



BALZHISER & HUBBARD ENGINEERS
 MECHANICAL
 ELECTRICAL
 CIVIL
 SURVEYORS

100 WEST 13TH AVENUE
 EUGENE, OR 97401
 P: 541-686-8478
 F: 541-243-5303



UNIVERSITY OF OREGON
 KNIGHT LIBRARY - ELEVATOR 4 REPLACEMENT

PROJECT TITLE

FLOOR PLANS - ELECTRICAL

SHEET TITLE

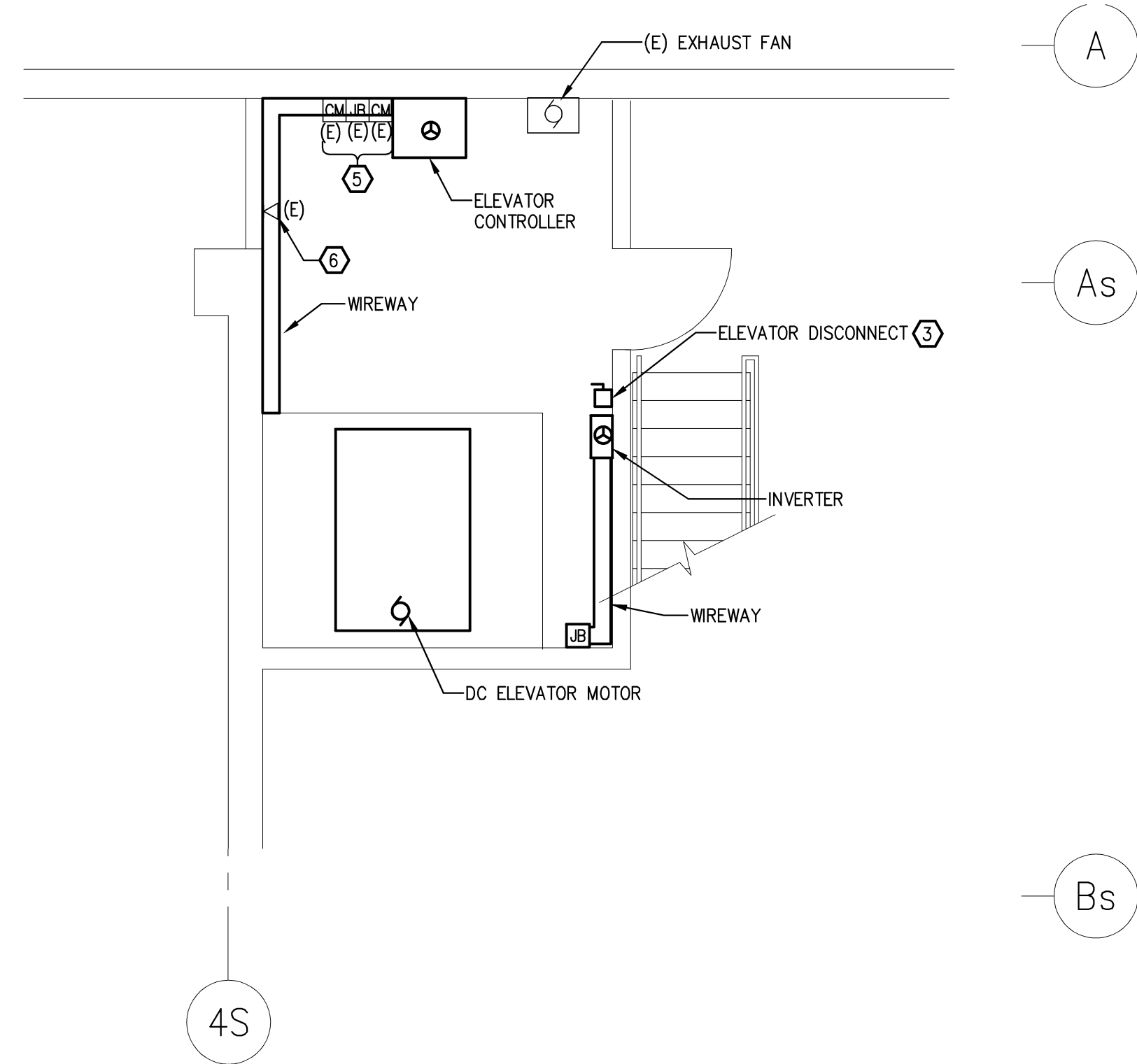
DATE
 4/18/13

DESIGNER
 KMW

PROJECT
 8900-002-13

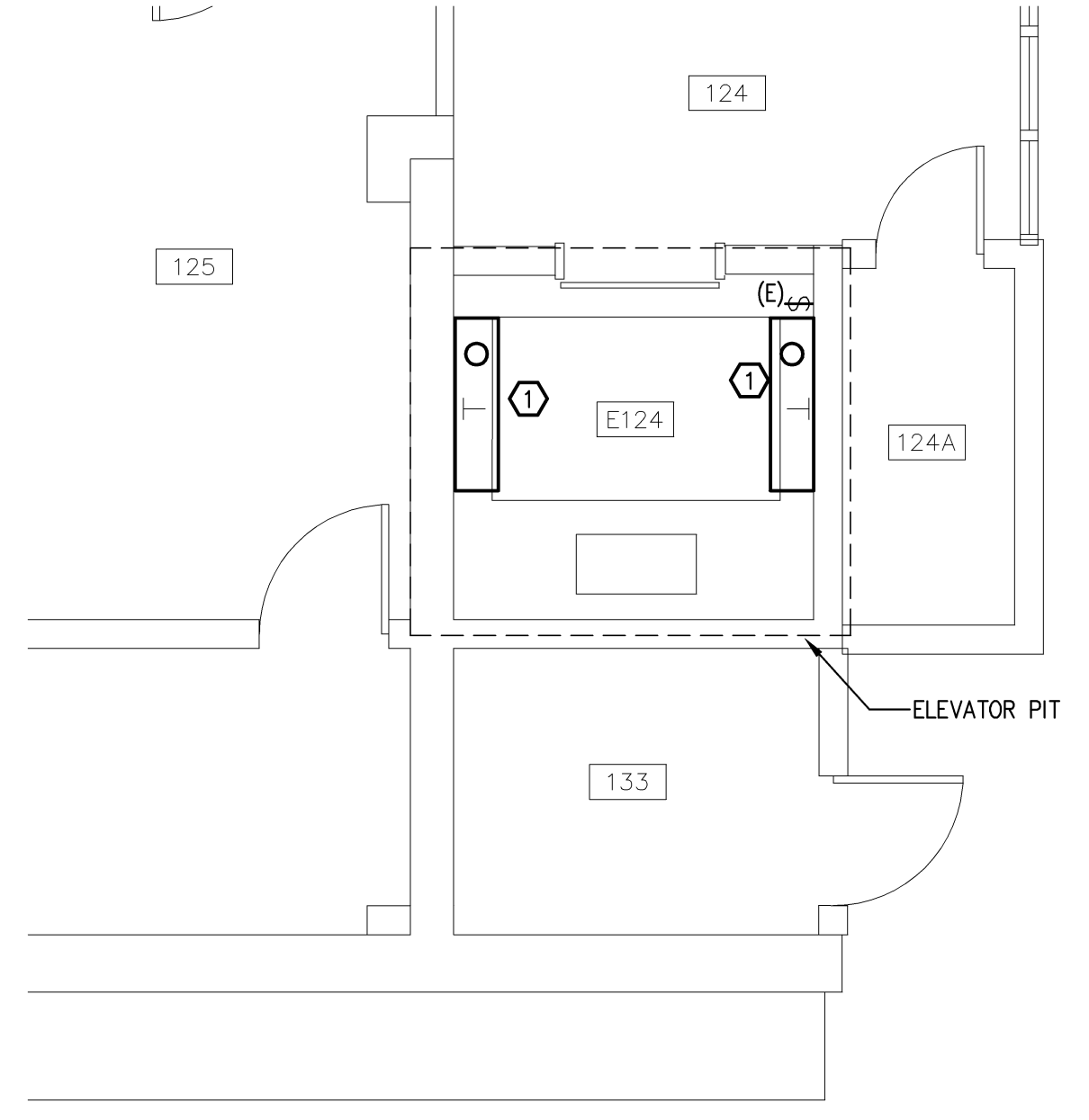
FILENAME
 8900-002-13e1.dwg

SHEET NO
E1



