

AYNOR HIGH SCHOOL HVAC REPLACEMENT

201 JORDANVILLE ROAD, AYNOR, SOUTH CAROLINA 29511



Whole Building Systems, LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
29465
PH: (843) 637-3358
Wholebuildingsystems.com



DRAWING INDEX

NOTES

G001 - TITLE PAGE	A109 - SECOND FLOOR RCP PLAN AREA J1	MD103 - FIRST FLOOR HVAC PLAN AREA F - DEMOLITION	M705 - HVAC CONTROLS (ERV)
G002 - FORM F3	A110 - RCP PLAN AREA O	MD104 - FIRST FLOOR HVAC PLAN AREA G - DEMOLITION	E001 - ELECTRICAL LEGEND, NOTES AND ABBREVIATIONS
G003 - FIRST FLOOR PLAN	A111 - ROOF PLAN	MD105 - FIRST FLOOR HVAC PLAN AREA H - DEMOLITION	ED101 - FIRST FLOOR ELECTRICAL POWER PLAN AREA D - DEMOLITION
G004 - SECOND FLOOR PLAN	A112 - ENLARGED ROOF PLAN AREA 1 NEW WORK	MD106 - FIRST FLOOR HVAC PLAN AREA K - DEMOLITION	ED102 - FIRST FLOOR ELECTRICAL POWER PLAN AREA E & M - DEMOLITION
G005 - FLOOR PLAN AREA-O	A113 - ENLARGED ROOF PLAN AREA 2 NEW WORK	MD107 - FIRST FLOOR HVAC PLAN AREA L - DEMOLITION	ED103 - FIRST FLOOR ELECTRICAL POWER PLAN AREA F - DEMOLITION
AD101 - FIRST FLOOR RCP PLAN AREA D - DEMOLITION	A114 - ENLARGED ROOF PLAN AREA 3 NEW WORK	MD108 - SECOND FLOOR HVAC PLAN AREA J - DEMOLITION	ED104 - FIRST FLOOR ELECTRICAL POWER PLAN AREA G - DEMOLITION
AD102 - FIRST FLOOR RCP PLAN AREA E & M - DEMOLITION	A115 - ENLARGED ROOF PLAN AREA 4 NEW WORK	MD109 - SECOND FLOOR HVAC PLAN AREA J1 - DEMOLITION	ED105 - FIRST FLOOR ELECTRICAL POWER PLAN AREA H - DEMOLITION
AD103 - FIRST FLOOR RCP PLAN AREA F - DEMOLITION	A500 - ARCHITECTURAL CEILING DETAILS	MD110 - HVAC PLAN AREA O - DEMOLITION	ED106 - FIRST FLOOR ELECTRICAL POWER PLAN AREA K - DEMOLITION
AD104 - FIRST FLOOR RCP PLAN AREA G - DEMOLITION	A501 - ROOF DETAILS	M101 - FIRST FLOOR HVAC PLAN AREA D - NEW WORK	ED107 - FIRST FLOOR ELECTRICAL POWER PLAN AREA L - DEMOLITION
AD105 - FIRST FLOOR RCP PLAN AREA H - DEMOLITION	S000 - STRUCTURAL GENERAL NOTES/PLANS/DETAILS	M102 - FIRST FLOOR HVAC PLAN AREA E & M - NEW WORK	ED108 - SECOND FLOOR ELECTRICAL POWER PLAN AREA J - DEMOLITION
AD106 - FIRST FLOOR RCP PLAN AREA K - DEMOLITION	S001 - STRUCTURAL HVAC UNIT BASIS OF DESIGN SCHEDULE	M103 - FIRST FLOOR HVAC PLAN AREA F - NEW WORK	ED109 - SECOND FLOOR ELECTRICAL POWER PLAN AREA J1 - DEMOLITION
AD107 - FIRST FLOOR RCP PLAN AREA L - DEMOLITION	S101 - STRUCTURAL HVAC PLAN AREA D	M104 - FIRST FLOOR HVAC PLAN AREA G - NEW WORK	ED110 - ELECTRICAL POWER PLAN AREA O - DEMOLITION
AD108 - SECOND FLOOR RCP PLAN AREA J - DEMOLITION	S102 - STRUCTURAL HVAC PLAN AREA E & M	M105 - FIRST FLOOR HVAC PLAN AREA H - NEW WORK	ED111 - ROOF ELECTRICAL POWER PLAN AREA K - DEMOLITION
AD109 - SECOND FLOOR RCP PLAN AREA J1 - DEMOLITION	S103 - STRUCTURAL HVAC PLAN AREA F	M106 - FIRST FLOOR HVAC PLAN AREA K - NEW WORK	ED-112 - ROOF ELECTRICAL POWER PLAN AREA L - DEMOLITION
AD110 - RCP PLAN AREA O - DEMOLITION	S104 - STRUCTURAL HVAC PLAN AREA G	M107 - FIRST FLOOR HVAC PLAN AREA L - NEW WORK	E101 - FIRST FLOOR ELECTRICAL POWER PLAN AREA D - NEW WORK
AD111 - ELARGED ROOF DEMO PLAN AREA 4	S105 - STRUCTURAL HVAC PLAN AREA H	M108 - SECOND FLOOR HVAC PLAN AREA J - NEW WORK	E102 - FIRST FLOOR ELECTRICAL POWER PLAN AREA E & M - NEW WORK
AD112 - ELARGED ROOF DEMO PLAN AREA 1	S106 - STRUCTURAL HVAC PLAN AREA K	M109 - SECOND FLOOR HVAC PLAN AREA J1 - NEW WORK	E103 - FIRST FLOOR ELECTRICAL POWER PLAN AREA F - NEW WORK
AD113 - ENLARGED ROOF DEMO PLAN AREA 2	S107 - STRUCTURAL HVAC PLAN LOW ROOF AREA L	M110 - HVAC PLAN AREA O - NEW WORK	E104 - FIRST FLOOR ELECTRICAL POWER PLAN AREA G - NEW WORK
AD114 - ELARGED ROOF DEMO PLAN AREA 3	S108 - STRUCTURAL HVAC PLAN HIGH ROOF AREA J	M111 - HVAC ROOF PLAN NEW WORK	E105 - FIRST FLOOR ELECTRICAL POWER PLAN AREA H - NEW WORK
AD115 - ENLARGED ROOF DEMO PLAN AREA O	S109 - STRUCTURAL HVAC PLAN HIGH ROOF AREA J1	M500 - HVAC DETAILS	E106 - FIRST FLOOR ELECTRICAL POWER PLAN AREA K - NEW WORK
A101 - FIRST FLOOR RCP PLAN AREA D	S110 - STRUCTURAL HVAC PLAN AREA O	M501 - HVAC DETAILS	E107 - FIRST FLOOR ELECTRICAL POWER PLAN AREA L - NEW WORK
A102 - FIRST FLOOR RCP PLAN AREA E & M	S201 - STRUCTURAL TYPICAL DETAILS	M600 - HVAC SCHEDULES	E108 - SECOND FLOOR ELECTRICAL POWER PLAN AREA J - NEW WORK
A103 - FIRST FLOOR RCP PLAN AREA F	S202 - STRUCTURAL TYPICAL DETAILS	M601 - HVAC SCHEDULES	E109 - SECOND FLOOR ELECTRICAL POWER PLAN AREA J1 - NEW WORK
A104 - FIRST FLOOR RCP PLAN AREA G	S203 - STRUCTURAL TYPICAL DETAILS	M700 - HVAC CONTROLS (MAU)	E110 - ELECTRICAL POWER PLAN AREA O - NEW WORK
A105 - FIRST FLOOR RCP PLAN AREA H	S301 - STRUCTURAL SECTIONS & DETAILS	M701 - HVAC CONTROLS (RTU W HGRH)	
A106 - FIRST FLOOR RCP PLAN AREA K	M001 - HVAC LEGEND, NOTES, AND ABBREVIATIONS	M702 - HVAC CONTROLS (RTU W/O HGR)	
A107 - FIRST FLOOR RCP PLAN AREA L	MD101 - FIRST FLOOR HVAC PLAN AREA D - DEMOLITION	M703 - HVAC CONTROLS (SSHHP)	
A108 - SECOND FLOOR RCP PLAN AREA J	MD102 - FIRST FLOOR HVAC PLAN AREA E & M - DEMOLITION	M704 - HVAC CONTROLS (RTU W/GAS HEAT AND HGR)	

GENERAL NOTES (APPLICABLE TO ALL SHEETS)

- A. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS.
- B. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO PROCURING ANY EQUIPMENT OR MATERIALS, AND PRIOR TO FABRICATING ANY WORK.

PROJECT TEAM

LOCATION MAP

CODES AND STANDARDS

OWNER

HORRY COUNTY SCHOOL DISTRICT
OWNER'S REPRESENTATIVE: MR. JOE BURCH

ENGINEER

WHOLE BUILDING SYSTEMS, LLC
P.O. BOX 1845
MT. PLEASANT, SC 29465

CONTACT: DENNIS KNIGHT
PHONE: 843-437-3647
EMAIL: DKNIGHT@WHOLEBUILDINGSYSTEMS.COM

ARCHITECT

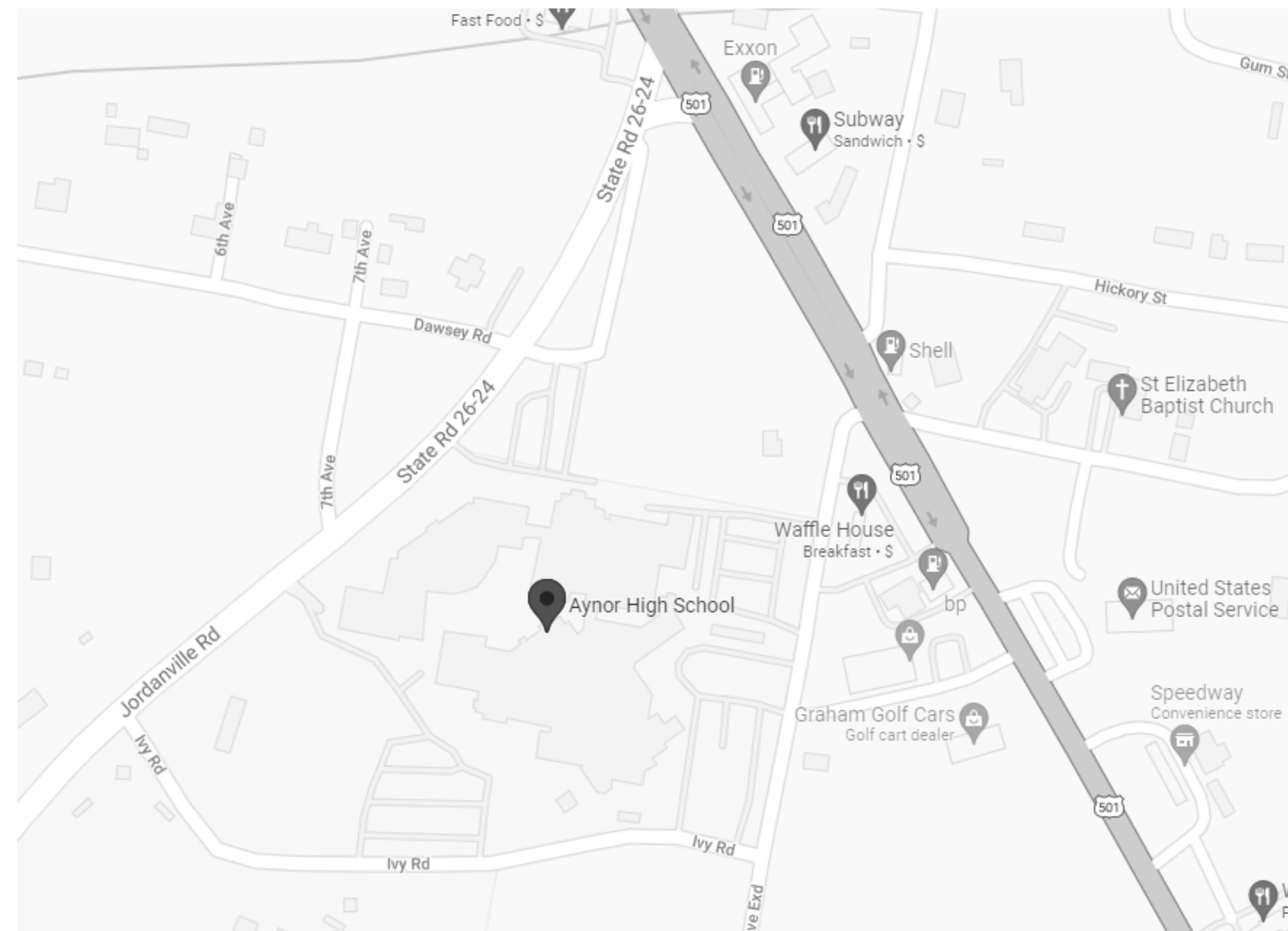
THOMAS & DENZINGER ARCHITECTS

CONTACT: BRYAN BOLIN, AIA
PHONE: 843-723-6651
EMAIL: bbolin@thomasanddenzinger.com

STRUCTURE

ADC ENGINEERING

CONTACT: CHRIS GILGER, P.E.
PHONE: 843-735-5178
EMAIL: chrisg@adcengineering.com



APPLICABLE BUILDING CODES AND STANDARDS

- THE FOLLOWING CODES AND STANDARDS APPLY TO THE WORK OF THIS PROJECT:
- A. ALL CURRENTLY ADOPTED BUILDING CODES AND STATUTES ADOPTED BY THE STATE OF SOUTH CAROLINA INCLUDING, BUT NOT LIMITED TO:
 1. THE SOUTH CAROLINA BUILDING CODE, 2018 EDITION WITH SC MODIFICATIONS,
 2. THE SOUTH CAROLINA MECHANICAL CODE, 2018 EDITION,
 3. THE SOUTH CAROLINA FIRE CODE, 2018 EDITION WITH SC MODIFICATIONS,
 4. THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2009 EDITION,
 5. THE NATIONAL ELECTRICAL CODE (NFPA-70), 2017 EDITION

SEISMIC AND WIND DESIGN CRITERIA

- WIND RESTRAINT LOADING:
1. ULTIMATE WIND SPEED (3 SEC GUST), Vult: 147 MPH
 2. NOMINAL WIND SPEED, Vasd: 121.6 MPH
 3. BUILDING CLASSIFICATION (RISK) CATEGORY: III
 4. IMPORTANCE FACTOR: 1.0
 5. SURFACE ROUGHNESS: B
 6. EXPOSURE CATEGORY: B

- SEISMIC RESTRAINT LOADING:
1. BUILDING CLASSIFICATION (RISK) CATEGORY: III
 2. SITE CLASSIFICATION: D
 3. Ss = 0.312
 4. S1 = 0.114
 5. SDS = 0.322
 6. SD1 = 0.181
 7. SEISMIC DESIGN CATEGORY: D (IBC 2018, TABLE 1613.3.5 (1) & (2)).

SEE SEISMIC AND WIND LOAD SCHEDULE ON SHEET M001 FOR ADDITIONAL INFORMATION REGARDING EQUIPMENT SEISMIC AND WIND LOAD REQUIREMENTS.

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HVAC REPLACEMENT

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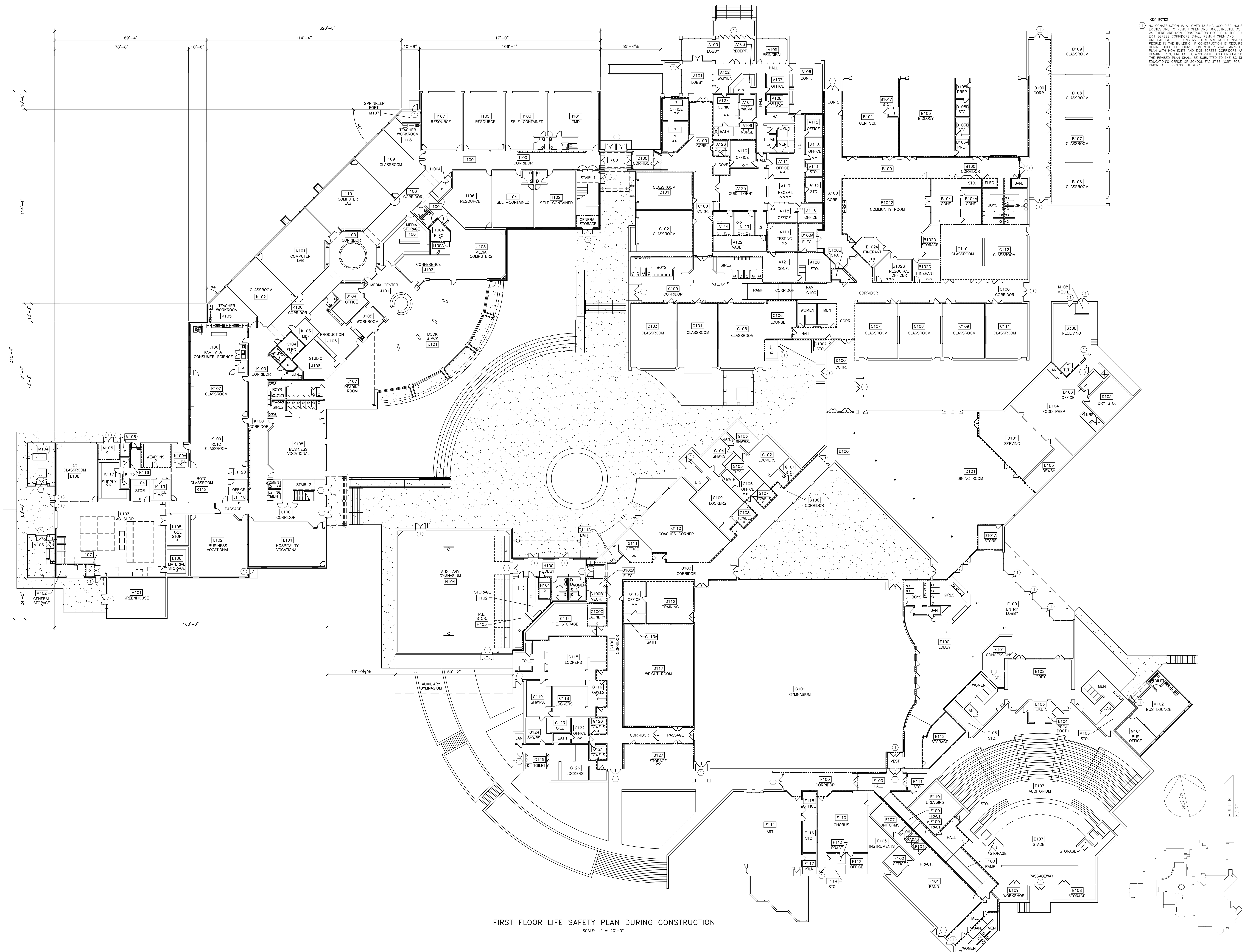
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DATE:	01/24/2022
DESIGNED BY:	MDK
DRAWN BY:	MDK
CHECKED BY:	MDK

REVISIONS

NO.	DATE	NOTES
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TITLE PAGE

G001

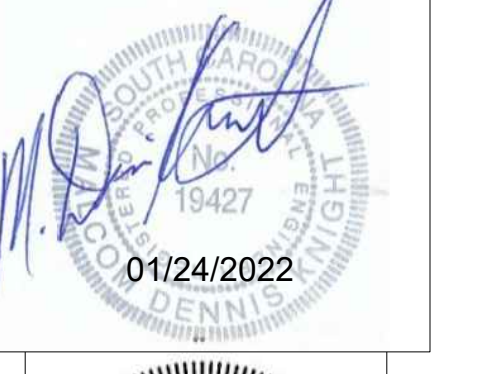


KEY NOTES
 NO CONSTRUCTION IS ALLOWED DURING OCCUPIED HOURS. EXITS ARE TO REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. EXIT EGRESS CORRIDORS SHALL REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. IF CONSTRUCTION IS REQUIRED DURING OCCUPIED HOURS, CONTRACTOR SHALL MARK UP THE PLAN WITH HOW EXITS AND EXIT EGRESS CORRIDORS ARE TO REMAIN OPEN, PROTECTED, ACCESSIBLE AND UNOBSTRUCTED. THE REVISED PLAN SHALL BE SUBMITTED TO THE SC DEPT. OF EDUCATION'S OFFICE OF SCHOOL FACILITIES (OSF) FOR APPROVAL PRIOR TO BEGINNING THE WORK.

FIRST FLOOR LIFE SAFETY PLAN DURING CONSTRUCTION
 SCALE: 1" = 20'-0"



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 201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
 DATE: 01/24/2022
 DESIGNED BY: MDK
 DRAWN BY: MDK
 CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

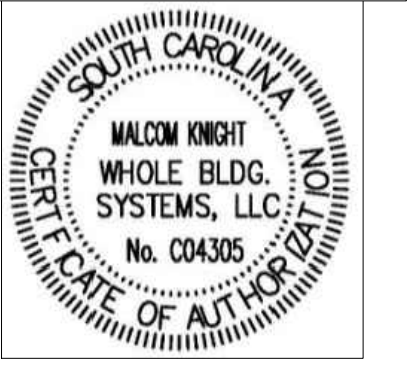
**FIRST FLOOR
 LIFE SAFETY
 PLAN DURING
 CONSTRUCTION**

G003

KEY NOTES
 1 NO CONSTRUCTION IS ALLOWED DURING OCCUPIED HOURS. EXITS ARE TO REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. EXIT CORRIDORS SHALL REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. IF CONSTRUCTION IS REQUIRED DURING OCCUPIED HOURS, CONSTRUCTOR SHALL MARK UP THE PLAN WITH HOW EXITS AND EXIT EXPRESSES CORRIDORS ARE TO REMAIN OPEN, PROTECTED, ACCESSIBLE AND UNOBSTRUCTED. THE REVISED PLAN SHALL BE SUBMITTED TO THE SC DEPT. OF EDUCATION'S OFFICE OF SCHOOL FACILITIES (OSF) FOR APPROVAL PRIOR TO BEGINNING THE WORK.



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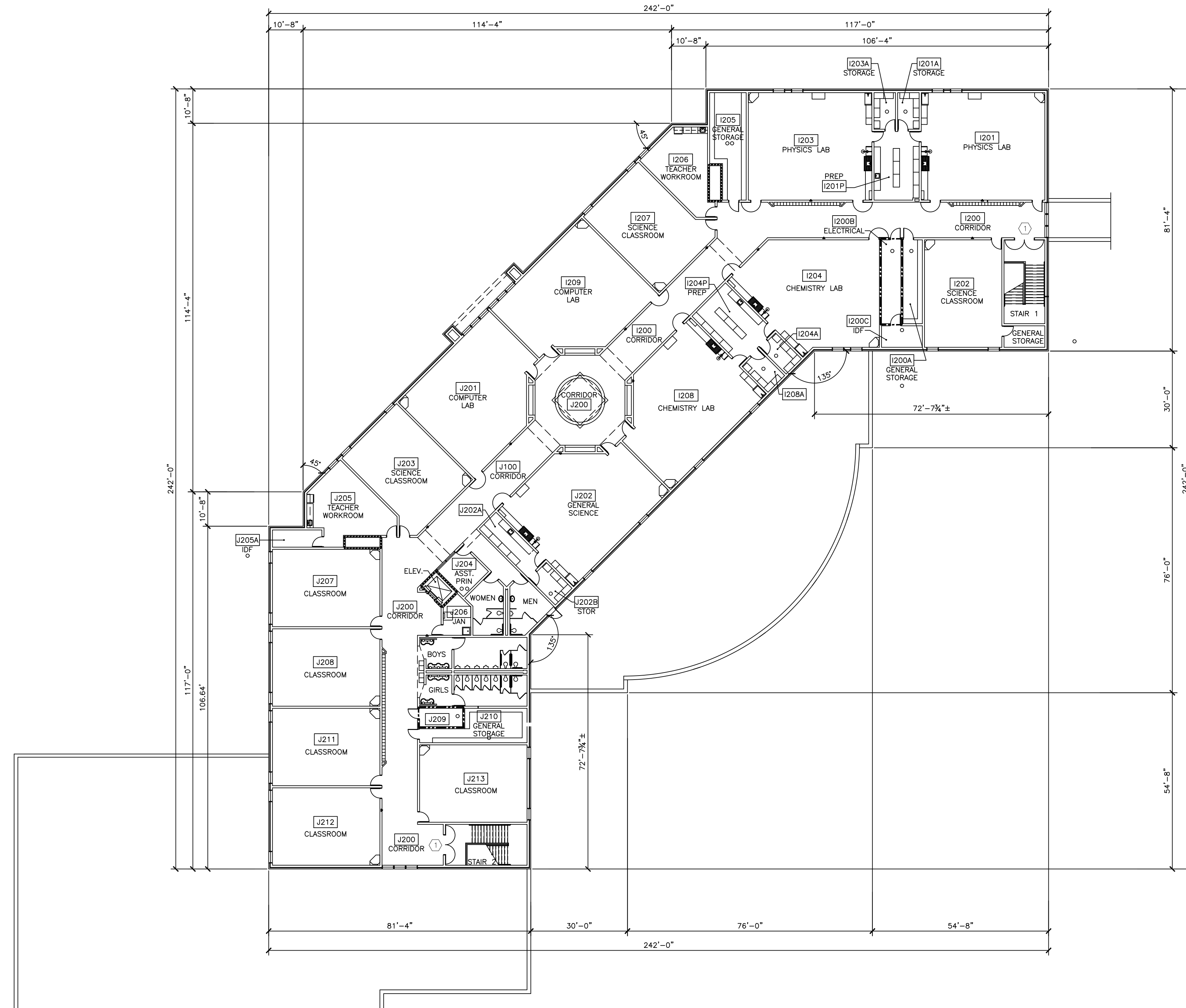
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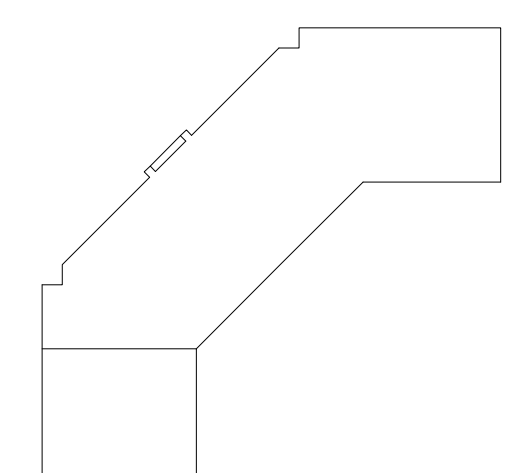
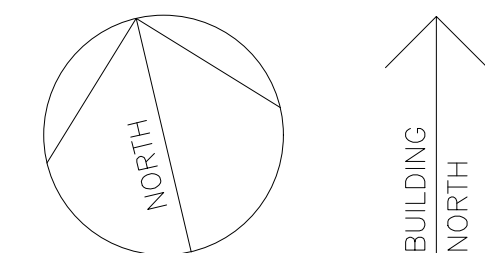
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**SECOND FLOOR
 LIFE SAFETY
 PLAN DURING
 CONSTRUCTION**

G004



SECOND FLOOR LIFE SAFETY PLAN DURING CONSTRUCTION
 SCALE: 1" = 20'-0"



KEY NOTES
 ① NO CONSTRUCTION IS ALLOWED DURING OCCUPIED HOURS. EXITS ARE TO REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. EXIT CORRIDORS SHOULD REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. IF CONSTRUCTION IS REQUIRED DURING OCCUPIED HOURS, CONTRACTOR SHALL MARK UP THE PLAN WITH HOW EXITS AND EXIT ESPRESS CORRIDORS ARE TO REMAIN OPEN, PROTECTED, ACCESSIBLE AND UNOBSTRUCTED. THE REVISED PLAN SHALL BE SUBMITTED TO THE SC DEPT. OF EDUCATION'S OFFICE OF SCHOOL FACILITIES (OSF) FOR APPROVAL PRIOR TO BEGINNING THE WORK.



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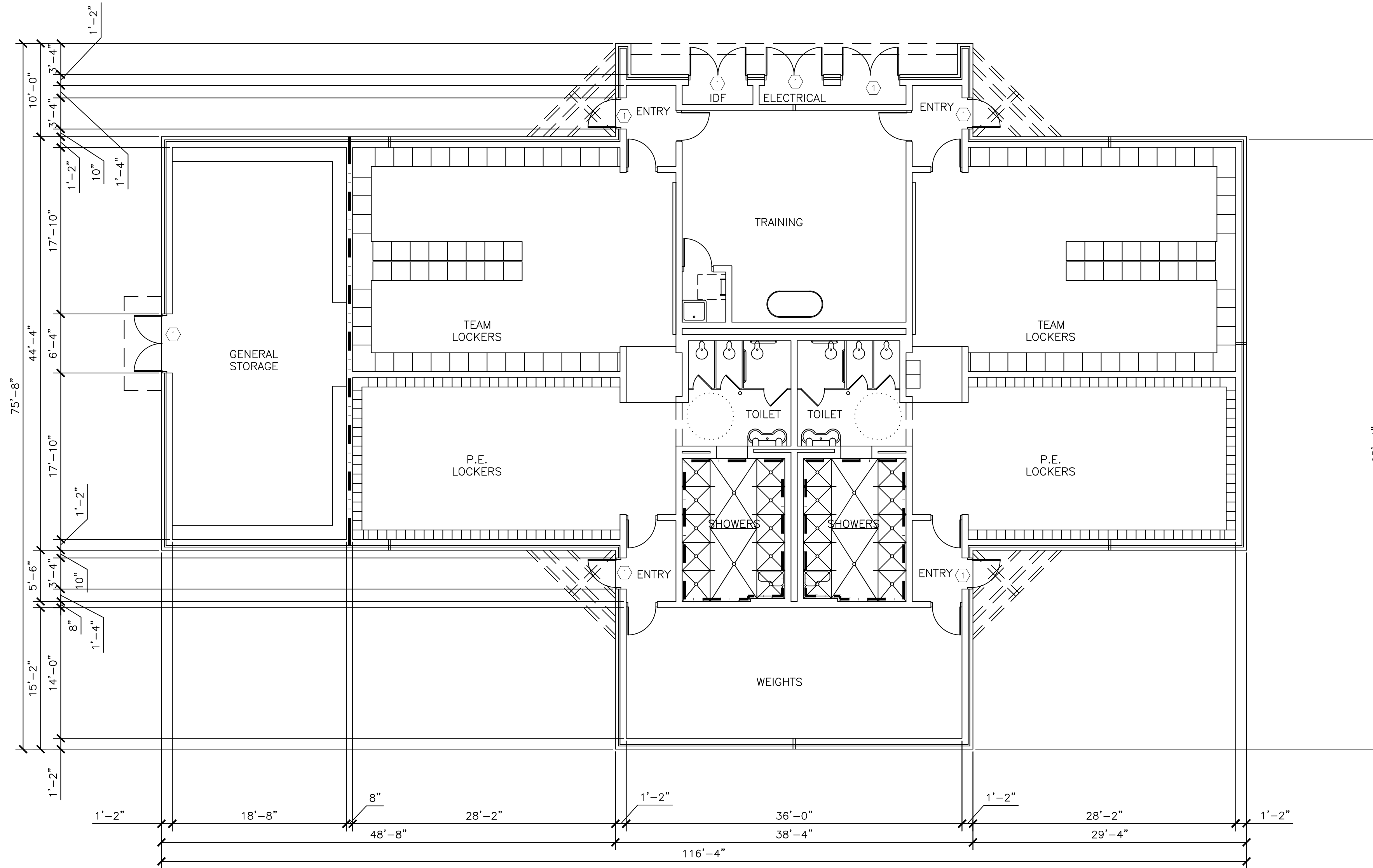
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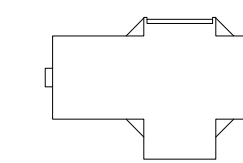
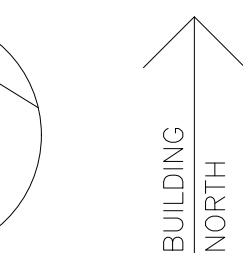
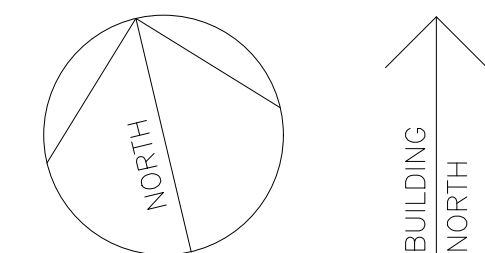
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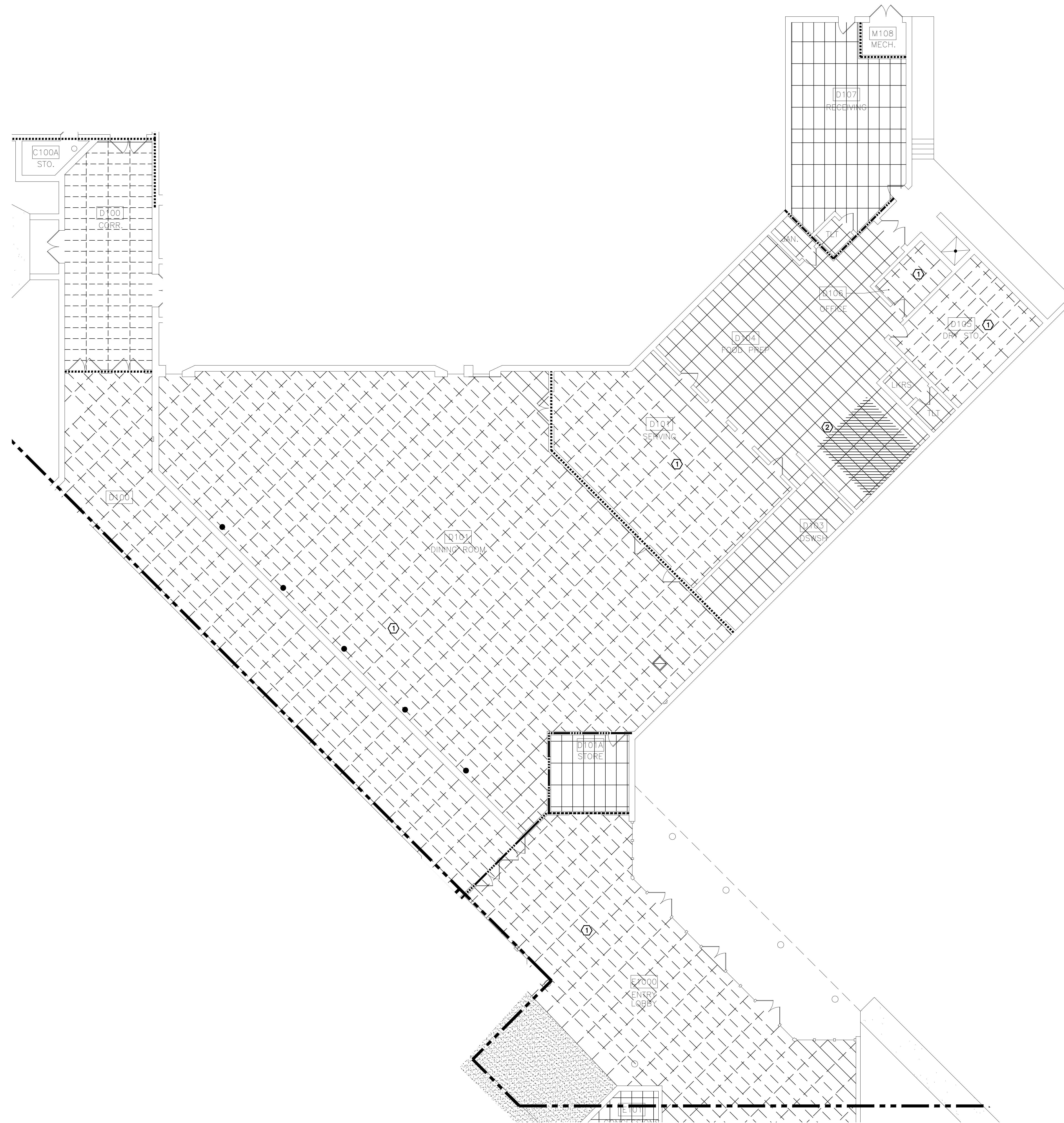
LIFE SAFETY FLOOR PLAN
 AREA O DURING
 CONSTRUCTION

G005



LIFE SAFETY FLOOR PLAN—AREA O DURING CONSTRUCTION
 SCALE: 1/8" = 1'-0"

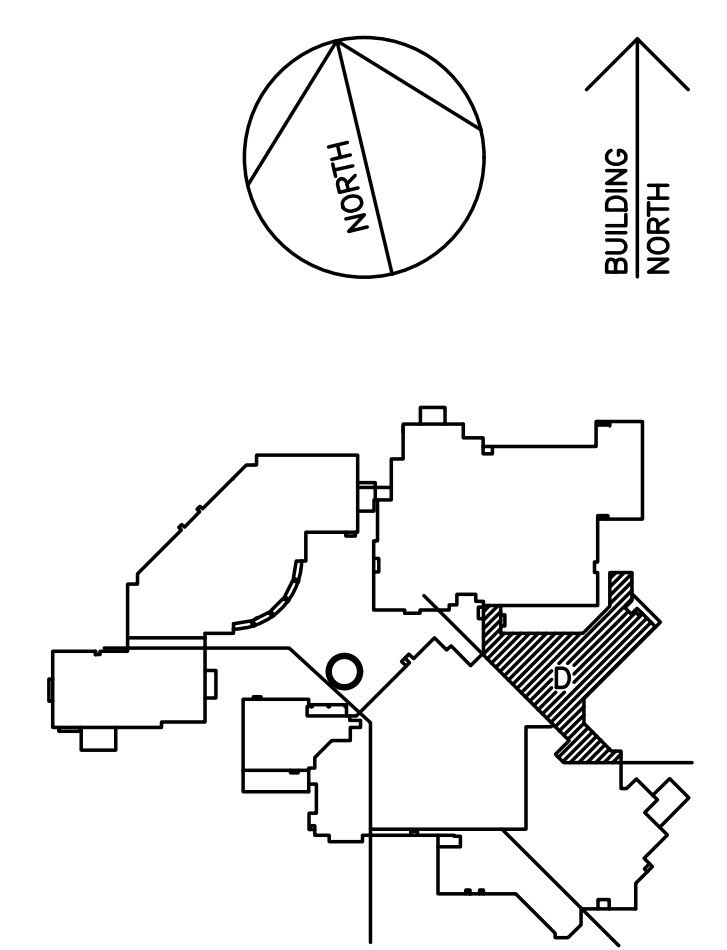




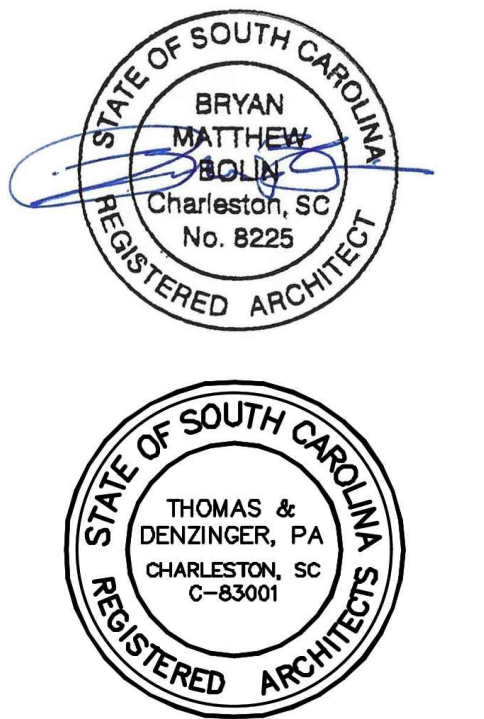
- RCP DEMO KEYNOTES**
- ① REMOVE CEILING SYSTEM IN THIS ROOM IN ITS ENTIRETY TO ACCOMMODATE REPLACING DUCT. SEE MECHANICAL DEMOLITION DRAWINGS FOR THE LOCATION OF ALL ROOMS WHERE DUCT IS BEING REMOVED. REMOVE OR PROTECT AND LEAVE HANGING IN PLACE ALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
 - ② IN HATCHED AREAS REMOVE AND PROTECT FOR REINSTALL, CEILING SYSTEM, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. EXTENT OF CEILING AREA REMOVED IS AS NECESSARY TO COMPLETE MEP WORK
 - ③ IN HATCHED AREAS REMOVE GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REMOVE AND PROTECT FOR REINSTALL, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. TO COMPLETE MEP WORK

- HATCH LEDGEND**
- HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
 - DASHED - ITEMS TO BE DEMOLISHED OR REMOVED, SEE KEY NOTES FOR ADDITIONAL INFORMATION

FIRST FLOOR RCP PLAN AREA D
SCALE: 1/8" = 1'-0"



THOMAS & DENZINGER ARCHITECTS
bryan@thomasanddenzinger.com



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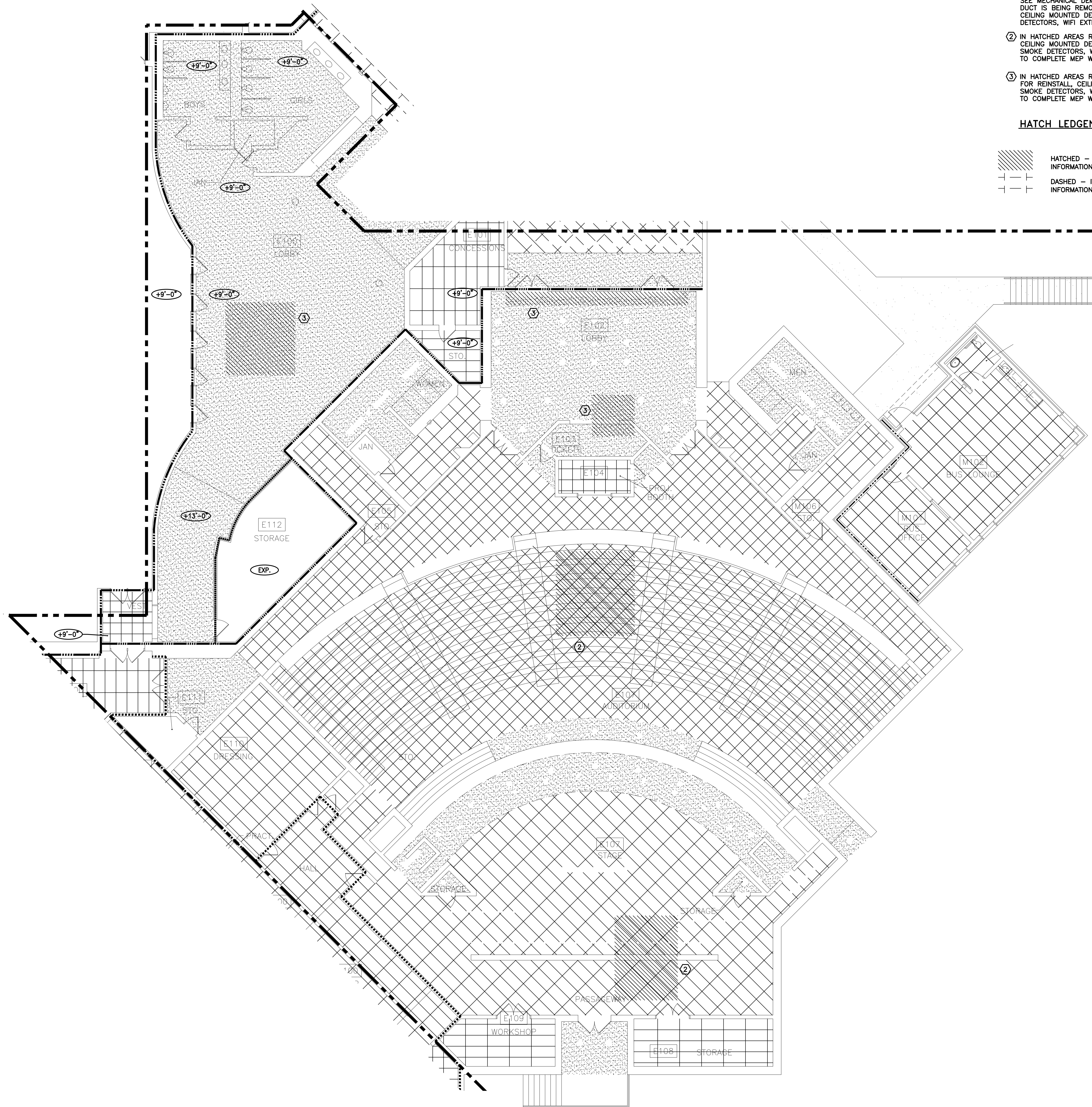
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REVISIONS

NO.	DATE	NOTES

FIRST FLOOR
RCP DEMO
PLAN AREA D

AD101



RCP DEMO KEYNOTES

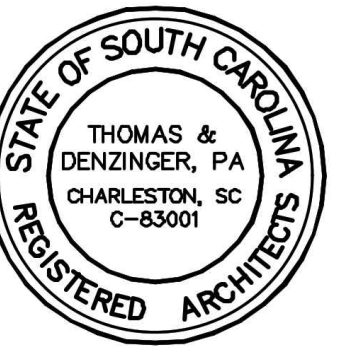
- ① REMOVE CEILING SYSTEM IN THIS ROOM IN ITS ENTIRETY TO ACCOMMODATE REPLACING DUCT. SEE MECHANICAL DEMOLITION DRAWINGS FOR THE LOCATION OF ALL ROOMS WHERE DUCT IS BEING REMOVED. REMOVE OR PROTECT AND LEAVE HANGING IN PLACE ALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
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HATCH LEDGEND

- HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
- DASHED - ITEMS TO BE DEMOLISHED OR REMOVED, SEE KEY NOTES FOR ADDITIONAL INFORMATION

FIRST FLOOR RCP PLAN AREA E & M
SCALE: 1/8" = 1'-0"

THOMAS &
DENZINGER
ARCHITECTS
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201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 12/15/2021
DESIGNED BY: BMB
DRAWN BY: BMB
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REVISIONS

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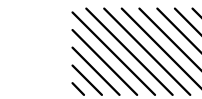
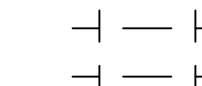
FIRST FLOOR
RCP DEMO
AREA E & M

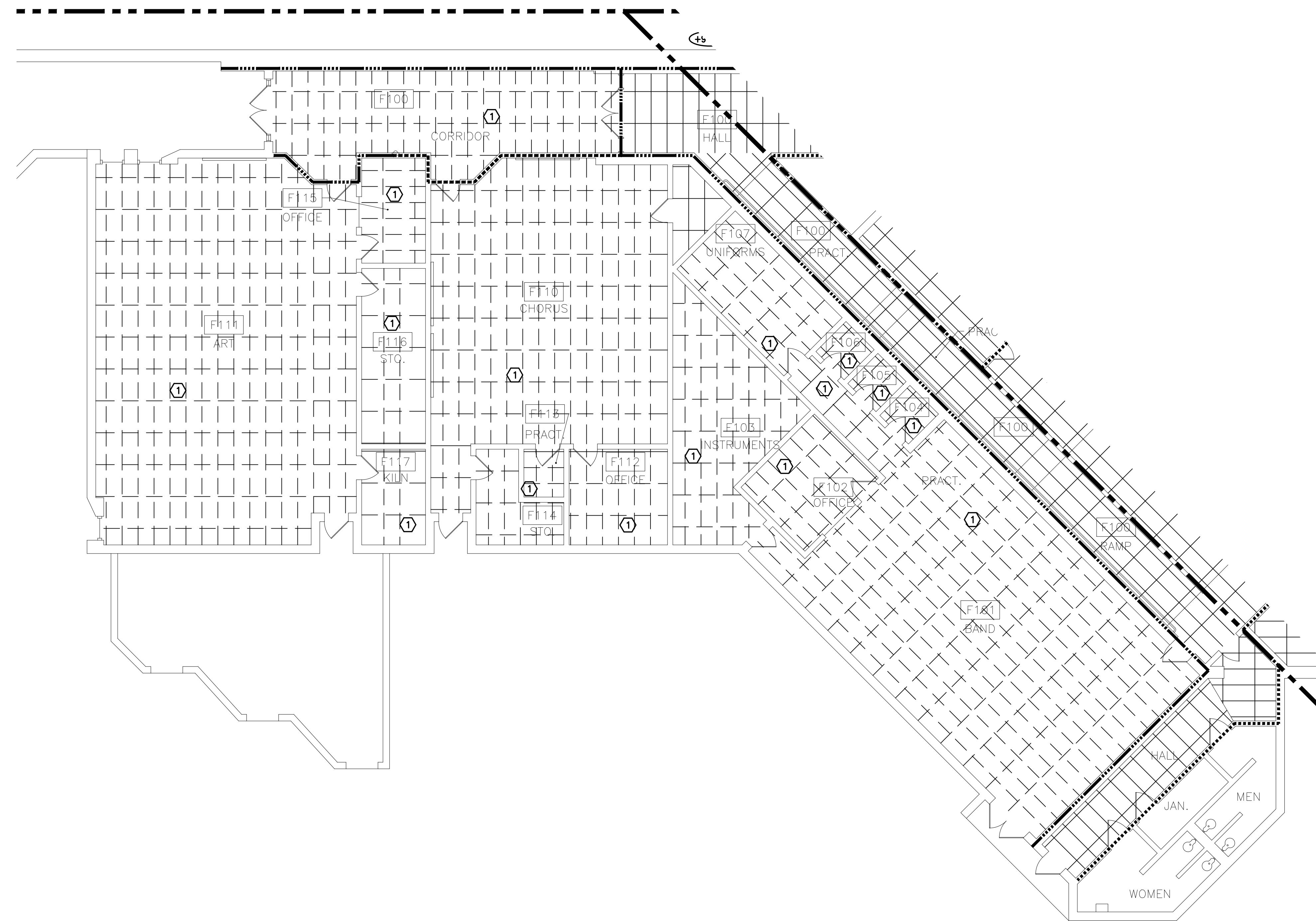
AD102

RCP DEMO KEYNOTES

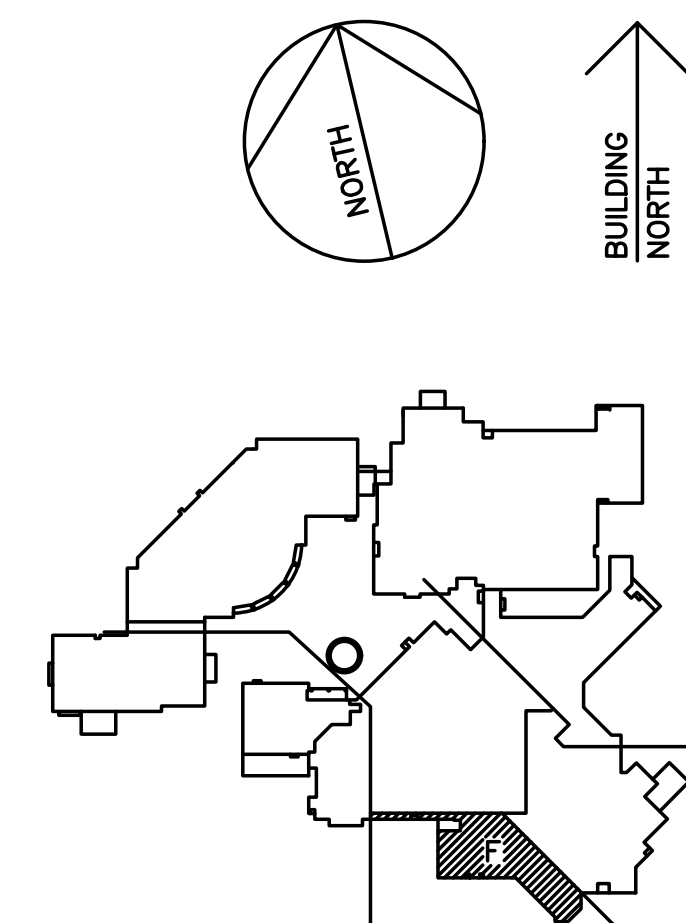
- ① REMOVE CEILING SYSTEM IN THIS ROOM IN ITS ENTIRETY TO ACCOMMODATE REPLACING DUCT. SEE MECHANICAL DEMOLITION DRAWINGS FOR THE LOCATION OF ALL ROOMS WHERE DUCT IS BEING REMOVED. REMOVE OR PROTECT AND LEAVE HANGING IN PLACE ALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
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- ③ IN HATCHED AREAS REMOVE GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REMOVE AND PROTECT FOR REINSTALL, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. TO COMPLETE MEP WORK

HATCH LEDGEND

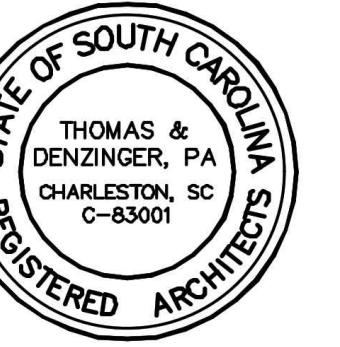
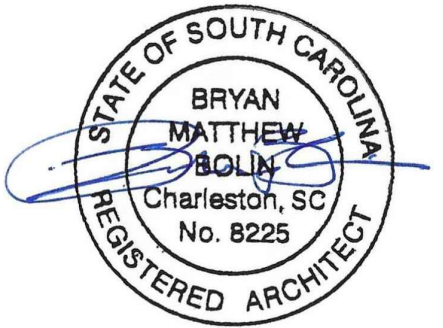
-  HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  DASHED - ITEMS TO BE DEMOLISHED OR REMOVED, SEE KEY NOTES FOR ADDITIONAL INFORMATION



FIRST FLOOR RCP PLAN AREA F
SCALE: 1/8" = 1'-0"



THOMAS & DENZINGER ARCHITECTS
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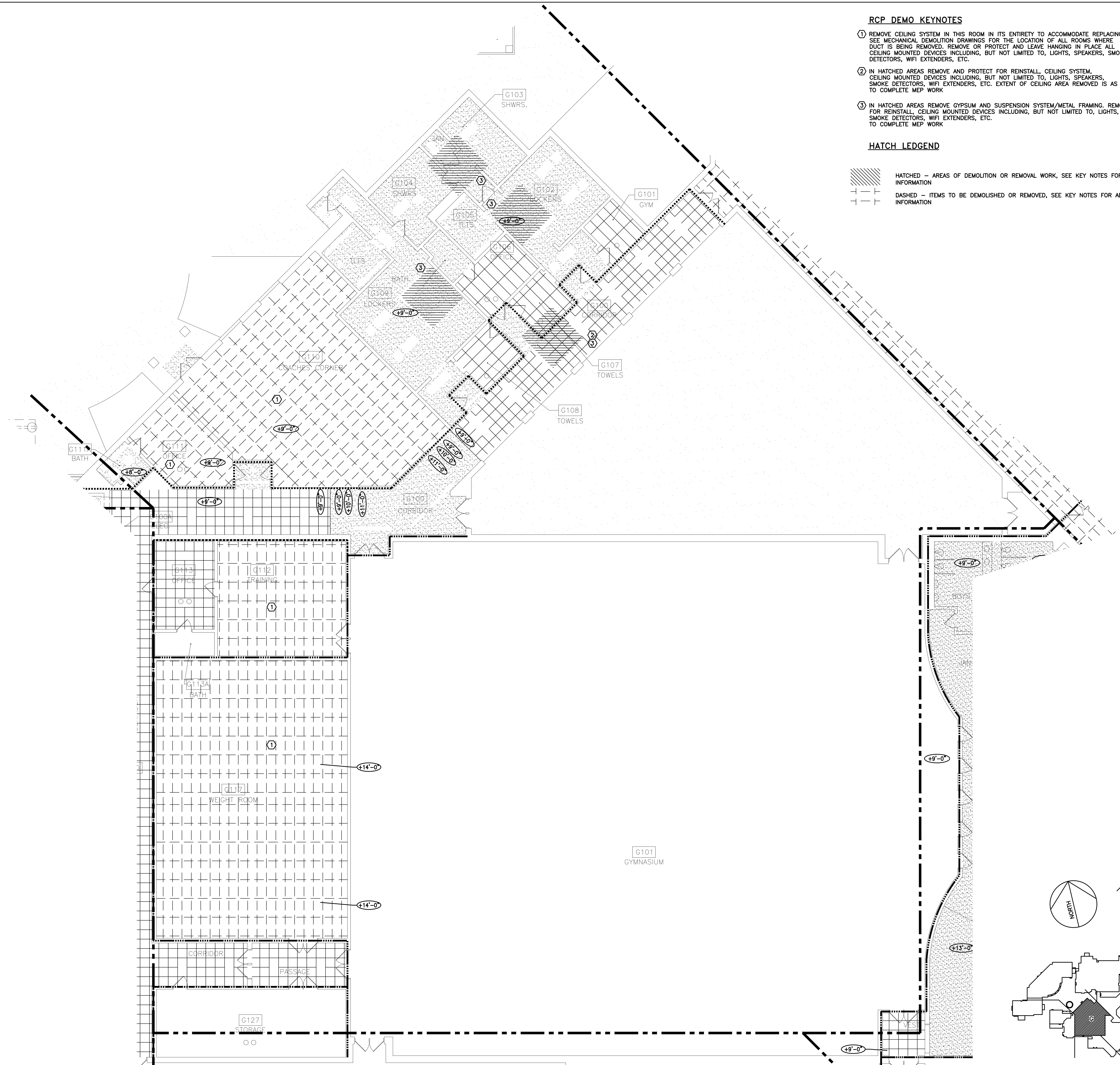
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REVISIONS

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FIRST FLOOR RCP DEMO AREA F

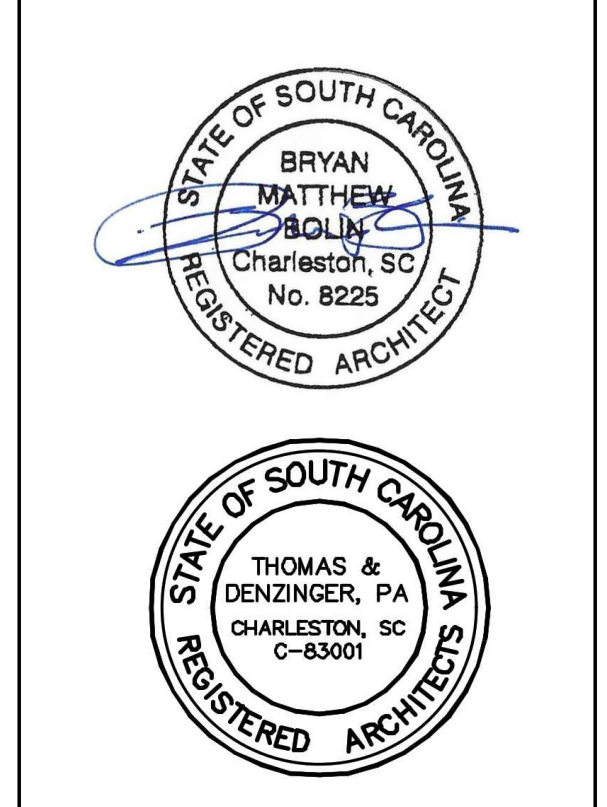
AD103



- RCP DEMO KEYNOTES**
- ① REMOVE CEILING SYSTEM IN THIS ROOM IN ITS ENTIRETY TO ACCOMMODATE REPLACING DUCT. SEE MECHANICAL DEMOLITION DRAWINGS FOR THE LOCATION OF ALL ROOMS WHERE DUCT IS BEING REMOVED. REMOVE OR PROTECT AND LEAVE HANGING IN PLACE ALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
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 - ③ IN HATCHED AREAS REMOVE GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REMOVE AND PROTECT FOR REINSTALL, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. TO COMPLETE MEP WORK

- HATCH LEDGEND**
- HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
 - DASHED - ITEMS TO BE DEMOLISHED OR REMOVED, SEE KEY NOTES FOR ADDITIONAL INFORMATION

THOMAS & DENZINGER ARCHITECTS
 bryan@thomasanddenzinger.com



**AYNOR HIGH SCHOOL
 HVAC Replacement**
 201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
 DATE: 1/24/2022
 DESIGNED BY: BMB
 DRAWN BY: BMB
 CHECKED BY: BMB

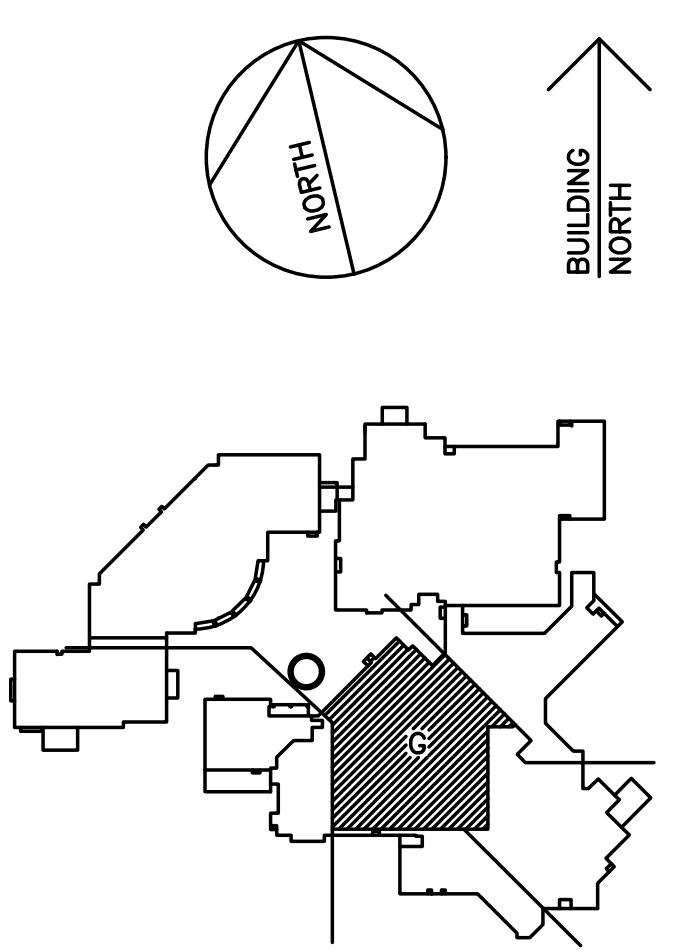
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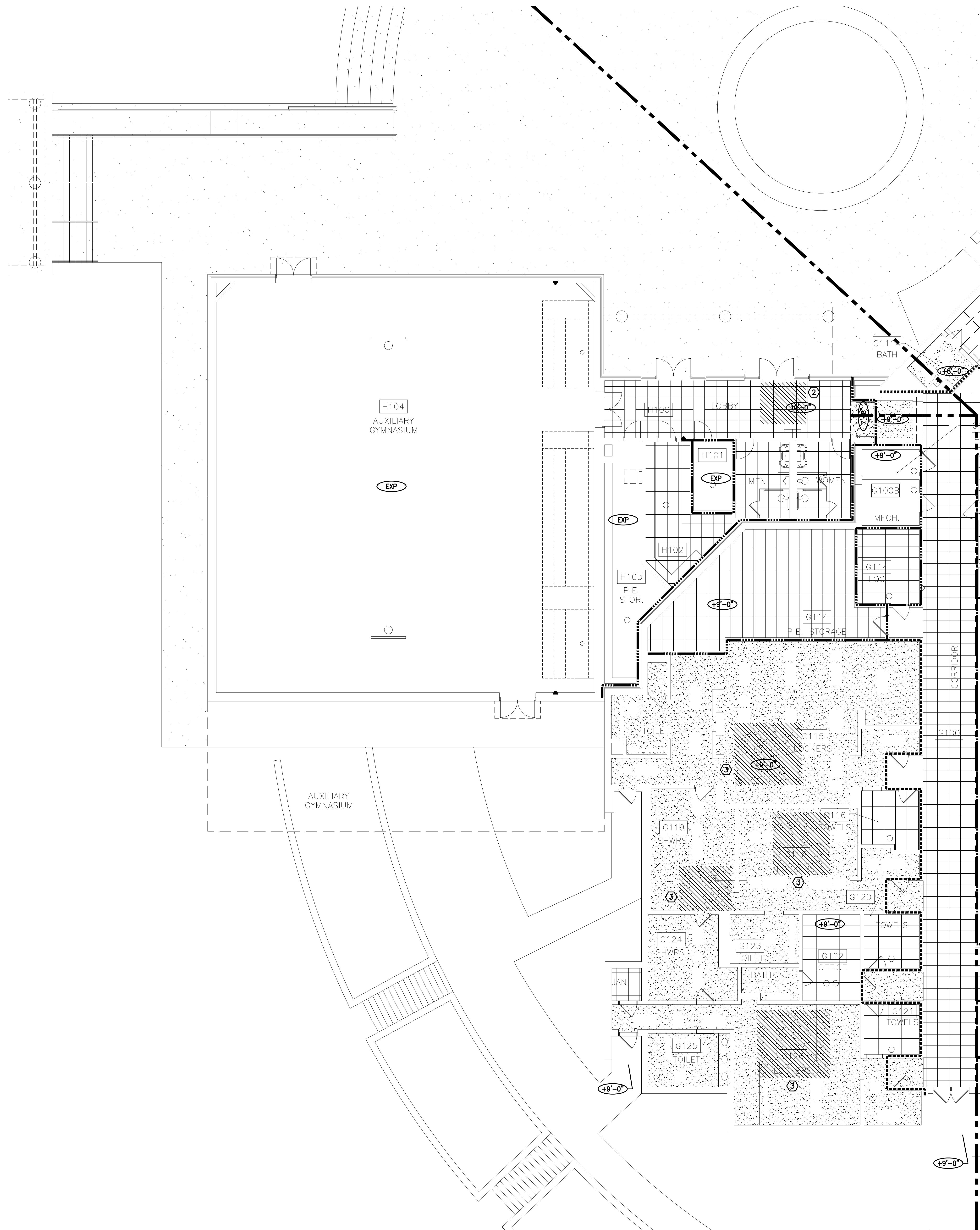
NO.	DATE	NOTES

FIRST FLOOR
 RCP DEMO
 AREA G

AD104

FIRST FLOOR RCP PLAN AREA G
 SCALE: 1/8" = 1'-0"





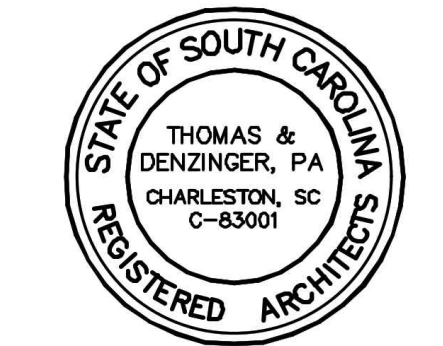
RCP DEMO KEYNOTES

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HATCH LEDGEND

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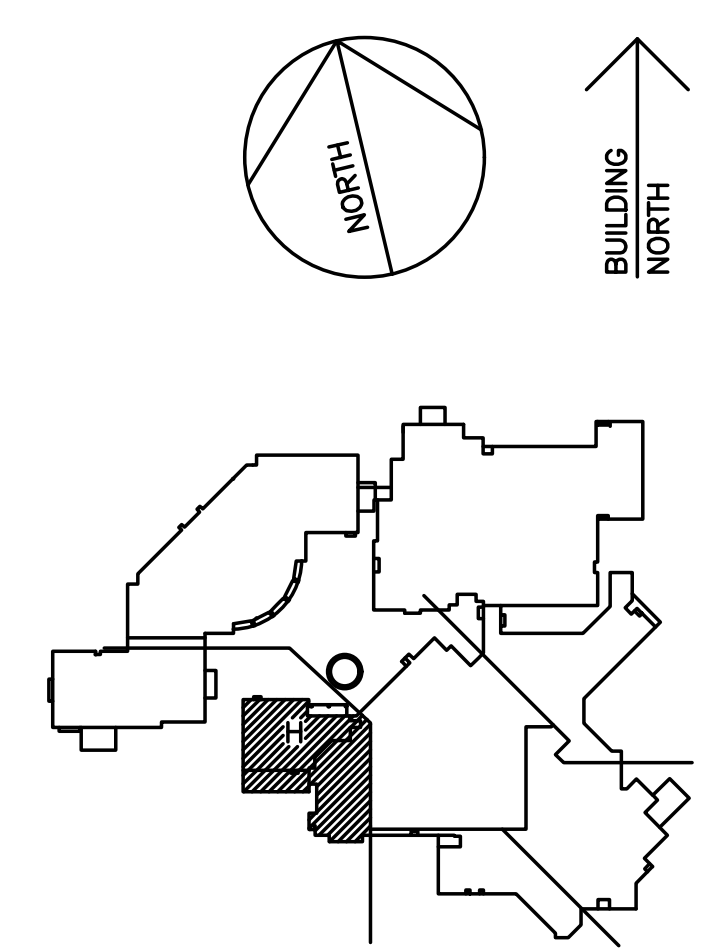
REVISIONS

NO.	DATE	NOTES

FIRST FLOOR
 RCP DEMO
 AREA H

AD105


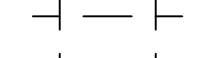
FIRST FLOOR RCP PLAN AREA H
 SCALE: 1/8" = 1'-0"

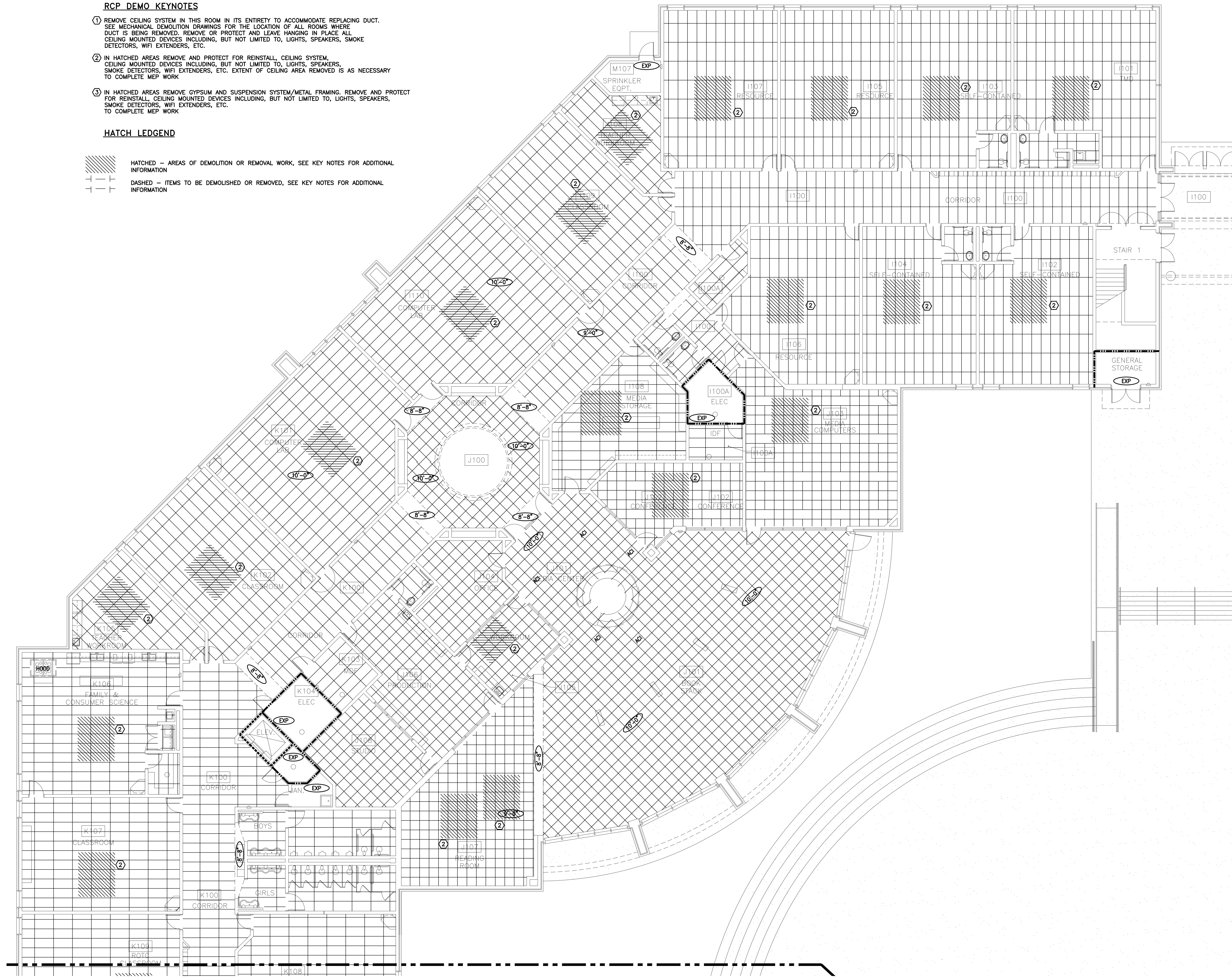


RCP DEMO KEYNOTES

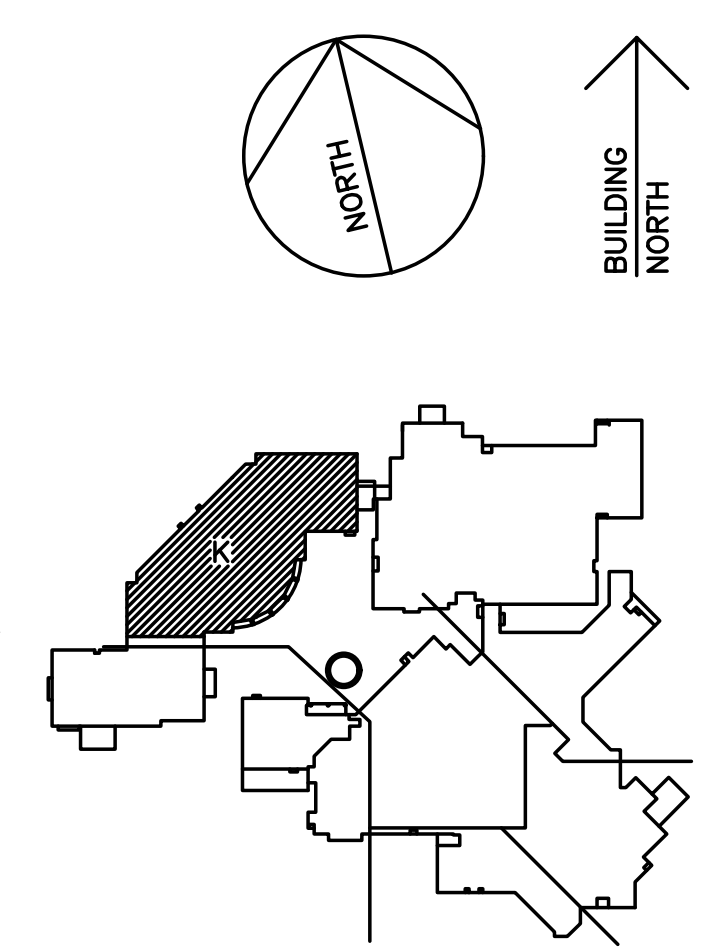
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HATCH LEDGEND

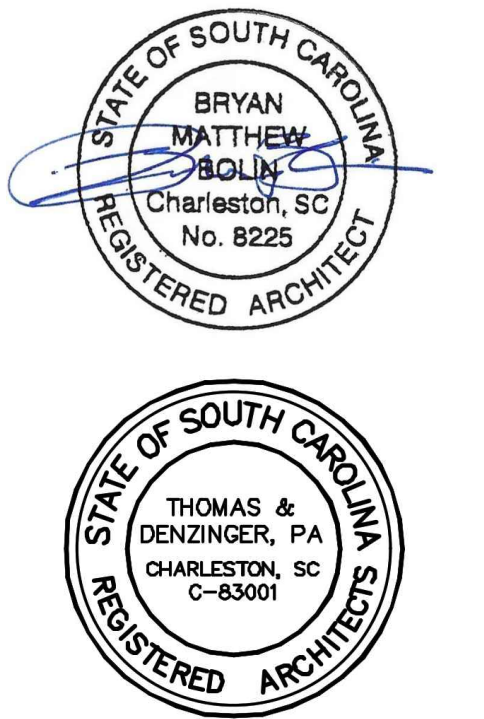
-  HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
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FIRST FLOOR RCP PLAN AREA K
SCALE: 1/8" = 1'-0"



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**AYNOR HIGH SCHOOL
HVAC Replacement**

201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 1/24/2022
DESIGNED BY: BMB
DRAWN BY: BMB
CHECKED BY: BMB

REVISIONS

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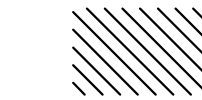
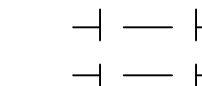
FIRST FLOOR
RCP DEMO
AREA K

AD106

RCP DEMO KEYNOTES

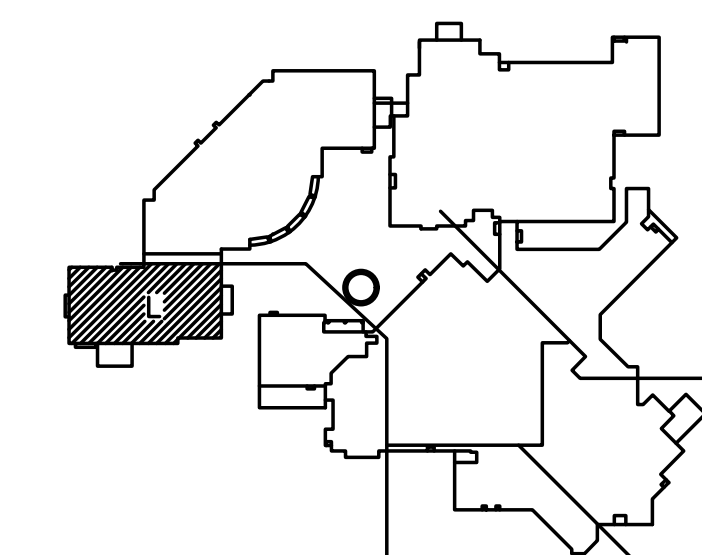
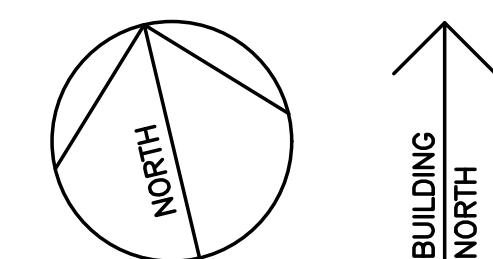
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HATCH LEDGEND

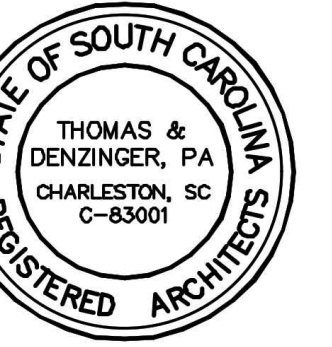
-  HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
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FIRST FLOOR RCP PLAN AREA L
SCALE: 1/8" = 1'-0"



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HVAC Replacement**
201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
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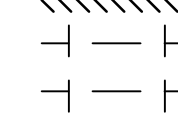
REVISIONS

NO.	DATE	NOTES

FIRST FLOOR
RCP DEMO
AREA L

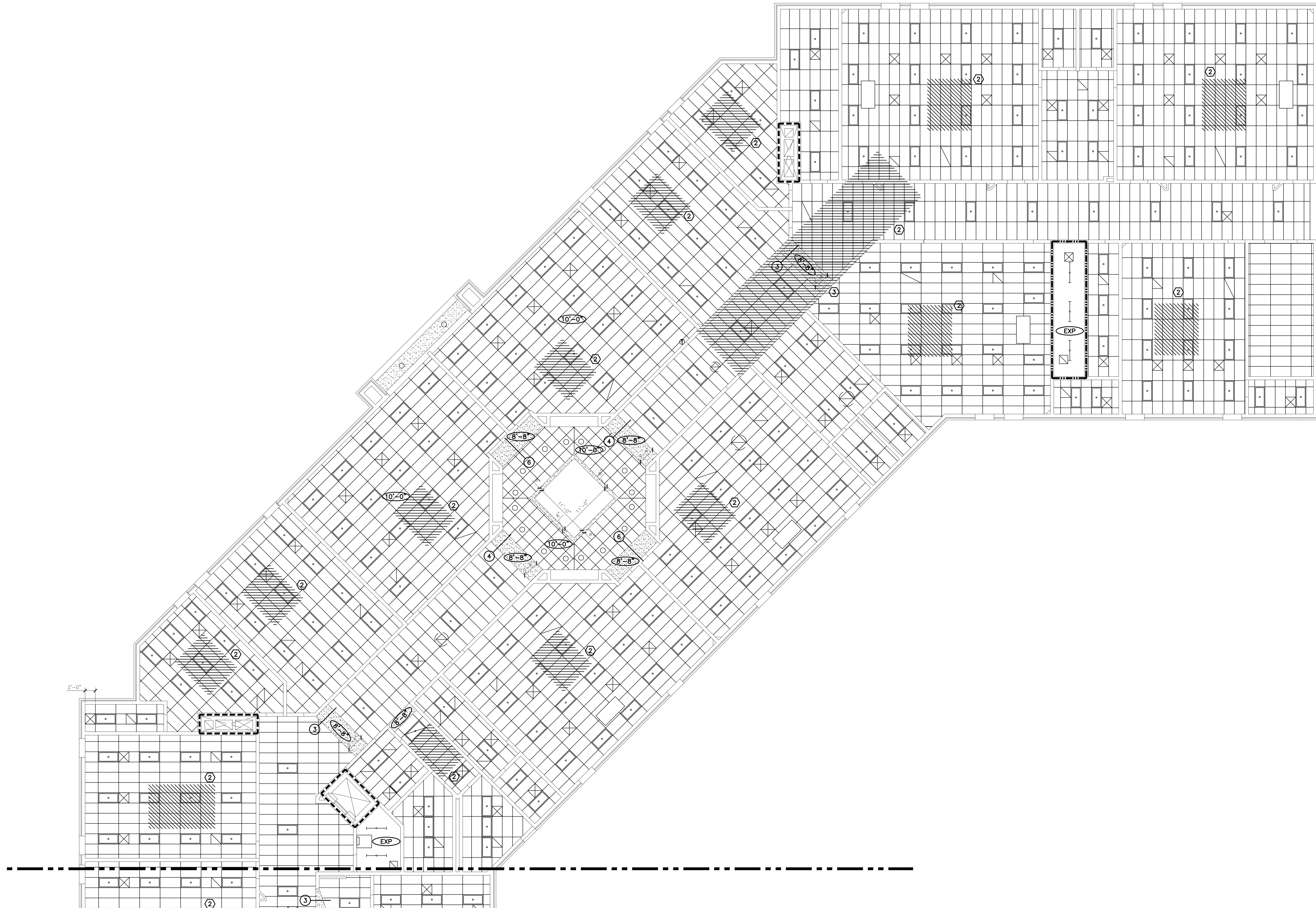
AD107

HATCH LEGEND

-  HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  DASHED - ITEMS TO BE DEMOLISHED OR REMOVED, SEE KEY NOTES FOR ADDITIONAL INFORMATION

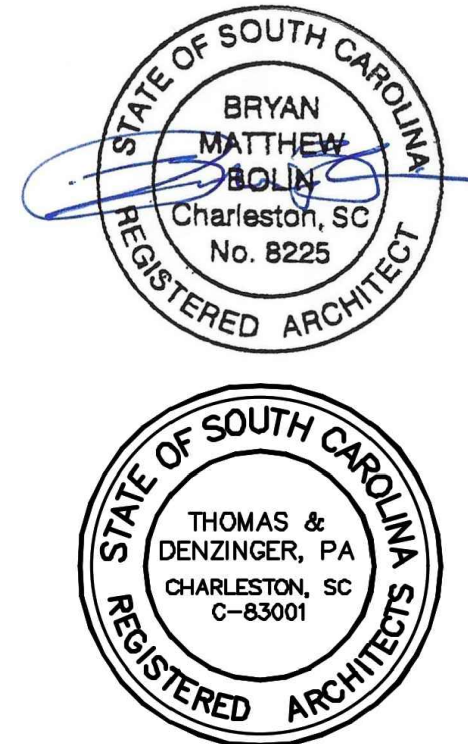
RCP DEMO KEYNOTES

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SECOND FLOOR RCP PLAN AREA J
SCALE: 1/8" = 1'-0"

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HVAC Replacement**
201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 1/24/2022
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REVISIONS

NO.	DATE	NOTES


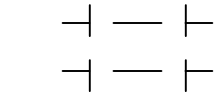
**SECOND FLOOR
RCP DEMO
AREA J**

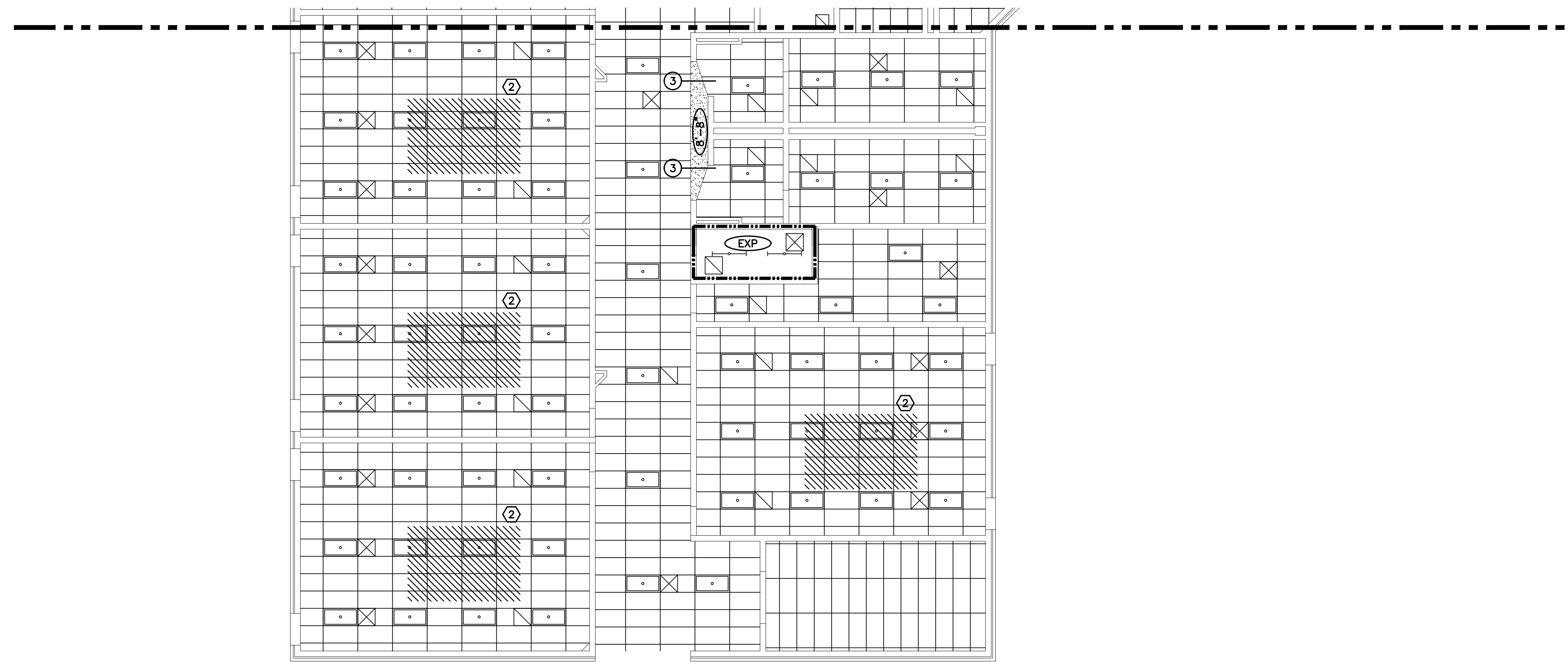
AD108

RCP DEMO KEYNOTES

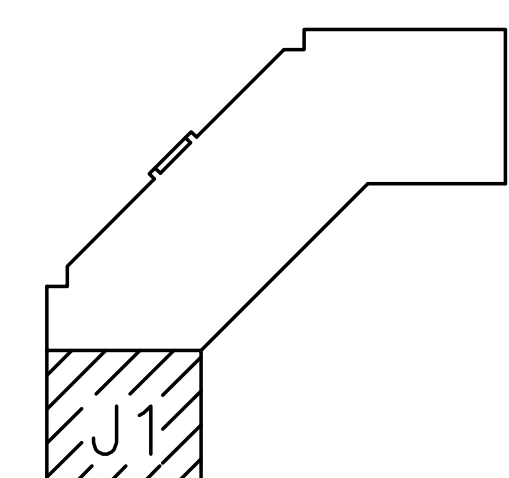
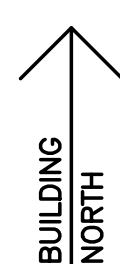
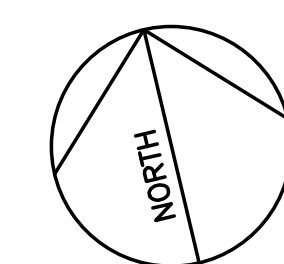
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HATCH LEDGEND

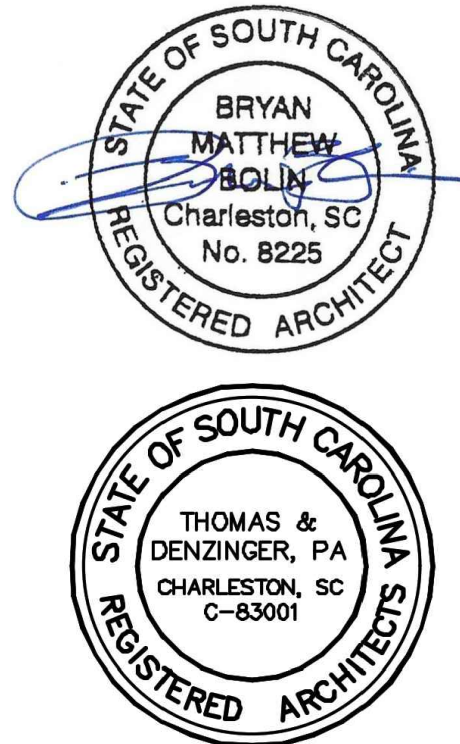
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SECOND FLOOR RCP PLAN AREA J1
SCALE: 1/8" = 1'-0"



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bryan@thomasanddenzinger.com



**AYNOR HIGH SCHOOL
HVAC Replacement**
201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 12/15/2021
DESIGNED BY: BMB
DRAWN BY: BMB
CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES


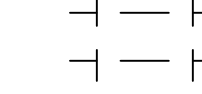
**SECOND FLOOR
RCP DEMO
AREA J1**

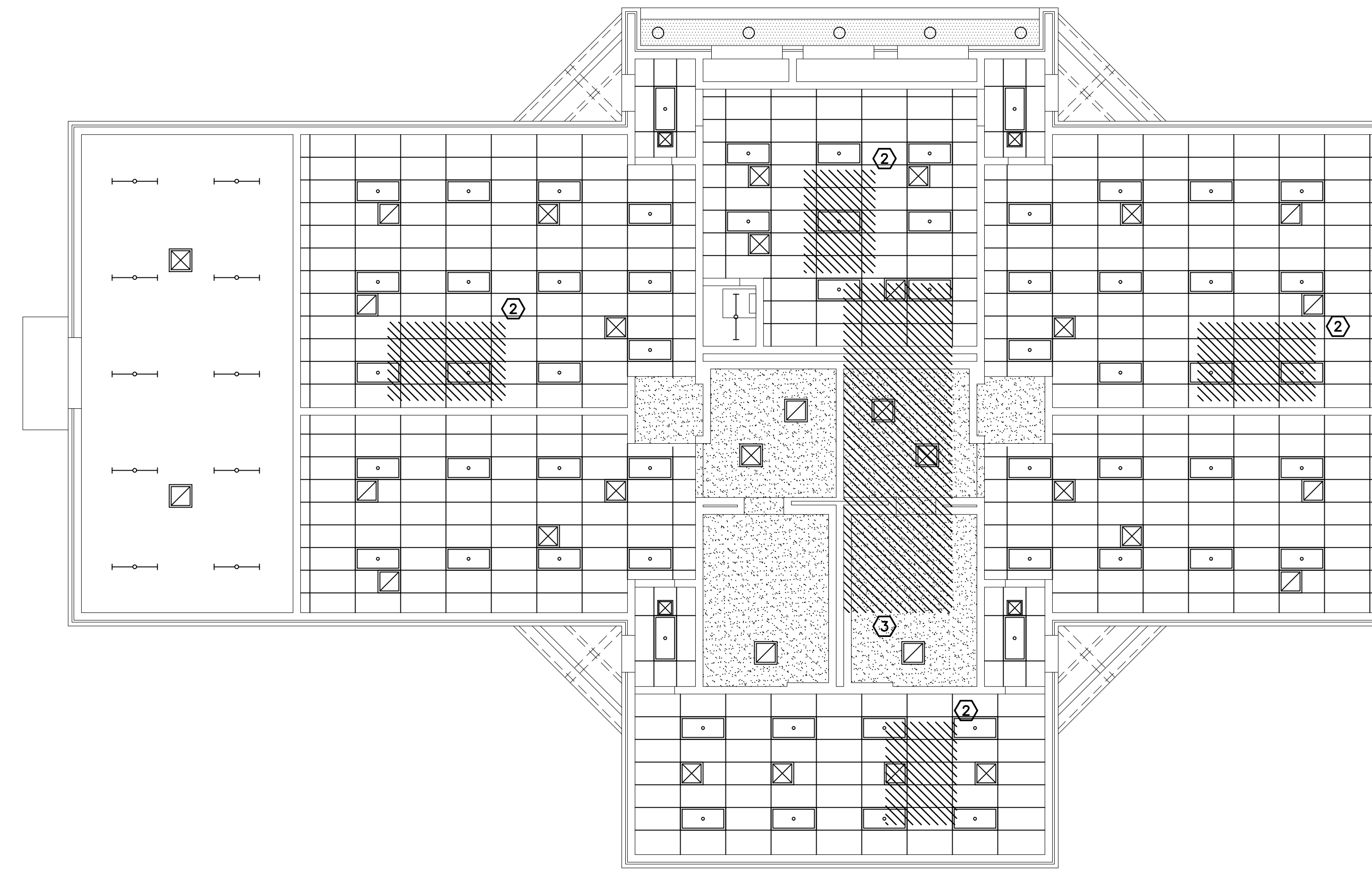
AD109

RCP DEMO KEYNOTES

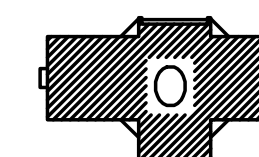
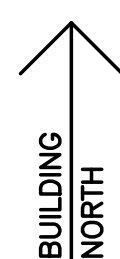
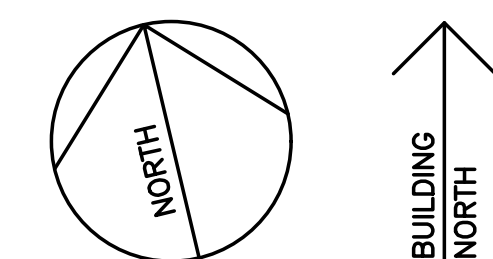
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HATCH LEDGEND

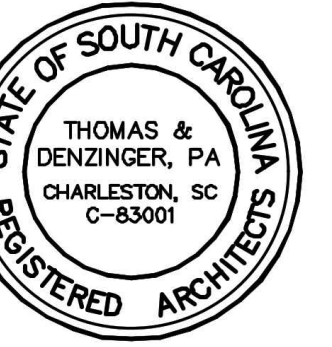
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RCP PLAN AREA 0
SCALE: 1/8" = 1'-0"



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**AYNOR HIGH SCHOOL
HVAC Replacement**

201 JORDANVILLE RD AYNOR, SC 29411

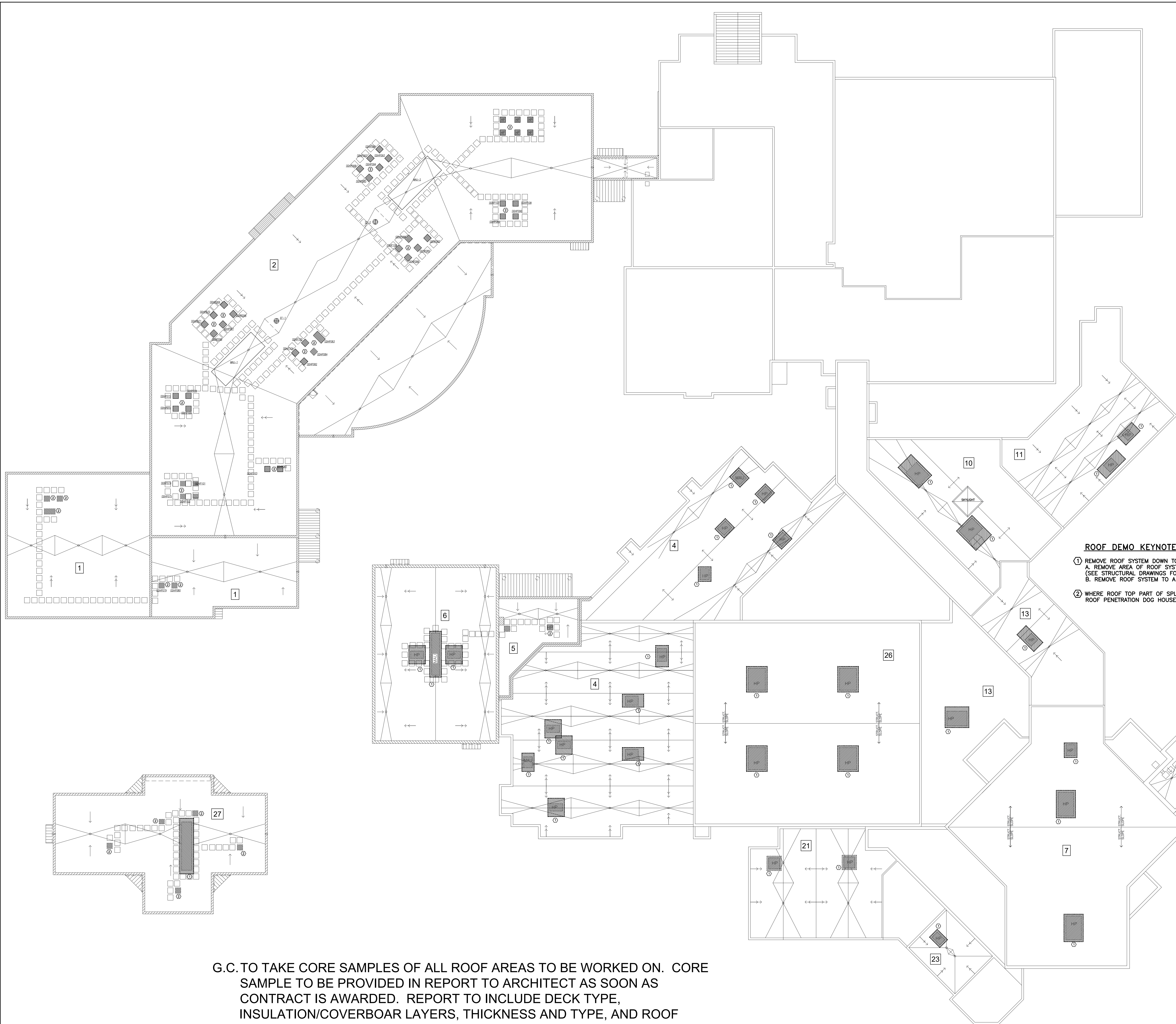
PROJ. NO. 21090002
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DESIGNED BY: BMB
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CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES

RCP DEMO
AREA 0

AD110



ROOF SYSTEMS SCHEDULE

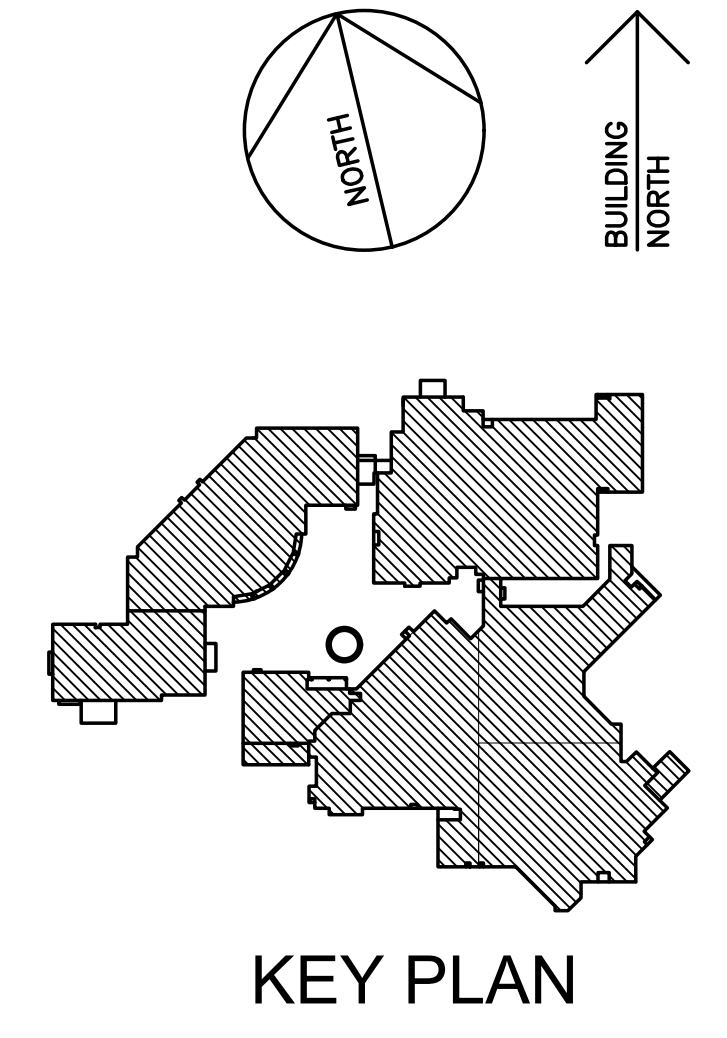
PLAN DESIGNATION	ROOF SYSTEM
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
	ROOF TOP MECHANICAL UNIT WITH DESIGNATION, SEE MECH. DWGS FOR ADDITIONAL INFORMATION
	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS

- ROOF DEMO KEYNOTES**
- ① REMOVE ROOF SYSTEM DOWN TO DECK
 A. REMOVE AREA OF ROOF SYSTEM AS NEEDED TO INSTALL STRUCTURAL SUPPORT MEMBERS (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION) OR
 B. REMOVE ROOF SYSTEM TO A POINT 1" OFFSET FROM NEW UNIT FOOTPRINT AND STRUCTURAL SUPPORT
 - ② WHERE ROOF TOP PART OF SPLIT SYSTEM IS TO BE REMOVED, RETAIN EQUIPMENT CURB AND ROOF PENETRATION DOG HOUSE FOR REUSE.

G.C. TO TAKE CORE SAMPLES OF ALL ROOF AREAS TO BE WORKED ON. CORE SAMPLE TO BE PROVIDED IN REPORT TO ARCHITECT AS SOON AS CONTRACT IS AWARDED. REPORT TO INCLUDE DECK TYPE, INSULATION/COVERBOAR LAYERS, THICKNESS AND TYPE, AND ROOF SYSTEM AND PLYS.



THOMAS & DENZINGER ARCHITECTS
 bryan@thomasanddenzinger.com

STATE OF SOUTH CAROLINA
 BRYAN MATTHEW SOLIN
 Charleston, SC
 No. 8225
 REGISTERED ARCHITECT

STATE OF SOUTH CAROLINA
 THOMAS & DENZINGER, P.A.
 CHARLESTON, SC
 C-63001
 REGISTERED ARCHITECTS

AYNOR HIGH SCHOOL HVAC Replacement
 201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
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 DESIGNED BY: BMB
 DRAWN BY: BMB
 CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES
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OVERALL ROOF DEMO PLAN

AD111

ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	ROOF SYSTEM
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
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22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

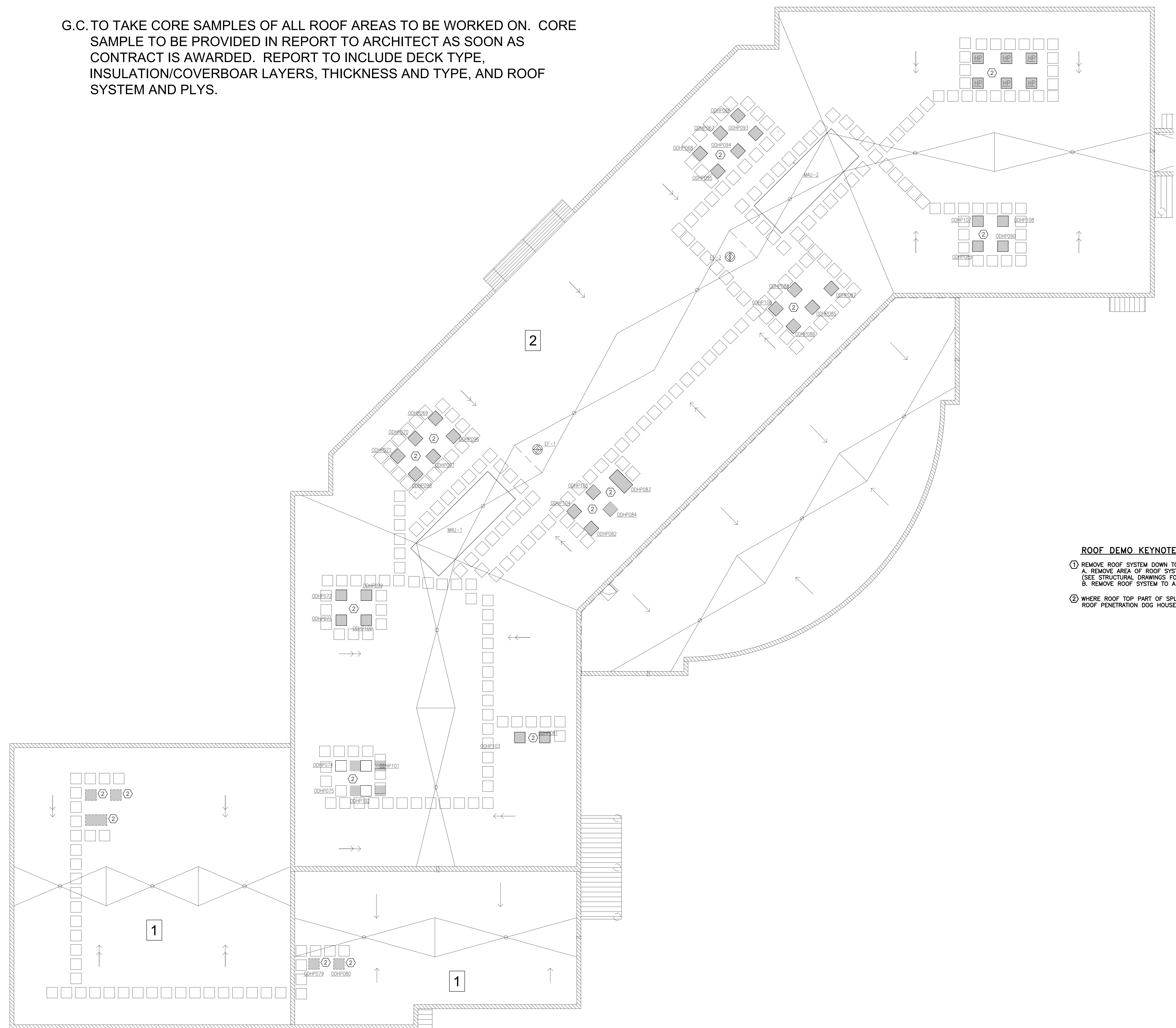
ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
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	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS

ROOF DEMO KEYNOTES

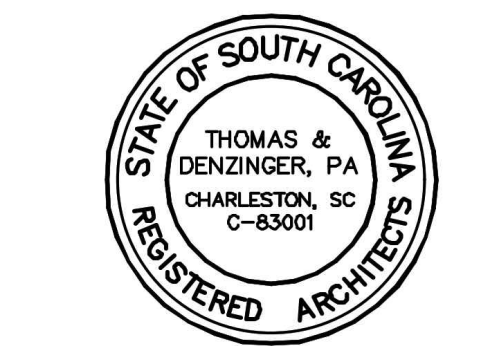
- ① REMOVE ROOF SYSTEM DOWN TO DECK
A. REMOVE AREA OF ROOF SYSTEM AS NEEDED TO INSTALL STRUCTURAL SUPPORT MEMBERS (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION) OR
B. REMOVE ROOF SYSTEM TO A POINT 1" OFFSET FROM NEW UNIT FOOTPRINT AND STRUCTURAL SUPPORT
- ② WHERE ROOF TOP PART OF SPLIT SYSTEM IS TO BE REMOVED, RETAIN EQUIPMENT CURB AND ROOF PENETRATION DOG HOUSE FOR REUSE.

