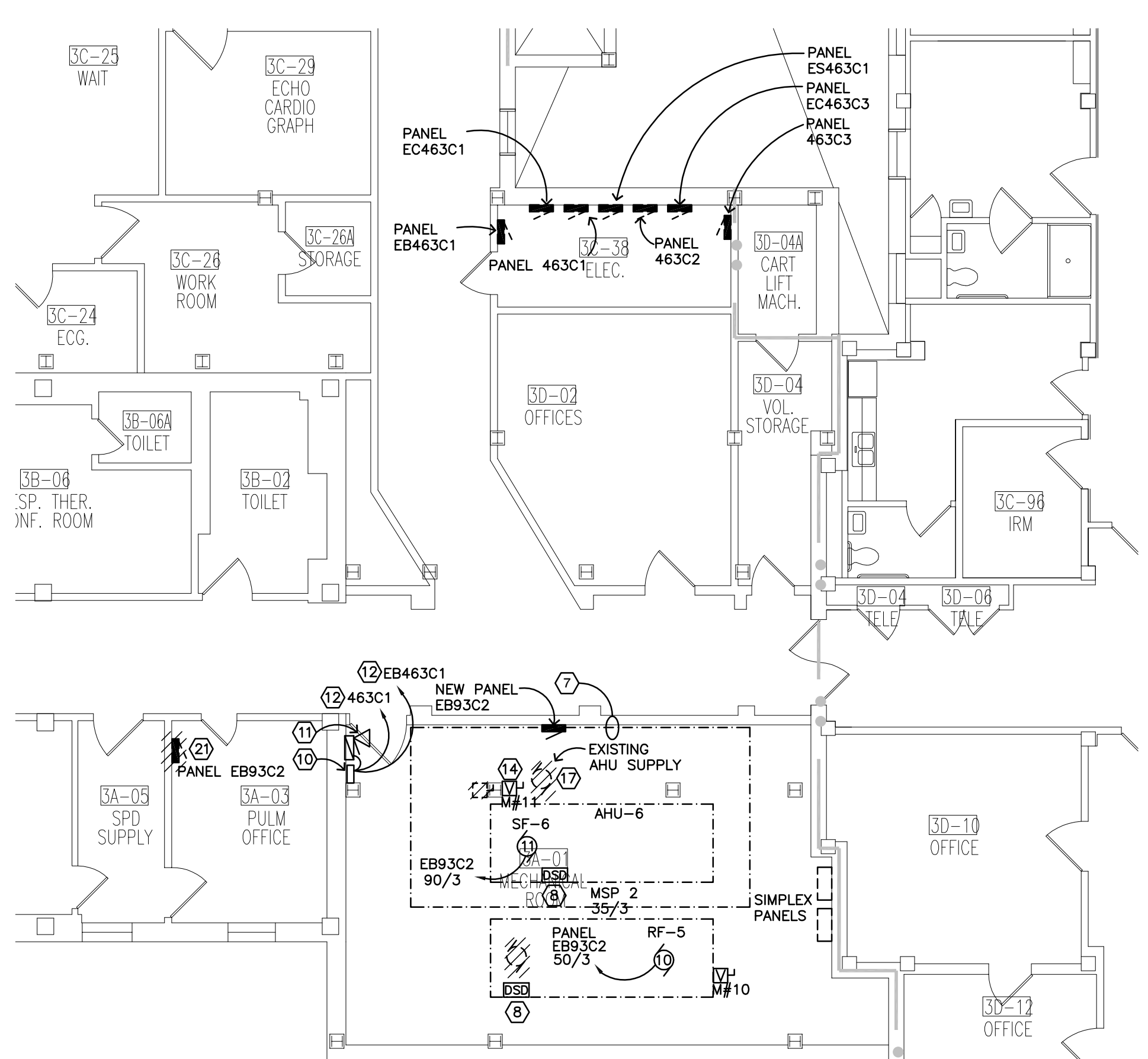
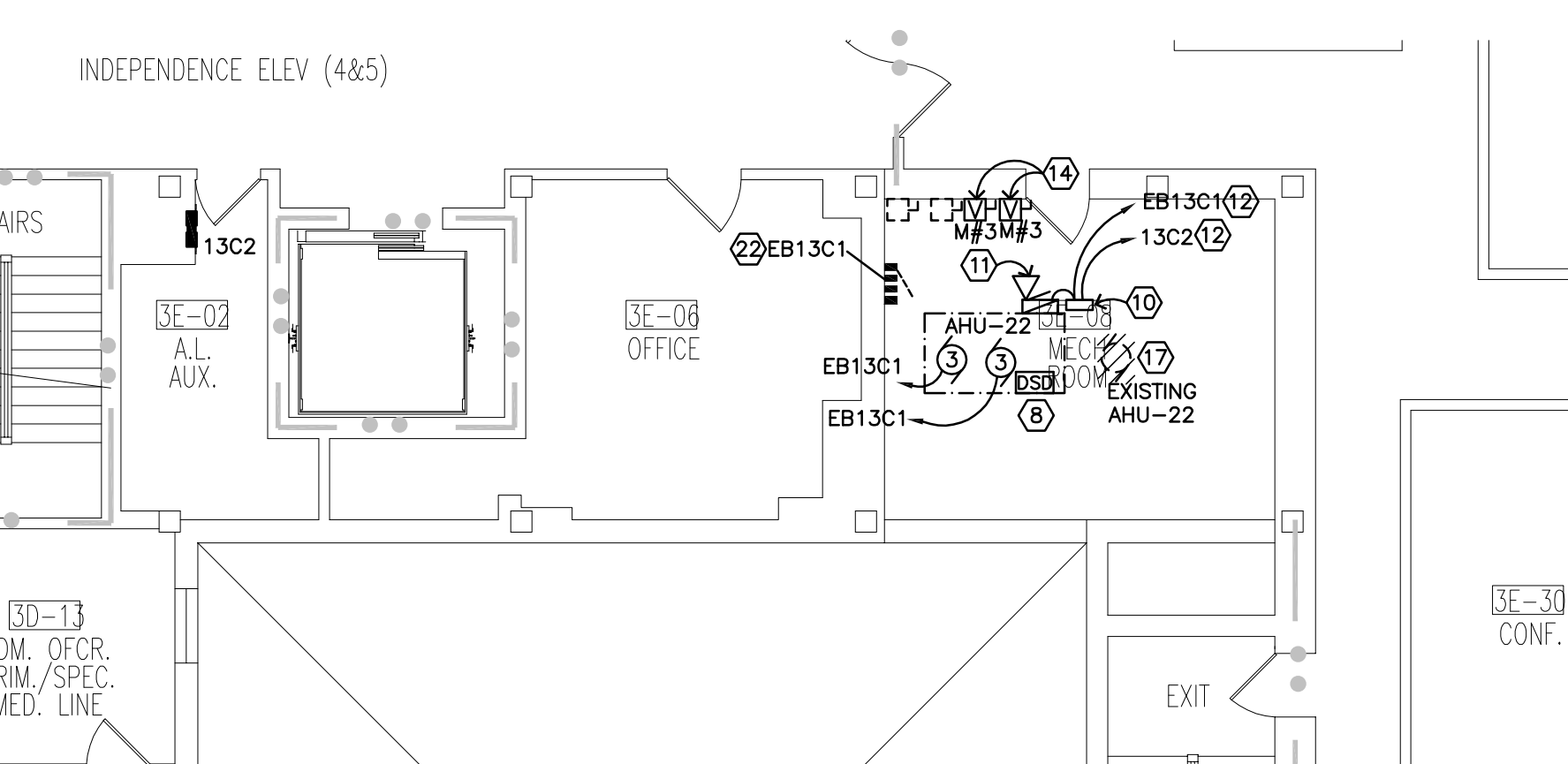


