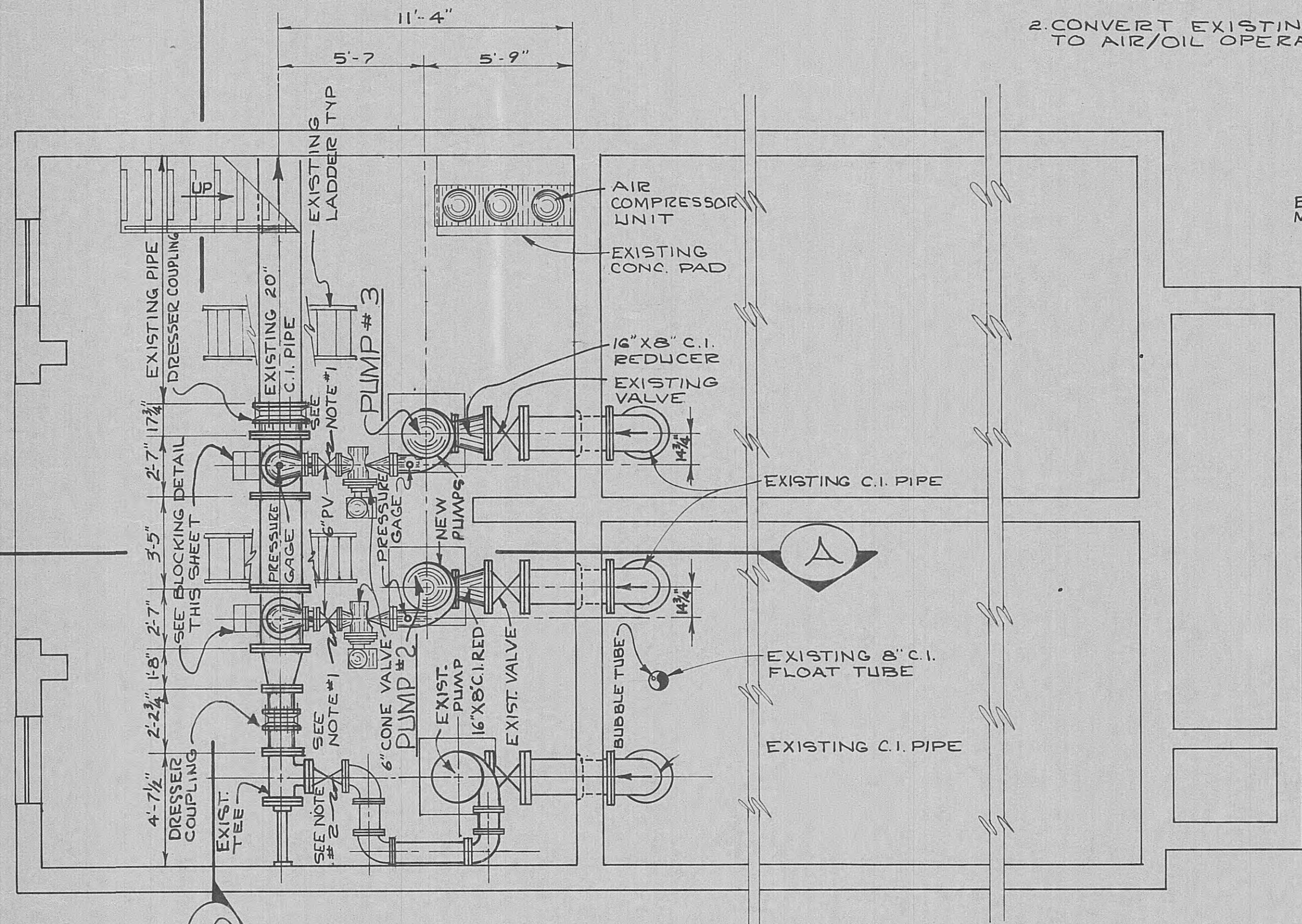
**PIPING DIAGRAM FOR AIR COMPRESSOR UNIT**  
SCALE NONE

