CALAVERAS PUBLIC UTILITY DISTRICT

ADDENDUM NO. 3

REQUEST FOR PROPOSALS

JEFF DAVIS WATER TREATMENT PLANT
SCADA PROJECT

1. Railroad Flat pump station
    a. See the plans titled “2000 – Rail Road Flat (Electrical Plans) sent with Addendum No 1 for more information.
    b. Railroad Flat pump station houses 2 booster pumps, a Foxborough chart reader, that reads a nearby flow totalizer. The Chart Recorder currently does not communicate back to the control room in the WTP, but this integration is expected as part of this project.
    c. Communication cables (8 total) run from the Pump Station to the Water Treatment Plant (WTP) in a 1-1/2” conduit. Communication from the pump station to the WTP involves alarm communication to the Verbatim Autodialer that calls out: “RRF Pump Station Pump #1 Failure,” “RRF Pump Station Pump #2 Failure,” and “RRF Tank Low/High Water Level.” In the event of a power outage the emergency generator will power the pumps. All power from the RRF Pump Station to the WTP is housed in a single 4” conduit.

2. Emergency Generator and Automatic Transfer Switch
    a. These items are wired back to the verbatim Auto Dialer with the following alarms: “Back-up Generator Malfunction” and “Power is off Generator is Running.”

3. Air Compressors and Air Receiver
    a. To the best of staff knowledge, the compressors are not wired back to the control room.
    b. The RFP requests that the two existing Air Compressors be integrated into the new SCADA System. Information needed on the Compressors and air receiver is Pressure (PSI) and high/low alarms.
    c. The Air Receiver is located directly next to the air compressors in the room adjacent to the control room. Attached is a pdf of the “1971 – Original WTP Plans.

4. Air Dryer
    a. The Air Dryer is a Hankison SPX, Model #3JR55, Ser # 1000002890104
    b. Air Dryer failure (on/off) alarms shall be integrated into the SCADA System.

5. Surface Wash Pump
    a. On/Off/Failure Status alarms and discharge pressure shall be integrated into the SCADA system.

6. PSI Microclor-Onsite Chlorine Generator (OSG)
    a. As part of the recent OSG system installation there was an ethernet cable installed from the OSG room to the control room. The OSG system is not currently connected to anything in the control room and functions as an independent system. Per the RFP this system is expected to be integrated as part of the SCADA system for this project.

7. Water Quality Station (WQS)
    a. The water quality station is a PAX WQS1000, Type # 3R, Ser # 3249
    b. Integration of the WQS into the SCADA System shall be part of this project.
    c. Currently the WQS is only wired back to the OSG System.
    d. The WQS reads pH, Temperature, Free Chlorine, and Oxidation Reduction Potential (ORP). These items shall be recorded and associated with alarms in the SCADA system.
    e. Additionally, Free Chlorine is currently read by a Foxborough Chart recorder. This is an older redundancy to the WQS that CPUD intends to keep.
    f. The Water Quality Analyzers do not alter the process stream they only report information back to the Eurotherm.
    g. The Water Quality Analyzers are to be controlled by the existing logic with a relay switch.
    h. The WQS is currently plug and play ready.

8. WTP Desktop Computer
    a. The unit is a newer computer with Microsoft Windows 10 Pro.
    b. Existing desktop has internet connectivity.

9. Chemical Feed Pumps (Chlorine, Polymer, Zinc)
    a. The Chlorine feed pumps are controlled by the OSG system and currently function as an independent system.
    b. The Polymer and Zinc feed pumps are manually set and connected to a relay (on/off) switch that is powered on and off when the WTP is started. The new SCADA system should show on/off status. Currently the Polymer pump has a flow switch that shuts the plant down if failing to function.

10. Controlled Effluent Flow Valve
    a. The existing 18” effluent control valve modulates to adjust flow through the WTP. The valve is also used to completely shut-off the plant when the Clearwell is full.

11. Monitor, alarm and control at the WTP
    a. The Verbatim Autodialer functions only as an alarm. An alarm list can be found in data information package referenced in Addendum No. 1 – Item #4.
    b. The Eurotherm remotely controls only the Controlled Effluent Flow Valve which maintains flow without operator intervention. The Eurotherm manually controls the Main Control Valve, but has lost remote control capability. This project shall restore the remote-control capability of the Main Control Valve.

c. The main function of the Eurotherm is to data log the devices as listed in the RFP.

12. Koyo PLC controlled backwash system
    a. Replacement of the Koyo PLC backwash system is not part of this project. The intent is to integrate the existing PLC into the proposed SCADA system.

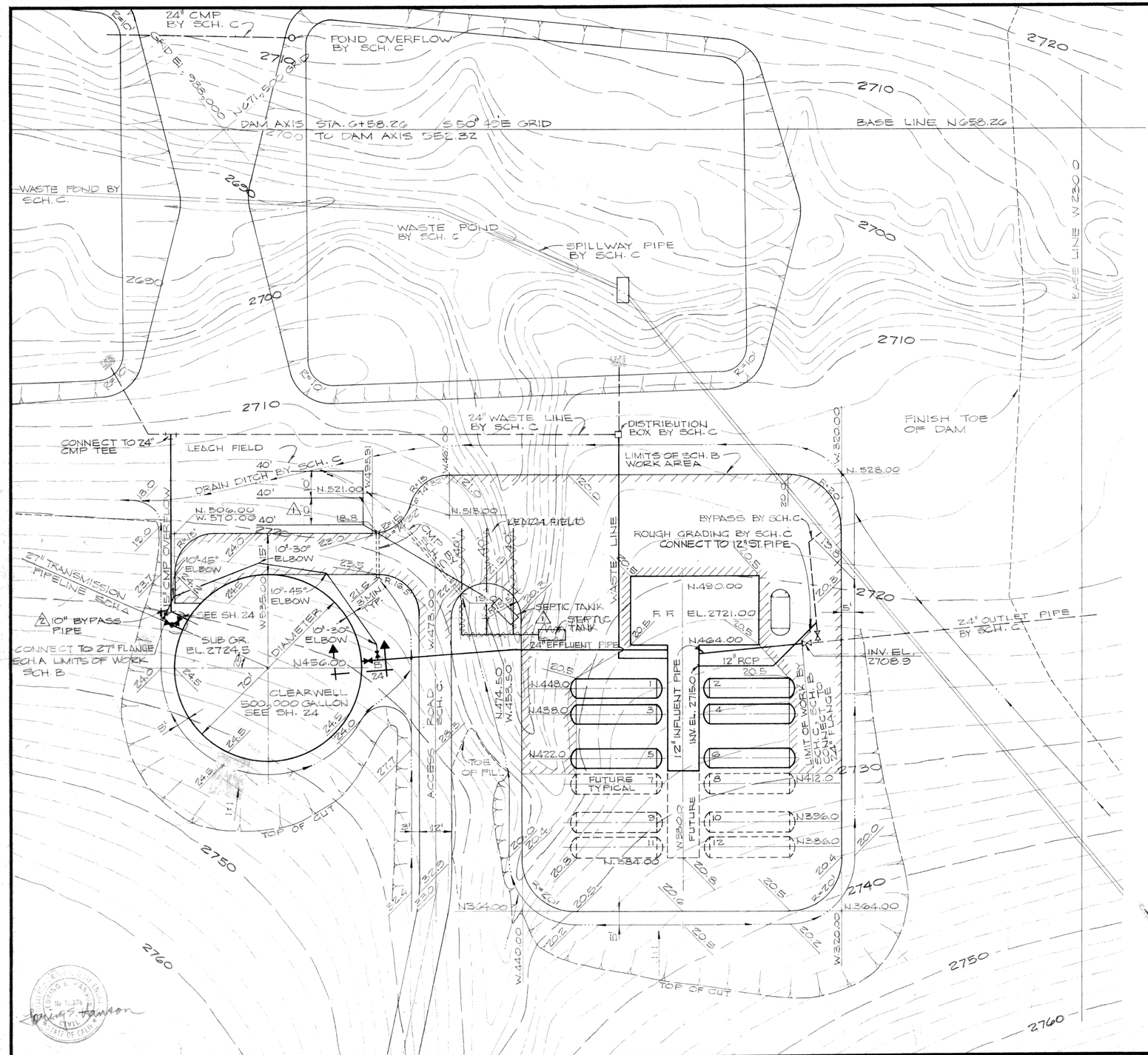
13. Backup SCADA Server
    a. Server is to be located at the WTP with the intent of moving it to the CPUD Main Office once reliable communication is acquired in future projects.

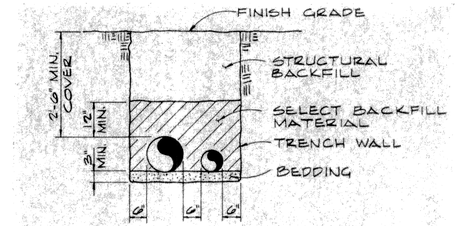
14. Control Capabilities
    a. CPUD expects to have manual hand-on-auto (HOA) control with the inclusion of HOA control within the SCADA system where existing equipment will allow.

15. Existing Logic Control
    a. The intent of integrating the "existing logic control format" of the Eurotherm into SCADA is for all processes to remain the same and be operated electromechanically as they do now. There is currently no additional information regarding original Ladder logic of the Eurotherm System outside information provided by the data information package referenced in Addendum No. 1 – Item #4.

16. Firms/Contractors shall note in their RFP response acknowledgement of this Addendum No. 3.

Matt Ospital, District Engineer 4/3/2019

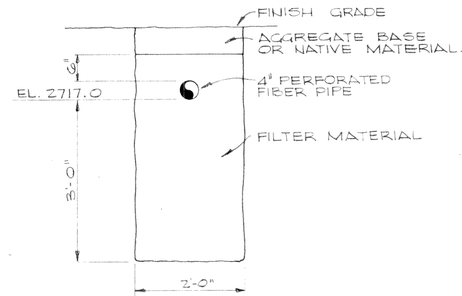




NOTE: INSTALL PIPES IN COMMON TRENCH ONLY WHEN SHOWN ON PLANS.

TRENCH DETAILS

N.T.S.



LEACH FIELD TRENCH

N.T.S.

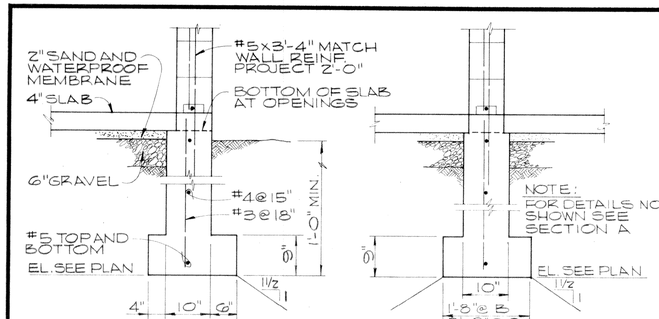
NOTES:

1. ALL ELEVATIONS SHOWN ARE EITHER FINISH GRADE OR PIPE INVERT, WHICHEVER IS APPLICABLE.
2. ROUGH GRADING OF SITE PLAN WILL BE PERFORMED BY THE SCHEDULE C CONTRACTOR. ROUGH GRADING IS WITHIN 0.40 FEET OF FINISH GRADE LESS ANY IMPORTED SURFACES.

