

JOHNSTON COUNTY PUBLIC SCHOOLS FOUR OAKS ELEMENTARY SCHOOL

BID SET

180 W HATCHER STREET
FOUR OAKS, NC 27524



GENERAL PATTERNS KEY

	EARTH		BRICK
	GYPSUM BOARD		STEEL
	GRAVEL TYPE I (ENGINEERED FILL)		GROUT
	PRECAST CONCRETE		ROUGH WOOD BLOCKING
	CRUSHED STONE		ROUGH WOOD BLOCKING, NON-CONTINUOUS
	CONCRETE MASONRY UNIT (CMU)		WOOD, FINISHED WOODWORK
	METAL STUD PARTITION		PLYWOOD (LARGE SCALE)
	RIGID INSULATION		1 HR RATING
	BATT OR LOOSE INSULATION		2 HR RATING
	CAVITY DRAINAGE MAT		SMOKE RATING
	ALUMINUM		EXISTING BUILDING MATERIALS
	STANDING SEAM ROOF		TERRAZZO
	CONCRETE, POURED		

LOCATION MAP



PROJECT ABBREVIATIONS

AF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AWP	ACOUSTICAL WALL PANEL
ADJ	ADJACENT
AUC	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
AB	ANCHOR BOLT
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
AD	AREA DRAIN
ACHM	ASBESTOS CONTAINING MATERIAL
B	AT
AUTO	AUTOMATIC
BP	BEARING PLATE
BM	BENCH MARK
BTUM	BITUMINOUS
BLK	BLOCK
BLKG	BLOCKING
BD	BOARD
ENTR	BOTTOM
BRK	BRICK
BDDO	BUILDING
EST	BULLNOSE
CAB	CABINET
EXIST	CAST IRON
CB	CATCH BASIN OR CHALK BOARD
CLD	CEILING
CLG HT	CEILING HEIGHT
CL	CENTER LINE
CER	CERAMIC
CIRC	CIRCUMFERENCE
CO	CLEAN OUT
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CJT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CJ	CONTROL JOINT
DP	DAMP PROOFING
DEMO	DEMOLISH
DEPT	DEPARTMENT

DET.DTL	DETAIL
DIA	DIAMETER
DM	DIMENSION
DISP	DISPENSER
DSP	DISPOSAL
DO	DITTO, REPEAT, SAME
DR	DOOR
DBL	DOUBLE
DN	DOWN
DS	DOWNSPOUT
DT	DRAIN TILE
DWR	DRAWER
DWG	DRAWING
DF	DRINKING FOUNTAIN
EA	EACH
EF	EACH FACE
EW	EACH WAY
E	EAST
ELEC	ELECTRICAL
ELEV	ELEVATION
BL	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENTR	ENTRANCE
EQ	EQUA
ESQIP	EQUIPMENT
EST	ESTIMATE[D]
EXHST	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXPJ	EXPANSION JOINT
FAB	FABRICATE
FT	FEET
FIGR	FIGURE
FIN	FINISH
FF	FINISH FLOOR
FE	FIRE EXTINGUISHER CABINET
FH	FIRE HOSE
FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
FND	FOUNDATION
FS	FULL SIZE
FUT	FUTURE
GALV	GALVANIZED
G	GAS
GA	GAUGE
GEN	GENERAL

GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GRB	GRAB BAR
GR	GRADE, GRADING
GSF	GROSS SQUARE FOOT
GYP	GYPSUM
GYP BD	GYPSUM BD
GWB	GYPSUM WALL BOARD
HDWP	HARDWARE
HDWD	HARDWOOD
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HT, HGT	HEIGHT
HEX	HEXAGONAL
Hwy	HIGHWAY
HM	HOLLOW METAL
HORZ	HORIZONTAL
HB	HOSE BIBB
HW	HOT WATER
HR	HOUR
IN	INCH
INCL	INCLUDING
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
INTERM	INTERMEDIATE
INV	INVERT
JAN	JANITOR
JS	JANITOR SINK
JT	JOINT
KIT	KITCHEN
LBL	LABEL
LAB	LABORATORY
LAM	LAMINATE[D]
LAV	LAVATORY
LVR	LAYER
LEDR	LEADER
LH	LEFT HAND
LIB	LIBRARY
LT	LIGHT
LTW	LIGHT WEIGHT
MACH	MACHINE
MH	MAN HOLE
MHC	MAN HOLE COVER
MFR	MANUFACTURE
MFRF	MANUFACTURER
MAS	MASONRY
MO	MASONRY OPENING

MAT	MATERIALS
MECH	MECHANICAL
MT	METAL
MTL	METAL
M	METER
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
MR	MOISTURE RESISTANT
MTD	MOUNTED
NAT	NATURAL
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO, #	NUMBER
OC	ON CENTER
OPNG	OPENING
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PT	PAINT[ED]
PR	PAIR
TRK	THICKNESS
PTP	TOILET PAPER DISPENSER
TOS	TOP OF SLAB/STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
U	URINAL
VEN	VENEER
VIF	VERIFY IN FIELD
VEST	VESTIBULE
VOL	VOLUME
WC	WATER CLOSET
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWW	WELDED WIRE MESH
W	WEST
WIND	WINDOW
W	WITH
W/O	WITHOUT
WD	WOOD
YD	YARD

RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
SAN	SANITARY
SCHED	SCHEDULE
SEC	SECOND
SECT	SECTION
SM	SIMILAR
SSM	SOLID SURFACE MATERIAL
STC	SOUND TRANSMISSION COEFFICIENT
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
SGFT	STRUCTURAL GLAZED FACING TILE
ST STL	STRUCTURAL STEEL
STRUCT	STRUCTURE, STRUCTURAL
SUSP	SUSPENDED
SAT	SUSPENDED ACOUSTICAL TILE
TEL	TELEPHONE
TEMP	TEMPERATURE
THK	THICKNESS
TPD	TOILET PAPER DISPENSER
TOW	TOP OF WALL
TYP	TYPICAL
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
U	URINAL
VEN	VENEER
VIF	VERIFY IN FIELD
VEST	VESTIBULE
VOL	VOLUME
WC	WATER CLOSET
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWW	WELDED WIRE MESH
W	WEST
WIND	WINDOW
W	WITH
W/O	WITHOUT
WD	WOOD
YD	YARD

TEAM MEMBERS

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DRAWING LIST

GENERAL		
G001	APPENDIX B - BUILDING CODE SUMMARY	02/17/2025
G201	OVERALL LIFE SAFETY PLAN	02/17/2025
ARCHITECTURAL		
A101	OVERALL DEMOLITION FLOOR PLAN	02/17/2025
A101.1A	DEMOLITION PLAN AREA 1A	02/17/2025
A101.1BC	DEMOLITION PLAN AREA 1B AND 1C	02/17/2025
A101.1DE	DEMOLITION PLAN AREA 1D AND 1E	02/17/2025
A101.1FG	DEMOLITION PLAN AREA 1F AND 1G	02/17/2025
A101.1H	DEMOLITION PLAN AREA 1H	02/17/2025
A101.2	DEMOLITION PLAN AREA 2	02/17/2025
A101.3AB	DEMOLITION PLAN AREA 3A AND 3B	02/17/2025
A101.4AB	DEMOLITION PLAN AREA 4A AND 4B	02/17/2025
A201	OVERALL FLOOR PLAN	02/17/2025
A202	ROOF PLAN	02/17/2025
A301	BUILDING ELEVATIONS & SITE DETAILS	02/17/2025
A601	OVERALL REFLECTED CEILING PLAN	02/17/2025
A601.1A	REFLECTED CEILING PLAN AREA 1A	02/17/2025
A601.1BC	REFLECTED CEILING PLAN AREA 1B AND 1C	02/17/2025
A601.1DE	REFLECTED CEILING PLAN AREA 1D AND 1E	02/17/2025
A601.1FG	REFLECTED CEILING PLAN AREA 1F AND 1G	02/17/2025
A601.1H	REFLECTED CEILING PLAN AREA 1H	02/17/2025
A601.2	REFLECTED CEILING PLAN AREA 2	02/17/2025
A601.3AB	REFLECTED CEILING PLAN AREA 3A AND 3B	02/17/2025
A601.4AB	REFLECTED CEILING PLAN AREA 4A AND 4B	02/17/2025
HVAC		
H000	HVAC SYMBOLS LEGEND AND CONTRACTOR NOTES	02/17/2025
H101.1A	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1A	02/17/2025
H101.1BC	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1B AND 1C	02/17/2025
H101.1DE	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1D AND 1E	02/17/2025
H101.1FG	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1F AND 1G	02/17/2025
H101.1H	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1H	02/17/2025
H101.2	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 2	02/17/2025
H101.3AB	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 3A AND 3B	02/17/2025
H101.4AB	GROUND FLOOR HVAC DEMOLITION PLAN - AREA 4A AND 4B	02/17/2025
H102.4AB	MEZZANINE HVAC DEMOLITION PLAN - AREA 4A AND 4B	02/17/2025
H103.1A	ROOF HVAC DEMOLITION PLAN - AREA 1A	02/17/2025
H103.1B	ROOF HVAC DEMOLITION PLAN - AREA 1B	02/17/2025
H103.1D	ROOF HVAC DEMOLITION PLAN - AREA 1D	02/17/2025
H201.1A	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1A	02/17/2025
H201.1BC	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1B AND 1C	02/17/2025
H201.1DE	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1D AND 1E	02/17/2025
H201.1FG	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1F AND 1G	02/17/2025
H201.1H	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1H	02/17/2025
H201.3AB	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 3A AND 3B	02/17/2025
H201.4AB	GROUND FLOOR HVAC DUCTWORK PLAN - AREA 4A AND 4B	02/17/2025
H203.1A	ROOF HVAC DUCTWORK AND PIPING PLAN - AREA 1A	02/17/2025
H203.1B	ROOF HVAC DUCTWORK AND PIPING PLAN - AREA 1B	02/17/2025
H203.1D	ROOF HVAC DUCTWORK AND PIPING PLAN - AREA 1D	02/17/2025
H301.1A	GROUND FLOOR HVAC PIPING PLAN - AREA 1A	02/17/2025
H301.1BC	GROUND FLOOR HVAC PIPING PLAN - AREA 1B AND 1C	02/17/2025
H301.1DE	GROUND FLOOR HVAC PIPING PLAN - AREA 1D AND 1E	02/17/2025
H301.1FG	GROUND FLOOR HVAC PIPING PLAN - AREA 1F AND 1G	02/17/2025
H301.1H	GROUND FLOOR HVAC PIPING PLAN - AREA 1H	02/17/2025
H301.2	GROUND FLOOR HVAC PIPING PLAN - AREA 2	02/17/2025
H301.3AB	GROUND FLOOR HVAC PIPING PLAN - AREA 3A AND 3B	02/17/2025
H301.4AB	GROUND FLOOR HVAC PIPING PLAN - AREA 4A AND 4B	02/17/2025
H302.4AB	MEZZANINE HVAC PIPING PLAN - AREA 4A AND 4B	02/17/2025
H401.4A	GROUND FLOOR HVAC CONTROLS EQUIPMENT LOCATION PLAN - AREA 4A	02/17/2025
H402.2	MEZZANINE HVAC CONTROLS EQUIPMENT LOCATION PLAN - AREA 2	02/17/2025
H402.4AB	MEZZANINE HVAC CONTROLS EQUIPMENT LOCATION PLAN - AREA 4A AND 4B	02/17/2025
H500	HVAC CONTROLS SCHEMATIC	02/17/2025
H501	HVAC CONTROLS SCHEMATIC	02/17/2025
H502	HVAC CONTROLS SCHEMATIC	02/17/2025
H503	HVAC CONTROLS SCHEMATIC	02/17/2025
H600	HVAC HEATING HOT WATER PIPING SCHEMATIC	02/17/2025
H601	HVAC CHILLER WATER PIPING SCHEMATIC	02/17/2025
H700	ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1A AND 1B	02/17/2025
H701	ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1D, 1G AND 1H	02/17/2025
H702	ENLARGED MECHANICAL ROOM NEW WORK PLAN - AREA 1A	02/17/2025
H703	ENLARGED MECHANICAL ROOM DEMOLITION AND NEW WORK PLAN - AREA 1A	02/17/2025
H704	ENLARGED MECHANICAL ROOM NEW WORK PLAN - AREA 1B	02/17/2025
H705	ENLARGED MECHANICAL ROOM NEW WORK PLAN - AREA 1D, 1G AND 1H	02/17/2025
H800	HVAC DETAILS	02/17/2025
H801	HVAC DETAILS	02/17/2025
H900	HVAC SCHEDULES	02/17/2025
H901	HVAC SCHEDULES	02/17/2025
PLUMBING		
P000	UTILITY SCHEDULES & DETAILS	02/17/2025
P101	ENLARGED PARTIAL PLAN - UTILITIES - DEMOLITION	02/17/2025
P201	ENLARGED PARTIAL PLAN - UTILITIES - NEW WORK	02/17/2025
ELECTRICAL		
E000	ELECTRICAL SYMBOLS LEGEND AND NOTES	02/17/2025
E001	PARTIAL ONE-LINE DIAGRAM	02/17/2025
E101.1A	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1A	02/17/2025
E101.1BC	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1B & 1C	02/17/2025
E101.1DE	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1D & 1E	02/17/2025
E101.1FG	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1F & 1G	02/17/2025
E101.1H	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1H	02/17/2025
E101.2	GROUND FLOOR AND MEZZANINE ELECTRICAL DEMOLITION PLAN - AREA 2	02/17/2025
E101.3AB	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 3A & 3B	02/17/2025
E101.4AB	GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 4B	02/17/2025
E102.4AB	MEZZANINE ELECTRICAL DEMOLITION PLAN - AREA 4A & 4B	02/17/2025
E201.1A	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1A	02/17/2025
E201.1BC	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1B & 1C	02/17/2025
E201.1DE	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1D & 1E	02/17/2025
E201.1FG	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1F & 1G	02/17/2025
E201.1H	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1H	02/17/2025
E201.2	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 2	02/17/2025
E201.3AB	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 3A & 3B	02/17/2025
E201.4AB	GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 4A & 4B	02/17/2025
E202.4AB	MEZZANINE ELECTRICAL POWER AND SYSTEMS PLAN - AREA 4A & 4B	02/17/2025
E300	ELECTRICAL DETAILS	02/17/2025
E301	ELECTRICAL DETAILS	02/17/2025
E302	ELECTRICAL DETAILS	02/17/2025
E303	ELECTRICAL DETAILS	02/17/2025
E304	ELECTRICAL DETAILS	02/17/2025
E305	ELECTRICAL DETAILS	02/17/2025
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E331	ELECTRICAL DETAILS	02/17/2025
E332	ELECTRICAL DETAILS	02/17/2025
E333	ELECTRICAL DETAILS	02/17/2025
E334	ELECTRICAL DETAILS	02/17/2025
E335	ELECTRICAL DETAILS	02/17/2025
E336	ELECTRICAL DETAILS	02/17/2025
E337	ELECTRICAL DETAILS	02/17/2025
E338	ELECTRICAL DETAILS	02/17/2025
E339	ELECTRICAL DETAILS	02/17/2025
E340	ELECTRICAL DETAILS	02/17/2025
E341	ELECTRICAL DETAILS	02/17/2025
E342	ELECTRICAL DETAILS	02/17/2025
E343	ELECTRICAL DETAILS	02/17/2025
E344	ELECTRICAL DETAILS	02/17/202

LOT OR PARKING AREA	TOTAL # OF PARKING SPACE		# OF ACCESSIBLE SPACES WITH		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	15' ACCESS AISLE	8' ACCESS AISLE	
LOT 1	0	0	0	0	0
LOT 2	0	0	0	0	0
LOT 3	0	0	0	0	0
LOT 4	0	0	0	0	0
TOTAL	0	0	0	0	0

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

EXISTING - NO CHANGE

ELECTRICAL DESIGN

LOT OR PARKING AREA	TOTAL # OF PARKING SPACE		# OF ACCESSIBLE SPACES WITH		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	15' ACCESS AISLE	8' ACCESS AISLE	
LOT 1	0	0	0	0	0
LOT 2	0	0	0	0	0
LOT 3	0	0	0	0	0
LOT 4	0	0	0	0	0
TOTAL	0	0	0	0	0

#	Date
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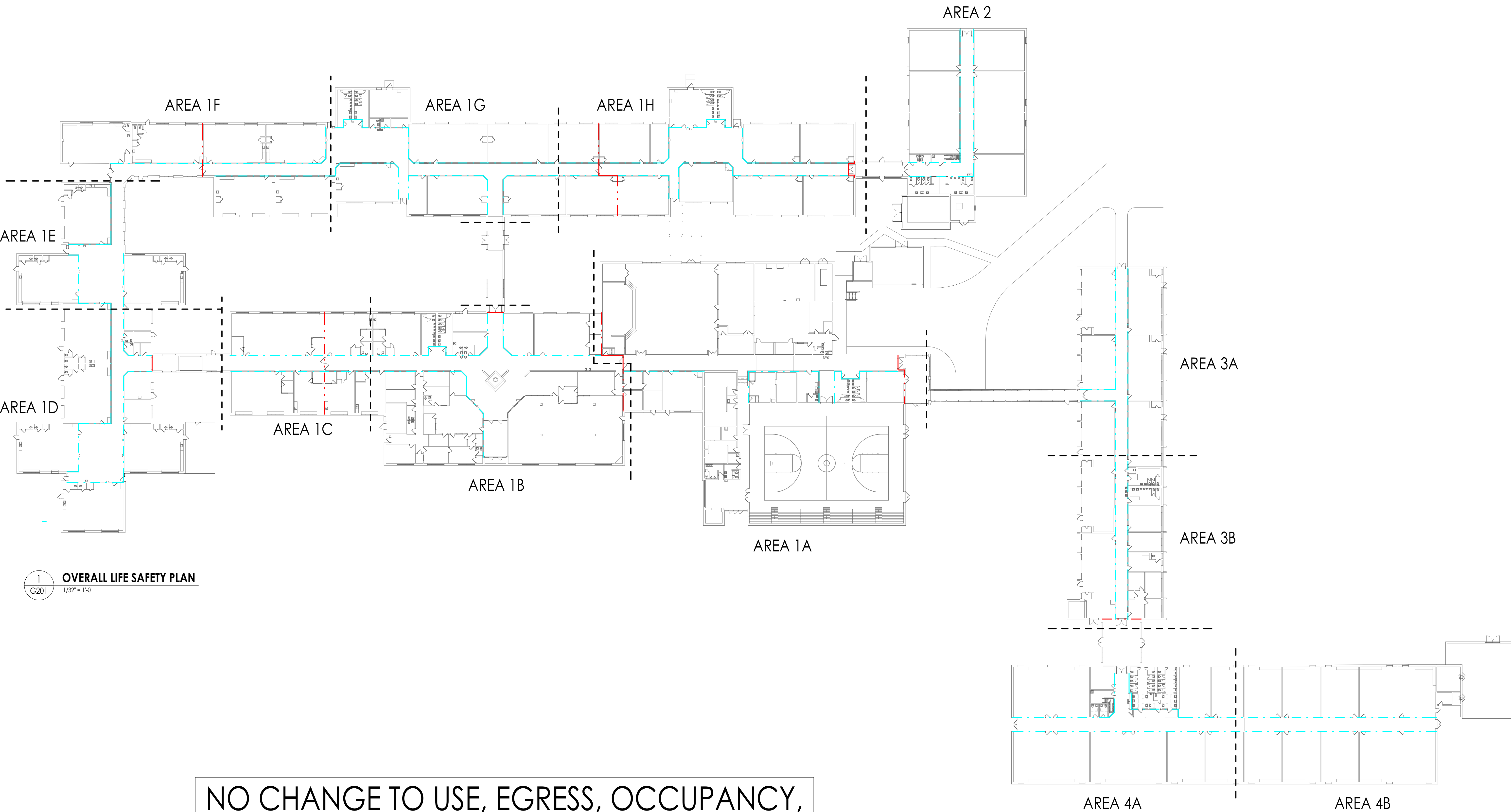
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LOT OR PARKING AREA	TOTAL # OF PARKING SPACE		# OF ACCESSIBLE SPACES WITH		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	15' ACCESS AISLE	8' ACCESS AISLE	
LOT 1	0	0	0	0	0
LOT 2	0	0	0	0	0
LOT 3	0	0	0	0	0
LOT 4	0	0	0	0	0
TOTAL	0	0	0	0	0

Drawing Number

G001

NO CHANGE TO USE, EGRESS, OCCUPANCY OR LIFE SAFETY REQUIREMENTS
IN THIS PROJECT



1
G201
OVERALL LIFE SAFETY PLAN
1/32" = 1'-0"

NO CHANGE TO USE, EGRESS, OCCUPANCY,
OR LIFE SAFETY IN THIS PROJECT

AE

ACCESSIBLE BUILDING ENTRANCE

EXIT

EXIT

EXIT

EXIT UNITS

EAD

EXIT ACCESS DOOR

ED

EXIT DISCHARGE

HE

HORIZONTAL EXIT

EXIT SIGN

EXIT SIGN

ROOM NAME

ROOM NAME

ROOM NUMBER

ROOM AREA

OCCUPANT LOAD FACTOR

OCCUPANT LOAD

STAIR

PROVIDED WIDTH

REQUIRED WIDTH

ANTICIPATED LOAD

DOOR

CLEAR WIDTH

REQUIRED WIDTH

ANTICIPATED LOAD

AOR

AREA OF REFUGE

RW

RESCUE WINDOW

TRAVEL DISTANCE

TRAVEL DISTANCE TO EXIT

COMMON DISTANCE

COMMON PATH OF EGRESS DISTANCE

MAXIMUM TRAVEL DISTANCE

MAXIMUM TRAVEL DISTANCE TO EXIT

MAXIMUM COMMON PATH OF EGRESS

MAXIMUM COMMON PATH OF EGRESS

DEAD END DISTANCE

DEAD END DISTANCE

NON-RATED SMOKE TIGHT BARRIER

1 HOUR FIRE RATED & SMOKE BARRIER

1 HOUR RATED FIRE PARTITION

1 HOUR RATED FIRE BARRIER

2 HOUR RATED FIRE BARRIER

2 HOUR RATED BUILDING SEPARATION

SUITES

STOREFRONT IN SMOKE PARTITION

EXIT ACCESS CORRIDOR

EXISTING FIRE EXTINGUISHER/HOSE CABINET CONDITIONS

NEW FIRE EXTINGUISHER/HOSE CABINET CONDITIONS

PTEL

PUBLIC TELEPHONE

APF

ACCESSIBLE PUBLIC TELEPHONE

1 HR RATED FLOOR ASSEMBLY - UL-D902

2 HR RATED FLOOR ASSEMBLY - UL-D902

FIRE SHUTTERS

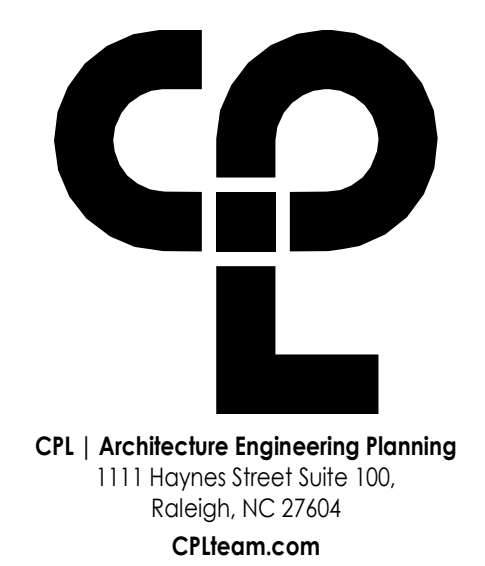
1 HR

FIRE SHUTTERS

PROJECT SUMMARY

THE PRIMARY SCOPE OF WORK FOR THIS PROJECT IS TO REMOVE AND REPLACE THE EXISTING HVAC SYSTEM AND INSTALL NEW LP GAS TANKS AND DISTRIBUTION SYSTEM. THE SCOPE INCLUDES ASSOCIATED WORK RELATED TO THE CEILING, PLUMBING, ELECTRICAL, AND LIGHTING SYSTEMS.

MINOR INTERIOR WALL RENOVATIONS OCCUR IN AREA 1A TO RECONFIGURE EXISTING (UNUSED) SHOWER AREA TO A NEW MECHANICAL ROOM.



PROJECT INFORMATION
Project Number: R23.00325.00
Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name: FOUR OAKS ELEMENTARY SCHOOL
Project Address: 180 W HATCHER STREET, FOUR OAKS, NC 27524

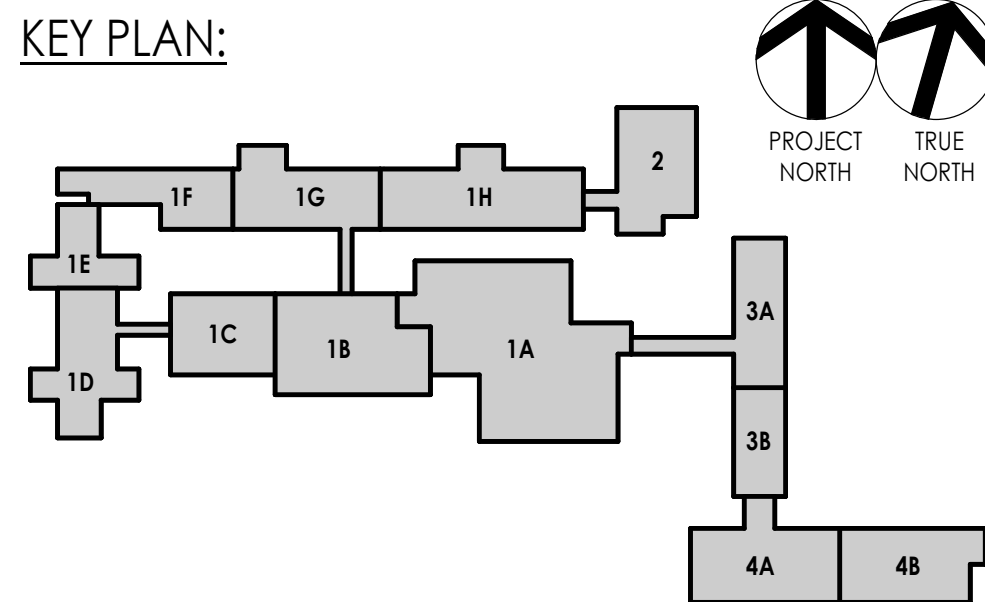
PROJECT ISSUE & REVISION SCHEDULE
7 Issues

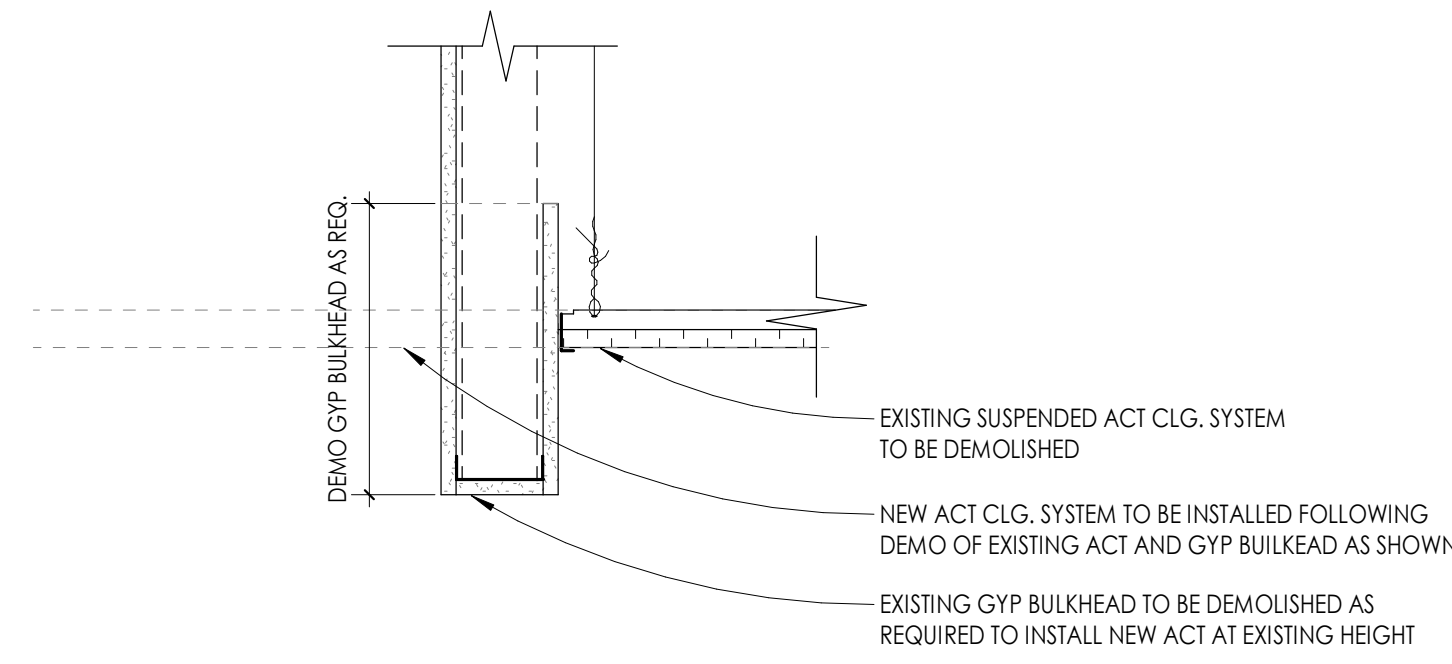
PROFESSIONAL STAMPS



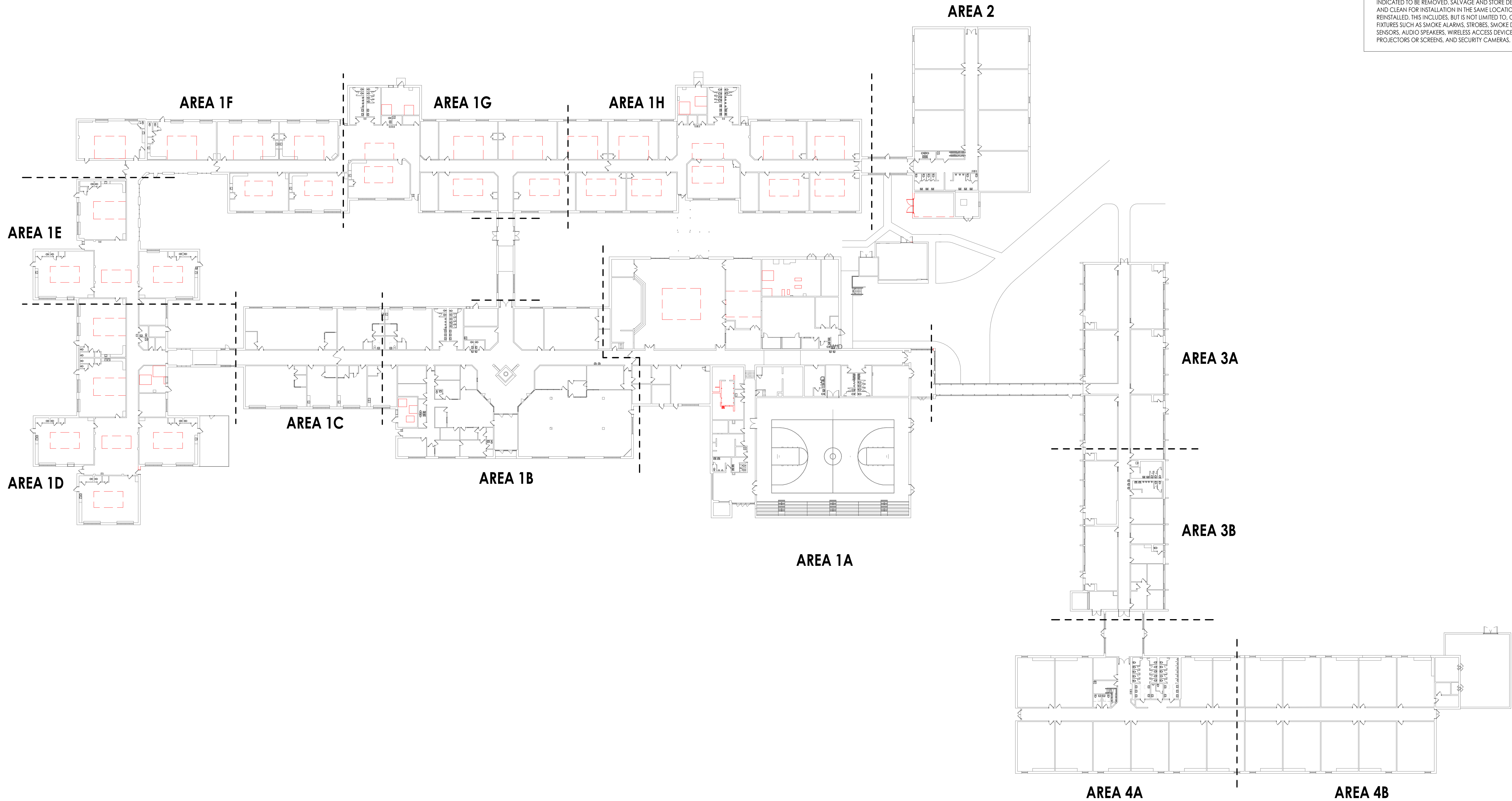
SHEET INFORMATION
Scale: As indicated
Project Status: BID SET
Drawn By: KV
Checked By: GB
Drawing Title: OVERALL LIFE SAFETY PLAN
Drawing Number: -

G201





2
A101
CEILING SOFFIT DEMO DETAIL
1 1/2" = 1'-0"

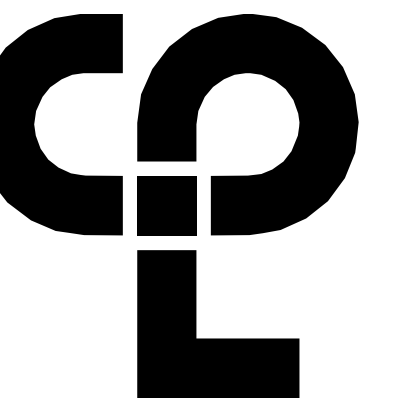
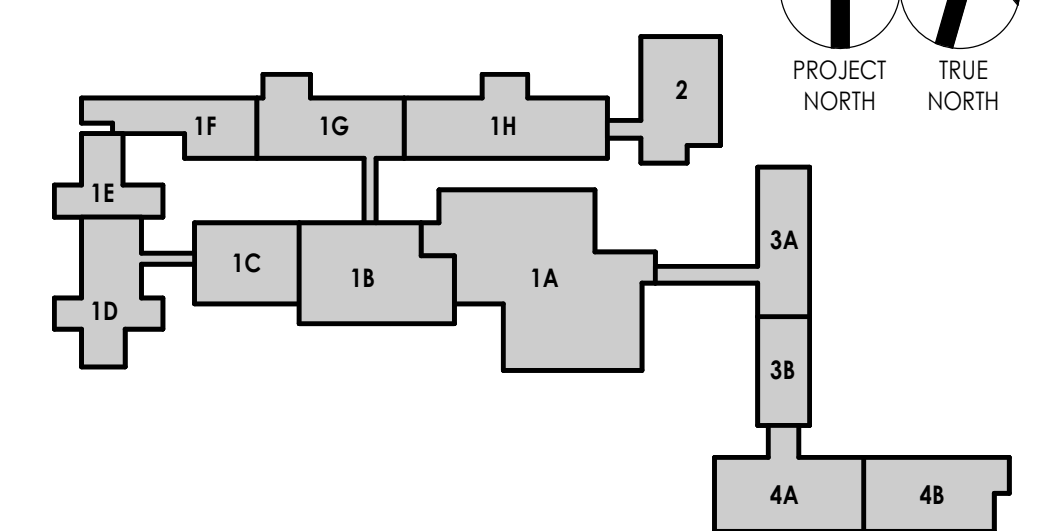


1
A101
OVERALL DEMOLITION FLOOR PLAN
1/32" = 1'-0"

DEMOLITION GENERAL NOTES

- ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF MATERIALS TO BE REMOVED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS & DIMENSIONS PRIOR TO COMMENCEMENT OF ALL DEMOLITION WORK.
- REFER TO THE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF EXISTING UTILITIES AND SERVICES.
- REMAINING SUBSTRATES SHALL BE LEFT IN A CONDITION ACCEPTABLE TO RECEIVE NEW WORK. WHERE NEW FINISHES ARE SCHEDULED AT EXISTING CONDITIONS, REMOVE EXISTING FINISHES DOWN TO SUBSTRATE AND PREPARE SURFACE FOR NEW FINISH.
- THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING FINISHES AND EQUIPMENT NOT REMOVED UNDER THE SCOPE OF WORK. ANY DAMAGE WILL BE REPAIRED TO THE OWNER/ARCHITECT'S SATISFACTION.
- WATER, POWER, COMMUNICATION, FIRE PROTECTION & GAS UTILITY SERVICES SHUT DOWNS SHALL NOT EFFECT PORTIONS OF BUILDING(S) TO REMAIN IN USE. CONTRACTOR TO REROUTE OR PROVIDE TEMPORARY POWER, COMMUNICATION, FIRE PROTECTION AND GAS. COORDINATE SHUT DOWNS WITH OWNER.
- REMOVE AND REPLACE EXISTING CEILINGS, UNLESS OTHERWISE NOTED ON THE DRAWINGS, FOR PERFORMING DEMOLITION OF ALL WORK INDICATED ON THE CONSTRUCTION DRAWINGS. THE EXISTING CEILING SHALL BE REMOVED AND REPLACED IN A MANNER TO AVOID DAMAGE TO THE WALL SYSTEM.
- NOTIFY ARCHITECT AND OWNER OF EXISTING DUCTWORK, PIPE AND CONDUIT PENETRATIONS EXPOSED AFTER DEMOLITION THAT ARE NOT FIREFIGHTED THROUGH EXISTING WALLS IDENTIFIED AS FIRE AND/OR SMOKE RATED ON LIFE SAFETY PLANS. EXISTING NON-COMPLIANT PENETRATIONS ARE TO BE FIREFIGHTED.
- WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEANED AT END OF EACH DAY.
- ALL ITEMS SHOWN WITH A DASHED LINE ARE TO BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
- OWNER HAS THE RIGHT TO SALVAGE ANY FIXTURES AND/OR MILLWORK WITHIN AN AREA OF DEMOLITION PRIOR TO CONTRACTOR STARTING WORK IN THAT ZONE. COORDINATE TIMING OF SUCH REMOVALS WITH OWNER.
- THE OWNER WILL PROVIDE THE TESTING RESULTS OF ASBESTOS CONTAINING MATERIALS (ACM) IN THE PROJECT AREA. IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED OR QUESTIONED, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
- IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED THAT APPEAR TO CONTAIN HAZARDOUS MATERIALS SUCH AS BUT NOT LIMITED TO MOLD AND LEAD PAINT, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
- REMOVE ASSOCIATED CEILING MOUNTED DEVICES WHERE EXISTING CEILING IS INDICATED TO BE REMOVED. SALVAGE AND STORE DEVICES IN A SECURE LOCATION AND CLEAN FOR INSTALLATION IN THE SAME LOCATION WHEN THE CEILING IS REINSTALLED. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILING MOUNTED DEVICES AND FIXTURES SUCH AS SMOKE ALARMS, STROBES, SMOKE DETECTORS, OCCUPANCY SENSORS, AUDIO SPEAKERS, WIRELESS ACCESS DEVICES, ELECTRICAL OUTLETS, CEILING PROJECTORS OR SCREENS, AND SECURITY CAMERAS.

KEY PLAN:



CPL | Architecture Engineering Planning
1111 Hayes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



PROJECT INFORMATION

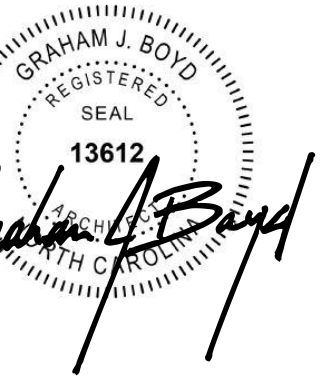
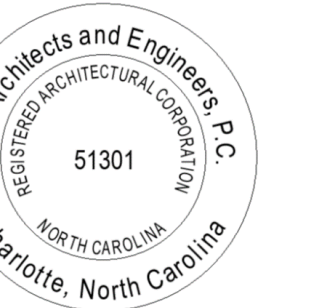
Project Number
R23.00325.00
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOLS
Project Name
FOUR OAKS ELEMENTARY
SCHOOL

Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Description

PROFESSIONAL STAMPS



SHEET INFORMATION

Scale
As indicated
Date
02/17/2025
Project Status
BID SET
Drawn By
KV
Checked By
GB
Drawing Title
OVERALL DEMOLITION FLOOR
PLAN

Drawing Number

FOES
A101

1
A101.1A
DEMOLITION FLOOR PLAN - AREA 1A
1/8" = 1'-0"



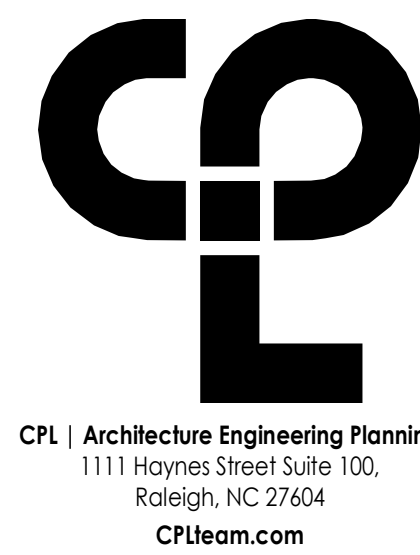
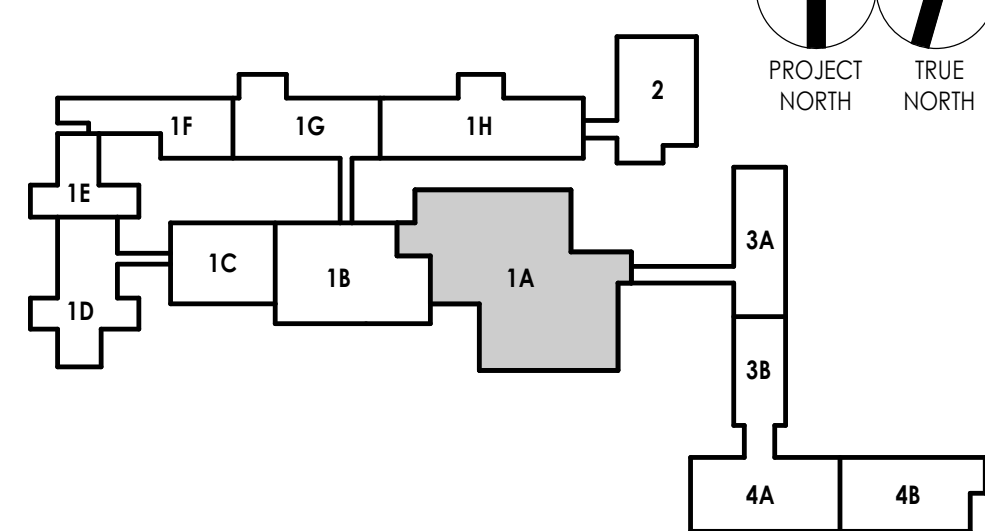
DEMOLITION GENERAL NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF MATERIALS TO BE REMOVED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS & DIMENSIONS PRIOR TO COMMENCEMENT OF ALL DEMOLITION WORK.
2. REFER TO THE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF EXISTING UTILITIES AND SERVICES.
3. REMAINING SUBSTRATES SHALL BE LEFT IN A CONDITION ACCEPTABLE TO RECEIVE NEW WORK. WHERE NEW FINISHES ARE SCHEDULED AT EXISTING CONDITIONS, REMOVE EXISTING FINISHES DOWN TO SUBSTRATE AND PREPARE SURFACE FOR NEW FINISH.
4. THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING FINISHES AND EQUIPMENT NOT REMOVED UNDER THE SCOPE OF WORK. ANY DAMAGE WILL BE REPAIRED TO THE OWNER/ARCHITECT'S SATISFACTION.
5. WATER, POWER, COMMUNICATION, FIRE PROTECTION & GAS UTILITY SERVICES SHUT DOWNS SHALL NOT EFFECT PORTIONS OF BUILDING(S) TO REMAIN IN USE. CONTRACTOR TO REROUTE OR PROVIDE TEMPORARY POWER, COMMUNICATION, FIRE PROTECTION AND GAS. COORDINATE SHUT DOWNS WITH OWNER.
6. REMOVE AND REPLACE EXISTING CEILINGS, UNLESS OTHERWISE NOTED ON THE DRAWINGS, FOR PERFORMING DEMOLITION OF ALL WORK INDICATED ON THE CONSTRUCTION DRAWINGS. THE EXISTING CEILING SHALL BE REMOVED AND REPLACED IN A MANNER TO AVOID DAMAGE TO THE WALL SYSTEM.
7. NOTIFY ARCHITECT AND OWNER OF EXISTING DUCTWORK, PIPE AND CONDUIT PENETRATIONS EXPOSED AFTER DEMOLITION THAT ARE NOT FIRESTOPPED THROUGH EXISTING WALLS IDENTIFIED AS FIRE AND/OR SMOKE RATED ON LIFE SAFETY PLANS. EXISTING NON-COMPLIANT PENETRATIONS ARE TO BE FIRESTOPPED.
8. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEANED AT END OF EACH DAY.
9. ALL ITEMS SHOWN WITH A DASHED LINE ARE TO BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
10. OWNER HAS THE RIGHT TO SALVAGE ANY FIXTURES AND/OR MILLWORK WITHIN AN AREA OF DEMOLITION PRIOR TO CONTRACTOR STARTING WORK IN THAT ZONE. COORDINATE TIMING OF SUCH REMOVALS WITH OWNER.
11. THE OWNER WILL PROVIDE THE TESTING RESULTS OF ASBESTOS CONTAINING MATERIALS (ACM) IN THE PROJECT AREA. IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED OR QUESTIONED, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
12. IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED THAT APPEAR TO CONTAIN HAZARDOUS MATERIALS SUCH AS BUT NOT LIMITED TO MOLD AND LEAD PAINT, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
13. REMOVE ASSOCIATED CEILING MOUNTED DEVICES WHERE EXISTING CEILING IS INDICATED TO BE REMOVED. SALVAGE AND STORE DEVICES IN A SECURE LOCATION AND CLEAN FOR INSTALLATION IN THE SAME LOCATION WHEN THE CEILING IS REINSTALLED. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILING MOUNTED DEVICES AND FIXTURES SUCH AS SMOKE ALARMS, STROBES, SMOKE DETECTORS, OCCUPANCY SENSORS, AUDIO SPEAKERS, WIRELESS ACCESS DEVICES, ELECTRICAL OUTLETS, CEILING PROJECTORS OR SCREENS, AND SECURITY CAMERAS.

DEMOLITION KEY NOTES

- (C1) REMOVE CEILING SYSTEM IN ITS ENTIRETY
- (C2) MAINTAIN EXISTING GYPSUM BOARD CEILING, REPAIR & REPAINT
- (C3) MAINTAIN EXISTING GYPSUM BOARD SOFFIT AT CLERESTORY, REPAIR & REPAINT
- (C4) REMOVE EXISTING BULKHEAD AND BAFFLES SEE DETAIL 2/A101 FOR DEMOLITION EXTENT
- (D1) REMOVE EXISTING DOOR AND HARDWARE
- (E1) REMOVE EXISTING LIGHT FIXTURES, SEE ELECTRICAL
- (F1) REMOVE EXISTING FLOOR TILE
- (F2) REMOVE EXISTING CONCRETE HOUSEKEEPING PAD DOWN TO FLOOR LEVEL AND PREPARE NEW CONCRETE PAD FOR INSTALLATION
- (G1) REMOVE EXISTING SHOWER HEAD AND MIXING VALVE; PATCH AND SEAL ANY EXPOSED OPENINGS AFTER REMOVAL OF CAP AND ABANDON H/C WATER SUPPLY PIPING
- (G2) REMOVE EXISTING TYPE II HOOD
- (S1) REMOVE AND DISPOSE OF PAVEMENT
- (S2) REMOVE EXISTING TREE AND STUMP COMPLETE
- (S3) REMOVE EXISTING LIGHT POST BASE
- (W1) REMOVE EXISTING MASONRY WALL FULL HEIGHT TO THE EXTENT SHOWN

KEY PLAN:



PROJECT INFORMATION
Project Number: R23.00325.00
Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name: FOUR OAKS ELEMENTARY SCHOOL

Project Address: 180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

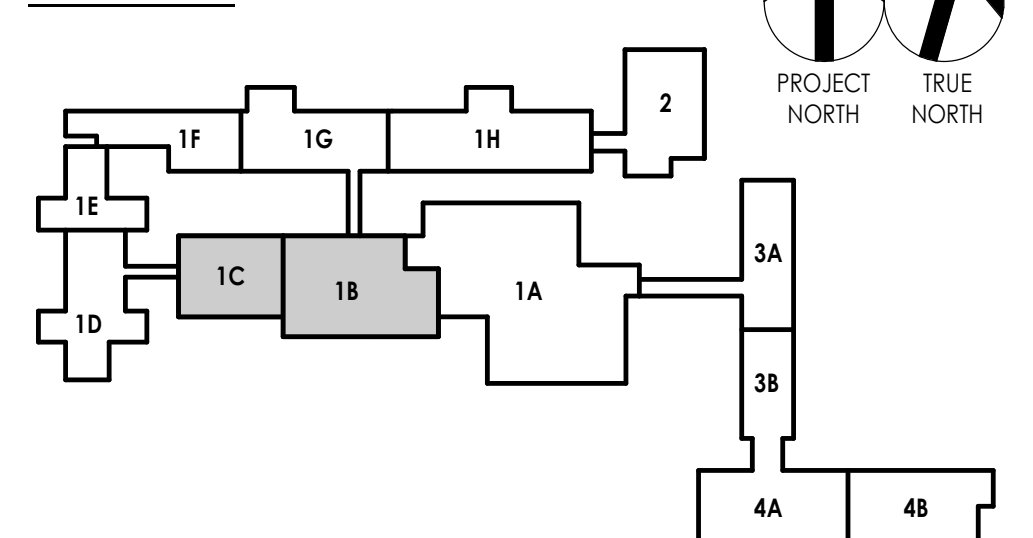
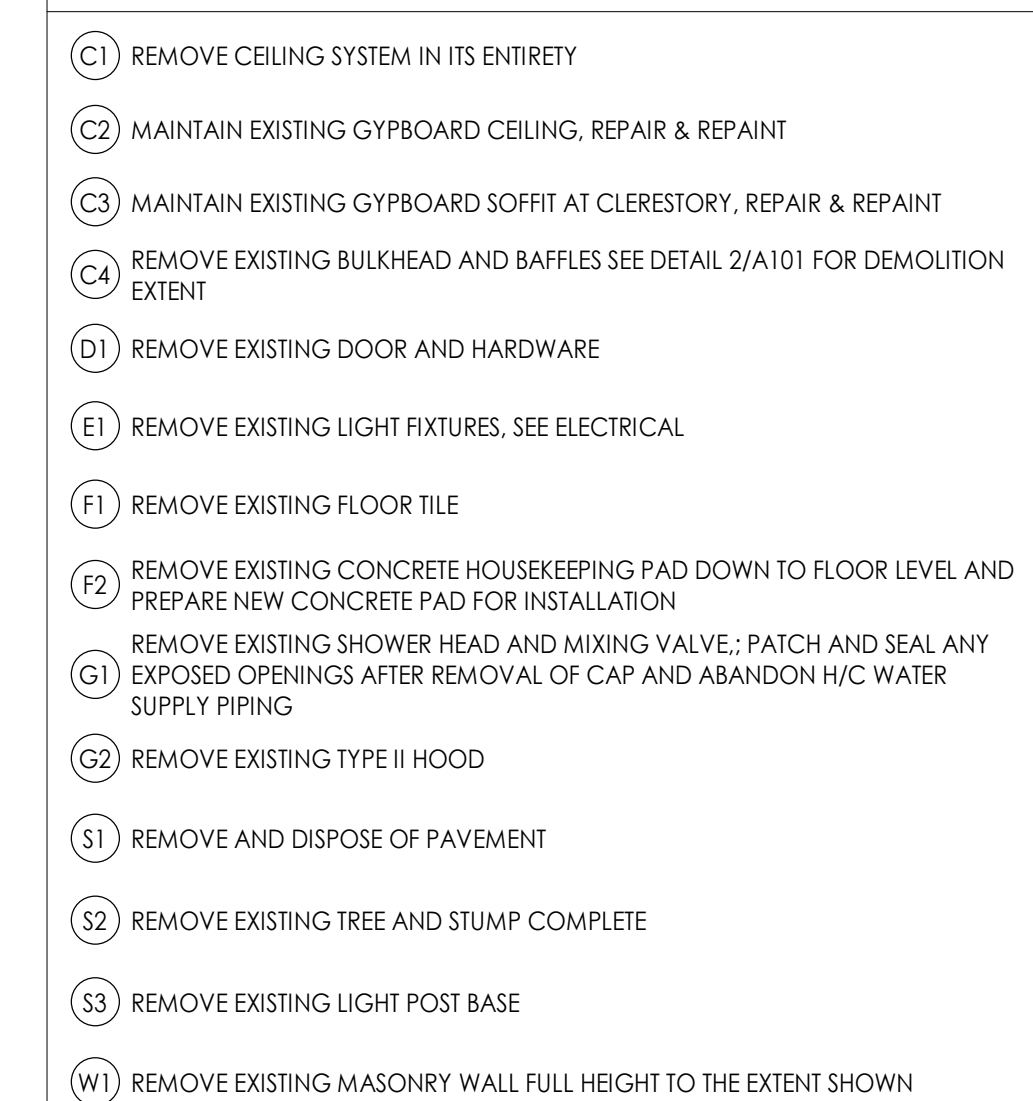
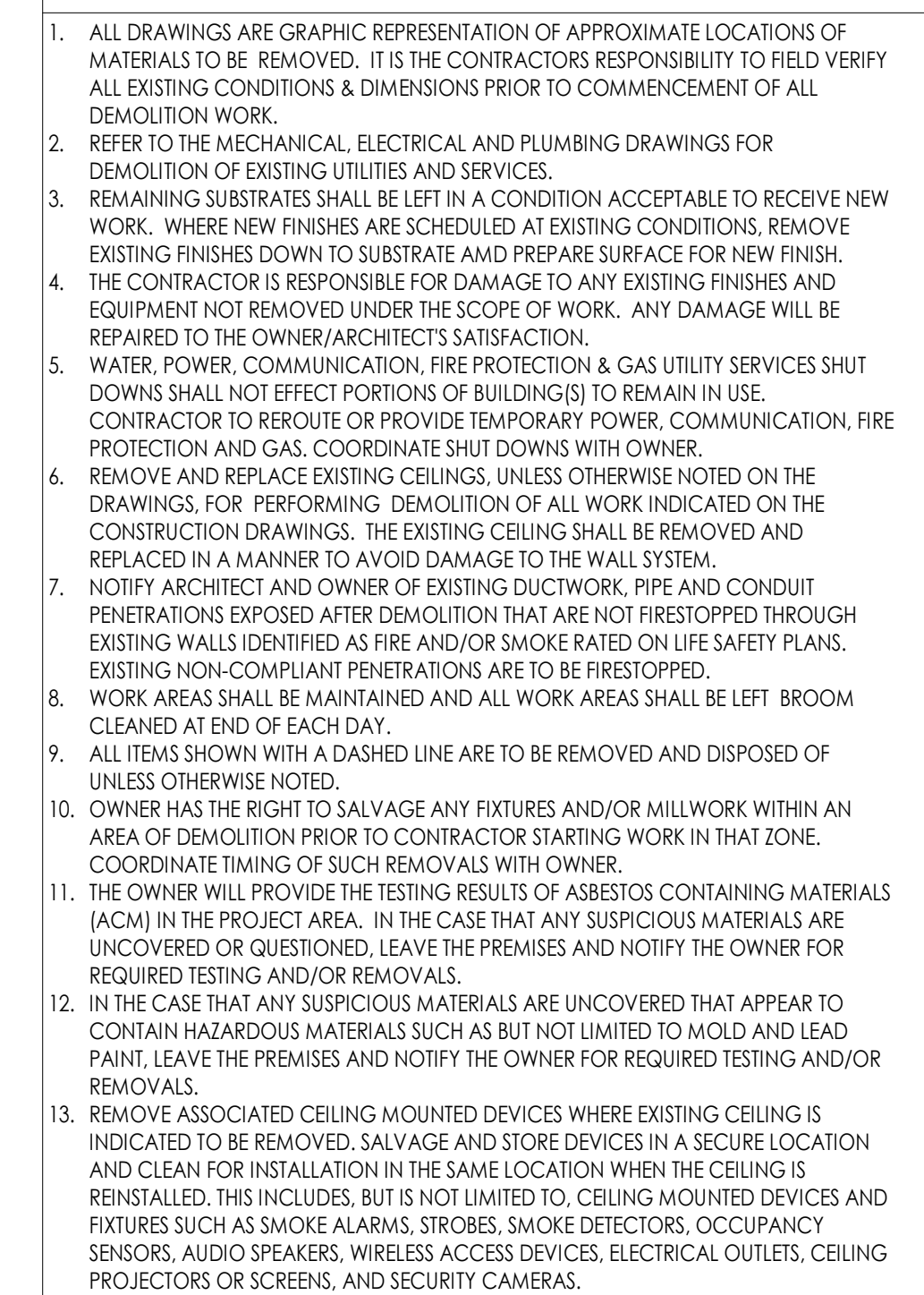
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PROFESSIONAL STAMPS



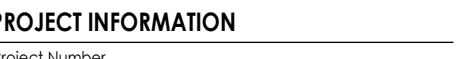
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Drawn By: KV
Checked By: GB
Drawing Title: DEMOLITION PLAN AREA 1A

Drawing Number: A101.1A



INFORMATION	
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Year/2025	
Status	
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By	Checked by
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Title	
COLLISION PLAN AREA 1B AND	
Drawing Number	

101.1BC

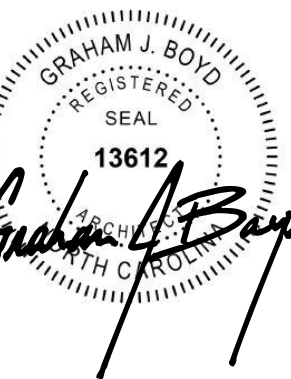


Client Name
JOHNSTON COUNTY PUBLIC SCHOOLS

Project Address
80 W HATCHER STREET
OUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

PROFESSIONAL STAMPS

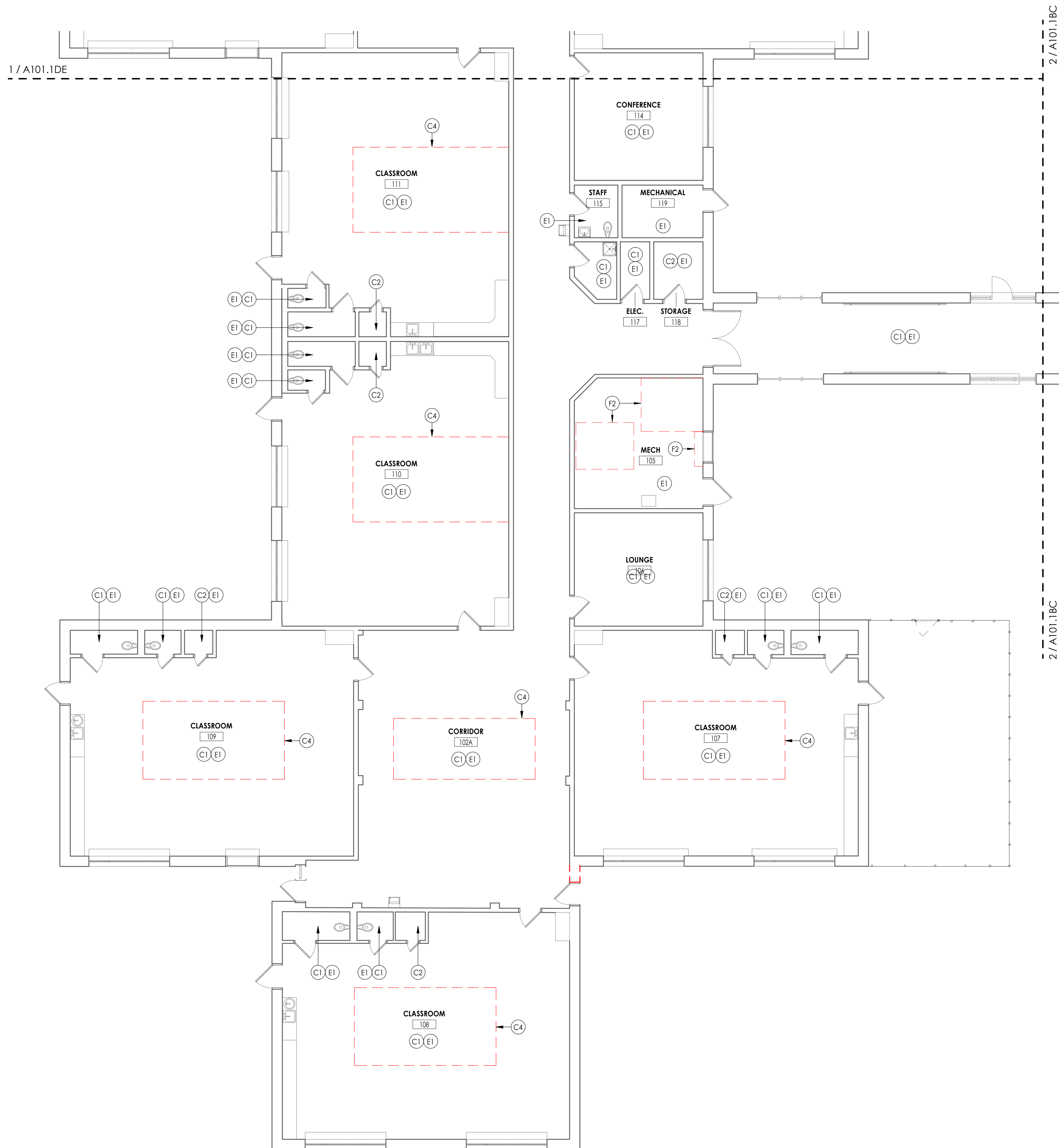


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Drawn By	Checked By
TV	GB
Drawing Title	
DEMOLITION PLAN AREA 1D AND E	
Drawing Number	

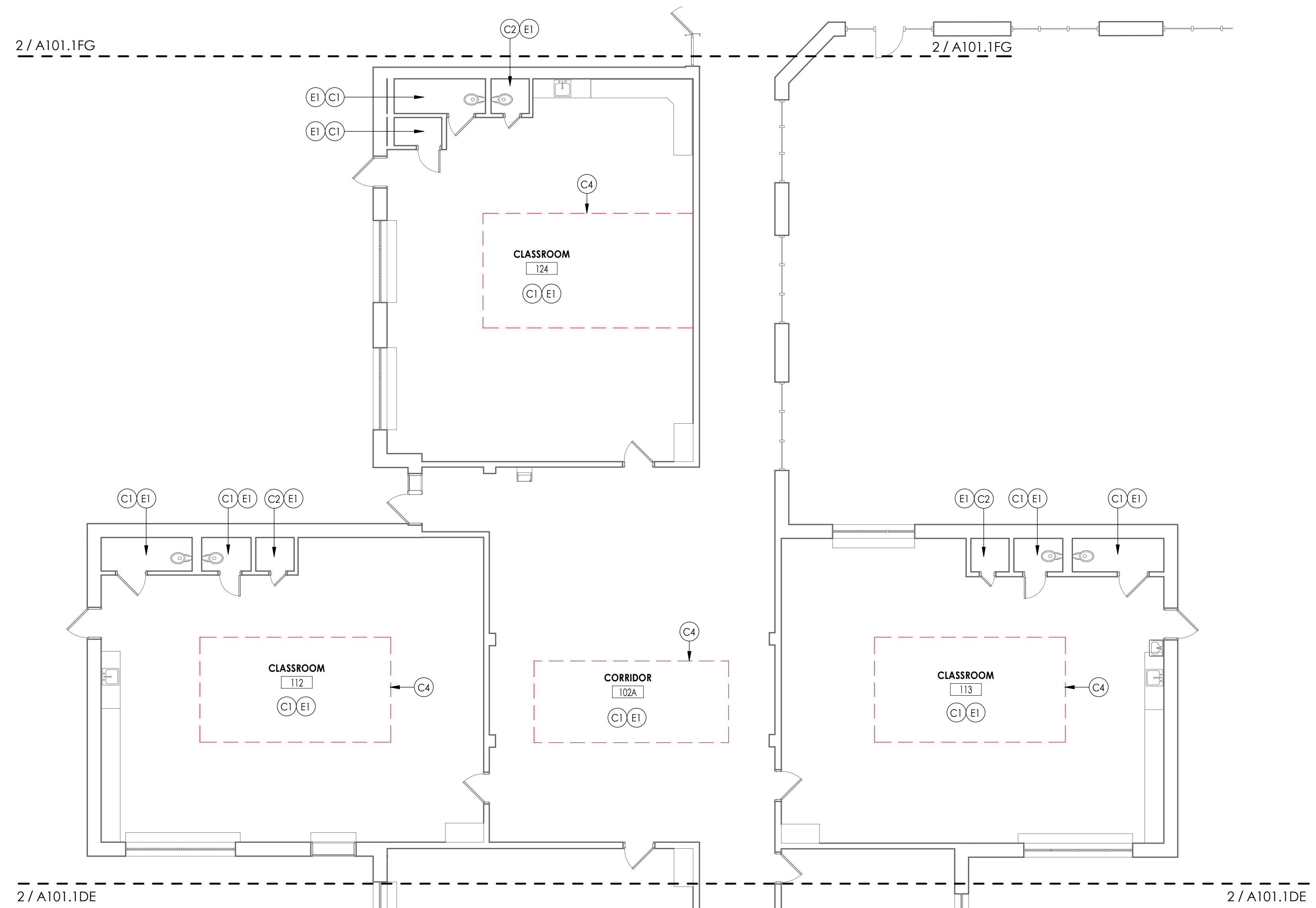
A101.1DE

- (C1) REMOVE CEILING SYSTEM IN ITS ENTIRETY
- (C2) MAINTAIN EXISTING GYPSOBOARD CEILING. REPAIR & REPAINT
- (C3) MAINTAIN EXISTING GYPSOBOARD SOFFIT AT CLERESTORY, REPAIR & REPAINT
- (C4) REMOVE EXISTING BULKHEAD AND BAFFLES SEE DETAIL 2/101A FOR DEMOLITION EXISTENT
- (D1) REMOVE EXISTING DOOR AND HARDWARE
- (E1) REMOVE EXISTING LIGHT FIXTURES. SEE ELECTRICAL
- (F1) REMOVE EXISTING FLOOR TILE
- (F2) REMOVE EXISTING CONCRETE HOUSEKEEPING PAD DOWN TO FLOOR LEVEL AND LAY NEW CONCRETE PAD FOR INSTALLATION
- (G1) REMOVE EXISTING SHOWER HEAD AND MIXING VALVE; PATCH AND SEAL ANY EXPOSED OPENINGS AFTER REMOVAL OF CAP AND ABANDON H/C WATER SUPPLY PIPING
- (G2) REMOVE EXISTING TYPE II HOOD
- (S1) REMOVE AND DISPOSE OF PAVEMENT
- (S2) REMOVE EXISTING TREE AND STUMP COMPLETE
- (S3) REMOVE EXISTING LIGHT POST BASE
- (W1) REMOVE EXISTING MASONRY WALL FULL HEIGHT TO THE EXTENT SHOWN

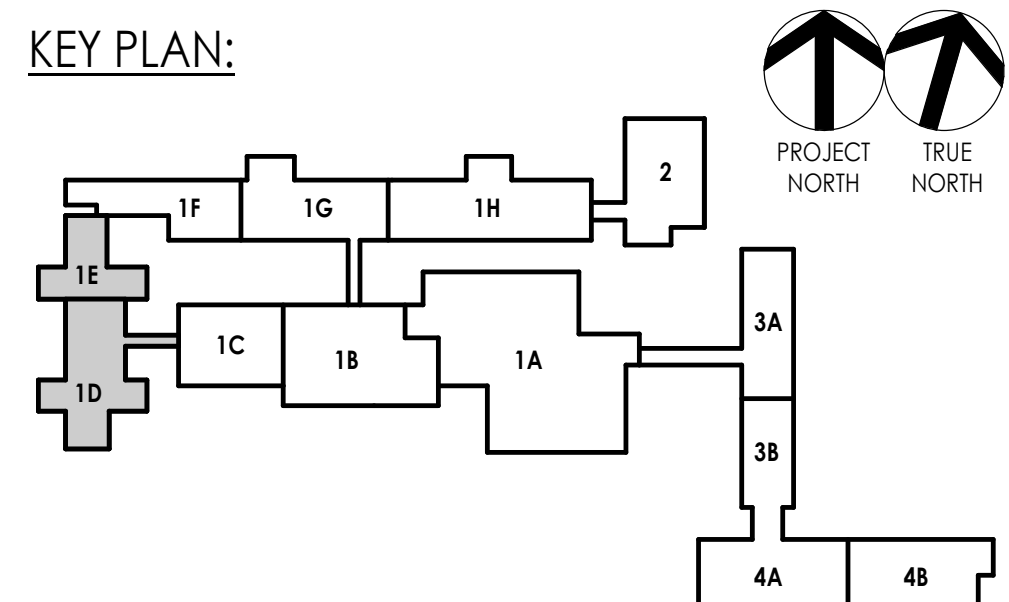
1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF MATERIALS TO BE REMOVED. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS & DIMENSIONS PRIOR TO COMMENCEMENT OF ALL DEMOLITION WORK.
2. REFER TO THE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF EXISTING UTILITIES AND SERVICES.
3. BEAN AND KISTLER INTERIORS SHALL BE RESPONSIBLE TO ACCEPTABLE TO RECEIVE NEW WORK. WHERE NEW FINISHES ARE SCHEDULED AT EXISTING CONDITIONS, REMOVE EXISTING FINISHES DOWN TO SUBSTRATE AND PREPARE SURFACE FOR NEW FINISH. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ALL EXISTING FINISHES AND EQUIPMENT NOT REMOVED UNDER THE SCOPE OF WORK. ANY DAMAGE WILL BE REPAIRED TO THE OWNER/ARCHITECTS SATISFACTION.
4. WATER, POWER, COMMUNICATION, FIRE PROTECTION & GAS UTILITY SERVICES SHALL BE STOPPED, BUT NOT EFFECTED, PRIOR TO SUBMITTAL TO REMOVE IN ORDER FOR CONTRACTOR TO RELOCATE OR PROVIDE TEMPORARY POWER, COMMUNICATION, FIRE PROTECTION AND GAS. COORDINATE STOP DOWN WITH OWNER.
5. REMOVE AND REPLACE EXISTING CEILING, UNLESS OTHERWISE NOTED ON THE DRAWINGS. REMOVE ALL EXISTING CEILING MATERIALS NOT TO BE REUSED OR RE-CONSTRUCTION DRAWINGS. THE EXISTING CEILING SHALL BE REMOVED AND REPLACED IN A MANNER TO AVOID DAMAGE TO THE WALL SYSTEM.
6. NOTIFY ARCHITECT AND OWNER OF EXISTING DUCTWORK, PIPE AND CONDUIT PENETRATIONS THROUGH CEILING. REMOVE ALL EXISTING DUCTWORK THROUGH EXISTING WALLS IDENTIFIED AS FIRE AND/OR SMOKE RATED ON LIFE SAFETY PLANS. EXISTING NON-COMPLANT PENETRATIONS ARE TO BE RESTORED.
7. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN.
8. ALL ITEMS SHOWN WITH A DASHED LINE ARE TO BE REMOVED AND DISPOSE OF UNLESS OTHERWISE NOTED.
9. OWNER TO BE RESPONSIBLE FOR ANY FIXTURES AND/OR MILL/WORK WITHIN AN AREA OF DEMOLITION PRIOR TO CONTRACTOR STARTING WORK IN THAT ZONE. COORDINATE TIMING OF SUCH REMOVALS WITH OWNER.
10. THE OWNER WILL PROVIDE THE TESTING RESULTS OR ASBESTOS CONTAMINATED MATERIALS WHICH WILL AFFECT AREAS OF THE PROJECT. IF ASBESTOS IS FOUND IN UNCOVERED OR QUESTIONED, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
11. IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED THAT APPEAR TO CONTAIN ASBESTOS, STOP WORK IMMEDIATELY, STOP THE WORK AND LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
12. REMOVE ASSOCIATED CEILING PORTIONED DOWN TO EXISTING CEILING IS INDICATED TO BE REMOVED. REMOVE ALL EXISTING CEILING MATERIALS AND CLEAN FOR INSTALLATION IN THE SAME LOCATION WHEN THE CEILING IS REINSTALLED. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILING MOUNTED DEVICES AND FIXTURES SUCH AS SMOKE ALARMS, SMOKE, SMOKE DETECTORS, OCCUPANCY SENSORS, FIRE ALARMS, SMOKE DETECTORS, ELECTRICAL, OUTLETS, CEILING PROJECTORS OR SCREENS, AND SECURITY CAMERAS.



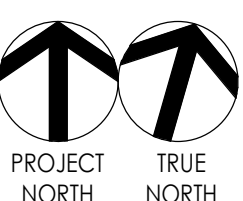
2
A101.1DE 1/8" = 1'-0"



DEMOLITION FLOOR PLAN - AREA 1E



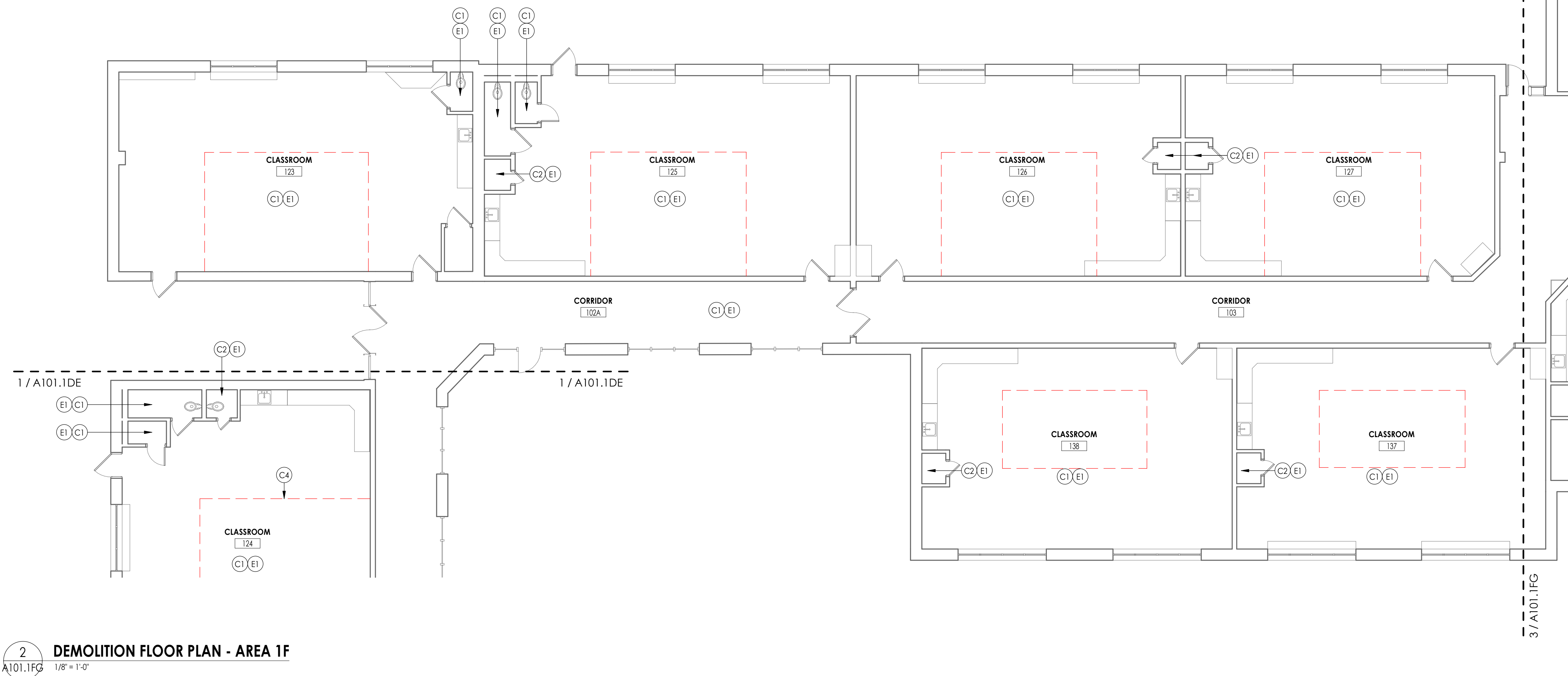
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3
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1/8" = 1'-0"

DEMOLITION FLOOR PLAN - AREA 1G



2
A101.1FG
1/8" = 1'-0"

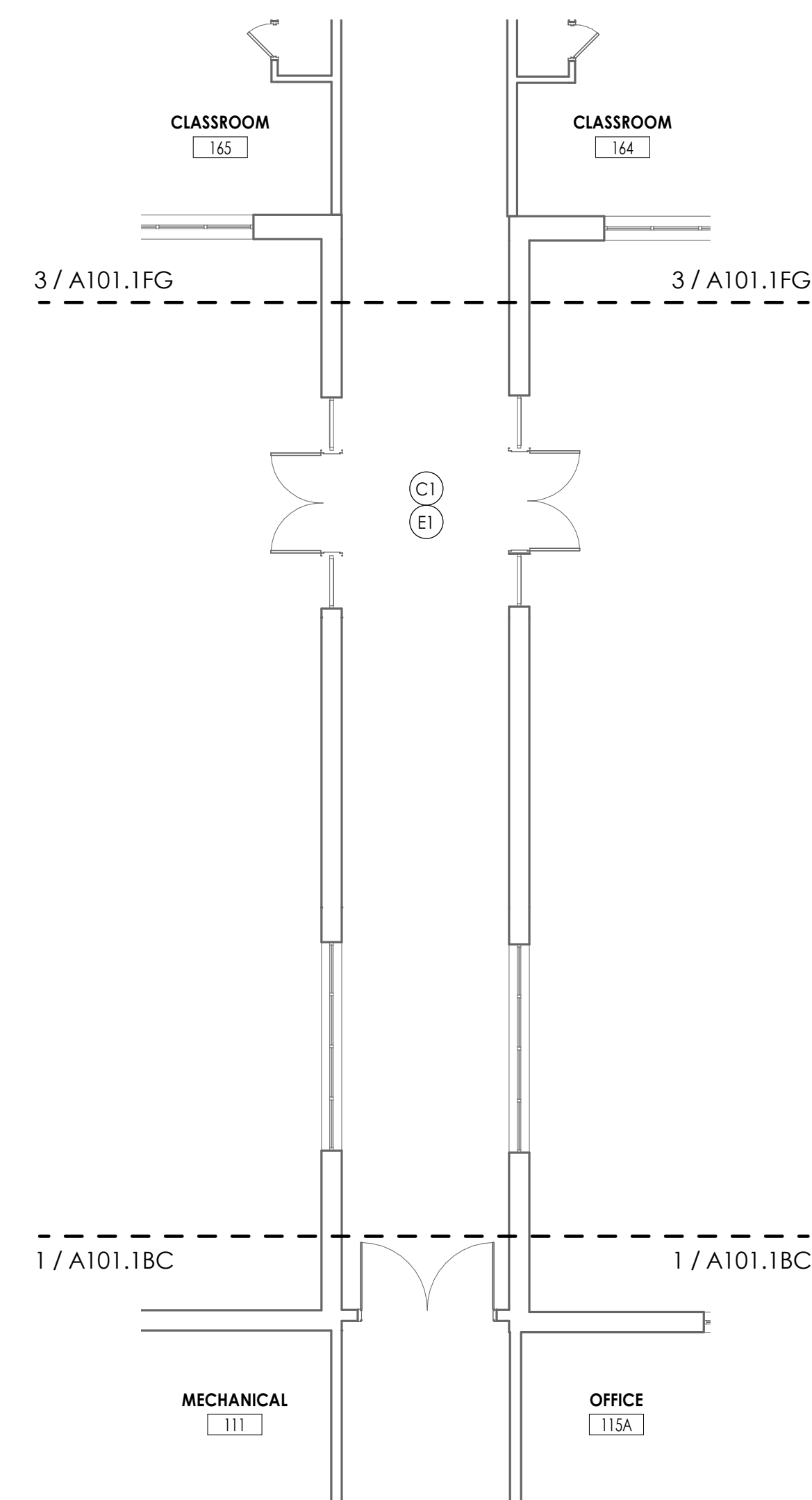
DEMOLITION FLOOR PLAN - AREA 1F

DEMOLITION KEY NOTES

- (C1) REMOVE CEILING SYSTEM IN ITS ENTIRETY
- (C2) MAINTAIN EXISTING GYPSOUM CEILING, REPAIR & REPAINT
- (C3) MAINTAIN EXISTING GYPSOUM SOFFIT AT CLERESTORY, REPAIR & REPAINT
- (C4) REMOVE EXISTING BULKHEAD AND BAFFLES SEE DETAIL 2/A101 FOR DEMOLITION EXTENT
- (D1) REMOVE EXISTING DOOR AND HARDWARE
- (E1) REMOVE EXISTING LIGHT FIXTURES, SEE ELECTRICAL
- (F1) REMOVE EXISTING FLOOR TILE
- (F2) REMOVE EXISTING CONCRETE HOUSEKEEPING PAD DOWN TO FLOOR LEVEL AND PREPARE NEW CONCRETE PAD FOR INSTALLATION
- (G1) REMOVE EXISTING SHOWER HEAD AND MIXING VALVE; PATCH AND SEAL ANY EXPOSED OPENINGS AFTER REMOVAL OF CAP AND ABANDON H/C WATER SUPPLY PIPING
- (G2) REMOVE EXISTING TYPE II HOOD
- (S1) REMOVE AND DISPOSE OF PAVEMENT
- (S2) REMOVE EXISTING TREE AND STUMP COMPLETE
- (S3) REMOVE EXISTING LIGHT POST BASE
- (W1) REMOVE EXISTING MASONRY WALL FULL HEIGHT TO THE EXTENT SHOWN

DEMOLITION GENERAL NOTES

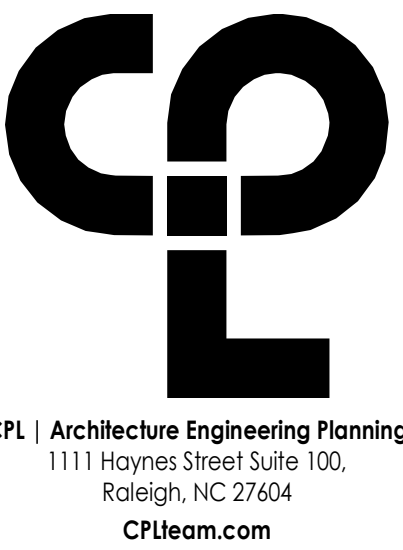
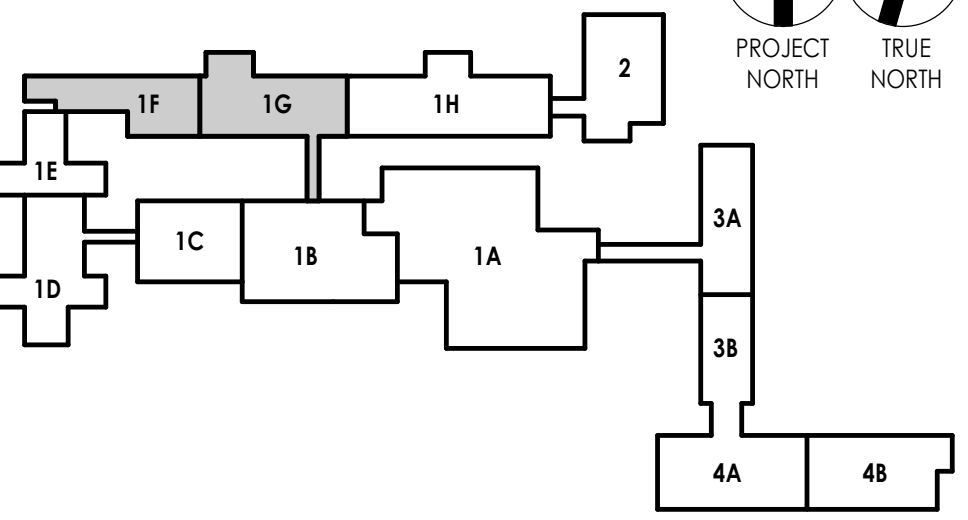
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- THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING FINISHES AND EQUIPMENT NOT REMOVED UNDER THE SCOPE OF WORK. ANY DAMAGE WILL BE REPAIRED TO THE OWNER/ARCHITECT'S SATISFACTION.
- WATER, POWER, COMMUNICATION, FIRE PROTECTION & GAS UTILITY SERVICES SHUT DOWN SHALL NOT EFFECT PORTIONS OF BUILDING(S) TO REMAIN IN USE. CONTRACTOR TO REROUTE OR PROVIDE TEMPORARY POWER, COMMUNICATION, FIRE PROTECTION AND GAS. COORDINATE SHUT DOWNS WITH OWNER.
- REMOVE AND REPLACE EXISTING CEILINGS, UNLESS OTHERWISE NOTED ON THE DRAWINGS, FOR PERFORMING DEMOLITION OF ALL WORK INDICATED ON THE CONSTRUCTION DRAWINGS. THE EXISTING CEILING SHALL BE REMOVED AND REPLACED IN A MANNER TO AVOID DAMAGE TO THE WALL SYSTEM.
- NOTIFY ARCHITECT AND OWNER OF EXISTING DUCTWORK, PIPE AND CONDUIT PENETRATIONS EXPOSED AFTER DEMOLITION THAT ARE NOT FIREFIGHTED THROUGH EXISTING WALLS IDENTIFIED AS FIRE AND/OR SMOKE RATED ON LIFE SAFETY PLANS. EXISTING NON-COMPLIANT PENETRATIONS ARE TO BE FIREFIGHTED.
- WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEANED AT END OF EACH DAY.
- ALL ITEMS SHOWN WITH A DASHED LINE ARE TO BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
- OWNER HAS THE RIGHT TO SALVAGE ANY FIXTURES AND/OR MILLWORK WITHIN AN AREA OF DEMOLITION PRIOR TO CONTRACTOR STARTING WORK IN THAT ZONE. COORDINATE TIMING OF SUCH REMOVALS WITH OWNER.
- THE OWNER WILL PROVIDE THE TESTING RESULTS OF ASBESTOS CONTAINING MATERIALS (ACM) IN THE PROJECT AREA. IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED OR QUESTIONED, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
- IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED THAT APPEAR TO CONTAIN HAZARDOUS MATERIALS SUCH AS BUT NOT LIMITED TO MOLD AND LEAD PAINT, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
- REMOVE ASSOCIATED CEILING MOUNTED DEVICES WHERE EXISTING CEILING IS INDICATED TO BE REMOVED. SALVAGE AND STORE DEVICES IN A SECURE LOCATION AND CLEAN FOR INSTALLATION IN THE SAME LOCATION WHEN THE CEILING IS REINSTALLED. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILING MOUNTED DEVICES AND FIXTURES SUCH AS SMOKE ALARMS, STROBES, SMOKE DETECTORS, OCCUPANCY SENSORS, AUDIO SPEAKERS, WIRELESS ACCESS DEVICES, ELECTRICAL OUTLETS, CEILING PROJECTORS OR SCREENS, AND SECURITY CAMERAS.



1
A101.1FG
1/8" = 1'-0"

DEMOLITION FLOOR PLAN - AREA 1B TO 1G CORRIDOR

KEY PLAN:



PROJECT INFORMATION

Project Number: R23.00325.00

Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS

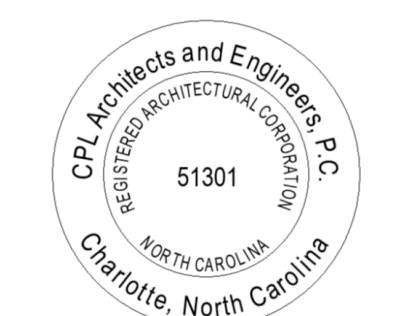
Project Name: FOUR OAKS ELEMENTARY SCHOOL

Project Address: 180 W HATCHER STREET, FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue	Date	Description
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PROFESSIONAL STAMPS



SHEET INFORMATION

Scale: As indicated

Project Status: BID SET

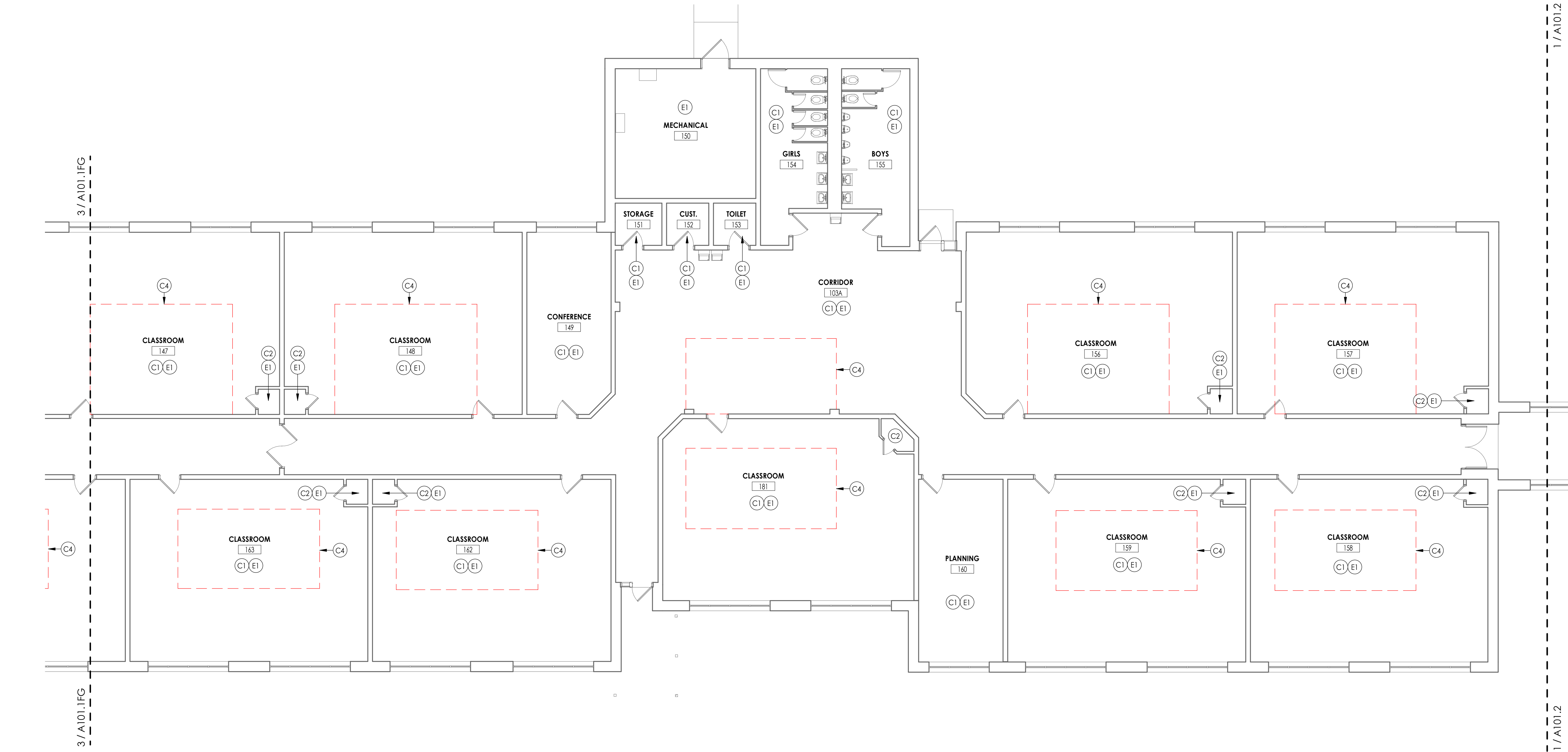
Drawn By: KV

Checked By: GB

Drawing Title: DEMOLITION PLAN AREA 1F AND 1G

Drawing Number: -

A101.1FG



1
A101.1H
DEMOLITION FLOOR PLAN - AREA 1H
1/8" = 1'-0"

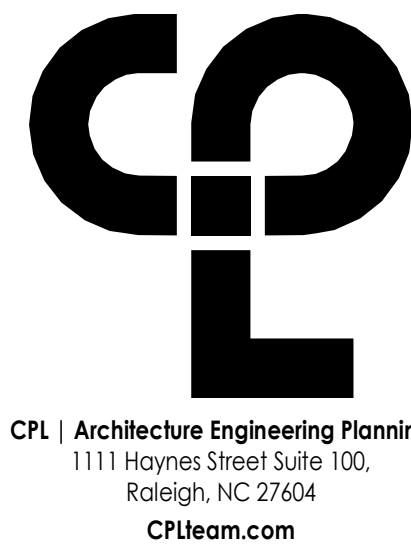
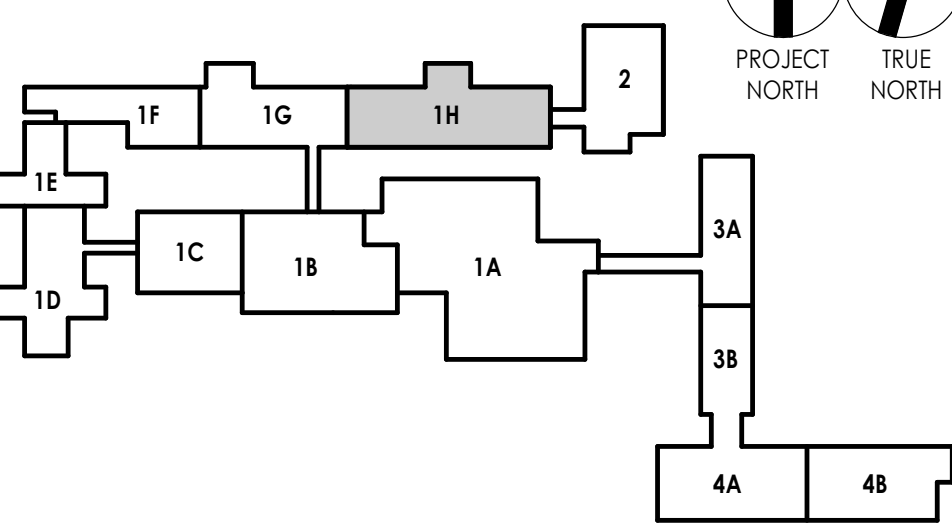
DEMOLITION GENERAL NOTES

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- REFER TO THE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF EXISTING UTILITIES AND SERVICES.
- REMAINING SUBSTRATES SHALL BE LEFT IN A CONDITION ACCEPTABLE TO RECEIVE NEW WORK. WHERE NEW FINISHES ARE SCHEDULED AT EXISTING CONDITIONS, REMOVE EXISTING FINISHES DOWN TO SUBSTRATE AND PREPARE SURFACE FOR NEW FINISH.
- THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING FINISHES AND EQUIPMENT NOT REMOVED UNDER THE SCOPE OF WORK. ANY DAMAGE WILL BE REPAIRED TO THE OWNER/ARCHITECT'S SATISFACTION.
- WATER, POWER, COMMUNICATION, FIRE PROTECTION & GAS UTILITY SERVICES SHUT DOWNS SHALL NOT EFFECT PORTIONS OF BUILDING(S) TO REMAIN IN USE. CONTRACTOR TO REROUTE OR PROVIDE TEMPORARY POWER, COMMUNICATION, FIRE PROTECTION AND GAS. COORDINATE SHUT DOWNS WITH OWNER.
- REMOVE AND REPLACE EXISTING CEILINGS, UNLESS OTHERWISE NOTED ON THE DRAWINGS, FOR PERFORMING DEMOLITION OF ALL WORK INDICATED ON THE CONSTRUCTION DRAWINGS. THE EXISTING CEILING SHALL BE REMOVED AND REPLACED IN A MANNER TO AVOID DAMAGE TO THE WALL SYSTEM.
- NOTIFY ARCHITECT AND OWNER OF EXISTING DUCTWORK, PIPE AND CONDUIT PENETRATIONS EXPOSED AFTER DEMOLITION THAT ARE NOT FIRESTOPPED THROUGH EXISTING WALLS IDENTIFIED AS FIRE AND/OR SMOKE RATED ON LIFE SAFETY PLANS. EXISTING NON-COMPLIANT PENETRATIONS ARE TO BE FIRESTOPPED.
- WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEANED AT END OF EACH DAY.
- ALL ITEMS SHOWN WITH A DASHED LINE ARE TO BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
- OWNER HAS THE RIGHT TO SALVAGE ANY FIXTURES AND/OR MILLWORK WITHIN AN AREA OF DEMOLITION PRIOR TO CONTRACTOR STARTING WORK IN THAT ZONE. COORDINATE TIMING OF SUCH REMOVALS WITH OWNER.
- THE OWNER WILL PROVIDE THE TESTING RESULTS OF ASBESTOS CONTAINING MATERIALS (ACM) IN THE PROJECT AREA. IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED OR QUESTIONED, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
- IN THE CASE THAT ANY SUSPICIOUS MATERIALS ARE UNCOVERED THAT APPEAR TO CONTAIN HAZARDOUS MATERIALS SUCH AS BUT NOT LIMITED TO MOLD AND LEAD PAINT, LEAVE THE PREMISES AND NOTIFY THE OWNER FOR REQUIRED TESTING AND/OR REMOVALS.
- REMOVE ASSOCIATED CEILING MOUNTED DEVICES WHERE EXISTING CEILING IS INDICATED TO BE REMOVED. SALVAGE AND STORE DEVICES IN A SECURE LOCATION AND CLEAN FOR INSTALLATION IN THE SAME LOCATION WHEN THE CEILING IS REINSTALLED. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILING MOUNTED DEVICES AND FIXTURES SUCH AS SMOKE ALARMS, STROBES, SMOKE DETECTORS, OCCUPANCY SENSORS, AUDIO SPEAKERS, WIRELESS ACCESS DEVICES, ELECTRICAL OUTLETS, CEILING PROJECTORS OR SCREENS, AND SECURITY CAMERAS.

DEMOLITION KEY NOTES

- (C1) REMOVE CEILING SYSTEM IN ITS ENTIRETY
- (C2) MAINTAIN EXISTING GYPSOBOARD CEILING, REPAIR & REPAINT
- (C3) MAINTAIN EXISTING GYPSOBOARD SOFFIT AT CLERESTORY, REPAIR & REPAINT
- (C4) REMOVE EXISTING BULKHEAD AND BAFFLES SEE DETAIL 2/A101 FOR DEMOLITION EXTENT
- (D1) REMOVE EXISTING DOOR AND HARDWARE
- (E1) REMOVE EXISTING LIGHT FIXTURES, SEE ELECTRICAL
- (F1) REMOVE EXISTING FLOOR TILE
- (F2) REMOVE EXISTING CONCRETE HOUSEKEEPING PAD DOWN TO FLOOR LEVEL AND PREPARE NEW CONCRETE PAD FOR INSTALLATION
- (G1) REMOVE EXISTING SHOWER HEAD AND MIXING VALVE; PATCH AND SEAL ANY EXPOSED OPENINGS AFTER REMOVAL OF CAP AND ABANDON H/C WATER SUPPLY PIPING
- (G2) REMOVE EXISTING TYPE II HOOD
- (S1) REMOVE AND DISPOSE OF PAVEMENT
- (S2) REMOVE EXISTING TREE AND STUMP COMPLETE
- (S3) REMOVE EXISTING LIGHT POST BASE
- (W1) REMOVE EXISTING MASONRY WALL FULL HEIGHT TO THE EXTENT SHOWN

KEY PLAN:



PROJECT INFORMATION

Project Number: R23.00325.00
Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name: FOUR OAKS ELEMENTARY SCHOOL

Project Address: 180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS



SHEET INFORMATION

Scale: As indicated
Date: 02/17/2025
Project Status: BID SET
Drawn By: KV
Checked By: GB
Drawing Title: DEMOLITION PLAN AREA 1H

Drawing Number

A101.1H



1
A101.2
DEMOLITION FLOOR PLAN - AREA 2
1/8" = 1'-0"

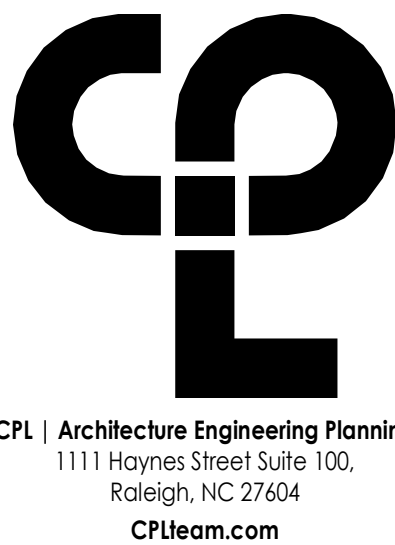
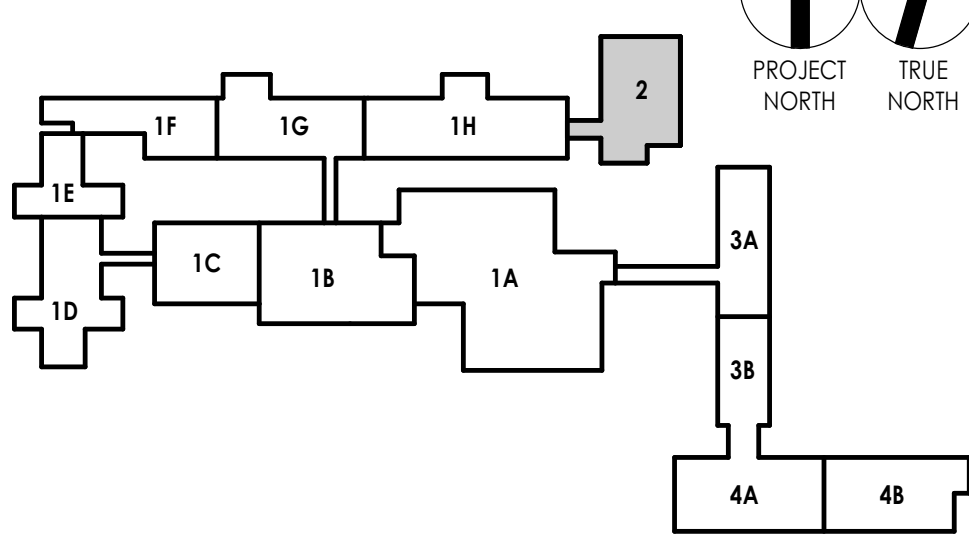
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KEY PLAN:



PROJECT INFORMATION

Project Number: R23.00325.00
Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name: FOUR OAKS ELEMENTARY SCHOOL

Project Address: 180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS

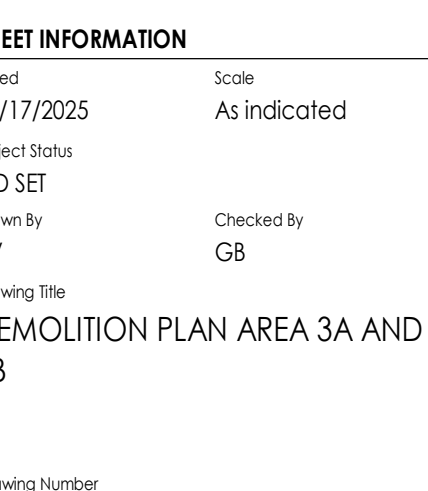


SHEET INFORMATION

Issue: 02/17/2025
Project Status: BID SET
Drawn By: KV
Checked By: GB
Drawing Title: DEMOLITION PLAN AREA 2

Drawing Number

A101.2



OBJECT INFORMATION	
Object Number	3.00325.00
Object Name	
DHNSTON COUNTY PUBLIC SCHOOLS	
Object Name	
FOUR OAKS ELEMENTARY SCHOOL	

Project Address
100 W HATCHER STREET
DURHAM, NC 27524

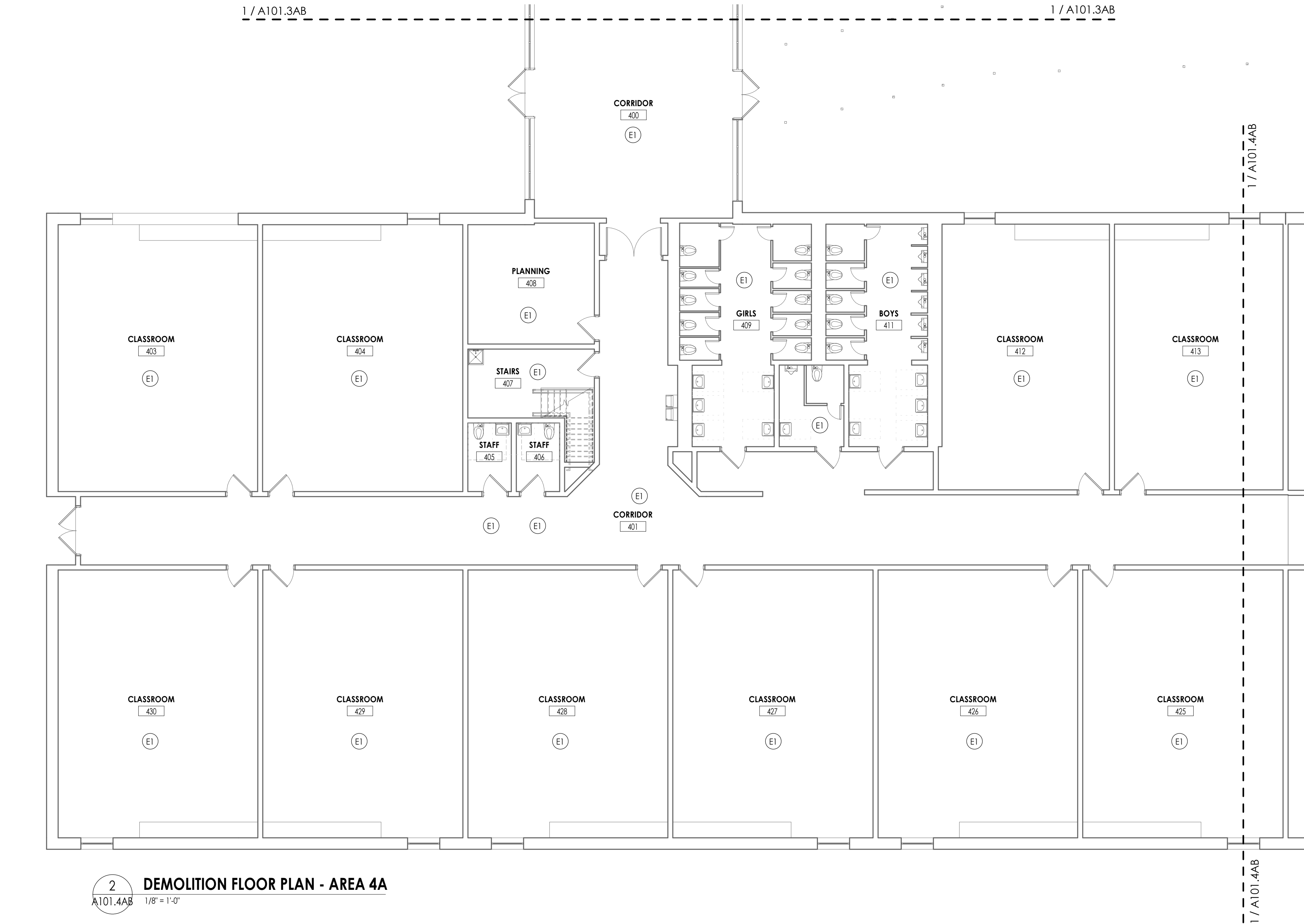
OBJECT ISSUE & REVISION SCHEDULE	
Date	Description

PROFESSIONAL STAMPS

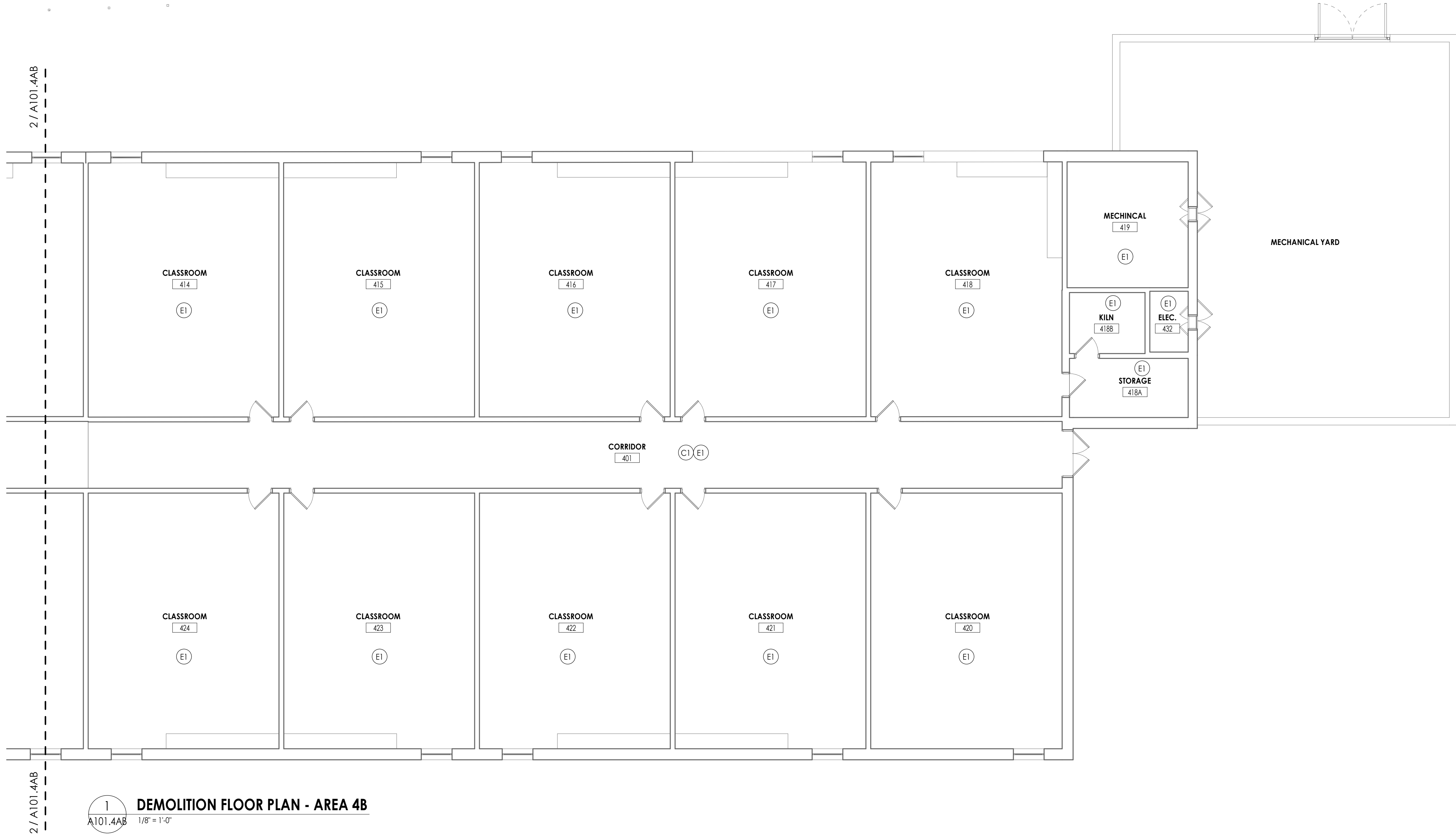


SHEET INFORMATION	
Revised	Scale
1/17/2025	As indicated
Project Status	
PROJECT SET	
Drawn By	Checked By
	GB
Drawing Title	
DEMOLITION PLAN AREA 3A AND 3B	
Drawing Number	
-	
A101.3AB	

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2
A101.4AB
1/8" = 1'-0"



1
A101.4AB
1/8" = 1'-0"

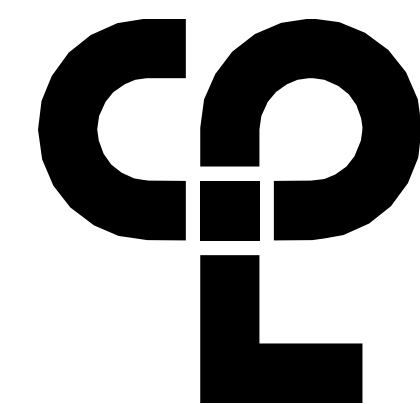
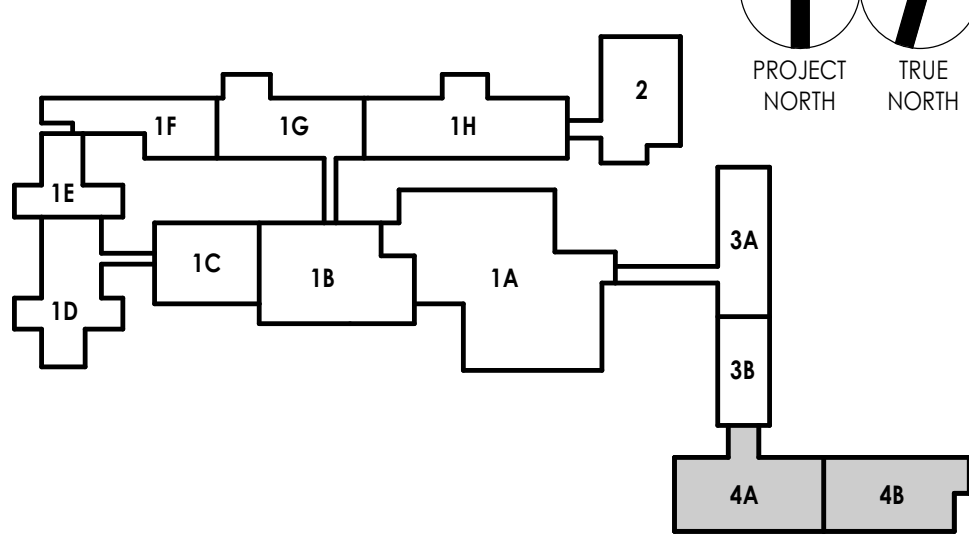
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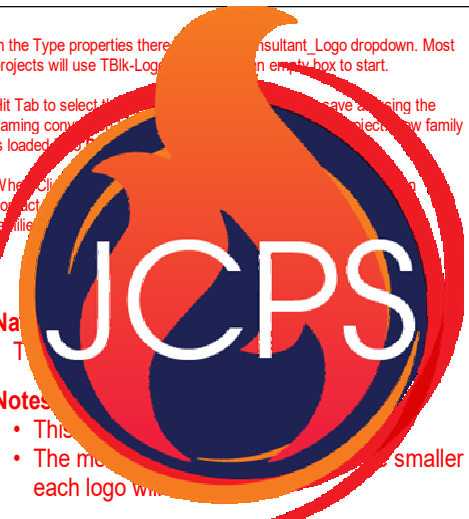
DEMOLITION KEY NOTES

- (C1) REMOVE CEILING SYSTEM IN ITS ENTIRETY
- (C2) MAINTAIN EXISTING GYPSOBOARD CEILING, REPAIR & REPAINT
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KEY PLAN:



CPL | At-So Set Office Location Planning
Select Family, Edit Type properties.
Check the box next to correct office location.
See huddle.cplteam.com for more info.

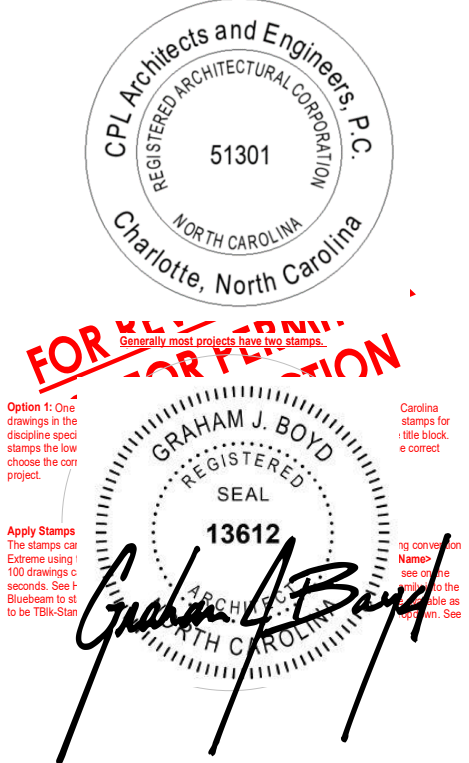


PROJECT INFORMATION
Project Number: R23.00325.00
Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name: FOUR OAKS ELEMENTARY SCHOOL
Project Address: 180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Date Description

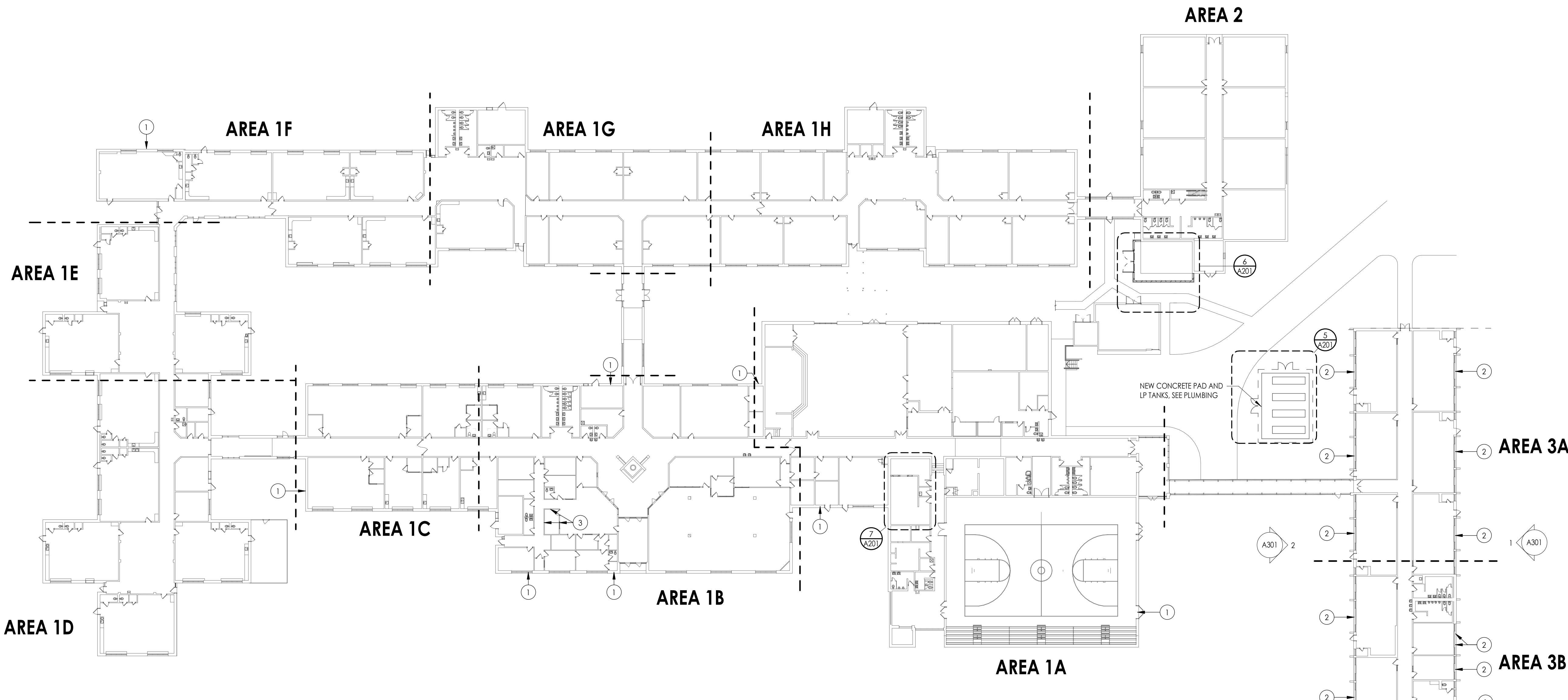
PROFESSIONAL STAMPS



SHEET INFORMATION

Issue: 02/17/2025 Scale: As indicated
Project Status: BID SET
Drawn By: KV Checked By: GB
Drawing Title: DEMOLITION PLAN AREA 4A AND 4B
Drawing Number: -

A101.4AB

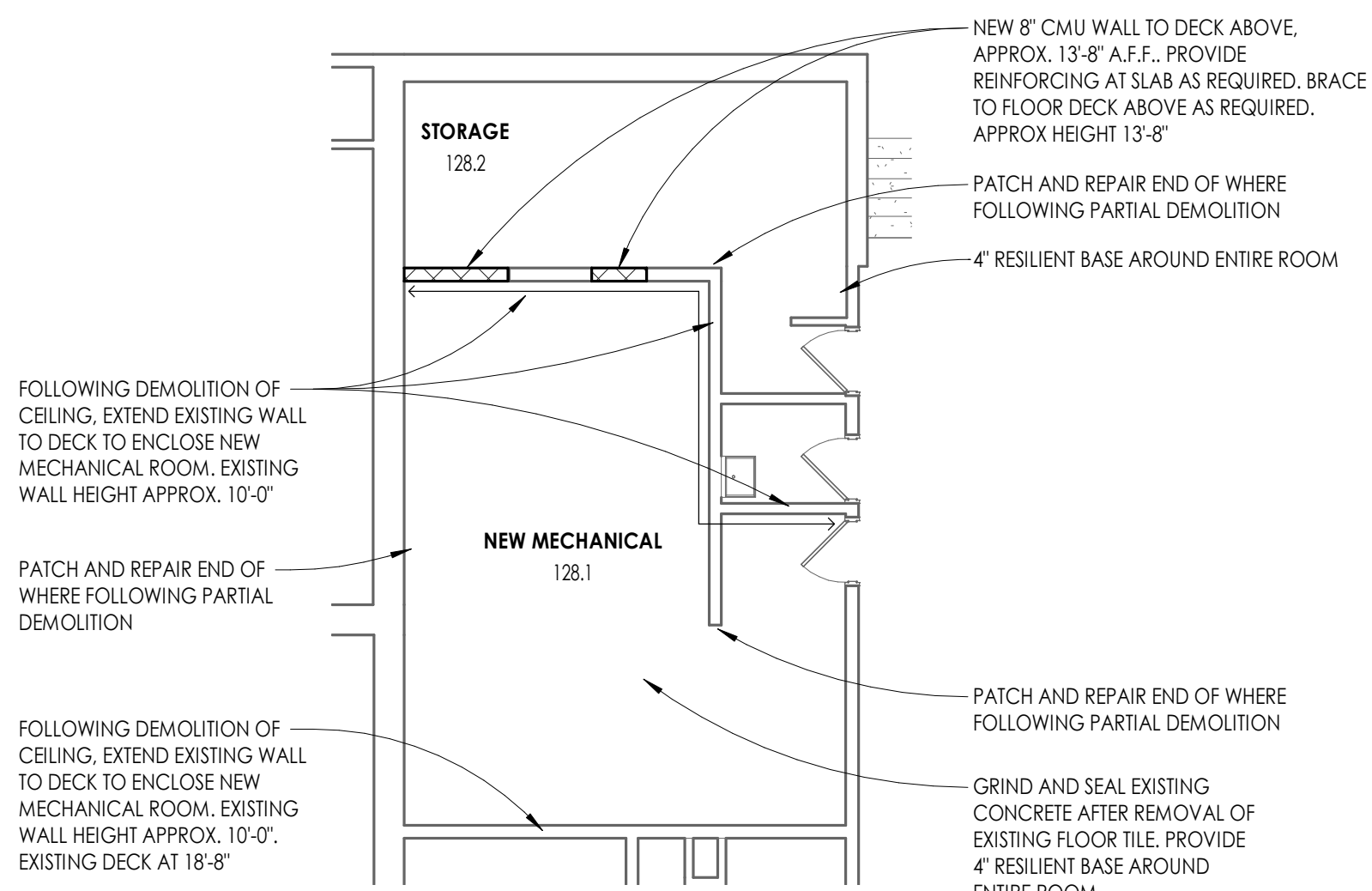


- ### FLOOR PLAN GENERAL NOTES
- ALL DRAWINGS ARE GRAPHIC REPRESENTATIONS OF APPROXIMATE LOCATIONS OF EXISTING AND NEW MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
 - ALL WALL DIMENSIONS INDICATED ON FLOOR PLANS ARE FROM FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING FINISHES AND EQUIPMENT NOT REMOVED UNDER THE SCOPE OF WORK. ANY DAMAGE WILL BE REPAIRED TO THE OWNER'S/ARCHITECT'S SATISFACTION AT NO COST TO THE OWNER.
 - WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOMED CLEAN AT END OF EACH DAY.
 - THE CONTRACTOR SHALL PROVIDE DUST CONTROL BARRIERS AT ALL AREAS OF CONSTRUCTION.
 - THE CONTRACTOR SHALL PATCH ALL SURFACES WHERE EXISTING MATERIALS HAVE BEEN DISTURBED TO MATCH AND BE FLUSH WITH ADJACENT CONSTRUCTION AT ALL FLOOR, WALL, AND CEILING LOCATIONS.
 - CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR SEQUENCING OF WORK.
 - EQUIPMENT SHOWN ON THESE DOCUMENTS ARE FOR REFERENCE ONLY AND ARE FOR COORDINATION OF M.E.P. INFRASTRUCTURE TO OPERATE ITEMS INCLUDED UNDER THE SCOPE.
 - AT NEW ROOF PENETRATIONS, MAINTAIN EXISTING SLOPE OF ROOF. SEE MECH SHEET #800 FOR ROOF CURB DETAIL.

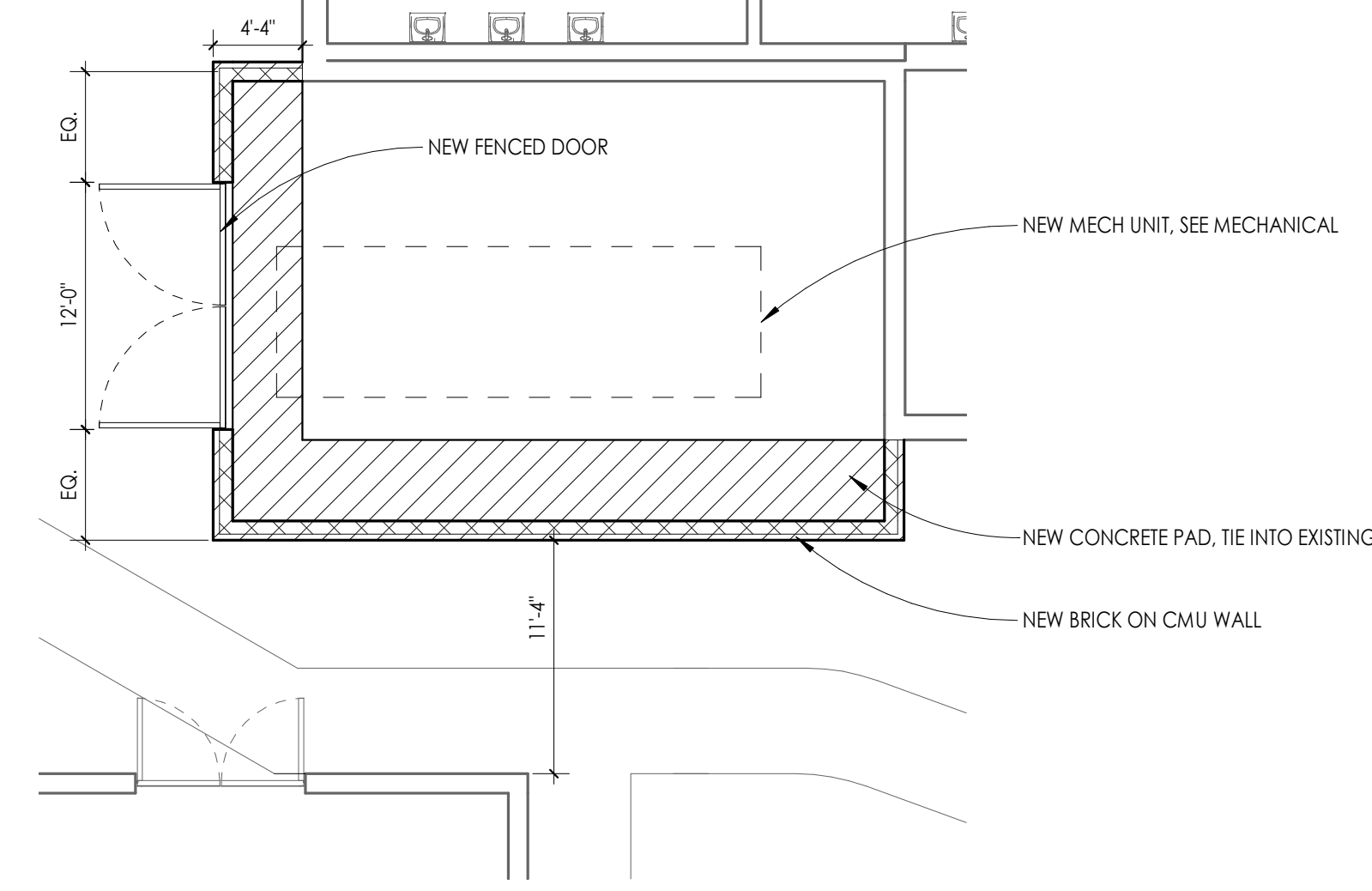
- ### FLOOR PLAN LEGEND
- NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT.
- | | |
|--|--|
| | COLUMN LINE IDENTIFICATION |
| | ROOM NAME |
| | ROOM TAG |
| | WATER HEATER/ AIR HANDLER, SEE MECHANICAL DRAWINGS |
| | SECTION MARK |
| | INTERIOR ELEVATION MARK |
| | EXTERIOR ELEVATION MARK |
| | DETAIL FOR REFERENCE MARK |
| | DENOTES FINISH FLOOR GRADE ELEVATION |
| | WALL TYPE SEE A/400 |

- ### FLOOR PLAN KEY NOTES
- INFILL WALL FOLLOWING REMOVAL OF FCU. SEE MECHANICAL, ARCH ELEVATION, AND DETAIL 3/A201
 - INFILL WALL FOLLOWING REMOVAL OF FCU. SEE MECHANICAL, ARCH ELEVATION, AND DETAIL 2/A201
 - EXTEND EXISTING WALL ABOVE CEILING. SEE DETAIL 4/A201

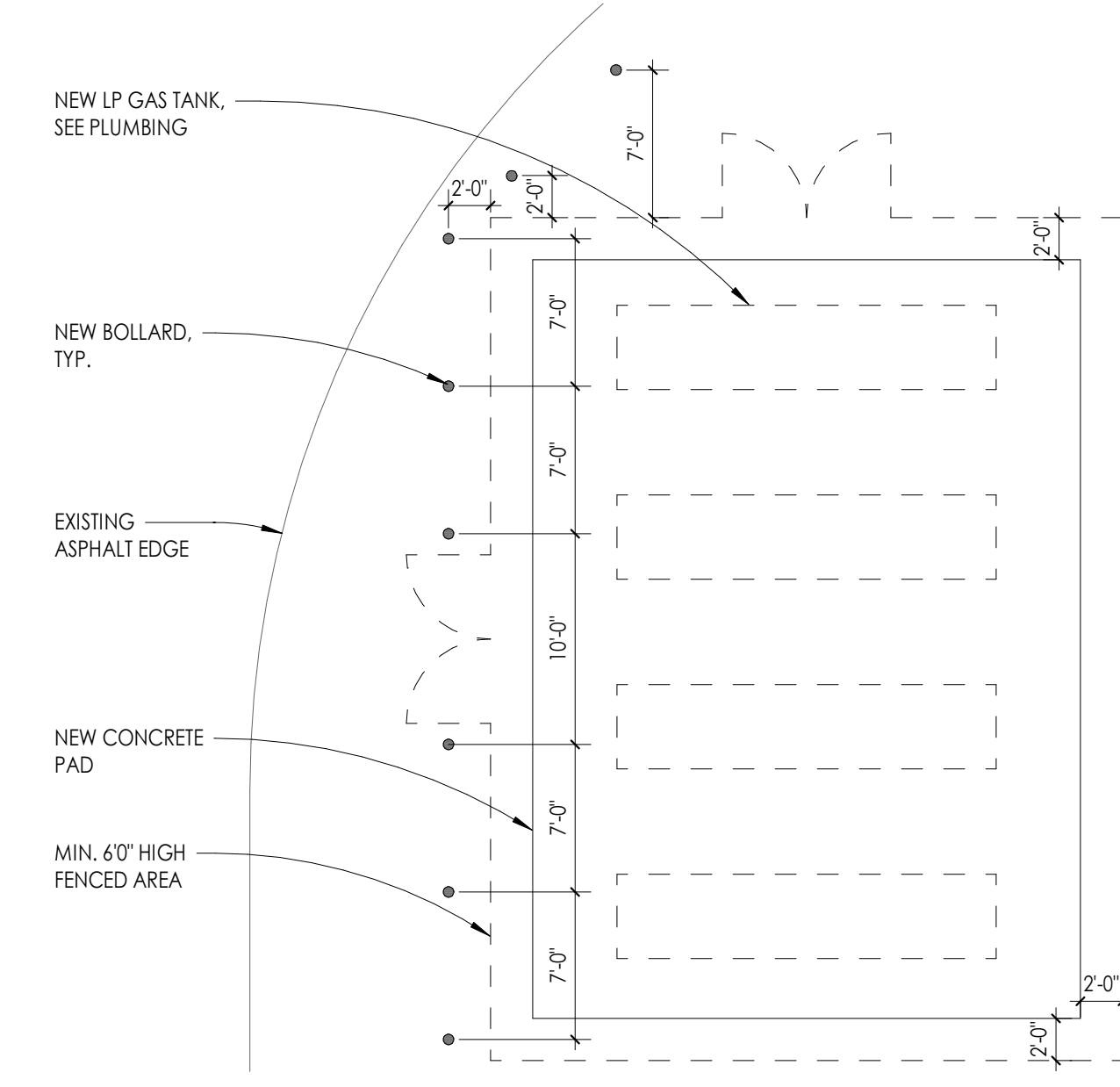
7 ENLARGED FLOOR PLAN
1/8" = 1'-0"



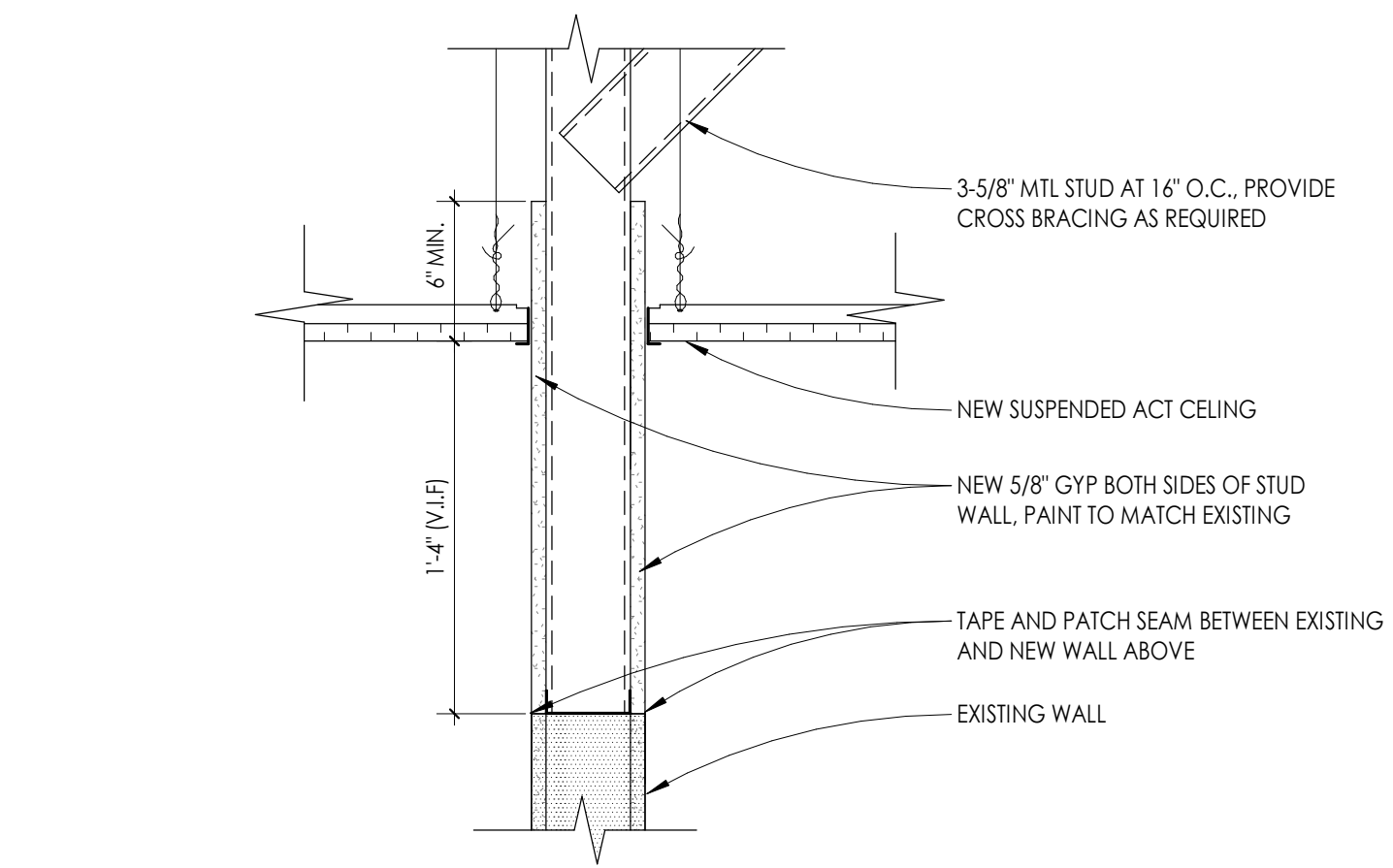
6 ENLARGED FLOOR PLAN
1/8" = 1'-0"



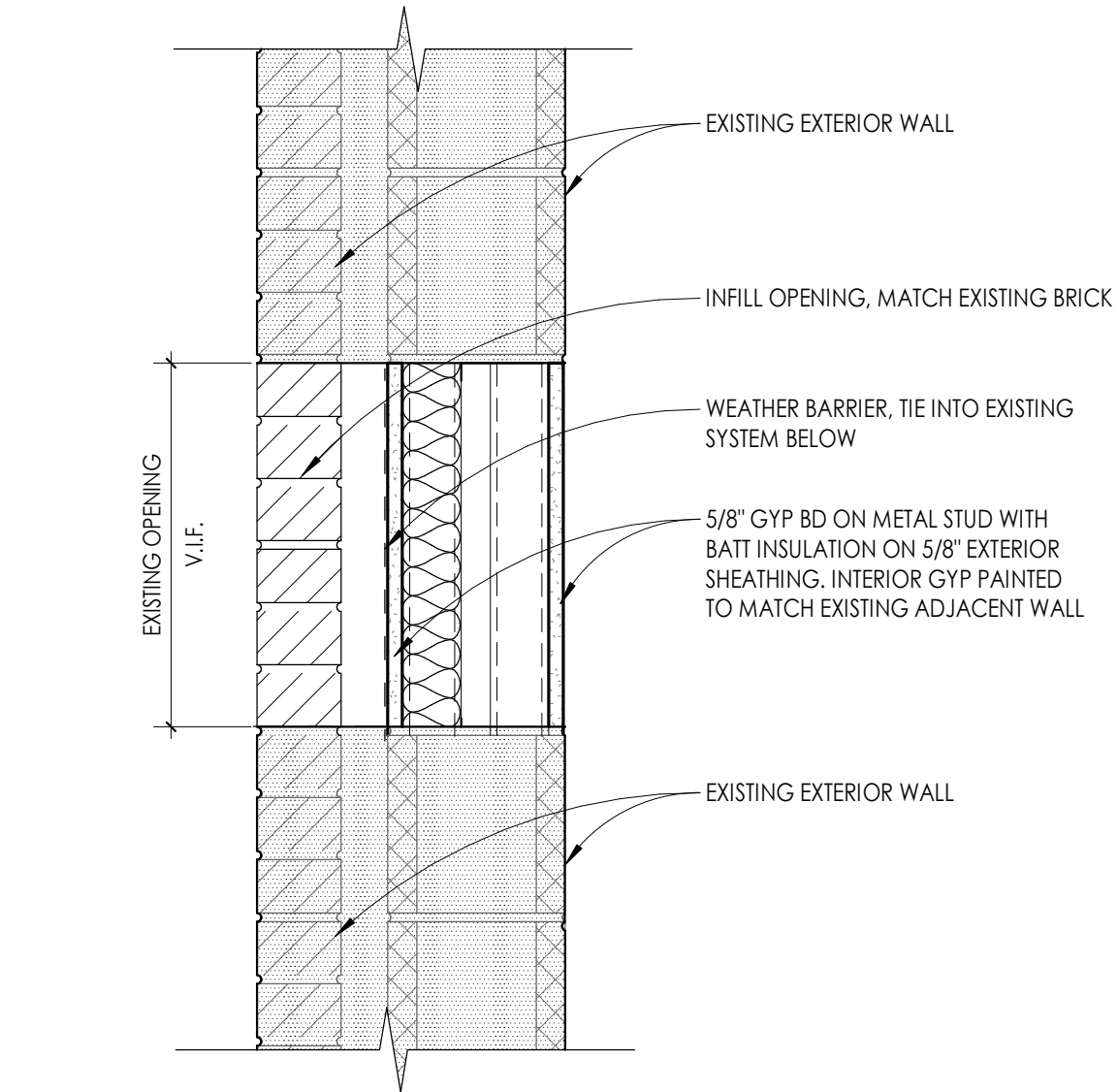
5 ENLARGED FLOOR PLAN
1/8" = 1'-0"



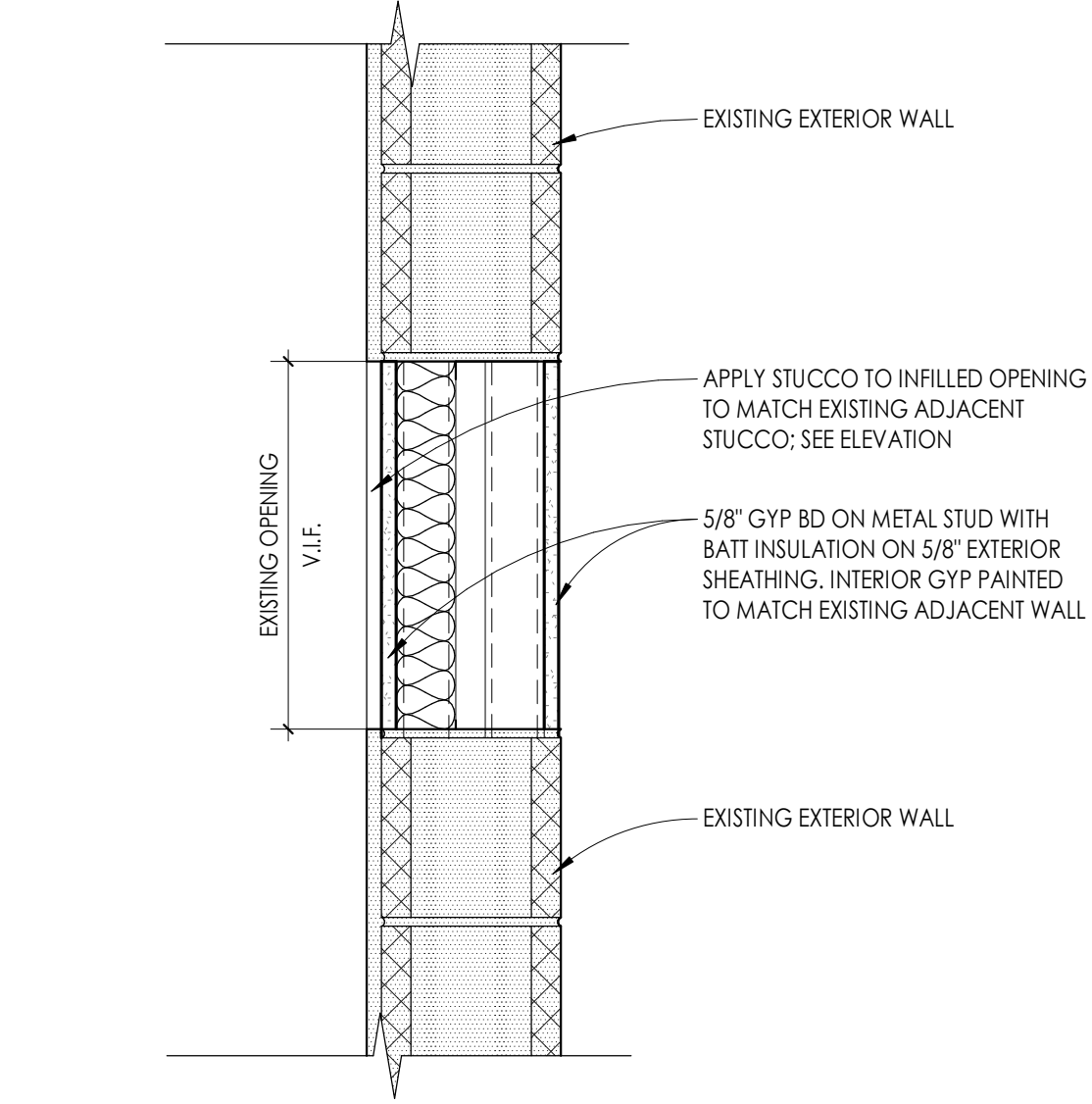
4 ENLARGED WALL DETAIL
1 1/2" = 1'-0"



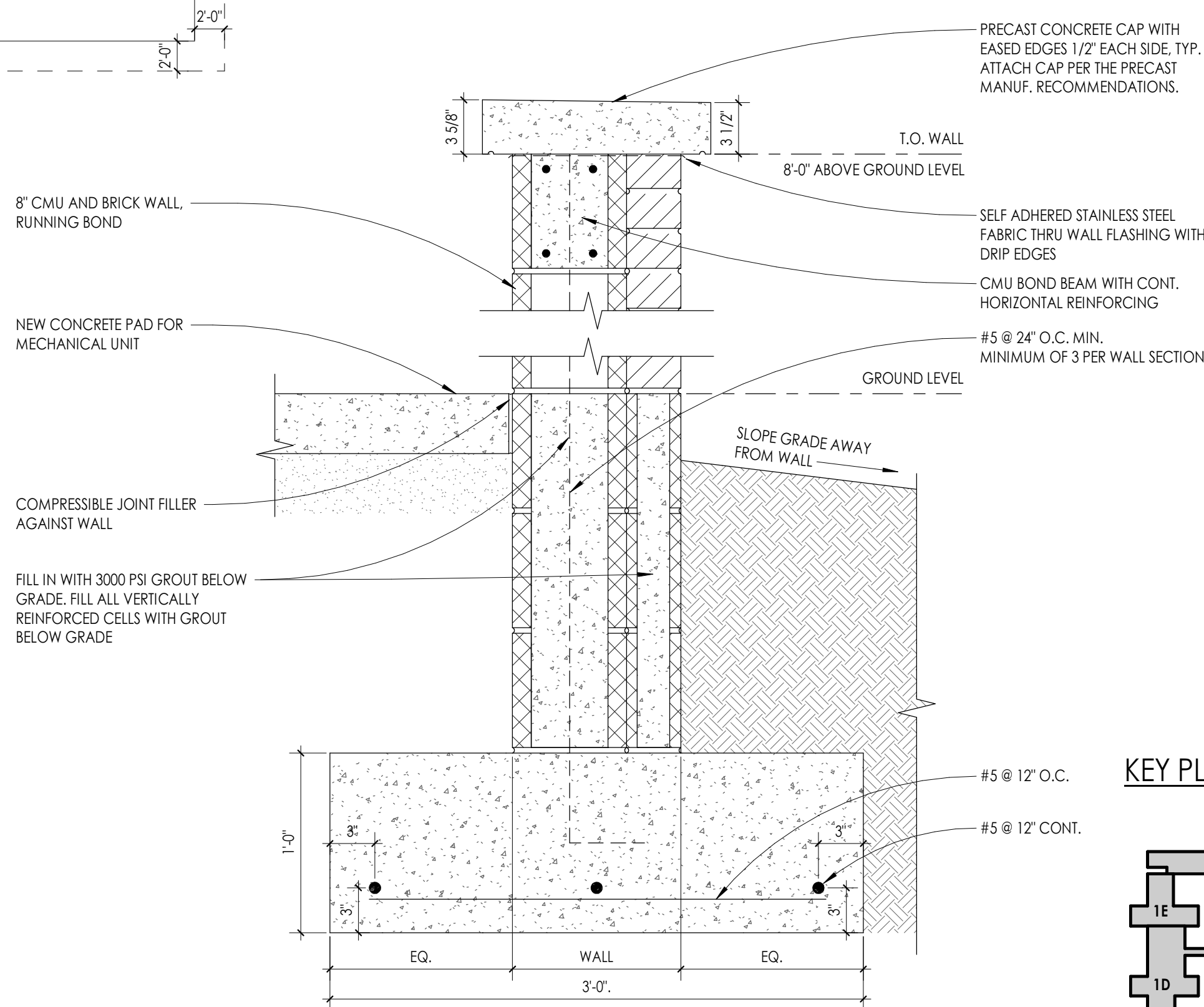
3 WALL INFILL AT EXISTING EXTERIOR LOUVER
1 1/2" = 1'-0"



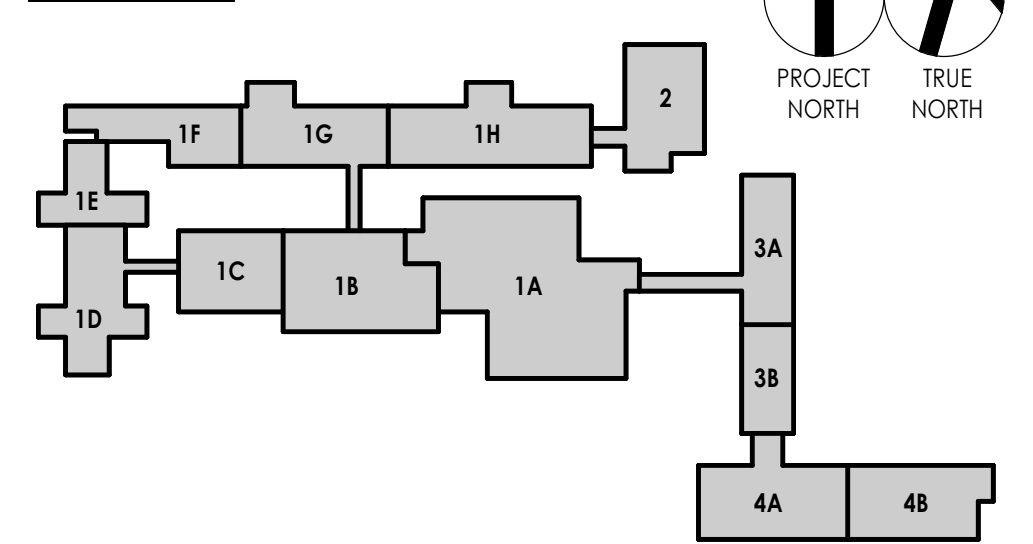
2 WALL INFILL AT EXISTING EXTERIOR LOUVER
1 1/2" = 1'-0"



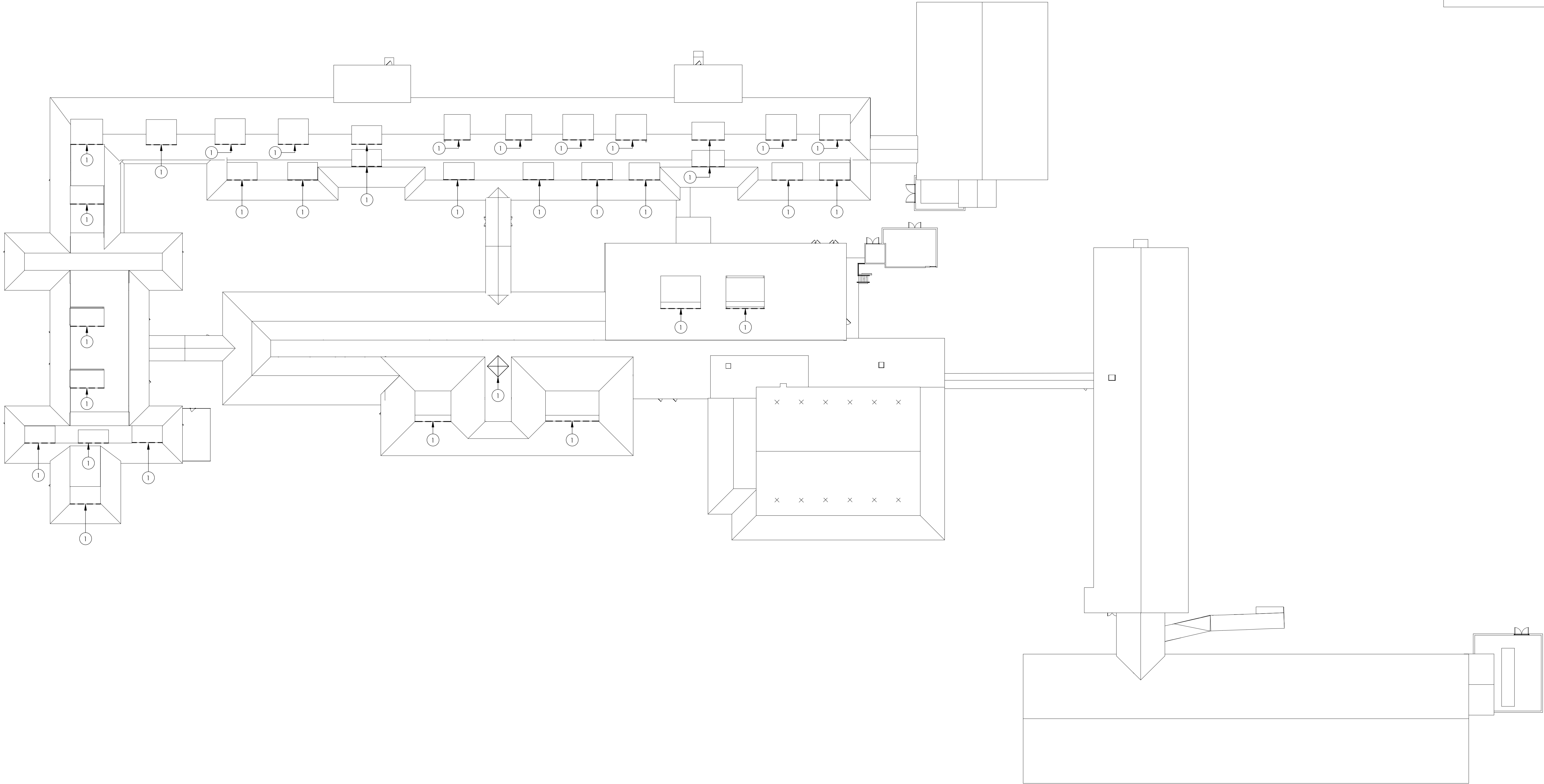
1 BRICK WALL SECTION
1 1/2" = 1'-0"



KEY PLAN:



2/18/2025 10:20:57 AM S:\Projects\Johnston_Co\PS\005 & SES HVAC\1 Design & Autodesk Docs\R23\00025_00_005 - 405 & SES\Four Oaks MEP_2022.rvt



ROOF PLAN GENERAL NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATIONS OF APPROXIMATE LOCATIONS OF MATERIALS. FIELD VERIFY ALL CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.
2. REFER TO ALL DRAWINGS IN THE SET FOR LOCATIONS OF ALL ROOF PENETRATIONS. PROVIDE FRAMING AS REQUIRED.
3. PAINT ALL ROOF FASTENERS EXPOSED TO VIEW AT UNDERSIDE OF DECK TO MATCH.
4. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE BROOM CLEAN AT THE END OF EACH DAY.
5. ALL WOOD BLOCKING USED SHALL BE PRESSURE TREATED.
6. INSTALL ALL ROOF DRAINS AND CUTTING THE HOLES IN THE DECK FOR ANY DRAINS AND PROVIDING STRUCTURAL SUPPORTS.
7. NO WEEP HOLES SHALL BE COVERED OR PLUGGED AS A RESULT OF THE ROOFING WORK, UNLESS OTHERWISE DIRECTED.
8. MAINTAIN WATER TIGHTNESS AND PROVIDE PROTECTION AT ANY/ALL OPENINGS IN THE ROOF LEFT AT THE END OF EACH DAY.
9. PROVIDE CRICKETS FOR WATER DIVERSION AT ALL CURBS, RAILS, ETC. WHICH RUN PERPENDICULAR TO THE SLOPE OF THE INSULATION/SLOPED STRUCTURE.
10. ALL ROOF TOP UNITS SHALL BE MOUNTED ON 1/2" MIN. INSULATED METAL CURBS. PROVIDE TAPERED INSULATION CRICKETS AS REQUIRED TO SHED WATER. WOOD BLOCKING SHALL BE PROVIDED SO CURBS ARE 8" ABOVE FINISHED ROOF SURFACE.
11. ALL SADDLES AND CRICKETS ARE TO HAVE A MIN. 1/4" PER FOOT SLOPE AS INDICATED. PROVIDE CRICKETS FOR DIVERSION OF WATER AT ALL CURBS, RAILS, ETC. WHICH RUN PERPENDICULAR TO SLOPE OF INSULATION.
12. AT ALL MECHANICAL EQUIPMENT, PROVIDE SLOPED INSULATION AS REQUIRED TO DRAIN ROOF WATER AWAY FROM HIGH SIDE OF CURBS.
13. ALL CURBS FOR MECHANICAL EQUIPMENT SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR, ASSOCIATED ROOF FLASHING BY GENERAL CONTRACTOR.