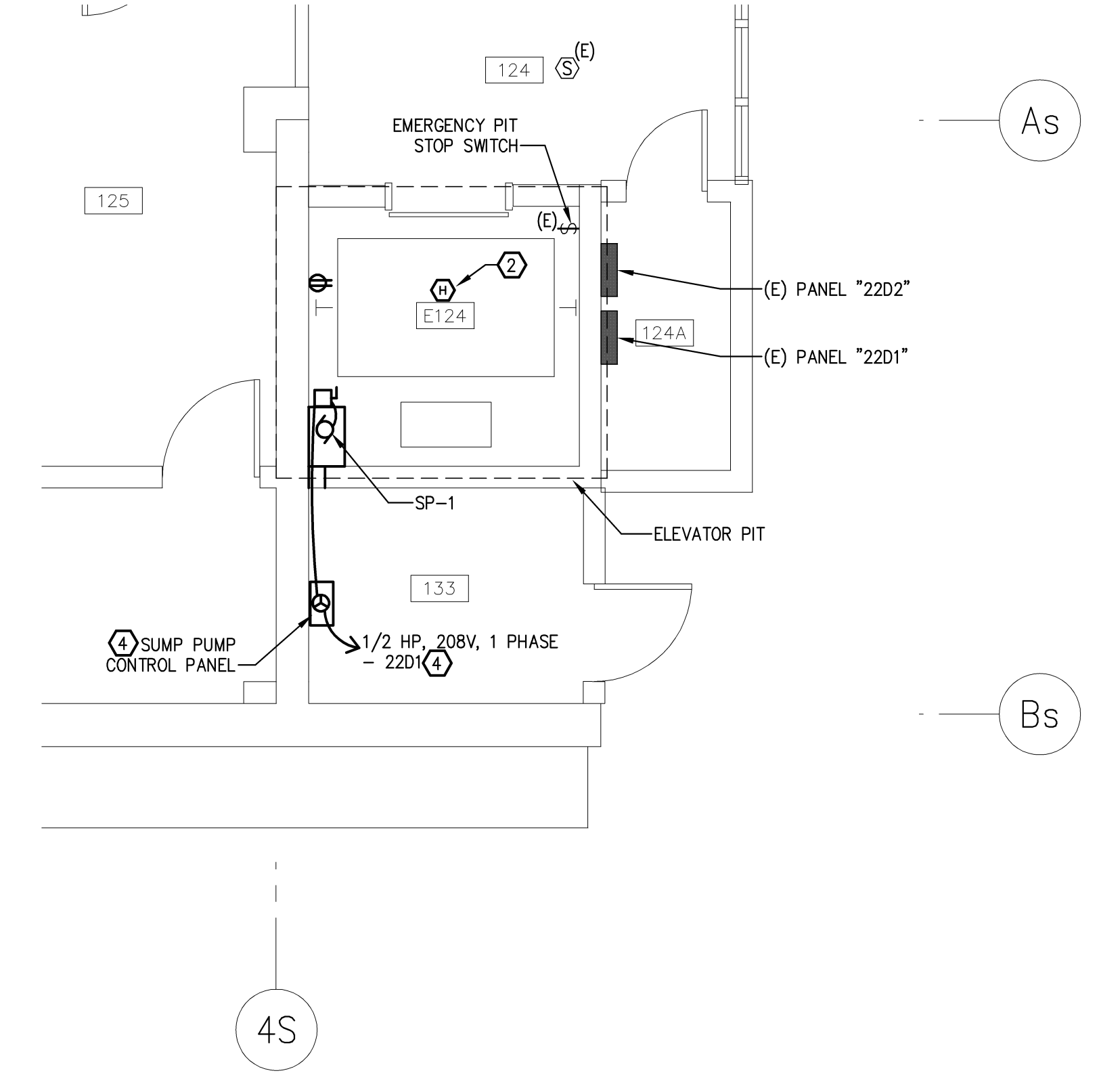
1 ELEVATOR MACHINE ROOM PLAN - ELECTRICAL DEMOLITION
 SCALE: 1/4"=1'-0"

- ELEVATOR MACHINE ROOM PLAN - ELECTRICAL DEMOLITION GENERAL NOTES:
- ALL EQUIPMENT SHOWN SHALL BE DISCONNECTED UNLESS OTHERWISE NOTED. REMOVAL OF ELEVATOR EQUIPMENT INCLUDING CONTROLLER, INVERTER, AND MOTOR WILL BE BY ELEVATOR CONTRACTOR.
 - REMOVE ALL ELECTRICAL CONDUIT AND BOXES SERVING EQUIPMENT SHOWN UNLESS OTHERWISE NOTED.

