

DEMOLITION NOTES (ALL DEMOLITION SHALL BE IN ACCORDANCE WITH CFC CHAPTER 93)

- 1 COORDINATE DEMOLITION WORK WITH THE OWNER, PROTECT ALL EXISTING WORK, BUILDINGS, PIPING, EQUIPMENT, UTILITIES, ETC. TO REMAIN.
- 2 REPAIR OR REPLACE ANY DAMAGED ITEMS DUE TO DEMOLITION AND/OR CONSTRUCTION.
- 3 COORDINATE INGRESS/EGRESS AND HAUL ROUTES WITH THE CONTRACTOR PRIOR TO START OF WORK.
- 4 THIS PLAN VIEW IS SHOWN FOR INFORMATION AND ASSISTANCE. THE CONTRACTOR IS RESPONSIBLE FOR INDIVIDUAL DIMENSIONS, ELEVATIONS, TAKE-OFFS AND ESTIMATIONS WITH REGARD TO DEMOLITION, PREPARATION, AS WELL AS MEANS AND METHODS OF CONSTRUCTION AND SHALL VISIT THE SITE AS REQUIRED TO ACCOMPLISH THE WORK, AND TO BECOME FAMILIAR WITH SCOPE AND SERVICES OF WORK REQUIRED.
- 5 THE OWNER SHALL IDENTIFY, REMOVE, SALVAGE ANY ITEMS AS DESIRED PRIOR TO CONTRACTOR MOVE-IN.
- 6 COORDINATE DEMOLITION AND POINTS OF CONNECTION WITH EXISTING UTILITIES, AND PIPING SYSTEMS IN THE FIELD TO ALLOW NEW WORK TO BE ACCOMPLISHED IN THE BEST FASHION.
- 7 CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND HAULING OFF OF ALL MECHANICAL EQUIPMENT, PIPING, VALVING, AND THE LIKE, AND LEGALLY DISPOSING OF ALL SUCH MATERIAL FROM THE SITE AS PART OF THE OVERALL BASE BID.

EQUIPMENT LIST (EXISTING)

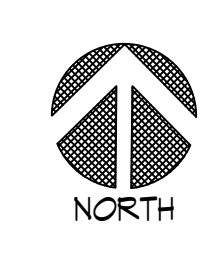
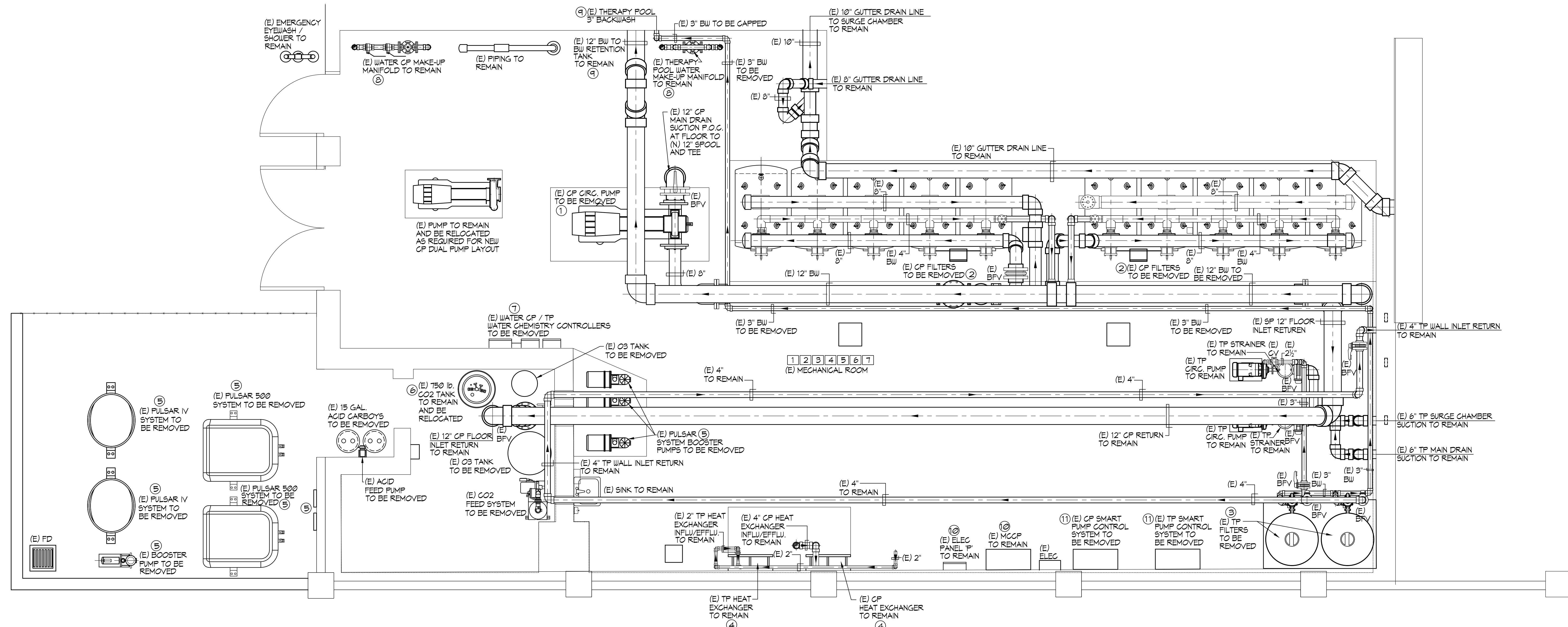
- 1 (E) COMPETITION POOL CIRCULATION PUMP TO BE REMOVED: PACO 8015-3 OR 4; 8'X10'X15" TYPE 'KP' SPLIT CASE CENTRIFUGAL PUMP; 1150 RPM 460V, 3PH; 60HP; RATED AT 2,075 GPM @ 70 FT TDH; 80% EFFICIENT; HIGH EFFICIENCY TEFC MOTOR; EPOXY COAT ALL WET SURFACES.
- 2 (E) COMPETITION POOL FILTERS TO BE REMOVED: TWO (2) SETS OF EPD-501 FULLY AUTOMATIC HI-RATE PERMANENT MEDIA FILTERS WITH 8" FACE PIPING AND 4" AUTOMATIC BACKWASH AT 2,110 GPM FLOW RATE, COMPLETE WITH INFLUENT/EFFLUENT GAUGES, SIGNET FLOSENSOR AND INTERCONNECTS; 61.9 SQ. FT. OF FILTER AREA RATED AT 1,090 GPM (2,160 GPM COMBINED) AT 16 GPM/SQ. FT. OF FILTER AREA. REMOVE AND REPLACE EXISTING FILTERS AND RELOCATE EXISTING FLOW METER PER PLANS.
- 3 (E) THERAPY POOL FILTERS TO BE REMOVED: 'PENTAIR' TWO (2) TR-140 HI-RATE PERMANENT MEDIA FILTERS WITH 14.12 SQ. FT. OF FILTER AREA RATED AT 212 GPM AT 15 GPM/SQ. FT. COMPLETE WITH 4" FACE PIPING AND 4" BACKWASH.
- 4 (E) HEAT EXCHANGERS TO REMAIN FOR BOTH POOLS.
- 5 (E) PULSAR AND ACID FEED SYSTEMS TO BE REMOVED INCLUDING FEED UNITS, CONTROLLERS, BOOSTER PUMPS AND PIPING, VALVING AND CONTROLS.
- 6 (E) CARBON DIOXIDE 150lb. STORAGE TANK TO REMAIN. REMOVE EXISTING FEED SYSTEM AND PIPING.
- 7 (E) WATER CHEMISTRY CONTROLLERS TO BE REMOVED.
- 8 (E) FILL SYSTEMS TO REMAIN: 3" 'CLA-VAL' FILL SYSTEM FROM DOMESTIC SOURCE PROTECTED WITH REDUCED PRESSURE BACKFLOW PREVENTOR.
- 9 (E) BACKWASH PIT AND PIPING TO REMAIN. P.O.C. TO EXISTING BACKWASH PIPING PER PLAN.
- 10 (E) ELECTRICAL TO REMAIN AND TO BE MODIFIED PER PLANS: PROVIDE ALL ELECTRICAL WIRING, CONDUIT, PANEL(S), STARTER/DISCONNECT(S) INTERCONNECT(S) ETC. AS REQUIRED FOR PROPER EQUIPMENT INSTALLATION PER MANUFACTURERS RECOMMENDATIONS AND SHOP DRAWINGS.
- 11 (E) VARIABLE SPEED DRIVES TO BE REMOVED AND REPLACED PER PLANS.
- 12 (E) THERAPY POOL CIRCULATION PUMP(S) TO REMAIN: PACO TYPE 'LC' #10UN-2595-1, 200 GPM AT 60' TDH 1750 RPM, 200-230/460V 3PH 1 1/2 HP. TWO (2) TOTAL. CONFIGURED TO OPERATE ONE AT A TIME WITH 2ND PUMP LOCKED OUT.

LEGEND

- BW = BACKWASH
- BFV = BUTTERFLY VALVE
- CV = CHECK VALVE
- CP = COMPETITION POOL
- TP = THERAPY POOL
- (E) = EXISTING

ITEM	OPERATIONAL WEIGHT OF EXISTING ITEM	OPERATIONAL WEIGHT OF NEW ITEM
COMPETITION POOL EA. CIRCULATION PUMP	2,000 lbs.	2,000 lbs.
COMPETITION POOL EA. FILTER	4,000 lbs.	6,109 lbs.
THERAPY POOL EA. FILTER	1,000 lbs.	4,000 lbs.
VARIABLE SPEED DRIVES	317 lbs.	317 lbs.
WATER CHEMISTRY CONTROLLER	17 lbs.	17 lbs.

NOTE: ALL NEW EQUIPMENT OPERATION WEIGHTS ARE SHOWN ON SHEET MR.2 EQUIPMENT LIST.

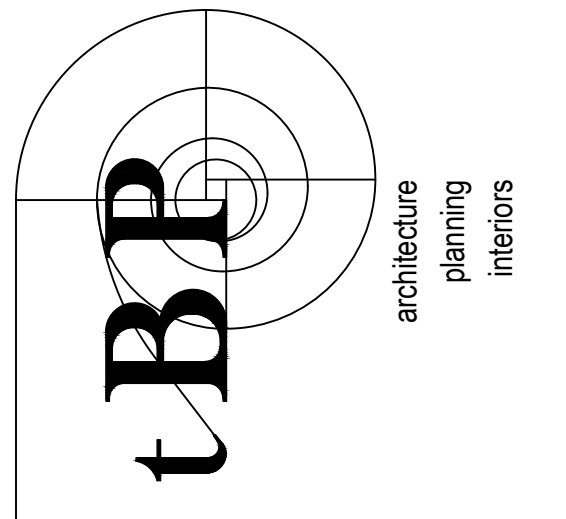


MECHANICAL ROOM DEMOLITION PLAN

1/8"=1'-0"

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 04-120421 INC.
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 SS FLS ACS
 DATE: 11/09/2021

A# 04 - 188888
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**SADDLEBACK COLLEGE
 SWIMMING POOL REFURBISHMENT**
 SOUTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
 28000 MARGUERITE PKWY
 MISSION VIEJO, CA 92692
 owner

tBP project number :	21057.00
file name:	
drawn by:	NFC checked by: SJF
date:	10/14/2021
Rev:	date: description:

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drawing title:
 MECHANICAL ROOM
 DEMOLITION PLAN
 drawing no.:
 MR.1
 drawing of #

EQUIPMENT LIST

- 1 (N) COMPETITION POOL STRAINER, MER-MADE F.O. SERIES FRP REDUCING BASKET STRAINER, TWO (2) 12X10" STANDARD, WITH ACRYLIC LID AND TWO (2) STAINLESS STEEL STRAINERS EA. (150lbs.)
- 2 (N) COMPETITION POOL CIRCULATION PUMP(S), TWO (2) FACO H8015-3 8"X10"X15" TYPE KFY END SUCTION CENTRIFUGAL PUMP, 1150 RPM 460V, 3PH, 50HP, RATED AT 2,025 GPM @ 65 FT. TDH, 86% EFFICIENT, PREMIUM EFFICIENCY TEFC MOTOR, EPOXY COAT ALL WET SURFACES, FACO, AURORA OR EQUAL, (2,000 lbs. EA) PROVIDE SMART PUMP CONTROL SYSTEM SPCS #SPC8050BC4A (30"X32"X16") VARIABLE FREQUENCY DRIVE FOR USE WITH BECSYS T CONTROLLER, COORDINATE MOUNTING LOCATION TO MAINTAIN DESIRED CLEARANCES, 460V 3PH, (317 lbs.) PROVIDE VSD TO PROVIDE FOR ONE (1) PUMP OPERATION AT A TIME (100% FLOW) WITH A SECOND PUMP LOCKOUT.
- 3 (N) COMPETITION POOL FILTERS: EPD MODEL EPD-1120 AUTOMATIC FILTER CONTROL (AFC) FULLY AUTOMATIC HI-RATE PERMANENT MEDIA FILTER WITH 140 SQ. FT. OF FILTER AREA RATED AT 2,100 GPM AT 15 GPM/SQ. FT. COMPLETE WITH 12" FACE PIPING, 8" BACKWASH, SEISMIC ANCHORAGE, PROVIDE ALL UTILITIES, PIPING, VALVING ETC. (6,104 lbs EACH TANK) PROVIDE ONE (1) SIGNET MK-515 FLOSENSOR WITH DIGITAL READ-OUT.
- 4 (N) THERAPY POOL FILTER: ONE (1) EPD MODEL EPD-150 AUTOMATIC FILTER CONTROL (AFC) FULLY AUTOMATIC HI-RATE PERMANENT MEDIA FILTER WITH 13.5 SQ. FT. OF FILTER AREA RATED AT 202 GPM AT 15 GPM/SQ. FT. COMPLETE WITH 4" FACE PIPING, 4" BACKWASH, SEISMIC ANCHORAGE, PROVIDE ALL UTILITIES, PIPING, VALVING ETC. (4,000 lbs) PROVIDE ONE (1) SIGNET MK-515 FLOSENSOR WITH DIGITAL READ-OUT.
- 5 (N) CHLORINE STORAGE/FEED SYSTEM: PROVIDE CHEM-TAINER 350 GALLON #TC5256DC, DUAL STORAGE/CONTAINMENT TANK WITH LID SEISMICALLY RESTRAINED, OPERATING WEIGHT = (4,165lbs), COMPLIES WITH FED. REG #40CFR-264-193, COMPETITION POOL FEED PUMP SHALL LMI 2D43-03P-KSI: 230 GPD @ 15 PSI WITH FRP SHELF BRACKET, HARD PIPE TO POINT OF INJECTION, THERAPY POOL FEED PUMP SHALL BE STENNER #25M5, 85 GPD AT 25 PSI.
- 6 (N) ACID STORAGE/FEED SYSTEM: PROVIDE CHEM-TAINER 350 GALLON #TC5256DC, DUAL STORAGE/CONTAINMENT TANK WITH LID SEISMICALLY RESTRAINED, OPERATING WEIGHT = (2,915lbs), COMPLIES WITH FED. REG #40CFR-264-193, FEED PUMP SHALL BE PART OF THE CARBON DIOXIDE ALKALINITY CONTROL SYSTEM, PROVIDE 60 GALLON ACID VAPOR RECOVERY SYSTEM, ONE (1) TOTAL.
- 7 (N) CARBON DIOXIDE STORAGE/FEED SYSTEM: UTILIZE (E) NOVO-150, 150LB, CRYOGENIC LIQUID CO2 STORAGE TANK 594 LIQUID LBS., (5,195 CUBIC FEET OF GASEOUS CO2 AT NTP) AND PROVIDE ONE (1) NEW NOVO-150 CRYOGENIC LIQUID CO2 STORAGE TANK, TWO (2) TOTAL, PROVIDE EKO PH-MTS CO2 HIGH EFFICIENCY FEED SYSTEM WITH ALKALINITY CONTROL, 0 TO 160 SCFH FEED CAPACITY BOOSTER PUMP, PIPING INJECTOR, FLOWMETER, RELAYS AND ACID FEED ALKALINITY CONTROL, TWO (2) SYSTEMS TOTAL (92lbs. EA) PROVIDE HARD WIRED ANALOG PART KIT CO2 DETECTOR WITH AUDIBLE AND VISUAL ALARMS IN EACH CHEMICAL ROOM, UL 1971 STANDARD LISTED, ONE (1) TOTAL.
- 8 (N) WATER CHEMISTRY CONTROLLER(S): PROVIDE ETHERNET CONNECTIONS TO BECSYS CS-BECSYS1-BF-E WATER CHEMISTRY CONTROLLERS FOR COMPETITION POOL AND THERAPY POOL PROVIDE COMPLETE SYSTEM CONTROL PACKAGE WITH DUAL CONTROL SET UP, TWO (2) TOTAL, BECSYS SYSTEM T, IMPACT, WALLACE & TIERNAN OR APPROVED EQUAL.

THREE PHASE MOTOR LOADS AT 460V

- (N) COMPETITION POOL CIRCULATION PUMP(S): 50 HP @ 460V = 35 AMPS EA, TWO (2) TOTAL
- (E) THERAPY POOL CIRCULATION PUMP(S): 1/2 HP @ 460V = 11 AMPS EA, TWO (2) TOTAL

GENERAL NOTES

- 1. THE PIPING SYSTEM SHALL HAVE DIRECTION OF FLOW ARROWS INDICATED ON THE PIPES.
- 2. PUBLIC POOLS SHALL HAVE A FLOW DIAGRAM OF THE POOL'S PIPING SYSTEM WITH OPERATION INSTRUCTIONS.
- 3. THE FLOW DIAGRAM AND INSTRUCTIONS SHALL BE AVAILABLE ON THE PREMISES AT ALL TIME.