ROOF KEYNOTES

- 1 PROVIDE BLACK OUT FILM ON EXTERIOR SIDE OF EXISTING CLERESTORY



PROJECT INFORMATION

Project Number
R23.00325.00
Client Name
JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name
FOUR OAKS ELEMENTARY SCHOOL

Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS



SHEET INFORMATION

Issue Date
02/17/2025
Project Status
BID SET
Drawn By
KV
Checked By
GB
Drawing Title
ROOF PLAN

Drawing Number

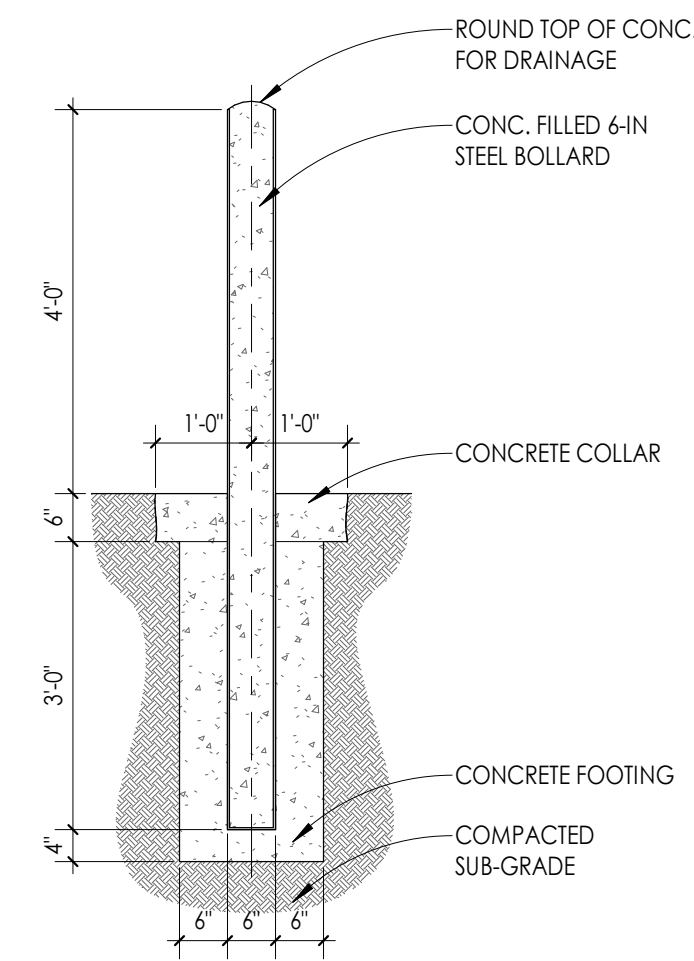
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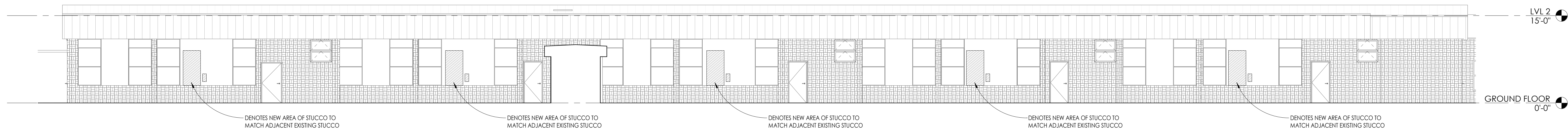
PROJECT INFORMATION
Project Number
R23.00325.00
Client Name
JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name
FOUR OAKS ELEMENTARY SCHOOL

Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

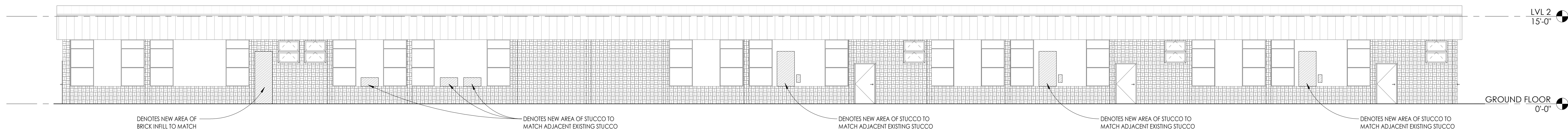
PROJECT ISSUE & REVISION SCHEDULE
Date Description



3 BOLLARD DETAIL
A301 1/2" = 1'-0"



2 ENLARGED BUILDING ELEVATION
A301 1/8" = 1'-0"



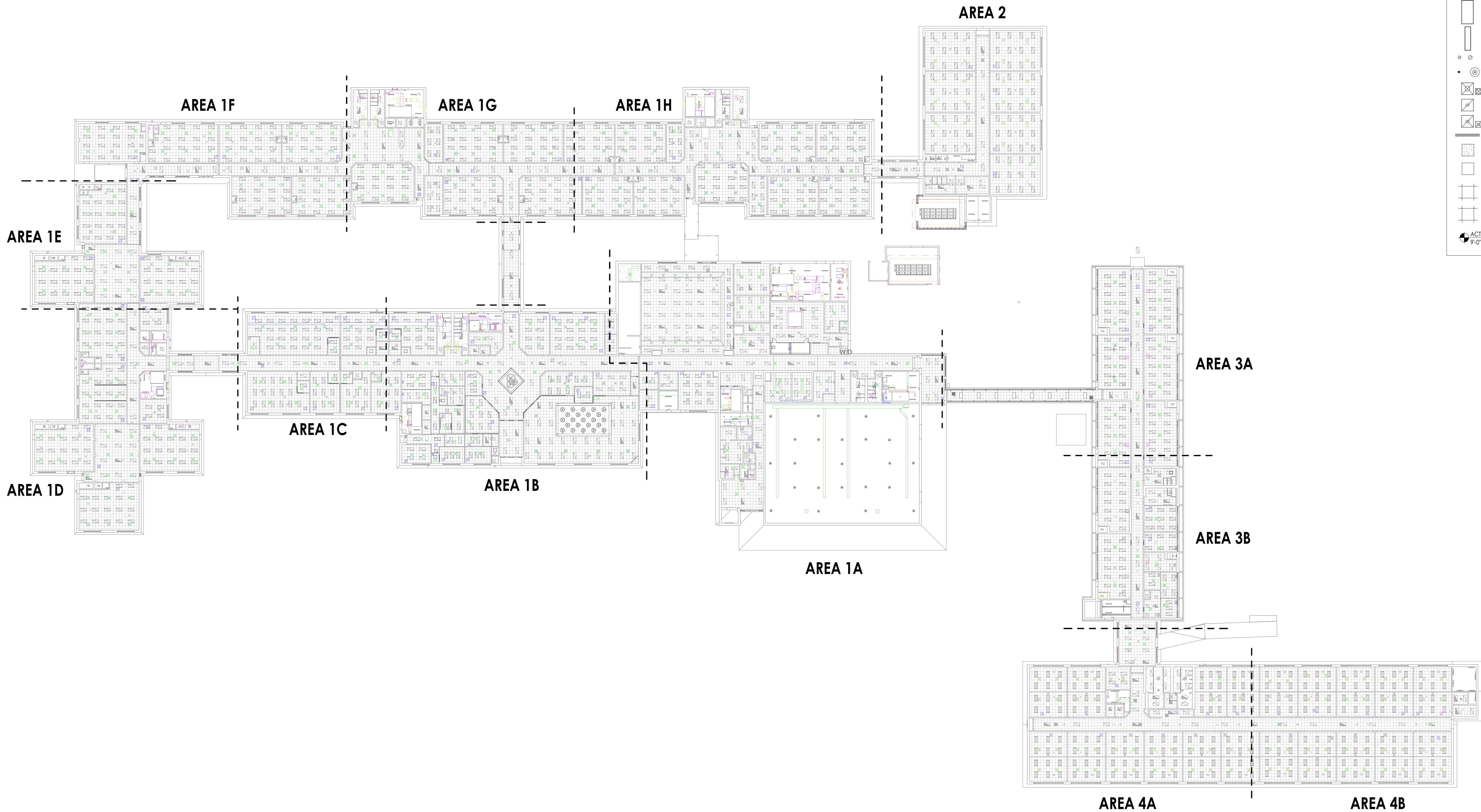
1 ENLARGED BUILDING ELEVATION
A301 1/8" = 1'-0"

PROFESSIONAL STAMPS



SHEET INFORMATION
Name: 02/17/2025 Scale: As indicated
Project Status: BID SET
Drawn By: KV Checked By: GB
Drawing Title: BUILDING ELEVATIONS & SITE DETAILS
Drawing Number:

2/18/2025 10:21:05 AM S:\Projects\Johnston County\PCS\PCS & SES HVAC, ID Design & Autodesk Docs\R23\0325\00_CPS & SES\Four Oaks MEP_2022.rvt



1 OVERALL REFLECTED CEILING PLAN
A601 1/32" = 1'-0"

GENERAL CEILING NOTES

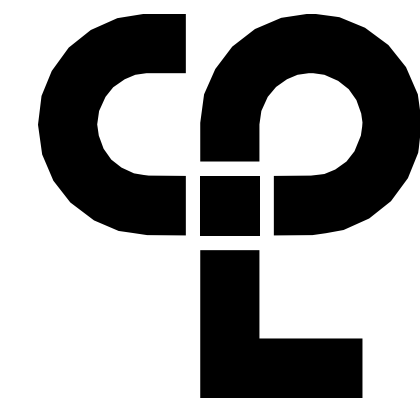
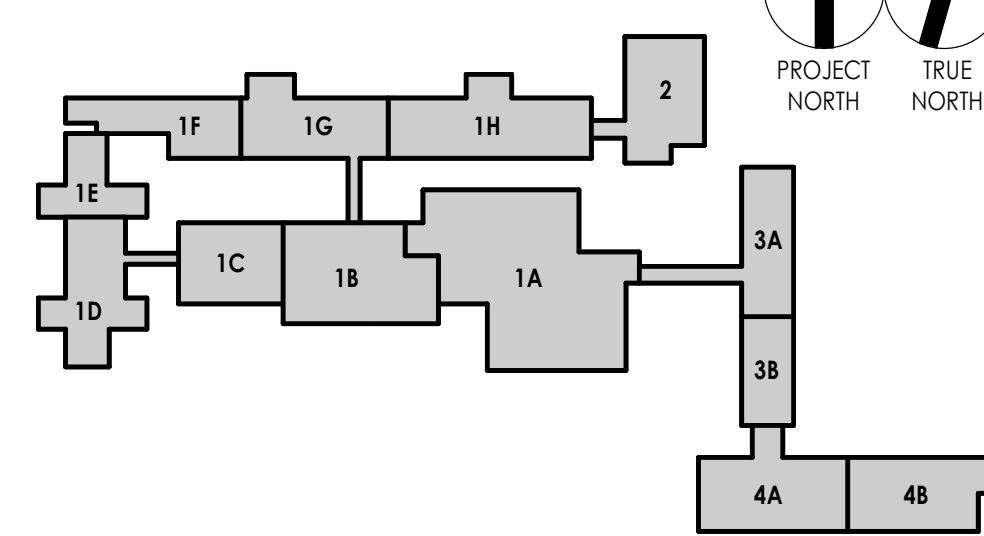
1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO A201 FOR FLOOR PLAN.
3. FOR ANY DISCREPANCY BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN, THE REFLECTED CEILING PLAN SHALL TAKE PRECEDENCE. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
4. PROVIDE UL RATED FIRE STOP ASSEMBLY FOR MECHANICAL ELECTRICAL AND PLUMBING TEAMS, INCLUDING BUT NOT LIMITED TO DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH FLOORS AND WALLS.
5. COORDINATE CEILING INSTALLATIONS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
6. REFER TO "M" SERIES DRAWINGS FOR DIFFUSERS AND GRILLE LOCATIONS.
7. REFER TO "L" SERIES DRAWINGS FOR LIGHTING TYPES AND CONTROLS.
8. REFER TO "P" SERIES DRAWINGS FOR PLUMBING RELATED SCOPE OF WORK.
9. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY.
10. CENTER CEILING GRID (EACH WAY) IN ROOMS SCHEDULED TO RECEIVE ACOUSTICAL CEILING SYSTEMS UNLESS OTHERWISE NOTED.
11. VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4" IN WIDTH.
12. PROVIDE MOISTURE RESISTANT GYP. BD. AT TOILET ROOM, JANITOR'S CLOSET AND OTHER WET LOCATION CEILING ASSEMBLIES.
13. ALL GYP. BD. CEILINGS AND SOFFITS SHALL BE PRIMED AND PAINTED ON ALL FACES AND UNDERSIDE SURFACE.
14. WHERE APPLICABLE ALL FIXTURES AND DEVICES SHALL BE CENTERED ON A CEILING TILE.
15. INSTALL CONTROL JOINTS IN GYP. CEILINGS PER ASTM C 840.
16. IN THE ROOMS THAT CONTAIN AN EXISTING CLERESTORY SPACE, PROVIDE 3-1/2" BATT INSULATION ABOVE NEW CEILING.

CEILING SYMBOL LEGEND

NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THE PROJECT.

	2'x4' LIGHTS
	1'x4' LINEAR LIGHT FIXTURE
	RECESSED CAN LIGHT FIXTURE
	PENDANT LIGHT FIXTURES
	SUPPLY AIR DIFFUSERS
	RETURN AIR DIFFUSERS
	EXHAUST DIFFUSERS
	LINEAR SLOT AIR DIFFUSERS
	NEW GYPSUM WALL BOARD CEILING
	EXISTING GYPSUM CEILING
	ACT-1
	ACT-2 (NEW KITCHEN ZONE)
	CEILING TYPE AND CEILING HEIGHT ABOVE FINISHED FLOOR

KEY PLAN:



CPL | Architecture Engineering Planning
1111 Hayes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



PROJECT INFORMATION

Project Number
R23.00325.00
Client Name
JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name
FOUR OAKS ELEMENTARY SCHOOL

Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS

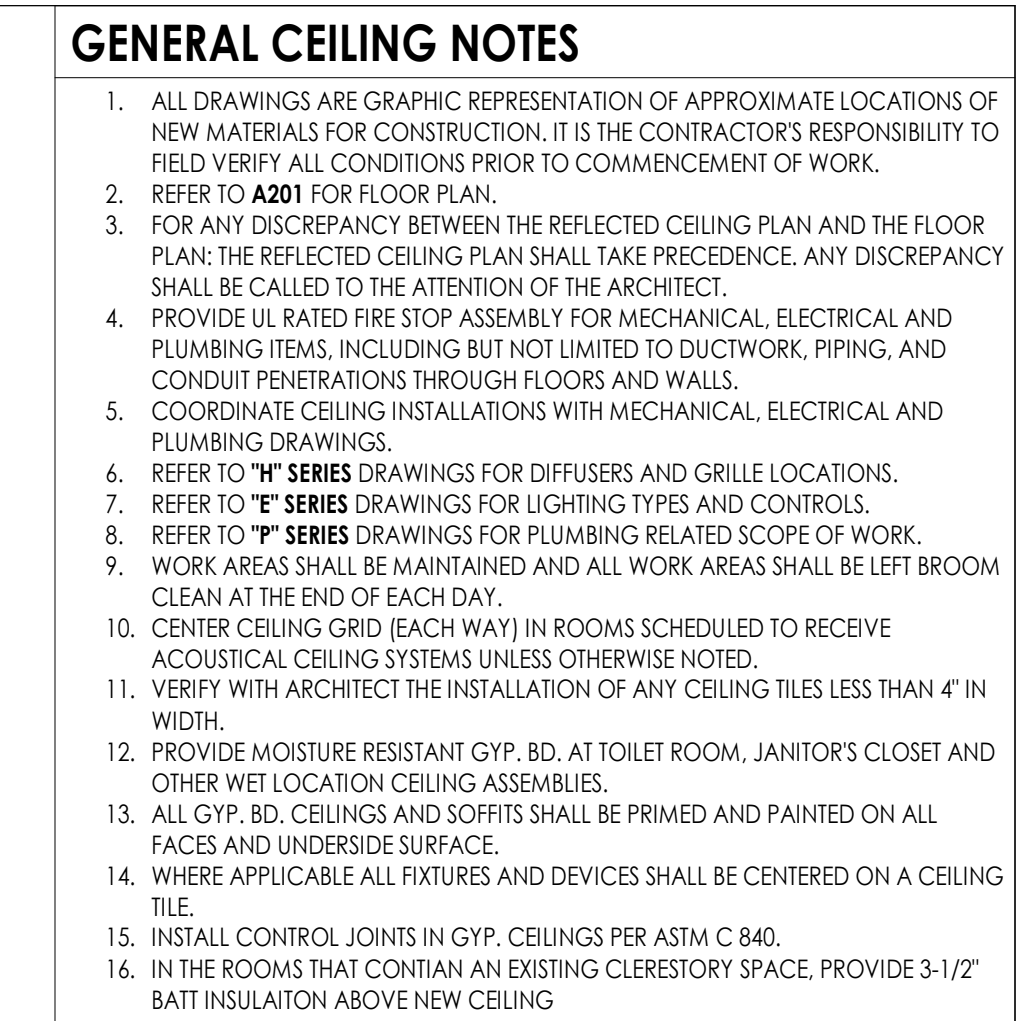


SHEET INFORMATION

Issue Date
02/17/2025
Project Status
BID SET
Drawn By
KV
Checked By
GB
Drawing Title
OVERALL REFLECTED CEILING PLAN

Drawing Number

A601

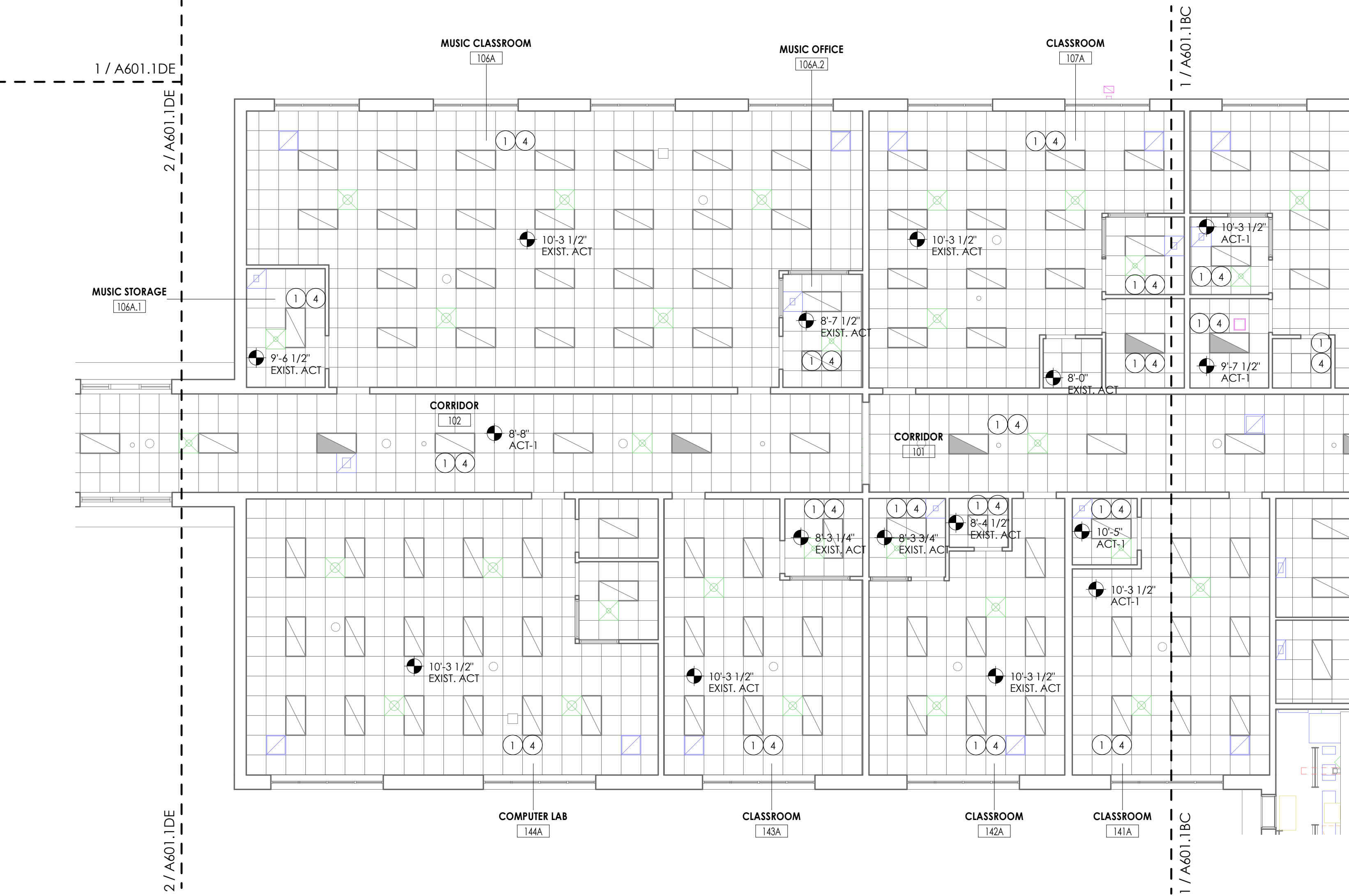


NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT

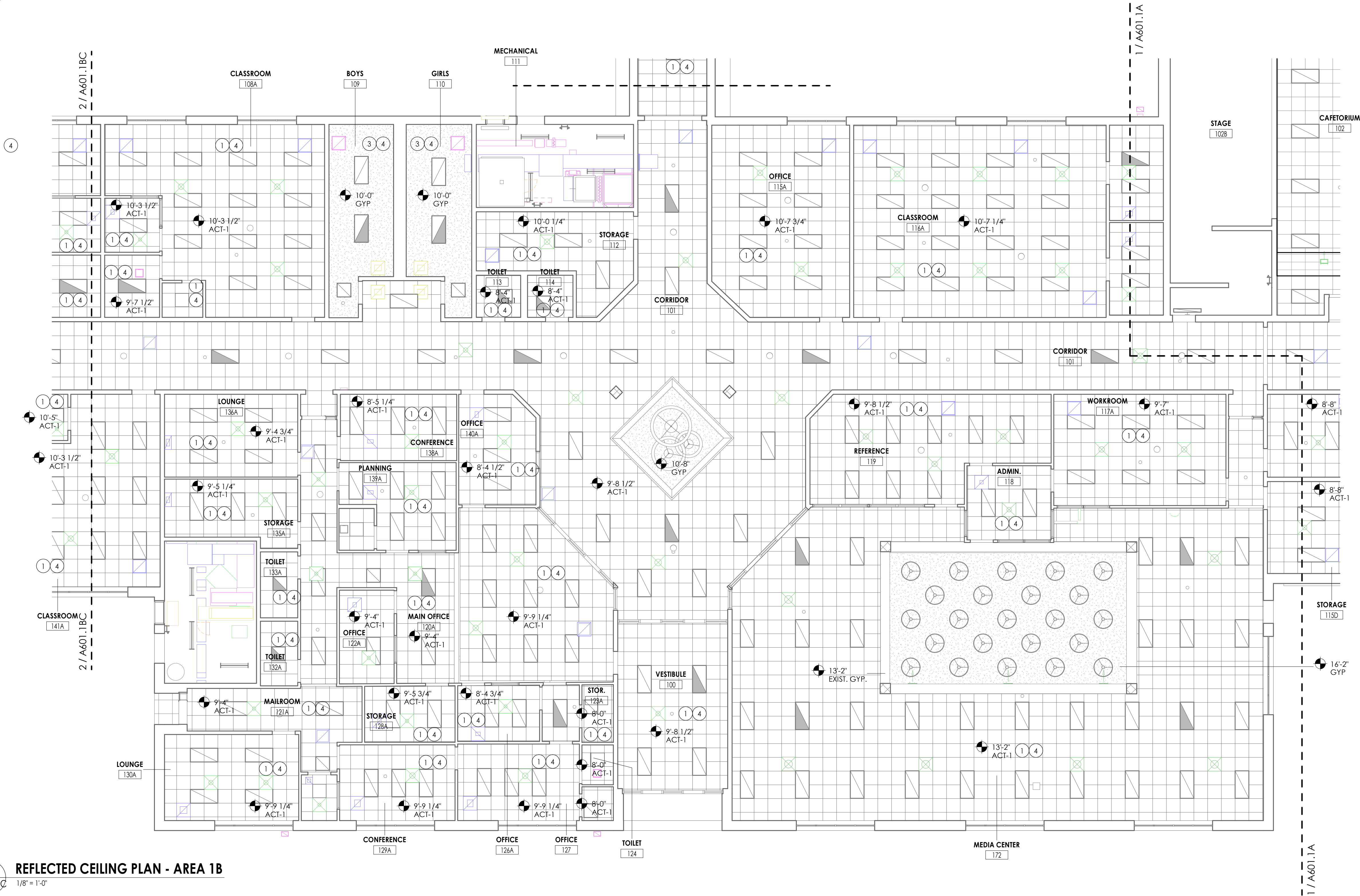
- 1 NEW ACT CEILING
- 2 REPAIR EXISTING GYP SOFFIT AS REQUIRED, NEW PAINT
- 3 NEW GYPSUM BOARD CEILING
- 4 NEW LIGHT FIXTURE, SEE ELECTRICAL

The site plan shows a grid of lots. Lot 1A is a large, irregularly shaped lot in the center, shaded gray. It is surrounded by other lots: 1B to its west, 1C to its southwest, 1D to its south, 1E to its southeast, 1F to its northwest, 1G to its north, 1H to its northeast, and 2 to its north. To the east of lot 1A is lot 3A, which is further east of lot 3B. To the south of lot 3B are lots 4A and 4B. A north arrow is located in the top right corner, pointing towards the top right, labeled 'PROJECT NORTH' and 'TRUE NORTH'.

[illegible]



2 REFLECTED CEILING PLAN - AREA 1C
1/8" = 1'-0"



1 REFLECTED CEILING PLAN - AREA 1B
1/8" = 1'-0"

GENERAL CEILING NOTES

- ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
- REFER TO A201 FOR FLOOR PLAN.
- FOR ANY DISCREPANCY BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN, THE REFLECTED CEILING PLAN SHALL TAKE PRECEDENCE. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
- PROVIDE UL RATED FIRE STOP ASSEMBLY FOR MECHANICAL ELECTRICAL AND PLUMBING (MEP) PENETRATIONS THROUGH FLOORS AND WALLS.
- COORDINATE CEILING INSTALLATIONS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
- REFER TO "M" SERIES DRAWINGS FOR DIFFUSERS AND GRILLE LOCATIONS.
- REFER TO "E" SERIES DRAWINGS FOR LIGHTING TYPES AND CONTROLS.
- REFER TO "P" SERIES DRAWINGS FOR PLUMBING RELATED SCOPE OF WORK.
- WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY.
- CENTER CEILING GRID (EACH WAY) IN ROOMS SCHEDULED TO RECEIVE ACOUSTICAL CEILING SYSTEMS UNLESS OTHERWISE NOTED.
- VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4" IN WIDTH.
- PROVIDE MOISTURE RESISTANT GYP. BD. AT TOILET ROOM, JANITOR'S CLOSET AND OTHER WET LOCATION CEILING ASSEMBLIES.
- ALL GYP. BD. CEILINGS AND SOFFITS SHALL BE PRIMED AND PAINTED ON ALL FACES AND UNDERSIDE SURFACE.
- WHERE APPLICABLE ALL FIXTURES AND DEVICES SHALL BE CENTERED ON A CEILING TILE.
- INSTALL CONTROL JOINTS IN GYP. CEILINGS PER ASTM C 840.
- IN THE ROOMS THAT CONTAIN AN EXISTING CLERESTORY SPACE, PROVIDE 3-1/2" BATT INSULATION ABOVE NEW CEILING.

CEILING SYMBOL LEGEND

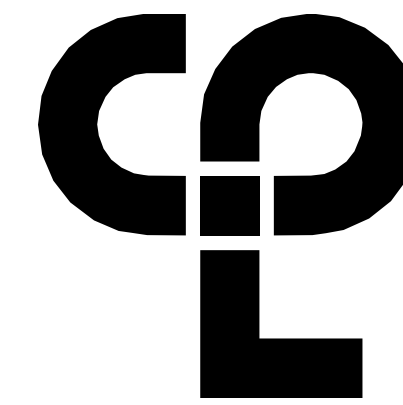
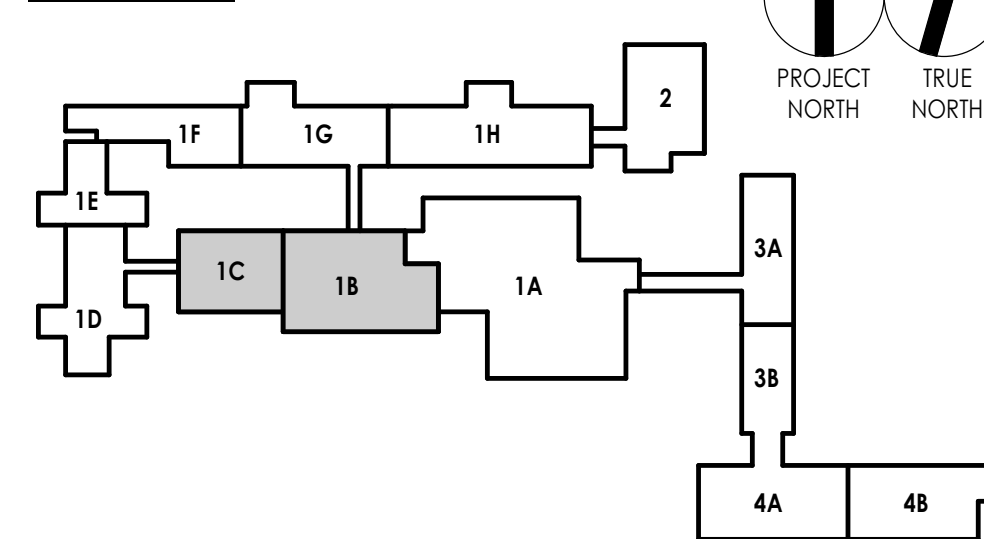
NOTE: THE LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT.

- 2'x4' LIGHTS
- 1'x4' LINEAR LIGHT FIXTURE
- RECESSED CAN LIGHT FIXTURE
- PENDANT LIGHT FIXTURES
- SUPPLY AIR DIFFUSERS
- RETURN AIR DIFFUSERS
- EXHAUST DIFFUSERS
- LINEAR SLOT AIR DIFFUSERS
- NEW GYPSUM WALL BOARD CEILING
- EXISTING GYPSUM CEILING
- ACT-1
- ACT-2 (NEW KITCHEN ZONE)
- CEILING TYPE AND CEILING HEIGHT ABOVE FINISHED FLOOR

CEILING KEYNOTES

- NEW ACT CEILING
- REPAIR EXISTING GYP SOFFIT AS REQUIRED, NEW PAINT
- NEW GYPSUM BOARD CEILING
- NEW LIGHT FIXTURE, SEE ELECTRICAL

KEY PLAN:



CPL | Architecture Engineering Planning
11111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



PROJECT INFORMATION

Project Number
R23.00325.00
Client Name
JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name
FOUR OAKS ELEMENTARY SCHOOL

Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Date Description

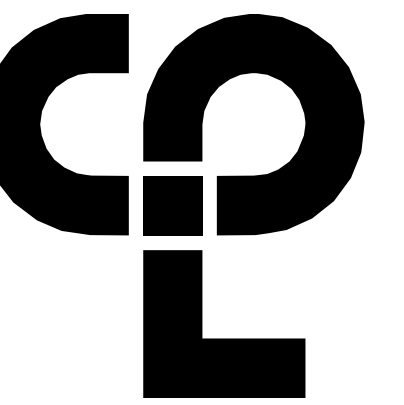
PROFESSIONAL STAMPS



SHEET INFORMATION

Scale
02/17/2025
As indicated
Project Status
BID SET
Drawn By
KV
Checked By
GB
Drawing Title
REFLECTED CEILING PLAN AREA 1B AND 1C
Drawing Number

A601.1BC



Architecture Engineering Planning
1111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



SUBJECT INFORMATION

00325.00

Name _____

WINSTON COUNTY PUBLIC
SCHOOLS

Name _____

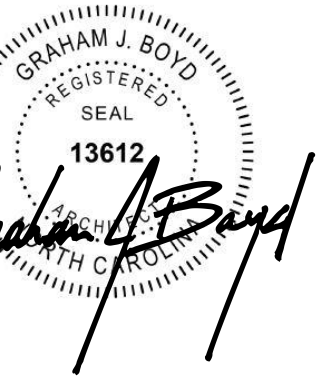
IR OAKS ELEMENTARY
SCHOOL

Address
HATCHER STREET
OAKS, NC 27524

JECT ISSUE & REVISION SCHEDULE

Date	Description
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PROFESSIONAL STAMPS

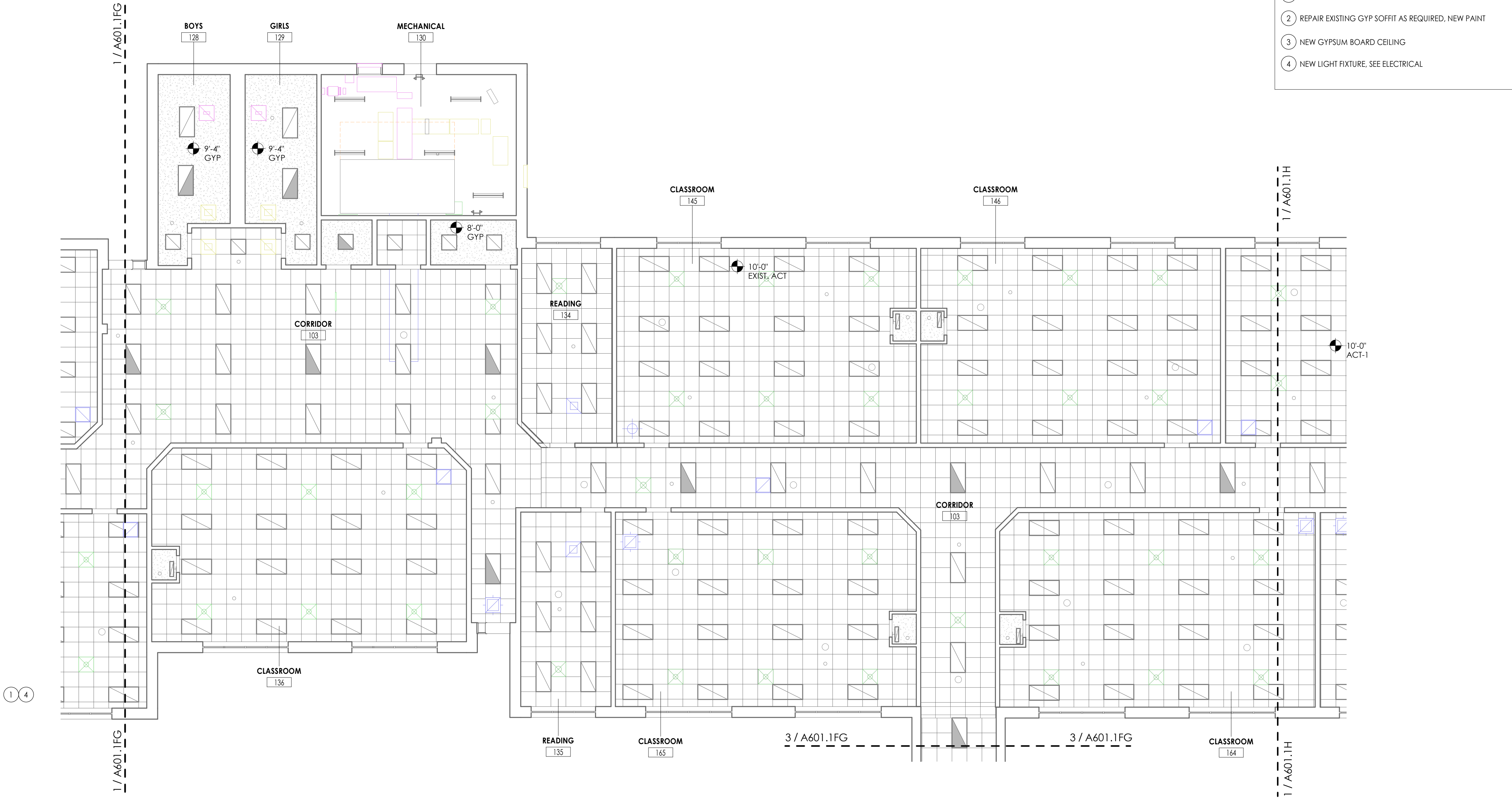


ADDITIONAL INFORMATION

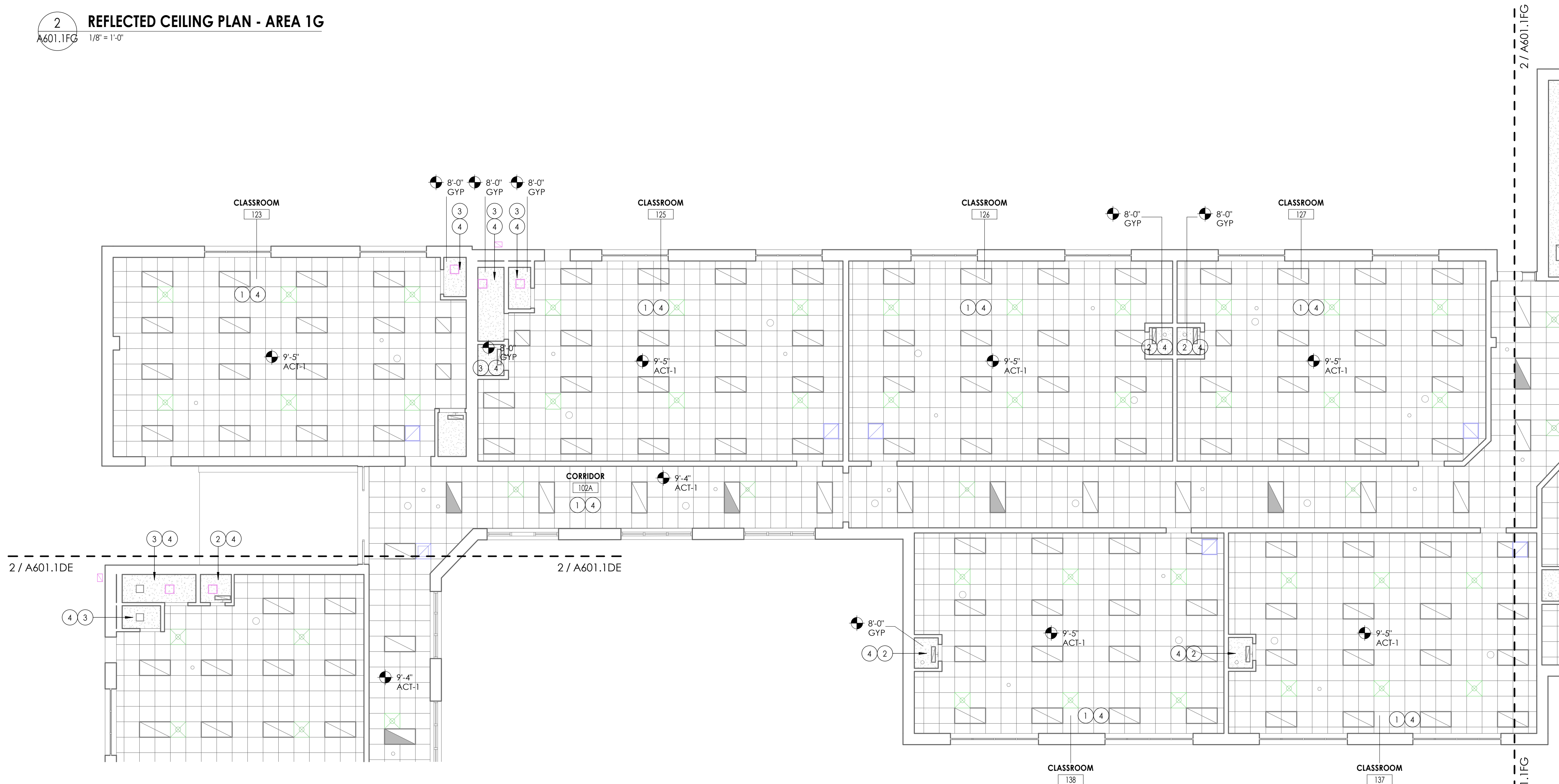
7/2025	Scale	As indicated
Status		
ET		
By	Checked By	GB
g Title		
SELECTED CEILING PLAN AREA AND 1E		

g Number

301.1DE



2 REFLECTED CEILING PLAN - AREA 1G
A601.1FG 1/8" = 1'-0"



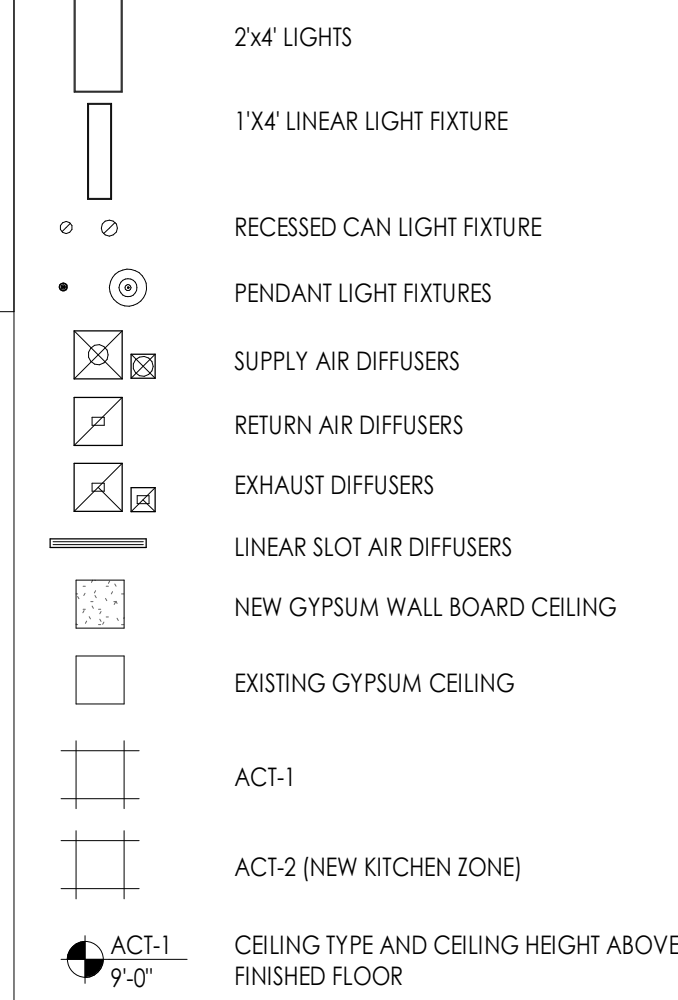
1 REFLECTED CEILING PLAN - AREA 1F
A601.1FG 1/8" = 1'-0"

CEILING KEYNOTES

- 1 NEW ACT CEILING
- 2 REPAIR EXISTING GYP SOFFIT AS REQUIRED, NEW PAINT
- 3 NEW GYPSUM BOARD CEILING
- 4 NEW LIGHT FIXTURE, SEE ELECTRICAL

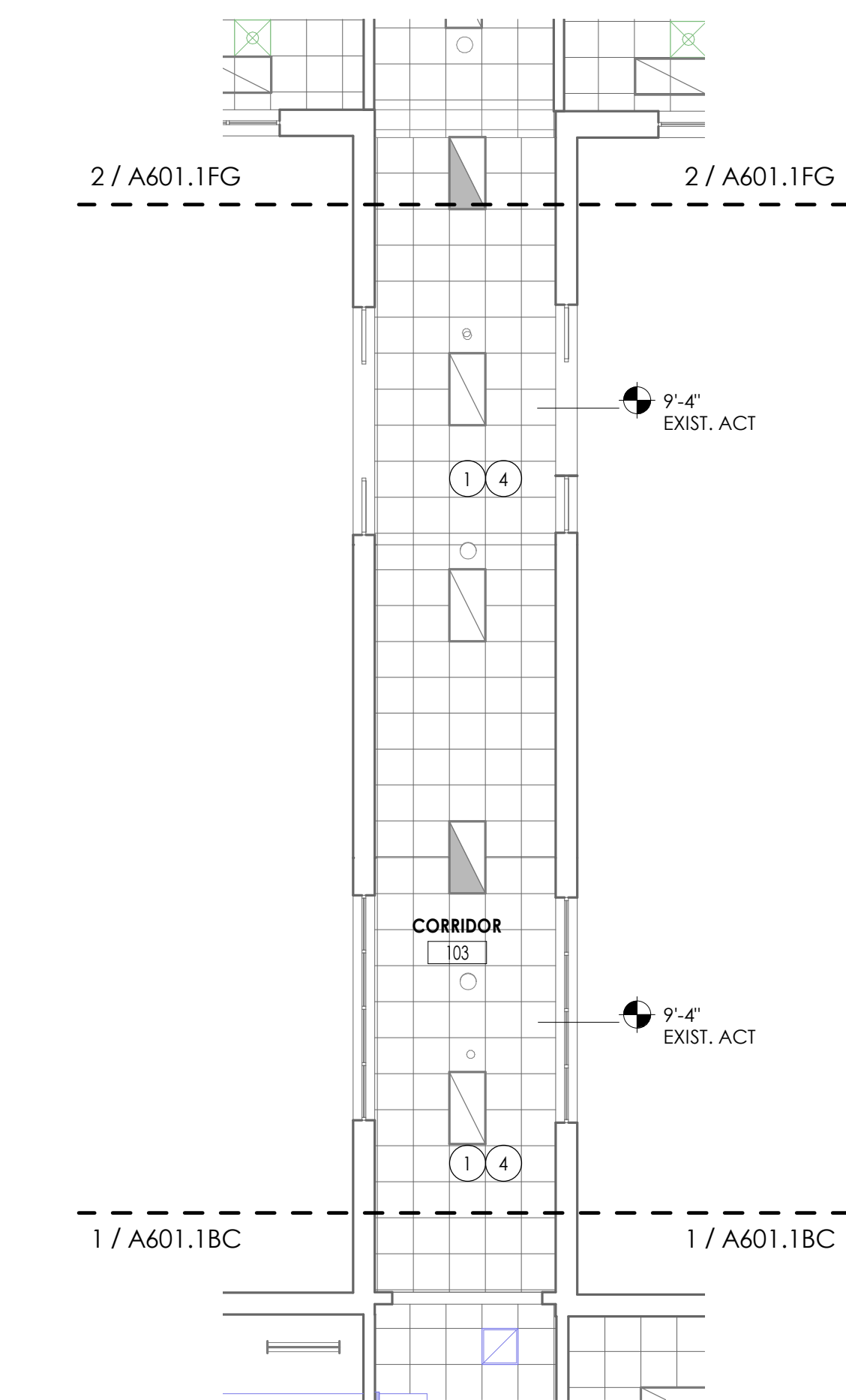
CEILING SYMBOL LEGEND

NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT.



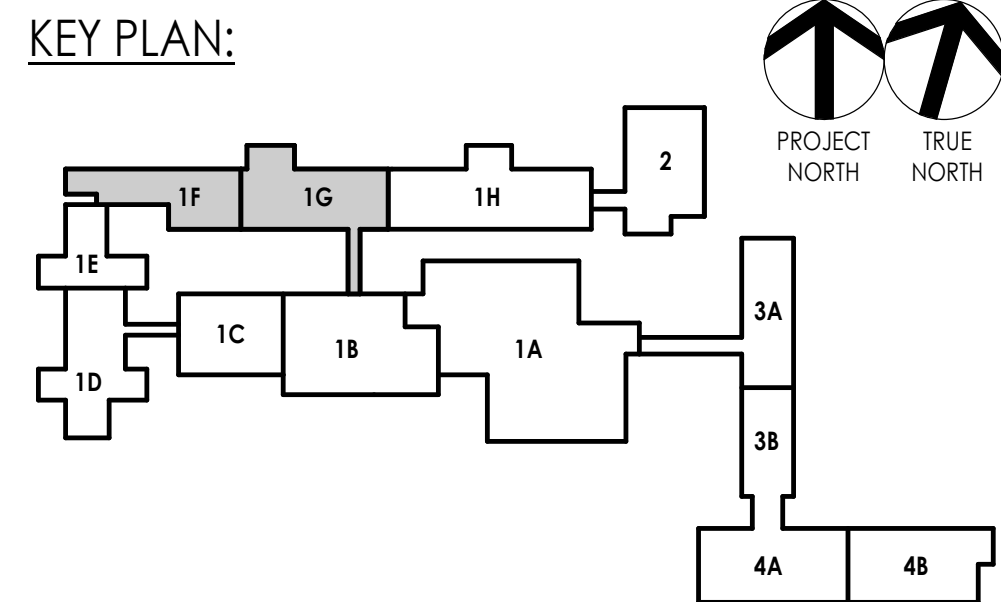
GENERAL CEILING NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO A201 FOR FLOOR PLAN.
3. FOR ANY DISCREPANCY BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN, THE REFLECTED CEILING PLAN SHALL TAKE PRECEDENCE. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
4. PROVIDE UL RATED FIRE STOP ASSEMBLY FOR MECHANICAL ELECTRICAL AND PLUMBING TEAMS, INCLUDING BUT NOT LIMITED TO DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH FLOORS AND WALLS.
5. COORDINATE CEILING INSTALLATIONS WITH MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS.
6. REFER TO "M" SERIES DRAWINGS FOR DIFFUSERS AND GRILLE LOCATIONS.
7. REFER TO "E" SERIES DRAWINGS FOR LIGHTING TYPES AND CONTROLS.
8. REFER TO "P" SERIES DRAWINGS FOR PLUMBING RELATED SCOPE OF WORK.
9. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY.
10. CENTER CEILING GRID (EACH WAY) IN ROOMS SCHEDULED TO RECEIVE ACOUSTICAL CEILING SYSTEMS UNLESS OTHERWISE NOTED.
11. VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4" IN WIDTH.
12. PROVIDE MOISTURE RESISTANT GYP. BD. AT TOILET ROOM, JANITOR'S CLOSET AND OTHER WET LOCATION CEILING ASSEMBLIES.
13. ALL GYP. BD. CEILINGS AND SOFFITS SHALL BE PRIMED AND PAINTED ON ALL FACES AND UNDERSIDE SURFACE.
14. WHERE APPLICABLE ALL FIXTURES AND DEVICES SHALL BE CENTERED ON A CEILING TILE.
15. INSTALL CONTROL JOINTS IN GYP. CEILINGS PER ASTM C 840.
16. IN THE ROOMS THAT CONTAIN AN EXISTING CLERESTORY SPACE, PROVIDE 3-1/2" BATT INSULATION ABOVE NEW CEILING

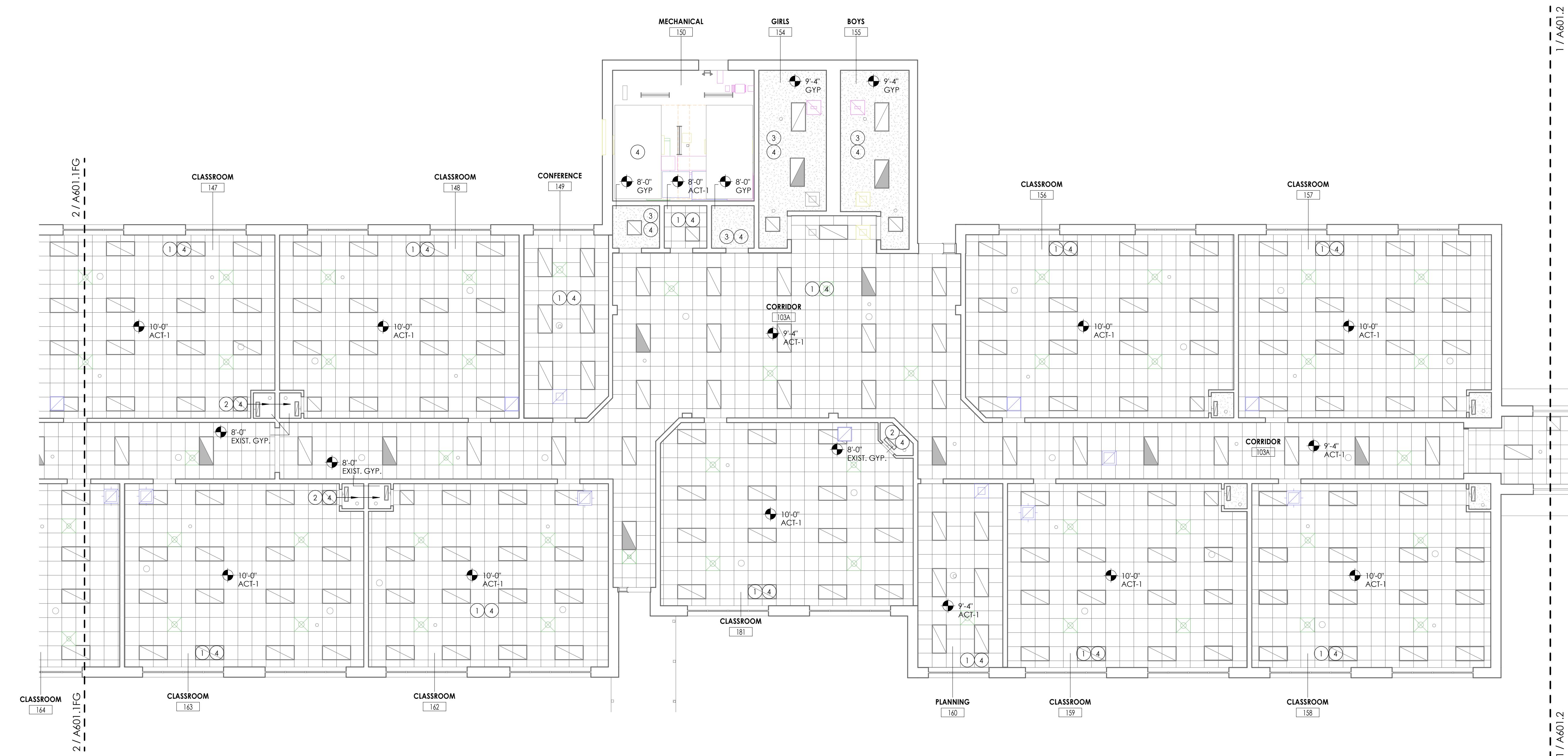


3 REFLECTED CEILING PLAN - AREA 1B AND 1G CORRIDOR
A601.1FG 1/8" = 1'-0"

KEY PLAN:



2/18/2025 10:21:44 AM S:\Projects\Johnston County\PCS\PCS & SES HVAC Design & Autodesk Docs\R23\0325.00_CPS & SES\Four Oaks MEP_2022.rvt



1
A601.1H
1/8" = 1'-0"

REFLECTED CEILING PLAN - AREA 1H

GENERAL CEILING NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO **A201** FOR FLOOR PLAN.
3. FOR ANY DISCREPANCY BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN, THE REFLECTED CEILING PLAN SHALL TAKE PRECEDENCE. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
4. PROVIDE UL RATED FIRE STOP ASSEMBLY FOR MECHANICAL ELECTRICAL AND PLUMBING TEAMS, INCLUDING BUT NOT LIMITED TO DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH FLOORS AND WALLS.
5. COORDINATE CEILING INSTALLATIONS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
6. REFER TO **"M" SERIES** DRAWINGS FOR DIFFUSERS AND GRILLE LOCATIONS.
7. REFER TO **"E" SERIES** DRAWINGS FOR LIGHTING TYPES AND CONTROLS.
8. REFER TO **"P" SERIES** DRAWINGS FOR PLUMBING RELATED SCOPE OF WORK.
9. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY.
10. CENTER CEILING GRID (EACH WAY) IN ROOMS SCHEDULED TO RECEIVE ACOUSTICAL CEILING SYSTEMS UNLESS OTHERWISE NOTED.
11. VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4" IN WIDTH.
12. PROVIDE MOISTURE RESISTANT GYP. BD. AT TOILET ROOM, JANITOR'S CLOSET AND OTHER WET LOCATION CEILING ASSEMBLIES.
13. ALL GYP. BD. CEILINGS AND SOFFITS SHALL BE PRIMED AND PAINTED ON ALL FACES AND UNDERSIDE SURFACE.
14. WHERE APPLICABLE ALL FIXTURES AND DEVICES SHALL BE CENTERED ON A CEILING TILE.
15. INSTALL CONTROL JOINTS IN GYP. CEILINGS PER ASTM C 840.
16. IN THE ROOMS THAT CONTAIN AN EXISTING CLERESTORY SPACE, PROVIDE 3-1/2" BATT INSULATION ABOVE NEW CEILING.

CEILING SYMBOL LEGEND

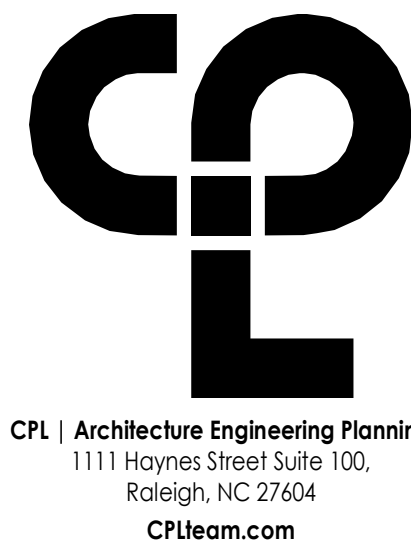
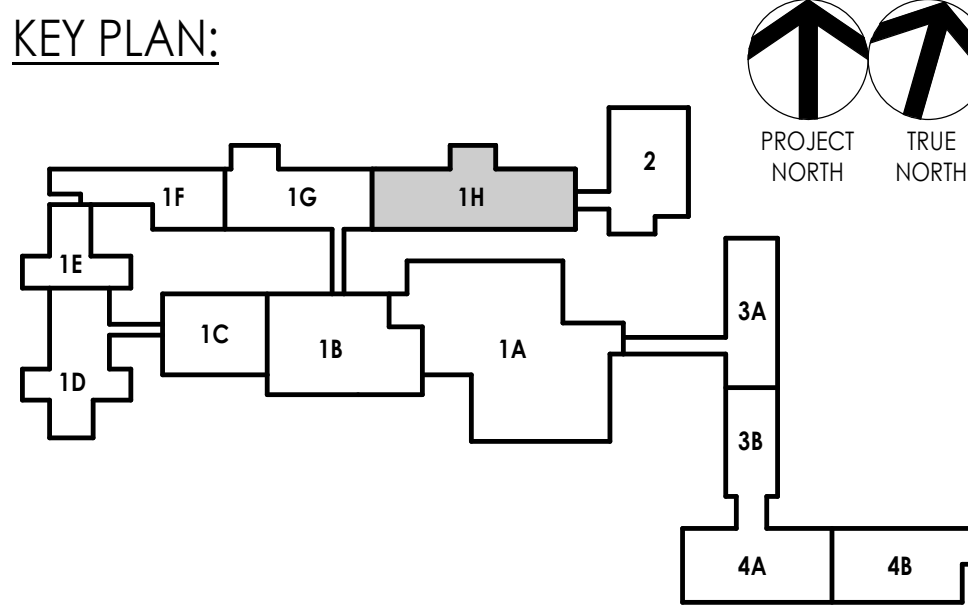
NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT.

- 2'x4' LIGHTS
- 1'x4' LINEAR LIGHT FIXTURE
- RECESSED CAN LIGHT FIXTURE
- PENDANT LIGHT FIXTURES
- SUPPLY AIR DIFFUSERS
- RETURN AIR DIFFUSERS
- EXHAUST DIFFUSERS
- LINEAR SLOT AIR DIFFUSERS
- NEW GYPSUM WALL BOARD CEILING
- EXISTING GYPSUM CEILING
- ACT-1
- ACT-2 (NEW KITCHEN ZONE)
- CEILING TYPE AND CEILING HEIGHT ABOVE FINISHED FLOOR

CEILING KEYNOTES

- 1 NEW ACT CEILING
- 2 REPAIR EXISTING GYP SOFFIT AS REQUIRED, NEW PAINT
- 3 NEW GYPSUM BOARD CEILING
- 4 NEW LIGHT FIXTURE, SEE ELECTRICAL

KEY PLAN:



PROJECT INFORMATION
Project Number
R23.00325.00
Client Name
JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name
FOUR OAKS ELEMENTARY SCHOOL

Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS



SHEET INFORMATION
Issue Date
02/17/2025
Project Status
BID SET
Drawn By
KV
Checked By
GB
Drawing Title
REFLECTED CEILING PLAN AREA 1H
Drawing Number

A601.1H



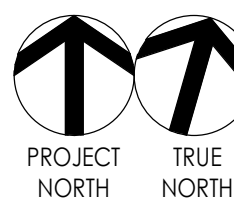
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A601.2

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT FIELD SURVEY PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO **A201** FOR FLOOR PLAN.
3. REFER TO ADDENDUM BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN FOR COORDINATED CEILING LAYOUT. IF ANY DISCREPANCY, ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
4. PROVIDE UL LISTED ROST STOP ASSEMBLY FOR MECHANICAL, ELECTRICAL AND PLUMBING PENETRATIONS INCLUDING, BUT NOT LIMITED TO, DUCTWORK, PIPING, AND COUPLER PENETRATIONS THROUGH FLOORS AND WALLS.
5. COORDINATE CEILING INSTALLATIONS WITH MECHANICAL, ELECTRICAL AND PLUMBING TRADES.
6. REFER TO "H SERIES" DRAWINGS FOR LIGHTING AND GRILLE LOCATIONS.
7. REFER TO "E SERIES" DRAWINGS FOR DIFFUSERS TYPES AND CONTROLS.
8. PROVIDE **CEILING** IDENTIFICATION TAGS TO IDENTIFY ALL CEILING WORK.
9. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY.
10. PROVIDE IDENTIFYING GRID (TAGS) IN ROOMS SCHEDULED TO RECEIVE ACoustICAL, CEILING SYSTEMS UNLESS OTHERWISE NOTED.
11. VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4' WIDTH.
12. PROVIDE MOISTURE RESISTANT GP. BD. AT DOOR FRAME, JANITOR'S CLOSET AND ENTRYWAYS TO ALL ROOMS.
13. PROVIDE **CEILING** IDENTIFICATION TAGS TO IDENTIFY ALL CEILING WORK.
14. ALL GYP. BD. RESISTS AND SOFTS SHALL BE PRIMED AND PAINTED ON ALL FACES AND UNDERSIDE SURFACE.
15. PROVIDE APPLICABLE ALL FIXTURES AND DEVICES MATCH TO A CEILING TILE.
16. INSTALL CONTROL JOINTS IN GYP. CEILINGS PER ASTM C 840.
17. IN THE ROOMS THAT CONTAIN A HANGING CEILING SYSTEM, PROVIDE 3/16" BATT INSULATION ABOVE NEW CEILING.

NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT

+

- 1 NEW ACT CEILING
- 2 REPAIR EXISTING GYP SOFFIT AS REQUIRED, NEW PAINT
- 3 NEW GYPSUM BOARD CEILING
- 4 NEW LIGHT FIXTURE, SEE ELECTRICAL



Project Address
180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

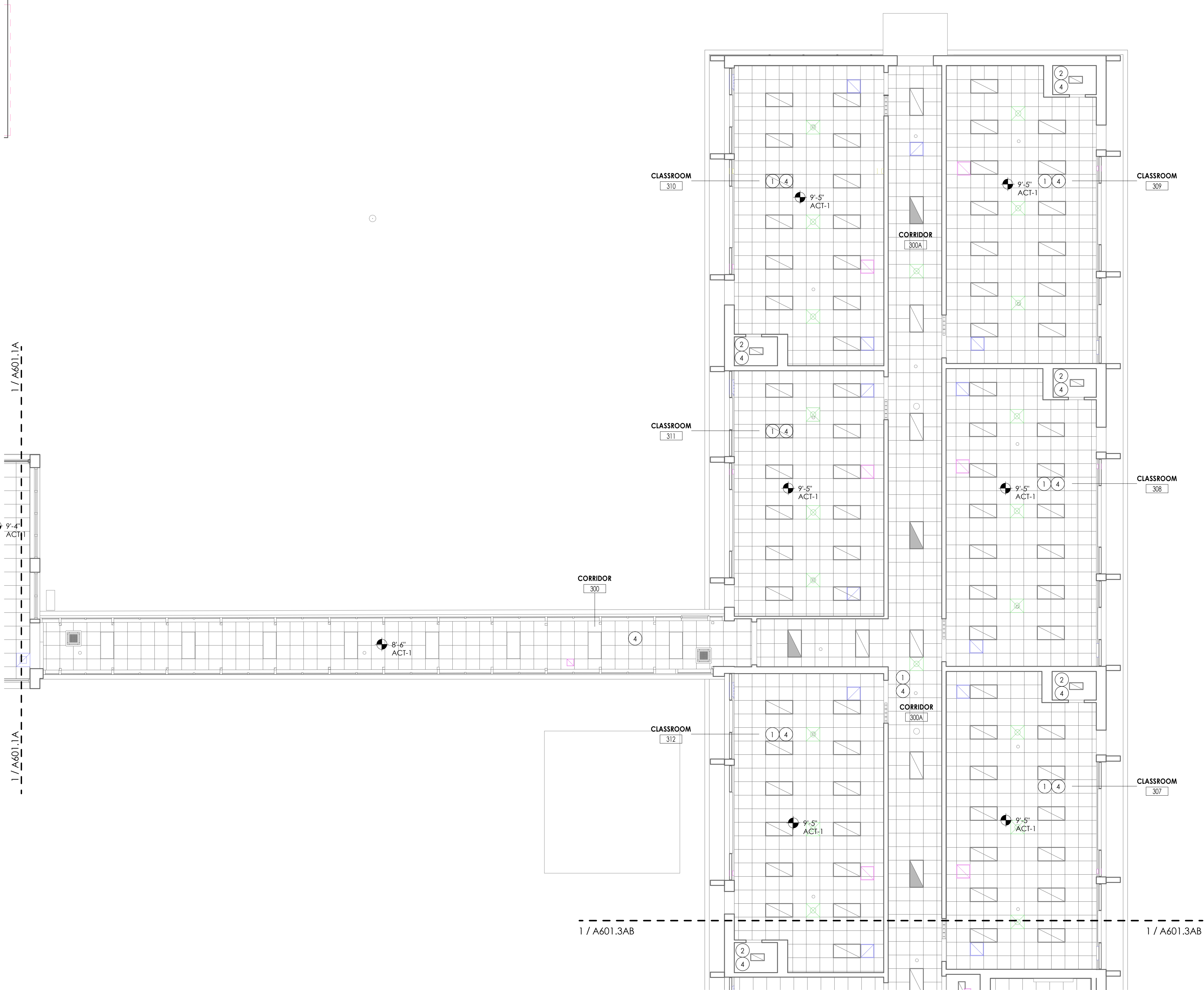
PROFESSIONAL STAMPS



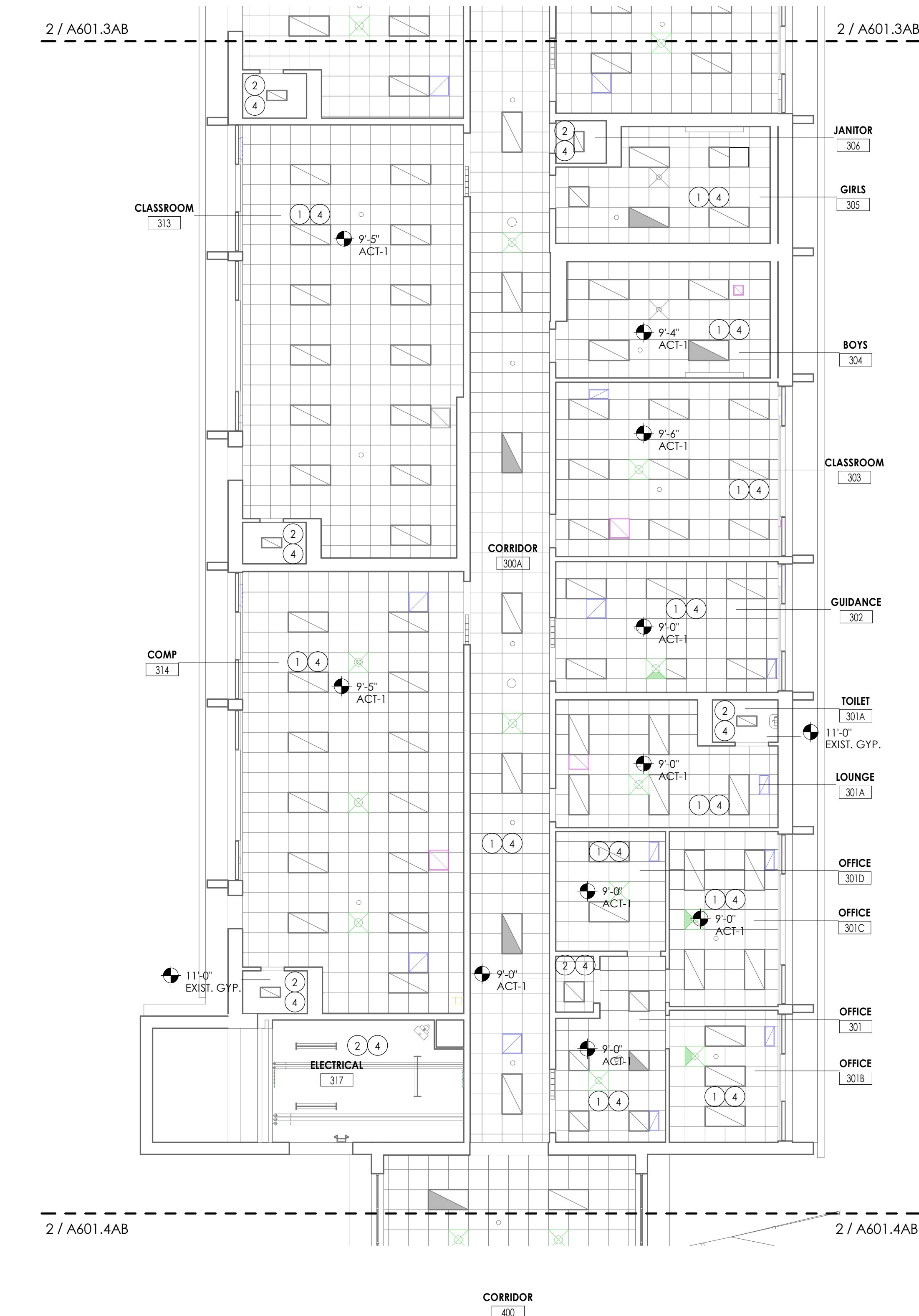
SHEET INFORMATION

Issued	Scale
02/17/2025	As indicated
Project Status	
BID SET	
Drawn By	Checked By
KV	GB
Drawing Title	
REFLECTED CEILING PLAN AREA	

Drawing Number

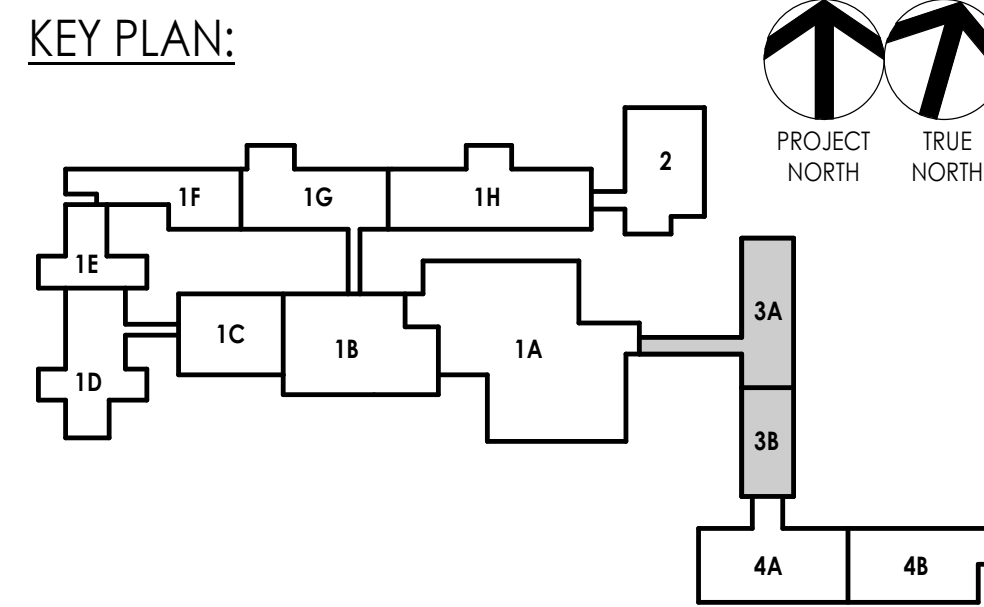


2 REFLECTED CEILING PLAN - AREA 3A
A601.3AB 1/8" = 1'-0"

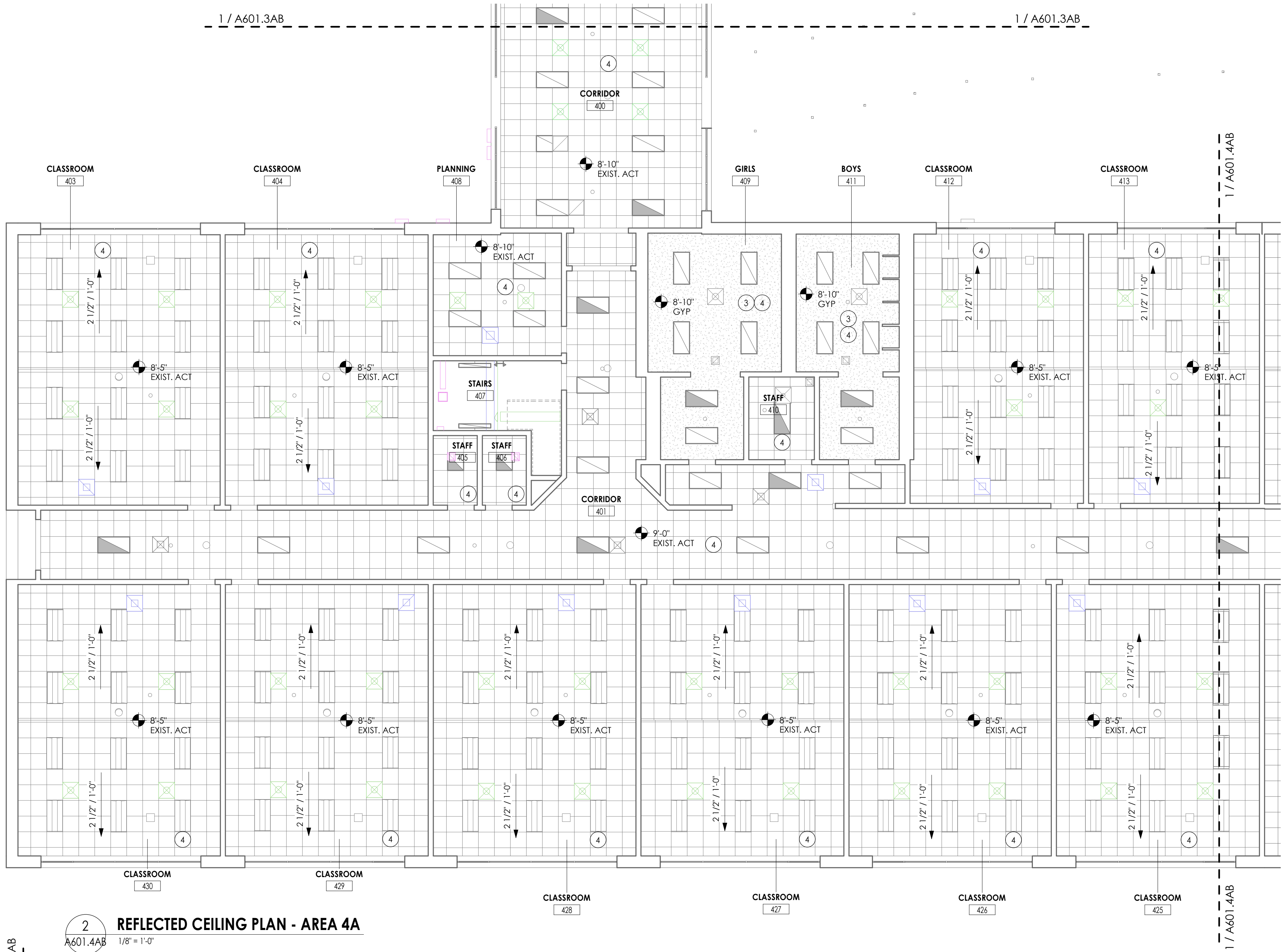


1 REFLECTED CEILING PLAN - AREA 3B
A601.3AB 1/8" = 1'-0"

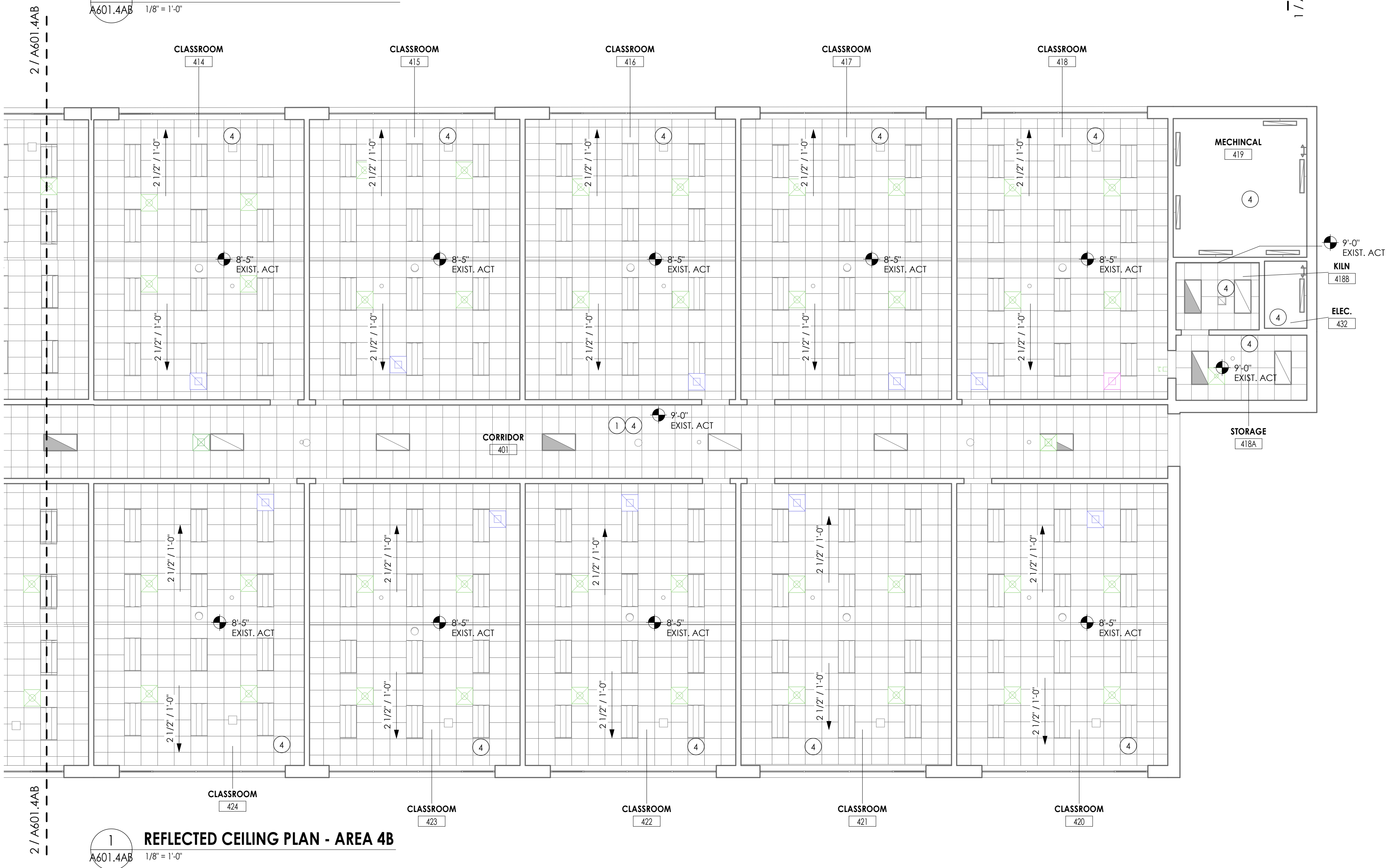
KEY PLAN:



2/18/2025 10:22:05 AM S:\Projects\Johnston County\JOCS & SES HVAC, ID Design & Autodesk Docs\192030325.00_JOCS & SES\Four Oaks_MEP_2022.rvt



2 REFLECTED CEILING PLAN - AREA 4A
A601.4AB 1/8" = 1'-0"



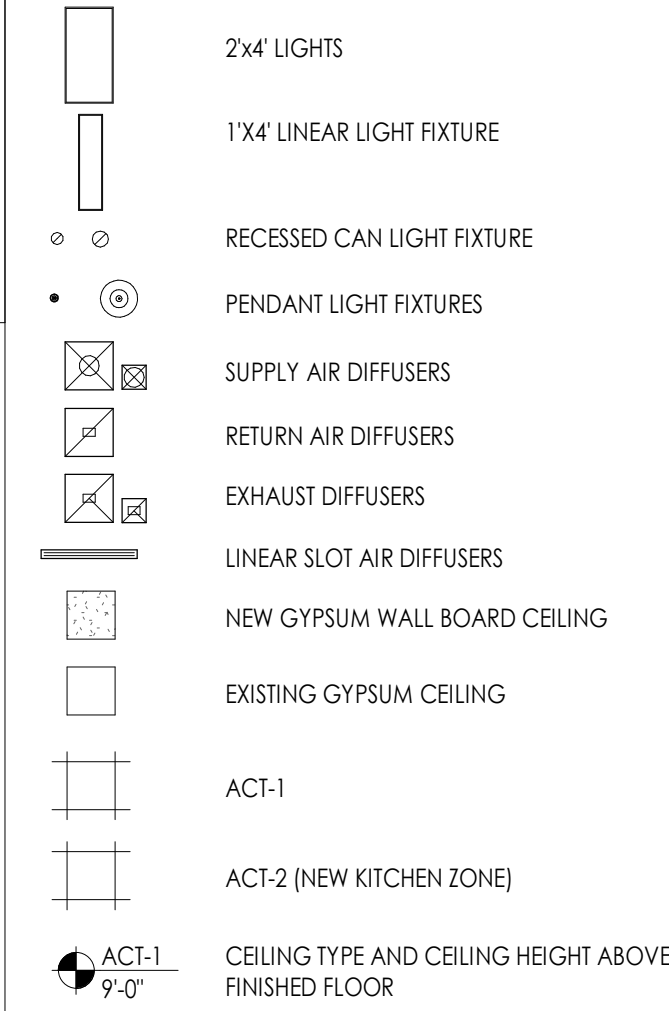
1 REFLECTED CEILING PLAN - AREA 4B
A601.4AB 1/8" = 1'-0"

CEILING KEYNOTES

- 1 NEW ACT CEILING
- 2 REPAIR EXISTING GYP SOFFIT AS REQUIRED, NEW PAINT
- 3 NEW GYPSUM BOARD CEILING
- 4 NEW LIGHT FIXTURE, SEE ELECTRICAL

CEILING SYMBOL LEGEND

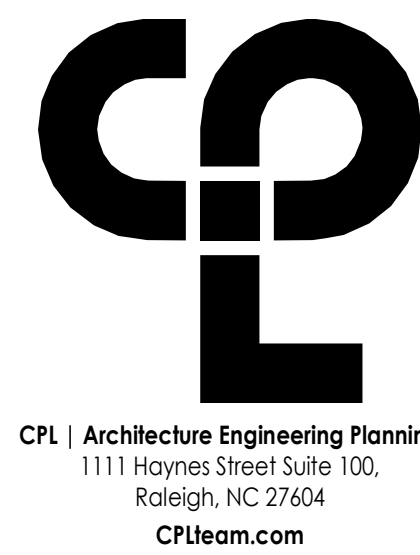
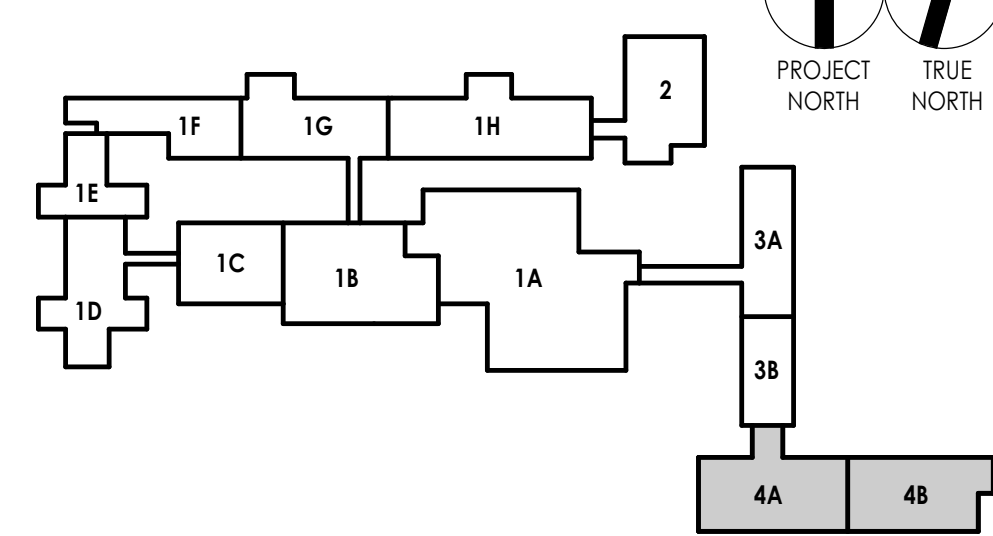
NOTE: THIS LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PROJECT.



GENERAL CEILING NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO **A201** FOR FLOOR PLAN.
3. FOR ANY DISCREPANCY BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN, THE REFLECTED CEILING PLAN SHALL TAKE PRECEDENCE. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
4. PROVIDE UL RATED FIRE STOP ASSEMBLY FOR MECHANICAL ELECTRICAL AND PLUMBING TEAMS, INCLUDING BUT NOT LIMITED TO DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH FLOORS AND WALLS.
5. COORDINATE CEILING INSTALLATIONS WITH MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS.
6. REFER TO **TM SERIES** DRAWINGS FOR DIFFUSERS AND GRILLE LOCATIONS.
7. REFER TO **TE SERIES** DRAWINGS FOR LIGHTING TYPES AND CONTROLS.
8. REFER TO **TP SERIES** DRAWINGS FOR PLUMBING RELATED SCOPE OF WORK.
9. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY.
10. CENTER CEILING GRID (EACH WAY) IN ROOMS SCHEDULED TO RECEIVE ACOUSTICAL CEILING SYSTEMS UNLESS OTHERWISE NOTED.
11. VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4' IN WIDTH.
12. PROVIDE MOISTURE RESISTANT GYP. BD. AT TOILET ROOM, JANITOR'S CLOSET AND OTHER WET LOCATION CEILING ASSEMBLIES.
13. ALL GYP. BD. CEILINGS AND SOFFITS SHALL BE PRIMED AND PAINTED ON ALL FACES AND UNDERSIDE SURFACE.
14. WHERE APPLICABLE ALL FIXTURES AND DEVICES SHALL BE CENTERED ON A CEILING TILE.
15. INSTALL CONTROL JOINTS IN GYP. CEILINGS PER ASTM C 840.
16. IN THE ROOMS THAT CONTAIN AN EXISTING CLERESTORY SPACE, PROVIDE 3-1/2" BATT INSULATION ABOVE NEW CEILING

KEY PLAN:



PROJECT INFORMATION
Project Number: R23.00325.00
Client Name: JOHNSTON COUNTY PUBLIC SCHOOLS
Project Name: FOUR OAKS ELEMENTARY SCHOOL
Project Address: 180 W HATCHER STREET
FOUR OAKS, NC 27524

PROJECT ISSUE & REVISION SCHEDULE
Date: Description:

PROFESSIONAL STAMPS



SHEET INFORMATION
Date: 02/17/2025
Project Status: BID SET
Drawn By: KV
Drawing Title: REFLECTED CEILING PLAN AREA 4A AND 4B
Drawing Number: -

A601.4AB

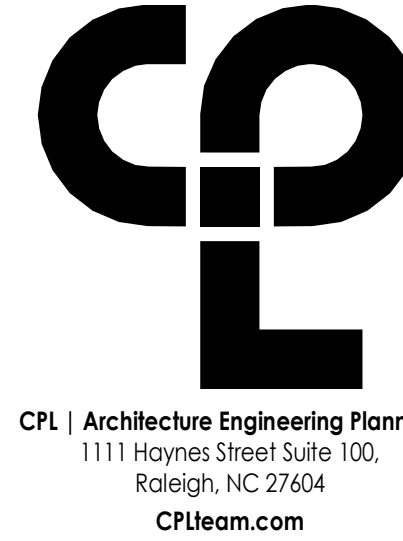
MECHANICAL SYMBOLS LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
	CONNECTION - TOP		DUCT SECTION - SUPPLY		ELECTRIC/PNEUMATIC SWITCH OR RELAY		SUPPLY / RETURN / EXHAUST AIR TAKEOFFS		AAD	AUTOMATIC AIR DAMPER
	CONNECTION - BOTTOM		DUCT SECTION - RETURN		PNEUMATIC/ELECTRIC SWITCH OR RELAY				ACC	AIR-COOLED CONDENSING UNIT
	DIRECTION OF FLOW		DUCT SECTION - EXHAUST		CURRENT TRANSDUCER				AFF	ABOVE FINISHED FLOOR
	REDUCER		DUCT SECTION - ROUND DUCT IN INCHES		OPEN/CLOSED		SUPPLY / RETURN / EXHAUST AIR TAKEOFFS		AHU	AIR HANDLING UNIT
	CAP OR PLUG		DUCT SECTION - FLAT OVAL DUCT IN INCHES		START/STOP				BD	BACKDRAFT DAMPER
	ELBOW DOWN		ACOUSTIC THERMAL LINING		ENABLE/DISABLE				CA	COMPRESSED AIR
	ELBOW UP		FLEXIBLE DUCTWORK		TEMPERATURE SENSOR (DUCT OR PIPE MOUNTED)		SUPPLY AIR TAKEOFFS		CD	COOLING COIL CONDENSATE DRAIN
	TEE OUTLET - UP		FLEXIBLE CONNECTION		HUMIDITY SENSOR (DUCT MOUNTED)				CFM	CUBIC FEET PER MINUTE
	TEE OUTLET - DOWN		FIRE DAMPER		FLOW TRANSMITTER				CHWR	CHILLED WATER RETURN
	UNION		SMOKE DAMPER		PRESSURE TRANSMITTER		SUPPLY AIR TAKEOFFS		CHWS	CHILLED WATER SUPPLY
	GATE VALVE		COMBINATION FIRE AND SMOKE DAMPER		DIFFERENTIAL PRESSURE TRANSMITTER				CR	CONDENSER WATER RETURN
	BALL VALVE		VOLUME DAMPER		ELECTRIC/PNEUMATIC TRANSDUCER				CS	CONDENSER WATER SUPPLY
	BALANCING VALVE		DAMPER CONTROL, PARALLEL BLADE		ELECTRIC/ELECTRONIC TRANSDUCER		SUPPLY AIR TAKEOFFS		[E]	EXISTING
	STRAINER		DAMPER CONTROL, OPPOSED BLADE		DUCT SMOKE DETECTOR				EA	EXHAUST AIR
	STRAINER WITH BLOW-DOWN		AUTOMATIC AIR DAMPER		SPACE THERMOSTAT				EC	ELECTRICAL CONTRACTOR
	BUTTERFLY VALVE		BACK DRAFT DAMPER		SPACE TEMPERATURE SENSOR		SUPPLY AIR TAKEOFFS		EF	EXHAUST FAN
	GLOBE VALVE		BLAST GATE		SPACE CARBON DIOXIDE SENSOR				ERHC	ELECTRIC REHEAT COIL
	CHECK VALVE		AIR DUCT (FIRST FIGURE IS DUCT WIDTH/TOP, SECOND FIGURE IS DUCT DEPTH)		SPACE NATURAL GAS SENSOR				ETR	EXISTING TO REMAIN
	TRIPLE DUTY VALVE		FLAT OVAL		NITROGEN OXIDES SENSOR		SUPPLY AIR TAKEOFFS		EUH	ELECTRIC UNIT HEATER
	GAS COCK, PLUG VALVE		TURNING VANES		SPACE CARBON MONOXIDE SENSOR				F&T	FLOAT AND THERMOSTATIC TRAP
	UNDERCUT DOOR 1"		EXISTING WORK TO BE REMOVED (HATCHED)		SPACE SENSOR WITH GUARD				FCU	FAN-COIL UNIT
	AIR VENT - MANUAL		POINT OF CONNECTION		SPACE HUMIDISTAT		SUPPLY/RETURN EXHAUST AIR TAKEOFFS W/ REGISTER/GRILLE/ DIFFUSER		FPM	FEET PER MINUTE
	AIR VENT - AUTOMATIC		POINT OF DISCONNECTION		WATER FLOW SENSOR				GC	GENERAL CONTRACTOR
	FLANGE		AIR FLOW SENSOR		PNEUMATIC ACTUATOR				HHWR	HEATING HOT WATER RETURN
	CONTROL/SOLENOID VALVE, ELECTRIC 2-WAY		FILTER		ELECTRIC ACTUATOR		SUPPLY/RETURN EXHAUST AIR END OF MAIN BRANCH TAKEOFFS		HHWS	HEATING HOT WATER SUPPLY
	CONTROL VALVE, ELECTRIC 3-WAY		TRANSITION SQUARE TO ROUND		VARIABLE SPEED / FREQUENCY DRIVE				HP	HEAT PUMP
	CONTROL VALVE, PNEUMATIC 2-WAY		HUMIDIFIER DISPERSION TUBE		COOLING COIL				HPS	HIGH PRESSURE STEAM
	CONTROL VALVE, PNEUMATIC 3-WAY		RISE IN DUCT		HEATING COIL		LONG RADIUS 90° ELBOW R/W=1.5		LPC	LOW PRESSURE CONDENSATE
	RELIEF / SAFETY VALVE		DROP IN DUCT		GAS FURNACE				LPS	LOW PRESSURE STEAM
	PRESSURE REDUCING VALVE		SQUARE OR RECTANGULAR CEILING DIFFUSER (4 WAY)		HUMIDIFIER				MC	MECHANICAL CONTRACTOR
	VACUUM BREAKER		EXHAUST GRILLE		ALARM		LONG RADIUS 45° ELBOW R/W=1.5		MPC	MEDIUM PRESSURE CONDENSATE
	FLEXIBLE PIPE CONNECTOR		SUPPLY REGISTER, RETURN OR EXHAUST GRILLE		STATUS				MPS	MEDIUM PRESSURE STEAM
	EXPANSION COMPENSATOR W/ GUIDES		FAN		FLOW SWITCH				NC	NORMALLY CLOSED
	EXPANSION JOINT		AIR FLOW		DIFFERENTIAL STATIC PRESSURE SWITCH		90° ELBOW WITH TURNING VANES		NO	NORMALLY OPEN
	PIPE ANCHOR		X = DIFFUSER OR GRILL TYPE XX = AIR FLOW VALUE (CFM)		RELAY				NTS	NOT TO SCALE
	PIPE GUIDE		X = DIFFUSER OR GRILL TYPE XXX = CONNECTION SIZE XXX = CONNECTION SIZE XXXX = FACE SIZE OR LAY-IN GRID SIZE		PRESSURE GAUGE				OA	OUTSIDE AIR
	THERMOSTATIC TRAP		RISE IN DUCT		FREEZE-STAT		90 VERTICAL SPLIT OFF (PLAN VIEW)		PC	PLUMBING CONTRACTOR
	FLOAT & THERMOSTATIC TRAP		DROP IN DUCT		DIGITAL INPUT (TO BUILDING MANAGEMENT SYSTEM)				RA	RETURN AIR
	BUCKET TRAP		SQUARE OR RECTANGULAR CEILING RETURN GRILLE		DIGITAL OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)				RHC	HOT WATER REHEAT COIL
	THERMODYNAMIC TRAP		EXHAUST GRILLE		ANALOG OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)		DUCT TURNING UP OR DOWN		RLL	REFRIGERANT LIQUID PIPE
	THERMOMETER		SUPPLY REGISTER, RETURN OR EXHAUST GRILLE		ANALOG INPUT (TO BUILDING MANAGEMENT SYSTEM)				RSL	REFRIGERANT SUCTION PIPE
	WELL		FAN		ELECTRICAL INTERFACE				RTU	ROOFTOP UNIT
	PRESSURE GAUGE		AIR FLOW		EMERGENCY STOP PUSH BUTTON		DUCT TURNING UP OR DOWN		RV	ROOF VENT
	STEAM PRESSURE GAUGE WITH 1/4" NEEDLE VALVE		X = DIFFUSER OR GRILL TYPE XX = AIR FLOW VALUE (CFM)		SPEED FEED BACK				SA	SUPPLY AIR
	PRESSURE GAUGE WITH 1/4" NEEDLE VALVE		X = DIFFUSER OR GRILL TYPE XXX = CONNECTION SIZE XXX = CONNECTION SIZE XXXX = FACE SIZE OR LAY-IN GRID SIZE		TRAVERSE AVERAGING SENSOR				SHWR	SECONDARY HEATING HOT WATER RETURN
	PIPING		X = DIFFUSER OR GRILL TYPE XXX = CONNECTION SIZE XXX = CONNECTION SIZE XXXX = FACE SIZE OR LAY-IN GRID SIZE		PROBE SENSOR		DUCT TURNING UP OR DOWN		SHWS	SECONDARY HEATING HOT WATER SUPPLY
	PUMP		X = DIFFUSER OR GRILL TYPE XXX = CONNECTION SIZE XXX = CONNECTION SIZE XXXX = FACE SIZE OR LAY-IN GRID SIZE		FREEZE STAT SENSOR				SSI	SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION)
			X = DIFFUSER OR GRILL TYPE XXX = CONNECTION SIZE XXX = CONNECTION SIZE XXXX = FACE SIZE OR LAY-IN GRID SIZE						SSO	SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT)
									TC	TEMPERATURE CONTROLS CONTRACTOR
									UH	UNIT HEATER
									UV	UNIT VENTILATOR
									V	VENT
									WWHP	WATER-TO-WATER HEAT PUMP

MECHANICAL GENERAL NOTES

1. MAINTAIN CLEARANCE OF A MINIMUM OF 6" BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC., AND ALL RATED WALL ASSEMBLIES TO ALLOW FOR INSPECTIONS OF RATED WALLS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS WITHIN THE BUILDING PRIOR TO COMMENCEMENT OF ALL DEMOLITION AND NEW WORK.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND REPLACE EXISTING CEILINGS, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS, FOR PERFORMING DEMOLITION OR NEW WORK WITHIN THE BUILDING. THE EXISTING CEILINGS SHALL BE REMOVED IN A MANNER TO AVOID DAMAGE TO THE CEILING SYSTEMS. STORAGE OF CEILING SYSTEM COMPONENTS FOR REINSTALLATION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE STORAGE OF ALL MATERIAL SHALL BE IN AREAS OR LOCATIONS APPROVED BY THE OWNER. THE OWNER WILL NOT COMPENSATE FOR ANY DAMAGED OR LOST MATERIAL WHILE IN STORAGE. AFTER COMPLETION OF ALL DEMOLITION OR NEW WORK, THE CONTRACTOR SHALL REINSTALL THE CEILING SYSTEMS TO MATCH THE ORIGINAL INSTALLATION.
4. DEMOLITION DRAWINGS SHOW MAJOR EQUIPMENT, PIPING, AND DUCTWORK REMOVALS. THE INTENT IS NOT TO IDENTIFY ALL MISCELLANEOUS PIPING, PIPING ACCESSORIES, DUCTWORK, DUCTWORK ACCESSORIES, SUPPORTS, CONTROLS, CONTROL ACCESSORIES, CONTROL WIRING, CONDUIT, AND PNEUMATIC CONTROL TUBING TO BE DISCONNECTED AND REMOVED. BUT IS THE REQUIREMENT UNDER THIS CONTRACT, NO EQUIPMENT, PIPING, OR DUCTWORK SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. BEFORE DISCONNECTING, REMOVING, OR SERVICING ANY AIR CONDITIONING EQUIPMENT OR SYSTEMS CONTAINING REFRIGERANTS, THE EQUIPMENT OR SYSTEMS SHALL BE EVACUATED OF ALL REFRIGERANT PER THE LATEST ADOPTED RULES AND REGULATIONS BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA). THE CONTRACTOR OR TECHNICIAN PERFORMING THE WORK SHALL BE CERTIFIED BY AN EPA APPROVED CERTIFYING AGENCY OR ORGANIZATION.
6. ALL DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH RATED VERTICAL AND HORIZONTAL ASSEMBLIES SHALL BE PROVIDED WITH FIRE/SMOKE STOPPINGS PER SPECIFICATION. REFER TO CODE ANALYSIS DRAWING FOR ALL RATED LOCATIONS.
7. UNLESS SHOWN ON THE ARCHITECTURAL DRAWINGS, IT IS THE RESPONSIBILITY OF THIS CONTRACT TO PATCH AND FINISH ALL EXISTING DUCTWORK OR PIPE PENETRATIONS THROUGH FLOORS, ROOFS, INTERIOR WALLS, AND EXTERIOR WALLS AFTER DEMOLITION WORK. IN ADDITION, ALL NEW PENETRATIONS SHALL BE PROVIDED FOR INSTALLATION OF MECHANICAL SYSTEMS INCLUDING, BUT NOT LIMITED TO, EQUIPMENT, CURBING, DUCTWORK, PIPING, CONTROLS, ETC., PATCHING AND FINISHING SHALL MATCH EXISTING CONSTRUCTION INCLUDING FIRE RATINGS. PROVIDE UNTELS PER UNTEL SCHEDULE.
8. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL AIR VENTS AND DRAINS IN THE PIPING SYSTEMS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AIR VENTS AT ALL SYSTEM HIGH POINTS AND AT AREAS WITHIN THE PIPING SYSTEMS THAT COULD ACCUMULATE OR TRAP AIR WHICH WOULD PREVENT PROPER VENTING OR OPERATION OF THE SYSTEMS. DRAINS SHALL BE PROVIDED AT ALL LOW POINTS WITHIN THE PIPING SYSTEM TO FACILITATE COMPLETE DRAINING OF THE SYSTEM.
9. UNLESS NOTED OTHERWISE IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO MODIFY AND PATCH ROOFING AND ROOF DECKS AS NECESSARY TO INSTALL NEW EQUIPMENT SUPPORTS, PIPING PORTALS, CURBS AND RAILS. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO PATCH ROOFING AND DECKS WHEN DEMOLISHING ROOF MOUNTED EQUIPMENT. COORDINATE WITH THE OWNER AND EXISTING ROOFING MANUFACTURERS TO MAINTAIN THE WARRANTIES ON ALL ROOFS. ALL ROOFING WORK TO BE PERFORMED BY CERTIFIED ROOFING CONTRACTOR. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE STRUCTURAL FRAMING ASSOCIATED WITH THE WORK IN THIS CONTRACT. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF AND DECK TYPES AND FRAMING DETAILS. PROVIDE STRUCTURAL FRAMING FOR EQUIPMENT AND ROOF OPENINGS. REFER TO STRUCTURAL DRAWINGS FOR DETAILS.
10. INSTALLATION OF ALL MECHANICAL EQUIPMENT RAILS AND CURBS SHALL CONFORM TO THE WIND RESTRAINT REQUIREMENTS APPLICABLE BUILDING CODE AND THIS PROJECT.
11. ALL MECHANICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 2018 NORTH CAROLINA BUILDING, MECHANICAL, PLUMBING, FUEL GAS, AND ENERGY CONSERVATION CODES.

MECHANICAL DESIGN CRITERIA		
TEMPERATURE DESIGN		
CONDITION	CRITERIA	COMMENTS
SUMMER (COOLING): OUTSIDE AIR DESIGN	95.0°F DB, 75.9°F WB	DERIVED FROM ASHRAE 90.1 FOR JOHNSTON COUNTY AP, NC, USA
WINTER (HEATING): OUTSIDE AIR DESIGN	19.3°F DB, 6.0°F WB	DERIVED FROM ASHRAE 90.1 FOR JOHNSTON COUNTY AP, NC, USA
INDOOR DESIGN: GENERAL OCCUPIED	70°F - 75°F	-

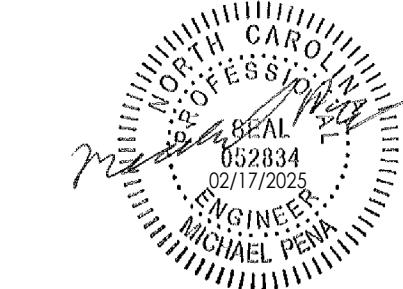


PROJECT INFORMATION
Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

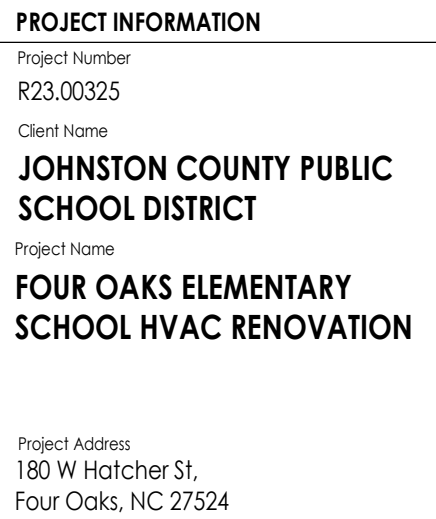
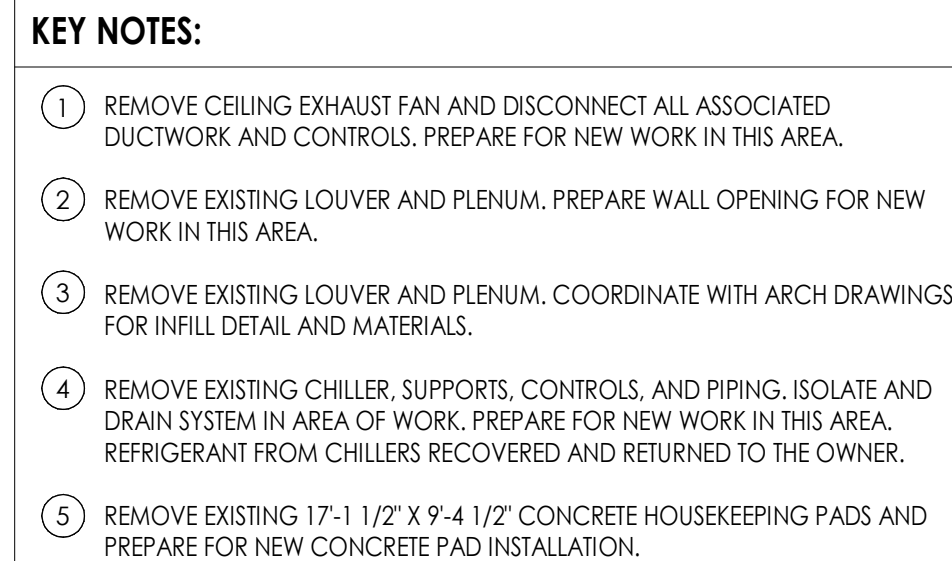
PROJECT ISSUE & REVISION SCHEDULE
Date Description

PROFESSIONAL STAMPS

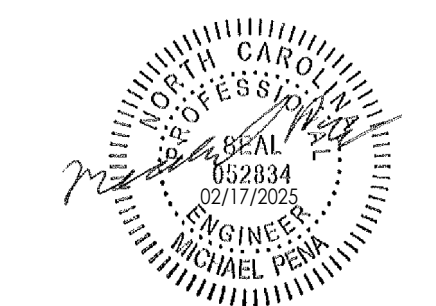


SHEET INFORMATION
Issue
02/17/2025
Project Status
BID SET
Drawn By
KAB
Checked By
RM
Drawing Title
HVAC SYMBOLS LEGEND AND CONTRACTOR NOTES
Drawing Number

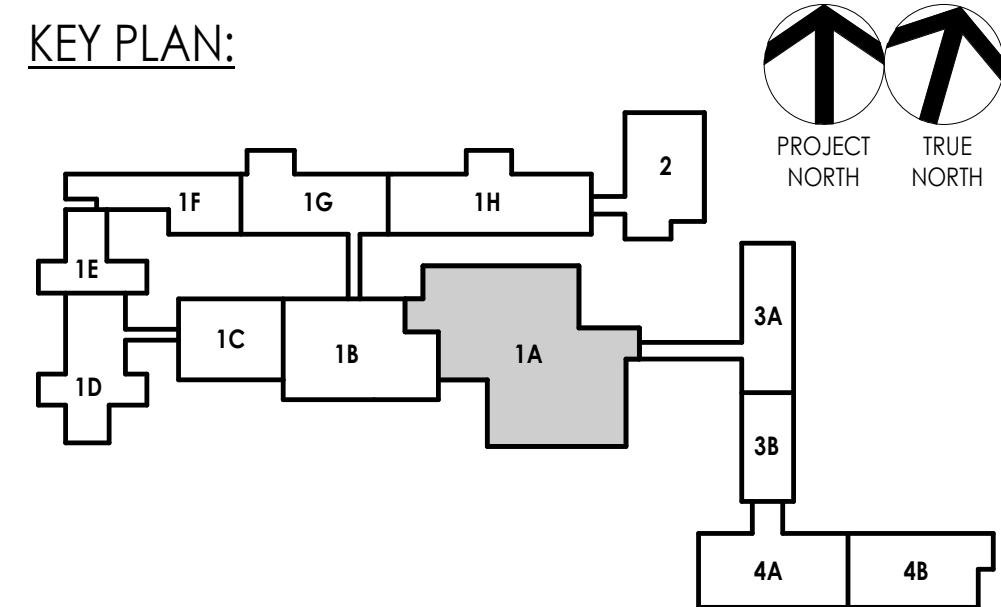
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PROFESSIONAL STAMPS



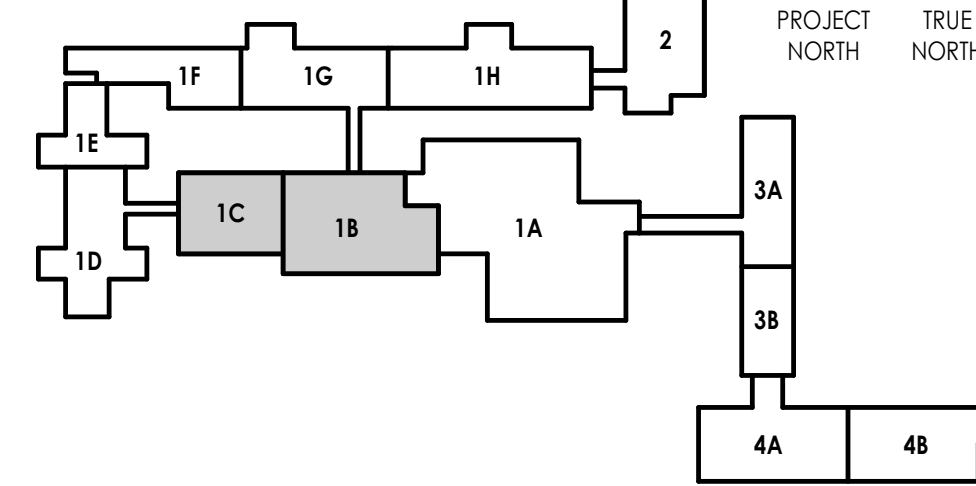
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Issued	Scale
02/17/2025	1/8" = 1'-0"
Project Status	
BID SET	
Drawn By	Checked by
KAB	RM
Drawing Title	
GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1A	
Drawing Number	
FOES H101.1A	



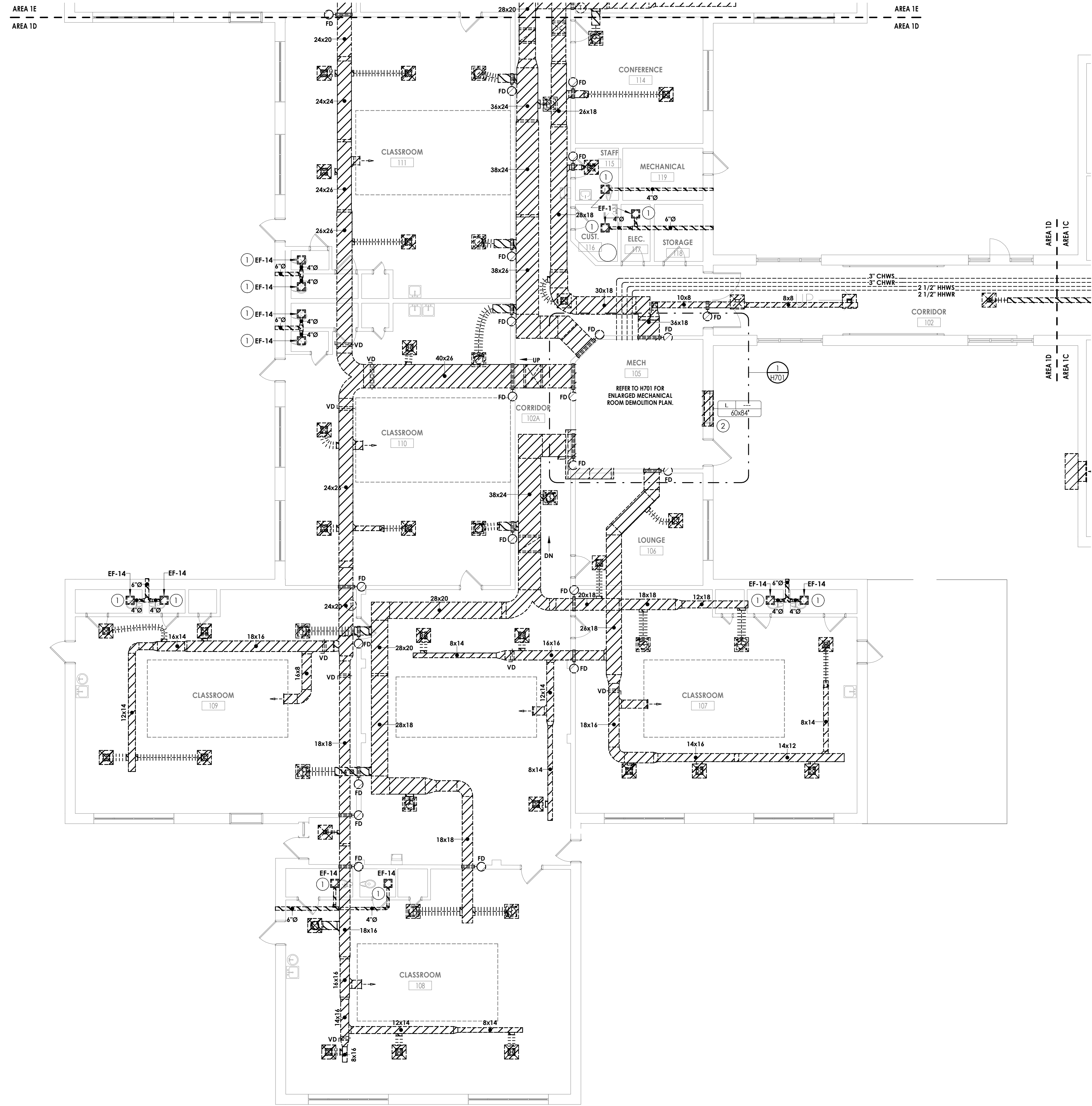
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H101.1A

GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1A

1/8" = 1'-0"

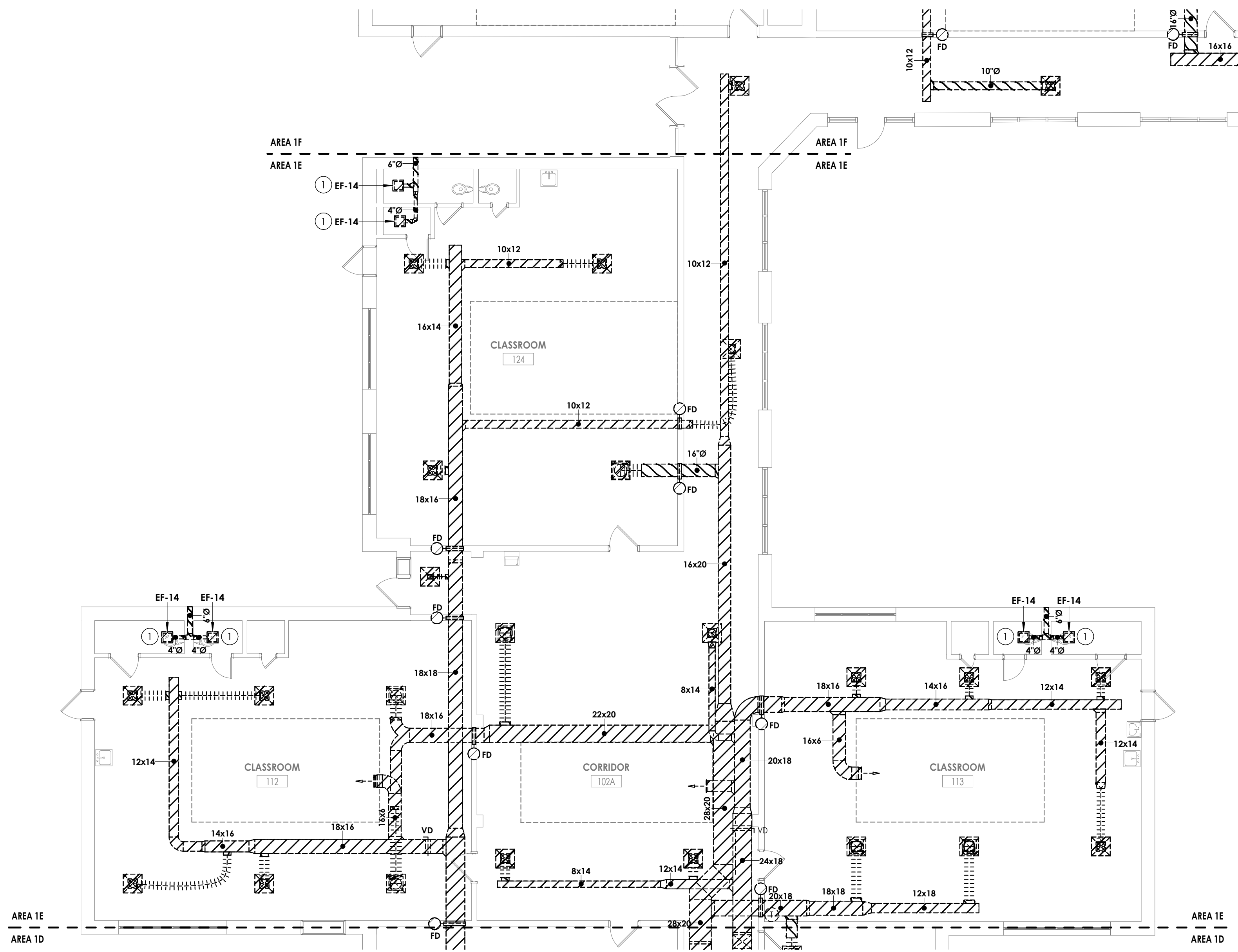


- | SHEET INFORMATION | |
|---------------------------|--------------|
| Issued | Scale |
| 02/17/2025 | 1/8" = 1'-0" |
| Project Status | |
| BID SET | |
| Drawn By | Checked By |
| KAB | RM |
| Drawing Title | |
| GROUND FLOOR HVAC | |
| DEMOLITION PLAN - AREA 1B | |
| AND 1C | |
| Drawing Number | |
| FOES | |
| H101.1BC | |



1
H101.1DE 1/8" = 1'-0"

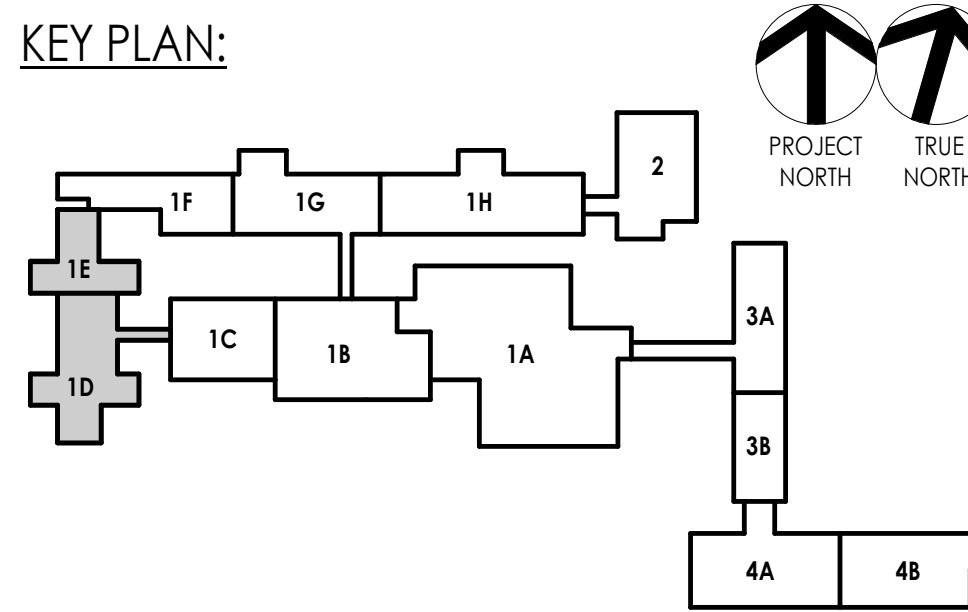
GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1D



2
H101.1DE 1/8" = 1'-0"

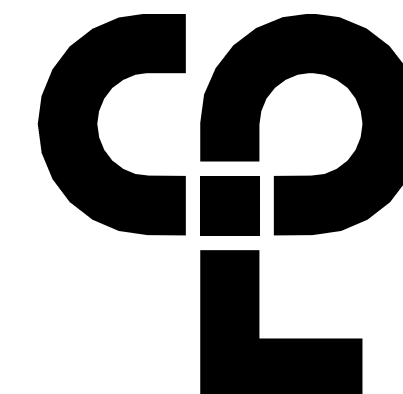
GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1E

KEY PLAN:



KEY NOTES:

- 1 REMOVE CEILING EXHAUST FAN AND DISCONNECT ALL ASSOCIATED DUCTWORK AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
- 2 REMOVE EXISTING LOUVER AND PLENUM. PREPARE WALL OPENING FOR NEW WORK IN THIS AREA.



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PROJECT INFORMATION

Project Number

R23.00325

Client Name

JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

Project Name

FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address

180 W Hatcher St,
Four Oaks, NC 27524

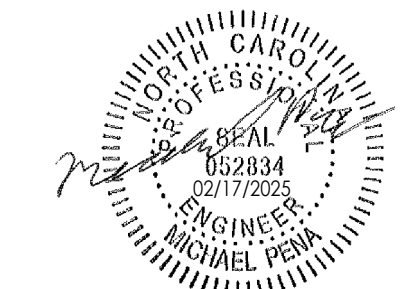
PROJECT ISSUE & REVISION SCHEDULE

Rev

Date

Description

PROFESSIONAL STAMPS



SHEET INFORMATION

Issue

02/17/2025

Project Status

BID SET

Drawn By

KAB

Checking

RM

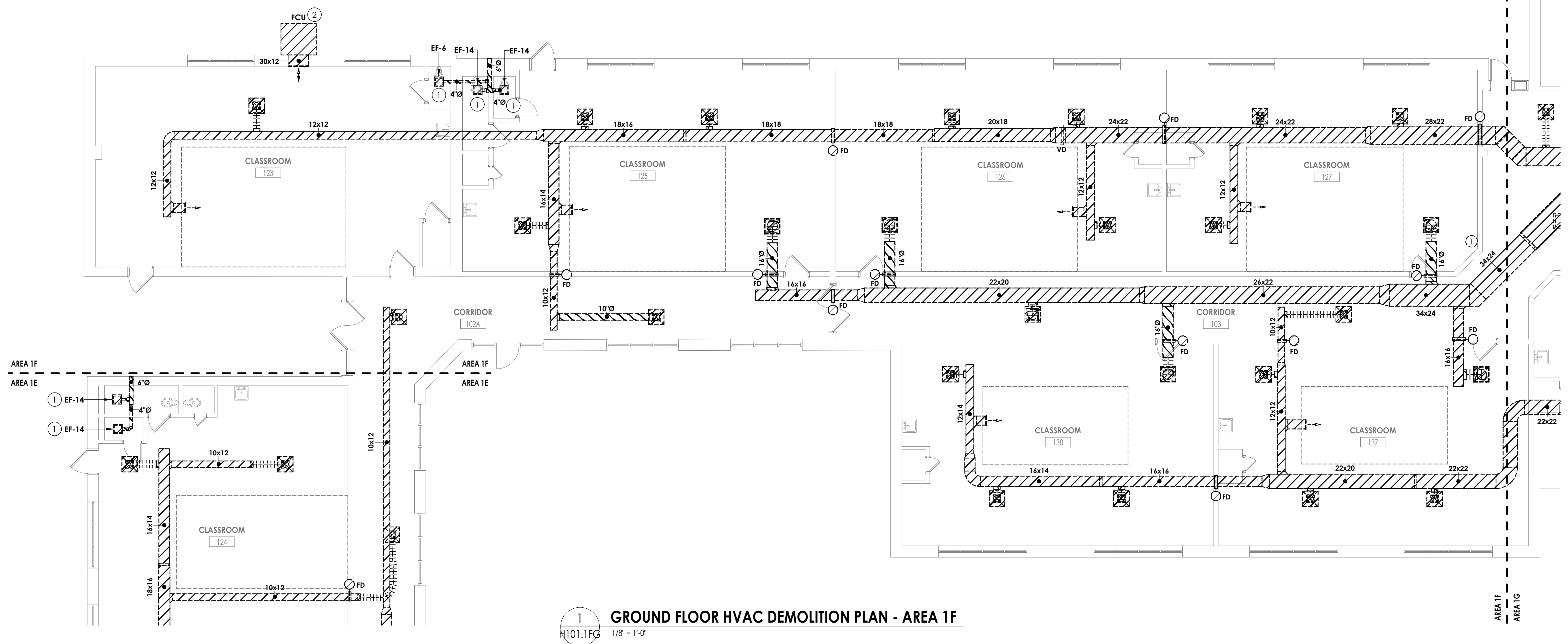
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GROUND FLOOR HVAC
DEMOLITION PLAN - AREA 1D
AND 1E

Drawing Number

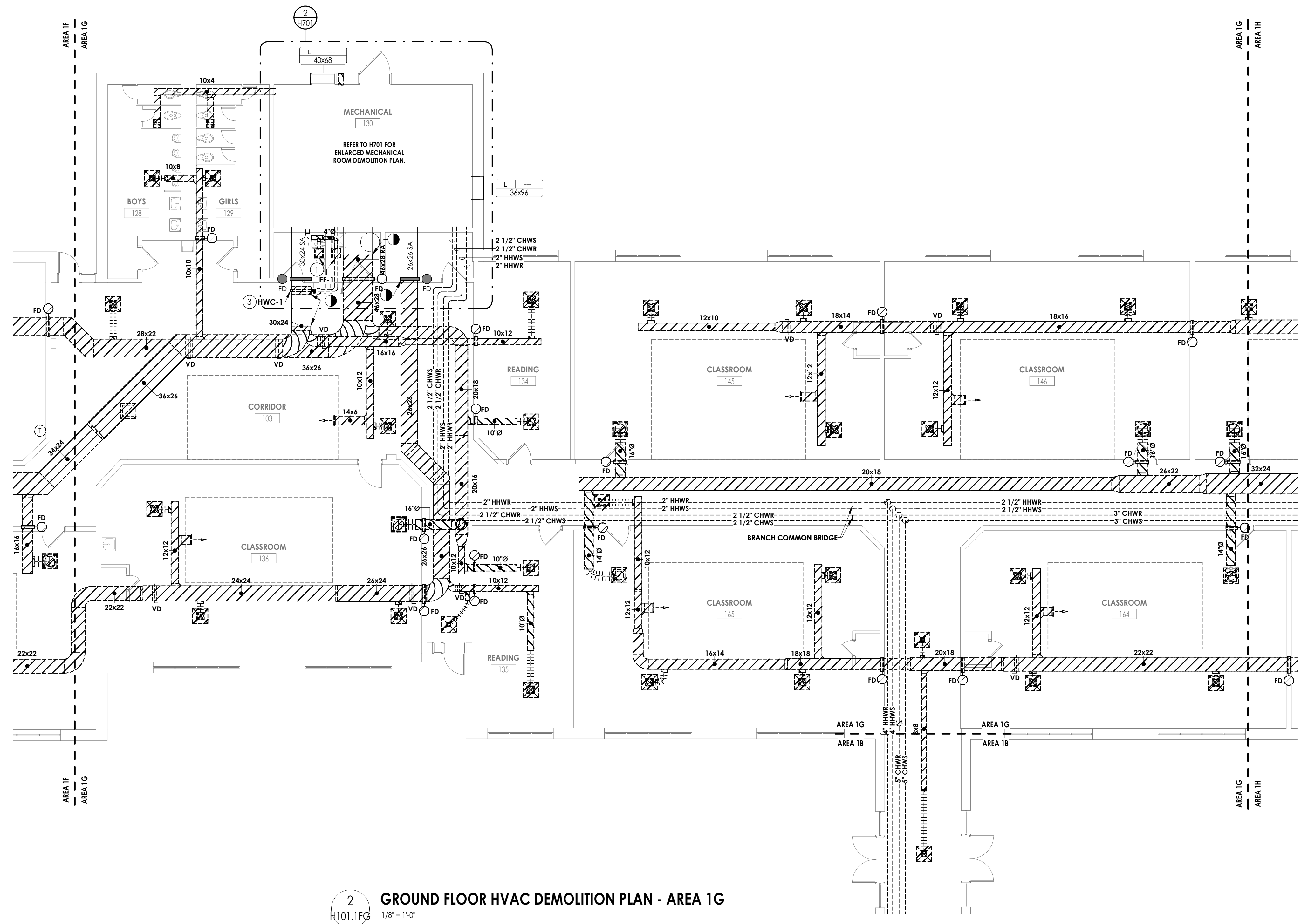
FOES

H101.1DE



1
H101.1FG 1/8" = 1'-0"

GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1F

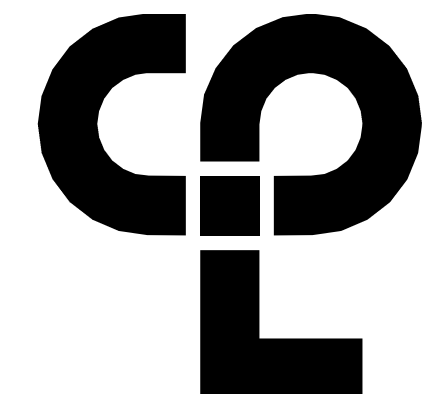


2
H101.1FG 1/8" = 1'-0"

GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1G

KEY NOTES:

- 1 REMOVE CEILING EXHAUST FAN AND DISCONNECT ALL ASSOCIATED DUCTWORK AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
- 2 REMOVE FAN COIL UNIT, ASSOCIATED DUCTWORK AND CONTROLS. COORDINATE WITH ARCH DRAWINGS FOR INFILL DETAIL AND MATERIALS.
- 3 REMOVE HOT WATER COIL, ASSOCIATED DUCTWORK, PIPING AND CONTROLS.