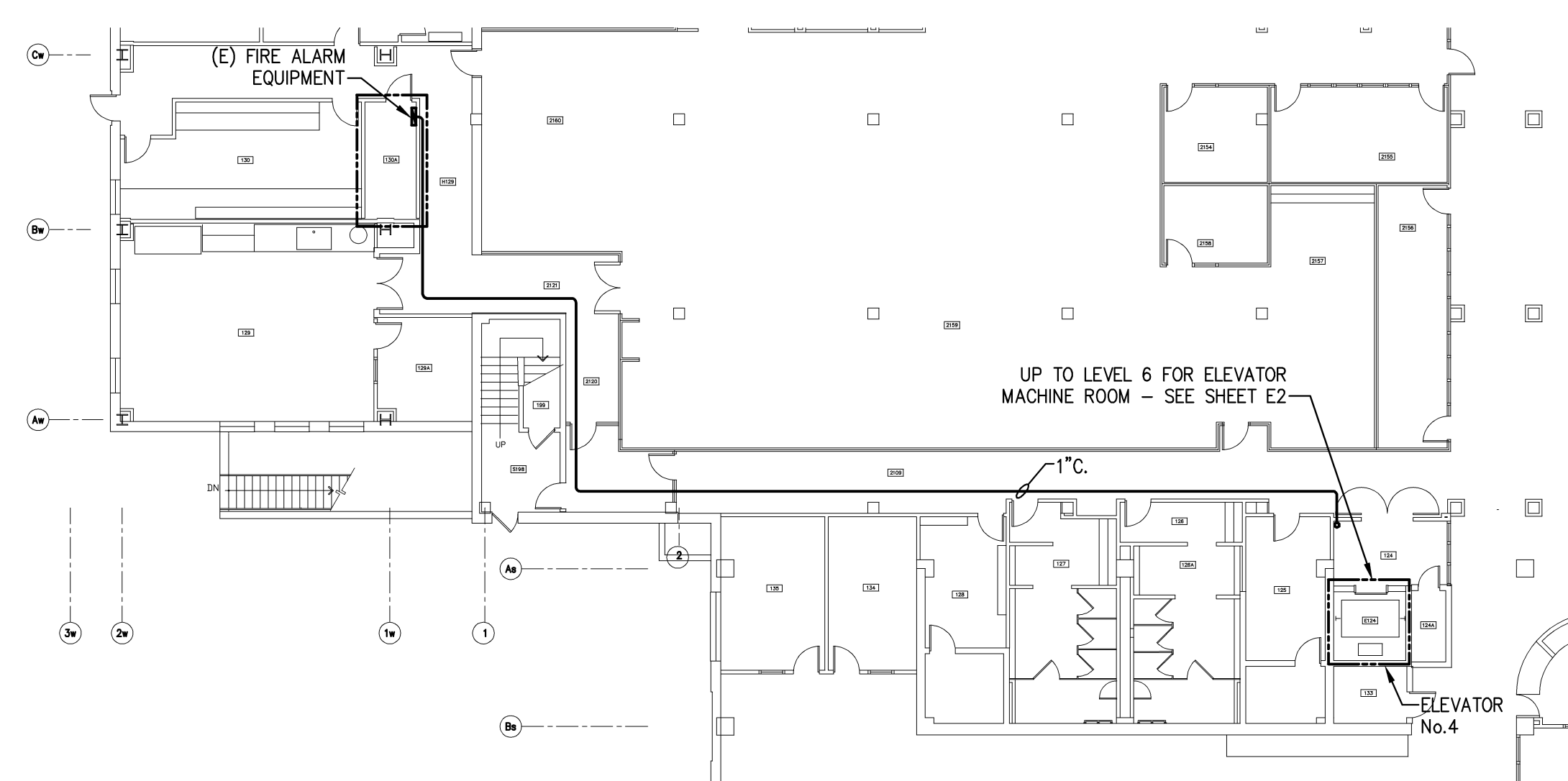


2 FIRST FLOOR PLAN- LIGHTING
 SCALE: 1/4"=1'-0"

- SHEET NOTES:
- REPLACE EXISTING 120V INCANDESCENT FIXTURE WITH VAPOR TIGHT FLUORESCENT 2 LAMP, 120V SURFACE MOUNTED FIXTURE: LITHONIA DMW SERIES WITH F032XPS LAMPS, PROGRAMMED RAPID START BALLAST. REUSE EXISTING SWITCHING AND CIRCUITING.
 - PROVIDE FIRE ALARM DEVICES AS SHOWN.
 - REMOVE DISCONNECT EXCEPT EXISTING CONDUIT TO MCC-6. CONDUIT TO BE USED FOR NEW WORK.
 - SUMP PUMP SP-1: PROVIDE 3 #12, 1 #12 GND IN 1" C. PROVIDE 20 AMP, 2 POLE CIRCUIT BREAKER TO MATCH EXISTING PANEL "22D1". PROVIDE COMPLETE INSTALLATION OF SUMP PUMP AND CONTROLLER PROVIDED BY MECHANICAL INCLUDING WIRING OF FLOATS AND ALL REQUIRED POWER CONNECTIONS FOR FULL OPERATION. COORDINATE WITH MECHANICAL. PROVIDE SEALED PENETRATION FOR ROUTING CONDUIT FOR FLOATS AND POWER.
 - MAINTAIN EXISTING CONTROL MODULES FOR REUSE TO CONNECT NEW ELEVATOR CONTROLLER TO EXISTING FACP. MAINTAIN EXISTING SMOKE DETECTOR SIGNAL LOOP AT JUNCTION BOX TO EXTEND TO NEW ELEVATOR CONTROLLER.
 - VERIFY TELEPHONE CONNECTION FOR COMMUNICATION TO ELEVATOR. EXTEND TO NEW CONTROLLER OR PROVIDE NEW VOICE CONNECTION.



3 FIRST FLOOR PLAN - POWER/FIRE ALARM
 SCALE: 1/4"=1'-0"



4 PARTIAL LEVEL 2 PLAN - ELECTRICAL
 SCALE: 1/16"=1'-0"

ELECTRICAL SYMBOLS LIST		
SYMBOL	ABBR.	DESCRIPTION
		CEILING, SURFACE MOUNT LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR DETAILS.
		120 VOLT, DUPLEX RECEPTACLE, MOUNTED AT STANDARD HEIGHT.
		EQUIPMENT CONNECTION.
		MOTOR CONNECTION.
		DISCONNECT SWITCH.
		BRANCH PANEL. SURFACE MOUNTED.
		FIRE ALARM SMOKE DETECTOR.
		FIRE ALARM HEAT DETECTOR.
		CONTROL MODULE.
		SWITCH. SINGLE POLE.
		WIRING IN OR ON CEILING OR WALLS.
		HOME RUN TO PANEL.
		CONDUIT UP - CONDUIT DOWN.
		DATA OUTLET.
		JUNCTION BOX.
		FIRE ALARM MONITOR MODULE.
	FACP	FIRE ALARM CONTROL PANEL.
		NOTE REFERENCE.
(E)		INDICATES EXISTING DEVICE TO REMAIN.
GFI		GROUND FAULT INTERRUPTER.