LEGEND

- PH = PIPE HANGER
- PG / VG = PRESSURE GAUGE / VACUUM GAUGE
- BW = BACKWASH
- BFV = BUTTERFLY VALVE
- CV = CHECK VALVE
- CP = COMPETION POOL (E) EMERGENCY EYEWASH / SHOWER
- TP = THERAPY POOL
- AI = ACID INJECTION
- CI = CHLORINE INJECTION
- (N) = NEW
- (E) = EXISTING

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.9 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25, 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G. GSPD OPM FOR 2019 CBC OR LATER). COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E).

MP MD PP E 1. SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) OPM #02043-13 & #0252-13.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA - APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.10 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

- 1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
- 2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER, PERMANENTLY ATTACHED SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

- A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

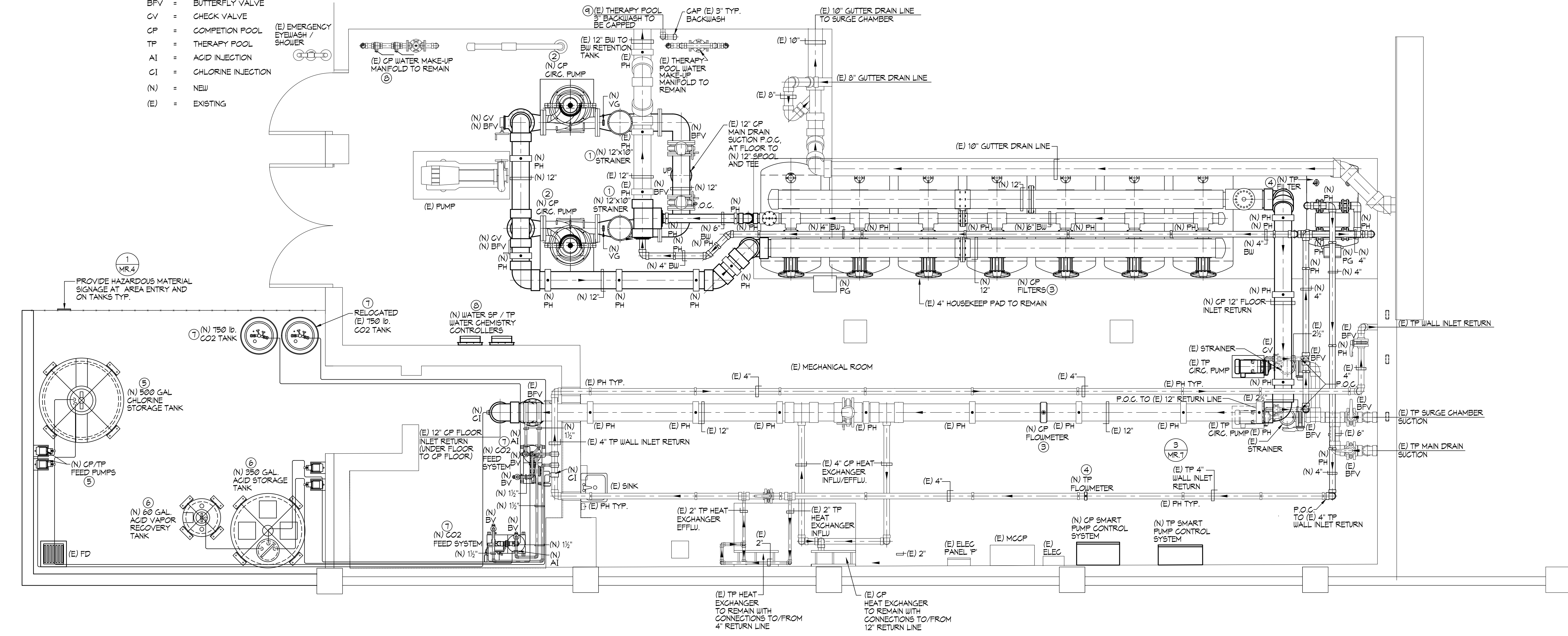
THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

MECHANICAL ANCHORAGE

- 1. EXPANSION OR WEDGE ANCHORS INTO CONCRETE: HILTI KB TZ 2 (ICC ESR-4266) OR SIMPSON STRONG BOLT (ICC ESR-1171) TO BE INSTALLED IN ACCORDANCE WITH ICC REPORT AND MANUFACTURER'S RECOMMENDATIONS.
- 2. EXPANSION OR WEDGE ANCHORS INTO MASONRY: HILTI KB 3 (ICC ESR-1385) OR SIMPSON WEDGE-ALL (ICC ESR-1396) TO BE INSTALLED IN ACCORDANCE WITH ICC REPORT AND MANUFACTURER'S RECOMMENDATIONS.
- 3. UNDERCUT ANCHORS INTO CONCRETE: HILTI HDA (ICC ESR-1546) TO BE INSTALLED IN ACCORDANCE WITH ICC REPORT AND MANUFACTURER'S RECOMMENDATIONS.
- 4. HEAVY DUTY SLEEVE ANCHORS INTO CONCRETE: HILTI HSL-3 (ICC ESR-1545) TO BE INSTALLED IN ACCORDANCE WITH ICC REPORT AND MANUFACTURER'S RECOMMENDATIONS.
- 5. FASTENERS SHALL BE STAINLESS STEEL FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER. PROVIDE GALVANIZED CARBON STEEL ANCHORS AT OTHER LOCATIONS, UNLESS OTHERWISE NOTED.
- 6. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOUGEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOUGEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE STRUCTURAL ENGINEER WILL DETERMINE A NEW LOCATION.
- 7. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.
- 8. ANCHORS SHALL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY.
- 9. TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.
- 10. APPLY TEST LOAD BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION OF THE ANCHOR SUCH AS DIRECT PULL WITH A HYDRAULIC JACK, TORQUE WRENCH, OR CALIBRATED SPRING LOADING DEVICES, ETC.
- 11. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY A BASE PLATE OR OTHER FIXTURE. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE THE FIXTURE PRIOR TO TESTING.
- 12. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM EMBEDMENT OF ANCHORS AS SHOWN IN TABLES BELOW.
- 13. TEST 50% OF ANCHORS PER ONE OF THE FOLLOWING METHODS AND IN ACCORDANCE WITH THE VALUES SHOWN IN THE TABLE.
 - A. HYDRAULIC RAM METHOD: APPLY PROOF TEST LOAD WITHOUT REMOVING THE NUT. IF IT IS NOT POSSIBLE TO TEST WITH THE NUT INSTALLED, REPLACE THE NUT WITH A THREADED COUPLER TO THE LOAD. ANCHOR IS ACCEPTABLE IF NO MOVEMENT IS OBSERVED AT THE TEST LOAD. MOVEMENT MAY BE DETERMINED WHEN THE WASHER UNDER THE NUT BECOMES LOOSE.
 - B. TORQUE WRENCH METHOD: TEST ANCHORS TO THE TORQUE LOAD INDICATED IN THE TABLE WITH ONE-HALF TURN OF THE NUT.
- 14. IF ANY ANCHOR FAILS TESTING, REPLACE ANCHOR AND TEST ADDITIONAL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE TESTS PASS, THEN RESUME INITIAL TESTING FREQUENCY.

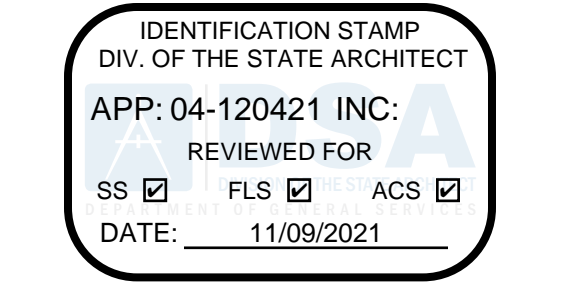
WEDGE OR EXPANSION ANCHOR EMBEDMENT DEPTH AND TEST LOAD

SIZE	MIN. EMBED	ANCHORS IN CONCRETE (HILTI KB TZ 2)		ANCHORS IN MASONRY (HILTI KB 3)	
		TENSION LOAD (LBS)	TORQUE LOAD (FT-LBS)	TENSION LOAD (LBS)	TORQUE LOAD (FT-LBS)
1/2" DIA.	2"	800	10	300	10
3/8" DIA.	2"	1,500	25	500	30
1/2" DIA.	3/4"	3,000	40	1,000	35
3/4" DIA.	4"	4,000	60	1,250	55
1" DIA.	4 1/2"	6,300	110	1,700	120

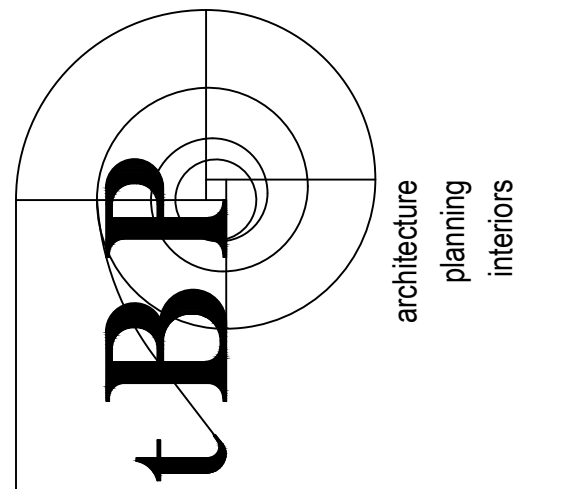


MECHANICAL ROOM LAYOUT PLAN

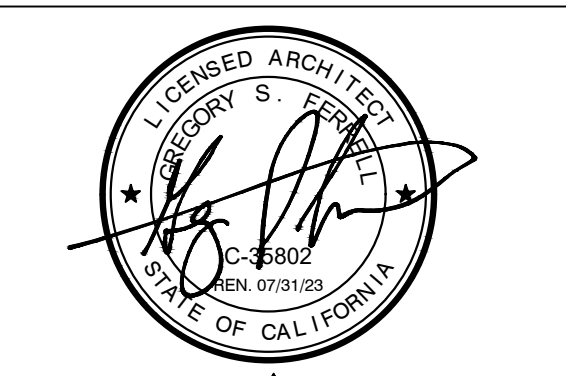
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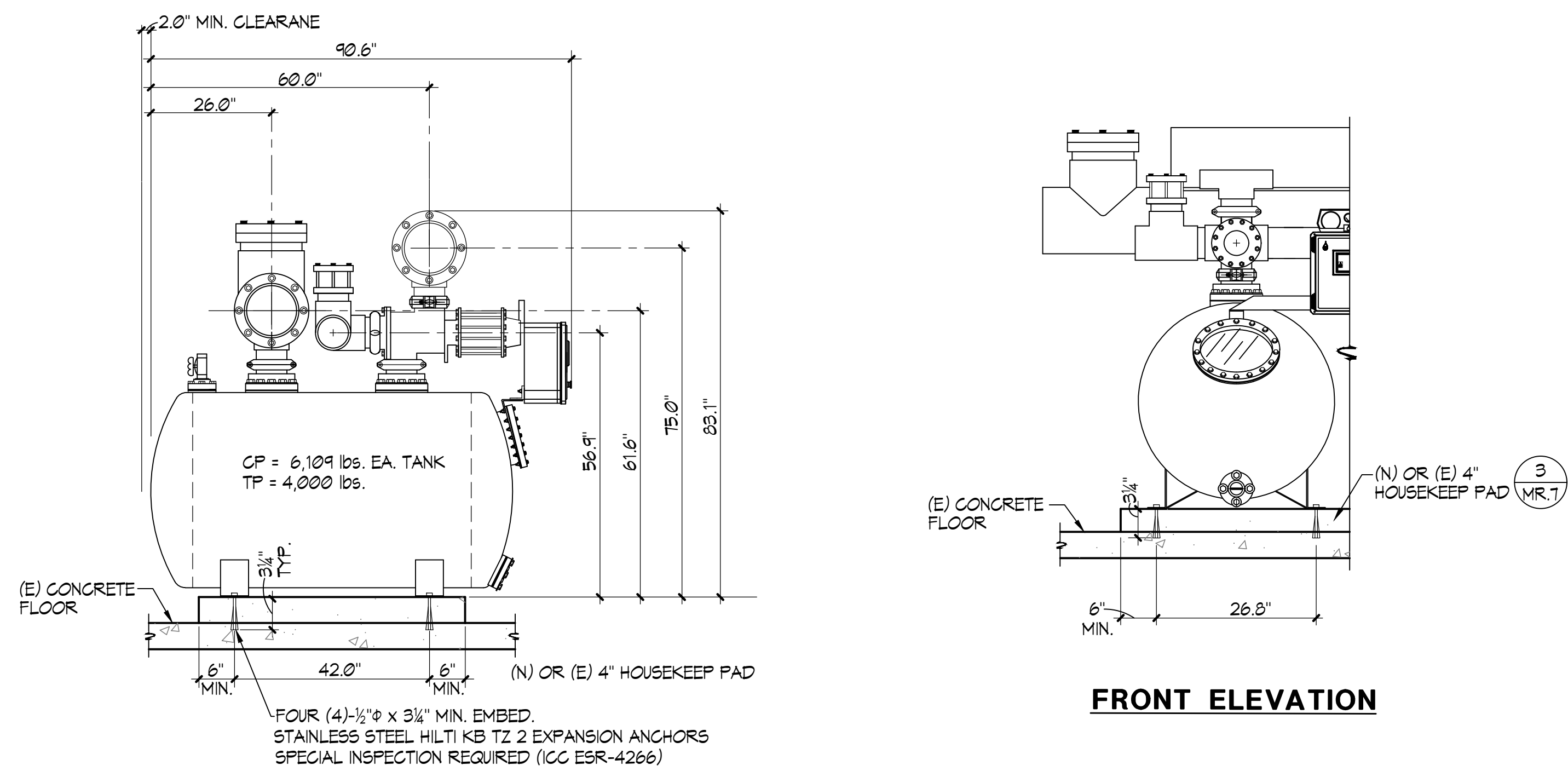
SADDLEBACK COLLEGE SWIMMING POOL REBURFISHMENT
 SOUTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
 28000 MARGUERITE PKWY
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IBP project number : 21057.00
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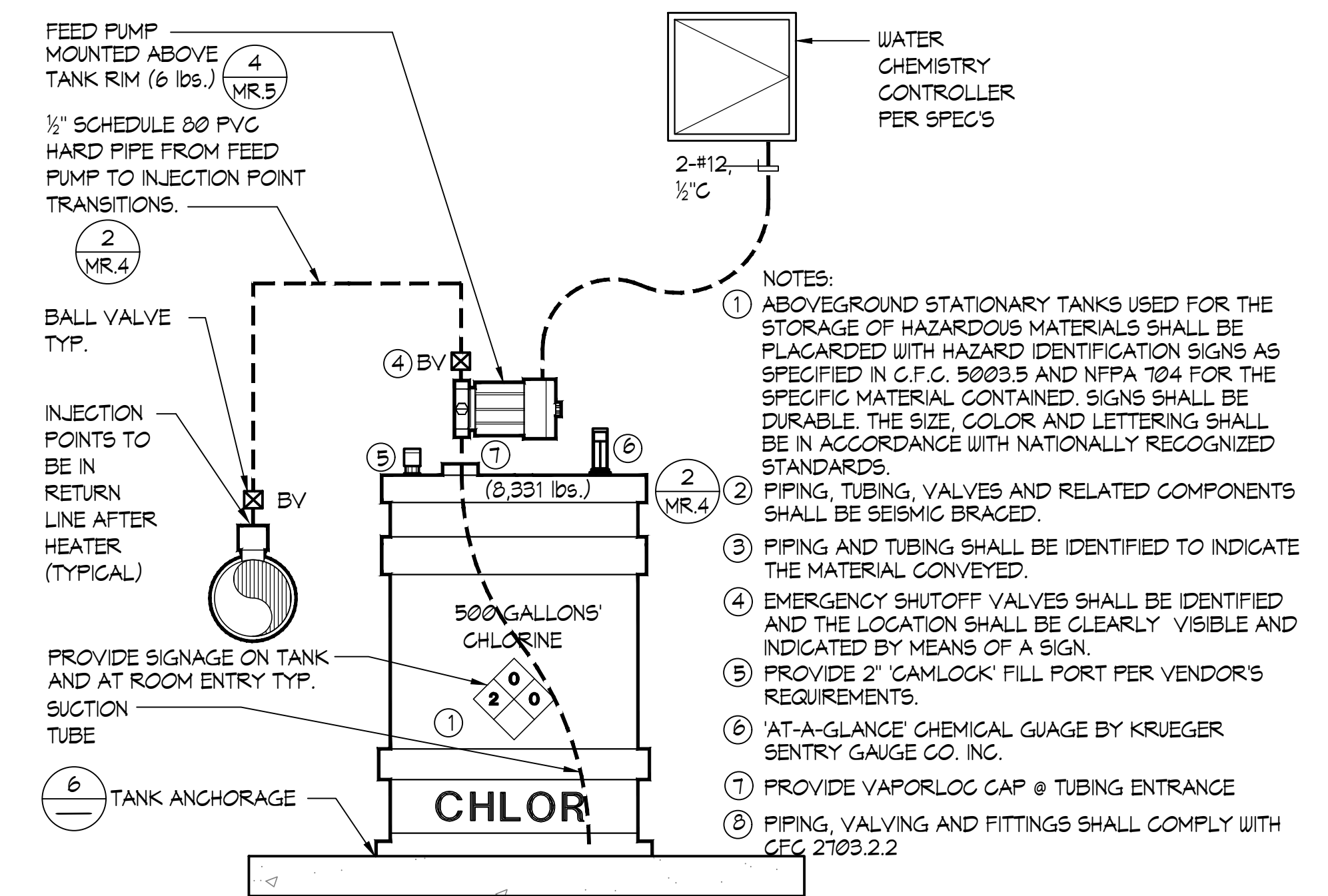
drawing title:
MECHANICAL ROOM LAYOUT PLAN

