



CITY OF ALBUQUERQUE NEW MEXICO

PUBLIC WORKS DEPARTMENT

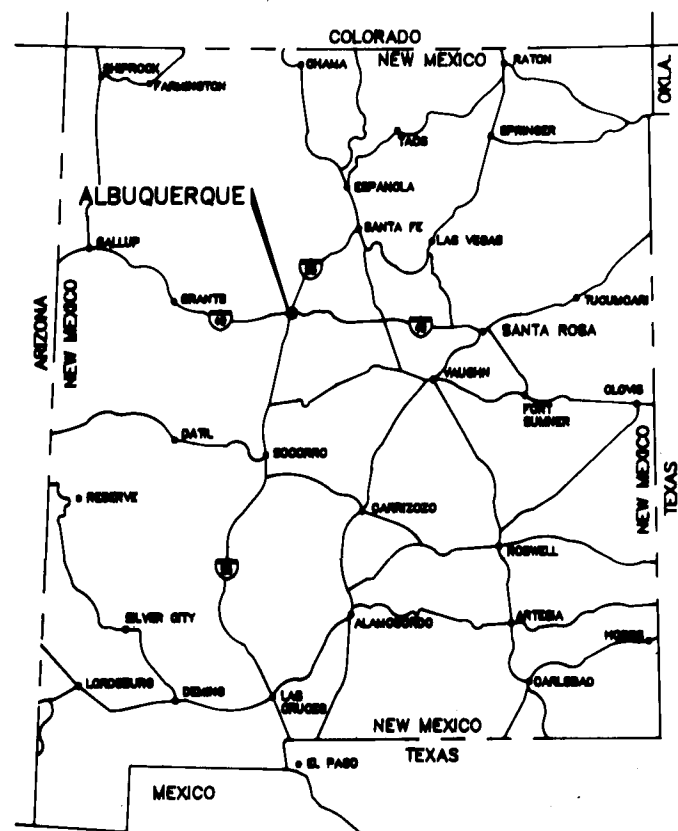
LIQUID WASTE DIVISION

PLANS FOR CONSTRUCTION OF

SOILS AMENDMENT FACILITY
WATER UTILITIES SYSTEM

PHASE II B-3, CONTRACT 3

NOVEMBER 1987



LOCATION MAP

APPROVED FOR CONSTRUCTION

Gene Leyendecker

GENE LEYENDECKER, P.E.
CHIEF UTILITY ENGINEER
PUBLIC WORKS DEPT.

DATE 12/9/87

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G-03	BOOSTER PUMP STATION & WELL (PLAN VIEWS AND SECTIONS)	E-03	BOOSTER PUMP STATION PLAN
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G-06	WATER TANK (600,000 GALLON)	E-06	ONE LINE DIAGRAM
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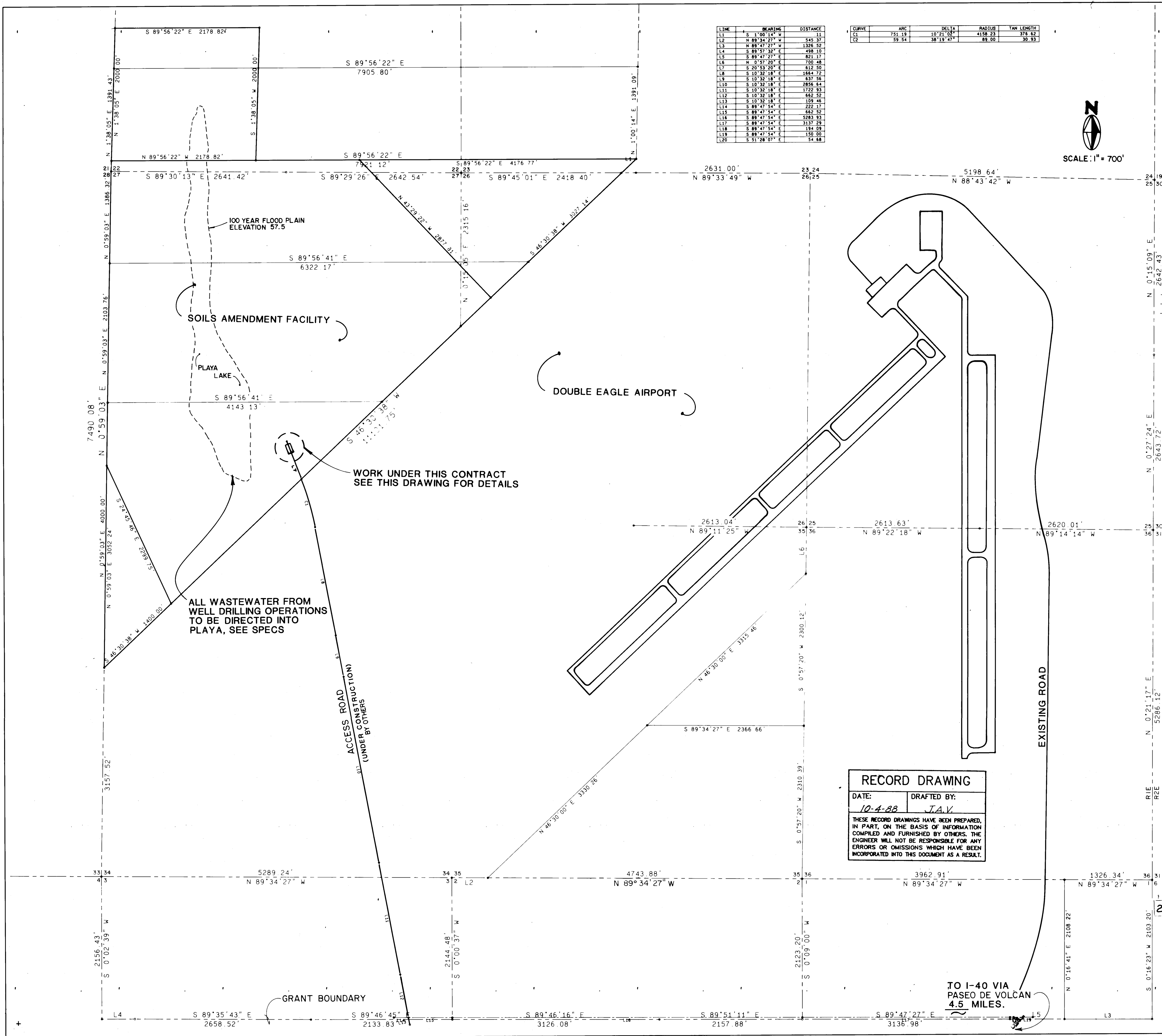
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RECORD DRAWING

DATE: 10/88 DRAFTED BY: MCA

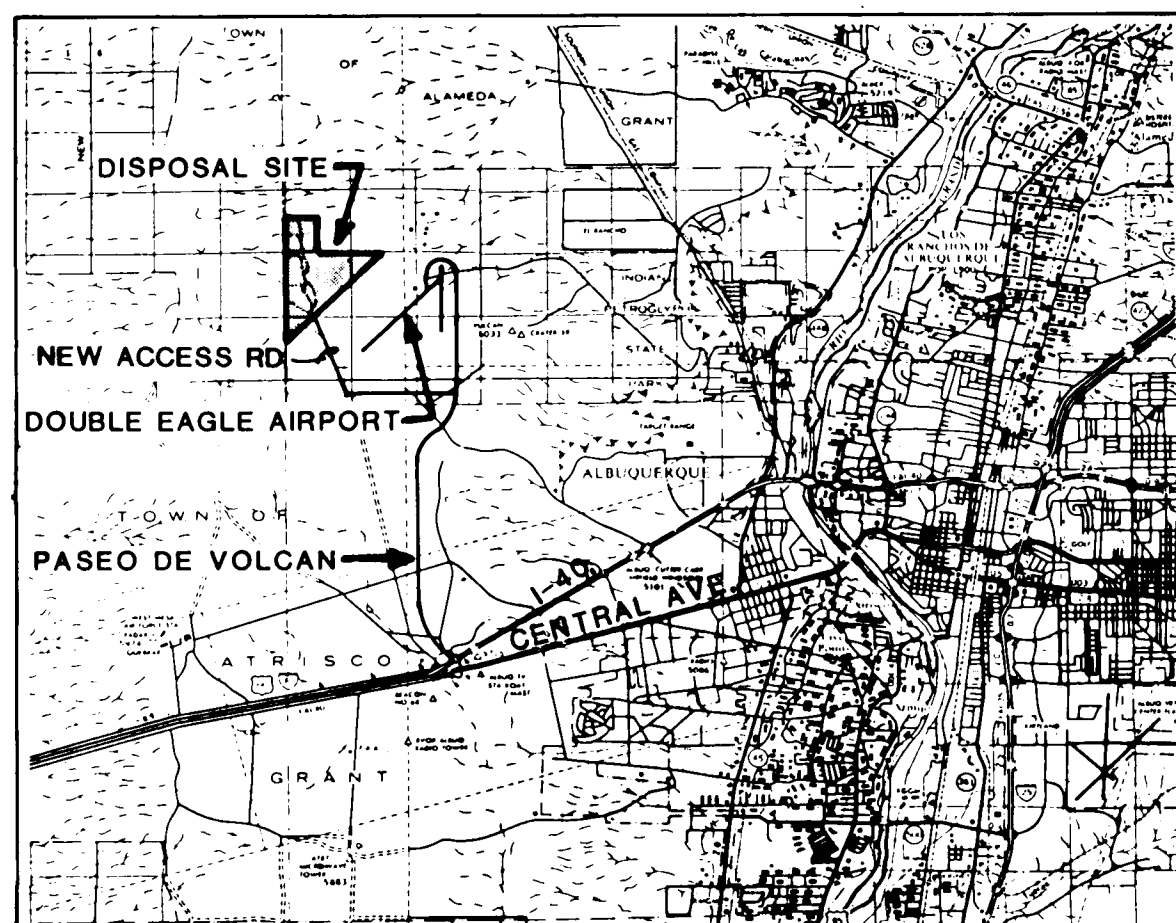
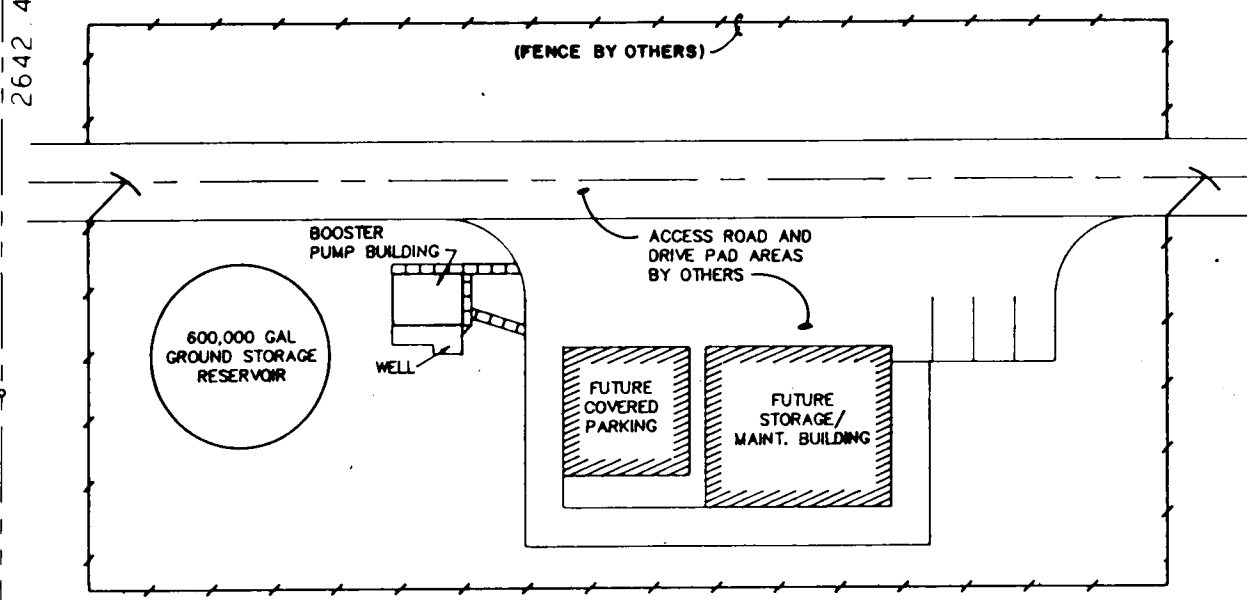
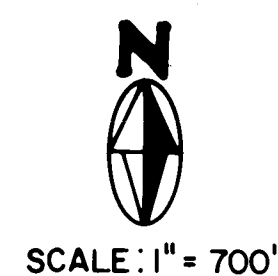
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NO.	DATE	REMARKS	BY
10-4-88	AS BUILT		J.V.
REVISIONS			
CITY OF ALBUQUERQUE, NEW MEXICO SOILS AMENDMENT FACILITIES PHASE II B-3, CONTRACT 3		REGISTERED PROFESSIONAL ENGINEER NEW MEXICO 1809 STANLEY CONSULTANTS	
MOLZEN-CORBIN STANLEY CONSULTANTS A JOINT VENTURE			



LINE	BEARING	DISTANCE
L1	S 1°00'14" W	11
L2	N 89°34'27" W	545.37
L3	N 89°47'27" E	1326.52
L4	S 89°57'32" E	1386.10
L5	S 89°47'27" E	821.17
L6	N 0°57'20" E	130.48
L7	S 20°53'20" E	612.50
L8	S 10°32'18" E	1664.72
L9	S 10°32'18" E	637.36
L10	S 10°32'18" E	2856.84
L11	S 10°32'18" E	1722.93
L12	S 10°32'18" E	642.52
L13	S 10°32'18" E	109.46
L14	S 89°47'54" E	222.17
L15	S 89°47'54" E	642.52
L16	S 89°47'54" E	5283.93
L17	S 89°47'54" E	3137.28
L18	S 89°47'54" E	194.09
L19	S 89°47'54" E	150.00
L20	S 51°28'07" E	54.48

CURVE	ARC	DELTA	RADIUS	TAN LENGTH
C1	751.19	10°21'02"	4158.23	376.62
C2	59.54	36°19'47"	89.00	30.93



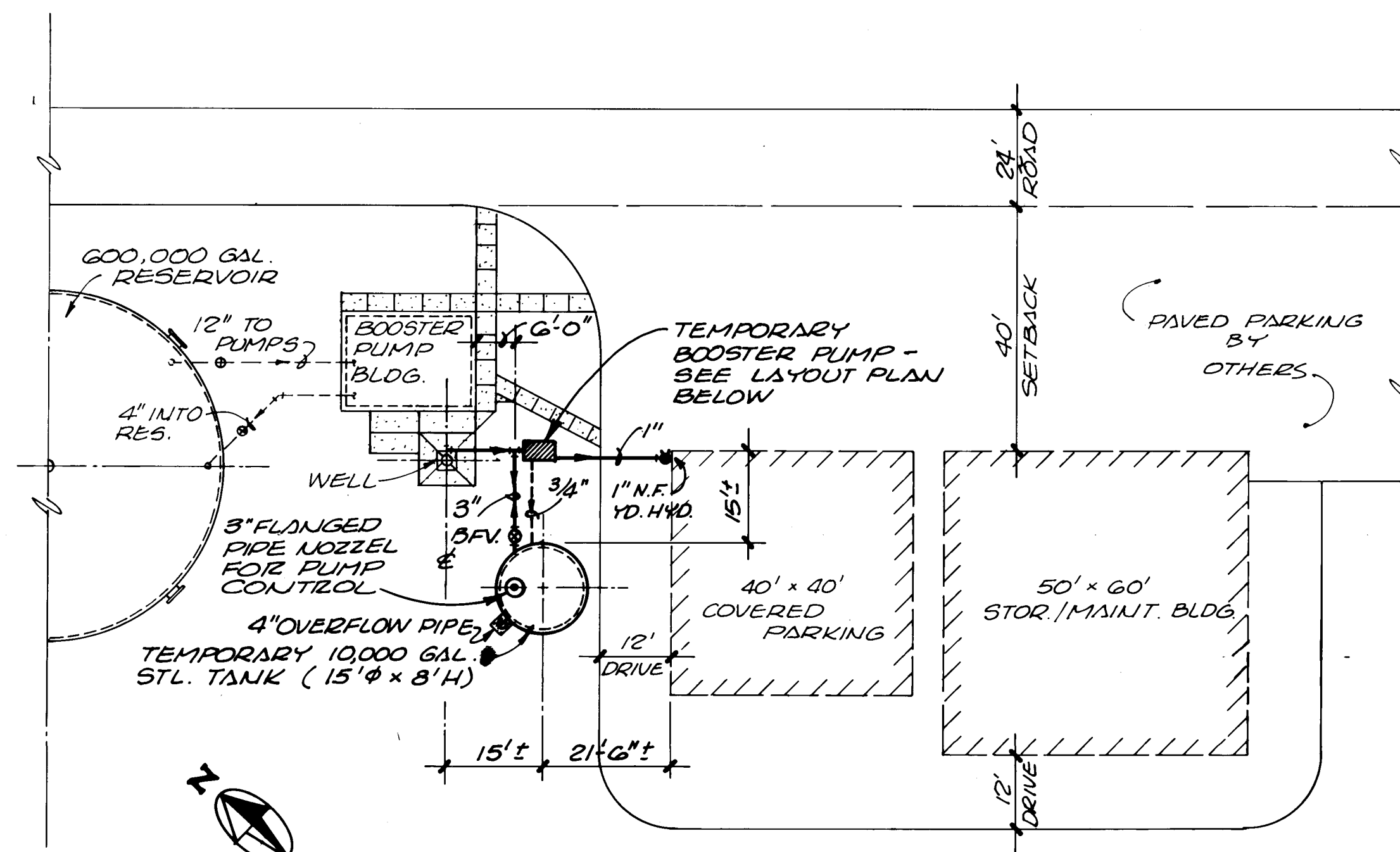
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DATE: 10-4-88 DRAFTED BY: J.A.V.
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CITY OF ALBUQUERQUE, NEW MEXICO
SOILS AMENDMENT FACILITY
PHASE II B-3, CONTRACT 3
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT LIQUID WASTE DIVISION					
TITLE: SITE DEVELOPMENT PLAN WATER WELL & BOOSTER PUMP STATION					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		
DRAWING NO. 3714		MAP NO.		SHEET G-02 OF	

BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
HORIZONTAL CONTROL - B-86 STATION IS LOCATED 7 MILES NW OF DOWNTOWN ALBUQUERQUE ON THE HIGHEST OF THE VOLCANIC MOUNDS ON THE WEST MESA. STANDARD USC&GS TABLET STAMPED "VOLCAN 1968 B 1969", CEMENT IN VOLCANIC ROCK.	DATE	NO.	BY	NO.	DATE
VERTICAL CONTROL - USC&GS K-227, SW 1/4, SEC.26, T11N, R1E. ELEVATION = 5847.02' MSL	DATE	NO.	BY	NO.	DATE
AS BUILT INFORMATION		CONTRACTOR: STERLING BROTHERS, INC.		ENGINEER'S SEAL	
WORKED BY: ALBUG. SURVEY DATE: 2-14-88		INSPECTED BY: J.K.		REVISIONS	
ACCEPTANCE BY: J.K.		DRAWINGS		DESIGN	
MICRO-FILM INFORMATION		DATE: 10-4-88		DESIGNED BY: C. SPINELLO	
RECORDED BY:		DATE: 10-4-88		DRAWN BY: J. SPINELLO	
NO.		NO.		CHECKED BY: C. LEDERGRACE	
NO.		NO.		DATE: 10-1-87	
NO.		NO.		DATE: 10-1-87	

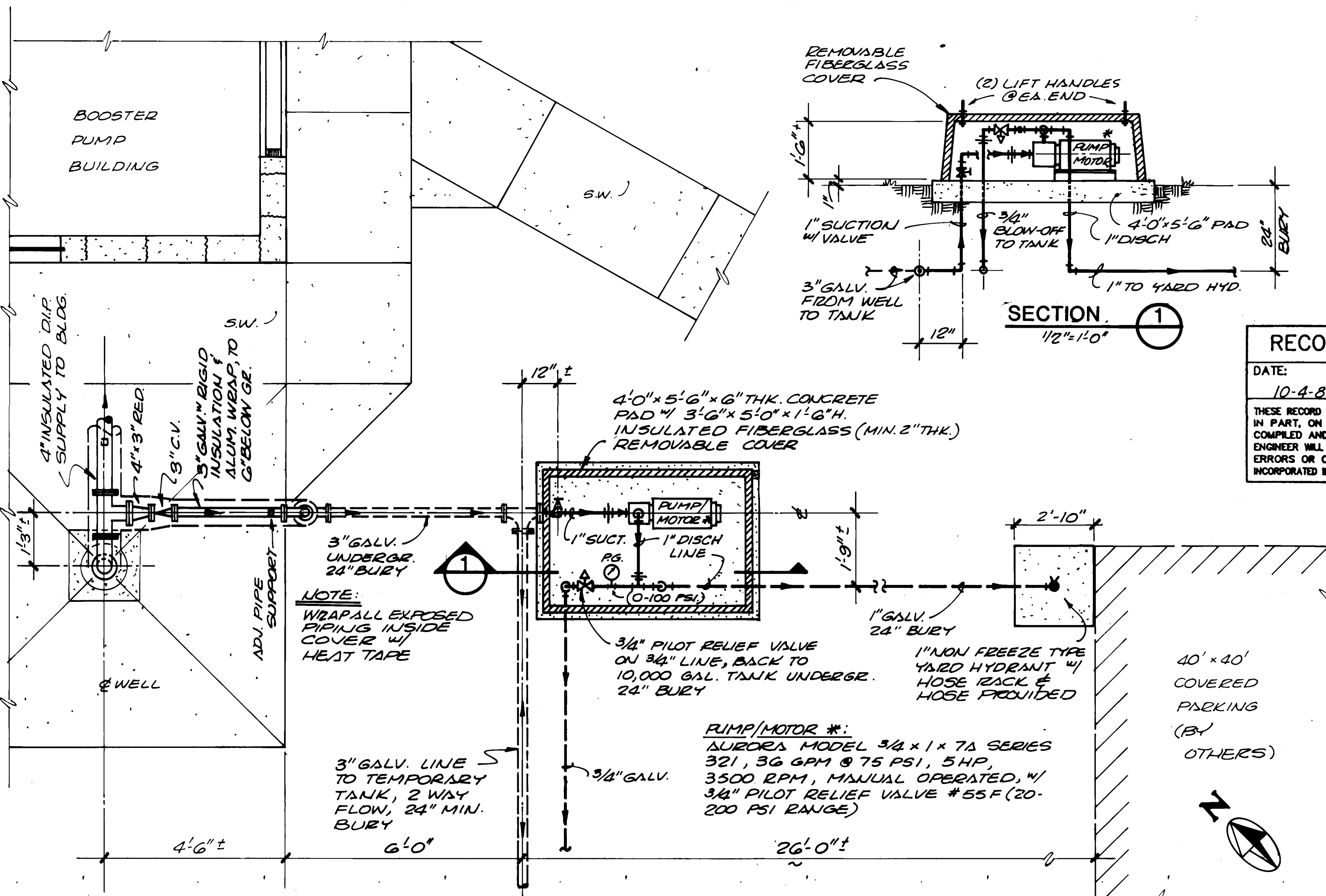
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TEMPORARY TANK & PUMP LAYOUT PLAN