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PROJECT INFORMATION

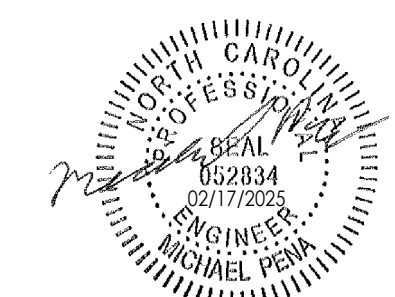
Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

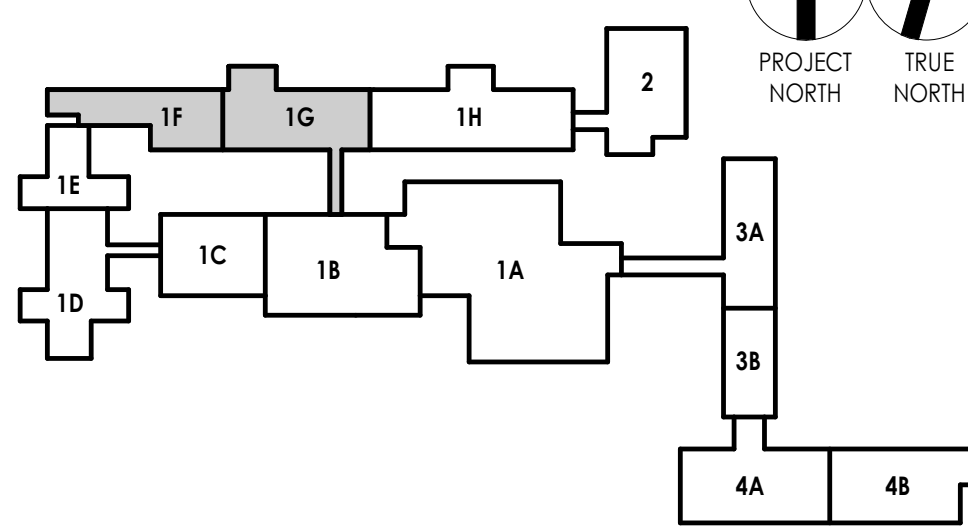
PROFESSIONAL STAMPS

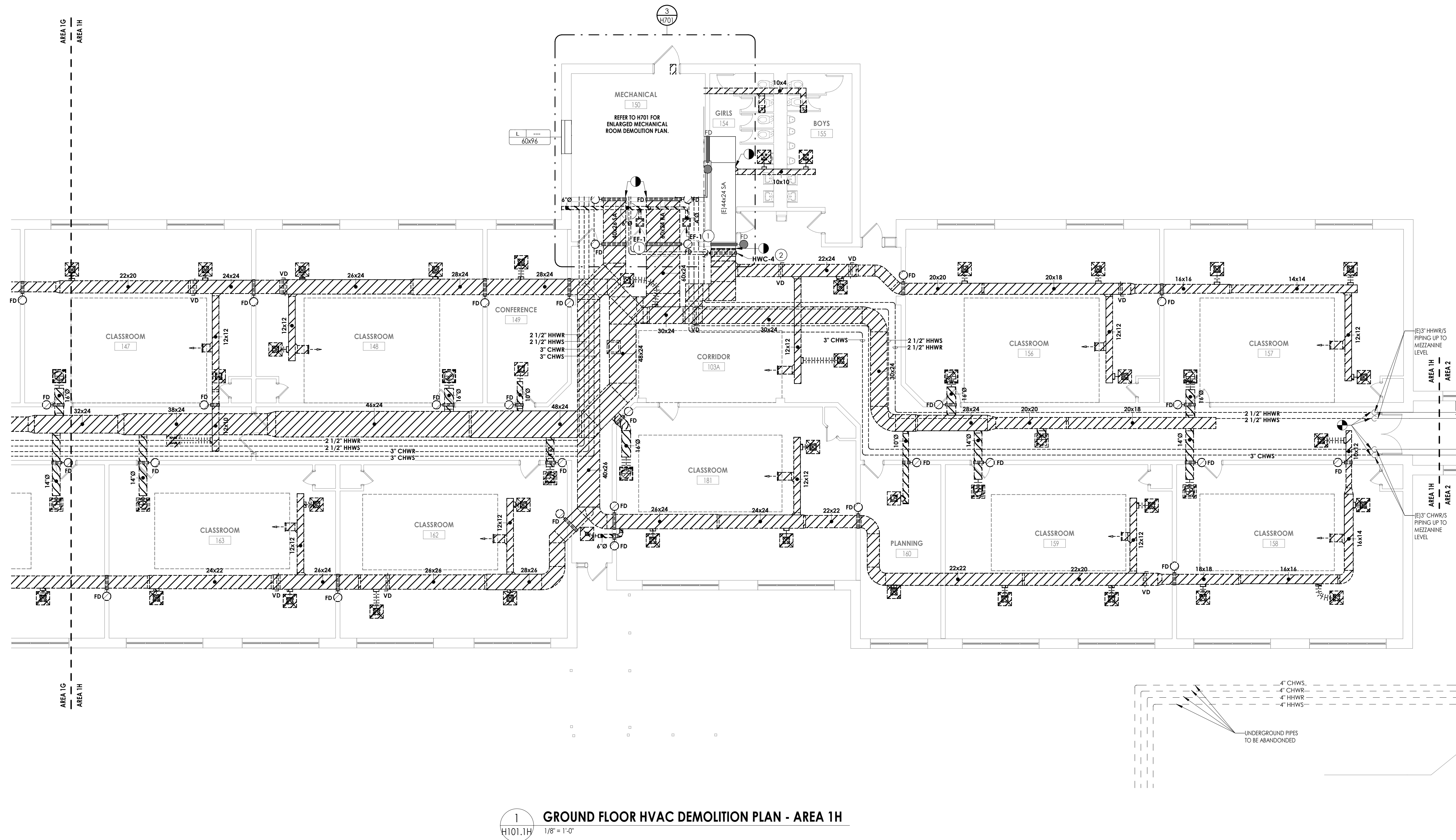


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02/17/2025
Project Status
BID SET
Drawn By
KAB
Drawing Title
GROUND FLOOR HVAC
DEMOLITION PLAN - AREA 1F
AND 1G
Drawing Number
FOES
H101.1FG

KEY PLAN:

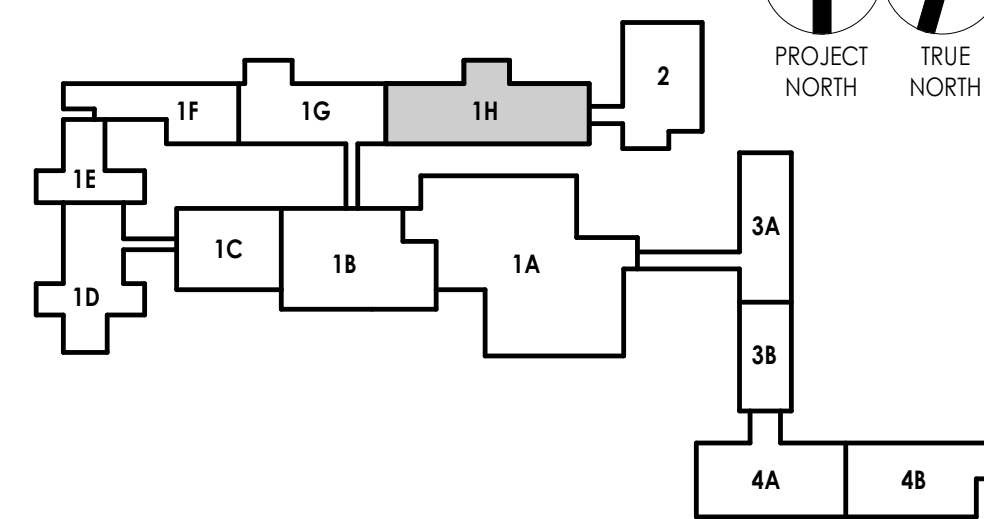




1 GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1H
H101.1H 1/8" = 1'-0"

- KEY NOTES:
- 1 REMOVE CEILING EXHAUST FAN AND DISCONNECT ALL ASSOCIATED DUCTWORK AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
 - 2 REMOVE HOT WATER COIL, ASSOCIATED DUCTWORK, PIPING AND CONTROLS.

KEY PLAN:



PROJECT INFORMATION

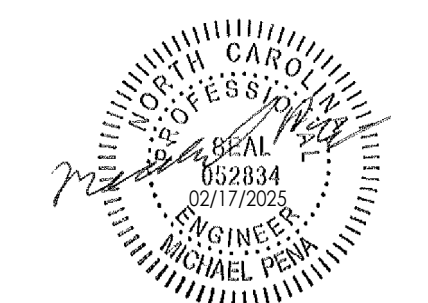
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hatcher St., Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev. Description

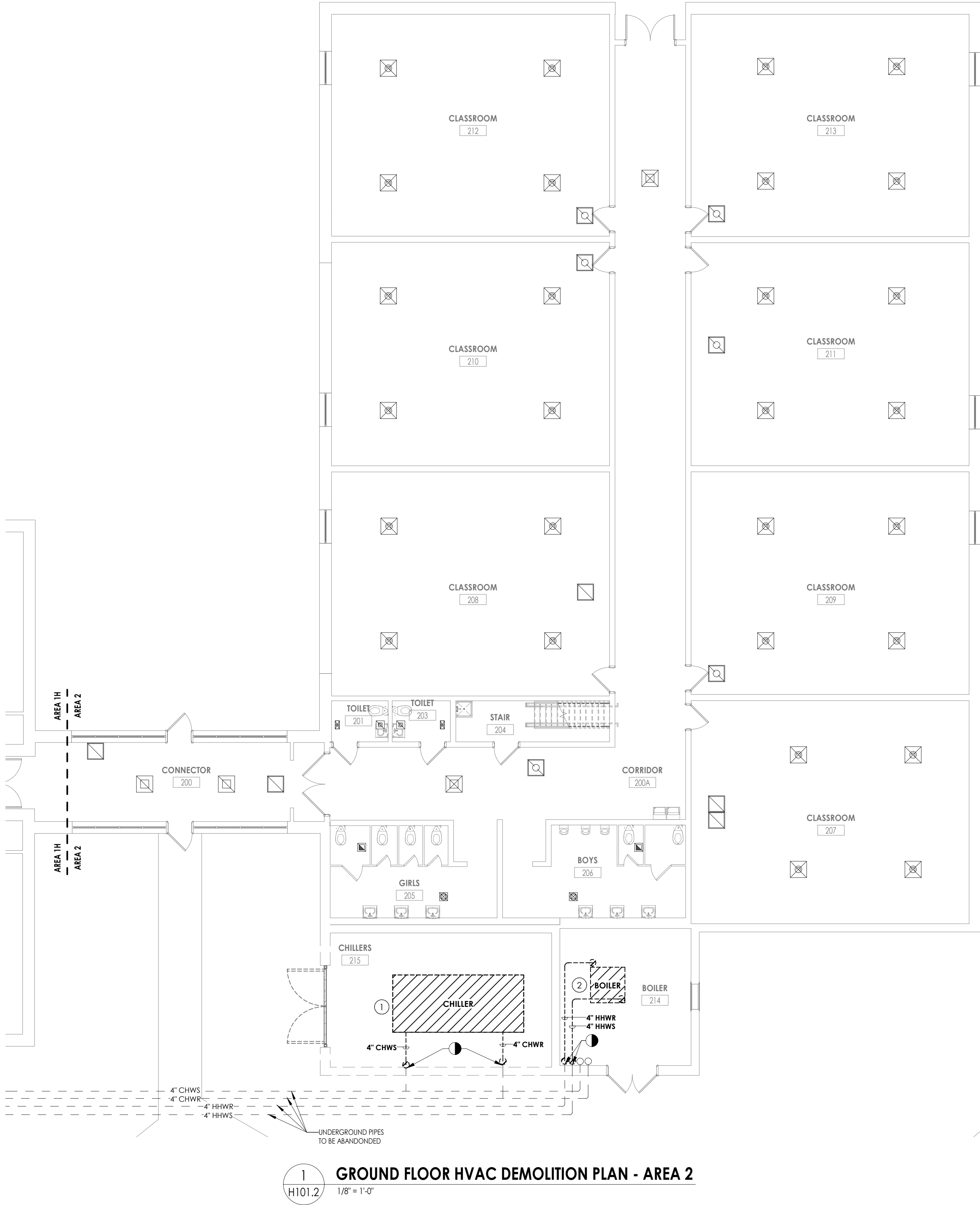
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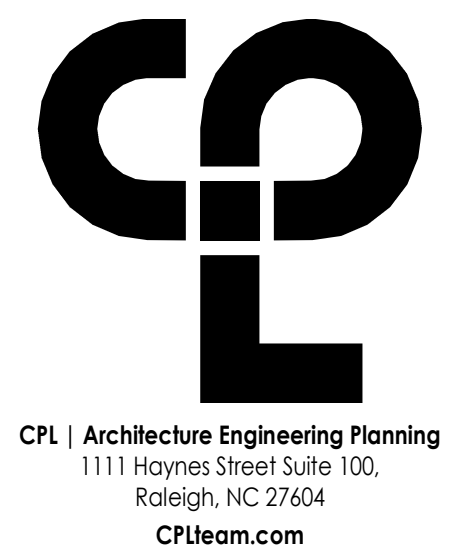
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Drawn By: KAB
Checked By: RM
Drawing Title: GROUND FLOOR HVAC DEMOLITION PLAN - AREA 1H

Drawing Number: FOES H101.1H

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- KEY NOTES:**
- 1 REMOVE EXISTING CHILLER, SUPPORTS, CONTROLS, AND PIPING. ISOLATE AND DRAIN SYSTEM IN AREA OF WORK. CAP PIPING AS SHOWN AND ABANDON UNDERGROUND PIPING.
 - 2 REMOVE BOILER AND ALL ASSOCIATED DUCTWORK, PIPING AND CONTROLS. CAP PIPING AS SHOWN AND ABANDON UNDERGROUND PIPING.



PROJECT INFORMATION

Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address: 180 W Hatcher St, Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

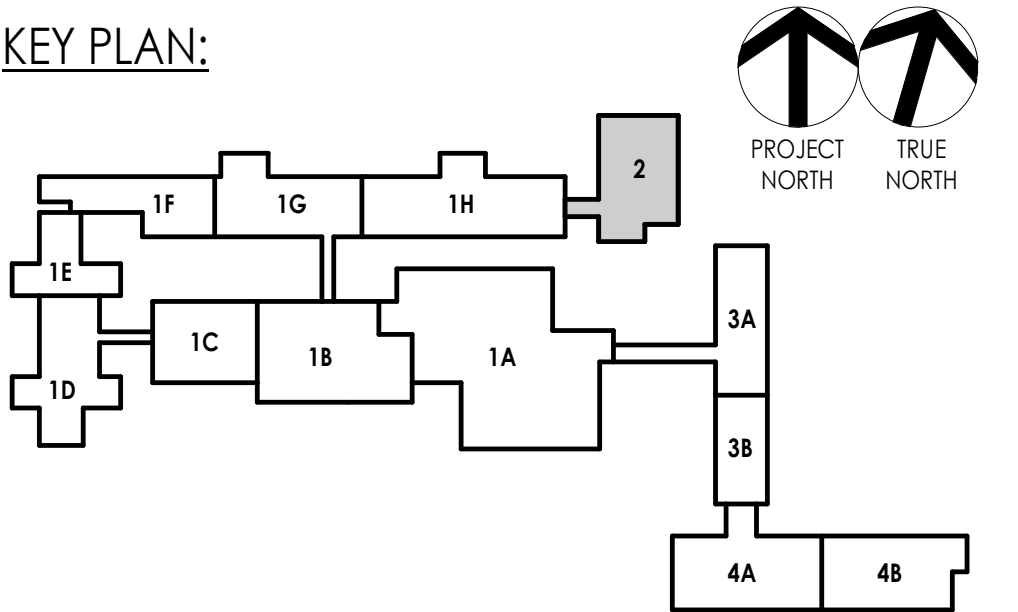
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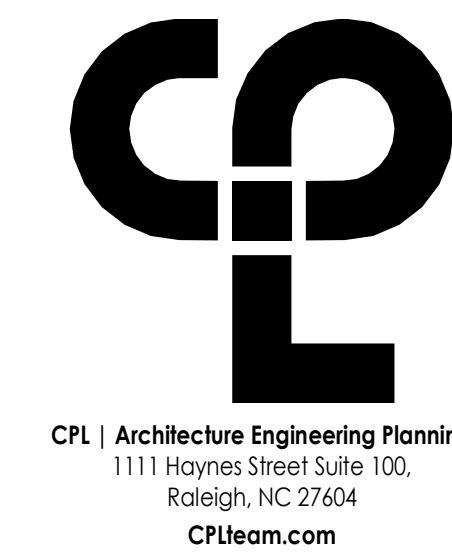
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Project Status: BID SET
Drawn By: KAB
Drawing Title: GROUND FLOOR HVAC DEMOLITION PLAN - AREA 2
Drawing Number: FOES H101.2
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Checked By: RM





PROJECT INFORMATION

R23.00325

Client Name

JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

Project Name

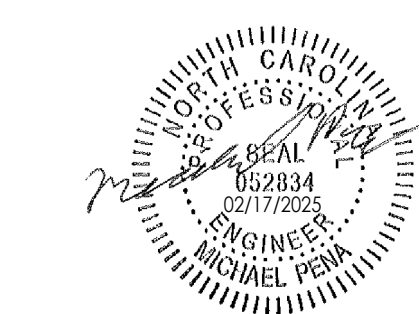
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATIO**

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

vv	Date)	Descriptio
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PROFESSIONAL STAMPS



SHEET INFORMATION

Issued	Scale
02/17/2025	1/8" = 1'-0"

Project Status

BID SET

Disponible

KAB

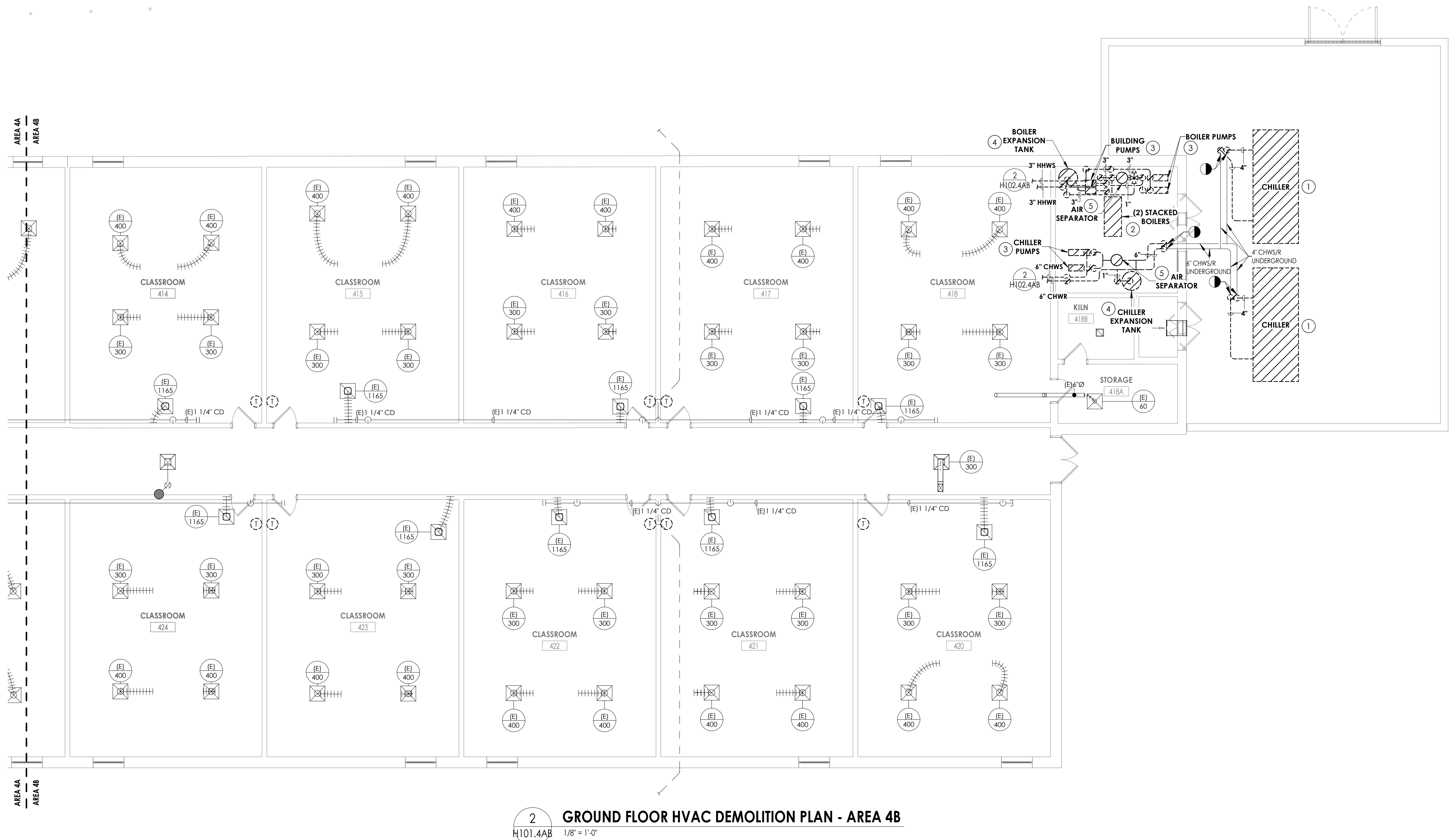
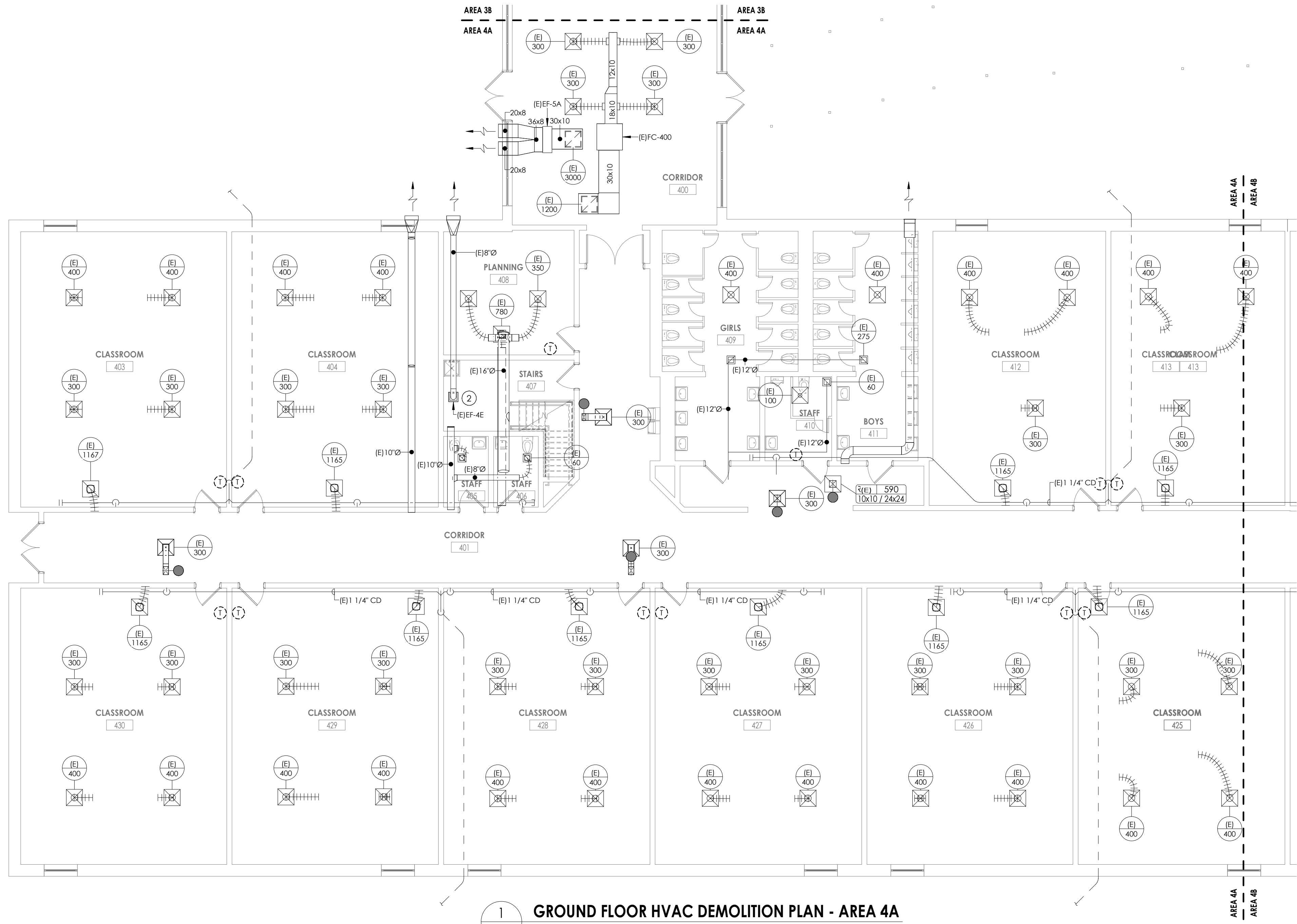
Drawing Title

GROUND FLOOR HVAC
DEMOLITION PLAN - AREA 3
AND 3B

Drawing Num:

Drawing Number **FOES**
H101.3AB

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- KEY NOTES:**
- 1 REMOVE EXISTING CHILLER, SUPPORTS, CONTROLS, AND PIPING. ISOLATE AND DRAIN SYSTEM IN AREA OF WORK. CAP PIPING AS SHOWN AND ABANDON UNDERGROUND PIPING. REMOVE CONCRETE PADS DOWN TO FLOOR LEVEL. REFRIGERANT FROM CHILLERS RECOVERED AND RETURNED TO THE OWNER.
 - 2 REMOVE BOILER AND ALL ASSOCIATED DUCTWORK, PIPING AND CONTROLS. REMOVE CONCRETE PADS DOWN TO FLOOR LEVEL.
 - 3 REMOVE PUMP AND ALL ASSOCIATED PIPING AS SHOWN. REMOVE CONCRETE PADS DOWN TO FLOOR LEVEL.
 - 4 REMOVE EXPANSION TANK, AND ALL ASSOCIATED PIPING AS SHOWN. REMOVE CONCRETE PADS DOWN TO FLOOR LEVEL.
 - 5 REMOVE AIR SEPARATOR AND ALL ASSOCIATED PIPING AS SHOWN.

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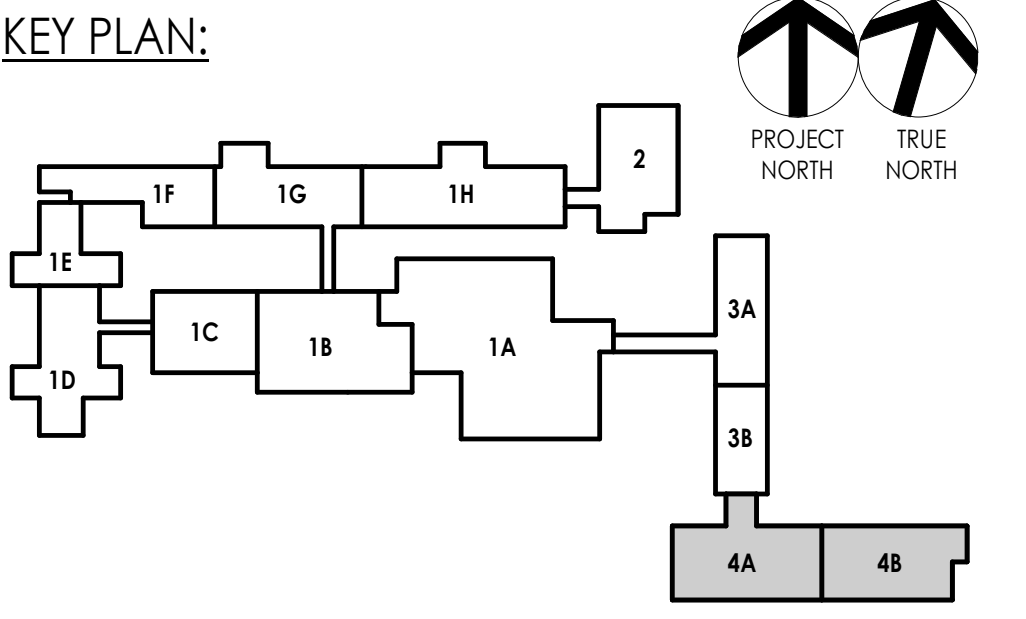
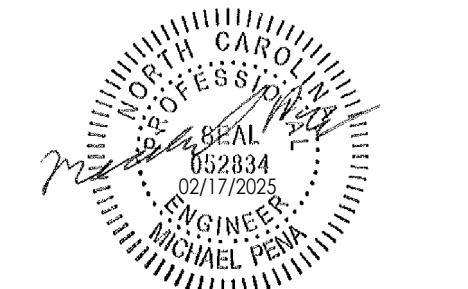
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Project Number
R23.00325
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**
Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

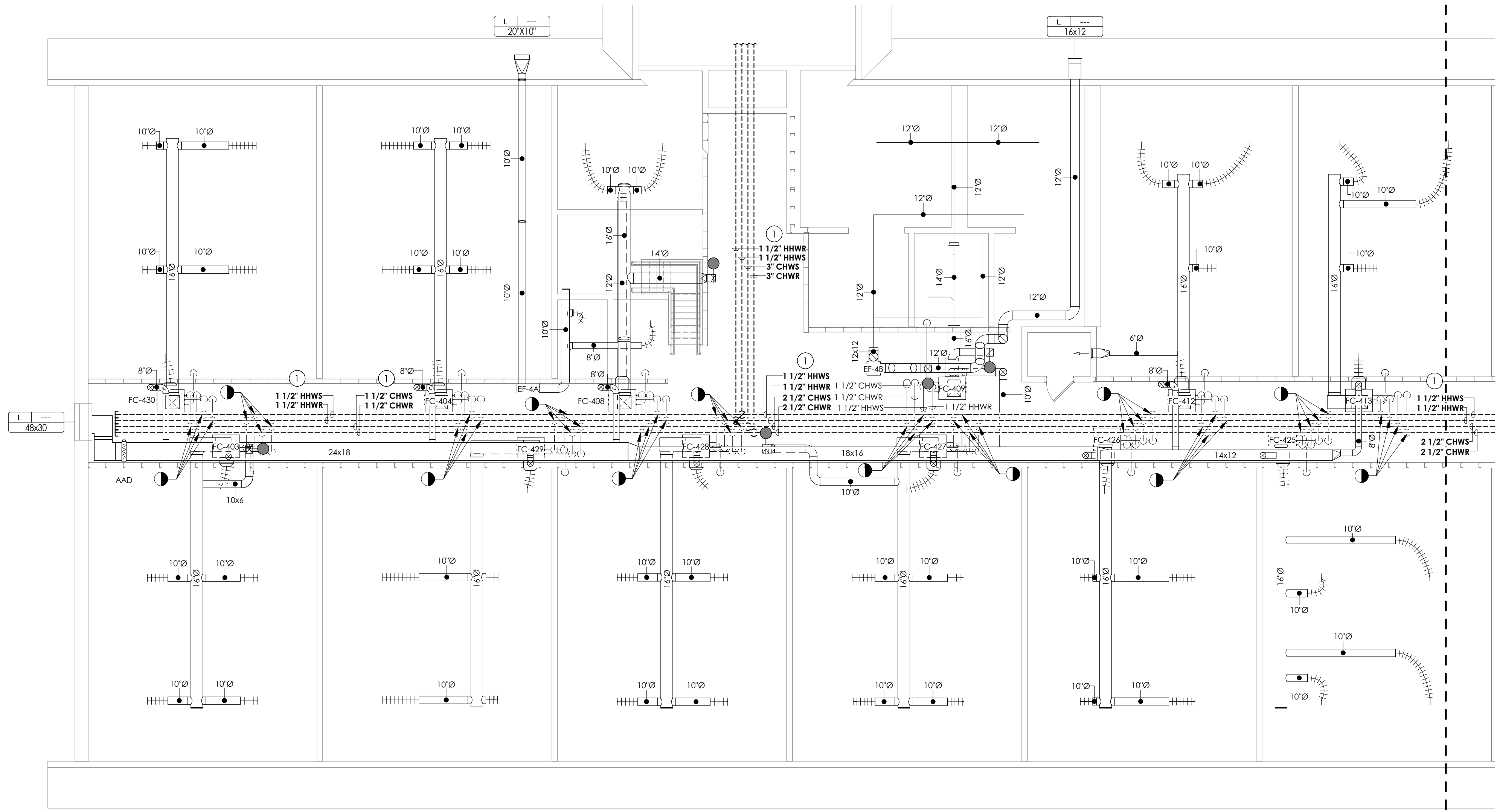
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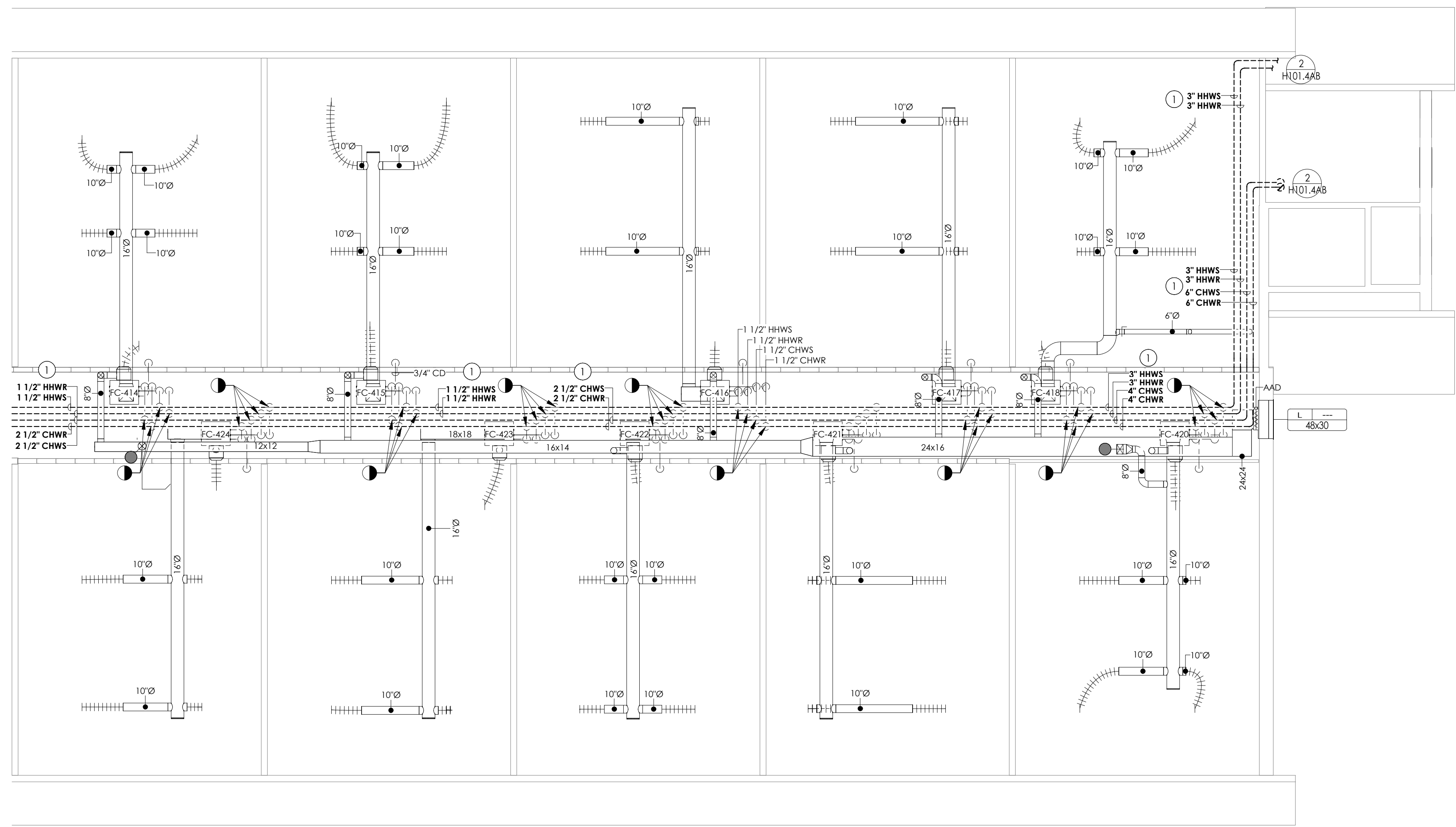


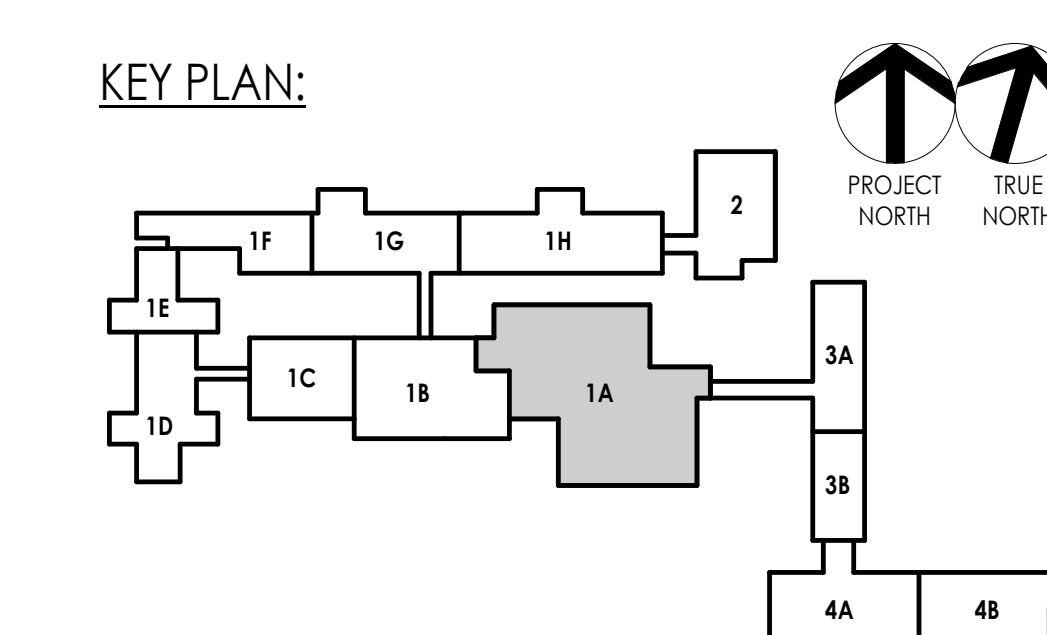
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Project Status
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Drawn By
KAB
Drawing Title
**GROUND FLOOR HVAC
DEMOLITION PLAN - AREA 4A
AND 4B**
Drawing Number
**FOES
H101.4AB**

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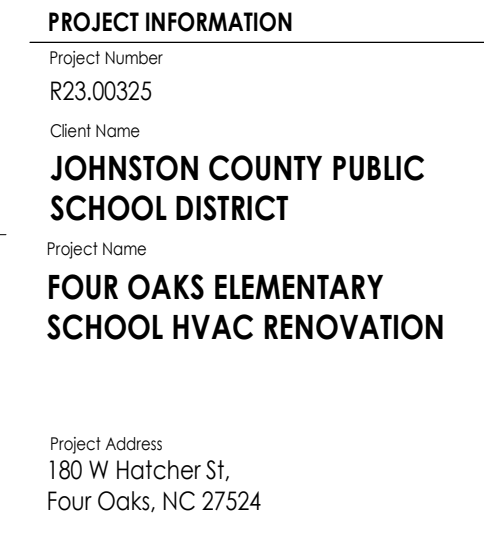


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H102.4AB 1/8" = 1'-0"



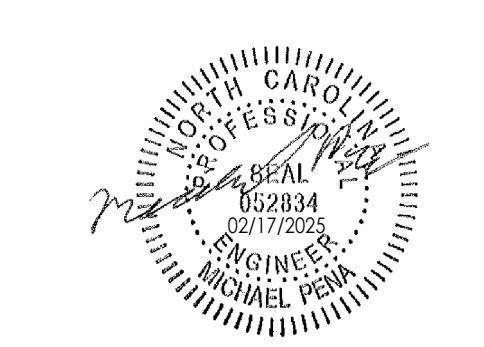


- 1 REMOVE MAKE-UP AIR UNIT AND CURB. REMOVE ALL ASSOCIATED DUCTWORK, PIPING, AND CONTROLS. PREPARE ROOF AND DECK FOR NEW EQUIPMENT.
- 2 REMOVE EXHAUST FAN AND CURB. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH ROOF AND DECK TO MATCH THE EXISTING CONSTRUCTION. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 3 REMOVE GRAVITY VENTILATOR AND CURB. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH ROOF AND DECK TO MATCH THE EXISTING CONSTRUCTION. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 4 REMOVE FLUE AND ALL ASSOCIATED DUCTWORK. PATCH ROOF AND DECK TO MATCH THE EXISTING CONSTRUCTION. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 5 REMOVE EXHAUST FAN IN ATTIC. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH ATTIC FLOOR AND DECK TO MATCH THE EXISTING CONSTRUCTION.
- 61 LOCATION WHERE EXISTING OPENINGS TO BE MAINTAINED, ENLARGED, OR MODIFIED TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 62 LOCATION WHERE NEW ROOF OPENINGS NEED TO BE CUT TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 63 LOCATION WHERE EXISTING SKYLIGHT IS TO BE REMOVED AND NEW ROOF OPENINGS NEED TO BE CUT TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 64 LOCATION WHERE EXISTING OPENINGS TO BE MAINTAINED TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURERS' AND NRCA REQUIREMENTS AND RECOMMENDATIONS.



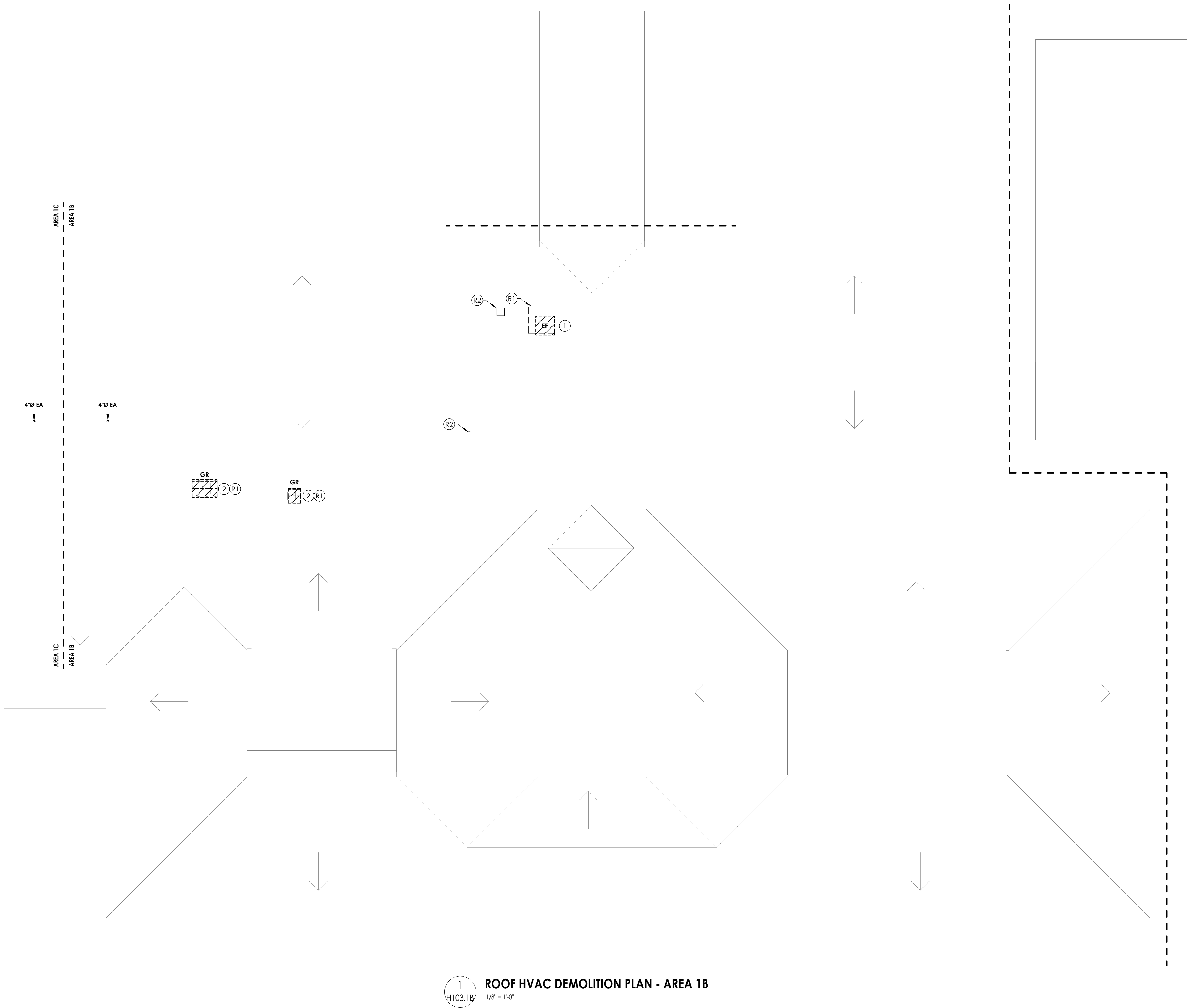
PROJECT ISSUE & REVISION SCHEDULE		
vv	Date	Description

PROFESSIONAL STAMPS



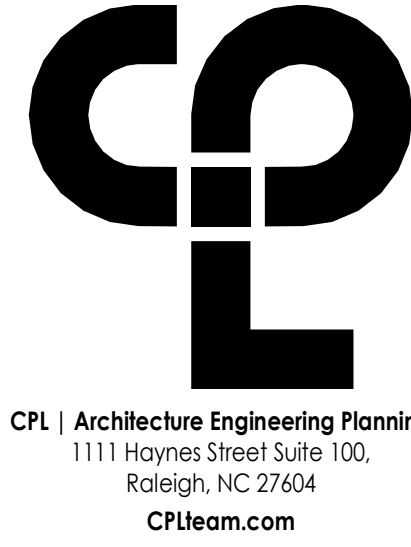
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Drawn By	Checked By
ACS	RM
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ROOF HVAC DEMOLITION PLAN AREA 1A	
Drawing Number	

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1
H103.1B
ROOF HVAC DEMOLITION PLAN - AREA 1B
1/8" = 1'-0"

- KEY NOTES:**
- 1 REMOVE EXHAUST FAN AND CURB. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH ROOF AND DECK TO MATCH THE EXISTING CONSTRUCTION. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURER'S AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
 - 2 REMOVE GRAVITY VENTILATOR AND CURB. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH ROOF AND DECK TO MATCH THE EXISTING CONSTRUCTION. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURER'S AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
 - R1 LOCATION WHERE EXISTING OPENINGS TO BE MAINTAINED, ENLARGED, OR MODIFIED TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURER'S AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
 - R2 LOCATION WHERE NEW ROOF OPENINGS NEED TO BE CUT TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURER'S AND NRCA REQUIREMENTS AND RECOMMENDATIONS.



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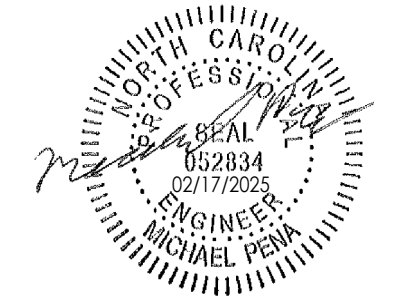
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R23.00325
Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS

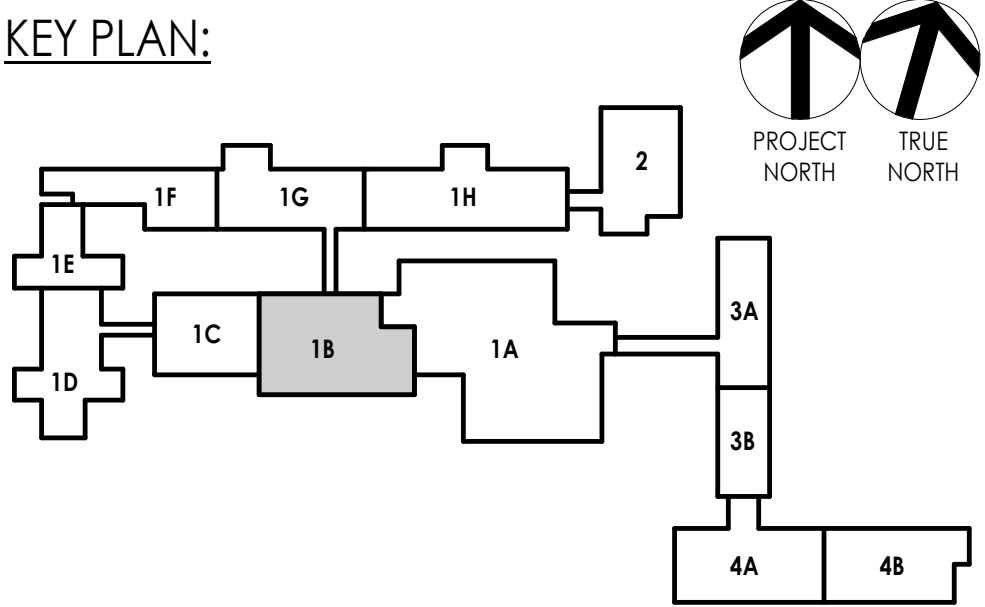


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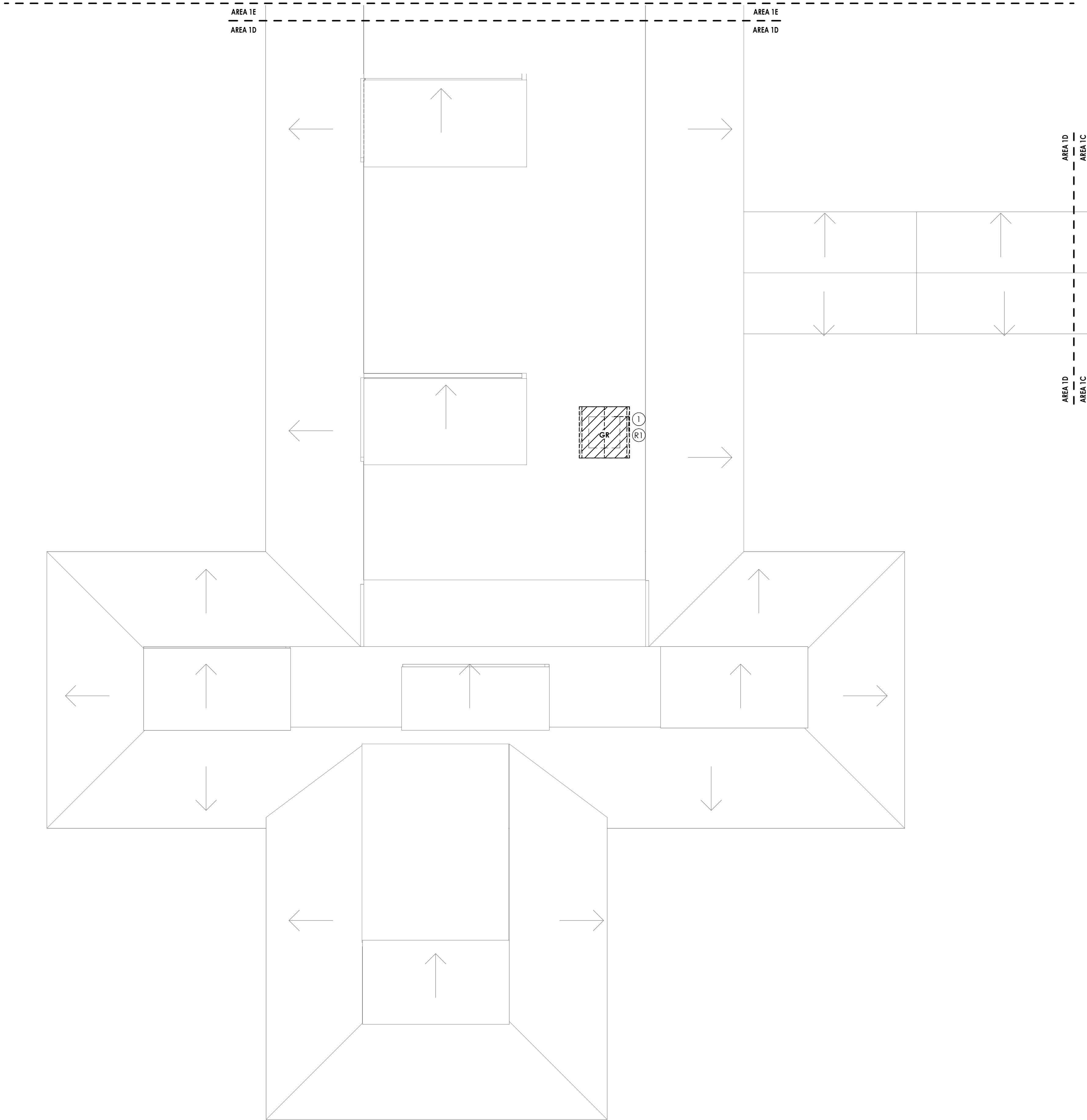
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Drawing Title
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Drawing Number
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H103.1B**

KEY PLAN:



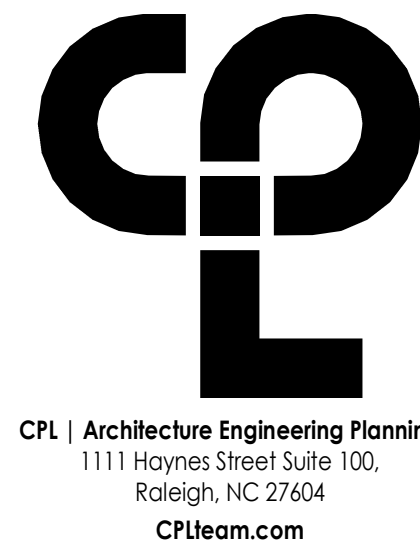
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1
H103.1D
ROOF HVAC DEMOLITION PLAN - AREA 1D
1/8" = 1'-0"

KEY NOTES:

- 1 REMOVE GRAVITY VENTILATOR AND CURB. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH ROOF AND DECK TO MATCH THE EXISTING CONSTRUCTION. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURER'S AND NRCA REQUIREMENTS AND RECOMMENDATIONS.
- 61 LOCATION WHERE EXISTING OPENINGS TO BE MAINTAINED, ENLARGED, OR MODIFIED TO ACCOMMODATE NEW WORK. COORDINATE WITH THE OWNER AND THE EXISTING ROOFING MANUFACTURER TO MAINTAIN THE WARRANTY ON THE ROOF. ALL ROOFING WORK SHALL BE PER THE ROOFING MANUFACTURER'S AND NRCA REQUIREMENTS AND RECOMMENDATIONS.



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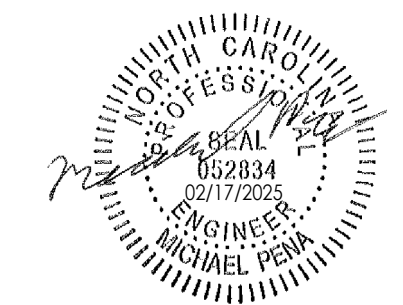
Project Number
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Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS

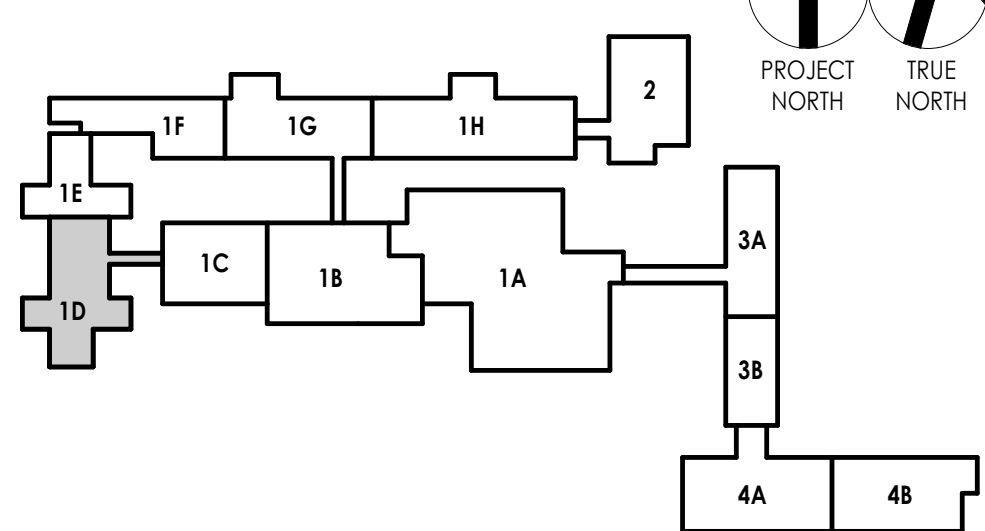


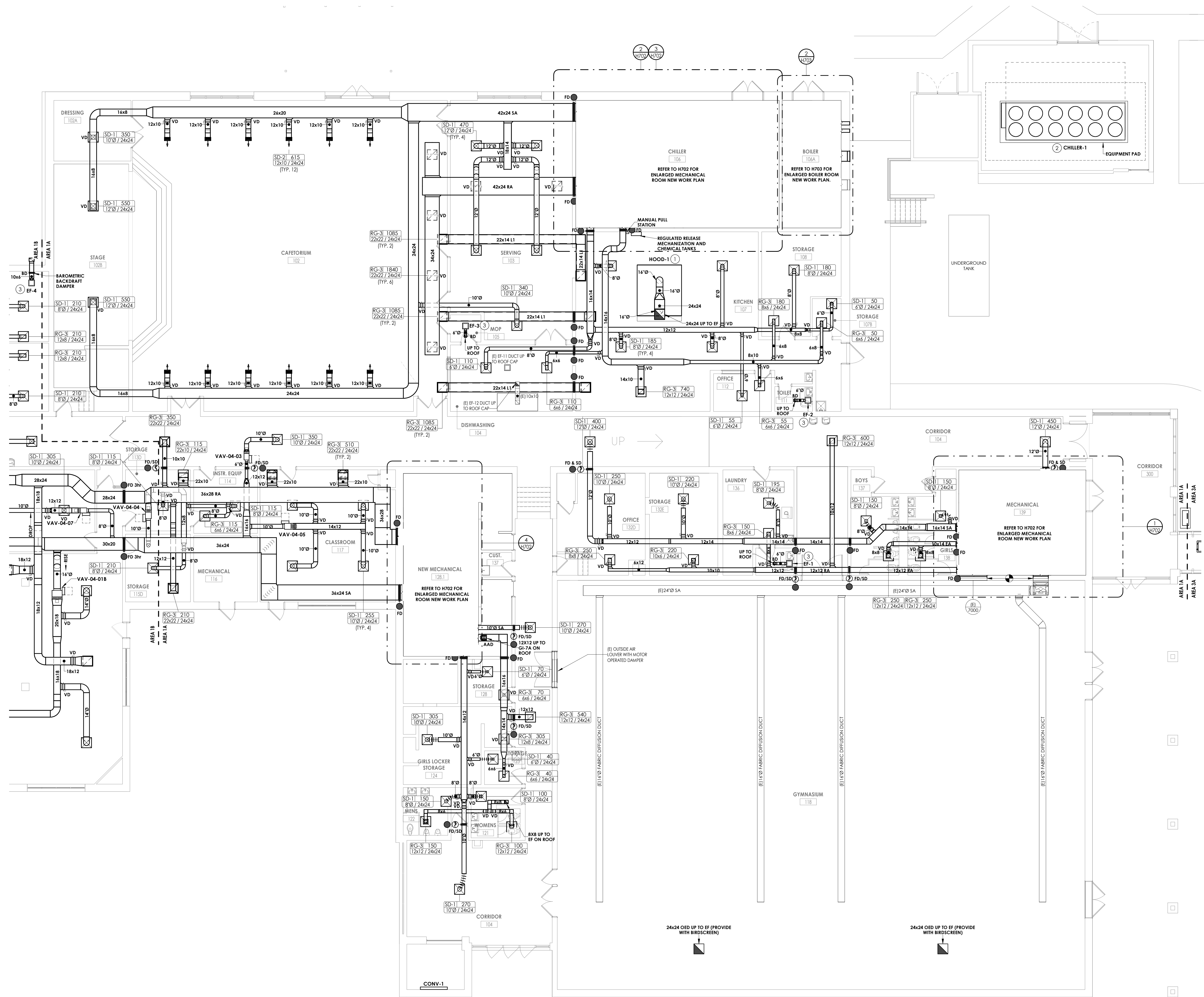
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ROOF HVAC DEMOLITION PLAN -
AREA 1D

Drawing Number
FOES
H103.1D

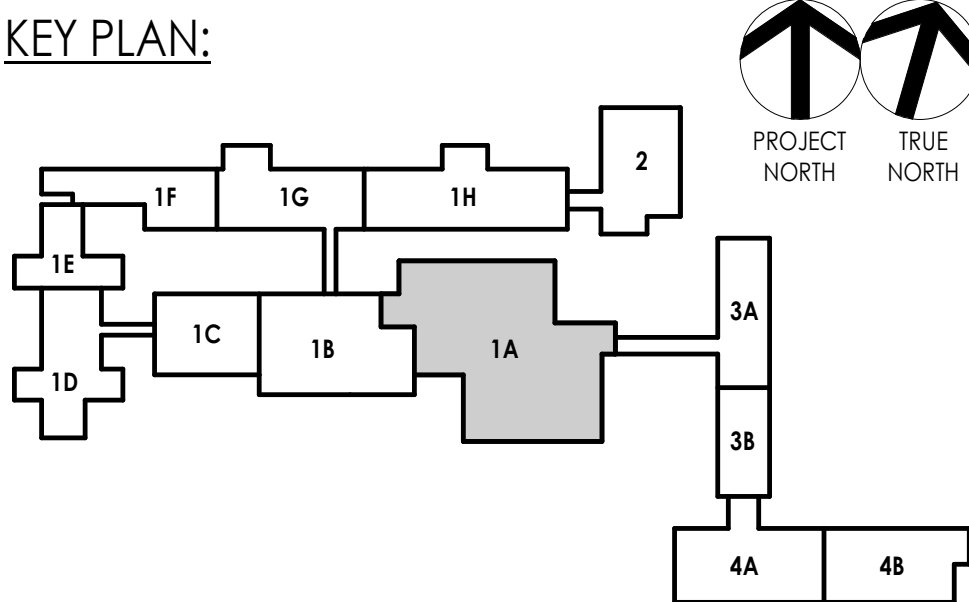
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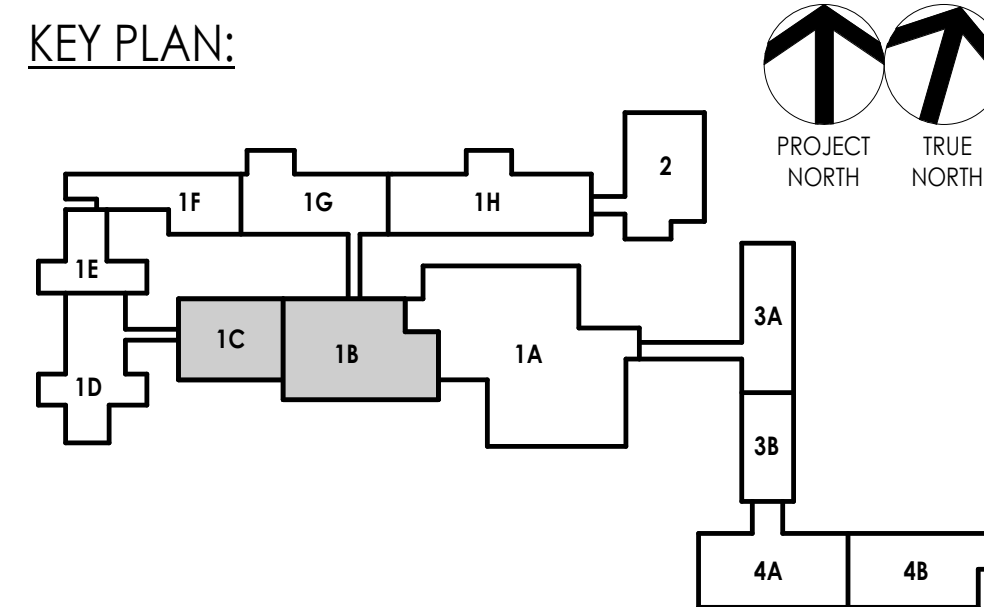




1 GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1A
H201.1A 1/8" = 1'-0"

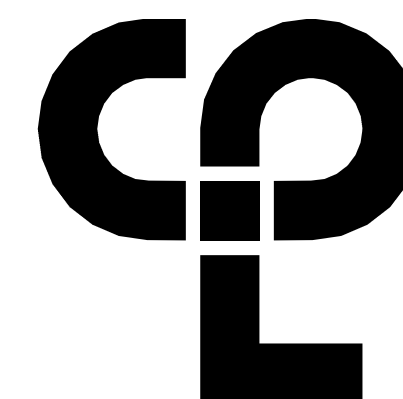
- KEY NOTES**
- 1 PROVIDE ANSUL FIRE SUPPRESSION SYSTEM.
 - 2 PROVIDE NEW REINFORCED CONCRETE HOUSEKEEPING PADS FOR NEW CHILLERS.
 - 3 PROVIDE CEILING MOUNTED EXHAUST FAN. EXTEND DUCT THROUGH SIDE WALL OR ROOF AND TERMINATE WITH BAROMETRIC BACKDRAFT DAMPER. FAN SHALL BE INTERLOCKED WITH THE ROOM LIGHT SWITCH OR ROOM LIGHT SENSOR.





KEY NOTES

- ① PROVIDE CEILING MOUNTED EXHAUST FAN. EXTEND DUCT THROUGH SIDE WALL OR ROOF AND TERMINATE WITH BAROMETRIC BACKDRAFT DAMPER. FAN SHALL BE INTERLOCKED WITH THE ROOM LIGHT SWITCH OR ROOM LIGHT SENSOR.



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Raleigh, NC 27604
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PROJECT INFORMATION

823.00325

Client Name

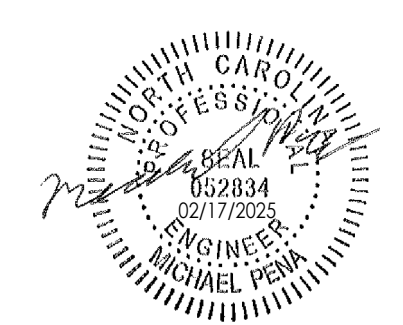
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

PROFESSIONAL STAMPS



SHEET INFORMATION

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02/17/202

Project Status

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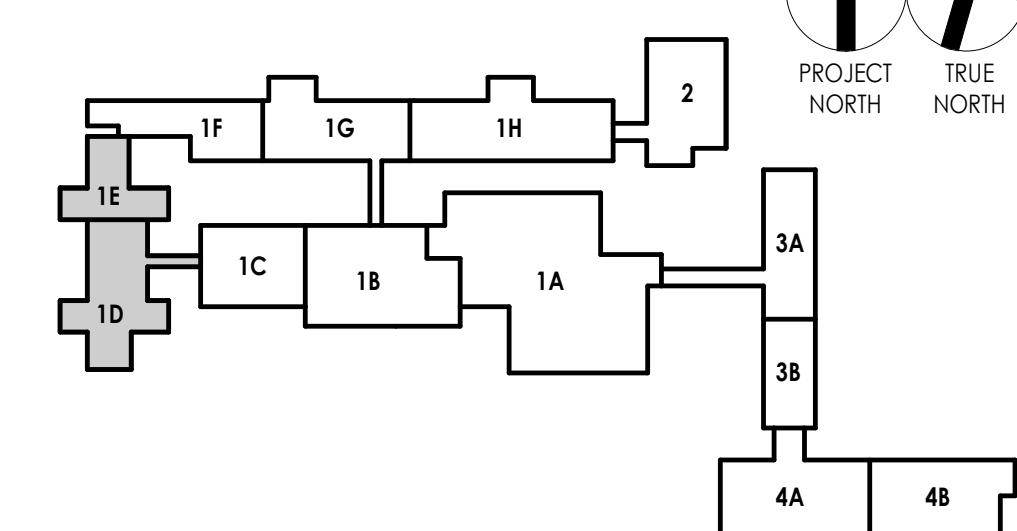
Discussion for

KAB

Drawing Title
GROUND FLOOR HVAC
DUCTWORK PLAN - AREA 1B AND
1C

Drawing Num:

Drawing Number **FOES**
H201.1BC



① PROVIDE CEILING MOUNTED EXHAUST FAN. EXTEND DUCT THROUGH SIDE WALL OR ROOF AND TERMINATE WITH BAROMETRIC BACKDRAFT DAMPER. FAN SHALL BE INTERLOCKED WITH THE ROOM LIGHT SWITCH OR ROOM LIGHT SENSOR.



Project Number
R23.00325

Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

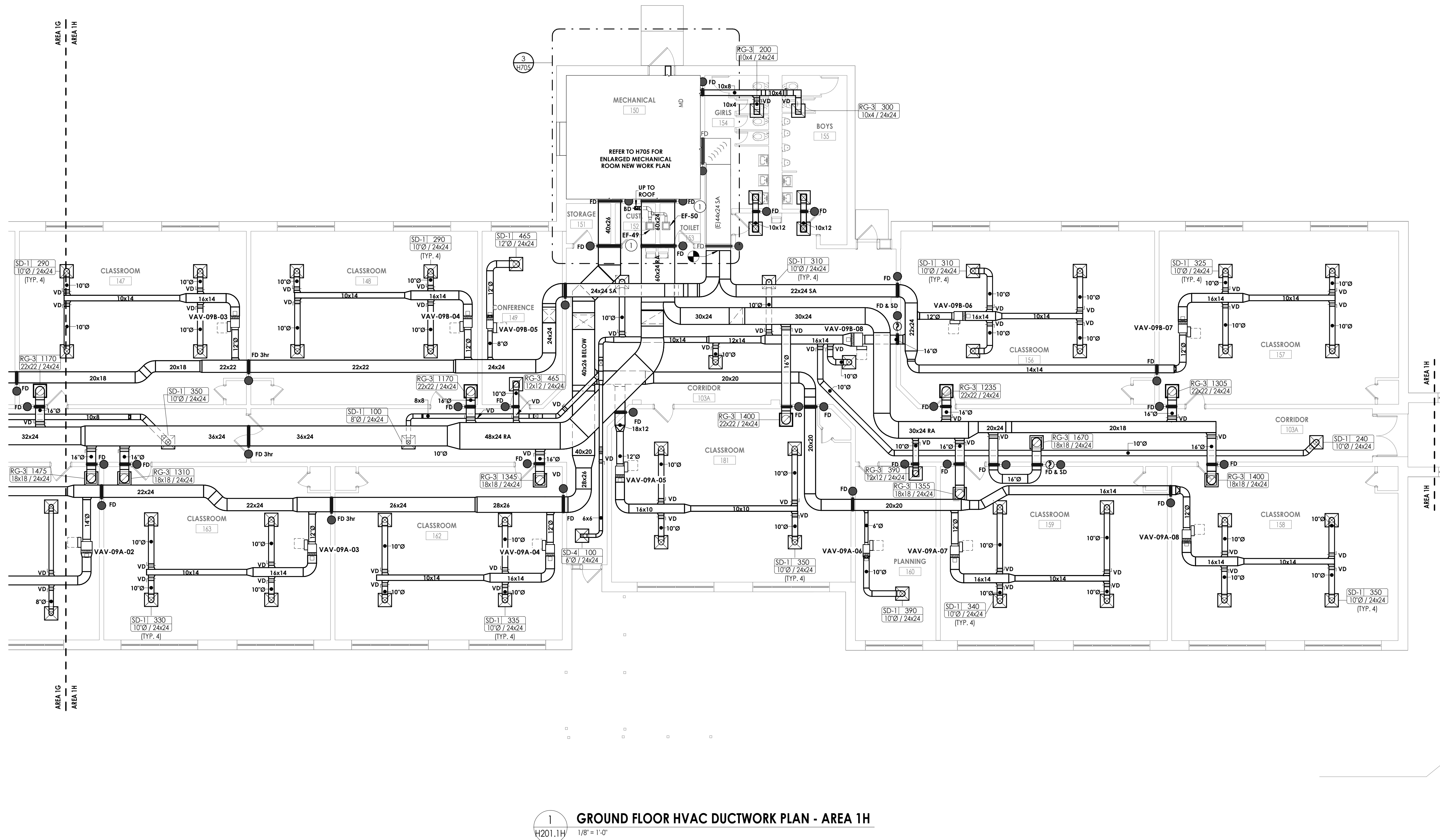
PROJECT ISSUE & REVISION SCHEDULE

PROFESSIONAL STAMPS



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Issued	Scale
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Drawn By	Checked By
KAB	RM
Drawing Title	
GROUND FLOOR HVAC	
DUCTWORK PLAN - AREA 1D	
AND 1E	

Drawing Number **FOES**
H201.1DE



1
H201.1H
GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1H
1/8" = 1'-0"

KEY NOTES

1 PROVIDE CEILING MOUNTED EXHAUST FAN. EXTEND DUCT THROUGH SIDE WALL OR ROOF AND TERMINATE WITH BAROMETRIC BACKDRAFT DAMPER. FAN SHALL BE INTERLOCKED WITH THE ROOM LIGHT SWITCH OR ROOM LIGHT SENSOR.



PROJECT INFORMATION

Project Number
R23.00325

Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT

Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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PROFESSIONAL STAMPS



SHEET INFORMATION

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02/17/2025

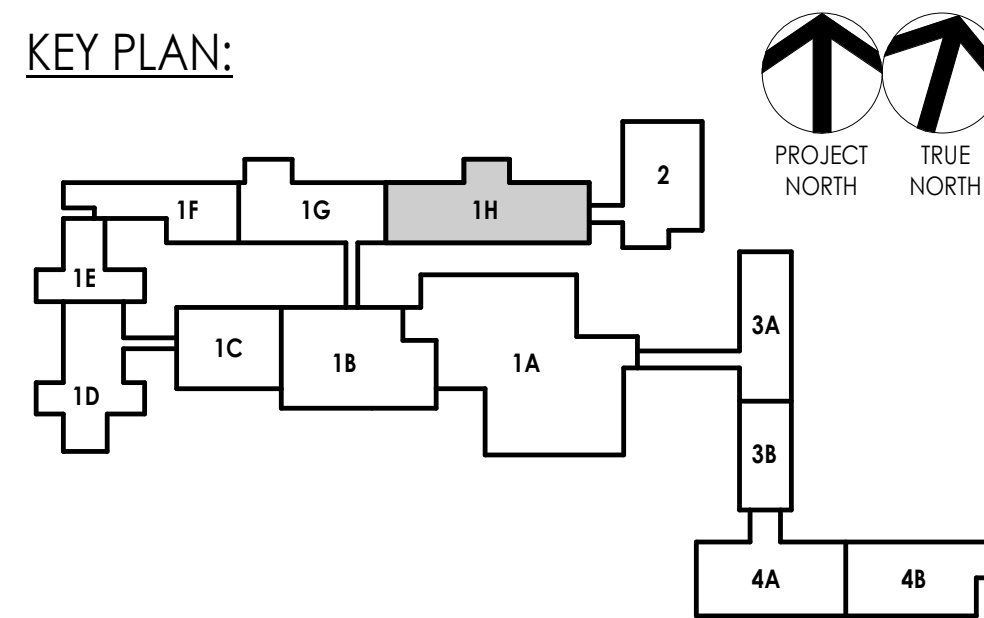
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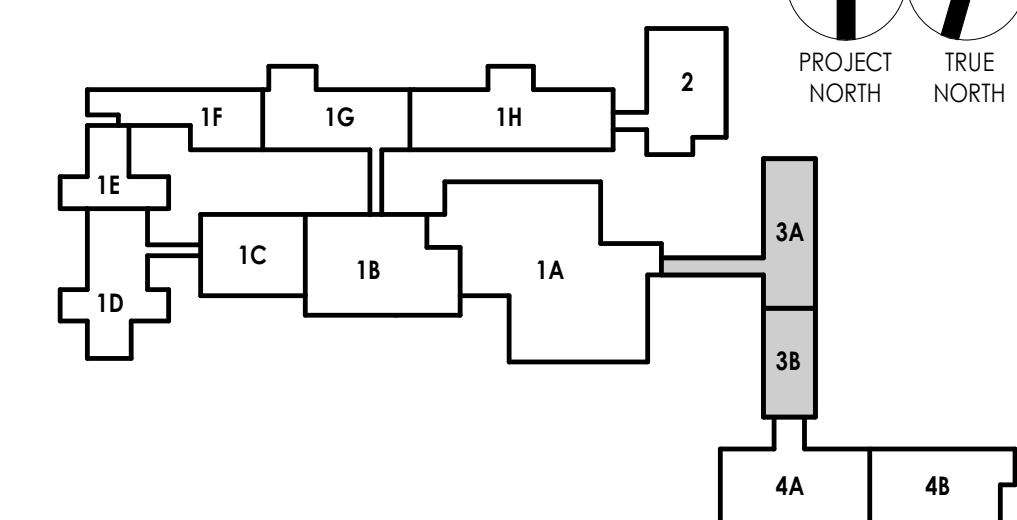
Drawn By
KAB

Checking By
RW

Drawing Title
GROUND FLOOR HVAC DUCTWORK PLAN - AREA 1H

Drawing Number
**FOES
H201.1H**





- ① PROVIDE INLINE EXHAUST FAN WITH ASSOCIATED DUCTWORK AND CONTROLS. EXTEND DUCT THROUGH WINDOW SPANDREL PANEL WITH LOUVER AND TERMINATE WITH BAROMETRIC BACKDRAFT DAMPER.
- ② PROVIDE NEW FAN COIL UNIT WITH ASSOCIATED DUCTWORK, PIPING, AND CONTROLS.



Project Number
R23.00325

Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

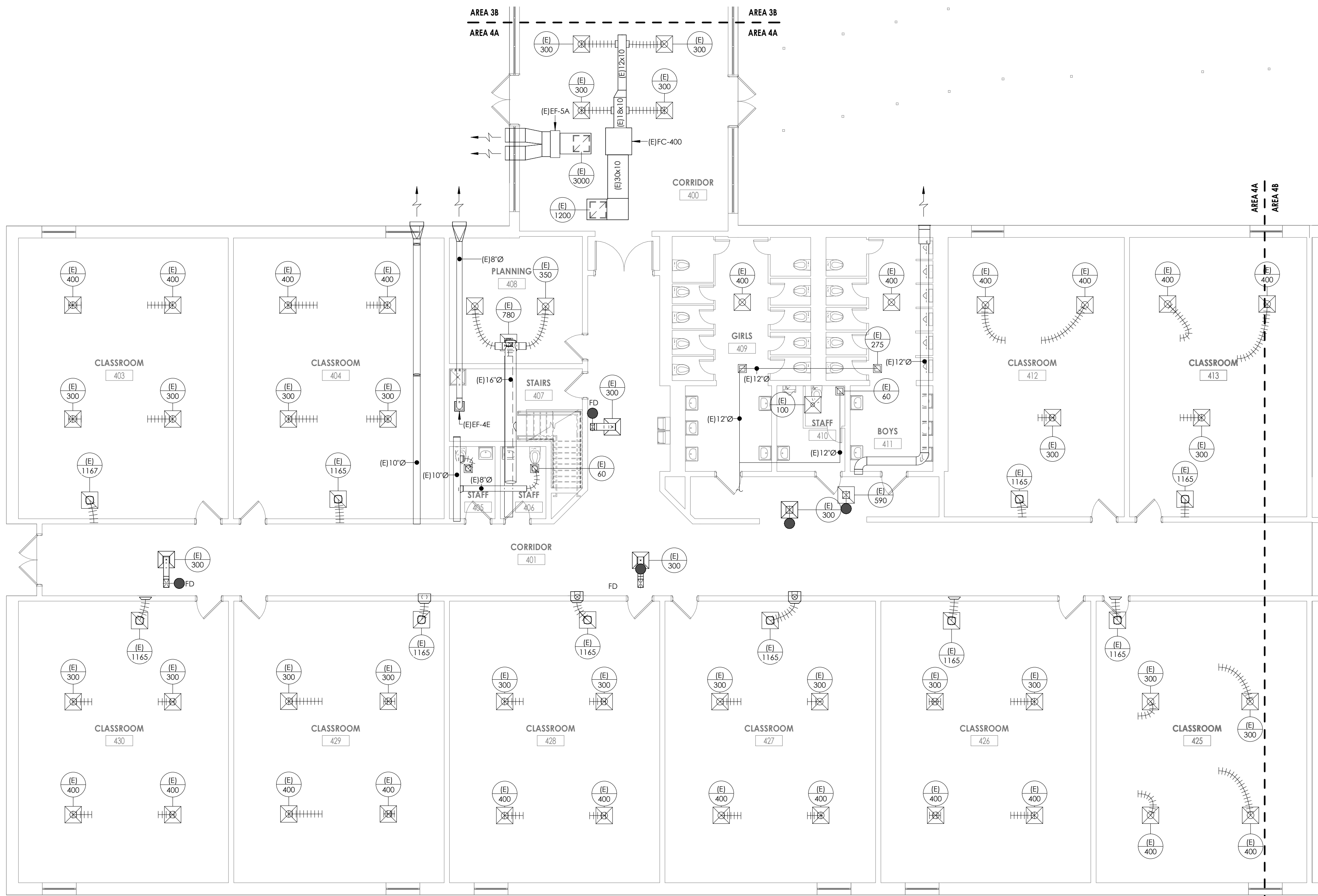
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SCHOOL HVAC RENOVATION**

PROJECT ISSUE & REVISION SCHEDULE	
vv	Description

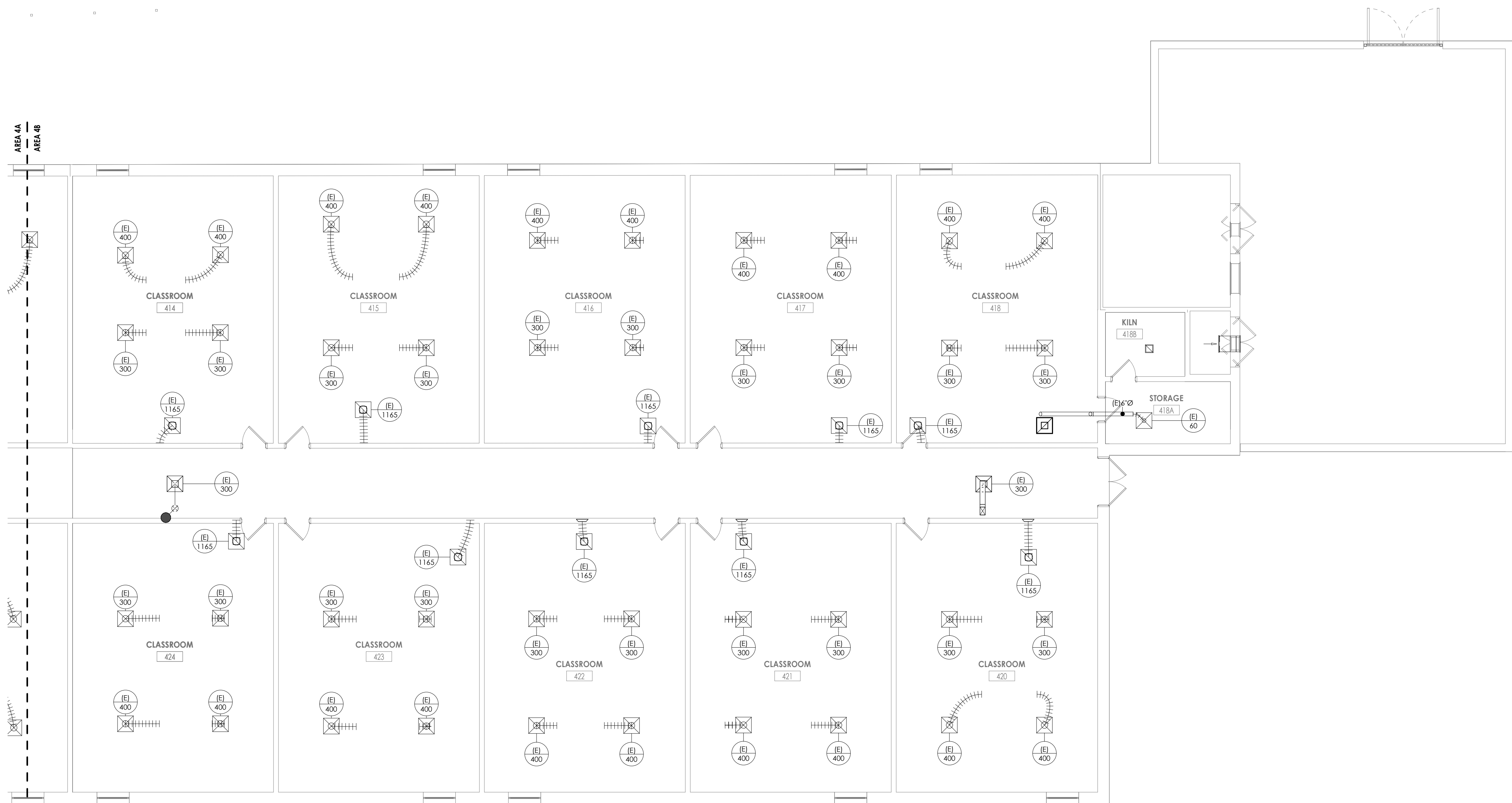
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Drawn By KAB
Checked By RM
Drawing Title
GROUND FLOOR HVAC
DUCTWORK PLAN - AREA 3A
AND 3B
Drawing Number 5052

Drawing Number **FOES**
H201.3AB

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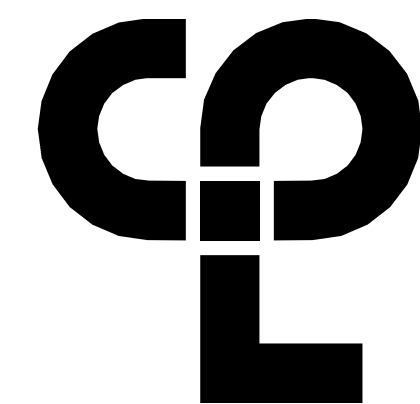
1 GROUND FLOOR HVAC DUCTWORK PLAN - AREA 4A
H201.4A/B 1/8" = 1'-0"



2 GROUND FLOOR HVAC DUCTWORK PLAN - AREA 4B
H201.4A/B 1/8" = 1'-0"

GENERAL NOTES

- A. CONTRACTOR SHALL BALANCE SYSTEMS TO AIR FLOWS AS INDICATED ON THIS DRAWING FOR ALL REGISTERS, GRILLES, AND DIFFUSERS THAT ARE EXISTING TO REMAIN.



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Raleigh, NC 27604
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PROJECT INFORMATION

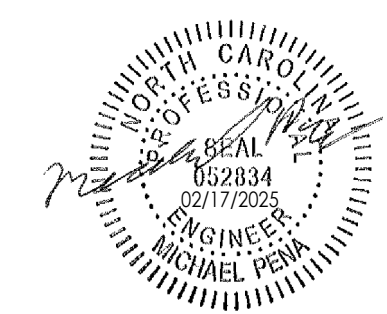
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address:
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS

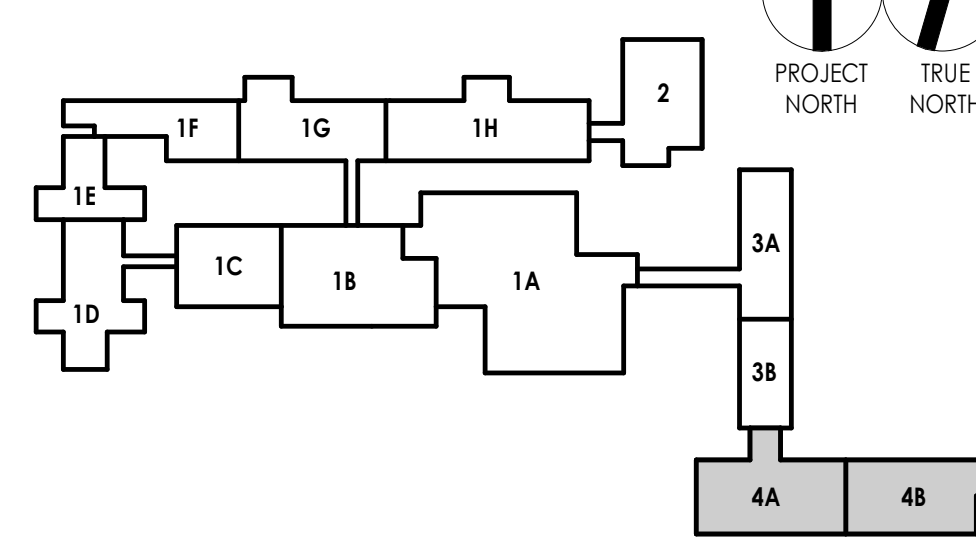


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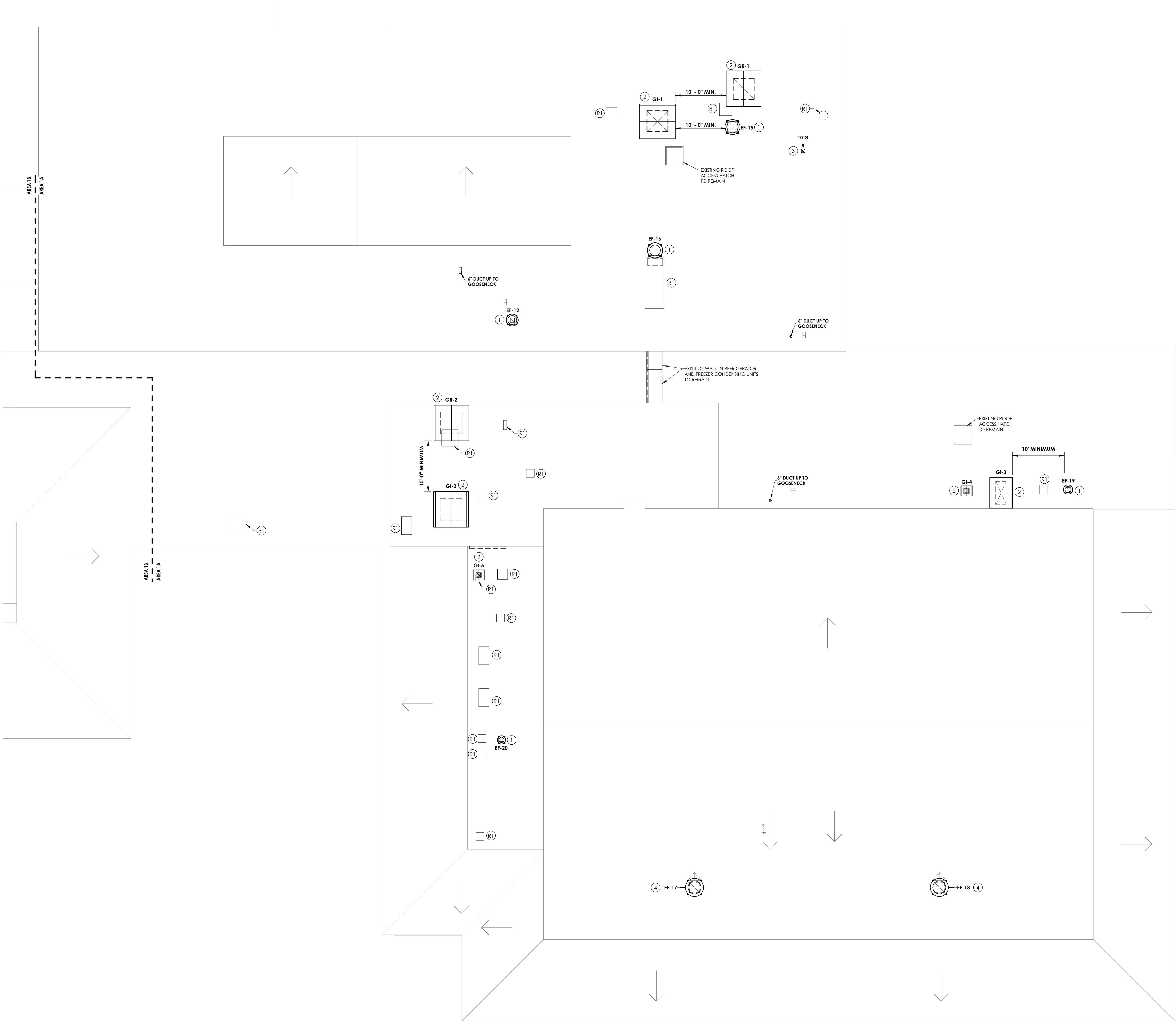
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Project Status: BID SET
Drawn By: KAB Checked By: RM
Drawing Title: GROUND FLOOR HVAC DUCTWORK PLAN - AREA 4A AND 4B
Drawing Number:

FOES
H201.4A/B

KEY PLAN:



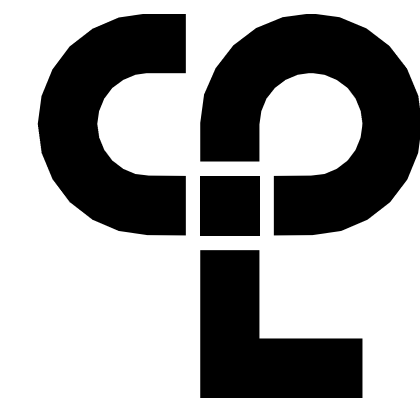
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1 ROOF HVAC DUCTWORK AND PIPING PLAN - AREA 1A
H203.1A 1/8" = 1'-0"

KEY NOTES

1. PROVIDE NEW EXHAUST FAN WITH NEW CURB. ALL ROOF CURBS SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.
 2. PROVIDE NEW GRAVITY ROOF VENT WITH NEW CURB. ALL ROOF CURBS SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.
 3. TERMINATE FLUE MINIMUM 3'-0" ABOVE ROOF LEVEL WITH A VENT CAP.
 4. PROVIDE NEW EXHAUST FAN WITH NEW CURB FOR SLOPED ROOF. PROVIDE METAL CRICKET. ALL ROOF CURBS SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE STANDING METAL SEAM ROOF BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.
- (R) INFILL EXISTING ROOF BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.



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PROJECT INFORMATION

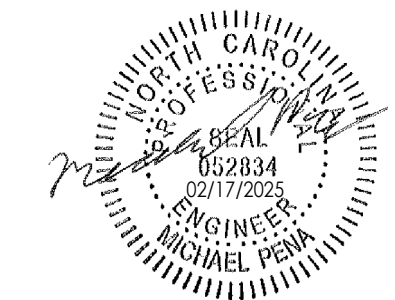
Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS

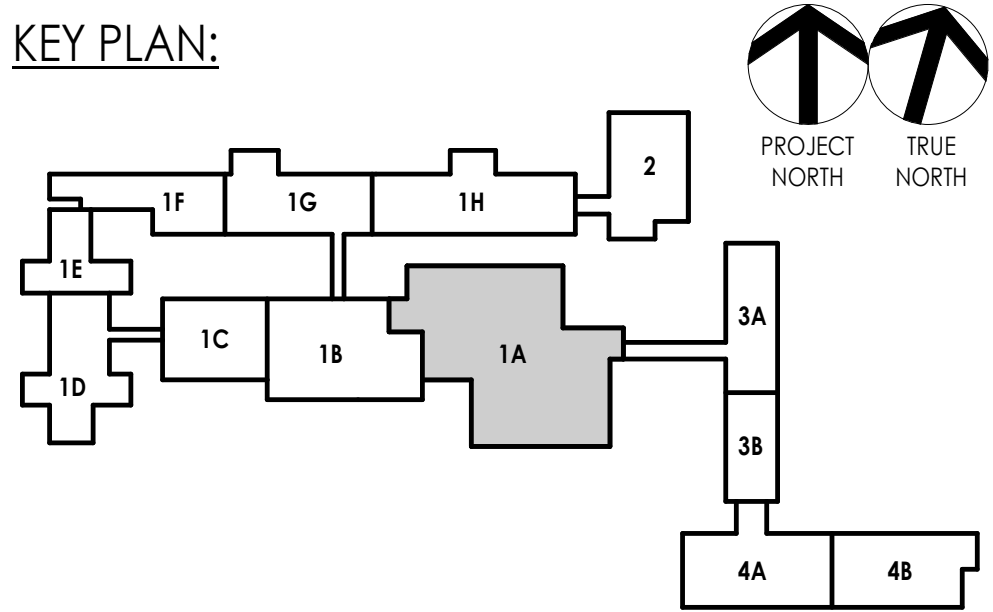


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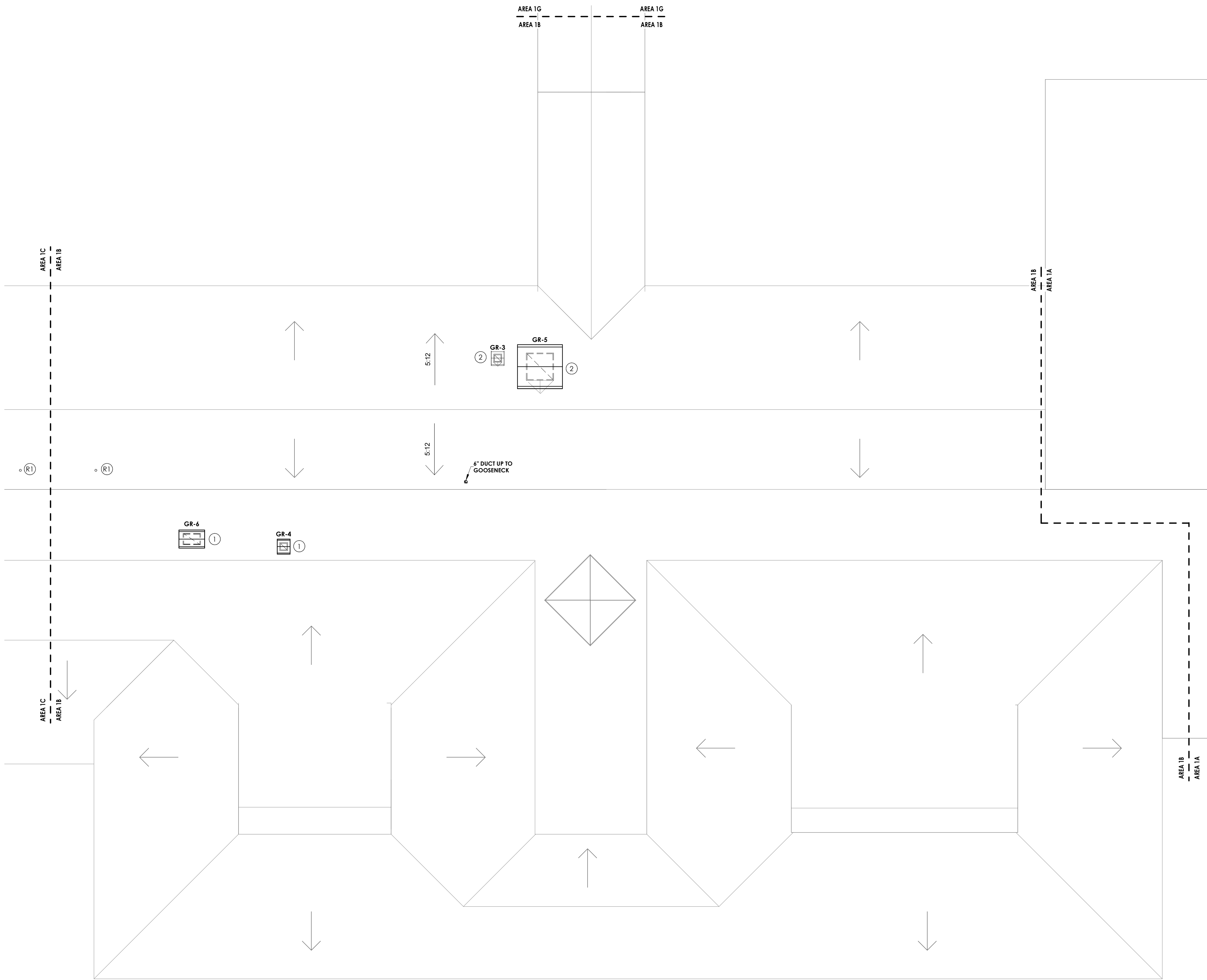
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02/17/2025
Project Status
BID SET
Drawn By
KAB
Drawing Title
ROOF HVAC DUCTWORK AND
PIPING PLAN - AREA 1A
Scale
1/8" = 1'-0"
Checked By
RM

Drawing Number
FOES
H203.1A

KEY PLAN:

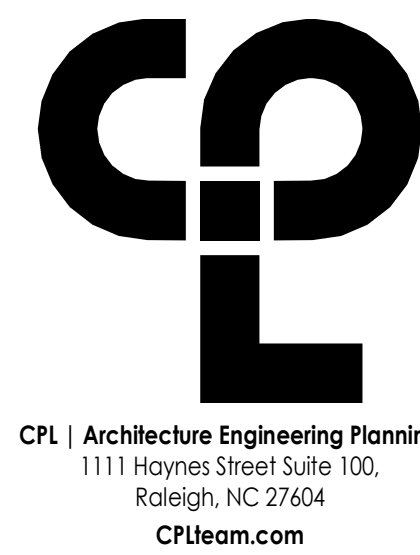


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1 ROOF HVAC DUCTWORK AND PIPING PLAN - AREA 1B
H203.1B 1/8" = 1'-0"

- KEY NOTES**
- 1 PROVIDE NEW GRAVITY ROOF VENT WITH NEW CURB. ALL ROOF CURBS SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.
 - 2 PROVIDE NEW GRAVITY ROOF VENT WITH NEW CURB FOR SLOPED ROOF. PROVIDE METAL CRICKET. ALL ROOF CURBS SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE STANDING METAL SEAM ROOF BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.
 - (R1) INFILL EXISTING ROOF BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.



PROJECT INFORMATION

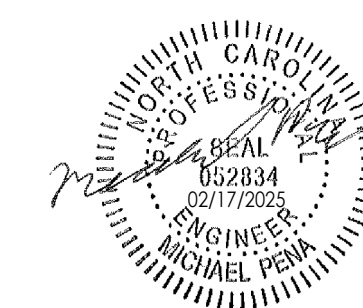
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Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hatcher St, Four Oaks, NC 27524

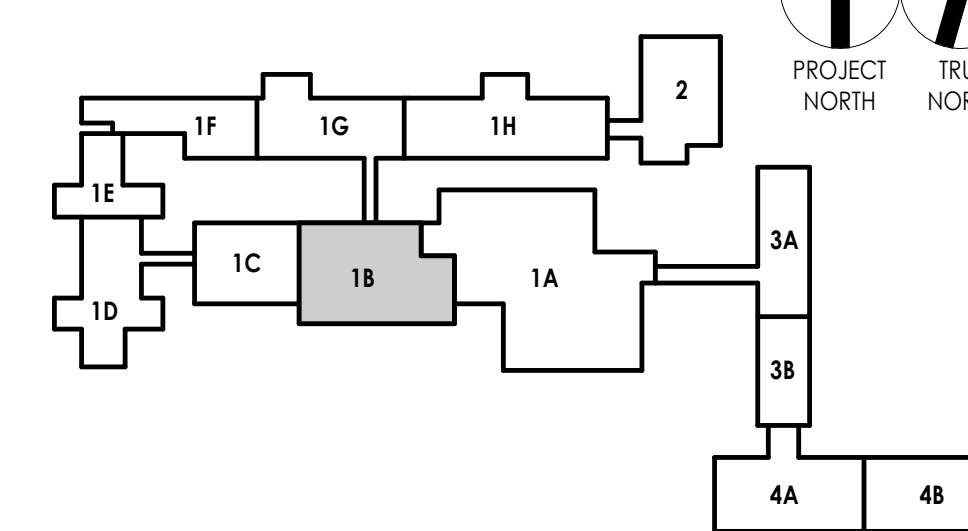
PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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PROFESSIONAL STAMPS



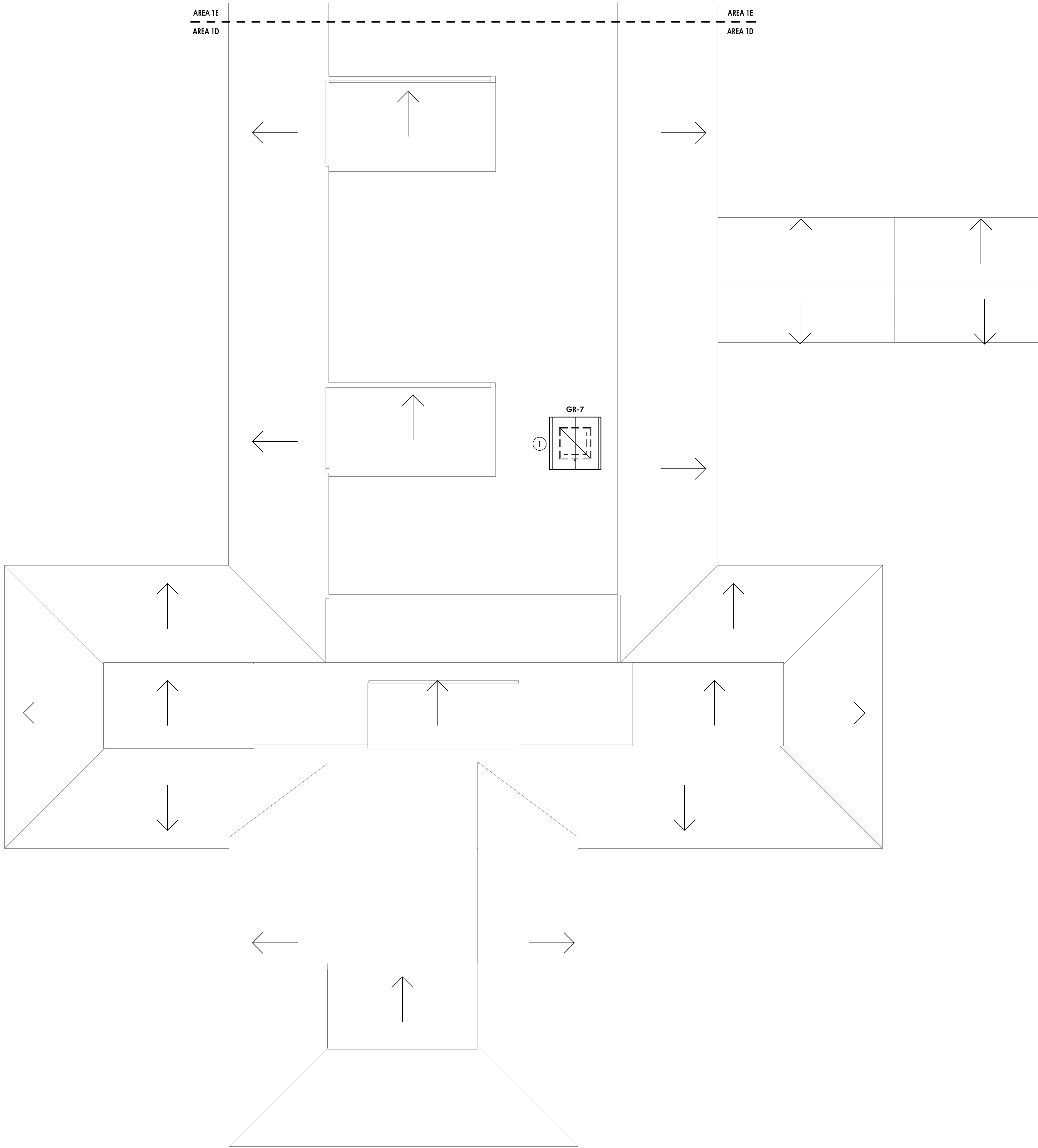
KEY PLAN:



SHEET INFORMATION

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Drawn By: KAB Checked By: RM
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1
H203.1D
1/8" = 1'-0"

ROOF HVAC DUCTWORK AND PIPING PLAN - AREA 1D

KEY NOTES

- ① PROVIDE NEW GRAVITY ROOF VENT WITH NEW CURB. ALL ROOF CURBS SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR HONORING THE EXISTING ROOF WARRANTY.



PROJECT INFORMATION

Project Number

R23.00325

Client Name

**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name

**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

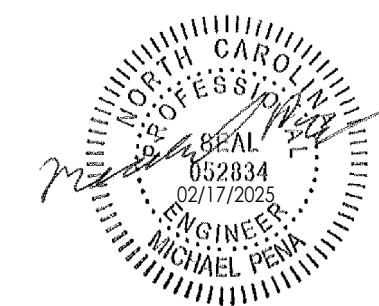
Project Address

180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS



SHEET INFORMATION

Issue

02/17/2025

Project Status

BID SET

Drawn By

KAB

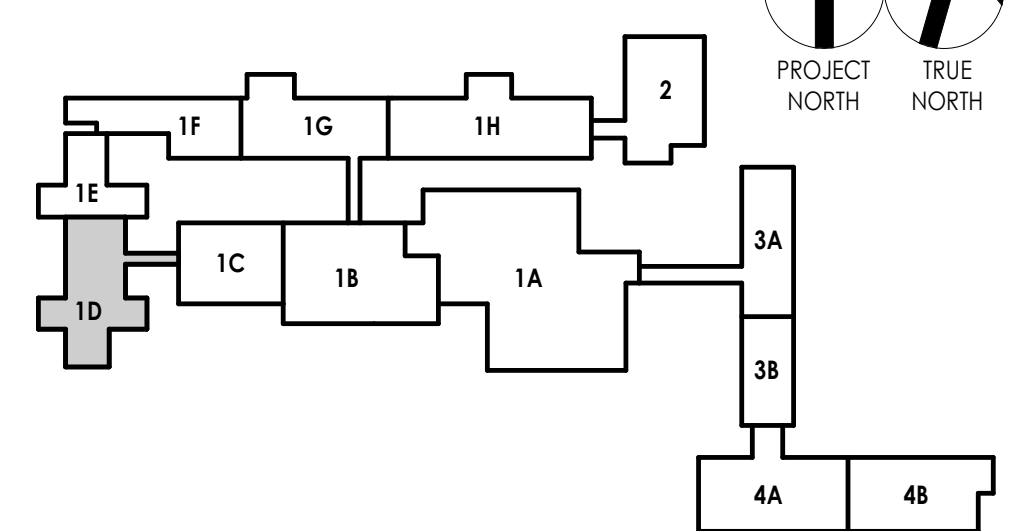
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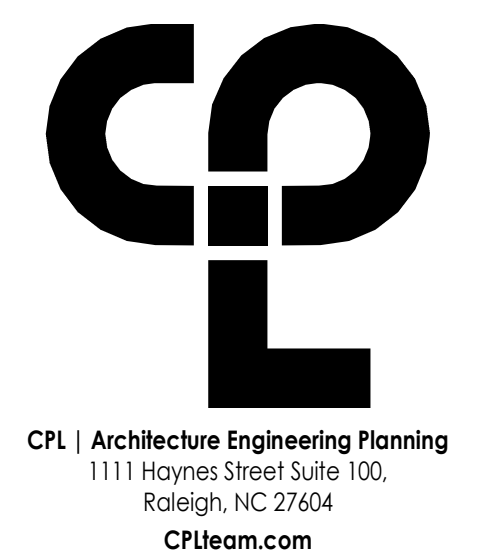
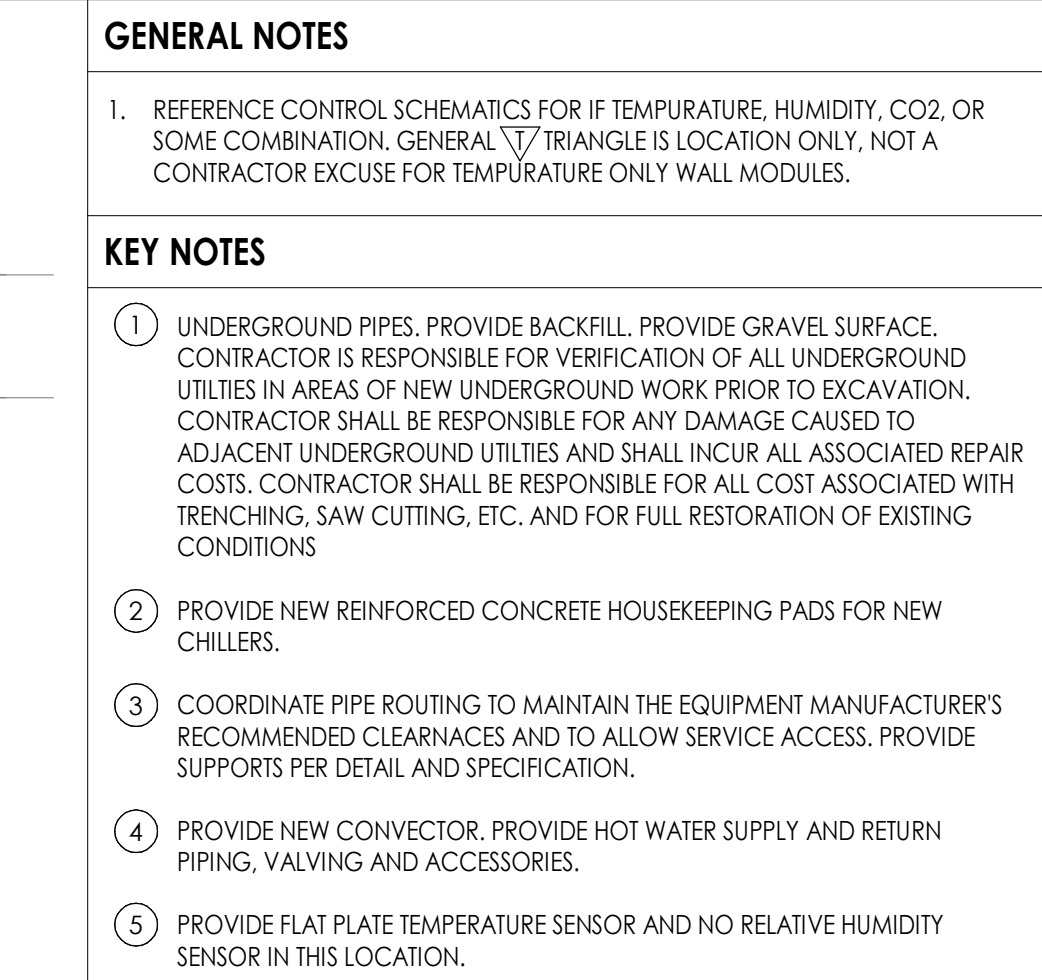
**ROOF HVAC DUCTWORK AND
PIPING PLAN - AREA 1D**

Drawing Number

**FOES
H203.1D**

KEY PLAN:





PROJECT INFORMATION

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R23.00325

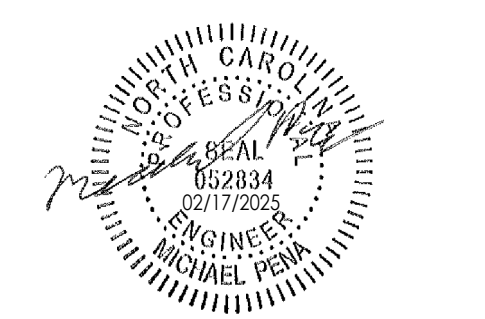
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE		
vv	Date	Description

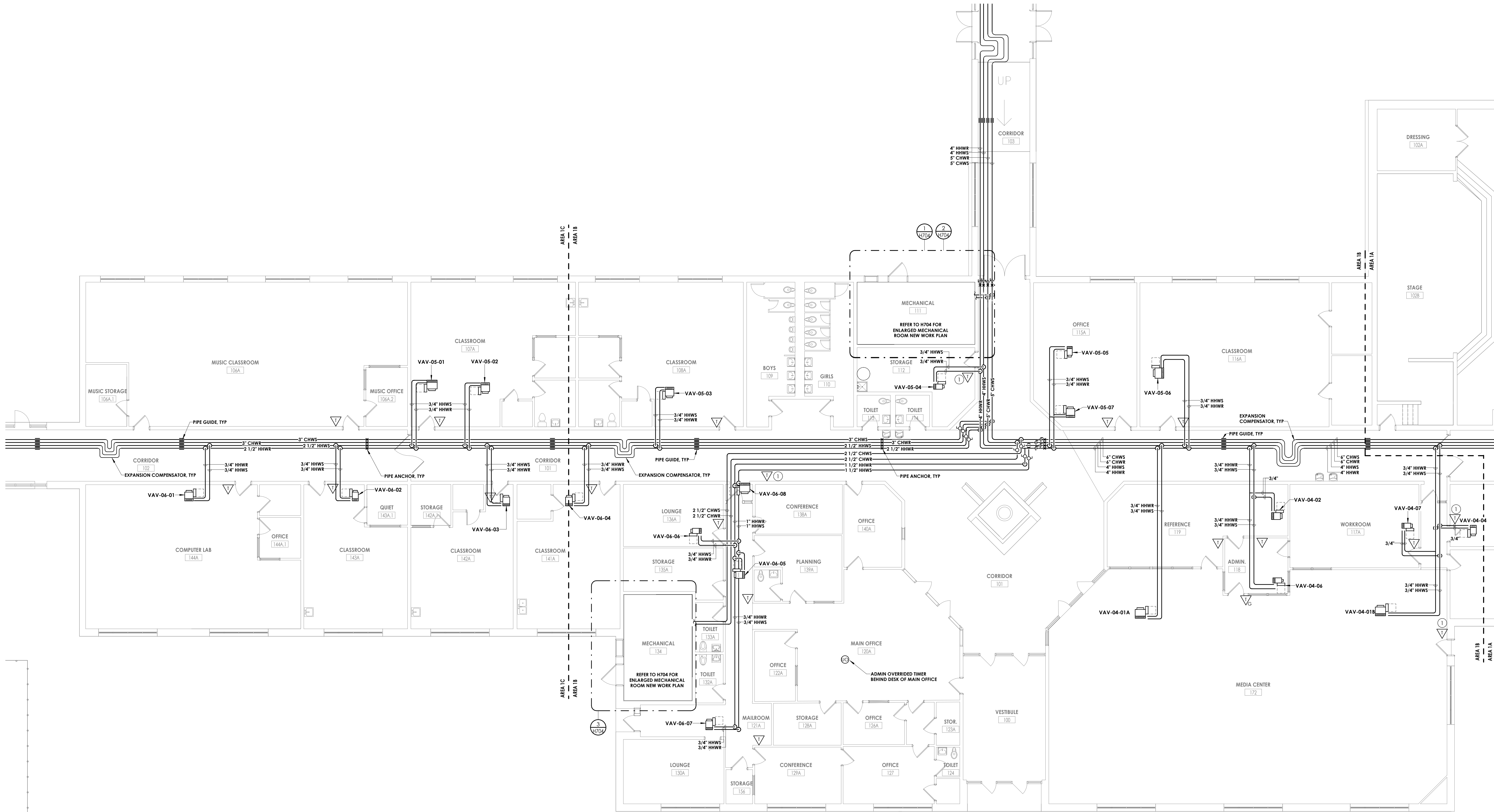
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02/17/2025	1/8" = 1'-0"
Project Status	
BID SET	
Drawn By	Checked By
KAB	RM
Drawing Title	
GROUND FLOOR HVAC PIPING PLAN - AREA 1A	

Drawing Number **FOES**
H301.1A

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1 GROUND FLOOR HVAC PIPING PLAN - AREA 1B AND 1C
H301.1BC 1/8" = 1'-0"

GENERAL NOTES

1. REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL 1/8" TRIANGLE IS LOCATION ONLY, NOT A CONTRACTOR EXCISE FOR TEMPERATURE ONLY WALL MODULES.

KEY NOTES

1. PROVIDE FLAT PLATE TEMPERATURE SENSOR AND NO RELATIVE HUMIDITY SENSOR IN THIS LOCATION.

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Raleigh, NC 27604
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PROJECT INFORMATION

Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hatcher St., Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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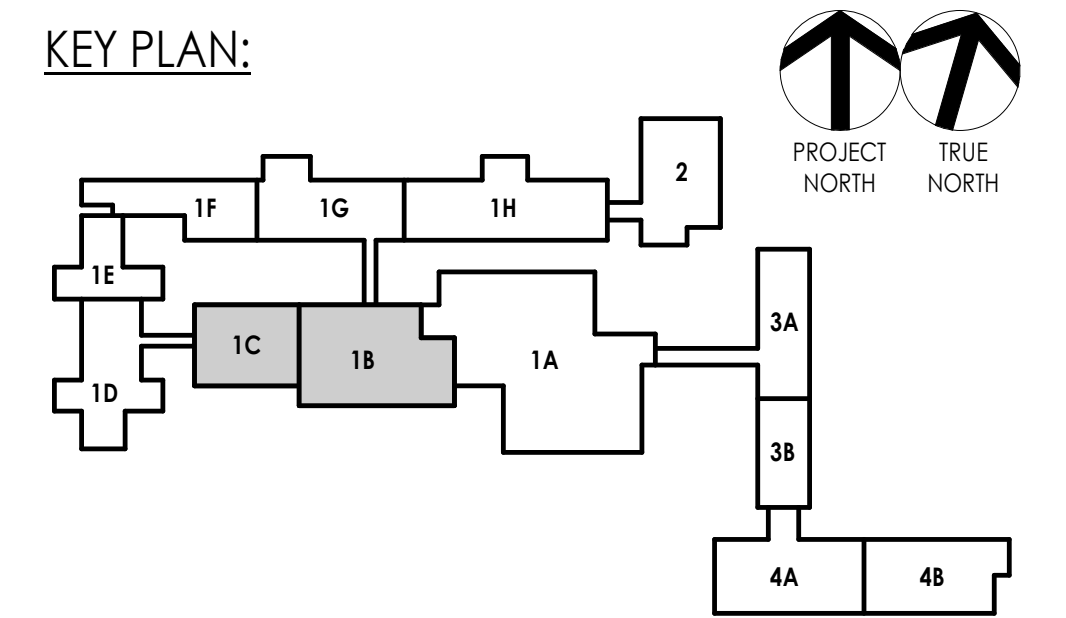
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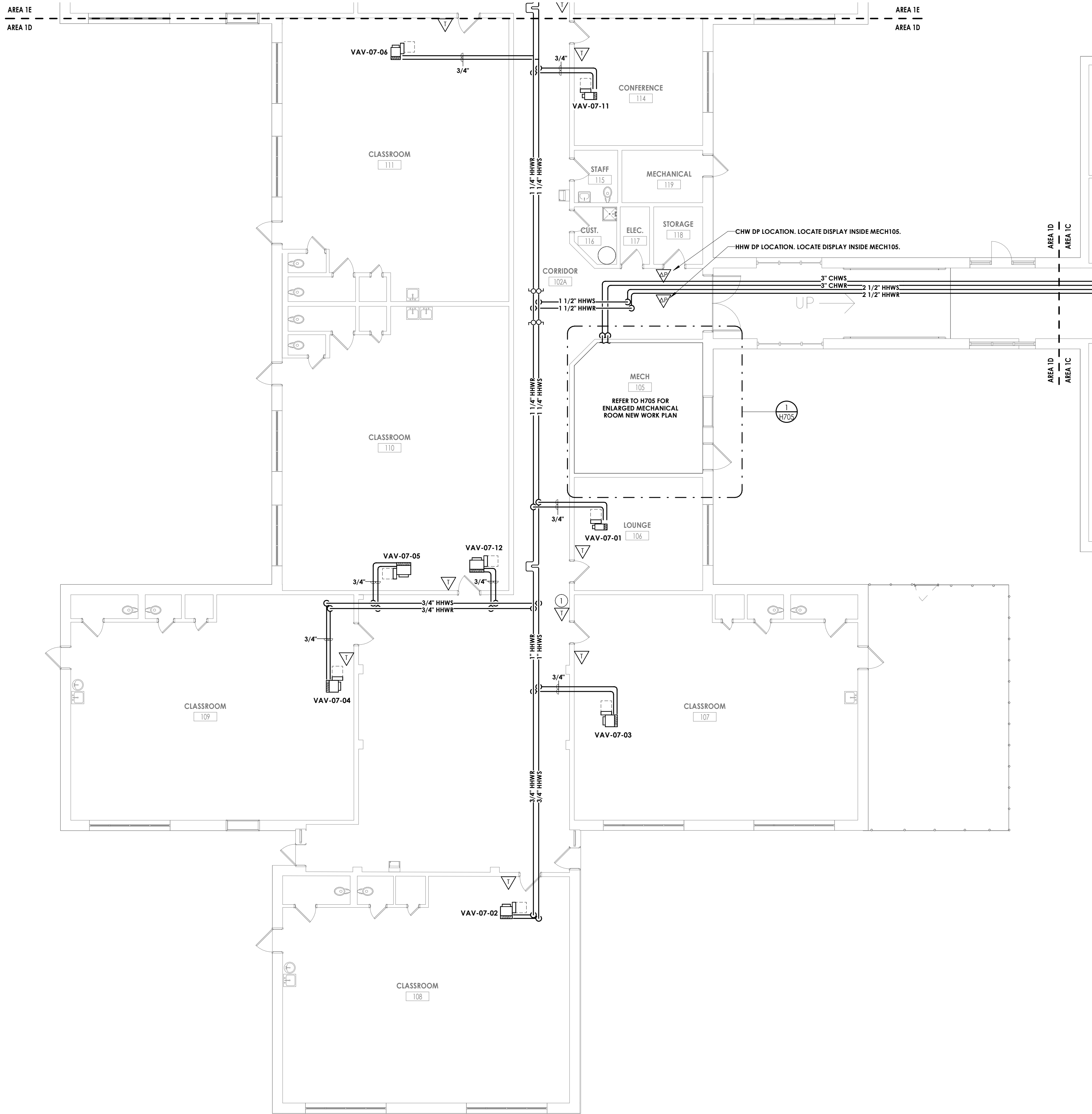
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Checked By: RW
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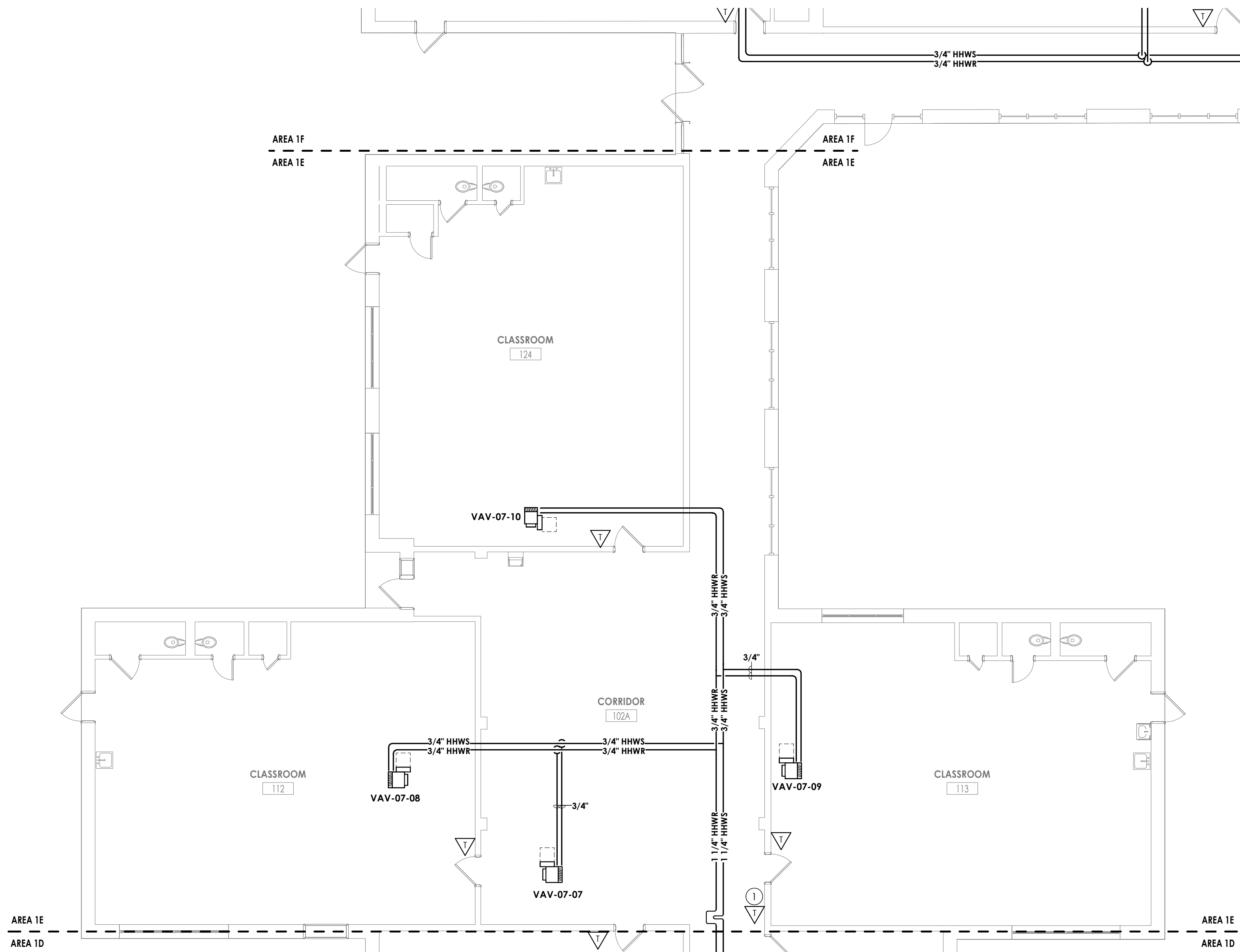
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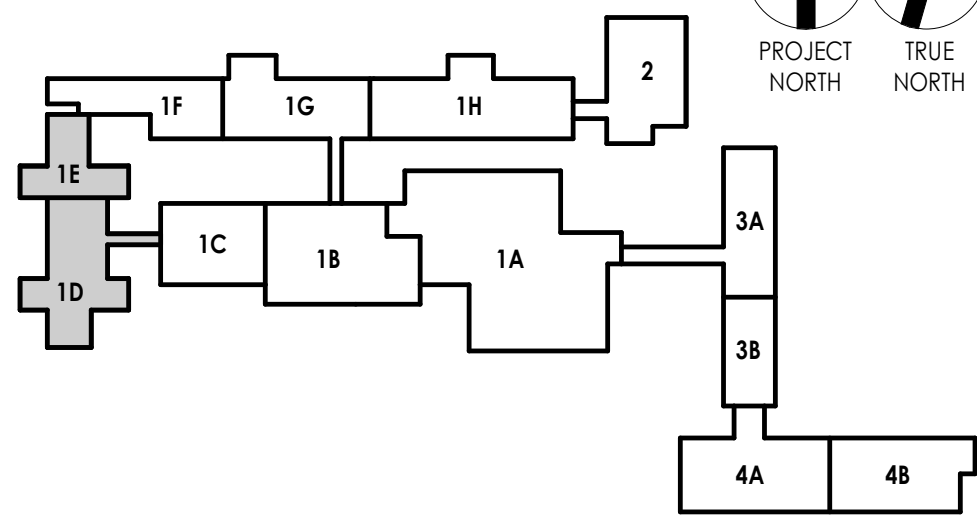


1 GROUND FLOOR HVAC PIPING PLAN - AREA 1D
H301.1DE 1/8" = 1'-0"



2 GROUND FLOOR HVAC PIPING PLAN - AREA 1E
H301.1DE 1/8" = 1'-0"

KEY PLAN:

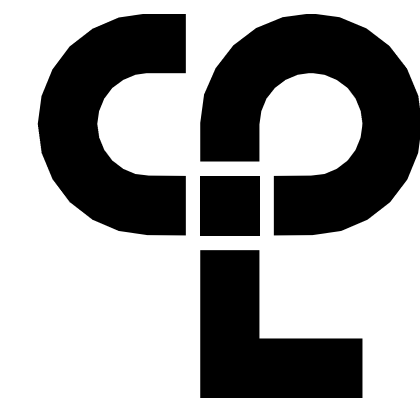


GENERAL NOTES

- REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL TRIANGLE IS LOCATION ONLY, NOT A CONTRACTOR EXCUSE FOR TEMPERATURE ONLY WALL MODULES.

KEY NOTES

- PROVIDE FLAT PLATE TEMPERATURE SENSOR AND NO RELATIVE HUMIDITY SENSOR IN THIS LOCATION.



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Raleigh, NC 27604
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PROJECT INFORMATION

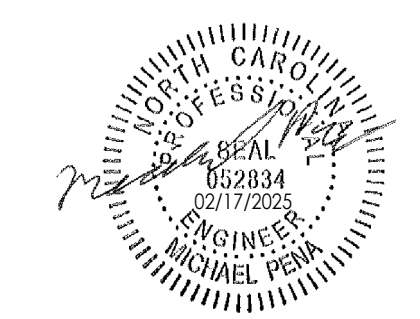
Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

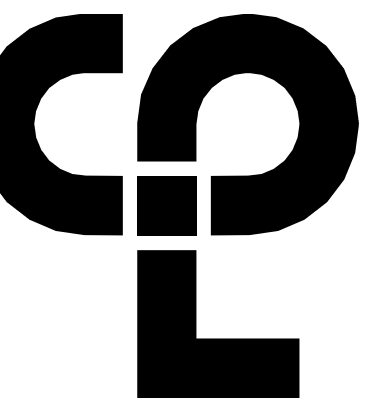
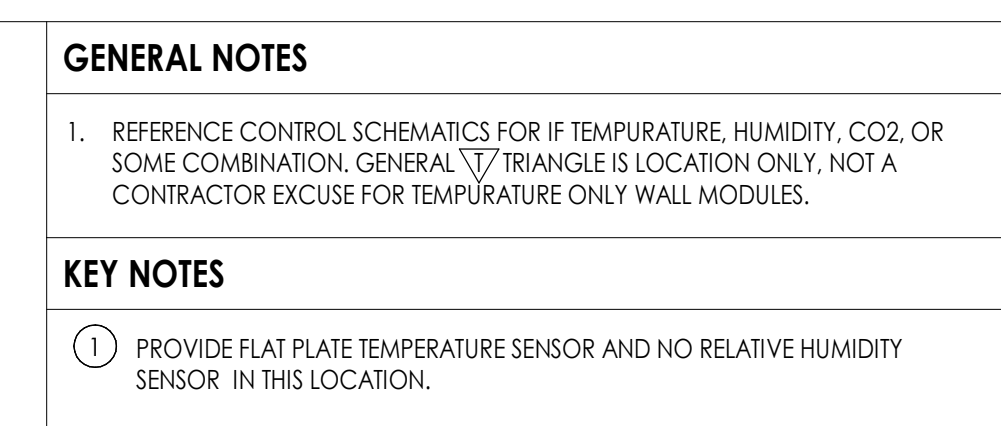
PROFESSIONAL STAMPS



SHEET INFORMATION

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Project Status
BID SET
Drawn By
KAB
Drawing Title
GROUND FLOOR HVAC PIPING
PLAN - AREA 1D AND 1E
Checked By
RM

Drawing Number
FOES
H301.1DE



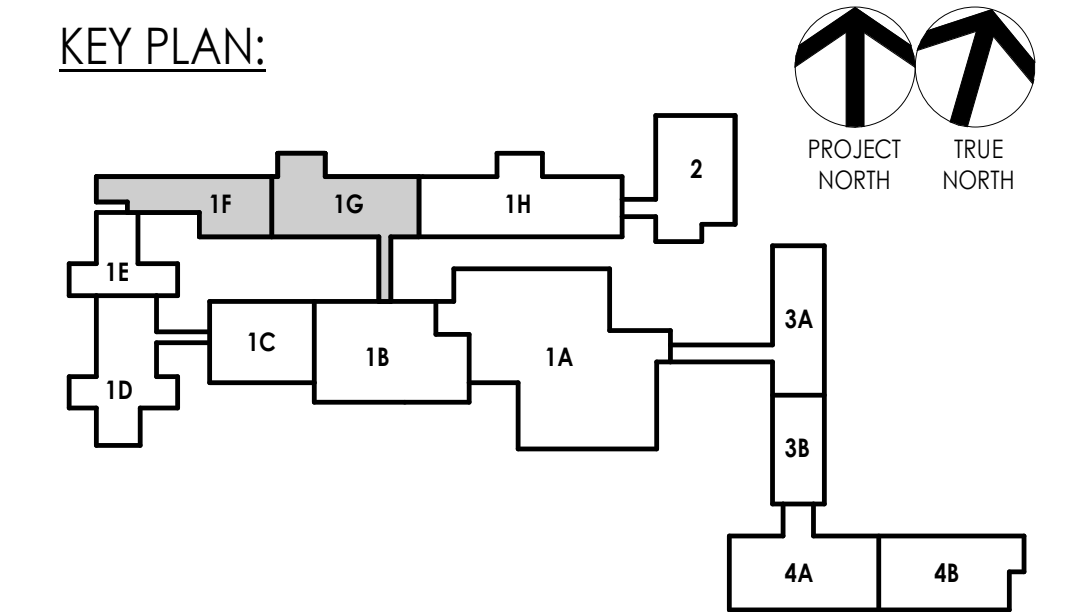
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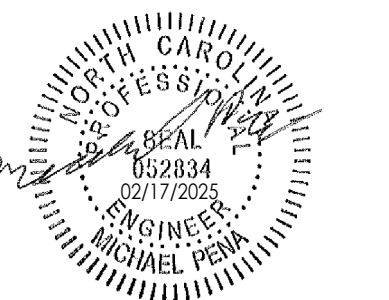
Name
WINSTON COUNTY PUBLIC
SCHOOL DISTRICT

Name
PINE OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

PROJECT ISSUE & REVISION SCHEDULE



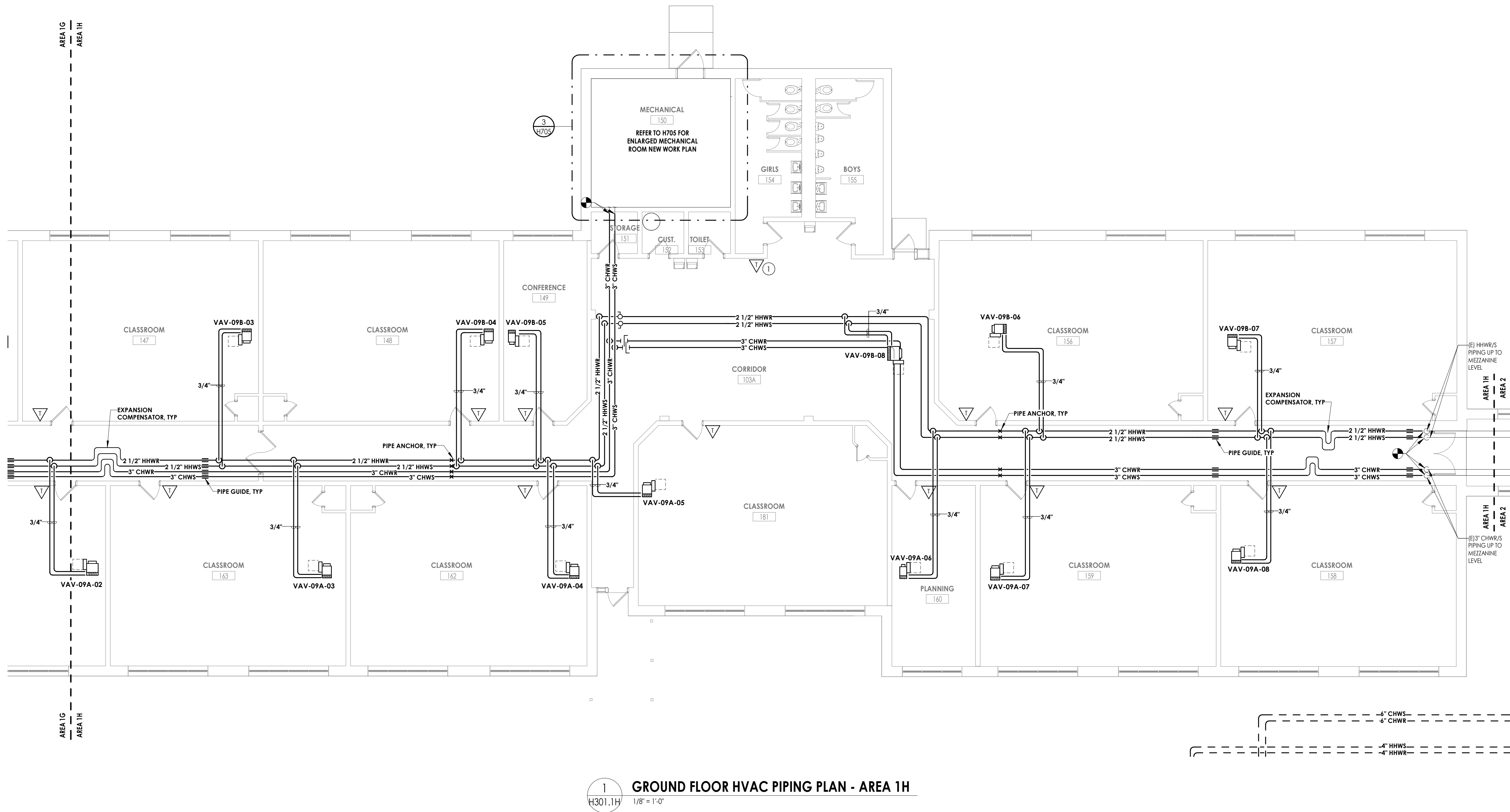
PROFESSIONAL STAMPS



T I N F O R M A T I O N	
Date	Scale
7/2025	1/8" = 1'-0"
Status	
ET	
By	Checked By
	RM
g Title	
GROUND FLOOR HVAC PIPING	
N - AREA 1F AND 1G	

g Number FOES
H301.1FG

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1 GROUND FLOOR HVAC PIPING PLAN - AREA 1H
H301.1H 1/8" = 1'-0"

- GENERAL NOTES
1.

REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL TRIANGLE IS LOCATION ONLY, NOT A CONTRACTOR EXCUSE FOR TEMPERATURE ONLY WALL MODULES.

- KEY NOTES
1.

PROVIDE FLAT PLATE TEMPERATURE SENSOR AND NO RELATIVE HUMIDITY SENSOR IN THIS LOCATION.