BALZHISER & HUBBARD ENGINEERS
 MECHANICAL
 ELECTRICAL
 CIVIL
 SURVEYORS

100 WEST 13TH AVENUE
 EUGENE, OR 97401
 P: 541-686-8478
 F: 541-249-5303



UNIVERSITY OF OREGON
 KNIGHT LIBRARY - ELEVATOR 4 REPLACEMENT

FLOOR PLANS - ELECTRICAL

PROJECT TITLE

SHEET TITLE

DATE

4/18/13

DESIGNER

JHS

PROJECT

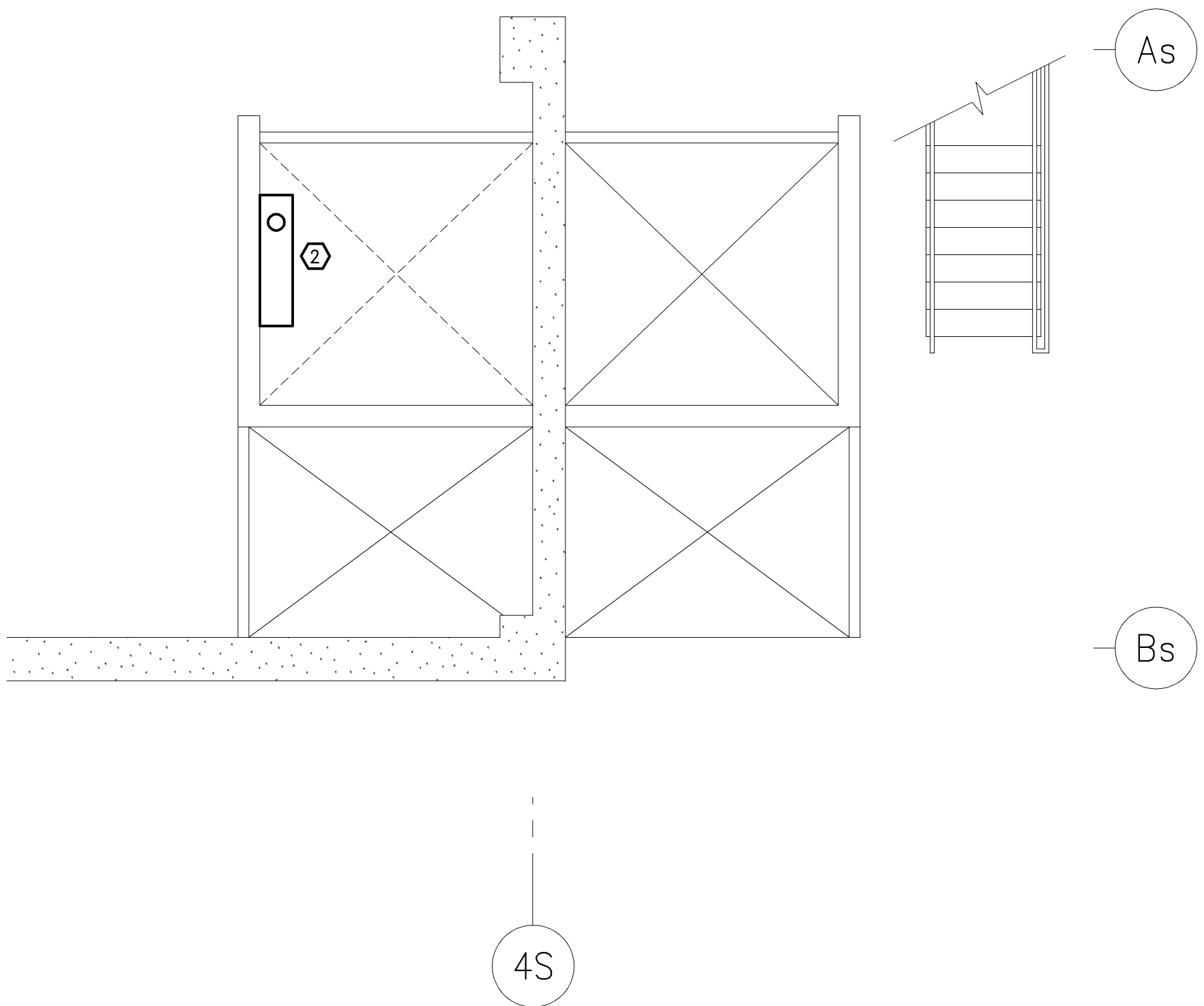
8900-002-13

FILENAME

8900-002-13e2.dwg

SHEET NO

E2

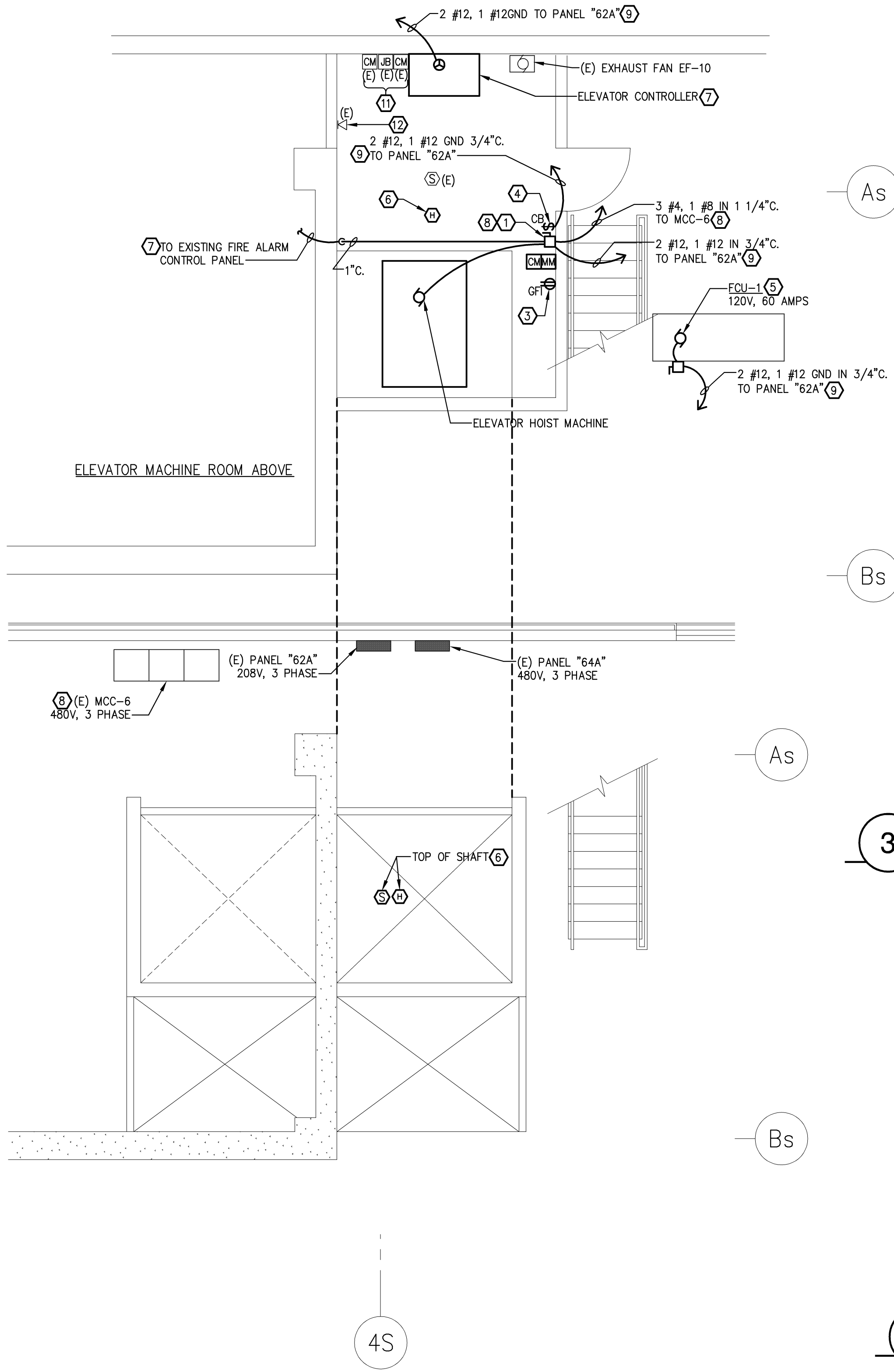


1 PENTHOUSE FLOOR PLAN - LIGHTING

SCALE: 1/4"=1'-0"

PLAN NOTES:

- 1 REPLACE EXISTING DISCONNECT WITH SHUNT TRIP FUSED DISCONNECT. PROVIDE CONTROL MODULE TO RECEIVE SIGNAL FROM FIRE ALARM CONTROL PANEL FOR SHUT DOWN.
- 2 REPLACE EXISTING 120V INCANDESCENT FIXTURE WITH VAPOR TIGHT FLUORESCENT 2 LAMP, 120V SURFACE MOUNTED FIXTURE: LITHONIA DMW SERIES WITH F032XPS LAMPS, PROGRAMMED RAPID START BALLAST. REUSE EXISTING SWITCHING AND CIRCUITING.
- 3 REPLACE EXISTING RECEPTACLE WITH GFI RECEPTACLE.
- 4 PROVIDE LOCKABLE CIRCUIT BREAKER SWITCH FOR ELEVATOR CAR LIGHTING. PROVIDE CIRCUIT SHOWN WITH 20 AMP, 1 POLE CIRCUIT BREAKER TO MATCH PANEL. PROVIDE PHENOLIC LABEL "CAR LIGHTING".
- 5 FAN COIL UNIT: OWNER FURNISHED, CONTRACTOR INSTALLED. COORDINATE EXACT LOCATION AND INSTALLATION PHASING WITH OWNER'S REPRESENTATIVE.
- 6 PROVIDE FIRE ALARM DEVICES AS SHOWN.
- 7 PROVIDE CONNECTION FOR ELEVATOR RECALL. PROVIDE CONDUCTORS IN CONDUIT AS REQUIRED TO EXISTING FIRE ALARM CONTROL PANEL. SEE PARTIAL LEVEL 2 PLAN 4/E2.
- 8 REUSE EXISTING BUCKET IN MCC-6 MADE AVAILABLE BY REMOVAL OF EXISTING ELEVATOR. PROVIDE 110A, 3 POLE CIRCUIT BREAKER TO MATCH EXISTING SIEMENS MCC (RATED 42KAIC). REUSE EXISTING CONDUIT. VERIFY EXACT REQUIREMENTS WITH ELEVATOR EQUIPMENT SUPPLIER.
- 9 PROVIDE 20 AMP, SINGLE POLE CIRCUIT BREAKER IN EXISTING SPACE TO MATCH EXISTING PANEL.
- 10 RETROFIT EXISTING LIGHT FIXTURES WITH LAMPS AND BALLASTS. REPLACE LAMPS AND BALLASTS WITH SPECIFIED LAMPS AND BALLASTS IDENTIFIED IN SPECIFICATION SECTION 265000. VERIFY LAMP HOLDER COMPATIBILITY AND REPLACE AS NECESSARY. EXISTING FIXTURES ARE 2 LAMP SURFACE MOUNT STRIP FIXTURES.
- 11 EXTEND WIRING FROM EXISTING CONTROL MODULES TO NEW ELEVATOR CONTROLLER PANEL FOR ELEVATOR RECALL.
- 12 EXTEND EXISTING COMMUNICATION CABLE TO ELEVATOR CONTROLLER FOR CAR COMMUNICATION. VERIFY CABLING IS CONNECTED AS REQUIRED FOR FULL COMMUNICATION.