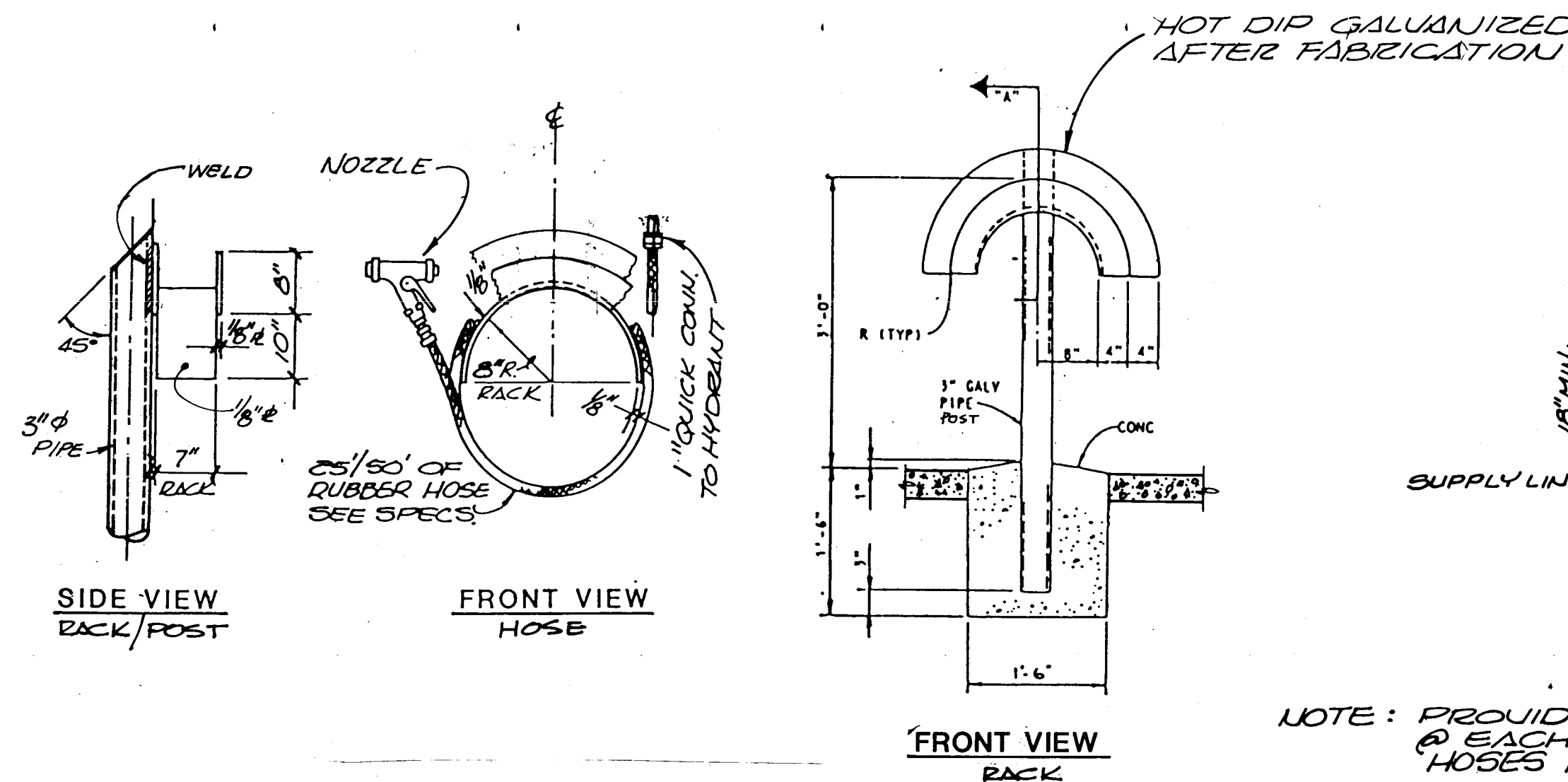
1" = 20'

NOTE: ALL TEMPORARY FACILITIES WILL BE REMOVED BY THE CONTRACTOR ONCE THE PERMANENT STRUCTURES ARE IN PLACE & IN OPERATION. ONLY THE YARD HYDRANT WILL BECOME PART OF THE PERMANENT FACILITY AND SHOULD BE RECONNECTED TO THE NEW 4" LINE.



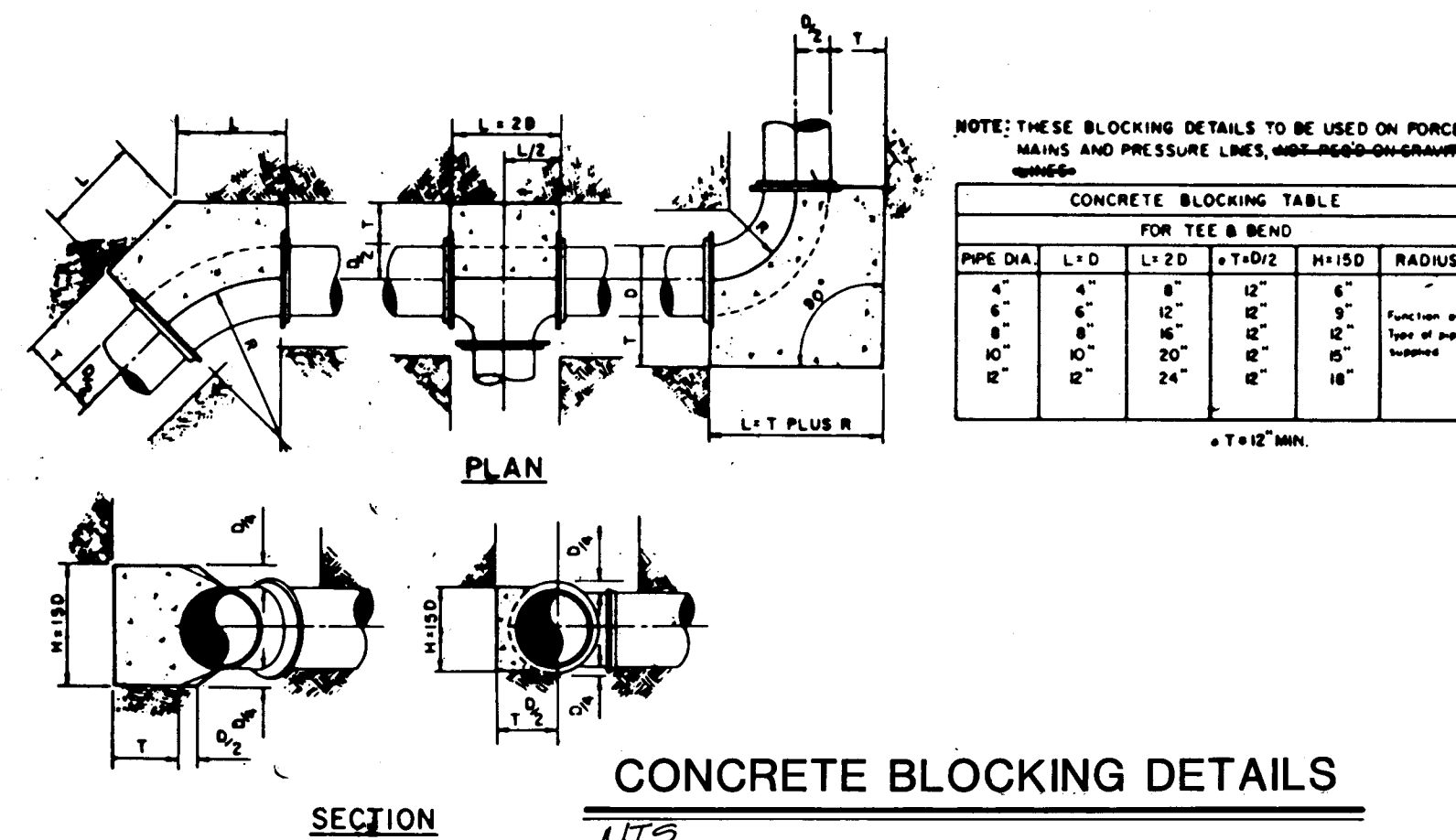
TEMPORARY PUMP & HYDRANT - ENLARGED LAYOUT PLAN

1/2" = 1' 0"



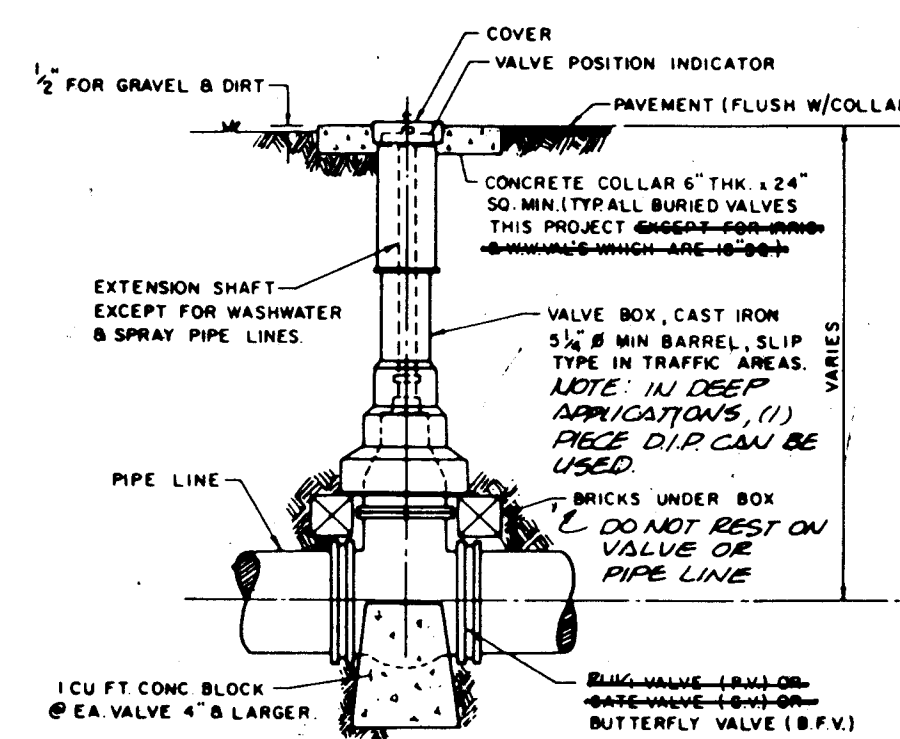
HOSE RACK DETAIL

NTS



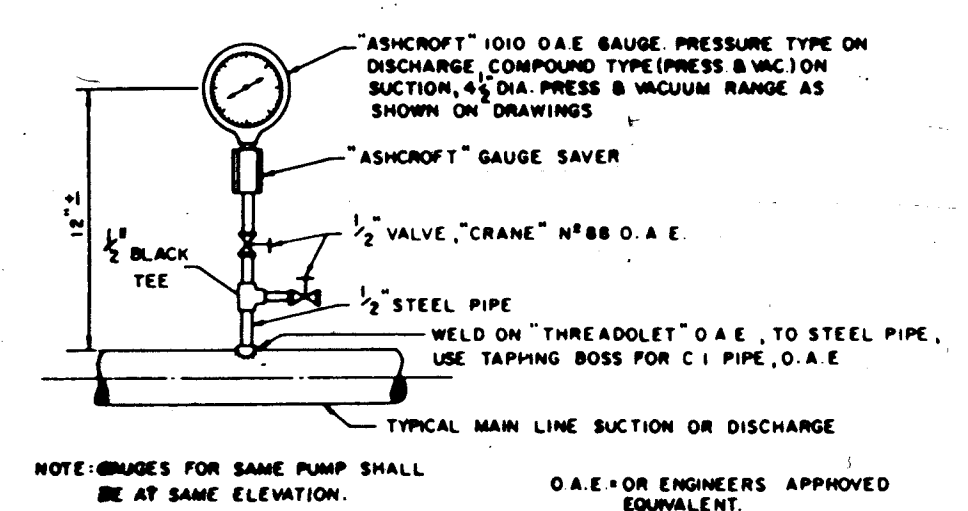
CONCRETE BLOCKING DETAILS

NTS



TYPICAL VALVE & BOX DETAIL

NTS

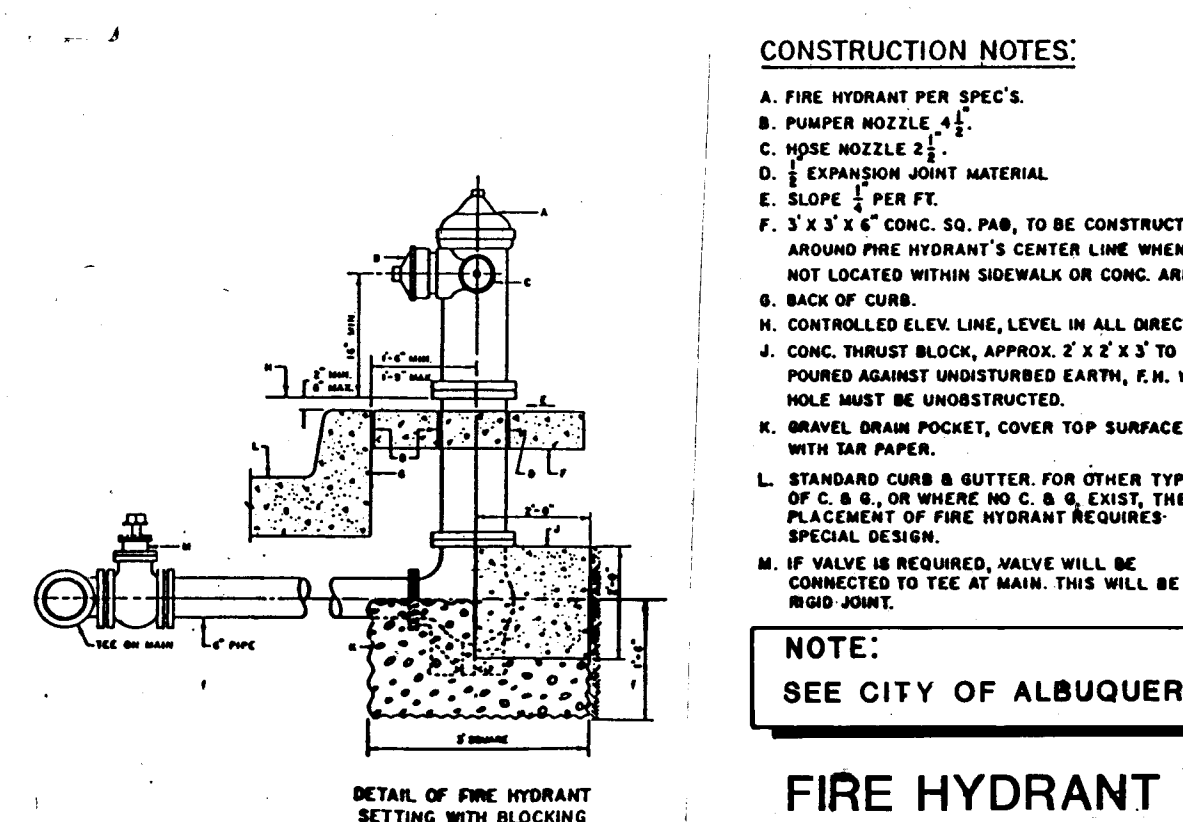


TYPICAL PRESSURE GAUGE DETAIL

NTS

TYPICAL ADJUSTABLE PIPE SUPPORT DETAIL

NTS



FIRE HYDRANT INSTALLATION DETAIL

NTS

CONSTRUCTION NOTES:

- FIRE HYDRANT PER SPEC'S.
- PUMPER NOZZLE 1 1/2\"/>
- HOSE NOZZLE 1 1/2\"/>
- EXPANSION JOINT MATERIAL.
- SLOPE 1/8\"/>
- 3\"/>
- BACK OF CURB.
- CONTROLLED ELEV. LINE, LEVEL IN ALL DIRECTIONS.
- CONC. THURST BLOCK, APPROX. 2' x 2' x 3' TO BE POURED AGAINST UNDISTURBED EARTH, P.H. WEEP HOLE MUST BE UNOBSTRUCTED.
- GRAVEL DRAIN POCKET, COVER TOP SURFACE WITH SAND PAPER.
- STANDARD CURB & GUTTER FOR OTHER TYPES OF C & G, OR WHERE NO C & G EXIST, THE PLACEMENT OF FIRE HYDRANT REQUIRES SPECIAL DESIGN.
- IF VALVE IS REQUIRED, VALVE WILL BE CONNECTED TO TEE AT MAIN. THIS WILL BE A RIGID JOINT.

NOTE: SEE CITY OF ALBUQUERQUE DWG. W-29

GENERAL NOTES:

- NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 5 FT. OF FIRE HYDRANT.
- HYDRANT LEAK MUST BE VALVED FOR MAIN LINE SIZES GREATER THAN 10\"/>
- CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF FIRE HYDRANT TO THE CONTROLLED ELEVATION LINE.
- FIRE HYDRANT SHALL BE LOCATED AT BEGINNING OF CURB RETURN OR AT PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. SEE DWG. W-14 AND W-21.
- WHEN EXISTING SIDEWALK ABUTS CURB, RECONSTRUCT SIDEWALK AS PER DWG. P-14.
- PUMPER NOZZLE TO BE SET FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED ON PLANS.
- SEE DWG. P-14 WHEN FIRE HYDRANT IS LOCATED ON A SIDEWALK.