PROJECT INFORMATION

Project Number
R23.00325

Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

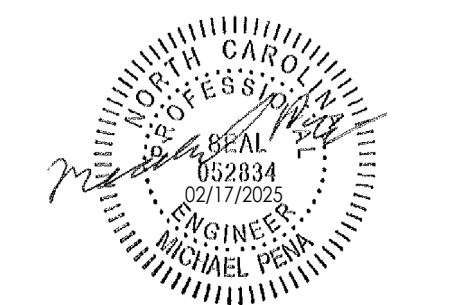
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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PROFESSIONAL STAMPS

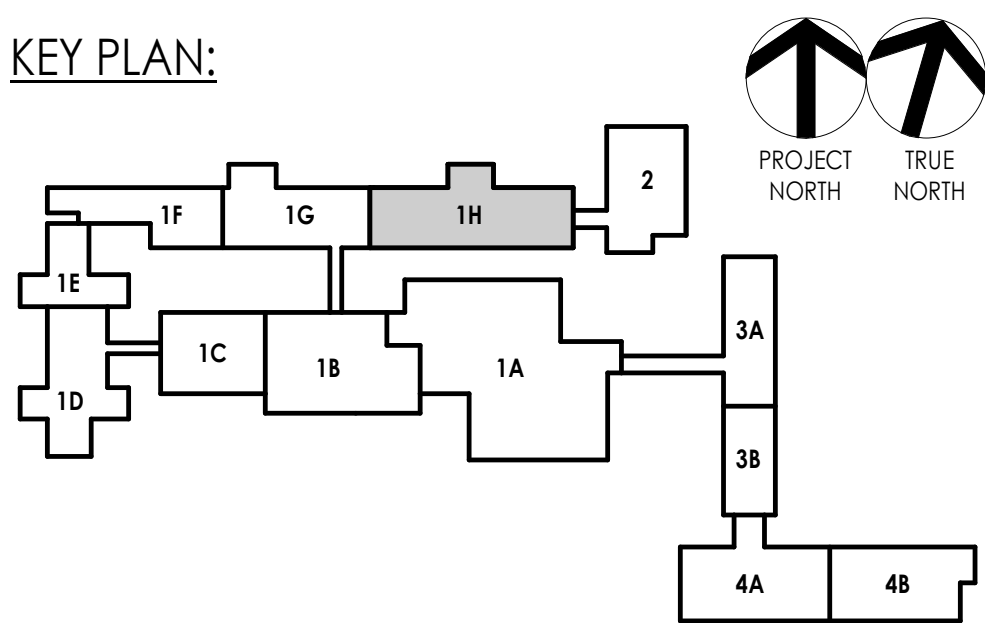


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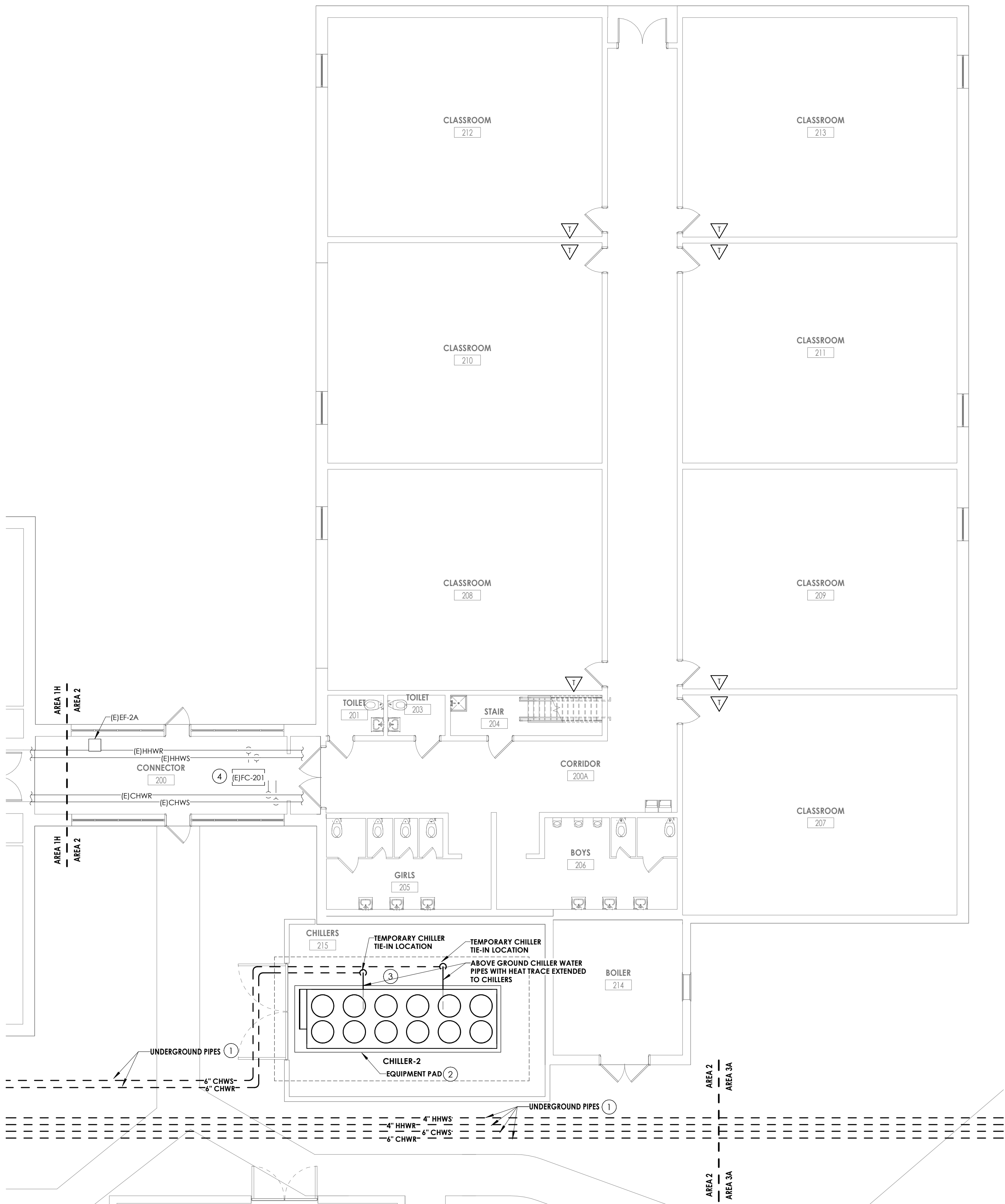
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Drawn By	Checked By
KAB	RM
Drawing Title	
GROUND FLOOR HVAC PIPING PLAN - AREA 1H	

Drawing Number
FOES
H301.1H

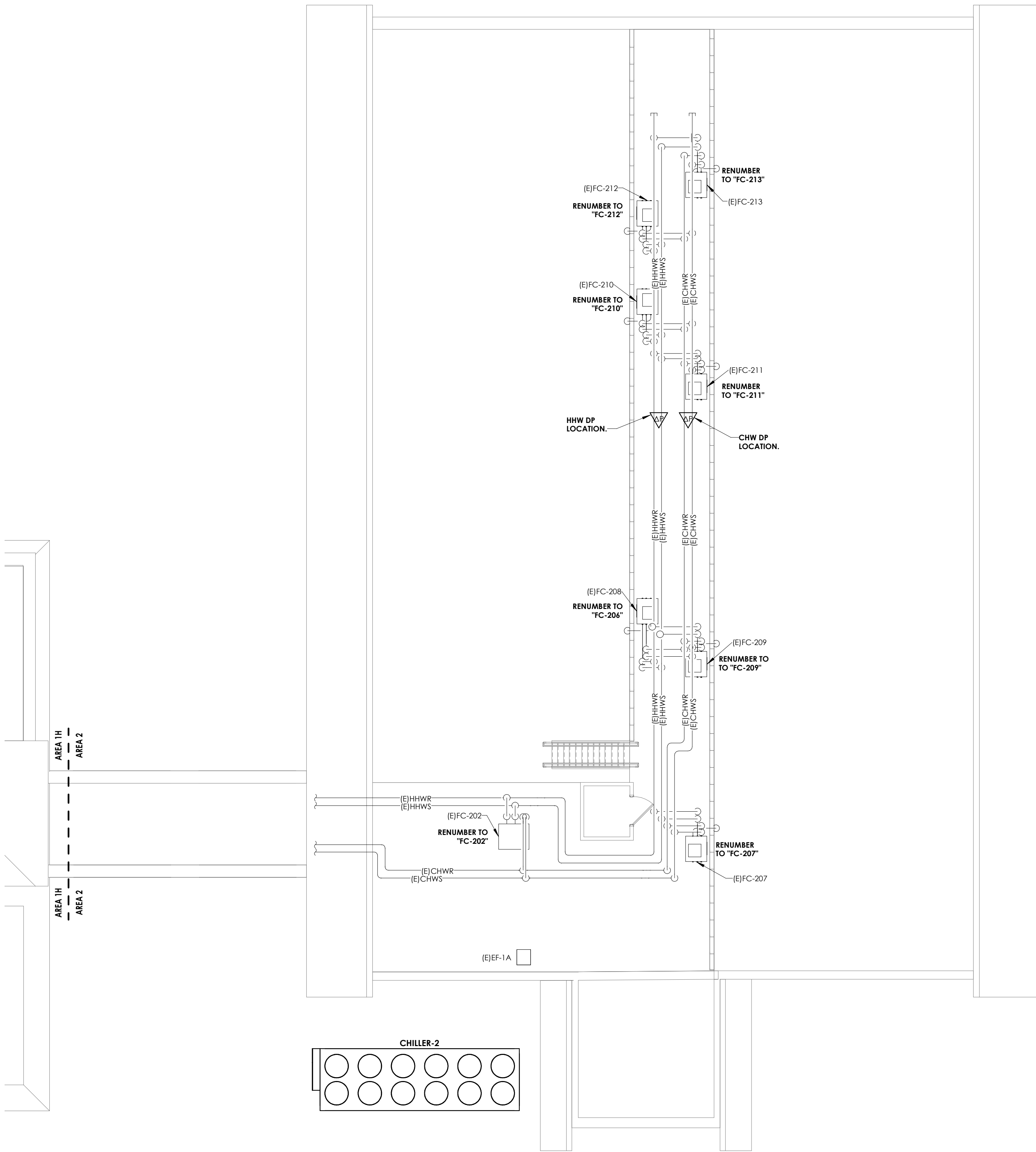
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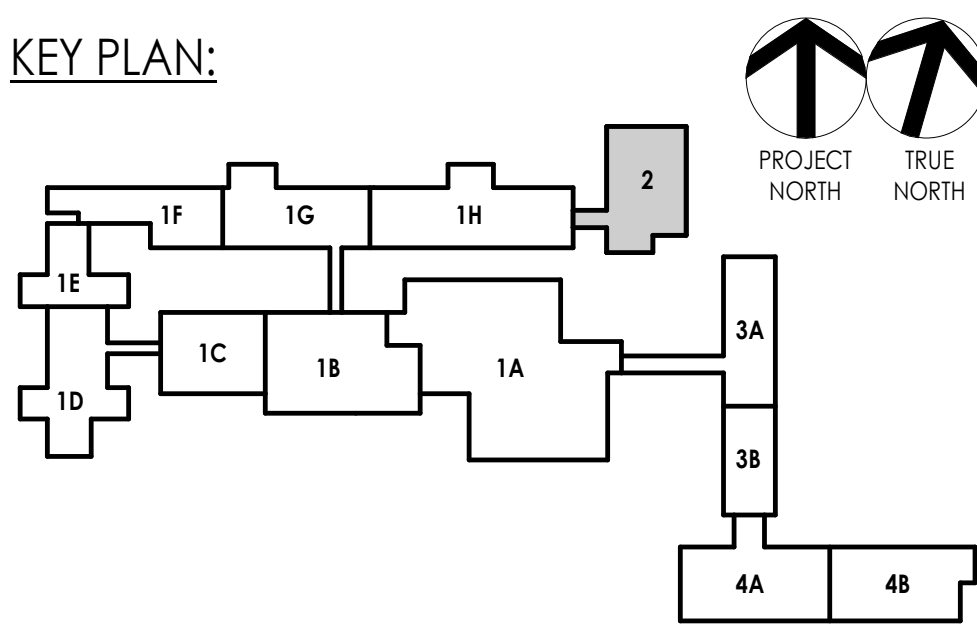


1
H301.2
GROUND FLOOR HVAC PIPING PLAN - AREA 2
1/8" = 1'-0"



2
H301.2
MEZZANINE HVAC PIPING PLAN - AREA 2
1/8" = 1'-0"

KEY PLAN:



GENERAL NOTES

1. REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL 1/8" TRIANGLE IS LOCATION ONLY, NOT A CONTRACTOR EXCISE FOR TEMPERATURE ONLY WALL MODULES.

KEY NOTES

1. UNDERGROUND PIPES, PROVIDE BACKFILL, PROVIDE GRAVEL SURFACE. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND UTILITIES IN AREAS OF NEW UNDERGROUND WORK PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT UNDERGROUND UTILITIES AND SHALL INCUR ALL ASSOCIATED REPAIR COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH TRENCHING, SAW CUTTING, ETC. AND FOR FULL RESTORATION OF EXISTING CONDITIONS.
2. PROVIDE NEW REINFORCED CONCRETE HOUSEKEEPING PADS FOR NEW CHILLERS.
3. COORDINATE PIPE ROUTING TO MAINTAIN THE EQUIPMENT MANUFACTURER'S RECOMMENDED CLEARANCES AND TO ALLOW SERVICE ACCESS. PROVIDE SUPPORTS PER DETAIL AND SPECIFICATION.
4. FCU TO BE CONTROLLED BASE ON THE RETURN AIR TEMPERATURE AND RETURN AIR HUMIDITY.



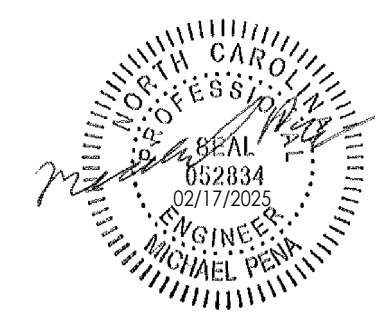
PROJECT INFORMATION

Project Number
R23.00325
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**
Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**
Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

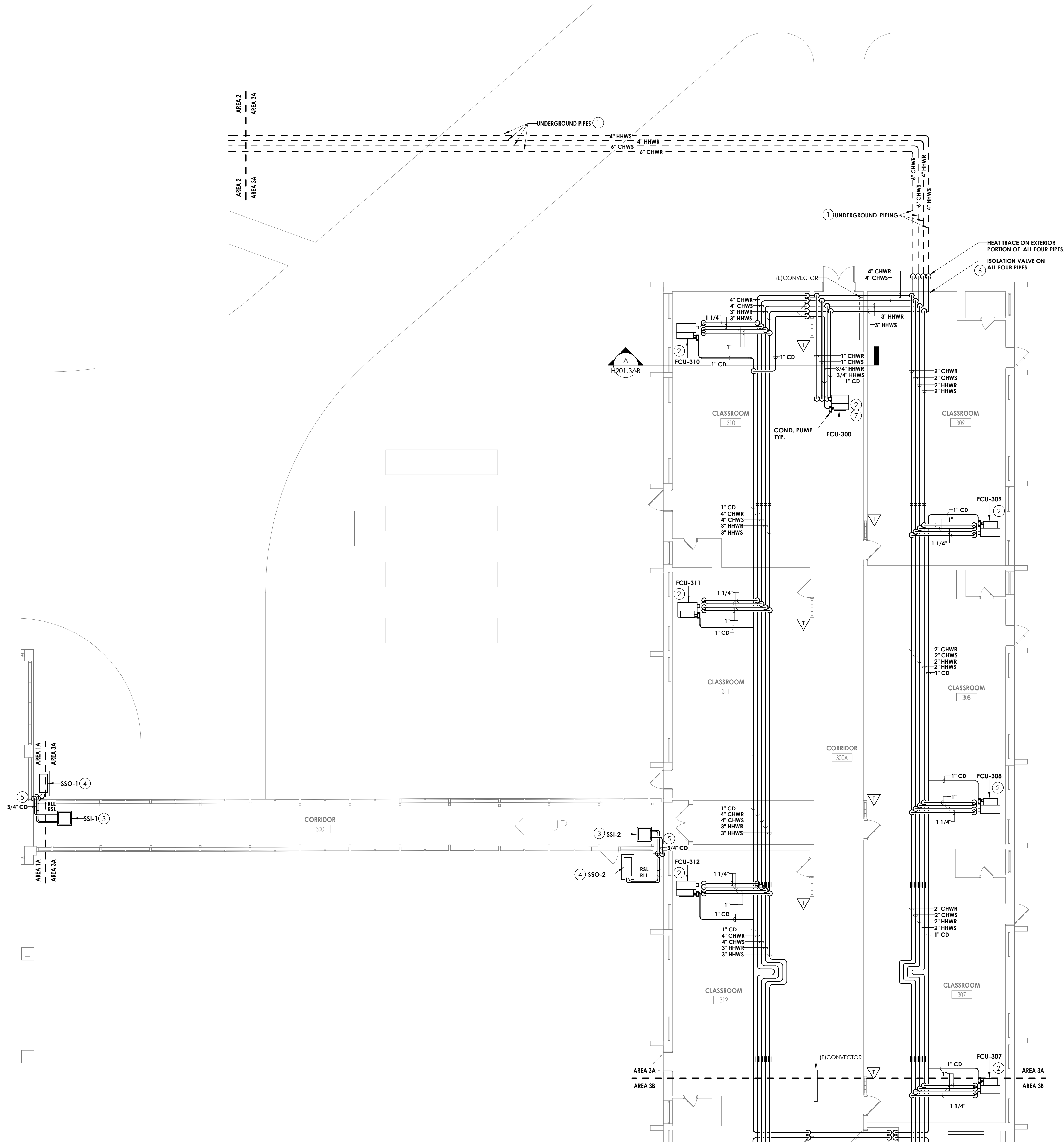
PROFESSIONAL STAMPS



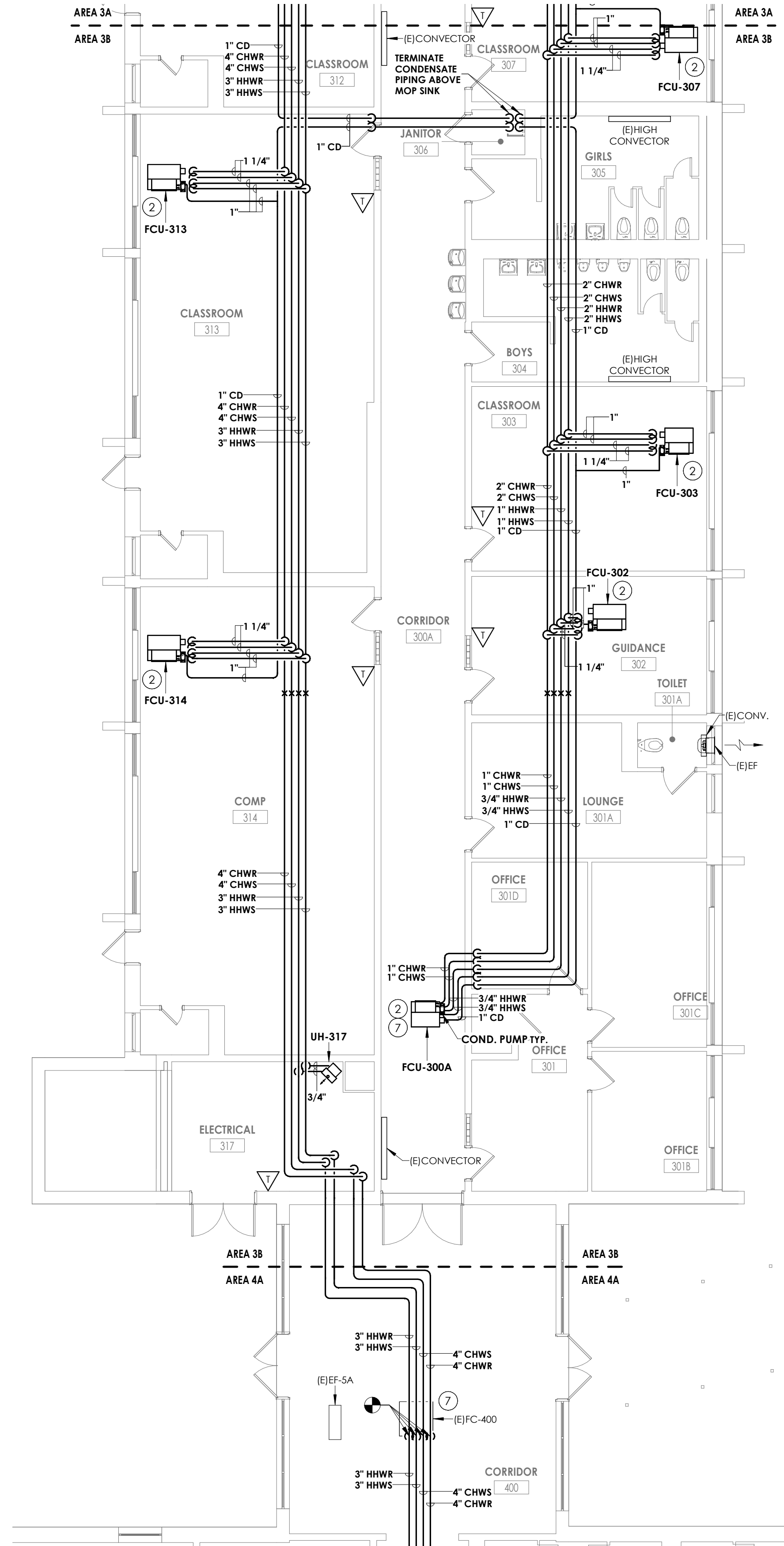
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Issue
02/17/2025
Project Status
BID SET
Drawn By
KAB
Drawing Title
GROUND FLOOR HVAC PIPING
PLAN - AREA 2
Scale
1/8" = 1'-0"
Checked By
RW

Drawing Number
**FOES
H301.2**

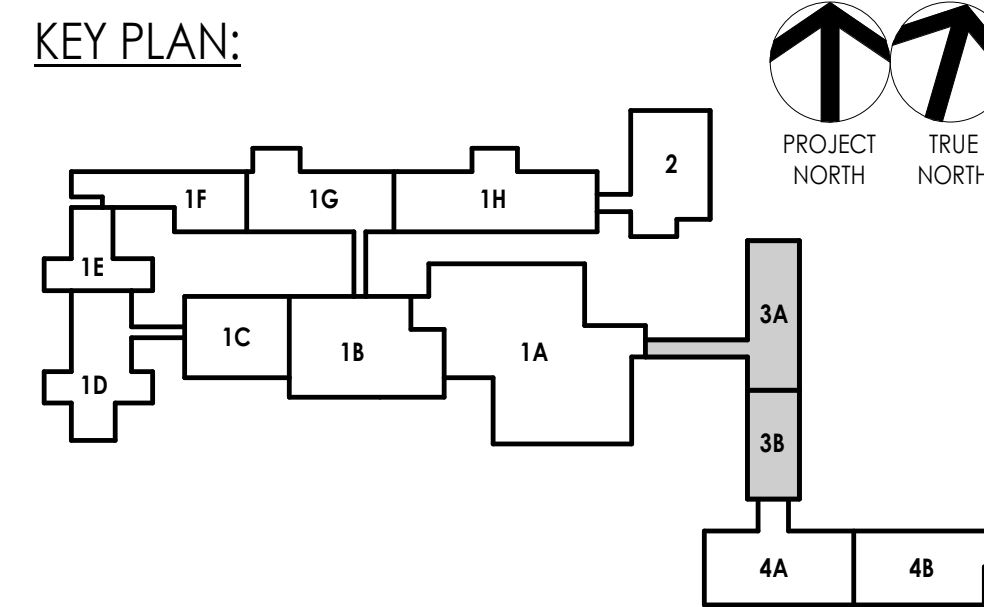


1 GROUND FLOOR HVAC PIPING PLAN - AREA 3A
H301.3AB 1/8" = 1'-0"



2 GROUND FLOOR HVAC PIPING PLAN - AREA 3B
H301.3AB 1/8" = 1'-0"

KEY PLAN:



GENERAL NOTES

1. REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL TRIANGLE IS LOCATION ONLY. NOT A CONTRACTOR EXCUSE FOR TEMPERATURE ONLY WALL MODULES.

KEY NOTES

1. UNDERGROUND PIPES. PROVIDE BACKFILL. PROVIDE GRAVEL SURFACE. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND UTILITIES IN AREAS OF NEW UNDERGROUND WORK PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT UNDERGROUND UTILITIES AND SHALL INCUR ALL ASSOCIATED REPAIR COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH TRENCHING, SAW CUTTING, ETC. AND FOR FULL RESTORATION OF EXISTING CONDITIONS.
2. PROVIDE NEW FAN COIL UNIT WITH ASSOCIATED DUCTWORK, PIPING, AND CONTROLS.
3. PROVIDE NEW 4-WAY SPLIT SYSTEM CASSETTE WITH ASSOCIATED PIPING AND CONTROLS.
4. PROVIDE REMOTE CONDENSING UNIT AND EQUIPMENT PAD ON GROUND. PROVIDE REFRIGERANT LINES AND ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING INDICATED ON DRAWING IS SHOWN TO INDICATE SUGGESTED PATH AND MAY NOT REPRESENT ACTUAL PIPING CONFIGURATION, SIZING AND CIRCUITING IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. TERMINATE 3/4" CONDENSATE DRAIN PIPE 12 INCHES ABOVE GRADE WITH INSECT SCREEN.
6. PROVIDE ISOLATION VALVES INSIDE BUILDING TO ALLOW ISOLATION OF UNDERGROUND PIPING.
7. FCU TO BE CONTROLLED BASE ON THE RETURN AIR TEMPERATURE AND RETURN AIR HUMIDITY.

PROJECT INFORMATION

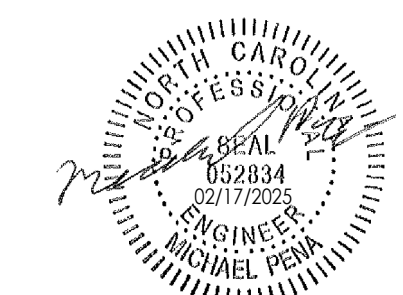
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R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS

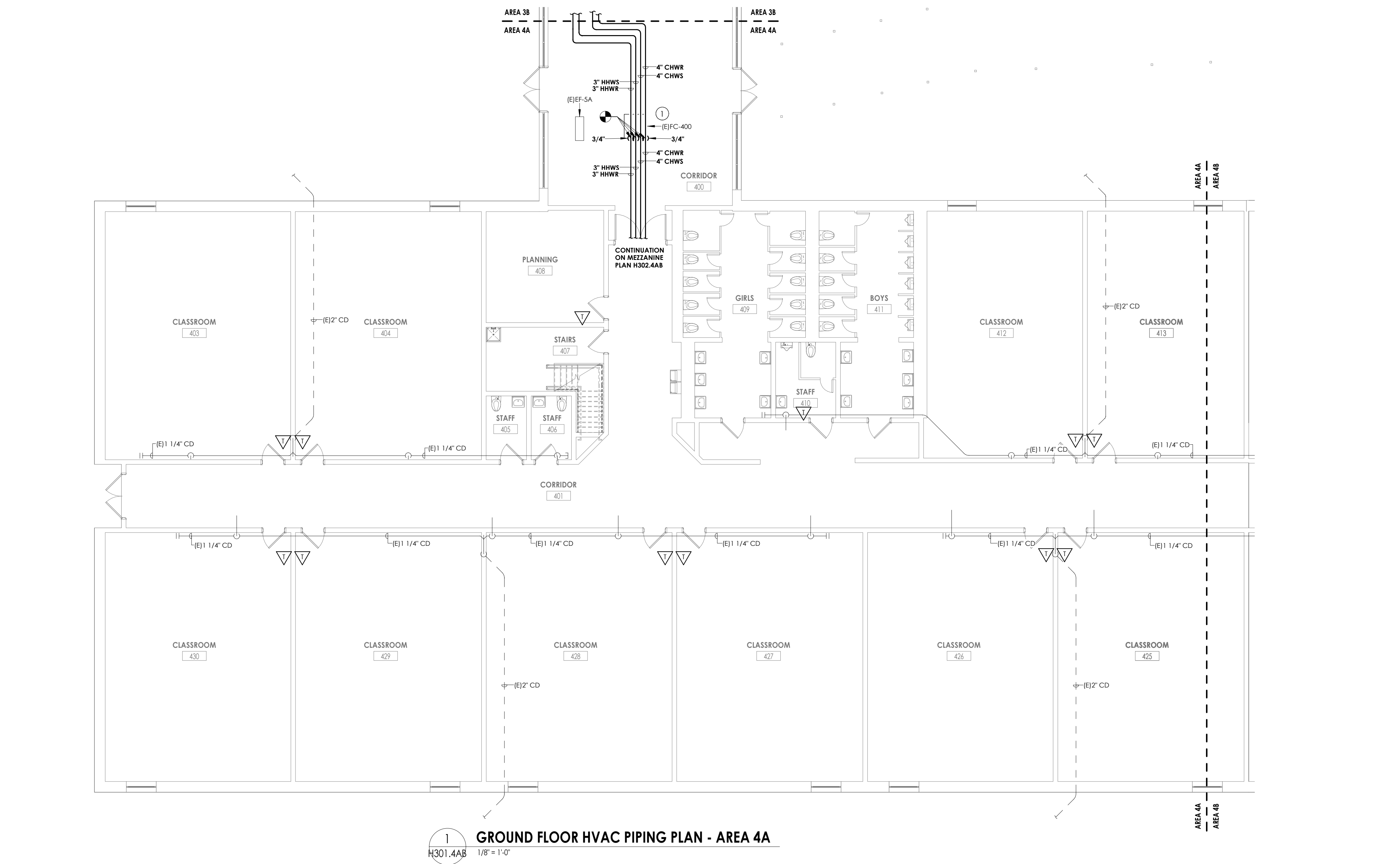


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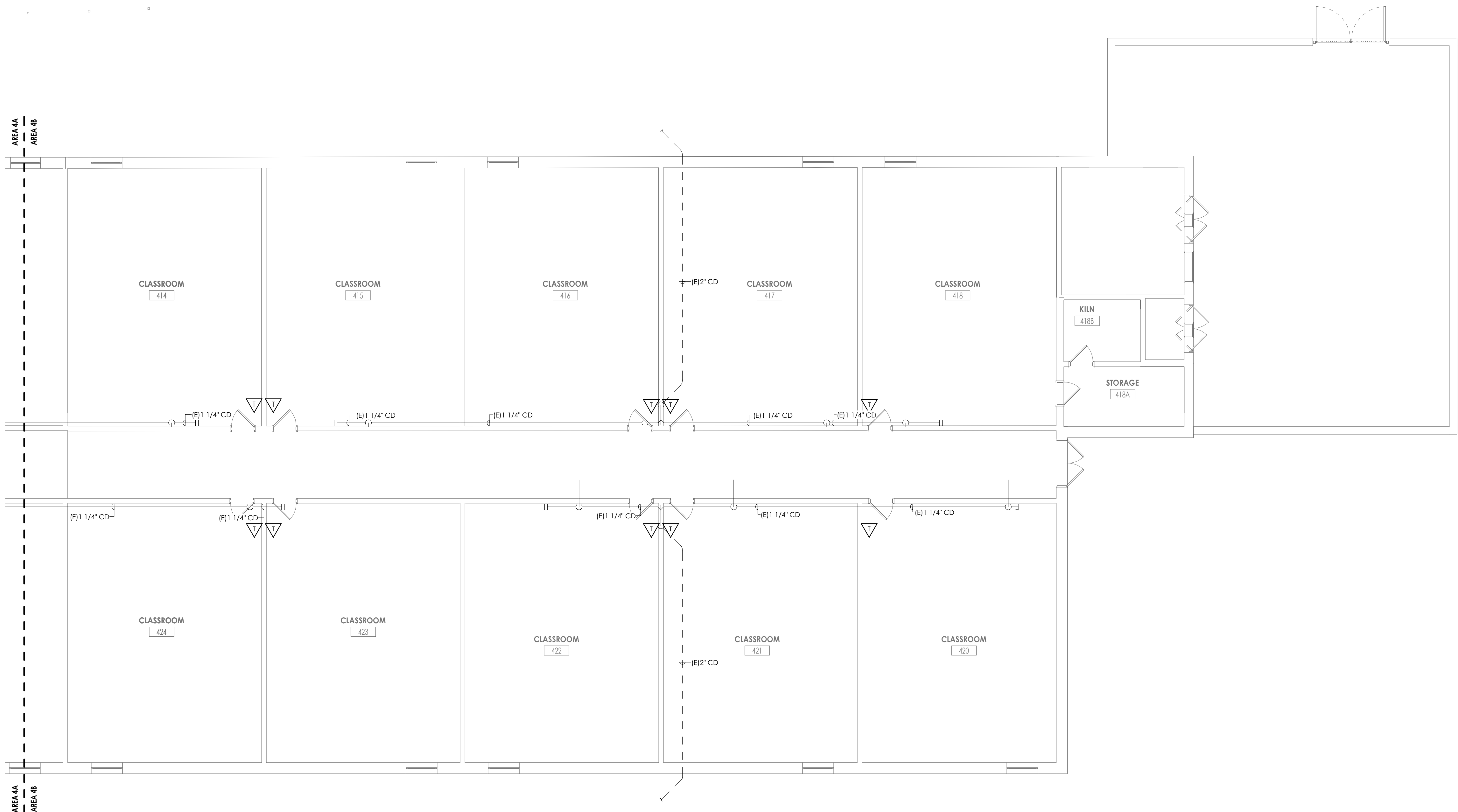
Issue
02/17/2025
Project Status
BID SET
Drawn By
KAB
Checked By
RM
Drawing Title
GROUND FLOOR HVAC PIPING
PLAN - AREA 3A AND 3B
Drawing Number

FOES
H301.3AB

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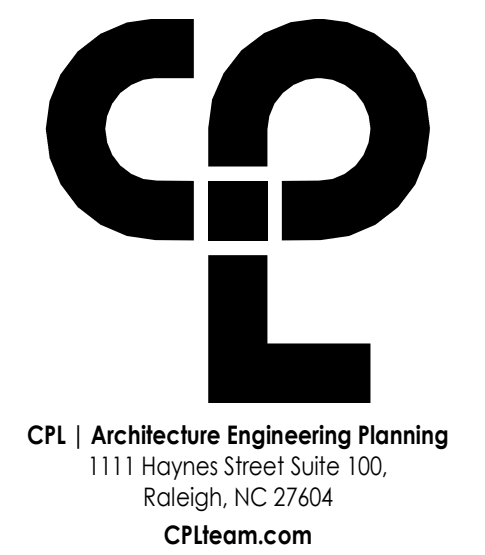


1 GROUND FLOOR HVAC PIPING PLAN - AREA 4A
H301.4AB 1/8" = 1'-0"



2 GROUND FLOOR HVAC PIPING PLAN - AREA 4B
H301.4AB 1/8" = 1'-0"

- GENERAL NOTES**
- REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL TRIANGLE IS LOCATION ONLY, NOT A CONTRACTOR EXCUSE FOR TEMPERATURE ONLY WALL MODULES.
- KEY NOTES**
- FCU TO BE CONTROLLED BASE ON THE RETURN AIR TEMPERATURE AND RETURN AIR HUMIDITY



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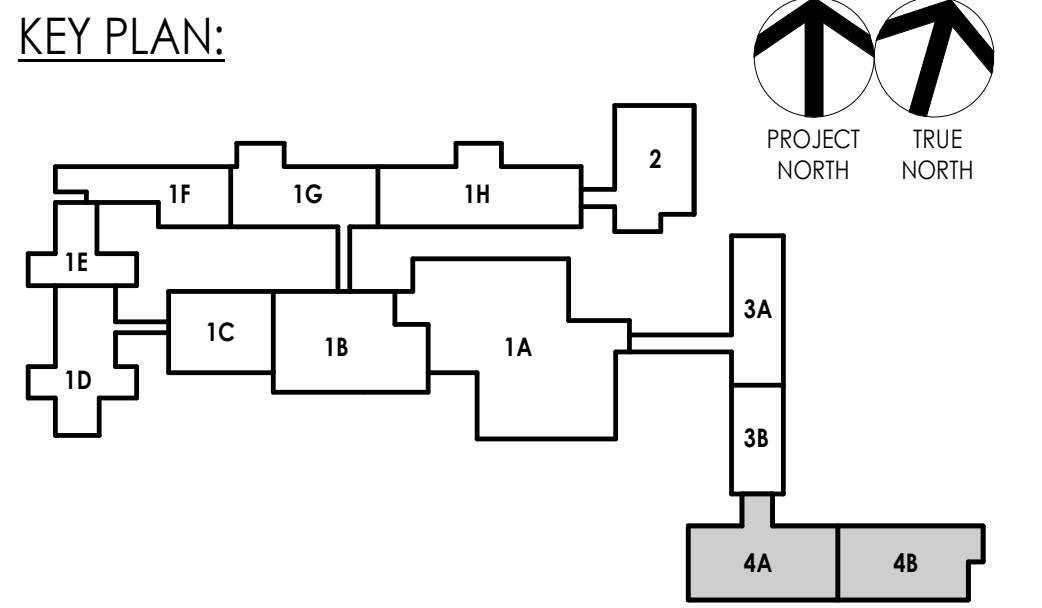
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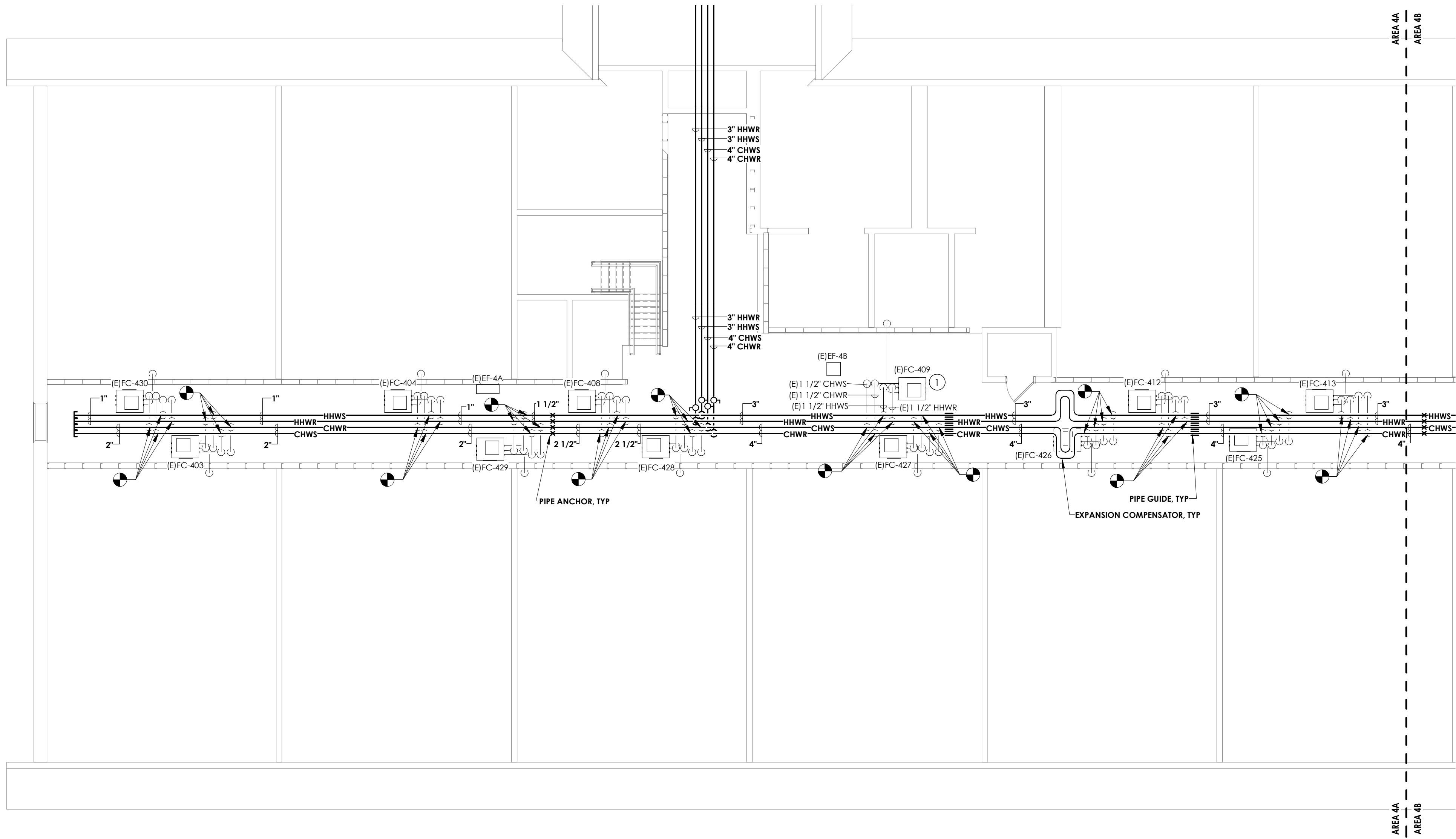
PROFESSIONAL STAMPS



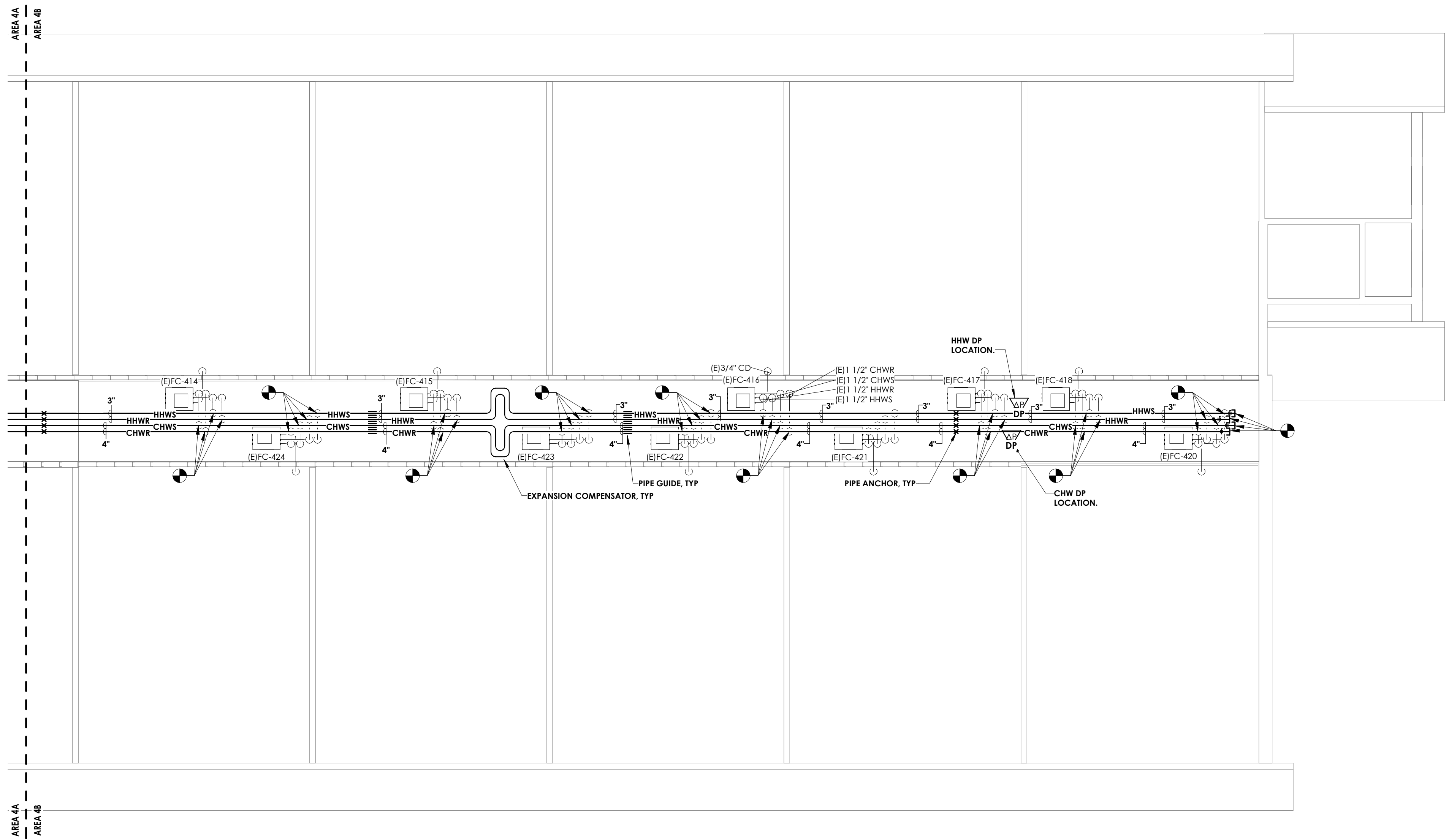
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Issue: 02/17/2025 Scale: 1/8" = 1'-0"
Project Status: BID SET
Drawn By: KAB Checked By: RM
Drawing Title: GROUND FLOOR HVAC PIPING PLAN - AREA 4A AND 4B
Drawing Number: FOES H301.4AB





1 MEZZANINE HVAC PIPING PLAN - AREA 4A
H302.4A8 1/8" = 1'-0"



2 MEZZANINE HVAC PIPING PLAN - AREA 4B
H302.4A8 1/8" = 1'-0"

GENERAL NOTES

1. REFERENCE CONTROL SCHEMATICS FOR IF TEMPERATURE, HUMIDITY, CO2, OR SOME COMBINATION. GENERAL TRIANGLE IS LOCATION ONLY, NOT A CONTRACTOR EXCUSE FOR TEMPERATURE ONLY WALL MODULES.

KEY NOTES

① FCU TO BE CONTROLLED BASE ON THE RETURN AIR TEMPERATURE AND RETURN AIR HUMIDITY



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PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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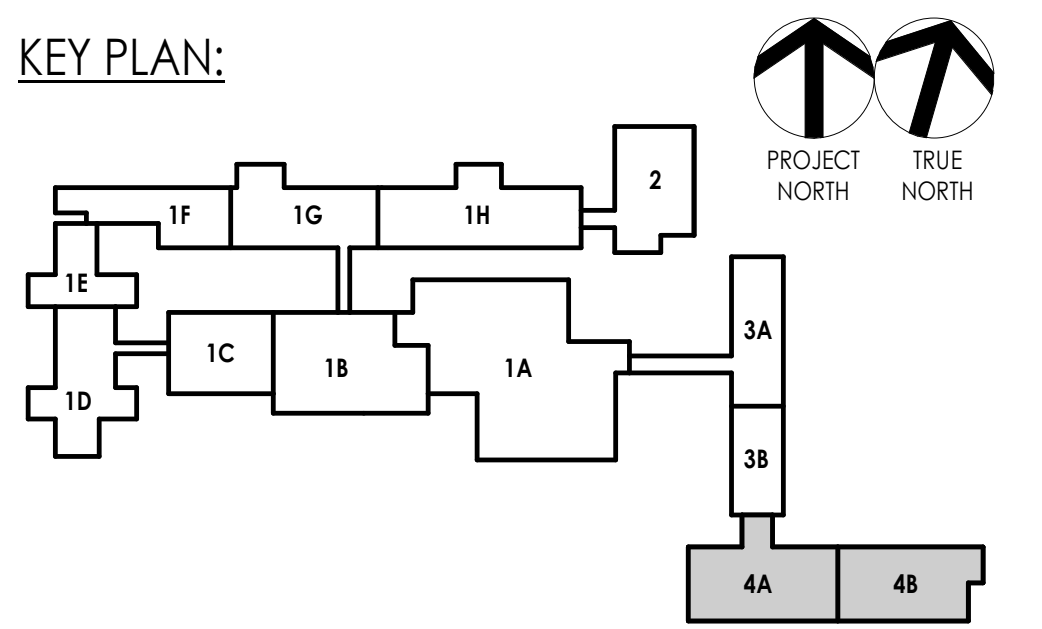
PROFESSIONAL STAMPS



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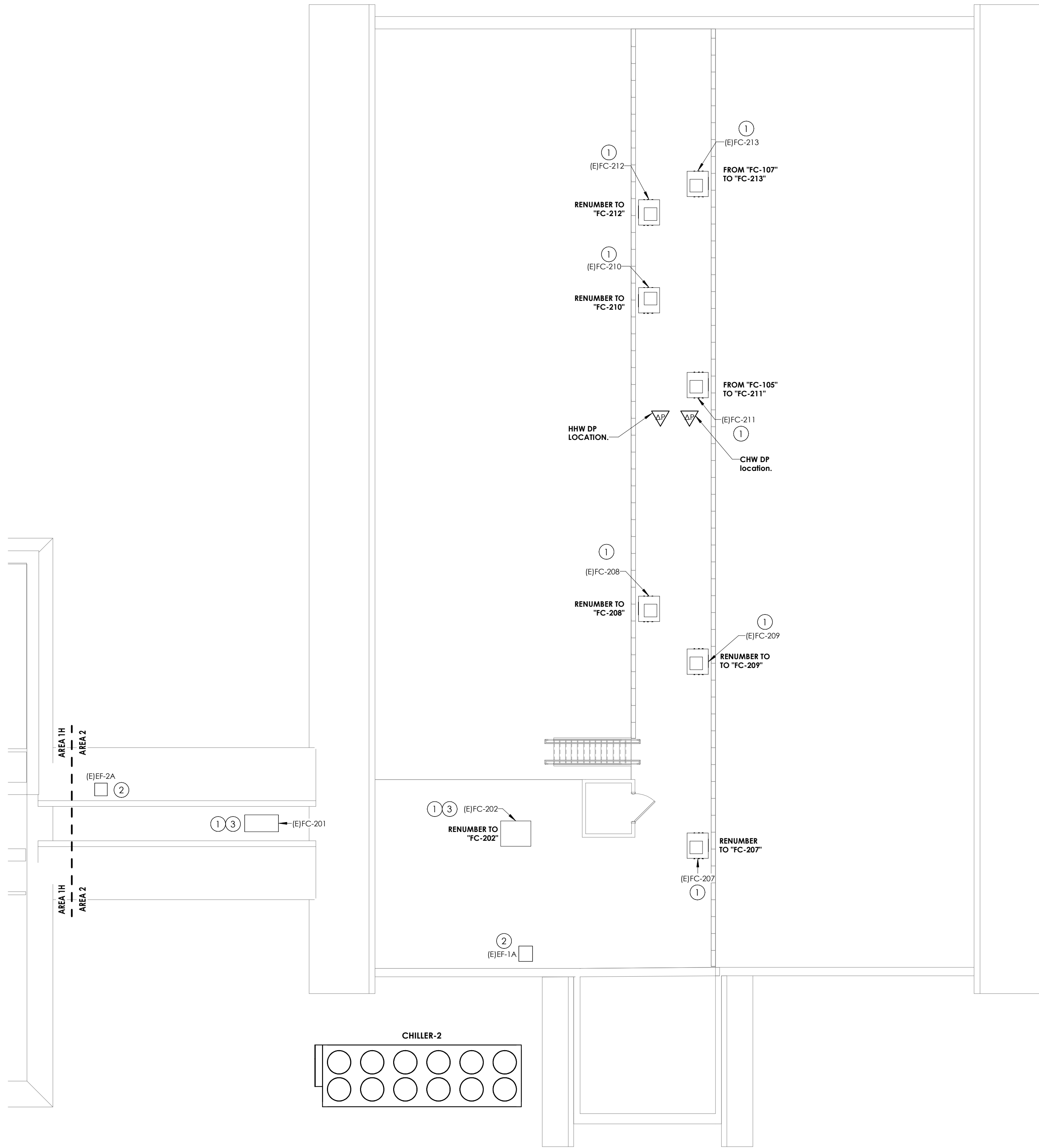
Issue: 02/17/2025
Project Status: BID SET
Drawn By: KAB
Drawing Title: MEZZANINE HVAC PIPING PLAN - AREA 4A AND 4B
Scale: 1/8" = 1'-0"
Checked By: RM

FOES
H302.4A8





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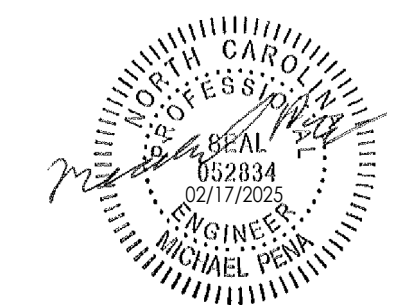
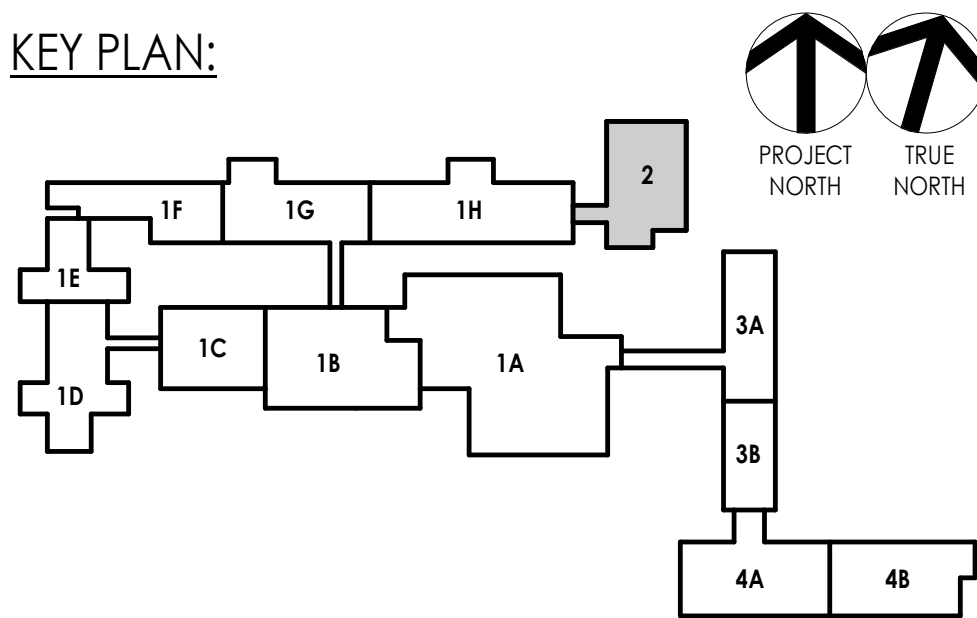


1
H402.2
MEZZANINE HVAC CONTROLS PLAN - AREA 2
1/8" = 1'-0"

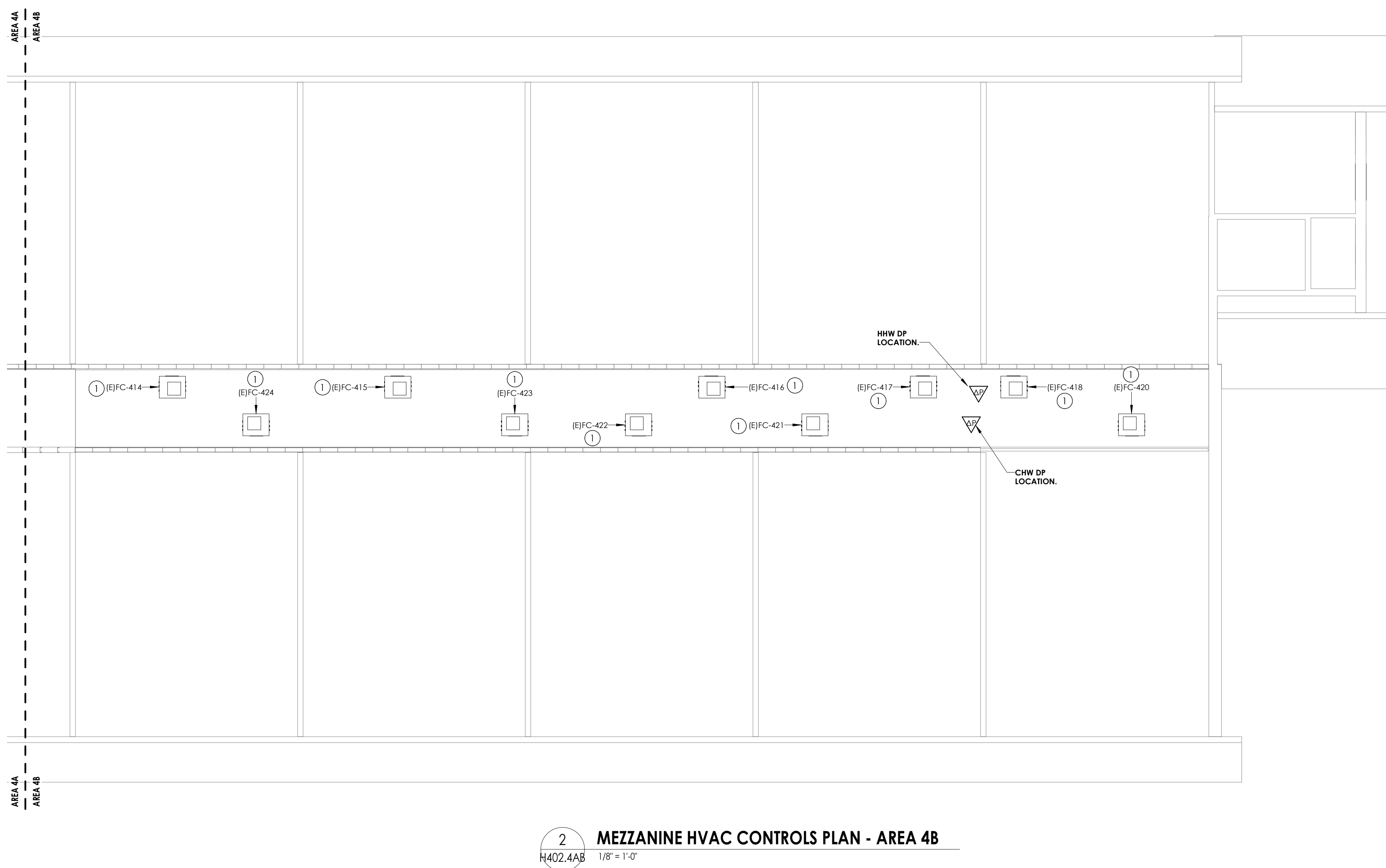
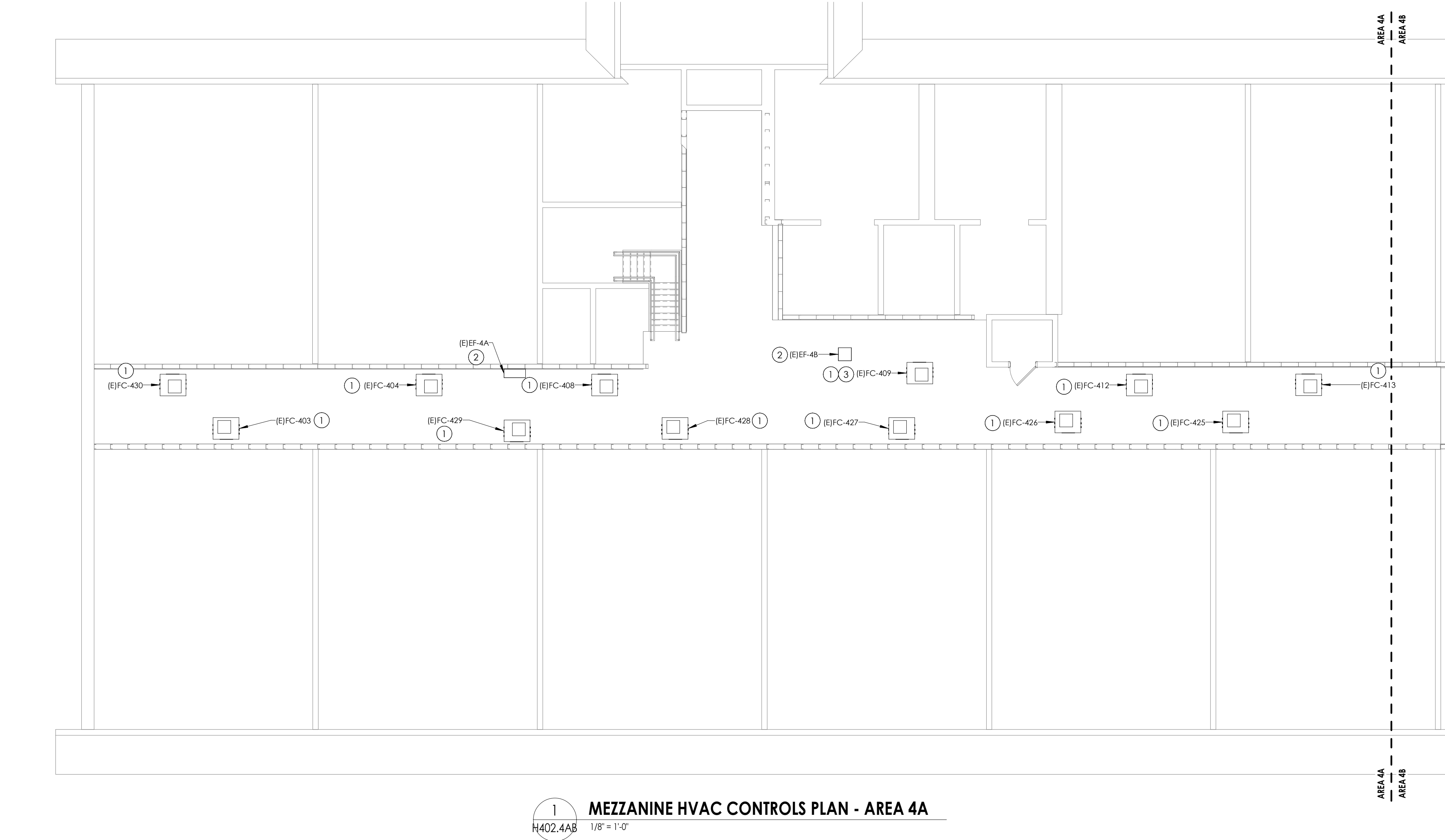
- HVAC CONTROLS UPGRADE NOTES**
- THE H400 SERIES DRAWINGS INDICATE THE LOCATION OF THE HVAC EQUIPMENT THAT IS REQUIRED TO BE INCLUDED IN THE SCOPE OF WORK FOR THE UPGRADE OF THE DIRECT DIGITAL CONTROL BUILDING MANAGEMENT SYSTEM (BMS).
 - REFER TO H500 SERIES CONTROL SCHEMATICS DRAWINGS, SECTION 230913 "INSTRUMENTATION AND CONTROL DEVICES FOR HVAC", SECTION 230923 "DIRECT-DIGITAL CONTROL SYSTEM FOR HVAC", AND SECTION 230993 "SEQUENCE OF OPERATION FOR HVAC CONTROLS" FOR FURTHER INFORMATION ON CONTRACTOR REQUIREMENTS.
 - EQUIPMENT INDICATED ON THIS DRAWING IS CURRENTLY CONTROLLED BY THE EXISTING BMS. THE CONTRACTOR IS RESPONSIBLE TO INVENTORY AND DOCUMENT ALL CONTROL POINTS CURRENTLY INTEGRATED IN THE EXISTING SYSTEM FOR EACH PIECE OF EQUIPMENT SHOWN ON THIS DRAWING AND DETERMINE AND DOCUMENT ITS SEQUENCE OF OPERATION PRIOR TO ANY NEW WORK BEING COMMENCED.
 - UPON SUCCESSFUL COMPLETION OF CONTROL POINT INVENTORY AND SEQUENCE OF OPERATION DETERMINATION, CONTRACTOR SHALL REMOVE CONTROL EQUIPMENT AS NECESSARY TO FACILITATE THE INTEGRATION OF THE EQUIPMENT INTO THE NEW BMS.
 - EXISTING CONTROL COMPONENTS (EQUIPMENT, DEVICES, PERIPHERAL COMPONENTS, ETC.) THAT ARE COMPATIBLE WITH THE NEW SYSTEM MAY BE RE-USED. A COMPONENT IS DEEMED COMPATIBLE IF IT DOES NOT REQUIRE A CONVERSION DEVICE (TRANSDUCER, HARDWARE OR SOFTWARE TRANSLATORS, ETC.) TO WORK IN THE NEW BMS.
 - EXISTING COMPONENTS THAT ARE RE-USED SHALL BE INVENTORIED AND DOCUMENTED.
 - THE REMOVAL OF ANY EXISTING COMPONENT (NOT TO BE RE-USED) SHALL INCLUDE THE REMOVAL OF ALL ASSOCIATED WIRING, CONDUIT AND SUPPORT ATTACHMENTS. WHERE EXISTING-TO-REMAIN FINISHES ARE DAMAGED AS A RESULT OF THE REMOVAL OF ANY EXISTING CONTROL EQUIPMENT OR WHERE THE REMOVAL EXPOSES A PREVIOUSLY DAMAGED FINISH, THE CONTRACTOR SHALL REPAIR THE FINISH TO MATCH EXISTING.
 - ALL NEW HVAC EQUIPMENT SHALL BE INTEGRATED INTO THE NEW DDC SYSTEM.

- KEY NOTES**
- REMOVE EXISTING WALL TEMPERATURE SENSOR ASSOCIATED WITH FAN COIL UNIT.
 - REMOVE EXISTING CONTROLS INSTALLED WITHIN EACH FAN COIL UNIT AS NECESSARY FOR NEW SYSTEM INTEGRATION. REFER TO HVAC CONTROLS UPGRADE NOTES FOR FURTHER DETAILS.
 - UPDATE ALL ASSOCIATED LABELING ON EQUIPMENT, ELECTRICAL, ETC.
 - PROVIDE WALL TEMPERATURE SENSOR, UNIT MOUNTED SENSORS AND REQUIRED CONTROL DEVICES PER DETAIL ON H500 SERIES DRAWINGS. PROVIDE CONTROLLER AND COMPLETELY INTEGRATE FAN COIL UNIT INTO NEW BMS.
 - REMOVE EXISTING WALL TEMPERATURE SENSOR ASSOCIATED WITH EACH EXHAUST FAN SYSTEM.
 - REMOVE EXISTING CONTROLS INSTALLED WITHIN EACH EXHAUST FAN AS NECESSARY FOR NEW SYSTEM INTEGRATION. REFER TO HVAC CONTROLS UPGRADE NOTES FOR FURTHER DETAILS.
 - PROVIDE REQUIRED CONTROL DEVICES PER DETAIL ON H500 SERIES DRAWINGS. PROVIDE CONTROLLER AND COMPLETELY INTEGRATE EACH EXHAUST FAN INTO NEW BMS.
 - FCU TO BE CONTROLLED BASE ON THE RETURN AIR TEMPERATURE AND RETURN AIR HUMIDITY

KEY PLAN:



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HVAC CONTROLS UPGRADE NOTES

- THE H400 SERIES DRAWINGS INDICATE THE LOCATION OF THE HVAC EQUIPMENT THAT IS REQUIRED TO BE INCLUDED IN THE SCOPE OF WORK FOR THE UPGRADE OF THE DIRECT DIGITAL CONTROL BUILDING MANAGEMENT SYSTEM (BMS).
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- ALL NEW HVAC EQUIPMENT SHALL BE INTEGRATED INTO THE NEW DDC SYSTEM.

KEY NOTES

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- FCU TO BE CONTROLLED BASE ON THE RETURN AIR TEMPERATURE AND RETURN AIR HUMIDITY

KEY PLAN:

PROJECT NORTH
TRUE NORTH

FOES
H402.4AB

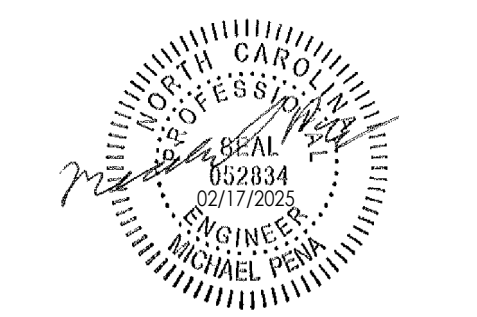
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Raleigh, NC 27604
CPLteam.com

JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

PROJECT INFORMATION
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Project Address: 180 W Hotcher St, Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE		
#	Date	Description

PROFESSIONAL STAMPS



SHEET INFORMATION		
Issue:	02/17/2025	Scale: 1/8" = 1'-0"
Project Status:	BID SET	Checked By: RM
Drawn By:	KAB	
Drawing Title:	MEZZANINE HVAC CONTROLS EQUIPMENT LOCATION PLAN - AREA 4A AND 4B	
Drawing Number:	FOES H402.4AB	

Sequence of Operation: COOLING PLANT SYSTEMS

A. System General Description:

- The cooling plant control system shall monitor and control the system's chiller(s), pump(s), and control valves as shown on the cooling plant flow diagram, in the cooling plant points list and as detailed in the sequence of operation listed below.
- The cooling plant system consists of air-cooled chiller(s) with its piping configuration arranged as a primary / secondary loop supplying chilled water to the facility.
- The manifolded chilled water distribution pumps are configured as lead / lag control.

B. Cooling Plant System Enable/Disable:

- The cooling plant system shall be enabled/disabled by the cooling plant controller as requested by the Building Automation System (BAS) operator interface panel or the BAS time of day schedule. The cooling plant control system will start and stop the chilled water pumps and chillers based upon system load.
- When the cooling plant system is enabled the system shall enable the lead secondary chilled water pump to start based on a call for cooling from the BAS. When flow status for the pump is proven, the system shall report running status to the BAS.
- When the cooling plant system is enabled the system shall send an enable signal to the lead chiller. Upon receiving the enable signal the chiller shall send a chilled water pump request signal to the control system to enable the chilled water pumping sequence.
- When the cooling plant system is enabled, the system shall respond to a chilled water pump request from the chiller to enable the associated dedicated primary chilled water pump to start. As additional chillers provide requests, additional primary chilled water pump(s) shall start.
- The cooling plant is disabled when all chillers are disabled and there is not an active chilled water pump request. When the plant is disabled, the chilled water pumps shall be commanded off and the chiller isolation valves shall be closed.

C. Chiller Staging:

- Chillers will operate in a load/lag sequence, so that the last chiller enabled is the first to be disabled. The cooling plant system shall initiate the start of the next chiller in the sequence whenever adding the next chiller in the sequence will result in lower total power, (as determined by chiller characteristics, plant load, and operating conditions) and have been satisfied for 20 minutes (adj.) or whenever the chilled water load, as determined by the system supply water temperature, is not met for 20 minutes (adj.). The system shall initiate the shutdown of the next chiller in the sequence whenever excess chilled water capacity exists, as determined a real time load calculation, AND the shutdown of the next chiller in the sequence will result in lower total power, (as determined by chiller characteristics, plant load, and operating conditions) have been satisfied for 20 minutes (adj.). Chiller load/lag sequence order will be based on a round robin logic. (Round robin logic example: 1-2-3, then 2-3-1, then 3-1-2, then 1-2-3, etc.).
- The chiller sequence order can be rotated on a schedule. Chiller rotations will be programmed to occur at one of the following operator-defined intervals:
 - NEVER: Chillers will always have the same sequence number.
 - DAY OF WEEK: Chillers will rotate on a user-specified day and time once per week.
 - FIXED NUMBER OF DAYS: Chillers will rotate after the number of days specified has elapsed.
 - RUN HOURS: Chillers rotate to attempt to even out the amount of time each chiller runs. When any chiller reaches the user-defined run hours setpoint (which is measured only from the last rotation), the system controller can re-sequence the chillers. If necessary, to put the chiller with the least total run hours into a higher-use position in the sequence.
 - ROTATIONAL INPUT: Chillers will rotate when the specified reference commands them to rotate.
- From the BAS operator interface, an operator shall be able to manually change the lead/lag sequence or request any chiller to be unavailable which would remove it from the rotation sequence.

D. Chiller Isolation Valves:

- Chiller isolation valves shall prevent the flow of fluid through non-operating chillers. When the system receives a chiller water pump request from a chiller, the chiller isolation valve will be controlled to 100% open. Chiller isolation valve stroke time shall be (60-120) seconds (adj.) to reduce operating chiller flow transients. When the valve is confirmed to be 100% open the system will start the respective chilled water pump. If the chiller's isolation valve is not confirmed open (valve stroke time plus 60 sec) 180 seconds (adj.), the system shall announce a chiller isolation valve failure alarm to the BAS operator interface.

E. Primary Chilled Water Pump Commands:

- When the chilled water system is enabled, the system shall start a chilled water pump through a contact closure of the pump's motor starter enable contacts. The system shall detect primary chilled water pump run status by a current switch. When an additional chiller is requested to stage on, its dedicated chilled water pump will be commanded on.

F. Primary Chilled Water Pump Failure:

- If the pump start/stop relay is enabled and the pump's running status is off for more than 30 seconds (adj.), the system shall announce a chilled water pump failure alarm to the BAS. Once the error has been corrected, the operator shall be able to clear the alarm failure from the BAS operator interface or by manually overriding the pump on.

G. Secondary Chilled Water Pump Commands:

- The system shall start a secondary chilled water pump through a contact closure of the pump's variable speed drive run-enable contacts. The system shall detect secondary chilled water pump run status by a variable speed drive current switch.
- The secondary chilled water pump(s) load/lag sequence shall be rotated on a weekly schedule. The rotation sequence shall be based on calculated run time with the pump having the least run time designated as lead. The pump with the next lowest run time will be the second in the sequence (or lag pump) and so on. From the BAS operator interface, an operator shall be able to manually change the lead/lag sequence or request any pump to be unavailable which would remove it from the rotation sequence.
- If the chilled water system differential pressure falls 0.5 piag (adj.) below setpoint and the lead pump is at 100% (adj.) for more than 5 minutes (adj.), the next pump in the sequence shall start. If the pump speed control output is below 65% (adj.) for more than 5 minutes (adj.), the last operating pump in the sequence shall be disabled.

H. Secondary Chilled Water Pump Speed:

- The system shall monitor the secondary chilled water system differential pressure sensor. When the pump variable speed drive is enabled, the system shall control the analog speed signal that is sent to the variable speed drives of operating pumps to maintain a chilled water system differential pressure setpoint of 15 piag (adj.).

I. Secondary Chilled Water Pump Failure:

- If the lead start/stop relay is enabled and the pump's running status is off for more than 30 seconds (adj.), the system shall announce a secondary chilled water pump failure alarm to the BAS and start the lag pump. When a secondary chilled water pump failure exists, lead/lag/standby automation shall be disabled and the currently running pump becomes the lead pump. Once the problem has been corrected, the operator shall be able to clear the alarm failure from the BAS operator interface. This shall re-enable the lead/lag/standby sequence.

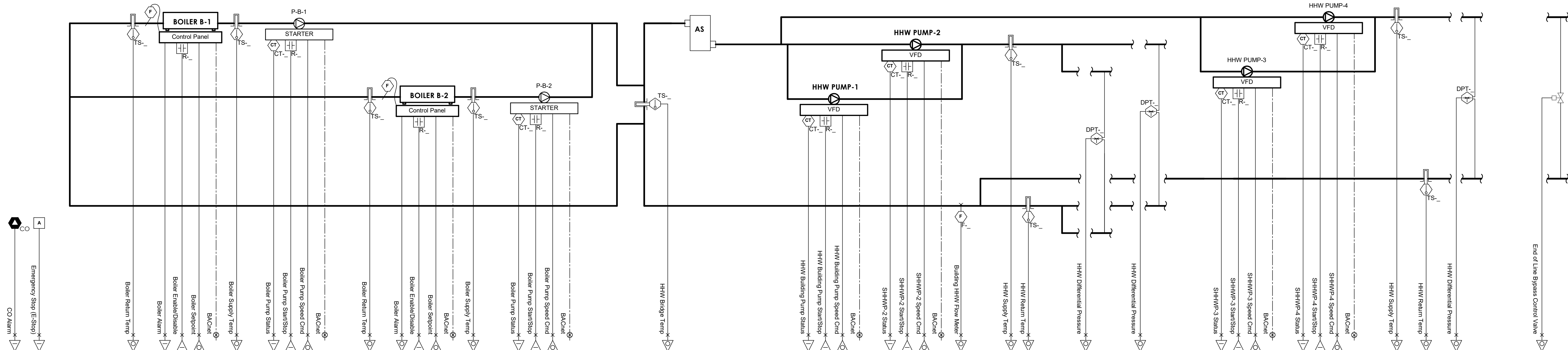
J. Optimized Distribution Pump Differential Pressure Control:

- The system shall enable the chilled water system differential pressure sensor. The system shall control the chilled water pump(s) variable speed drive to maintain the chilled water system differential pressure to its setpoint. The BAS shall monitor the position of all chilled water control valves served by the cooling plant. At chilled water system startup, the chilled water system pressure setpoint will be set to the system design value of XX psi (adj.). In all cases the distribution pump(s) differential pressure setpoint shall be bound between a minimum of 30 psi (adj.) and a maximum of the system design value.
- The setpoint control shall be based on ASHRAE Guideline 36 "Trim and Respond Logic". At a frequency of once every 10 minutes (adj.), the control system shall calculate requests for cooling based on the criteria shown below:
 - The air handler unit (AHU) or other equipment served by the cooling plant has been running in a Cooling Mode for 15 minutes (adj.).
 - If an AHU(s) [or other equipment] chilled water valve is greater than 95%, send 1 request until the chilled water valve is less than 70%.
 - If an AHU(s) [or other equipment] chilled water valve is serving a critical load (i.e. data center), send 2 requests (adj.) if an AHU(s) chilled water valve is greater than 95%, send 1 request when the chilled water valve is between 80% and 95%. Send zero requests when the chilled water valve is less than 65%.
 - Else if the chilled water valve is less than 95%, send 0 requests.
 - The BAS shall default to ignoring the first 2 requests (adj.).
 - (Note: At startup set ignore value to at least 40% of the number of AHUs being served).
- When (Requests greater than ignores) the system shall respond by adjusting the chilled water pump drive to maintain pressure setpoint upward by (Requests - ignores) * 10 psi (adj), but no larger than 10 psi (adj). When requests are equal to, or less than ignores, the setpoint shall be reset downward by 2 psi (adj).

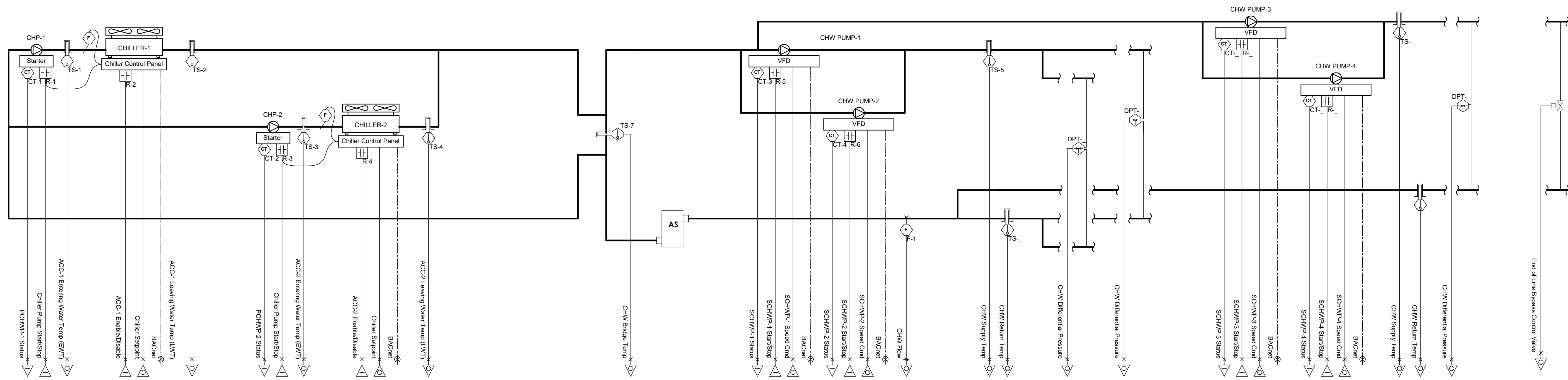
I. SECONDARY CHW PUMPS - LEAD LAG (SCHWP)

- General
 - Secondary CHW pump(s) shall run when CHW plant is enabled. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
- Graphical interface
 - Provide a graphical display for the pumps, with a schematic of the unit and the following points:
 - Pump on/off
 - Occupancy status

1 HEATING HOT WATER CONTROL SCHEMATIC
H500 NOT TO SCALE



2 CHILLED WATER CONTROLS SCHEMATIC
H500 NOT TO SCALE



Sequence of Operation: HEATING PLANT SYSTEM

A. System General Description:

- The heating plant system controller provides stand-alone control or control from an optional higher level Building Automation System (BAS).
- The heating plant system consists of hot water boiler(s) with its piping configuration arranged as a primary / secondary loop supplying hot water to the facility.
- The heating system includes flow metering capabilities for the building supply loop.
- The manifolded hot water distribution pumps are configured as lead / lag control. The factory boiler system controller shall provide stand-alone control or BAS workstation control of the supply heating water temperature setpoint (adj.).

B. Heating System Enable/Disable:

- The heating system shall be enabled by the factory boiler system controller when the outside air temperature falls below 60.0 deg. F (adj.) or the heating plant is disabled when all boilers are disabled and there is not an active hot water distribution pump request. When the plant is disabled the hot water pump shall be commanded off.

C. Hot Water Reset:

- The hot water supply temperature setpoint shall be linearly reset from 120.0 deg. F (adj.) to 180.0 deg. F (adj.) as the outside air temperature falls from 60.0 deg. F (adj.) to 0.0 deg. F (adj.)

D. Boiler Control:

- The boiler lead/lag sequence shall be based on a weekly schedule. From the system controller or a BAS workstation, an operator shall be able to manually change the lead/lag sequence.
- If the hot water distribution system supply temperature falls more than 25.0 deg. F (adj.) below setpoint for a period longer than 15 minutes (adj.), or if an active boiler signals a failure alarm, the system controller shall enable the lag boiler. In addition, the system controller shall signal an alarm. When a boiler failure exists, lead/lag automation shall be disabled and the currently running boiler shall become the lead boiler. Once the problem is corrected, the operator shall be able to clear the alarm failure from the system controller or BAS workstation. This shall re-enable the lead/lag sequence.
- Once the lead boiler is enabled, the odd sequence of additional boilers shall be disabled for a period of 30 minutes (adj.). Additional boilers are added if the hot water distribution system supply temperature falls 5.0 deg. F (adj.) below the hot water temperature setpoint for a period of 10 minutes (adj.) or more.
- The lag boiler enabled shall be disabled when the hot water temperature rises 5.0 deg. F (adj.) above the hot water temperature setpoint for a period of 10 minutes (adj.) or more. Additional boilers shall be disabled following the same subtraction sequence if the hot water temperature remains 5.0 deg. F (adj.) above the hot water temperature setpoint for a period of 10 minutes (adj.) or more.

E. Flow Meter:

- The flow meter shall be used for reference flow of the hot water through the system.

F. Boiler Circulation Pump Start/Stop:

- The system shall start a boiler circulation pump through a contact closure of the pump's motor starter enable contacts.
- Boiler Circulation Pump Failure:
 - If the boiler circulation pump relay is enabled and the current switch status is off for more than 30 seconds (adj.), the system shall announce a boiler circulation water pump failure alarm to the BAS and disable the associated boiler. When a pump failure exists, lead/lag automation of the boilers and associated pumps shall be disabled and the currently running pump and associated boiler becomes the lead. Once the problem has been corrected, the operator shall be able to clear the alarm failure from the BAS controller or BAS workstation. This action shall re-enable the lead/lag sequence.

G. Hot Water Distribution Pump Start/Stop:

- The system shall start a hot water pump through a contact closure of the pump's variable frequency drive (variable speed drive) run-enable contacts.

H. Hot Water Distribution Pump Status:

- The system shall detect hot water pump run status by a variable speed drive current switch.

I. Hot Water Distribution Pump Lead/Lag:

- The hot water pump lead/lag sequence shall be based on a weekly schedule. From the BAS controller or a BAS workstation, an operator shall be able to manually change the lead/lag sequence.

J. Hot Water Distribution Pump Failure:

- If the lead start/stop relay is enabled and the current switch status is off for more than 30 seconds (adj.), the system shall announce a hot water pump failure alarm to the BAS workstation and start the lag pump. When a pump failure exists, lead/lag automation shall be disabled and the currently running pump becomes the lead pump. Once the problem has been corrected, the operator shall be able to clear the alarm failure from the BAS controller or BAS workstation. This action shall re-enable the lead/lag sequence.

K. Hot Water Distribution Pump Speed:

- The system shall monitor the hot water system differential pressure sensor. When the pump variable speed drive is enabled, the system shall control the analog speed signal sent to the pump variable speed drive to maintain a hot water differential pressure setpoint of 5.0 piag (adj.).

L. Pump Optimization:

- The BAS shall continually monitor the hot water control valve position of all AHUs in the hot water system.
- At hot water system startup, the hot water pressure setpoint is 100% of the maximum pressure setpoint. When all hot water valves are less than 80% open, the hot water differential pressure setpoint shall be lowered by 0.1 piag (adj.) of the current hot water differential pressure setpoint. This occurs every 5 minutes until all lead one valve is more than 85% open, or if the setpoint is equal to the minimum hot water differential pressure setpoint, or if the pump variable speed drive's are at a minimum speed setting (22 Hz).
- When any hot water valve is more than 95% open, the hot water pressure setpoint shall increase by 0.1 piag (adj.) of the current hot water differential setpoint. This occurs every 5 minutes until no valve is more than 95% open, or if the hot water differential pressure setpoint has risen to the system's maximum setting, or if the pump variable speed drive's are at the maximum setting (60 Hz).

M. Freeze Protection:

- When the outdoor air temperature falls below 35.0 deg. F (adj.), the hot water distribution pump shall operate continuously to provide hot water circulation to all associated hot water coils. If the hot water supply temperature falls below 30.0 deg. F (adj.) during unoccupied periods, the boiler sequence shall be enabled to safeguard against low water temperature and boiler condensation.
- In the event that a hydronic inside type equipment initiates a low limit alarm, the heating system shall enable, if disabled, and provide heating medium circulation to the equipment.

N. Carbon Monoxide Detector:

- The carbon monoxide detector shall monitor the boiler room for high levels of CO. If the CO level rises above 50 ppm (adj.), then an alarm shall be signaled to the heating system controller or BAS workstation.

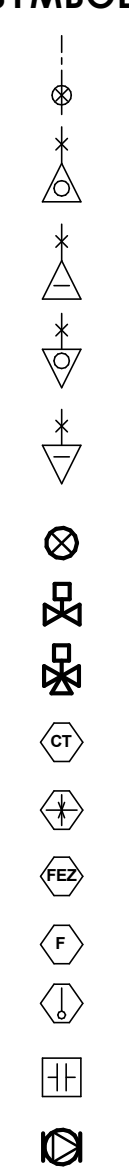
O. Boiler Emergency Shutdown Switch:

- If the Boiler Emergency Shutdown Switch has been activated, the boilers are to shut down immediately and an alarm shall be signaled to the heating system controller or BAS workstation.

2. SECONDARY HHW PUMPS - LEAD LAG (SHHW)

- General
 - Secondary HHW pump(s) shall run when HHW plant is enabled. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
- Graphical interface
 - Provide a graphical display for the pumps, with a schematic of the unit and the following points:
 - Pump on/off
 - Occupancy status

SYMBOL



DESCRIPTION

- BACNET CONNECTION (WITH BUILDING MANAGEMENT SYSTEM)
- ANALOG OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)
- DIGITAL OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)
- ANALOG INPUT (TO BUILDING MANAGEMENT SYSTEM)
- DIGITAL INPUT (TO BUILDING MANAGEMENT SYSTEM)
- BALANCE VALVE
- CONTROL/SOLENOID VALVE, ELECTRIC 2-WAY
- CONTROL VALVE, ELECTRIC 3-WAY
- CURRENT TRANSDUCER
- DIFFERENTIAL PRESSURE TRANSMITTER
- FREEZE-STAT
- FLOW TRANSMITTER
- TEMPERATURE SENSOR
- RELAY CONTACTS
- PUMP, INLINE OR BASE MOUNTED

PROJECT INFORMATION

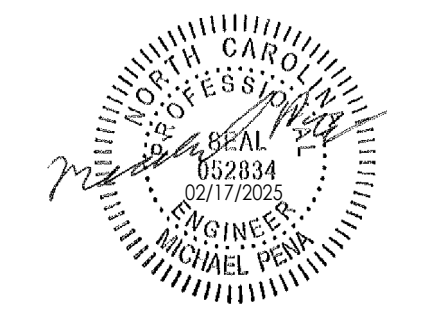
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address:
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

PROFESSIONAL STAMPS

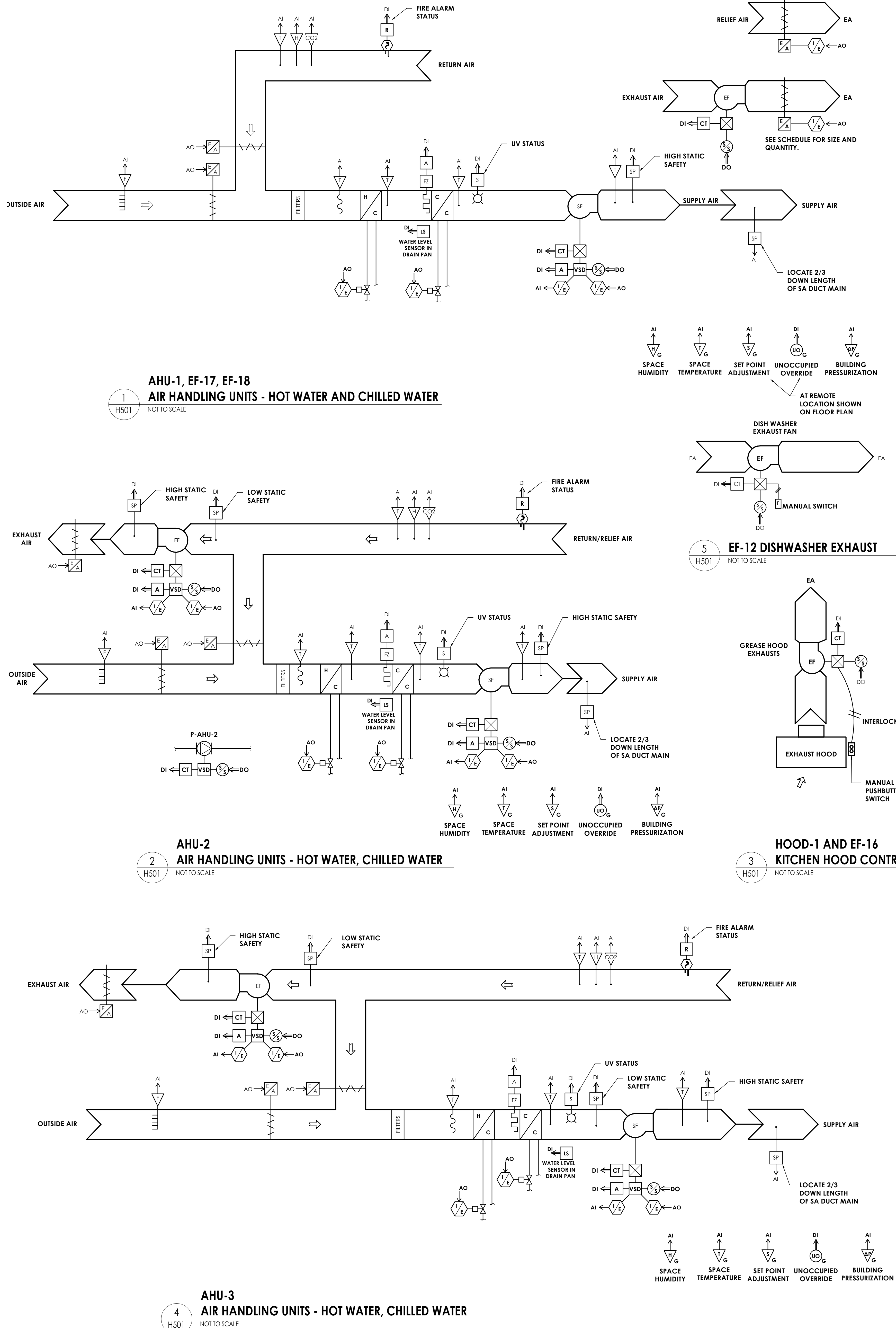


SHEET INFORMATION

Issue Date: 02/17/2025
Scale: NOT TO SCALE
Project Status: BID SET
Drawn By: KAS
Checked By: RM
Drawing Title: HVAC CONTROLS SCHEMATIC

Drawing Number:

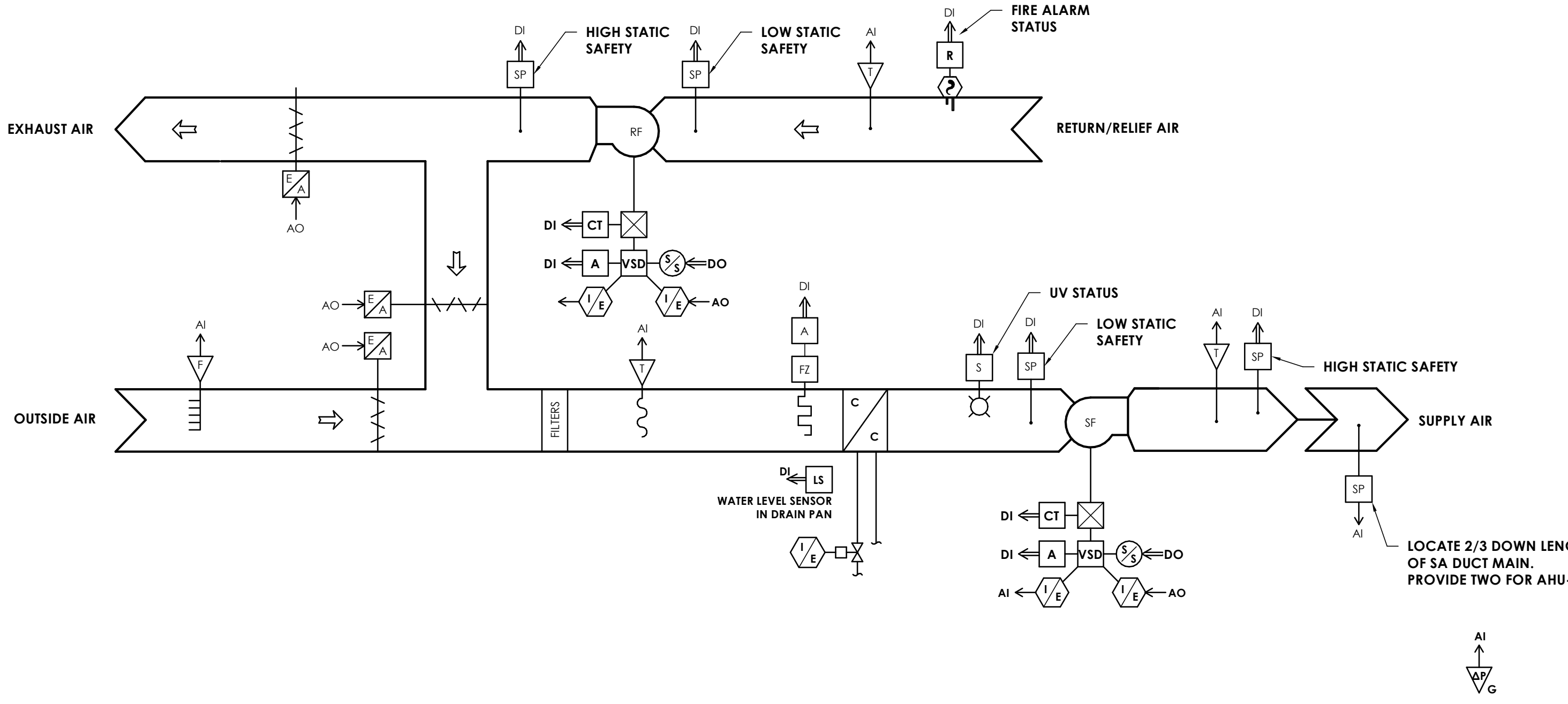
FOES
H500



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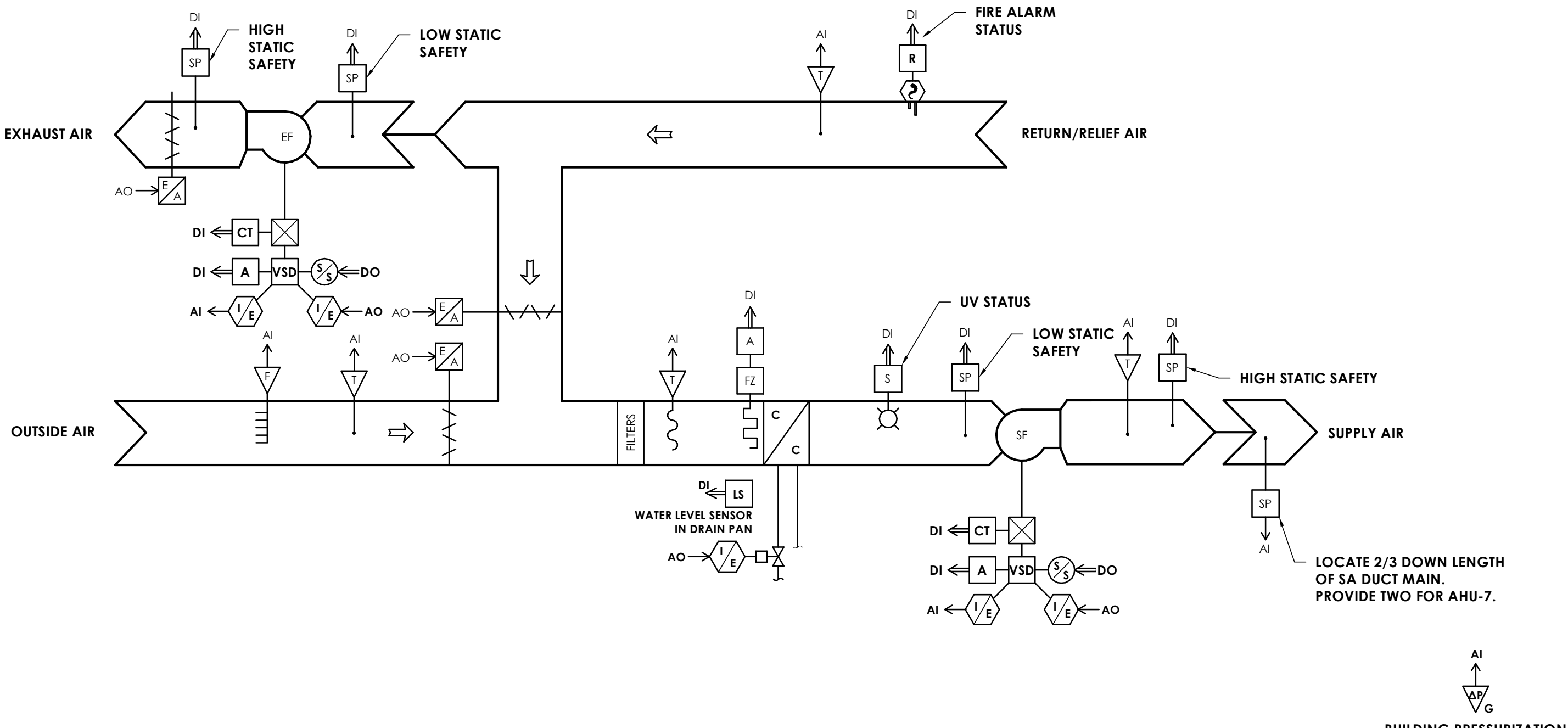
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AHU-4, AHU-6, AHU-8, AHU-9A, AHU-9B
AIR HANDLING UNITS - CHILLED WATER FOR VARIABLE AIR VOLUME SYSTEM



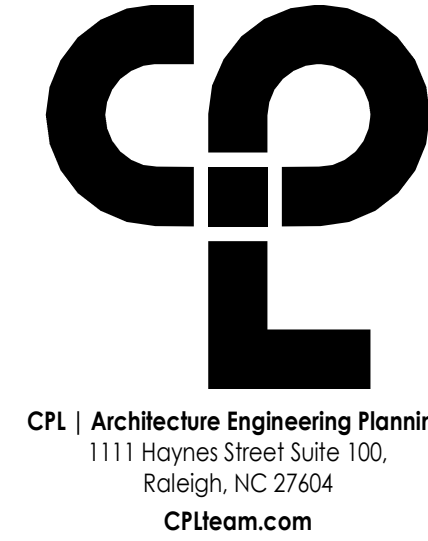
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AHU-5 & EF-5, AHU-7 & EF-AHU-7
AIR HANDLING UNITS - CHILLED WATER FOR VARIABLE AIR VOLUME SYSTEM



- Sequence of Operation: AHU-4, AHU-6, AHU-8, AHU-9A, AHU-9B**
- Building Automation System Interface:**
 - The Building Automation System (BAS) shall send the controller Occupied Bypass, Pre-Cool, Occupied/Unoccupied and Heat/Cool modes. The BAS shall also send the discharge air temperature setpoint and the duct static pressure setpoint. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.
 - Occupied:**
 - During occupied periods, the supply fan shall run continuously and the mixed air dampers shall open to maintain minimum ventilation requirements.
 - The chilled water valve shall control to maintain the active discharge air temperature setpoint. If economizing is enabled, the outdoor air or mixed air dampers shall modulate to maintain the discharge air temperature setpoint and the relief air damper shall track the mixed air dampers. The discharge air temperature setpoint shall be dynamically reset based on the deviation of actual space temperature from the active space temperature setpoint. If the discharge air temperature sensor fails, the chilled water valve shall close and an alarm shall annunciate at the BAS.
 - Unoccupied:**
 - When the space temperature is above the unoccupied cooling setpoint of 85.0 deg. F (adj.) the supply fan shall start, the outside air damper shall open if economizing is enabled and remain closed if economizing is disabled and the chilled water valve shall open. When the space temperature falls below the unoccupied cooling setpoint of 85.0 deg. F (adj.) minus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop, the chilled water valve shall close and the outside air damper shall close.
 - Optimal Start:**
 - The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs.
 - Optimal Stop:**
 - The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint. Outside air damper shall remain enabled to provide minimum ventilation.
 - Occupied Bypass:**
 - The BAS shall monitor the status of the ON and CANCEL buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoint (adj.).
 - Head/Cool Mode:**
 - When the space temperature rises above the occupied cooling setpoint the mode shall transition to cooling. When the space temperature falls below the occupied heating setpoint the mode shall transition to heating. When the space temperature is above the occupied cooling setpoint or below the occupied heating setpoint the mode shall remain in its last state. If the space temperature sensor fails the mode shall remain in its last state and an alarm shall annunciate at the BAS. If the local and communicated setpoints fail the controller shall disable the supply fan and an alarm shall annunciate at the BAS.
 - Morning Warm-Up Mode:**
 - During optimal start if the average space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the unit shall enable the heating and fan(s). The outside air damper shall remain closed. When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode.
 - Daytime Warm-Up Control:**
 - During Occupied periods, when the space temperature is below the Daytime Warm-up Initiate setpoint, a daytime warm-up sequence shall be activated. The outside air damper shall modulate to maintain minimum ventilation requirements, and the heating shall enable to maintain the discharge air temperature heating setpoint. Daytime Warm-up shall terminate when the average space temperature reaches the Occupied heating setpoint.
 - Pre-Cool Mode:**
 - During optimal start if the average space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the unit shall enable the fan and cooling or economizer. The outside air damper shall remain closed, unless economizing. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode.
 - Economizer Mode:**
 - ENABLE: Outside air (OA) temperature shall be compared with space temperature. The economizer shall enable when OA temperature is less than space temperature - 2.0 deg. F. The economizer shall disable when OA temperature is greater than space temperature.
 - OPERATOR: When economizing is enabled and the unit is operating in the cooling mode, the economizer damper shall be modulated between its minimum position and 100% to maintain the space temperature setpoint. The economizer damper shall modulate toward minimum position in the event the mixed air temperature falls below the low temperature limit setting.
 - Demand Control Ventilation:**
 - Using a space CO2 input (local sensor or network communicated value), the controller shall monitor and compare the measured space CO2 to the space CO2 concentration setpoint (adj.). When the measured space CO2 concentration reaches the setpoint (adj.), the outside air damper shall modulate open incrementally until the space CO2 level is satisfied or the outside air damper reaches the full open position. If the measured CO2 concentration falls, the outside air damper shall modulate toward normal economizer operation. If the mixed air temperature drops below the mixed air low limit setpoint the CO2 sensor input is overridden and the outside air damper will be modulated closed to maintain the mixed air temperature low limit setpoint. When the mixed air temperature rises above the mixed air low limit setpoint, CO2 operation is restored.
 - Discharge Air Temperature Reset Control:**
 - The discharge air temperature setpoint shall be reset to the optimal setpoint communicated by the BAS. The Space Temperature BAS and the Space Temperature Setpoint BAS shall be communicated to the unit controller by the BAS. The discharge air temperature setpoint shall be reset based upon the deviation of the Space Temperature BAS from the Space Temperature Setpoint BAS. If the discharge air temperature drops below the minimum limit, a low temperature alarm shall annunciate, and the unit shall shut down. If the discharge air temperature rises above the maximum limit, a high temperature alarm shall annunciate.
 - Supply Fan:**
 - The supply fan shall be off in the unoccupied mode. The supply fan shall be on if the control is heating or cooling in the unoccupied mode. When the controller is in the occupied mode, the supply fan shall operate continuously and its speed shall be modulated to maintain the duct static pressure setpoint. The duct static pressure setpoint shall be sent by the BAS and it shall be reset between the minimum and maximum static pressure limits to maintain the critical zone VAV air damper in a position between 65% and 75% open.
 - If the supply fan fails to prove status for 30 seconds (adj.), the fan shall be commanded off, the outside air damper shall close, all heating shall be disabled, and an alarm shall annunciate at the BAS. A manual reset shall be required to restart the fan. A hardwired, high static pressure cut-off switch shall be electrically interlocked with the variable speed drive. If the high static pressure cut-off switch is tripped the fan shall be commanded off, the outside air damper shall close, cooling shall be disabled, and an alarm shall annunciate at the BAS. A manual reset of the high static pressure cut-off switch shall be required to restart the fan.
 - Building Pressure Control (Relief Air):**
 - When the supply fan is running and the measured space static pressure is greater than the space static setpoint of 0.08 in. W.C. (adj.), the relief fan shall be enabled. When enabled, the relief fan shall modulate between minimum speed (default of 25%) and maximum speed (100%) to maintain the space static setpoint, but limited to not exceed the supply fan speed. When the space pressure falls below setpoint by 0.03 inches of W.C. and the relief fan speed is at or below minimum speed, the fan shall be disabled. Upon space static pressure sensor failure, the relief fan shall be enabled based on outdoor air damper position greater than relief fan Outdoor Air Damper Enable Setpoint BAS of 22% (adj.). The relief fan speed shall track the outdoor air damper position, but not to exceed the supply fan speed. If the relief fan fails to prove status for 30 seconds (adj.), the fan shall be commanded off and an alarm shall annunciate at the BAS.
 - Mixed Air Low Limit:**
 - The initial damper opening rate shall be limited to 25 per minute (adj.) until the damper has reached its minimum ventilation position. The outside air damper shall modulate to a position less than the minimum damper position if the mixed air temperature drops below 50.0 deg. F (adj.). If the mixed air temperature sensor fails an alarm shall annunciate at the BAS and the outside air damper shall return to the minimum position.
 - Freeze Protection:**
 - A hardwired, low limit temperature switch shall be electrically interlocked with the variable speed drive. If the low limit temperature switch is tripped 38.0 deg. F (adj.), the fan shall be commanded off and the outside air damper shall close. All valves shall be commanded open to 100% (adjust per climate). An alarm shall annunciate at the BAS and manual reset of the low limit temperature switch shall be required to restart the fan.
 - Condensate Overflow Monitoring:**
 - If the condensate level reaches the trip point, a condensate overflow diagnostic shall annunciate at the BAS. To prevent the condensate drain pan from overflowing and causing water damage to the building the fan shall be disabled and the chilled water valve shall close.
 - Filter Status:**
 - A differential pressure switch shall monitor the differential pressure across the filter(s) when the fan is running. If the switch closes during normal operation a dirty filter alarm shall annunciate at the BAS.
 - Smoke Detector Shutdown:**
 - The unit shall shut down in response to a signal from the smoke detector indicating the presence of smoke. The smoke detector shall be interlocked to the unit through the dry contacts of the smoke detector. A manual reset of the smoke detector shall be required to restart the unit.
- Sequence of Operation: VAV TERMINAL UNIT**
- Building Automation System Interface:**
 - The Building Automation System (BAS) shall send the controller Occupied, and Unoccupied commands. The BAS may also send a Heat/Cool mode, priority shutdown commands, space temperature and/or space temperature setpoint. If communication is lost with the BAS, the controller shall operate using its local setpoints.
 - Occupied:**
 - Normal operating mode for occupied spaces or daytime operation. When the unit is in the occupied mode the VAV shall maintain the space temperature at the active occupied heating or cooling setpoint. Applicable ventilation and airflow setpoints shall be enforced. The occupied mode shall be the default mode of the VAV.
 - Unoccupied:**
 - Normal operating mode for unoccupied spaces or nighttime operation. When the unit is in unoccupied mode the VAV controller shall maintain the space temperature at the stored unoccupied heating or cooling setpoint regardless of the presence of a hardwired or communicated setpoint. When the space temperature exceeds the active unoccupied heating or cooling setpoint the VAV shall modulate fully closed.
 - Occupied Bypass:**
 - Mode used to temporarily place the unit into the occupied operation. Tenants shall be able to override the unoccupied mode from the space sensor. The override shall last for a maximum of 4 hours (adj.). The tenants shall be able to cancel the override from the space sensor at any time. During the override the unit shall operate in occupied mode.
 - Head/Cool Mode:**
 - The Head/Cool mode shall be set by a communicated value or automatically by the VAV. In standalone or auto mode the VAV shall compare the primary air temperature with the configured auto changeover setpoint to determine if the air is "hot" or "cold". Heating mode implies the primary air temperature is hot. Cooling mode implies the primary air temperature is cold.
 - Head/Cool Setpoint:**
 - The space temperature setpoint shall be determined either by a local (e.g., thumbwheel) setpoint, the VAV default setpoint or a communicated value. The VAV shall use the locally stored default setpoints when neither a local setpoint nor communicated setpoint is present. If both a local setpoint and communicated setpoint exist, the VAV shall use the communicated value.
 - Cooling Mode:**
 - When the unit is in cooling mode, the VAV controller shall maintain the space temperature at the active cooling setpoint by modulating the airflow between the active cooling minimum airflow setpoint to the maximum cooling airflow setpoint. The VAV shall use the measured space temperature and the active cooling setpoint to determine the requested cooling capacity of the unit. The outputs will be controlled based on the unit configuration and the requested cooling capacity. When in the Occupied Mode, the controller shall use the measured space temperature and the active cooling setpoint to determine the requested cooling capacity of the unit. The outputs shall be controlled based on the unit configuration and the requested cooling capacity.
 - Heating Mode:**
 - When the unit is in heating mode, the VAV controller shall maintain the space temperature at the active heating setpoint by modulating the airflow between the active heating minimum airflow setpoint to the maximum heating airflow setpoint. The VAV controller shall use the measured space temperature and the active heating setpoint to determine the requested heating capacity of the unit. The outputs will be controlled based on the unit configuration and the requested heating capacity.
 - Local Reheat Control:**
 - Reheat will only be allowed when the primary air temperature is 5.0 deg. F (adj.). The reheat shall be enabled when the space temperature drops below the active heating setpoint and the minimum airflow requirements are met. During reheat the VAV shall operate at its minimum heating airflow setpoint and energize the heat as follows:
 - Proportional Hot Water Reheat:**
 - CO2 SENSOR: When the unit is in occupied mode, the ventilation airflow setpoint shall be continuously calculated using the measured CO2 concentration in the space.
 - The current ventilation airflow setpoint shall be communicated to the BAS for control of the system outdoor-air intake.
 - Space Sensor Failure:**
 - If there is a fault with the operation of the zone sensor or alarm shall be annunciated at the BAS. Space sensor failure shall cause the VAV to drive the damper to minimum air flow if the VAV is in the occupied mode, or drive it closed if the VAV is in the unoccupied mode.
 - Space Humidity Monitoring:**
 - The VAV box will monitor the space humidity.

- Sequence of Operation: AHU-5, AHU-7**
- Building Automation System Interface:**
 - The Building Automation System (BAS) shall send the controller Occupied Bypass, Pre-Cool, Occupied/Unoccupied and Heat/Cool modes. The BAS shall also send the discharge air temperature setpoint and the duct static pressure setpoint. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.
 - Occupied:**
 - During occupied periods, the supply fan shall run continuously and the mixed air dampers shall open to maintain minimum ventilation requirements.
 - The chilled water valve shall control to maintain the active discharge air temperature setpoint. If economizing is enabled, the outdoor air or mixed air dampers shall modulate to maintain the discharge air temperature setpoint and the relief air damper shall track the mixed air dampers. The discharge air temperature setpoint shall be dynamically reset based on the deviation of actual space temperature from the active space temperature setpoint. If the discharge air temperature sensor fails, the chilled water valve shall close and an alarm shall annunciate at the BAS.
 - Unoccupied:**
 - When the space temperature is above the unoccupied cooling setpoint of 85.0 deg. F (adj.) the supply fan shall start, the outside air damper shall open if economizing is enabled and remain closed if economizing is disabled and the chilled water valve shall open. When the space temperature falls below the unoccupied cooling setpoint of 85.0 deg. F (adj.) minus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop, the chilled water valve shall close and the outside air damper shall close.
 - Optimal Start:**
 - The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs.
 - Optimal Stop:**
 - The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint. Outside air damper shall remain enabled to provide minimum ventilation.
 - Occupied Bypass:**
 - The BAS shall monitor the status of the ON and CANCEL buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoint (adj.).
 - Head/Cool Mode:**
 - When the space temperature rises above the occupied cooling setpoint the mode shall transition to cooling. When the space temperature falls below the occupied heating setpoint the mode shall transition to heating. When the space temperature is above the occupied cooling setpoint or below the occupied heating setpoint the mode shall remain in its last state. If the space temperature sensor fails the mode shall remain in its last state and an alarm shall annunciate at the BAS. If the local and communicated setpoints fail the controller shall disable the supply fan and an alarm shall annunciate at the BAS.
 - Morning Warm-Up Mode:**
 - During optimal start if the average space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the unit shall enable the heating and fan(s). The outside air damper shall remain closed. When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode.
 - Daytime Warm-Up Control:**
 - During Occupied periods, when the space temperature is below the Daytime Warm-up Initiate setpoint, a daytime warm-up sequence shall be activated. The outside air damper shall modulate to maintain minimum ventilation requirements, and the heating shall enable to maintain the discharge air temperature heating setpoint. Daytime Warm-up shall terminate when the average space temperature reaches the Occupied heating setpoint.
 - Pre-Cool Mode:**
 - During optimal start if the average space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the unit shall enable the fan and cooling or economizer. The outside air damper shall remain closed, unless economizing. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode.
 - Economizer Mode:**
 - ENABLE: Outside air (OA) temperature shall be compared with space temperature. The economizer shall enable when OA temperature is less than space temperature - 2.0 deg. F. The economizer shall disable when OA temperature is greater than space temperature.
 - OPERATOR: When economizing is enabled and the unit is operating in the cooling mode, the economizer damper shall be modulated between its minimum position and 100% to maintain the space temperature setpoint. The economizer damper shall modulate toward minimum position in the event the mixed air temperature falls below the low temperature limit setting.
 - Demand Control Ventilation:**
 - Using a space CO2 input (local sensor or network communicated value), the controller shall monitor and compare the measured space CO2 to the space CO2 concentration setpoint (adj.). When the measured space CO2 concentration reaches the setpoint (adj.), the outside air damper shall modulate open incrementally until the space CO2 level is satisfied or the outside air damper reaches the full open position. If the measured CO2 concentration falls, the outside air damper shall modulate toward normal economizer operation. If the mixed air temperature drops below the mixed air low limit setpoint the CO2 sensor input is overridden and the outside air damper will be modulated closed to maintain the mixed air temperature low limit setpoint. When the mixed air temperature rises above the mixed air low limit setpoint, CO2 operation is restored.
 - Discharge Air Temperature Reset Control:**
 - The discharge air temperature setpoint shall be reset to the optimal setpoint communicated by the BAS. The Space Temperature BAS and the Space Temperature Setpoint BAS shall be communicated to the unit controller by the BAS. The discharge air temperature setpoint shall be reset based upon the deviation of the Space Temperature BAS from the Space Temperature Setpoint BAS. If the discharge air temperature drops below the minimum limit, a low temperature alarm shall annunciate, and the unit shall shut down. If the discharge air temperature rises above the maximum limit, a high temperature alarm shall annunciate.
 - Supply Fan:**
 - The supply fan shall be off in the unoccupied mode. The supply fan shall be on if the control is heating or cooling in the unoccupied mode. When the controller is in the occupied mode, the supply fan shall operate continuously and its speed shall be modulated to maintain the duct static pressure setpoint. The duct static pressure setpoint shall be sent by the BAS and it shall be reset between the minimum and maximum static pressure limits to maintain the critical zone VAV air damper in a position between 65% and 75% open.
 - If the supply fan fails to prove status for 30 seconds (adj.), the fan shall be commanded off, the outside air damper shall close, all heating shall be disabled, and an alarm shall annunciate at the BAS. A manual reset shall be required to restart the fan. A hardwired, high static pressure cut-off switch shall be electrically interlocked with the variable speed drive. If the high static pressure cut-off switch is tripped the fan shall be commanded off, the outside air damper shall close, cooling shall be disabled, and an alarm shall annunciate at the BAS. A manual reset of the high static pressure cut-off switch shall be required to restart the fan.
 - Building Pressure Control (Relief Air):**
 - When the supply fan is running and the measured space static pressure is greater than the space static setpoint of 0.08 in. W.C. (adj.), the relief fan shall be enabled. When enabled, the relief fan shall modulate between minimum speed (default of 25%) and maximum speed (100%) to maintain the space static setpoint, but limited to not exceed the supply fan speed. When the space pressure falls below setpoint by 0.03 inches of W.C. and the relief fan speed is at or below minimum speed, the fan shall be disabled. Upon space static pressure sensor failure, the relief fan shall be enabled based on outdoor air damper position greater than relief fan Outdoor Air Damper Enable Setpoint BAS of 22% (adj.). The relief fan speed shall track the outdoor air damper position, but not to exceed the supply fan speed. If the relief fan fails to prove status for 30 seconds (adj.), the fan shall be commanded off and an alarm shall annunciate at the BAS.
 - Mixed Air Low Limit:**
 - The initial damper opening rate shall be limited to 25 per minute (adj.) until the damper has reached its minimum ventilation position. The outside air damper shall modulate to a position less than the minimum damper position if the mixed air temperature drops below 50.0 deg. F (adj.). If the mixed air temperature sensor fails an alarm shall annunciate at the BAS and the outside air damper shall return to the minimum position.
 - Freeze Protection:**
 - A hardwired, low limit temperature switch shall be electrically interlocked with the variable speed drive. If the low limit temperature switch is tripped 38.0 deg. F (adj.), the fan shall be commanded off and the outside air damper shall close. All valves shall be commanded open to 100% (adjust per climate). An alarm shall annunciate at the BAS and manual reset of the low limit temperature switch shall be required to restart the fan.
 - Condensate Overflow Monitoring:**
 - If the condensate level reaches the trip point, a condensate overflow diagnostic shall annunciate at the BAS. To prevent the condensate drain pan from overflowing and causing water damage to the building the fan shall be disabled and the chilled water valve shall close.
 - Filter Status:**
 - A differential pressure switch shall monitor the differential pressure across the filter(s) when the fan is running. If the switch closes during normal operation a dirty filter alarm shall annunciate at the BAS.
 - Smoke Detector Shutdown:**
 - The unit shall shut down in response to a signal from the smoke detector indicating the presence of smoke. The smoke detector shall be interlocked to the unit through the dry contacts of the smoke detector. A manual reset of the smoke detector shall be required to restart the unit.



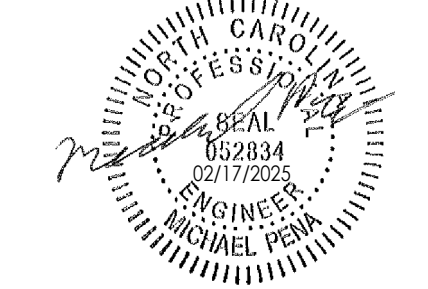
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Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hotcher St, Four Oaks, NC 27624

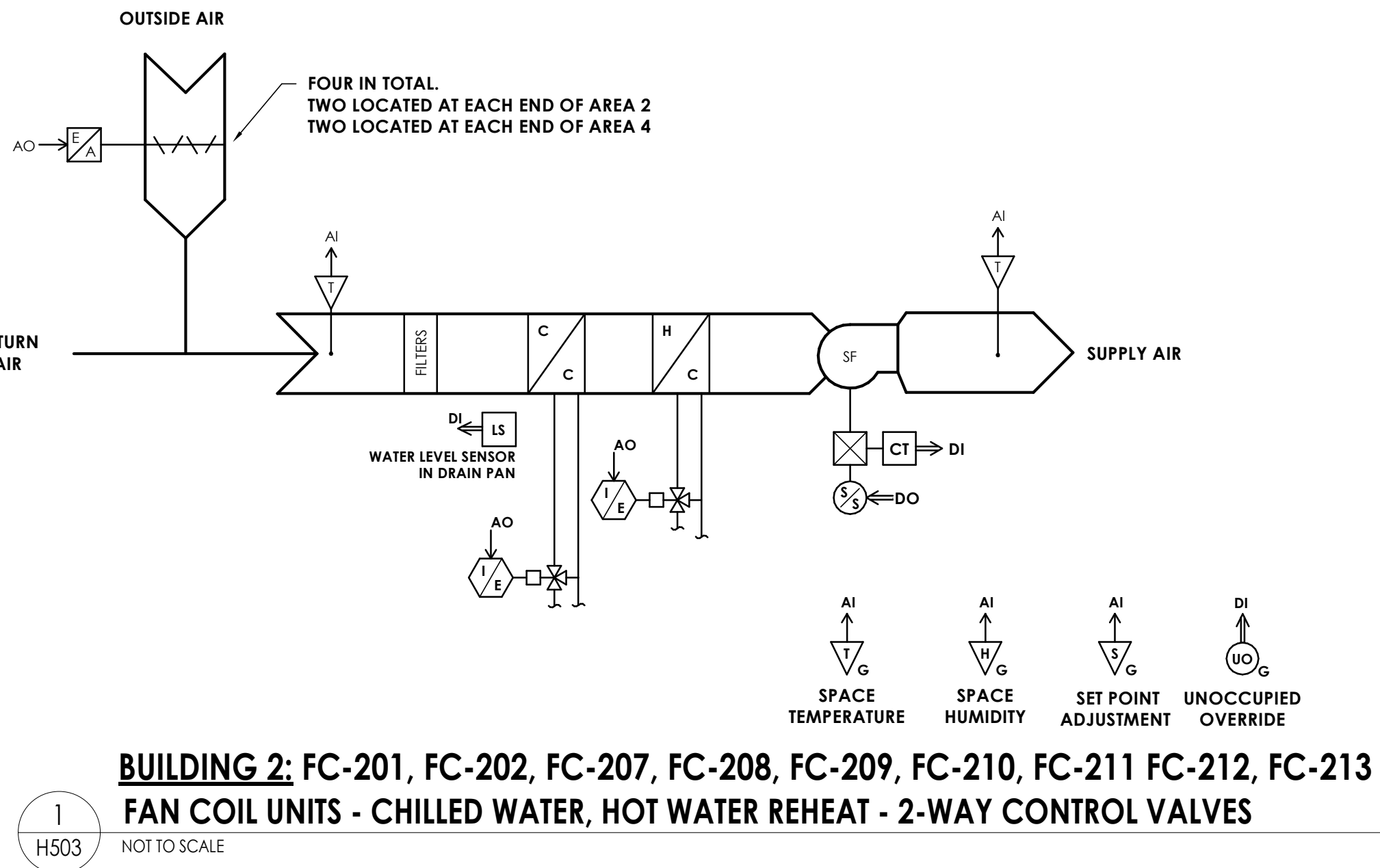
PROJECT ISSUE & REVISION SCHEDULE

Rev. Date Description

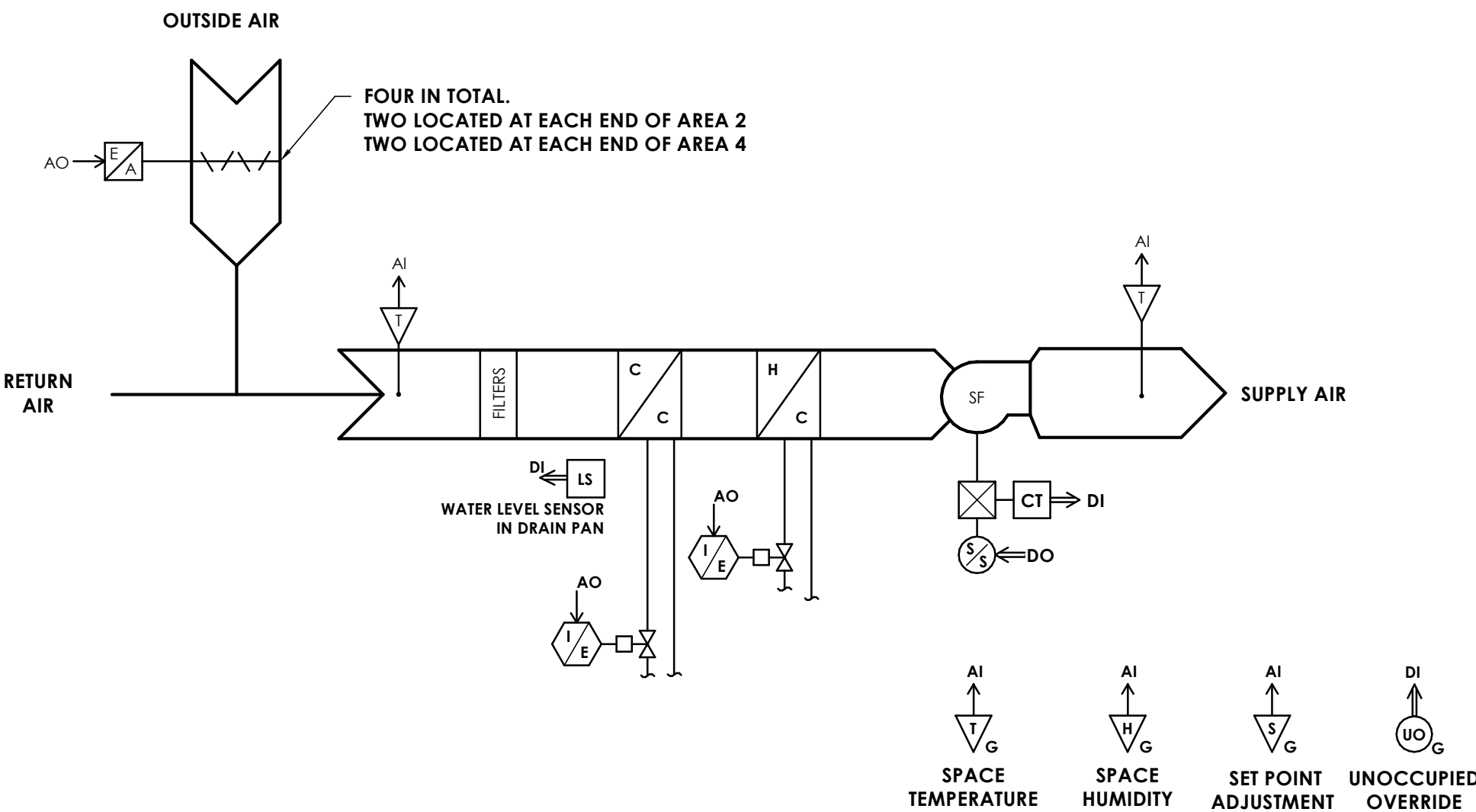
PROFESSIONAL STAMPS



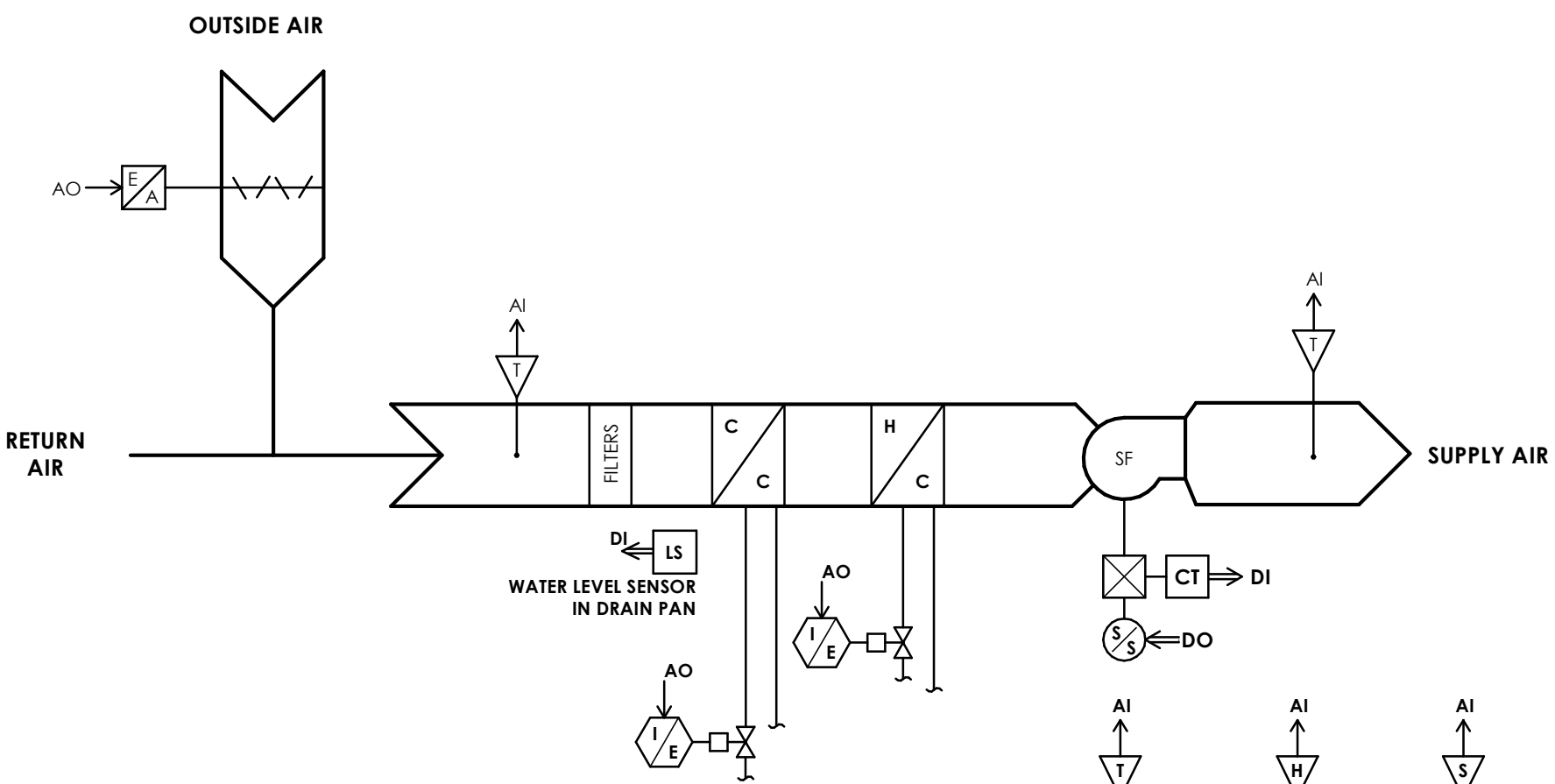
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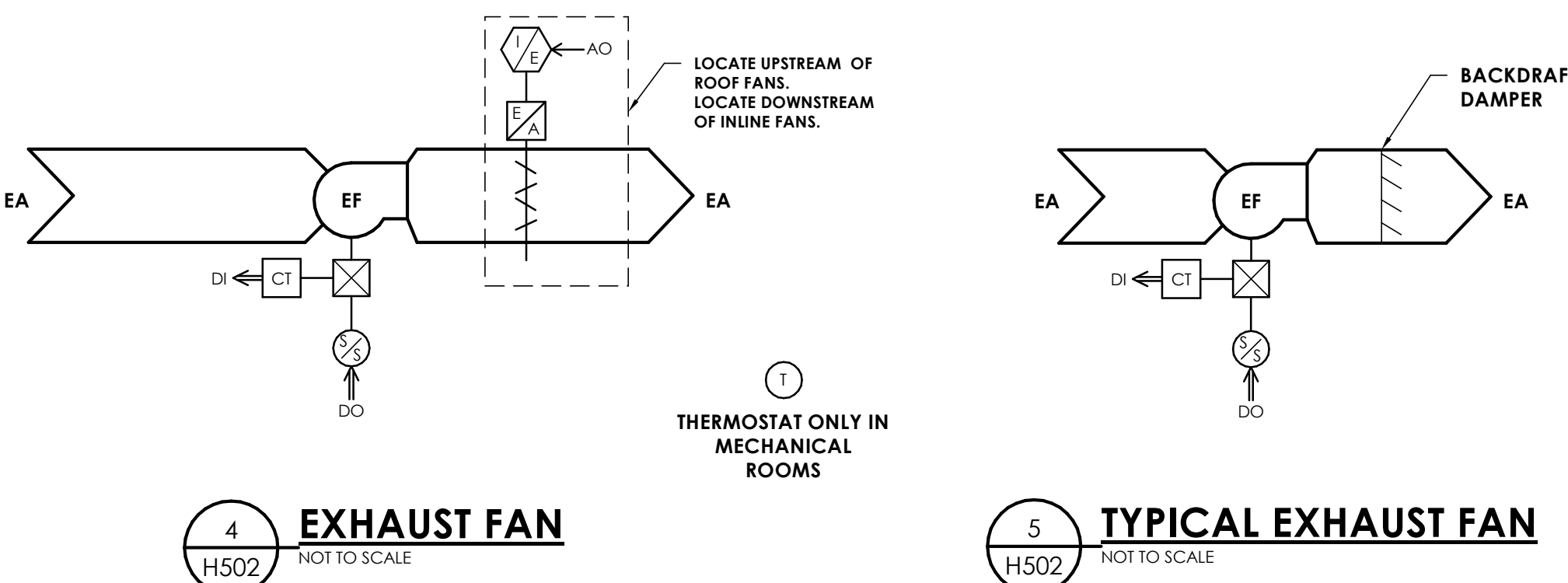
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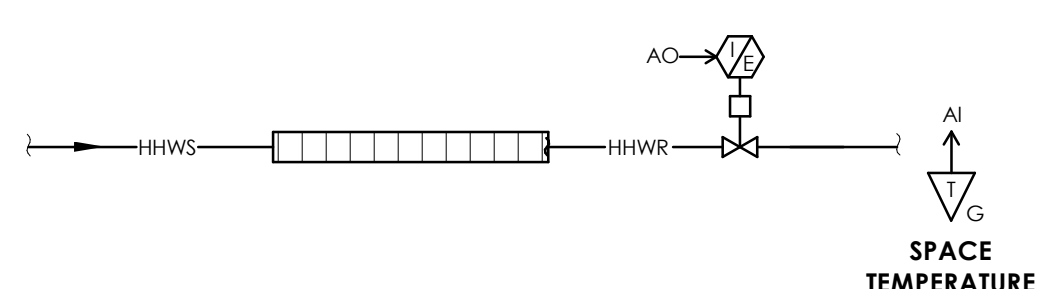


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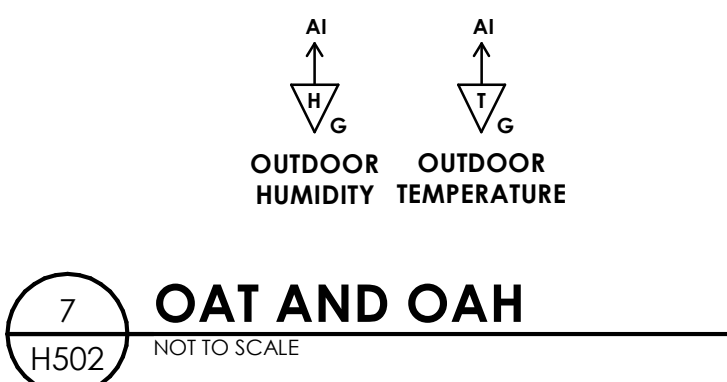


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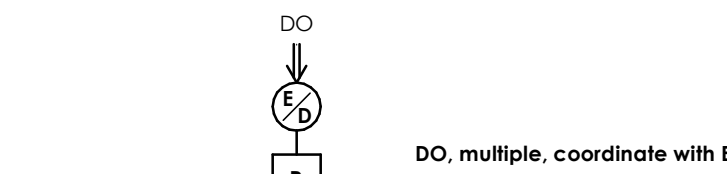
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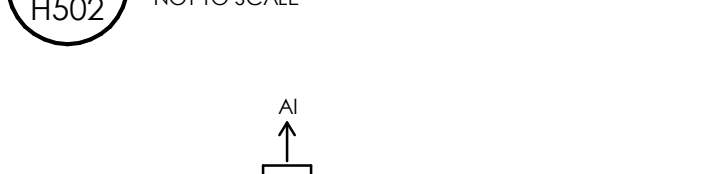
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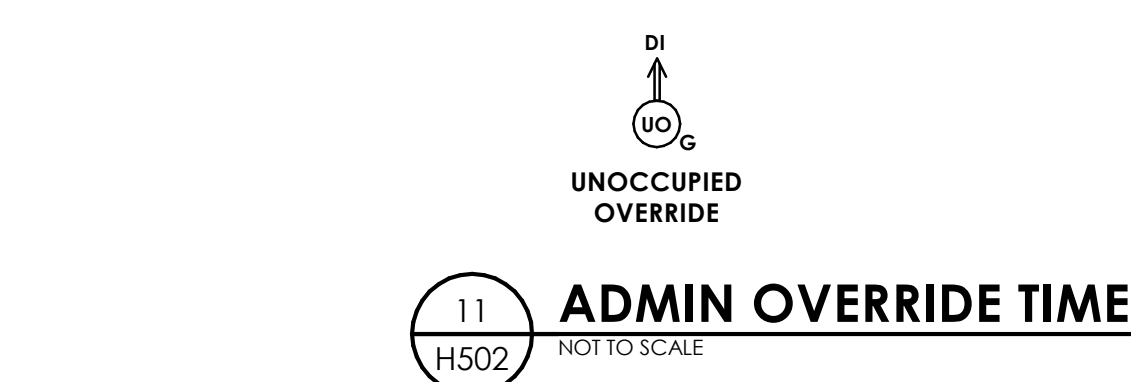
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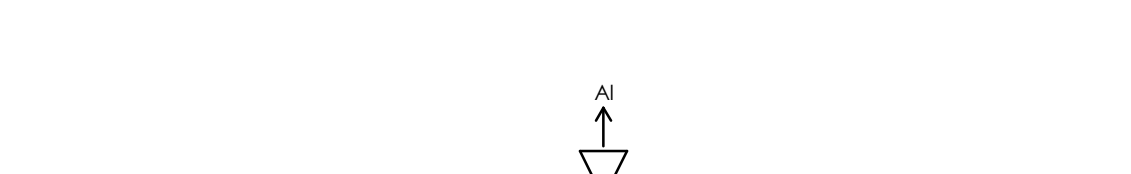
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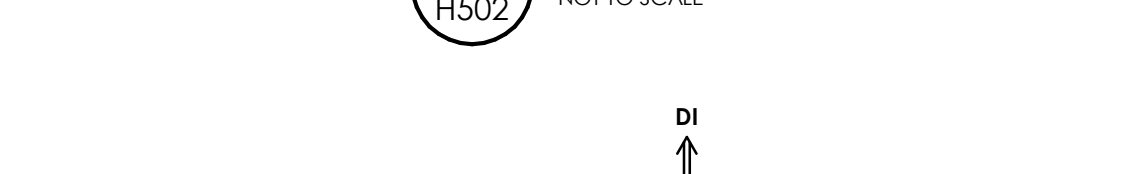
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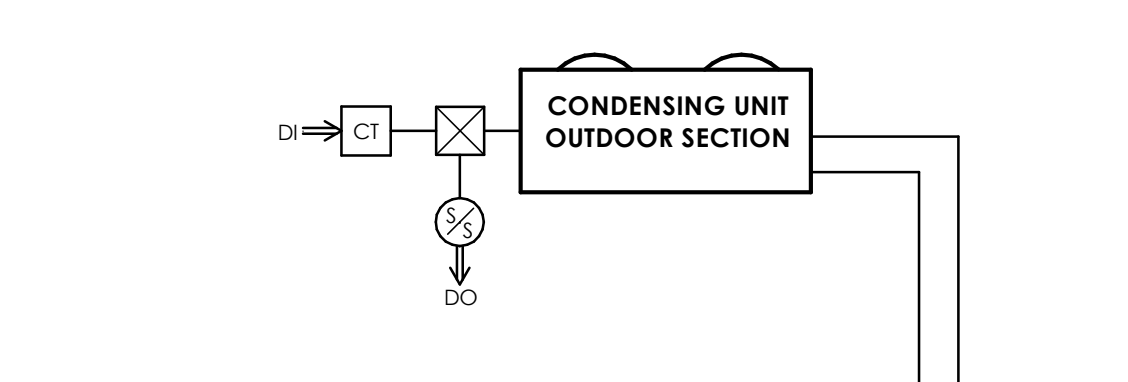
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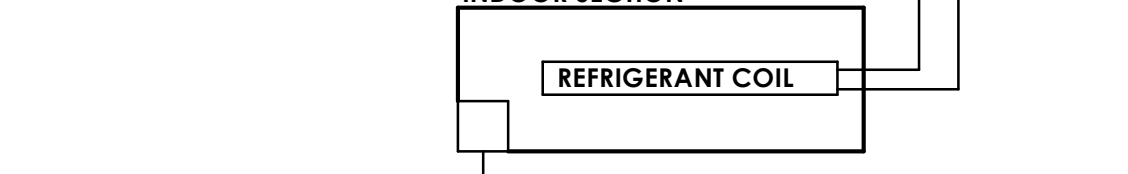
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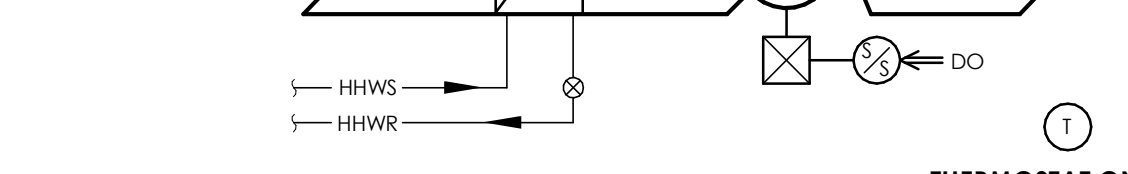
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H502
NOT TO SCALE



17
H502
NOT TO SCALE



18
H502
NOT TO SCALE

Sequence of Operation: FCU-128, FCU-139, FCU-300 through FCU-314, FC-201, FC-202, FC-207 through FC-213, FC-403, FC-404, FC-408, FC-409, FC-412, through FC-430, FC-500

1. Building Automation System Interface

a. The Building Automation System (BAS) shall send the Controller Occupied Bypass, Morning Warm-up/Pre-Cool, Occupied/Unoccupied and Heat/Cool modes. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.

2. Occupied/Stop

a. During occupied periods, the supply fan shall run continuously and the outdoor air damper shall open to maintain minimum ventilation requirements. The chilled water valve and the hot water valve shall control to maintain the active space temperature setpoint.