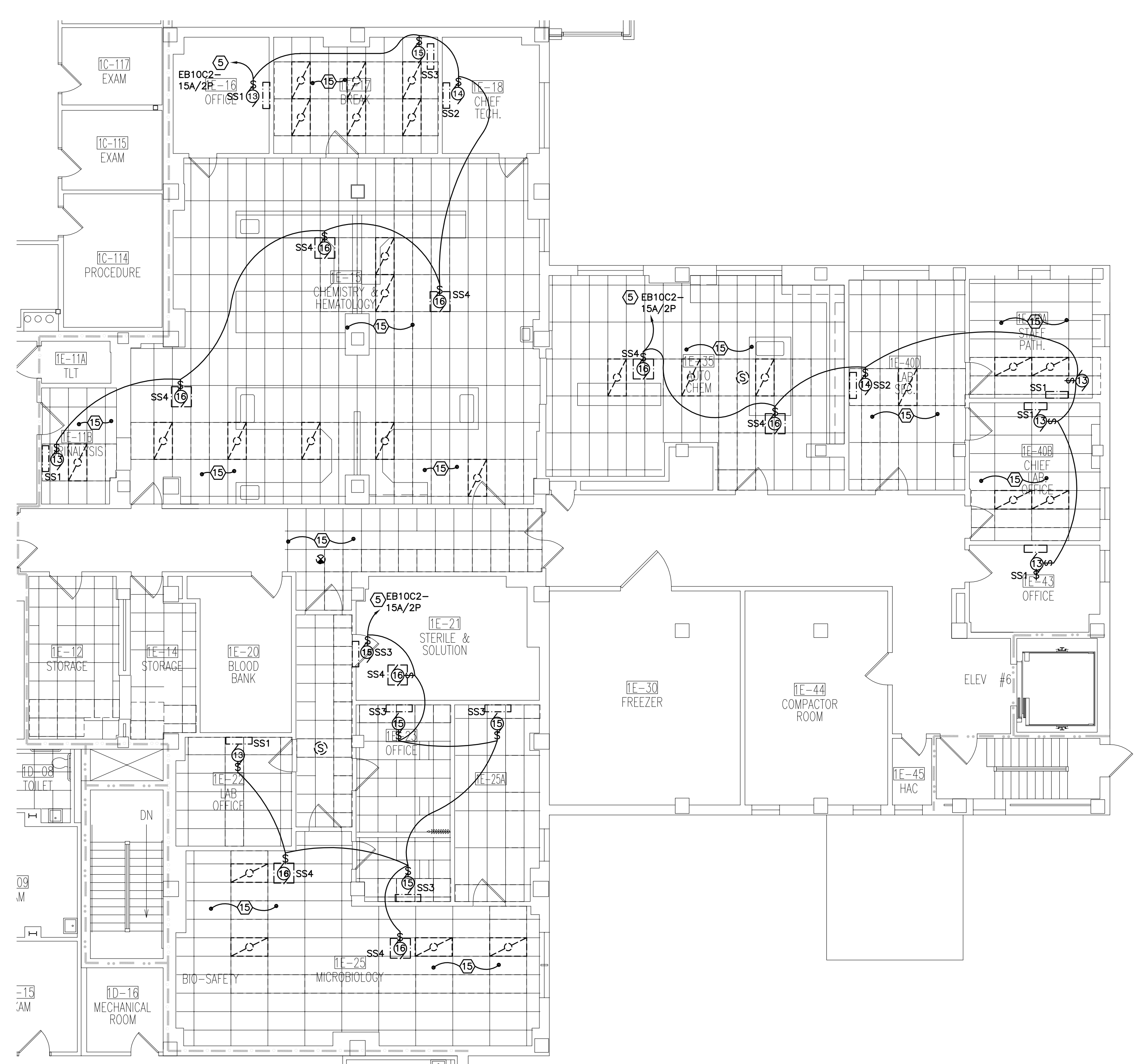
1 BE-46 FLOOR PLAN - ELECTRICAL
E2.1



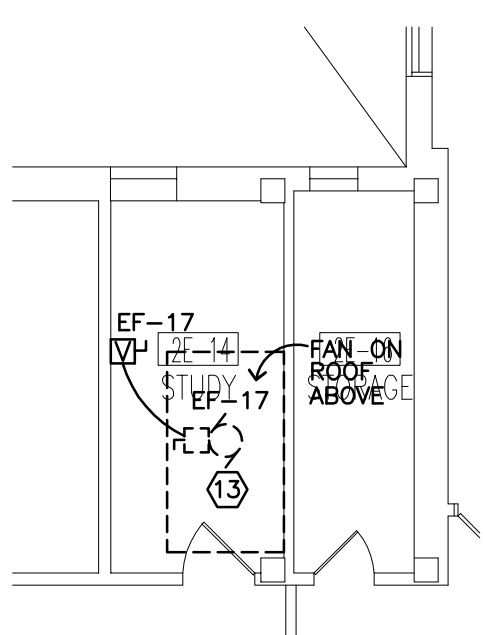
5 3A-01 FLOOR PLAN - ELECTRICAL
E2.1



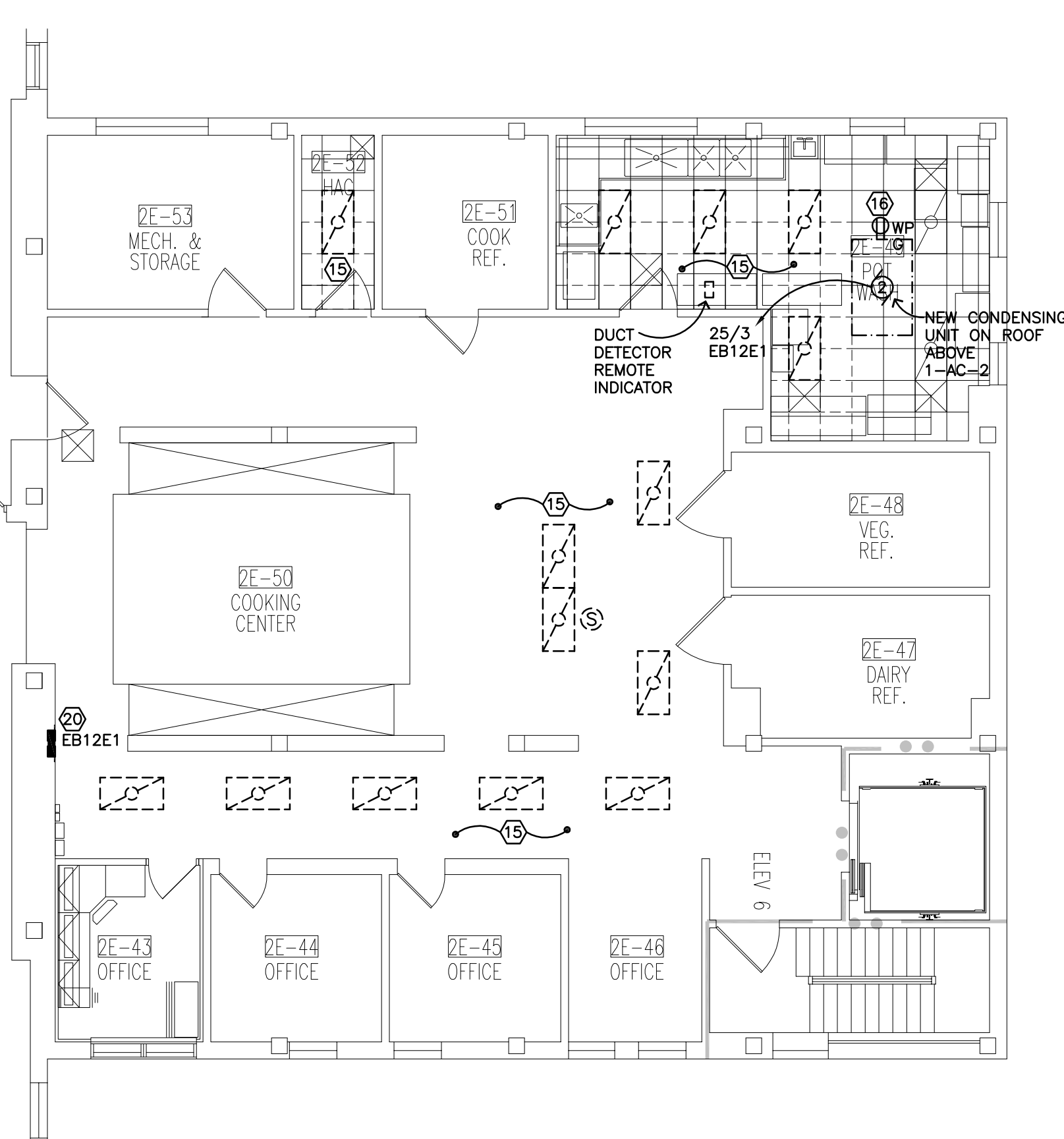