1" = 20'

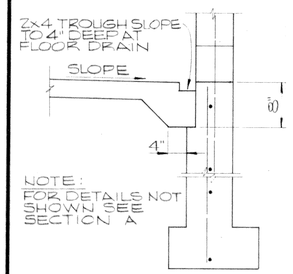
DES. RET DWN. M.V.L. CHK. RET	APP. John S. Hawson CHIEF ENGINEER DATE JULY 1971	REVISIONS ⚠1 RELOCATED SEPTIC TANK & LEACH FIELD 9-3-71 RET ⚠2 ADDED 10" BYPASS PIPE. 2-29-72 LF	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA	CH2M HILL	CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA	1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES WATER TREATMENT PLANT SITE PLAN	DWG. NO. 13 SCHEDULE B JOB NO. L-71.18

BRUNING 40-105



SECTION A
3/4"=1'-0"

SECTION B & C
3/4"=1'-0"



SECTION D
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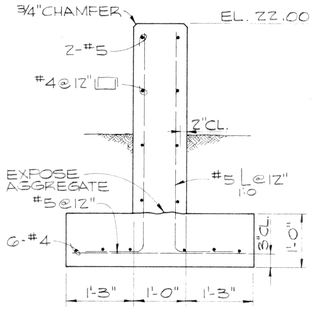

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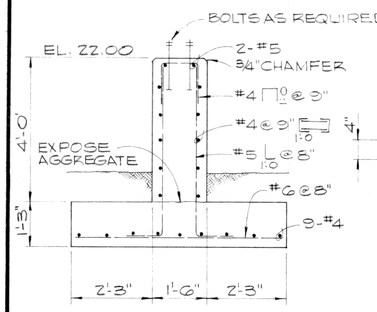
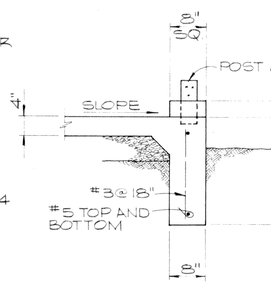


SECTION F
1/2"=1'-0"



SECTION G
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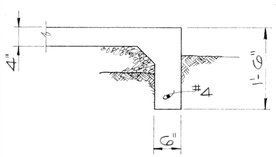

SECTION H
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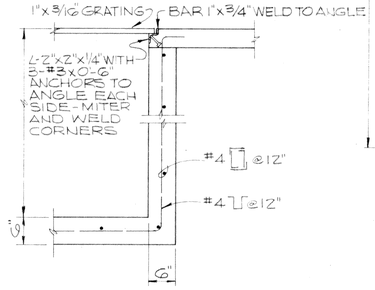
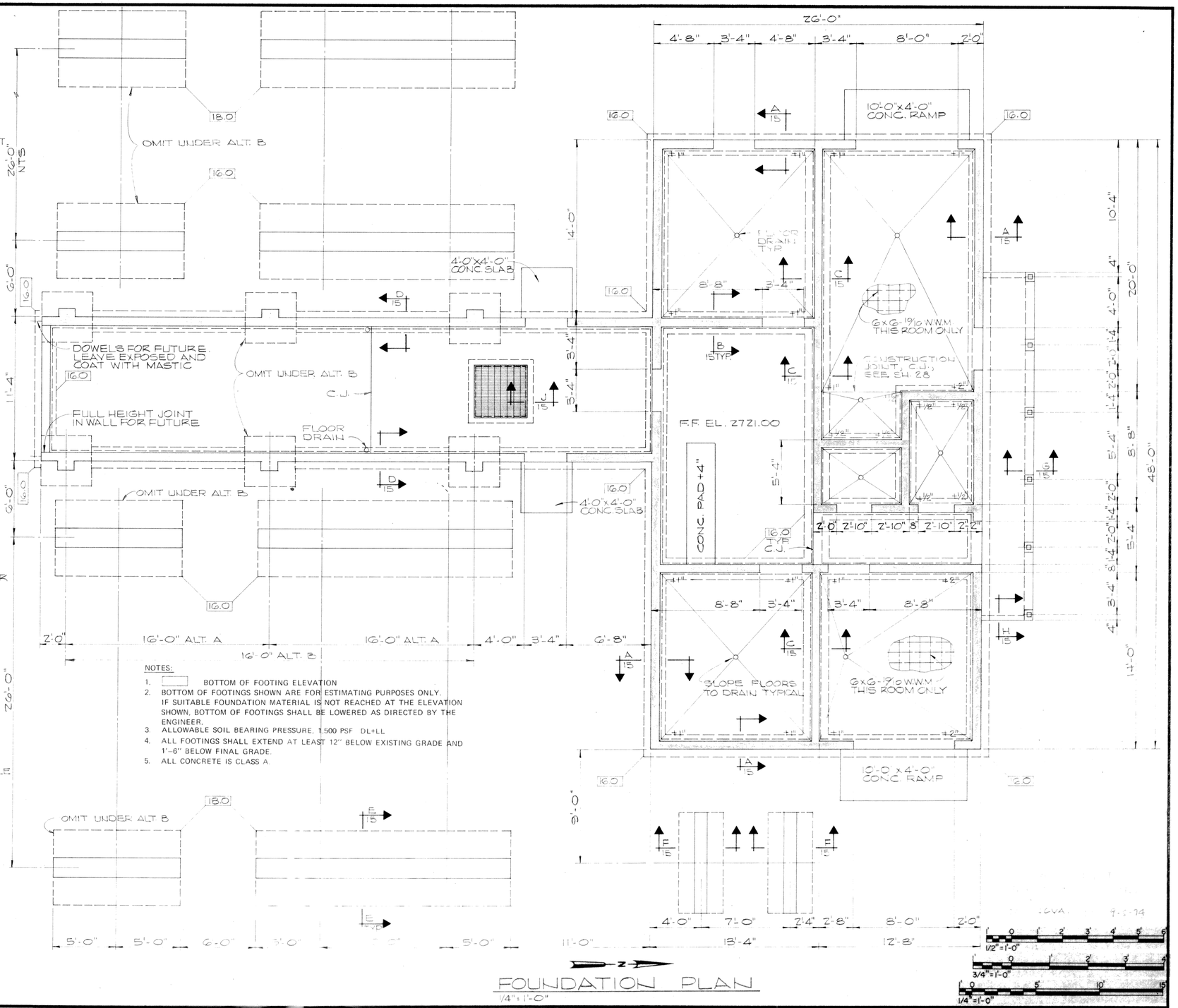


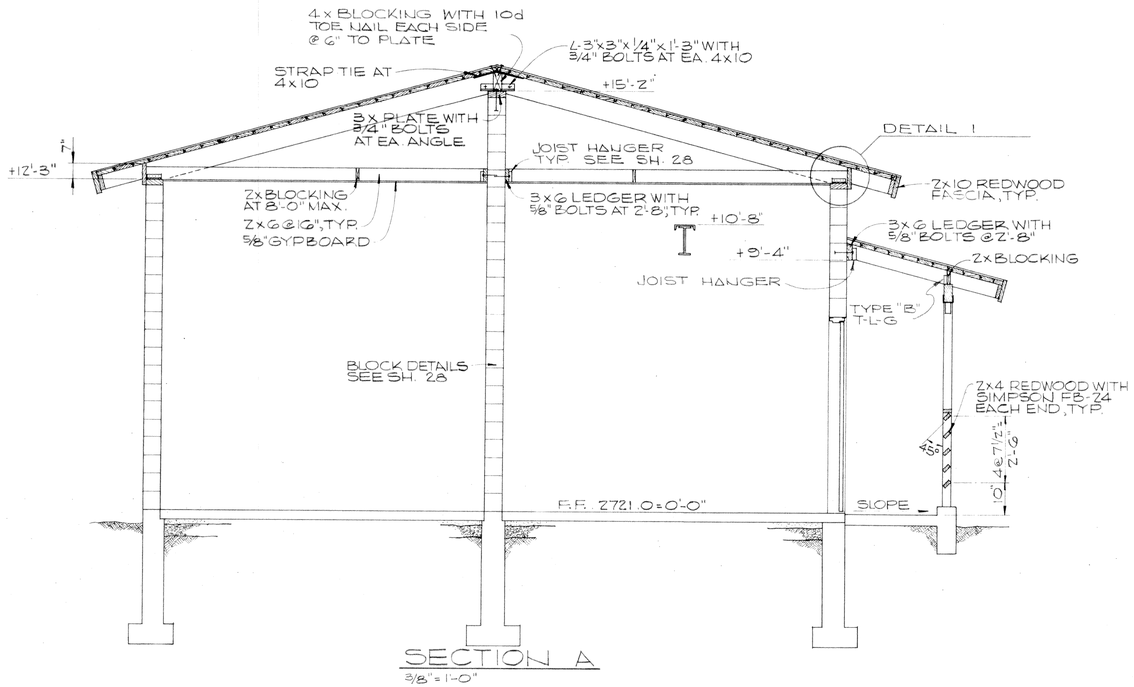
SECTION J
3/4"=1'-0"



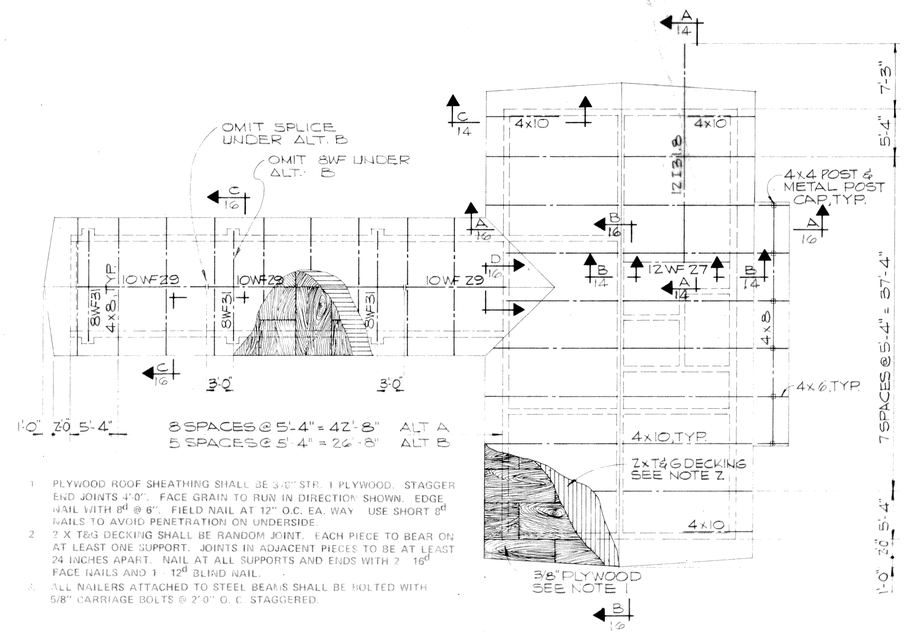
FOUNDATION PLAN
1/4"=1'-0"