G.C. TO TAKE CORE SAMPLES OF ALL ROOF AREAS TO BE WORKED ON. CORE SAMPLE TO BE PROVIDED IN REPORT TO ARCHITECT AS SOON AS CONTRACT IS AWARDED. REPORT TO INCLUDE DECK TYPE, INSULATION/COVERBOAR LAYERS, THICKNESS AND TYPE, AND ROOF SYSTEM AND PLYS.



ENLARGED ROOF DEMO PLAN AREA 1
SCALE: 1" = 3/32"

THOMAS & DENZINGER ARCHITECTS
bryan@thomasanddenzinger.com



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HVAC Replacement**
201 JORDANVILLE RD AYNOR, SC 29411

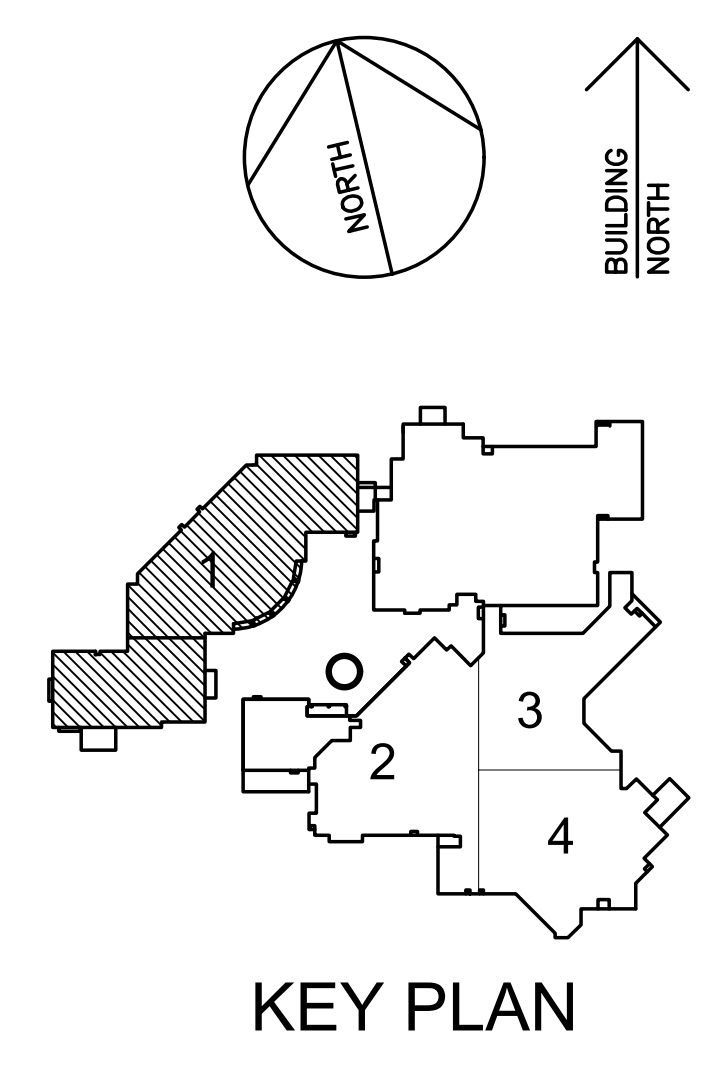
PROJ. NO. 21090002
DATE: 1/24/2022
DESIGNED BY: BMB
DRAWN BY: BMB
CHECKED BY: BMB

REVISIONS

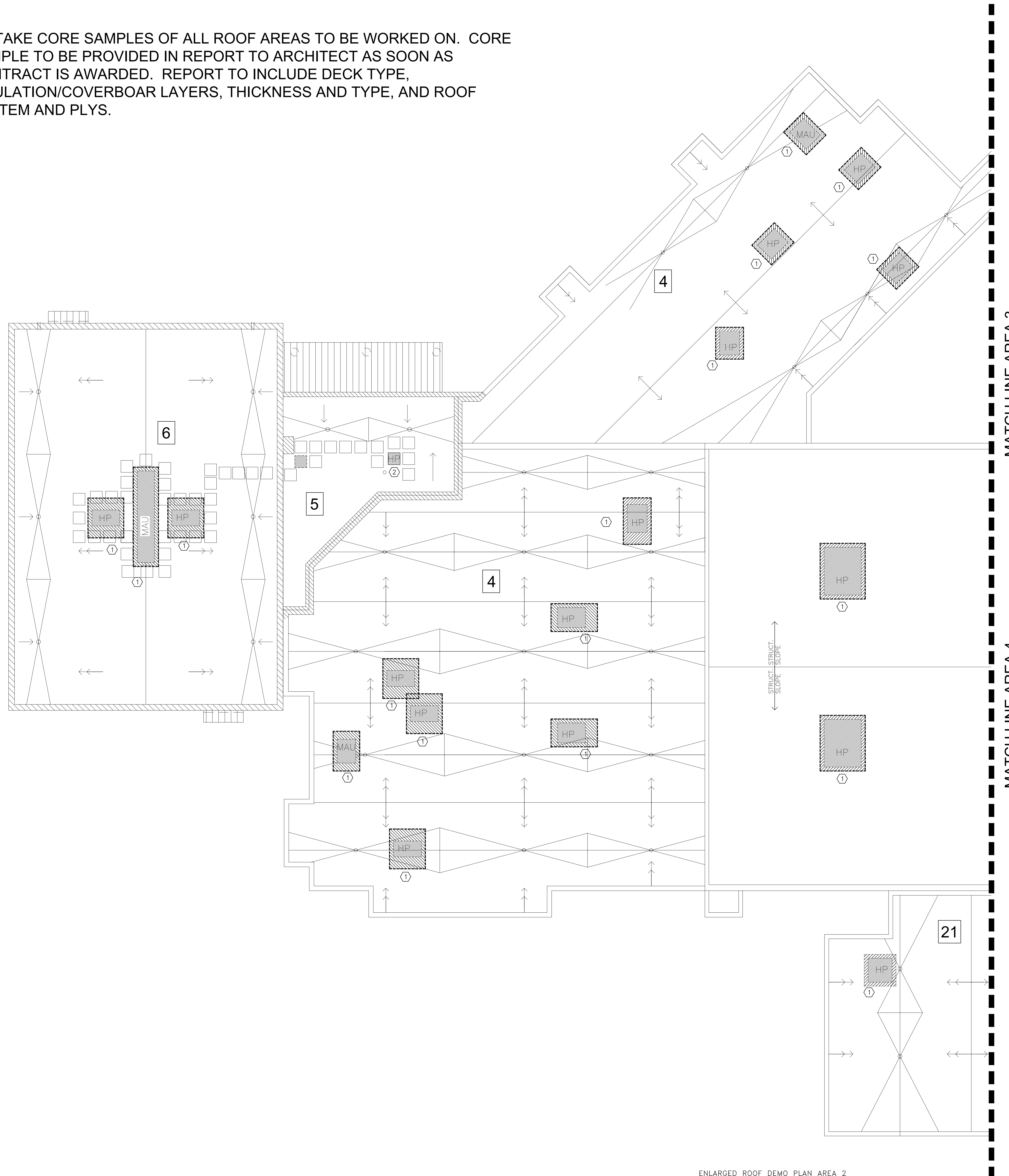
NO.	DATE	NOTES

ENLARGED ROOF DEMO PLAN AREA 1

AD112



G.C. TO TAKE CORE SAMPLES OF ALL ROOF AREAS TO BE WORKED ON. CORE SAMPLE TO BE PROVIDED IN REPORT TO ARCHITECT AS SOON AS CONTRACT IS AWARDED. REPORT TO INCLUDE DECK TYPE, INSULATION/COVERBOAR LAYERS, THICKNESS AND TYPE, AND ROOF SYSTEM AND PLYS.



ENLARGED ROOF DEMO PLAN AREA 2
SCALE: 1" = 3/32"

ROOF SYSTEMS SCHEDULE

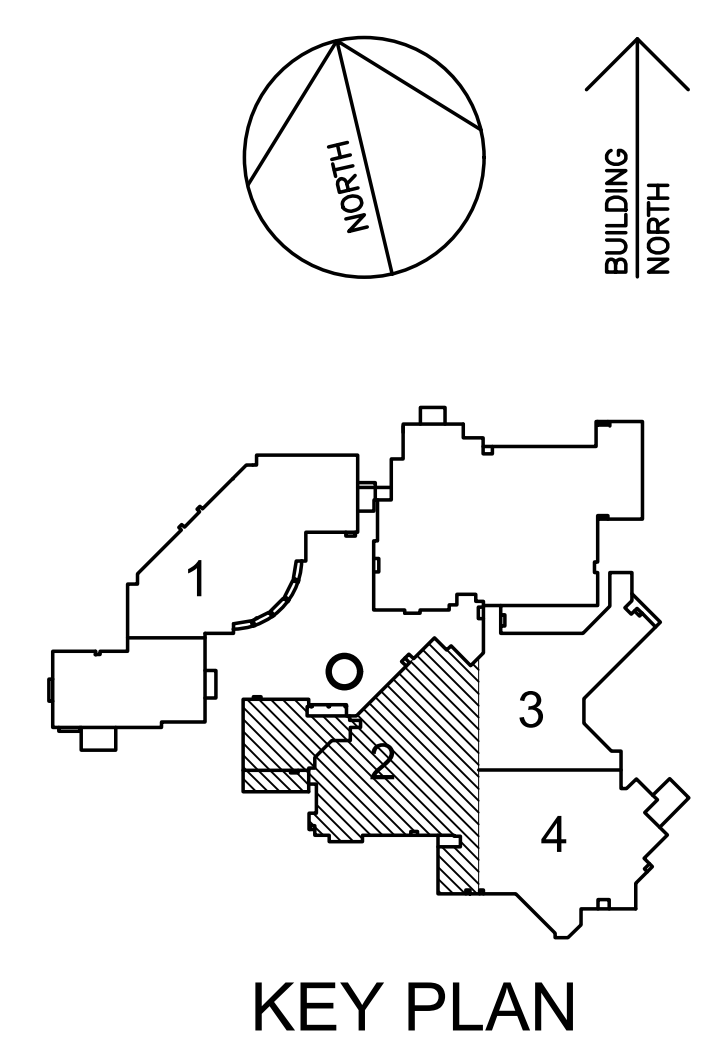
PLAN DESIGNATION	ROOF SYSTEM
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

ROOF REFERENCE SYMBOLS

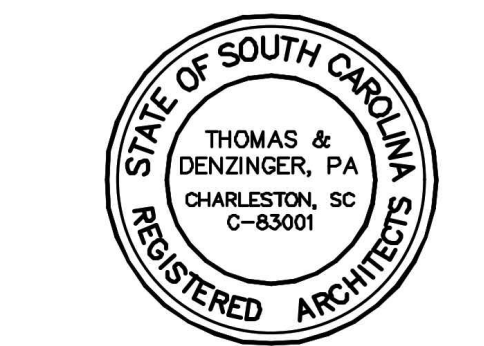
SYMBOL	DESCRIPTION
	ROOF TOP MECHANICAL UNIT WITH DESIGNATION. SEE MECH. DWGS FOR ADDITIONAL INFORMATION
	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE. SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER. SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS

ROOF DEMO KEYNOTES

- ① REMOVE ROOF SYSTEM DOWN TO DECK
A. REMOVE AREA OF ROOF SYSTEM AS NEEDED TO INSTALL STRUCTURAL SUPPORT MEMBERS (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION) OR
B. REMOVE ROOF SYSTEM TO A POINT 1" OFFSET FROM NEW UNIT FOOTPRINT AND STRUCTURAL SUPPORT
- ② WHERE ROOF TOP PART OF SPLIT SYSTEM IS TO BE REMOVED, RETAIN EQUIPMENT CURB AND ROOF PENETRATION DOG HOUSE FOR REUSE.



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HVAC Replacement**
201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 1/24/2022
DESIGNED BY: BMB
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CHECKED BY: BMB

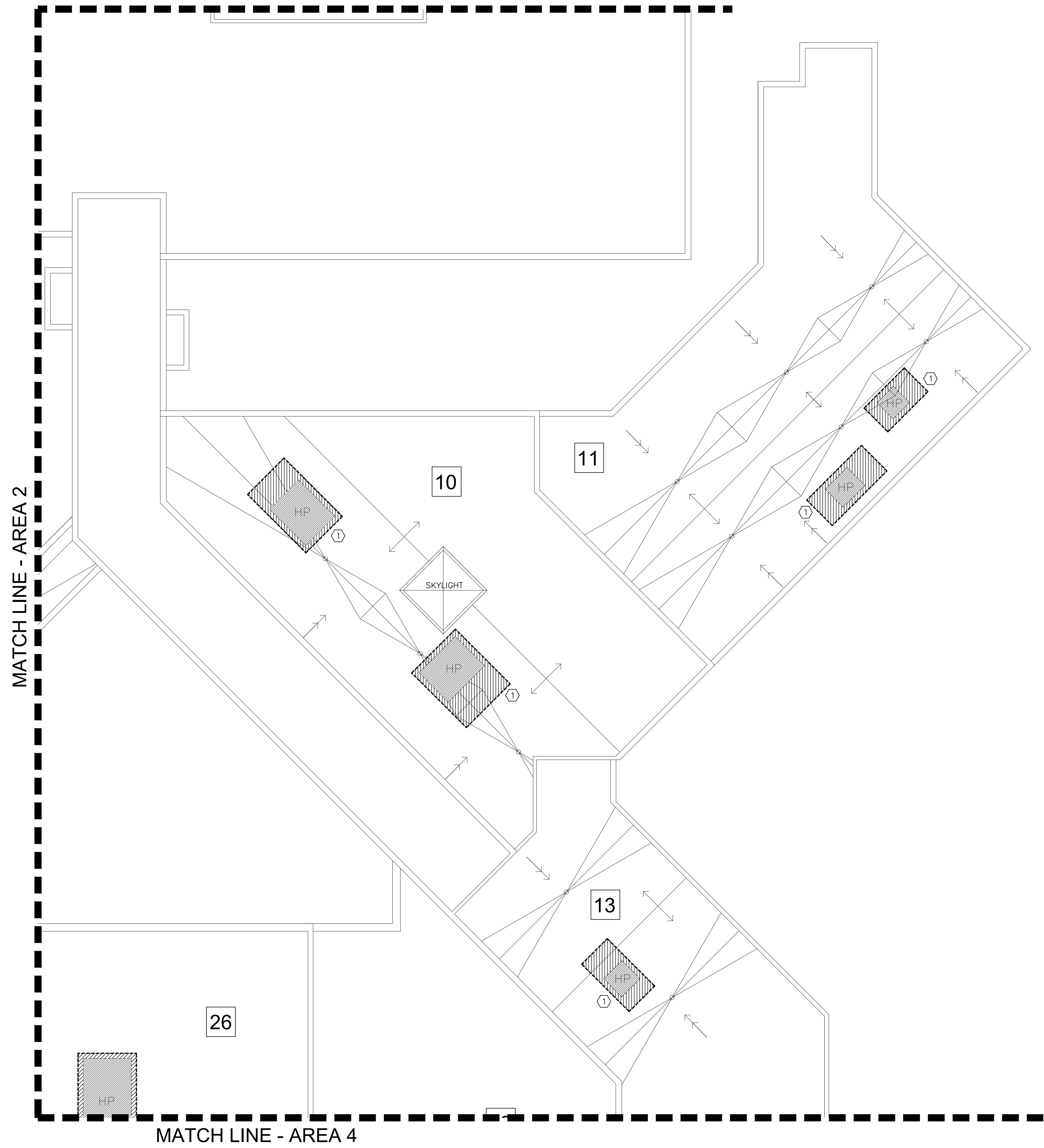
REVISIONS

NO.	DATE	NOTES

ENLARGED ROOF DEMO PLAN AREA 2

AD113

G.C. TO TAKE CORE SAMPLES OF ALL ROOF AREAS TO BE WORKED ON. CORE SAMPLE TO BE PROVIDED IN REPORT TO ARCHITECT AS SOON AS CONTRACT IS AWARDED. REPORT TO INCLUDE DECK TYPE, INSULATION/COVERBOAR LAYERS, THICKNESS AND TYPE, AND ROOF SYSTEM AND PLYS.



ENLARGED ROOF PLAN AREA 3 - NEW WORK
SCALE: 1" = 3/32"

ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	ROOF SYSTEM
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

THOMAS & DENZINGER ARCHITECTS
bryan@thomasanddenzinger.com



ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
HP-61	ROOF TOP MECHANICAL UNIT WITH DESIGNATION, SEE MECH. DWGS FOR ADDITIONAL INFORMATION
[Hatched Box]	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
[Arrow]	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
Ⓢ	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
[Drain Symbol]	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
#	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS

ROOF DEMO KEYNOTES

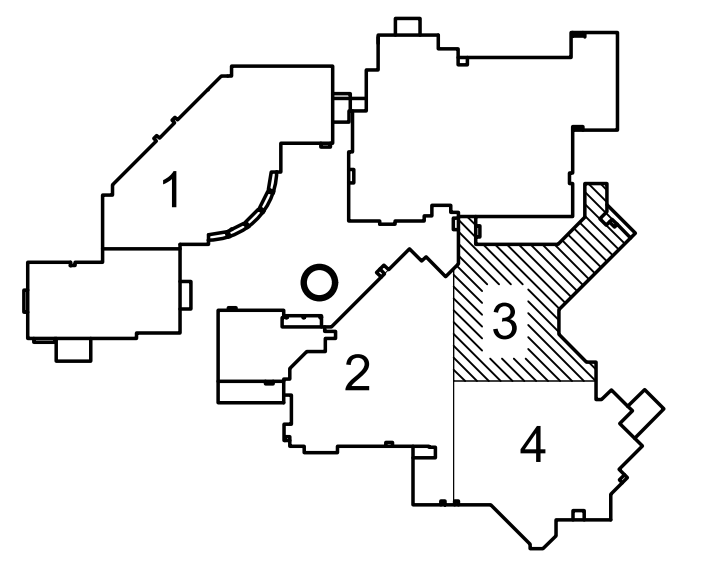
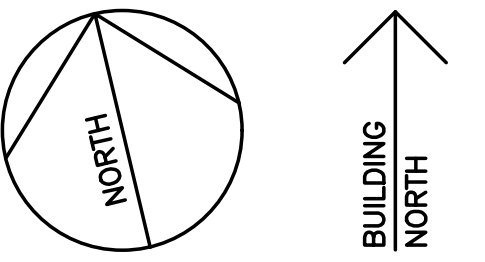
- Ⓢ REMOVE ROOF SYSTEM DOWN TO DECK
A. REMOVE AREA OF ROOF SYSTEM AS NEEDED TO INSTALL STRUCTURAL SUPPORT MEMBERS (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION) OR
B. REMOVE ROOF SYSTEM TO A POINT 1" OFFSET FROM NEW UNIT FOOTPRINT AND STRUCTURAL SUPPORT
- Ⓢ WHERE ROOF TOP PART OF SPLIT SYSTEM IS TO BE REMOVED, RETAIN EQUIPMENT CURB AND ROOF PENETRATION DOG HOUSE FOR REUSE.

AYNOR HIGH SCHOOL
HVAC Replacement
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CHECKED BY: BMB

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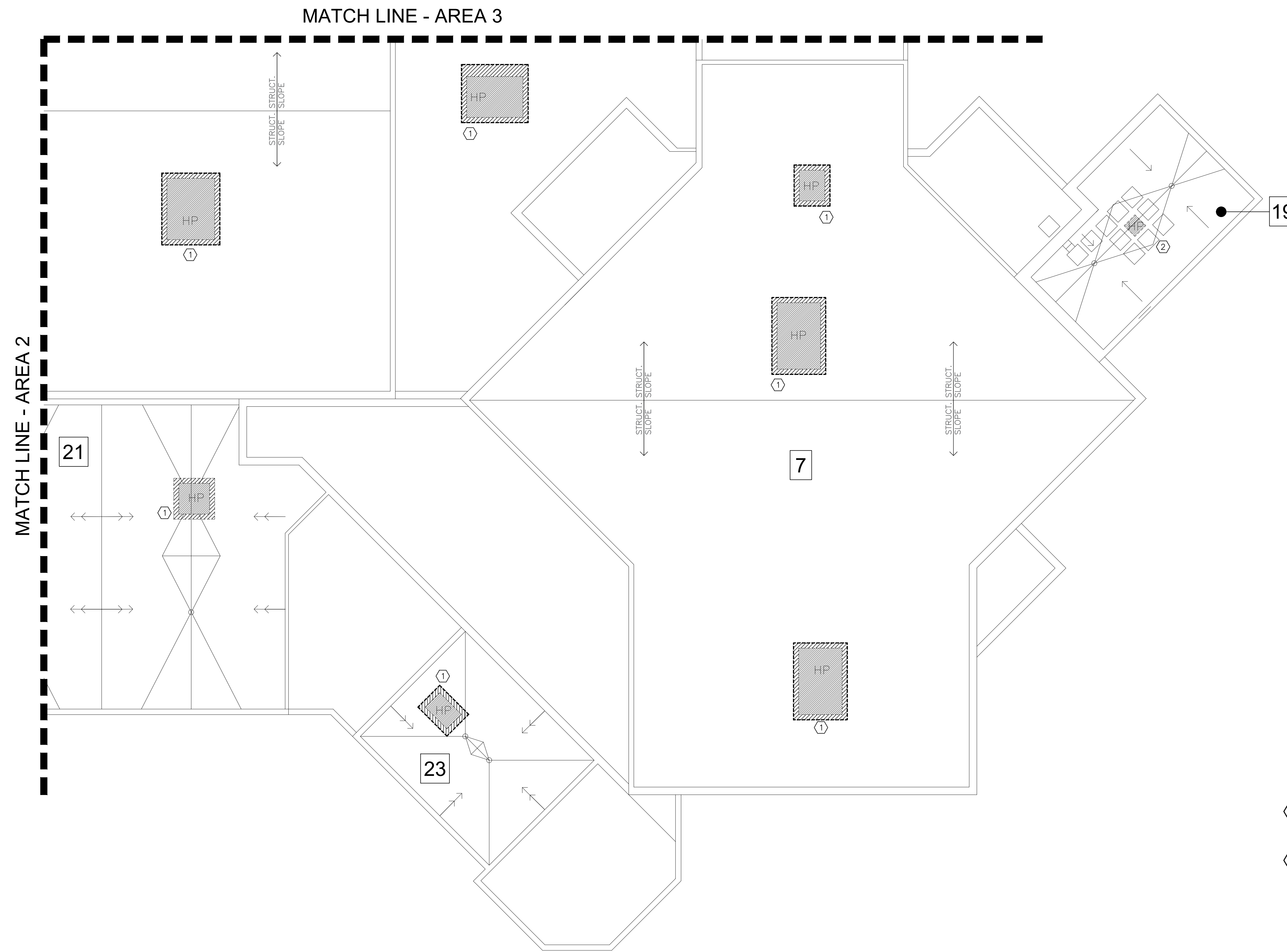
NO.	DATE	NOTES



KEY PLAN

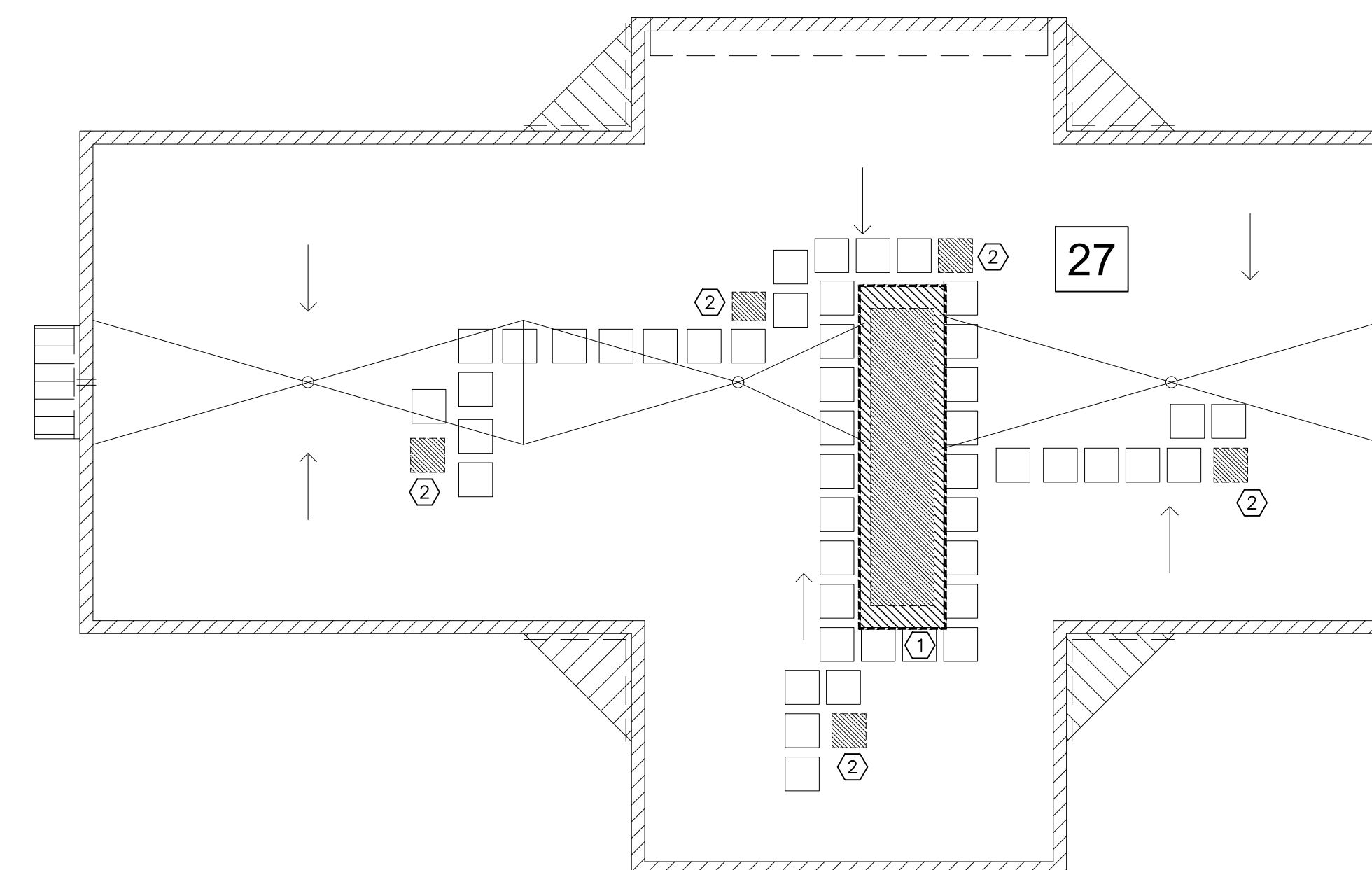
ENLARGED ROOF DEMO PLAN AREA 3

AD114



ENLARGED ROOF DEMO PLAN AREA 4
SCALE: 1" = 3/32"

G.C. TO TAKE CORE SAMPLES OF ALL ROOF AREAS TO BE WORKED ON. CORE SAMPLE TO BE PROVIDED IN REPORT TO ARCHITECT AS SOON AS CONTRACT IS AWARDED. REPORT TO INCLUDE DECK TYPE, INSULATION/COVERBOAR LAYERS, THICKNESS AND TYPE, AND ROOF SYSTEM AND PLYS.



ENLARGED ROOF DEMO PLAN FIELD HOUSE
SCALE: 1" = 3/32"

ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	ROOF SYSTEM
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

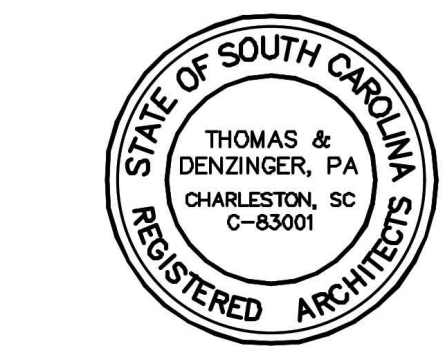
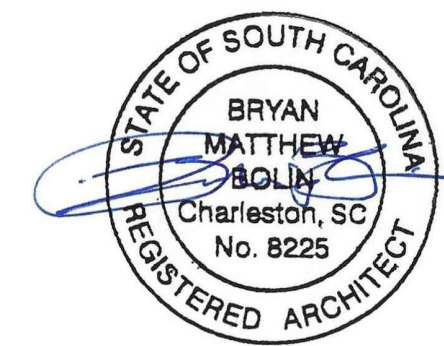
ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
	ROOF TOP MECHANICAL UNIT WITH DESIGNATION. SEE MECH. DWGS FOR ADDITIONAL INFORMATION
	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS

ROOF DEMO KEYNOTES

- ① REMOVE ROOF SYSTEM DOWN TO DECK
A. REMOVE AREA OF ROOF SYSTEM AS NEEDED TO INSTALL STRUCTURAL SUPPORT MEMBERS (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION) OR
B. REMOVE ROOF SYSTEM TO A POINT 1" OFFSET FROM NEW UNIT FOOTPRINT AND STRUCTURAL SUPPORT
- ② WHERE ROOF TOP PART OF SPLIT SYSTEM IS TO BE REMOVED, RETAIN EQUIPMENT CURB AND ROOF PENETRATION DOG HOUSE FOR REUSE.

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bryan@thomasanddenzinger.com



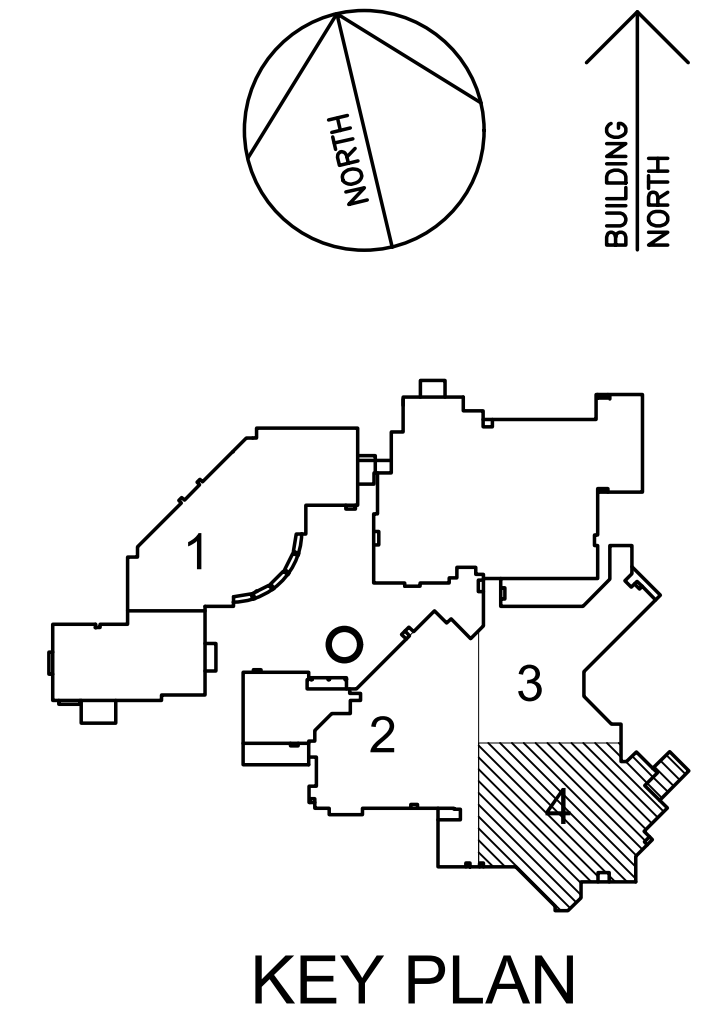
AYNOR HIGH SCHOOL
HVAC Replacement
201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 1/24/2022
DESIGNED BY: BMB
DRAWN BY: BMB
CHECKED BY: BMB

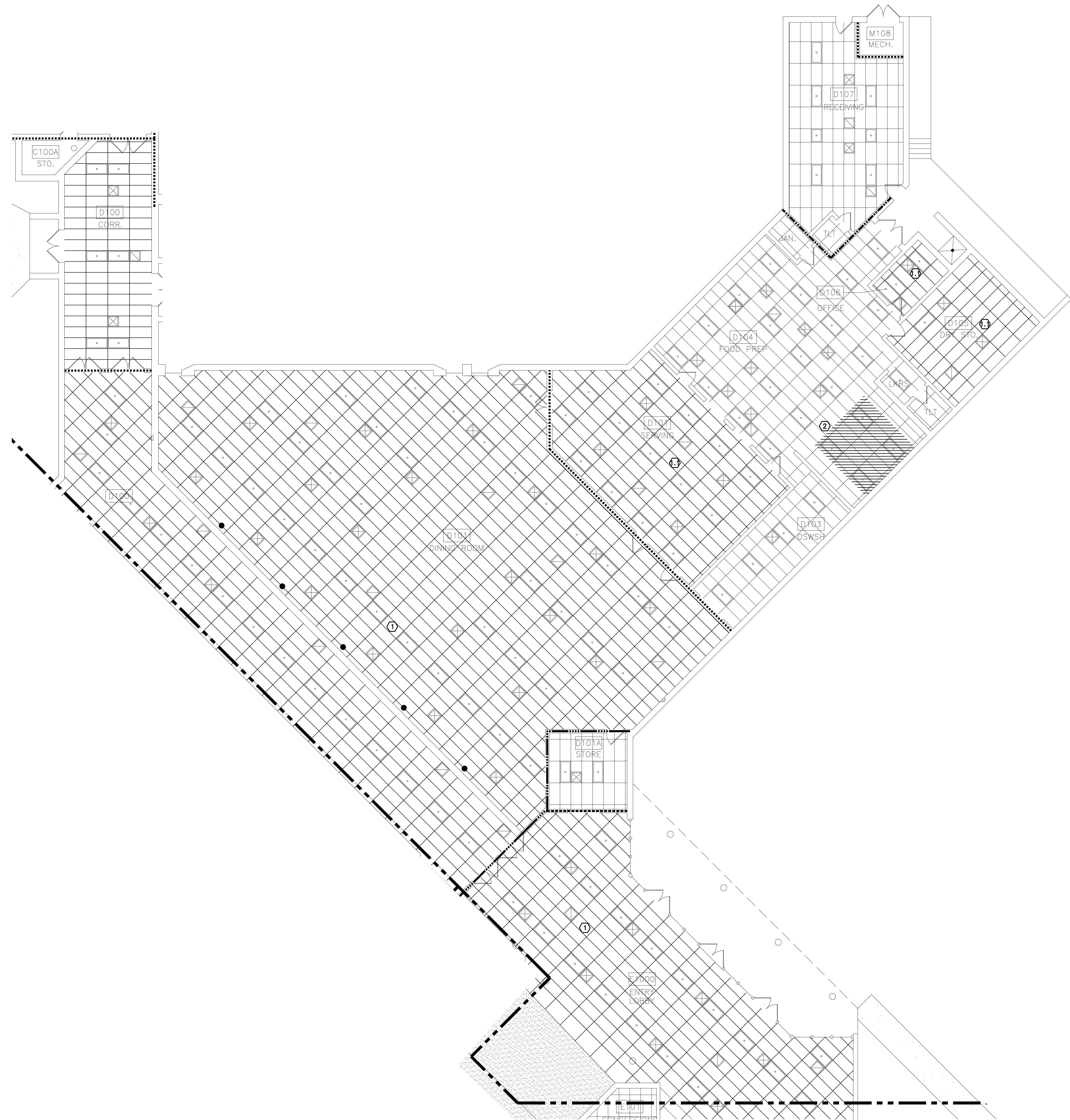
REVISIONS

NO.	DATE	NOTES

ENLARGED ROOF DEMO PLAN AREA 4



AD115



RCP NEW KEYNOTES

- ① INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-2) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ② INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-1) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ③ IN HATCHED AREAS REINSTALL EXISTING CEILING SYSTEM, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
- ④ IN HATCHED AREAS INSTALL GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REINSTALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. PAINT TO MATCH EXISTING

RCP NEW HATCH LEGEND

- HATCHED — AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
- HEAVY LINES — ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION

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PROJ. NO. 21090002
 DATE: 1/24/2022
 DESIGNED BY: BMB
 DRAWN BY: BMB
 CHECKED BY: BMB

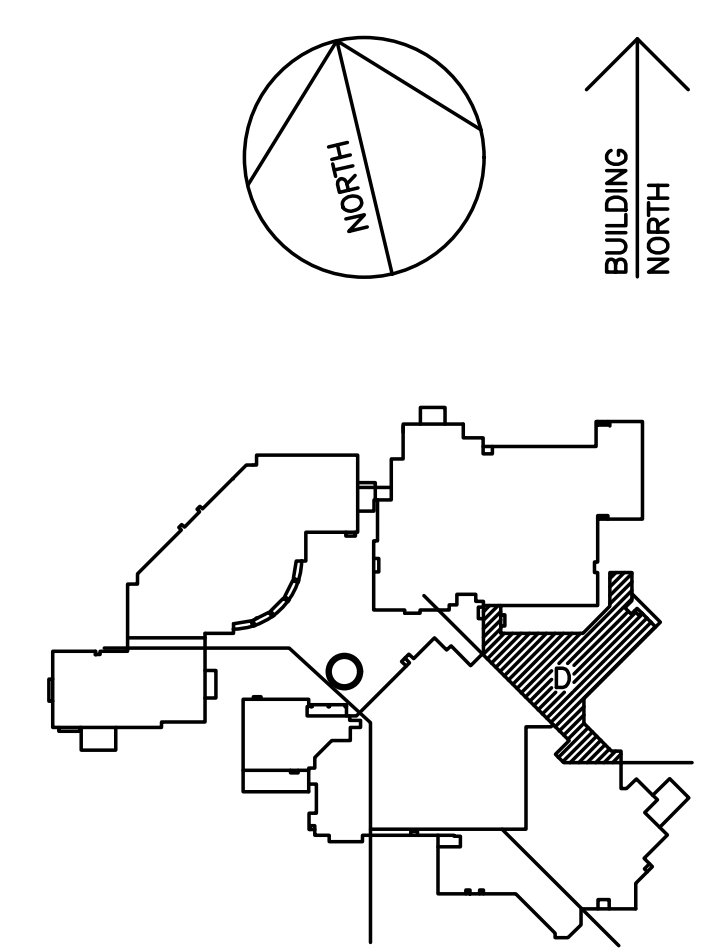
REVISIONS

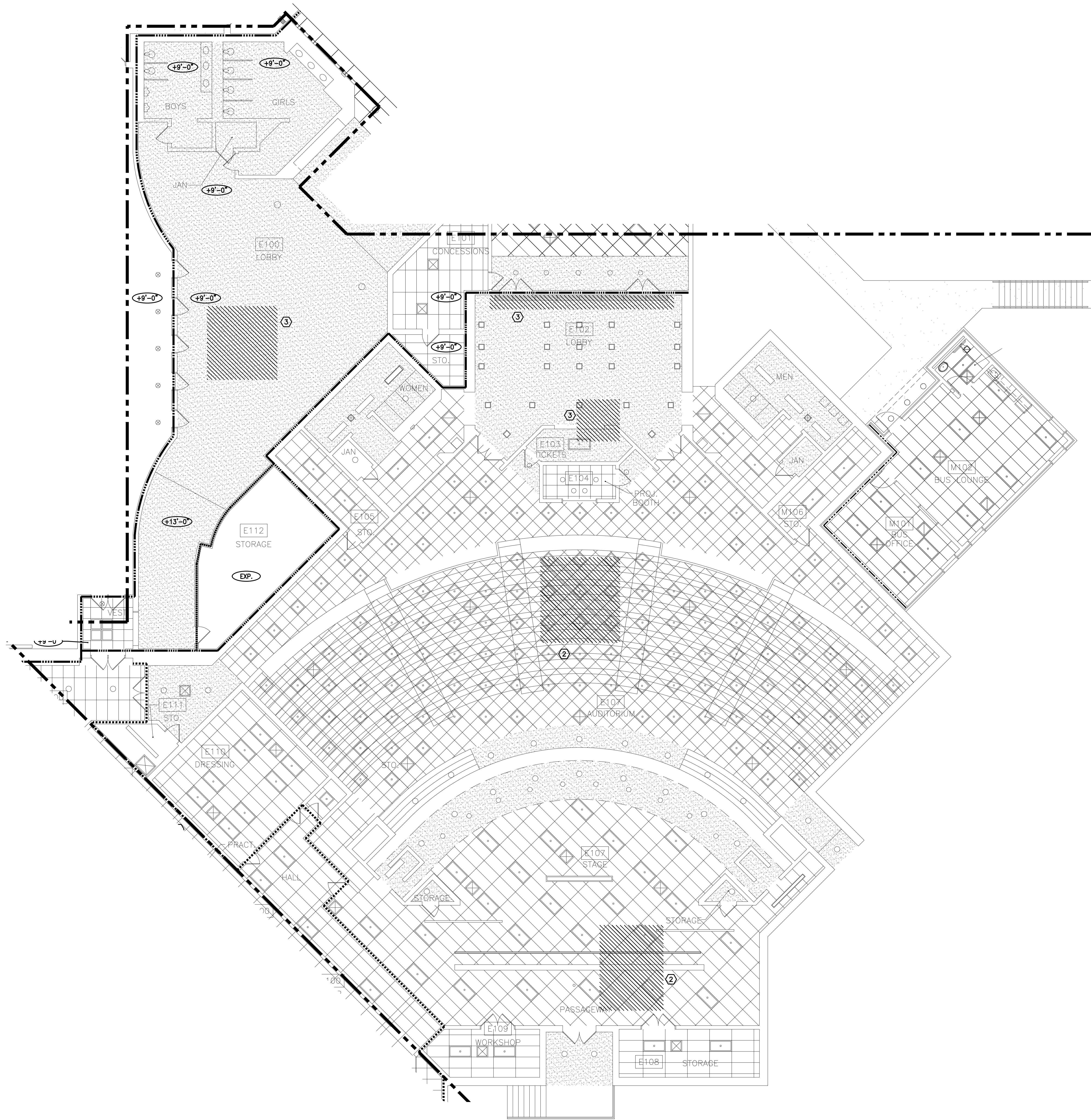
NO.	DATE	NOTES

FIRST FLOOR
 RCP
 AREA D

A101

FIRST FLOOR RCP PLAN AREA D
 SCALE: 1/8" = 1'-0"







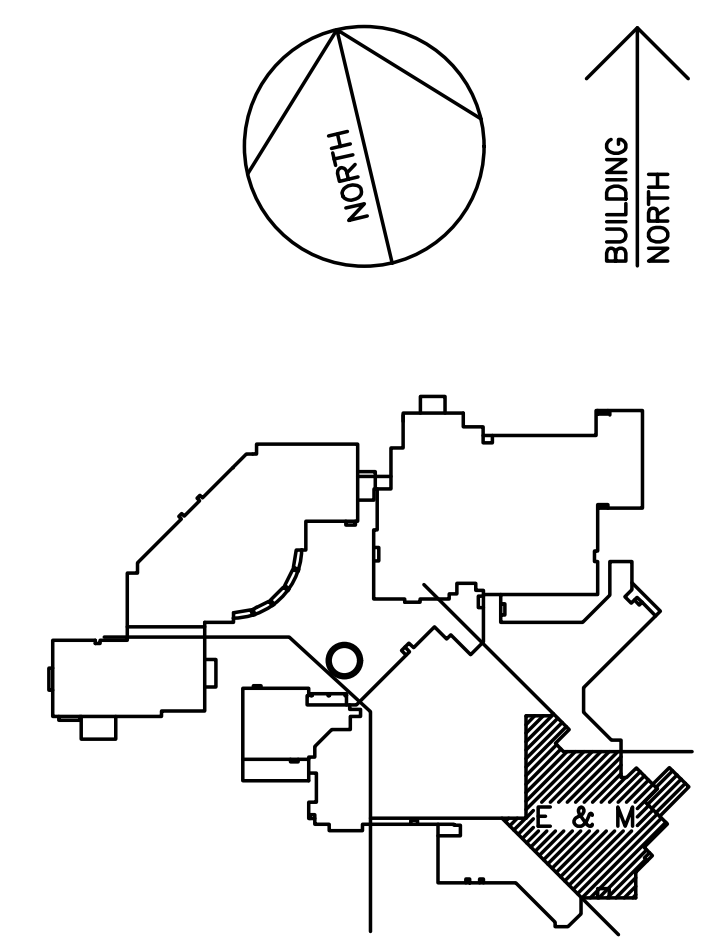
FIRST FLOOR RCP PLAN AREA E & M
SCALE: 1/8" = 1'-0"

RCP NEW KEYNOTES

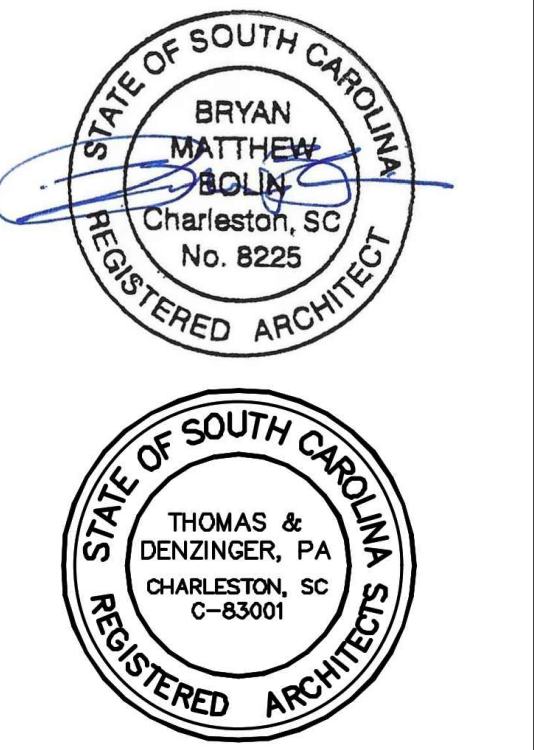
- ① INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-2) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ② IN HATCHED AREAS REINSTALL EXISTING CEILING SYSTEM, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
- ③ IN HATCHED AREAS INSTALL GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REINSTALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. PAINT TO MATCH EXISTING

RCP NEW HATCH LEGEND

-  HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION



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CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES


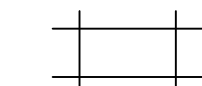
FIRST FLOOR
RCP
AREA E & M

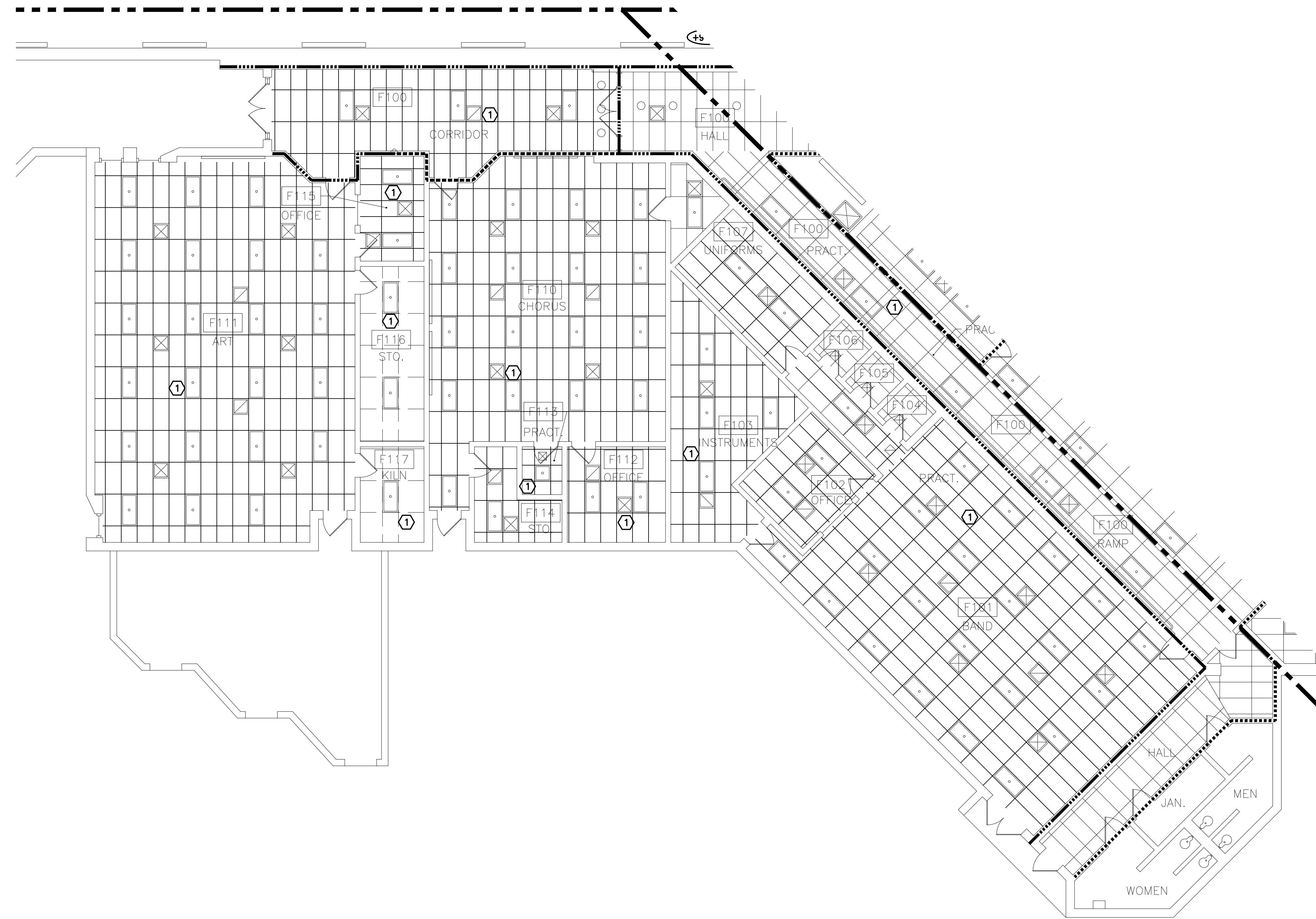
A102

RCP NEW WORK KEYNOTES

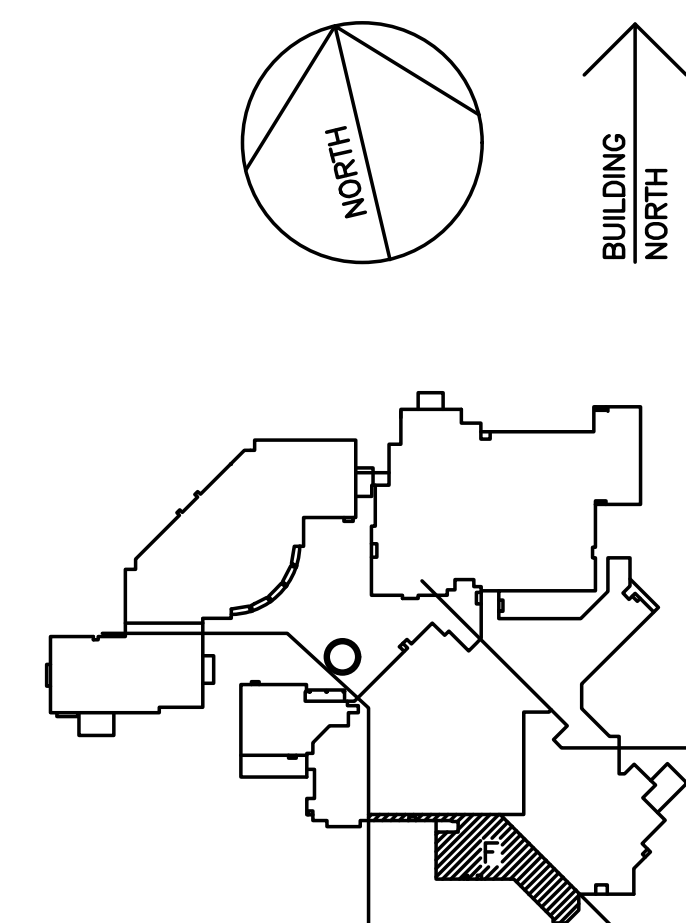
- ① INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-2) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ② INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-1) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ③ IN HATCHED AREAS REINSTALL EXISTING CEILING SYSTEM, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
- ④ IN HATCHED AREAS INSTALL GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REINSTALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. PAINT TO MATCH EXISTING

RCP NEW HATCH LEGEND

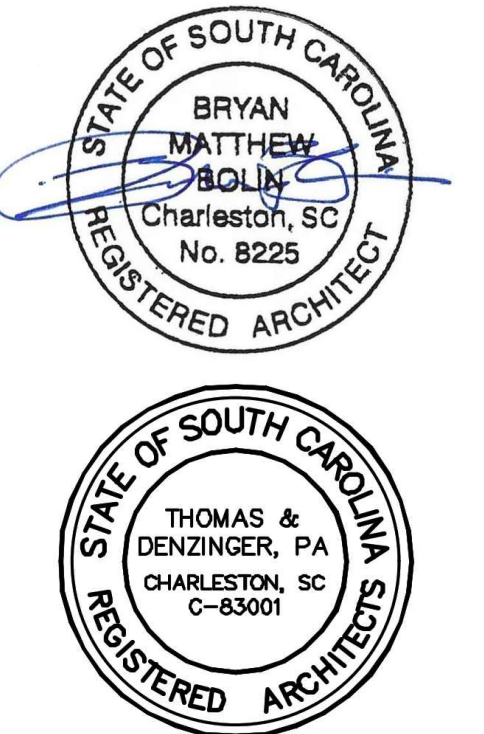
-  HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION



FIRST FLOOR RCP PLAN AREA F
SCALE: 1/8" = 1'-0"



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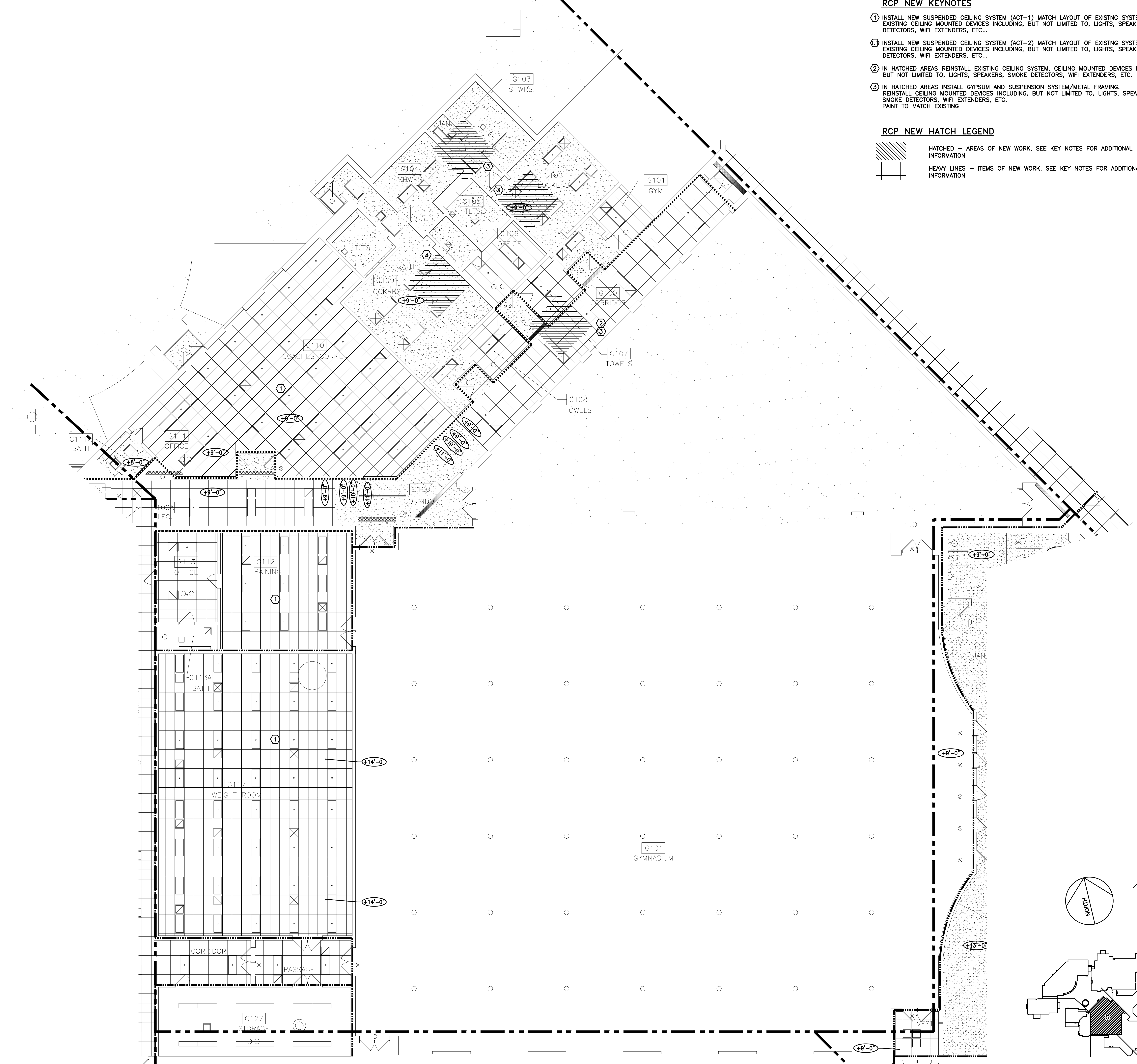
PROJ. NO. 21090002
DATE: 1/24/2022
DESIGNED BY: BMB
DRAWN BY: BMB
CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES

FIRST FLOOR
RCP
AREA F

A103



- RCP NEW KEYNOTES**
- 1 INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-1) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
 - 2 IN HATCHED AREAS REINSTALL EXISTING CEILING SYSTEM, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
 - 3 IN HATCHED AREAS INSTALL GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REINSTALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. PAINT TO MATCH EXISTING

- RCP NEW HATCH LEGEND**
- HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
 - HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION

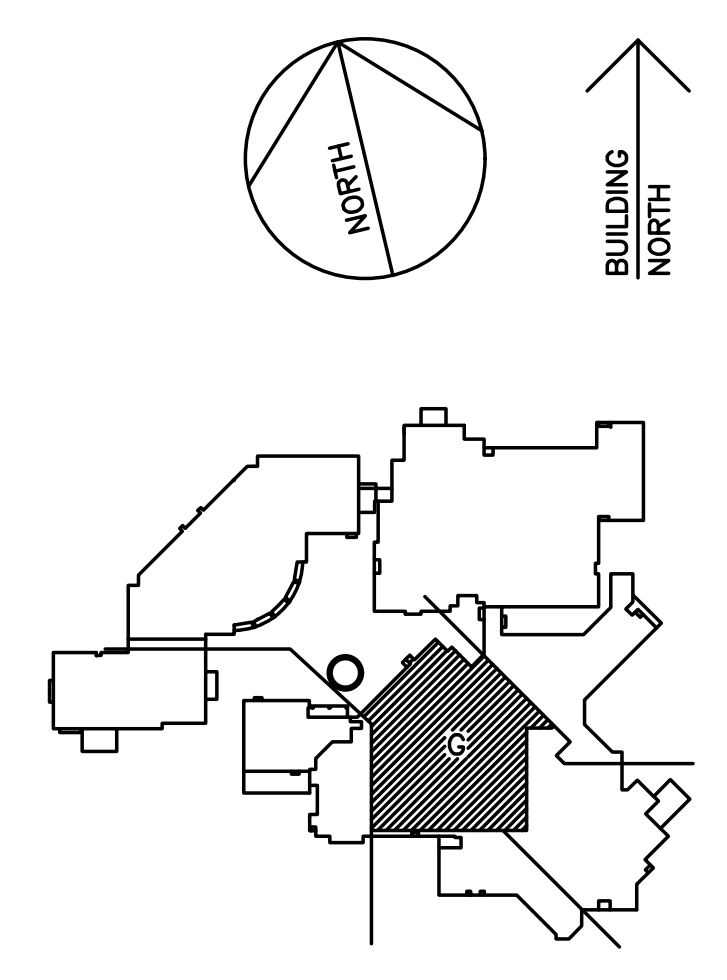
THOMAS & DENZINGER ARCHITECTS
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 201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
 DATE: 12/15/2021
 DESIGNED BY: BMB
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 CHECKED BY: BMB

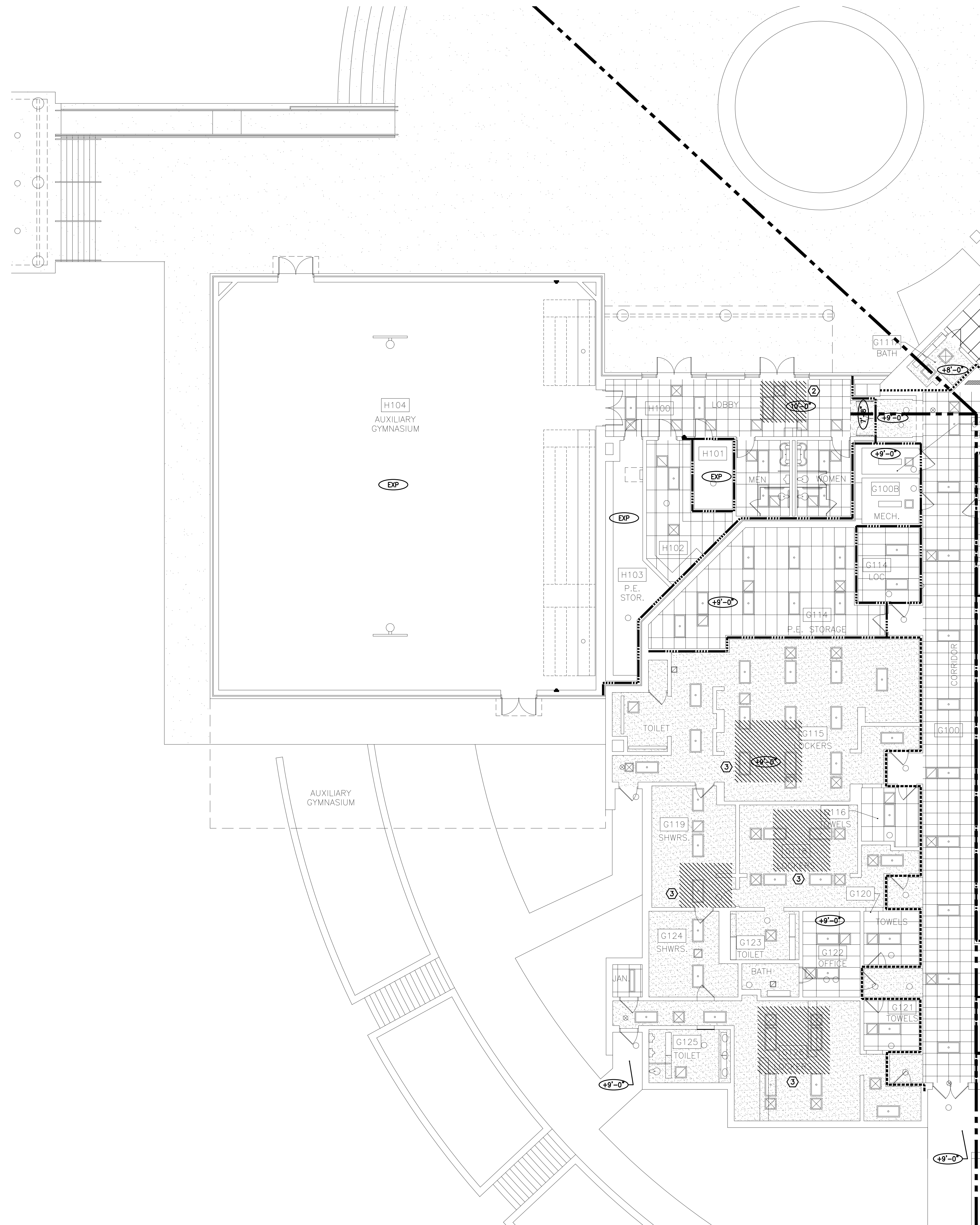
REVISIONS		
NO.	DATE	NOTES



FIRST FLOOR RCP PLAN AREA G
 SCALE: 1/8" = 1'-0"

FIRST FLOOR
 RCP
 AREA G

A104



FIRST FLOOR RCP PLAN AREA H
SCALE: 1/8" = 1'-0"

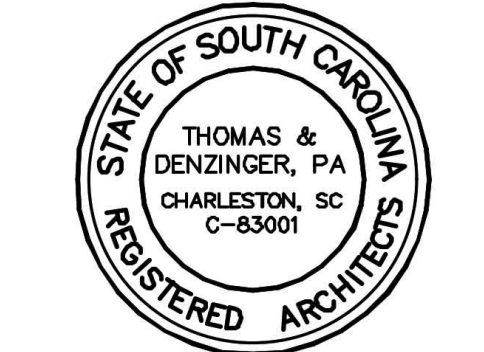
RCP NEW WORK KEYNOTES

- ① INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-2) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ② INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-1) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
- ③ IN HATCHED AREAS REINSTALL EXISTING CEILING SYSTEM, CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC.
- ④ IN HATCHED AREAS INSTALL GYPSUM AND SUSPENSION SYSTEM/METAL FRAMING. REINSTALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC. PAINT TO MATCH EXISTING

RCP NEW HATCH LEGEND

- HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
- HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION

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**AYNOR HIGH SCHOOL
HVAC Replacement**
201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 1/24/2022
DESIGNED BY: BMB
DRAWN BY: BMB
CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES


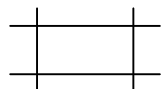
FIRST FLOOR
RCP
AREA H

A105

RCP NEW WORK KEYNOTES

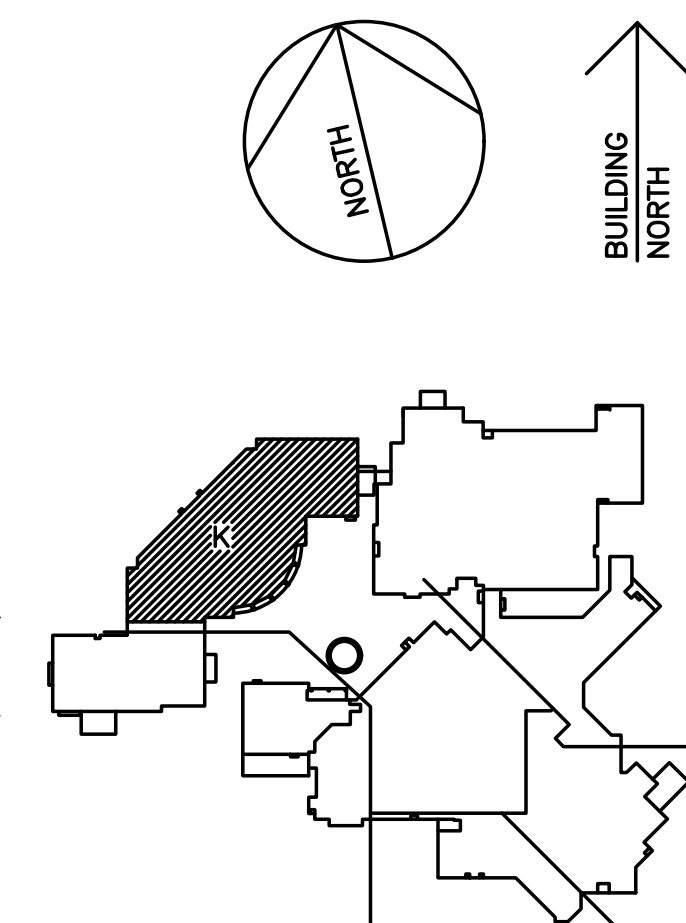
- ① INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-2) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
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RCP NEW HATCH LEGEND

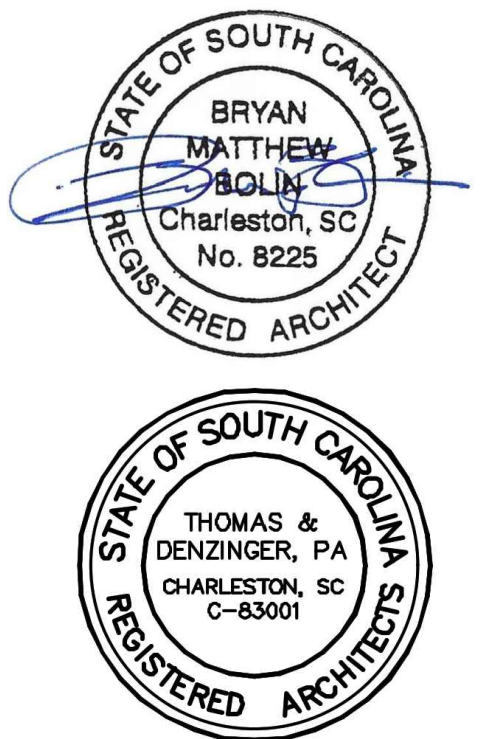
-  HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION



FIRST FLOOR RCP PLAN AREA K
SCALE: 1/8" = 1'-0"



THOMAS & DENZINGER ARCHITECTS
bryan@thomasanddenzinger.com



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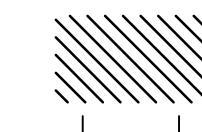
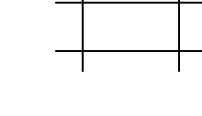
FIRST FLOOR
RCP
AREA K

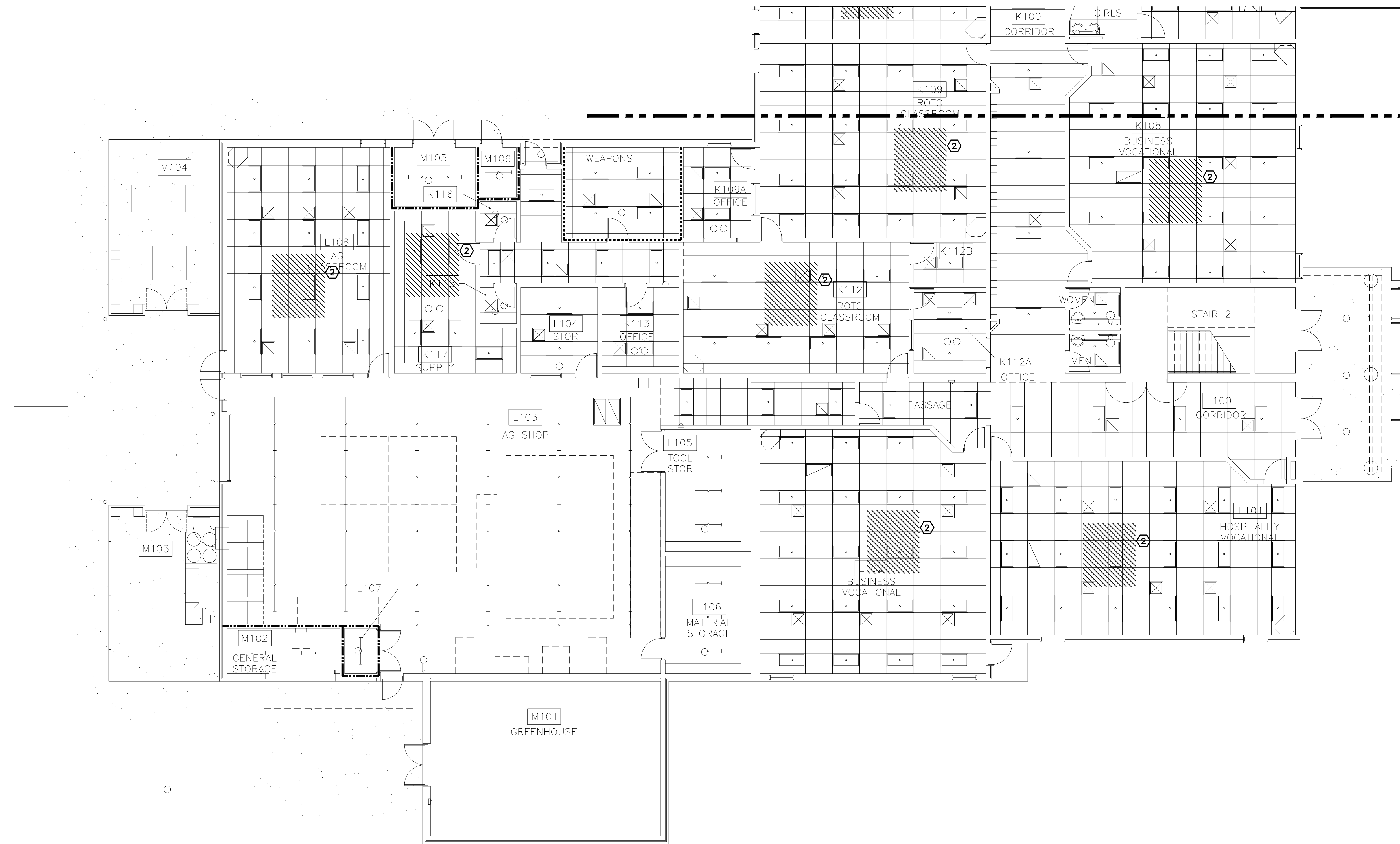
A106

RCP NEW WORK KEYNOTES

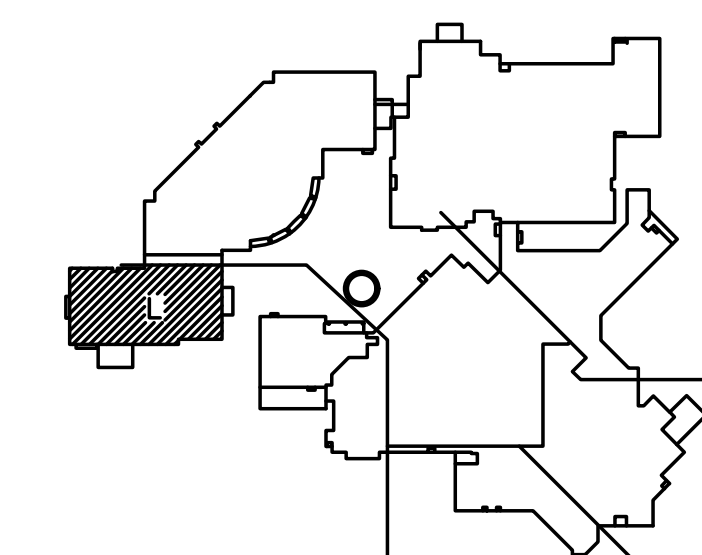
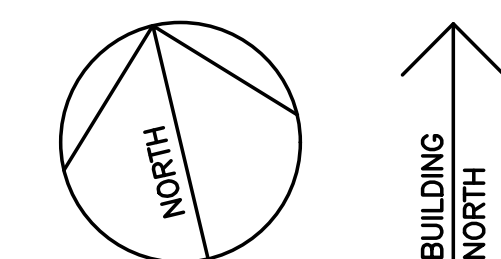
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RCP NEW HATCH LEGEND

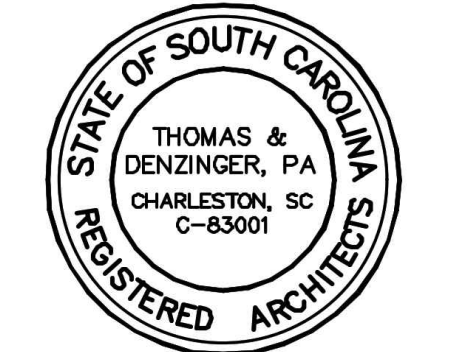
-  HATCHED - AREAS OF DEMOLITION OR REMOVAL WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  DASHED - ITEMS TO BE DEMOLISHED OR REMOVED, SEE KEY NOTES FOR ADDITIONAL INFORMATION



FIRST FLOOR RCP PLAN AREA L
SCALE: 1/8" = 1'-0"



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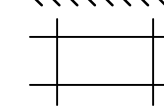
REVISIONS

NO.	DATE	NOTES

FIRST FLOOR
RCP
AREA L

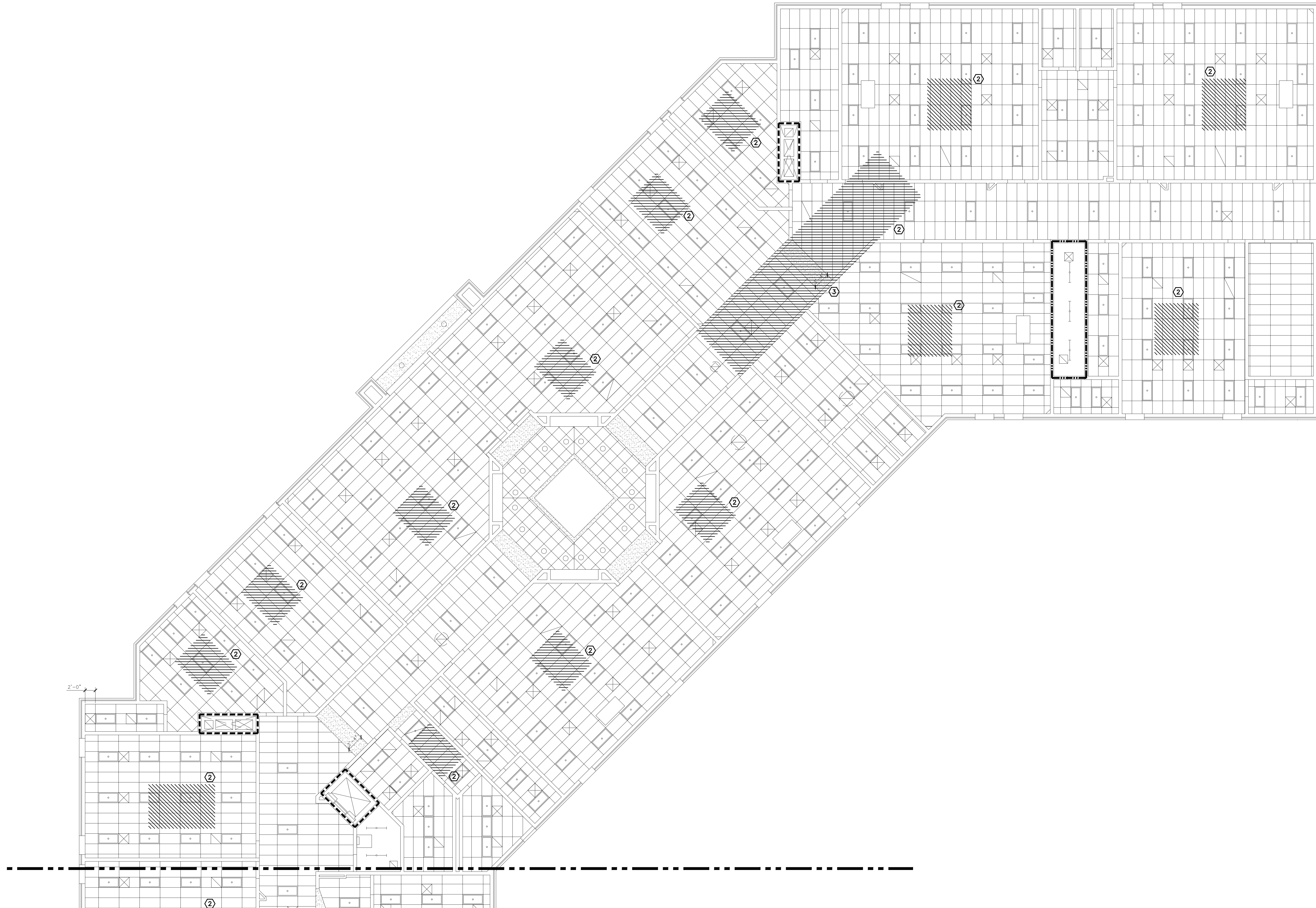
A107

RCP_NEW HATCH LEGEND

-  HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION

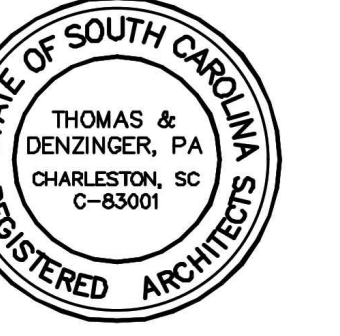
RCP_NEW KEYNOTES

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SECOND FLOOR RCP PLAN AREA J
SCALE: 1/8" = 1'-0"

THOMAS & DENZINGER ARCHITECTS
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**AYNOR HIGH SCHOOL
HVAC Replacement**

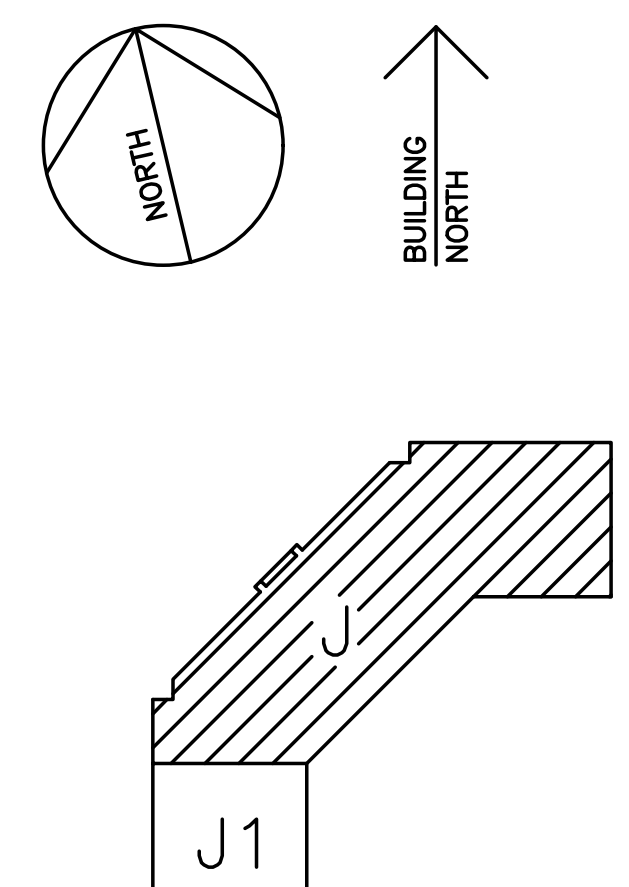
201 JORDANVILLE RD AYNOR, SC 29411

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REVISIONS


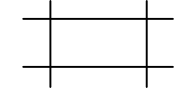
NO.	DATE	NOTES

**SECOND FLOOR
RCP
AREA J**



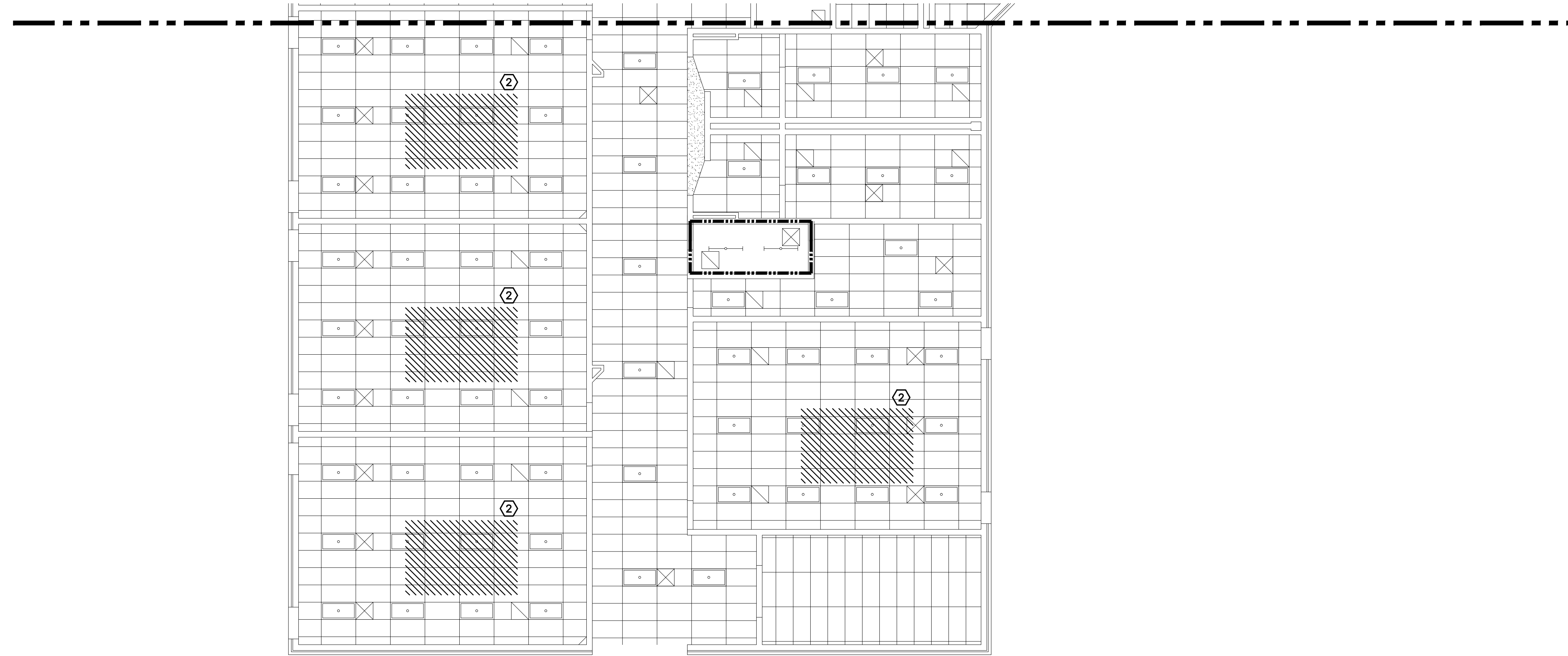
A108

RCP_NEW HATCH LEGEND

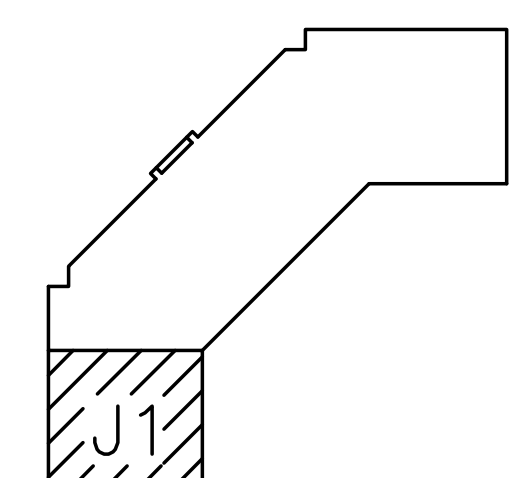
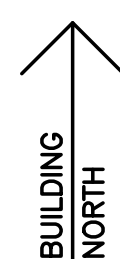
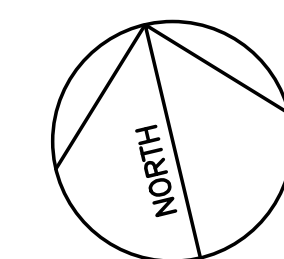
-  HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION

RCP_NEW KEYNOTES

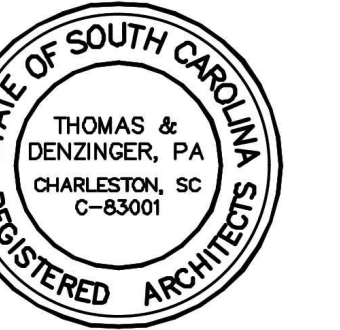
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SECOND FLOOR RCP PLAN AREA J1
SCALE: 1/8" = 1'-0"



Whole Building Systems, LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
29465
PH: (843) 637-3358
Wholebuildingsystems.com



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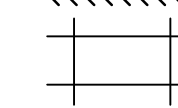
REVISIONS

NO.	DATE	NOTES

SECOND FLOOR
RCP
AREA J1

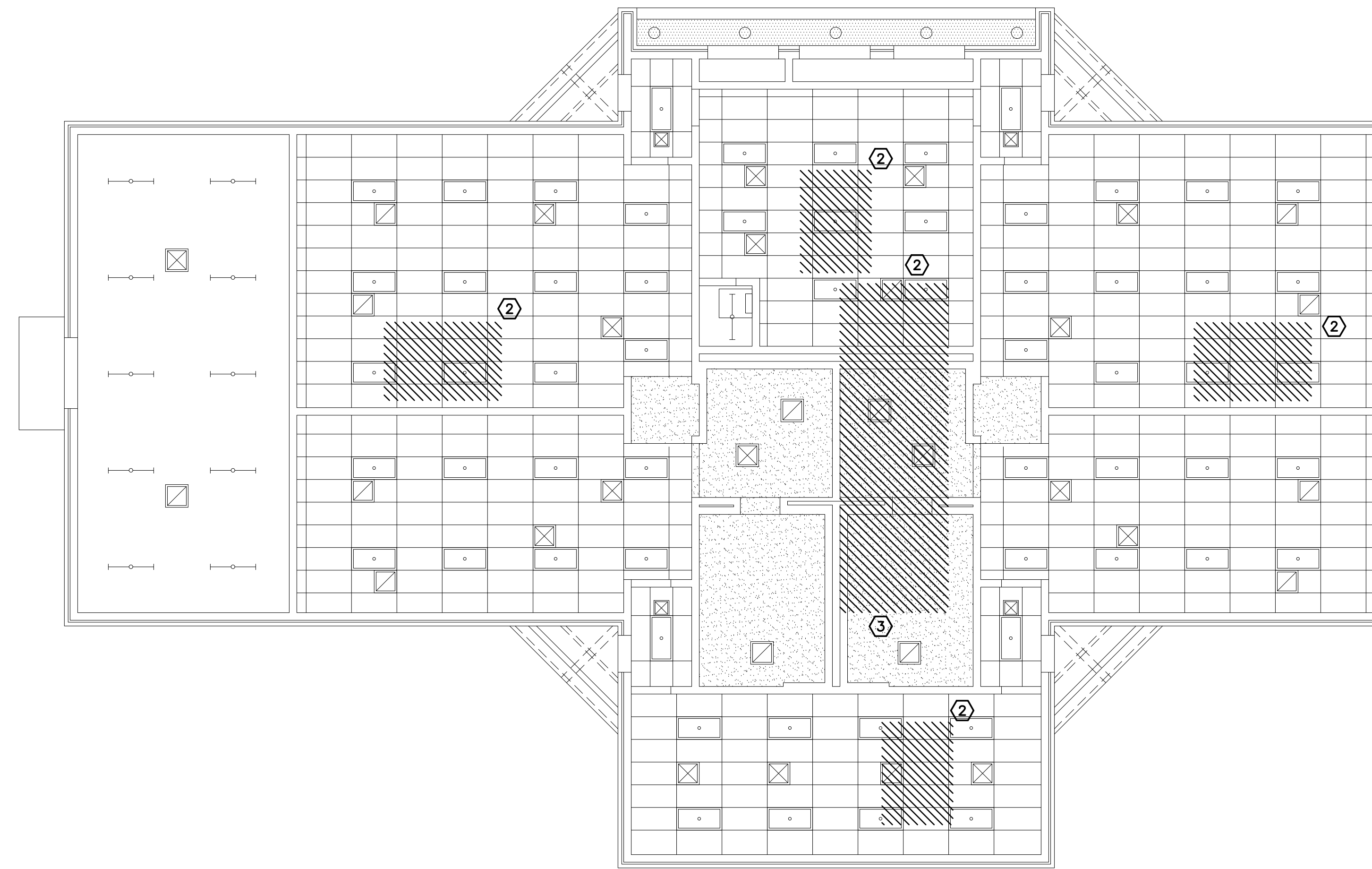
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RCP NEW HATCH LEGEND

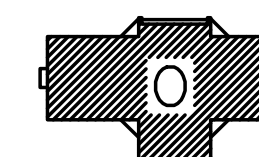
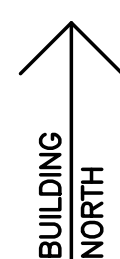
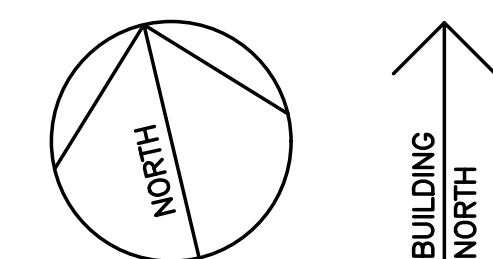
-  HATCHED - AREAS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION
-  HEAVY LINES - ITEMS OF NEW WORK, SEE KEY NOTES FOR ADDITIONAL INFORMATION

RCP NEW KEYNOTES

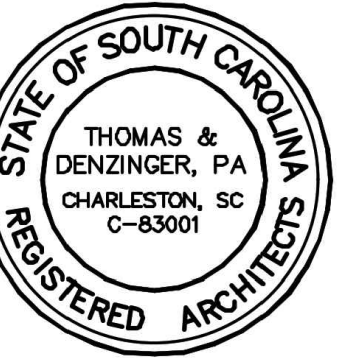
- ① INSTALL NEW SUSPENDED CEILING SYSTEM (ACT-2) MATCH LAYOUT OF EXISTING SYSTEM, REINSTALL EXISTING CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, LIGHTS, SPEAKERS, SMOKE DETECTORS, WIFI EXTENDERS, ETC...
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RCP PLAN AREA O
SCALE: 1/8" = 1'-0"



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**AYNOR HIGH SCHOOL
HVAC Replacement**

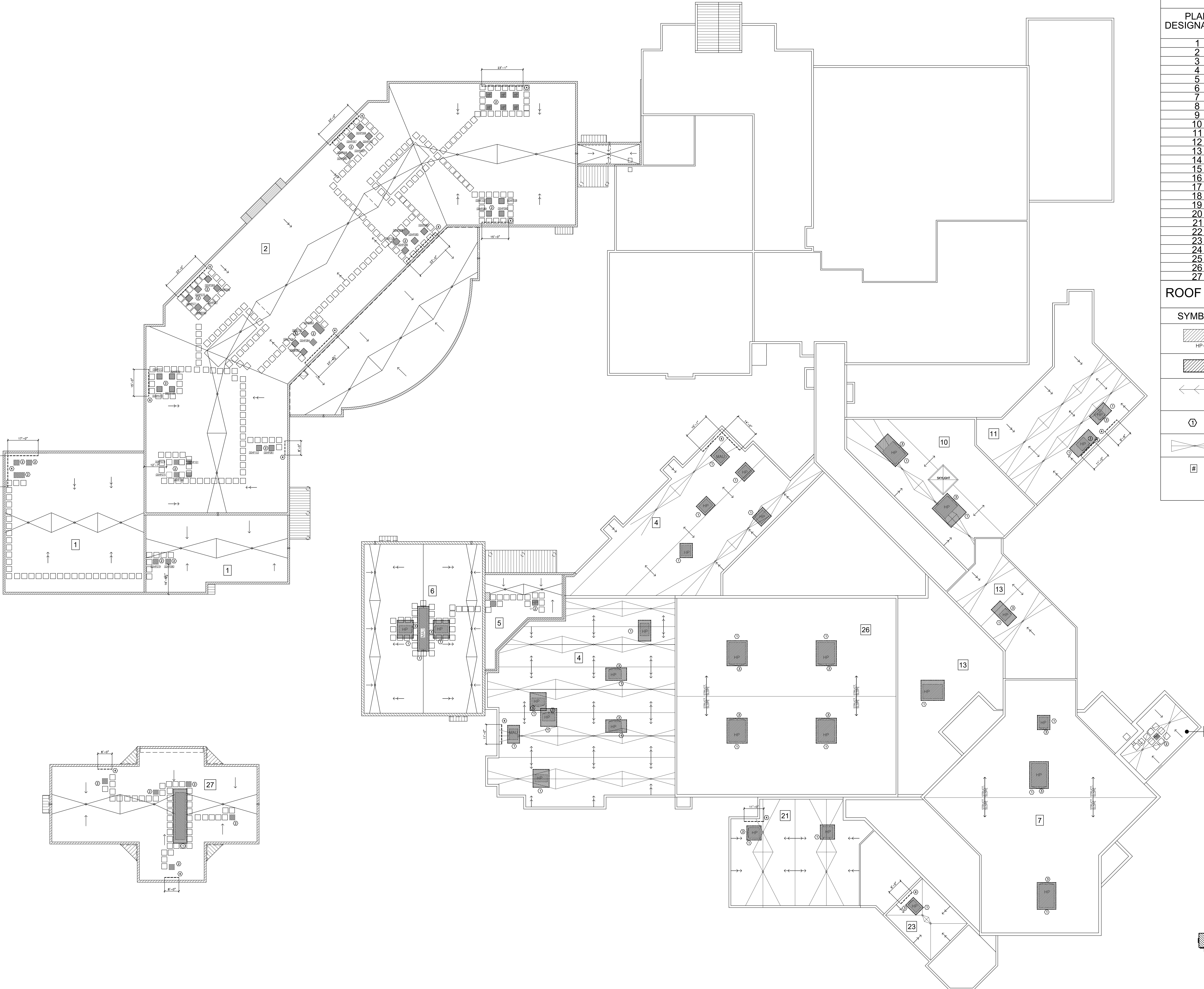
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REVISIONS		
NO.	DATE	NOTES

FIRST FLOOR
RCP
AREA O

A110



HVAC ROOF PLAN - NEW WORK
SCALE: 1" = 20'-0"

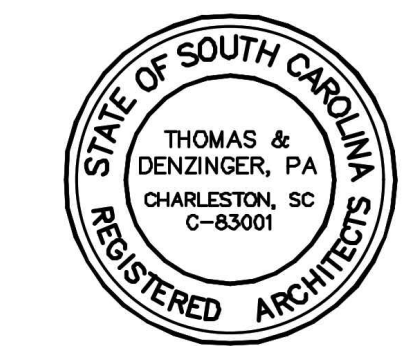
ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	SYSTEM TYPE
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
	ROOF TOP MECHANICAL UNIT WITH DESIGNATION. SEE MECH. DWGS FOR ADDITIONAL INFORMATION
	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE. SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER. SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS

THOMAS & DENZINGER ARCHITECTS
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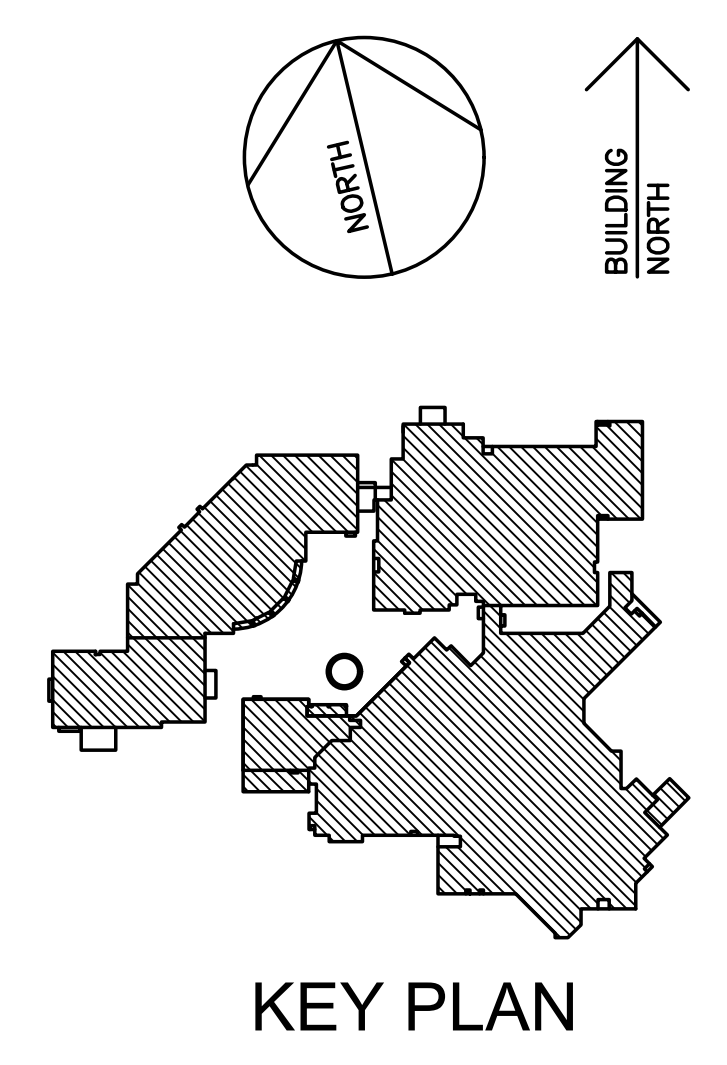
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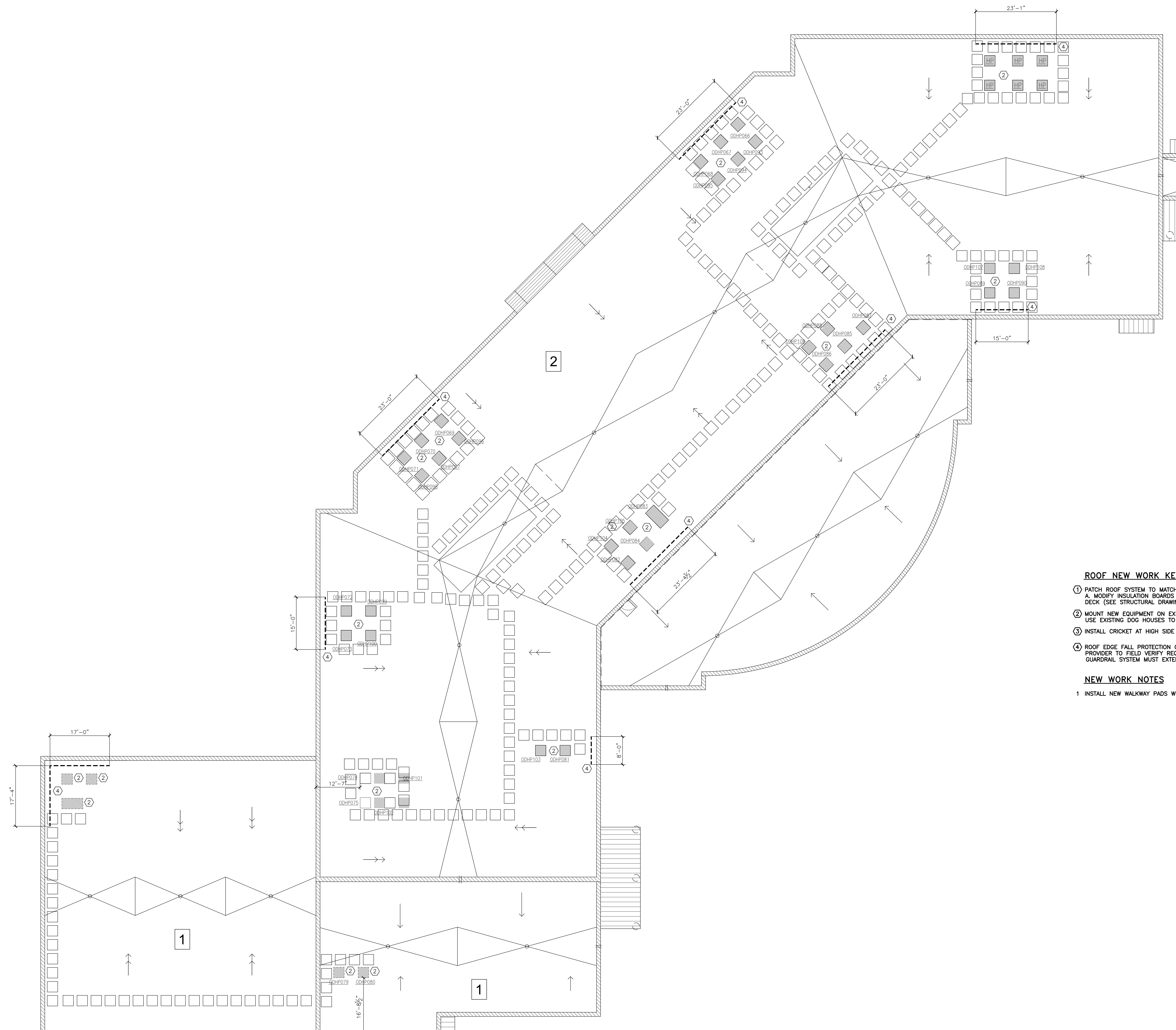
REVISIONS

NO.	DATE	NOTES

ROOF PLAN
NEW WORK

A111





ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	SYSTEM TYPE
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
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7	BUILT UP GRAVEL ROOF
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ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
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	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS
	ROOF EDGE GUARDRAIL PROTECTION SYSTEM, SEE KEY NOTE 4

- ROOF NEW WORK KEYNOTES**
- PATCH ROOF SYSTEM TO MATCH EXISTING SYSTEM
A. MODIFY INSULATION BOARDS AS NEEDED TO WORK AROUND NEW STEEL SUPPORTS INSTALLED ABOVE DECK (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION)
 - MOUNT NEW EQUIPMENT ON EXISTING EQUIPMENT RAILS
USE EXISTING DOG HOUSES TO ROUTE LINES AND POWER TO BELOW ROOF
 - INSTALL CRICKET AT HIGH SIDE OF NEW MECHANICAL CURBS
 - ROOF EDGE FALL PROTECTION GUARDRAIL SYSTEM, DIMENSIONS ON PLAN ARE APPROX. GUARDRAIL PROVIDER TO FIELD VERIFY REQUIRED DIMENSIONS IN SUBMITTAL. SEE DETAIL 1/A501 FOR ADDITIONAL INFO. GUARDRAIL SYSTEM MUST EXTEND 30" BEYOND EDGE OF EQUIPMENT WITHIN 10' OF ROOF EDGE.