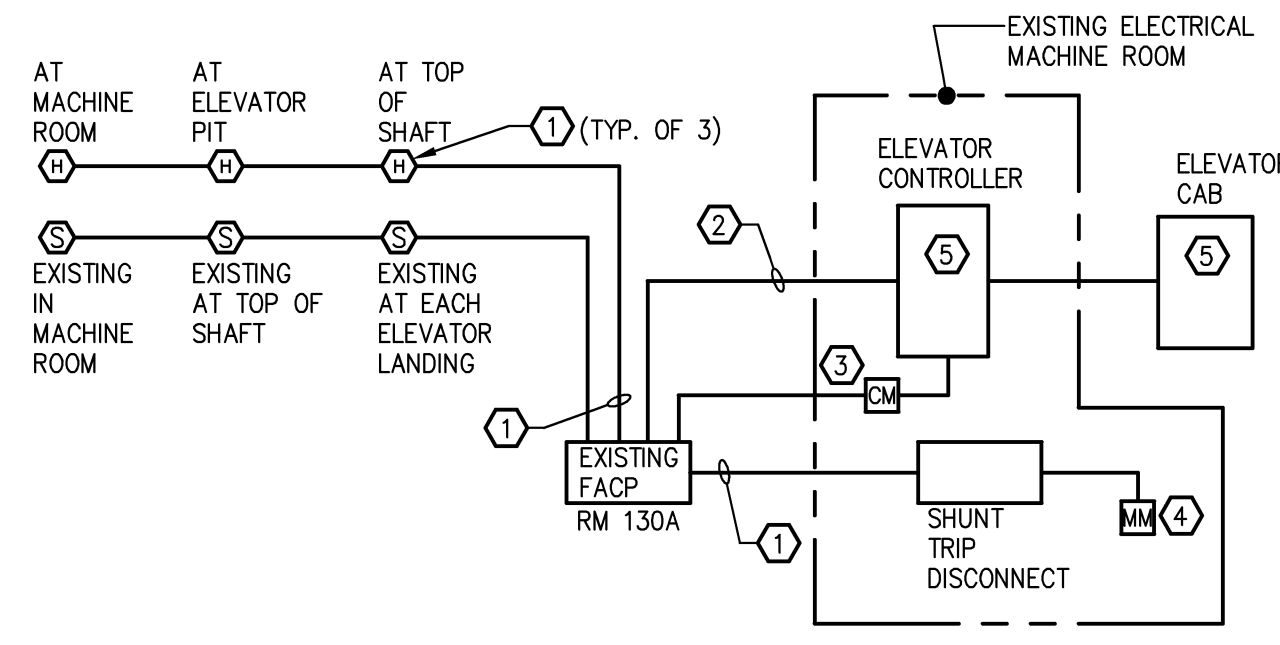


2 ELEVATOR MACHINE ROOM FLOOR PLAN/ PENTHOUSE FLOOR PLAN - POWER/FIRE ALARM

SCALE: 1/4"=1'-0"

3 ELEVATOR MACHINE ROOM FLOOR PLAN-LIGHTING

SCALE: 1/4"=1'-0"



4 FIRE ALARM/ELEVATOR CONTROL DIAGRAM

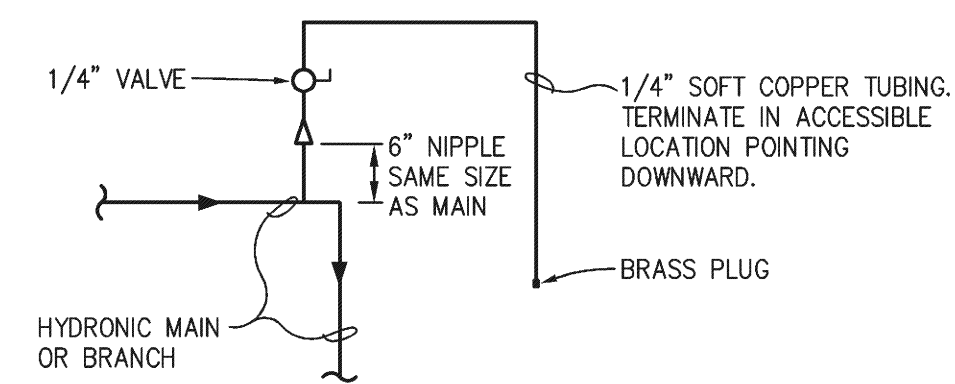
SCALE: NONE

FIRE ALARM/ELEVATOR CONTROL DIAGRAM NOTES:

- 1 PROVIDE AND MOUNT ADDRESSABLE HEAT DETECTORS ADJACENT TO SPRINKLER HEAD IN ELEVATOR MACHINE ROOM AND ELEVATOR SHAFT. ALARM ACTIVATION FROM ANY ONE OF THESE DETECTORS SHALL ACTIVATE CIRCUIT BREAKER SHUNT TRIP FUSED DISCONNECT AND INTERCEPT 120V CIRCUIT TO THE CONTROLLER. EXTEND EXISTING ADDRESSABLE LOOP OR PROVIDED SEPARATE LOOP FROM EXISTING FIRE ALARM CONTROL PANEL FOR SHUT DOWN.
- 2 RECONNECT EXISTING DETECTORS SHOWN TO SIGNAL ELEVATOR CONTROLLER TO INITIATE RECALL.
- 3 RECONNECT TWO EXISTING ALARM CONTROL MODULES FOR ELEVATOR RECALL. PROVIDE ONE FIRE ALARM CONTROL MODULE FOR ELEVATOR FIRE HAT ANNUNCIATOR.
- 4 PROVIDE FIRE ALARM MONITOR MODULE TO MONITOR 120V POWER TO SHUNT TRIP DEVICE.
- 5 PROVIDED BY ELEVATOR EQUIPMENT SUPPLIER.

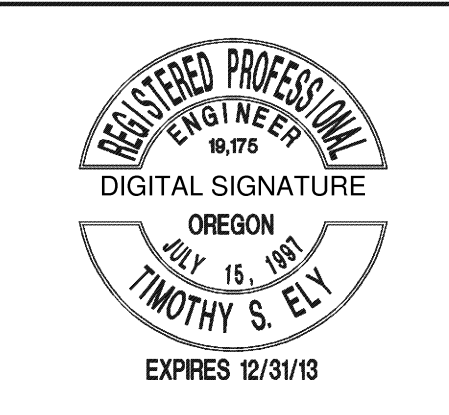
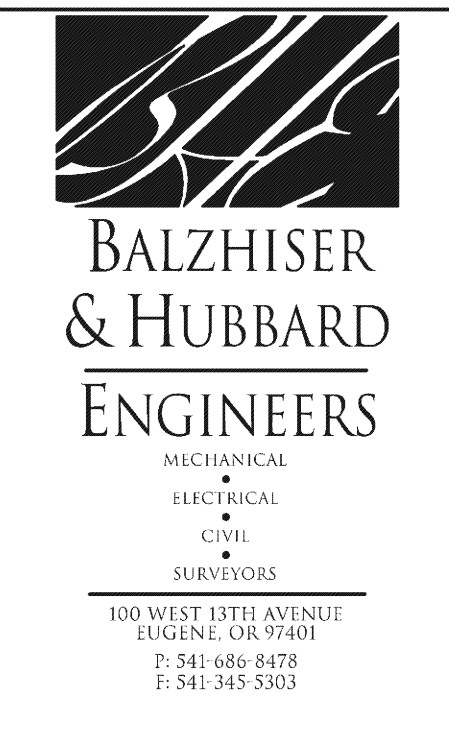
DESCRIPTION	PLAN VIEW	DESCRIPTION	SHEETMETAL DUCTWORK
RADIUS ELBOW		ROUND TO ROUND TRANSITION	
TAKE-OFF WITH 45° ENTRY		ROUND TAKE-OFF	
TRANSITION		ROUND TAKE-OFF	
MITERED OFFSET		RECTANGULAR-TO-ROUND TAKE-OFF WITH 45° ENTRY	

1 DUCT CONSTRUCTION
NO SCALE



2 MANUAL AIR VENT
NO SCALE

MECHANICAL SYMBOLS LIST					
SYMBOL	ABBR.	DESCRIPTION	SYMBOL	ABBR.	DESCRIPTION
	F	FIRE SPRINKLER PIPE		PSW	PUMPED SANITARY WASTE
		DIRECTION OF AIR FLOW		CD	COOLING COIL CONDENSATE DRAIN
		SUPPLY DUCT UP AND DOWN		CHS	CHILLED WATER SUPPLY PIPE
		RETURN DUCT UP AND DOWN		CHR	CHILLED WATER RETURN PIPE
		RECTANGULAR DUCT - 1ST DIMENSION IS SIDE SHOWN			SPRINKLER HEAD - UPRIGHT
		FLEXIBLE DUCT CONNECTOR			STRAINER WITH BLOWDOWN VALVE
		DUCT WITH RECTANGULAR ELBOW AND TURNING VANES			CONCENTRIC REDUCER
		TAKE-OFF WITH 45 DEGREE ENTRY			PIPE TAKE OFF - DOWN
		DUCT TRANSITION			90 DEGREE ELBOW DOWN
		DUCT DROP/RISE		PT	PRESSURE/TEMPERATURE TEST PLUG
		DUCT TO BE REMOVED			TEE DOWN
		FIRE DAMPER			BREAK IN LINE - SHOWN FOR CLARITY
	FCU	FAN COIL UNIT			FLEXIBLE PIPE CONNECTOR
	EF	EXHAUST FAN			PIPE UNION
	CC	COOLING COIL			BALL VALVE
	SGW	SUPPLY GRILLE WALL			2-WAY CONTROL VALVE
	RGW	RETURN GRILLE WALL		FCV	FLOW CONTROL VALVE
	AFF	ABOVE FINISHED FLOOR		125 SDC-1 6x6 - 4W	AIR FLOW (CFM) - TYPE / NECK SIZE - PATTERN
	OFCI	OWNER FURNISHED - CONTRACTOR INSTALLED		RS-1	ROOM SENSOR W/UNIT CONTROLLED
	(E)	EXISTING		AC-1	THERMOSTAT WITH ZONE/UNIT CONTROLLED
	(R)	REMOVE		A205	ROOM NUMBER
				5	DETAIL & SHEET NUMBER
					KEYED NOTE REFERENCE
					POINT OF CONNECTION BETWEEN NEW & EXISTING WORK
					MAINTENANCE ACCESS AREA (SEE UO CAMPUS CONSTRUCTION STANDARDS)