DES. J.E.C.	APP.	REVISIONS	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA	CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA	1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES WATER TREATMENT PLANT STRUCTURAL	DWG. NO. 15
DWN. ELM/	CHIEF ENGINEER					SCHEDULE B JOB NO. L-7118
CHK. RHC	DATE JULY 1971					

BRUNING 40-105

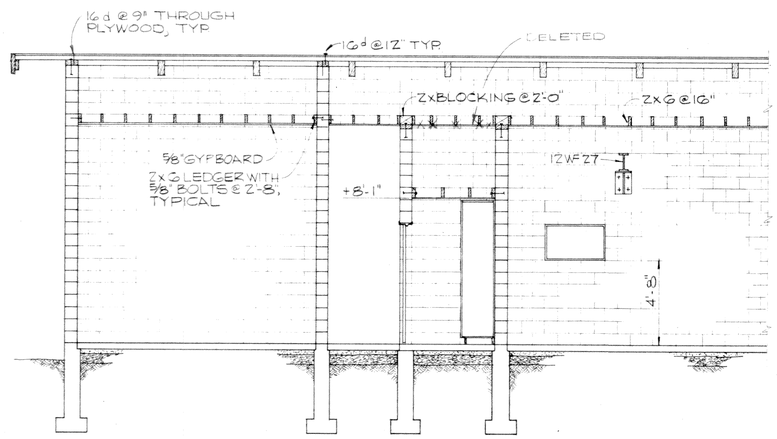


SECTION A
3/8"=1'-0"

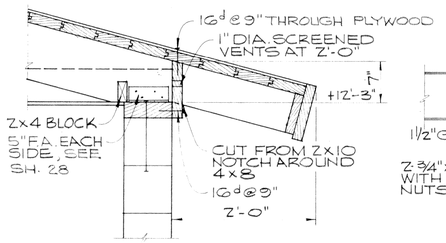


1. PLYWOOD ROOF SHEATHING SHALL BE 3/8" STR. 1 PLYWOOD. STAGGER END JOINTS 4'-0". FACE GRAIN TO RUN IN DIRECTION SHOWN. EDGE NAIL WITH 8^d @ 6". FIELD NAIL AT 12" O.C. EA. WAY. USE SHORT 8^d NAILS TO AVOID PENETRATION ON UNDERSIDE.
2. 2 X T&G DECKING SHALL BE RANDOM JOINT. EACH PIECE TO BEAR ON AT LEAST ONE SUPPORT. JOINTS IN ADJACENT PIECES TO BE AT LEAST 24 INCHES APART. NAIL AT ALL SUPPORTS AND ENDS WITH 2 16^d FACE NAILS AND 1 12^d BLIND NAIL.
3. ALL NAILERS ATTACHED TO STEEL BEAMS SHALL BE BOLTED WITH 5/8" CARRIAGE BOLTS @ 2'-0" O. C. STAGGERED.

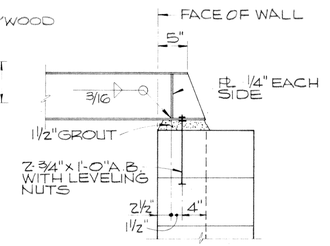
ROOF FRAMING PLAN
1/8"=1'-0"



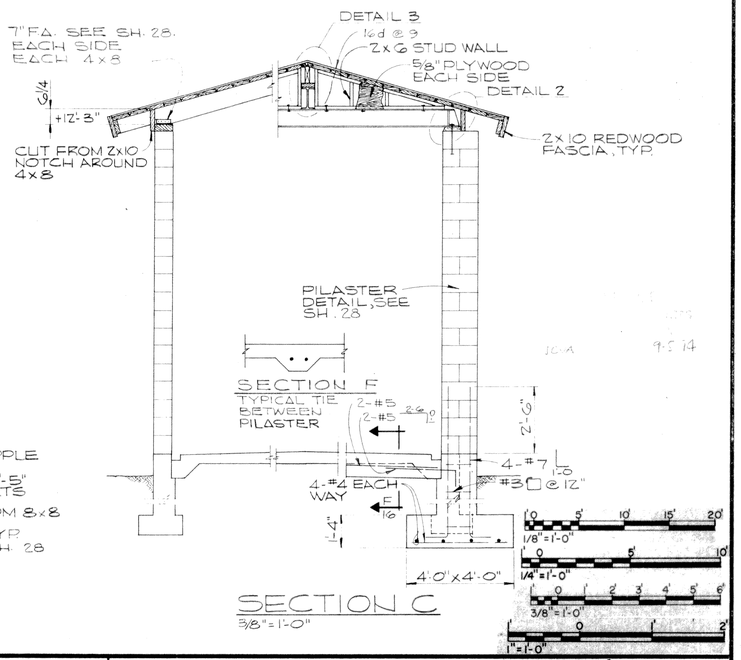
SECTION B
1/4"=1'-0"



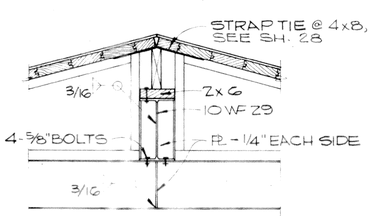
DETAIL 1
1"=1'-0"



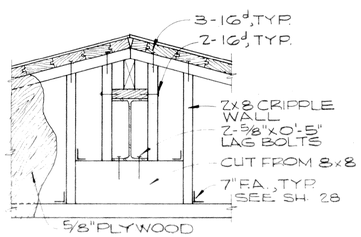
DETAIL 2
1"=1'-0"



SECTION C
3/8"=1'-0"



DETAIL 3
1"=1'-0"

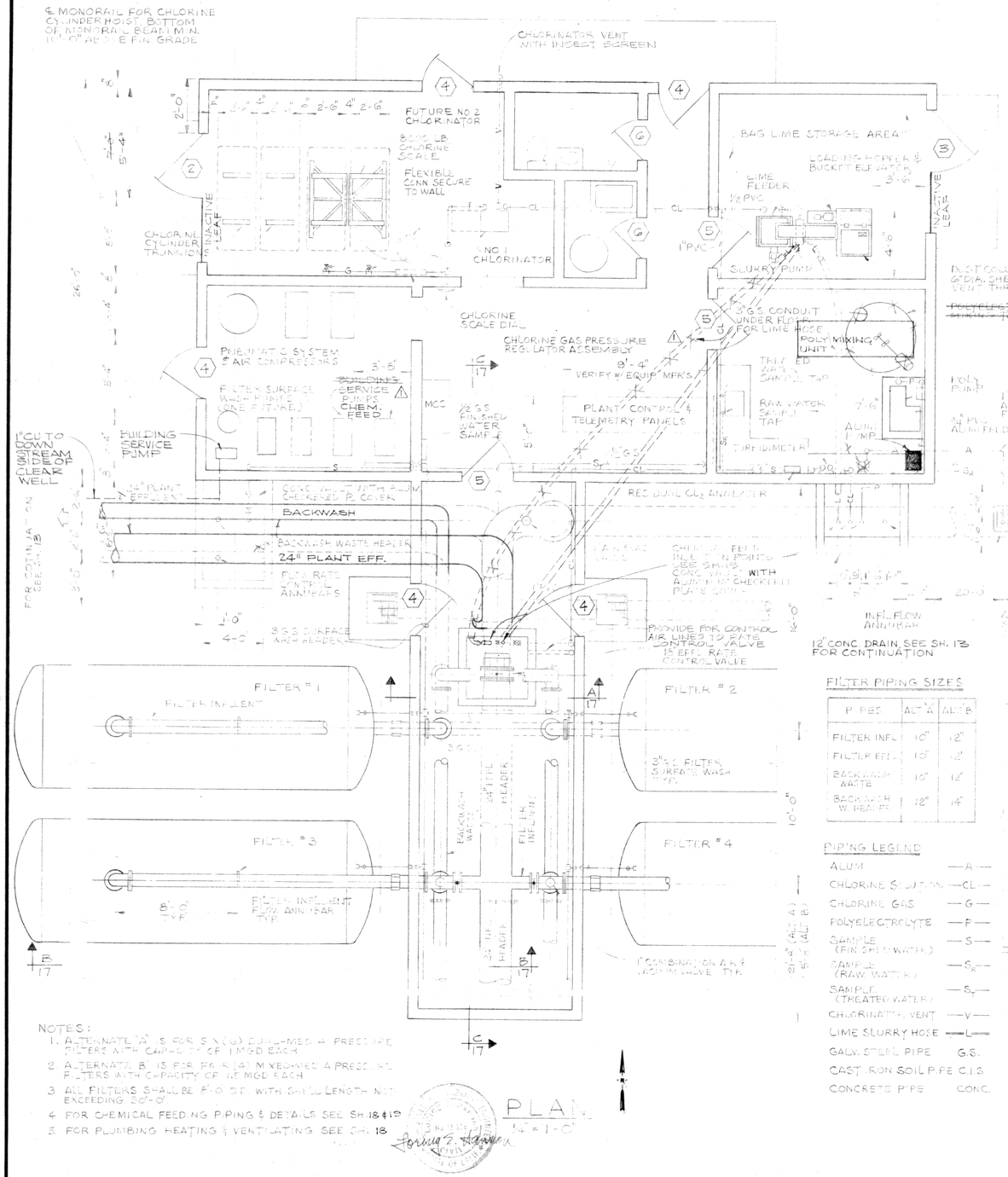


SECTION D
1"=1'-0"

DES. J.E.C.	APP.	REVISIONS	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS CH2M HILL — 1525 CHEST STREET REDDING, CALIFORNIA
DWN. ELM /	DATE JULY 1971		CALAVERAS PUBLIC UTILITY DISTRICT — SAN ANDREAS, CALIFORNIA
CHK.			1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES — WATER TREATMENT PLANT STRUCTURAL
			DWG. NO. 16 SCHEDULE B JOB NO. L-71.18