6 3E-08 FLOOR PLAN - ELECTRICAL
E2.1



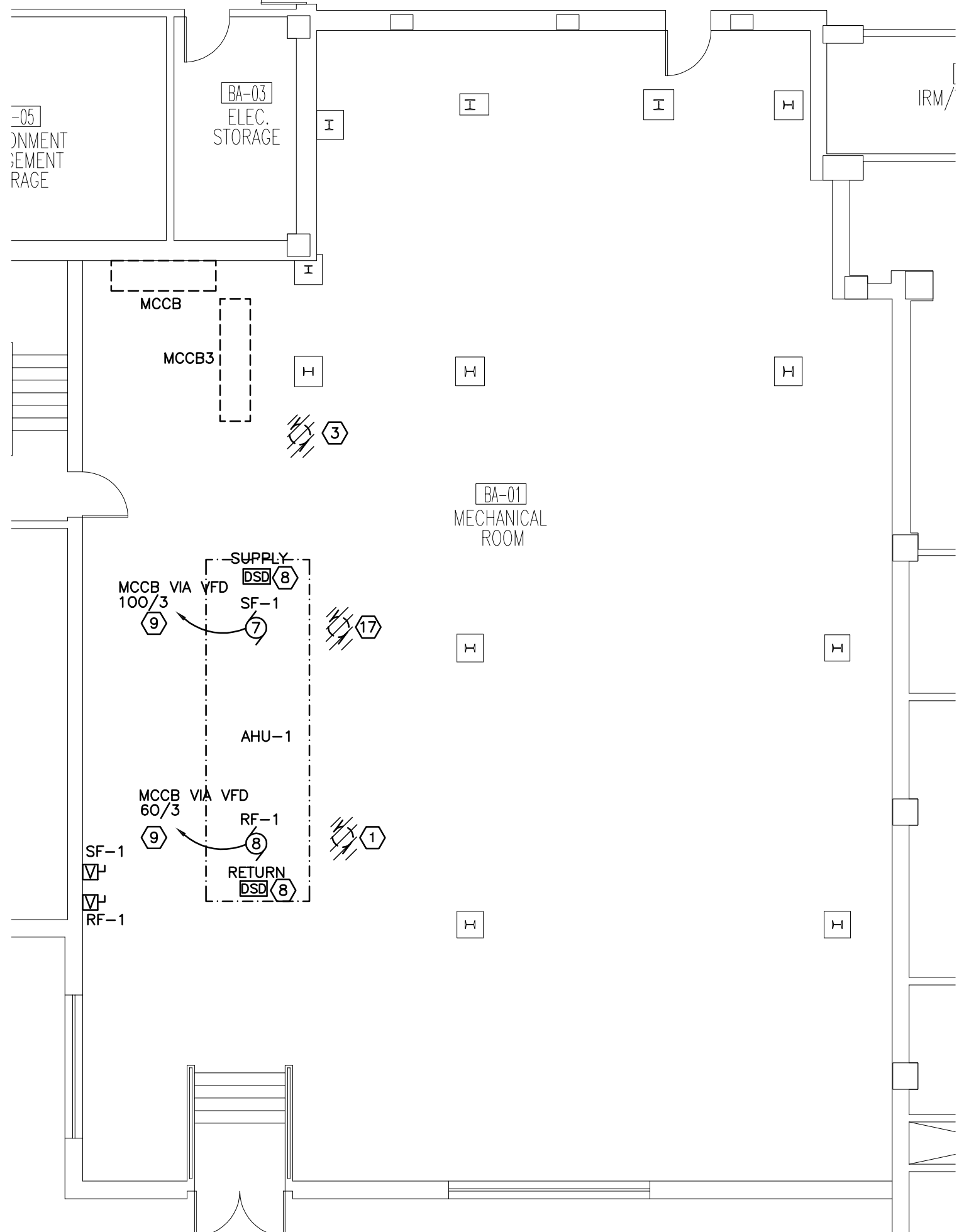
2 FIRST FLOOR LAB AREA FLOOR PLAN - ELECTRICAL
E2.1



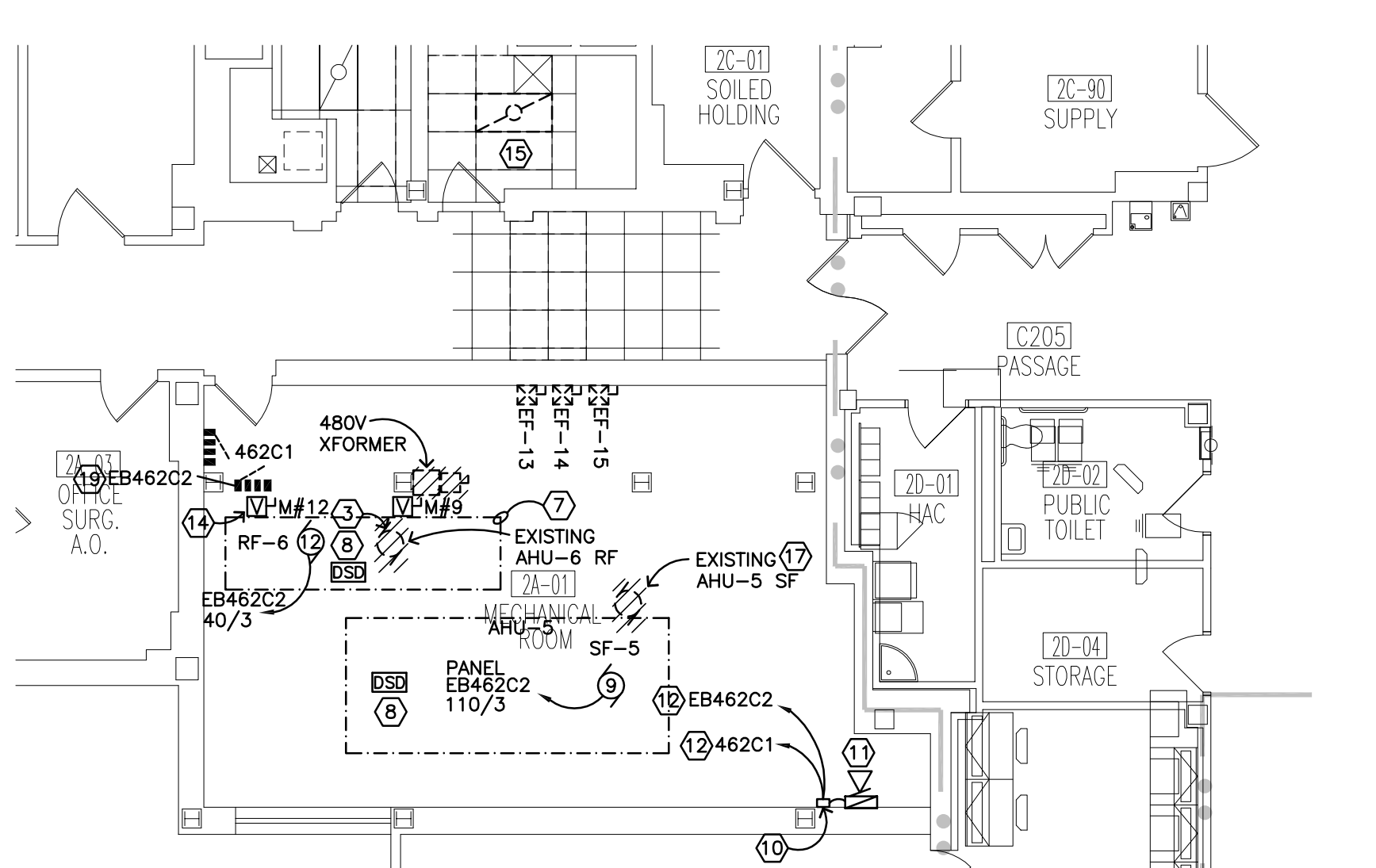
4 SECOND FLOOR ROOM 2E-16- ELECTRICAL
E2.1



