

GENERAL SHEET NOTES:

1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 50-E-131 FOR LOCATION OF PANEL 50-EOB-3 AND PARTIAL SINGLE LINE DIAGRAM (ATTIC).
3. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
5. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON G101 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
6. AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAPS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
7. REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
8. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
9. CONDENSING UNITS AND PACKAGED AHU'S: UNITS ARE PROVIDED WITH A FACTORY WIRED 120V RECEPTACLE SHOWN IN GRAY-SCALE (FOR REFERENCE ONLY).

SHEET KEYNOTES:

1. PROVIDE 30A/3P/25AF FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. CONNECT TO ADJACENT CU AND INDICATED CIRCUIT WITH (3)#10 + (1)#10G IN 3/4"Ø. PROVIDE GALVANIZED STEEL FRAME WITH GALVANIZED HARDWARE FOR MOUNTING OF DISCONNECT SWITCH ON WALL.



1 BASEMENT - POWER PLAN
SCALE: 3/32" = 1'-0"
PLAN NORTH
ACTUAL NORTH

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

COMMISSIONER'S CONSTRUCTION

MEP Engineers + Architects
1173 Research Way
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MR PROJECT NO: 0376-0011

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL BASEMENT - POWER PLAN

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

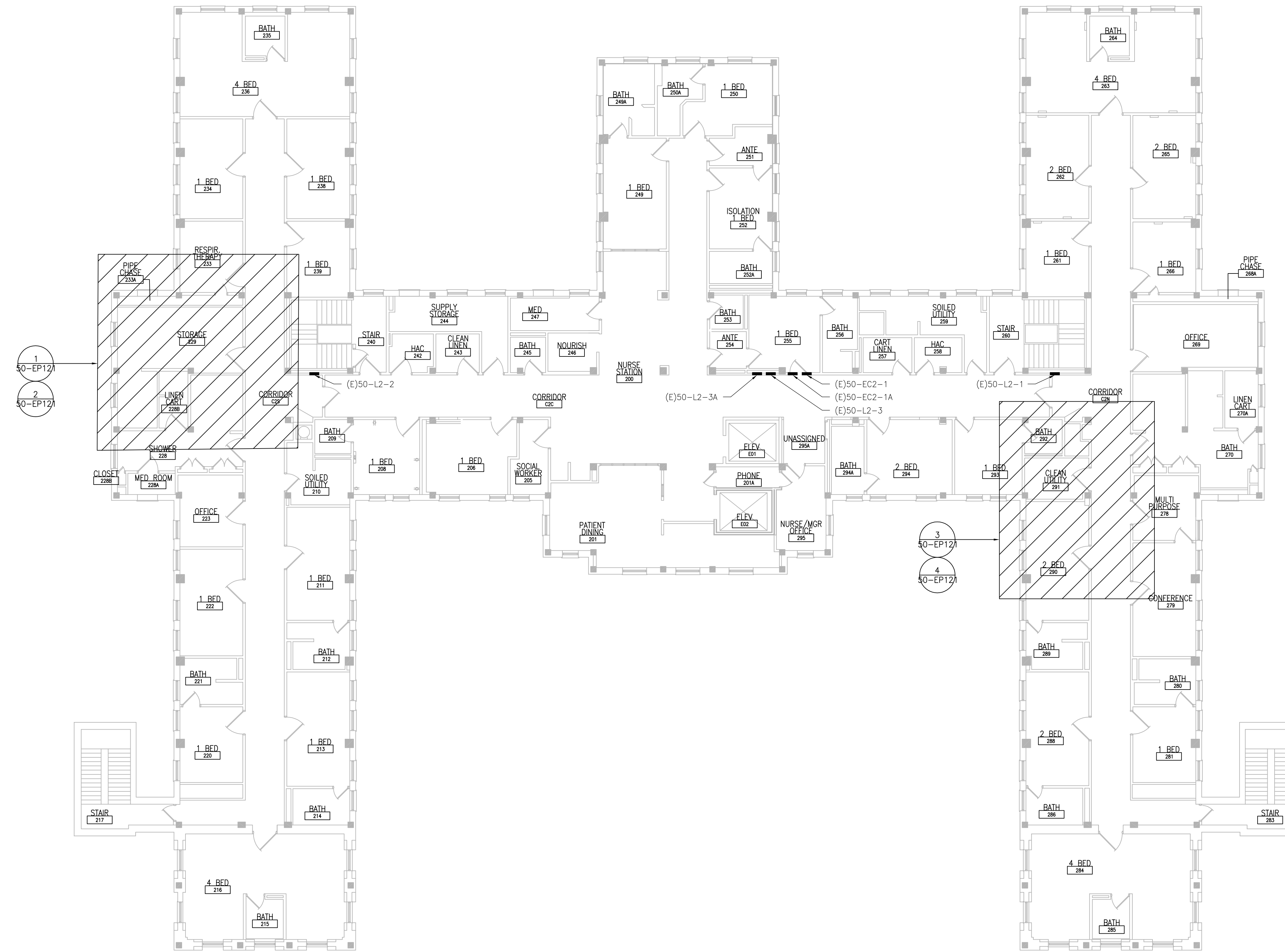
Project Number
656-18-300

Building Number
50

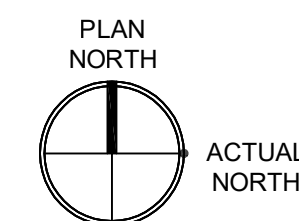
Drawing Number
50-E-101

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7. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.



1 BUILDING 50 - SECOND FLOOR
SCALE: 3/32" = 1'-0"



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MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title
**ELECTRICAL
SECOND FLOOR - POWER PLAN**

Approved: Project Director

Phase
100% CONSTRUCTION
DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

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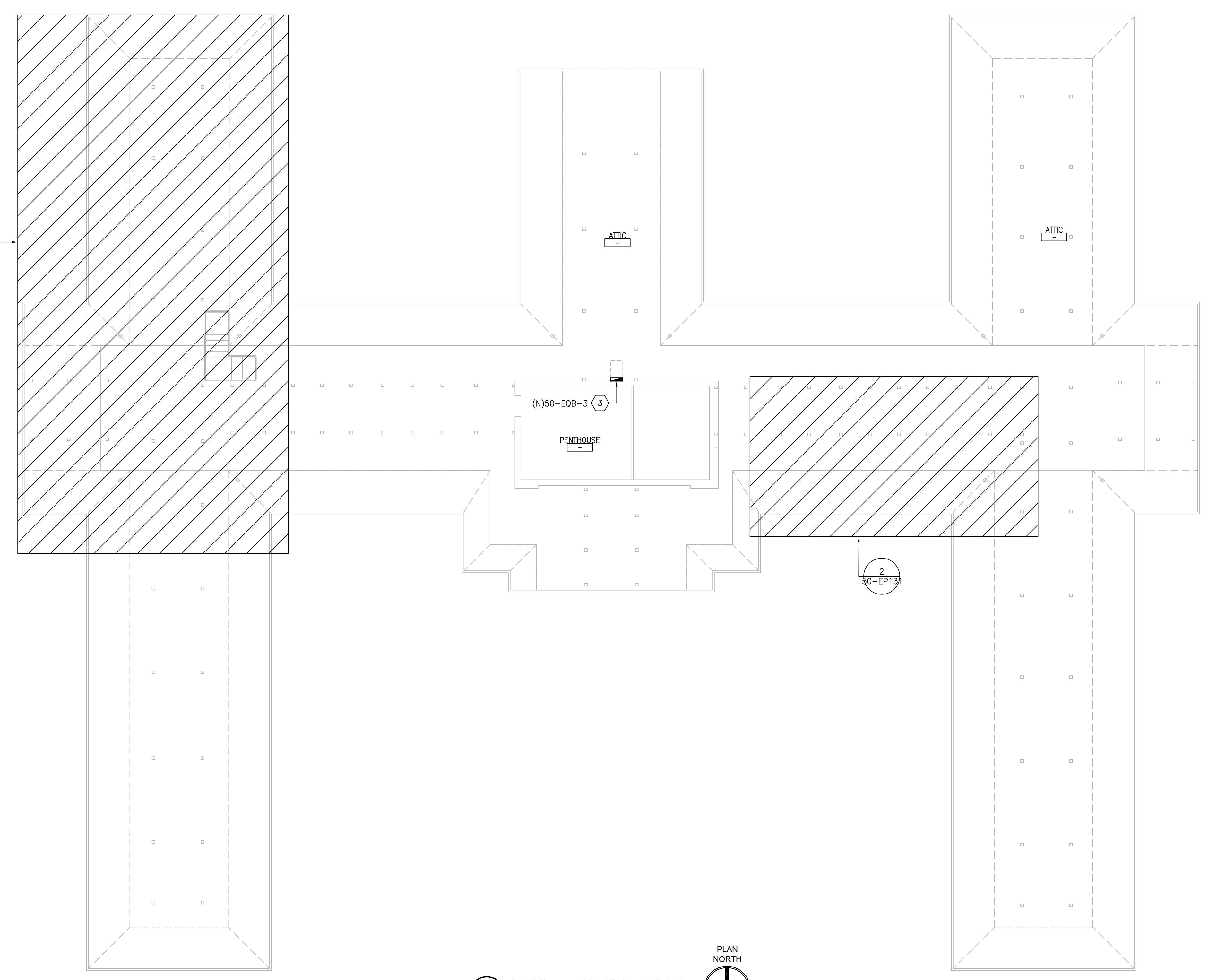
Drawing Number
50-E-121

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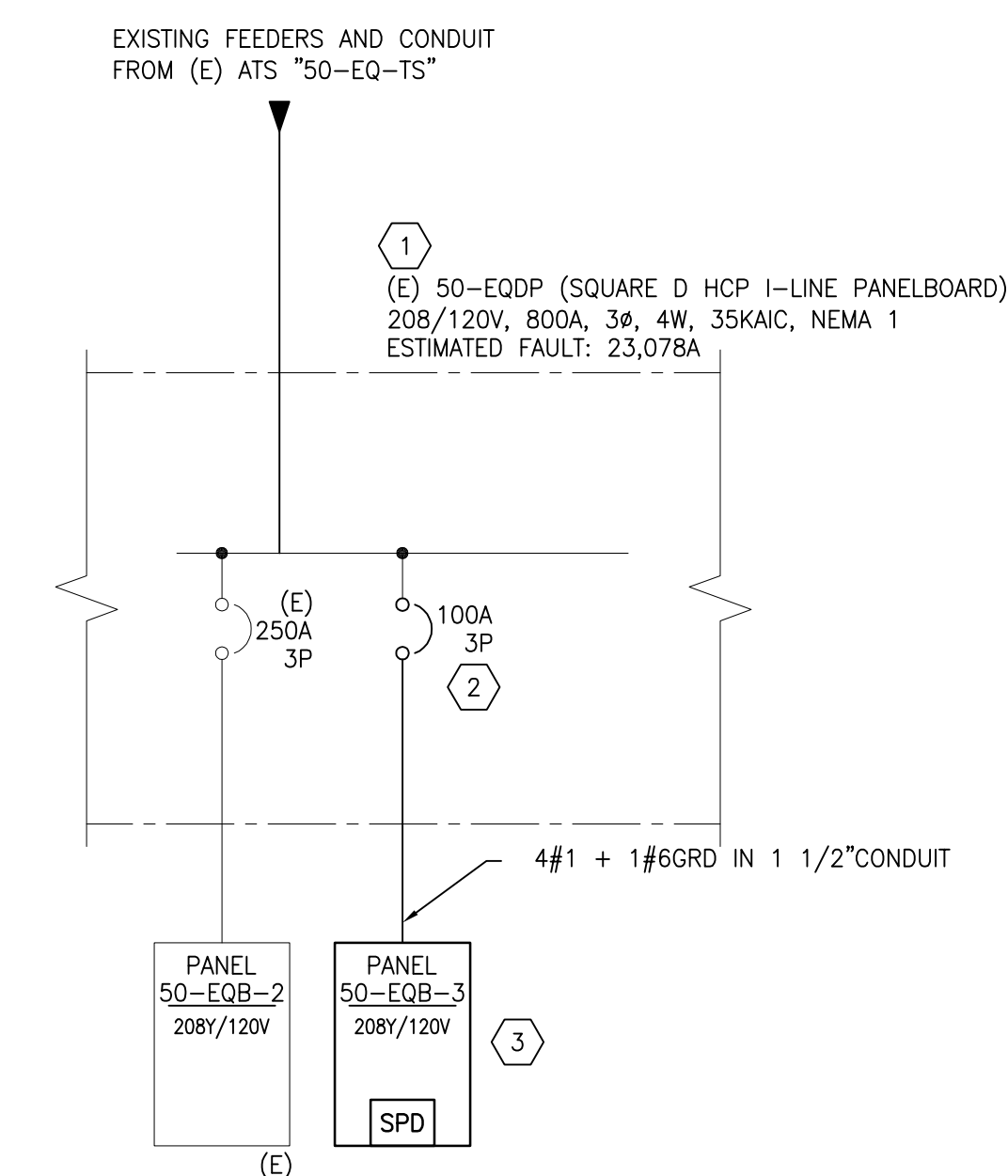
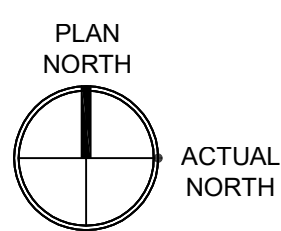
1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 50-E-101 FOR LOCATION OF PANEL 50-EQDP.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
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7. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.

SHEET KEYNOTES:

1. PROVIDE A 60-DAY MINIMUM LOAD READING (15 MINUTE INTERVAL) FOR THE ENGINEER TO REVIEW.
2. PROVIDE A NEW 3 POLE CIRCUIT BREAKER IN EXISTING PANELBOARD. IT SHALL BE COMPATIBLE WITH THE EXISTING PANELBOARD AND MATCH THE APPROPRIATE AIC RATING AS THE PANELBOARD.
3. PROVIDE NEW PANEL WITH RED ENGRAVED LABEL WITH WHITE LETTERS "50-EQB-3". LABEL SHALL INCLUDE VOLTAGE, AMPERAGE, AIC RATING AND FEED SOURCE. INSTALL PANEL SD AS TO AVOID VERTICAL SPRINKLER PIPE. COMPLY WITH NEC REQUIREMENTS FOR WORKING SPACE AND DEDICATED EQUIPMENT SPACE.



1 ATTIC - POWER PLAN
SCALE: 3/32" = 1'-0"



2 PARTIAL SINGLE LINE DIAGRAM
SCALE: NTS

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MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL ATTIC - POWER PLAN

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
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Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

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Issue Date
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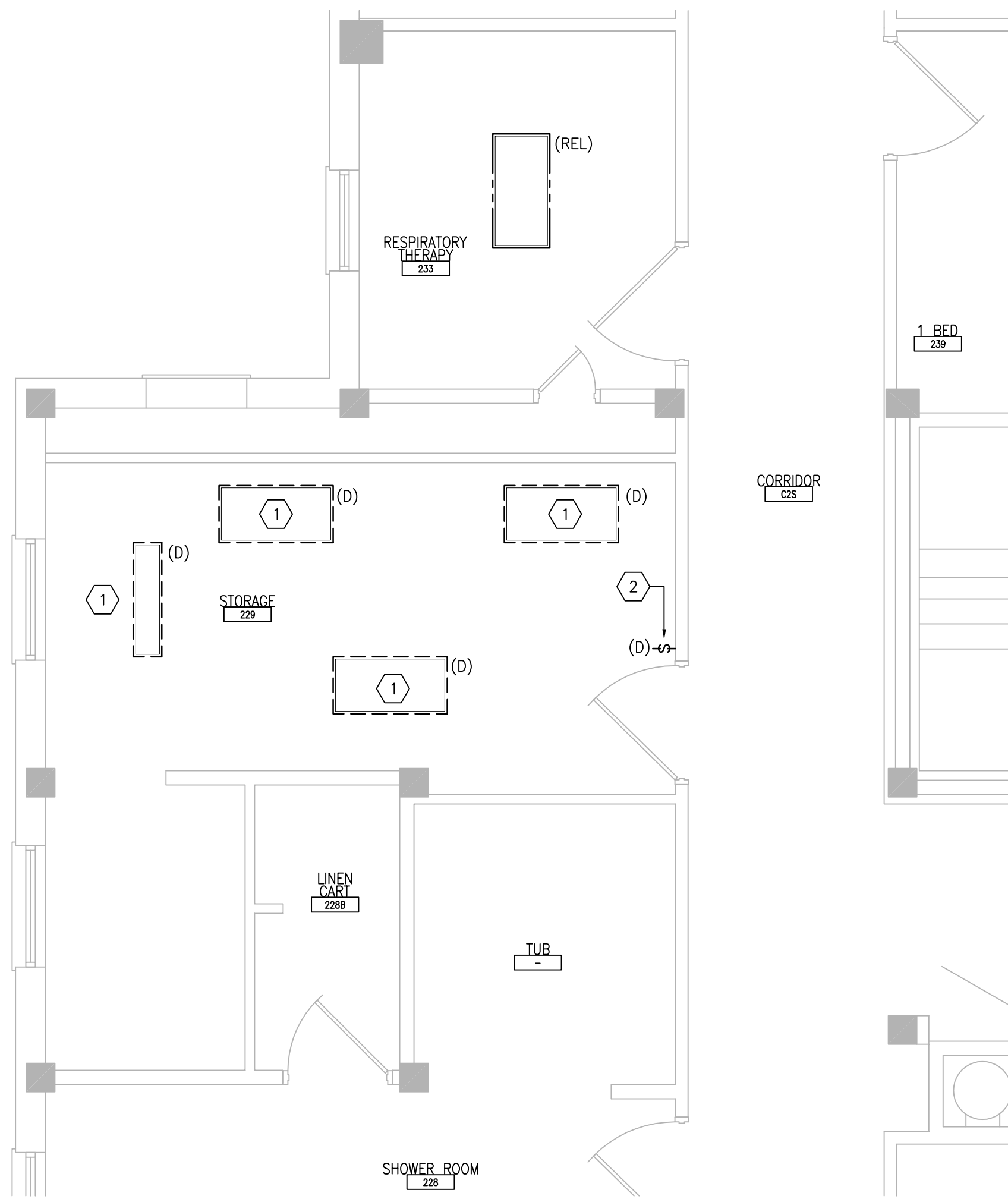
Project Number
656-18-300

Building Number
50

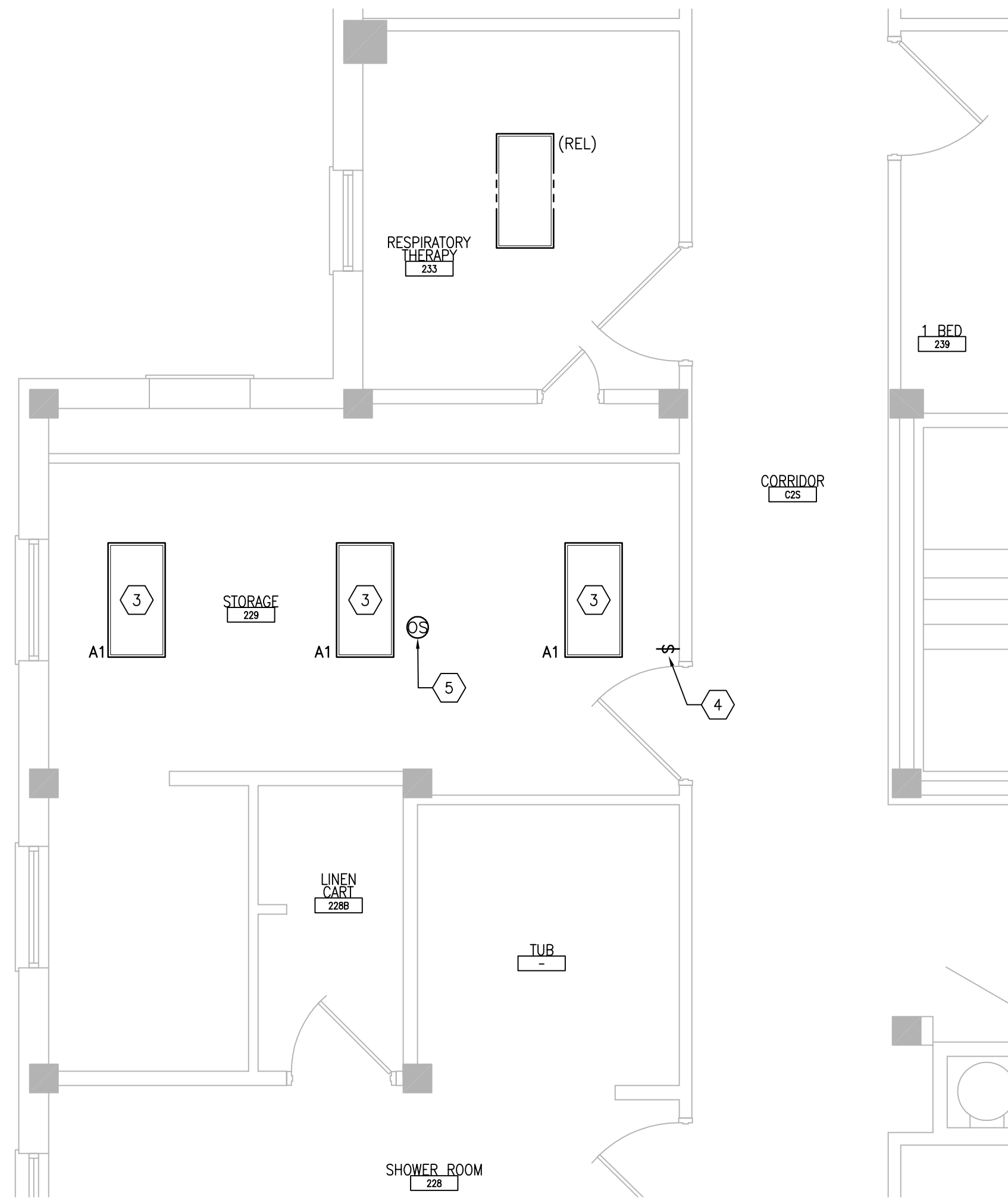
Drawing Number
50-E-131

three inches = one foot
 one and one half inches = one foot
 one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot

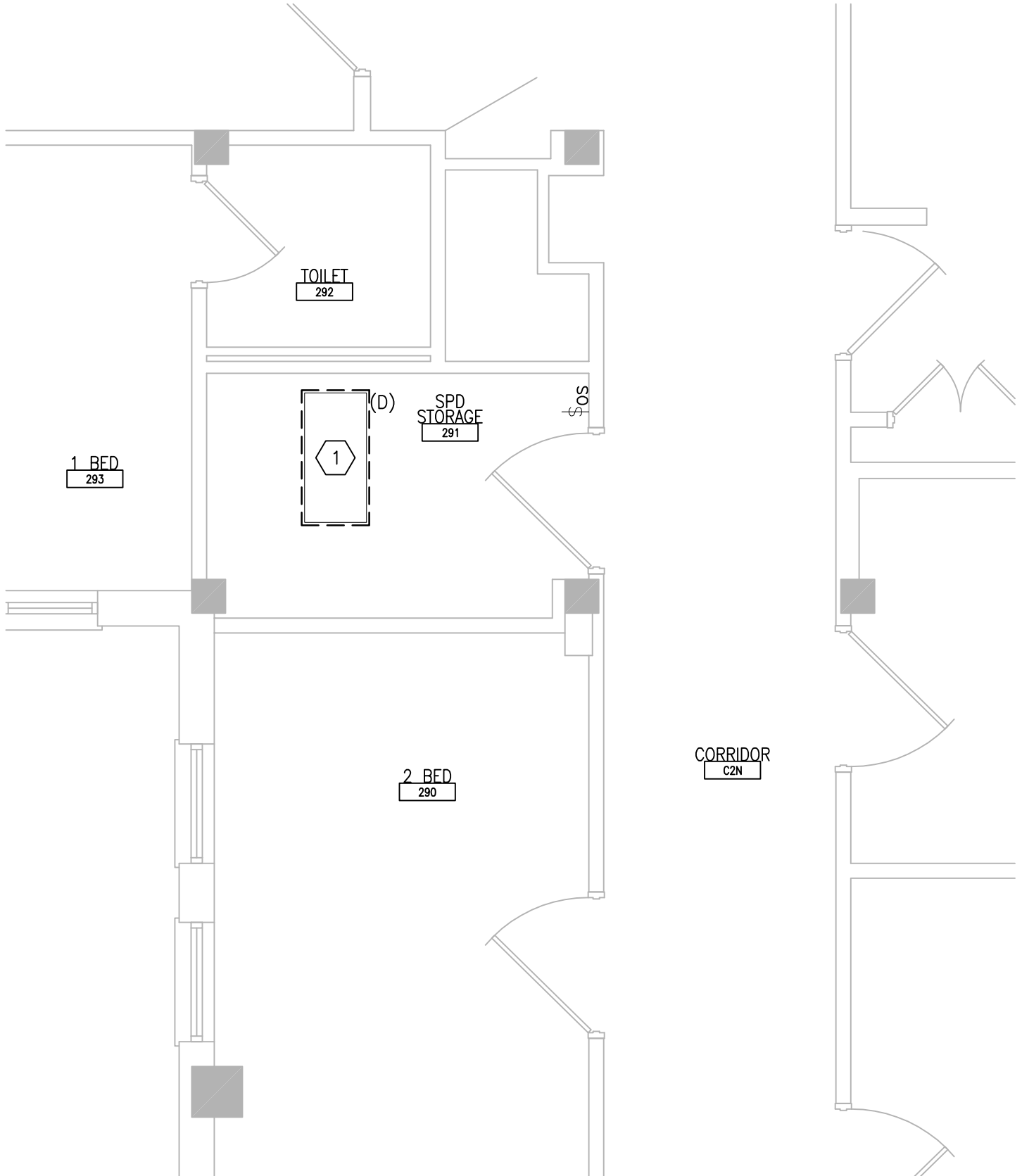
P:\0316_CCD\VA\0011 ST Cloud Upgrade SPS HVAC & Environ Controls V2 Drawings\1_Cad_V_Current Submittal Phase\7_Electrical\50-EP121.dwg 7-15-22 10:30:19 AM dnbdbi



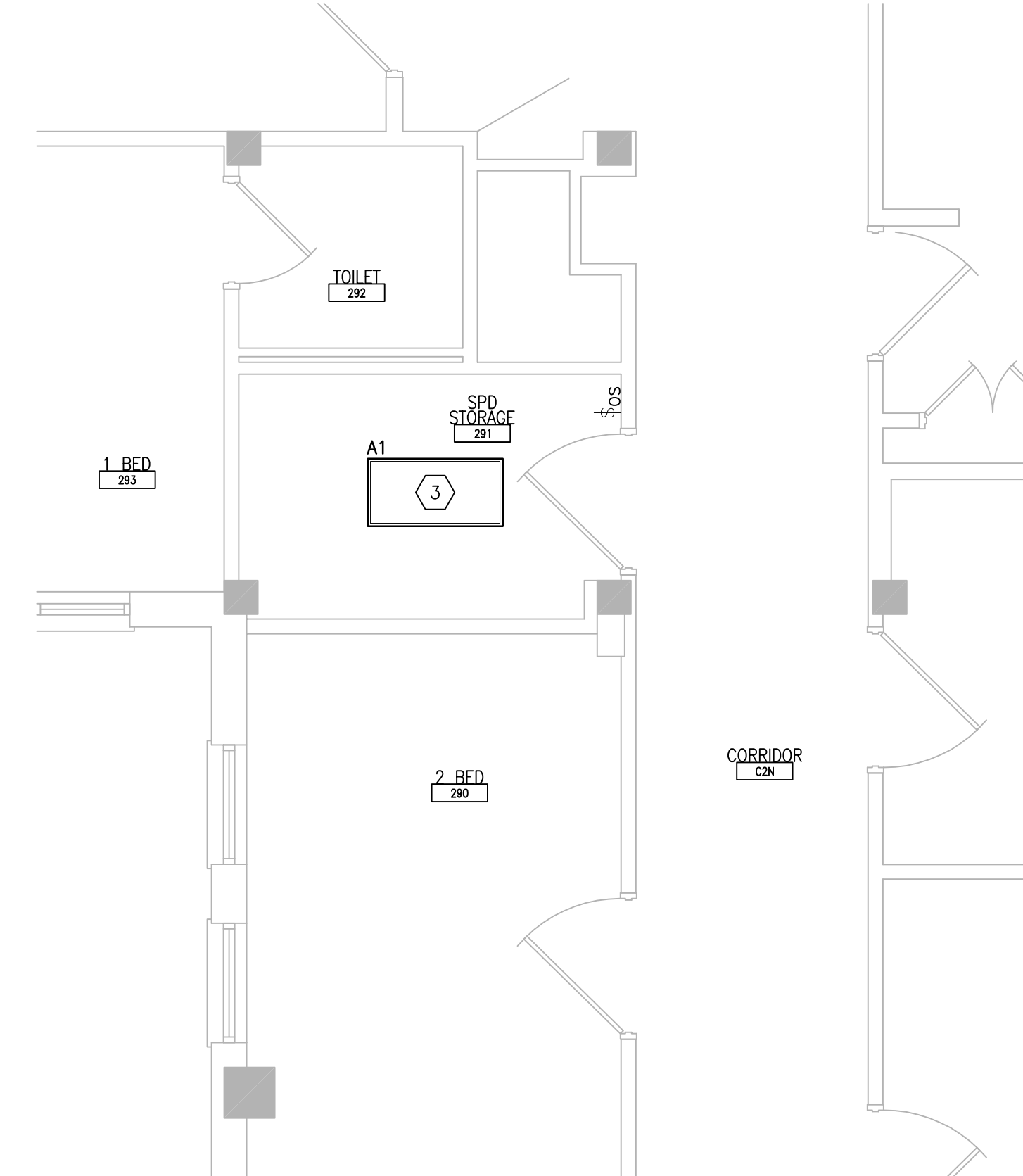
1 SECOND FLOOR ROOM 229 - DEMOLITION
 SCALE: 1/4" = 1'-0"
 REF. DWG: 50-E-121



2 SECOND FLOOR ROOM 229 - NEW WORK
 SCALE: 1/4" = 1'-0"
 REF. DWG: 50-E-121



3 SECOND FLOOR ROOM 291 - DEMOLITION
 SCALE: 1/4" = 1'-0"
 REF. DWG: 50-E-121



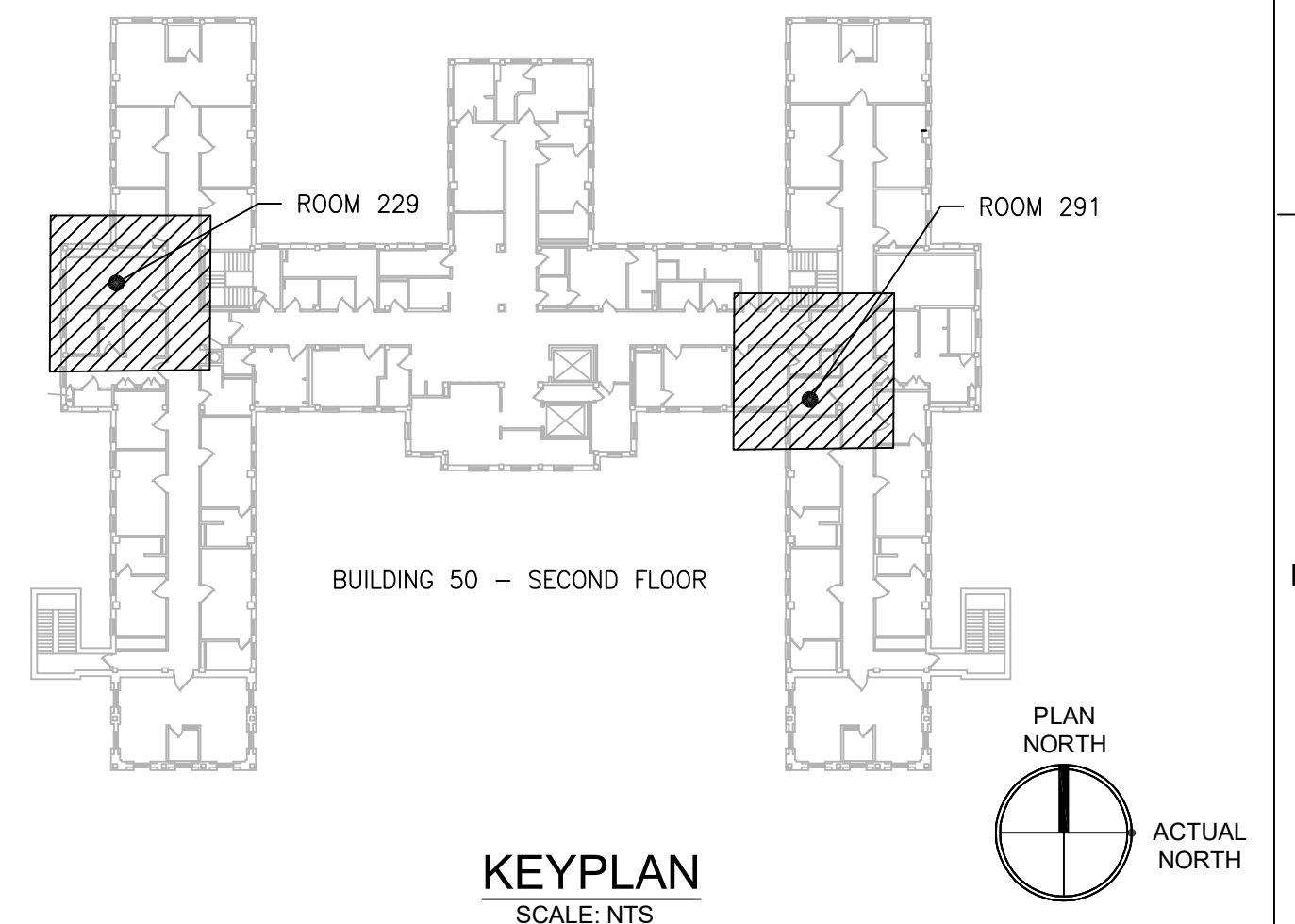
4 SECOND FLOOR ROOM 291 - NEW WORK
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- DEVICE/LIGHTING FIXTURE LABELED AS (REL) SHALL BE DISCONNECTED AND REMOVED DURING CONSTRUCTION. UPON INSTALLATION OF NEW CEILING IN THE SPACE, RE-INSTALL AND CONNECT EXISTING DEVICE/LIGHTING FIXTURE. PROTECT WIRING AND DEVICE/LIGHTING FIXTURE DURING CONSTRUCTION.
- OCCUPANCY SENSOR WALL SWITCH OR CEILING MOUNTED OCCUPANCY WITH WALL SWITCH SHOWN ON DRAWING SHALL BE CONNECTED TO NEW LIGHTING FIXTURE(S) WITHIN THE SAME SPACE.

SHEET KEYNOTES:

- DISCONNECT AND REMOVE EXISTING LIGHTING CIRCUIT. PROTECT BRANCH CIRCUIT DURING CONSTRUCTION.
- DISCONNECT AND REMOVE EXISTING SWITCH. RETAIN BACK BOX AND ASSOCIATED CONDUIT AND WIRING.
- PROVIDE NEW LIGHTING FIXTURE AND CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT PREVIOUSLY FEEDING DEMOLISHED LIGHTING FIXTURE. CONNECT TO EXISTING ROOM LIGHTING CONTROLS. PROVIDE ADDITIONAL CONDUIT AND WIRING AS NEEDED.
- PROVIDE NEW SWITCH INSTALLED IN EXISTING BACK BOX. CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT.
- PROVIDE NEW CEILING-MOUNTED OCCUPANCY SENSOR. MAKE FINAL CONNECTIONS.



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PROJECT TEAM

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 1173 Research Way
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 1-866-267-6839

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 PHONE: (856)439-4000
 FAX: (856)439-9002
 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS

Approved: Project Director

Phase
 100% CONSTRUCTION DOCUMENTS
 NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
 2022-07-15

Checked
 RC

Drawn
 DR

Project Number
656-18-300

Building Number
 50

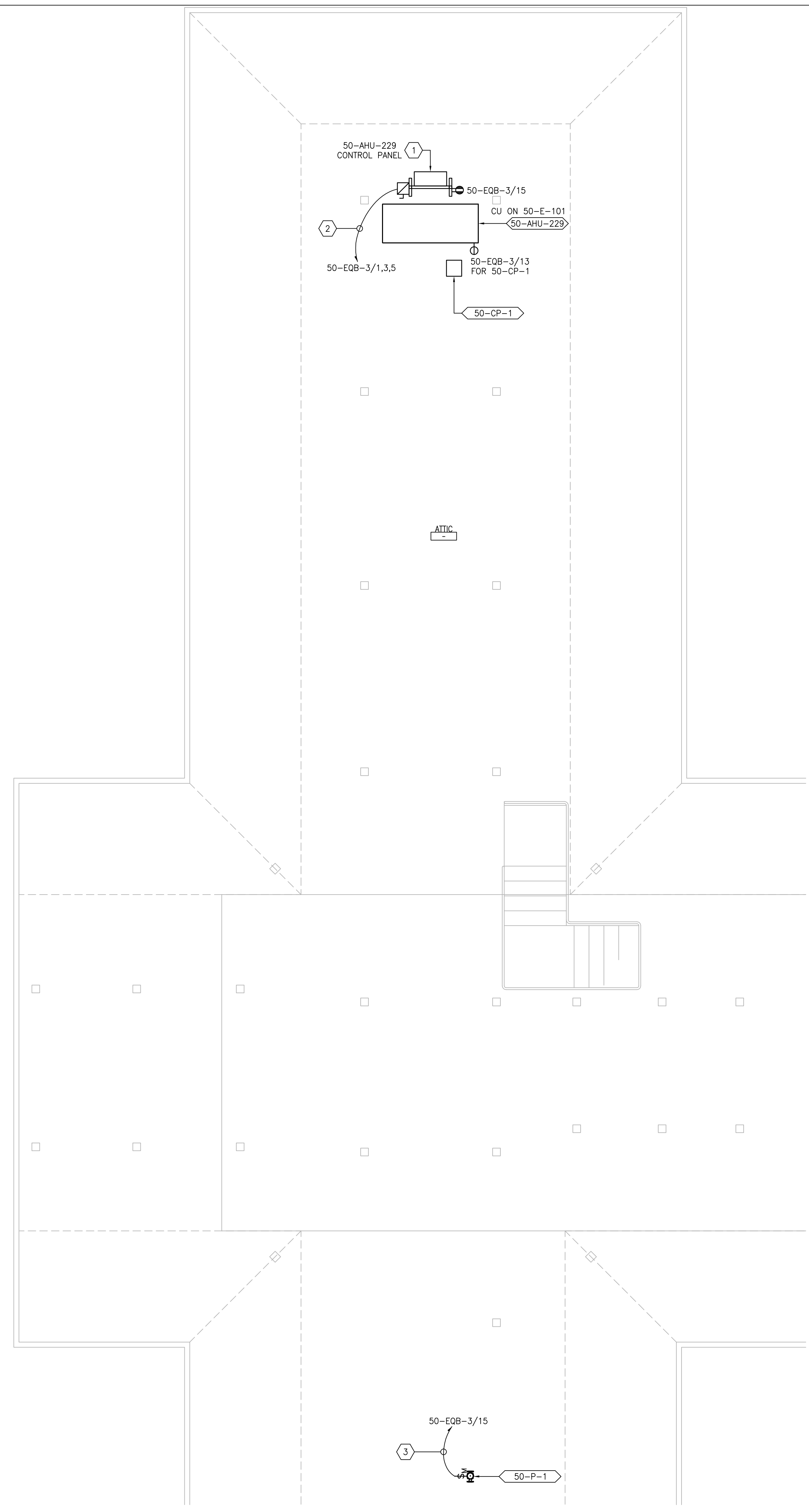
Drawing Number
50-EP121

GENERAL SHEET NOTES:

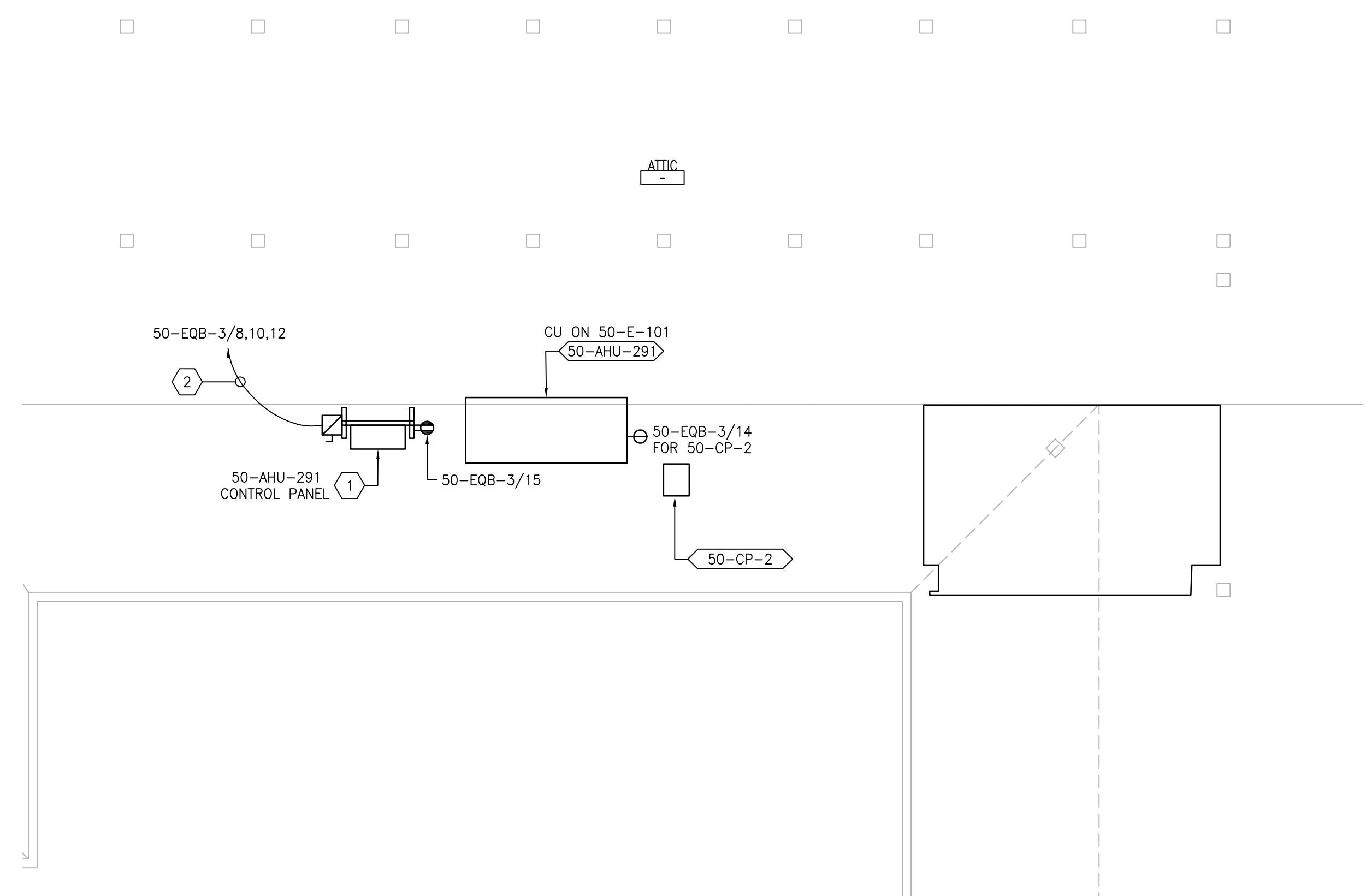
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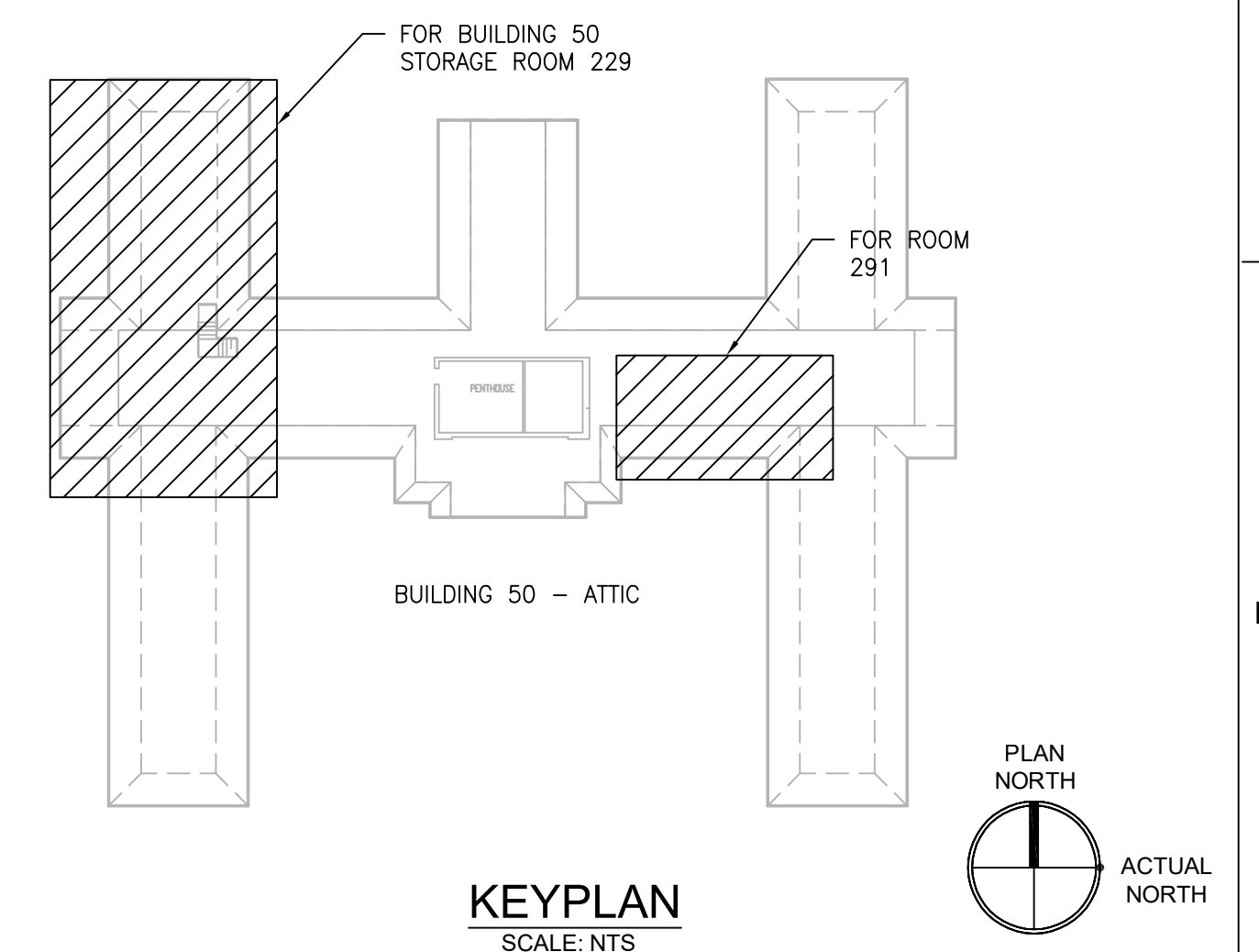
- FACTORY PRE-WIRED AHU CONTROL PANEL MOUNTED ON UNISTRUT FRAME, WITH 6"-0" INTERCONNECTING WIRING TO ASSOCIATED AHU, PROVIDED BY MECHANICAL CONTRACTOR. MAKE ALL FINAL CONNECTIONS.
- PROVIDE 30A/3P/15AF FUSED DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. CONNECT TO ADJACENT CONTROL PANEL AND INDICATED CIRCUIT WITH (3)#12 + (1)#12G IN 3/4" C. MOUNT DISCONNECT SWITCH ON UNISTRUT FRAME PROVIDED BY MECHANICAL CONTRACTOR.
- PROVIDE 20A MOTOR-RATED SWITCH WITH INDICATOR LIGHT. ROUTE (2)#12 + (1)#12G IN 3/4" C TO INDICATED PANEL AND ADJACENT PUMP. MAKE FINAL CONNECTIONS.



1 BUILDING 50 ATTIC ROOM 229 -- NEW WORK
SCALE: 1/4" = 1'-0"
REF DWG: 50-E-131



2 BUILDING 50 ATTIC ROOM 291 -- NEW WORK
SCALE: 1/4" = 1'-0"
REF DWG: 50-E-131



KEYPLAN
SCALE: NTS

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MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management

Drawing Title
**ELECTRICAL
ATTIC - NEW WORK PART PLANS**

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

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Drawn
DR

Project Number
656-18-300

Building Number
50

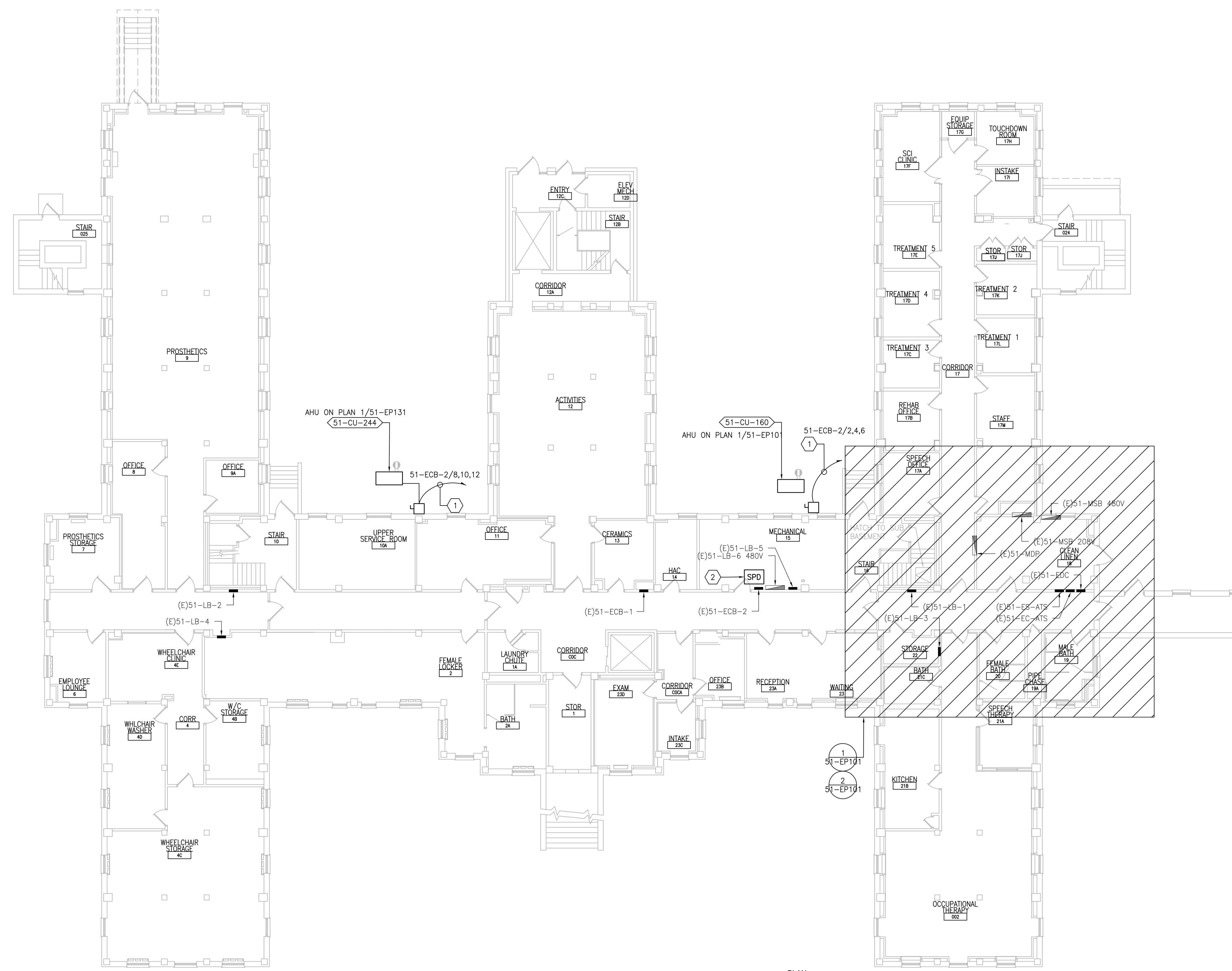
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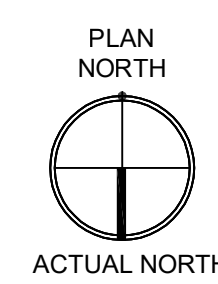
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SHEET KEYNOTES:

- PROVIDE 30A/3P/NF DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. CONNECT TO ADJACENT CU AND INDICATED CIRCUIT WITH (3)#10 + (1)#10G IN 3/4" C. PROVIDE GALVANIZED STEEL FRAME WITH GALVANIZED HARDWARE FOR MOUNTING OF DISCONNECT SWITCH ON WALL.
- PROVIDE SPD IN NEMA 1 ENCLOSURE BELOW OR ADJACENT TO ASSOCIATED PANEL. MAKE FINAL CONNECTIONS. REFER TO SHEET E-702.



1 BASEMENT - POWER PLAN
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Office of Construction and Facilities Management

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Drawing Title
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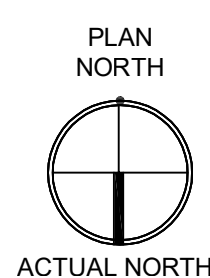
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4. AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAPS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
5. REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
6. COORDINATE ACCESS PROCEDURES, PROTECTION OF EXISTING RME STORAGE RACKS/EQUIPMENT, CLEANUP AND WORK HOURS WITH THE VA.
7. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.



1 FIRST FLOOR - POWER PLAN
SCALE: 3/32" = 1'-0"



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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Small Business

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FAX: (856)439-9002
MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL FIRST FLOOR - POWER PLAN

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

Project Number
656-18-300

Building Number
51

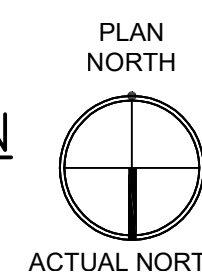
Drawing Number
51-E-111

GENERAL SHEET NOTES:

1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
4. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON 0101 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
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1 SECOND FLOOR - POWER PLAN
SCALE: 3/32" = 1'-0"



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NO.	DESCRIPTION	DATE

PROJECT TEAM

MEP Engineers + Architects
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MR PROJECT NO: 0376-0011

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management

Drawing Title
**ELECTRICAL
SECOND FLOOR - POWER PLAN**

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

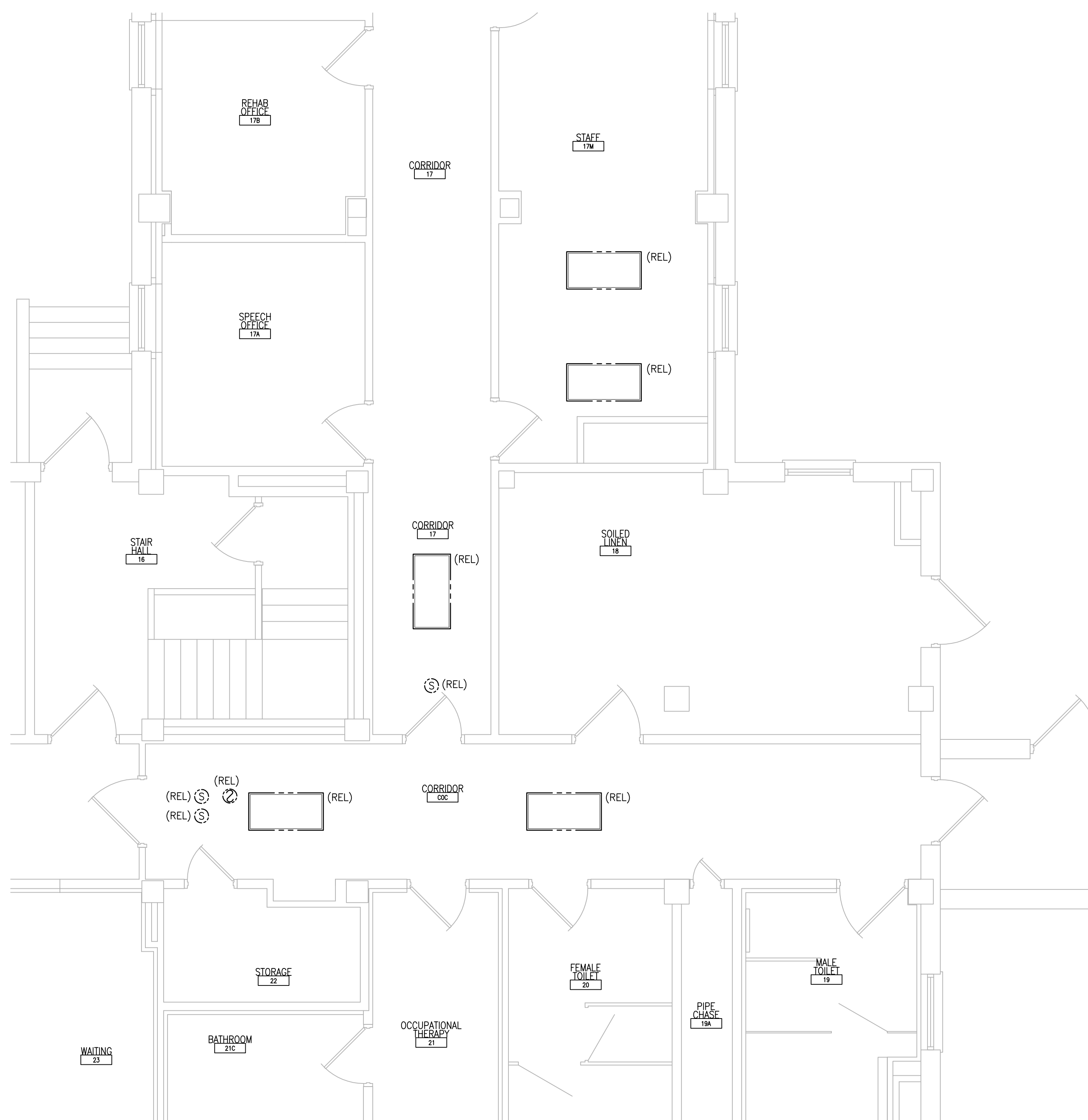
Project Number 656-18-300
Building Number 51
Drawing Number 51-E-121

GENERAL SHEET NOTES:

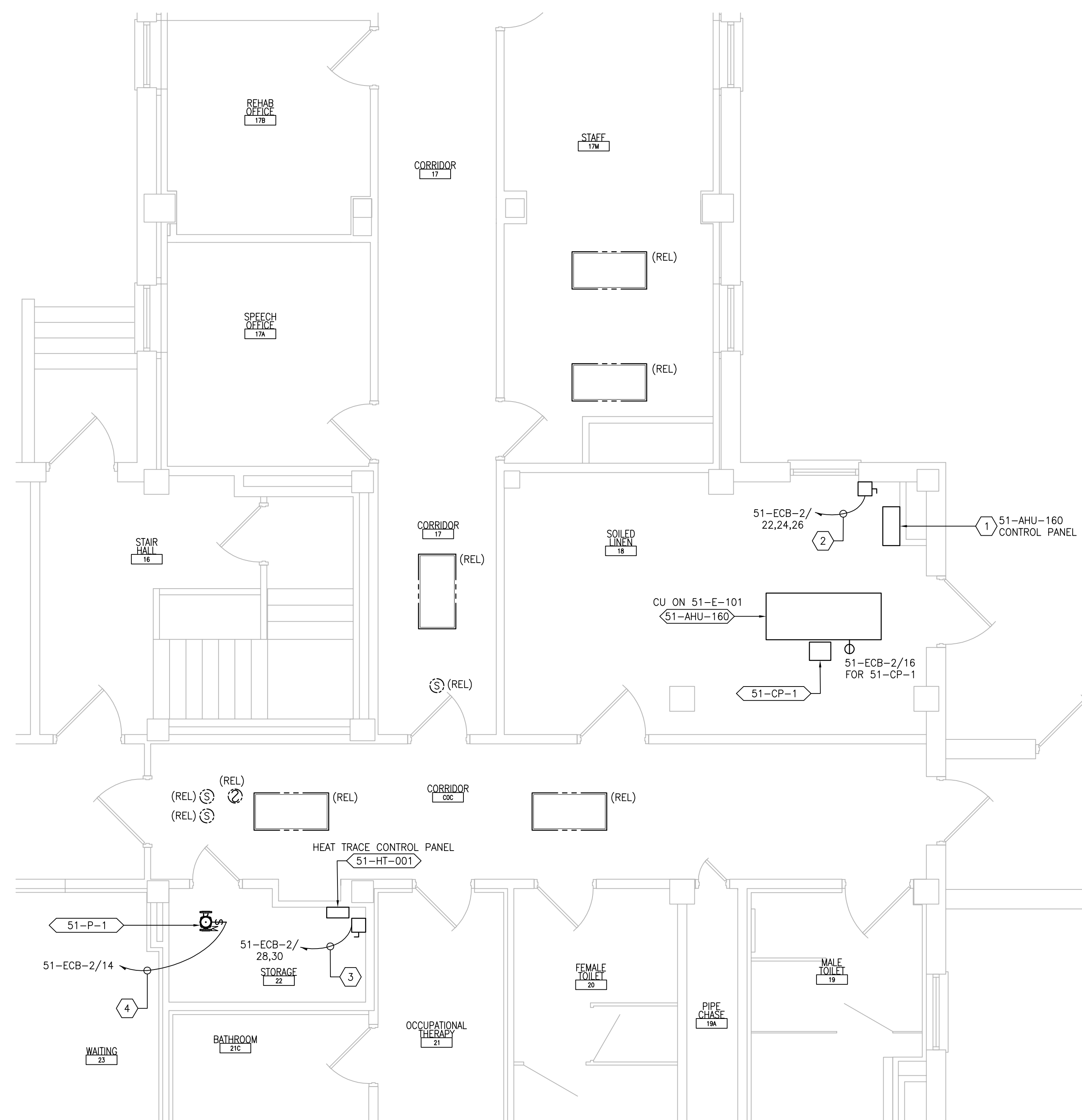
1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 51-E-101 FOR LOCATION OF PANEL 51-ECB-2.
3. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
5. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON 0101 AND IN SPECIFICATIONS, THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
6. AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAFS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
7. REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
8. COORDINATE ACCESS PROCEDURES, PROTECTION OF EXISTING RME STORAGE RACKS/EQUIPMENT, CLEANUP AND WORK HOURS WITH THE VA.
9. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
10. DEVICE/LIGHTING FIXTURE LABELED AS (REL) SHALL BE DISCONNECTED AND REMOVED DURING CONSTRUCTION. UPON INSTALLATION OF NEW CEILING IN THE SPACE, RE-INSTALL AND CONNECT EXISTING DEVICE/LIGHTING FIXTURE. PROTECT WIRING AND DEVICE/LIGHTING FIXTURE DURING CONSTRUCTION.
11. OCCUPANCY SENSOR WALL SWITCH SHOWN ON DRAWING SHALL BE CONNECTED TO NEW LIGHTING FIXTURE(S) WITHIN THE SAME SPACE.