SEPUNING 40-555

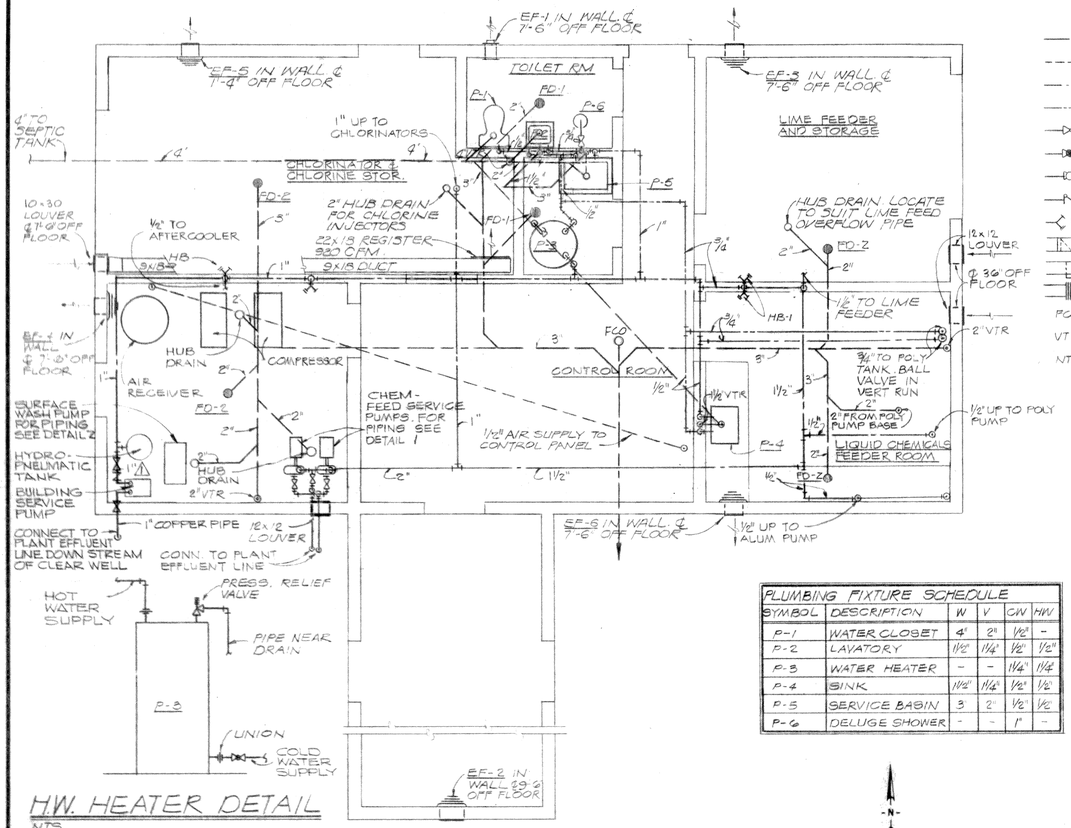
MICROFILMED



JCVA. 9-5-74

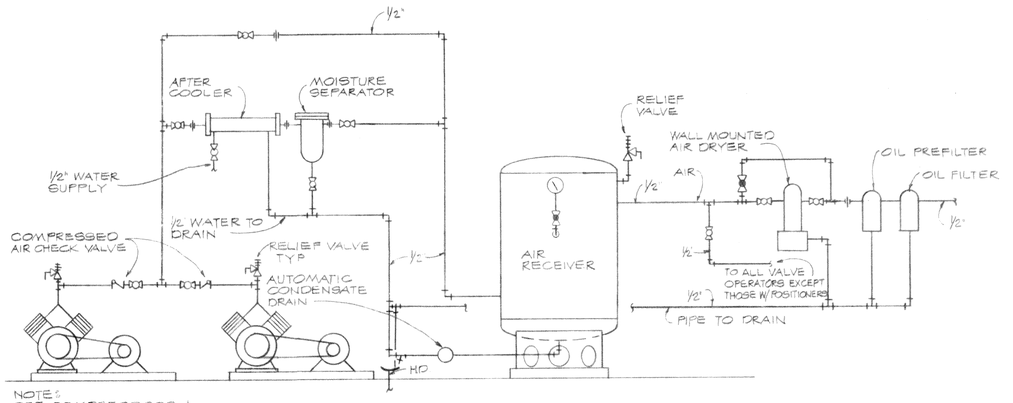
DES. CYS	APP.	REVISIONS ⚠ ADDED LIME FEED TO EFFLUENT HEADER 9-3-71 DLB	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA — CH2M HILL
DWN. DLL	CHIEF ENGINEER		CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA
CHK. RWB	DATE JULY, 1971		1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES WATER TREATMENT PLANT MECHANICAL
			DWG. NO. 17 SCHEDULE B JOB NO. 1271.18

PRINTED ON DIEPO NO. 1000H CLEARPRINT



LEGEND

——	WASTE
- - - -	VENT
—·—	COLD WATER
—··—	HOT WATER
—⋈—	GATE VALVE
—⋈—	GLOBE VALVE
—⋈—	BALL VALVE
—⋈—	CHECK VALVE
HB	HOSE BIBB
CG	CEILING GRILLE
	VOLUME DAMPER
	FLEX. CONNECTION
FCO	FLOOR CLEANOUT
VTR	VENT THRU ROOF
NTS	NOT TO SCALE



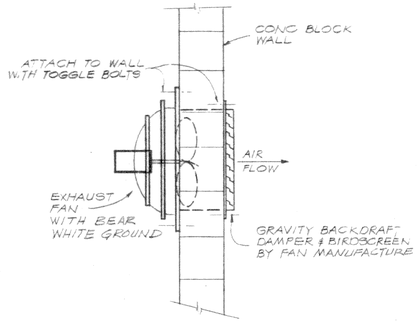
NOTE:
SET COMPRESSORS & RECEIVER ON 6" CONC. PAD.

COMPRESSOR SCHEMATIC
NTS

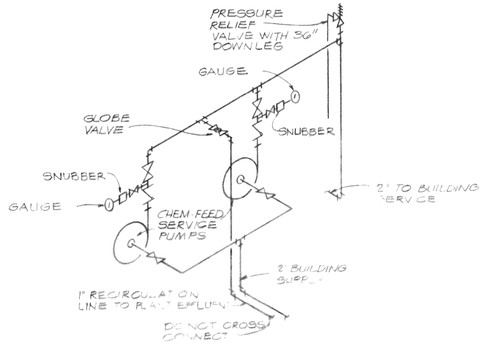
PLUMBING FIXTURE SCHEDULE						
SYMBOL	DESCRIPTION	W	V	CW	HW
P-1	WATER CLOSET	4"	2"	1/2"	-
P-2	LAVATORY	1 1/2"	1 1/4"	1/2"	1/2"
P-3	WATER HEATER	-	-	1 1/4"	1 1/4"
P-4	SINK	1 1/2"	1 1/4"	1/2"	1/2"
P-5	SERVICE BASIN	3	2"	1/2"	1/2"
P-6	DELUGE SHOWER	-	-	1"	-

H.W. HEATER DETAIL
NTS

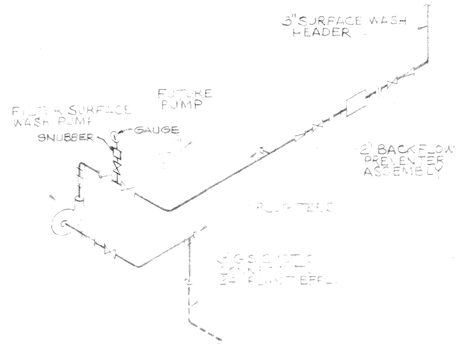
MECHANICAL & PLUMBING PLAN
1/4"=1'-0"



WALL EXHAUST FAN DETAIL
NTS



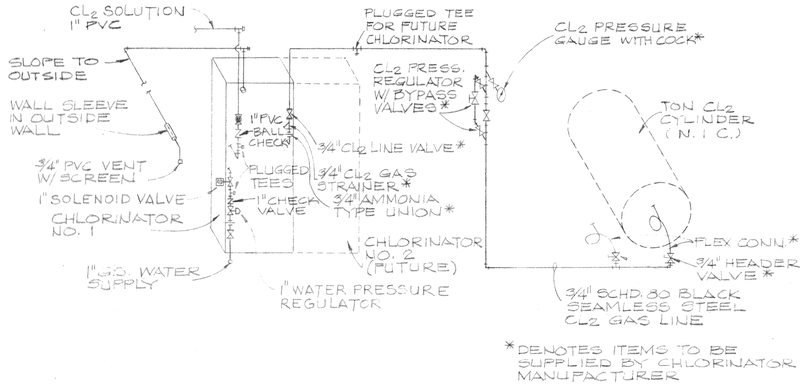
DETAIL 1
NTS



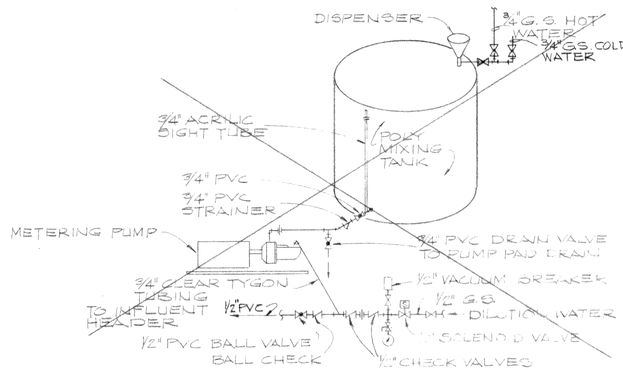
DETAIL 2
NTS

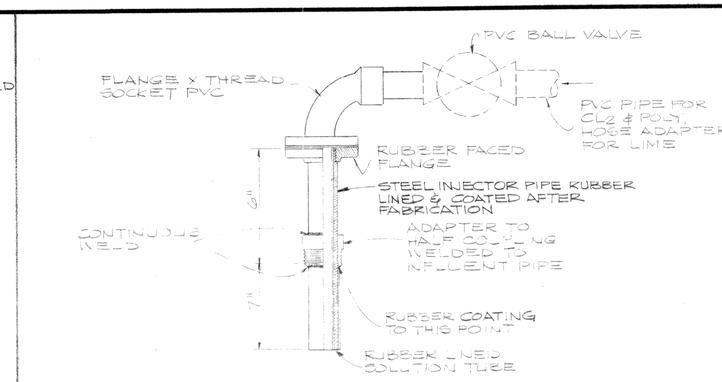
DES. DK	APP.	REVISIONS ⚠ ADDED 1" GATE VALVES & 1" CHECK VALVE 9-3-71 DLB	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS REDDING, CALIFORNIA 1525 COURT STREET
DWN. DK	CHIEF ENGINEER		CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA
CHK. HCR	DATE JULY, 1971		1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES — WATER TREATMENT PLANT MECHANICAL
			DWG. NO. 18 SCHEDULE B JOB NO. 71.18