8 SECOND FLOOR KITCHEN PLAN - ELECTRICAL
E2.1



3 BA-01 FLOOR PLAN - ELECTRICAL
E2.1



9 2A-01 FLOOR PLAN - ELECTRICAL
E2.1

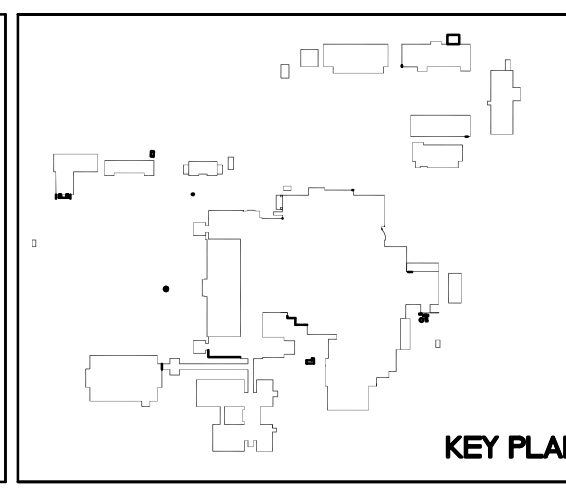
- PLAN NOTES:**
- REMOVE CONNECTIONS TO EXISTING AHU AT THIS LOCATION, INCLUDING ASSOCIATED DISCONNECTS, VFDS, WIRING, CONDUIT, ETC.
 - REMOVE CONNECTIONS TO EXISTING ENERGY RECOVERY UNIT AT THIS LOCATION, INCLUDING ASSOCIATED DISCONNECTS, WIRING, CONDUIT, ETC.
 - REMOVE CONNECTIONS TO EXISTING FAN AT THIS LOCATION, INCLUDING ASSOCIATED DISCONNECTS, WIRING AND CONDUIT.
 - CONNECT TO EQUIPMENT BRANCH PANEL.
 - TO PANEL EB10C2 IN BASEMENT ELECTRICAL ROOM BELOW, PROVIDE ADDITIONAL 50A/3P BREAKER AS INDICATED. SEE E0.1 FOR PANEL LOCATION AND MOTOR AND EQUIPMENT SCHEDULE FOR WIRING AND CONDUIT REQUIREMENTS.
 - TO PANEL EB10C2 IN BASEMENT ELECTRICAL ROOM BELOW, PROVIDE ADDITIONAL 50A/3P BREAKER IN EXISTING PANEL. SEE E0.1 FOR PANEL LOCATION AND MOTOR AND EQUIPMENT SCHEDULE FOR WIRING AND CONDUIT REQUIREMENTS.
 - ALL WORK ASSOCIATED WITH REMOVAL OF EXISTING AHU #6 AND INSTALLATION OF NEW AHU #6 SUPPLY AND RETURN FAN CONNECTIONS AND ASSOCIATED CONTROLLERS SHALL BE DELETED UNDER DEDUCT ALTERNATE.
 - REMOVE EXISTING DUCT DETECTORS AND PROVIDE NEW DUCT SMOKE DETECTOR WITH FAN SHUTDOWN RELAY IN SUPPLY AND RETURN DUCT, FIELD COORDINATE EXACT MOUNTING LOCATION WITH MECHANICAL CONTRACTOR. EXTEND EXISTING FIRE ALARM WIRING AS REQUIRED FOR NEW DUCT DETECTOR INSTALLATION.
 - REMOVE EXISTING STARTER IN MCCB AND REPLACE WITH CIRCUIT BREAKER SIZED AS INDICATED FOR NEW AHU EQUIPMENT. PROVIDE UNISTRUT SUPPORTS AS REQUIRED AND MOUNT ADJACENT TO DDC PANEL, COORDINATE WITH MECHANICAL CONTRACTOR. SEE DETAIL 4/E8.1.
 - PROVIDE DATA CONNECTION TO DDC PANEL. ROUTE CABLING IN 3/4" C. TO NEAREST DATA CABINET AND TERMINATE.
 - ADD 20A/1P BREAKER IN EXISTING SIEMENS PANEL INDICATED FOR DDC PANEL CONNECTIONS.
 - DISCONNECT POWER FOR REPLACEMENT OF EXHAUST FAN EF-17 MOTOR AND RECONNECT NEW FAN MOTOR TO EXISTING CIRCUIT VIA NEW VFD. EXTEND EXISTING WIRING AND CONDUIT AS REQUIRED.
 - REMOVE EXISTING VFD(S) AND ASSOCIATED WIRING AND CONDUIT AND INSTALL NEW VFD(S) IN SAME LOCATION.
 - REMOVE AND REINSTALL EXISTING LIGHTS, SPEAKERS, ACCESS POINTS ETC TO ACCOMMODATE REMOVAL OF CEILING FOR INSTALLATION OF NEW HVAC EQUIPMENT.
 - MOUNT RECEPTACLE ON ROOF ADJACENT TO AIR HANDLING UNIT, CONNECT TO NEAREST AVAILABLE 120V NORMAL POWER CIRCUIT.
 - EXTEND EXISTING SUPPLY FAN WIRING AND CONDUIT AS REQUIRED FOR TEMPORARY FAN CONNECTION DURING CONSTRUCTION. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT PLACEMENT. REMOVE CONNECTION IN ITS ENTIRETY AFTER NEW UNIT IS INSTALLED.
 - ADD 25A/3P BREAKER IN EXISTING PANELBOARD FOR MOTOR #1 CONNECTIONS.
 - ADD 110A/3P AND 40A/3P BREAKERS TO EXISTING SQUARE D PANEL FOR AHU-5 AND AHU-6 CONNECTIONS. SEE SCHEDULES FOR ADDITIONAL INFORMATION.
 - ADD 25A/3P BREAKER TO EXISTING ITE PANELBOARD FOR MOTOR #2 CONNECTIONS.
 - REMOVE EXISTING PANEL AND FEEDER WIRING, EXTEND CIRCUIT PANEL, REPLACE EXISTING 150A/3P BREAKER IN BLDG 9 SWITCHGEAR WITH NEW 200A/3P BREAKER. RELOCATE ALL EXISTING LOADS ON PANEL TO NEW LOCATION. SEE PANEL SCHEDULE FOR DETAILS.
 - ADD (2) 50A/3P BREAKERS TO EXISTING PANEL FOR NEW AHU-2 CONNECTIONS, REMOVE EXISTING 90A/3P BREAKER.

- GENERAL NOTES:**
- PHASING OF DEMOLITION OF EXISTING EQUIPMENT AND INSTALLATION OF NEW EQUIPMENT SHALL BE CLOSELY COORDINATED WITH THE OWNER AND THE MECHANICAL CONTRACTOR PRIOR TO BEGINNING WORK. SHUTDOWN OF EXISTING MECHANICAL EQUIPMENT AND SWITCHOVER TO NEW EQUIPMENT WORK WILL OCCUR AFTER REGULAR OPERATING HOURS AND ON WEEKENDS.
 - TEMPORARY FAN CONNECTIONS FOR AIR HANDLING UNITS WILL BE REQUIRED AS NOTED ON THE DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL EXTEND EXISTING CIRCUITING OR PROVIDE NEW AS NECESSARY FOR TEMPORARY POWER, THEN REMOVE THE CONNECTION IN ITS ENTIRETY UPON INSTALLATION OF THE NEW EQUIPMENT.
 - DEVICES SHOWN WITH HATCHING ON THIS PLAN SHALL BE DEMOLISHED AND WIRING REMOVED TO THEIR SOURCE UNLESS NOTED OTHERWISE. THIS INCLUDES ALL EXISTING WIRING, CONDUIT, STARTERS, DISCONNECTS, VFDS, ETC.
 - THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REINSTALL EXISTING LIGHT FIXTURES, WIRELESS ACCESS POINTS, SPEAKERS, FIRE ALARM DEVICES, RTLS EQUIPMENT ETC WHERE CEILINGS ARE BEING REMOVED AND REINSTALLED TO ACCOMMODATE INSTALLATION OF NEW MECHANICAL AND ELECTRICAL PIPING, DUCTWORK, CONDUIT, ETC. AREAS OF CEILING REMOVAL SHOWN ON THE DRAWINGS ARE BASED ON PLANNED ROUTING. ACTUAL ROUTING WILL BE COORDINATED WITH EXISTING FIELD CONDITIONS.
 - PROVIDE TEMPORARY SUPPORT ANY WIRING SYSTEMS DISTURBED BY REMOVAL OF EXISTING CEILINGS.

