



WOODLAND ELEMENTARY SCHOOL HVAC RENOVATION

BG #21-309
RADCLIFF, KENTUCKY

PACKAGE

CONSTRUCTION DOCUMENTS

1.18.2022

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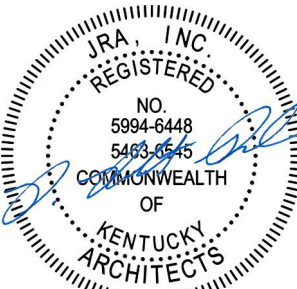
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RESERVED FOR AHJ STAMP

CONSTRUCTION DOCUMENTS

WOODLAND ELEMENTARY
SCHOOL HVAC RENOVATION
HARDIN COUNTY SCHOOLS
RADCLIFF, KENTUCKY



GENERAL

PROJECT	202159
DATE	1.18.2022

REVISIONS

No.	Description	Date

JRA ARCHITECTS HAS RETAINED AN ELECTRONIC VERSION OF THESE DRAWINGS. THE CLIENT AGREES NOT TO REUSE THESE DRAWINGS - IN ELECTRONIC OR ANY OTHER FORMAT - IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN FOR THE PROJECT. THE CLIENT AGREES NOT TO TRANSMIT THESE ELECTRONIC FILES TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT. THE CLIENT FURTHER AGREES TO WAIVE ALL CLAIMS AGAINST THE ARCHITECT RESULTING IN ANY WAY FROM ANY UNAUTHORIZED CHANGES TO OR REUSE OF THE ELECTRONIC FILES FOR ANY OTHER PROJECT BY ANYONE OTHER THAN THE ARCHITECT.

COVER SHEET

G-001

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ABBREVIATIONS

#	POUND OR NUMBER	EHD	ELECTRIC HAND DRYER	LAV	LAVATORY	REF	REFERENCE
&	AND	EJ	EXPANSION JOINT	LBL	LABEL	REFRIG	REFRIGERATOR
---	CENTERLINE	EL	ELEVATION	LG	LONG	REINF	REINFORCED
@	AT	ELEC	ELECTRICAL	LH	LEFT HAND	REQD	REQUIRED
		ELEV	ELEVATOR	LKR	LOCKER	RESIL	RESILIENT
A/C	AIR CONDITIONING	EMER	EMERGENCY	LLO	LIVE LOAD	REV	REVISION
AB	ANCHOR BOLT	ENCL	ENCLOSURE	LOR	LOCATION	RGRSTR	REGISTER
AC	ACRE	ENL	ENLARGED	LP	LOW POINT	RH	RIGHT HAND
ACOUS	ACOUSTICAL	ENTR	ENTRANCE	LT	LIGHT	RL	RAIN LEADER
AD	AREA DRIVEN	EP	ELECTRICAL PANEL	LTL	LINTEL	RM	ROOM
ADD	ADDENDUM	EQ	EQUAL	LWT	LIGHT WEIGHT	RO	ROUGH OPENING
ADJ	ADJUSTABLE	EQPT	EQUIPMENT			ROW	RIGHT OF WAY
ADJAC	ADJACENT	EST	ESTIMATE	MACH	MACHINE		
AESS	ARCHITECTURALLY EXPOSED	EWV	ELECTRIC WATER COOLER	MAINT	MAINTENANCE	S	SOUTH
ALUM	ALUMINUM	EXIST	EXISTING	MAS	MASONRY	SAB	SOUND ATTENUATION BLANKET
AND	AND	EXP	EXPANSION	MATL	MATERIAL	SAC	SUSPENDED ACOUSTICAL CEILING
AGGR	AGGREGATE	EXT	EXTERIOR	MAX	MAXIMUM	SAT	SUSPENDED ACOUSTICAL TILE
ALT	ALTERNATIVE			MB	MARKER BOARD	SC	SOLID CORE
ALUM	ALUMINUM	FA	FIRE ALARM	MECH	MECHANICAL	SCH	SCHEDULE
ANOD	ANODIZED	FBD	FLOOR DRAIN	MEMB	MEMBRANE	SD	STORM DRAIN
AP	ACCESS PANEL	FO	FLOOR CLEAN OUT	MET	METAL	SECT	SECTION
APPROX	APPROXIMATE	FOD	FLOOR DRAIN	MFR	MANUFACTURER	SF	SQUARE FOOT
ARCH	ARCHITECTURAL	FON	FOUNDATION	MH	MANHOLE	SHLF	SHELF
ASB	ASBESTOS	FE	FIRE EXTINGUISHER	MIN	MINIMUM	SHT	SHEET
ASPH	ASPHALT	FEC	FIRE EXTINGUISHER CABINET	MIR	MIRROR	SHWR	SHOWER
ATTEN	ATTENUATION	FF	FINISHED FLOOR	MISC	MISCELLANEOUS	SIM	SIMILAR
		FFE	FINISHED FLOOR ELEVATION	MO	MASONRY OPENING	SND	SANITARY NAPKIN DISPOSAL
BC	BACK OF CURB	FFL	FINISHED FLOOR LINE	MOD	MODULAR	SOB	SLAB ON GRADE
BD	BOARD	FHC	FIRE HOSE CABINET	MOV	MOVING	SP	SOUND PROOF
BDTM	BUTYLMUMS	FIN	FINISH	MT	MOUNT	SP	SPECIFICATION
BLDG	BUILDING	FL	FLOOR	MTD	MOUNTED	SPKR	SPEAKER
BLK	BLOCK	FLASH	FLASHING	MUL	MULLION		
BLKG	BLOCKING	FLUOR	FLUORESCENT			SS	SANITARY SEWER
BLKT	BLANKET	FOC	FACE OF CONCRETE	N	NORTH	SST	STAINLESS STEEL
BM	BEAM	FOF	FACE OF FINISH	N/A	NOT APPLICABLE	STA	STATION
BOT	BOTTOM	FOM	FACE OF MASONRY	NIC	NOT IN CONTRACT	STC	SOUND TRANSMISSION COEFFICIENT
BPL	BEARING PLATE	FOS	FACE OF STUD	NO	NUMBER	STD	STANDARD
BRG	BEARING	FPRF	FIREPROOF	NOM	NOMINAL	STL	STEEL
BRK	BRICK	FS	FULL SIZE	NTS	NOT TO SCALE	STR	STAIR
BSMT	BASEMENT	FT	FOOT OR FEET			STRUC	STRUCTURAL
BUR	BUILT UP ROOFING	FTG	FOOTING	OA	OVERALL	SUSP	SUSPENDED
		FV	FIELD VERIFY	OBS	OBSOLETE	SV	SQUARE YARD
CAB	CABINET			OC	ON CENTER	SY	SYMMETRICAL
CB	CATCH BASIN	GA	GAUGE	OC	OUTSIDE DIAMETER (DIM)	SYS	SYSTEM
CEM	CEMENT	GAUV	GALVANIZED	OF	OWNER FURNISHED / OWNER INSTALLED	T	TREAD
CER	CERAMIC	GB	GRAB BAR	OFOI	OWNER FURNISHED / OWNER INSTALLED	TAG	TONGUE AND GROOVE
CFM	CUBIC FEET PER MINUTE	GFI	GROUND FAULT INTERRUPTER	OG	OPPOSITE HAND	TB	TACK BOARD
CG	CORNER GUARD	GI	GALVANIZED IRON	OPNG	OPENING	TC	TOP OF CURB
CHB	CHALK BOARD	GL	GLASS	OPP	OPPOSITE	TEL	TELEPHONE
CJ	CONTROL JOINT	GRD	GROUND	OS	OUNCE	TEMP	TEMPORARY
CLG	CEILING	GR	GRATE	PA	PUBLIC ADDRESS	TER	TERRAZZO
CLKG	CEILING	GRG	GRATING	PAR	PARALLEL	THK	THICK
CLO	CLOSET	GWB	GYPSUM WALL BOARD	PC	PREGAST	THR	THRESHOLD
CLR	CLEAR	GYP	GYPSUM	PCF	POUNDS PER CUBIC FOOT	TOS	TOP OF STEEL
CMU	CONCRETE MASONRY UNIT			PEO	PEDESTAL	TOW	TOP OF WALL
CMW	CASEWORK / MILLWORK	HB	HOSE BIBB	PERF	PERFORATED	TP	TOILET PARTITION
CNTR	COUNTER	HBD	HARBORBOARD	PFM	PREFINISHED METAL	TSD	TOILET SEAT COVER
CO	CLEAN OUT	HC	HOLLOW CORE	PL	PLATE	TSPH	TOILET PAPER HOLDER
COL	COLUMN	HDWD	HARDWOOD	PLAM	PLASTIC LAMINATE	TSAT	THERMOSTAT
CONC	CONCRETE	HCT	HARDWARE	PLG	PLUMBING	TY	TYPICAL
CONSTR	CONSTRUCTION	HCT	HEIGHT	PNT	PANEL	UL	UNDERWRITERS LABORATORIES
CONT	CONTINUOUS	HM	HOLLOW METAL	PND	PAINTED	UNO	UNLESS NOTED OTHERWISE
CONV	CONVENTIONAL	HNDRL	HANDRAIL	POL	POLISHED	URNL	URINAL
CORR	CORRIDOR	HCRZ	HORIZONTAL	PR	PREFABRICATED	VB	VAPOR BARRIER
CPT	CARPET	HCP	HIGH POINT	PRF	PREFINISHED	VCT	VINYL COMPOSITION TILE
CR	CARD READER	HTG	HEATING	PROP	PROPERTY	VER	VERTICAL
CSMT	CASEMENT	HTR	HEATER	PRPL	PROPERTY LINE	VEST	VESTIBULE
CTR	CERAMIC TILE	HVAC	HEATING/VENTILATION/AIR CONDITIONING	PSF	POUNDS PER SQUARE FOOT	VNB	VINYL BASE
CT	CENTER	HW	HOT WATER	PT	POINT	VNT	VINYL TILE
CTSK	COUNTERSUNK			PTD	PAPER TOWEL DISPENSER	VTR	VENT THROUGH ROOF
		ID	INSIDE DIAMETER (DIM)	PTN	PARTITION	VWC	VINYL WALL COVERING
DBL	DOUBLE	IF	INSIDE FACE	PVC	POLYVINYL CHLORIDE	W	WEST
DEPT	DEPARTMENT	IN	INCH	PMT	PAVEMENT	WO	WITHOUT
DET	DETAIL	INCL	INCLUDE	PWD	PLYWOOD	WC	WATER CLOSET
DF	DRINKING FOUNTAIN	INCN	INCINERATOR			QTR	QUARTY TILE
DH	DOUBLE HUNG	INCL	INCLUDE			Q	QUARTY
DI	DIAMETER	INSUL	INSULATION			Q	QUARTY
DIA	DIAGONAL	INT	INTERIOR				
DIM	DIMENSION	IWV	INVERT				
DISP	DISPENSER	JAN	JANITOR				
DL	DEAD LOAD	JST	JOIST				
DN	DOWN	JT	JOINT				
DR	DOOR						
DS	DOWNSPOUT	KIT	KITCHEN				
DSP	DRY STANDPIPE	KO	KNOCK OUT				
DWG	DRAWING	KP	KEY PAD				
DWR	DRAWER						
		L	LENGTH				
E	EAST	LAB	LABORATORY				
EACH	EACH	LAM	LAMINATE				
EB	EXPANSION BOLT						

SYMBOLS LEGEND

	ACOUSTICAL CEILING PANEL		CONCRETE OR PRECAST CONCRETE (PLAN / ELEVATION)		PLYWOOD
	ALUMINUM		CRUSHED STONE		PRECAST CONCRETE (SECTION)
	BATT INSULATION		EARTH		RIGID INSULATION
	BRICK		E.I.F.S. (ELEVATION)		SOLID SURFACE
	CERAMIC OR QUARRY TILE		E.I.F.S. (SECTION)		STEEL
	CMU		GYPSUM BOARD (TYPE AS NOTED)		SOLID WOOD (TREATMENT AS NOTED)
	CONCRETE (SECTION)		LIMESTONE		WOOD (FINISH)
	ROOM NAME & ROOM NUMBER		NORTH ARROW		BUILDING SECTION
	ROOM NUMBER (RCP PLANS)		COLUMN GRID (NEW)		WALL SECTION
	DOOR OPENING INDICATOR		COLUMN GRID (EXIST)		DETAIL SECTION
	EXTERIOR WINDOW OPENING INDICATOR		BENCHMARK, LEVEL, OR SPOT ELEVATION		DETAIL CALLOUT OR ENLARGED PLAN
	INTERIOR WINDOW OPENING INDICATOR		KEYNOTE (SPEC REFERENCE)		EXISTING DOOR AND FRAME TO REMAIN
	PARTITION TYPE INDICATOR		NEW DOOR AND FRAME		REMOVE DOOR AND FRAME
	EQUIPMENT INDICATOR		ITEM TO BE REMOVED		MATERIAL INDICATOR
	CEILING INDICATOR		ITEM TO REMAIN		CONTROL JOINT
	DEMOLITION PLAN NOTE		CENTER LINE		
	PLAN NOTE				
	ACCENT WALL INDICATOR				

VICINITY MAP



APPLICABLE CODES/STANDARDS

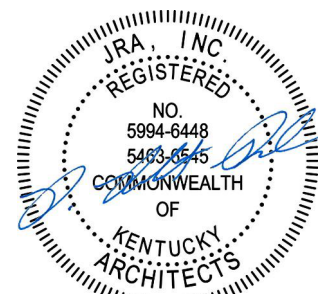
2018 KENTUCKY BUILDING CODE - (BASED ON THE 2015 INTERNATIONAL BUILDING CODE)
2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
2015 INTERNATIONAL MECHANICAL CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE (COMMERCIAL BUILDINGS)
2013 KENTUCKY PLUMBING LAW, REGULATIONS, & CODE (815 KAR Chapter 20)
2015 INTERNATIONAL FIRE CODE (IFC) - (NEW CONSTRUCTION PROJECTS, AND ONLY WHEN SPECIFICALLY REFERENCED BY THE BODY OF KBC)
1996 KENTUCKY STATE BOILER REGULATION (KRS 236, 815 KAR Chapter 15)
2012 NFPA 1 - UNIFORM FIRE CODE (AS DIRECTED BY 2015 KENTUCKY STANDARDS OF SAFETY)
2013 NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
2012 NFPA 54 - NATIONAL FUEL GAS CODE
2017 NFPA 70 - NATIONAL ELECTRICAL CODE
2013 NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE
GB-03-01 SEAC - SPECIAL INSPECTION GUIDELINES, THIRD EDITION, MARCH 2007
2015 INTERNATIONAL EXISTING BUILDING CODE
THE ABOVE IS FOR REFERENCE ONLY AND IS ONLY REPRESENTATIVE OF THE MANY CODES AND STANDARDS CURRENTLY USED IN KENTUCKY. FOR SPECIFICS, REFER TO CHAPTER 35 OF THE KBC AND IBC.