26 37140589

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	DATE	NO.	DATE	NO.	DATE
STERLING BROTHERS, INC.	3/14/88						
INSPECTOR	DATE	NO.	DATE	NO.	DATE	NO.	DATE
ACCEPTANCE BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE
VERIFICATION BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE
DRAWINGS	DATE	NO.	DATE	NO.	DATE	NO.	DATE
PROJECT	DATE	NO.	DATE	NO.	DATE	NO.	DATE
DRAWING	DATE	NO.	DATE	NO.	DATE	NO.	DATE
PROJECT	DATE	NO.	DATE	NO.	DATE	NO.	DATE
DRAWING	DATE	NO.	DATE	NO.	DATE	NO.	DATE
PROJECT	DATE	NO.	DATE	NO.	DATE	NO.	DATE

REGISTERED PROFESSIONAL ENGINEER
AND LAND SURVEYOR
No. 1809
NEW MEXICO
STATE OF NEW MEXICO

NO.	DATE	REVISIONS	REMARKS

CITY OF ALBUQUERQUE, NEW MEXICO
SOILS AMENDMENT FACILITY
PHASE II B-3, CONTRACT 3

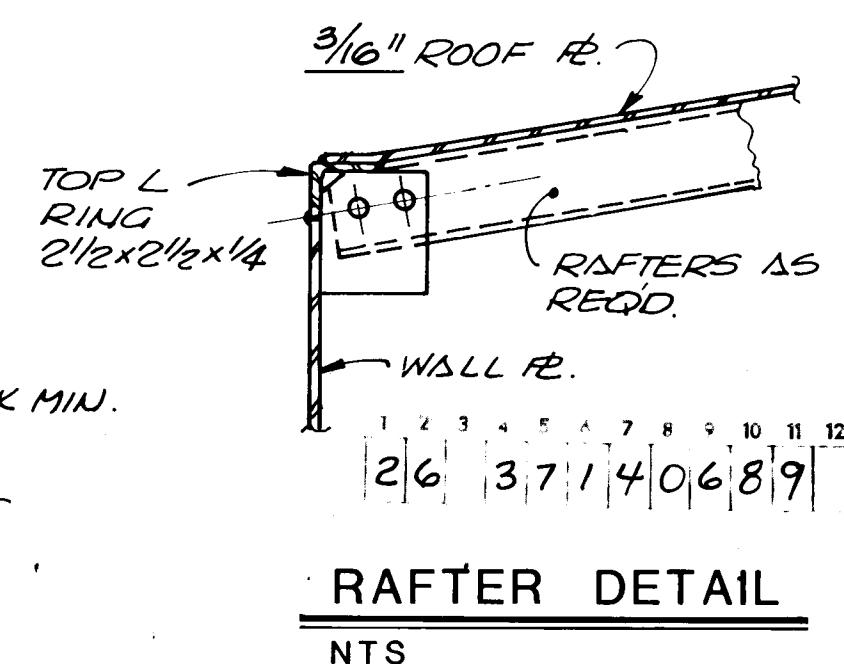
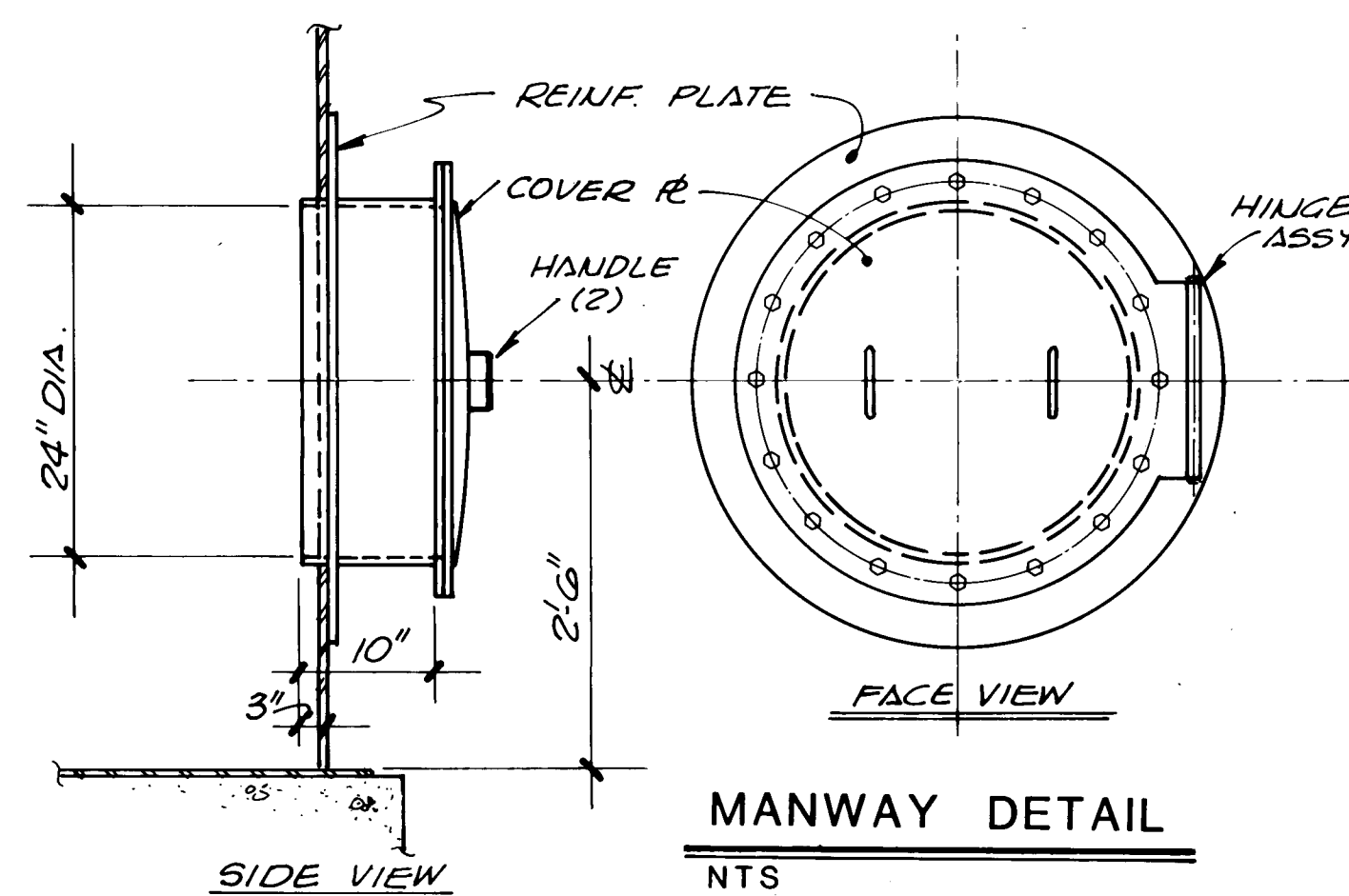
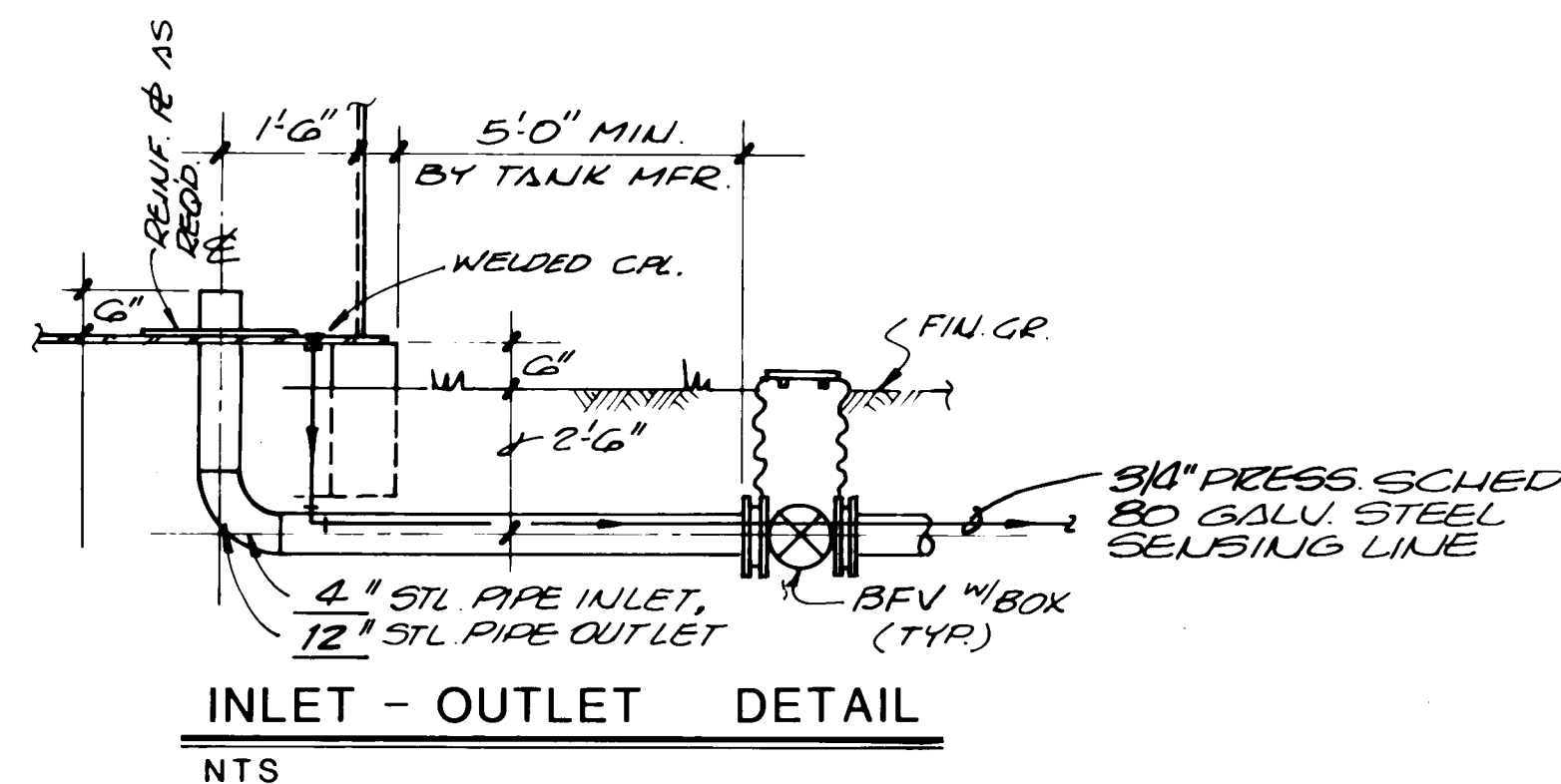
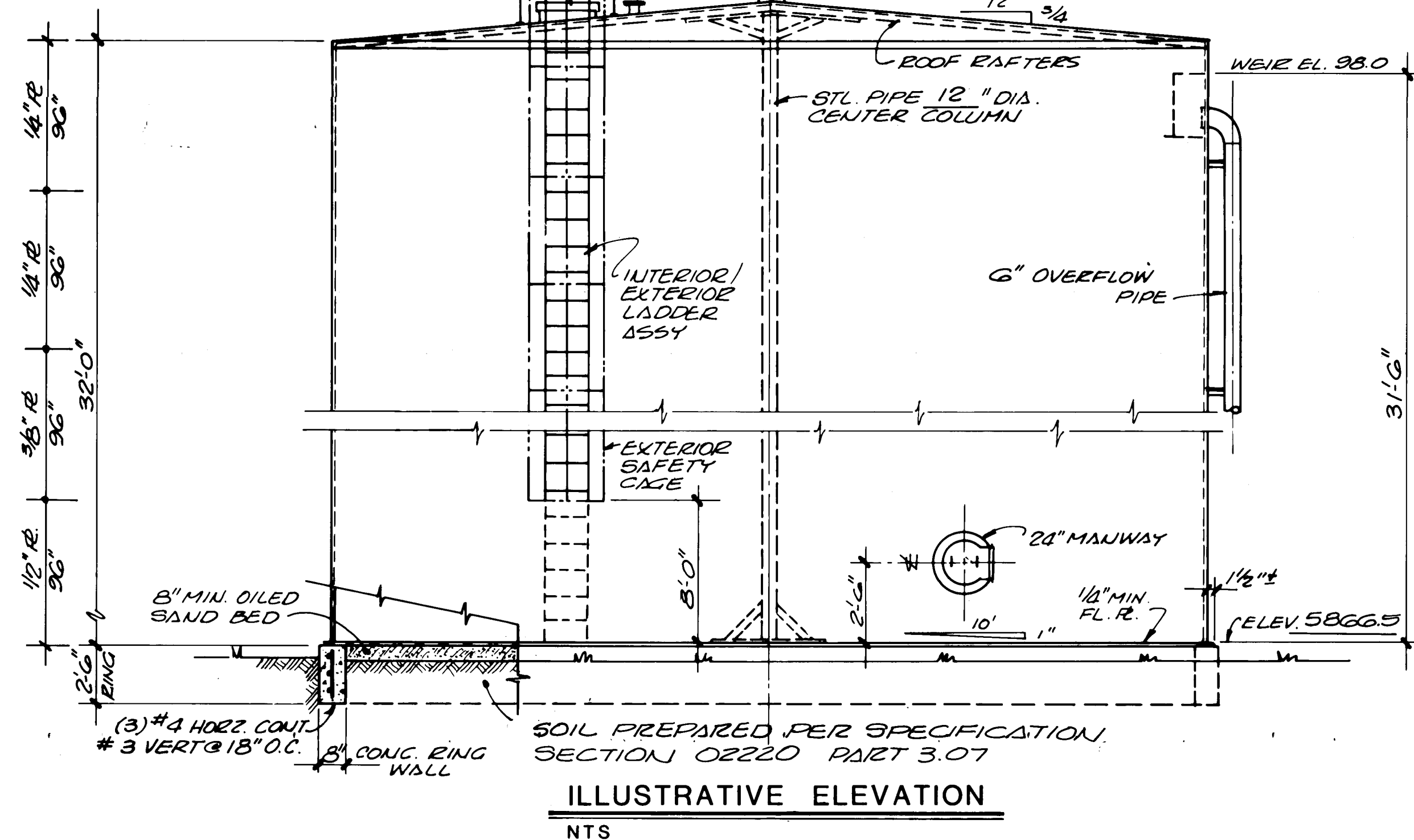
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
LIQUID WASTE DIVISION

TITLE: TEMPORARY WATER TANK & BOOSTER PUMP AND MISCELLANEOUS DETAILS

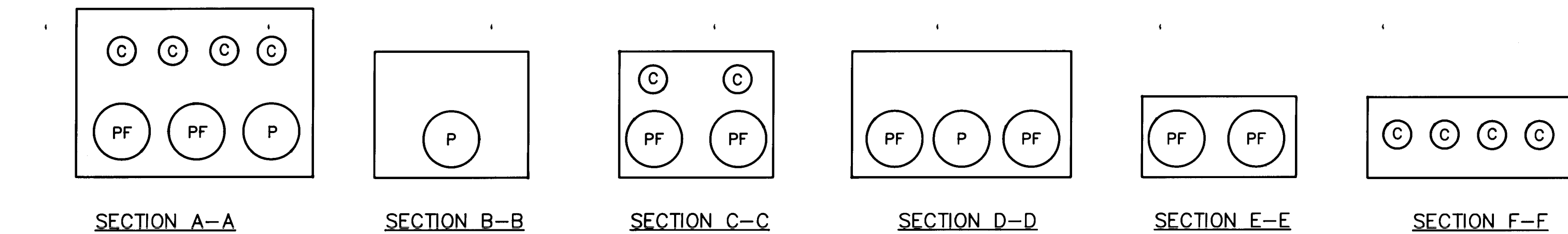
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO. 3714 MAP NO. SHEET OF G-05

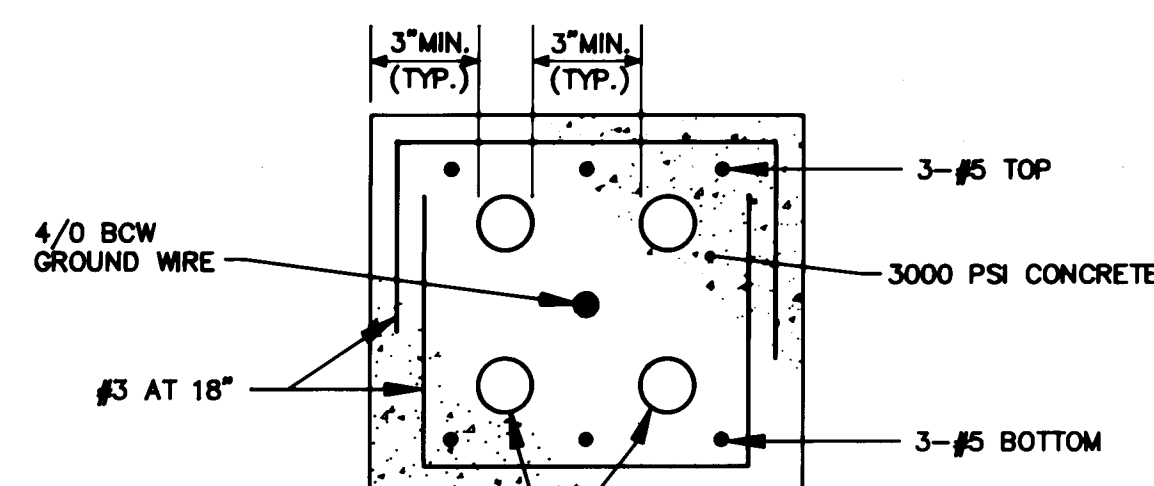
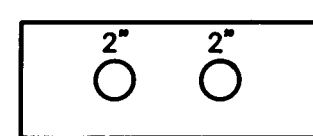


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DATE: 10-4-88	DRAFTED BY: J.A.V.
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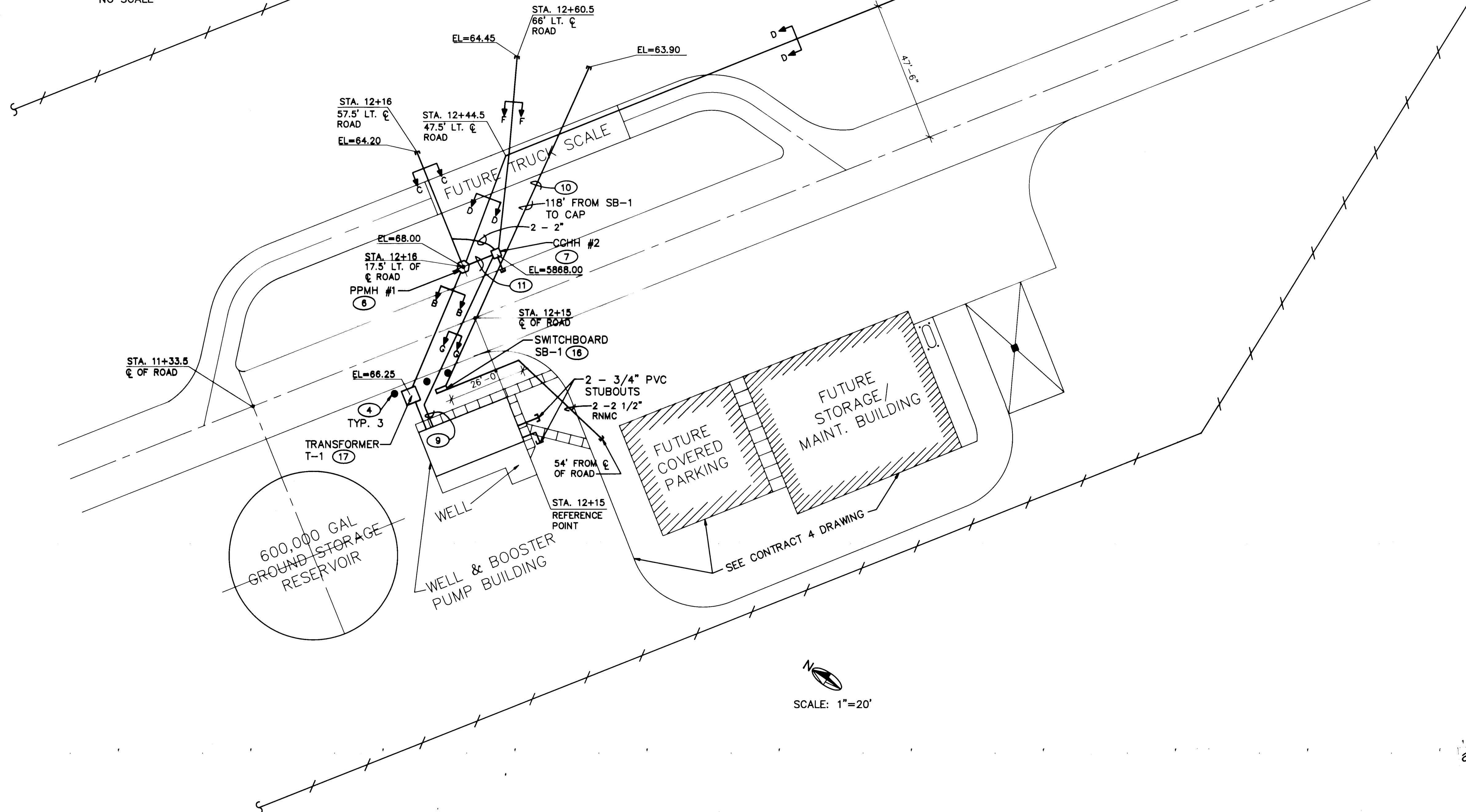


LETTER DESIGNATION	CONDUIT SIZE AND TYPE	TYPE OF CIRCUIT
P	4" PVC	PRIMARY POWER THIS CONTRACT
PF	4" PVC	FUTURE PRIMARY
C	2" RMC	FUTURE COMMUNICATIONS
S	2 1/2" PVC	480V



DUCT BANK DEPTHS
DUCT UNDER ROADS - 30"
DUCT UNDER OTHER AREAS - 24"

DUCT BANK DETAIL
NO SCALE

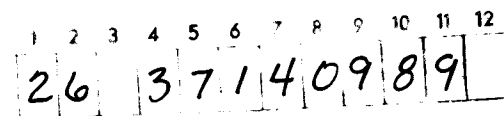


SCALE: 1"=20'