drawing no.:
MR.2
 drawing of #



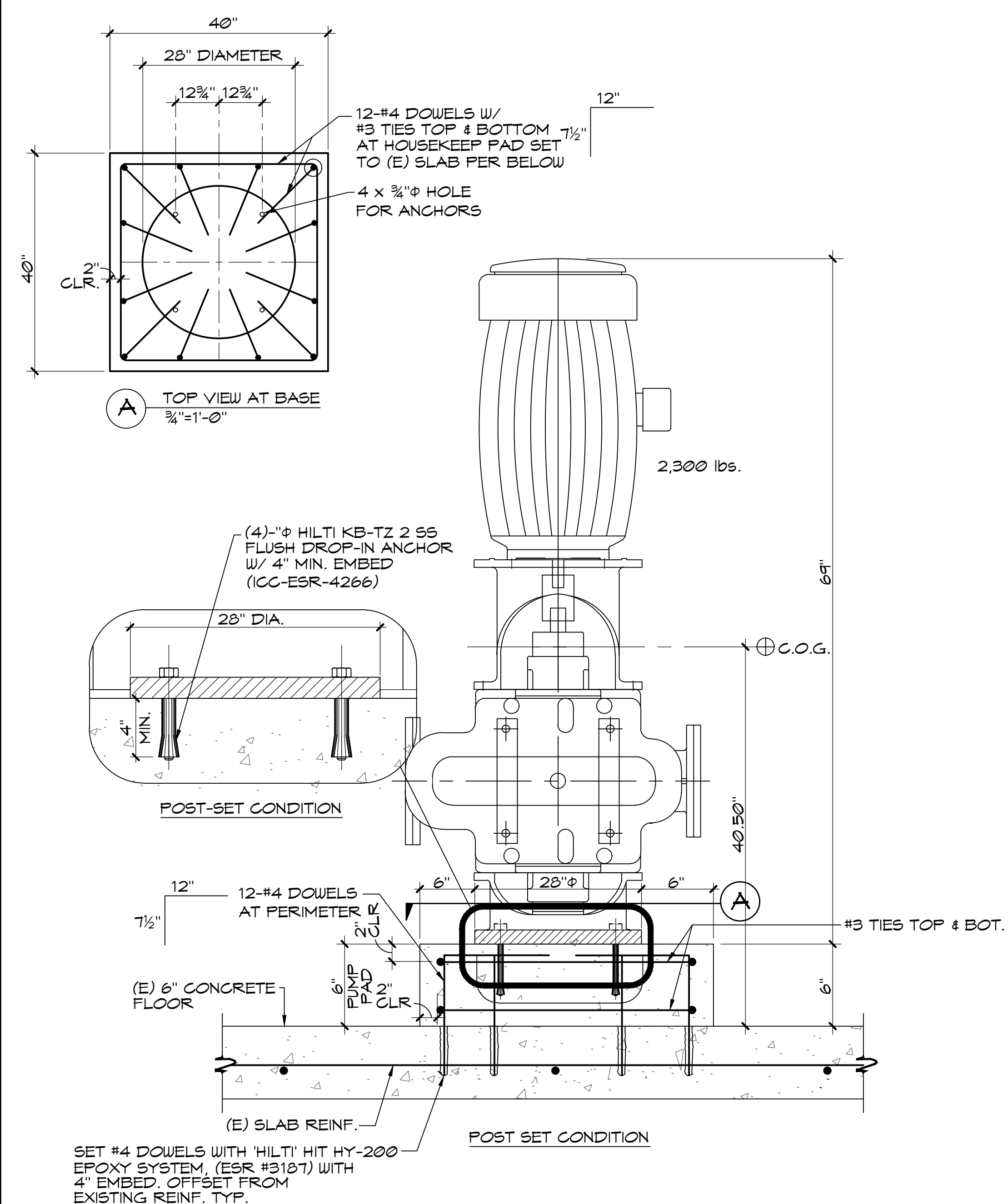
SIDE ELEVATION

FRONT ELEVATION

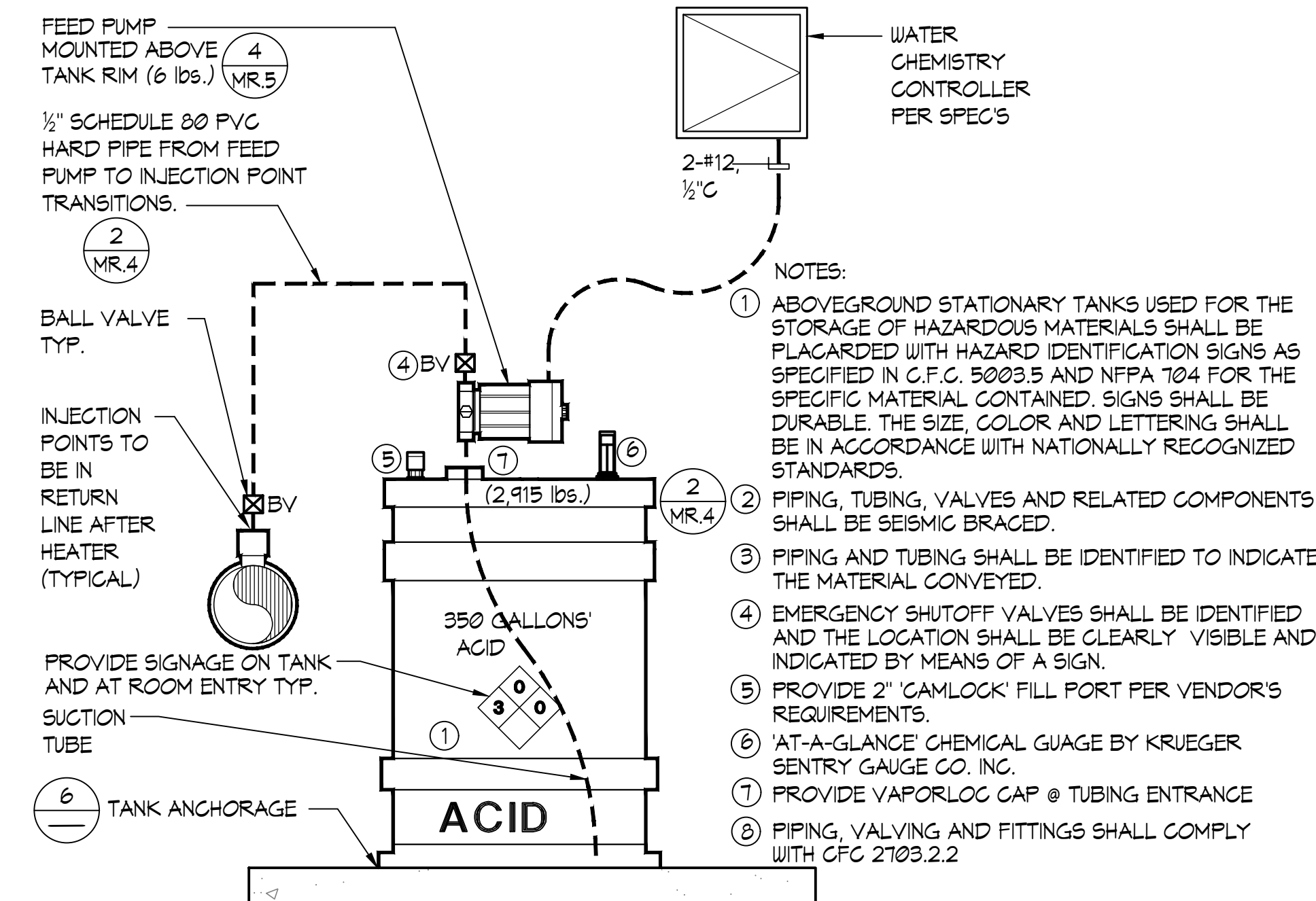


2 SODIUM HYPOCHLORITE FEED SCHEMATIC

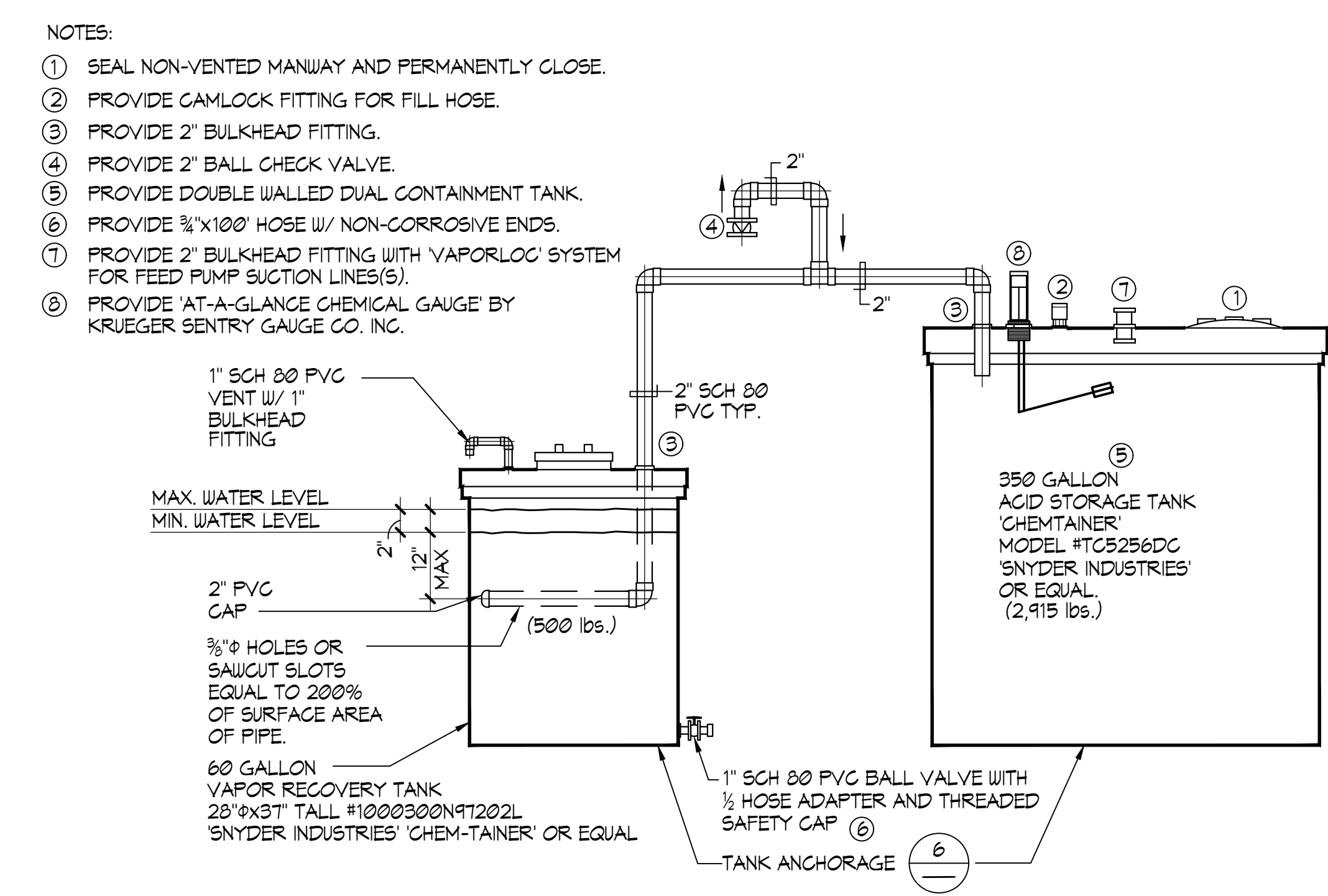
1 FILTER ANCHORAGE



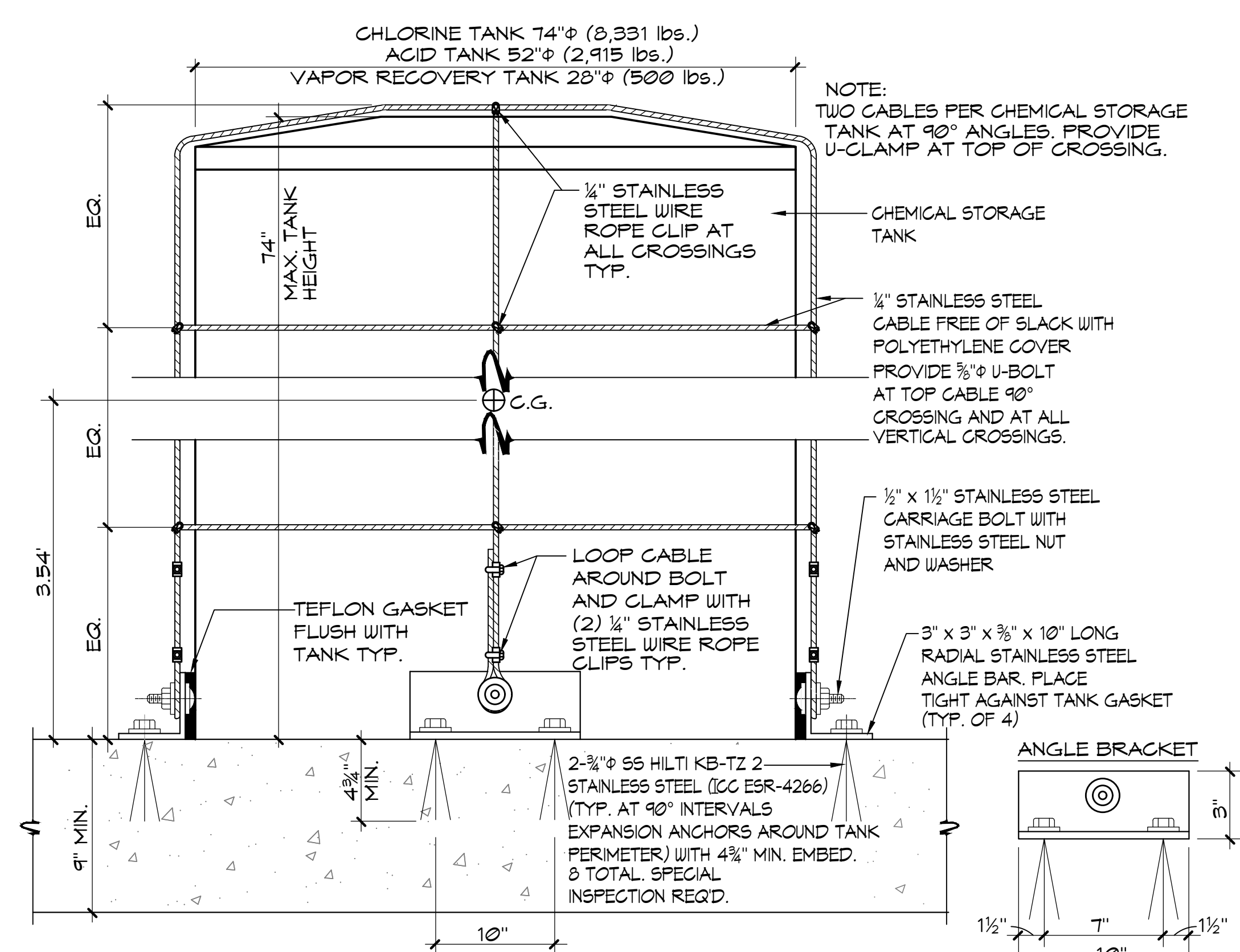
3 PUMP ANCHORAGE



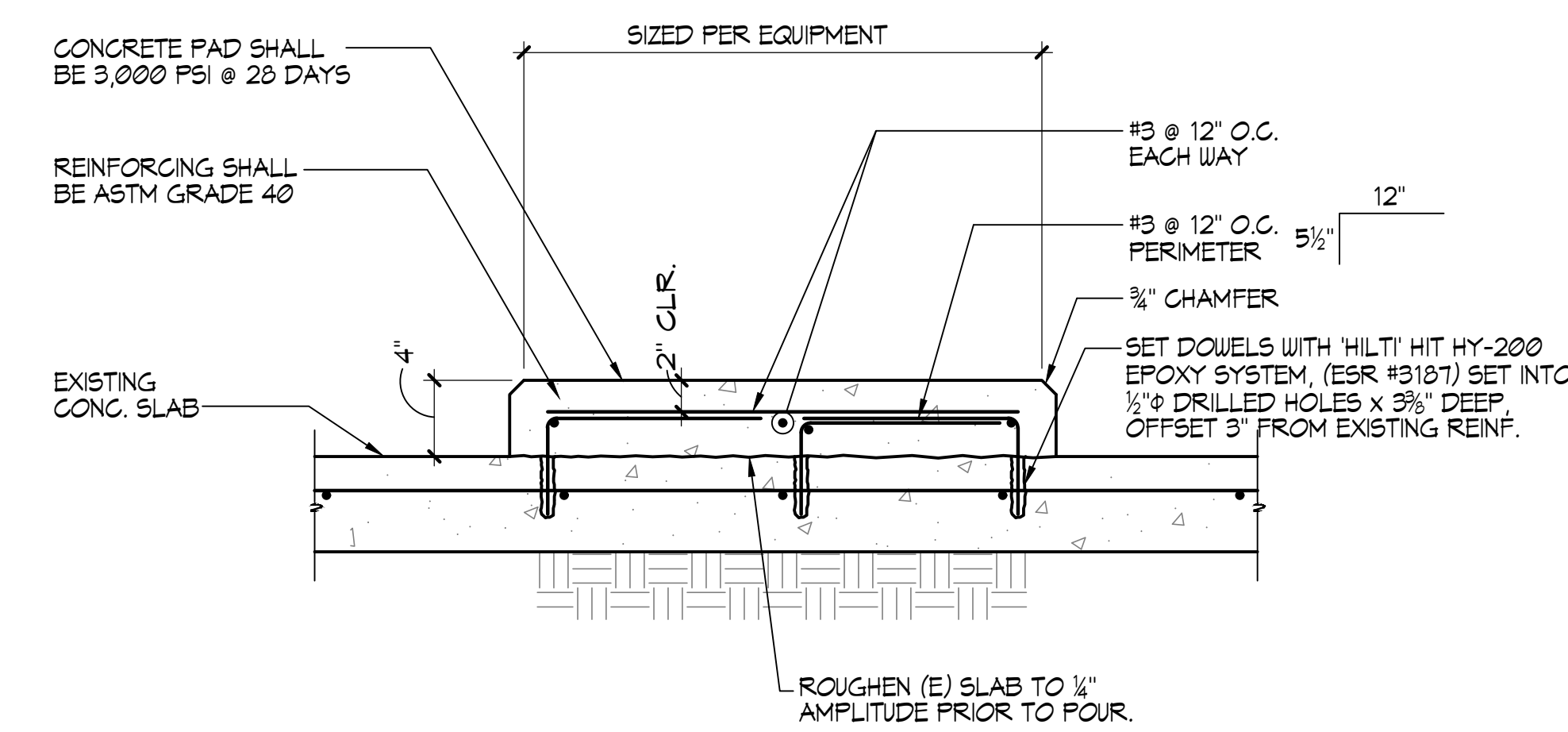
4 MURIATIC ACID FEED SCHEMATIC



5 VAPOR RECOVERY TANK



6 CHEMICAL TANK ANCHOR (TYP. 3 TANKS)



7 RETROFIT MECHANICAL PAD

IDENTIFICATION STAMP
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**SADDLEBACK COLLEGE
SWIMMING POOL REFURBISHMENT**

SOUTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
28000 MARGUERITE PKWY
MISSION VIEJO, CA 92692

owner

tBP project number : 21057.00

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drawn by: NFC checked by: SJF

date: 10/14/2021

Rev: date: description:

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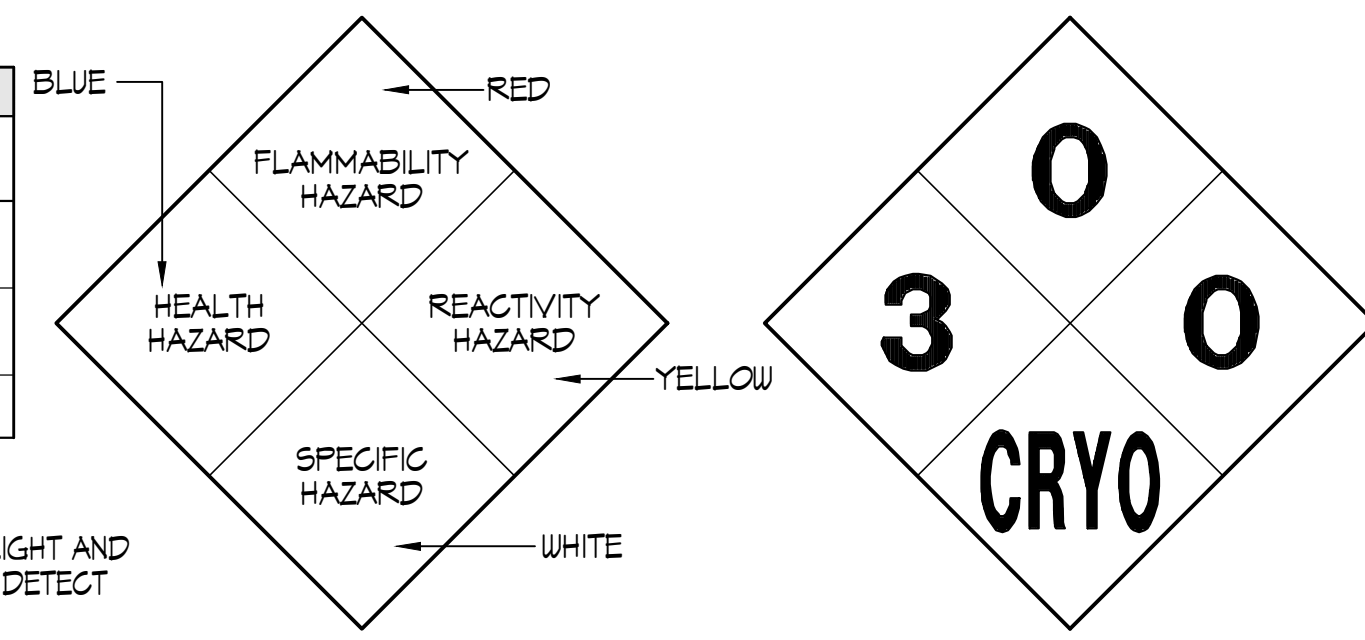
drawing of #

CHEMICAL CLASSIFICATION TABLE										
COMMON NAME	CHEMICAL NAME	% COMP.	CAS #	FORM	QUANT. STORED (NOT USED)	QUANT. IN USE (USE-CLOSED)	MAXIMUM ALLOWABLE QUANTITY	LOCATION (STORAGE & USE)	HAZ CLASSES	JUSTIFICATION
SODIUM HYPOCHLORITE	SODIUM HYPOCHLORITE	12.5%	7681-52-9	LIQUID	0 GAL.	1,000 GAL. (OUTSIDE)	500 GAL.	OUTSIDE CHEM. AREA	CORROSIVE LIQUID	MSDS
MURIATIC ACID	HYDROCHLORIC ACID	25%	7647-01-0	LIQUID	0 GAL.	350 GAL.	500 GAL.	OUTSIDE CHEM. AREA	CORROSIVE LIQUID	MSDS
CARBON DIOXIDE	CARBON DIOXIDE	100%	124-39-9	LIQUID	0 lbs.	600 lbs.	686 lbs.	OUTSIDE CHEM. AREA	CRYOGENIC	MSDS

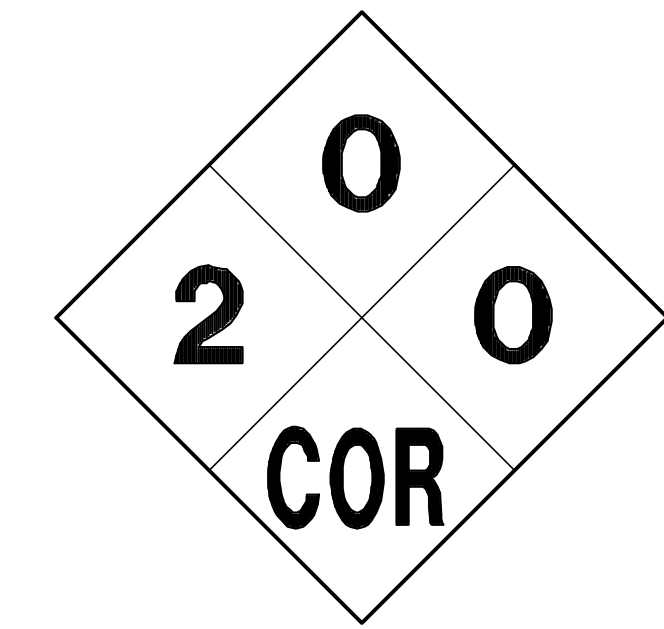
QUANTITIES OF CHEMICALS DO NOT EXCEED THE QUANTITIES LISTED IN CBC TABLES 307.1 (1) AND 307.1 (2). FOR CARBON DIOXIDE GAS SEE TABLE 1.12.0(b) OF THE NFPA-1, 6,000 FT³ ALLOWABLE OR 600 lbs. STORAGE PER CONTAINED AREA. PROVIDE HARD WIRED CO₂ DETECTOR ANALOG SENSOR TECHNOLOGY MODEL #4P1 KIT SENSOR AND STROBE UNITS 120V HARD WIRED W/ STROBE LIGHT AND AUDIBLE ALARM. SENSOR MOUNTED 18 INCHES A.F.F. AND ALARM LEVEL BETWEEN 10"-15 INCHES AND WITHIN VISIBLE EYESIGHT OF DOOR. TO BE SET TO DETECT CO₂ GAS IN LEVELS IN EXCESS OF THE PEL. PROVIDE IN EACH ROOM CONTAINING CO₂.

RATING EXPLANATION GUIDE			
RATING	HEALTH HAZARD	FLAMMABILITY HAZARD	REACTIVITY HAZARD
4	CAN BE LETHAL	EXTREMELY FLAMMABLE. IGNITES AT BELOW 73° F.	MAY EXPLODE AT NORMAL TEMPERATURES AND PRESSURES
3	CAN CAUSE SERIOUS OR PERMANENT INJURY	IGNITES AT ABOVE 73° F. BELOW 100° F.	MAY EXPLODE AT HIGH TEMPERATURES OR SHOCK
2	CAN CAUSE TEMPORARY INCAPACITATION OR RESIDUAL INJURY	IGNITES AT ABOVE 100° F. BELOW 200° F.	VIOLENT CHEMICAL CHANGE AT HIGH TEMPERATURES OR PRESSURES
1	CAN CAUSE SIGNIFICANT IRRITATION	IGNITES AT ABOVE 200° F.	NORMALLY STABLE. HIGH TEMPERATURES MAKE UNSTABLE
0	NO HAZARD	WILL NOT BURN	STABLE

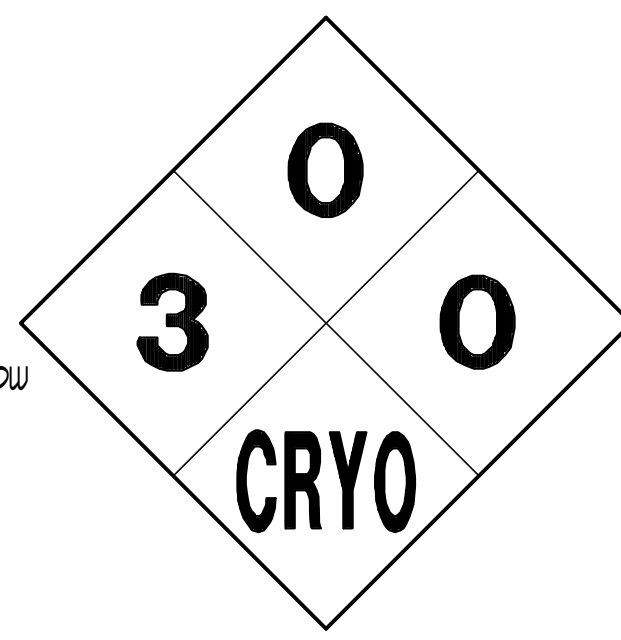
NOTES:
1. CONFIRM SIGNAGE WITH LOCAL FIRE MARSHAL AND/OR BUILDING CODES PRIOR TO INSTALLATION. SIGNS SHALL CONFORM TO NFPA 704.
2. SIGNS SHALL BE SIZES AND COLORS PER CODE MOUNTED AT +60" A.F.F. ON DOORS AT CHEMICAL ROOMS.



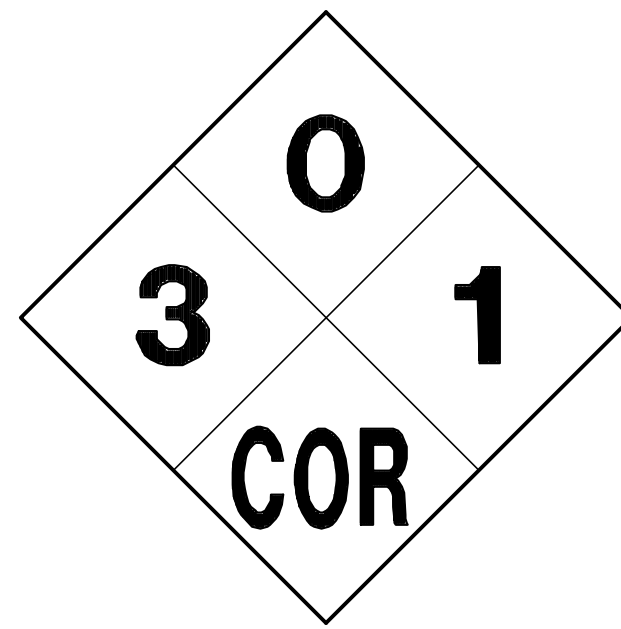
LEGEND



SODIUM HYPOCHLORITE

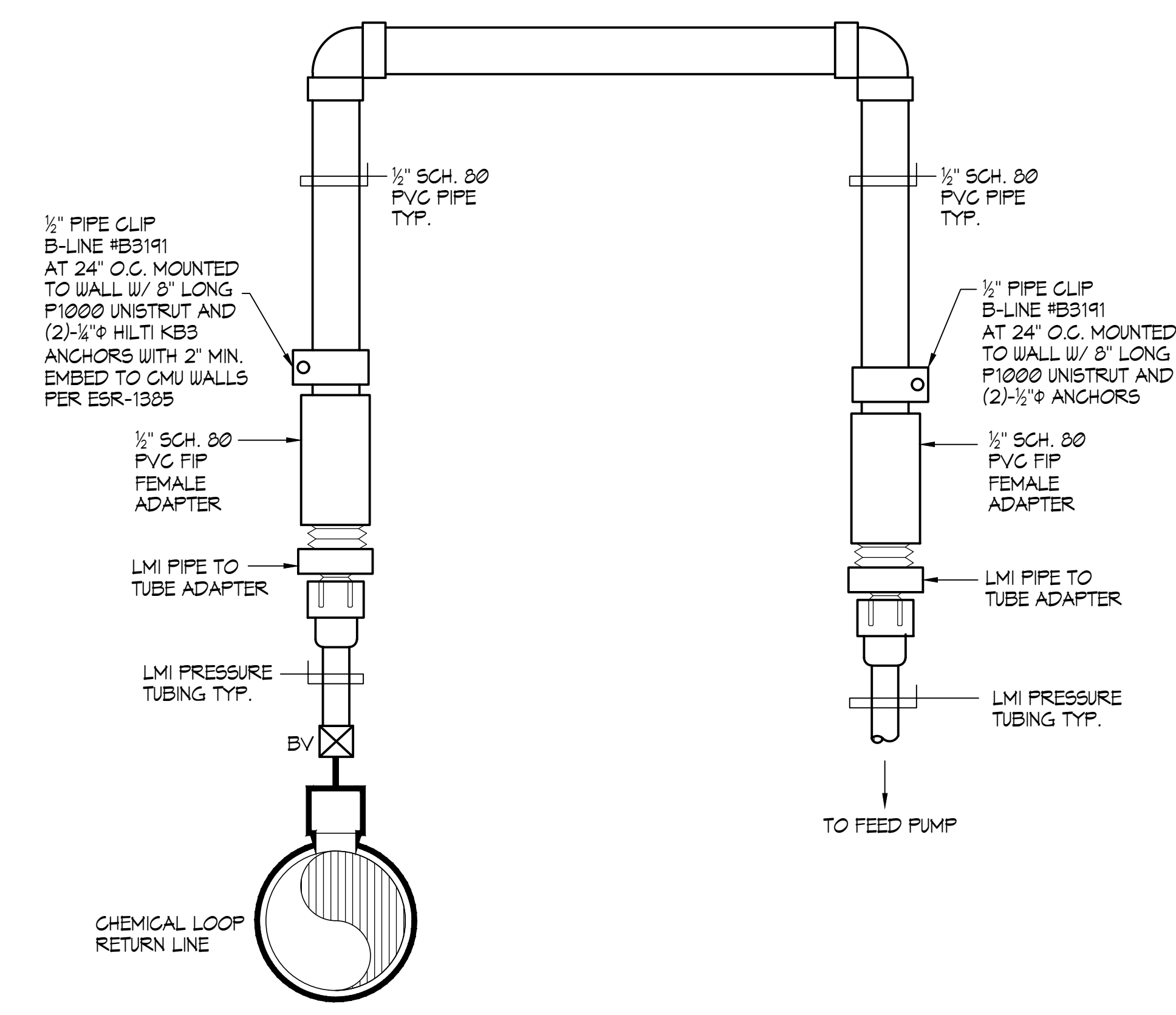
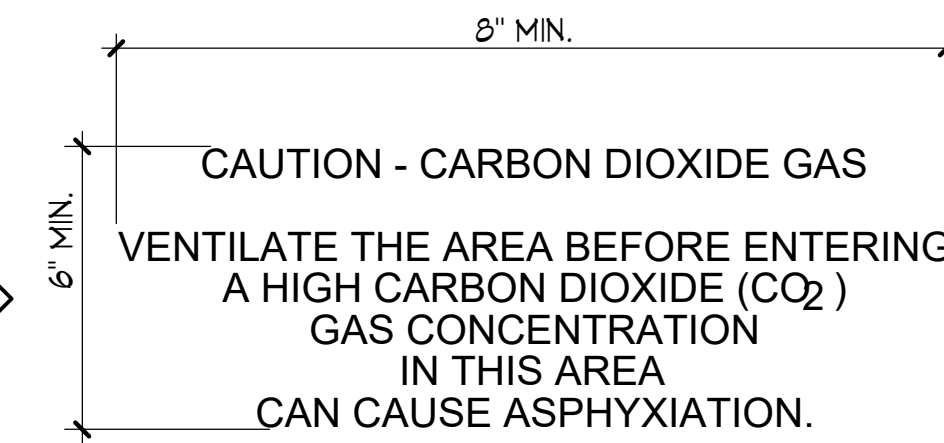