SHEET KEYNOTES:

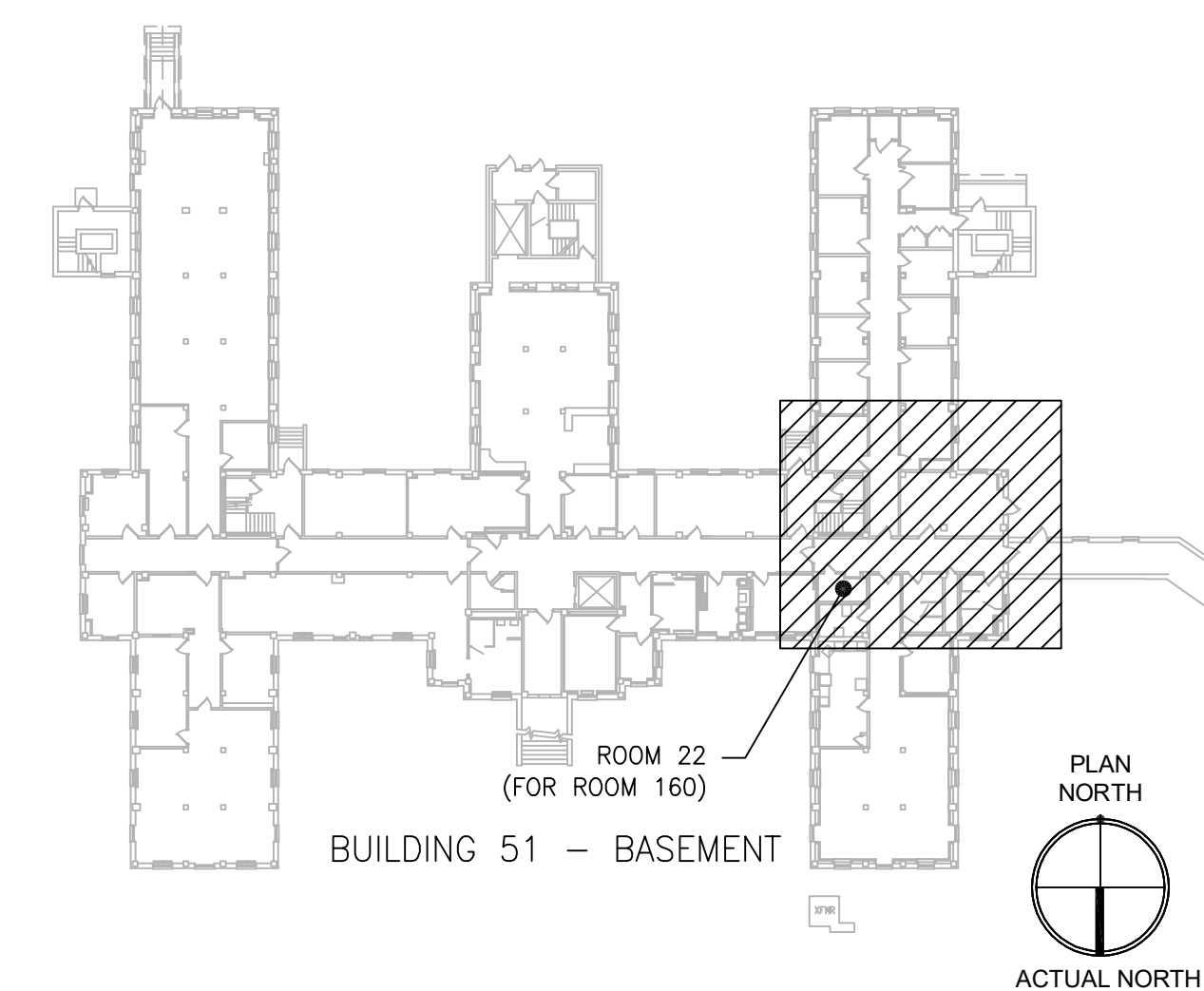
1. FACTORY PRE-WIRED AHU CONTROL PANEL MOUNTED ON UNISTRUT FRAME, WITH 6"-0" INTERCONNECTING WIRING TO ASSOCIATED AHU, PROVIDED BY MECHANICAL CONTRACTOR. MAKE ALL FINAL CONNECTIONS.
2. PROVIDE 30A/3P/NF DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. CONNECT TO ADJACENT CONTROL PANEL AND INDICATED CIRCUIT WITH (3)#8 + (1)#10G IN 3/4" C. PROVIDE UNISTRUT CHANNEL FOR MOUNTING OF DISCONNECT SWITCH ON WALL.
3. PROVIDE 30A/3P/NF DISCONNECT SWITCH IN NEMA 1 ENCLOSURE; MOUNT ON UNISTRUT CHANNEL FOR MOUNTING OF DISCONNECT SWITCH ON WALL. ROUTE (3)#12 + (1)#12G IN 3/4" C TO INDICATED PANEL AND ADJACENT HEAT TRACE CONTROL PANEL. HEAT TRACE PANEL PROVIDED BY MECHANICAL CONTRACTOR. MAKE ALL FINAL CONNECTIONS. COORDINATE LOCATION.
4. PROVIDE 20A MOTOR-RATED SWITCH WITH INDICATOR LIGHT, ROUTE (2)#12 + (1)#12G IN 3/4" C TO INDICATED PANEL AND ADJACENT PUMP. MAKE FINAL CONNECTIONS.



1 BASEMENT - DEMOLITION
 SCALE: 1/4" = 1'-0"
 REF. DWG: 51-E-101



2 BASEMENT - NEW WORK
 SCALE: 1/4" = 1'-0"
 REF. DWG: 51-E-101



KEYPLAN
 SCALE: NTS

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NO.	DESCRIPTION	DATE

PROJECT TEAM



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 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

**Office of
 Construction
 and Facilities
 Management**



Drawing Title
**ELECTRICAL
 BASEMENT - DEMOLITION & NEW
 WORK PART PLANS**

Approved: Project Director

Phase
 100% CONSTRUCTION
 DOCUMENTS
 NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
**UPGRADE SPS HVAC &
 ENVIRONMENTAL CONTROLS**

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

Project Number
656-18-300

Building Number
51

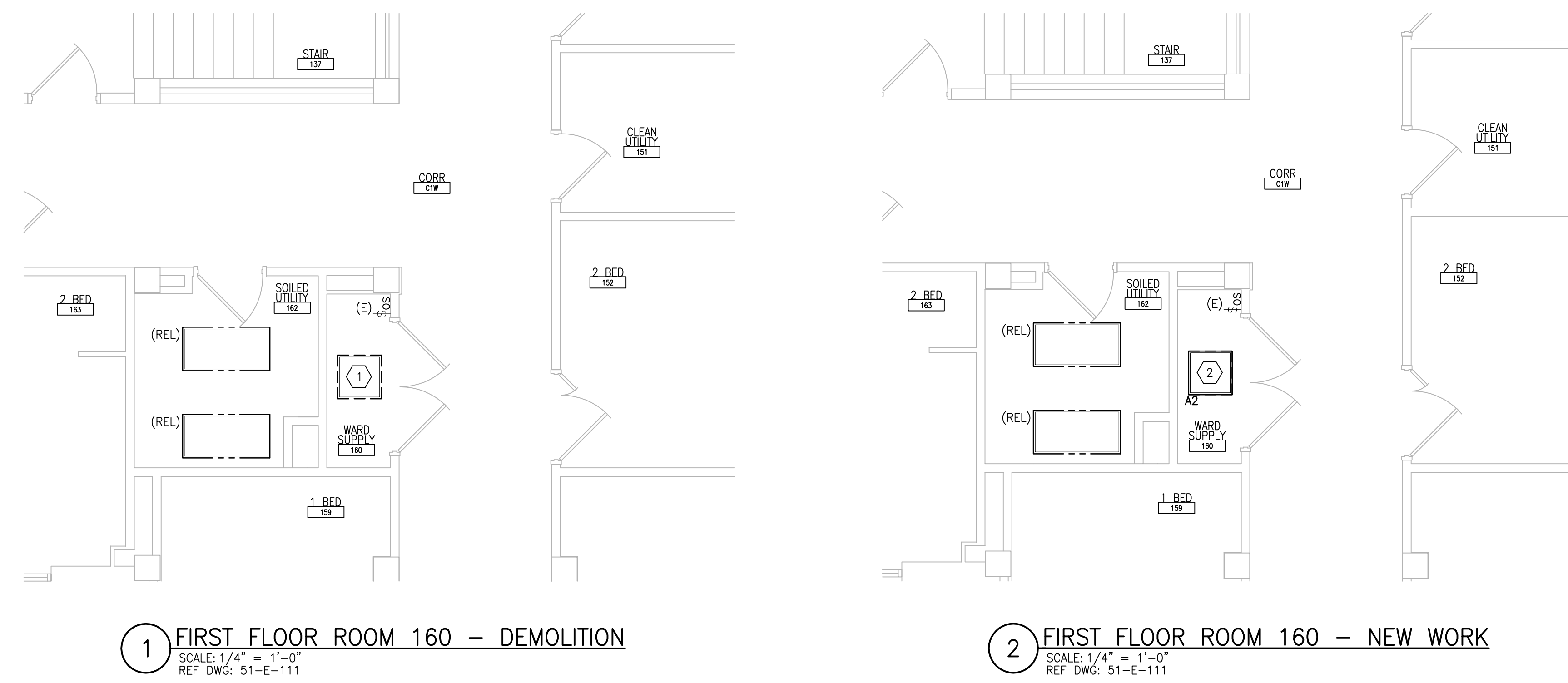
Drawing Number
51-EP101

GENERAL SHEET NOTES:

1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 51-E-111 FOR LOCATION OF PANELBOARDS.
3. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
5. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON G1001 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
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7. REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
8. COORDINATE ACCESS PROCEDURES, PROTECTION OF EXISTING RME STORAGE RACKS/EQUIPMENT, CLEANUP AND WORK HOURS WITH THE VA.
9. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
10. DEVICE/LIGHTING FIXTURE LABELED AS (REL) SHALL BE DISCONNECTED AND REMOVED DURING CONSTRUCTION. UPON INSTALLATION OF NEW CEILING IN THE SPACE RE-INSTALL AND CONNECT EXISTING DEVICE/LIGHTING FIXTURE. PROTECT WIRING AND DEVICE/LIGHTING FIXTURE DURING CONSTRUCTION.
11. OCCUPANCY SENSOR WALL SWITCH SHOWN ON DRAWING SHALL BE CONNECTED TO NEW LIGHTING FIXTURE(S) WITHIN THE SAME SPACE.

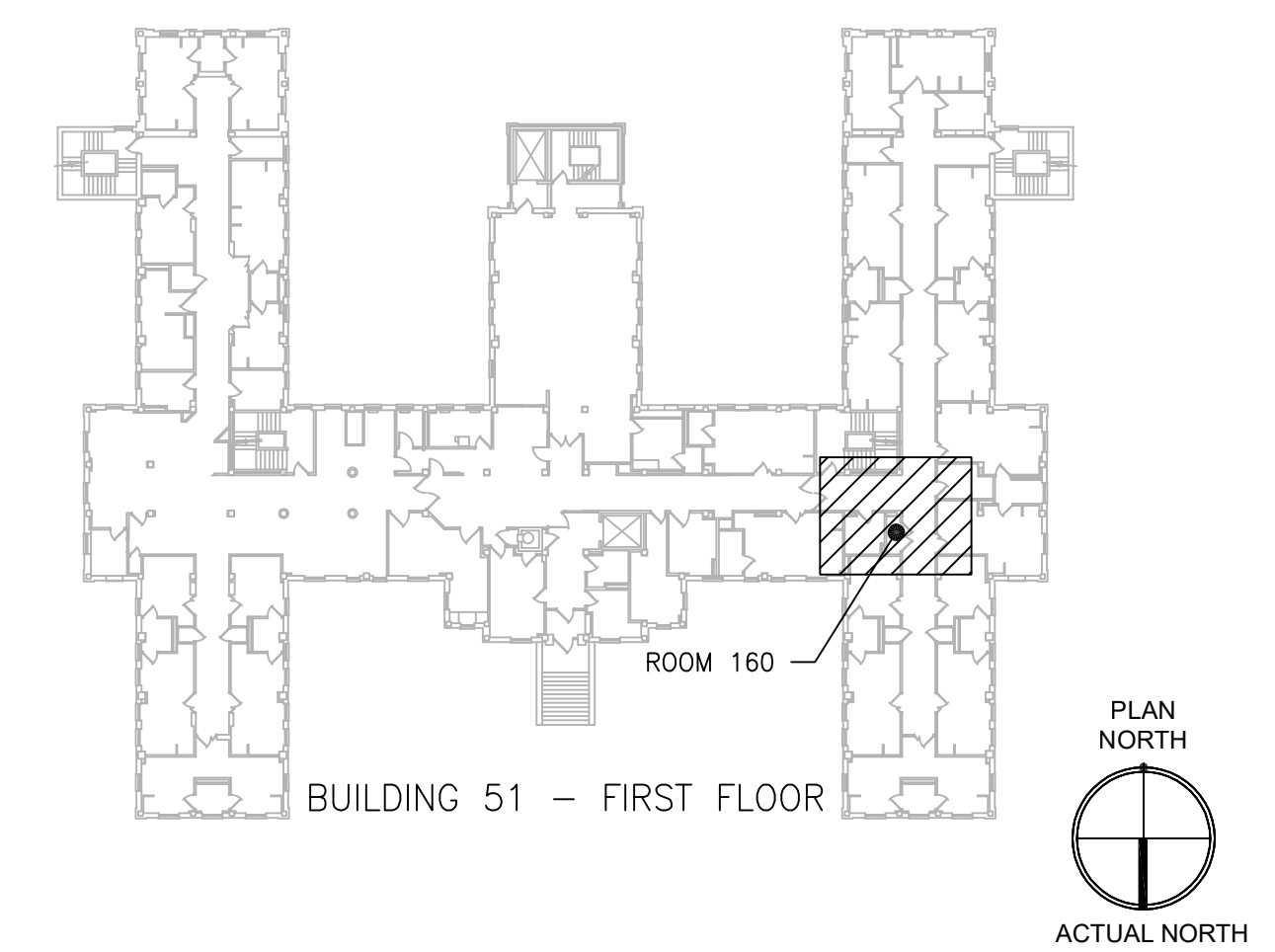
SHEET KEYNOTES:

1. DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE(S). PROTECT BRANCH CIRCUIT DURING CONSTRUCTION.
2. PROVIDE NEW LIGHTING FIXTURE AND CONNECT TO EXISTING BRANCH CIRCUIT PREVIOUSLY FEEDING DEMOLISHED LIGHTING FIXTURE. CONNECT TO EXISTING ROOM LIGHTING CONTROL DEVICE. PROVIDE ADDITIONAL CONDUIT AND WIRING AS NEEDED.



1 FIRST FLOOR ROOM 160 - DEMOLITION
SCALE: 1/4" = 1'-0"
REF. DWG: 51-E-111

2 FIRST FLOOR ROOM 160 - NEW WORK
SCALE: 1/4" = 1'-0"
REF. DWG: 51-E-111



KEYPLAN
SCALE: NTS

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NO.	DESCRIPTION	DATE

PROJECT TEAM

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1173 Research Way
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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
RC

Drawn
DR

Project Number
656-18-300

Building Number
51

Drawing Number
51-EP111

P:\0376_CCOVA\0011 ST. Cloud Upgrade SPS HVAC & Environ Controls\2 Drawings\1 Coord\Current Submittal\Phase7\Electrical\51-EP111.dwg 7-15-22 10:29:20 AM dmb001

one eighth inch = one foot
one quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot

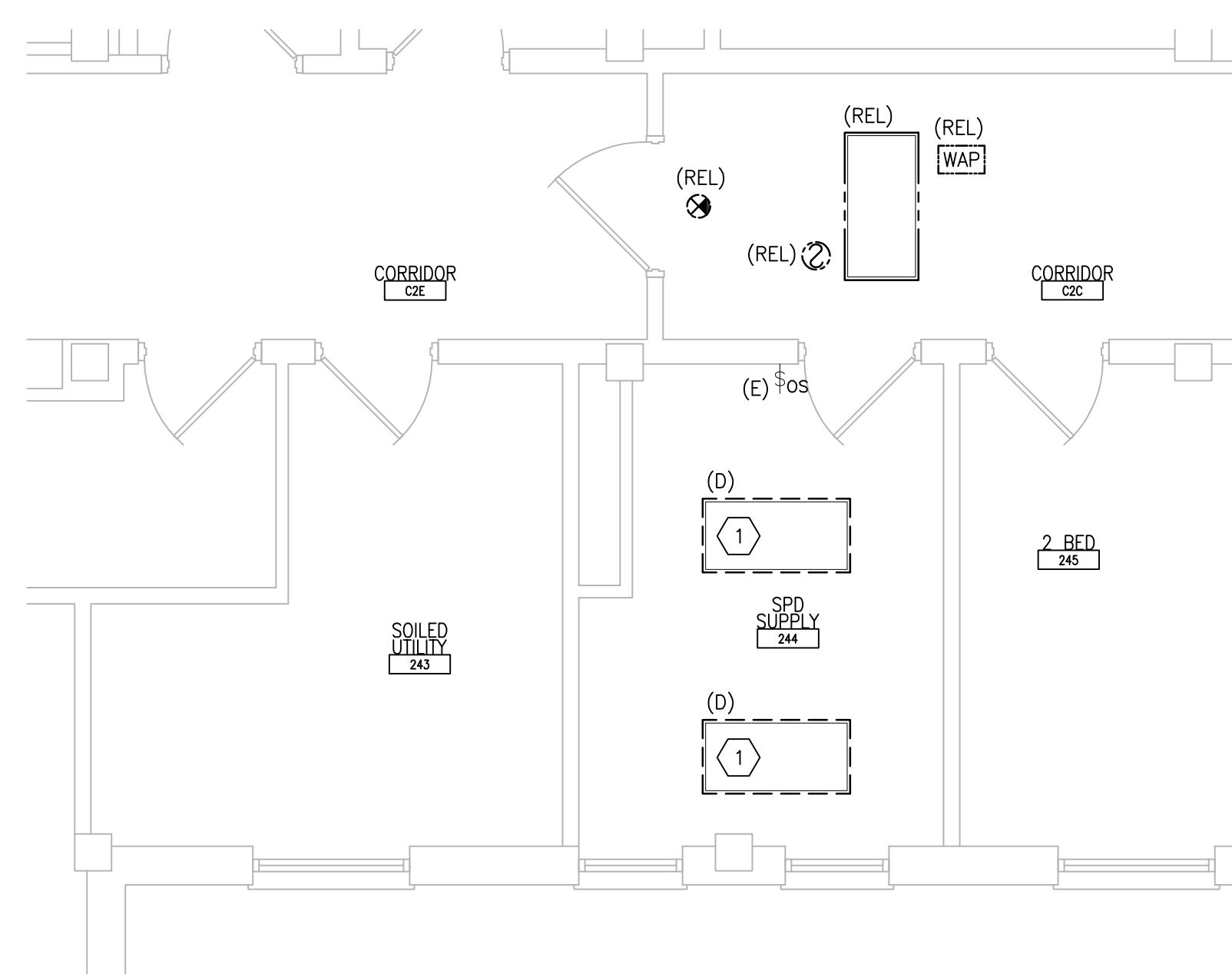
A
B
C
D
E
F

GENERAL SHEET NOTES:

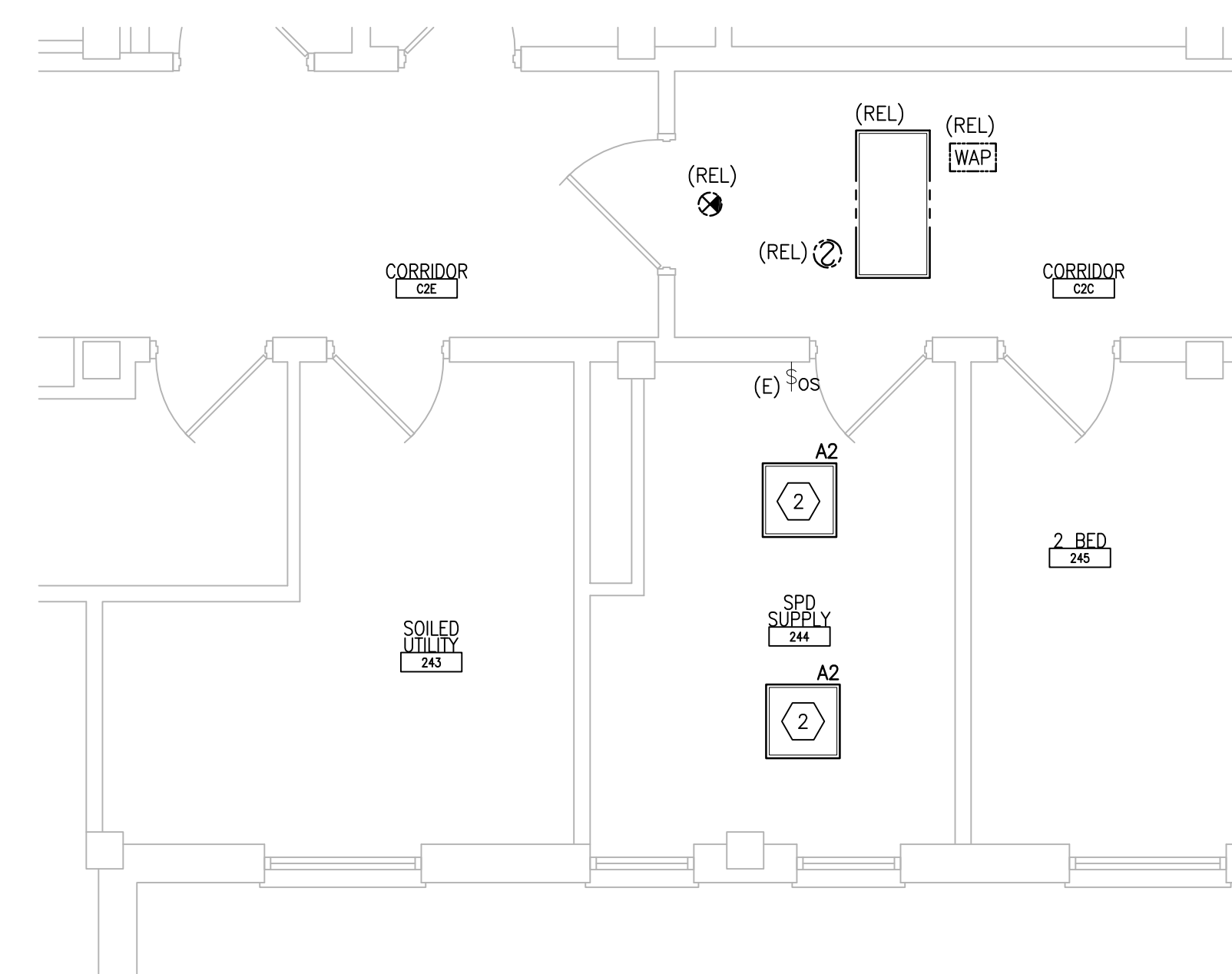
- REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
- REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
- REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
- ADHERE TO ALL ICRA REQUIREMENTS LISTED ON C1001 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
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- OCCUPANCY SENSOR WALL SWITCH SHOWN ON DRAWING SHALL BE CONNECTED TO NEW LIGHTING FIXTURE(S) WITHIN THE SAME SPACE.