NOTES

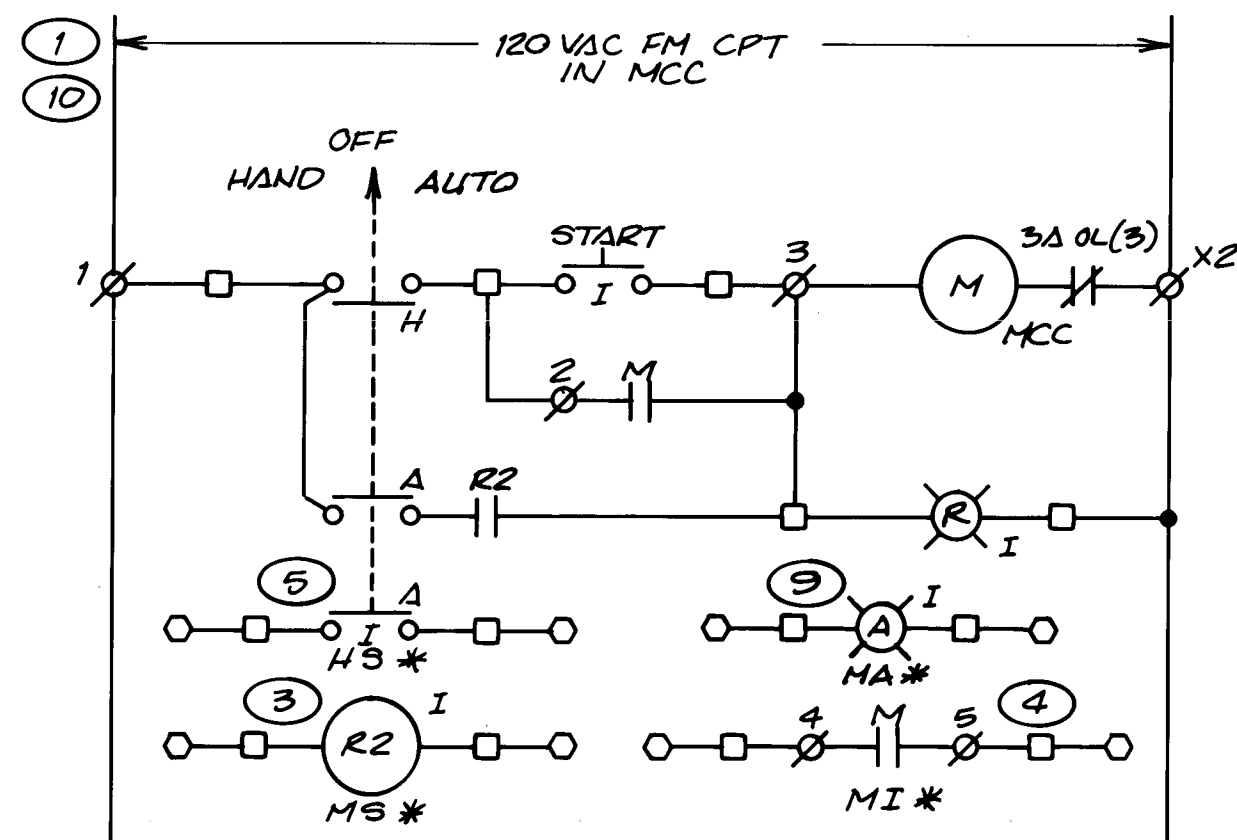
- LAST POWER POLE OF PNM EXTENSION. SHOWN THUS FOR DRAFTING CONVENIENCE, EXACT LOCATION BY PNM.
- CONCRETE PAD FOR PRIMARY METERING CT & PT ENCLOSURE SHALL BE IN ACCORDANCE WITH PNM DRAWING DS-19-79.2.
- CONCRETE PAD FOR SWITCHGEAR 89-1 TO BE IN ACCORDANCE WITH PNM DRAWINGS DS-9-16.0.
- GUARD POST: 3" x 5'-0" STEEL PIPE, CONCRETE FILLED.
- ~~2-2" PVC COATED RIGID CONDUIT. STUB UP TO NEMA 4X BOX BOLTED TO SIDE OF SWITCHGEAR. NOT USED~~
- SEE MANHOLE CONSTRUCTION DETAIL SHEET E-07.
- SEE HANDHOLE CONSTRUCTION DETAIL SHEET E-07. HANDHOLE LOCATION MINIMUM 16" FROM CENTERLINE OF ROAD.
- ~~2-2" PVC COATED RIGID CONDUITS IN DUCT BANK. NOT USED~~
- 2-2" PVC COATED RIGID CONDUITS TO BOX MOUNTED ON INTERIOR WALL OF BOOSTER PUMP BUILDING. VERTICAL CONDUIT RUN TO BE ON INSIDE OF BUILDING.
- 2 1/2" PVC COATED RIGID CONDUIT STUBBED OUT AND CAPPED FROM SB-1.
- 1/2" PVC COATED RIGID CONDUIT FROM PPMH #1 TO CCHH #2 FOR FUTURE CONNECTION OF MANHOLE SUMP ALARM.
- ~~TEMPORARY POWER STAND. SEE ONE-LINE DIAGRAM SHEET E-06. NOT USED~~
- STUBOUT 2-4" PVC CONDUIT FROM SWITCHGEAR TO 80' BEYOND GEAR. INSTALL CONDUIT IN EITHER SPARE FUSE COMPARTMENT AS CLOSE AS POSSIBLE FOR PROPER CONNECTION ALIGNMENT. COORDINATE WITH SPARE CONDUIT FROM DUCT BANK.
- ~~STUBOUT 1-4" PVC CONDUIT TO 5' FROM MANHOLE. NOT USED~~
- ~~STUBOUT 1-2" PVC COATED RIGID CONDUIT FROM MANHOLE TO 5' BEYOND EDGE OF PAVEMENT. NOT USED~~
- MAKE SUPPORT FOR SB1 IN THE FORM OF A WALL THAT SUPPORTS THE CHANNEL BASE OF THE SWITCHBOARD BUT LEAVES MOST OF THE BOTTOM OF THE SWITCHBOARD ABOVE DIRT, NOT CONCRETE. THICKNESS: 12". WIDTH: 8". HEIGHT ABOVE FINISHED GRADE 4". REINFORCE WITH 4-#4 BARS CONTINUOUS AROUND WALL AND 3-#4 RINGS ON EACH SIDE TO SUPPORT THE CONTINUOUS BARS IN A 5" X 5" PATTERN. CONCRETE 3000 PSI.
- TRANSFORMER PAD AS PER PNM DRAWING DS-7-16.7.
- ~~4" PVC RMC CONDUIT STUBBED OUT AND CAPPED FROM SB-1 TO 5' BEYOND EDGE OF PAVEMENT. NOT USED~~
- ~~LEVEL CONTROLS FOR TEMPORARY STORAGE TANK. SEE SECTION 16904. NOT USED~~

AS BUILT INFORMATION		CONTRACTOR: STERLING BROTHERS CONST. INC.		DATE: 3-14-88	
BENCH MARKS		STATIONED BY: ALBUQU. SURVEY		DATE: 3-14-88	
SURVEY INFORMATION		FIELD NOTES		DATE: 3-14-88	
ENGINEER'S SEAL		REVISIONS		DESIGN	
		NO. 1 DATE 5-16-88 BY MCA		DESIGNED BY D.M. GONZALES DATE DEC 1987 DRAWN BY M.J. PELLEGRINO DATE DEC 1987 CHECKED BY S.E. SORENSON DATE DEC 1987	
CITY OF ALBUQUERQUE, NEW MEXICO SOILS AMENDMENT FACILITY PHASE II B-3, CONTRACT 3					
MOLZEN-CORBIN STANLEY CONSULTANTS A JOINT VENTURE					
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION					
TITLE: ELECTRICAL SITE PLAN AND DETAILS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		
DRAWING NO. 3714		MAP NO.		SHEET E-02 OF	



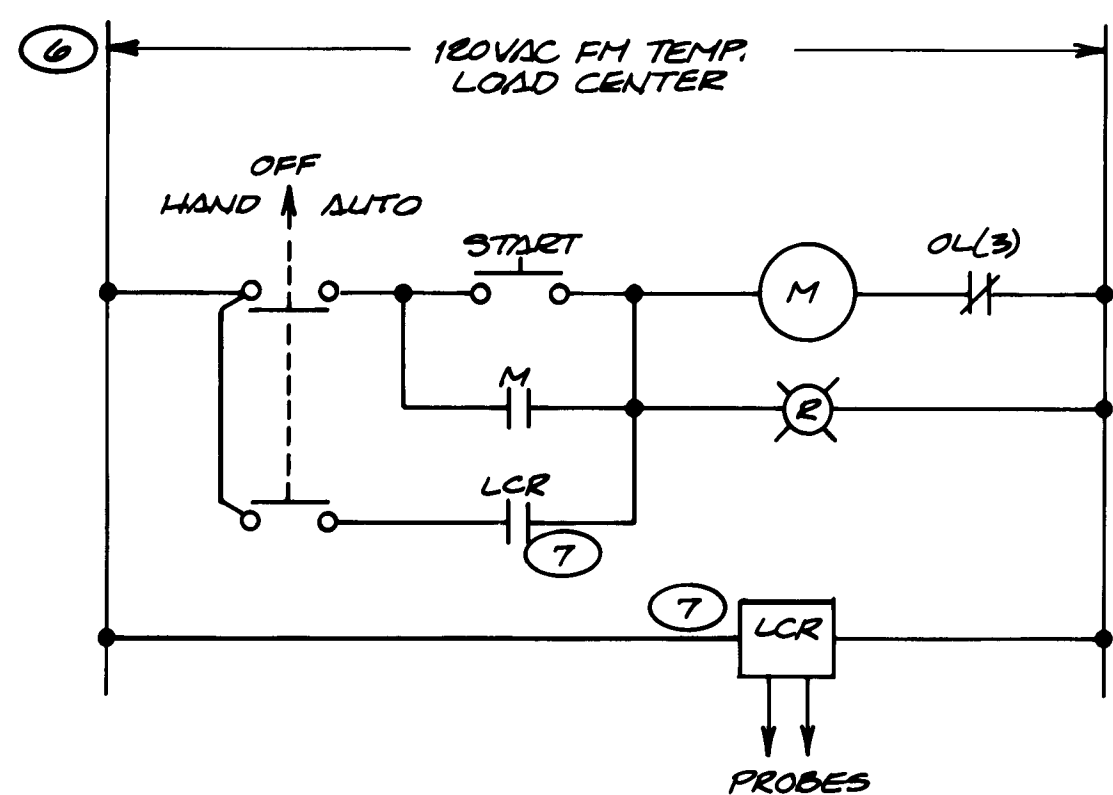
DRAWING NO. 3714	MAP NO.	SHEET OF E-03
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REVISIONS		BY
NO.	DATE	
DESIGN		
DESIGNED BY	D. M. G.	DATE DEC. 1987
DRAWN BY	R. L. A.	DATE DEC. 1987
CHECKED BY	S. E. S.	DATE DEC. 1987

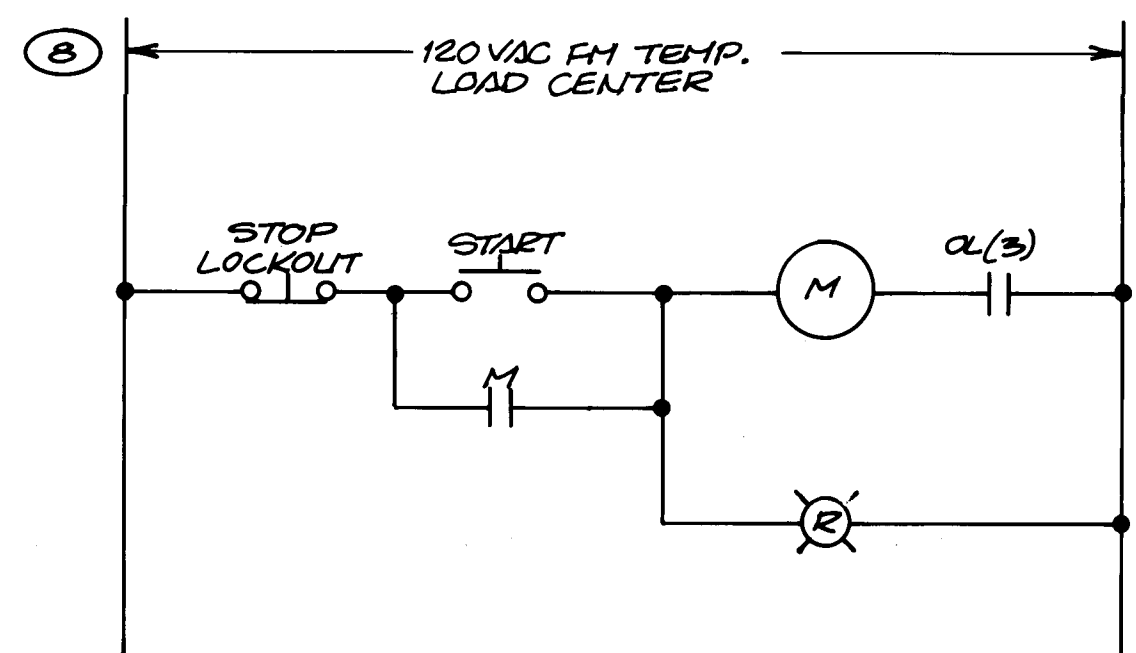


EQUIPMENT	REPLACE * WITH
BOOSTER PUMP # 1	7011
BOOSTER PUMP # 2	7012
BOOSTER PUMP # 3	7013

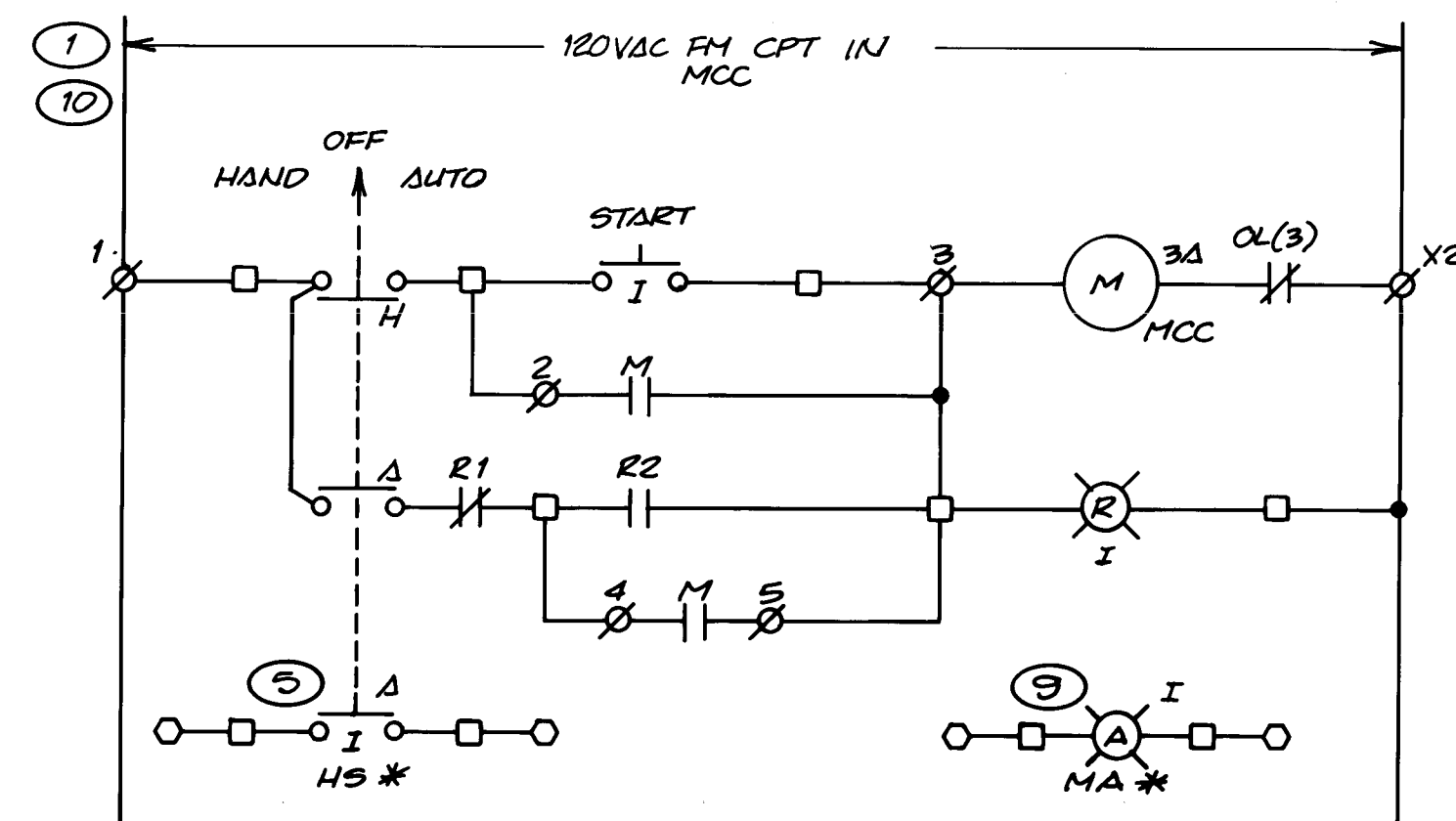
BOOSTER PUMP # 1, 2, & 3



WELL PUMP TEMPORARY SCHEMATIC

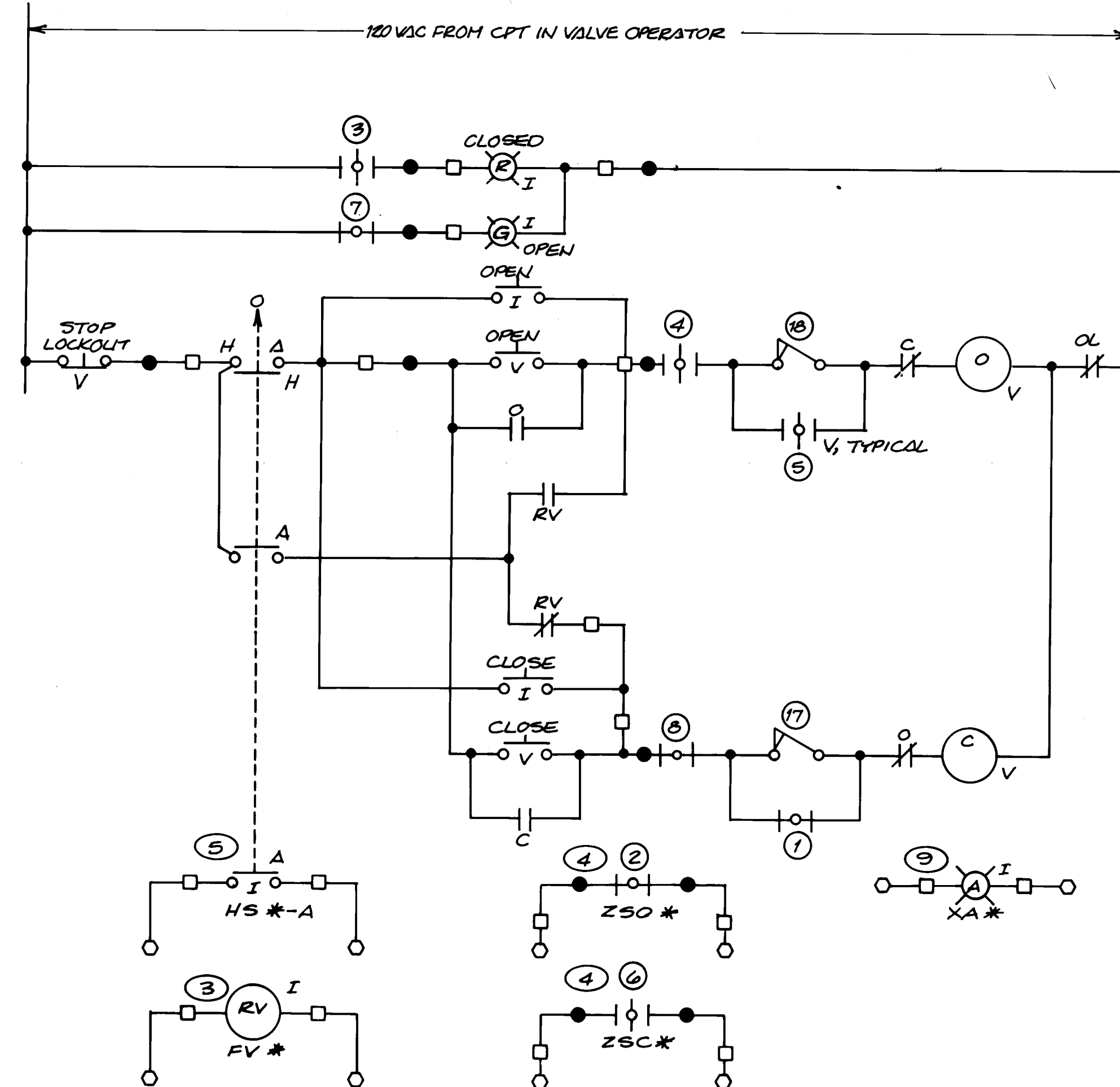


TEMPORARY BOOSTER PUMP



EQUIPMENT	REPLACE * WITH
WELL PUMP	7010
FUTURE FIRE PUMP	7014

WELL PUMP & FUTURE FIRE PUMP



EQUIPMENT	REPLACE * WITH
WELL PUMP DISCH. VALVE	7010

VALVE SHOWN IN FULLY OPEN POSITION			
NO.	CONTACT	LIMIT SWITCH CONTACT DEVELOPMENT	
		VALVE POSITION	FUNCTION
1	1	OP	BYPASS CIR
	2	CL	SPARE
	3	CL	IND LIGHT
	4	CL	OPEN LIMIT
2	5	OP	BYPASS CIR
	6	CL	SPARE
	7	CL	IND LIGHT
	8	CL	CLOSED LIMIT

- ⑪ CLOSING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE.
- ⑫ OPENING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE.
- SWITCH OPEN
 --- SWITCH CLOSED

WELL PUMP DISCHARGE VALVE

NOTES

- SECTION 16480 1.02.C, MCC SUBMITTAL REQUIREMENTS: ALLEN BRADLEY PUBLICATION NO. 2100-2.4.21 OR ENGINEER APPROVED EQUIVALENT.
- CONTROLS FOR FUTURE FIRE PUMP TO BE FURNISHED UNDER THIS CONTRACT.
- 24VDC INTERPOSING RELAYS FOR CONTROL FROM PROGRAMMABLE CONTROLLER. ALLEN BRADLEY 700, TYPE R. FURNISH WITH ALLEN BRADLEY BURGE SUPPRESSOR 700-N10. INSTALL RELAYS IN INTEGRATED CONTROL PANEL.
- MOTOR RUN FEEDBACK OR VALVE POSITION FEEDBACK TO PROGRAMMABLE CONTROLLER.
- HOA SWITCH POSITION FEEDBACK TO PROGRAMMABLE CONTROLLER.
- MOUNT ALL DEVICES IN NEMA 3R ENCLOSURE. SEE DWG E-06.
- TEMPORARY STORAGE RESERVOIR, LEVEL CONTROL RELAY: SECTION 16904.
- MOUNT ALL DEVICES IN NEMA 3R ENCLOSURE. SEE DWG E-06.
- MOTOR OR VALVE FAILURE ALARM OUTPUT FROM PROGRAMMABLE CONTROLLER. ALARM PILOT LAMPS TO BE 24VDC. SECTION 16909.
- PROVIDE ONE SPARE SET OF N.O. AUXILIARY CONTACTS FOR EACH STARTER AND WIRE TO MCC CUBICLE TERMINAL BLOCKS.