GENERAL NOTES

GENERAL NOTES - ARCHITECTURAL	GENERAL NOTES - CEILINGS
A. WORK SHOWN ON THE DRAWINGS SHALL BE BASE BID UNLESS SPECIFICALLY NOTED TO BE BY ALTERNATE BID.	A. CENTER CEILING GRIDS WITHIN ROOMS EACH DIRECTION UNLESS NOTED OTHERWISE.
B. FIELD VERIFY EXISTING FINISH FLOOR ELEVATIONS PRIOR TO STARTING CONSTRUCTION. MATCH NEW FLOOR ELEVATION WITH EXISTING UNLESS NOTED OTHERWISE.	B. LOCATE CEILING GRIDS WITHIN ROOMS SUCH THAT BORDERS CONTAIN NOT LESS THAN 1/2 TILE WIDTH UNLESS OTHERWISE INDICATED.
C. DIMENSIONS TO EXISTING CONSTRUCTION ARE TO FINISHED SURFACE. DIMENSIONS TO NEW CONSTRUCTION ARE TO STRUCTURAL CENTERLINE. FACE OF CONCRETE OR MASONRY CONSTRUCTION OR TO FINISH FACE OF FRAMED MEMBERS UNLESS NOTED OTHERWISE. FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO STARTING WORK AND NOTIFY ARCHITECT IMMEDIATELY IF DISCREPANCIES ARE FOUND BETWEEN CONTRACT DOCUMENTS AND ACTUAL FIELD CONDITIONS.	C. CENTER PENETRATIONS IN ACOUSTICAL CEILING SYSTEMS WITHIN INDIVIDUAL CEILING PANELS, SUCH AS SPRINKLER HEADS, DIFFUSERS, LIGHT FIXTURES, ETC., UNLESS OTHERWISE INDICATED.
D. WHERE A FIXED DIMENSION IS SHOWN ON AN ACCESSIBLE FIXTURE OR ACCESSORY, THAT ITEM SHALL BE INSTALLED EXACTLY AS DIMENSIONED. REFER TO THE ACCESSORY MOUNTING LEGEND FOR MOUNTING HEIGHTS.	D. PAINT EXPOSED GYPSUM BOARD AND PLASTER CEILING SURFACES UNLESS OTHERWISE INDICATED.
E. DO NOT SCALE DRAWINGS. REFER DIMENSION QUESTIONS TO ARCHITECT FOR INTERPRETATION.	E. PROVIDE CONTROL JOINTS (C/J) IN GYPSUM BOARD CEILING CONSTRUCTION AS INDICATED. WHERE NOT SHOWN, PROVIDE MAXIMUM SPACING BETWEEN JOINTS OF 30'-0". VERIFY FINAL CONTROL JOINT LOCATIONS WITH ARCHITECT PRIOR TO STARTING WORK WHETHER OR NOT INDICATED ON THE DRAWINGS.
F. DOOR AND FRAME NUMBERS CORRESPOND TO RESPECTIVE ROOM NUMBERS. IN ROOMS WITH MULTIPLE OPENINGS, A SURFIX HAS BEEN ADDED TO DOOR NUMBERS, I.E., A101-B.	F. CEILING ACCESS DOORS INDICATED ARE NOT INTENDED TO LIMIT NUMBER OF PANELS REQUIRED. PANEL QUANTITY SHALL BE SUFFICIENT TO PROVIDE REQUIRED ACCESS WHETHER OR NOT INDICATED ON THE DRAWINGS. VERIFY FINAL LOCATIONS WITH ARCHITECT PRIOR TO STARTING WORK.
G. COORDINATE EQUIPMENT WORK WITH MANUFACTURERS AND SUPPLIERS TO INSURE PROPER ROUGH-IN CLEARANCES FOR INSTALLATION, USE AND MAINTENANCE.	G. REFER TO FINISH PLANS FOR ADDITIONAL CEILING FINISH INFORMATION.
H. PROTECT EXISTING SURFACES TO REMAIN THAT ARE NOT INCLUDED IN SCOPE OF WORK BUT THAT ARE WITHIN AREAS OF CONSTRUCTION ACTIVITY.	H. REFER TO ELECTRICAL LIGHTING DRAWINGS FOR CEILING-MOUNTED LIGHT FIXTURE TYPES AND QUANTITIES.
J. VERTICAL COURSING FOR NEW MASONRY WALL CONSTRUCTION SHALL EQUAL EIGHT INCHES (8") FOR ONE CONCRETE MASONRY UNIT PLUS ONE MORTAR JOINT AND THREE BRICK COURSES PLUS THREE MORTAR JOINTS. UNLESS NOTED OTHERWISE.	J. REFER TO MECHANICAL DRAWINGS FOR CEILING-MOUNTED DIFFUSERS, GRILLE TYPES AND QUANTITIES.
K. TOOTH NEW MASONRY INTO EVERY OTHER COURSE OF EXISTING MASONRY UNLESS OTHERWISE INDICATED. PROVIDE HORIZONTAL ANCHORS BETWEEN NEW AND EXISTING MASONRY AT CONDITIONS THAT PROHIBIT TOOTHED-TYPE CONSTRUCTION. HORIZONTAL JOINTS OF NEW MASONRY SHALL MATCH EXISTING UNLESS OTHERWISE INDICATED. NEW MASONRY BOND SHALL MATCH EXISTING UNLESS OTHERWISE INDICATED.	K. REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER HEAD TYPES AND QUANTITIES. HEADS HAVE BEEN INTENTIONALLY OMITTED FROM REFLECTED CEILING PLANS FOR CLARITY.
L. VERIFY MOUNTING HEIGHTS OF ACCESSORIES, EQUIPMENT, DOOR HARDWARE, CASEWORK, ETC., AND PROVIDE SOLID 2X SUPPORT WOOD BLOCKING FASTENED TO FRAMING MEMBERS AS REQUIRED TO SUPPORT WEIGHT AND USE OF ITEMS. WHERE MOUNTING HEIGHTS ARE NOT INDICATED, MOUNT ITEMS IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS. COORDINATE LOCATIONS WITH MANUFACTURER OR SUPPLIER AND REFER MOUNTING HEIGHT QUESTIONS TO ARCHITECT FOR INTERPRETATION.	GENERAL NOTES - ROOFING
M. AT ALL EXTERIOR ENVELOPE CONDITIONS, SOLID WOOD BLOCKING INDICATED SHALL BE CONTINUOUS, U.N.O.	A. VERIFY SIZE, LOCATION AND NUMBER OF ROOF PENETRATIONS INCLUDING VENTS, PIPES, CURBS, ROOF DRAINS, CONDUTS, ETC. PROVIDE NEW FLASHING AND SEAL PENETRATIONS WHETHER OR NOT INDICATED ON THE DRAWINGS.
N. PROVIDE SEALANT BETWEEN HOLLOW METAL FRAME PERIMETERS AND SURROUNDING WALL CONSTRUCTION UNLESS OTHERWISE INDICATED.	B. COMPLETE WORKMANLIKE ROOF, SUCH AS MASONRY, WELDING, MASONRY RESTORATION, ETC., PRIOR TO STARTING ROOFING WORK.
P. PROVIDE SEALANT BETWEEN INTERIOR AND EXTERIOR WINDOW AND STOREFRONT FRAME PERIMETERS AND SURROUNDING CONSTRUCTION UNLESS OTHERWISE INDICATED.	C. VERIFY AND MAINTAIN ROOF SLOPES AND DRAINAGE PATTERNS. TEST FOR AND CORRECT ANY PONDING CONDITIONS.
Q. PROVIDE SEALANT BETWEEN DISSIMILAR MATERIALS SUCH AS GYPSUM BOARD AND MASONRY, MASONRY AND CONCRETE, COUNTERTOPS AND WALLS, ETC.	D. REPAIR AND REPLACE ROOFING SYSTEM OR STRUCTURE DAMAGED BY IMPROPER STORAGE, CONSTRUCTION ACTIVITIES, OR LACK OF ADEQUATE TEMPORARY PROTECTION. THIS ALSO INCLUDES INTERIOR DAMAGE TO FINISHES, EQUIPMENT, FURNISHINGS, ETC., RESULTING FROM LEAKS.
R. STAIRWELLS, ELEVATOR HOISTWAYS, ELEVATOR EQUIPMENT ROOMS, AND SHAFT WALLS SHALL BE [ONE] TWO-HOUR FIRE-RATED CONSTRUCTION UNLESS OTHERWISE INDICATED.	E. NEW BLOCKING SHALL BE PRESERVATIVE-TREATED WOOD.
S. REPAIR AND PATCH SPRAYED FIRE-RESISTIVE AND FIRESTOP MATERIALS WHERE DAMAGED DUE TO INSTALLATION OF NEW MATERIALS TO RESTORE SPECIFIED FIRE RATING.	F. CAP FASTENERS THAT PENETRATE ROOF DECK IN AREAS NOT CONCEALED BY CEILINGS WITH WIRE NUTS OR OTHER MEANS ACCEPTABLE TO ARCHITECT UNLESS OTHERWISE INDICATED. AREAS SUCH AS JANITOR CLOSETS, STORAGE, MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS, ETC., ARE EXEMPT FROM THIS REQUIREMENT UNLESS OTHERWISE INDICATED.
T. DO NOT BEGIN WORK THAT MAY REQUIRE COORDINATION, SUCH AS CEILING INSTALLATION, PRIOR TO FINAL SUBMITTAL OF MECHANICAL AND ELECTRICAL COORDINATION DRAWINGS TO ARCHITECT NOR PRIOR TO RESOLUTION AND APPROVAL OF COORDINATION ISSUES.	
V. REFER TO LIFE SAFETY DRAWINGS FOR FIRE-RATED FLOOR, WALL, CEILING AND ROOF LOCATIONS. INSTALL FIRESTOPPING AT PENETRATIONS IN FOOTING CONSTRUCTION AND AT TOPS OF RATED WALLS.	
W. REFER TO STRUCTURAL DRAWINGS FOR FOOTING, UNDERSLAB DRAINAGE AND BACKFILL REQUIREMENTS.	
X. REFER TO LANDSCAPE AND CIVIL DRAWINGS FOR SITE ELEMENTS AND IMPROVEMENTS ADJACENT TO BUILDING EXTERIOR.	
Y. REFER TO CIVIL DRAWINGS FOR FOUNDATION DRAINS AND STORM DRAINAGE REQUIREMENTS.	
Z. REFER TO CIVIL DRAWINGS FOR FINISH FLOOR ELEVATIONS RELATIVE TO SITE GRADING.	
GENERAL NOTES - DEMOLITION	
A. COORDINATE DEMOLITION WORK WITH NEW WORK. REMOVE ADDITIONAL EXISTING ITEMS AS REQUIRED TO PERFORM NEW WORK.	
B. REFER TO WORK RESTRICTIONS IN THE PROJECT MANUAL. CLOSELY FOLLOW THE PROJECT MANUAL REQUIREMENTS FOR THE LOCATIONS AND TYPES OF BARRICADES, WORKING HOURS, AND NOTIFICATIONS TO THE OWNER. COORDINATE DEMOLITION TO MAINTAIN PROTECTION OF THE EXISTING BUILDING.	
C. REFER TO THE PROJECT MANUAL SECTIONS ENTITLED "DEMOLITION" AND "SELECTIVE DEMOLITION".	
D. REFER TO THE MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS AND COORDINATE DEMOLITION WORK WITH ALL DISCIPLINES.	
E. COORDINATE ALL DEMOLITION WORK WITH PROJECT MANUAL SECTIONS ENTITLED "INFECTION CONTROL PROCEDURES" AND "INTERIM LIFE SAFETY MEASURES". DO NOT REMOVE AND TRANSPORT MATERIALS IN A MANNER THAT WOULD BE UNSAFE TO PATIENTS AND STAFF.	
F. SURFACES ADJACENT TO AREAS OF DEMOLITION WHICH ARE AFFECTED BY THE WORK SHALL BE PATCHED AND FINISHED TO MATCH ADJACENT SURFACES.	
G. PATCH, REPAIR AND RESTORE EXISTING FINISHES AND SURFACES TO "AS NEW CONDITION" AS REQUIRED TO MATCH SURROUNDING MATERIALS OR TO PROVIDE APPROPRIATE SUBSTRATE PRIOR TO INSTALLING NEW FINISHES. AREAS NOTED TO BE PATCHED OR REPAIRED ON THE DRAWINGS ARE GIVEN FOR REFERENCE AND SHALL NOT BE INTERPRETED TO LIMIT THE SCOPE OF WORK.	
H. CONTRACTOR SHALL PROVIDE TEMPORARY PARTITIONS TO AVOID MIGRATION OF DUST INTO ADJACENT OCCUPIED AREAS.	
J. ALL DEMOLITION SHALL BE DISPOSED OF IN A MANNER ACCEPTABLE TO LOCAL AND STATE REGULATORY AGENCIES.	