**GENERAL NOTES**

1. PROVIDE CHAINS AND LOCKS FOR PLUG VALVES ON PUMP DISCHARGE.
2. CONVERT EXISTING VALVE TO AIR/OIL OPERATION.

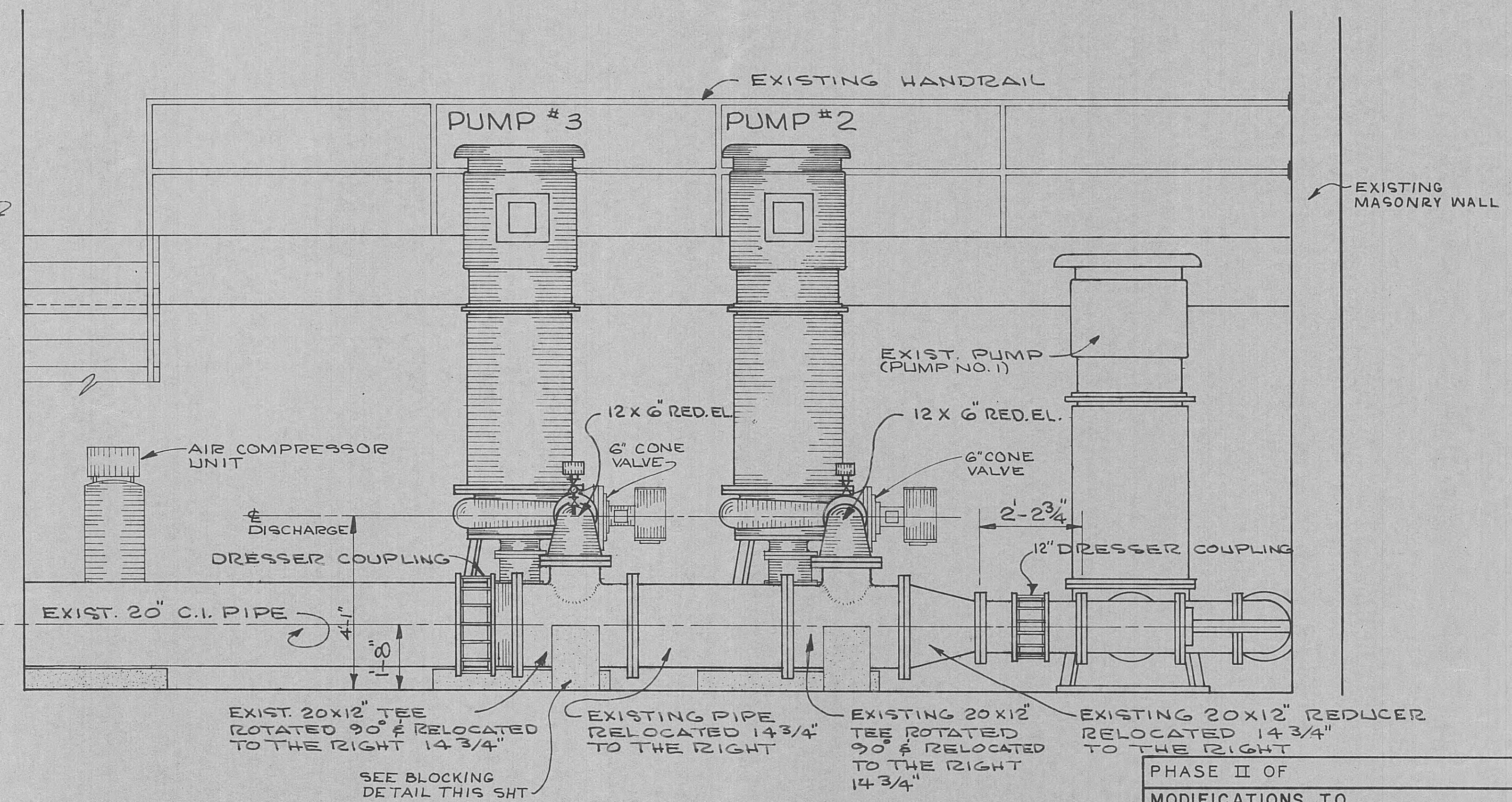


**SECTION "A-A"**  
SCALE 1/2" = 1'-0"



