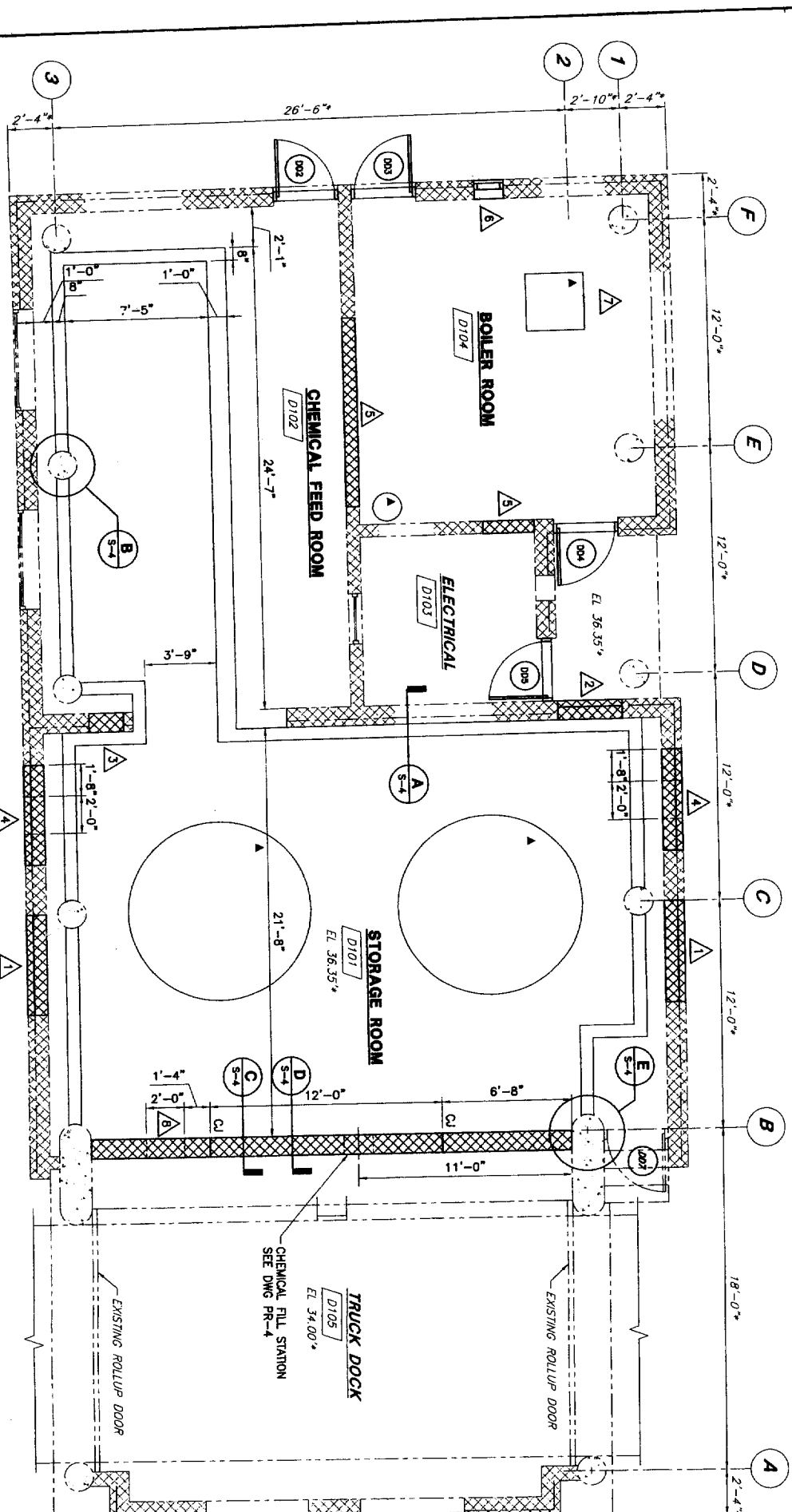


BISULFITE BUILDING - DEMOLITION PLAN
 SCALE: 1/4" = 1'-0"
 (FORMER CHLORINATION BUILDING)

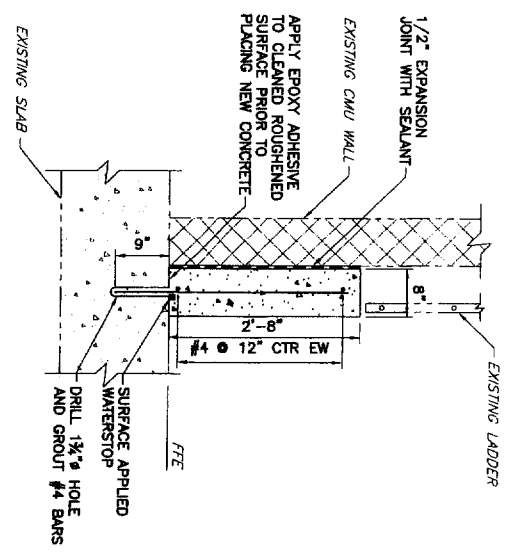


- NOTES:**
- INDICATES DIMENSIONS TAKEN FROM RECORD DRAWINGS FOR PORTLAND WATER DISTRICT, POLLUTION ABATEMENT FACILITIES, CONTRACTOR NO. 6, MARCH 1981 BY CAMP DRESSER AND MCKEE INC. CONSULTING ENGINEERS. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 - REFER TO DRAWING S-1 FOR GENERAL NOTES.
 - REFER TO DRAWING S-5 FOR DOOR AND ROOM FINISH MODIFICATIONS.

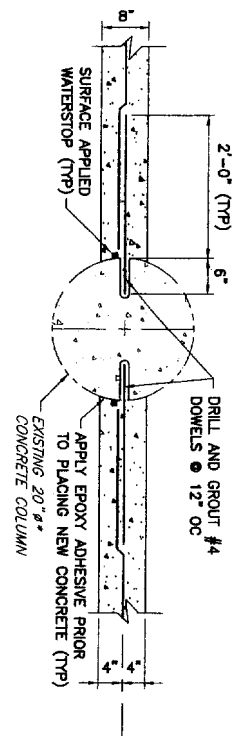
- DEMOLITION NOTES:**
- REMOVE EXISTING LOUVER AND FRAME.
 - REMOVE EXISTING DOOR, FRAME, TRANSOM AND HARDWARE.
 - REMOVE EXISTING MONORAIL DOOR AND FRAME.
 - REMOVE EXISTING MONORAIL HOIST, TRACK AND SUPPORTS AND FRAME.
 - REMOVE EXISTING CONCRETE PAD.
 - REMOVE EXISTING WINDOW AND FRAME.

- MODIFICATION NOTES:**
- MASONRY INFILL AT LOUVERS TO BE 4" SPLIT FACED AND 8" CMU TO MATCH EXISTING.
 - INFILL AT EXISTING DOORWAY WITH 4" SPLIT FACED AND 8" CMU TO MATCH EXISTING.
 - INFILL AT EXISTING LOUVER OPENING WITH 12" CMU TO MATCH EXISTING. SEE HVAC DRAWINGS FOR LOCATION.
 - INFILL AT EXISTING LOUVER OPENING WITH 4" SPLIT FACED AND 8" CMU TO MATCH EXISTING. PROVIDE NEW 2'-0" SQUARE LOUVERS AND DAMPERS. LOCATE TOP OF LOUVER AT UNDERSIDE OF CONCRETE BEAM.
 - INFILL AT EXISTING WINDOW WITH 8" CMU TO MATCH EXISTING.
 - NEW OPENING FOR 18" x 18" LOUVER. BOTTOM OF OPENING SHALL BE 16" ABOVE FINISH FLOOR.
 - COBE HOLE IN EXISTING ROOF FOR NEW BOILER VENT. CONTRACTOR SHALL COORDINATE LOCATION AND SIZE. PROTECT EXISTING ROOF FROM DAMAGE. ALL WORK ON EXISTING ROOF SHALL BE MADE WATERIGHT AT THE END OF EACH DAY. SEE DETAIL G ON DRAWING S-4 FOR FLASHING DETAIL.
 - 2'-0" x 1'-6" LOUVER OPENING. LOCATE TOP OF LOUVER AT UNDERSIDE OF CONCRETE BEAM.

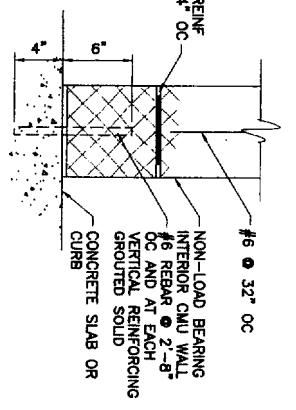




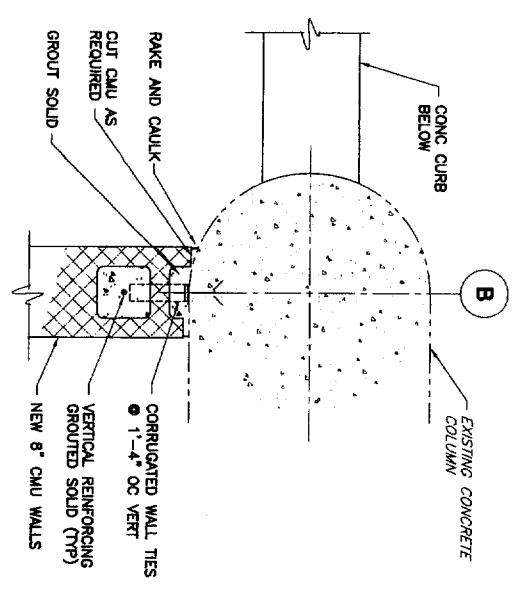
DETAIL A
SCALE: 3/4"=1'-0"
S-2 S-3



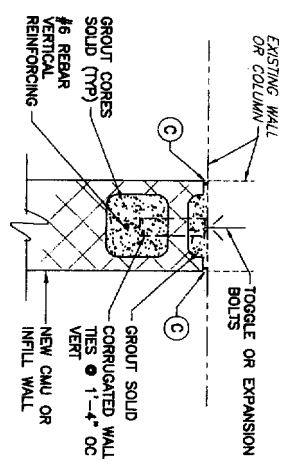
DETAIL B
SCALE: 3/4"=1'-0"
S-2 S-3



TYPICAL WALL BASE DETAIL C
SCALE: 1 1/2" = 1'-0"
S-2 S-3

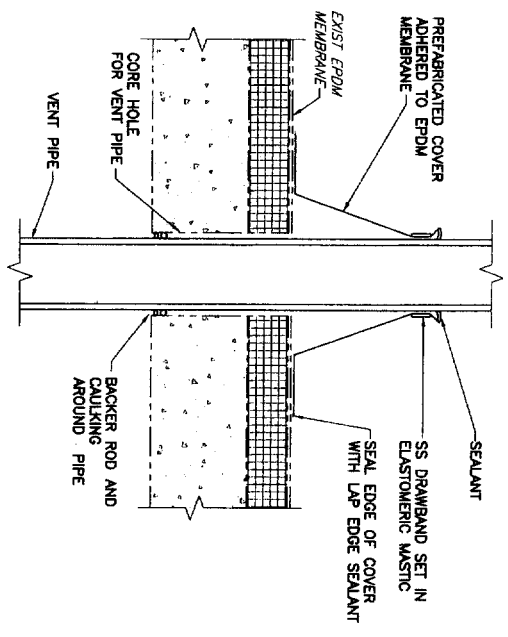


DETAIL B
SCALE: 1 1/2" = 1'-0"
S-3

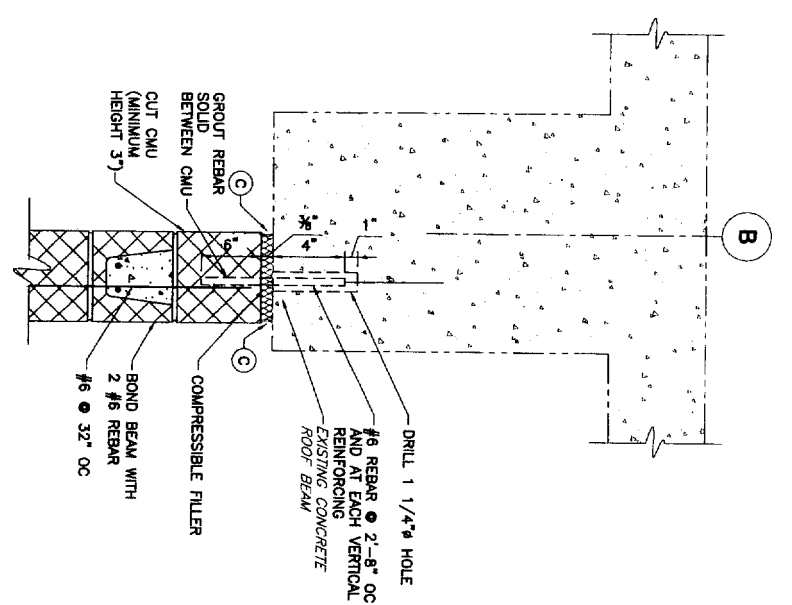


NOTES:
1. RAKE AND CAULK JOINTS.
2. THE VERTICAL REINFORCING IS NOT REQUIRED AT INFILL OF EXISTING DOORS, WINDOWS AND OTHER SMALL OPENINGS IN NON-LOADBEARING WALLS.

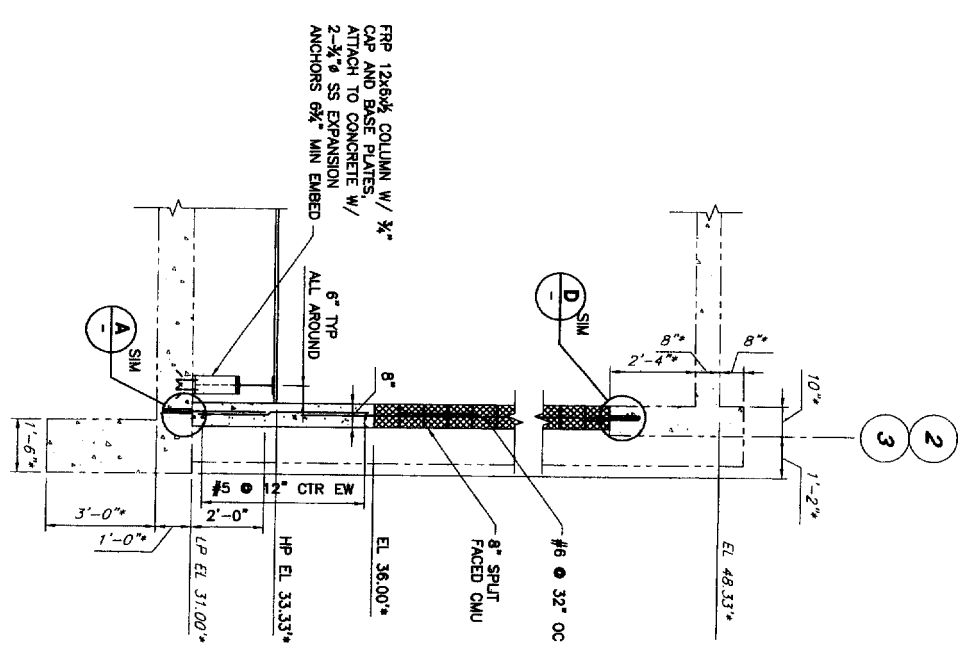
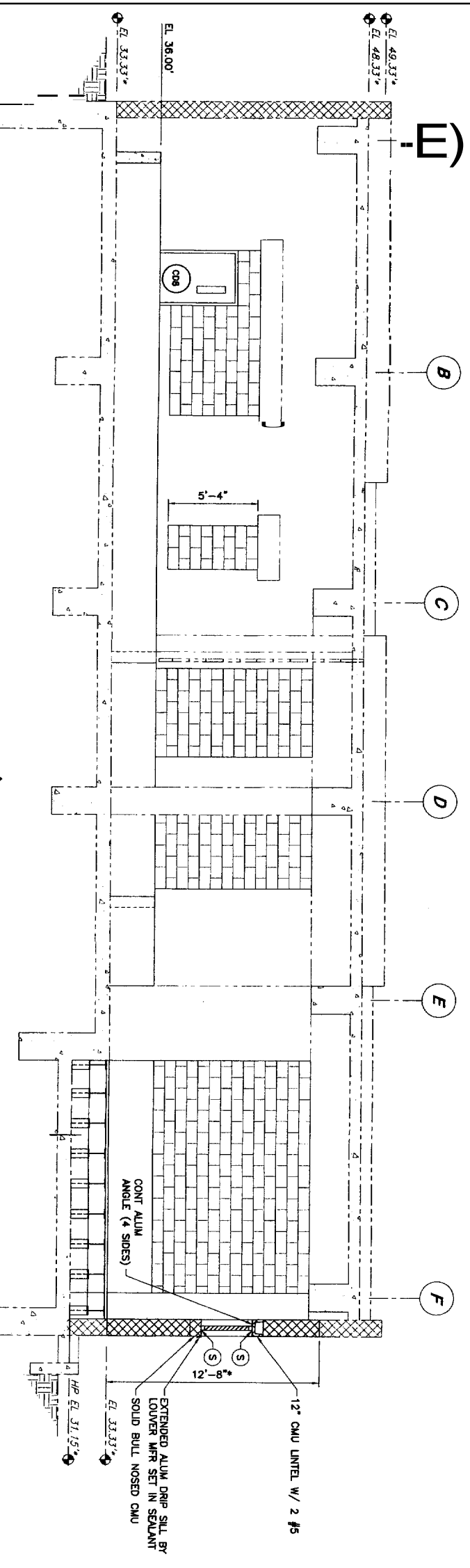
TYPICAL WALL JOINT DETAIL E
SCALE: 1 1/2" = 1'-0"
S-1 S-2 S-3



VENT DETAIL G
SCALE: 1 1/2" = 1'-0"
S-3



TYPICAL TOP OF WALL DETAIL D
SCALE: 1 1/2" = 1'-0"
S-3



DRAWN BY: BAO
CHECKED BY: WJF/PFB
DATE: 2-18-05
APPROVED BY: WJF/PFB

NO.	REVISIONS	APP'D	DATE	PROGRESS PRINTS
1				ISSUED FOR REVIEW: 12-15-04
2				ISSUED FOR BIDDING: 2-18-05

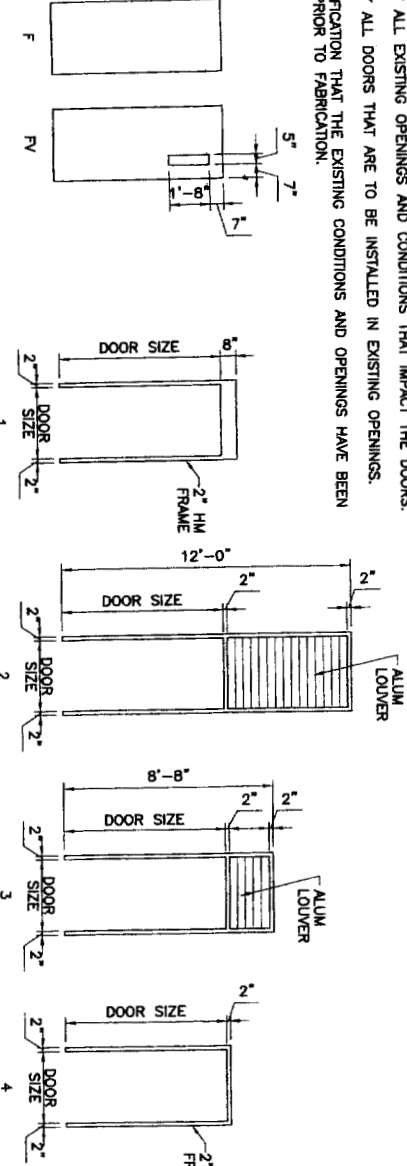
DOOR SCHEDULE

NO.	W.	HT.	THK.	TYPE	MATL	GLASS LOUVER	INS.	LABEL	TYPE	MATL	HEAD	JAMB	SILL	LABEL	INS.	HW-FE.	REMARKS
CB2	3'-0"	6'-8"	1 3/4"	F	HM	-	-	2	FRP	1, 2	10	20	-	-	-	1	PAINT DOOR AND FRAME
CB3	3'-0"	6'-8"	1 3/4"	F	HM	-	-	2	FRP	1, 2	10	20	-	-	-	1	PAINT DOOR AND FRAME
CD4	3'-0"	6'-8"	1 3/4"	F	HM	-	-	2	FRP	1, 2	10	20	-	-	-	1	PAINT DOOR AND FRAME
CD5	3'-0"	6'-8"	1 3/4"	F	HM	-	-	2	FRP	1, 2	10	20	-	-	-	1	PAINT DOOR AND FRAME
CD7	3'-0"	6'-8"	1 3/4"	F	HM	-	-	2	FRP	1, 2	10	20	-	-	-	1	PAINT DOOR AND FRAME
CD8	3'-0"	7'-2"	1 3/4"	FV	HM	-	-	4	FRP	3	13	20	B	-	-	2	PAINT DOOR AND FRAME
DD2	3'-0"	6'-8"	1 3/4"	F	HM	-	-	3	FRP	1, 2	11	20	-	-	-	1	PAINT DOOR AND FRAME
DD3	3'-0"	6'-8"	1 3/4"	F	HM	-	-	3	FRP	1, 2	11	20	-	-	-	1	PAINT DOOR AND FRAME
DD4	3'-0"	6'-8"	1 3/4"	F	HM	-	-	4	FRP	4	11	20	-	-	-	3	PAINT DOOR AND FRAME
DD5	3'-0"	6'-8"	1 3/4"	F	HM	-	-	4	FRP	4	11	20	-	-	-	3	PAINT DOOR AND FRAME
DD6	3'-0"	6'-8"	1 3/4"	F	HM	-	-	4	FRP	4	11	20	-	-	-	3	PAINT DOOR AND FRAME
DD7	3'-0"	6'-8"	1 3/4"	F	HM	-	-	4	FRP	4	11	20	-	-	-	3	PAINT DOOR AND FRAME

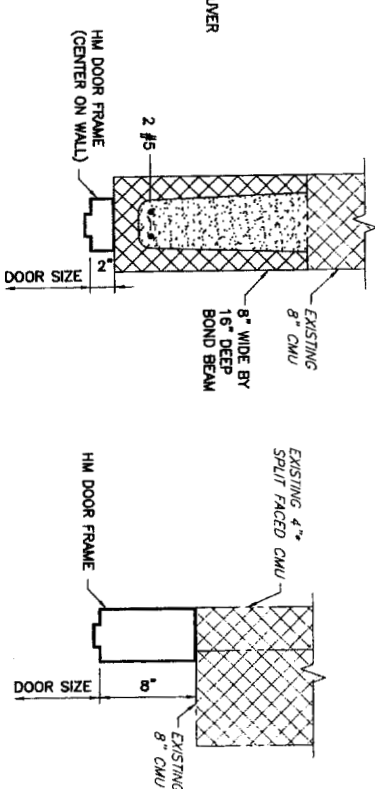
NOTES:

- FIELD VERIFY ALL EXISTING OPENINGS AND CONDITIONS THAT IMPACT THE DOORS.
- FIELD VERIFY ALL DOORS THAT ARE TO BE INSTALLED IN EXISTING OPENINGS.
- SUBMIT VERIFICATION THAT THE EXISTING CONDITIONS AND OPENINGS HAVE BEEN FIELD VERIFIED PRIOR TO FABRICATION.

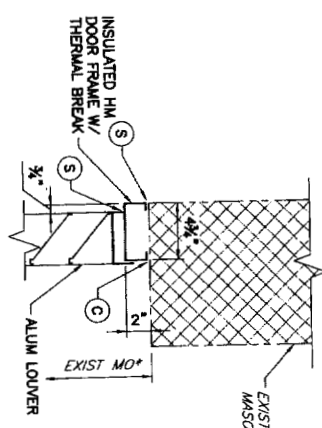
DOOR TYPES



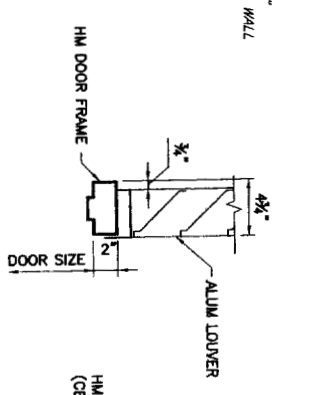
FRAME TYPES



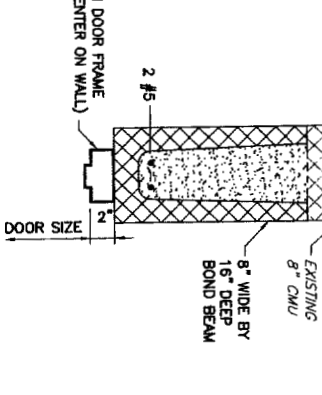
HEAD 1



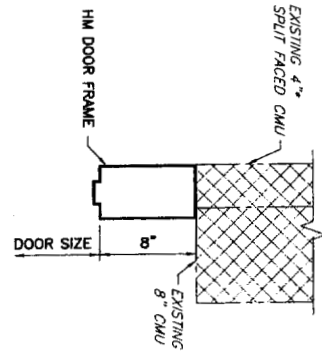
HEAD 2



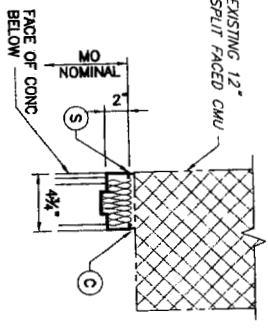
HEAD 3



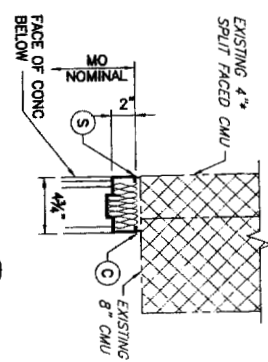
HEAD 4



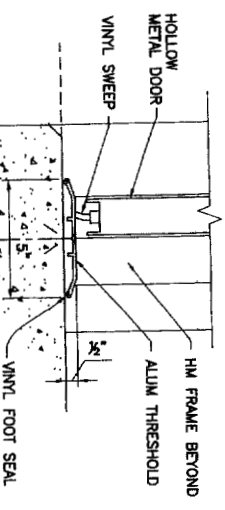
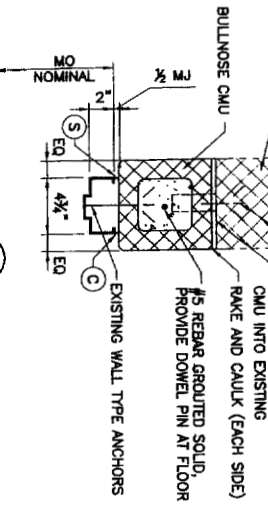
JAMB 10



JAMB 11



JAMB 13



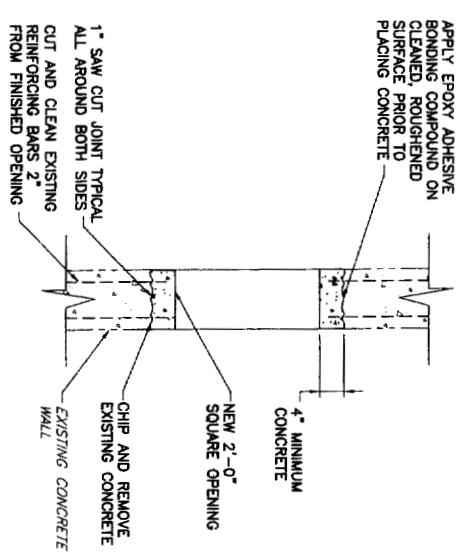
ROOM FINISH SCHEDULE

RM NO.	ROOM NAMES	FLOOR BASE FIN. MATL.	WALLS				CEILING				REMARKS
			NORTH	SOUTH	EAST	WEST	MATL.	FIN.	MATL.	FIN.	
C101	STORAGE ROOM	CMU CONG	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
C102	CHEMICAL FED ROOM	CMU CONG	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
C103	ELECTRICAL	CMU CONG	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
C104	CHLORINE/ANALYSIS ROOM	CMU	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
D101	STORAGE ROOM	CMU	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
D102	CHEMICAL FED ROOM	CMU	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
D103	ELECTRICAL	CMU	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
D104	BOILER ROOM	CMU	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	
D105	TRUCK DOCK	CMU	EP	EP	EP	EP	CONC	-	-	▲ SEE NOTE 8	

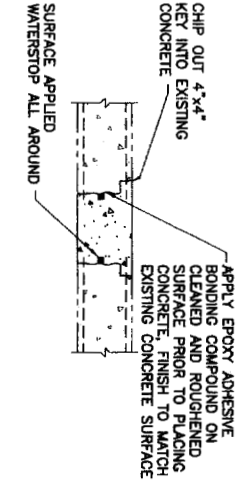
ROOM FINISH NOTES:

- GROUT, PATCH, LEVEL, REPAIR AND SEAL THE CRACKS AND OPEN JOINTS AND CORRECT ALL EXISTING SURFACES PRIOR TO THE APPLICATION OF THE NEW FINISHES.
- REMOVE AND REPLACE ALL EXISTING SEALANTS AND CAULKING AT AREAS INDICATED TO BE FINISHED.
- REMOVE AND REINSTALL ALL ITEMS MOUNTED TO THE WALLS AND SURFACES TO BE REFINISHED.
- CLEAN AND REMOVE ALL LOOSE PAINT, RUST, DIRT AND OILS FROM THE EXISTING SURFACES TO BE REFINISHED AS SPECIFIED IN SECTION 09900 - PAINTING.
- SPECIFIC SURFACE PREPARATION EXISTING CMU WALLS:
 - WATER BLAST
 - STRIKE EXISTING PAINT TO SHOW SURFACE
 - SAND EXISTING COATINGS
 - REFINISH
- VERIFY THAT MATERIALS SUPPLIED ARE COMPATIBLE WITH THE EXISTING COATINGS AND FINISHES.
- PAINT AND FINISH ALL NEW DRIPINGS AND EQUIPMENT AND OTHER ITEMS INSTALLED WITHIN THE EXISTING FACILITY. COORDINATE WITH ALL DRAWINGS AND SPECIFICATIONS WITHIN THE CONTRACT DRAWINGS.
- PROVIDE SECONDARY CONTAMINANT COATINGS AT THE CHEMICAL AREAS ON THE FLOOR AND CONCRETE AND CMU WALLS.
- ALL INTERIOR EXPOSED CONCRETE SHALL RECEIVE EPOXY PAINT.