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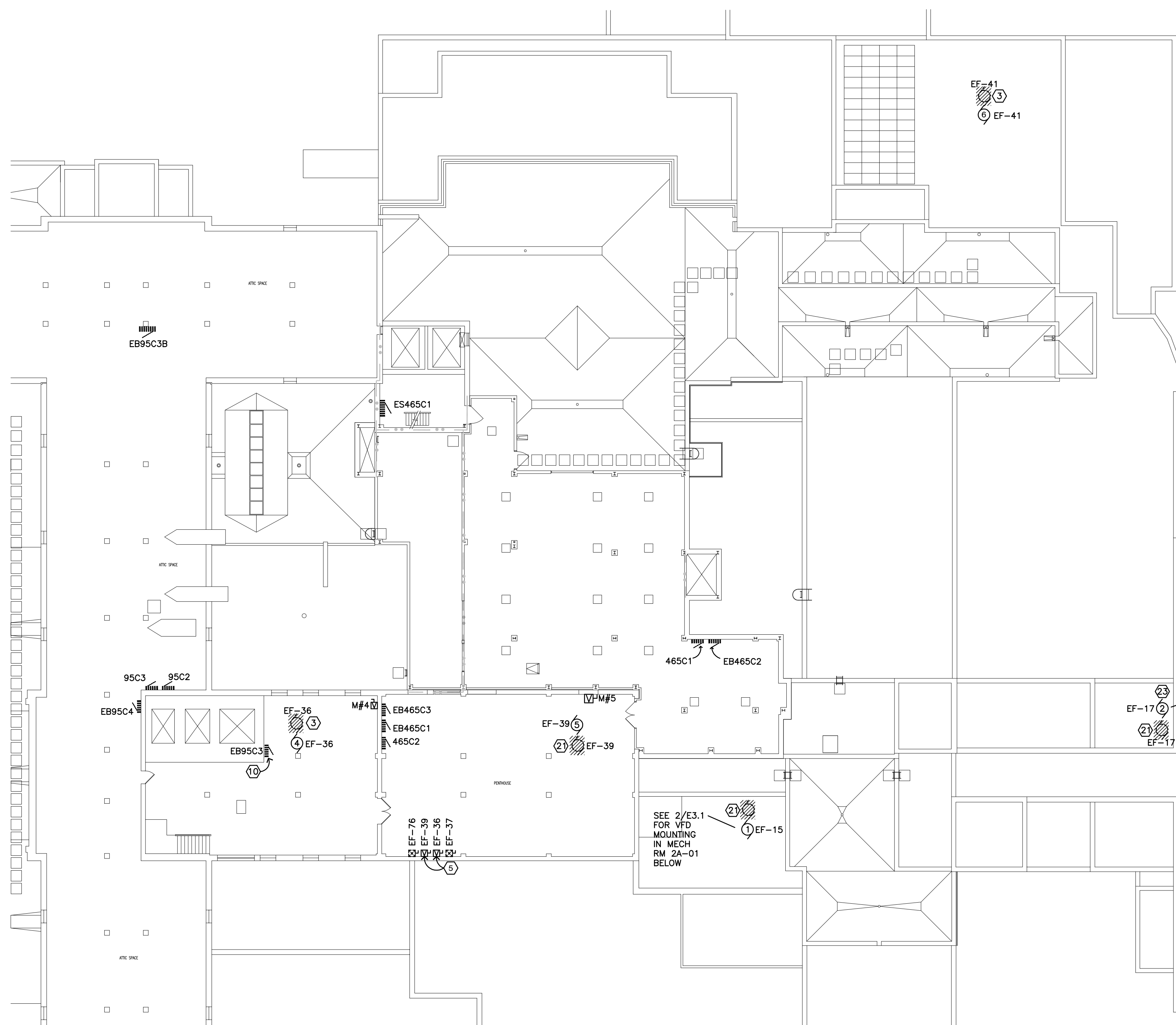
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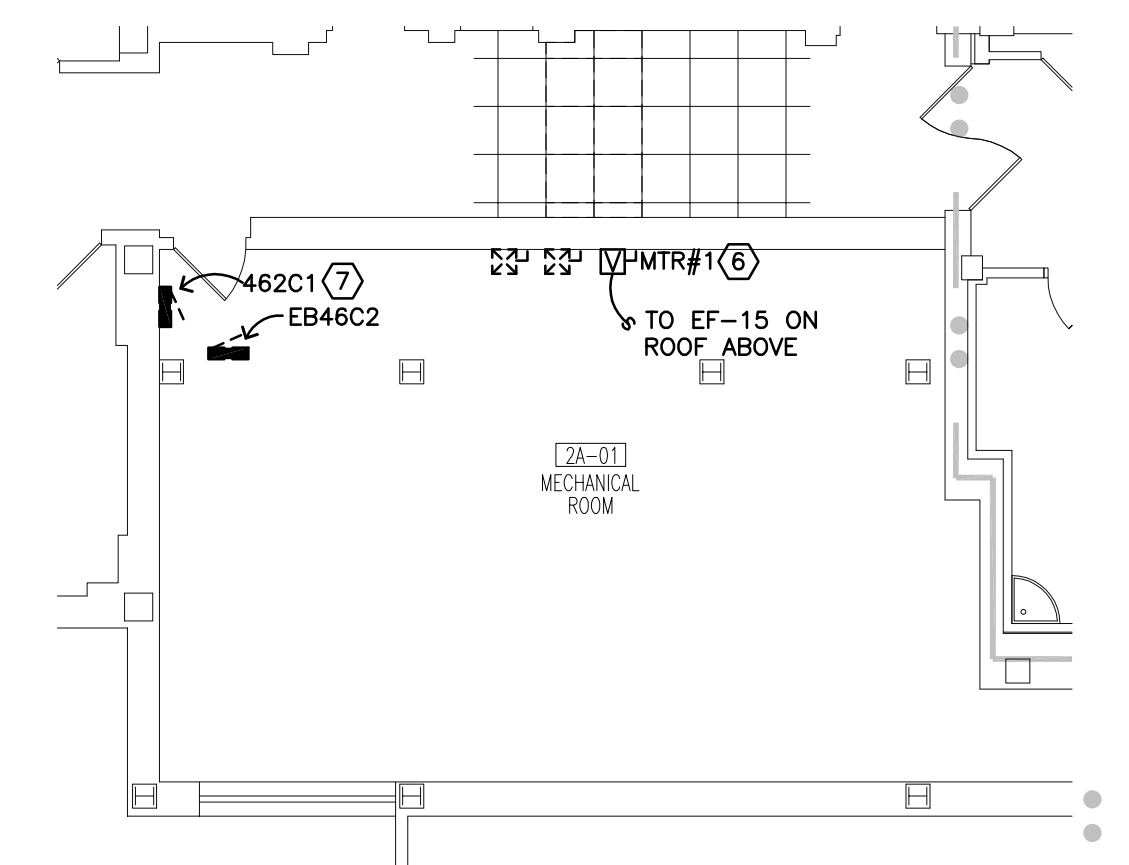


Drawing Title BASEMENT, 1ST, 2ND, AND 3RD FLOOR PLANS		Project Title REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS		Date SEPT.14, 2016
Project Phase PHASE 2		Scale: AS NOTED		Drawing No. E2.1 Dwg. 59 of 66
VA Project No. 437-13-111	Contract No. VA263-P-1218	Designed By CH	Checked By MB	
Building No. VAMC CAMPUS	AutoCAD File Name 13-093 E2.1.dwg	Location FARGO VA HEALTHCARE SYSTEM	Drawn By CH	