ARCHITECTURAL DIMENSIONING

1. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF THE WORK AT THE "APPROXIMATE LOCATION SHOWN," DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.	- CAUTION: DUE TO THE POSSIBLE APPLICATION OF APPLIED FINISHES - THICKNESS OF WHICH MAY VARY BETWEEN FLOOR AND CEILING AND IS NOT ACCOUNTED FOR (EXCEPT AS INDICATED BY "FOF" OR "CLEAR") BY THE DIMENSION SHOWN ON THE FLOOR PLANS - THE CONTRACTOR MUST ADJUST, AS NECESSARY, THE FLOOR PLAN DIMENSIONS TO REFLECT THE ACTUAL DIMENSIONS FOUND AT PLANE OF THE CEILING.
2. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN (OR MAY BE DERIVED FROM THOSE SHOWN OR NOTED ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, SCHEDULES, CONFIGURATION DETAILS, AND SPECIFICATIONS. SEE THE NOTES BELOW AND SYMBOLS ON SHEET G-101 FOR DIMENSIONING CONVENTIONS USED ON THIS PROJECT.	4. WHERE DIMENSIONS ARE NOT PROVIDED ON FLOOR PLANS, TO LOCATE DOOR OPENINGS, APPLY THE FOLLOWING RULES, IN ORDER, TO DETERMINE THE LOCATION OF DOOR OPENINGS:
3. EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY, ALL DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS CONFORM TO THE FOLLOWING CONVENTIONS:	A. DOOR OPENINGS MAY BE DIMENSIONED ON DRAWINGS OTHER THAN THE FLOOR PLANS. REFER TO THE SECTIONS, ELEVATIONS, DETAILS, AND DOOR SCHEDULE NOTES FOR ADDITIONAL DIMENSIONAL INFORMATION.
A. DIMENSIONS UTILIZING THE "CENTERLINE" SYMBOL ARE MEASURED TO:	B. WHERE THE HINGE-SIDE OF A DOOR IS SHOWN ADJACENT TO A WALL OR WALLS PERPENDICULAR TO THE WALL IN WHICH THE DOOR OPENING OCCURS:
- STRUCTURAL OR DIMENSIONAL GRID LINES.	- EXAMPLE A': AT DOORS OCCURRING IN METAL FRAMED GYPSUM BOARD PARTITIONS, LOCATE THE HINGE-SIDE OF THE DOOR 6 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.
- CENTERLINE OF CONCRETE OR CONCRETE MASONRY UNIT WALLS (EXCLUSIVE OF FURRING OR APPLIED FINISHES HAVING THICKNESS). REFER TO THE ARCH PLANS AND SECTIONS, THE STRUCTURAL DRAWINGS, OR PARTITION SCHEDULE TO DETERMINE THE THICKNESS OF CONCRETE OR CONCRETE MASONRY UNIT WALLS.	- EXAMPLE B': AT DOORS OCCURRING IN WALLS OF CONCRETE MASONRY UNIT CONSTRUCTION, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 10 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.
- CENTERLINE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS) AT PARTITIONS FRAMED WITH METAL STUDS. REFER TO "PARTITION SCHEDULE" TO DETERMINE THICKNESS OF EACH PARTITION TYPE.	C. WHERE DOOR OCCURS NOT ADJACENT TO A PERPENDICULAR WALL AND EITHER "DIM E" OR "DIM F" IS 16'-0" OR LESS, LOCATE DOOR UTILIZING THE FOLLOWING MINIMUM DIMENSIONS (EXAMPLE "C"):
- CENTERLINE OF DOOR, WINDOW, OR LOUVER OPENING.	- DIMENSION A = 18 INCHES MIN
- CENTERLINE OF EQUIPMENT OR FURNISHING.	- DIMENSION B = 12 INCHES MIN
- CENTERLINE OF OTHER FEATURES AS INDICATED.	- DIMENSION C = DOOR WIDTH + 2 INCHES MINIMUM
B. REFER TO SHEET G-101 FOR SYMBOL USED TO INDICATE CENTERLINE DIMENSION.	- DIMENSION D = 4 INCHES MIN AT METAL FRAMED GYP BD PARTITIONS OR EVEN MULTIPLE OF 1/2 CMU MODULE PLUS 2 INCHES AT CONCRETE MASONRY UNIT WALLS
C. DIMENSIONS UTILIZING THE "CLEAR" DESIGNATION ARE MEASURED TO:	- DIMENSIONS E AND F = AS SHOWN ON PLANS
- FACE OF CONCRETE OR CONCRETE MASONRY UNIT WALL (EXCLUSIVE OF APPLIED FINISHES HAVING THICKNESS OR FURRING WHICH MAY BE ADDED TO THE FACE OF SUCH WALLS).	- DIMENSION G = 36 INCHES MIN
- FACE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS) AS DEFINED BY THE PARTITION SCHEDULE. UNLESS NOTED AS A "FACE OF FINISH" OR "CLEAR" DIMENSION (SEE NOTE E' BELOW), DIMENSIONS ARE NOT MEASURED TO THE FACE OF APPLIED FINISH. REFER TO THE "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.	- DIMENSION H = 60 INCHES MIN
- INSIDE EDGE OF FINISHED DOOR OPENING. REFER TO THE "DOOR SCHEDULE" FOR ADDITIONAL DIMENSIONAL INFORMATION.	- IF SPACE ALLOWS, CENTER DOOR IN WALL SHOWN ON THE DRAWINGS SO THAT EITHER "DIM A" EQUALS "DIM C" OR "DIM B" EQUALS "DIM D"
- DIMENSION OR WORK POINT AS INDICATED ON RELATED ARCH. DETAIL PLAN, SECTION, ELEVATION, LAYOUT OR CONFIGURATION DETAIL, OR CONSTRUCTION DETAIL.	D. IF "DIM E" IN DIAGRAMS SHOWN IS LESS THAN THE SUM OF 2 TIMES THE DOOR WIDTH PLUS 20 INCHES, LOCATE DOOR SO THAT MINIMUMS STATED BY NOTE NO. 4C ABOVE FOR "DIM A", "DIM B", AND "DIM D" ARE MET - MAXIMIZING "DIM A" AND MINIMIZING "DIM D" TO THE EXTENT POSSIBLE (EXAMPLE "D").
D. WHERE "FACE OF FINISH" OR "CLEAR" DIMENSIONS ARE SPECIFICALLY NOTED, THE DIMENSION IS MEASURED TO:	E. WHERE DOOR IS SHOWN LOCATED IN A LARGE EXPANSE OF OPEN WALL "DIM E" AND "DIM F" IN DIAGRAM BELOW BOTH EXCEEDED 16'-0". PLACE DOOR AT APPROXIMATE LOCATION SHOWN ON THE PLANS. WHERE DOOR OCCURS IN CMU WALL, PLACE DOOR AT APPROXIMATE LOCATION SHOWN WHILE MINIMIZING "CUT" OR PARTIAL CMU MODULES BELOW THE JAMBS (EXAMPLE "E").
- FINISH FACES AT THE MOST NARROW OR CONSTRICTED POINTS OF SECTION WHERE DIMENSION IS SHOWN, WHEN THE DIMENSION OCCURS ACROSS AN OPEN SPACE. IN THIS CASE, A "FACE OF FINISH" DIMENSION IS EQUIVALENT TO A "CLEAR" DIMENSION.	5. WHERE WALLS AND/OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALIGN EXPOSED FACES, UNLESS OTHERWISE NOTED (EXAMPLE "F").
- FINISH FACES AT THE WIDEST OR MOST EXPANSIVE POINTS OF THE SECTION THE DIMENSION IS SHOWN WHEN THE DIMENSION OCCURS ACROSS AN OBJECT OR GROUP OF OBJECTS.	
E. WHERE "EQUAL" DIMENSIONS ARE USED ON REFLECTED CEILING PLANS TO LOCATE CEILING GRID WORK POINTS, MEASURE DIMENSIONS TO:	
- EDGE OF THE INDICATED CEILING AT THE FACE OF THE ADJACENT APPLIED FINISH MEASURED AT THE PLANE OF THE CEILING.	

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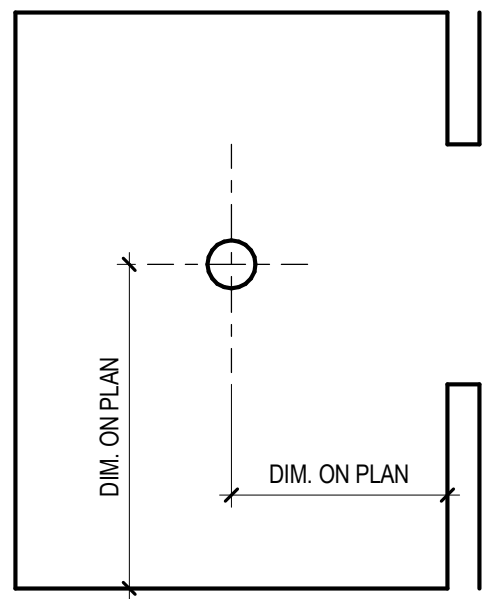
PROJECT 202159

DATE 1.1

TYPICAL RULES FOR DETERMINING REFLECTED CEILING PLAN ELEMENT LOCATIONS AND LAYOUT

LOCATE ITEM AS INDICATED WHEN SHOWN DIMENSIONED BY REFLECTED CEILING PLAN, ENLARGED REFLECTED CEILING PLAN, OR DETAIL.

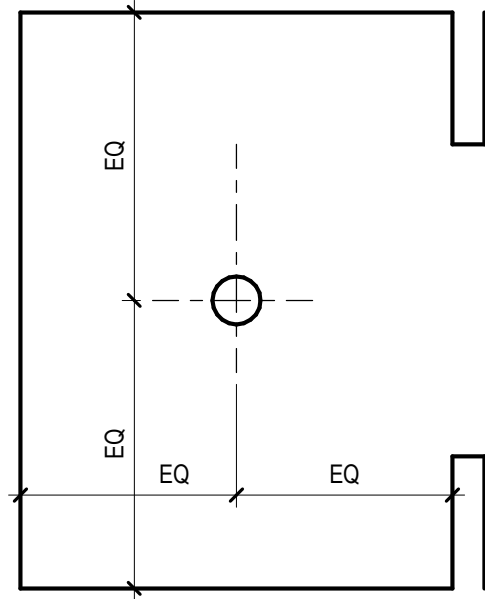
SPECIFIC DIMENSIONS SHOWN BY REFLECTED CEILING PLANS, ELEVATIONS, OR DETAILS TAKE PRECEDENCE OVER TYPICAL LOCATION RULES.



RULE 1

WHEN ELEMENT IS COMPLETELY DIMENSIONED ON REFLECTED CEILING PLAN

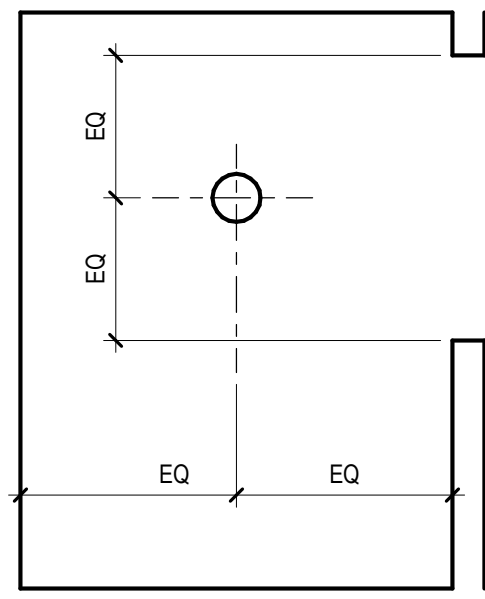
LOCATE ITEM CENTERED IN SPACE (OR CEILING PLANE) WHEN SHOWN (BUT NOT DIMENSIONED) GRAPHICALLY AT APPROXIMATE CENTER OF SPACE.



RULE 2

WHEN NOT DIMENSIONED, BUT SHOWN CENTERED

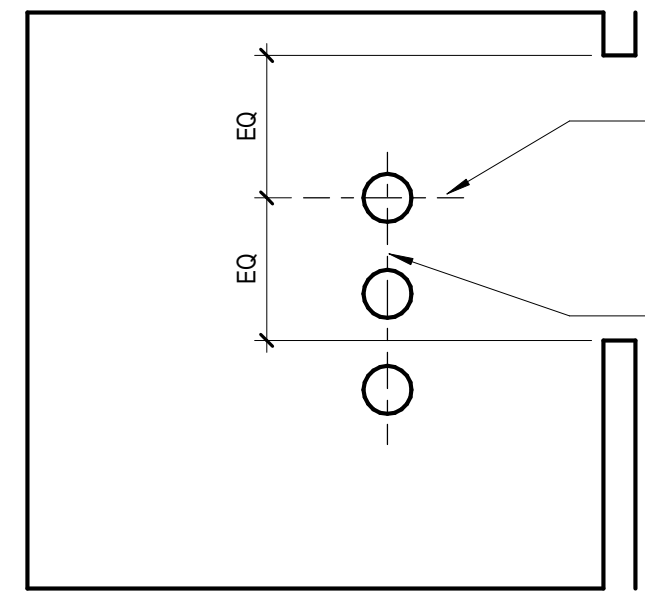
LOCATE ITEMS CENTERED ON ADJACENT OPENING, ELEMENT, OR FEATURE WHEN SHOWN (BUT NOT DIMENSIONED) OFF-CENTER IN OVERALL SPACE BUT CENTERED AGAINST ADJACENT ELEMENT.