- NEW WORK NOTES**
- INSTALL NEW WALKWAY PADS WHERE EXISTING WERE REMOVED.

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 bryan@thomasanddenzinger.com

STATE OF SOUTH CAROLINA
 BRYAN MATTHEW SOLIN
 Charleston, SC
 No. 8225
 REGISTERED ARCHITECT

STATE OF SOUTH CAROLINA
 THOMAS & DENZINGER, P.A.
 CHARLESTON, SC
 C-83001
 REGISTERED ARCHITECTS

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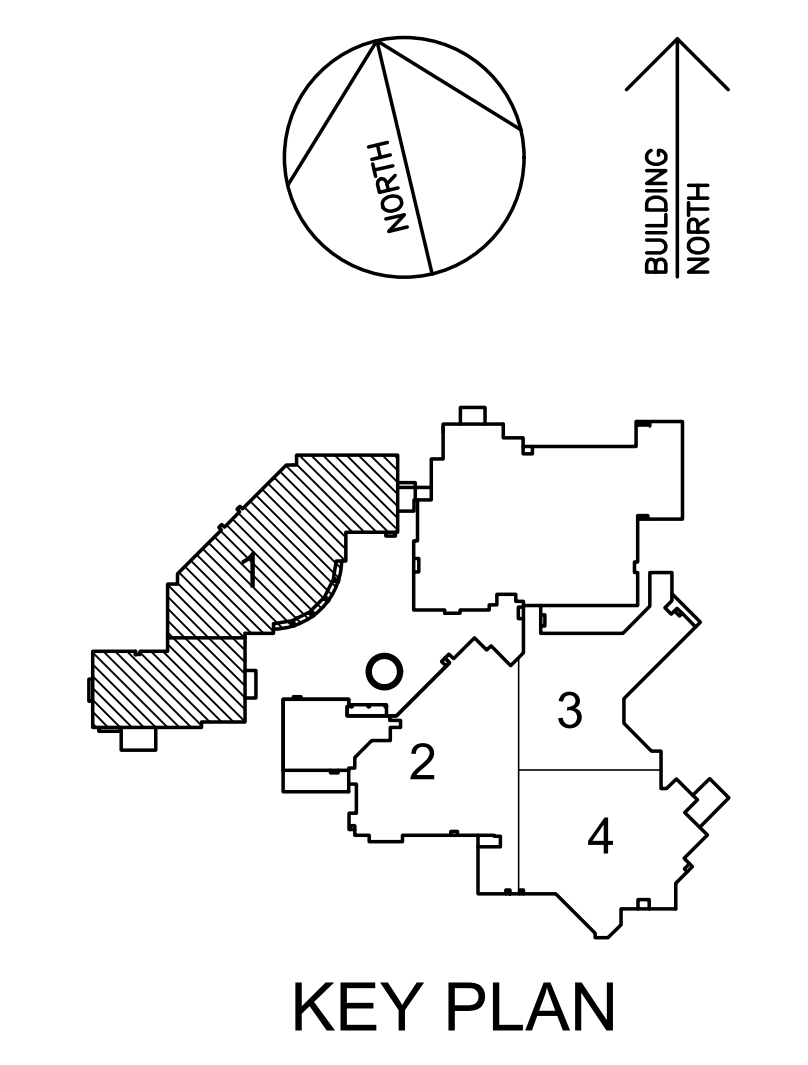
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REVISIONS

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ENLARGED ROOF PLAN
 AREA 1
 NEW WORK

A112



ENLARGED ROOF PLAN AREA 1 - NEW WORK
 SCALE: 1" = 3/32"

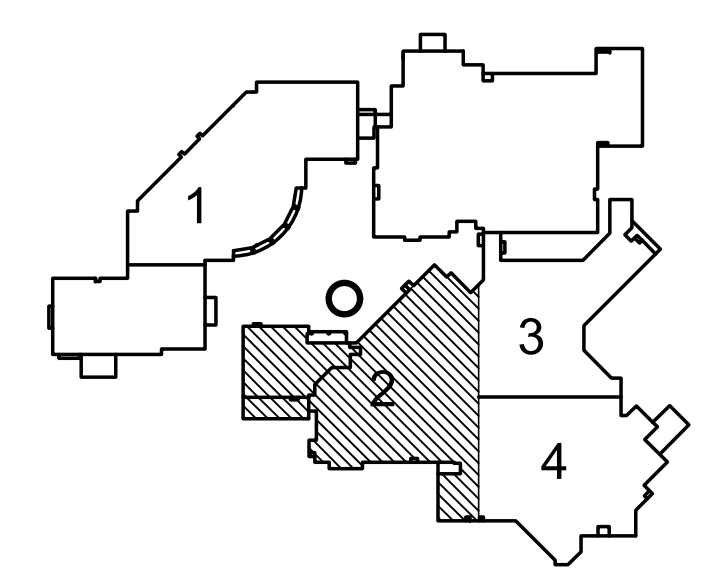
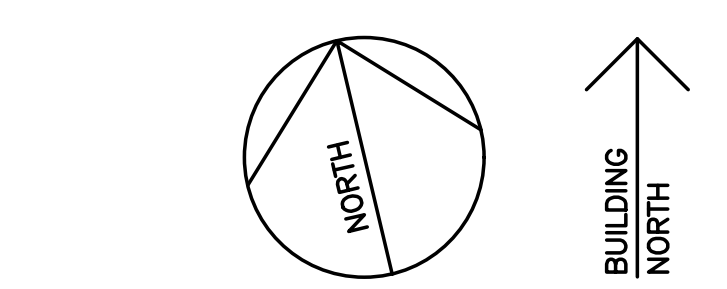
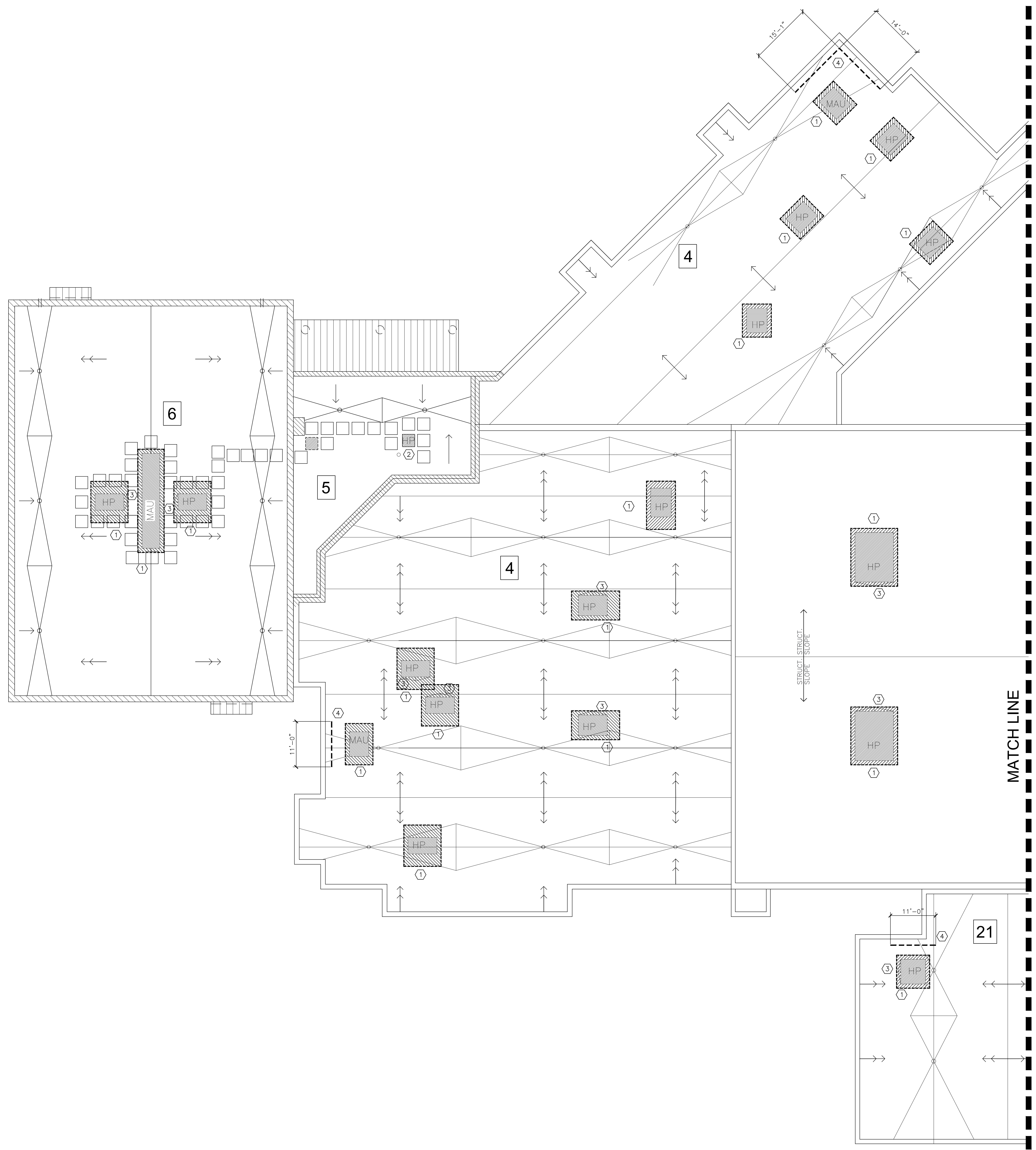
ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	SYSTEM TYPE
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2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
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ROOF REFERENCE SYMBOLS

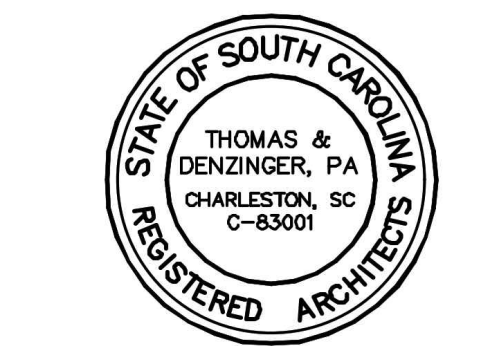
SYMBOL	DESCRIPTION
	ROOF TOP MECHANICAL UNIT WITH DESIGNATION. SEE MECH. DWGS FOR ADDITIONAL INFORMATION
	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS
	ROOF EDGE GUARDRAIL PROTECTION SYSTEM, SEE KEY NOTE 4

- ROOF NEW WORK KEYNOTES**
- PATCH ROOF SYSTEM TO MATCH EXISTING SYSTEM
A. MODIFY INSULATION BOARDS AS NEEDED TO WORK AROUND NEW STEEL SUPPORTS INSTALLED ABOVE DECK (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION)
 - MOUNT NEW EQUIPMENT ON EXISTING EQUIPMENT RAILS
USE EXISTING DOG HOUSES TO ROUTE LINES AND POWER TO BELOW ROOF
 - INSTALL CRICKET AT HIGH SIDE OF NEW MECHANICAL CURBS
 - ROOF EDGE FALL PROTECTION GUARDRAIL SYSTEM, DIMENSIONS ON PLAN ARE APPROX. GUARDRAIL PROVIDER TO FIELD VERIFY REQUIRED DIMENSIONS IN SUBMITTAL. SEE DETAIL 1/A501 FOR ADDITIONAL INFO. GUARDRAIL SYSTEM MUST EXTEND 30" BEYOND EDGE OF EQUIPMENT WITHIN 10' OF ROOF EDGE.
- NEW WORK NOTES**
- INSTALL NEW WALKWAY PADS WHERE EXISTING WERE REMOVED.



ENLARGED ROOF PLAN AREA 2 - NEW WORK
SCALE: 1" = 3/32"

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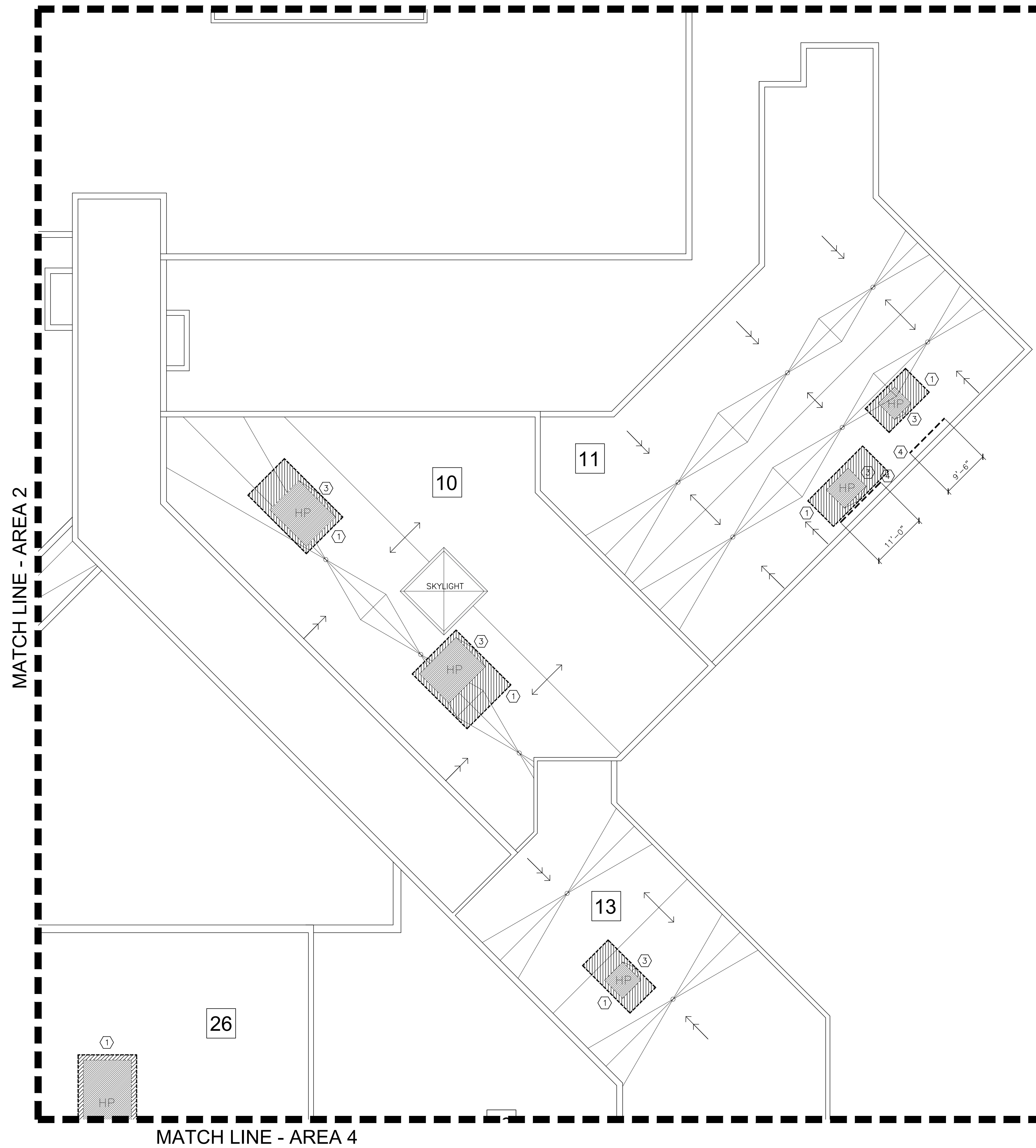
PROJ. NO. 21090002
DATE: 1/24/2022
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CHECKED BY: BMB

REVISIONS

NO.	DATE	NOTES

ENLARGED ROOF PLAN
AREA 2
NEW WORK

A113



ENLARGED ROOF PLAN AREA 3 - NEW WORK
SCALE: 1" = 3/32"

ROOF SYSTEMS SCHEDULE

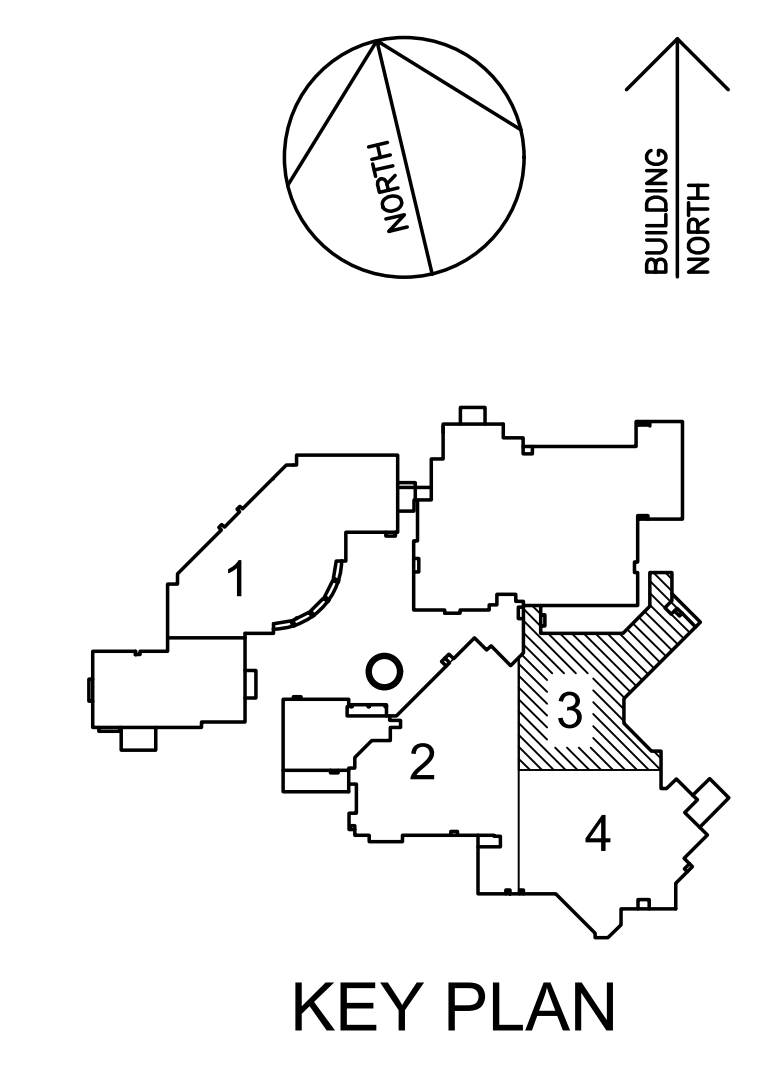
PLAN DESIGNATION	SYSTEM TYPE
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

ROOF REFERENCE SYMBOLS

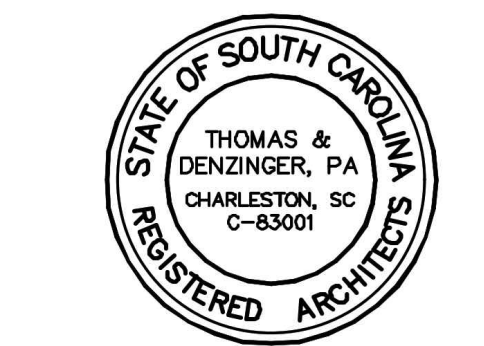
SYMBOL	DESCRIPTION
HP-61	ROOF TOP MECHANICAL UNIT WITH DESIGNATION. SEE MECH. DWGS FOR ADDITIONAL INFORMATION
[Hatched Box]	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
[Arrow]	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
①	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
[Drain Symbol]	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
#	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS
[Dashed Line]	ROOF EDGE GUARDRAIL PROTECTION SYSTEM, SEE KEY NOTE 4

- ROOF NEW WORK KEYNOTES**
- PATCH ROOF SYSTEM TO MATCH EXISTING SYSTEM
A. MODIFY INSULATION BOARDS AS NEEDED TO WORK AROUND NEW STEEL SUPPORTS INSTALLED ABOVE DECK (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION)
 - MOUNT NEW EQUIPMENT ON EXISTING EQUIPMENT RAILS
USE EXISTING DOG HOUSES TO ROUTE LINES AND POWER TO BELOW ROOF
 - INSTALL CRICKET AT HIGH SIDE OF NEW MECHANICAL CURBS
 - ROOF EDGE FALL PROTECTION GUARDRAIL SYSTEM, DIMENSIONS ON PLAN ARE APPROX. GUARDRAIL PROVIDER TO FIELD VERIFY REQUIRED DIMENSIONS IN SUBMITTAL. SEE DETAIL 1/A501 FOR ADDITIONAL INFO. GUARDRAIL SYSTEM MUST EXTEND 30" BEYOND EDGE OF EQUIPMENT WITHIN 10' OF ROOF EDGE.

- NEW WORK NOTES**
- INSTALL NEW WALKWAY PADS WHERE EXISTING WERE REMOVED.



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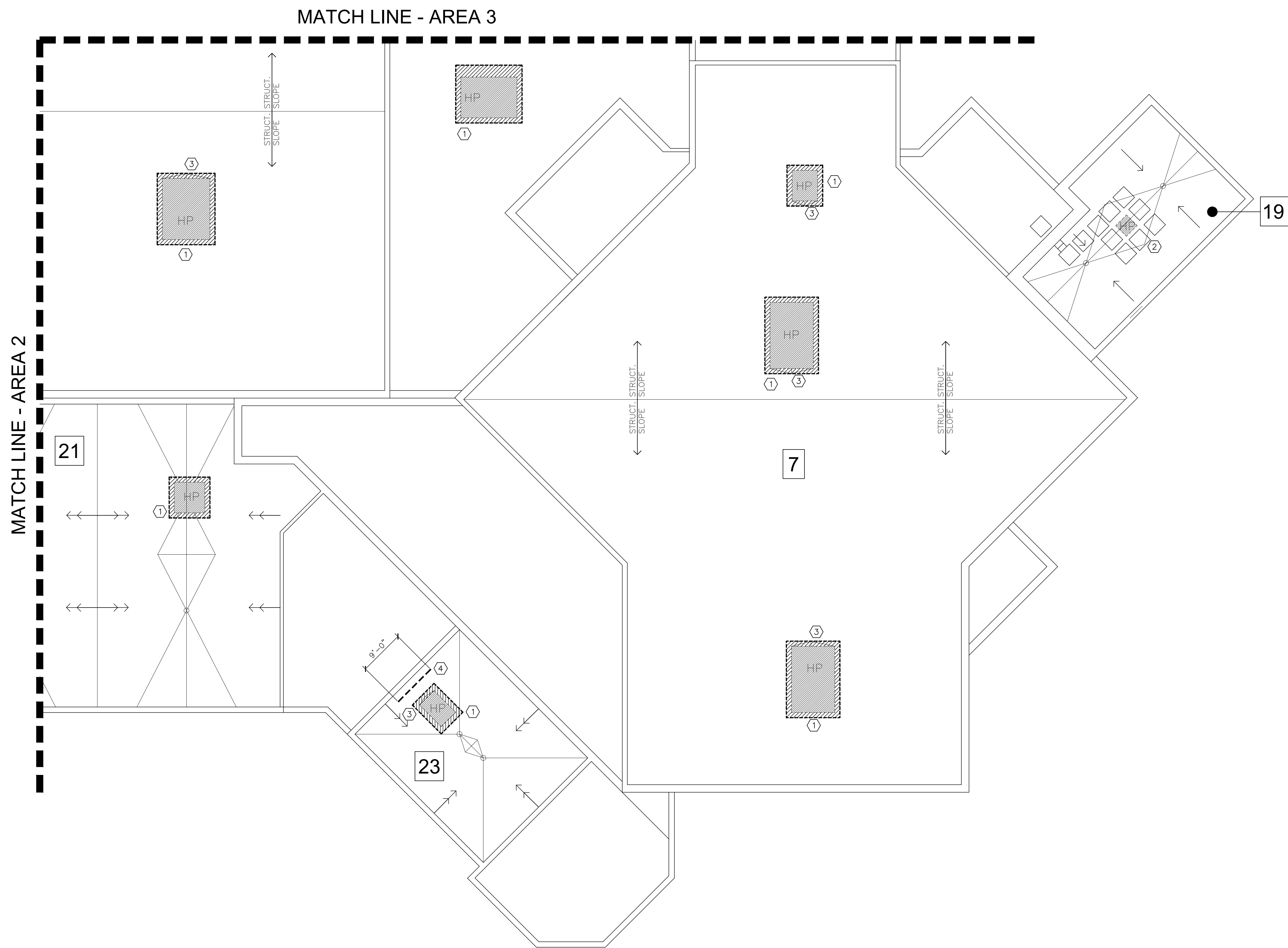
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DATE: 1/24/2022
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DRAWN BY: BMB
CHECKED BY: BMB

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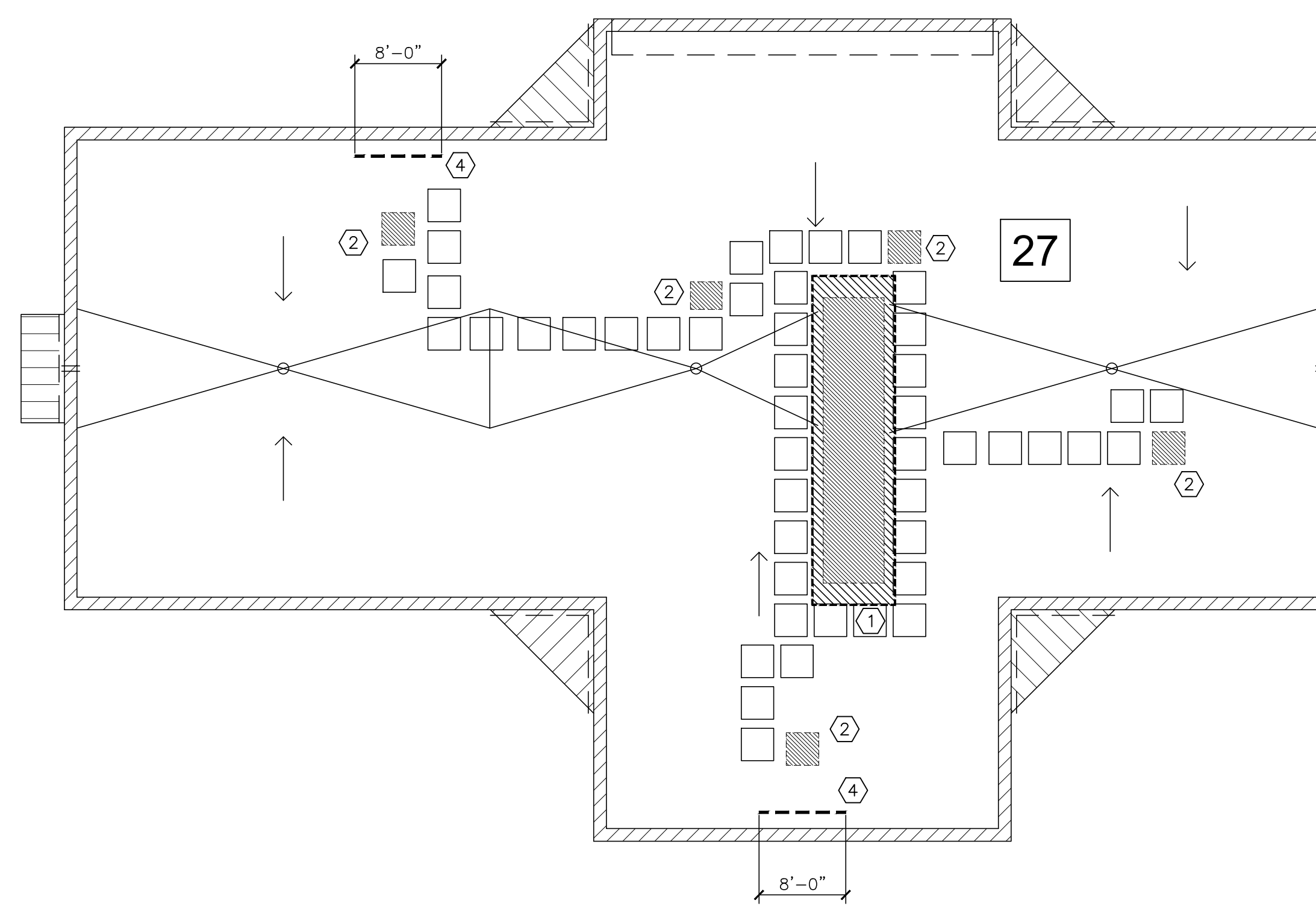
NO.	DATE	NOTES

ENLARGED ROOF PLAN
AREA 3
NEW WORK

A114



ENLARGED ROOF PLAN AREA 4 -- NEW WORK
SCALE: 1" = 3/32"



ENLARGED ROOF PLAN FIELD HOUSE -- NEW WORK
SCALE: 1" = 3/32"

ROOF SYSTEMS SCHEDULE

PLAN DESIGNATION	SYSTEM TYPE
1	MODIFIED BITUMEN ROOF MEMBRANE
2	MODIFIED BITUMEN ROOF MEMBRANE
3	MODIFIED BITUMEN ROOF MEMBRANE
4	BUILT UP GRAVEL ROOF
5	BUILT UP GRAVEL ROOF
6	BUILT UP GRAVEL ROOF
7	BUILT UP GRAVEL ROOF
8	MODIFIED BITUMEN ROOF MEMBRANE
9	BUILT UP GRAVEL ROOF
10	MODIFIED BITUMEN ROOF MEMBRANE
11	MODIFIED BITUMEN ROOF MEMBRANE
12	MODIFIED BITUMEN ROOF MEMBRANE
13	BUILT UP GRAVEL ROOF
14	BUILT UP GRAVEL ROOF
15	BUILT UP GRAVEL ROOF
16	BUILT UP GRAVEL ROOF
17	MODIFIED BITUMEN ROOF MEMBRANE
18	BUILT UP GRAVEL ROOF
19	MODIFIED BITUMEN ROOF MEMBRANE
20	BUILT UP GRAVEL ROOF
21	MODIFIED BITUMEN ROOF MEMBRANE
22	BUILT UP GRAVEL ROOF
23	MODIFIED BITUMEN ROOF MEMBRANE
24	MODIFIED BITUMEN ROOF MEMBRANE
25	MODIFIED BITUMEN ROOF MEMBRANE
26	MODIFIED BITUMEN ROOF MEMBRANE
27	MODIFIED BITUMEN ROOF MEMBRANE

ROOF REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
	ROOF TOP MECHANICAL UNIT WITH DESIGNATION. SEE MECH. DWGS FOR ADDITIONAL INFORMATION
	APPROXIMATE AREA OF ROOF SYSTEM TO BE REMOVED
	DIRECTION OF ROOF SLOPE, TAPERED INSULATION UNLESS NOTED OTHERWISE
	ROOF WORK KEYNOTE, SEE KEYNOTED ON THIS SHEET
	ROOF DRAIN AND TAPERED INSULATION TO DRAIN
	ROOF AREA DESIGNATION NUMBER, SEE ROOD SYSTEM SCHEDULE FOR INFORMATION ON ROOF AREAS
	ROOF EDGE GUARDRAIL PROTECTION SYSTEM, SEE KEY NOTE 4

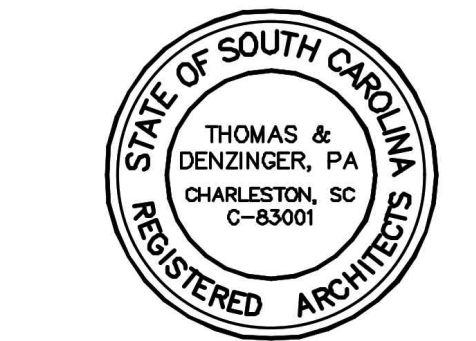
ROOF NEW WORK KEYNOTES

- ① PATCH ROOF SYSTEM TO MATCH EXISTING SYSTEM
A. MODIFY INSULATION BOARDS AS NEEDED TO WORK AROUND NEW STEEL SUPPORTS INSTALLED ABOVE DECK (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION)
- ② MOUNT NEW EQUIPMENT ON EXISTING EQUIPMENT RAILS
USE EXISTING DOG HOUSES TO ROUTE LINES AND POWER TO BELOW ROOF
- ③ INSTALL CRICKET AT HIGH SIDE OF NEW MECHANICAL CURBS
- ④ ROOF EDGE FALL PROTECTION GUARDRAIL SYSTEM, DIMENSIONS ON PLAN ARE APPROX. GUARDRAIL PROVIDER TO FIELD VERIFY REQUIRED DIMENSIONS IN SUBMITTAL. SEE DETAIL 1/A501 FOR ADDITIONAL INFO. GUARDRAIL SYSTEM MUST EXTEND 30" BEYOND EDGE OF EQUIPMENT WITHIN 10' OF ROOF EDGE.

NEW WORK NOTES

- 1 INSTALL NEW WALKWAY PADS WHERE EXISTING WERE REMOVED.

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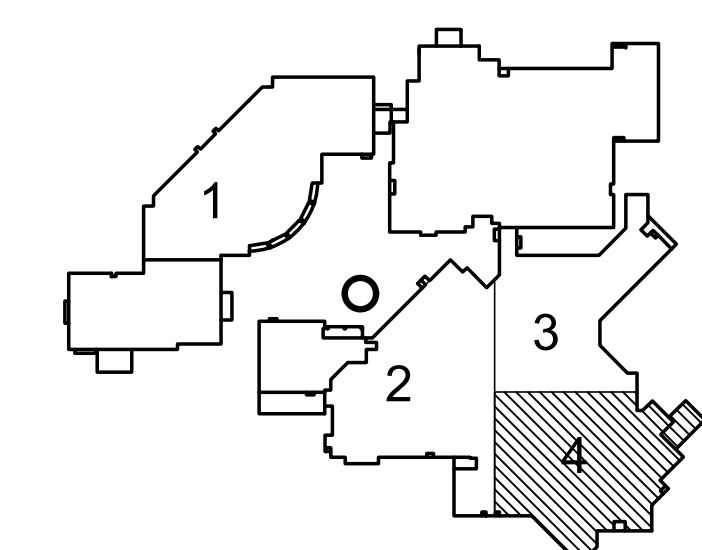
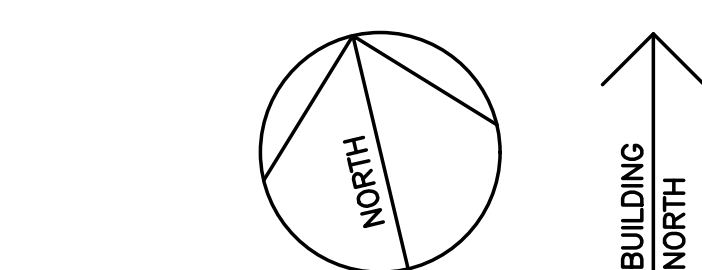
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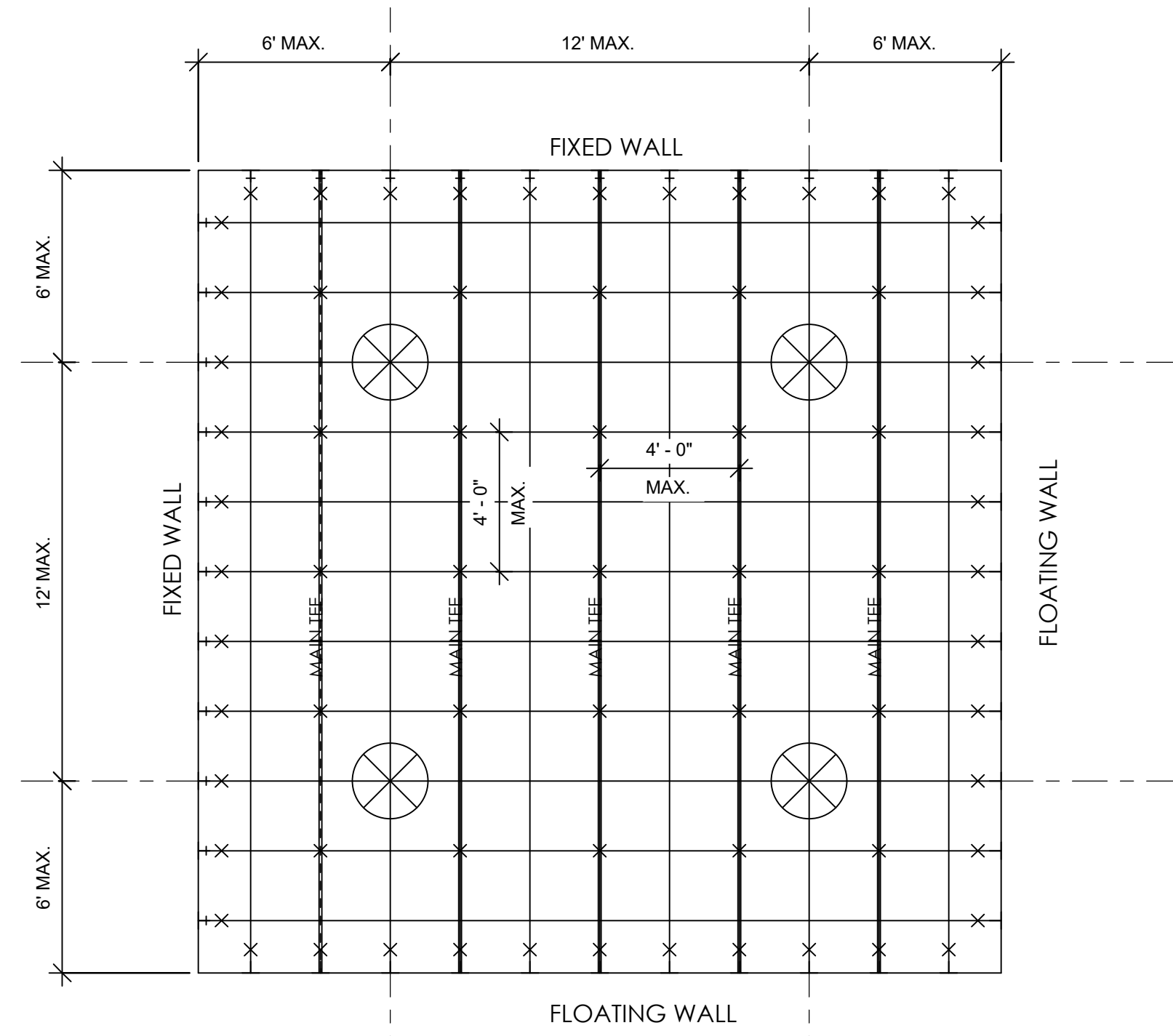
NO.	DATE	NOTES



KEY PLAN

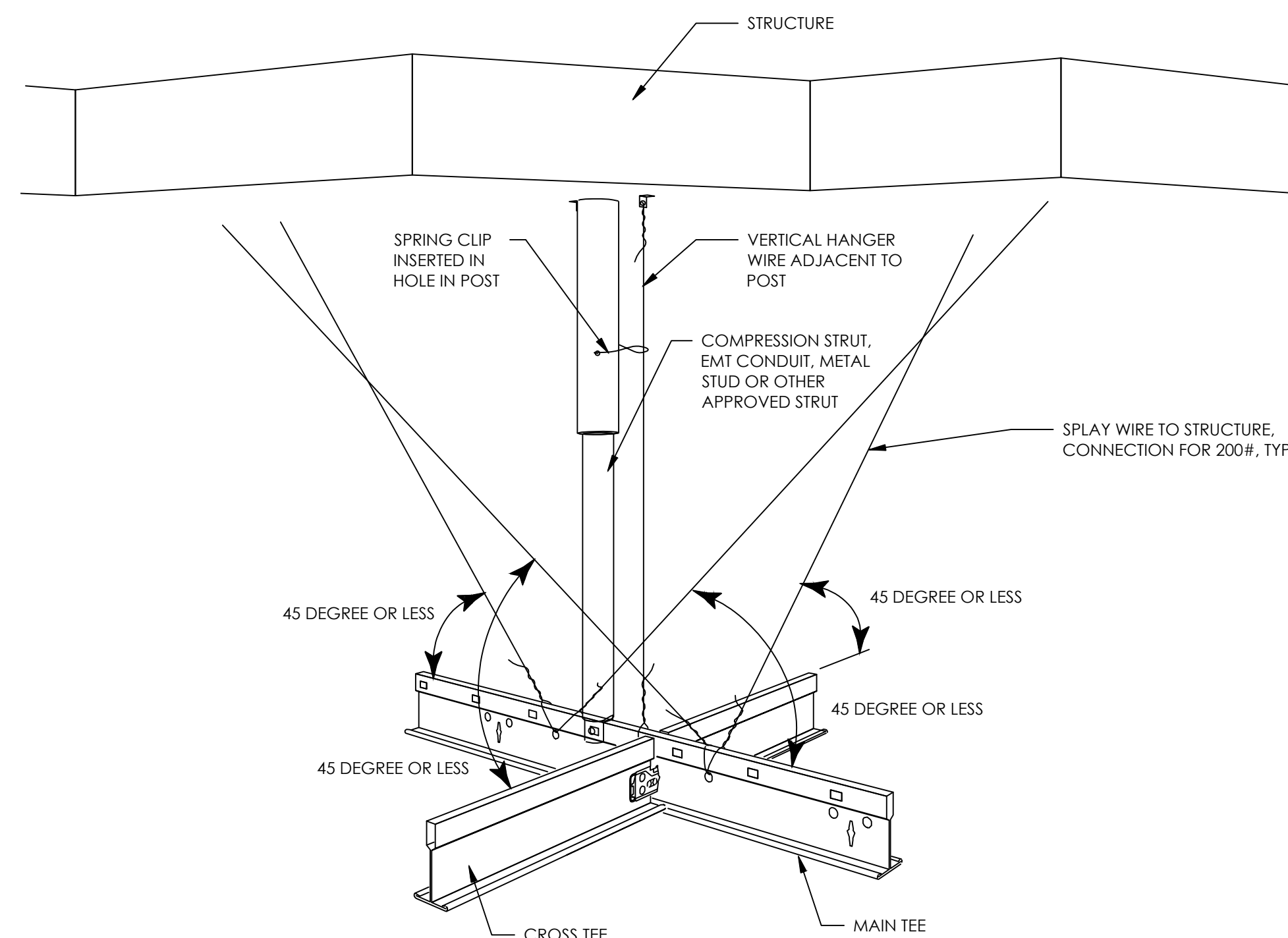
ENLARGED ROOF PLAN
AREA 4
NEW WORK

A115



ACT DIAGRAM - SYMBOL LEGEND
 X 12 GAUGE HANGER WIRE
 + SEISMIC CLIP - FLOATING CONDITION
 ⊕ SEISMIC CLIP - FIXED CONDITION
 ⊗ SEISMIC LATERAL BRACE - PROVIDE IF CEILING AREA IS 1000 SF OR GREATER

ACT - GRID PLAN DIAGRAM - SEISMIC CAT. D-F



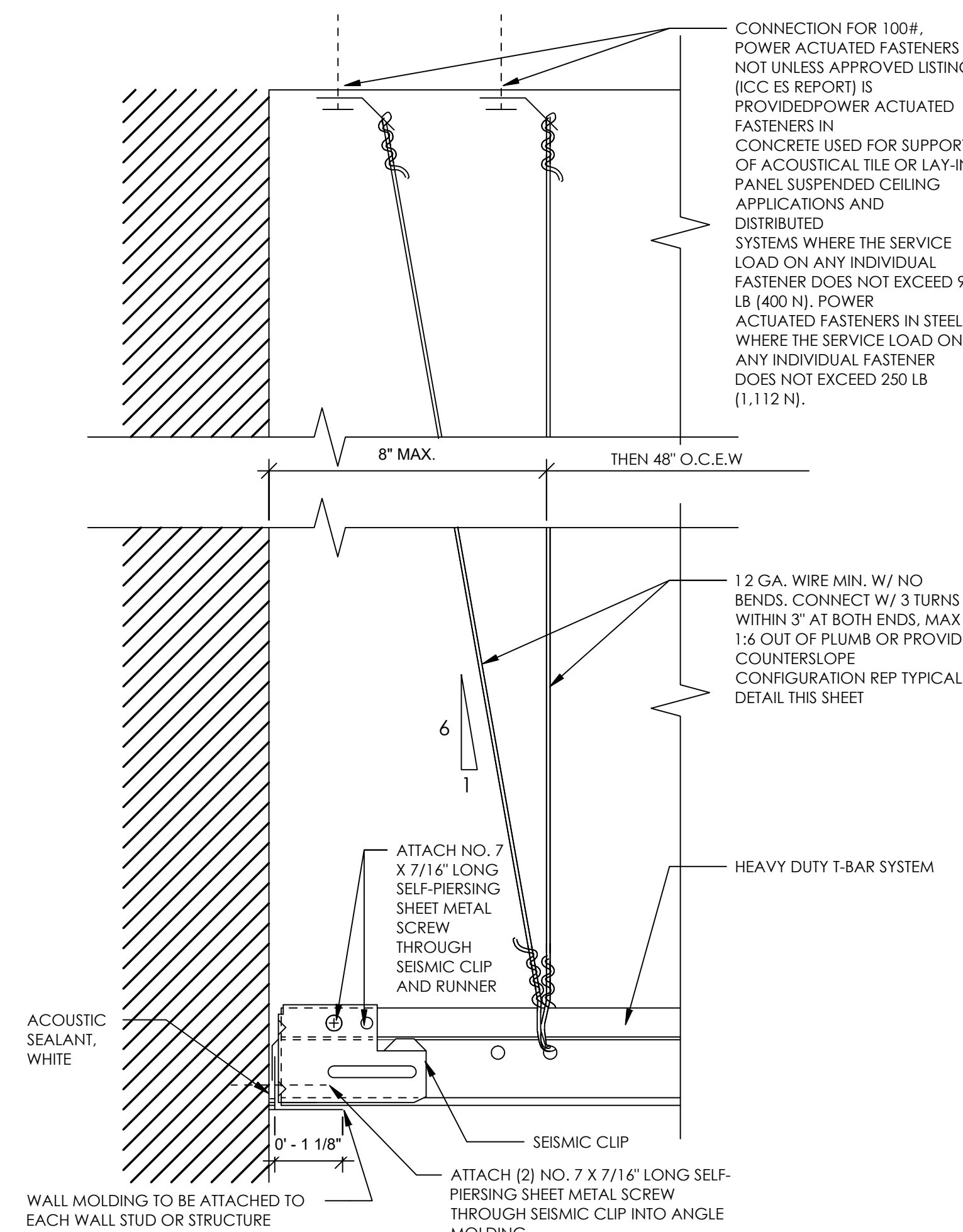
ACT - LATERAL BRACE DETAIL

ALTERNATE APP GUIDE - IBC CATEGORY D, E, F

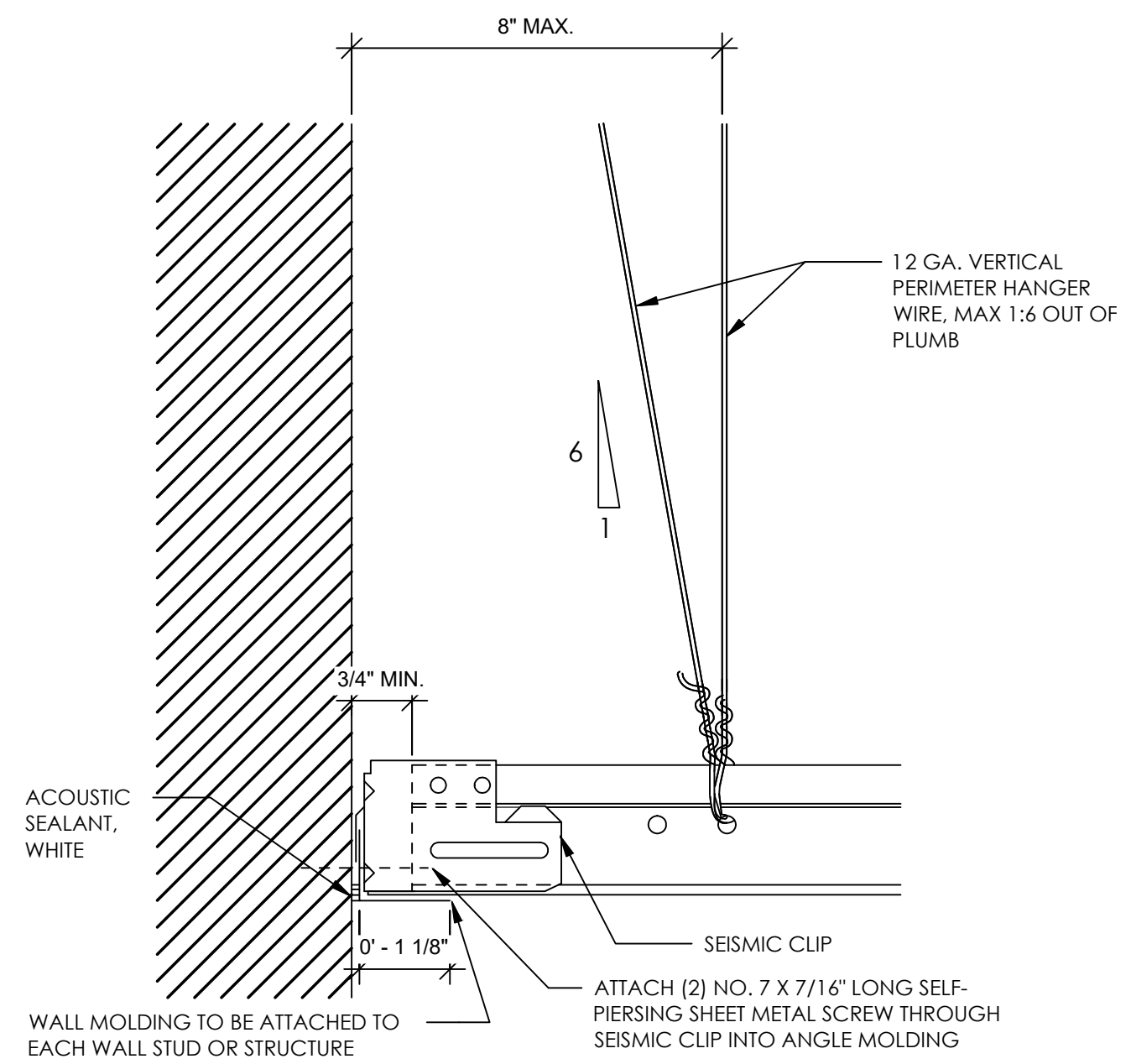
THE FOLLOWING ARE ALL THE IBC CATEGORY D, E, F CODE REQUIREMENTS FOR LAY-IN ACOUSTICAL PANELS AND DIRECT-HANG ACOUSTICAL TILES.

BASIC CONNECTIONS, PERIMETER, AND LATERAL SPLAY BRACING	REQUIREMENTS
MINIMUM INTERSECTION STRENGTH LIMITS @ MT/CT	150 LBS
VERTICAL HANGER WIRE 12-GAUGE @ 4' O.C.	REQUIRED
CONNECTION DEVICE FROM VERTICAL WIRE TO THE STRUCTURE ABOVE MUST SUSTAIN MIN. 100 LBS.	REQUIRED
MAIN TEE CLASSIFICATIONS	HEAVY DUTY
1/8\"/>	

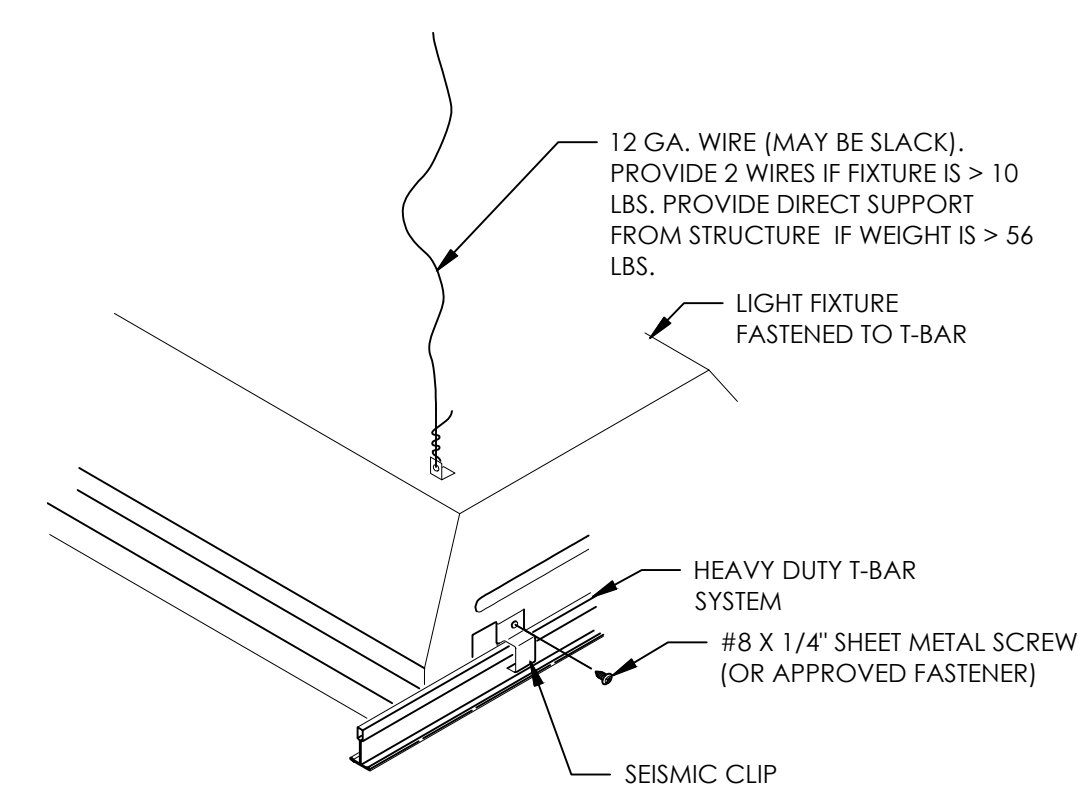
SEISMIC DESIGN CATEGORY: C



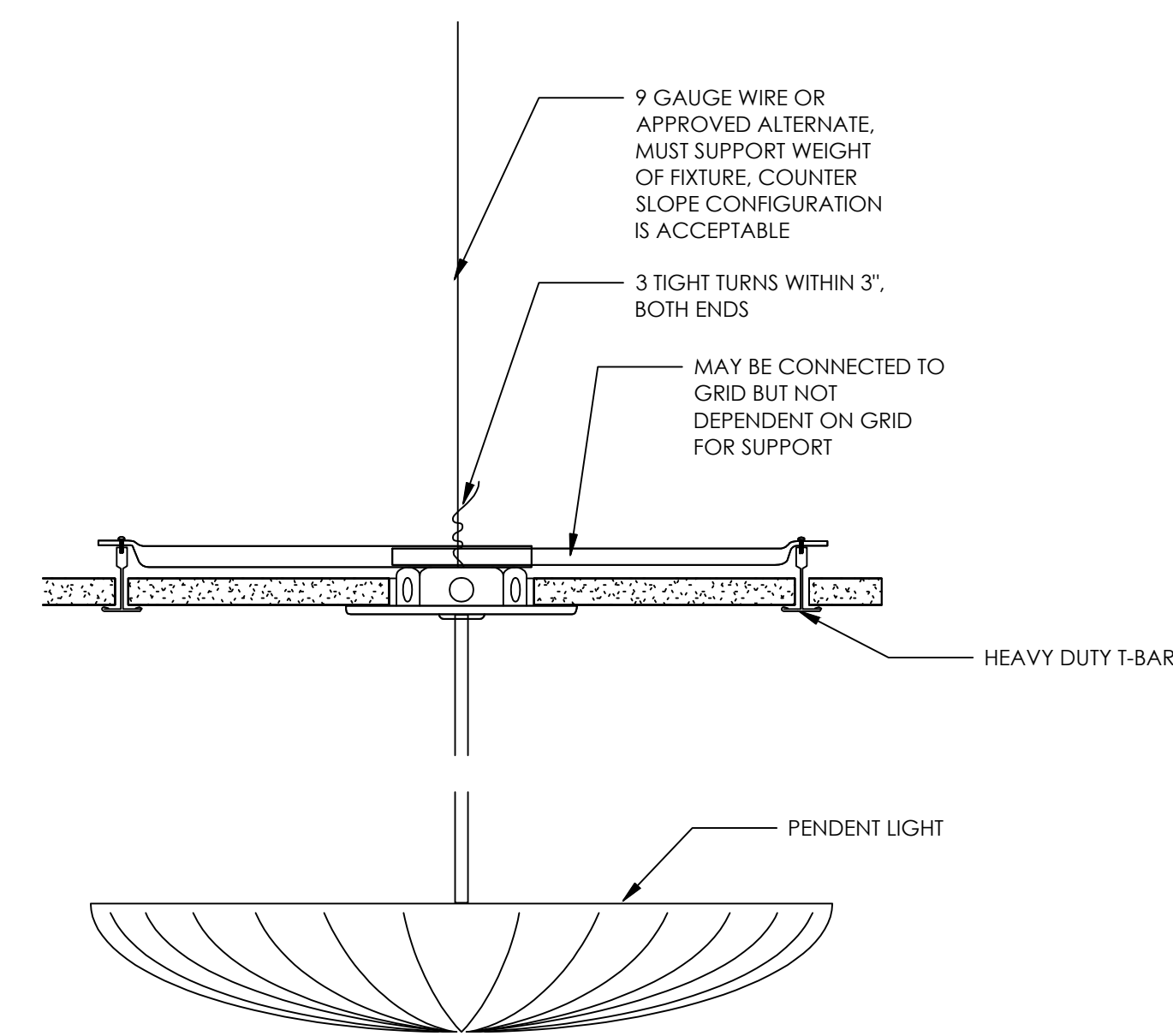
ACT - SEISMIC CLIP - FIXED



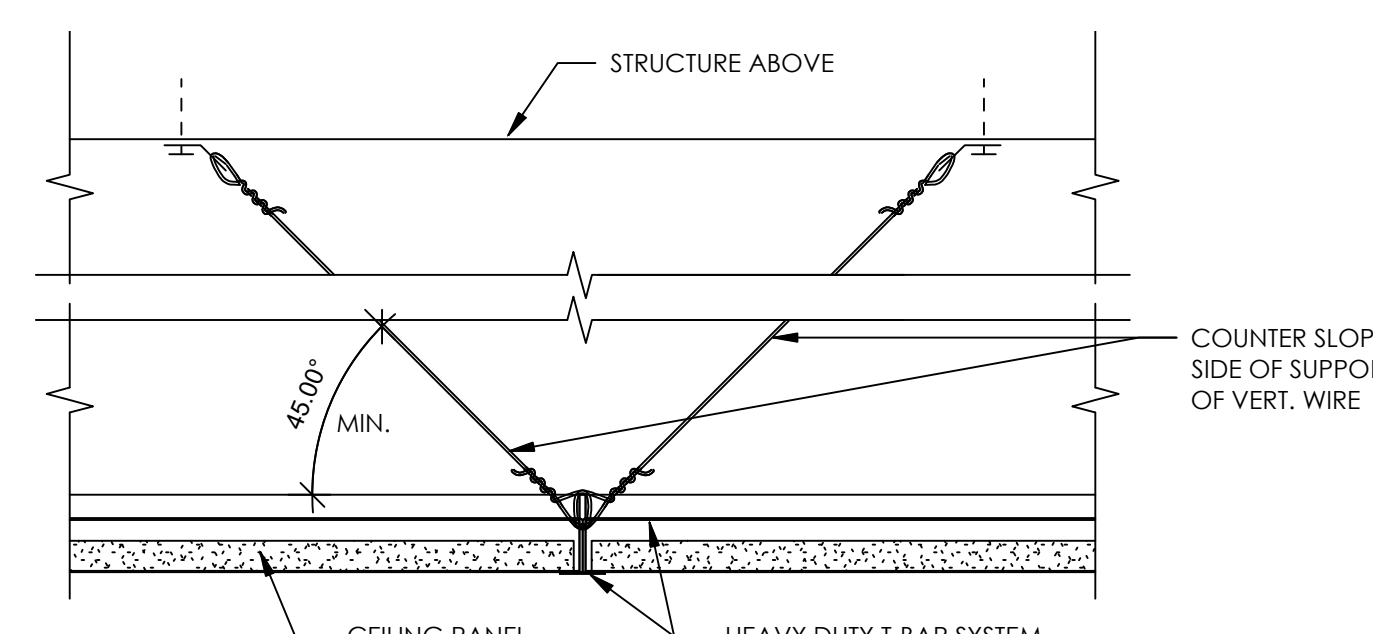
ACT - SEISMIC CLIP - FLOATING



ACT - LIGHT FIXTURE

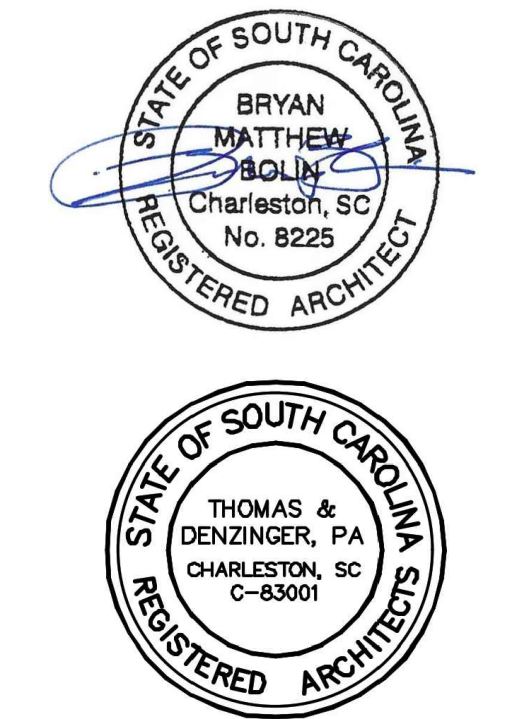


6 ACT - PENDENT FIXTURE
 6\"/>



ACT - COUNTER SLOPE HANGER OPTION

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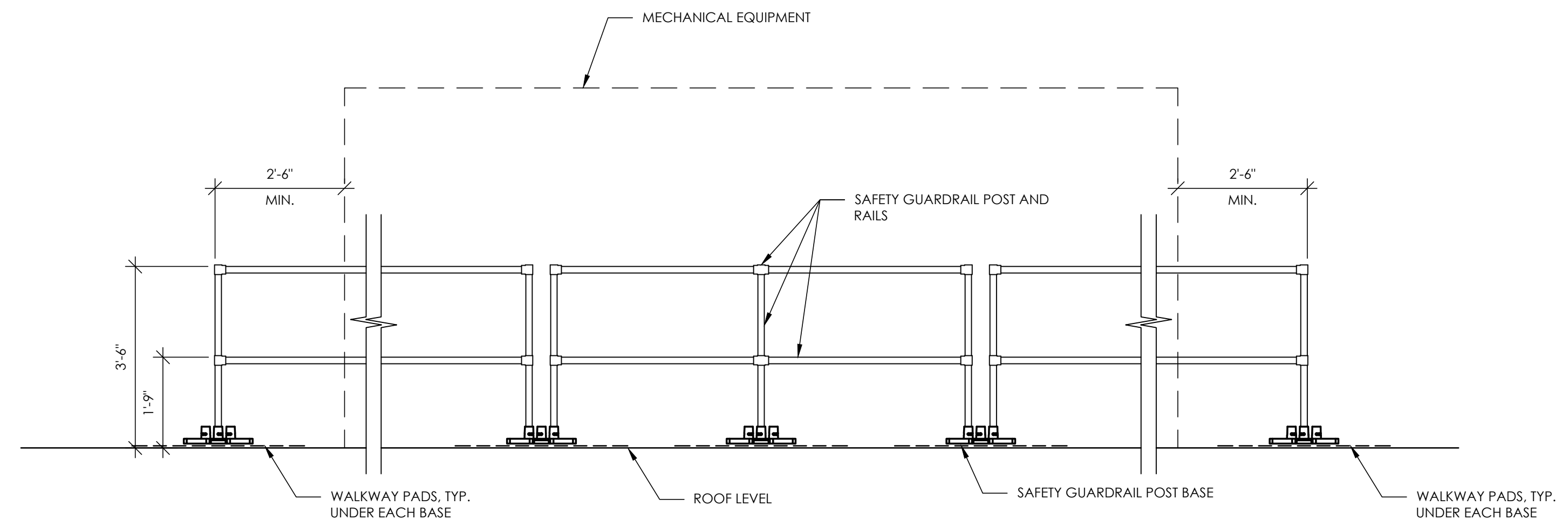
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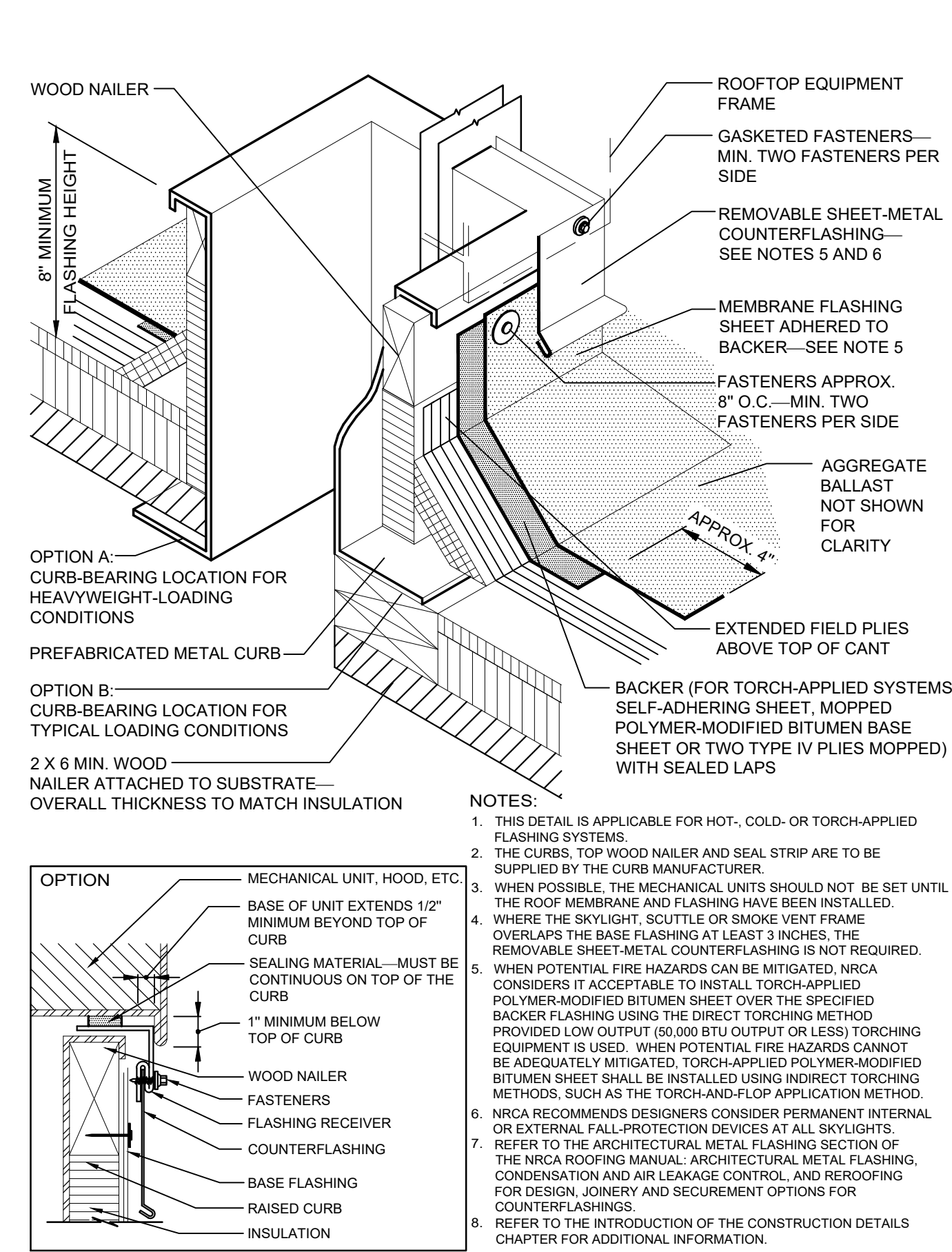
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CEILING DETAILS

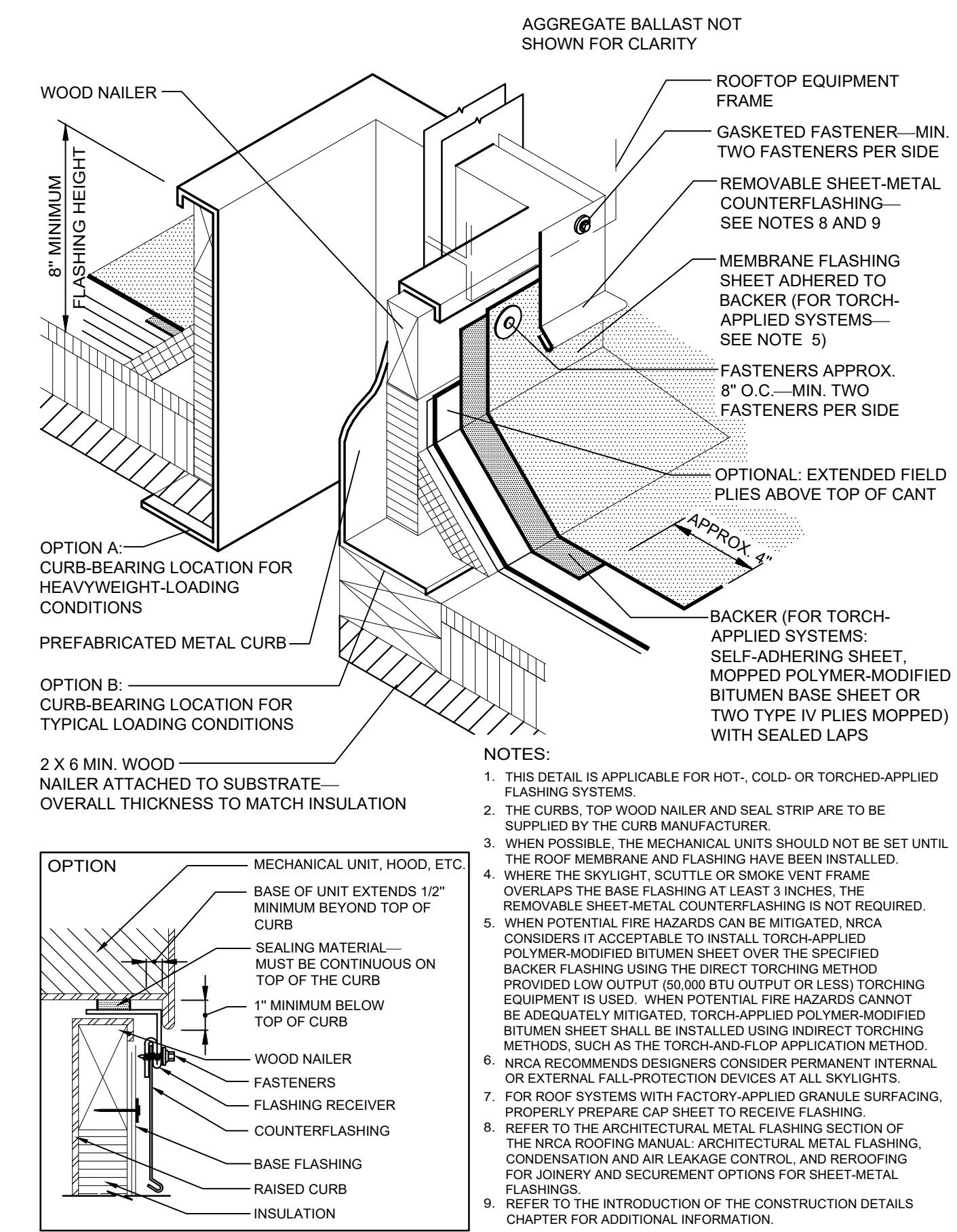
A500



1
A501 R501
ROOF EDGE GUARDRAIL PROTECTION SYSTEM
ELEVATION DETAIL
SCALE: 1/2"=1'-0"



2
A501 R501
MECHANICAL EQUIPMENT CURB - BUILT UP ROOF SYSTEM
AXONOMETRIC DETAIL
SCALE: NOT TO SCALE



3
A501 R501
MECHANICAL EQUIPMENT CURB - MODIFIED BITUMEN ROOF SYSTEM
AXONOMETRIC DETAIL
SCALE: NOT TO SCALE

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REVISIONS		
NO.	DATE	NOTES

ROOF DETAILS

A501

ABBREVIATIONS:

AB	ANCHOR BOLT
ADJ	ADJACENT
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
ALT	ALTERNATE
APPD	APPROVED
APPROX	APPROXIMATE
ARCH	ARCHITECT
B	BOTTOM OF
BLDG	BUILDING
BM	BEAM
BOT	BOTTOM
BRDG	BRIDGING
BRG	BEARING
BLK	BLOCK
BTVN	BETWEEN
CANT	CANTILEVER
C/C	CENTER TO CENTER
CHAM	CHAMFER
CIRC	CIRCULAR
CJ	CONTROL JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNITS
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CTRD	CENTERED
D	DEPTH
DBE	DECK BEARING ELEVATION
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DWGS	DRAWINGS
E	EAST
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
EMBED	EMBEDMENT
ENGR	ENGINEER
EDS	EDGE OF SLAB
EO	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE
EW	EACH WAY
EXP	EXPANSION
EXIST	EXISTING
EXT	EXTERIOR
FC	FILLED CELL
FF	FINISHED FLOOR
FIN	FINISH
FLR	FLOOR
FDN	FOUNDATION
FRMG	FRAMING
FT	FEET
FTG	FOOTING
FV	FIELD VERIFY
GALV	GALVANIZED
GA	GAUGE
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSB	HIGH STRENGTH BOLT
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INCL	INCLUDE, ING
INT	INTERIOR
JBE	JOIST BEARING ELEVATION
LB	POUND
LG	LONG
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LSL	LONG SLOTTED HOLES
LT	LIGHT
LWT	LIGHTWEIGHT
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MASONRY JOINT
MO	MASONRY OPENING
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OW	OPEN WEB
PAF	POWDER ACTUATED FASTENER
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PROJ	PROJECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
RAD	RADIUS
REF	REFERENCE
REINF	REINFORCEMENT
RET	RETURN
REV	REVISION
RP	RADIUS POINT
RT	RIGHT
RTU	ROOF TOP UNIT
S	SOUTH
SA	SLEEVE ANCHOR
SB	SLAB BOLSTER
SCHED	SCHEDULE
SECT	SECTION
SF-	STEP FOOTING
SIM	SIMILAR
SPEC	SPECIFICATIONS
SP	SPACING, ES
SQ	SQUARE
SSL	SHORT SLOTTED HOLES
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENERS
STL	STEEL
SYMM	SYMMETRICAL
T/	TOP OF
TB	TIE BEAM
TC	TIE COLUMN
TCX	TOP CHORD EXTENSION
T&B	TOP AND BOTTOM
TEMP	TEMPORARY
TRAN	TRANSVERSE
TS	TUBE STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WEST
W/	WITH
W/O	WITHOUT
WP	WORK POINT
WT	WEIGHT
WWM	WELDED WIRE MESH

GENERAL NOTES

- STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF PROJECT DRAWINGS, PROJECT MANUAL, AND ALL SHOP DRAWING SUBMITTALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND COORDINATING DIMENSIONS, CLEARANCES AND ALL OTHER COORDINATION ISSUES WITH OTHER TRADES.
- IN CASE OF CONFLICT BETWEEN VARIOUS STRUCTURAL DRAWINGS, STRUCTURAL PLANS, OR STRUCTURAL DETAILS THE MORE STRINGENT SHALL GOVERN. THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID FOR THE MORE COSTLY CONDITION.
- IN CASE OF CONFLICT BETWEEN DRAWINGS, DRAWING NOTES, AND SPECIFICATIONS THE MORE STRINGENT SHALL GOVERN. THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID FOR THE MORE COSTLY CONDITION.
- WORK NOT INDICATED ON THE DRAWINGS, BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE REPEATED.
- ALL NOTES, DETAILS AND SECTIONS ARE INTENDED TO BE TYPICAL FOR THE GENERAL CONDITIONS INDICATED OR REFERENCED. ALL NOTES, DETAILS AND SECTIONS SHALL APPLY TO ANY SIMILAR SITUATION THROUGHOUT THE ENTIRE PROJECT UNLESS A SEPARATE NOTE, DETAIL OR SECTION IS PROVIDED.
- REVIEW ALL PROJECT DOCUMENTS PRIOR TO FABRICATION AND START OF CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING AND IN PLACE WORK OR UTILITIES DURING CONSTRUCTION.
- COORDINATE STRUCTURAL DRAWINGS WITH OTHER CONTRACT DRAWINGS, SPECIFICATIONS, OR SHOP DRAWINGS WHICH MAY AFFECT THE STRUCTURAL WORK.
- USE OF REPRODUCED CONTRACT DRAWINGS IN PART OR WHOLE FOR THE PURPOSE OF SHOP DRAWING PREPARATION SHALL NOT RELIEVE THE CONTRACTOR OR SUBCONTRACTOR FROM THE REQUIREMENT TO ACCURATELY LAYOUT, COORDINATE, DETAIL, FABRICATE AND INSTALL A COMPLETE STRUCTURE.
- ALL SUBMITTALS SHALL BE REVIEWED BY THE SUBCONTRACTOR AND CONTRACTOR FOR CONFORMANCE TO THE CONTRACT DOCUMENTS, FOR COMPLETENESS, AND TO RESPOND TO CONTRACTOR COORDINATION RELATED QUESTIONS PRIOR TO SUBMITTING FOR APPROVAL. ALL SHEETS SHALL BE STAMPED AND INITIALED BY THE CONTRACTOR INDICATING SUCH A REVIEW HAS BEEN COMPLETED PRIOR TO ISSUING SUBMITTAL FOR APPROVAL.
- CONTRACTOR SHALL MAKE NO DEVIATIONS FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN APPROVAL.
- ALL ELEVATIONS INDICATED IN STRUCTURAL DRAWINGS ARE IN REFERENCED TO A GROUND FLOOR FINISHED SLAB ELEVATION OF 0'-0" UNLESS NOTED OTHERWISE. SEE CIVIL FOR GROUND FLOOR FINISHED SLAB ELEVATION.

STRUCTURAL STEEL FRAMING

- ALL STRUCTURAL STEEL FRAMING SHALL CONFORM TO SPECIFICATION SECTION 051200-"STRUCTURAL STEEL FRAMING".**
- ALL STRUCTURAL STEEL FRAMING AND ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FRAMING SHALL CONFORM TO SPECIFICATION SECTION 051200-"STRUCTURAL STEEL FRAMING".
- ALL STRUCTURAL STEEL ERECTION SHALL COMPLY WITH AISC 360 AND AISC 303 LATEST EDITIONS.
- CUTS OR BURNING OF HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING OR GUYS TO PROVIDE LATERAL SUPPORT OF THE STRUCTURAL STEEL UNTIL THE PERMANENT LATERAL FORCE RESISTING SYSTEM IS COMPLETED.
- THE ERECTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE OWNER'S SPECIAL INSPECTOR FOR PRE-INSTALLATION VERIFICATION OF SLIP CRITICAL BOLT TIGHTENING PROCEDURES.
- FIELD TESTING AND INSPECTION OF STRUCTURAL STEEL MATERIALS AND STRUCTURAL STEEL T INSTALLATION SHALL BE COMPLETED BY AN INDEPENDENT TESTING AGENCY COMMISSIONED BY THE OWNER, AND SHALL BE IN ACCORDANCE WITH THE SCHEDULE OF SPECIAL INSPECTIONS.

FIELD WELDING

- ALL FIELD WELDING SHALL CONFORM TO SPECIFICATION SECTION 051200-"STRUCTURAL STEEL FRAMING" FOR WELDING STRUCTURAL STEEL FRAMING.
- ALL FIELD WELDING SHALL CONFORM TO SPECIFICATION SECTION 052100-"STEEL JOIST FRAMING" FOR WELDING STEEL JOIST FRAMING.
- ALL FIELD WELDING SHALL CONFORM TO SPECIFICATION SECTION 053100-"STEEL DECKING" FOR WELDING STEEL DECKING.
- ALL FIELD WELDING SHALL CONFORM TO SPECIFICATION SECTION 054000-"COLD FORMED METAL FRAMING", 054100-"ENGINEERED COLD FORMED METAL FRAMING", AND 054400-"ENGINEERED COLD FORMED METAL TRUSSES" FOR WELDING COLD FORMED MEMBERS.
- ALL FIELD WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE-STEEL" AND AWS D1.3, "STRUCTURAL WELDING CODE-SHEET STEEL", LATEST EDITIONS.
- ALL FIELD WELDING SHALL BE IN STRICT ACCORDANCE WITH WRITTEN WELD PROCEDURE (WPS) FOR THE GIVEN WELD CONDITION.
- REPAIR ALL DAMAGED GALVANIZING, PRIMER OR PAINT ONCE WELDING IS COMPLETE.
- ELECTRODES SHALL BE STORED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- ALL PERSONNEL COMPLETING FIELD WELDS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS TO PERFORM THE GIVEN WELD.
- FIELD TESTING AND INSPECTION OF FIELD WELDING MATERIALS AND FIELD WELDING SHALL BE COMPLETED BY AN INDEPENDENT TESTING AGENCY COMMISSIONED BY THE OWNER, AND SHALL BE IN ACCORDANCE WITH THE SCHEDULE OF SPECIAL INSPECTIONS.

STRUCTURAL DESIGN CRITERIA

- FOUNDATION DESIGN VALUES:
ALLOWABLE BEARING CAPACITY 1500 PSF (ASSUMED)
- GRAVITY LOAD DESIGN VALUES: IBC-2018 / ASCE 7-16
ROOF LIVE LOADS:
FLAT ROOF 20-PSF
SNOW 05-PSF
GROUND SNOW LOADS:
SNOW 05-PSF
DEAD LOADS:
ACTUAL MATERIAL WEIGHTS PER ASCE 7-16
- SEISMIC DESIGN VALUES: IBC-2018 / ASCE 7-16
Ss = 0.312
S1 = 0.114
Sds = 0.322
Sd1 = 0.191
SITE CLASS: "D"
BUILDING RISK CATEGORY: "III"
IMPORTANCE FACTOR: Ie = 1.25
SEISMIC DESIGN CATEGORY: "C"
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
SEISMIC FORCE RESISTING SYSTEM:
-EXISTING REINF MASONRY SHEAR WALLS
RESPONSE MODIFICATION FACTOR: R = 3
DEFLECTION AMPLIFICATION FACTOR: Cd = 3
SYSTEM OVERSTRENGTH FACTOR: OMEGA = 3

ALLOWABLE INTERSTORY DRIFT: 0.020 Hx
- WIND LOAD DESIGN VALUES: IBC-2018 / ASCE 7-16
V = 147 mph (3-sec gust)
TOPOGRAPHIC FACTOR: Kzt = 1.0
BUILDING RISK CATEGORY: "III"
EXPOSURE CATEGORY: "B"
ENCLOSURE CLASSIFICATION: ENCLOSED

WIND DIRECTIONALITY FACTOR: Kd = 0.85
TOPOGRAPHIC FACTOR: Kzt = 1.0
VELOCITY EXPOSURE COEFFICIENT: Kz = 0.76
VELOCITY PRESSURE: q = 36 psf ULTIMATE

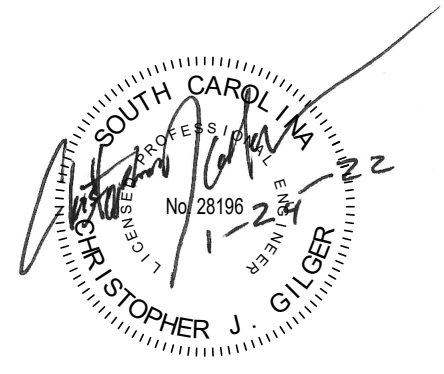
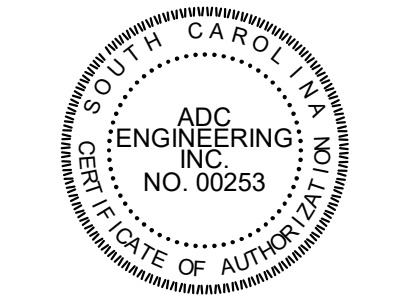
INTERNAL PRESSURE COEFFICIENT: GCpI = +/- 0.18

ALLOWABLE INTERSTORY DRIFT: 0.0025 Hx

CONTRACTOR NOTES

- ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED, G90 FINISH. THIS SHALL ALSO INCLUDE TUBES, CHANNELS, AND LOOSE LINTELS AND ANGLES. THE G.C. SHALL PROVIDE TOUCH UP COATINGS AS REQUIRED AT LOCATIONS OF SCRATCHES, WELDS AND ANY OTHER DAMAGED OR UNCOATED AREA DUE TO A CONNECTION, OR CONTACT WITH AN ALTERNATE MATERIAL, ETC.
- THE G.C. SHALL FIELD VERIFY ALL EXISTING FRAMING ELEVATIONS AND DIMENSIONS.
- ALL ITEMS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION.
- G.C. TO REMOVE & REPLACE ALL INSULATION IN KIND, AS NEEDED TO INSTALL A NEW RETROFIT FRAMING.
- G.C. TO REMOVE & REPLACE ALL ELECTRICAL CONDUIT/COMPONENTS IN KIND AS NEEDED TO INSTALL JOISTS.
- G.C. TO REMOVE & REPLACE ALL DUCT WORK NEEDED TO INSTALL NEW STEEL FRAMING.
- G.C. TO REMOVE & REPLACE LIGHTING AS NEEDED TO INSTALL NEW STEEL FRAMING.
- G.C. TO REMOVE & REPLACE CEILING TILES & GRIDS. REPLACE IN KIND.

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Mt. Pleasant, South Carolina, 29465



ADC ENGINEERING
1226 YEAMANS HALL ROAD
HANAHAN, SC 29410
843-566-0161
ADCENGINEERING.COM

DATE:	1-24-2022
ADC PROJECT #:	21256
DESIGNED:	CJG
CHECKED:	CJG
DRAWN:	CJG
REVISION:	

GENERAL NOTES/
PLANS/ DETAILS

S000

AYNOR HIGH SCHOOL HVAC Replacement

201 JORDANVILLE RD
AYNOR, SC 29411

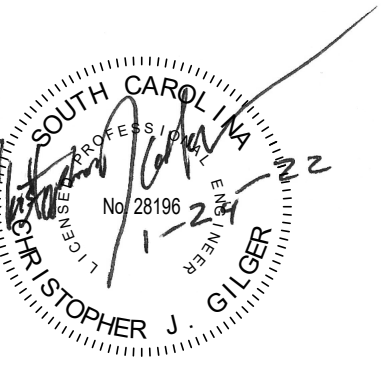
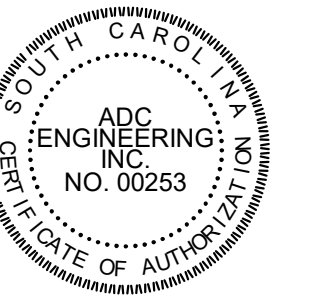
UNIT NUMBER	BAS Number	WEIGHT
1	HP032	1,071.00
2	HP033	364.00
3	HP034	818.00
4	HP035	1,071.00
5	HP036	144.00
6	HP037	1,129.00
7	HP038	1,129.00
8	HP039	785.00
9	HP040	1,129.00
10	HP041	818.00
11	HP042	818.00
12	HP043	818.00
13	HP044	818.00
14	HP045	2,359.00
15	HP046	2,359.00
16	HP047	2,359.00
17	HP048	2,359.00
18	HP049	1,071.00
19	HP050	818.00
20	HP051	1,071.00
21	HP052	3,333.00
22	HP053	3,333.00
23	HP054	145.00
24	HP055	1,071.00
25	HP056	1,494.00
26	HP057	1,071.00
27	HP058	
28	HP059	
29	HP060	1,494.00
30	HP061	328.00
31	HP062	144.00
32	HP063	116.00
33	HP064	144.00
34	HP065	144.00
35	HP066	116.00
36	HP067	144.00
37	HP068	145.00
38	HP069	145.00
39	HP070	144.00
40	HP071	116.00
41	HP072	144.00
42	HP073	144.00
43	HP074	144.00
44	HP075	116.00
45	HP076	144.00
46	HP077	144.00
47	HP078	317.00
48	HP079	145.00
49	HP080	145.00
50	HP081	145.00
51	HP082	144.00
52	HP083	392.00
53	HP084	145.00
54	HP085	116.00
55	HP086	116.00
56	HP087	145.00
57	HP088	116.00
58	HP089	116.00
59	HP090	116.00
60	HP091	145.00
61	HP092	145.00
62	HP093	145.00
63	HP094	144.00
64	HP095	145.00
65	HP096	145.00
66	HP097	144.00
67	HP098	116.00
68	HP099	144.00
69	HP100	144.00
70	HP101	144.00
71	HP102	144.00
72	HP103	145.00
73	HP104	145.00
74	HP105	145.00

UNIT NUMBER	BAS Number	WEIGHT
76	HP107	145.00
77	HP108	145.00
78	HP109	116.00
79	HP110	145.00
80	HP111	116.00
81	HP112	145.00
5	ODHP036	216
23	ODHP054	261
31	ODHP062	216
32	ODHP063	141
33	ODHP064	257
34	ODHP065	257
35	ODHP066	141
36	ODHP067	257
37	ODHP068	264
38	ODHP069	264
39	ODHP070	257
40	ODHP071	141
41	ODHP072	216
42	ODHP073	257
43	ODHP074	216
44	ODHP075	163
45	ODHP076	257
46	ODHP077	257
47	ODHP078	333
48	ODHP079	264
49	ODHP080	264
50	ODHP081	264
51	ODHP082	257
52	ODHP083	467
53	ODHP084	261
54	ODHP085	141
55	ODHP086	141
56	ODHP087	261
57	ODHP088	163
58	ODHP089	163
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67	ODHP098	141
68	ODHP099	257
69	ODHP100	257
70	ODHP101	257
71	ODHP102	257
72	ODHP103	261
73	ODHP104	261
74	ODHP105	261
75	ODHP106	264
76	ODHP107	286
77	ODHP108	286
78	ODHP109	163
79	ODHP110	264
80	ODHP111	163
81	ODHP112	261
82	MAU03	4,073
83	MAU04	4,749
84	HRU01	946
85	HRU02	1,268

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AYNOR HIGH SCHOOL HVAC Replacement

201 JORDANVILLE RD
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1226 YEAMANS HALL ROAD
HANAHAN, SC 29410
843-566-0161
ADCENGINEERING.COM

DATE: 1-24-2022
ADC PROJECT #: 21256
DESIGNED: Designer
CHECKED: Checker
DRAWN: Author
REVISION:

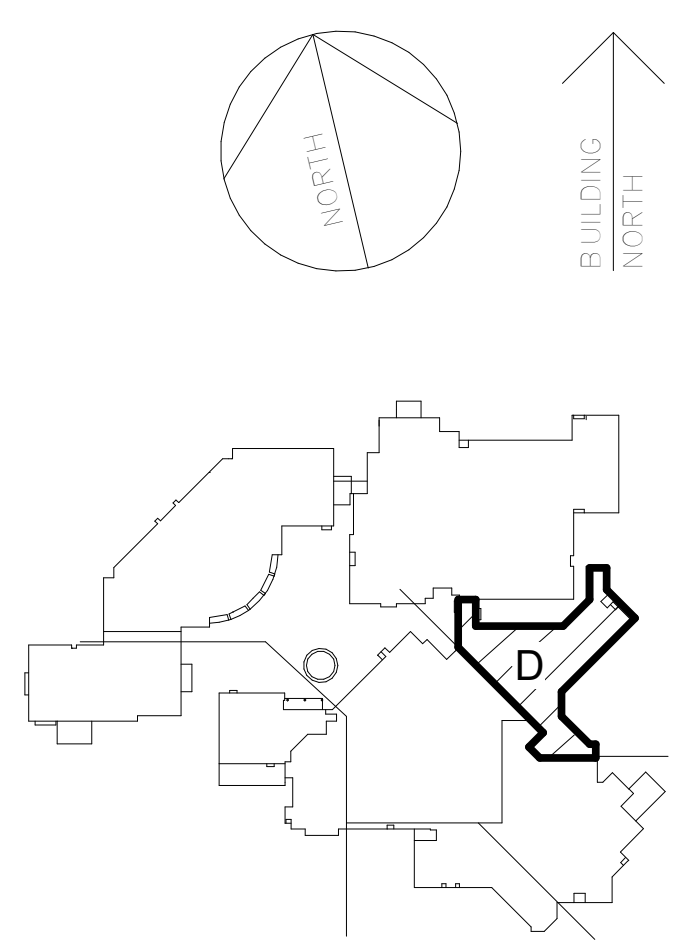
HVAC UNIT BASIS OF DESIGN SCHEDULE

S001



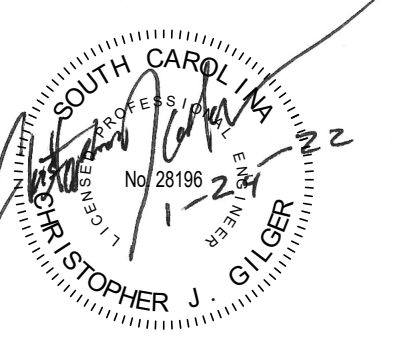
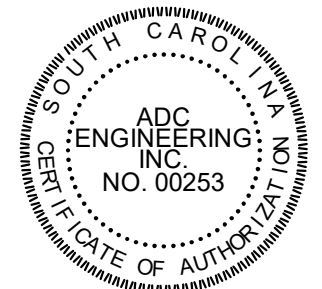
1 FIRST FLOOR HVAC PLAN AREA - D
1/8" = 1'-0"

GENERAL NOTE:
WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S201 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.



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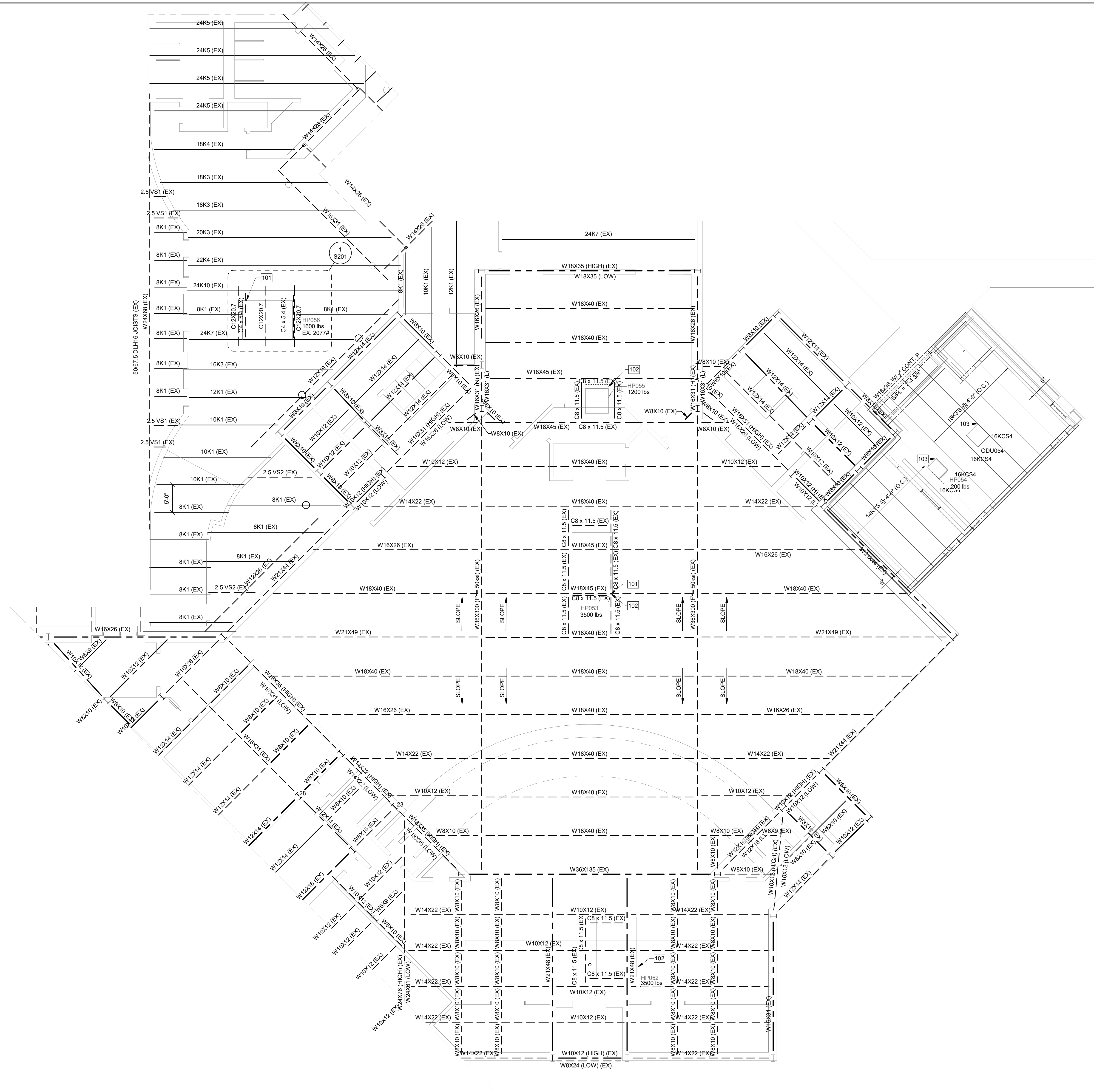


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DESIGNED: Designer
CHECKED: Checker
DRAWN: Author
REVISION:

HVAC PLAN AREA D

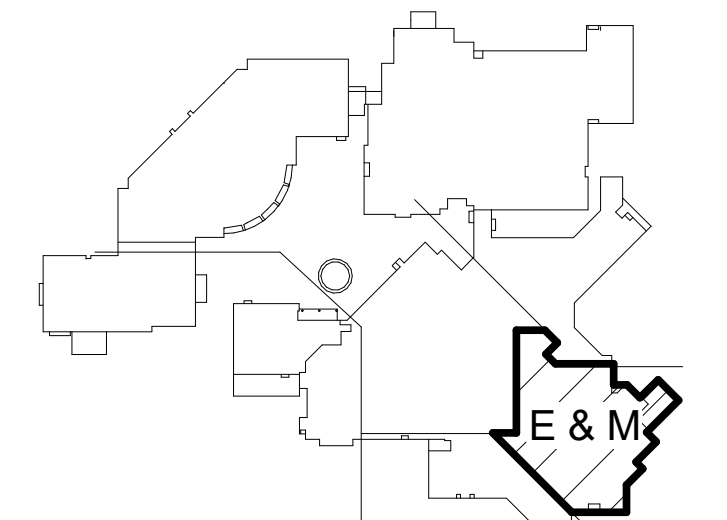
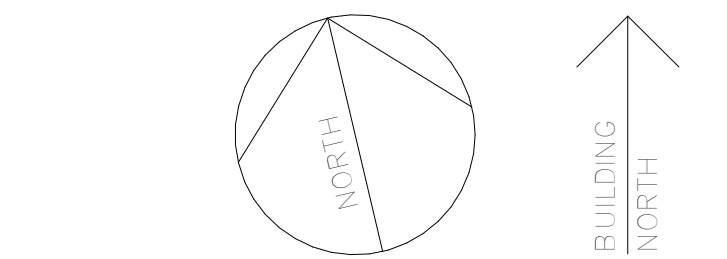
S101



GENERAL NOTE:
 • WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S301 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

KEYED NOTES (THIS SHEET ONLY)	
101	NEW UNIT TO MATCH EXISTING UNIT WIDTH.
102	NEW UNIT DIMENSIONS TO MATCH EXISTING UNIT DIMENSIONS. ATTACHMENT TO STEEL FRAME PER UNIT SUPPLIER/DESIGNER.
103	UNIT ATTACHMENT TO ROOF PER MEP DRAWING & SPECIFICATION REQUIREMENTS.