BRUNING 40-105

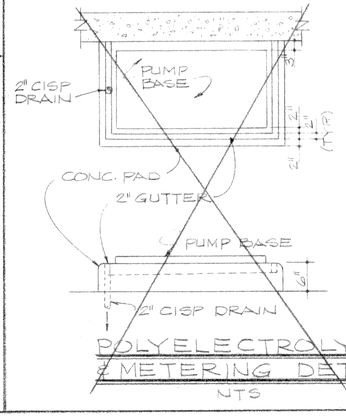


CHLORINATOR SCHEMATIC
NTS

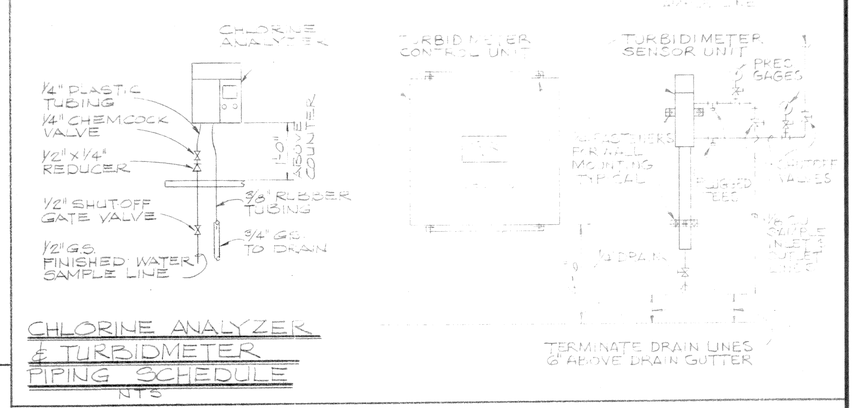




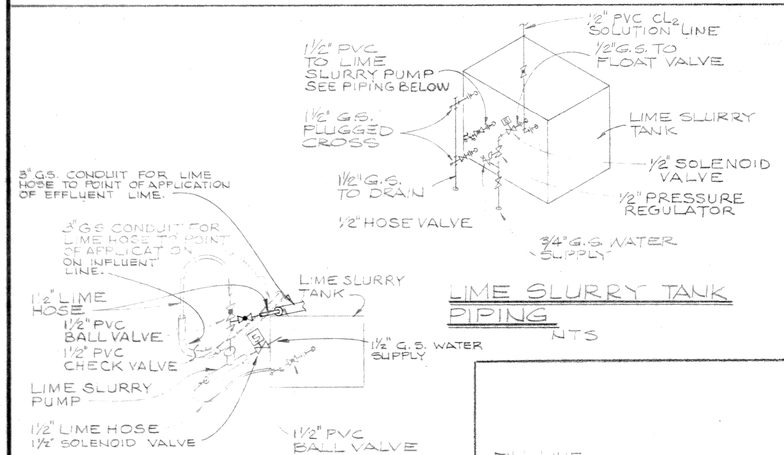
CHEMICAL INJECTION CONNECTION TYP FOR Cl_2, POLY, LIME
NTS



POLYELECTROLYTE MIXING & METERING DETAILS
NTS

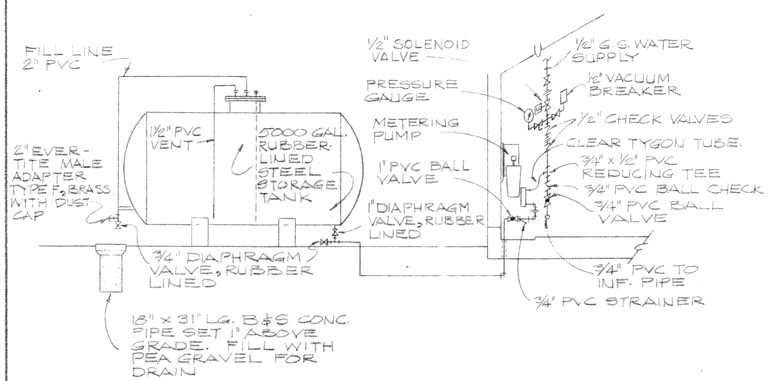


CHLORINE ANALYZER & TURBIDMETER PIPING SCHEDULE
NTS

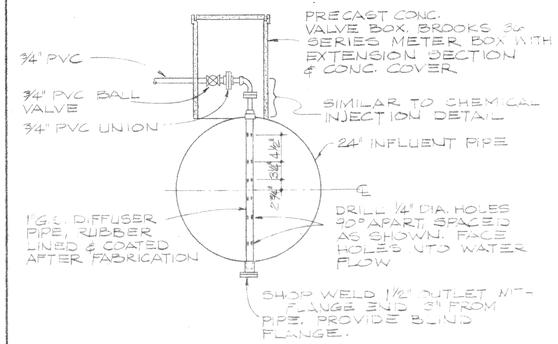


LIME SLURRY TANK PIPING
NTS

⚠ LIME SLURRY PUMP PIPING
NTS



ALUM STORAGE & METERING DETAILS
NTS



ALUM DIFFUSER DETAIL
NTS

DES. RLC	APP. [signature] CHIEF ENGINEER	REVISIONS ⚠ REVISED LIME SLURRY PIPING DETAIL 9-3-71 DLB	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA
DWN. D.I.	DATE JULY, 1971		CH2M HILL
CHK. CYS			CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA

1971 WATER PROJECT
SUPPLY, TREATMENT, AND STORAGE FACILITIES
WATER TREATMENT PLANT
MECHANICAL

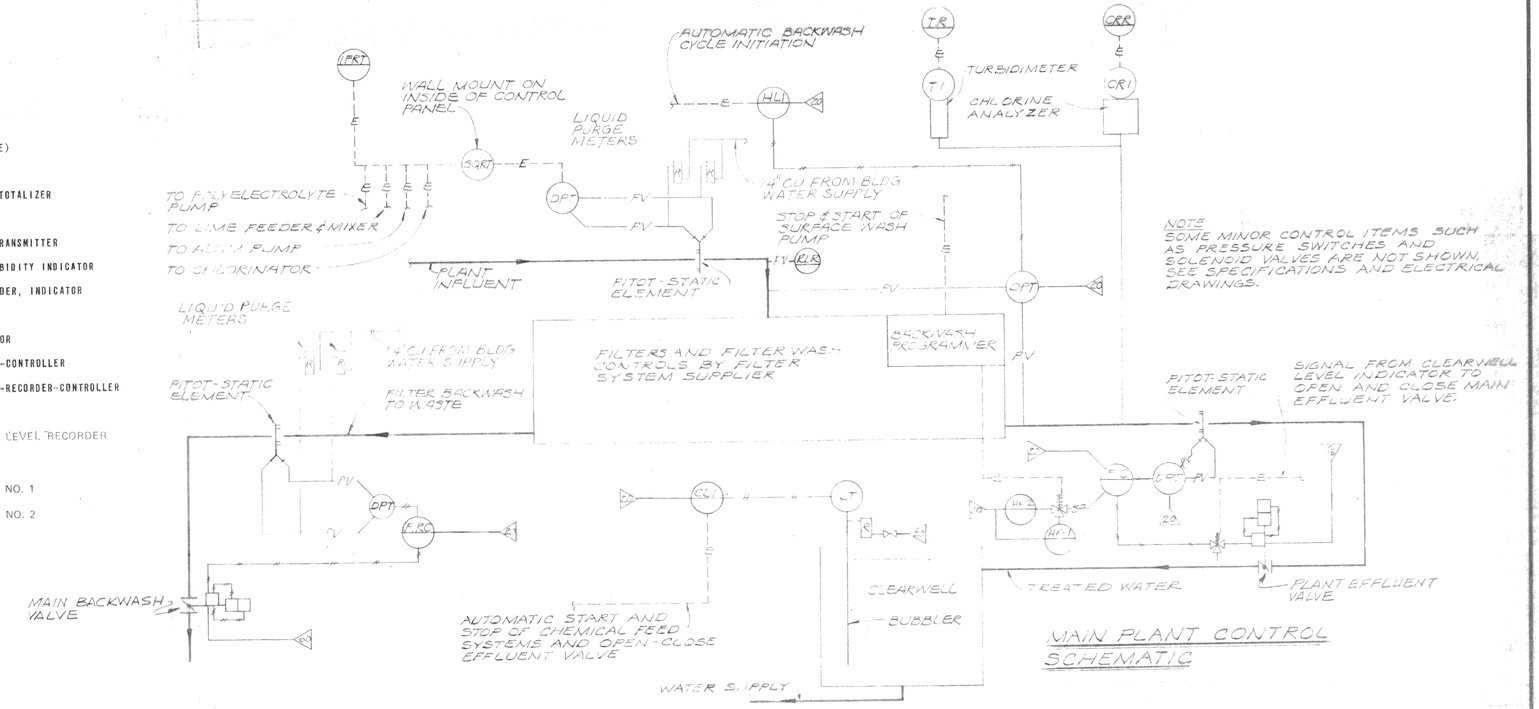
DWG. NO. 19
SCHEDULE B
JOB NO. 1-71.18

PRINTED ON DIEPO NO. 1000H CLEARPRINT

MICROFILMED

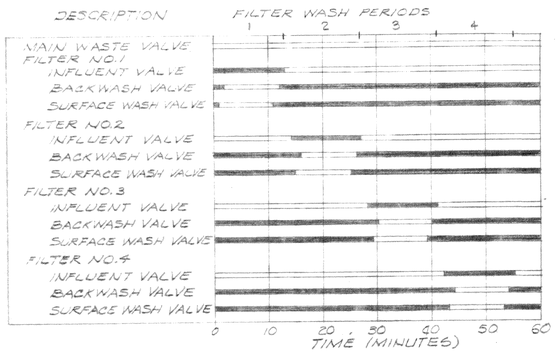
LEGEND

PANEL MOUNTED INSTRUMENT	AIR CONTROL SIGNAL
LOCALLY MOUNTED INSTRUMENT	ELECTRICAL SIGNAL
BUTTERFLY VALVE	SET POINT SIGNAL (REMOTE)
BALL VALVE	PROCESS VARIABLE
SOLENOID VALVE	IFRT — INFLUENT FLOW RECORDER-TOTALIZER
3-WAY SOLENOID VALVE	SQRT — SQUARE ROOT EXTRACTOR
PNEUMATIC CYLINDER OPERATOR WITH POSITIONER	DPT — DIFFERENTIAL PRESSURE TRANSMITTER
AIR SUPPLY PRESSURE	TR, TI — TURBIDITY RECORDER, TURBIDITY INDICATOR
ROTAMETER	CRR, CRI — CHLORINE RESIDUAL RECORDER, INDICATOR
	HLI — HEAD LOSS INDICATOR
	CLI — CLEARWELL LEVEL INDICATOR
	FIC — EFFLUENT FLOW INDICATOR-CONTROLLER
	FIRC — BACKWASH FLOW INDICATOR-RECORDER-CONTROLLER
	LT — LEVEL TRANSMITTER
	RLR — JEFF DAVIS RESERVOIR LEVEL RECORDER
	SELECTOR SWITCH
	HK-1 — MANUAL LOAD STATION NO. 1
	HK-2 — MANUAL LOAD STATION NO. 2

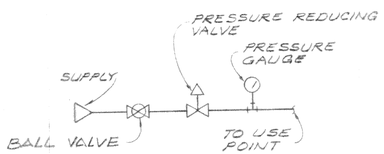


NOTE
SOME MINOR CONTROL ITEMS, SUCH AS PRESSURE SWITCHES AND SOLENOID VALVES ARE NOT SHOWN. SEE SPECIFICATIONS AND ELECTRICAL DRAWINGS.