AS BUILT INFORMATION					
CONTRACTOR	DATE	DATE	DATE	DATE	DATE
WORK BY	INSPECTED BY	ACCEPTANCE BY	VERIFICATION BY	DATE	DATE
MICRO-FILM INFORMATION					
NO.	DATE	DATE	DATE	DATE	DATE
RECORDED BY					
NO.					

SURVEY INFORMATION		FIELD NOTES	
NO.	DATE	NO.	DATE
BY		BY	
DATE		DATE	

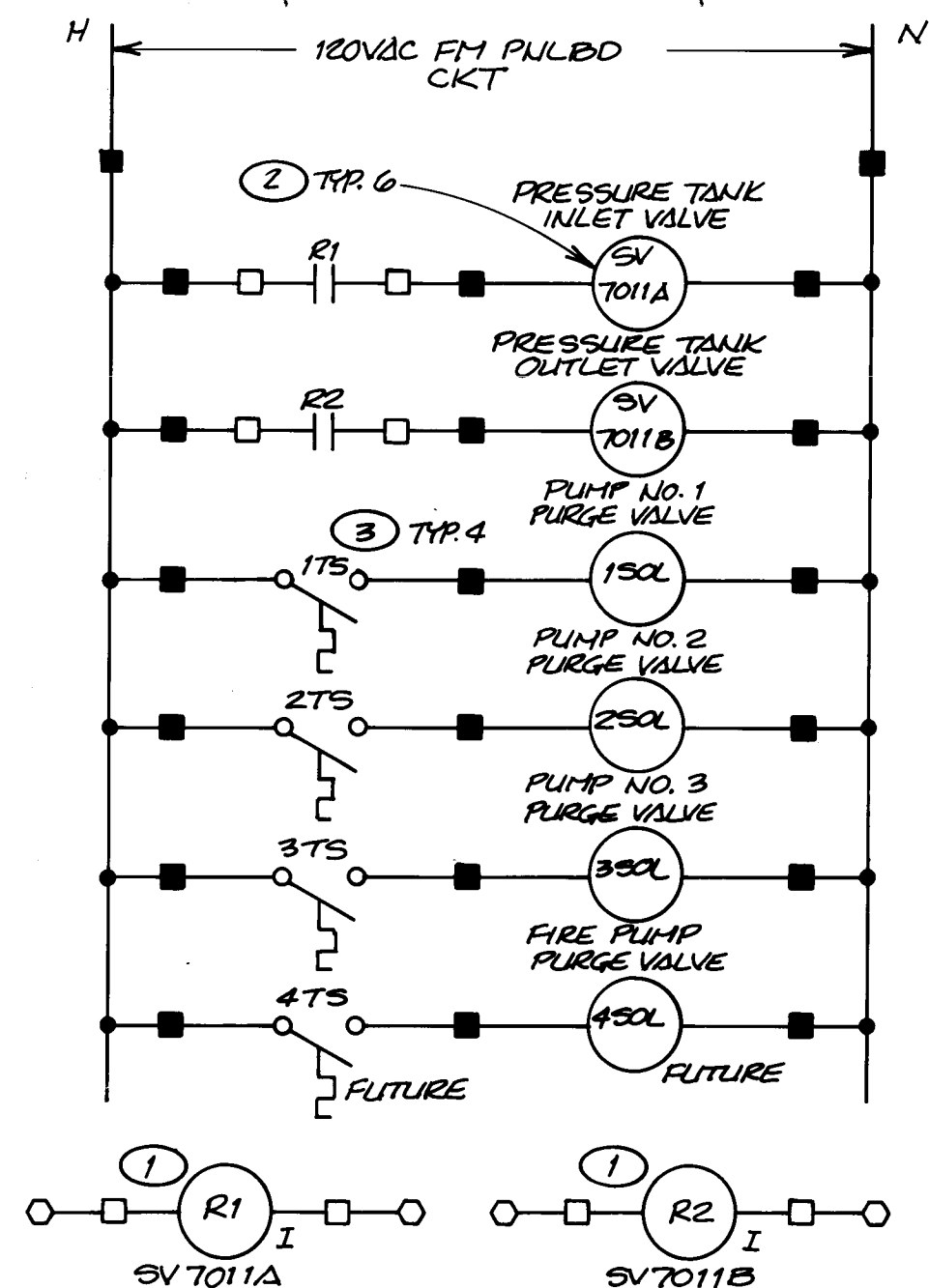
ENGINEER'S SEAL	
NO.	DATE
REMARKS	BY
DESIGN	DATE DEC. 1987
REVISIONS	DATE DEC. 1987
CHECKED BY	DATE DEC. 1987

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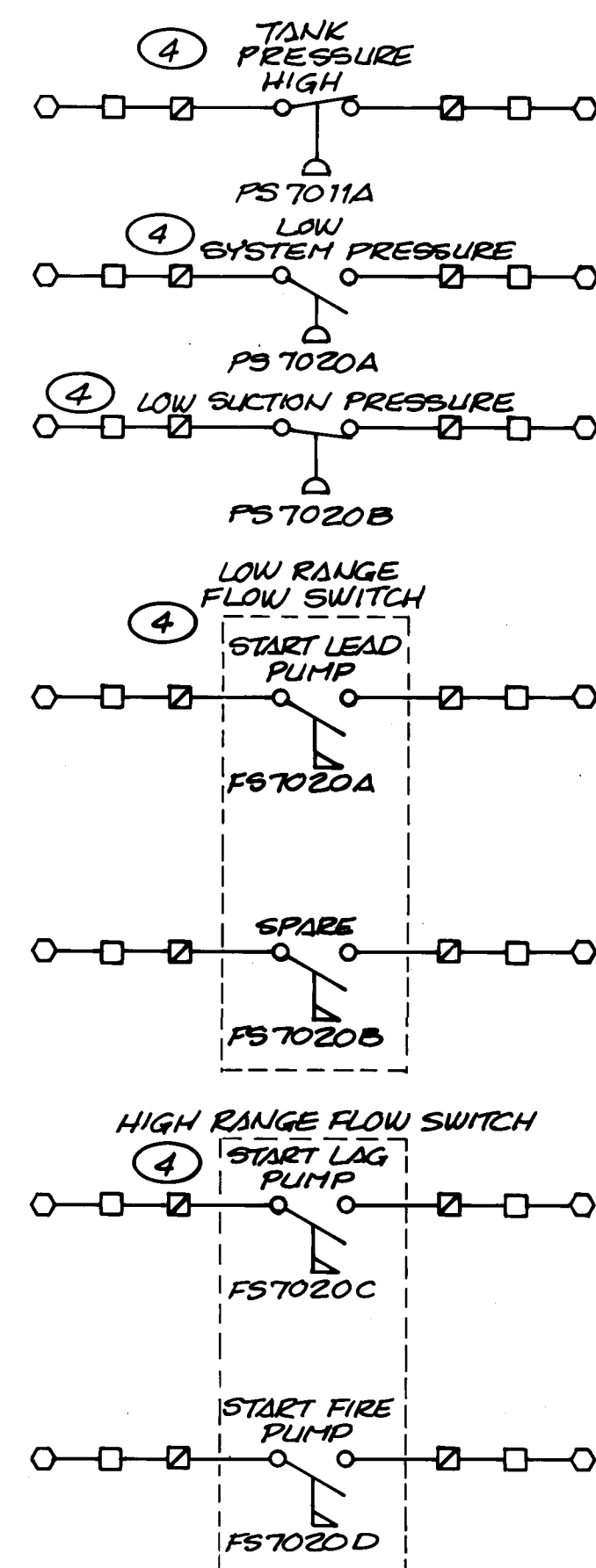
CITY OF ALBUQUERQUE, NEW MEXICO	
SOILS AMENDMENT FACILITY	
PHASE II B-3, CONTRACT 3	
A JOINT VENTURE	

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION					
TITLE: SCHEMATICS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		
DRAWING NO. 3714		MAP NO.		SHEET OF E-04	

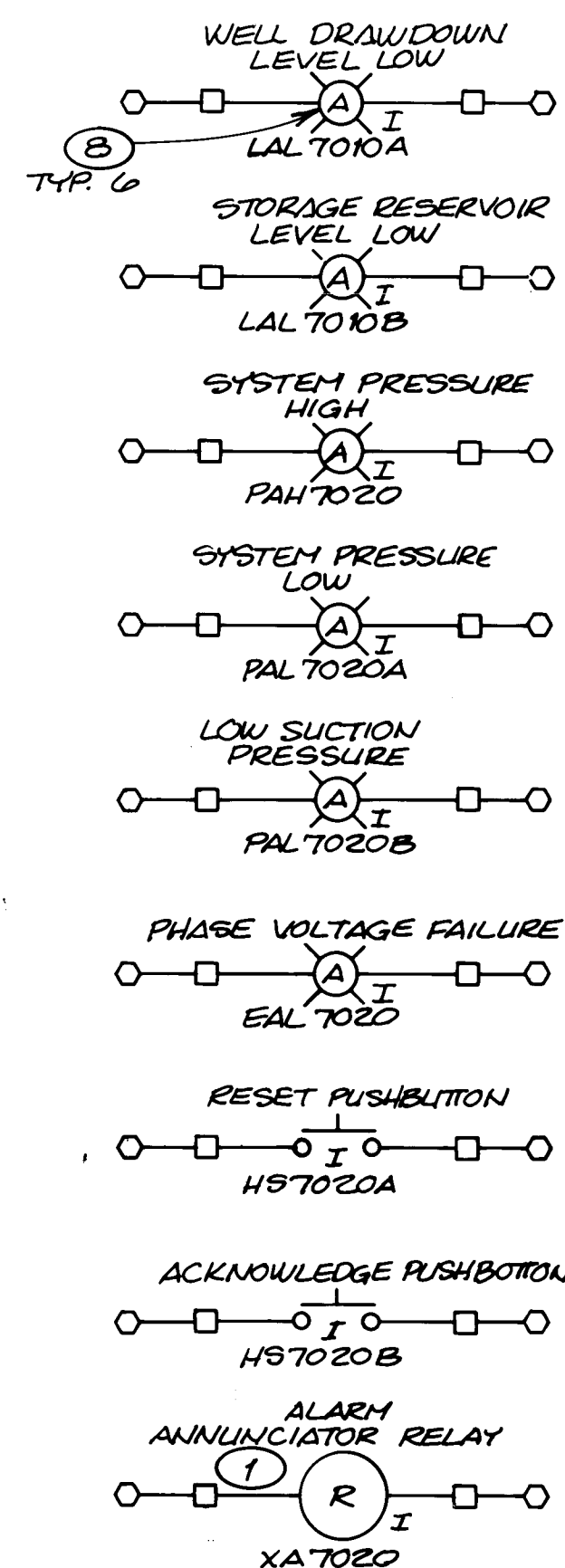
26 3714 089



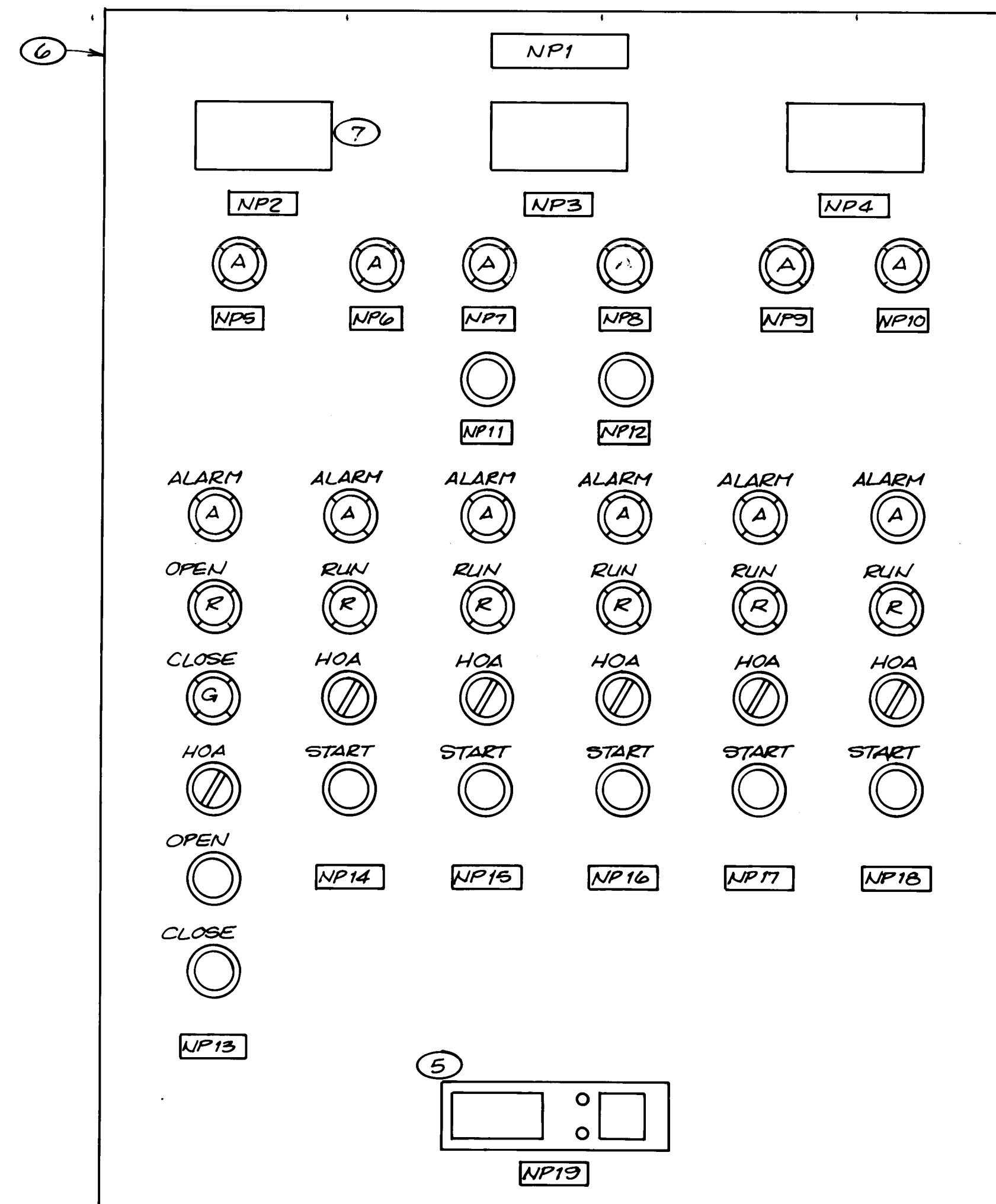
**BOOSTER PUMP SKID
SOLENOID VALVE CONTROLS**



**SKID MOUNTED
PROCESS CONTROL DEVICES**



**INTEGRATED CONTROL
PANEL STATION ALARMS**



INTEGRATED CONTROL PANEL

LEGEND	
	SELECTOR SWITCH
	PUSHBUTTON
	INDICATOR LAMP X - DENOTES COLOR A - AMBER G - GREEN R - RED

NAMEPLATE	ENGRAVING
NP1	WELL AND BOOSTER PUMP CONTROL PANEL
NP2	WELL DRAWDOWN LEVEL, L1 7010A
NP3	STORAGE RESERVOIR LEVEL, L1 7010B
NP4	SYSTEM DISCHARGE PRESSURE PI 7020
NP5	PHASE VOLTAGE FAILURE, ES 7020
NP6	WELL DRAWDOWN LEVEL LOW, LAL 7010A
NP7	STORAGE RESERVOIR LEVEL LOW, LAL 7010B
NP8	LOW SUCTION PRESSURE, PAL 7020B
NP9	SYSTEM PRESSURE HIGH, PAH 7020
NP10	SYSTEM PRESSURE LOW, PAL 7020A
NP11	ALARM RESET, HS 7020A
NP12	ALARM ACKNOWLEDGE, HS 7020B
NP13	WELL PUMP DISCHARGE VALVE
NP14	WELL PUMP
NP15	BOOSTER PUMP NO. 1
NP16	BOOSTER PUMP NO. 2
NP17	BOOSTER PUMP NO. 3
NP18	FIRE PUMP
NP19	WELL FLOW INDICATOR/TOTALIZER

TAG NUMBER	DESCRIPTION	PC I/O	ZERO	RANGE	SPAN	UNITS
FV 7010	WELL PUMP DISCHARGE VALVE	DO	CLOSE	OPEN		
HS 7010	WELL PUMP HOA SWITCH	DI	HAND	AUTO		
HS 7010A	WELL PMP DISCH VALVE HOA	DI	HAND	AUTO		
LAL 7010A	WELL DRAWDOWN LEVEL LOW	DO	OFF	ALARM		
LAL 7010B	STORAGE RESERVOIR LEVEL LOW	DO	OFF	ALARM		
LI 7010A	WELL LEVEL PANEL INDICATOR					
LI 7010B	RESERVOIR LEVEL PANEL INDICATOR					
LT 7010A	WELL LEVEL TRANSMITTER	AI	0	32		FEET
LT 7010B	STORAGE RESERVOIR LVL TRANSMITTER	AI	0	32		FEET
M 7010	WELL PUMP MOTOR					
MA 7010	WELL PUMP MOTOR FAILURE ALARM	DO	OFF	ALARM		
MI 7010	WELL PUMP RUN FEEDBACK	DI	OFF	RUNNING		
MSR 7010	WELL PUMP MOTOR START	DO	OFF	START		
MSS 7010	WELL PUMP MOTOR STOP	DO	OFF	STOP		
XA 7010	WELL PUMP DISCH VLV POSITION ALARM	DI	OFF	ALARM		
ZSC 7010	WELL PUMP DISCH VLV CLOSED SWITCH	DI	NTCLOSED	CLOSED		
ZSO 7010	WELL PUMP DISCH VLV OPEN SWITCH	DI	NTOPENED	OPENED		
HS 7011	BOOSTER PUMP NO.1 HOA SWITCH	DI	HAND	AUTO		
M 7011	BOOSTER PUMP NO.1 MOTOR					
MA 7011	BOOSTER PUMP NO.1 MOTOR FAILURE	DO	OFF	ALARM		
MI 7011	BOOSTER PUMP NO.1 RUN FEEDBACK	DI	OFF	RUNNING		
MS 7011	BOOSTER PUMP NO.1 START/STOP	DI	STOP	START		
PS 7011A	TANK PRESSURE HIGH	DI	NTHIGH	HIGH		
SV 7011A	PRESSURE TANK INLET VALVE	DO	CLOSED	OPEN		
SV 7011B	PRESSURE TANK OUTLET VALVE	DO	CLOSED	OPEN		
HS 7012	BOOSTER PUMP NO.2 HOA SWITCH	DI	HAND	AUTO		
M 7012	BOOSTER PUMP NO.2 MOTOR					
MA 7012	BOOSTER PUMP NO.2 MOTOR FAILURE	DO	OFF	ALARM		
MI 7012	BOOSTER PUMP NO.2 RUN FEEDBACK	DI	OFF	RUNNING		
MS 7012	BOOSTER PUMP NO.2 START/STOP	DI	STOP	START		
HS 7013	BOOSTER PUMP NO.3 HOA SWITCH	DI	HAND	AUTO		
M 7013	BOOSTER PUMP NO.3 MOTOR					
MA 7013	BOOSTER PUMP NO.3 MOTOR FAILURE	DO	OFF	ALARM		
MI 7013	BOOSTER PUMP NO.3 RUN FEEDBACK	DI	OFF	RUNNING		
MS 7013	BOOSTER PUMP NO.3 START/STOP	DI	STOP	START		
HS 7014	FIRE PUMP HOA SWITCH	DI	HAND	AUTO		
M 7014	FIRE PUMP MOTOR					
MA 7014	FIRE PUMP MOTOR FAILURE	DO	OFF	ALARM		
MI 7014	FIRE PUMP RUN FEEDBACK	DI	OFF	RUNNING		
MSR 7014	FIRE PUMP START	DO	OFF	START		
MSS 7014	FIRE PUMP STOP	DO	OFF	STOP		
ES 7020	PHASE FAILURE ALARM	DO	OFF	ALARM		
FS 7020A	MCC VOLTAGE FAILURE RELAY	DI	NORMAL	FAILURE		
FS 7020B	SYSTEM FLOW SWITCH, START LEAD PUMP	DI	STOP	START		
FS 7020C	SYSTEM FLOW SWITCH, SPARE	DI	STOP	START		
FS 7020D	SYSTEM FLOW SWITCH, START LAG PUMP	DI	STOP	START		
HS 7020A	CONTROL PANEL ALARM RESET	DI	OFF	ACKNOWLEDGE		
HS 7020B	CONTROL PANEL ALARM ACKNOWLEDGE	DI	OFF	ALARM		
PAH 7020	SYSTEM PRESSURE HIGH	DI	OFF	ALARM		
PAL 7020A	SYSTEM PRESSURE LOW	DI	OFF	ALARM		
PAL 7020B	LOW SUCTION PRESSURE	DI	OFF	ALARM		
PI 7020	SYSTEM PRESSURE PANEL INDICATOR		0	200		PSIG
PS 7020A	LOW SYTEM PRESSURE SWITCH	DI	NTLOW	LOW		
PS 7020B	LOW SUCTION PRESSURE SWITCH	DI	NTLOW	LOW		
PT 7020	SYSTEM PRESSURE TRANSMITTER	AI	0	200		PSIG
XA 7020	ALARM ANNUNCIATOR	DO	OFF	ON		

INSTRUMENT TAG LIST

NOTES

- 24VDC INTERPOSING RELAYS FOR CONTROL FROM PROGRAMMABLE CONTROLLER. ALLEN BRADLEY 700, TYPE R. FURNISH WITH ALLEN BRADLEY SURGE SUPPRESSOR 700-N10. INSTALL RELAYS IN INTEGRATED CONTROL PANEL.
- NORMALLY CLOSED SOLENOID VALVES: ASCO 8210 SERIES OR EQUAL TO BE FURNISHED, FACTORY INSTALLED, AND FACTORY WIRED BY PACKAGE BOOSTER PUMP SUPPLIER. SEE SECTION 11213. SOLENOID VALVES NOT CONTROLLED FROM PC ARE NOT SHOWN ELSEWHERE ON DRAWINGS.
- THERMAL SWITCH: ROBERT SHAW AT-20-4001RS OR EQUAL TO BE FURNISHED, FACTORY INSTALLED, AND FACTORY WIRED BY PACKAGE BOOSTER PUMP SUPPLIER. SEE SECTION 11213. NOT SHOWN ELSEWHERE ON DRAWINGS.
- PROCESS CONTROL DEVICES TO BE FURNISHED WITH PACKAGE BOOSTER PUMP SYSTEM AND TO BE FACTORY WIRED TO SKID MOUNTED DC TERMINATION ENCLOSURE.
- WELL FLOW INDICATOR/TOTALIZER. SECTION 02713.
- ICP; SECTION 16981, ENCLOSURE 48"H x 36"W x 16"D HOFFMAN A-483616LP OR ENGINEER APPROVED EQUIVALENT.
- CONNECT PANEL METER IN SERIES WITH RESPECTIVE ANALOG LOOP.
- 24VDC PILOT LAMPS USED FOR ALARM OUTPUTS FROM PC. SECTION 16909.