SHEET KEYNOTES:

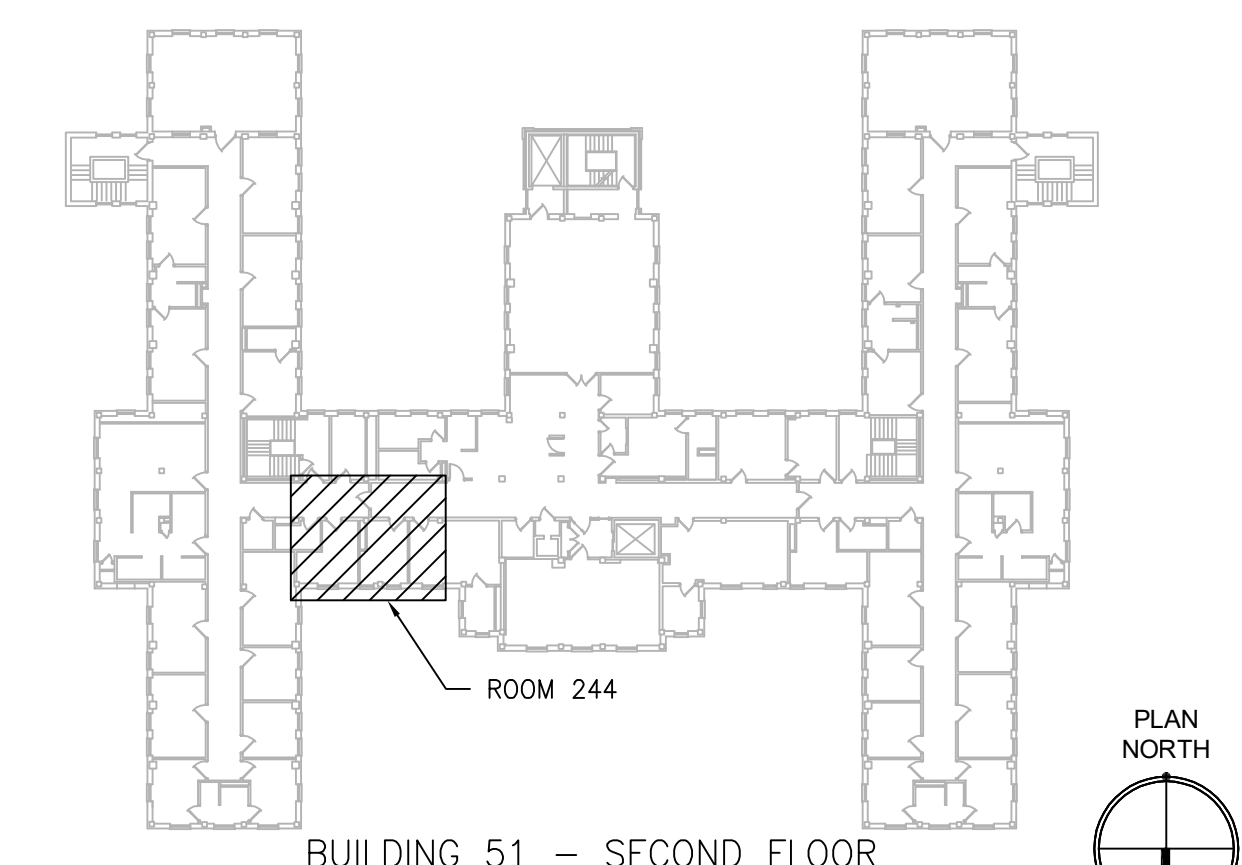
- DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE(S) AND/OR LIGHTING CONTROL DEVICE. PROTECT BRANCH CIRCUIT DURING CONSTRUCTION.
- PROVIDE NEW LIGHTING FIXTURE AND CONNECT TO EXISTING BRANCH CIRCUIT PREVIOUSLY FEEDING DEMOLISHED LIGHTING FIXTURE. CONNECT TO NEW LIGHTING CONTROL DEVICE. PROVIDE ADDITIONAL CONDUIT AND WIRING AS NEEDED.



1 SECOND FLOOR ROOM 244 - DEMOLITION
SCALE: 1/4" = 1'-0"
REF DWG: 51-E-121



2 SECOND FLOOR ROOM 244 - NEW WORK
SCALE: 1/4" = 1'-0"
REF DWG: 51-E-121



KEYPLAN
SCALE: NTS

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM



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MR PROJECT NO: 0376-0011

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title
**ELECTRICAL
SECOND FLOOR - DEMOLITION & NEW
WORK PART PLANS**

Approved: Project Director

Phase
100% CONSTRUCTION
DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
**UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS**

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

Project Number
656-18-300

Building Number
51

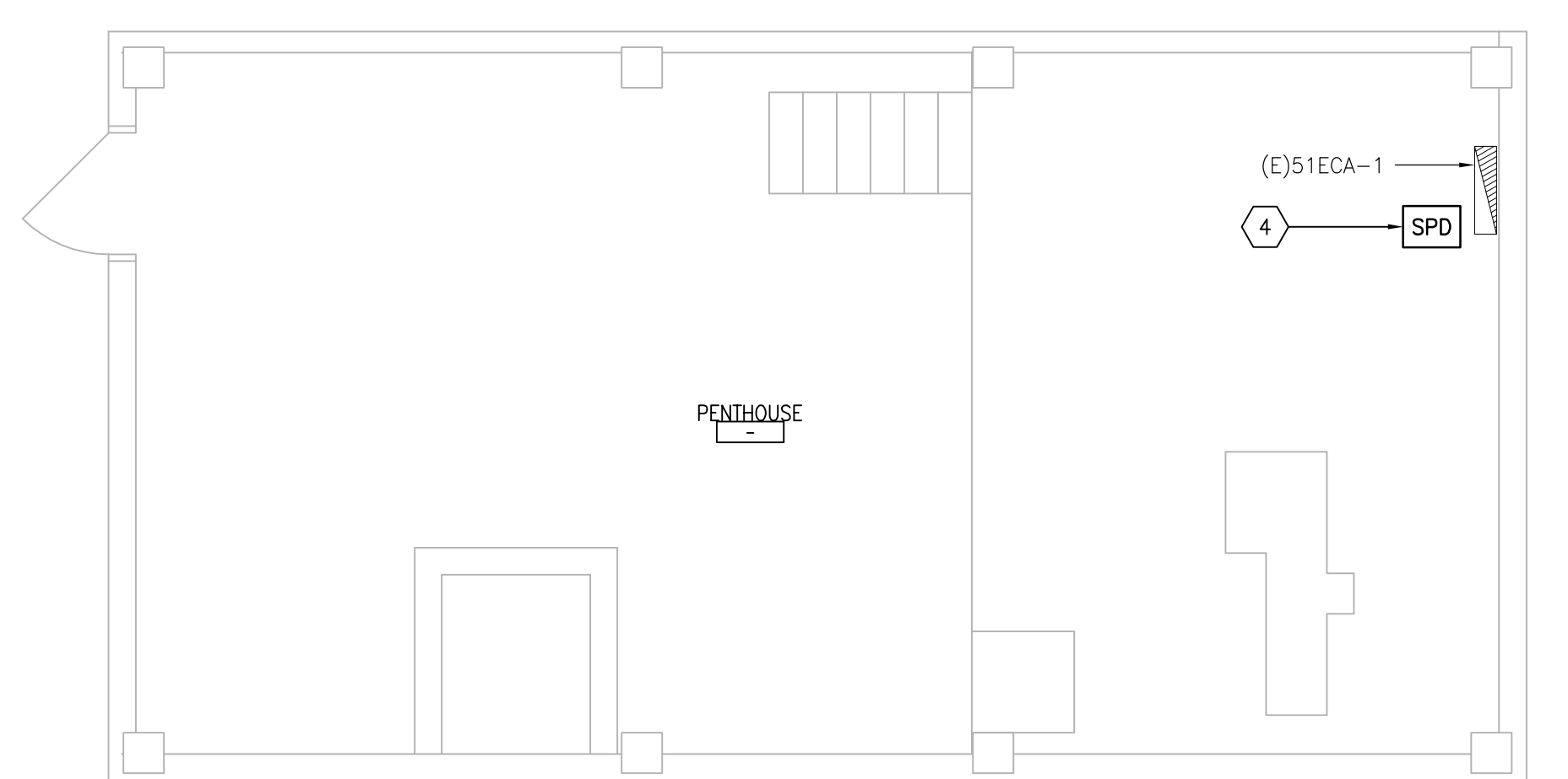
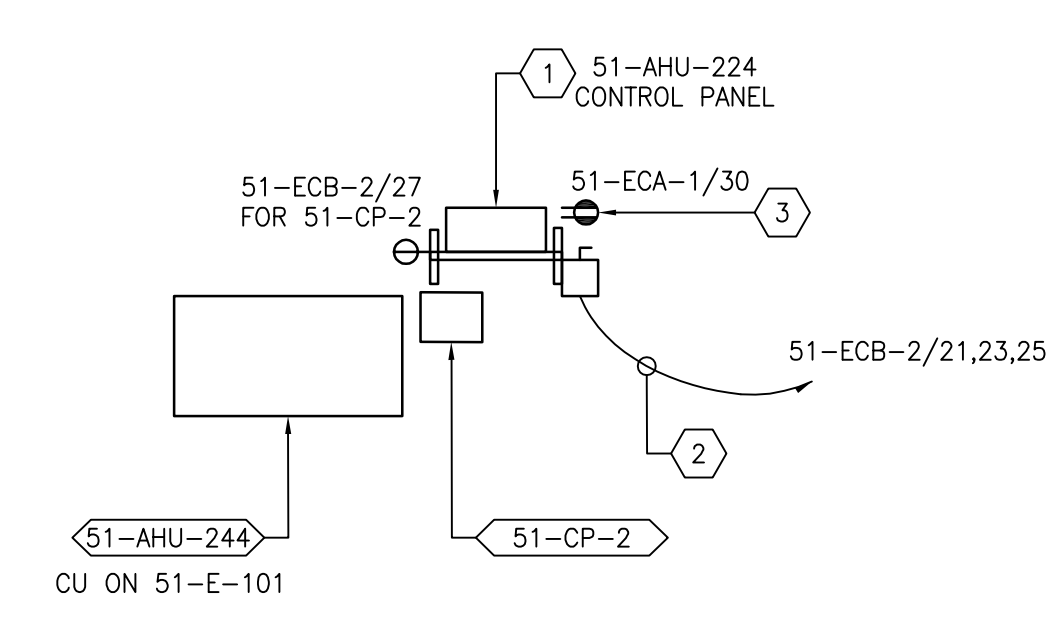
Drawing Number
51-EP121

GENERAL SHEET NOTES:

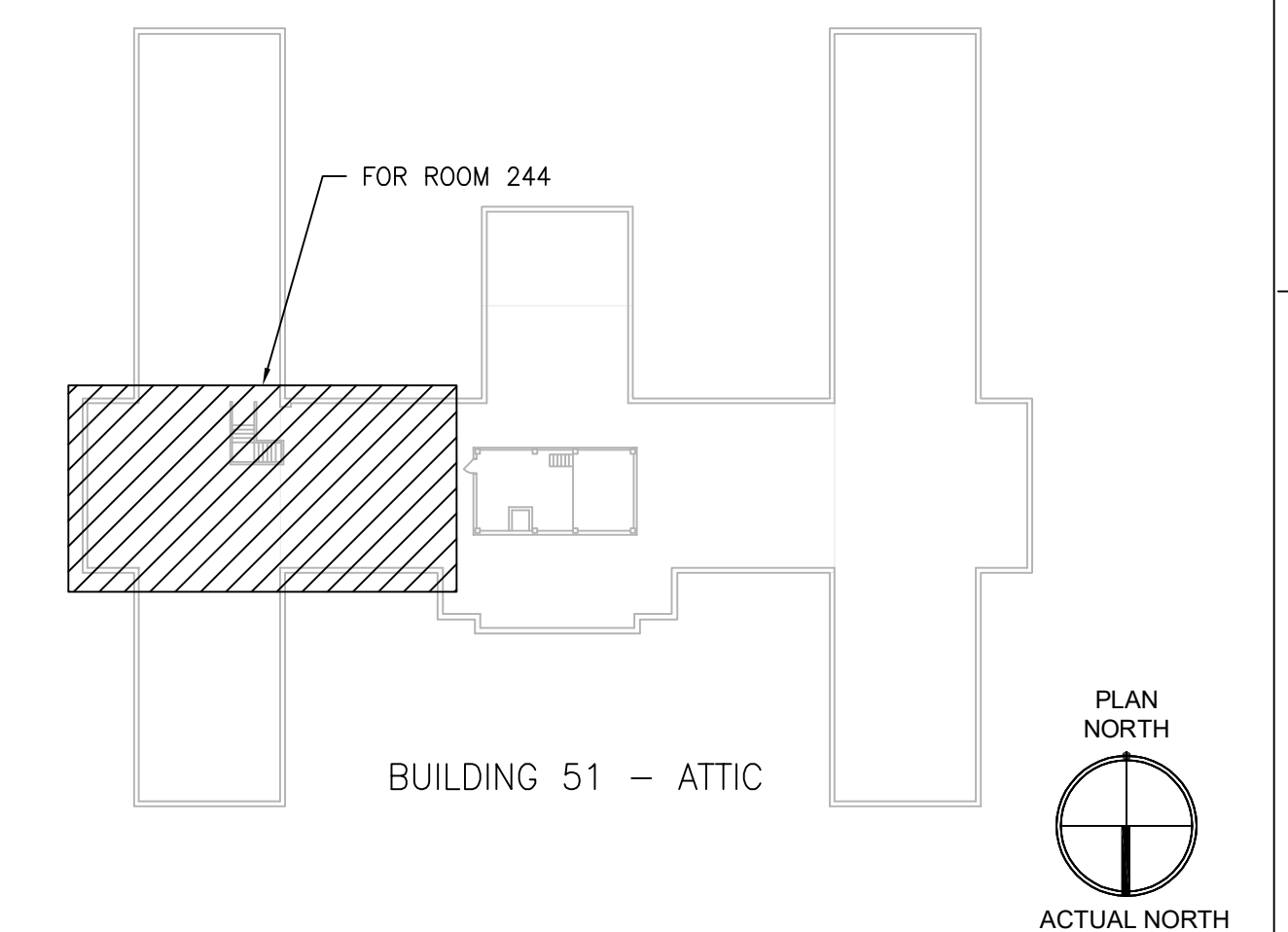
1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 51-E-101 FOR LOCATION OF PANEL 51-ECB-2.
3. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
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9. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.

SHEET KEYNOTES:

1. FACTORY PRE-WIRED AHU CONTROL PANEL MOUNTED ON UNISTRUT FRAME, WITH 6"-0" INTERCONNECTING WIRING TO ASSOCIATED AHU, PROVIDED BY MECHANICAL CONTRACTOR. MAKE ALL FINAL CONNECTIONS.
2. PROVIDE 30A/3P/NF DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. CONNECT TO ADJACENT CONTROL PANEL AND INDICATED CIRCUIT WITH (3)#12 + (1)#12G IN 3/4"C. MOUNT DISCONNECT SWITCH ON UNISTRUT FRAME PROVIDED BY MECHANICAL CONTRACTOR.
3. PROVIDE A NEW 1P-20A CIRCUIT BREAKER IN INDICATED PANEL AND CIRCUIT WITH (2)#12 + (1)#12G IN 3/4"C. MOUNT WIRING DEVICE ON UNISTRUT FRAME PROVIDED BY MECHANICAL CONTRACTOR.
4. PROVIDE SPD IN NEMA 1 ENCLOSURE BELOW OR ADJACENT TO PANEL 51ECA-1. PROVIDE 30A/3P BREAKER IN PANEL AND UTILIZE (3)#10 + (1)#10G IN 3/4"C. MAKE FINAL CONNECTIONS.



1 ATTIC - NEW WORK PART PLAN
 SCALE: 1/4" = 1'-0"
 REF DWG: 51-E-131



KEYPLAN
 SCALE: NTS

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

COMMANDEER'S SERVICES
 CONTINUOUS DESIGN

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 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL ATTIC - NEW WORK PART PLAN

Approved: Project Director

Phase
 100% CONSTRUCTION DOCUMENTS
 NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
 2022-07-15

Checked
 RC

Drawn
 DR

Project Number
656-18-300

Building Number
 51

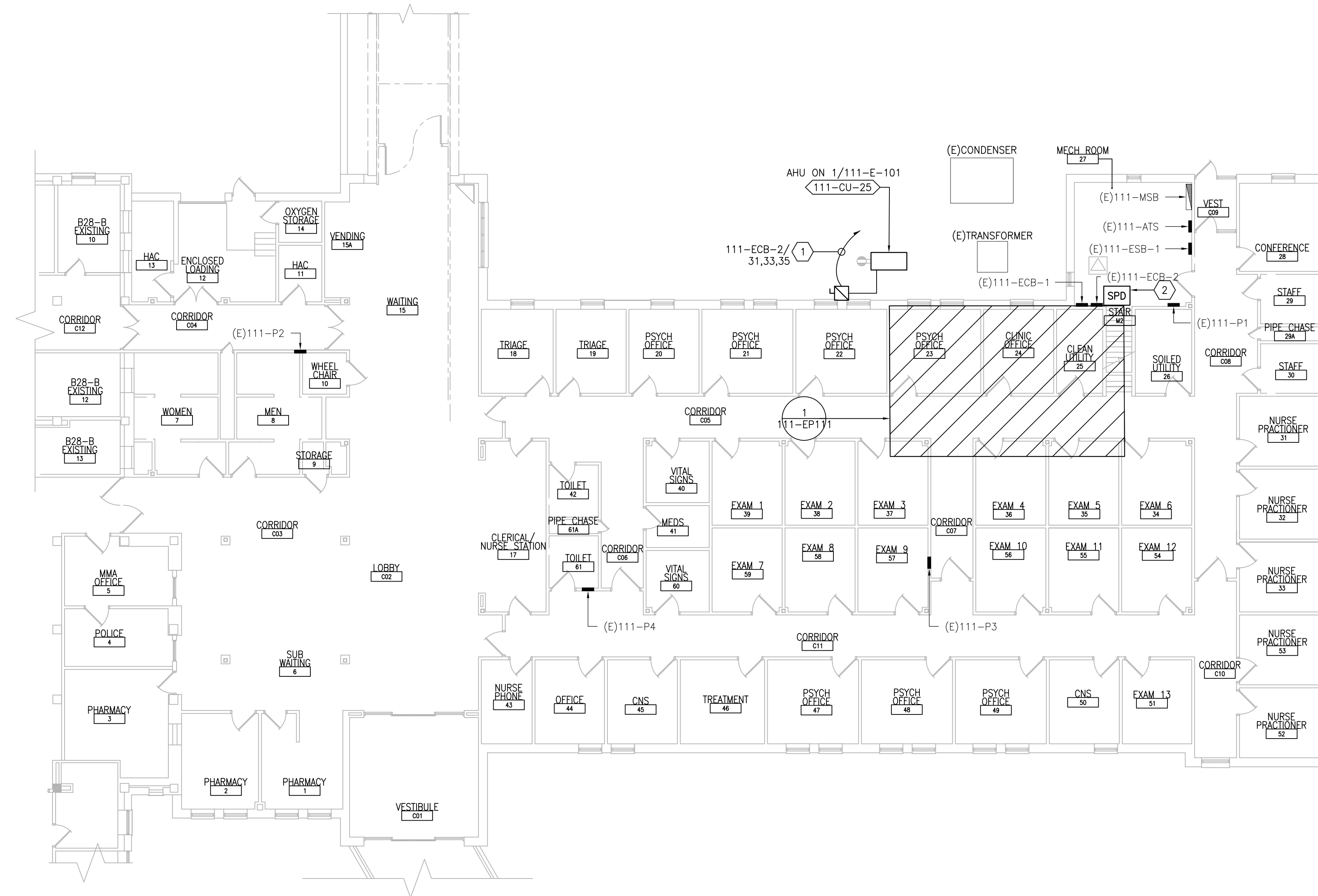
Drawing Number
51-EP131

GENERAL SHEET NOTES:

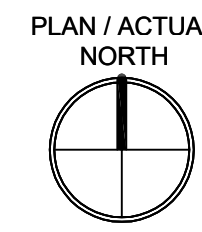
1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 1-E-101 FOR LOCATION OF PANEL 1-EOB-SPS (BASEMENT ELECTRICAL ROOM 18).
3. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
5. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON G1001 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
6. AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAFS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
7. REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
8. COORDINATE ACCESS PROCEDURES, PROTECTION OF EXISTING RME STORAGE RACKS/EQUIPMENT, CLEANUP AND WORK HOURS WITH THE VA.
9. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
10. CONDENSING UNITS AND PACKAGED AHU'S: UNITS ARE PROVIDED WITH A FACTORY WIRED 120V RECEPTACLE SHOWN IN GRAY-SCALE (FOR REFERENCE ONLY).

SHEET KEYNOTES:

1. PROVIDE 30A/3P/25AF FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. CONNECT TO ADJACENT CU AND INDICATED CIRCUIT WITH (3)#10, (1)#10G IN 3/4". PROVIDE GALVANIZED STEEL FRAME WITH GALVANIZED HARDWARE FOR MOUNTING OF DISCONNECT SWITCH ON WALL.
2. PROVIDE SPD IN NEMA 1 ENCLOSURE BELOW OR ADJACENT TO ASSOCIATED PANEL. MAKE FINAL CONNECTIONS. REFER TO SHEET E-702.



