

**DIXON REC CENTER AQUATICS IMPROVEMENTS
ITB# 2022-007037**



**Oregon State
University**

**EXHIBIT H
DRAWINGS**

**Construction Contracts Administration
Oregon State University
644 SW 13th Ave.
Corvallis, Oregon 97333**

DRAWING SYMBOLS

	BUILDING SECTION
	WALL SECTION
	DETAIL CALL OUT
	EXTERIOR ELEVATION
	INTERIOR ELEVATION
	PARTITION TYPE
	DOOR TAG
	ELEVATION TAG
	NORTH ARROW
	ROOM NAME AND NUMBER
	KEYNOTE
	REVISION REFERENCE ONLY MOST RECENT REVISION SHOWN CLOUDED
	PROPERTY LINE
	FINISH TYPE
	WINDOW TYPE TYPE
	BREAK LINE
	GRID LINE
	FLOOR TYPE
	CEILING TYPE

MATERIAL SYMBOLS

	CIP CONCRETE
	PRECAST CONCRETE
	CONCRETE MASONRY UNIT
	BRICK
	STEEL
	ALUMINUM
	GYPSTUM WALL BOARD
	LATH AND PLASTER
	GRAVEL
	RIGID INSULATION
	BATT INSULATION
	FIREPROOFING SAND
	SOLID MORTAR
	FIRESTOPPING
	EARTH
	CONTINUOUS WOOD FRAMING
	WOOD BLOCKING
	PLYWOOD
	PARTICLE BOARD
	SOLID WOOD

ABBREVIATIONS

& L	AND	JAN	JANITOR
@	ANGLE	JS	JOINT SEALANT
Ø	AT	JT	JOINT
±	CENTERLINE	LAM	LAMINATE
°	DIAMETER OR ROUND	LAV	LAVATORY
±	PLUS / MINUS	LINO	LINOLEUM
°	DEGREES	LT	LIGHT
#	POUND OR NUMBER	LV	LOUVER
>	GREATER THAN	MATL	MATERIAL
<	LESS THAN	MAX	MAXIMUM
A	ALIGN	MECH	MECHANICAL
AB	ANCHOR BOLT / ACOUSTICAL BOARD	MEMB	MEMBRANE
A/C	AIR CONDITIONING	MFR	MANUFACTURER
ACST	ACOUSTICAL	MIN	MINIMUM
AD	AREA DRAIN	MISC	MISCELLANEOUS
ADDL	ADDITIONAL	MTD	MOUNTED
ADJ	ADJUSTABLE OR ADJACENT	MTL	METAL
AFF	ABOVE FINISHED FLOOR	MULL	MULLION
AGGR	AGGREGATE	(N)	NEW
ALUM	ALUMINUM	NIC	NOT IN CONTRACT
APPROX	APPROXIMATE	NO	NUMBER
ARCH	ARCHITECTURAL	NOM	NOMINAL
BD	BOARD	NNO	NOT NORMALLY OCCUPIED
BLDG	BUILDING	NTS	NOT TO SCALE
BLKG	BLOCKING	OA	OVERALL
BM	BEAM	OC	ON CENTER
BO	BOTTOM OF	OD	OUTSIDE DIAMETER
BOT	BOTTOM	OFCI	OWNER FURNISHED - CONTRACTOR INSTALLED
CAB	CABINET	OFOI	OWNER FURNISHED - OWNER INSTALLED
CB	CATCH BASIN	OPNG	OPENING
CBB	CEMENT BACKER BOARD	OPI	OPPOSITE
CEM	CEMENT	P, PTD	PAINT(ED)
CER	CERAMIC	PBD	PARTICLEBOARD
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	PERF	PERFORATED
CIP	CONSTRUCTION OR CONTROL JOINT	PL	PROPERTY LINE
CJ	CONSTRUCTION	PLAM	PLASTIC LAMINATE / PLATE
CONSTR	CONSTRUCTION	PLAS	PLASTER
CONT	CONTINUOUS	PLYWD	PLYWOOD
CPT	CARPET	PNL	PANEL
CT	CERAMIC TILE	PR	PAIR
CTR	CENTER	PT	POINT
DBL	DOUBLE	PTN	PARTITION
DET	DETAIL	QT	QUARRY TILE
DEMO	DEMOLITION, DEMOLISH	R	RADIUS OR RISER
DIA	DIAMETER	RA	RETURN AIR
DIM	DIMENSION	RB	RESILIENT BASE
DN	DOWN	RCP	REFLECTED CEILING PLAN(S)
DR	DOOR	RD	ROOF DRAIN
DS	DOWNSPOUT	REF	REFRIGERATOR
DWG	DRAWING	REINF	REINFORCED
EA	EACH	REQ'D	REQUIRED
EL	ELEVATION	RESIL	RESILIENT
ELEC	ELECTRICAL	RM	ROOM
EOS	EDGE OF SLAB	RO	ROUGH OPENING
EP	ELECTRICAL PANEL	RTU	ROOF TOP UNIT
EQ	EQUAL	RVS	REVERSED
EWH	ELECTRIC WATER HEATER	RWL	RAIN WATER LEADER
EXIST. (E)	EXISTING	SC	SOLID CORE
EXT	EXTERIOR	SCHED	SCHEDULE
FCU	FAN COIL UNIT	SCHD	SCHEDULE
FD	FLOOR DRAIN	SD	STORM DRAIN
FDTN	FOUNDATION	SDT	STATIC-DISSIPATIVE TILE
FE	FIRE EXTINGUISHER	SECT	SECTION
FEC	FIRE EXTINGUISHER CABINET	SHR	SHOWER
FIN	FINISH	SHT	SHEET
FIN FLR	FINISH FLOOR	SIM	SIMILAR
FLR	FLOOR	SKLT	SKYLIGHT
FOC	FACE OF CONCRETE	SPEC	SPECIFICATION
FOF	FACE OF FINISH	SS	SOLID-SURFACING
FOS	FACE OF STUD	SST	STAINLESS STEEL
FP	FIREPROOF	ST	STONE
FT	FOOT OR FEET	STC	SOUND TRANSMISSION CLASS
FTG	FOOTING	STD	STANDARD
G	GROUND	STL	STEEL
GA	GAGE, GAUGE	STOR	STORAGE
GALV	GALVANIZED	STRUCT	STRUCTURAL
GB	GRAB BAR	TR	TREAD
GL	GLASS	THK	THICKNESS
GR	GRADE	THRU	THROUGH
GRB	GYPSTUM WALL BOARD	TO	TOP OF
GWB-IR	GYPSTUM (WALL)BOARD - IMPACT	TOC	TOP OF CONCRETE/CURB
RESISTANT	GYPSTUM (WALL)BOARD - WATER	TOL	TOLERANCE
GWB-WR	GYPSTUM (WALL)BOARD - WATER	TOS	TOP OF STEEL
RESISTANT		TOW	TOP OF WALL
HB	HOSE BIBB	TYP	TYPICAL
HC	HOLLOW CORE	UNO	UNLESS NOTED OTHERWISE
HDWD	HARDWOOD	UON	UNLESS OTHERWISE NOTED
HDWR	HARDWARE	VIF	VERIFY IN FIELD
HM	HOLLOW METAL	W	WITH
HOR.	HORIZ HORIZONTAL	WC	WATER CLOSET
HR	HOUR	WD	WOOD
HT	HEIGHT	WDF	WOOD FLOOR
HVAC	HEATING, VENTILATING & AIR	WDP	WOOD PANELING
CONDITIONING		WH	WATER HEATER
ID	INSIDE DIAMETER	WM	WIRE MESH
IN	INCHES	W/O	WITHOUT
INSUL	INSULATION	WP	WATERPROOF
INT	INTERIOR	WWF	WELDED WIRE FABRIC

SHEET INDEX

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1.0 General	DRAWING INDEX, SYMBOLS AND ABBREVIATIONS
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8.0 Architectural	
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AD1.02	ENLARGED DEMO FLOOR PLAN - BASEMENT
A1.02	ENLARGED FLOOR PLAN - BASEMENT
A5.10	ACCESS HATCH
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M001	LEGEND, GENERAL NOTES, SHEET INDEX & SCHEDULE
M101	DEMOLITION PLAN - BASEMENT
M120	MECHANICAL PIPING - BASEMENT
M121	PIPING PLAN - BASEMENT
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10.0 Electrical	
E001	LEGEND & SHEET INDEX
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MR.1	EXISTING POOL MECHANICAL ROOM DEMOLITION PLAN
MR.2	MECHANICAL ROOM LAYOUT PLAN
MR.3	DETAILS
MR.4	DETAILS
MR.5	DETAILS
Grand total:	21

PROJECT TEAM DIRECTORY

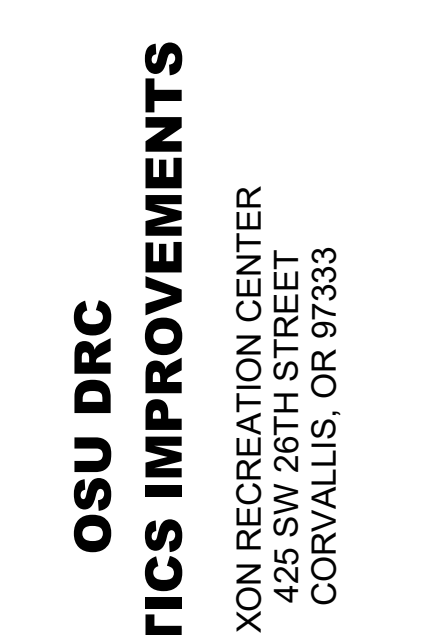
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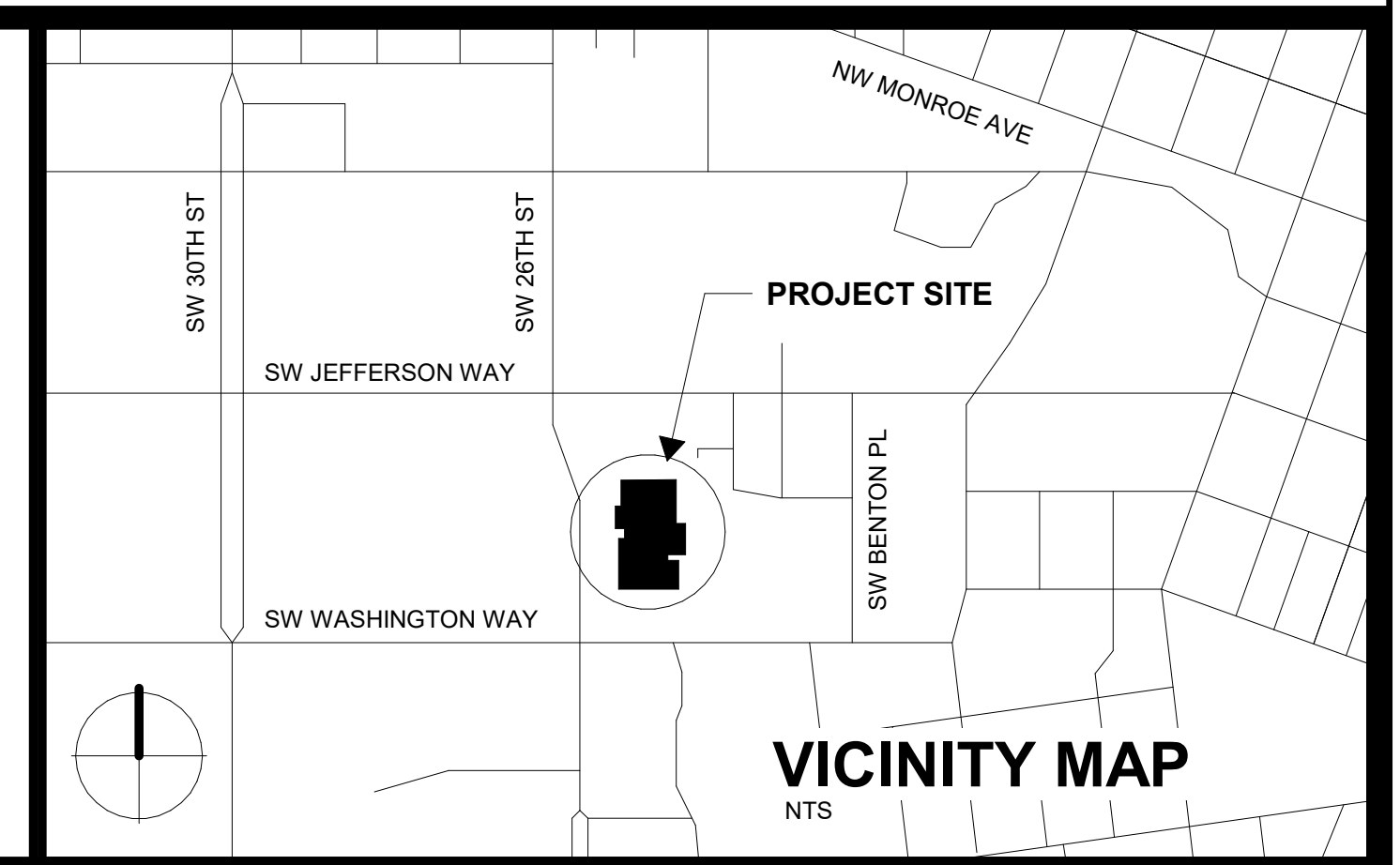
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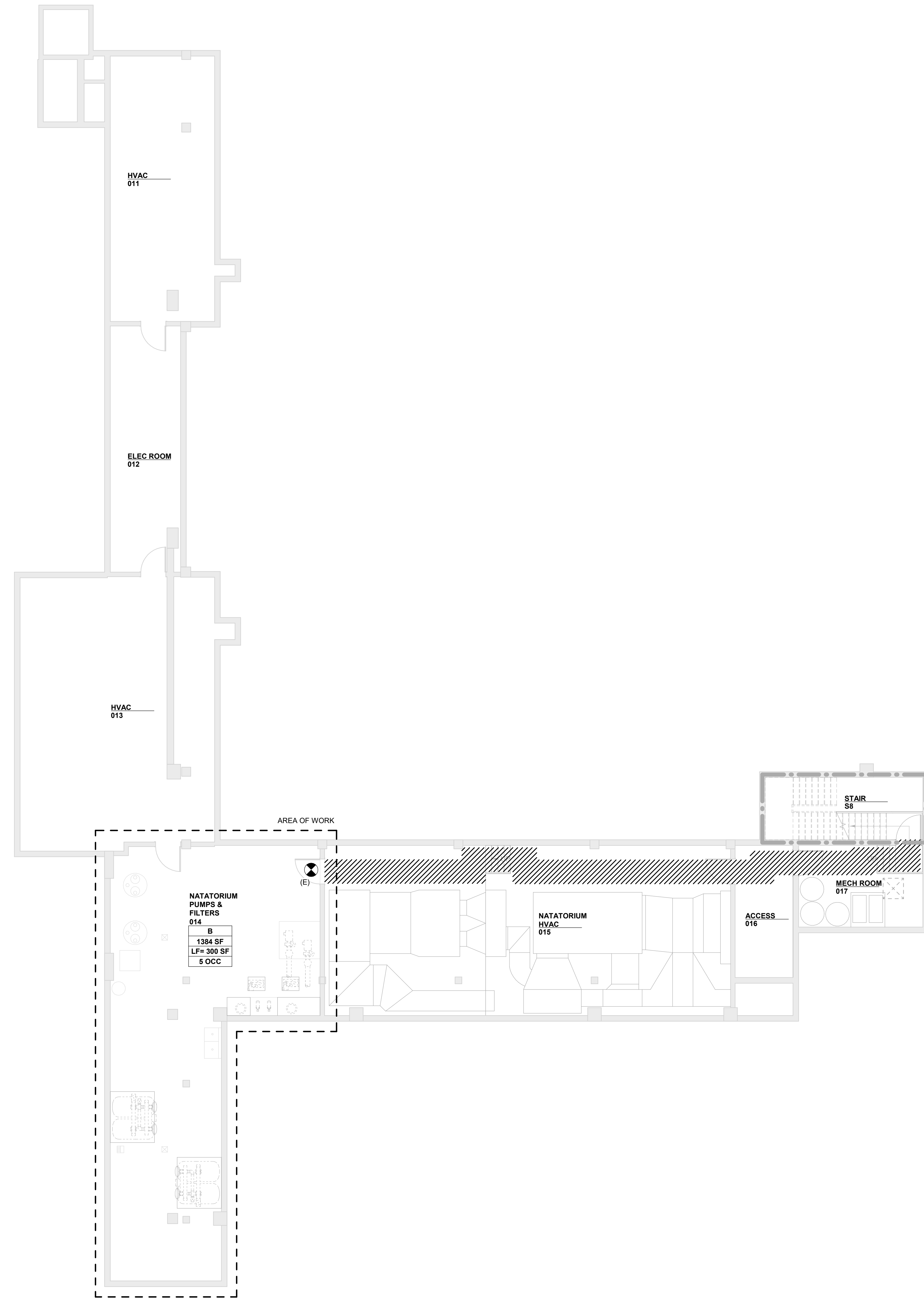
OSU DIXON RECREATION CENTER AQUATICS IMPROVEMENTS 425 SW 26TH STREET CORVALLIS, OR 97333

CONSTRUCTION DOCUMENTS 07/16/21



Date 09/17/21
 Project No. 07601
 Revisions

DRAWING INDEX, SYMBOLS AND ABBREVIATIONS
G0.01



PROJECT DESCRIPTION

THE SCOPE OF WORK IN DIXON RECREATION CENTER GENERALLY INCLUDES THE REMOVAL AND REPLACEMENT OF THE ORIGINAL POOL EQUIPMENT LOCATED AT THE BASEMENT LEVEL. WORK IN THE NATATORIUM INCLUDES THE RESURFACING OF THE LAP AND DIVE POOLS AND PAINTING OF THE UPPER WALL AND CEILING SURFACES. THESE SPACES WILL NOT BE OCCUPIED DURING CONSTRUCTION. THERE IS NO CHANGE TO LIFE SAFETY SYSTEMS.

BUILDING CODE LEGEND

PATH OF EGRESS TRAVEL
 EXIT TRAVEL DISTANCE
 1 HR FIRE RATED ASSEMBLY
 2 HR FIRE RATED ASSEMBLY
 EXIT
 EXIT SIGNS
 SEMI RECESSED FIRE EXTINGUISHER CABINET, MOUNT B.O. FEC 2'-6" AFF
 SEMI RECESSED FIRE EXTINGUISHER CABINET, MOUNT B.O. FEC 2'-6" AFF

29	TOTAL NUMBER OF OCCUPANTS
4824 SF	SQUARE FOOTAGE
LF = 100	OCCUPANT LOAD FACTOR
B OCC	OCCUPANCY GROUP

PROJECT CODE SUMMARY

APPLICABLE CODES:
 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
 2021 OREGON PLUMBING SPECIALTY CODE (OPSC)
 2019 OREGON MECHANICAL SPECIALTY CODE (OMSC)
 2021 OREGON ELECTRICAL SPECIALTY CODE (OESC)
 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)

EXISTING BUILDING SUMMARY:
 THIS IS AN EXISTING BUILDING BUILT IN 1973 INTENDED FOR INDOOR RECREATION USES.
 THE NATATORIUM WAS ADDED IN 1994.
 A MAJOR RENOVATION AND ADDITION WAS COMPLETED IN 2004.

OCCUPANCY TYPES:
 A3: GYMNASIUMS, NATORIUM, LOBBY, EXERCISE ROOMS, JUICE BAR (IN LOBBY)
 B: ADMINISTRATION, OFFICES, ETC.
 S: MAINTENANCE AND STORAGE AREAS.
 H2: STORAGE AREAS FOR COMBUSTIBLE POOL CHEMICALS

CONSTRUCTION TYPE:
 TYPE II-A, FULL SPRINKLERED.

BUILDING CONSTRUCTION:
 EXISTING BUILDING CONSTRUCTION
 PER OSSC TABLE 601

ELEMENT	TYPE IIA - EXISTING
PRIMARY STRUCTURAL FRAME	1 HOUR
BEARING WALLS (EXTERIOR)	1 HOUR
BEARING WALLS (INTERIOR)	1 HOUR
NON-BEARING WALLS (EXTERIOR)	0 HOUR
NON-BEARING WALLS (INTERIOR)	0 HOUR
FLOOR CONSTRUCTION	1 HOUR
ROOF CONSTRUCTION	1 HOUR

FIRE SUPPRESSION:
 EXISTING FIRE SUPPRESSION IS TO BE MAINTAINED.
 THE FACILITY IS FULLY SPRINKLERED.
 EXISTING FIRE EXTINGUISHERS MEET OSSC 906.1 AT A MIN 75 FT DISTANCE.
 EXISTING AUTOMATIC FIRE ALARM SYSTEM MEETS NFPA 72 PER OSSC 906.

PLUMBING SYSTEMS:
 NO CHANGES IN USE OR OCCUPANCY.
 NOTES: PLUMBING FIXTURES ARE PART OF EXISTING BUILDING. NO ADDITIONAL FIXTURES ARE BEING PROVIDED

EXITING REQUIREMENTS:
 (PER OSSC CHAPTER 10)
 EXISTING EXITING SATISFIED APPLICABLE CODES AT THE TIME OF BUILDING EXPANSIONS AND RENOVATIONS. EXIT PATHWAY, LIGHTING AND SIGNAGE REMAINS AS IS.

OCCUPANT LOAD CALCULATIONS:

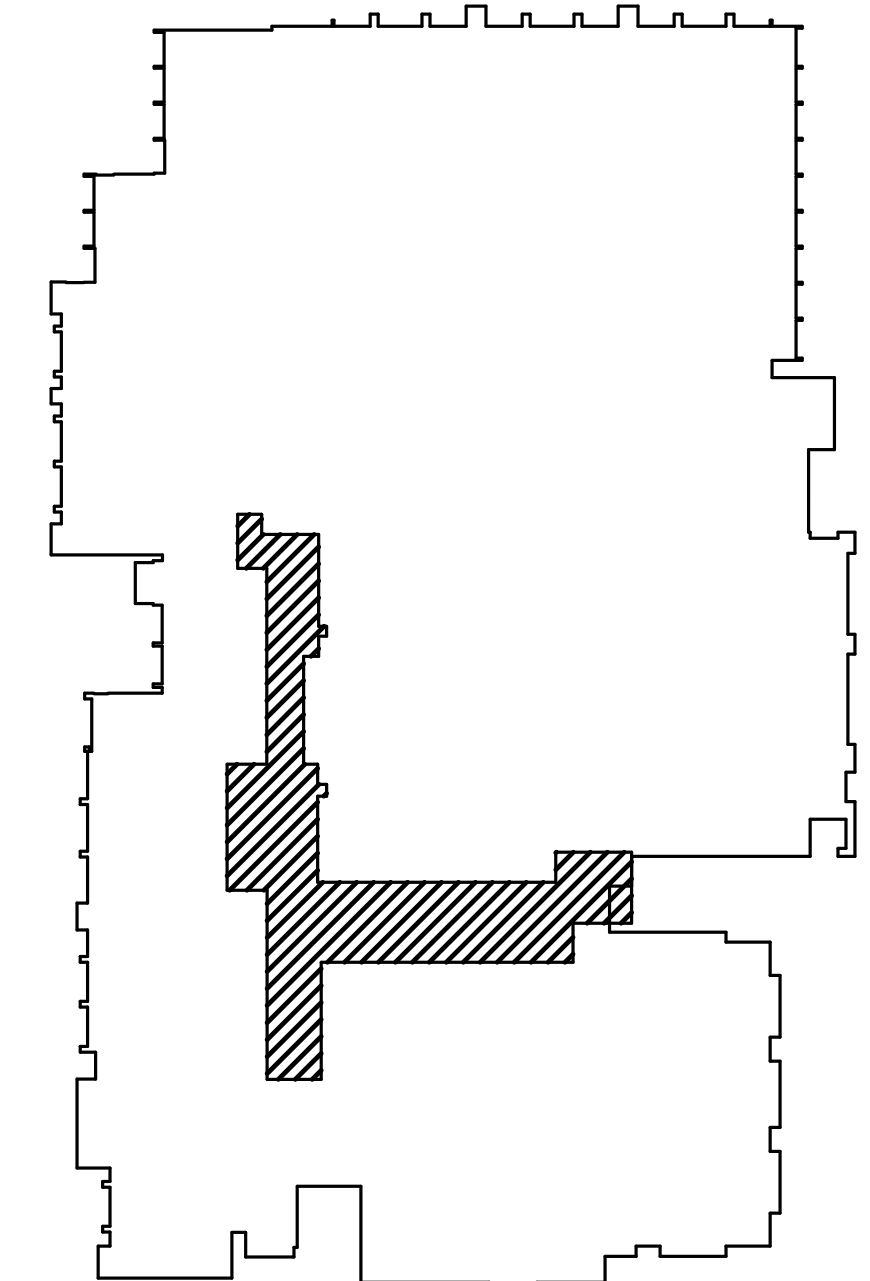
MINIMUM EXIT WIDTH PER PERSON:	
STAIRWAYS:	.2 W/ SPRINKLER SYSTEM
OTHER EGRESS:	.15 W/ SPRINKLER SYSTEM

TRAVEL DISTANCE:
 MAX TRAVEL DISTANCE TO EXIT: 250 FT
 MAX COMMON PATH OF TRAVEL: 75 FT

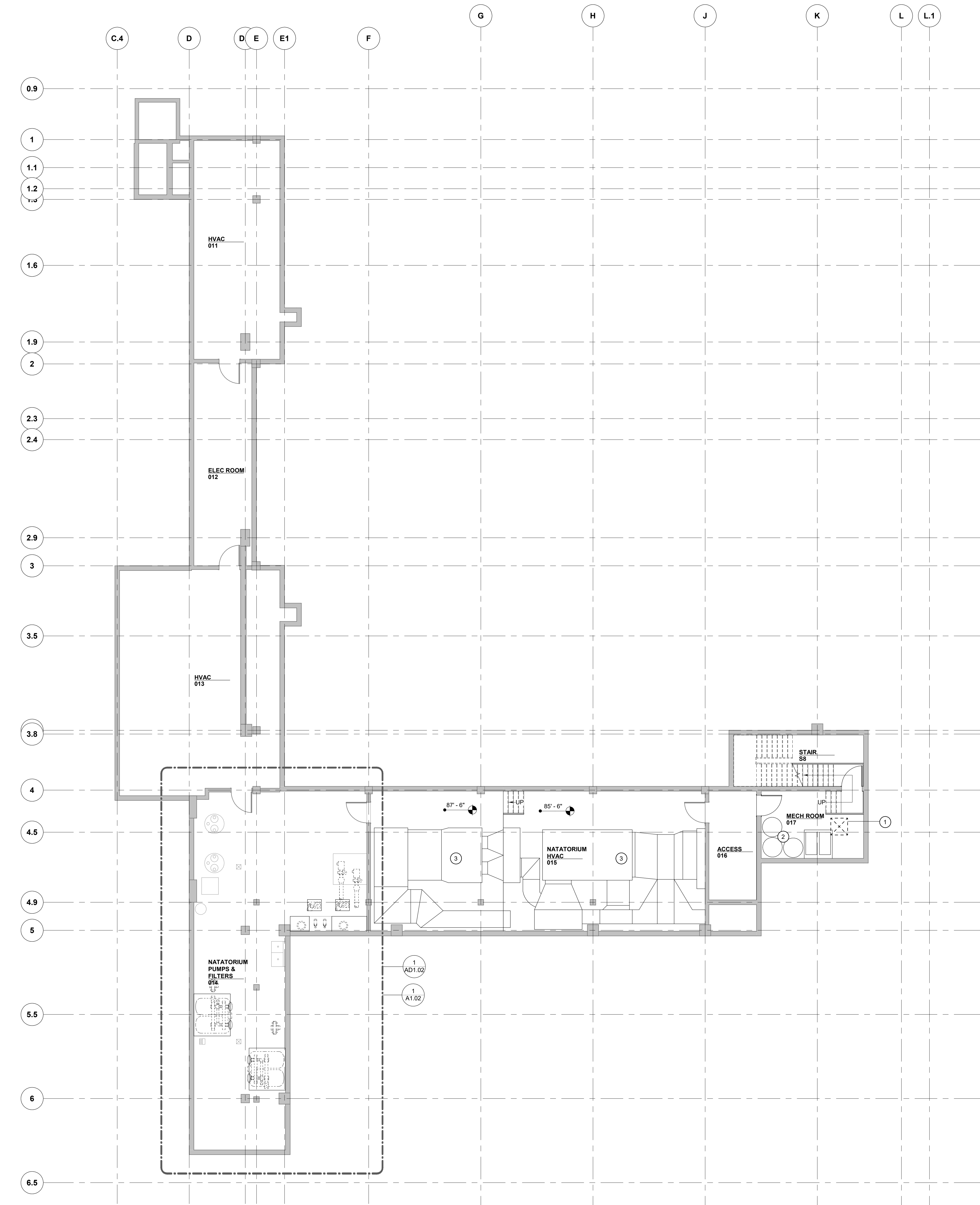
POOL MECHANICAL ROOM
 TOTAL OCCUPANTS: 5
 EXIT OCCUPANT LOAD: (.15")
 = 0.75" REQUIRED EACH
 (32" MIN DOOR WIDTH)