3. Unoccupied:

a. When the space temperature is below the unoccupied heating setpoint of 40.0 deg. F (adj.) the supply fan shall start, the outside air damper shall remain closed and the hot water valve shall open. When the space temperature rises above the unoccupied heating setpoint of 40.0 deg. F (adj.) plus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop and the hot water valve shall close. When the space temperature is above the unoccupied cooling setpoint of 85.0 deg. F (adj.) the supply fan shall start, the outside air damper shall remain closed and the chilled water valve shall open. When the space temperature falls below the unoccupied cooling setpoint of 85.0 deg. F (adj.) minus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop, the chilled water valve shall close and the outside air damper shall remain closed.

4. Optimal Start:

a. The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs.

5. Morning Warm-Up Mode

a. During optimal start, if the space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the unit shall enable the heating and supply fan. The outside air damper shall remain closed. When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode.

6. Pre-Cool Mode:

a. During optimal start, if the space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the unit shall enable the fan and cooling. The outside air damper shall remain closed. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode.

7. Optimal Stop:

a. The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint. Outside air damper shall remain enabled to provide minimum ventilation.

8. Occupied Bypass:

a. The BAS shall monitor the status of the ON and CANCEL buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoints (adj.).

9. Space Temperature Control:

a. Cascade zone control shall be used in the occupied, occupied bypass, and occupied standby modes. It maintains zone temperature by controlling the discharge air temperature to control the zone temperature while minimizing the fan speed. The space temperature shall be maintained between the occupied cooling setpoint of 74.0 deg. F (adj.) and the occupied heating setpoint of 71.0 deg. F (adj.). The unit shall transition to the cooling mode when the space temperature rises one degree above the occupied cooling setpoint of 74.0 deg. F (adj.). The unit shall transition to the heating mode when the space temperature drops one degree below the occupied heating setpoint of 71.0 deg. F (adj.).

10. Occupied Humidity Control:

a. If the space relative humidity is greater than the humidity setpoint, the chilled water valve shall modulate to maintain space relative humidity and the hot water valve shall modulate to maintain the space temperature cooling setpoint. Dehumidification mode shall terminate when the space relative humidity falls below the relative humidity setpoint minus the relative humidity offset. If the space relative humidity sensor fails the dehumidification sequence shall be terminated and an alarm shall annunciate at the BAS.

11. Supply Fan Operation:

a. The supply fan shall cycle on demand during the unoccupied mode. When the controller transitions to the occupied mode, the supply fan shall start and run continuously. The supply fan status shall be monitored by a differential pressure switch. If the supply fan fails the fan shall be commanded off and an alarm shall annunciate at the BAS. A manual reset shall be required to restart the fan.

12. Condensate Overflow Monitoring:

a. If the condensate level reaches the trip point, a condensate overflow diagnostic shall annunciate at the BAS. To prevent the condensate drain pan from overflowing and causing water damage to the building the fan shall be disabled and the chilled water valve shall close.

13. Freeze Protection:

a. A hardwired, low limit temperature switch shall be electrically interlocked with the safety circuit. If the low limit temperature switch is tripped 38.0 deg. F (adj.), the supply fan shall be commanded off, water valves shall open to 100%, outside air damper shall close, and an alarm shall annunciate at the BAS.

b. The controller shall automatically attempt to restart the unit after 30 minutes. If the unit restarts successfully with no low temperature condition, the diagnostic is cleared. If a second low temperature condition occurs within a 24 hour period the unit shall be locked out until manually reset.

0. General Exhaust Fans, Constant Volume, BAS Controlled

0.1. Operation

A. Safety Devices: Safeties shall be in operation at all times (Fan/VFD in auto, hand, override, etc). Provide safeties for specific exhaust fans as indicated.

1. Static Pressure Low Limit: When the low static pressure sensor exceeds -2.0 in wg, stop fan, Generate an alarm. Safety shall be hardwired and require manual reset.

2. Start/Stop

1. For exhaust fans interlocked with AHU operation: start/stop exhaust fan with associated air handling unit. See schedule for exhaust fans and their associated air handling unit.

2. For exhaust fans that run continuously: start exhaust fan and run continuously, regardless of occupancy or air handler status.

3. For exhaust fans controlled by temperature: provide a temperature sensor at location on floorplans. On a rise in space temperature, start the exhaust fan. On a fall in space temperature, stop the exhaust fan. Provide a minimum run time appropriate for the exhaust fan horsepower to prevent short cycling.

C. Determine fan status through a current sensor. If an exhaust fan fails to start as commanded or stops running when commanded, generate an alarm.

D. For exhaust fans with motorized backdraft dampers: provide logic, either hardwired or software, to ensure damper is open prior to starting the exhaust fan. If damper does not open, generate an alarm.

E. For exhaust fans with VFDs: VFD is for balancing only. Provide hardwired start/stop command and status to VFD. Determine fan status through a current sensor. Hardcode speed (as determined by TAB, non-adj) into VFD. Provide BAS network to VFD for points as described below or in schedule.

F. Where a temperature controlled exhaust fan serves a space with a heating source (unit heater, etc), use the same temperature sensor for both pieces of equipment, and provide deadband for setpoints to prevent simultaneous heating and cooling. Note: not applicable for factory or unit-mounted thermostats.

0.2. Graphical Interface

A. Provide a tabular graphical display for all Exhaust Fans, with the following points:

- Exhaust fan service and location (ex: wing A general, bathroom 203, etc)
- Exhaust fan status, on/off/alarm, speed command, speed feedback, fault and fault test
- Space temperature
- Associated AHU/equipment

1. General Exhaust Fans, Constant Volume, Line Voltage Thermostat

1.1. Operation

A. Reference floorplans for exhaust fans controlled by line voltage thermostat. Exhaust fans shall operate independently from the BAS. Low voltage (24VAC) thermostats are not allowed.

B. Provide a line voltage thermostat at location on floorplans. On a fall in space temperature, start the exhaust fan. On a fall in space temperature, stop the exhaust fan.

C. For exhaust fans with motorized backdraft dampers: provide hardwired logic to ensure damper is open prior to starting the exhaust fan.

D. Where an exhaust fan serves a space with a heating source (unit heater, etc), use a dual-setpoint line voltage thermostat or two separate thermostats mounted at the same location. Clearly label heating and cooling thermostat to prevent confusion. Where possible, set thermostat setpoint and steps to prevent possibility of simultaneous heating and cooling. Note: not applicable for factory or unit-mounted thermostats.

1.2. Graphical Interface

A. Where line voltage exhaust fans are used in conjunction with BAS controlled exhaust fans, include line voltage thermostat exhaust fans on the tabular graphical display.

2. General Exhaust Fans, Constant Volume, BAS Monitoring Only

2.1. Operation

A. Fans shall be hardwired to run 24/7. BAS shall not start/stop exhaust fan.

B. Determine fan status through a current sensor. If an exhaust fan fails, generate alarm.

2.2. Graphical Interface

A. Provide a tabular graphical display for all Exhaust Fans, with the following points:

- Exhaust fan service (general, bathroom, specific rooms), etc)
- Exhaust fan location
- Exhaust fan status and alarm

4. Unit Heaters, Line Voltage Thermostat (Electric, HW or Steam)

4.1. Operation

A. Reference floorplans for unit heaters controlled by line voltage thermostat. Unit heaters shall operate independently from the BAS. Low voltage (24VAC) thermostats are not allowed.

B. Provide a line voltage thermostat at location on floorplans. On a fall in space temperature, start the unit heater. On a rise in space temperature, stop the unit heater.

C. Unit heater fan shall cycle with the unit; fan shall not run continuously.

D. For HW and steam unit heaters: provide line-size two position valve. Valve shall cycle open/closed with the unit. Use the same output to cycle the fan and open/close the valve.

E. Where a unit heater serves a space with a cooling source (exhaust fan, etc), use a dual-setpoint line voltage thermostat or two separate thermostats mounted at the same location. Clearly label heating and cooling thermostat to prevent confusion. Where possible, set thermostat setpoint and steps to prevent possibility of simultaneous heating and cooling. Note: not applicable for factory or unit-mounted thermostats.

3. Domestic Cold Water, BAS Monitoring Only

3.1. Operation

A. Provide flow meter on the main feed for domestic cold water (DCW) monitoring.

B. Accumulate DCW consumption (in gallons) and provide means to reset accumulation back to zero.

C. When the DCW demand exceeds 500 gpm (adj), generate an alarm.

D. Unoccupied Leak Detection: When the building is unoccupied and the DCW demand exceeds 5 gpm (adj), generate an alarm. Alarm shall be the "Emergency" alarm class and dispatched according.

3.2. Trends

A. Provide the following trends for DCW monitoring, in addition to the standard requirements:

- Timestamp for each occurrence where DCW demand exceeds threshold
- Timestamp for each occurrence of Unoccupied Leak Detection

3.3. Graphical Interface

A. Provide a graphical display for DCW monitoring, with the following points:

- Current DCW demand (in gpm), alarm, and alarm threshold
- DCW usage since last reset (in gallons), reset button, and time of last reset

4. Common Outside Air Damper

4.1. Operation

A. Safety Devices: Safeties shall be in operation at all times.

1. Freeze Protection

a. If any equipment served by the common OA damper shuts down on freeze protection, close common OA damper.

b. Fan coil units with common outdoor air ductwork do not have physical freeze protection devices. Programmed freeze protection will be implemented. When OA temperatures falls below 20°F (adj), close common OA damper and generate an alarm.

2. Fire Alarm Shutdown: When the fire alarm is active, return damper to off position. Generate an alarm. Safety shall be hardwired and require manual reset (reset through fire alarm system).

3. Minimum Ventilation Operation

a. When all equipment fans are not running, the common OA damper shall be closed.

b. When any equipment's fan is running, the common OA damper shall be indexed to the minimum outside air position, to be determined by TAB.

c. Note to TAB contractor: The position of common OA damper shall be determined to maintain the total design OA flow for all equipment (see AHU schedule). Close equipment OARS motorized and/or balance dampers prior to closing the common OA damper for balancing. Record position and provide to BAS Contractor for balance point in programming (non-adj). Do not use actuator end-stops for balancing.

4.2. Unoccupied and Preoccupancy Modes Operation

A. Damper shall be in off position. Minimum outside air shall not be introduced.

4.3. Graphical Interface

A. Provide a graphical display for the common OA damper on all graphics of associated equipment, with a schematic of the unit and the following points.

Damper position

5. Occupancy Override Time Switch

5.1. Operation

A. Provide a spring-wound timer switch (0-2 hr) in the principal's office. When active, the administrative zone for the school will go into occupied mode.

5.2. Graphical Interface

A. Provide a graphical display for the occupancy override timer switch, with the following points:

- Timer switch status

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JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

PROJECT INFORMATION

Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address: 180 W Hotcher St, Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

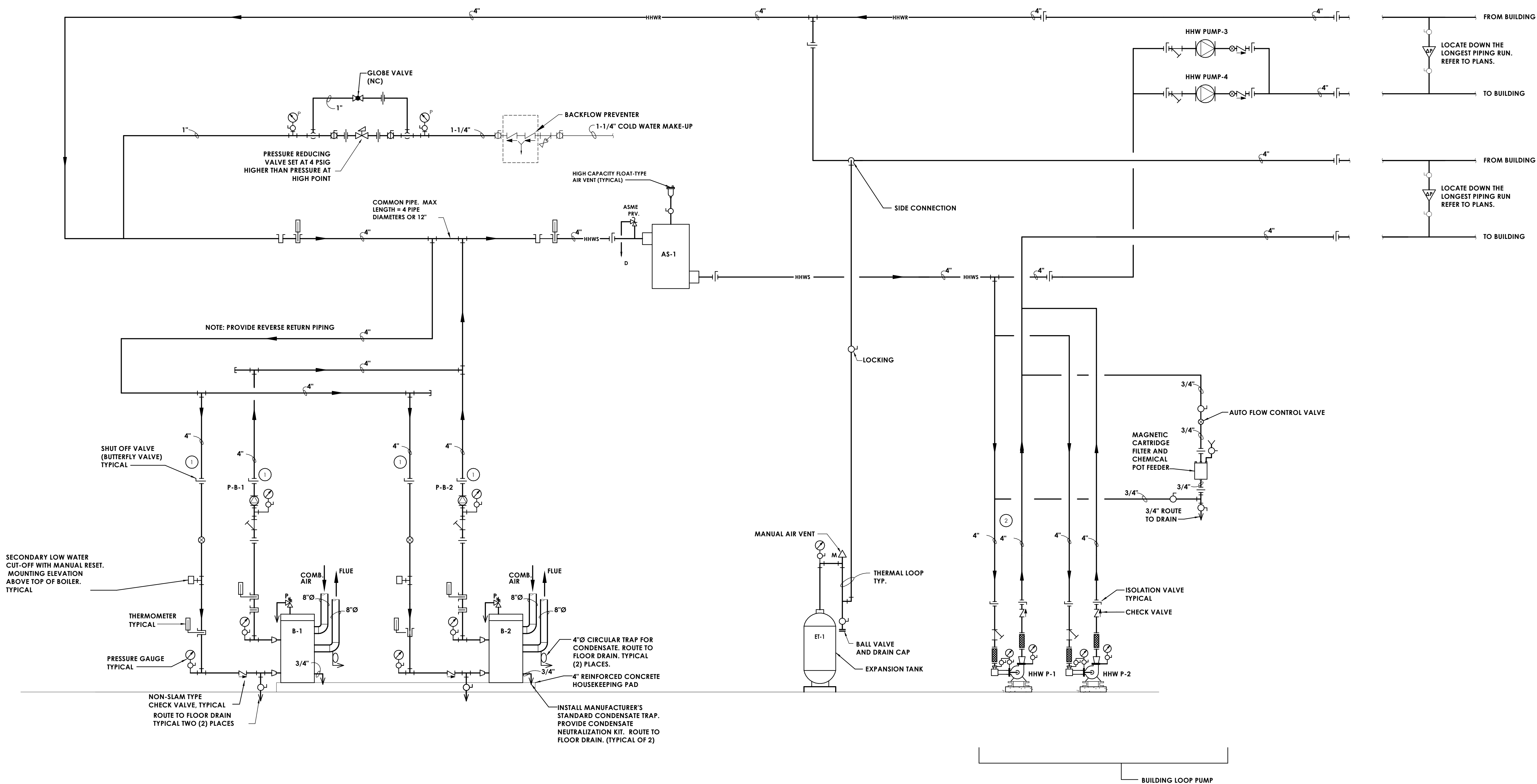
Rev	Date	Description
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PROFESSIONAL STAMPS

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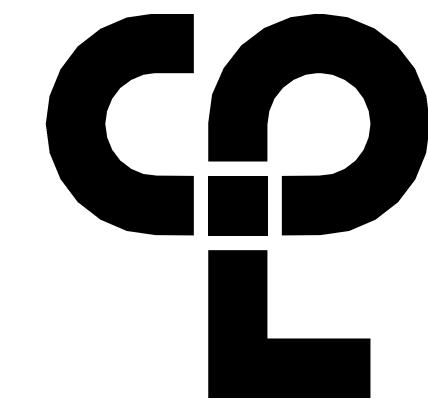
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Project Status: BID SET
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Checked By: RM
Drawing Number: FOES H503

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KEY NOTES:

1. INSTALL SHUT-OFF VALVE NO MORE THAN 6'-0" ABOVE BOILER ROOM FLOOR.
2. PROVIDE CHEMICAL POT FILTER FEEDER. COORDINATE INSTALLATION LOCATION IN FIELD.



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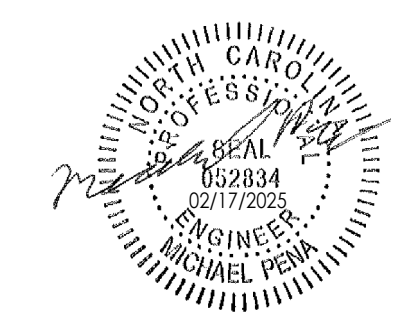
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Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**
Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev. Date Description

PROFESSIONAL STAMPS



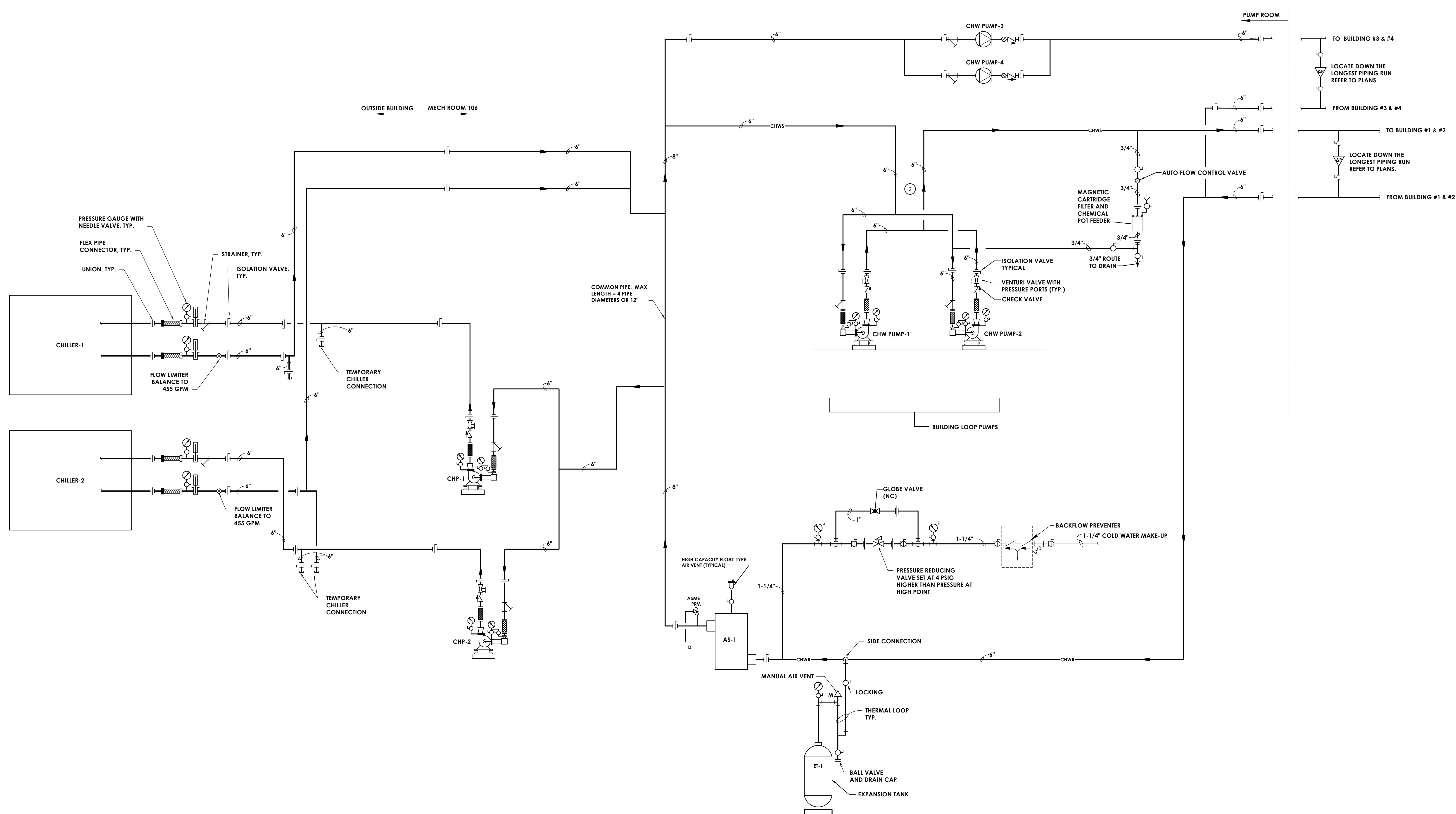
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02/17/2025
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Drawn By
KAB
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HVAC HEATING HOT WATER
PIPING SCHEMATIC

Drawing Number
**FOES
H600**

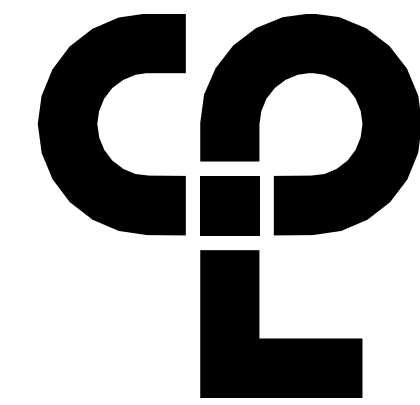
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KEY NOTES:

1. INSTALL SHUT-OFF VALVE NO MORE THAN 6'-0" ABOVE BOILER ROOM FLOOR.
2. PROVIDE CHEMICAL POT FILTER FEEDER. COORDINATE INSTALLATION LOCATION IN FIELD.



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PROJECT INFORMATION
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address:
180 W Hatcher St,
Four Oaks, NC 27524

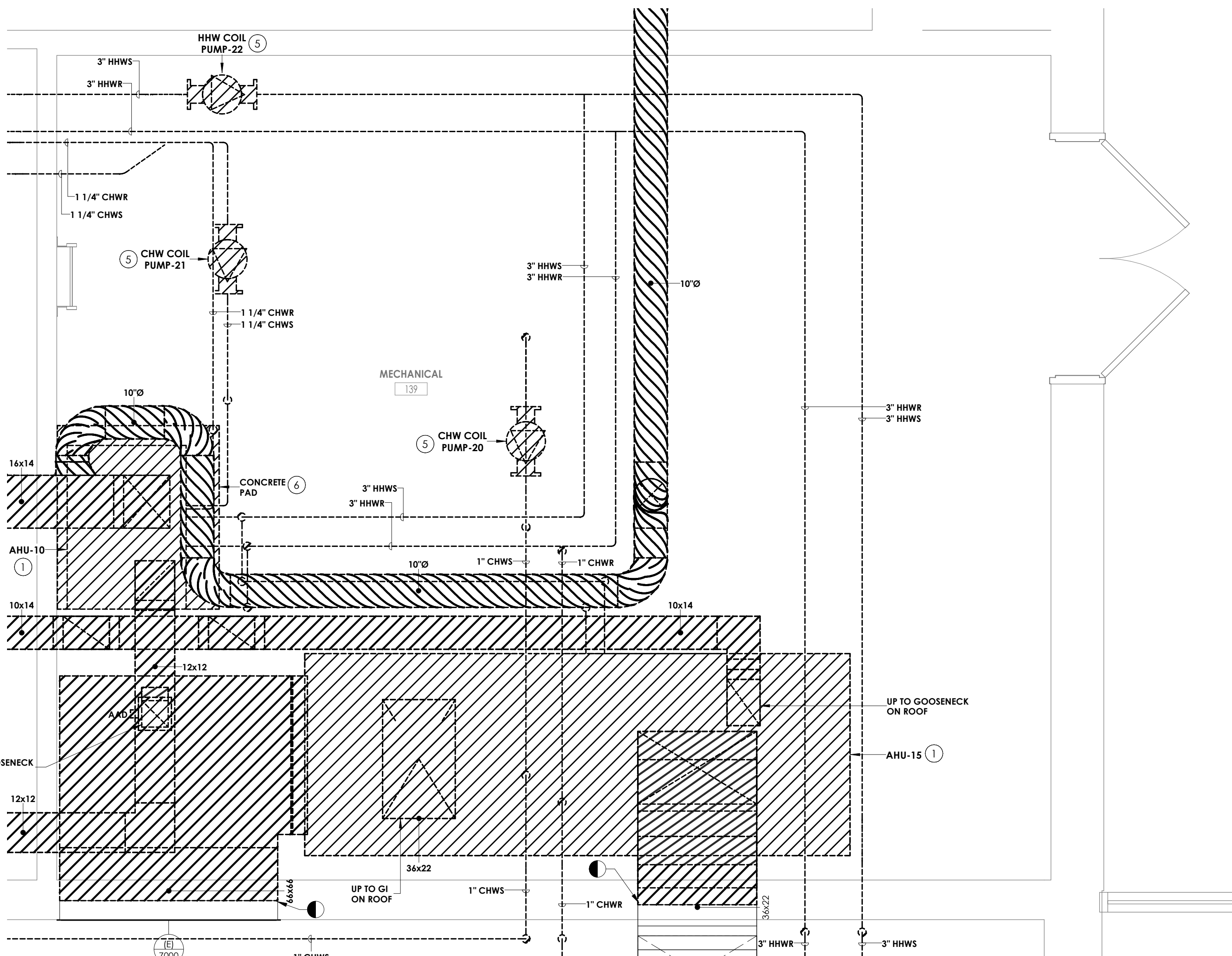
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Date Description

PROFESSIONAL STAMPS

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Project Status: BID SET
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Drawing Number:

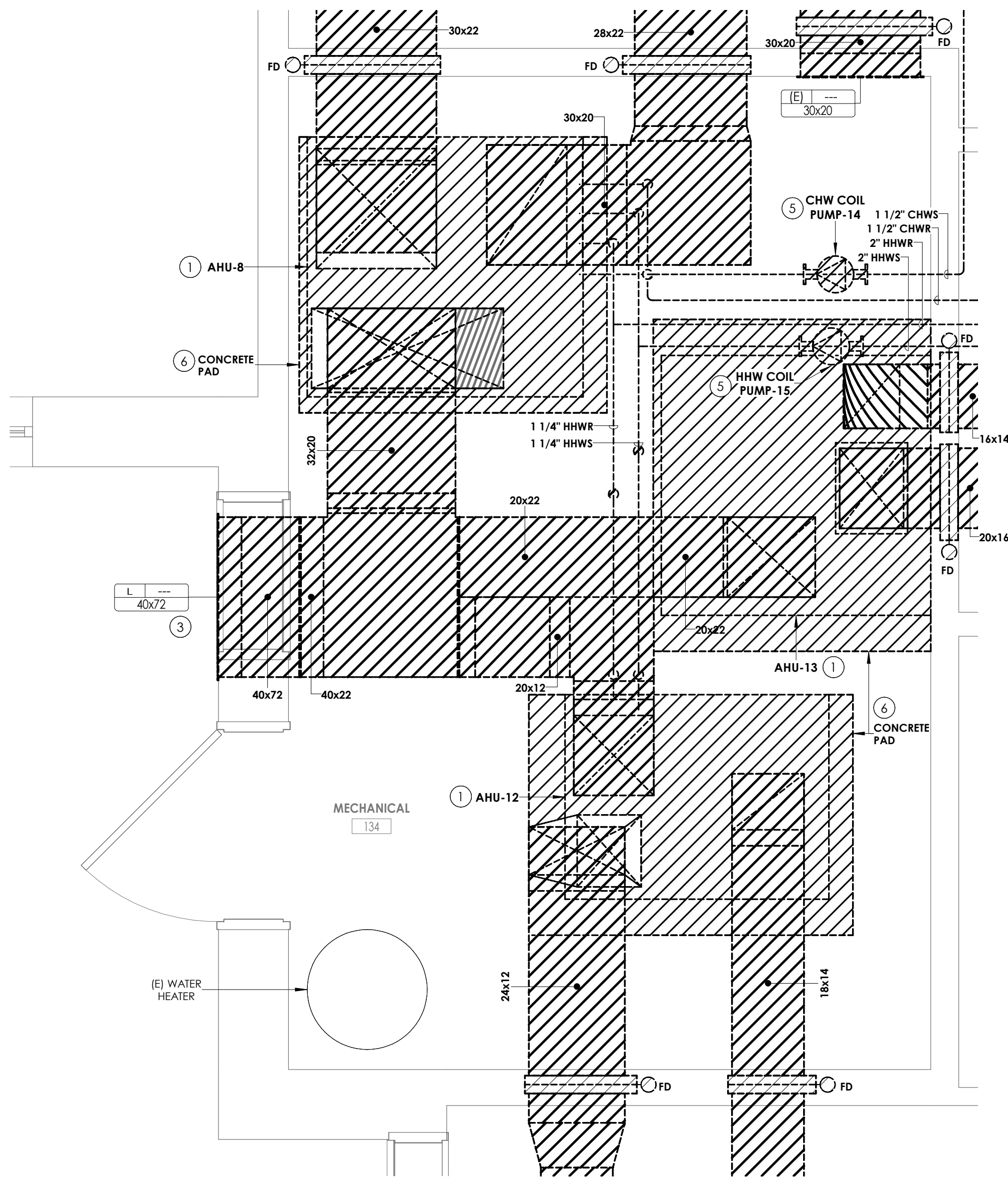
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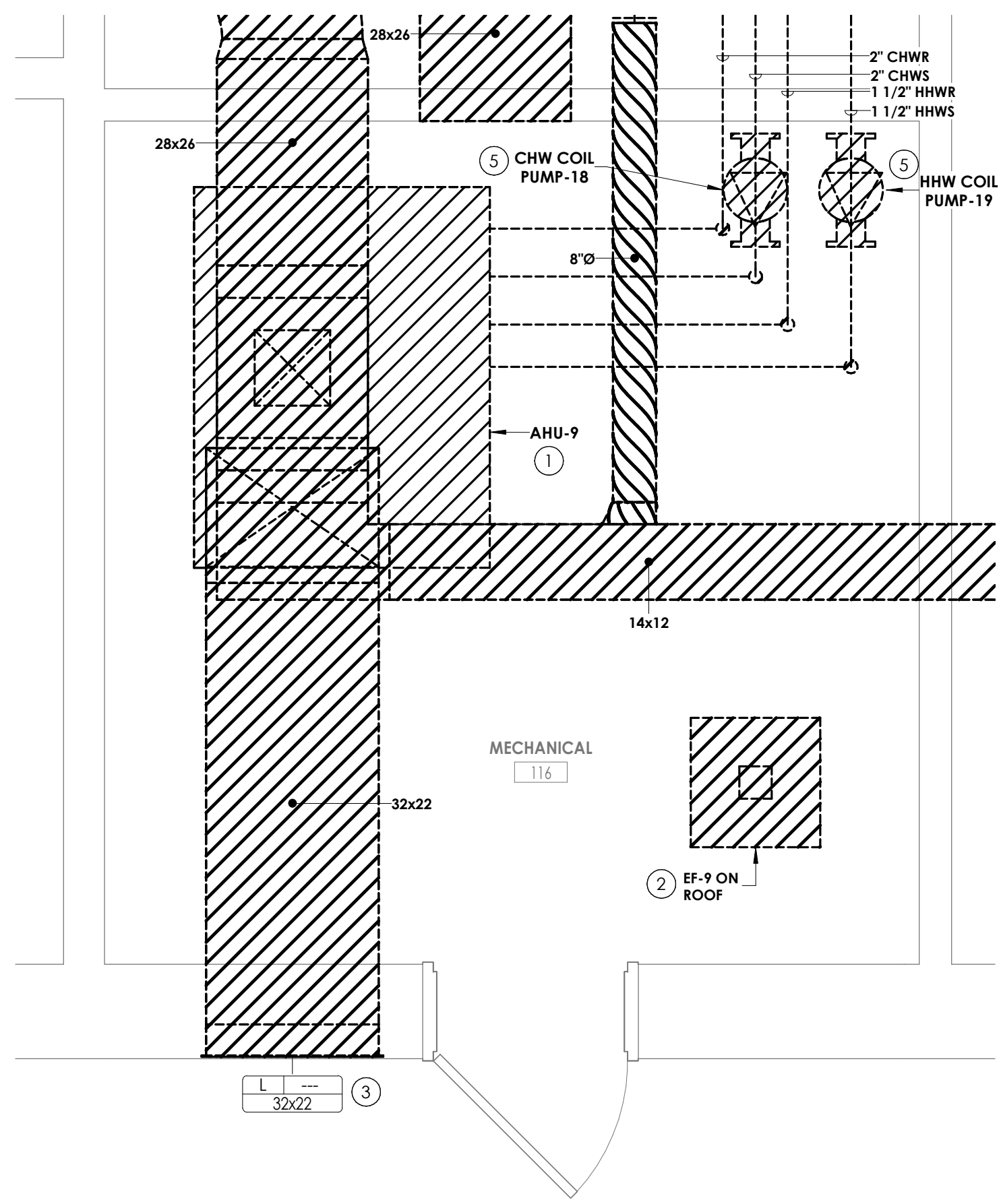
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1/2" = 1'-0"

ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1A (AHU-10, 15)



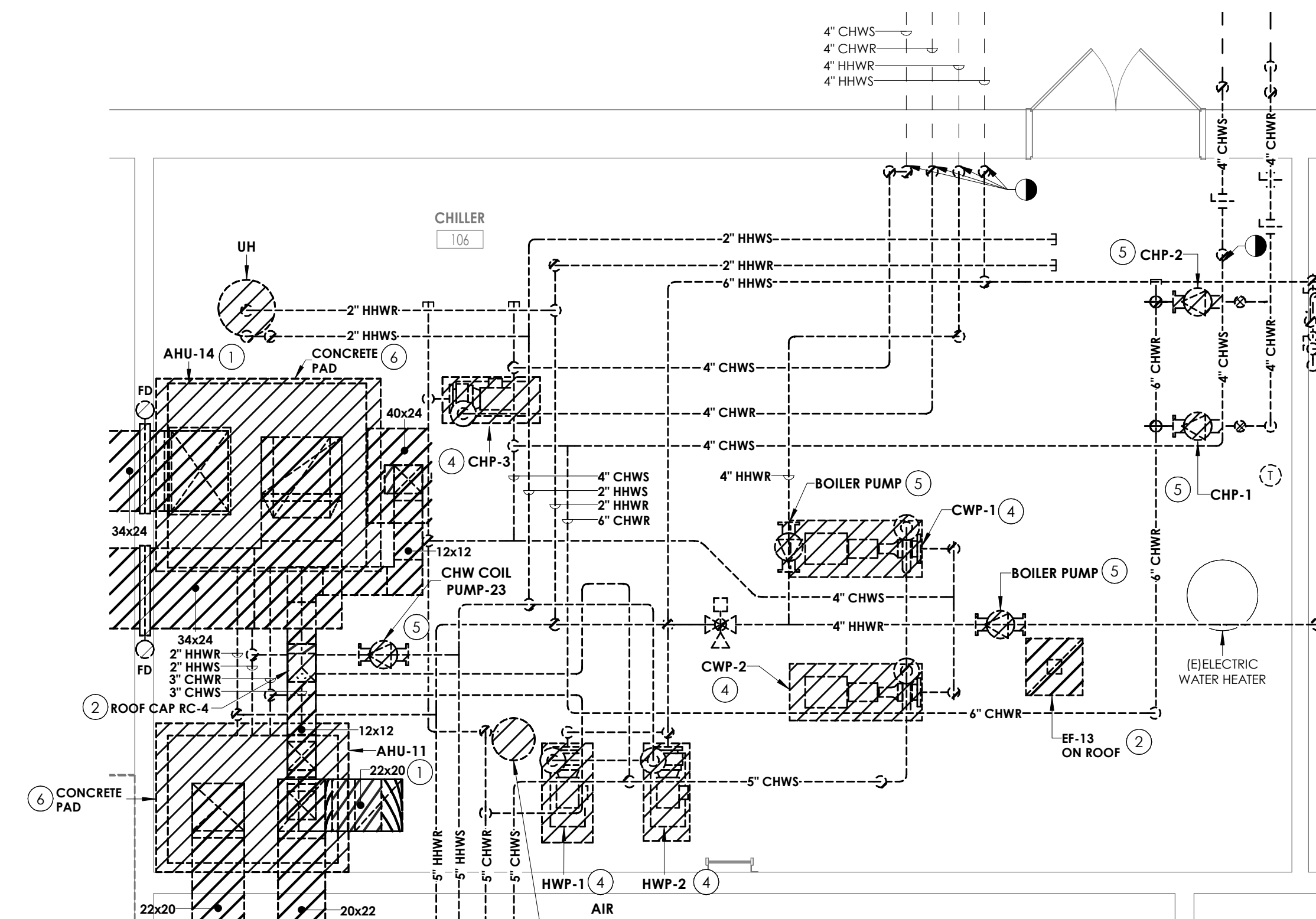
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1/2" = 1'-0"

ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1B (AHU-8, 12, 13)



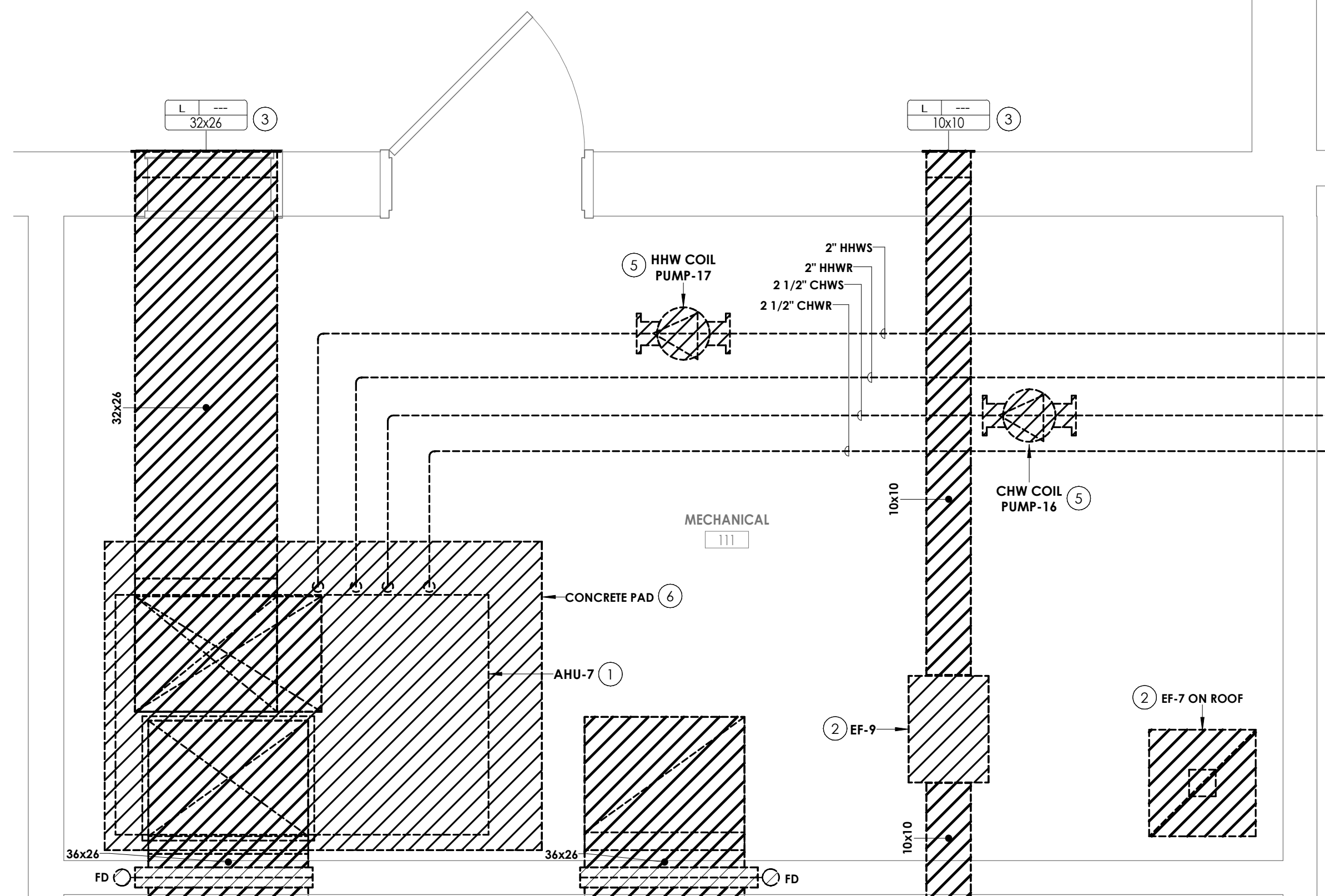
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1/2" = 1'-0"

ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1A (AHU-9)



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1/4" = 1'-0"

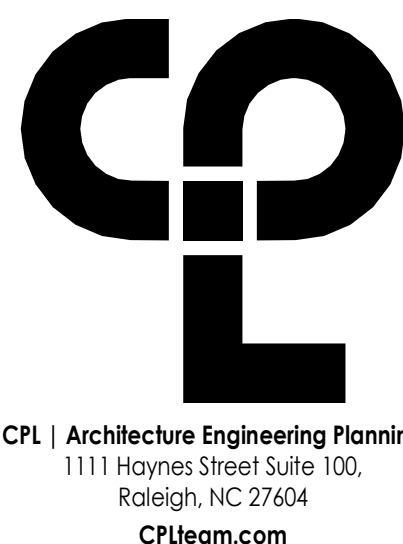
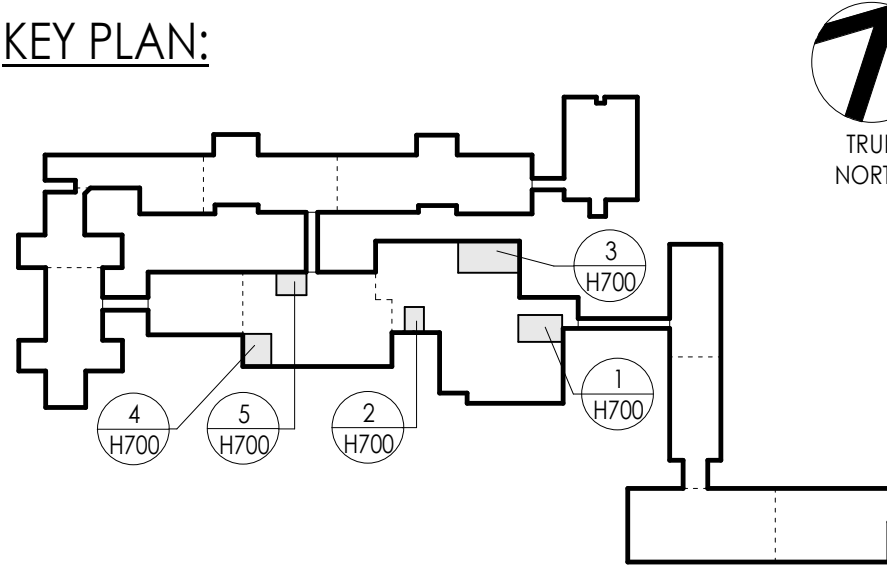
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5
H700
1/2" = 1'-0"

ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1B (AHU-7)

- KEY NOTES:**
- 1 REMOVE AIR HANDLING UNIT AND ALL ASSOCIATED DUCTWORK, PIPING AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
 - 2 REMOVE EXHAUST FAN AND ALL ASSOCIATED DUCTWORK AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
 - 3 REMOVE LOUVER AND PLENUM. PREPARE WALL OPENING FOR NEW WORK IN THIS AREA.
 - 4 REMOVE FLOOR MOUNTED PUMP AND ALL ASSOCIATED PIPING AS SHOWN. REMOVE EXISTING CONCRETE PADS DOWN TO FLOOR LEVEL AND PREPARE AREA FOR NEW WORK.
 - 5 REMOVE INLINE PUMP AND ALL ASSOCIATED PIPING AS SHOWN. PREPARE AREA FOR NEW WORK.
 - 6 REMOVE EXISTING CONCRETE HOUSEKEEPING PAD DOWN TO FLOOR LEVEL AND PREPARE FOR NEW CONCRETE PAD INSTALLATION.



PROJECT INFORMATION

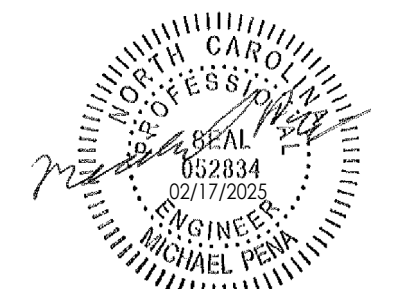
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hatcher St., Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
1		

PROFESSIONAL STAMPS



SHEET INFORMATION

Name: 02/17/2025
Project Status: BID SET
Drawn By: ACS
Checked By: RM
Drawing Title: ENLARGED MECHANICAL ROOM HVAC DEMOLITION PLAN - AREA 1A AND 1B
Drawing Number:

FOES
H700



- ① REMOVE AIR HANDLING UNIT AND ALL ASSOCIATED DUCTWORK, PIPING AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
- ② REMOVE EXHAUST FAN AND ALL ASSOCIATED DUCTWORK AND CONTROLS. PREPARE FOR NEW WORK IN THIS AREA.
- ③ REMOVE LOUVER AND PLENUM. PREPARE WALL OPENING FOR NEW WORK IN THIS AREA.
- ④ REMOVE INLINE PUMP AND ALL ASSOCIATED PIPING AS SHOWN. PREPARE AREA FOR NEW WORK.
- ⑤ REMOVE DUCTED HOT WATER COIL AND ALL ASSOCIATED PIPING AS SHOWN. PREPARE FOR NEW WORK IN THIS AREA. COORDINATE WITH OTHER TRADES.
- ⑥ REMOVE EXISTING CONCRETE FLOOR/KEEPING PAD DOWN TO FLOOR LEVEL AND PREPARE FOR NEW CONCRETE PAD INSTALLATION.

PROJECT INFORMATION

Project Number
R23.00325

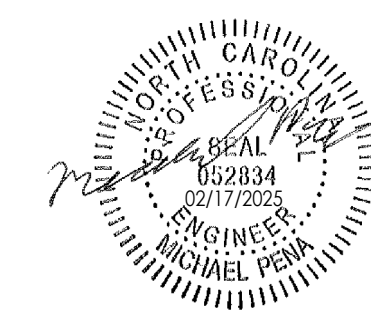
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

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PROFESSIONAL STAMPS

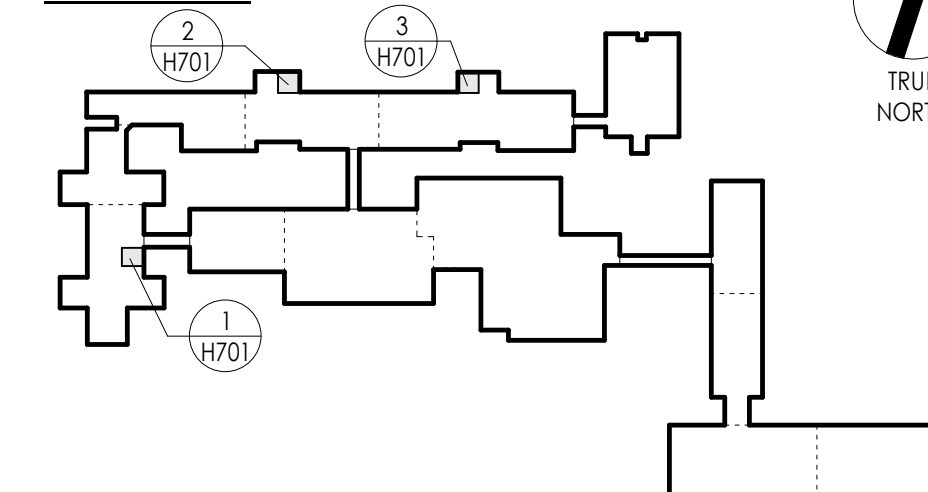


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Issued	Scale
02/17/2025	As indicated
Project Status	
BID SET	
Drawn By	Checked By
KAB	RM
Drawing Title	
ENLARGED MECHANICAL HVAC DEMOLITION PLAN 1D, 1G AND 1H	

Drawing Number

FOES
H701





Drawing Number

FOES
H702

1. INSTALL NEW AIR HANDLING UNIT. CONTRACTOR SHALL RECEIVE, STORE AND INSTALL AIR HANDLING UNIT ACCORDING TO CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE NEW CONCRETE EQUIPMENT PAD. REFER TO DETAILS AND SCHEMATICS. COORDINATE AND INTEGRATE WITH BMS CONTROLS. CONTRACTOR SHALL EXECUTE AND DOCUMENT MANUFACTURER'S SUGGESTED START UP AND TESTING. CONNECT DUCTWORK, PIPING AND CONTROLS AS SHOWN AND PREPARE FOR COMMISSIONING.
2. INSTALL NEW FAN COIL UNIT. CONTRACTOR SHALL RECEIVE, STORE AND INSTALL FAN COIL UNIT ACCORDING TO CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE NEW CONCRETE EQUIPMENT PAD. REFER TO DETAILS AND SCHEMATICS. COORDINATE AND INTEGRATE WITH BMS CONTROLS. CONTRACTOR SHALL EXECUTE AND DOCUMENT MANUFACTURER'S SUGGESTED START UP AND TESTING. CONNECT DUCTWORK, PIPING AND CONTROLS AS SHOWN AND PREPARE FOR COMMISSIONING.
3. PROVIDE ISOLATION VALVES INSIDE BUILDING TO ALLOW ISOLATION OF UNDERGROUND PIPING.
4. PROVIDE CLEARANCE FOR A/HU MAINTENANCE (DOOR SWINGS).
5. PROVIDE NEW PUMP AND CONNECT ALL ASSOCIATED PIPING AND CONTROLS AS SHOWN.
6. TWO INLINE PUMPS ARE LOCATED ABOVE ONE-ANOTHER. REFER TO SCHEMATICS.
7. OUTSIDE AIR DUCTWORK INSTALLATION SHALL ACCOMMODATE THE REQUIREMENTS OF THE AIRFLOW METERS PROVIDED. FLOW METER LOCATIONS ARE IDENTIFIED AS SUCH. FIELD COORDINATE FINAL LOCATION AND SIZE PRIOR TO DUCTWORK INSTALLATION.

PROJECT INFORMATION

Project Number
R23.00325

Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

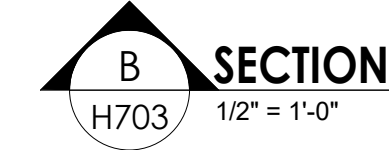
Project Name
**FOUR OAKS ELEMENTARY
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Project Address
180 W Hatcher St.
Four Oaks, NC 27524

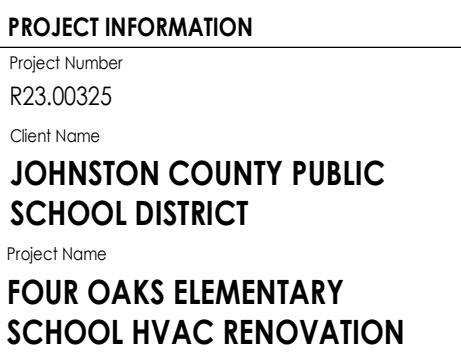
PROJECT ISSUE & REVISION SCHEDULE		
vv	Date	Description

PROFESSIONAL STAMPS

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02/17/2025	As indicated
Project Status	
BID SET	
Drawn By	Checked by
KAB	RM
Drawing Title	
ENLARGED MECHANICAL ROOM	
NEW WORK PLAN - AREA 1A	



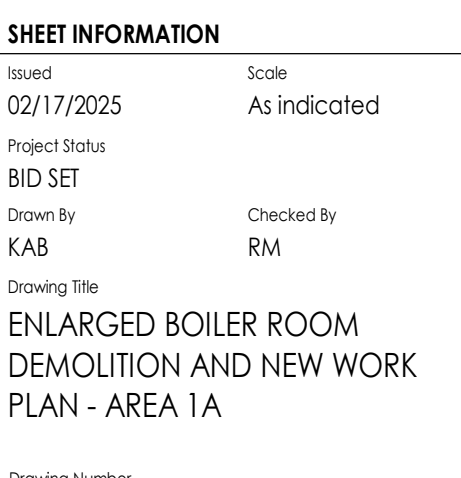
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 Raleigh, NC 27604
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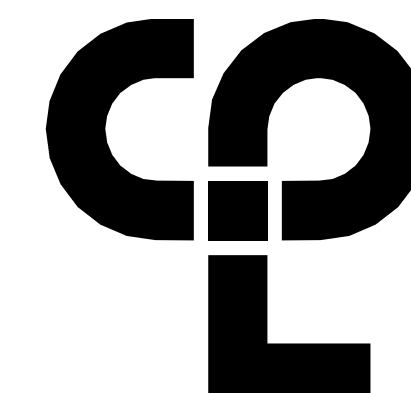
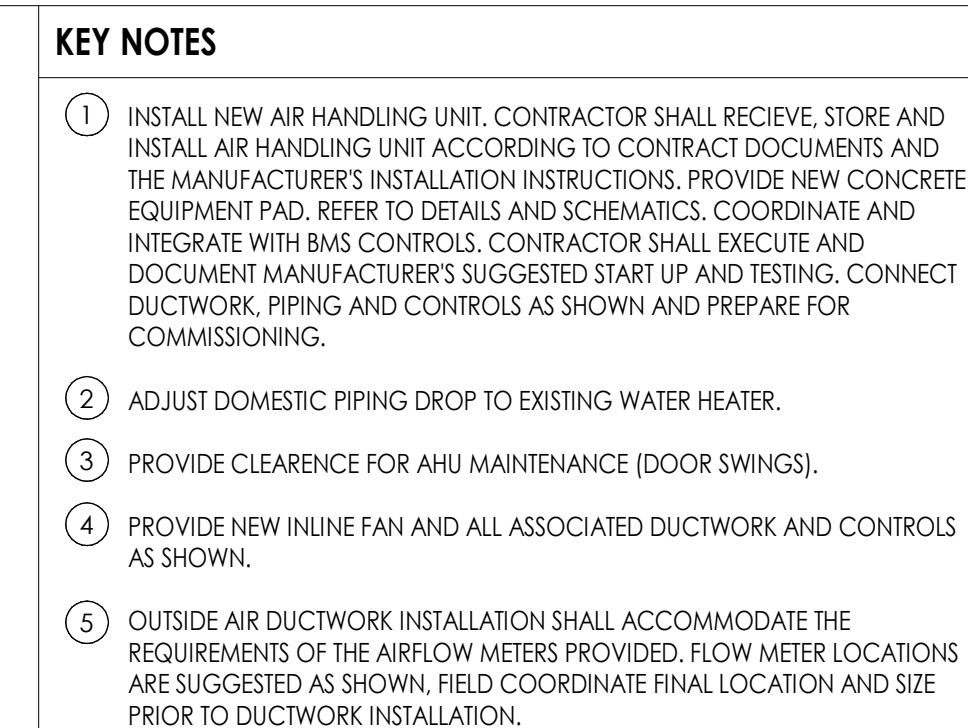
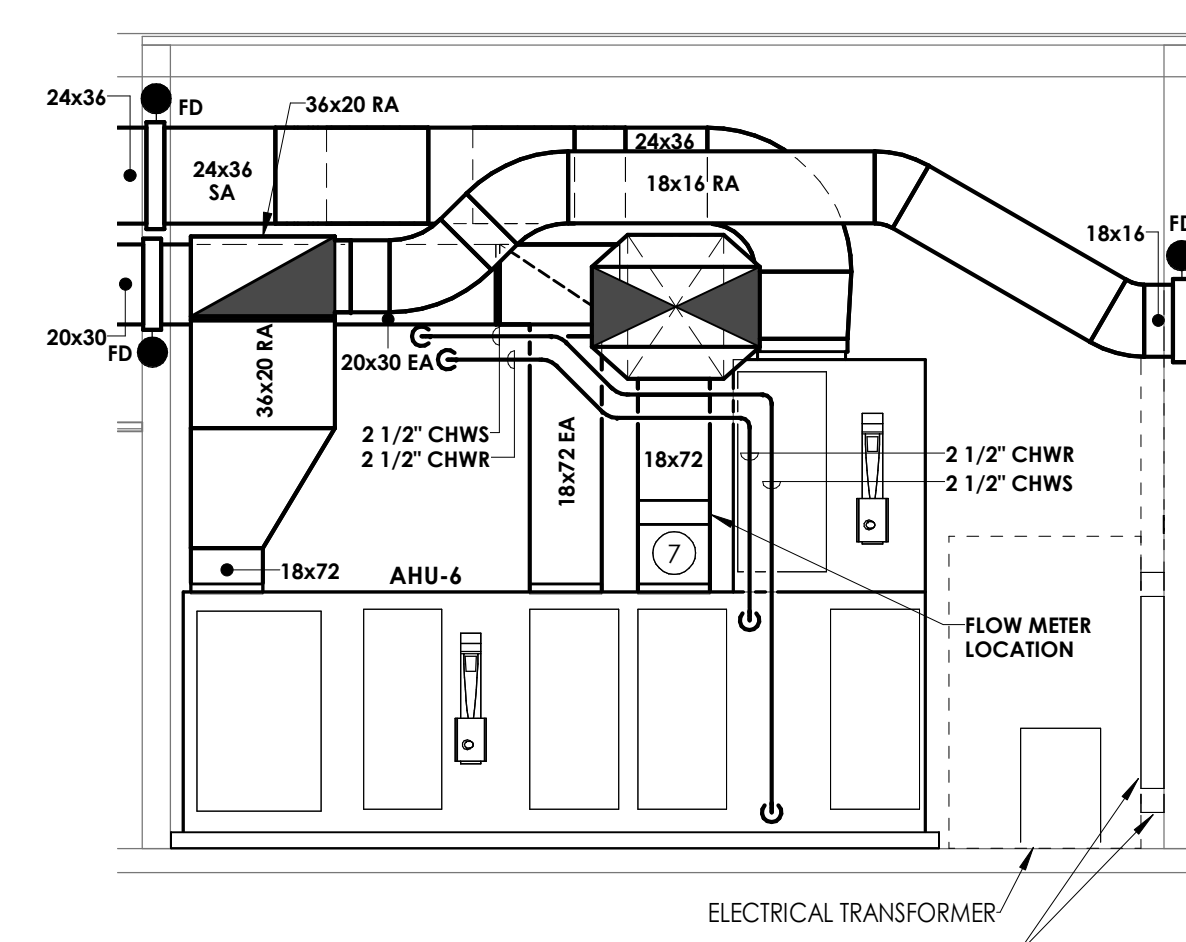
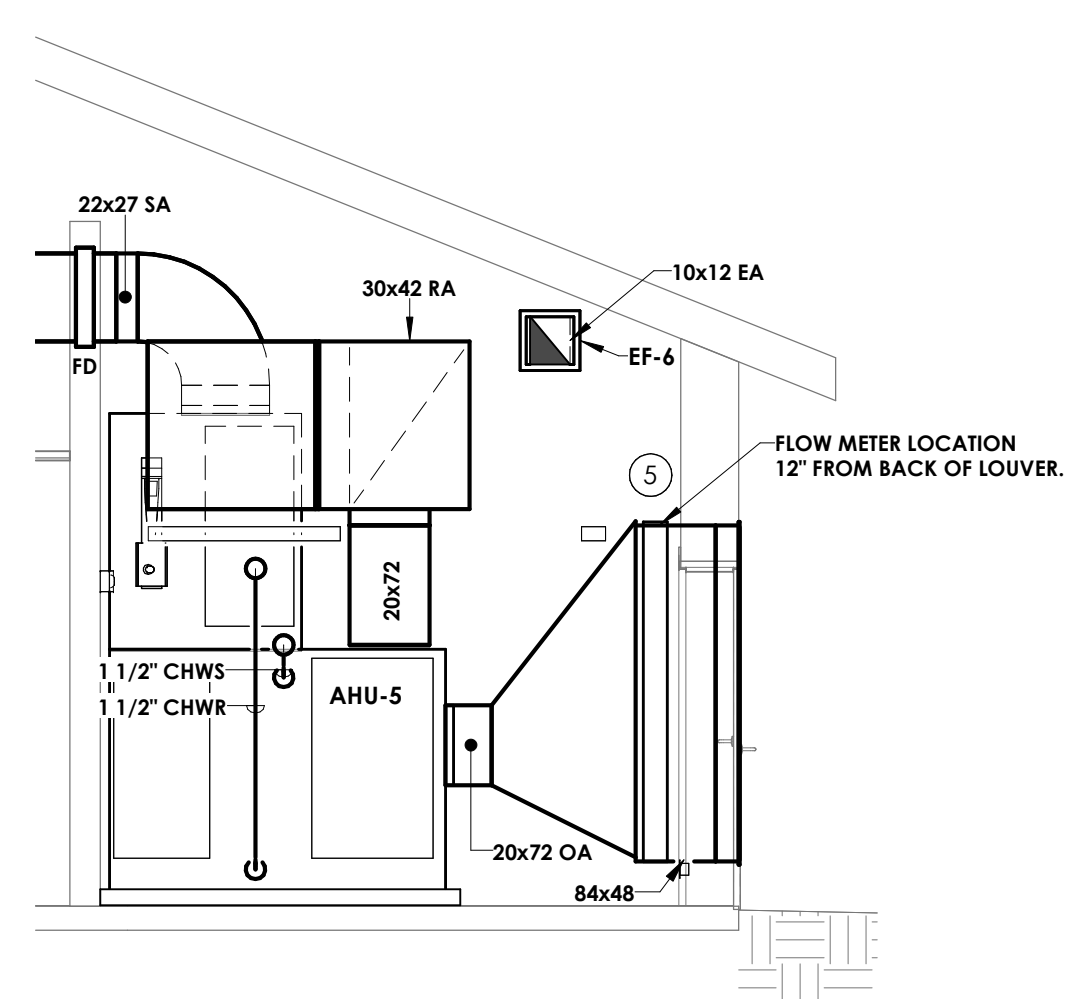
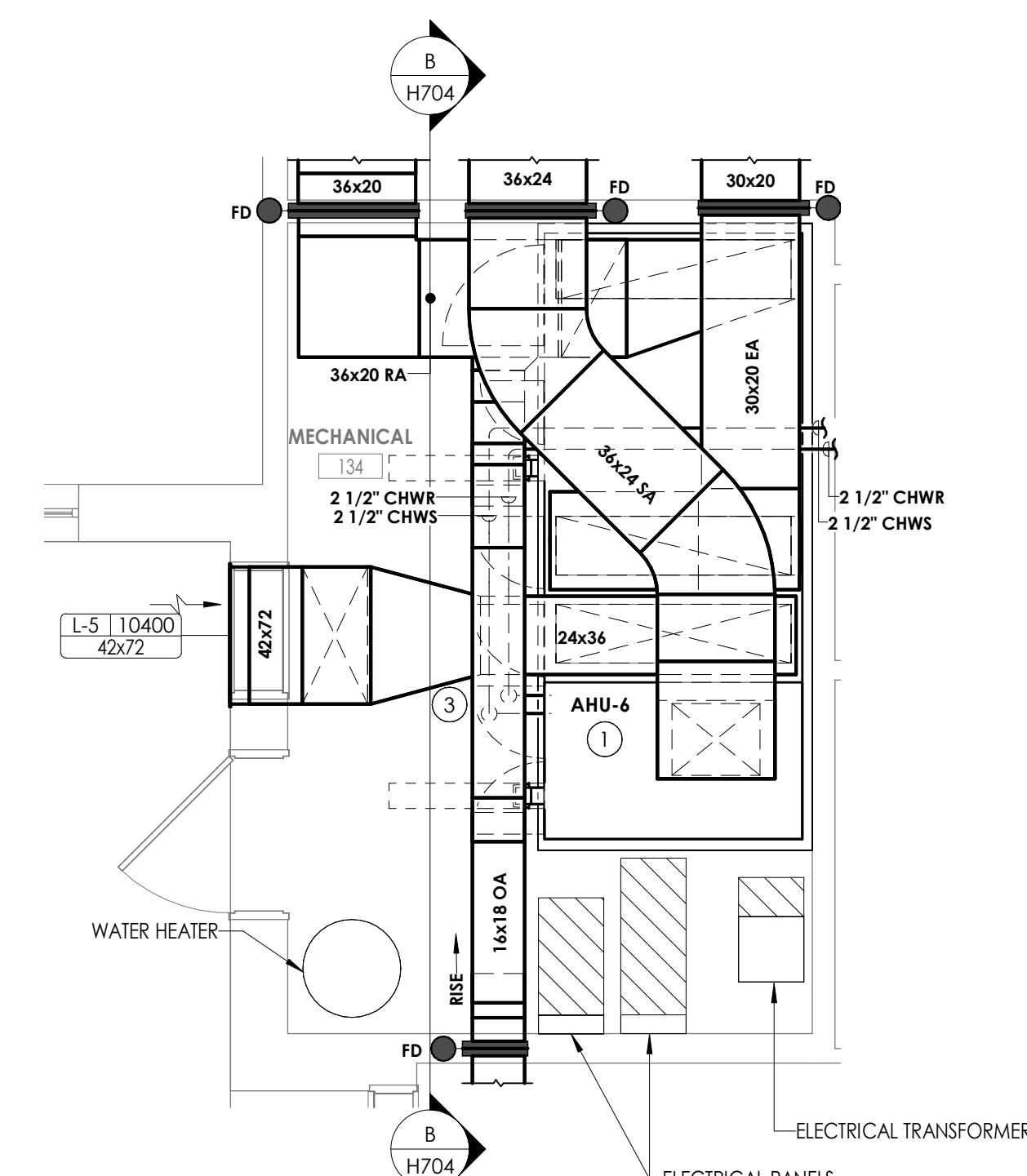
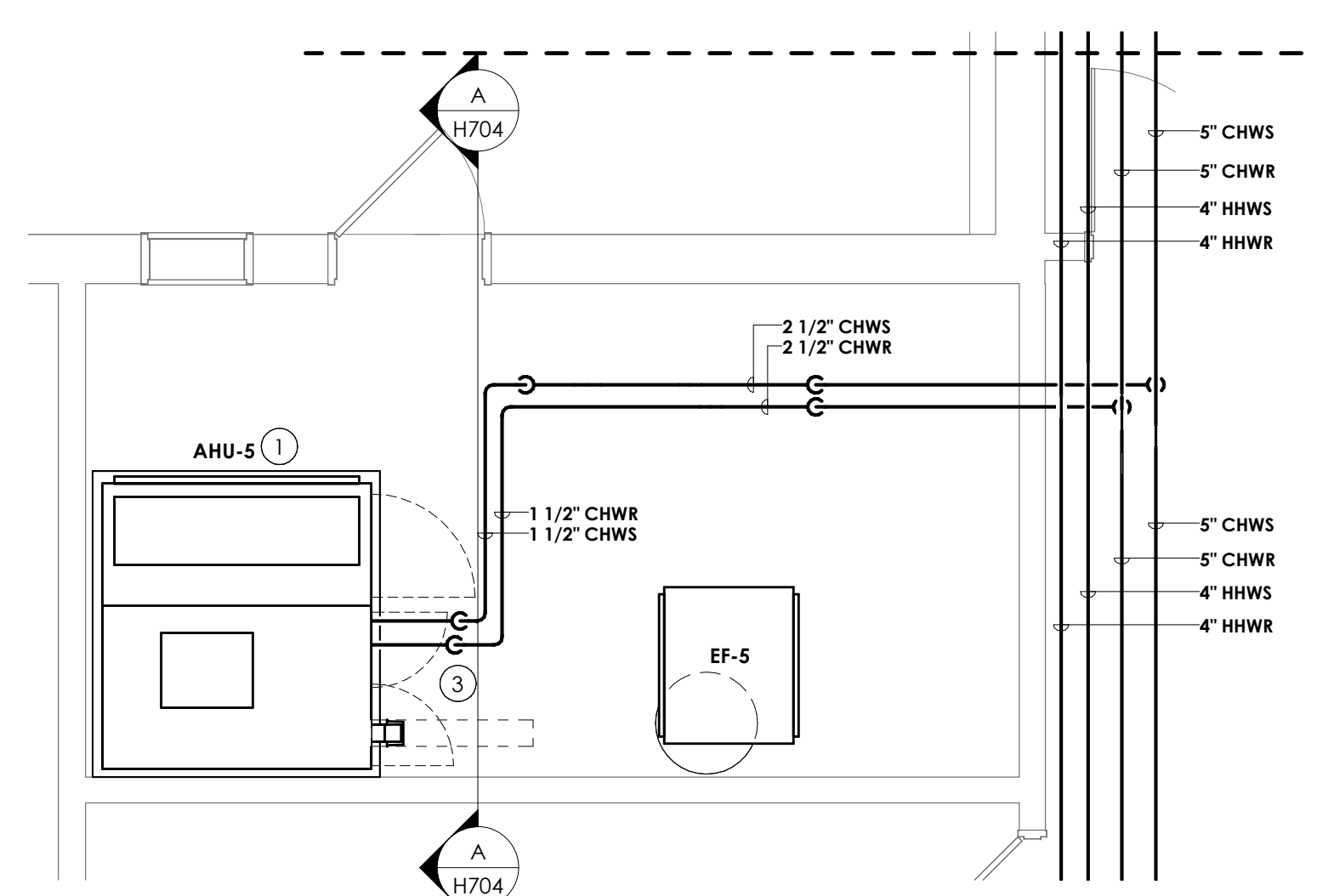
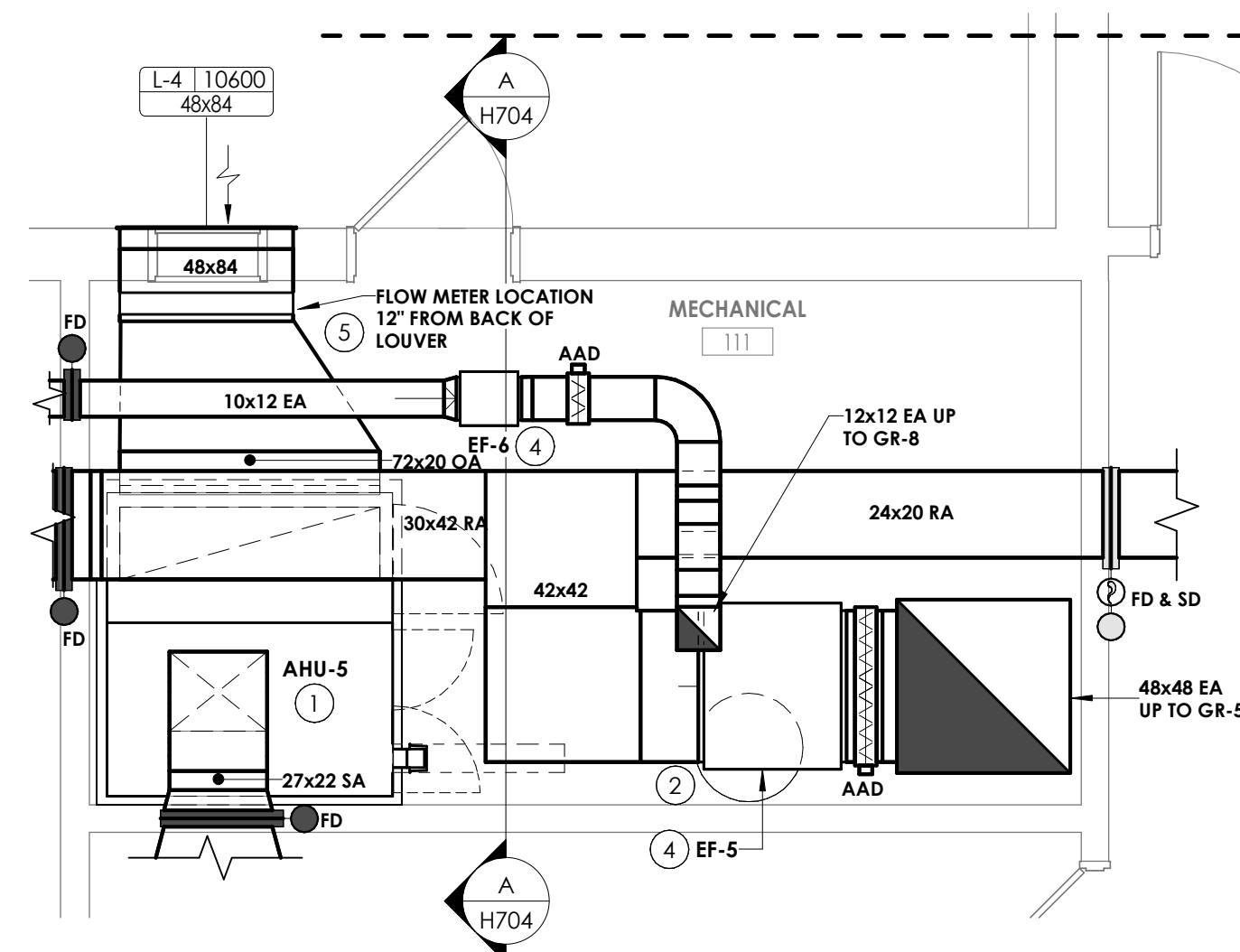
Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE		
vv	Date	Description

PROFESSIONAL STAMPS



FOES
H703



PROJECT INFORMATION

Project Number:

R23.00325

Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name

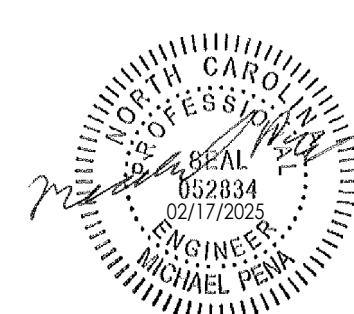
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

vv	Date	Description
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PROFESSIONAL STAMPS



SHEET INFORMATION

Issued	Scale
02/17/2025	As indicated

Project Status

BID SET

Drawn by
KAB

Drawing Title

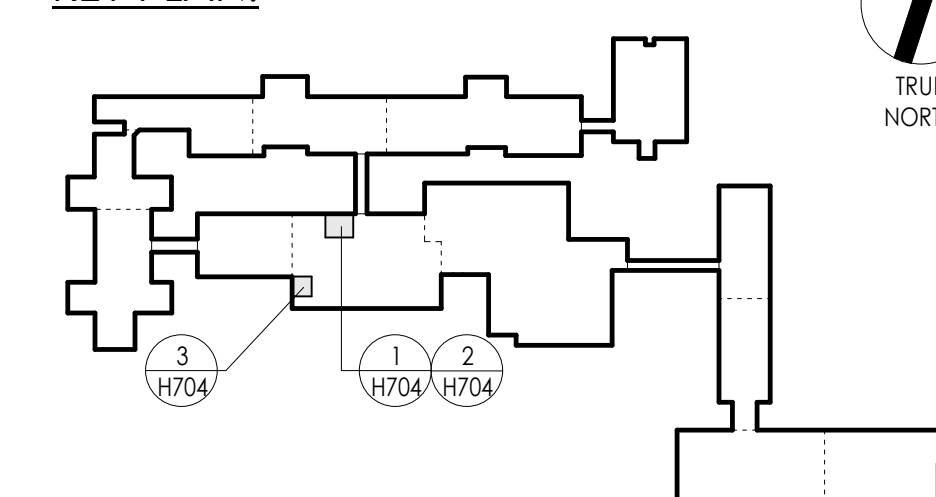
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NEW WORK PLAN - AREA 1B

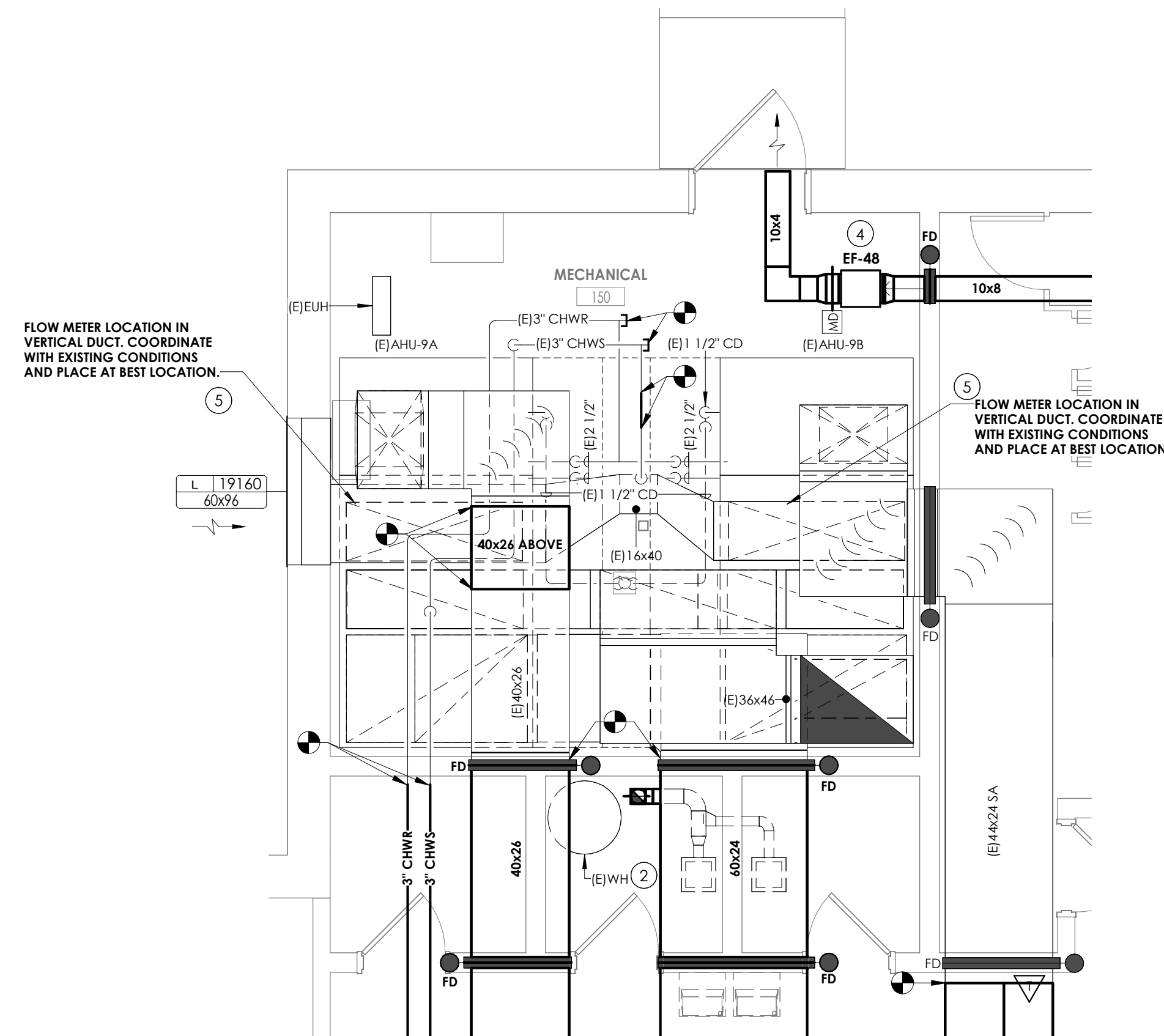
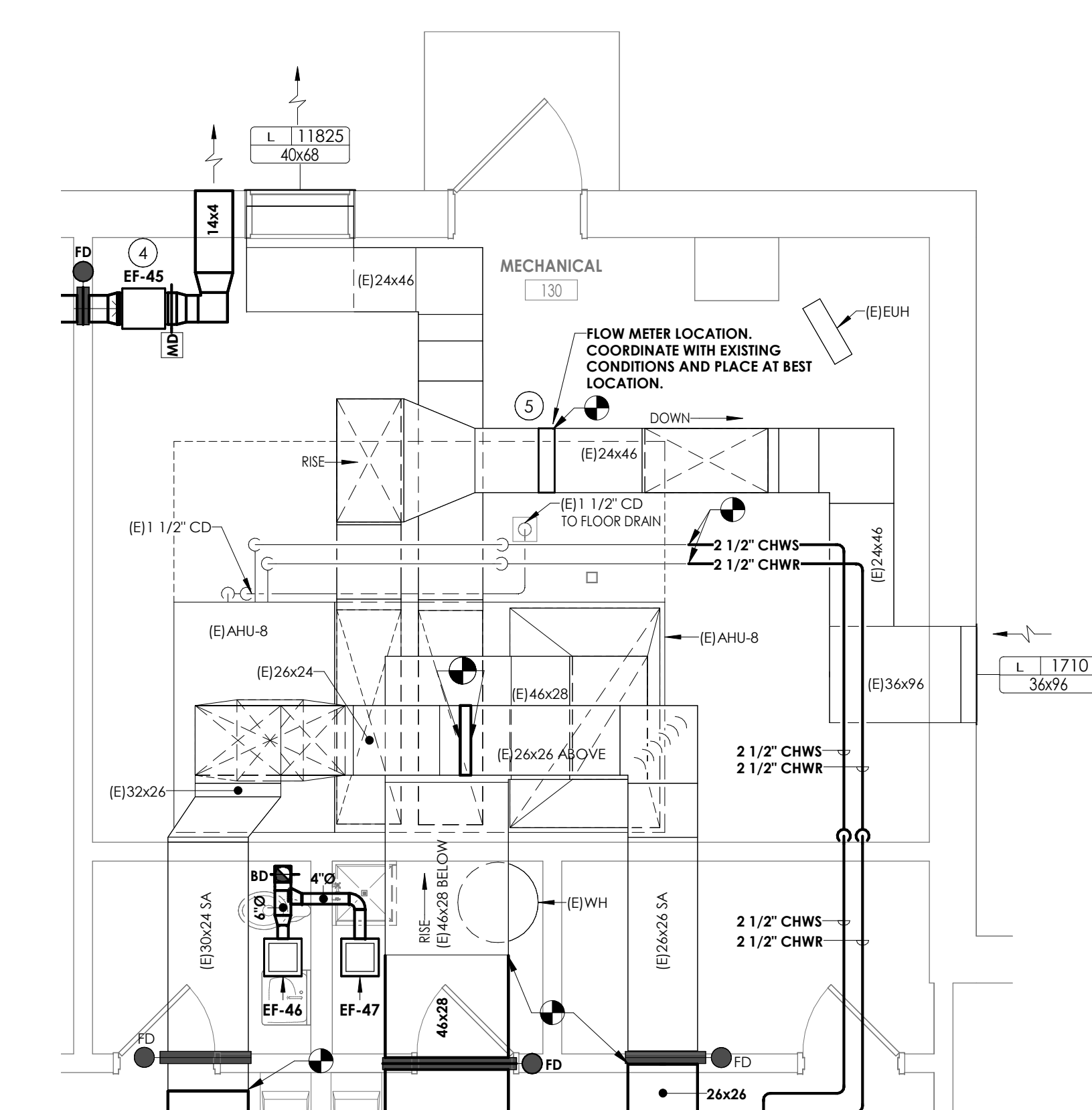
Drawing Num

5050

FOES



TRUE
NORTH



- ① INSTALL NEW AIR HANDLING UNIT. CONTRACTOR SHALL RECEIVE, STORE AND INSTALL AIR HANDLING UNIT ACCORDING TO CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE NEW CONCRETE EQUIPMENT PAD. REFER TO DETAILS AND SCHEMATICS. COORDINATE AND INTEGRATE WITH BGMS CONTROLS. CONTRACTOR SHALL EXECUTE AND DOCUMENT MANUFACTURER'S SPECIFIED START-UP AND TESTING. CONNECT DUCTWORK, PIPING AND CONTROLS AS SHOWN AND PREPARE FOR COMMISSIONING.
- ② ADJUST DOMESTIC PIPING DROP TO EXISTING WATER LINE AND TEST.
- ③ PROVIDE CLEARANCE FOR AHU MAINTENANCE (DOOR SWINGS).
- ④ PROVIDE NEW INLINE FAN AND ALL ASSOCIATED DUCTWORK AND CONTROLS AS SHOWN.
- ⑤ OUTSIDE AIR DUCTWORK INSTALLATION SHALL ACCOMMODATE THE REQUIREMENTS OF THE AIRFLOW METERS PROVIDED. FLOW METER LOCATIONS ARE SUGGESTED AS SHOWN. FIELD COORDINATE FINAL LOCATION AND SITE PRIOR TO DUCTWORK INSTALLATION.



PROJECT INFORMATION

R23.00325

Client Name

JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

Project Name

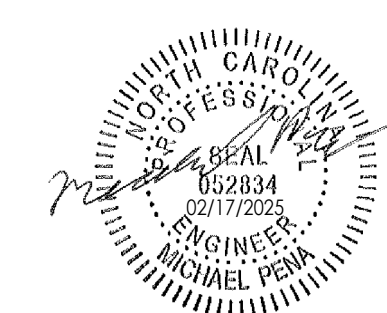
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

PROJECT ISSUE & REVISION		
#	Date	Description

PROFESSIONAL STAMPS



SHEET INFORMATION

boxed

02/17/202

Project Status

BID SET

DID SET
 Description

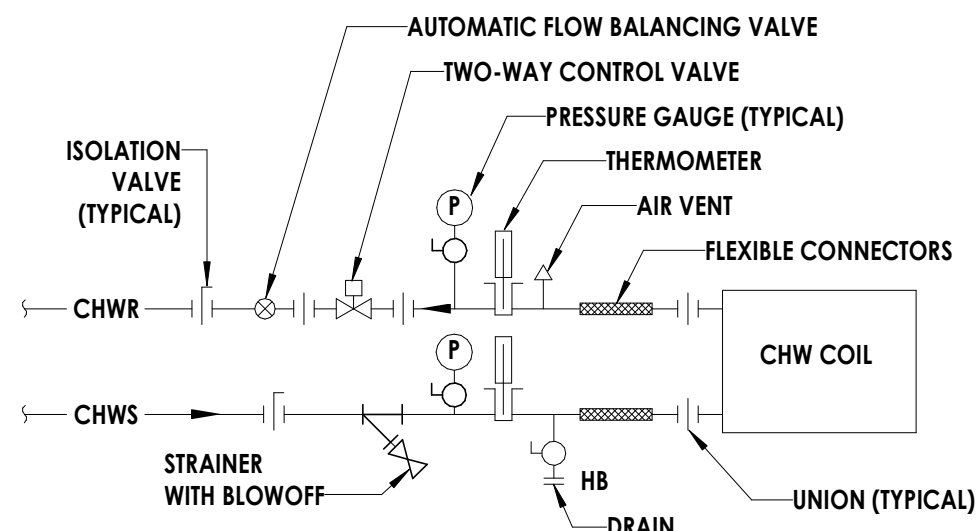
Drawing Title
ENLARGED MECHANICAL ROOM
NEW WORK PLAN - AREA 1D, 1G
AND 1H

Drawing Num

FOES

H705

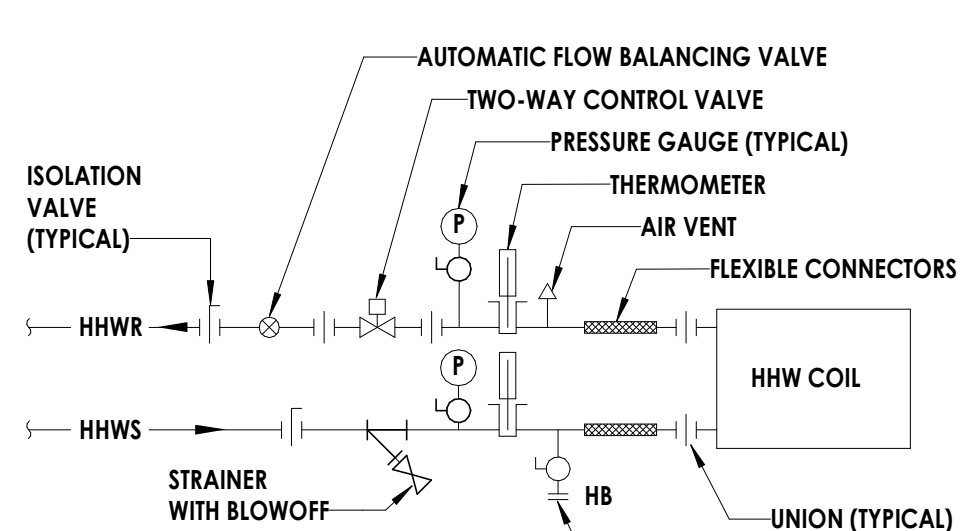
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- NOTES:**
1. PIPE COIL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PIPING ARRANGEMENT SHALL ALLOW FOR REMOVAL OF COIL WITHOUT REMOVAL OF PIPING BEYOND UNIONS.
 2. VALVE KITS ARE NOT ACCEPTABLE. PROVIDE SEPARATE VALVING AND ACCESSORIES AS INDICATED. UNIONS PROVIDED FOR NPS 2 AND SMALLER. REFER TO SPECIFICATIONS FOR FITTING TYPES BASED ON PIPE SIZING.
 3. PROVIDE ALL NEW PIPING VALVES AND ACCESSORIES.

1 AHU CHILLED WATER COIL PIPING SCHEMATIC - TWO-WAY VALVE

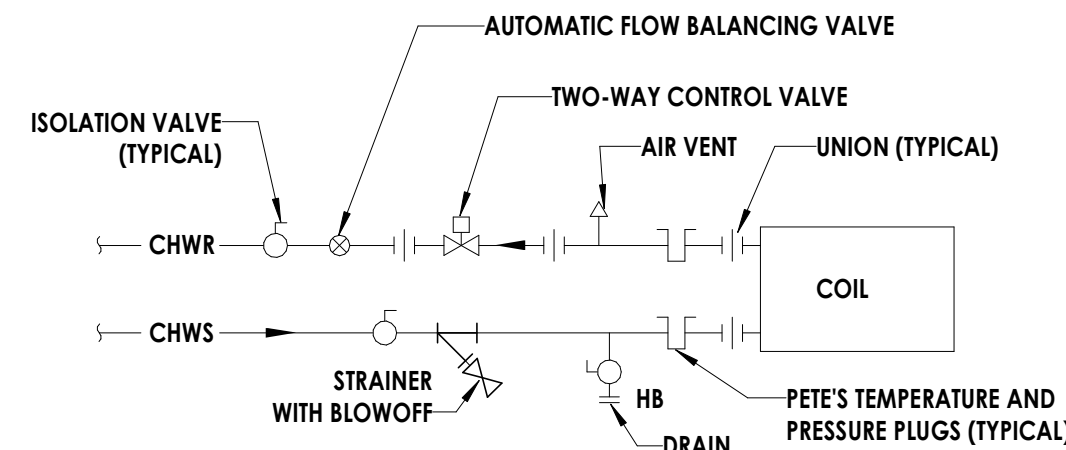
H800 NOT TO SCALE



- NOTES:**
1. PIPE COIL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PIPING ARRANGEMENT SHALL ALLOW FOR REMOVAL OF COIL WITHOUT REMOVAL OF PIPING BEYOND UNIONS.
 2. VALVE KITS ARE NOT ACCEPTABLE. PROVIDE SEPARATE VALVING AND ACCESSORIES AS INDICATED. UNIONS PROVIDED FOR NPS 2 AND SMALLER. REFER TO SPECIFICATIONS FOR FITTING TYPES BASED ON PIPE SIZING.
 3. PROVIDE ALL NEW PIPING VALVES AND ACCESSORIES.

2 AHU HOT WATER COIL PIPING SCHEMATIC - TWO-WAY VALVE

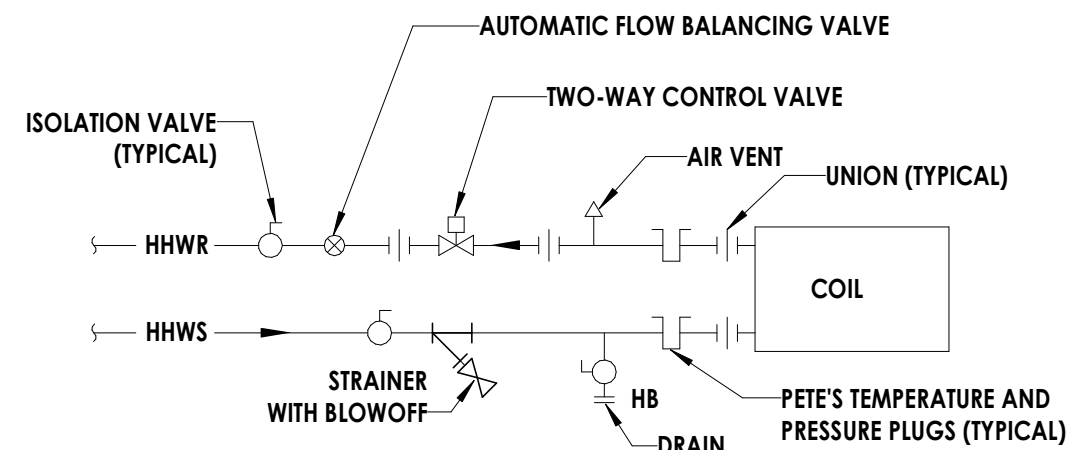
H800 NOT TO SCALE



- NOTES:**
1. VALVE KITS ARE NOT ACCEPTABLE. PROVIDE SEPARATE VALVING AND ACCESSORIES AS INDICATED.
 2. PROVIDE ALL NEW PIPING VALVES AND ACCESSORIES.

3 FCU CHILLED WATER COIL PIPING SCHEMATIC - TWO-WAY VALVE

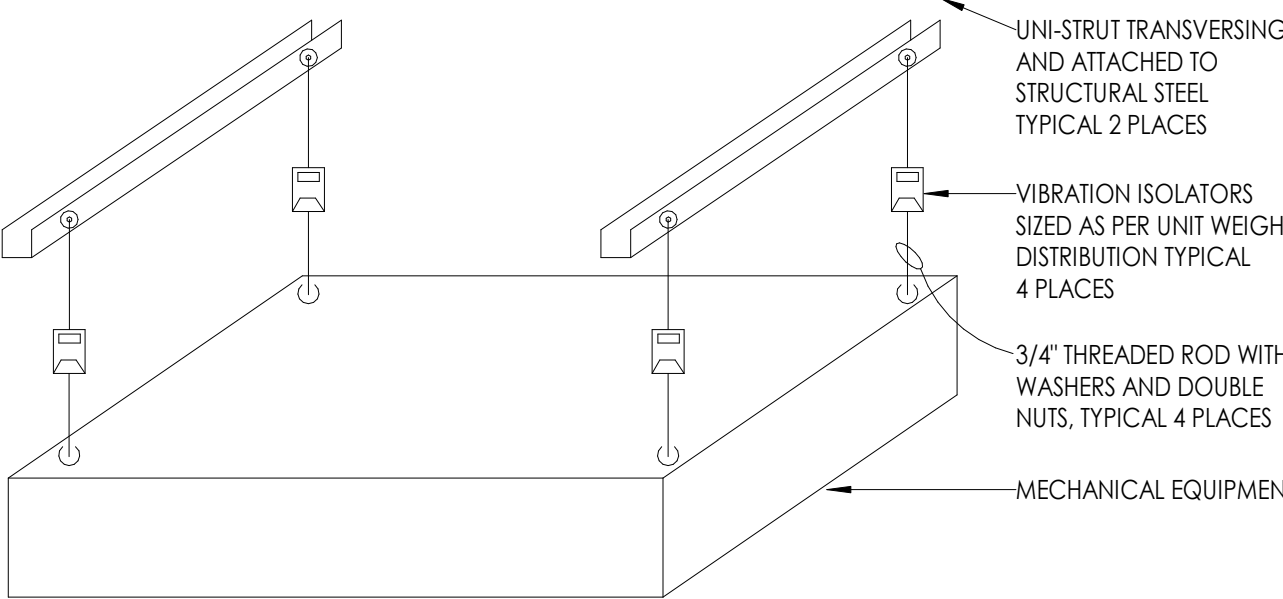
H800 NOT TO SCALE



- NOTES:**
1. VALVE KITS ARE NOT ACCEPTABLE. PROVIDE SEPARATE VALVING AND ACCESSORIES AS INDICATED.
 2. PROVIDE ALL NEW PIPING VALVES AND ACCESSORIES.

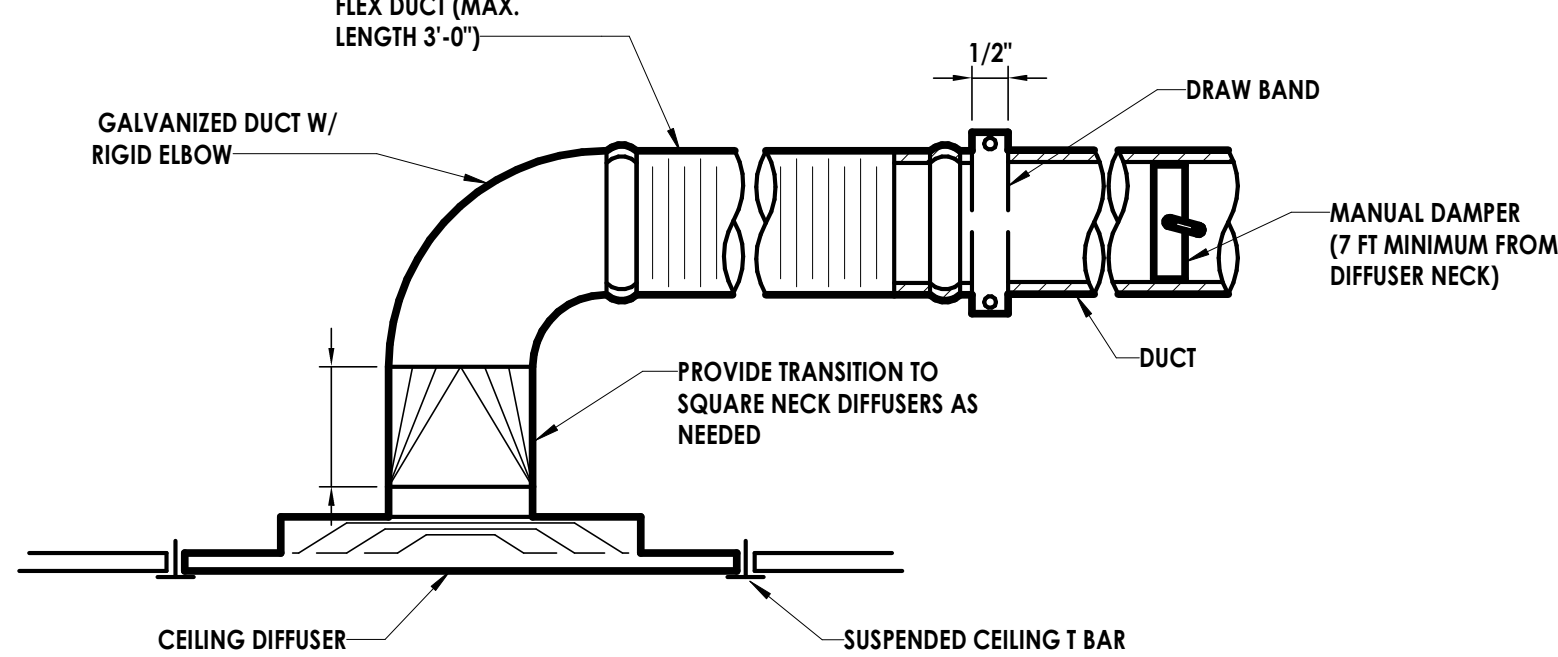
4 FCU HOT WATER COIL PIPING SCHEMATIC - TWO-WAY VALVE

H800 NOT TO SCALE



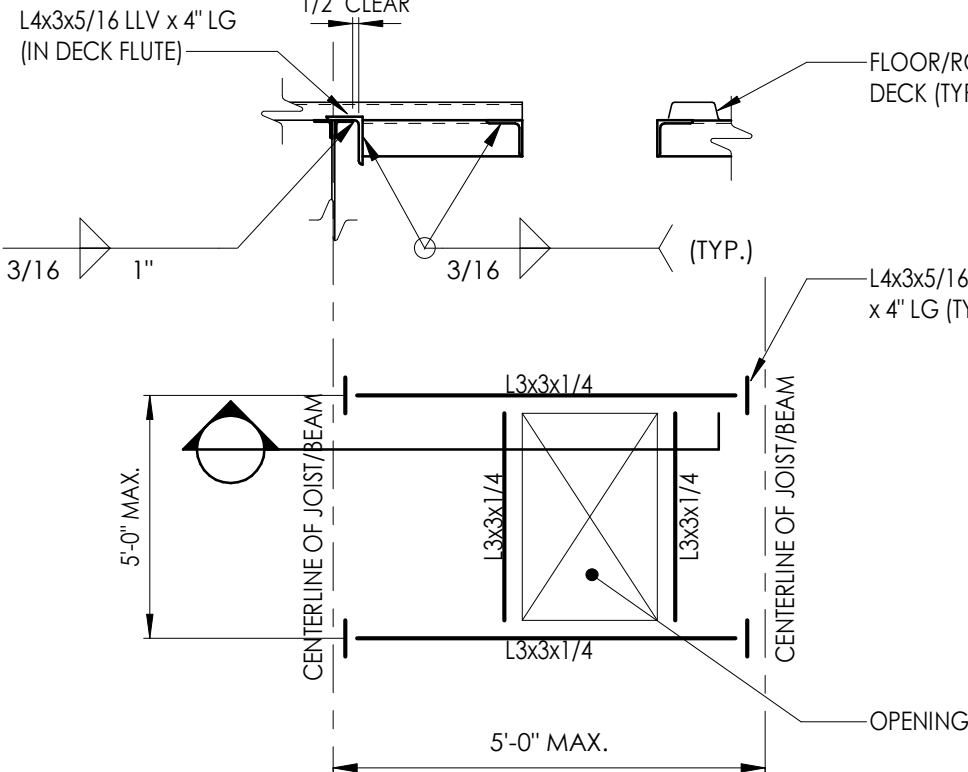
5 INDOOR UNIT SUPPORT INSTALLATION DETAIL

H800 NOT TO SCALE



6 DIFFUSER DETAIL

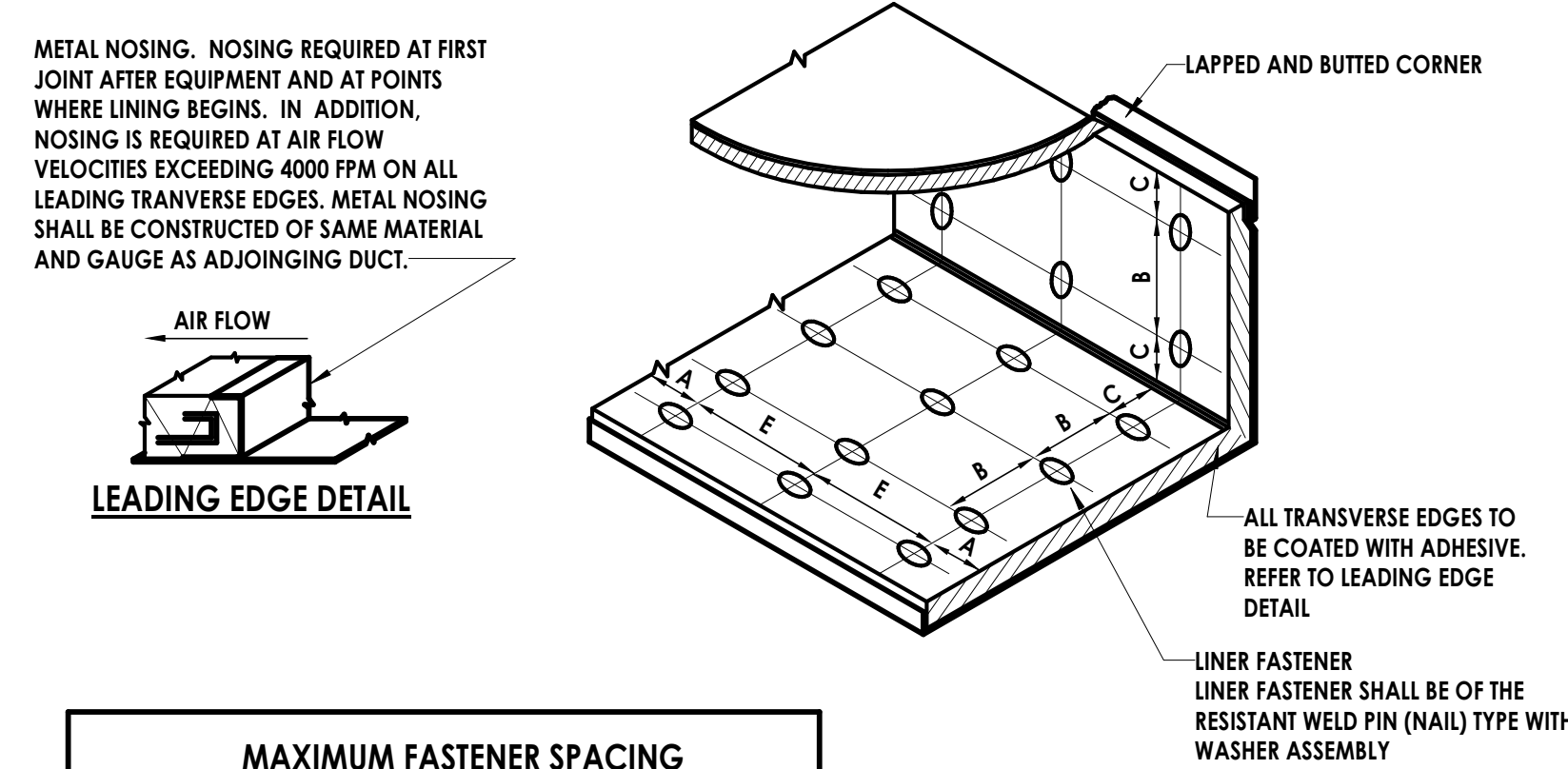
H800 NOT TO SCALE



- DETAIL NOTES:**
1. THE ABOVE STEEL SIZES SHALL BE USED UNLESS NOTED OTHERWISE ON THE PLANS.
 2. CONTRACTOR TO COORDINATE EQUIPMENT AND OPENING SUPPORTS WITH MECHANICAL CONTRACTOR AND FINAL APPROVED EQUIPMENT SUBMITTAL.

7 ROOF OR FLOOR OPENING SUPPORT DETAIL

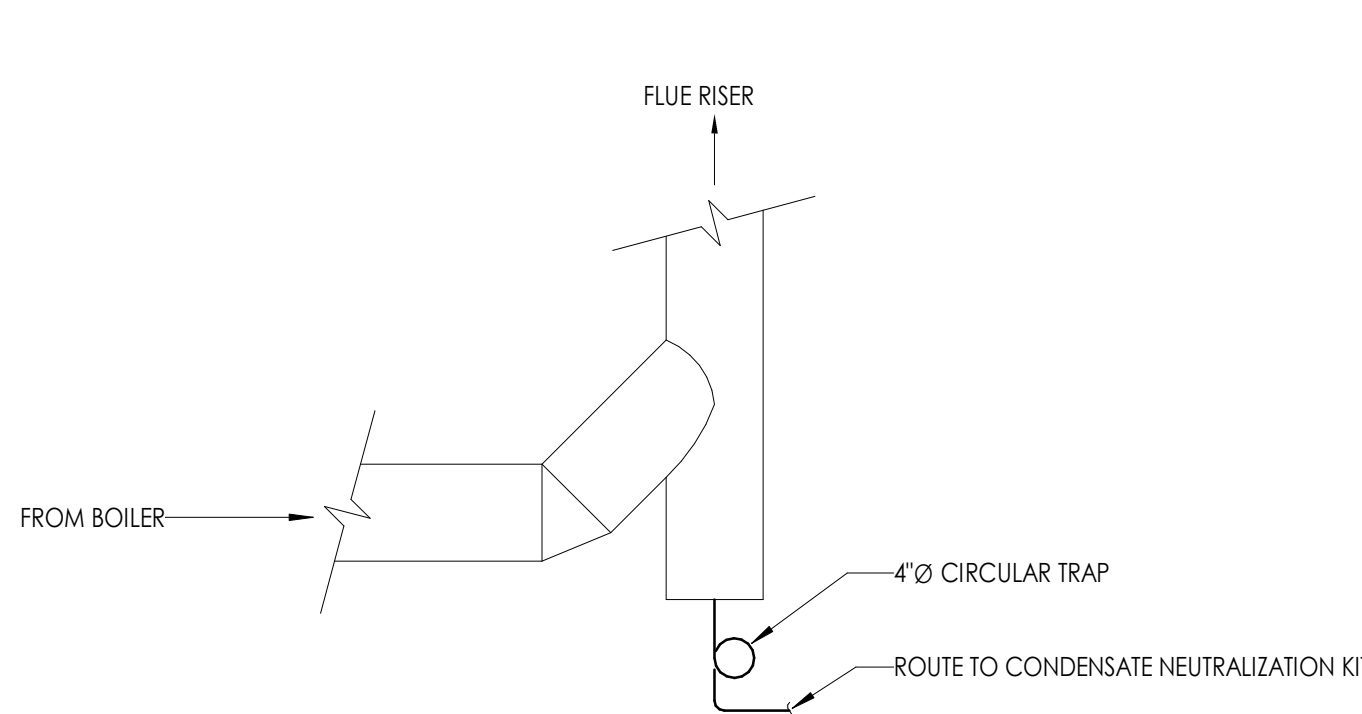
H800 3/4\"/>



VELOCITY	DIMENSIONS			
	A	B	C	E
0-2500 FPM	3"	12"	4"	18"
2501-6000 FPM	3"	6"	4"	16"

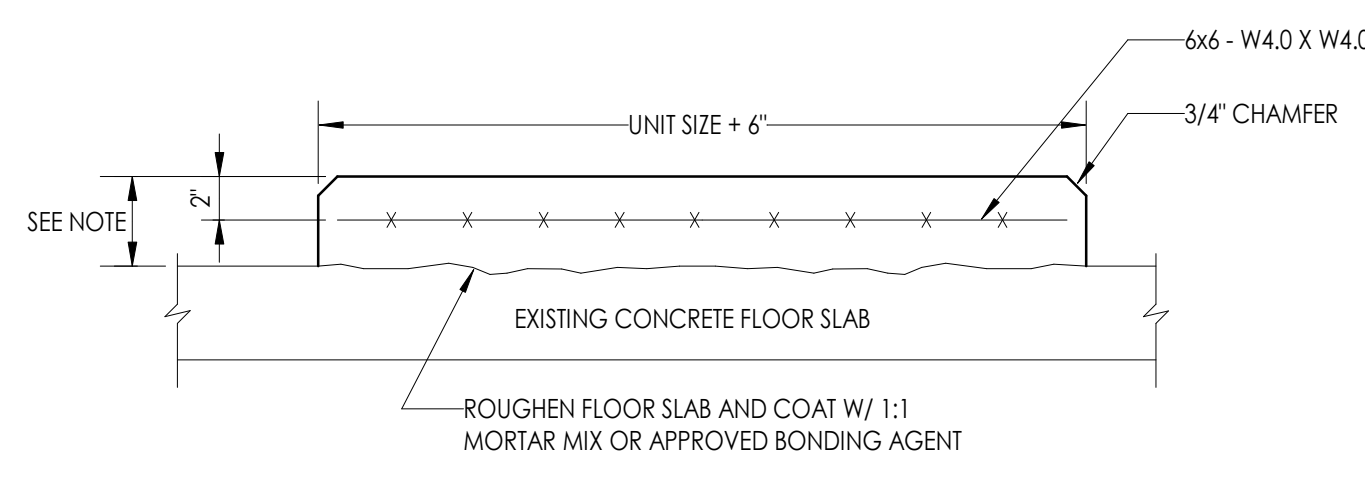
8 DUCT LINER INSTALLATION DETAIL

H800 NOT TO SCALE



9 HEATING HOT WATER BOILERS FLUE RISER DRAIN REQUIREMENTS

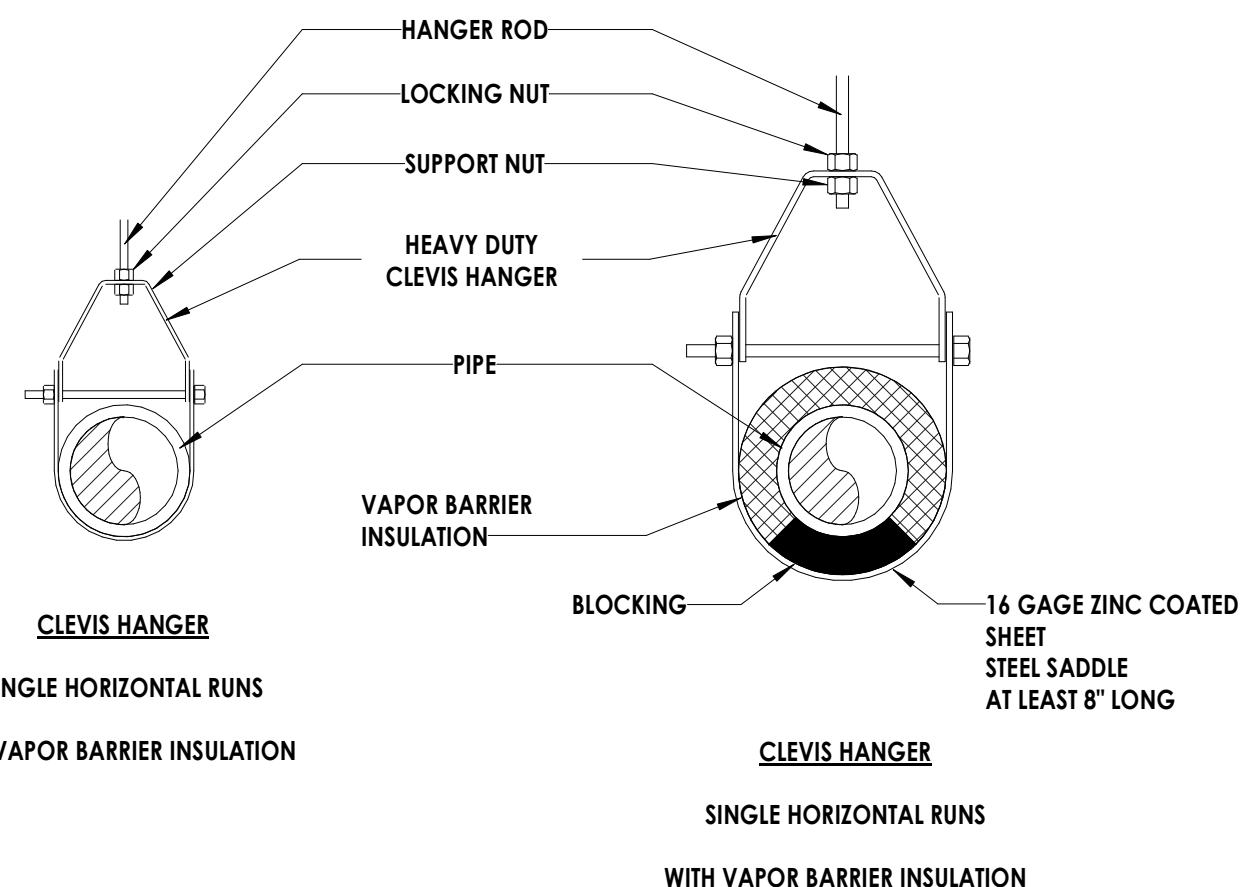
H800 NOT TO SCALE



- NOTE:**
1. COORDINATE UNIT SIZE WITH EQUIPMENT SELECTED.
 2. AHU'S - MINIMUM 6\"/>

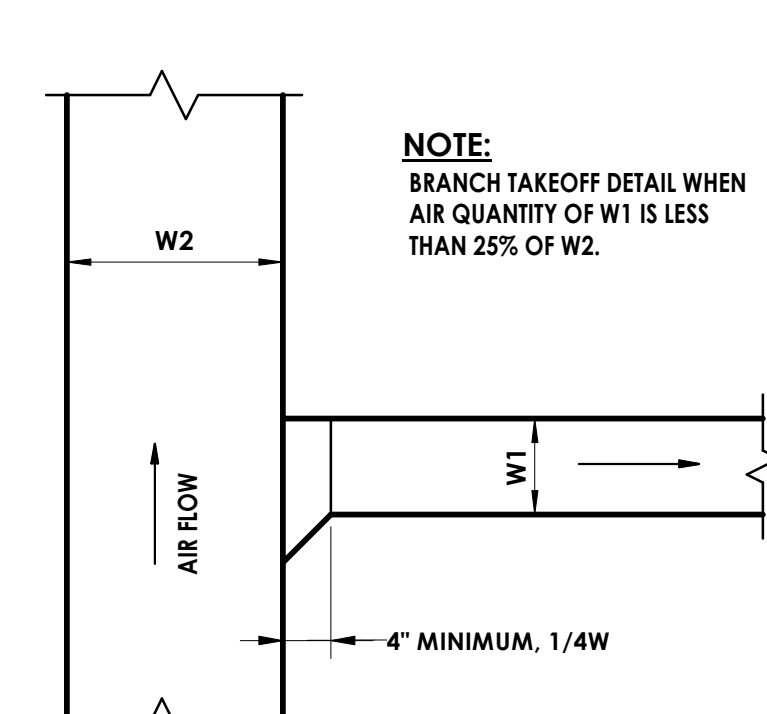
10 EQUIPMENT HOUSEKEEPING PAD DETAIL

H800 NOT TO SCALE



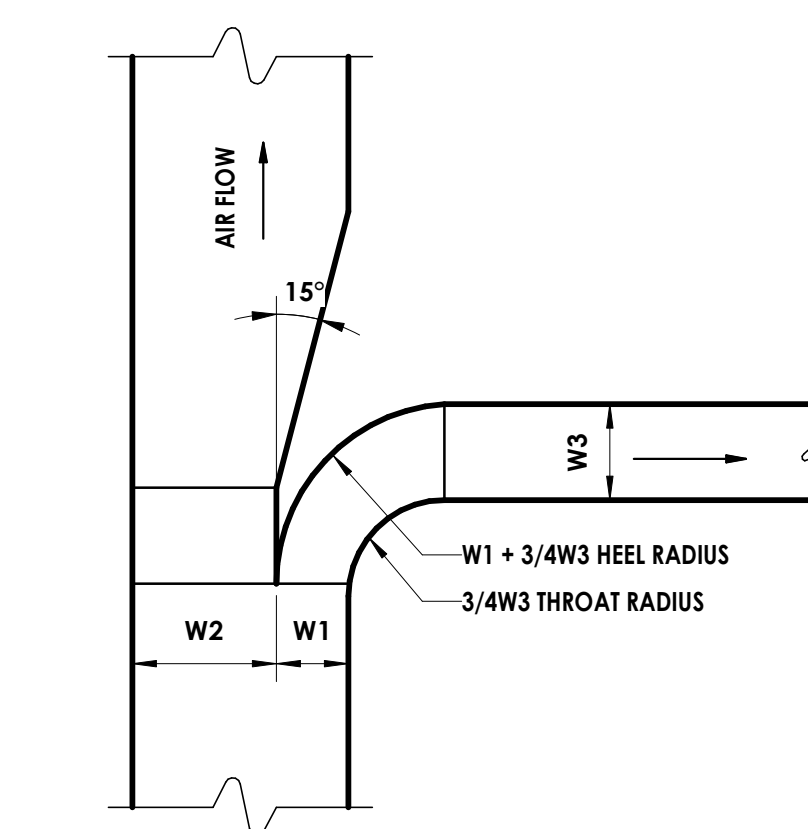
11 PIPE SUPPORT DETAIL

H800 NOT TO SCALE



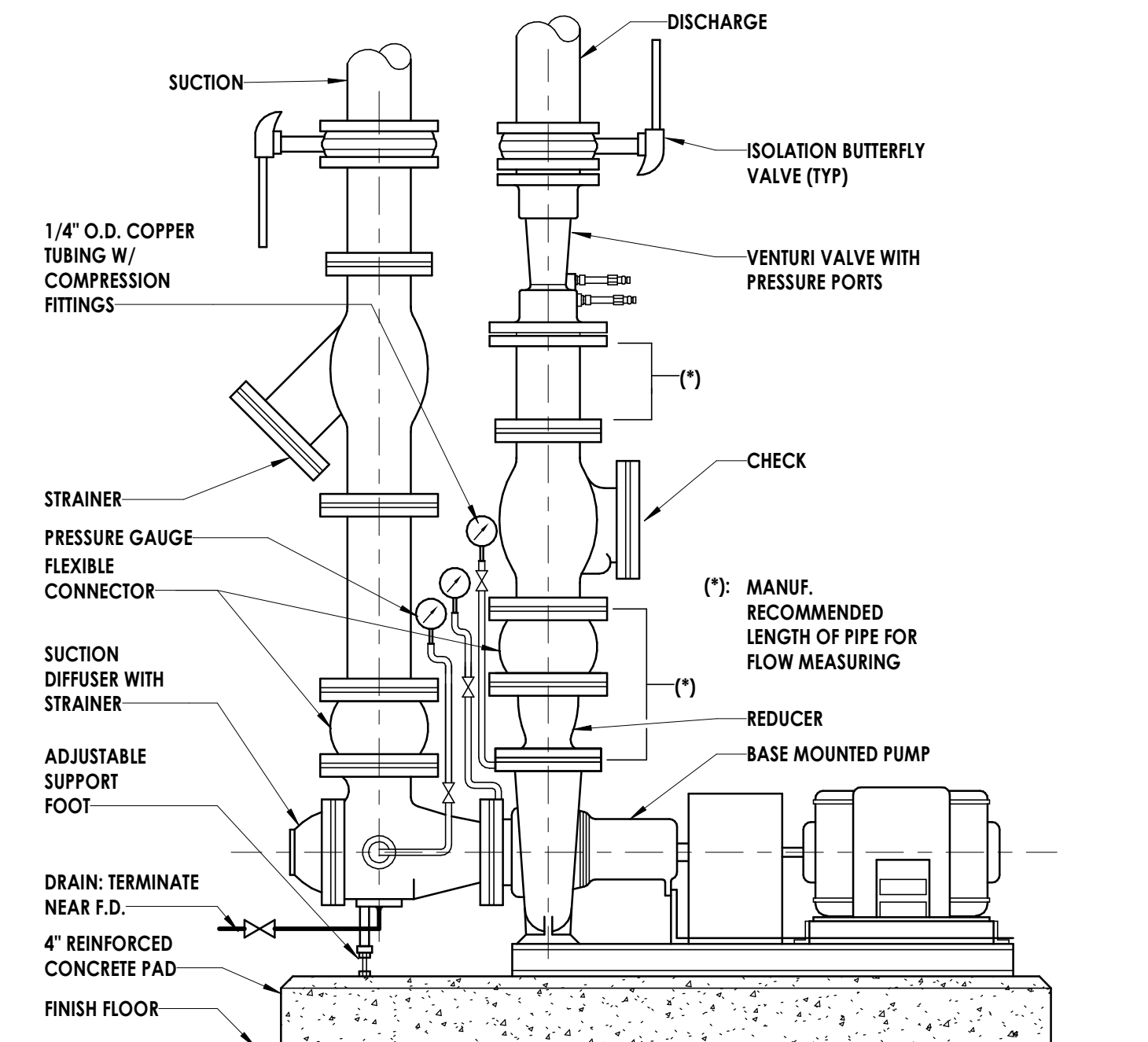
12 BRANCH TAKE-OFF DETAIL

H800 NOT TO SCALE



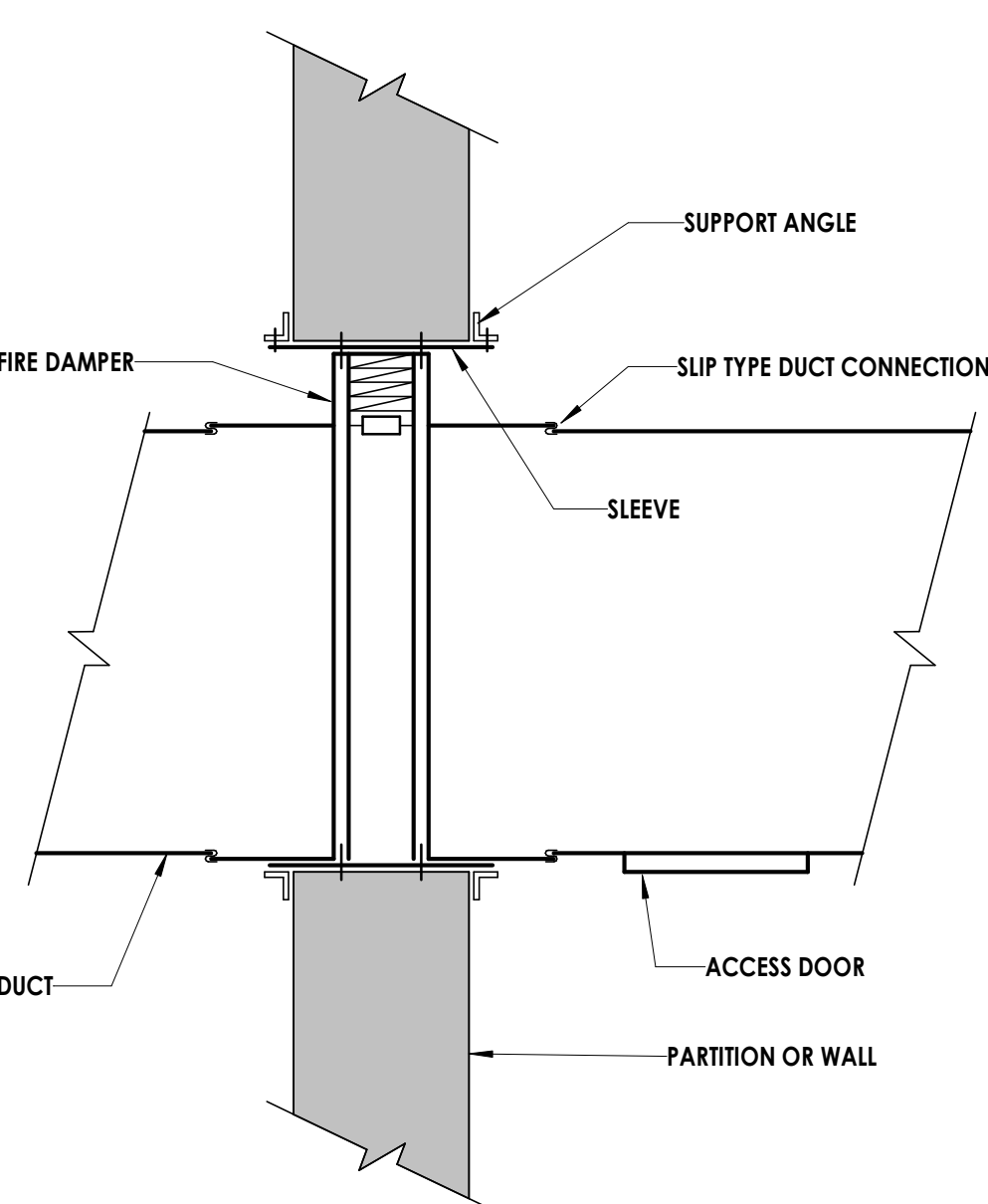
13 MAIN BRANCH TAKE-OFF DETAIL

H800 NOT TO SCALE



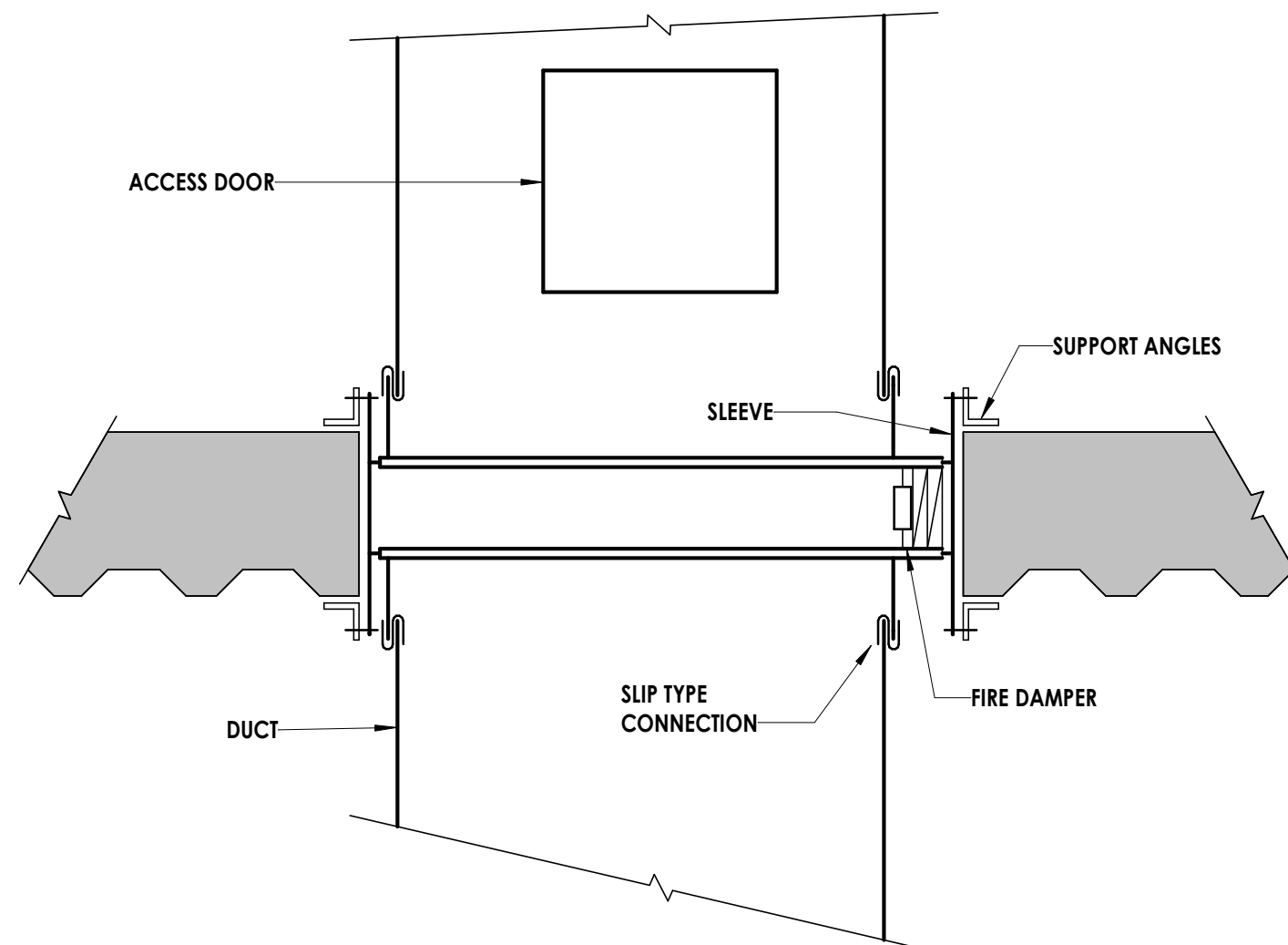
14 BASE MOUNTED PUMP DETAIL WITH VFD

H800 NOT TO SCALE



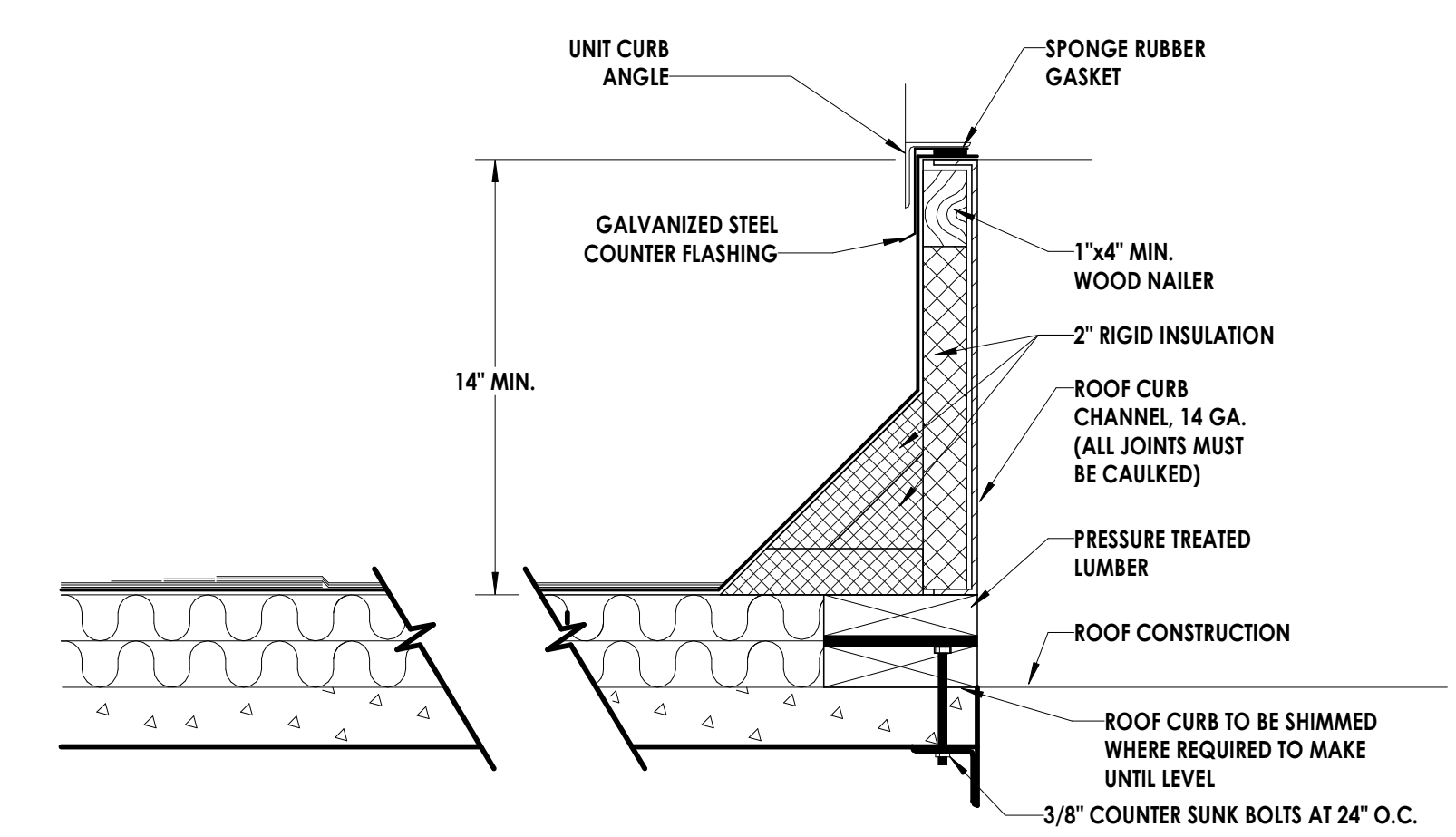
15 VERTICAL FIRE DAMPER DETAIL

H800 NOT TO SCALE



16 HORIZONTAL FIRE DAMPER DETAIL

H800 NOT TO SCALE

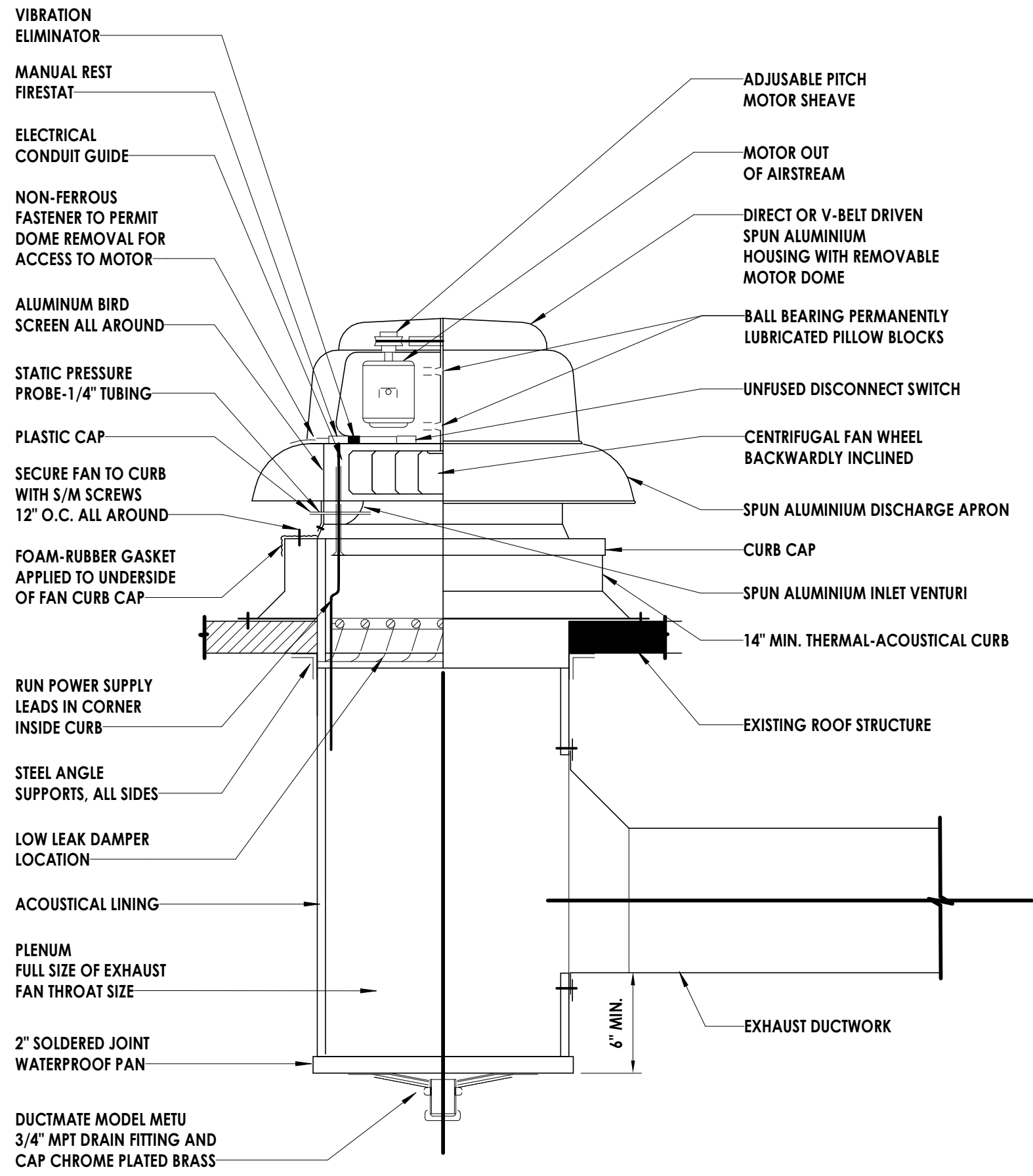


- NOTES:**
1. ALL ROOF TOP HVAC EXHAUST FANS REQUIRED TO HAVE CURBS AND CURB INTERIOR AS SHOWN UNLESS OTHERWISE NOTED.
 2. INSTALL ROOFING PER NRCA RECOMMENDATIONS. COORDINATE WITH OWNER AND EXISTING ROOFING MANUFACTURER TO MAINTAIN WARRANTY.
 3. REMOVE EXISTING ROOFING AND ROOF INSULATION DOWN TO EXISTING ROOF DECK AS NECESSARY FOR INSTALLATION OF HVAC EQUIPMENT CURB. CUT OPENING IN EXISTING ROOF DECK AND PROVIDE STRUCTURAL SUPPORT FOR MECHANICAL EQUIPMENT AND OPENING EDGE.
 4. SECURE EQUIPMENT TO RAIL WITH CADMIUM PLATED HARDWARE.
 5. INSTALLATION OF ALL ROOF MOUNTED MECHANICAL COMPONENTS SHALL CONFORM TO NYS BUILDING CODE SECTION 1604.9 AND THEWIND RESTRAINT REQUIREMENTS OF THIS PROJECT.
 6. CRICKET ROOFING AWAY FROM CURBS.

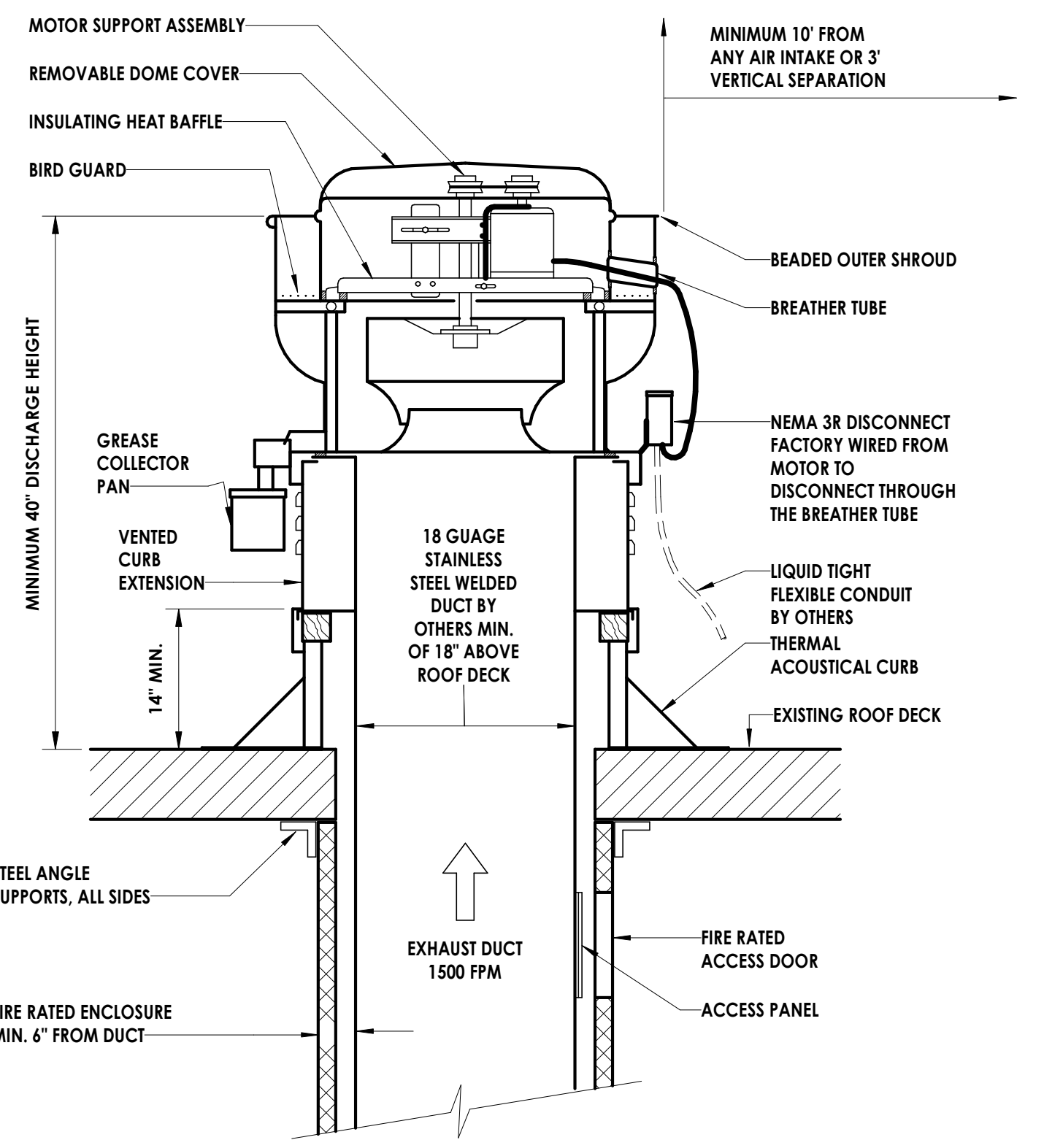
17 EXHAUST FAN AND GRAVITY VENTILATOR ROOF CURB DETAIL - EXISTING ROOFS

N.T.S.