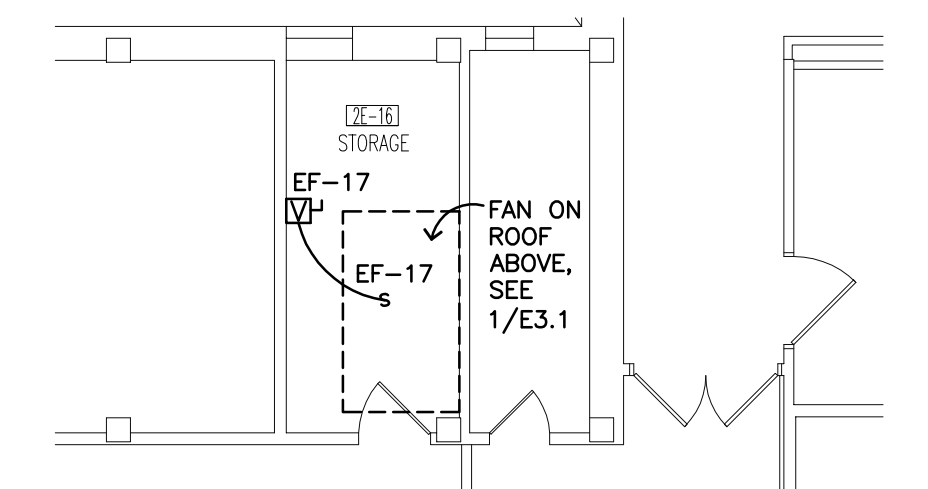
Department of Veterans Affairs



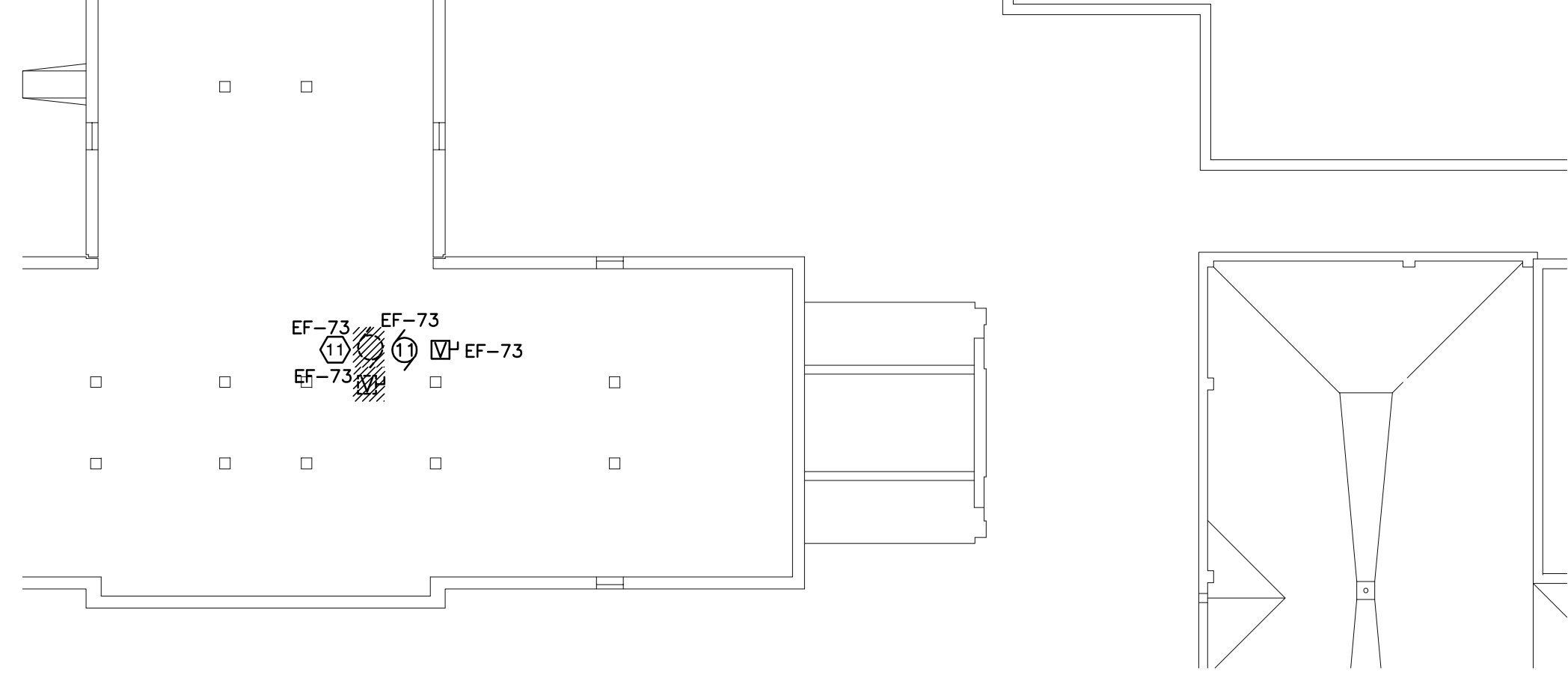
2 2A-01 FLOOR PLAN - ELECTRICAL
E3.1



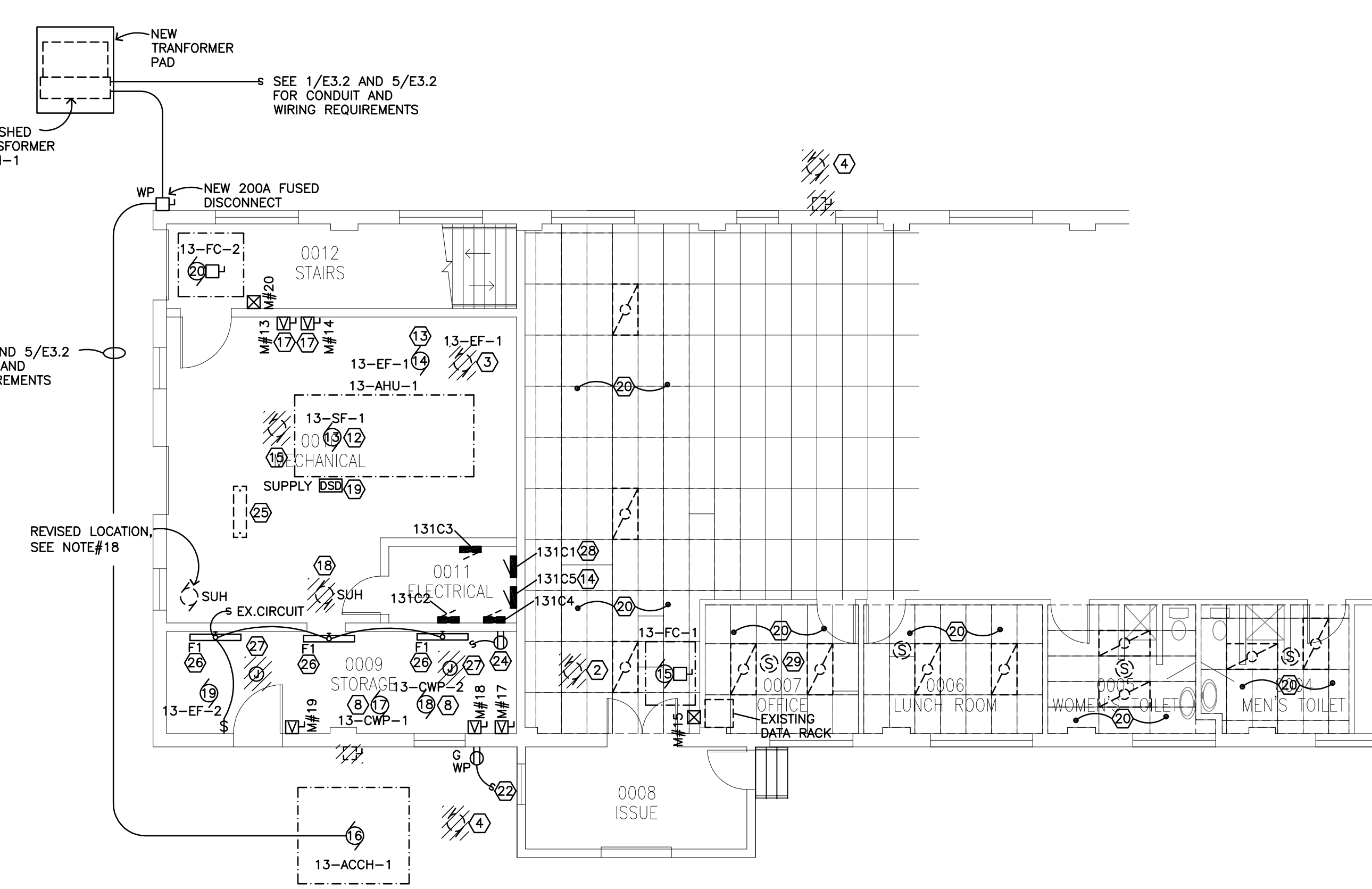
3 ROOM 1E-12 - ELECTRICAL
E3.1