EXIT DOOR WIDTH REQUIREMENTS

EXIT #	1								
OCCUPANTS	5								
REQUIRED EXIT WIDTH	32"								
PROVIDED EXIT WIDTH	42"								



1 EGRESS PLAN
 1/8" = 1'-0"



1 DEMOLITION PLAN - BASEMENT
1/8" = 1'-0"

FLOOR PLAN NOTES

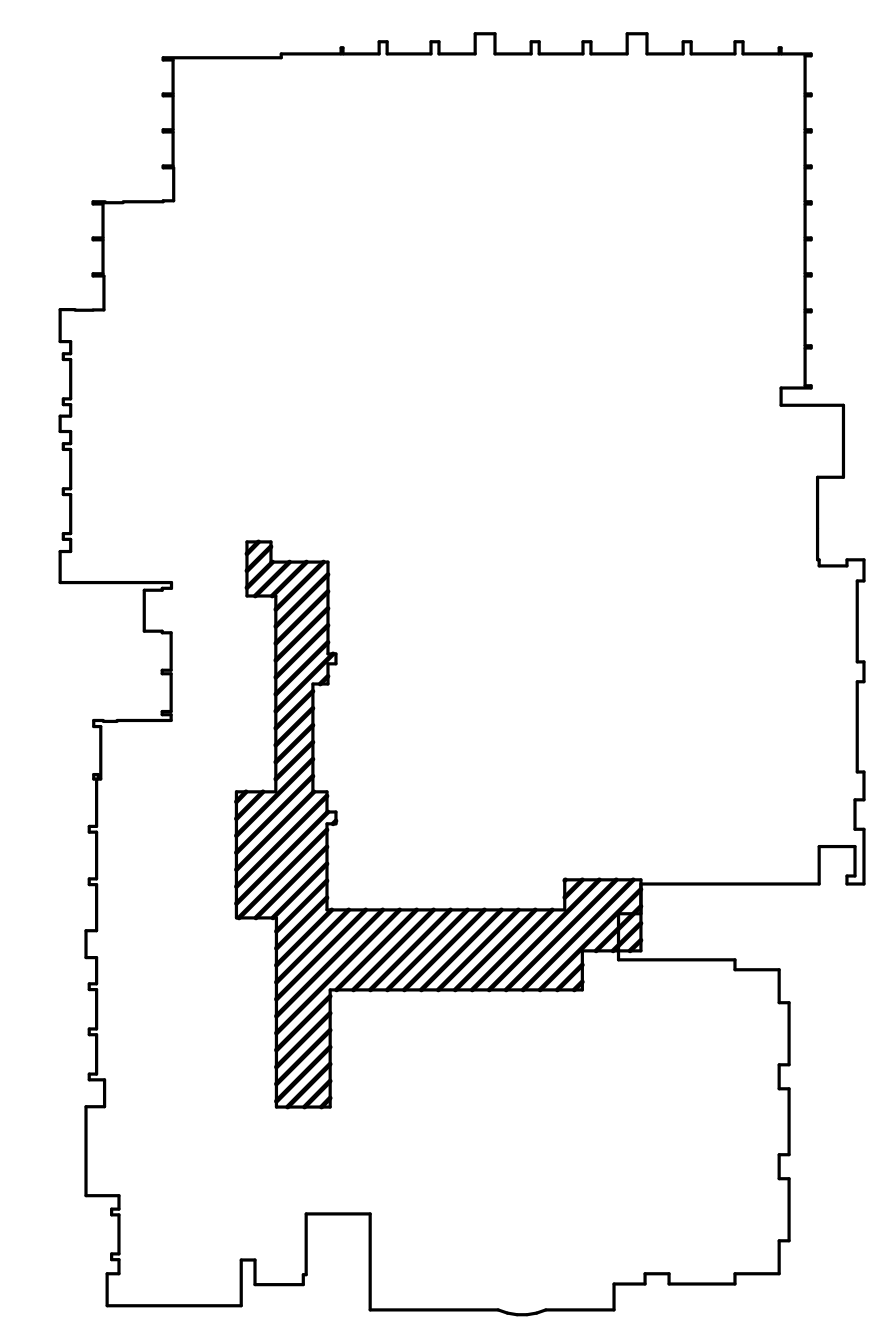
1. REFER TO SHEET G0.01 FOR GENERAL USE SYMBOLS, MATERIALS, AND ABBREVIATIONS.
2. DIMENSIONS SHOWN ARE TO FACE OF FINISH, UNLESS OTHERWISE NOTED. REFER TO ENLARGED PLANS FOR DIMENSIONS WITHIN THOSE AREAS.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD. IF ANY DISCREPANCIES ARISE BETWEEN EXISTING CONDITIONS AND DESIGN DOCUMENTS, CONTRACTOR SHALL NOTIFY ARCHITECT.
4. REFERENCE M/E/P AND MR SERIES DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE IN ROOM 014 NATATORIUM PUMPS & FILTERS. CONTRACTOR TO COORDINATE ALL TRADES.
5. REFERENCE M/E/P AND SP SERIES DRAWINGS FOR MORE INFORMATION AND SCOPE IN NATATORIUM, ROOM 190. CONTRACTOR TO COORDINATE ALL TRADES.

FLOOR PLAN LEGEND

- (E) WALL SHOWN HALF TONED
- AREA TO BE REFINISHED
- GUTTER TO BE DEMOLISHED

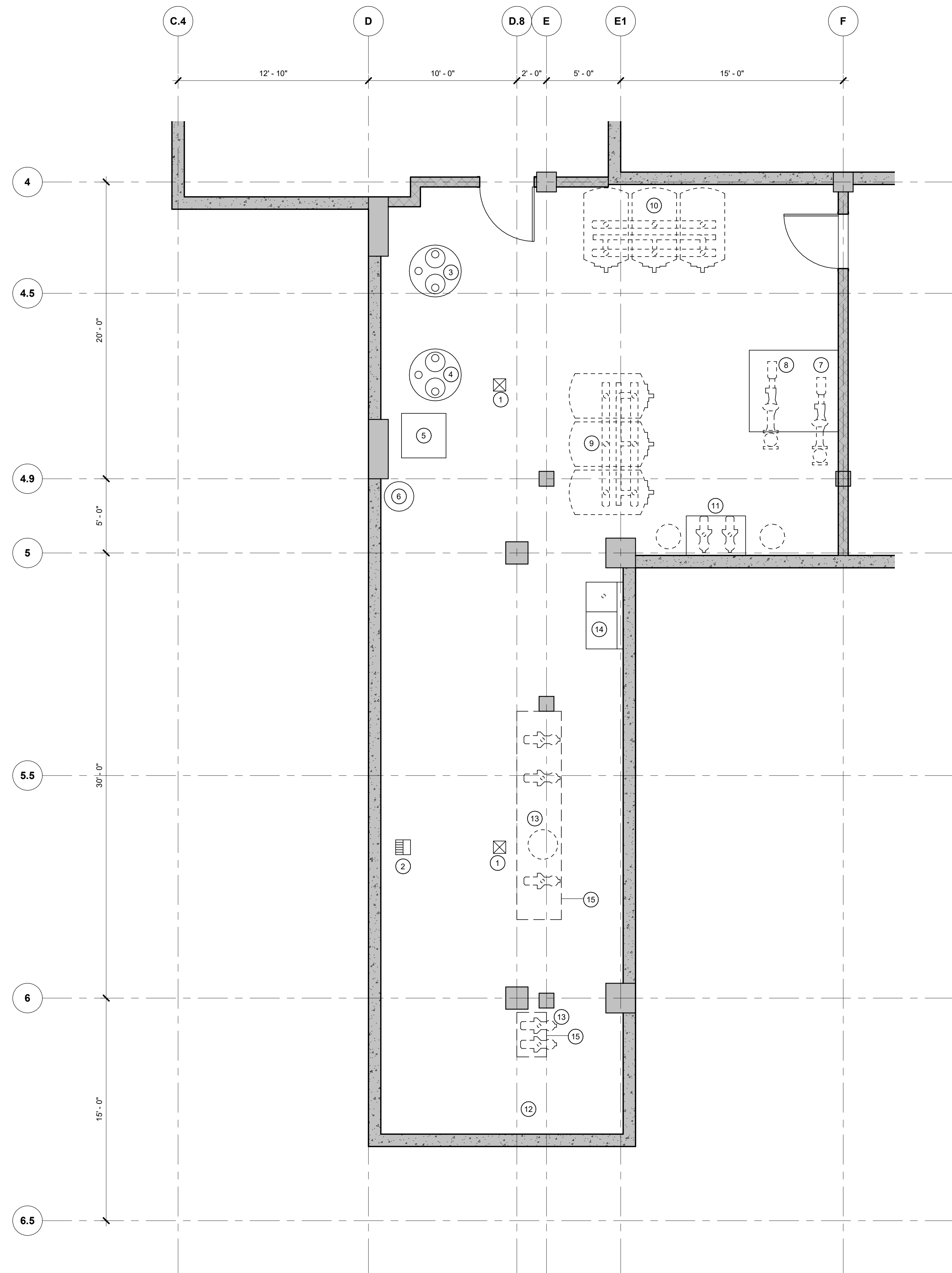
FLOOR PLAN KEYNOTE(S)

- 1 ACCESS HATCH ABOVE, ALL MATERIALS AND EQUIPMENT MUST BE TRANSPORTED THROUGH ACCESS HATCH OR STAIR S-8. THERE IS A WENCH ABOVE HATCH TO AID ACCESS, SEE A5.10 FOR MORE INFORMATION.
- 2 EXISTING CHILLERS TO REMAIN. NO WORK IN THIS AREA. ROOM PROVIDES CONSTRAINED ACCESS TO THE AREA OF WORK.
- 3 EXISTING MECHANICAL ROOM EQUIPMENT TO REMAIN. NO WORK IN THIS AREA. ROOM PROVIDES CONSTRAINED ACCESS TO THE AREA OF WORK.



KEY PLAN









1 ENLARGED DEMOLITION PLAN - BASEMENT
1/4" = 1'-0"

DEMOLITION NOTES

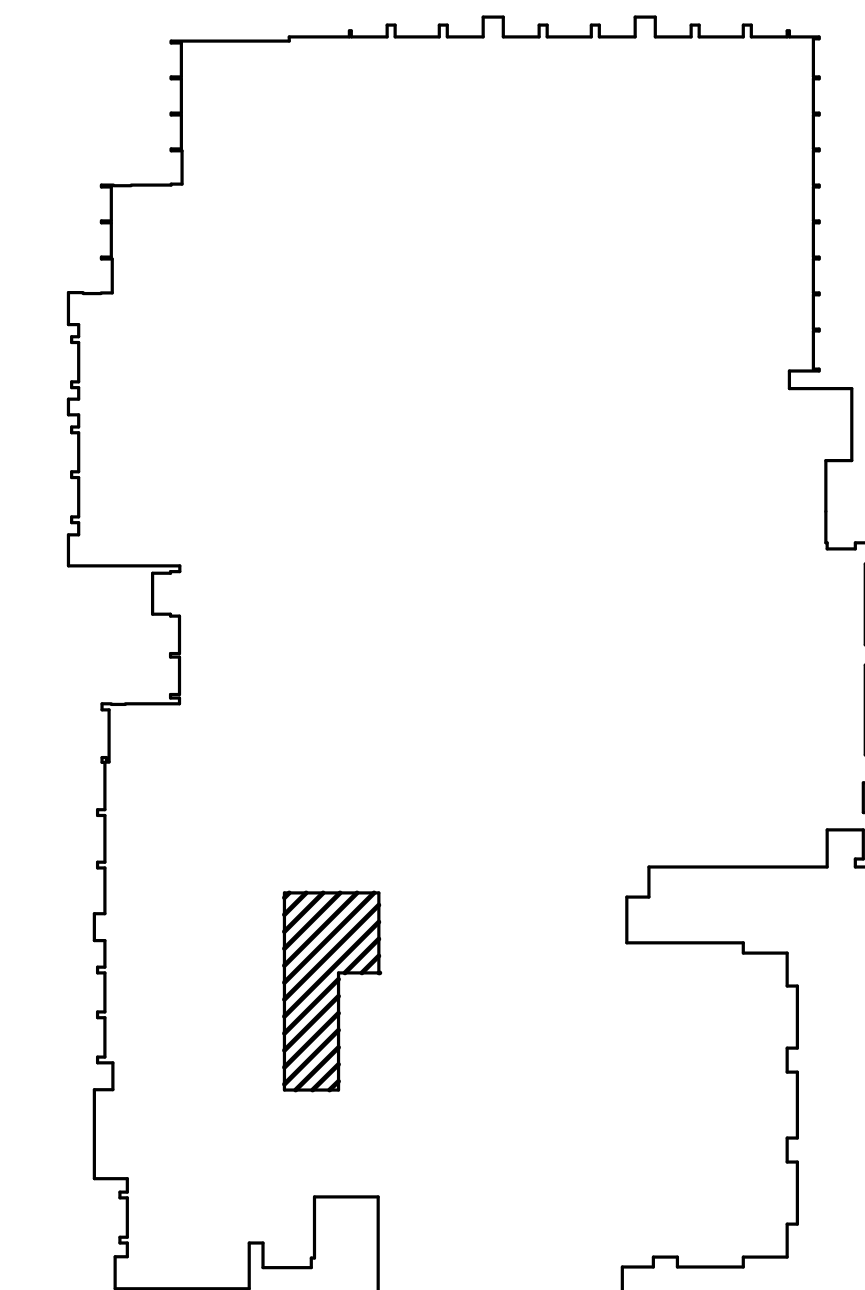
1. THE PURPOSE OF THE DEMOLITION DRAWINGS ARE TO OUTLINE A GENERAL DIRECTION OF WHAT NEEDS TO BE REMOVED TO ACCOMPLISH THE WORK. WORK SHOWN IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO BE ALL INCLUSIVE. CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE BIDDING AND INCLUDE ALL WORK EVIDENT BY VISUAL SITE INSPECTION, WHETHER OR NOT SHOWN ON DRAWINGS, TO ACHIEVE DESIRED RESULTS INDICATED ON DOCUMENTS FOR COMPLETE WORK.
2. COORDINATE PHASING OF DEMOLITION WORK WITH OWNER PRIOR TO COMMENCING.
3. REFER ALL CONSULTANT DOCUMENTS (M/E/P, MR SERIES) FOR DISCIPLINE/TRADE SPECIFIC INFORMATION.
4. NOTIFY ARCHITECT IN ADVANCE OF CUTTING OR ALTERATION WHICH MAY AFFECT THE STRUCTURAL STABILITY OF ANY PORTION OF EXISTING SYSTEMS AND STRUCTURES.
5. USE DUE CARE TO MITIGATE DAMAGE TO EXISTING WORK WHICH IS TO REMAIN. REPLACE, REPAIR, PATCH AND REPAINT AS REQUIRED.
6. PROTECT INTERIOR OF EXISTING BUILDING FROM CONSTRUCTION DUST, NOISE, AND WEATHER.
7. COORDINATE WITH OWNER AND SCHEDULE WELL IN ADVANCE OF ANY ANTICIPATED INTERRUPTIONS OF ELECTRICAL, MECHANICAL, FIRE PROTECTION, PLUMBING, COMMUNICATION AND OTHER SERVICES, WHICH MAY AFFECT FACILITY OPERATIONS OR OTHER ADJACENT SPACES NEARBY.
8. REMOVE ALL CONDUIT AND PIPING FROM ABANDONED UTILITIES AND CAP WHERE NECESSARY.
9. COORDINATE THE SALVAGE OF EQUIPMENT AND FIXTURES WITH OWNER PRIOR TO REMOVAL.
10. FIELD VERIFY ALL GIVEN DIMENSIONS.
11. REFERENCE SEPARATE HAZARDOUS MATERIAL SURVEY DOCUMENT. REMOVAL OF HAZARDOUS MATERIALS IS THE GENERAL CONTRACTOR'S RESPONSIBILITY.
12. IF ASBESTOS OR OTHER HAZARDOUS MATERIALS ARE OBSERVED OR SUSPECTED, IMMEDIATELY STOP WORK IN THAT AREA AND PROMPTLY NOTIFY THE OWNER/ARCHITECT. HAZARDOUS MATERIALS ARE TO BE ENCAPSULATED OR SAFELY REMOVED AND DISPOSED OF PER THE AUTHORITIES HAVING JURISDICTION.

DEMOLITION PLAN LEGEND

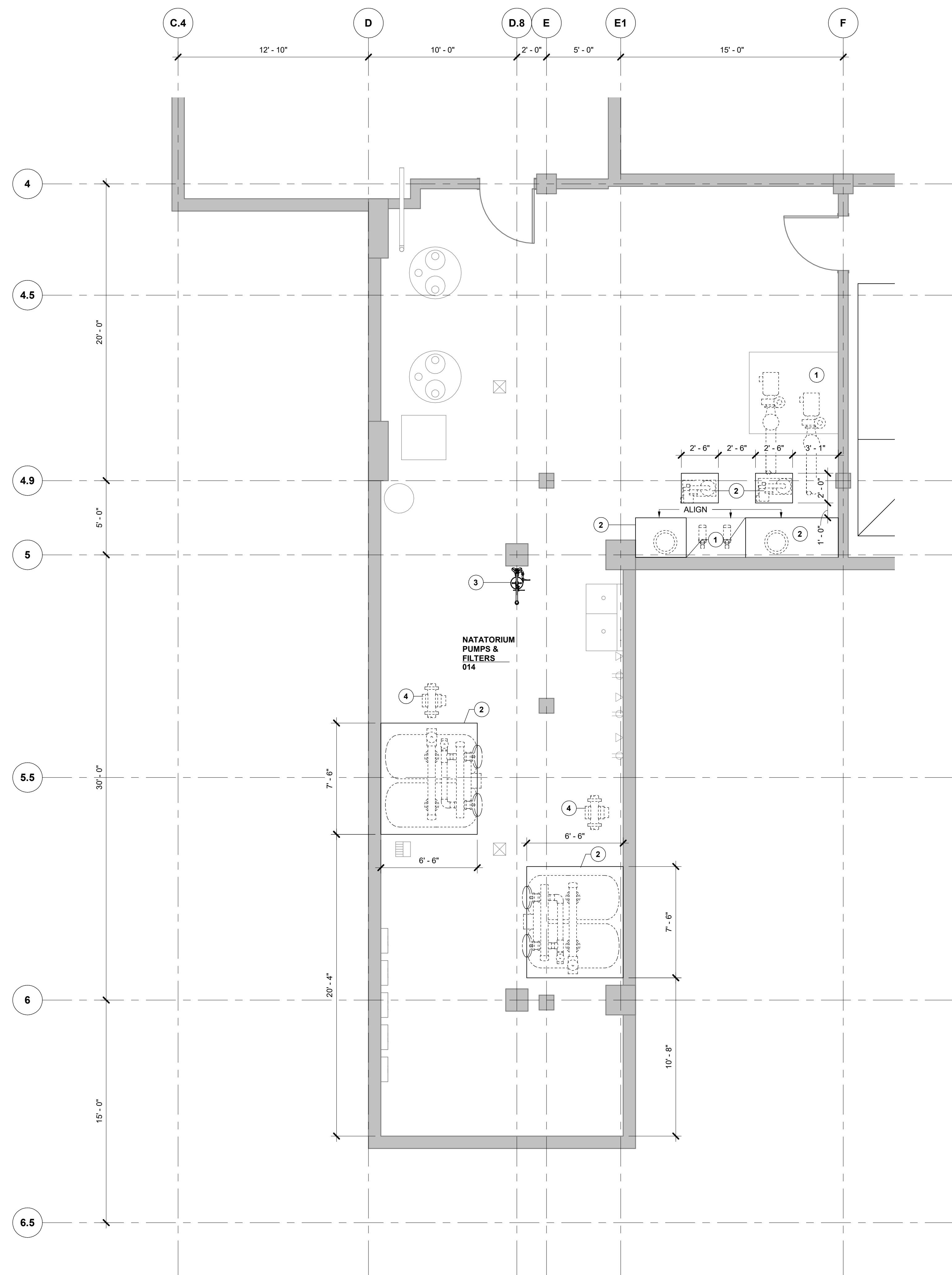
-  EXISTING TO REMAIN
-  EXISTING TO BE DEMOLISHED
-  EXISTING FINISH TO BE REMOVED.
-  EXISTING CONSTRUCTION TO BE REMOVED.

DEMOLITION KEYNOTE(S)

- ① EXISTING FLOOR DRAIN TO REMAIN
- ② EXISTING FLOOR SINK TO REMAIN
- ③ EXISTING STORM DRAIN DUPLEX PUMP STATION TO REMAIN
- ④ EXISTING SANITRAY WASTE DUPLEX PUMP STATION TO REMAIN
- ⑤ EXISTING 36" SQUARE POOL WASTE TANK RECIEVER, ELEVATED ABOVE FLOOR, TO REMAIN
- ⑥ EXISTING HOT WATER HEATER TO REMAIN
- ⑦ LAP POOL PUMP TO BE REMOVED
- ⑧ DIVE POOL PUMP TO BE REMOVED
- ⑨ DIVE POOL SAND FILTERS TO BE REMOVED
- ⑩ LAP POOL SAND FILTERS TO BE REMOVED
- ⑪ BOOSTER PUMPS AND CHLORINE STORAGE/FEED TANKS TO BE REMOVED.
- ⑫ EXISTING SPA SAND FILTERS TO BE REMOVED.
- ⑬ EXISTING SPA BOOSTER PUMPS AND CHLORINE FEED TANKS TO BE REMOVED.
- ⑭ EXISTING SINK TO REMAIN
- ⑮ REMOVE EXISTING HOUSE KEEPING SLAB IN ITS ENTIRETY, PATCH/REPAIR CONCRETE FLOOR BELOW AS NECESSARY



KEY PLAN



1 ENLARGED FLOOR PLAN - BASEMENT
1/4" = 1'-0"

FLOOR PLAN NOTES

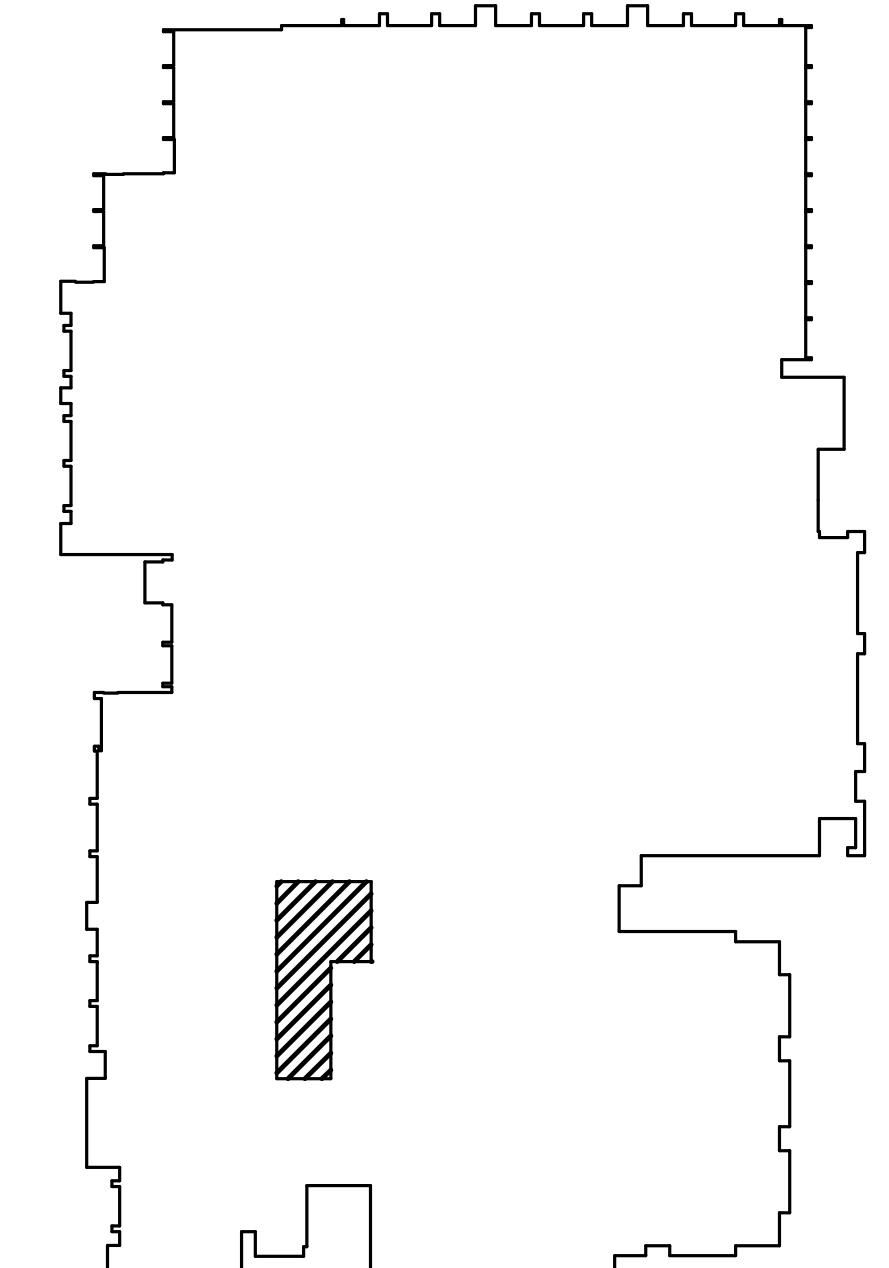
1. REFER TO SHEET G0.01 FOR GENERAL USE SYMBOLS, MATERIALS, AND ABBREVIATIONS.
2. DIMENSIONS SHOWN ARE TO FACE OF FINISH, UNLESS OTHERWISE NOTED. REFER TO ENLARGED PLANS FOR DIMENSIONS WITHIN THOSE AREAS.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD. IF ANY DISCREPANCIES ARISE BETWEEN EXISTING CONDITIONS AND DESIGN DOCUMENTS, CONTRACTOR SHALL NOTIFY ARCHITECT.
4. REFERENCE M/E/P AND MR SERIES DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE IN ROOM 014 NATATORIUM PUMPS & FILTERS, CONTRACTOR TO COORDINATE ALL TRADES.
5. REFERENCE M/E/P AND SP SERIES DRAWINGS FOR MORE INFORMATION AND SCOPE IN NATATORIUM, ROOM 190, CONTRACTOR TO COORDINATE ALL TRADES.