RULE 3

WHEN OFF CENTER IN SPACE BUT CENTERED ON ADJACENT ELEMENT

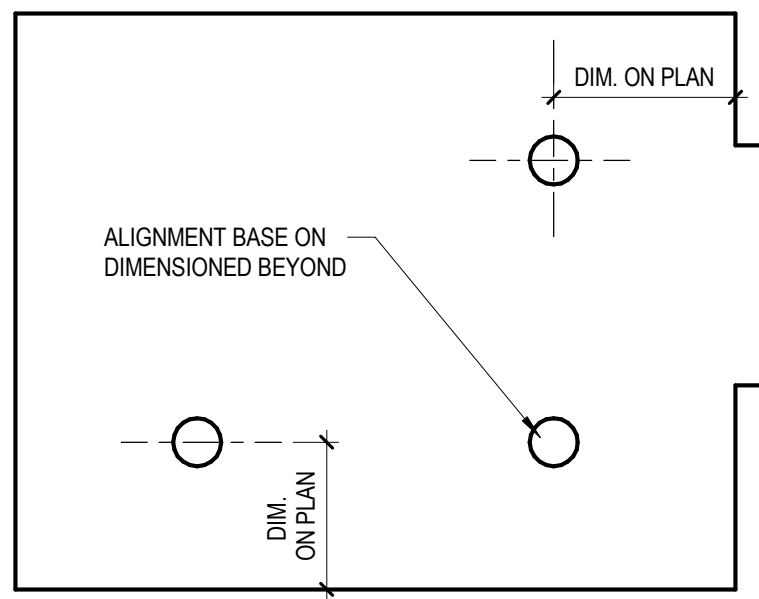
LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC.) ALIGNED WITH ADJACENT ITEMS FOR WHICH DIMENSIONS OR RULES ARE PROVIDED. VISUAL ALIGNMENT IS CRITICAL. THE CONTRACTOR SHALL SELECT ONE ITEM IN EACH LINE (ON BASIS OF TOLERANCE, SEQUENCE OF CONSTRUCTION, TRADE, OR OTHER CRITERIA) TO SERVE AS THE ALIGNMENT BENCHMARK.



RULE 4

WHEN ALIGNED WITH OTHER FEATURES

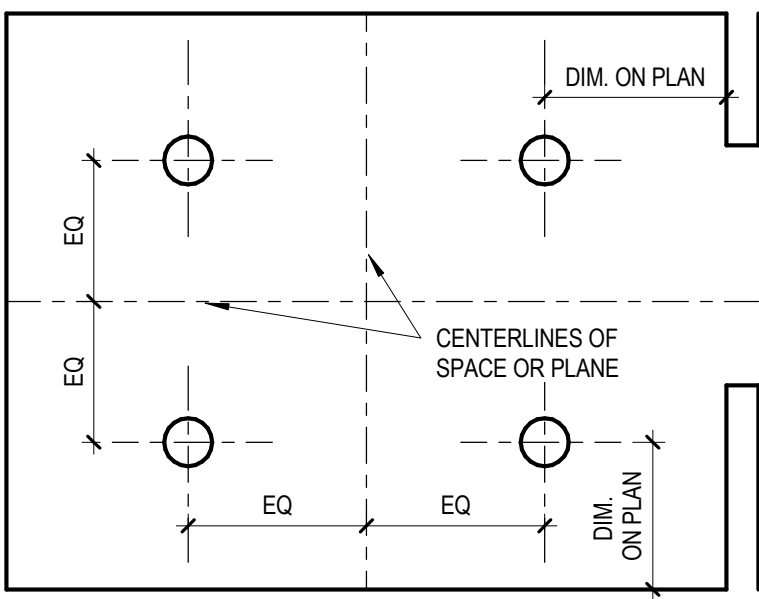
LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE (OR CEILING PLANE).



RULE 5

ALIGN WITH FEATURES SHOWN DIMENSIONED ELSEWHERE IN SPACE

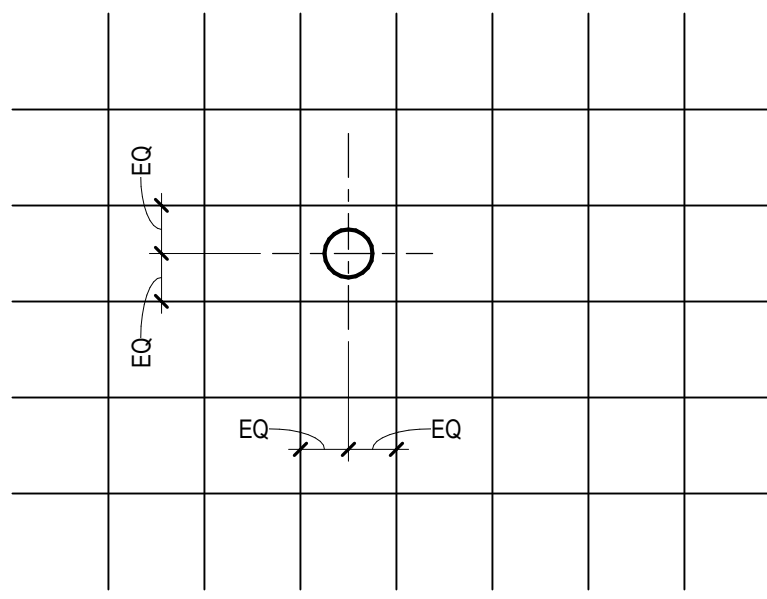
LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE (OR CEILING PLANE).



RULE 6

LOCATE ELEMENTS SYMMETRICALLY

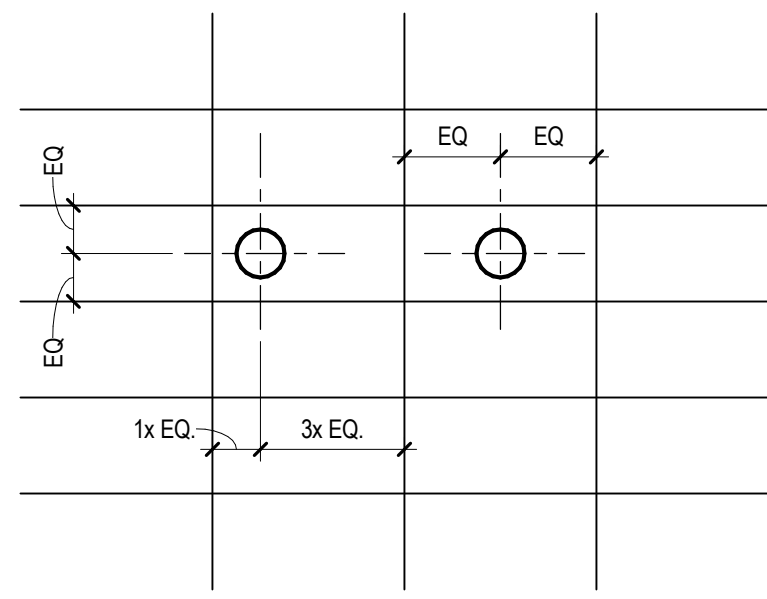
LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC.) AT CENTER OF PANEL ON SQUARE GRID CEILINGS.



RULE 7

WHEN NOT DIMENSIONED BUT OCCURS IN SQUARE PANEL

LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC.) AT CENTER OF SHORT PANEL DIRECTION AND 1/4, 1/2, OR 3/4 POINT OF LONG PANEL DIRECTION.



RULE 8

WHEN NOT DIMENSIONED BUT OCCURS IN RECTANGULAR PANEL

GENERAL NOTES - LAYOUT

A. THE G-SERIES OF DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS. THE G-SERIES DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND LOCATION OF ALL PARTS OF THE WORK.

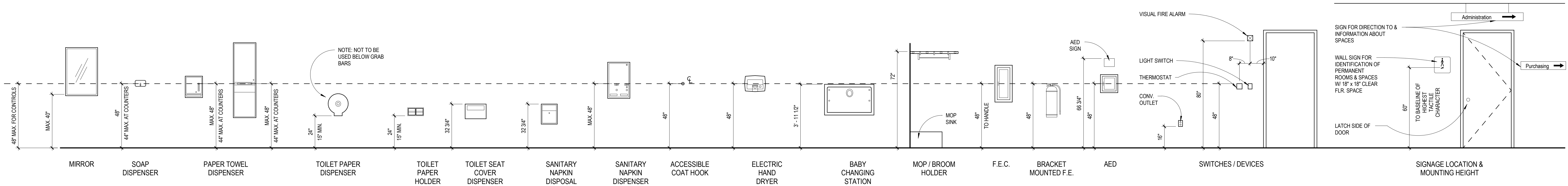
EXCEPTION: DIMENSIONED LOCATIONS SHOWN ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE THE FOLLOWING CONDITIONS OCCUR:

- A. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYED NOTE, OR NOTATION ON THE ARCHITECTURAL DRAWINGS.
- B. OCCURRING WITHIN A ROOM OR OTHER IDENTIFIABLE SPACE FOR WHICH ARCHITECTURAL SHEET OF SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.
- C. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE TYPICAL RULES WHICH GOVERN THE LOCATION, CONFIGURATION IN RELATIONSHIP TO OTHER ELEMENTS OF THE WORK, AND FINISHED ALIGNMENT OF ALL ITEMS OCCURRING ON PLANS AND REFLECTED CEILING PLANS OF THE PROJECT.
- D. THE A-SERIES FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, AND DETAILS ILLUSTRATE DIMENSIONED LOCATION OF MANY, BUT NOT ALL, EXPOSED PARTS OF THE WORK. APPLY THE LAYOUT RULES SHOWN ON THIS SHEET - IN ORDER - TO DETERMINE THE LOCATION OF THE EXPOSED PART OF THE WORK.
- A. WHEN UNIQUELY AND SPECIFICALLY DIMENSIONED ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS (OR COMBINATION THEREOF), LOCATE AS DIMENSIONED.
- B. IF NOT SHOWN, OR SHOWN BUT NOT DIMENSIONED, BY THE A-SERIES PLANS OR ELEVATIONS, LOCATE AS INDICATED BY THE APPLICABLE RULE.
- D. REFER TO THE "GENERAL NOTES" FOR ADDITIONAL NOTES WHICH APPLY TO THE ENTIRE PROJECT.

GENERAL NOTES - ACCESSORY MOUNTING HEIGHTS

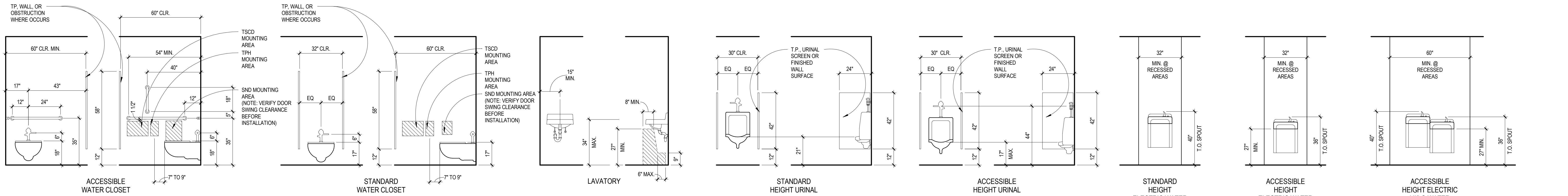
- A. IT IS THE INTENT OF THE DESIGN THAT ALL ITEMS SHOWN MOUNTED AT TYPICAL HEIGHTS BE ACCESSIBLE TO PERSONS WITH DISABILITIES.
- B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE TYPICAL MOUNTING HEIGHTS AND - WHERE APPLICABLE - TYPICAL MINIMUM OR MAXIMUM CLEARANCES AND/OR TYPICAL MOUNTING CONFIGURATIONS FOR A VARIETY OF ITEMS. CAUTION: THIS SHEET MAY ILLUSTRATE ITEMS OR CONFIGURATIONS WHICH DO NOT OCCUR AS PART OF THE WORK OF THIS PROJECT. REFER TO THE PLANS, ELEVATIONS, SECTIONS, DETAILS AND SCHEDULES TO DETERMINE WHICH ITEMS AND CONFIGURATIONS APPLY TO THE WORK OF THIS PROJECT.
- C. THE MOUNTING HEIGHTS, CLEARANCES, AND CONFIGURATIONS SHOWN ON THIS SHEET ARE TYPICAL AND SHALL APPLY TO ALL INSTANCES OF THE ITEM (OR GROUP OF ITEMS) SHOWN UNLESS SPECIFICALLY NOTED OR DIMENSIONED OTHERWISE.
- D. SPECIAL OR NON-TYPICAL MOUNTING HEIGHTS OCCUR ONLY WHERE INDICATED BY ANNOTATED SYMBOLS BY KEY NOTES BY NOTES ON PLANS, ELEVATIONS, OR DETAILS, OR BY UNIQUE DIMENSIONS ON ELEVATIONS OR DETAILS.
- E. MOUNTING HEIGHTS, DIMENSIONS, CLEARANCES, AND ACCESS REQUIREMENTS FOR TOILET ACCESSORIES SHOWN ON THIS SHEET ARE BASED UPON SPECIFIC MANUFACTURERS AND MODELS AS INDICATED BY THE "EQUIPMENT SCHEDULE". WHEN SIMILAR ACCESSORIES OR OTHER SPECIFIED ACCEPTABLE MANUFACTURES (IF ANY) ARE UTILIZED, MOUNTING HEIGHTS, CLEARANCES, AND ACCESS REQUIREMENTS OF THE SIMILAR ACCESSORIES MAY VARY FROM THOSE SHOWN. WHEN SIMILAR ACCESSORIES ARE UTILIZED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIRED TO ACHIEVE THE SAME AESTHETIC AND FUNCTIONAL DESIGN INTENT ILLUSTRATED BY THAT SHOWN ON THE DRAWINGS.
- F. TACTILE EXIT SIGNS: A TACTILE EXIT SIGN STATING "EXIT" AND COMPLYING WITH ANSI A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN EGRESS STAIRWAY, AN EXIT PASSAGEWAY AND EXIT DISCHARGE.