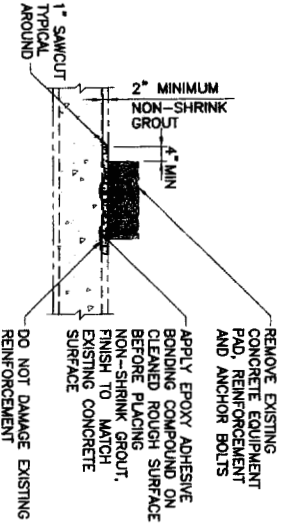
OPENING IN EXISTING WALL



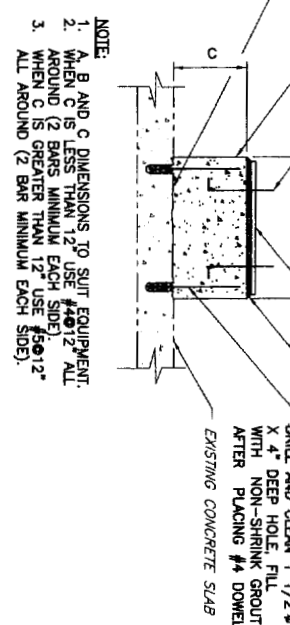
FILLED EXISTING OPENINGS (2.0" OR LESS)



CONCRETE PAD REMOVAL



PAD ON EXISTING SLAB



NOTE:

- A, B AND C DIMENSIONS TO SUIT EQUIPMENT.
- WHEN C IS LESS THAN 12" USE #4@12" ALL AROUND (2 BARS MINIMUM EACH SIDE).
- WHEN C IS GREATER THAN 12" USE #6@12" ALL AROUND (2 BARS MINIMUM EACH SIDE).

PROCESS GENERAL NOTES

1. ALL EQUIPMENT AND PIPING LAYOUT DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH EQUIPMENT SUPPLIER, AND/OR EXISTING CONDITIONS. SOME INFORMATION LOCATIONS, EXISTING STRUCTURES, PIPING AND EQUIPMENT LOCATIONS, ELEVATIONS AND SIZES, WERE TAKEN FROM THE RECORD DRAWINGS FOR THE PORTLAND WATER DISTRICT, 1973 AND THE WASTEWATER TREATMENT PLANT, NEW CHLORINATION, DECONTAMINATION FACILITIES, CONTRACTOR BY CAMP DRESSER & WELCH, IN THE FIELD AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES. EQUIPMENT OR PIPING THAT MAY BE AFFECTED IN ANY SPECIFIC INSTANCES, WHERE THIS SPECIAL ATTENTION MAY BE REQUIRED WITH ANY THIS DIMENSIONS, ELEVATIONS, ETC., HAVE BEEN NOTED WITH ANY THIS DOES NOT HONORATED ALL NECESSARY INFORMATION FOR HIS CONSTRUCTION.
2. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DIMENSIONS, LAYOUT OR ELEVATION CHANGES REQUIRED TO SUIT THE SPECIFIC EQUIPMENT BEING PROVIDED UNDER THIS CONTRACT. FINAL EQUIPMENT SHOP DRAWINGS SHALL BE REVIEWED AND "NO EXCEPTIONS TAKEN" PRIOR TO SUBMITTING REINFORCING STEEL SHOP DRAWINGS.
3. ALL BURIED CONNECTIONS TO STRUCTURES, INCLUDING BUT NOT LIMITED TO THE CHLORINE CONTACT TANK SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4 FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED (SOLID SLEEVE TYPE). REFER TO SPECIFICATION SECTION 15088.
4. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS. ALL PENETRATIONS, CONCRETE CASTINGS SHALL HAVE WATERSTOPS. SECTIONS OF MECHANICAL AND STRUCTURAL DRAWINGS FOR EXISTING STRUCTURE PENETRATIONS, NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND "JUNK SEAL" TYPE SEALS, UNLESS OTHERWISE INDICATED. OPENINGS TO BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES.
5. FOR PIPING MATERIAL, SEE THE PIPE SCHEDULE IN SPECIFICATION SECTION 15050.
6. PROVIDE DRIP PANS, WITH CENTRAL COLLECTION POINT AND DRAIN TO FLOOR, FOR ELECTRICAL AND INSTRUMENTATION EQUIPMENT LOCATED BENEATH LIQUID CARRYING PIPES.
7. ALL PROCESS AND PLANT WATER HOSE BIBBS SHALL BE PROVIDED WITH A HOSE PACK AND HOSE, ALONG WITH A SIGN INDICATING "NOT SUITABLE FOR DRINKING". FOR ADDITIONAL HOSE BIBB AND HOSE PACK INFORMATION SEE SPECIFICATION SECTION 15401, 15403 AND DRAWINGS. PROVIDE 50' OF HOSE AT EACH HOSE BIBB UNLESS OTHERWISE INDICATED.
8. INSTALL CORROSION COOKS ON ALL BUILDING AND STRUCTURE INTERIOR PIPING HIGH POINTS TO PREVENT AIR BINDING. INTERIOR PIPING IS RESPONSIBLE FOR DETERMINING EXACT NUMBER AND LOCATIONS OF THESE CORROSION COOKS AND ACTUAL FIELD ROUTING INFORMATION DEPICTED ON DRAWINGS AND ENGINEER BEFORE INSTALLATION. THESE MANUAL AIR RELEASES SHALL INCLUDE A 1/2-INCH BRASS CORPORATION COCK WITH 1/2-INCH COPPER TUBING ADEQUATELY SUPPORTED, EXTENDING TO A LOCAL AREA DRAIN, ROUTING OF TUBING AND SELECTED DRAIN TO BE REVIEWED WITH AND ACCEPTED BY ENGINEER.
9. PIPES 3-INCH IN DIAMETER AND UNDER SHALL BE SOLVENT WELDED ADJACENT TO EQUIPMENT AND TANKS, UNLESS OTHERWISE NOTED ON DRAWINGS. FLANGES ARE ACCEPTABLE ON 3-INCH DIAMETER PIPING.
10. ALL PIPES SHALL BE ADEQUATELY RESTRAINED AND SUPPORTED IN ACCORDANCE WITH SPECIFICATION SECTION 15094.
11. AFTER INSTALLATION, ALL PIPELINES SHALL BE PRESSURE TESTED FOR TIGHTNESS IN ACCORDANCE WITH SPECIFICATION SECTION 15090. ALL LEAKS SHALL BE CORRECTED AND RETESTED UNTIL PRESSURE TEST IS SATISFACTORY COMPLETED.
12. ALL PIPING SHALL BE CLEANED, TO THE SATISFACTION OF THE ENGINEER, BEFORE TESTING.
13. PROVIDE 4-INCH HIGH (MIN) REINFORCED CONCRETE PAD UNDER ALL EQUIPMENT, CONTROL PANELS, PIPE AND EQUIPMENT SUPPORTS, TANKS, ETC. UNLESS OTHERWISE INDICATED.
14. DO NOT SCALE DISTANCES OR DIMENSIONS FROM THE DRAWINGS. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
15. REFER TO SPECIFICATION SECTION 01070 AND THIS DRAWING FOR A LISTING OF COMMONLY USED ABBREVIATIONS.
16. ALL REDUCERS SHALL BE CONCENTRIC TYPE UNLESS DESIGNATED AS ECCENTRIC (ECC) ON THE DRAWINGS. ECCENTRIC REDUCERS SHALL BE INSTALLED WITH FLAT SIDE UP.
17. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE INSTALLATION. THE USE OF UNI-FLANGES WILL NOT BE ALLOWED.
18. CONTRACTOR TO NOTE THAT ALL EXISTING INFORMATION ON THE DRAWINGS IS SHOWN WITH A LIGHTER LINE WEIGHT AND INDICATED WITH A SHOWN TYPE TEXT. THE EXCEPTION IS WHEN PROJECTS WITH A SHOWN UTILIZED FROM THE PREVIOUS CONSULTING DRAWINGS IMAGES ARE GENERAL NOTE NO. 1, ABOVE. WHEN REVISIONING DRAWINGS NOTED IN "SCANNED" UNDER DRAWING TITLE, THE SCANNED IMAGES ARE NOT TO BE REFERRED TO PREVIOUS CONTRACT WORK.
19. CONTRACTOR SHOULD BE AWARE OF THE CONVENTION USED IN IDENTIFYING PIPE ELEVATIONS. IN GENERAL, UNLESS OTHERWISE INDICATED, ALL PIPES EXISTING IN STRUCTURE WHICH ARE CONTINUED ON CIVIL DRAWINGS, HAVE INFEET ELEVATIONS SHOWN. ALL PIPE ELEVATIONS GIVEN WITHIN A STRUCTURE ARE CENTERLINE ELEVATIONS.
20. ALL FLOW ELEMENTS SHALL BE LOCATED A MINIMUM OF TEN PIPE DIAMETERS DOWNSTREAM AND FIVE PIPE DIAMETERS UPSTREAM OF ANY HYDRAULIC DISTURBANCE.

PROCESS GENERAL NOTES CONT 1

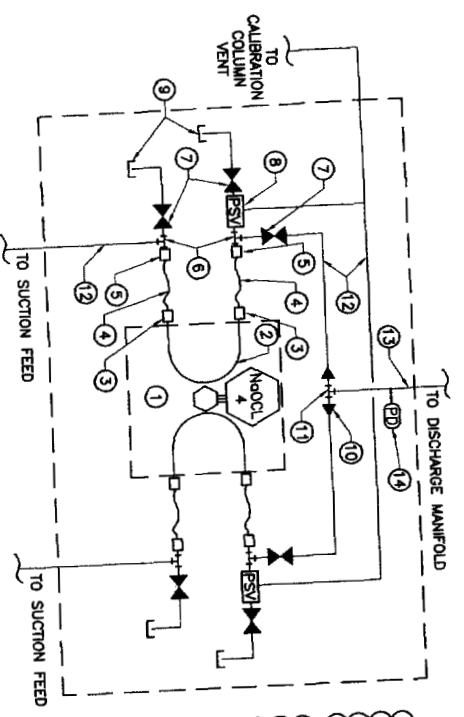
21. CONTRACTOR SHALL MAINTAIN ACCESS TO THE EXISTING CHLORINATION AND DECONTAMINATION BUILDING FOR CHEMICAL DELIVERIES AND GENERAL ACCESSIBILITY AT ALL TIMES.
22. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS APPLICABLE TO CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND PAY THE ASSOCIATED FEES.
23. ALL NEW EXTERIOR, EXPOSED PROCESS PIPING INSTALLED ON THE CHLORINE CONTACT TANK AND NEAR EACH BUILDING LINES, AND SAMPLE LINES SHALL BE INSULATED AND HEAT TRACED. REFER TO THE SPECIFICATION SECTIONS 15188 AND 15402 FOR DETAILS ON EACH.

PROCESS GENERAL DEMOLITION NOTES

1. REFER TO PROCESS DRAWINGS FOR SPECIFIC DEMOLITION NOTES.
2. INDICATES EXISTING PIPING/EQUIPMENT TO BE DEMOLISHED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL DEMOLISHED PIPING, EQUIPMENT AND/OR MATERIALS ON SITE FOR RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND/OR MATERIALS ON SITE FOR THEIR USE. SUCH MATERIALS TO BE RETAINED SHALL BE PLACED IN A ONE-SIDE STORAGE AREA, REQUIRING EQUIPMENT SHALL BE REMOVED IN SUCH A WAY AS NECESSARY TO MAINTAIN ITS FUNCTIONAL AND PHYSICAL INTEGRITY.
4. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AND LOCATION OF UTILITIES FOUND AS PART OF THE PROJECT RECORD DOCUMENTS, AS SPECIFIED IN SECTION 01720.
5. REFER TO THE DEMOLITION SPECIFICATION SECTION 02050, SUMMARY OF WORK, SPECIFICATION SECTION 01010, AND SITE DEMOLITION DRAWING C-1 FOR ADDITIONAL INFORMATION REGARDING DEMOLITION REQUIREMENTS AND CONSTRUCTION SEQUENCING.
6. REFER TO DRAWING C-1 FOR ADDITIONAL INFORMATION REGARDING EXISTING UTILITIES. THE SIZES, LOCATIONS, AND MATERIALS OF CONSTRUCTION INDICATED ARE UTILITIES. THE AVAILABLE INFORMATION AND MAY NOT BE COMPLETE DETERMINED FROM THE LOCATIONS, AND MATERIALS OF CONSTRUCTION SHALL BE VERIFIED BY THE ALL SIZES FOR IN THE FIELD AS REQUIRED. ALL EXISTING UTILITIES THAT ARE TO BE REMOVED AND ARE DAMAGED BY THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. SEVERING THE EXISTING UTILITIES FOR ABANDONMENT OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE TO RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. THE METHOD OF CAPPING SHALL BE REVIEWED WITH, AND ACCEPTABLE TO, THE ENGINEER.
8. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE MUST BE COORDINATED WITH THE OWNER AND ENGINEER BEFOREHAND.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE THAT ALL FLOWS, FLOW MEASURING BYPASSES OR OTHER MEANS OF FLOW MAINTENANCE SHALL BE REMOVED WITH, AND ACCEPTABLE TO, THE ENGINEER. THE OWNER SHALL COORDINATE ANY TEMPORARY STOPPAGES WITH THE OWNER AND GATES, EQUIPMENT, CONTRACTOR SHALL VERIFY WITH OWNER/ENGINEER ALL VALVES, GATES, EQUIPMENT, ETC. ARE FUNCTIONAL PRIOR TO ASSUMING UTILIZATION FOR FLOW ISOLATION.
10. WHERE PIPING OR CONDUIT THAT IS TO BE REMOVED PASSES THROUGH THE WALL OF THE STRUCTURE, IT SHALL BE CUT OFF AS NEAR TO THE WALL AS PRACTICAL, AND PROPERLY SEALED ON EACH SIDE OF THE WALL OR AS SHOWN ON THE DRAWINGS. SEAL METHOD SHALL BE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ENGINEER.
11. ALL WALL AND/OR FLOOR PENETRATIONS REMAINING AFTER THE REMOVAL OF PIPING OR CONDUIT ARE TO BE PATCHED AND FINISHED FLUSH TO MATCH EXISTING SURFACES.
12. REMOVE ALL PUMP AND EQUIPMENT PADS NOT BEING RE-USED AND FINISH FLUSH TO FLOOR LEVEL.
13. REMOVE ALL WALL BRACKETS, PIPE HANGERS AND PIPE SUPPORTS NOT BEING RE-USED. PATCH BOLT HOLES TO MATCH THE EXISTING SURFACE.
14. ALL WALL AND FLOOR SURFACES DAMAGED OR DISTURBED AS A RESULT OF DEMOLITION BY THE CONTRACTOR OR HIS SUB-CONTRACTORS, SHALL BE PATCHED AND PAINTED PER SPECIFICATION SECTION 09900.
15. WHERE PIPING AND/OR EQUIPMENT THAT IS NOTED AS ABANDONED INTERFERES WITH THE CONTRACTOR'S CONSTRUCTION ACTIVITIES, HE SHALL REMOVE AND DISPOSE OF AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

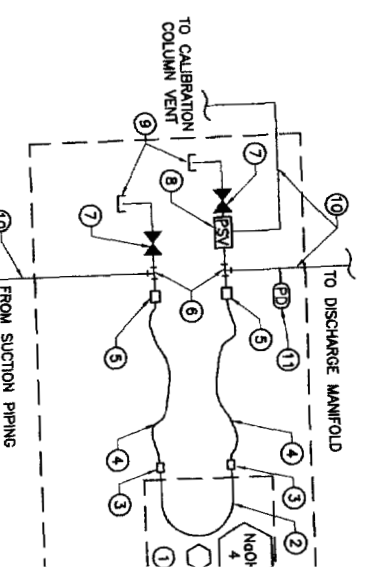
ABBREVIATIONS

AE	ANALYZING ELEMENT
AT	ANALYZING INDICATING TRANSMITTER
BF	BLIND FLANGE WITH FLUSHING CONNECTION
BF/FC	BALL VALVE
BT	CHLORINE CONTACT TANK
CCT	CITY WATER
CRS	CHLORINE RESIDUAL SAMPLER
DEC	DECONTAMINATION
DMG	DRAWING
EL	ELEVATION
FF	FINISHED FLOOR
FT	GALVAN
GAL	HYPOCHLORITE
HYP	RETURN ACTIVATED SLUDGE-HYPPOCHLORITE
HYP-HYP	REDUCER
RAS	SAMPLE
RED	SODIUM DIOXIDE
SAM	VERTICAL
SO2	
VERT	



DUPLEX PERISTALTIC TUBING PUMP SCHEMATIC

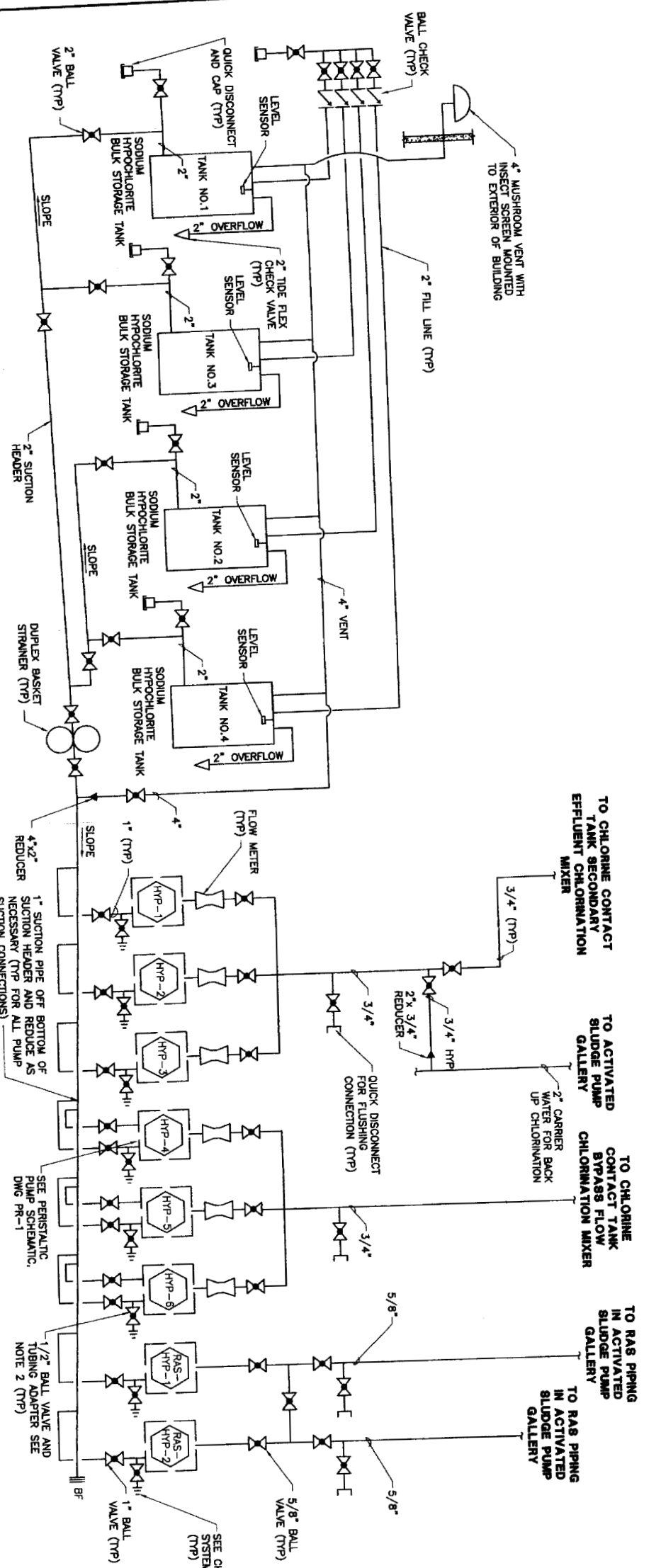
- SYSTEM COMPONENTS**
- 1 PERISTALTIC TUBING PUMP *
 - 2 PUMP TUBING WITH END FITTING *
 - 3 TUBING COUPLER *
 - 4 FLEX TUBING WITH END FITTING, RECOMMENDATIONS *
 - 5 TUBING TO PIPE CONNECTOR.
 - 6 3/4" TRUE UNION GATE VALVE (PVC/ANTON).
 - 7 3/4" PRESSURE SAFETY VALVE *
 - 8 3/4" MALE QUICK CONNECT WITH CAP.
 - 9 1" PVC TEE.
 - 10 3/4" TO 1" REDUCER.
 - 11 1" PVC PIPE.
 - 12 3/4" PVC PIPE.
 - 13 1" PVC PIPE.
 - 14 PULSATION DAMPENER *
- * PROVIDED UNDER 11250A



SIMPLEX PERISTALTIC TUBING PUMP SCHEMATIC

- SYSTEM COMPONENTS**
- 1 PERISTALTIC TUBING PUMP *
 - 2 PUMP TUBING WITH FITTINGS *
 - 3 TUBING COUPLER *
 - 4 FLEX TUBING WITH END FITTING, RECOMMENDATIONS *
 - 5 TUBING TO PIPE CONNECTOR.
 - 6 3/4" TRUE UNION GATE VALVE (PVC/EPDM).
 - 7 3/4" PRESSURE SAFETY VALVE *
 - 8 3/4" MALE QUICK CONNECT WITH CAP.
 - 9 1" PVC TEE.
 - 10 3/4" PVC PIPE.
 - 11 PULSATION DAMPENER *
- * PROVIDED UNDER 11250A





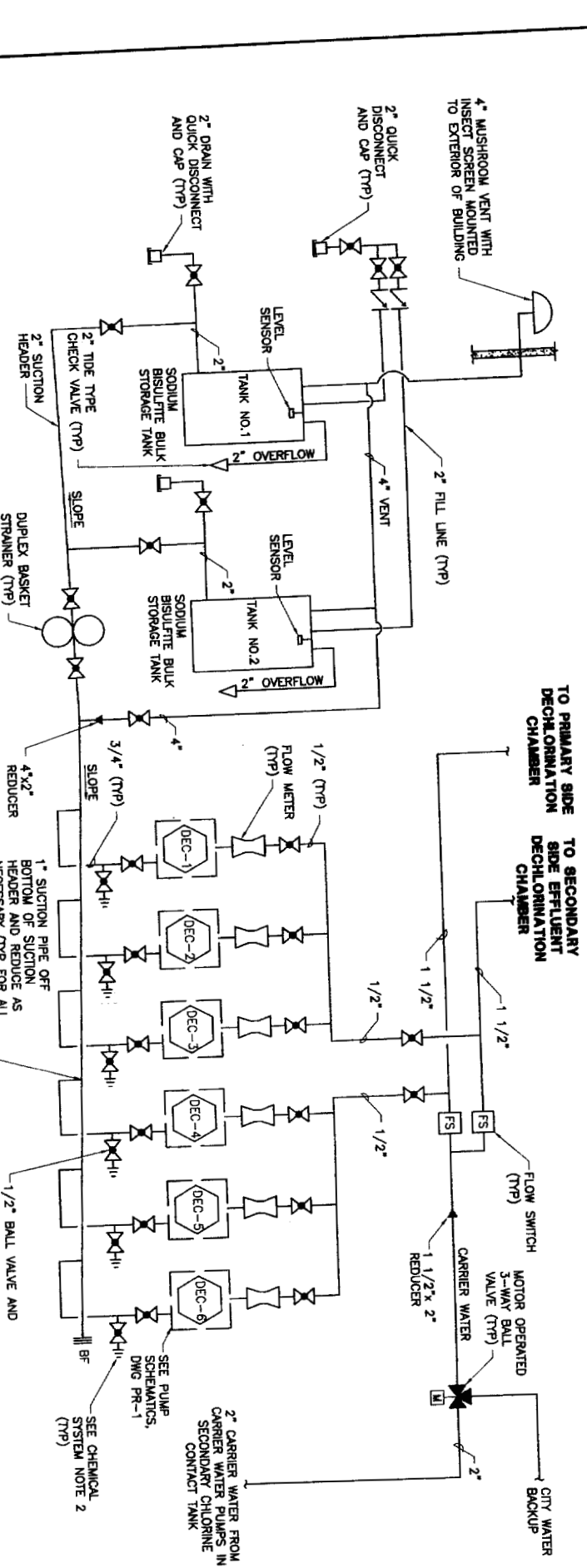
HYPOCHLORITE SYSTEM SCHEMATIC

CHEMICAL SYSTEM NOTES

1. REFER TO DRAWING PR-1 FOR ADDITIONAL REQUIREMENTS AND PUMP DETAILS.
2. INTENT IS TO HAVE A TUBING ADAPTER ON EACH PUMP TO ALLOW CONNECTION OF FLEX TUBING FROM CALIBRATION CHAMBER.
3. CONTRACTOR SHALL TAP OFF BOTTOM OF CHEMICAL SUCTION HEADER FOR PUMP SUCTION PIPING, SLOPE SUCTION HEADER AS TO CREATE HIGH POINT TO VENT LINE IN ORDER TO RELIEVE ANY POTENTIAL OF VAPOR LOCK.
4. CONTRACTOR SHALL COORDINATE TUBING SIZES AS REQUIRED FOR CONNECTIONS TO PUMPS AND ANALYZERS. PROVIDE REDUCERS AND FITTINGS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
5. FIELD COORDINATE LOCATION OF THE EQUIPMENT, PIPING, VALVES, GAUGES, ETC WITH THE ENGINEER PRIOR TO INSTALLATION.
6. PIPING SYSTEM DEPICTED SHALL BE JOINED WITH SOLVENT WELD ONLY. USE OF UNIONS WILL NOT BE PERMITTED.