1 FIRST FLOOR HVAC PLAN AREA E & M
 1/8" = 1'-0"

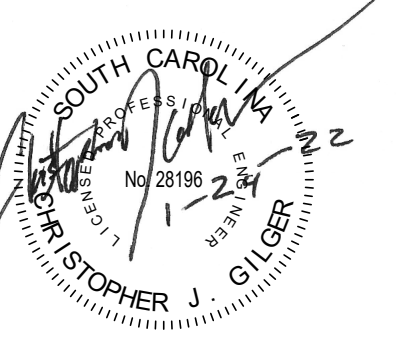
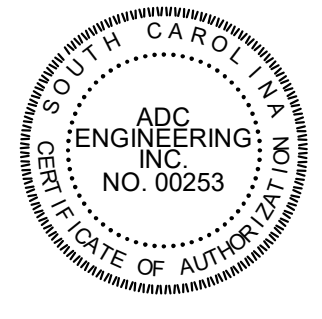


KEY PLAN - NEW HVAC
 12" = 1'-0"

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AYNOR HIGH SCHOOL HVAC Replacement

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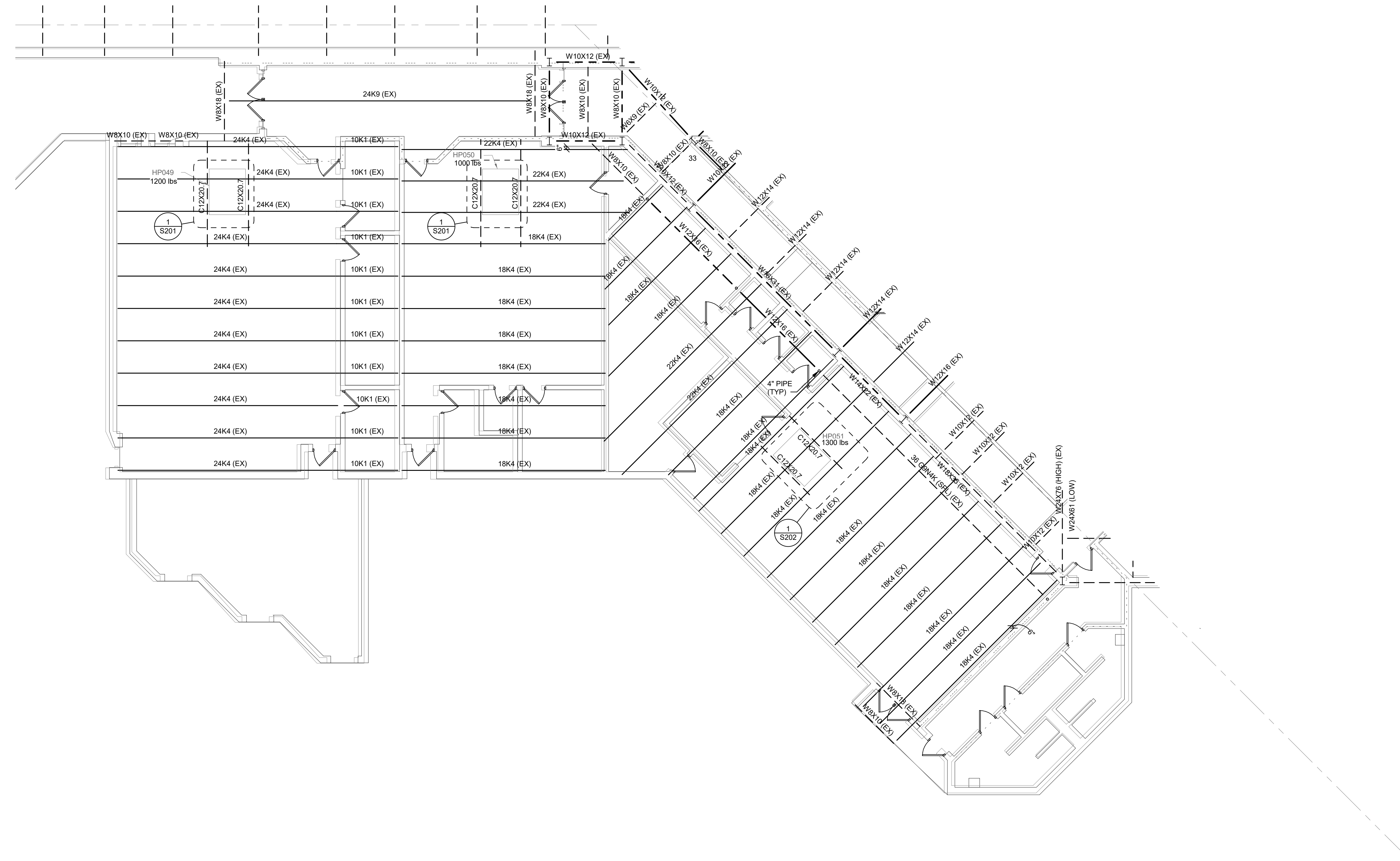


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DATE: 1-24-2022
 ADC PROJECT#: 21256
 DESIGNED: Designer
 CHECKED: Checker
 DRAWN: Author
 REVISION:

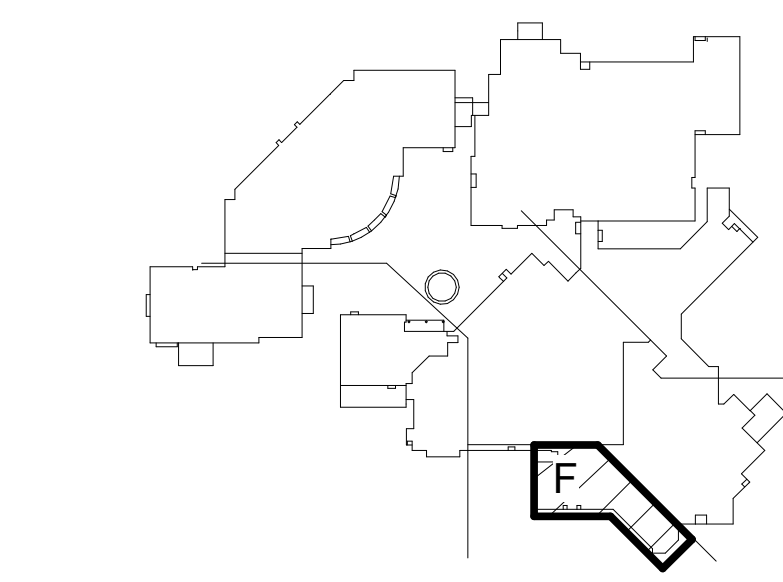
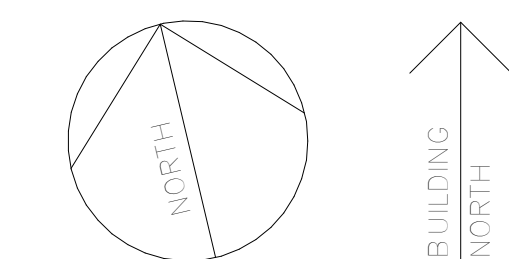
HVAC PLAN AREA E & M

S102



GENERAL NOTE:
 WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S301 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

1 FIRST FLOOR HVAC PLAN AREA F
 1/8" = 1'-0"

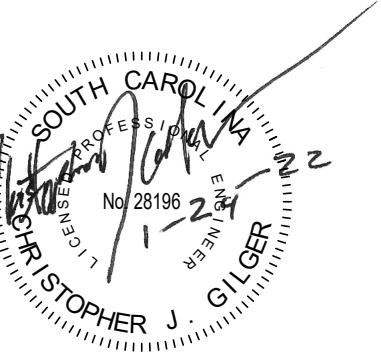
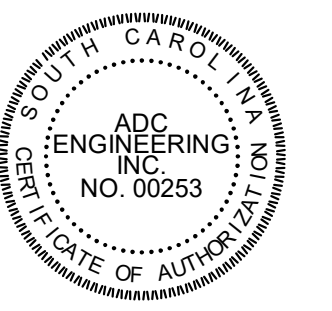


KEY PLAN - NEW HVAC
 1/2" = 1'-0"

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AYNOR HIGH SCHOOL HVAC Replacement

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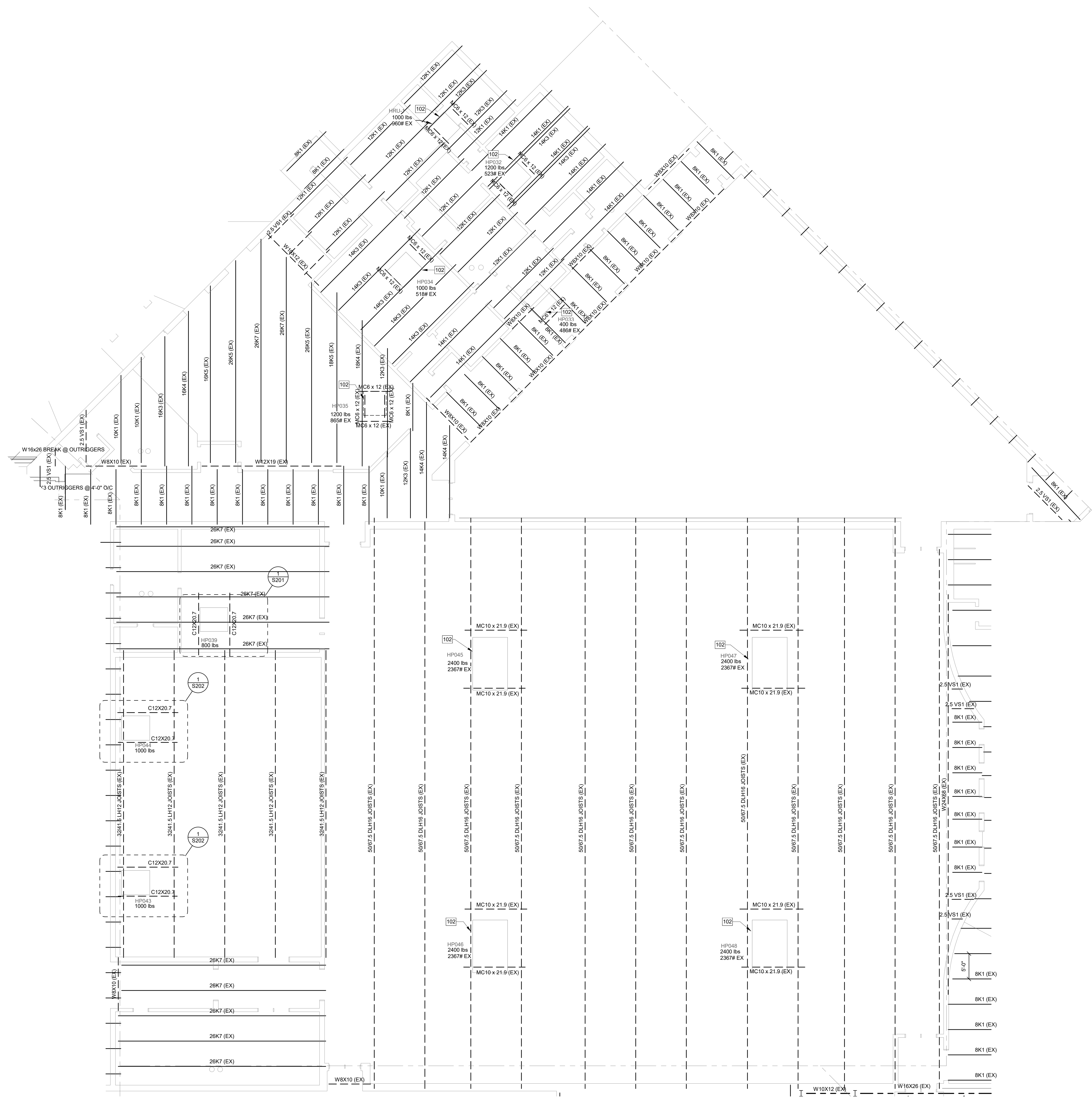


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DATE: 1-24-2022
 ADC PROJECT #: 21256
 DESIGNED: Designer
 CHECKED: Checker
 DRAWN: Author
 REVISION:

HVAC PLAN AREA F

S103



GENERAL NOTE:

WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S301 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

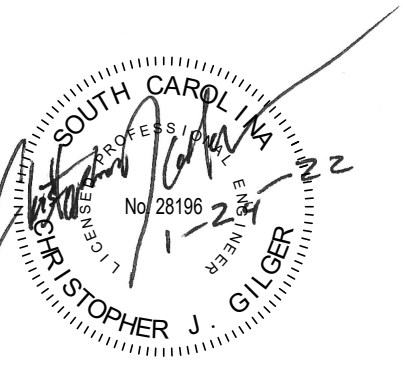
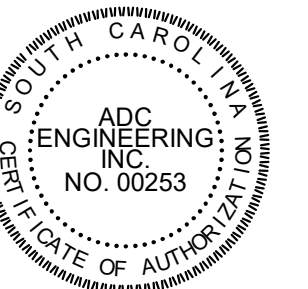
KEYED NOTES (THIS SHEET ONLY)

102 NEW UNIT DIMENSIONS TO MATCH EXISTING UNIT DIMENSIONS. ATTACHMENT TO STEEL FRAME PER UNIT SUPPLIER/DESIGNER.

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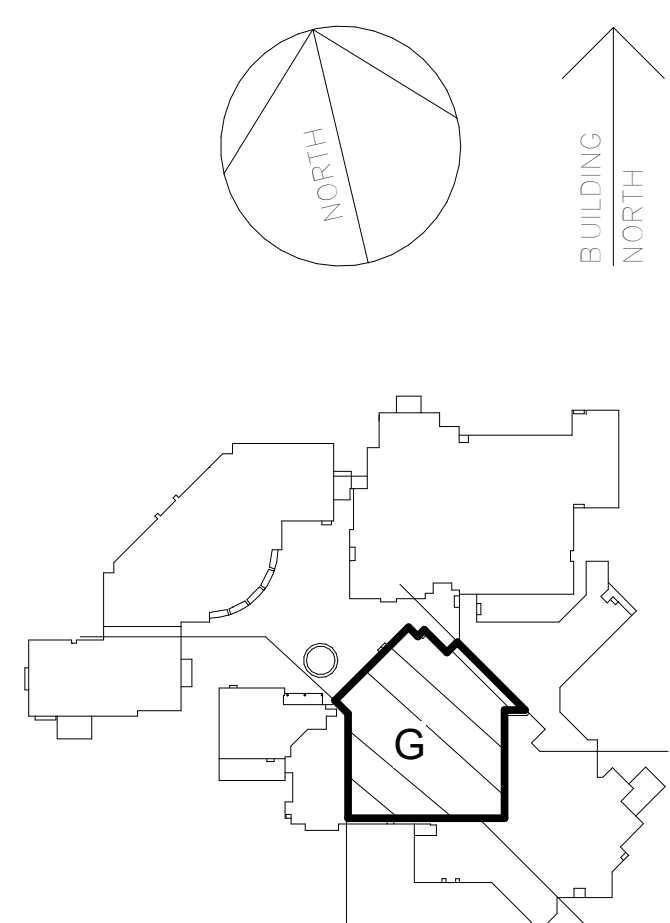
AYNOR HIGH SCHOOL HVAC Replacement

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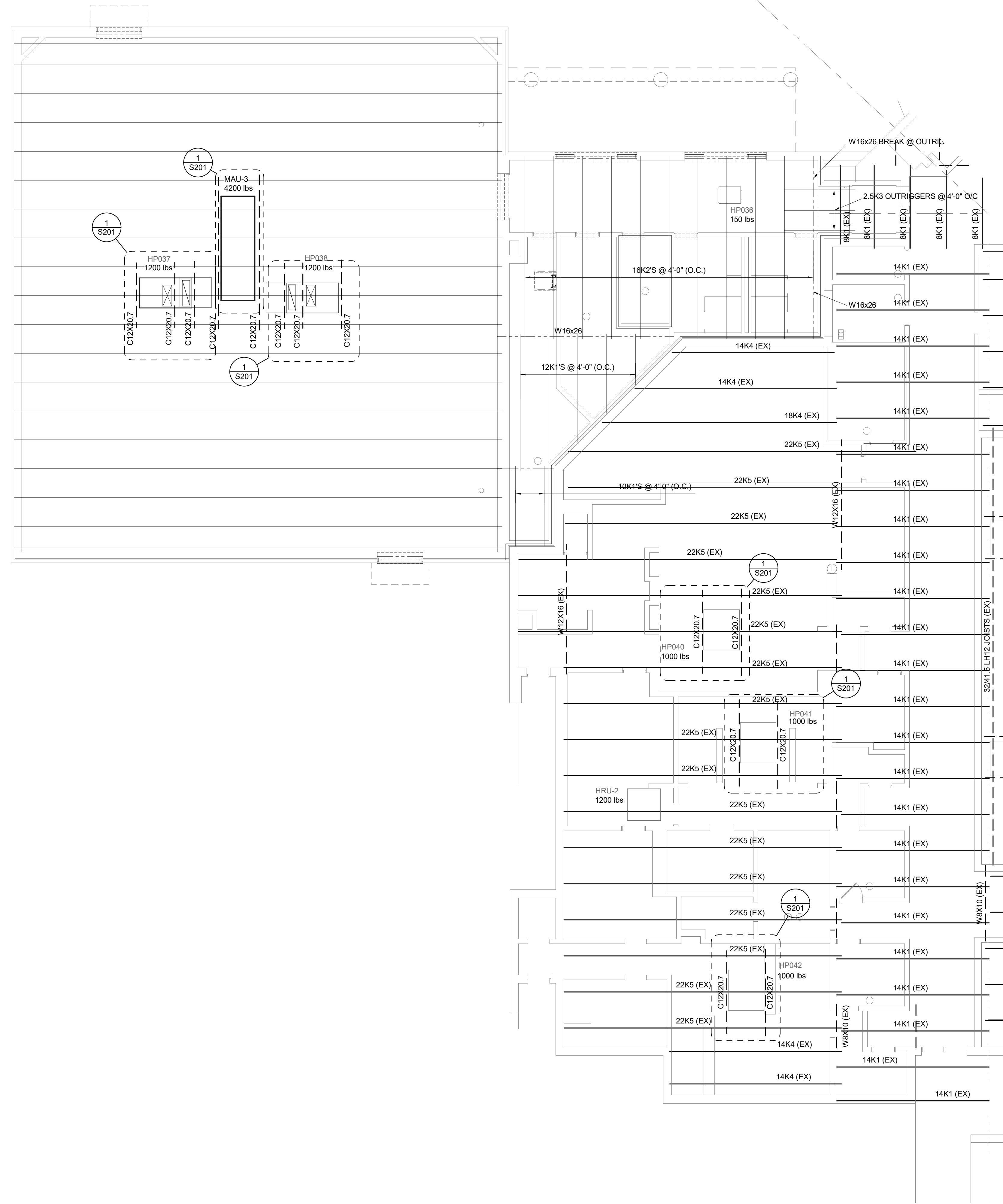
1 FIRST FLOOR HVAC PLAN AREA G
 1/8" = 1'-0"

HVAC PLAN AREA G

S104

GENERAL NOTE:

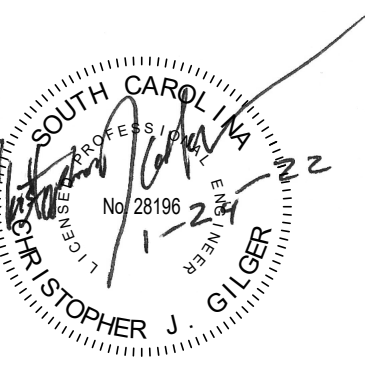
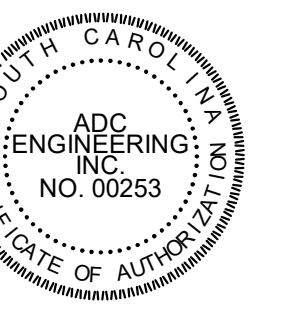
- WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S201 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.



1 FIRST FLOOR HVAC PLAN AREA H
1/8" = 1'-0"

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ADC PROJECT #:	21256
DESIGNED:	Designer
CHECKED:	Checker
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REVISION:	

HVAC PLAN AREA H

S105

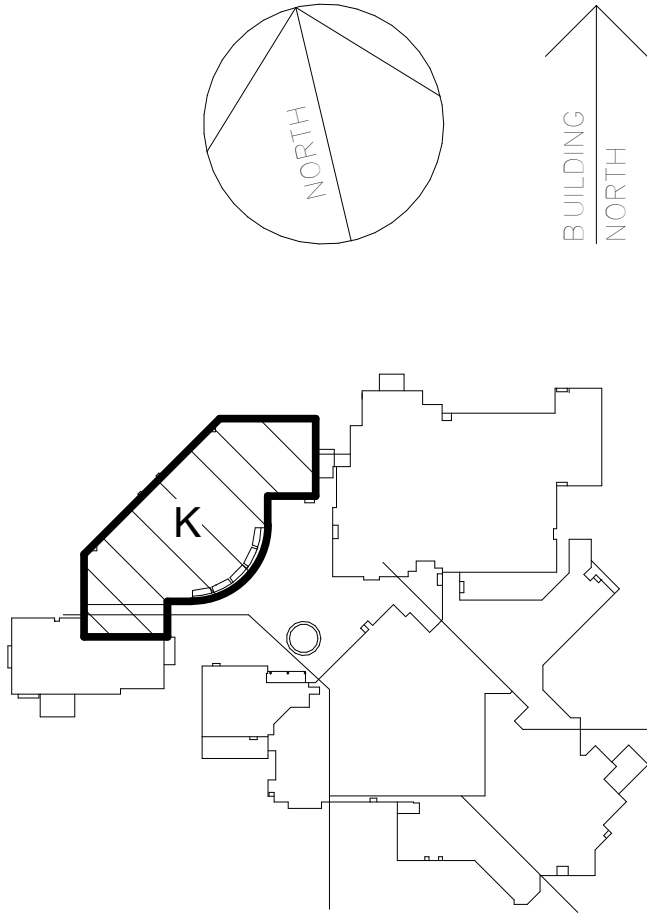


KEYED NOTES (THIS SHEET ONLY)

104 PROVIDE SUPPORT FROM FLOOR FRAMING ABOVE G.C. TO PROVIDE SUPPORT FRAMING PER MEP PERFORMANCE SPECS. PROVIDE FRAMING CALC'S & DESIGNS FOR REVIEW & APPROVAL.

GENERAL NOTE:

WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S001 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

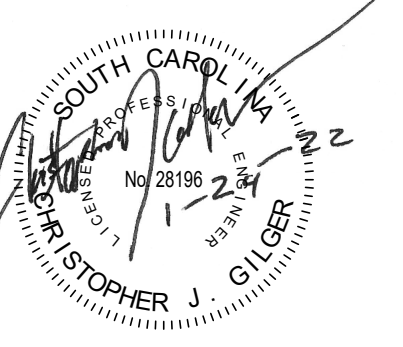
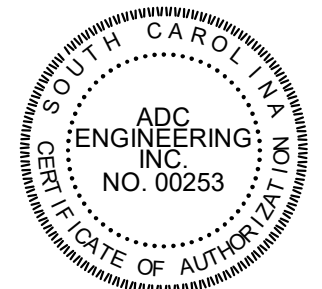


1 FIRST FLOOR HVAC PLAN AREA K
1/8" = 1'-0"

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AYNOR HIGH SCHOOL HVAC REPLACEMENT

201 JORDANVILLE RD
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1226 YEAMANS HALL ROAD
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843-566-0161
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DATE: 1-24-2022
ADC PROJECT #: 21256
DESIGNED: Designer
CHECKED: Checker
DRAWN: Author
REVISION:

HVAC PLAN AREA K

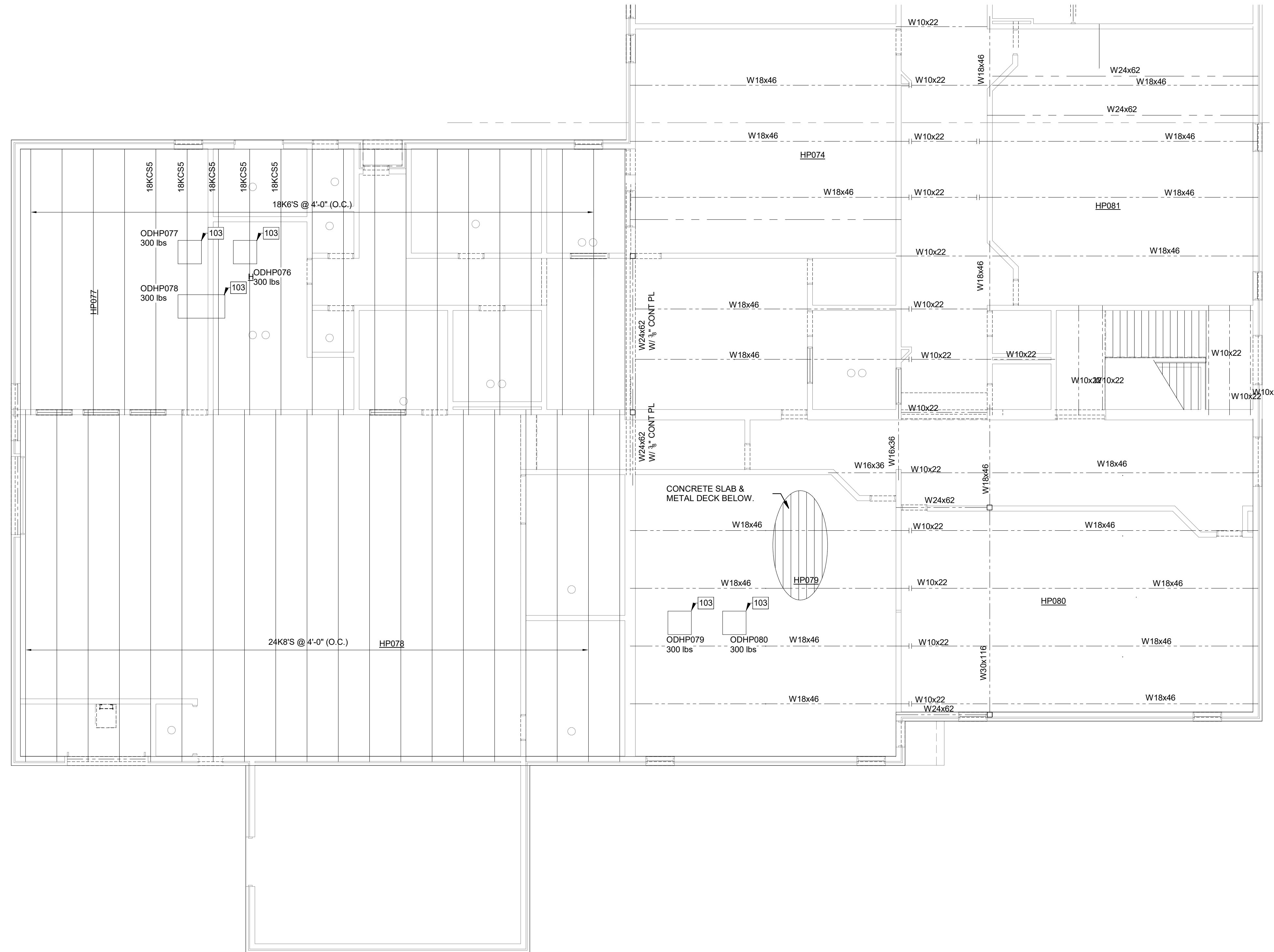
S106

GENERAL NOTE:

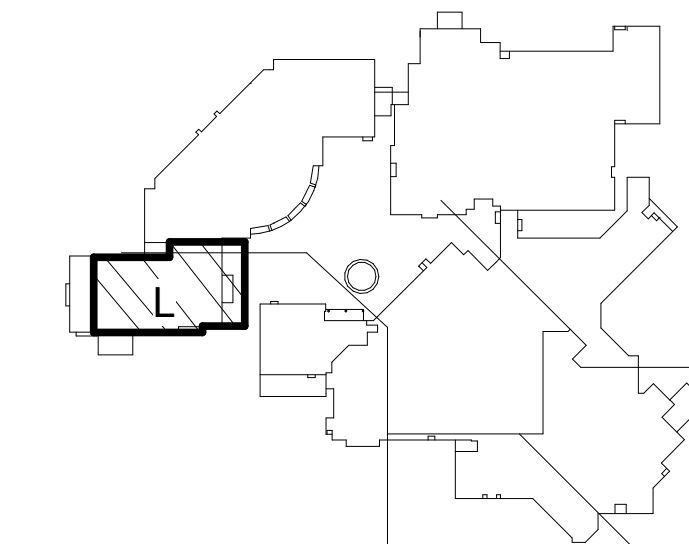
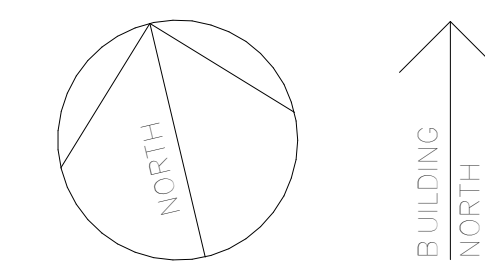
- WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S001 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

KEYED NOTES (THIS SHEET ONLY)

103 UNIT ATTACHMENT TO ROOF PER MEP DRAWING & SPECIFICATION REQUIREMENTS.



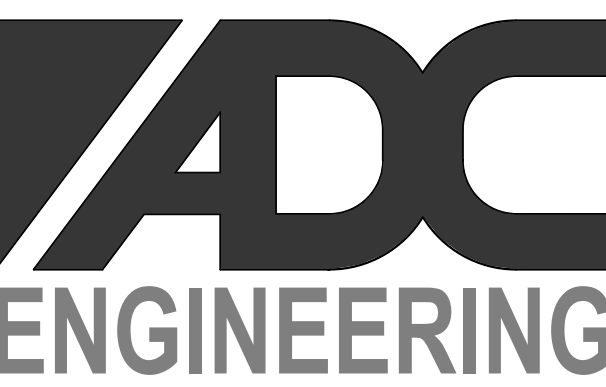
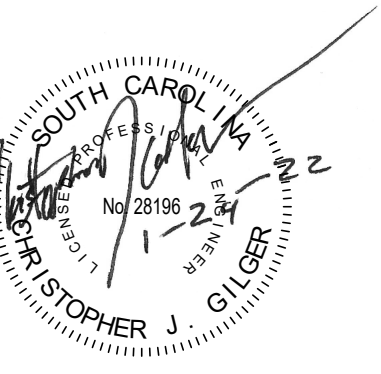
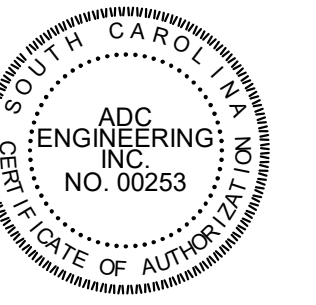
1 FIRST FLOOR HVAC PLAN AREA L
1/8" = 1'-0"



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AYNOR HIGH SCHOOL HVAC Replacement

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HANAHAN, SC 29410
843-566-0161
ADCENGINEERING.COM

DATE: 1-24-2022
ADC PROJECT #: 21256
DESIGNED: Designer
CHECKED: Checker
DRAWN: Author
REVISION:

HVAC PLAN LOW ROOF
AREA L

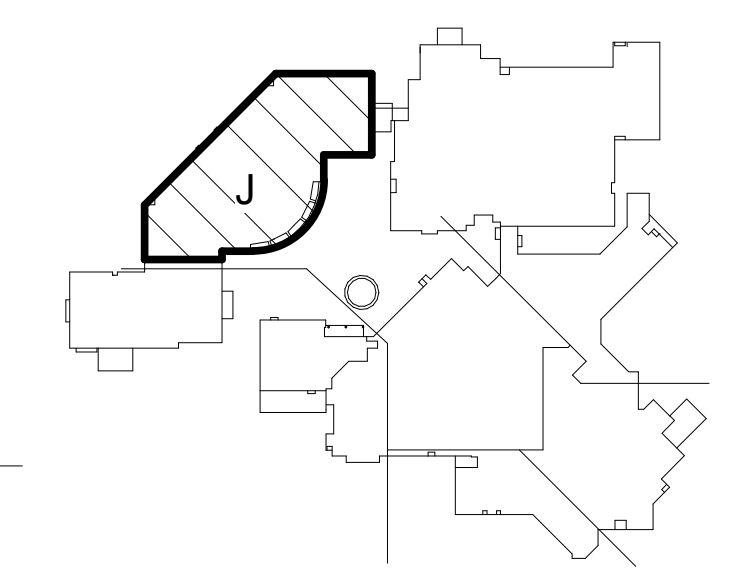
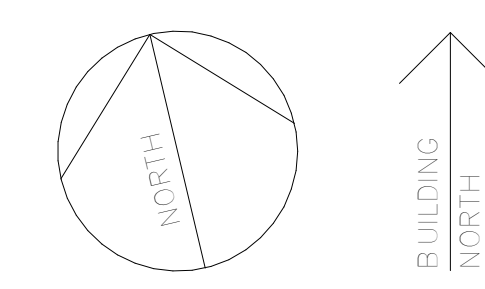
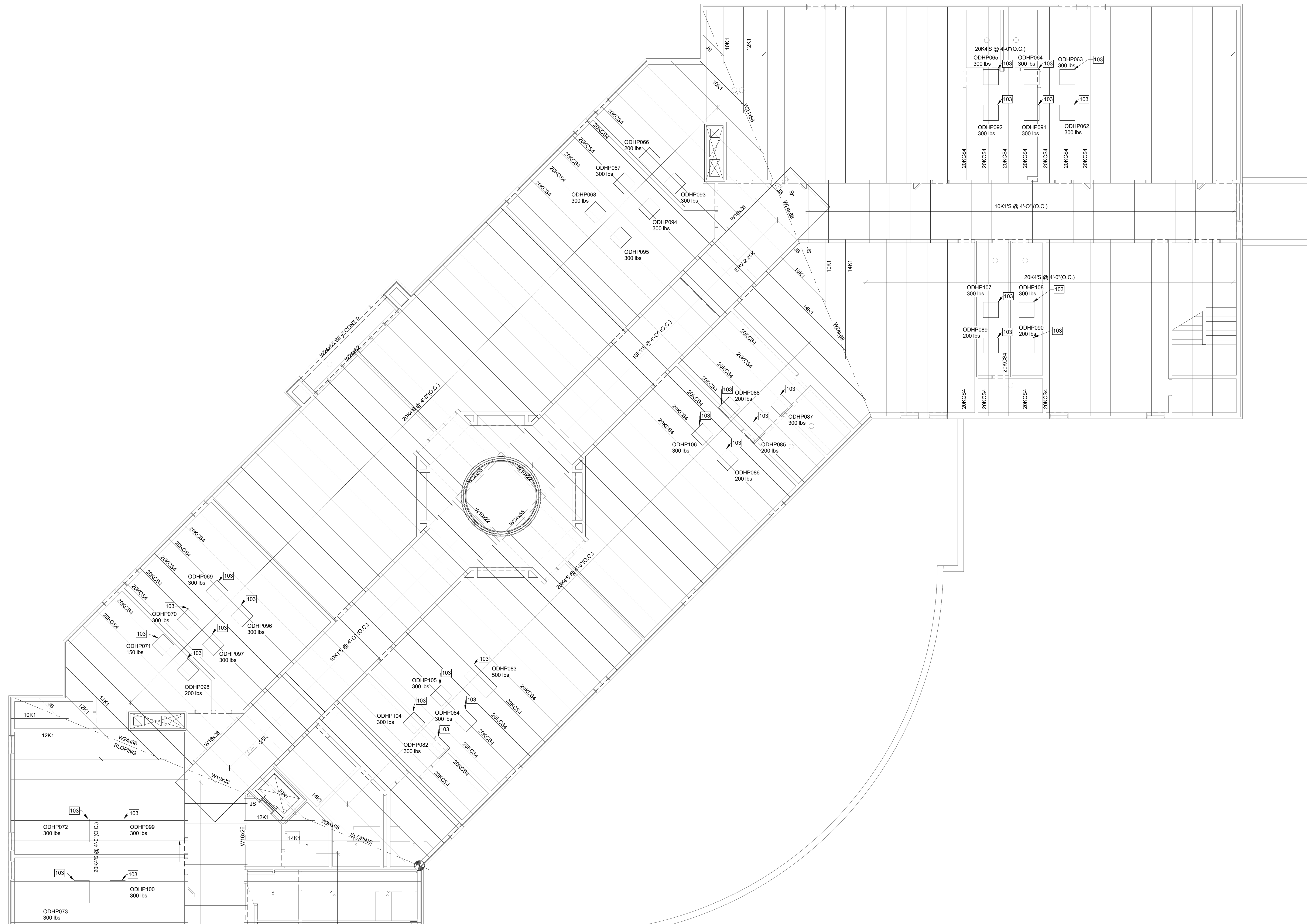
S107

GENERAL NOTE:

WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S301 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE CORP.

KEYED NOTES (THIS SHEET ONLY)

103 UNIT ATTACHMENT TO ROOF PER MEP DRAWING & SPECIFICATION REQUIREMENTS.

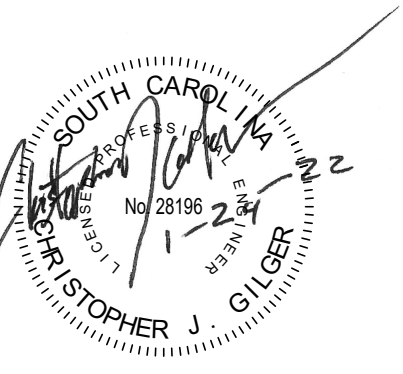
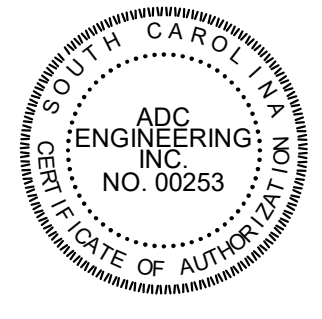


1 HVAC HIGH ROOF PLAN AREA J
1/8" = 1'-0"

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AYNOR HIGH SCHOOL HVAC Replacement

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AYNOR, SC 29411



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843-566-0161
ADCENGINEERING.COM

DATE: 1-24-2022
ADC PROJECT#: 21256
DESIGNED: Designer
CHECKED: Checker
DRAWN: Author
REVISION:

HVAC HIGH ROOF
PLAN AREA J

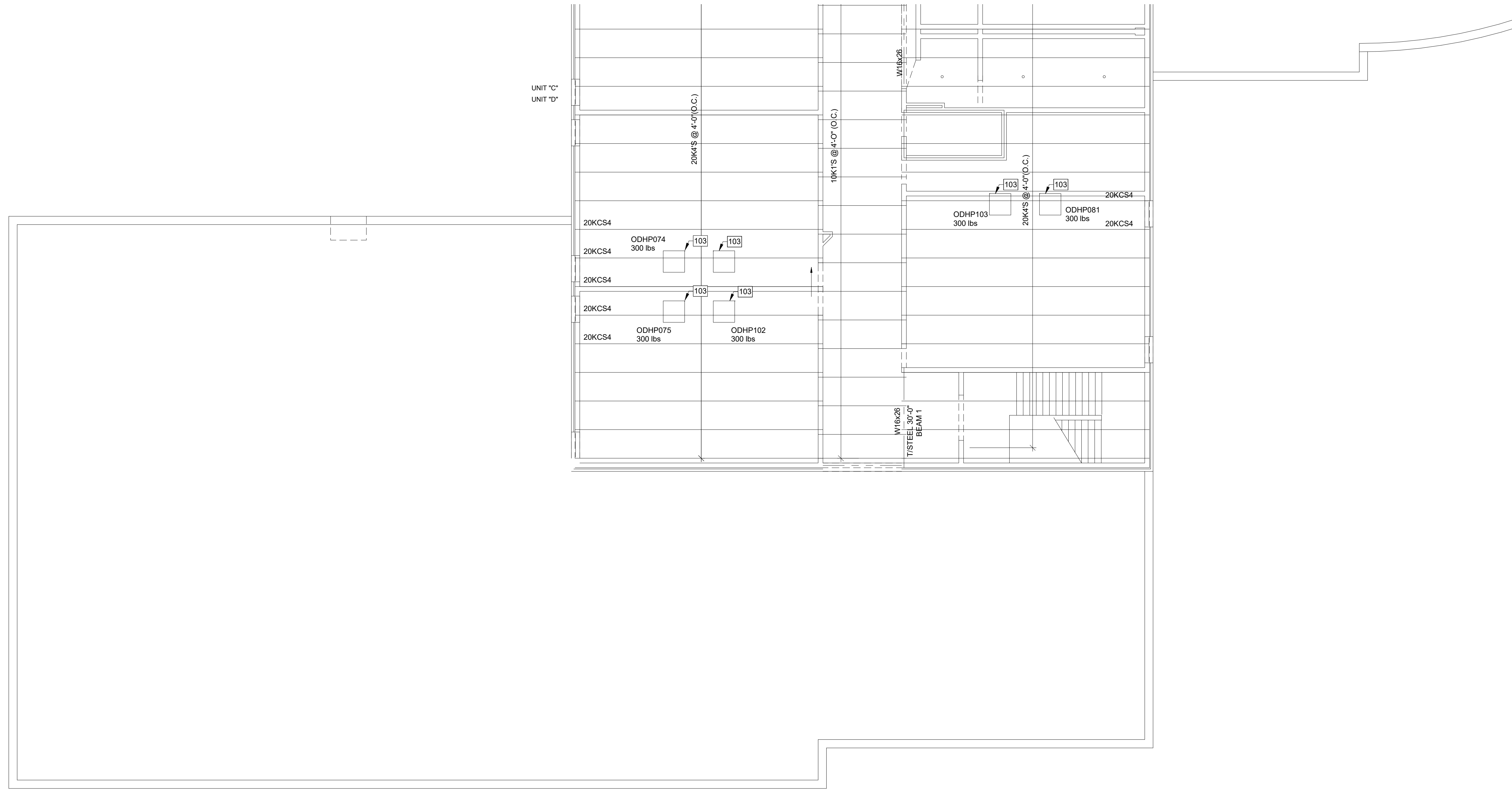
S108

GENERAL NOTE:

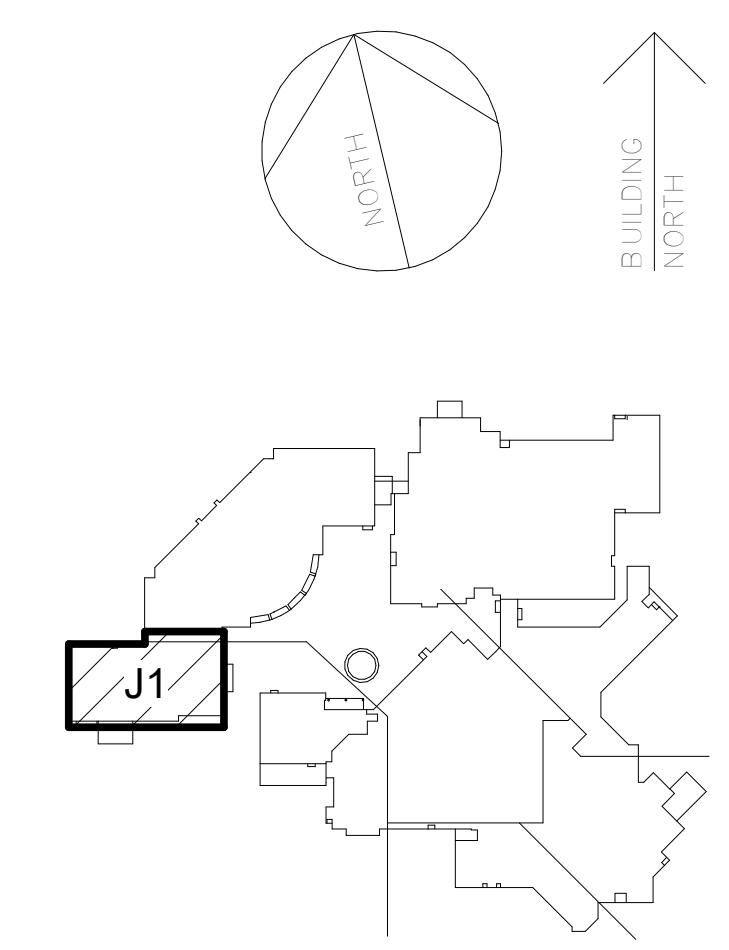
- WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S001 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

KEYED NOTES (THIS SHEET ONLY)

103 UNIT ATTACHMENT TO ROOF PER MEP DRAWING & SPECIFICATION REQUIREMENTS.



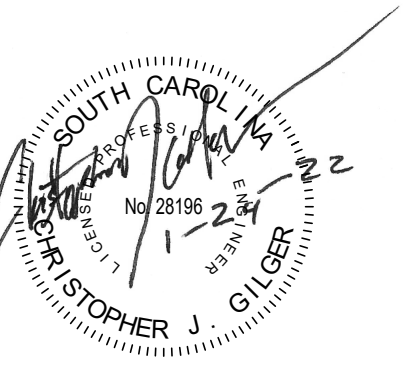
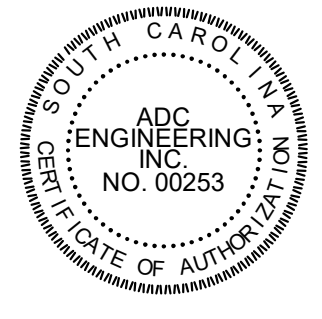
1 HVAC HIGH ROOF PLAN AREA J1
1/8" = 1'-0"



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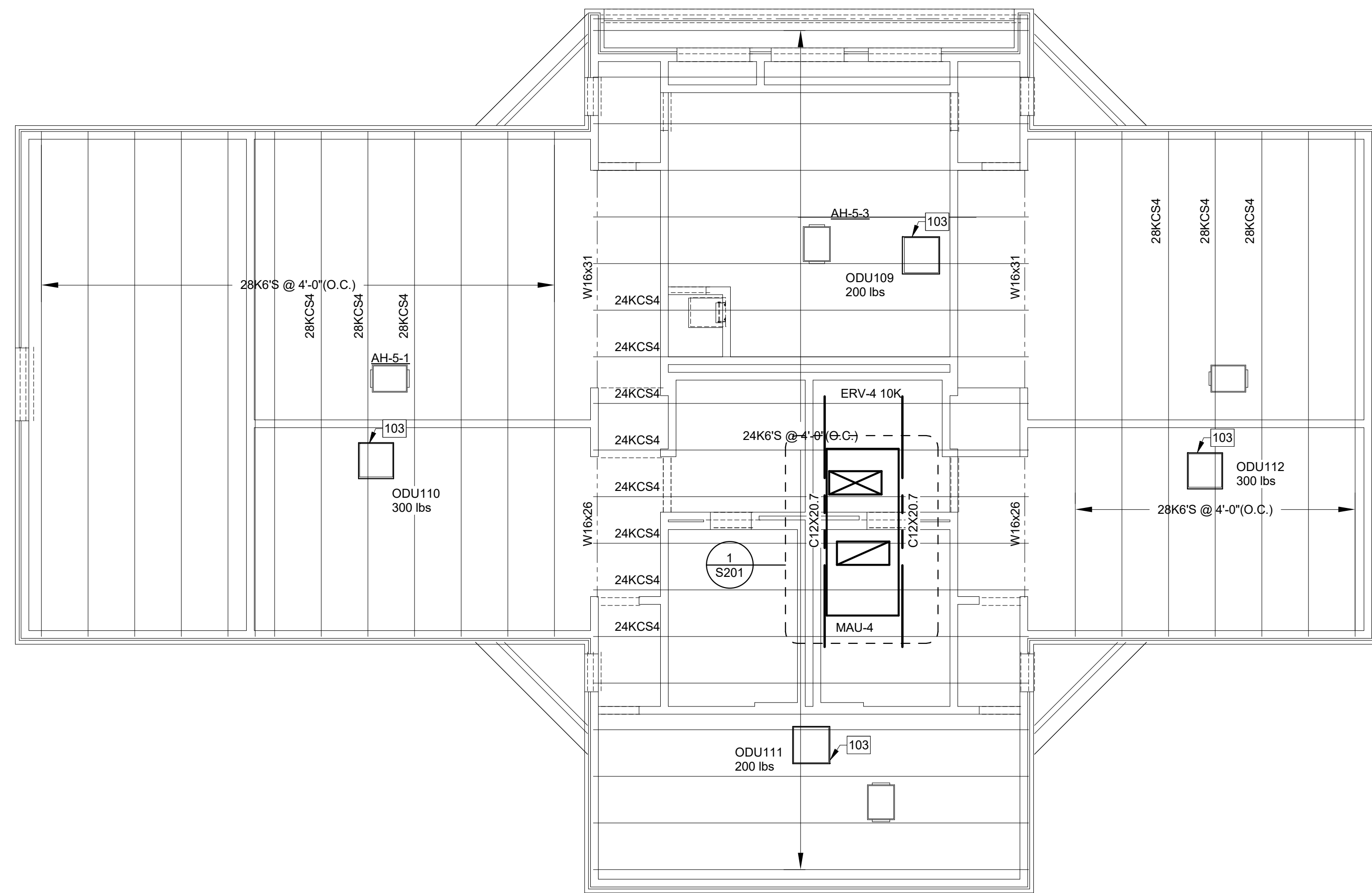


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HVAC HIGH ROOF
PLAN AREA J1

S109



1 HVAC AREA PLAN O
1/8" = 1'-0"

GENERAL NOTE:

- WEIGHTS INDICATED HEREIN SHALL BE A MAX WEIGHT FOR THE UNIT AND THE CURB. SEE S301 FOR MAX UNIT WEIGHT. IF WEIGHT IS GREATER THAN THAT INDICATED, NOTIFY THE EOR.

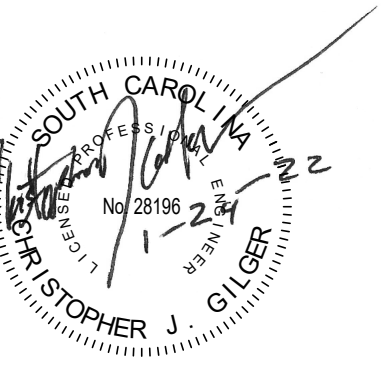
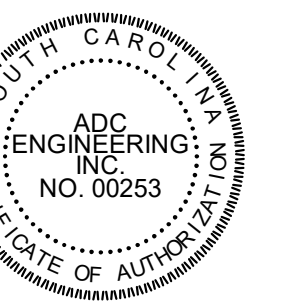
KEYED NOTES (THIS SHEET ONLY)

103	UNIT ATTACHMENT TO ROOF PER MEP DRAWING & SPECIFICATION REQUIREMENTS.
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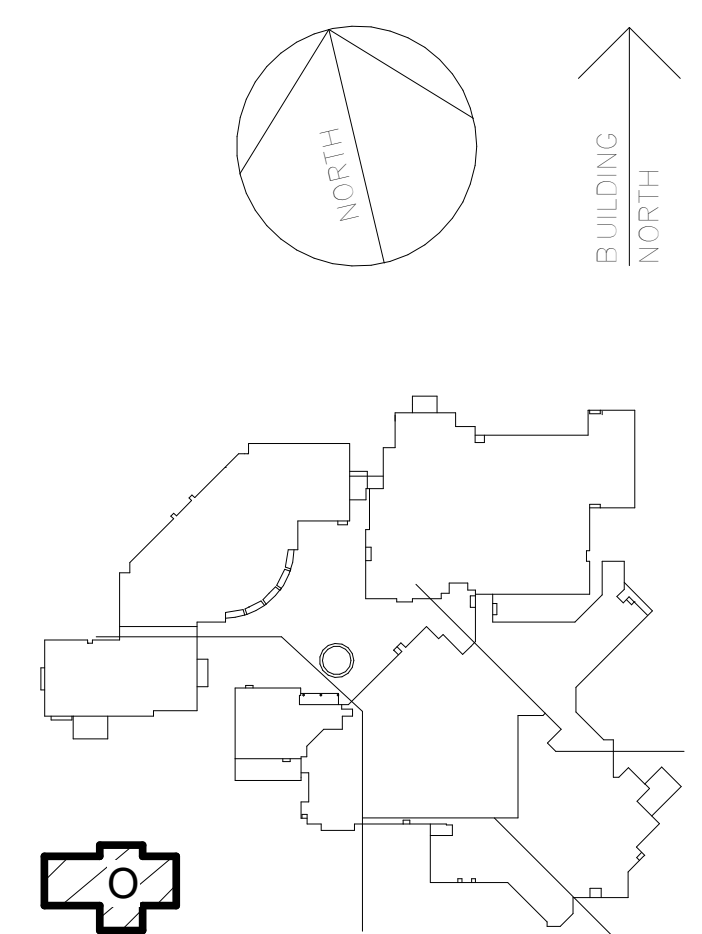
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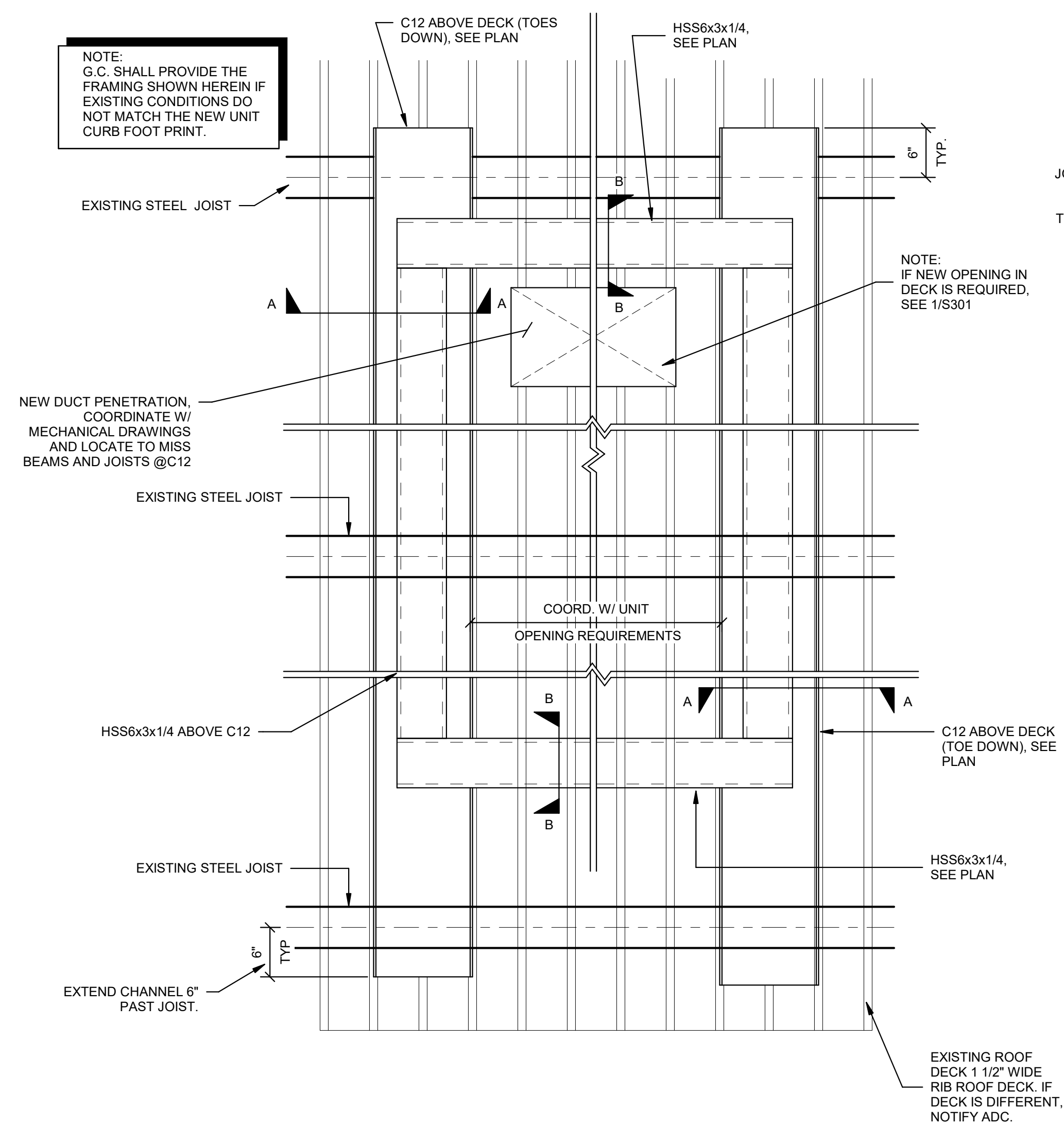
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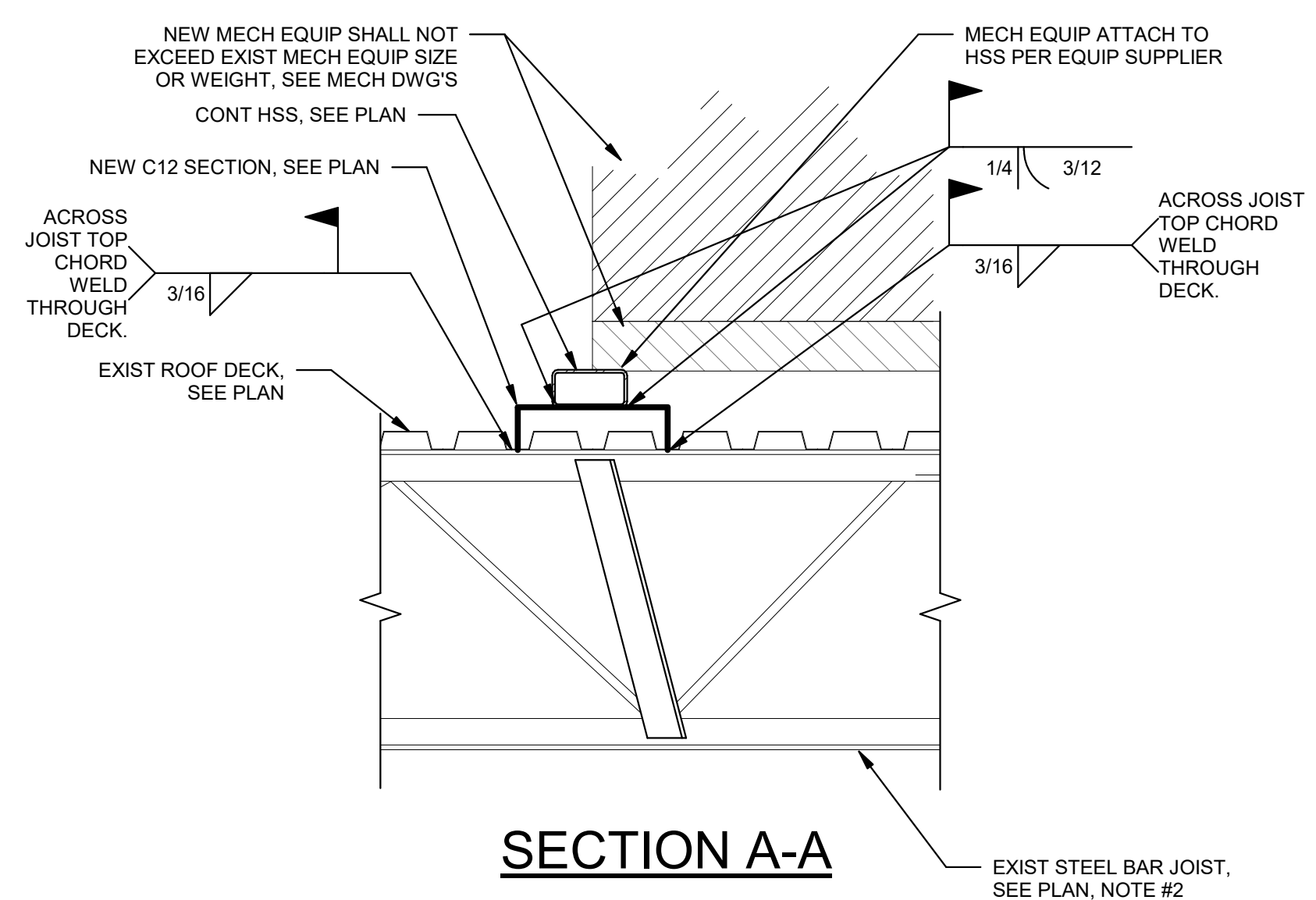
HVAC PLAN AREA O

S110



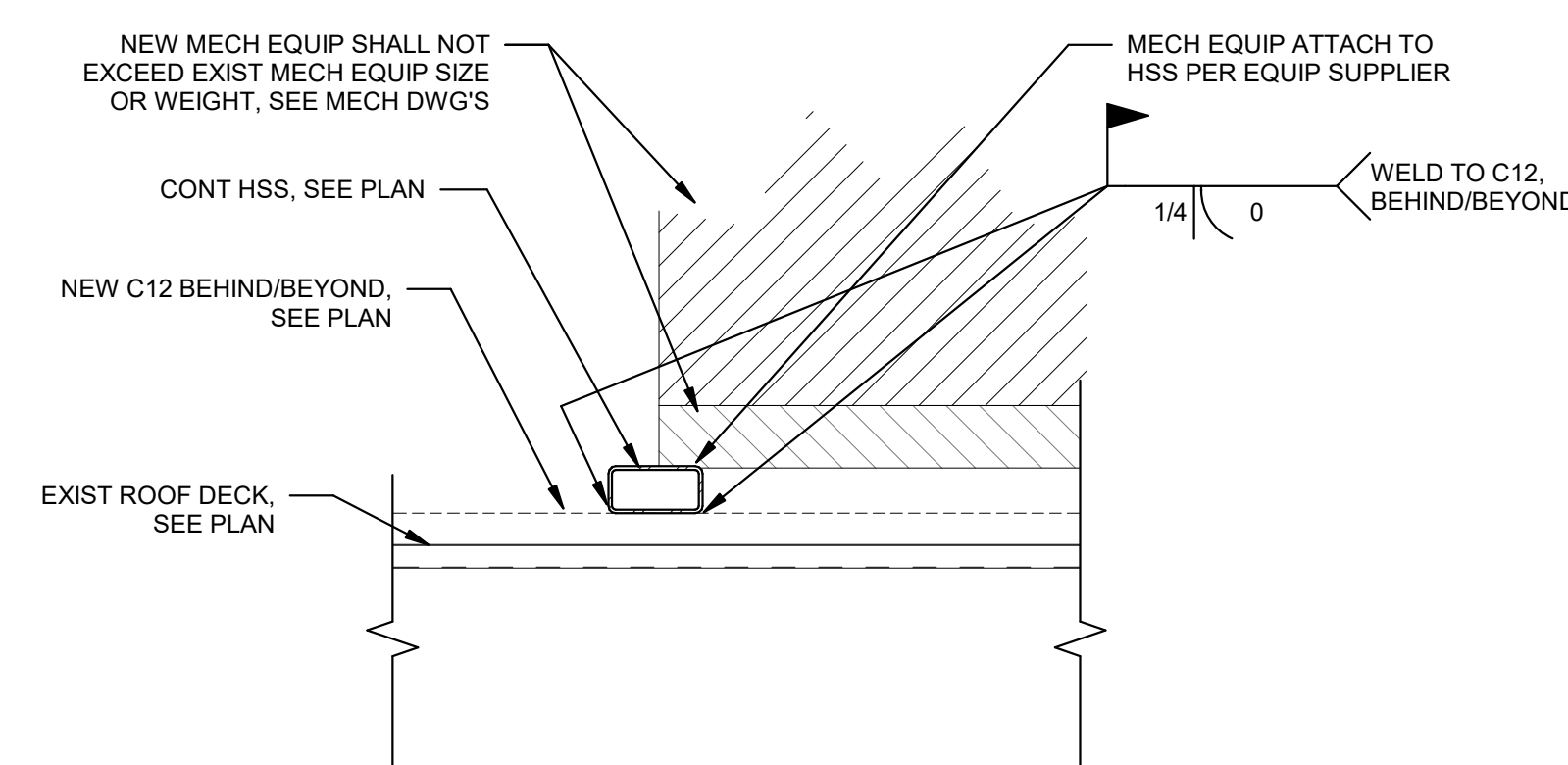
PLAN VIEW

1 TYP. RTU CURB DETAIL UNIT PERPENDICULAR TO JOISTS
1" = 1'-0"



SECTION A-A

NOTE:
1. DETAIL IS TYPICAL AT ALL MECHANICAL UNIT ROOF FRAME BEARING POINTS.
2. AT EVERY LOCATION WHERE CHANNEL BEARS ON JOIST, INSTALL JOIST STRUT PER 3/S301.

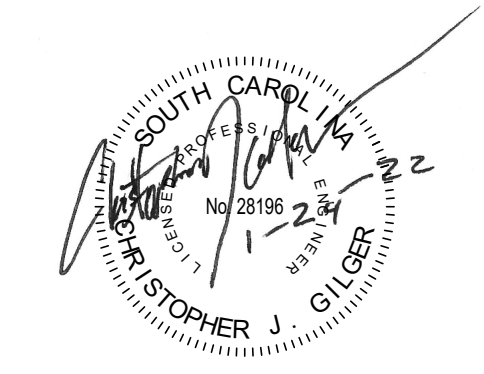
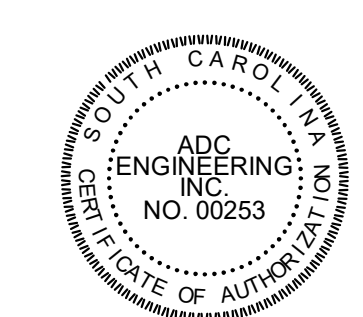


SECTION B-B

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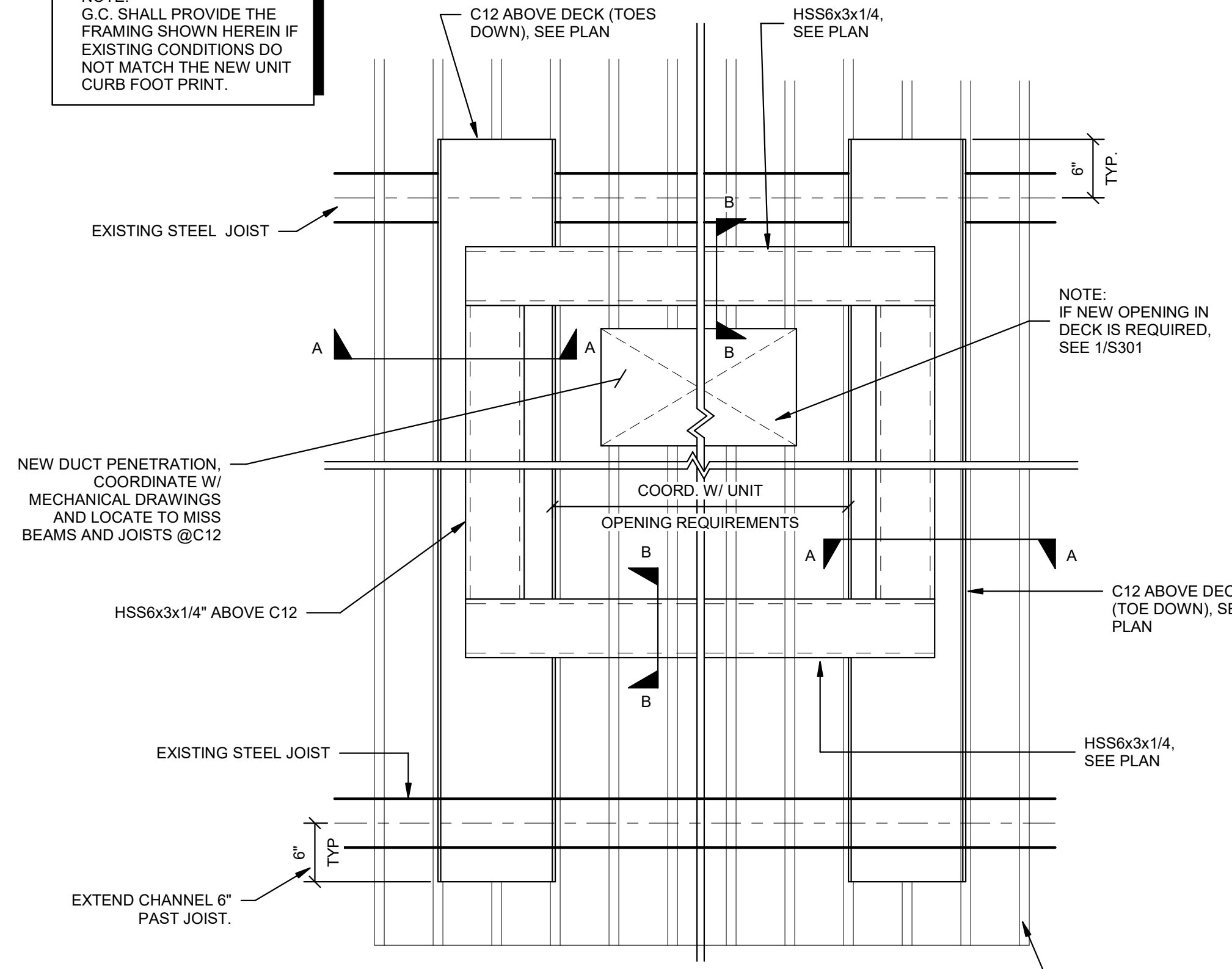
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HANAHAN, SC 29410
843-566-0161
ADCENGINEERING.COM

DATE:	1-24-2022
ADC PROJECT #:	21256
DESIGNED:	CJG/WJH
CHECKED:	CJG
DRAWN:	WJH
REVISION:	

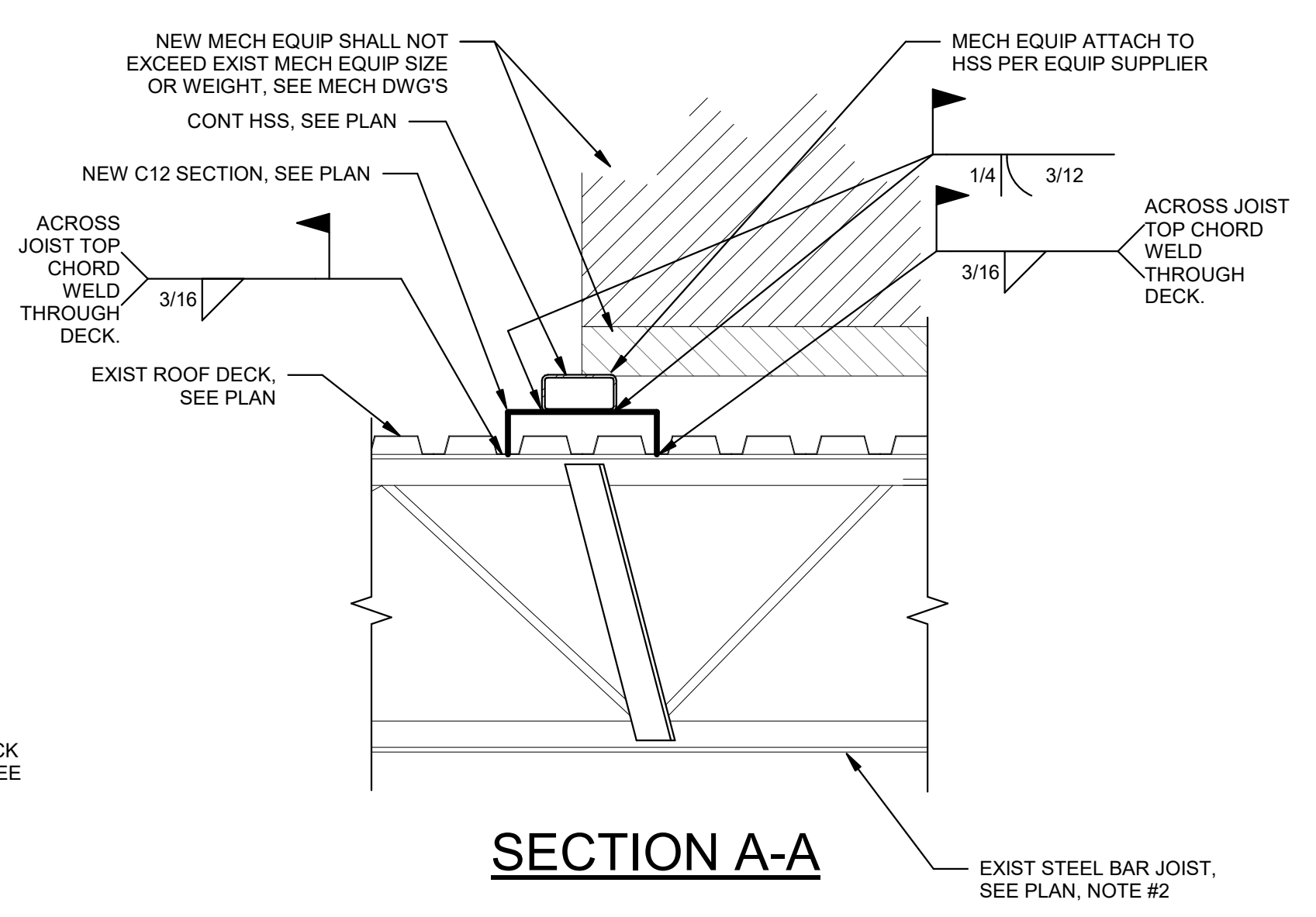
TYPICAL DETAILS

S201

NOTE:
G.C. SHALL PROVIDE THE FRAMING SHOWN HEREIN IF EXISTING CONDITIONS DO NOT MATCH THE NEW UNIT CURB FOOT PRINT.

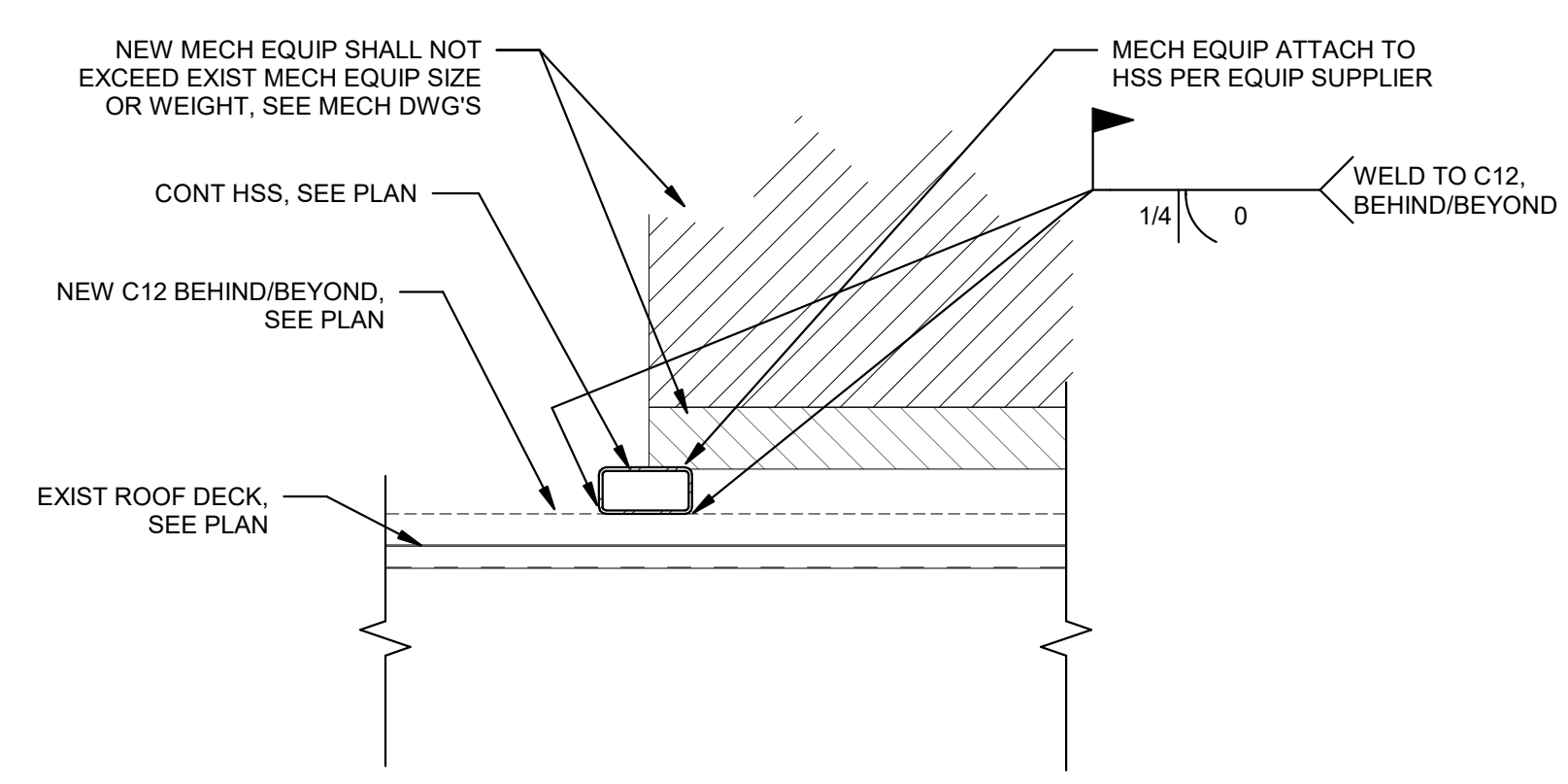


PLAN VIEW



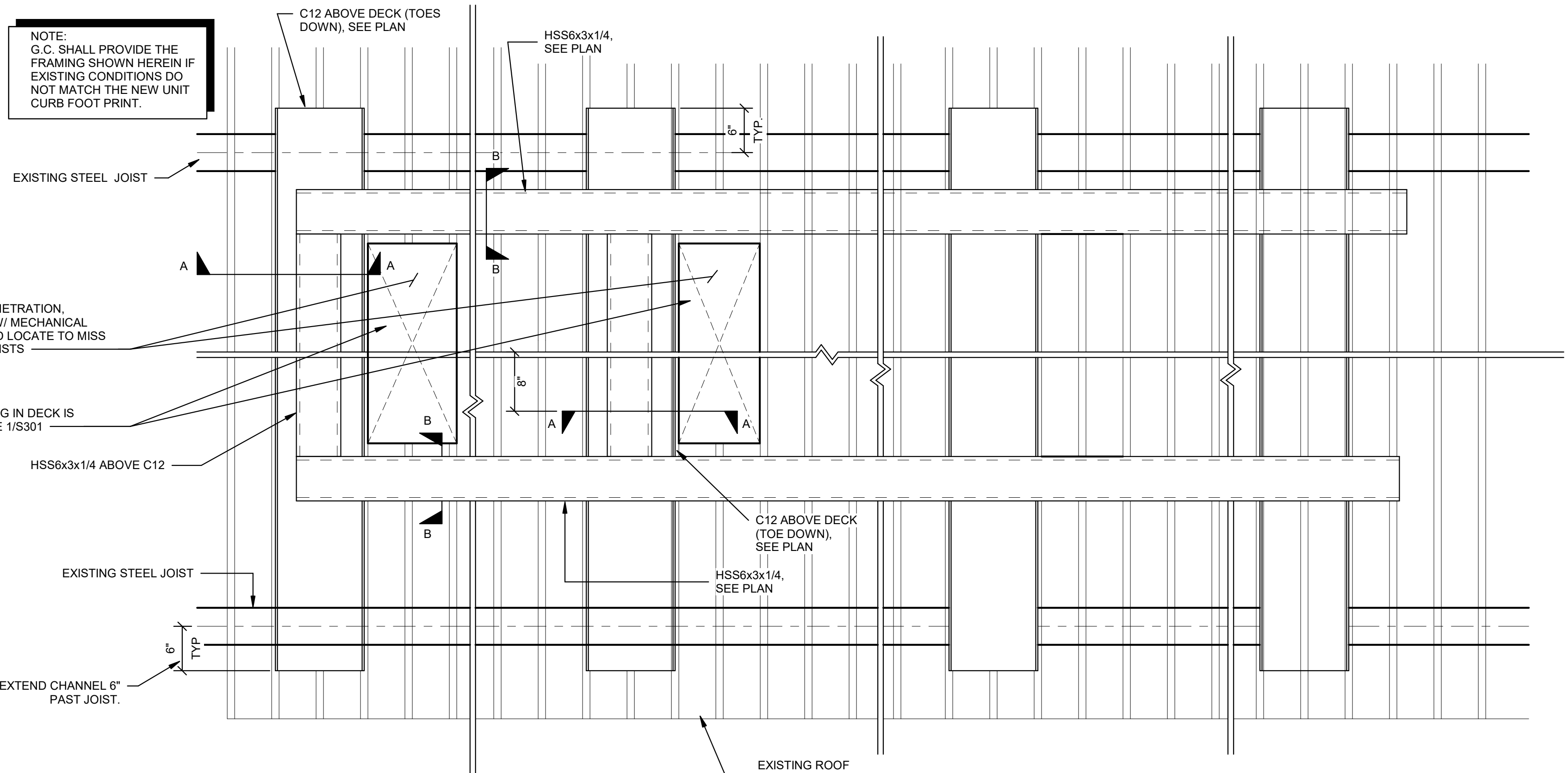
SECTION A-A

NOTE:
1. DETAIL IS TYPICAL AT ALL MECHANICAL UNIT ROOF FRAME BEARING POINTS.
2. AT EVERY LOCATION WHERE CHANNEL BEARS ON JOIST, INSTALL JOIST STRUT PER 3/S301

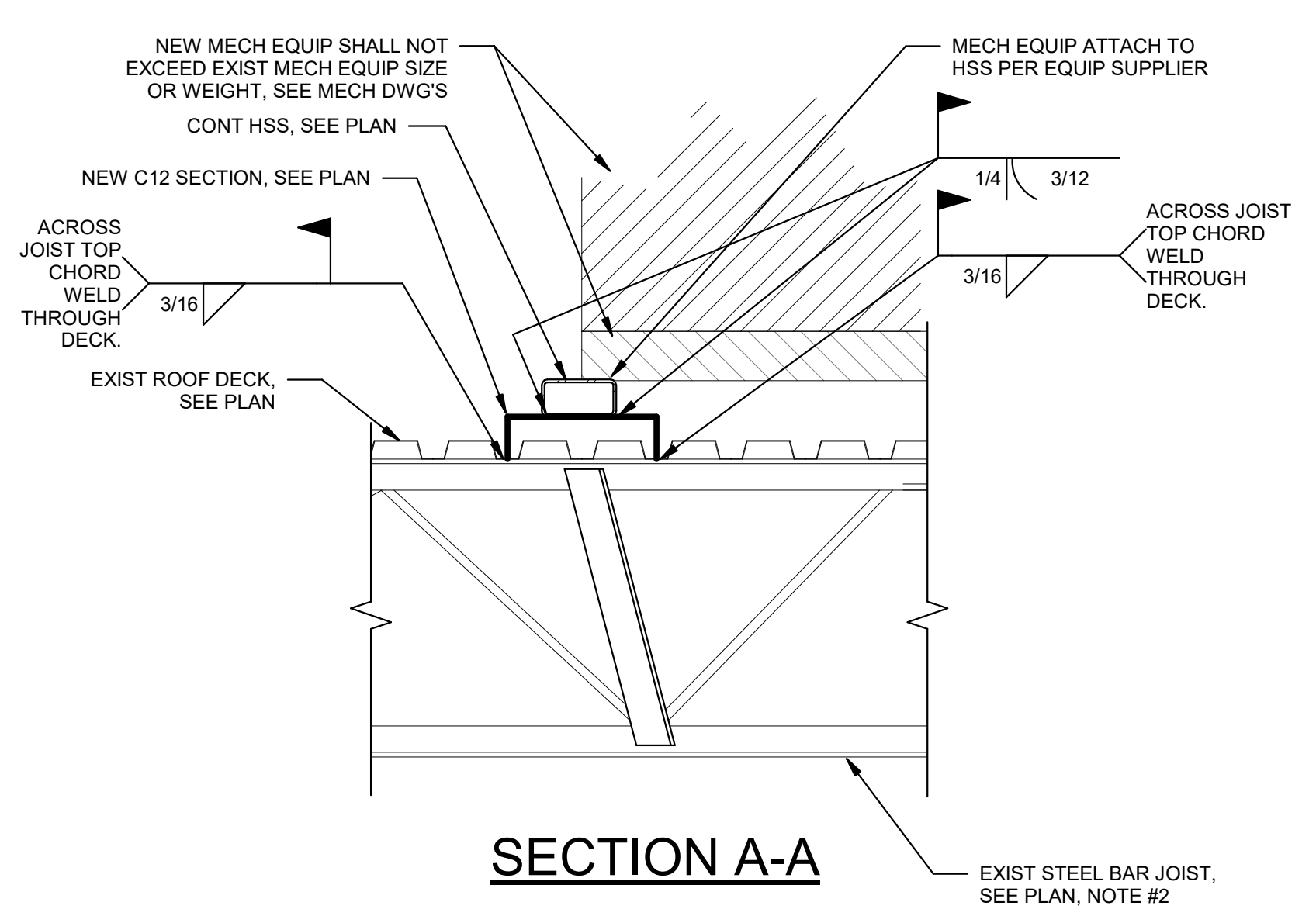


SECTION B-B

1 TYP. RTU CURB DETAIL SMALL UNIT BETWEEN JOISTS
1" = 1'-0"

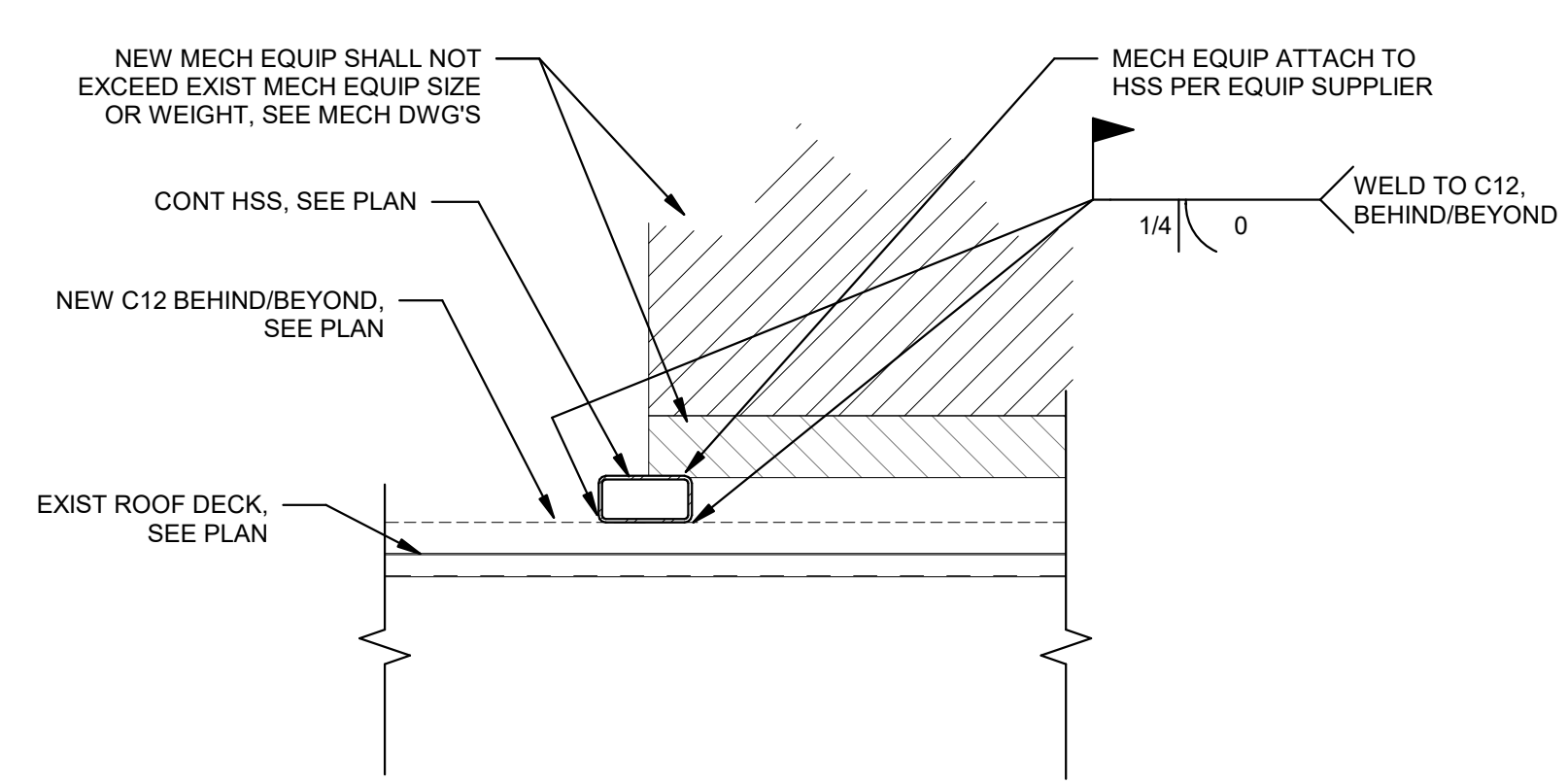


PLAN VIEW



SECTION A-A

NOTE:
1. DETAIL IS TYPICAL AT ALL MECHANICAL UNIT ROOF FRAME BEARING POINTS.
2. AT EVERY LOCATION WHERE CHANNEL BEARS ON JOIST, INSTALL JOIST STRUT PER 3/S301.



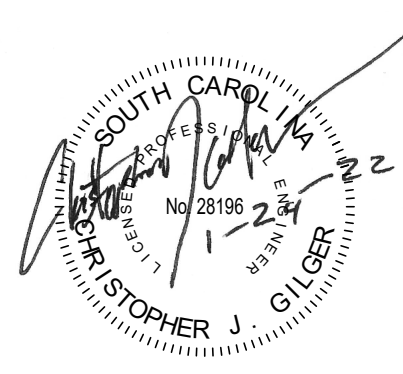
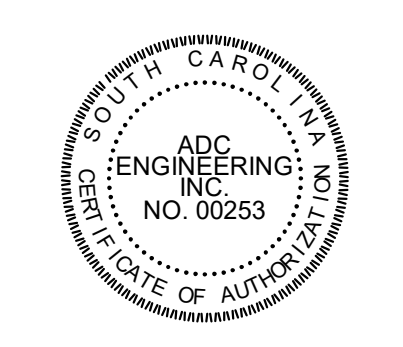
SECTION B-B

2 TYP. RTU CURB DETAIL LARGE/LONG UNIT PARALLEL TO JOISTS
1" = 1'-0"

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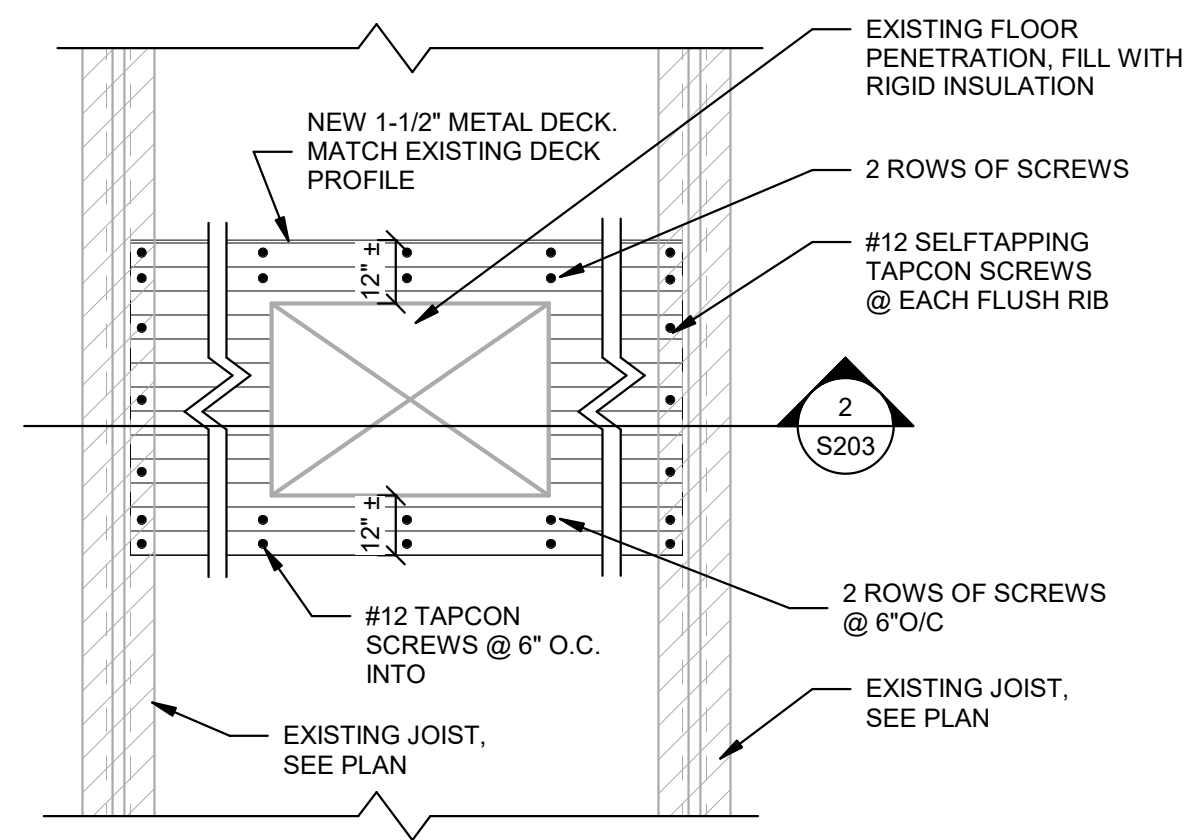


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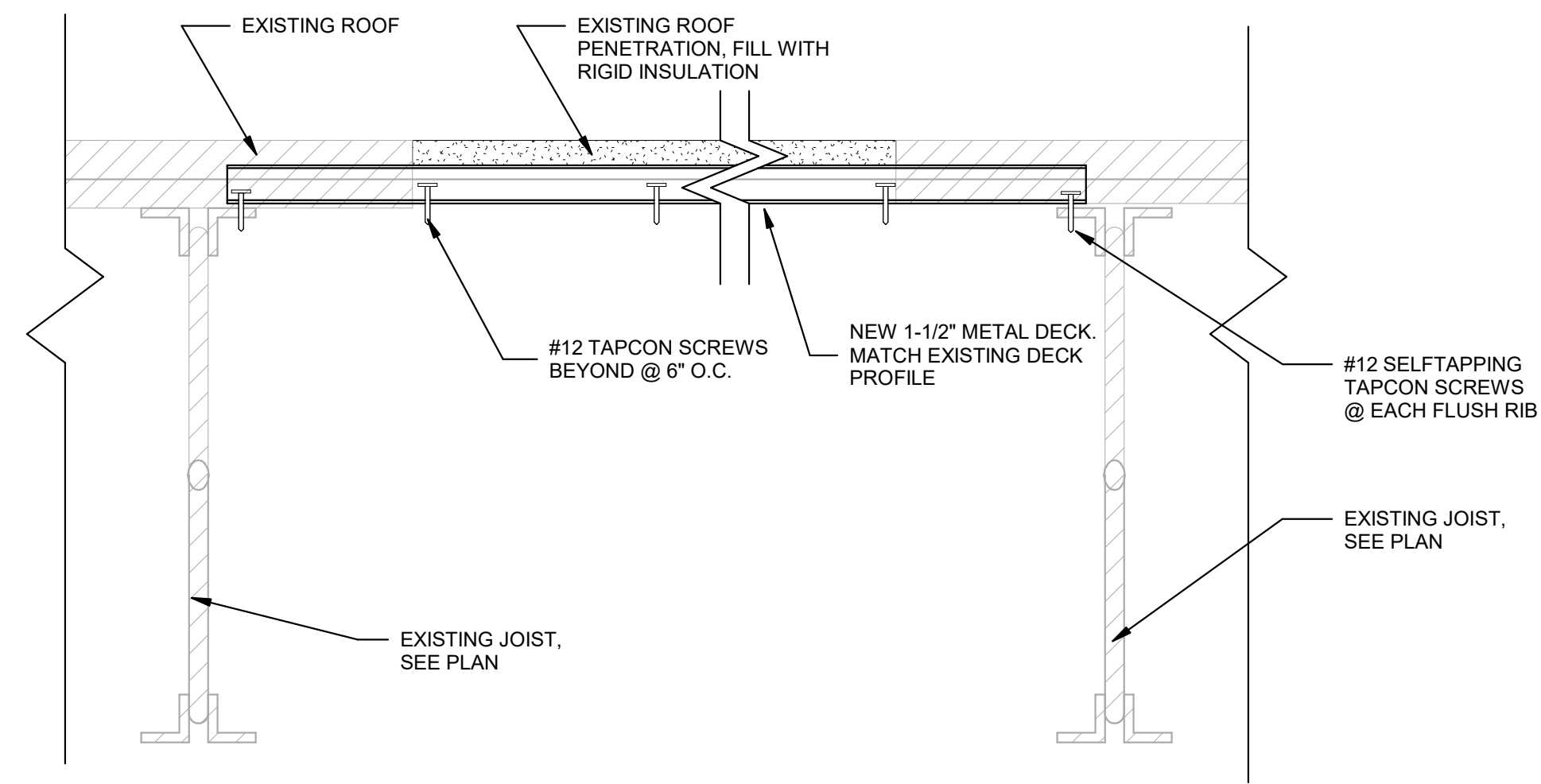
DATE: 1-24-2022
ADC PROJECT#: 21256
DESIGNED: C.JG/W.JH
CHECKED: C.JG
DRAWN: W.JH
REVISION:

TYPICAL DETAILS

S202



1 TYPICAL ROOF PENETRATION PATCH
1 1/2" = 1'-0"

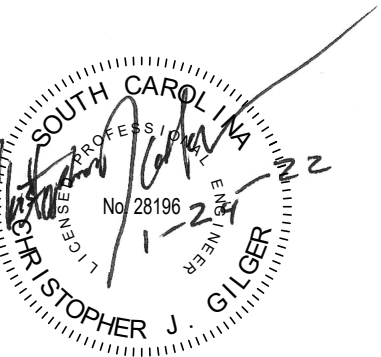
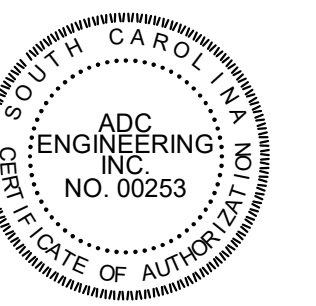


2 TYPICAL METAL ROOF OPENING INFILL DETAIL
3" = 1'-0"

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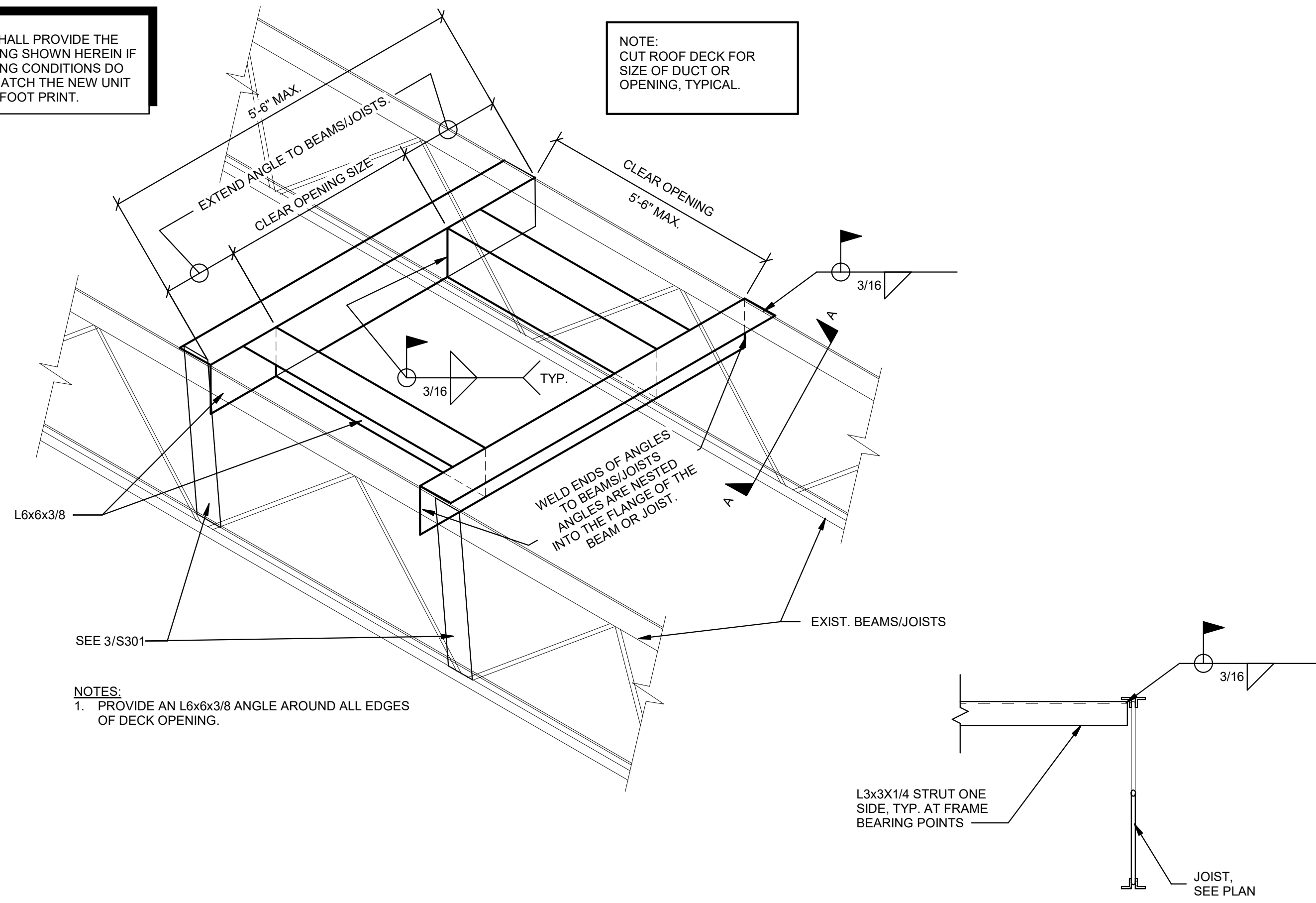
DATE: 1-24-2022
ADC PROJECT #: 21256
DESIGNED: Designer
CHECKED: Checker
DRAWN: Author
REVISION:

TYPICAL DETAILS

S203

NOTE:
G.C. SHALL PROVIDE THE FRAMING SHOWN HEREIN IF EXISTING CONDITIONS DO NOT MATCH THE NEW UNIT CURB FOOT PRINT.

NOTE:
CUT ROOF DECK FOR SIZE OF DUCT OR OPENING, TYPICAL.

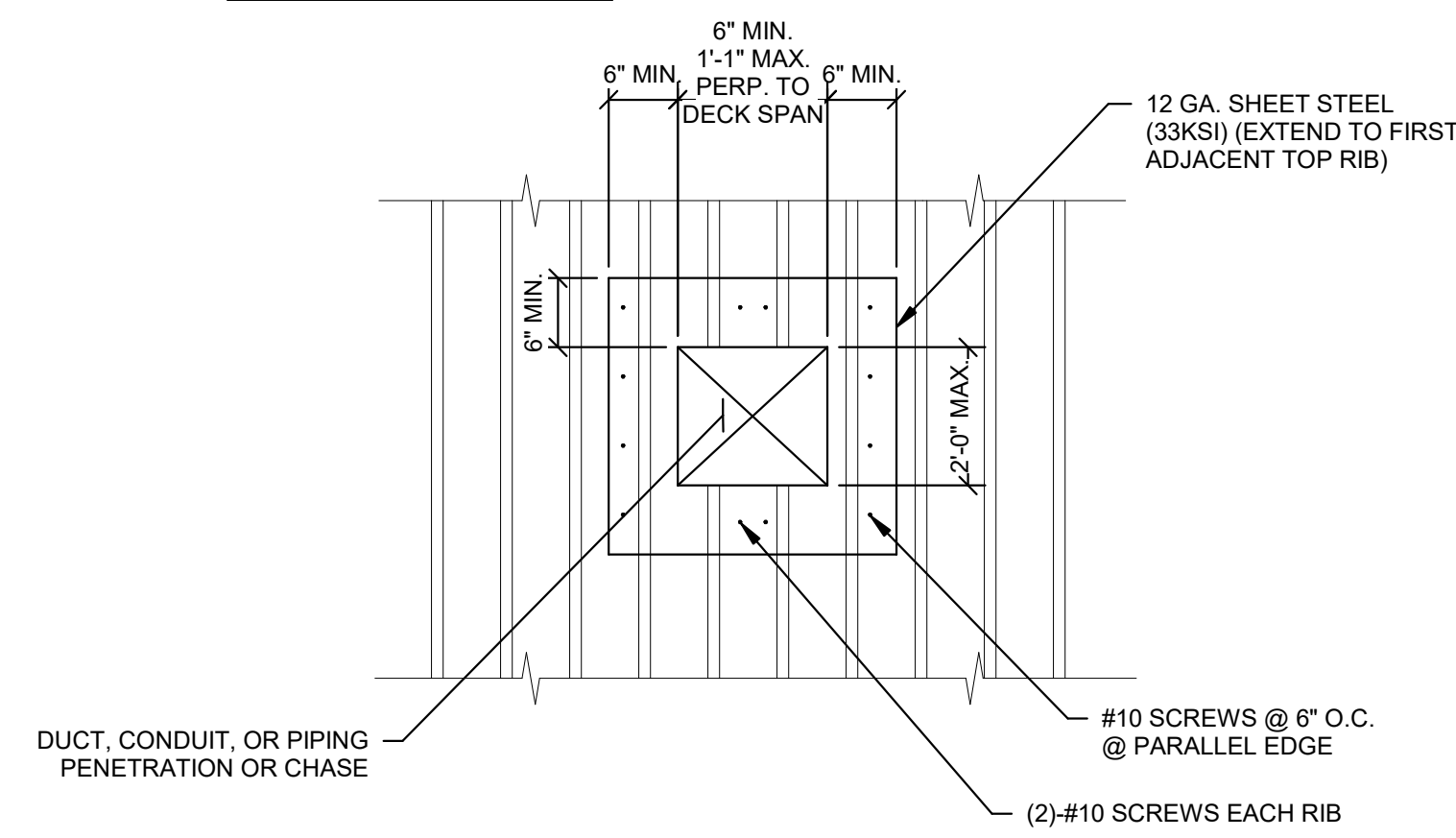


NOTES:
1. PROVIDE AN L6x6x3/8 ANGLE AROUND ALL EDGES OF DECK OPENING.

SECTION A-A

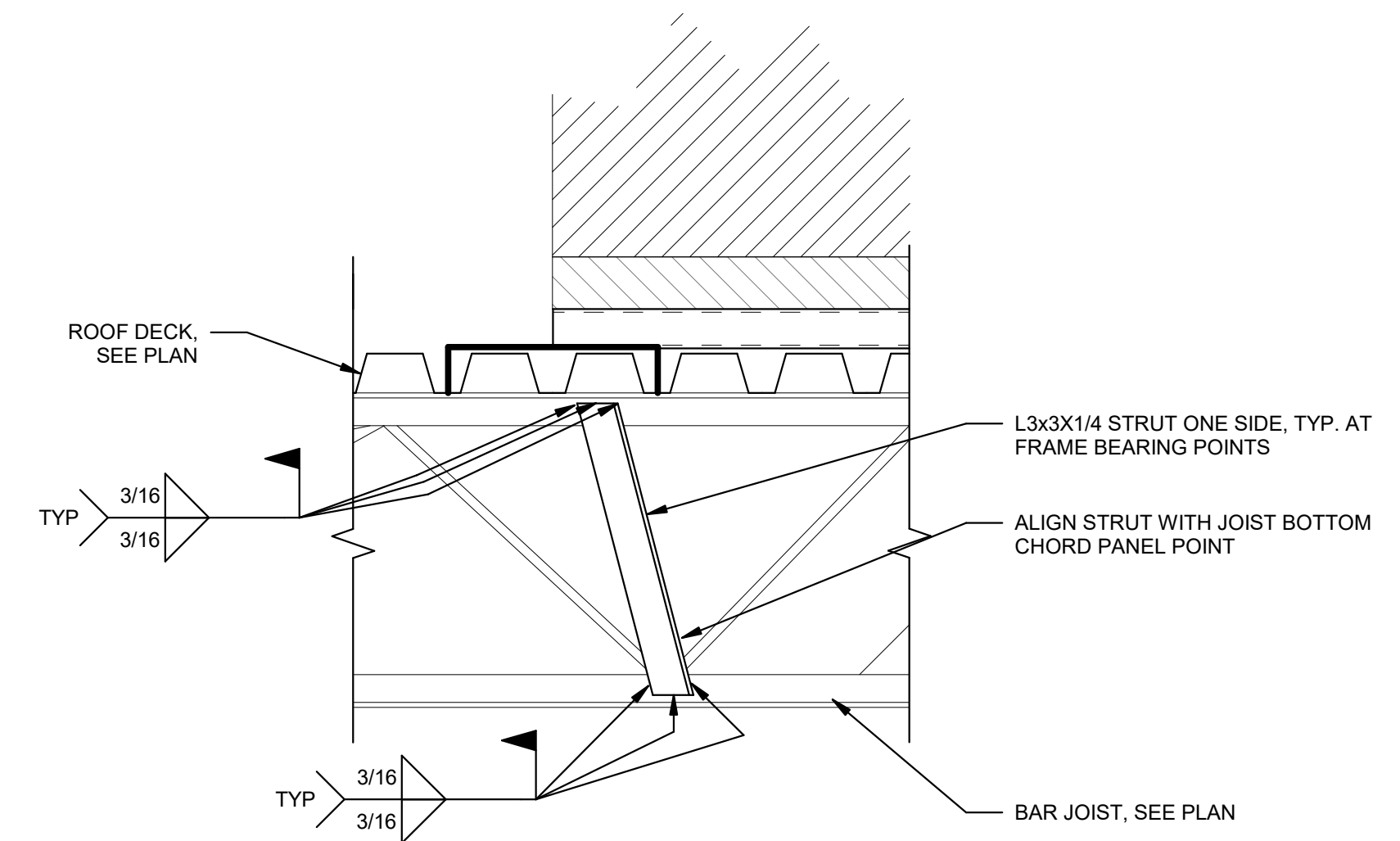
1 TYP. EXIST ROOF PENETRATION RETROFIT DETAIL
1" = 1'-0"

NOTE:
G.C. SHALL PROVIDE THE FRAMING SHOWN HEREIN IF EXISTING CONDITIONS DO NOT MATCH THE NEW UNIT CURB FOOT PRINT.



NOTES:
1. SEE ROOF FRAME DETAILS FOR PENETRATIONS AT ROOF DRAINS
2. DETAIL DOES NOT APPLY FOR SMALL FLOOR PENETRATIONS SAW CUT OR CORE DRILLED AFTER CONCRETE POUR

2 TYP. "SMALL" ROOF PENETRATION
3/4" = 1'-0"



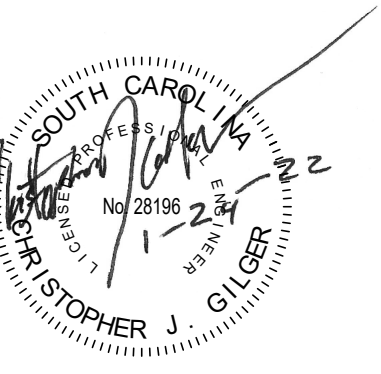
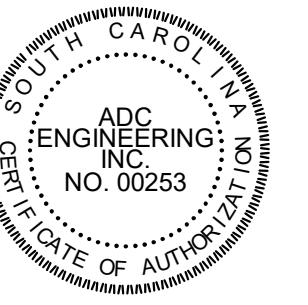
NOTE:
1. DETAIL IS TYPICAL AT ALL MECHANICAL UNIT ROOF FRAME BEARING POINTS
2. DETAIL IS TYPICAL AT ALL CONCENTRATED LOADS EXCEEDING 200 LBS NOT OCCURRING AT PANEL POINTS
3. DETAIL IS SIMILAR WHERE CONCENTRATED LOAD IS APPLIED AT BOTTOM CHORD. LOCATE TOP OF STRUT TO ALIGN WITH TOP CHORD PANEL POINT.