FIXTURE, DEVICE, AND ACCESSORY MOUNTING HEIGHTS



TOILET ACCESSORIES, DEVICE, AND EQUIPMENT MOUNTING HEIGHTS

(NOTE: SOME ITEMS SHOWN MAY NOT BE APPLICABLE TO THE PROJECT)



PLUMBING FIXTURES AND ACCESSORIES MOUNTING HEIGHTS

(NOTE: SOME ITEMS SHOWN MAY NOT BE APPLICABLE TO THE PROJECT)

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RADCLIFF, KENTUCKY



GENERAL

PROJECT 202159
DATE 1.18.2022

REVISIONS

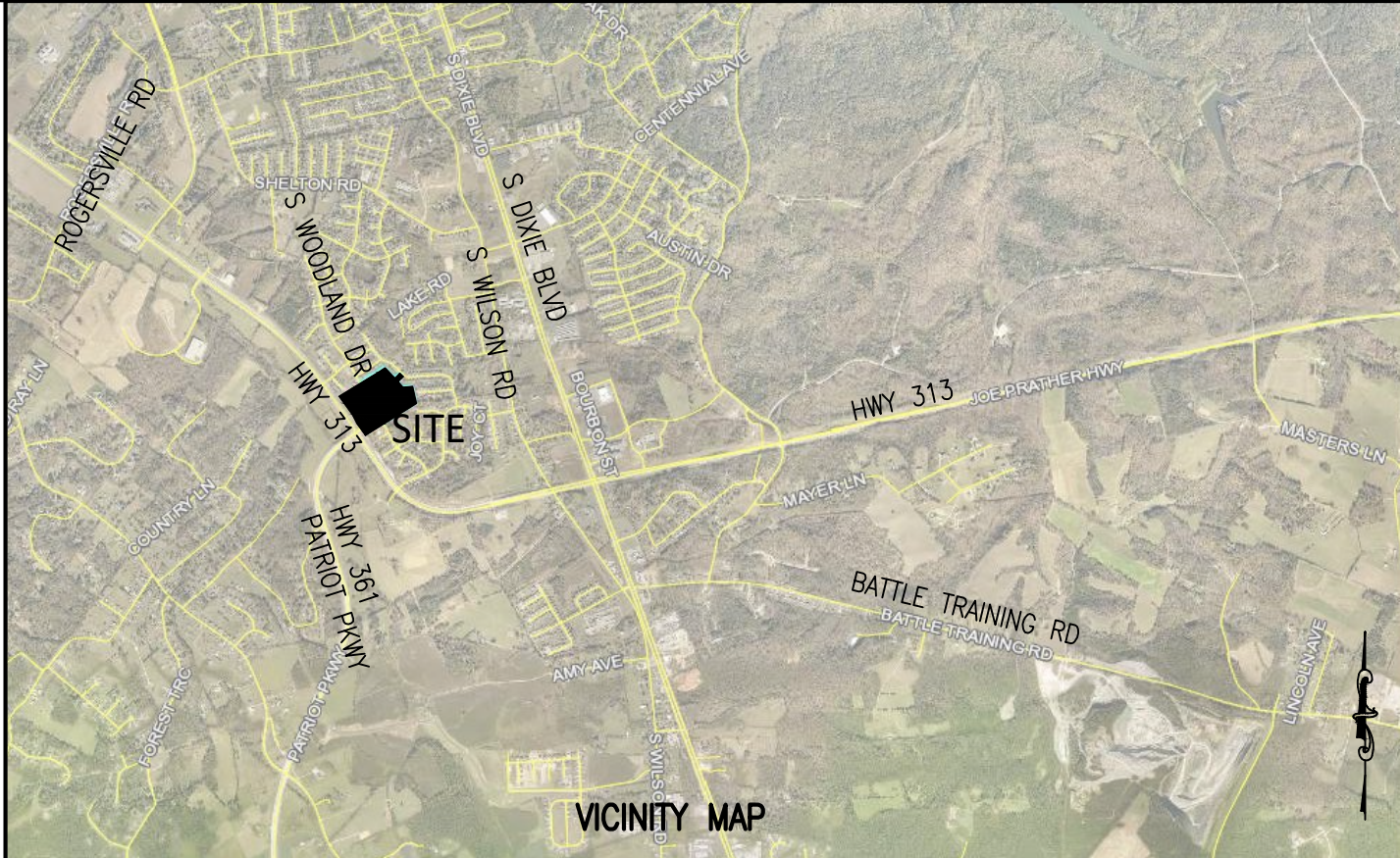
No.	Description	Date

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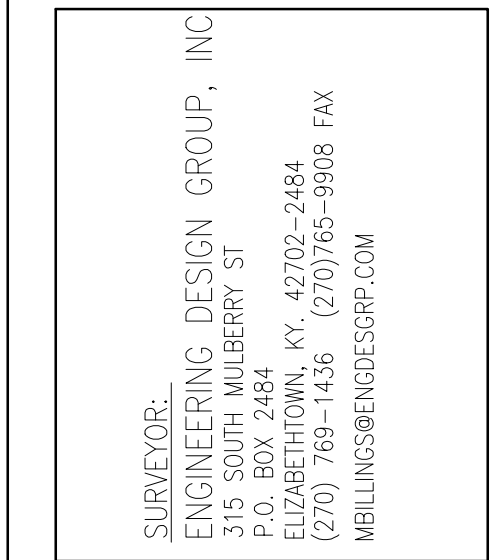
LOCATIONS
AND LAYOUT
RULES

G-102

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STATE OF KENTUCKY
MICHAEL F. BILLINGS
3472
LICENSED
PROFESSIONAL
LAND SURVEYOR
12/14/2021



DESIGN DEVELOPMENT	WOODLAND ELEMENTARY SCHOOL HVAC RENOVATION HARDIN COUNTY SCHOOLS RADCLIFF, KENTUCKY
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[illegible]

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**EXISTING
BOUNDARY
AND
TOPOGRAPHIC
SURVEY**

C-101

HCEE/WOODLAND-2021/WOODLAND-ES-BASE-2021-SURVEY-2

THIS PROPERTY IS SUBJECT TO ANY AND ALL RIGHTS OF WAY, APPURTENANCES, RESTRICTIONS AND/ OR EASEMENT IN EFFECT TO DATE.

2. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR OTHER INTERESTS AFFECTING AN ACQUISITION AND CURRENT TITLE SEARCH.

3. ADJOINING PROPERTY OWNERS ARE ACCORDING TO THE HARDIN COUNTY PROPERTY VALUATION OFFICE.

4. THE FIELD SURVEY FOR THIS PROPERTY WAS PERFORMED: NOVEMBER 2021.

5. THIS PROPERTY IS LOCATED ALONG THE EAST AND WEST RIGHT OF WAY OF WOODLAND DRIVE AND ALONG THE EAST RIGHT OF WAY OF KY HWY 313, (JOE PRATHER HIGHWAY) IN THE CITY OF RADCLIFF IN THE COUNTY OF HARDIN COUNTY, KY.

6. THIS SURVEY IS REFERENCED TO GRID NORTH KY 1602 SOUTH ZONE NAD83 STATE PLANE COORDINATES.

7. PRIOR TO ANY NEW CONSTRUCTION ON THIS PROPERTY THE CURRENT OWNER SHALL CONTACT THE APPLICABLE UTILITY COMPANIES TO VERIFY THE UTILITY EASEMENT LOCATIONS AND WIDTHS TO ENSURE AS NOT TO ENCROACH ON ANY EXISTING EASEMENTS.

8. THIS SURVEY CONFORMS WITH 201 KAR 146.150

9. METHOD OF SURVEY: GPS & RANDOM TRAVERSE WITH SIDESHOTS.

10. THIS SURVEY DOES NOT GUARANTEE ACCESS RIGHTS TO ANY LAND SHOWN HEREON FROM ANY STATE, COUNTY OR OTHER ROADWAY OF ANY KIND.

11. THE SURVEYOR HAS REVIEWED THE RECORD PLAT OF HARDIN COUNTY SCHOOL BOARD SUBDIVISION NORTH AS RECORDED IN PLAT CABINET 1 SHEET 1727 IN THE OFFICE OF THE HARDIN COUNTY CLERK.

12. THE RIGHT OF WAY OF KY. HWY. 313 (JOE PRATHER HWY), WAS DEDICATED VIA DEED BOOK 616 PAGE 122 AS RECORDED IN THE OFFICE OF THE HARDIN COUNTY CLERK.

13. THE RIGHT OF WAY OF BRYER BOLLIVARD WAS DEDICATED VIA THE RECORD PLAT OF HILLTOP TERRACE SECTION 40 AS RECORDED IN PLAT CABINET 1 SHEET 2493 IN THE OFFICE OF THE HARDIN COUNTY CLERK.

14. THE LAND SHOWN HEREON IS CURRENTLY ZONED AGRICULTURAL BY THE CITY OF RADCLIFF. LOT 2 AS SHOWN HEREON IS CURRENTLY ZONED COMMERCIAL BY THE CITY OF RADCLIFF.

15. TOTAL PROPERTY AREA = LOT 1 = 348,398 sq. - 7,998 ACRES. LOT 2 = 609,957 sq. - 14,003 ACRES.

16. DATE OF AERIAL DRONE IMAGERY - NOVEMBER 27, 2021.

17. THE UTILITY INFORMATION AS SHOWN HEREON IS BASED UPON FIELD LOCATION OF THE EXISTING UTILITIES AS PROVIDED BY THE RESPECTIVE UTILITY COMPANY IN RESPONSE TO THE BID REQUEST, UTILITIES LOCATED BY THE OWNER, AND INFORMATION AVAILABLE FROM FORMER CONSTRUCTION DOCUMENTS AS PROVIDED BY THE OWNER. THE SURVEYOR HEREBY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF SAID UTILITY LINES. THE SURVEYOR ALSO ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDETERMINED UTILITIES.

18. PER GENERAL NOTE #5 AS SHOWN ON RECORD PLAT OF HARDIN COUNTY SCHOOL BOARD SUBDIVISION NORTH AS RECORDED IN PLAT CABINET 1 SHEET 1727 IN THE OFFICE OF THE HARDIN COUNTY CLERK, "THE SOLE PURPOSE OF THE 50 FOOT INGRESS/EGRESS EASEMENT SHOWN ON LOT 1 IS TO PROVIDE PRIVATE ACCESS TO LOT 2."

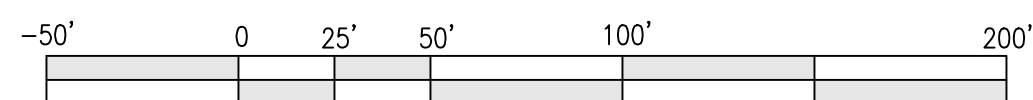
_____	PROPERTY LINE
_____	DRAINAGE & UTILITY EASEMENT (DR & UTIL)
_____	ADJOINING PROPERTY LINE
_____	BUILDING SETBACK LINE (B/L)
- X - X - X -	FENCELINE
- G - G - G -	EXISTING GAS LINE
- E - E - E -	EXISTING OVERHEAD UTILITY LINE
- UGE - UGE - UGE -	EXISTING UNDERGROUND ELECTRIC LINE
- GEO - GEO - GEO -	EXISTING GEOTHERMAL LINE
- FO - FO - FO -	EXISTING FIBER OPTIC LINE
- S - S - S -	EXISTING SANITARY SEWER LINE
- W - W - W -	EXISTING WATER LINE
_____	EXISTING CONTOUR (1-FOOT INTERVAL)
_____	EXISTING INDEX CONTOUR (5-FOOT INTERVAL)

- SET 1/2" DIA X 18" LONG IRON PIN WITH YELLOW SURVEYORS IDENTIFYING CAP STAMPED "BILLINGS LS 3472"
- FOUND 1/2" DIA IRON PIN WITH YELLOW SURVEYORS IDENTIFYING CAP STAMPED "HAWKINS LS 2511"
- FOUND 1/2" DIA IRON PIN WITH NO SURVEYORS IDENTIFYING CAP
- ◎ FOUND 1" SOLID PIPE
- ▲ CALCULATED POINT AT RIGHT OF WAY FENCE PULL POST
- △ SET MAG NAIL AS NOTED

I HEREBY CERTIFY THAT THE SURVEY DEPICTED BY THIS PLAN WAS DONE BY PERSONS UNDER MY DIRECT SUPERVISION BY THE METHOD OF RANDOM TRAVERSE AND GPS METHODS USING A TRIMBLE R-8 SERIES (RTK METHOD) RECEIVER. 100% OF THE BOUNDARY CORNERS ESTABLISHED ON THE SURVEY SHOWN HEREON WERE SET USING TOTAL STATION METHODS. THE ACCURACY OF THIS SURVEY IS CLASSIFIED AS URBAN AND MEETS ALL THE ACCURACY & PRECISION SPECIFICATIONS OF THIS CLASS. +/- 0.05 FT (100 PPM). THE DIMENSIONS AND COORDINATES AS SHOWN HEREON ARE GRID DISTANCES AND COORDINATES. THE ANGULAR AND LINEAR MEASUREMENTS HAVE NOT BEEN ADJUSTED FOR CLOSURE AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Michael P. Billings December 14, 2021

MICHAEL P BILLINGS, KY PLS 3472 DATE



DATE: DECEMBER 10, 2021

SCALE: 1" = 50'

FLOOD HAZARD AREA NOTE

AS INDICATED ON THE FLOOD INSURANCE RATE MAPS (FIRM), MAP NUMBER 21093C0141D, EFFECTIVE AUGUST 16, 2007, THIS SITE IS LOCATED IN ZONE X WHICH HAS BEEN DETERMINED TO BE OUTSIDE THE 500 YEAR FLOOD PLAIN. FLOOD PLAIN CERTIFICATION IS RESTRICTED TO A REVIEW OF THE FLOOD INSURANCE RATE MAPS (FIRM) (LATEST REVISION) AND SHALL NOT BE CONSTRUED AS A CONFIRMATION OR DENIAL OF FLOODING POTENTIAL.