RECORD DRAWING

DATE: 10/88 DRAFTED BY: MCA

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.



CITY OF ALBUQUERQUE, NEW MEXICO
SOILS AMENDMENT FACILITY
PHASE II B-3, CONTRACT 3



MOLZEN-CORBIN
STANLEY CONSULTANTS

A JOINT VENTURE

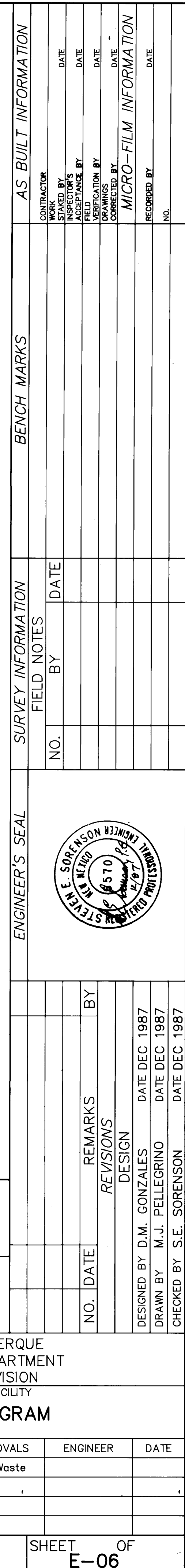
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

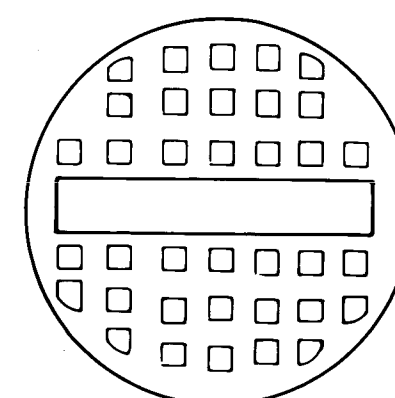
TITLE: SCHEMATICS AND DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO. 3714 MAP NO. SHEET E-05 OF

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	BY	NO.	BY	NO.	BY
INSPECTOR'S	DATE						
ACCEPTANCE BY	DATE						
VERIFICATION BY	DATE						
COMPLETED BY	DATE						
RECORDED BY	DATE						
NO.							

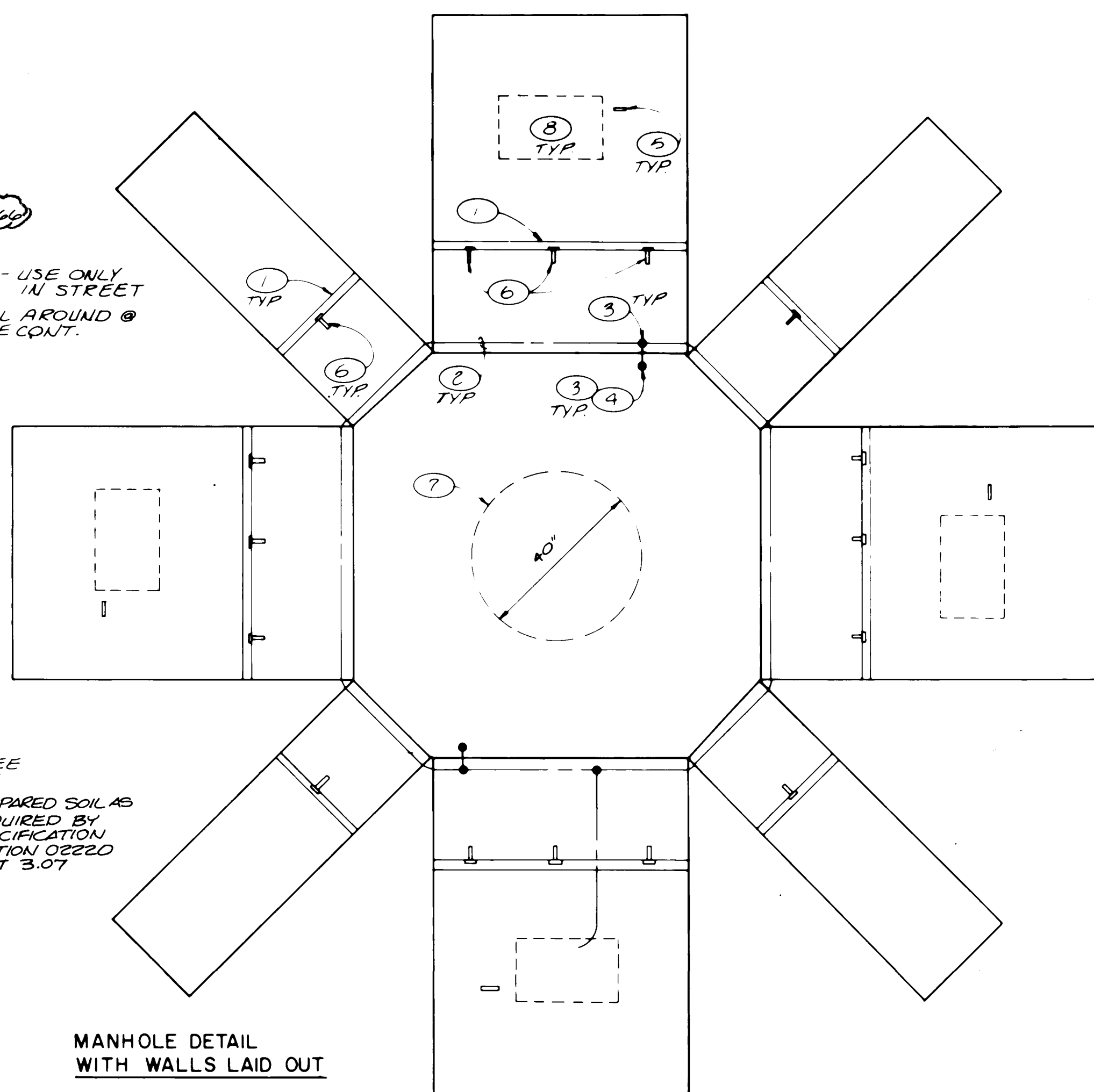




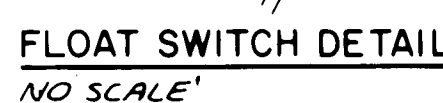
LID DETAIL
NO SCALE

1. CABLE TRAY TO BE MOUNTED AT LEAST 2' ABOVE FLOOR LEVEL.
2. CONCRETE ENCASUREMENT SHALL BE RED DYE-3000 PSI.
3. PROVIDE ALL COUPLING ADAPTERS, FITTINGS, ELBOWS, SOLVENT, CEMENT, BENDERS, BUSHINGS, BELT ENDS, SPACERS, DUCT PLUGS, TAPE AND MISC. MATERIAL. INSTALL SYSTEM WITH PROPER SPACERS AS PER RECOMMENDED BY MANUFACTURER.
4. PROVIDE ALL BOLTS, WASHERS, WALL ANCHORS, AND MISC. MATERIAL. FOR MOUNTING CABLE TRAY TO WALL AS PER MANUFACTURERS RECOMMENDATIONS.

- ① HUSKY/BURNY ALUM. VENTRIB CABLE TRAY TYPE AM OR EQUAL.
- ② 1-#3/0 BARE COPPER GROUND WIRE AROUND INSIDE MANHOLE WALL 2" ABOVE FLOOR. CONNECT TO GROUND ROD 4.
- ③ HDEWP CONNECTION.
- ④ 5/8" X 10'-0" COPPERWELD GROUND ROD WITH TOP 3" ABOVE MANHOLE FLOOR.
- ⑤ PULLING IRON, SEE DETAIL THIS SHEET.
- ⑥ HUSKY/BURNDY WALL BRACKET SUPPORT, CAT. NO. WBK 12L OR EQUAL.
- ⑦ OUTLINE OF MANHOLE OPENING. FRAME AND COVER TO BE NEENAH FOUNDRY CAT. NO. R-1640 D OR EQUAL.
- ⑧ DUCT BANKS AS CALLED FOR IN DRAWINGS. SHOWN THIS SHEET IN SECTION ADJUST POSITION TO MATCH MANHOLE SCHEDULE.
- ⑨ FLYGT SUBMERSIBLE WATERTIGHT SWITCH.
- ⑩ SUMP PUMP COVER AND FRAME TO BE NEENAH R-4390-21 OR EQUAL.
- ⑪ PREPARE SOIL AS REQUIRED BY SPECIFICATION SECTION 02220, PART 3.07

[illegible]

HAND HOLE COVER
 NEEHAH
 CAT # R-6668-P7
 INSULATED THROAT
 GROUNDING BUSHING
 GRADE
 1'-6" MIN.
 CONDUIT (TYP)
 #4 @ 12 (TYP)
 2'-0" MIN.
 2'-0" MIN.
 6"
 SECTION A-A
 GRANULAR FILL
 3" BOND WIRE, BOND
 ALL METALLIC CONDUIT. BOND
 2" REINFORCING ROD- CONNECT
 TO DUCT GROUND.



TOP VIEW-BOTTOM SLAB
SCALE 1/2" = 1'-0"

RECORD DRAWING	
DATE: 10/88	DRAFTED BY: MCA
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The top section of the slide features the City of Albuquerque logo on the left, which includes a stylized sun and the text "ALBUQUERQUE NEW MEXICO". To the right of the logo, the text "CITY OF ALBUQUERQUE, NEW MEXICO" is written in a smaller font. Below this, the project name "SOILS AMENDMENT FACILITY" is displayed in large, bold, black capital letters. Underneath the project name, "PHASE II B-3, CONTRACT 3" is written in a smaller, bold, black font.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE:	MISCELLANEOUS DETAILS
--------	-----------------------

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.–Design			Traffic		
A.C.E.–Hydrology			Water		

DRAWING NO. 3714	MAP NO.	SHEET E-07 OF
---------------------	---------	---------------

AS BUILT INFORMATION	
CONTRACTOR	
MADE BY	DATE
SPECTOR'S	
ESTIMATE BY	DATE
ED	
PERIGATION BY	DATE
RAMS	
DIRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE

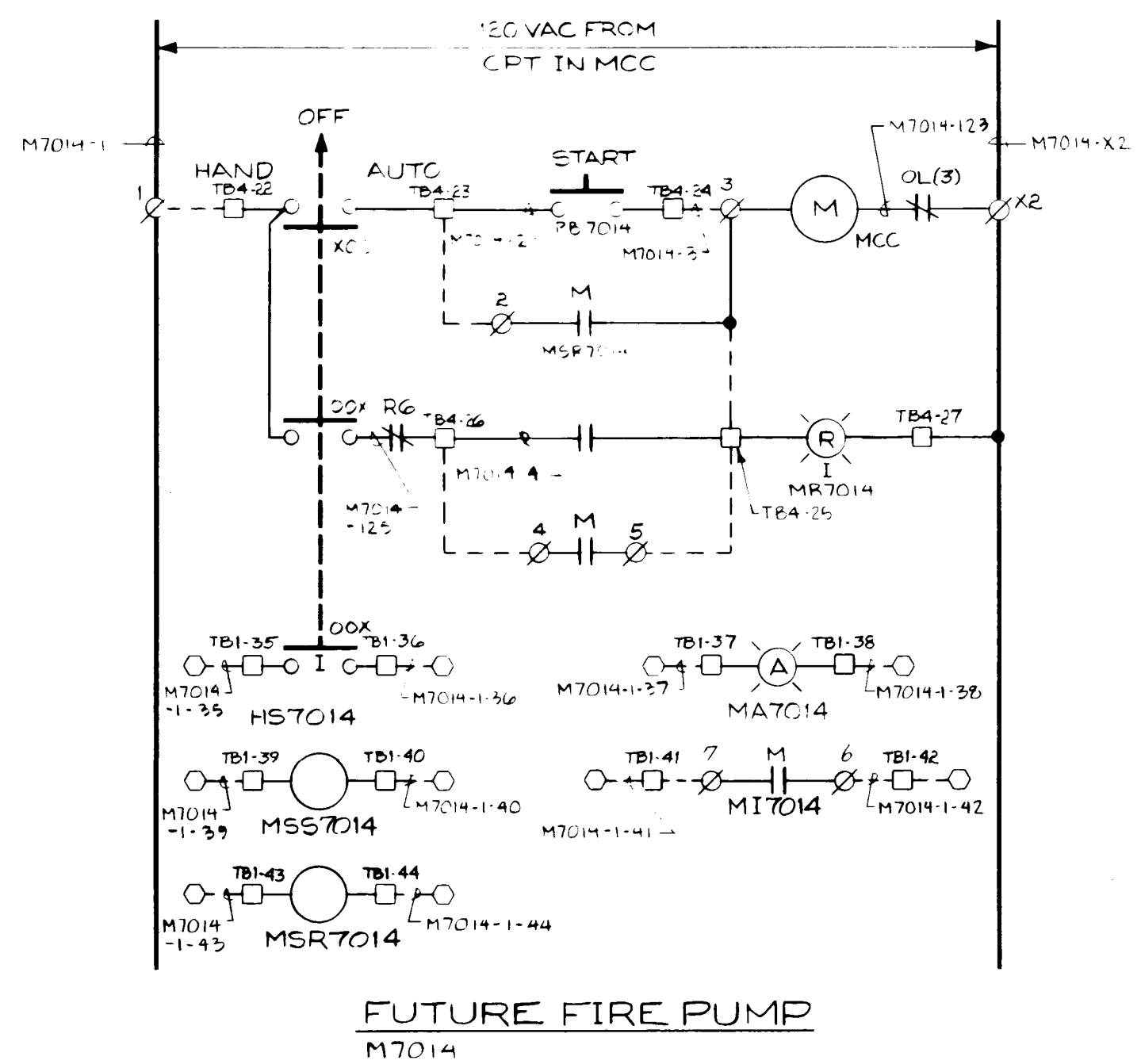
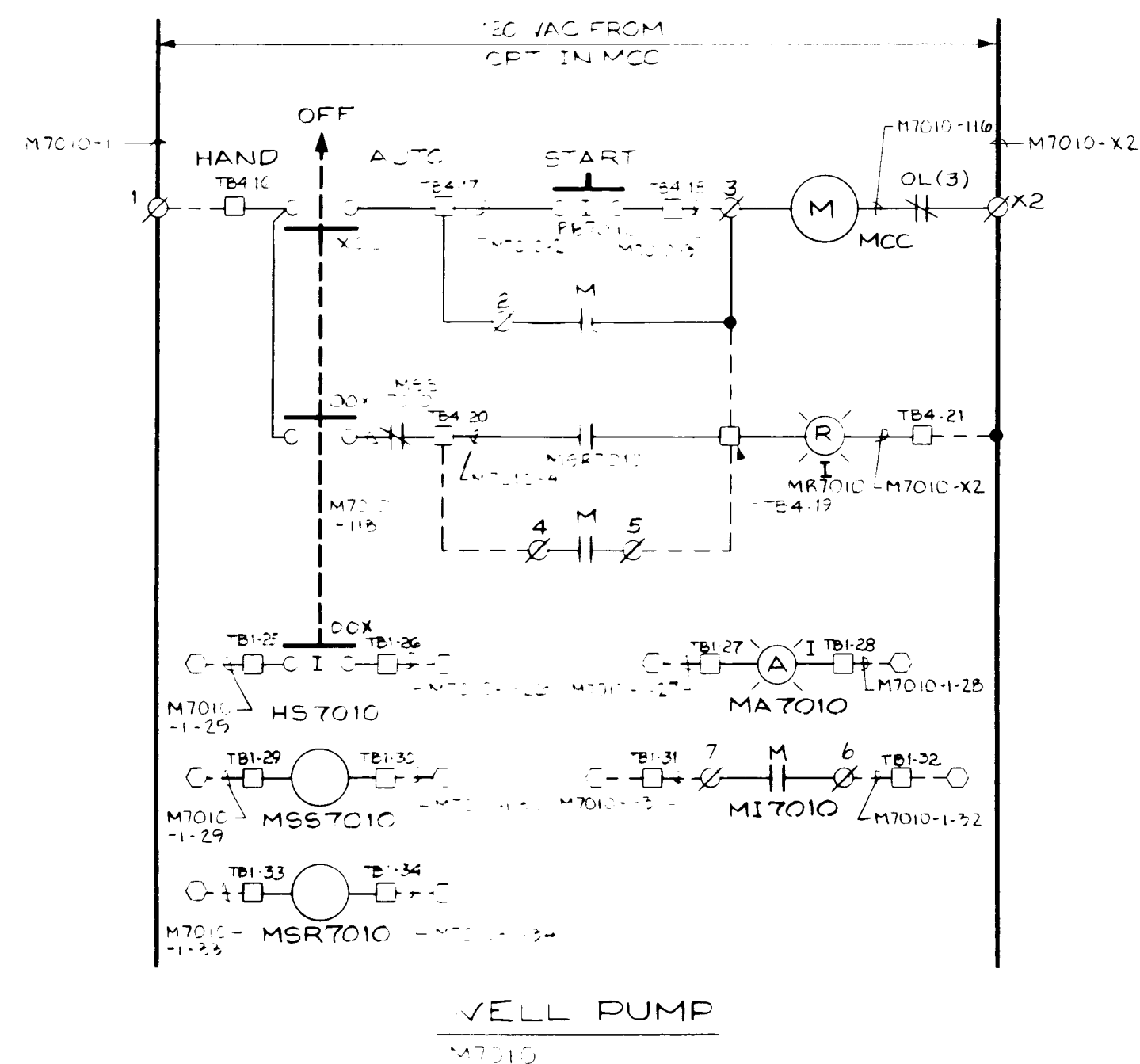
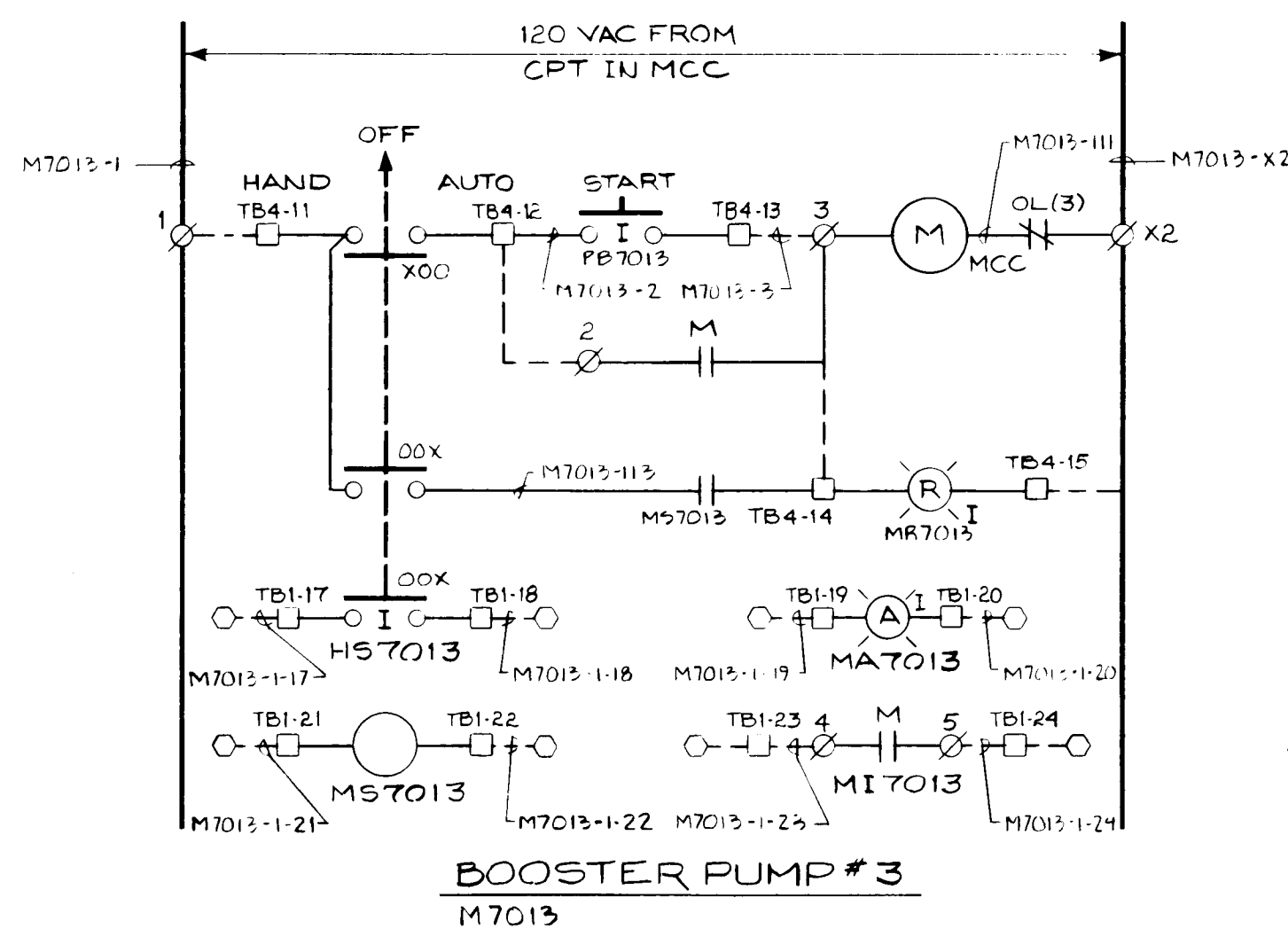
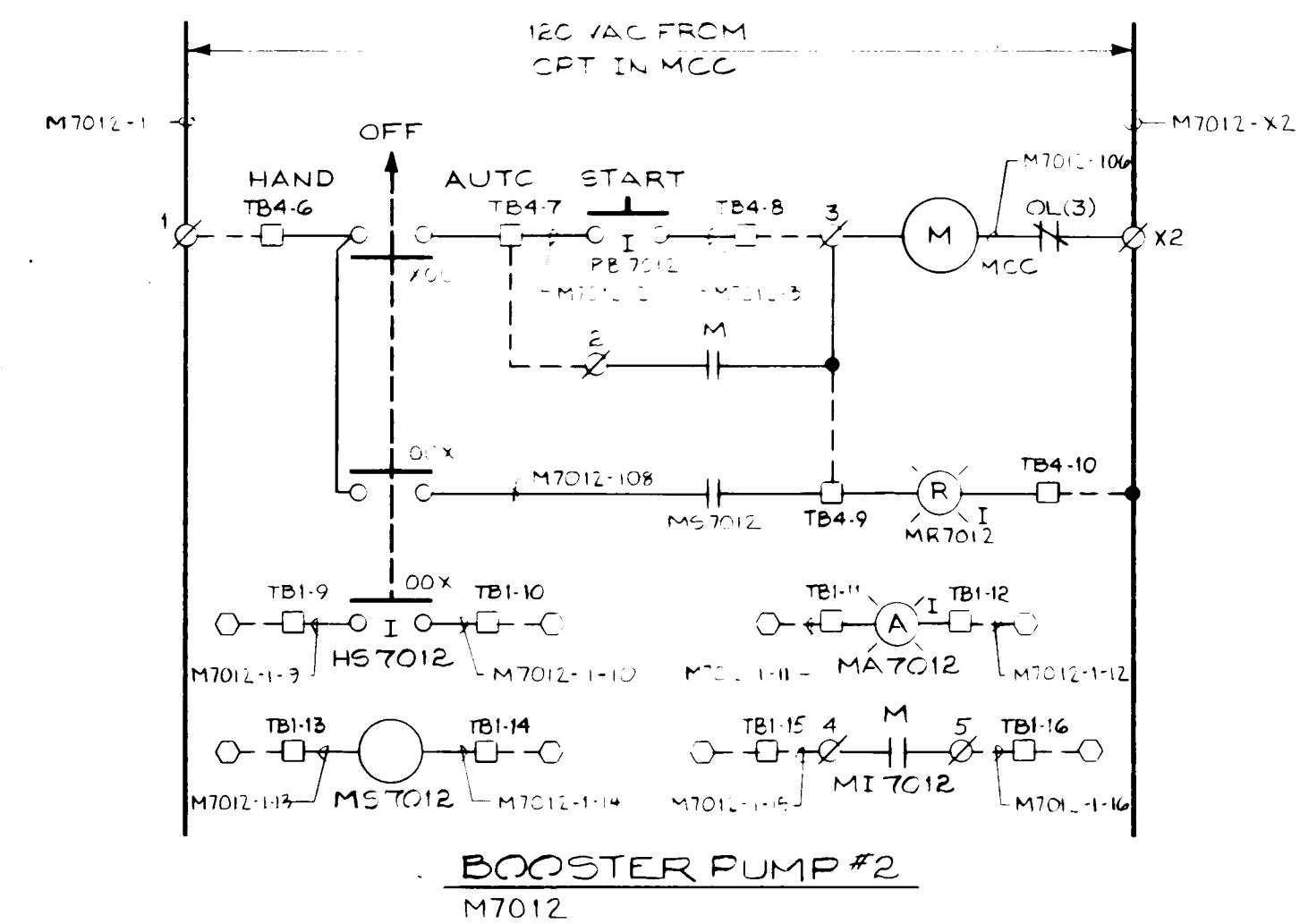
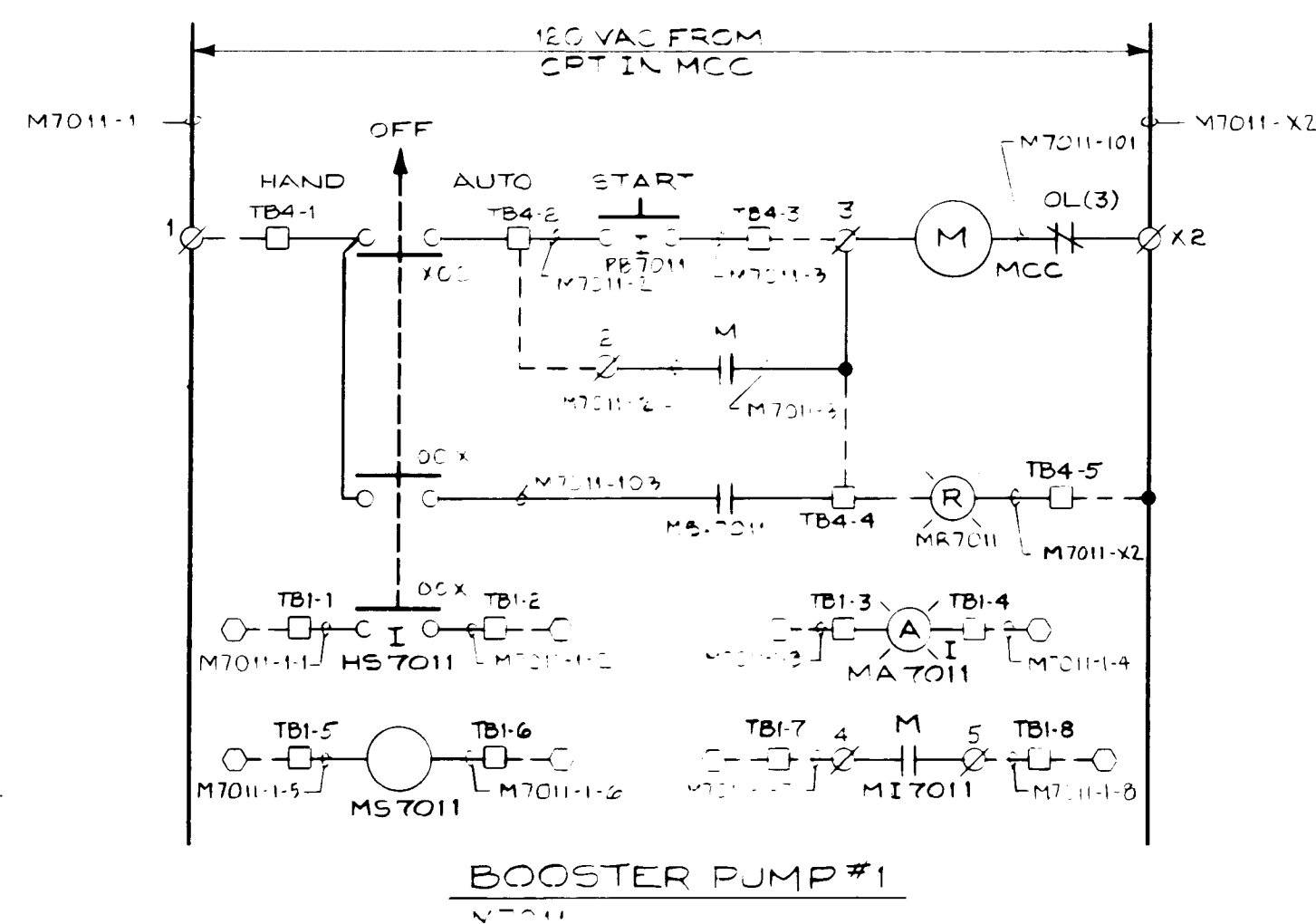
BENCH MARKS