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

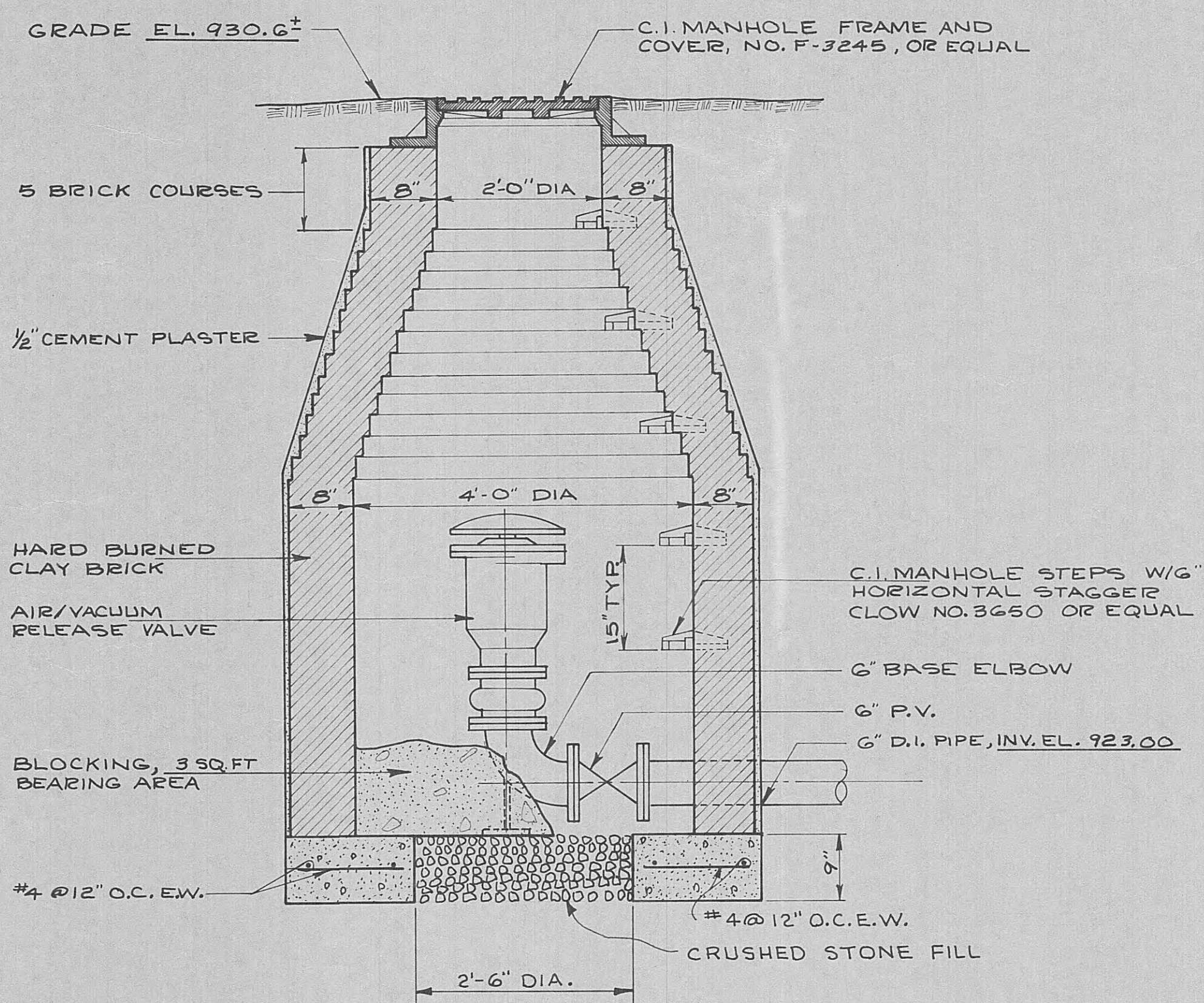
- LEGEND**
- EXISTING EQUIPMENT TO REMAIN
  - ▨ NEW EQUIPMENT TO BE INSTALLED. OWNER TO FURNISH TWO (2) 6" CONE VALVE.