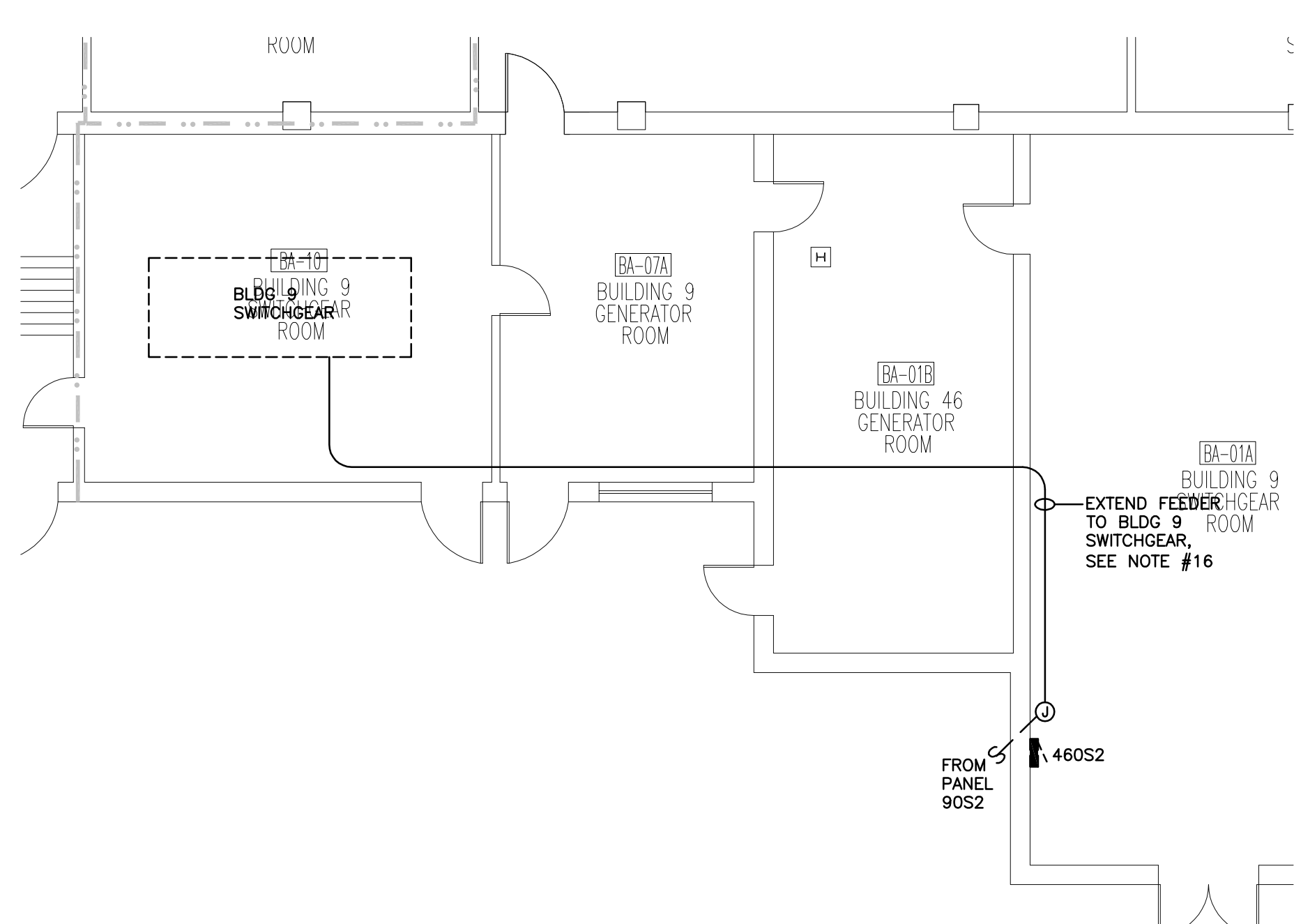
6 ROOM 2E-16 - ELECTRICAL
E3.1



1 PARTIAL ATTIC AND ROOF PLAN - ELECTRICAL
E3.1



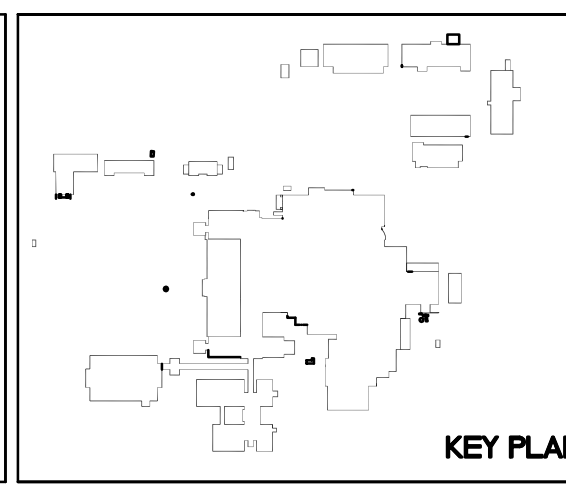
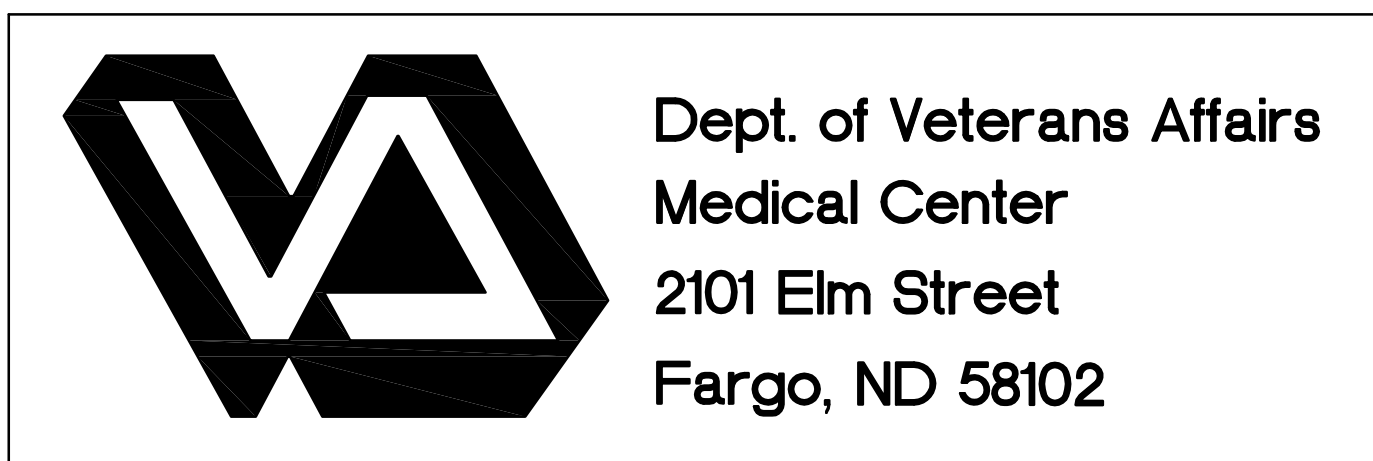
4 BUILDING 13 PARTIAL FLOOR PLAN - ELECTRICAL
E3.1