SURVEY INFORMATION

ENGINEER'S SEAL



NO.	DATE	REMARKS	BY
DESIGN			
DESIGNED BY		<i>P.M.G.</i>	DATE <i>DEC. 1987</i>
DRAWN BY		<i>R.L.A.</i>	DATE <i>DEC. 1987</i>
CHECKED BY		<i>P.C.</i>	DATE <i>DEC. 1987</i>

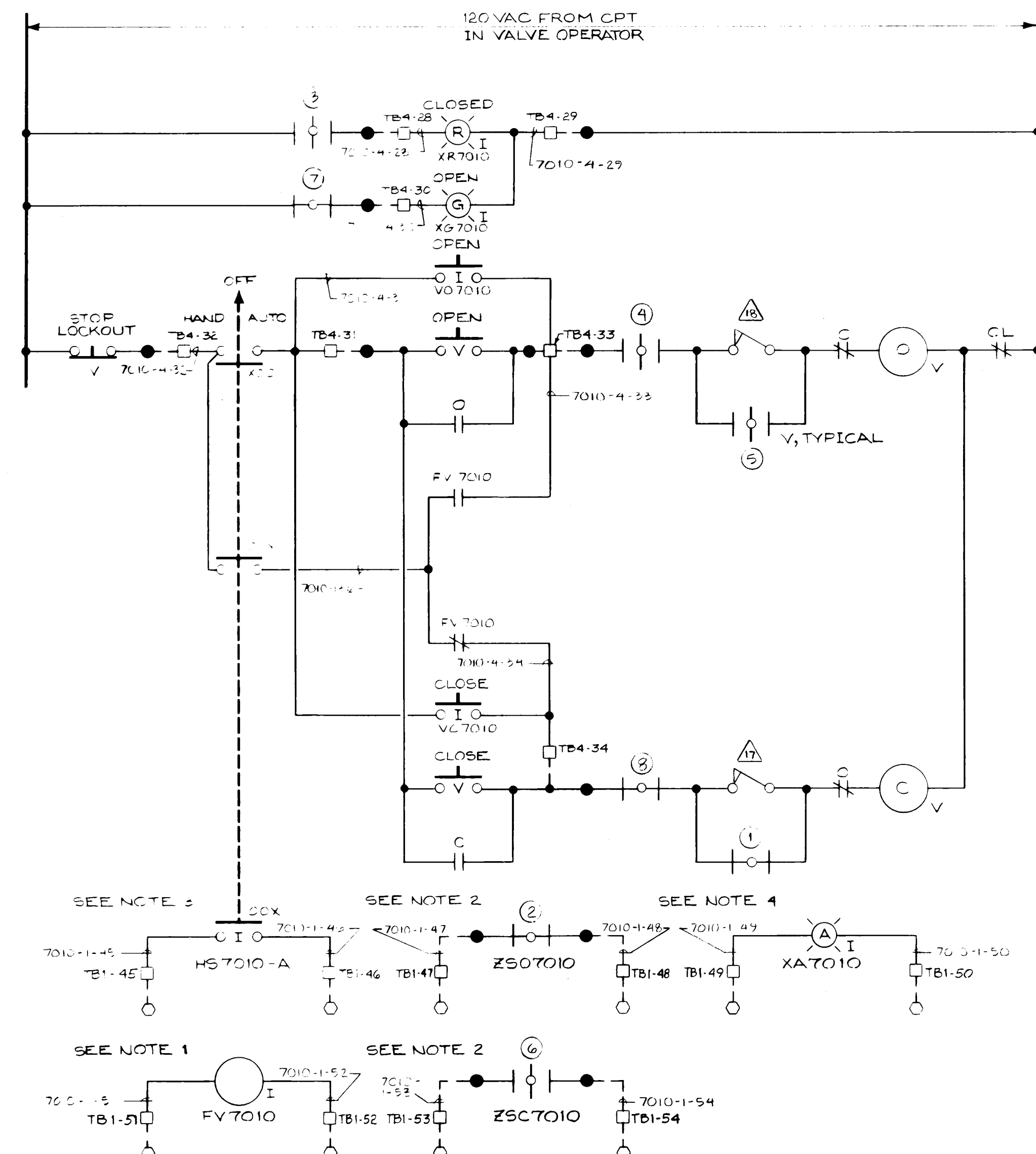


NOTES:

- 24VDC INTERLOCKING RELAYS FOR CONTROL FROM PROGRAMMABLE CONTROLLER, ALLEN-BRADLEY 700 TYPE R, FURNISH WITH ALLEN-BRADLEY SURGE SUPPRESSOR 700-NIO. INSTALL RELAYS IN INTEGRATED CONTROL PANEL.
- MOTOR RUN FEEDBACK OR VALVE POSITION FEEDBACK TO PROGRAMMABLE CONTROLLER.
- MOA SWITCH POSITION FEEDBACK TO PROGRAMMABLE CONTROLLER.
- MOTOR OR VALVE FAILURE ALARM OUTPUT FROM PROGRAMMABLE CONTROLLER ALARM PILOT LAMP TO BE 24VDC.

LEGEND

- F.I.C.
- INTEGRATED CONTROL PANEL
- ◇ MOTOR CONTROL CENTER
- FIELD



VALVE SHOWN IN FULLY OPEN POSITION

R	CONTACT	LIMIT SWITCH CONTACT DEVELOPMENT		FUNCTION
		VALVE POSITION	CL	
1	①	OP	CL	BYPASS CIR.
	②	OP	CL	SPARE
	③	OP	CL	IND. LIGHT
	④	OP	CL	OPEN LIMIT
2	⑤	OP	CL	BYPASS CIR.
	⑥	OP	CL	SPARE
	⑦	OP	CL	IND. LIGHT
	⑧	OP	CL	CLOSED LIMIT

--- SWITCH OPEN
--- SWITCH CLOSED

- △ CLOSING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE.
- △ OPENING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE.

WELL PUMP DISCHARGE VALVE
7010

26 3714 0189

DRAWN BY: BARBIER
DATE: 5-3-88
SCALE: NONE
CHECKED BY: [Signature]
JOB NO: 8177
3714
SH. 8

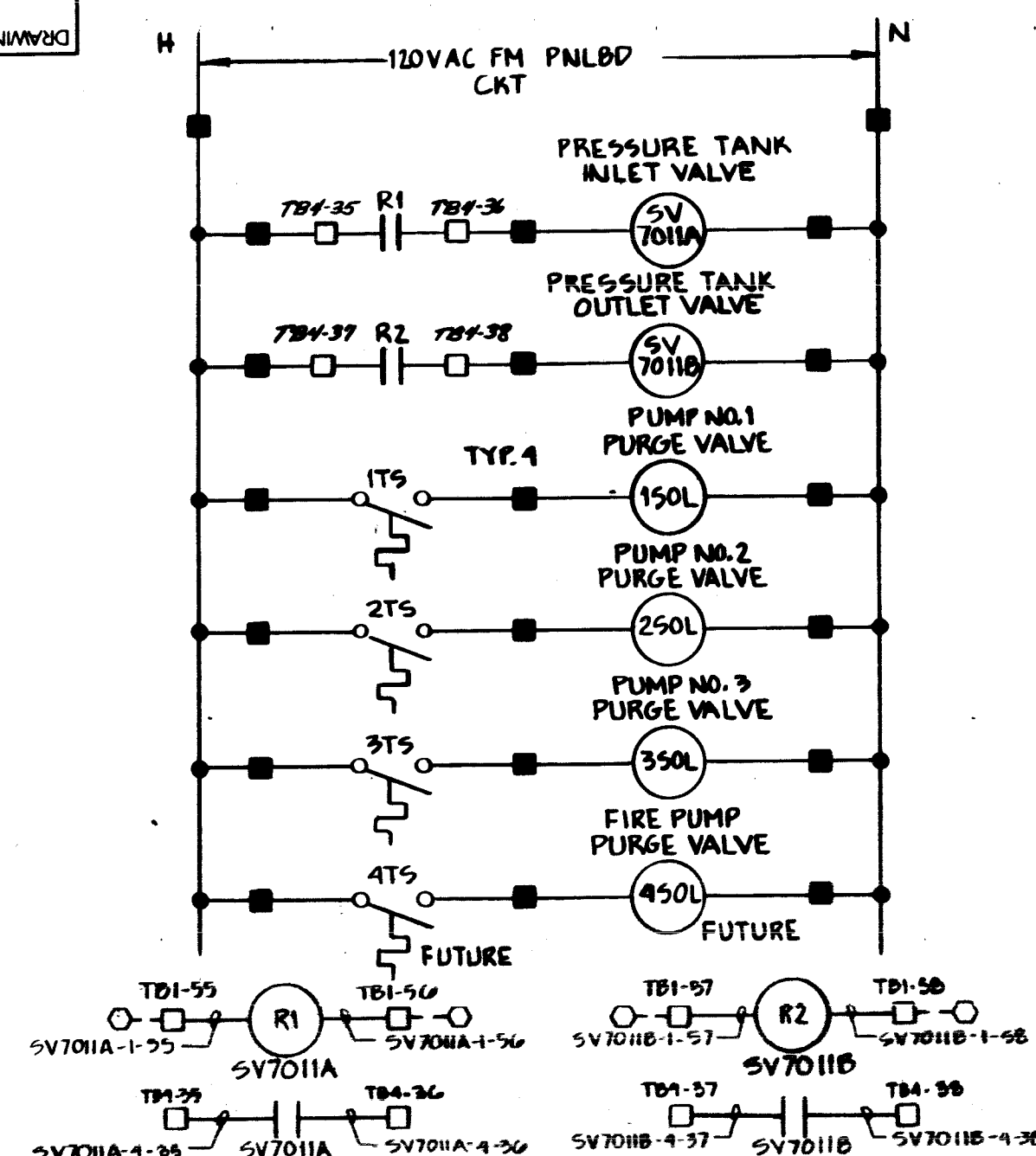


SYSTEMS DIVISION

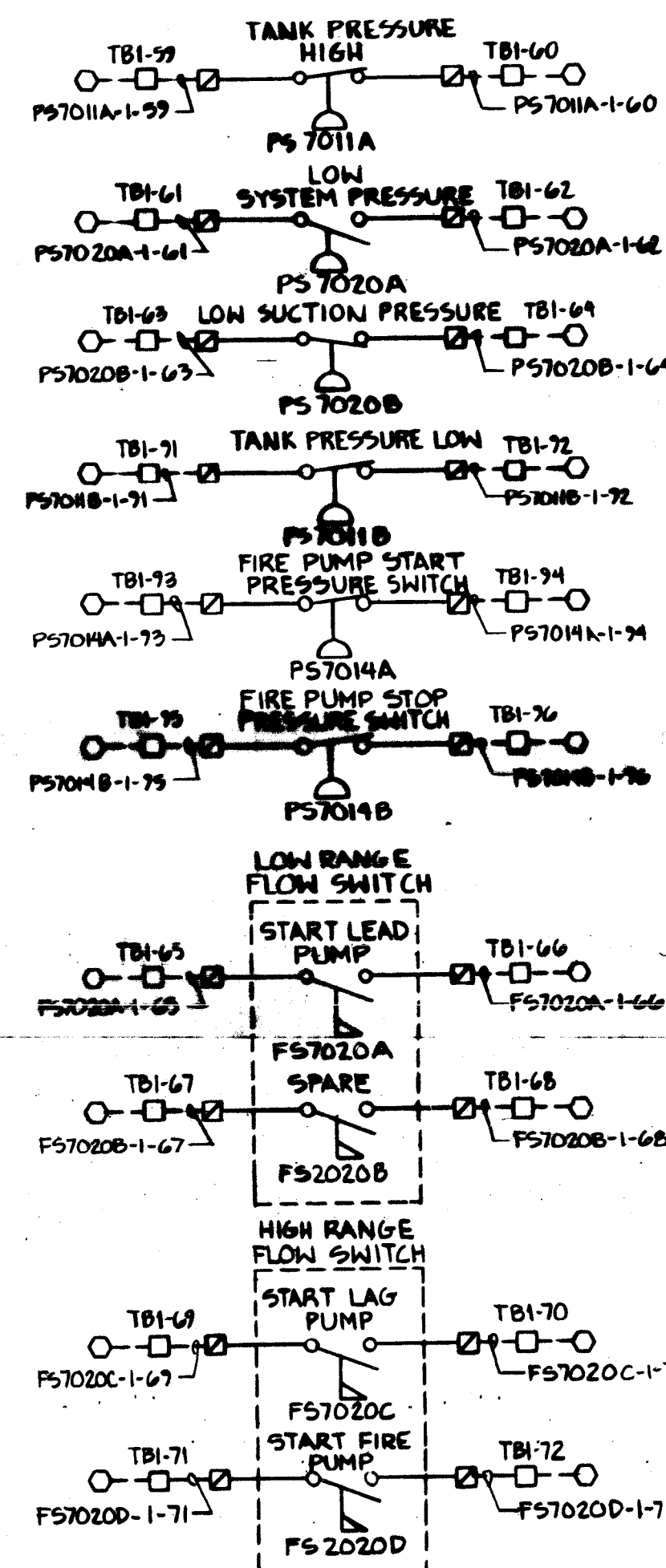
SCHEMATIC DIAGRAMS
INTEGRATED CONTROL PANEL
CITY OF ALBUQUERQUE SOILS
FOR: ECHO ELECTRIC CO.