MAIN PLANT CONTROL SCHEMATIC



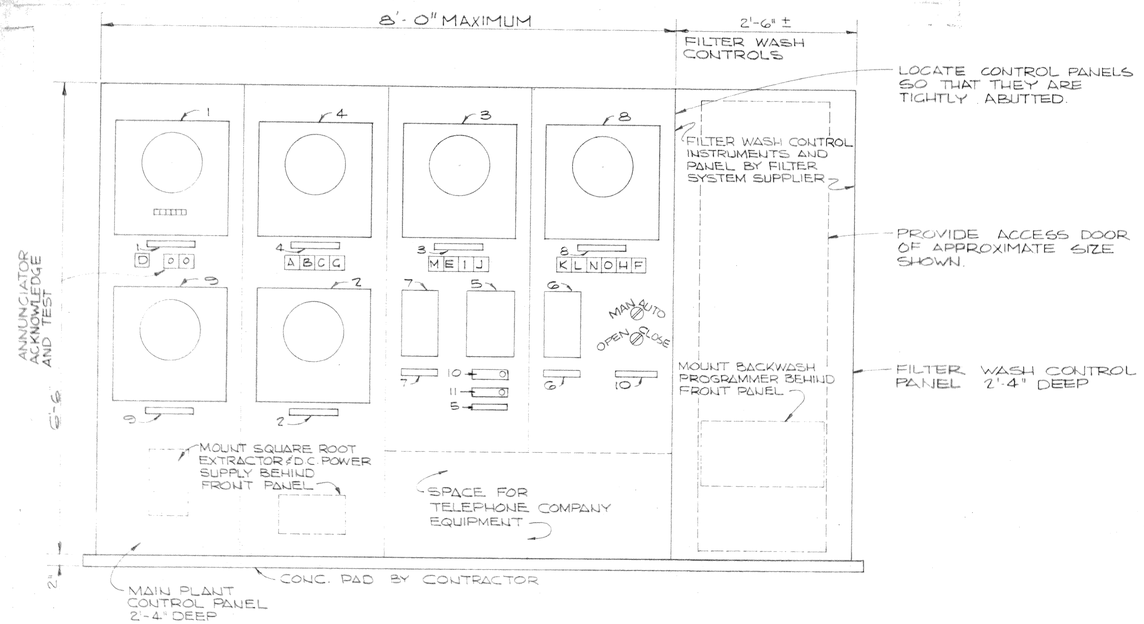
TYPICAL BACKWASH SEQUENCE
(TYPICAL FOR 6 FILTER INSTALLATION ALSO)



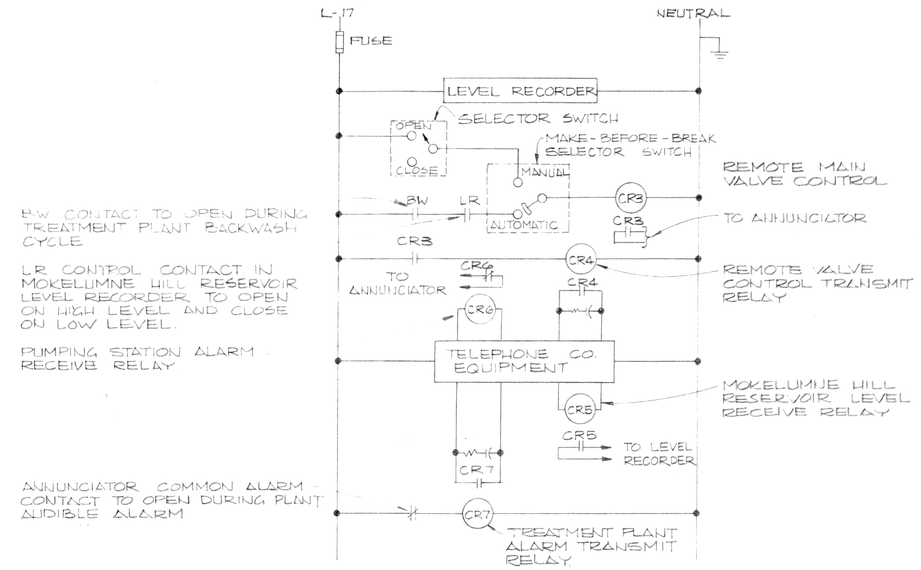
TYPICAL AIR PRESSURE REDUCING STATION
(SCHEMATIC)

DES. DYE	APP. CHIEF ENGINEER	REVISIONS	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA CH2M HILL	CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA	1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES WATER TREATMENT PLANT CONTROLS	DWG. NO. 20 SCHEDULE B JOB NO. L-71-18
DWN. JDH	DATE JULY, 1971					
CHK. HCR						

BRUNING 40-105



CONTROL PANEL LAYOUT
N.T.S.



TELEMETRY AND REMOTE VALVE CONTROL DIAGRAM

NAMEPLATE SCHEDULE	
MARK	INSCRIPTION
1	INFLUENT FLOW
2	BACKWASH FLOW
3	CHLORINE RESIDUAL
4	TURBIDITY (JTU)
5	EFFLUENT FLOW
6	CLEARWELL LEVEL
7	FILTER BANK HEAD LOSS
8	MOKELUMNE HILL RESERVOIR LEVEL
9	JEFF DAVIS RESERVOIR LEVEL
10	MAIN CONTROL VALVE

INSTRUMENT SCHEDULE	
MARK	INSTRUMENT
1	INFLOW FLOW RECORDER – TOTALIZER
2	BACKWASH FLOW RECORDER – CONTROLLER
3	CHLORINE RESIDUAL RECORDER
4	TURBIDITY RECORDER
5	EFFLUENT FLOW INDICATOR – CONTROLLER
6	CLEARWELL LEVEL INDICATOR
7	FILTER HEAD LOSS INDICATOR
8	MOKELUMNE HILL RESERVOIR LEVEL RECORDER
9	JEFF DAVIS RESERVOIR LEVEL RECORDER
10	MANUAL LOAD STATION NO. 1
11	MANUAL LOAD STATION NO. 2

ANNUNCIATOR SCHEDULE		SIGNAL TYPE	
MARK	WINDOW INSCRIPTION	LIGHT ONLY	AUDIBLE PLUS LIGHT
A	BACKWASH VALVE OPEN	✓	
B	BACKWASH VALVE CLOSED	✓	
C	BACKWASH FLOW HIGH OR LOW		✓
D	PUMP STATION ALARM		✓
E	CHLORINE RESIDUAL HIGH OR LOW		✓
F	MAIN VALVE OPEN	✓	
G	HIGH TURBIDITY LEVEL		✓
H	MOKELUME HILL RESERVOIR		✓
I	HIGH EFFLUENT FLOW		✓
J	LOW EFFLUENT FLOW		✓
K	HIGH CLEARWELL LEVEL		✓
L	LOW CLEARWELL LEVEL		✓
M	HIGH FILTER HEAD LOSS		✓
N	PLANT EFFLUENT VALVE OPEN	✓	
O	PLANT EFFLUENT VALVE CLOSED	✓	

NOTE:
INSCRIPTION LETTERS ON NAMEPLATES SHALL BE UPPER CASE LETTERS 5/8" TALL.