NOTE: HYP-4, 5, AND 6 ARE DUPLEX HEAD PUMPS

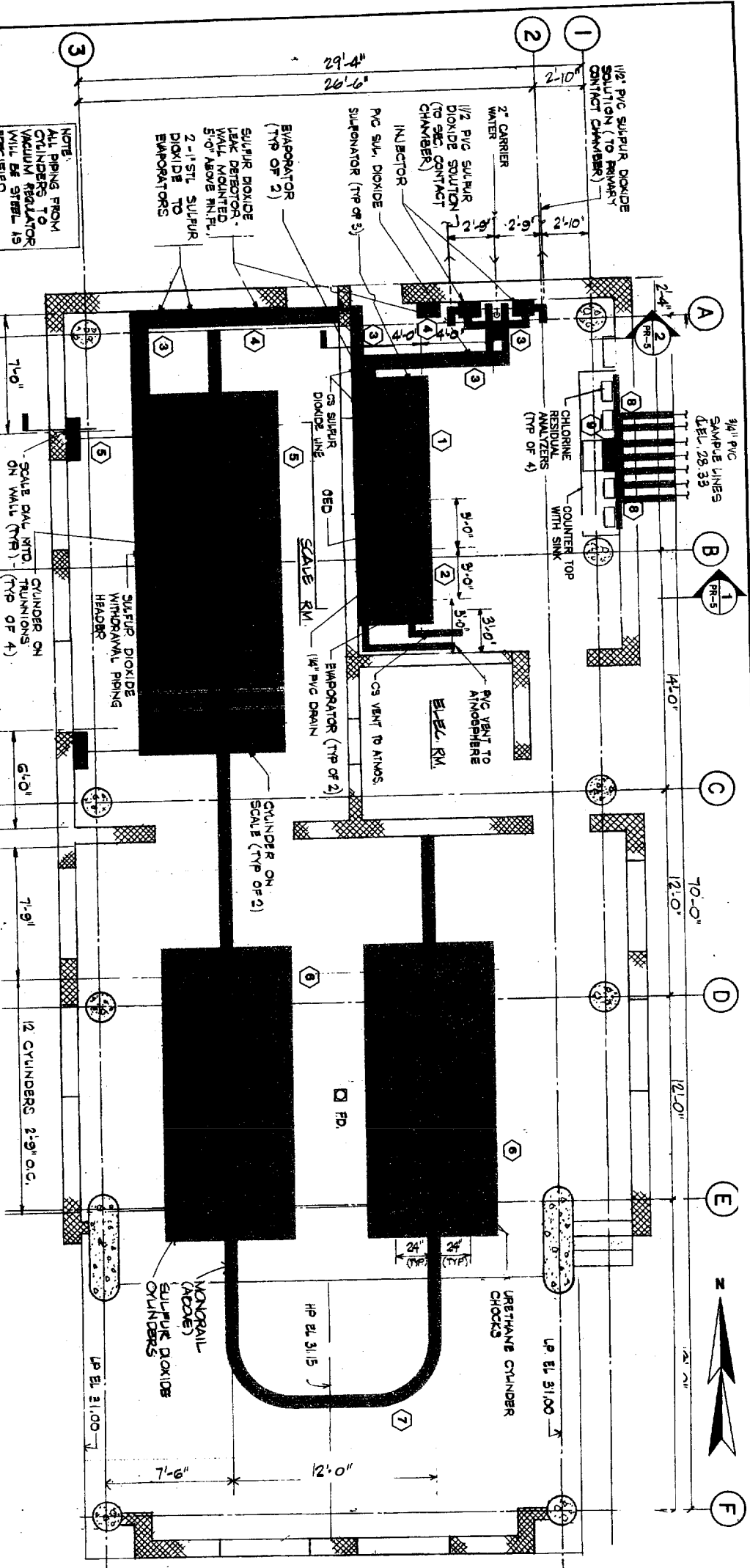
CONTRACTOR TO SUPPLY LOOSE CALIBRATION CHAMBER WITH 4" MIN OF 1/2" FLEX TUBING FOR CALIBRATION OF BISULFITE AND HYPOCHLORITE PUMPS



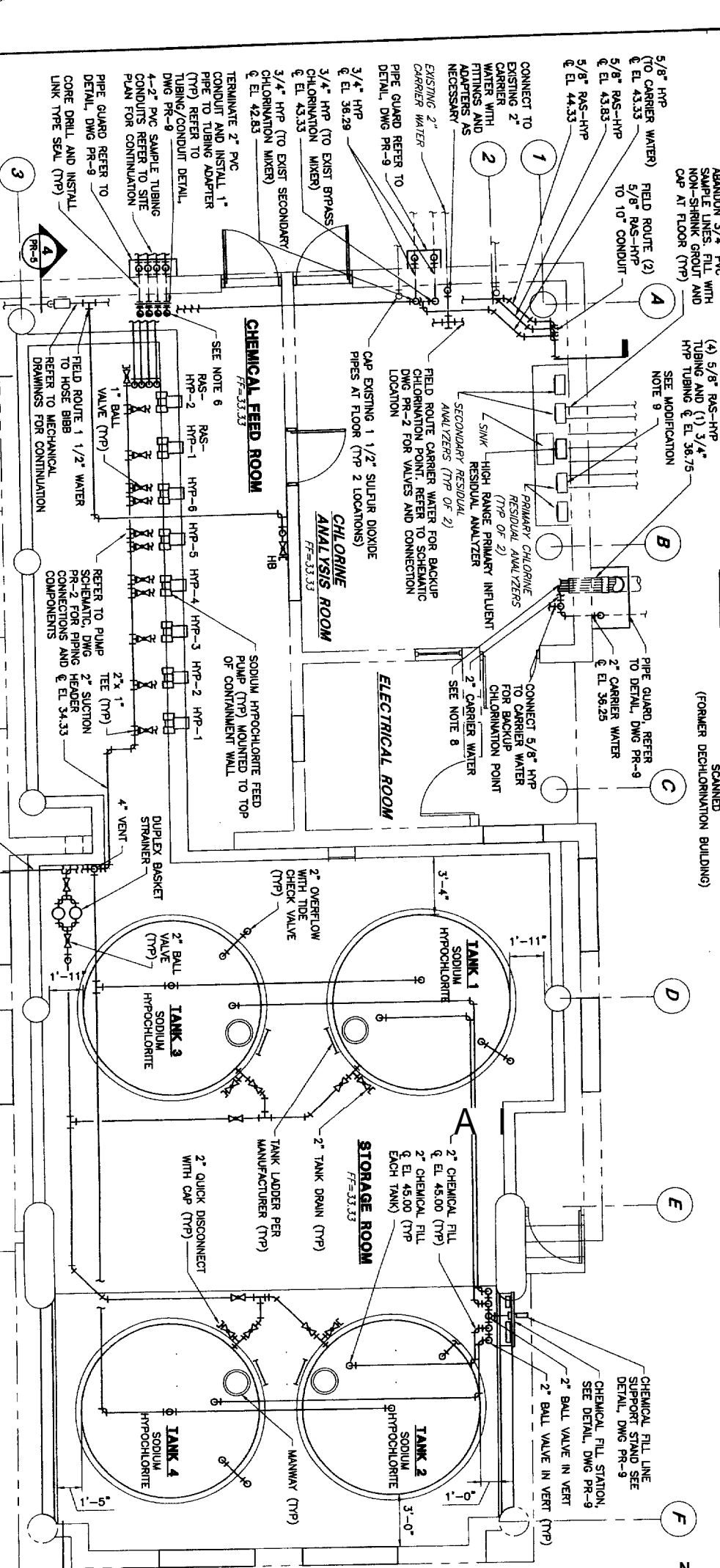
SAMPLE SYSTEM SCHEMATIC

- SAMPLE SYSTEM NOTES**
1. ONE NEW CHLORINE RESIDUAL ANALYZER SHALL BE PROVIDED, AS SPECIFIED IN 13440. FEED AND DRAIN LINE FOR THIS ANALYZER IS TAPPED OFF LINES FOR EXISTING BYPASS ANALYZER NO. 1.
 2. CONTRACTOR SHALL MODIFY EXISTING SUPPLY AND DRAIN PIPING FOR THE CHLORINE RESIDUAL ANALYZER.





HYPPOCHLORITE BUILDING - DEMOLITION PLAN
(FORMER DECHLORINATION BUILDING)

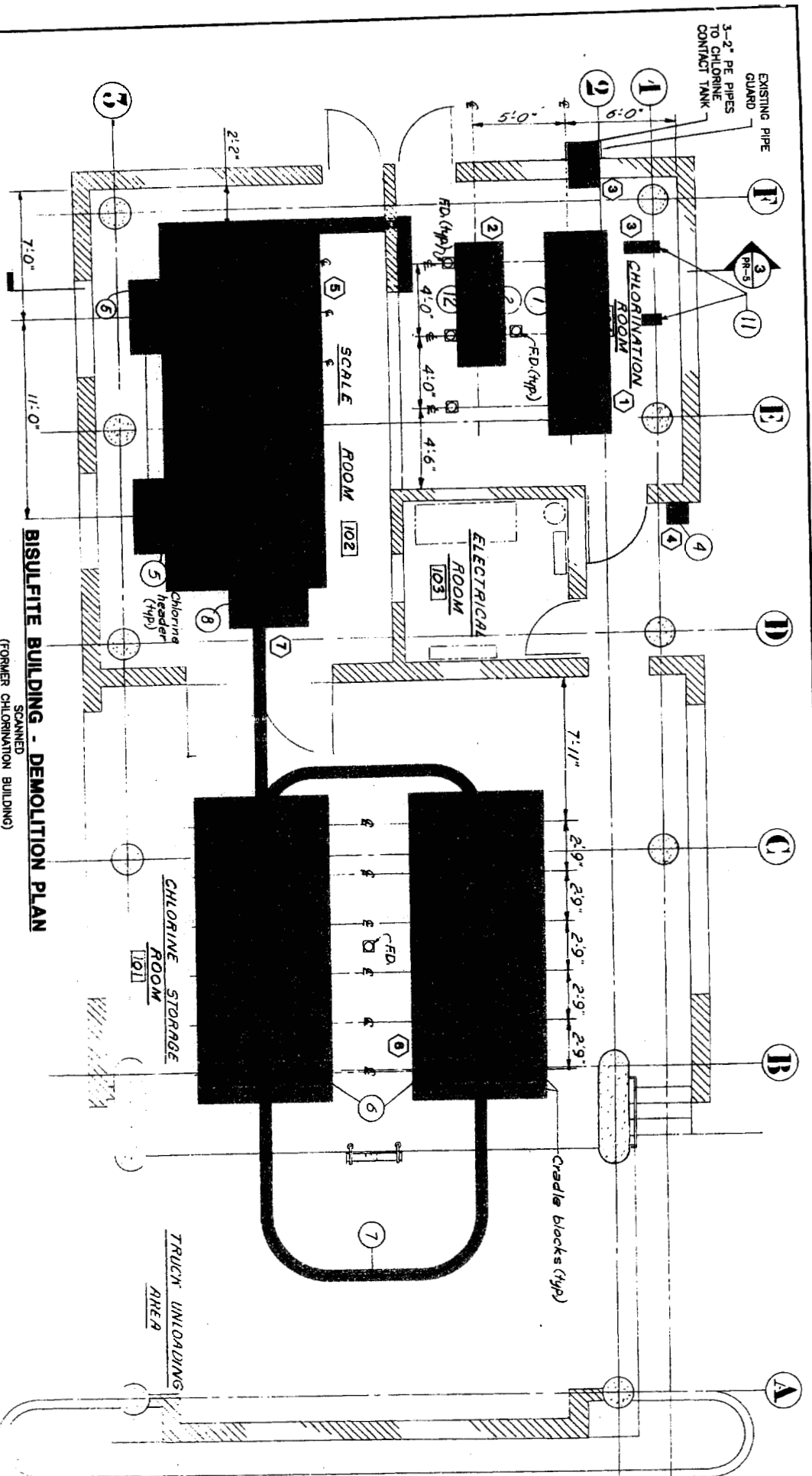


DEMOLITION NOTES

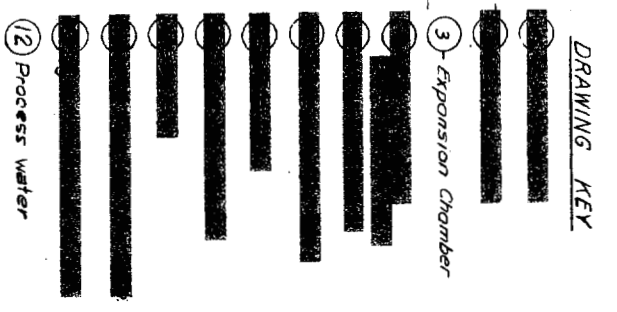
1. REFER TO DRAWING PR-1 FOR GENERAL DEMOLITION NOTES.
1. REMOVE/DEMOLISH SULFUR DIOXIDE (TYP OF 2) IN THEIR ENTIRETY, INCLUDING BUT NOT LIMITED TO PIPING, VALVES, FITTINGS, EQUIPMENT PADS AND ASSOCIATED ELECTRICAL AND INSTRUMENTATION COMPONENTS. CAP VENT PIPING AT CEILING.
2. REMOVE/DEMOLISH EVAPORATORS (TYP OF 2) IN THEIR ENTIRETY, INCLUDING BUT NOT LIMITED TO PIPING, VALVES, FITTINGS, EQUIPMENT PADS AND ASSOCIATED ELECTRICAL AND INSTRUMENTATION COMPONENTS. CAP VENT PIPING AT CEILING.
3. REMOVE/DEMOLISH SULFUR DIOXIDE PIPING TO LIMITS SHOWN, INCLUDING BUT NOT LIMITED TO INJECTORS, VENTS, DRAWS, VALVES, FITTINGS, PIPE SUPPORTS.
4. REMOVE/DEMOLISH SULFUR DIOXIDE LEAK DETECTORS (TYP OF 2) AND ALL ASSOCIATED APURTENANCES.
5. REMOVE/DEMOLISH SCALES (TYP OF 2) AND TRUNIONS (TYP OF 4) IN THEIR ENTIRETY INCLUDING ELECTRICAL COMPONENTS, SCALE DIA. AND ALL OTHER ASSOCIATED APURTENANCES.
6. REMOVE/DEMOLISH SULFUR DIOXIDE CYLINDERS AND URETHANE CYLINDER CHOCKS.
7. REMOVE/DEMOLISH MONORAIL, HOIST AND TROLLEY REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
8. REMOVE/DEMOLISH EXISTING SAMPLE PIPING WITHIN THE HYPOCHLORITE BUILDING INCLUDING BUT NOT LIMITED TO FITTINGS, VALVES AND SUPPORTS. AFTER DEMOLITION, ABANDONED PIPING IS COMPLETE. THERE MAY BE ADDITIONAL ABANDONED PIPING AND ASSOCIATED APURTENANCES THAT WILL NEED TO BE REMOVED AS DIRECTED BY ENGINEER.
9. REMOVE/DEMOLISH EXISTING CABINET AS NECESSARY TO MAKE ROOM FOR NEW CHLORINE RESIDUAL ANALYZER.

MODIFICATION NOTES:

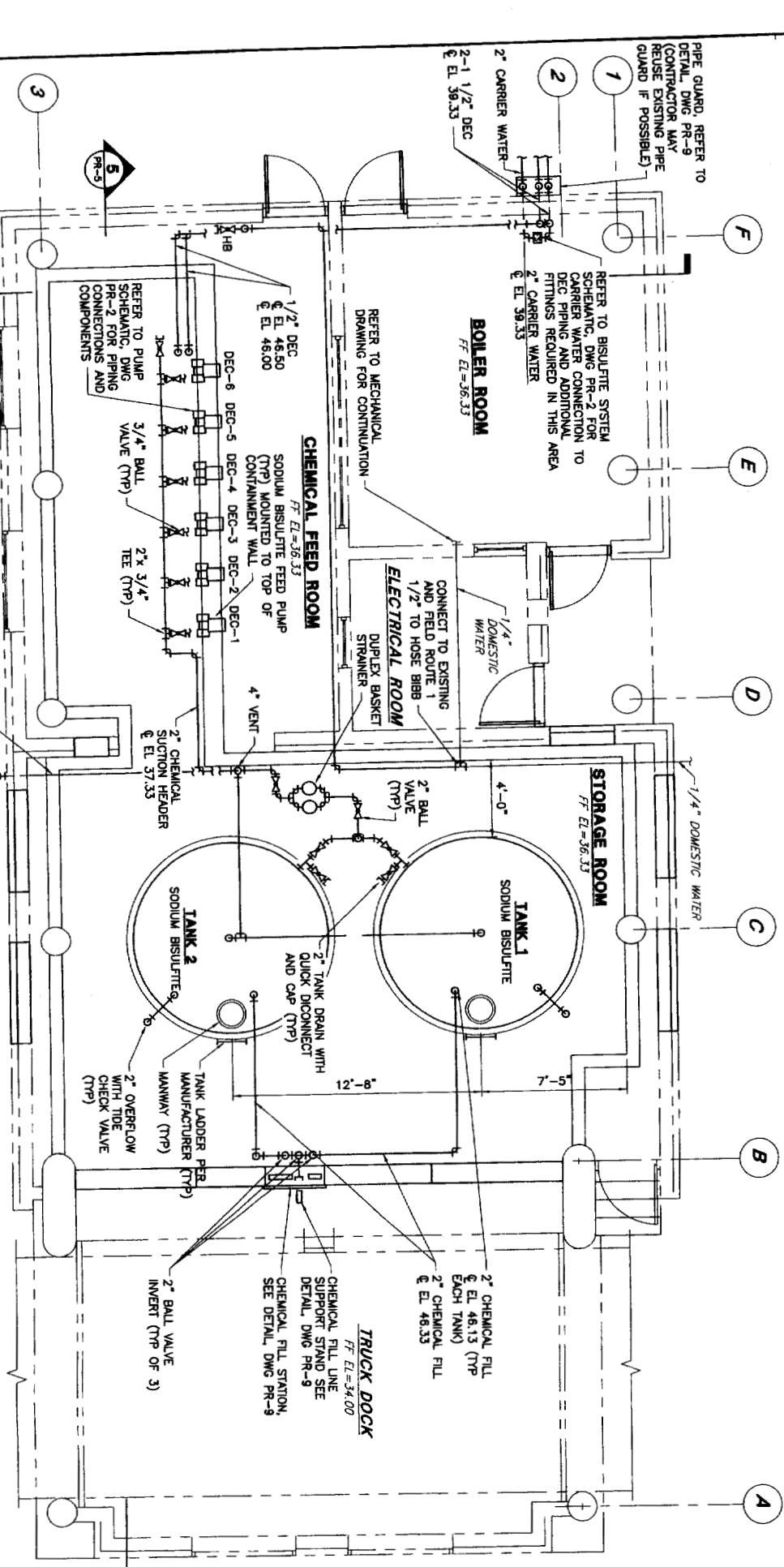
1. REFER TO DRAWING PR-1 FOR GENERAL NOTES AND ABBREVIATIONS.
2. NOT ALL PIPE SIZES, VALVES AND FITTINGS ARE SHOWN FOR CLARITY. CHEMICAL FEED SYSTEM IS NOT SHOWN IN ITS ENTIRETY. SHOWN ARE THE GENERAL EQUIPMENT AND TANK LOCATIONS. CONTRACTOR SHALL FIELD LOCATE/ROUTE ALL PIPING EQUIPMENT AND INSTRUMENTATION AS REQUIRED TO ENSURE A FULLY FUNCTIONAL AND INTEGRATED CHEMICAL FEED SYSTEM. FOR ADDITIONAL INFORMATION, REFER TO HYPOCHLORITE SYSTEM SCHEMATIC, DRAWING PR-2.
3. CHEMICAL PIPING SHALL BE INSTALLED IN SUCH A WAY AS TO ALLOW FOR MAINTENANCE. PROVIDE PIPE PROTECTION TO PROTECT PIPING FROM PHYSICAL DAMAGE WHERE THE POTENTIAL FOR DAMAGE EXISTS OR AS SHOWN ON THE DRAWINGS. PROTECTION SYSTEM SHALL BE CORROSION RESISTANT.
4. THE DISCHARGE OF EACH PUMP SHALL BE PROVIDED WITH A FRP UNISTRUT AND PVC BOARD SHEET SYSTEM TO FACILITATE SUPPORT AND/OR MOUNTING OF THE PRESSURE RELIEF VALVES, FLOW METERS, BALL VALVES, QUICK DISCONNECT CAMLOCK AND CAP. 3-FOOT SECTION OF LOOPED PVC DISCHARGE TUBING, AND OTHER APURTENANCES AS INDICATED ON THE CHEMICAL SYSTEM AND TUBING PUMP SCHEMATICS ON DRAWING PR-2. CONFIGURATION SHALL BE REVIEWED WITH THE ENGINEER IN THE FIELD, PRIOR TO BEGINNING INSTALLATION.
5. ALL VALVES ASSOCIATED WITH THE CHEMICAL SYSTEM SHALL BE ACCESSIBLE FROM THE FLOOR WITHOUT NEED FOR STEPS OR A LADDER TO OPERATE.
6. (4) 1" SAMPLE PIPES FROM CHLORINE CONTACT TANK SAMPLE PUMPS. CONTRACTOR SHALL FIELD ROUTE AND CONNECT TO ANALYZERS (TYP OF 4) IN THE CHLORINE ANALYSIS ROOM WITH FITTINGS AND ADAPTERS AS NECESSARY AND WITH PRIOR APPROVAL FROM ENGINEER.
7. ALL HARD PIPING AND FITTINGS SHALL BE JOINED BY SOLVENT WELD ONLY, NO THREADS OR TRIE UNIONS WILL BE ALLOWED.
8. CONTRACTOR SHALL INSTALL PIPE TO TUBING ADAPTERS FOR (2) 5/8" RAS-HYP PIPES. (2) 5/8" RAS-HYP TUBES AND (1) 3/4" HYP TUBE WILL SERVE AS SPARE TUBES WITH A MINIMUM OF 10' OF TUBING TO BE TIED OFF AND SECURED WITHIN CHLORINE ANALYSIS ROOM.
9. CONTRACTOR SHALL RE-PIPE SAMPLE LINES AND CONNECTIONS TO EXISTING 4" CHLORINE RESIDUAL ANALYZERS AND NEW HIGH RANGE RESIDUAL ANALYZER. REFER TO SAMPLE SYSTEM SCHEMATIC ON DRAWING PR-2 FOR REQUIREMENTS.



BISULFITE BUILDING - DEMOLITION PLAN
SCANNED (FORMER CHLORINATION BUILDING)



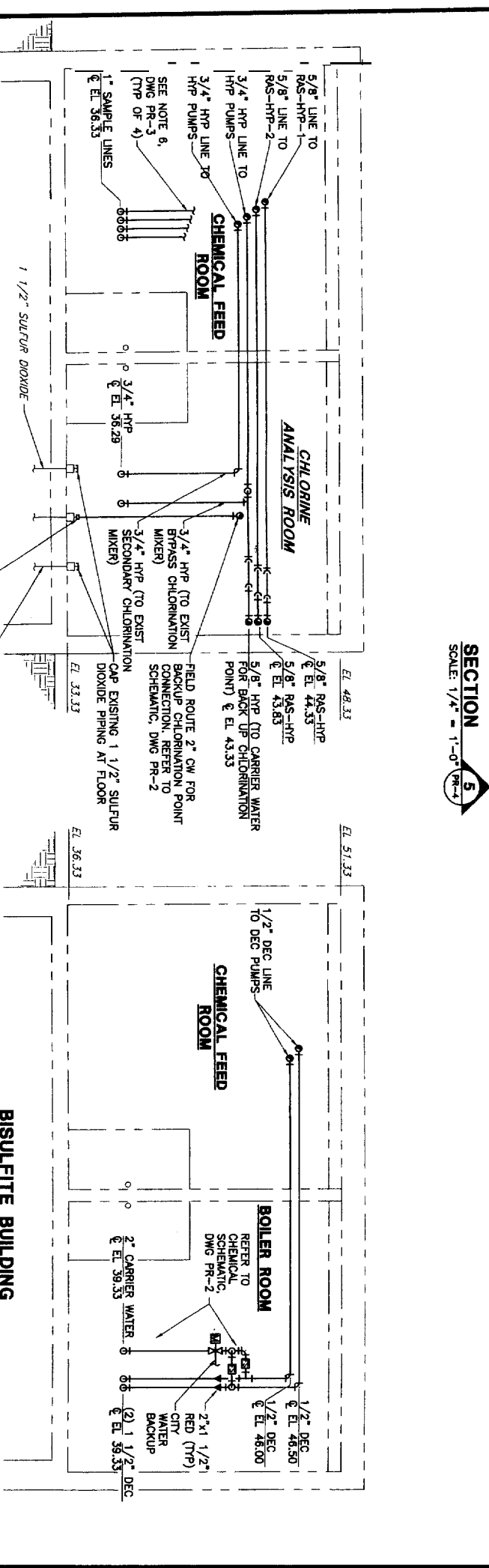
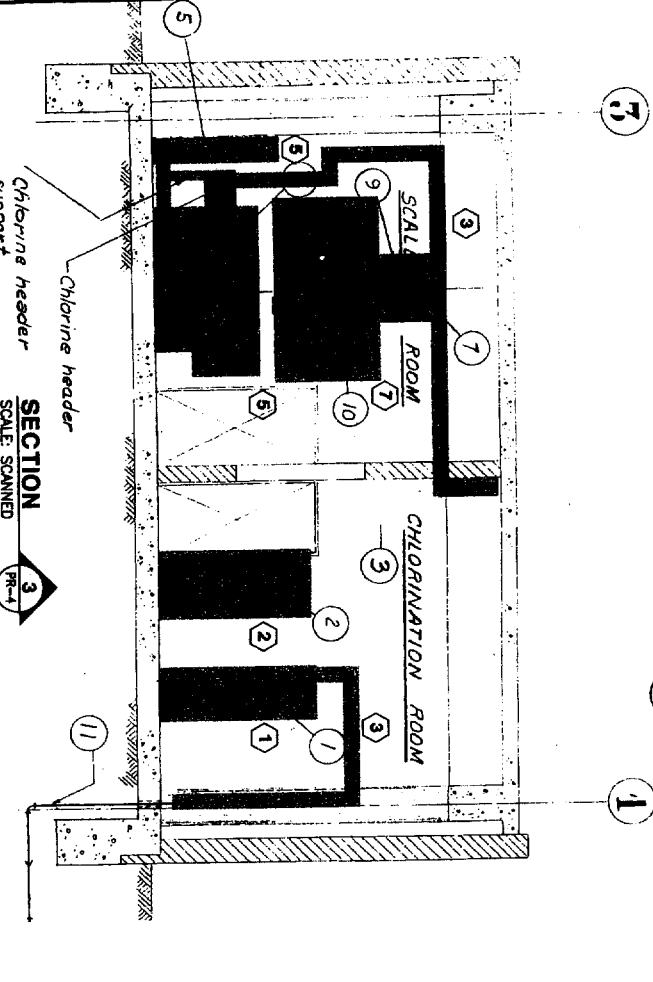
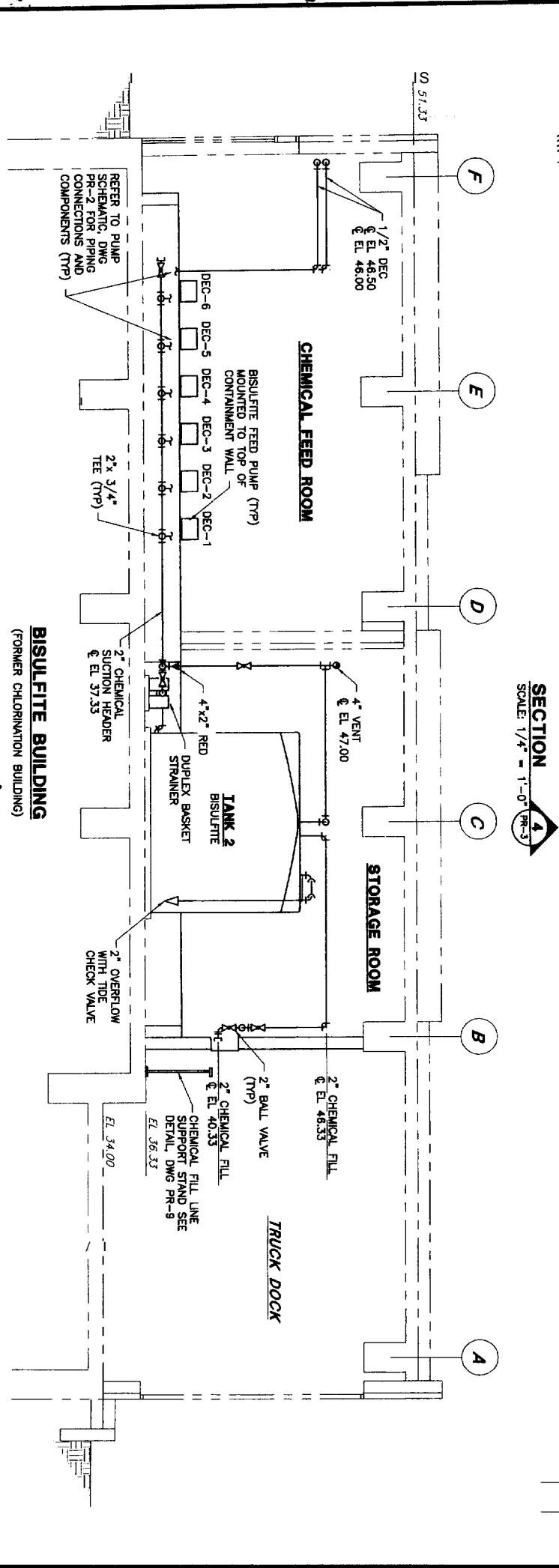
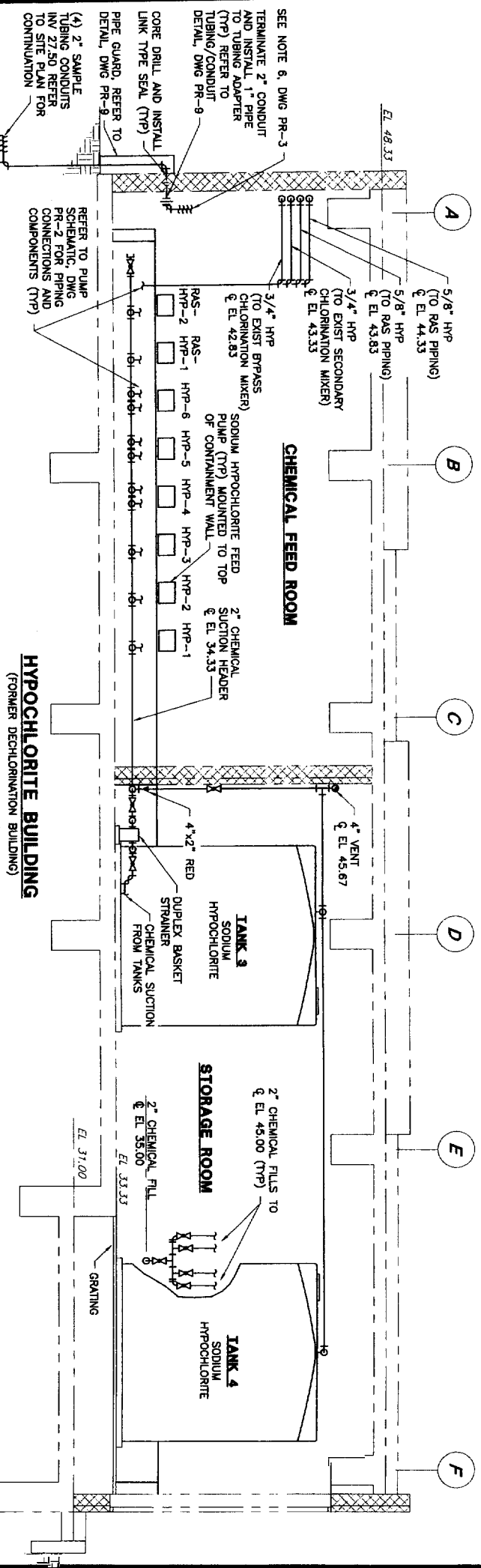
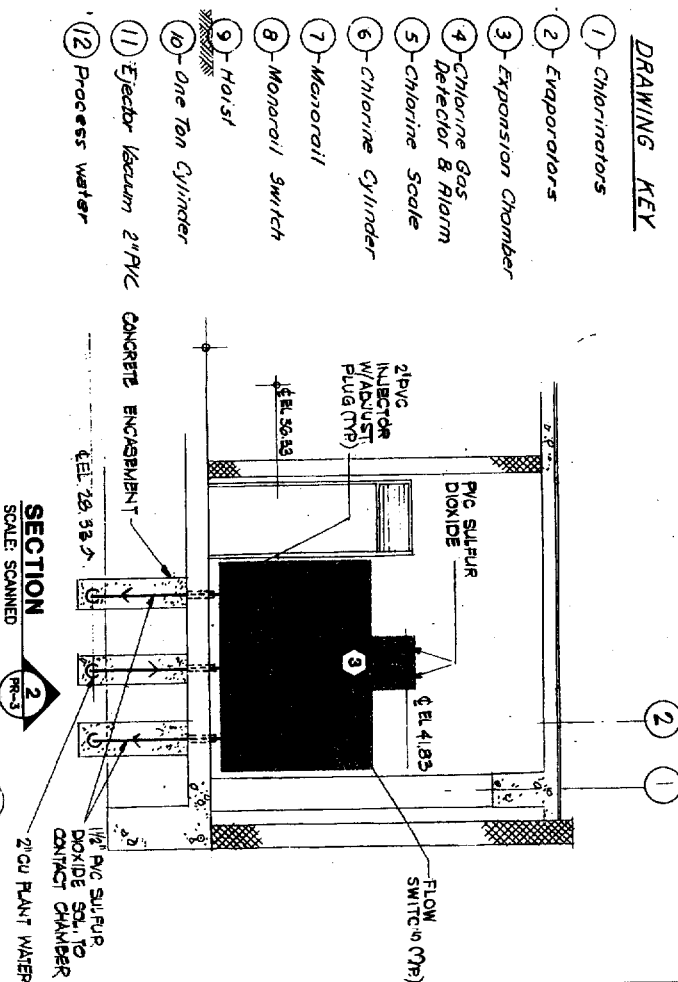
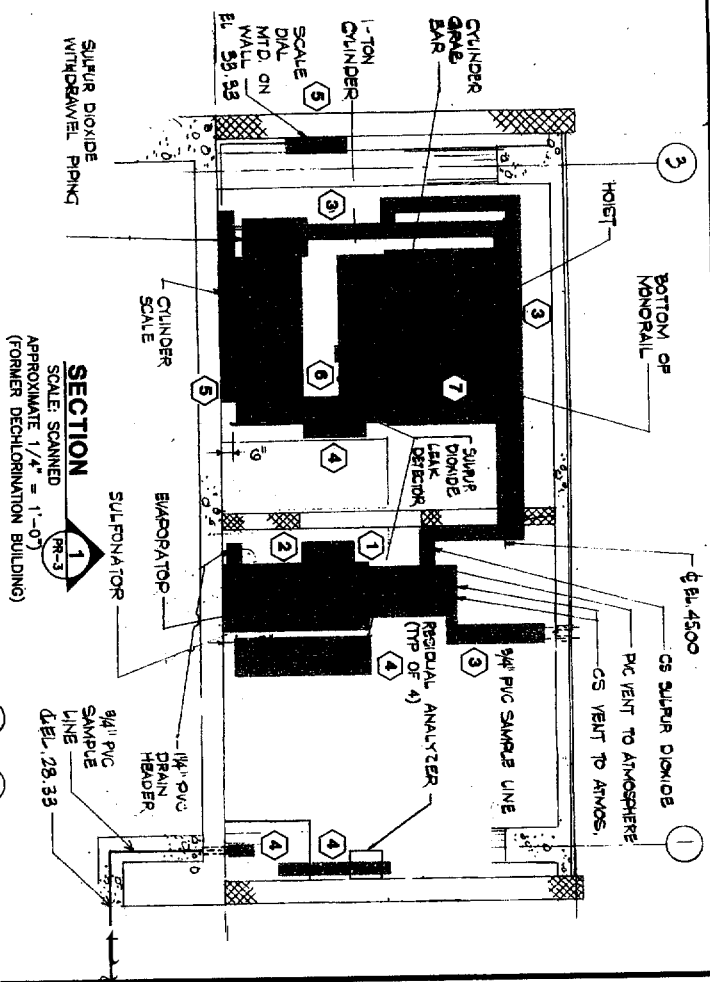
- DEMOLITION NOTES**
- REFER TO DRAWING PR-1 FOR GENERAL DEMOLITION NOTES.
- 1 REMOVE/ DEMOLISH CHLORINATORS (TYP OF 3) IN THEIR ENTIRETY, INCLUDING BUT NOT LIMITED TO EQUIPMENT PADS, ASSOCIATED PIPING AND ELECTRICAL COMPONENTS.
 - 2 REMOVE/ DEMOLISH EVAPORATORS IN THEIR ENTIRETY, INCLUDING BUT NOT LIMITED TO EQUIPMENT PADS AND ELECTRICAL COMPONENTS.
 - 3 REMOVE/ DEMOLISH CHLORINE PIPING TO LIMITS SHOWN, INCLUDING BUT NOT LIMITED TO VENTS, VALVES, FITTINGS, PIPE SUPPORTS, CAP ELECTOR PIPES AT FLOOR AT FLOOR.
 - 4 REMOVE/ DEMOLISH CHLORINE GAS LEAK DETECTOR/ALARM AND ALL ASSOCIATED APPURTENANCES.
 - 5 REMOVE/ DEMOLISH SCALES (TYP OF 2) IN THEIR ENTIRETY INCLUDING ELECTRICAL COMPONENTS, SCALE DIAL AND ALL OTHER ASSOCIATED APPURTENANCES.
 - 6 REMOVE/ DEMOLISH CYLINDERS AND CRADLE BLOCKS.
 - 7 REMOVE/ DEMOLISH MONORAIL. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.