DRAWING NO: D8177.002-1
REV: 5

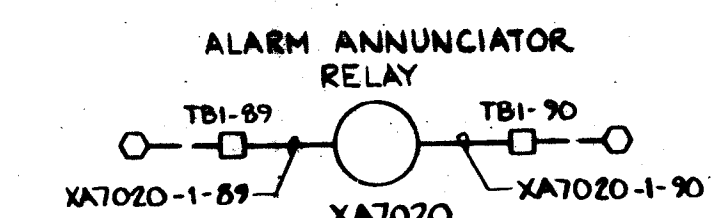
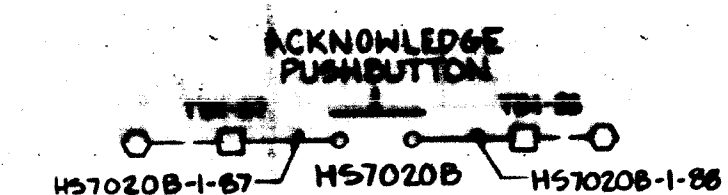
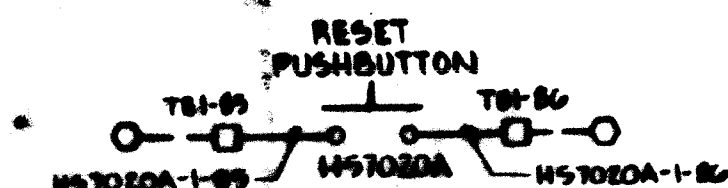
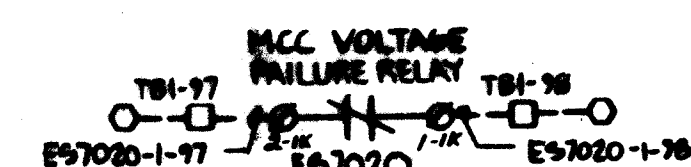
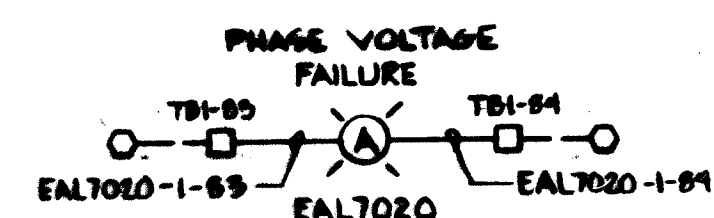
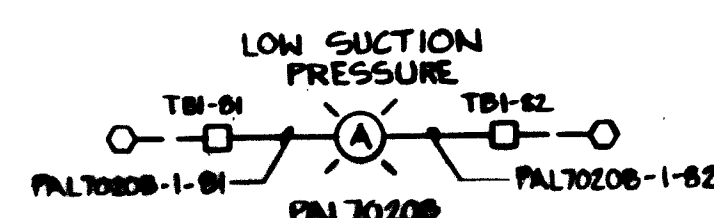
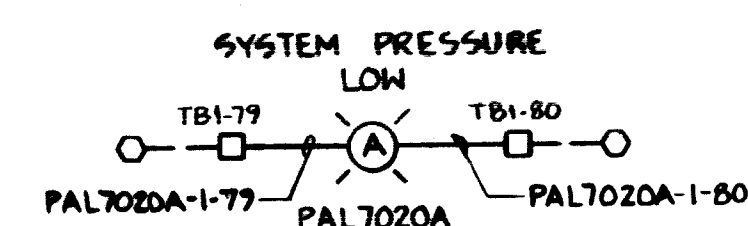
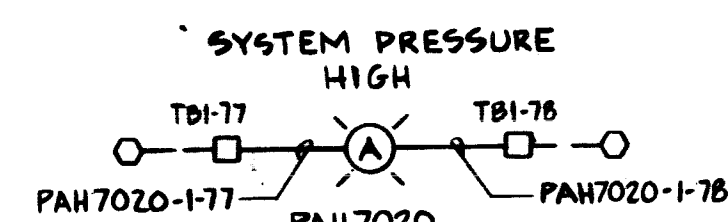
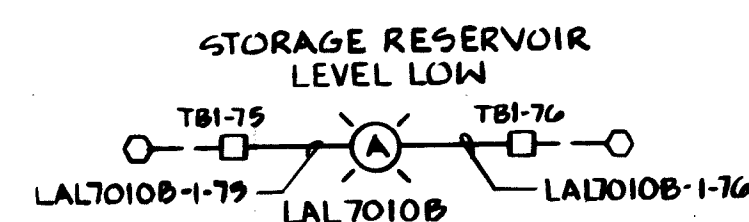
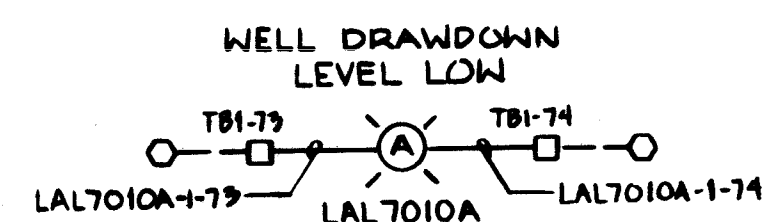
REV	DESCRIPTION	BY	DATE
1	SEE ENG. COMMENTS	JS	11/23/89
2	CHANGE RTU DESIGNATION TO P.L.C. 744 ENCL.	JS	11/11/89



BOOSTER PUMP SKID
SOLENOID VALVE CONTROLS



SKID MOUNTED PROCESS CONTROL DEVICES



LEGEND

- ☐ PLC
- ☐ INTEGRATED CONTROL PANEL
- ☒ MOTOR CONTROL CENTER
- ☐ FIELD
- ☒ BOOSTER PUMP SKID AC CONTROL PANEL
- ☒ BOOSTER PUMP SKID DC CONTROL PANEL

2	PER ENG. COMMENTS	AC	11/23/89
3	ADD SKID YB SYMBOLS + CHANGED "RTU" DESIGNATION TO PLC" PER ENG.	AC	11/17/88
REV	DESCRIPTION	BY	DATE

DRAWN BY	J.R. DREYDAHL
DATE	7-14-88
SCALE:	NONE
CHECKED BY	<i>BC</i>
JOB NO.	8177
	3714
	SH.9

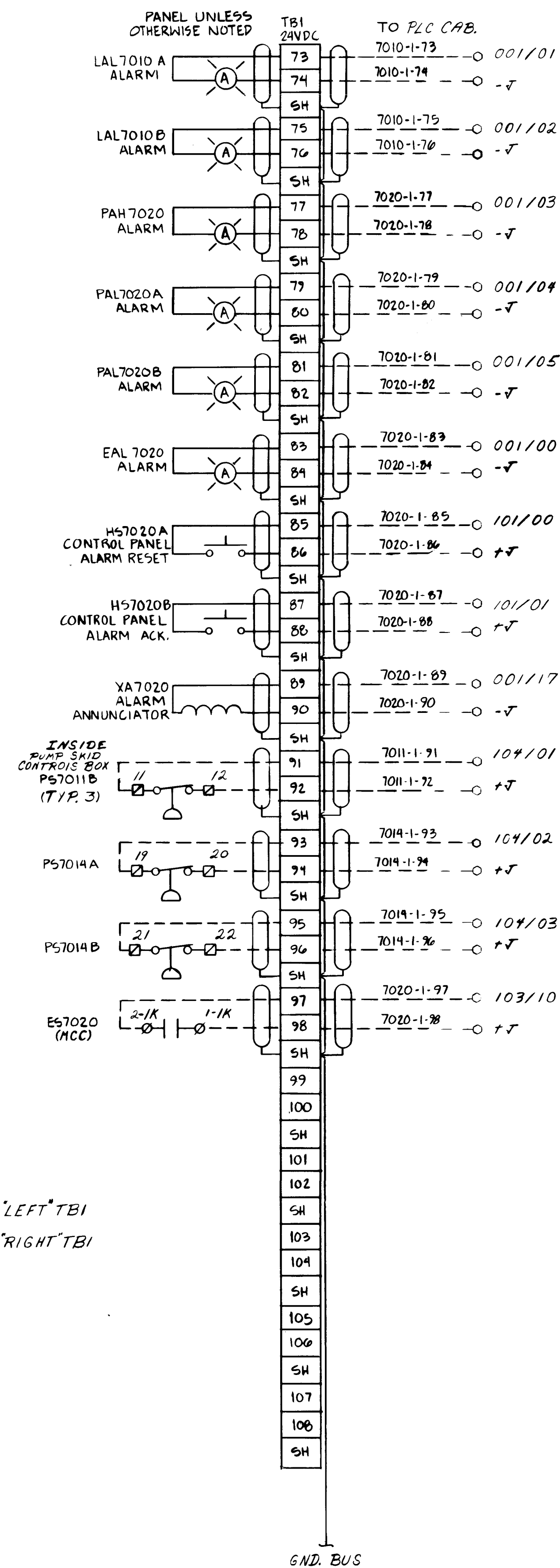
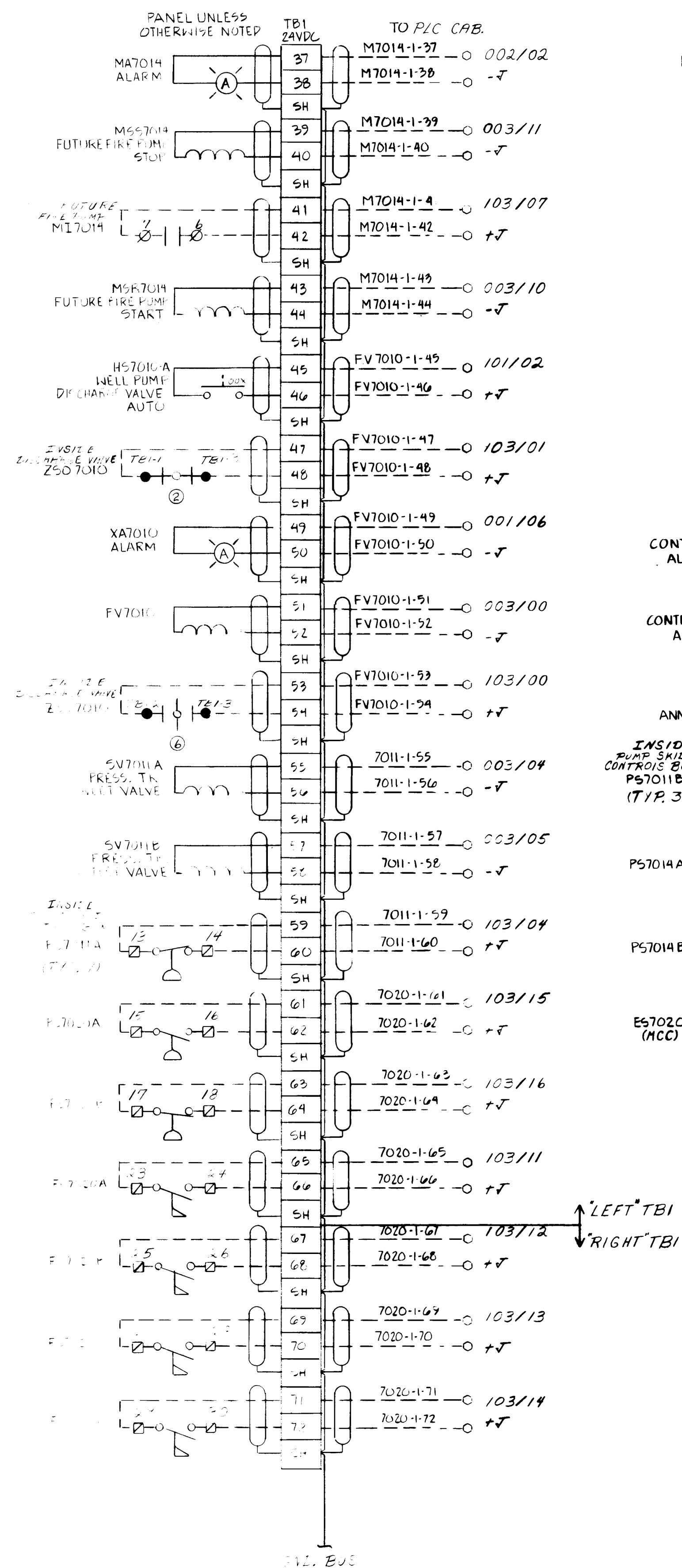


SYSTEMS DIVISION

SCHEMATIC DIAGRAM
INTEGRATED CONTROL PANEL
CITY OF ALBUQUERQUE, NM
FOR: ECHO ELEC. INC. CO.

DRAWING NO	RE
10-10-10-10-10	

26 3714 0289

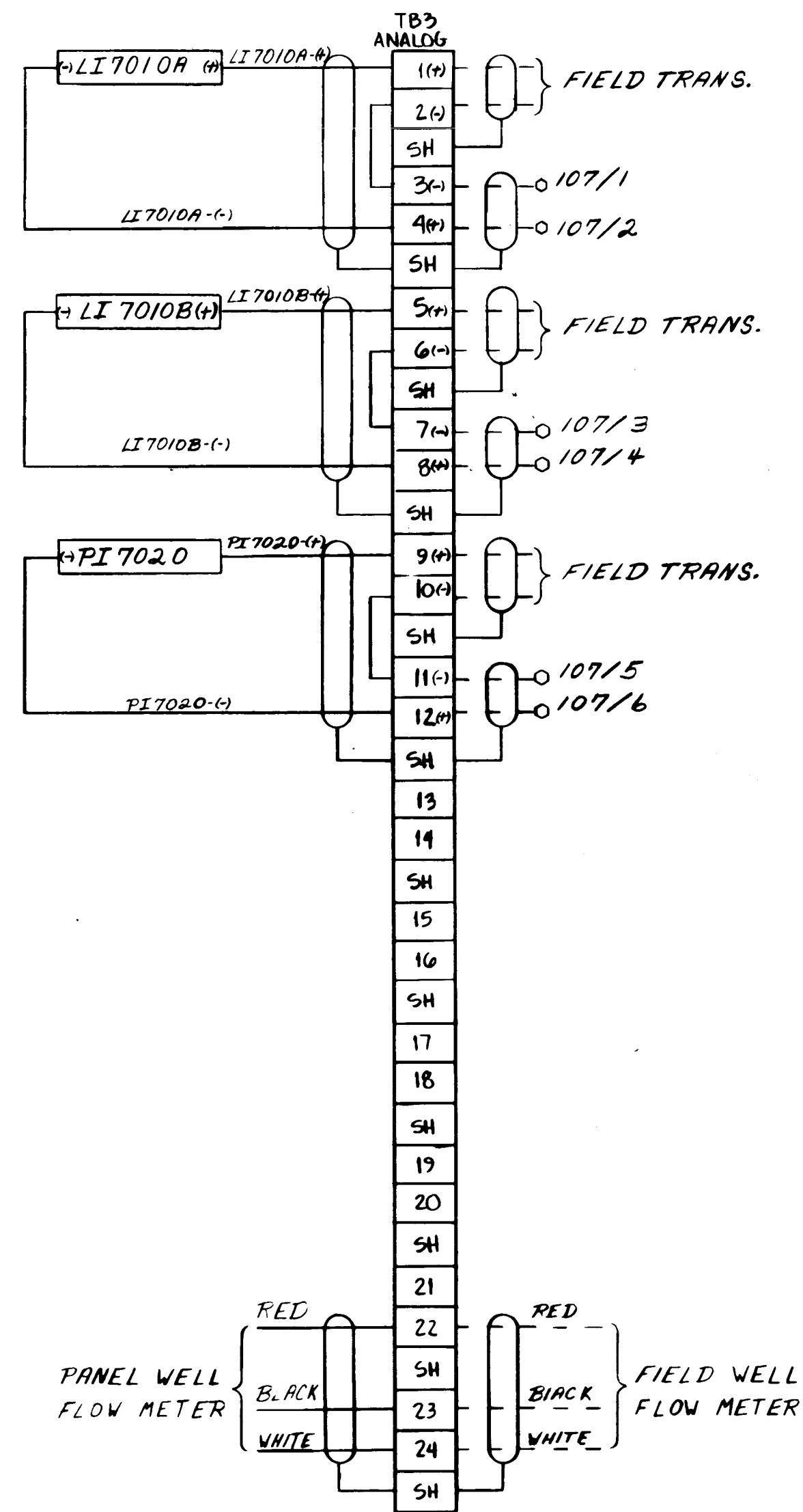


TB1 24VDC
109
110
SH
111
112
SH
113
114
SH
115
116
SH
117
118
SH
119
120
SH
121
122
SH
123
124
SH

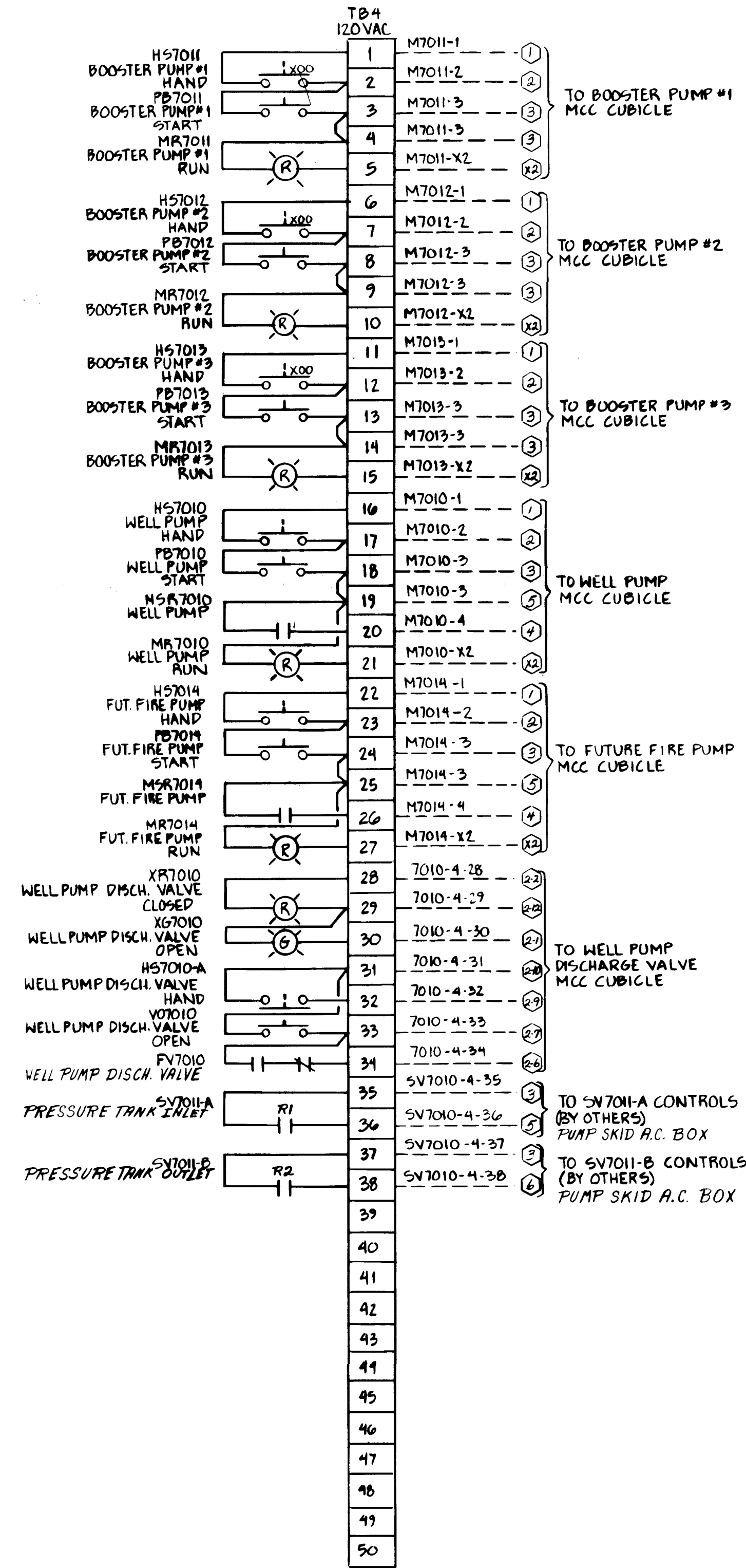
NOTE: ALL "+J" ARE CONNECTED TO +24VDC
ALL "-J" ARE CONNECTED TO -24VDC

2	6	3	7	1	4	0	3	8	9
---	---	---	---	---	---	---	---	---	---

DRAWN BY J. R. DREYPAHL DATE 7-18-88 SCALE NONE CHECKED BY <i>BS</i> JOB NO. 8177 3714 SH.10	 TECH SALES Inc. CONNECTION DIAGRAMS INTEGRATED CONTROL PANEL CITY OF ALBUQUERQUE SOILS FOR: ECHO ELECTRIC CO.	SYSTEMS DIVISION	
		DRAWING NO. D6471.002-3	REV C



NOTE:
FIELD TO VERIFY GROUNDING
OF LOOPS AT ONE POINT ONLY.



26 3714 0489

B	PER ENG. COMMENTS	AL	1/23/89
A	ADD FIELD TB DESIGNATIONS PER ENG. COMMENTS	AL	9/22/88
REV	DESCRIPTION	BY	DATE

DRAWN BY	J.R. DREYDAHL
DATE	7-10-88
SCALE	NONE
CHECKED BY	AL
JOB NO.	8177
REV	3714 SH.11



CONNECTION DIAGRAMS
INTEGRATED CONTROL PANEL
CITY OF ALBUQUERQUE SOILS
FOR: ECHO ELECTRIC CO.

DRAWING NO.
08177-002-4

REV
B