**SECTION "B-B"**  
SCALE 1/2" = 1'-0"

**MODIFICATIONS TO EXISTING PUMP STATION No. 2**

PHASE II OF	
MODIFICATIONS TO EFFLUENT PUMPING SYSTEM FOR CITY OF HARRIMAN TENNESSEE	
ROANE COUNTY	TENNESSEE
BLACK, CROW AND EIDNESS, INC. ENGINEERS FLORIDA	
GAINESVILLE	FLORIDA
DRAWN BY: ROE.	DATE: JUNE 14, 1963
CHECKED BY:	FILE NO.: 477-68-2
SCALE: AS NOTED	
MODIFICATIONS TO EXISTING PUMP STATION # 2	
NO.	DESCRIPTION
DATE	REVISIONS
SHEET NO. M-2	



AIR RELEASE VALVE PIT  
SCALE 3/4" = 1'-0"

PHASE II OF  
MODIFICATIONS TO  
EFFLUENT PUMPING SYSTEM  
FOR CITY OF HARRIMAN TENNESSEE  
ROANE COUNTY TENNESSEE

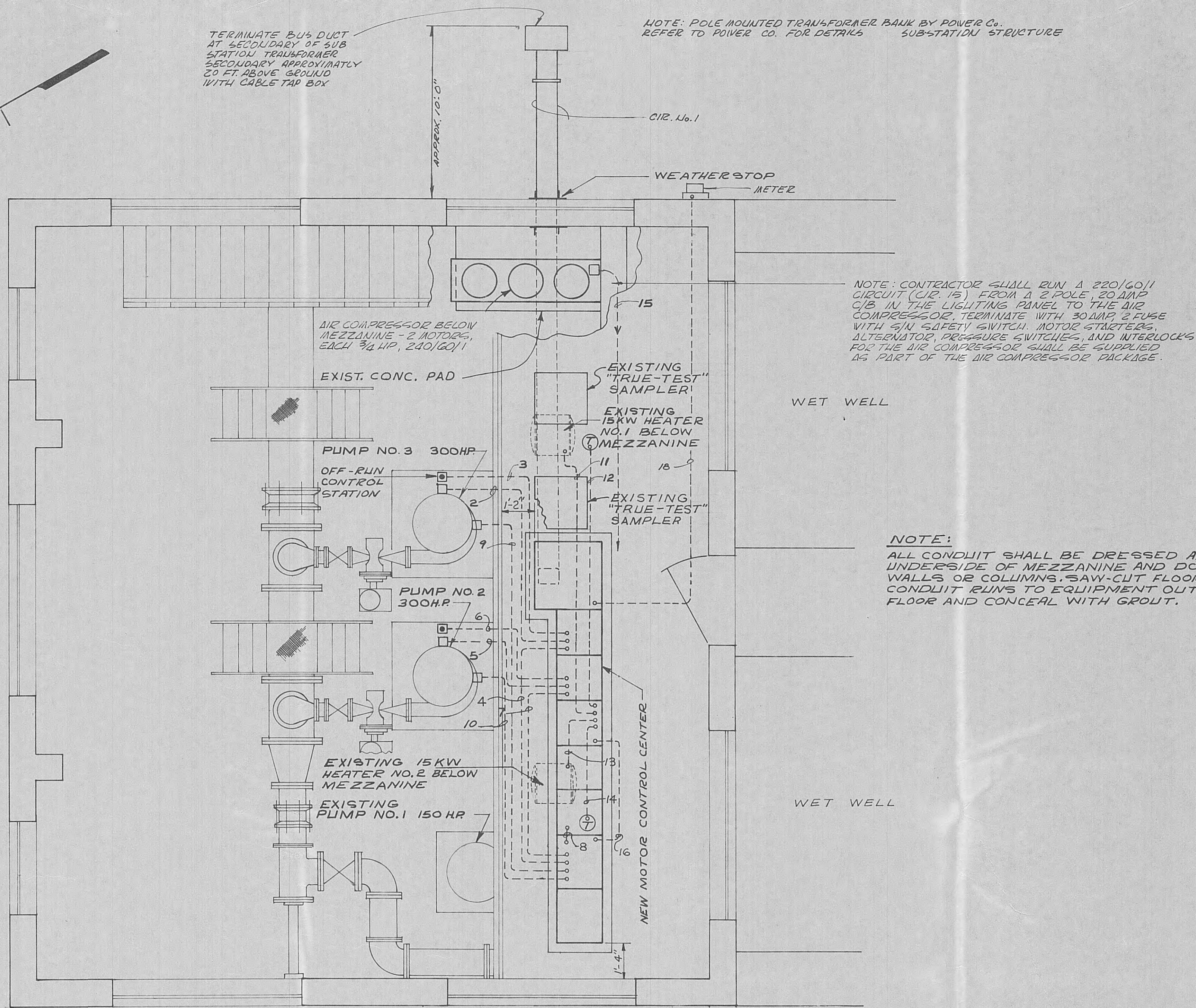
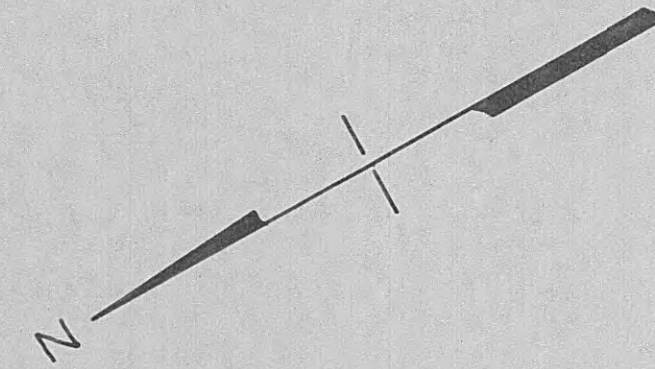
BLACK, CROW AND EIDSNESS, INC.  
ENGINEERS