OWNER

HARDIN COUNTY SCHOOL DISTRICT FINANCE CORPORATION
65 WA JENKINS RD
ELIZABETHTOWN KY 42701

DEED SOURCE

PVA MAP #	OWNER	DEED SOURCE
162-00-00-033.01	HARDIN COUNTY SCHOOL DISTRICT FINANCE CORP	DB 848 PG 386
	RECORD PLAT OF HARDIN COUNTY SCHOOL BOARD SUBDIVISION NORTH	
	PC 1 SHT 1727 LOTS 1 & 2	

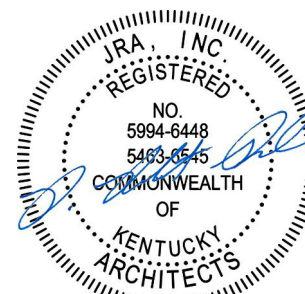


DEMOLITION KEYNOTES

- 1 REMOVE PORTION OF LIMESTONE CAP ON RETAINING WALL FOR NEW WORK
- 2 REMOVE PORTION OF EXTERIOR WALL FOR DUCT PENETRATION

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CONSTRUCTION DOCUMENTS

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RADCLIFF, KENTUCKY



ARCHITECTURAL

PROJECT 202159

DATE 1.18.2022

REVISIONS

No.	Description	Date

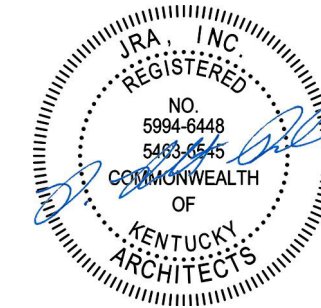
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**FIRST FLOOR
DEMOLITION
PLAN - AREA A**

A-001A

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- DEMOLITION KEYNOTES
- 1 REMOVE PORTION OF LIMESTONE CAP ON RETAINING WALL FOR NEW WORK
 - 2 REMOVE PORTION OF EXTERIOR WALL FOR DUCT PENETRATION



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CONSTRUCTION DOCUMENTS

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SCHOOL HVAC RENOVATION**
HARDIN COUNTY SCHOOLS
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**FIRST FLOOR
DEMOLITION
PLAN - AREA B**

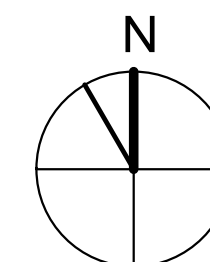
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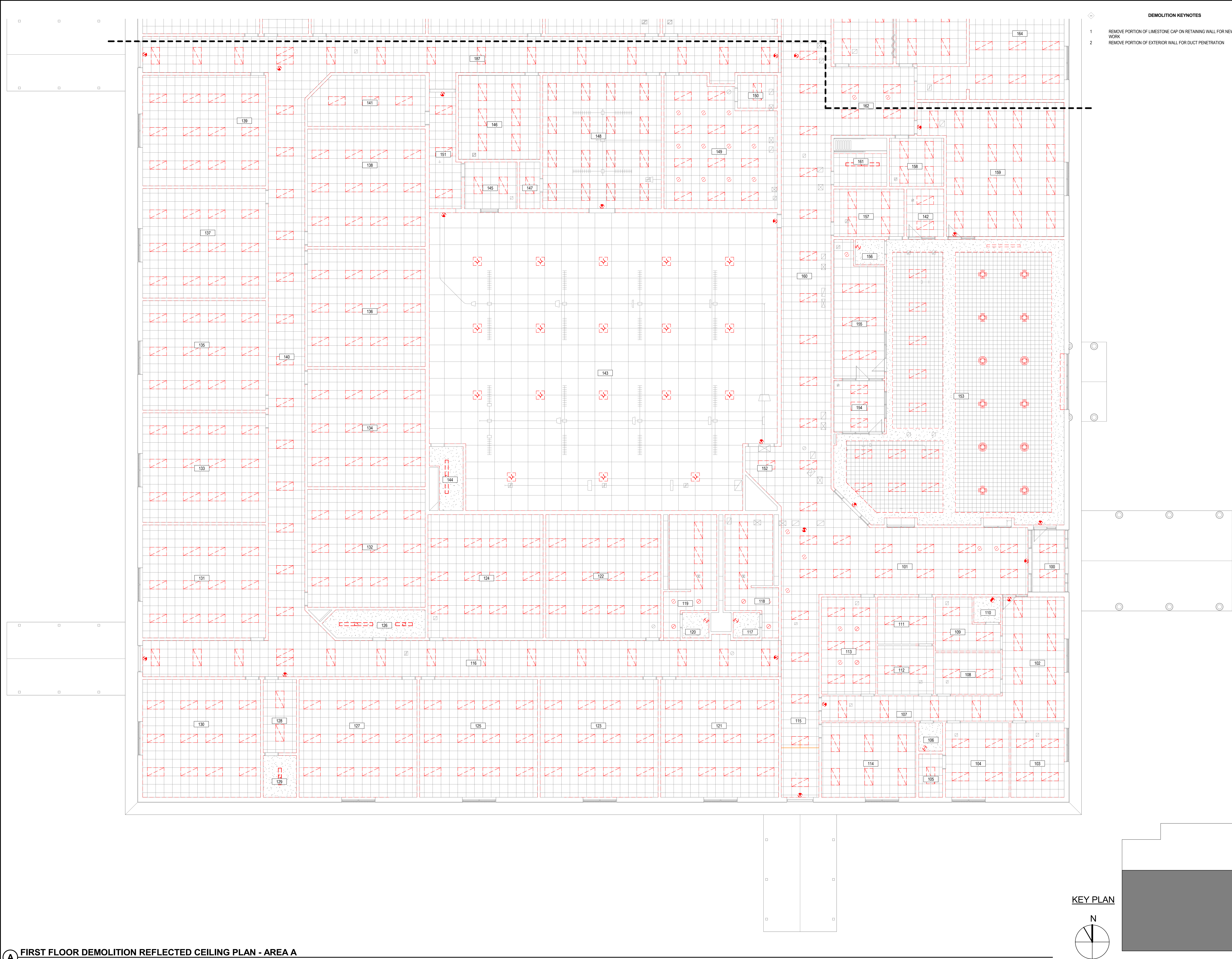
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A FIRST FLOOR DEMOLITION PLAN - AREA B

1/8" = 1'-0"

KEY PLAN

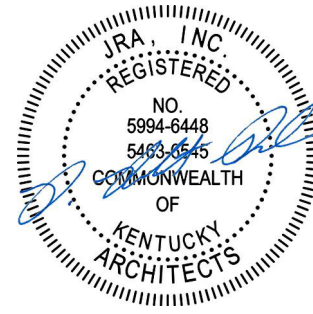




DEMOLITION KEYNOTES

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- 2 REMOVE PORTION OF EXTERIOR WALL FOR DUCT PENETRATION

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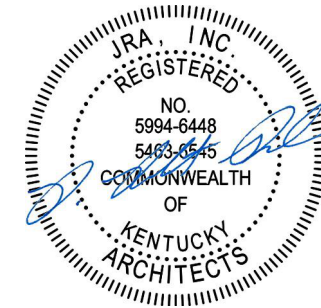
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**FIRST FLOOR
DEMOLITION
REFLECTED
CEILING PLAN -
AREA A**

A-010A

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- DEMOLITION KEYNOTES
- 1 REMOVE PORTION OF LIMESTONE CAP ON RETAINING WALL FOR NEW WORK
 - 2 REMOVE PORTION OF EXTERIOR WALL FOR DUCT PENETRATION



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**FIRST FLOOR
DEMOLITION
REFLECTED
CEILING PLAN -
AREA B**

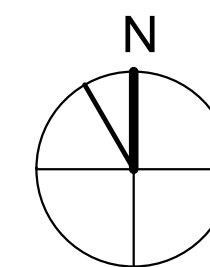
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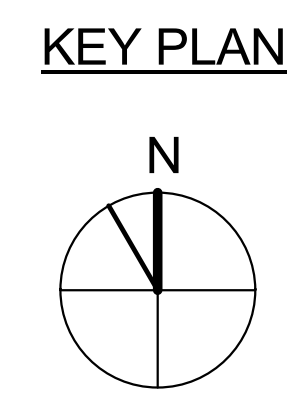
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A FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN - AREA B

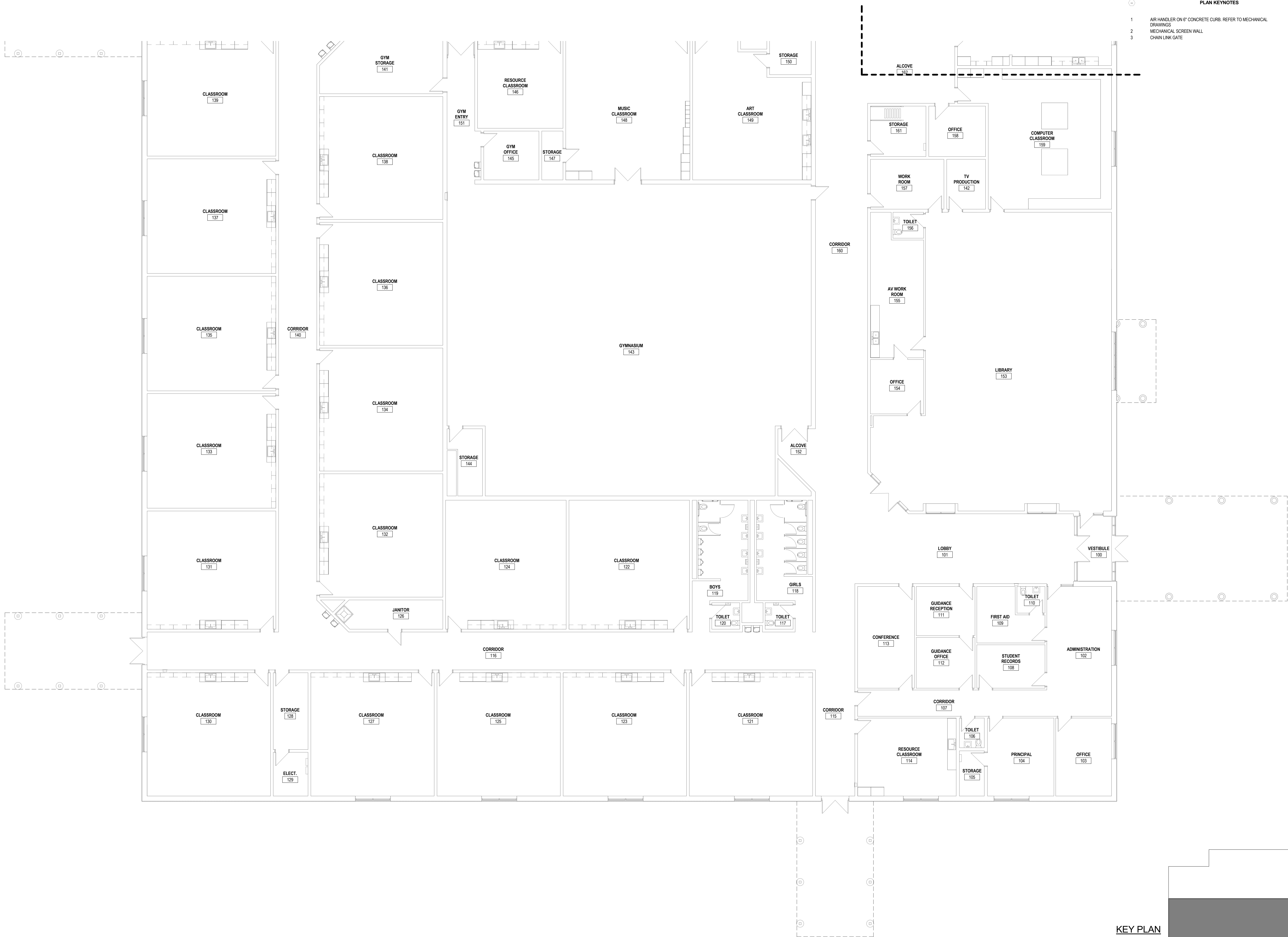
1/8" = 1'-0"

KEY PLAN





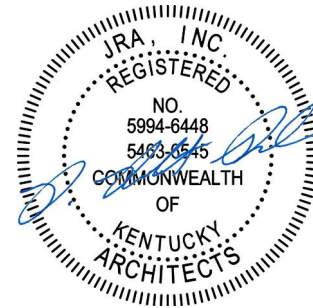
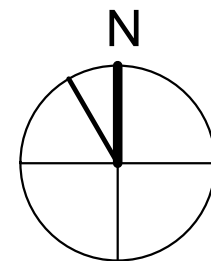
A FIRST FLOOR PLAN - AREA A
1/8" = 1'-0"



PLAN KEYNOTES

- 1 AIR HANDLER ON 6" CONCRETE CURB. REFER TO MECHANICAL DRAWINGS
- 2 MECHANICAL SCREEN WALL
- 3 CHAIN LINK GATE

KEY PLAN



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FIRST FLOOR
CALLOUT PLAN
- AREA A