FLOOR PLAN LEGEND

- (E) WALL SHOWN HALF TONED
- EQUIPMENT SHOWN DASHED

FLOOR PLAN KEYNOTE(S)

- 1 EXISTING HOUSE KEEPING PAD TO REMAIN.
- 2 NEW HOUSE KEEPING PAD TO MATCH HEIGHT OF (E) PADS, VERIFY HEIGHT IN FIELD, PROVIDE #4 REBAR AT 18" O.C. EACH WAY, 2" FROM TOP OF SLAB. DOWEL TO (E) SLAB, 2 DOWELS EVERY 36" O.C. AND A MINIMUM OF 4 DOWELS AT SMALLER PADS.
- 3 NEW EMERGENCY EYEWASH AND SHOWER, REFER TO M/P DRAWINGS.
- 4 NEW UV FILTER ABOVE, SEE MR SERIES FOR DETAILS.



KEY PLAN



① ACCESS HATCH - EXTERIOR ACCESS
NOT TO SCALE



② ACCESS HATCH - BASEMENT ACCESS
NOT TO SCALE

MECHANICAL LEGEND

PIPING

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
	CW	POTABLE COLD WATER			PIPING UP
	HW	POTABLE HOT WATER			PIPING DOWN
	HWR	POTABLE HOT WATER RETURN		S=0.01	SLOPE OF PIPE IN DECIMALS OF FEET
	TW	POTABLE TEMPERED HOT WATER			CAPED PIPE
	D	DRAIN			PIPE REDUCING FITTING: CONCENTRIC, ECCENTRIC
HYDRONIC PIPING:					
	HS	HEATING WATER SUPPLY			DIRECTION OF FLOW
	HR	HEATING WATER RETURN			UNION
	CD	CONDENSATE DRAIN		DV	DRAIN VALVE
STEAM & CONDENSATE PIPING:					
	LPS	LOW PRESSURE STEAM <15 psi		BV	BALL VALVE
	LPR	LOW PRESSURE CONDENSATE RETURN		BFV	BUTTERFLY VALVE
				CHV	CHECK VALVE
				GV	GATE VALVE
				GBV	GLOBE VALVE
					ECCENTRIC PLUG VALVE
				AV	AUTOMATIC CONTROL VALVE: 2-WAY
					WYE STRAINER
				RV	RELIEF VALVE
				SRV	SAFETY RELIEF VALVE (HYDRONIC)
				SSV	STEAM SAFETY VALVE
				TPS	TEMPERATURE/PRESSURE SAFETY VALVE
					WATER FLOW SWITCH
				MAV	MANUAL AIR VENT
				AAV	AUTOMATIC AIR VENT
					THERMOMETER
					PRESSURE GAUGE
					TEST PLUG
					FLOW INDICATOR
					STEAM TRAP
					VACUUM BREAKER (STEAM)
				FMS	FLOW MEASURING STATION
				FD	FLOOR DRAIN
				RP	REDUCED PRESSURE BACKFLOW PREVENTER
				DC	DOUBLE CHECK BACKFLOW PREVENTER

GENERAL

SYMBOL	ABBREVIATION	DESCRIPTION
	(E)	EXISTING
	dia	DIAMETER
		NEW TO EXISTING POINT OF CONNECTION
		NOTE REFERENCE MARKER
	1/A101	PLAN OR DETAIL NUMBER
	1/M-521	SHEET NUMBER
	1	SECTION LETTER
	M-301	SHEET NUMBER
	AHU	EQUIPMENT TYPE
	12	EQUIPMENT NUMBER
	103	ROOM NUMBER
		EXISTING SHOWN LIGHT
		NEW WORK SHOWN BOLD
		EXISTING TO BE REMOVED

GENERAL NOTES

- THE FACILITY WILL REMAIN IN OPERATION DURING CONSTRUCTION. COORDINATE ALL SHUTDOWNS AND CONSTRUCTION ACTIVITY WITH FACILITIES STAFF.
- SIZE AND LOCATION OF ALL PIPING AND OTHER MECHANICAL EQUIPMENT IS APPROXIMATE. CONTRACTOR SHALL SITE VERIFY THE LOCATION OF EXISTING PIPING AND EQUIPMENT AND CONSTRUCT WORK FROM FIELD DIMENSIONS. CONTRACTOR SHALL MAKE ADJUSTMENTS NECESSARY TO ACCOMMODATE MINOR DEVIATIONS AT NO COST TO OWNER.
- FINE (LIGHT) LINE WORK INDICATES EXISTING PIPING AND OTHER MECHANICAL EQUIPMENT. BOLD (HEAVY) LINE WORK INDICATES NEW PIPING AND OTHER MECHANICAL EQUIPMENT.
- IT IS RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE CUTTING AND PATCHING TO ALLOW THE INSTALLATION OF MATERIALS AND EQUIPMENT AS SPECIFIED AND SHOWN ON DRAWINGS.

SHEET INDEX - MECHANICAL

NO.	DESCRIPTION
M001	LEGEND, GENERAL NOTES, SHEET INDEX, & SCHEDULES
M101	DEMOLITION PLAN - BASEMENT
M120	MECHANICAL PIPING - BASEMENT
M121	PIPING PLAN - BASEMENT
M501	DETAILS

CONTROLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	PROCESS PIPING SIGNAL		FLOW SWITCH
	ELECTRICAL SIGNAL		BAS INPUT/OUTPUT POINT
	TEMPERATURE MEASUREMENT		ALARM
	PRESSURE MEASUREMENT		
	FLOW MEASUREMENT		
	T = TRANSMITTER		
	ACTUATOR - ELECTRIC		

ABBREVIATIONS

ACH	AIR CHANGES PER HOUR	IN	INCHES
AFF	ABOVE FINISHED FLOOR	IN WC	INCHES WATER COLUMN
AFS	AUTOMATIC FIRE SPRINKLER	IW	INDIRECT WASTE
AL	ALUMINUM	LAT	LEAVING AIR TEMPERATURE
ALT	ALTERNATE	LBS	POUNDS
APD	AIR PRESSURE DROP	LWT	LEAVING WATER TEMPERATURE
BAS	BUILDING AUTOMATION SYSTEM	Mh	MILLIAMPERE
BHP	BRAKE HORSEPOWER	MAX	MAXIMUM
BOD	BOTTOM OF DUCT	MBH	THOUSAND BTUs per HOUR
BTUH	BRITISH THERMAL UNITS PER HOUR	MCA	MINIMUM CIRCUIT AMPS
CFH	CUBIC FEET per HOUR	MFG	MANUFACTURER
CFM	CUBIC FEET per MINUTE	MIN	MINIMUM
CMU	CONCRETE MASONRY UNIT	MOP	MAX. OVERCURRENT PROTECTION
CONC	CONCRETE	NC	NOISE CRITERIA
CONT	CONTINUATION	NC	NORMALLY CLOSED
DB	DRY BULB	NC	NOT IN CONTRACT
Dba	DECIBELS ACOUSTIC	NO	NORMALLY OPEN
DN	DOWN	NPLV	NON-STANDARD PART LOAD VALUE
DP	DIFFERENTIAL PRESSURE	NPSH	NET POSITIVE SUCTION HEAD
EAT	ENTERING AIR TEMPERATURE	OFCI	OWNER FURNISHED/
EER	ENERGY EFFICIENCY RATIO	OFCI	CONTRACTOR INSTALLED
EFF	EFFICIENCY	OFOI	OWNER FURNISHED
ESP	EXTERNAL STATIC PRESSURE	OFCI	OWNER INSTALLED
EWT	ENTERING WATER TEMPERATURE	PD	PRESSURE DROP
FLA	FULL LOAD AMPS	PH	PHASE
FPM	FEET PER MINUTE	PPH	POUNDS per HOUR
FT	FEET	PSI	POUNDS per SQUARE INCH GAUGE
FT WC	FEET WATER COLUMN	REQ'D	REQUIRED
FUT	FUTURE	RH	RELATIVE HUMIDITY
GPH	GALLONS PER HOUR	RPM	REVOLUTIONS per MINUTE
GPM	GALLONS PER MINUTE	SEER	SEASONAL ENERGY EFFICIENCY RATIO
GYP BD	GYPSSUM WALL BOARD	SF	SUPPLY FAN
HP	HORSEPOWER	SS	STAINLESS STEEL
HSPF	HEATING SEASONAL PERFORMANCE FACTOR	STL	STEEL
HVAC	HEATING, VENTILATING, & AIR CONDITIONING	TMV	THERMOSTATIC MIXING VALVE
HZ	HERTZ (CYCLES PER SECOND)	TYP	TYPICAL
IAQ	INDOOR AIR QUALITY	VFD	VARIABLE FREQUENCY DRIVE
IE	INVERT ELEVATION	WB	WET BULB
		WC	WATER COLUMN
		WG	WATER GAUGE

HEAT EXCHANGER - STEAM/WATER														
TAG	MANUFACTURER	MODEL	TYPE	HOT FLUID				COLD FLUID				REMARKS		
				FLUID	PRESS (PSI)	FLOW (PPH)	FOULING FACTOR	FLUID	EWT (°F)	LWT (°F)	FLOW (GPM)		MAX WPD (FT)	FOULING FACTOR
HE-1	TACO	ES8204-S	SHELL & TUBE	STEAM	2	1035	0	WATER	80	100	100	5	0	
HE-2	TACO	ES8204-S	SHELL & TUBE	STEAM	2	1035	0	WATER	80	100	100	5	0	

AUTOMATIC STEAM VALVE								
TAG	SERVICE	VALVE TYPE	DESIGN FLOW (LBHR)	FLOW COEFF. (Cv)	MAX OPERATING DIFF PRESS (PSI)	CLOSE-OFF PRESSURE (PSI)	FAILED POSITION	REMARKS
AV-1	STEAM	GLOBE	1035	31	25	60	CLOSED	
AV-2	STEAM	GLOBE	1035	31	25	60	CLOSED	

CHILLED WATER COIL																
TAG	LENGTH (IN)	HEIGHT (IN)	AIRFLOW (CFM)	EAT DB (°F)	EAT WB (°F)	COOLING CAPACITY				CONTROL VALVE				REMARKS		
						LAT DB (°F)	LAT WB (°F)	EWT (°F)	LWT (°F)	FLOW (GPM)	MAX PD (IN)	MAX PD (FT)	TYPE		MAX PD (FT)	RUNOUT SIZE (IN)
CC-2	53	39	5100	80.0	65.0	54.8	54.3	45.0	55.0	34.0	0.50	8	2-way	5	2.0	30% GLYCOL, CONTRACTOR TO FIELD VERIFY EXACT DIMENSIONS
CC-4	52	35	5500	80.0	65.0	56.3	55.3	45.0	55.0	34.0	0.50	8	2-way	5	2.0	30% GLYCOL, CONTRACTOR TO FIELD VERIFY EXACT DIMENSIONS
CC-5	37	29	3900	80.0	65.0	56.2	55.1	45.0	56.0	21.0	0.50	17	2-way	5	2.0	30% GLYCOL, CONTRACTOR TO FIELD VERIFY EXACT DIMENSIONS



OREGON STATE UNIVERSITY
644 SW 13TH AVENUE
CORVALLIS, OR 97331

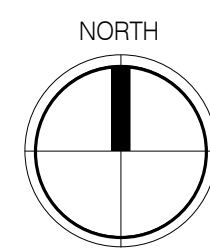
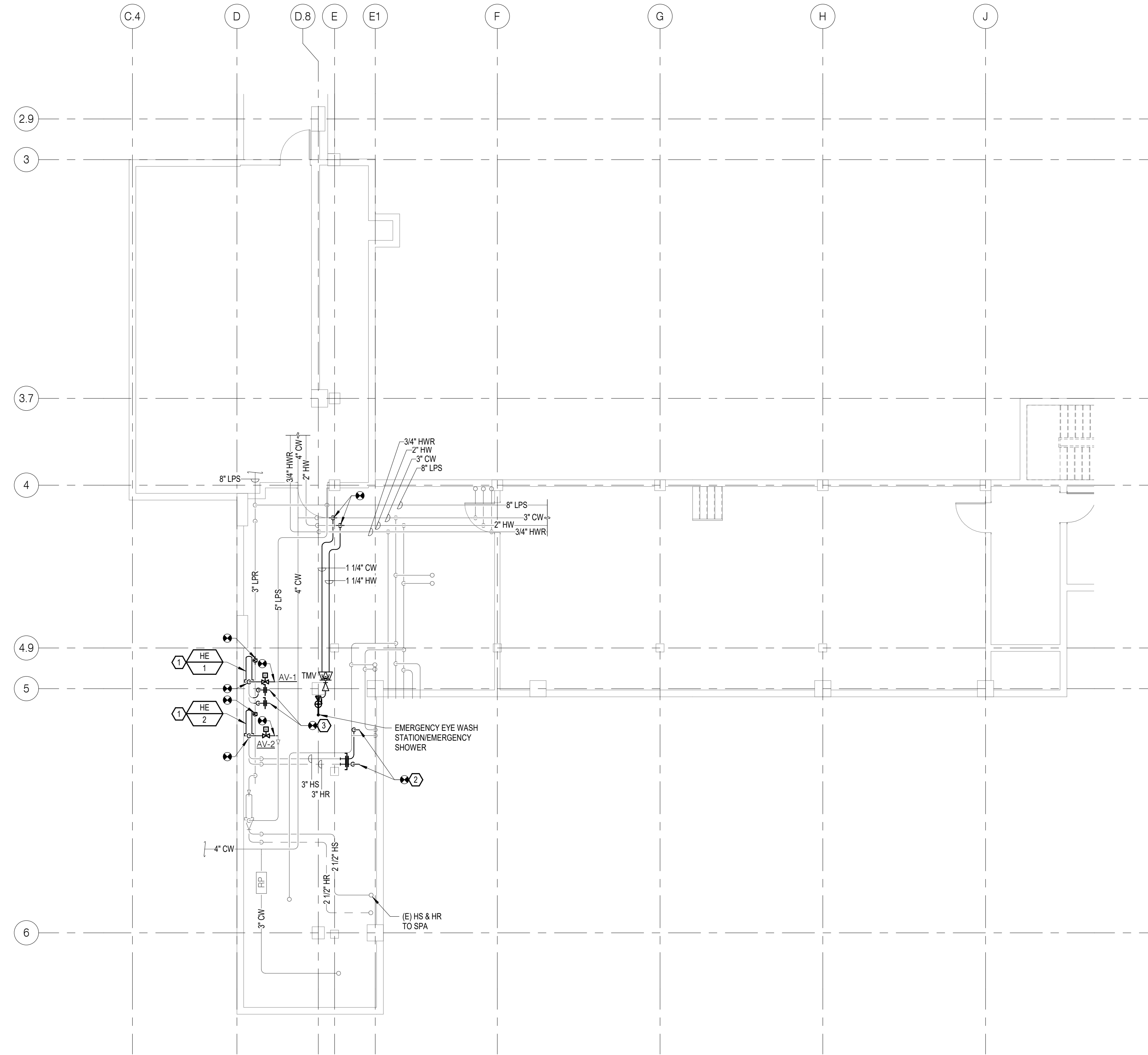
OSU DRC AQUATICS IMPROVEMENT
DIXON RECREATION CENTER
425 SW 26TH STREET
CORVALLIS, OR 97331

Date 09/17/2021
Project No. 07601
Revisions

CONSTRUCTION DOCUMENTS

LEGEND, GENERAL NOTES, SHEET INDEX, & SCHEDULES

M001

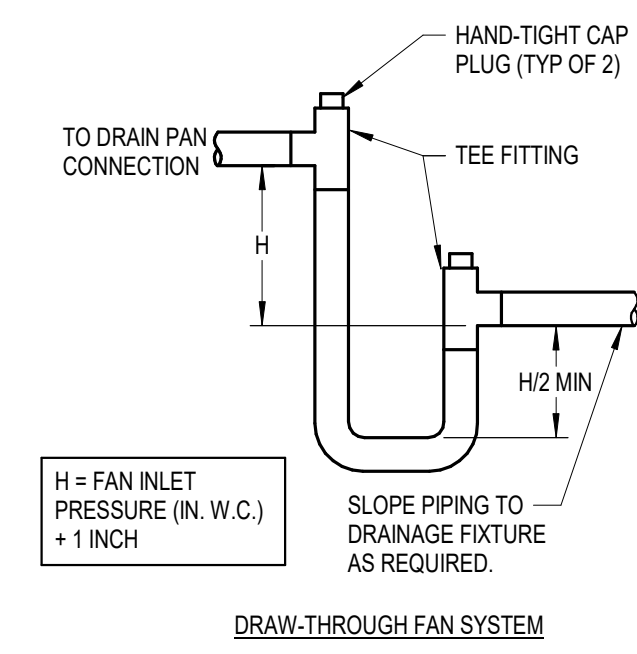


1 PIPING PLAN - BASEMENT
1/8" = 1'-0"

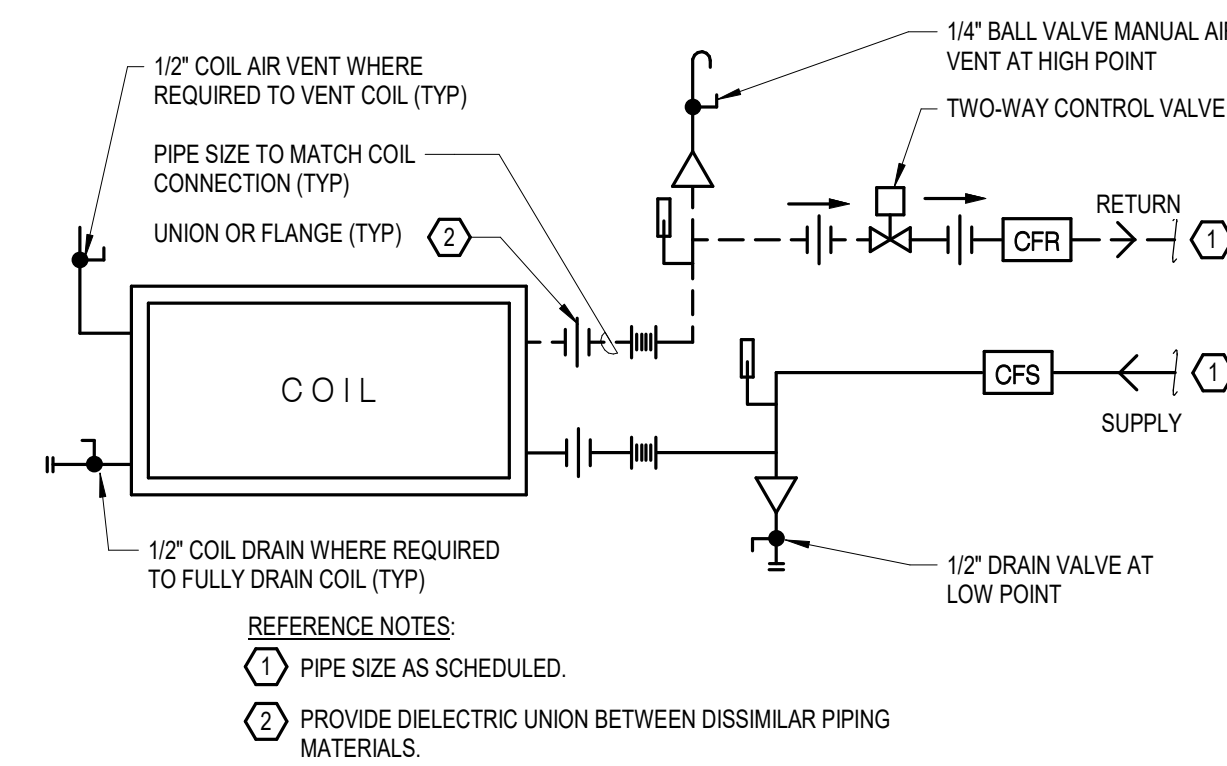
REFERENCE NOTES:

- ① COORDINATE HEAT EXCHANGER REPLACEMENT WITH OSU. HEAT EXCHANGER REPLACEMENT SHALL OCCUR DURING OWNER SHUTDOWN OF STEAM SYSTEM FOR STEAM METER REPLACEMENT. STEAM METER WILL BE OPI.
- ② CONNECT 3" HSHR TO LAP POOL RETURN. REFER TO DRAWING MR.2 FOR CONTINUATION.
- ③ CONNECT 3" HSHR TO DIVE POOL RETURN. REFER TO DRAWING MR.2 FOR CONTINUATION.

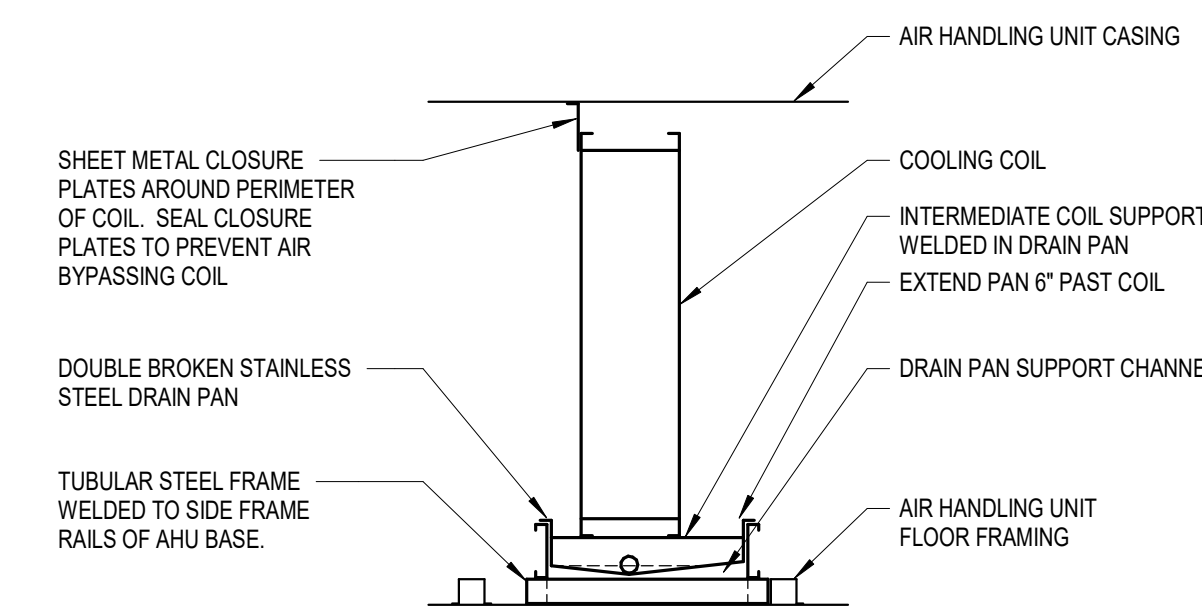




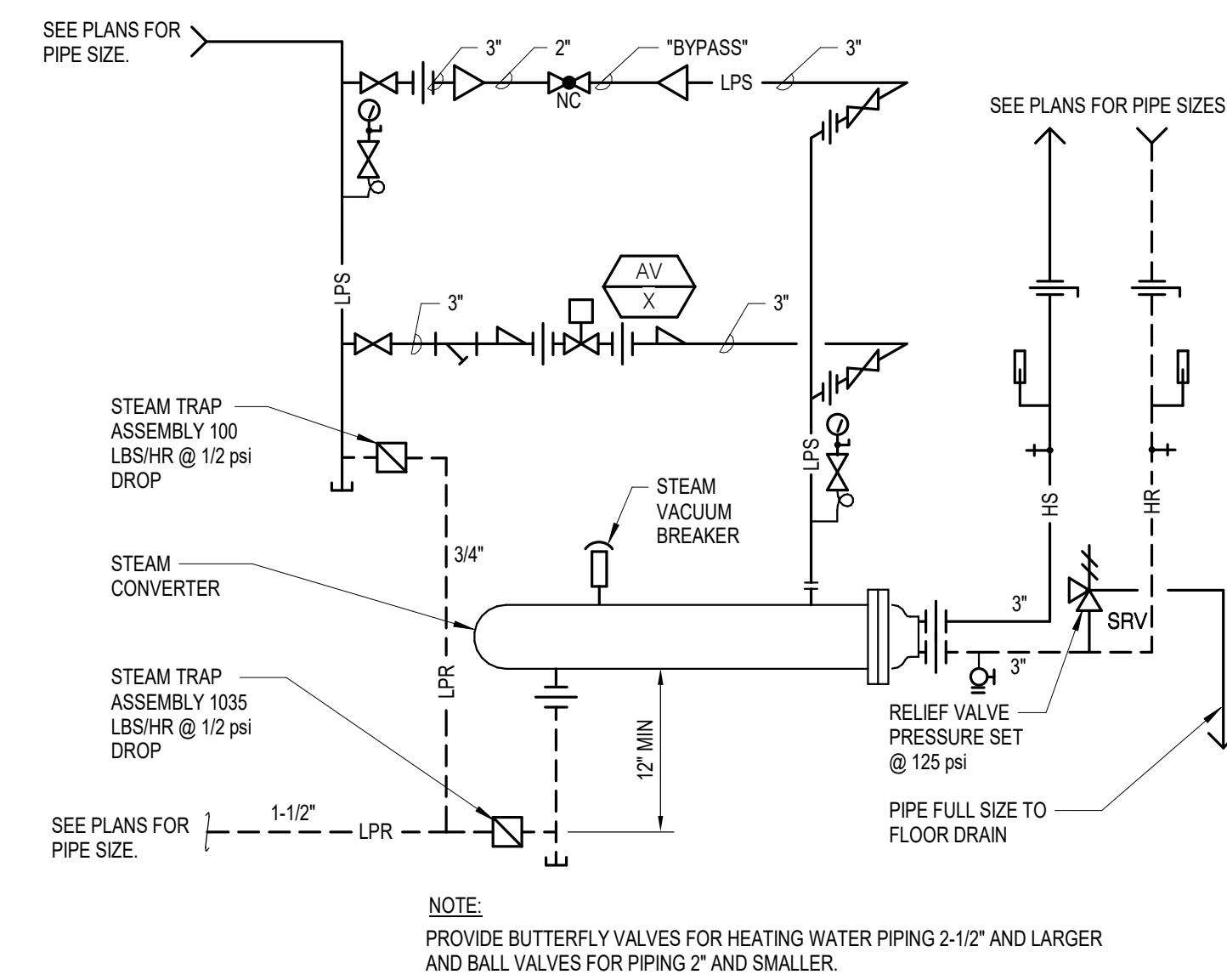
1 CONDENSATE DRAIN CONNECTION
NOT TO SCALE