CARBON DIOXIDE



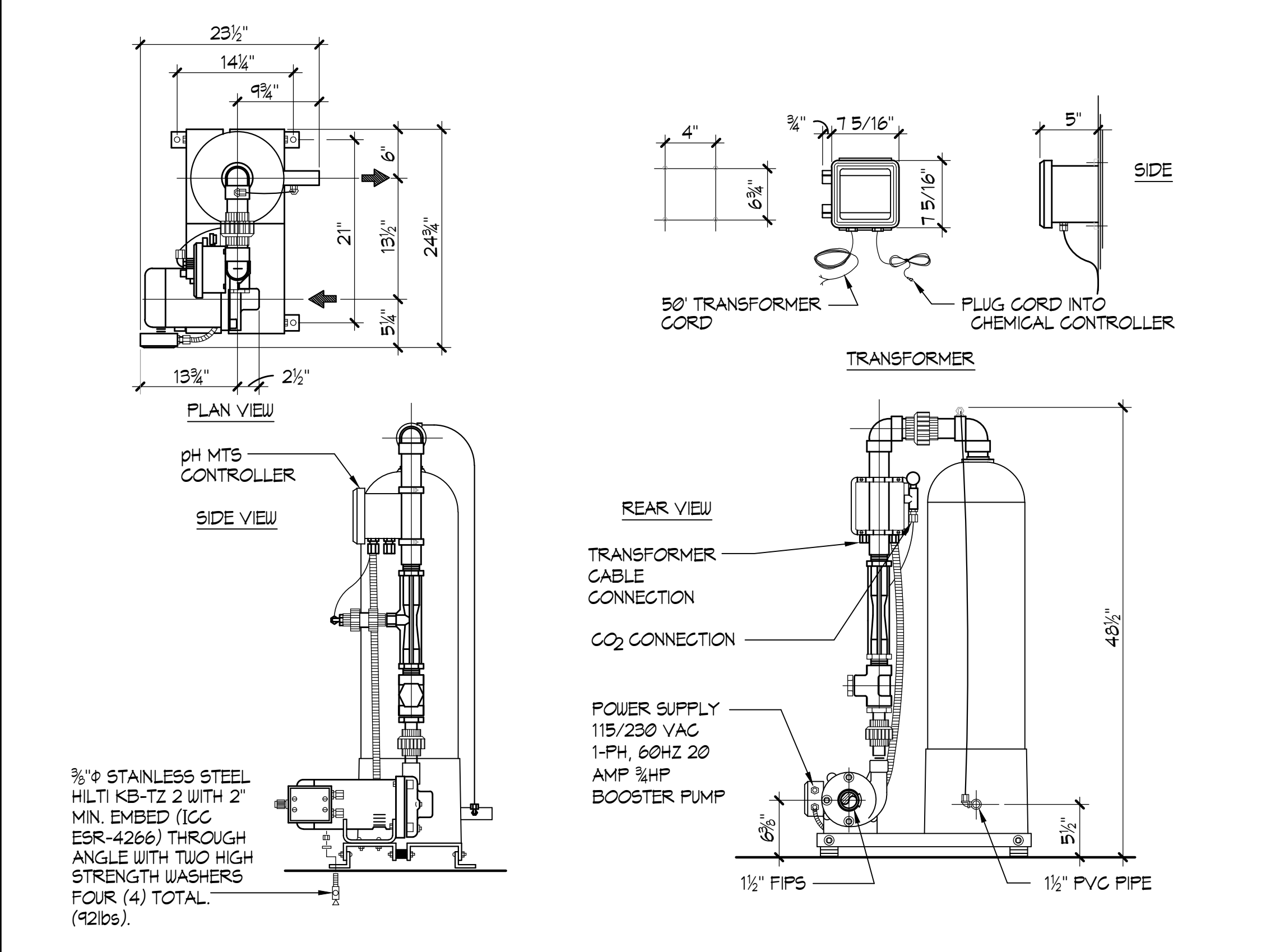
MURIATIC ACID

SIGN SHALL BE POSTED AT ROOM ENTRANCE. SIGN SHALL BE NOT LESS THAN 8" IN LENGTH AND 6" IN HEIGHT AND INDICATE:



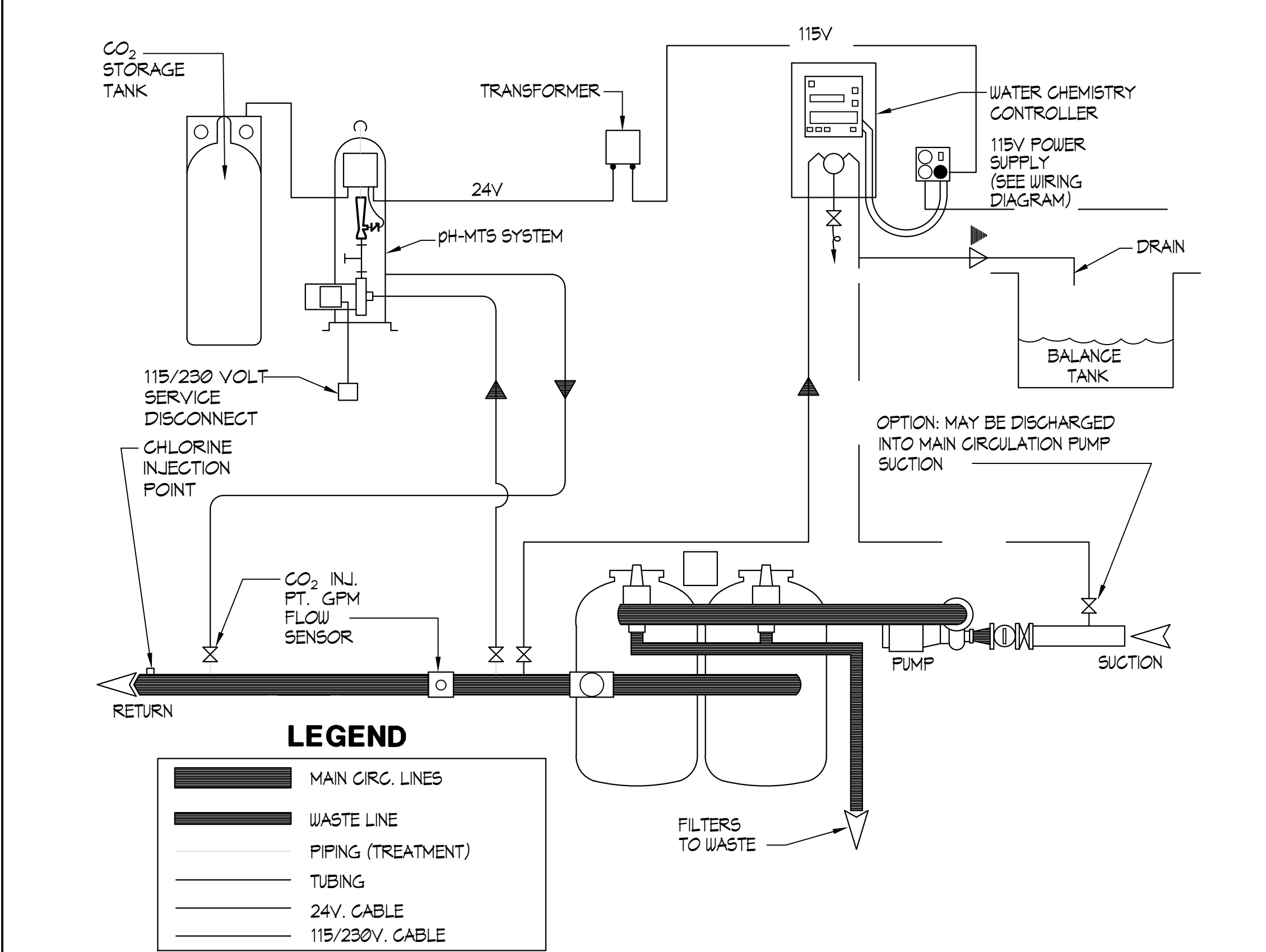
CHEMICAL FEED PIPING DETAIL

HAZARDOUS INFORMATION SIGNAGE



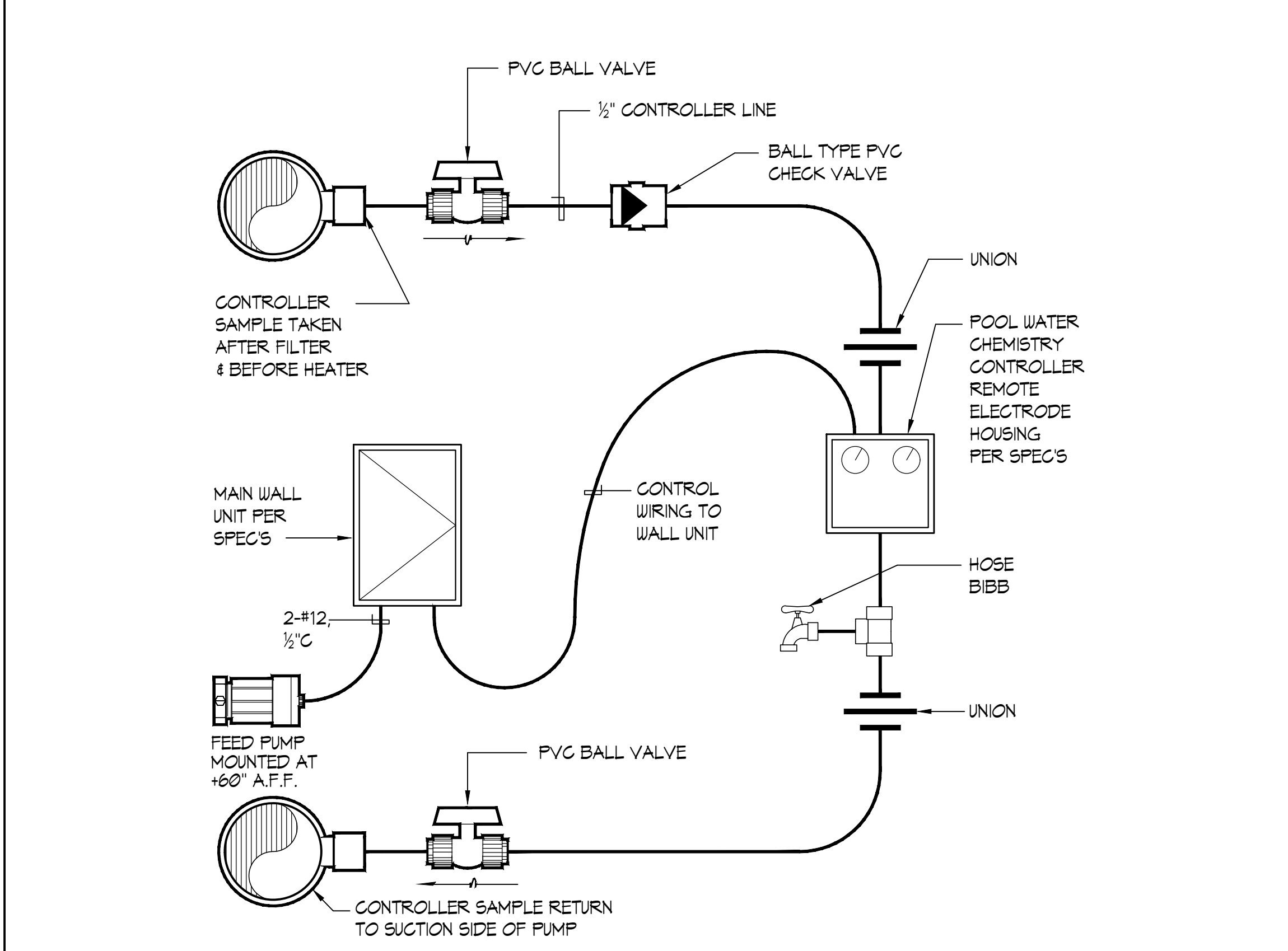
CARBON DIOXIDE pH MTS CONTROLLER

TYPICAL CARBON DIOXIDE pH-MTS INSTALLATION



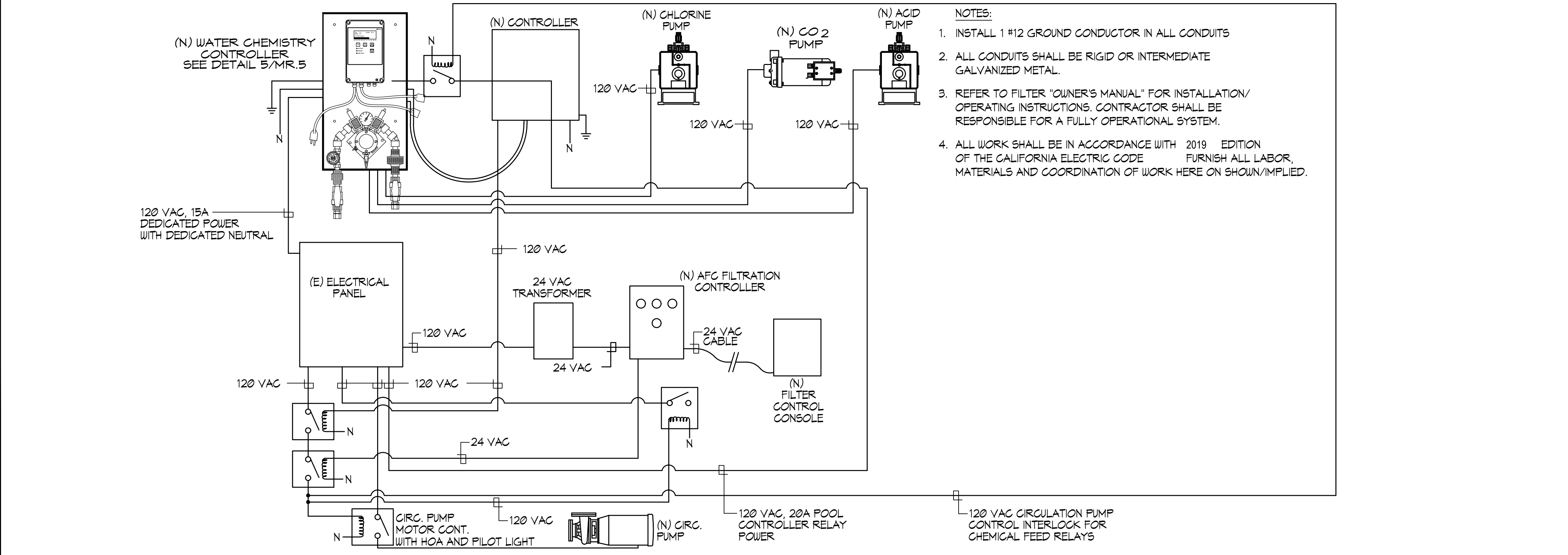
TYPICAL CARBON DIOXIDE pH-MTS INSTALLATION

WATER CHEMISTRY CONTROLLER SCHEMATIC



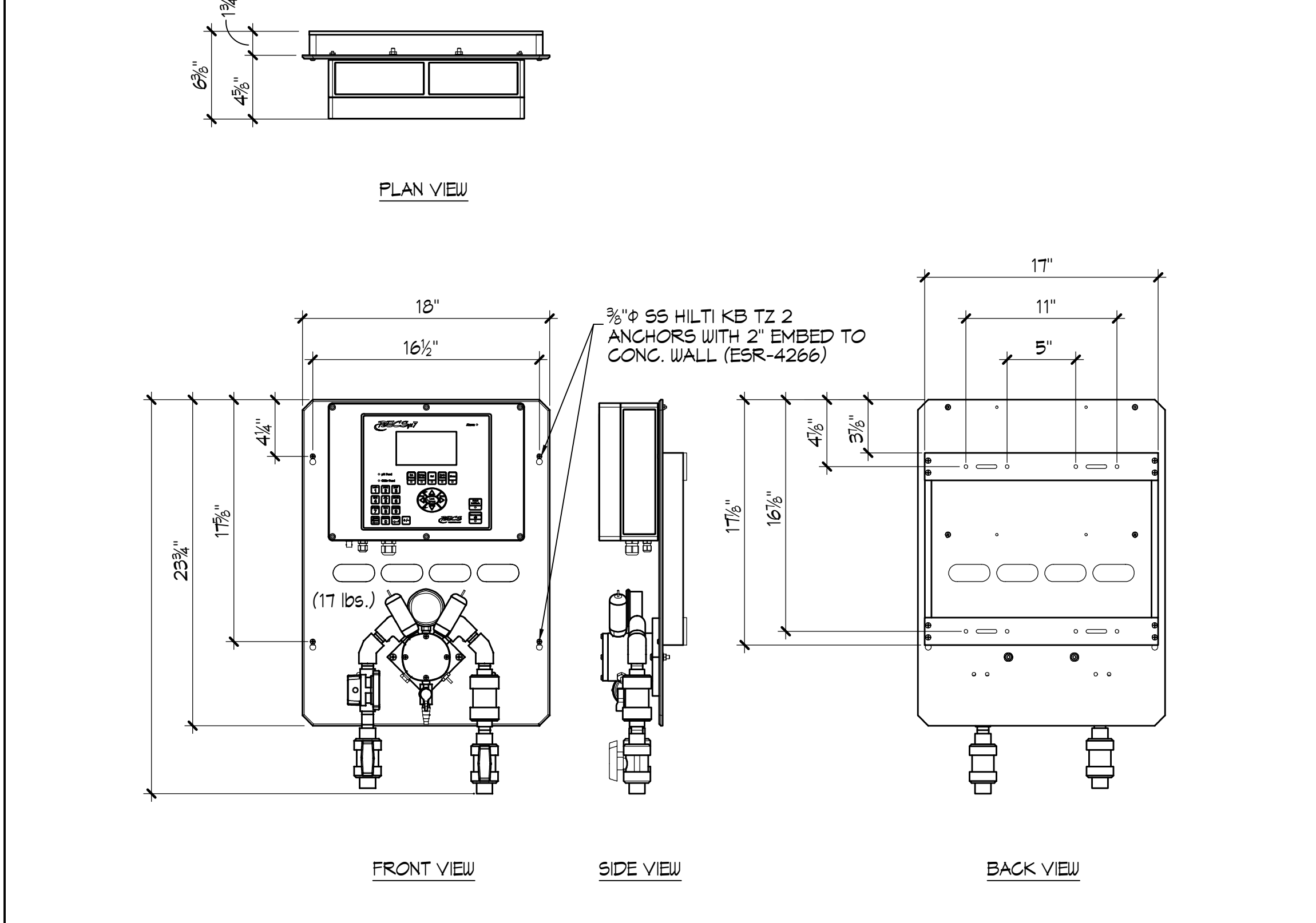
WATER CHEMISTRY CONTROLLER SCHEMATIC

POOL MECHANICAL ELECTRICAL INTERCONNECTION DIAGRAM



POOL MECHANICAL ELECTRICAL INTERCONNECTION DIAGRAM

BECSYS 7 WATER CHEMISTRY CONTROLLER



BECSYS 7 WATER CHEMISTRY CONTROLLER

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SS FLS ACS
DATE: 11/09/2021

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10920 VIA FRONTERA, SUITE 300
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AquaticDesignGroup.com
760-438-8400

consultant

SADDLEBACK COLLEGE
SWIMMING POOL REFURBISHMENT

SOUTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
28000 MARGUERITE PKWY
MISSION VIEJO, CA 92692

owner

tBP project number: 21057.00

file name:

drawn by: NFC checked by: SJF

date: 10/14/2021

Rev: date: description:

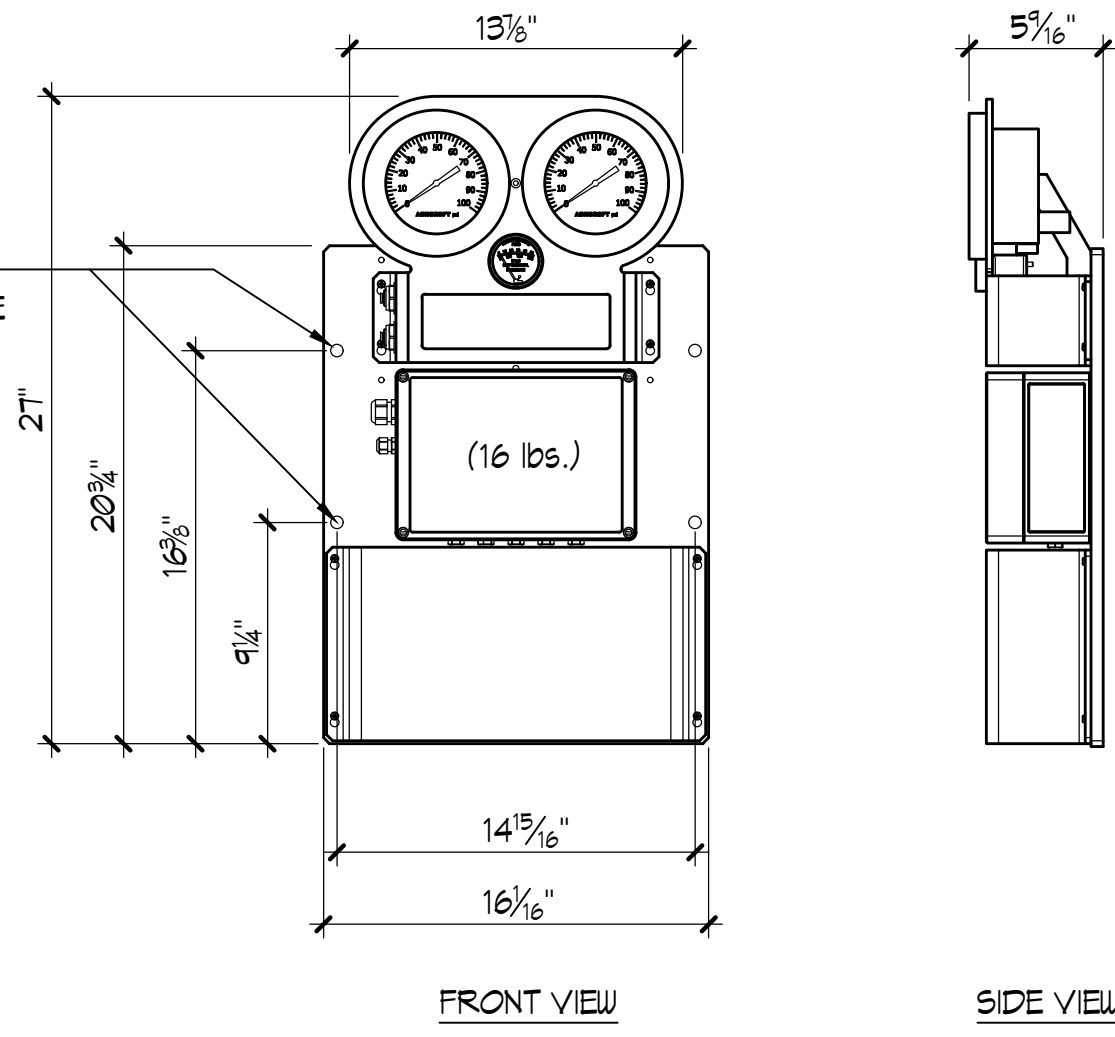
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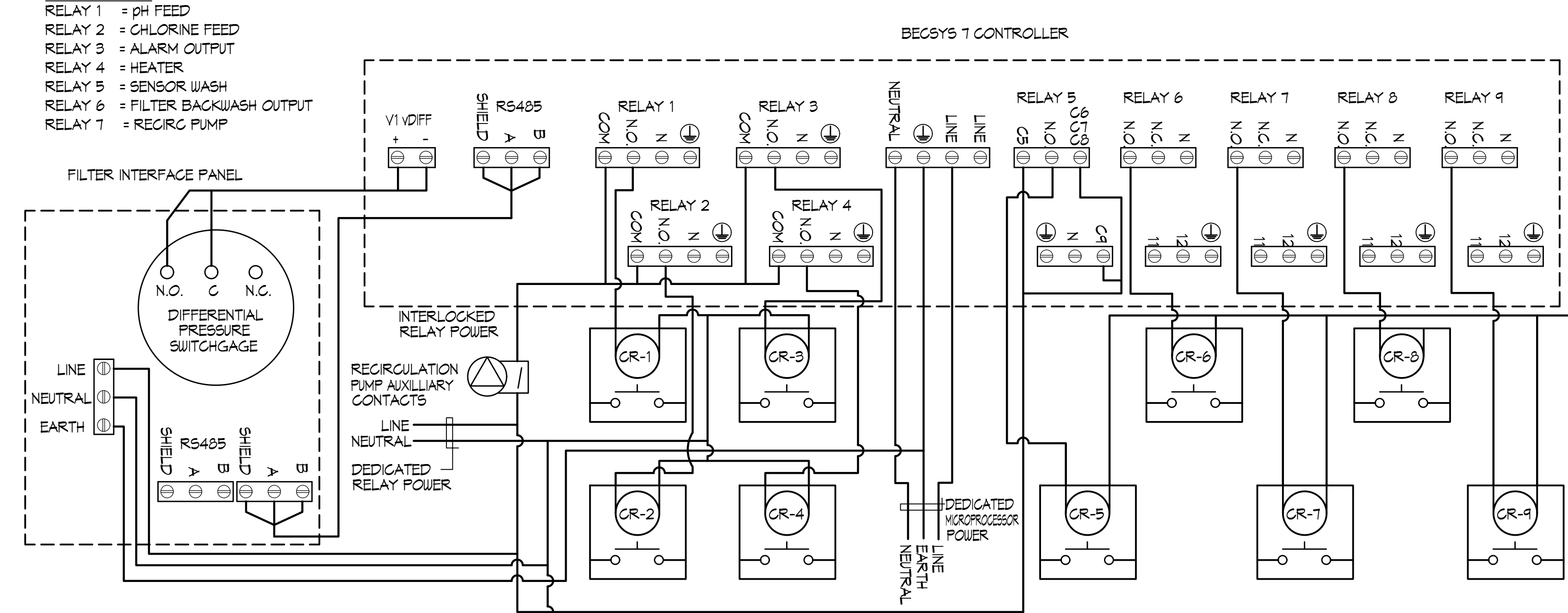
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drawing of #

BOLTED TO INTEGRAL FILTER TANK SUPPORT ANGLE WITH 4-1/8" 55 MACHINE BOLTS, WASHERS AND NUTS.

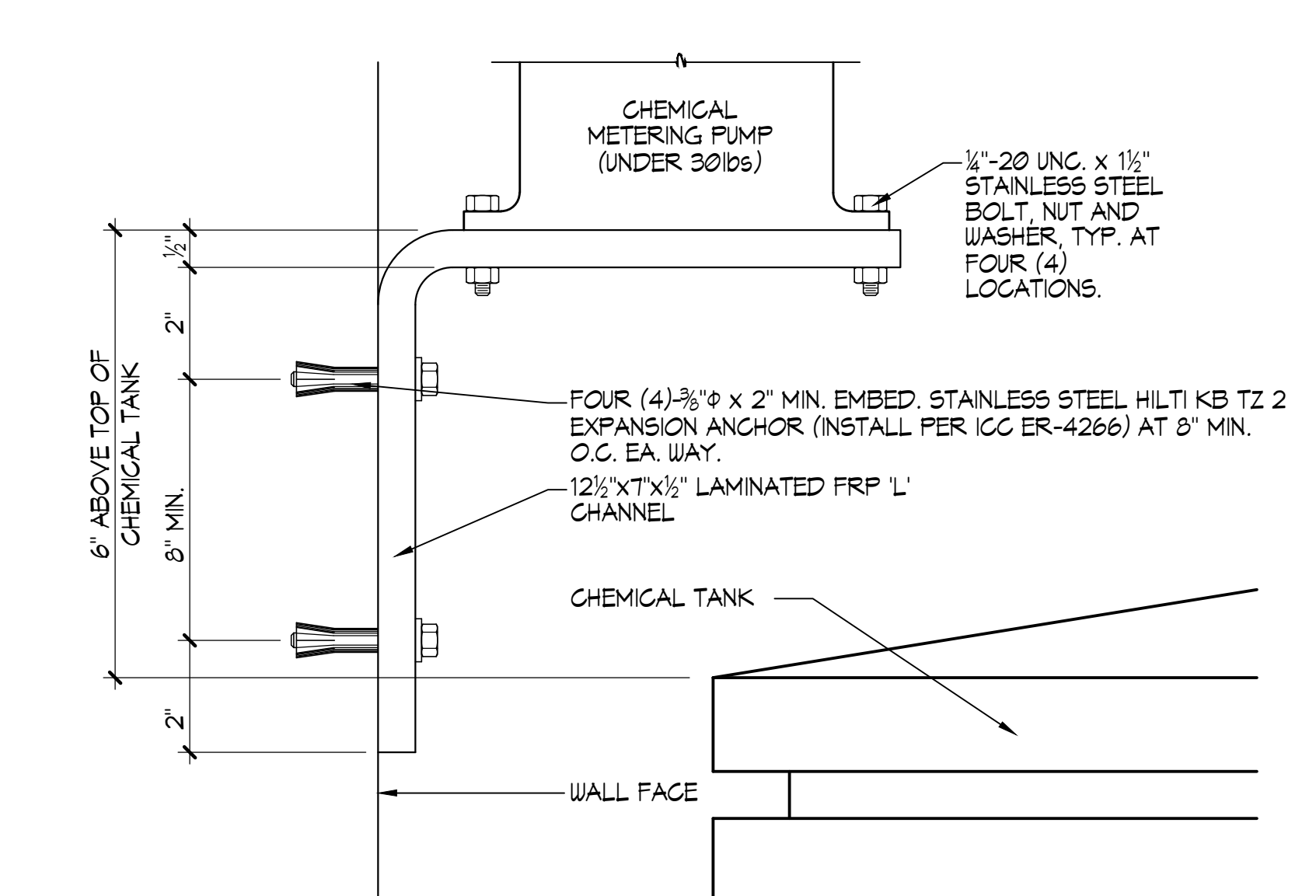
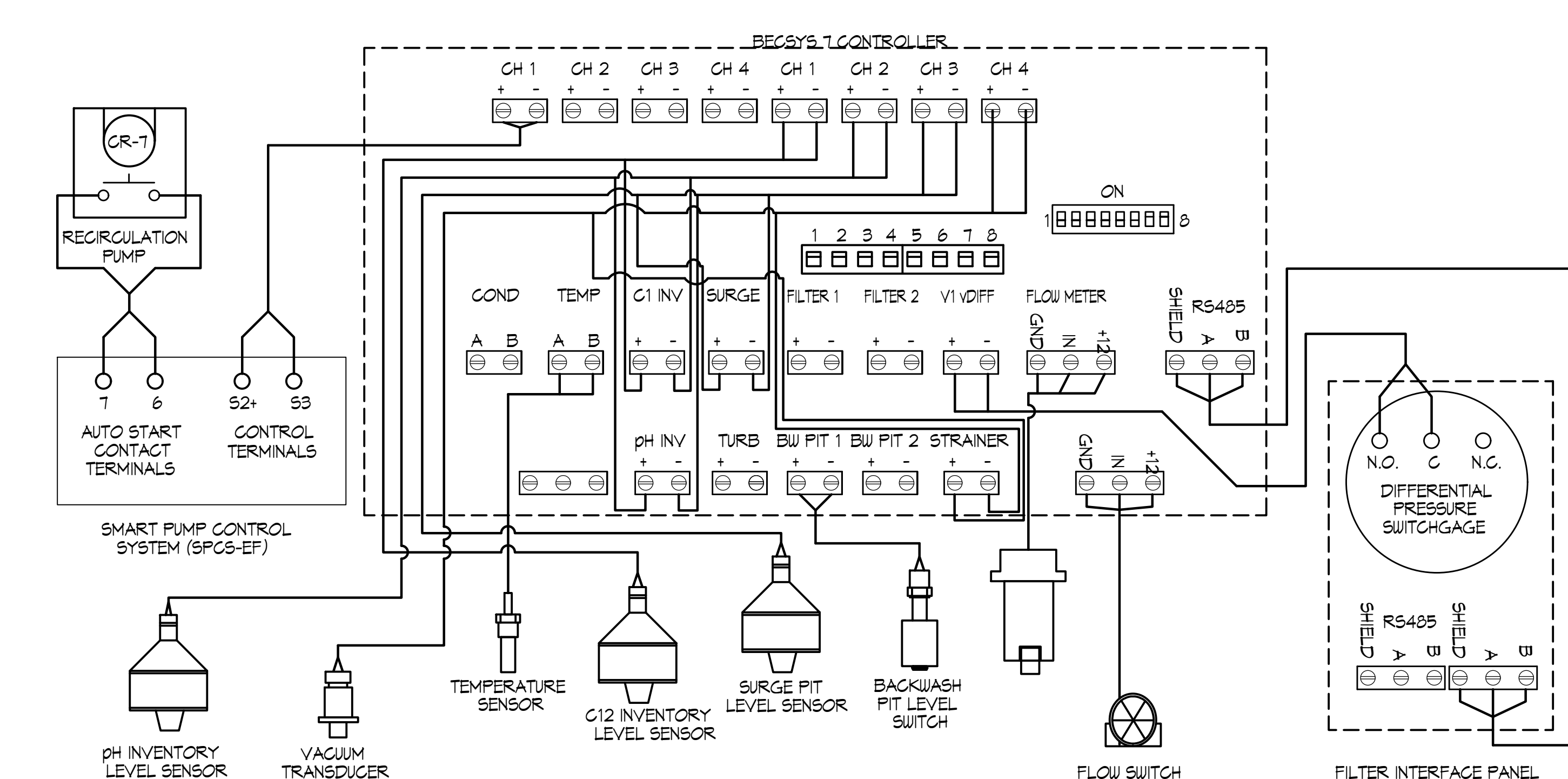


RELAY LEGEND
 RELAY 1 = PH FEED
 RELAY 2 = CHLORINE FEED
 RELAY 3 = ALARM OUTPUT
 RELAY 4 = HEATER
 RELAY 5 = SENSOR WASH
 RELAY 6 = FILTER BACKWASH OUTPUT
 RELAY 7 = RECIRC PUMP