MODIFICATION NOTES:

1. REFER TO DRAWING PR-1 FOR GENERAL NOTES AND ABBREVIATIONS.
2. NOT ALL PIPE SIZES, VALVES AND FITTINGS ARE SHOWN FOR CLARITY. CHEMICAL FEED SYSTEM IS NOT SHOWN IN ITS ENTIRETY. SHOWN ARE THE GENERAL EQUIPMENT AND TANK LOCATIONS. CONTRACTOR SHALL FIELD LOCATE/ROUTE ALL PIPING EQUIPMENT AND TANK APPURTENANCES AS REQUIRED TO ENSURE A FULLY FUNCTIONAL AND INTEGRATED CHEMICAL FEED SYSTEM. FOR ADDITIONAL INFORMATION, REFER TO BISULFITE SYSTEM SCHEMATIC, DRAWING PR-2.
3. CHEMICAL PIPING SHALL BE INSTALLED IN SUCH A WAY AS TO ALLOW FOR MAINTENANCE. PROVIDE PIPE PROTECTION TO PROTECT PIPING FROM PHYSICAL DAMAGE WHERE THE POTENTIAL FOR DAMAGE EXISTING OR AS SHOWN ON THE DRAWINGS. PROTECTIVE SYSTEM SHALL BE CORROSION RESISTANT.
4. THE DISCHARGE OF EACH PUMP SHALL BE PROVIDED WITH A FRP UNISTRUT PVC BOARD SHEET SUPPORT SYSTEM TO FACILITATE SUPPORT AND/OR MOUNTING OF THE PRESSURE RELIEF VALVES, OF CONDENSING DISCHARGE TUBING, AND OTHER APPURTENANCES AS INDICATED ON THE CHEMICAL SYSTEM AND TUBING PUMP SCHEMATICS ON DRAWING PR-2. CONFIGURATION SHALL BE REVIEWED WITH THE ENGINEER IN THE FIELD, PRIOR TO BEGINNING INSTALLATION.
5. ALL VALVES ASSOCIATED WITH THE CHEMICAL SYSTEM SHALL BE ACCESSIBLE FROM THE FLOOR WITHOUT NEED FOR STEP OR A LADDER TO OPERATE.
6. ALL HARD PIPING AND FITTINGS SHALL BE JOINED BY SOLVENT WELD ONLY, NO THREADS OR TRUE UNIONS WILL BE ALLOWED.

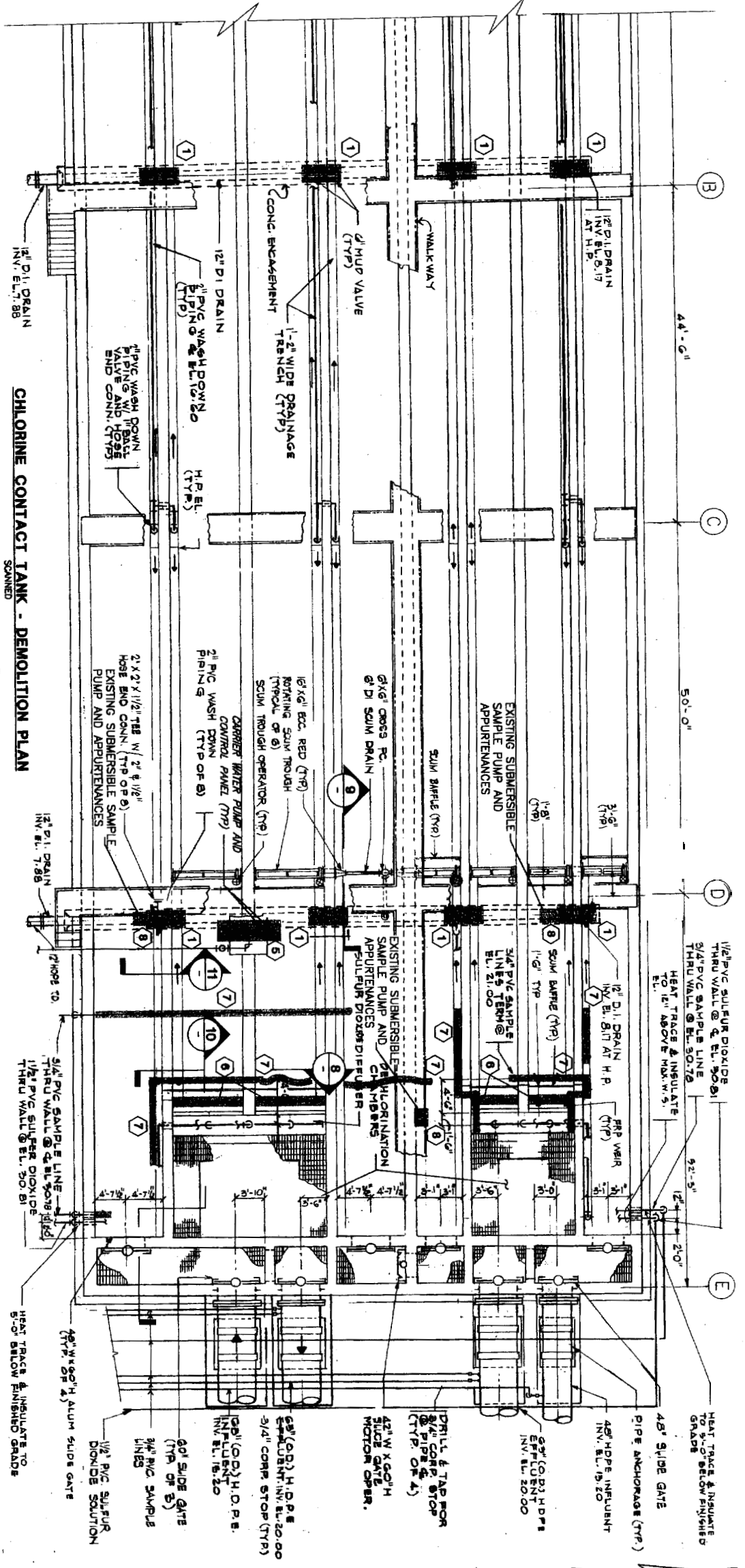




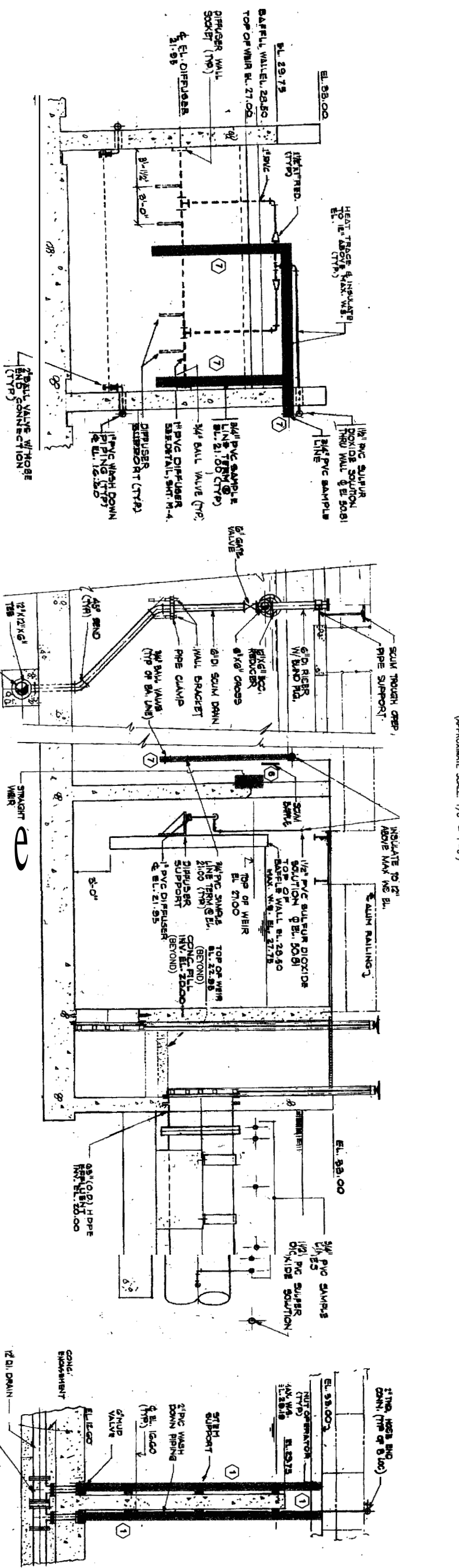
DEMOLITION NOTES

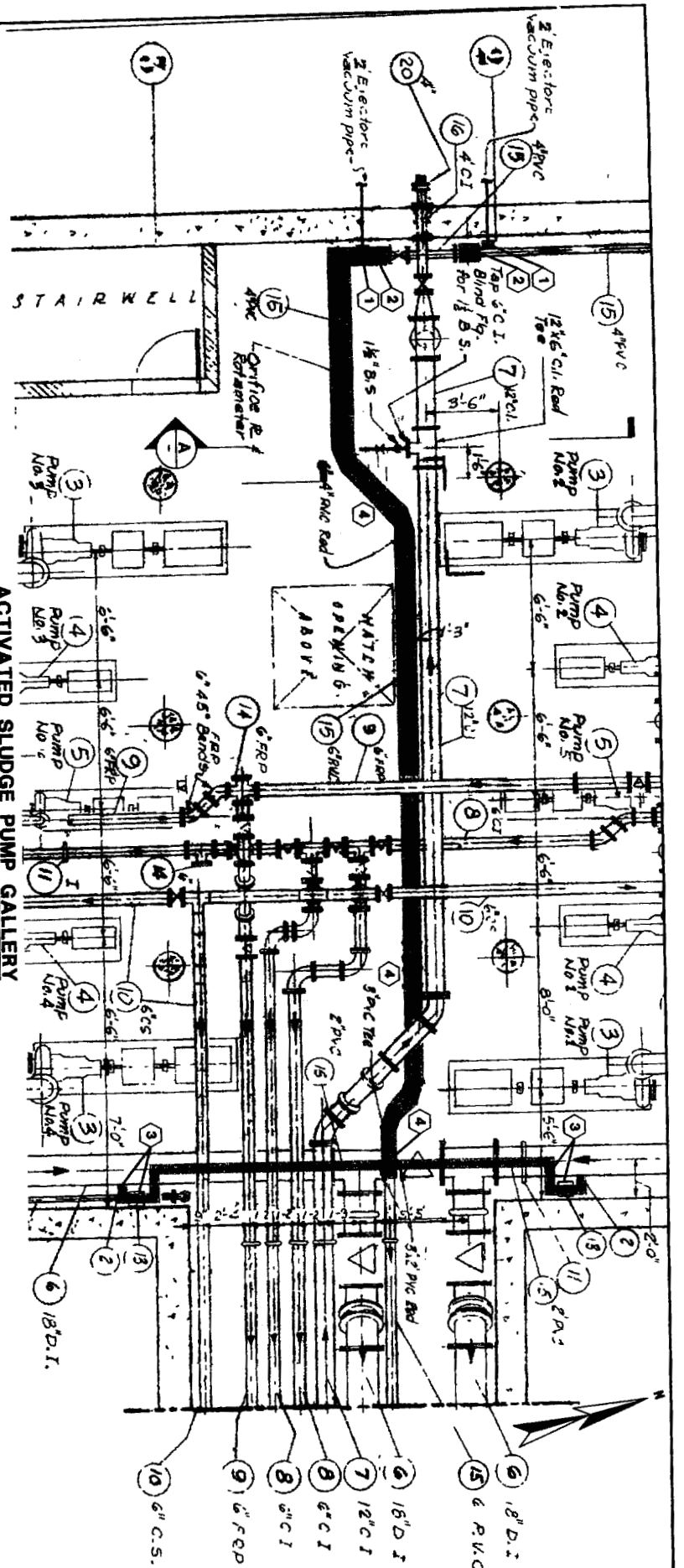
REFER TO DRAWING PR-1 FOR GENERAL DEMOLITION NOTES.

- 1 REMOVE / DEMOLISH EXISTING MUD VALVES, EXTENSION STEMS, OPERATORS AND ALL ASSOCIATED APPURTENANCES IN THEIR ENTIRETY (TYP OF 1B).
- 2 NOT USED
- 3 NOT USED
- 4 NOT USED
- 5 REMOVE EXISTING CARRIER WATER PUMPS, CONTROL PANEL AND ALL OTHER ASSOCIATED APPURTENANCES. CONTRACTOR TO NOTE OWNER TO RETAIN PUMPS.
- 6 REMOVE / DEMOLISH EXISTING FRP WEBS.
- 7 REMOVE / DEMOLISH ALL EXISTING SAMPLE PIPING WITHIN THE COT, INCLUDING VALVES, FITTINGS, TUBING, INSULATION SUPPORTS.
- 8 REMOVE / DEMOLISH SAMPLE PUMPS AND ALL ASSOCIATED APPURTENANCES.



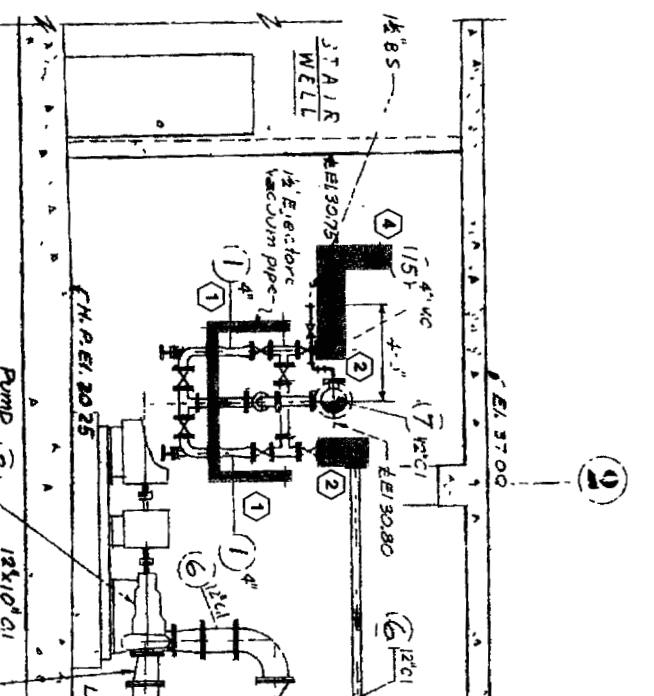
CHLORINE CONTACT TANK - DEMOLITION PLAN
SCANNED
(APPROXIMATE SCALE: 1/8" = 1'-0")



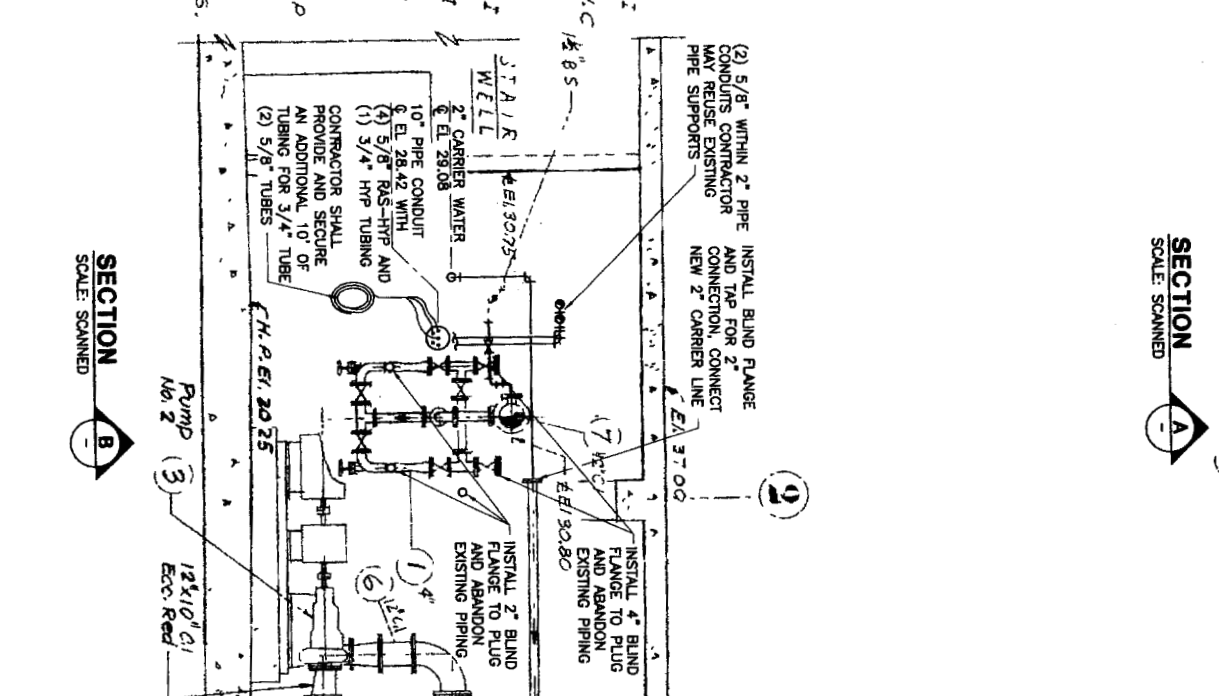
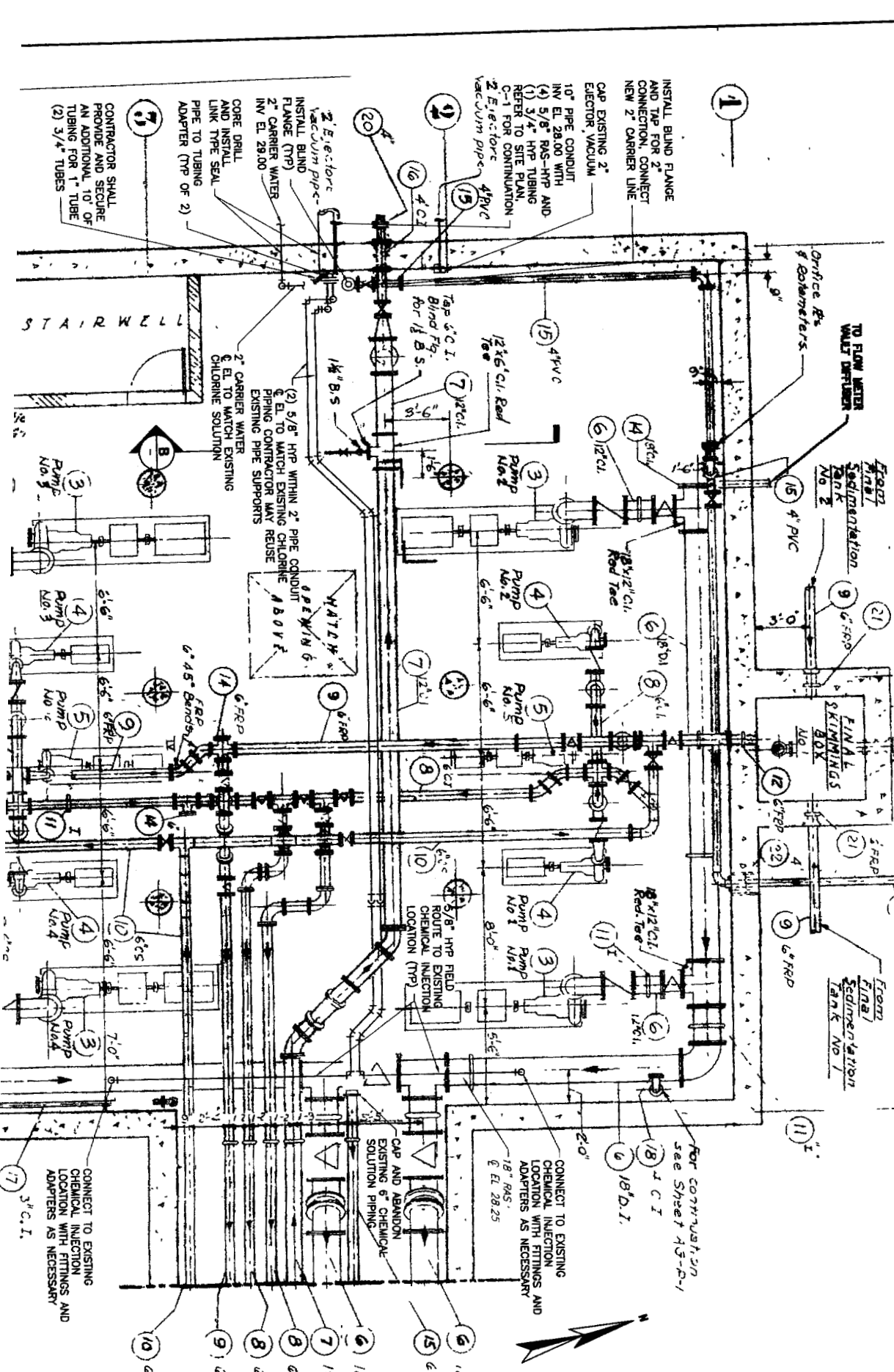


**ACTIVATED SLUDGE INJECTION PUMP GALLERY
CHLORINE SOLUTION INJECTION DEMOLITION**

SCANNED



SECTION A-A
SCALE: SCANNED



SECTION B-B
SCALE: SCANNED

DEMOLITION NOTES:

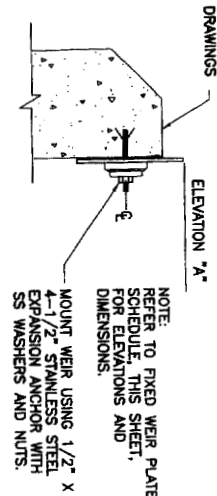
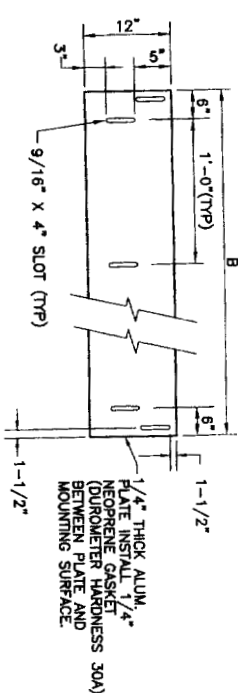
- 1 REMOVE/ DEMOLISH EXISTING ELECTOR VACUUM PIPING IN ITS ENTIRETY TO LIMITS SHOWN, INCLUDING BUT NOT LIMITED TO FITTINGS, SUPPORTS AND VALVES.
 - 2 REMOVE/ DEMOLISH PORTIONS OF EXISTING CHLORINE SOLUTION PIPING AS NECESSARY FOR NEW MODIFICATIONS AS SHOWN ON THIS DRAWING.
 - 3 REMOVE/ DEMOLISH ROTAMETERS AND ASSOCIATED APPURTENANCES (TYP OF 2).
 - 4 REMOVE/ DEMOLISH PORTIONS OF CHLORINE SOLUTION PIPING. CONTRACTOR MAY REUSE PIPE SUPPORTS FOR NEW HRP PIPING AS NECESSARY.
- CONTRACTOR TO NOTE THAT 2 EXISTING SAMPLES SHALL REMAIN.

NOTES:

1. CONTRACTOR TO NOTE A SCANNED IMAGE OF THE EXISTING CONTRACT DRAWINGS HAS BEEN USED FOR THE ACTIVATED SLUDGE GALLERY MODIFICATIONS. EXISTING INFORMATION HAS BEEN Faded BACK FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BIDDING AND/OR COMMENCING CONSTRUCTION. FOR INFORMATION PERTAINING TO EXISTING CONTRACT DRAWINGS, REFER TO THE PROCESS GENERAL NOTES, DWG PR-1.