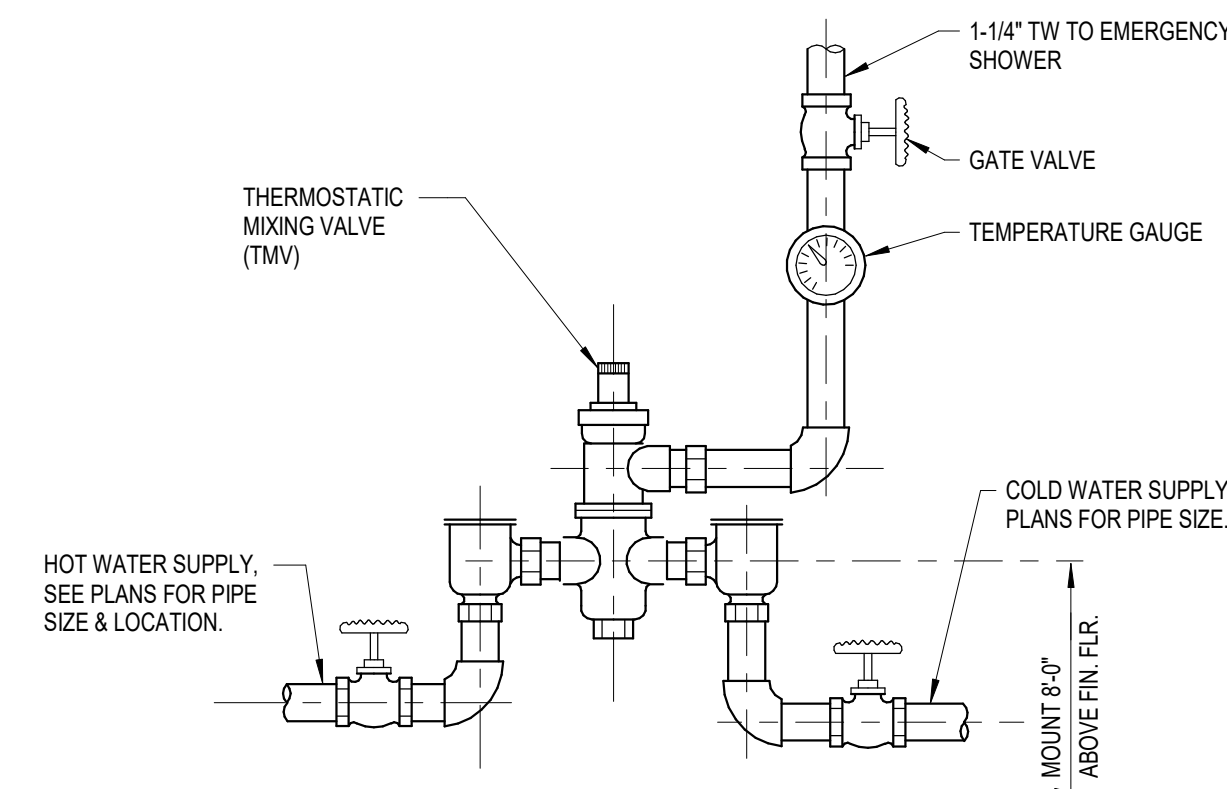
2 COOLING COIL - SINGLE
NOT TO SCALE



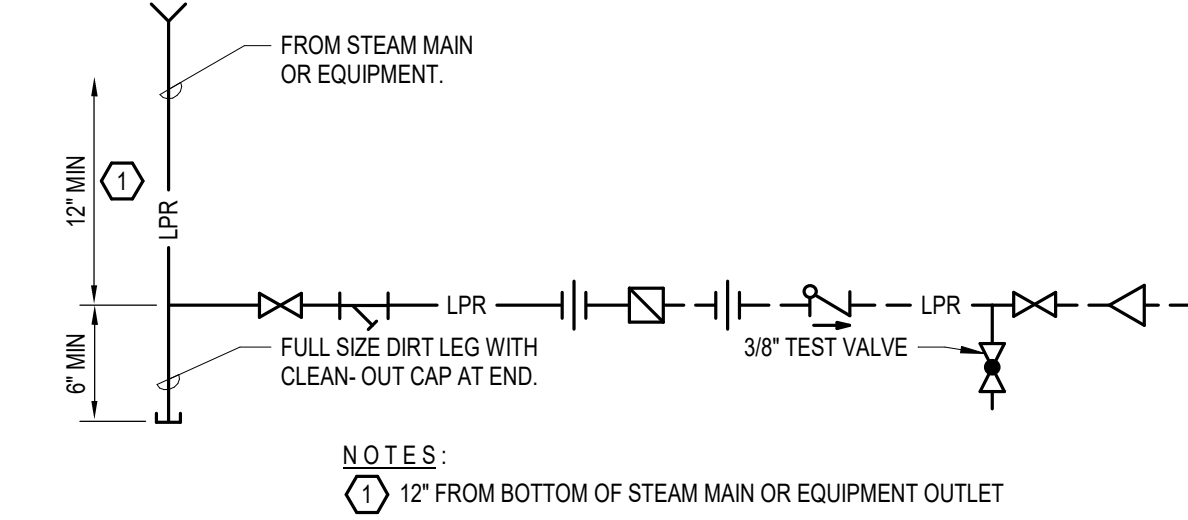
3 COOLING COIL AND DRAIN PAN INSTALLATION
NOT TO SCALE



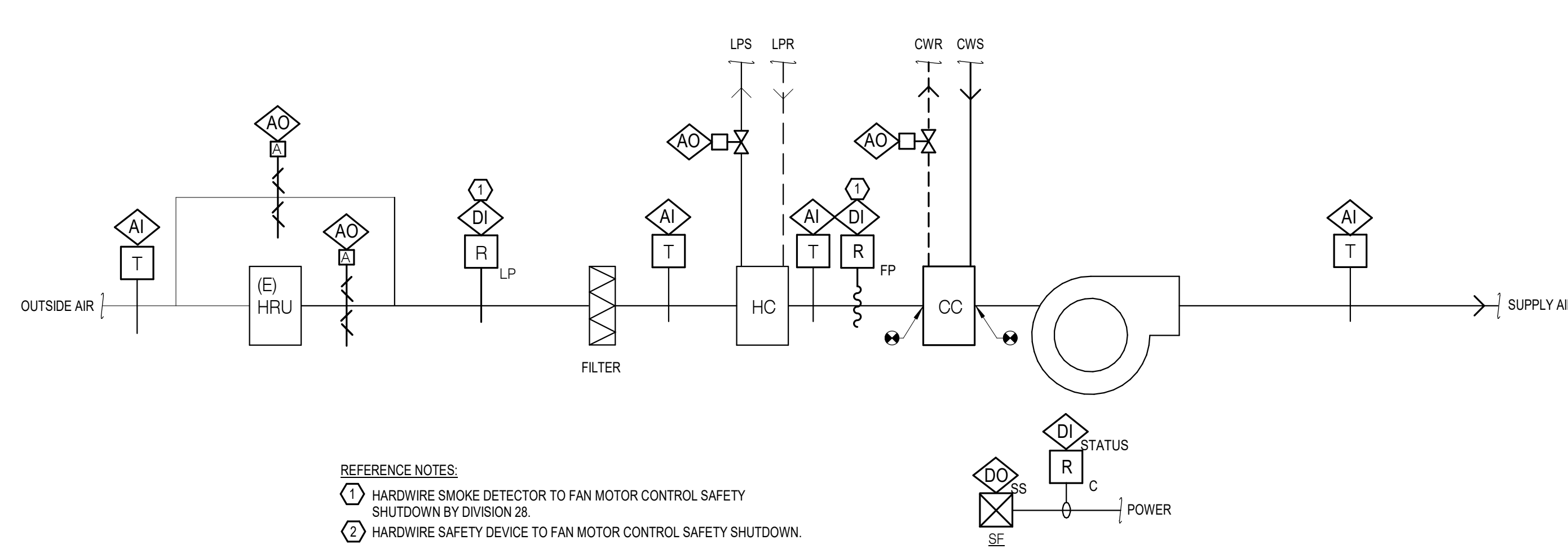
4 STEAM TO WATER HEAT EXCHANGER
NOT TO SCALE



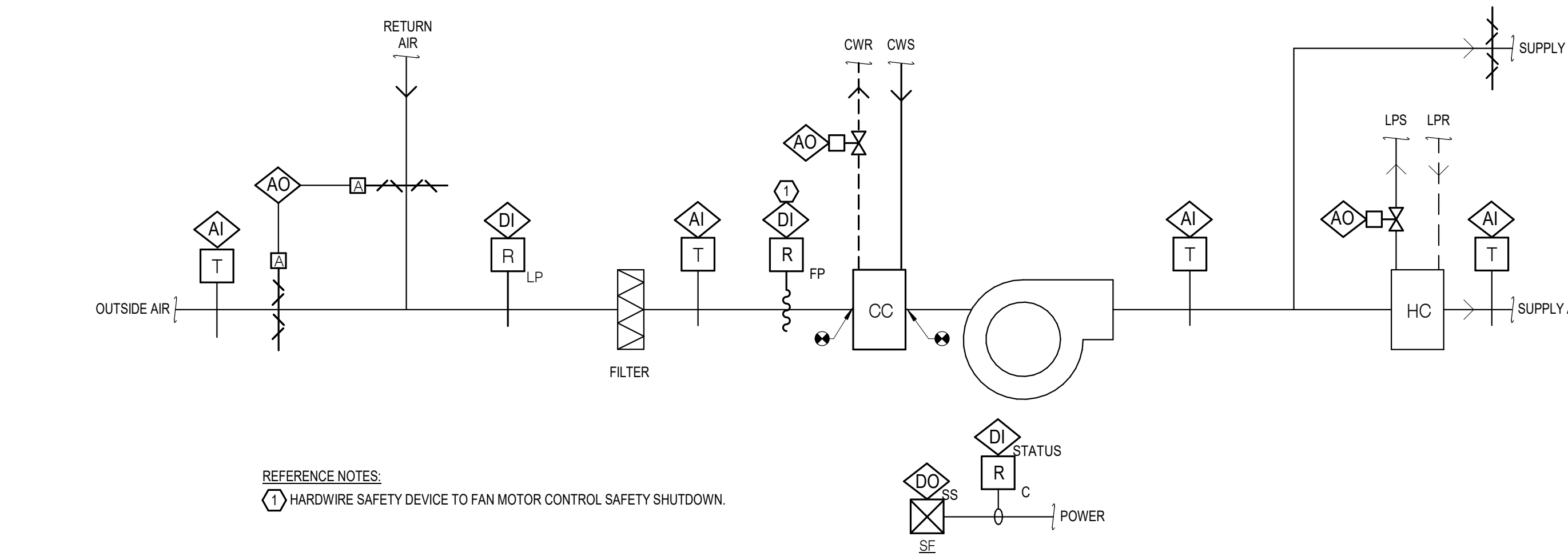
5 THERMOSTATIC MIXING VALVE
NOT TO SCALE



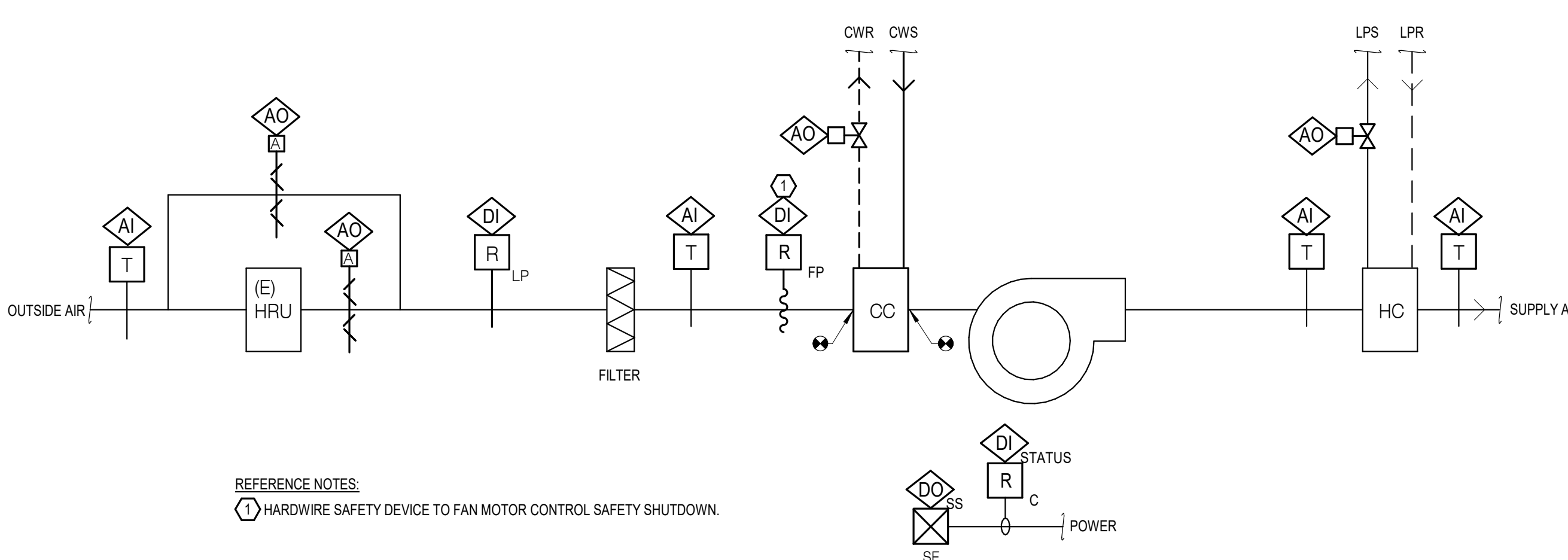
6 STEAM TRAP - LOW PRESSURE
NOT TO SCALE



7 AHU-2 CONTROL DIAGRAM
NOT TO SCALE



8 AHU-5 CONTROL DIAGRAM
NOT TO SCALE



9 AHU-4 CONTROL DIAGRAM
NOT TO SCALE

BAS POINTS LIST - AHU-2

POINT TYPE	POINT NAME	POINT COMM	POINT SOURCE
AI	ENTERING AIR TEMPERATURE		
AI	HEATING COIL LEAVING AIR TEMPERATURE		
AI	LEAVING AIR TEMPERATURE		
AI	OUTSIDE AIR TEMPERATURE		
AO	CC CONTROL VALVE		
AO	HC CONTROL VALVE		
AO	HRU BYPASS DAMPER		
AO	HRU FACE DAMPER		
DI	FAN STATUS (EXISTING)		
DI	FREEZE PROTECTION RELAY		
DI	SUPPLY FAN LOW PRESSURE		
DO	FAN START/STOP (EXISTING)		

BAS POINTS LIST - AHU-4

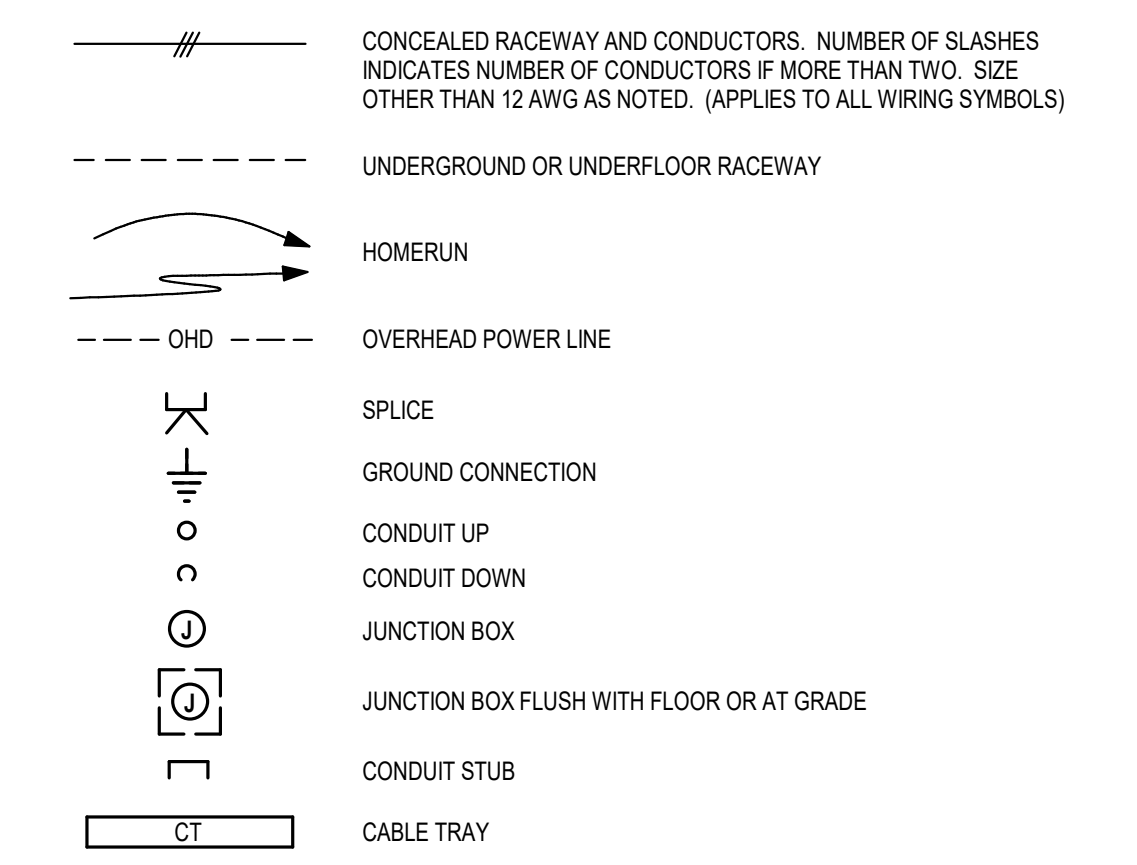
POINT TYPE	POINT NAME	POINT COMM	POINT SOURCE
AI	ENTERING AIR TEMPERATURE		
AI	HEATING COIL LEAVING AIR TEMPERATURE		
AI	LEAVING AIR TEMPERATURE		
AI	OUTSIDE AIR TEMPERATURE		
AO	CC CONTROL VALVE		
AO	HC CONTROL VALVE		
AO	HRU BYPASS DAMPER		
AO	HRU FACE DAMPER		
DI	FAN STATUS (EXISTING)		
DI	FREEZE PROTECTION RELAY		
DI	SUPPLY FAN LOW PRESSURE		
DO	FAN START/STOP (EXISTING)		

BAS POINTS LIST - AHU-5

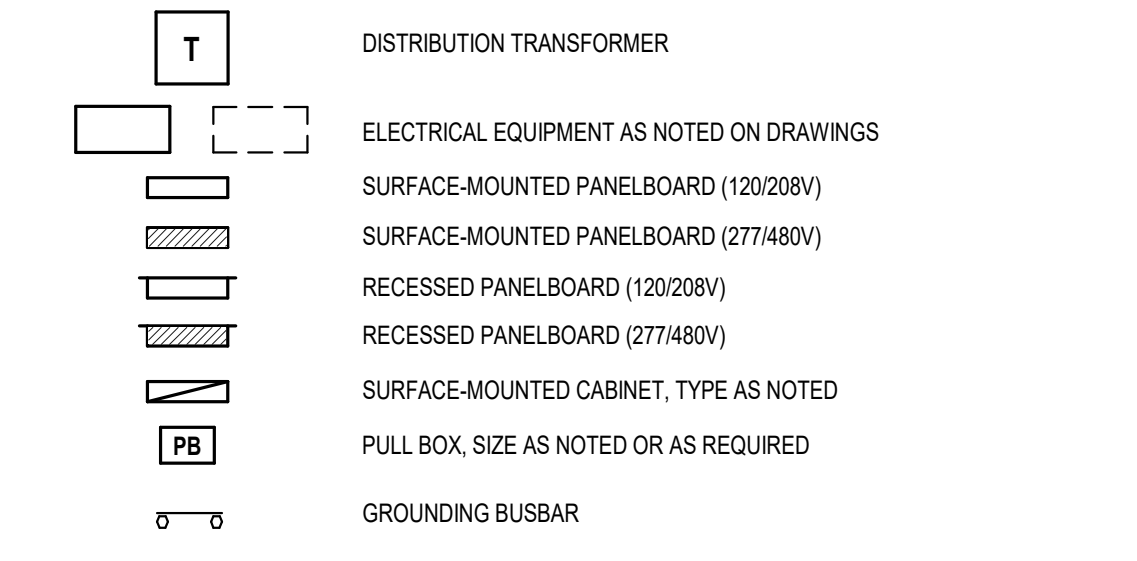
POINT TYPE	POINT NAME	POINT COMM	POINT SOURCE
AI	ENTERING AIR TEMPERATURE		
AI	HEATING COIL LEAVING AIR TEMPERATURE		
AI	LEAVING AIR TEMPERATURE		
AI	OUTSIDE AIR TEMPERATURE		
AO	CC CONTROL VALVE		
AO	HC CONTROL VALVE		
AO	MIXED AIR DAMPERS		
DI	FAN STATUS (EXISTING)		
DI	FREEZE PROTECTION RELAY		
DI	SUPPLY FAN LOW PRESSURE		
DO	FAN START/STOP (EXISTING)		