GAINESVILLE FLORIDA

DRAWN BY: R.O.E. DATE: JUNE 12, 1968  
CHECKED BY: FILE NO.: 470-68-2

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

NO.	DESCRIPTION	DATE	SHEET NO.
	REVISIONS		M-3
	AIR RELEASE VALVE PIT		



### POWER AND CONTROL WIRING SCHEDULE

CIRCUIT NO.	FROM	TO	HOBEPORWE		CABLE DATA	CONDUIT	REMARKS	
			VOLTS	AMPS				
1	SERVICE TRANSFORMER	M.C.C. UNIT NO. 4	480	770	1000A BUS	DUCT	SECONDARY SERVICE	
2	M.C.C. UNIT NO. 6	PUMP NO. 3	300	480	370	6-1/2 350MCM	203"	POWER
3	M.C.C. UNIT NO. 6	PUMP NO. 3 C.S.	120	-	2-1/2 NO. 12	1/2"	CONTROL	
4	M.C.C. UNIT NO. 6	VARIABLE SPEED PANEL	120	-	6-1/2 NO. 12	1"	INTERLOCK, CONTROL, IND.	
5	M.C.C. UNIT NO. 7	PUMP NO. 2	300	480	370	6-1/2 350MCM	203"	POWER
6	M.C.C. UNIT NO. 7	PUMP NO. 2 C.S.	120	-	2-1/2 NO. 12	1/2"	CONTROL	
7	M.C.C. UNIT NO. 7	VARIABLE SPEED PANEL	120	-	6-1/2 NO. 12	1"	INTERLOCK, CONTROL, IND.	
8	VARIABLE SPEED PANEL	EXIST. PUMP NO. 1 M.S.	120	-	6-1/2 NO. 12	1"	INTERLOCK, CONTROL, IND.	
9	VARIABLE SPEED PANEL	PUMP NO. 2 MAG. DRIVE	-	-	BY DRIVE MFG.	3/4"	CONTROL, INDICATION	
10	VARIABLE SPEED PANEL	PUMP NO. 3 MAG. DRIVE	-	-	BY DRIVE MFG.	3/4"	CONTROL, INDICATION	
11	M.C.C. UNIT NO. 8	HEATER NO. 1 15KW	480	23	3-1/2 NO. 10	3/4"	POWER	
12	M.C.C. UNIT NO. 8	HEATER NO. 1 THERMOSTAT	120	-	2-1/2 NO. 12	1/2"	CONTROL	
13	M.C.C. UNIT NO. 9	HEATER NO. 2 15 KW	480	23	3-1/2 NO. 10	3/4"	POWER	
14	M.C.C. UNIT NO. 9	HEATER NO. 2 THERMOSTAT	120	-	2-1/2 NO. 12	1/2"	CONTROL	
15	EXISTING LIGHTING PNL	AIR COMPRESSOR	240	12	3-1/2 NO. 12	3/4"	POWER	
16	M.C.C. UNIT NO. 11	VARIABLE SPEED PANEL	480	4	2-1/2 NO. 12	1/2"	POWER	
17	M.C.C. UNIT NO. 6	CONE VALVE SOLENOID	120	-	2-1/2 NO. 12	1/2"	INTERLOCK	
18	M.C.C. UNIT NO. 5	POWER COMPANY METER	-	-	BY POWER CO.	1"	METERING	
19	M.C.C. UNIT NO. 7	CONE VALVE SOLENOID	120	-	2-1/2 NO. 12	1/2"	INTERLOCK	

NOTE:  
ALL CONDUIT SHALL BE DRESSED ALONG UNDERSIDE OF MEZZANINE AND DOWN WALLS OR COLUMNS. SAW-CUT FLOOR FOR CONDUIT RUNS TO EQUIPMENT OUT IN FLOOR AND CONCEAL WITH GROUT.

### ELECTRICAL PLAN

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

NOTES:  
THE EXISTING 1Ø SECONDARY SERVICE DROP TO THIS BUILDING HAS BEEN LEFT IN AT THE REQUEST OF THE OWNER. THIS THERE WILL BE TWO SERVICES TO THIS BUILDING.  
AT THE REQUEST OF THE OWNER, THE ELECTRICAL SYSTEM HAS BEEN DESIGNED ASSUMING THAT THE 150 HP PUMP WILL OPERATE AT THE SAME TIME AS THE 300 HP PUMPS.

PHASE II OF  
MODIFICATIONS TO  
EFFLUENT PUMPING SYSTEM  
FOR CITY OF HARRIMAN TENNESSEE  
ROANE COUNTY TENNESSEE

BLACK, CROW AND EIDSNES, INC.  
ENGINEERS  
GAINESVILLE FLORIDA

DRAWN BY: ROE DATE: JUNE 13, 1968  
CHECKED BY: FILE NO. 479-68-2

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

NO.	DESCRIPTION	DATE

ELECTRICAL PLAN

SHEET NO. E-1