PROJECT TITLE
**UNIVERSITY OF OREGON
 KNIGHT LIBRARY - ELEVATOR 4 REPLACEMENT**
 SHEET TITLE
SHEET INDEX, SYMBOLS LIST AND SCHEDULES

DATE
4/18/13

DESIGNER
PEF/TSB

PROJECT
8900-002-13

FILENAME
8900-002-13m1.dwg

SHEET NO
M1

FAN COIL UNITS - OFCI																		
TAG	MODEL NO.	FAN			COOLING COIL						ELECTRICAL				UNIT WEIGHT (LBS)	REMARKS		
		CFM	ESP	EAT (DB/WB)	LAT (DB/WB)	SENSIBLE MBH	TOTAL MBH	GPM	ROWS	MAXIMUM WPD (FT)	CONTROL VALVE		MCA	MOCP			VOLT	PHASE
FCU-1	FCDB10	650	0.5	75 / 60	58 / 53	12.2	13.0	2.75	2	3.5	X		6.0 A	15 A	115	1	200	

NOTES:
BASIS OF DESIGN: TRANE. OBTAIN FAN COIL UNIT FROM OWNER FOR INSTALLATION.
53 DEGREE F ENTERING CHILLED WATER TEMPERATURE (WINTER WATER-SIDE ECONOMIZER CONDITION).

SUMP PUMPS												
TAG	MODEL NO.	LOCATION	SERVICE	TYPE	GPM	HEAD (FT)	MOTOR				CONTROLS	NOTES
							HP	RPM	VOLT	PHASE		
SP-1	1413-500	ELEVATOR PIT	WASTE WATER	SUBMERSIBLE	50	20	1/2	1750	208	1	PANEL / ALARM	SINGLE PUMP

NOTES:
BASIS OF DESIGN: Well.

MECHANICAL SHEET INDEX	
SHEET NO.	SHEET TITLE
M1	SHEET INDEX, SYMBOLS LIST AND SCHEDULES
M2	FLOOR PLANS - MECHANICAL



BALZHISER & HUBBARD ENGINEERS
MECHANICAL
ELECTRICAL
CIVIL
SURVEYORS

100 WEST 13TH AVENUE
EUGENE, OR 97401
P: 541-686-8478
F: 541-343-5303



UNIVERSITY OF OREGON
KNIGHT LIBRARY - ELEVATOR 4 REPLACEMENT

FLOOR PLANS - MECHANICAL

PROJECT TITLE

SHEET TITLE

DATE

4/18/13

DESIGNER

PEF/TSB

PROJECT

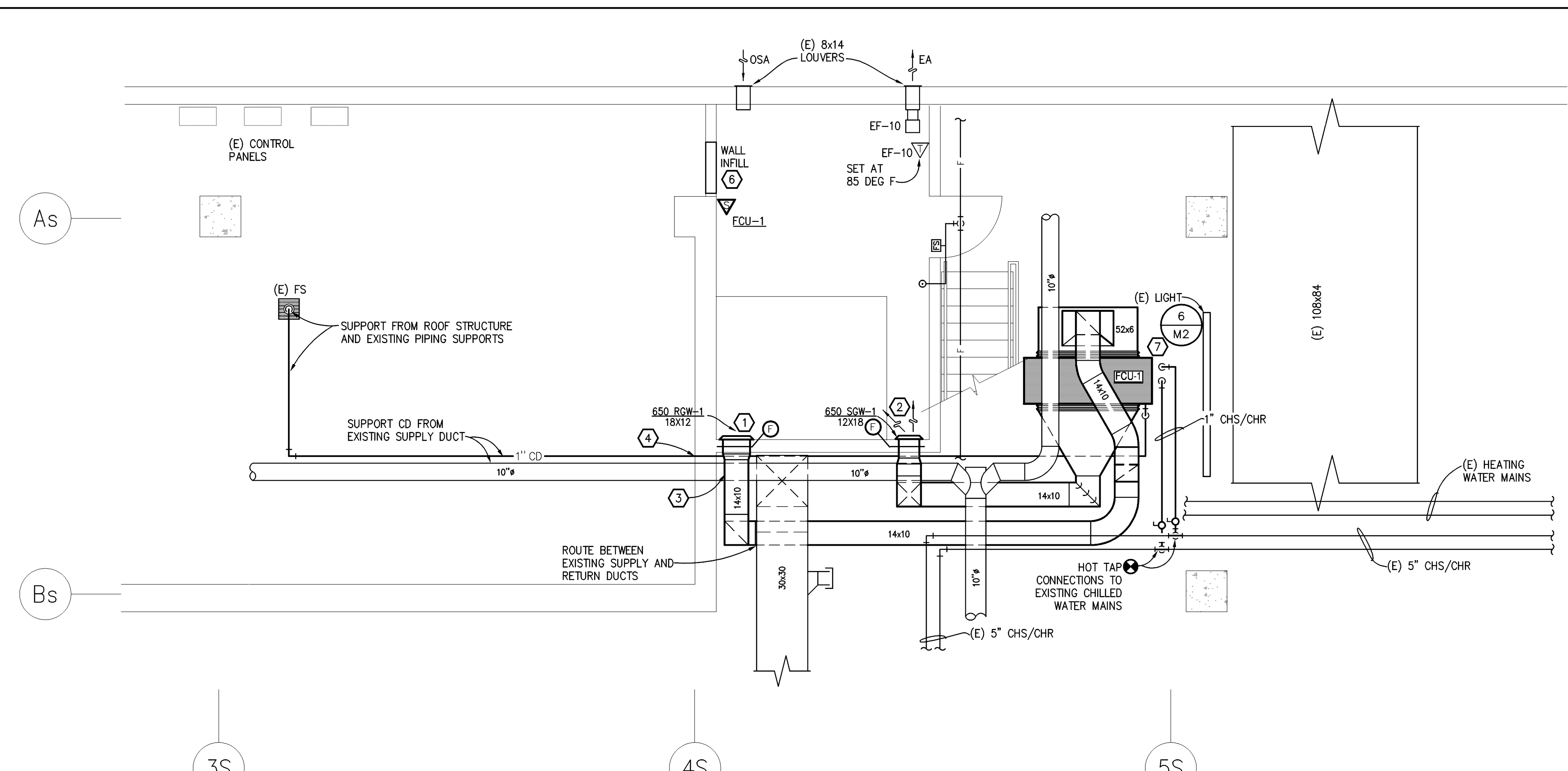
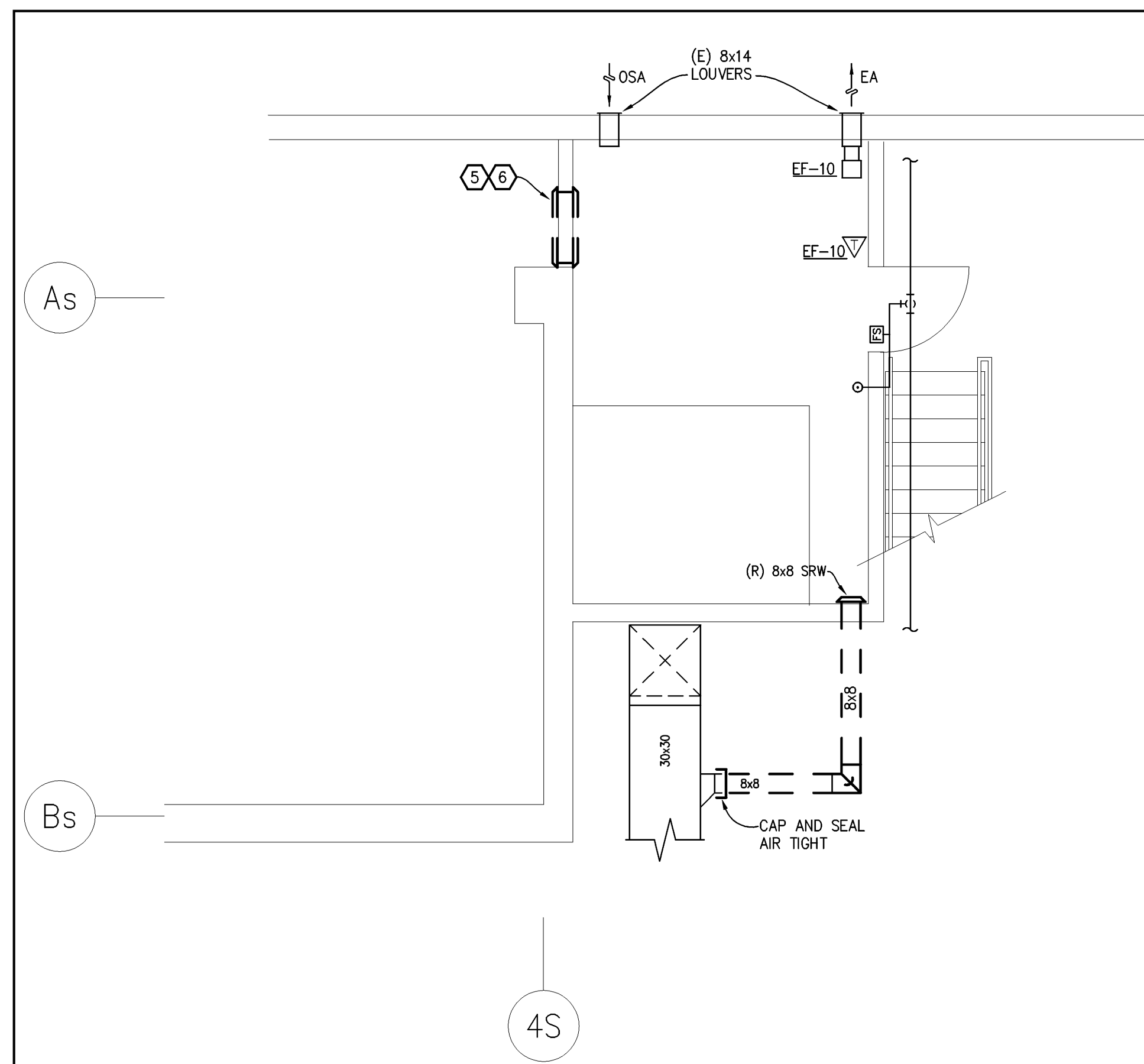
8900-002-13