S:\Projects\Johnson County\HVAC & A/C\Drawings\202-STD DX W/O PUMPS SHOWN BELOW.dwg, 2/17/2025 3:42:02 PM

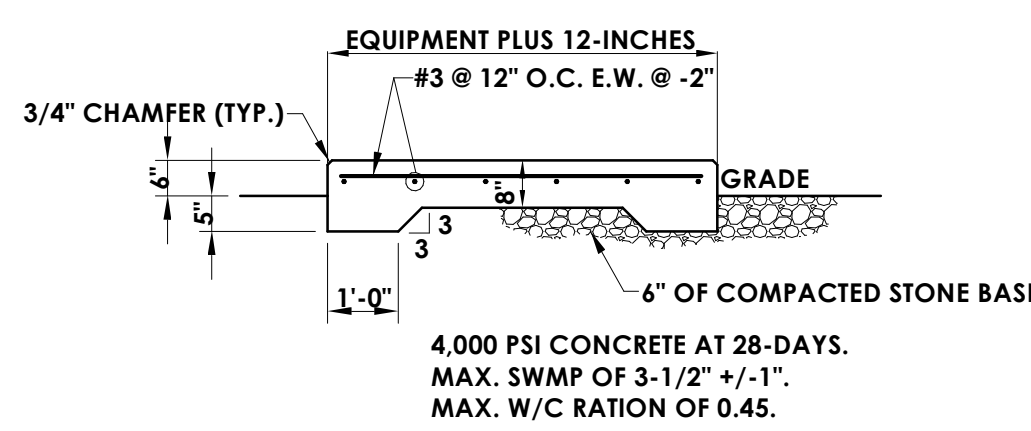


1
H801
N.T.S.
EXHAUST FAN DETAIL

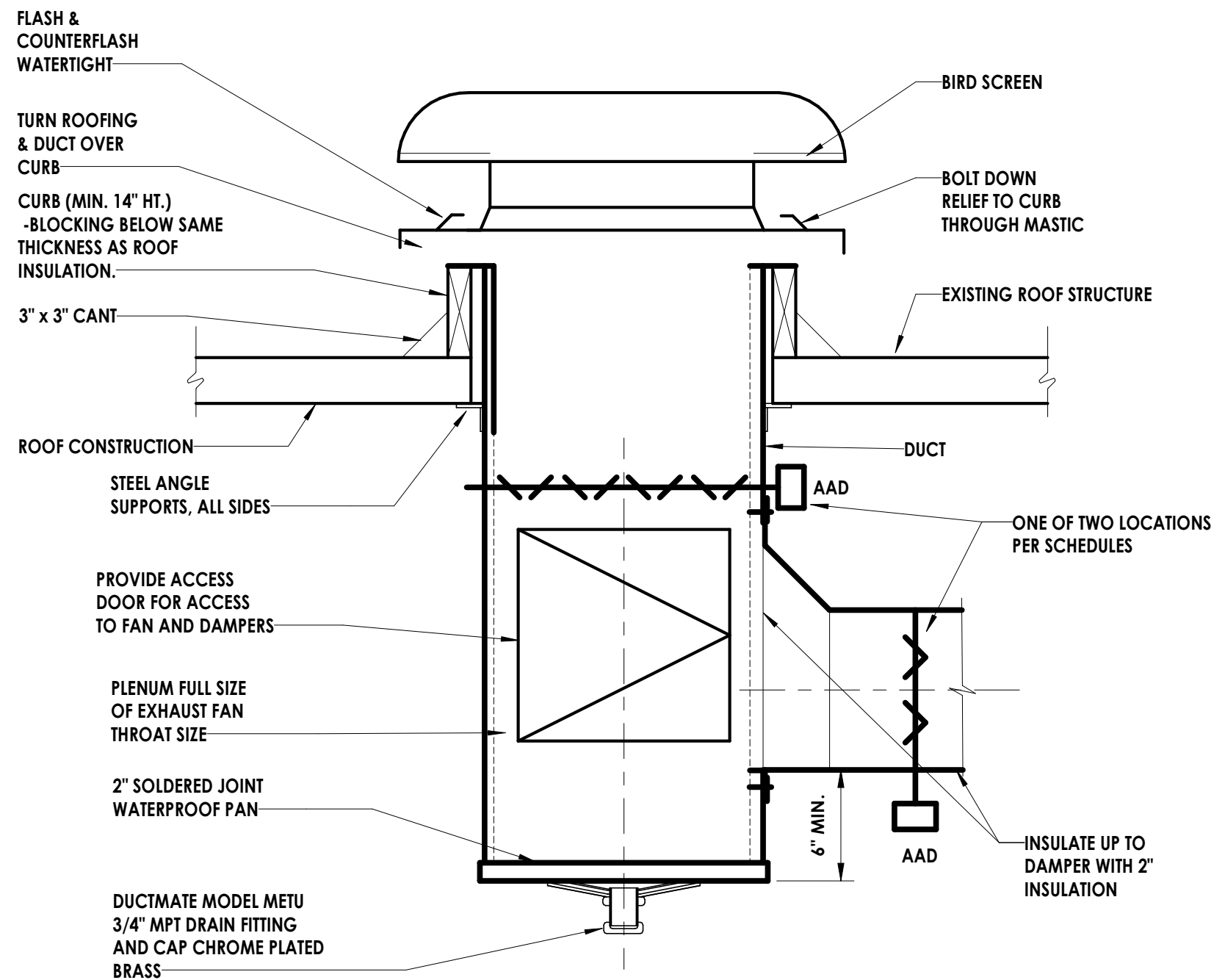


NOTES:
1) PROVIDE HINGE AND SAFETY CABLE FOR ACCESS TO WHEEL AND DUCTWORK. COMPLY WITH NFPA 96. FAN LISTED UNDER WL STD 762 (400). PROVIDE FIRESTAT FAN TO BE SPARK RESISTANT CONSTRUCTION, AWC "C".

2
H801
NOT TO SCALE
UP-BLAST EXHAUST FAN DETAIL - GREASE DUCT



4
H801
N.T.S.
REINFORCED CONCRETE EQUIPMENT PAD



3
H801
NOT TO SCALE
ROOF INTAKE GRAVITY RELIEF DETAIL

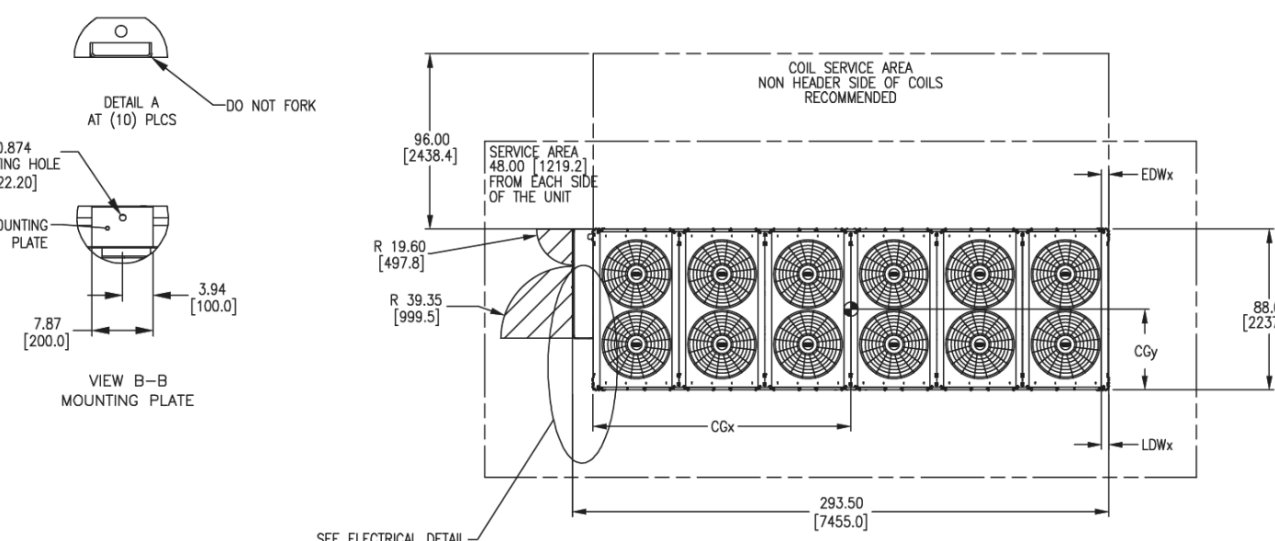
MASONRY LINTEL SCHEDULE			
WALL TYPE	SPAN	LINTEL	SECTION
4" MASONRY / VENEER	0'-0" TO 4'-6"	L4x3 1/2x5/16 LLV	J
	4'-7" TO 5'-6"	L4x3 1/2x5/16 LLV	J
	5'-7" TO 6'-6"	L5x3 1/2x5/16 LLV	J
	6'-7" TO 7'-6"	L6x3 1/2x5/16 LLV	J
6" MASONRY	0'-0" TO 1'-3"	BOND BEAM W/ (1) #4	J
	1'-4" TO 4'-6"	WT4x9	J
	4'-7" TO 5'-6"	WT4x10.5	J
	5'-7" TO 6'-6"	WT5x13	J
	6'-7" TO 7'-6"	WT5x13	J
8" MASONRY	0'-0" TO 1'-3"	BOND BEAM W/ (1) #4	J
	1'-4" TO 4'-6"	(2) L4x3 1/2x5/16 LLV	J
	4'-7" TO 5'-6"	(2) L4x3 1/2x5/16 LLV	J
	5'-7" TO 6'-6"	(2) L5x3 1/2x5/16 LLV	J
	6'-7" TO 7'-6"	(2) L6x3 1/2x5/16 LLV	J
4" MASONRY / VENEER w/ 8" MASONRY OR 12" MASONRY	0'-0" TO 1'-3"	L4x3 1/2x5/16 LLV +	J
	1'-4" TO 4'-6"	(3) L4x3 1/2x5/16 LLV	J
	4'-7" TO 5'-6"	(3) L4x3 1/2x5/16 LLV	J
	5'-7" TO 6'-6"	(3) L5x3 1/2x5/16 LLV	J
	6'-7" TO 7'-6"	(3) L6x3 1/2x5/16 LLV	J

SCHEDULE NOTES:
1. PROVIDE LINTELS OVER ALL MASONRY OPENINGS AS SCHEDULED UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. MINIMUM BEARING FOR ALL LINTELS SHALL BE 8" EACH END.
3. GROUT SOLID AREA 16" x 24" H BELOW BEARING UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. COORDINATE MASONRY OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS.
5. CONTRACTOR SHALL PROVIDE AN ADDITIONAL 50 FEET OF L5x3-1/2x5/16 ANGLE. FOR MASONRY OPENING SPANS GREATER THAN 6'-0", BOLT ASSEMBLIES TOGETHER AT 1/3 POINTS.
6. FOR ALL W AND WT SHAPE LINTELS, PROVIDE A 1/2x5x7 BEARING PLATE WITH (2) 1/2" DIAMETER x 6" LONG HEADED STUDS, EACH END.
7. STEEL LINTELS EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.

5
H801
3/4" = 1'-0"
MASONRY LINTEL SCHEDULE

NOTES:
1. UNIT MUST HAVE CLEARANCES AS FOLLOWS:
TOP - DO NOT RESTRICT SIDES AND END - 6" FROM SOLID SURFACE.
FOR COIL NON-HEATER SIDE - 8" REQUIRED FOR COIL SERVICE AREA.
IF MULTIPLE UNITS ARE INSTALLED AT THE SAME SITE, A MINIMUM SEPARATION OF 10 FT (3M) BETWEEN THE SIDES OF THE MACHINES IS REQUIRED TO MAINTAIN PROPER AIRFLOW.
2. FACTORY WIRING IS IN ACCORDANCE WITH UL 80335-2-40 STANDARDS. FIELD MODIFICATIONS OR ADDITIONS MUST BE IN COMPLIANCE WITH ALL APPLICABLE CODES.
3. WIRING FOR MAIN FIELD SUPPLY MUST BE RATED 75°C MINIMUM. USE COPPER FOR ALL UNITS.
4. TEMPERATURE RELIEF DEVICES ARE LOCATED ON FLUE/SUCKERS, SUCTON MANIFOLDS, AND LIQUID LINES. THESE DEVICES HAVE 3/8" SAE FLARE CONNECTION. DO NOT CAP OR OTHERWISE OBSTRUCT TEMPERATURE RELIEF DEVICES.
5. PRESSURE RELIEF DEVICES ARE LOCATED ON THE LIQUID LINES (IF EQUIPPED) AND SUCTON LINES (IF EQUIPPED). THE DEVICES ON THE LIQUID LINES HAVE 3/8" SAE FLARE CONNECTION. THE DEVICES ON THE SUCTON LINES HAVE 1/4" SAE FLARE CONNECTION. DO NOT CAP OR OTHERWISE OBSTRUCT PRESSURE RELIEF DEVICES.
6. DIMENSIONS SHOWN ARE IN MM. DIMENSIONS IN [] ARE IN INCHES.
7. CONTROL BOX SIZE WILL CHANGE BASED ON TONNAGE, VOLTAGE, AND OPTIONS SELECTED.
8. Locate the unit so that the condenser airflow is unrestricted both above and on the sides of the unit.
A. Airflow and service clearances are 6 ft (1.8 m) around the unit.
B. Acceptable clearance on the evaporator connection side or end opposite the control box unit can be reduced to 3 ft (1 m) without sacrificing performance as long as the remaining three sides are unrestricted.
C. Acceptable clearance on the side with a control box can be reduced to 4 ft (1.3 m), due to NEC regulations, without sacrificing performance as long as the remaining three sides are unrestricted.
D. Provide ample room for servicing and removing evaporator. See Fig. 6-43 for required clearances. Local codes for clearances take precedence over the manufacturer's recommendations when local codes call for greater clearances.
E. If multiple units are installed at the same site, a separation of 10 ft (3 m) between the sides of the machines is required to maintain proper airflow and minimize the chances of condenser or recirculation.

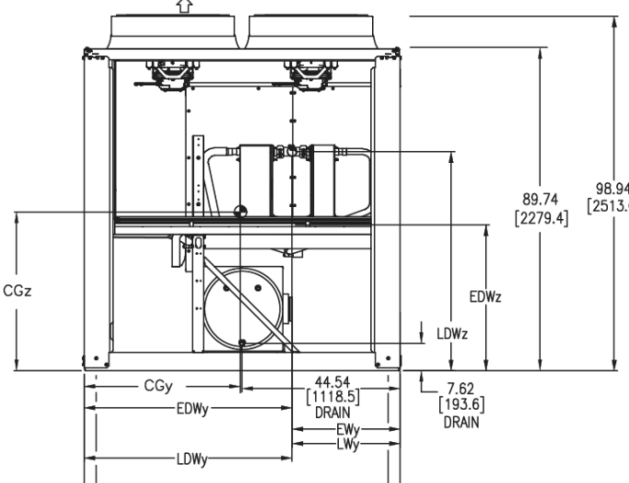
202-STD DX W/O PUMPS SHOWN BELOW



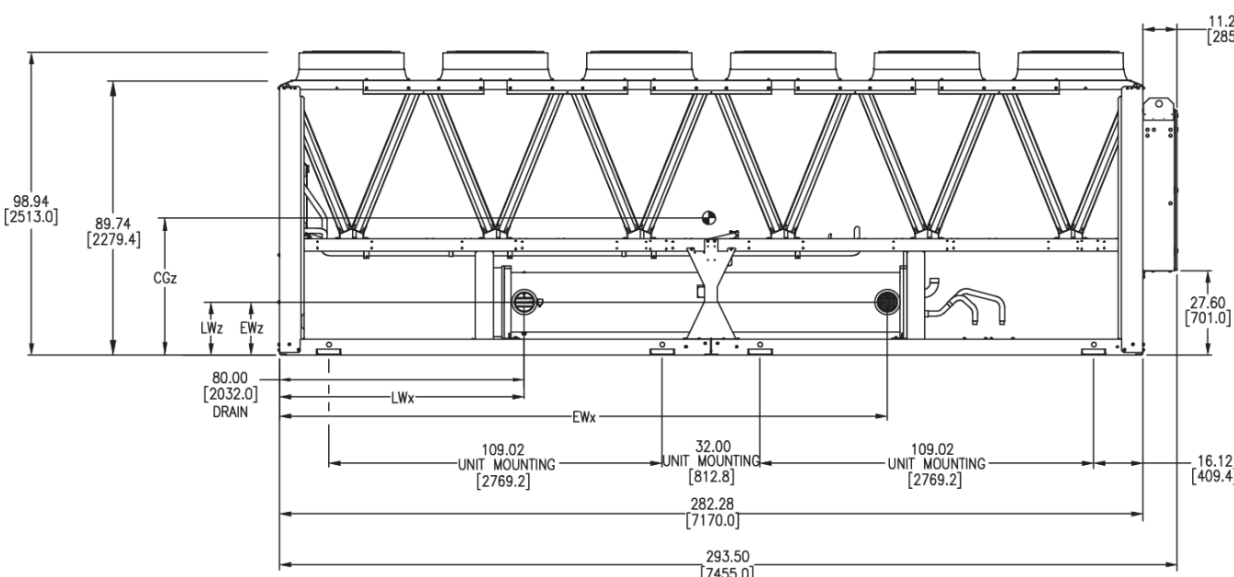
PLAN VIEW

UNIT	COILS	CENTER OF GRAVITY			ENTERING WATER (DW)			LEAVING WATER (LW)			ENTERING DESUPERHEATER			LEAVING DESUPERHEATER		
		MM (INCH)			MM (INCH)			MM (INCH)			MM (INCH)			MM (INCH)		
		Cox	Coy	Coz	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
202-STD	CUAL	145.3	39.7	30.1	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
		[3899]	[984]	[994]	198.7	30.0	17.2	80.0	30.0	17.2	5.9	30.2	40.7	3.9	30.2	61.1
	MCHX	145.7	58.1	36.0	50[45]	7[62]	4[38]	30.0	7[62]	4[38]	5[8]	30.2	10[33]	5.9	9[9]	7[66]
		[1322]	[967]	[914]												

SYMBOL DENOTES CG



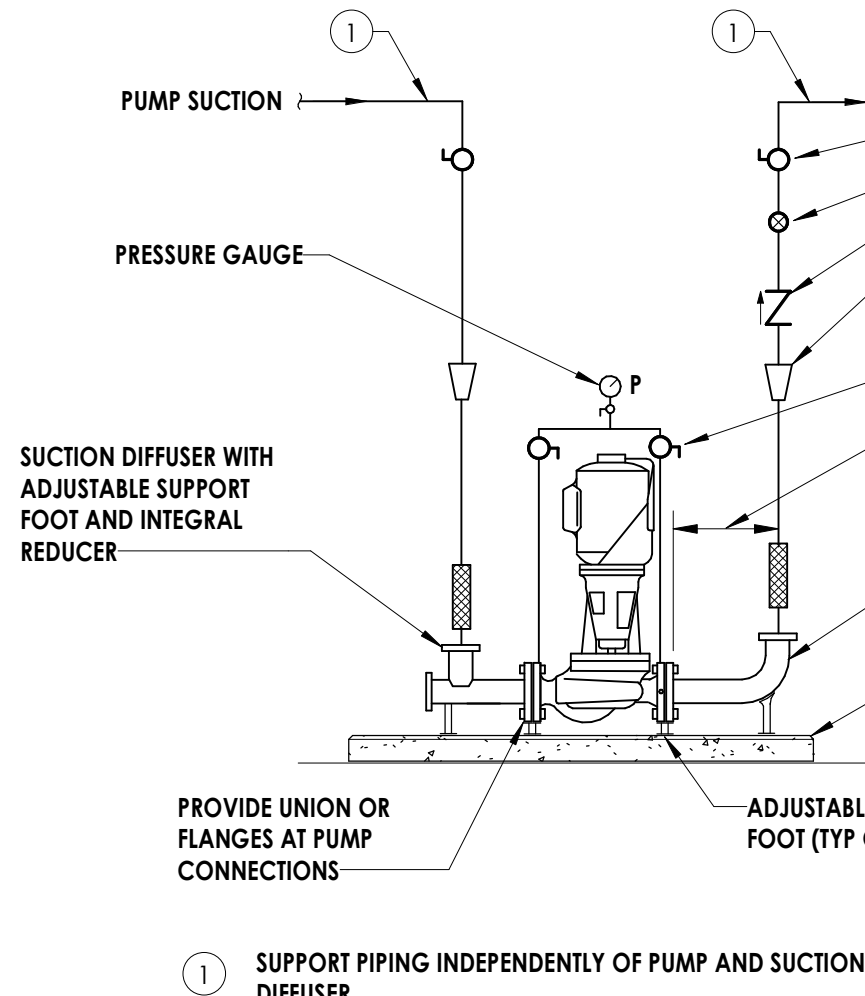
NON-CONTROL PANEL END VIEW



REAR VIEW

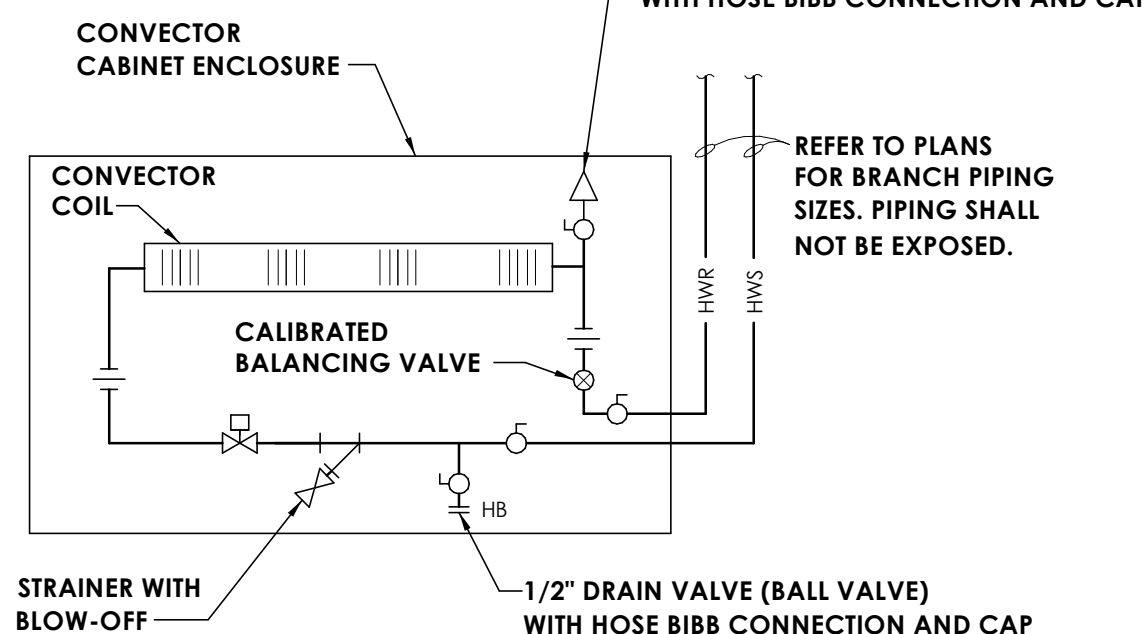
Fig. 35 — 30RC 202 Std DX (Direct Expansion) No Pump

6
H801
NOT TO SCALE
CHILLER DIMENSION DRAWING

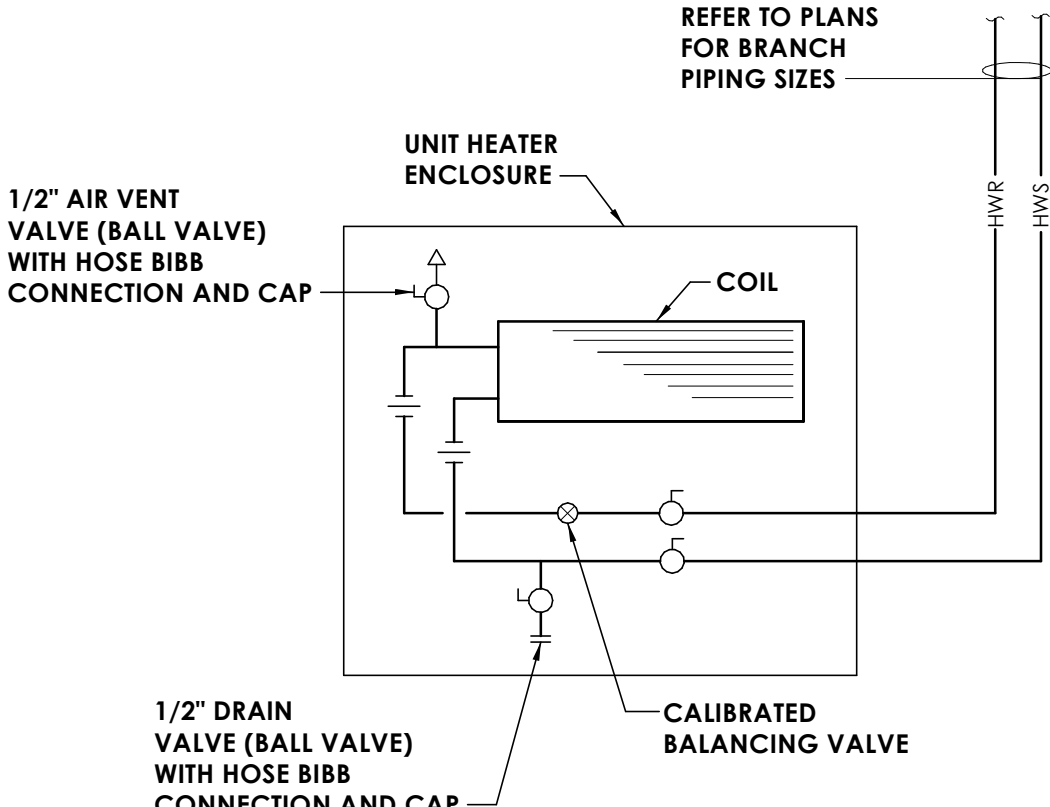


NOTES:
GENERIC SYMBOLS USED TO SHOW VALVE LOCATION(S)
REFER TO SPECIFICATION FOR EXACT VALVE TYPE.

7
H801
NOT TO SCALE
FLOOR MOUNTED INLINE PUMP



8
H801
NOT TO SCALE
CONVECTOR DETAIL



9
H801
NOT TO SCALE
UNIT HEATER SCHEMATIC

REGISTER, GRILLE, AND DIFFUSER SCHEDULE							
TAG	MANUFACTURER	MODEL	APPLICATION	MATERIAL	TYPE	FINISH	NOTES
RG-1	TITUS	50F	SURFACE MOUNT	ALUMINUM	EGGCRATE RETURN GRILLE	WHITE ENAMEL	3
RG-2	TITUS	301FL	SURFACE MOUNT	ALUMINUM	EXTERIOR SLOTTED RAU/EA	BY ARCH.	1,2,3
RG-3	TITUS	50F	LAY-IN	ALUMINUM	EGGCRATE RETURN GRILLE	WHITE ENAMEL	1,3
RG-4	TITUS	30BL	LAY-IN	STEEL	LOUVERED GRILLE	WHITE ENAMEL	1,3
SD-1	TITUS	10MS	LAY-IN	STEEL	3-CONE DIFFUSER	WHITE ENAMEL	3
SD-2	TITUS	300FL	LAY-IN	ALUMINUM	LOUVERED DOUBLE DEFLECTION GRILLE	WHITE ENAMEL	1,3
SD-3	TITUS	300FL	SURFACE MOUNT	ALUMINUM	LOUVERED DOUBLE DEFLECTION GRILLE	WHITE ENAMEL	1,3
SD-4	TITUS	10C	LAY-IN	STEEL	LOUVERED FACE DIFFUSER	WHITE ENAMEL	1,3
NOTES:							
1. 1/2 INCH BLADE SPACING, 45-DEGREE DEFLECTION.							
2. COLOR BY ARCHITECT							
3. COORDINATE WITH ARCHITECTURAL CEILING PLANS, LIGHTS, ETC.							

UNIT HEATER SCHEDULE (HYDRONIC)														
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	NOMINAL CAPACITY (MBH)	AIR FLOW (CFM)	FLOW GPM	P.D (FT.WG.)	HEATING CAPACITY (MBH)	EWT (°F)	LWT (°F)	V	PH	Hz
UH-106	106 - CHILLER	HEATER	MODINE	V-78	42.6	1155	2.5	0.1	26.7	140	100	1	60	1/15
UH-317	317 - ELECTRICAL	HEATER	MODINE	H58/HC-24	12.6	230	0.7	0.1	7.6	140	100	1	60	1/25
NOTES: 1. PROVIDE FACTORY MOUNTED AND WIRED DISCONNECT. 2. PROVIDE WITH THERMOSTAT. 3. COLOR BY ARCHITECT.														

AIR SEPARATOR SCHEDULE									
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	INLET/OUTLET SIZE	FLOW (GPM)	PRESSURE DROP (FT.WG.)	FLUID	HEIGHT (IN.)
AS-1	106A - BOILER ROOM	HEATING HOT WATER	TACO	ACTA-125	4" / 4"	260	1.79	WATER	30.0
AS-2	106 - CHILLER	CHILLED WATER	TACO	ACTOB-125	8" / 8"	1100	1.78	WATER	52.0
NOTES: 1. DESIGN PRESSURE 125 PSIG.									

HOOD INFORMATION														
TAG	HOOD NUMBER	MANUFACTURER	MODEL	LENGTH	MAX COOKING TEMP	HOOD TYPE	APPLIANCE DUTY	DESIGN CFM/FI	TOTAL EXHAUST AIR FLOW	RISER 1 DIAMETER	RISER 1 AIR FLOW	RISER 2 DIAMETER	RISER 2 AIR FLOW	HOOD CONSTRUCTION
HOOD-1	1	CAPTIVEAIRE	10530 NID	10'-0"	650 °F	1	HEAVY	420	4200	16"	2100	16"	2100	430 SS 100%

CONVECTOR SCHEDULE (HYDRONIC)														
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	STYLE	HEIGHT (IN.)	LENGTH (IN.)	DEPTH (IN.)	FLOW (GPM)	WPD (FT.WG.)	BTUH	EWT (°F)	LWT (°F)	NOTES
CONV-1	104 - CORRIDOR	HEATER	MODINE	SF-04-64-18	FULLY EXPOSED FLOOR, SLOPED TOP	18	64	6	1.02	2.0	9,945	160.0	120.0	1,2,3,4
NOTES:														
1. PROVIDE ALL NECESSARY ACCESSORIES INCLUDING END TRIM, END ENCLOSURE, CORNER PIECES AND ACCESS DOOR AT VALVE LOCATION.														
2. COORDINATE PIPING CONNECTION LOCATIONS IN THE FIELD.														
3. PROVIDE CUSTOM COLOR SELECTED BY ARCHITECT.														
4. MOUNTED HEIGHT ABOVE FINISHED FLOOR IS 9'-0".														

CONDENSING BOILER SCHEDULE																								
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	FUEL	MAX INPUT (MBH)	MIN. OUTPUT (MBH)	MAX. OUTPUT (MBH)	EFFICIENCY RANGE	EFFICIENCY 80°F (IN H2O)	GAS PRESSURE MIN.	GAS PRESSURE MAX.	MAX. WATER FLOW (GPM)	MIN. WATER FLOW (GPM)	EWT (°F)	LWT (°F)	FLUE SIZE	V	PH	Hz	MCA	FLA	MOCPP	NOTES
B-1	BOILER ROOM	HHW	AERCO	BKM2000	PROPANE	2000	1710-1920	1920	87%-98%	94.60%	4"WC	14"WC	350	25	120	160	8"Ø	120	1	60	-	16	-	1,2,3,4,5,6
B-2	BOILER ROOM	HHW	AERCO	BKM2000	PROPANE	2000	1710-1920	1920	87%-98%	94.60%	4"WC	14"WC	350	25	120	160	8"Ø	120	1	60	-	16	-	1,2,3,4,5,6
NOTES: 1. PROVIDE THE MANUFACTURER'S RECOMMENDED CONDENSATE NEUTRALIZATION KIT. 2. FURNISH DISCONNECT. 3. PROVIDE ON CONCRETE HOUSEKEEPING PAD. 4. 201 TURNDOWN. 5. COORDINATE CONTROLS INTEGRATION WITH BUILDING MANAGEMENT SYSTEM. 6. PROVIDE BOILER SAFETY SHUT-DOWN SWITCH.																								

AIR HANDLING UNIT SCHEDULE (HHW/CHW, PART 1/2) (FURNISHED BY OWNER)																																
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	ARRANGEMENT	SUPPLY FAN														EXHAUST FAN												
						AIR FLOW (CFM)	ESP (IN H2O)	TOTAL S.P. (IN H2O)	NUMBER OF MOTORS	BHP	MOTOR HP	TYPE	DRIVE	ELECTRICAL				STANDARD MIN. OA (CFM)	MAKE-UP MIN OA (CFM)	MAX. DCV OA (CFM)	AIRFLOW (CFM)	ESP (IN.W.G.)	NUMBER OF MOTORS	BHP	MOTOR HP	TYPE	DRIVE	ELECTRICAL				
														V	PH	HZ	FLA											V	PH	HZ	FLA	
AHU-1	MECH 8	GYM	CARRIER	39M 14W	HHW/CHW	7000	2	3.75	1	8.4	10	AIRFOIL	DIRECT	460	3	40	2	2843	-	3445	-	-	-	-	-	-	-	-	-	-	-	
AHU-2	CHILLER 104	KITCHEN	CARRIER	39M 53W	HHW/CHW	1134	1.5	2.31	1	1.2	1.5	AIRFOIL	DIRECT	460	3	40	2	1134	-	-	-	1134	1.5	1	0.80	1	AIRFOIL	DIRECT	460	3	40	1.6
AHU-3	CHILLER 104	CAFE	CARRIER	39M 25W	HHW/CHW	11050	2	2.92	1	9.9	10	AIRFOIL	DIRECT	460	3	40	12.5	1173	4200+1200	5115	11050	1.6	1	6.9	7.5	AIRFOIL	DIRECT	460	3	40	9.7	
AIR HANDLING UNIT SCHEDULE (HHW/CHW, PART 2/2) (FURNISHED BY OWNER)																																

AIR HANDLING UNIT SCHEDULE (HHW/CHW, PART 2/2) (FURNISHED BY OWNER)																									
TAG	HOT WATER HEATING COIL							CHILLED WATER COOLING COIL							FILTERS			WEIGHT (LBS)	NOTES						
	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	CAPACITY (MBH)	FLUID TYPE	GPM	WPD (FT.WG.)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EWT (°F)	FLUID TYPE	GPM			WPD (FT.WG.)	VELOCITY (FPM)	EFFICIENCY	PRE	FINAL	
AHU-1	43.4	98.3	140	100	438.7	WATER	22.3	2.7	84.2	69.5	53.8	53.6	333.0	223.7	45.0	55.0	WATER	46.4	10.4	488	MERV 13	8A	13A	4.244	1,2,3,4,5
AHU-2	19	89.9	140	100	6.0	WATER	5.1	0.2	93.0	76.0	52.5	52.5	63.4	47.5	45.0	55.0	WATER	16.6	5.8	327	MERV 13	8A	13A	2.095	1,2,3,4,5
AHU-3	42	97.3	140	100	699.5	WATER	35.5	4.8	80.0	67.0	53.7	53.6	436.0	306.3	45.0	55.0	WATER	86.9	11.8	452.7	MERV 13	8A	13A	5.473	1,2,3,4,5
NOTES: 1. EQUIPMENT IN THIS SCHEDULE IS TO BE FURNISHED BY THE OWNER AND INSTALLED IN THIS CONTRACT. REFER TO APPENDIX 1 - OWNER PROVIDED SUPPLEMENTAL INFORMATION FOR MANUFACTURERS' EQUIPMENT INFORMATION AND COORDINATE WITH OWNER'S REPRESENTATIVE FOR AN ADDITIONAL PRODUCT INFORMATION REQUIRED FOR INSTALLATION, TESTING AND STARTUP. 2. PROVIDE FACTORY MOUNTED AND WIRED DISCONNECT. 3. DUCT CONNECTION ARRANGEMENT PER PLAN AND SECTION VIEW DRAWINGS. 4. PROVIDE WITH NEW EQUIPMENT PAD. 5. CONTRACTOR IS RESPONSIBLE FOR VFDs ON SUPPLY AND EXHAUST FAN.																									

AIR HANDLING UNIT SCHEDULE (CHW PART 1/2) (FURNISHED BY OWNER)																															
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	ARRANGEMENT	AIR FLOW (CFM)	ESP (IN H2O)	TOTAL S.P. (IN H2O)	NUMBER OF MOTORS	SUPPLY FAN				DRIVE	ELECTRICAL				STANDARD MIN. OA (CFM)	MAX. DCV OA (CFM)	RETURN FAN										
										BHP	MOTOR HP	TYPE	V		F	PH	Hz	FLA			AIR FLOW (CFM)	ESP (IN H2O)	NUMBER OF MOTORS	BHP	MOTOR HP	TYPE	DRIVE	V	F	PH	Hz
AHU-4	MECH	MEDIA	CARRIER	39M1N 17W	CHW	8800	2	3.76	1	10.3	15	AIRFOIL	DIRECT	460	3	40	17.7	730	1786	8800	1.63	1	6.5	7.5	AIRFOIL	DIRECT	460	3	40	6.0	9.7
AHU-5	MECH	ART 1 MUSIC	CARRIER	39M1N 17W	CHW	8994	2	3.89	1	10.3	15	AIRFOIL	DIRECT	460	3	40	17.7	400	1554	8994	1.6	1	6.5	7.5	AIRFOIL	DIRECT	460	3	40	6.0	9.7
AHU-6	MECH 134	TECH CLERKS & MAIN OFFICE	CARRIER	39M1N 21W	CHW	9167	2	3.36	1	8.3	10	AIRFOIL	DIRECT	460	3	40	12.5	710	1390	9167	1.59	1	5.2	7.5	AIRFOIL	DIRECT	460	3	40	9.7	
AHU-7	MECH	KINDER CLRM	CARRIER	39M1N 34W	CHW	16900	2	3.19	1	17.4	20	AIRFOIL	DIRECT	460	3	40	24.0	500	2330	-	-	-	-	-	-	-	-	-	-	-	

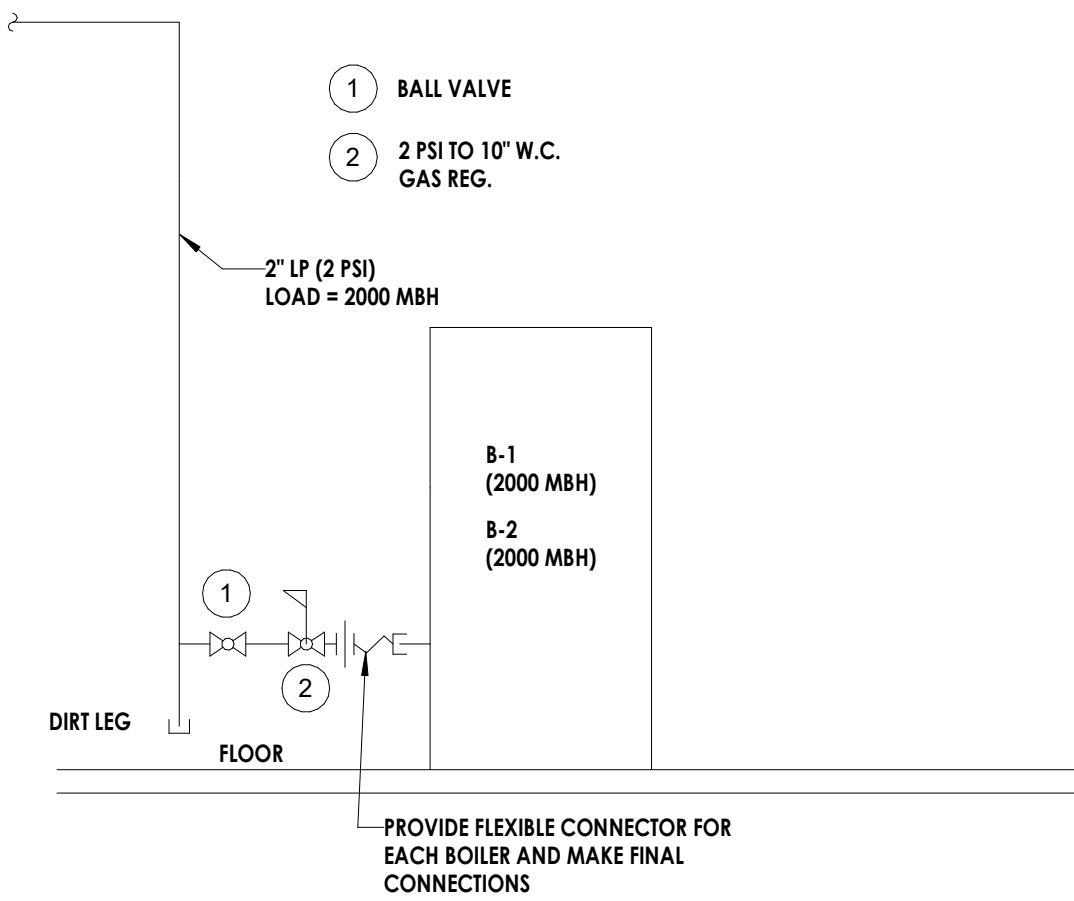
AIR HANDLING UNIT SCHEDULE (CHW PART 2/2) (FURNISHED BY OWNER)																	
TAG	CHILLED WATER COOLING COIL										FILTERS				WEIGHT (LBS)	NOTES	
	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EWT (°F)	LWT (°F)	FLUID TYPE	GPM	WPD (FT. WG.)	VELOCITY (FPM)	EFFICIENCY	PRE			FINAL
AHU-4	78.5	65.6	52.9	62.5	331.5	239.9	45.0	55.0	WATER	66.1	11.7	520	MERV 13	8A	13A	4,390	1,2,3,4,5
AHU-5	76.7	64.6	54.0	63.6	286.2	217.7	45.0	55.0	WATER	57.1	7.4	531	MERV 13	8A	13A	2,747	1,2,3,4,5
AHU-6	80.0	67.0	51.0	61.0	421.7	281.9	45.0	55.0	WATER	84.1	12.4	427	MERV 13	8A	13A	4,875	1,2,3,4,5
AHU-7	77.3	64.5	54.5	63.8	521.5	411.2	45.0	55.0	WATER	104.0	5.6	460	MERV 13	8A	13A	7,748	1,2,3,4,5
NOTES:																	
1. EQUIPMENT IN THIS SCHEDULE IS TO BE FURNISHED BY THE OWNER AND INSTALLED IN THIS CONTRACT. REFER TO APPENDIX 1 - OWNER PROVIDED SUPPLEMENTAL INFORMATION FOR MANUFACTURERS' EQUIPMENT INFORMATION AND COORDINATE WITH OWNER'S REPRESENTATIVE FOR AN ADDITIONAL PRODUCT INFORMATION REQUIRED FOR INSTALLATION, TESTING AND STARTUP.																	
2. PROVIDE WITH FACTORY MOUNTED AND WIRED DISCONNECT.																	
3. DUCT CONNECTION ARRANGEMENT PER PLAN AND SECTION VIEW DRAWINGS.																	
4. PROVIDE WITH NEW EQUIPMENT PAD.																	
5. CONTRACTOR IS RESPONSIBLE FOR VFD ON SUPPLY AND EXHAUST FAN.																	

FAN COIL UNIT SCHEDULE (FURNISHED BY OWNER)																																										
TAG	LOCATION	SERVICE	MANUFACTURER	MODEL	ARRANGEMENTS	AIR FLOW (CFM)	ESP (IN.WG.)	NUMBER OF MOTORS	MOTOR HP	TYPE	DRIVE	MINIMUM OA (CFM)	CHILLED WATER COOLING COIL										HOT WATER RE-HEATING COIL										FILTER				ELECTRICAL				WEIGHT (LBS)	NOTES
													EAT (°F)	EWB (°F)	LD (°F)	LWB (°F)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EWI (°F)	LWI (°F)	FLUID TYPE	GPM	WPD (FT.WG.)	EAT (°F)	LAT (°F)	EWI (°F)	LWI (°F)	CAPACITY (MBH)	FLUID TYPE	GPM	WPD (FT.WG.)	VELOCITY	EFFICIENCY	V	PH	HZ	MCA	FLA	MOCP			
FCU-128	MECH 128.1	STORAGE	CARRIER	42DV20	VERT. FLOW	1760	1.0	1	1	FORWARD CURVE	DIRECT	510	80.0	46.6	55.0	54.5	67.6	47.3	45	55	WATER	13.5	7.7	53	97	140	100	78.6	WATER	4	1.9	-	MERV BA	208	3	60	4.43	3.7	15	350	1.3	
FCU-130	MECH 139	STORAGE	CARRIER	42DV20	VERT. FLOW	1815	1.0	1	1	FORWARD CURVE	DIRECT	659	80.0	46.6	55.0	54.5	67.6	47.3	45	55	WATER	13.5	7.7	53	97	140	100	78.6	WATER	4	1.9	-	MERV BA	208	3	60	4.43	3.7	15	350	1.3	
FCU-300	CORRIDOR 300A	CORRIDOR - 300A	CARRIER	42DC08	HORIZ. CEILING	800	0.37	1	1/2	FORWARD CURVE	DIRECT	300	81.8	72.8	63.6	62.0	32.1	16.7	45	55	WATER	6.4	19.1	49.7	77.2	140	100	24.9	WATER	1.3	2.3	-	MERV BA	208	1	60	3.30	2.4	15	115	1.2,3	
FCU-300A	CORRIDOR 300A	CORRIDOR - 300A	CARRIER	42DC08	HORIZ. CEILING	800	0.37	1	1/2	FORWARD CURVE	DIRECT	300	81.8	72.8	63.6	62.0	32.1	16.7	45	55	WATER	6.4	19.1	49.7	77.2	140	100	24.9	WATER	1.3	2.3	-	MERV BA	208	1	60	3.30	2.4	15	115	1.2,3	
FCU-302	GUARDIANE 302	OFFICE 301/302	CARRIER	42DC12	HORIZ. CEILING	1200	0.30	1	1/2	FORWARD CURVE	DIRECT	300	80.0	46.6	55.0	54.5	67.6	47.3	45	55	WATER	10.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-303	CLRM 303	CLRM 303	CARRIER	42DC06	HORIZ. CEILING	400	0.25	1	1/2	FORWARD CURVE	DIRECT	110	80.6	68.5	62.0	59.7	35.2	10.2	45	55	WATER	2.8	4.7	54.8	81.8	140	100	14.7	WATER	0.7	0.9	-	MERV BA	208	1	60	2.43	2.1	15	190	1.2,3	
FCU-307	CLRM 307	CLRM 307	CARRIER	42DC12	HORIZ. CEILING	1050	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-308	CLRM 308	CLRM 308	CARRIER	42DC12	HORIZ. CEILING	1050	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-309	CLRM 309	CLRM 309	CARRIER	42DC12	HORIZ. CEILING	1125	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-310	CLRM 310	CLRM 310	CARRIER	42DC12	HORIZ. CEILING	1125	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-311	CLRM 311	CLRM 311	CARRIER	42DC12	HORIZ. CEILING	1050	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-312	CLRM 312	CLRM 312	CARRIER	42DC12	HORIZ. CEILING	1050	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-313	CLRM 313	CLRM 313	CARRIER	42DC12	HORIZ. CEILING	1050	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
FCU-314	CLRM 314	CLRM 314	CARRIER	42DC12	HORIZ. CEILING	1050	0.25	2	1/2	FORWARD CURVE	DIRECT	250	80.0	46.6	62.2	59.7	35.2	25.5	45	55	WATER	7.0	9.6	56.2	81.4	140	100	36.7	WATER	1.9	5.3	-	MERV BA	208	1	60	4.16	4.1	15	190	1.2,3	
NOTES:																																										
1. FACTORY MOUNTED AND WIRED DISCONNECT.																																										
2. PROVIDE WITH LOW PROFILE CONDENSATE PUMP.																																										
3. EQUIPMENT IN THIS SCHEDULE IS TO BE FURNISHED BY THE OWNER AND INSTALLED IN THIS CONTRACT. REFER TO APPENDIX 1 - OWNER PROVIDED SUPPLEMENTAL INFORMATION FOR MANUFACTURERS' EQUIPMENT INFORMATION AND COORDINATE WITH OWNER'S REPRESENTATIVE FOR AN ADDITIONAL PRODUCT INFORMATION REQUIRED FOR INSTALLATION, TESTING AND STARTUP.																																										

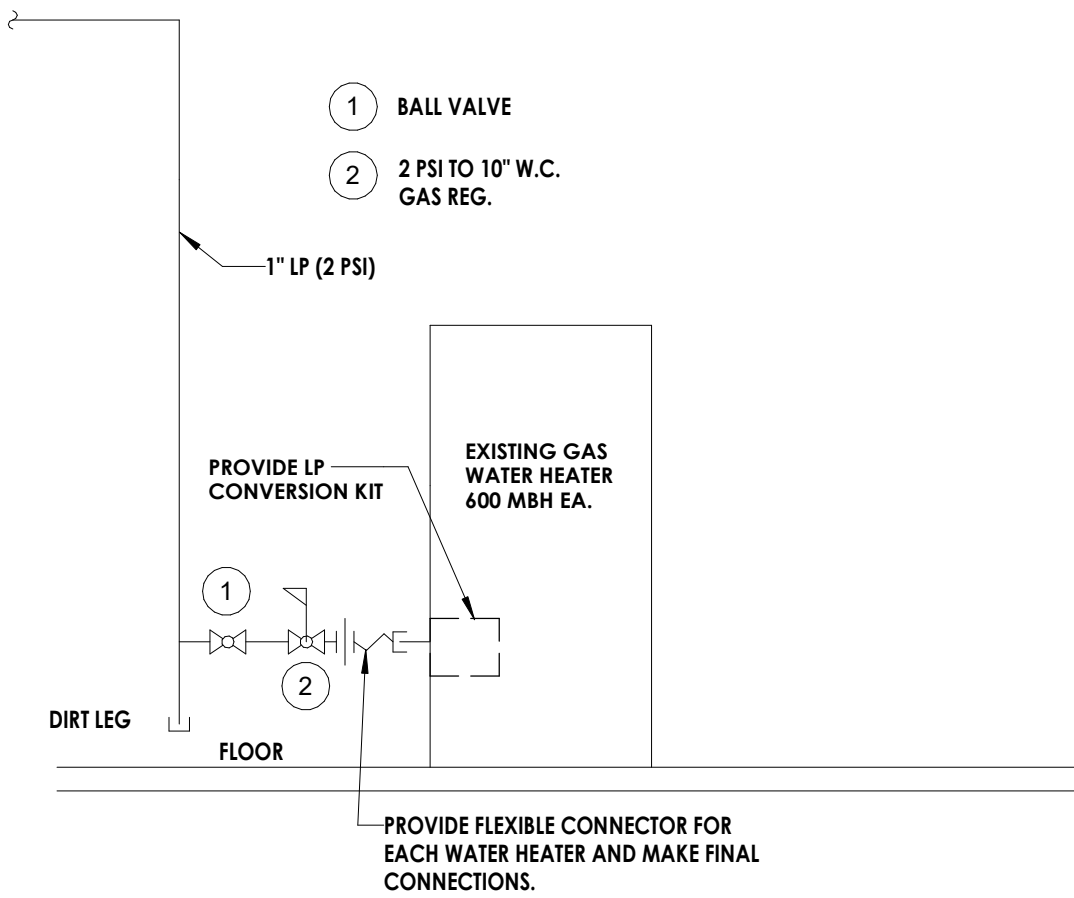
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SINGLE DUCT VARIABLE AIR VOLUME TERMINAL UNIT (HYDRONIC HEAT)																										
TAG	LOCATION	AREA SERVED	SYSTEM	MANUFACTURER	MODEL	INLET SIZE [IN.]	OUTLET SIZE [IN.]	MAX. [CFM]	MIN. [CFM]	STATIC PRESSURE				NOISE		HOT WATER HEATING COIL								NOTES		
										INLET	OUTLET	MIN.	NC RAD.	NC DISC.	CFM	MBH	EAT [°F]	LAT [°F]	GPM	EW [°F]	LWT [°F]	WPD [°F/WT.]				
VAV-04-01A	172 - MEDIA CENTER	172 - MEDIA CENTER	AHU-04	TITUS	DESV 40	24x16	38x18	2425	1970	1	0.25	0.17	31	24	1970	60.4	58.9	90	3.26	140	98.4	1.91	WATER	2	1	
VAV-04-01B	172 - MEDIA CENTER	172 - MEDIA CENTER	AHU-04	TITUS	DESV 40	24x16	38x18	2675	1975	1	0.25	0.2	31	24	1975	63.6	58.9	90	3.27	140	98.4	1.91	WATER	2	1	
VAV-04-02	119 - REFERENCE CLRM	119 - REFERENCE CLRM	AHU-04	TITUS	DESV 12	12	16x15	720	295	1	0.25	0.06	18	22	295	9.9	58.9	90	0.53	140	101.5	0.11	WATER	2	1	
VAV-04-03	104 - CORRIDOR	104 - CORRIDOR	AHU-04	TITUS	DESV 04	04	12x8	350	210	1	0.25	0.26	21	23	460	8.4	58.9	90	1.36	140	116.3	0.34	WATER	2	1	
VAV-04-04	113D - STORAGE	113D - STORAGE	AHU-04	TITUS	DESV 10	10	14x12.5	440	320	1	0.25	0.05	20	22	215	7.2	58.9	90	0.7	140	107.9	0.11	WATER	2	1	
VAV-04-05	117 - CLRM	117 - CLRM	AHU-04	TITUS	DESV 10	10	14x12.5	1020	555	1	0.25	0.31	23	27	405	15.7	58.9	90	0.72	140	100.2	0.18	WATER	2	1	
VAV-04-06	118 - ADMIN OFFICE	118 - ADMIN OFFICE	AHU-04	TITUS	DESV 04	04	12x8	105	45	1	0.25	0.03	15	27	45	2.3	58.9	90	0.98	140	132.4	0.49	WATER	1	1	
VAV-04-07	117A - WORKROOM	117A - WORKROOM	AHU-04	TITUS	DESV 08	08	20x17.5	610	480	1	0.25	0.26	20	27	480	16.2	58.9	90	1.07	140	109.1	0.29	WATER	2	1	
VAV-05-01	107A - CLRM	106A - MUSIC CLRM	AHU-05	TITUS	DESV 40	24x16	38x18	2500	2500	1	0.25	0.16	30	24	2500	76.0	62	90	4.52	140	102.1	3.4	WATER	2	1	
VAV-05-02	107A - CLRM	107A - CLRM	AHU-05	TITUS	DESV 14	14	20x17.5	1315	1315	1	0.25	0.17	18	19	1315	40.0	62	90	2.66	140	106.1	2.85	WATER	2	1	
VAV-05-03	108A - CLRM	108A - CLRM	AHU-05	TITUS	DESV 14	14	20x17.5	1365	1365	1	0.25	0.18	18	19	1365	41.5	62	90	2.81	140	106.8	3.14	WATER	2	1	
VAV-05-04	112 - STORAGE	112 - STORAGE	AHU-05	TITUS	DESV 04	04	12x8	290	290	1	0.25	0.19	18	25	290	9.2	62	90	0.59	140	105.8	0.08	WATER	2	1	
VAV-05-05	115A - OFFICE	115A - OFFICE	AHU-05	TITUS	DESV 08	08	12x10	440	440	1	0.25	0.15	18	25	440	13.4	62	90	1.2	140	114.7	0.27	WATER	2	1	
VAV-05-06	116A - ART CLRM	116A - ART CLRM	AHU-05	TITUS	DESV 04	24x16	38x18	2490	2490	1	0.25	0.16	30	24	2490	75.7	62	90	4.49	140	102	3.36	WATER	2	1	
VAV-05-07	115A - OFFICE	101 - CORRIDOR	AHU-05	TITUS	DESV 14	14	20x17.5	1200	1200	1	0.25	0.14	18	19	1200	36.5	62	90	2.31	140	104.4	2.22	WATER	2	1	
VAV-06-01	146A - COMP LAB	146A - COMP LAB	AHU-06	TITUS	DESV 14	14	20x17.5	2020	1125	1	0.25	0.33	22	20	1125	33.5	62.6	90	2.11	140	103.3	1.89	WATER	2	1	
VAV-06-02	143A - CLRM	143A - CLRM	AHU-06	TITUS	DESV 10	10	14x12.5	820	290	1	0.25	0.12	23	25	335	9.8	62.6	90	0.55	140	97.7	0.12	WATER	2	1	
VAV-06-03	142A - CLRM	142A - CLRM	AHU-06	TITUS	DESV 12	12	16x15	820	260	1	0.25	0.07	19	23	335	10.4	62.6	90	0.55	140	97.7	0.12	WATER	2	1	
VAV-06-04	141A - CLRM	141A - CLRM	AHU-06	TITUS	DESV 12	12	16x15	830	290	1	0.25	0.08	19	23	375	11.0	62.6	90	0.62	140	98.7	0.15	WATER	2	1	
VAV-06-05	121A - MAIL ROOM	121A - MAIL ROOM	AHU-06	TITUS	DESV 12	12	16x15	1215	610	1	0.25	0.25	20	24	610	20.2	62.6	90	1.07	140	100.7	0.46	WATER	2	1	
VAV-06-06	136A - LOUNGE	136A - LOUNGE	AHU-06	TITUS	DESV 08	08	12x10	530	530	1	0.25	0.20	19	27	530	15.8	62.6	90	1.27	140	111.4	0.39	WATER	2	1	
VAV-06-07	121A - MAIL ROOM	121A - MAIL ROOM	AHU-06	TITUS	DESV 12	12	16x15	1105	1105	1	0.25	0.22	20	24	615	20.2	62.6	90	1.11	140	101.1	0.49	WATER	2	1	
VAV-06-08	101 - CORRIDOR	101 & 102 - CORRIDOR	AHU-06	TITUS	DESV 14	16	26x18	2030	1825	1	0.25	0.24	16	18	1825	54.3	62.6	90	3.89	140	107.9	2.14	WATER	2	1	
VAV-07-01	106 - LOUNGE	106 - LOUNGE	AHU-07	TITUS	DESV 04	06	12x8	365	110	1	0.25	0.28	21	23	265	8.9	62.4	90	0.51	140	104.3	0.06	WATER	2	1	
VAV-07-02	108 - CLRM	108 - CLRM	AHU-07	TITUS	DESV 14	14	20x17.5	1725	520	1	0.25	0.26	20	20	1470	44.1	62.4	90	3.18	140	108.4	3.91	WATER	2	1	
VAV-07-03	107 - CLRM	107 - CLRM	AHU-07	TITUS	DESV 14	14	20x17.5	1560	470	1	0.25	0.21	20	19	1050	31.5	62.4	90	1.9	140	102.2	1.58	WATER	2	1	
VAV-07-04	109 - CLRM	109 - CLRM	AHU-07	TITUS	DESV 14	14	20x17.5	1500	450	1	0.25	0.20	20	19	1090	32.7	62.4	90	2.01	140	102.9	1.75	WATER	2	1	
VAV-07-05	110 - CLRM	110 - CLRM	AHU-07	TITUS	DESV 12	12	16x15	1425	430	1	0.25	0.32	22	25	750	22.5	62.4	90	1.42	140	103.7	0.75	WATER	2	1	
VAV-07-06	111 - CLRM	111 - CLRM	AHU-07	TITUS	DESV 12	12	16x15	1425	430	1	0.25	0.32	22	25	750	22.5	62.4	90	1.42	140	103.7	0.75	WATER	2	1	
VAV-07-07	102A - CORRIDOR	102A - CORRIDOR	AHU-07	TITUS	DESV 14	14	20x17.5	1495	450	1	0.25	0.20	20	19	1495	45.5	62.4	90	2.85	140	104.1	1.23	WATER	2	1	
VAV-07-08	112 - CLRM	112 - CLRM	AHU-07	TITUS	DESV 14	14	20x17.5	1425	430	1	0.25	0.19	19	19	1065	31.9	62.4	90	1.94	140	102.4	1.63	WATER	2	1	
VAV-07-09	113 - CLRM	113 - CLRM	AHU-07	TITUS	DESV 14	14	20x17.5	1400	420	1	0.25	0.18	19	19	1065	31.9	62.4	90	1.94	140	102.4	1.63	WATER	2	1	
VAV-07-10	124 - CLRM	124 - CLRM	AHU-07	TITUS	DESV 12	12	16x15	1250	375	1	0.25	0.26	20	24	705	21.2	62.4	90	1.29	140	102.6	0.44	WATER	2	1	
VAV-07-11	114 - CONFERENCE	114 - CONFERENCE	AHU-07	TITUS	DESV 04	06	12x8	440	135	1	0.25	0.39	23	24	290	9.2	62.4	90	0.59	140	105.8	0.08	WATER	2	1	
VAV-07-12	102A - CORRIDOR	102A - CORRIDOR	AHU-07	TITUS	DESV 14	16	26x18	1770	535	1	0.25	0.19	15	17	1770	53.1	62.4	90	3.71	140	107.3	1.97	WATER	2	1	
VAV-08-01	123 - CLRM	123 - CLRM	AHU-08	TITUS	DESV 14	14	20x17.5	1425	430	1	0.25	0.19	19	19	1245	37.3	62	90	2.44	140	105.1	2.45	WATER	2	1	
VAV-08-02	125 - CLRM	125 - CLRM	AHU-08	TITUS	DESV 12	12	16x15	1425	430	1	0.25	0.32	22	25	750	22.5	62	90	1.42	140	103.7	0.75	WATER	2	1	
VAV-08-03	126 - CLRM	126 - CLRM	AHU-08	TITUS	DESV 12	12	16x15	1350	405	1	0.25	0.29	22	25	755	22.4	62	90	1.44	140	103.9	0.77	WATER	2	1	
VAV-08-04	127 - CLRM	127 - CLRM	AHU-08	TITUS	DESV 12	12	16x15	1275	385	1	0.25	0.27	20	24	735	22.0	62	90	1.38	140	103.5	0.72	WATER	2	1	
VAV-08-05	138 - CLRM	138 - CLRM	AHU-08	TITUS	DESV 12	12	16x15	1275	385	1	0.25	0.27	20	24	945	28.3	62	90	2.02	140	108	1.4	WATER	2	1	
VAV-08-06	137 - CLRM	137 - CLRM	AHU-08	TITUS	DESV 12	12	16x15	1275	385	1	0.25	0.14	23	25	385	11.5	62	90	0.6	140	95.7	0.17	WATER	2	1	
VAV-08-07	136 - CLRM	136 - CLRM	AHU-08	TITUS	DESV 12	12	16x15	1325	400	1	0.25	0.29	22	25	800	24.0	62	90	1.56	140	104.8	0.89	WATER	2	1	
VAV-08-08	134 - READING	134 - READING	AHU-08	TITUS	DESV 08	08	12x10	390	120	1	0.25	0.07	18	25	180	5.4	62	90	0.29	140	96.5	0.02	WATER	2	1	
VAV-08-09	103 - CORRIDOR	103 - CORRIDOR	AHU-08	TITUS	DESV 14	14	20x17.5	1320	400	1	0.25	0.09	20	19	465	13.9	62	90	0.75	140	97.4	0.25	WATER	2	1	
VAV-08-10	135 - READING	135 - READING	AHU-08	TITUS	DESV 04	06	12x8	360	110	1	0.25	0.27	21	23	275	9.0	62	90	0.55	140	105.2	0.07	WATER	2	1	
VAV-09A-01	165 - CLRM	165 - CLRM	AHU-09A	TITUS	DESV 12	12	16x15	1460	440	1	0.25	0.33	23	25	875	25.3	63.4	90	1.79	140	106.5	1.13	WATER	2	1	
VAV-09A-02	164 - CLRM	164 - CLRM	AHU-09A	TITUS	DESV 14	14	20x17.5	1480	465	1	0.25	0.20	20	19	880	28.5	63.4	90	1.5	140	99.7	1.03	WATER	2	1	
VAV-09A-03	163 - CLRM	163 - CLRM	AHU-09A	TITUS	DESV 12	12	16x15	1160	350	1	0.25	0.23	20	24	850	24.6	63.4	90	1.72	140	106	1.05	WATER	2	1	
VAV-09A-04	162 - CLRM	162 - CLRM	AHU-09A	TITUS	DESV 12	12	16x15	1160	350	1	0.25	0.23	20	24	970	28.0	63.4	90	2.11	140	108.5	1.51	WATER	2	1	
VAV-09A-05	181 - CCC	181 - CCC	AHU-09A	TITUS	DESV 12	12	16x15	1400	420	1	0.25	0.16	24	27	420	12.5	63.4	90	0.66	140	96.2	0.2	WATER	2	1	
VAV-09A-06	160 - PLANNING																									

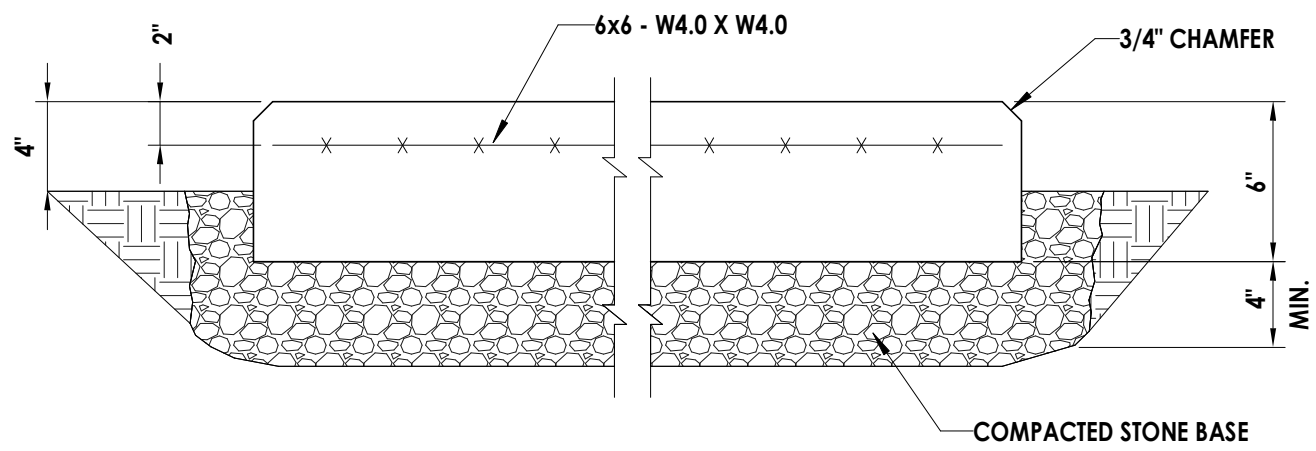
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1
P000
GAS PIPING TO BOILER
NO SCALE



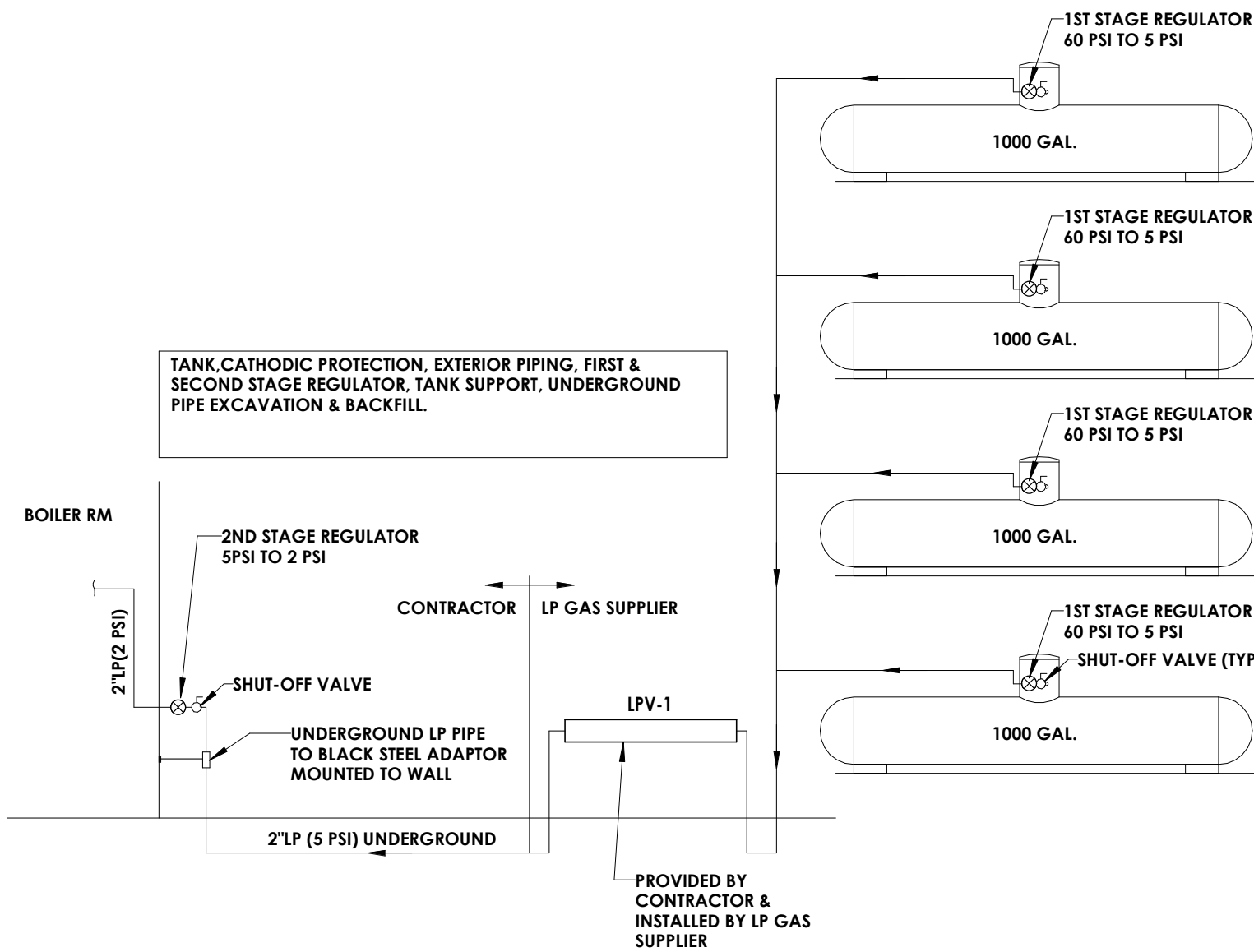
2
P000
GAS PIPING TO EXISTING WATER HEATER
NO SCALE



EQUIPMENT CONCRETE PAD DETAIL FOR LOCATION ON GRADE

NOTE: 1. COORDINATE SIZE WITH LP TANK & EQUIPMENT VENDOR.
2. COORDINATE EQUIPMENT SIZE PAD WITH EQUIPMENT & PROVIDE EXTENSION OF PAD A MIN. OF 12" BEYOND PERIMETER ON ALL SIDES.

3
P000
CONCRETE EQUIPMENT PAD DETAIL
NOT TO SCALE

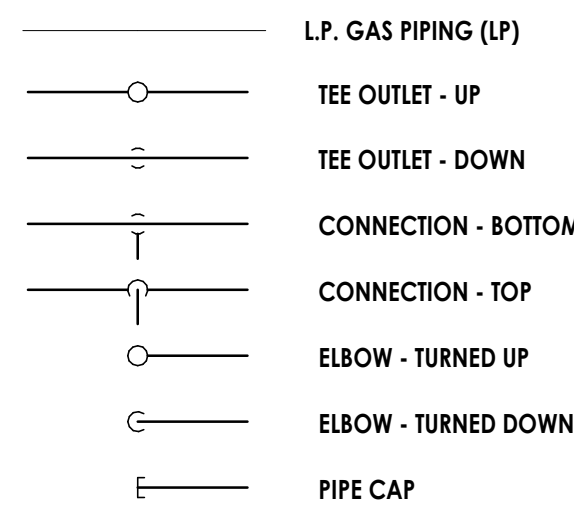


4
P000
LP GAS TANK LAYOUT
12" = 1'-0"

PIPING MATERIAL SCHEDULE				
SERVICE	SIZE	PIPE MATERIAL	FITTING MATERIAL	JOINTS
PROPANE GAS - ABOVE GROUND	ALL	SCHEDULE 80, ASTM A53, BLACK STEEL PIPE, THREADED AND COUPLED	150 PSI BLACK MALLEABLE IRON, THREADED	ASME B1.20.1 THREADED, PIPE-JOINT COMPOUND SHALL BE COMPATIBLE FOR LPG SERVICE
PROPANE GAS - BELOW GROUND	ALL	(PE) POLYETHYLENE PIPING, ASTM D 2513, SDR 11, WITH TRACER WIRE	PE FITTINGS PER ASTM D 2683 SOCKET FUSION TYPE WITH DIMENSIONS MATCHING PE PIPE	SOCKET FUSION TYPE PER ASTM D 2683
BELOW GROUND TO ABOVE GROUND TRANSITION FITTING	ALL	POLYETHYLENE PIPE TO SCH. 40 BLACK STEEL	FACTORY FABRICATED FITTINGS WITH PE PIPE COMPLYING WITH ASTM D 2513, SDR 11; AND STEEL PIPE COMPLYING WITH ASTM A 53 / A 53 M, BLACK STEEL SCH. 40	THREADED END CONNECTORS
PROPANE GAS - EQUIPMENT CONNECTION	ALL	PROVIDE FLEXIBLE STAINLESS STEEL BELLOWS WITH WOVEN, FLEXIBLE, BRONZE, WIRE-REINFORCED PROTECTIVE JACKET	THREADED END CONNECTIONS TO MATCH EQUIPMENT CONNECTED AND SHALL BE CAPABLE OF 3/4" MISALIGNMENT, 36 INCH MAXIMUM LENGTH, APPROVED FOR LP GAS SERVICE	THREADED END CONNECTORS, MAXIMUM INLET PRESSURE = 2 PSI MAX.
PROPANE GAS - PRESSURE REGULATOR	ALL	CAST IRON BODY AND DIAPHRAGM WITH ALUMINUM ORIFICE, ANZI Z21.80	NITRILE RUBBER SEAT DISC, ATMOSPHERIC VENT WITH STAINLESS STEEL SCREEN, THREADED END CONNECTORS	THREADED END CONNECTORS, MAXIMUM INLET PRESSURE = 5 PSI MAX.
PROPANE GAS - SHUTOFF VALVE	ALL	CAST IRON LUBRICATED PLUG VALVES WITH THREADED ENDS, MSS SP-75	CAST IRON BODY COMPLYING WITH ASTM A 126 CLASS B, BRONZE PLUG, THERMOPLASTIC COATED SEAL, LISTED & LABELED NRTL	THREADED END CONNECTORS, PRESSURE CLASS = 125 PSI
PROPANE GAS - STAGE 1 PRV	ALL	CAST IRON BODY AND DIAPHRAGM WITH ALUMINUM ORIFICE, ANZI Z21.80	NITRILE RUBBER SEAT DISC, ATMOSPHERIC VENT WITH STAINLESS STEEL SCREEN, THREADED END CONNECTORS	THREADED END CONNECTORS, MAXIMUM INLET PRESSURE = 100 PSI MAX.
PROPANE GAS - STAGE 2 PRV	ALL	CAST IRON BODY AND DIAPHRAGM WITH ALUMINUM ORIFICE, ANZI Z21.80	NITRILE RUBBER SEAT DISC, ATMOSPHERIC VENT WITH STAINLESS STEEL SCREEN, THREADED END CONNECTORS	THREADED END CONNECTORS, MAXIMUM INLET PRESSURE = 5 PSI MAX.

LP GAS EQUIPMENT SCHEDULE							
EQUIP I.D.	EQUIPMENT DESCRIPTION	CAPACITY	MANUFACTURER	MODEL	POWER REQ.	NOTES	IN COMPLIANCE WITH
LP-1	PROPANE TANK - ABOVE GROUND	1,000 GAL.	N/A	N/A	N/A	PROVIDED & INSTALLED BY FERREL GAS CO.	
LP-2	PROPANE TANK - ABOVE GROUND	1,000 GAL.	N/A	N/A	N/A	PROVIDED & INSTALLED BY FERREL GAS CO.	
LP-3	PROPANE TANK - ABOVE GROUND	1,000 GAL.	N/A	N/A	N/A	PROVIDED & INSTALLED BY FERREL GAS CO.	
LP-4	PROPANE TANK - ABOVE GROUND	1,000 GAL.	N/A	N/A	N/A	PROVIDED & INSTALLED BY FERREL GAS CO.	
LPV-1	ELECTRIC LPG VAPORIZER	75 GPH	ALGAS-SDI	Z150	480 V - 3 PH	PROVIDED BY CONTRACTOR & INSTALLED BY FERREL GAS CO.	ANSI/ASME Y 14.5 - 2009

PLUMBING / PIPING LEGEND



LP GAS EQUIPMENT SCHEDULE						
SYM.	EQUIPMENT	LOCATION	PROVIDED & INSTALLED BY	LP INPUT @ UNIT	GAS PRES. @ UNIT	GAS PIPE & PRV PROVIDED & INSTALLED BY:
B-1	BOILER	BOILER ROOM [50%]	MECHANICAL	2,000,000	4" - 14" W.C.	PLUMBING
B-2	BOILER	BOILER ROOM [50%]	MECHANICAL	2,000,000	4" - 14" W.C.	PLUMBING
WH-1	[E] WATER HEATER	BOILER ROOM [50%]	LP GAS CONVERSION KIT	400,000	4" - 14" W.C.	PLUMBING
WH-2	[E] WATER HEATER	BOILER ROOM [50%]	LP GAS CONVERSION KIT	400,000	4" - 14" W.C.	PLUMBING
				TOTAL LP INPUT	5,200,000	
				TOTAL LP @ 50%	2,600,000	

NOTES:
COORDINATE LP GAS PIPING TO LP TANKS WITH LOCAL LP GAS PROVIDER
LP GAS PIPE SIZING BASED ON TABLE 402.4(1) LESS THAN 2 PSI
TOTAL LENGTH OF PIPE RUN USED = 50.0'

PROJECT INFORMATION

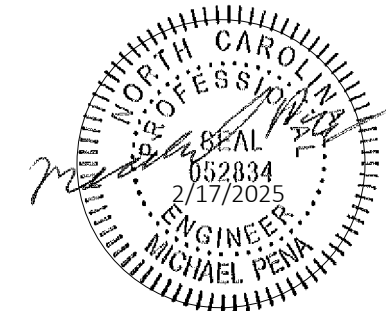
Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St.
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS

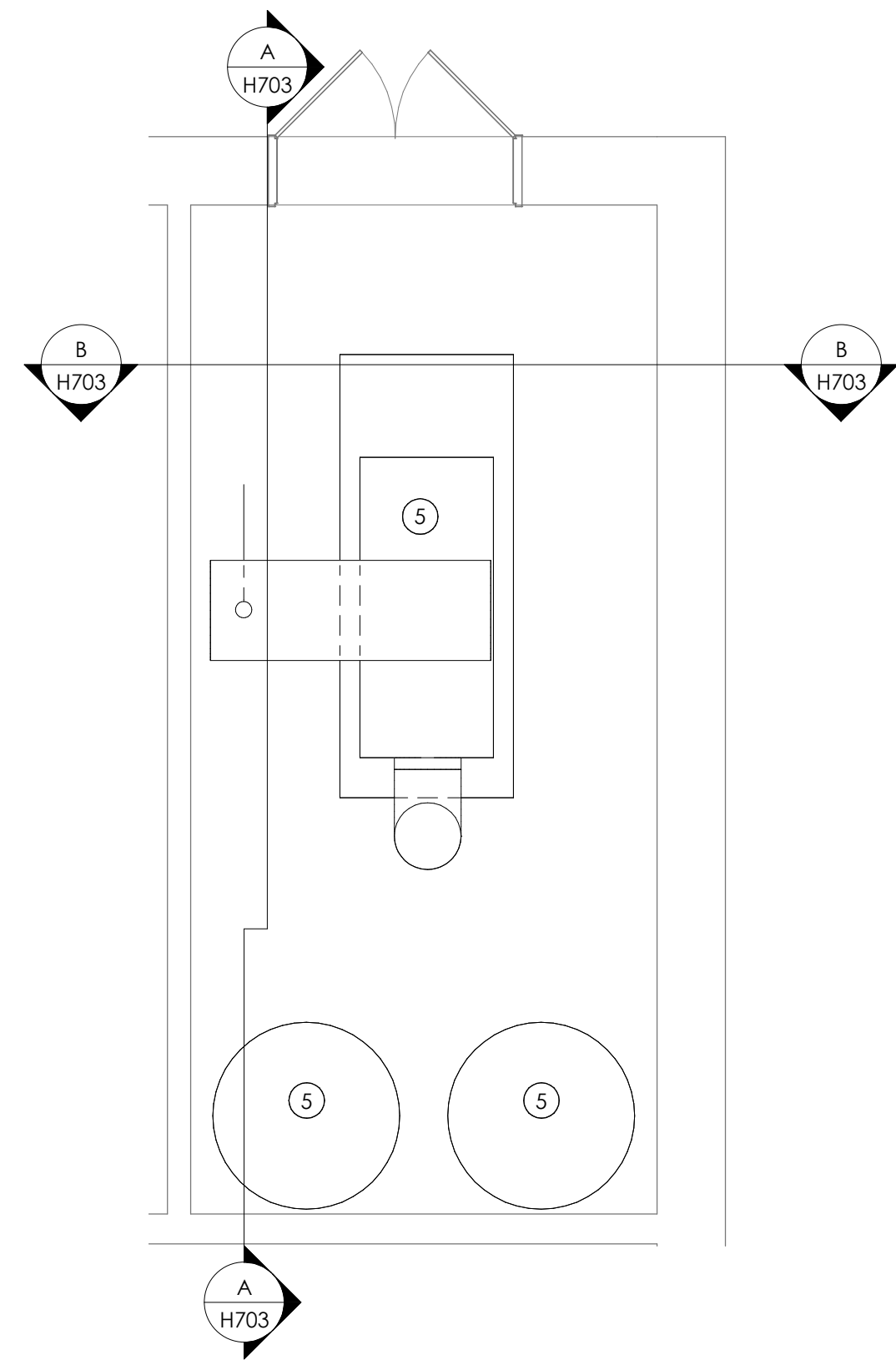
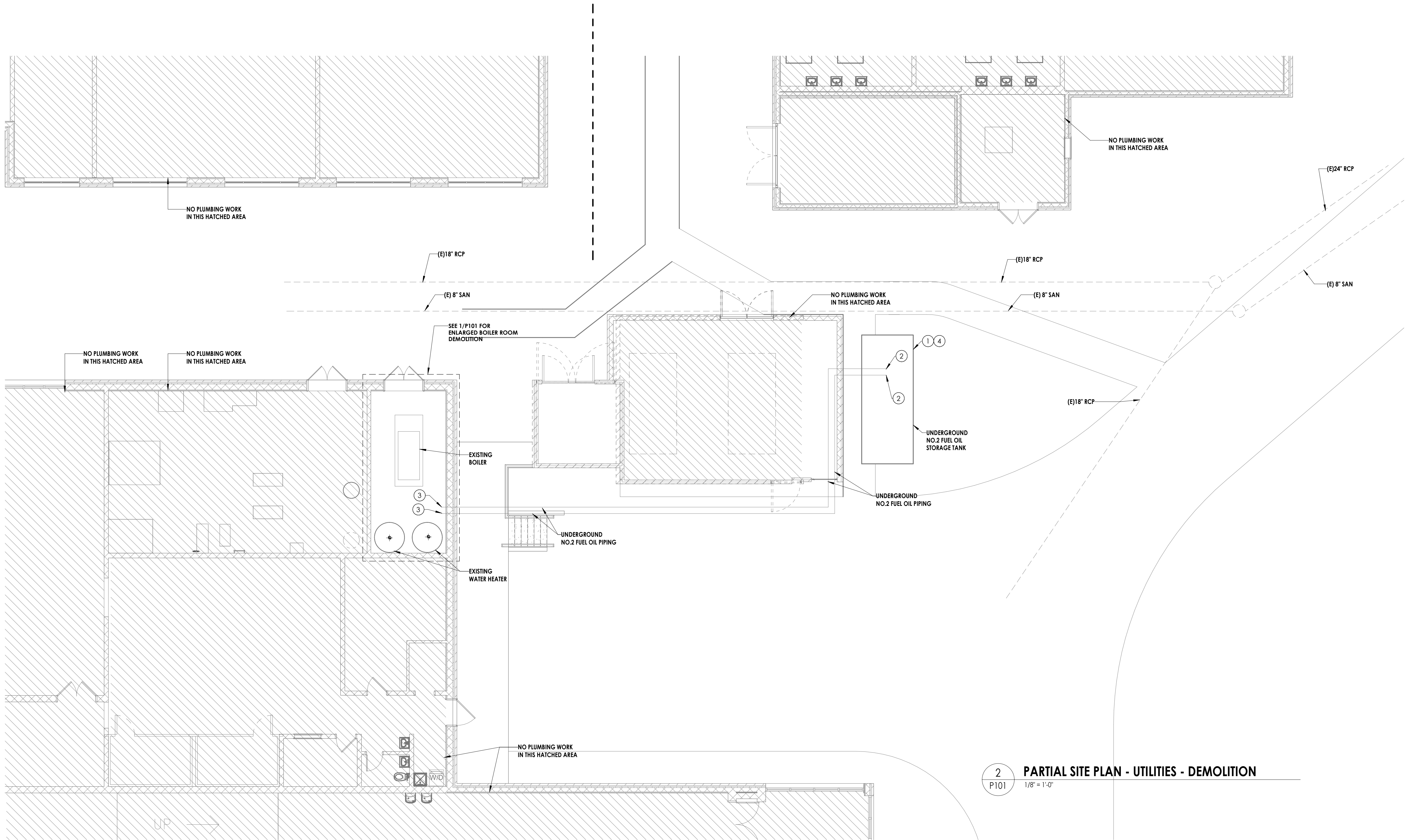


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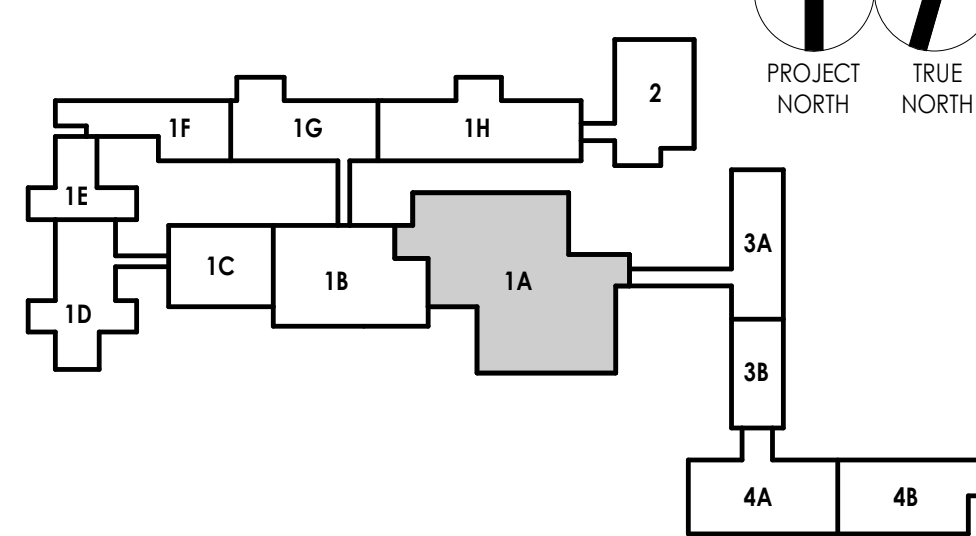
Issue Date
02/17/2025
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Project Status
BID SET
Drawn By
RLA
Checked By
ALJP
Drawing Title
UTILITY SCHEDULES & DETAILS

Drawing Number

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KEY PLAN:

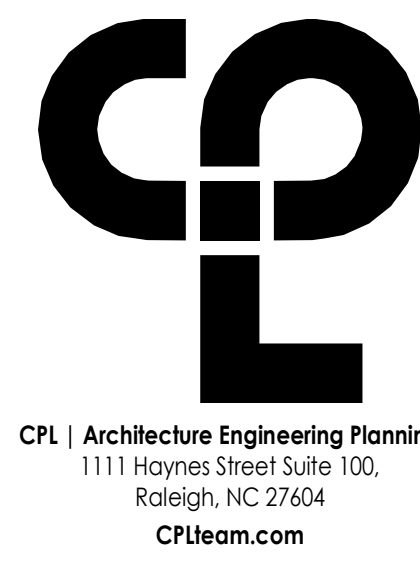


GENERAL NOTES

- A. ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL (EPA) GUIDELINES & REGULATIONS FOR ABANDON UNDERGROUND TANKS IN PLACE.
- B. TANKS ABANDONED IN PLACE SHALL COMPLY WITH THE REQUIREMENTS OF 2018 NC FIRE CODE SECTION 5704.2.13, NFPA 31 SECTION 7.12 & 7.13, NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY - DIVISION OF WASTE MONUMENT - DATED MAY 17, 2021, & API RP 1604 CLOSURE OF UNDERGROUND PETROLEUM STORAGE TANKS.

KEY NOTES

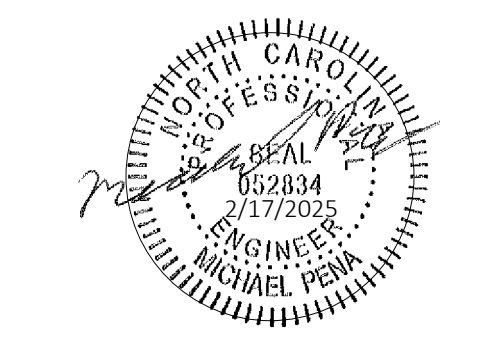
1. ABANDON-IN-PLACE EXISTING 10,000 GALLON UNDERGROUND TANK & ALL ASSOCIATED ACCESSORIES INCLUDING ALL ELECTRICAL AND MONITORING CABLE. REFER TO NOTE 4.
2. ABANDON-IN-PLACE EXISTING UNDERGROUND FUEL OIL PIPING IN PLACE & CAP BELOW GRADE AT THE STORAGE TANK LOCATION. REFER TO NOTE 4.
3. ABANDON-IN-PLACE EXISTING UNDERGROUND FUEL OIL PIPING IN PLACE & CAP ABOVE SLAB IN THE MECHANICAL ROOM. REFER TO NOTE 4.
4. TANK ABANDONED-IN-PLACE SHALL BE AS FOLLOWS:
FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE REMOVED FROM THE TANK AND CONNECTING PIPING.
THE SUCTION, INLET, GAUGE, VAPOR RETURN AND VAPOR LINES SHALL BE DISCONNECTED.
REMOVE ANY MONITORING & ELECTRICAL SOURCES, CABLE, & DEVICES RELATED TO THE UNDERGROUND STORAGE TANK.
THE TANK SHALL BE FILLED COMPLETELY WITH AN APPROVED INERT SOLID MATERIAL.
REMAINING UNDERGROUND PIPING SHALL BE CAPPED OR PLUGGED.
A RECORD OF TANK SIZE, LOCATION AND DATE OF ABANDONMENT SHALL BE RETAINED.
ALL EXTERIOR ABOVE-GRADE FILL PIPING SHALL BE PERMANENTLY REMOVED.
ALL MATERIALS, ELECTRICAL, MONITORING, & PIPING REMOVED SHALL BE LEGALLY DISPOSED OF OFF-SITE.
5. REMOVE ALL EXISTING FUEL PIPING AND ACCESSORIES TO THE EXISTING BOILERS WHICH WILL BE REMOVED & EXISTING WATER HEATERS TO REMAIN. CAP ANY UNDERGROUND PIPING. REFER TO NOTE 4.



PROJECT INFORMATION
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address: 180 W. Hatcher St., Four Oaks, NC 27524

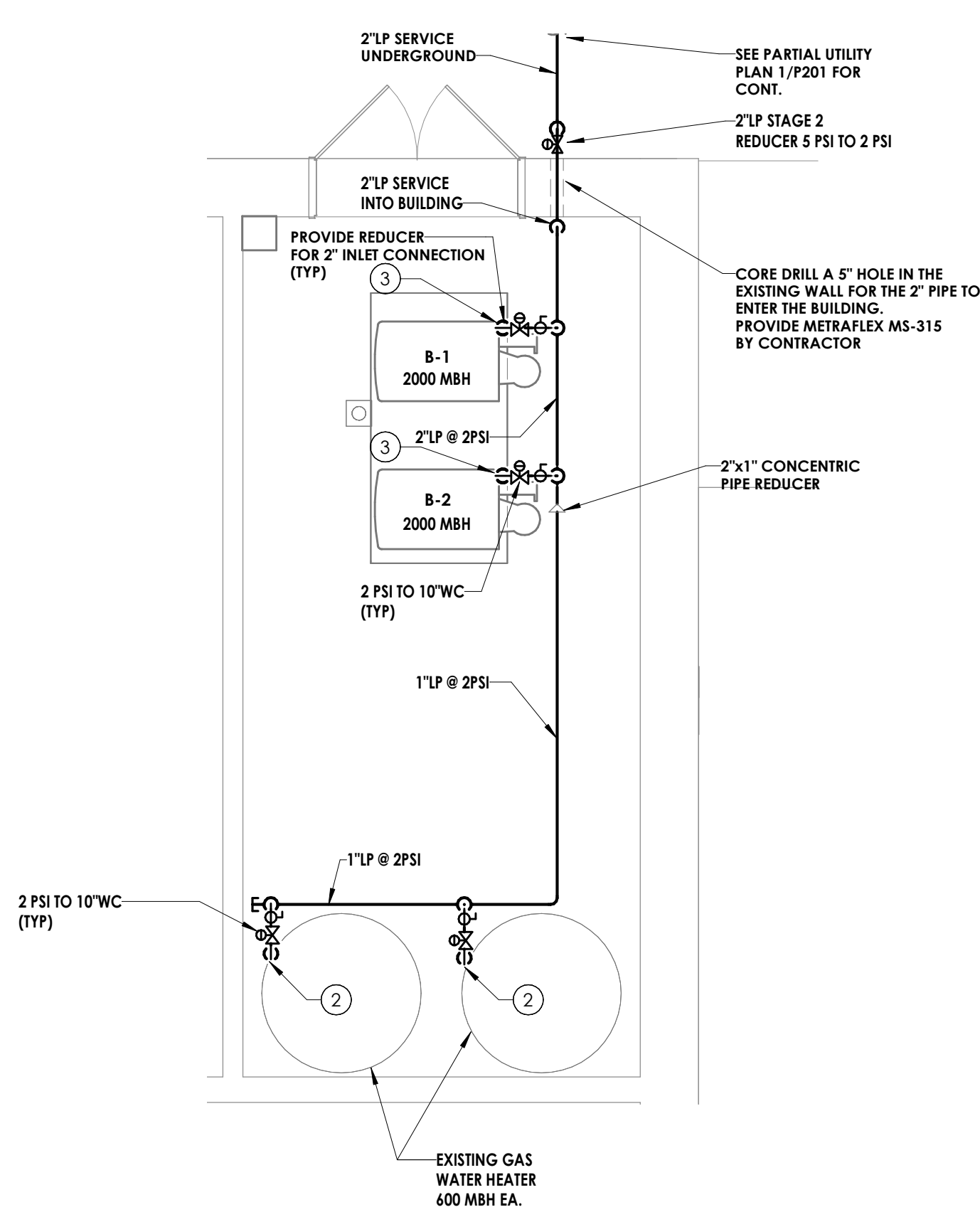
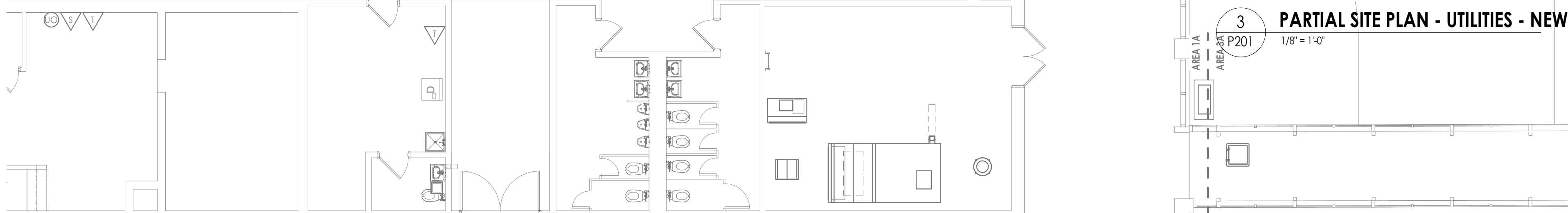
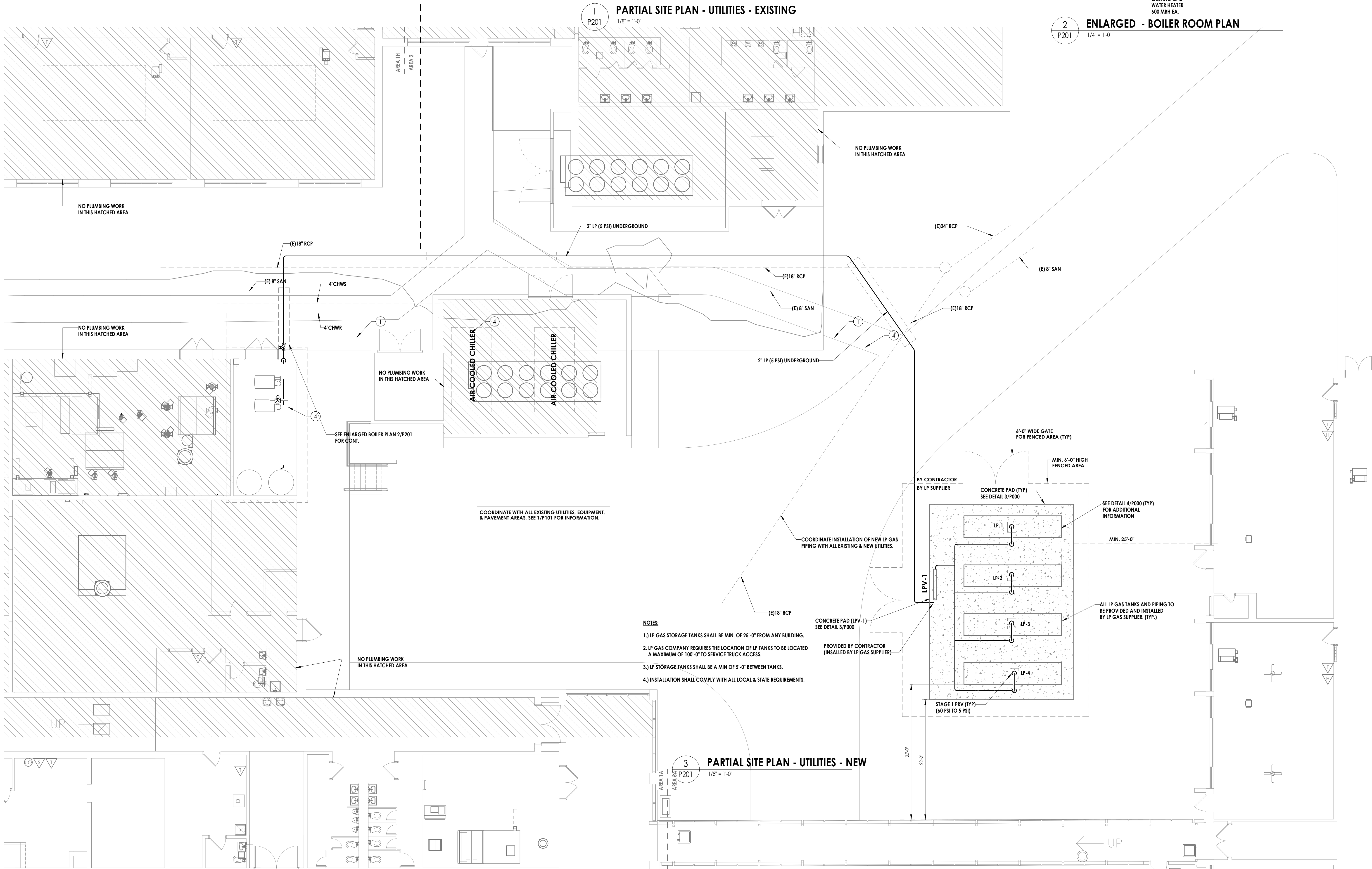
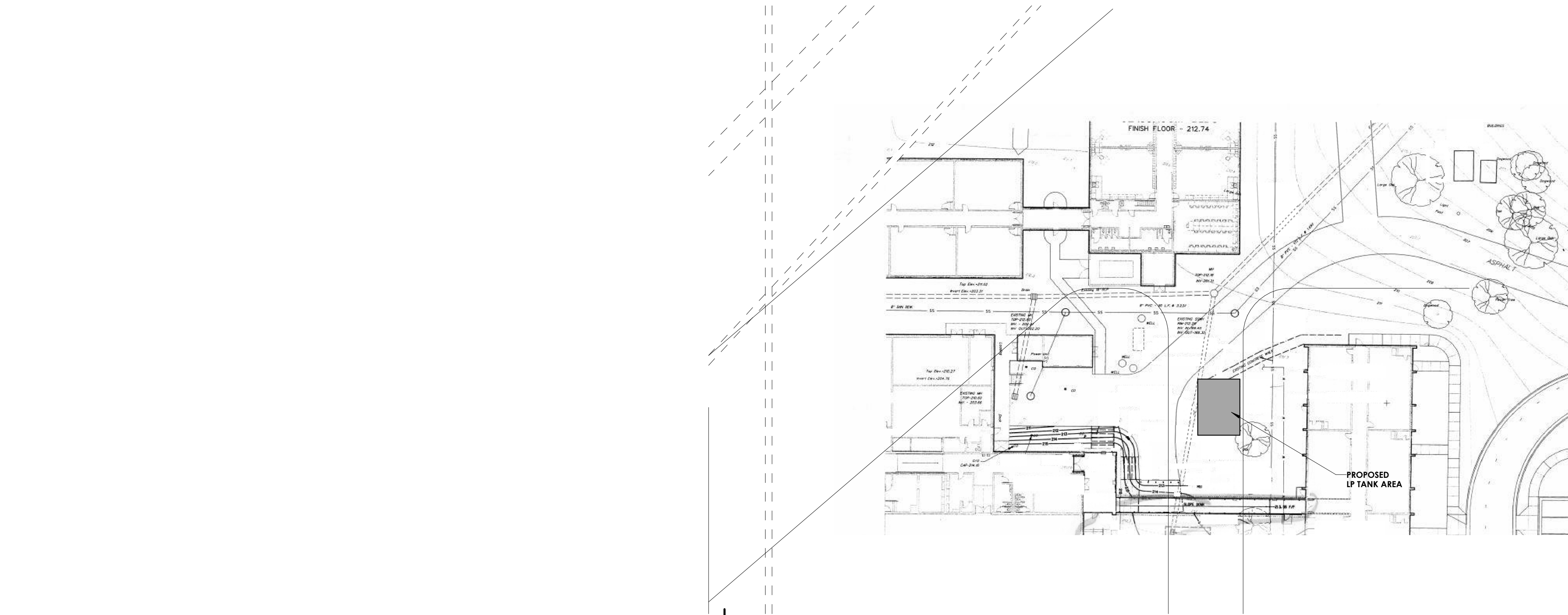
PROJECT ISSUE & REVISION SCHEDULE
Date Description

PROFESSIONAL STAMPS



SHEET INFORMATION
Issued: 02/17/2025
Project Status: BID SET
Drawn By: RLA
Drawing Title: ENLARGED PARTIAL PLAN - UTILITIES - DEMOLITION
Drawing Number: FOES P101

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GENERAL NOTES

A. REFER TO P000 FOR, LEGEND, SCHEDULES AND DETAILS.

B. ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE GUIDELINES & REGULATIONS.

C. COORDINATE ALL NEW WORK WITH ALL OTHER TRADES.

D. COORDINATE EXACT LP TANK LOCATIONS WITH LP GAS COMPANY SERVING THIS SITE.

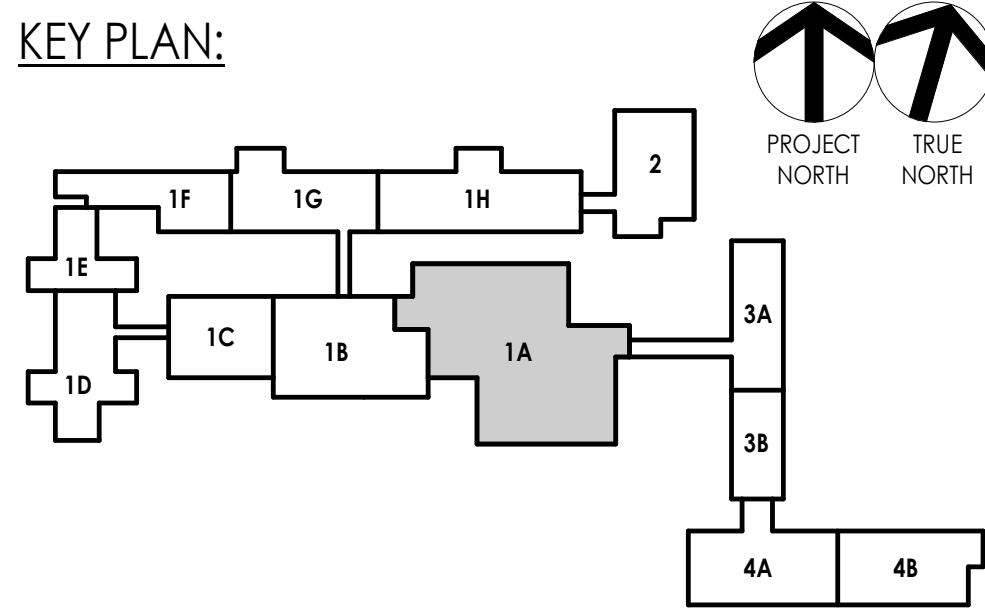
KEY NOTES

1) LP GAS PIPING UNDERGROUND TO THE EXISTING BOILER ROOM BY CONTRACTOR. CONTRACTOR SHALL COORDINATE EXACT ROUTING TO AVOID EXISTING & NEW UTILITIES. SEE ENLARGED BOILER ROOM PLAN 2/P201 FOR PIPING INTO THE BOILER ROOM INCLUDING PIPING TO EQUIPMENT.

2) PROVIDE 1" LP (2 PSI) GAS PIPING CONNECTION TO EXISTING WATER HEATERS WITH GAS PRESSURE REGULATOR @ 10" W.C. PROVIDE LP GAS CONVERSION KIT FOR EXISTING WATER HEATER.

3) PROVIDE 2" LP (2 PSI) GAS PIPING CONNECTION TO NEW BOILERS WITH GAS PRESSURE REGULATOR @ 10" W.C.

4) PROVIDE 6" SCH. 40 PVC SLEEVE (SOLID WALL) FOR ALL LP GAS PIPING ROUTED BELOW PAVEMENT AND/OR SIDEWALK AREAS



WIRING LEGEND:

S	SWITCH
(NONE)	
2	SINGLE POLE TOGGLE SWITCH
3	TWO POLE TOGGLE SWITCH
4	THREE WAY TOGGLE SWITCH
4	FOUR WAY TOGGLE SWITCH
WP	SINGLE POLE WEATHER PROOF SWITCH
K	SINGLE POLE KEYSwitch
P	SINGLE POLE SWITCH WITH PILOT LIGHT
TM	SINGLE POLE SWITCH WITH ONE HOUR TIMER
T	THERMAL SWITCH
TP	THERMAL SWITCH WITH PILOT LIGHT
MC	MOMENTARY CONTACT SWITCH
D	DIMMER SWITCH
O	OCCUPANCY SENSOR SWITCH
V	VACANCY SENSOR SWITCH
M	MOTOR RATED SWITCH
S II	ROMAN NUMERAL DESIGNATES NUMBER OF SWITCHES
S a	LOWER CASE LETTER DESIGNATES SWITCH LEG
⦿	SINGLE RECEPTACLE
⦿	DUPLEX RECEPTACLE
⦿	QUADRAPLEX RECEPTACLE
⦿	SPECIAL RECEPTACLE
GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHER RESISTANT, GFCI RECEPTACLE WITH WEATHER PROOF IN-USE COVER
SS	SURGE SUPPRESSION
C	COUNTER HEIGHT
TR	TAMPER RESISTANT, UL LISTED
PP	POWER POLE
⦿	CILING MOUNTED DUPLEX RECEPTACLE
c	CONDUIT
w	EXPOSED LOW VOLTAGE WIRING
J	JUNCTION BOX
F	FIRE SYSTEM
S	SECURITY SYSTEM
□	DISCONNECT SWITCH
□ WP	DISCONNECT SWITCH - WEATHER PROOF (NEMA 3R)
■	FUSED DISCONNECT SWITCH
■	COMBINATION FUSED DISCONNECT/ MAGNETIC STARTER SWITCH
HOA	HAND/OFF/AUTO
SS	START/STOP
M	MANUAL STARTER
VFD	COMBINATION VARIABLE FREQUENCY DRIVE AND DISCONNECT
VFD	VARIABLE FREQUENCY DRIVE
EF-1	MOTOR WITH DESIGNATOR
TC	TIME CLOCK
HVP-1-6	BRANCH CIRCUIT HOME RUN WITH PANEL NAME AND CIRCUIT NUMBER. QUANTITY OF ARROWHEADS DENOTES QUANTITY OF BRANCH CIRCUITS
	BRANCH CIRCUIT WIRING. PROVIDE QUANTITIES OF CONDUCTORS REQUIRED FOR CIRCUITING AND SWITCHING AS INDICATED
- - -	POWER LEG ONLY (NO SWITCH LEG BETWEEN ROOMS)
⊕	HARDWARE CONNECTION
OH	CONDUIT RISER UP
CH	CONDUIT RISER DOWN
T	TRANSFORMER
⦿	MUSHROOM HEAD PUSH BUTTON (EMERGENCY STOP)
□	EMERGENCY BREAK GLASS STATION

PANEL LEGEND:

EXISTING ELECTRICAL PANEL
NEW ELECTRICAL PANEL
AUTOMATIC TRANSFER SWITCH
ELECTRICAL SYSTEMS PANEL
SACP SECURITY ALARM CONTROL PANEL
FACP FIRE ALARM CONTROL PANEL
FAAP FIRE ALARM ANNUNCIATOR PANEL
PA PUBLIC ADDRESS CONTROL PANEL

SINGLE LINE DIAGRAM LEGEND:

⊕	EARTH GROUND
KVA	TRANSFORMER - KVA, PRIMARY AND SECONDARY VOLTAGE INDICATED. CONNECTIONS, K-RATING, AND SHIELD SPECIFIED ON ONE-LINE DIAGRAM
208/120-480V	
CT	CURRENT TRANSFORMER
FUSE	FUSE
DISCONNECT/LOADBREAK SWITCH	DISCONNECT/LOADBREAK SWITCH
CIRCUIT BREAKER	CIRCUIT BREAKER
AUTOMATIC TRANSFER SWITCH (NORMAL POSITION SHOWN)	AUTOMATIC TRANSFER SWITCH (NORMAL POSITION SHOWN)
METER	METER
ENCLOSED CIRCUIT BREAKER	ENCLOSED CIRCUIT BREAKER
FUSED DISCONNECT SWITCH	FUSED DISCONNECT SWITCH
PANEL OR PANEL	PANELBOARD-RATINGS AS SPECIFIED ON ONE-LINE DIAGRAM AND ON PANELBOARD SCHEDULE

LIGHT FIXTURE LEGEND:

⦿	LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE FOR LETTER DESIGNATION AND DESCRIPTION OF FIXTURES)
⦿	EMERGENCY AND/OR NIGHT LIGHT LIGHTING FIXTURE
⦿	EXIT LIGHTING FIXTURE UNIVERSAL MOUNT, SINGLE/DOUBLE FACE (WHERE USED, ARROW INDICATES CHEVRON DIRECTION)
⦿	BATTERY POWERED EMERGENCY LIGHT
⦿	EMERGENCY LIGHT REMOTE HEAD
⦿	TRACK LIGHTING
⦿	OCCUPANCY SENSOR - CEILING MOUNTED
⦿	OCCUPANCY SENSOR - WALL MOUNTED
⦿	OCCUPANCY SENSOR - CORNER MOUNTED
⦿	VACANCY SENSOR - WALL MOUNTED
⦿	VACANCY SENSOR - WALL MOUNTED
⦿	VACANCY SENSOR - CORNER MOUNTED
⦿	LIGHTING CONTACTOR
⦿	PHOTOCELL

COMMUNICATIONS LEGEND:

⦿	TELEPHONE DROP
⦿	DATA DROP
⦿	COMBINATION TELEPHONE/DATA DROP
⦿	WIRELESS ACCESS POINT
⦿	WIRELESS ACCESS POINT - CEILING MOUNTED
⦿	DATA RACK
⦿	COAX CABLE DROP
⦿	CEILING MOUNT LCD PROJECTOR
⦿	SPEAKER (PUBLIC ADDRESS) (NONE) CEILING MOUNTED
⦿	W WALL MOUNTED
⦿	SPEAKER (LOCAL SOUND SYSTEM)
⦿	SPEAKER HORN

SECURITY LEGEND:

⦿	VIDEO CAMERA
⦿	PASSIVE INFRARED MOTION DETECTOR

FIRE/LIFE SAFETY LEGEND:

⦿	FIRE ALARM PULL STATION
⦿	FIRE ALARM BELL
⦿	FIRE ALARM HORN
⦿	FIRE ALARM HORN AND STROBE COMBINATION
⦿ WP	FIRE ALARM HORN AND STROBE COMBINATION, WEATHER PROOF
⦿	FIRE ALARM SPEAKER
⦿ C	FIRE ALARM SPEAKER - CEILING MOUNTED
⦿	FIRE ALARM SPEAKER AND STROBE COMBINATION
⦿	FIRE ALARM STROBE
⦿	FIRE ALARM STROBE - CEILING MOUNTED
⦿	SMOKE DETECTOR
⦿ WG	SMOKE DETECTOR WITH WIRE GUARD
⦿ CO	CARBON MONOXIDE DETECTOR WITH AUDIBLE ALARM
⦿ CH	NATURAL GAS SENSOR
⦿	HEAT DETECTOR
⦿	DUCT DETECTOR
S	INDICATES INSTALLATION IN SUPPLY AIR
R	INDICATES INSTALLATION IN RETURN AIR
⦿ RTS	REMOTE TEST STATION FOR DUCT DETECTOR
⦿	FIRE ALARM SHUT DOWN RELAY
⦿ SS	FIRE SUPPRESSION ANSUL SYSTEM CONNECTION
⦿	SMOKE DAMPER RELAY CONNECTION
SD	SMOKE DAMPER AND FIRE DAMPER
SD	SMOKE DAMPER
⦿ ANA	CONTROL MODULE, ADDRESSABLE

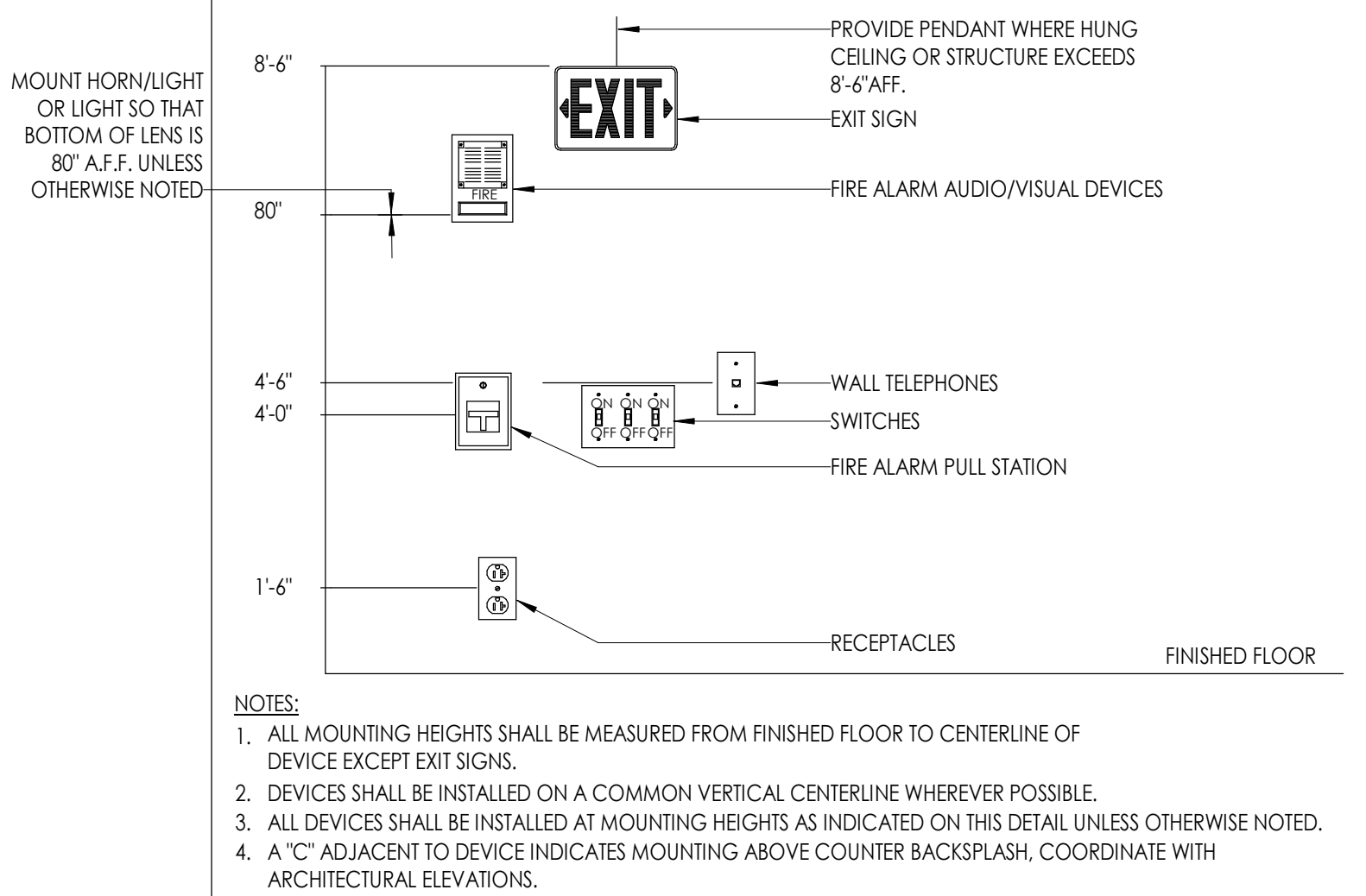
NOTE:

SYMBOLS SHOWN ON THIS ELECTRICAL SYMBOLS LIST ARE FOR REFERENCE PURPOSES ONLY. ALL OF THESE SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

GENERAL ELECTRICAL NOTES:

- ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70) AND THE NORTH CAROLINA BUILDING CODE.
- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND COORDINATE WITH EXISTING EQUIPMENT PRIOR TO BIDDING.
- BUILDING:**
 - ALL CONDUIT AND WIRING TO BE CONCEALED IN WALLS, FLOOR, OR ABOVE CEILINGS UNLESS OTHERWISE NOTED OR APPROVED BY THE ARCHITECT/ENGINEER. ALL DEVICE OUTLET BOXES SHALL BE RECESSED UNLESS OTHERWISE NOTED OR APPROVED BY THE ARCHITECT/ENGINEER, WHERE APPROVED OR NOTED, SURFACE METAL RACEWAY AND DEVICE BOXES SHALL BE USED IN-LIEU OF CONDUIT AND CONCEALED BOXES AT NO EXTRA COST TO THE OWNER.
 - ALL CONDUIT ROUTES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY FINAL ROUTE.
 - CONDUIT RUNS SHOWN ARE SCHEMATICAL AND DO NOT INDICATE THE NECESSARY FITTINGS AND JUNCTION BOXES THAT ARE INCLUDED IN THE SCOPE OF THE WORK.
- GROUNDING:**
 - ALL METAL RACEWAYS, INCLUDING CONDUIT, WIRE TROUGHS, WIREMOLD, ETC., SHALL BE GROUNDED. ALL CONNECTIONS IN METAL RACEWAYS SHALL BE COMPLETED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUS PATH TO GROUND THROUGHOUT THE ENTIRE LENGTH OF THE RACEWAY.
- WIRING:**
 - UNLESS NOTED OTHERWISE ON THE DRAWINGS OR ON THE EQUIPMENT WIRING SCHEDULE, EACH BRANCH CIRCUIT SHALL BE THREE (3) #12 AWG THHN/THWN (1 HOT, 1 NEUTRAL & 1 EQUIPMENT GROUND) IN 3/4" EMT CONDUIT. PROTECT EACH CIRCUIT WITH A 20 AMPERE, 1-POLE OVERCURRENT DEVICE UNLESS OTHERWISE NOTED. PROVIDE #10 AWG FOR 120V BRANCH CIRCUITS LONGER THAN 100 FEET. COMBINED NEUTRALS ARE NOT PERMITTED.

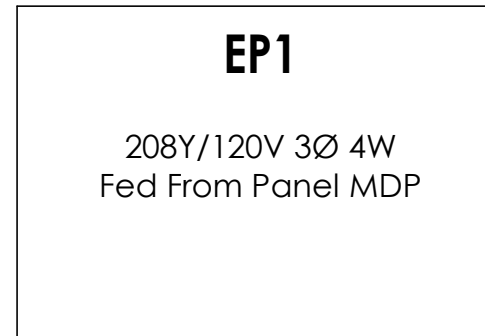
TYPICAL DEVICE MOUNTING HEIGHTS DETAIL



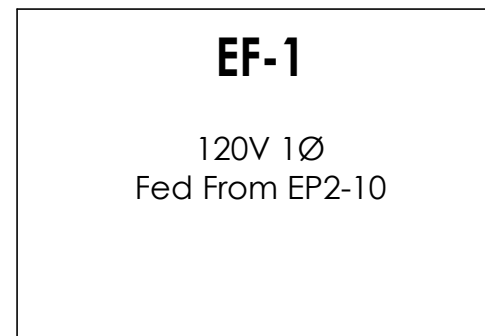
NOTES:

- ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS.
- DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
- ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS OTHERWISE NOTED.
- A "C" ADJACENT TO DEVICE INDICATES MOUNTING ABOVE COUNTER BACKSPLASH, COORDINATE WITH ARCHITECTURAL ELEVATIONS.

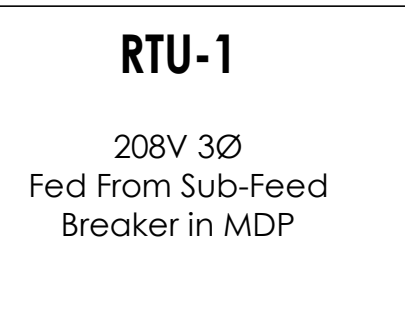
Panelboard



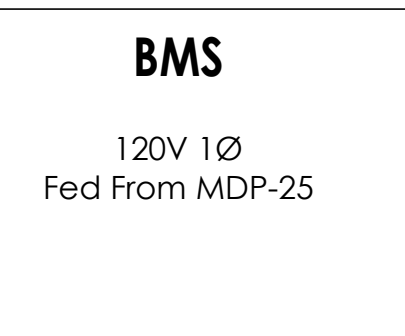
Typical Fan Disconnect / Starter / VFD



Mech Equipment Disconnects & VFD's



Control Panel (Fire Alarm, BMS, Security, ETC.)

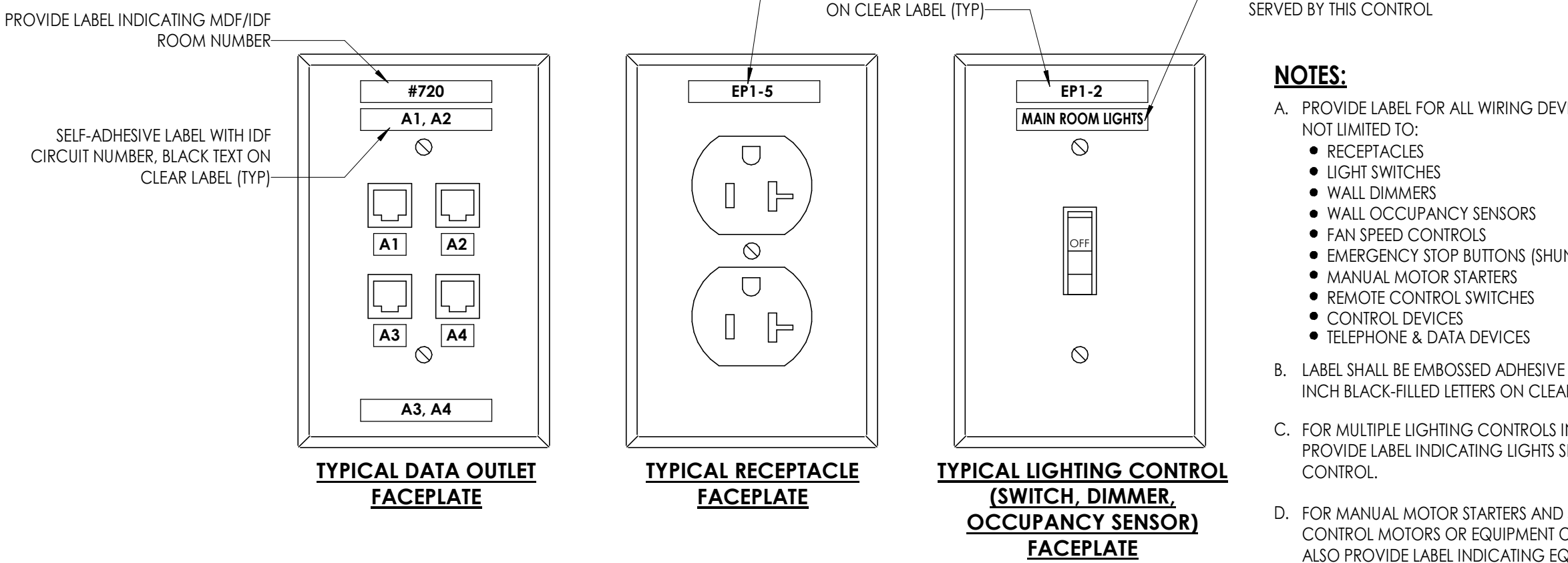


EQUIPMENT LABELING NOTES

- PROVIDE ENGRAVED LAMINATED NAMEPLATE FOR EACH PIECE OF ELECTRICAL EQUIPMENT. LABEL TAPE IS NOT ACCEPTABLE.
- COORDINATE SUPPLY SOURCE (PANEL/CIRCUIT WHERE FED FROM) WITH ACTUAL CIRCUITS USED.
- ON EACH UNIT OF EQUIPMENT, INSTALL UNIQUE DESIGNATION LABEL THAT IS CONSISTENT WITH WIRING DIAGRAMS AND SCHEDULES.
- PROVIDE LABEL AS SHOWN FOR EACH EQUIPMENT TYPE. INFORMATION SHALL INCLUDE NAME OF EQUIPMENT, VOLTAGE/PHASE, AND SUPPLY SOURCE.
- LABEL EQUIPMENT WITH SELF-ADHESIVE, ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABEL, UNLESS OTHERWISE INDICATED. EQUIPMENT NAME SHALL BE 1-INCH-HIGH LETTERS, AND ADDITIONAL TEXT SHALL BE 1/2-INCH-HIGH LETTERS. LABEL SIZE SHALL ACCOMMODATE TEXT REQUIRED FOR EACH PARTICULAR PIECE OF EQUIPMENT.
- LABEL THE FOLLOWING ITEMS:
 - PANELBOARDS
 - ENCLOSURES AND ELECTRICAL CABINETS
 - DISCONNECT SWITCHES
 - ENCLOSED CIRCUIT BREAKERS
 - STARTERS
 - VARIABLE FREQUENCY DRIVES
 - CONTROL PANELS
- NAMEPLATE COLOR CODE:
 - EQUIPMENT: BLACK WITH WHITE TEXT
 - FIRE ALARM SYSTEM: RED WITH WHITE TEXT

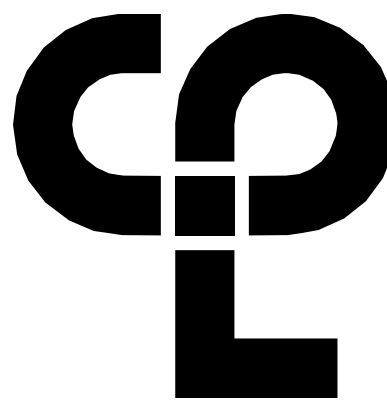
2 E000 TYPICAL EQUIPMENT NAMEPLATE DETAIL

NOT TO SCALE



1 E000 TYPICAL WIRING DEVICE LABELING DETAIL

NOT TO SCALE



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1111 Hayes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



PROJECT INFORMATION

Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS

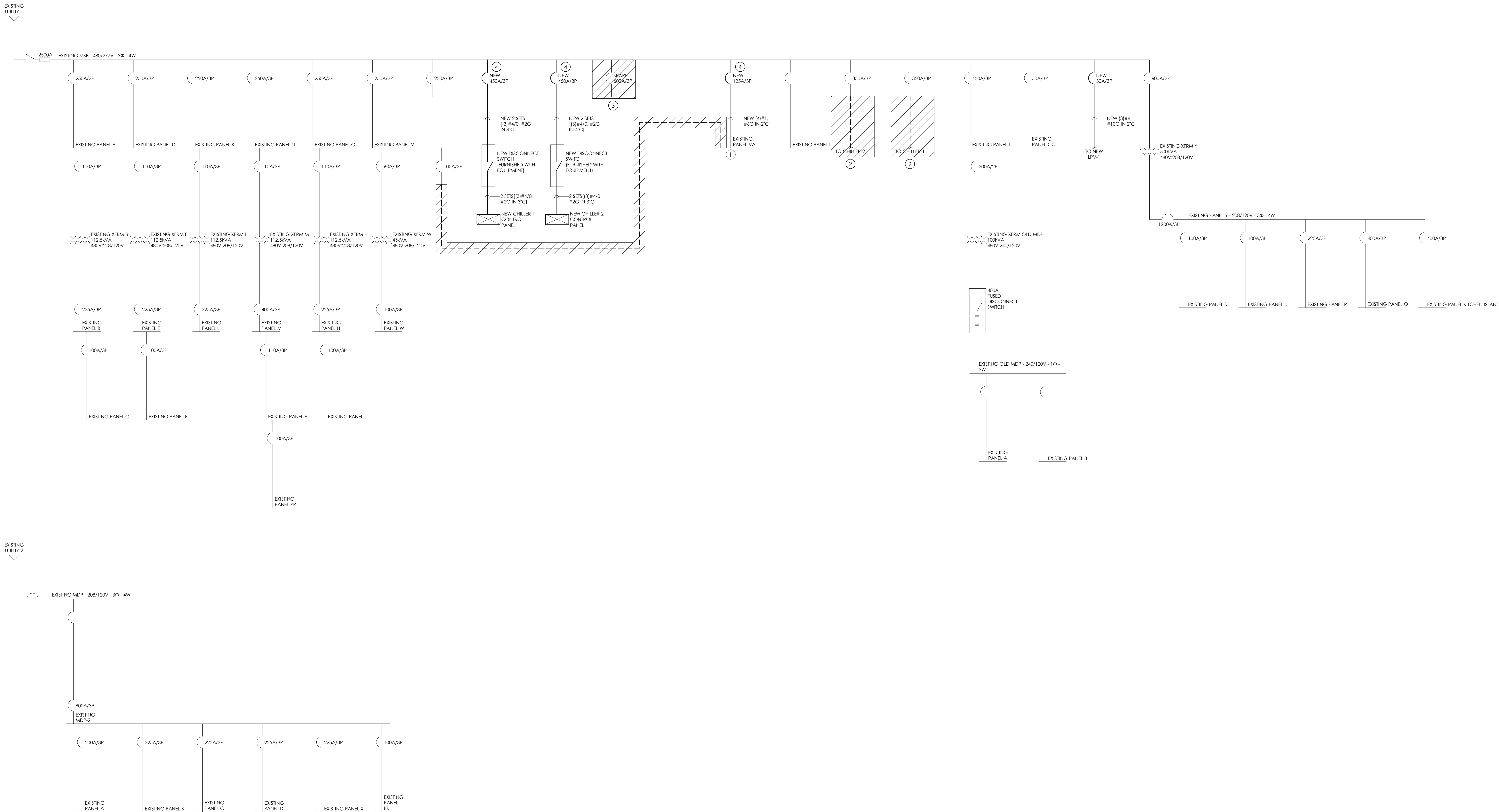


SHEET INFORMATION

Name
02/17/2025
Project Status
BID SET
Drawn By
JAE
Checked By
ARM
Drawing Title
ELECTRICAL SYMBOLS LEGEND
AND NOTES

Drawing Number

FOES
E000



1
E001 PARTIAL ONE-LINE DIAGRAM
NOT TO SCALE

GENERAL NOTES

- A. EXISTING EQUIPMENT AND FEEDERS AS NOTED ARE TAKEN FROM EXISTING FACILITY DOCUMENTATION AND/OR NON-INVASIVE FIELD OBSERVATION. FIELD VERIFY EXACT CONFIGURATION, RATINGS, AND SIZES.
- B. ALL EQUIPMENT, AND ASSOCIATED FEEDERS ARE EXISTING, UNLESS NOTED OTHERWISE. EXISTING ITEMS SHALL REMAIN AS IS UNLESS NOTED OTHERWISE.
- C. ALL NEW ELECTRICAL EQUIPMENT AND EXISTING EQUIPMENT AFFECTED BY THIS PROJECT SHALL BE LABELED IN ACCORDANCE WITH NEC 110.16. LABEL SHALL BE BRADY CAT. NO. 94913 OR EQUAL. SIGNAGE SHALL STATE THE FOLLOWING:
- WARNING
 - ARC FLASH HAZARD
 - APPROPRIATE PPE REQUIRED
 - FAILURE TO COMPLY CAN RESULT IN DEATH OR INJURY
 - REFER TO NFPA 70E

KEY NOTES

- ① DISCONNECT PANEL AND REMOVE FEEDER BACK TO SOURCE. EXISTING PANEL SHALL REMAIN AND BE REFEED FROM NEW SOURCE.
- ② DISCONNECT EXISTING CHILLER AND REMOVE FEEDER BACK TO SOURCE. TURN CIRCUIT BREAKER TO OFF POSITION AND LABEL AS SPARE.
- ③ REMOVE EXISTING SPARE CIRCUIT BREAKER.
- ④ PROVIDE NEW BREAKER, SIZE AS INDICATED IN EXISTING PANEL IN AVAILABLE SPACE. TYPE, VOLTAGE RATING, AND AIC RATING TO MATCH EXISTING.



PROJECT INFORMATION

Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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PROFESSIONAL STAMPS

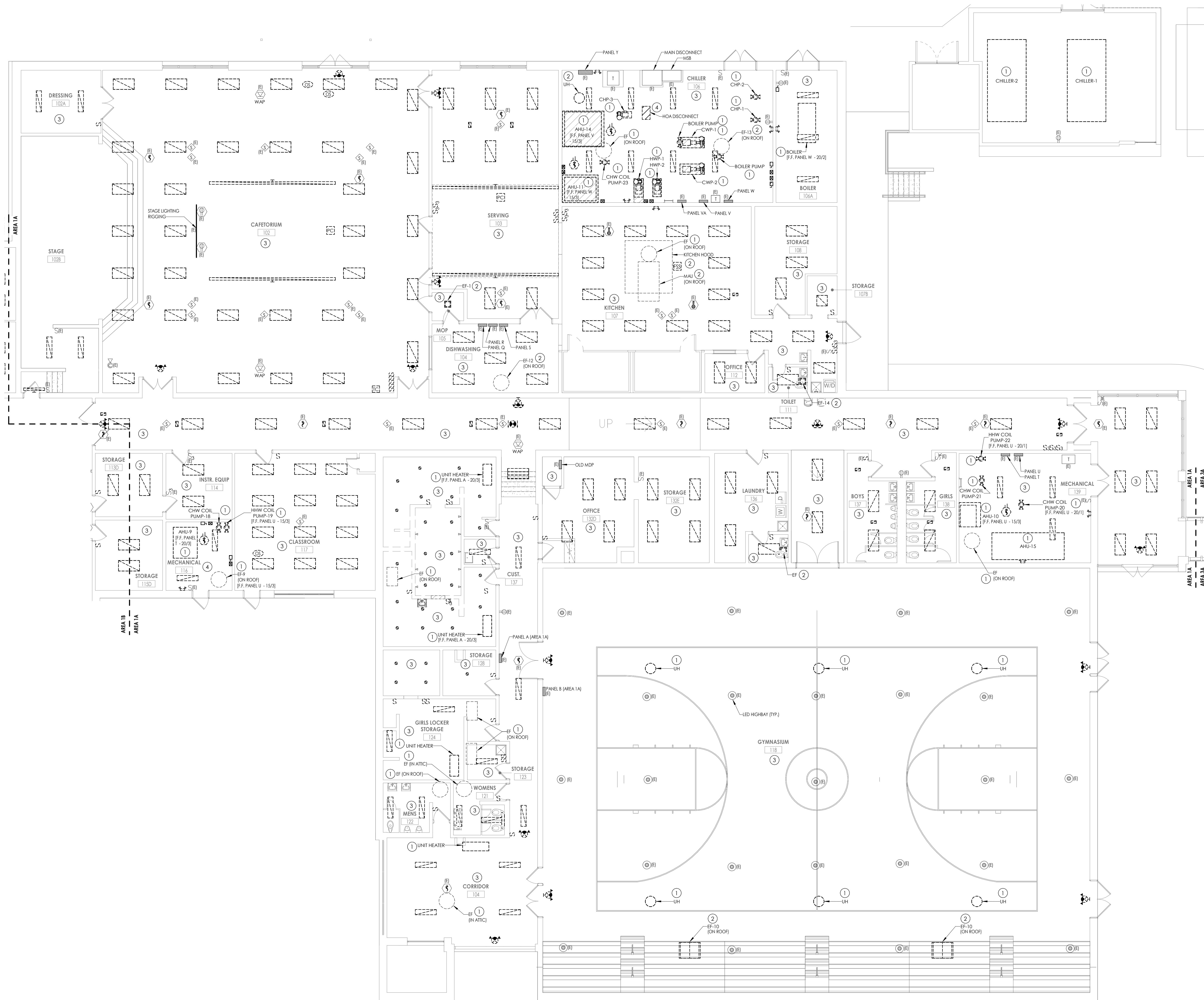


SHEET INFORMATION

Issued
02/17/2025
Project Status
BID SET
Drawn By
JAE
Checked By
ARM
Drawing Title
PARTIAL ONE-LINE DIAGRAM

Drawing Number

FOES
E001



1
E101.1A 1/8" = 1'-0"

GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1A

GENERAL NOTES

- ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (E) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.
- ANY EXISTING DEVICE TO REMAIN, LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRIC IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.
- DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE CONTRACTOR SHALL ASSUME WITHIN THE BASE BID A NOMINAL AMOUNT OF BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.
- WHERE DEVICES, FIXTURES, ETC. ARE INDICATED TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE PANELBOARD UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT MUST REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING, TO FEED THROUGH TO THESE REMAINING ITEMS. RELOCATE ANY CIRCUITS THAT REMAIN, TO AVOID CONFLICT WITH NEW CONSTRUCTION AS REQUIRED, PROPERLY TERMINATE ALL WIRING.
- COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC. WITH OTHER DISCIPLINES AS APPLICABLE. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.
- DRAWINGS ARE GRAPHICAL REPRESENTATIONS OF APPROXIMATE EQUIPMENT AND DEVICE LOCATIONS. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF ELECTRICAL WORK REQUIRED TO COMPLETE THE PROJECT. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATION AND EXISTING BUILDING DOCUMENTS. OTHER ELECTRICAL ITEMS MAY EXIST FOR WHICH THE CONTRACTOR IS RESPONSIBLE.
- CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.
- CONTRACTOR SHALL PROVIDE NEW COVERPLATES ON ALL BOXES OF UNUSED AND/OR REMOVED FLUSH MOUNT DEVICES UPON COMPLETION OF PROJECT.
- FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE RE-INSTALLED USING AN APPROVED METHOD AS DESCRIBED IN ASSOCIATED PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH NFPA 72.
- EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.
- EXISTING LOW VOLTAGE SYSTEM DEVICES, AND POWER DEVICES ON CEILINGS INDICATED WITH "E" AND NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT OR REMOVE AND REINSTALL ALL EXISTING TO REMAIN CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASES.
- CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES

- DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL.
- DISCONNECT EXISTING MECHANICAL EQUIPMENT. EXISTING CIRCUITING SHALL REMAIN TO SERVE NEW UNIT.
- REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICE(S) IN THIS AREA UNLESS INDICATED WITH "E". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S).
- REMOVE ABANDONED HOA DISCONNECT SWITCH, CUT CONDUIT(S) AT SLAB, CAP, AND SEAL WATER-TIGHT.

PROJECT INFORMATION

Project Number
R23.0325

Client Name
JOHNSTON COUNTY PUBLIC

SCHOOL DISTRICT

Project Name
FOUR OAKS ELEMENTARY

SCHOOL HVAC RENOVATION

Project Address
180 W Hotcher St,
Four Oaks, NC 27524

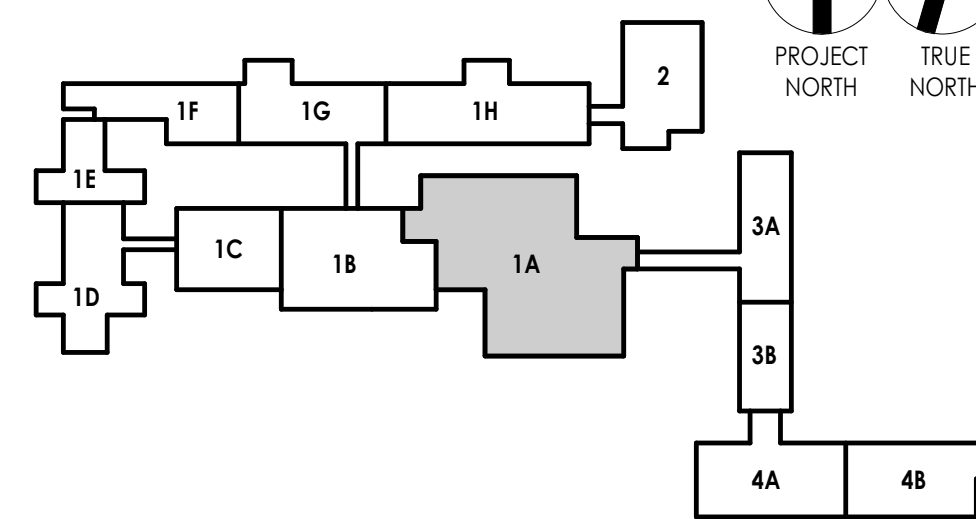
PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

PROFESSIONAL STAMPS



KEY PLAN:



SHEET INFORMATION

Issue
02/17/2025

Project Status
BID SET

Drawn By
JAE

Checked By
ARM

Drawing Title
GROUND FLOOR ELECTRICAL

DEMOLITION PLAN - AREA 1A

Drawing Number

**FOES
E101.1A**



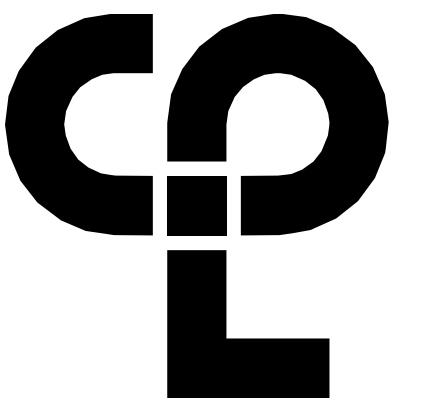
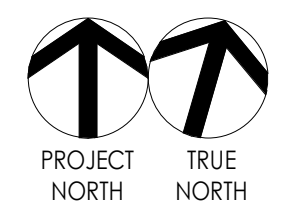
GENERAL NOTES

- A. ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (E) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.
- B. ANY EXISTING DEVICE TO REMAIN LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.
- C. THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRICAL IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING CIRCUITS IS REQUIRED AT ALL LOCATIONS WHERE NEW CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.
- D. DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED; THE CONTRACTOR SHALL ASSUME WITH THE BASE BID A REMOVAL OF ALL EXISTING ELECTRICAL, INCLUDING ALL BRANCH CIRCUITS, WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.
- E. WHERE DEVICES, FIXTURES, ETC. ARE INDICATED TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE OF SUPPLY UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT WILL REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING, TO FEED THROUGH TO THESE REMAINING ITEMS. RELOCATE ANY CIRCUITS THAT REMAIN, TO AVOID CONTACT WITH NEW CONSTRUCTION AS REQUIRED. PROPERLY TERMINATE ALL WIRING.
- F. COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC. WITH OTHER DISCIPLINE CONTRACTORS. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.
- G. DRAWINGS ARE GRAPHICAL REPRESENTATIONS OF APPROXIMATE EQUIPMENT AND DEVICE LOCATIONS. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF ELECTRICAL WORK REQUIRED TO COMPLETE THE PROJECT. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATION AND EXISTING BUILDING RECORDS. CONTRACTOR SHALL VERIFY THAT THE INFORMATION FOR WHICH THE CONTRACTOR IS RESPONSIBLE.
- H. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.
- I. CONTRACTOR SHALL PROVIDE NEW COVERPLATES ON ALL BOXES OF UNIFIED AND/OR REMOVED FLUSH MOUNT DEVICES UPON COMPLETION OF PROJECT.
- J. FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE REINSTALLED USING AN APPROVED METHOD AS DESCRIBED IN APPLICABLE PROJECT SPECIFICATIONS.
- K. CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGING EQUIPMENT IN ACCORDANCE WITH NFPA 72.
- L. EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.
- M. EXISTING LOW VOLTAGE STATION DEVICES, AND POWER DEVICES ON CEILINGS AND IN WALLS ARE NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT ALL REMAINING AND/OR RELOCATED DEVICES AND CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASE.
- N. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES

- ① DISCONNECT EXISTING MECHANICAL EQUIPMENT, REMOVE CIRCUITING BACK TO SOURCE PANEL.
- ② DISCONNECT EXISTING MECHANICAL EQUIPMENT, EXISTING CIRCUITING SHALL REMAIN TO SERVE NEW UNIT.
- ③ REMOVE EXISTING LIGHT FIXTURE[S] AND LIGHTING CONTROL DEVICE[S] IN THIS AREA UNLESS INDICATED WITH "E". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE[S] AND CONTROL[S].