3 TYP. JOIST STRUT (CONCENTRATED LOAD)
1" = 1'-0"

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ADC PROJECT #: 21256
DESIGNED: Designer
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DRAWN: Author
REVISION:

SECTIONS & DETAILS

S301

SEISMIC AND WIND LOAD REQUIREMENTS

- A. PER THE INTERNATIONAL BUILDING CODE - 2018, MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT AND COMPONENTS, INCLUDING THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED FOR SEISMIC FORCES IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7-16.
- B. EXTERIOR EQUIPMENT (INCLUDING ROOF CURBS & ROOF RAILS) EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH CHAPTERS 28 TO 29 OF ASCE 7-16.
- C. WHERE DESIGN FOR SEISMIC AND WIND LOADS IS REQUIRED, THE MORE DEMANDING FORCE MUST BE USED.
- D. REFERENCE THE STRUCTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION ON SEISMIC DESIGN CATEGORY, WIND SPEEDS, ETC. IF STRUCTURAL DRAWINGS ARE NOT INCLUDED IN THE SCOPE OF THE CONTRACT DOCUMENTS, REFERENCE THE SITE SPECIFIC SEISMIC AND WIND LOAD DESIGN INFORMATION HEREIN.
- E. ALL EQUIPMENT AND SYSTEMS FOR THIS PROJECT HAVE A COMPONENT IMPORTANCE FACTOR (Ip) OF 1.0 UNLESS NOTED OTHERWISE.
- F. USE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH COMPONENT.
- G. FOR ALL COMPONENTS/SYSTEMS REQUIRING SEISMIC RESTRAINT, THE COMPONENT SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED (CALCULATIONS AND INSTALLATION DETAILS) AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER THAT IS DIRECTLY EMPLOYED BY THE SEISMIC RESTRAINT MANUFACTURER WITH AT LEAST FIVE YEARS OF SEISMIC DESIGN EXPERIENCE. LICENSED IN THE STATE OF THE JOB LOCATION. ALL RESTRAINING DEVICES SHALL HAVE A PREAPPROVAL NUMBER FROM CALIFORNIA OSHPD OR SOME OTHER RECOGNIZED GOVERNMENT AGENCY SHOWING MAXIMUM RESTRAINT RATINGS.
- H. WHERE SEISMIC RESTRAINT IS REQUIRED, HOUSEKEEPING PADS NEEDED FOR THE INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT MUST BE DESIGNED AND STAMPED BY THE SEISMIC ENGINEER. DO NOT POUR ANY HOUSEKEEPING PADS PRIOR TO THE RECEIPT OF AN APPROVED SEISMIC SUBMITTAL FROM THE ENGINEER OF RECORD. ALL HOUSEKEEPING PADS DESIGNED AS EXPANSIONS TO EXISTING PADS OR INSTALLED ON TOP OF EXISTING CONCRETE FLOOR SYSTEMS SHALL BE DOWELED INTO THE EXISTING SYSTEMS.
- I. SEISMIC RESTRAINTS FOR DUCTWORK, PIPING, CONDUIT, CABLE TRAY, AND BUS DUCT MUST BE SHOWN ON LAYOUT DRAWINGS SHOWING SPECIFIC RESTRAINT LOCATIONS ALONG WITH ACCOMPANYING DETAILS AND CALCULATIONS PER THE SEISMIC ENGINEER.

COMPONENT/SYSTEM IMPORTANCE FACTOR (Ip) SCHEDULE AND SEISMIC DESIGN INFORMATION

Ip = 1.0	ALL SYSTEMS
----------	-------------

SEISMIC DESIGN INFORMATION:

1. RISK CATEGORY = III
2. SITE CLASSIFICATION = D
3. SHORT PERIOD DESIGN SPECTRAL ACCELERATION (Sd1) = 0.181
4. LONG PERIOD DESIGN SPECTRAL ACCELERATION (Sds) = 0.322

SEISMIC DESIGN CATEGORY TABLE - DESIGN CATEGORIES D, E, & F

		COMPONENT IMPORTANCE FACTOR (Ip)			
		Ip = 1.0		Ip = 1.5	
		COMPONENT/SYSTEM IDENTIFICATION	ASCE 7-16 REFERENCE	COMPONENT/SYSTEM IDENTIFICATION	ASCE 7-16 REFERENCE
ROOF MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
FLOOR MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTES 1, 2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
WALL MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTES 1, 2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
COMPONENT SUPPORTS		RESTRAIN ALL (SEE NOTE 1)	13.6.5	RESTRAIN ALL	13.6.5
SUSPENDED EQUIPMENT	INLINE WITH DUCT/PIPE	RESTRAIN IF > 75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7	RESTRAIN IF > 75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7
	NOT INLINE WITH DUCT/PIPE	RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
SUSPENDED DUCTILE PIPING (STEEL, ALUMINUM, COPPER, ETC.)		RESTRAIN IF > 3" (SEE NOTE 4)	13.6.8.3.3.c	RESTRAIN IF > 1" (SEE NOTE 4)	13.6.8.3.3.b
SUSPENDED NON DUCTILE PIPING (CAST IRON, PLASTIC, CERAMIC)		RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3	RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3
SUSPENDED PIPE ON TRAPEZE		RESTRAIN IF ANY PIPE ON TRAPEZE > 3" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE > 10 LBS/FT (SEE NOTE 4)	13.6.8.3.1	RESTRAIN IF ANY PIPE ON TRAPEZE > 1" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE > 10 LBS/FT (SEE NOTE 4)	13.6.8.3.1
DUCTWORK		RESTRAIN IF > 6 SQFT AND > 17 LBS/FT (SEE NOTES 4,5)	13.6.7	RESTRAIN IF > 6 SQFT AND > 17 LBS/FT (SEE NOTES 4,5)	13.6.7
MULTIPLE DUCTS ON TRAPEZE		RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE > 10 LBS/FT (SEE NOTES 4,5)	13.6.7	RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE > 10 LBS/FT (SEE NOTES 4,5)	13.1.4.6
SINGLE CONDUIT		RESTRAIN IF > 2.5" (SEE NOTE 4)	13.6.5.6	RESTRAIN IF > 2.5" (SEE NOTE 4)	13.6.5.6
CABLE TRAY/BUS DUCT/TRAPEZED CONDUIT		RESTRAIN IF TOTAL WEIGHT OF RACEWAY > 10 LBS/FT (SEE NOTE 4)	13.6.5.6	RESTRAIN IF TOTAL WEIGHT OF RACEWAY > 10 LBS/FT (SEE NOTE 4)	13.6.5.6
PENDANT, LAY-IN, AND CAN LIGHTS		REQUIRED (SEE NOTE 6)	13.5.6.2	REQUIRED (SEE NOTE 6)	13.5.6.2
COMPONENT CERTIFICATION		NOT REQUIRED	13.2.2	REQUIRED (SEE NOTE 7)	13.2.2

1. EQUIPMENT 20 LBS. OR LESS IS EXEMPT IF THE COMPONENT IS POSITIVELY ATTACHED TO THE STRUCTURE, AND FLEXIBLE CONNECTIONS ARE PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
2. RESTRAINTS ARE NOT REQUIRED IF THE COMPONENT WEIGHS 400 LBS. OR LESS. IS MOUNTED WITH THE CENTER OF MASS AT 4 FT OR LESS ABOVE FINISHED FLOOR. IS POSITIVELY ATTACHED TO THE STRUCTURE, AND HAS FLEXIBLE CONNECTIONS BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
3. FLEXIBLE CONNECTIONS REQUIRED FOR DUCT, PIPE, AND ELECTRICAL CONNECTIONS.
4. RESTRAINT IS NOT REQUIRED IF THE PIPING/DUCTWORK/CONDUIT IS SUPPORTED BY HANGERS AND EACH HANGER IN THE PIPING RUN IS 12" OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE SUPPORTING STRUCTURE. WHERE PIPES ARE SUPPORTED ON A TRAPEZE, THE TRAPEZE SHALL BE SUPPORTED BY HANGERS HAVING A LENGTH OF 12" OR LESS. WHERE ROD HANGERS ARE USED, THEY SHALL BE EQUIPPED WITH SWIVELS, EYE NUTS, OR OTHER DEVICES TO PREVENT BENDING IN THE ROD.
5. ALL DUCTWORK, REGARDLESS OF SIZE, DESIGNED TO CARRY TOXIC, HIGHLY TOXIC, OR EXPLOSIVE GASES OR USED FOR SMOKE CONTROL MUST BE RESTRAINED.
6. COMPONENT CERTIFICATION MUST BE SUPPLIED BY THE EQUIPMENT MANUFACTURER AT TIME OF SUBMITTAL FOR REVIEW BY THE ENGINEER OF RECORD.

GENERAL NOTES:

1. DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO STARTING WORK.
2. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INTERIOR DIMENSIONS.
3. SEE EQUIPMENT DETAILS FOR CONNECTIONS TO MECHANICAL EQUIPMENT.
4. AIR DISTRIBUTION DEVICES ARE EXISTING AND ARE TO REMAIN WHERE LOCATED IN EXISTING CEILINGS. FOR NEW AIR DISTRIBUTION DEVICES LOCATED IN EXISTING CEILINGS, LOCATE NEW AIR DISTRIBUTION DEVICE WHERE PREVIOUS AIR DEVICE WAS LOCATED.
5. EXISTING TO REMAIN (ETR) EQUIPMENT AND SYSTEMS ARE SHOWN FOR REFERENCE ONLY.
6. REMOVE AND PROTECT CEILING TILES DURING DEMOLITION AND CONSTRUCTION FOR REUSE IN NEW WORK. CEILING TILES BROKEN OR DAMAGED DURING THE COURSE OF DEMOLITION AND/OR CONSTRUCTION SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO OWNER.
7. AIRFLOW VALUES ARE SHOWN FOR TAB CONTRACTOR'S REFERENCE. TAB CONTRACTOR SHALL BALANCE THE SYSTEMS TO THE AIRFLOWS INDICATED. NEW AIR DEVICES ARE SHOWN WITH TAG AND AIRFLOW VALUE. SEE AIR DISTRIBUTION SCHEDULE ON SHEET M601 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. LOCATIONS OF RATED WALLS ARE SHOWN BASED ON LIFE SAFETY AS-BUILT PLANS. CONTRACTOR SHALL VERIFY ALL RATED WALL LOCATIONS IN THE FIELD.
9. ALL EXISTING DUCTS TO REMAIN NEED TO BE INSPECTED AND CLEANED PER SPEC 23 01 30 52.

HVAC LEGEND

- | | |
|--|---|
| | SUPPLY DUCT RISER |
| | RETURN DUCT RISER |
| | EXHAUST DUCT RISER |
| | NEW DUCTWORK (FIRST DIMENSION IS WIDTH IN INCHES) |
| | EXISTING DUCTWORK (FIRST DIMENSION IS WIDTH IN INCHES) |
| | FLEXIBLE DUCTWORK |
| | DUCTWORK TAKE OFFS (SPIN-IN, CONICAL, SHOE) |
| | DUCTWORK TRANSITION (CONCENTRIC) |
| | DUCTWORK TRANSITION (ECCENTRIC) |
| | DUCTWORK TEE |
| | TURNING VANE |
| | RADIUS ELBOW |
| | INCLINED RISE (R) OR DROP (D), ARROW IN DIRECTION OF AIR FLOW |
| | MANUAL DAMPER |
| | HORIZONTAL FIRE (FD), SMOKE (SD), OR COMBINATION FIRE SMOKE (FSD) DAMPER |
| | MOTORIZED (MD) OR BACKDRAFT (BDD) DAMPER |
| | SUPPLY DIFFUSER (24"X24" FACE UNLESS NOTED OTHERWISE) |
| | SUPPLY REGISTER (SIDEWALL) |
| | RETURN AIR GRILLE (24"X24" FACE UNLESS NOTED OTHERWISE) |
| | EXHAUST AIR GRILLE (24"X24" FACE UNLESS NOTED OTHERWISE) |
| | RETURN OR EXHAUST AIR GRILLE (SIDEWALL) |
| | AREA OF DEMOLITION |
| | DISCONNECT FROM EXISTING |
| | CONNECT TO EXISTING |
| | EXISTING VAV ('X' DENOTES EQUIPMENT TAG) |
| | EXISTING RTU ('X' DENOTES EQUIPMENT TAG) |
| | EXISTING SSHP OUTDOOR UNIT ('X' DENOTES EQUIPMENT TAG) |
| | EXISTING SSHP INDOOR UNIT ('X' DENOTES EQUIPMENT TAG) |
| | EXISTING CEILING EXHAUST FAN ('X' DENOTES EQUIPMENT TAG) |
| | EXISTING ROOF MOUNTED EXHAUST FAN ('X' DENOTES EQUIPMENT TAG) |
| | NEW VAV ('X' DENOTES EQUIPMENT TAG) |
| | NEW RTU ('X' DENOTES EQUIPMENT TAG), PRECEDENT STYLE UNIT |
| | NEW RTU ('X' DENOTES EQUIPMENT TAG), IMPACK STYLE UNIT |
| | NEW SSHP INDOOR UNIT ('X' DENOTES EQUIPMENT TAG) |
| | NEW SSHP OUTDOOR UNIT ('X' DENOTES EQUIPMENT TAG) |
| | NEW CEILING EXHAUST FAN ('X' DENOTES EQUIPMENT TAG) |
| | NEW ROOF MOUNTED EXHAUST FAN ('X' DENOTES EQUIPMENT TAG) |
| | NEW DUCTLESS SPLIT SYSTEM INDOOR UNIT ('X' DENOTES EQUIPMENT TAG) |
| | NEW DUCTLESS SPLIT SYSTEM OUTDOOR (CONDENSING) UNIT ('X' DENOTES EQUIPMENT TAG) |
| | THERMOSTAT (DOTTED LINE SHOWS ASSOCIATED UNIT(S)) |

ABBREVIATIONS

- | | |
|-------------|------------------------------------|
| A/E | ARCHITECT / ENGINEER |
| AD | ACCESS DOOR |
| AFF | ABOVE FINISHED FLOOR |
| AFMS | AIRFLOW MEASURING STATION |
| AP | ACCESS PANEL |
| APD | AIR PRESSURE DROP |
| BAS | BUILDING AUTOMATION SYSTEM |
| BDD | BACKDRAFT DAMPER |
| BHP | BRAKE HORSEPOWER |
| BTU | BRITISH THERMAL UNIT |
| BTUH | BRITISH THERMAL UNIT PER HOUR |
| CC | COOLING COIL |
| CFM | CUBIC FEET PER MINUTE |
| CM | CARBON MONOXIDE |
| CO | CLEAN OUT |
| CO2 | CARBON DIOXIDE |
| COP | COEFFICIENT OF PERFORMANCE |
| CU | CONDENSING UNIT |
| CV | CONSTANT VOLUME |
| DB | DRY BULB |
| DDC | DIRECT DIGITAL CONTROLS |
| DEG | DEGREE |
| DOM | DOMESTIC |
| DHWR | DOMESTIC HOT WATER RETURN |
| DP | DEW POINT |
| DX | DIRECT EXPANSION |
| EA | EXHAUST AIR |
| EAT | ENTERING AIR TEMPERATURE |
| EER | ENERGY EFFICIENCY RATIO |
| ESP | EXTERNAL STATIC PRESSURE |
| ETR | EXISTING TO REMAIN |
| EX OR (E) | EXISTING |
| F | FAHRENHEIT |
| FA | FREE AREA |
| FC | FLEXIBLE CONNECTION |
| FT | FEET |
| HGR OR HGRH | HOT GAS REHEAT |
| HOA | HAND/OFF/AUTOMATIC |
| HP | HORSEPOWER |
| HX | HEAT EXCHANGER |
| HZ | HERTZ |
| I/O | INPUT/OUTPUT |
| IAQ | INDOOR AIR QUALITY |
| IN | INCHES |
| IN HG | INCHES OF MERCURY |
| IN WC | INCHES WATER COLUMN |
| INLV | INTEGRATED PART LOAD VALUE |
| LAT | LEAVING AIR TEMPERATURE |
| LBS/HR | POUNDS PER HOUR |
| LF | LINEAR FOOT (FEET) |
| MAT | MIXED AIR TEMPERATURE |
| MAX | MAXIMUM |
| MBH | 1000 BTUH |
| MCA | MINIMUM CIRCUIT AMPACITY |
| MERV | MINIMUM EFFICIENCY REPORTING VALUE |
| MIN | MINIMUM |
| MOCP | MAXIMUM OVERCURRENT PROTECTION |
| NA | NOT APPLICABLE |
| NC | NOISE CRITERIA |
| NOM | NOMINAL |
| NTS | NOT TO SCALE |
| OA | OUTSIDE AIR |
| OAD | OUTDOOR AIR DAMPER |
| PD | PRESSURE DROP |
| PPM | PARTS PER MILLION |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQUARE INCH - GAGE |
| RA | RETURN AIR |
| RH | RELATIVE HUMIDITY |
| RHC | REHEAT COIL |
| RPM | REVOLUTIONS PER MINUTE |
| SA | SUPPLY AIR |
| SAT | SOUND ATTENUATOR |
| SAT | SUPPLY AIR TEMPERATURE |
| SCR | SILICON CONTROLLED RECTIFIER |
| SP | STATIC PRESSURE |
| SS | STAINLESS STEEL |
| TAB | TESTING, ADJUSTING, AND BALANCING |
| TSP | TOTAL STATIC PRESSURE |
| TSTAT | THERMOSTAT |
| VAV | VARIABLE AIR VOLUME |
| VFD | VARIABLE FREQUENCY DRIVE |
| W | WATTS |
| WB | WET BULB |



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 HVAC REPLACEMENT**
 201 JORDANVILLE RD., AYNOR, SC 29511

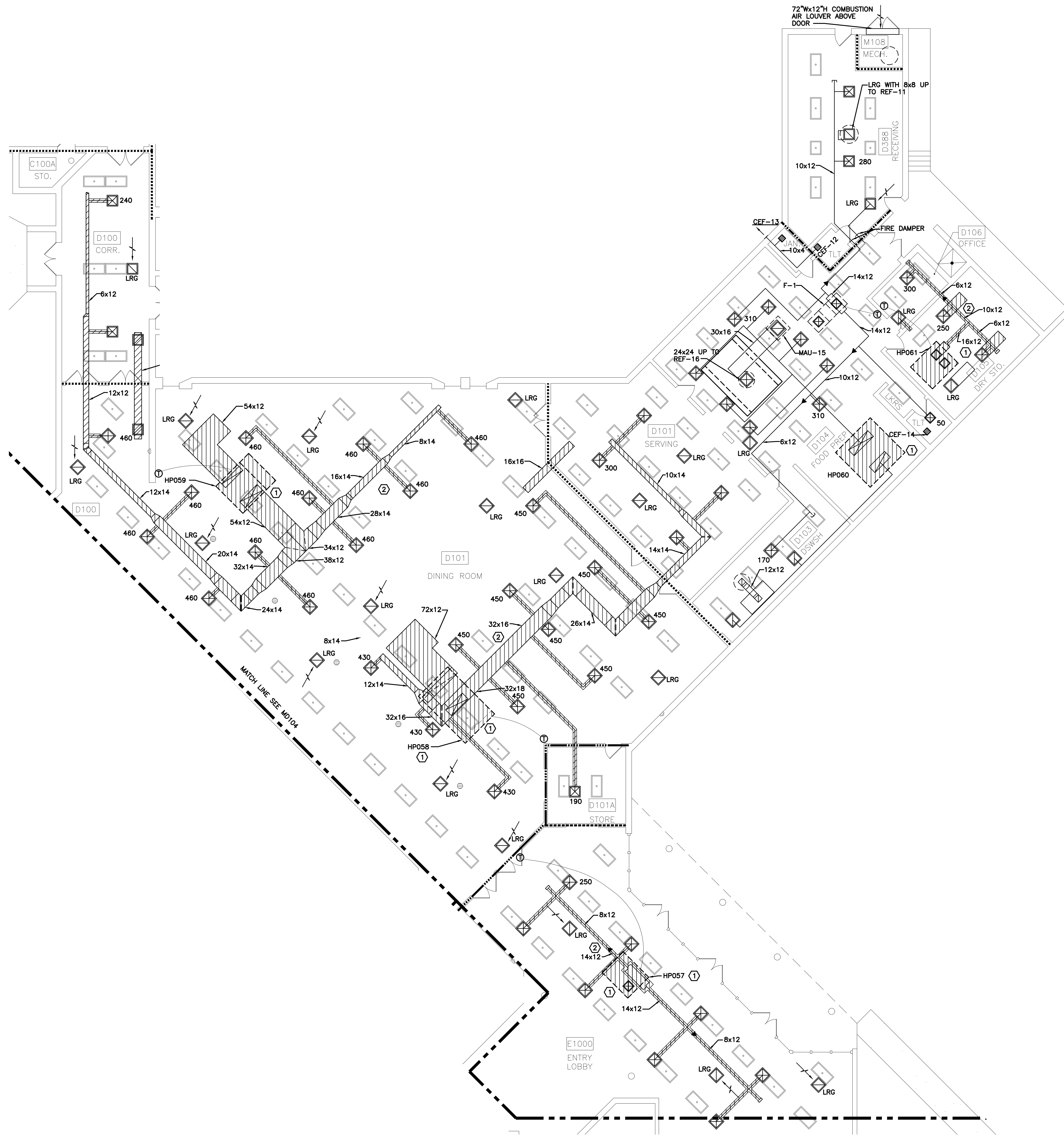
PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
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CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

HVAC LEGEND,
NOTES, AND
ABBREVIATIONS

M001



- DEMO KEYNOTE**
- ① DEMOLISH EXISTING ROOFTOP UNIT AND ROOF CURB. EXISTING ROOF PENETRATIONS TO BE REUSED IN NEW WORK.
 - ② DEMOLISH HATCHED DUCT. GRILLES TO BE CLEANED AND REUSED IN NEW WORK



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**AYNOR HIGH SCHOOL
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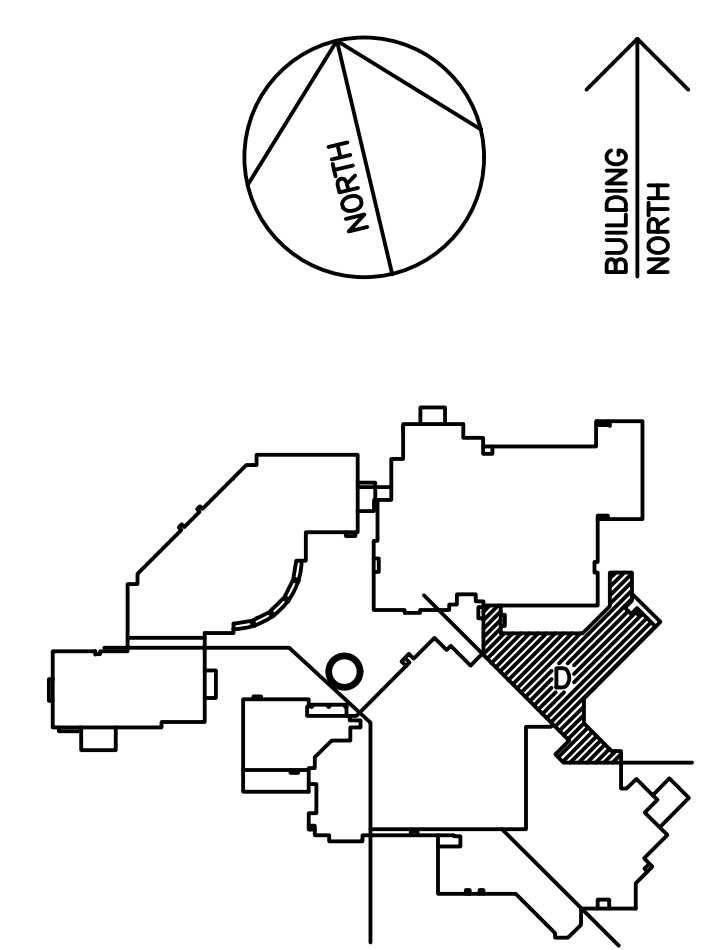
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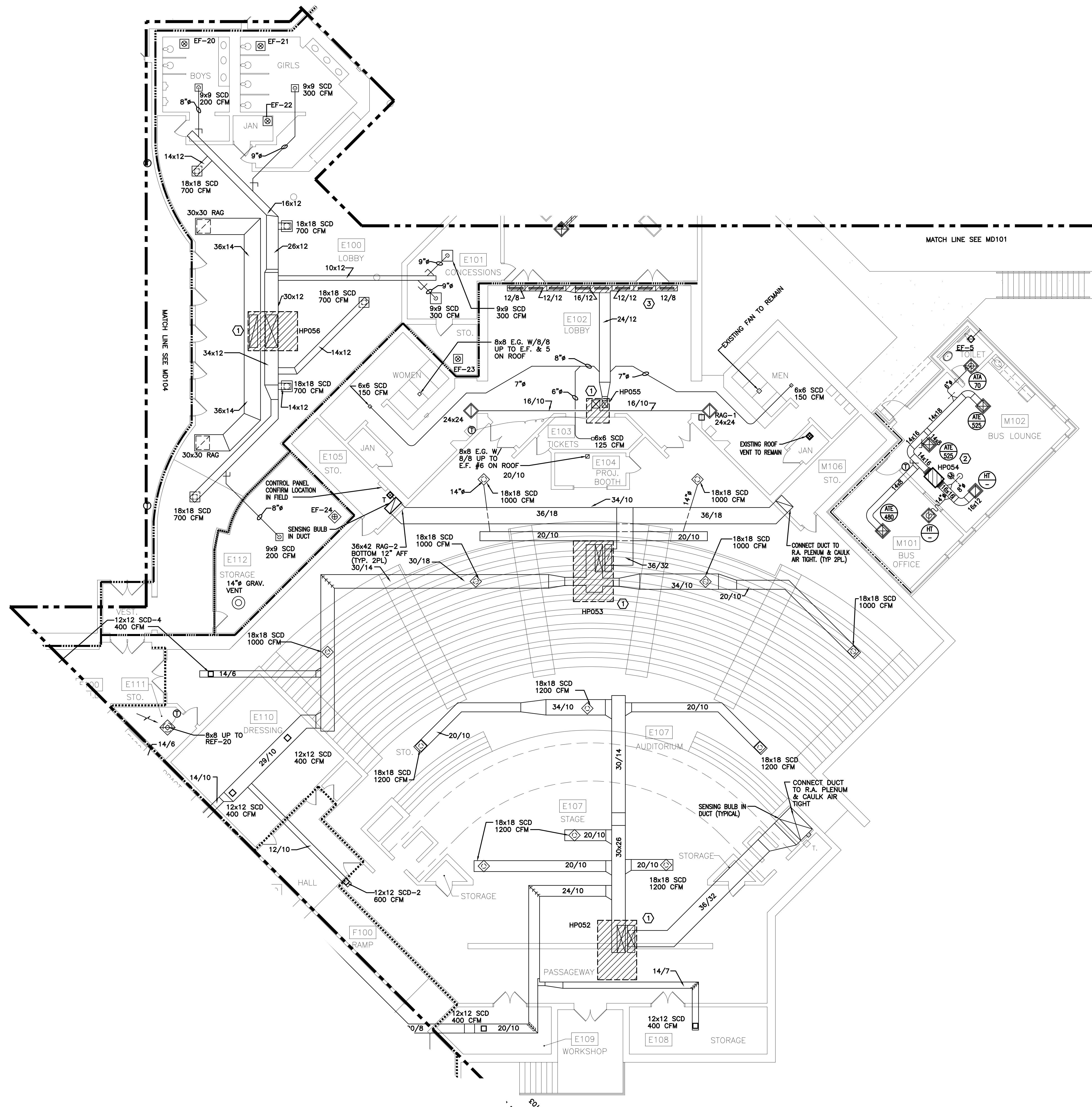
NO.	DATE	NOTES

FIRST FLOOR
HVAC PLAN
AREA D -
DEMOLITION

MD101



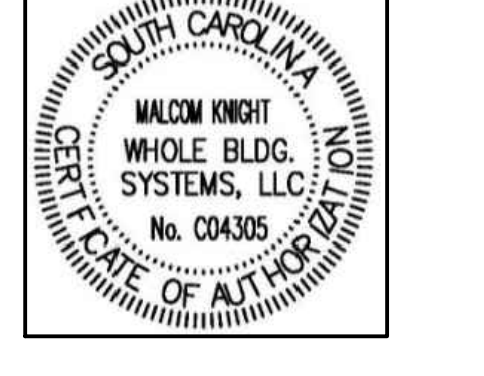
FIRST FLOOR HVAC PLAN AREA D - DEMOLITION
SCALE: 1/8" = 1'-0"



- DEMO KEYNOTE**
- ① DEMOLISH EXISTING ROOFTOP UNIT AND ROOF CURB. EXISTING ROOF PENETRATIONS TO BE REUSED IN NEW WORK.
 - ② DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER, ROOF MOUNTED CONDENSING UNIT AND REFRIGERANT PIPING. ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.
 - ③ LINEAR BAR GRILLES AND PLENUM TO BE DEMOLISHED. DUCT TO REMAIN FOR CONNECTION TO NEW PLENUM AND GRILLES IN NEW WORK.



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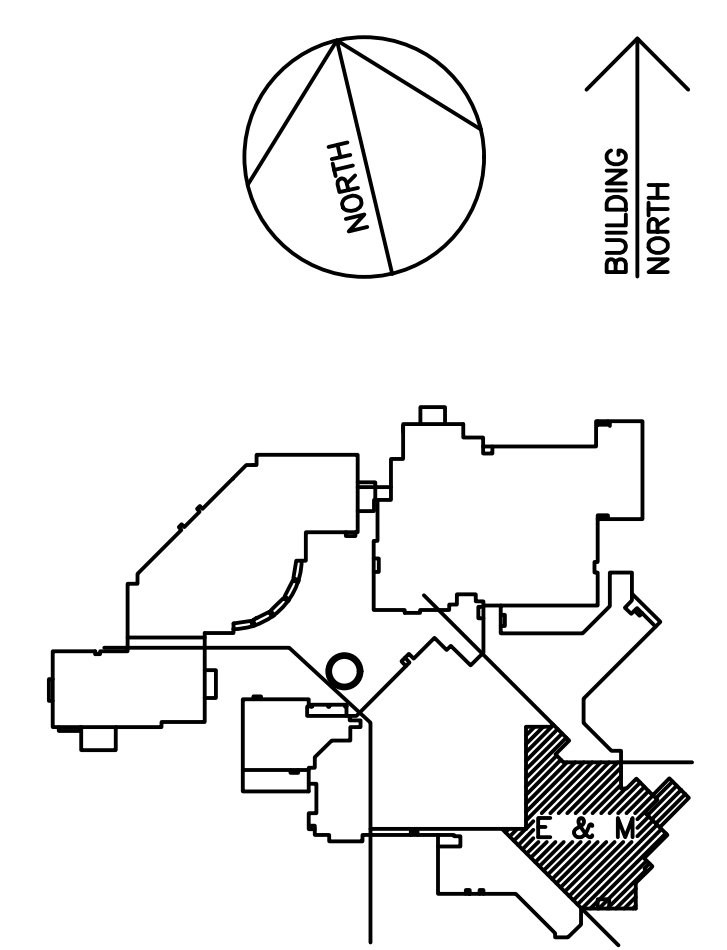


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NO.	DATE	NOTES



FIRST FLOOR HVAC PLAN AREA E & M - DEMOLITION
 SCALE: 1/8" = 1'-0"

**FIRST FLOOR
 HVAC PLAN
 AREA E & M -
 DEMOLITION**

MD102



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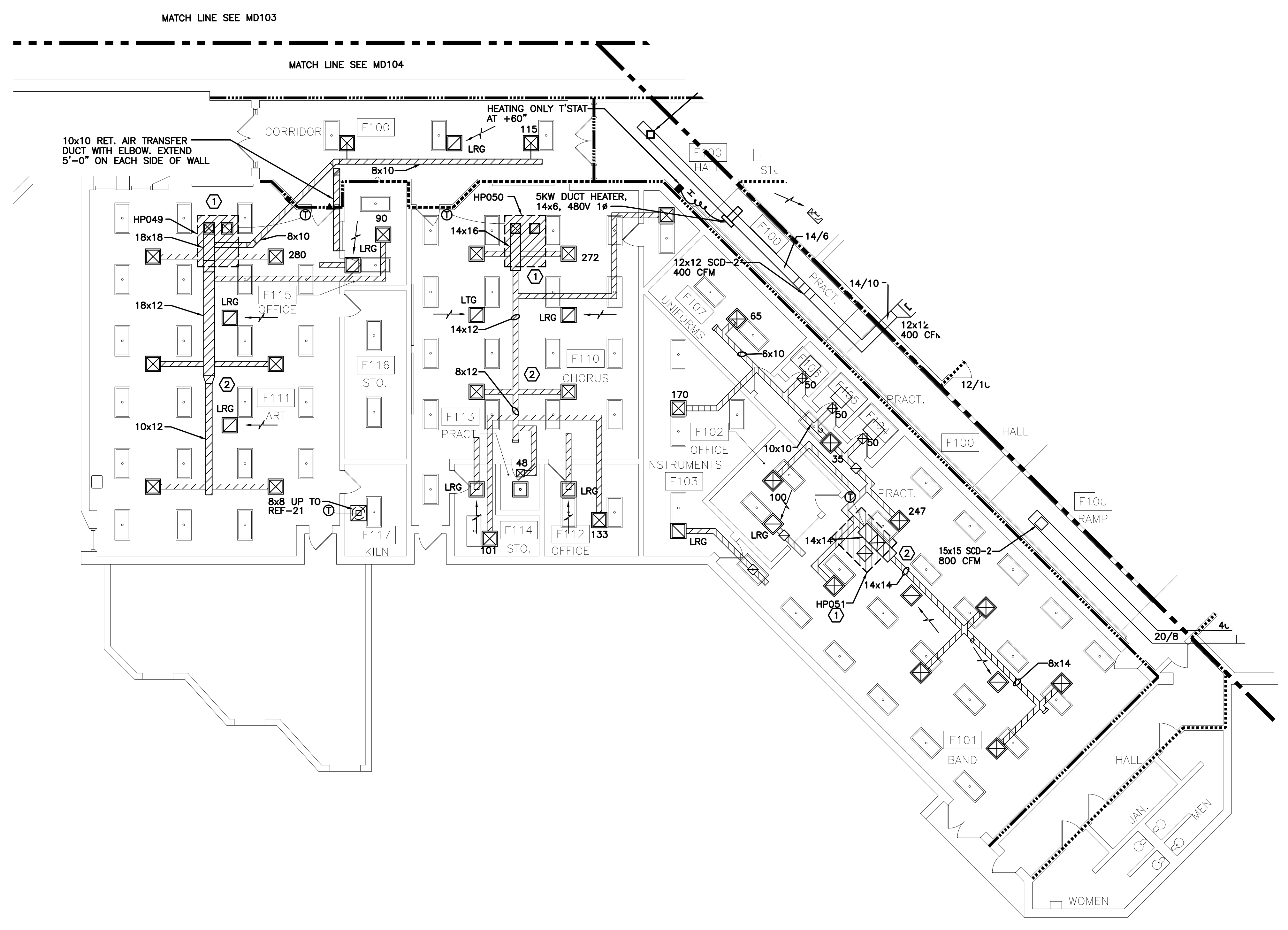
NO.	DATE	NOTES

**FIRST FLOOR
 HVAC PLAN
 AREA F -
 DEMOLITION**

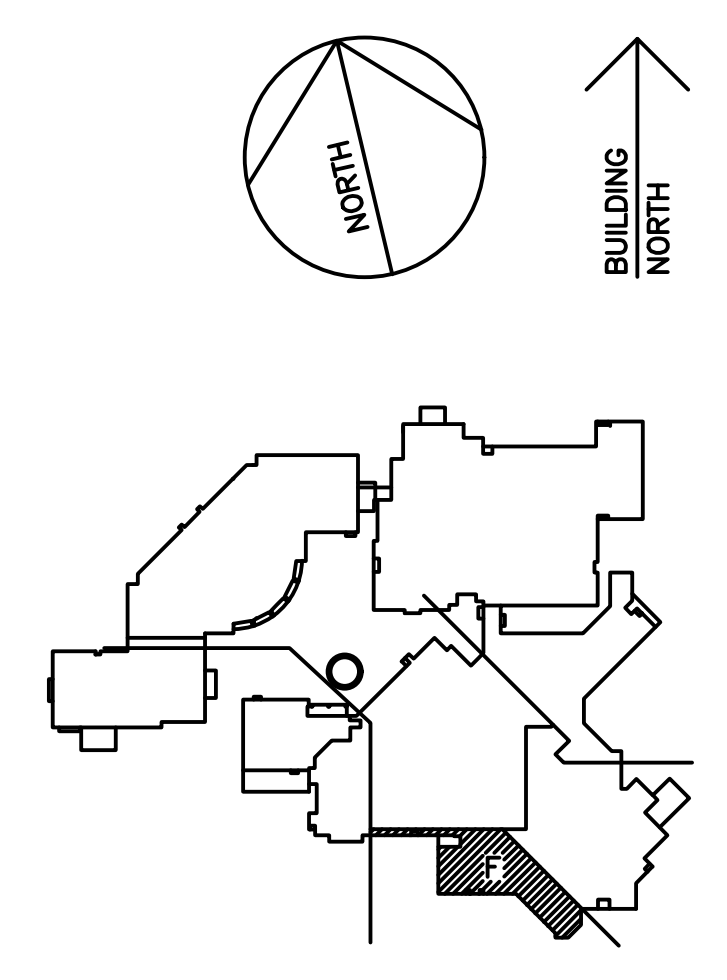
MD103

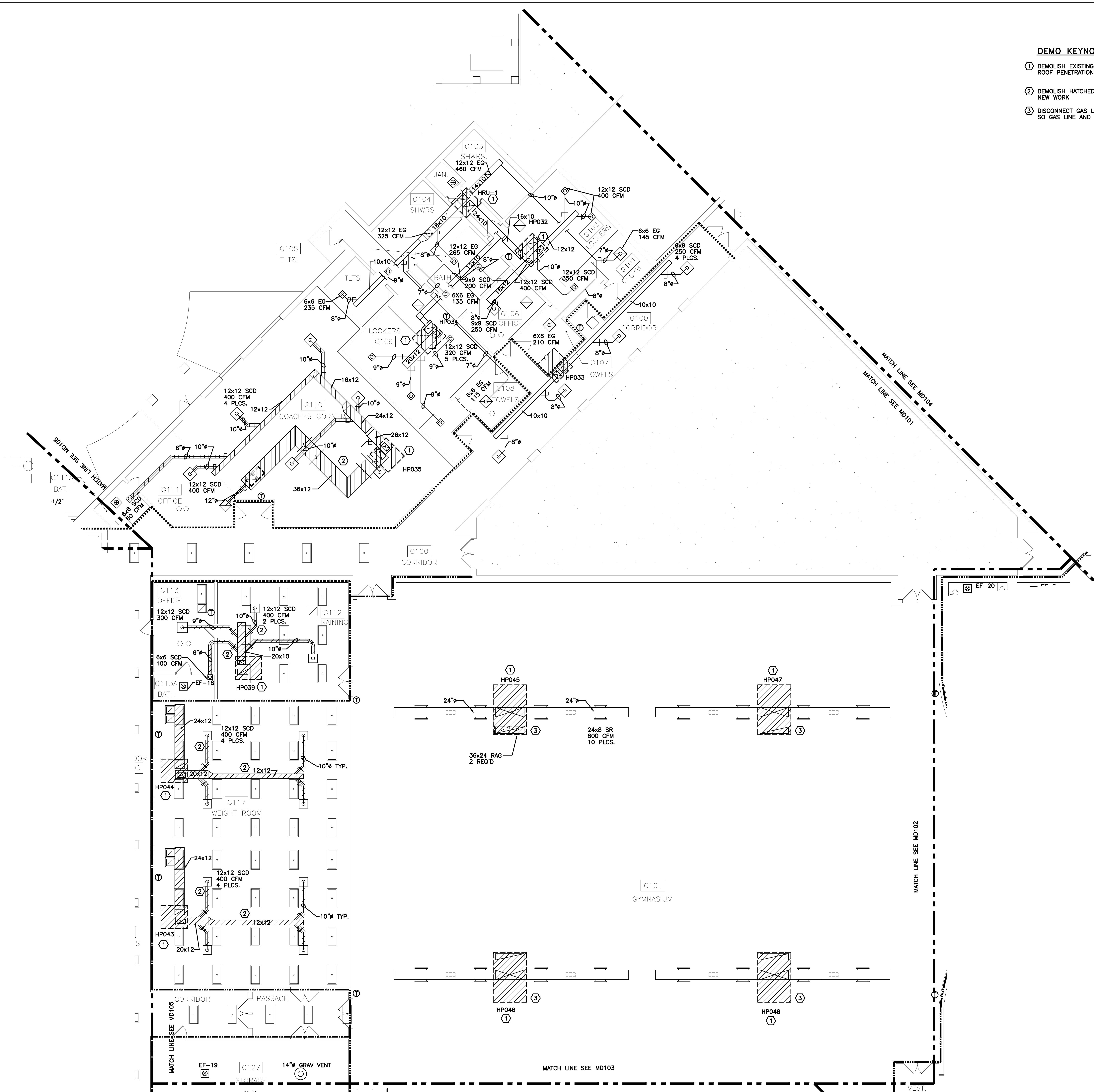
DEMO KEYNOTE

- ① DEMOLISH EXISTING ROOFTOP UNIT AND ROOF CURB. EXISTING ROOF PENETRATIONS TO BE REUSED IN NEW WORK.
- ② DEMOLISH HATCHED DUCT. GRILLES TO BE CLEANED AND REUSE IN NEW WORK

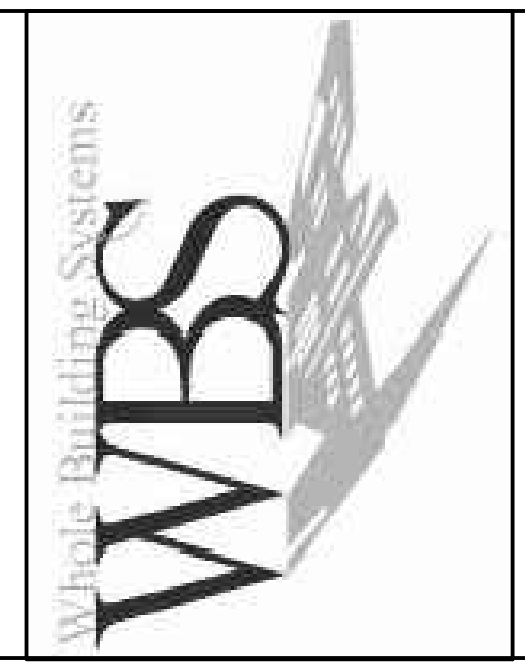


FIRST FLOOR HVAC PLAN AREA F - DEMOLITION
 SCALE: 1/8" = 1'-0"

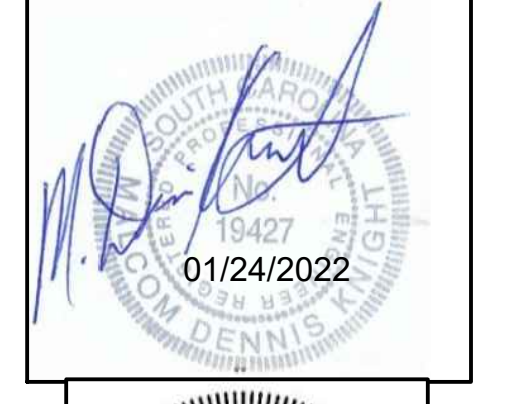




- DEMO KEYNOTE**
- ① DEMOLISH EXISTING ROOFTOP UNIT AND ROOF CURB. EXISTING ROOF PENETRATIONS TO BE REUSED IN NEW WORK.
 - ② DEMOLISH HATCHED DUCT, GRILLES TO BE CLEANED AND REUSE IN NEW WORK
 - ③ DISCONNECT GAS LINE FROM EXISTING UNIT. VALVE OFF LINE AND PROTECT, SO GAS LINE AND REGULATOR CAN BE REUSED IN NEW WORK.



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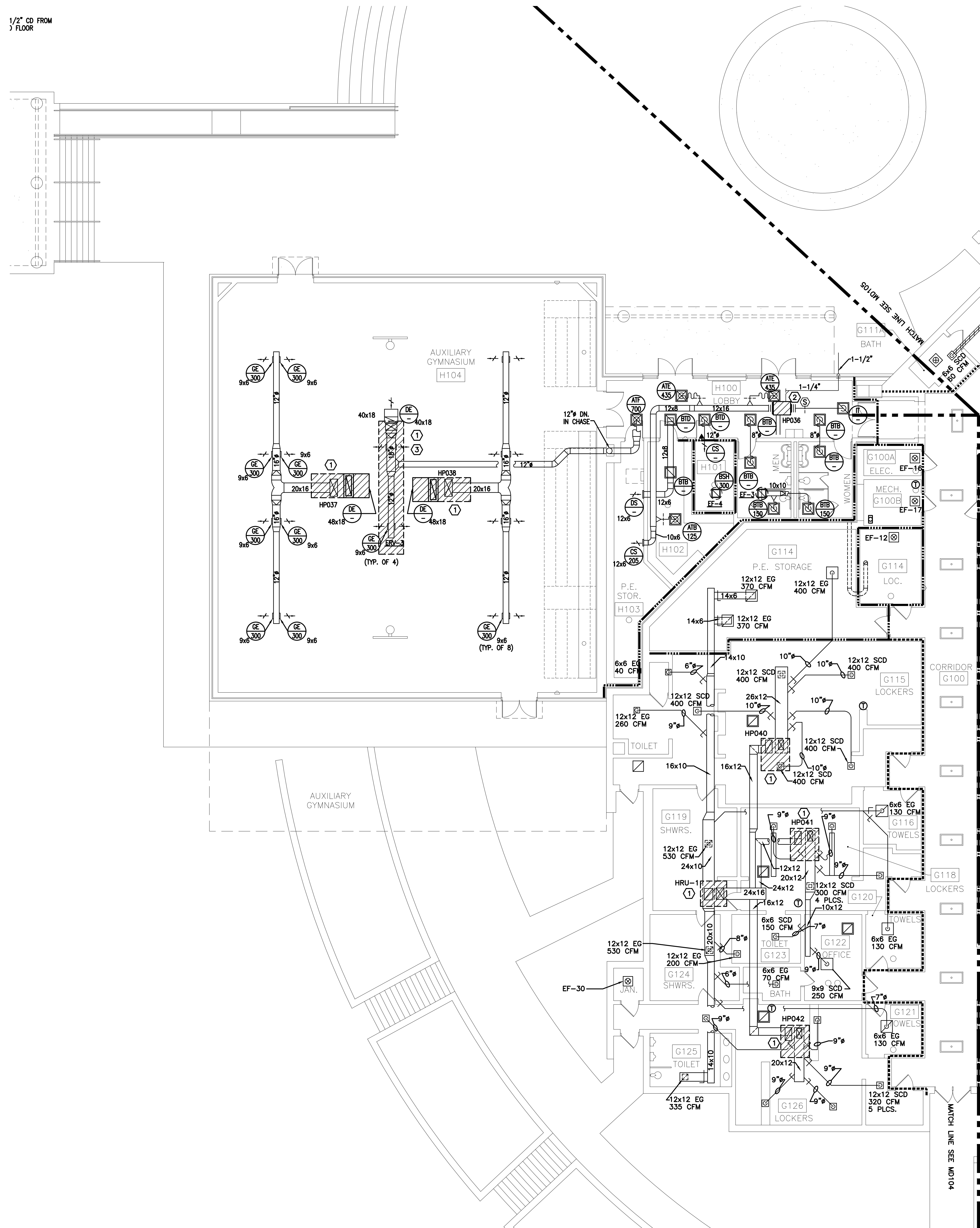
NO.	DATE	NOTES

**FIRST FLOOR
 HVAC PLAN
 AREA G -
 DEMOLITION**

MD104

FIRST FLOOR HVAC PLAN AREA G - DEMOLITION
 SCALE: 1/8" = 1'-0"

1/2" CD FROM
FLOOR



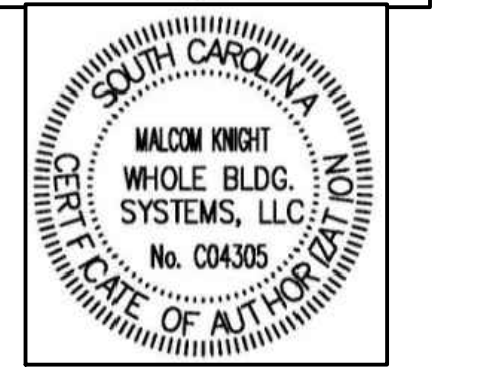
FIRST FLOOR HVAC PLAN AREA H - DEMOLITION
SCALE: 1/8" = 1'-0"

DEMO KEYNOTE

- ① DEMOLISH EXISTING ROOFTOP UNIT AND ROOF CURB. EXISTING ROOF PENETRATIONS TO BE REUSED IN NEW WORK.
- ② DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER, ROOF MOUNTED CONDENSING UNIT AND REFRIGERANT PIPING. ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.
- ③ DISCONNECT GAS LINE FROM EXISTING UNIT. VALVE OFF LINE AND PROTECT SO GAS LINE AND REGULATOR CAN BE REUSED IN NEW WORK.



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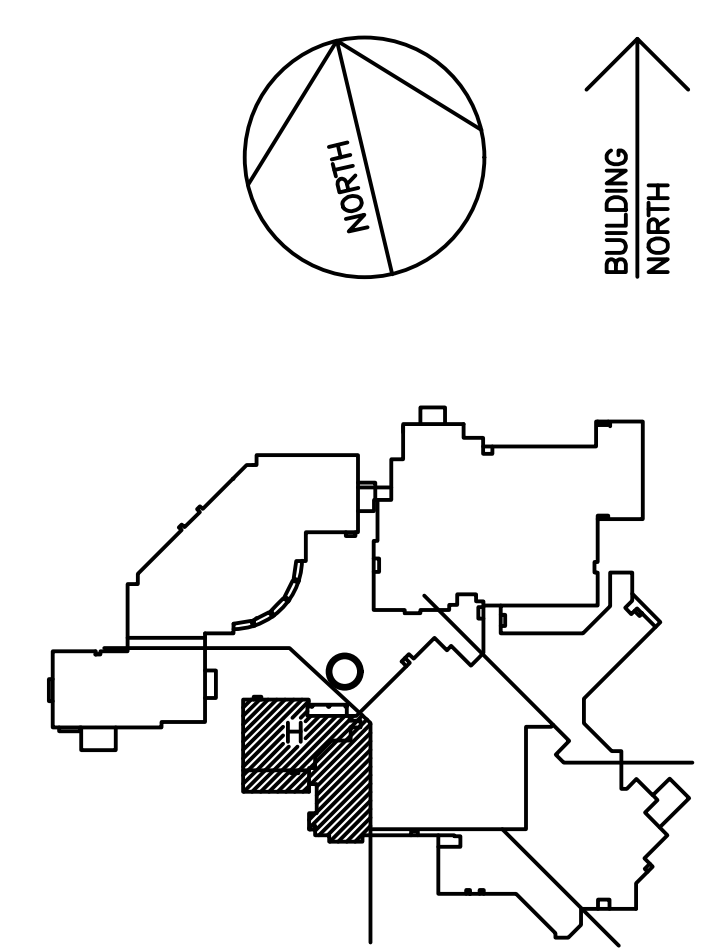
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NO.	DATE	NOTES

FIRST FLOOR
HVAC PLAN
AREA H -
DEMOLITION

MD105





DEMO KEYNOTE

- ① DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER AND ROOF MOUNTED CONDENSING UNIT, REFRIGERANT PIPING, ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.



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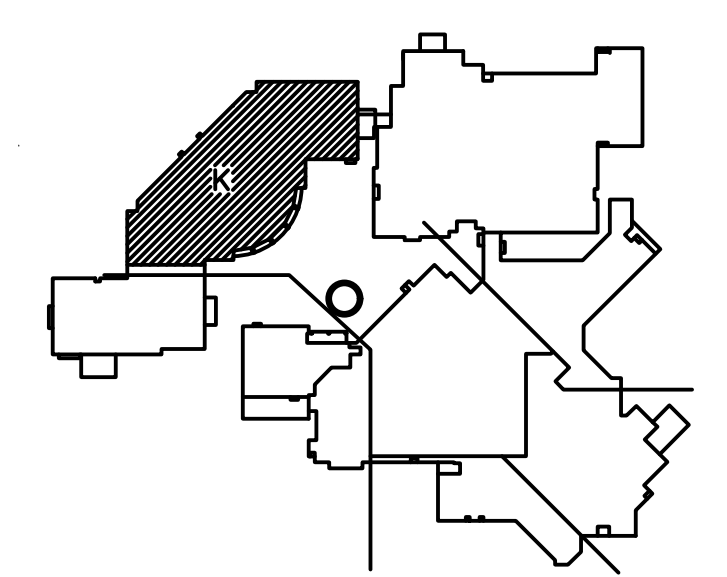
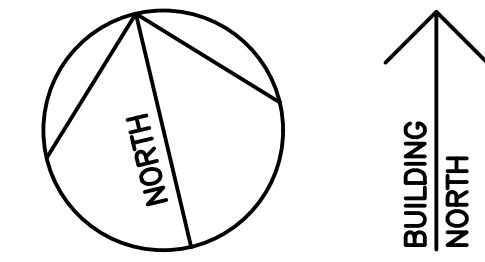
REVISIONS

NO.	DATE	NOTES

**FIRST FLOOR
 HVAC PLAN
 AREA K -
 DEMOLITION**

MD106

FIRST FLOOR HVAC PLAN AREA K - DEMOLITION
 SCALE: 1/8" = 1'-0"





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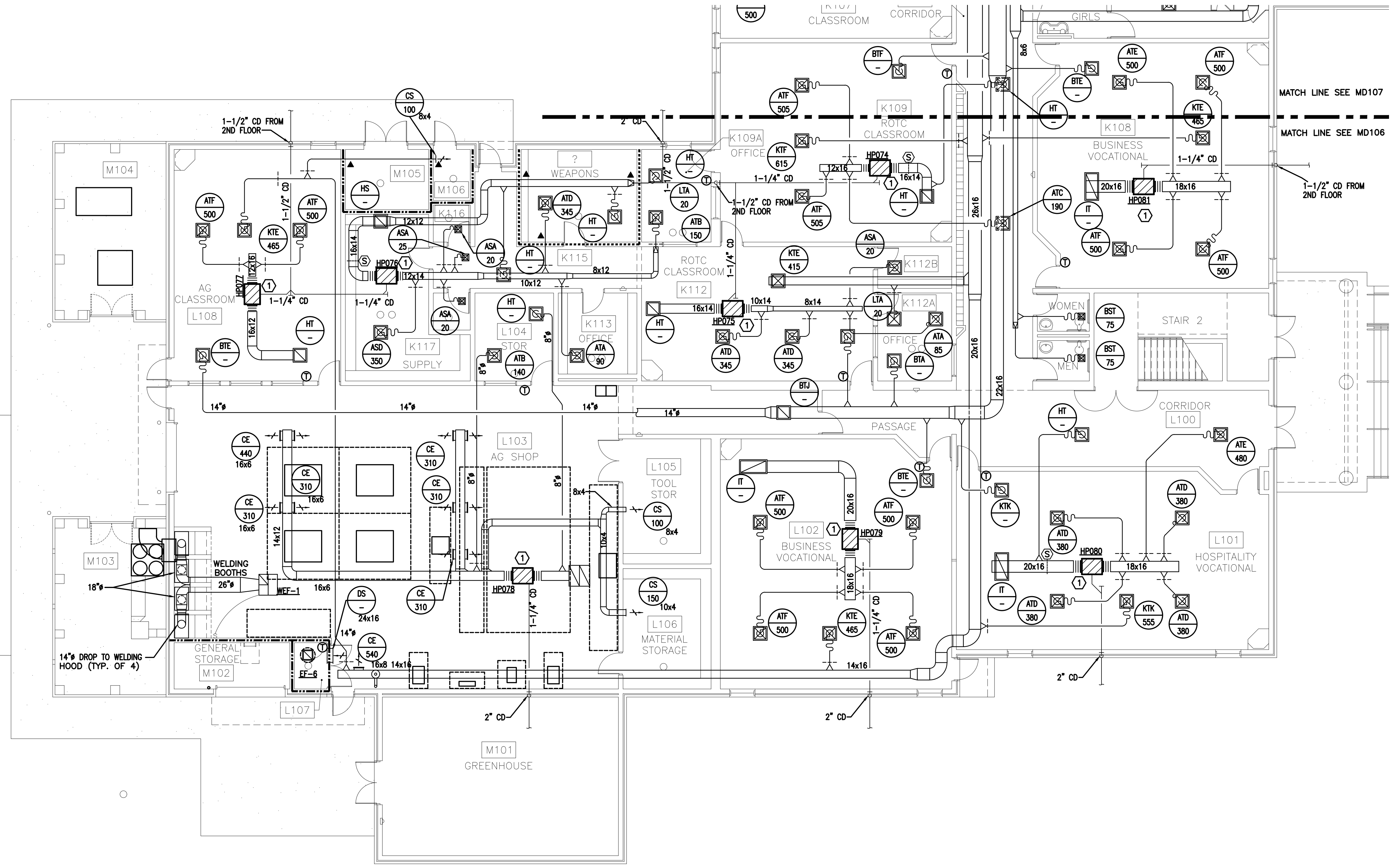
NO.	DATE	NOTES

FIRST FLOOR
 HVAC PLAN
 AREA L -
 DEMOLITION

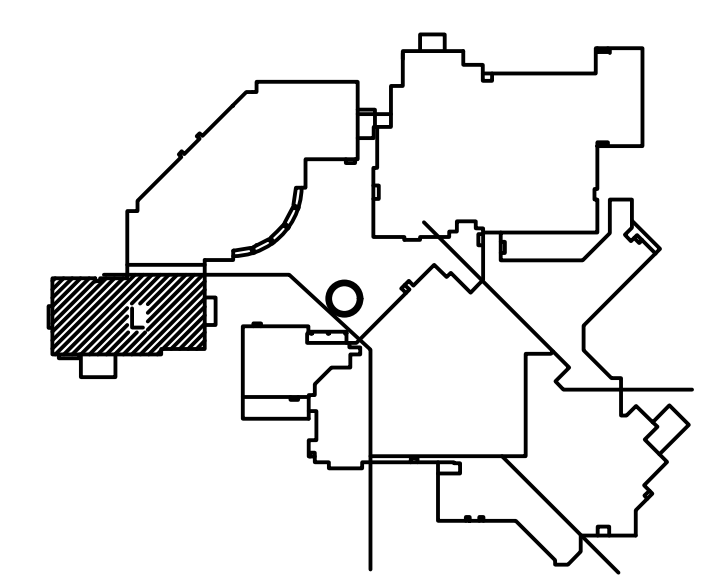
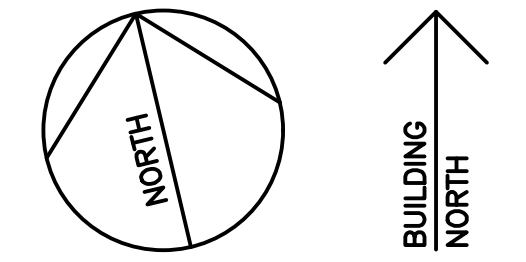
MD107

DEMO KEYNOTE

- ① DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER AND ROOF MOUNTED CONDENSING UNIT, REFRIGERANT PIPING, ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.



FIRST FLOOR HVAC PLAN AREA L - DEMOLITION
 SCALE: 1/8" = 1'-0"



DEMO KEYNOTE
 ① DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER AND ROOF MOUNTED CONDENSING UNIT, REFRIGERANT PIPING, ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.



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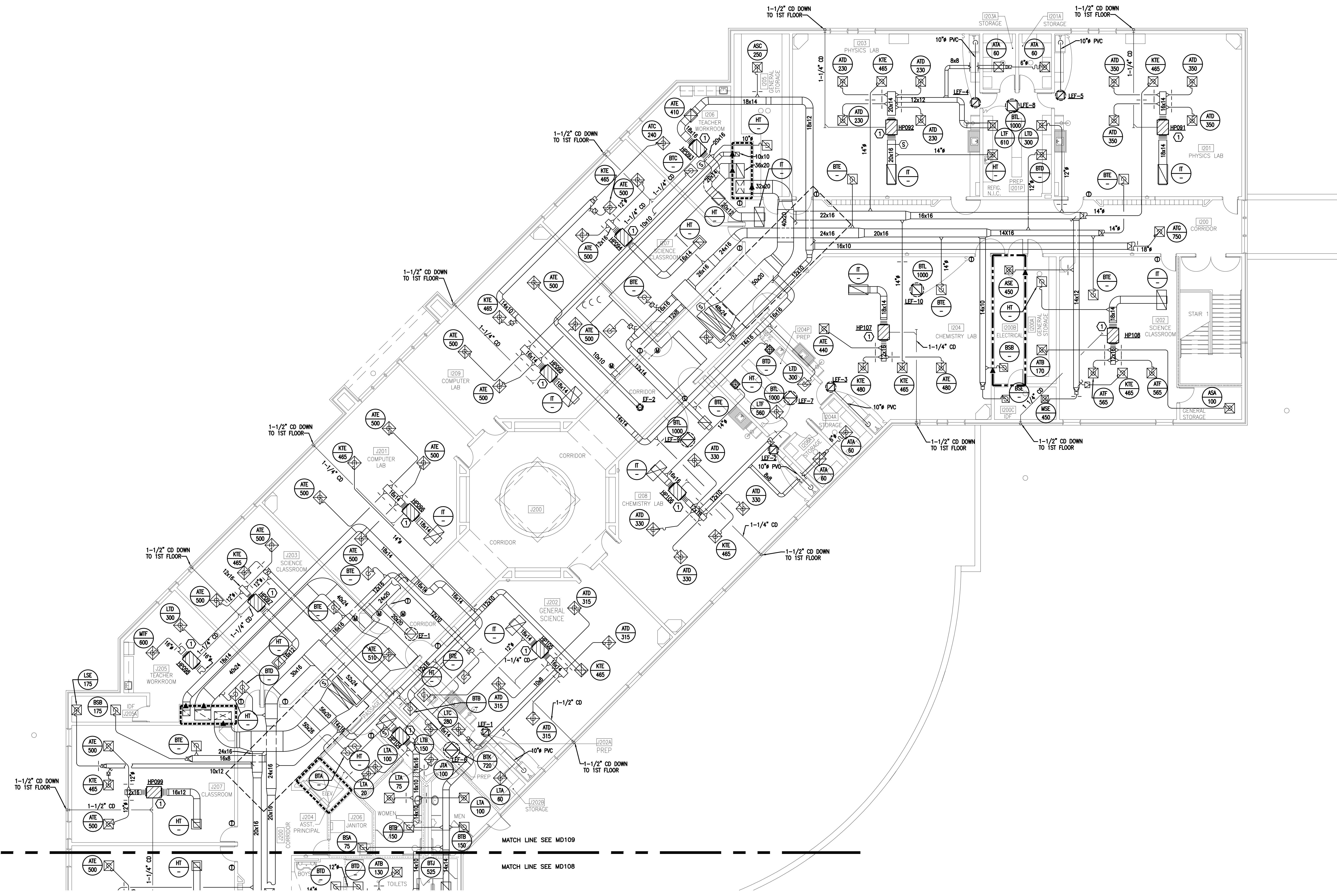
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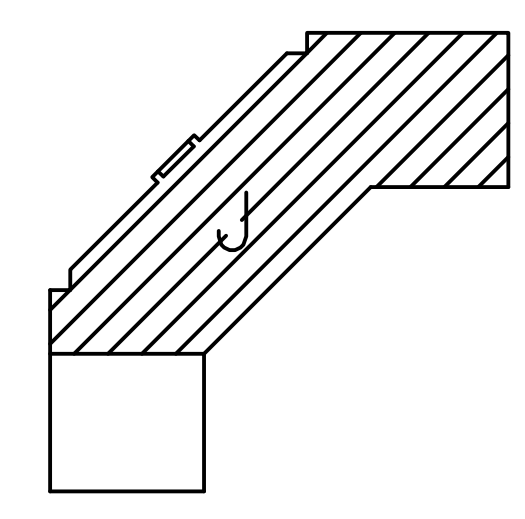
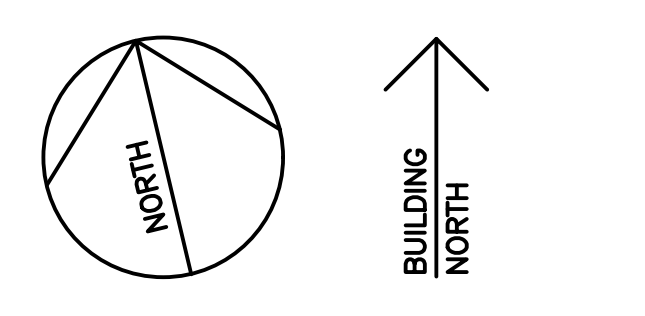
NO.	DATE	NOTES

SECOND FLOOR
 HVAC PLAN
 AREA J -
 DEMOLITION

MD108



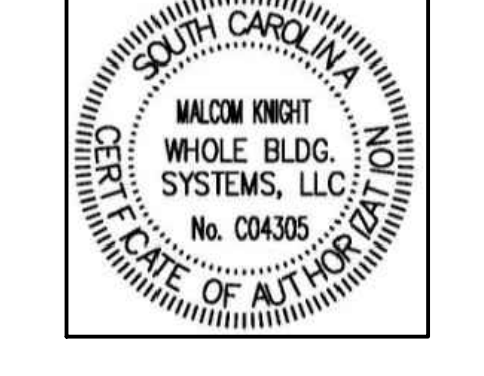
SECOND FLOOR HVAC PLAN AREA J - DEMOLITION
 SCALE: 1/8" = 1'-0"



DEMO KEYNOTE
 ① DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER AND ROOF MOUNTED CONDENSING UNIT, REFRIGERANT PIPING, ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.



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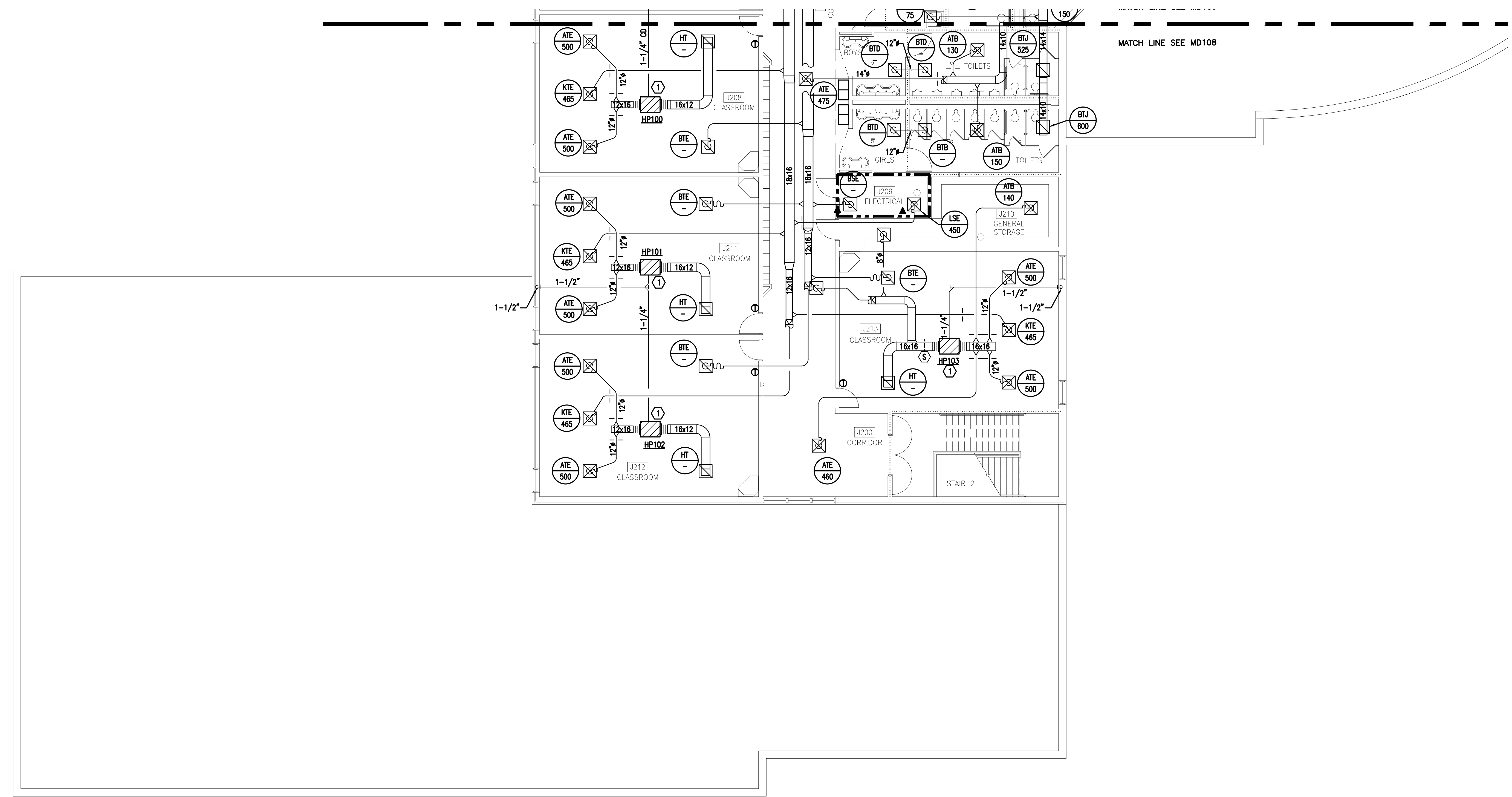
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REVISIONS

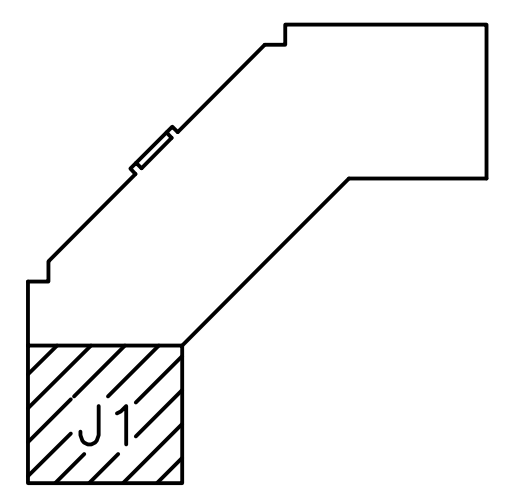
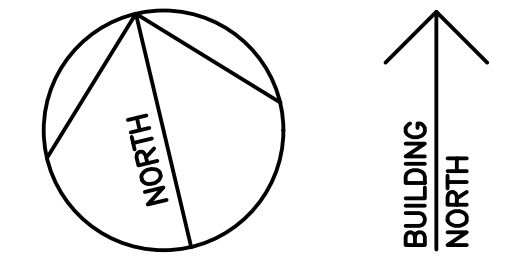
NO.	DATE	NOTES

SECOND FLOOR
 HVAC PLAN
 AREA J1 -
 DEMOLITION

MD109



SECOND FLOOR HVAC PLAN AREA J1 - DEMOLITION
 SCALE: 1/8" = 1'-0"





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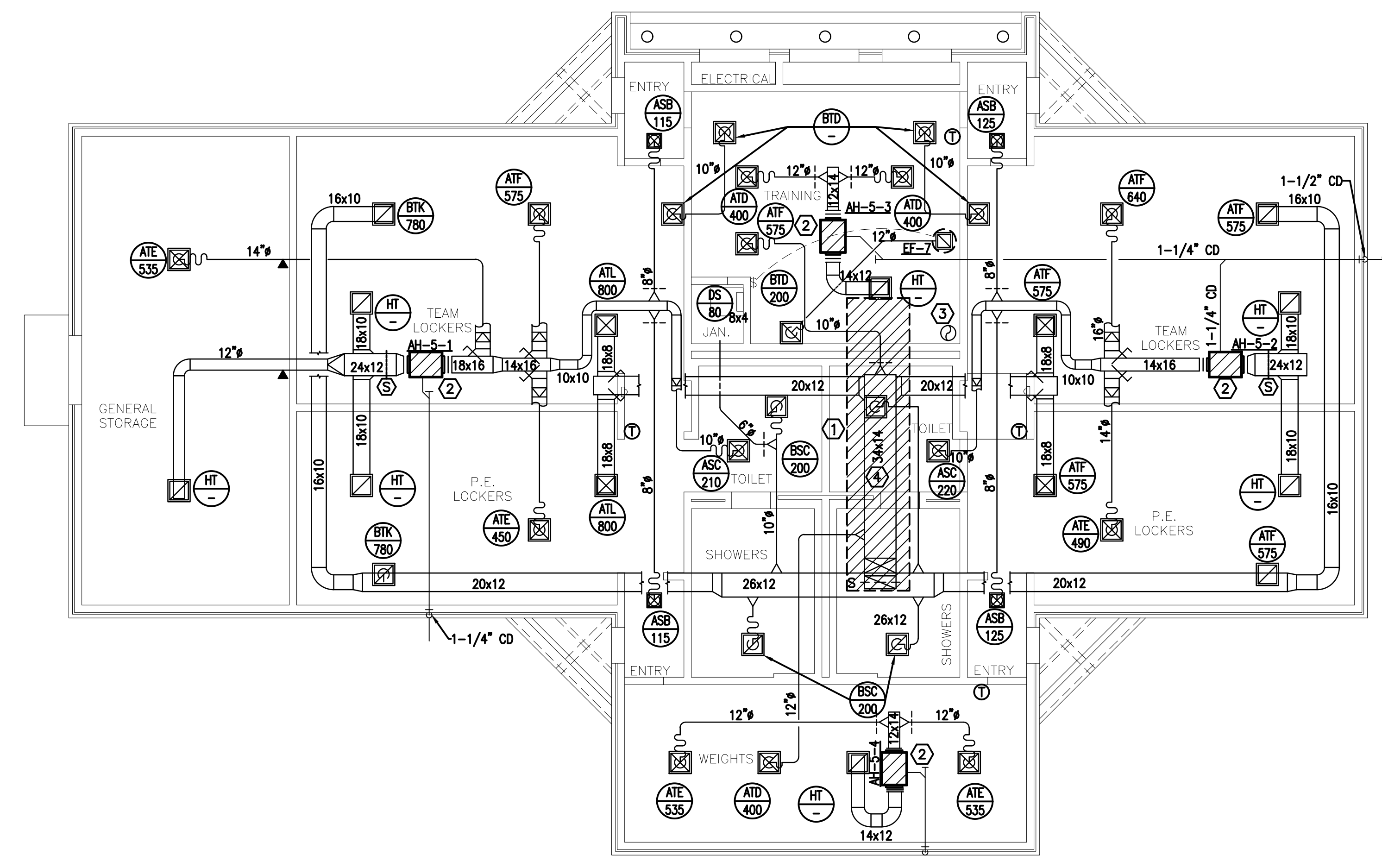
REVISIONS

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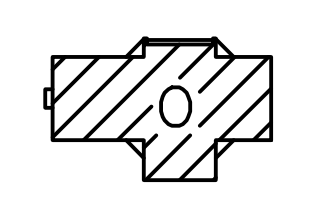
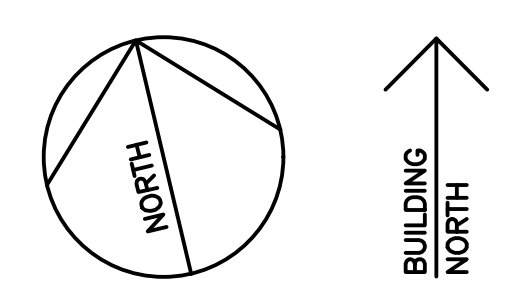
HVAC PLAN
 AREA O -
 DEMOLITION

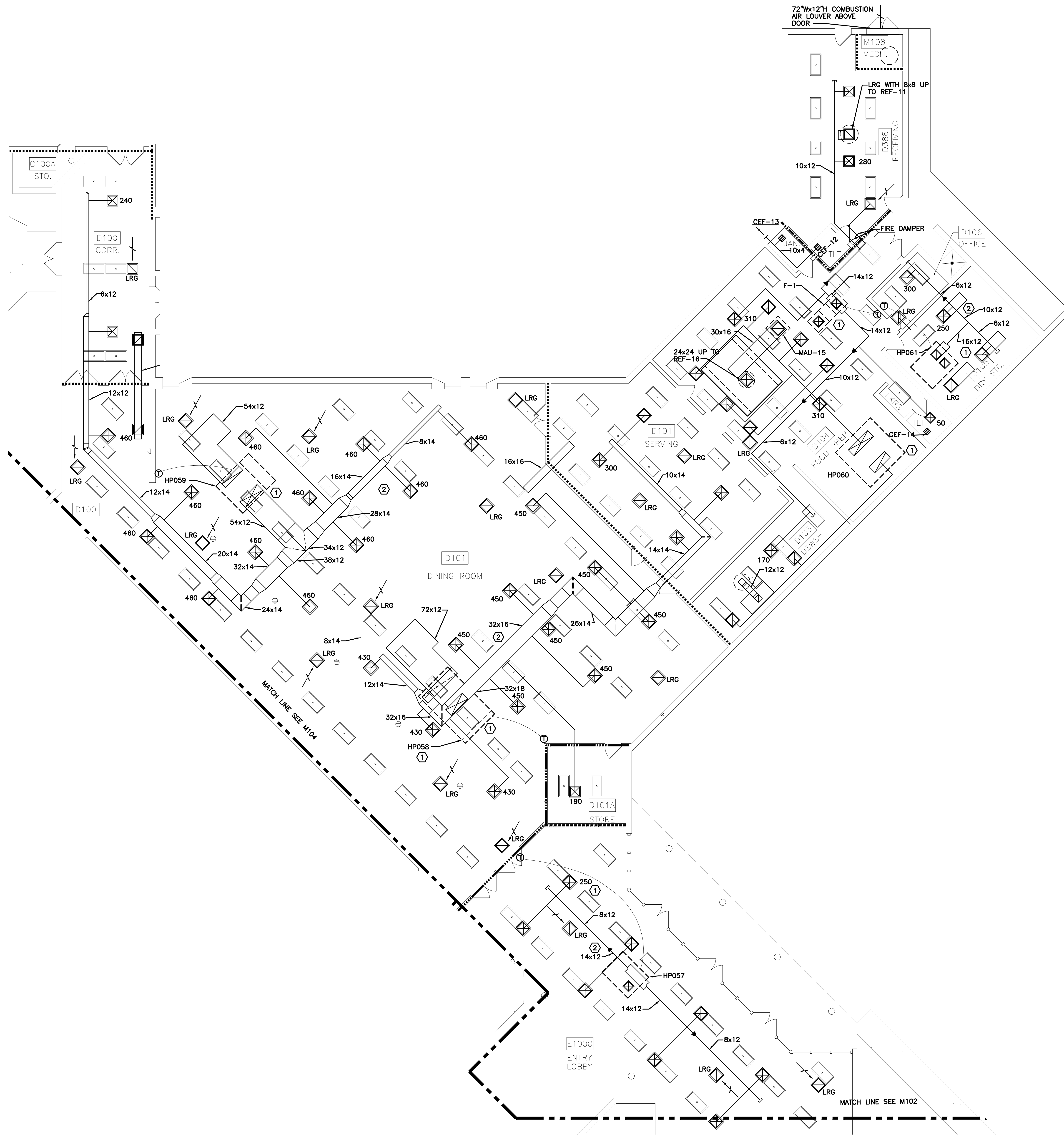
MD110

- DEMO KEYNOTE**
- ① DEMOLISH EXISTING ROOFTOP UNIT AND ROOF CURB. ROOF PENETRATIONS WILL BE USED IN NEW WORK.
 - ② DEMOLISH EXISTING SPLIT SYSTEM UNIT INCLUDING BUT NOT LIMITED TO INDOOR AIR HANDLER AND ROOF MOUNTED CONDENSING UNIT. REFRIGERANT PIPING, ELECTRICAL SERVICE AND ROOF PENETRATIONS TO REMAIN AND BE USED IN NEW WORK.
 - ③ DISCONNECT GAS LINE FROM EXISTING UNIT. VALVE OFF LINE AND PROTECT SO GAS LINE AND REGULATOR CAN BE REUSED IN NEW WORK.
 - ④ DEMOLISH EXISTING SUPPLY DUCT AS NEEDED TO BE ABLE TO MAKE CONNECTIONS TO UNIT IN NEW WORK.



HVAC PLAN—AREA O — DEMOLITION
 SCALE: 1/8" = 1'-0"





NEW WORK KEY NOTE

- ① NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK. NEW CURB SUPPORT STEEL TO STRUCTURE. POWER AND CONTROL WIRING. ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILINGS AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.
- ② NEW DUCT SHOWN TO BE RECONNECTED TO EXISTING GRILLES



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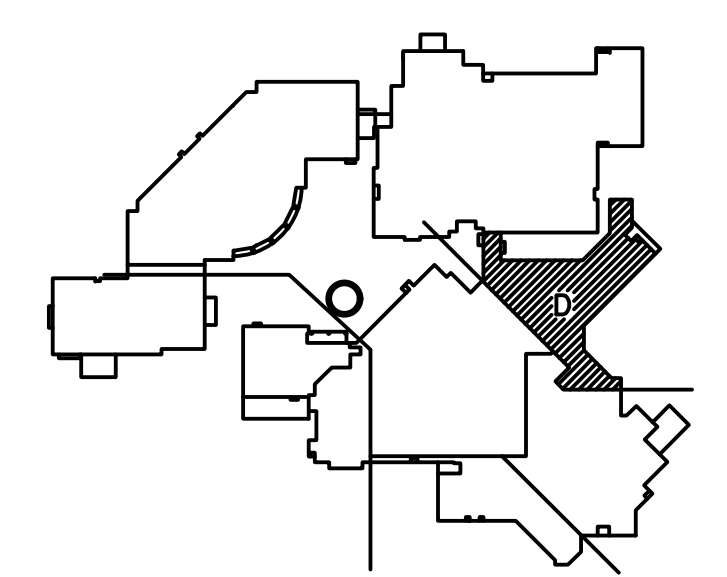
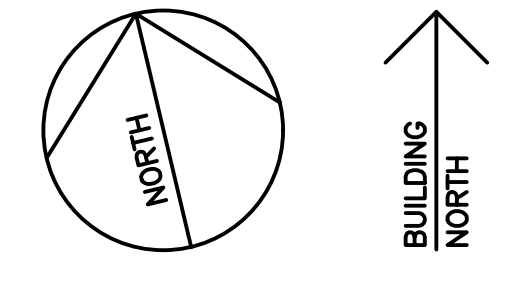
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REVISIONS

NO.	DATE	NOTES

FIRST FLOOR
 HVAC PLAN
 AREA D -
 NEW WORK

M101



FIRST FLOOR HVAC PLAN AREA D - NEW WORK
 SCALE: 1/8" = 1'-0"



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 HVAC Replacement**
 201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
 DATE: 01/24/2022
 DESIGNED BY: MDK
 DRAWN BY: MDK
 CHECKED BY: MDK

REVISIONS

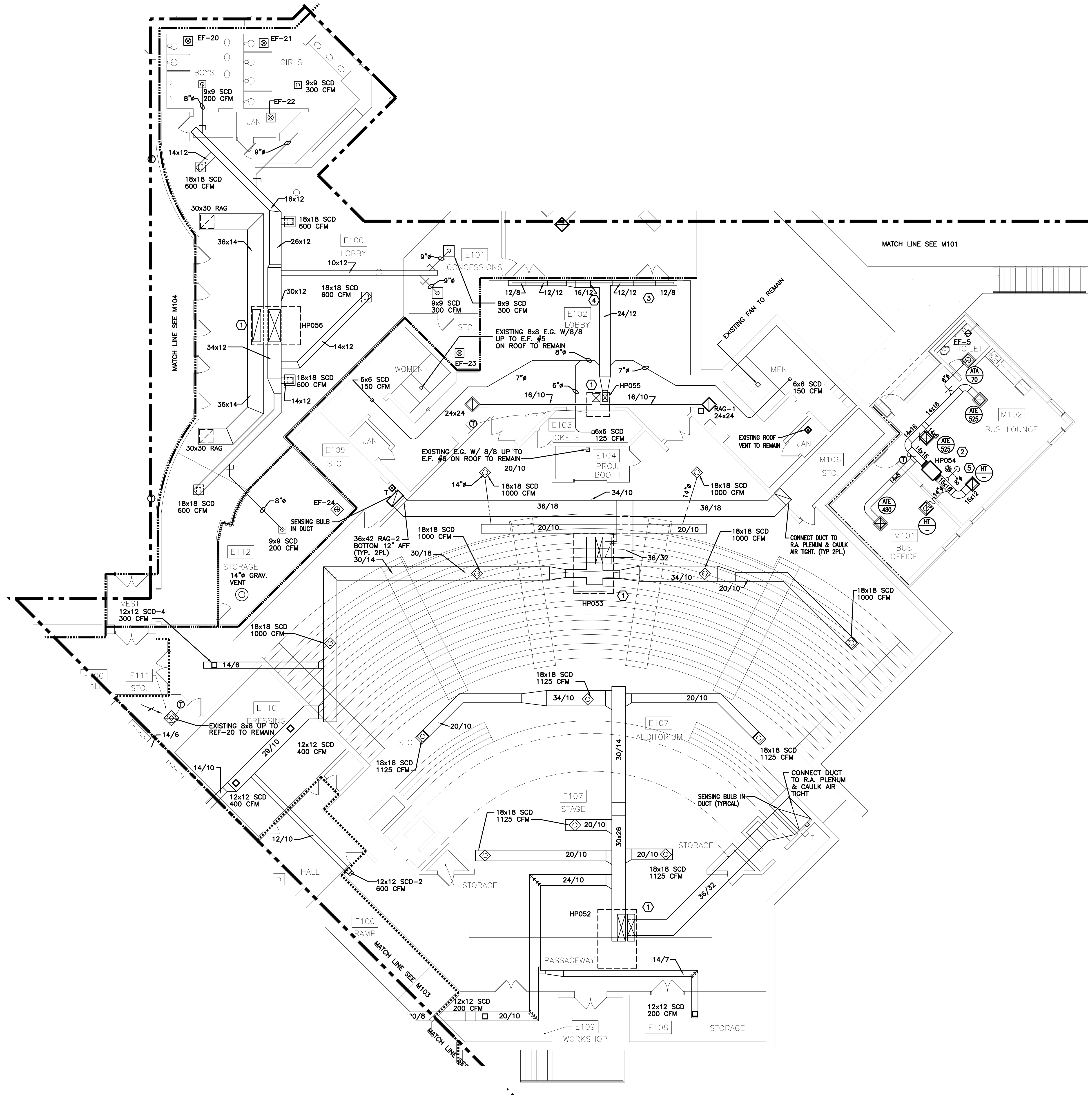
NO.	DATE	NOTES

FIRST FLOOR
 HVAC PLAN
 AREA E & M -
 NEW WORK

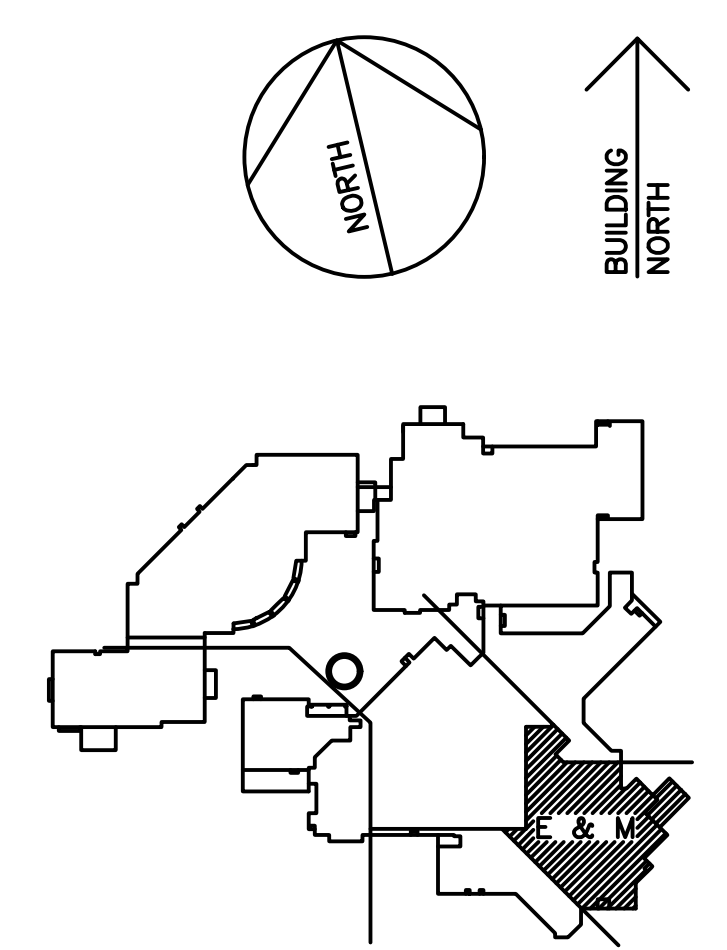
M102

NEW WORK KEYNOTE

- ① NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK. NEW CURB SUPPORT STEEL TO STRUCTURE. POWER AND CONTROL WIRING. ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILING AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE
- ② NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK. POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILING AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. INSTALL NEW REFRIGERANT LINES AND INSULATE PER SPECIFICATIONS. LINE SIZES TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
- ③ PROVIDE NEW CONTINUOUS BAR GRILLE 384"x2" EQUAL TO PRICE MODEL LBP15B. PROVIDE NEW FIELD CONSTRUCTED PLENUM TO MATCH BAR GRILLE. FRAME OUT EXISTING SOFFIT TO INSTALL NEW GRILLE AND PLENUM. CONNECT NEW PLENUM TO EXISTING DUCT. PLENUM INSULATION TO MATCH EXISTING DUCTWORK INSULATION.
- ④ CLEAN DUCT AND RE-INSULATE DUCT ATTACHED TO HP055.
- ⑤ BALANCE OUTSIDE AIR TO 110 CFM.



FIRST FLOOR HVAC PLAN AREA E & M - NEW WORK
 SCALE: 1/8" = 1'-0"





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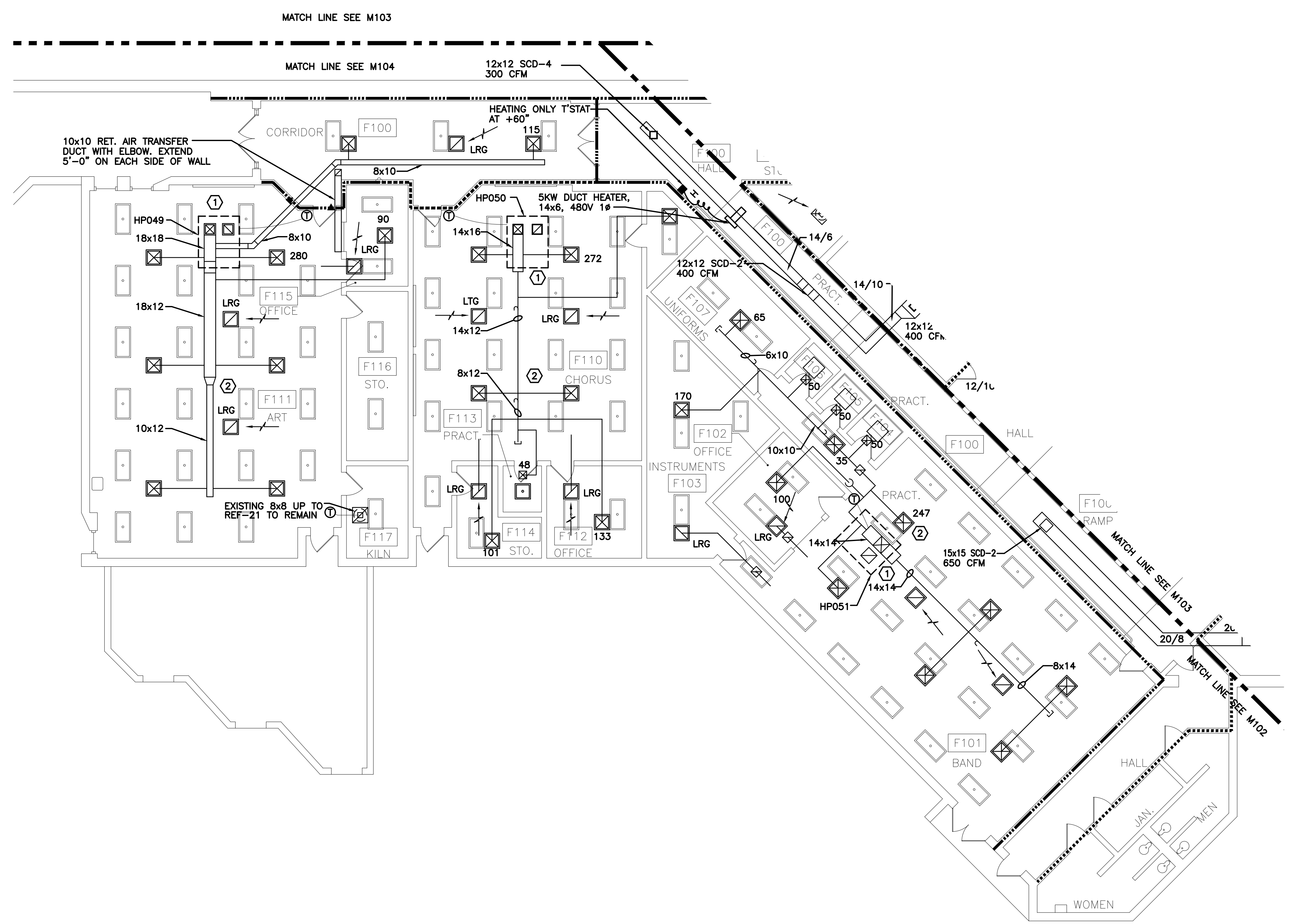
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NO.	DATE	NOTES

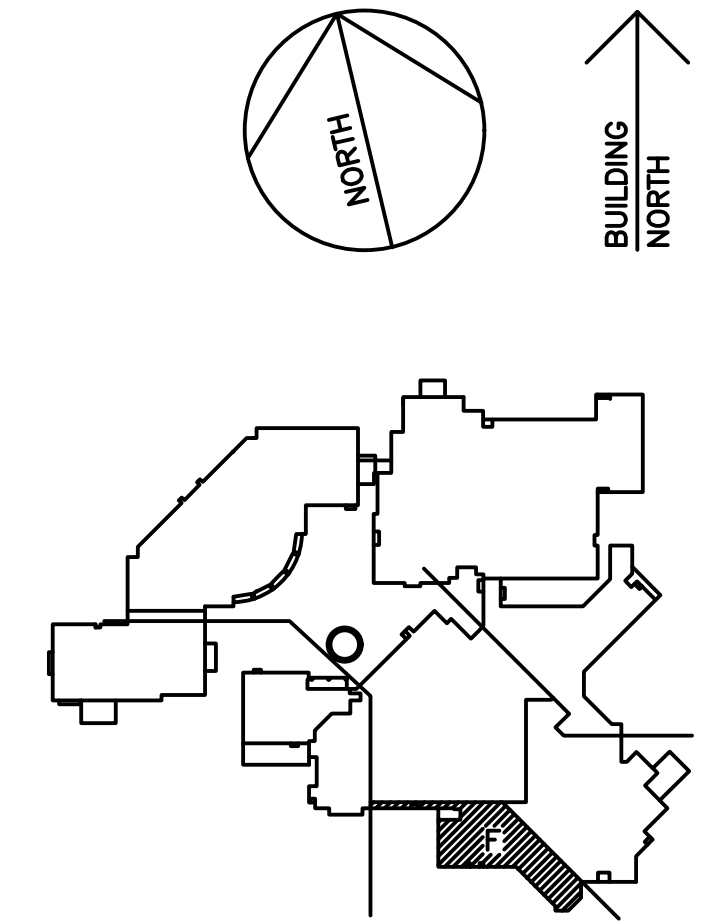
FIRST FLOOR
 HVAC PLAN
 AREA F -
 NEW WORK

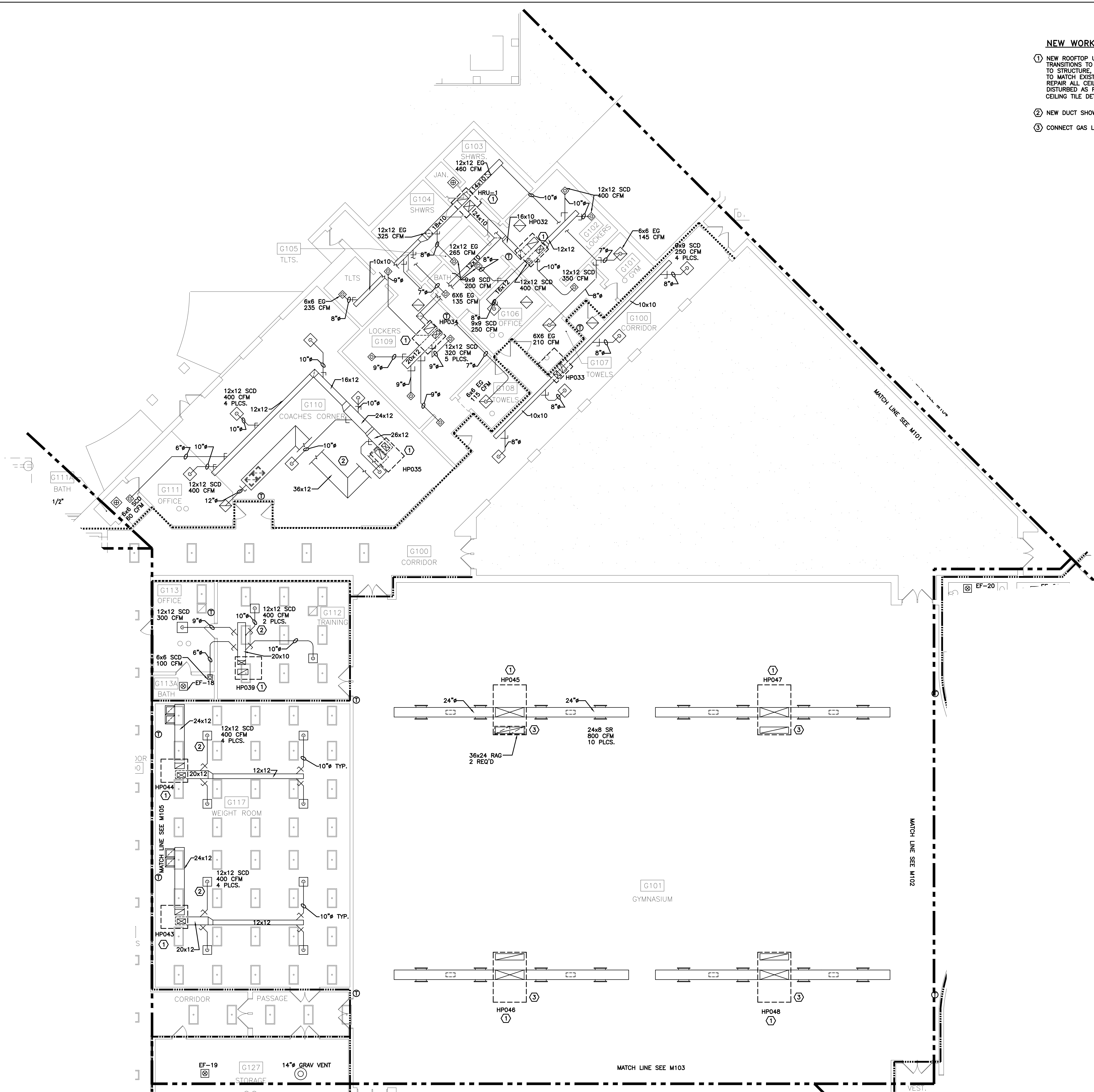
M103

- NEW WORK KEY NOTE**
- ① NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK, NEW CURB SUPPORT STEEL TO STRUCTURE, POWER AND CONTROL WIRING, ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILING AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.
 - ② NEW DUCT SHOWN TO BE RECONNECTED TO EXISTING GRILLES.



FIRST FLOOR HVAC PLAN AREA F - NEW WORK
 SCALE: 1/8" = 1'-0"





- NEW WORK KEY NOTE**
- ① NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK, NEW CURB SUPPORT STEEL TO STRUCTURE, POWER AND CONTROL WIRING. ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILINGS AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.
 - ② NEW DUCT SHOWN TO BE RECONNECTED TO EXISTING GRILLES.
 - ③ CONNECT GAS LINES TO NEW UNITS



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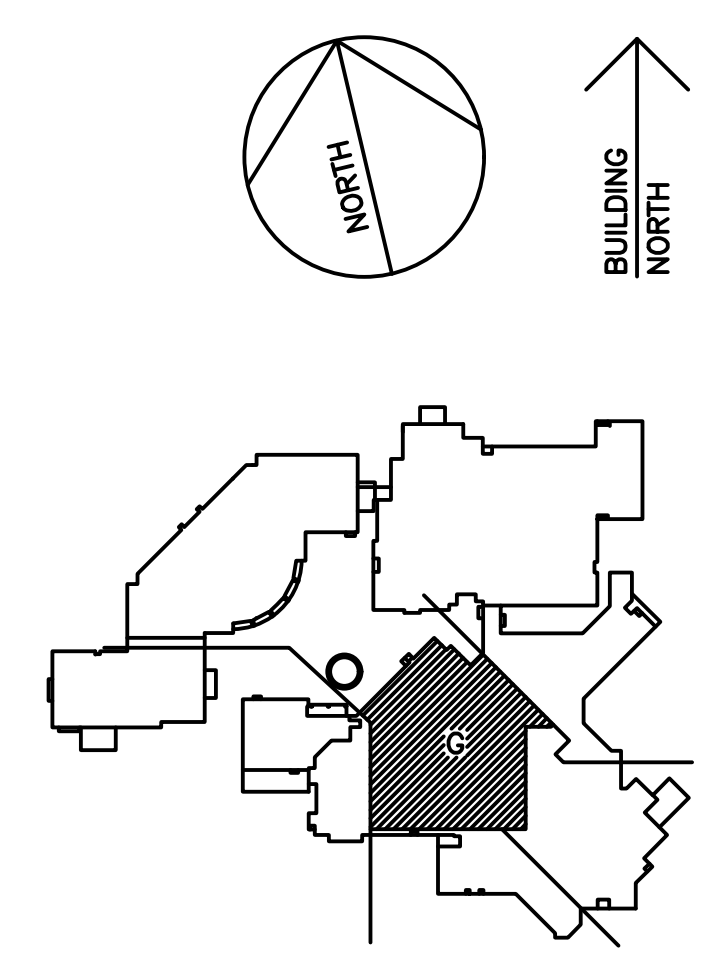
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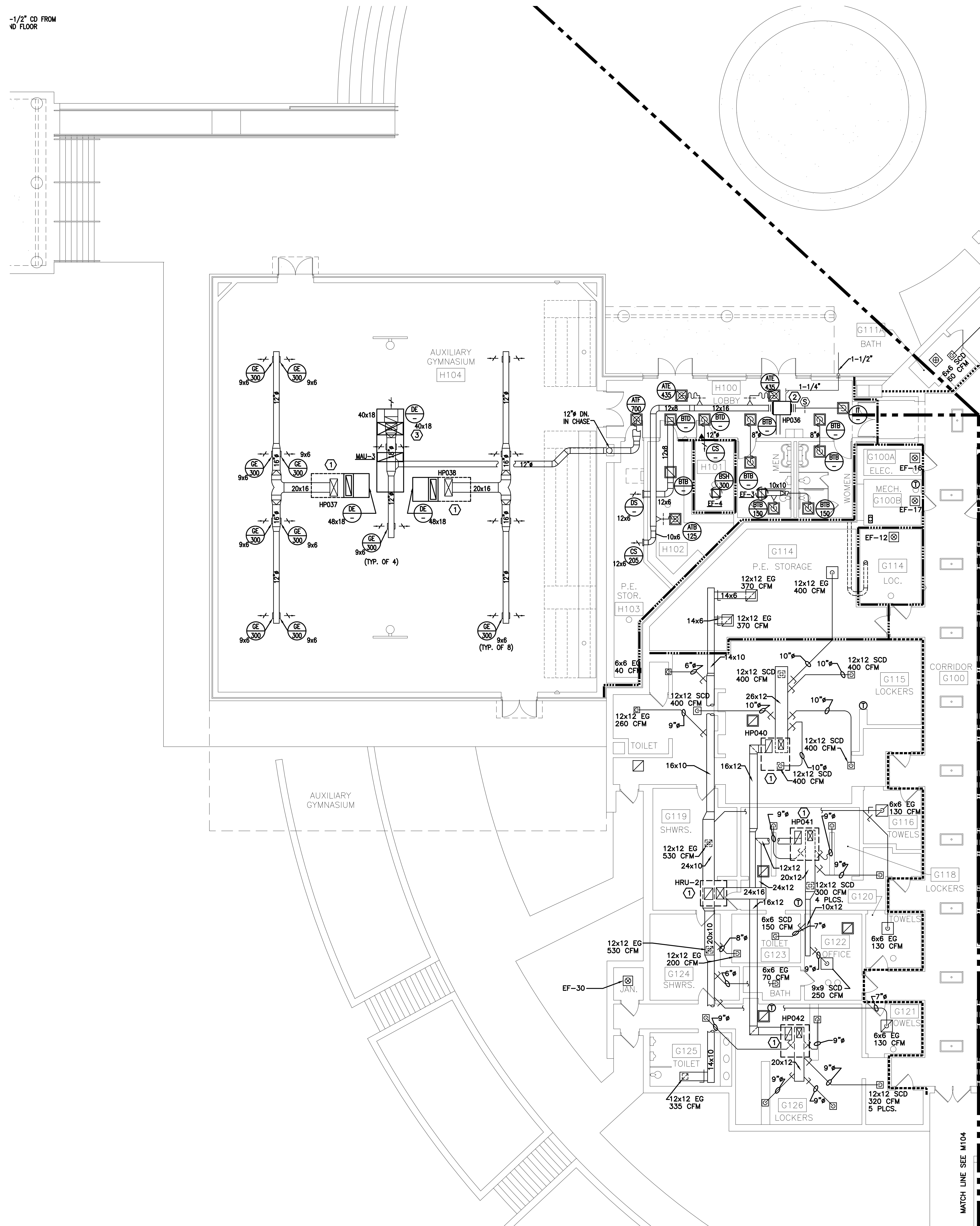
**FIRST FLOOR
 HVAC PLAN
 AREA G -
 NEW WORK**

M104



FIRST FLOOR HVAC PLAN AREA G - NEW WORK
 SCALE: 1/8" = 1'-0"

-1/2" CD FROM
40 FLOOR



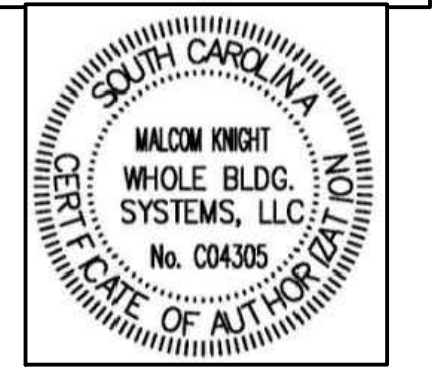
FIRST FLOOR HVAC PLAN AREA H - NEW WORK
SCALE: 1/8" = 1'-0"

NEW WORK KEYNOTE

- ① NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK, NEW CURB SUPPORT STEEL TO STRUCTURE, POWER AND CONTROL WIRING. ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILINGS AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.
- ② NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK, POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL CEILINGS AND REPLACE ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. INSTALL NEW REFRIGERANT LINES AND INSULATE PER SPECIFICATIONS. LINE SIZES TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
- ③ NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK, NEW CURB SUPPORT STEEL TO STRUCTURE, GAS, POWER AND CONTROL WIRING. ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION.