1 FIRST FLOOR - POWER PLAN
SCALE: 3/32" = 1'-0"



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
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MR PROJECT NO: 0376-0011

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL
FIRST FLOOR - POWER PLAN

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

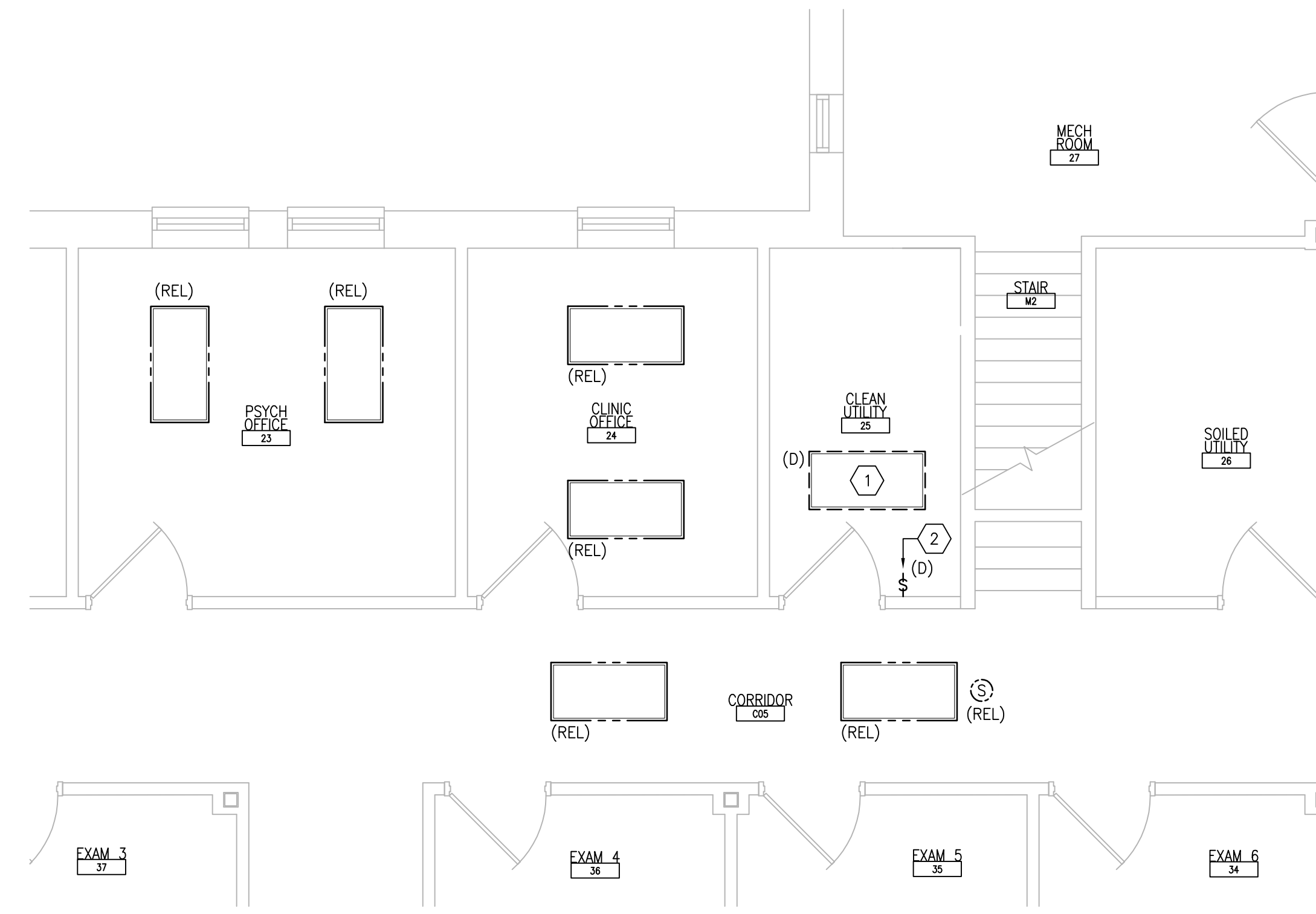
Project Number
656-18-300

Building Number
111

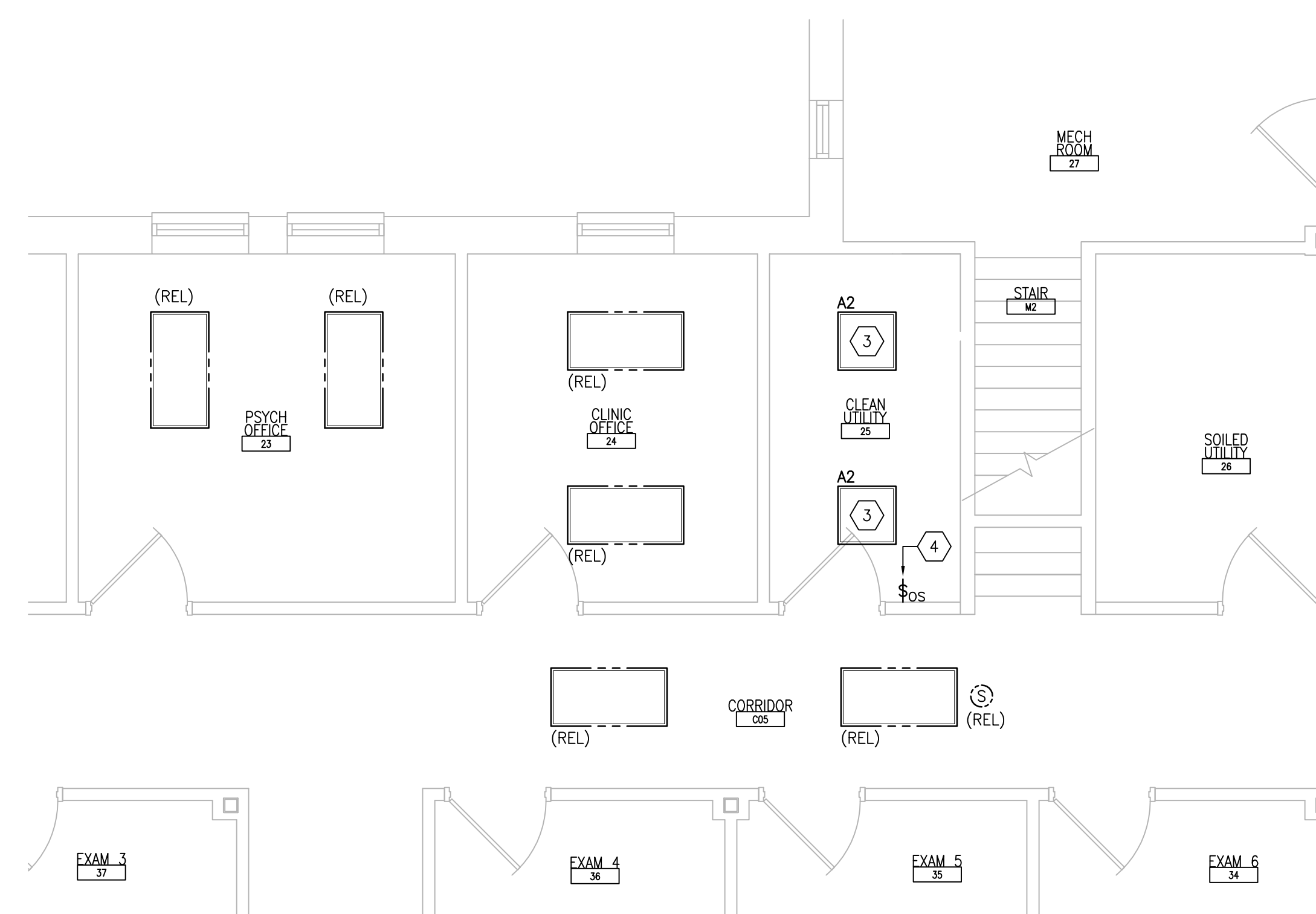
Drawing Number
111-E-111

GENERAL SHEET NOTES:

- REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
- REFER TO SHEET 1-E-111 FOR LOCATION OF PANELBOARDS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
- ADHERE TO ALL ICRA REQUIREMENTS LISTED ON G1001 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
- AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAPS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
- REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
- COORDINATE ACCESS PROCEDURES, PROTECTION OF EXISTING RME STORAGE RACKS/EQUIPMENT, CLEANUP AND WORK HOURS WITH THE VA.
- REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
- DEVICE/LIGHTING FIXTURE LABELED AS (REL) SHALL BE DISCONNECTED AND REMOVED DURING CONSTRUCTION. UPON INSTALLATION OF NEW CEILING IN THE SPACE, RE-INSTALL AND CONNECT EXISTING DEVICE/LIGHTING FIXTURE. PROTECT WIRING AND DEVICE/LIGHTING FIXTURE DURING CONSTRUCTION.
- OCCUPANCY SENSOR WALL SWITCH SHOWN ON DRAWING SHALL BE CONNECTED TO NEW LIGHTING FIXTURE(S) WITHIN THE SAME SPACE.
- EXISTING CONDITIONS: DURING THE FINAL SURVEY PERFORMED BY MILLER-REMICK (M-R) THE FIRST FLOOR HAD BEEN FLOODED AND THE BUILDING WAS UNDERGOING A MAJOR RENOVATION. THE EXISTING DEVICES AND LIGHTING FIXTURES SHOWN MAY NOT MATCH CONDITIONS WHEN CONSTRUCTION BEGINS. THE CONTRACTOR SHALL PROVIDE TO M-R EXISTING CONDITIONS AT THE START OF CONSTRUCTION FOR ADDITIONAL DIRECTION.



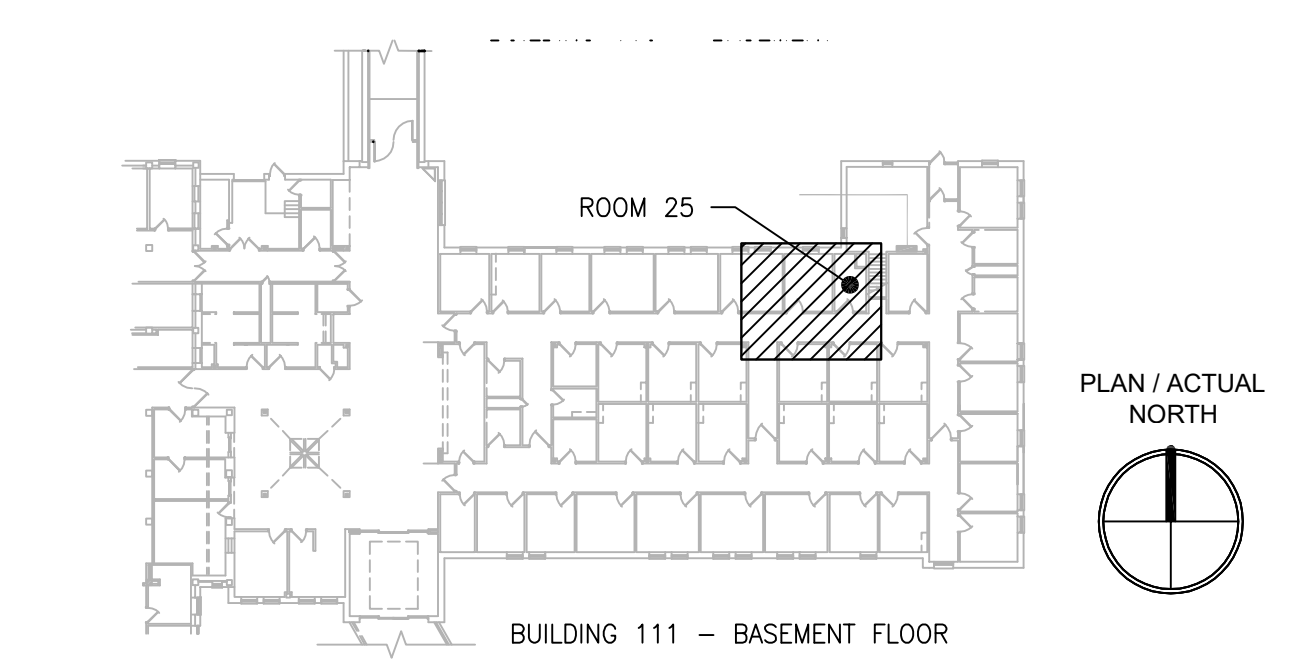
1 FIRST FLOOR ROOM 25 -- DEMOLITION
SCALE: 1/4" = 1'-0"
REF DWG: 111-E-111



2 FIRST FLOOR ROOM 25 -- NEW WORK
SCALE: 1/4" = 1'-0"
REF DWG: 111-E-111

SHEET KEYNOTES:

- DISCONNECT AND REMOVE EXISTING LIGHTING CIRCUIT. PROTECT BRANCH CIRCUIT DURING CONSTRUCTION.
- DISCONNECT AND REMOVE EXISTING SWITCH. RETAIN BACK BOX AND ASSOCIATED CONDUIT AND WIRING.
- PROVIDE NEW LIGHTING FIXTURE AND CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT PREVIOUSLY FEEDING DEMOLISHED LIGHTING FIXTURE. CONNECT TO EXISTING ROOM LIGHTING CONTROLS. PROVIDE ADDITIONAL CONDUIT AND WIRING AS NEEDED.
- PROVIDE NEW SWITCH INSTALLED IN EXISTING BACK BOX. CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT.



KEYPLAN
SCALE: NTS

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

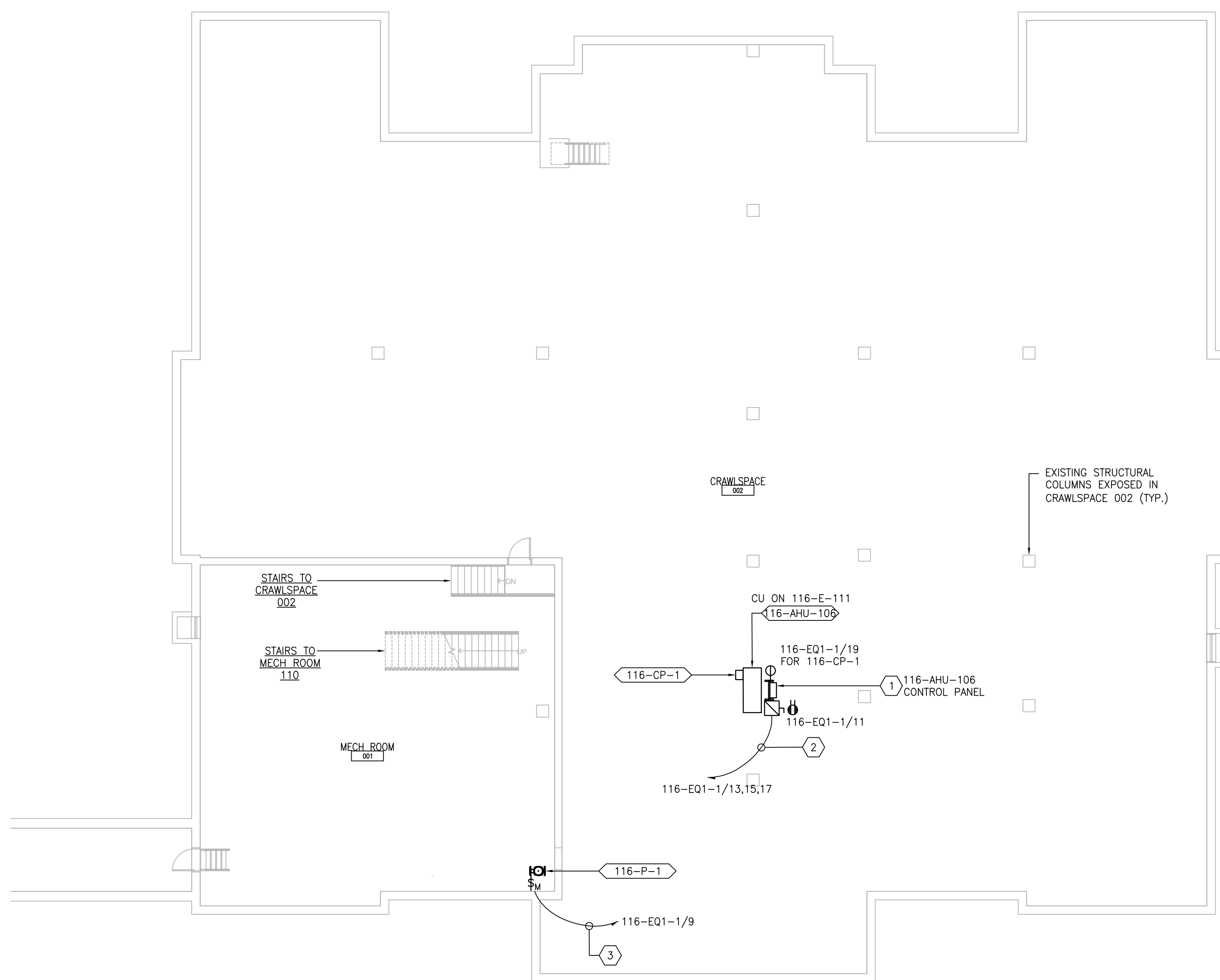
Project Number
656-18-300

Building Number
111

Drawing Number
111-EP111

GENERAL SHEET NOTES:

1. REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
2. REFER TO SHEET 116-E-111 FOR LOCATION OF PANEL 116-EQ1-1.
3. REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILING.
5. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON 0101 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
6. REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
7. REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.



1 CRAWL SPACE -- POWER PLAN
SCALE: 3/32" = 1'-0"

SHEET KEYNOTES:

1. FACTORY PRE-WIRED AHU CONTROL PANEL MOUNTED ON UNISTRUT FRAME, WITH 6'-0" INTERCONNECTING WIRING TO ASSOCIATED AHU, PROVIDED BY MECHANICAL CONTRACTOR. MAKE ALL FINAL CONNECTIONS.
2. PROVIDE 30A/3P/15AF FUSED DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. CONNECT TO ADJACENT CONTROL PANEL AND INDICATED CIRCUIT WITH (3)#12 + (1)#12G IN 3/4" C. MOUNT DISCONNECT SWITCH ON UNISTRUT FRAME PROVIDED BY MECHANICAL CONTRACTOR.
3. PROVIDE 20A MOTOR-RATED SWITCH WITH INDICATOR LIGHT. ROUTE (2)#12 + (1)#12G IN 3/4" C TO INDICATED PANEL AND ADJACENT PUMP. MAKE FINAL CONNECTIONS.

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NO.	DESCRIPTION	DATE

PROJECT TEAM



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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title ELECTRICAL CRAWL SPACE - POWER PLAN
Approved: Project Director

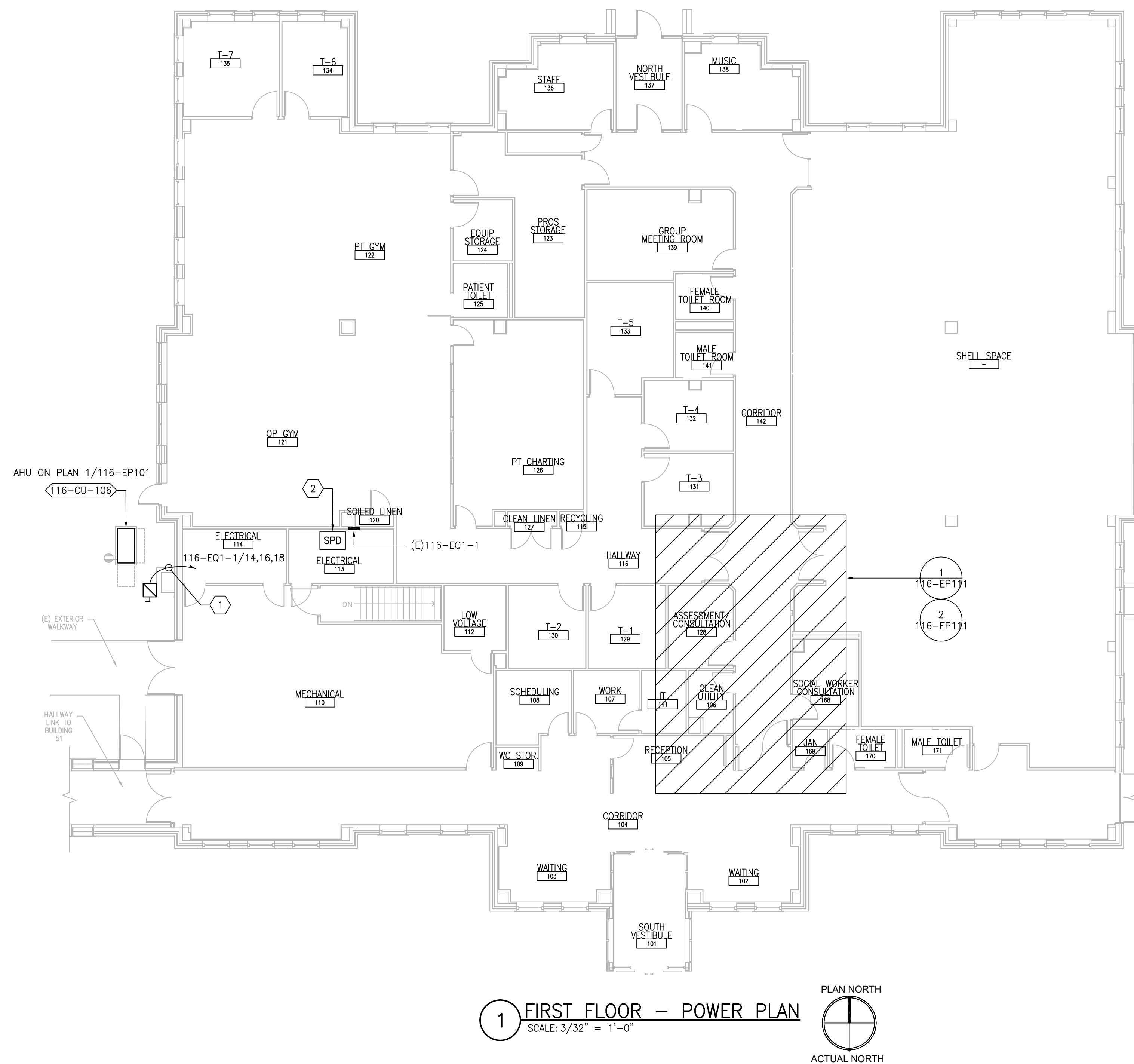
Phase 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION	Project Title UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS	Project Number 656-18-300
FULLY SPRINKLERED	Location ST. CLOUD VA MEDICAL CENTER, MN	Building Number 116
Issue Date 2022-07-15	Checked RC	Drawn DR
Drawing Number 116-E-101		

GENERAL SHEET NOTES:

- REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
- REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
- REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
- ADHERE TO ALL ICRA REQUIREMENTS LISTED ON 0101 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
- AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAFS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
- REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
- REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
- CONDENSING UNITS AND PACKAGED AHU'S: UNITS ARE PROVIDED WITH A FACTORY WIRED 120V RECEPTACLE SHOWN IN GRAY-SCALE (FOR REFERENCE ONLY).