DRAWING KEY

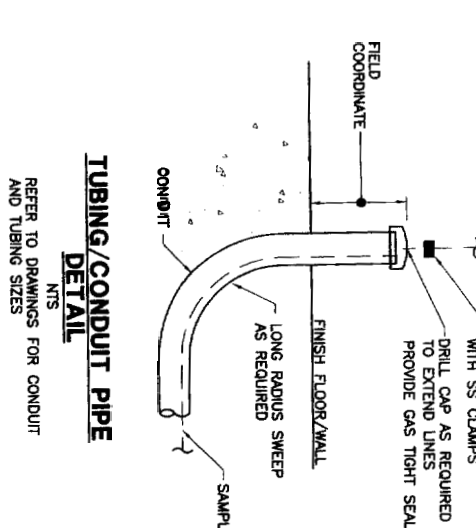
- 1 Chlorine Ejectors
- 2 Injection Nozzle
- 3 Recirculated Sludge Pump
- 4 Waste Activated Sludge Pump
- 5 Skimming Pump
- 6 R.S.
- 7 Plant Water
- 8 W.A.S.
- 9 SK
- 10 H.P.W.
- 11 Flex Coupling & Type
- 12 Fig & FE Wall Pipe
- 13 Rotameter
- 14 Blind Flange
- 15 Chlorine Solution
- 16 Fig & M.I. Wall Pipe
- 17 Sump Pump Discharge
- 18 Sanitary Waste Line
- 19 Sump Pump
- 20 Polyethylene Stub End for Conn to C.I. & D.I. Figs.
- 21 Fiberglass Bell & PE Wall De



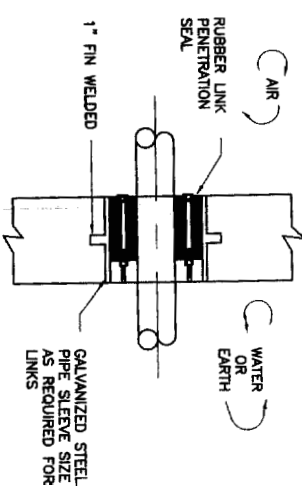
FIXED WEIR PLATE
NTS

FIXED WEIR PLATE SCHEDULE			
LOCATION	WEIR NO.	ELEV. "A"	DIAM "B"
CHLORINE CONTACT TANK	FW-1	27.00	48"-2"
CHLORINE CONTACT TANK	FW-2	27.00	48"-2"
CHLORINE CONTACT TANK	FW-3	27.00	49"-3"
CHLORINE CONTACT TANK	FW-4	27.00	49"-3"

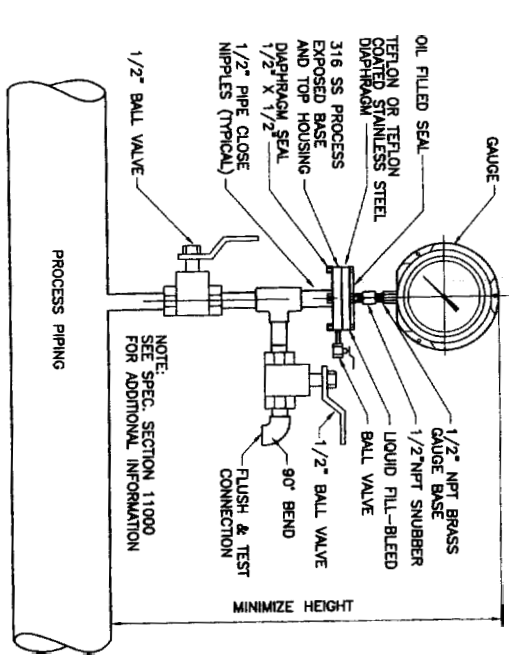
NOTE: MATERIALS OF CONSTRUCTION PER SPEC SECTION 05500



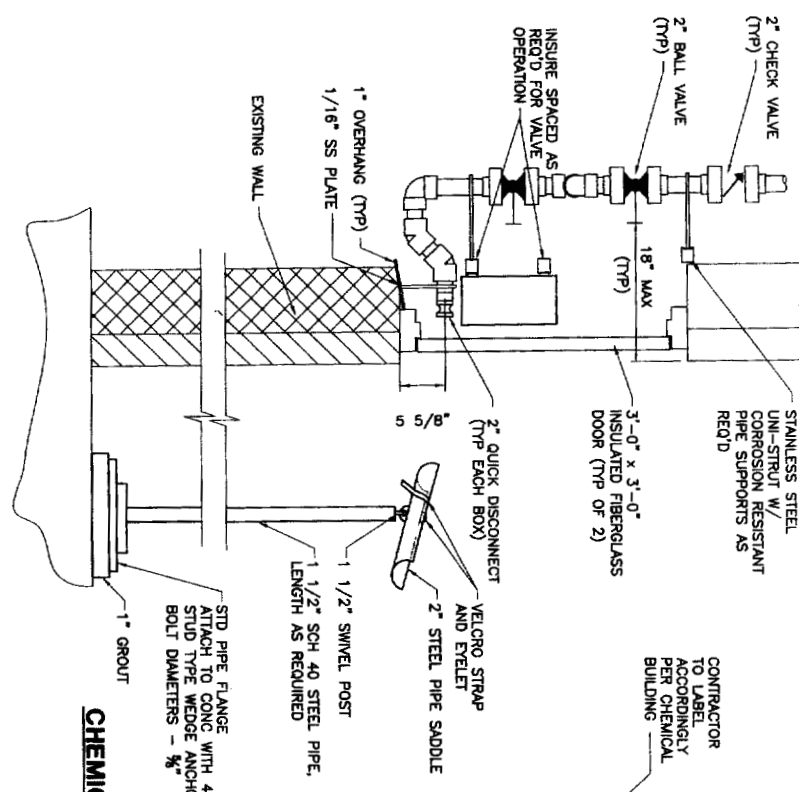
TUBING/CONDUIT PIPE DETAIL
NTS



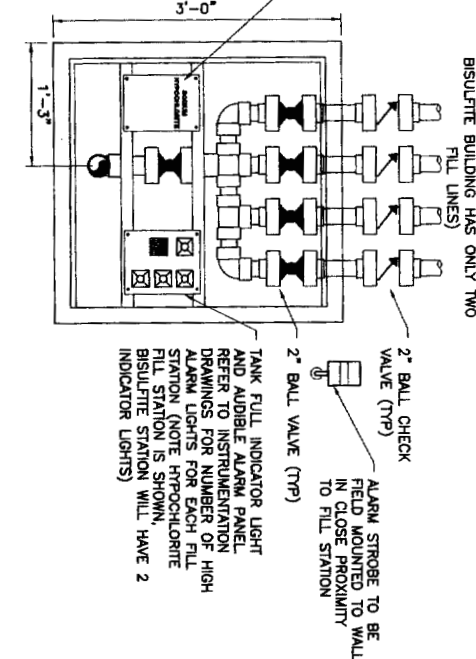
RUBBER LINK SLEEVE DETAIL
NTS



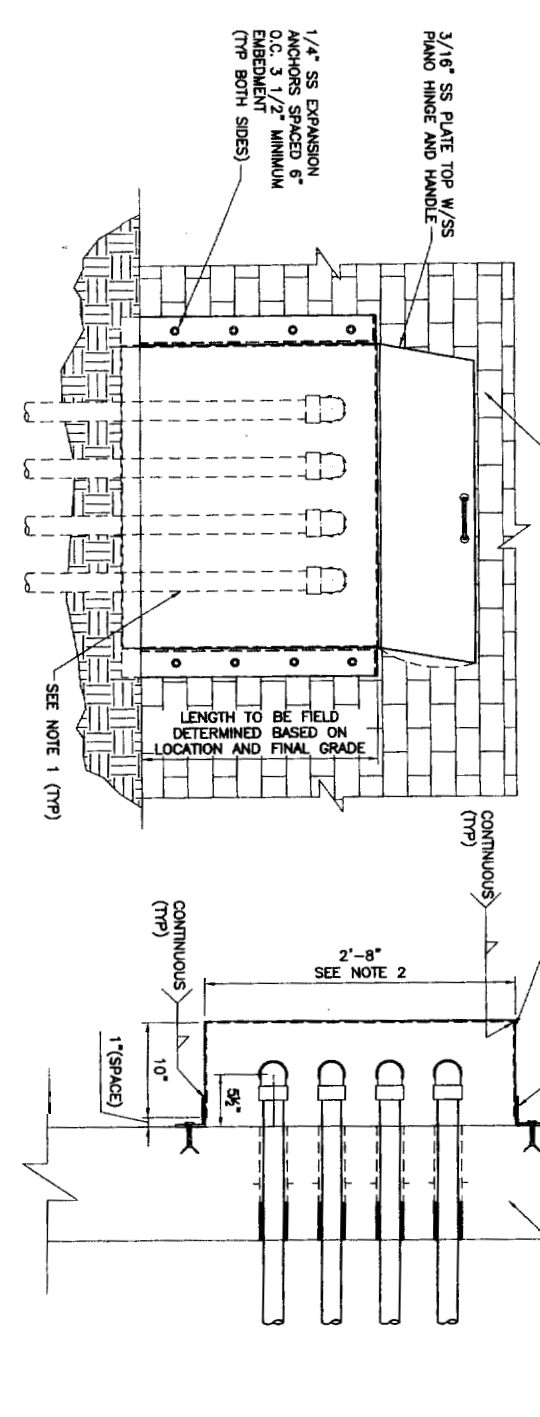
GAUGE ASSEMBLY
NTS



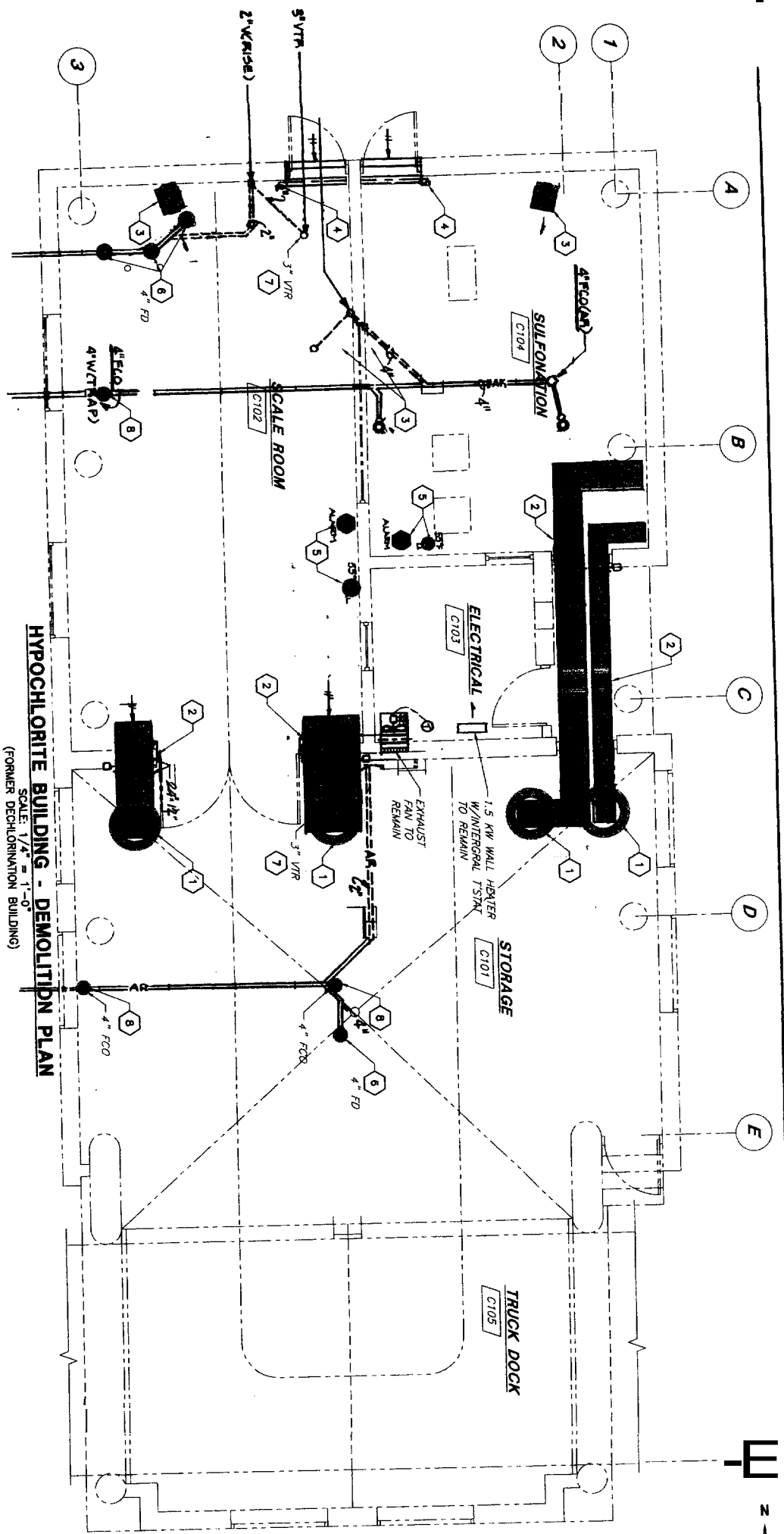
CHEMICAL FILL STATION DETAIL
SCALE: NTS



NOTES:
1. PROVIDE SAFETY/CHEMICAL IDENTIFICATION LABELING ON DOORS PER SPECIFICATION SECTION 10010.
2. PROVIDE END CAP AND CHAIN FOR ALL CHEMICAL FILL PIPES.
3. ALL MISCELLANEOUS MOUNTING APPURTENANCES SHALL BE PVC, PVC COATED OR STAINLESS STEEL.
4. CONTRACTOR TO COORDINATE WITH OWNER ON LOCATION AND ELEVATION OF FILL STATION AND PIPE SADDLE.



PIPE GUARD DETAIL
NTS



HYPPOCHLORITE BUILDING - DEMOLITION PLAN
 (FORMER DECHLORINATION BUILDING)
 SCALE: 1/4" = 1'-0"

DEMOLITION NOTES:

- 1 REMOVE EXISTING ROOF FANS AND ASSOCIATED ROOF CURBS.
- 2 REMOVE DUCTWORK AND ACCESSORIES.
- 3 REMOVE ELECTRIC UNIT HEATERS AND ASSOCIATED POWER SUPPLY BACK TO SOURCE.
- 4 REMOVE MOTOR OPERATED DAMPERS.
- 5 REMOVE LOW LIMIT TEMPERATURE THERMOSTAT AND ASSOCIATED ALARM.
- 6 REMOVE EXISTING FLOOR DRAIN & CAP. COVER THE GAP WITH A MINIMUM OF 2 INCHES OF NON-SHRINK GROUT FLUSH WITH FLOOR.
- 7 REMOVE VENT LINE FROM ROOF TO A POINT JUST BELOW THE CONCRETE FLOOR SLAB. PATCH THE ROOF TO MATCH EXISTING AND CAP THE VENT BELOW THE CONCRETE. GROUT FLUSH WITH FLOOR.
- 8 REMOVE THE EXISTING CLEAN OUTS & CAP. COVER THE GAP WITH A MINIMUM OF 2 INCHES OF NON-SHRINK GROUT FLUSH WITH FLOOR.

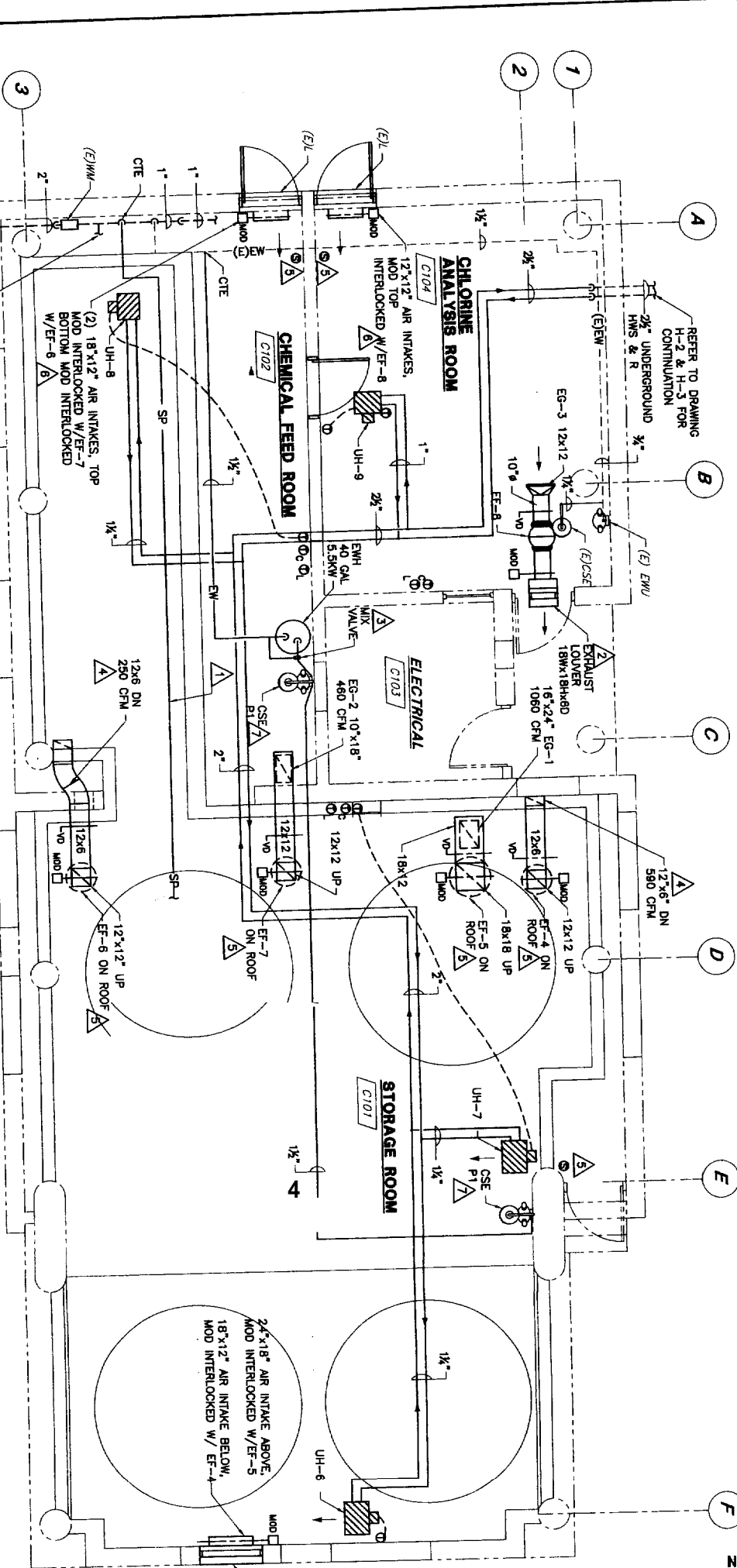
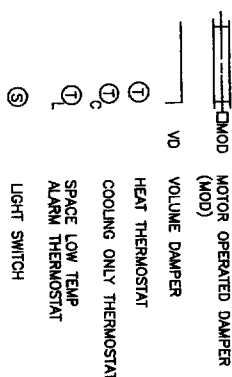
MODIFICATION NOTES:

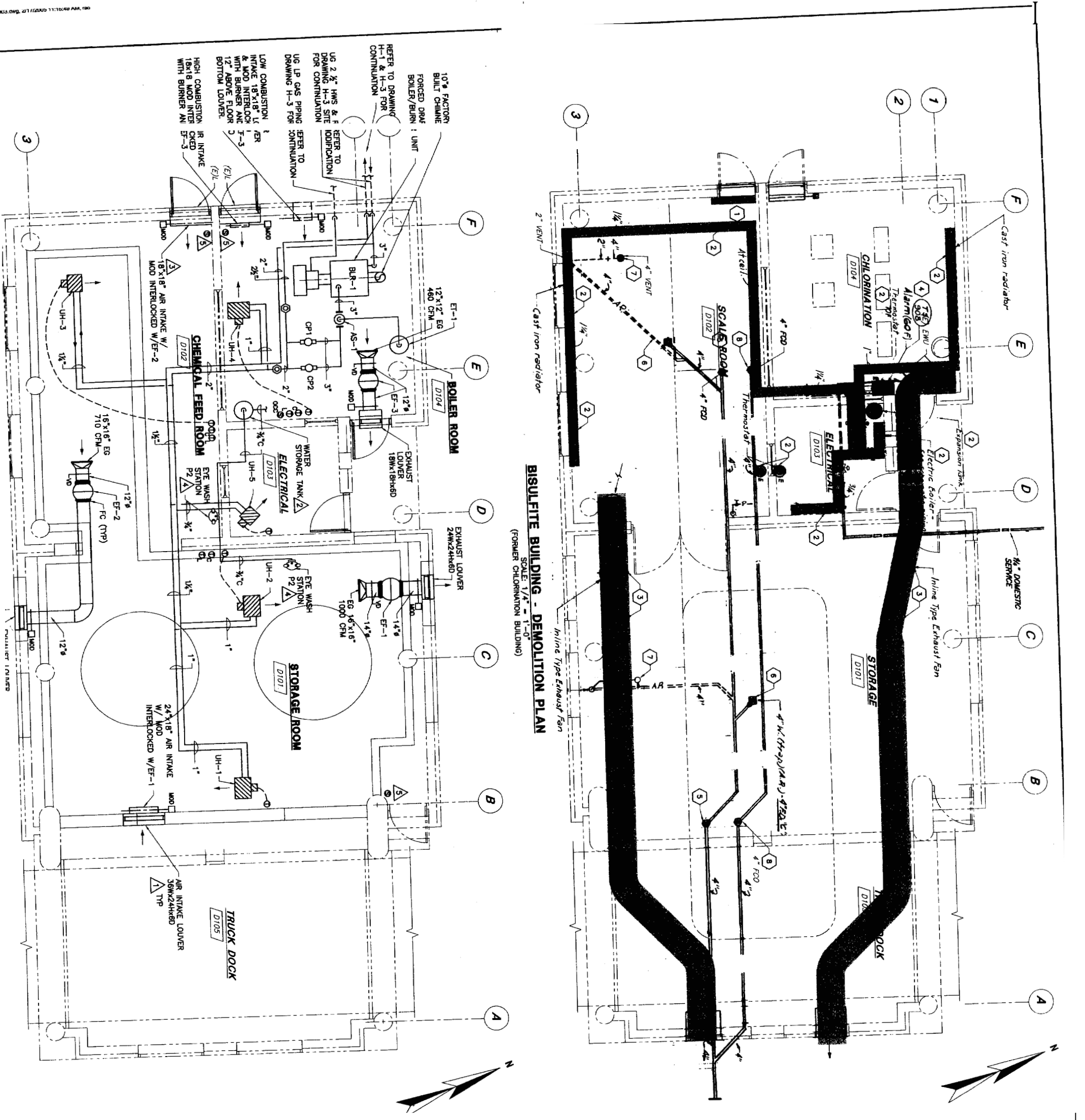
- 1 PROVIDE A LIMITED AREA WET SPRINKLER SYSTEM SERVING THE CHEMICAL FEED ROOM AND STORAGE ROOM. DESIGN FOR LIGHT HAZARD COVERAGE. INTERLOCK THE FLOW SWITCH WITH THE CHLORINE CONTROL PANEL.
- 2 LOCATE ALL LOUVERS AS HIGH AS POSSIBLE.
- 3 INSTALL A EMERGENCY MIXING VALVE ON THE OUTLET FROM THE ELECTRIC HOT WATER HEATER. SET SUPPLY TEMPERATURE @ 70°F. LEONARD MODEL TM 850 WITH TEMPERATURE OVERRIDE PROTECTION.
- 4 RUN DUCT DOWN ON WALL INSIDE CONTAINMENT TO 18 INCHES ABOVE THE CONCRETE FLOOR. INCREASE THE OPENING AREA BY 50% AND COVER WITH 1/2 INCH ALUMINUM MESH SCREEN WITH REMOVABLE FRAME.
- 5 INSTALL NEW FANS AND NEW ROOF CURBS OVER THE EXISTING ROOF CURBS. PROVIDE A WEATHER TIGHT ALUMINUM TRANSITION PIECE BETWEEN CURBS. SUBMIT SHOP DRAWINGS OF THE TRANSITION PIECE FOR REVIEW.
- 6 BLANK OFF EXISTING LOUVER AS REQUIRED AND INSTALL NEW DAMPER MOTOR.
- 7 COMBINATION SHOWER & EGRESS STATION, HAWS 8300 SERIES OR EQUAL. PROVIDE AN INLINE FLOW SWITCH. THE FLOW SWITCH SHALL BE CONNECTED TO THE CHLORINE CONTROL PANEL.
- 8 FIELD VERIFY THE LOCATION OF THE EXISTING LIGHT SWITCHES & CIRCUITS. INTERLOCK CIRCUITS WITH FANS AS INDICATED IN THE SEQUENCE OF OPERATIONS ON DRAWING H-3.

GENERAL NOTES:

1. ALL DUCTWORK AND ACCESSORIES SHALL BE ALUMINUM UNLESS OTHERWISE NOTED.
2. ALL TRAYS SHALL HAVE NEMA 4 ENCLOSURES.
3. ALL ACT DEVICES SHALL HAVE NEMA 4X ENCLOSURES
4. ALL LOUVERS AND GRILLS SHALL BE ALUMINUM.
5. ALL MOTOR OPERATED DAMPERS SHALL BE THE INSULATED TYPE.
6. INSULATE DUCTWORK 12 INCHES BEYOND THE MOD ON ALL INTAKE & EXHAUST. PROVIDE JACKET OVER INSULATION.
7. ALL FANS TO BE EQUIPPED WITH LOCK DISCONNECTS FOR SERVICE.
8. PROVIDE ACCESS DOORS TO ALLOW INSPECTION OF DAMPERS.
9. THE OWNER SHALL PROVIDE THE PORTABLE FIRE EXTINGUISHER.
10. LOCATE AIR INTAKE AS HIGH AS POSSIBLE.

SYMBOLS





BISULFITE BUILDING - DEMOLITION PLAN
 (FORMER CHLORINATION BUILDING)
 SCALE: 1/4" = 1'-0"

- GENERAL NOTES:**
1. REFER TO DRAWING H-3 FOR DETAIL SHOWING BOILER/HEATING SYSTEM PIPING.
 2. A GENERAL ROUTING OF THE PIPING IS SHOWN FIELD LOCATE.
 3. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 4. 1 HOUR FIRE RATED CONSTRUCTION FOR BOILER ROOM.
- 1 REMOVE MOTOR OPERATED DAMPER, LOUVER TO REMAIN.
 - 2 REMOVE THE ELECTRIC FIRED HYDRAULIC HEATING SYSTEM INCLUDING CONDUIT, RADIATORS, PIPES, BOILER, CONTROLS, POWER SUPPLY WIRING AND THERMOSTAT. DOMESTIC WATER SUPPLY, EXPANSION TANK AND THERMOSTAT.
 - 3 REMOVE AIR EXHAUST SYSTEMS INCLUDING DUCTWORK, LOUVER, IN-LINE FANS, HANGERS, PUMP, CONTROLS, AND POWER SUPPLY WIRING AND CONDUIT.
 - 4 REMOVE LOW TEMPERATURE ALARM THERMOSTAT.
 - 5 REMOVE FLOOR CLEANOUT AND CAP PIPE, COVER WITH A MINIMUM OF 2 INCHES OF NON-SHRINK GROUT FLUSH WITH FLOOR.
 - 6 REMOVE FLOOR DRAIN AND CAP PIPE, COVER WITH A MINIMUM OF 2 INCHES OF NON-SHRINK GROUT FLUSH WITH FLOOR.
 - 7 REMOVE VENT STARTING FROM BELOW THE FLOOR THRU THE CONCRETE ROOF, CAP PIPE AND REPAIR ROOF. COVER WITH A MINIMUM OF 2 INCHES OF NON-SHRINK GROUT FLUSH WITH FLOOR.
- 1 LOCATE ALL LOUVER AS HIGH AS POSSIBLE.
 - 2 PROVIDE A 45 GALLON INSULATED STAINLESS STEEL WATER STORAGE TANK FOR THE EMERGENCY EYE WASH STATIONS, LOCATE ON THE FLOOR, 150PSI RASME, TIE INTO EXISTING POTABLE WATER LINE, PROVIDE A VACUUM BREAKER IN THE EXISTING INLET LINE.
 - 3 PROVIDE A SHEET METAL TRANSITION FROM THE EXISTING LOUVER TO THE MOTOR OPERATED DAMPER.
 - 4 EMERGENCY EYEWASH STATION, HAWS MODEL 7409B, PROVIDE AN IN-LINE FLOW SWITCH, THE FLOW SWITCH SHALL BE TIED INTO THE PLC SYSTEM.
 - 5 FIELD VERIFY THE LOCATION OF THE LIGHT SWITCHES & CIRCUITS, INTERLOCK THE CIRCUITS WITH FANS AS INDICATED IN THE SEQUENCE OF OPERATIONS ON DRAWING H-3.