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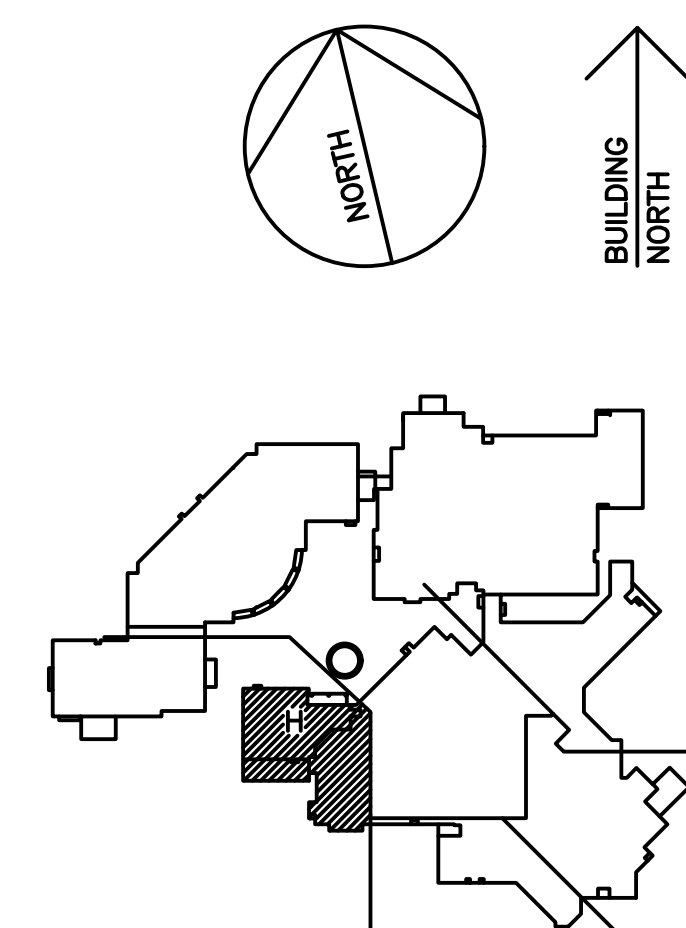
**AYNOR HIGH SCHOOL
HVAC Replacement**

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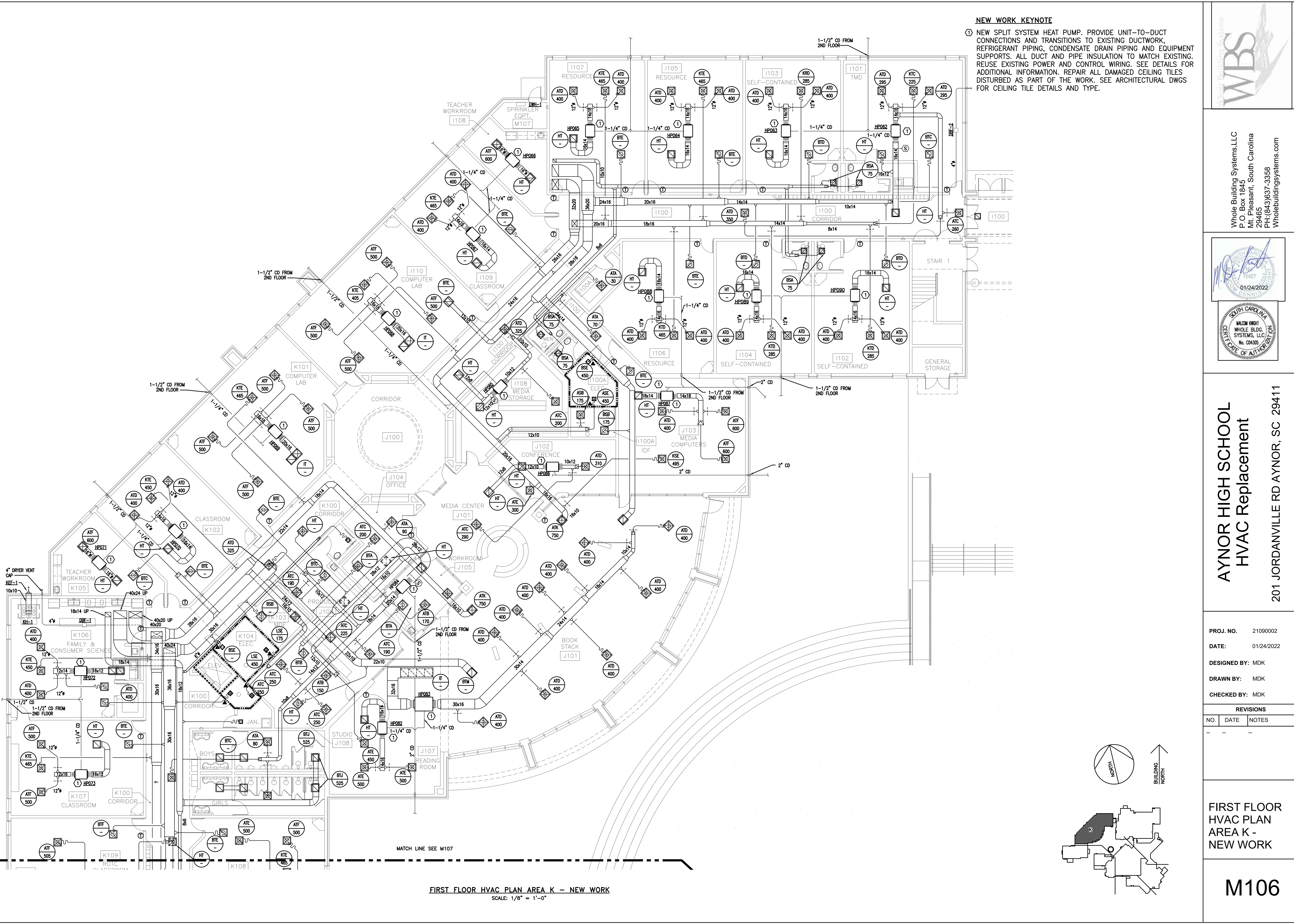
REVISIONS

NO.	DATE	NOTES



FIRST FLOOR
HVAC PLAN
AREA H -
NEW WORK

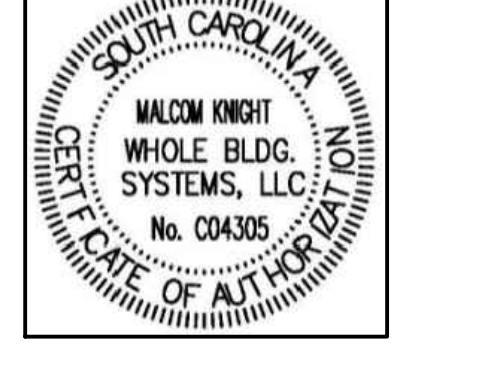
M105



NEW WORK KEYNOTE
 ① NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING AND EQUIPMENT SUPPORTS. ALL DUCT AND PIPE INSULATION TO MATCH EXISTING. REUSE EXISTING POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.



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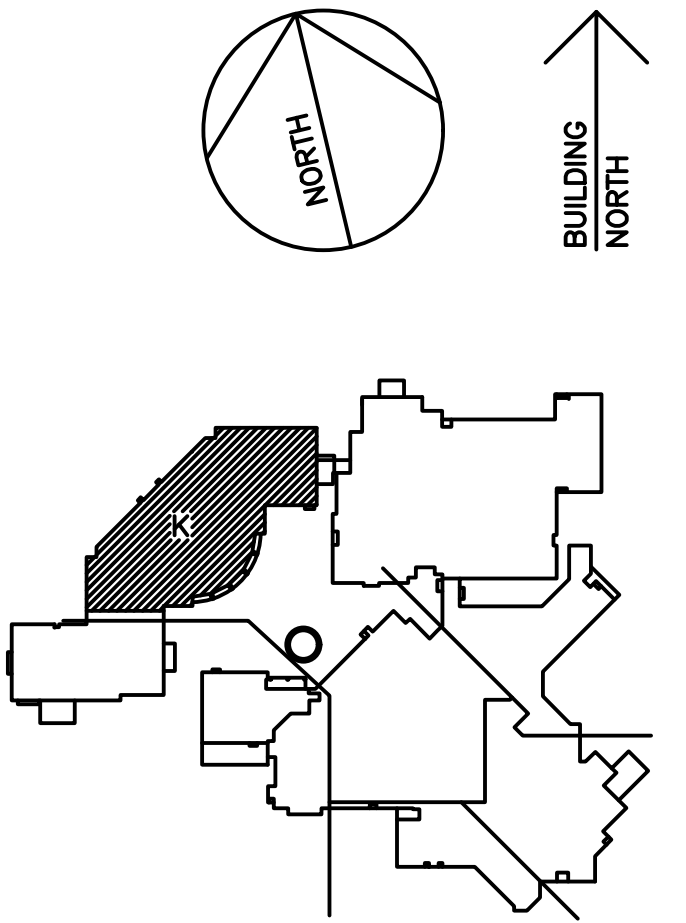
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REVISIONS

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FIRST FLOOR
 HVAC PLAN
 AREA K -
 NEW WORK

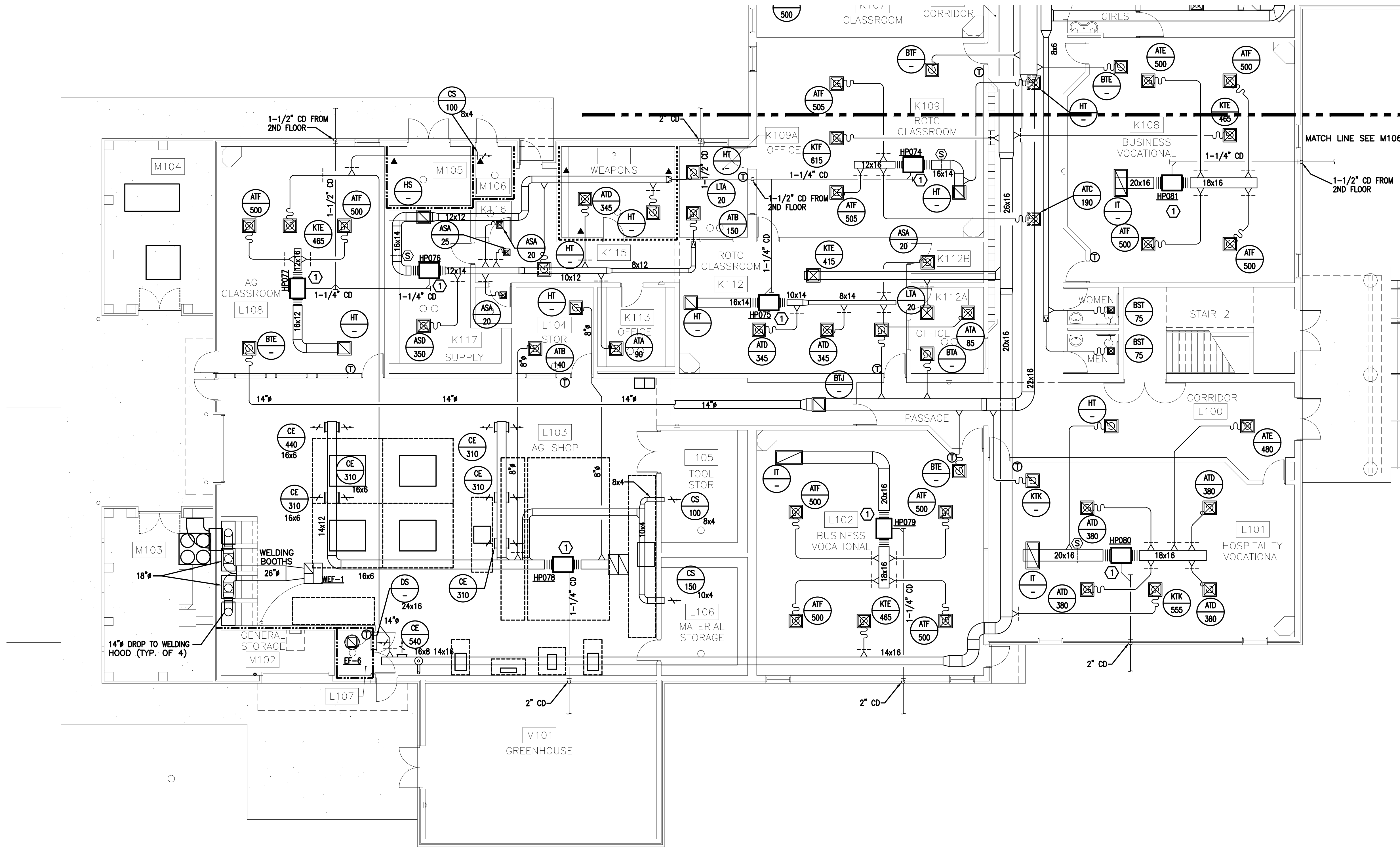
M106



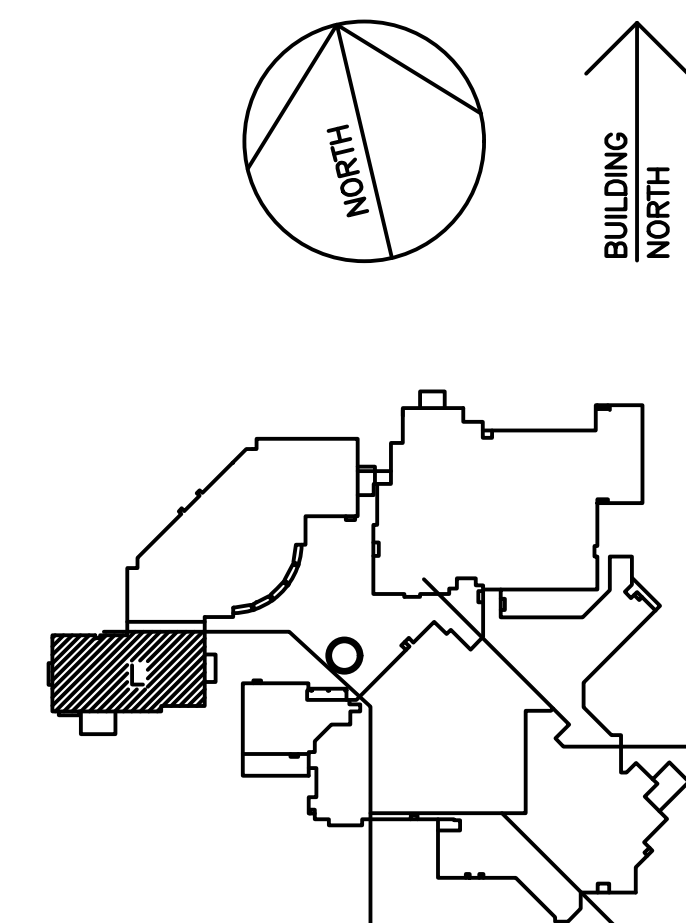
FIRST FLOOR HVAC PLAN AREA K - NEW WORK
 SCALE: 1/8" = 1'-0"

NEW WORK KEYNOTE

① NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING AND EQUIPMENT SUPPORTS. ALL DUCT AND PIPE INSULATION TO MATCH EXISTING. REUSE EXISTING POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.



FIRST FLOOR HVAC PLAN AREA L - NEW WORK
SCALE: 1/8" = 1'-0"



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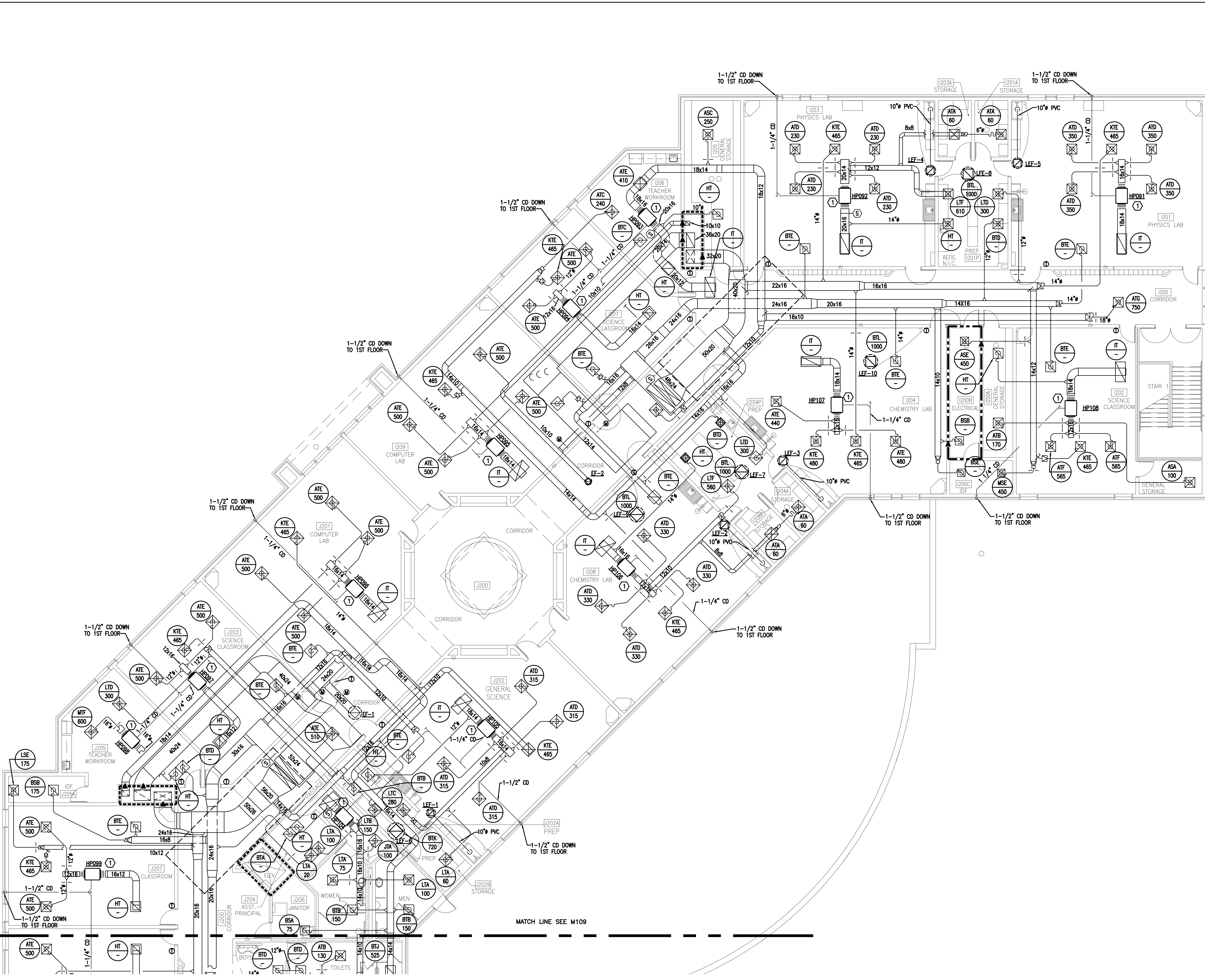
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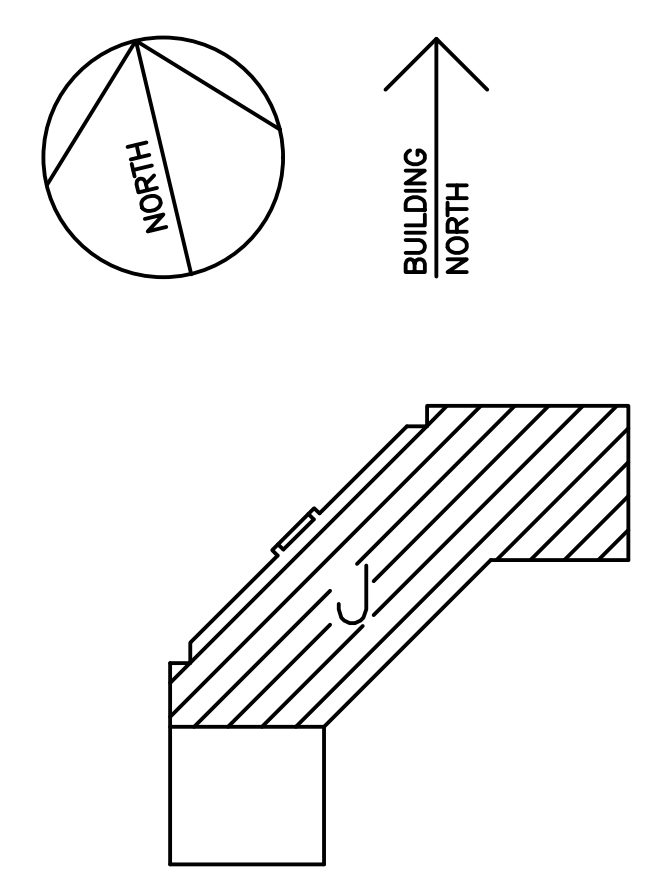
FIRST FLOOR
HVAC PLAN
AREA L -
NEW WORK

M107

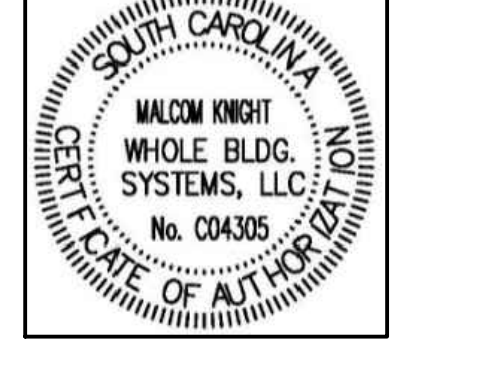


SECOND FLOOR HVAC PLAN AREA J - NEW WORK
SCALE: 1/8" = 1'-0"

NEW WORK KEYNOTE
 Ⓢ NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING AND EQUIPMENT SUPPORTS. ALL DUCT AND PIPE INSULATION TO MATCH EXISTING. REUSE EXISTING POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.



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**SECOND FLOOR
 HVAC PLAN
 AREA J -
 NEW WORK**

M108



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PROJ. NO. 2109002
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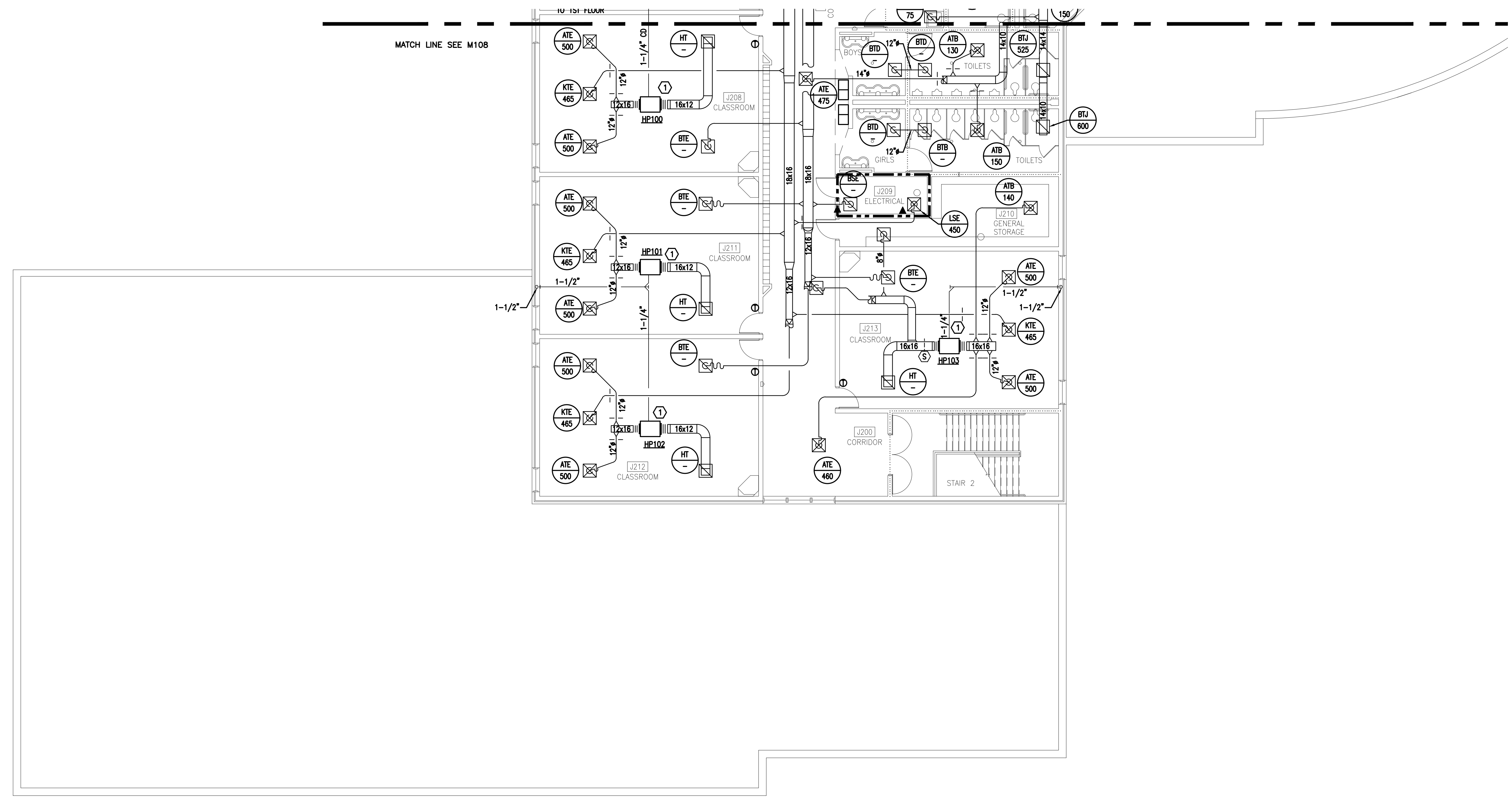
REVISIONS

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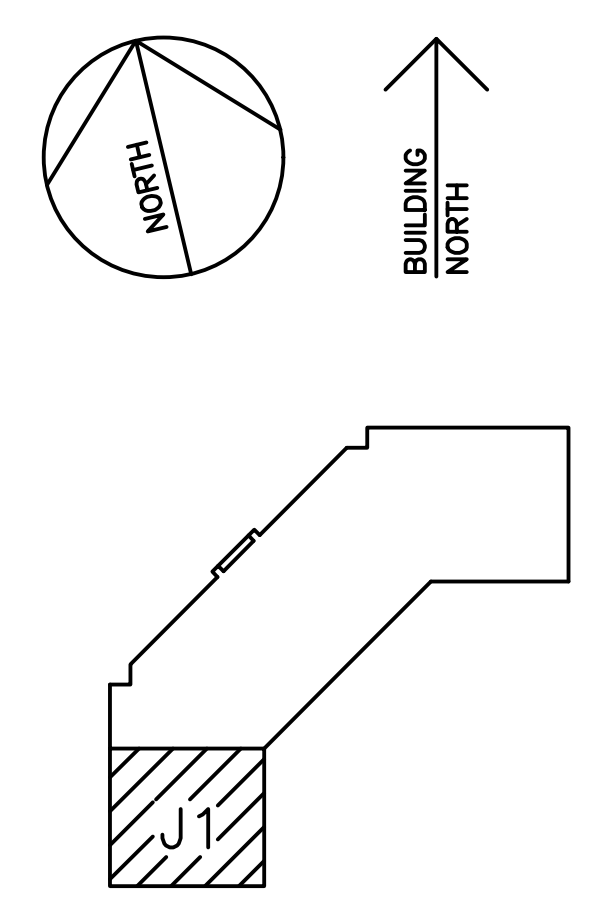
SECOND FLOOR
 HVAC PLAN
 AREA J1 -
 NEW WORK

M109

NEW WORK KEYNOTE
 ① NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING AND EQUIPMENT SUPPORTS. ALL DUCT AND PIPE INSULATION TO MATCH EXISTING. REUSE EXISTING POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.



SECOND FLOOR HVAC PLAN AREA J1 - NEW WORK
 SCALE: 1/8" = 1'-0"



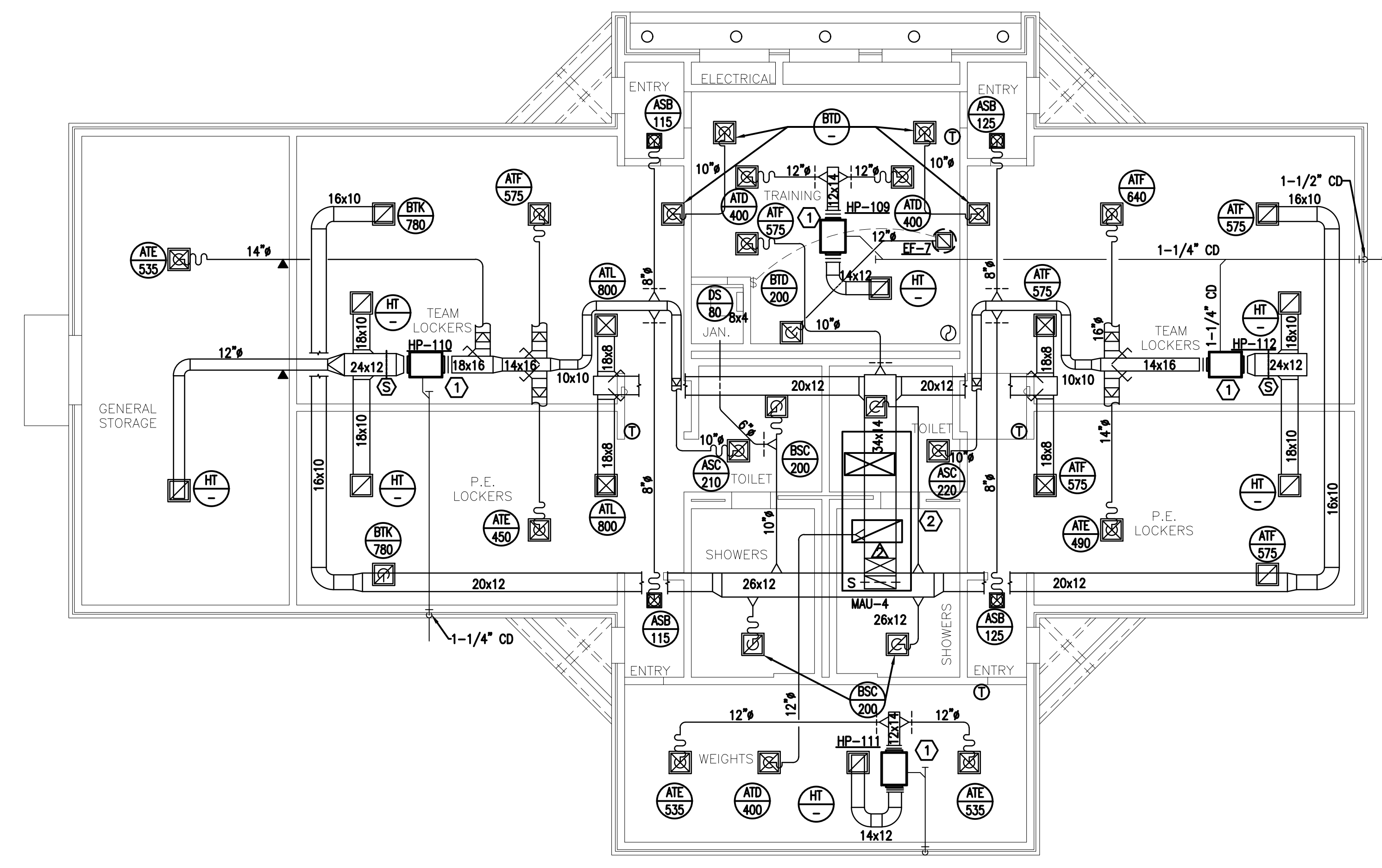


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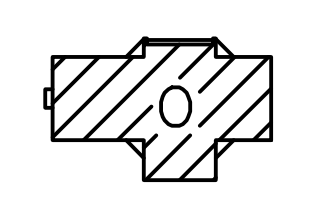
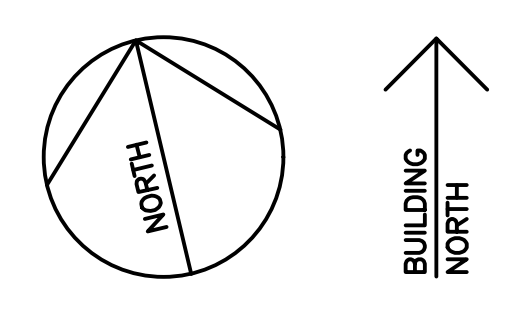


NEW WORK KEYNOTE

- ① NEW SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCTWORK, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING AND EQUIPMENT SUPPORTS. ALL DUCT AND PIPE INSULATION TO MATCH EXISTING. REUSE EXISTING POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.
- ② NEW ROOFTOP UNIT. PROVIDE UNIT-TO-DUCT CONNECTIONS AND TRANSITIONS TO EXISTING DUCT WORK, NEW CURB SUPPORT STEEL TO STRUCTURE, GAS, POWER AND CONTROL WIRING. ALL DUCT INSULATION TO MATCH EXISTING. SEE DETAILS FOR ADDITIONAL INFORMATION. REPAIR ALL DAMAGED CEILING TILES DISTURBED AS PART OF THE WORK. SEE ARCHITECTURAL DWGS FOR CEILING TILE DETAILS AND TYPE.



HVAC PLAN-AREA O - NEW WORK
 SCALE: 1/8" = 1'-0"



**AYNOR HIGH SCHOOL
 HVAC Replacement**
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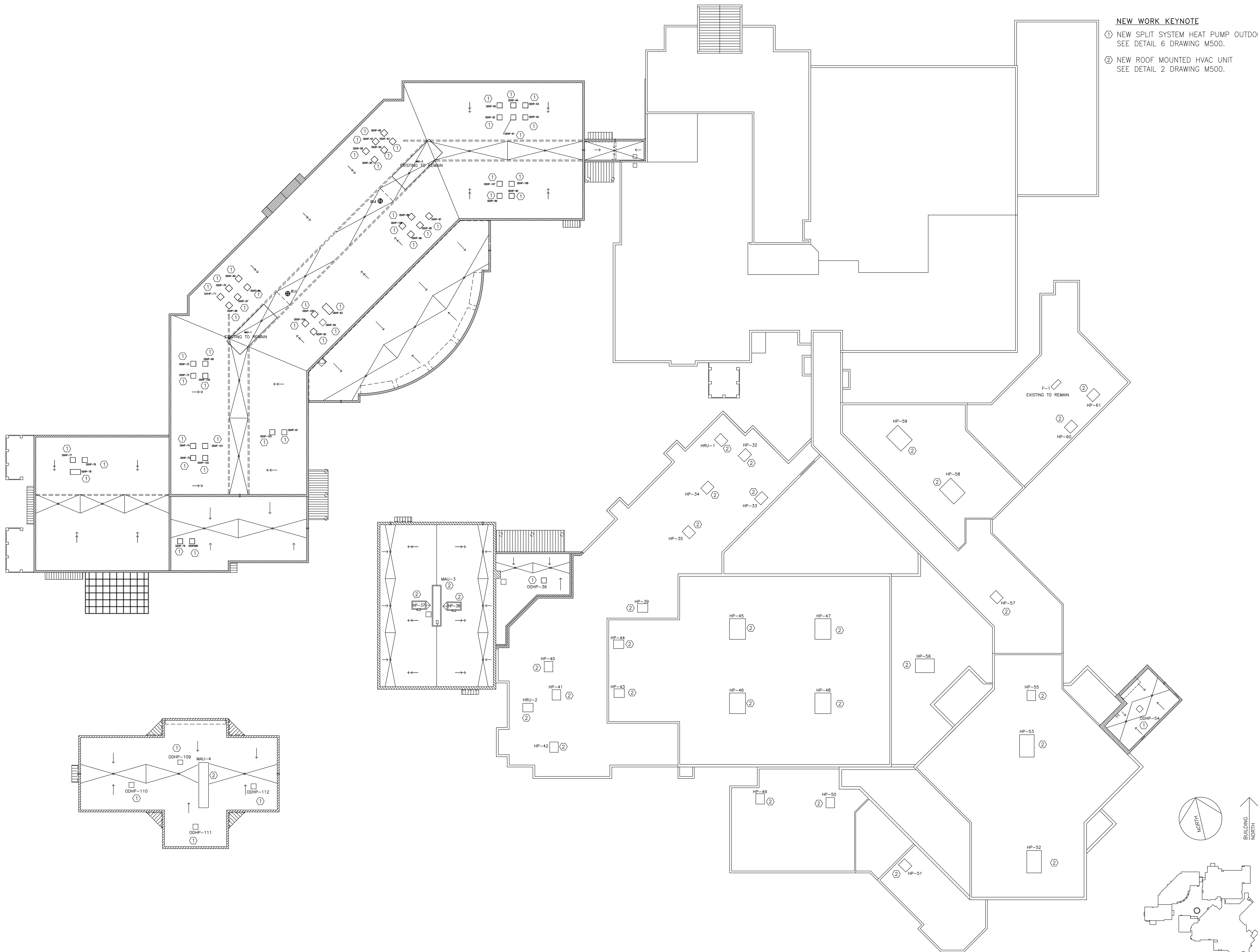
PROJ. NO. 21090002
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REVISIONS

NO.	DATE	NOTES

HVAC PLAN
 AREA O -
 NEW WORK

M110



- NEW WORK KEYNOTE**
- ① NEW SPLIT SYSTEM HEAT PUMP OUTDOOR UNIT
SEE DETAIL 6 DRAWING M500.
 - ② NEW ROOF MOUNTED HVAC UNIT
SEE DETAIL 2 DRAWING M500.



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201 JORDANVILLE RD AYNOR, SC 29411

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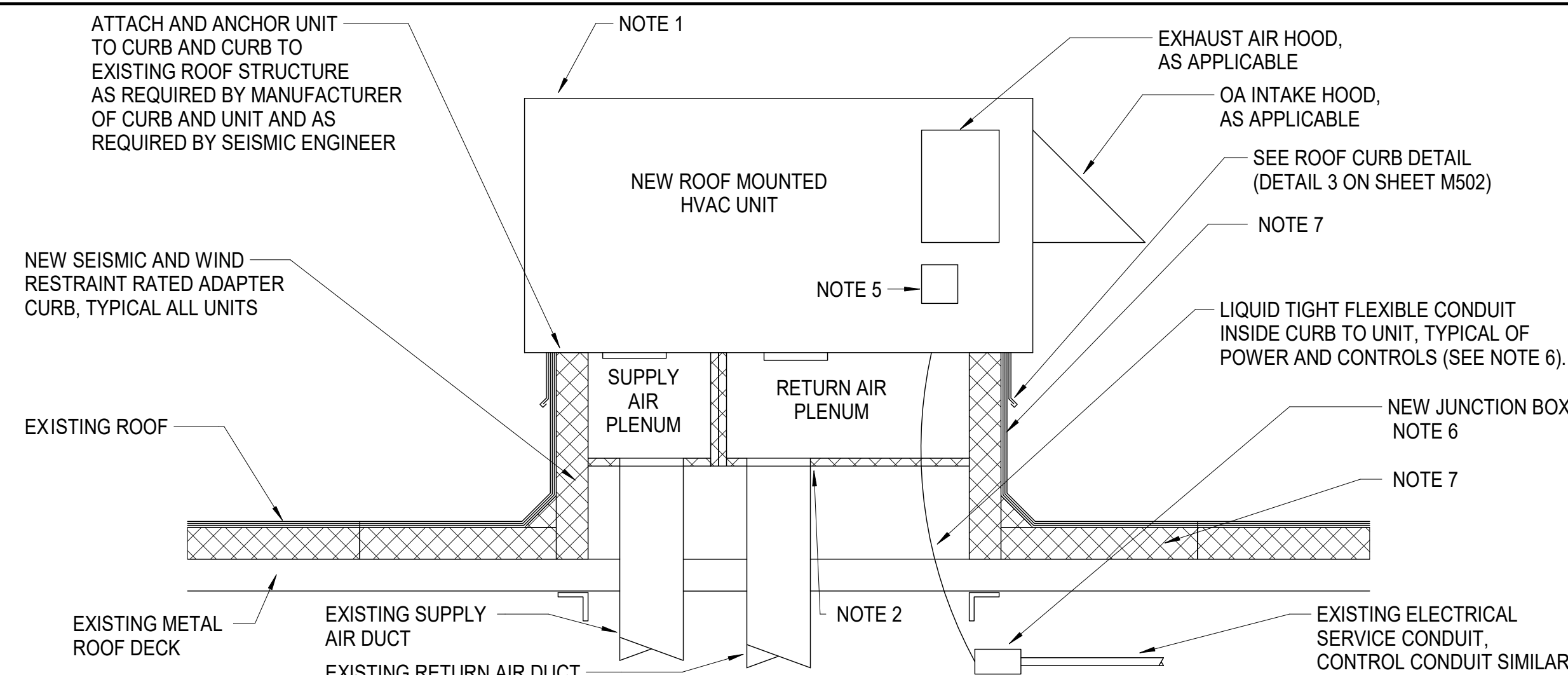
**HVAC
ROOF PLAN
NEW WORK**

M111

HVAC ROOF PLAN - NEW WORK
SCALE: 1" = 20'-0"

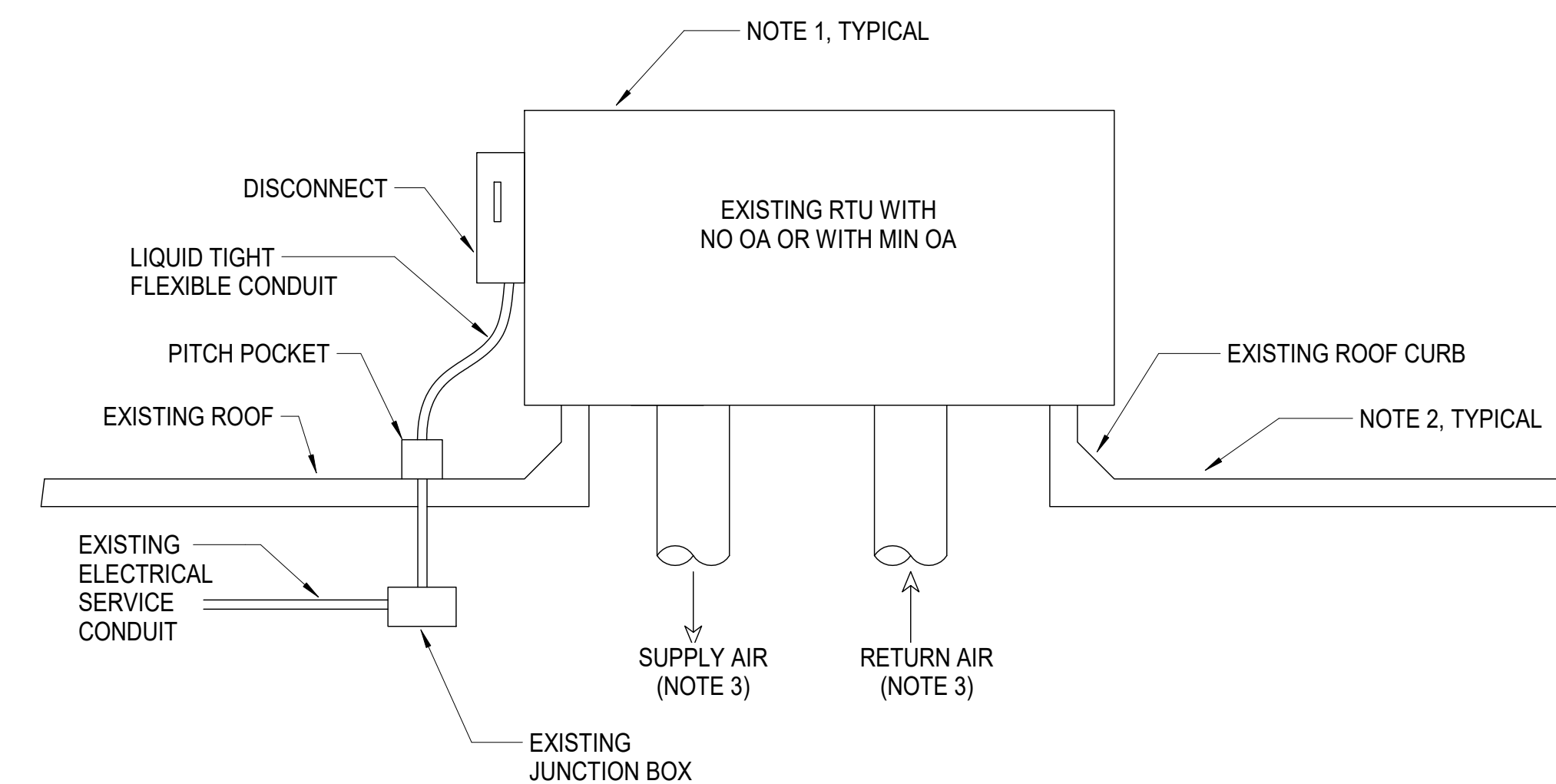
NOTES APPLICABLE TO ENTIRE SHEET

1. SEE SHEET ARCHITECTURAL DRAWINGS FOR HVAC ROOF PENETRATION DETAILS.



NOTES:

1. PROVIDE NEW ROOF MOUNTED HVAC UNIT COMPLETE INCLUDING, BUT NOT LIMITED TO, UNIT, FULL PERIMETER SEISMIC AND WIND RATED CURB, SEISMIC AND WIND RESTRAINTS CONNECTED TO EXISTING STRUCTURE AND NEW UNIT, SUPPORTS, POWER SUPPLY, CONTROLS, AND CONDENSATE DRAIN.
2. CONNECT AND SEAL DUCT TO ADAPTER CURB DUCT CONNECTIONS AIR TIGHT.
3. MINIMUM HEIGHT OF ADAPTER CURB SHALL BE 16 INCHES ABOVE ROOF SURFACE. MAXIMUM HEIGHT OF CURB ADAPTER SHALL BE 36 INCHES ABOVE ROOF SURFACE.
4. INTERCEPT EXISTING POWER SUPPLY BELOW ROOF. PROVIDE JUNCTION BOX AND LIQUID TIGHT FLEXIBLE CONDUIT, SPLICE CONDUCTORS AND ROUTE TO UNIT INSIDE CURB. CONTROL POWER ROUTING SHALL BE SIMILAR. NO EXTERNAL POWER SUPPLIES OR CONTROL WIRING SHALL PENETRATE THE ROOF OUTSIDE OF CURB.
5. PROVIDE EQUIPMENT WITH CIRCUIT BREAKER DISCONNECT WITH WEATHER PROOF COVER FACTORY FURNISHED AND INSTALLED. LOCATION MAY VARY IF UNIT MANUFACTURER DOES NOT PROVIDE CIRCUIT BREAKER DISCONNECT, PROVIDE EXTERNAL CIRCUIT BREAKER DISCONNECT IN NEMA 3R ENCLOSURE MOUNTED TO UNIT. DO NOT COVER ANY UNIT NAMEPLATES WITH DISCONNECT.
6. PROVIDE CURB WITH AIRTIGHT INSULATED CHASE FOR POWER AND CONTROL WIRING CONDUITS TO ENTER THE BOTTOM OF THE UNIT THROUGH THE CHASE.
7. REPAIR ROOF ALL AROUND TO MATCH EXISTING INCLUDING, BUT NOT LIMITED TO FLASHING, COUNTER FLASHING, INSULATION, BASE SHEETS, AND CAP SHEET. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ROOF REPAIR INFORMATION.

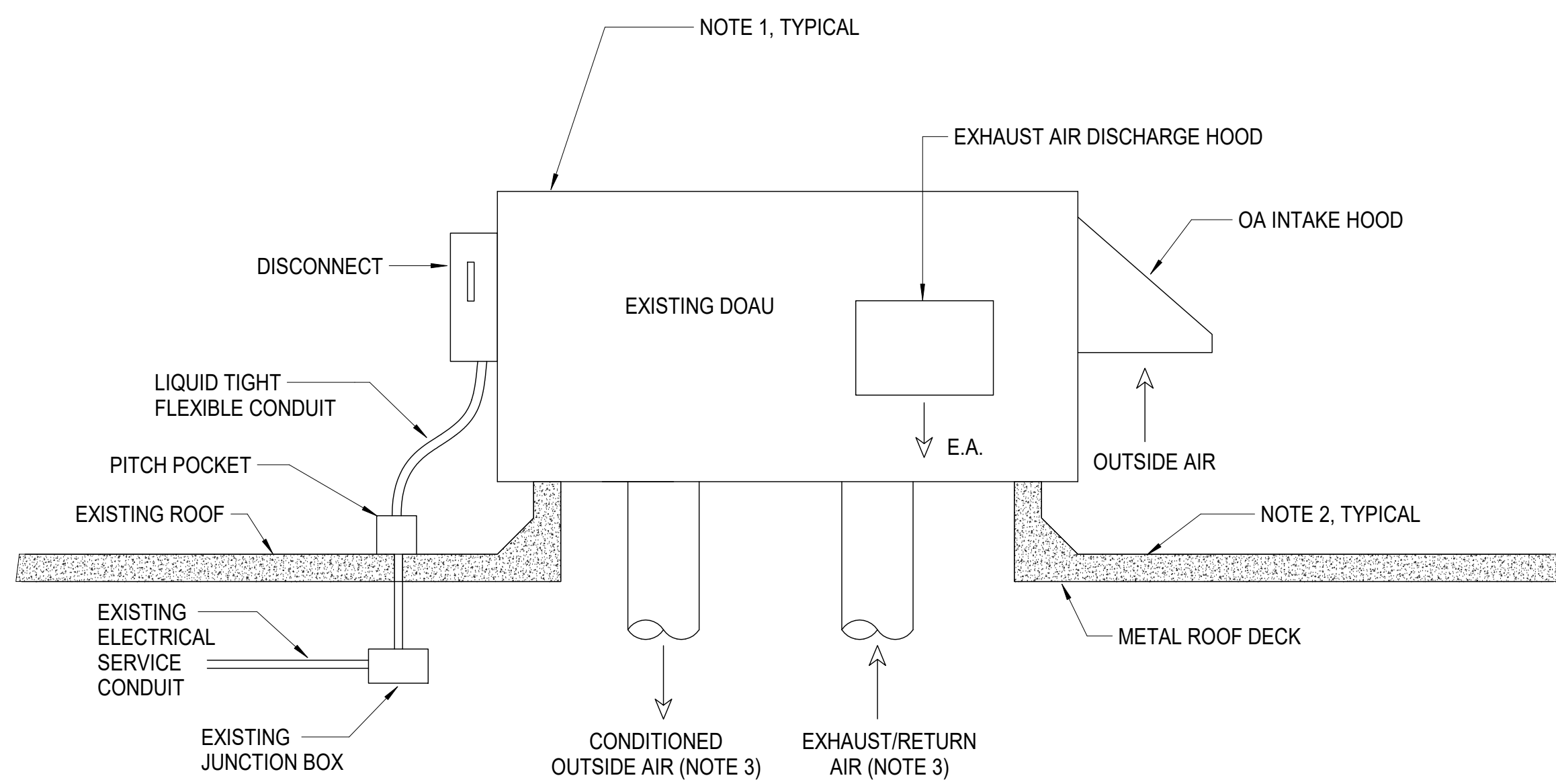


NOTES:

1. REMOVE EXISTING ROOF MOUNTED HVAC UNIT COMPLETE INCLUDING, BUT NOT LIMITED TO, UNIT, CURB, EQUIPMENT RAILS, SUPPORTS, POWER SUPPLY, CONTROLS, AND CONDENSATE DRAIN.
2. REMOVE ROOFING FROM CURB TO 3 FEET ALL AROUND CURB INCLUDING, BUT NOT LIMITED TO, BALLASTS, CAP SHEET OR MEMBRANE, INSULATION, FLASHINGS, COUNTER FLASHINGS, AND PITCH POCKETS COMPLETE DOWN TO METAL ROOF DECK.
3. DISCONNECT HVAC UNIT FROM EXISTING SUPPLY AND RETURN DUCTWORK. COVER AND PROTECT DUCTWORK OPENINGS FOR REUSE IN NEW WORK.
4. REMOVE ELECTRICAL CIRCUIT TO FIRST JUNCTION BOX BELOW ROOF AND INSTALL NEW ELECTRICAL AS SHOWN IN DETAIL 2 ON THIS SHEET.

2 M500 NEW ROOFTOP UNIT INSTALLATION (TYP. OF DOAU AND HPs) NOT TO SCALE

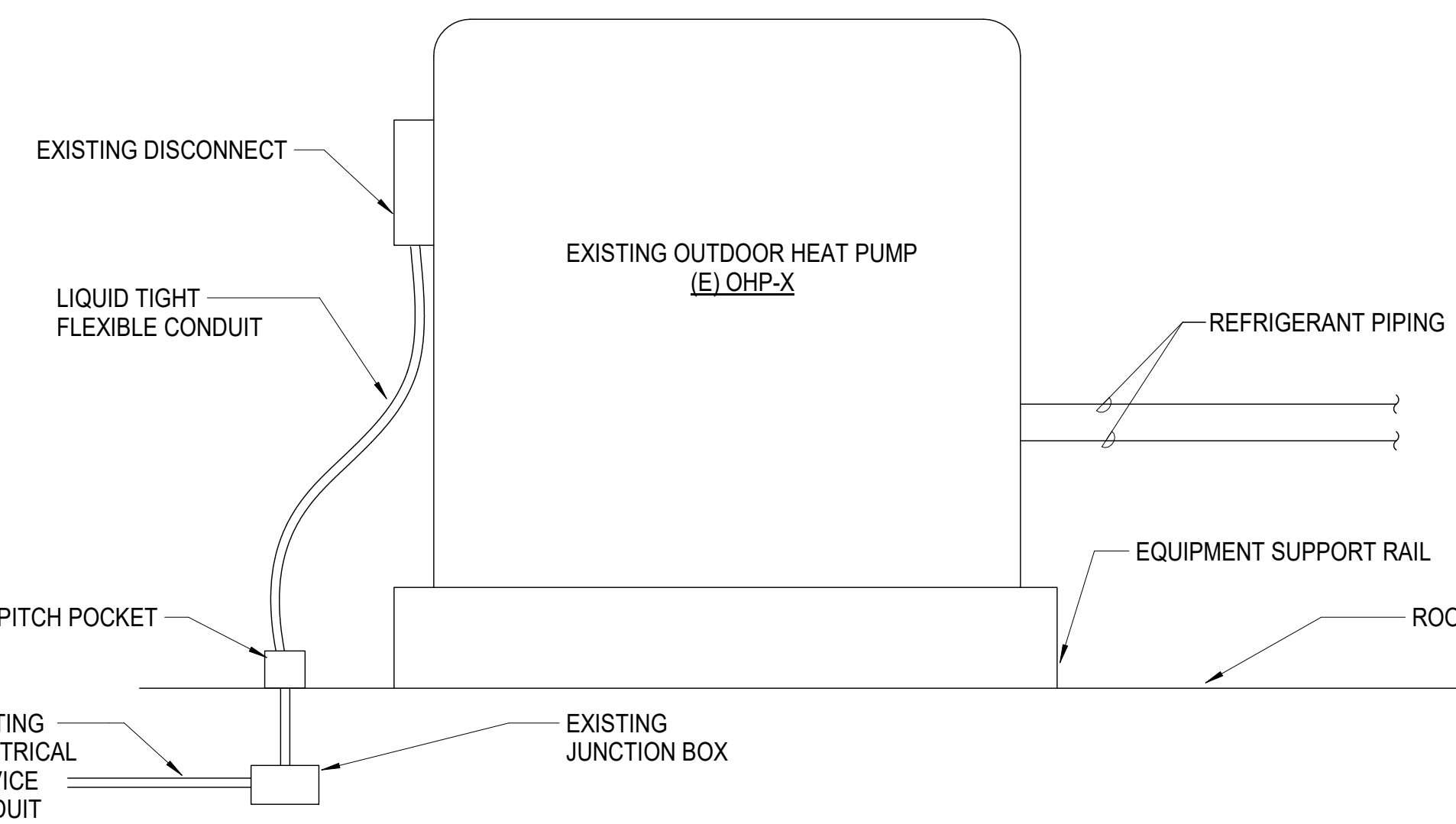
3 M500 EXISTING RTU DEMOLITION DETAIL NOT TO SCALE



NOTES:

1. REMOVE EXISTING ROOF MOUNTED HVAC UNIT COMPLETE INCLUDING, BUT NOT LIMITED TO, UNIT, CURB, EQUIPMENT RAILS, SUPPORTS, POWER SUPPLY, CONTROLS, AND CONDENSATE DRAIN.
2. REMOVE ROOFING FROM CURB TO 3 FEET ALL AROUND CURB INCLUDING, BUT NOT LIMITED TO, BALLASTS, CAP SHEET OR MEMBRANE, INSULATION, FLASHINGS, COUNTER FLASHINGS, AND PITCH POCKETS COMPLETE DOWN TO METAL ROOF DECK.
3. DISCONNECT HVAC UNIT FROM EXISTING SUPPLY AND RETURN DUCTWORK. COVER AND PROTECT DUCTWORK OPENINGS FOR REUSE IN NEW WORK.
4. REMOVE ELECTRICAL CIRCUIT TO FIRST JUNCTION BOX BELOW ROOF AND INSTALL NEW ELECTRICAL AS SHOWN IN DETAIL 2 ON THIS SHEET.

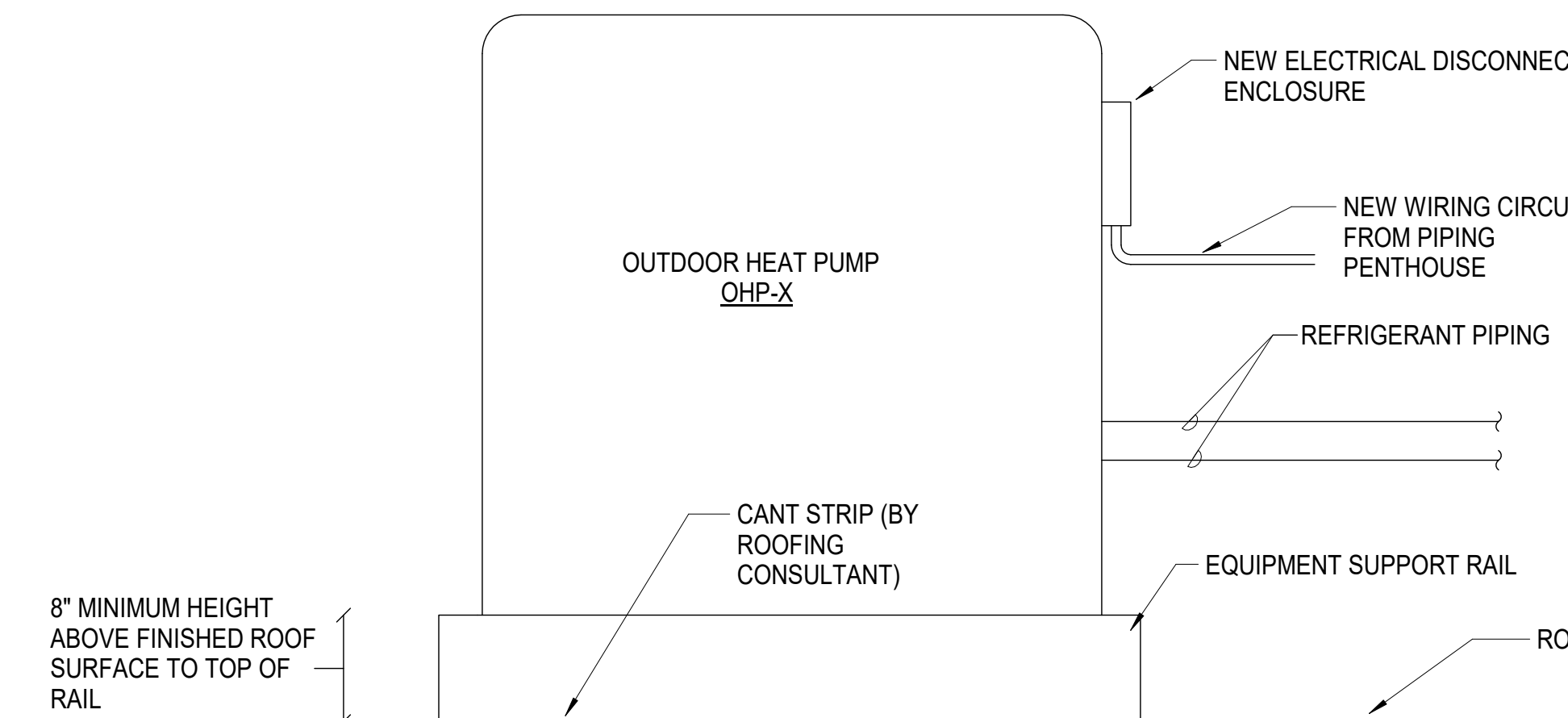
4 M500 EXISTING DOAU DEMOLITION DETAIL NOT TO SCALE



NOTES:

1. REMOVE EXISTING OUTDOOR HP UNIT COMPLETE INCLUDING, BUT NOT LIMITED TO, UNIT, EQUIPMENT RAILS, PITCH POCKETS, SUPPORTS, POWER SUPPLY, CONTROLS, AND REFRIGERANT PIPING.

5 M500 TYP. OUTDOOR HEAT PUMP DEMOLITION DETAIL NOT TO SCALE



NOTES:

1. PROVIDE NEW ROOF MOUNTED HVAC UNIT COMPLETE INCLUDING, BUT NOT LIMITED TO, UNIT, FULL PERIMETER SEISMIC AND WIND RATED EQUIPMENT SUPPORT RAILS, SEISMIC AND WIND RESTRAINTS CONNECTED TO EXISTING STRUCTURE AND NEW UNIT, SUPPORTS, POWER SUPPLY, AND CONTROLS.
2. PROVIDE NEW ELECTRICAL WIRING AND DISCONNECT. DISCONNECT TO BE ENCLOSED MOLDED CASE CIRCUIT BREAKER SIZED TO MATCH EQUIPMENT LOAD INSTALLED IN NEMA 3R ENCLOSURE. MOUNT DISCONNECT ON SIDE OF UNIT - DO NOT COVER ANY NAMEPLATES OR BLOCK ANY SERVICE ACCESS PANELS.

6 M500 TYP. OUTDOOR HEAT PUMP INSTALLATION DETAIL NOT TO SCALE



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**AYNOR HIGH SCHOOL
HVAC REPLACEMENT**

201 JORDANVILLE RD, AYNOR, SC 29511

PROJ. NO. 21090002

DATE: 01/24/2022

DESIGNED BY: MDK

DRAWN BY: MDK

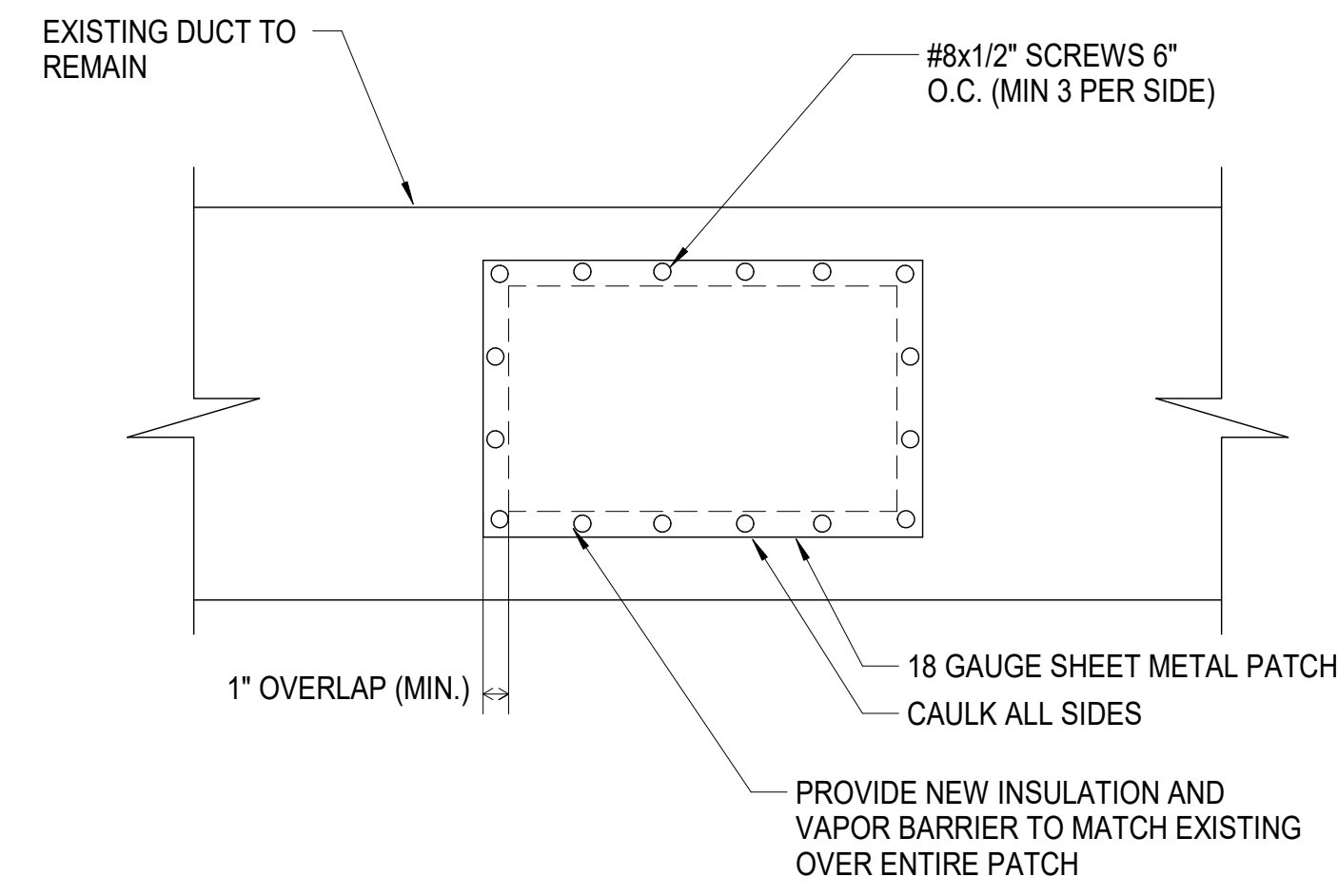
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REVISIONS

NO.	DATE	NOTES

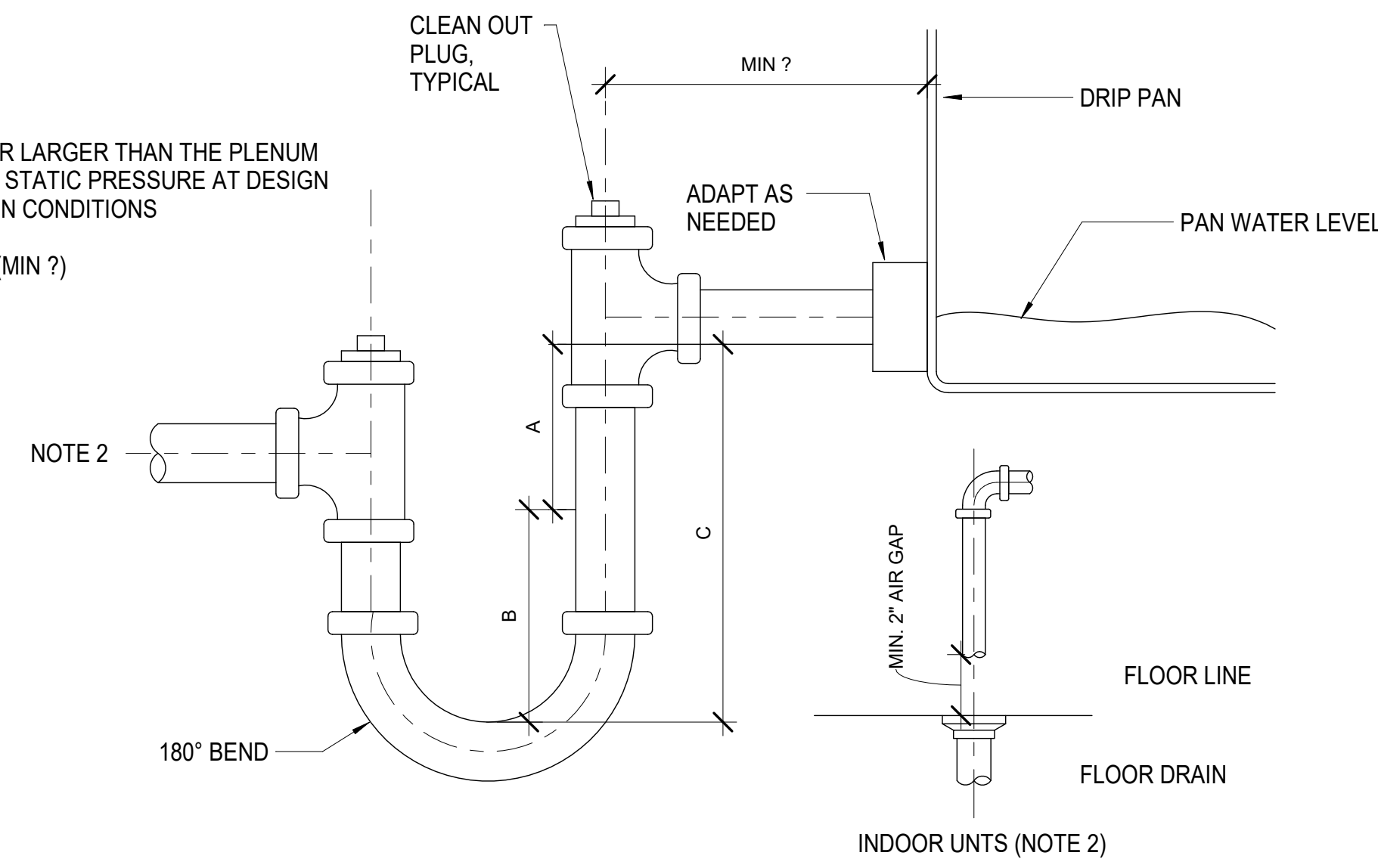
HVAC DETAILS

M500

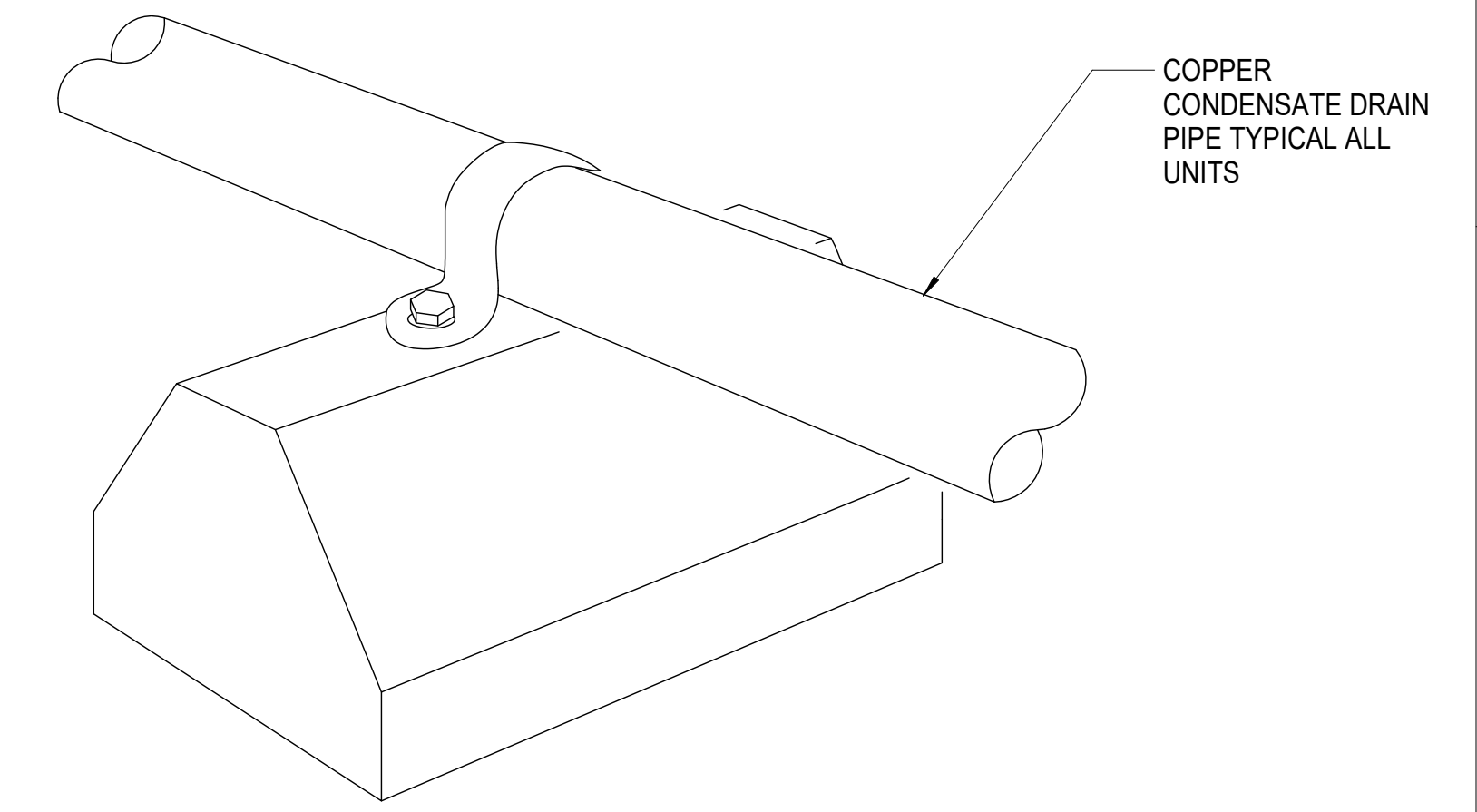


PROVIDE NEW INSULATION AND VAPOR BARRIER TO MATCH EXISTING OVER ENTIRE PATCH

A = EQUAL TO OR LARGER THAN THE PLENUM NEGATIVE STATIC PRESSURE AT DESIGN OPERATION CONDITIONS
 B = (A/2) + 1-1/2"(MIN ?)
 C = A + B



NOTES:
 1. PROVIDE CONDENSATE DRAIN TRAP SIZED AS INDICATED, OR ALTERNATIVELY AS PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL COORDINATE TRAP HEIGHT WITH UNIT DRAIN LOCATION AND EQUIPMENT CURB.
 2. ROUTE DRAIN PIPING SAME AS EXISTING FOR SPLIT SYSTEMS OR TO NEAREST ROOF DRAIN. FOR EQUIPMENT LOCATED ON ROOF, SEE PIPING SUPPORTS ON ROOF DETAIL. FOR EQUIPMENT LOCATED INDOORS, PROVIDE MINIMUM 2" AIR GAP FROM FLOOR DRAINS.



NOTES:
 1. PROVIDE PIPING SUPPORTS FOR ALL PIPING LOCATED ON ROOF.
 2. PIPE SUPPORTS SHALL BE SPACED AS REQUIRED BY SMACNA-2008.
 3. CONDENSATE DRAIN PIPING SHALL BE SLOPED AT A MINIMUM OF 1/8" PER LINEAR FOOT.
 4. ROUTE CONDENSATE DRAIN PIPING TO NEAREST ROOF DRAIN OR GUTTER.

1 M501 DUCT PATCH DETAIL NOT TO SCALE

2 M501 CONDENSATE DRAIN PIPING FOR DRAW-THRU UNIT DETAIL NOT TO SCALE

3 M501 PIPING SUPPORTS ON ROOF NOT TO SCALE



Whole Building Systems, LLC
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 29465
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**AYNOR HIGH SCHOOL
 HVAC REPLACEMENT**
 201 JORDANVILLE RD, AYNOR, SC 29511

PROJ. NO. 21090002
 DATE: 01/24/2022
 DESIGNED BY: KGL
 DRAWN BY: KGL
 CHECKED BY: MDK

REVISIONS		
NO.	DATE	NOTES

HVAC DETAILS

M501

TAG	UNIT TYPE	ZONE	AIRFLOW (CFM)	ESP (in.wc)	COOLING EAT	TOTAL COOLING (BTU)	SENSIBLE COOLING (BTU)	HEATING EAT	TOTAL HEATING (BTU)	INDOOR UNIT				OUTDOOR UNIT				NOTES
										MODEL NUMBER	VOLTAGE/...	MCA	MOCP	MODEL NUMBER	VOLTAGE/...	MCA	MOCP	
HP036	Split System HP	Aux Gym Corridor & Storage H102	1200	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA4036A4000A	480/3	6	15	2,3,4,5
HP054	Split System HP	Bus Lounge & Office N101,102	1600	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	4TWA4048A4000A	480/3	8	15	2,3,4,5
HP062	Split System HP	TMD I101 classroom	1200	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA4036A4000A	480/3	6	15	2,3,4,5
HP063	Split System HP	Self-Contained I103 classroom	600	0.75	80/67	18100	14200	70	32600	TEM4A0B18S215A	208/1	42	45	4TWR4018	208/1	12	20	2,3,4,5
HP064	Split System HP	Resource I105 classroom	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP065	Split System HP	Resource I107 classroom	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP066	Split System HP	Teacher Workroom I108	600	0.75	80/67	18100	14200	70	32600	TEM4A0B18S215A	208/1	42	45	4TWR4018	208/1	12	20	2,3,4,5
HP067	Split System HP	Classroom I109	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP068	Split System HP	Computer Lab I110	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP069	Split System HP	Computer Lab K101	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP070	Split System HP	Classroom K102	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP071	Split System HP	Teacher Workroom K105	600	0.75	80/67	18100	14200	70	32600	TEM4A0B18S215A	208/1	42	45	4TWR4018	208/1	12	20	2,3,4,5
HP072	Split System HP	Fam & Consumer Science K106	1200	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA4036A4000A	480/3	8	15	2,3,4,5
HP073	Split System HP	Classroom K107	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP074	Split System HP	ROTC Classroom K109	1200	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA4036A4000A	480/3	8	15	2,3,4,5
HP075	Split System HP	ROTC Classroom K112	800	0.75	80/67	23600	17700	70	22400	TEM4A0B24S215A	208/1	52	60	4TWR4024	208/1	14	25	2,3,4,5
HP076	Split System HP	ROTC Dress, Weapons & Storage K113,114,117	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP077	Split System HP	AG Classroom L108	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP078	Split System HP	AG Shop L103,105,106	3000	0.75	80/67	91850	72440	70	58060	TW090	480/3	41	45	TWA0904AAA	480/3	17	30	1,2,3,4,5
HP079	Split System HP	Business Vocation L102	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP080	Split System HP	Business Vocation L101	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP081	Split System HP	Business Vocation K108	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP082	Split System HP	Reading Room J107	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	460/3	8	15	1,2,3,4,5
HP083	Split System HP	Book Stack J101	4000	0.75	80/67	122660	94890	70	77480	TWE120	480/3	56	60	TWA1204AAA	460/3	25	40	2,3,4,5
HP084	Split System HP	Office, Prod, Studio, Restrooms J104,105,106	2000	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	4TWA4048A4000A	460/3	8	15	2,3,4,5
HP085	Split System HP	Media Storage J108	600	0.75	80/67	18100	14200	70	32600	TEM4A0B18S215A	208/1	42	45	4TWR4018	208/1	12	20	2,3,4,5
HP086	Split System HP	Conference J102	600	0.75	80/67	18100	14200	70	32600	TEM4A0B18S215A	208/1	42	45	4TWR4018	208/1	12	20	2,3,4,5
HP087	Split System HP	Media Computers J103	1600	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	4TWA4048A4000A	480/3	8	15	2,3,4,5
HP088	Split System HP	Resource J106	800	0.75	80/67	23600	17700	70	22400	TEM4A0B24S215A	208/1	52	60	4TWR4024	208/1	14	25	2,3,4,5
HP089	Split System HP	Self-Contained J104	800	0.75	80/67	23600	17700	70	22400	TEM4A0B24S215A	208/1	52	60	4TWR4024	208/1	14	25	2,3,4,5
HP090	Split System HP	Self-Contained J102	800	0.75	80/67	23600	17700	70	22400	TEM4A0B24S215A	208/1	52	60	4TWR4024	208/1	14	25	2,3,4,5
HP091	Split System HP	Physics Lab I201	1400	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	TWA7048A4000A	480/3	9	15	1,2,3,4,5
HP092	Split System HP	Physics Lab & Prep I203	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP093	Split System HP	Gen Storage & Teacher Wrkrm & Corr I205,206	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP094	Split System HP	Science Classroom J207	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	480/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP095	Split System HP	Computer Lab I209	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP096	Split System HP	Computer Lab I201	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	460/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP097	Split System HP	Science Classroom J203	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	460/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP098	Split System HP	Teacher Workroom J205	600	0.75	80/67	18100	14200	70	32600	TEM4A0B18S215A	208/1	42	45	4TWR4018	208/1	12	20	2,3,4,5
HP099	Split System HP	Classroom J207	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	460/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP100	Split System HP	Classroom J208	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	460/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP101	Split System HP	Classroom J211	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	460/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP102	Split System HP	Classroom J212	1000	0.75	80/67	35900	27600	70	32600	TEM6AOC36H315A	460/3	17.1	20	4TWA7036A4000A	480/3	8	15	1,2,3,4,5
HP103	Split System HP	Classroom J213	1600	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	460/3	25.6	30	4TWA4048A4000A	480/3	8	15	2,3,4,5
HP104	Split System HP	AP & Restrooms J204	1600	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	460/3	25.6	30	4TWA4048A4000A	480/3	8	15	2,3,4,5
HP105	Split System HP	General Science J202	1600	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	460/3	25.6	30	4TWA4048A4000A	480/3	8	15	2,3,4,5
HP106	Split System HP	Chemistry Lab I208,208A,204A,204B	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP107	Split System HP	Chemistry Lab I204	1400	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	TWA7048A4000A	480/3	9	15	1,2,3,4,5
HP108	Split System HP	Science Classroom J202	1400	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	TWA7048A4000A	480/3	9	15	1,2,3,4,5
HP109	Split System HP	H Fieldhouse training	800	0.75	80/67	23600	17700	70	22400	TEM4A0B24S215A	208/1	52	60	4TWR4024	208/1	14	25	2,3,4,5
HP110	Split System HP	H Fieldhouse lockers	2000	0.75	80/67	57338	44219	70	53500	TEM4AOC60S215A	480/3	25.6	30	4TWA4060A4000A	480/3	9	15	2,3,4,5
HP111	Split System HP	H Fieldhouse weights	800	0.75	80/67	23600	17700	70	22400	TEM4A0B24S215A	208/1	52	60	4TWR4024	208/1	14	25	2,3,4,5
HP112	Split System HP	H Fieldhouse lockers	1600	0.75	80/67	46800	34000	70	46000	TEM4AOC48S15A	480/3	25.6	30	4TWA4048A4000A	480/3	8	15	2,3,4,5

1. PROVIDE WITH 2 STAGE COOLING
2. PROVIDE UNIT WITH AUX ELECTRIC HEAT
3. PROVIDE SEACOAST COATING ON CONDENSER COIL
4. UNIT SHALL BE PROVIDED WITH CIRCUIT BREAKER DISCONNECT
5. UNIT SHALL COME WITH TERMINAL STRIP FOR CONTROLS INTEGRATION. UNIT CONTROLLER SHALL BE PROVIDED BY BAS SUPPLIER

TAG	UNIT TYPE	ZONE	AIRFLOW (CFM)	DESIGN OUTSIDE AIR (CFM)	ESP (IN.WC)	COOLING EAT	UNIT TOTAL COOLING (BTU)	UNIT SENSIBLE COOLING (BTU)	HGR	HEATING EAT (BTU)	UNIT HEATING (BTU)	WEIGHT (LBS)	MODEL NUMBER	VOLTAGE/PHASE	MCA	MOCP	NOTES
HP032	RTU (HP)	Lockers G102,105,106	2000	1000	0.75	80/67	61020	48760	YES	70	57440	1071	WSC060H4RGA	480/3	41	45	1,3,6,7,8,9,10,11
HP033	RTU (HP)	Corridor G100	2000	0	0.75	80/67	30400	21280	NO	70	27200	364	4WCC4030A1	240/1	52	60	6,7,8,9,10,11
HP034	RTU (HP)	Lockers G109	1600	800	0.75	80/67	49940	38440	YES	70	47070	818	WSC048H4REA	208/3	30	30	1,6,7,8,9,10,11
HP035	RTU (HP)	Coaches Corner G110, G111	2000	545	0.75	80/67	61020	48760	YES	70	57440	1071	WSC060H4RGA	480/3	41	45	3,6,7,8,9,10,11
HP037	RTU (HP)	Aux Gym H104	2400	0	0.75	80/67	78000	56740	NO	70	68580	1129	WSC072H4RGA	480/3	44	45	3,6,7,8,9,10,11
HP038	RTU (HP)	Aux Gym H104	2400	0	0.75	80/67	78000	56740	NO	70	68580	1129	WSC072H4RGA	480/3	44	45	3,6,7,8,9,10,11
HP039	RTU (HP)	Training G112,113	1200	170	0.75	80/67	38640	28640	NO	70	35500	785	WSC036H4REA	480/3	29	30	6,7,8,9,10,11
HP040	RTU (HP)	Lockers & PE Storage G114,115	2400	1300	0.75	80/67	78000	56740	YES	70	68580	1129	WSC072H4RGA	480/3	44		

TAG	UNIT TYPE	ZONE	AIRFLOW (CFM)	DESIGN OUTSIDE AIR (CFM)	MIN OUTSIDE AIR (CFM)	UNIT TOTAL COOLING (BTU)	UNIT SENSIBLE COOLING...	COOLING LVG AIR DB/WB	HGR LVG AIR DB/WB	UNIT HEATING (BTU)	WEIGHT (LBS)	MODEL NUMBER	ELECTRICAL			NOTES
													VOLTAGE/...	MCA	MOCP	
HPO52	RTU HP	Auditorium Stage E107, 108, 109	7800	1625	600	297500	192000	54.6/54.4	74/61.8	202900	3333	OAKE360A4	480/3	71.9	90	3,4,5,6,7,8
HPO53	RTU HP	Auditorium Seating E104, E110	7800	1625	600	297500	192000	54.6/54.4	74/61.8	202900	3333	OAKE360A4	480/3	71.9	90	3,4,5,6,7,8
HP058	RTU HP	Dinning D101	6000	2250	960	294000	166700	53.5/53.3	76.4/62.1	191000	3313	OAKE360A4	480/3	69.6	90	3,4,5,6,7,8
HP059	RTU HP	Dinning D101	8000	3000	1280	418600	233700	52.1/52	76.8/61.6	275300	8491	OANE480A4	480/3	82.4	100	3,4,5,6,7,8
MAU03	DOAS	AUX GYM	2000	2000	2000	135600	73600	45.4/45.5	75/61	120000	4073	OADG012F3	480/3	32.3	40	1,2,3,4,5,6,7,8
MAU04	DOAS	H Fieldhouse	4000	4000	4000	277400	136800	47.4/47.4	75/61	120000	4749	OAGD300D4	480/3	77.6	90	1,2,3,4,5,6,7,8

1. PROVIDE WITH ENERGY RECOVERY WHEEL
2. PROVIDE 150 MBH LP GAS HEATER WITH 8:1 MODULATING TURNDOWN
3. UNIT ELECTRICAL CONNECTIONS SHALL BE THROUGH THE CURB
4. UNIT SHALL BE PROVIDED WITH AN ENGINEERED SEISMIC ROOF CURB. SEE SPECIFICATIONS AND DETAIL FOR ADDITIONAL INFORMATION
5. UNIT SHALL HAVE DOWNFLOW CONFIGURATION FOR SUPPLY AND RETURN DUCT CONNECTIONS
6. UNIT SHALL BE PROVIDED WITH A CIRCUIT BREAKER DISCONNECT. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION
7. UNIT SHALL COME WITH TERMINAL STRIP FOR CONTROL INTEGRATION. UNIT CONTROLLER SHALL BE PROVIDED BY BAS SUPPLIER.
8. PROVIDE SEACOAST COATING ON ALL COILS

ENERGY RECOVERY WHEEL

TAG	MODEL	MANUFACTURER	MOUNTING	WEIGHT (lb)	OUTDOOR AIR VOLUME (CFM)	SUPPLY SP (in. wg)	SUPPLY MOTOR (HP)	EXHAUST AIR VOLUME...	EXHAUST SP (in. wg)	EXHAUST MOTOR (hp)	VOLTAGE (V)	FREQUENCY (Hz)	PHASE	UNIT MCA	UNIT MOP	SUMMER OA DB (F)	SUMMER OA WB (F)	SUMMER RA DB (F)	SUMMER RA WB (F)	SUMMER SA DB (F)	SUMMER SA WB (F)	WINTER OA DB (F)	WINTER OA WB (F)	WINTER RA DB (F)	WINTER RA WB (F)	WINTER SA DB (F)	WINTER SA WB (F)
HRU1	ERVe-20-30L	GREENHECK	OUTDOOR	946	1,800	0.7	1-1/2	1,800	0.7	1-1/2	460	60	3	7.3	15	84.4	79.8	75	62.5	77	67.4	27	22.7	72	55.8	61.8	49.4
HRU2	ERVe-35-30L	GREENHECK	OUTDOOR	1,268	3,050	0.5	3	3,050	0.5	3	460	60	3	11.3	15	84.4	79.8	75	62.5	77.2	67.7	27	22.7	72	55.8	61	48.9
MAU03	ERC-3622C	TRANE	OUTDOOR	n/a	2,000	n/a	n/a	1,800	n/a	n/a	460	60	3	n/a	n/a	84.4	79.8	75	62.5	79.7	69	27	22.7	72	55.8	60	47
MAU04	ERC4136C	TRANE	OUTDOOR	n/a	4,000	n/a	n/a	4000	n/a	n/a	460	60	3	n/a	n/a	84.4	79.8	75	62.5	80.4	70.9	27	22.7	72	55.8	54.5	42.6

1. STAND ALONE UNIT VENTILATOR WITH INTEGRAL SUPPLY & EXHAUST FANS
2. ENERGY RECOVERY WHEEL MOUNTED IN DOAS UNIT (TAGGED MAU03 AND MAU04 IN RTU SCHEDULE SHOWN ON THIS SHEET)
3. PROVIDE MERV 13 FILTERS ON SUPPLY SIDE UPSTREAM OF ENERGY RECOVERY WHEEL
4. PROVIDE MERV 8 FILTERS ON EXHAUST SIDE UPSTREAM OF ENERGY RECOVERY WHEEL



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**AYNOR HIGH SCHOOL
HVAC REPLACEMENT**

201 JORDANVILLE RD, AYNOR, SC 29511

PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
DRAWN BY: MDK
CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

HVAC SCHEDULES

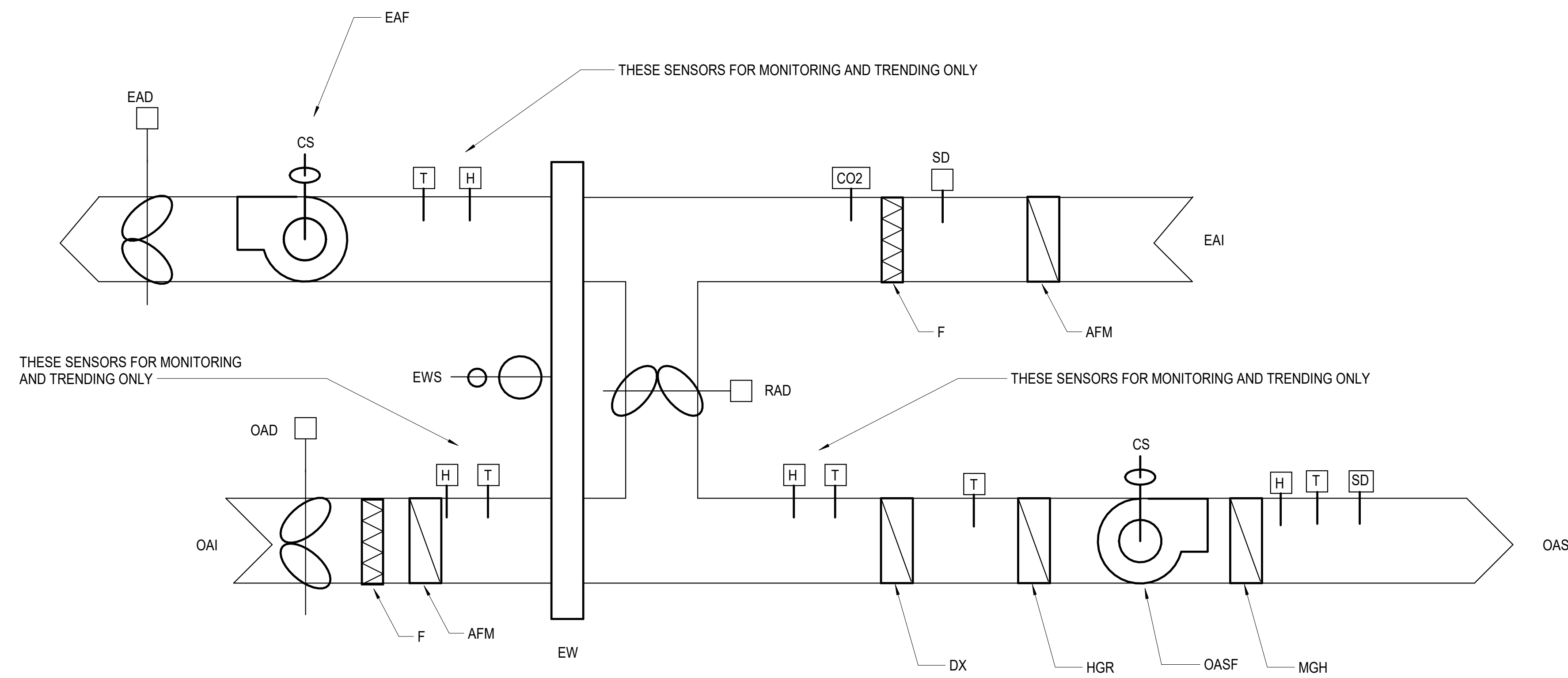
M601

**INPUT/OUTPUT SUMMARY
RTU'S WITH HGR**

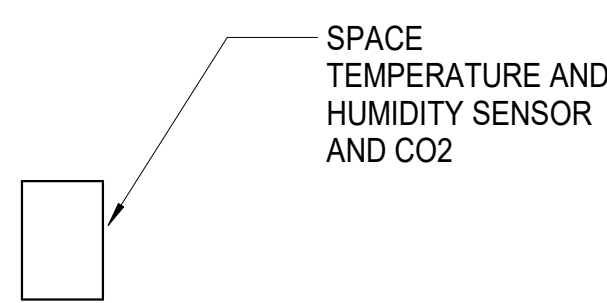
	INPUTS				OUTPUTS				FEATURES				NOTES		
	DIGITAL	DIGITAL	ANALOG	ANALOG	DIGITAL	ANALOG	ALARM	ENERGY MGMT	ALARM	ENERGY MGMT	ALARM	ENERGY MGMT			
SUPPLY FAN START/STOP	X														
SUPPLY FAN STATUS	X	X	X												
EXHAUST FAN START/STOP	X														
EXHAUST FAN STATUS	X	X	X												
AIR FLOW MONITORS (AFM)	X														
SPACE AIR TEMPERATURE	X			X											
SPACE AIR RELATIVE HUMIDITY AND CO2	X			X	X										
EXHAUST/RETURN AIR CO2	X			X											
DX COIL DISCHARGE AIR TEMPERATURE	X			X											
UNIT DISCHARGE AIR TEMPERATURE	X			X											
UNIT DISCHARGE AIR DEW POINT (CALCULATED)	X														
RETURN AIR DAMPER	X	X													
OA DAMPER	X	X													
EA DAMPER	X	X													
ENTHALPY WHEEL STATUS	X														
GLOBAL OA CO2 LEVEL/TEMP/RELATIVE HUMIDITY	X														

NOTES:

- FAILURE MODE: O - OPEN
C - OFF OR CLOSED
L - LAST COMMAND
- THE INDICATED FAILURE MODE POSITION SHALL OCCUR ON FAILURE FOR ANY REASON INCLUDING FAILURE OF THE BAS CONTROLLER OR ITS OUTPUTS.



- GRAPHIC LEGEND:**
- AFM - AIRFLOW MONITORING STATION
 - CO2 - CO2 SENSOR (FOR MONITORING AND TRENING ONLY)
 - CS - CURRENT SENSOR
 - DX - DIRECT EXPANSION REFRIGERANT COIL
 - EAD - EXHAUST AIR DAMPER/DISCHARGE
 - EAF - EXHAUST AIR FAN
 - EAI - EXHAUST AIR INTAKE (FROM SPACES)
 - EW - ENTHALPY WHEEL
 - EWS - ENTHALPY WHEEL STATUS
 - F - FILTER
 - H - HUMIDITY SENSOR
 - HGR - HOT GAS REHEAT COIL
 - MGH - MODULATING GAS HEATER
 - OAD - OUTSIDE AIR DAMPER
 - OAI - OUTSIDE AIR INTAKE
 - OAS - OUTSIDE AIR SUPPLY
 - OASF - OUTSIDE AIR SUPPLY FAN
 - RAD - RETURN AIR DAMPER
 - SD - DUCT MOUNTED SMOKE DETECTOR
 - T - DRY BULB TEMPERATURE SENSOR



PACKAGED AIR COOLED DX RTU WITH GAS HT Sequence of Operation with Enthalpy Wheel and HGR

Note:
All schedules and setpoints shall be adjustable.
This sequence applies to MAU-03 and MAU-04

SCHEDULES:

NOTES:

- ALL SCHEDULES AND SET POINTS SHALL BE ADJUSTABLE.
- THE OBJECTIVE OF THIS SEQUENCE OF OPERATION IS TO DELIVER FILTERED AND CONDITIONED (ONLY WHEN NECESSARY) OUTSIDE AIR FOR VENTILATION WHILE MAINTAINING INDOOR SPACE COOLING AT 74 °F DB AND MAXIMUM 55% RH AND SPACE HEATING SET POINT AT 70 °F DB AND ALLOWING THE OUTSIDE AIR VENTILATION TO SATISFY THE SPACE LATENT LOAD DURING NORMAL OCCUPIED HOURS.
- UNITS SHALL BE AIR COOLED HEAT PUMPS CAPABLE OF PRETREATING, COOLING, DEHUMIDIFYING OR HEATING OUTSIDE AIR USING THE DIRECT EXPANSION (DX) COIL, HGR, GAS HEATER AND ENTHALPY WHEEL AS REQUIRED TO MEET THIS SEQUENCE OF OPERATION.
- UNITS SHALL HAVE VARIABLE SPEED OA SUPPLY FAN (OASF) AND VARIABLE SPEED EXHAUST AIR FAN (EAF).
- UNITS SHALL HAVE VARIABLE SPEED COMPRESSORS AND FULLY MODULATING HOT GAS REHEAT.
- OA INTAKE (OAI) TEMPERATURE AND HUMIDITY MAY USE BUILDING'S GLOBAL OA TEMPERATURE AND HUMIDITY SENSOR AND CALCULATED DEW POINT TEMPERATURES IN LIEU OF INDIVIDUAL SENSORS AT OA INTAKE OF THE ENTHALPY WHEEL FOR CONTROL SEQUENCE.
- UNITS SHALL BE PROVIDED WITH HEAD PRESSURE CONTROL. HEAD PRESSURE CONTROL SHALL MODULATE THE CONDENSER FANS TO CONTROL UNITS REFRIGERANT HEAD PRESSURE TO ALLOW UNIT OPERATION THROUGHOUT ENTERING OA TEMPERATURES FROM AS LOW AS 27 °F UP TO 110 °F.
- SEQUENCES OF OPERATION ARE FOR CONSTANT SA, OA AND EA FLOWS. HOWEVER, UNITS SHALL BE MANUFACTURED SUCH THAT SA, OA AND EA FLOWS MAY BE VARIED SHOULD THE DISTRICT IMPLEMENT DEMAND CONTROL VENTILATION STRATEGIES OR NEED TO REDUCE OA AND EA FLOWS FOR ELECTRICAL POWER DEMAND CONTROL IN THE FUTURE.

SCHEDULES:

OCCUPIED: 8:00 AM TILL 6:00 PM MONDAY THROUGH FRIDAY DURING REGULAR SCHOOL YEAR WHEN SCHOOL IS IN SESSION.
UNOCCUPIED: ALL OTHER TIMES EXCEPT OCCUPIED PERIODS (EVENINGS, NIGHTS, WEEKENDS, HOLIDAYS, SUMMER, ETC.).

SEQUENCE OF OPERATION:

OCCUPIED PERIODS:

FANS:
FANS SHALL BE ON AND DELIVERING CONSTANT VOLUMES OF DESIGN SA AND OA TO BUILDING/SPACES AND DISCHARGING DESIGN EA FLOW TO THE OUTSIDE. AIRFLOW MONITORING STATIONS LOCATED IN THE UNIT'S OA SUPPLY DUCT TO THE BUILDING/SPACES (OAS) AND EXHAUST AIR INTAKE DUCT FROM THE BUILDING/SPACES (EAI) SHALL PROVIDE CONTROL SIGNALS TO THE OASF AND EAF VARIABLE SPEED DRIVES TO MAINTAIN CONSTANT AIRFLOWS AND COMPENSATE FOR FILTER LOADING AND CHANGES IN BUILDING PRESSURE. FANS SHALL SOFT START.

MECHANICAL COOLING, DEHUMIDIFICATION, ENTHALPY WHEEL AND HEATING:

MECHANICAL COOLING:
ON A RISE IN SPACE TEMPERATURE ABOVE 74 DEGREES F DB THE UNIT SHALL STAGE AND VARY THE SPEED OF THE OF THE UNIT'S COMPRESSORS AND REFRIGERATION CIRCUITS TO MAINTAIN THE SPACE COOLING TEMPERATURE SETPOINT.

ENTHALPY WHEEL:

WHEN OA TEMPERATURE IS BETWEEN 70 °F DB AND 76 °F DB AND BELOW 57 °F DEW POINT (ASSUMED SPACE RETURN/EXHAUST AIR CONDITION) ENTHALPY WHEEL SHALL BE OFF.
PRECOOLING AND DEHUMIDIFYING OA WITH ENTHALPY WHEEL:
WHEN OA TEMPERATURE IS ABOVE 76 °F DB AND 57 °F DEW POINT (ASSUMED SPACE RETURN/EXHAUST AIR CONDITION) THE ENTHALPY WHEEL SHALL ROTATE AND VARY ITS SPEED TO MAINTAIN DX COIL ENTERING AIR DB TEMPERATURE AND HUMIDITY AS LOW AS CAN BE MAINTAINED TO MAXIMIZE THE EFFICIENCY OF THE ENTHALPY WHEEL.
PREHEATING OA WITH ENTHALPY WHEEL:
WHEN OA IS BELOW 70 °F DB AND 48 °F DEW POINT THE ENTHALPY WHEEL SHALL ROTATE AND VARY ITS SPEED TO MAXIMIZE HEAT RECOVERY FROM THE WHEEL AND SHALL CONTINUE TO OPERATE UNTILL THE WHEEL CANNOT MAINTAIN A MINIMUM DX COIL ENTERING AIR TEMPERATURE AT OR ABOVE 40 °F.

DEHUMIDIFICATION:

WHEN SPACE HUMIDITY RISES ABOVE 55 % RH THE UNIT'S REFRIGERATION SYSTEM SHALL BE IN THE DEHUMIDIFICATION MODE OF OPERATION AND SHALL STAGE AND VARY THE SPEED OF THE OF THE UNIT'S COMPRESSORS AND REFRIGERATION CIRCUITS TO DEHUMIDIFY INCOMING OA AND MAINTAIN DX COIL DISCHARGE AIR TEMPERATURE AT 48 °F DB.