KEY PLAN:



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1111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



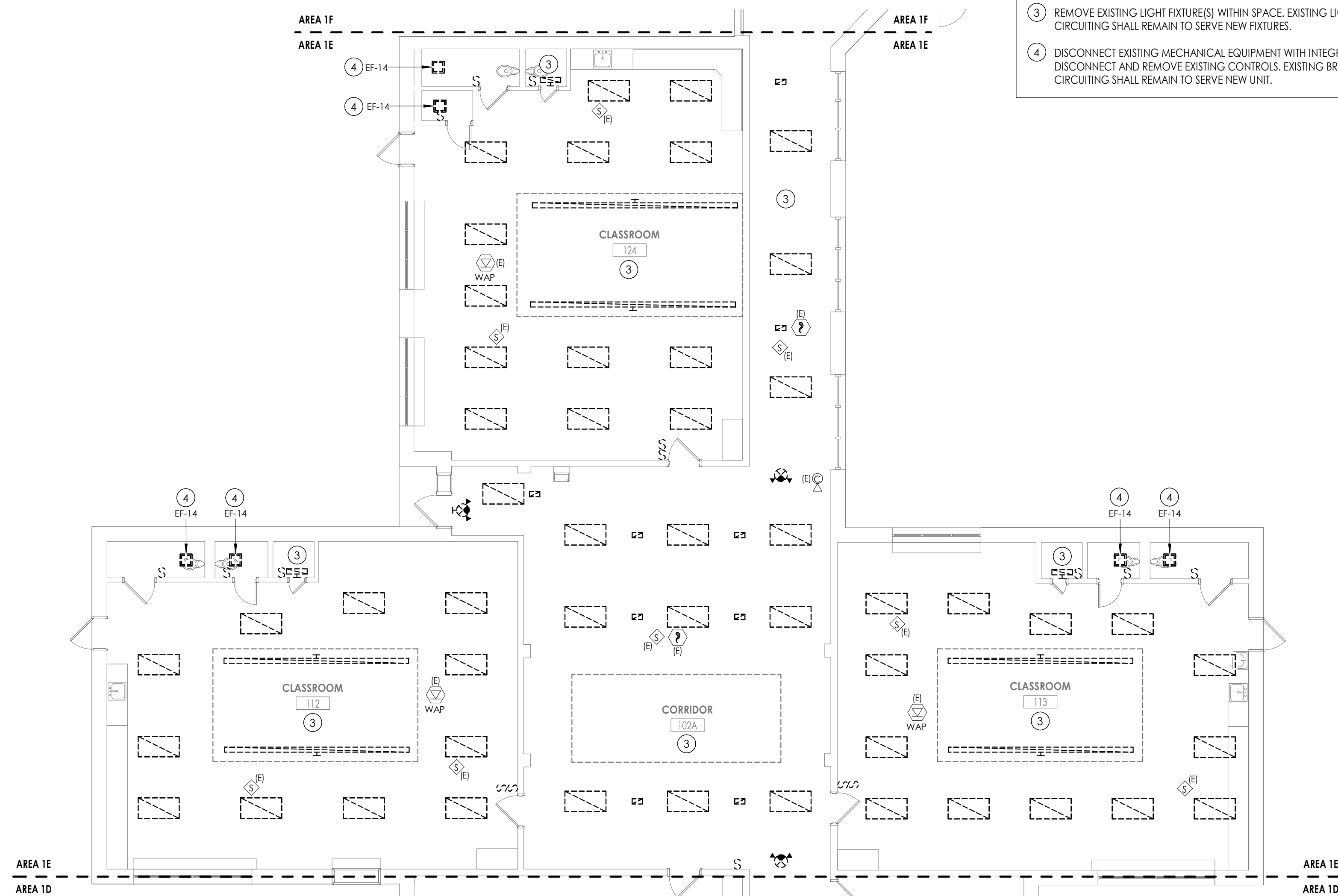
PROJECT INFORMATION

3.00325
ent Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**
ect Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

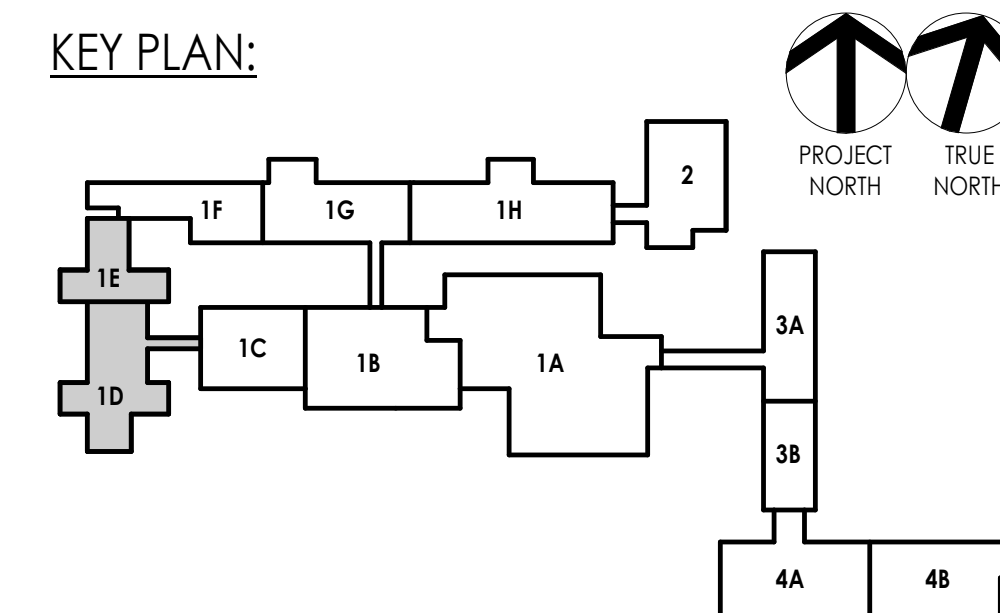
Project Address
10 W Hatcher St.
Durham, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Date	Description
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3
E101.1DE 1/8" = 1'-0"



- | KEY NOTES | |
|-----------|---|
| ① | DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL. |
| ② | DISCONNECT EXISTING MECHANICAL EQUIPMENT. EXISTING CIRCUITING SHALL REMAIN TO SERVE NEW UNIT. |
| ③ | REMOVE EXISTING LIGHT FIXTURE(S) WITHIN SPACE. EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURES. |
| ④ | DISCONNECT EXISTING MECHANICAL EQUIPMENT WITH INTEGRAL LIGHT. DISCONNECT AND REMOVE EXISTING CONTROLS. EXISTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW UNIT. |



Project Address
180 W Hatcher St.
Four Oaks, NC 27524

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PROFESSIONAL STAMPS



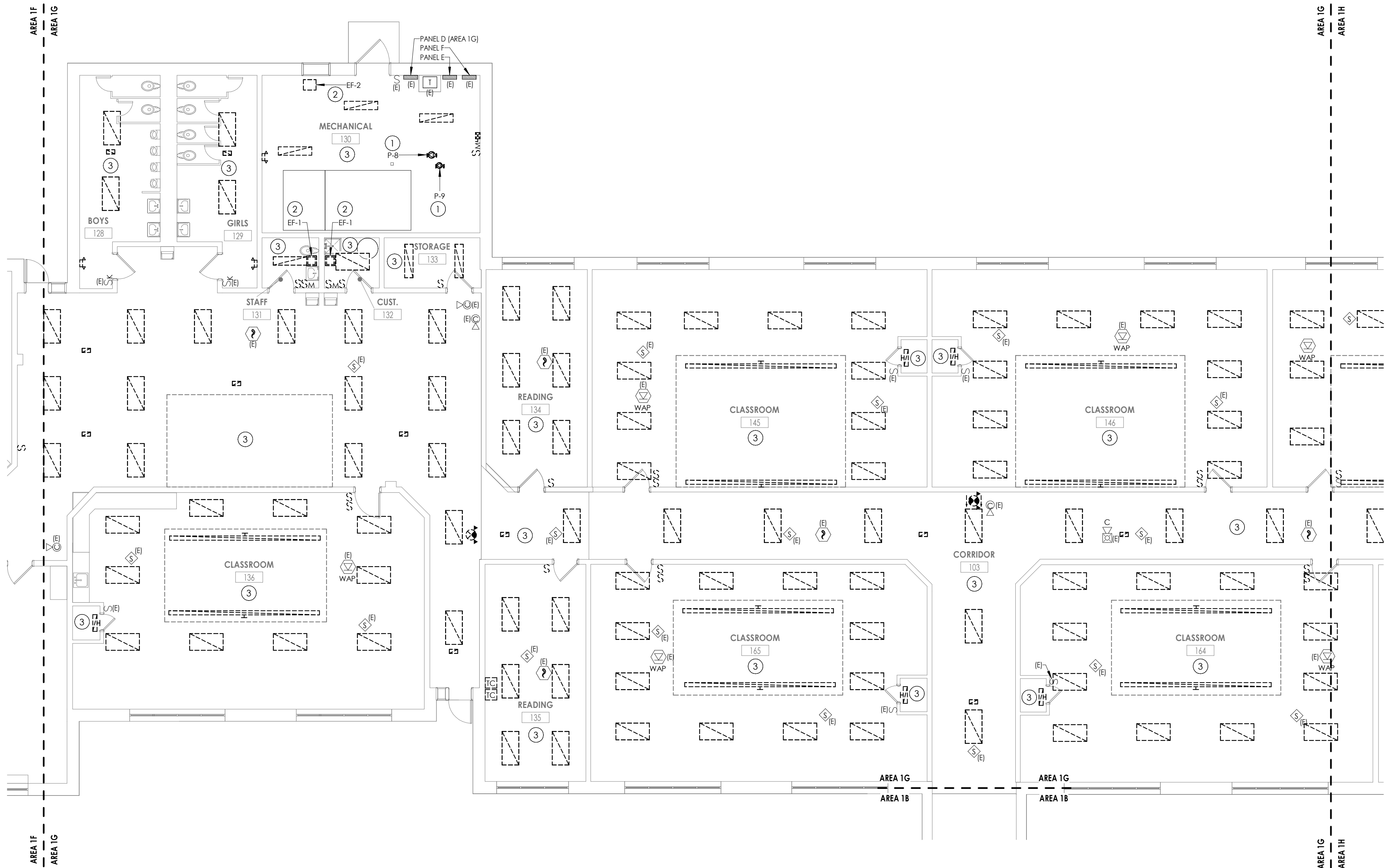
SHEET INFORMATION	
Issued	Scale
02/17/2025	1/8" = 1'-0"
Project Status	
BID SET	
Drawn By	Checked By
JAE	ARM
Drawing Title	
GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1D & 1E	
Drawing Number	

g Number

FOES

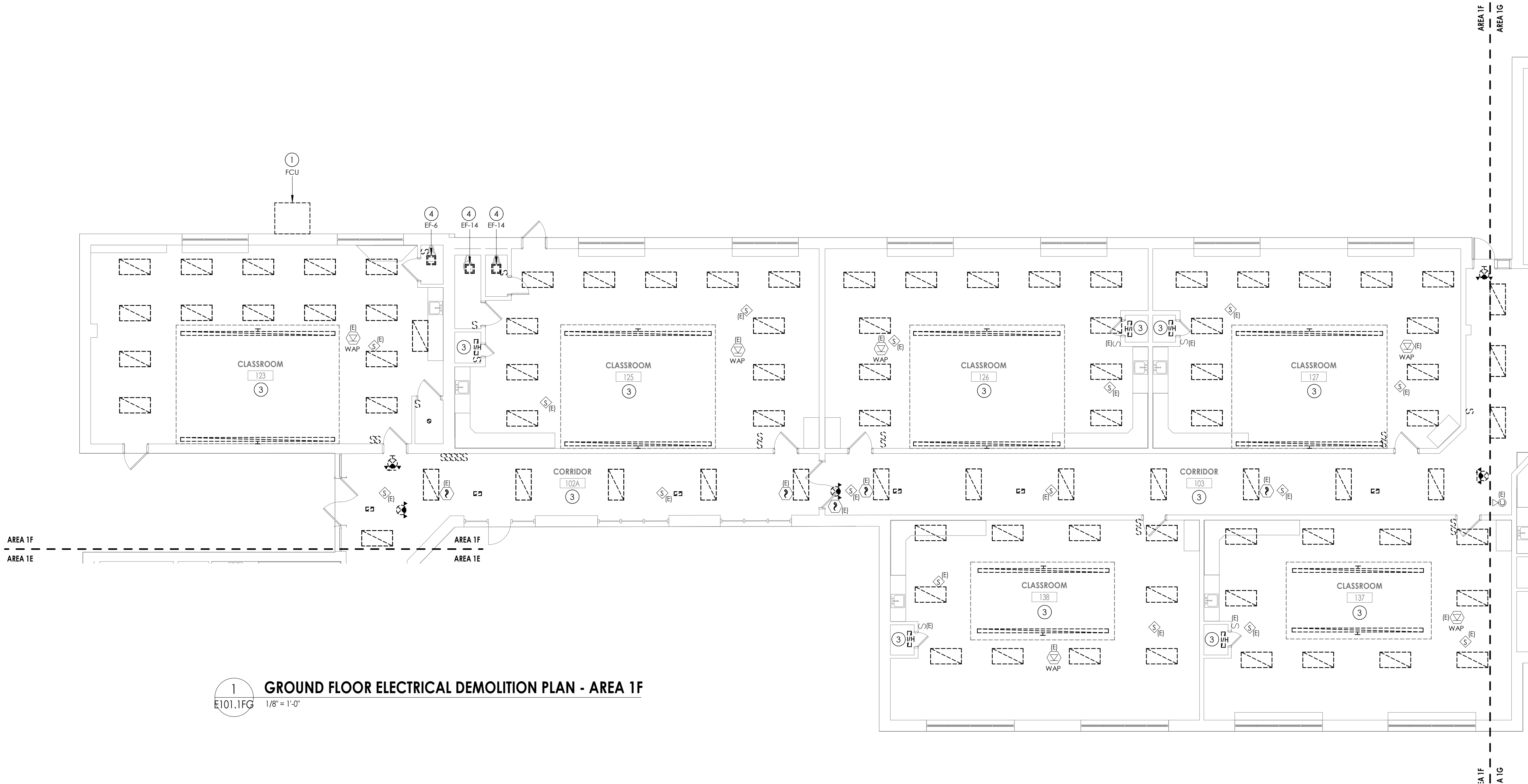
E101.1DE

S:\Projects\Johnston County\FOES & SES HVAC\CD Design & Autodesk Docs\1923.00325.00_FOES & SES\Four Oaks MEP 2022.rvt
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2
E101.1FG 1/8" = 1'-0"

GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1G



1
E101.1FG 1/8" = 1'-0"

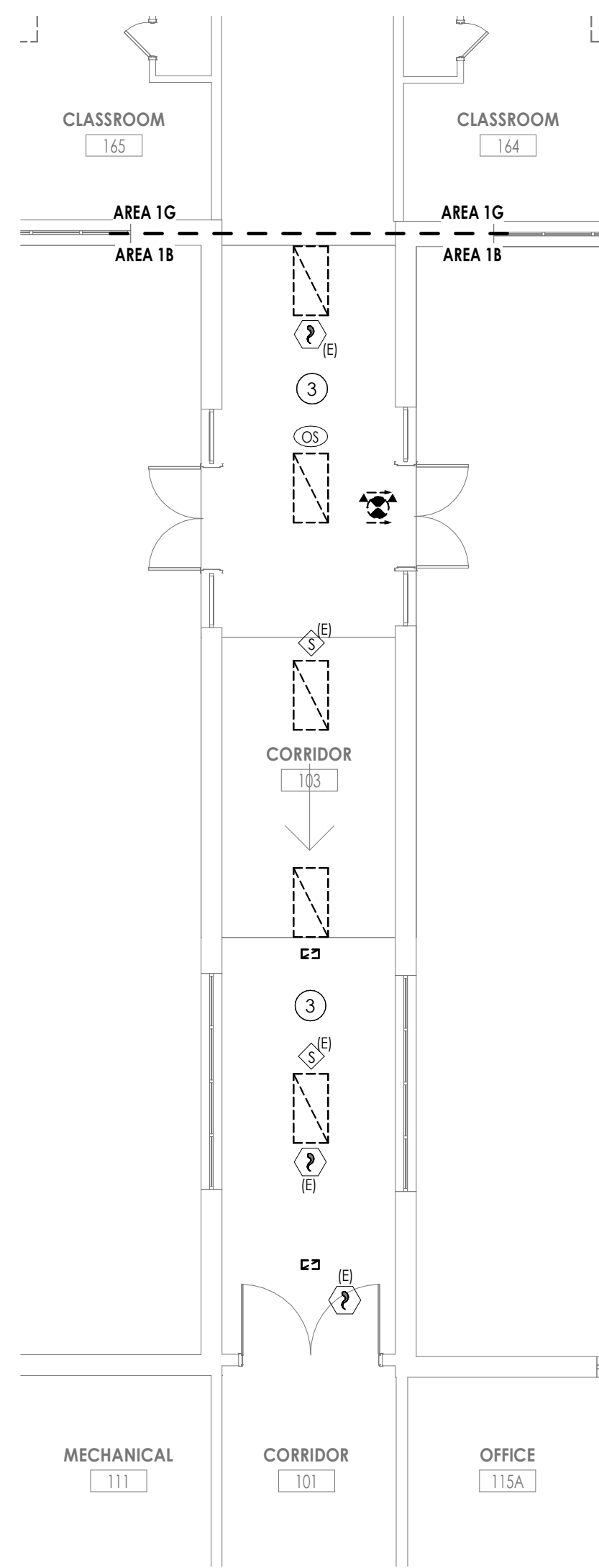
GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1F

KEY NOTES

- 1 DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL.
- 2 DISCONNECT EXISTING MECHANICAL EQUIPMENT. EXISTING CIRCUITING SHALL REMAIN TO SERVE NEW UNIT.
- 3 REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICE(S) IN THIS AREA (UNLESS INDICATED WITH "IE" EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S)).
- 4 DISCONNECT EXISTING MECHANICAL EQUIPMENT WITH INTEGRAL LIGHT. DISCONNECT AND REMOVE EXISTING CONTROLS. EXISTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW UNIT.

GENERAL NOTES

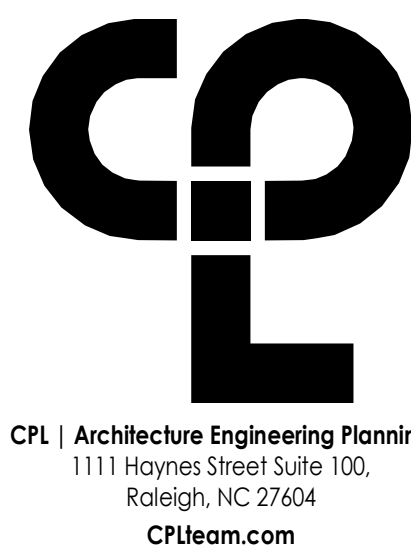
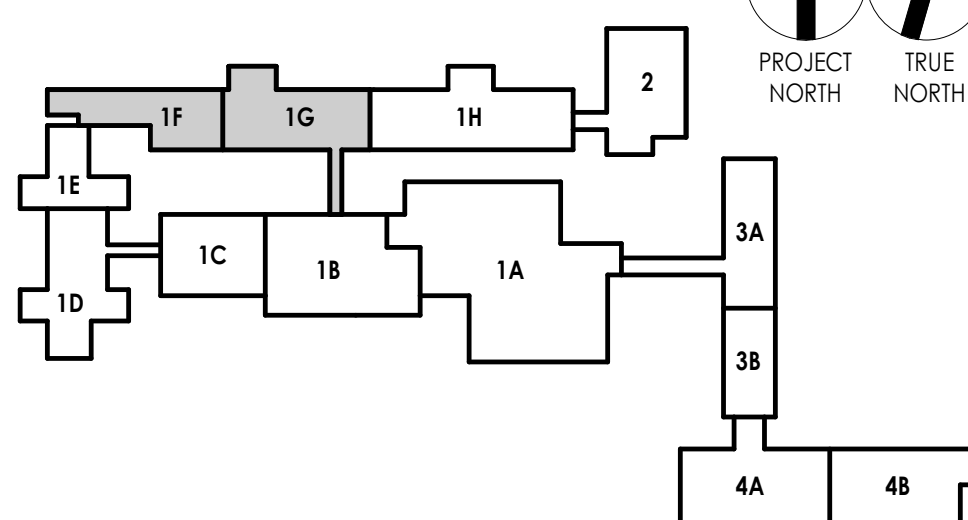
- A ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (IE) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.
- B ANY EXISTING DEVICE TO REMAIN, LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.
- C THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRIC IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.
- D DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE CONTRACTOR SHALL ASSUME WITHIN THE BASE BID A NOMINAL AMOUNT OF BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.
- E WHERE DEVICES, FIXTURES, ETC. ARE INDICATED TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE PANELBOARD UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT MUST REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING TO FEED THROUGH TO THESE REMAINING ITEMS. RELOCATE ANY CIRCUITS THAT REMAIN TO AVOID CONFLICT WITH NEW CONSTRUCTION AS REQUIRED, PROPERLY TERMINATE ALL WIRING.
- F COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC. WITH OTHER DISCIPLINES AS APPLICABLE. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.
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- H CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.
- I CONTRACTOR SHALL PROVIDE NEW COVERPLATES ON ALL BOXES OF UNUSED AND/OR REMOVED FLUSH MOUNT DEVICES UPON COMPLETION OF PROJECT.
- J FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE RE-INSTALLED USING AN APPROVED METHOD AS DESCRIBED IN ASSOCIATED PROJECT SPECIFICATIONS.
- K CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH NFPA 72.
- L EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.
- M EXISTING LOW VOLTAGE SYSTEM DEVICES, AND POWER DEVICES ON CEILINGS INDICATED WITH "IE" AND NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT OR REMOVE AND REINSTALL ALL EXISTING TO REMAIN CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASES.
- N CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.



3
E101.1FG 1/8" = 1'-0"

GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1B TO 1G CORRIDOR

KEY PLAN:



PROJECT INFORMATION
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hatcher St, Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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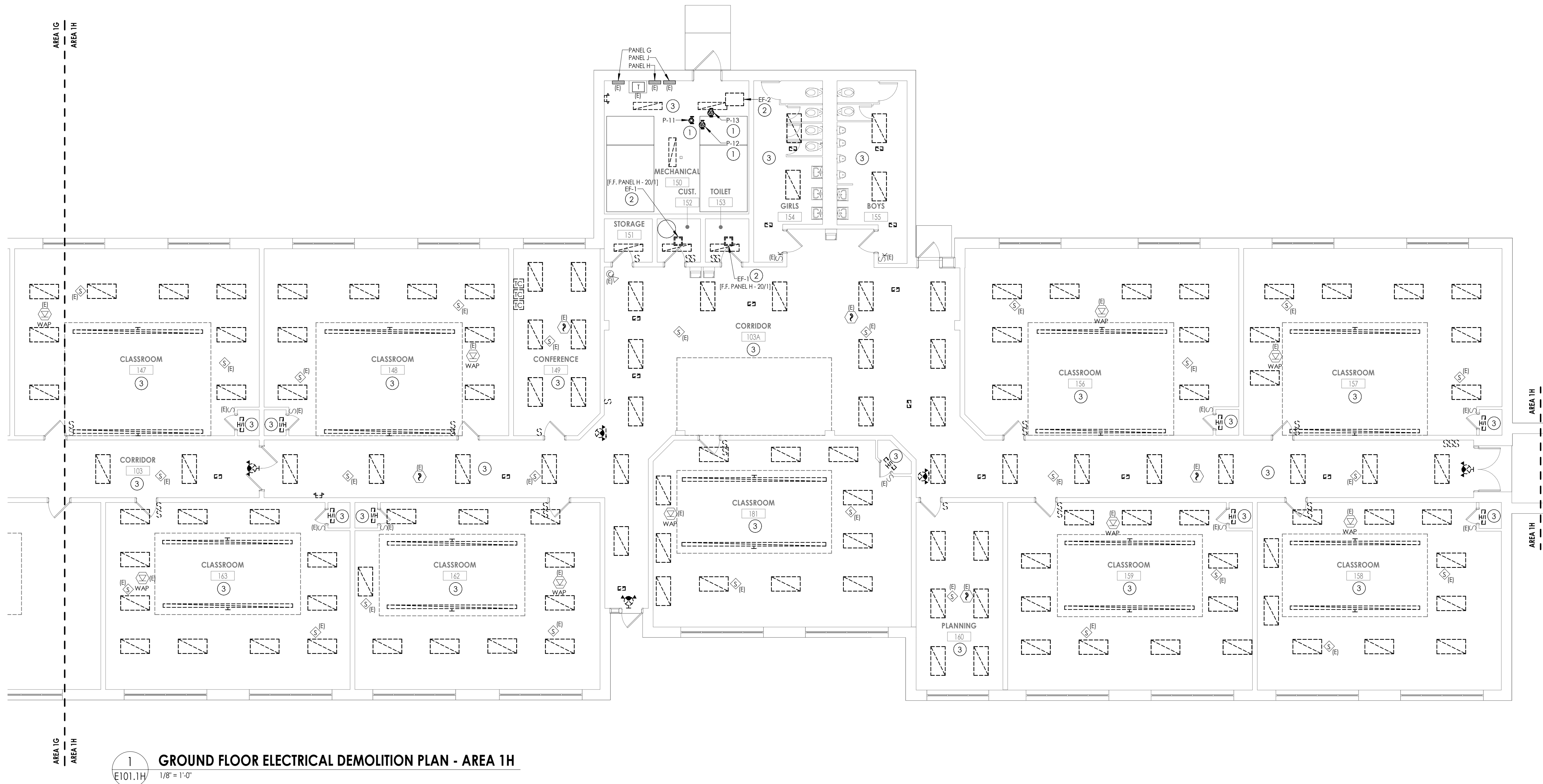
PROFESSIONAL STAMPS



SHEET INFORMATION
Date: 02/17/2025
Project Status: BID SET
Drawn By: JAE
Checked By: ARM
Drawing Title: GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1F & 1G
Drawing Number:

FOES
E101.1FG

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GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 1H
1/8" = 1'-0"

GENERAL NOTES

A. ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (E) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.

B. ANY EXISTING DEVICE TO REMAIN, LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.

C. THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRIC IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.

D. DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE CONTRACTOR SHALL ASSUME WITHIN THE BASE BID A NOMINAL AMOUNT OF BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.

E. WHERE DEVICES, FIXTURES, ETC. ARE INDICATED TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE PANELBOARD UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT MUST REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING, TO FEED THROUGH TO THESE REMAINING ITEMS. RELOCATE ANY CIRCUITS THAT REMAIN, TO AVOID CONFLICT WITH NEW CONSTRUCTION AS REQUIRED, PROPERLY TERMINATE ALL WIRING.

F. COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC., WITH OTHER DISCIPLINES AS APPLICABLE. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.

G. DRAWINGS ARE GRAPHICAL REPRESENTATIONS OF APPROXIMATE EQUIPMENT AND DEVICE LOCATIONS. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF ELECTRICAL WORK REQUIRED TO COMPLETE THE PROJECT. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATION AND EXISTING BUILDING DOCUMENTS. OTHER ELECTRICAL ITEMS MAY EXIST FOR WHICH THE CONTRACTOR IS RESPONSIBLE.

H. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.

I. CONTRACTOR SHALL PROVIDE NEW COVERPLATES ON ALL BOXES OF UNUSED AND/OR REMOVED FLUSH MOUNT DEVICES UPON COMPLETION OF PROJECT.

J. FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE RE-INSTALLED USING AN APPROVED METHOD AS DESCRIBED IN ASSOCIATED PROJECT SPECIFICATIONS.

K. CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH NFPA 72.

L. EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.

M. EXISTING LOW VOLTAGE SYSTEM DEVICES, AND POWER DEVICES ON CEILINGS INDICATED WITH "E" AND NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT OR REMOVE AND REINSTALL ALL EXISTING TO REMAIN CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASES.

N. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES

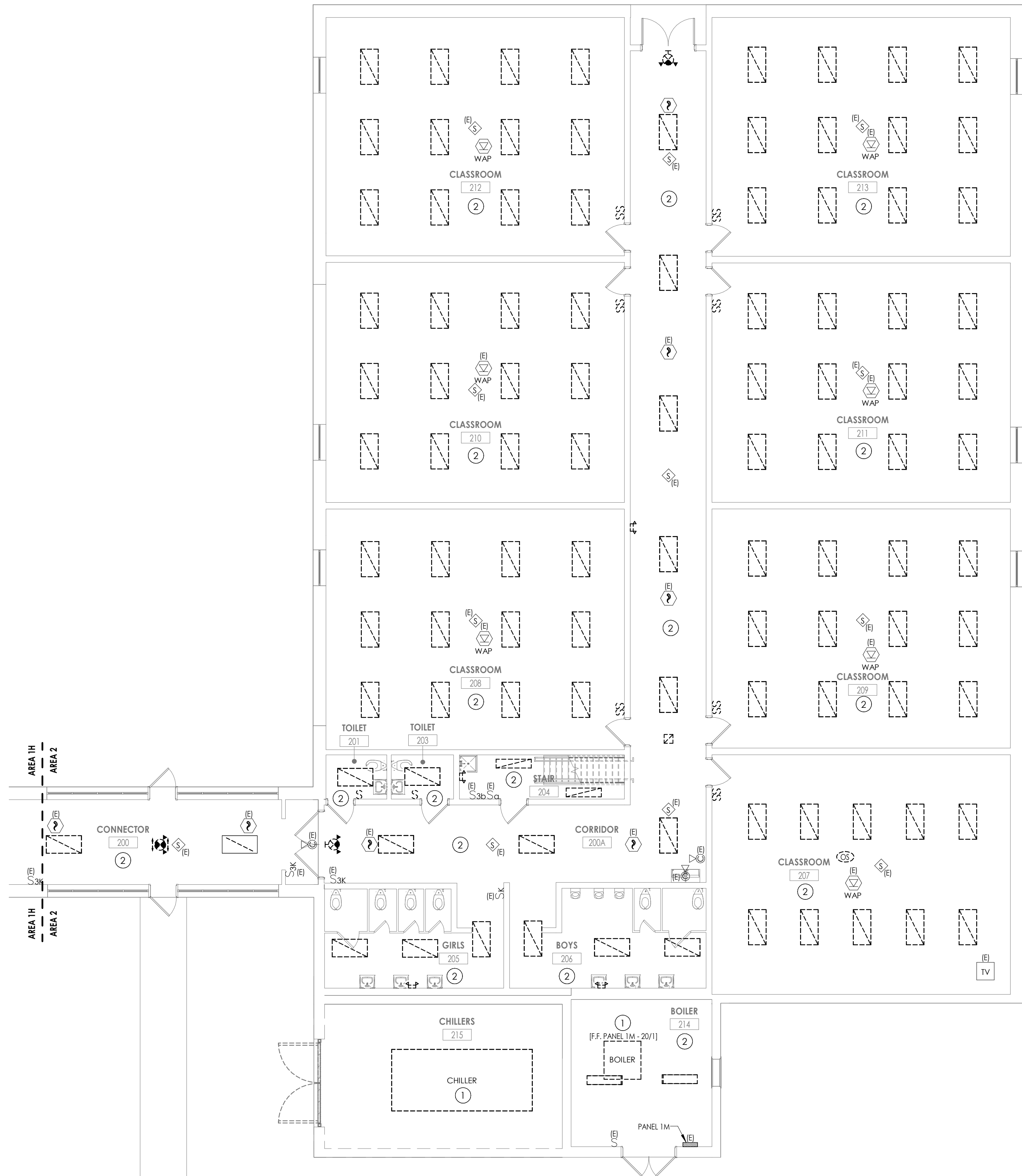
1 DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL.

2 DISCONNECT EXISTING MECHANICAL EQUIPMENT. EXISTING CIRCUITING SHALL REMAIN TO SERVE NEW UNIT.

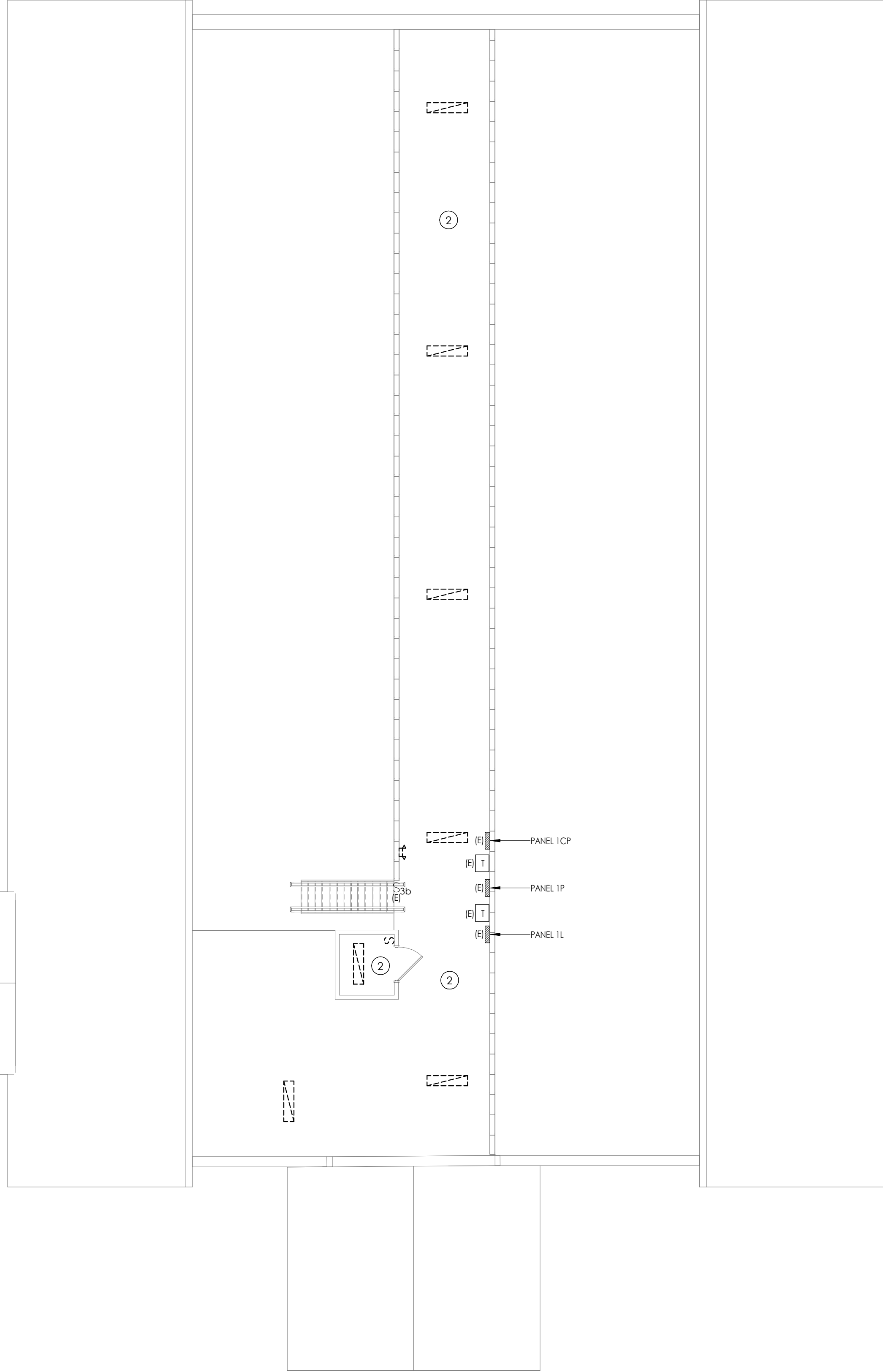
3 REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICE(S) IN THIS AREA UNLESS INDICATED WITH "E". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S).

KEY PLAN:

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1
E101.2
GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 2
1/8" = 1'-0"



2
E101.2
MEZZANINE ELECTRICAL DEMOLITION PLAN - AREA 2
1/8" = 1'-0"

GENERAL NOTES

A. ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (E) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.

B. ANY EXISTING DEVICE TO REMAIN, LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.

C. THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRIC IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.

D. DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE CONTRACTOR SHALL ASSUME WITHIN THE BASE BID A NOMINAL AMOUNT OF BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.

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F. COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC., WITH OTHER DISCIPLINES AS APPLICABLE. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.

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H. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.

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J. FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE RE-INSTALLED USING AN APPROVED METHOD AS DESCRIBED IN ASSOCIATED PROJECT SPECIFICATIONS.

K. CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH NFPA 72.

L. EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.

M. EXISTING LOW VOLTAGE SYSTEM DEVICES, AND POWER DEVICES ON CEILINGS INDICATED WITH "ET" AND NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT OR REMOVE AND REINSTALL ALL EXISTING TO REMAIN CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASES.

N. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES

① DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL.

② REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICE(S) IN THIS AREA UNLESS INDICATED WITH "ET". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S).

KEY PLAN:

PROJECT NORTH
TRUE NORTH

CPLE | Architecture Engineering Planning
11111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLeam.com

JCPS

PROJECT INFORMATION

Project Number: R23.0325
Client Name: **JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT**
Project Name: **FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION**
Project Address: 180 W Hotcher St, Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

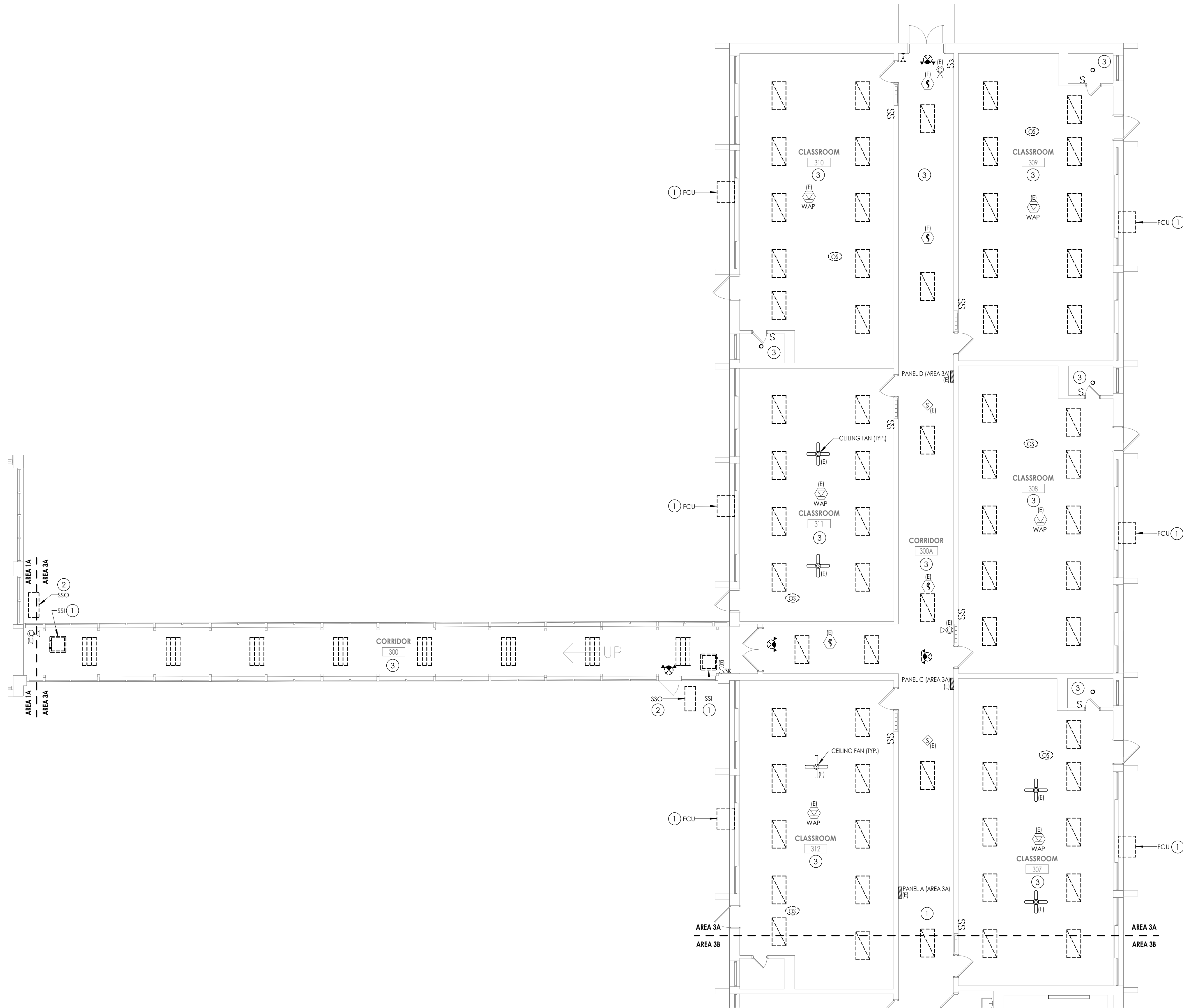
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PROFESSIONAL STAMPS

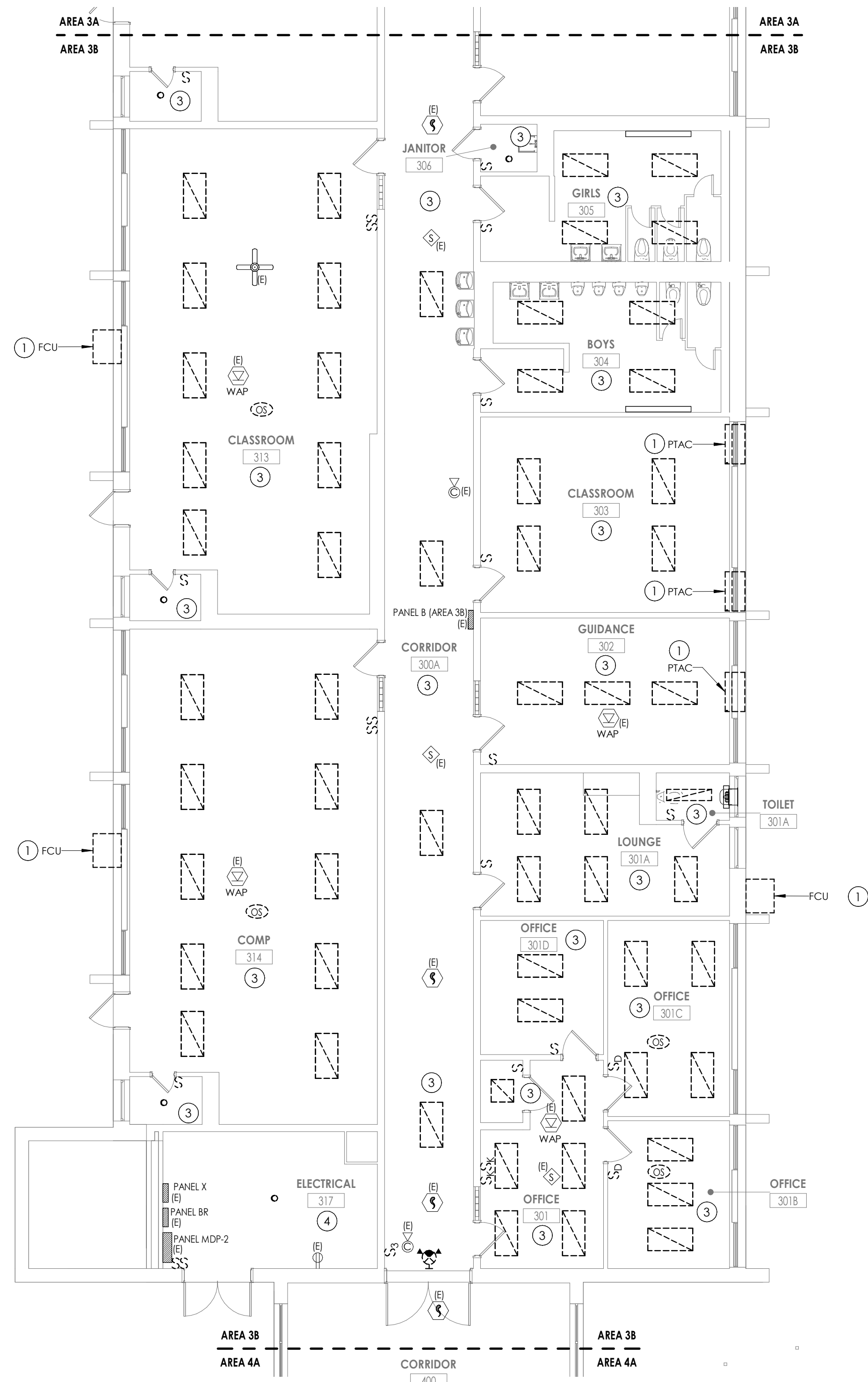
SHEET INFORMATION

Issue: 02/17/2025
Project Status: BID SET
Drawn By: JAE
Checked By: ARM
Drawing Title: GROUND FLOOR AND MEZZANINE ELECTRICAL DEMOLITION PLAN - AREA 2
Drawing Number: **FOES E101.2**

2/18/2025 7:44:38 AM S:\Projects\Johnston County\FOES & SES HVAC, LE Design & Autodesk Docs\1923.00325.00_FOES & SES\Four Oaks MEP 2022.rvt

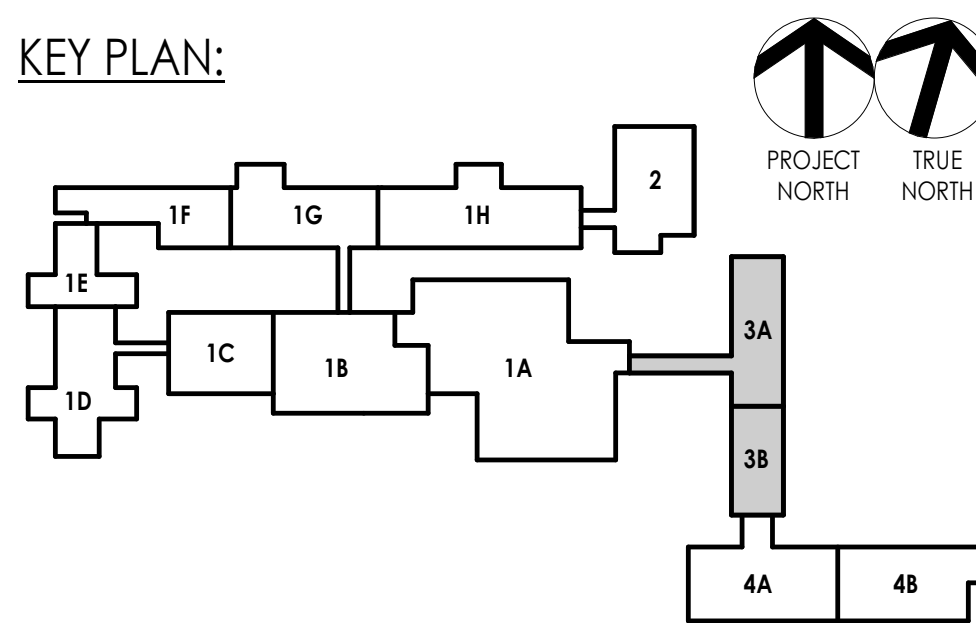


1 GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 3A
E101.3AB 1/8" = 1'-0"



2 GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 3B
E101.3AB 1/8" = 1'-0"

KEY PLAN:

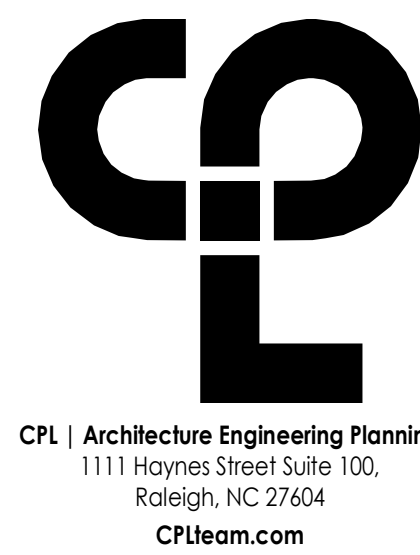


GENERAL NOTES

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KEY NOTES

- DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL.
- DISCONNECT EXISTING MECHANICAL EQUIPMENT. EXISTING CIRCUITING SHALL REMAIN TO SERVE NEW UNIT.
- REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICE(S) IN THIS AREA UNLESS INDICATED WITH "E". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S).



PROJECT INFORMATION

Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address: 180 W Hatcher St, Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

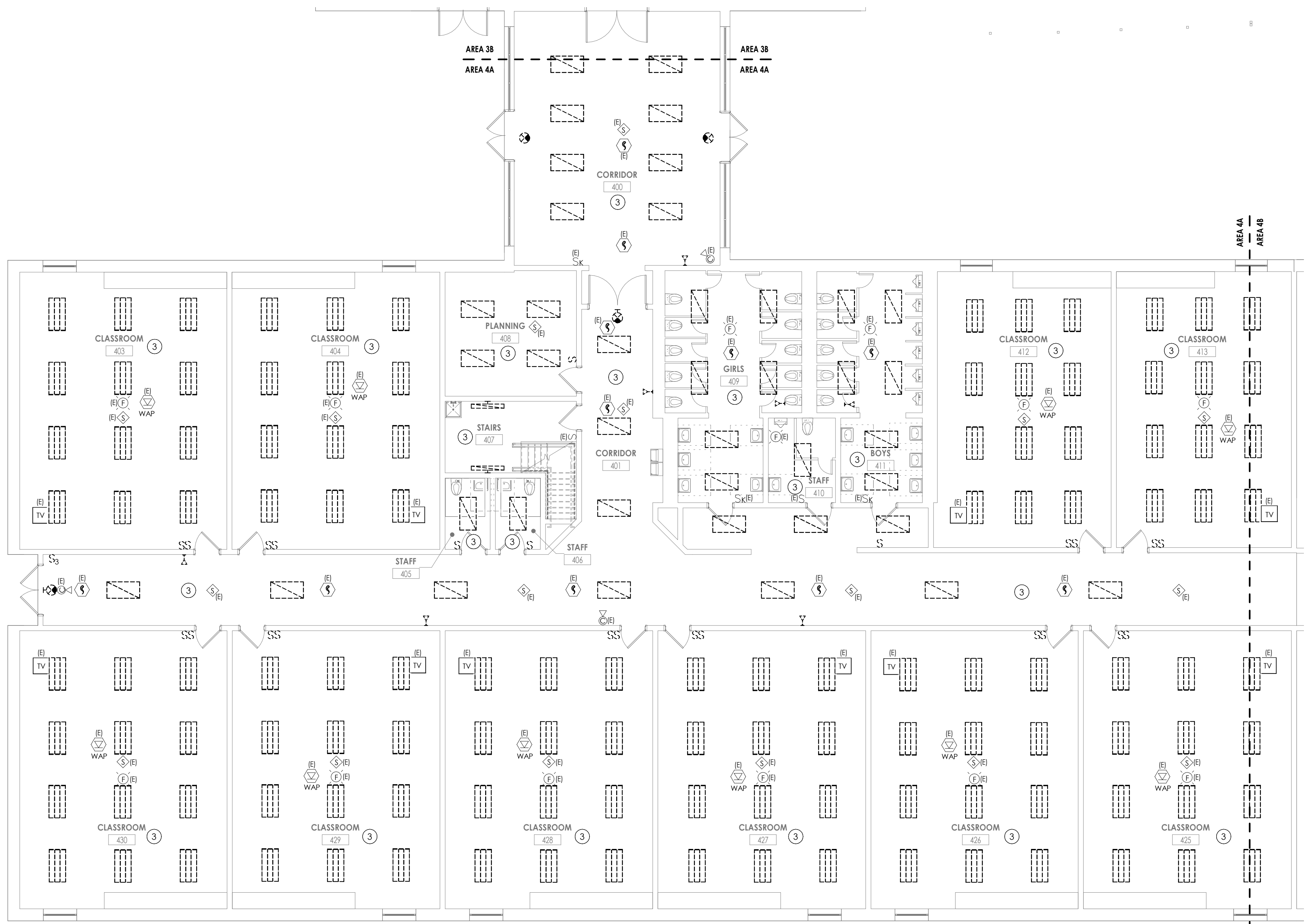
PROFESSIONAL STAMPS



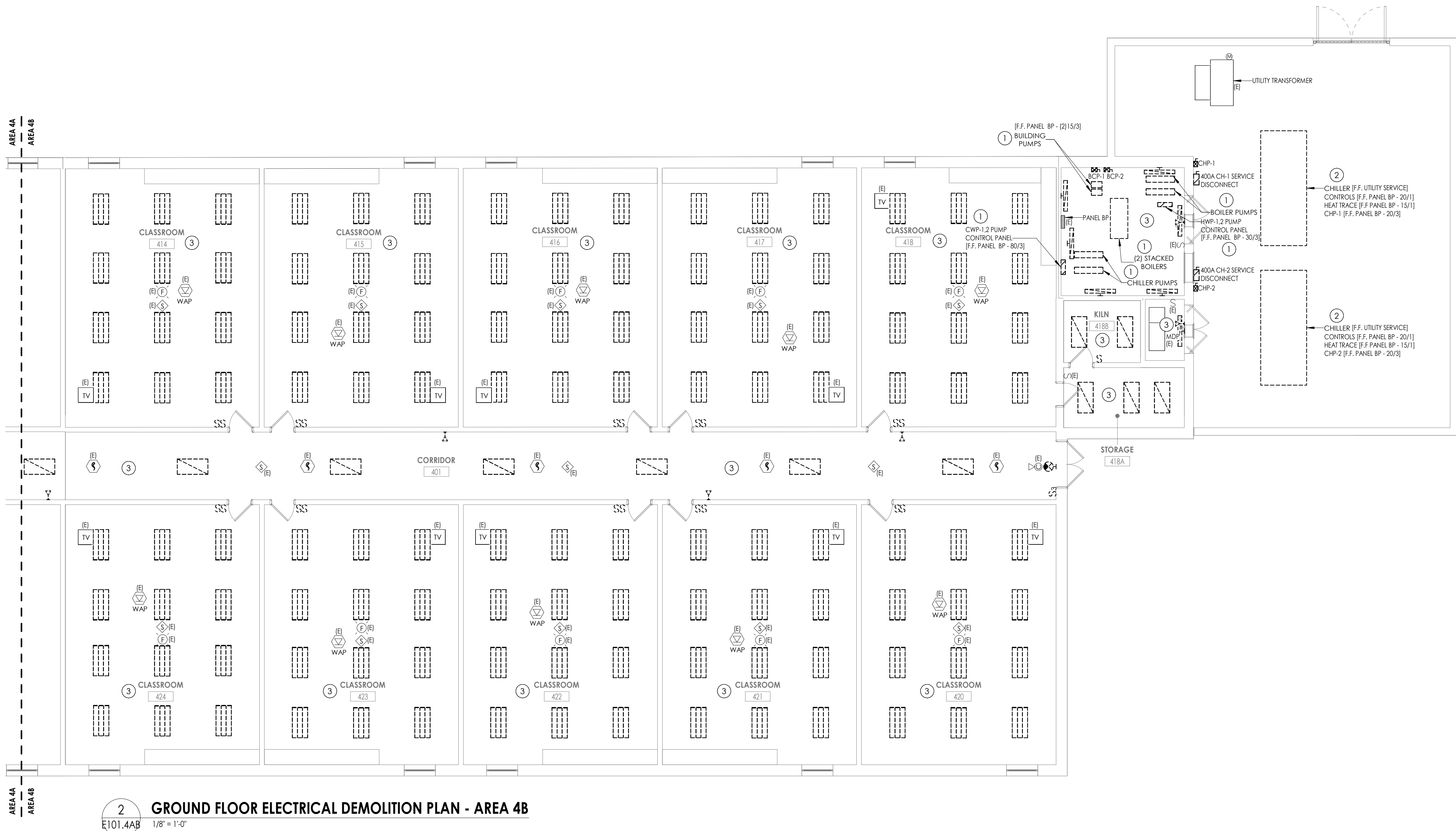
SHEET INFORMATION

Issue: 02/17/2025
Project Status: BID SET
Drawn By: JAE
Drawing Title: GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 3A & 3B
Drawing Number: E101.3AB

FOES
E101.3AB



1 GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 4A
E101.4AB 1/8" = 1'-0"



2 GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 4B
E101.4AB 1/8" = 1'-0"

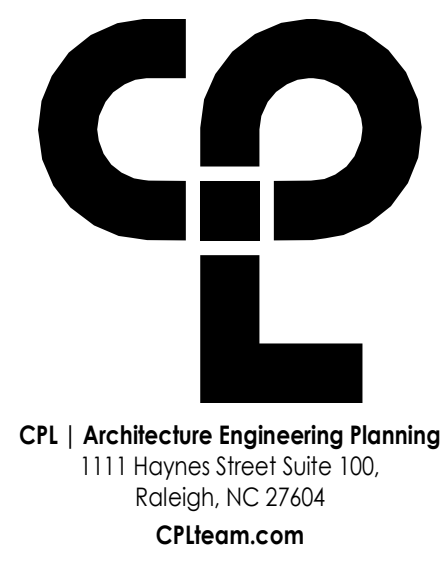
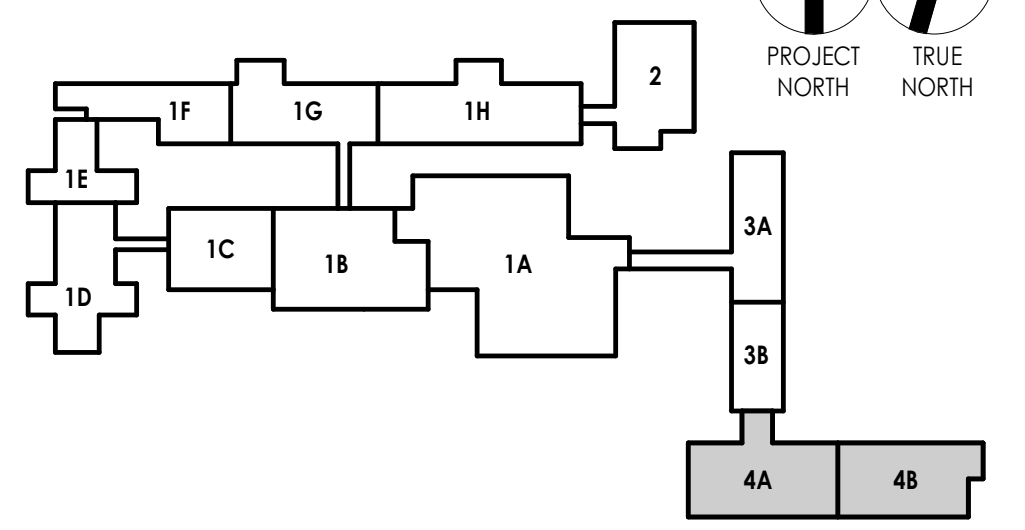
GENERAL NOTES

- ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (E) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.
- ANY EXISTING DEVICE TO REMAIN, LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRIC IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.
- DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE CONTRACTOR SHALL ASSUME WITHIN THE BASE BID A NOMINAL AMOUNT OF BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.
- WHERE DEVICES, FIXTURES, ETC. ARE INDICATED TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE PANELBOARD UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT MUST REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING. TO FEED THROUGH TO THESE REMAINING ITEMS. RELOCATE ANY CIRCUITS THAT REMAIN. TO AVOID CONFLICT WITH NEW CONSTRUCTION AS REQUIRED, PROPERLY TERMINATE ALL WIRING.
- COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC. WITH OTHER DISCIPLINES AS APPLICABLE. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.
- DRAWINGS ARE GRAPHICAL REPRESENTATIONS OF APPROXIMATE EQUIPMENT AND DEVICE LOCATIONS. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF ELECTRICAL WORK REQUIRED TO COMPLETE THE PROJECT. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATION AND EXISTING BUILDING DOCUMENTS. OTHER ELECTRICAL ITEMS MAY EXIST FOR WHICH THE CONTRACTOR IS RESPONSIBLE.
- CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.
- CONTRACTOR SHALL PROVIDE NEW COVERPLATES ON ALL BOXES OF UNUSED AND/OR REMOVED FLUSH MOUNT DEVICES UPON COMPLETION OF PROJECT.
- FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE RE-INSTALLED USING AN APPROVED METHOD AS DESCRIBED IN ASSOCIATED PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH NFPA 72.
- EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.
- EXISTING LOW VOLTAGE SYSTEM DEVICES, AND POWER DEVICES ON CEILINGS INDICATED WITH "IE" AND NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT OR REMOVE AND REINSTALL ALL EXISTING TO REMAIN CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASES.
- CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES

- DISCONNECT EXISTING MECHANICAL EQUIPMENT. REMOVE CIRCUITING BACK TO SOURCE PANEL.
- DISCONNECT EXISTING CHILLER AND ASSOCIATED CONTROLS. HEAT TRACE, AND PUMP. REMOVE CHILLER CIRCUITING BACK TO UTILITY SERVICE. REMOVE ALL OTHER CIRCUITING BACK TO SOURCE PANEL.
- REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICE(S) IN THIS AREA UNLESS INDICATED WITH "IE". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S).

KEY PLAN:



PROJECT INFORMATION
Project Number: R23.03025
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hotcher St., Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Issue Date Description

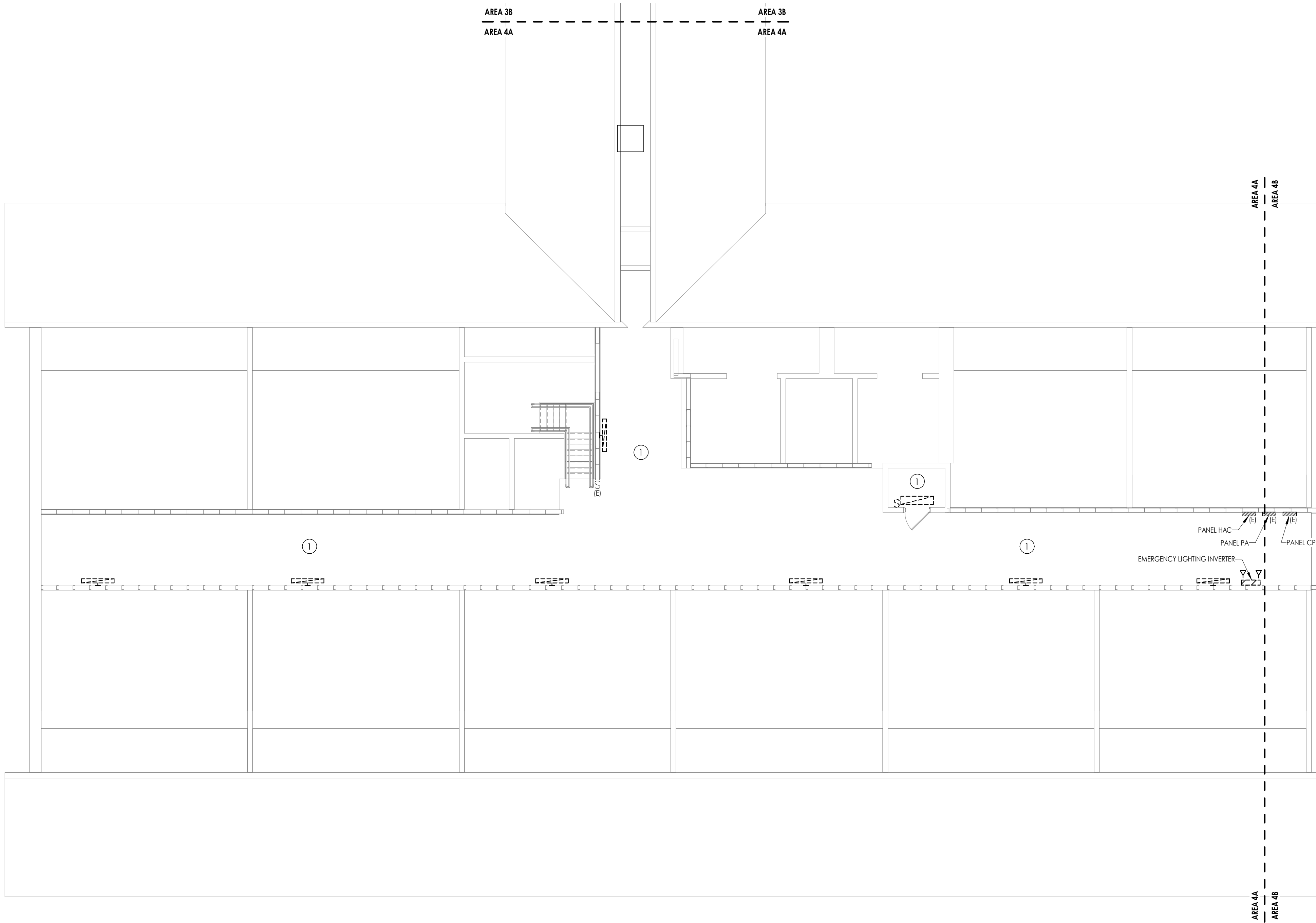
PROFESSIONAL STAMPS



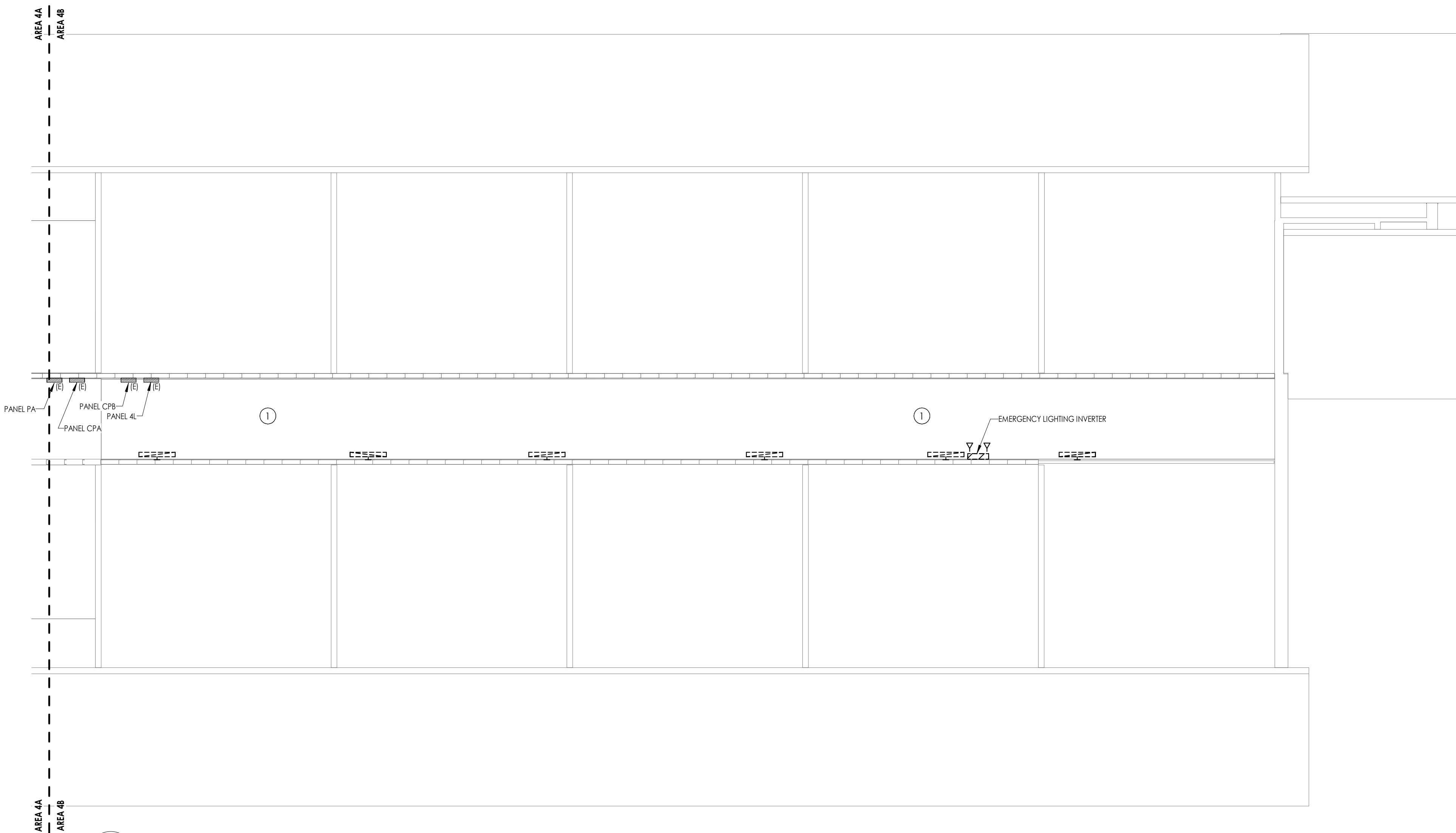
SHEET INFORMATION
Issue: 02/17/2025
Project Status: BID SET
Drawn By: JAE
Checked By: ARM
Drawing Title: GROUND FLOOR ELECTRICAL DEMOLITION PLAN - AREA 4B

Drawing Number: FOES E101.4AB

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1
E102.4AB 1/8" = 1'-0"
MEZZANINE ELECTRICAL DEMOLITION PLAN - AREA 4A



2
E102.4AB 1/8" = 1'-0"
MEZZANINE ELECTRICAL DEMOLITION PLAN - AREA 4B

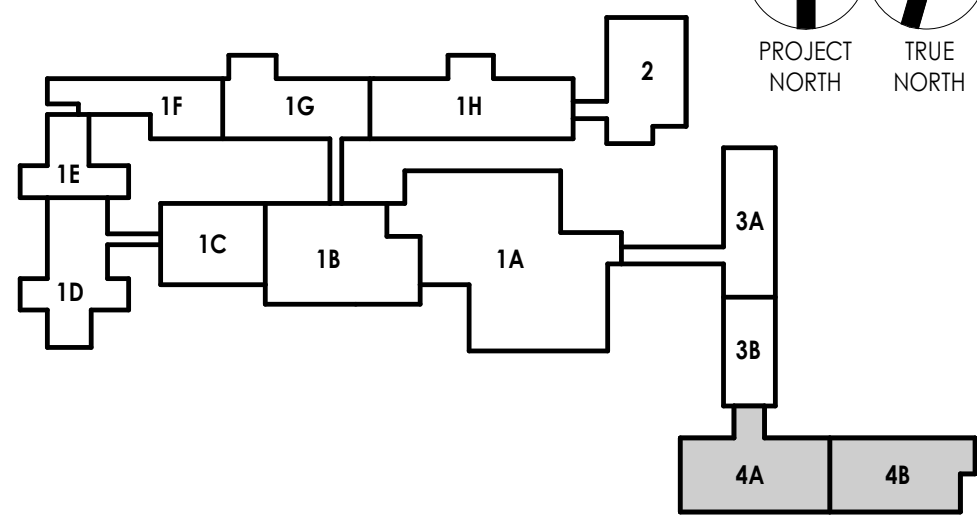
GENERAL NOTES

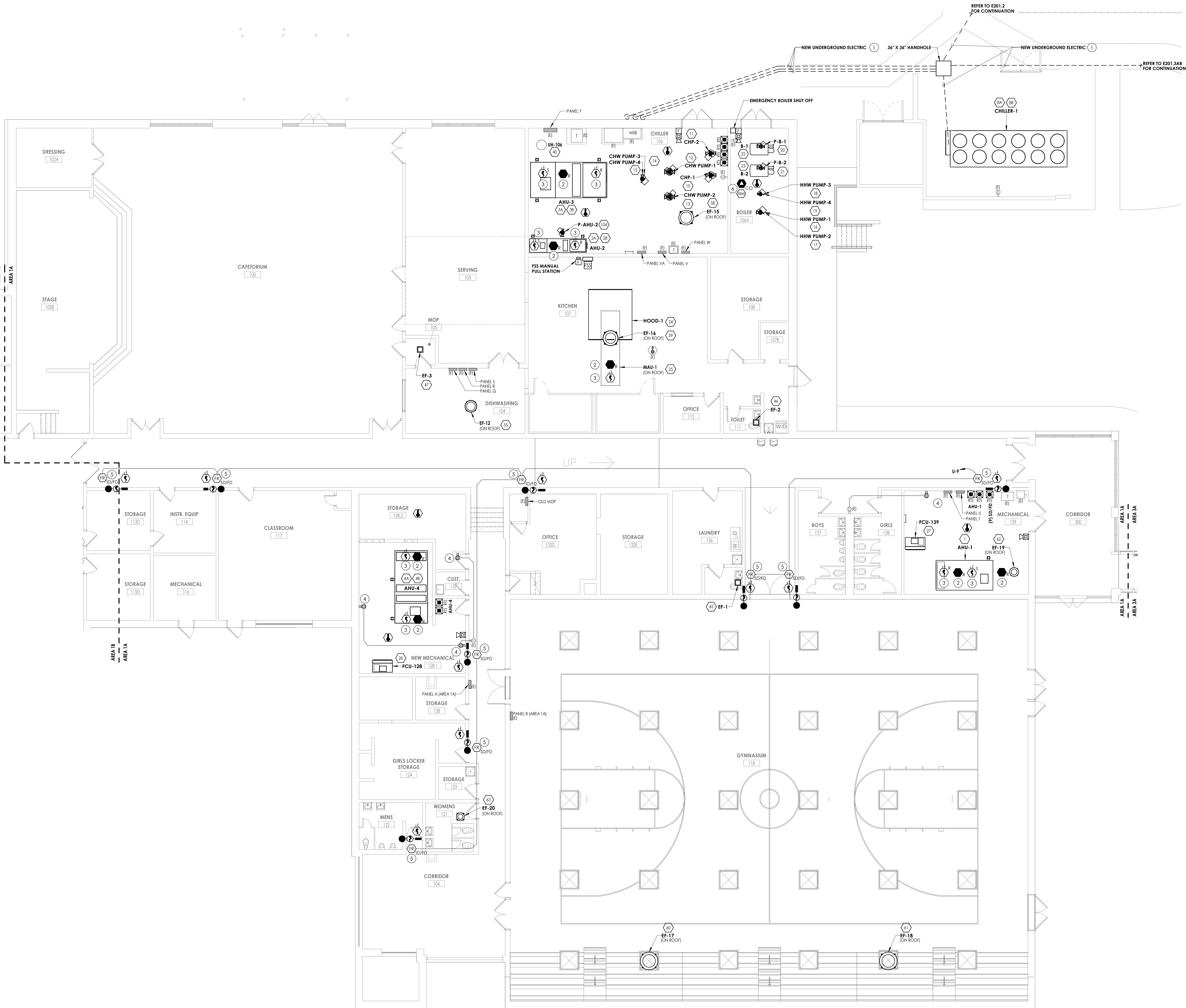
- ALL ITEMS SHOWN ARE TO BE REMOVED UNLESS LABELED AS (E) EXISTING. REMOVAL OF DEVICE INCLUDES ITS ASSOCIATED CABLING/BRANCH CIRCUIT WIRING, AND RACEWAY.
- ANY EXISTING DEVICE TO REMAIN, LABELED AS (E) SHALL REMAIN IN PLACE AS WELL AS ITS ASSOCIATED CIRCUITING AND CONDUIT, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL REMOVE THE EXISTING ELECTRIC IN AREAS OF NEW RENOVATIONS TO ACCOMMODATE NEW CONSTRUCTION. REROUTING OF EXISTING MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR INTERFERENCE WITH OTHER NEW WORK AS NOTED IN THE FOLLOWING NOTES.
- DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE CONTRACTOR SHALL ASSUME WITHIN THE BASE BID A NOMINAL AMOUNT OF BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.
- WHERE DEVICES, FIXTURES, ETC. ARE INDICATED TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE PANELBOARD UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT MUST REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING, TO FEED THROUGH TO THESE REMAINING ITEMS. RELOCATE ANY CIRCUITS THAT REMAIN TO AVOID CONFLICT WITH NEW CONSTRUCTION AS REQUIRED. PROPERLY TERMINATE ALL WIRING.
- COORDINATE DEMOLITION OF EQUIPMENT, DEVICES, ETC., WITH OTHER DISCIPLINES AS APPLICABLE. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES FOR COORDINATION.
- DRAWINGS ARE GRAPHICAL REPRESENTATIONS OF APPROXIMATE EQUIPMENT AND DEVICE LOCATIONS. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF ELECTRICAL WORK REQUIRED TO COMPLETE THE PROJECT. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATION AND EXISTING BUILDING DOCUMENTS. OTHER ELECTRICAL ITEMS MAY EXIST FOR WHICH THE CONTRACTOR IS RESPONSIBLE.
- CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ITEMS, EQUIPMENT, PANELS, LIGHT FIXTURES, ETC. BEING REMOVED AS PART OF THIS PROJECT. THE OWNER SHALL HAVE THE RIGHT OF RETAINING ANY ITEMS BEING REMOVED.
- CONTRACTOR SHALL PROVIDE NEW COVERPLATES ON ALL BOXES OF UNUSED AND/OR REMOVED FLUSH MOUNT DEVICES UPON COMPLETION OF PROJECT.
- FIREPROOFING AND/OR FIRE STOP MATERIALS REMOVED FROM FIRE RATED WALLS AND CEILINGS AS A RESULT OF DEMOLITION SHALL BE RE-INSTALLED USING AN APPROVED METHOD AS DESCRIBED IN ASSOCIATED PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL PROTECT ALL SMOKE DETECTORS FROM DUST, DEBRIS, AND DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH NFPA 72.
- EXISTING HVAC EQUIPMENT PANELBOARD AND CIRCUIT BREAKER INFORMATION IS TAKEN FROM FIELD OBSERVATIONS AND EXISTING BUILDING DOCUMENTS AND IS SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITING.
- EXISTING LOW VOLTAGE SYSTEM DEVICES, AND POWER DEVICES ON CEILINGS INDICATED WITH "E" AND NOT INDICATED AS BEING DEMOLISHED (DASHED, HATCHED, OR OTHERWISE NOTED) ARE SHOWN FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY SUSPEND AND PROTECT OR REMOVE AND REINSTALL ALL EXISTING TO REMAIN CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK PHASES.
- CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN DEVICES DURING CONSTRUCTION. DAMAGED EXISTING TO REMAIN DEVICES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES

- REMOVE EXISTING LIGHT FIXTURE(S) AND LIGHTING CONTROL DEVICES(S) IN THIS AREA UNLESS INDICATED WITH "E". EXISTING LIGHTING BRANCH CIRCUITING SHALL REMAIN TO SERVE NEW FIXTURE(S) AND CONTROL(S).

KEY PLAN:





1 GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1A
E201.1A 1/8" = 1'-0"

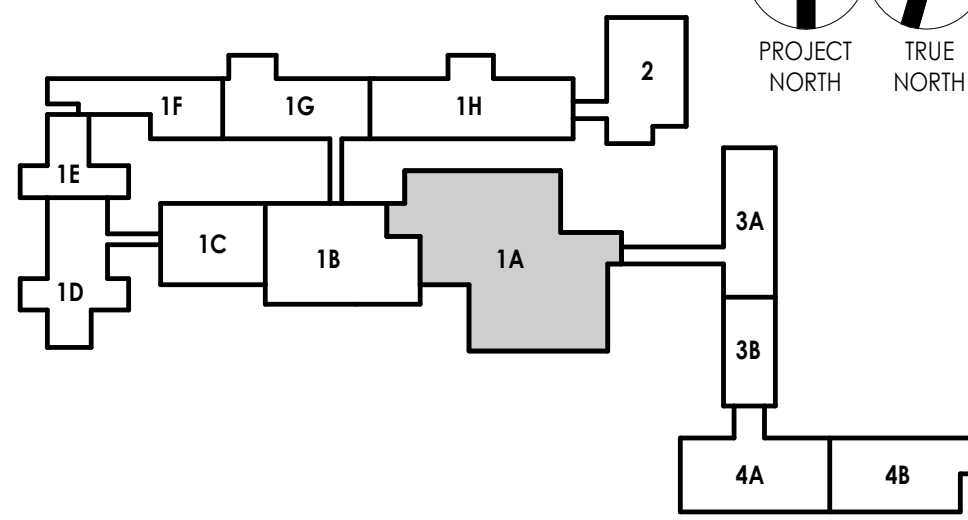
GENERAL NOTES

- EQUIPMENT AND DEVICES LABELED AS 'E' ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION. REFER TO E100 SERIES DEMOLITION DRAWINGS FOR EXISTING TO REMAIN CEILING DEVICES.
- NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH AND CONNECTED TO EXISTING FIRE ALARM SYSTEM. EXISTING FIRE ALARM SYSTEM IS SIMPLEX 4100U. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND LABOR COSTS ASSOCIATED WITH NEW FIRE ALARM DEVICES SHOWN. ASSOCIATED CABLING, TESTING, ETC. FOR A COMPLETE OPERATIONAL FIRE ALARM SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL WORK ASSOCIATED WITH FIRE ALARM SYSTEM AND FINAL PROGRAMMING OF SYSTEM WITH FIRE ALARM VENDOR.
- THE MINIMUM CANDELA RATING OF FIRE ALARM VISUAL NOTIFICATION DEVICES IS INDICATED ADJACENT TO DEVICE. IF CANDELA RATING IS NOT INDICATED, MINIMUM ALLOWABLE SETTING IS 15 CANDELA.
- ALL NEW LOW VOLTAGE SYSTEMS CABLING SUCH AS PUBLIC ADDRESS, FIRE ALARM, TEL-COM, ETC. SHALL BE INSTALLED AS OPEN-AIR SYSTEMS AND SUPPORTED VIA J-HOOKS AND BRIDAL RINGS AT INTERVALS NOT EXCEEDING 5'-0". CONDUIT SLEEVES WITH PLASTIC END BUSHINGS SHALL BE USED FOR ALL WALL PENETRATIONS. IN INACCESSIBLE LOCATIONS AND AREAS OPEN TO STRUCTURE CABLING SHALL BE INSTALLED IN CONDUIT. ALL CABLING SHALL BE PLENUM RATED.
- FIELD VERIFY EXISTING RECEPTACLE WITHIN 25' OF FINAL HVAC EQUIPMENT LOCATIONS IN ACCORDANCE WITH NEC 210.63, WHERE RECEPTACLES DO NOT MEET DISTANCE REQUIREMENT, PROVIDE NEW RECEPTACLE WITHIN 25' OF HVAC EQUIPMENT AND CIRCUIT TO NEAREST AVAILABLE CONVENIENCE RECEPTACLE BRANCH CIRCUIT IN AREA. INTERIOR RECEPTACLES IN STUDENT OCCUPIED SPACES SHALL BE TAMPER RESISTANT. RECEPTACLES IN MECHANICAL SPACES WITH EXTERIOR DOORS SHALL BE GFCI, AND EXTERIOR RECEPTACLES SHALL BE GFCI, WEATHER-RESISTANT, WITH WEATHERPROOF IN-USE COVERS.
- NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARDS SHALL BE U.L. LISTED/LABELED FOR USE IN, AND HAVE MATCHING INTERRUPTING RATING OF EXISTING PANELBOARD.
- PROVIDE PANELBOARDS USED DURING PROJECT WITH UPDATED TYPED DIRECTORIES INDICATING LOAD AND LOCATION.
- EQUIPMENT DESIGNATED WITH A NUMBER INSIDE OF A HEXAGON (#) ARE SCHEDULED ON DRAWING E900.
- ALL NEW EXPOSED INTERIOR AND EXTERIOR RACEWAY SHALL BE PAINTED TO MATCH EXISTING CEILING AND/OR WALL FINISH. CONTRACTOR SHALL USE APPROVED DISTRICT PAINT COLOR/TYPE OR APPROVED EQUIVALENT.
- FOR ALL VERTICAL AND HORIZONTAL RUNS ALONG INACCESSIBLE BLOCK, CONDUIT SHALL TRANSITION TO SINGLE OR DUAL STEEL WIREMOLD IN EXPOSED LOCATIONS.
- CONTRACTOR IS RESPONSIBLE FOR SEALING ALL CONDUIT PENETRATIONS THROUGH INTERIOR WALLS, EXTERIOR WALLS, DOOR FRAMES, ETC. ANY CONDUIT THAT PASSES THROUGH FIRE-SMOKE BARRIER SHALL BE PROVIDED WITH FIRE PROOF SEALS.

KEY NOTES

- PROVIDE UNDERGROUND CONDUITS REQUIRED FROM LPV-1, CHILLER-1, AND CHILLER-2 TO BUILDING. SIZE PER EQUIPMENT WIRING SCHEDULE. ELBOW CONDUITS THROUGH EXISTING EXTERIOR WALL AND SEAL WATER-TIGHT. EXTERIOR ABOVE GRADE EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL. UNDERGROUND CONDUIT ELBOWS AND SWEEPS SHALL BE RIGID GALVANIZED STEEL. ALL OTHER UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT. CONDUIT ROUTE SHOWN IS FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND UTILITIES IN AREAS OF NEW UNDERGROUND WORK PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT UNDERGROUND UTILITIES AND SHALL INCUR ALL ASSOCIATED REPAIR COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH TRENCHING, SAW CUTTING, ETC. AND FOR FULL RESTORATION OF EXISTING CONDITIONS.
- PROVIDE ADDRESSABLE FAN SHUTDOWN RELAY(S) TO SHUTDOWN ASSOCIATED MECHANICAL EQUIPMENT FAN(S) UPON ACTIVATION OF FIRE ALARM SYSTEM. COORDINATE REQUIREMENTS AND SHUTDOWN SEQUENCING WITH MECHANICAL CONTRACTOR IN FIELD PRIOR TO FINAL COMMISSIONING. PROVIDE QUANTITY AND PROGRAMMING REQUIRED FOR INTENDED OPERATION.
- PROVIDE DUCT DETECTOR IN SUPPLY AND RETURN DUCT(S) PRIOR TO BRANCHING OF DUCTWORK AND PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ASSOCIATED REMOTE TEST STATIONS GROUPED TOGETHER WITHIN MECHANICAL SPACE AT 5' ABOVE FINISHED FLOOR. LOCATIONS SHOWN ON PLAN FOR REFERENCE ONLY. PROVIDE QUANTITY REQUIRED FOR INTENDED OPERATION. PROVIDE (1) REMOTE TEST STATION FOR EACH DUCT DETECTOR.
- CONNECT NEW RECEPTACLE TO EXISTING RECEPTACLE BRANCH CIRCUIT INDICATED. WIRE WITH (2) #12, #12G IN 3/4" CONDUIT.
- PROVIDE SMOKE DAMPER RELAY. REFER TO DETAIL ON DRAWING E800 FOR ADDITIONAL REQUIREMENTS INCLUDING DUCT DETECTOR AND REMOTE TEST STATION. REMOTE TEST STATION(S) SHALL BE LOCATED WITHIN MECHANICAL ROOM SPACE ADJACENT TO AHI REMOTE TEST STATIONS. CIRCUIT SMOKE DAMPER ACTUATOR TO PANEL INDICATED AT NEXT AVAILABLE SPARE 20A/1P BREAKER.
- PROVIDE CARBON MONOXIDE DETECTOR WITH ADDRESSABLE RELAY AND AUDIBLE ALARM WITH DISTINCT SIGNAL IN ACCORDANCE WITH NFPA 72.

KEY PLAN:



PROJECT INFORMATION

Project Number
R23.00325
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**
Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**
Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Date Description

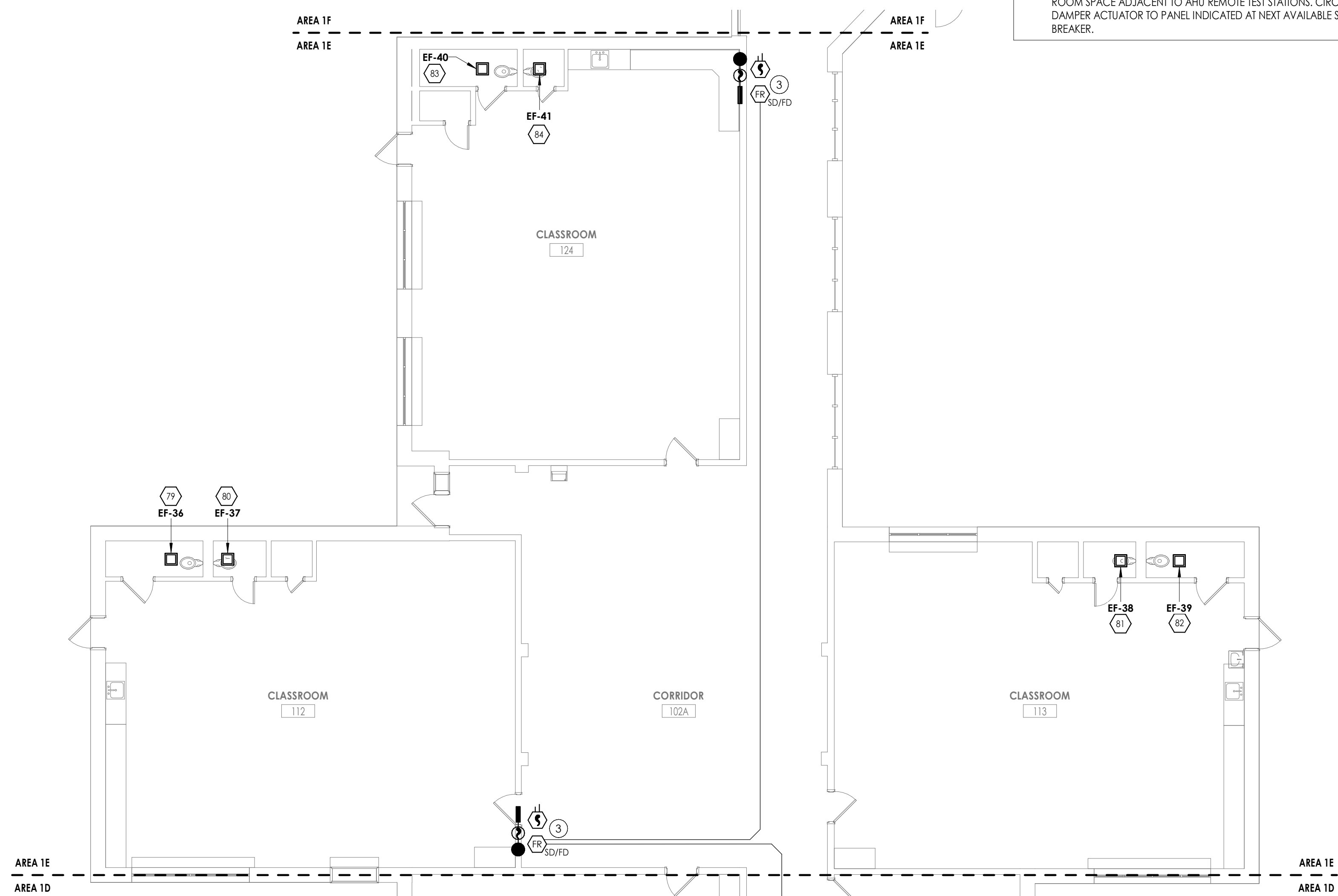
PROFESSIONAL STAMPS



SHEET INFORMATION

Issue
02/17/2025
Project Status
BID SET
Drawn By
JAE
Drawing Title
GROUND FLOOR ELECTRICAL
POWER AND SYSTEMS PLAN -
AREA 1A
Drawing Number

Scale
AS NOTED
Checked By
ARM
**FOES
E201.1A**



3 GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 1E
E201.1DE 1/8" = 1'-0"



KEY NOTES

- 1 PROVIDE ADDRESSABLE FAN SHUTDOWN RELAY(S) TO SHUTDOWN ASSOCIATED MECHANICAL EQUIPMENT FANS) UPON ACTIVATION OF FIRE ALARM SYSTEM. COORDINATE REQUIREMENTS AND SHUTDOWN SEQUENCING WITH MECHANICAL CONTRACTOR IN FIELD PRIOR TO FINAL COMMISSIONING. PROVIDE QUANTITY AND PROGRAMMING REQUIRED FOR INTENDED OPERATION.
- 2 PROVIDE DETECTOR IN SUPPLY AND RETURN DUCT(S) PRIOR TO BRANCHING OF DUCTWORK AND PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ASSOCIATED REMOTE TEST STATION(S) GROUPED TOGETHER WITH MECHANICAL SPACE AT 5'± ABOVE FINISHED FLOOR. PROVIDE 10'± MIN. RUN FOR REFERENCE ONLY. PROVIDE QUANTITY, REQUIRED FOR INTENDED OPERATION. PROVIDE (1) REMOTE TEST STATION FOR EACH DUCT DETECTOR.
- 3 PROVIDE SMOKE DETECTOR RELAY. REFER TO DETAIL ON DRAWING 8600 FOR ADDITIONAL REQUIREMENTS INCLUDING DETECTOR DETECTOR AND REMOTE TEST STATION. REMOTE TEST STATION(S) SHALL BE LOCATED WITHIN MECHANICAL ROOM SPACE ADJACENT TO PANEL REMOTE TEST STATIONS. CIRCUIT SMOKE DETECTOR ACTUATOR TO PANEL INDICATED AT NEXT AVAILABLE SPACE 20'± IN



PROJECT INFORMATION

Project Number
R23.00325

Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

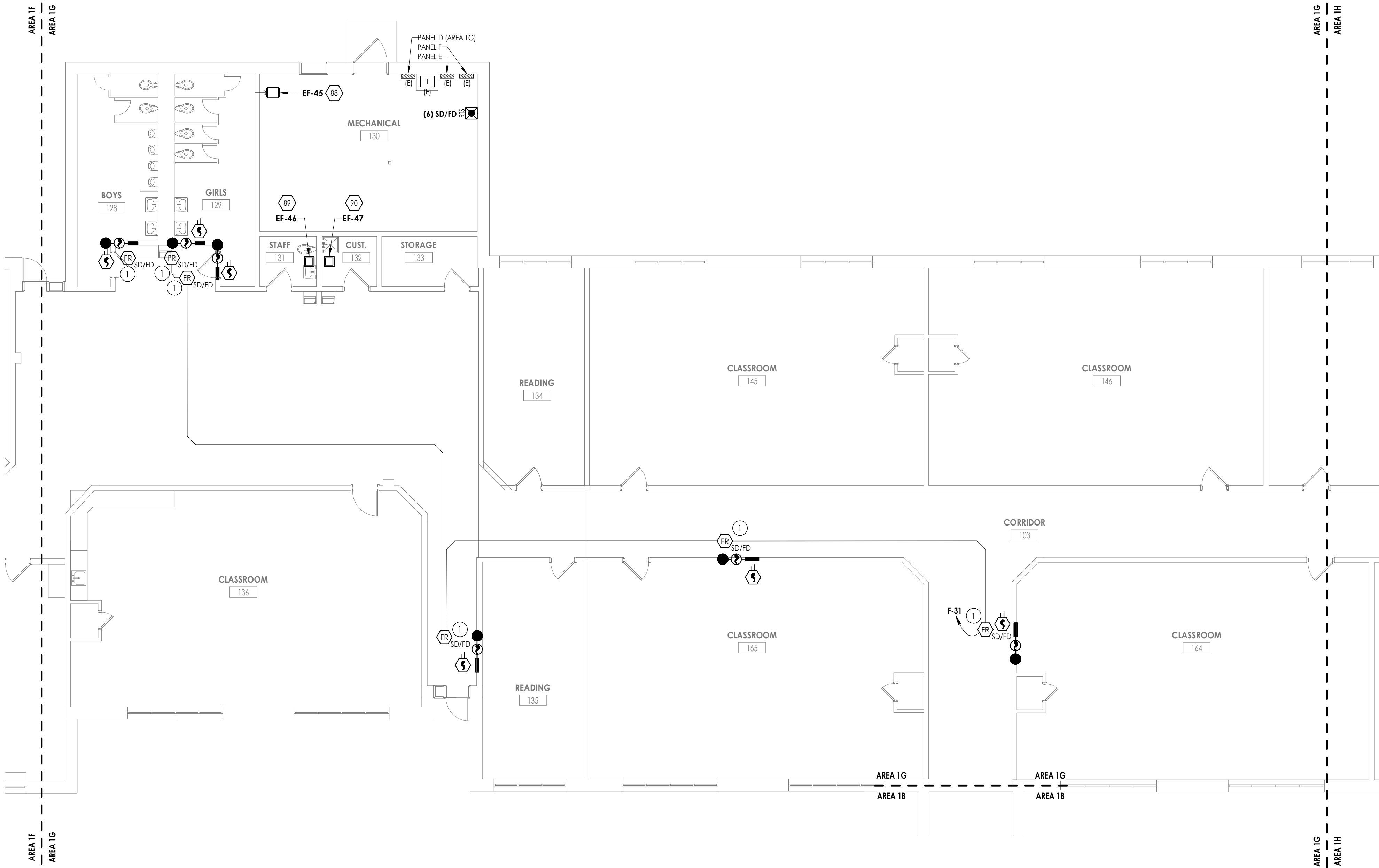
PROFESSIONAL STAMPS



SHEET INFORMATION	
Issued	Scale
02/17/2025	1/8" = 1'-0"
Project Status	
BID SET	
Drawn By	Checked By
JAE	ARM
Drawing Title	
GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 1D & 1E	
Drawing Number	

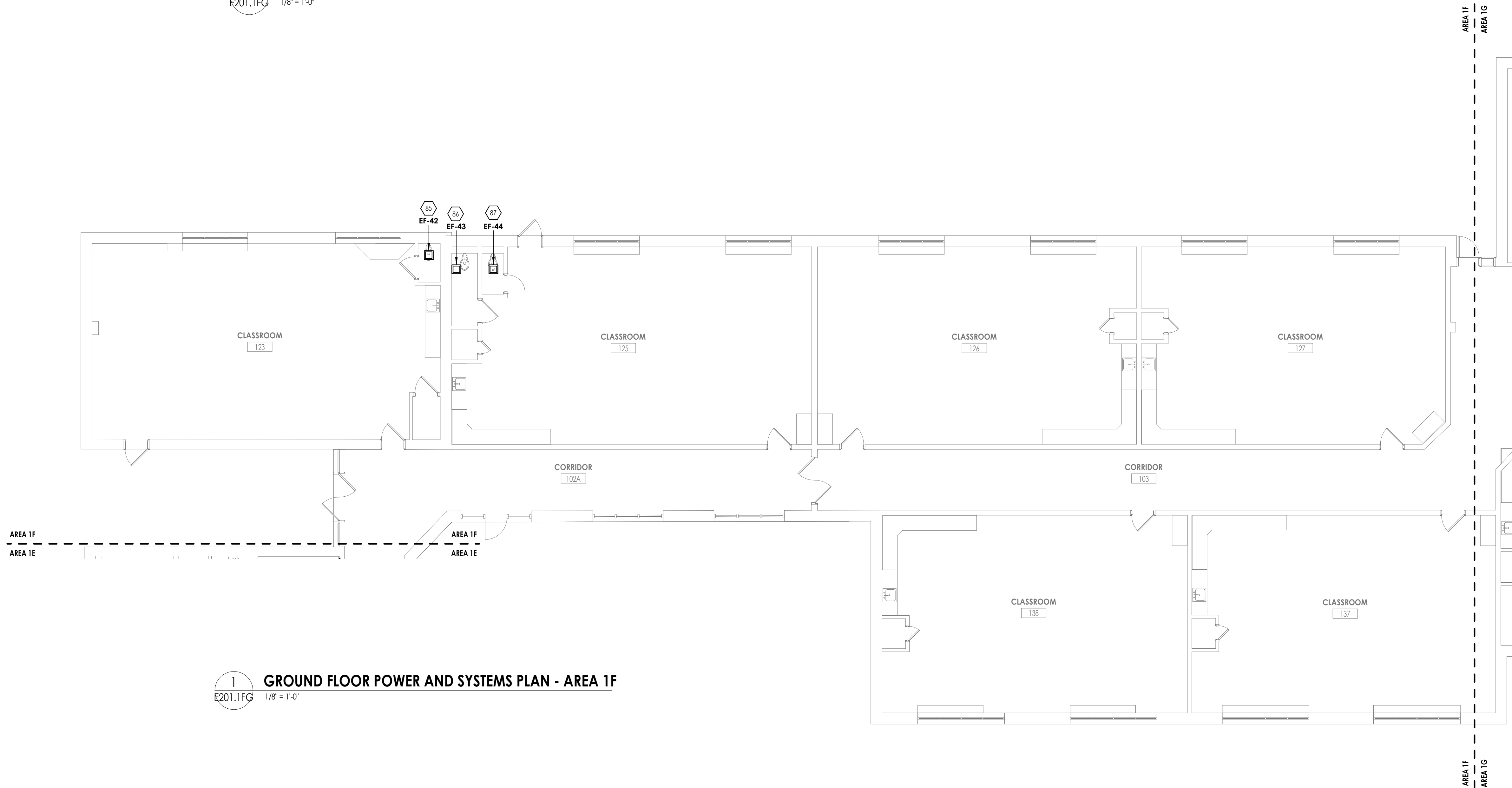
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2
E201.1FG 1/8" = 1'-0"

GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 1G



1
E201.1FG 1/8" = 1'-0"

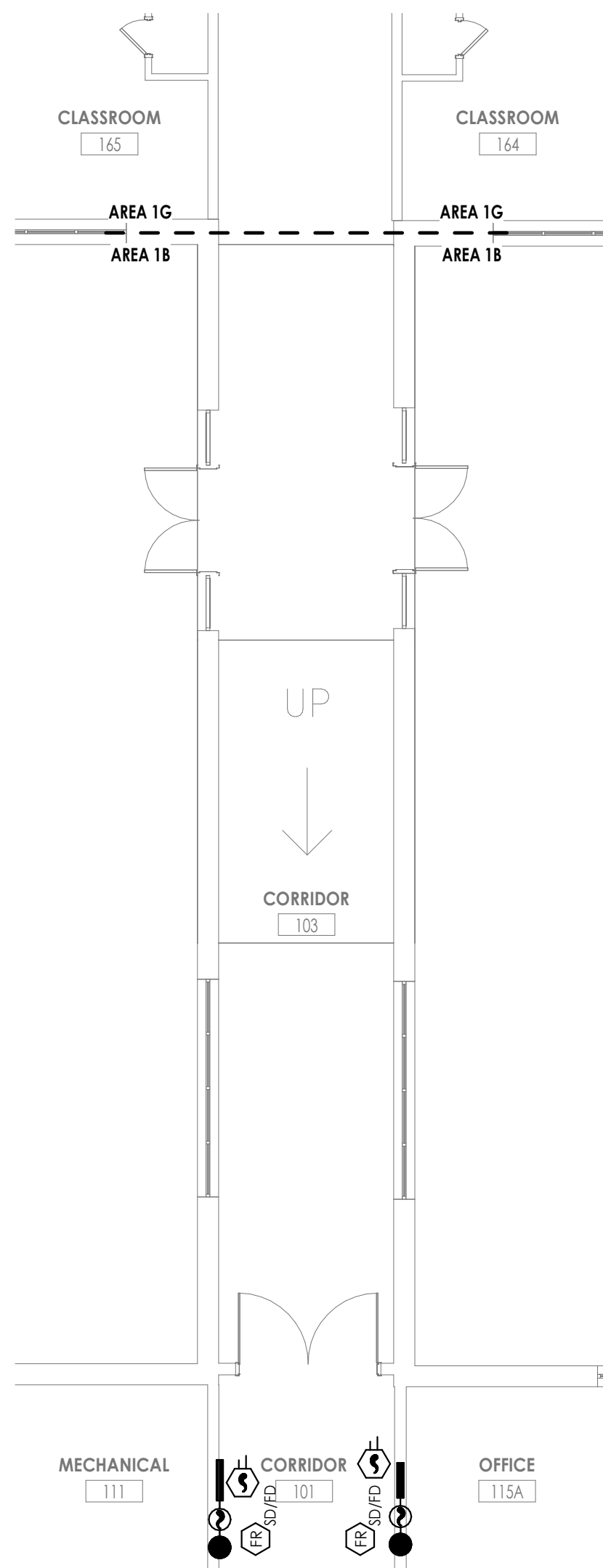
GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 1F

KEY NOTES

- 1 PROVIDE SMOKE DAMPER RELAY. REFER TO DETAIL ON DRAWING E800 FOR ADDITIONAL REQUIREMENTS INCLUDING DUCT DETECTOR AND REMOTE TEST STATION. REMOTE TEST STATION(S) SHALL BE LOCATED WITHIN MECHANICAL ROOM SPACE ADJACENT TO AHU REMOTE TEST STATIONS. CIRCUIT SMOKE DAMPER ACTUATOR TO PANEL INDICATED AT NEXT AVAILABLE SPARE 20A/1P BREAKER.

GENERAL NOTES

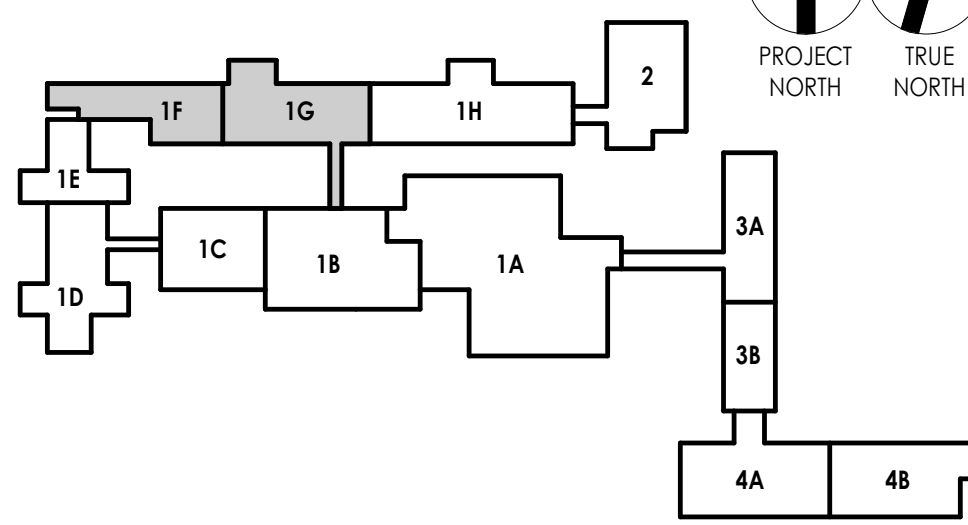
- A. EQUIPMENT AND DEVICES LABELED AS "E" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION. REFER TO E100 SERIES DEMOLITION DRAWINGS FOR EXISTING TO REMAIN CEILING DEVICES.
- B. NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH AND CONNECTED TO EXISTING FIRE ALARM SYSTEM. EXISTING FIRE ALARM SYSTEM IS SIMPLEX 4100U. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND LABOR COSTS ASSOCIATED WITH NEW FIRE ALARM DEVICES SHOWN. ASSOCIATED CABLING, TESTING, ETC. FOR A COMPLETE OPERATIONAL FIRE ALARM SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL WORK ASSOCIATED WITH FIRE ALARM SYSTEM AND FINAL PROGRAMMING OF SYSTEM WITH FIRE ALARM VENDOR.
- C. THE MINIMUM CANDELA RATING OF FIRE ALARM VISUAL NOTIFICATION DEVICES IS INDICATED ADJACENT TO DEVICE. IF CANDELA RATING IS NOT INDICATED, MINIMUM ALLOWABLE SETTING IS 15 CANDELA.
- D. ALL NEW LOW VOLTAGE SYSTEMS CABLING SUCH AS PUBLIC ADDRESS, FIRE ALARM, TEL-COM, ETC. SHALL BE INSTALLED AS OPEN-AIR SYSTEMS AND SUPPORTED VIA J-HOOKS AND BRIDAL RINGS AT INTERVALS NOT EXCEEDING 5'-0". CONDUIT SLEEVES WITH PLASTIC END BUSHINGS SHALL BE USED FOR ALL WALL PENETRATIONS. IN INACCESSIBLE LOCATIONS AND AREAS OPEN TO STRUCTURE CABLING SHALL BE INSTALLED IN CONDUIT. ALL CABLING SHALL BE PLENUM RATED.
- E. FIELD VERIFY EXISTING RECEPTACLE WITHIN 25' OF FINAL HVAC EQUIPMENT LOCATIONS IN ACCORDANCE WITH NEC 210.63, WHERE RECEPTACLES DO NOT MEET DISTANCE REQUIREMENT, PROVIDE NEW RECEPTACLE WITHIN 25' OF HVAC EQUIPMENT AND CIRCUIT TO NEAREST AVAILABLE CONVENIENCE RECEPTACLE BRANCH CIRCUIT IN AREA. INTERIOR RECEPTACLES IN STUDENT OCCUPIED SPACES SHALL BE TAMPER RESISTANT. RECEPTACLES IN MECHANICAL SPACES WITH EXTERIOR DOORS SHALL BE GFCI, AND EXTERIOR RECEPTACLES SHALL BE GFCI, WEATHER-RESISTANT, WITH WEATHERPROOF IN-USE COVERS.
- F. NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARDS SHALL BE U.L. LISTED/LABELED FOR USE IN, AND HAVE MATCHING INTERRUPTING RATING OF EXISTING PANELBOARD.
- G. PROVIDE PANELBOARDS USED DURING PROJECT WITH UPDATED TYPED DIRECTORIES INDICATING LOAD AND LOCATION.
- H. EQUIPMENT DESIGNATED WITH A NUMBER INSIDE OF A HEXAGON (#) ARE SCHEDULED ON DRAWING E900.
- I. ALL NEW EXPOSED INTERIOR AND EXTERIOR RACEWAY SHALL BE PAINTED TO MATCH EXISTING CEILING AND/OR WALL FINISH. CONTRACTOR SHALL USE APPROVED DISTRICT PAINT COLOR/TYPE OR APPROVED EQUIVALENT.
- J. FOR ALL VERTICAL AND HORIZONTAL RUNS ALONG INACCESSIBLE BLOCK, CONDUIT SHALL TRANSITION TO SINGLE OR DUAL STEEL WIREMOLD IN EXPOSED LOCATIONS.
- K. CONTRACTOR IS RESPONSIBLE FOR SEALING ALL CONDUIT PENETRATIONS THROUGH INTERIOR WALLS, EXTERIOR WALLS, DOOR FRAMES, ETC. ANY CONDUIT THAT PASSES THROUGH FIRE-SMOKE BARRIER SHALL BE PROVIDED WITH FIRE PROOF SEALS.



3
E201.1FG 1/8" = 1'-0"

GROUND FLOOR ELECTRICAL POWER AND SYSTEMS PLAN - AREA 1B TO 1G CORRIDOR

KEY PLAN:



PROJECT INFORMATION

Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev Description

PROFESSIONAL STAMPS

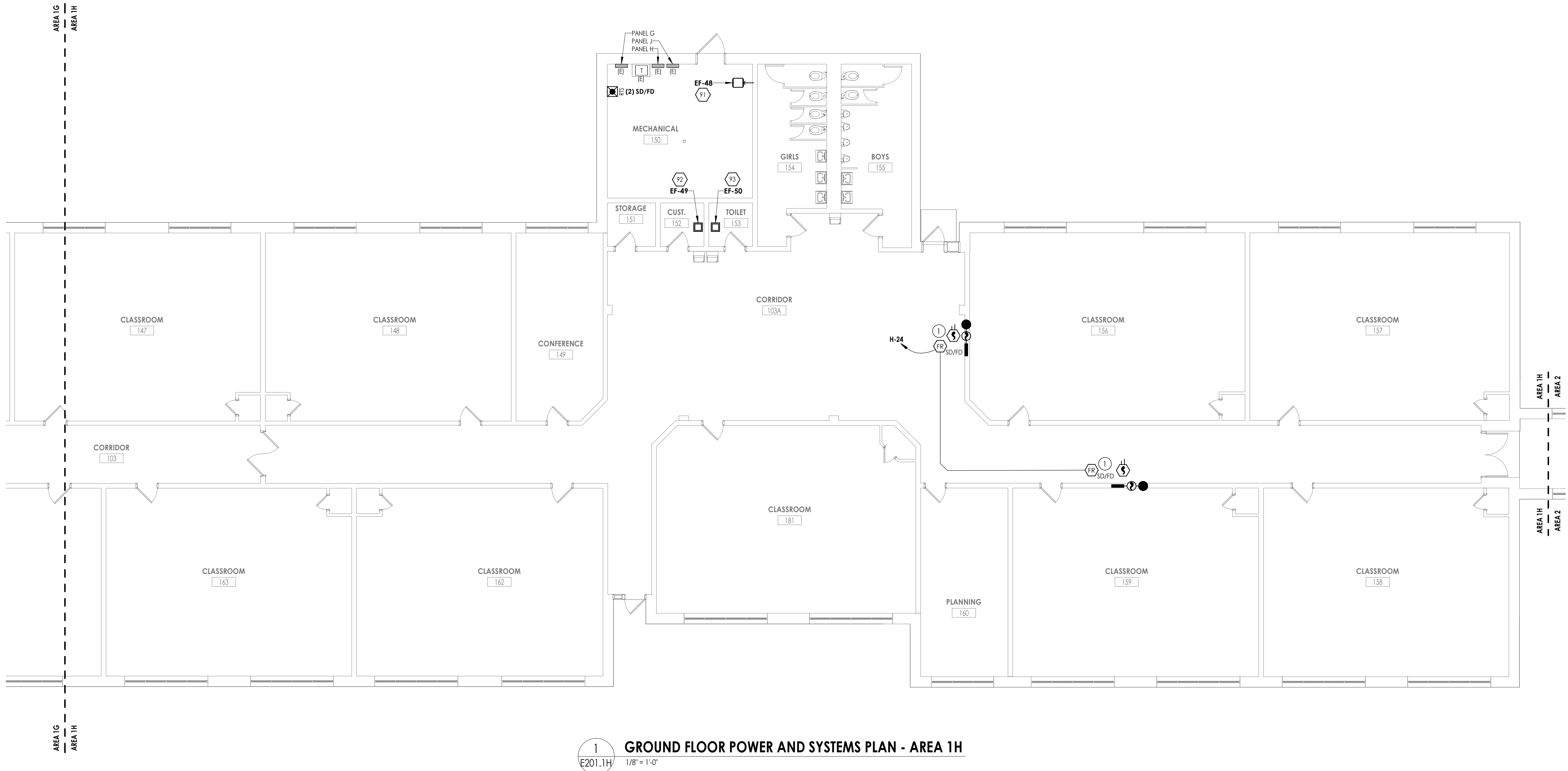


SHEET INFORMATION

Issue Date
02/17/2025
Scale
AS NOTED
Project Status
BID SET
Drawn By
JAE
Checked By
ARM
Drawing Title
GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 1F & 1G

Drawing Number
FOES E201.1FG

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1
E201.1H
GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 1H
1/8" = 1'-0"

GENERAL NOTES

A. EQUIPMENT AND DEVICES LABELED AS "E" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION. REFER TO E100 SERIES DEMOLITION DRAWINGS FOR EXISTING TO REMAIN CEILING DEVICES.

B. NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH AND CONNECTED TO EXISTING FIRE ALARM SYSTEM. EXISTING FIRE ALARM SYSTEM IS SIMPLEX 4100U. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND LABOR COSTS ASSOCIATED WITH NEW FIRE ALARM DEVICES SHOWN. ASSOCIATED CABLING, TESTING, ETC. FOR A COMPLETE OPERATIONAL FIRE ALARM SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL WORK ASSOCIATED WITH FIRE ALARM SYSTEM AND FINAL PROGRAMMING OF SYSTEM WITH FIRE ALARM VENDOR.

C. THE MINIMUM CANDELA RATING OF FIRE ALARM VISUAL NOTIFICATION DEVICES IS INDICATED ADJACENT TO DEVICE. IF CANDELA RATING IS NOT INDICATED, MINIMUM ALLOWABLE SETTING IS 15 CANDELA.

D. ALL NEW LOW VOLTAGE SYSTEMS CABLING SUCH AS PUBLIC ADDRESS, FIRE ALARM, TEL-COM, ETC. SHALL BE INSTALLED AS OPEN-AIR SYSTEMS AND SUPPORTED VIA J-HOOKS AND BRIDAL RINGS AT INTERVALS NOT EXCEEDING 5'-0". CONDUIT SLEEVES WITH PLASTIC END BUSHINGS SHALL BE USED FOR ALL WALL PENETRATIONS. IN INACCESSIBLE LOCATIONS AND AREAS OPEN TO STRUCTURE CABLING SHALL BE INSTALLED IN CONDUIT. ALL CABLING SHALL BE PLENUM RATED.

E. FIELD VERIFY EXISTING RECEPTACLE WITHIN 25' OF FINAL HVAC EQUIPMENT LOCATIONS IN ACCORDANCE WITH NEC 210.63. WHERE RECEPTACLES DO NOT MEET DISTANCE REQUIREMENT, PROVIDE NEW RECEPTACLE WITHIN 25' OF HVAC EQUIPMENT AND CIRCUIT TO NEAREST AVAILABLE CONVENIENCE RECEPTACLE BRANCH CIRCUIT IN AREA. INTERIOR RECEPTACLES IN STUDENT OCCUPIED SPACES SHALL BE TAMPER RESISTANT. RECEPTACLES IN MECHANICAL SPACES WITH EXTERIOR DOORS SHALL BE GFCI, AND EXTERIOR RECEPTACLES SHALL BE GFCI, WEATHER-RESISTANT, WITH WEATHERPROOF IN-USE COVERS.

F. NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARDS SHALL BE U.L. LISTED/LABELED FOR USE IN, AND HAVE MATCHING INTERRUPTING RATING OF EXISTING PANELBOARD.

G. PROVIDE PANELBOARDS USED DURING PROJECT WITH UPDATED TYPED DIRECTORIES INDICATING LOAD AND LOCATION.

H. EQUIPMENT DESIGNATED WITH A NUMBER INSIDE OF A HEXAGON (#) ARE SCHEDULED ON DRAWING E900.

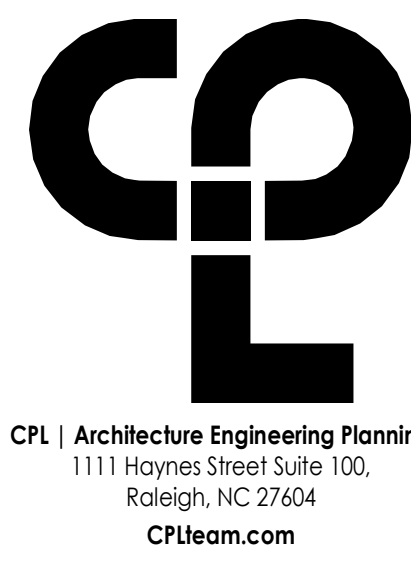
I. ALL NEW EXPOSED INTERIOR AND EXTERIOR RACEWAY SHALL BE PAINTED TO MATCH EXISTING CEILING AND/OR WALL FINISH. CONTRACTOR SHALL USE APPROVED DISTRICT PAINT COLOR/TYPE OR APPROVED EQUIVALENT.

J. FOR ALL VERTICAL AND HORIZONTAL RUNS ALONG INACCESSIBLE BLOCK, CONDUIT SHALL TRANSITION TO SINGLE OR DUAL STEEL WIREMOLD IN EXPOSED LOCATIONS.

K. CONTRACTOR IS RESPONSIBLE FOR SEALING ALL CONDUIT PENETRATIONS THROUGH INTERIOR WALLS, EXTERIOR WALLS, DOOR FRAMES, ETC. ANY CONDUIT THAT PASSES THROUGH FIRE/SMOKE BARRIER SHALL BE PROVIDED WITH FIRE PROOF SEALS.

KEY NOTES

1. PROVIDE SMOKE DAMPER RELAY. REFER TO DETAIL ON DRAWING E800 FOR ADDITIONAL REQUIREMENTS INCLUDING DUCT DETECTOR AND REMOTE TEST STATION. REMOTE TEST STATION(S) SHALL BE LOCATED WITHIN MECHANICAL ROOM SPACE ADJACENT TO AHU. REMOTE TEST STATIONS, CIRCUIT SMOKE DAMPER ACTUATOR TO PANEL, INDICATED AT NEXT AVAILABLE SPARE 20A/1P BREAKER.



PROJECT INFORMATION

Project Number
R23.00325

Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT

Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address
180 W Hotcher St,
Four Oaks, NC 27524

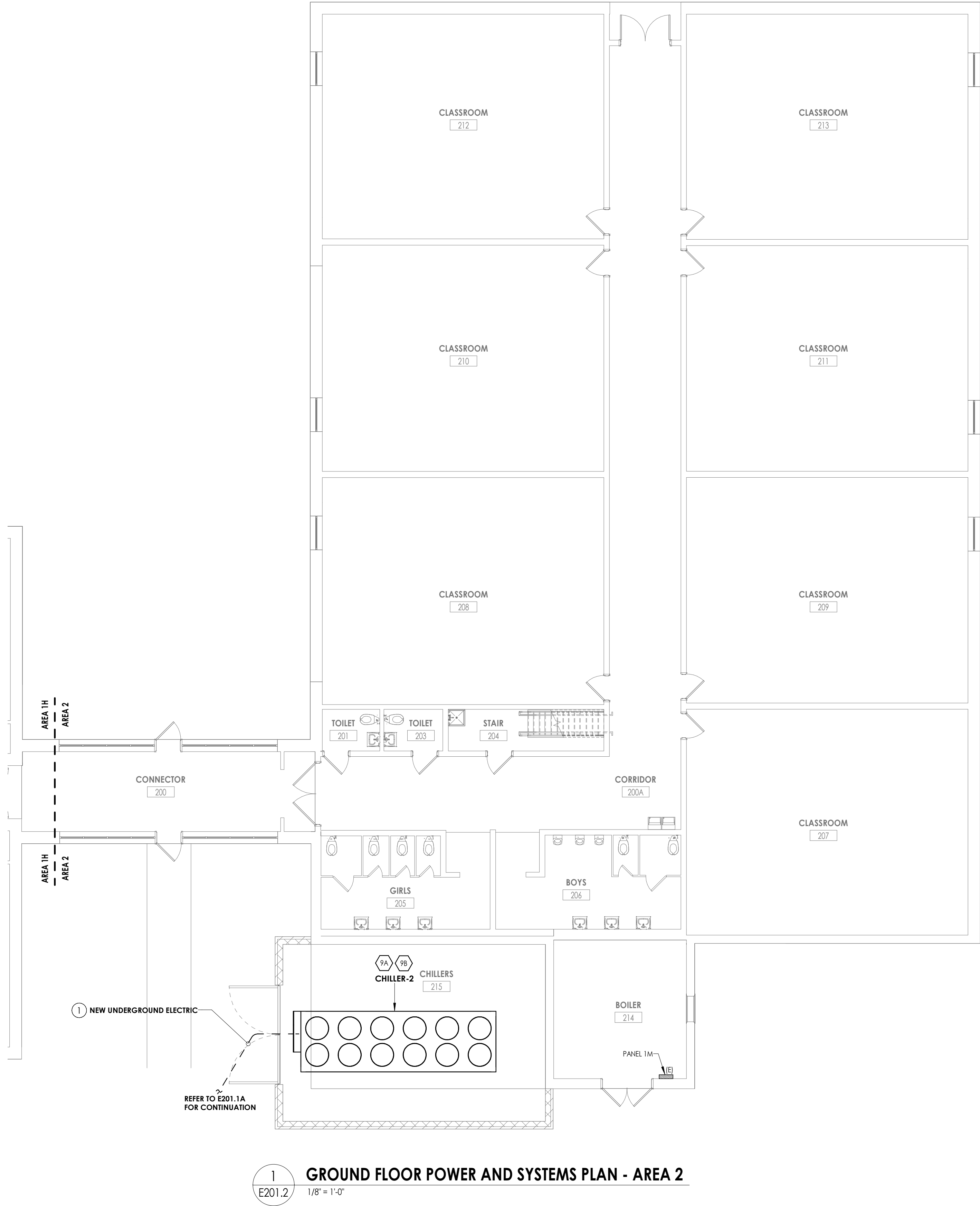
PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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PROFESSIONAL STAMPS




KEY PLAN:



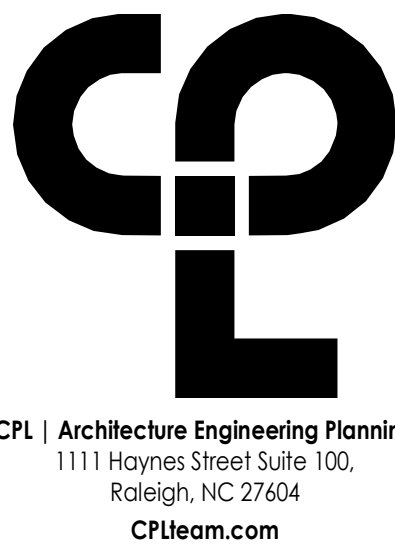
GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 2
1/8" = 1'-0"

GENERAL NOTES

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- NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH AND CONNECTED TO EXISTING FIRE ALARM SYSTEM. EXISTING FIRE ALARM SYSTEM IS SIMPLEX 4100U. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND LABOR COSTS ASSOCIATED WITH NEW FIRE ALARM DEVICES SHOWN. ASSOCIATED CABLING, TESTING, ETC. FOR A COMPLETE OPERATIONAL FIRE ALARM SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL WORK ASSOCIATED WITH FIRE ALARM SYSTEM AND FINAL PROGRAMMING OF SYSTEM WITH FIRE ALARM VENDOR.
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- ALL NEW LOW VOLTAGE SYSTEMS CABLING SUCH AS PUBLIC ADDRESS, FIRE ALARM, TEL-COM, ETC. SHALL BE INSTALLED AS OPEN-AIR SYSTEMS AND SUPPORTED VIA J-HOOKS AND BRIDAL RINGS AT INTERVALS NOT EXCEEDING 5'-0". CONDUIT SLEEVES WITH PLASTIC END BUSHINGS SHALL BE USED FOR ALL WALL PENETRATIONS. IN INACCESSIBLE LOCATIONS AND AREAS OPEN TO STRUCTURE CABLING SHALL BE INSTALLED IN CONDUIT. ALL CABLING SHALL BE PLENUM RATED.
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- PROVIDE PANELBOARDS USED DURING PROJECT WITH UPDATED TYPED DIRECTORIES INDICATING LOAD AND LOCATION.
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- ALL NEW EXPOSED INTERIOR AND EXTERIOR RACEWAY SHALL BE PAINTED TO MATCH EXISTING CEILING AND/OR WALL FINISH. CONTRACTOR SHALL USE APPROVED DISTRICT PAINT COLOR/TYPE OR APPROVED EQUIVALENT.
- FOR ALL VERTICAL AND HORIZONTAL RUNS ALONG INACCESSIBLE BLOCK, CONDUIT SHALL TRANSITION TO SINGLE OR DUAL STEEL WIREMOLD IN EXPOSED LOCATIONS.
- CONTRACTOR IS RESPONSIBLE FOR SEALING ALL CONDUIT PENETRATIONS THROUGH INTERIOR WALLS, EXTERIOR WALLS, DOOR FRAMES, ETC. ANY CONDUIT THAT PASSES THROUGH FIRE/SMOKE BARRIER SHALL BE PROVIDED WITH FIRE PROOF SEALS.

KEY NOTES

- PROVIDE UNDERGROUND CONDUITS REQUIRED FROM CHILLER-2 TO BUILDING. SIZE PER EQUIPMENT WIRING SCHEDULE. ELBOW CONDUITS THROUGH EXISTING EXTERIOR WALL AND SEAL WATER-TIGHT. EXTERIOR ABOVE GRADE EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL. UNDERGROUND CONDUIT ELBOWS AND SWEEPS SHALL BE RIGID GALVANIZED STEEL. ALL OTHER UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT. CONDUIT ROUTE SHOWN IS FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND UTILITIES IN AREAS OF NEW UNDERGROUND WORK PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT UNDERGROUND UTILITIES AND SHALL INCUR ALL ASSOCIATED REPAIR COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH TRENCHING, SAW CUTTING, ETC. AND FOR FULL RESTORATION OF EXISTING CONDITIONS.



PROJECT INFORMATION

Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address
180 W Hotcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

#	Date	Description
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PROFESSIONAL STAMPS



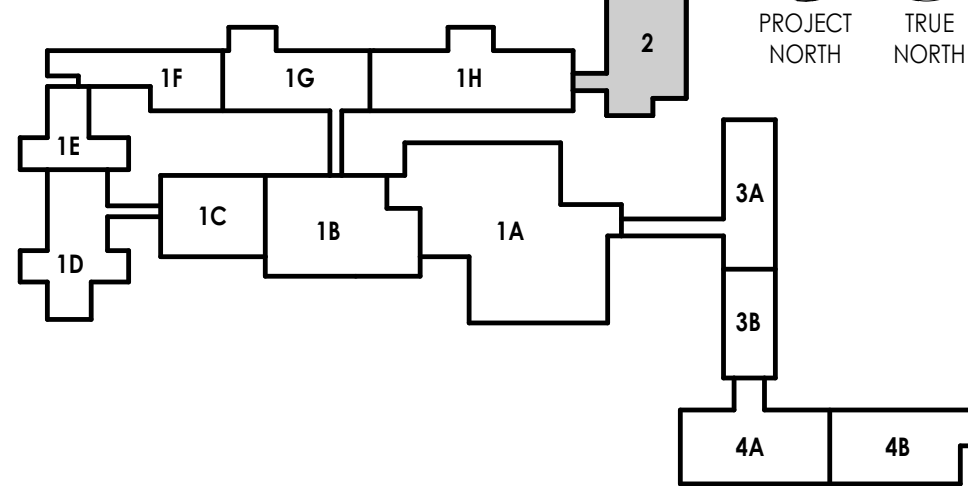
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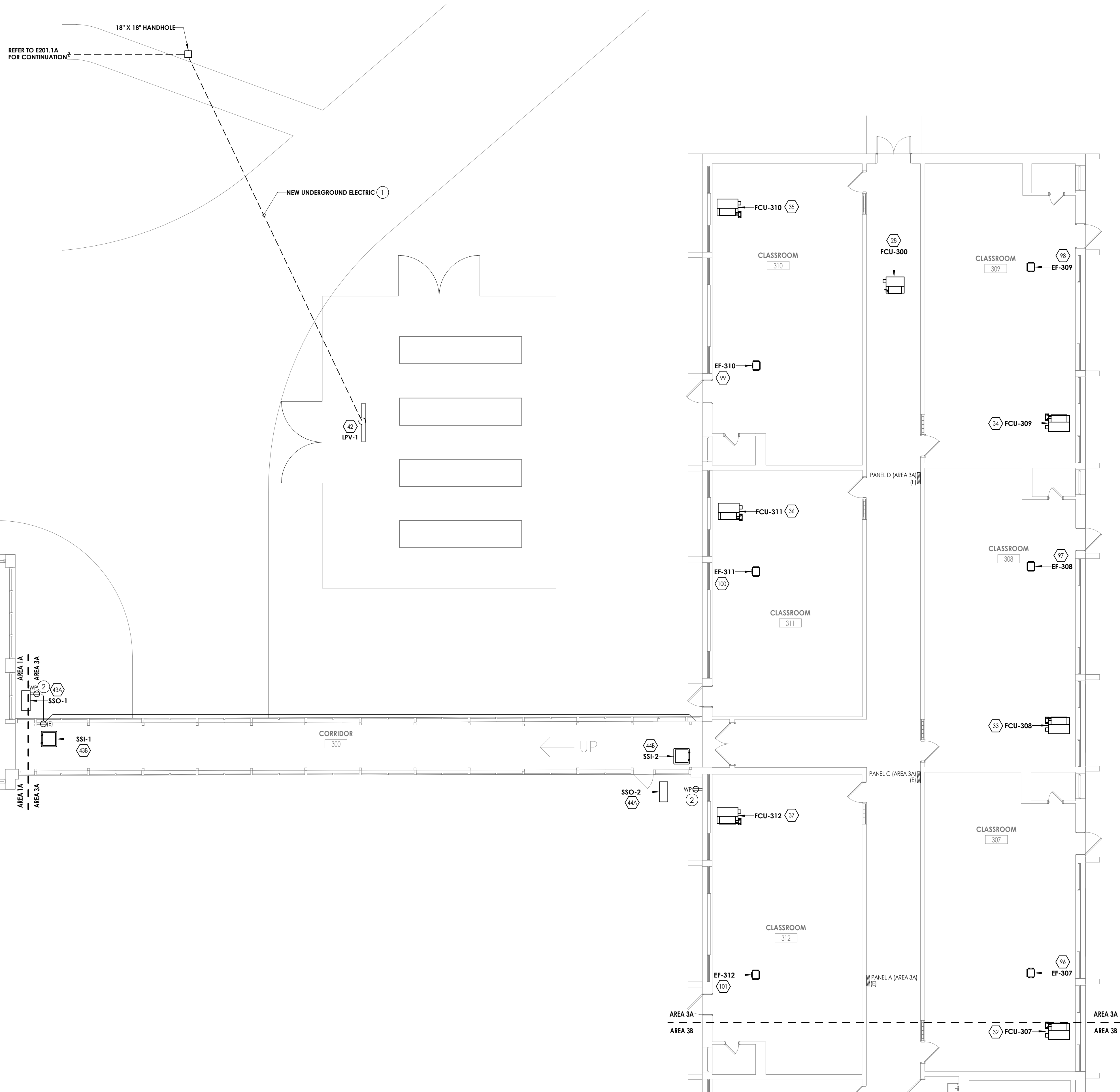
Issue	Scale
02/17/2025	AS NOTED
Project Status	
BID SET	
Drawn By	Checked By
JAE	ARM
Drawing Title	
GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 2	

Drawing Number

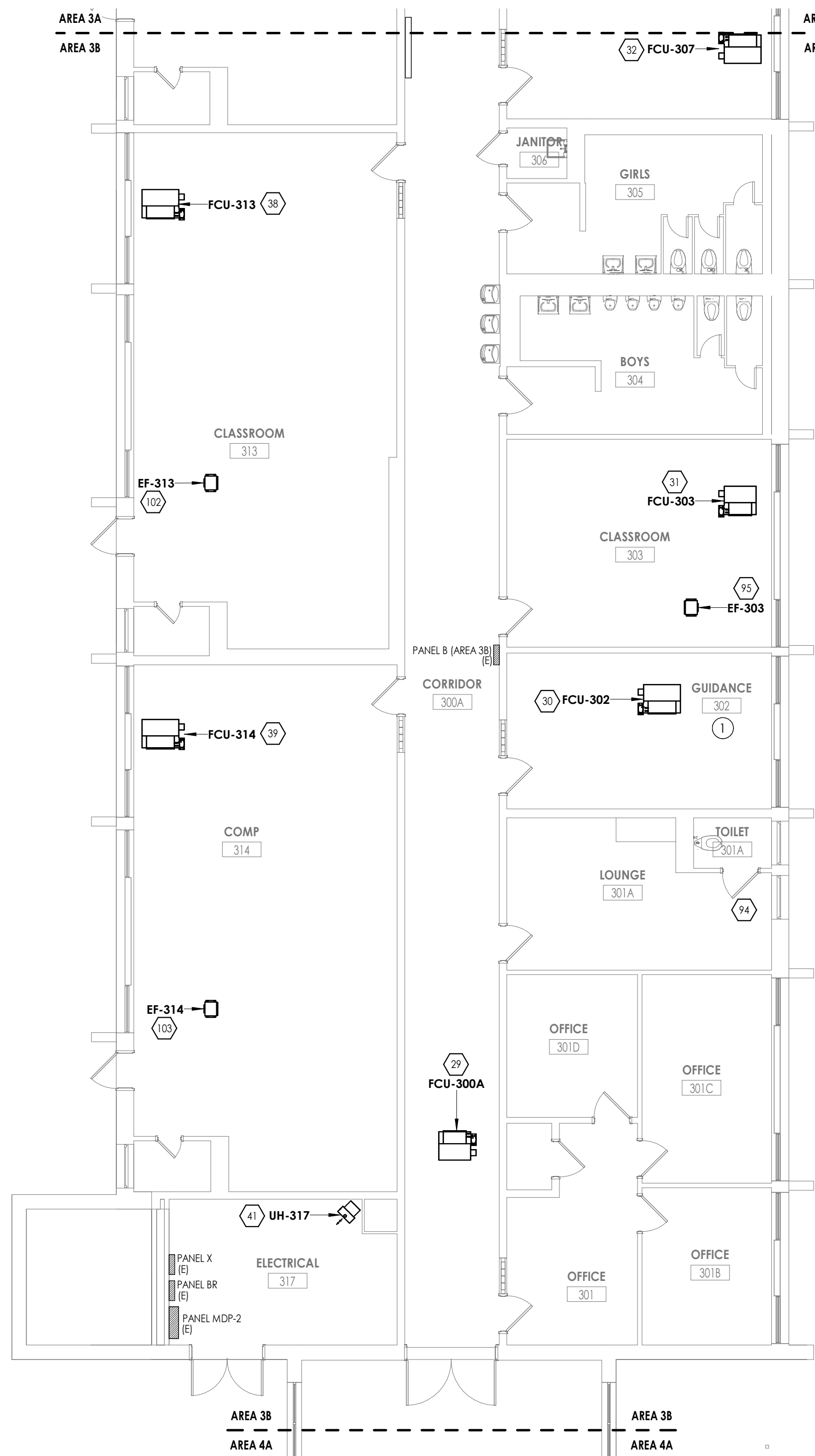
**FOES
E201.2**

KEY PLAN:

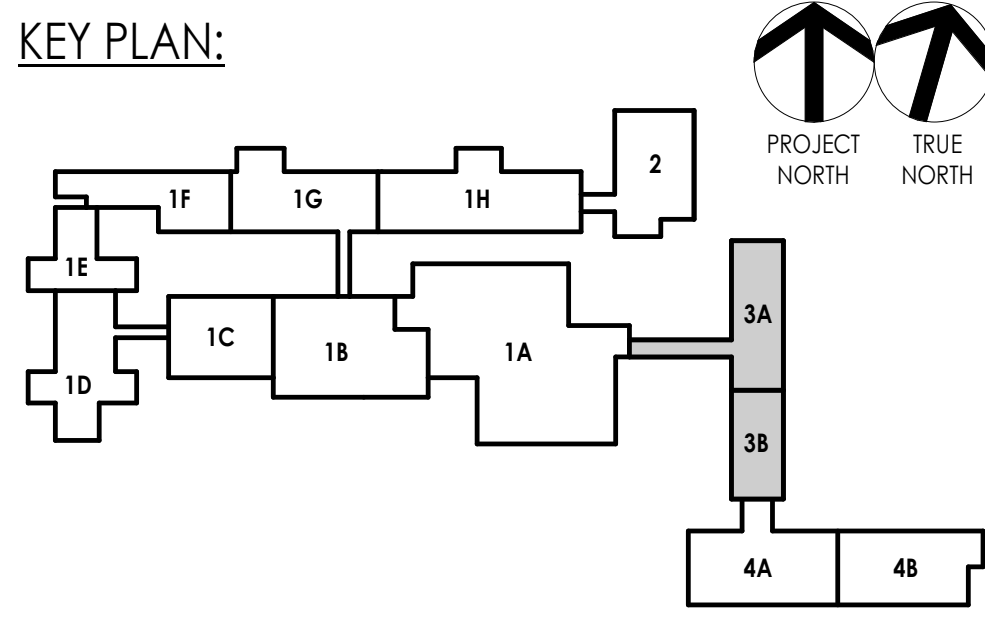




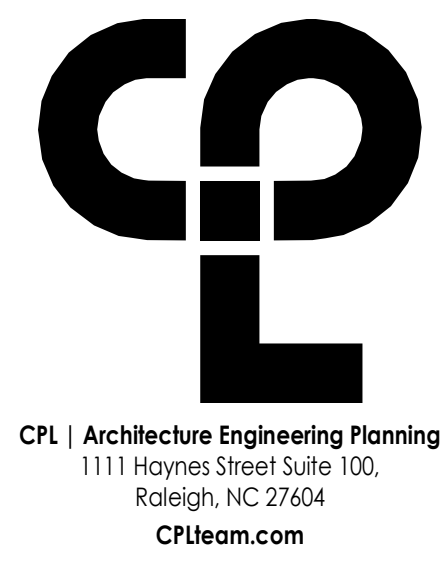
1 GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 3A
E201.3AB 1/8" = 1'-0"



2 GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 3B
E201.3AB 1/8" = 1'-0"



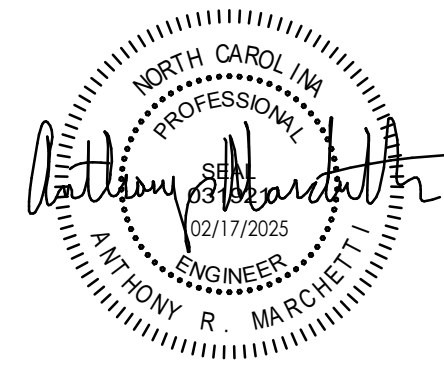
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 - PROVIDE PANELBOARDS USED DURING PROJECT WITH UPDATED TYPED DIRECTORIES INDICATING LOAD AND LOCATION.
 - EQUIPMENT DESIGNATED WITH A NUMBER INSIDE OF A HEXAGON (#) ARE SCHEDULED ON DRAWING E900.
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- ### KEY NOTES
- PROVIDE UNDERGROUND CONDUITS REQUIRED FROM LPV-1 TO BUILDING. SIZE PER EQUIPMENT WIRING SCHEDULE. ELBOW CONDUITS THROUGH EXISTING EXTERIOR WALL AND SEAL WATER-TIGHT. EXTERIOR ABOVE GRADE EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL. UNDERGROUND CONDUIT ELBOWS AND SWEEPS SHALL BE RIGID GALVANIZED STEEL. ALL OTHER UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT. CONDUIT ROUTE SHOWN IS FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND UTILITIES IN AREAS OF NEW UNDERGROUND WORK PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT UNDERGROUND UTILITIES AND SHALL INCUR ALL ASSOCIATED REPAIR COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH TRENCHING, SAW CUTTING, ETC. AND FOR FULL RESTORATION OF EXISTING CONDITIONS.
 - CONNECT NEW RECEPTACLE TO EXISTING RECEPTACLE BRANCH CIRCUIT INDICATED. WIRE WITH (2) #12, #12G IN 3/4" CONDUIT.



PROJECT INFORMATION
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION
Project Address: 180 W Hatcher St, Four Oaks, NC 27524

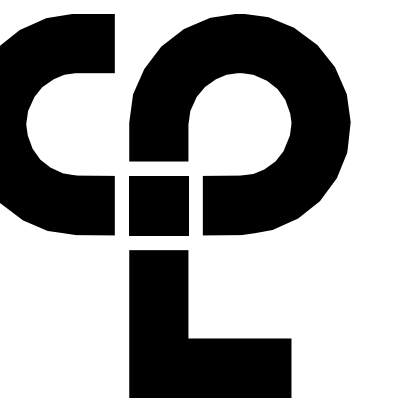
PROJECT ISSUE & REVISION SCHEDULE

PROFESSIONAL STAMPS

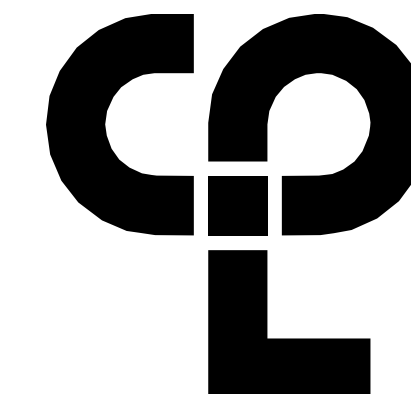


SHEET INFORMATION
Issue: 02/17/2025
Scale: AS NOTED
Project Status: BID SET
Drawn By: JAE
Checked By: ARM
Drawing Title: GROUND FLOOR POWER AND SYSTEMS PLAN - AREA 3A & 3B

Drawing Number: FOES E201.3AB



g Number
FOES
E301.1A



CPL | Architecture Engineering Planning
1111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLteam.com



PROJECT INFORMATION

R23.00325

Client Name

JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT

Project Name

FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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PROFESSIONAL STAMPS



SHEET INFORMATION

boxed

02/17/2022

Project Status.