REGISTERED PROFESSIONAL ENGINEER — JOHN E. HANSON — No 13176 — CIVIL — STATE OF CALIFORNIA

John S. Hanson

DATE 9-5-74

DES. WJF	APP. CHIEF ENGINEER	REVISIONS	
DWN. JLL	CHIEF ENGINEER		
CHK.	DATE JULY, 1971		

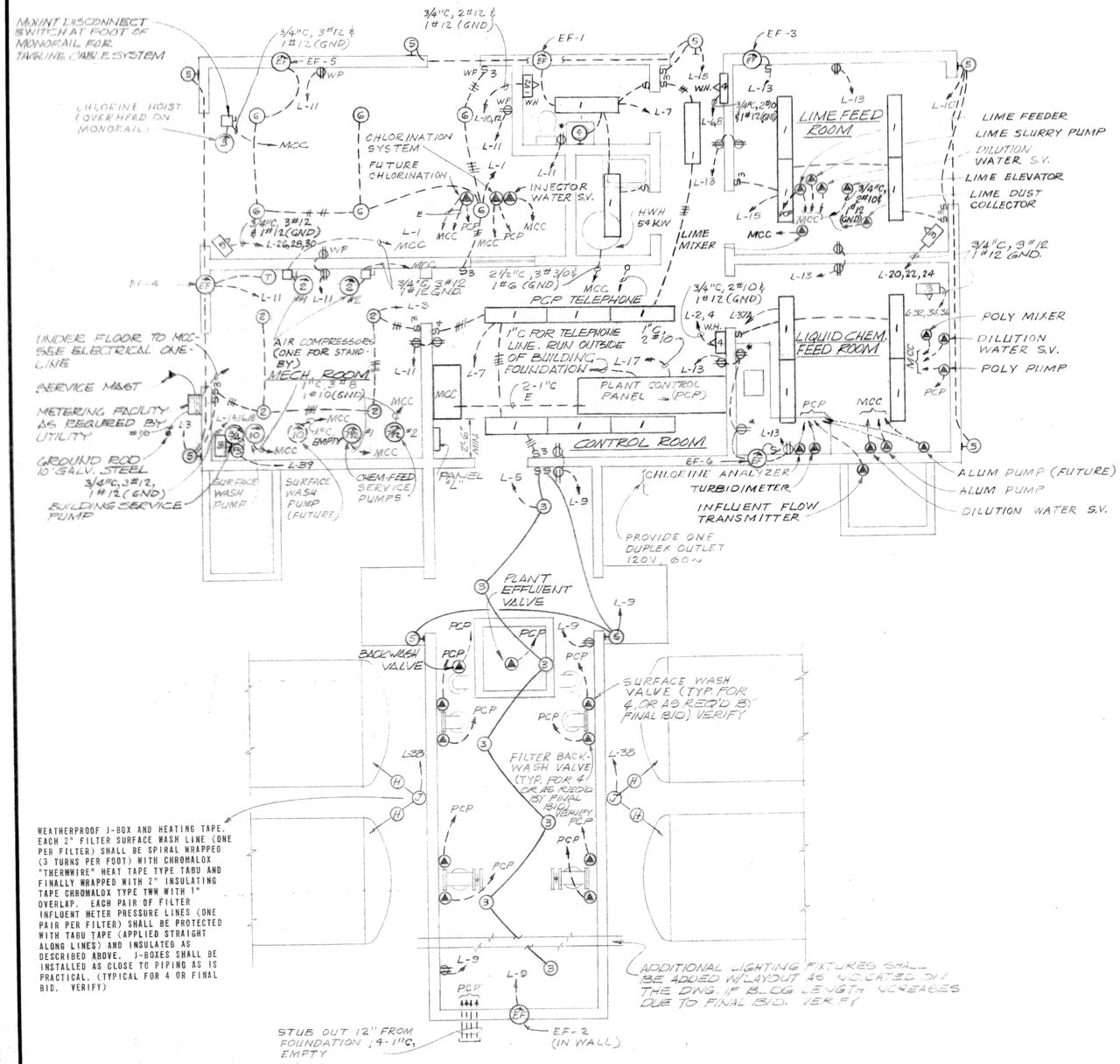
BRUNING 40-105

H CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS
1525 COURT STREET REDDING, CALIFORNIA
CH2M HILL

CALAVERAS PUBLIC UTILITY DISTRICT
SAN ANDREAS, CALIFORNIA

1971 WATER PROJECT
SUPPLY, TREATMENT, AND STORAGE FACILITIES
WATER TREATMENT PLANT CONTROLS

DWG. NO. 21
SCHEDULE B
JOB NO. L-71.18



LEGEND

1	LIGHTING FIXTURE, FLUORESCENT, HOLOPHANE CAT 7100-4 2-F40WW LAMPS, CEILING MOUNTED.
(2)	LIGHTING FIXTURE, INCANDESCENT, BENJAMIN V-9643, 1-200W IF LAMP, CEILING MOUNTED.
(3)	LIGHTING FIXTURE, INCANDESCENT, BENJAMIN V-7643, 1-200W IF LAMP, PENDENT MOUNTED 10' ABOVE FLOOR
(4)	LIGHTING FIXTURE, INCANDESCENT, ART METAL 3559-AA, 2-75W IF LAMPS, WALL MOUNTED ABOVE MIRROR ON RECESSED BOX
(5)	LIGHTING FIXTURE, INCANDESCENT, HOLOPHANE CAT 400, 1-150W IF LAMP, WALL MOUNTED ON RECESSED BOX AT 7½' ABOVE GROUND LEVEL.
(6)	LIGHTING FIXTURE, CROUSE-HINDS #VXHF22GRD 1-200W IF PS-25 CEILING MOUNTED.
S	SWITCH, SPST
S_3	SWITCH, THREE WAY * INDICATES UNIT APPROVED FOR OUTSIDE INSTALLATION AND USE
	TERMINAL BOX OR CONNECTION POINT TO EQUIPMENT SPECIFIED.
———	CONDUIT EXPOSED 1/2" C, 2 NO. 12 UNLESS OTHERWISE INDICATED
- - - - -	CONDUIT CONCEALED 3/4" C, 2 NO. 12 UNLESS OTHERWISE INDICATED
E	EMPTY CONDUIT FOR FUTURE USE. EXPOSED TERMINATIONS (NOT CONCEALED BY EQUIPMENT) SHALL BE PLUGGED FLUSH WITH FLOOR.
100	CIRCUIT BREAKER, TRIP SPECIFIED
2	CONTACTOR WITH SIZE INDICATED, OR RELAY CONTACT
	OVERLOAD RELAY
M	MOTOR
CR	CONTROL RELAY
TM	ELAPSED TIME METER
M	MAIN CONTACTOR
I R	INDICATING LIGHT R=RED, PUSH TO TEST TYPE
T	THERMOSTAT, FAN
PCP	PLANT CONTROL PANEL
MCC	MOTOR CONTROL CENTER
	DISCONNECT SWITCH, NONFUSED, WITH LOCK-OPEN FEATURE, NEMA 1 ENCLOSURE.
N	UNIT HEATER, CEILING MOUNTED, INTEGRAL THERMOSTAT AND CONTACTOR, KW AS INDICATED.
	OUTLET, DUPLEX. * INDICATES OUTLET INSTALLED 12"+ ABOVE SINKS OR COUNTER TOPS AS SHOWN ON THE DWGS. "WP" INDICATES WEATHERPROOF UNIT INSTALLED 48"± ABOVE FLOOR.
EF	EXHAUST FAN WITH DISCONNECT 115V, 1Φ. DESIGNATED AS NUMBER 1, 2, 3, etc. 115V, 1Φ. SEE MECHANICAL SPECS.
—H— MCC	HOME RUN TO EQUIPMENT INDICATED. HASH MARKS INDICATE NUMBER OF CONDUCTORS. ALL HOME RUNS SHOWN AS "PCP" SHALL BE EMPTY CONDUIT ONLY.
H	PIPE INSULATION AND HEAT TAPE WITH INTEGRAL THERMOSTAT. SEE DESCRIPTION THIS SHEET.
H O A	HAND-OFF-AUTO SWITCH
S.V.	SOLENOID VALVE
PS	PRESSURE SWITCH

ELECTRICAL LIGHTING & POWER PLAN

1/4" = 1'-0"

JCVA 9-5-74

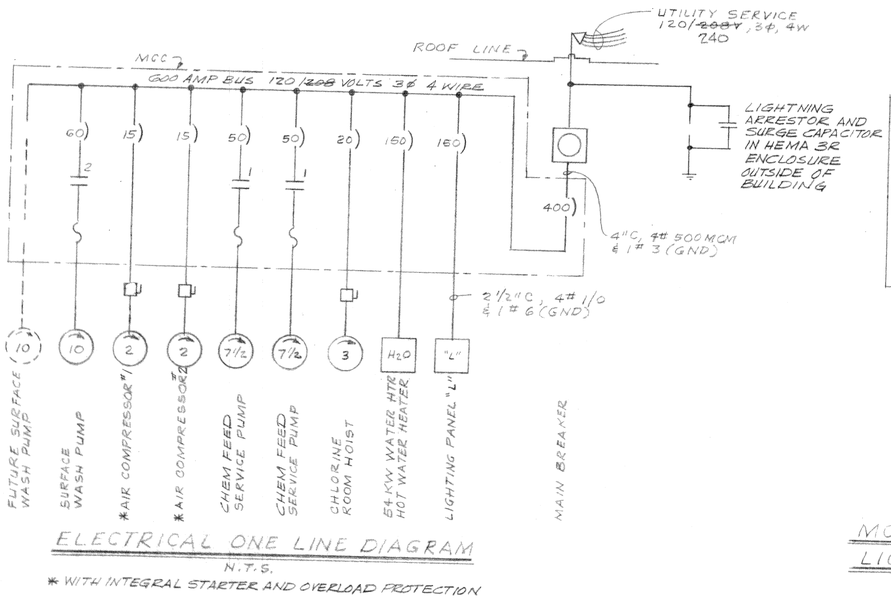
1/4" = 1'-0"

DES. WRS	APP.	REVISIONS	H. CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA
DWN. ABC			CH2M HILL
CHK. WNF	DATE JULY, 1971		CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS CALIFORNIA

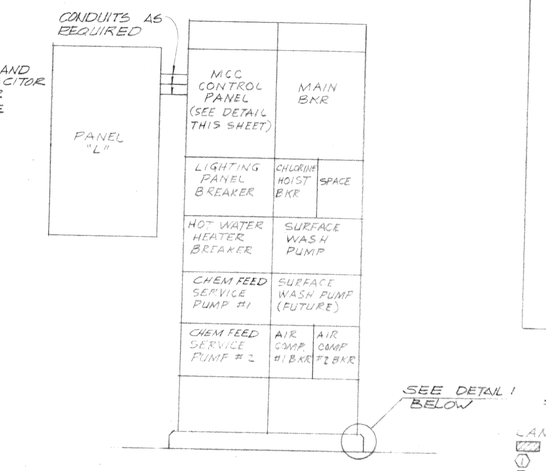
1971 WATER PROJECT
SUPPLY, TREATMENT, AND STORAGE FACILITIES
WATER TREATMENT PLANT
ELECTRICAL

DWG. NO. 22
SCHEDULE B
JOB NO. L-71.18

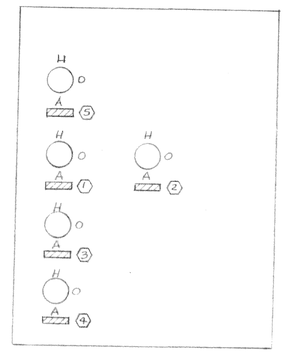
PRINTED ON DIEPO NO. 1050R CLEARPRINT



ELECTRICAL ONE LINE DIAGRAM
N.T.S.
* WITH INTEGRAL STARTER AND OVERLOAD PROTECTION

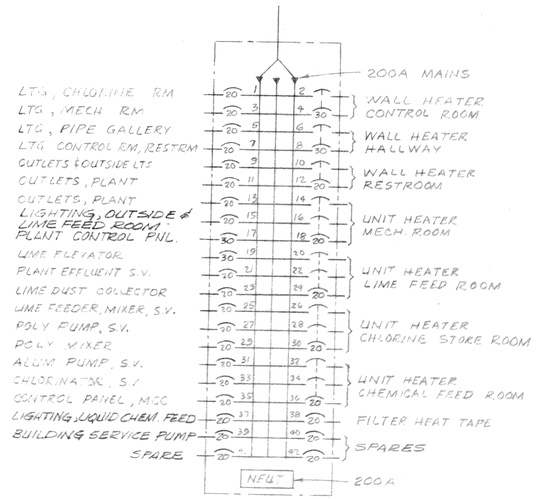


MOTOR CONTROL CENTER & LIGHTING PANEL ELEVATION
N.T.S.

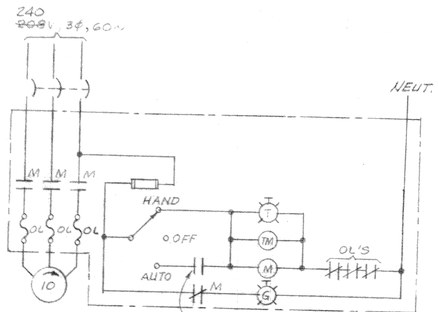


MCC CONTROL PANEL DETAIL
N.T.S.

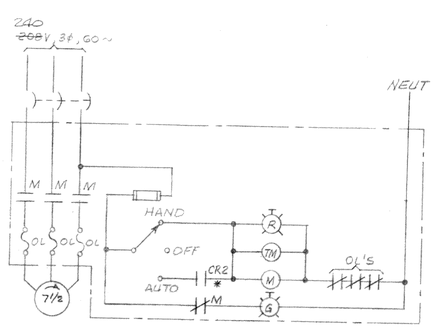
LAMINATED PLASTIC NAMEPLATES TO READ AS INDICATED BELOW
1. AUTO POLY. SYSTEM
2. AUTO LIME FEED SYSTEM
3. ALUM PUMP #1
4. CHLORINATOR VALVE #1
5. PLANT EFFLUENT SOLENOID VALVE



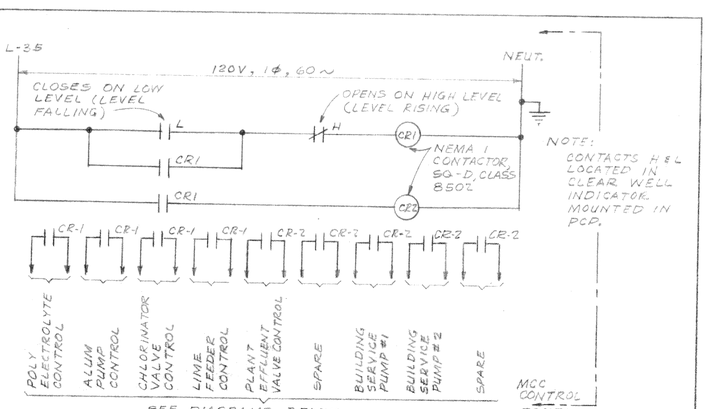
LIGHTING PANEL LAYOUT
SQ-D" TYPE NQOB, 3φ, 4W
NEMA 1 ENCLOSURE



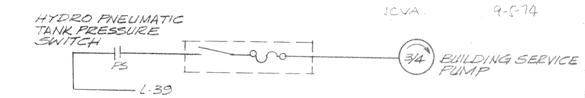
CONTROL DIAGRAM
SURFACE WASH PUMP

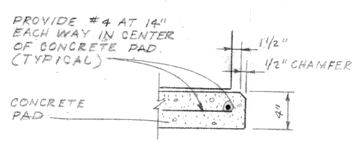


CONTROL DIAGRAM - CHEM FEED SERVICE PUMP (TYP. OF 2)
* CONTACT FROM MCC CONTROL PANEL SEE CONTROL DIAGRAM A

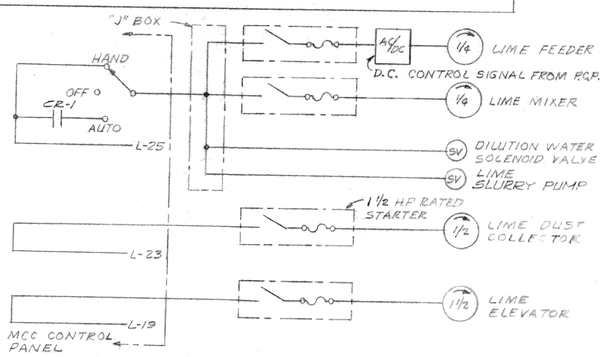


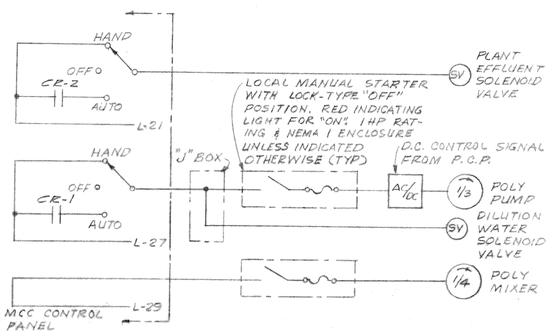
CONTROL DIAGRAM "A"
N.T.S.