5 BA-65A FLOOR PLAN - ELECTRICAL
E3.1

- PLAN NOTES:**
- REMOVE CONNECTIONS TO EXISTING AHU, AND ASSOCIATED STARTERS, DISCONNECTS, WIRING CONDUIT ETC.
 - REMOVE CONNECTIONS TO EXISTING COOLING UNIT AND ASSOCIATED DISCONNECTS WIRING, CONDUIT ETC.
 - DISCONNECT EXISTING FAN FOR REMOVAL BY OTHERS, RECONNECT NEW FAN TO EXISTING FEED, EXTEND EXISTING WIRE AND CONDUIT AS NECESSARY. SEE MOTOR AND EQUIPMENT SCHEDULE FOR FURTHER INFORMATION.
 - REMOVE ELECTRICAL CONNECTIONS TO EXISTING CONDENSING UNIT, REMOVE ASSOCIATED DISCONNECTS, WIRE, CONDUIT ETC.
 - REMOVE EXISTING STARTER AND REPLACE WITH NEW VFD FURNISHED BY DIVISION 23. PROVIDE NEW WIRING IN SEPARATE CONDUIT BETWEEN VFD AND EXHAUST FAN.
 - REMOVE EXISTING EF-15 STARTER AND ASSOCIATED WIRING AND CONNECTIONS TO EXHAUST FAN AND PANEL 462C1. INSTALL NEW VFD IN ITS PLACE AND RECONNECT NEW EXHAUST FAN PER MOTOR AND EQUIPMENT SCHEDULE.
 - ADD 35A/3P BREAKER IN PANEL FOR NEW FAN EF-15.
 - ADD 25A/3P BREAKER IN 131C2 FOR NEW PUMP CONNECTION, SEE MOTOR AND EQUIPMENT SCHEDULE FOR OTHER REQUIREMENTS.
 - EXISTING SINGLE PHASE FAN TO BE REVISED TO 208V/3 PHASE. ADD #12 CONDUCTOR TO PANEL ES465C1 IN EXISTING CONDUIT AND PROVIDE NEW 20A/3P BREAKER IN PANEL. SEE MOTOR AND EQUIPMENT SCHEDULE FOR FURTHER INFORMATION.
 - REPLACE EXISTING 15A/3P BREAKER WITH NEW 20A/3P BREAKER FOR EF-73.
 - REMOVE EXISTING STARTER AND DISCONNECT EXISTING CONNECTIONS TO FAN FOR REMOVAL. PROVIDE NEW VFD CONNECTIONS AND CONNECT NEW FAN, EXTEND EXISTING CIRCUIT AS REQUIRED. PROVIDE NEW 20A/3P BREAKER IN PANEL EB95C3, SEE NOTE #10. SEE MOTOR AND EQUIPMENT SCHEDULE FOR FURTHER INFORMATION.
 - PROVIDE NEW 100A/3P BREAKER IN PANEL 131C2, SEE MOTOR AND EQUIPMENT SCHEDULE FOR WIRING REQUIREMENTS.
 - EXTEND EXISTING EXHAUST FAN CIRCUIT, CONNECT TO EXISTING 50A/3P BREAKER IN PANEL 131C2, SEE MOTOR AND EQUIPMENT SCHEDULE FOR WIRING REQUIREMENTS.
 - REMOVE EXISTING PANEL 131C1-B AND PROVIDE NEW 200A PANEL 131C5 IN SAME LOCATION. EXTEND AND RECONNECT EXISTING LOADS TO NEW PANEL AS REQUIRED. (14) 20A/1P CIRCUITS AND (2) 20A/2P CIRCUITS. RELABEL EXISTING DEVICES WITH NEW PANEL NAME AND CIRCUIT NUMBER. SEE PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
 - EXTEND EXISTING SUPPLY FAN WIRING AND CONDUIT AS REQUIRED FOR TEMPORARY FAN CONNECTION DURING CONSTRUCTION. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT PLACEMENT. REMOVE CONNECTION IN ITS ENTIRETY AFTER NEW UNIT IS INSTALLED.
 - REMOVE EXISTING PANEL 9052 AND ASSOCIATED FEEDER WIRING FROM PANEL 46052. CONDUIT TO REMAIN. INTERCEPT AND EXTEND EXISTING 2" CONDUIT ADJACENT TO PANEL 46052 AND EXTEND TO BUILDING #9 SWITCHGEAR. PROVIDE NEW 200A RATED PANEL AND CONNECT NEW TO SPARE 200A BREAKER IN BUILDING #9 SWITCHGEAR. RECONNECT ALL EXISTING LOADS IN 9052, EXTEND WIRING AND CONDUIT AS REQUIRED. SEE ONE LINE DIAGRAM AND PANEL SCHEDULES FOR FURTHER INFORMATION.
 - REMOVE EXISTING VFD AND INSTALL NEW VFD IN SAME LOCATION.
 - RELOCATE EXISTING UNIT HEATER, EXTEND WIRING AND CONDUIT TO REVISED LOCATION IN EAST CORNER.
 - REMOVE EXISTING DUCT DETECTOR AND PROVIDE NEW DUCT DETECTOR AND ASSOCIATED FAN RELAYS AND CONNECTIONS.
 - REMOVE AND REINSTALL EXISTING LIGHTS, SPEAKERS, ACCESS POINTS ETC FOR REMOVAL OF CEILING GRID AND INSTALLATION OF HVAC EQUIPMENT IN THIS AREA.
 - DISCONNECT EXISTING FAN FOR REMOVAL BY OTHERS, REMOVE EXISTING STARTER. RECONNECT NEW FAN TO EXISTING CIRCUIT VIA NEW VFD, EXTEND EXISTING WIRE AND CONDUIT AS NECESSARY. SEE MOTOR AND EQUIPMENT SCHEDULE FOR FURTHER INFORMATION.
 - TO NEAREST AVAILABLE 120V NORMAL POWER RECEPTACLE CIRCUIT.
 - REMOVE EXISTING STARTER AND INSTALL VFD IN STORAGE ROOM BELOW, SEE 5/E3.1.
 - PROVIDE RECEPTACLE FOR GLYCOL PUMP, CONNECT TO NEAREST AVAILABLE 120V CIRCUIT.
 - REMOVE AND REINSTALL EXISTING LIGHT FIXTURE TO ACCOMMODATE NEW DUCTWORK.
 - ADD WALL MOUNT FIXTURE EQUAL TO COOPER SIALED SERIES, 4" LENGTH, 4000K, 4600 LUMENS, SEMI FROST LENS. EXTEND EXISTING WIRING AND CONDUIT AS REQUIRED AND CONNECT TO EXISTING SWITCH AND CIRCUIT.
 - REMOVE EXISTING LAMP HOLDER FIXTURES AND ASSOCIATED CONDUIT, PROVIDE NEW TYPE F1 FIXTURES, SEE NOTE #28.
 - REMOVE EXISTING PANEL 131C1 AND PROVIDE NEW 200A PANEL, EXTEND EXISTING FEEDER CONDUIT TO AND SHIFT PANEL APPROXIMATELY 1" TO ALLOW INSTALLATION OF NEW PANEL 131C5. EXTEND AND RECONNECT EXISTING LOADS TO NEW PANEL, (28) 20A/1P CIRCUITS AND (3) 20A/2P CIRCUITS, (1) 30A/2P CIRCUIT, AND (1) 40A/3P CIRCUIT. SEE PANEL SCHEDULE FOR ADDITIONAL INFORMATION.

- GENERAL NOTES:**
- PHASING OF DEMOLITION OF EXISTING EQUIPMENT AND INSTALLATION OF NEW EQUIPMENT SHALL BE CLOSELY COORDINATED WITH THE OWNER AND THE MECHANICAL CONTRACTOR PRIOR TO BEGINNING WORK. SHUTDOWN OF EXISTING MECHANICAL EQUIPMENT AND SWITCHOVER TO NEW EQUIPMENT WORK WILL OCCUR AFTER REGULAR OPERATING HOURS AND ON WEEKENDS.
 - TEMPORARY FAN CONNECTIONS FOR AIR HANDLING UNITS WILL BE REQUIRED AS NOTED ON THE DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL EXTEND EXISTING CIRCUITING OR PROVIDE NEW AS NECESSARY FOR TEMPORARY POWER, THEN REMOVE THE CONNECTION IN ITS ENTIRETY UPON INSTALLATION OF THE NEW EQUIPMENT.
 - DEVICES SHOWN WITH HATCHING ON THIS PLAN SHALL BE DEMOLISHED AND WIRING REMOVED TO THEIR SOURCE UNLESS NOTED OTHERWISE. THIS INCLUDES ALL EXISTING WIRING, CONDUIT, STARTERS, DISCONNECTS, VFDs ETC.
 - THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REINSTALL EXISTING LIGHT FIXTURES, WIRELESS ACCESS POINTS, SPEAKERS, FIRE ALARM DEVICES, RTLS EQUIPMENT ETC WHERE CEILINGS ARE BEING REMOVED AND REINSTALLED TO ACCOMMODATE INSTALLATION OF NEW MECHANICAL AND ELECTRICAL PIPING, DUCTWORK, CONDUIT ETC. AREAS OF CEILING REMOVAL SHOWN ON THE DRAWINGS ARE BASED ON PLANNED ROUTING. ACTUAL ROUTING WILL BE COORDINATED WITH EXISTING FIELD CONDITIONS.
 - PROVIDE TEMPORARY SUPPORT ANY WIRING SYSTEMS DISTURBED BY REMOVAL OF EXISTING CEILINGS.



Drawing Title BASEMENT, 1ST, 2ND, ATTIC, BLDG 13 FLOOR PLANS		Project Title REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS		Date SEPT.14, 2016
Project Phase PHASE 3		Scale: AS NOTED		Drawing No. E3.1 Dwg. 60 of 66
VA Project No. 437-13-111	Contract No. VA263-P-1218	Designed By CH	Checked By MB	
Building No. VAMC CAMPUS	AutoCAD File Name 13-000 E3L_3227DWG	Location FARGO VA HEALTHCARE SYSTEM FARGO, NORTH DAKOTA		

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