A-111A

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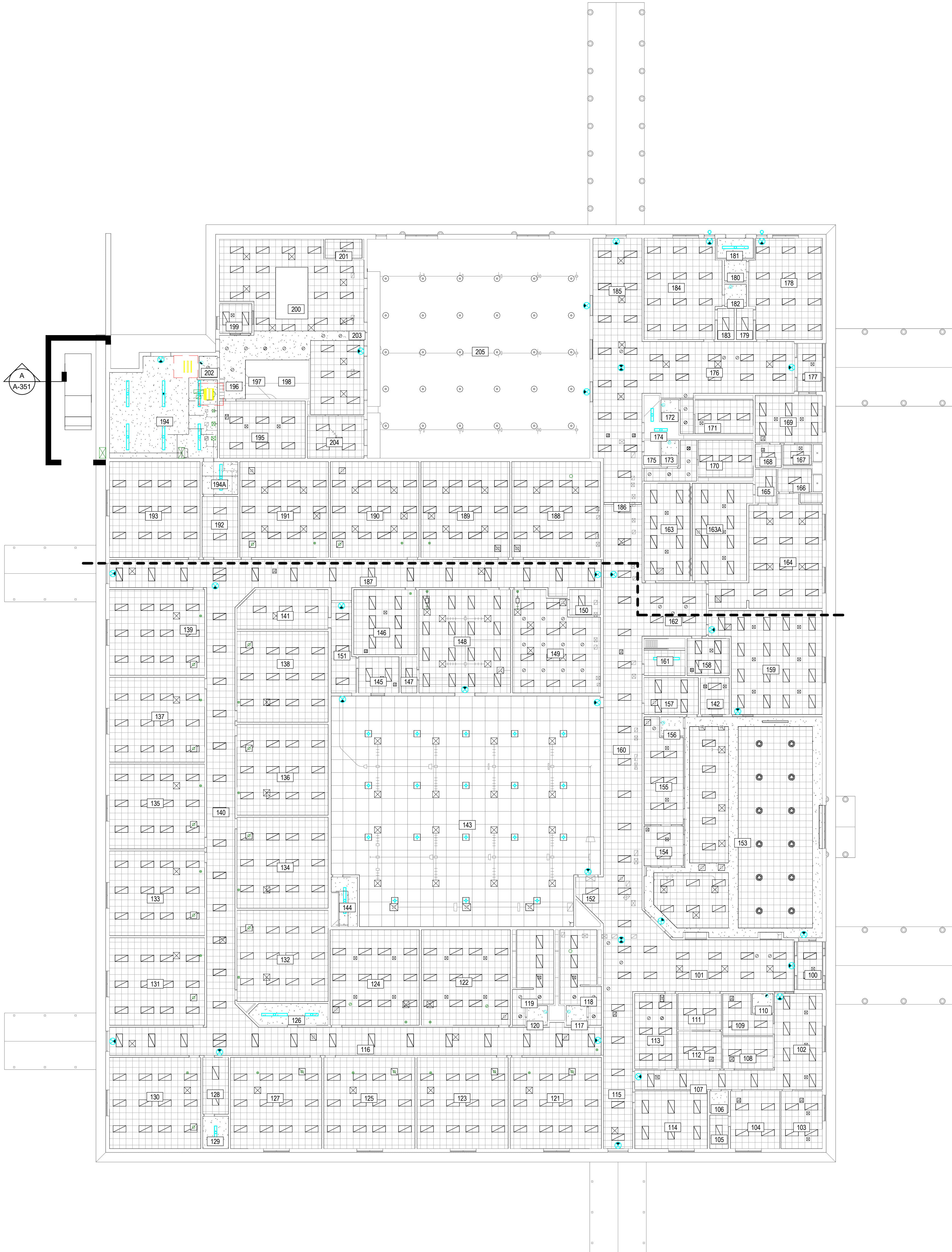


KEY PLAN

A key plan diagram consisting of a circle. A vertical line runs through the center of the circle, with the letter 'N' positioned above the top of the circle. A diagonal line extends from the center towards the upper-left edge of the circle.

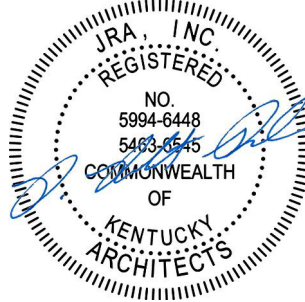
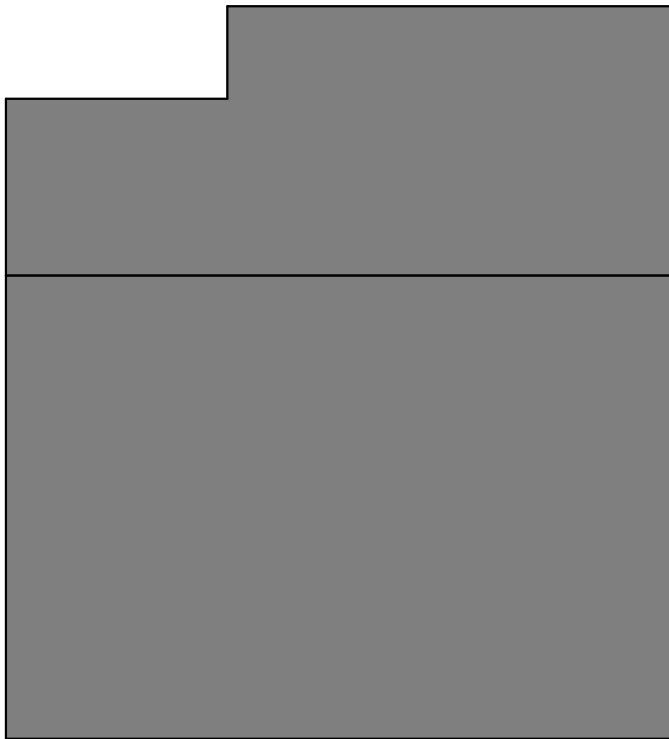
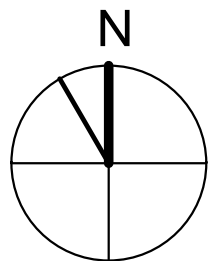
A-111B

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A OVERALL FIRST FLOOR REFLECTED CEILING PLAN
1/16" = 1'-0"

KEY PLAN



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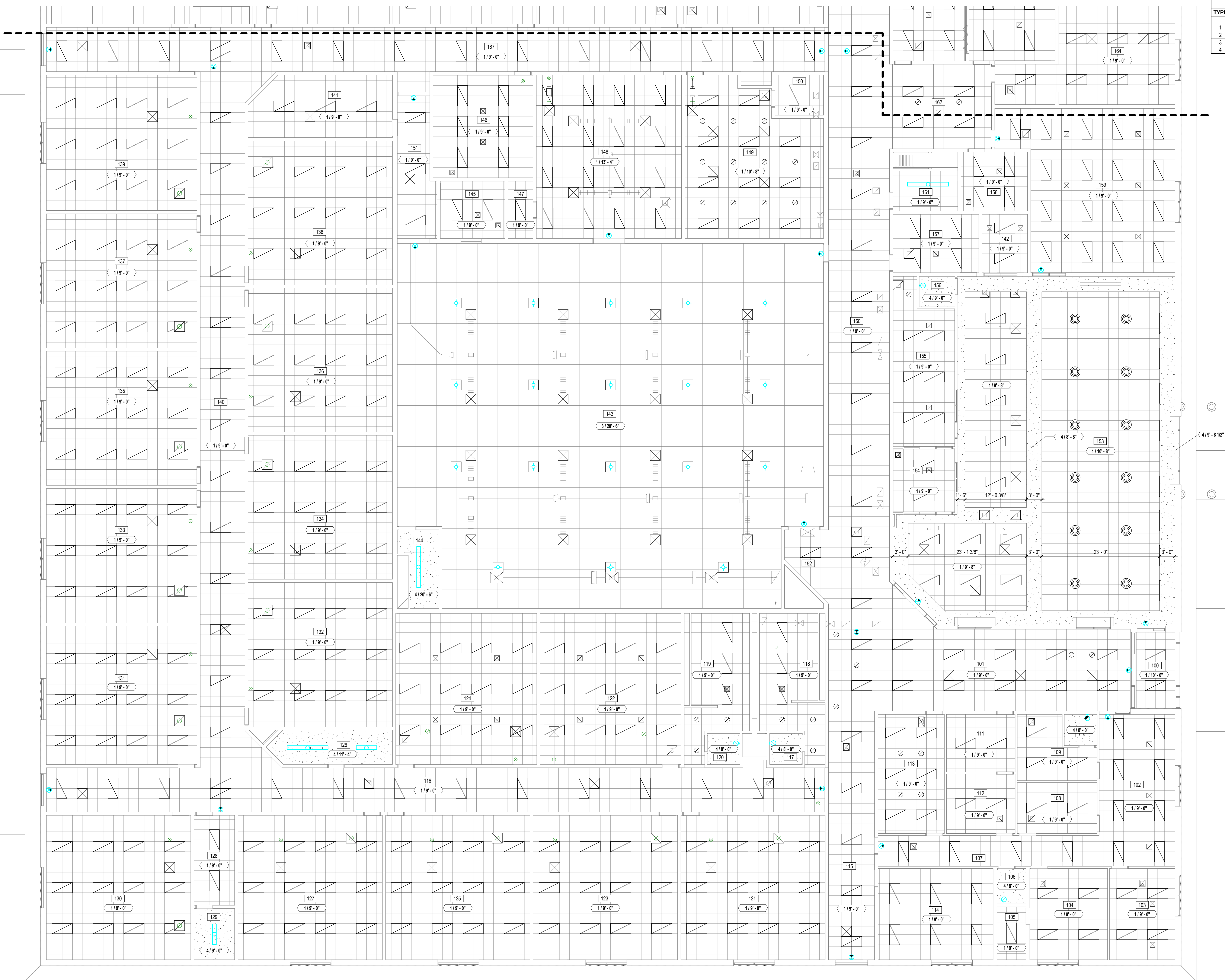
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OVERALL
FIRST FLOOR
REFLECTED
CEILING PLAN

A-130

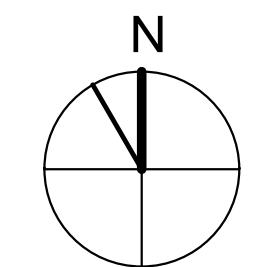
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A FIRST FLOOR REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"

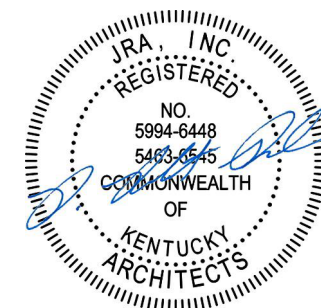


CEILING TYPES	
TYPE	DESCRIPTION
1	2' X 2' ACOUSTICAL PANEL SYSTEM (09 5113) - (APC-1)
2	2' X 4' ACOUSTICAL PANEL SYSTEM (09 5113) - (APC-2)
3	4' X 4' ACOUSTICAL PANEL SYSTEM (09 5113) - (APC-3)
4	5/8" GYPSUM BOARD ON METAL STUDS (05 2216) - PAINT

KEY PLAN



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**FIRST FLOOR
REFLECTED
CEILING PLAN -
AREA A**

A-131A

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CEILING TYPES	
TYPE	DESCRIPTION
1	2' X 2' ACOUSTICAL PANEL SYSTEM (09 5113) - (APC-1)
2	2' X 4' ACOUSTICAL PANEL SYSTEM (09 5113) - (APC-2)
3	4' X 4' ACOUSTICAL PANEL SYSTEM (09 5113) - (APC-3)
4	5/8" GYPSUM BOARD ON METAL STUDS (05 2216) - PAINT

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**FIRST FLOOR
REFLECTED
CEILING PLAN -
AREA B**

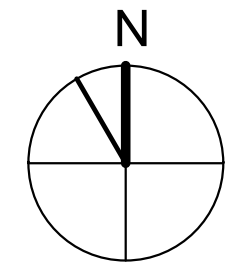
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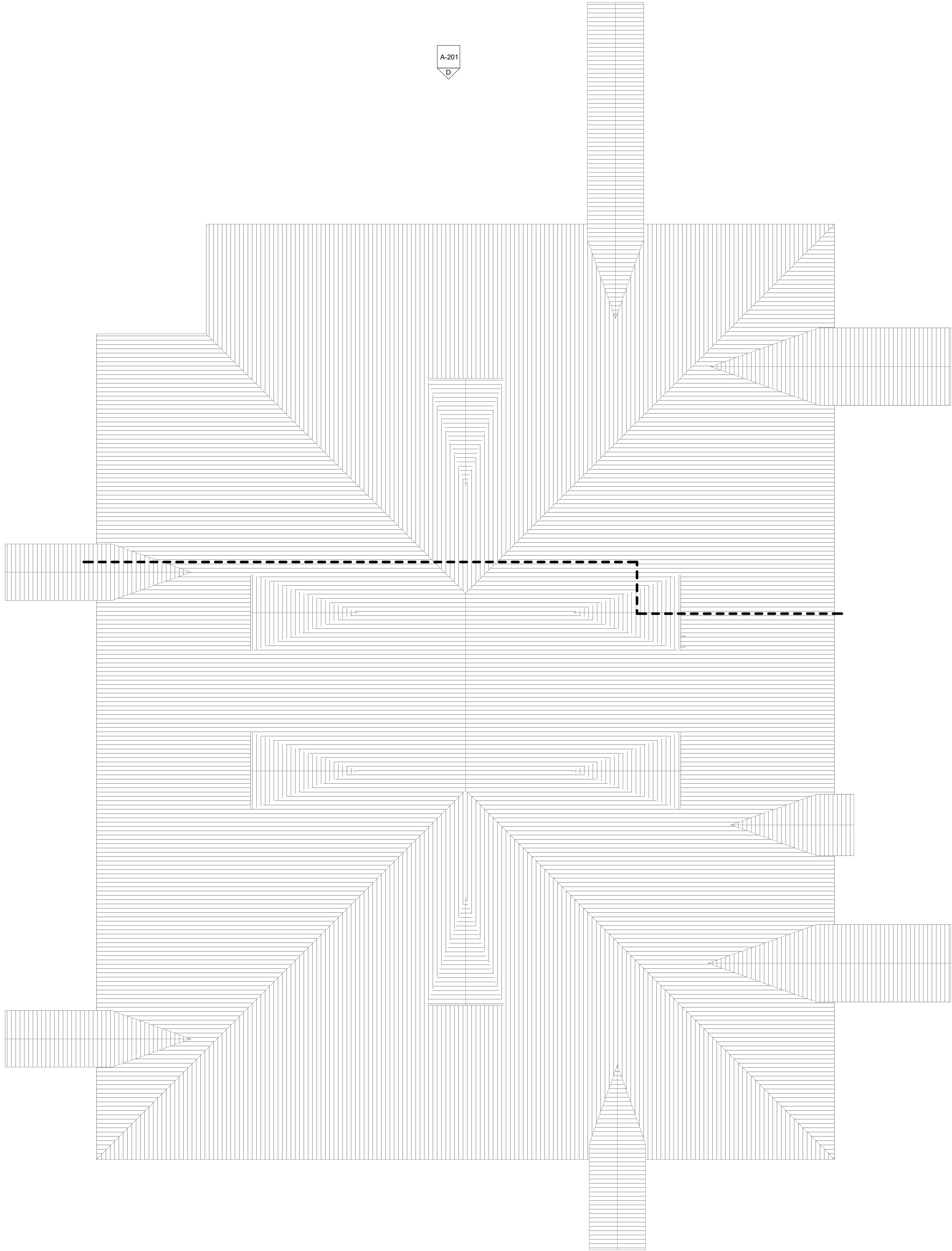
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A FIRST FLOOR REFLECTED CEILING PLAN - AREA B
1/8" = 1'-0"