IN ADDITION, THE UNIT'S HOT REFRIGERANT GAS FLOW TO THE HOT GAS REHEAT COIL SHALL BE MODULATED TO MAINTAIN THE SPACE DB TEMPERATURE BETWEEN THE SPACE COOLING AND SPACE HEATING SETPOINTS.

GAS HEAT:

ON A DROP IN SPACE TEMPERATURE TO 70 DEGREES F DB THE UNIT SHALL MODULATE THE UNIT'S GAS HEATER TO MAINTAIN SPACE HEATING TEMPERATURE SETPOINT.

UNOCCUPIED PERIODS:

UNIT SHALL BE OFF AND EAD AND OAD SHALL BE CLOSED AND THE RAD SHALL BE OPEN.

ON A RISE IN SPACE TEMPERATURE ABOVE 80 DEGREES F DB UNIT SHALL OPERATE IN THE OCCUPIED MECHANICAL COOLING MODE TO MAINTAIN SPACE TEMPERATURE AT 80 DEGREES F.

ON A DROP IN SPACE TEMPERATURE BELOW 65 DEGREES F DB UNIT SHALL OPERATE IN THE OCCUPIED MECHANICAL HEATING MODE TO MAINTAIN SPACE TEMPERATURE AT 65 DEGREES F.

ON A RISE IN SPACE HUMIDITY ABOVE 65 % RH THE UNIT'S REFRIGERATION SYSTEM SHALL BE IN THE DEHUMIDIFICATION AND REHEAT MODE OF OPERATION AND SHALL STAGE AND VARY THE SPEED OF THE OF THE UNIT'S COMPRESSORS AND REFRIGERATION CIRCUITS TO DEHUMIDIFY INCOMING OA AND MAINTAIN DX COIL DISCHARGE AIR TEMPERATURE AT 48 °F DB.

OVERRIDE PERIODS:

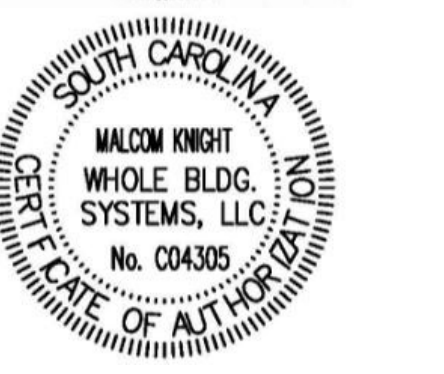
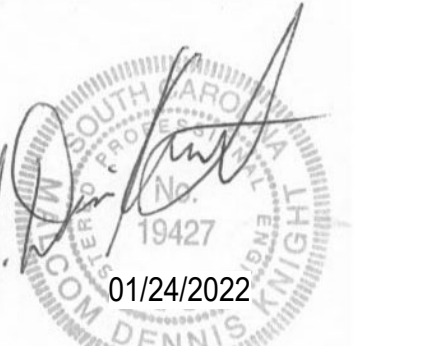
WHEN OVERRIDE IS SCHEDULED BY FACILITY MANAGEMENT OR THE DISTRICTS ENERGY MANAGER UNIT SHALL OPERATE IN ITS OCCUPIED SEQUENCES OF OPERATION FOR THE DURATION OF THE SCHEDULED OVERRIDE PERIOD.

ALARMS AND SAFETIES (IN ADDITION TO MANUFACTURER REQUIRED ALARMS AND SAFETIES):

ALL MANUFACTURERS REQUIRED SAFETIES SHALL BE MONITORED AND DISPLAYED ON THE BAS GRAPHIC CONSOLE.
UPON INITIATION OF FIRE ALARM UNIT SHALL SHUT DOWN AND EAD AND OAD SHALL CLOSE.
UPON SENSING SMOKE IN EITHER THE SUPPLY AIR DUCT OR THE EXHAUST AIR DUCT THE UNIT SHALL SHUT DOWN AND THE EAD AND OAD SHALL CLOSE.
SHOULD DX COIL ENTERING AIR TEMPERATURE DROP BELOW 40 °F DB UNIT SHALL SHUT OFF, EAD AND OAD SHALL CLOSE AND A NOTIFICATION ALARM SHALL BE SENT TO THE BAS SYSTEM.
A HIGH LIMIT DISCHARGE AIR CONDITION NOTIFICATION ALARM SHALL BE SENT TO THE BAS IF THE UNITS DISCHARGE AIR TEMPERATURE RISES ABOVE 85 °F DB OR IF DX COIL DEW POINT RISES ABOVE 60 °F WHEN UNIT IS IN THE COOLING/DEHUMIDIFICATION MODE. SHOULD CONDITION PERSIST FOR MORE THAN 30 MINUTES UNIT SHALL SHUT OFF AND EAD AND OAD SHALL CLOSE AND A TROUBLE ALARM SHALL BE SENT TO THE BAS.
A LOW LIMIT DISCHARGE AIR CONDITION NOTIFICATION ALARM SHALL BE SENT TO THE BAS IF THE UNITS DISCHARGE AIR TEMPERATURE DROPS BELOW 65 °F DB WHEN UNIT IS IN THE HEATING MODE. SHOULD CONDITION PERSIST FOR MORE THAN 30 MINUTES UNIT SHALL SHUT OFF AND EAD AND OAD SHALL CLOSE AND A TROUBLE ALARM SHALL BE SENT TO THE BAS.
ON A RISE IN SPACE HUMIDITY ABOVE 70% RH FOR MORE THAN 10 MINUTES, A TROUBLE ALARM SHALL BE SENT TO THE BAS.



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**AYNOR HIGH SCHOOL
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PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
DRAWN BY: MDK
CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES
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HVAC CONTROLS (MAU)

M700

INPUT/OUTPUT SUMMARY RTU WITH HGR	INPUTS					OUTPUTS					FEATURES															
	DIGITAL		ANALOG			DIGITAL		ANALOG			ALARM	ENERGY	MGMT	P/N	NOTES											
	UNIT GRAPHIC DISPLAY STATUS (PERCENT SPEED)	END SWITCH	CURRENT SENSING RELAY	ALARM CONTACT	TEMPERATURE	RELATIVE HUMIDITY	CO2 LEVEL	RUN TIME	START/STOP	ENABLE/DISABLE	OPEN/CLOSE	ACTIVATE/DEACTIVATE	BAS CONTROL			DAMPER POSITION	FAN SPEED	STATUS/INTERLOCK	HIGH/LOW LIMIT	OPTIMUM START/STOP	DAY/NIGHT SETBACK	ENERGY METERING	OCCUPIED/UNOCCUPIED	BAS TREND		
OUTSIDE AIR DAMPER	X																									
SUPPLY FAN START/STOP	X									X								X	X		X	X				
SUPPLY FAN STATUS	X	X	X				X							X	X						X	X				
RA DAMPER	X	X								X		X									X	O				2
SPACE AIR TEMPERATURE	X				X												X				X					
SPACE AIR RELATIVE HUMIDITY	X				X	X											X				X					
SPACE CO2	X																X				X					
UNIT DISCHARGE RELATIVE HUMIDITY	X				X												X				X					
UNIT DISCHARGE AIR TEMPERATURE	X				X												X				X					
UNIT DISCHARGE AIR DEW POINT (CALCULATED)	X																X				X					
GLOBAL CO2 LEVEL/OA TEMP/RELATIVE HUMIDITY	X																				X					

NOTES:

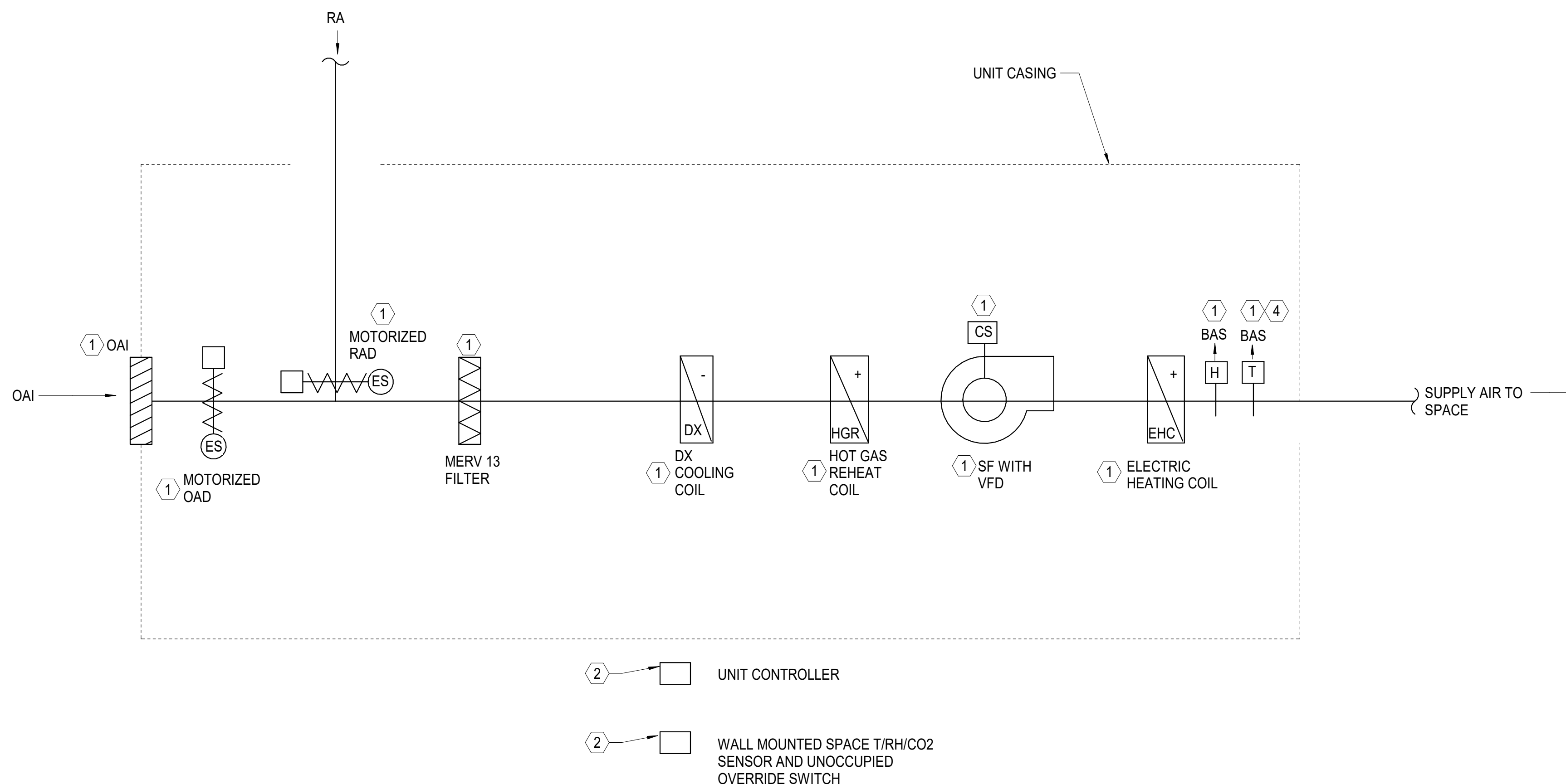
- FAILURE MODE: O - OPEN
C - OFF OR CLOSED
L - LAST COMMAND
- THE INDICATED FAILURE MODE POSITION SHALL OCCUR ON FAILURE FOR ANY REASON INCLUDING FAILURE OF THE BAS CONTROLLER OR ITS OUTPUTS.

HVAC CONTROL ABBREVIATIONS

BAS	BUILDING AUTOMATION SYSTEM
CO2	CARBON DIOXIDE (CO2) SENSOR
CS	CURRENT SENSOR
DB	DRY BULB
DX	DIRECT EXPANSION REFRIGERANT COIL
EHC	ELECTRIC HEATER COIL
ES	END SWITCH
H	HUMIDITY SENSOR
HGR	HOT GAS REHEAT COIL
OAD	OUTSIDE AIR DAMPER
OAI	OUTSIDE AIR INTAKE
OAS	OUTSIDE AIR SUPPLY
SF	SUPPLY FAN
RA	RETURN AIR
RH	RELATIVE HUMIDITY SENSOR
T	DRY BULB TEMPERATURE SENSOR
TEMP	TEMPERATURE
VFD	VARIABLE FREQUENCY DRIVE

HVAC CONTROL DIAGRAM KEYED NOTES

- PART OR SENSOR INTEGRAL TO UNIT; PROVIDED BY EQUIPMENT MANUFACTURER ALL SENSORS AND CONTROL COMPONENT WIRING SHALL BE BROUGHT TO A SINGLE TERMINAL STRIP SHOWN ON THE FACTORY WIRING DIAGRAM. TERMINAL DESIGNATIONS SHALL BE INDICATED ON WIRING DIAGRAM FOR BAS INTERFACE.
- PART OR SENSOR PROVIDED BY BAS PROVIDER (BOD, CMI) AND INSTALLED IN THE FIELD. UNIT CONTROLLER AND WALL MOUNTED SPACE TIRH/CO2 SENSOR AND OVERRIDE SWITCH MAY BE COMBINED INTO A SINGLE WALL MOUNTED DEVICE - BAS PROVIDER OPTION DEPENDING ON TYPE OF UNIT BEING CONTROLLED.
- DISPLAY GLOBAL OA TEMPERATURE, HUMIDITY, DEW POINT, AND CO2 LEVEL ON EACH UNIT'S GRAPHIC PAGE.
- DISPLAY UNIT CALCULATED DISCHARGE AIR DEW POINT TEMPERATURE ON UNIT GRAPHIC



PACKAGED AIR COOLED ROOFTOP HEAT PUMP (HP-X) WITH HGR SEQUENCE OF OPERATION

NOTE:
THIS SEQUENCE APPLIES TO HP NUMBERS 32, 34, 35, 40 THRU 55, AND 52, 53, 58 AND 59.
ALL SCHEDULES AND SETPOINTS SHALL BE ADJUSTABLE.

SCHEDULES:

OCCUPIED: 6 AM TO 6 PM MONDAY THROUGH FRIDAY (CONFIRM FINAL SCHEDULE WITH OWNER AND DISTRICT ENERGY MANAGER)

UNOCCUPIED: ALL HOURS EXCEPT THOSE INDICATED AS OCCUPIED

OCCUPIED MODE OF OPERATION:

THE BAS SHALL COMMAND THE RTU-HP ON BASED ON THE OCCUPIED SCHEDULE ABOVE AND ENABLE THE RTU-HP'S AUTOMATIC CONTROLS TO OPERATE AS INDICATED BELOW.

OCCUPIED SPACE TEMPERATURE SETPOINTS:

COOLING: 74 DEGREES F / 55% RH
HEATING: 70 DEGREES F

OCCUPIED SEQUENCE OF OPERATION:

WHEN THE SPACE TEMPERATURE IS BETWEEN ITS COOLING AND HEATING SETPOINTS AND SPACE HUMIDITY IS BELOW THE SPACE HUMIDITY SETPOINT, THE RTU-HP COMPRESSORS/REFRIGERATION CIRCUITS SHALL BE OFF. SUPPLY FAN SHALL BE OPERATING AND OUTSIDE AIR DAMPER SHALL BE OPEN TO ITS MINIMUM POSITION AND THE RETURN AIR DAMPER SHALL BE IN THE OPEN POSITION AS DETERMINED BY TAB AGENT.
COOLING: ON A RISE IN SPACE TEMPERATURE ABOVE THE COOLING SETPOINT THE RTU-HP REFRIGERATION CIRCUITS SHALL BE CYCLED TO MAINTAIN SPACE COOLING TEMPERATURE SETPOINT.
HEATING: ON A FALL IN SPACE TEMPERATURE BELOW THE SPACE HEATING SETPOINT THE RTU-HP REFRIGERATION CIRCUITS SHALL BE CYCLED TO MAINTAIN SPACE HEATING TEMPERATURE SETPOINT.
NOTE: THE EMERGENCY ELECTRIC HEATER SHALL ONLY OPERATE DURING THE HP DEFROST CYCLE OR WHEN THE RTU-HP'S COMPRESSOR(S) HAS FAILED.

DEHUMIDIFICATION: ON A RISE IN SPACE HUMIDITY ABOVE SETPOINT THE RTU-HP REFRIGERATION CIRCUITS SHALL BE CYCLED ON TO FULL COOLING AND HOT GAS FLOW TO THE HOT GAS REHEAT COIL SHALL BE MODULATED TO MAINTAIN A SPACE TEMPERATURE BETWEEN THE OCCUPIED COOLING AND HEATING SETPOINTS AND BELOW HUMIDITY SETPOINT.
VENTILATION: MODULATE OA DAMPER AND REVERSE ACTING RA DAMPER TO MAINTAIN SPACE CO2 LEVEL AT 1000 PPM.

ECONOMIZER CYCLE:

THE ECONOMIZER SHALL BE ENABLED ONLY DURING OCCUPIED HOURS AND ONLY WHEN OA DRY BULB TEMPERATURE IS ABOVE 50 DEGREES F AND WHEN OA DRY BULB TEMPERATURE IS BELOW 74 DEGREES F AND OA HUMIDITY IS BELOW 55% RH.
WHEN OA TEMPERATURE IS BELOW 74 DEGREES F DRY BULB AND OA HUMIDITY IS BELOW 55% RH THE OA DAMPER SHALL BE FULL OPEN AND THE RETURN AIR DAMPER SHALL BE FULL CLOSED AND THE UNIT SHALL OPERATE THE REFRIGERATION CIRCUIT AS REQUIRED TO MAINTAIN SPACE TEMPERATURE BETWEEN THE SPACE COOLING AND SPACE HEATING SETPOINTS.
ON A RISE IN SPACE HUMIDITY TO ABOVE SETPOINT THE RTU-HP SHALL GO INTO ITS DEHUMIDIFICATION CYCLE OF OPERATION. ON A FALL IN SPACE TEMPERATURE TO THE SPACE HEATING SETPOINT, THE ECONOMIZER SHALL BE DISABLED AND THE OA DAMPER SHALL GO TO ITS MINIMUM OA POSITION AND THE RETURN AIR DAMPER SHALL BE FULLY OPEN.

UNOCCUPIED SPACE TEMPERATURE SETPOINTS:

COOLING: 85 DEGREES F / 60% RH
HEATING: 55 DEGREES F

UNOCCUPIED SEQUENCE OF OPERATION:

WHEN THE SPACE TEMPERATURE IS BETWEEN ITS UNOCCUPIED COOLING AND HEATING TEMPERATURE SETPOINTS THE RTU-HP SHALL BE OFF AND THE OUTSIDE AIR DAMPER SHALL BE CLOSED.

COOLING: SAME AS OCCUPIED SEQUENCE - CYCLE UNIT ON AND OFF AS REQUIRED CONTROLLING TO UNOCCUPIED COOLING SETPOINT.

HEATING: SAME AS OCCUPIED SEQUENCE - CYCLE UNIT ON AND OFF AS REQUIRED CONTROLLING TO UNOCCUPIED HEATING SETPOINT.

DEHUMIDIFICATION: ON A RISE IN SPACE HUMIDITY ABOVE SETPOINT THE RTU-HP REFRIGERATION CIRCUIT SHALL CYCLE ON TO FULL COOLING AND HOT GAS FLOW TO THE HOT GAS REHEAT COIL SHALL BE MODULATED TO MAINTAIN A SPACE TEMPERATURE BETWEEN THE UNOCCUPIED COOLING AND HEATING SETPOINTS.

ECONOMIZER: ECONOMIZER SHALL BE DISABLED DURING UNOCCUPIED HOURS.

OCCUPANCY OVERRIDE:

THE SYSTEM AND RTU-HP MAY BE PLACED INTO THEIR OCCUPIED MODE FOR A SCHEDULED OVERRIDE PERIOD FROM A CENTRAL COMMAND FROM THE BAS OR THE RTU-HP MAY BE PLACED INTO THEIR OCCUPIED MODE OF OPERATION FOR A MAXIMUM 2 HOUR OVERRIDE PERIOD BY PUSHING THE OVERRIDE BUTTON LOCATED ON THE SPACE TEMPERATURE SENSOR SERVING THE RTU-HP.

SUPPLY FAN CONTROL: WHEN THE SYSTEM IS COMMANDED ON BY THE BAS (NORMAL OCCUPIED SCHEDULE OR OVERRIDE) THE RTU-HP SHALL SOFT START AND RAMP THE UNIT UP TO ITS DESIGN (CONSTANT) SUPPLY FAN SPEED.

ALERTS AND NOTIFICATIONS:

THE FOLLOWING ALERTS AND NOTIFICATIONS SHALL BE SENT TO FACILITY MANAGEMENT AND THE FOLLOWING SEQUENCES SHALL OCCUR WHEN THE INDICATED CONDITION IS SENSED BY THE BAS. THE MESSAGE SHOULD SUGGEST A SERIES OF STEPS THE FACILITY MANAGER IS TO TAKE TO INVESTIGATE THE SITUATION UP TO AND INCLUDING CONTACTING QUALIFIED SERVICE PERSONNEL TO TROUBLESHOOT THE SITUATION.

LOW SAT: AT 45 DEGREES F SEND AN ALERT. IF CONDITION CONTINUES FOR 10 MINUTES SHUT THE HP DOWN, SEND A SECOND ALERT AND REQUIRE THIS ALERT TO BE MANUALLY RESET AT THE HP AFTER THE CONDITION HAS BEEN RESOLVED AND BEFORE THE UNIT MAY BE PLACED BACK INTO OPERATION.

HIGH SPACE HUMIDITY: ABOVE 70% RH FOR A PERIOD OF 15 MINUTES OR MORE SEND AN ALERT.

HIGH CO2: SEND AN ALERT IF SPACE CO2 RISES TO GREATER THAN OR EQUAL TO 1500 PPM FOR MORE THAN 15 MINUTES.

SUPPLY FAN FAILURE: WHEN THE SUPPLY FAN IS COMMANDED TO START AND NO ELECTRIC CURRENT IS SENSED AT FAN MOTOR AN ALERT SHALL BE SENT AND THE RTU-HP'S SERVED SHALL BE SHUT DOWN.

FIRE ALARM: UPON INITIATION OF FIRE ALARM UNIT SHALL SHUT DOWN AND OAD SHALL CLOSE.

OTHER RTU-HP SAFETIES: HIGH REFRIGERANT DISCHARGE PRESSURE, LOW REFRIGERANT SUCTION PRESSURE, COMPRESSOR FAILURE IF AVAILABLE FROM MANUFACTURER THROUGH A BACNET INTERFACE.



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PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
DRAWN BY: MDK
CHECKED BY: MDK

REVISIONS

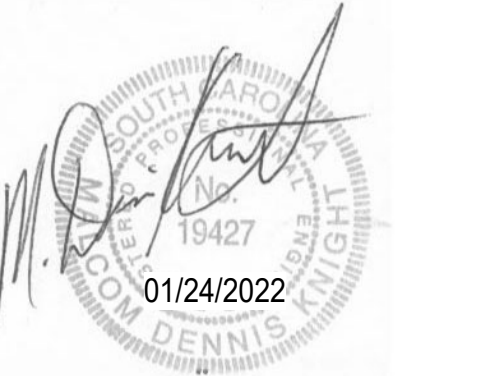
NO.	DATE	NOTES

HVAC CONTROLS (RTU W HGRH)

M701



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PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
DRAWN BY: MDK
CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

HVAC CONTROLS (RTU W/O HGR)

M702

PACKAGED AIR COOLED ROOFTOP HEAT PUMP (HP) WITHOUT HGR SYSTEM SEQUENCE OF OPERATION

NOTE:
ALL SCHEDULES AND SETPOINTS SHALL BE ADJUSTABLE.
THIS SEQUENCE APPLIES TO ALL ROOF MOUNTED HPS WITHOUT HGR; HP NUMBERS 33,37, 38, 39, 56, 57, 60 AND 61

SCHEDULES:
OCCUPIED: 6 AM TO 6 PM MONDAY THROUGH FRIDAY (CONFIRM FINAL SCHEDULE WITH OWNER AND DISTRICT ENERGY MANAGER)
UNOCCUPIED: ALL HOURS EXCEPT THOSE INDICATED AS OCCUPIED

OCCUPIED MODE OF OPERATION:
THE BAS SHALL COMMAND THE HP ON BASED ON THE OCCUPIED SCHEDULE ABOVE AND ENABLE THE HP'S AUTOMATIC CONTROLS TO OPERATE AS INDICATED BELOW.

OCCUPIED SPACE TEMPERATURE SETPOINTS:
COOLING: 74 DEGREES F / 55% RH
HEATING: 70 DEGREES F

OCCUPIED SEQUENCE OF OPERATION:
WHEN THE SPACE TEMPERATURE IS BETWEEN ITS COOLING AND HEATING SETPOINTS THE HP COMPRESSORS/REFRIGERATION CIRCUITS SHALL BE OFF AND SUPPLY FANS SHALL BE OPERATING. COOLING: ON A RISE IN SPACE TEMPERATURE ABOVE THE COOLING SETPOINT THE HP REFRIGERATION CIRCUITS SHALL BE CYCLED TO MAINTAIN SPACE COOLING TEMPERATURE SETPOINT. HEATING: ON A CONTINUED FALL IN SPACE TEMPERATURE BELOW THE HEATING SETPOINT THE HP REFRIGERATION CIRCUITS SHALL BE CYCLED TO MAINTAIN SPACE HEATING TEMPERATURE SETPOINT. NOTE: EMERGENCY ELECTRIC HEAT SHALL ONLY OPERATE ON A REFRIGERATION CIRCUIT FAILURE AND SHALL NEVER OPERATE SIMULTANEOUSLY WITH COMPRESSORS.

ECONOMIZER CYCLE:
THE ECONOMIZER SHALL BE ENABLED ONLY DURING OCCUPIED HOURS AND ONLY WHEN OA DRY BULB TEMPERATURE IS ABOVE 50 DEGREES F AND WHEN OA DRY BULB TEMPERATURE IS BELOW 74 DEGREES F AND OA HUMIDITY IS BELOW 55% RH. WHEN OA TEMPERATURE IS BELOW 74 DEGREES F DRY BULB AND OA HUMIDITY IS BELOW 55% RH THE OA DAMPER SHALL BE FULL OPEN AND THE RETURN AIR DAMPER SHALL BE FULL CLOSED AND THE UNIT SHALL OPERATE THE REFRIGERATION CIRCUIT AS REQUIRED TO MAINTAIN SPACE TEMPERATURE BETWEEN THE SPACE COOLING AND SPACE HEATING SETPOINTS. ON A RISE IN SPACE HUMIDITY TO ABOVE SETPOINT THE RTU-HP SHALL GO INTO ITS DEHUMIDIFICATION CYCLE OF OPERATION. ON A FALL IN SPACE TEMPERATURE TO THE SPACE HEATING SETPOINT, THE ECONOMIZER SHALL BE DISABLED AND THE OA DAMPER SHALL GO TO ITS MINIMUM OA POSITION AND THE RETURN AIR DAMPER SHALL BE FULLY OPEN.

UNOCCUPIED SEQUENCE OF OPERATION:

UNOCCUPIED SPACE TEMPERATURE SETPOINTS:
COOLING: 85 DEGREES F / 60% RH
HEATING: 55 DEGREES F

WHEN THE SPACE TEMPERATURE IS BETWEEN ITS UNOCCUPIED COOLING AND HEATING TEMPERATURE SETPOINTS THE HP SHALL BE OFF. COOLING: SAME AS OCCUPIED SEQUENCE - CYCLE UNIT ON AND OFF AS REQUIRED CONTROLLING TO UNOCCUPIED COOLING SETPOINT. HEATING: SAME AS OCCUPIED SEQUENCE - CYCLE UNIT ON AND OFF AS REQUIRED CONTROLLING TO UNOCCUPIED HEATING SETPOINT.

OCCUPANCY OVERRIDE:

THE SYSTEM AND HP MAY BE PLACED INTO THEIR OCCUPIED MODE FOR A SCHEDULED OVERRIDE PERIOD FROM A CENTRAL COMMAND FROM THE BAS OR THE HP MAY BE PLACED INTO THEIR OCCUPIED MODE OF OPERATION FOR A MAXIMUM 2 HOUR OVERRIDE PERIOD BY PUSHING THE OVERRIDE BUTTON LOCATED ON THE SPACE TEMPERATURE SENSOR SERVING THE HP.

SUPPLY FAN CONTROL: WHEN THE SYSTEM IS COMMANDED ON BY THE BAS (NORMAL OCCUPIED SCHEDULE OR OVERRIDE) THE HP SHALL SOFT START AND RAMP THE UNIT UP TO ITS DESIGN (CONSTANT) SUPPLY FAN SPEED.

ALERTS AND NOTIFICATIONS:

THE FOLLOWING ALERTS AND NOTIFICATIONS SHALL BE SENT TO FACILITY MANAGEMENT AND THE FOLLOWING SEQUENCES SHALL OCCUR WHEN THE INDICATED CONDITION IS SENSED BY THE BAS. THE MESSAGE SHOULD SUGGEST A SERIES OF STEPS THE FACILITY MANAGER IS TO TAKE TO INVESTIGATE THE SITUATION UP AND INCLUDING CONTACTING QUALIFIED SERVICE PERSONNEL TO TROUBLESHOOT THE SITUATION.

LOW SAT: AT 45 DEGREES F SEND AN ALERT. IF CONDITION CONTINUES FOR 10 MINUTES SHUT THE HP DOWN. SEND A SECOND ALERT AND REQUIRE THIS ALERT TO BE MANUALLY RESET AT THE HP AFTER THE CONDITION HAS BEEN RESOLVED AND BEFORE THE UNIT MAY BE PLACED BACK INTO OPERATION.

HIGH SPACE HUMIDITY: ABOVE 70% RH FOR A PERIOD OF 15 MINUTES OR MORE SEND AN ALERT.

HIGH CO2 LEVEL: SEND AN ALERT IF SPACE CO2 RISES TO GREATER THAN OR EQUAL TO 1500 PPM FOR MORE THAN 15 MINUTES.

SUPPLY FAN FAILURE: WHEN THE SUPPLY FAN IS COMMANDED TO START AND NO ELECTRIC CURRENT IS SENSED AT FAN MOTOR AN ALERT SHALL BE SENT AND THE HP SERVED SHALL BE SHUT DOWN.

FIRE ALARM: UPON INITIATION OF FIRE ALARM UNIT SHALL SHUT DOWN.

OTHER RTU-HP SAFETIES: HIGH REFRIGERANT DISCHARGE PRESSURE, LOW REFRIGERANT SUCTION PRESSURE, COMPRESSOR FAILURE IF AVAILABLE FROM MANUFACTURER THROUGH A BACNET INTERFACE.

INPUT/OUTPUT SUMMARY RTU WITHOUT HGR	INPUTS				OUTPUTS				FEATURES																
	DIGITAL		ANALOG		DIGITAL		ANALOG		ALARM		ENERGY MGMT		NOTES												
	UNIT GRAPHIC DISPLAY STATUS (PERCENT SPEED)	END SWITCH	CURRENT SENSING RELAY	ALARM CONTACT TEMPERATURE	RELATIVE HUMIDITY	CO2 LEVEL	RUN TIME	START/STOP ENABLE/DISABLE	OPEN/CLOSE	ACTIVATE/DEACTIVATE	BAS CONTROL	DAMPER POSITION		FAN SPEED	STATUS/INTERLOCK	HIGH/LOW LIMIT	OPTIMUM START/STOP	DAY/NIGHT SETBACK	ENERGY METERING	OCCUPIED/UNOCCUPIED	BAS TREND	FAILURE MODE (SEE NOTES 1 AND 2)			
OUTSIDE AIR DAMPER	X	X																							
SUPPLY FAN START/STOP	X							X								X	X	X	X						
SUPPLY FAN STATUS	X	X	X				X					X	X							X					
RA DAMPER	X	X							X		X								X	O					
SPACE AIR TEMPERATURE	X			X										X					X						
SPACE AIR RELATIVE HUMIDITY	X				X	X								X					X						
SPACE CO2	X													X					X						
UNIT DISCHARGE AIR TEMPERATURE	X			X									X						X						
GLOBAL CO2 LEVEL/OA TEMP/RELATIVE HUMIDITY	X																		X						

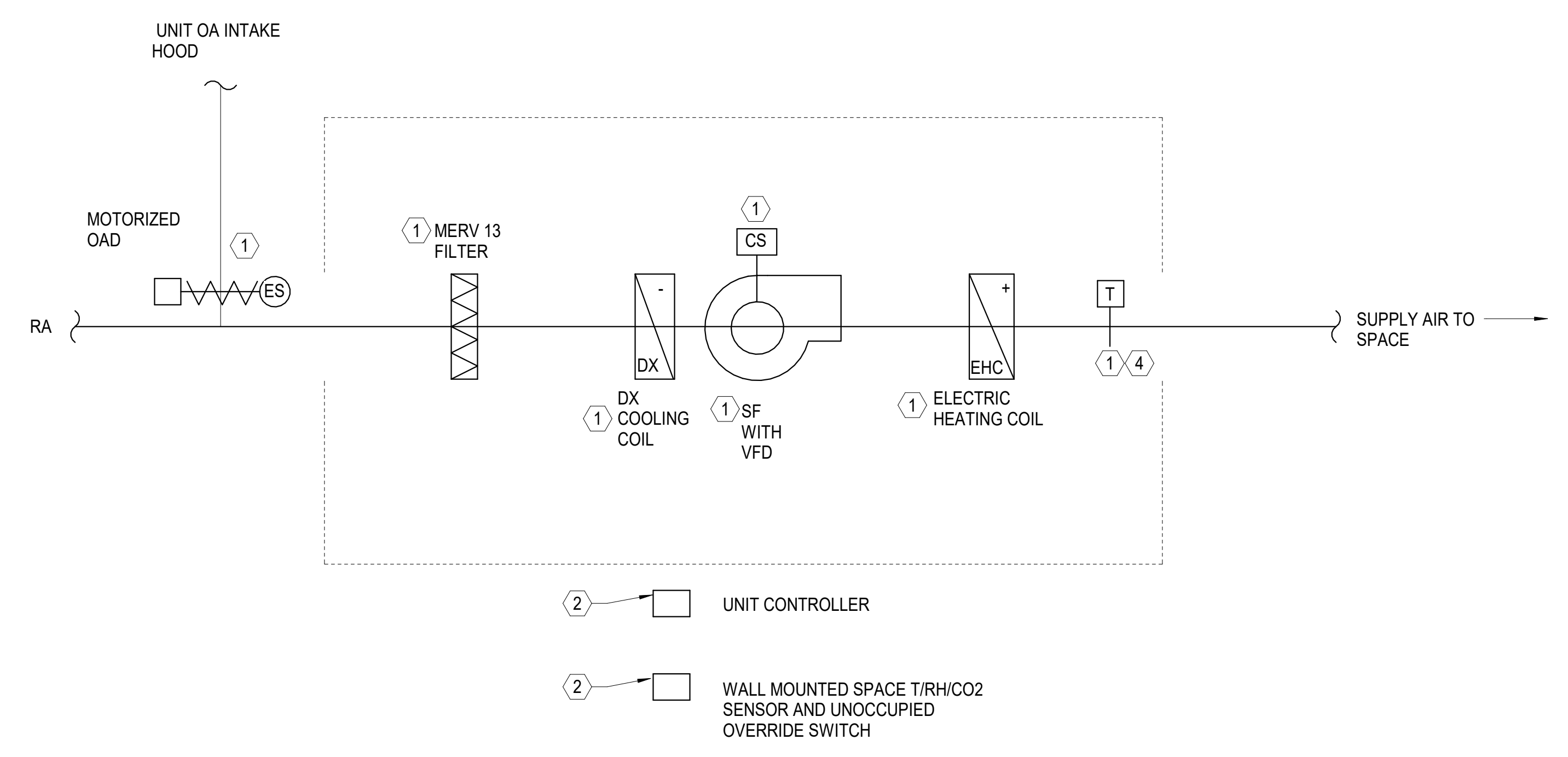
- NOTES:
- FAILURE MODE: O - OPEN, C - OFF OR CLOSED, L - LAST COMMAND
 - THE INDICATED FAILURE MODE POSITION SHALL OCCUR ON FAILURE FOR ANY REASON INCLUDING FAILURE OF THE BAS CONTROLLER OR ITS OUTPUTS.

HVAC CONTROL ABBREVIATIONS

- BAS: BUILDING AUTOMATION SYSTEM
- CO2: CARBON DIOXIDE (CO2) SENSOR
- CS: CURRENT SENSOR
- DB: DRY BULB
- DX: DIRECT EXPANSION REFRIGERANT COIL
- EHC: ELECTRIC HEATER COIL
- ES: END SWITCH
- H: HUMIDITY SENSOR
- OAD: OUTSIDE AIR DAMPER
- OAI: OUTSIDE AIR INTAKE
- OAS: OUTSIDE AIR SUPPLY
- SF: SUPPLY FAN
- RA: RETURN AIR
- RH: RELATIVE HUMIDITY SENSOR
- T: DRY BULB TEMPERATURE SENSOR
- TEMP: TEMPERATURE
- VFD: VARIABLE FREQUENCY DRIVE

HVAC CONTROL DIAGRAM KEYED NOTES

- PART OR SENSOR INTEGRAL TO UNIT; PROVIDED BY EQUIPMENT MANUFACTURER. ALL SENSORS AND CONTROL COMPONENT WIRING SHALL BE BROUGHT TO A SINGLE TERMINAL STRIP SHOWN ON THE FACTORY WIRING DIAGRAM. TERMINAL DESIGNATIONS SHALL BE INDICATED ON WIRING DIAGRAM FOR BAS INTERFACE.
- PART OR SENSOR PROVIDED BY BAS PROVIDER (BOD: CMI) AND INSTALLED IN THE FIELD. UNIT CONTROLLER AND WALL MOUNTED SPACE T/RH/CO2 SENSOR AND OVERRIDE SWITCH MAY BE COMBINED INTO A SINGLE WALL MOUNTED DEVICE - BAS PROVIDER OPTION DEPENDING ON TYPE OF UNIT BEING CONTROLLED.
- DISPLAY GLOBAL OA TEMPERATURE, HUMIDITY, DEW POINT, AND CO2 LEVEL ON EACH UNIT'S GRAPHIC PAGE.
- DISPLAY UNIT CALCULATED DISCHARGE AIR DEW POINT TEMPERATURE ON UNIT GRAPHIC



INPUT/OUTPUT SUMMARY SPLIT SYSTEM HEAT PUMP

	INPUTS				OUTPUTS				FEATURES				NOTES	
	DIGITAL	ANALOG	DIGITAL	ANALOG	ALARM	ENERGY MGMT								
UNIT GRAPHIC DISPLAY	X													
STATUS (PERCENT SPEED)	X													
END SWITCH	X													
CURRENT SENSING RELAY	X													
ALARM CONTACT	X													
TEMPERATURE														
RELATIVE HUMIDITY														
CO2 LEVEL														
RUN TIME														
START/STOP														
ENABLE/DISABLE														
OPEN/CLOSE														
ACTIVATE/DEACTIVATE														
BAS CONTROL														
DAMPER POSITION														
FAN SPEED														
STATUS/INTERLOCK														
HIGH/LOW LIMIT														
OPTIMUM START/STOP														
DAY/NIGHT SETBACK														
ENERGY METERING														
OCCUPIED/UNOCCUPIED														
BAS TREND														
FAILURE MODE (SEE NOTES 1 AND 2)														
OUTSIDE AIR DAMPER	X													
SUPPLY FAN START/STOP	X													
SUPPLY FAN STATUS	X	X												
RA DAMPER	X	X												
SPACE AIR TEMPERATURE	X													
SPACE AIR RELATIVE HUMIDITY	X													
SPACE CO2	X													
UNIT DISCHARGE AIR TEMPERATURE	X													
GLOBAL CO2 LEVEL/OA TEMP/RELATIVE HUMIDITY	X													

NOTES:

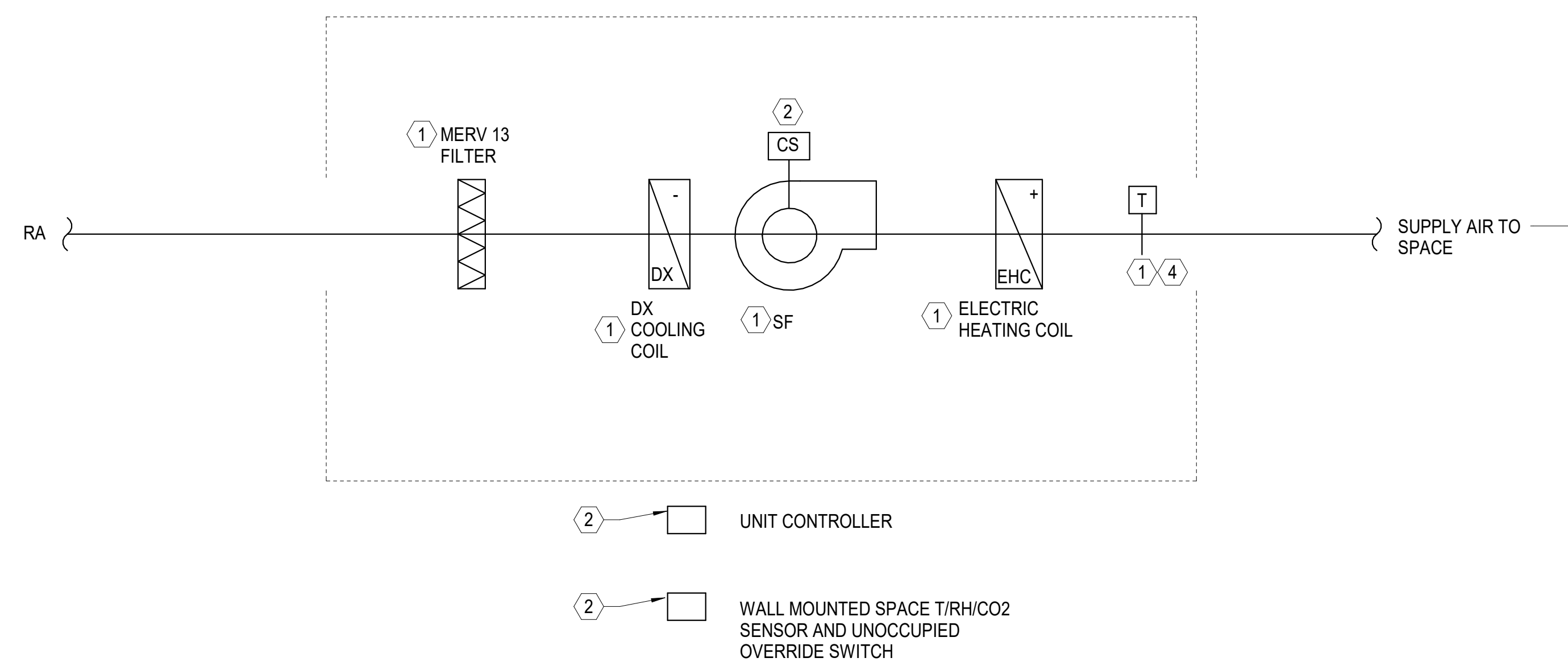
- FAILURE MODE: O - OPEN
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HVAC CONTROL ABBREVIATIONS

BAS	BUILDING AUTOMATION SYSTEM
CO2	CARBON DIOXIDE (CO2) SENSOR
CS	CURRENT SENSOR
DB	DRY BULB
DX	DIRECT EXPANSION REFRIGERANT COIL
EHC	ELECTRIC HEATER COIL
ES	END SWITCH
H	HUMIDITY SENSOR
OAD	OUTSIDE AIR DAMPER
OAI	OUTSIDE AIR INTAKE
OAS	OUTSIDE AIR SUPPLY
SF	SUPPLY FAN
RA	RETURN AIR
RH	RELATIVE HUMIDITY SENSOR
T	DRY BULB TEMPERATURE SENSOR
TEMP	TEMPERATURE

HVAC CONTROL DIAGRAM KEYED NOTES

- PART OR SENSOR INTEGRAL TO UNIT; PROVIDED BY EQUIPMENT MANUFACTURER. ALL SENSORS AND CONTROL COMPONENT WIRING SHALL BE BROUGHT TO A SINGLE TERMINAL STRIP SHOWN ON THE FACTORY WIRING DIAGRAM. TERMINAL DESIGNATIONS SHALL BE INDICATED ON WIRING DIAGRAM FOR BAS INTERFACE.
- PART OR SENSOR PROVIDED BY BAS PROVIDER (BOD: CM) AND INSTALLED IN THE FIELD. UNIT CONTROLLER AND WALL MOUNTED SPACE T/H/CO2 SENSOR AND OVERRIDE SWITCH MAY BE COMBINED INTO A SINGLE WALL MOUNTED DEVICE - BAS PROVIDER OPTION DEPENDING ON TYPE OF UNIT BEING CONTROLLED.
- DISPLAY GLOBAL OA TEMPERATURE, HUMIDITY, DEW POINT, AND CO2 LEVEL ON EACH UNIT'S GRAPHIC PAGE.
- DISPLAY UNIT CALCULATED DISCHARGE AIR DEW POINT TEMPERATURE ON UNIT GRAPHIC



AIR COOLED SPLIT SYSTEM HEAT PUMP SYSTEM SEQUENCE OF OPERATION

NOTE:
ALL SCHEDULES AND SETPOINTS SHALL BE ADJUSTABLE.
THIS SEQUENCE APPLIES TO ALL HP TYPES DESIGNATED AS SPLIT SYSTEM HEAT PUMPS ON DRAWING M600

SCHEDULES:

OCCUPIED: 6 AM TO 6 PM MONDAY THROUGH FRIDAY (CONFIRM FINAL SCHEDULE WITH OWNER AND DISTRICT ENERGY MANAGER)

UNOCCUPIED: ALL HOURS EXCEPT THOSE INDICATED AS OCCUPIED

OCCUPIED MODE OF OPERATION:
THE BAS SHALL COMMAND THE HP ON BASED ON THE OCCUPIED SCHEDULE ABOVE AND ENABLE THE HP'S AUTOMATIC CONTROLS TO OPERATE AS INDICATED BELOW.

OCCUPIED SPACE TEMPERATURE SETPOINTS:
COOLING: 74 DEGREES F / 55% RELATIVE HUMIDITY
HEATING: 70 DEGREES F

OCCUPIED SEQUENCE OF OPERATION:
WHEN THE SPACE TEMPERATURE IS BETWEEN ITS COOLING AND HEATING SETPOINTS THE HP COMPRESSORS/REFRIGERATION CIRCUITS SHALL BE OFF AND SUPPLY FANS SHALL BE OPERATING.
COOLING: ON A RISE IN SPACE TEMPERATURE ABOVE THE COOLING SETPOINT THE HP REFRIGERATION CIRCUITS SHALL BE CYCLED TO MAINTAIN SPACE COOLING TEMPERATURE SETPOINT.
HEATING: ON A CONTINUED FALL IN SPACE TEMPERATURE BELOW THE HEATING SETPOINT THE HP REFRIGERATION CIRCUITS SHALL BE CYCLED TO MAINTAIN SPACE HEATING TEMPERATURE SETPOINT.
NOTE: EMERGENCY ELECTRIC HEAT SHALL ONLY OPERATE ON A REFRIGERATION CIRCUIT FAILURE AND SHALL NEVER OPERATE SIMULTANEOUSLY WITH COMPRESSORS.

UNOCCUPIED SEQUENCE OF OPERATION:

UNOCCUPIED SPACE TEMPERATURE SETPOINTS:
COOLING: 85 DEGREES F / 60% RELATIVE HUMIDITY
HEATING: 55 DEGREES F
WHEN THE SPACE TEMPERATURE IS BETWEEN ITS UNOCCUPIED COOLING AND HEATING TEMPERATURE SETPOINTS THE HP SHALL BE OFF.
COOLING: SAME AS OCCUPIED SEQUENCE - CYCLE UNIT ON AND OFF AS REQUIRED CONTROLLING TO UNOCCUPIED COOLING SETPOINT.
HEATING: SAME AS OCCUPIED SEQUENCE - CYCLE UNIT ON AND OFF AS REQUIRED CONTROLLING TO UNOCCUPIED HEATING SETPOINT.

OCCUPANCY OVERRIDE:
THE SYSTEM AND HP MAY BE PLACED INTO THEIR OCCUPIED MODE FOR A SCHEDULED OVERRIDE PERIOD FROM A CENTRAL COMMAND FROM THE BAS OR THE HP MAY BE PLACED INTO THEIR OCCUPIED MODE OF OPERATION FOR A MAXIMUM 2 HOUR OVERRIDE PERIOD BY PUSHING THE OVERRIDE BUTTON LOCATED ON THE SPACE TEMPERATURE SENSOR SERVING THE HP.

SUPPLY FAN CONTROL: WHEN THE SYSTEM IS COMMANDED ON BY THE BAS (NORMAL OCCUPIED SCHEDULE OR OVERRIDE) THE HP SHALL SOFT START AND RAMP THE UNIT UP TO AT ITS DESIGN (CONSTANT) SUPPLY FAN SPEED.

ALERTS AND NOTIFICATIONS:
THE FOLLOWING ALERTS AND NOTIFICATIONS SHALL BE SENT TO FACILITY MANAGEMENT AND THE FOLLOWING SEQUENCES SHALL OCCUR WHEN THE INDICATED CONDITION IS SENSED BY THE BAS. THE MESSAGE SHOULD SUGGEST A SERIES OF STEPS THE FACILITY MANAGER IS TO TAKE TO INVESTIGATE THE SITUATION UP AND INCLUDING CONTACTING QUALIFIED SERVICE PERSONNEL TO TROUBLESHOOT THE SITUATION.

LOW SAT: AT 45 DEGREES F SEND AN ALERT. IF CONDITION CONTINUES FOR 10 MINUTES SHUT THE HP DOWN, SEND A SECOND ALERT AND REQUIRE THIS ALERT TO BE MANUALLY RESET AT THE HP AFTER THE CONDITION HAS BEEN RESOLVED AND BEFORE THE UNIT MAY BE PLACED BACK INTO OPERATION.

SUPPLY FAN FAILURE: WHEN THE SUPPLY FAN IS COMMANDED TO START AND NO ELECTRIC CURRENT IS SENSED AT FAN MOTOR AN ALERT SHALL BE SENT AND THE HP SERVED SHALL BE SHUT DOWN.

HIGH CO2 LEVEL: SEND AN ALERT IF SPACE CO2 RISES TO GREATER THAN OR EQUAL TO 1500 PPM FOR MORE THAN 15 MINUTES.

FIRE ALARM: UPON INITIATION OF FIRE ALARM UNIT SHALL SHUT DOWN.

OTHER RTU-HP SAFETIES: HIGH REFRIGERANT DISCHARGE PRESSURE, LOW REFRIGERANT SUCTION PRESSURE, COMPRESSOR FAILURE IF AVAILABLE FROM MANUFACTURER THROUGH A BACNET INTERFACE.

INPUT/OUTPUT SUMMARY RTU W/GAS HEAT & HGR	INPUTS				OUTPUTS				FEATURES				NOTES											
	DIGITAL		ANALOG		DIGITAL		ANALOG		ALARM		ENERGY MGMT													
	UNIT GRAPHIC DISPLAY	STATUS (PERCENT SPEED)	END SWITCH	CURRENT SENSING RELAY	TEMPERATURE	RELATIVE HUMIDITY	AIR FLOW	RUN TIME	CO2	SUPPLY FAN VFD FEEDBACK	START/STOP	OPEN/CLOSE		BAS CONTROL	DAMPER POSITION	FAN SPEED	STATUS/INTERLOCK	HIGH/LIMIT	RUN TIME TOTALIZATION	FAULT (VFD)	OPTIMUM START/STOP	DAY/NIGHT SETBACK	OCCUPIED/UNOCCUPIED	BAS TREND
OUTSIDE AIR DAMPER	X	X								X	X									X	X	X		C 2
OUTDOOR AIR SUPPLY FAN START/STOP	X								X											X	X	X		
OUTDOOR AIR SUPPLY FAN STATUS	X	X	X				X					X				X								
OUTDOOR AIR SUPPLY FAN VFD	X							X												X	X	X		C 2
FAN PIEZO AFM AIRFLOW	X					X																		
OUTSIDE AIR TEMPERATURE	X			X																				
OUTSIDE AIR RELATIVE HUMIDITY	X				X																			
COOLING COIL LEAVING AIR TEMPERATURE	X			X								X												
UNIT DISCHARGE RELATIVE HUMIDITY	X				X																			
UNIT DISCHARGE AIR TEMPERATURE	X			X																				
UNIT DISCHARGE AIR DEW POINT TEMP (CALCULATED)	X																							
RETURN AIR DAMPER	X	X							X	X														C 2
SPACE TEMPERATURE/HUMIDITY/CO2 SENSORS	X	X							X	X														
GLOBAL CO2 LEVEL/OA TEMP/RH	X			X	X	X																		

NOTES:

- FAILURE MODE: O - OPEN
C - OFF OR CLOSED
L - LAST COMMAND
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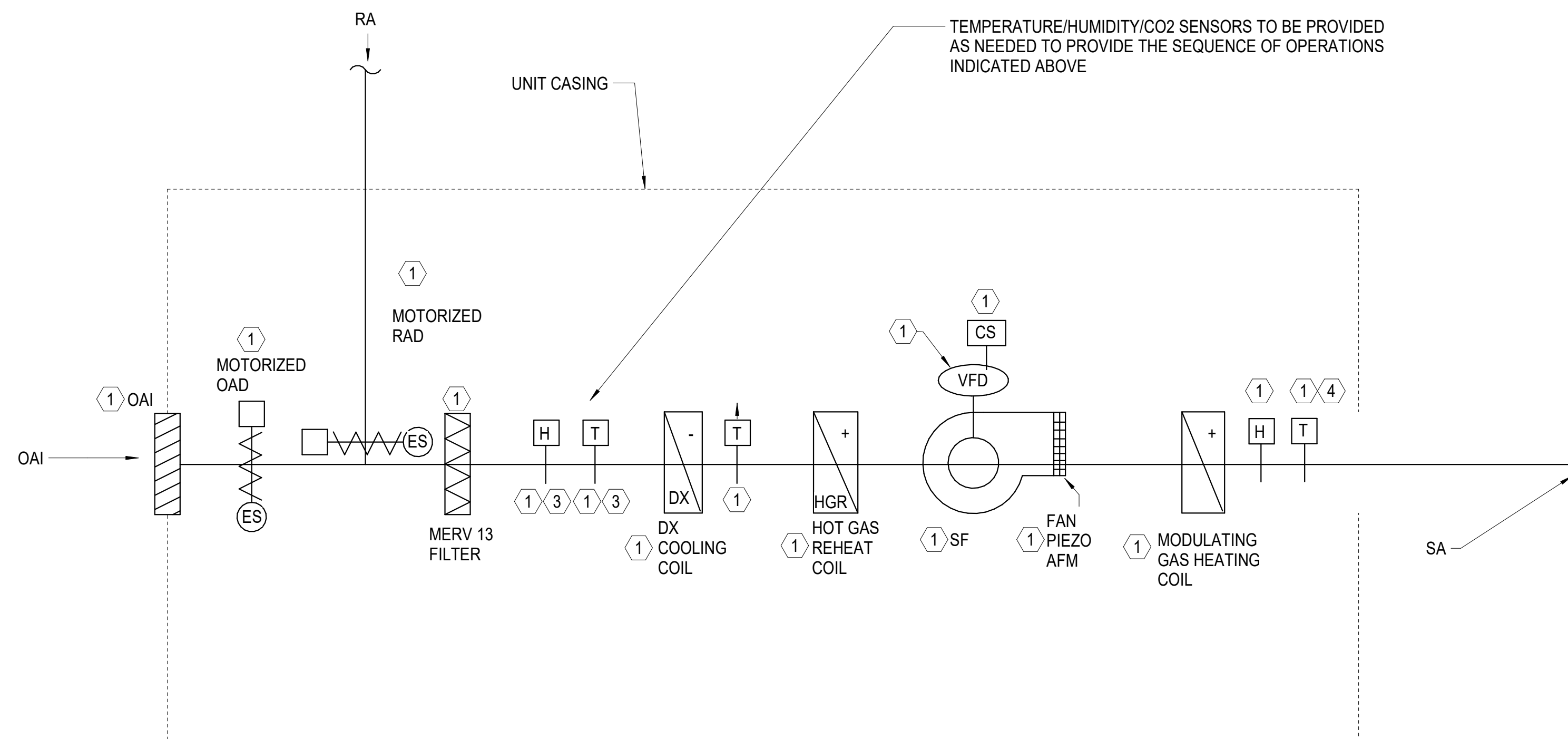
HVAC CONTROL ABBREVIATIONS

BAS	BUILDING AUTOMATION SYSTEM
CO2	CARBON DIOXIDE (CO2) SENSOR
CS	CURRENT SENSOR
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DX	DIRECT EXPANSION REFRIGERANT COIL
ES	END SWITCH
H	HUMIDITY SENSOR
HGR	HOT GAS REHEAT COIL
OAD	OUTSIDE AIR DAMPER
OAI	OUTSIDE AIR INTAKE
OAS	OUTSIDE AIR SUPPLY
SF	SUPPLY FAN
RH	RELATIVE HUMIDITY SENSOR
T	DRY BULB TEMPERATURE SENSOR
TEMP	TEMPERATURE
VFD	VARIABLE FREQUENCY DRIVE

HVAC CONTROL DIAGRAM KEYED NOTES

- PART OR SENSOR INTEGRAL TO UNIT; PROVIDED BY EQUIPMENT MANUFACTURER ALL SENSORS AND CONTROL COMPONENT WIRING SHALL BE BROUGHT TO A SINGLE TERMINAL STRIP SHOWN ON THE FACTORY WIRING DIAGRAM. TERMINAL DESIGNATIONS SHALL BE INDICATED ON WIRING DIAGRAM FOR BAS INTERFACE.
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1 M704 RTU GAS PACK, SOO, AND I/O SUMMARY NOT TO SCALE



- 2 UNIT CONTROLLER
- 2 WALL MOUNTED SPACE T/RH/CO2 SENSOR AND UNOCCUPIED OVERRIDE SWITCH - LOCATED BY BAS PROVIDER

PACKAGED AIR COLLED (DX) RTU/GAS PACK SEQUENCE OF OPERATION (TAGGED HP-45, 46, 47, & 48))

NOTES:

- ALL SCHEDULES AND SET POINTS SHALL BE ADJUSTABLE.
- UNITS SHALL HAVE VARIABLE SPEED OA SUPPLY FAN (OASF).
- UNITS SHALL HAVE VARIABLE SPEED COMPRESSORS AND FULLY MODULATING HOT GAS REHEAT.
- OA INTAKE (OAI) TEMPERATURE AND HUMIDITY MAY USE BUILDING'S GLOBAL OA TEMPERATURE AND HUMIDITY SENSOR AND CALCULATED DEW POINT TEMPERATURES IN LIEU OF INDIVIDUAL SENSORS AT OA INTAKE OF THE UNIT FOR CONTROL SEQUENCE.
- SEQUENCES OF OPERATION ARE FOR CONSTANT VOLUME OA FLOWS. UNITS SHALL BE MANUFACTURED SUCH THAT OA FLOWS MAY BE VARIED ACCORDING TO THE DISTRICT'S REQUIREMENT FOR DEMAND CONTROL VENTILATION STRATEGIES OR NEED TO REDUCE OA FLOWS FOR ELECTRICAL POWER DEMAND CONTROL IN THE FUTURE.

SCHEDULES:

- OCCUPIED: 8:00 AM TILL 3:00 PM MONDAY THROUGH FRIDAY DURING REGULAR SCHOOL YEAR WHEN SCHOOL IS IN SESSION
- UNOCCUPIED: ALL OTHER TIMES EXCEPT OCCUPIED PERIODS (EVENINGS, NIGHTS, WEEKENDS, HOLIDAYS, SUMMER, ETC.).

SEQUENCE OF OPERATION:

OCCUPIED PERIODS:

FANS:

- FANS SHALL BE ON AND DELIVERING CONSTANT VOLUMES OF DESIGN OA TO BUILDING/SPACES.

DAMPERS:

- OAD SHALL BE OPEN.

MECHANICAL COOLING:

- WHEN SPACE TEMPERATURE IS ABOVE COOLING SETPOINT (73 °F) UNIT'S REFRIGERATION SYSTEM SHALL STAGE AND VARY THE SPEED OF THE OF THE UNIT'S COMPRESSORS AND REFRIGERATION CIRCUITS TO MAINTAIN SPACE COOLING SETPOINT.

DEHUMIDIFICATION:

- WHEN SPACE HUMIDITY IS ABOVE 55%, UNIT'S REFRIGERATION SYSTEM SHALL BE IN THE OA DEHUMIDIFICATION MODE OF OPERATION AND SHALL STAGE AND VARY THE SPEED OF THE OF THE UNIT'S COMPRESSORS AND REFRIGERATION CIRCUITS TO DEHUMIDIFY INCOMING OA AND MAINTAIN DX COIL DISCHARGE AIR TEMPERATURE AT 45 °F DB.

HOT GAS REHEAT (HGR)/MAU OAS DISCHARGE TEMPERATURE CONTROL:

- WHEN UNIT IS IN DEHUMIDIFICATION MODE OF OPERATION, HOT GAS REHEAT SHALL MODULATE TO MAINTAIN SPACE DB TEMPERATURE BETWEEN THE SPACE COOLING AND SPACE HEATING SETPOINTS (APPROXIMATELY 71-72 °F).

GAS HEATING MODE:

- IN HEATING MODE (WHEN UNIT IS NOT IN THE MECHANICAL COOLING OR DEHUMIDIFICATION MODES AND OA TEMP IS BELOW 60 DEG F), MODULATE GAS HEAT TO MAINTAIN A UNIT DISCHARGE AIR TEMPERATURE OF 70°F DB.

ECONOMIZER CYCLE:

- THE ECONOMIZER SHALL BE ENABLED ONLY DURING OCCUPIED HOURS AND ONLY WHEN OA DRY BULB TEMPERATURE IS ABOVE 50 DEGREES F AND WHEN OA DRY BULB TEMPERATURE IS BELOW 74 DEGREES F AND OA HUMIDITY IS BELOW 55% RH.
- WHEN OA TEMPERATURE IS BELOW 74 DEGREES F AND OA HUMIDITY IS BELOW 55% RH THE OA DAMPER SHALL BE FULL OPEN AND THE RETURN AIR DAMPER SHALL BE FULL CLOSED AND THE UNIT SHALL OPERATE THE REFRIGERATION CIRCUIT AS REQUIRED TO MAINTAIN SPACE TEMPERATURE BETWEEN THE SPACE COOLING AND SPACE HEATING SETPOINTS.
- ON A RISE IN SPACE HUMIDITY TO ABOVE SETPOINT THE RTU-HP SHALL GO INTO ITS DEHUMIDIFICATION CYCLE OF OPERATION. ON A FALL IN SPACE TEMPERATURE TO THE SPACE HEATING SETPOINT, THE ECONOMIZER SHALL BE DISABLED AND THE OA DAMPER SHALL GO TO ITS MINIMUM OA POSITION AND THE RETURN AIR DAMPER SHALL BE FULLY OPEN.

UNOCCUPIED SPACE TEMPERATURE SETPOINTS:

- COOLING: 85 DEGREES F / 60% RH
- HEATING: 55 DEGREES F

UNOCCUPIED PERIODS

- UNIT SHALL BE OFF AND OAD SHALL BE CLOSED. UNITS SHALL NOT OPERATE DURING MORNING WARM UP OR MORNING COOL DOWN SEQUENCES. IF SPACE HUMIDITY RISES ABOVE 60% RH THE UNITS' RETURN AIR DAMPER SHALL OPEN AND THE UNIT SHALL OPERATE IN THE DEHUMIDIFICATION MODE. OA DAMPER SHALL REMAIN CLOSED UNTIL THE NEXT OCCUPIED PERIOD STARTS.

OVERRIDE PERIODS:

- WHEN THE ENTIRE SCHOOL OR THE AREA SERVED BY UNIT IS IN A SCHEDULED OVERRIDE TO THE OCCUPIED MODE, UNIT SHALL OPERATE IN THE OCCUPIED SEQUENCE OF OPERATION.

ALARMS AND SAFETIES (IN ADDITION TO MANUFACTURER REQUIRED ALARMS AND SAFETIES):

- ALL MANUFACTURERS REQUIRED SAFETIES SHALL BE MONITORED AND DISPLAYED ON THE BAS GRAPHIC CONSOLE.
- UPON INITIATION OF FIRE ALARM UNIT SHALL SHUT DOWN AND OAD SHALL CLOSE.
- FILTERS SHALL BE CHANGED PER OWNER'S MAINTENANCE SCHEDULE.
- A HIGH LIMIT DISCHARGE AIR CONDITION NOTIFICATION ALARM SHALL BE SENT TO THE BAS IF THE UNITS DISCHARGE AIR TEMPERATURE RISES ABOVE 80 °F DB OR IF DX COIL DEW POINT RISES ABOVE 60 °F. SHOULD CONDITION PERSIST FOR MORE THAN 30 MINUTES UNIT SHALL SHUT OFF AND OAD SHALL CLOSE AND A TROUBLE ALARM SHALL BE SENT TO THE BAS.
- A LOW LIMIT DISCHARGE AIR CONDITION NOTIFICATION ALARM SHALL BE SENT TO THE BAS IF THE UNITS DISCHARGE AIR TEMPERATURE DROPS BELOW 45 °F DB WHEN UNIT IS IN THE HEATING MODE. SHOULD CONDITION PERSIST FOR MORE THAN 15 MINUTES UNIT SHALL SHUT OFF AND OAD SHALL CLOSE AND A TROUBLE ALARM SHALL BE SENT TO THE BAS.



Whole Building Systems, LLC
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29465
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AYNOR HIGH SCHOOL
HVAC REPLACEMENT
201 JORDANVILLE RD, AYNOR, SC 29511

PROJ. NO. 21090002

DATE: 01/24/2022

DESIGNED BY: MDK

DRAWN BY: MDK

CHECKED BY: MDK

REVISIONS

NO. DATE NOTES

HVAC CONTROLS
(RTU W/GAS HEAT
AND HGR)

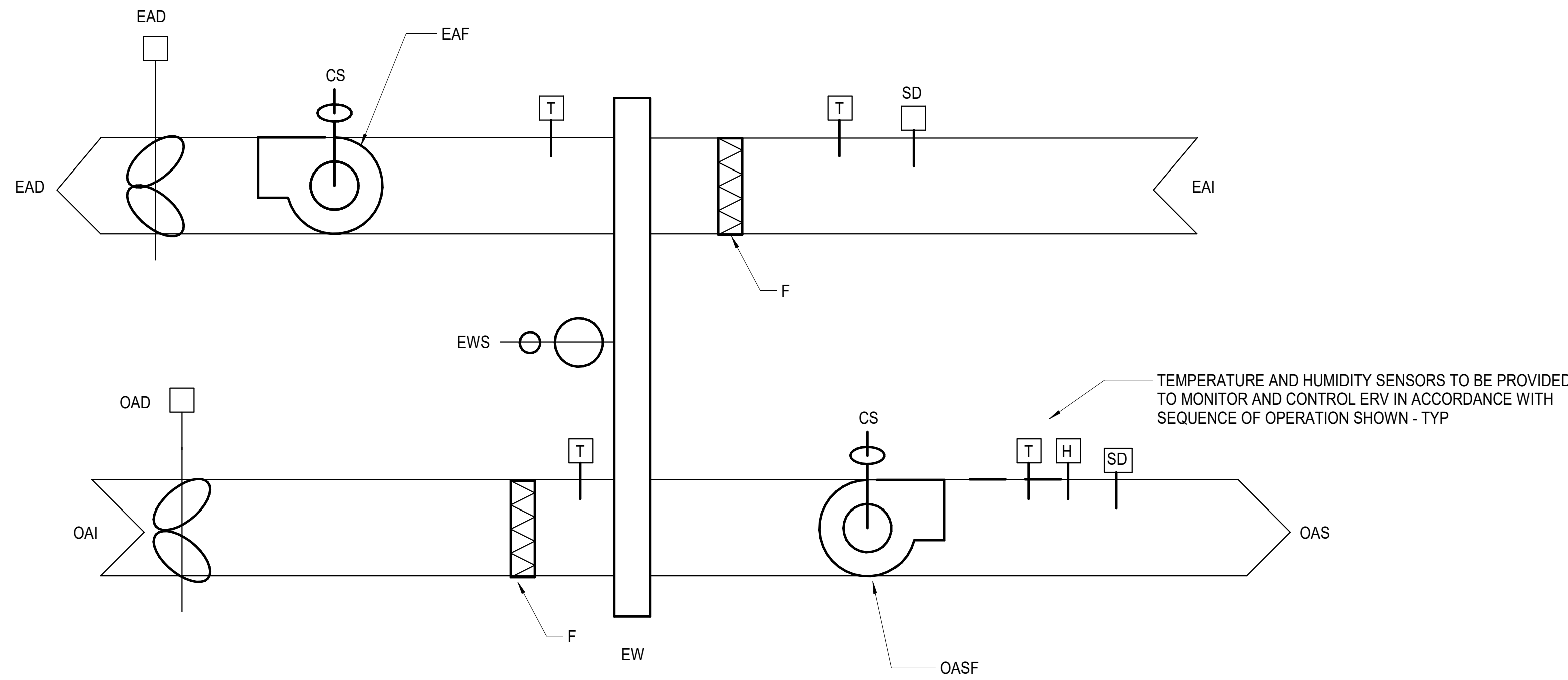
M704

INPUT/OUTPUT SUMMARY
ERV

	INPUTS						OUTPUTS				FEATURES		NOTES												
	DIGITAL		ANALOG				DIGITAL		ANALOG		ALARM	ENERGY MGMT													
	UNIT GRAPHIC DISPLAY STATUS (PERCENT SPEED)	END SWITCH	CURRENT SENSING RELAY	ALARM CONTACT	TEMPERATURE	RELATIVE HUMIDITY	CO2 LEVEL	RUN TIME	START/STOP	ENABLE/DISABLE	OPEN/CLOSE	ACTIVATE/DEACTIVATE		BAS CONTROL	FAN SPEED/AIR FLOW	DAMPER POSITION	STATUS/INTERLOCK	HIGH/LOW LIMIT	OPTIMUM START/STOP	DAY/NIGHT SETBACK	ENERGY METRING	OCCUPIED/UNOCCUPIED	BAS TREND	FAILURE MODE (SEE NOTES 1 AND 2)	
SUPPLY FAN START/STOP	X							X										X	X					2	
SUPPLY FAN STATUS	X	X	X					X					X	X							X				
EXHAUST FAN START/STOP	X								X									X	X						2
EXHAUST FAN STATUS	X	X	X					X					X	X							X				
UNIT AIR TEMPERATURE AND HUMIDITY SENSORS	X				X	X										X					X				
OA DAMPER	X	X											X								X				
EA DAMPER	X	X										X									X				
ENTHALPY WHEEL STATUS	X																				X				
GLOBAL OA TEMP/RELATIVE HUMIDITY	X																				X				

NOTES:

- FAILURE MODE: O - OPEN
C - OFF OR CLOSED
L - LAST COMMAND
- THE INDICATED FAILURE MODE POSITION SHALL OCCUR ON FAILURE FOR ANY REASON INCLUDING FAILURE OF THE BAS CONTROLLER OR ITS OUTPUTS.



- GRAPHIC LEGEND:**
CS - CURRENT SENSOR
EAD - EXHAUST AIR DAMPER/DISCHARGE
EAF - EXHAUST AIR FAN
EAI - EXHAUST AIR INTAKE (FROM SPACES)
EW - ENTHALPY WHEEL
EWS - ENTHALPY WHEEL STATUS
F - FILTER
OAD - OUTSIDE AIR DAMPER
OAI - OUTSIDE AIR INTAKE
OAS - OUTSIDE AIR SUPPLY
OASF - OUTSIDE AIR SUPPLY FAN
SD - DUCT MOUNTED SMOKE DETECTOR
T - DRY BULB TEMPERATURE SENSOR

ENERGY RECOVERY VENTILATOR Sequence of Operation

Note:
All schedules and setpoints shall be adjustable.
This sequence applies to HRU-1 and HRU-2

SCHEDULES:

NOTES:

- ALL SCHEDULES AND SET POINTS SHALL BE ADJUSTABLE.
- THE OBJECTIVE OF THIS SEQUENCE OF OPERATION IS TO DELIVER FILTERED AND PRE-CONDITIONED OUTSIDE AIR FOR VENTILATION WHILE MAINTAINING INDOOR SPACE COOLING AT 74 °F DB AND MAXIMUM 55% RH AND SPACE HEATING SET POINT AT 70 °F DB.
- UNITS SHALL BE CAPABLE OF PRETREATING OUTSIDE AIR BY USE OF AN ENTHALPY WHEEL AS REQUIRED TO MEET THIS SEQUENCE OF OPERATION.
- UNITS SHALL HAVE VARIABLE SPEED OA SUPPLY FAN (OASF) AND VARIABLE SPEED EXHAUST AIR FAN (EAF).
- OA INTAKE (OAI) TEMPERATURE AND HUMIDITY MAY USE BUILDING'S GLOBAL OA TEMPERATURE AND HUMIDITY SENSOR AND CALCULATED DEW POINT TEMPERATURES IN LIEU OF INDIVIDUAL SENSORS AT OA INTAKE OF THE ENTHALPY WHEEL FOR CONTROL SEQUENCE.
- SEQUENCES OF OPERATION ARE FOR CONSTANT SA, OA AND EA FLOWS. HOWEVER, UNITS SHALL BE MANUFACTURED SUCH THAT SA, OA AND EA FLOWS MAY BE VARIED SHOULD THE DISTRICT IMPLEMENT DEMAND CONTROL VENTILATION STRATEGIES OR NEED TO REDUCE OA AND EA FLOWS FOR ELECTRICAL POWER DEMAND CONTROL IN THE FUTURE.

SCHEDULES:

OCCUPIED: 8:00 AM TILL 6:00 PM MONDAY THROUGH FRIDAY DURING REGULAR SCHOOL YEAR WHEN SCHOOL IS IN SESSION.
UNOCCUPIED: ALL OTHER TIMES EXCEPT OCCUPIED PERIODS (EVENINGS, NIGHTS, WEEKENDS, HOLIDAYS, SUMMER, ETC.).

SEQUENCE OF OPERATION:

OCCUPIED PERIODS:

FANS:

FANS SHALL BE ON AND DELIVERING CONSTANT VOLUMES OF DESIGN SA AND OA TO BUILDING/SPACES AND DISCHARGING DESIGN EA FLOW TO THE OUTSIDE. AIRFLOW MONITORING STATIONS LOCATED IN THE UNIT'S OA SUPPLY DUCT TO THE BUILDING/SPACES (OAS) AND EXHAUST AIR INTAKE DUCT FROM THE BUILDING/SPACES (EAI) SHALL PROVIDE CONTROL SIGNALS TO THE OASF AND EAF VARIABLE SPEED DRIVES TO MAINTAIN CONSTANT AIRFLOWS AND COMPENSATE FOR FILTER LOADING AND CHANGES IN BUILDING PRESSURE. FANS SHALL SOFT START.

MECHANICAL COOLING, DEHUMIDIFICATION, ENTHALPY WHEEL AND HEATING:

MECHANICAL COOLING:

NONE

ENTHALPY WHEEL:

WHEN OA TEMPERATURE IS BETWEEN 70 °F DB AND 76 °F DB AND BELOW 57 °F DEW POINT (ASSUMED SPACE RETURN/EXHAUST AIR CONDITION) ENTHALPY WHEEL SHALL BE OFF.

PRECOOLING AND DEHUMIDIFYING OA WITH ENTHALPY WHEEL:

WHEN OA TEMPERATURE IS ABOVE 76 °F DB AND 57 °F DEW POINT (ASSUMED SPACE RETURN/EXHAUST AIR CONDITION) THE ENTHALPY WHEEL SHALL ROTATE AND VARY ITS SPEED TO MAINTAIN OAS DB TEMPERATURE AND HUMIDITY AS LOW AS CAN BE MAINTAINED TO MAXIMIZE THE EFFICIENCY OF THE ENTHALPY WHEEL.

PREHEATING OA WITH ENTHALPY WHEEL:

WHEN OA IS BELOW 70 °F DB AND 48 °F DEW POINT THE ENTHALPY WHEEL SHALL ROTATE AND VARY ITS SPEED TO MAXIMIZE HEAT RECOVERY FROM THE WHEEL AND SHALL CONTINUE TO OPERATE UNTILL THE WHEEL CANNOT MAINTAIN A MINIMUM OAS DB AIR TEMPERATURE AT OR ABOVE 45 °F.

UNOCCUPIED PERIODS:

UNIT SHALL BE OFF AND EAD AND OAD SHALL BE CLOSED.

OVERRIDE PERIODS:

WHEN OVERRIDE IS SCHEDULED BY FACILITY MANAGEMENT OR THE DISTRICTS ENERGY MANAGER UNIT SHALL OPERATE IN ITS OCCUPIED SEQUENCES OF OPERATION FOR THE DURATION OF THE SCHEDULED OVERRIDE PERIOD.

ALARMS AND SAFETIES (IN ADDITION TO MANUFACTURER REQUIRED ALARMS AND SAFETIES):

ALL MANUFACTURERS REQUIRED SAFETIES SHALL BE MONITORED AND DISPLAYED ON THE BAS GRAPHIC CONSOLE.

UPON INITIATION OF FIRE ALARM UNIT SHALL SHUT DOWN AND EAD AND OAD SHALL CLOSE.

UPON SENSING SMOKE IN EITHER THE SUPPLY AIR DUCT OR THE EXHAUST AIR DUCT THE UNIT SHALL SHUT DOWN AND THE EAD AND OAD SHALL CLOSE.

A HIGH LIMIT DISCHARGE AIR CONDITION NOTIFICATION ALARM SHALL BE SENT TO THE BAS IF THE UNITS DISCHARGE AIR TEMPERATURE RISES ABOVE 86 °F DB. SHOULD CONDITION PERSIST FOR MORE THAN 30 MINUTES UNIT SHALL SHUT OFF AND EAD AND OAD SHALL CLOSE AND A TROUBLE ALARM SHALL BE SENT TO THE BAS.

A LOW LIMIT DISCHARGE AIR CONDITION NOTIFICATION ALARM SHALL BE SENT TO THE BAS IF THE UNITS DISCHARGE AIR TEMPERATURE DROPS BELOW 45 °F DB. SHOULD CONDITION PERSIST FOR MORE THAN 30 MINUTES UNIT SHALL SHUT OFF AND EAD AND OAD SHALL CLOSE AND A TROUBLE ALARM SHALL BE SENT TO THE BAS.

ON A RISE IN SPACE HUMIDITY ABOVE 70% RH FOR MORE THAN 10 MINUTES, A TROUBLE ALARM SHALL BE SENT TO THE BAS.



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**AYNOR HIGH SCHOOL
HVAC REPLACEMENT**
201 JORDANVILLE RD, AYNOR, SC 29511

PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
DRAWN BY: MDK
CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES
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HVAC CONTROLS (ERV)

M705

1 M705 ENERGY RECOVERY WHEEL ONLY SEQUENCE OF OPERATIONS
None



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REVISIONS

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ELECTRICAL
LEGEND, NOTES,
AND
ABBREVIATIONS

E001

ELECTRICAL LEGEND

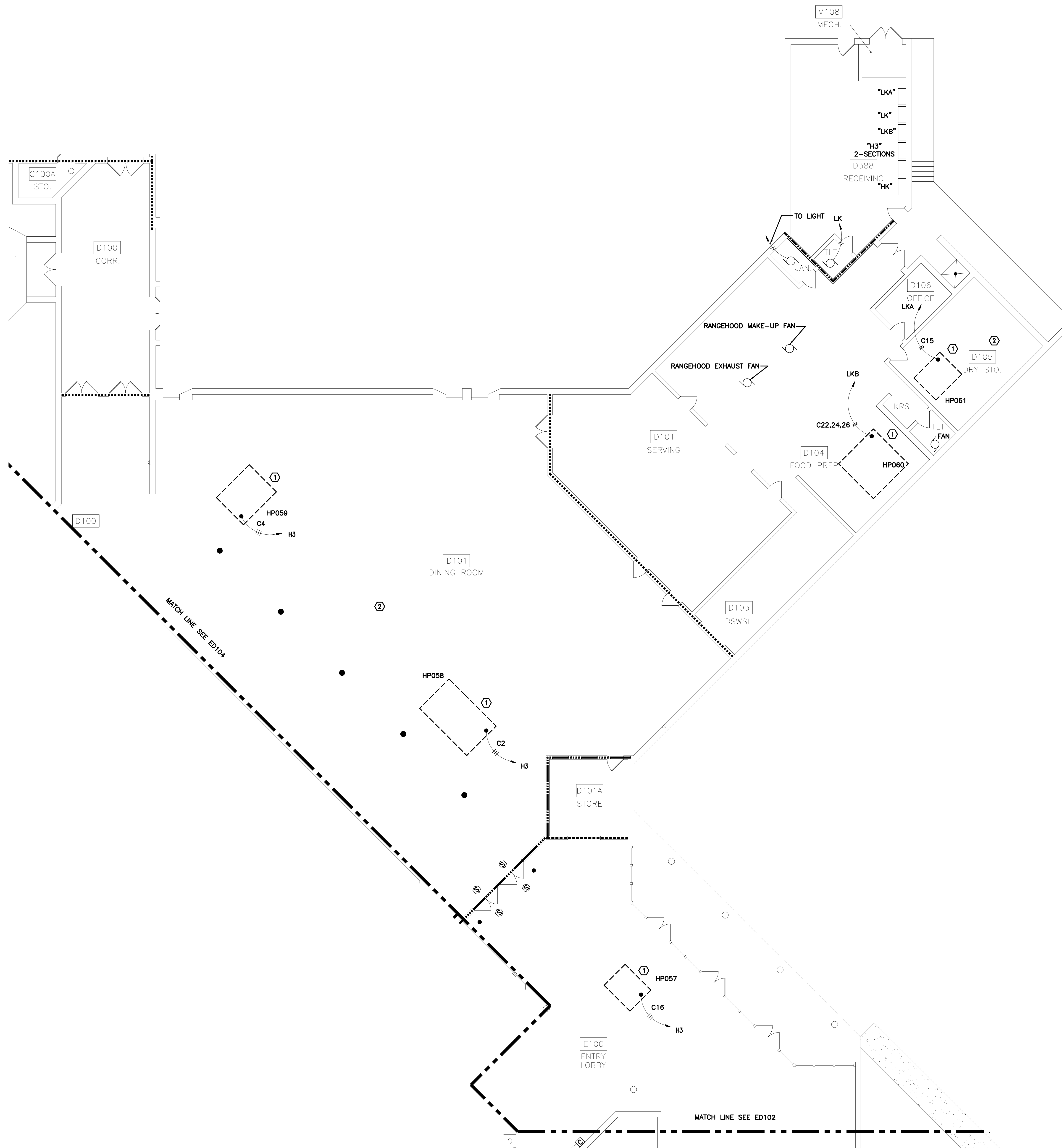
□ PANEL

ABBREVIATIONS

A OR AMPS	AMPERES
BKR	BREAKER
C	CONDUIT
CKT	CIRCUIT
(E) OR EX	EXISTING
ELEC	ELECTRICAL
ETR	EXISTING TO REMAIN
FLA	FULL LOAD AMPS
G	GROUND
MCA	MINIMUM CIRCUIT AMPACITY
MECH	MECHANICAL
MFS	MAXIMUM FUSE SIZE
MOP OR MOCP	MAXIMUM OVERCURRENT PROTECTION

GENERAL NOTES:

1. ELECTRICAL FLOOR PLANS ARE SHOWN FOR EQUIPMENT AND PANEL LOCATION REFERENCE ONLY; REFER TO ELECTRICAL EQUIPMENT SCHEDULE ON E600 FOR ADDITIONAL INFORMATION.
2. REFER TO MECHANICAL FLOOR PLANS FOR RATED WALL LOCATIONS.



DEMO KEY NOTES

- ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK.
- ② REMOVE EXISTING CEILING MOUNTED ELECTRICAL DEVICES INCLUDING, BUT NOT LIMITED TO LIGHT FIXTURES, SMOKE DETECTORS, HEAT DETECTORS, FIRE ALARM DEVICES, SWITCHES, SPEAKERS, OCC SENSOR, AND EMERGENCY LIGHTS. STORE AND/OR PROTECT ALL DEVICES FOR REINSTALLATION IN NEW CEILING.



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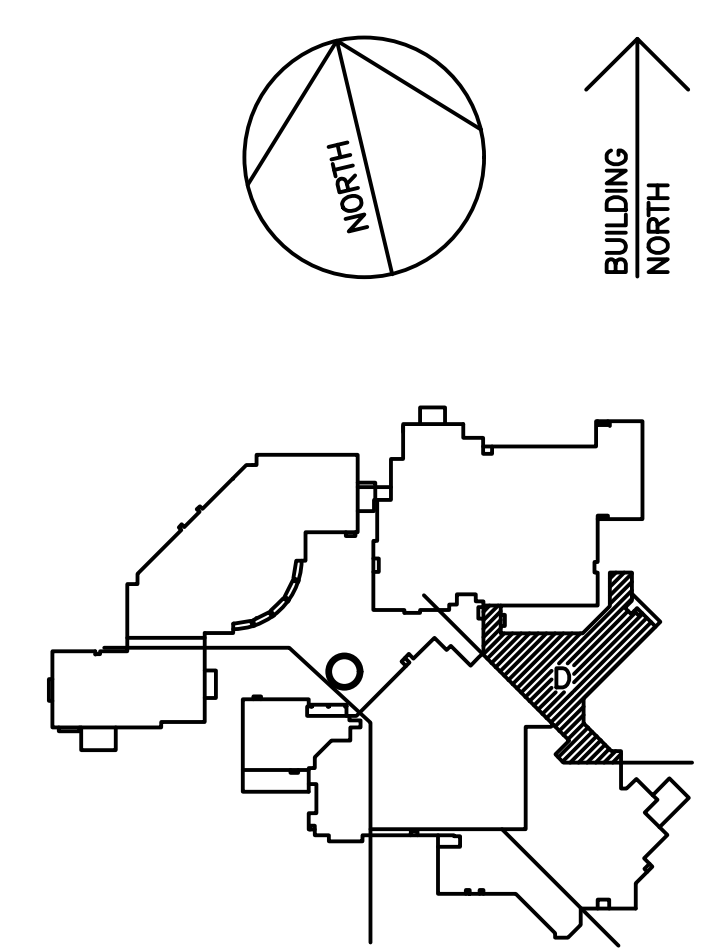


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REVISIONS

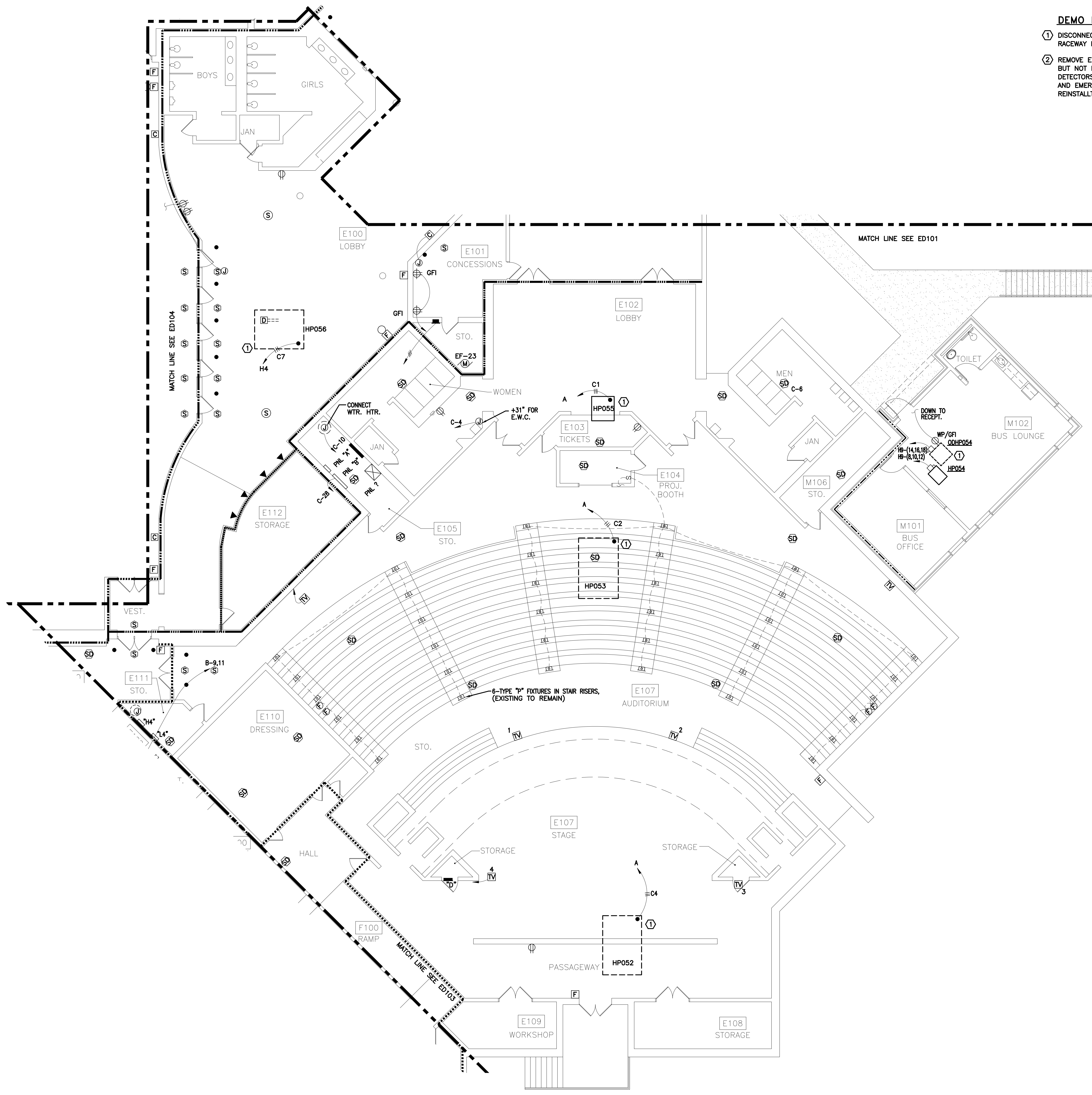
NO.	DATE	NOTES



**FIRST FLOOR
ELECTRICAL
POWER PLAN
AREA D
DEMOLITION**

ED101

FIRST FLOOR ELECTRICAL POWER PLAN AREA D - DEMOLITION
SCALE: 1/8" = 1'-0"



FIRST FLOOR ELECTRICAL POWER PLAN AREA E & M - DEMOLITION
SCALE: 1/8" = 1'-0"

DEMO KEY NOTES

- ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK.
- ② REMOVE EXISTING CEILING MOUNTED ELECTRICAL DEVICES INCLUDING, BUT NOT LIMITED TO LIGHT FIXTURES, SMOKE DETECTORS, HEAT DETECTORS, FIRE ALARM DEVICES, SWITCHES, SPEAKERS, OCC SENSOR, AND EMERGENCY LIGHTS. STORE AND/OR PROTECT ALL DEVICES FOR REINSTALLATION IN NEW CEILING.



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HVAC Replacement**

201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
DATE: 01/24/2022
DESIGNED BY: MDK
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REVISIONS		
NO.	DATE	NOTES

FIRST FLOOR
ELECTRICAL
POWER PLAN
AREA E & M
DEMOLITION

ED102



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 201 JORDANVILLE RD AYNOR, SC 29411

PROJ. NO. 21090002
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REVISIONS

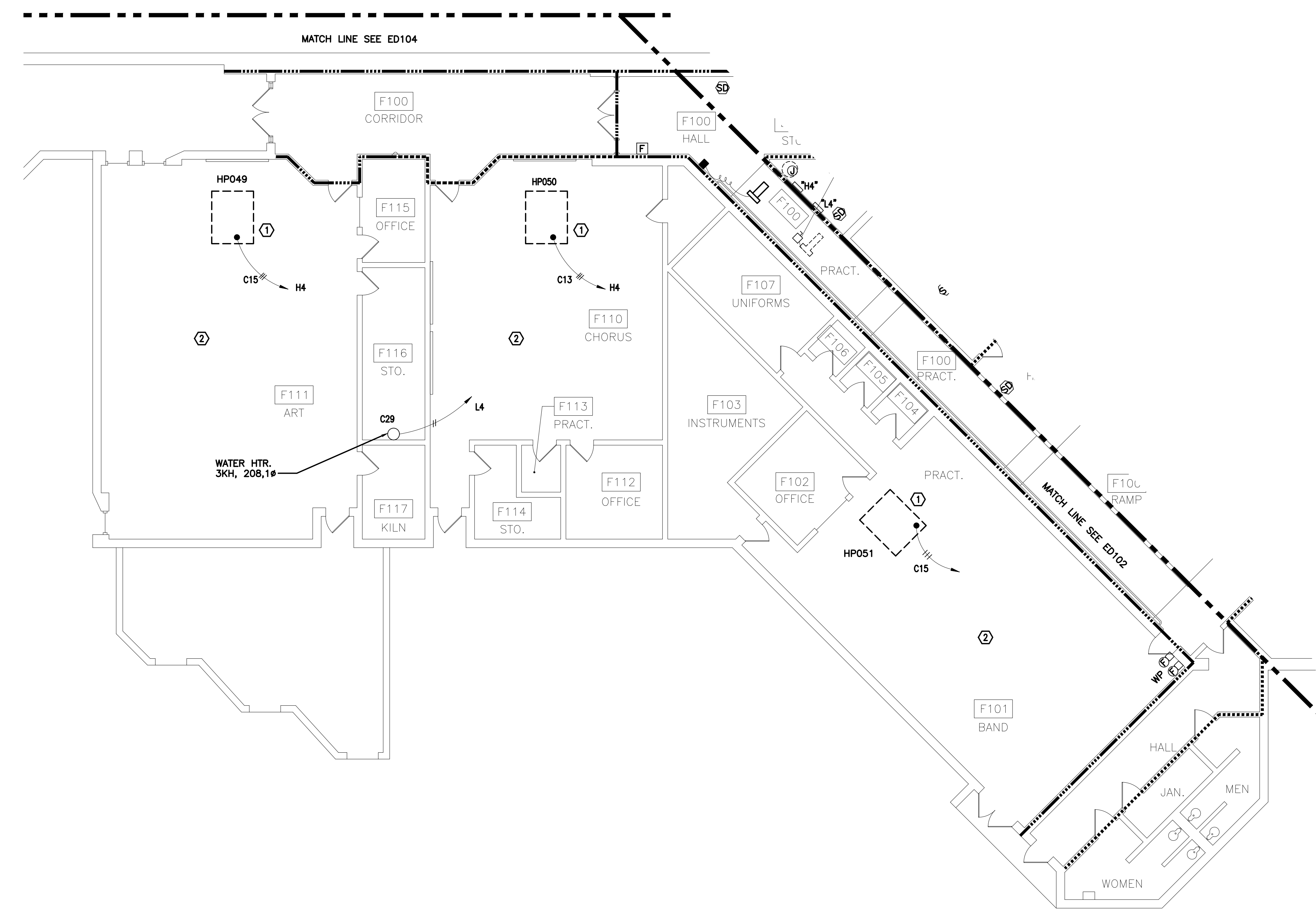
NO.	DATE	NOTES

FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA F
 DEMOLITION

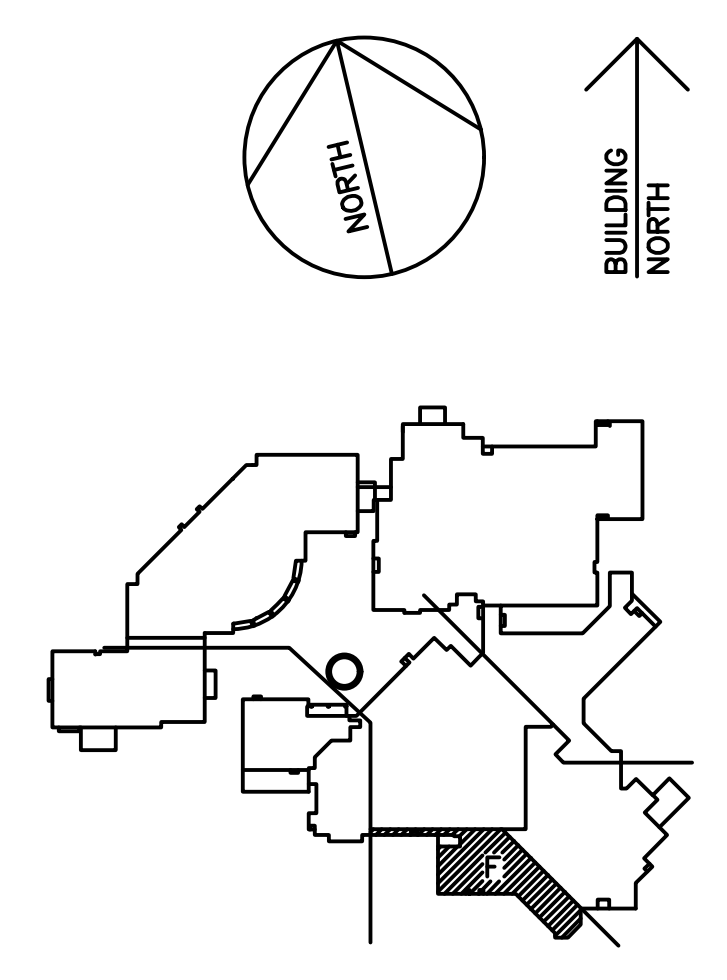
ED103

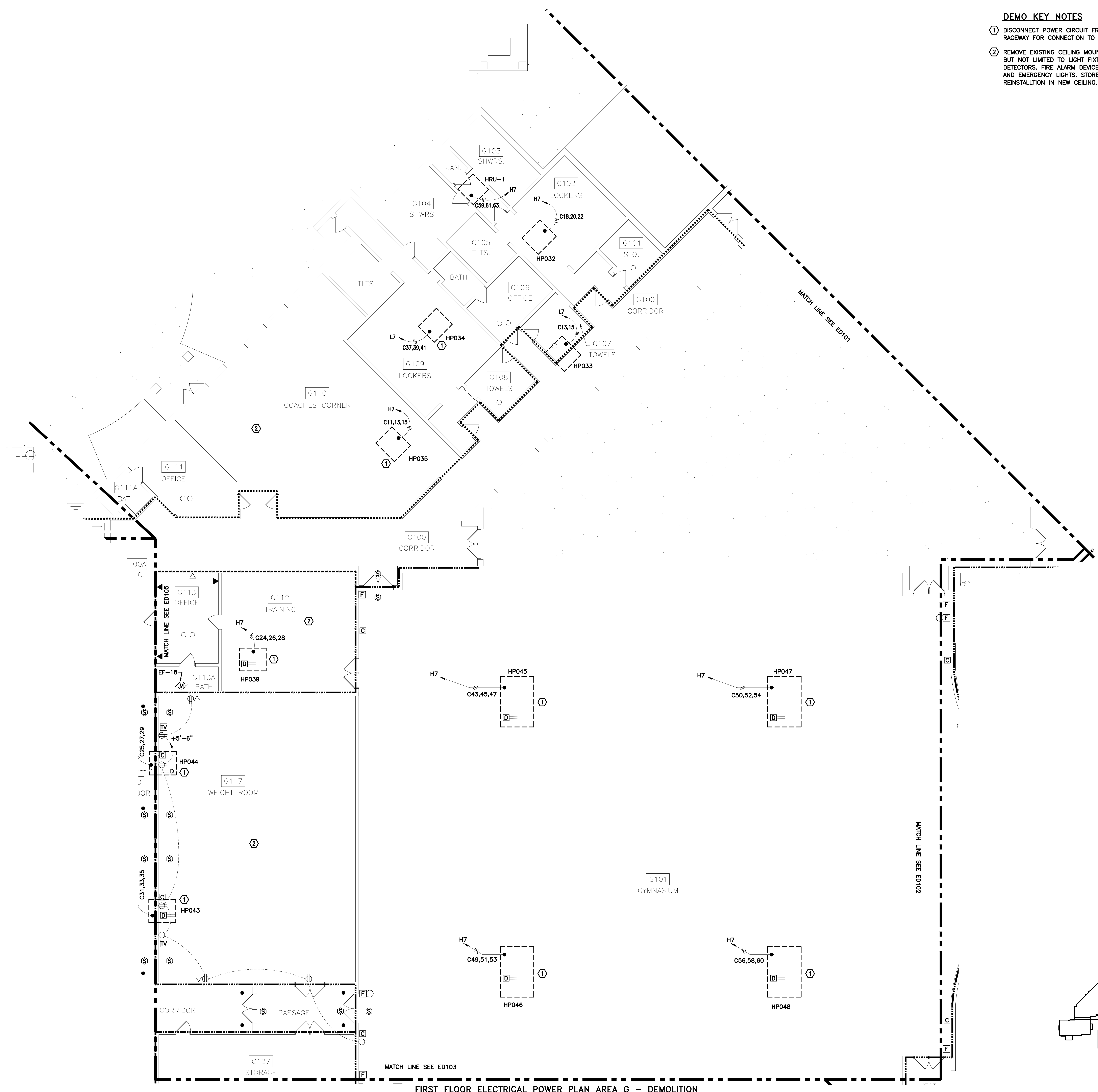
DEMO KEY NOTES

- ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK.
- ② REMOVE EXISTING CEILING MOUNTED ELECTRICAL DEVICES INCLUDING, BUT NOT LIMITED TO LIGHT FIXTURES, SMOKE DETECTORS, HEAT DETECTORS, FIRE ALARM DEVICES, SWITCHES, SPEAKERS, OCC SENSOR, AND EMERGENCY LIGHTS. STORE AND/OR PROTECT ALL DEVICES FOR REINSTALLATION IN NEW CEILING.



FIRST FLOOR ELECTRICAL POWER PLAN AREA F – DEMOLITION
 SCALE: 1/8" = 1'-0"





- DEMO KEY NOTES**
- ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK.
 - ② REMOVE EXISTING CEILING MOUNTED ELECTRICAL DEVICES INCLUDING, BUT NOT LIMITED TO LIGHT FIXTURES, SMOKE DETECTORS, HEAT DETECTORS, FIRE ALARM DEVICES, SWITCHES, SPEAKERS, OCC SENSOR, AND EMERGENCY LIGHTS. STORE AND/OR PROTECT ALL DEVICES FOR REINSTALLATION IN NEW CEILING.



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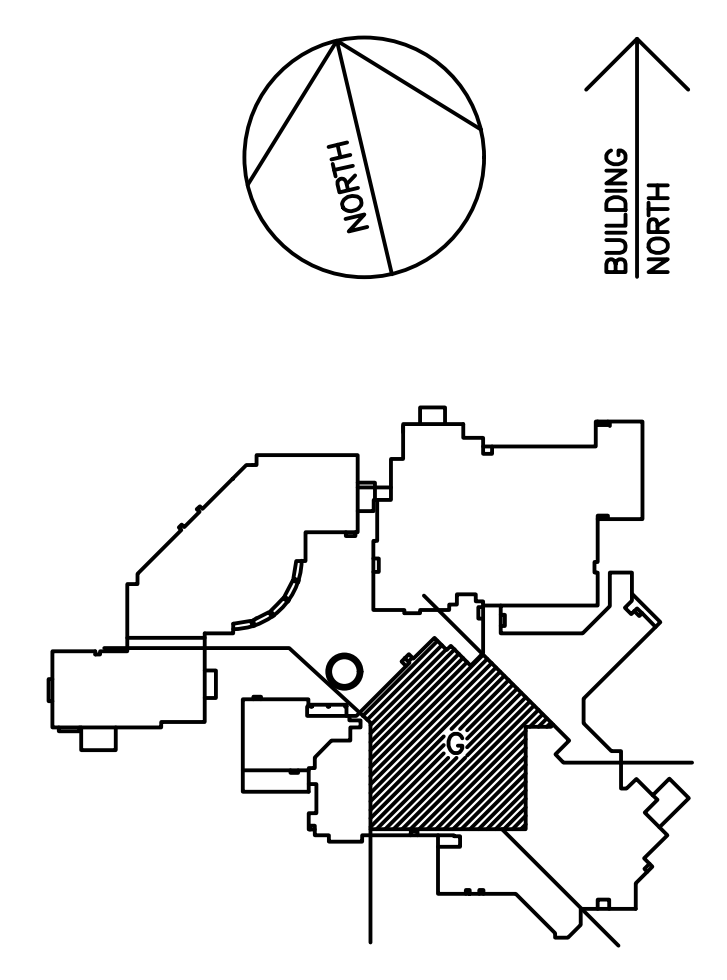
PROJ. NO. 21090002
 DATE: 01/24/2022
 DESIGNED BY: MDK
 DRAWN BY: MDK
 CHECKED BY: MDK

REVISIONS

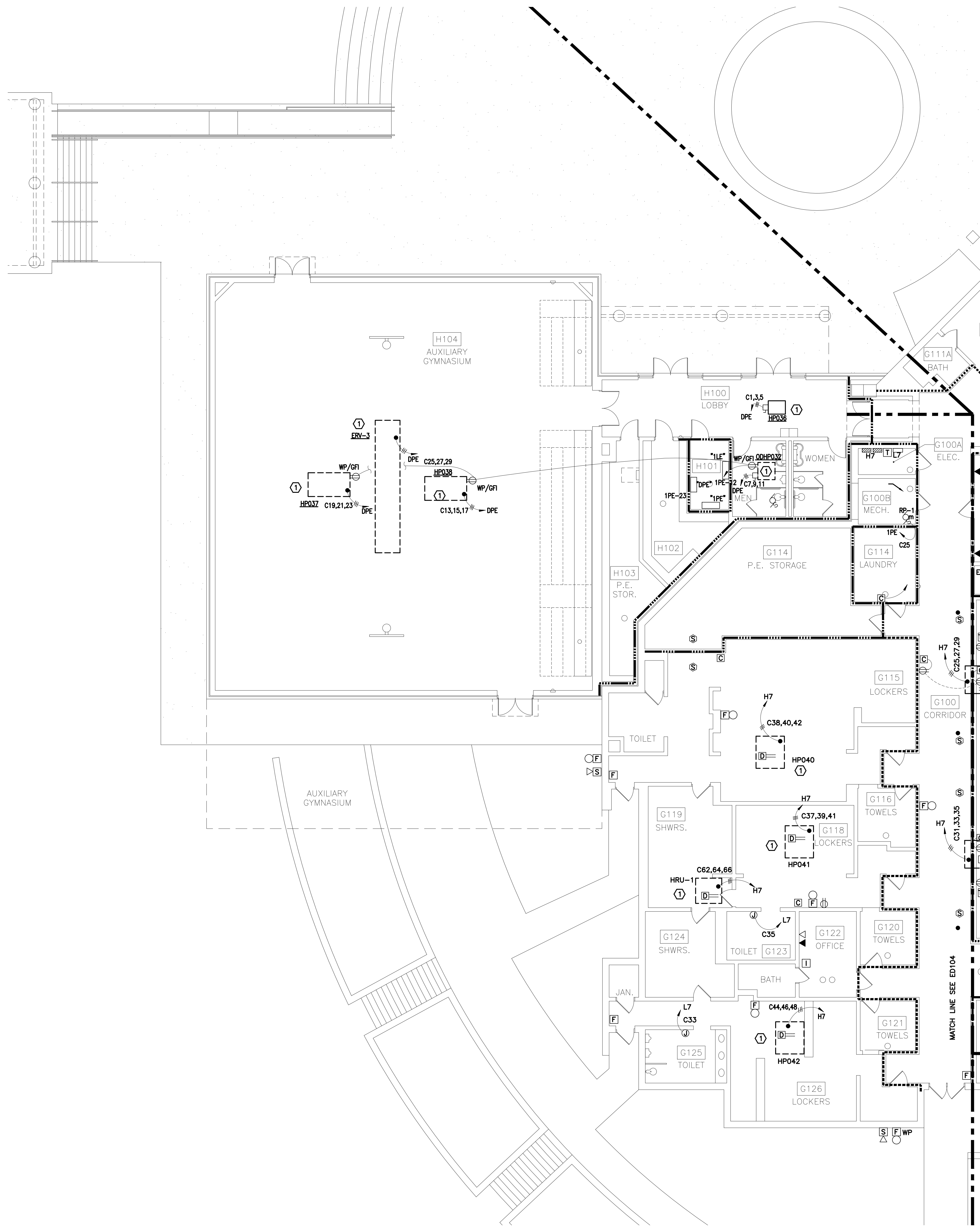
NO.	DATE	NOTES

**FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA G
 DEMOLITION**

ED104



FIRST FLOOR ELECTRICAL POWER PLAN AREA G -- DEMOLITION
 SCALE: 1/8" = 1'-0"



FIRST FLOOR ELECTRICAL POWER PLAN AREA H - DEMOLITION
SCALE: 1/8" = 1'-0"

DEMO KEY NOTES
 ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK.