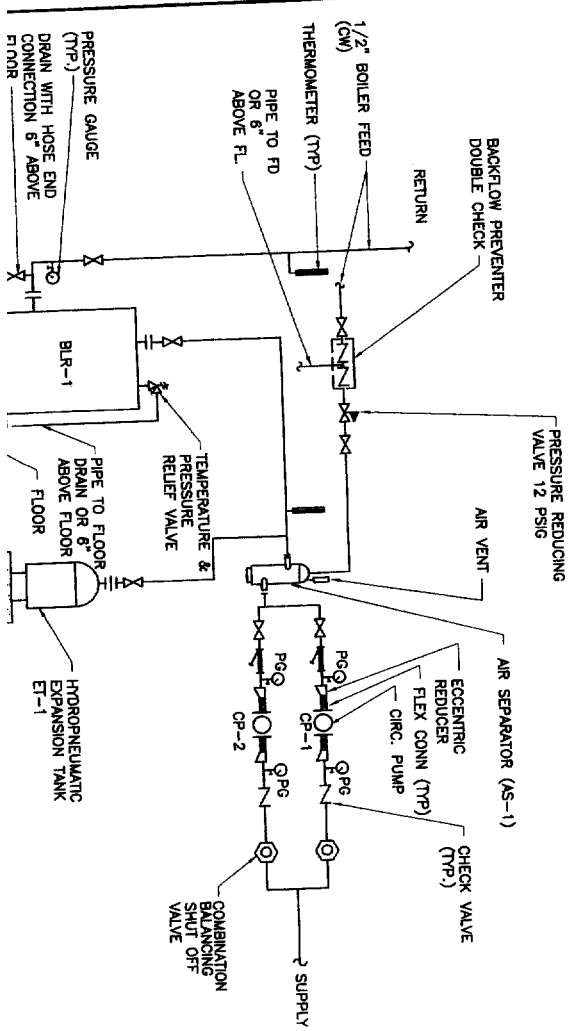
UNIT NO.	SERVING	BUILDING	MANF.	CAT. NO.	MBH	GPM	HP	CFM	THROW	REMARKS
UH-1	STORAGE ROOM	BISULFITE	WING	19	79.2	7.9	1/4	2000	55	SEE NOTES 1 THRU 3
UH-2	STORAGE ROOM	BISULFITE	WING	19	79.2	7.9	1/4	2000	55	SEE NOTES 1 THRU 3
UH-3	CHEMICAL FEED ROOM	BISULFITE	WING	22	118	11.8	1/4	2750	65	SEE NOTES 1 THRU 3
UH-4	SPARE ROOM	BISULFITE	WING	19	79.2	7.9	1/4	2000	55	SEE NOTES 1 THRU 3
UH-5	ELECTRICAL ROOM	BISULFITE	WING	15U	6.6	.7	1/20	256	20	SEE NOTES 1 THRU 4
UH-6	STORAGE ROOM	HYPOCHLORITE	WING	23	159	15.9	1/2	3800	70	SEE NOTES 1 THRU 4
UH-7	STORAGE ROOM	HYPOCHLORITE	WING	23	159	15.9	1/2	3800	70	SEE NOTES 1 THRU 4
UH-8	CHEMICAL FEED ROOM	HYPOCHLORITE	WING	22	118	11.8	1/4	2750	65	SEE NOTES 1 THRU 4
UH-9	ANALYSIS ROOM	HYPOCHLORITE	WING	19	79.2	7.9	1/4	2000	55	SEE NOTES 1 THRU 4

NOTE:
 1. BASED ON 200°F EWT, 80°F EAT, 20°F WTD.
 2. FAN MOTORS 120V, 1ϕ.
 3. 5FT H2O WPD MAXIMUM.
 4. PHENOLIC RESIN COATING.

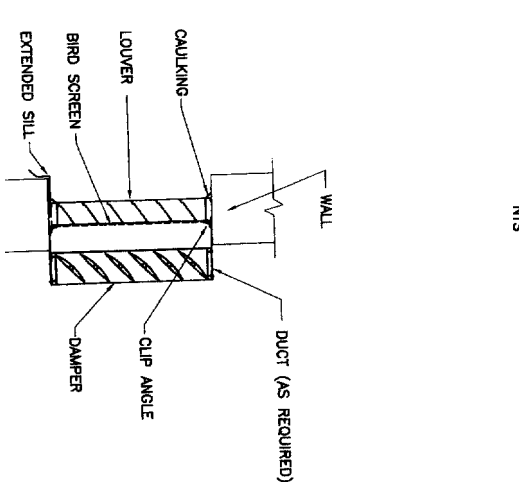
PUMP NO.	MANUFACTURER	PUMP SIZE	CIRCULATING FLUID					MOTOR				
			FLUID	GPM	PUMP HEAD FEET FLUID	TEMP. °F	SP GR	MIN EFF. %	NOM HP	VOLT	PHASE	RPM
CP-1	B & G SERIES 60	2A	WATER	90	35	180	1.0	50	1 1/2	115/230	1	1750
CP-2	B & G SERIES 60	2A	WATER	90	35	180	1.0	50	1 1/2	115/230	1	1750

SEQUENCE OF OPERATION

- HOT WATER UNIT HEATERS UH-1, UH-2, UH-3, UH-4, UH-5, UH-6, UH-7, UH-8, UH-9 A WALL MOUNTED TSTAT SET AT 60° TURNS ON THE FAN AS REQUIRED TO MAINTAIN THE SET POINT ROOM TEMP.
- LOW TEMPERATURE TSTAT & ALARM WHEN THE TEMPERATURE IN THE SPACES DROPS BELOW THE TSTAT SET POINT, AN OUTDOOR AUDIBLE ALARM IS GIVEN.
- INTERMITTENT VENTILATION FANS, EF-1, 2, 3, 5, 7 & 8 THE FANS PROVIDE VENTILATION DURING OCCUPIED PERIODS AND COOLING OF THE SPACE DURING THE SUMMER. A LIGHT SWITCH WILL ACTIVATE THE FAN WHEN THE SPACE IS BEING OCCUPIED. A COOLING TSTAT SET AT 80° WILL ALSO ACTIVATE THE FAN.
- CONTINUOUS VENTILATION FANS, EF-4 & 6 THE FANS RUN CONTINUOUSLY AND ARE CONTROLLED FROM THE BREAKER PANEL IN THE ELECTRICAL ROOM.
- MOTOR CONTROL DAMPERS 1. MOTOR OPERATED AIR INTAKE DAMPERS WILL FULLY OPEN WHEN THE ASSOCIATED FAN IS ACTIVATED. THE DAMPERS WILL FULLY CLOSE WHEN THE FANS ARE DEACTIVATED. 2. MOTOR OPERATED EXHAUST DAMPERS SHALL BE FULLY OPENED WHEN THE ASSOCIATED FAN IS ACTIVATED. THE DAMPERS SHALL BE FULLY CLOSED WHEN THE FAN IS DEACTIVATED.
- COMBUSTION AIR INTAKE DAMPERS AIR INTAKE DAMPERS IN THE BOILER ROOM SHALL BE INTERLOCK WITH THE BOILER BURNER AND EF-3. WHEN ONE OR BOTH ARE RUNNING THE DAMPERS SHALL BE WIDE OPEN. A PROTECTIVE SWITCH ON THE DAMPERS WILL PREVENT THE BURNER OR FAN FROM OPERATING UNTIL THE DAMPERS ARE WIDE OPEN.
- CIRCULATING PUMPS CIRCULATING PUMPS SHALL BE CONTROLLED BY A ON/OFF SWITCH LOCATED IN THE BOILER ROOM.



UNIT HEATER PIPING DETAIL



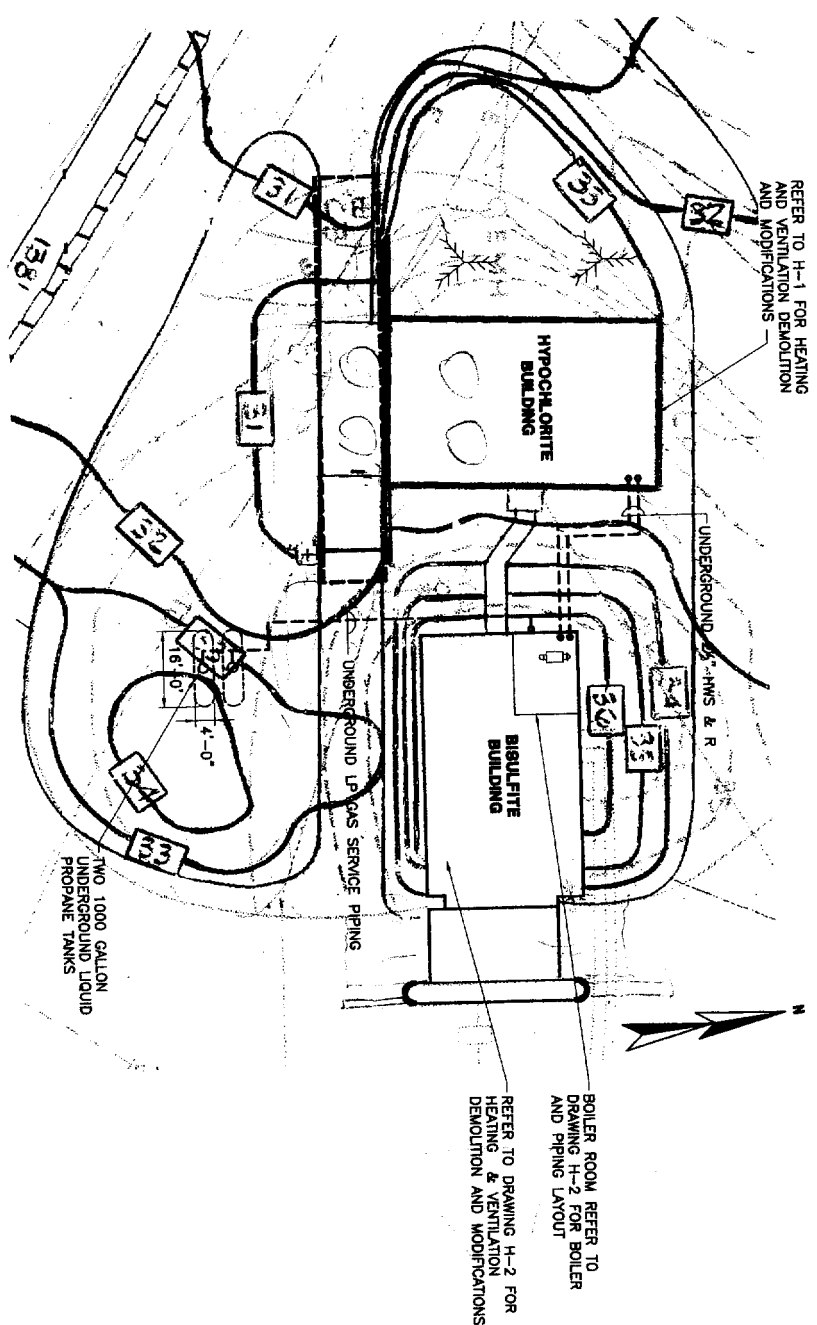
TAG	SERVING	BUILDING	MANF.	MODEL	TYPE	CAT. NO.	AIR			MOTOR			NOTES	
							CFM	ESP	HP	BHP	RPM	VOLTS		PHASE
EF-1	STORAGE ROOM	BISULFITE	COOK	CVD	N-LINE	14CV11D	1000	%	1/4	.25	1140	120	1	
EF-2	CHEMICAL FEED ROOM	BISULFITE	COOK	CVD	N-LINE	12CV11D	710	%	1/4	.10	1140	120	1	
EF-3	BOILER ROOM	BISULFITE	COOK	CVD	N-LINE	12CV11D	460	%	1/4	.10	1140	120	1	
EF-4	STORAGE ROOM	HYPOCHLORITE	COOK	ACE-B	ROOF	80C3B	590	%	1/4	.19	1750	120	1	
EF-5	STORAGE ROOM	HYPOCHLORITE	COOK	ACE-B	ROOF	150C2B	1060	%	1/4	.13	1550	120	1	
EF-6	CHEMICAL FEED ROOM	HYPOCHLORITE	COOK	ACE-B	ROOF	70C3B	250	%	1/4	.19	1750	120	1	
EF-7	CHEMICAL FEED ROOM	HYPOCHLORITE	COOK	ACE-B	ROOF	80C3B	460	%	1/4	.19	1750	120	1	
EF-8	ANALYSIS ROOM	HYPOCHLORITE	COOK	CVD	N-LINE	12CV11D	460	%	1/4	.04	1750	120	1	

NOTE:
 1. FANS ARE ALL ALUMINUM CONSTRUCTION.

BOILER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL/SIZE	INPUT MBH RATING	GROSS I-B-R OUTPUT RATING MBH	FUEL TYPE	BURNER MOTOR HP	REMARKS
BLR-1	WEL-MCLAIN	488	1010	810	LIQUID PROPANE	120/1ϕ 1/6	SEE NOTES

NOTE:
 1. FIELD ASSEMBLED BOILER SECTIONS.
 2. STANDARD BOILER & BURNER CONTROLS.



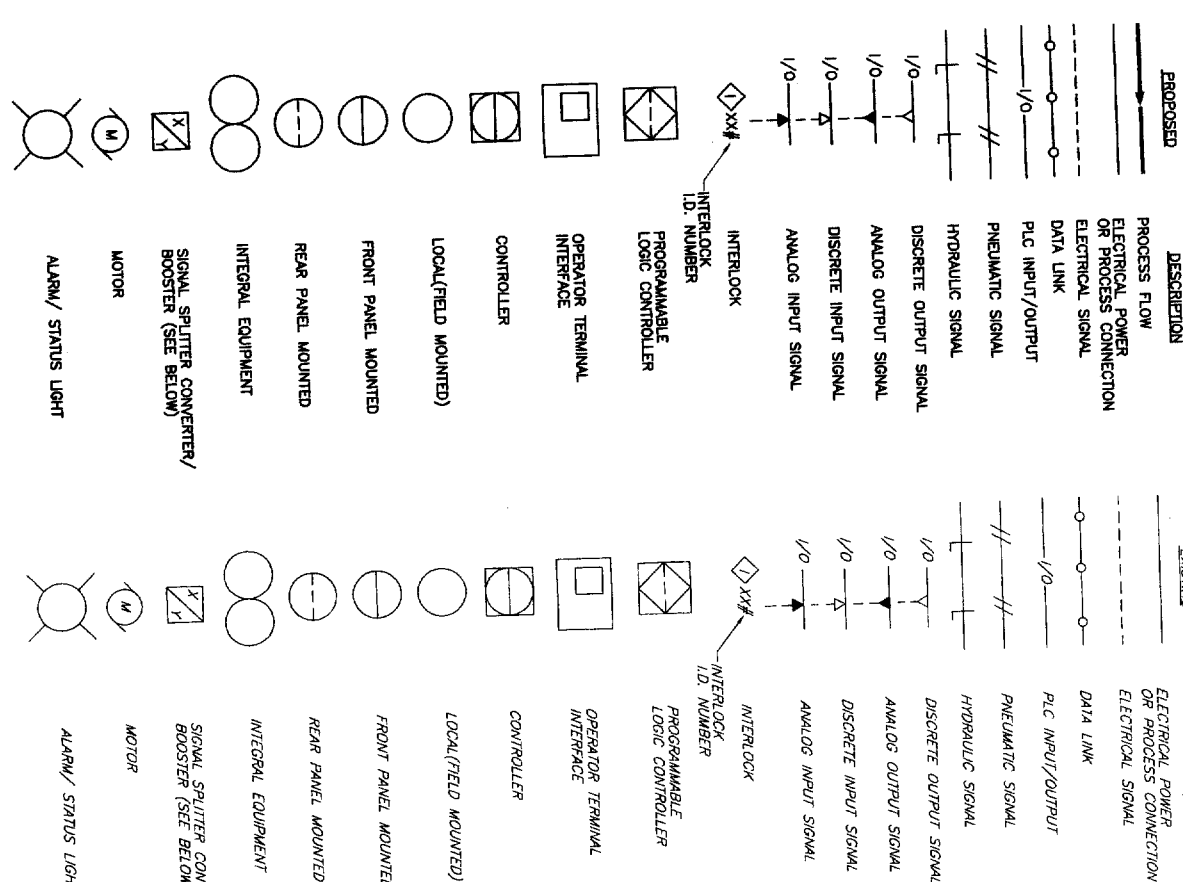
SITE MODIFICATIONS

SCANNED APPROX SCALE: 1" = 20'

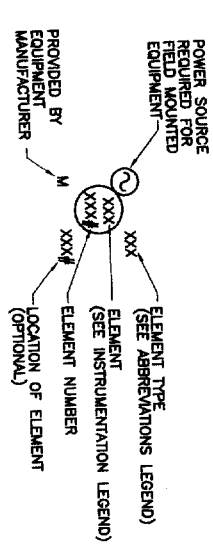
TAG	MANF.	MODEL	SIZE	ACCEPTABLE VALUE
AS-1	TACO		3"	SCREEN INCLUDED

TAG	MANF.	MODEL	SIZE	NOTES
AS-1	TACO		3"	SCREEN INCLUDED

INSTRUMENTATION SYMBOL LEGEND



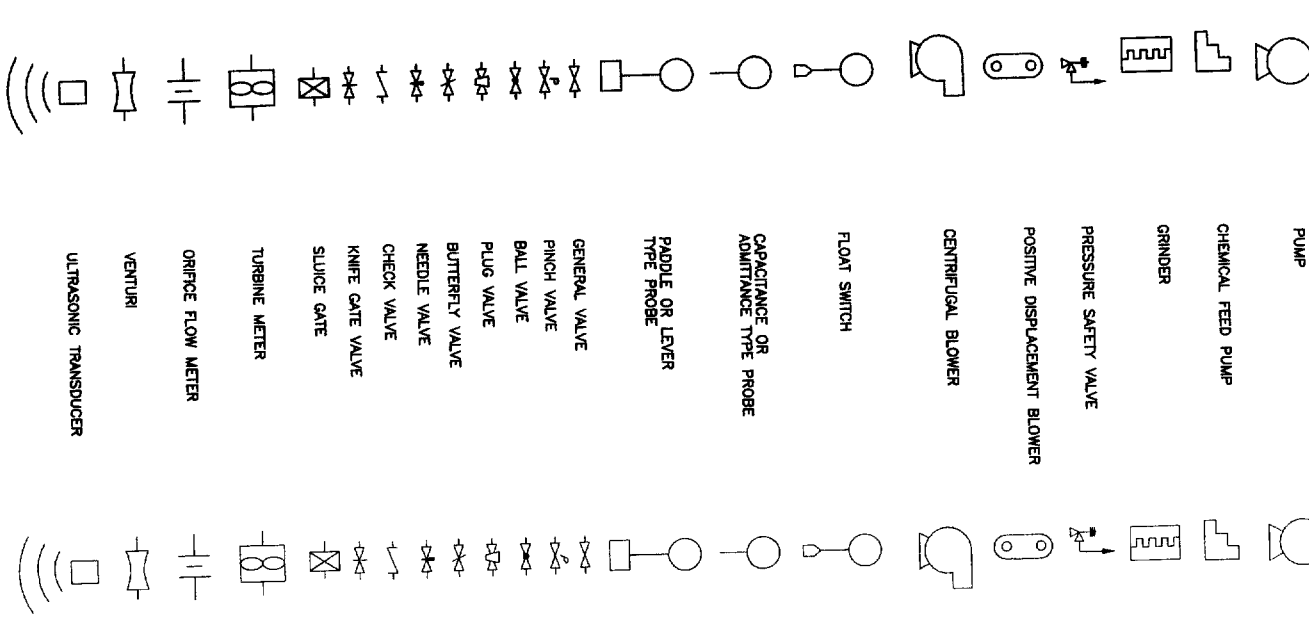
TYPICAL INSTRUMENTATION SYMBOL



INSTRUMENTATION LEGEND

FIRST LETTER	SUCCESSING LETTER	3
A	ANALYSIS	---
B	CONTROL	---
C	CONTROL DIFFERENTIAL*	---
D	DETECT	---
E	ELEMENT	---
F	FLOW	---
G	GAS	---
H	HAND (MANUAL)	---
I	CURRENT	---
J	TIME*	---
K	---	---
L	LEVEL	---
M	MOTOR	---
P	PRESSURE OR TOTALIZE*	---
Q	QUANTITY RECORD	---
R	---	---

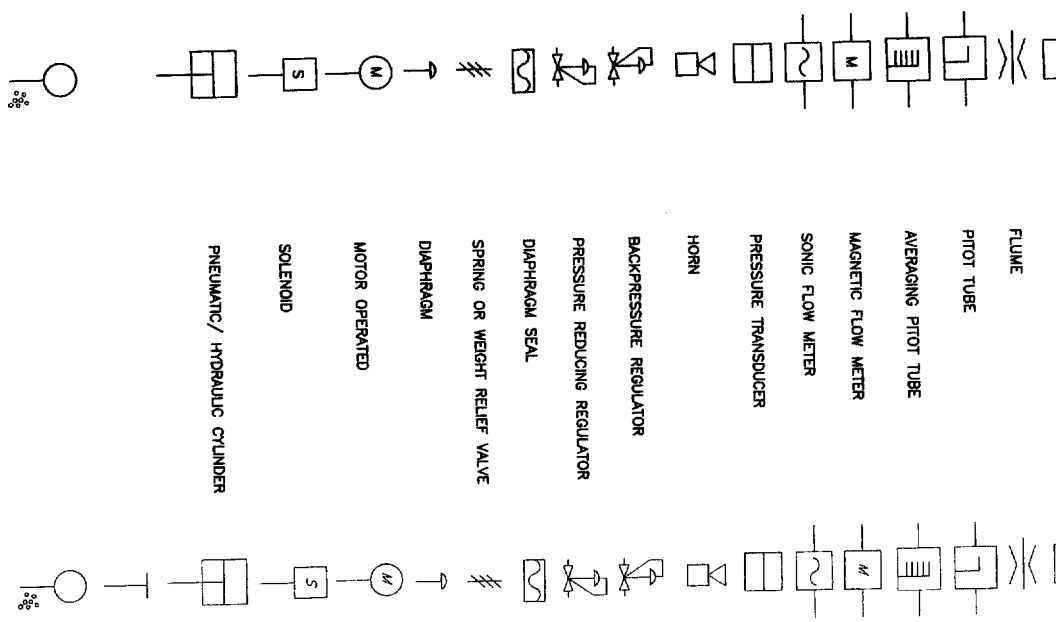
EQUIPMENT SYMBOL LEGEND



CONTROL LOOPS

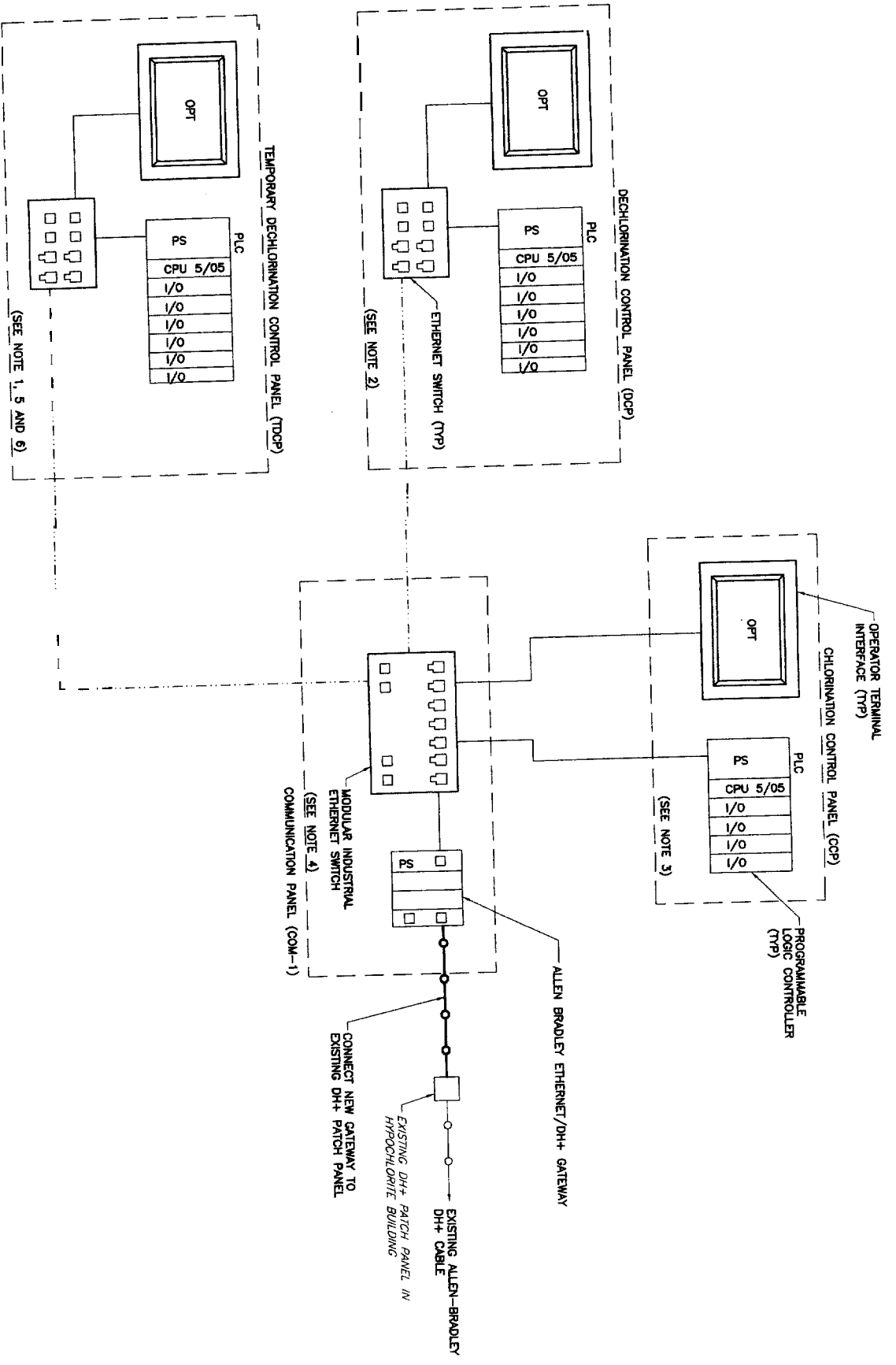
DESCRIPTION	LOOP NO.
EXISTING SECONDARY EFFLUENT FLOW METER	700
EXISTING SECONDARY CHLORINATION MIXER	701
CHLORINE CONTACT TANK INFILTRANT CHANNEL ISOLATION GATE	702
CHLORINATION CONTROL PANEL	703
DECHLORINATION CONTROL PANEL	704
NOT USED	705
NOT USED	706
NOT USED	707
CARRIER WATER PUMP SYSTEM	708
NOT USED	709
SODIUM HYPOCHLORITE CHEMICAL STORAGE	710
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-1	711
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-2	712
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-3	713
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-4	714
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-5	715
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-6	716
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-7	717
SODIUM HYPOCHLORITE CHEMICAL PUMP HYP-8	718
SODIUM HYPOCHLORITE CHEMICAL STORAGE	719
SODIUM BISULFITE CHEMICAL STORAGE	720
SODIUM BISULFITE CHEMICAL PUMP DEC-1	721
SODIUM BISULFITE CHEMICAL PUMP DEC-2	722
SODIUM BISULFITE CHEMICAL PUMP DEC-3	723
SODIUM BISULFITE CHEMICAL PUMP DEC-4	724
SODIUM BISULFITE CHEMICAL PUMP DEC-5	725
SODIUM BISULFITE CHEMICAL PUMP DEC-6	726
SODIUM BISULFITE CHEMICAL PUMP DEC-7	727
SODIUM BISULFITE CHEMICAL PUMP DEC-8	728
SODIUM BISULFITE CHEMICAL STORAGE	729
SODIUM BISULFITE CHEMICAL STORAGE	730
EXISTING BYPASS CHLORINATION MIXER	731
NOT USED	732
NOT USED	733
NOT USED	734
NOT USED	735
SAMPLE PUMP SYSTEM	736
NOT USED	737
NOT USED	738
NOT USED	739
NOT USED	740
NOT USED	741
NOT USED	742
NOT USED	743
NOT USED	744
NOT USED	745
NOT USED	746
NOT USED	747
NOT USED	748
NOT USED	749
NOT USED	750

EQUIPMENT SYMBOL LEGEND CONT'D

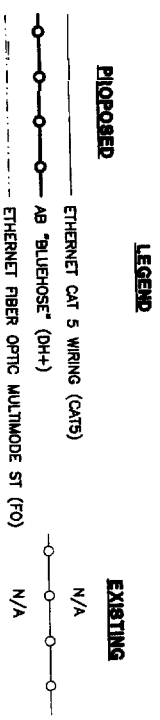


NOTES:

- REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE SIGNAL REPEATERS/CONVERTERS/BOOSTERS AS REQUIRED BASED UPON EQUIPMENT SELECTED BY INSTRUMENTATION SUPPLIER, DISTANCE AND LOCATION.
- PROVIDE DRIP SHIELDS TO PROTECT ALL PANELS LOCATED UNDERNEATH PIPES OR OTHER LIQUID-CONTAINING STRUCTURES.
- REFERENCE PROCESS AND ELECTRICAL DRAWINGS FOR LOCATION OF PANELS AND FIELD INSTRUMENTATION.
- REFER TO SPECIFICATION SECTION 13440, AND 13442 FOR ADDITIONAL INFORMATION REGARDING INSTRUMENTATION.
- THE CONTRACTOR WILL PROVIDE AND INSTALL 20% SPARE INSTRUMENTATION WIRES WITH A MINIMUM OF TWO SPARES PER CONDUIT UP TO THE LIMIT OF CONDUIT FILL AS SPECIFIED BY NEC.
- CONTRACTOR TO COORDINATE NEEDED VOLTAGE BASED UPON EQUIPMENT SUPPLIED.
- ALL FLOOR MOUNTED CONTROL PANELS SHALL BE INSTALLED ON 4" HIGH CONCRETE EQUIPMENT PADS.
- WHERE INPUT AND OUTPUT SIGNALS TO A PLC IS REQUIRED, PROVIDE PROPER TYPE AND QUANTITY OF INPUT/OUTPUT MODULES (I/O).