SHEET KEYNOTES:

- PROVIDE 30A/3P/25AF FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. CONNECT TO ADJACENT CU AND INDICATED CIRCUIT WITH (3)#10, (1)#10G IN 3/4". PROVIDE GALVANIZED STEEL FRAME WITH GALVANIZED HARDWARE FOR MOUNTING OF DISCONNECT SWITCH ON WALL.
- PROVIDE SPD IN NEMA 1 ENCLOSURE BELOW OR ADJACENT TO ASSOCIATED PANEL. MAKE FINAL CONNECTIONS. REFER TO SHEET E-702.



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Electrical
FIRST FLOOR - POWER PLAN

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
RC

Drawn
DR

Project Number
656-18-300

Building Number
116

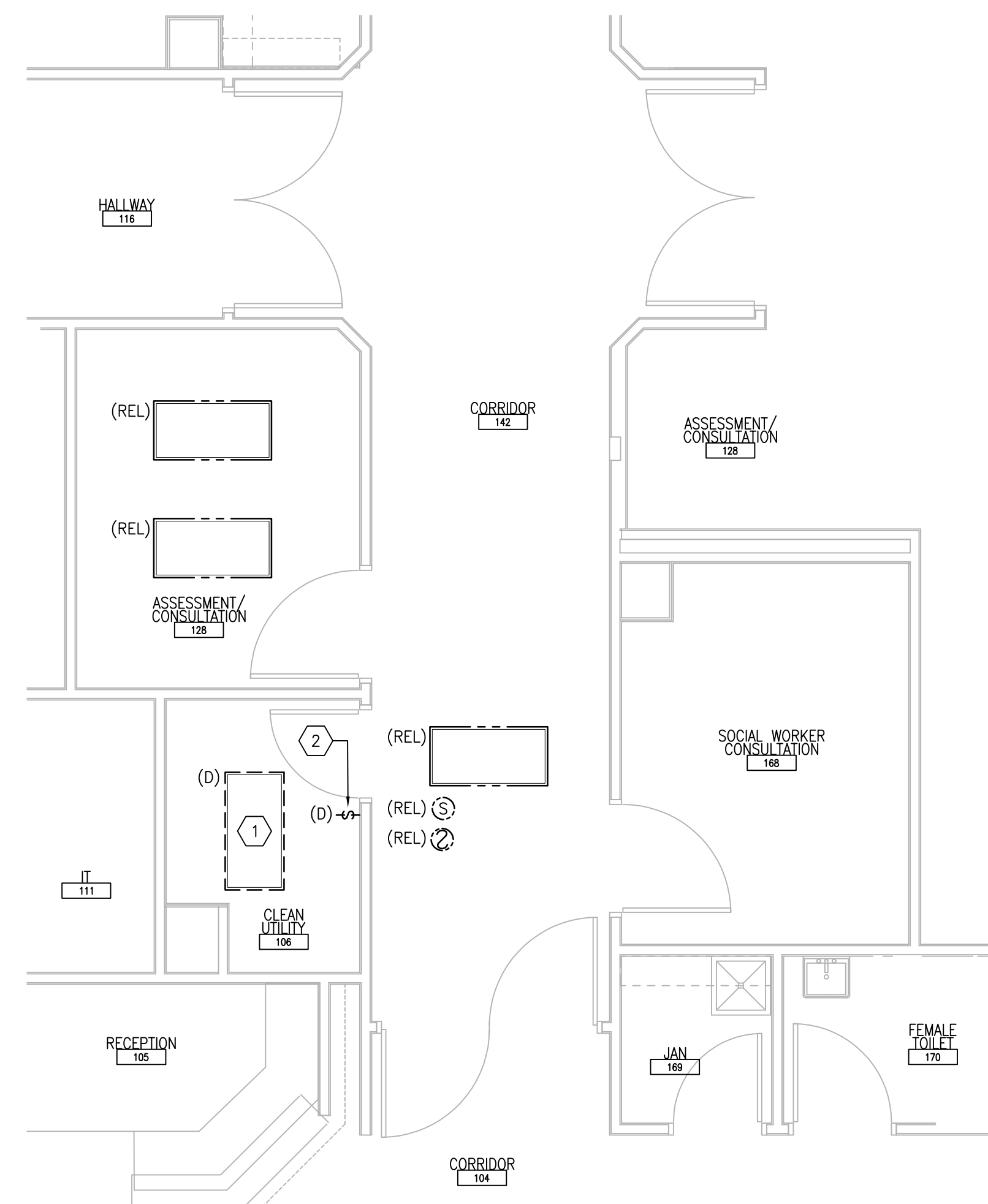
Drawing Number
116-E-111

GENERAL SHEET NOTES:

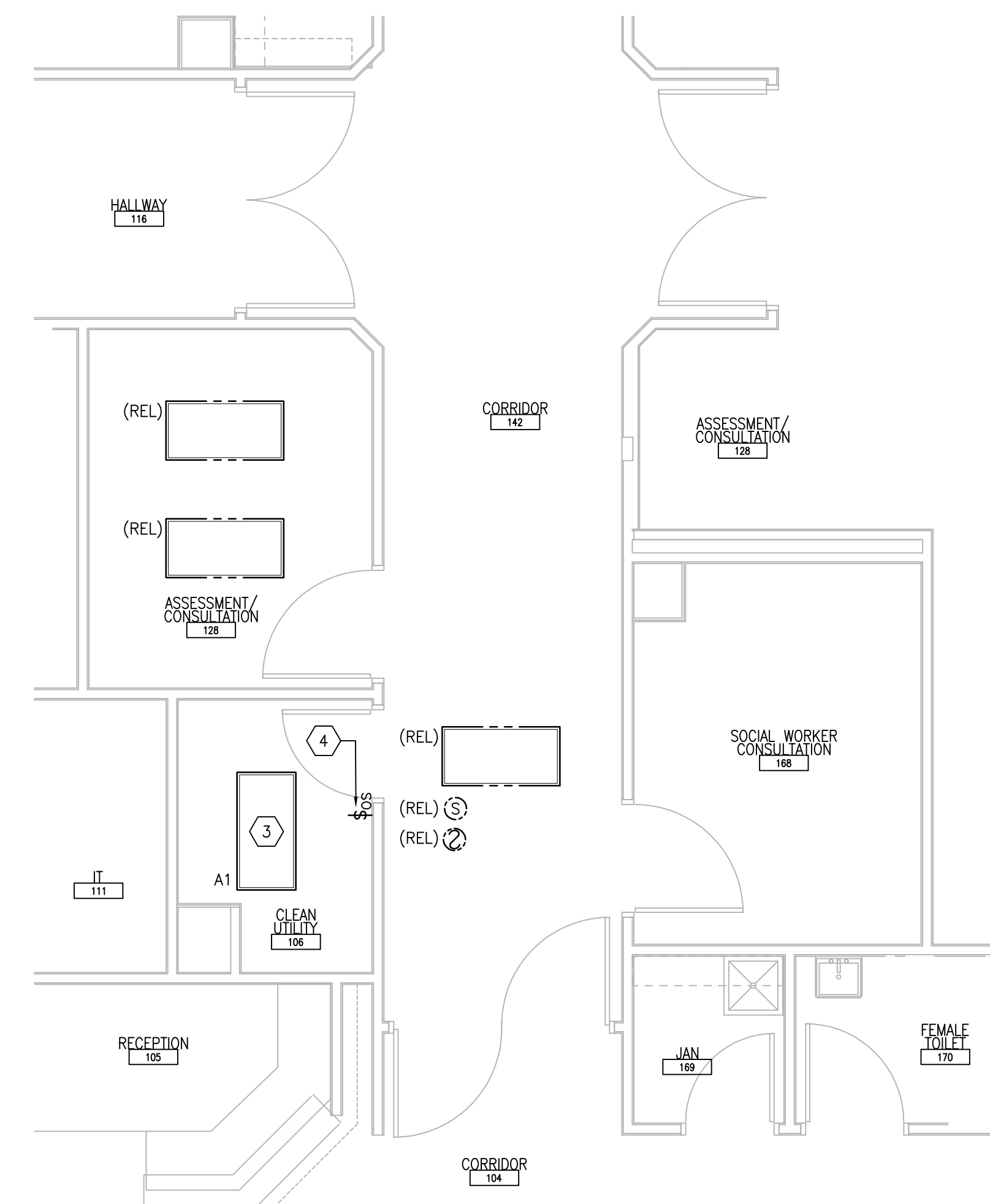
- REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
- REFER TO SHEET 116-E-111 FOR LOCATION OF PANELBOARDS.
- REFER TO SERIES E-700 SHEETS FOR PANELBOARD SCHEDULES AND LIGHTING FIXTURE SCHEDULE.
- REFER TO ARCHITECTURAL DRAWINGS FOR ICRA BARRIER LOCATIONS AND ALL WORK ASSOCIATED WITH CEILINGS.
- ADHERE TO ALL ICRA REQUIREMENTS LISTED ON G001 AND IN SPECIFICATIONS. THE DIFFERENT WORK SPACES ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. ALL EQUIPMENT IN THE ROOM SHALL BE PROTECTED FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
- AVOID CEILING-MOUNTED AND WALL-MOUNTED DEVICES (I.E. SIGNAGE, LIGHTING FIXTURE, FIRE ALARM, NURSE CALL, WAPS, ETC.) WHEN LOCATING ICRA WALLS. WHERE DEVICES CANNOT BE AVOIDED, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE DEVICE AND REINSTALL AT ORIGINAL LOCATION AFTER REMOVAL OF ICRA WALL.
- REFER TO SPECIFICATION 02 82 11 APPENDIX A1 FOR ABATEMENT REPORT. THE CONTRACTOR SHALL ADHERE TO AND FOLLOW THE ABATEMENT REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
- COORDINATE ACCESS PROCEDURES, PROTECTION OF EXISTING RME STORAGE RACKS/EQUIPMENT, CLEANUP AND WORK HOURS WITH THE VA.
- REFER TO MECHANICAL AND PIPING DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND ROUTING OF PIPING/DUCT WORK.
- DEVICE/LIGHTING FIXTURE LABELED AS (REL) SHALL BE DISCONNECTED AND REMOVED DURING CONSTRUCTION. UPON INSTALLATION OF NEW CEILING IN THE SPACE, RE-INSTALL AND CONNECT EXISTING DEVICE/LIGHTING FIXTURE. PROTECT WIRING AND DEVICE/LIGHTING FIXTURE DURING CONSTRUCTION.
- OCCUPANCY SENSOR WALL SWITCH SHOWN ON DRAWING SHALL BE CONNECTED TO NEW LIGHTING FIXTURE(S) WITHIN THE SAME SPACE.

SHEET KEYNOTES:

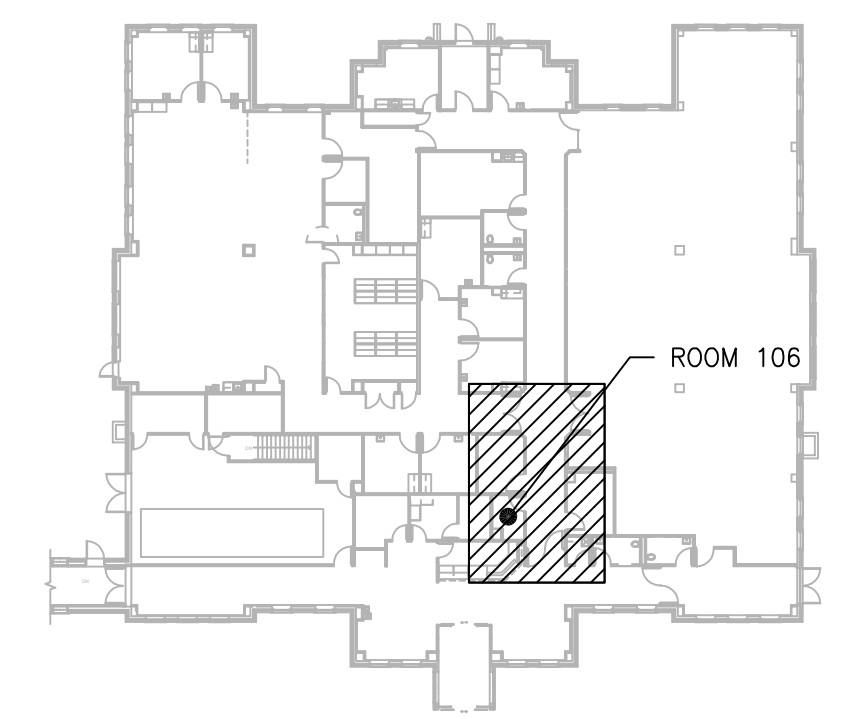
- DISCONNECT AND REMOVE EXISTING LIGHTING CIRCUIT. PROTECT BRANCH CIRCUIT DURING CONSTRUCTION.
- DISCONNECT AND REMOVE EXISTING SWITCH. RETAIN BACK BOX AND ASSOCIATED CONDUIT AND WIRING.
- PROVIDE NEW LIGHTING FIXTURE AND CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT PREVIOUSLY FEEDING DEMOLISHED LIGHTING FIXTURE. CONNECT TO EXISTING ROOM LIGHTING CONTROLS. PROVIDE ADDITIONAL CONDUIT AND WIRING AS NEEDED.
- PROVIDE NEW SWITCH INSTALLED IN EXISTING BACK BOX. CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT.



1 FIRST FLOOR ROOM 106 - DEMOLITION
SCALE: 1/4" = 1'-0"
REF DWG: 116-E-111



2 FIRST FLOOR ROOM 106 - NEW WORK
SCALE: 1/4" = 1'-0"
REF DWG: 116-E-111



KEYPLAN
SCALE: NTS



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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FAX: (856)429-9002
MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	RC	DR

Project Number
656-18-300

Building Number
116

Drawing Number
116-EP111

GENERAL SHEET NOTES:

- REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
- BREAKERS FOR EXISTING PANELS, NEW BREAKERS PROVIDED IN EXISTING PANELS SHALL BE COMPATIBLE WITH THE EXISTING PANEL AND SHALL HAVE THE SAME AIC RATING AS THE EXISTING PANEL. UPDATE PANELBOARD SCHEDULE. EXISTING BREAKERS REMOVED FROM PANELS SHALL BE TURNED OVER TO VA COR.
- HEAT TRACE CONTROL PANEL BRANCH CIRCUIT: PROVIDE 30mA GROUND FAULT PROTECTION RATED BREAKER.
- SURGE PROTECTION DEVICE (SPD): FOR PANELS NOTED WITH A NEW SPD, THE CONTRACTOR SHALL PROVIDE A SPD IN NEW 1" ENCLOSURE BELOW OR ADJACENT TO ASSOCIATED PANEL. PROVIDE WITH INDICATED BREAKER AND (3)1/0 + (1)1/0 IN 3/4" CONDUIT. MAKE FINAL CONNECTIONS.

Panel Name: 1-EQB-SPS
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire

Main Lugs Only: No Main Breaker: 200 Panel A.I.C. Rating: 22k

ID	Description	Breaker	Load	Phase	Load	Breaker	Description	ID
1	1-CU-51						1-CU-100A	1
3	ROOF OF BASEMENT ELECTRICAL ROOM	3 25 AC	1801	3603	1801	AC	ROOF OF BASEMENT OVER ELECTRICAL ROOM WEST	4
7	1-CU-208						1-CU-232	7
9	ROOF OF BASEMENT ELECTRICAL ROOM	3 25 AC	1801	3603	1801	AC	ROOF OF BASEMENT OVER ELECTRICAL ROOM WEST	10
11	1-CU-111C						1-CU-248	11
13	ROOF OF BASEMENT OVER MRL & MECH ROOM EAST	3 25 AC	1801	3603	1801	AC	ROOF OF BASEMENT OVER ELECTRICAL ROOM WEST	14
15	1-AHU-51 CRAWL SPACE A10	3 15 AC	360	721	360	AC	1-AHU-100A ABOVE CEILING	18
19	1-AHU-111C						SPARE	20
21	SUPPLY EQUIPMENT 111C ABOVE CEILING	3 15 AC	360	360	360	AC	SPARE	21
23	RECEPTACLE IN CRAWL SPACE A10	1 20 REC	360	360	360		SPARE	22
31	RECEPTACLE 1-CF1 CRAWL SPACE A10	1 20 REC	106	106	106		SPARE	32
33	HEAT TRACE CONTROL PANEL 1-HT-004 (30mA)	1 20 H	263		263		SPD	33
37	1-CF2 CORRIDOR OUTSIDE OF 172	1 20 NC	106	106			SPD	36
39	1-CF3 CORRIDOR OUTSIDE OF 111C	1 20 NC	106	106			SPD	37
41	SPARE	1 20					SPARE	42
43	SPARE	1 20					SPARE	44
45	SPARE	1 20					SPARE	45
47	SPARE	1 20					SPARE	46
49	SPARE	1 20					SPARE	47
51	SPARE	1 20					SPARE	48
53	SPARE	1 20					SPARE	49

NEC LOAD SUMMARY
Total Load (VA): 12240 Demand Factor: 1.00 NEC Sizing Load (VA): 12240
Air Conditioning (AC): 35666 0.75 26750 Heating (H): 263 1.00 263 Kitchens Equipment (K): 1.00 1.00 Lighting (L): 1.00 1.00 Receptacles (REC): 360 1.00 360 Existing (E): 1.00 1.00 Continuous (C): 1.00 1.00 Non-Continuous (NC): 318 1.00 318 Refrigeration (REF): 1.00 1.00
Bec. Load Totals: 3607 2799 VA

ELECTRICAL DATA
Total Conn. Load: 37 KVA Total Conn. Load: 102 Amps
NEC Sizing Load: 28 KVA NEC Sizing Load: 77 Amps
Main Bus Size: 225 Amps

PANEL INFORMATION
Location: ELEC 16 Mounting: Surface Enclosure Type: Nema 1
Fed From: 1SWBD-EQ (BASEMENT)
Equipment Ground Bus: Yes Bus Material: Copper Isolated Ground Bus: No Neutral Size: 100%

PANEL LEGEND (ID)
ST - Shunt-Trip C.B., G - GFF C.B.
LB - Lock-On C.B.
"C1" - Contactor Designation
"R" - Remodel
N - New C.B., EX - Existing C.B.

Panel Name: 2-EQB-SPS
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire

Main Lugs Only: Yes Main Breaker: 60 Panel A.I.C. Rating: 10k

ID	Description	Breaker	Load	Phase	Load	Breaker	Description	ID
1	2-HT-003 HEAT TRACE CONTROL PANEL	1 20 H	195	2807	2642			1
3	RUMP 2-P-1	1 20 NC	508	3148	2642	AC	2-AHU-117	3
5	HUMIDIFIER 2-H-117	1 20 AC	1900		4542	2642		5
7	SPARE	1 20					SPARE	7
9	SPARE	1 20					SPARE	9
11	SPARE	1 20					SPARE	11
13	SPARE	1 20					SPARE	13
15	SPARE	1 20					SPARE	15
17	SPARE	1 20					SPARE	17
19	SPARE	1 20					SPARE	19
21	SPARE	1 20					SPARE	21
23	SPARE	1 20					SPARE	23
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35	SPARE	1 20					SPARE	35
37	SPARE	1 20					SPARE	37
39	SPARE	1 20					SPARE	39
41	SPARE	1 20					SPARE	41
43	SPARE	1 20					SPARE	43
45	SPARE	1 20					SPARE	45
47	SPARE	1 20					SPARE	47
49	SPARE	1 20					SPARE	49
51	SPARE	1 20					SPARE	51
53	SPARE	1 20					SPARE	53

NEC LOAD SUMMARY
Total Load (VA): 2907 Demand Factor: 1.00 NEC Sizing Load (VA): 2907
Air Conditioning (AC): 9826 1.00 9826 Heating (H): 165 1.00 165 Kitchens Equipment (K): 1.00 1.00 Lighting (L): 1.00 1.00 Receptacles (REC): 1.00 1.00 Existing (E): 1.00 1.00 Continuous (C): 1.00 1.00 Non-Continuous (NC): 506 1.00 506 Refrigeration (REF): 1.00 1.00
Bec. Load Totals: 10497 10497 VA

ELECTRICAL DATA
Total Conn. Load: 10 KVA Total Conn. Load: 29 Amps
NEC Sizing Load: 10 KVA NEC Sizing Load: 29 Amps
Main Bus Size: 100 Amps

PANEL INFORMATION
Location: MECH RM 11 Mounting: Surface Enclosure Type: Nema 1
Fed From: EXISTING PANEL 2MSB
Equipment Ground Bus: Yes Bus Material: Copper Isolated Ground Bus: No Neutral Size: 100%

PANEL LEGEND (ID)
ST - Shunt-Trip C.B., G - GFF C.B.
LB - Lock-On C.B.
"C1" - Contactor Designation
"R" - Remodel
N - New C.B., EX - Existing C.B.