ELECTRICAL LEGEND

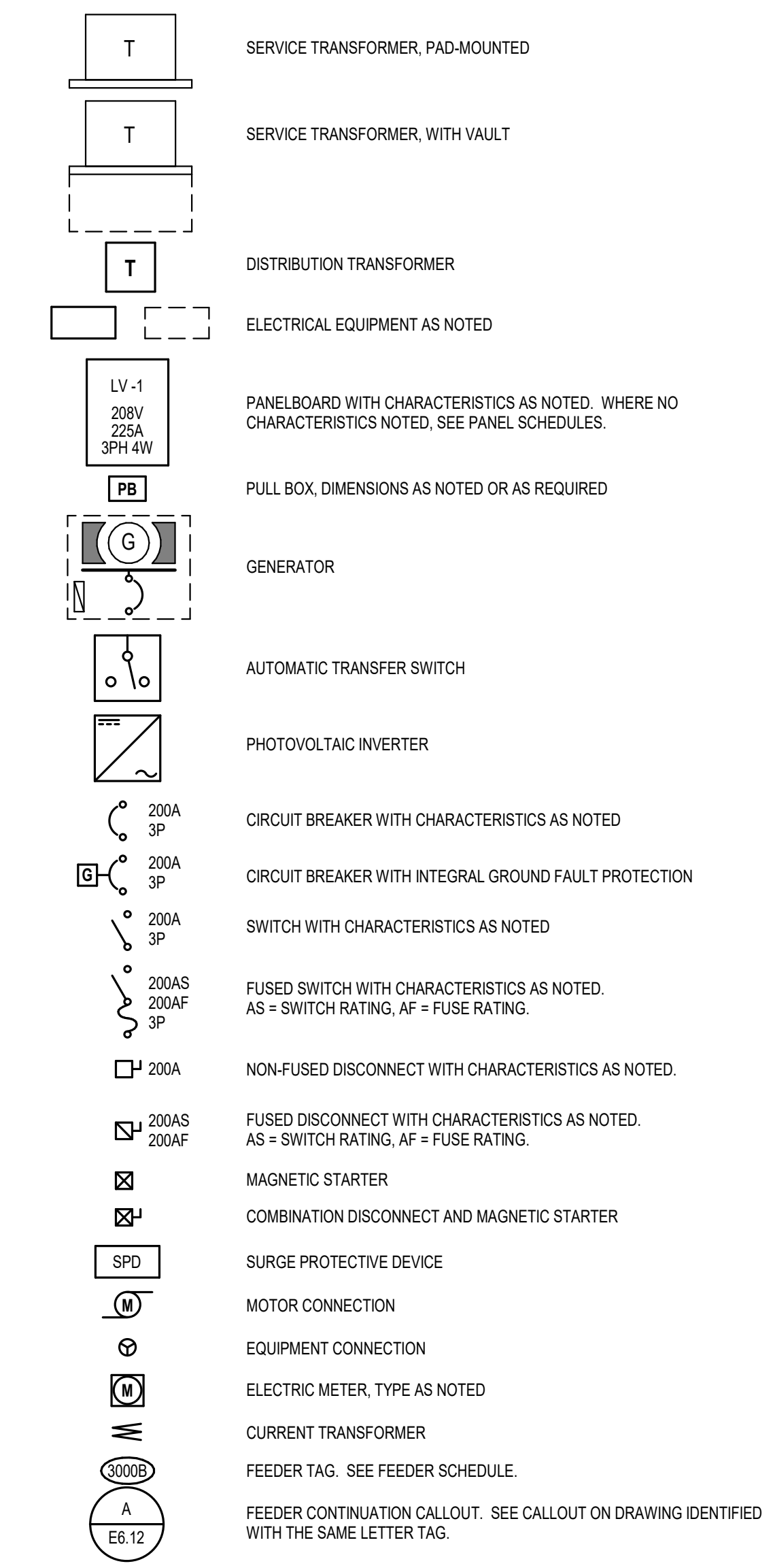
RACEWAYS, BOXES, AND CONDUCTORS



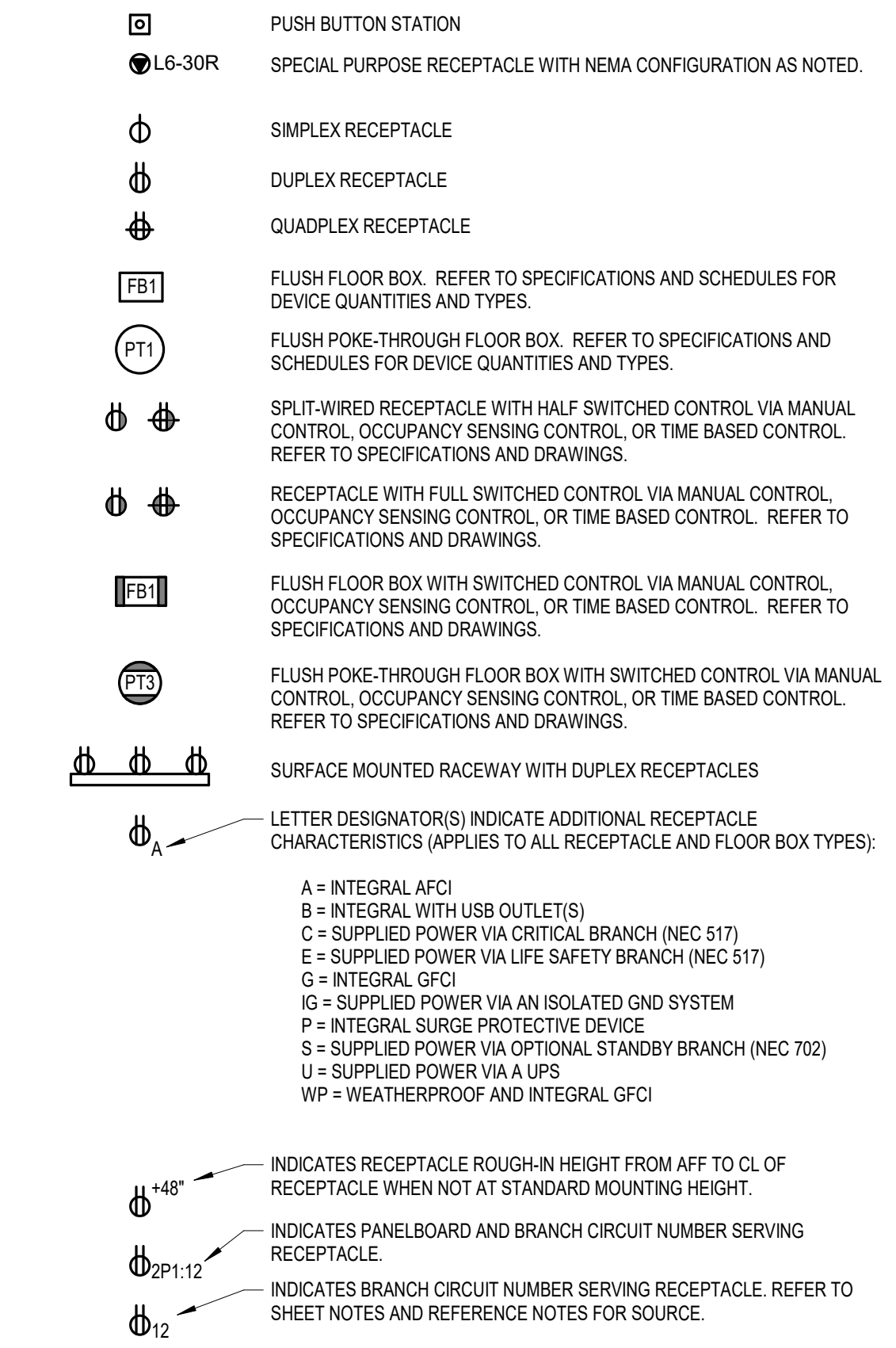
ELECTRICAL EQUIPMENT - PLANS



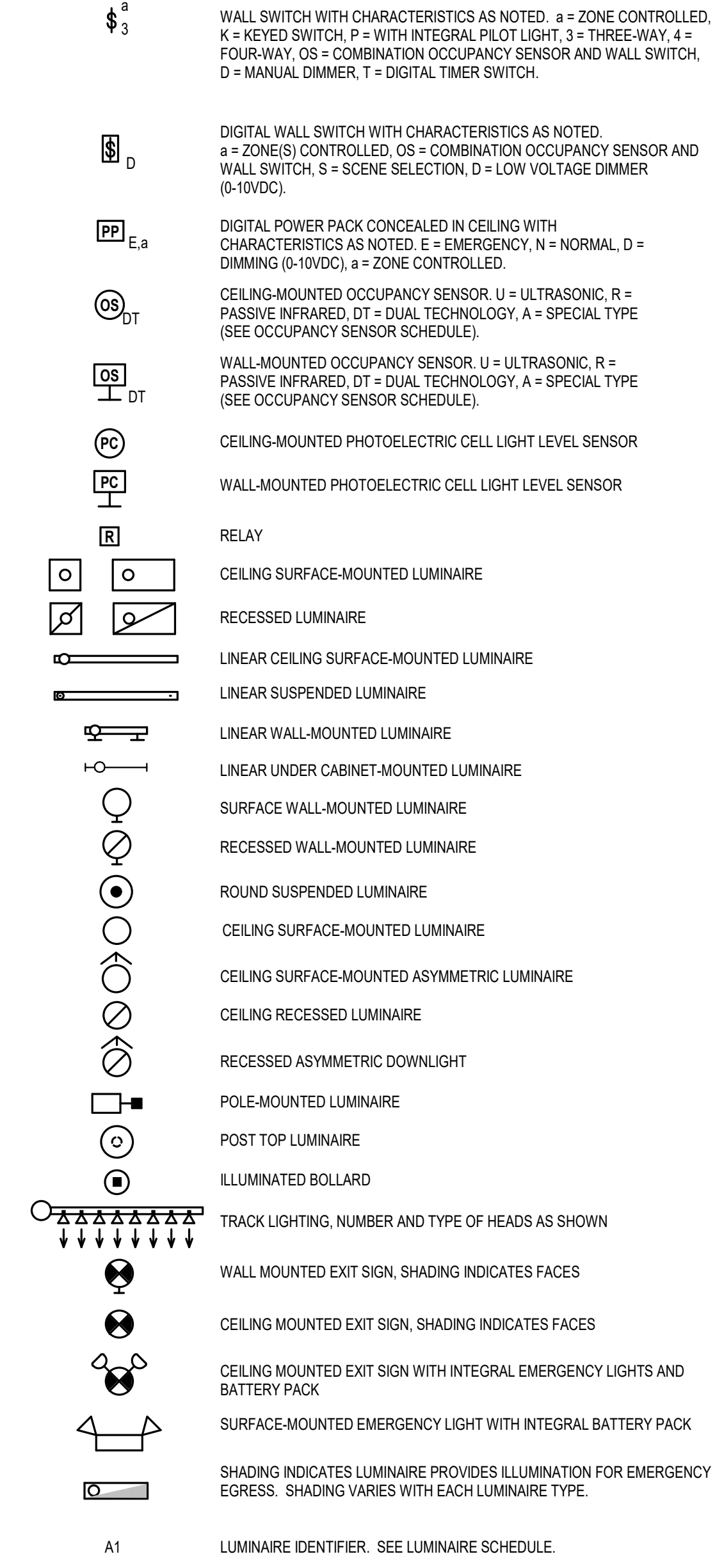
ONE-LINE DIAGRAM



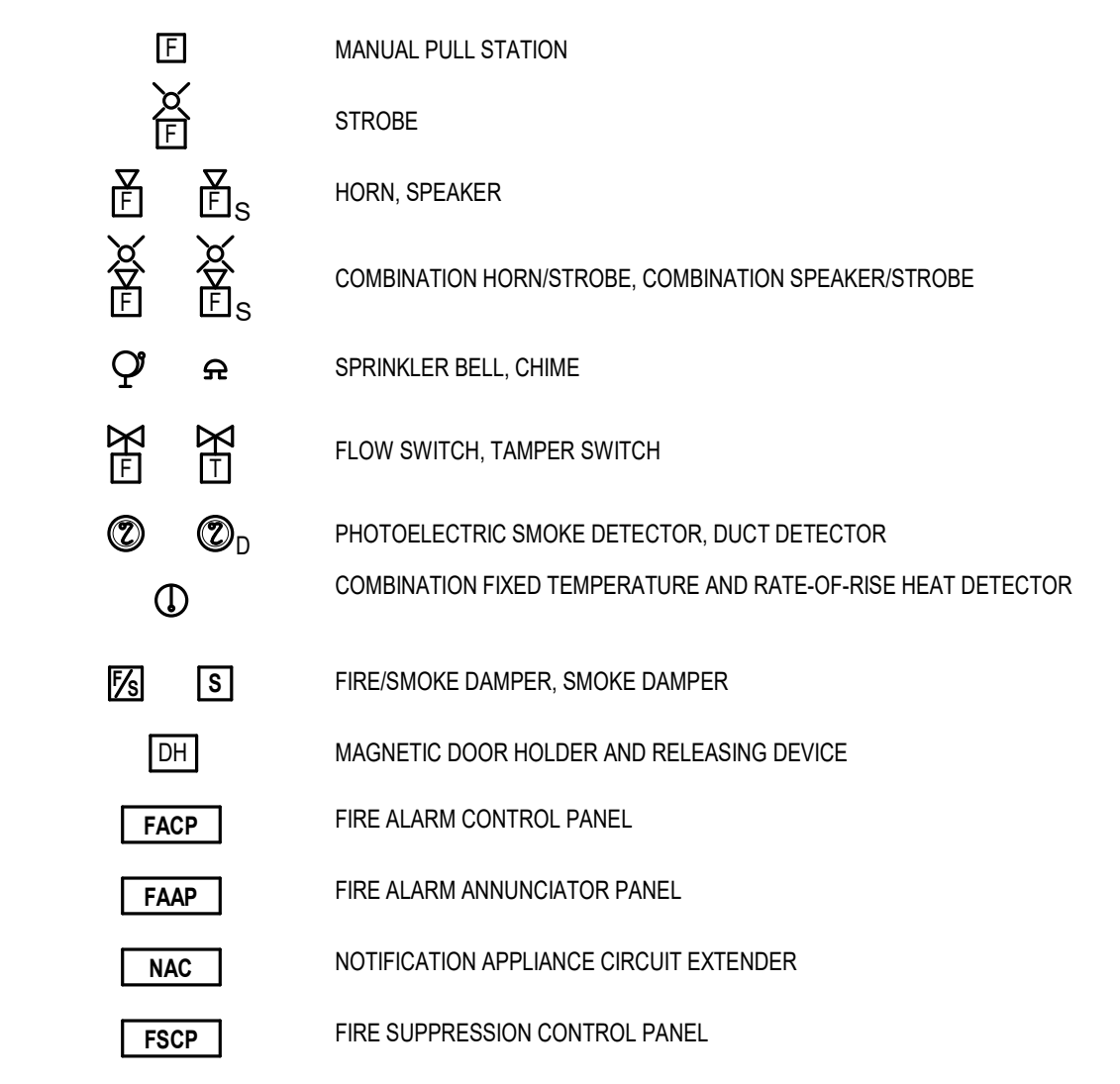
WIRING DEVICES



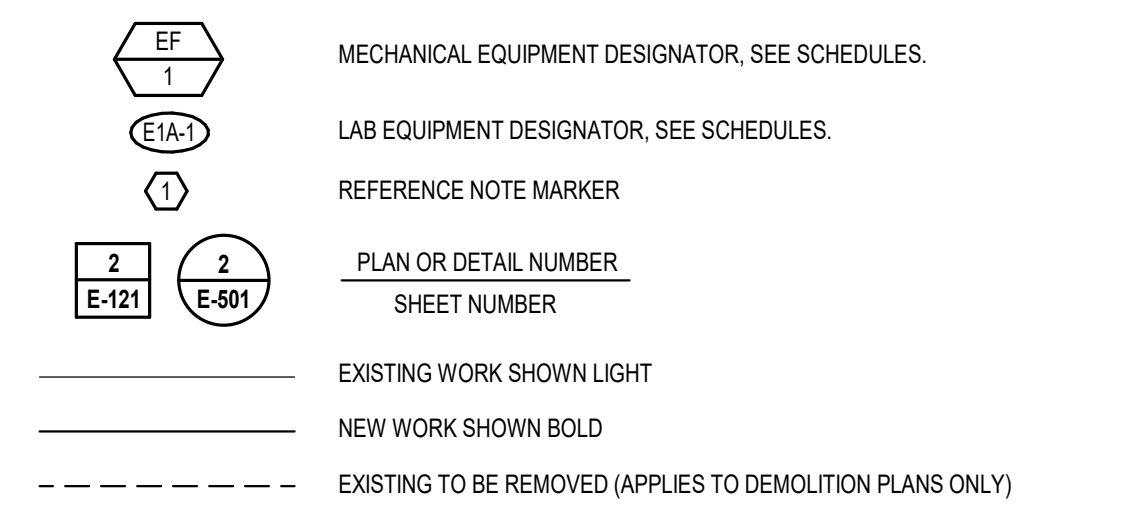
LIGHTING



FIRE ALARM



GENERAL



ABBREVIATIONS

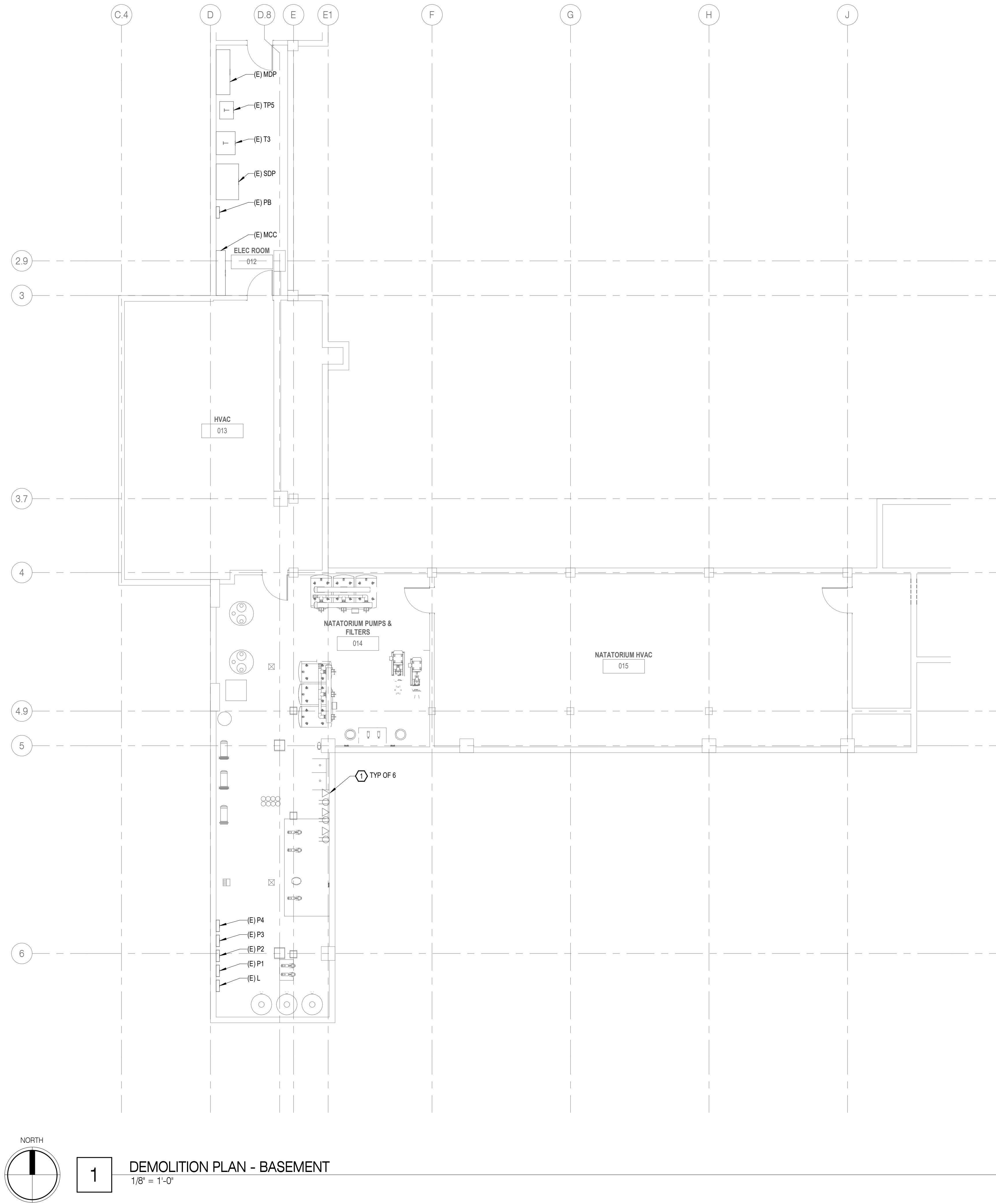
(#)	DESIGNATES QUANTITY	LV	LOW VOLTAGE
A	AMPERE (AMP)	LSIG	LSIG ELECTRONIC TRIP UNIT
AC	ALTERNATING CURRENT	LTG	LIGHTING
AFF	ABOVE FINISHED FLOOR	MCA	MINIMUM CIRCUIT AMPACITY
AFG	ABOVE FINISHED GRADE	MCB	MAIN CIRCUIT BREAKER
AL	ALUMINUM	MCC	MOTOR CONTROL CENTER
ARCH	ARCHITECT/ARCHITECTURAL	MDF	MAIN DISTRIBUTION FRAME
ATS	AUTOMATIC TRANSFER SWITCH	MDS	MAIN DISTRIBUTION SWITCHBOARD
AWG	AMERICAN WIRE GAUGE	MDP	MAIN DISTRIBUTION PANELBOARD
BLDG	BUILDING	MECH	MECHANICAL
BSC	BIOLOGICAL SAFETY CABINET	NLO	MAIN LUG ONLY
C	CONDUIT	MTS	MAIN TRANSFER SWITCH
CENT	CENTRIFUGE	MVA	MEGAVOLT-AMPERE
CKT	CIRCUIT	MW	MEGAWATT
CL	CENTERLINE	(N)	NEW
CLG	CEILING	(NL)	NEW LOCATION
CRJ	COLOR RENDERING INDEX	NA	NOT APPLICABLE
CU	COPPER	NIC	NOT IN CONTRACT
DC	DIRECT CURRENT	PA	PUBLIC ADDRESS
DF	DRINKING FOUNTAIN	PE	PHOTOELECTRIC CELL
DW	DISHWASHER	PF	POWER FACTOR
(E)	EXISTING	PAL	PANELBOARD
EGR	ENVIRONMENTAL CONTROL ROOM	PVJ	PHOTOVOLTAIC
ELEC	ELECTRICAL	PVC	POLYVINYL CHLORIDE
EMERG	EMERGENCY	PWR	POWER
EMT	ELECTRICAL METALLIC TUBING	(R)	REMOVE
FA	FIRE ALARM	(RL)	RELOCATE
FH	FUME HOOD	REFL	REFLECTOR
FLA	FULL LOAD AMPS	SCCR	SHORT CIRCUIT CURRENT RATING
FTL	FEED-THROUGH LUGS	SDP	SUB-DISTRIBUTION PANELBOARD
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SWBD	SWITCHBOARD
GFP	GROUND FAULT PROTECTION	TR	TAMPER RESISTANT
GND	GROUND	TTB	TELEPHONE TERMINAL BOARD
HP	HORSEPOWER	TV	TELEVISION
IDF	INTERMEDIATE DISTRIBUTION FRAME	TYP	TYPICAL
INC	INCUBATOR	UC	UNDER CABINET
K	KELVIN	UG	UNDERGROUND
KW	KILOWATT	UON	UNLESS OTHERWISE NOTED
KWH	KILOWATT-HOUR	UPS	UNINTERRUPTIBLE POWER SUPPLY
KV	KILOVOLT	V	VOLTAGE
KVA	KILOVOLT-AMPERE	VIA	VOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE	VP	VAPOR PROOF
LED	LIGHT EMITTING DIODE	W	WAIT
LM	LUMENS	WP	WEATHERPROOF
		XFMR	TRANSFORMER

SHEET INDEX - ELECTRICAL

E001
E101
E121
E601
E701

LEGEND & SHEET INDEX
DEMOLITION PLAN - BASEMENT
POWER DISTRIBUTION PLAN - BASEMENT
ONE-LINE DIAGRAMS
SCHEDULES





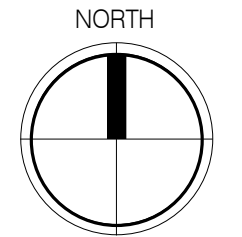
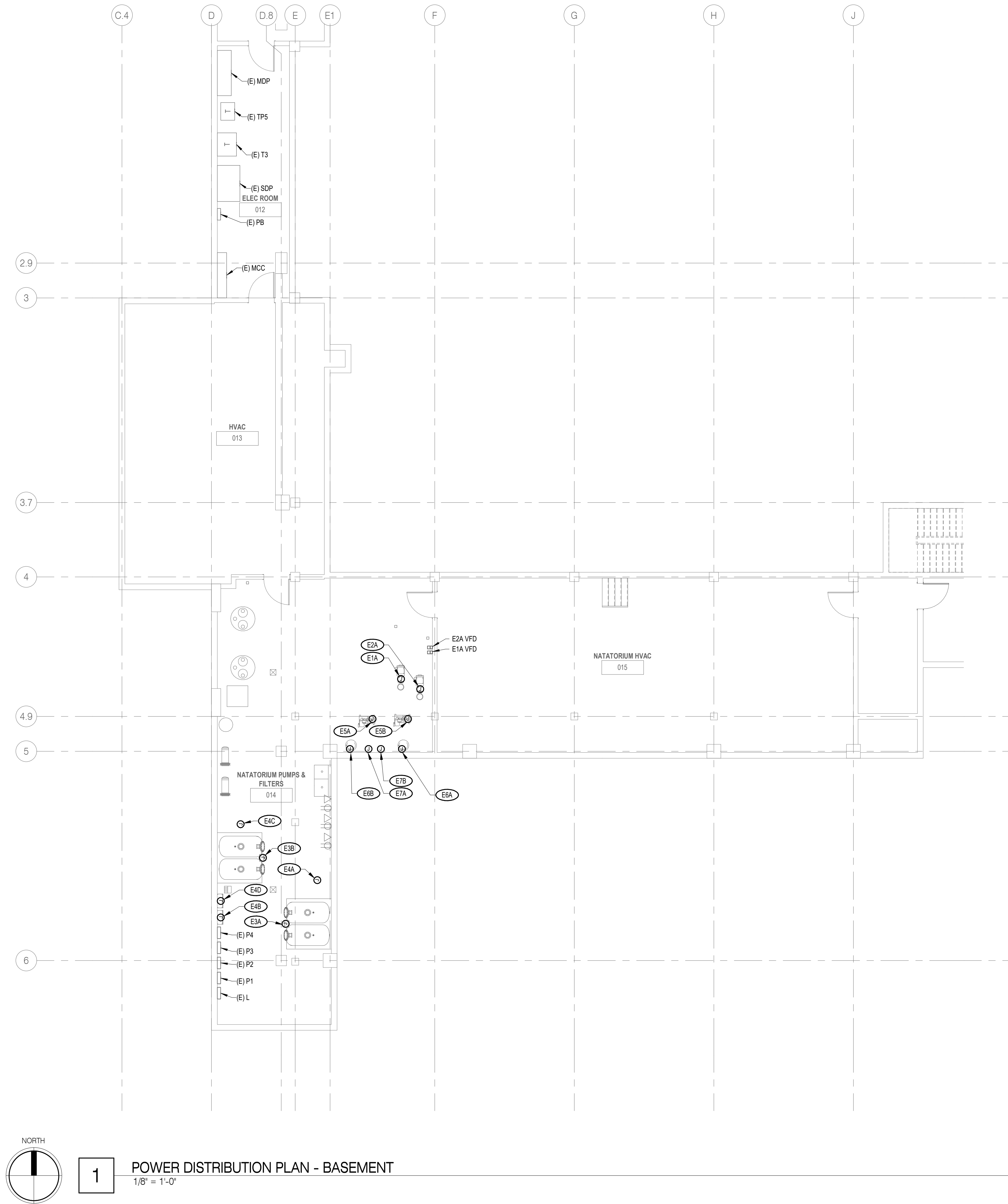
SHEET NOTES:

1. ELECTRICAL EQUIPMENT SHOWN IS EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. REFER TO THE POOL CONSULTANT DRAWINGS FOR THE SCOPE OF DEMOLITION WORK ASSOCIATED WITH POOL EQUIPMENT. DISCONNECT POOL EQUIPMENT DESIGNATED FOR REMOVAL AND REMOVE BRANCH CIRCUIT(S) BACK TO SOURCE, UNLESS OTHERWISE NOTED.

REFERENCE NOTES:

- ① EXISTING RECEPTACLES AND DATA OUTLETS SERVING EXISTING WATER CHEMISTRY CONTROLLERS ARE TO REMAIN FOR REUSE WITH NEW WATER CHEMISTRY CONTROLLERS.

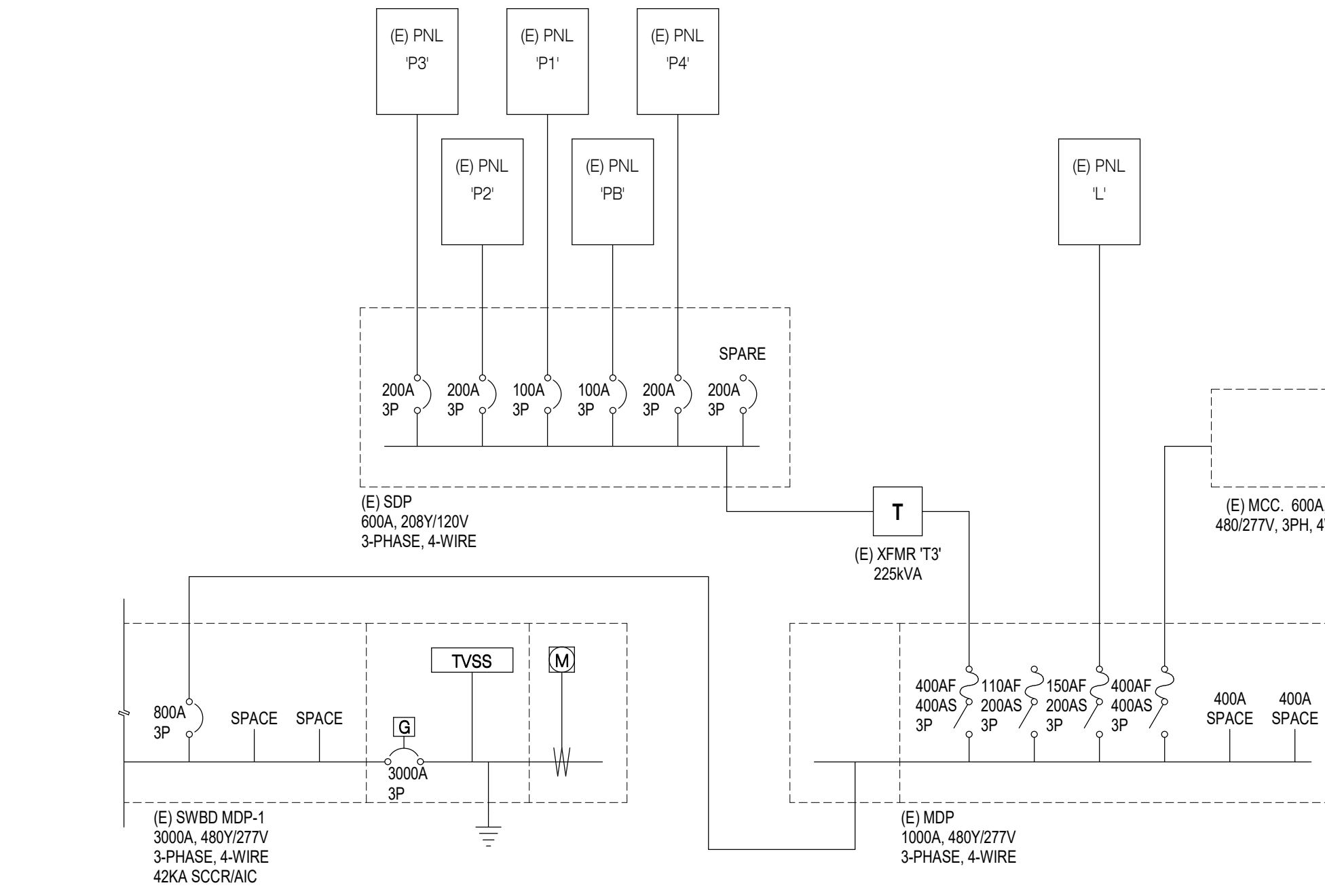




1 POWER DISTRIBUTION PLAN - BASEMENT
1/8" = 1'-0"

- SHEET NOTES:
1. ELECTRICAL EQUIPMENT SHOWN IS EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
 2. REFER TO POOL CONSULTANT DRAWINGS FOR EXACT LOCATION AND REQUIREMENTS OF POOL EQUIPMENT.





1 PARTIAL EXISTING ONE-LINE DIAGRAM
NOT TO SCALE



PANEL SCHEDULE

PANEL NAME: L
 VOLTAGE: 480Y/277
 LOCATION: NATATORIUM PUMPS & FILTERS 014
 MOUNTING: SURFACE

TYPE: BOLT ON AMPS: 250
 PHASE: 3 WIRE: 4
 MAIN: MLO SCCR: 18KA

LOAD CLASS	CONN. VA	DEMAND FACTOR	DEMAND VA
LIGHTING	6034	125%	7543
RECEPTACLES	0	**	0
MOTOR LOADS	78804	**	83169
RESISTANCE LOADS	0	100%	0
SUBFEED	0	100%	0
MISC. LOADS	0	100%	0
SUBFEED BREAKER	0		0
TOTAL VA		CONNECTED	DEMAND
84,838		107.0	90,712
MAXIMUM PHASE AMPS			115.3

NOTES:
 A. EXISTING PANELBOARD TO REMAIN.
 B. (E) INDICATES EXISTING BRANCH CIRCUIT BREAKER TO REMAIN.
 C. (N) INDICATES PROVIDE NEW BRANCH CIRCUIT BREAKER IN AVAILABLE SPACE.