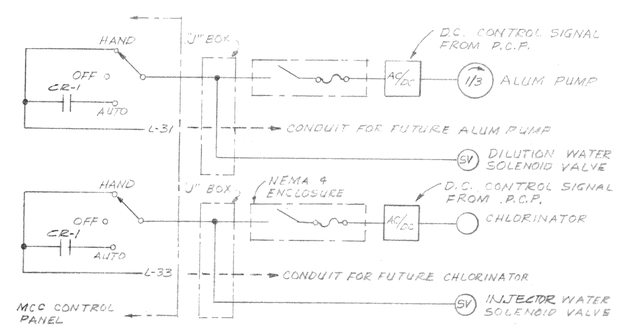




DETAIL 1
N.T.S.







DES. WRS	APP. CHIEF ENGINEER	REVISIONS
DWN. ABC	DATE JULY, 1971	
CHK. WJF		

PRINTED ON DIEPO NO. 1000H CLEARPRINT

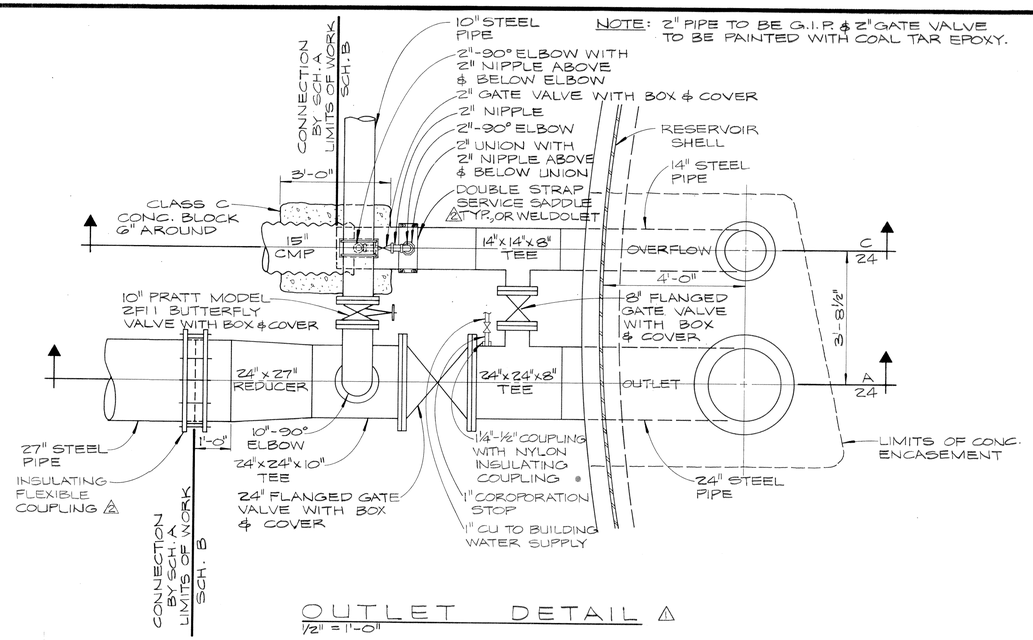
CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS
1525 COURT STREET REDDING, CALIFORNIA

CH2M HILL

CALAVERAS PUBLIC UTILITY DISTRICT
SAN ANDREAS, CALIFORNIA

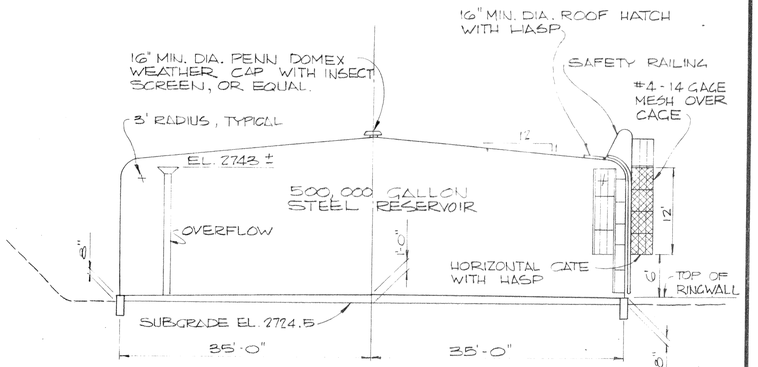
1971 WATER PROJECT
SUPPLY, TREATMENT, AND STORAGE FACILITIES
WATER TREATMENT PLANT
ELECTRICAL

DWG. NO. 23
SCHEDULE B
JOB NO. L-7118



OUTLET DETAIL △

½" = 1'-0"

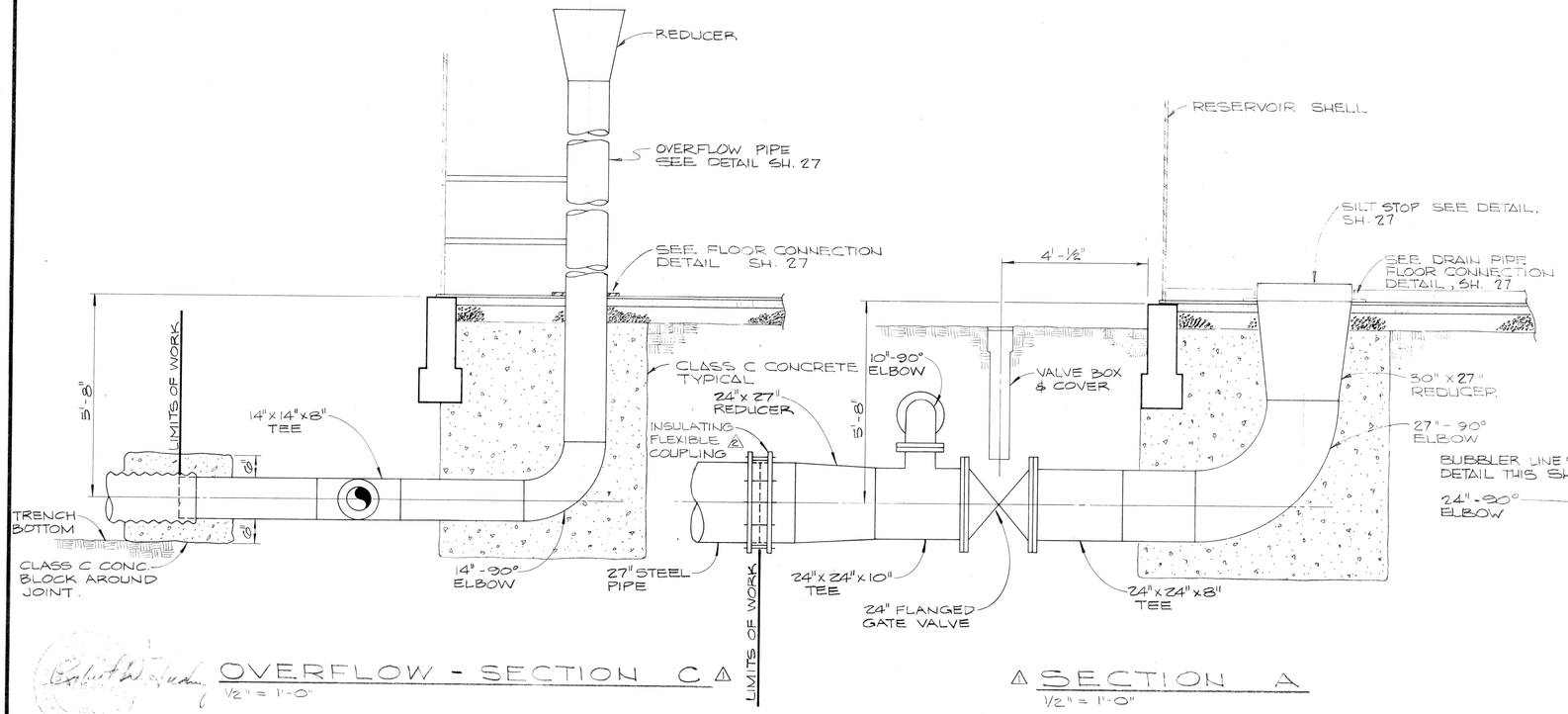


SECTION

1" = 10'

NOTE: STANDARD LADDER INSIDE & OUT CAGED AS SHOWN.

△ NOTE: BYPASS PIPING TO BE IN ACCORDANCE WITH SCHEDULE B SPECIFICATIONS EXCEPT IT MAY BE 12 GAGE MINIMUM THICKNESS STEEL.



OVERFLOW - SECTION C △

½" = 1'-0"

△ SECTION A

½" = 1'-0"

△ INLET - SECTION B

½" = 1'-0"

SEE SITE PLAN SH. 13

10' 0 10'
1" = 10'

1' 0 1' 2' 3' 4' 5' 6'
½" = 1'-0"

JCVA. 9-5-74

DES. MJH	APP.	REVISIONS △ ADD RESERVOIR BYPASS, NEW SHEET SUPERCEDES ORIGINAL DRAWING NO. 24 2-29-72 M.V.L. ▲ ADD NOTE, INSULATING FLEXIBLE COUPLING & ADD ALTERNATE WELDOLETS 3-28-72 M.V.L.	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS 1525 COURT STREET REDDING, CALIFORNIA CH2M HILL	CALAVERAS PUBLIC UTILITY DISTRICT SAN ANDREAS, CALIFORNIA	1971 WATER PROJECT SUPPLY, TREATMENT, AND STORAGE FACILITIES CLEAR WELL RESERVOIR	DWG. NO. 24 REV. SCHEDULE B JOB NO. L-71.18
DWN. LAW	CHIEF ENGINEER				
CHK. RET	DATE JULY 1971				

BRUNING 40-105