NETWORK DIAGRAM
NTS

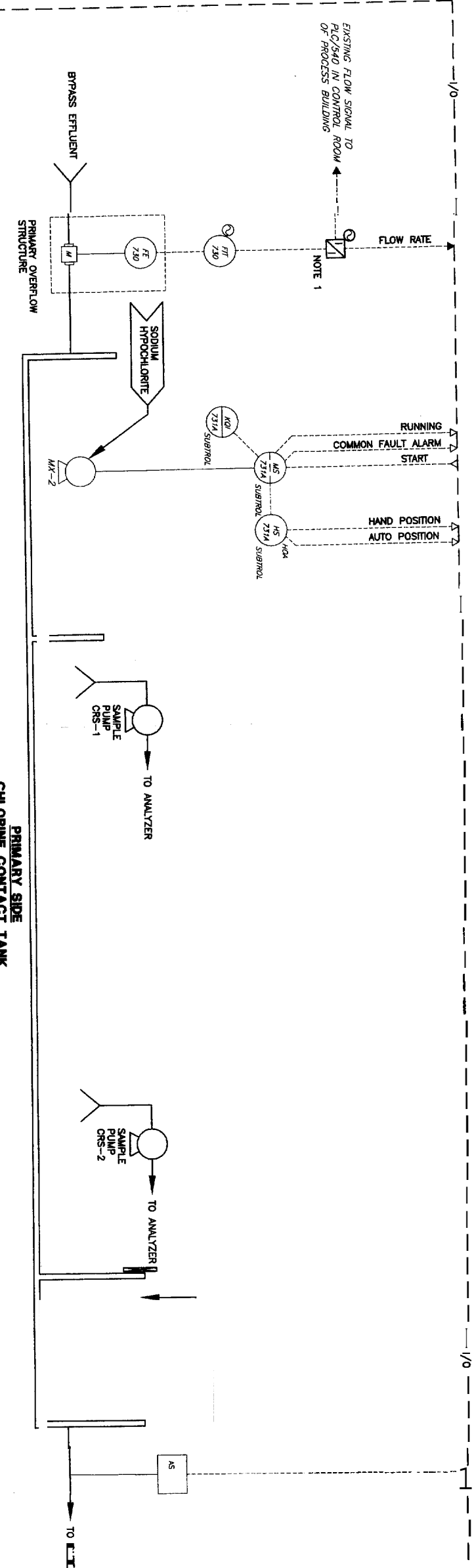


- NOTES:**
1. TEMPORARY DECHLORINATION CONTROL PANEL WILL BE LOCATED IN A TEMPORARY BUILDING/SHED. REFER TO CIVIL DRAWINGS FOR GENERAL LOCATION AND SPECIFICATION SECTIONS 01010, 01500 AND 11234 FOR FURTHER INFORMATION.
 2. NEW DECHLORINATION PANEL TO BE LOCATED IN BISULFITE BUILDING.
 3. NEW CHLORINATION PANEL TO BE LOCATED IN HYPOCHLORITE BUILDING.
 4. NEW COMMUNICATIONS PANEL TO BE LOCATED IN HYPOCHLORITE BUILDING.
 5. A TEMPORARY DECHLORINATION PANEL SHALL BE PROVIDED TO CONTROL THE TEMPORARY DECHLORINATION SYSTEM. THIS PANEL SHALL INCORPORATE THE SAME I/O SHOWN ON DRAWING 1-4 FOR THE PERMANENT DECHLORINATION PANEL (DCP). REFER TO SPECIFICATION SECTION 13440 FOR FURTHER INFORMATION.
 6. OWNER SHALL RETAIN OWNERSHIP OF TEMPORARY DECHLORINATION PANEL AT COMPLETION OF PROJECT.



NO.	REVISIONS	APP'D	DATE	PROGRESS PRINTS
1				ISSUED FOR REVIEW: 12-15-04
2				ISSUED FOR BIDDING: 2-18-05

- NOTES:**
1. PROVIDE DIN RAIL MOUNTED SIGNAL SPLITTER IN NEMA 4X SS BOX MOUNT IN TUNNEL AREA ADJACENT TO EXISTING FT-730.
 2. PROVIDE DIN RAIL MOUNTED SIGNAL SPLITTER IN NEW CHLORINATION CONTROL PANEL (CCP).
 3. PROVIDE 3-WAY MOTORIZED BALL VALVES (TYPICAL OF 2) ON EACH BYPASS ANALYZER SAMPLE LINE.

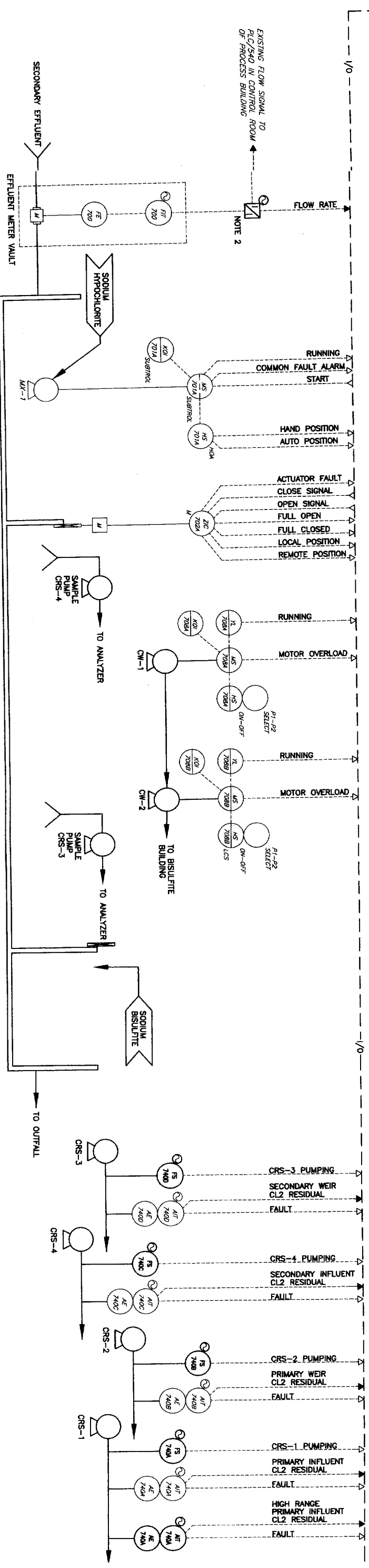


PRIMARY SIDE CHLORINE CONTACT TANK

EXISTING BYPASS FLOW METER LOOP 730

EXISTING BYPASS CHLORINATION MIXER LOOP 731

EXISTING AUTOMATIC SAMPLER



SECONDARY SIDE CHLORINE CONTACT TANK

EXISTING SECONDARY EFFLUENT FLOW METER LOOP 700

EXISTING SECONDARY CHLORINATION MIXER LOOP 701

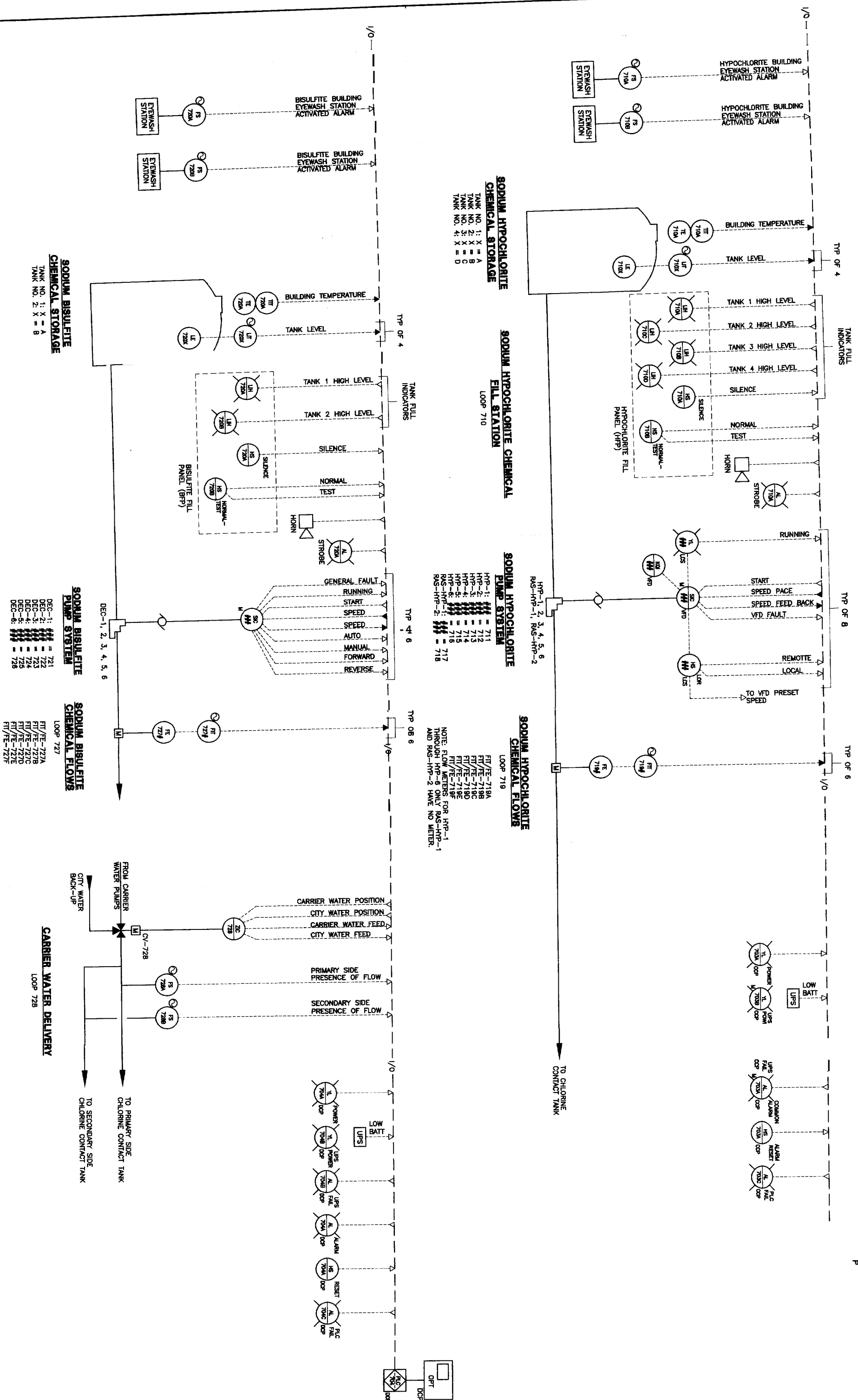
EXISTING CHLORINE CONTACT TANK INFLUENT CHANNEL ISOLATION LOOP 702

EXISTING CARRIER WATER PUMP SYSTEM LOOP 708

CHLORINE RESIDUAL ANALYZERS LOOP 740



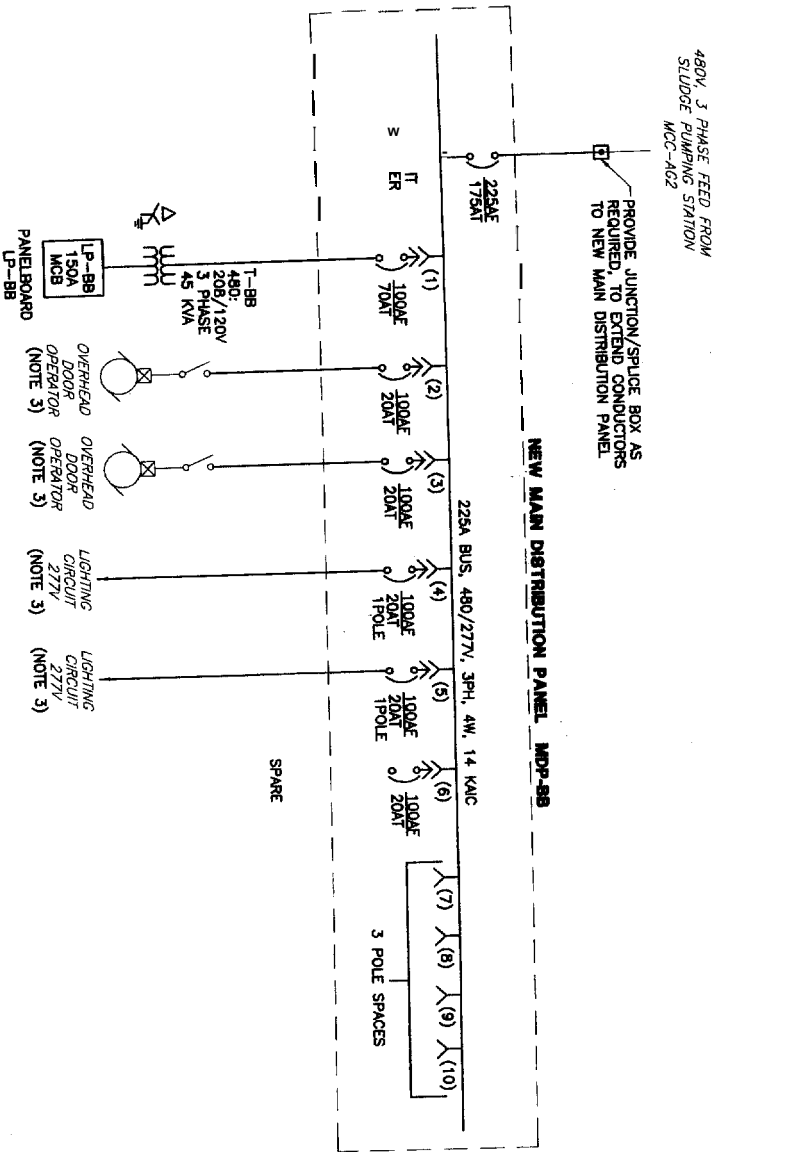
NO.	REVISIONS	APPD.	DATE



480V, 3 PHASE FEED FROM
SLUDGE PUMPING STATION
MCC-A02

NOTE 2

**SINGLE LINE DIAGRAM - DEMOLITION
BISULFITE BUILDING (FORMER CHLORINATION BUILDING)**



**SINGLE LINE DIAGRAM - MODIFICATION
BISULFITE BUILDING**

- NOTES:**
1. INFORMATION CONTAINED IN SINGLE LINE DIAGRAMS AND SCHEDULES HAS BEEN OBTAINED IN PART FROM EXISTING PLANT ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION AFFECTING HIS WORK BEFORE COMMENCING THE WORK.
 2. EQUIPMENT DENOTED WITH SHADING SHALL BE DISCONNECTED AND REMOVED, ALONG WITH ASSOCIATED CONDUIT AND WIRING.
 3. EXISTING EQUIPMENT REFERRED TO THIS NOTE SHALL BE RETIED FROM NEW MAIN DISTRIBUTION PANEL AS INDICATED ON MODIFICATION SINGLE LINE DIAGRAM.

NEW PANELBOARD LP-BB

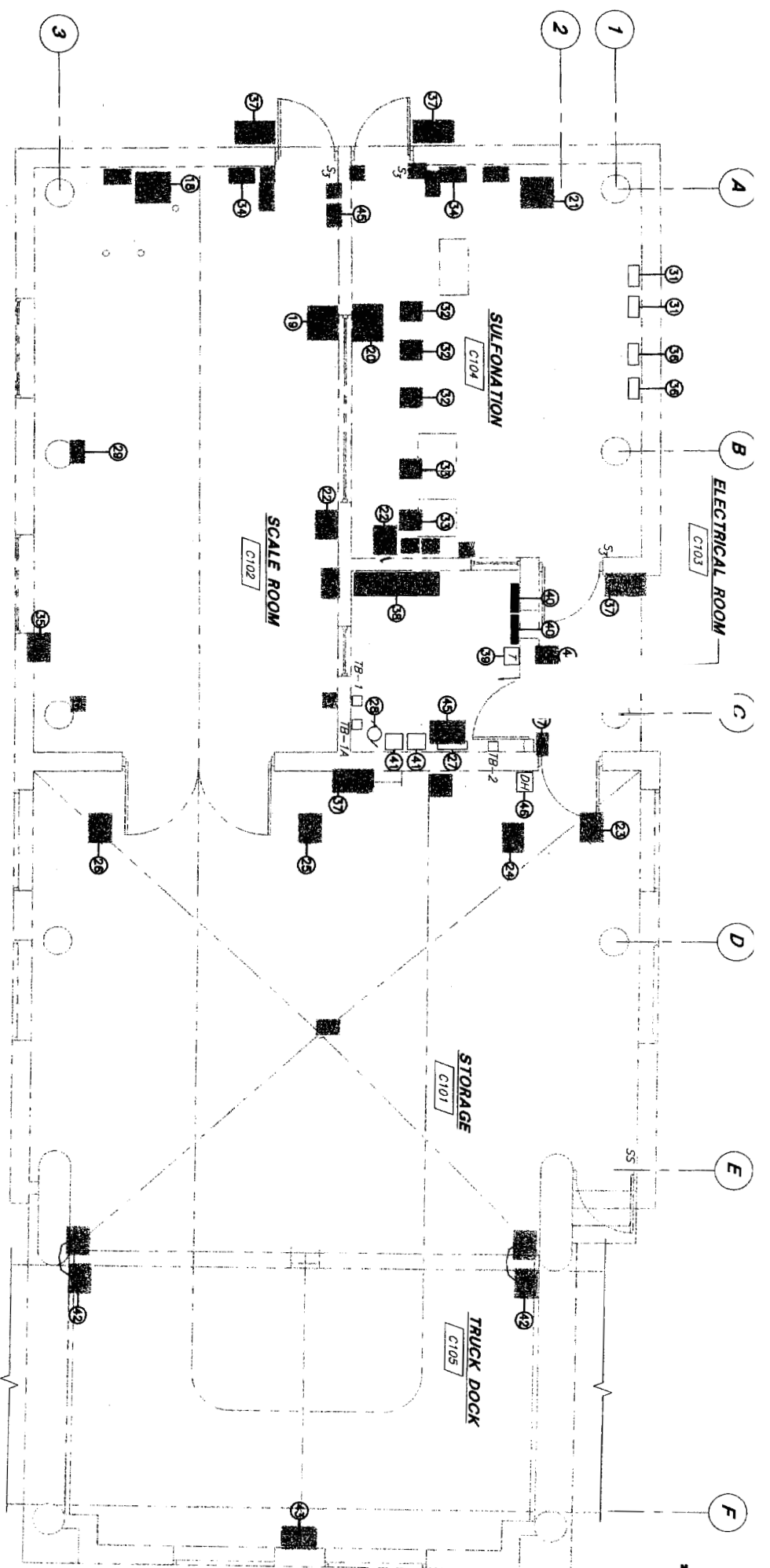
CRT NO.	AMPS	POLES	DESCRIPTION	PHASE LOAD (VA)	NO. POLES	AMPS	CRT. NO.
1	20	1	EMERGENCY EYE WASH	<	1	20	1
3	20	1	RECEPTACLES	<	1	20	2
5	20	1	RECEPTACLES AND LIGHTS	<	1	20	4
7	20	1	RECEPTACLES	<	1	20	6
9	20	1	EXHAUST FAN ELECTRIC ROOM	<	1	20	8
11	20	1	UNKNOWN (OLD CRT #18)	<	1	20	10
13	20	1	RELOCATED TRUCK SCALE	<	1	20	12
15	20	1	RELOCATED TRUCK SCALE	<	1	20	14
17	20	1	BOILER AND CONTROLS	<	1	20	16
19	30	1	CIRCULATING PUMP CR-1	<	1	20	18
21	30	1	CIRCULATING PUMP CR-2	<	1	20	20
23	20	1	SPACE	<	1	20	22
25	20	1	SPACE	<	1	20	24
27	20	1	SPACE	<	1	20	26
29	20	1	SPACE	<	1	20	28
31	1	1	SPACE	<	1	20	30
33	1	1	SPACE	<	1	20	32
35	1	1	SPACE	<	1	20	34
37	1	1	SPACE	<	1	20	36
39	1	1	SPACE	<	1	20	38
41	1	1	SPACE	<	1	20	40
SUB-TOTAL							42

ESTIMATED DEMAND LOAD
DEMAND LINE CURRENT

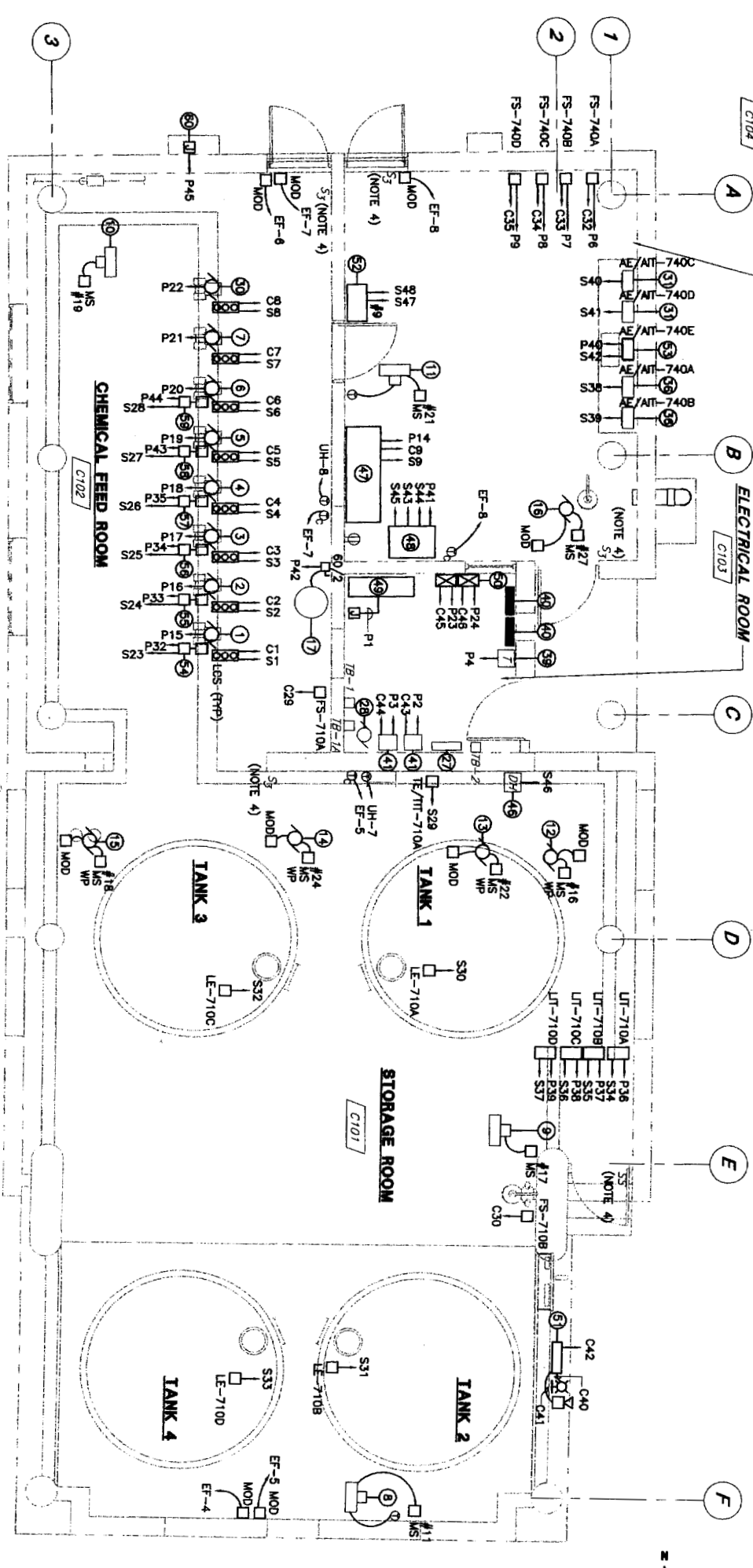
EXISTING CIRCUITS SHALL BE VERIFIED
BY CONTRACTOR AND RETIED FROM
NEW PANELBOARD LP-BB

LIGHTING FIXTURE SCHEDULE:

CODE	TYPE	LIGHT SOURCE	MOUNTING	MANUFACTURER	CATALOG NO.	VOLTS	DESCRIPTION
D	FLUORESCENT	(2)FS32T8	CEILING SURFACE OR PENDANT, W/SHADE NOTED ON DRAWINGS	COOPER-METALUX	VP2-232DR-120-EB81	120	4 FT. ENCL. & POLYURETHANE GAS-FILLED FLUORESCENT WET LOCATION, ELECTRONIC BALLAST



**CHLORINE RESIDUAL PUMPS/
ANALYSIS ROOM**



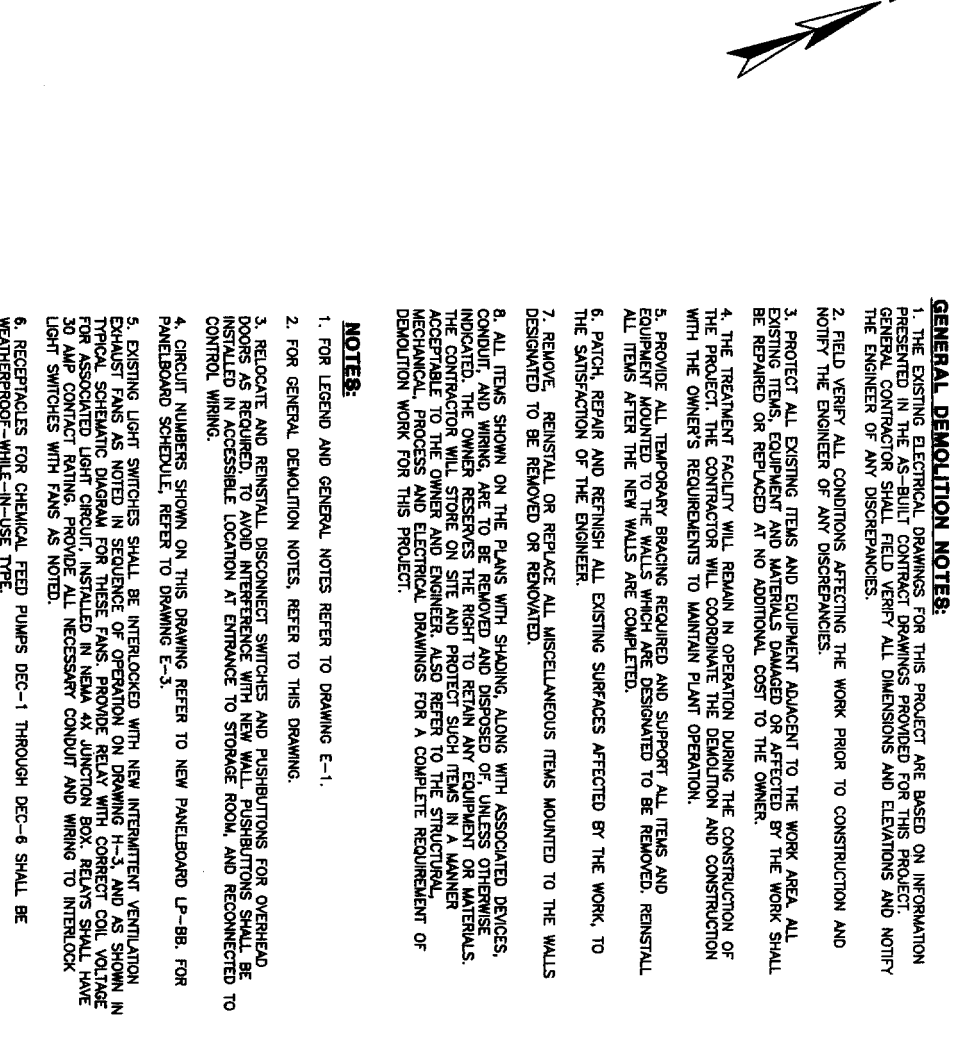
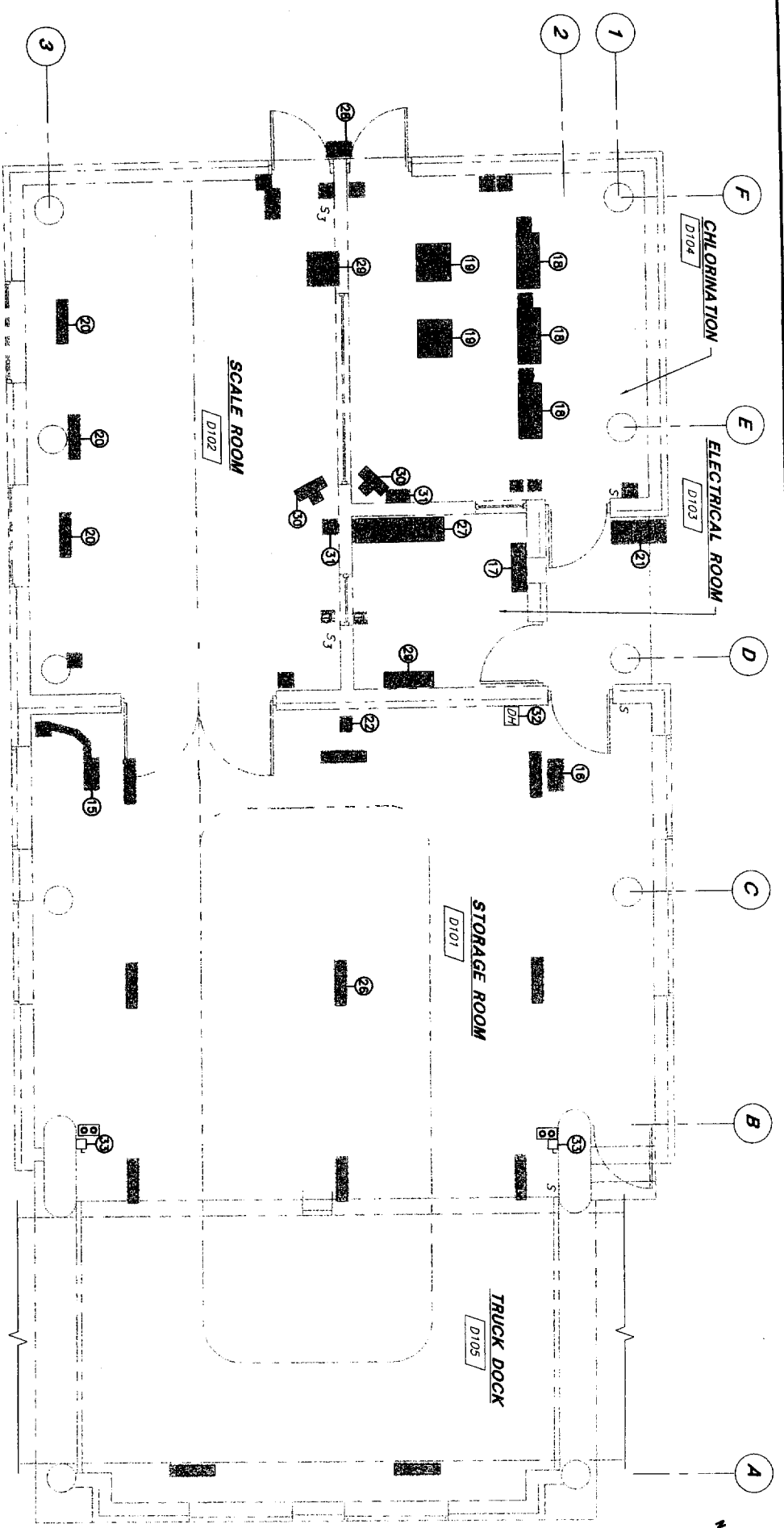
**HYPPOCHLORITE BUILDING
DEMOLITION PLAN**
SCALE: 1/4" = 1'-0"
(FORMER DECHLORINATION BUILDING)