FILENAME

8900-002-13m2.dwg

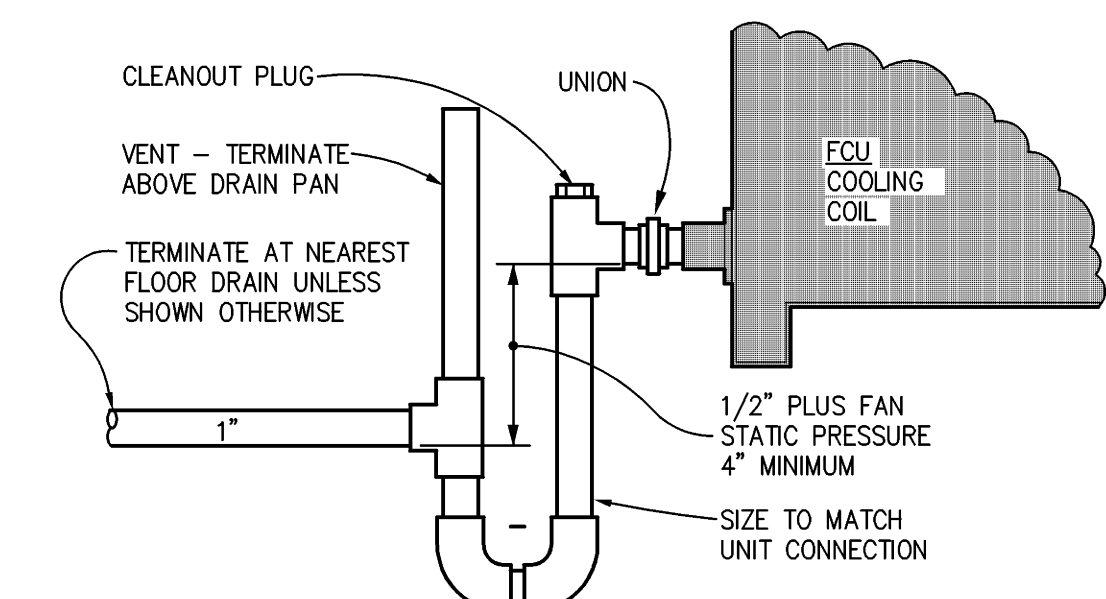
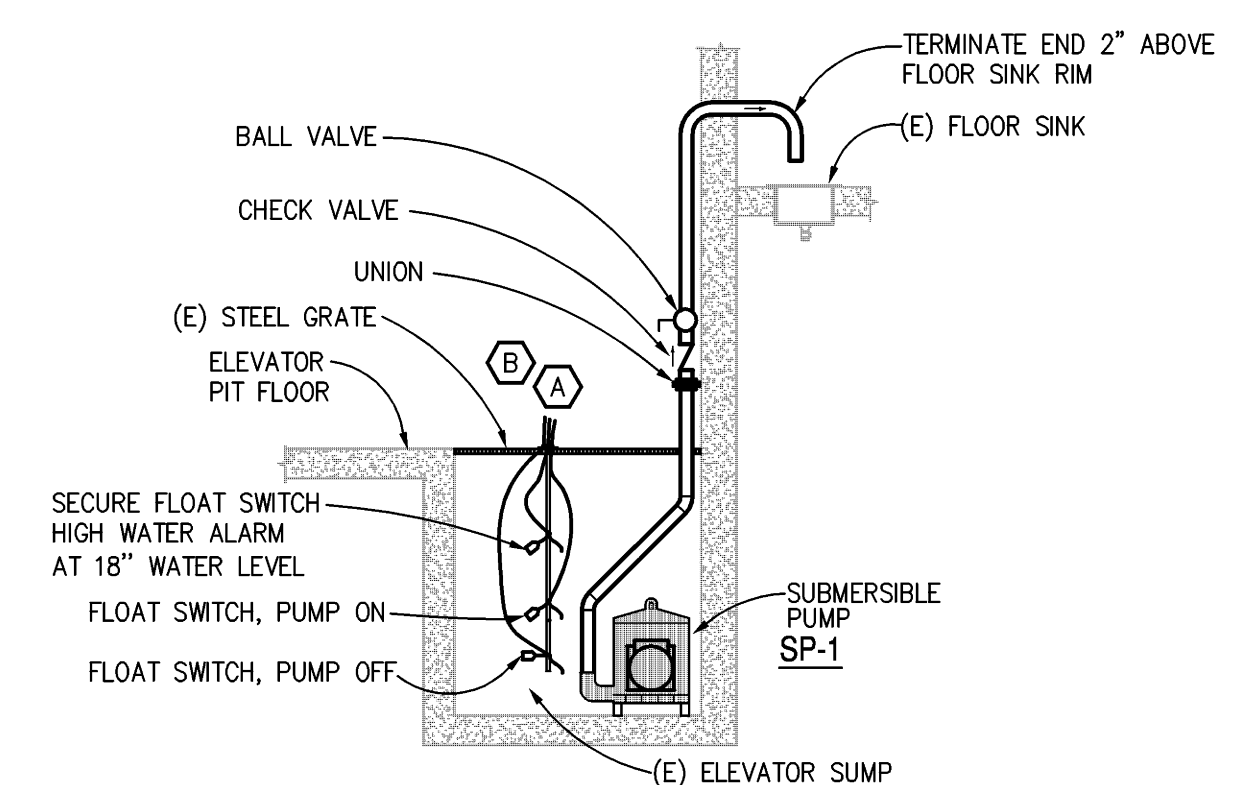
SHEET NO