Panel Name: 28-EC-DP
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire

Main Lugs Only: No Main Breaker: 400 Panel A.I.C. Rating: 35k

Cl.	Poles	Frame	Tripp	ID	Description	Connected Loads	Demand Loads
1	3	225	200	EX	28-EC-1	56	160
2	3	225	200	EX	NORTH ELEVATOR (EL-1) P-1	54	150
3	3	60	25	N	28-CU-210 *	5	15
4	3	60	25	N	28-CU-257 *	5	15
5	1	60	20	EX	SEWER PUMP BY APARTMENTS	33	92
6	3	125	125	EX	MAIN DISCONNECT	29	80
7	3	400	400	EX	SPARE	29	80
8	2	60	20	EX	SPARE	5	14
9	2	60	20	EX	SPARE		
10	3	100	100	EX	28-CR-2 (RM 234)		
11	3	100	100	EX	28-CR-B (RM 77)		
12	3	100	100	N	28-EC-2 *		
13	3	60	30	N	SPD *		
14	1	60	20	EX	SPARE		
15	1	60	20	EX	SPARE		
16	1	60	20	EX	SPARE		
17	1	60	20	EX	SPARE		
18	1	60	20	EX	SPARE		

NEC LOAD SUMMARY
Total Load (VA): 218 Demand Factor: 1.00 NEC Sizing Load (VA): 218
Air Conditioning (AC): 208 1.00 208 Heating (H): 820 1.00 820 Kitchens Equipment (K): 1.00 1.00 Lighting (L): 1.00 1.00 Receptacles (REC): 720 1.00 720 Existing (E): 1.00 1.00 Continuous (C): 1.00 1.00 Non-Continuous (NC): 612 1.00 612 Refrigeration (REF): 1.00 1.00
Bec. Load Totals: 6632 6632 VA

ELECTRICAL DATA
Total Conn. Load: 218 KVA Total Conn. Load: 636 Amps
NEC Sizing Load: 158 KVA NEC Sizing Load: 437 Amps
Main Bus Size: 400 Amps

PANEL INFORMATION
Location: REFER TO FLOOR PLANS Mounting: Surface Enclosure Type: Nema 1
Fed From: EX FEEDERS AND CONDUITS
Equipment Ground Bus: Yes Bus Material: Copper Isolated Ground Bus: No Neutral Size: 100%

PANEL LEGEND (ID)
ST - Shunt-Trip C.B., G - GFF C.B.
LB - Lock-On C.B.
"C1" - Contactor Designation
"R" - Remodel
N - New C.B., EX - Existing C.B.

Panel Name: 1EB-A
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire

Main Lugs Only: Yes Main Breaker: 22k Panel A.I.C. Rating: 22k

ID	Description	Breaker	Load	Phase	Load	Breaker	Description	ID	
1	1-SF-3	3 100 C	9607	19214	9607		1-SF-2	1	
3	1-RF-3	3 40 C	3843	8646	4804		1-RF-2	3	
5	1-EF-3	3 15 C	1441	1572	131	H	HEAT TRACE CONTROL PANEL 1-HT-001 (30mA) ATTIC EAST NEAR 1-AHU-208 *	5	
7	JOHNSON CONTROL PANEL	1 20 C	180	780	600	C	1-EJ-2	7	
9	ATTIC LIGHT REC	1 20 REC	360	360	360		1-EJ-1	9	
11	1-F-1	1 20 C	600		863	263	H	HEAT TRACE CONTROL PANEL 1-HT-002 (30mA)	11
13	JOHNSON CONTROL PANEL	1 20 C	180	712	600	C	1-EJ-2	13	
15	RECEPTACLE FOR 1-CP-6	1 20 REC	360	912	552	C	1-P-1	15	
17	RECEPTACLES NEAR 1-AHU-208 & 1-P-1	1 20 REC	360	12369	12009		ATTIC EAST	17	
19	1-AHU-208 ATTIC EAST	3 15 AC	360	12369	12009	C	PANEL 1ECA	19	
21	SPD *	3 30						21	
23	SPD *	3 30						23	
25	SPD *	3 30						25	
27	SPD *	3 30						27	
29	SPD *	3 30						29	

NEC LOAD SUMMARY
Total Load (VA): 43314 Demand Factor: 1.00 NEC Sizing Load (VA): 43314
Air Conditioning (AC): 1081 0.75 811 Heating (H): 525 1.00 525 Kitchens Equipment (K): 1.00 1.00 Lighting (L): 1080 1.00 1080 Receptacles (REC): 127149 1.00 127149 Existing (E): 1.00 1.00 Continuous (C): 127149 1.00 127149 Non-Continuous (NC): 187539 1.00 187539 Refrigeration (REF): 1.00 1.00
Bec. Load Totals: 129835 129835 VA

ELECTRICAL DATA
Total Conn. Load: 130 KVA Total Conn. Load: 360 Amps
NEC Sizing Load: 130 KVA NEC Sizing Load: 360 Amps
Main Bus Size: 400 Amps

PANEL INFORMATION
Location: ATTIC WEST Mounting: Surface Enclosure Type: Nema 1
Fed From: 1SWBD-EQ (BASEMENT)
Equipment Ground Bus: Yes Bus Material: Copper Isolated Ground Bus: No Neutral Size: 100%

PANEL LEGEND (ID)
ST - Shunt-Trip C.B., G - GFF C.B.
LB - Lock-On C.B.
"C1" - Contactor Designation
"R" - Remodel
N - New C.B., EX - Existing C.B.

Panel Name: 3-EQB-1
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire

Main Lugs Only: No Main Breaker: 600 Panel A.I.C. Rating: 22k

ID	Description	Breaker	Load	Phase	Load	Breaker	Description	ID
1	PNL 3-EQ3-1	3 150 NC	14411	14411	14411		SPARE	1
3	PNL EQ2-B	3 200 NC	19214	19214	19214		SPARE	3
5	ELEVATOR	3 300 NC	28821	28821	28821		SPARE	5
7	METERING	1 20 NC	200	200			SPARE	7
9	3-AHU-113 (GRADE)	3 30 AC	2642	2642	2642		SPD *	9
11	SPARE	1 20					SPARE	11
13	SPARE	1 20					SPARE	13
15	SPARE	1 20					SPARE	15
17	SPARE	1 20					SPARE	17
19	SPARE	1 20					SPARE	19
21	SPARE	1 20					SPARE	21
23	SPARE	1 20					SPARE	23
25	SPARE	1 20					SPARE	25
27	SPARE	1 20					SPARE	27
29	SPARE	1 20					SPARE	29
31	SPARE	1 20					SPARE	31
33	SPARE	1 20					SPARE	33
35	SPARE	1 20					SPARE	35
37	SPARE	1 20					SPARE	37
39	SPARE	1 20					SPARE	39
41	SPARE	1 20					SPARE	41
43	SPARE	1 20					SPARE	43
45	SPARE	1 20					SPARE	45
47	SPARE	1 20					SPARE	47
49	SPARE	1 20					SPARE	49
51	SPARE	1 20					SPARE	51
53	SPARE	1 20					SPARE	53

NEC LOAD SUMMARY
Total Load (VA): 65288 Demand Factor: 1.00 NEC Sizing Load (VA): 65288
Air Conditioning (AC): 7926 1.00 7926 Heating (H): 160 1.00 160 Kitchens Equipment (K): 1.00 1.00 Lighting (L): 1.00 1.00 Receptacles (REC): 1.00 1.00 Existing (E): 1.00 1.00 Continuous (C): 187539 1.00 187539 Non-Continuous (NC): 1.00 1.00 Refrigeration (REF): 1.00 1.00
Bec. Load Totals: 19624 19624 VA

ELECTRICAL DATA
Total Conn. Load: 196 KVA Total Conn. Load: 543 Amps
NEC Sizing Load: 196 KVA NEC Sizing Load: 543 Amps
Main Bus Size: 600 Amps

PANEL INFORMATION
Location: REFER TO FLOOR PLAN Mounting: Surface Enclosure Type: Nema 1
Fed From: EX FEEDERS AND CONDUITS
Equipment Ground Bus: Yes Bus Material: Copper Isolated Ground Bus: No Neutral Size: 100%

PANEL LEGEND (ID)
ST - Shunt-Trip C.B., G - GFF C.B.
LB - Lock-On C.B.
"C1" - Contactor Designation
"R" - Remodel
N - New C.B., EX - Existing C.B.

Panel Name: 28-ECA-2
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire

Main Lugs Only: No Main Breaker: 100 Panel A.I.C. Rating: 22k

ID	Description	Breaker	Load	Phase	Load	Breaker	Description	ID
1	28-AHU-210	3 15 AC	480	960	480	AC	28-AHU-257	1
3	28-HT-001 HEAT TRACE CONTROL PANEL (30mA)	2 20 H	210	390	160	REC	CONVENIENCE RECEPT 28-AHU-210	3
5	28-HT-002 HEAT TRACE CONTROL PANEL (30mA)	2 20 H	210	390	160	REC	CONVENIENCE RECEPT 28-AHU-210	5
7	28-HT-003 HEAT TRACE CONTROL PANEL (30mA)	1 20 H	190	370	180	REC	CONVENIENCE RECEPT 28-AHU-210	7
9	CONVENIENCE RECEPT 28-AHU-257	1 20 REC	180	360	180	REC	CONVENIENCE RECEPT 28-AHU-257	9
11	SPARE	1						

GENERAL SHEET NOTES:

- REFER TO SHEETS E-001 AND E-002 FOR ABBREVIATIONS, SYMBOLS AND NOTES.
- BREAKERS FOR EXISTING PANELS, NEW BREAKERS PROVIDED IN EXISTING PANELS SHALL BE COMPATIBLE WITH THE EXISTING PANEL AND SHALL HAVE THE SAME AIC RATING AS THE EXISTING PANEL. UPDATE PANELBOARD SCHEDULE. EXISTING BREAKERS REMOVED FROM PANELS SHALL BE TURNED OVER TO VA CORA.
- HEAT TRACE CONTROL PANEL BRANCH CIRCUIT: PROVIDE 30mA GROUND FAULT PROTECTION RATED BREAKER.
- SURGE PROTECTION DEVICE (SPD): FOR PANELS NOTED WITH A NEW SPD, THE CONTRACTOR SHALL PROVIDE A SPD IN NEMA 1 ENCLOSURE BELOW OR ADJACENT TO ASSOCIATED PANEL. PROVIDE WITH INDICATED BREAKER AND (3)1/2" + (1)1/2" IN 3/4" CONDUIT. MAKE FINAL CONNECTIONS.

Panel Name: 49EQB-1									
Panel Voltage: 480V, 3 Phase, 3 Wire									
Existing Panel					Main Lugs Only: Main Breaker: 1200				
					Panel A.I.C. Rating: 35k				
Ckt. #	Poles	Frame	Trip	ID	Description	Connected Loads	Demand	VA	Amps
						kVA	Amps	kVA	Amps
1	3	1200	1200	EX	MAIN				
2	3	60	15	N	49-CU-14 (EXTERIOR)	7	9	7	9
3	3	60	15	N	49-AHU-130 (EXTERIOR)	7	9	7	9
4	3	60	15	N	49-CU-230 (EXTERIOR)	7	9	7	9
5	3	60	30	N	SPD				
6					SPACE				
7	3	600	400	EX	HEAT PUMP HP-1	333	400	200	240
8	3	600	600	EX	ATTIC PANEL 49EQA-1	499	600	299	360
9	3	60	15	N	49-AHU-14 (RM 14C)	2	2	2	2
10	3	60	15	N	49-AHU-130 (MECH 6)	2	2	2	2
11	3	60	15	N	49-AHU-230 (ATTIC)	2	2	2	2
12					SPACE				
13	3	60	15	EX	HEAT PUMP HP-2	12	15	7	9
14	3	60	20	EX	VACUUM PUMP	17	20	10	12
15	3	60	30	EX	MEDICAL AIR PUMP	25	30	15	18
16					SPACE				
17	3	225	150	EX	SPARE				
18	3	60	20	EX	CIRC. PUMP CP-2	17	20	10	12
19	3	60	20	EX	CIRC. PUMP CP-1	17	20	10	12
20	3	100	100	EX	GEO. CIRC. PUMP P-1	83	100	50	60
21	3	100	100	EX	GEO. CIRC. PUMP P-2	83	100	50	60
22	3	100	100	EX	XFMR 49EQB (ELEVATOR P-2)	83	100	50	60

PANEL NOTES		
SQUARE D LINE ITEMS NOTED IN BOLD ARE NEW WORK		

ELECTRICAL DATA		
Total Conn. Load:	1196	kVA
Total Conn. Load:	1438	Amps
NEC Sizing Load:	728	kVA
NEC Sizing Load:	876	Amps
Main Bus Size:	1200	Amps

PANEL INFORMATION		
Location:	ELEC ROOM BASEMENT	
Mounting:	Surface	
Enclosure Type:	Nema 1	
Fed From:	ATS 49EQB	
Equipment Ground Bus:	Yes	Bus Material: Copper
Isolated Ground Bus:	No	Neutral Size: 100%

PANEL LEGEND (ID)		
ST -	Shunt-Trip C.B. - G - GFF C.B.	
LB -	Lock-Out C.B.	
CI -	Contactor Designation	Remodels -
N -	New C.B. - EX - Existing C.B.	

Panel Name: 50-EOB-3										
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire										
New Panel					Main Lugs Only: Yes Main Breaker:					
					Panel A.I.C. Rating: 35k					
ID	#	Description	Breaker	Load	Phase	Load	Breaker	Description	#	ID
P	T	Code	VA	A	B	C	VA	Code	Trip	P
N	3	50-CU-229 (GRADE)	3	25	AC	942.9	1000	942.9	AC	25
N	5	50-AHU-229 (ATTIC)	3	15	AC	221.9	443.7	221.9	AC	15
N	11	50-CU-229 (ATTIC)	1	20	REC	1200	240	1200	NC	20
N	13	50-CU-229 (ATTIC)	1	20	REC	360	360	360	NC	20
N	17	SPARE	1	20						20
N	19	SPARE	1	20						20
N	21	SPARE	1	20						20
N	23	SPARE	1	20						20
N	25	SPARE	1	20						20
N	27	SPARE	1	20						20
N	29	SPARE	1	20						20
N	31	SPARE	1	20						20
N	33	SPACE	1							1
N	35	SPACE	1							1
N	37	SPACE	1							1
N	39	SPACE	1							1
N	41	SPACE	1							1

N.E.C. LOAD SUMMARY		
Total Load (VA)	Demand Factor	NEC Sizing Load (VA)
6989	1.00	6989
Heating (H)	1.00	
Kitchen Equipment (K)	1.00	
Lighting (L)	1.00	
Receptacles (REC)	360	360
Existing (E)	1.00	
Continuous (C)	1.00	
Non-Continuous (NC)	240	240
Refrigeration (REF)	1.00	
Sec. Load Totals:	7589	7589

ELECTRICAL DATA		
Total Conn. Load:	8	kVA
Total Conn. Load:	21	Amps
NEC Sizing Load:	8	kVA
NEC Sizing Load:	21	Amps
Main Bus Size:	100	Amps

PANEL INFORMATION		
Location:	REFER TO FLOOR PLAN	
Mounting:	Surface	
Enclosure Type:	Nema 1	
Fed From:	REFER TO SLD ON DWG 50-E-131	
Equipment Ground Bus:	Yes	Bus Material: Copper
Isolated Ground Bus:	No	Neutral Size: 100%

PANEL LEGEND (ID)		
ST -	Shunt-Trip C.B. - G - GFF C.B.	
LB -	Lock-Out C.B.	
CI -	Contactor Designation	Remodels -
N -	New C.B. - EX - Existing C.B.	

Panel Name: 111-ECB-2										
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire										
Existing Panel					Main Lugs Only: No Main Breaker: 225					
					Panel A.I.C. Rating: 10k					
ID	#	Description	Breaker	Load	Phase	Load	Breaker	Description	#	ID
P	T	Code	VA	A	B	C	VA	Code	Trip	P
EX	3	SPARE	3	100						EX
EX	9	SPARE	3	20						EX
EX	11	SPARE	3	20						EX
EX	13	SPARE	3	20						EX
EX	15	SPARE	3	20						EX
EX	17	SPARE	3	20						EX
EX	19	RECEPTACLE FOR 111-CP-1	1	20	REC	180	180	180		EX
EX	21	RECEPTACLE NEAR 111-AHU-25	1	20	REC	180	180	180		EX
EX	23	SPARE	1	20						EX
EX	25	1-AHU-209 * ATTIC EAST	3	15	AC	360	360	360		EX
EX	27	111-CU-25 * EXTERIOR-NORTH1	3	25	AC	1801	1801	1801		EX
EX	29	SPARE	1	20						EX
EX	31	SPARE	1	20						EX
EX	33	SPARE	1	20						EX
EX	35	SPARE	1	20						EX
EX	37	SPARE	1	20						EX
EX	39	SPARE	1	20						EX
EX	41	SPARE	1	20						EX

N.E.C. LOAD SUMMARY		
Total Load (VA)	Demand Factor	NEC Sizing Load (VA)
6485	0.75	4864
Heating (H)	1.00	
Kitchen Equipment (K)	1.00	
Lighting (L)	1.00	
Receptacles (REC)	360	360
Existing (E)	1.00	
Continuous (C)	1.00	
Non-Continuous (NC)	1.00	
Refrigeration (REF)	1.00	
Sec. Load Totals:	6845	5224

ELECTRICAL DATA		
Total Conn. Load:	7	kVA
Total Conn. Load:	19	Amps
NEC Sizing Load:	6	kVA
NEC Sizing Load:	14	Amps
Main Bus Size:	250	Amps

PANEL INFORMATION		
Location:	MECH ROOM 27	
Mounting:	Surface	
Enclosure Type:	Nema 1	
Fed From:	PANEL 111-ECB-1 VIA OVERHEAD TRANSFORMER	
Equipment Ground Bus:	Yes	Bus Material: Copper
Isolated Ground Bus:	No	Neutral Size: 100%

PANEL LEGEND (ID)		
ST -	Shunt-Trip C.B. - G - GFF C.B.	
LB -	Lock-Out C.B.	
CI -	Contactor Designation	Remodels -
N -	New C.B. - EX - Existing C.B.	

PANEL NOTES		
SQUARE D NQ ITEMS NOTED IN BOLD ARE NEW WORK. REUSE EXISTING CIRCUIT BREAKER, UNDO. * - PROVIDE NEW BREAKER IN PLACE OF EXISTING BREAKER(S).		

Panel Name: 49EQA-2										
Panel Voltage: 208Y/120V, 3 Phase, 4 Wire										
Existing Panel					Main Lugs Only: Main Breaker: 90					
					Panel A.I.C. Rating: 22k					
ID	#	Description	Breaker	Load	Phase	Load	Breaker	Description	#	ID
P	T	Code	VA	A	B	C	VA	Code	Trip	P
EX	1	SPARE	1	20						EX
EX	3	SPARE	1	20						EX
EX	5	SPARE	1	20						EX
EX	7	SPARE	1	20						EX
EX	9	SPARE	1	20						EX
EX	11	SPARE	1	20						EX
EX	13	SPARE	1	20						EX
EX	15	SPARE	1	20						EX
EX	17	SPARE	1	20						EX
EX	19	SPARE	1	20						EX
EX	21	SPARE	1	20						EX
EX	23	SPARE	1	20						EX
EX	25	SPARE	1	20						EX
EX	27	SPARE	1	20						EX
EX	29	SPARE	1	20						EX
EX	31	SPARE	1	20						EX
EX	33	SPARE	1	20						EX
EX	35	JOHNSON CONTROL PANELS EAST ATTIC	1	20	C	360	360	360		EX
EX	37	AHU SW LIGHTS & REC	1	20	REC	360	360	360		EX
EX	39	AHU SW LIGHTS & REC	1	20	REC	360	360	360		EX
EX	41	JOHNSON CONTROL PANELS WEST ATTIC	1	20	C	360	360	360		EX

N.E.C. LOAD SUMMARY		
Total Load (VA)	Demand Factor	NEC Sizing Load (VA)
1000	1.00	1000
Heating (H)	1.00	
Kitchen Equipment (K)	1.00	
Lighting (L)	360	360
Receptacles (REC)	360	360
Existing (E)	1.00	
Continuous (C)	2620	2620
Non-Continuous (NC)	866	866
Refrigeration (REF)	1.00	
Sec. Load Totals:	7629	7629

ELECTRICAL DATA		
Total Conn. Load:	8	kVA
Total Conn. Load:	21	Amps
NEC Sizing Load:	8	kVA
NEC Sizing Load:	21	Amps
Main Bus Size:	100	Amps

PANEL INFORMATION		
Location:	PENTHOUSE	
Mounting:	Surface	
Enclosure Type:	Nema 1	
Fed From:	PANEL 49EQA-1 VIA 30KVA XFMR 49EQA	
Equipment Ground Bus:	Yes	Bus Material: Copper
Isolated Ground Bus:	No	