EQUIPMENT LEGEND

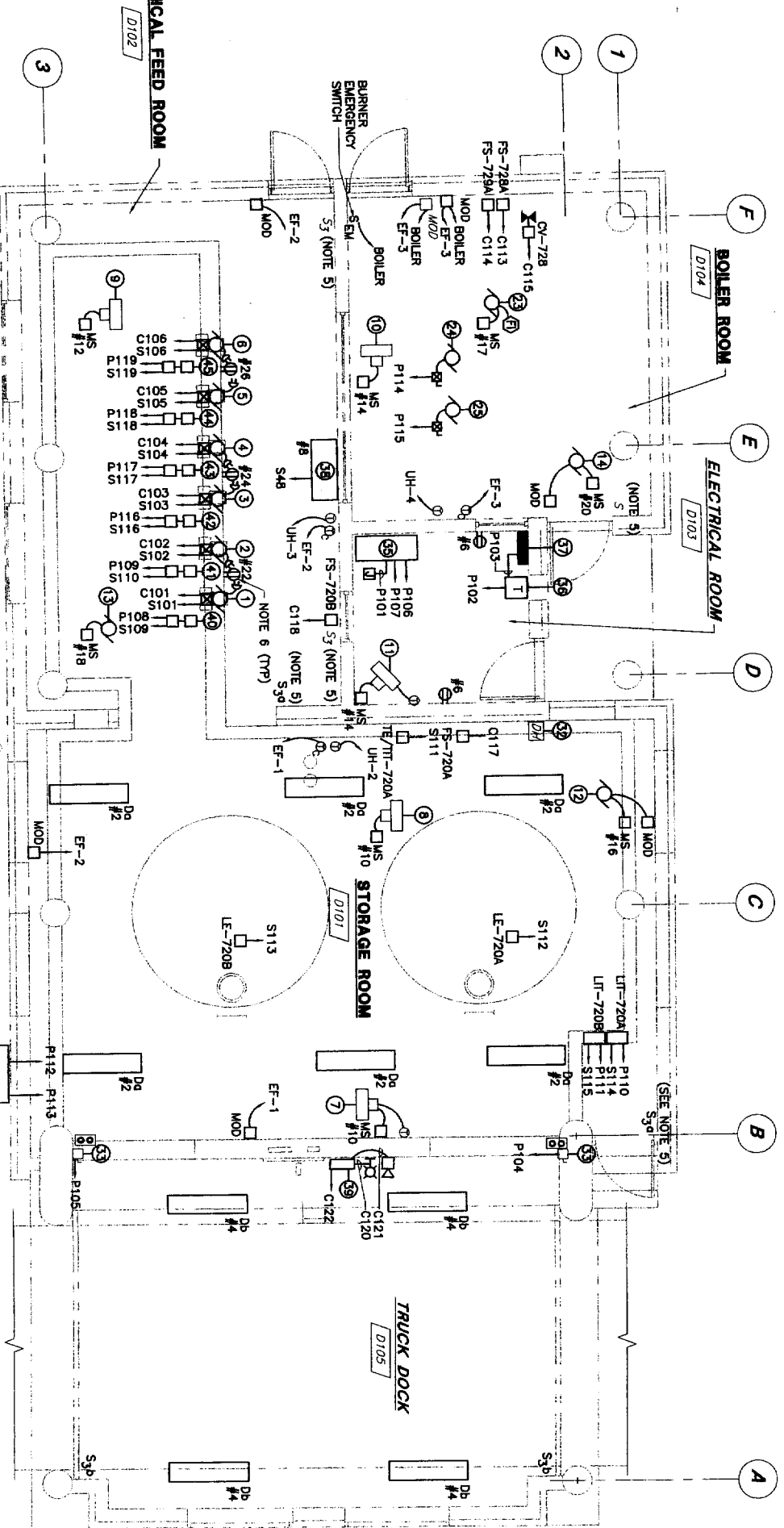
- 1 SODIUM HYPOCHLORITE FEED PUMP HYP-1
- 2 SODIUM HYPOCHLORITE FEED PUMP HYP-2
- 3 SODIUM HYPOCHLORITE FEED PUMP HYP-3
- 4 SODIUM HYPOCHLORITE FEED PUMP HYP-4
- 5 SODIUM HYPOCHLORITE FEED PUMP HYP-5
- 6 SODIUM HYPOCHLORITE FEED PUMP HYP-6
- 7 SODIUM HYPOCHLORITE FEED PUMP RAS-HYP-1
- 8 UNIT HEATER UH-6
- 9 UNIT HEATER UH-7
- 10 UNIT HEATER UH-8
- 11 UNIT HEATER UH-9
- 12 EXHAUST FAN EF-4 (ON ROOF)
- 13 EXHAUST FAN EF-5 (ON ROOF) (NOTE 4)
- 14 EXHAUST FAN EF-7 (ON ROOF) (NOTE 4)
- 15 EXHAUST FAN EF-6 (ON ROOF)
- 16 EXHAUST FAN EF-8 (NOTE 4)
- 17 ELECTRIC WATER HEATER
- 18 ELECTRIC UNIT HEATER EUH-4 TO BE REMOVED
- 19 ELECTRIC UNIT HEATER EUH-3 TO BE REMOVED
- 20 ELECTRIC UNIT HEATER EUH-2 TO BE REMOVED
- 21 ELECTRIC UNIT HEATER EUH-1 TO BE REMOVED
- 22 LOW TEMPERATURE ALARM (TYP) TO BE REMOVED
- 23 ROOF EXHAUST FAN REF-4 TO BE REMOVED
- 24 ROOF EXHAUST FAN REF-3 TO BE REMOVED
- 25 ROOF EXHAUST FAN REF-2 TO BE REMOVED
- 26 ROOF EXHAUST FAN REF-1 TO BE REMOVED
- 27 ELECTRIC WALL HEATER 1.5KW EWH-1 TO REMAIN
- 28 ELECTRICAL ROOM EXHAUST FAN EF-1 TO REMAIN
- 29 SCALE TO BE REMOVED
- 30 SODIUM HYPOCHLORITE FEED PUMP RAS-HYP-2
- 31 RESIDUAL ANALYZER (TYP 2) TO REMAIN
- 32 SULFONATOR (TYP 3) TO BE REMOVED
- 33 EVAPORATOR (TYP 2) TO BE REMOVED
- 34 SULFUR DIOXIDE LEAK DETECTOR (TYP 2) TO BE REMOVED
- 35 MONITORIAL POWER SUPPLY DISCONNECT SWITCH TO BE REMOVED
- 36 BYPASS RESIDUAL ANALYZER (TYP 2) TO REMAIN
- 37 FAN SWITCH (TYP) TO BE REMOVED
- 38 MOTOR CONTROL CENTER MCC-DC8 TO BE REMOVED
- 39 TOKIYA TRANSFORMER TO REMAIN
- 40 PANELBOARD LCD (2 SECTIONS) TO REMAIN
- 41 WINDER CONTROLLER (TYP 2) TO REMAIN
- 42 OVERHEAD DOOR OPERATOR AND DISCONNECT SWITCH (TYP 2) TO BE RELOCATED TO BISULFITE BUILDING
- 43 TRUCK SCALE CONTROL PANEL TO BE REMOVED
- 44 SO2 GAS DETECTION PANEL TO BE REMOVED
- 45 CONTROL PANEL (TYP) TO BE REMOVED
- 46 DATA HIGHWAY JUNCTION BOX TO REMAIN
- 47 VFD CONTROL PANEL
- 48 CHLORINATION CONTROL PANEL (CCP)
- 49 MAIN DISTRIBUTION CONTROL PANEL (MDP-HIB)
- 50 MOTOR STARTER CARRIER WATER PUMP (TYP 2)
- 51 HYPOCHLORITE FILL PANEL (HFP), ALARM HORN AND STROBE LIGHT
- 52 COMMUNICATION PANEL (COM-1)
- 53 HIGH RANGE PRIMARY INFLUENT CHLORINE RESIDUAL ANALYZER
- 54 FE/FT-719A
- 55 FE/FT-719B
- 56 FE/FT-719C
- 57 FE/FT-719D
- 58 FE/FT-719E
- 59 FE/FT-719F
- 60 HEAT TRACE POWER SUPPLY FOR HYPOCHLORITE FEED LINES

NOTES:

- 1. FOR LEGEND AND GENERAL NOTES, REFER TO DRAWING E-1.
- 2. FOR GENERAL DEMOLITION NOTES, REFER TO DRAWING E-5.
- 3. CIRCUIT NUMBERS SHOWN ON THIS DRAWING REFER TO EXISTING PANELBOARD FOR. FOR PANELBOARD SCHEDULE, REFER TO DRAWING E-6.
- 4. EXISTING LIGHT SWITCHES SHALL BE INTERLOCKED WITH NEW INTERMITTENT VENTILATION EXHAUST FANS AS NOTED IN SEQUENCE OF OPERATION ON DRAWING H-3. AND AS SHOWN ON TYPICAL SCHEMATIC DIAGRAM FOR THESE FANS PROVIDED BY AV WITH "CHECK" CIRCUIT.



**BISULFITE BUILDING -
ELECTRICAL DEMOLITION PLAN**
SCALE: 1/4" = 1'-0"
(FORMER CHLORINATION BUILDING)



GENERAL DEMOLITION NOTES:

1. THE EXISTING ELECTRICAL DRAWINGS FOR THIS PROJECT ARE BASED ON INFORMATION PRESENTED IN THE AS-BUILT CONTRACT DRAWINGS PROVIDED FOR THIS PROJECT. GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. FIELD VERIFY ALL CONDITIONS AFFECTING THE WORK PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. PROTECT ALL EXISTING ITEMS AND EQUIPMENT ADJACENT TO THE WORK AREA. ALL EXISTING ITEMS, EQUIPMENT AND MATERIALS DAMAGED OR AFFECTED BY THE WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
4. THE TREATMENT FACILITY WILL REMAIN IN OPERATION DURING THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL COORDINATE THE DEMOLITION AND CONSTRUCTION WITH THE OWNER'S REQUIREMENTS TO MAINTAIN PLANT OPERATION.
5. PROVIDE ALL TEMPORARY BRACING REQUIRED AND SUPPORT ALL ITEMS AND EQUIPMENT ADJACENT TO THE WALLS WHICH ARE DESIGNATED TO BE REMOVED. REINSTALL ALL ITEMS AFTER THE NEW WALLS ARE COMPLETED.
6. PATCH, REPAIR AND RETINISH ALL EXISTING SURFACES AFFECTED BY THE WORK TO THE SATISFACTION OF THE ENGINEER.
7. REMOVE, REINSTALL OR REPLACE ALL MISCELLANEOUS ITEMS MOUNTED TO THE WALLS DESIGNATED TO BE REMOVED OR RENOVATED.
8. ALL ITEMS SHOWN ON THE PLANS WITH SHADING, ALONG WITH ASSOCIATED DEVICES, CONDUIT, AND WIRING, ARE TO BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE INDICATED. THE OWNER RESERVES THE RIGHT TO RETAIN ANY EQUIPMENT OR MATERIALS. THE CONTRACTOR WILL STORE ON SITE AND PROTECT SUCH ITEMS IN A MANNER ACCEPTABLE TO THE OWNER AND ENGINEER. ALSO REFER TO THE STRUCTURAL, MECHANICAL, PROCESS AND ELECTRICAL DRAWINGS FOR A COMPLETE REQUIREMENT OF DEMOLITION WORK FOR THIS PROJECT.

NOTES:

1. FOR LEGEND AND GENERAL NOTES REFER TO DRAWING E-1.
2. FOR GENERAL DEMOLITION NOTES, REFER TO THIS DRAWING.
3. RELOCATE AND REINSTALL DISCONNECT SWITCHES AND PUSHBUTTONS FOR OVERHEAD DOORS AS REQUIRED TO AVOID INTERFERENCE WITH NEW WALL PUSHBUTTONS SHALL BE INSTALLED IN ACCESSIBLE LOCATION AT ENTRANCE TO STORAGE ROOM, AND RECONNECTED TO CONTROL WIRING.
4. CIRCUIT NUMBERS SHOWN ON THIS DRAWING REFER TO NEW PANELBOARD LP-BB, FOR PANELBOARD SCHEDULE, REFER TO DRAWING E-3.
5. EXISTING LIGHT SWITCHES SHALL BE INTERLOCKED WITH NEW INTERMITTENT VENTILATION EXHAUST FANS AS NOTED IN SEQUENCE OF OPERATION ON DRAWING H-3, AND AS SHOWN IN TYPICAL SCHEMATIC DIAGRAM FOR THESE FANS. PROVIDE RELAY WITH CORRECT COIL VOLTAGE FOR ASSOCIATED LIGHT CIRCUIT, INSTALLED IN NEMA 4X JUNCTION BOX. RELAYS SHALL HAVE 30 AMP CONTACT RATING, PROVIDE ALL NECESSARY CONDUIT AND WIRING TO INTERLOCK LIGHT SWITCHES WITH FANS AS NOTED.
6. RECEPTACLES FOR CHEMICAL FEED PUMPS DEC-1 THROUGH DEC-6 SHALL BE WEATHERPROOF-WHILE-IN-USE TYPE.

EQUIPMENT LEGEND

- | | |
|---|--|
| ① SODIUM BISULFITE FEED PUMP DEC-1 | ②④ RELOCATED TRUCK SCALE CONTROL PANEL |
| ② SODIUM BISULFITE FEED PUMP DEC-2 | ②⑤ MAIN DISTRIBUTION PANEL, MDP-BB |
| ③ SODIUM BISULFITE FEED PUMP DEC-3 | ②⑥ TRANSFORMER T-BB |
| ④ SODIUM BISULFITE FEED PUMP DEC-4 | ②⑦ PANELBOARD LP-BB |
| ⑤ SODIUM BISULFITE FEED PUMP DEC-5 | ②⑧ DECHLORINATION CONTROL PANEL (DCP) AND STROBE LIGHT |
| ⑥ SODIUM BISULFITE FEED PUMP DEC-6 | ②⑨ FE/FT-727A |
| ⑦ UNIT HEATER UH-1 | ②⑩ FE/FT-727B |
| ⑧ UNIT HEATER UH-2 | ②⑪ FE/FT-727C |
| ⑨ UNIT HEATER UH-3 | ②⑫ FE/FT-727D |
| ⑩ UNIT HEATER UH-4 | ②⑬ FE/FT-727E |
| ⑪ UNIT HEATER UH-5 | ②⑭ FE/FT-727F |
| ⑫ EXHAUST FAN EF-1 (NOTE 5) | |
| ⑬ EXHAUST FAN EF-2 (NOTE 5) | |
| ⑭ EXHAUST FAN EF-3 (NOTE 5) | |
| ⑮ EXHAUST FAN SCALE ROOM TO BE REMOVED | |
| ⑯ EXHAUST FAN CHLORINATION ROOM TO BE REMOVED | |
| ⑰ ELECTRIC BOILER TO BE REMOVED | |
| ⑱ CHLORINATOR (TYP 3) TO BE REMOVED | |
| ⑲ EMPURATOR (TYP 2) TO BE REMOVED | |
| ⑳ SCALE (TYP 3) TO BE REMOVED | |
| ㉑ GAS LEAK DETECTOR/ALARM PANEL TO BE REMOVED | |
| ㉒ MONORAIL POWER SUPPLY DISCONNECT SWITCH TO BE REMOVED | |
| ㉓ BOILER BLR-1 | |
| ㉔ CIRCULATING PUMP CP-1 | |
| ㉕ CIRCULATING PUMP CP-2 | |
| ㉖ LIGHTING FIXTURE (TYP) TO BE REMOVED | |
| ㉗ MOTOR CONTROL CENTER MCC-CB1 TO BE REMOVED | |
| ㉘ FAN SWITCHES (TYP) TO BE REMOVED | |
| ㉙ CONTROL PANEL (TYP) TO BE REMOVED | |
| ㉚ ELECTRIC UNIT HEATER (TYP) TO BE REMOVED | |
| ㉛ GAS DETECTOR (TYP) TO BE REMOVED | |
| ㉜ DATA HIGHWAY JUNCTION BOX TO REMAIN | |
| ㉝ OVERHEAD DOOR OPERATOR DISCONNECT SWITCH AND CONTROLS (TYP) | |

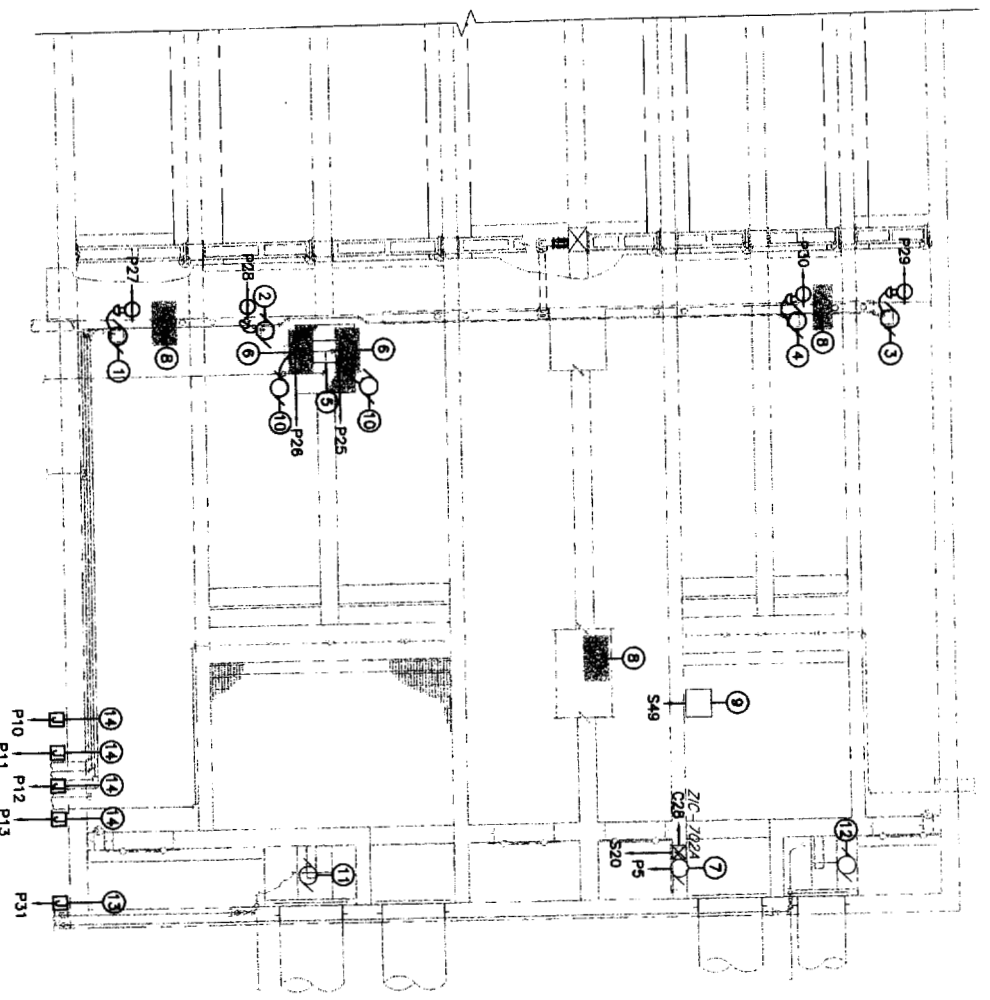
EXISTING PANELBOARD LCD-SEC-1

PROJECT: PORTLAND WATER DISTRICT		PROJECT NO. 10301C			
PANEL DESIGNATION: LCD		PANEL LOCATION: HYPOCHLORITE BUILDING			
VOLTAGE: 120/208		FEEDER POINT: MDP-HB CRT #3			
PHASE: 3		MOUNTING: WALL			
WIRE: 4		MAIN RATING: 225A MCB			
CRT NO.	NO. AMPS POLES	DESCRIPTION	NO. POLES	AMPS NO.	CRT NO.
1	20	ANALYSIS ROOM LIGHTING	1	20	2
2	20	STORAGE ROOM RECEPTACLES	1	20	4
3	20	RECEPTACLES	1	20	6
4	20	RECEPTACLES	1	20	8
5	20	RECEPTACLES	1	20	10
6	20	RECEPTACLES	1	20	12
7	20	RECEPTACLES	1	20	14
8	20	RECEPTACLES	1	20	16
9	20	RECEPTACLES	1	20	18
10	20	RECEPTACLES	1	20	20
11	20	RECEPTACLES	1	20	22
12	20	RECEPTACLES	1	20	24
13	20	RESIDUAL ANALYZER #1	1	20	1
14	20	RESIDUAL ANALYZER #2	1	20	2
15	20	RESIDUAL ANALYZER #3	1	20	3
16	20	RESIDUAL ANALYZER #4	1	20	4
17	20	RESIDUAL ANALYZER #5	1	20	5
18	20	RESIDUAL ANALYZER #6	1	20	6
19	20	RESIDUAL ANALYZER #7	1	20	7
20	20	RESIDUAL ANALYZER #8	1	20	8
21	20	RESIDUAL ANALYZER #9	1	20	9
22	20	RESIDUAL ANALYZER #10	1	20	10
23	20	RESIDUAL ANALYZER #11	1	20	11
24	20	RESIDUAL ANALYZER #12	1	20	12

NOTE:
THE CONTRACTOR SHALL VERIFY ALL AFFECTED CIRCUITS AND LOADS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE UPDATED PANELBOARD SCHEDULES FOR EACH SECTION WHICH REFLECT AS-BUILT CONDITIONS.

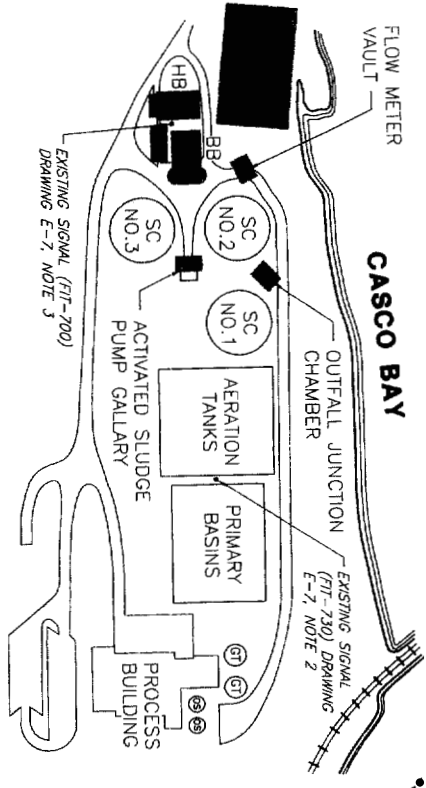
EXISTING PANELBOARD LCD-SEC-2

PROJECT: PORTLAND WATER DISTRICT		PROJECT NO. 10301C			
PANEL DESIGNATION: LCD		PANEL LOCATION: HYPOCHLORITE BUILDING			
VOLTAGE: 120/208		FEEDER POINT: MDP-HB CRT #3			
PHASE: 3		MOUNTING: WALL			
WIRE: 4		MAIN RATING: 225A MCB			
CRT NO.	NO. AMPS POLES	DESCRIPTION	NO. POLES	AMPS NO.	CRT NO.
1	20	ANALYSIS ROOM LIGHTING	1	20	2
2	20	STORAGE ROOM RECEPTACLES	1	20	4
3	20	RECEPTACLES	1	20	6
4	20	RECEPTACLES	1	20	8
5	20	RECEPTACLES	1	20	10
6	20	RECEPTACLES	1	20	12
7	20	RECEPTACLES	1	20	14
8	20	RECEPTACLES	1	20	16
9	20	RECEPTACLES	1	20	18
10	20	RECEPTACLES	1	20	20
11	20	RECEPTACLES	1	20	22
12	20	RECEPTACLES	1	20	24
13	20	RESIDUAL ANALYZER #1	1	20	1
14	20	RESIDUAL ANALYZER #2	1	20	2
15	20	RESIDUAL ANALYZER #3	1	20	3
16	20	RESIDUAL ANALYZER #4	1	20	4
17	20	RESIDUAL ANALYZER #5	1	20	5
18	20	RESIDUAL ANALYZER #6	1	20	6
19	20	RESIDUAL ANALYZER #7	1	20	7
20	20	RESIDUAL ANALYZER #8	1	20	8
21	20	RESIDUAL ANALYZER #9	1	20	9
22	20	RESIDUAL ANALYZER #10	1	20	10
23	20	RESIDUAL ANALYZER #11	1	20	11
24	20	RESIDUAL ANALYZER #12	1	20	12



ELECTRICAL DEMOLITION AND MODIFICATION CHLORINE CONTACT TANK

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



LOCATION PLAN

- EQUIPMENT LEGEND**
- ① SAMPLE PUMP CRS-1 (NOTE 3)
 - ② SAMPLE PUMP CRS-2 (NOTE 3)
 - ③ SAMPLE PUMP CRS-3 (NOTE 3)
 - ④ SAMPLE PUMP CRS-4 (NOTE 3)
 - ⑤ CARRIER WATER PUMP CONTROL PANEL TO REMAIN (NOTE 4)
 - ⑥ CARRIER WATER PUMP (TYP 2) TO BE REMOVED (NOTE 4)
 - ⑦ MOTOR-OPERATED SLUDGE GATE TO REMAIN
 - ⑧ SAMPLE PUMP (TYP 3) TO BE REMOVED
 - ⑨ COMPOSITE EFFLUENT SAMPLER TO REMAIN
 - ⑩ NEW CARRIER WATER PUMP (TYP 2) (NOTE 4)
 - ⑪ SECONDARY MIXER MX-1
 - ⑫ BYPASS MIXER MX-2
 - ⑬ HEAT TRACE POWER SUPPLY, HYPOCHLORITE FEEDS TO MIXER
 - ⑭ HEAT TRACE POWER SUPPLIES FOR CARRIER WATER LINES (TYP 4)

- NOTES:**
1. FOR LEGEND AND GENERAL NOTES, REFER TO DRAWING E-1.
 2. FOR GENERAL DEMOLITION NOTES, REFER TO DRAWING E-5.
 3. PROVIDE WEATHERPROOF-WHILE-IN-USE TYPE SINGLE RECEPTACLES FOR EACH SAMPLE PUMP AS SHOWN.
 4. EXISTING SUBMERSIBLE CARRIER WATER PUMPS SHALL BE REMOVED. EXISTING PUMPS AND RECEPTACLES FOR PUMPS (MOUNTED ON SIDE OF CONTROL PANEL) SHALL REMAIN FOR REUSE. NEW SUBMERSIBLE CARRIER WATER PUMPS SHALL BE CONNECTED TO EXISTING PUMPS.