BREAKER A	P	DESCRIPTION	VA	CIR. NO.	PHASE	CIR. NO.	VA	DESCRIPTION	BREAKER P	A
20	1	(E) LOAD - BASEMENT LTG	1400	1	A	22	484	(E) LOAD - NAT PERIM LTG	1	20
20	1	(E) LOAD - EXTERIOR LTG	800	2	B	23	300	(E) LOAD - NAT PERIM LTG	1	20
20	1	(E) LOAD - LIFE GUARD AREA LTG	110	3	C	24		SPACE		
20	1	(E) LOAD - WOMEN'S LOCKER LTG	330	4	A	25	320	(E) LOAD - NAT HID WEST LTG	1	20
20	1	(E) LOAD - MEN'S LOCKER LTG	310	5	B	26	320	(E) LOAD - NAT HID NORTH CENTER LTG	1	20
20	1	(E) LOAD - EQP ISSUE LTG	280	6	C	27	320	(E) LOAD - NAT HID NORTHEAST LTG	1	20
20	1	(E) LOAD - WATER SUPPLY RM LTG	100	7	A	28	410	(E) LOAD - LTG CNTRL PNL	1	20
20	1	SPARE		8	B	29	110	(E) LOAD - NAT HID MID PENDANT LTG	1	20
30	1	SPARE		9	C	30	320	(E) LOAD - NAT HID SOUTH & EAST LTG	1	20
30	1	SPARE		10	A	31	320	(E) LOAD - NAT HID LTG	1	20
30	1	SPARE		11	B	32		SPACE		
		5800	12	C	33			SPACE		
50	3	(E) LOAD - CHILLER PUMP #1	5800	13	A	34	3048	(N) DIVE POOL CIRC PUMP (E1A)	3	20
		5800	14	B	35	3048				
		5800	15	C	36	3048				
50	3	(E) LOAD - CHILLER PUMP #2	5800	16	A	37		SPACE		
		5800	17	B	38			SPACE		
		5800	18	C	39			SPACE		
		5820	19	A	40	5800				
30	3	(N) LAP POOL CIRC PUMP (E2A)	5820	20	B	41	5800	(E) LOAD - CHWP-1	50	3
		5820	21	C	42	5800				

PHASE TOTALS CONNECTED VA DEMAND VA CONNECTED AMPS DEMAND AMPS

* 10KVA AT 100%, REMAINDER AT 50%
 ** 100% PLUS 25% OF THE LARGEST MOTOR

PANEL SCHEDULE

PANEL NAME: P1
 VOLTAGE: 208Y/120
 LOCATION: NATATORIUM PUMPS & FILTERS 014
 MOUNTING: SURFACE

TYPE: BOLT ON AMPS: 100
 PHASE: 3 WIRE: 4
 MAIN: MLO SCCR: 10KA

LOAD CLASS	CONN. VA	DEMAND FACTOR	DEMAND VA
LIGHTING	13000	125%	16250
RECEPTACLES	0	**	0
MOTOR LOADS	0	**	0
RESISTANCE LOADS	0	100%	0
SUBFEED	0	100%	0
MISC. LOADS	8272	100%	8272
SUBFEED BREAKER	0		0
TOTAL VA		CONNECTED	DEMAND
21,272		68.1	24,522
MAXIMUM PHASE AMPS			79.6

NOTES:
 A. EXISTING PANELBOARD TO REMAIN.
 B. (E) INDICATES EXISTING BRANCH CIRCUIT BREAKER TO REMAIN.
 C. (N) INDICATES PROVIDE NEW BRANCH CIRCUIT BREAKER IN AVAILABLE SPACE.
 D. (C) INDICATES CONNECT NEW BRANCH CIRCUIT TO EXISTING BRANCH CIRCUIT BREAKER.

BREAKER A	P	DESCRIPTION	VA	CIR. NO.	PHASE	CIR. NO.	VA	DESCRIPTION	BREAKER P	A
20	1	SPARE		1	A	16	1500	(E) LOAD - DIVE POOL LTG	1	20
20	1	(E) LOAD - SPA LTG	1500	2	B	17	1500	(E) LOAD - DIVE POOL LTG	1	20
20	1	(E) LOAD - RELAY CNTRL	1920	3	C	18	1000	(E) LOAD - DIVE POOL LTG	1	20
20	1	(E) LOAD - LAP POOL LTG	1000	4	A	19	1500	(E) LOAD - LAP POOL LTG	1	20
20	1	(C) LAP POOL FILTERS (E3A)	500	5	B	20	1176	(C) BOOSTER PUMP (E7A)	1	20
20	1	(C) LAP POOL FILTERS (E3B)	500	6	C	21	1176	(C) BOOSTER PUMP (E7B)	1	20
20	1	(C) LAP POOL UV CNTRLS (E4B)	500	7	A	22		SPACE		
20	1	(C) DIVE POOL UV CNTRLS (E4D)	500	8	B	23		SPACE		
20	1	(C) CO2 FEED CNTRLS (E5A)	500	9	C	24		SPACE		
20	1	(C) CO2 FEED CNTRLS (E5B)	500	10	A	25		SPACE		
20	1	(C) CHLORINE FEED CNTRLS (E6A)	500	11	B	26		SPACE		
20	1	(C) CHLORINE FEED CNTRLS (E6B)	500	12	C	27		SPACE		
20	2	(N) LAP POOL UV LAMP (E4A)	1250	13	A	28	1250	(N) DIVE POOL UV LAMP (E4C)	2	20
		1250	14	B	29	1250				
		SPACE		15	C	30		SPACE		

PHASE TOTALS CONNECTED VA DEMAND VA CONNECTED AMPS DEMAND AMPS

* 10KVA AT 100%, REMAINDER AT 50%
 ** 100% PLUS 25% OF THE LARGEST MOTOR

EQUIPMENT CONNECTION SCHEDULE

TAG	EQUIPMENT DESCRIPTION	ELECTRICAL CHARACTERISTICS				FEEDER OR BRANCH CIRCUIT CHARACTERISTICS				EQUIPMENT CONNECTION		NOTES
		LOAD (WATTS)	LOAD (AMPS)	VOLTS	PHASE	CONDUIT DIAMETER (NOMINAL INCHES)	PHASE/NEUTRAL CONDUCTORS SIZE AND QUANTITY (AWG OR KCMIL)	GND CONDUCTORS SIZE AND QUANTITY (AWG OR KCMIL)	CIRCUIT BREAKER (AMPS/POLES)	SERVING PANEL	CONNECTION TYPE	
E1A	DIVE POOL CIRCULATION PUMP	17459	21	480	3	0.75	(3) 10	(1) 10	30/1	L	HARDWIRE	1
E2A	LAP POOL CIRCULATION PUMP	17459	21	480	3	0.75	(3) 10	(1) 10	30/1	L	HARDWIRE	1
E3A	LAP POOL FILTER CONTROLS	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E3B	DIVE POOL FILTER CONTROLS	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E4A	LAP POOL UV WATER TREATMENT LAMP	2500	12	208	1	0.75	(2) 12	(1) 12	20/2	P1	HARDWIRE	
E4B	LAP POOL UV WATER TREATMENT CONTROL PNL	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E4C	DIVE POOL UV WATER TREATMENT LAMP	2500	12	208	1	0.75	(2) 12	(1) 12	20/2	P1	HARDWIRE	
E4D	DIVE POOL UV WATER TREATMENT CONTROL PNL	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E5A	CO2 FEED SYSTEM CONTROLS	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E5B	CO2 FEED SYSTEM CONTROLS	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E6A	CHLORINE FEED SYSTEM CONTROLS	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E6B	CHLORINE FEED SYSTEM CONTROLS	500	4.2	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E7A	BOOSTER PUMP	1176	9.8	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	
E7B	BOOSTER PUMP	1176	9.8	120	1	0.75	(2) 12	(1) 12	20/1	P1	HARDWIRE	

GENERAL NOTES:
 A. REFER TO AQUATIC DESIGN GROUP DRAWINGS FOR EXACT LOCATIONS AND REQUIREMENTS OF POOL EQUIPMENT.

NOTES:
 1. PUMP IS VFD DRIVEN, VFD FURNISHED BY OTHERS. PROVIDE CONDUIT, CONDUCTORS, AND CONNECTIONS AS REQUIRED FROM FEEDER SOURCE TO VFD AND BETWEEN VFD AND PUMP.



SYSTEMS WEST ENGINEERS
 725 A Street
 Springfield, OR 97477
 541.242.7210
 systemwestengineers.com
 SWE Proj. No. W026.01

OREGON STATE UNIVERSITY
 644 SW 13TH AVENUE
 CORVALLIS, OR 97331

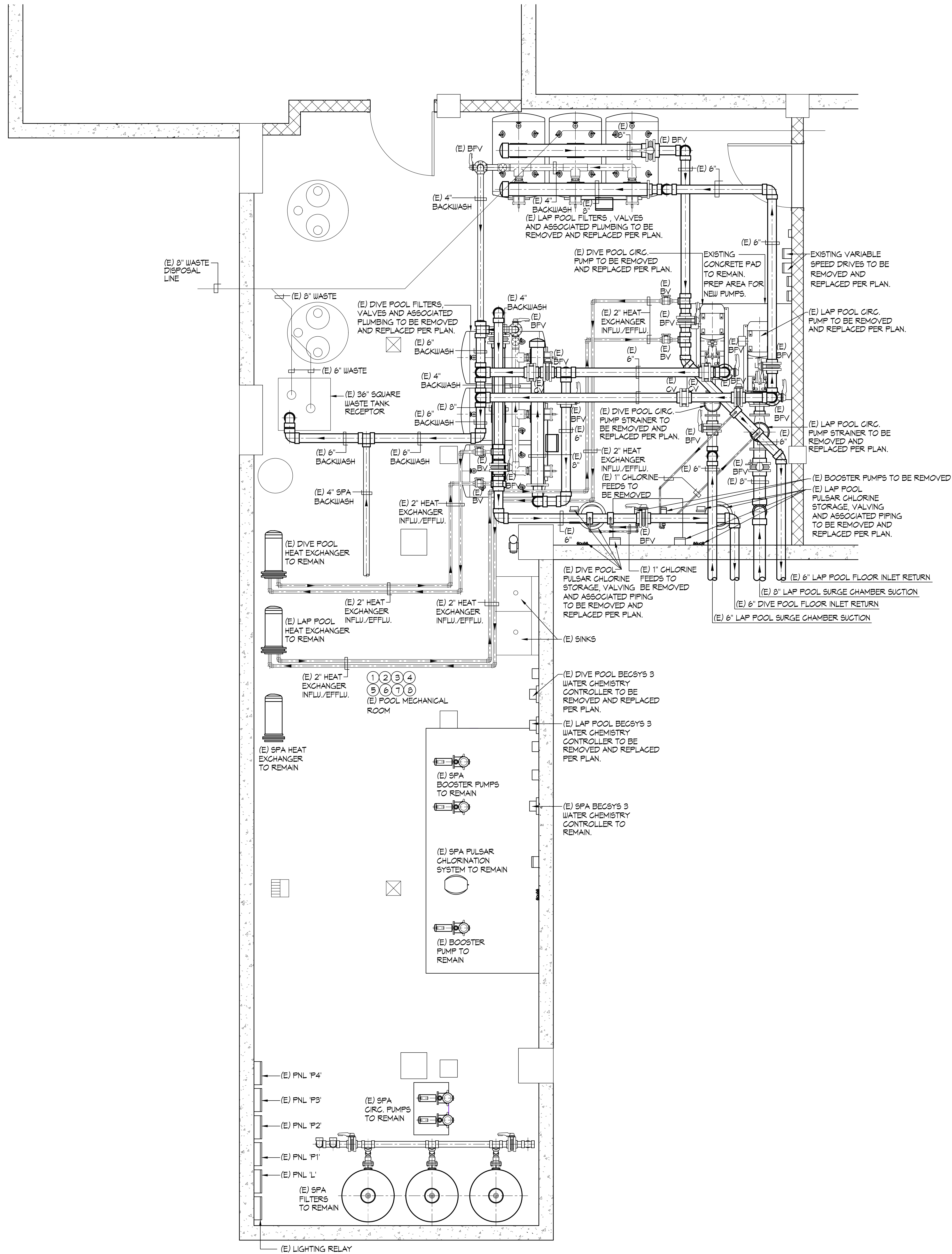
OSU DRC AQUATICS IMPROVEMENT
 DIXON RECREATION CENTER
 425 SW 26TH STREET
 CORVALLIS, OR 97331

Date 09/17/2021
 Project No. 07601
 Revisions

CONSTRUCTION DOCUMENTS

SCHEDULES

E701



DEMOLITION NOTES

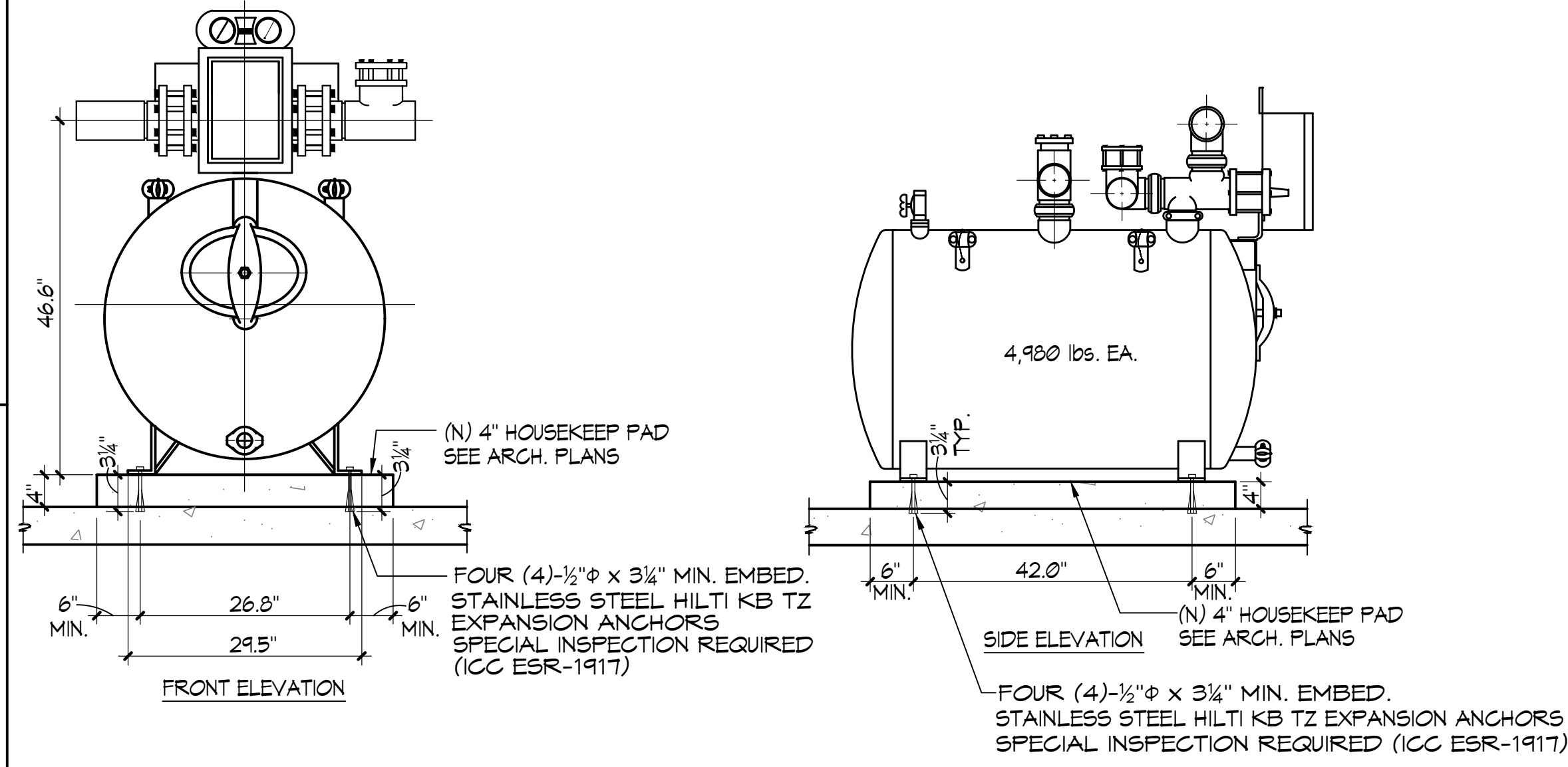
- ① COORDINATE DEMOLITION WORK WITH THE OWNER, PROTECT ALL EXISTING WORK, BUILDINGS, PIPING, EQUIPMENT, UTILITIES, ETC. TO REMAIN.
- ② REPAIR OR REPLACE ANY DAMAGED ITEMS DUE TO DEMOLITION AND/OR CONSTRUCTION.
- ③ COORDINATE INGRESS/EGRESS AND HAUL ROUTES WITH THE CONTRACTOR PRIOR TO START OF WORK.
- 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 AND 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.
- ⑧ LEAVE ADEQUATE PLUMBING LENGTH DURING DEMO FOR POC TO NEW PLUMBING.

LEGEND

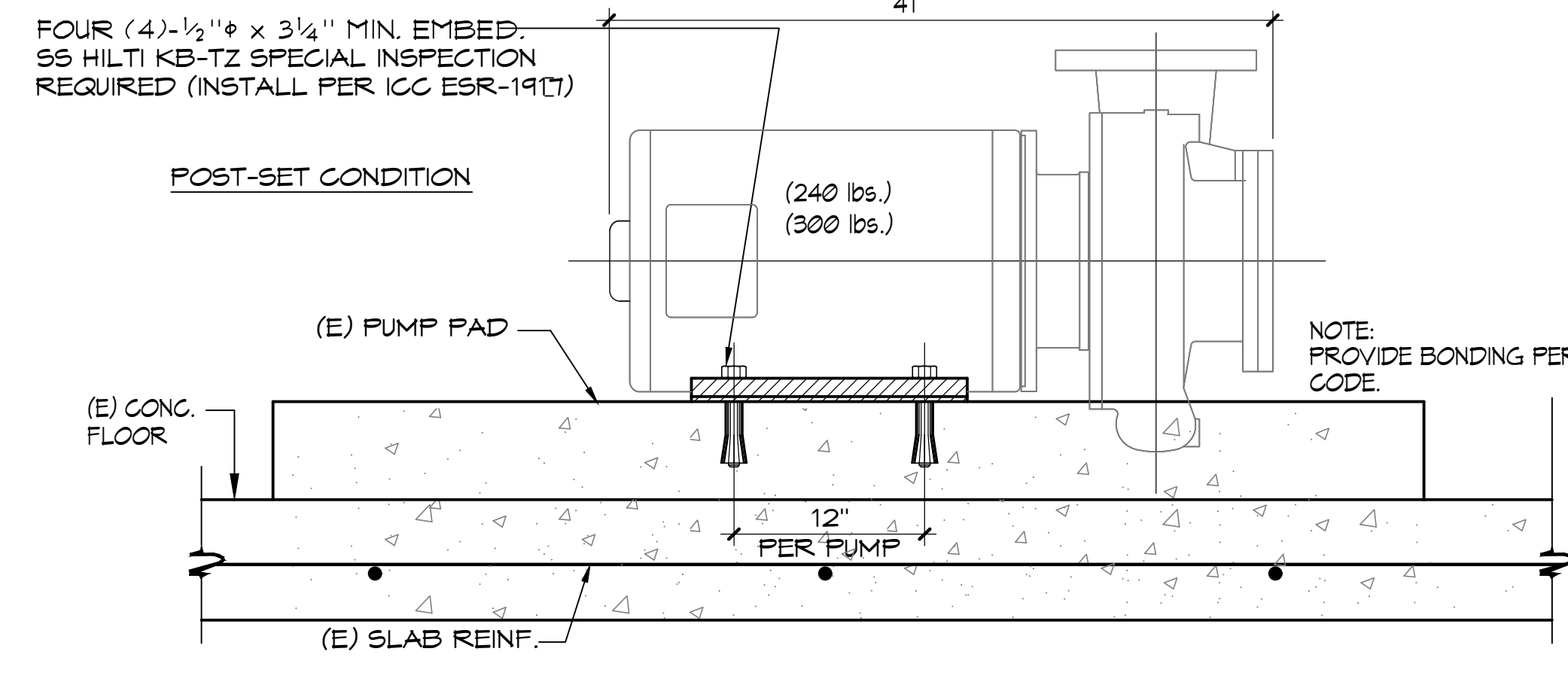
- (E) = EXISTING
- BFV = BUTTERFLY VALVE
- CV = CHECKED VALVE
- BV = BALL VALVE

EXISTING POOL MECHANICAL ROOM DEMOLITION PLAN

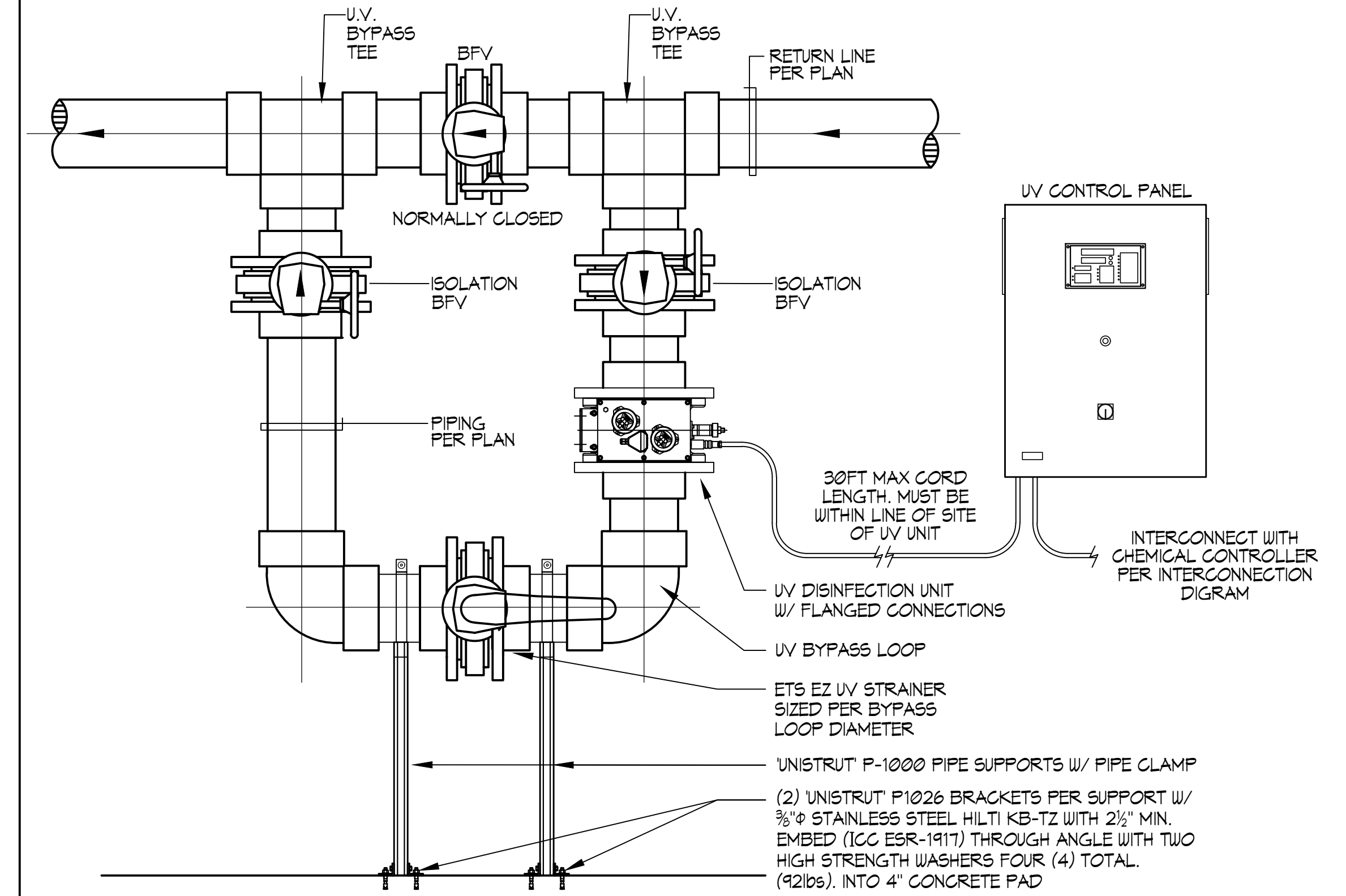
3/8"=1'-0"