BID SET

Discussion

JAE

Drawing Title
GROUND FLOOR LIGHTING PLAN
- AREA 1D & 1E

Drawing Num:

FOES
E301.1DE

GENERAL NOTES

A. EQUIPMENT, FIXTURES, AND DEVICES LABELED AS "EY" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT, FIXTURES, AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION.

B. REFER TO LUMINAIRE SCHEDULE ON DRAWING E900 FOR FIXTURE DESIGNATION TYPES, DESCRIPTIONS, AND SPECIFICATIONS.

C. ALL HALF SHADED LUMINAIRES AND LUMINAIRE DESIGNATED WITH "EM" SHALL INDICATE EMERGENCY LUMINAIRE. LUMINAIRE SHALL CONTAIN 90 MINUTE BATTERY UNIT TO OPERATE UPON LOSS OF NORMAL POWER. WIRE FIXTURE ACCORDING TO MANUFACTURER'S WIRING DIAGRAM, WHERE SHOWN AS SWITCHED, PROVIDE FIXTURE WITH (2) HOT LEGS FROM SAME POWER SOURCE.

D. LUMINAIRE DESIGNATED WITH "NE" INDICATE NIGHTLIGHTS AND SHALL BE UNSWITCHED AND REMAIN ON AT ALL TIMES.

E. NEW LIGHTING CONTROLS SHOWN (OCCUPANCY SENSORS, VACANCY SENSORS, PHOTOCELLS, SWITCHES, DIMMERS, ETC.) SHALL BE LOW VOLTAGE DEVICES AND COMPATIBLE WITH LUMINAIRE PROVIDED. PROVIDE ALL ASSOCIATED CONTROL UNITS, POWER PACKS, WIRING, AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

F. CONNECT ALL CONTROL UNITS AND POWER PACKS TO ASSOCIATED ROOM LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL AREA SWITCHING.

G. UNLESS NOTED OTHERWISE VIA KEYNOTE, IN EACH ROOM/AREA SHOWN ON THE PLAN, CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUITING LEFT FROM DEMOLITION. REWORK AND EXTEND EXISTING CIRCUITING AS REQUIRED TO SERVE NEW FIXTURE AND CONTROL LAYOUT.

H. CONNECT NEW EMERGENCY LIGHTING UNITS WITH BATTERY PACKS TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.

I. CONNECT NEW EXIT SIGNS TO EXISTING EXIT SIGN BRANCH CIRCUIT WHERE AVAILABLE WITHIN AREA. OTHERWISE, CONNECT TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.

J. PROVIDE OWNER WITH ADDITIONAL 5% ATTIC STOCK FOR EACH TYPE OF LIGHT FIXTURE AND LIGHTING CONTROL.

K. NEW WALL MOUNTED FIXTURES REPLACING EXISTING WALL MOUNTED FIXTURES SHALL BE MOUNTED AT SAME HEIGHT AS DEMOLISHED FIXTURES IN SAME LOCATION, UNLESS NOTED OTHERWISE.

L. NEW SUSPENDED FIXTURES REPLACING EXISTING SUSPENDED FIXTURES SHALL BE MOUNTED AT SAME HEIGHT AS DEMOLISHED FIXTURE, UNLESS NOTED OTHERWISE.

KEY NOTES

1 HANG TYPE "S1" FIXTURES WITHIN SPACE AT APPROXIMATELY 10'-0" ABOVE FINISHED FLOOR. FIELD LOCATE AROUND AND BELOW DUCTWORK, PIPING, ETC. FOR BEST ILLUMINATION OF SPACE.

2 SWITCH SHALL CONTROL COMBINATION EXHAUST FAN AND LIGHT WITHIN SPACE. REWORK AND EXTEND EXISTING CIRCUITING AS REQUIRED, REFER TO E200 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.

CP | Architecture Engineering Planning

1111 Haynes Street Suite 100,
Raleigh, NC 27604
CPTeam.com

PROJECT INFORMATION
Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE	
#	Description

PROFESSIONAL STAMPS

SHEET INFORMATION
Issue
02/17/2025
Project Status
BID SET
Drawn By
JAE
Checked By
ARM
Drawing Title
GROUND FLOOR LIGHTING PLAN
- AREA 1F & 1G

Drawing Number
FOES
E301.1FG

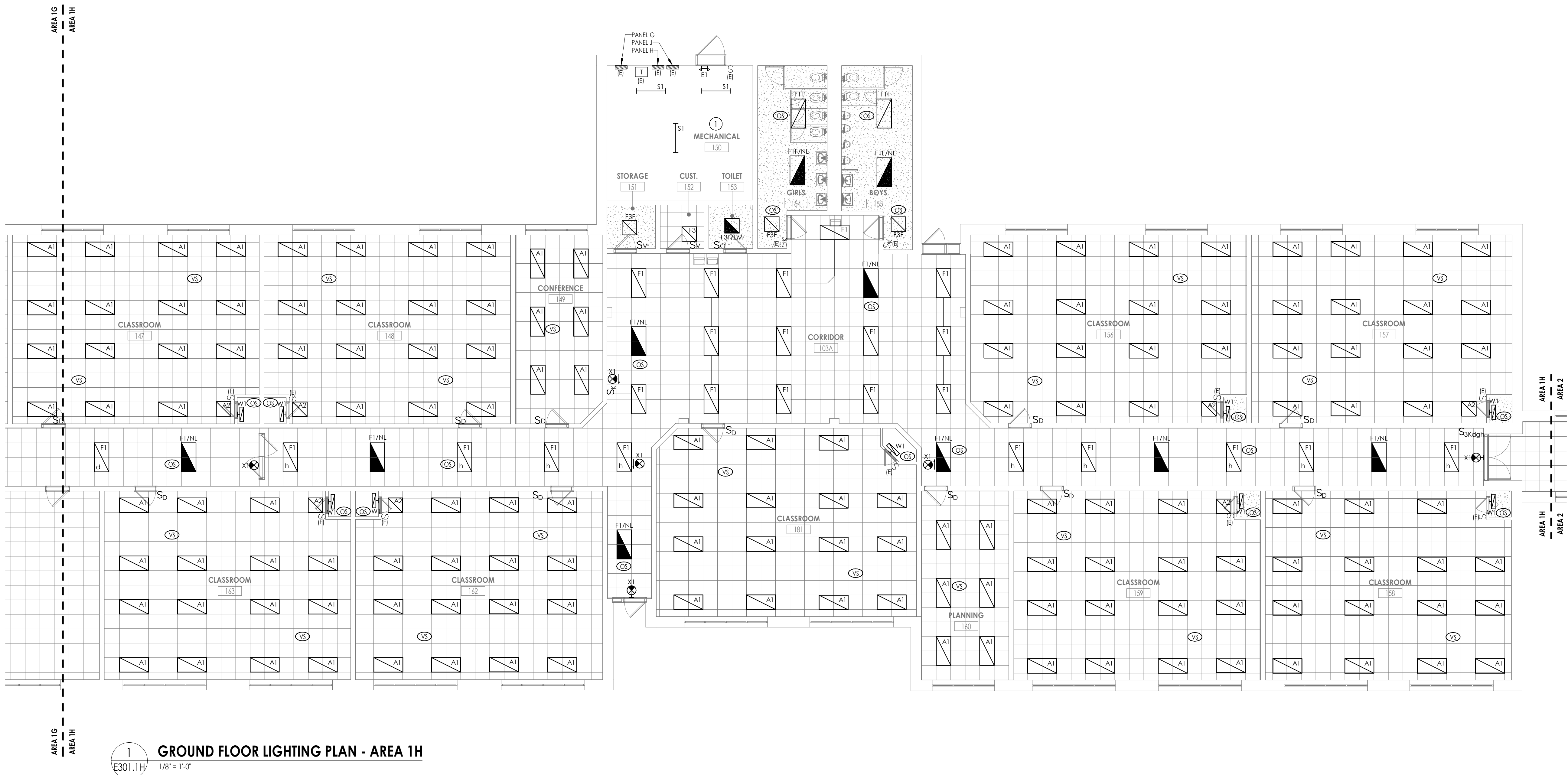
2 GROUND FLOOR LIGHTING PLAN - AREA 1G
E301.1FG 1/8" = 1'-0"

3 GROUND FLOOR LIGHTING PLAN - AREA 1B TO 1G CORRIDOR
E301.1FG 1/8" = 1'-0"

1 GROUND FLOOR LIGHTING PLAN - AREA 1F
E301.1FG 1/8" = 1'-0"

KEY PLAN:

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GENERAL NOTES

A. EQUIPMENT, FIXTURES, AND DEVICES LABELED AS "EY" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT, FIXTURES, AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION.

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F. CONNECT ALL CONTROL UNITS AND POWER PACKS TO ASSOCIATED ROOM LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL AREA SWITCHING.

G. UNLESS NOTED OTHERWISE VIA KEYNOTE, IN EACH ROOM/AREA SHOWN ON THE PLAN, CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUITING LEFT FROM DEMOLITION. REWORK AND EXTEND EXISTING CIRCUITING AS REQUIRED TO SERVE NEW FIXTURE AND CONTROL LAYOUT.

H. CONNECT NEW EMERGENCY LIGHTING UNITS WITH BATTERY PACKS TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.

I. CONNECT NEW EXIT SIGNS TO EXISTING EXIT SIGN BRANCH CIRCUIT WHERE AVAILABLE WITHIN AREA. OTHERWISE, CONNECT TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.

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CP | Architecture Engineering Planning
1111 Hayes Street Suite 100,
Raleigh, NC 27604
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JCPS

PROJECT INFORMATION

Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hatcher St., Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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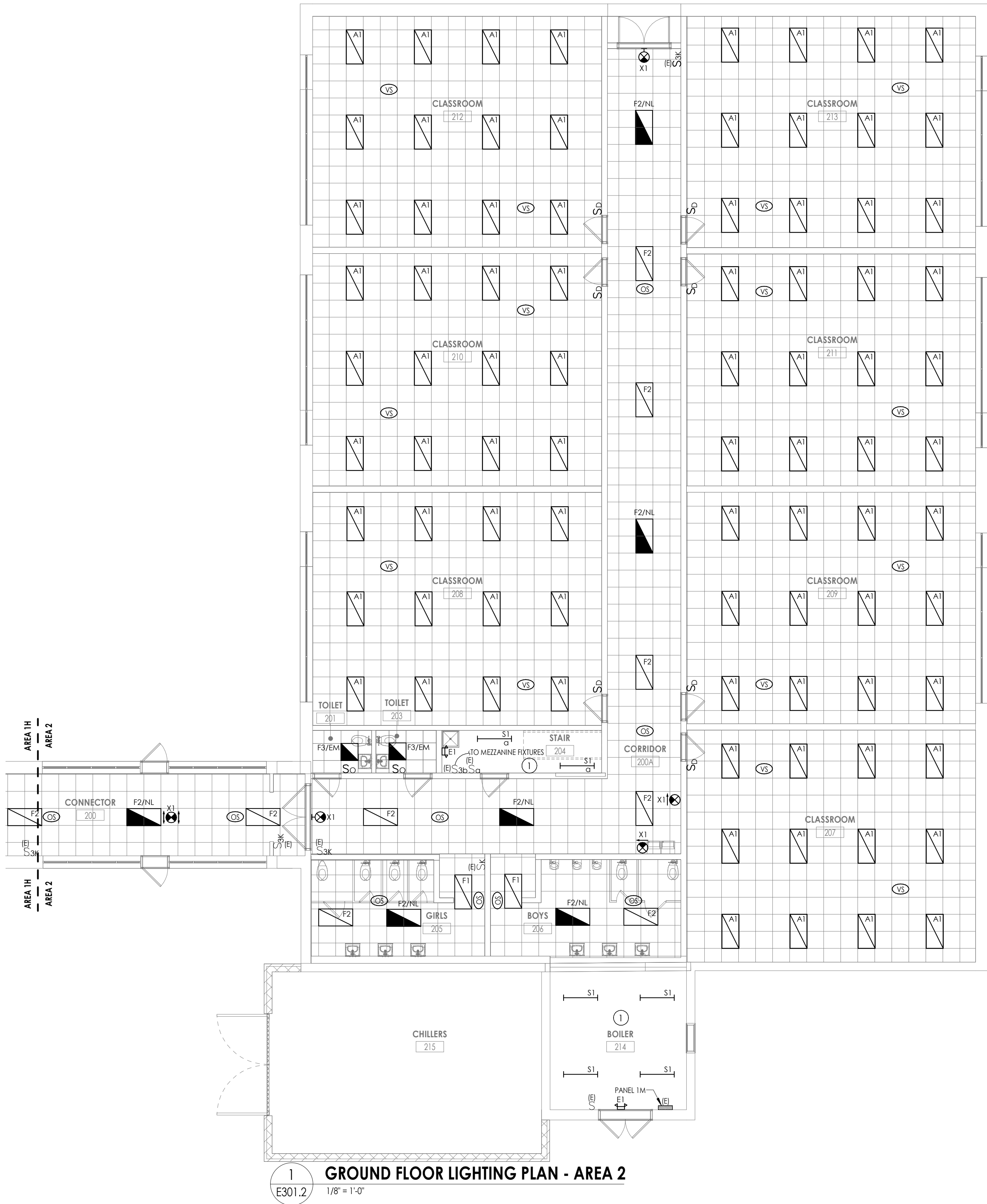
KEY PLAN:

PROFESSIONAL STAMPS

FOES E301.1H

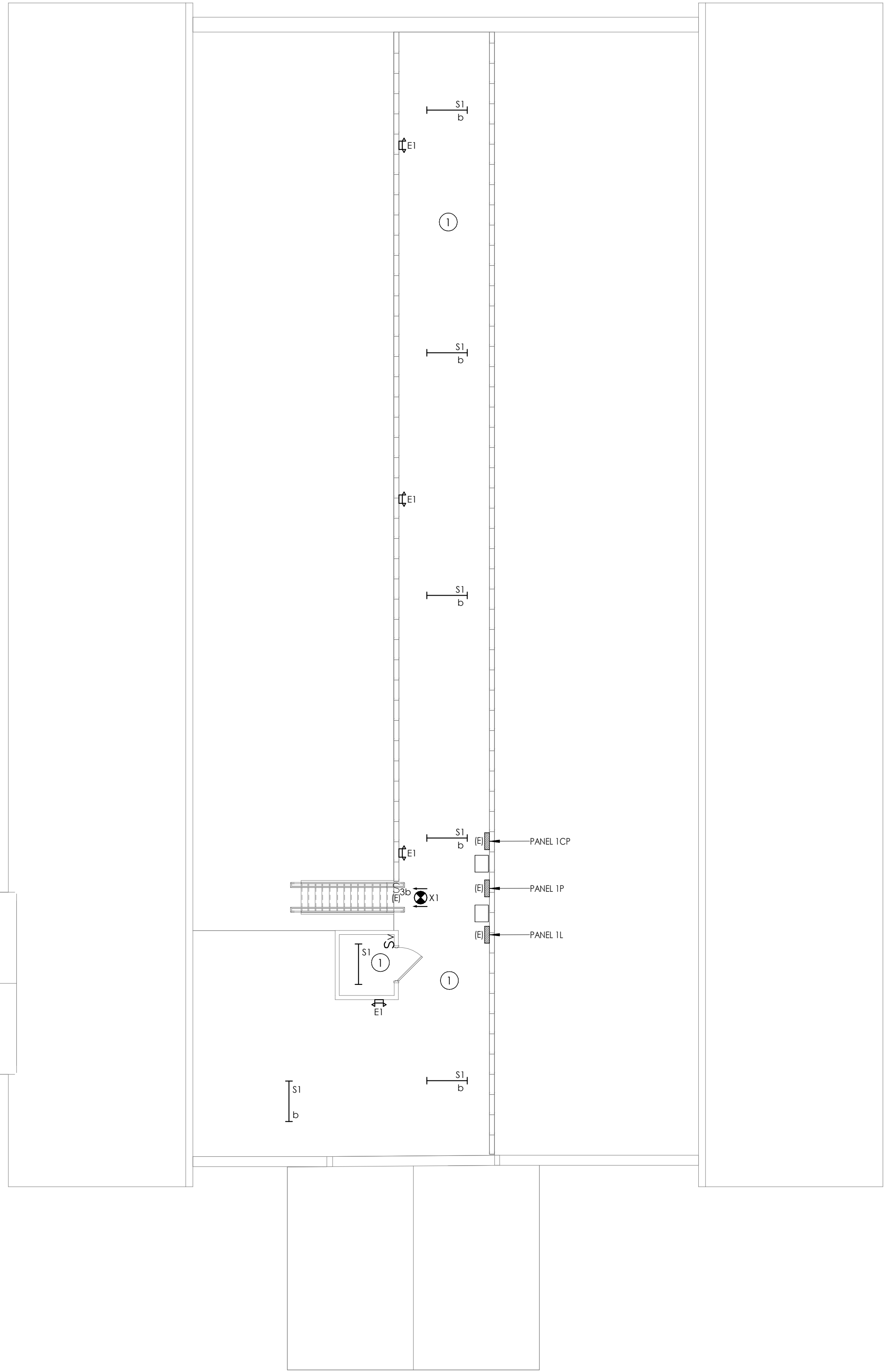
SHEET INFORMATION

Issue: 02/17/2025
Project Status: BID SET
Drawn By: JAE
Drawing Title: GROUND FLOOR LIGHTING PLAN - AREA 1H
Drawing Number: 4A, 4B, 4C, 4D, 4E, 4F, 4G, 4H, 4I, 4J, 4K, 4L, 4M, 4N, 4O, 4P, 4Q, 4R, 4S, 4T, 4U, 4V, 4W, 4X, 4Y, 4Z, 4AA, 4AB, 4AC, 4AD, 4AE, 4AF, 4AG, 4AH, 4AI, 4AJ, 4AK, 4AL, 4AM, 4AN, 4AO, 4AP, 4AQ, 4AR, 4AS, 4AT, 4AU, 4AV, 4AW, 4AX, 4AY, 4AZ, 4BA, 4BB, 4BC, 4BD, 4BE, 4BF, 4BG, 4BH, 4BI, 4BJ, 4BK, 4BL, 4BM, 4BN, 4BO, 4BP, 4BQ, 4BR, 4BS, 4BT, 4BU, 4BV, 4BW, 4BX, 4BY, 4BZ, 4CA, 4CB, 4CC, 4CD, 4CE, 4CF, 4CG, 4CH, 4CI, 4CJ, 4CK, 4CL, 4CM, 4CN, 4CO, 4CP, 4CQ, 4CR, 4CS, 4CT, 4CU, 4CV, 4CW, 4CX, 4CY, 4CZ, 4DA, 4DB, 4DC, 4DD, 4DE, 4DF, 4DG, 4DH, 4DI, 4DJ, 4DK, 4DL, 4DM, 4DN, 4DO, 4DP, 4DQ, 4DR, 4DS, 4DT, 4DU, 4DV, 4DW, 4DX, 4DY, 4DZ, 4EA, 4EB, 4EC, 4ED, 4EE, 4EF, 4EG, 4EH, 4EI, 4EJ, 4EK, 4EL, 4EM, 4EN, 4EO, 4EP, 4EQ, 4ER, 4ES, 4ET, 4EU, 4EV, 4EW, 4EX, 4EY, 4EZ, 4FA, 4FB, 4FC, 4FD, 4FE, 4FF, 4FG, 4FH, 4FI, 4FJ, 4FK, 4FL, 4FM, 4FN, 4FO, 4FP, 4FQ, 4FR, 4FS, 4FT, 4FU, 4FV, 4FW, 4FX, 4FY, 4FZ, 4GA, 4GB, 4GC, 4GD, 4GE, 4GF, 4GG, 4GH, 4GI, 4GJ, 4GK, 4GL, 4GM, 4GN, 4GO, 4GP, 4GQ, 4GR, 4GS, 4GT, 4GU, 4GV, 4GW, 4GX, 4GY, 4GZ, 4HA, 4HB, 4HC, 4HD, 4HE, 4HF, 4HG, 4HH, 4HI, 4HJ, 4HK, 4HL, 4HM, 4HN, 4HO, 4HP, 4HQ, 4HR, 4HS, 4HT, 4HU, 4HV, 4HW, 4HX, 4HY, 4HZ, 4IA, 4IB, 4IC, 4ID, 4IE, 4IF, 4IG, 4IH, 4II, 4IJ, 4IK, 4IL, 4IM, 4IN, 4IO, 4IP, 4IQ, 4IR, 4IS, 4IT, 4IU, 4IV, 4IW, 4IX, 4IY, 4IZ, 4JA, 4JB, 4JC, 4JD, 4JE, 4JF, 4JG, 4JH, 4JI, 4JJ, 4JK, 4JL, 4JM, 4JN, 4JO, 4JP, 4JQ, 4JR, 4JS, 4JT, 4JU, 4JV, 4JW, 4JX, 4JY, 4JZ, 4KA, 4KB, 4KC, 4KD, 4KE, 4KF, 4KG, 4KH, 4KI, 4KJ, 4KK, 4KL, 4KM, 4KN, 4KO, 4KP, 4KQ, 4KR, 4KS, 4KT, 4KU, 4KV, 4KW, 4KX, 4KY, 4KZ, 4LA, 4LB, 4LC, 4LD, 4LE, 4LF, 4LG, 4LH, 4LI, 4LJ, 4LK, 4LL, 4LM, 4LN, 4LO, 4LP, 4LQ, 4LR, 4LS, 4LT, 4LU, 4LV, 4LW, 4LX, 4LY, 4LZ, 4MA, 4MB, 4MC, 4MD, 4ME, 4MF, 4MG, 4MH, 4MI, 4MJ, 4MK, 4ML, 4MM, 4MN, 4MO, 4MP, 4MQ, 4MR, 4MS, 4MT, 4MU, 4MV, 4MW, 4MX, 4MY, 4MZ, 4NA, 4NB, 4NC, 4ND, 4NE, 4NF, 4NG, 4NH, 4NI, 4NJ, 4NK, 4NL, 4NM, 4NO, 4NP, 4NQ, 4NR, 4NS, 4NT, 4NU, 4NV, 4NW, 4NX, 4NY, 4NZ, 4OA, 4OB, 4OC, 4OD, 4OE, 4OF, 4OG, 4OH, 4OI, 4OJ, 4OK, 4OL, 4OM, 4ON, 4OO, 4OP, 4OQ, 4OR, 4OS, 4OT, 4OU, 4OV, 4OW, 4OX, 4OY, 4OZ, 4PA, 4PB, 4PC, 4PD, 4PE, 4PF, 4PG, 4PH, 4PI, 4PJ, 4PK, 4PL, 4PM, 4PN, 4PO, 4PP, 4PQ, 4PR, 4PS, 4PT, 4PU, 4PV, 4PW, 4PX, 4PY, 4PZ, 4QA, 4QB, 4QC, 4QD, 4QE, 4QF, 4QG, 4QH, 4QI, 4QJ, 4QK, 4QL, 4QM, 4QN, 4QO, 4QP, 4QQ, 4QR, 4QS, 4QT, 4QU, 4QV, 4QW, 4QX, 4QY, 4QZ, 4RA, 4RB, 4RC, 4RD, 4RE, 4RF, 4RG, 4RH, 4RI, 4RJ, 4RK, 4RL, 4RM, 4RN, 4RO, 4RP, 4RQ, 4RR, 4RS, 4RT, 4RU, 4RV, 4RW, 4RX, 4RY, 4RZ, 4SA, 4SB, 4SC, 4SD, 4SE, 4SF, 4SG, 4SH, 4SI, 4SJ, 4SK, 4SL, 4SM, 4SN, 4SO, 4SP, 4SQ, 4SR, 4SS, 4ST, 4SU, 4SV, 4SW, 4SX, 4SY, 4SZ, 4TA, 4TB, 4TC, 4TD, 4TE, 4TF, 4TG, 4TH, 4TI, 4TJ, 4TK, 4TL, 4TM, 4TN, 4TO, 4TP, 4TQ, 4TR, 4TS, 4TT, 4TU, 4TV, 4TW, 4TX, 4TY, 4TZ, 4UA, 4UB, 4UC, 4UD, 4UE, 4UF, 4UG, 4UH, 4UI, 4UJ, 4UK, 4UL, 4UM, 4UN, 4UO, 4UP, 4UQ, 4UR, 4US, 4UT, 4UU, 4UV, 4UW, 4UX, 4UY, 4UZ, 4VA, 4VB, 4VC, 4VD, 4VE, 4VF, 4VG, 4VH, 4VI, 4VJ, 4VK, 4VL, 4VM, 4VN, 4VO, 4VP, 4VQ, 4VR, 4VS, 4VT, 4VU, 4VV, 4VW, 4VX, 4VY, 4VZ, 4WA, 4WB, 4WC, 4WD, 4WE, 4WF, 4WG, 4WH, 4WI, 4WJ, 4WK, 4WL, 4WM, 4WN, 4WO, 4WP, 4WQ, 4WR, 4WS, 4WT, 4WU, 4WV, 4WW, 4WX, 4WY, 4WZ, 4XA, 4XB, 4XC, 4XD, 4XE, 4XF, 4XG, 4XH, 4XI, 4XJ, 4XK, 4XL, 4XM, 4XN, 4XO, 4XP, 4XQ, 4XR, 4XS, 4XT, 4XU, 4XV, 4XW, 4XX, 4XY, 4XZ, 4YA, 4YB, 4YC, 4YD, 4YE, 4YF, 4YG, 4YH, 4YI, 4YJ, 4YK, 4YL, 4YM, 4YN, 4YO, 4YP, 4YQ, 4YR, 4YS, 4YT, 4YU, 4YV, 4YW, 4YX, 4YY, 4YZ, 4ZA, 4ZB, 4ZC, 4ZD, 4ZE, 4ZF, 4ZG, 4ZH, 4ZI, 4ZJ, 4ZK, 4ZL, 4ZM, 4ZN, 4ZO, 4ZP, 4ZQ, 4ZR, 4ZS, 4ZT, 4ZU, 4ZV, 4ZW, 4ZX, 4ZY, 4ZZ, 4AA, 4AB, 4AC, 4AD, 4AE, 4AF, 4AG, 4AH, 4AI, 4AJ, 4AK, 4AL, 4AM, 4AN, 4AO, 4AP, 4AQ, 4AR, 4AS, 4AT, 4AU, 4AV, 4AW, 4AX, 4AY, 4AZ, 4BA, 4BB, 4BC, 4BD, 4BE, 4BF, 4BG, 4BH, 4BI, 4BJ, 4BK, 4BL, 4BM, 4BN, 4BO, 4BP, 4BQ, 4BR, 4BS, 4BT, 4BU, 4BV, 4BW, 4BX, 4BY, 4BZ, 4CA, 4CB, 4CC, 4CD, 4CE, 4CF, 4CG, 4CH, 4CI, 4CJ, 4CK, 4CL, 4CM, 4CN, 4CO, 4CP, 4CQ, 4CR, 4CS, 4CT, 4CU, 4CV, 4CW, 4CX, 4CY, 4CZ, 4DA, 4DB, 4DC, 4DD, 4DE, 4DF, 4DG, 4DH, 4DI, 4DJ, 4DK, 4DL, 4DM, 4DN, 4DO, 4DP, 4DQ, 4DR, 4DS, 4DT, 4DU, 4DV, 4DW, 4DX, 4DY, 4DZ, 4EA, 4EB, 4EC, 4ED, 4EE, 4EF, 4EG, 4EH, 4EI, 4EJ, 4EK, 4EL, 4EM, 4EN, 4EO, 4EP, 4EQ, 4ER, 4ES, 4ET, 4EU, 4EV, 4EW, 4EX, 4EY, 4EZ, 4FA, 4FB, 4FC, 4FD, 4FE, 4FF, 4FG, 4FH, 4FI, 4FJ, 4FK, 4FL, 4FM, 4FN, 4FO, 4FP, 4FQ, 4FR, 4FS, 4FT, 4FU, 4FV, 4FW, 4FX, 4FY, 4FZ, 4GA, 4GB, 4GC, 4GD, 4GE, 4GF, 4GG, 4GH, 4GI, 4GJ, 4GK, 4GL, 4GM, 4GN, 4GO, 4GP, 4GQ, 4GR, 4GS, 4GT, 4GU, 4GV, 4GW, 4GX, 4GY, 4GZ, 4HA, 4HB, 4HC, 4HD, 4HE, 4HF, 4HG, 4HH, 4HI, 4HJ, 4HK, 4HL, 4HM, 4HN, 4HO, 4HP, 4HQ, 4HR, 4HS, 4HT, 4HU, 4HV, 4HW, 4HX, 4HY, 4HZ, 4IA, 4IB, 4IC, 4ID, 4IE, 4IF, 4IG, 4IH, 4II, 4IJ, 4IK, 4IL, 4IM, 4IN, 4IO, 4IP, 4IQ, 4IR, 4IS, 4IT, 4IU, 4IV, 4IW, 4IX, 4IY, 4IZ, 4JA, 4JB, 4JC, 4JD, 4JE, 4JF, 4JG, 4JH, 4JI, 4JJ, 4JK, 4JL, 4JM, 4JN, 4JO, 4JP, 4JQ, 4JR, 4JS, 4JT, 4JU, 4JV, 4JW, 4JX, 4JY, 4JZ, 4KA, 4KB, 4KC, 4KD, 4KE, 4KF, 4KG, 4KH, 4KI, 4KJ, 4KK, 4KL, 4KM, 4KN, 4KO, 4KP, 4KQ, 4KR, 4KS, 4KT, 4KU, 4KV, 4KW, 4KX, 4KY, 4KZ, 4LA, 4LB, 4LC, 4LD, 4LE, 4LF, 4LG, 4LH, 4LI, 4LJ, 4LK, 4LM, 4LN, 4LO, 4LP, 4LQ, 4LR, 4LS, 4LT, 4LU, 4LV, 4LW, 4LX, 4LY, 4LZ, 4MA, 4MB, 4MC, 4MD, 4ME, 4MF, 4MG, 4MH, 4MI, 4MJ, 4MK, 4ML, 4MM, 4MN, 4MO, 4MP, 4MQ, 4MR, 4MS, 4MT, 4MU, 4MV, 4MW, 4MX, 4MY, 4MZ, 4NA, 4NB, 4NC, 4ND, 4NE, 4NF, 4NG, 4NH, 4NI, 4NJ, 4NK, 4NL, 4NM, 4NO, 4NP, 4NQ, 4NR, 4NS, 4NT, 4NU, 4NV, 4NW, 4NX, 4NY, 4NZ, 4OA, 4OB, 4OC, 4OD, 4OE, 4OF, 4OG, 4OH, 4OI, 4OJ, 4OK, 4OL, 4OM, 4ON, 4OO, 4OP, 4OQ, 4OR, 4OS, 4OT, 4OU, 4OV, 4OW, 4OX, 4OY, 4OZ, 4PA, 4PB, 4PC, 4PD, 4PE, 4PF, 4PG, 4PH, 4PI, 4PJ, 4PK, 4PL, 4PM, 4PN, 4PO, 4PP, 4PQ, 4PR, 4PS, 4PT, 4PU, 4PV, 4PW, 4PX, 4PY, 4PZ, 4QA, 4QB, 4QC, 4QD, 4QE, 4QF, 4QG, 4QH, 4QI, 4QJ, 4QK, 4QL, 4QM, 4QN, 4QO, 4QP, 4QQ, 4QR, 4QS, 4QT, 4QU, 4QV, 4QW, 4QX, 4QY, 4QZ, 4RA, 4RB, 4RC, 4RD, 4RE, 4RF, 4RG, 4RH, 4RI, 4RJ, 4RK, 4RL, 4RM, 4RN, 4RO, 4RP, 4RQ, 4RR, 4RS, 4RT, 4RU, 4RV, 4RW, 4RX, 4RY, 4RZ, 4SA, 4SB, 4SC, 4SD, 4SE, 4SF, 4SG, 4SH, 4SI, 4SJ, 4SK, 4SL, 4SM, 4SN, 4SO, 4SP, 4SQ, 4SR, 4SS, 4ST, 4SU, 4SV, 4SW, 4SX, 4SY, 4SZ, 4TA, 4TB, 4TC, 4TD, 4TE, 4TF, 4TG, 4TH, 4TI, 4TJ, 4TK, 4TL, 4TM, 4TN, 4TO, 4TP, 4TQ, 4TR, 4TS, 4TT, 4TU, 4TV, 4TW, 4TX, 4TY, 4TZ, 4UA, 4UB, 4UC, 4UD, 4UE, 4UF, 4UG, 4UH, 4UI, 4UJ, 4UK, 4UL, 4UM, 4UN, 4UO, 4UP, 4UQ, 4UR, 4US, 4UT, 4UU, 4UV, 4UW, 4UX, 4UY, 4UZ, 4VA, 4VB, 4VC, 4VD, 4VE, 4VF, 4VG, 4VH, 4VI, 4VJ, 4VK, 4VL, 4VM, 4VN, 4VO, 4VP, 4VQ, 4VR, 4VS, 4VT, 4VU, 4VV, 4VW, 4VX, 4VY, 4VZ, 4WA, 4WB, 4WC, 4WD, 4WE, 4WF, 4WG, 4WH, 4WI, 4WJ, 4WK, 4WL, 4WM, 4WN, 4WO, 4WP, 4WQ, 4WR, 4WS, 4WT, 4WU, 4WV, 4WW, 4WX, 4WY, 4WZ, 4XA, 4XB, 4XC, 4XD, 4XE, 4XF, 4XG, 4XH, 4XI, 4XJ, 4XK, 4XL, 4XM, 4XN, 4XO, 4XP, 4XQ, 4XR, 4XS, 4XT, 4XU, 4XV, 4XW, 4XX, 4XY, 4XZ, 4YA, 4YB, 4YC, 4YD, 4YE, 4YF, 4YG, 4YH, 4YI, 4YJ, 4YK, 4YL, 4YM, 4YN, 4YO, 4YP, 4YQ, 4YR, 4YS, 4YT, 4YU, 4YV, 4YW, 4YX, 4YY, 4YZ, 4ZA, 4ZB, 4ZC, 4ZD, 4ZE, 4ZF, 4ZG, 4ZH, 4ZI, 4ZJ, 4ZK, 4ZL, 4ZM, 4ZN, 4ZO, 4ZP, 4ZQ, 4ZR, 4ZS, 4ZT, 4ZU, 4ZV, 4ZW, 4ZX, 4ZY, 4ZZ, 4AA, 4AB, 4AC, 4AD, 4AE, 4AF, 4AG, 4AH, 4AI, 4AJ, 4AK, 4AL, 4AM, 4AN, 4AO, 4AP, 4AQ, 4AR, 4AS, 4AT, 4AU, 4AV, 4AW, 4AX, 4AY, 4AZ, 4BA, 4BB, 4BC, 4BD, 4BE, 4BF, 4BG, 4BH, 4BI, 4BJ, 4BK, 4BL, 4BM, 4BN, 4BO, 4BP, 4BQ, 4BR, 4BS, 4BT, 4BU, 4BV, 4BW, 4BX, 4BY, 4BZ, 4CA, 4CB, 4CC, 4CD, 4CE, 4CF, 4CG, 4CH, 4CI, 4CJ, 4CK, 4CL, 4CM, 4CN, 4CO, 4CP, 4CQ, 4CR, 4CS, 4CT, 4CU, 4CV, 4CW, 4CX, 4CY, 4CZ, 4DA, 4DB, 4DC, 4DD, 4DE, 4DF, 4DG, 4DH, 4DI, 4DJ, 4DK, 4DL, 4DM, 4DN, 4DO, 4DP, 4DQ, 4DR, 4DS, 4DT, 4DU, 4DV, 4DW, 4DX, 4DY, 4DZ, 4EA, 4EB, 4EC, 4ED, 4EE, 4EF, 4EG, 4EH, 4EI, 4EJ, 4EK, 4EL, 4EM, 4EN, 4EO, 4EP, 4EQ, 4ER, 4ES, 4ET, 4EU, 4EV, 4EW, 4EX, 4EY, 4EZ, 4FA, 4FB, 4FC, 4FD, 4FE, 4FF, 4FG, 4FH, 4FI, 4FJ, 4FK, 4FL, 4FM, 4FN, 4FO, 4FP, 4FQ, 4FR, 4FS, 4FT, 4FU, 4FV, 4FW, 4FX, 4FY, 4FZ, 4GA, 4GB, 4GC, 4GD, 4GE, 4GF, 4GG, 4GH, 4GI, 4GJ, 4GK, 4GL, 4GM, 4GN, 4GO, 4GP, 4GQ, 4GR, 4GS, 4GT, 4GU, 4GV, 4GW, 4GX, 4GY, 4GZ, 4HA, 4HB, 4HC, 4HD, 4HE, 4HF, 4HG, 4HH, 4HI, 4HJ, 4HK, 4HL, 4HM, 4HN, 4HO, 4HP, 4HQ, 4HR, 4HS, 4HT, 4HU, 4HV, 4HW, 4HX, 4HY, 4HZ, 4IA, 4IB, 4IC, 4ID, 4IE, 4IF, 4IG, 4IH, 4II, 4IJ, 4IK, 4IL, 4IM, 4IN, 4IO, 4IP, 4IQ, 4IR, 4IS, 4IT, 4IU, 4IV, 4IW, 4IX, 4IY, 4IZ, 4JA, 4JB, 4JC, 4JD, 4JE, 4JF, 4JG, 4JH, 4JI, 4JJ, 4JK, 4JL, 4JM, 4JN, 4JO, 4JP, 4JQ, 4JR, 4JS, 4JT, 4JU, 4JV, 4JW, 4JX, 4JY, 4JZ, 4KA, 4KB, 4KC, 4KD, 4KE, 4KF, 4KG, 4KH, 4KI, 4KJ, 4KK, 4KL, 4KM, 4KN, 4KO, 4KP, 4KQ, 4KR, 4KS, 4KT, 4KU, 4KV, 4KW, 4KX, 4KY, 4KZ, 4LA, 4LB, 4LC, 4LD, 4LE, 4LF, 4LG, 4LH, 4LI, 4LJ, 4LK, 4LM, 4LN, 4LO, 4LP, 4LQ, 4LR, 4LS, 4LT, 4LU, 4LV, 4LW, 4LX, 4LY, 4LZ, 4MA, 4MB, 4MC, 4MD, 4ME, 4MF, 4MG, 4MH, 4MI, 4MJ, 4MK, 4ML, 4MM, 4MN, 4MO, 4MP, 4MQ, 4MR, 4MS, 4MT, 4MU, 4MV, 4MW, 4MX, 4MY, 4MZ, 4NA, 4NB, 4NC, 4ND, 4NE, 4NF, 4NG, 4NH, 4NI, 4NJ, 4NK, 4NL, 4NM, 4NO, 4NP, 4NQ, 4NR, 4NS, 4NT, 4NU, 4NV, 4NW, 4NX, 4NY, 4NZ, 4OA, 4OB, 4OC, 4OD, 4OE, 4OF, 4OG, 4OH, 4OI, 4OJ, 4OK, 4OL, 4OM, 4ON, 4OO, 4OP, 4OQ, 4OR, 4OS, 4OT, 4OU, 4OV, 4OW, 4OX, 4OY, 4OZ, 4PA, 4PB, 4PC, 4PD, 4PE, 4PF, 4PG, 4PH, 4PI, 4PJ, 4PK, 4PL, 4PM, 4PN, 4PO, 4PP, 4PQ, 4PR, 4PS, 4PT, 4PU, 4PV, 4PW, 4PX, 4PY, 4PZ, 4QA, 4QB, 4QC, 4QD, 4QE, 4QF, 4QG, 4QH, 4QI, 4QJ, 4QK, 4QL, 4QM, 4QN, 4QO, 4QP, 4QQ, 4QR, 4QS, 4QT, 4QU, 4QV, 4QW, 4QX, 4QY, 4QZ, 4RA, 4RB, 4RC, 4RD, 4RE, 4RF, 4RG, 4RH, 4RI, 4RJ, 4RK, 4RL, 4RM, 4RN, 4RO, 4RP, 4RQ, 4RR, 4RS, 4RT, 4RU, 4RV, 4RW, 4RX, 4RY, 4RZ, 4SA, 4SB, 4SC, 4SD, 4SE, 4SF, 4SG, 4SH, 4SI, 4SJ, 4SK, 4SL, 4SM, 4SN, 4SO, 4SP, 4SQ, 4SR, 4SS, 4ST, 4SU, 4SV, 4SW, 4SX, 4SY, 4SZ, 4TA, 4TB, 4TC, 4TD, 4TE, 4TF, 4TG, 4TH, 4TI, 4TJ, 4TK, 4TL, 4TM, 4TN, 4TO, 4TP, 4TQ, 4TR, 4TS, 4TT, 4TU, 4TV, 4TW, 4TX, 4TY, 4TZ, 4UA, 4UB, 4UC, 4UD, 4UE, 4UF, 4UG, 4UH, 4UI, 4UJ, 4UK, 4UL, 4UM, 4UN, 4UO, 4UP, 4UQ, 4UR, 4US, 4UT, 4UU, 4UV, 4UW, 4UX, 4UY, 4UZ, 4VA, 4VB, 4VC, 4VD, 4VE, 4VF, 4VG, 4VH, 4VI, 4VJ, 4VK, 4VL, 4VM, 4VN, 4VO, 4VP, 4VQ, 4VR, 4VS, 4VT, 4VU, 4VV, 4VW, 4VX, 4VY, 4VZ, 4WA, 4WB, 4WC, 4WD, 4WE, 4WF, 4WG, 4WH, 4WI, 4WJ, 4WK, 4WL, 4WM, 4WN, 4WO, 4WP, 4WQ, 4WR, 4WS, 4WT, 4WU, 4WV, 4WW, 4WX, 4WY, 4WZ, 4XA, 4XB, 4XC, 4XD, 4XE, 4XF, 4XG, 4XH, 4XI, 4XJ, 4XK, 4XL, 4XM, 4XN, 4XO, 4XP, 4XQ, 4XR, 4XS, 4XT, 4XU, 4XV, 4XW, 4XX, 4XY, 4XZ, 4YA, 4YB, 4YC, 4YD, 4YE, 4YF, 4YG, 4YH, 4YI, 4YJ, 4YK, 4YL, 4YM, 4YN, 4YO, 4YP, 4YQ, 4YR, 4YS, 4YT, 4YU, 4YV, 4YW, 4YX, 4YY, 4YZ, 4ZA, 4ZB, 4ZC, 4ZD, 4ZE, 4ZF, 4ZG, 4ZH, 4ZI, 4ZJ, 4ZK, 4ZL, 4ZM, 4ZN, 4ZO, 4ZP, 4ZQ, 4ZR, 4ZS, 4ZT, 4ZU, 4ZV, 4ZW, 4ZX, 4ZY, 4ZZ, 4AA, 4AB, 4AC, 4AD, 4AE, 4AF, 4AG, 4AH, 4AI, 4AJ, 4AK, 4AL, 4AM, 4AN, 4AO, 4AP, 4AQ, 4AR, 4AS, 4AT, 4AU, 4AV, 4AW, 4AX, 4AY, 4AZ, 4BA, 4BB, 4BC, 4BD, 4BE, 4BF, 4BG, 4BH, 4BI, 4BJ, 4BK, 4BL, 4BM, 4BN, 4BO, 4BP, 4BQ, 4BR, 4BS, 4BT, 4BU, 4BV, 4BW, 4BX, 4BY, 4BZ, 4CA, 4CB, 4CC, 4CD, 4CE, 4CF, 4CG, 4CH, 4CI, 4CJ, 4CK, 4CL, 4CM, 4CN, 4CO, 4CP, 4CQ, 4CR, 4CS, 4CT, 4CU, 4CV, 4CW, 4CX, 4CY, 4CZ, 4DA, 4DB, 4DC, 4DD, 4DE, 4DF, 4DG, 4DH, 4DI, 4DJ, 4DK, 4DL, 4DM, 4DN, 4DO, 4DP, 4DQ, 4DR, 4DS, 4DT, 4DU, 4DV, 4DW, 4DX, 4DY, 4DZ, 4EA, 4EB, 4EC, 4ED, 4EE, 4EF, 4EG, 4EH, 4EI, 4EJ, 4EK, 4EL, 4EM, 4EN, 4EO, 4EP, 4EQ, 4ER, 4ES, 4ET, 4EU, 4EV, 4EW, 4EX, 4EY, 4EZ, 4FA, 4FB, 4FC, 4FD, 4FE, 4FF, 4FG, 4FH, 4FI, 4FJ, 4FK, 4FL, 4FM, 4FN, 4FO, 4FP, 4FQ, 4FR, 4FS, 4FT, 4FU, 4FV, 4FW, 4FX, 4FY, 4FZ, 4GA, 4GB, 4GC, 4GD, 4GE, 4GF, 4GG, 4GH, 4GI, 4GJ, 4GK, 4GL, 4GM, 4GN, 4GO, 4GP, 4GQ, 4GR, 4GS, 4GT, 4GU, 4GV, 4GW, 4GX, 4GY, 4GZ, 4HA, 4HB, 4HC, 4HD, 4HE, 4HF, 4HG, 4HH, 4HI, 4HJ, 4HK, 4HL, 4HM, 4HN, 4HO, 4HP, 4HQ, 4HR, 4HS, 4HT, 4HU, 4HV, 4HW, 4HX, 4HY, 4HZ, 4IA, 4IB, 4IC, 4ID, 4IE, 4IF, 4IG, 4IH, 4II, 4IJ, 4IK, 4IL, 4IM, 4IN, 4IO, 4IP, 4IQ, 4IR, 4IS, 4IT, 4IU, 4IV, 4IW, 4IX, 4IY, 4IZ, 4JA, 4JB, 4JC, 4JD, 4JE, 4JF, 4JG, 4JH, 4JI, 4JJ, 4JK, 4JL, 4JM, 4JN, 4JO, 4JP, 4JQ, 4JR, 4JS, 4JT, 4JU, 4JV, 4JW, 4JX, 4JY, 4JZ, 4KA, 4KB, 4KC, 4KD, 4KE, 4KF, 4KG, 4KH, 4KI, 4KJ, 4KK, 4KL, 4KM, 4KN, 4KO, 4KP, 4KQ, 4KR, 4KS, 4KT, 4KU, 4KV, 4KW, 4KX, 4KY, 4KZ, 4LA, 4LB, 4LC, 4LD, 4LE, 4LF, 4LG, 4LH, 4LI, 4LJ, 4LK, 4LM, 4LN, 4LO, 4LP, 4LQ, 4LR, 4LS, 4LT, 4LU, 4LV, 4LW, 4LX, 4LY, 4LZ, 4MA, 4MB, 4MC, 4MD, 4ME, 4MF, 4MG, 4MH, 4MI, 4MJ, 4MK, 4ML, 4MM, 4MN, 4MO, 4MP, 4MQ, 4MR, 4MS, 4MT, 4MU, 4MV, 4MW, 4MX, 4MY, 4MZ, 4NA, 4NB, 4NC, 4ND, 4NE, 4NF, 4NG, 4NH, 4NI, 4NJ, 4NK, 4NL, 4NM, 4NO, 4NP, 4NQ, 4NR, 4NS, 4NT, 4NU, 4NV, 4NW, 4NX, 4NY, 4NZ, 4OA, 4OB, 4OC, 4OD, 4OE, 4OF, 4OG, 4OH, 4OI, 4OJ, 4OK, 4OL, 4OM, 4ON, 4OO, 4OP, 4OQ, 4OR, 4OS, 4OT, 4OU, 4OV, 4OW, 4OX, 4OY, 4OZ, 4PA, 4PB, 4PC, 4PD, 4PE, 4PF, 4PG, 4PH, 4PI, 4PJ, 4PK, 4PL, 4PM, 4PN, 4PO, 4PP, 4PQ, 4PR, 4PS, 4PT, 4PU, 4PV, 4PW, 4PX, 4PY, 4PZ, 4QA, 4QB, 4QC, 4QD, 4QE, 4QF, 4QG, 4QH, 4QI,



1
GROUND FLOOR LIGHTING PLAN - AREA 2
1/8" = 1'-0"

AREA 1H
AREA 2
AREA 1H
AREA 2



2
MEZZANINE LIGHTING PLAN - AREA 2
1/8" = 1'-0"

GENERAL NOTES

A. EQUIPMENT, FIXTURES, AND DEVICES LABELED AS "E1" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT, FIXTURES, AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION.

B. REFER TO LUMINAIRE SCHEDULE ON DRAWING E900 FOR FIXTURE DESIGNATION TYPES, DESCRIPTIONS, AND SPECIFICATIONS.

C. ALL HALF SHADED LUMINAIRES AND LUMINAIRES DESIGNATED WITH "EM" SHALL INDICATE EMERGENCY LUMINAIRES. LUMINAIRE SHALL CONTAIN 90 MINUTE BATTERY UNIT TO OPERATE UPON LOSS OF NORMAL POWER. WIRE FIXTURE ACCORDING TO MANUFACTURER'S WIRING DIAGRAM, WHERE SHOWN AS SWITCHED, PROVIDE FIXTURE WITH (2) HOT LEGS FROM SAME POWER SOURCE.

D. LUMINAIRES DESIGNATED WITH "NL" INDICATE NIGHTLIGHTS AND SHALL BE UNSWITCHED AND REMAIN ON AT ALL TIMES.

E. NEW LIGHTING CONTROLS SHOWN (OCCUPANCY SENSORS, VACANCY SENSORS, PHOTOCELLS, SWITCHES, DIMMERS, ETC.) SHALL BE LOW VOLTAGE DEVICES AND COMPATIBLE WITH LUMINAIRES PROVIDED. PROVIDE ALL ASSOCIATED CONTROL UNITS, POWER PACKS, WIRING, AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

F. CONNECT ALL CONTROL UNITS AND POWER PACKS TO ASSOCIATED ROOM LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL AREA SWITCHING.

G. UNLESS NOTED OTHERWISE VIA KEYNOTE, IN EACH ROOM/AREA SHOWN ON THE PLAN, CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUITING LEFT FROM DEMOLITION. REWORK AND EXTEND EXISTING CIRCUITING AS REQUIRED TO SERVE NEW FIXTURE AND CONTROL LAYOUT.

H. CONNECT NEW EMERGENCY LIGHTING UNITS WITH BATTERY PACKS TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.

I. CONNECT NEW EXIT SIGNS TO EXISTING EXIT SIGN BRANCH CIRCUIT WHERE AVAILABLE WITHIN AREA. OTHERWISE, CONNECT TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.

J. PROVIDE OWNER WITH ADDITIONAL 5% ATTIC STOCK FOR EACH TYPE OF LIGHT FIXTURE AND LIGHTING CONTROL.

K. NEW WALL MOUNTED FIXTURES REPLACING EXISTING WALL MOUNTED FIXTURES SHALL BE MOUNTED AT SAME HEIGHT AS DEMOLISHED FIXTURES IN SAME LOCATION, UNLESS NOTED OTHERWISE.

L. NEW SUSPENDED FIXTURES REPLACING EXISTING SUSPENDED FIXTURES SHALL BE MOUNTED AT SAME HEIGHT AS DEMOLISHED FIXTURE, UNLESS NOTED OTHERWISE.

KEY NOTES

① HANG TYPE "S1" FIXTURES WITHIN SPACE AT APPROXIMATELY 8'-0" ABOVE FINISHED FLOOR. FIELD LOCATE AROUND AND BELOW DUCTWORK, PIPING, ETC. FOR BEST ILLUMINATION OF SPACE.

KEY PLAN:

CPL | Architecture Engineering Planning
11111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLteam.com

PROJECT INFORMATION

Project Number
R23.00325
Client Name
JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name
FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address
180 W Hotcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

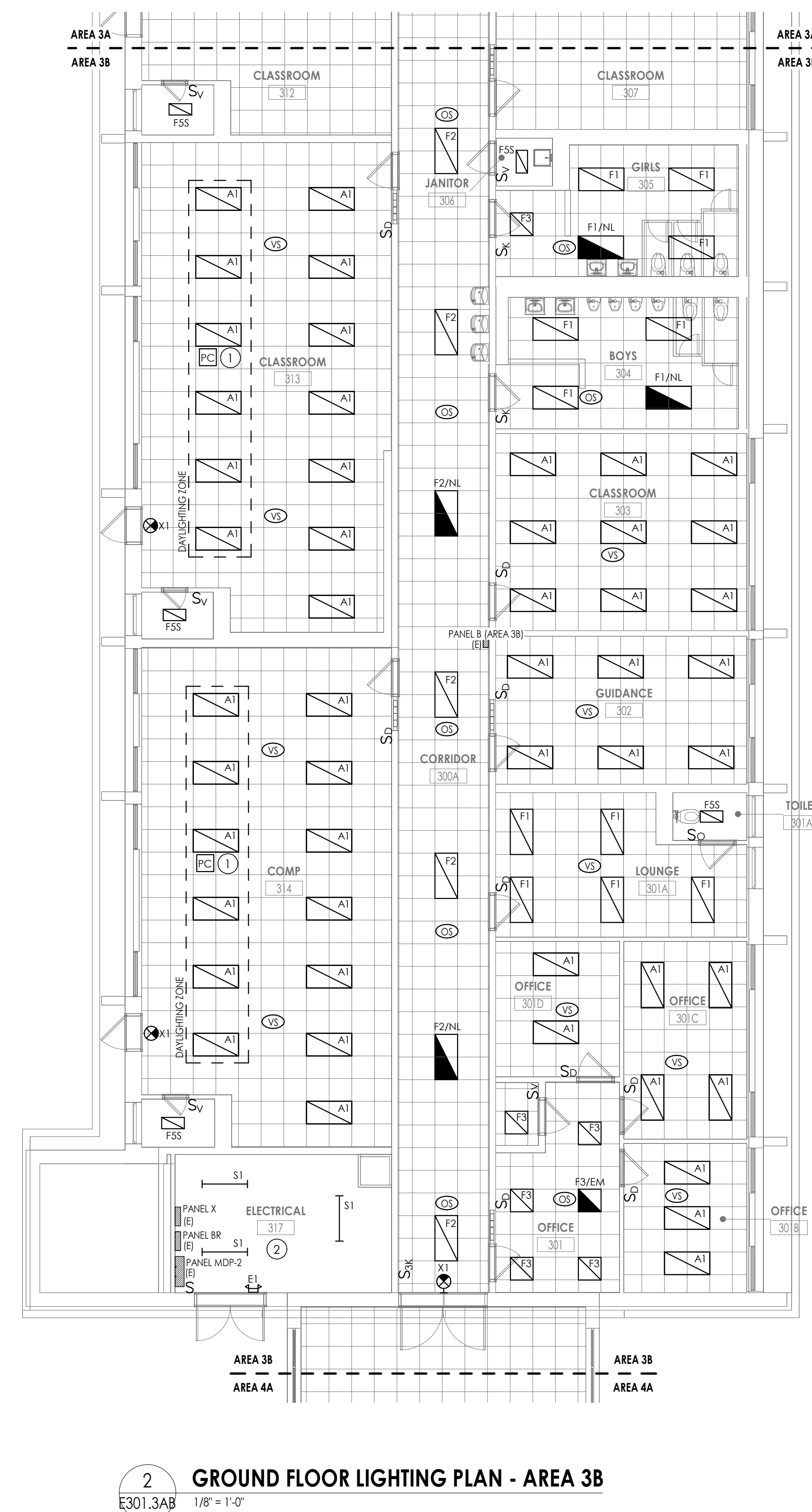
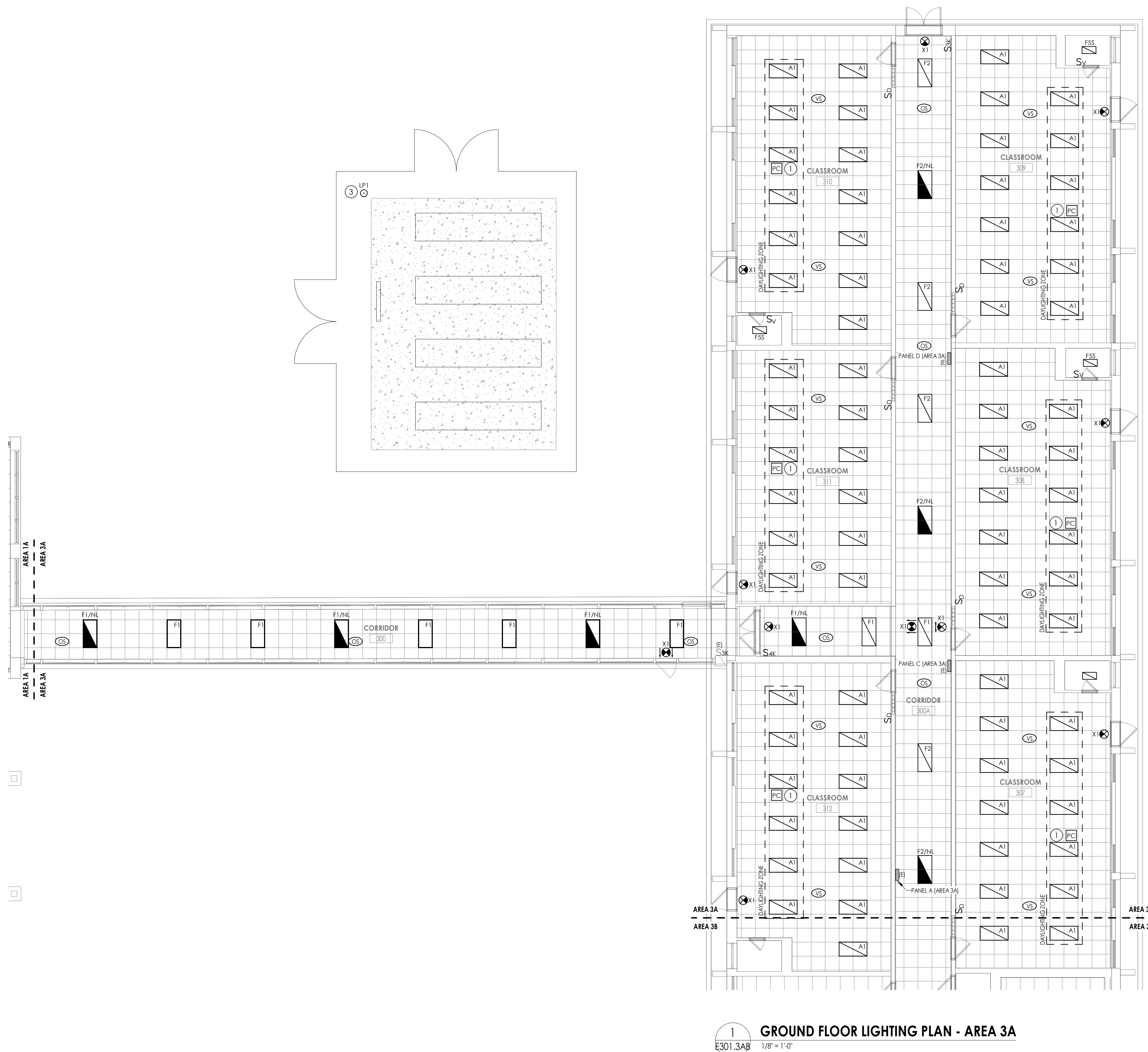
Rev	Date	Description
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PROFESSIONAL STAMPS

SHEET INFORMATION

Issue	Scale
02/17/2025	1/8" = 1'-0"

Project Status
BID SET
Drawn By
JAE
Checked By
ARM
Drawing Title
GROUND FLOOR AND MEZZANINE LIGHTING PLAN - AREA 2
Drawing Number
FOES E301.2



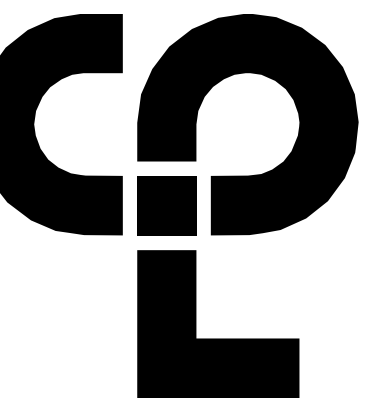
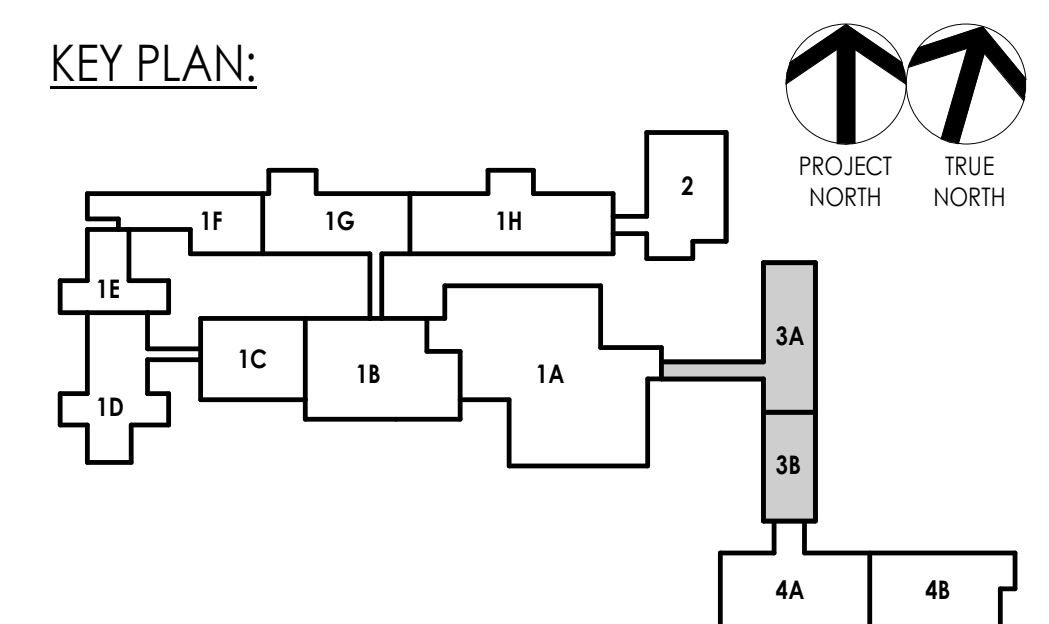
GENERAL NOTES

- A. EQUIPMENT, FIXTURES, AND DEVICES LABELED AS "ET" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OTHERS ARE EQUIPMENT, FIXTURES, AND DEVICES SHALL REMAIN OPERATIONAL. FOLLOWING CONSTRUCTION.
- B. REFER TO LUMINAIRE SCHEDULE ON DRAWING E90 FOR FIXTURE DESIGNATION TYPES, DESCRIPTIONS, AND SPECIFICATIONS.
- C. ALL HALF-SHADE LUMINAIRES AND LUMINAIRES DESIGNATED WITH "TEM" SHALL INCLUDE EMERGENCY LUMINAIRE LOSS. LUMINAIRE SHALL CONTAIN 90 MINUTE BATTERY UNIT TO OPERATE UPON LOSS OF NORMAL POWER. WIRE FIXTURE ACCESSORIES AND MANUFACTURERS' WIRING DIAGRAMS, WHEN SHOWN ON A SWITCHED, PROVIDE FIXTURE WITH (2) HOT LINES FROM SAME POWER SOURCE.
- D. LUMINAIRES DESIGNATED WITH "NE" INCLUDE NIGHTLIGHTS AND SHALL BE UNDESIGNED AND REMAIN ON AT ALL TIMES.
- E. NEW LIGHTING CONTROLS SHOWS OCCUPANCY SENSORS, VACANCY SENSORS, PHOTOCELLS SWITCHES, DIMMERS ETC. SHALL BE LOW VOLTAGE DEVICES AND CONTROL WITH LUMINAIRE PACKS. PROVIDES ALL ASSOCIATED CONTROL SYSTEMS, POWER PAKS, WIRING, AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- F. CONNECT ALL CONTROL UNITS AND POWER PAKS TO ASSOCIATED ROOM LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL AREA SWITCHING.
- G. UNLESS NOTED OTHERWISE VIA KEYNOTE, IN EACH ROOM/AREA SHOWN ON THE PLAN, CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUITING LEFT FROM DEMOLITION, REWORK AND EXTEND EXISTING CIRCUITING AS REQUIRED TO SERVE NEW FIXTURE AND CONTROL LAYOUT.
- H. CONNECT NEW EMERGENCY LIGHTING UNITS WITH BATTERY PAKS TO LIGHTING BRANCH CIRCUITING WITHIN AREA AHEAD OF SWITCHING.
- I. CONNECT NEW EXIT SIGNS TO EXISTING EXIT SIGN BRANCH CIRCUIT WHERE AVAILABLE WITHIN AREA. OTHERWISE, CONNECT TO LIGHTING BRANCH CIRCUIT WITHIN AREA AHEAD OF SWITCHING.
- J. PROVIDE OWNER WITH ADDITIONAL 5% ATTIC SPACE FOR EACH TYPE OF LIGHT FIXTURE AND LIGHTING CONTROL.
- K. NEW WALL MOUNTED FIXTURES REPLACING EXISTING WALL MOUNTED FIXTURES SHALL BE MOUNTED AT SAME HEIGHT AS DEMOLISHED FIXTURES IN SAME LOCATION, UNLESS NOTED OTHERWISE.
- L. NEW SUSPENDED FIXTURES REPLACING EXISTING SUSPENDED FIXTURES SHALL BE MOUNTED AT SAME HEIGHT AS DEMOLISHED FIXTURE, UNLESS NOTED OTHERWISE.

KEY NOTES

- ① PROVIDE INTERIOR DAYLIGHTING SCENARIOS TO CONTROL LIGHT FIXTURES IN DAYLIGHTING ZONE SHOWN. FIXTURES SHALL BE PROGRAMMED TO DIM BASED UPON AVAILABLE NATURAL LIGHT. PROVIDE ROOM LIGHTING CONTROLS, QUANTITY AS REQUIRED TO ACCOMMODATE SWITCHING AND SENSORS INDICATED WITHIN SPACE.

SEQUENCE OF OPERATIONS:
 - LIGHTING SWITCHED ON MANUALLY TO LAST USER LEVEL.
 - ON/OFF AND DIMMING OF EACH LIGHTING ZONE BY WALL SWITCH.
 - LIGHTING IN DAYLIGHTING ZONE AUTOMATICALLY DIMS ACCORDING TO DAYLIGHT CONTRIBUTION.
 - ALL LIGHTING ZONES TURN OFF AUTOMATICALLY AFTER OCCUPANTS LEAVE SPACE.
- ② HANG TYPE 'ST' FIXTURES WITHIN SPACE AT APPROXIMATELY 10'-0" ABOVE FINISHED FLOOR. FIELD LOCATE ABOVE AND BELOW DUCTWORK, PIPING, ETC. FOR BEST ILLUMINATION OF SPACE.
- ③ PROVIDE LIGHT POLES WITH CONCRETE BASE. REFER TO DETAIL ON DRAWING E500. COORDINATE EXACT LOCATION OF SITE LIGHTING WITH L10 AS YARD WARD WITH L10 AND L10 AS SUPPLIER PRIOR TO INSTALLATION. CIRCUIT TO PANEL V IN CHILLER ROOM AT NEXT AVAILABLE SPACE 20'x11' CIRCUIT BREAKERS WITH [2] 1/0 IN 1/0G IN 1" CONDUIT. ROUTE CONDUIT UNDERGROUND ADJACENT TO UPV-1 CONDUIT. REFER TO E200 SERIES DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE WITH SINGLE POLE TOGGLE SWITCH IN CHILLER ROOM.



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Raleigh, NC 27604
CPLteam.com



PROJECT INFORMATION

Project Number
3.003925

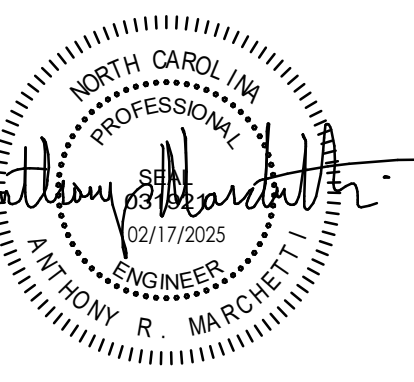
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**

Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
10 W Hatcher St.
Durham, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

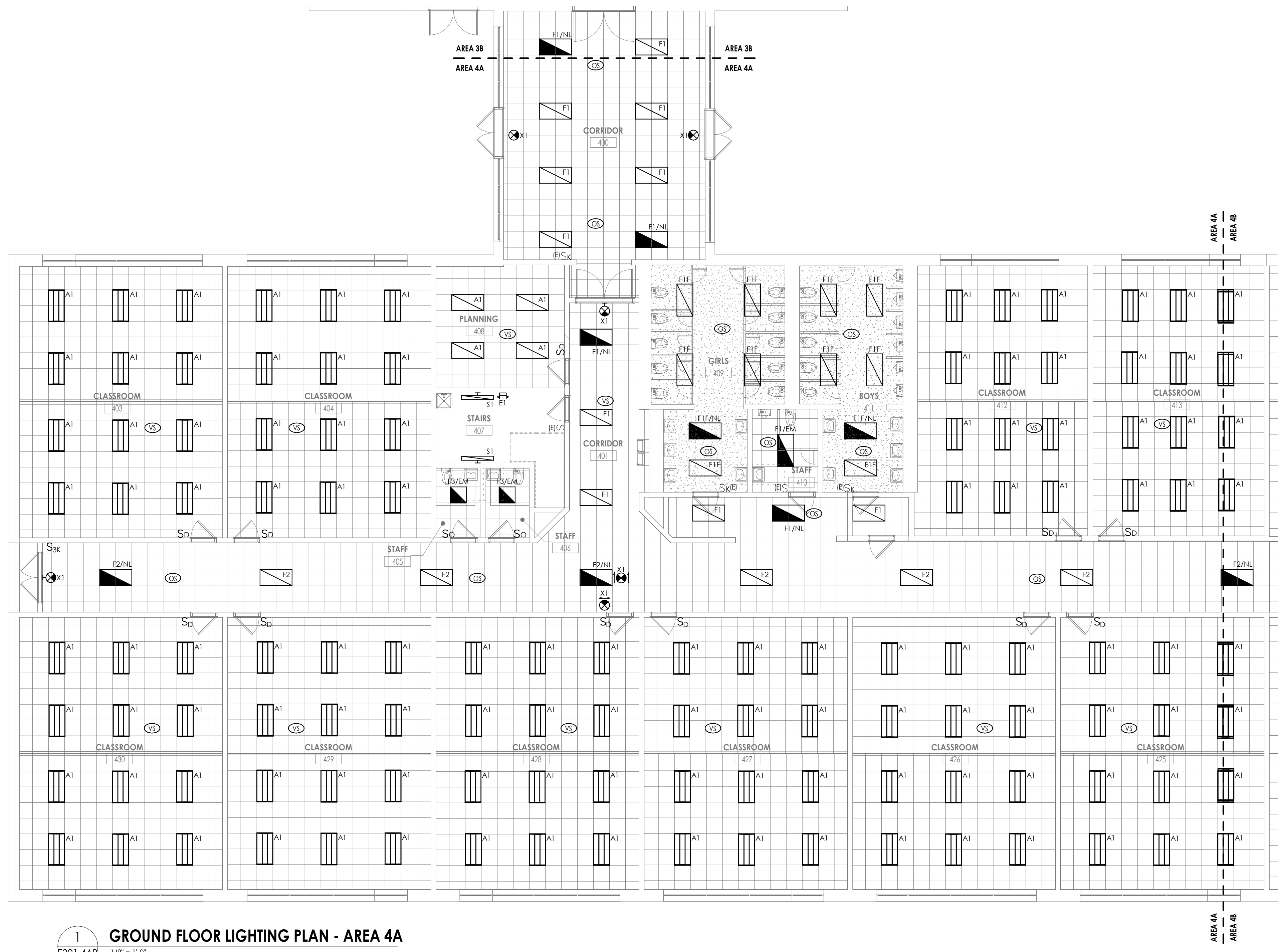
PROFESSIONAL STAMPS



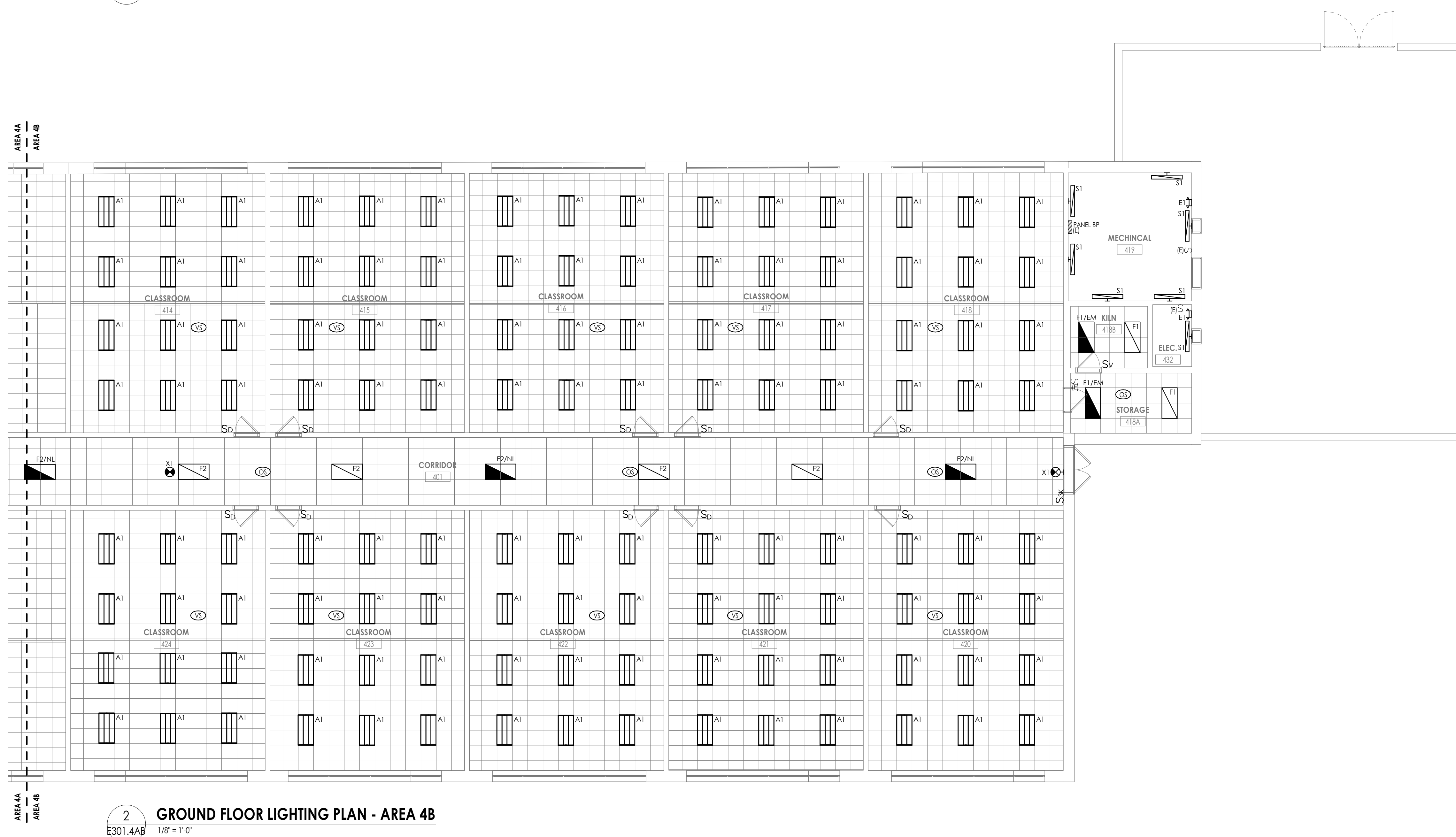
EET INFORMATION

ed	Scale
1/17/2025	AS NOTED
ect Status	
D SET	
wn By	Checked By
E	ARM
wing Title	
GROUND FLOOR LIGHTING PLAN	
AREA 3A & 3B	

FOES
E301.3AB



1 GROUND FLOOR LIGHTING PLAN - AREA 4A
E301.4AB 1/8" = 1'-0"



2 GROUND FLOOR LIGHTING PLAN - AREA 4B
E301.4AB 1/8" = 1'-0"

- ### GENERAL NOTES
- EQUIPMENT, FIXTURES, AND DEVICES LABELED AS "EY" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT, FIXTURES, AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION.
 - REFER TO LUMINAIRE SCHEDULE ON DRAWING E900 FOR FIXTURE DESIGNATION TYPES, DESCRIPTIONS, AND SPECIFICATIONS.
 - ALL HALF SHADED LUMINAIRES AND LUMINAIRES DESIGNATED WITH "EM" SHALL INDICATE EMERGENCY LUMINAIRES. LUMINAIRE SHALL CONTAIN 90 MINUTE BATTERY UNIT TO OPERATE UPON LOSS OF NORMAL POWER. WIRE FIXTURE ACCORDING TO MANUFACTURER'S WIRING DIAGRAM. WHERE SHOWN AS SWITCHED, PROVIDE FIXTURE WITH (2) HOT LEGS FROM SAME POWER SOURCE.
 - LUMINAIRES DESIGNATED WITH "N" INDICATE NIGHTLIGHTS AND SHALL BE UNSWITCHED AND REMAIN ON AT ALL TIMES.
 - NEW LIGHTING CONTROLS SHOWN (OCCUPANCY SENSORS, VACANCY SENSORS, PHOTOCELLS, SWITCHES, DIMMERS, ETC.) SHALL BE LOW VOLTAGE DEVICES AND COMPATIBLE WITH LUMINAIRES PROVIDED. PROVIDE ALL ASSOCIATED CONTROL UNITS, POWER PACKS, WIRING, AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
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PROJECT INFORMATION
Project Number: R23.00325
Client Name: JOHNSTON COUNTY PUBLIC SCHOOL DISTRICT
Project Name: FOUR OAKS ELEMENTARY SCHOOL HVAC RENOVATION

Project Address: 180 W Hotcher St, Four Oaks, NC 27524

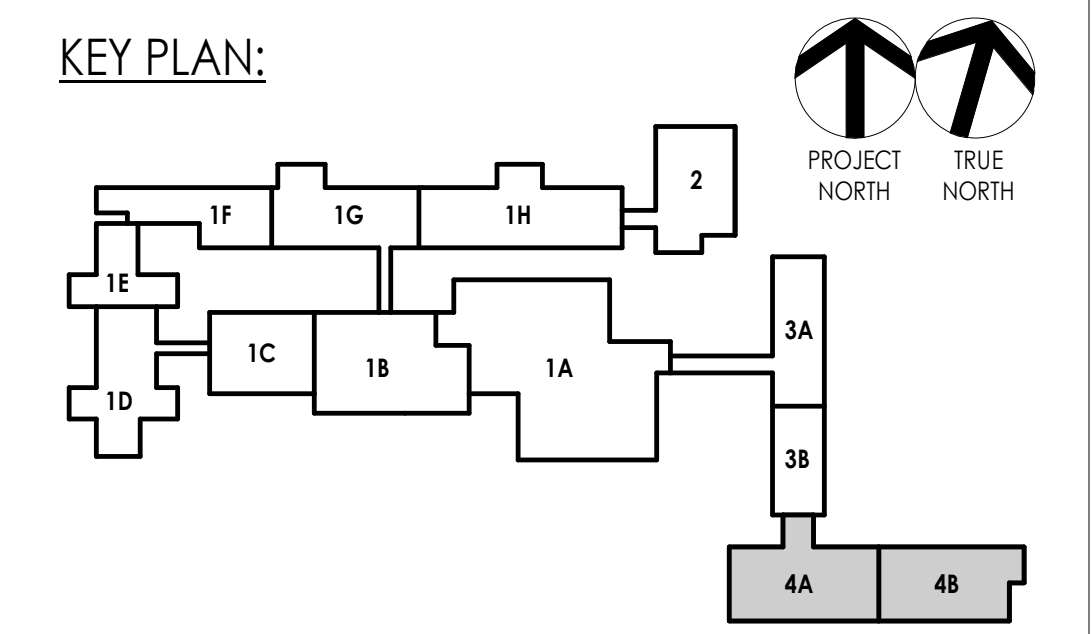
PROJECT ISSUE & REVISION SCHEDULE

Rev	Date	Description
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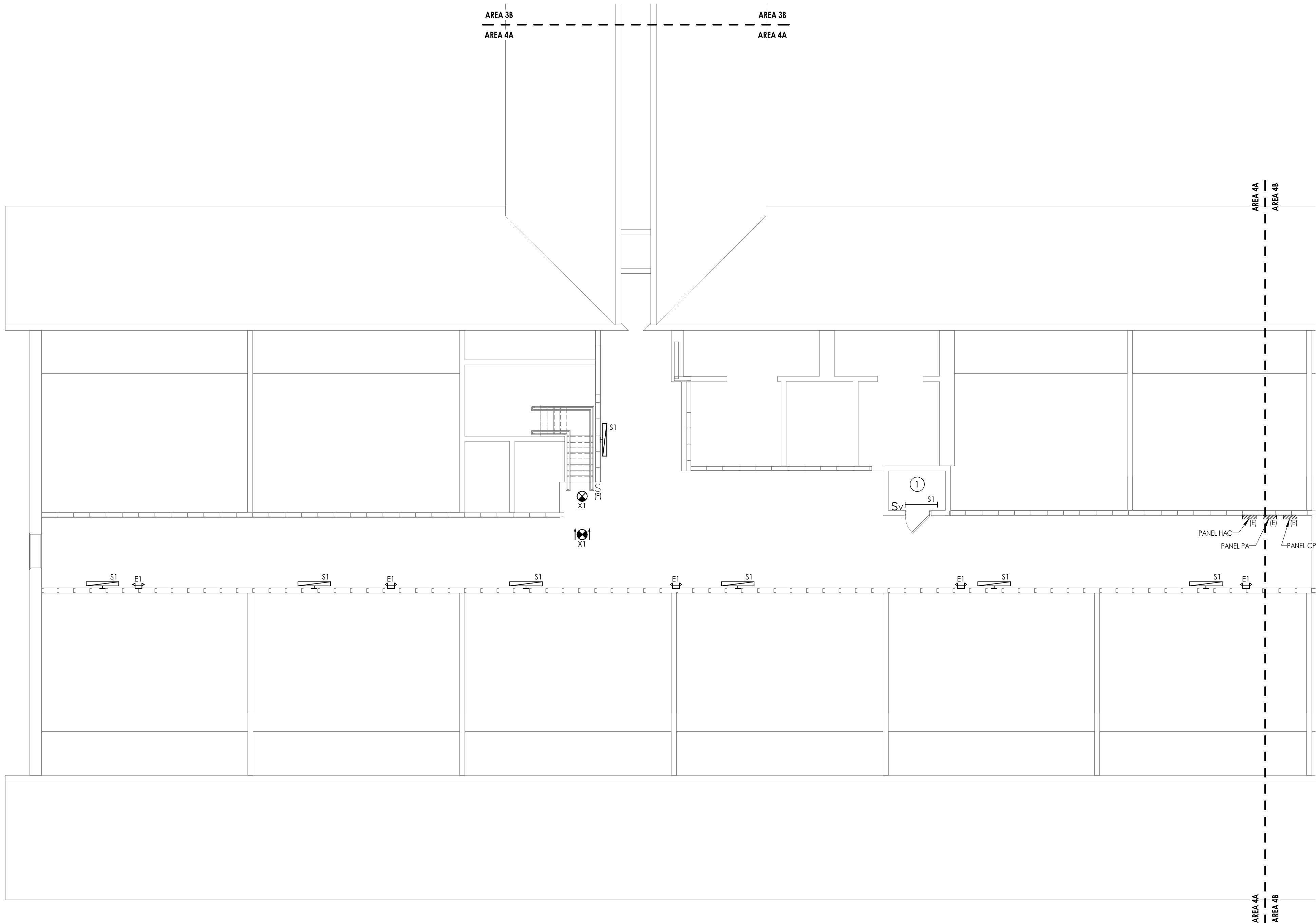
PROFESSIONAL STAMPS



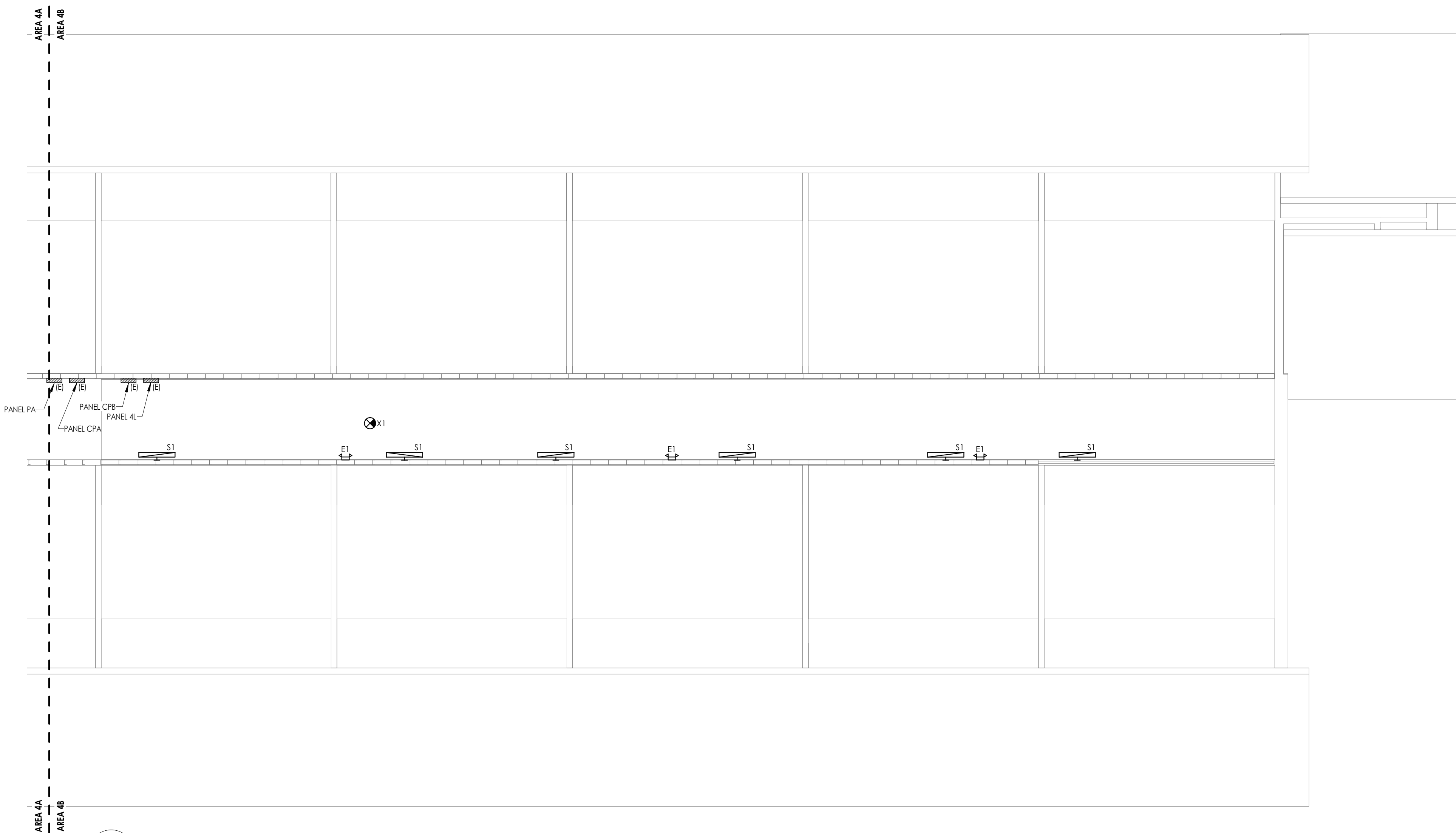
SHEET INFORMATION
Issue: 02/17/2025
Project Status: BID SET
Drawn By: JAE
Checked By: ARM
Drawing Title: GROUND FLOOR LIGHTING PLAN - AREA 4A & 4B
Drawing Number: FOES E301.4AB



2/18/2025 7:52:04 AM S:\Projects\Johnston County\FOES & SES HVAC\CD Design & Annotation\Docs\1923.0025.00_FOES & SES\Four Oaks MEP_2022.rvt



1 MEZZANINE LIGHTING PLAN - AREA 4A
E302.4AB 1/8" = 1'-0"



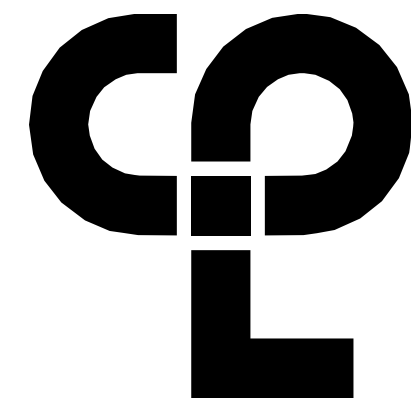
2 MEZZANINE LIGHTING PLAN - AREA 4B
E302.4AB 1/8" = 1'-0"

GENERAL NOTES

- EQUIPMENT, FIXTURES, AND DEVICES LABELED AS "E1" ARE EXISTING AND ARE SHOWN FOR REFERENCE ONLY. ALL OF THESE EQUIPMENT, FIXTURES, AND DEVICES SHALL REMAIN OPERATIONAL FOLLOWING CONSTRUCTION.
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KEY NOTES

- HANG TYPE "S1" FIXTURES WITHIN SPACE AT APPROXIMATELY 8'-0" ABOVE FINISHED FLOOR. FIELD LOCATE AROUND AND BELOW DUCTWORK, PIPING, ETC. FOR BEST ILLUMINATION OF SPACE.



CPLE | Architecture Engineering Planning
11111 Haynes Street Suite 100,
Raleigh, NC 27604
CPLeam.com



PROJECT INFORMATION

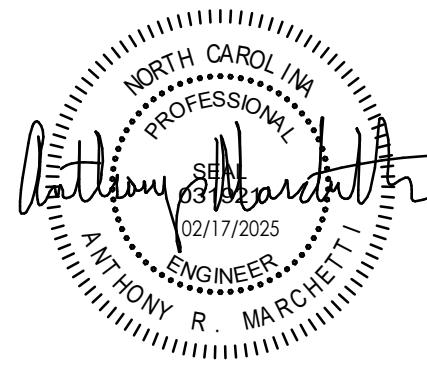
Project Number
R23.00325
Client Name
**JOHNSTON COUNTY PUBLIC
SCHOOL DISTRICT**
Project Name
**FOUR OAKS ELEMENTARY
SCHOOL HVAC RENOVATION**

Project Address
180 W Hatcher St,
Four Oaks, NC 27524

PROJECT ISSUE & REVISION SCHEDULE

#	Date	Description
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PROFESSIONAL STAMPS



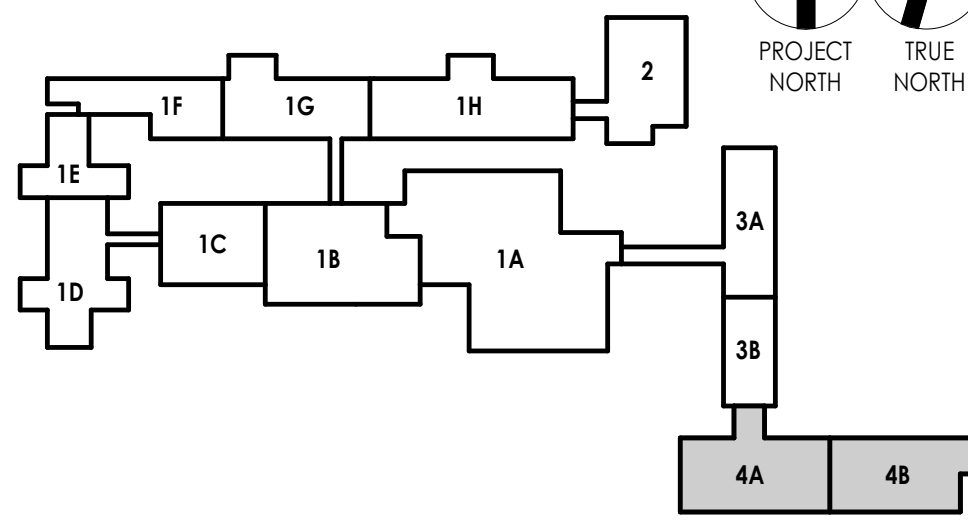
SHEET INFORMATION

Issue	Scale
02/17/2025	AS NOTED
Project Status	
BID SET	
Drawn By	Checked By
JAE	ARM
Drawing Title	
MEZZANINE LIGHTING PLAN - AREA 4A & 4B	

Drawing Number

FOES
E302.4AB

KEY PLAN:



EQUIPMENT WIRING SCHEDULE											
	MARK	LOCATION	VOLTS	PH	HP	FLA	WIRING/CONDUIT	BREAKER	PANEL	CCT	REMARKS
1	AHU-1 SUPPLY	MECHANICAL 139	480 V	3	10	14 A	(3)#10, #10G IN 1" C	30/3	T	27,29,31	2
2A	AHU-2 SUPPLY	CHILLER 106	480 V	3	1.5	3 A	(3)#12, #12G IN 3/4" C	15/3	V	25,27,29	4
2B	AHU-2 EXHAUST	CHILLER 106	480 V	3	1	2.1 A	(3)#12, #12G IN 3/4" C	15/3	V	25,27,29	4
3A	AHU-3 SUPPLY	CHILLER 106	480 V	3	10	14 A	(3)#10, #10G IN 1" C	30/3	V	1,3,5	2
3B	AHU-3 EXHAUST	CHILLER 106	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	W	7,9,11	4
4A	AHU-4 SUPPLY	NEW MECHANICAL 128.1	480 V	3	15	21 A	(3)#8, #10G IN 1" C	40/3	T	26,28,30	2
4B	AHU-4 RETURN	NEW MECHANICAL 128.1	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	T	13,15,17	2
5	AHU-5 SUPPLY	MECHANICAL 111	480 V	3	15	21 A	(3)#8, #10G IN 1" C	40/3	N	1,3,5	2
6A	AHU-6 SUPPLY	MECHANICAL 134	480 V	3	10	14 A	(3)#10, #10G IN 1" C	30/3	K	33,35,37	2
6B	AHU-6 RETURN	MECHANICAL 134	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	K	1,3,5	4
7A	AHU-7 SUPPLY	MECH 105	480 V	3	20	27 A	(3)#8, #10G IN 1" C	50/3	A (AREA 1D)	1,3,5	2
7B	EF-AHU-7	MECH 105	480 V	3	10	14 A	(3)#10, #10G IN 1" C	30/3	A (AREA 1D)	7,9,11	2
8A	CHILLER-1	CHILLER YARD	480 V	3		332 A	2 SETS (3)#4/0, #2G IN 3" C	450/3	M5B	25,27,29	2,7
8B	CHILLER-1 HEAT TRACE	CHILLER YARD	120 V	1		10 A	(2)#12, #12G IN 3/4" C	20/1	W	17	4
9A	CHILLER-2	CHILLER YARD	480 V	3		332 A	2 SETS (3)#4/0, #2G IN 3" C	450/3	M5B	26,28,30	2,7
9B	CHILLER-2 HEAT TRACE	CHILLER YARD	120 V	1		10 A	(2)#12, #12G IN 3/4" C	20/1	1M	5	4
10	CHP-1	CHILLER 106	480 V	3	15	21 A	(3)#8, #10G IN 1" C	40/3	V	14,16,18	2
11	CHP-2	CHILLER 106	480 V	3	15	21 A	(3)#8, #10G IN 1" C	40/3	V	2,4,6	2
12	CHW PUMP-1	CHILLER 106	480 V	3	16.7	21 A	(3)#8, #10G IN 1" C	40/3	VA	10,12,14	2
13	CHW PUMP-2	CHILLER 106	480 V	3	16.7	21 A	(3)#8, #10G IN 1" C	40/3	VA	16,18,20	2
14	CHW PUMP-3	CHILLER 106	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	VA	9,11,13	2
15	CHW PUMP-4	CHILLER 106	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	VA	15,17,19	2
16	HHW PUMP-1	BOILER 106A	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	VA	21,23,25	2
17	HHW PUMP-2	BOILER 106A	480 V	3	7.5	11 A	(3)#12, #12G IN 3/4" C	20/3	VA	27,29,31	2
18	HHW PUMP-3	BOILER 106A	480 V	3	1.5	3 A	(3)#12, #12G IN 3/4" C	15/3	V	28,30,32	4
19	HHW PUMP-4	BOILER 106A	480 V	3	1.5	3 A	(3)#12, #12G IN 3/4" C	15/3	V	28,30,32	4
20	P-B-1	BOILER 106A	208 V	3	1	3.7 A	(3)#12, #12G IN 3/4" C	15/3	W	2,4,6	2
21	P-B-2	BOILER 106A	208 V	3	1	3.7 A	(3)#12, #12G IN 3/4" C	15/3	W	2,4,6	2
22	B-1	BOILER 106A	120 V	1		16 A	(2)#12, #12G IN 3/4" C	20/1	W	13	2,7
23	B-2	BOILER 106A	120 V	1		16 A	(2)#12, #12G IN 3/4" C	20/1	W	37	2,7
24	HOOD-1	KITCHEN 107	120 V	1		6.9 A	(2)#12, #12G IN 3/4" C	20/1	R	24	1,5
25	MAU-1	ROOF (ABOVE KITCHEN 107)	208 V	3	1.5	6 A	(3)#12, #12G IN 3/4" C	15/3	R	7,9,11	2,3
26	FCU-128	MECHANICAL 128	208 V	3		15/3	(3)#12, #12G IN 3/4" C	15/3	U	2,4,6	2
27	FCU-139	MECHANICAL 139	208 V	3		3.7 A	(3)#12, #12G IN 3/4" C	15/3	U	1,3,5	2
28	FCU-300	CORRIDOR 300A	208 V	1		2.4 A	(2)#12, #12G IN 3/4" C	15/2	D (AREA 3A)	19,21	2,10
29	FCU-300A	CORRIDOR 300A	208 V	1		2.4 A	(2)#12, #12G IN 3/4" C	15/2	B (AREA 3B)	27,29	2,10
30	FCU-302	CORRIDOR 302	208 V	1		3.7 A	(2)#12, #12G IN 3/4" C	15/2	B (AREA 3B)	31,33	2,10
31	FCU-303	CORRIDOR 303	208 V	1		2.1 A	(2)#12, #12G IN 3/4" C	15/2	B (AREA 3B)	31,33	2,10
32	FCU-307	CORRIDOR 307	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	C (AREA 3A)	25,27	2,10
33	FCU-308	CORRIDOR 308	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	D (AREA 3A)	31,33	2,10
34	FCU-309	CORRIDOR 309	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	D (AREA 3A)	31,33	2,10
35	FCU-310	CORRIDOR 310	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	D (AREA 3A)	35,37	2,10
36	FCU-311	CORRIDOR 311	208 V	1		2.1 A	(2)#12, #12G IN 3/4" C	15/2	D (AREA 3A)	35,37	2,10
37	FCU-312	CORRIDOR 312	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	C (AREA 3A)	29,31	2,10
38	FCU-313	CLASSROOM 313	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	B (AREA 3B)	35,37	2,10
39	FCU-314	CLASSROOM 314	208 V	1		4.1 A	(2)#12, #12G IN 3/4" C	15/2	B (AREA 3B)	35,37	2,10
40	UH-106	CHILLER 106	120 V	1	1/15	1 A	(2)#12, #12G IN 3/4" C	20/1	W		
41	UH-317	ELECTRICAL 317	120 V	1	1/25	1 A	(2)#12, #12G IN 3/4" C	20/1	X	17	2
42	LPV-1	LP TANK YARD	480 V	3		22 A	(3)#8, #10G IN 2" C	30/3	M5B	56,58,60	2,6
43A	SSO-1	CORRIDOR 300 EXTERIOR	208 V	1		27 A	(2)#8, #10G IN 1" C	40/2	U	31,33	1
43B	SS-1	CORRIDOR 300	208 V	1		0 A	(2)#12, #12G IN 3/4" C	40/2			9,10
44A	SSO-2	CORRIDOR 300 EXTERIOR	208 V	1		27 A	(2)#8, #10G IN 1" C	40/2	U	1	40/2
44B	SS-2	CORRIDOR 300	208 V	1		0 A	(2)#12, #12G IN 3/4" C	40/2			9,10
45	EF-1	LAUNDRY 136 TOILET	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	U	7	1
46	EF-2	TOILET 111	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	U	7	1
47	EF-3	MOP 105	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	15/1	R	4	2,3
48	EF-4	CLASSROOM 111 6A KILN	120 V	1		0.5 A	(2)#12, #12G IN 3/4" C	15/1	U	30	2,3
49	EF-5	MECHANICAL	480 V	3	1-1/2	3 A	(3)#12, #12G IN 3/4" C	15/3	N	7,9,11	2
50	EF-6	MECHANICAL 111	120 V	1		4.9 A	(2)#12, #12G IN 3/4" C	15/1	P	20	2
51	EF-7	TOILET 124	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	15/1	M	41	2,3
52	EF-8	TOILET 132A	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	P	26	1
53	EF-9	TOILET 133A	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	P	26	1
54	EF-10	PLANNING 139A TOILET	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	P	26	1
55	EF-12	ROOF (ABOVE DISHWASHING 104)	120 V	1	1/4	5.8 A	(2)#12, #12G IN 3/4" C	15/1	R	2	2,3
56	EF-13	CLASSROOM 108A TOILET	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	P	28	1
57	EF-14	CLASSROOM 107A TOILET	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	P	28	1
58	EF-15	CHILLER 106	120 V	1	1/2	9.8 A	(2)#12, #12G IN 3/4" C	20/1	W	7	1
59	EF-16	ROOF (ABOVE KITCHEN 107)	208 V	3	1	4.6 A	(3)#12, #12G IN 3/4" C	15/3	R	13,15,17	1
60	EF-17	ROOF (ABOVE GYM 118)	208 V	3	1/2	2.4 A	(3)#12, #12G IN 3/4" C	15/3	U	8,10,12	3,4
61	EF-18	ROOF (ABOVE GYM 118)	208 V	3	1/2	2.4 A	(3)#12, #12G IN 3/4" C	15/3	U	8,10,12	3,4
62	EF-19	ROOF (ABOVE MECHANICAL 139)	120 V	1	1/6	4.4 A	(2)#12, #12G IN 3/4" C	15/1	U	23	1
63	EF-20	ROOF (ABOVE WOMENS 121)	120 V	1	1/15	1.3 A	(2)#12, #12G IN 3/4" C	15/1	A (AREA 1A)	20	2,3
64	EF-21	TOILET 113	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	M	39	4
65	EF-22	TOILET 114	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	M	39	4
66	EF-23	CLASSROOM 108 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	16	1,8
67	EF-24	CLASSROOM 108 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	16	1,8
68	EF-25	CLASSROOM 109 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	14	1,8
69	EF-26	CLASSROOM 109 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	14	1,8
70	EF-27	CLASSROOM 107 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	12	1,8
71	EF-28	CLASSROOM 107 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	12	1,8
72	EF-29	CLASSROOM 110 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	10	1,8
73	EF-30	CLASSROOM 110 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	10	1,8
74	EF-31	CLASSROOM 111 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	8	1,8
75	EF-32	CLASSROOM 111 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	8	1,8
76	EF-33	CUST 116	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	18	1
77	EF-34	ELEC 117	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	18	1
78	EF-35	STAFF 115	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	18	1
79	EF-36	CLASSROOM 112 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	20	1,8
80	EF-37	CLASSROOM 112 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	20	1,8
81	EF-38	CLASSROOM 113 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	22	1,8
82	EF-39	CLASSROOM 113 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	C (AREA 1D)	22	1,8
83	EF-40	CLASSROOM 124 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 1D)	13	1,8
84	EF-41	CLASSROOM 124 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 1D)	13	1,8
85	EF-42	CLASSROOM 125 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 1D)	15	1,8
86	EF-43	CLASSROOM 125 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 1D)	15	1,8
87	EF-44	CLASSROOM 125 TOILET ROOM	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 1D)	15	1,8
88	EF-45	MECHANICAL 130	120 V	1		4.9 A	(2)#12, #12G IN 3/4" C	15/1	F	24	2
89	EF-46	STAFF 131	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	F	35	1
90	EF-47	CUST 132	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	F	35	1
91	EF-48	MECHANICAL 150	120 V	1		4.9 A	(2)#12, #12G IN 3/4" C	15/1	H	28	2
92	EF-49	CUST 152	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	H	30	1
93	EF-50	TOILET 153	120 V	1		0.2 A	(2)#12, #12G IN 3/4" C	20/1	H	30	1
94	EF-501A	LOUNGE 301A	120 V	1		1.3 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 3B)	23	2
95	EF-303	CLASSROOM 303	120 V	1		1.3 A	(2)#12, #12G IN 3/4" C	20/1	B (AREA 3B)	23	2
96	EF-307	CLASSROOM 307	120 V	1		1.3 A	(2)#12, #12G IN 3/4" C	20/1	C (

PANEL MSB (Existing)		VOLTAGE: FEEDER AMP: LUGS:	480/277 2500	3 PH 4W MAINS:	2500 FEED:	MDS Bottom	A/C RATING: MOUNTING: ENCLOSURE:	65K Surface NEMA 1	REMARKS:
BKR	NOTE	LOAD...	VA	CKT	PHASE	VA	LOAD DESCRIPTION	NOTE	BKR
250/3	E	PANEL A (AREA 1D)	38609	1	A	2	41246	PANEL D (AREA 1H)	E 250/3
↓	↓	↓	38483	3	B	4	40321	↓	↓
↓	↓	↓	33237	5	C	6	33897	↓	↓
250/3	E	PANEL K	26897	7	A	8	30096	PANEL N	E 250/3
↓	↓	↓	28627	9	B	10	27141	↓	↓
↓	↓	↓	26787	11	C	12	26925	↓	↓
250/3	E	PANEL G	34259	13	A	14	47331	PANEL V	E 250/3
↓	↓	↓	35227	15	B	16	50523	↓	↓
↓	↓	↓	32457	17	C	18	51907	↓	↓
250/3	E	EXISTING LOAD	0	19	A	20	0	EXISTING LOAD	E xxx/3
↓	↓	↓	0	21	B	22	0	↓	↓
↓	↓	↓	0	23	C	24	0	↓	↓
450/3	N	CHILLER 1	91742	25	A	26	91742	CHILLER 2	N 450/3
↓	↓	↓	91742	27	B	28	91742	↓	↓
↓	↓	↓	91742	29	C	30	91742	↓	↓
125/3	N	PANEL VA	17111	31	A	32	0	↓	↓
↓	↓	↓	17411	33	B	34	0	↓	↓
↓	↓	↓	15811	35	C	36	0	↓	↓
400/3	E	PANEL 1L	9750	37	A	38	0	SPARE	R 350/3
↓	↓	↓	11924	39	B	40	0	↓	↓
↓	↓	↓	11744	41	C	42	0	↓	↓
350/3	E	SPARE	0	43	A	44	20667	PANEL T	E 450/3
↓	↓	↓	0	45	B	46	22547	↓	↓
↓	↓	↓	0	47	C	48	24547	↓	↓
↓	↓	↓	0	49	A	50	2160	PANEL CC	E 50/3
↓	↓	↓	0	51	B	52	1620	↓	↓
↓	↓	↓	0	53	C	54	1080	↓	↓
xxx/3	E	SPARE	0	55	A	56	5956	LPV-1	N 30/3
↓	↓	↓	0	57	B	58	5956	↓	↓
↓	↓	↓	0	59	C	60	5956	↓	↓
600/3	E	PANEL Y TRANSFORMER	120108	61	A	62	0	SPACE TAKEN BY CKT 61.63.65	E
↓	↓	↓	114077	63	B	64	0	↓	↓
↓	↓	↓	116820	65	C	66	0	↓	↓
Connected Load Per Phase PH A: 57684 PH B: 571141 PH C: 566952 Total VA 1721777 Amps 2071.0									
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA
Demand Factor		196245	858198	117054	180740	864	328868	39808	1721777
Demand VA		1.25	1.00	1.00	NEC	0.00	0.65	1.00	1569500
		245306	858198	117054	95370	0	213764	39808	1887.9

PANEL VA (Existing)		VOLTAGE: FEEDER AMP: LUGS:	480/277 125	3 PH 4W MAINS:	125 FEED:	MLO	A/C RATING: MOUNTING: ENCLOSURE:	EXISTING NEMA 1	REMARKS:
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	VA	LOAD DESCRIPTION	NOTE	BKR
20/1	E	KITCHEN CAFETERIA EM. LTG	1200	1	A	2	1200	LIT. RM. D103, D104	E 20/1
20/1	E	LIT. RM. 107	3000	3	B	4	2500	LIT. RM. D102	E 20/1
20/1	E	OUTDOOR LTG. VIA TIMECLOCK	1400	5	C	6	2500	LIT. RM. D102	E 20/1
20/1	E	MECH ROOM EM. LTG	1600	7	A	8	1200	SKY LIT. D102, D103	E 20/1
20/3	N	CHW PUMP-3	3047	9	B	10	5817	CHW PUMP-1	N 40/3
↓	↓	↓	3047	11	C	12	5817	↓	↓
↓	↓	↓	3047	13	A	14	5817	↓	↓
20/3	N	CHW PUMP-4	0	15	B	16	0	CHW PUMP-2	N 40/3
↓	↓	↓	0	17	C	18	0	↓	↓
↓	↓	↓	0	19	A	20	0	↓	↓
20/3	N	HHW PUMP-1	3047	21	B	22	0	HHW PUMP-2	N 20/3
↓	↓	↓	3047	23	C	24	0	↓	↓
↓	↓	↓	3047	25	A	26	0	↓	↓
-	E	SPACE	0	27	B	28	0	SPACE	E -
-	E	SPACE	0	29	C	30	0	SPACE	E -
Connected Load Per Phase PH A: 17111 PH B: 17411 PH C: 15811 Total VA 50333 Amps 60.5									
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA
Demand Factor		14600	17451	18282	0	0	0	0	50333
Demand VA		1.25	1.00	1.00	NEC	0.00	1.00	1.00	53983
		18250	17451	18282	0	0	0	0	64.9

PANEL T (Existing)		VOLTAGE: FEEDER AMP: LUGS:	480/277 400	3 PH 4W MAINS:	400 FEED:	MLO	A/C RATING: MOUNTING: ENCLOSURE:	EXISTING NEMA 1	REMARKS:
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	VA	LOAD DESCRIPTION	NOTE	BKR
15/3	R	SPARE	0	1	A	2	0	SPARE	E 20/1
↓	↓	↓	0	3	B	4	0	SPARE	E 20/1
↓	↓	↓	0	5	C	6	2880	LIGHTS D132, D134, D137	E 20/1
15/3	R	SPARE	0	7	A	8	1000	EMERGENCY LIGHTS	E 20/1
↓	↓	↓	0	9	B	10	2880	LIGHTS D113 - D117	E 20/1
↓	↓	↓	0	11	C	12	2000	OUTDOOR POLE LIGHTS	E 20/1
20/3	N	AHU-4 RETURN	3047	13	A	14	0	SPARE	E 20/1
↓	↓	↓	3047	15	B	16	0	SPARE	E 20/1
↓	↓	↓	3047	17	C	18	0	SPARE	E 20/1
20/3	E	CIRCULATING PUMP	3878	19	A	20	0	SPARE	E 20/1
↓	↓	↓	3878	21	B	22	0	SPARE	E 20/1
↓	↓	↓	3878	23	C	24	0	SPARE	E 20/1
20/1	E	SPARE	0	25	A	26	5817	AHU-4 SUPPLY	N 40/3
30/3	N	AHU-1 SUPPLY	3878	27	B	28	5817	↓	↓
↓	↓	↓	3878	29	C	30	5817	↓	↓
↓	↓	↓	3878	31	A	32	0	SPACE	E -
-	E	SPACE	0	33	B	34	0	SPACE	E -
-	E	SPACE	0	35	C	36	0	SPACE	E -
-	E	SPACE	0	37	A	38	0	SPACE	E -
-	E	SPACE	0	39	B	40	0	SPACE	E -
-	E	SPACE	0	41	C	42	0	SPACE	E -
200/2	SUB	EXISTING MDP TRANSFORMER, RM 133	0	43	A	44	0	↓	SUB
Connected Load Per Phase PH A: 20667 PH B: 22547 PH C: 24547 Total VA 67761 Amps 81.5									
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA
Demand Factor		8760	59001	0	0	0	0	0	67761
Demand VA		1.25	1.00	1.00	NEC	0.00	1.00	1.00	69951
		10950	59001	0	0	0	0	0	84.1

PANEL N (Existing)		VOLTAGE: FEEDER AMP: LUGS:	480/277 225	3 PH 4W MAINS:	225 FEED:	MCB	A/C RATING: MOUNTING: ENCLOSURE:	EXISTING NEMA 1	REMARKS:
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	VA	LOAD DESCRIPTION	NOTE	BKR
40/3	N	AHU-5 SUPPLY	0	1	A	2	0	SPACE	E -
↓	↓	↓	0	3	B	4	0	SPACE	E -
↓	↓	↓	0	5	C	6	0	SPACE	E -
15/3	N	EF-5	831	7	A	8	2000	LIGHTS A107, A108	E 20/1
↓	↓	↓	831	9	B	10	2000	LIGHTS A107, A108	E 20/1
↓	↓	↓	831	11	C	12	2000	LIGHTS A116, A, B	E 20/1
20/1	E	CORRIDOR LIGHTS	2000	13	A	14	2000	LIGHTS A115, A111 - A114	E 20/1
20/1	E	CORRIDOR LIGHTS	2000	15	B	16	2000	LIGHTS A108 - A110	E 20/1
20/1	E	CORRIDOR LIGHTS	2000	17	C	18	2000	OUTSIDE LIGHTS VIA TIME CLOCK	E 20/1
20/1	E	EMERGENCY LIGHTS	1200	19	A	20	0	SPARE	E 20/1
20/1	E	SPARE	0	21	B	22	0	SPARE	E 20/1
20/1	E	SPARE	0	23	C	24	0	SPARE	E 20/1
20/1	E	SPARE	0	25	A	26	0	SPARE	E 20/1
20/1	E	SPARE	0	27	B	28	0	SPARE	E 20/1
20/1	E	SPARE	0	29	C	30	0	SPARE	E 20/1
20/1	E	SPARE	0	31	A	32	0	SPACE	E -
20/1	E	SPARE	0	33	B	34	0	SPACE	E -
-	E	SPACE	0	35	C	36	0	SPACE	E -
-	E	SPACE	0	37	A	38	0	SPACE	E -
-	E	SPACE	0	39	B	40	0	SPACE	E -
-	E	SPACE	0	41	C	42	0	SPACE	E -
110/3	SUB	PANEL M 150kVA TRANSFORMER	22065	43	A	44	0	↓	SUB
Connected Load Per Phase PH A: 30096 PH B: 27141 PH C: 26925 Total VA 84162 Amps 101.2									
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA
Demand Factor		19200	10357	0	0	0	0	0	84162
Demand VA		1.25	1.00	1.00	NEC	0.00	1.00	1.00	73192
		24000	10357	22570	0	0	12840	0	88.0

PANEL Y (Existing)		VOLTAGE: FEEDER AMP: LUGS:	208/120 1200	3 PH 4W MAINS:	1200 FEED:	MCB	A/C RATING: MOUNTING: ENCLOSURE:	EXISTING NEMA 1	REMARKS:
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	VA	LOAD DESCRIPTION	NOTE	BKR
100/3	E	PANEL S	8736	1	A	2	7460	PANEL U	E 100/3
↓	↓	↓	5160	3	B	4	11305	↓	↓
↓	↓	↓	6996	5	C	6	12276	↓	↓
↓	↓	↓	0	7	A	8	0	SPARE	E 200/3
↓	↓	↓	0	9	B	10	0	↓	↓
↓	↓	↓	0	11	C	12	0	↓	↓
200/3	E	SPARE	0	13	A	14	22976	PANEL R	E 225/3
↓	↓	↓	0	15	B	16	18732	↓	↓
↓	↓	↓	0	17	C	18	18096	↓	↓
↓	↓	↓	0	19	A	20	0	SPACE	E -
↓	↓	↓	0	21	B	22	0	↓	↓
↓	↓	↓	0	23	C	24	0	↓	↓
400/3	E	PANEL Q	26936	25	A	26	0	SPACE	E -
↓	↓	↓	24880	27	B	28	0	↓	↓
↓	↓	↓	25452	29	C	30	0	↓	↓
600/3	E	KITCHEN ISLAND PANEL	54000	31	A	32	0	↓	↓
↓	↓	↓	54000	33	B	34	0	↓	↓
↓	↓	↓	54000	35	C	36	0	↓	↓
Connected Load Per Phase PH A: 120108 PH B: 114077 PH C: 116820 Total VA 351005 Amps 974.3									
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA
Demand Factor		1000	21372	225	20940	0	304488	2980	351005
Demand VA		1.25	1.00	1.00	NEC	0.00	0.65	1.00	239214
		1250	21372	225	15470	0	179717	2980	664.0

PANEL W		VOLTAGE: 208/120 3 PH 4W		FEEDER AMP: 100		MOUNTING: 100 MCB		A/C RATING: EXISTING		REMARKS:	
(Existing)		LUGS:		FEED:		ENCLOSURE:		NEMA 1		WESTINGHOUSE PRL1	
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR	
15/3	I	SPARE	0	1	A	2	888	BOILER PUMPS P-8-1, P-8-2	R	15/3	
↓	↓	↓	0	3	↓	4	888	↓	↓	↓	
↓	↓	↓	0	5	↓	6	888	↓	↓	↓	
20/1	R	EF-15 (CHILLER 106)	1536	7	A	8	500	BOILER CONTROLS	E	20/1	
20/1	R	UNIT HEATER UH-1	120	9	B	10	1440	WATER HEATER MOTOR	E	20/1	
20/1	E	PUMP 23	864	11	A	12	1440	WATER HEATER MOTOR	E	20/1	
20/2	N	BOILER 8-1	1920	13	A	14	200	UCS #8	E	20/1	
↓	↓	↓	0	15	↓	16	180	OUTSIDE REC	E	20/1	
20/1	R	CHILLER HEAT TRACE	1200	17	↓	18	0	SPARE	E	20/1	
20/1	E	REC D106, D106A	540	19	A	20	1000	TRACK LTS STAGE	E	20/1	
20/1	E	DMS	500	21	B	22	1000	TRACK LTS STAGE	E	20/1	
20/1	R	LP GAS YARD LIGHTING	0	23	↓	24	1000	TRACK LTS STAGE	E	20/1	
20/1	E	CONTROLS	200	25	A	26	200	TANK GUARD	E	20/1	
30/3	E	CONTROLS 2ND CHEMICAL PUMP	200	27	↓	28	0	SPARE	E	20/1	
↓	↓	↓	0	29	B	30	200	PURE PAK	E	20/1	
↓	↓	↓	0	31	A	32	4200	WALK-IN COOLER	E	50/3	
↓	↓	↓	0	33	B	34	4200	↓	↓	↓	
15/1	N	P-AHU-2	0	35	↓	36	4200	↓	↓	↓	
20/2	N	BOILER 8-2	1920	37	A	38	0	SPARE	E	30/2	
↓	↓	↓	0	39	↓	40	0	↓	↓	↓	
↓	↓	↓	0	41	B	42	864	SPACE	E	↓	
↓	↓	↓	0	42	C	42	864	SPACE	E	↓	
Connected Load Per Phase			PH A:	13104	PH B:	8528	PH C:	11520			
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps	
Demand Factor		3000	14608	0	1080	864	12600	0	33152	92.0	
		1.25	1.00	1.00	NEC	0.00	1.00	1.00			
Demand VA		3750	14608	0	1080	0	12600	1000	33038	91.7	

PANEL P		VOLTAGE: 208/120 3 PH 4W		A/C RATING: EXISTING		REMARKS:				
		FEEDER AMP: 225		MLO		MOUNTING: WESTINGHOUSE PRL1				
		LUGS:		FEED:		ENCLOSURE: NEMA 1				
BKR	NOTE	(Existing) LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR
20/1	E	RECEPTS. A101, A111, A114	1080	1	A	2	720	RECEPTS. A107, A, B, C	E	20/1
20/1	E	EW-C-A101	360	3	B	4	924	RECEPTS. A107, EF-1	R	20/1
20/1	E	RECEPTS. A101	540	5	A	6	360	RECEPTS. A104	E	20/1
20/1	E	RECEPTS. A115	720	7	A	8	540	RECEPTS. A108	E	20/1
20/1	E	RECEPTS. A115	1080	9	A	10	720	RECEPTS. A108	E	20/1
20/1	E	RECEPTS. A102	360	11	A	12	1080	RECEPTS. A108, A, B, COMMODO MTR	E	20/1
20/1	E	RECEPTS. A116, A116B	540	13	A	14	540	RECEPTS. A117	E	20/1
20/1	E	RECEPTS. A116	540	15	A	16	720	RECEPTS. A117	E	20/1
20/1	E	RECEPTS. A116	720	17	A	18	900	RECEPTS. A117	E	20/1
20/1	E	RECEPTS. A118, A119	900	19	A	20	588	EF-6 (MECH RM, 111)	N	15/1
20/1	E	RECEPTS. A119	540	21	A	22	0	SPACE	N	-
20/1	E	RECEPTS. A118, A120	540	23	A	24	0	SPACE	N	-
20/1	E	RECEPTS. A101, A120	720	25	A	26	72	EF-8, EF-9, & EF-10 (132, 133, 139...	R	20/1
20/1	E	MEDIA CORNER SMART BOARD	900	27	A	28	48	EF-13 & EF-14 (107A & 108A TLIS)	R	20/1
20/1	E	SPACE	0	29	A	30	180	EW-C	E	20/1
20/1	E	EXISTING LOAD	0	31	A	32	180	EW-C	E	20/1
20/1	E	MEDIA HEADEND	360	33	A	34	540	RECEPTS. A120	E	20/1
20/1	E	TV RETRIEVAL	360	35	A	36	540	RECEPTS. A120	E	20/1
-	E	SPACE	0	37	A	38	5490	PANEL PP	E	100/3
-	E	SPACE	0	39	A	40	540		E	20/1
-	E	SPACE	0	41	A	42	8070		E	20/1
Connected Load Per Phase			PH A:	12090	PH B:	12152	PH C:	13650		
Lighting			HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps
Connected VA			4232	0	28380	0	0	5280	37892	105.2
Demand Factor			1.25	1.00	1.00	NEC	0.00	1.00		
Demand VA			4232	0	19190	0	0	5280	28702	79.7

PANEL K		VOLTAGE: 480/277 3 PH 4W		225 MLO		A/C RATING: EXISTING		REMARKS:			
		FEEDER AMP: 225		MAINS:		MOUNTING:		WESTINGHOUSE PRL2			
		LUGS:		FEED:		ENCLOSURE: NEMA 1					
(Existing)		LOAD DESCRIPTION		VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR
20/3	R	AHU-6 RETURN	3047	1	A	2	2500	LIGHTS A135, A139, A141	E	20/1	
-	↓	↓	3047	3	A	4	2500	LIGHTS A141A, A142, A143	E	20/1	
-	↓	↓	3047	5	A	6	2500	LIGHTS A141, A144A, A144B	E	20/1	
20/1	E	PARKING LOT LIGHTS - RIGHT SIDE	3000	7	A	8	2500	LIGHTS A121, A122, A131, A137	E	20/1	
20/1	E	PARKING LOT LIGHTS - BUS	3000	9	A	10	2500	LIGHTS A127, A129, A130	E	20/1	
20/1	E	PARKING LOT LIGHTS - OFFICE	3000	11	A	12	2500	LIGHTS A117, A118, A119	E	20/1	
20/1	E	SPACE	0	13	A	14	2500	LIGHTS SKYLIGHTS MEDIA	E	20/1	
20/1	E	SPACE	0	15	A	16	2500	LIGHTS MEDIA	E	20/1	
20/1	E	SPACE	0	17	A	18	2500	LIGHTS MEDIA	E	20/1	
20/1	E	SPACE	0	19	A	20	2500	LIGHTS SKYLIGHTS...	E	20/1	
20/1	E	SPACE	0	21	A	22	2500	LIGHTS A134, A138, A140	E	20/1	
20/1	E	SPACE	0	23	A	24	0	SPACE	E	20/1	
20/1	E	SPACE	0	25	A	26	0	SPACE	E	20/1	
20/1	E	SPACE	0	27	A	28	0	SPACE	E	20/1	
20/1	E	SPACE	0	29	A	30	0	SPACE	E	20/1	
20/1	E	SPACE	0	31	A	32	0	SPACE	E	20/1	
30/3	N	AHU-6 SUPPLY	3878	33	A	34	0	SPACE	E	-	
-	↓	↓	3878	35	A	36	0	SPACE	E	-	
-	↓	↓	3878	37	A	38	0	SPACE	E	-	
-	E	SPACE	0	39	A	40	0	SPACE	E	-	
-	E	SPACE	0	41	A	42	0	SPACE	E	-	
100/3	SUB	PANEL L TRANSFORMER	6772	0	A	0					SUB
			8702	0	B	0					
			9362	0	C	0					
Connected Load Per Phase			PH A:	26897	PH B:	28627	PH C:	26787			
Lighting			HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps	
36500			28271	0	16820	0	0	720	82311	99.0	
Connected VA			1.25	1.00	1.00	NEC	0.00	1.00	1.00		
Demand Factor			45625	28271	0	13410	0	0	720	88026	105.9

PANEL B (AREA 1D) (Existing)		VOLTAGE: FEEDER AMP: LUGS:	208/120 225	3 PH 4W MAINS:	225 FEED:	MCB	A/C RATING: MOUNTING: ENCLOSURE:	EXISTING NEMA 1	REMARKS: WESTINGHOUSE PRL2 ELEC RM, 117			
		LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR		
		NOTE										
20/1	E	RECEPTACLES C103, SINK HOT WATER	720	1	A	2	360	WATER COOLER	E	20/1		
20/1	E	RECEPTACLES C108	900	3	A	4	0	EXISTING LOAD	E	60/2		
20/1	E	RECEPTACLES C108	720	5	A	6	0		E	20/1		
20/1	E	RECEPTACLES C106, C107	720	7	A	8	1750	HOT WATER HEATER	E	30/2		
20/1	E	RECEPTACLES C107	1080	9	A	10	1750		E	20/1		
20/1	E	RECEPTACLES C107	900	11	A	12	360	WATER COOLER	E	20/1		
20/1	R	EF-40 & EF-41 (CLASSROOM 124)	48	13	A	14	360	RECEPTACLES C115, C116	E	20/1		
20/1	R	EF-42, EF-43, EF-44 (RMS 125, 126)	72	15	A	16	540	RECEPTACLES C119	E	20/1		
20/1	E	RECEPTACLES C119, 120	360	17	A	18	360	RECEPTACLES C114	E	20/1		
20/1	E	RECEPTACLES C113	720	19	A	20	540	RECEPTACLES C114	E	20/1		
20/1	E	RECEPTACLES C113	900	21	A	22	540	RECEPTACLES C125	E	20/1		
20/1	E	RECEPTACLES C113	720	23	A	24	720	RECEPTACLES C125	E	20/1		
20/1	E	RECEPTACLES C112	720	25	A	26	360	RECEPTACLES C125	E	20/1		
20/1	E	RECEPTACLES C112	720	27	A	28	720	RECEPTACLES C124	E	20/1		
20/1	E	RECEPTACLES C112	720	29	A	30	720	RECEPTACLES C124	E	20/1		
20/1	E	RECEPTACLES C110, C111	360	31	A	32	540	RECEPTACLES C124	E	20/1		
20/1	E	RECEPTACLES C111	900	33	A	34	500	LCS #1	E	20/1		
20/1	E	RECEPTACLES C111	1080	35	A	36	500	LCS #2	E	20/1		
20/1	E	RECEPTACLES C110, C111	900	37	A	38	6654	PANEL C	E	100/3		
20/1	E	RECEPTACLES C110, C111	900	39	A	40	5104		E	20/1		
20/1	E	WATER COOLER	360	41	A	42	4360		E	20/1		
Connected Load Per Phase			PH A:	14752	PH B:	14626	PH C:	11880				
Lighting			HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps		
Connected VA			4538	0	23940	0	11780	1000	41258	114.5		
Demand Factor			1.25	1.00	1.00	NEC	0.00	1.00	1.00			
Demand VA			4538	0	16970	0	11780	1000	34288	95.2		

PANEL F		VOLTAGE:		208/120	3 PH 4W	A/C RATING:		22K	REMARKS:		
		FEEDER AMP:		100	MAINS:	100	MLO	MOUNTING:		Surface	WESTINGHOUSE PRL1
		LUGS:		FEED:		ENCLOSURE:		NEMA 1			
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR	
20/1	E	RECEPTACLES C136	720	1	A	2	180	RECEPTACLES C131	E	20/1	
20/1	E	RECEPTACLES C136	720	3	A	4	360	EW-C	E	20/1	
20/1	E	RECEPTACLES C136	540	5	A	6	360	RECEPTACLES C121, C123	E	20/1	
20/1	E	RECEPTACLES C135	360	7	A	8	0	SPACE	E	-	
20/1	E	RECEPTACLES C135	360	9	A	10	0	SPACE	E	-	
20/1	E	RECEPTACLES C134	360	11	A	12	540	RECEPTACLES C137	E	20/1	
20/1	E	RECEPTACLES C133	540	13	A	14	540	RECEPTACLES C137	E	20/1	
20/1	E	HOTWATER #2	540	15	A	16	360	RECEPTACLES C137	E	20/1	
20/1	E	RECEPTACLES C138	540	17	A	18	540	RECEPTACLES C127	E	20/1	
20/1	E	RECEPTACLES C126	540	19	A	20	540	RECEPTACLES C127	E	20/1	
20/1	E	RECEPTACLES C126	540	21	A	22	360	RECEPTACLES C127	E	20/1	
20/1	E	RECEPTACLES C126	540	23	A	24	588	EF-45 (MECH 130)	N	15/1	
20/1	E	RECEPTACLES C134	360	25	A	26	0	SPARE	R	20/3	
20/1	E	RECEPTACLES C130, C131, C132	360	27	A	28	0		E	20/1	
20/1	E	RECEPTACLES C130, C131, C132	360	29	A	30	0		E	20/1	
20/1	R	SMOKE DAMPER	125	31	A	32	0	SPARE	E	20/1	
20/1	R	SPACE	0	33	A	34	0	SPARE	E	20/1	
20/1	R	EF-46 & EF-47 (RMS 131 & 132)	48	35	A	36	0	SPARE	E	20/1	
20/1	E	CLOSET LIGHTS	50	37	A	38	0	SPARE	E	20/1	
20/1	E	RECEPTACLES CL38	180	39	A	40	0	SPARE	E	20/1	
-	E	SPACE	0	41	A	42	0	SPACE	E	-	
Connected Load Per Phase PH A:			3955	PH B:			3780	PH C:	4416		
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps	
		50	761	180	11160	0	0	0	12151	33.7	
Demand Factor		1.25	1.00	1.00	NEC	0.00	1.00	1.00			
Demand VA		63	761	180	10580	0	0	0	11584	32.2	

PANEL H (Existing)		VOLTAGE: FEEDER AMP: LUGS:	208/120 225	3 PH 4W MAINS:	225 FEED:	MCB	A/C RATING: MOUNTING: ENCLOSURE:	22K Surface NEMA 1	REMARKS: WESTINGHOUSE PRL1
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PANEL MDP-2 (Existing)			VOLTAGE: FEEDER AMP: LUGS:	208/120 800	3 PH 4W MAINS:	FEED: 800		MCB		A/C RATING: MOUNTING: ENCLOSURE:	EXISTING NEMA 1	REMARKS: SQUARE D I-LINE
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR		
100/2	E	PANEL BR	8200	1	A	2	13440	PANEL A (AREA 3A)	E	200/3		
↓	↓	↓	8420	3			4	10500	↓	↓	↓	
225/3	E	PANEL C (AREA 3A)	2964	5	A	B	6	10380	↓	↓		
↓	↓	↓	2226	7			8	3787	PANEL D (AREA 3A)	E	225/3	
↓	↓	↓	1326	9	A	B	10	4991	↓	↓		
225/3	E	PANEL B (AREA 3B)	6255	11			12	4069	↓	↓	↓	
↓	↓	↓	5523	13	A	B	14	14940	PANEL X	E	225/3	
↓	↓	↓	3952	15			16	12920	↓	↓	↓	
150/2	E	EXISTING LOAD	0	17	A	C	18	0	↓	↓	↓	
↓	↓	↓	0	19			20	0	EXISTING LOAD	E	100/3	
100/2	E	CLASSROOM TRAILER	6960	21	A	B	22	0	↓	↓	↓	
↓	↓	↓	6960	23			24	0	↓	↓	↓	
-	E	SPACE	6960	25	A	B	26	0	SPACE	E	-	
-	E	SPACE	0	27			28	0	SPACE	E	-	
-	E	SPACE	0	29	A	C	30	0	SPACE	E	-	
-	E	SPACE	5817	31			32	3878	SPACE	E	-	
-	E	SPACE	5817	33	A	B	34	3878	SPACE	E	-	
-	E	SPACE	5817	35			36	3878	SPACE	E	-	
-	E	SPACE	3047	37	A	B	38	0	SPACE	E	-	
-	E	SPACE	3047	39			40	0	SPACE	E	-	
-	E	SPACE	3047	41	A	C	42	0	SPACE	E	-	
Connected Load Per Phase			PH A:	67818	PH B:	61810	PH C:	43370				
Connected VA			Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps	
Demand Factor			36200	91938	0	31998	0	2400	8500	172998	480.2	
Demand VA			1.25	1.00	1.00	NEC	0.00	1.00	1.00	171568	476.2	

PANEL D (AREA 3A) (Existing)		VOLTAGE: 208/120		3 PH 4W		A/C RATING: 22K		REMARKS:			
		FEEDER AMP:		MAINS:		MOUNTING: Surface		WESTINGHOUSE PRL1			
		LUGS:				ENCLOSURE: NEMA 1		CORR. 300			
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR	
20/1	E	SPARE	0	1	A	B	2	0	SPARE	E	20/1
20/1	E	SPARE	0	3			4	0	SPARE	E	20/1
20/1	E	SPARE	0	5	A	B	6	0	SPARE	E	20/1
20/1	E	RECEPTACLES RM 108	720	7			8	0	SPARE	E	20/1
20/1	E	RECEPTACLES RM 310 SMART BOARD	1080	9	A	C	10	0	SPARE	E	20/1
20/1	E	RECEPTACLES RM 309	720	11			12	0	SPARE	E	20/1
20/1	R	EF-308, EF-309	312	13	A	B	14	800	RADIATION - HALLWAY	E	20/1
20/1	R	EF-310, EF-311	312	15			16	2496	WELL HEATER	E	30/2
20/1	E	SPARE	0	17	A	C	18	2496		E	1
15/2	N	FCU-300	250	19			20	0	SPARE	E	20/1
	↓	↓	250	21	A	B	22	0	SPARE	E	70/2
70/2	E	SPARE	0	23			24	0	↓	↓	↓
	↓	↓	0	25	A	B	26	0	SPACE	E	-
70/2	E	SPARE	0	27			28	0	SPACE	E	-
	↓	↓	0	29	A	C	30	0	SPACE	E	-
15/2	N	FCU-308, FCU-309	853	31			32	0	SPACE	E	-
	↓	↓	853	33	A	B	34	0	SPACE	E	-
15/2	N	FCU-310, FCU-311	853	35			36	0	SPACE	E	-
	↓	↓	853	37	A	C	38	0	SPACE	E	-
-	E	SPACE	0	39			40	0	SPACE	E	-
-	E	SPACE	0	41	A	B	42	0	SPACE	E	-
Connected Load Per Phase			PH A:	3787	PH B:	4991	PH C:	4069			
Lighting		HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA		Amps	
0		9527	0	2520	0	800	800	12847		35.7	
Demand Factor		1.25	1.00	1.00	NEC	0.00	1.00	1.00			
Demand VA		0	9527	0	2520	0	800	12847		35.7	

PANEL B (AREA 3B) (Existing)		VOLTAGE: 208/120		3 PH 4W		A/C RATING: 22K		REMARKS:		
		FEEDER AMP: 225		MAINS:		MOUNTING: 225 MLO		ENCLOSURE: 22K Surface		
		LUGS:		FEED:		ENCLOSURE: NEMA 1		SQUARE D NQOD CORR. 300		
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR
xxx/1	E	SPARE	0	1	A	2	1250	LOUNGE W/H	E	xxx/1
xxx/1	E	SPARE	0	3		B	4	1250	HWH ROOM 112	E
xxx/1	E	SPARE	0	5	C		6	500	FIRE ALARM PANEL	E
xxx/1	E	RECEPTACLES - RM. 105	720	7		A	8	0	SPARE	E
xxx/1	E	RECEPTACLES - RM. 115	720	9	B		10	0	SPARE	E
xxx/1	E	ENERGY MANAGEMENT	500	11		C	12	720	ROOM 314 COMPUTER REC	E
xxx/1	E	RADIATION UNIT - TEACH. TOILET	800	13	A		14	0	EXISTING LOAD	E
20/2	E	RADIATION UNIT - MEN'S RM (114)	900	15		B	16	0	↓	↓
↓	↓	↓	900	17	C		18	0	SPARE	E
20/2	E	RADIATION UNIT - WOMEN'S RM (113)	900	19		A	20	0	↓	↓
↓	↓	↓	900	21	B		22	0	↓	↓
20/1	N	EF-301A, EF-303	312	23		C	24	0	SPACE	E
20/1	N	EF-313, EF-314	312	25	A		26	0	SPACE	E
15/2	N	FCU-300A	250	27		B	28	0	SPACE	E
↓	↓	↓	250	29	C		30	0	↓	↓
15/2	N	FCU-302, FCU-303	603	31		A	32	0	SPARE	E
↓	↓	↓	603	33	B		34	0	SPARE	R
15/2	N	FCU-313, FCU-314	770	35		A	36	0	↓	↓
↓	↓	↓	770	37	B		38	900	RADIATION - HALLWAY	E
-	E	SPACE	0	39		C	40	900	↓	↓
-	E	SPACE	0	41	A		42	0	SPACE	E
Connected Load Per Phase			PH A:	6255	PH B:	5523	PH C:	3952		
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps
Demand Factor		1.25	1.00	1.00	NEC	0.00	1.00	1.00	15729	43.7
Demand VA		0	8169	0	2160	0	0	5400	15729	43.7

PANEL X		VOLTAGE: 208/120		1 PH 3W		A/C RATING: 22K		REMARKS:			
		FEEDER AMP: 225		MAINS:		225 MLO		MOUNTING: WESTINGHOUSE FR11			
		LUGS:				ENCLOSURE:		NEMA 1			
BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR	
20/1	E	LIGHTS 5-116	1200	1	A	B	2	1200	LIGHTS 5-118, 5-119	E	20/1
20/1	E	LIGHTS 5-116	1200	3			4	1200	LIGHTS 5-115	E	20/1
20/1	E	LIGHTS 5-113, 5-114	1200	5	A	B	6	1000	EMERGENCY LIGHTS	E	20/1
20/1	E	EXHAUST FAN - BATHROOMS	500	7			8	1200	LIGHTS 5-120, 5-122	E	20/1
20/1	E	TELEPHONE CKT.	500	9	A	B	10	900	RECEPTS. 5-115, 5-116	E	20/1
20/1	E	RECEPTS. 5-118, 5-119	720	11			12	540	RECEPTS. 5-117	E	20/1
20/1	E	WEC	360	13	A	B	14	900	RECEPTS. 5-120, 5-122	E	20/1
20/1	E	EWG	360	15			16	540	RECEPTS. 5-104	E	20/1
20/1	E	UH-317 (ELEC 317)	120	17	A	B	18	540	RECEPTS. 5-104	E	20/1
-	E	SPACE	0	19			20	360	RECEPTS. 5-104	E	20/1
20/1	E	RECEPTS. LAB CASEWORK 5-105	720	21	A	B	22	540	RECEPTS. 5-104	E	20/1
20/1	E	RECEPTS. 5-104	540	23			24	5760	AC UNIT 5-117	E	60/2
-	E	SPACE	0	25	A	B	26	5760	↓	↓	↓
-	E	SPACE	0	27			28	0	SPACE	E	20/1
-	E	SPACE	0	29	A	B	30	0	SPACE	E	20/1
-	E	SPACE	0	31			32	0	SPACE	E	20/1
-	E	SPACE	0	33	A	B	34	0	SPACE	E	-
-	E	SPACE	0	35			36	0	SPACE	E	-
-	E	SPACE	0	37	A	B	38	0	SPACE	E	-
-	E	SPACE	0	39			40	0	SPACE	E	-
-	E	SPACE	0	41	A	B	42	0	SPACE	E	-
Connected Load Per Phase			PH A: 14940		PH B: 12920						
Lighting			HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps	
1200			120	0	19540	0	0	0	27860	133.9	
Demand Factor			1.25	1.00	1.00	NEC	0.00	1.00	1.00		
Demand VA			10250	120	0	14770	0	0	25140	120.9	

PANEL		C (AREA 3A) (Existing)		VOLTAGE:		3 PH 4W		A/C RATING:		22K		REMARKS:	
				FEEDER AMP:		MAINS:		22K		22K		SQUARE D NGQD C0RR. 300	
				225		225		MLO		ENCLOSURE:			
				LUGS:		FEED:		ENCLOSURE:		NEMA 1			
BKR	NOTE	LOAD DESCRIPTION		VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION		NOTE	BKR	
20/1	E	SPARE		0	1	A	2	312	EF-307 & EF-312		R	20/1	
20/1	E	SPARE		0	3		B	4	0	SPARE		E	20/1
20/1	E	SPARE		0	5	C		6	0	SPARE		E	20/1
20/1	E	SMART BOARD RM 312		900	7		A	8	0	SPARE		E	20/1
20/1	E	RECEPTACLES RM 107		900	9	B		10	0	SPARE		E	20/1
20/1	E	RECEPTACLES RM 307		900	11		C	12	0	SPARE		E	20/1
20/1	E	SPARE		0	13	A		14	900	RADIATION UNIT - HALLWAY		E	20/2
20/1	E	SPARE		0	15		B	16	900			L	20/1
70/2	E	SPARE		0	17	C		18	0	SPARE		E	20/1
↓	↓	↓		0	19		A	20	0	SPARE		E	70/2
70/2	E	SPARE		0	21	B		22	0	↓		↓	↓
↓	↓	↓		0	23		C	24	0	SPARE		E	70/2
15/2	N	FCU-307		426	25	A		26	0	↓		↓	↓
↓	↓	↓		426	27		B	28	0	SPACE		E	-
15/2	N	FCU-312		426	29	C		30	0	SPACE		E	-
↓	↓	↓		426	31		A	32	0	SPACE		E	-
-	E	SPACE		0	33	B		34	0	SPACE		E	-
-	E	SPACE		0	35		A	36	0	SPACE		E	-
-	E	SPACE		0	37	B		38	0	SPACE		E	-
-	E	SPACE		0	39		C	40	0	SPACE		E	-
-	E	SPACE		0	41	A		42	0	SPACE		E	-
Connected Load Per Phase PH A:				2964	PH B:			2226	PH C:			1326	
Connected VA		Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc			Total VA	Amps	
Demand Factor		0.125	2016	1.00	NEC	0.00	0.100	1800			6516	18.1	
Demand VA		0.1	2016	1.00	2700	0.0	0.1800	1800			6516	18.1	