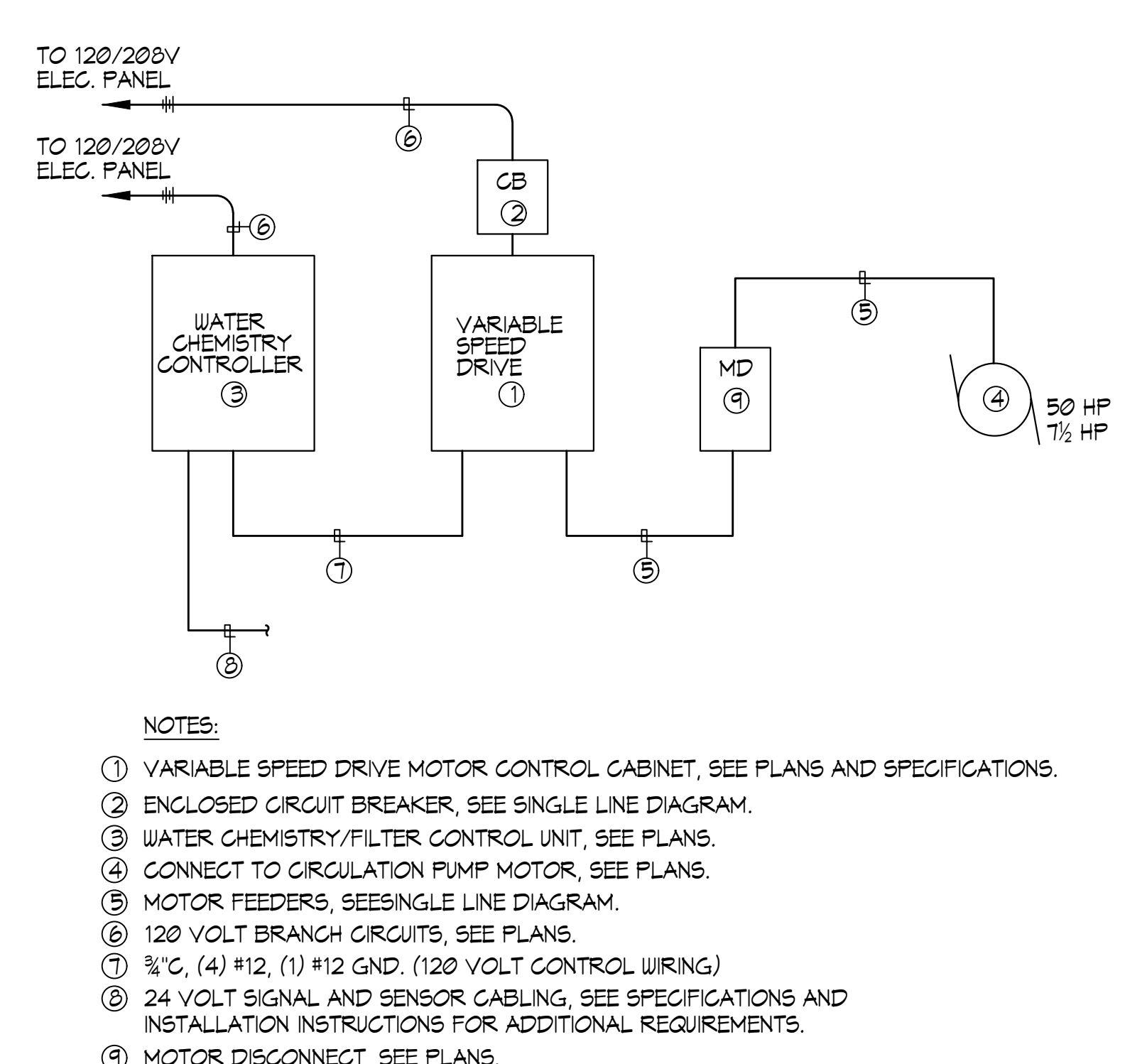
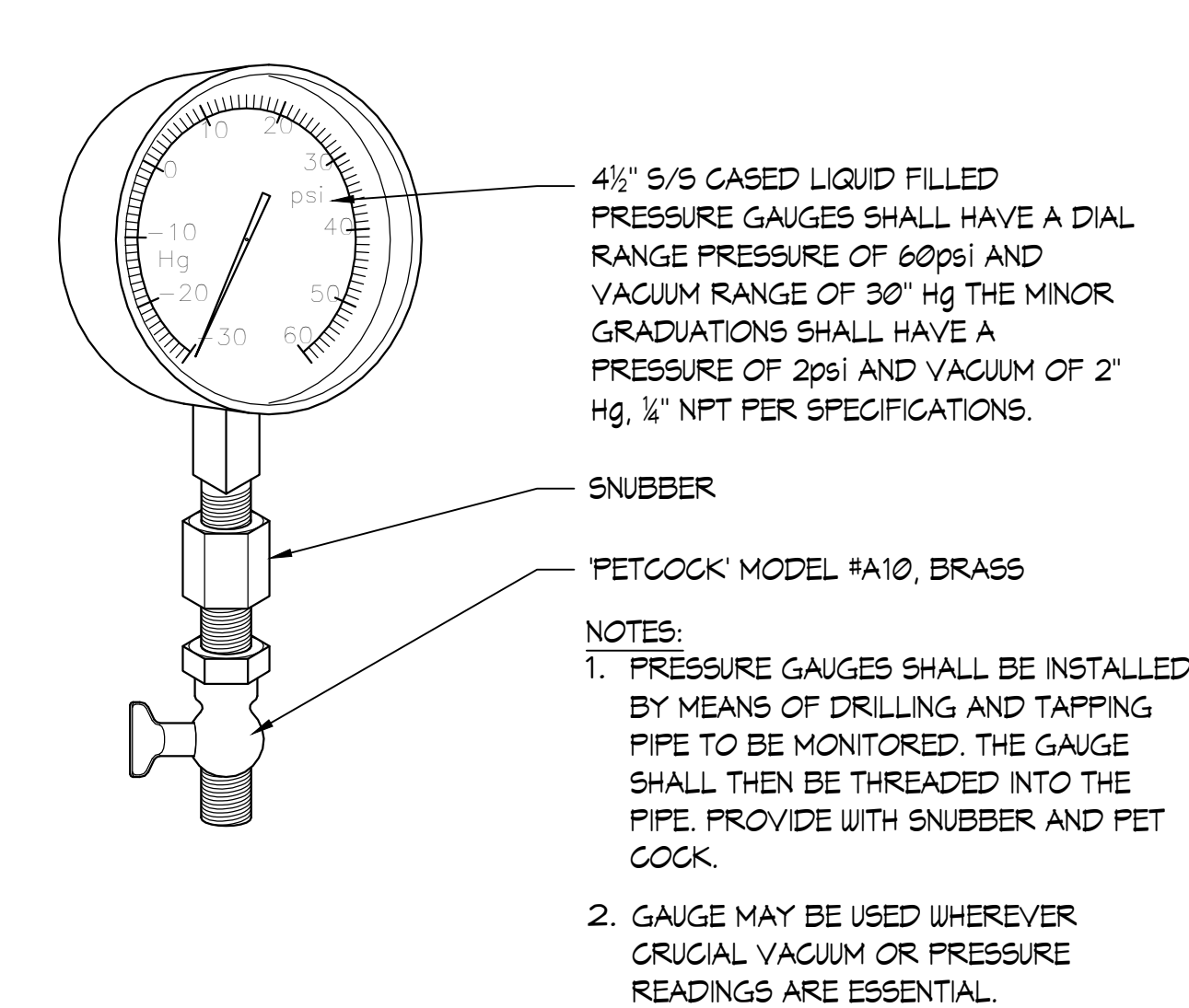
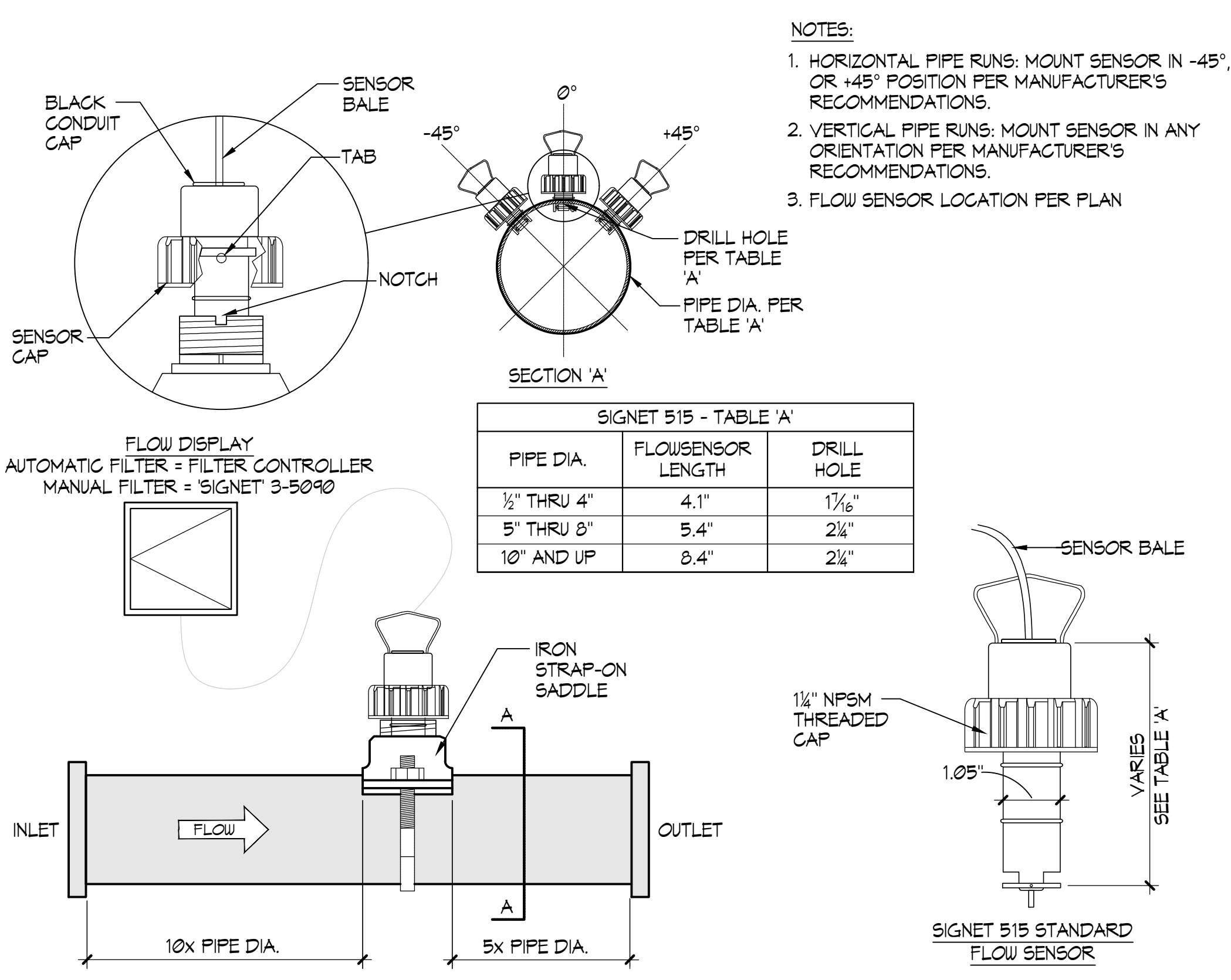
1 BECSYS FILTER INTERFACE SYSTEM 1/2"=1'-0"

2 BECSYS 7 CONTROLLER NO SCALE



3 BECSYS 7 CONTROLLER NO SCALE

4 CHEMICAL PUMP SHELF 6"=1'-0"



5 SIGNET FLOWMETER NO SCALE

6 PRESSURE/VACUUM GAUGE 6"=1'-0"

7 TYPICAL WIRING SCHEMATIC AT SPCS UNIT NO SCALE

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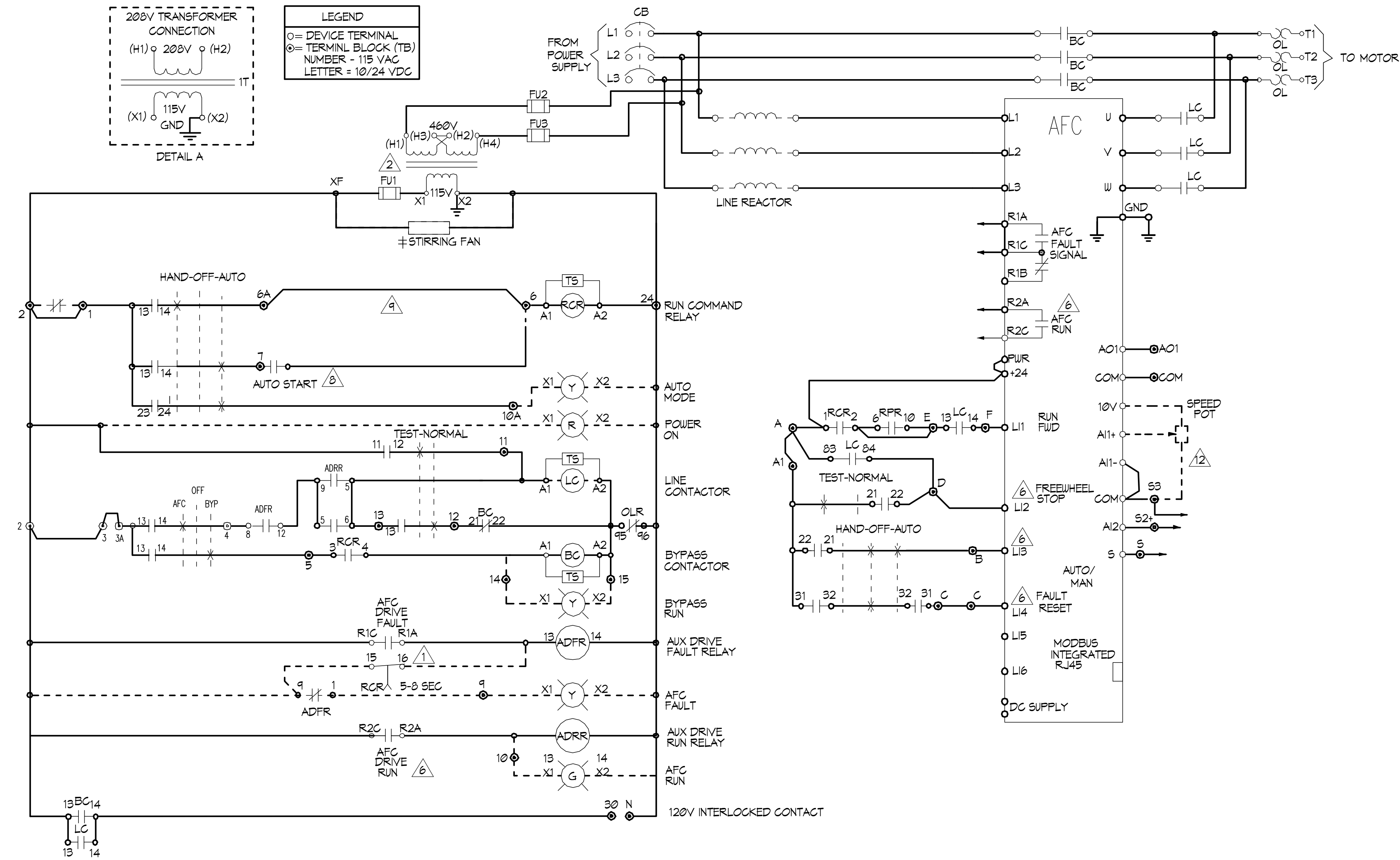
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 AquaticDesignGroup.com
 760-438-8400
 consultant

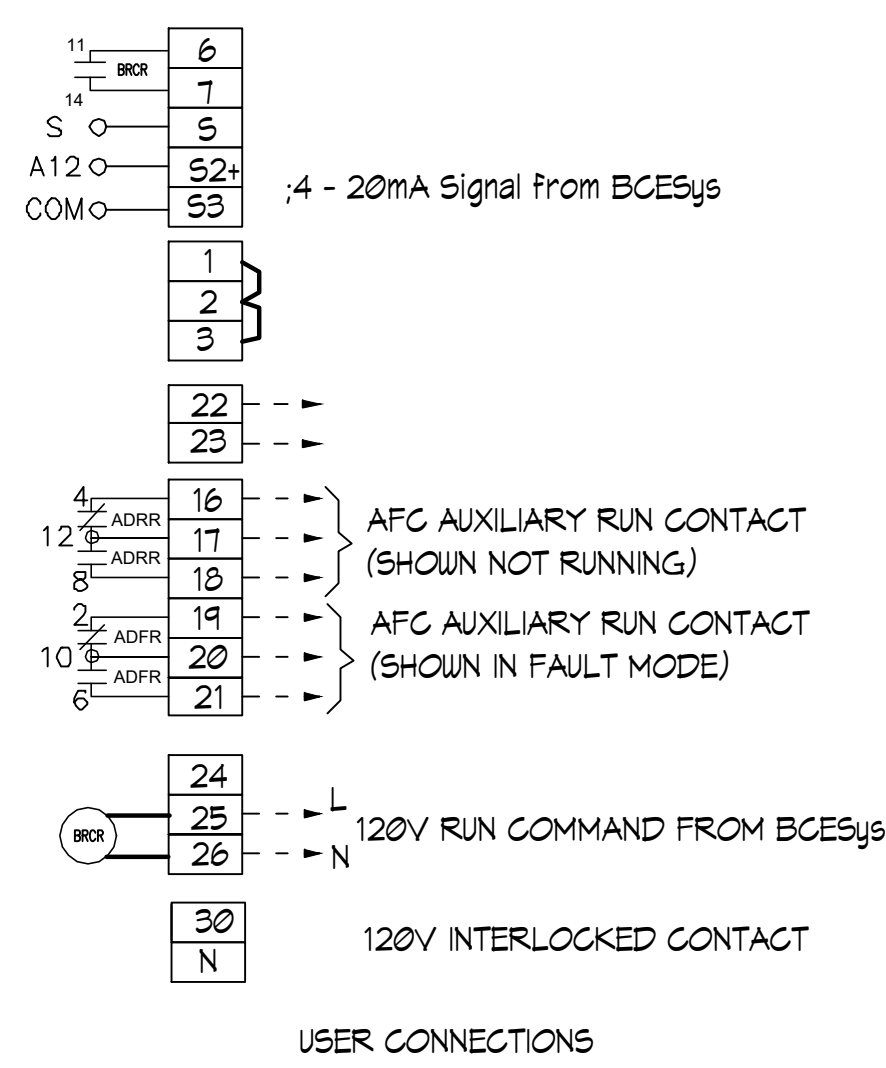
**SADDLEBACK COLLEGE
 SWIMMING POOL REFURBISHMENT**
 SOUTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
 28000 MARGUERITE PKWY
 MISSION VIEJO, CA 92692
 owner