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NO.	DATE	NOTES

**FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA H
 DEMOLITION**

ED105



**AYNOR HIGH SCHOOL
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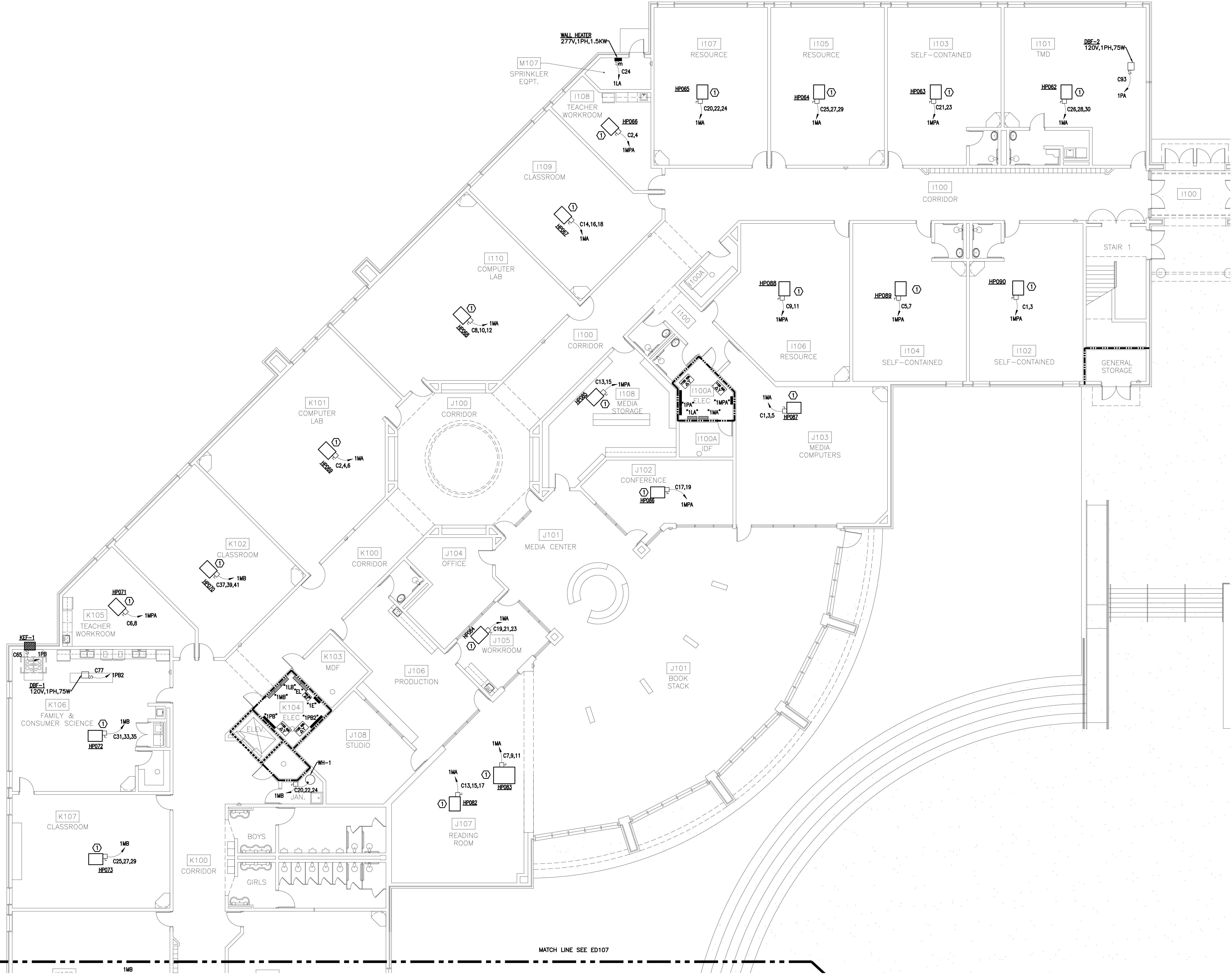
REVISIONS

NO.	DATE	NOTES

**FIRST FLOOR
ELECTRICAL
POWER PLAN
AREA K
DEMOLITION**

ED106

DEMO KEY NOTES
① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



FIRST FLOOR ELECTRICAL POWER PLAN AREA K - DEMOLITION
SCALE: 1/8" = 1'-0"

DEMO KEY NOTES
 ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



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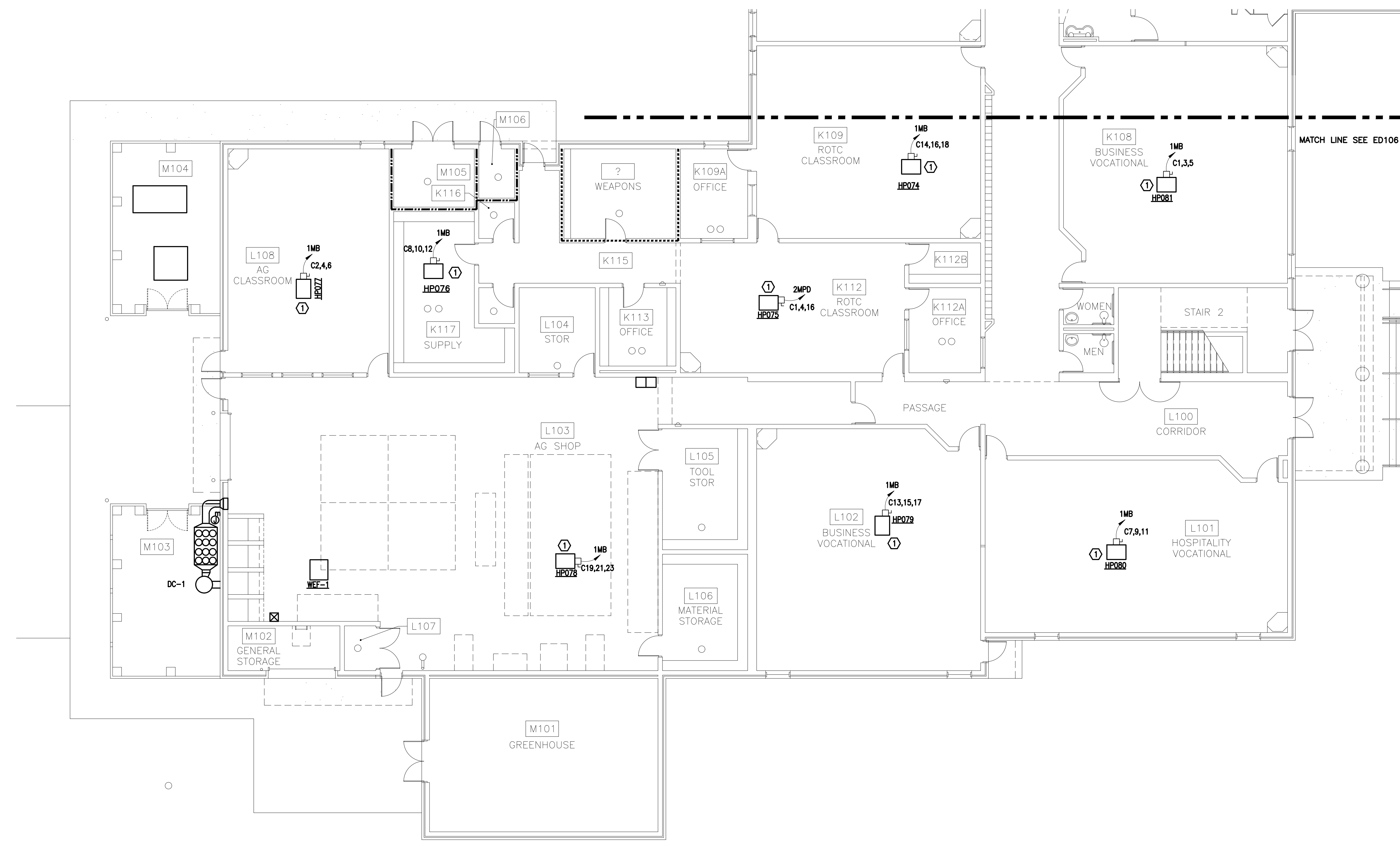
PROJ. NO. 21090002
 DATE: 01/24/2022
 DESIGNED BY: MDK
 DRAWN BY: MDK
 CHECKED BY: MDK

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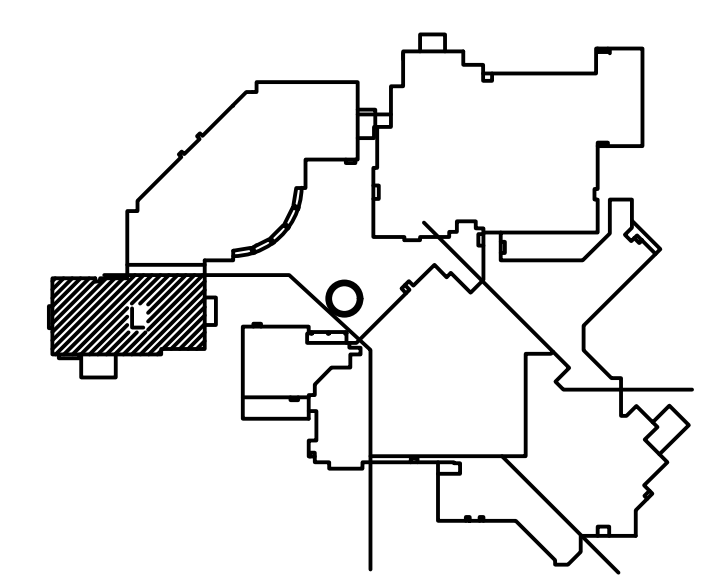
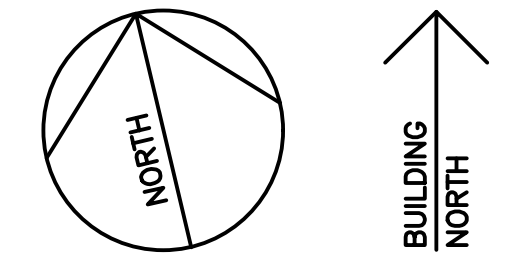
NO.	DATE	NOTES

FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA L
 DEMOLITION

ED107



FIRST FLOOR ELECTRICAL POWER PLAN AREA L - DEMOLITION
 SCALE: 1/8" = 1'-0"



DEMO KEY NOTES

- ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



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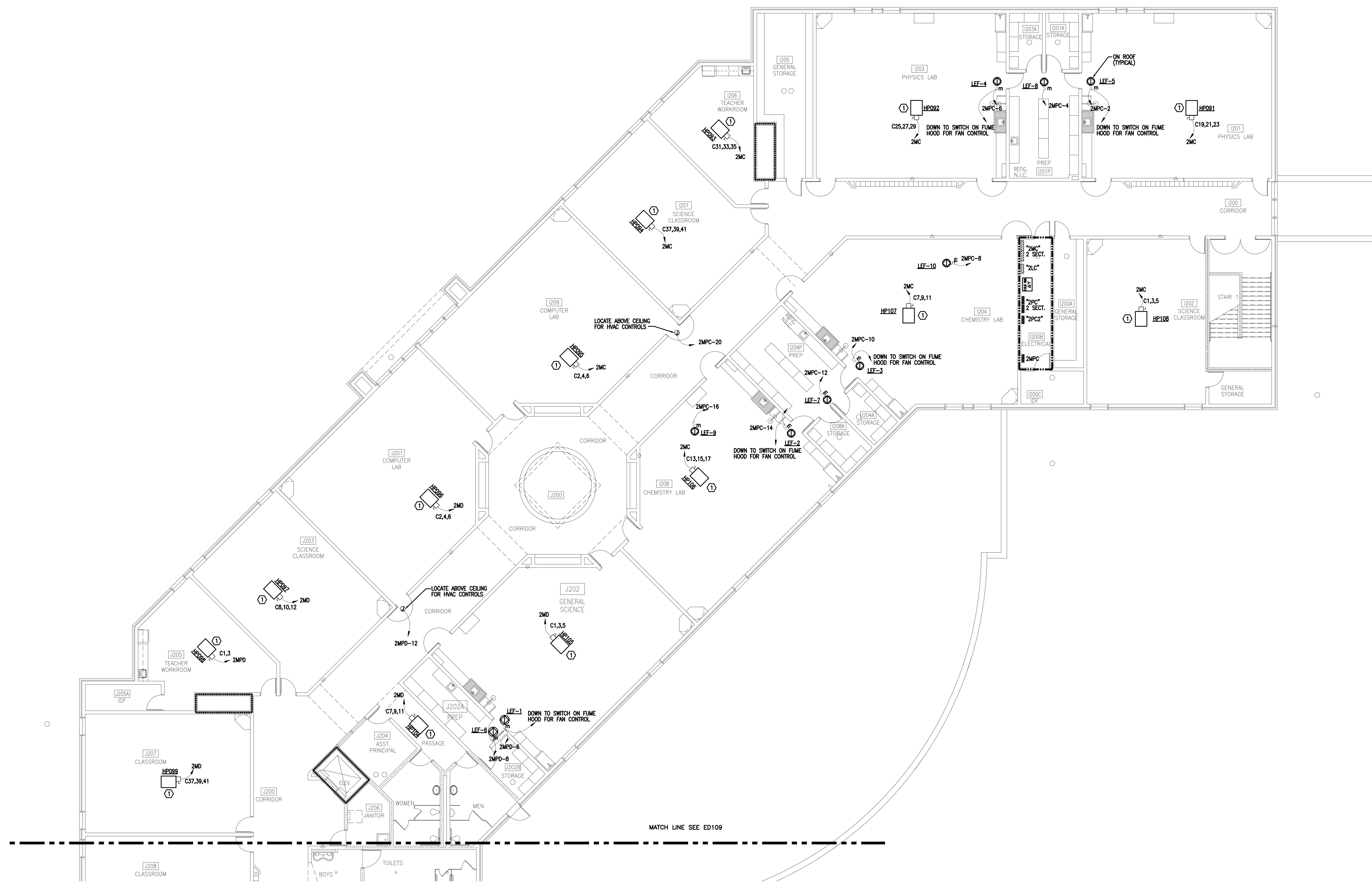
PROJ. NO. 21090002
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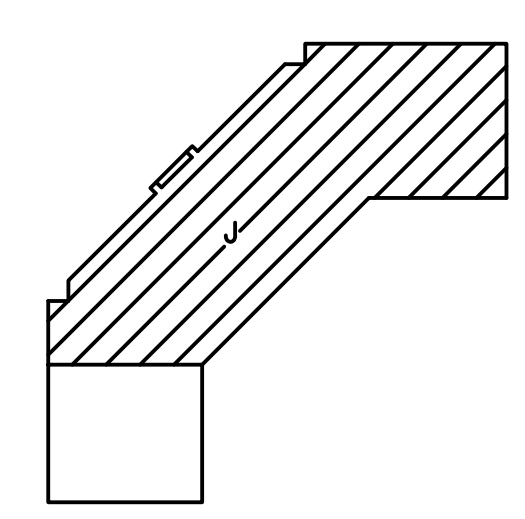
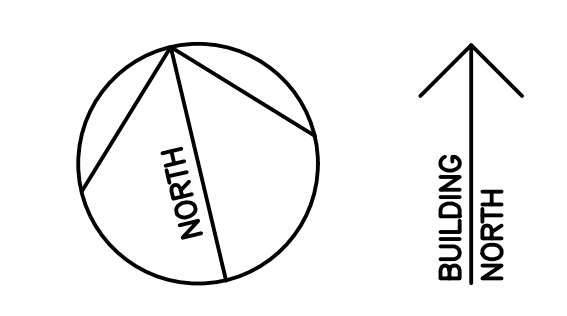
NO.	DATE	NOTES

**SECOND FLOOR
 ELECTRICAL
 POWER PLAN
 AREA J
 DEMOLITION**

ED108



MATCH LINE SEE ED109

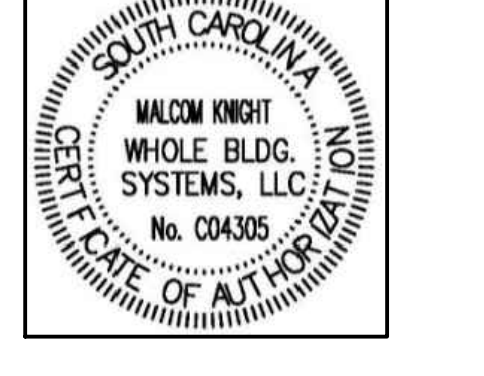


SECOND FLOOR ELECTRICAL POWER PLAN AREA J - DEMOLITION
 SCALE: 1/8" = 1'-0"

DEMO KEY NOTES
 ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



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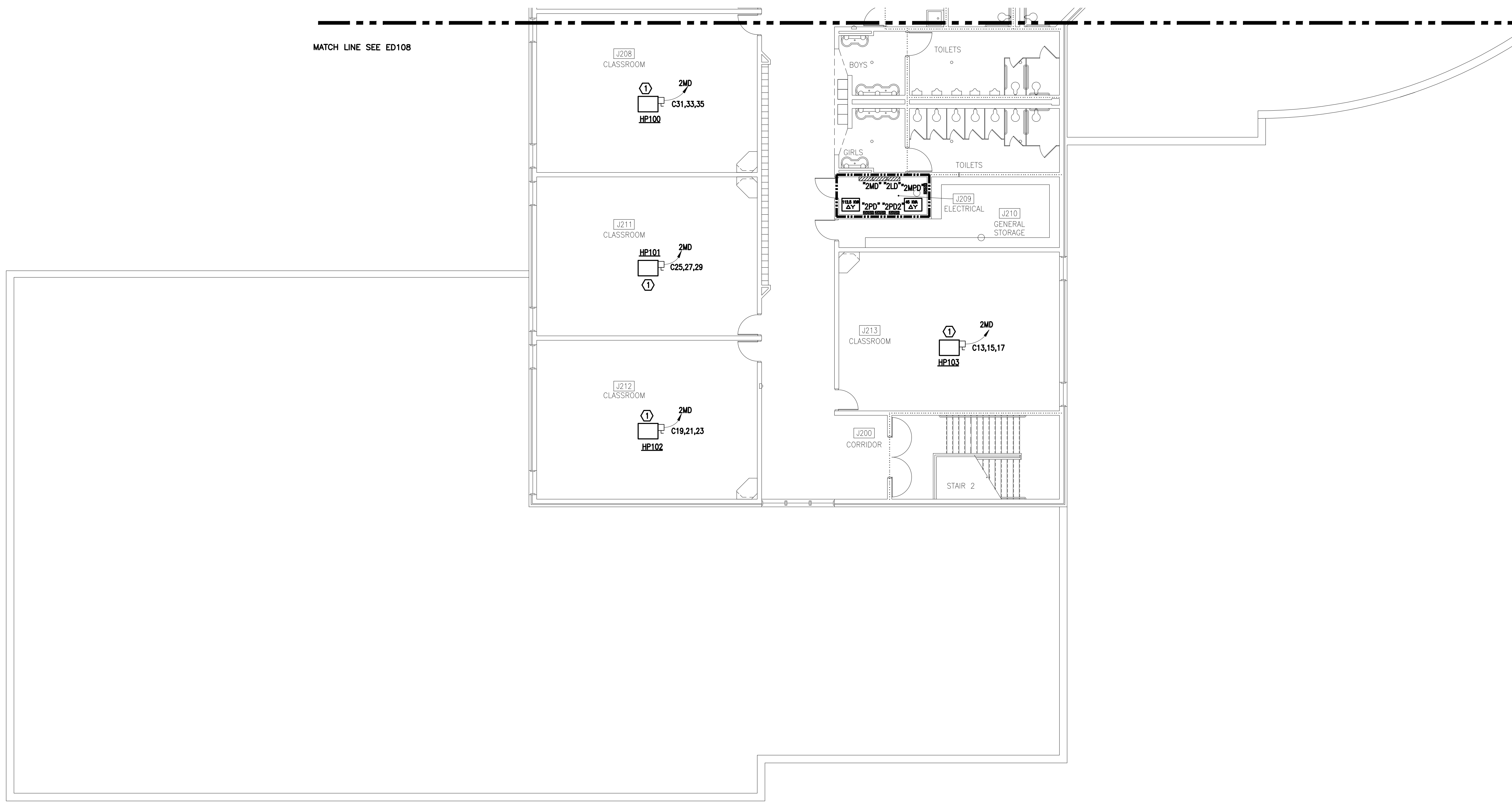
PROJ. NO. 21090002
 DATE: 01/24/2022
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REVISIONS

NO.	DATE	NOTES

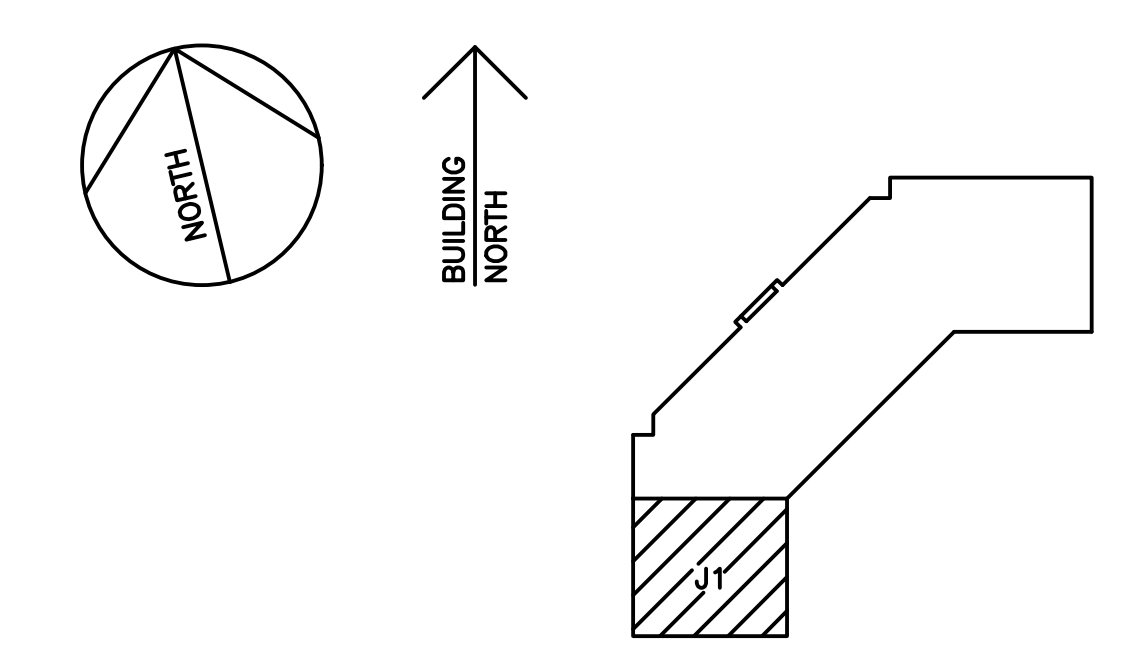
SECOND FLOOR
 ELECTRICAL
 POWER PLAN
 AREA J1
 DEMOLITION

ED109



MATCH LINE SEE ED108

SECOND FLOOR ELECTRICAL POWER PLAN AREA J1 - DEMOLITION
 SCALE: 1/8" = 1'-0"

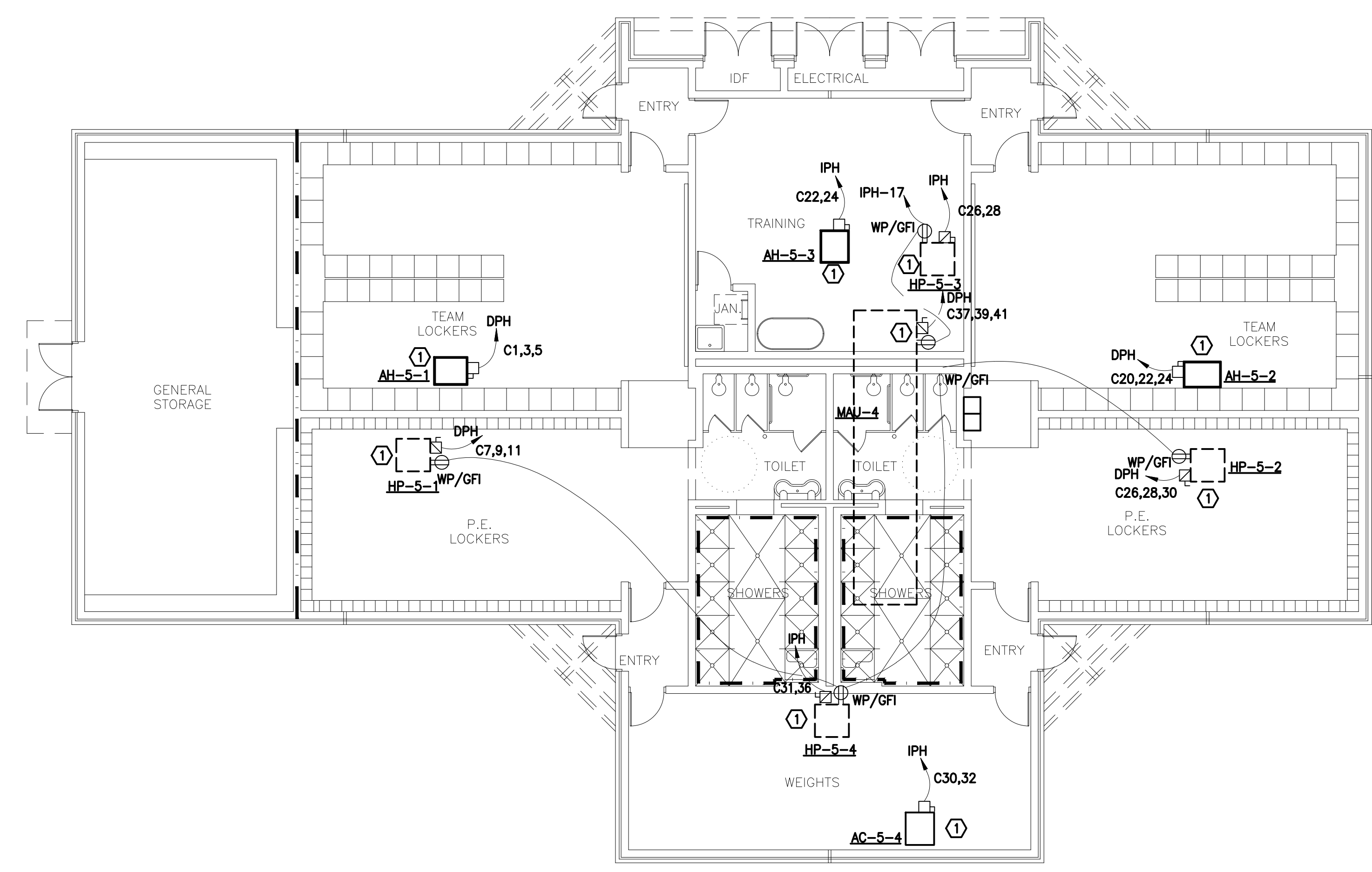
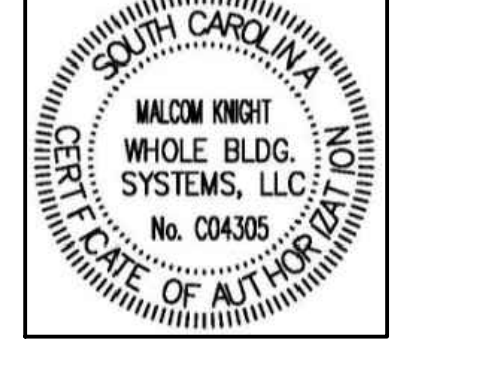


DEMO KEY NOTES

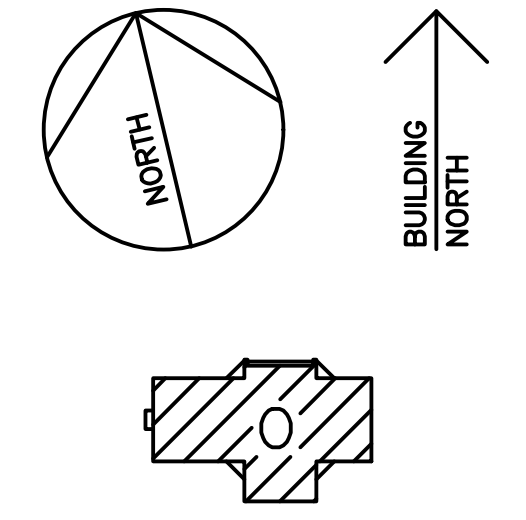
① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



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ELECTRICAL POWER PLAN AREA O - DEMOLITION
 SCALE: 1/8" = 1'-0"



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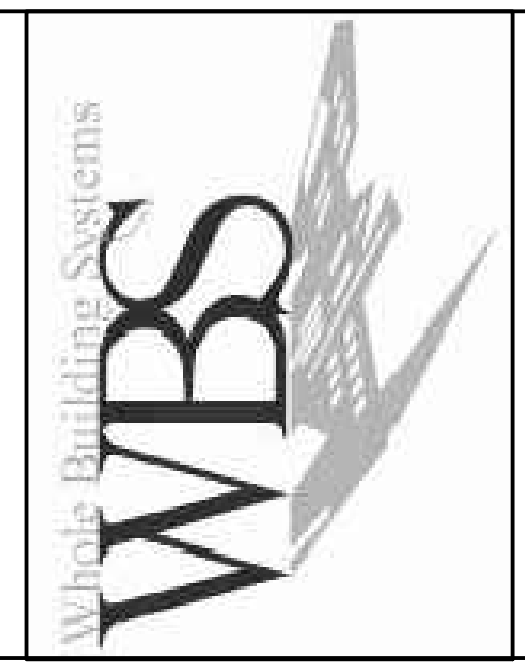
REVISIONS

NO.	DATE	NOTES

**ELECTRICAL
 POWER PLAN
 AREA O
 DEMOLITION**

ED110

DEMO KEY NOTES
 ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS, ROOF PENETRATIONS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



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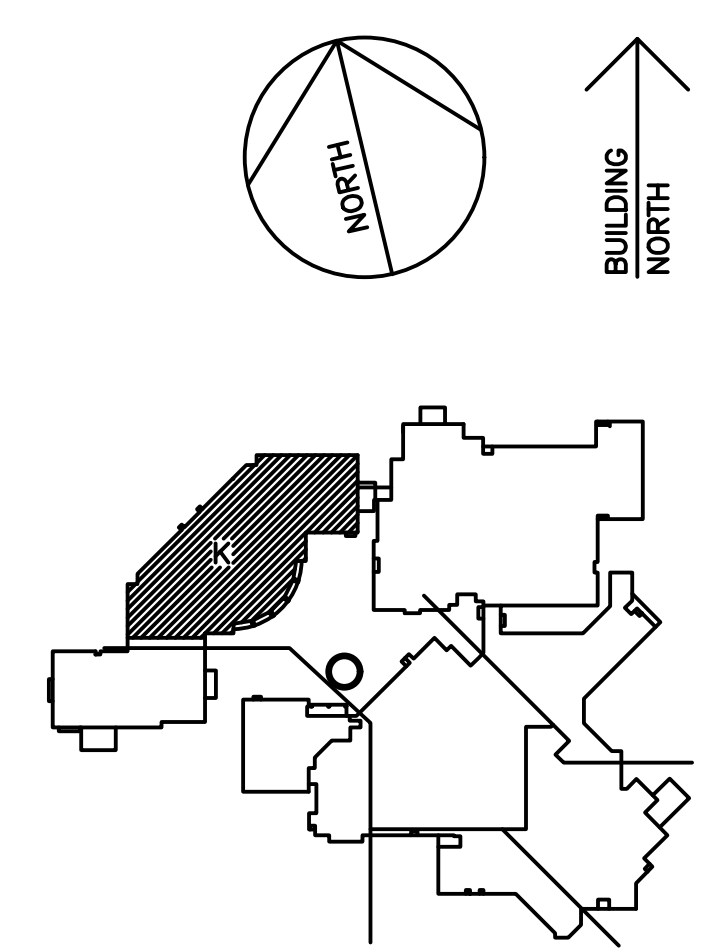
PROJ. NO. 21090002
 DATE: 01/24/2022
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NO.	DATE	NOTES

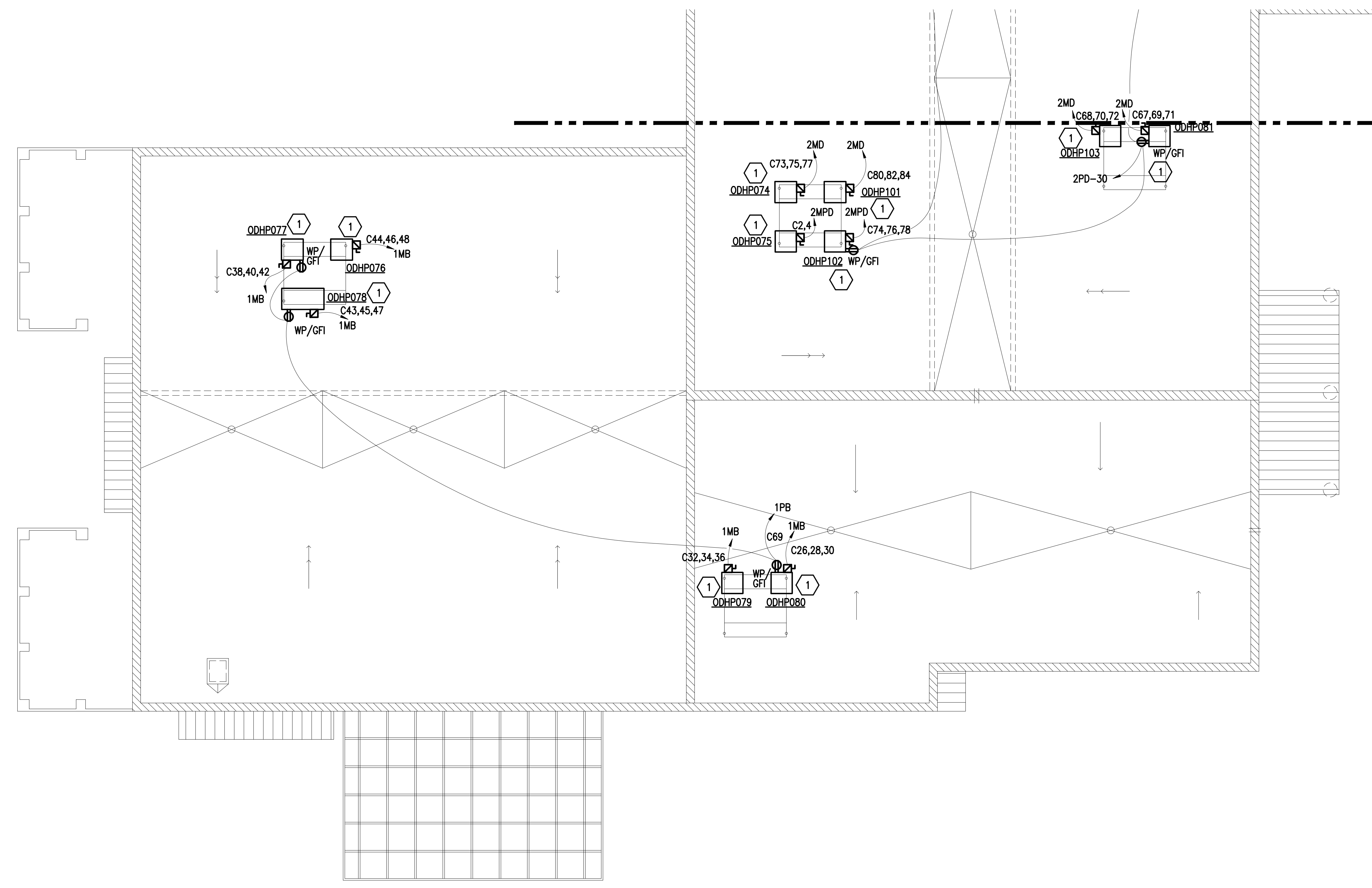
ROOF ELECTRICAL POWER PLAN AREA K DEMOLITION

ED111

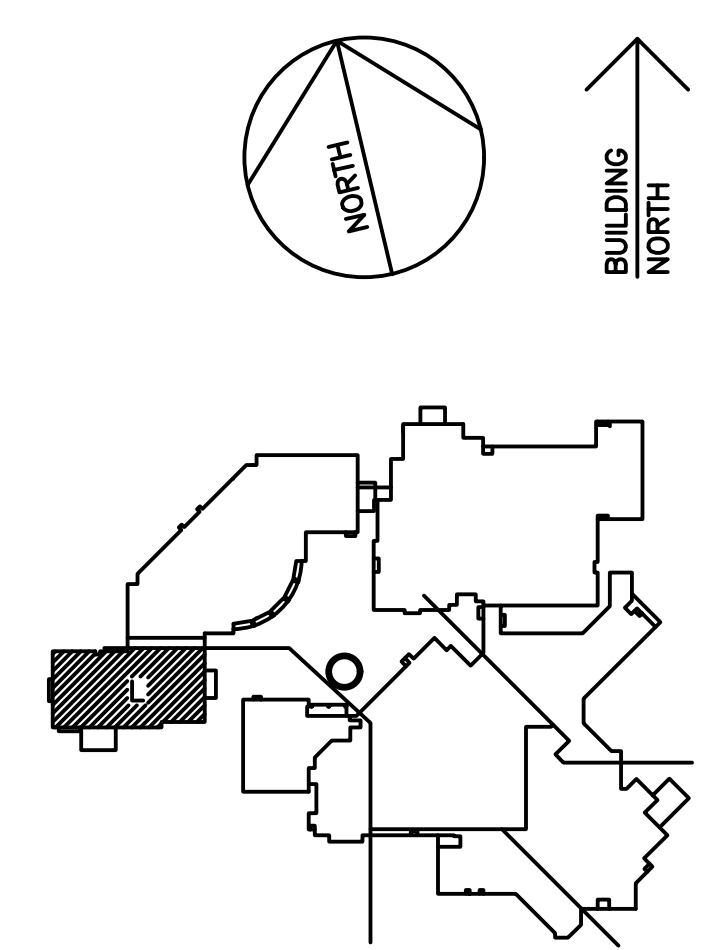


ROOF ELECTRICAL POWER PLAN AREA K - DEMOLITION
 SCALE: 1/8" = 1'-0"

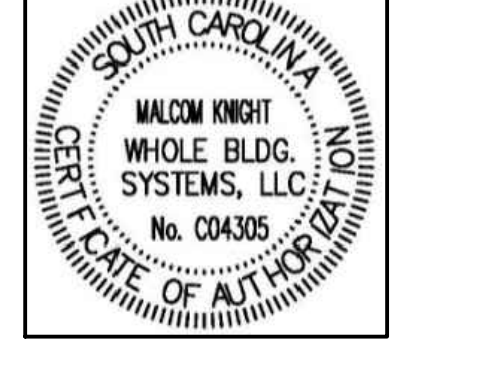
DEMO KEY NOTES
 ① DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS, ROOF PENETRATIONS AND RACEWAY FOR CONNECTION TO NEW WORK. TYPICAL ALL UNITS.



ROOF ELECTRICAL POWER PLAN AREA L - DEMOLITION
 SCALE: 1/8" = 1'-0"



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PROJ. NO. 21090002
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REVISIONS

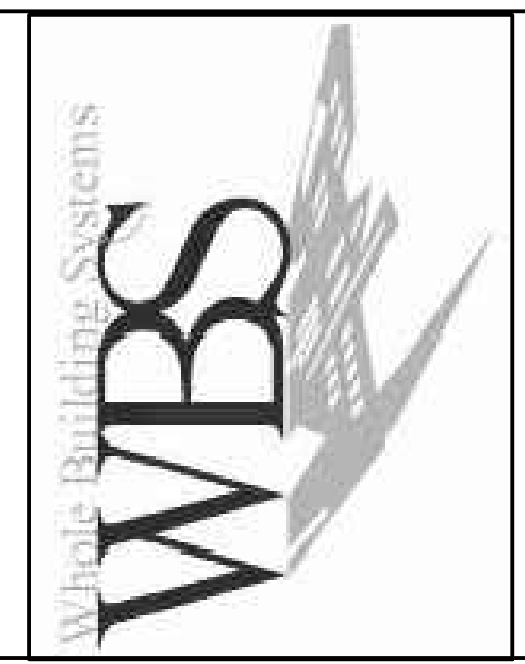
NO.	DATE	NOTES

ROOF ELECTRICAL POWER PLAN AREA L DEMOLITION

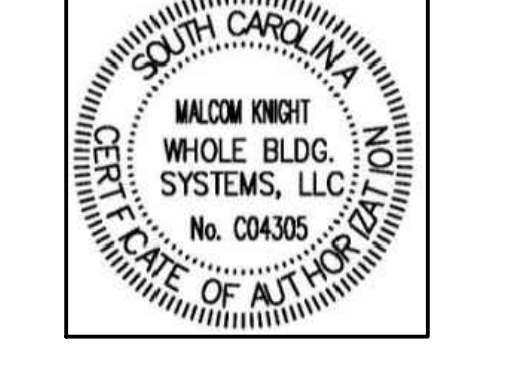
ED112



- NEW WORK KEY NOTES**
- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
 - ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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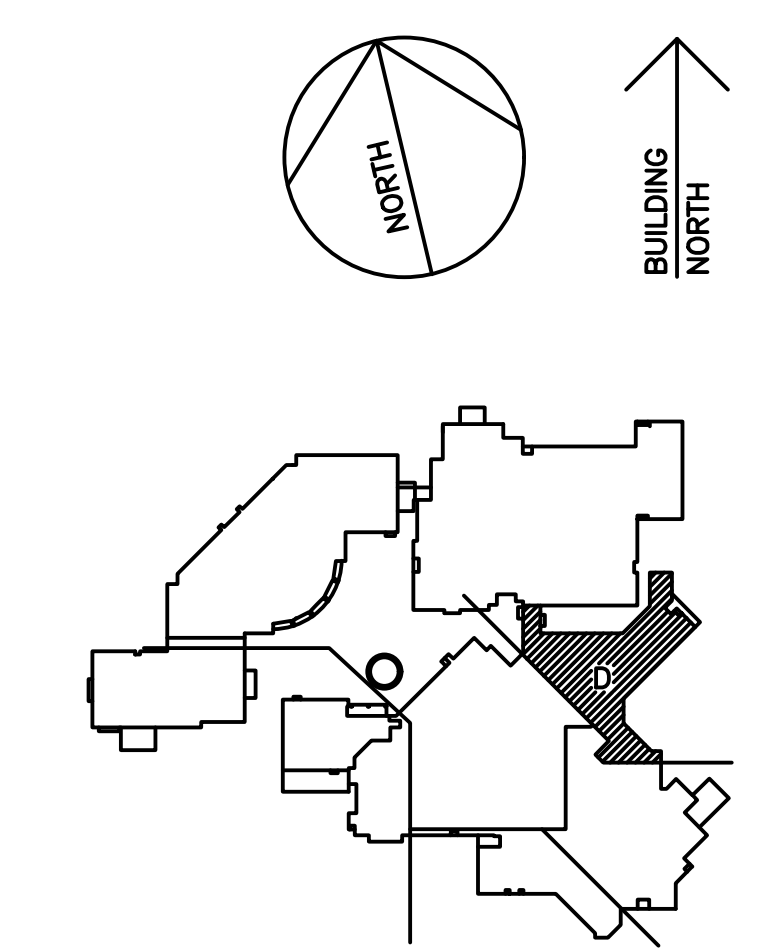
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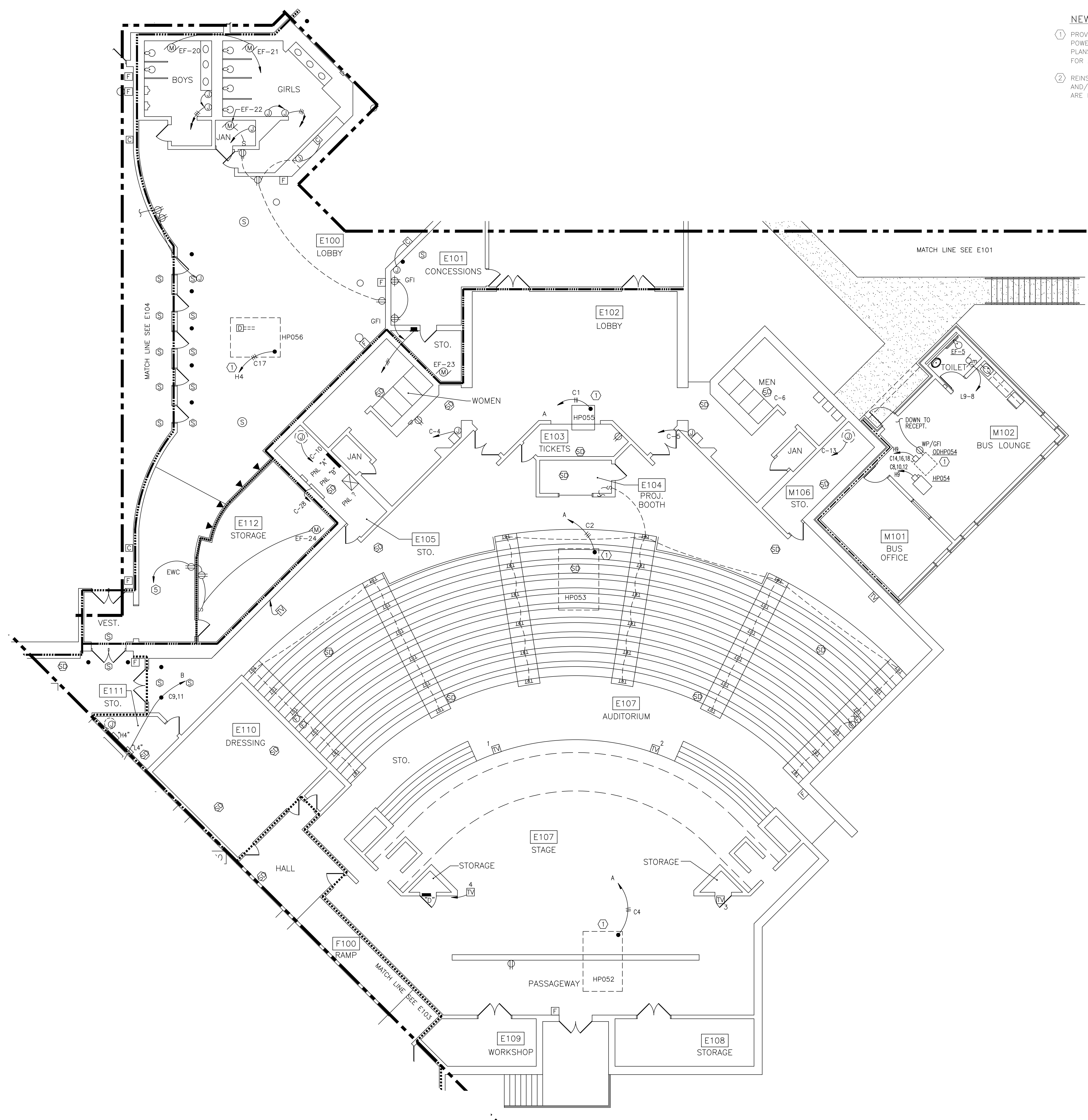
NO.	DATE	NOTES

FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA D
 NEW WORK

E101



FIRST FLOOR ELECTRICAL POWER PLAN AREA D - NEW WORK
 SCALE: 1/8" = 1'-0"

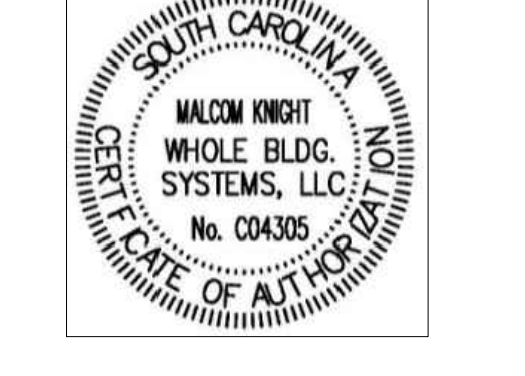


FIRST FLOOR ELECTRICAL POWER PLAN AREA E & M - NEW WORK
SCALE: 1/8" = 1'-0"

- NEW WORK KEY NOTES**
- 1 PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
 - 2 REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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CHECKED BY: MDK

REVISIONS		
NO.	DATE	NOTES

FIRST FLOOR
ELECTRICAL
POWER PLAN
AREA E & M
NEW WORK

E102

NEW WORK KEY NOTES

- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
- ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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**AYNOR HIGH SCHOOL
 HVAC Replacement**
 201 JORDANVILLE RD AYNOR, SC 29411

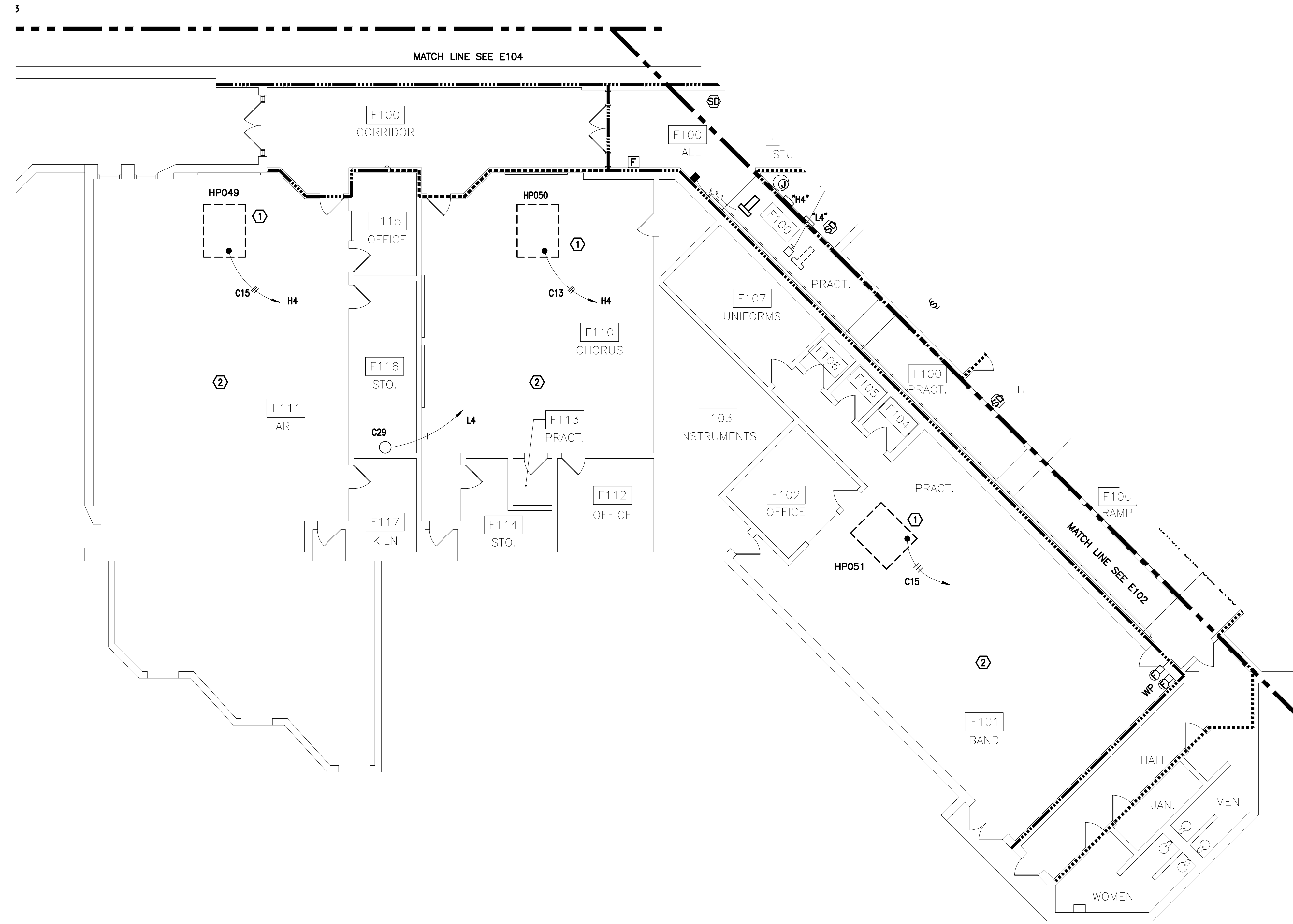
PROJ. NO. 21090002
 DATE: 01/24/2022
 DESIGNED BY: MDK
 DRAWN BY: MDK
 CHECKED BY: MDK

REVISIONS

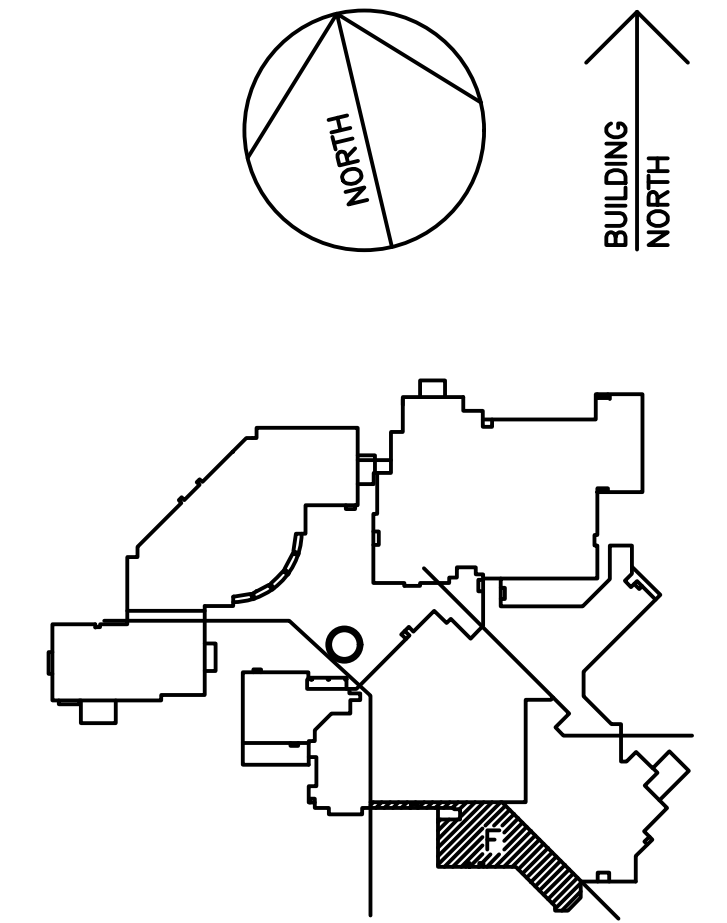
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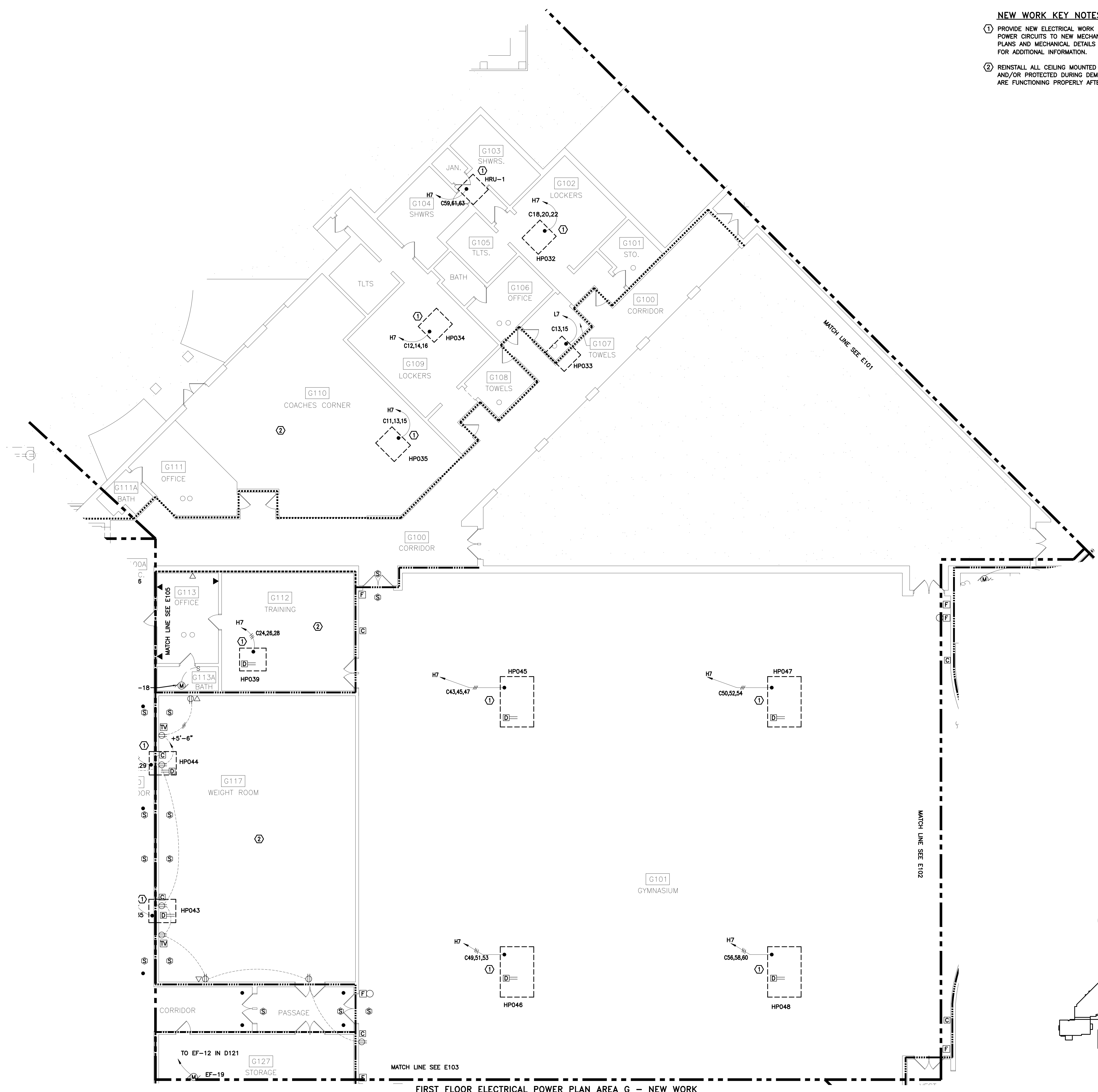
FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA F
 NEW WORK

E103



FIRST FLOOR ELECTRICAL POWER PLAN AREA F – NEW WORK
 SCALE: 1/8" = 1'-0"





- NEW WORK KEY NOTES**
- 1 PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
 - 2 REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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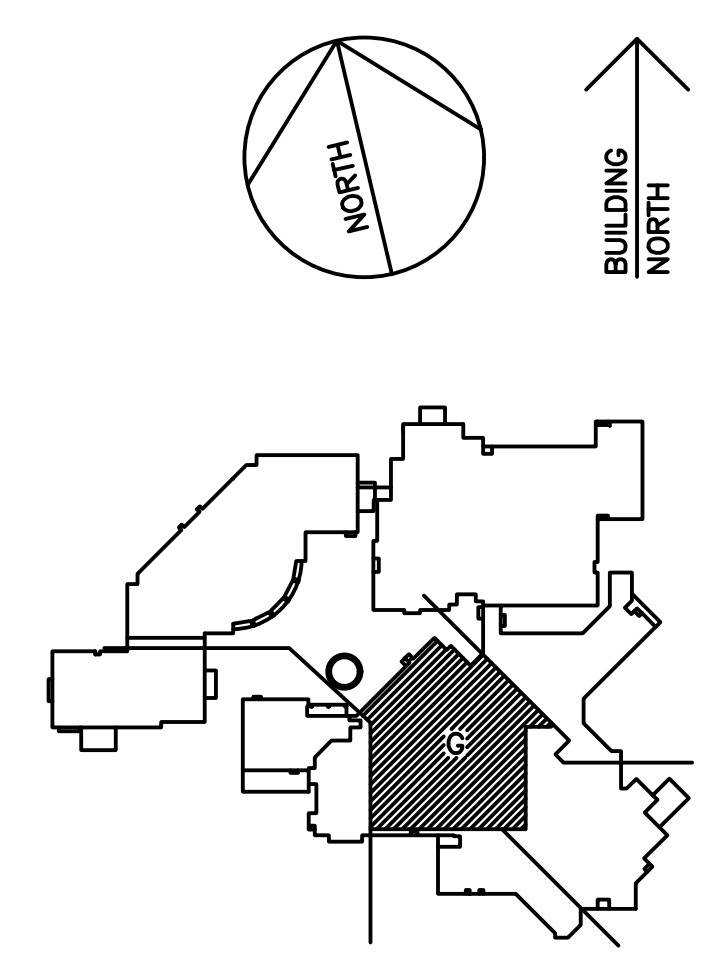
PROJ. NO. 21090002
 DATE: 01/24/2022
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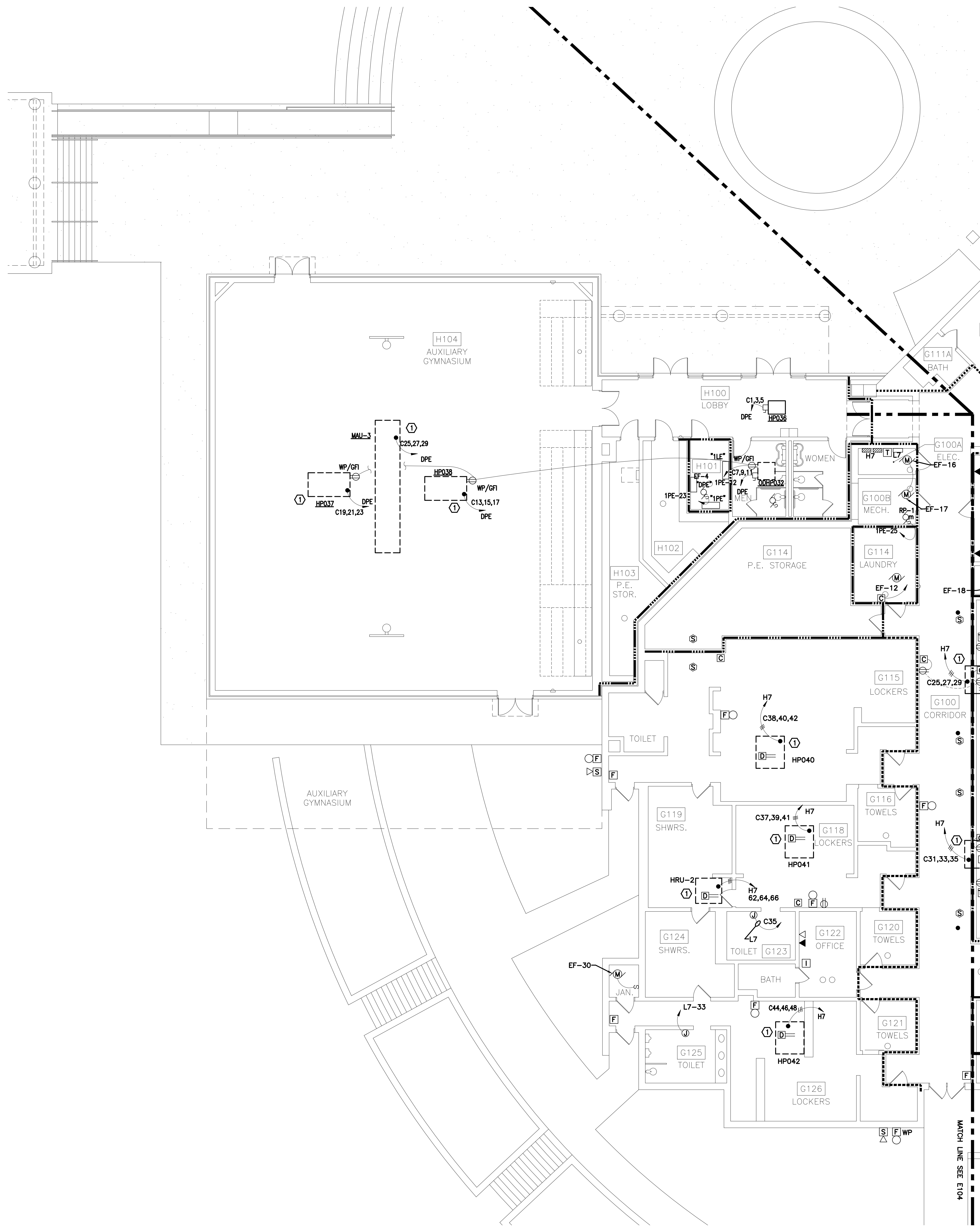
NO.	DATE	NOTES

FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA G
 NEW WORK

E104



FIRST FLOOR ELECTRICAL POWER PLAN AREA G -- NEW WORK
 SCALE: 1/8" = 1'-0"



- NEW WORK KEY NOTES**
- PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
 - REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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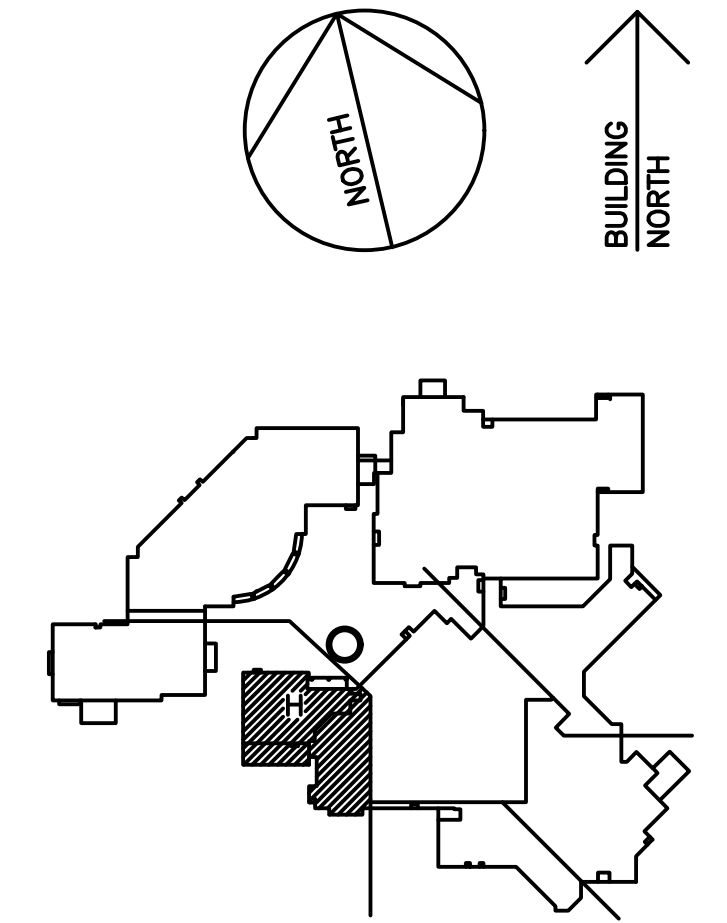
REVISIONS

NO.	DATE	NOTES

**FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA H
 NEW WORK**

E105

FIRST FLOOR ELECTRICAL POWER PLAN AREA H - NEW WORK
 SCALE: 1/8" = 1'-0"





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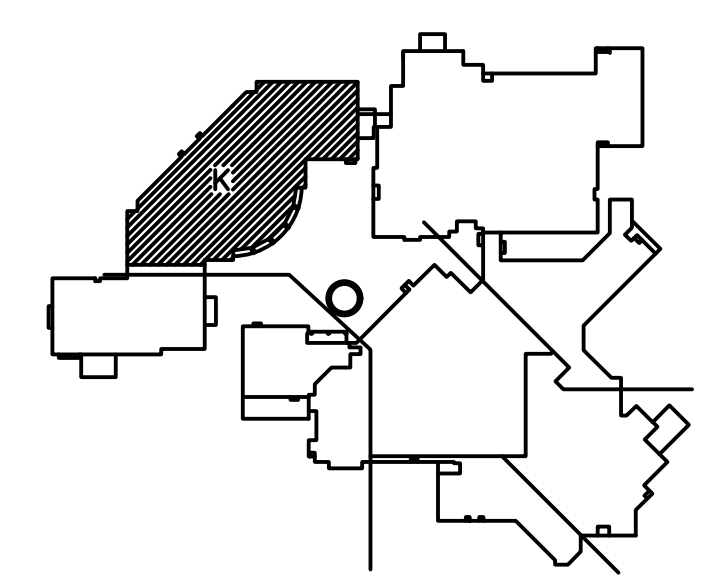
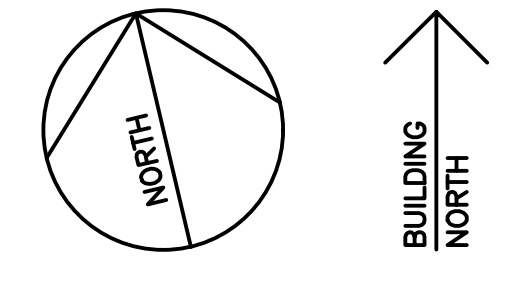
NO.	DATE	NOTES

FIRST FLOOR
ELECTRICAL
POWER PLAN
AREA K
NEW WORK

E106

NEW WORK KEY NOTES

- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
- ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION, TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



FIRST FLOOR ELECTRICAL POWER PLAN AREA K - NEW WORK
SCALE: 1/8" = 1'-0"

NEW WORK KEY NOTES

- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
- ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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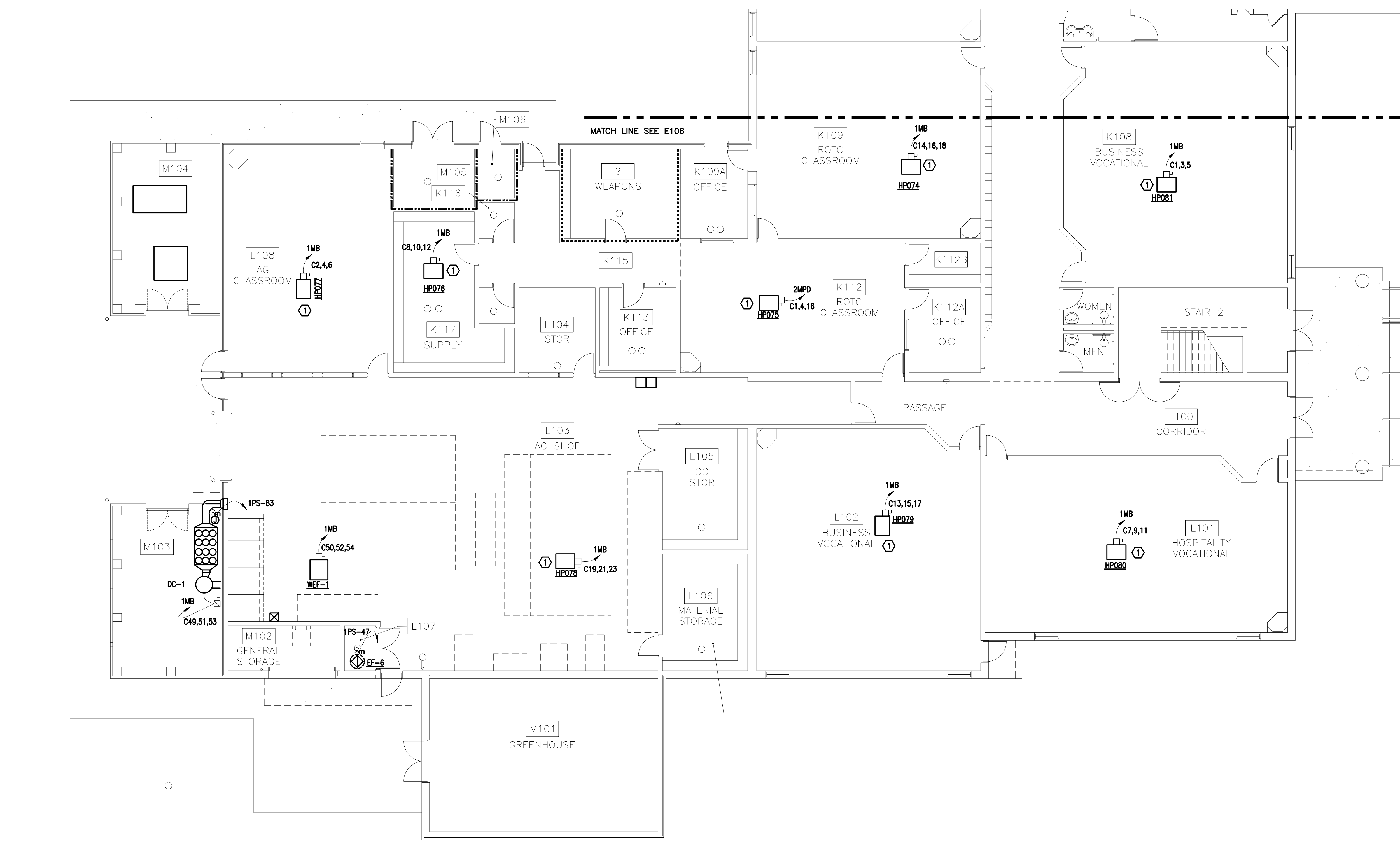
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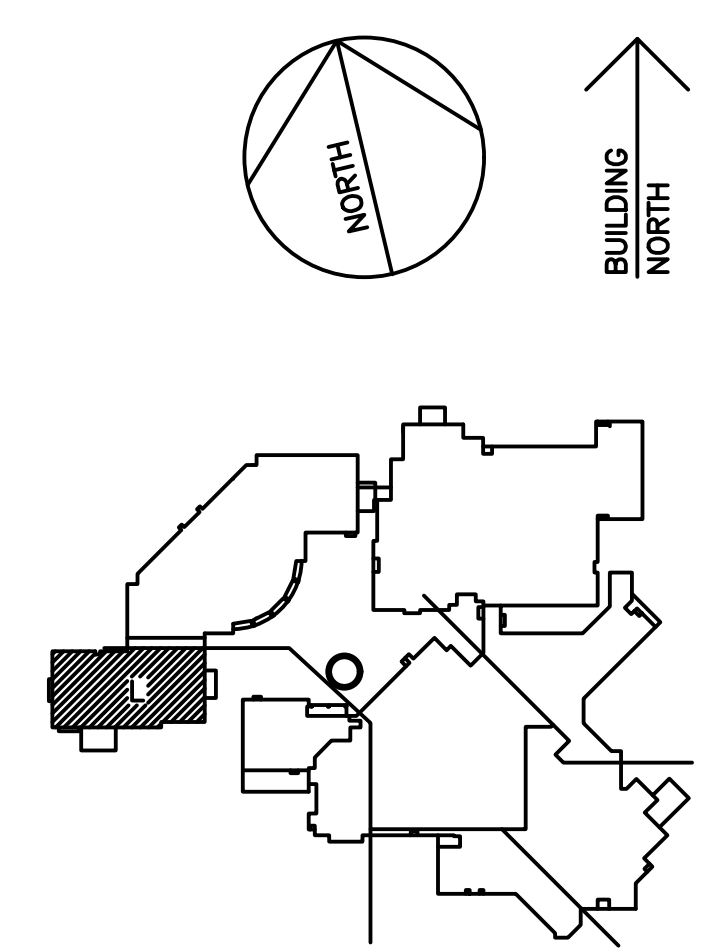
NO.	DATE	NOTES

**FIRST FLOOR
 ELECTRICAL
 POWER PLAN
 AREA L
 NEW WORK**

E107



FIRST FLOOR ELECTRICAL POWER PLAN AREA L - NEW WORK
 SCALE: 1/8" = 1'-0"



NEW WORK KEY NOTES

- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
- ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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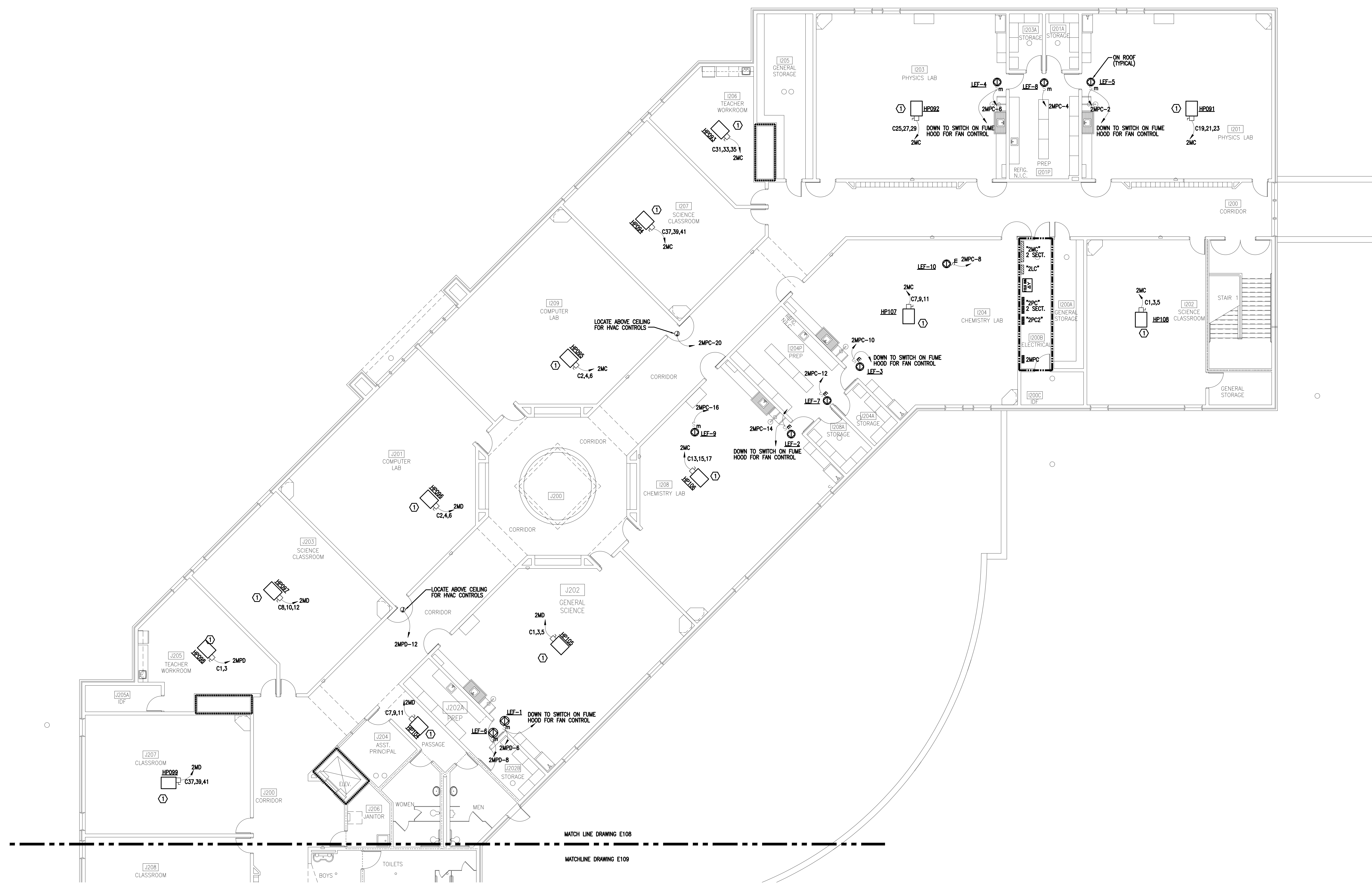
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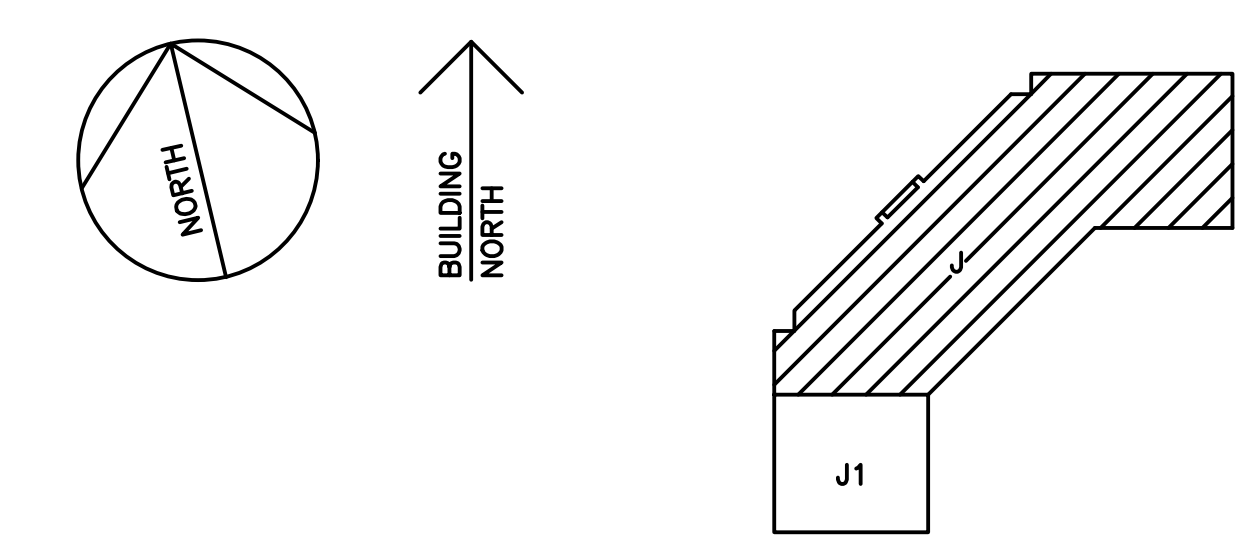
NO.	DATE	NOTES

**SECOND FLOOR
 ELECTRICAL
 POWER PLAN
 AREA J
 NEW WORK**

E108

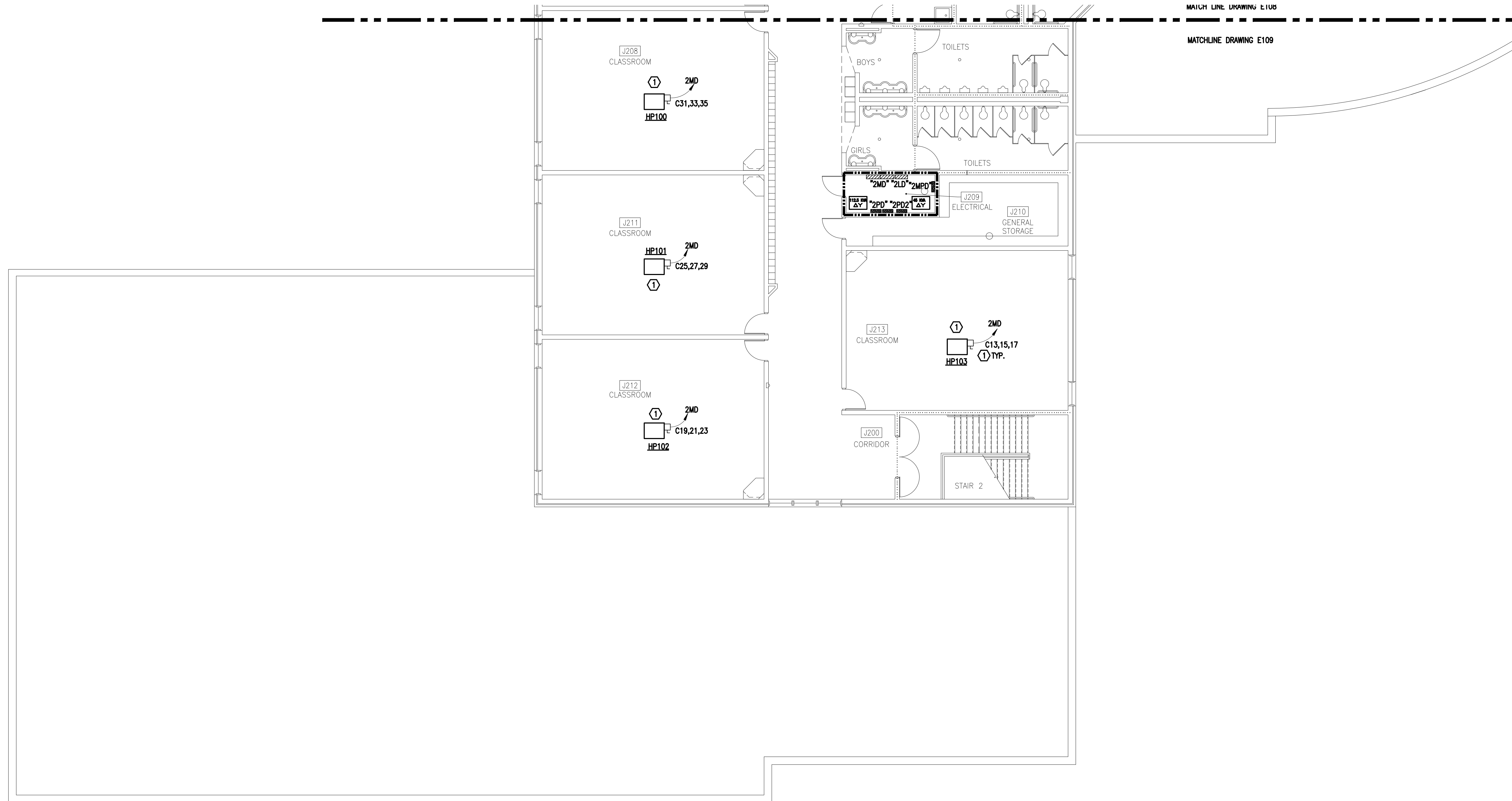


SECOND FLOOR ELECTRICAL POWER PLAN AREA J - NEW WORK
 SCALE: 1/8" = 1'-0"

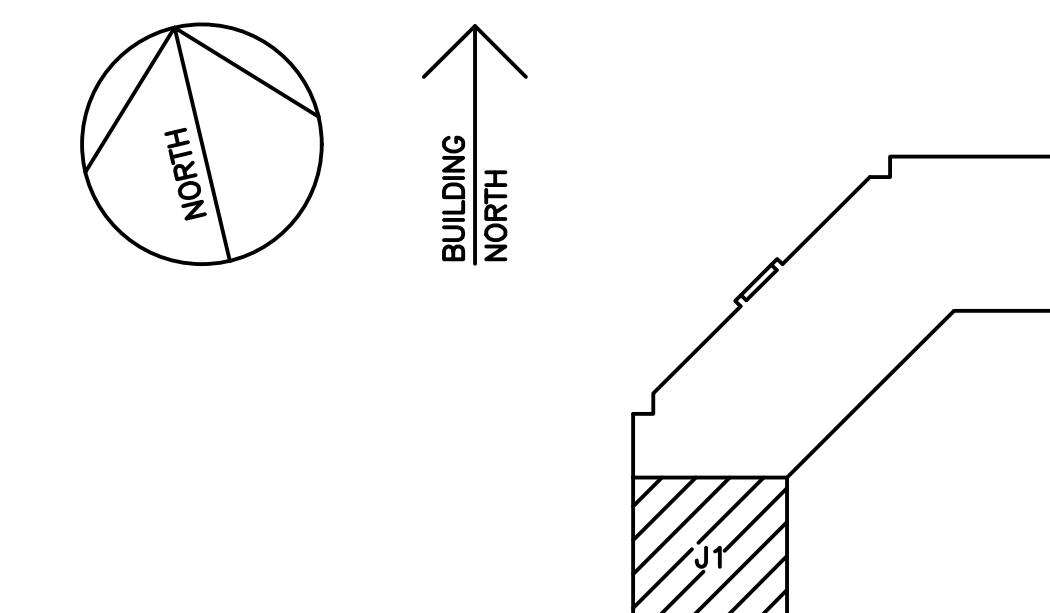


NEW WORK KEY NOTES

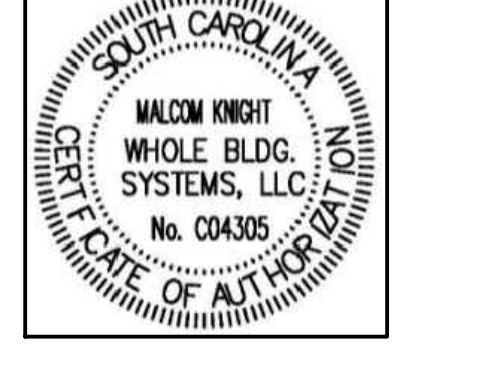
- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND MECHANICAL DETAILS 2 & 4 ON DRAWING M500 FOR ADDITIONAL INFORMATION.
- ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



SECOND FLOOR ELECTRICAL POWER PLAN AREA J1 - NEW WORK
SCALE: 1/8" = 1'-0"



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NO.	DATE	NOTES

**SECOND FLOOR
ELECTRICAL
POWER PLAN
AREA J1
NEW WORK**

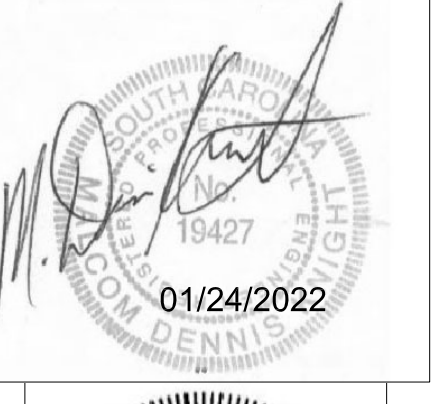
E109

NEW WORK KEY NOTES

- ① PROVIDE NEW ELECTRICAL WORK REQUIRED TO CONNECT EXISTING POWER CIRCUITS TO NEW MECHANICAL EQUIPMENT. SEE MECHANICAL PLANS AND DETAILS FOR ADDITIONAL INFORMATION. TYPICAL FOR ALL UNITS.
- ② REINSTALL ALL CEILING MOUNTED ELECTRICAL DEVICES STORED AND/OR PROTECTED DURING DEMOLITION. TEST AND CONFIRM DEVICES ARE FUNCTIONING PROPERLY AFTER REINSTALLATION.



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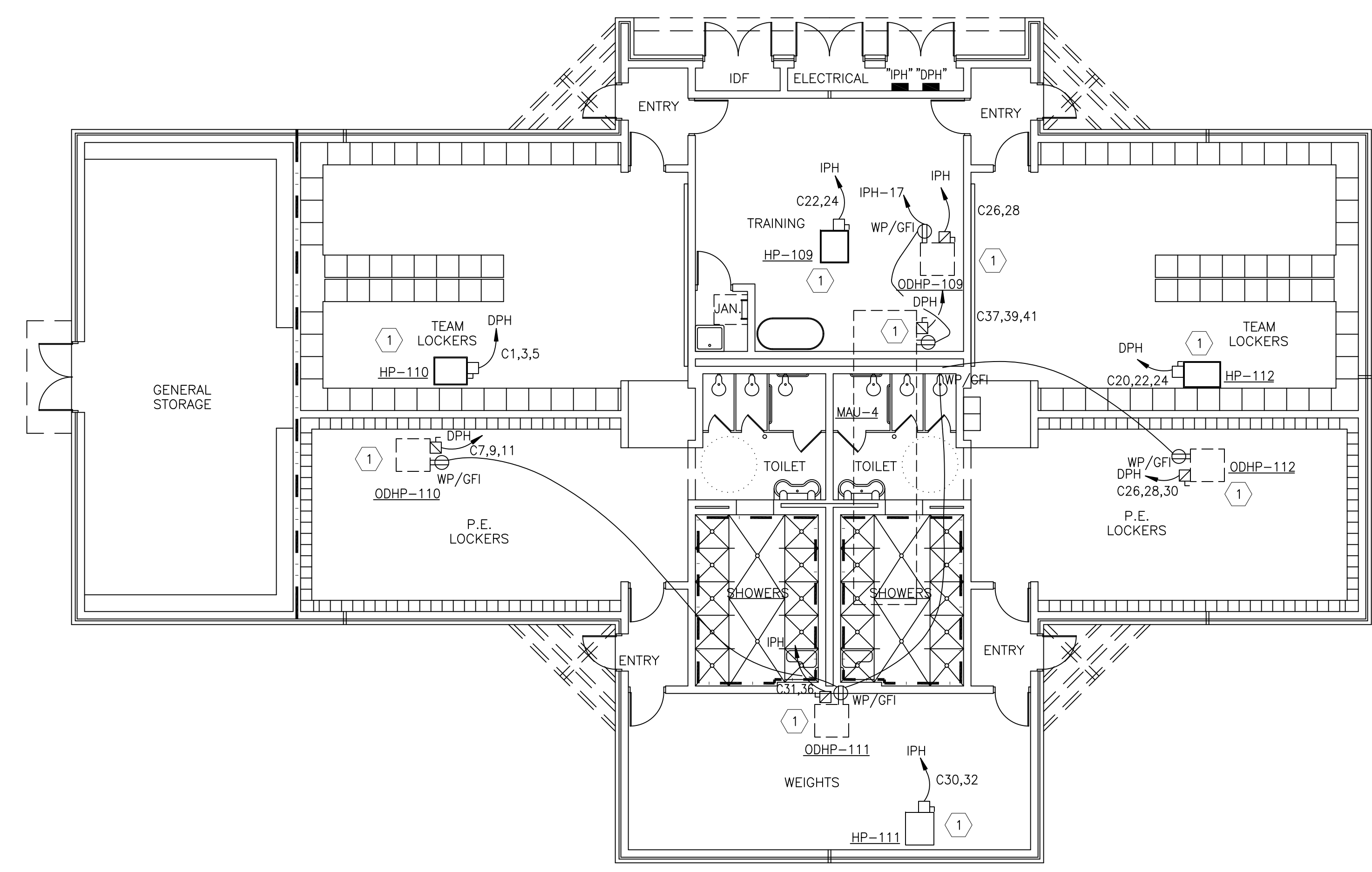
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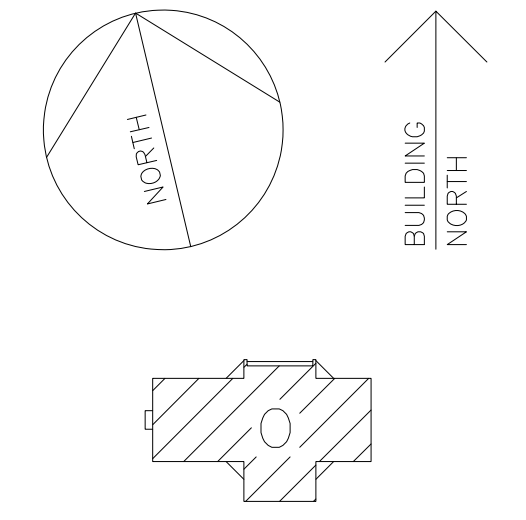
NO.	DATE	NOTES

**ELECTRICAL
 POWER PLAN
 AREA O
 NEW WORK**

E110



ELECTRICAL POWER PLAN AREA O - NEW WORK
 SCALE: 1/8" = 1'-0"



TAG	Type of Unit	ZONE	EX ELECTRICAL CHARACTERISTICS				NEW ELECTRICAL REQUIREMENTS									NOTES
			EX PANEL NAME	EX VOLT/P HASE	EX CIRCUIT NUMBER	EX CKT BKR SIZE (AMPERES)	EX WIRE SIZE	NEW PANEL NAME	NEW VOLT/PHASE	NEW CIRCUIT #	NEW CKT BKR SIZE (AMPERES)	NEW WIRE SIZE	NEW EQUIPMENT MCA	NEW EQUIPMENT MOCP		
HP032	RTU	Lockers G102,105,106	H7	480/3	18,20,22	45	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2	
HP033	RTU	Corridor G1007	L7	240/1	13,15	60	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP034	RTU	Lockers G109	L7	208/3	37,39,41	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	30	30	1.2	
HP035	RTU	Coaches Corner G110, G111	H7	480/3	11,13,15	45	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2	
HP036	Split System	Aux Gym Corridor & Storage H102	DPE	480/3	1,3,5	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP037	RTU	Aux Gym H104	DPE	480/3	19,21,23	45	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	44	45	1.2	
HP038	RTU	Aux Gym H104	DPE	480/3	13,15,17	45	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	44	45	1.2	
HP039	RTU	Training G112,113	H7	480/3	24,26,28	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	29	30	1.2	
HP040	RTU	Lockers & PE Storage G114,115	H7	480/3	38,40,42	45	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	44	45	1.2	
HP041	RTU	Lockers & Office G118,119,120,122,123	H7	480/3	37,39,41	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	30	30	1.2	
HP042	RTU	Lockers G126,125	H7	480/3	44,46,48	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	30	30	1.2	
HP043	RTU	Weight Room G117	H7	480/3	31,33,35	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	30	30	1.2	
HP044	RTU	Weight Room G117	H7	480/3	25,27,29	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	30	30	1.2	
HP045	RTU	Gym G101	H7	480/3	50,52,54	60	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	56	70	1.2	
HP046	RTU	Gym G101	H7	480/3	43,45,47	60	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	56	70	1.2	
HP047	RTU	Gym G101	H7	480/3	56,58,60	60	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	56	70	1.2	
HP048	RTU	Gym G101	H7	480/3	49,51,53	60	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	56	70	1.2	
HP049	RTU	Art F111, 115	2(H)4	480/3	13	50	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2,3	
HP050	RTU	Chorus F110, 112,113,114	2(H)4	480/3	15	70	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	30	30	1.2,3	
HP051	RTU	Band F101,102,103	2(H)4	480/3	15	70	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2,3	
HP052	RTU	Auditorium Stage E107, 108, 109	A	480/3	4	100	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	71.9	90	1.2	
HP053	RTU	Auditorium Seating E104, E110	A	480/3	2	100	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	71.9	90	1.2	
HP054	Split System	Bus Lounge & Office N101,102	H9	480/3	8,10,12	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP055	RTU	Auditorium Lobby and Bathrooms	A	480/3	1	50	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2	
HP056	RTU	Gym Lobby and Concessions	2(H)4	480/3	17	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	26.1	35	1.2,3	
HP057	RTU	Entry Lobby E100	H3 right	480/3	16	50	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2	
HP058	RTU	Dinning & Serving Line	H3 left	480/3	2	90	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	69.6	90	1.2	
HP059	RTU	Dinning D101	H3 left	480/3	4	125	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	82.4	100	1.2	
HP060	RTU	Dishwasher & Food Prep Area	LKB	208/3	22,24,26	100	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	98.8	100	1.2	
HP061	RTU	Dry Storage & Kitchen Office	LK	208/1	15	70	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2	
HP062	Split System	TMD I101 classroom	1MA	480/3	26,28,30	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP063	Split System	Self-Contained I103 classroom	1MPA	208/1	21,23	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	42	45	1.2	
HP064	Split System	Resource I105 classroom	1MA	480/3	25,27,29	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP065	Split System	Resource I107 classroom	1MA	480/3	20,22,24	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP066	Split System	Teacher Workroom I108	1MPA	208/1	2,4	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	42	45	1.2	
HP067	Split System	Classroom I109	1MA	480/3	14,16,18	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP068	Split System	Computer Lab I110	1MA	480/3	8,10,12	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP069	Split System	Computer Lab K101	1MA	480/3	2,4,6	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP070	Split System	Classroom K102	1MB	480/3	37,39,41	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP071	Split System	Teacher Workroom K105	1MPA	208/1	6,8	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	42	45	1.2	
HP072	Split System	Fam & Consumer Science K106	1MB	480/3	31,33,35	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP073	Split System	Classroom K107	1MB	480/3	25,27,29	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP074	Split System	ROTC Classroom K109	1MB	480/3	14,16,18	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP075	Split System	ROTC Classroom K112	2MPD	208/1	14,16	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP076	Split System	ROTC Dress, Weapons & Storage	1MB	480/3	8,10,12	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP077	Split System	AG Classroom I108	1MB	480/3	2,4,6	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP078	Split System	AG Shop I105,106,106	1MB	480/3	19,21,23	45	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41	45	1.2	
HP079	Split System	Business Vocation L102	1MB	480/3	13,15,17	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP080	Split System	Hospitality Voc & Corridor L101	1MB	480/3	7,9,11	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP081	Split System	Business Vocation K108	1MB	480/3	1,3,5	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP082	Split System	Reading Room I107	1MA	480/3	13,15,17	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP083	Split System	Book Stack J101	1MA	480/3	7,9,11	60	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	56	60	1.2	
HP084	Split System	Office, Prod, Studio, Restrooms	1MA	480/3	19,21,23	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP085	Split System	Media Storage I108	1MPA	208/1	13,15	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	42	45	1.2	
HP086	Split System	Conference J102	1MPA	208/1	17,19	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	42	45	1.2	
HP087	Split System	Media Computers J103	1MA	480/3	1,3,5	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP088	Split System	Resource I106	1MPA	208/1	9,11	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP089	Split System	Self-Contained I104	1MPA	208/1	5,7	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP090	Split System	Self-Contained I102	1MPA	208/1	1,3	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP091	Split System	Physics Lab I201	2MC	480/3	19,21,23	30	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP092	Split System	Physics Lab & Prep I203	2MC	480/3	25,27,29	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP093	Split System	Gen Storage & Teacher Wrkrm & Corr	2MC	480/3	31,33,35	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP094	Split System	Science Classroom J207	2MC	480/3	37,39,41	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP095	Split System	Computer Lab I209	2MD	480/3	2,4,6	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP096	Split System	Computer Lab I201	2MD	480/3	2,4,6	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP097	Split System	Science Classroom J203	2MD	480/3	8,10,12	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP098	Split System	Teacher Workroom J205	2MPD	208/1	1,3	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	42	45	1.2	
HP099	Split System	Classroom J207	2MD	480/3	37,39,41	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP100	Split System	Classroom J208	2MD	480/3	31,33,35	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP101	Split System	Classroom J211	2MD	480/3	25,27,29	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP102	Split System	Classroom J212	2MD	480/3	19,21,23	20	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
HP103	Split System	Classroom J213	2MD	480/3	13,15,17	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP104	Split System	AP & Restrooms J204	2MD	480/3	7,9,11	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP105	Split System	General Science J202	2MD	480/3	1,3,5	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP106	Split System	Chemistry Lab I208	2MC	480/3	13,15,17	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP107	Split System	Chemistry Lab I204	2MC	480/3	7,9,11	30	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP108	Split System	Science Classroom I202	2MC	480/3	1,3,5	30	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP109	Split System	H Fieldhouse training	IPH	208/1	22,24	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP110	Split System	H Fieldhouse lockers	DPH	480/3	1,3,5	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	
HP111	Split System	H Fieldhouse weights	IPH	208/1	30,32	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52	60	1.2	
HP112	Split System	H Fieldhouse lockers	DPH	480/3	20,22,24	40	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	25.6	30	1.2	

TAG	Type of Unit	ZONE	EX ELECTRICAL CHARACTERISTICS				NEW ELECTRICAL REQUIREMENTS									NOTES
			EX PANEL NAME	EX VOLT/P HASE	EX CIRCUIT NUMBER	EX CKT BKR SIZE (AMPERES)	EX WIRE SIZE	NEW PANEL NAME	NEW VOLT/PHASE	NEW CIRCUIT #	NEW CKT BKR SIZE (AMPERES)	NEW WIRE SIZE	NEW EQUIPMENT MCA	NEW EQUIPMENT MOCP		
ODHP036	Split System	Aux Gym Corridor & Storage H102	DPE	480/3	7,9,11	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	17.1	20	1.2	
ODHP037	Split System	Bus Lounge & Office N101,102	H9	480/3	14,16,18	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	6	15	1.2	
ODHP038	Split System	TMD I101 classroom	2MC	480/3	32,34,36	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	6	15	1.2	
ODHP039	Split System	Self-Contained I103 classroom	2MPC	208/1	9,11	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	12	20	1.2	
ODHP040	Split System	Resource I105 classroom	2MC	480/3	26,28,30	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	8	15	1.2	
ODHP041	Split System	Resource I107 classroom	2MC	480/3	20,22,24	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	8	15	1.2	
ODHP042	Split System	Teacher Workroom I108	2MPC	208/1	25,27	15	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	12	20	1.2	
ODHP043	Split System	Classroom I109	2MC	480/3												