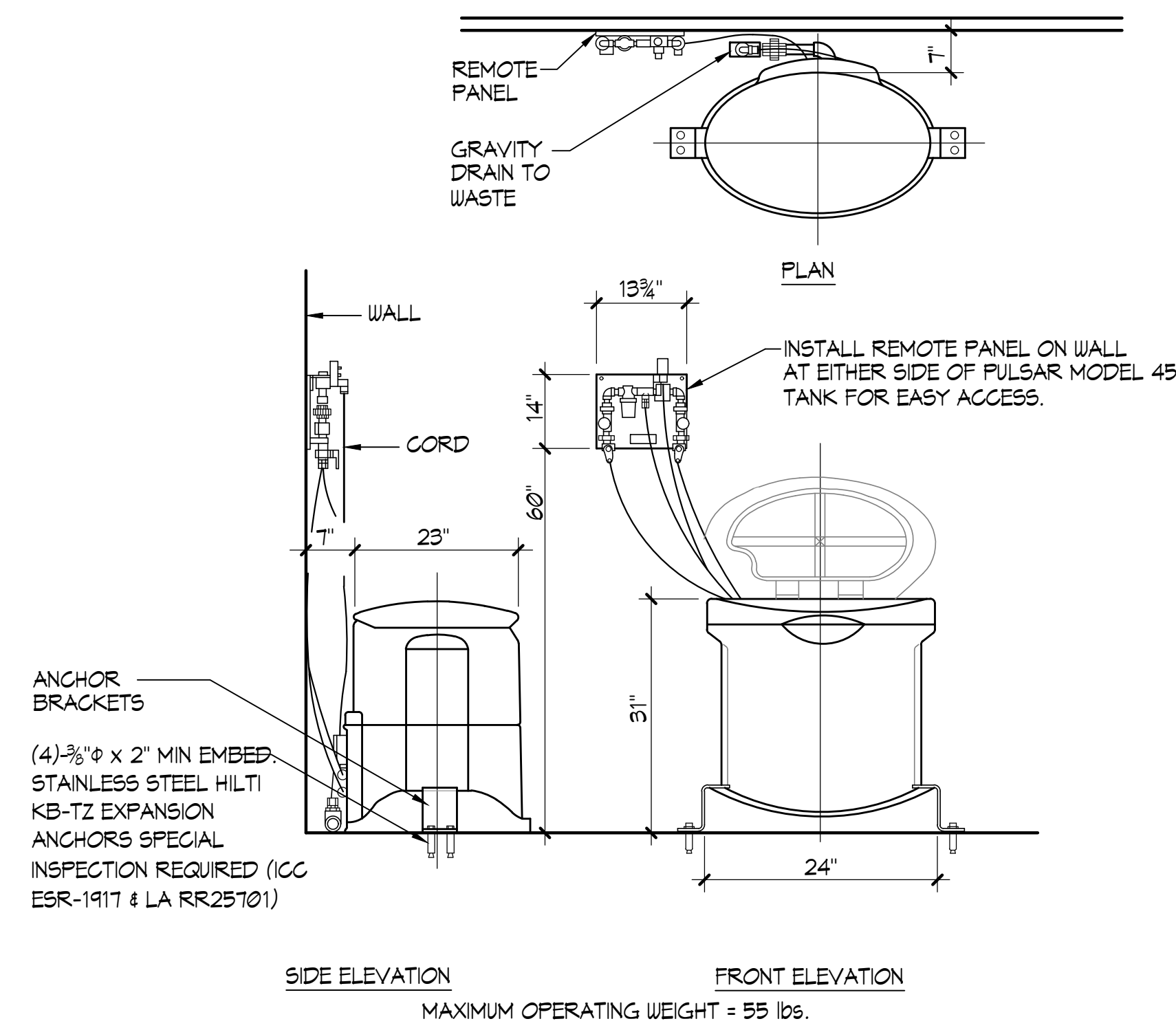
1 FILTER ANCHORAGE NO SCALE



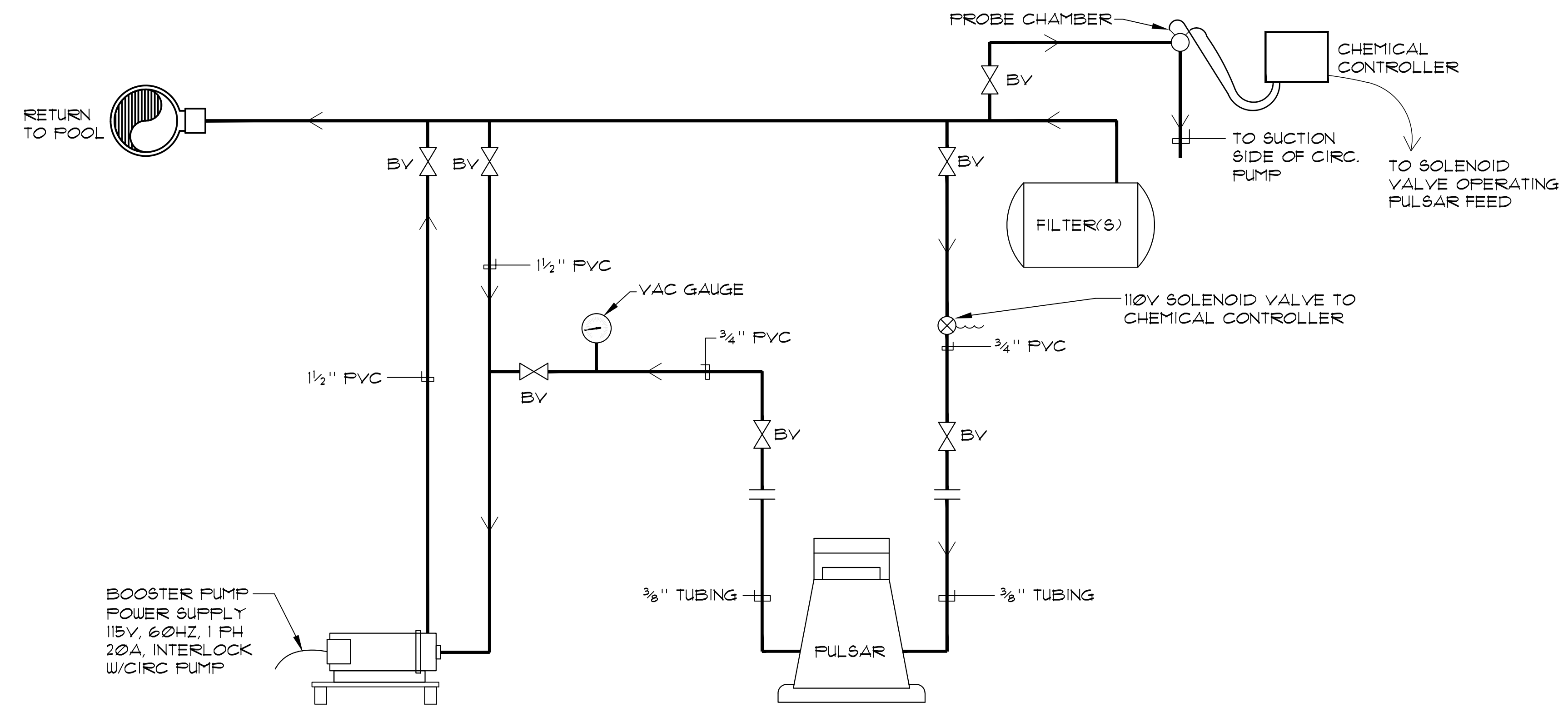
2 PUMP ANCHORAGE NO SCALE



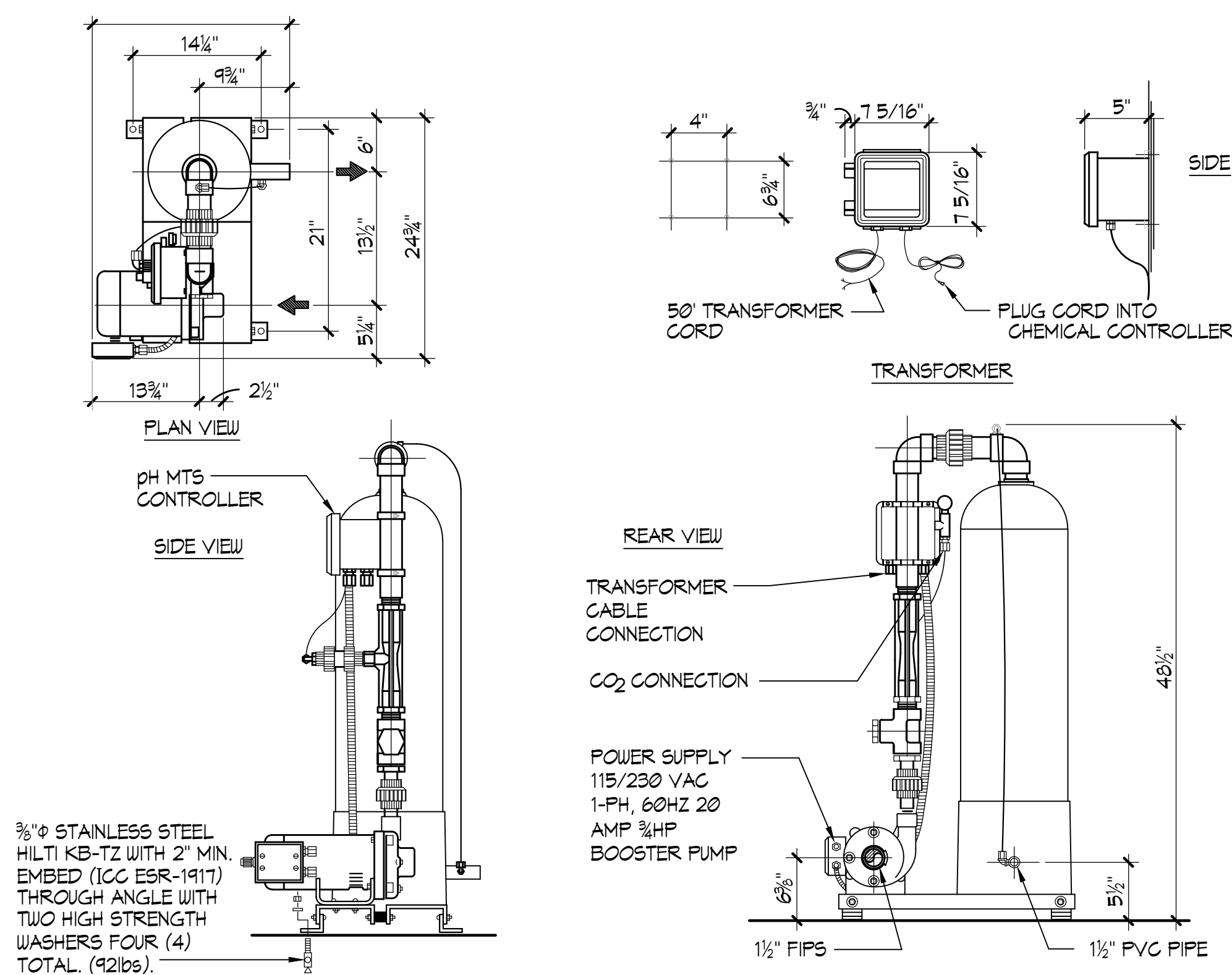
3 ECF U.V. DISINFECTION UNIT INSTALLATION DETAIL NO SCALE



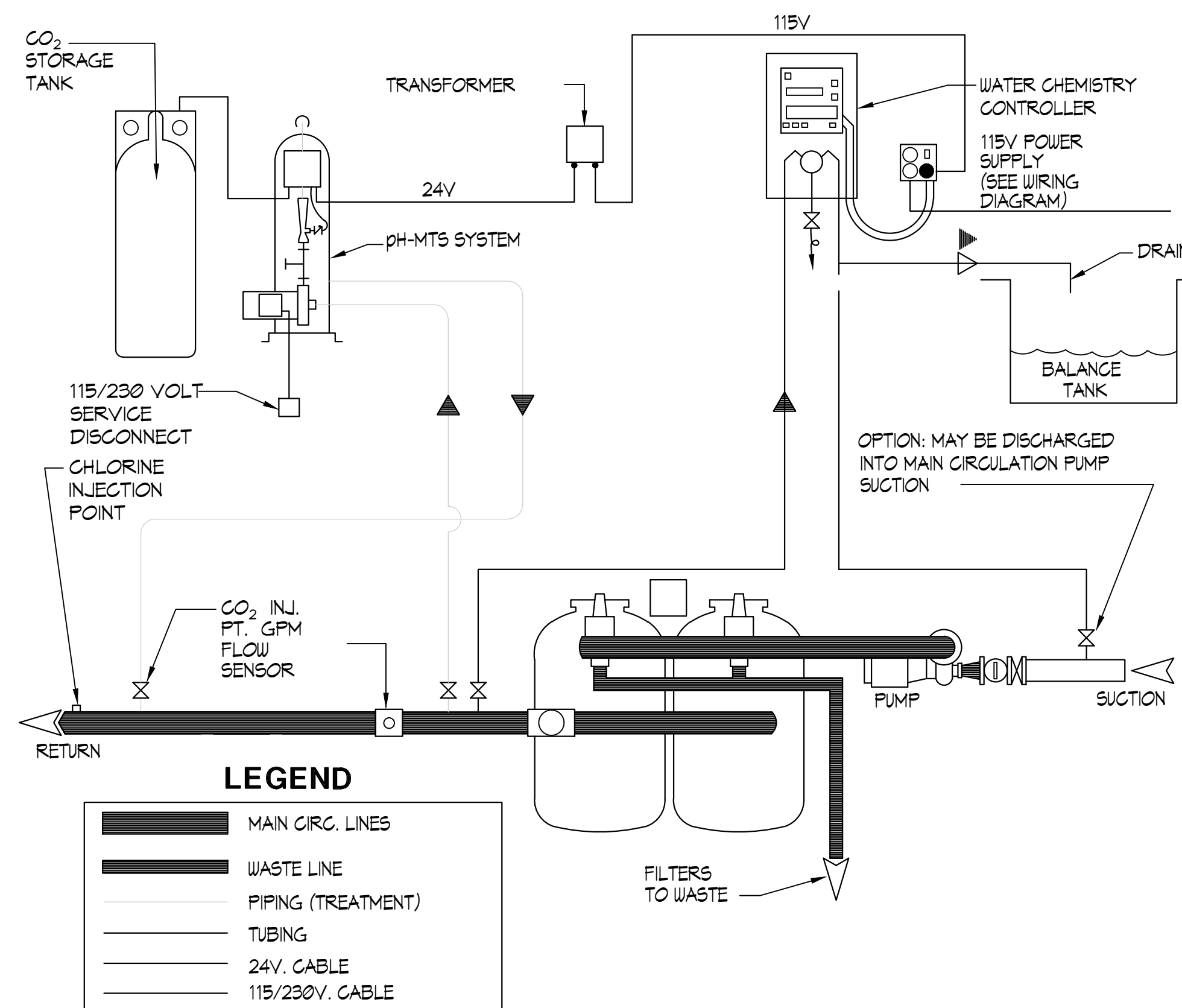
4 PULSAR MODEL 45 SYSTEM DETAIL NO SCALE



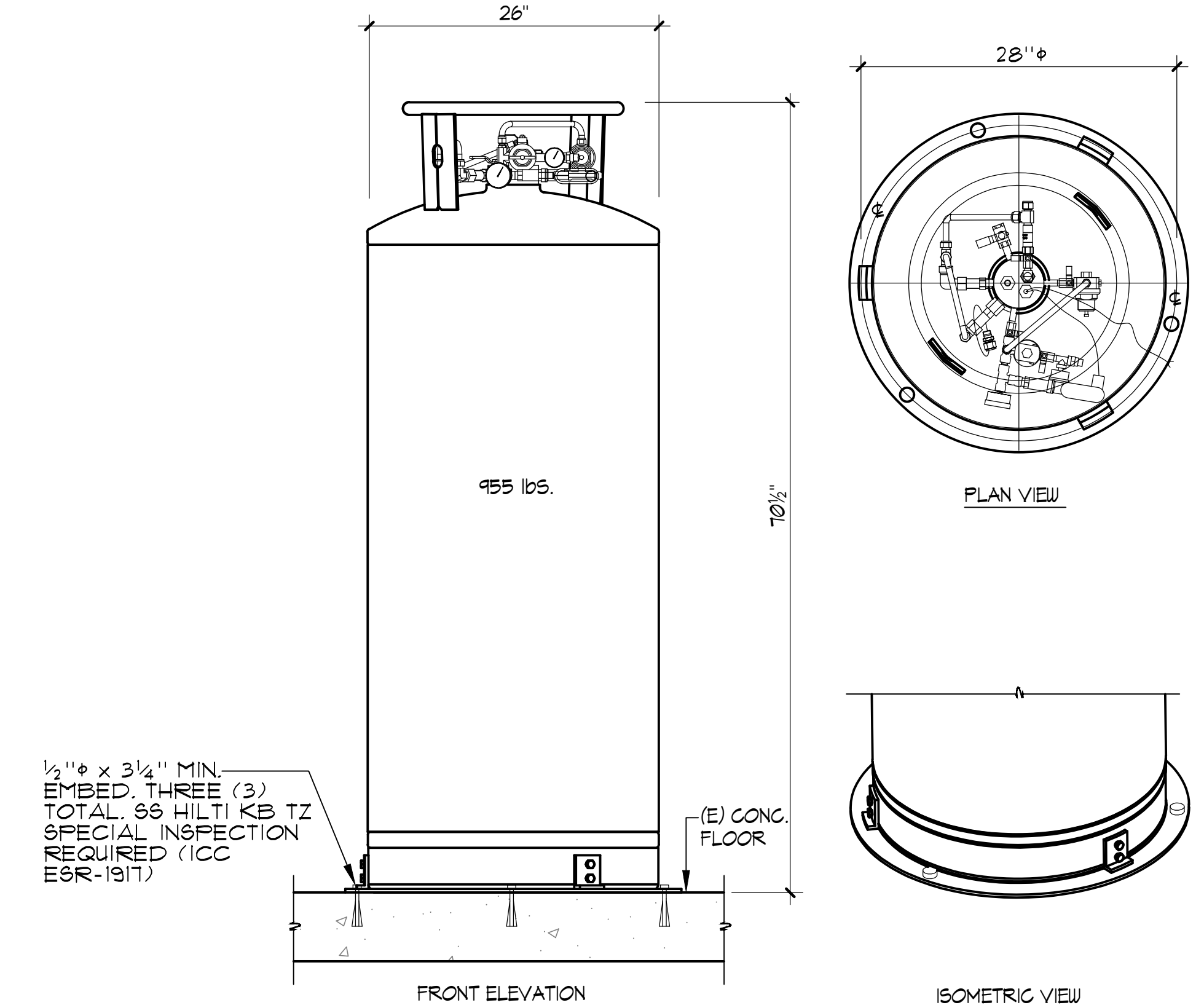
5 PULSAR SCHEMATIC NO SCALE



6 CARBON DIOXIDE pH MTS CONTROLLER NO SCALE



7 TYPICAL CARBON DIOXIDE pH-MTS INSTALLATION NO SCALE



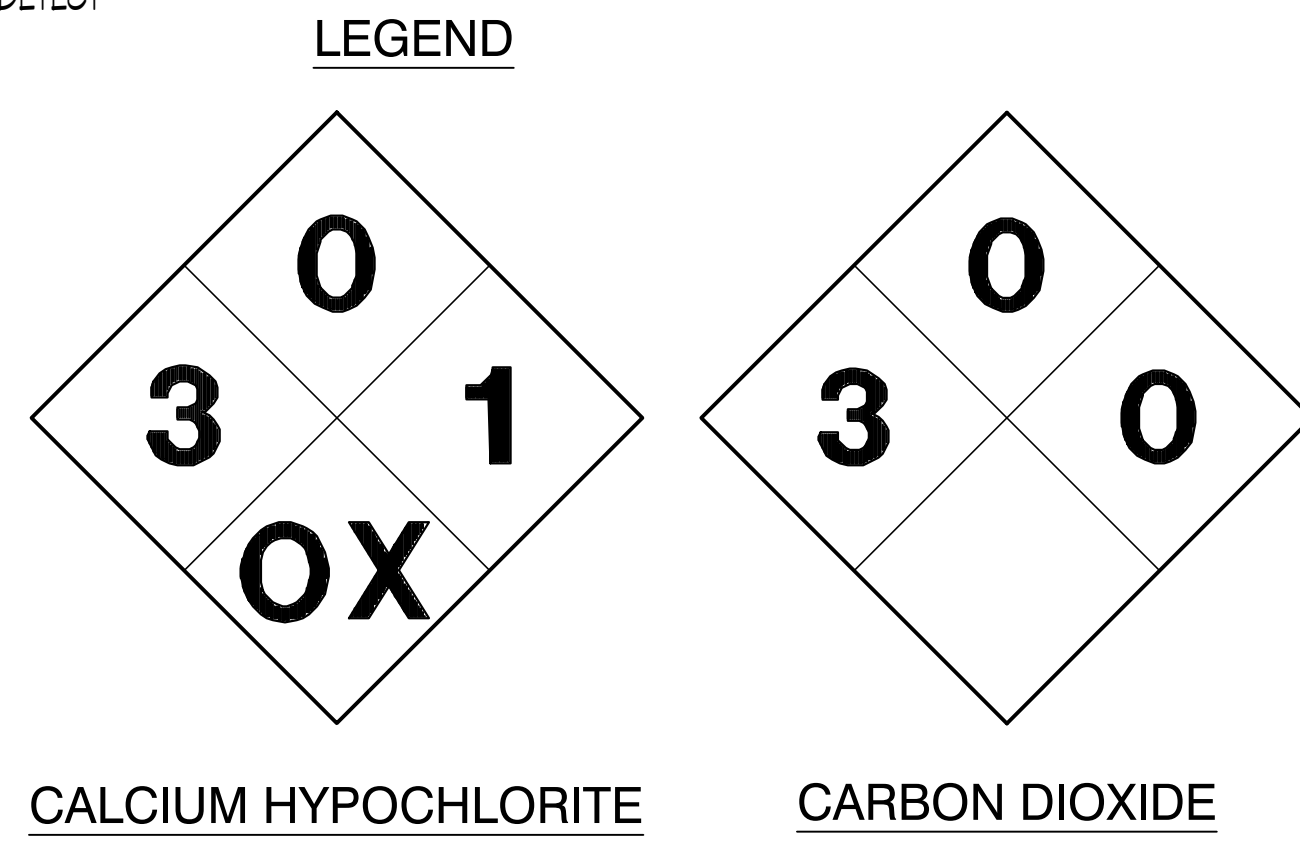
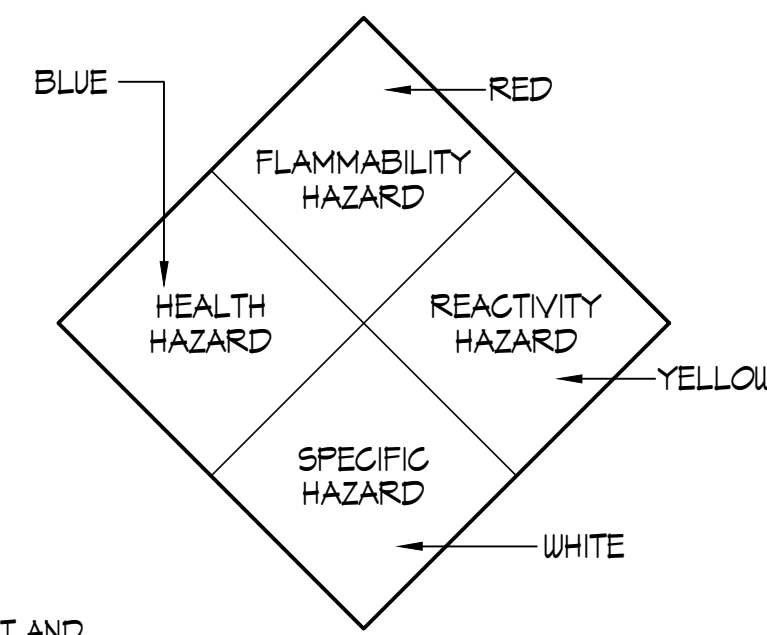
8 CO2 TANK ANCHORAGE DETAIL NO SCALE

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
CALCIUM HYPOCHLORITE	CALCIUM HYPOCHLORITE	65%	7778-54-3	TABLET	45 lbs.	150 lbs.	1,150 lbs.	MECH. ROOM	OXIDIZER	MSDS
CARBON DIOXIDE	CARBON DIOXIDE	100%	124-39-9	LIQUID	0 lbs.	600 lbs.	686 lbs.	EXISTING CO2 LOCATION (SEE SHEET MR.2)	CRYOGENIC	MSDS

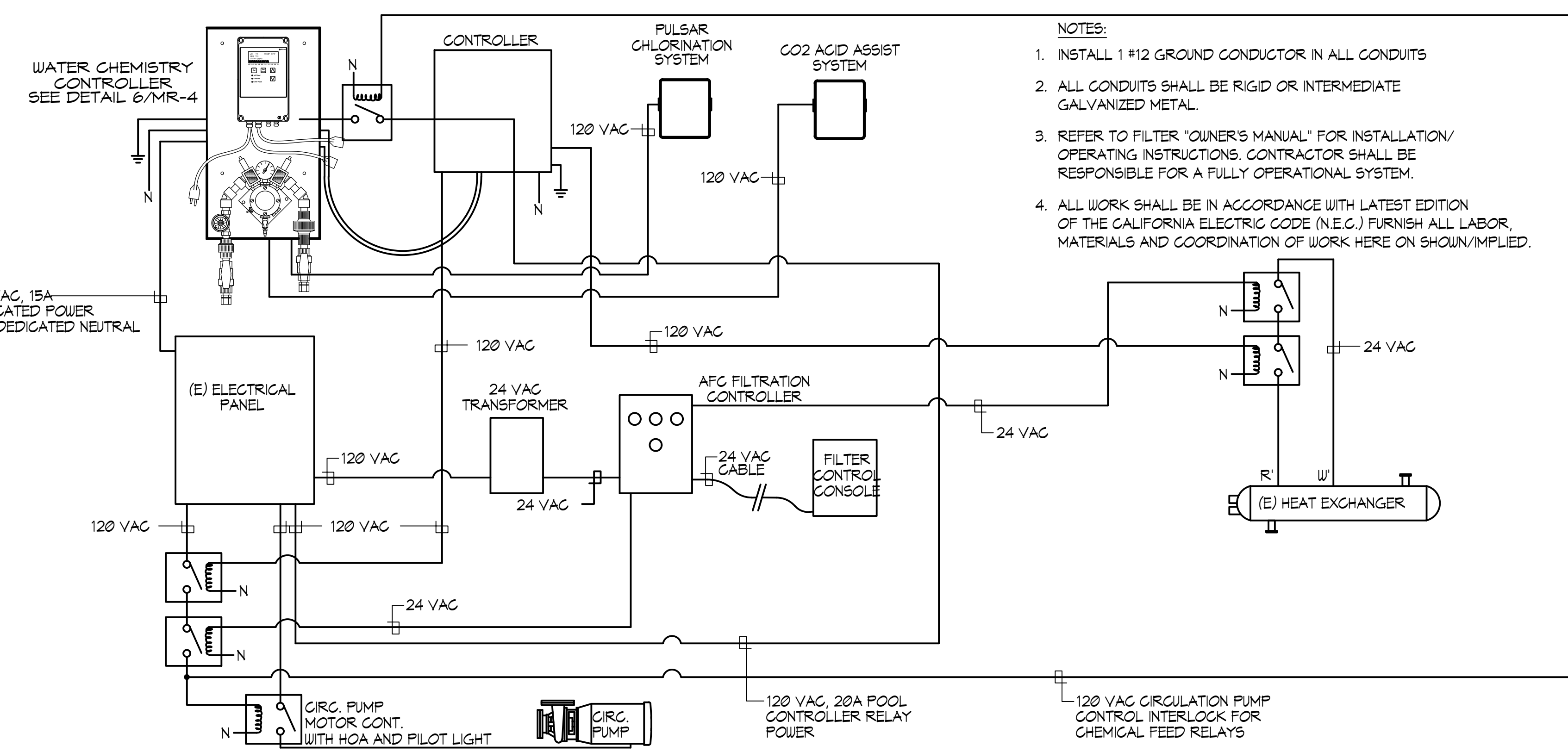
QUANTITIES OF CHEMICALS DO NOT EXCEED THE QUANTITIES LISTED IN IBC TABLES 307.1 (1) AND 307.1 (2). FOR CARBON DIOXIDE GAS SEE TABLE 1.12.8(b) OF THE NFPA 600 8'000 FT³ ALLOWABLE OR 686 lbs. STORAGE PER CONTAINED AREA. PROVIDE HARD WIRED CO₂ DETECTOR ANALOG SENSOR TECHNOLOGY MODEL #AP1 KIT SENSOR AND STROBE UNITS 120V HARD WIRED W/ STROBE LIGHT AND AUDIBLE ALARM. SENSOR MOUNTED 10 INCHES A.F.F. AND ALARM LEVEL BETWEEN 10-16 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	SPECIFIC HAZARD
4	CAN BE LETHAL	EXTREMELY FLAMMABLE IGNITES AT BELOW 73° F.	MAY EXPLODE AT NORMAL TEMPERATURES AND PRESSURES	OXIDIZER: OX ACID: ACID
3	CAN CAUSE SERIOUS OR PERMANENT INJURY	IGNITES AT ABOVE 73° F., BELOW 100° F.	MAY EXPLODE AT HIGH TEMPERATURES OR SHOCK	CORROSIVE: COR
2	CAN CAUSE TEMPORARY INCAPACITATION OR RESIDUAL INJURY	IGNITES AT ABOVE 100° F., BELOW 200° F.	VIOLENT CHEMICAL CHANGE AT HIGH TEMPERATURES OR PRESSURES	ALKALI: ALK USE NO WATER: W-
1	CAN CAUSE SIGNIFICANT IRRITATION	IGNITES AT ABOVE 200° F.	NORMALLY STABLE. HIGH TEMPERATURES MAKE UNSTABLE	RADIATION HAZARDS: ☸ POLYMERIZES: P
0	NO HAZARD	WILL NOT BURN	STABLE	

NOTES:
1. CONFIRM SIGNAGE WITH LOCAL FIRE MARSHALL 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.