tBP project number : 21057.00
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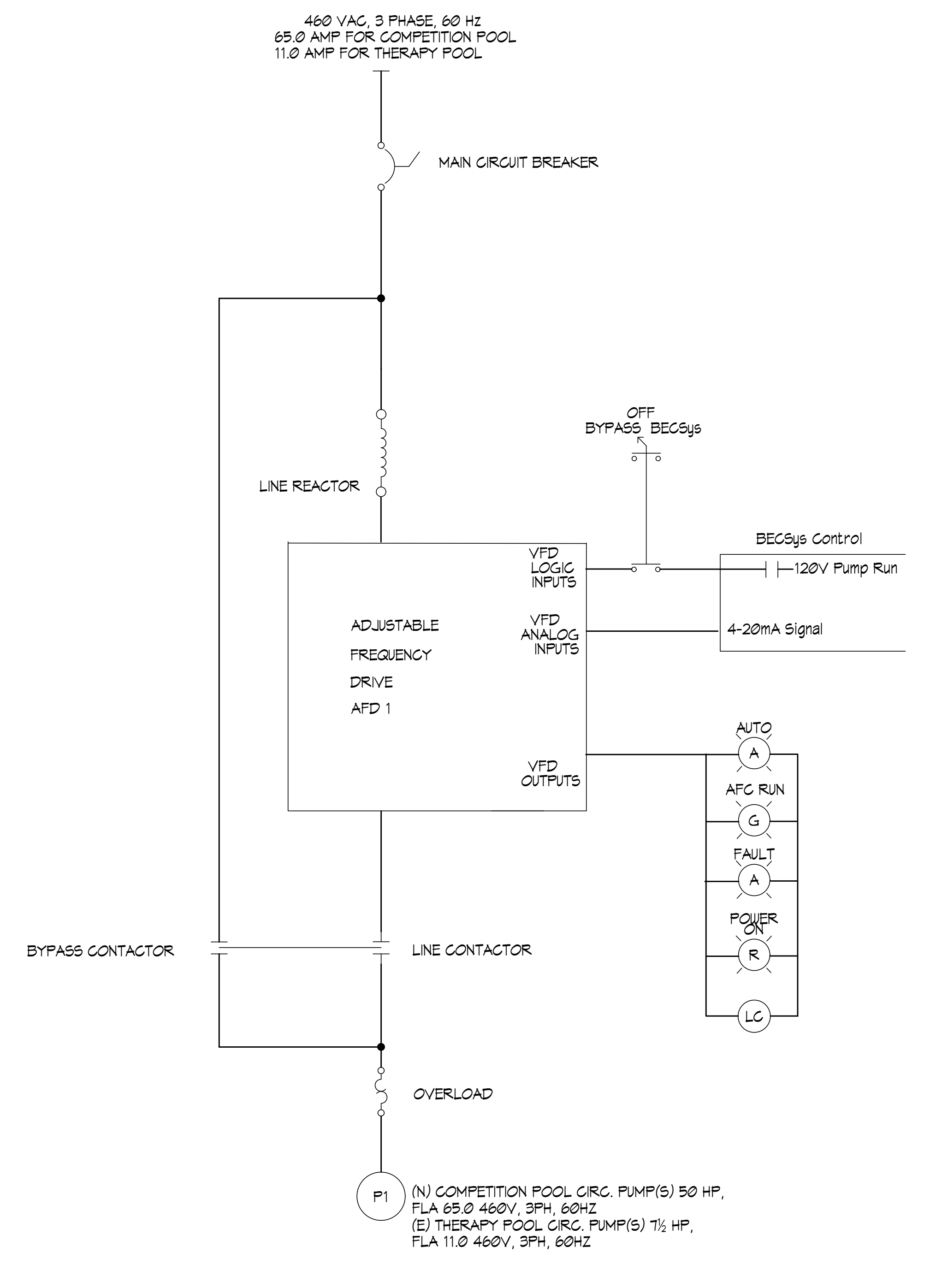
EKO-FLEX ATV61 FACTORY CONFIGURATION

MENU	No	SUB-MENU	DESCRIPTION	CODE	ADJ.
SIM	1.1	---	2/3 WIRE CONTROL	tCC	2C
SIM	1.1	---	PUMPS FANS	GFG	PrF
SIM	1.1	---	STANDARD MOT. FREQ. (HZ)	dFr	60
SIM	1.1	---	ACCELERATION (SEC)	ACC	10
SIM	1.1	---	DECELERATION (SEC)	dEC	10
SIM	1.1	---	LOW SPEED (HZ)	LSP	3
SIM	1.3	---	SWITCHING FREQ. (HZ)	SCF	8
I - O	1.5	---	2 WIRE TYPE	tCt	LEL
I - O	1.5	A12 CONFIG.	A12 MIN. VALUE (mA)	Cr12	4
I - O	1.5	R2 CONFIG.	R2 ASSIGN - DRIVE RUNNING	r2C	run
CLL	1.6	---	REF. 1 CHAN	FR1	HMI
CLL	1.6	---		FR1	All
CLL	1.6	---	PROFILE	CHCF	SEP
FUN	1.7	STOP CONFIG.	FREEWHEEL STOP ASSIGN	nSt	L12
FUN	1.7	REFERENCE SWITCH	REF. 1B SWITCHING	rCb	L13
FUN	1.7	REFERENCE SWITCH	REF. 1B CHAN	Fr1b	A12
FLI	1.8	FAULT RESET	FAULT RESET	rSf	L14
FLI	1.8	CATCH ON THE FLY	CATCH ON THE FLY	FLR	YES
FLI	1.8	OUTPUT PHASE LOSS	OUTPHASE LOSS	PDL	NO
COM	1.9	FORCED LOCAL	FORCED LOCAL ASSIGN.	FLI	L14

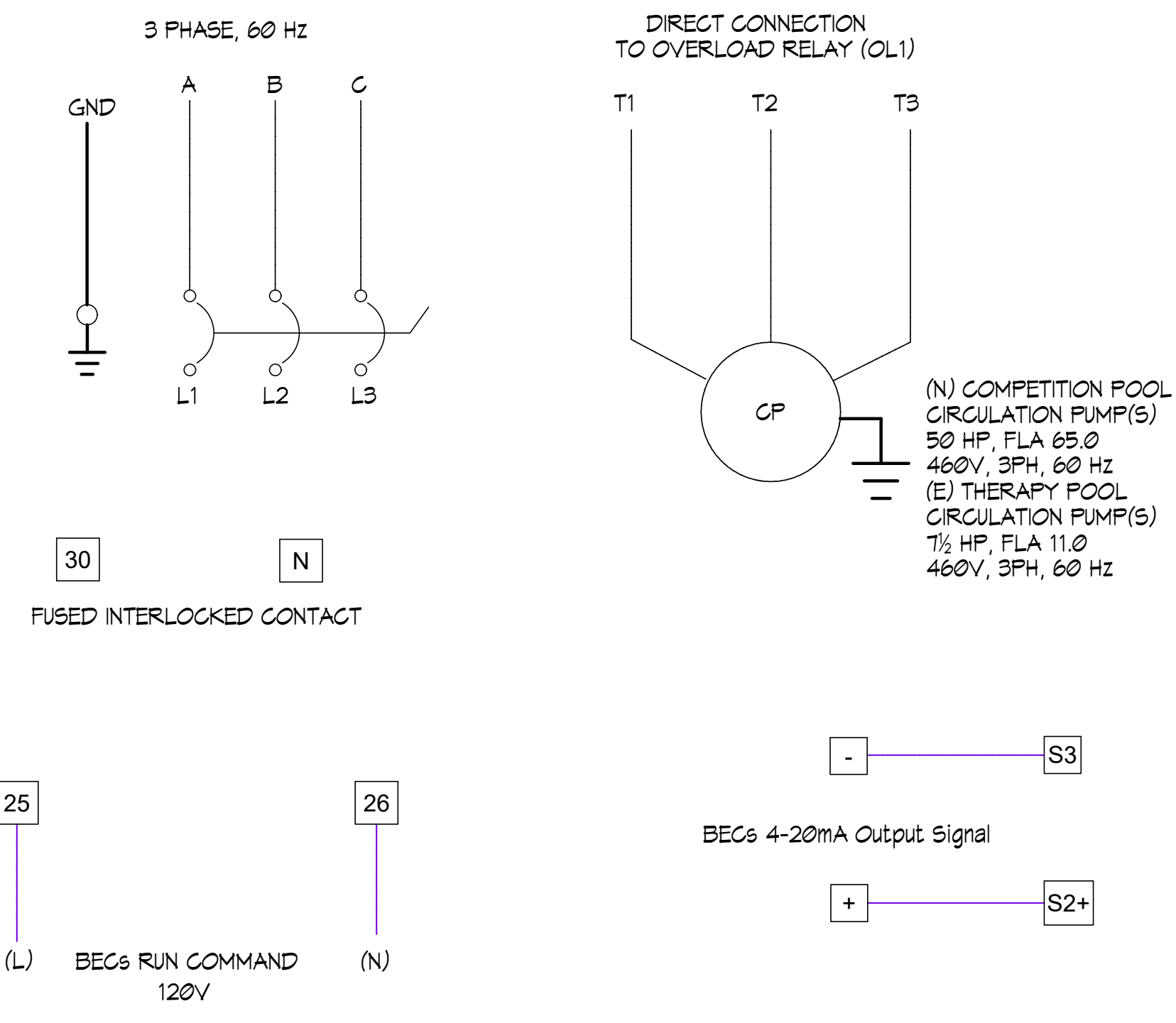


- NOTES:
- ⚠ RCR TIMED CONTACT USED ONLY IF LINE CONTACTOR IS SUPPLIED
 - ⚠ CONTROL TRANSFORMER SHOWN FOR 460V PRIMARY. FOR 230V PRIMARY, JUMPER H2-H3 IS
 - ⚠ PROGRAMMED I/O SEE CONTROLLER FUNCTION CONFIGURATION TABLE.
 - ⚠ BECS RUN COMMAND RELAY (BRCR)
 - ⚠ JUMPER USED WHEN START-STOP PUSH BUTTONS NOT USED.

DESCRIPTION	TYPE 1	TYPE 12K	TYPE 3R
⚡ STIRRING FANS	10-100 HP 460V, 1.5-50HP 208/230V	10-100 HP 460V, 1.5-50HP 208/230V	NA
⚡ VENTILATION FAN	NA	NA	ALL HP
⚡ SPACE HEATER	NA	NA	ALL HP



2 'SPCS' SINGLE LINE DIAGRAM NO SCALE



3 'SPCS' FIELD CONNECTION DIAGRAM NO SCALE

1 'SPCS' VARIABLE FREQUENCY DRIVE SYSTEM SCHEMATIC NO SCALE

MASON WEST MW-SSC AND MW-SSCE

PART #	NOM. PIPE SIZE (INCH)	MAX. VERTICAL LOAD ONLY (LBS)	MAX. LATERAL LOADS (LBS)	COMBINED MAX VERTICAL AND LATERAL LOAD ^{1,2}				
				LOAD 1 (LBS)	LOAD 2 (LBS)	LOAD 3 (LBS)		
SSC-10	1 1/2	1210	300	400	40	340	60	410
SSC-15	2	1210	350	420	60	360	60	420
SSC-20	3	1210	400	440	80	360	60	420
SSC-25	4	1210	450	460	100	360	60	420
SSC-30	5	1210	500	480	120	360	60	420
SSC-35	6	1210	550	500	140	360	60	420
SSC-40	8	1210	600	520	160	360	60	420
SSC-45	10	1210	650	540	180	360	60	420
SSC-50	12	1210	700	560	200	360	60	420

MASON WEST, INC. 1611 E. Miraloma Ave., Placentia, CA 92670 TEL: (714) 639-0791, www.masonwest.com

MASON WEST MW-SSC

PART #	NOM. PIPE SIZE (INCH)	MAX. VERTICAL LOAD ONLY (LBS)	MAX. LATERAL LOADS (LBS)	COMBINED MAX VERTICAL AND LATERAL LOAD ^{1,2}				
				LOAD 1 (LBS)	LOAD 2 (LBS)	LOAD 3 (LBS)		
SSC-10	1 1/2	1210	300	400	40	360	60	410
SSC-15	2	1210	350	420	60	360	60	410
SSC-20	3	1210	400	440	80	360	60	410
SSC-25	4	1210	450	460	100	360	60	410
SSC-30	5	1210	500	480	120	360	60	410
SSC-35	6	1210	550	500	140	360	60	410
SSC-40	8	1210	600	520	160	360	60	410
SSC-45	10	1210	650	540	180	360	60	410
SSC-50	12	1210	700	560	200	360	60	410

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MASON WEST MW-SPC

PART #	NOM. PIPE SIZE (INCH)	MAX. VERTICAL LOAD ONLY (LBS)	MAX. LATERAL LOADS (LBS)	COMBINED MAX VERTICAL AND LATERAL LOAD ^{1,2}				
				LOAD 1 (LBS)	LOAD 2 (LBS)	LOAD 3 (LBS)		
SPC-10	1 1/2	1210	350	450	40	410	60	470
SPC-15	2	1210	400	470	60	410	60	470
SPC-20	3	1210	450	490	80	410	60	470
SPC-25	4	1210	500	510	100	410	60	470
SPC-30	5	1210	550	530	120	410	60	470
SPC-35	6	1210	600	550	140	410	60	470
SPC-40	8	1210	650	570	160	410	60	470
SPC-45	10	1210	700	590	180	410	60	470
SPC-50	12	1210	750	610	200	410	60	470

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BREAK-OFF BOLT AND NUT HARDWARE

MASON WEST, INC. 1611 E. Miraloma Ave., Placentia, CA 92670 TEL: (714) 639-0791, www.masonwest.com

SEISMIC BRACKET ATTACHMENT TO CMU WALL

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A# 04 - 18888#
DIVISION OF THE STATE ARCHITECT
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agency

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architect

IBP Architecture
4611 Teller Avenue
Newport Beach, CA 92660
PH: 949.673.0300

SEISMIC BRACKET ATTACHMENT TO CONCRETE SLAB, BEAM OR WALL WITH (1) HILTI KB-TZ CONCRETE ANCHOR

BRACE ATTACHMENT TYPE	ALLOWABLE LATERAL LOAD (LBS)	BRACE ATTACHMENT TYPE	ALLOWABLE LATERAL LOAD (LBS)	MAX. BRACE HANGAR (INCH)	MIN. BRACE DIA. (INCH)	MIN. BRACE EFF. DEPTH (INCH)	MIN. BRACE HOLE DIA. (INCH)	MIN. BRACE EDGE DIST. (INCH)	MIN. BRACE SPACING (INCH)	TORQUE REQ'D (FT-LBS)
3SA TO 3SB	300	3SA TO 3SB	240	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3SC	350	3SA TO 3SC	280	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3SD	400	3SA TO 3SD	320	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3SE	450	3SA TO 3SE	360	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3SF	500	3SA TO 3SF	400	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3SH	550	3SA TO 3SH	450	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3SI	600	3SA TO 3SI	500	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3S	650	3SA TO 3S	550	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3T	700	3SA TO 3T	600	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3U	750	3SA TO 3U	650	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3V	800	3SA TO 3V	700	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3W	850	3SA TO 3W	750	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3X	900	3SA TO 3X	800	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3Y	950	3SA TO 3Y	850	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3Z	1000	3SA TO 3Z	900	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AA	1050	3SA TO 3AA	950	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AB	1100	3SA TO 3AB	1000	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AC	1150	3SA TO 3AC	1050	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AD	1200	3SA TO 3AD	1100	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AE	1250	3SA TO 3AE	1150	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AF	1300	3SA TO 3AF	1200	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AG	1350	3SA TO 3AG	1250	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AH	1400	3SA TO 3AH	1300	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AI	1450	3SA TO 3AI	1350	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AJ	1500	3SA TO 3AJ	1400	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AK	1550	3SA TO 3AK	1450	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AL	1600	3SA TO 3AL	1500	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AM	1650	3SA TO 3AM	1550	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AN	1700	3SA TO 3AN	1600	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AO	1750	3SA TO 3AO	1650	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AP	1800	3SA TO 3AP	1700	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AQ	1850	3SA TO 3AQ	1750	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AR	1900	3SA TO 3AR	1800	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AS	1950	3SA TO 3AS	1850	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AT	2000	3SA TO 3AT	1900	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AU	2050	3SA TO 3AU	1950	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AV	2100	3SA TO 3AV	2000	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AW	2150	3SA TO 3AW	2050	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AX	2200	3SA TO 3AX	2100	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AY	2250	3SA TO 3AY	2150	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3AZ	2300	3SA TO 3AZ	2200	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BA	2350	3SA TO 3BA	2250	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BB	2400	3SA TO 3BB	2300	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BC	2450	3SA TO 3BC	2350	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BD	2500	3SA TO 3BD	2400	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BE	2550	3SA TO 3BE	2450	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BF	2600	3SA TO 3BF	2500	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BG	2650	3SA TO 3BG	2550	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BH	2700	3SA TO 3BH	2600	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BI	2750	3SA TO 3BI	2650	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BJ	2800	3SA TO 3BJ	2700	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BK	2850	3SA TO 3BK	2750	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BL	2900	3SA TO 3BL	2800	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BM	2950	3SA TO 3BM	2850	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BN	3000	3SA TO 3BN	2900	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BO	3050	3SA TO 3BO	2950	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BP	3100	3SA TO 3BP	3000	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BQ	3150	3SA TO 3BQ	3050	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BR	3200	3SA TO 3BR	3100	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BS	3250	3SA TO 3BS	3150	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BT	3300	3SA TO 3BT	3200	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BU	3350	3SA TO 3BU	3250	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BV	3400	3SA TO 3BV	3300	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BW	3450	3SA TO 3BW	3350	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BX	3500	3SA TO 3BX	3400	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BY	3550	3SA TO 3BY	3450	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3BZ	3600	3SA TO 3BZ	3500	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CA	3650	3SA TO 3CA	3550	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CB	3700	3SA TO 3CB	3600	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CC	3750	3SA TO 3CC	3650	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CD	3800	3SA TO 3CD	3700	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CE	3850	3SA TO 3CE	3750	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CF	3900	3SA TO 3CF	3800	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CG	3950	3SA TO 3CG	3850	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CH	4000	3SA TO 3CH	3900	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CI	4050	3SA TO 3CI	3950	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CJ	4100	3SA TO 3CJ	4000	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CK	4150	3SA TO 3CK	4050	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CL	4200	3SA TO 3CL	4100	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CM	4250	3SA TO 3CM	4150	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CN	4300	3SA TO 3CN	4200	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CO	4350	3SA TO 3CO	4250	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CP	4400	3SA TO 3CP	4300	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CQ	4450	3SA TO 3CQ	4350	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CR	4500	3SA TO 3CR	4400	30"	3/8"	2 1/2"	4"	4 1/2"	6"	25
3SA TO 3CS	4550	3SA TO 3CS	4450	30"	3/8"	2 1/2"	4"			