M2

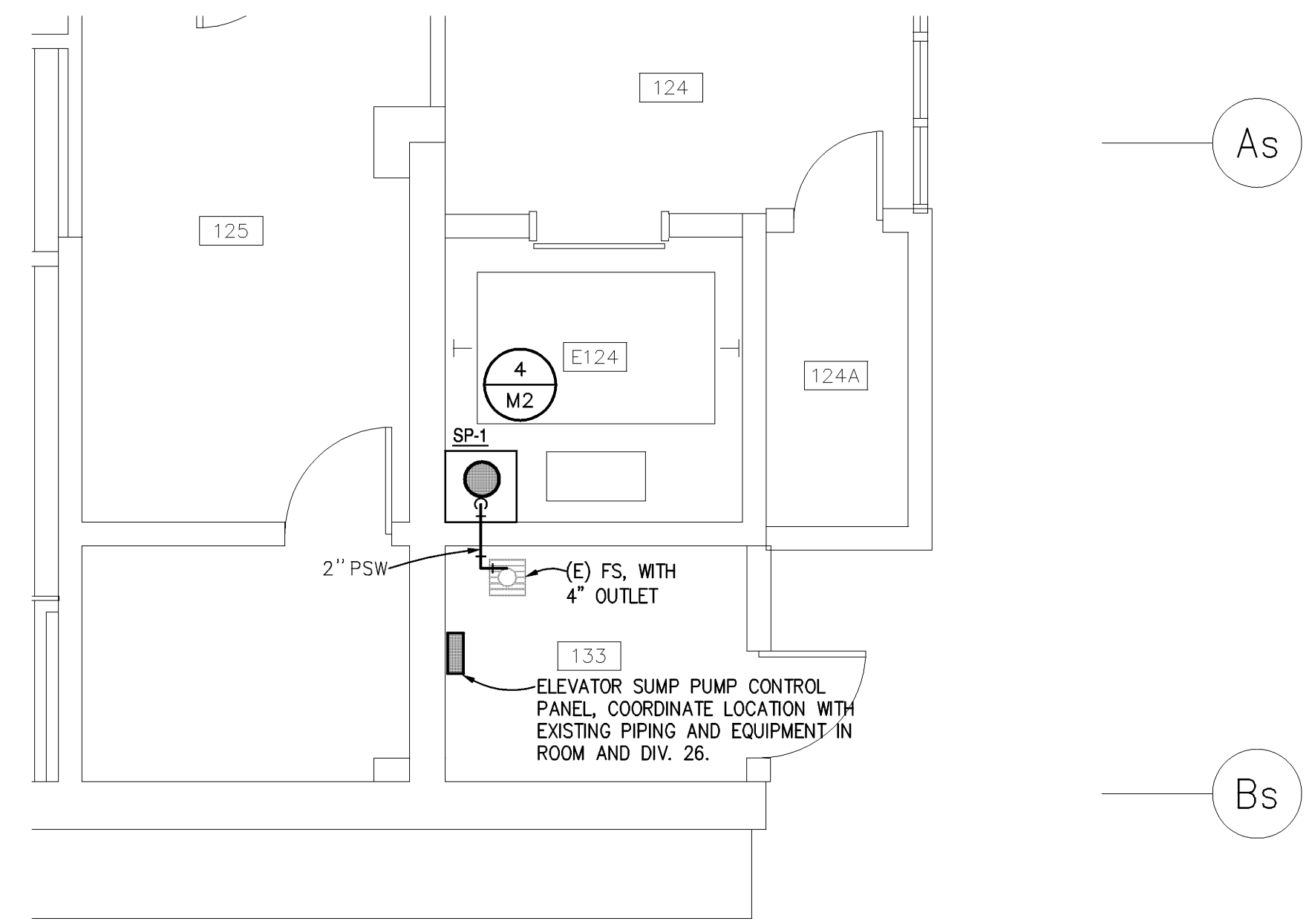


3 ELEVATOR MACHINE ROOM DEMOLITION PLAN - MECHANICAL
SCALE: 1/4"=1'-0"

2 ELEVATOR MACHINE ROOM FLOOR PLAN- MECHANICAL
SCALE: 1/4"=1'-0"



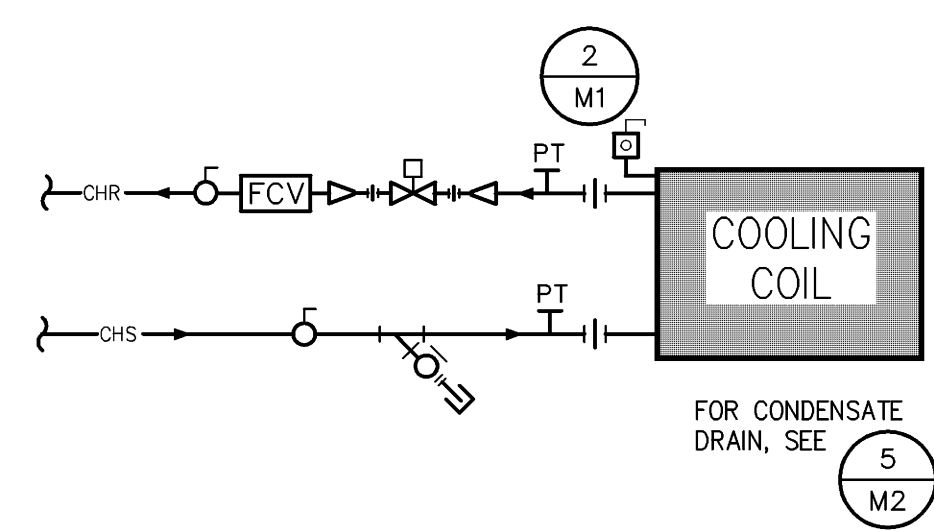
- KEYED NOTES:**
- CUT WALL OPENING FOR RETURN GRILLE. INSTALL DAMPER BEHIND NEW GRILLE WITHIN WALL. LABEL GRILLE "FIRE DAMPER ACCESS."
 - ENLARGE EXISTING OPENING. INSTALL FIRE DAMPER AT WALL BEHIND GRILLE. LABEL GRILLE "FIRE DAMPER ACCESS."
 - ROUTE SUPPLY DUCT BETWEEN EXISTING 10" DUCT AND HEATING WATER PIPING ABOVE. RELOCATE EXISTING DUCT HANGER TO CREATE CLEAR ROUTING PATH.
 - CONCRETE WALL PENETRATION.
 - (E) 30x14 TRANSFER GRILLE ON EACH SIDE OF WALL. REMOVE GRILLES AND DUCT CONNECTION FROM WALL.
 - NEW INFILL WALL TO MATCH EXISTING. MINIMUM 25 GAUGE STEEL STUDS AT 24" O.C. MAX. PROVIDE (2) LAYERS 5/8" TYPE X GYPBOARD AT WALL FACE OUTSIDE ROOM, WITH LEVEL 4 FINISH. PROVIDE (1) LAYER 5/8" TYPE X GYPBOARD WITH LEVEL 3 FINISH INSIDE ROOM. MINIMUM 1-HR. RATED. PAINT TO MATCH EXISTING, EXTEND TO NEAREST BREAK IN WALL PLANE.
 - BOTTOM OF FAN COIL AT APPROXIMATELY 10' ABOVE FLOOR. MECHANICAL ROOM ROOF STRUCTURE ABOVE AT APPROXIMATELY 18' ABOVE FLOOR.
- GENERAL NOTES:**
- EXTENT AND CONFIGURATION OF EXISTING SYSTEMS BASED ON ORIGINAL DRAWINGS AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS IN FIELD.
 - FULL EXTENT OF DUCTWORK AND PIPING IN BUILDING NOT SHOWN FOR CLARITY OF CURRENT WORK SCOPE.



4 ELEVATOR SUMP PUMP
NO SCALE

5 CC CONDENSATE DRAIN
NO SCALE

6 AIR HANDLER COOLING COIL - TWO WAY
NO SCALE



1 FIRST FLOOR PLAN- MECHANICAL
SCALE: 1/4"=1'-0"