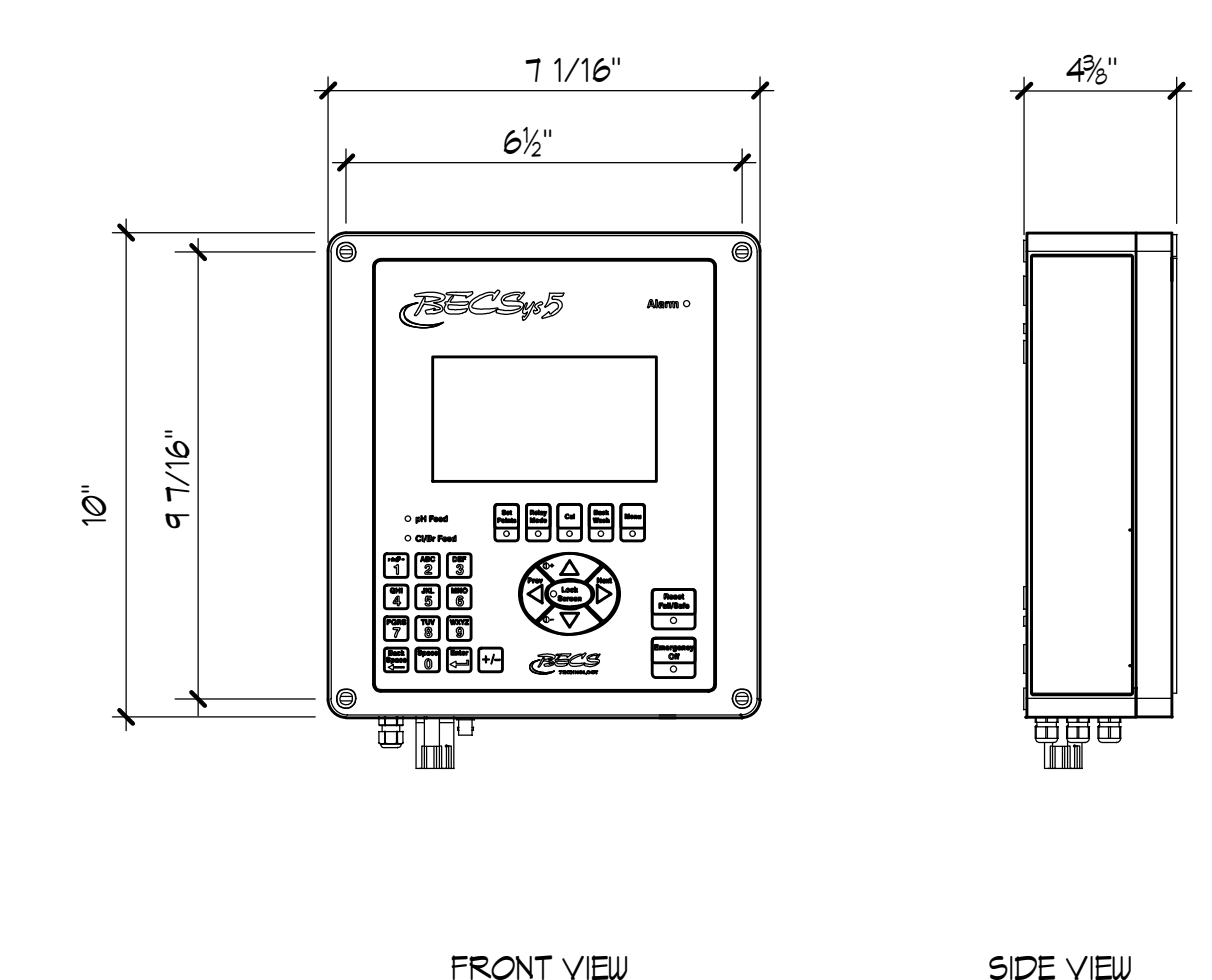
CALCIUM HYPOCHLORITE CARBON DIOXIDE



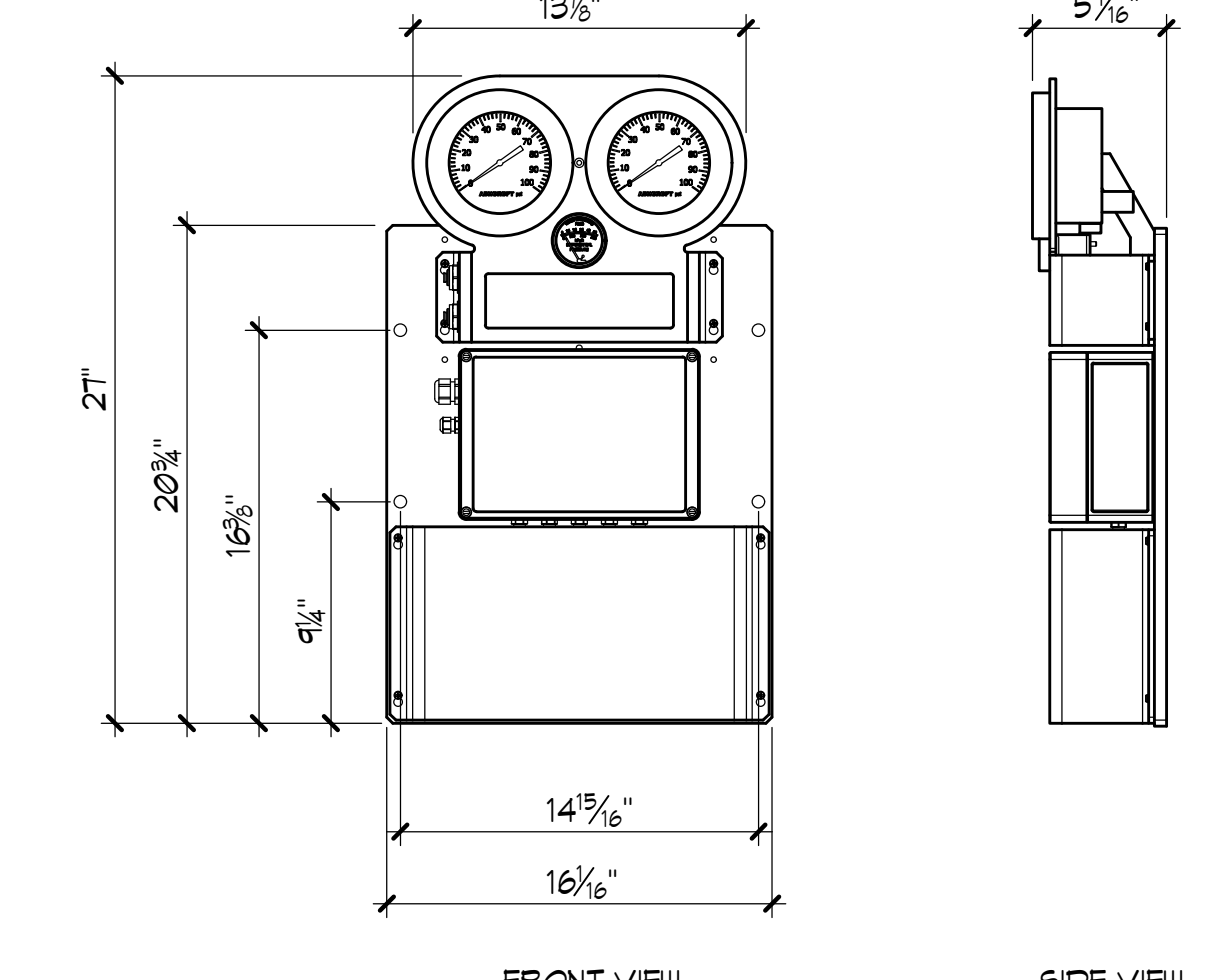
NOTES:
1. INSTALL 1 #12 GROUND CONDUCTOR IN ALL CONDUITS
2. ALL CONDUITS SHALL BE RIGID OR INTERMEDIATE GALVANIZED METAL.
3. REFER TO FILTER 'OWNER'S MANUAL' FOR INSTALLATION/ OPERATING INSTRUCTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR A FULLY OPERATIONAL SYSTEM.
4. ALL WORK SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE CALIFORNIA ELECTRIC CODE (N.E.C.) FURNISH ALL LABOR, MATERIALS AND COORDINATION OF WORK HERE ON SHOWN/IMPLIED.

1 HAZARDOUS INFORMATION SIGNAGE NO SCALE

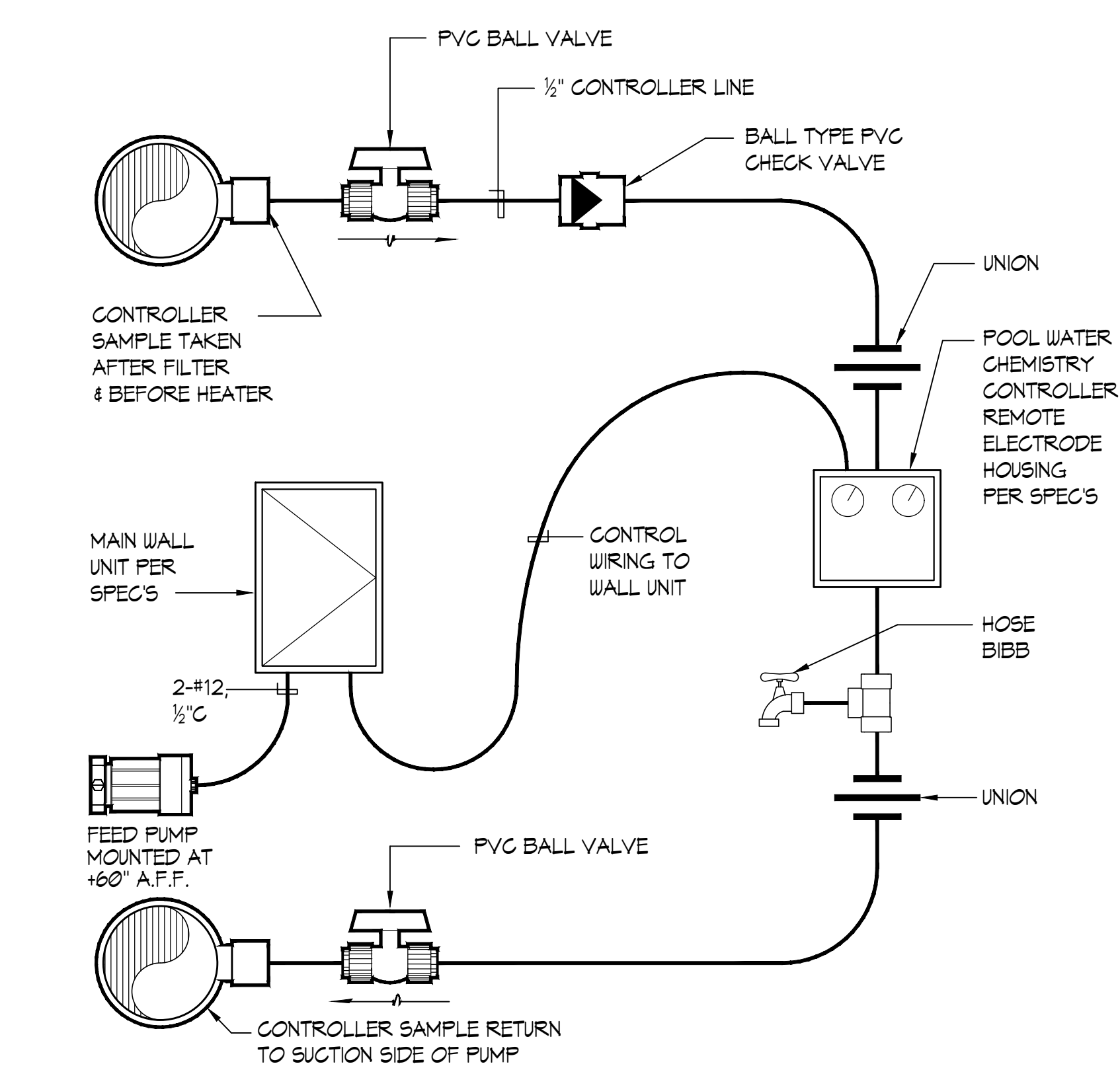
2 POOL MECHANICAL ELECTRICAL INTERCONNECTION DIAGRAM NO SCALE



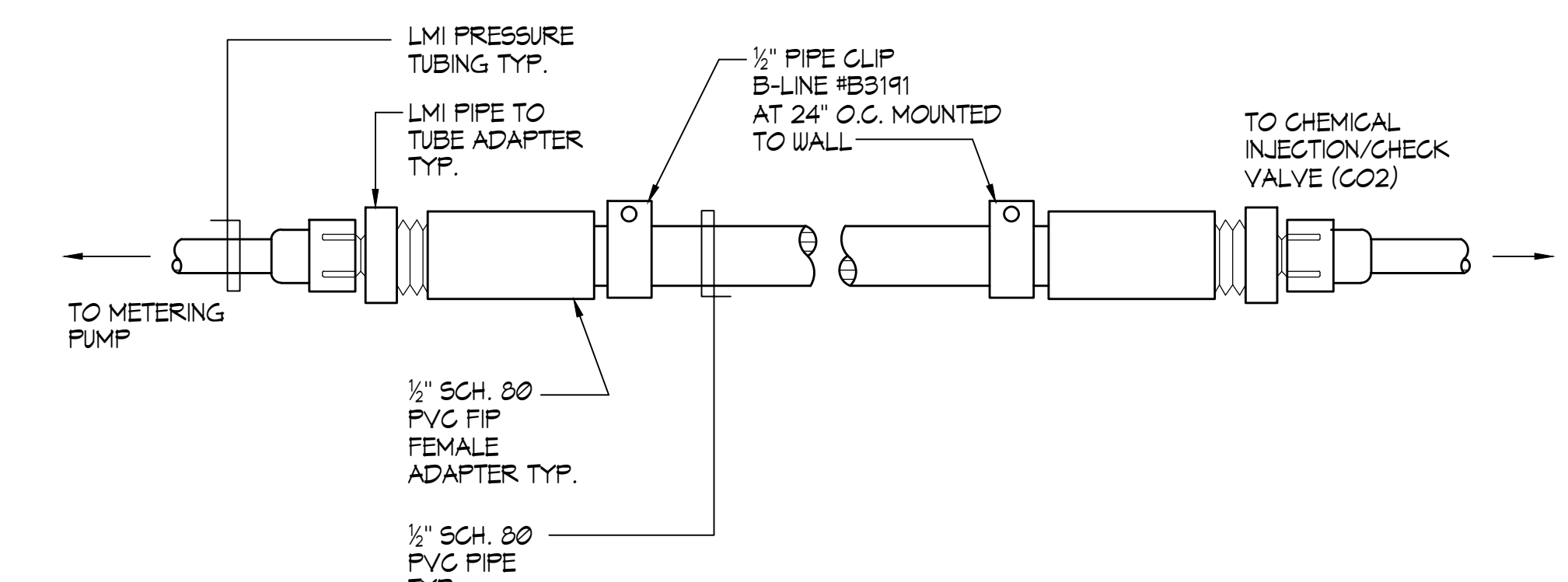
3 BECSYS 5 WATER CHEMISTRY CONTROLLER 1/2"=1'-0"



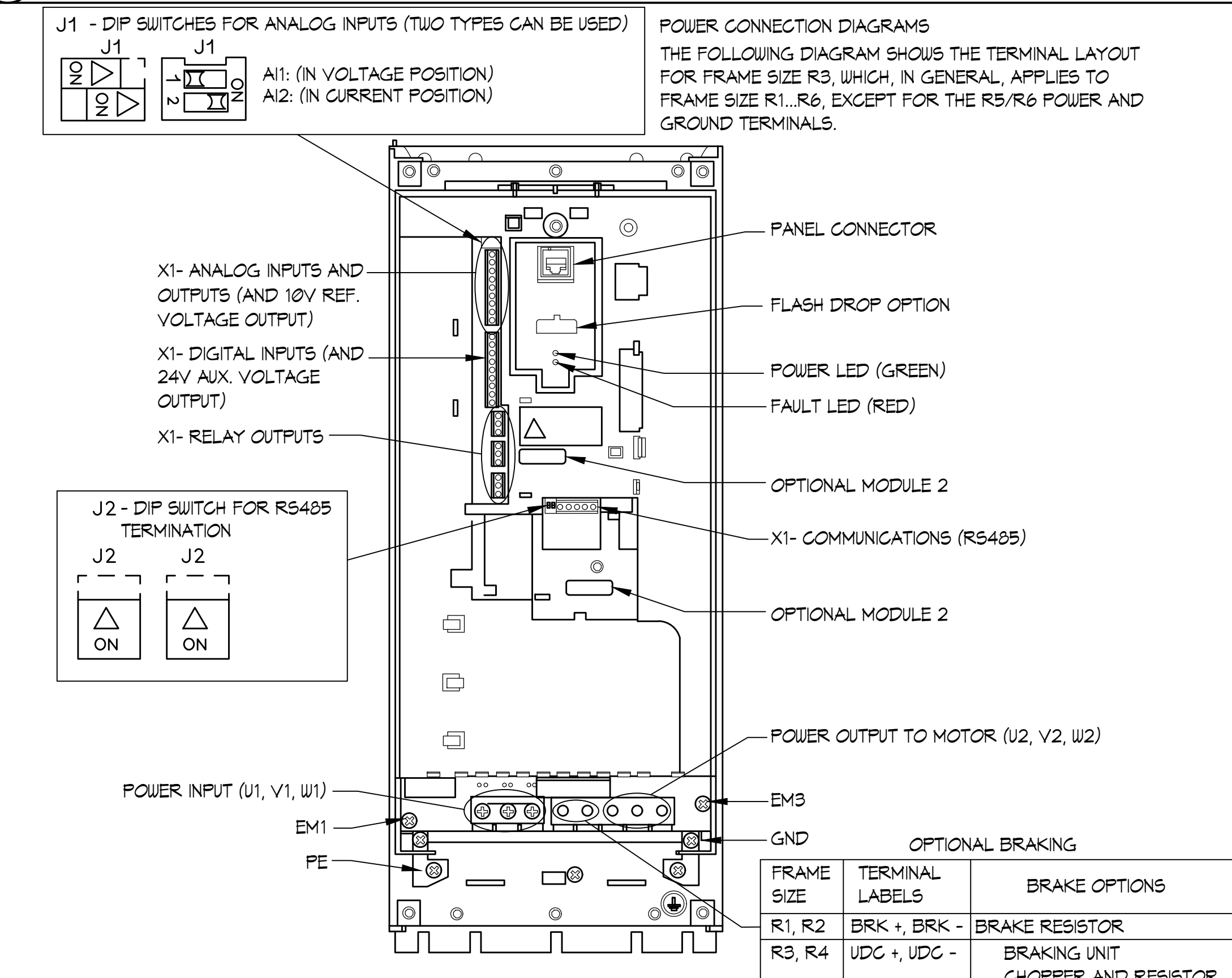
4 BECSYS FILTER INTERFACE SYSTEM 1/2"=1'-0"



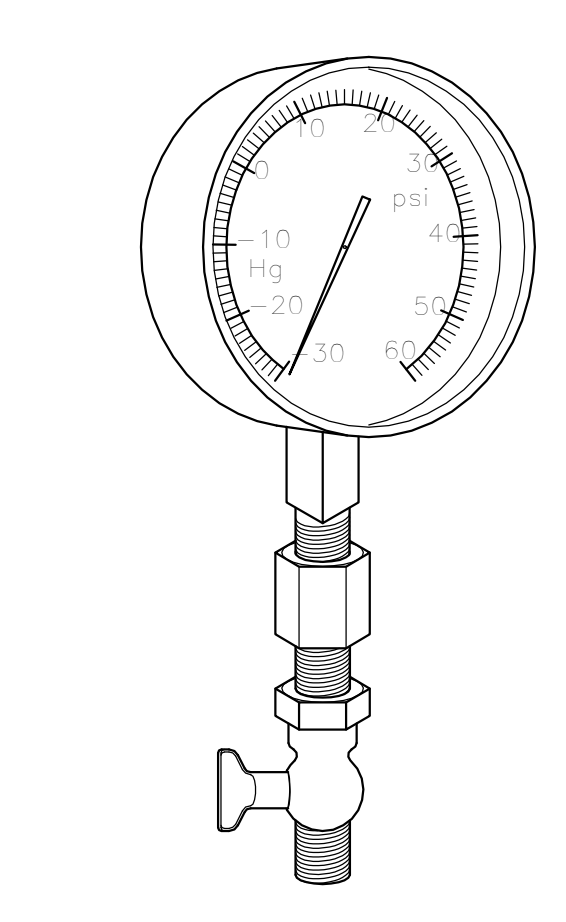
5 WATER CHEMISTRY CONTROLLER SCHEMATIC NO SCALE



6 CHEMICAL FEED PIPING DETAIL NO SCALE

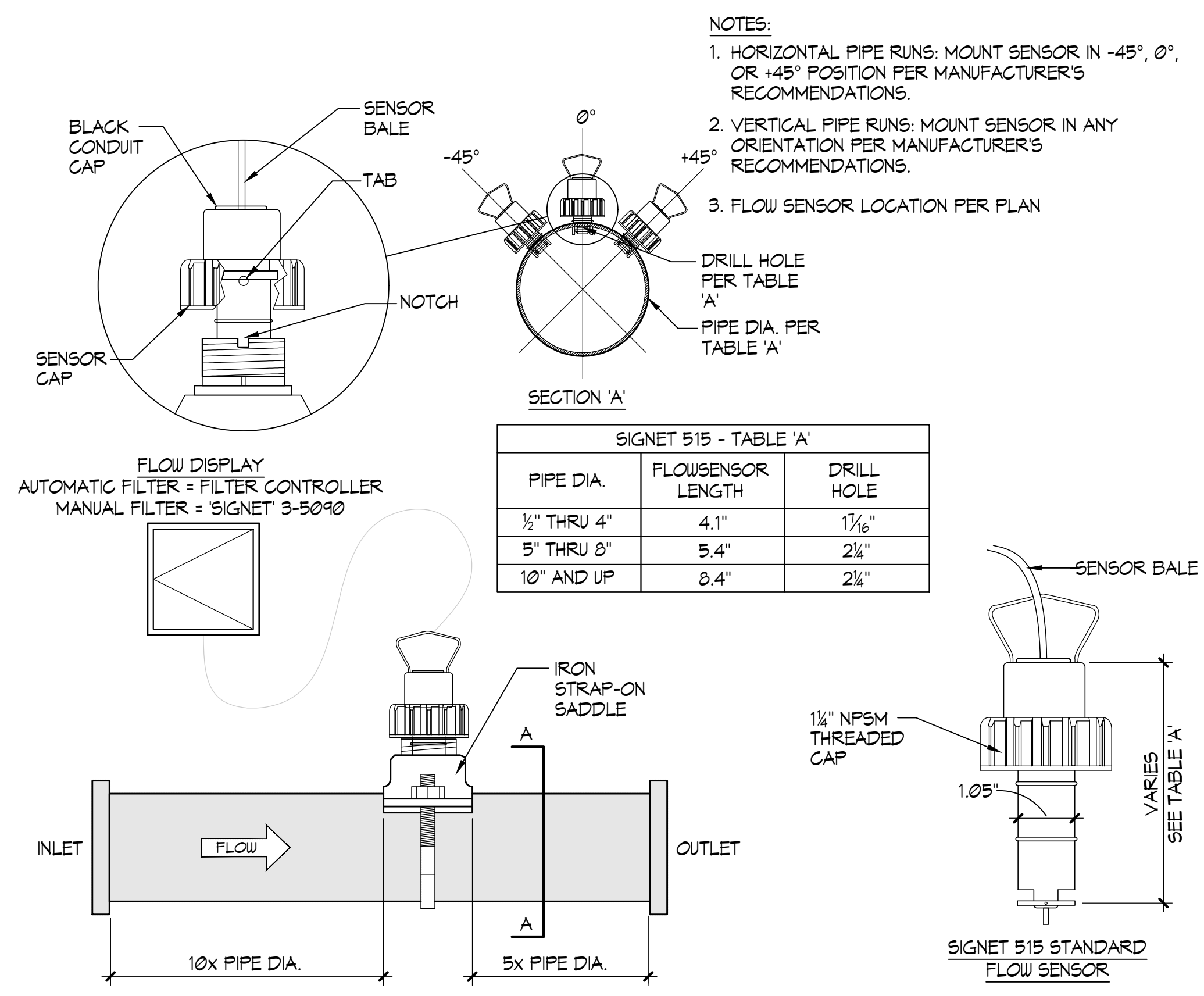


7 ABB VARIABLE FREQUENCY DRIVE DIAGRAM NO SCALE

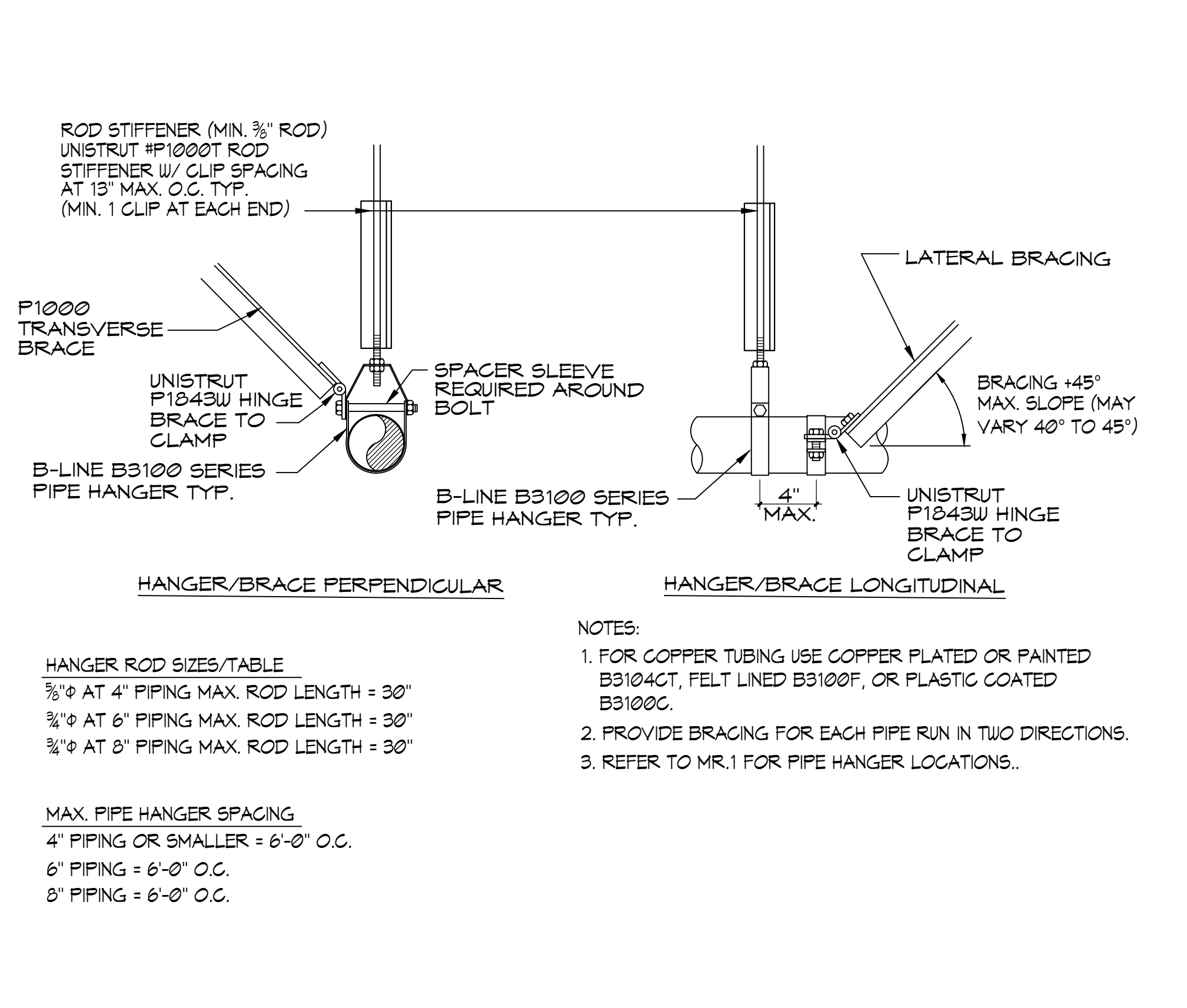


4 1/2" 5/8" CAGED LIQUID FILLED PRESSURE GAUGES SHALL HAVE A DIAL RANGE PRESSURE OF 60psi AND VACUUM RANGE OF 30" Hg THE MINOR GRADUATIONS SHALL HAVE A PRESSURE OF 2psi AND VACUUM OF 2" Hg. 1/4" NPT PER SPECIFICATIONS.
SNUBBER
PETCOCK MODEL #A10, BRASS
NOTES:
1. PRESSURE GAUGES SHALL BE INSTALLED BY MEANS OF DRILLING AND TAPPING PIPE TO BE MONITORED. THE GAUGE SHALL THEN BE THREADED INTO THE PIPE. PROVIDE WITH SNUBBER AND PET COCK.
2. GAUGE MAY BE USED WHEREVER CRUCIAL VACUUM OR PRESSURE READINGS ARE ESSENTIAL.

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



1 SIGNET FLOWMETER NO SCALE



2 'UNISTRUT' PIPING HANGER / SUPPORT DETAILS NO SCALE