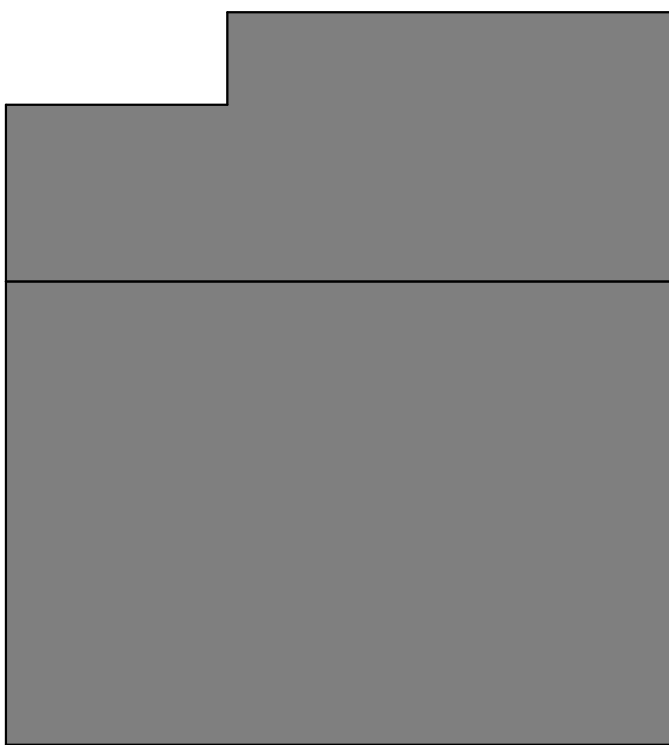
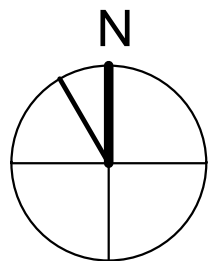
KEY PLAN





B ROOF PLAN
1/16" = 1'-0"

KEY PLAN



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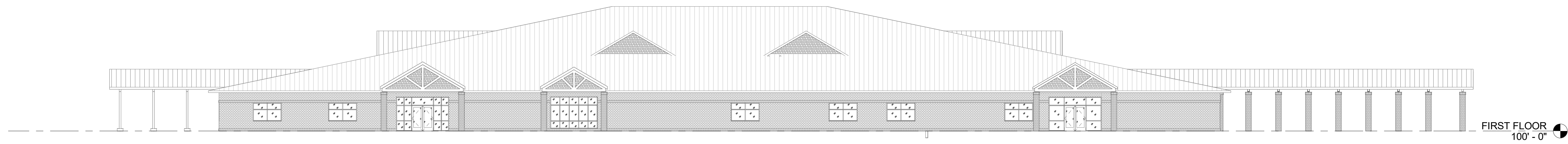
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ROOF PLAN

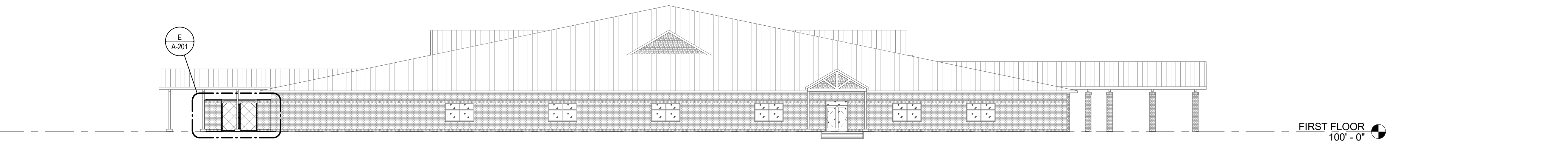
A-181

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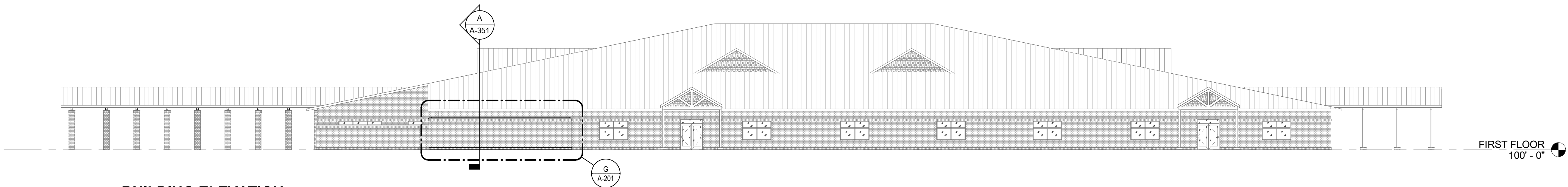
C:\Users\hardman\Documents\202159 - Woodland Elementary HVAC Arch - hardman.rvt



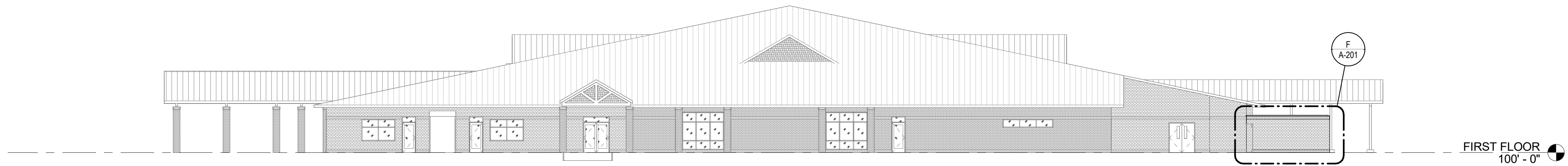
A BUILDING ELEVATION
1/16" = 1'-0"



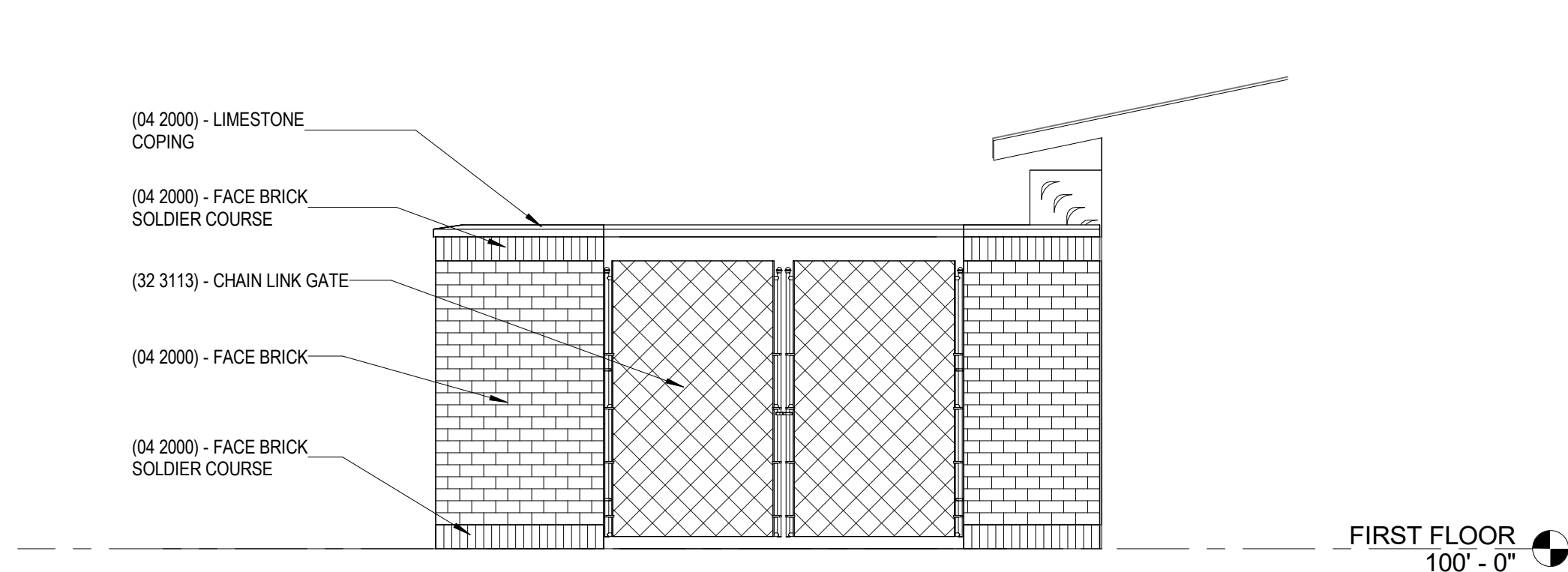
B BUILDING ELEVATION
1/16" = 1'-0"



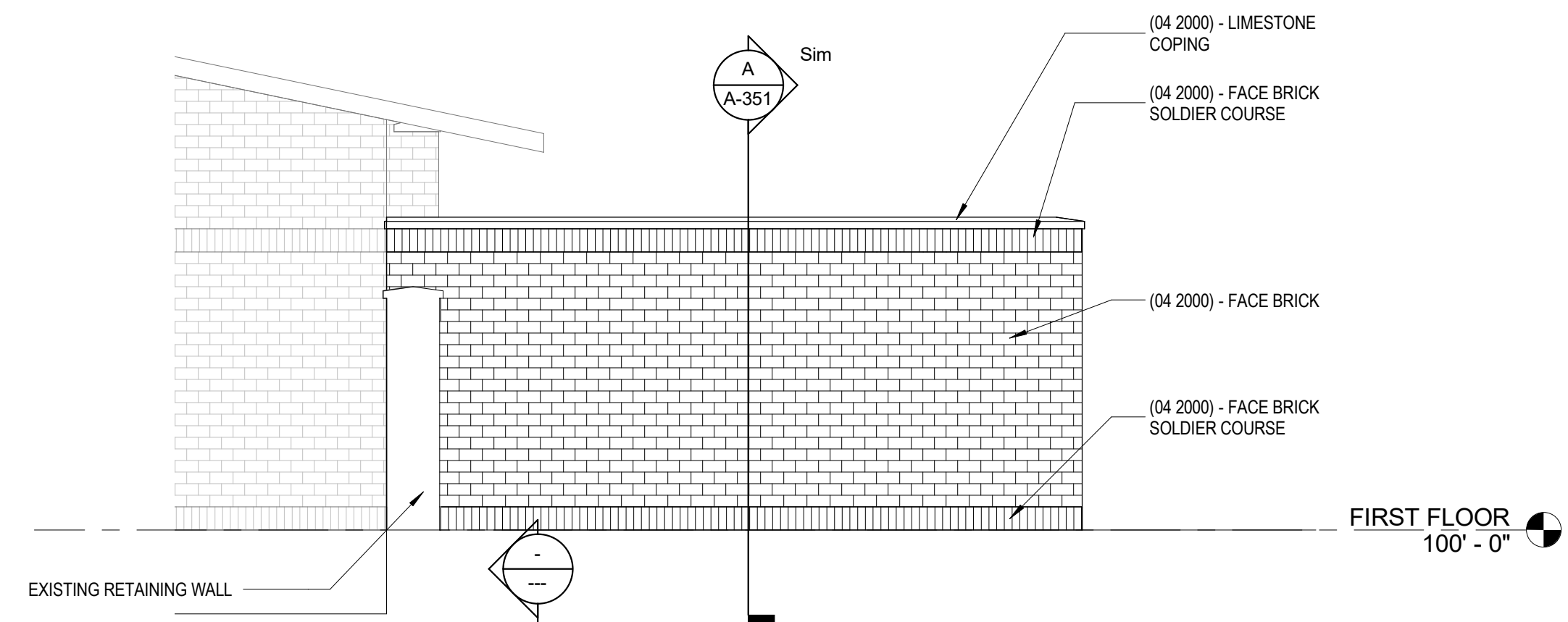
C BUILDING ELEVATION
1/16" = 1'-0"



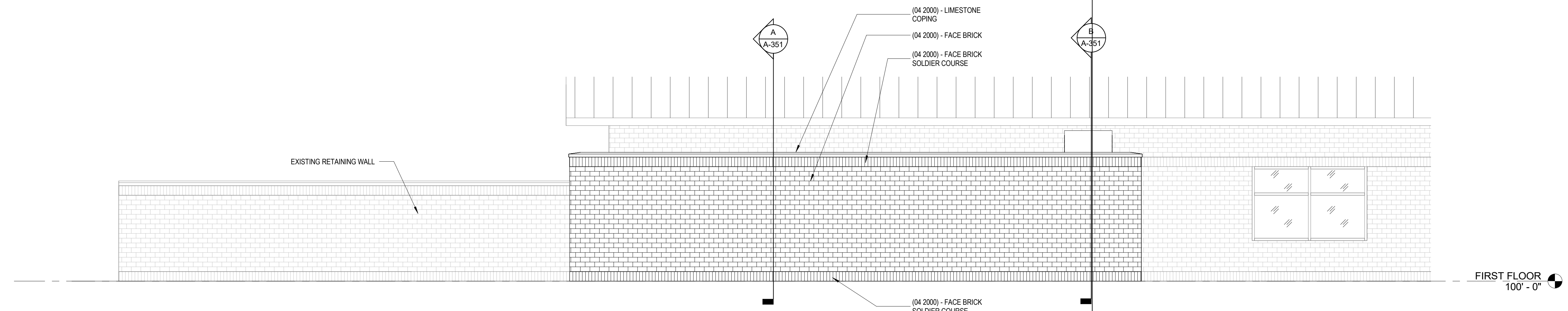
D BUILDING ELEVATION
1/16" = 1'-0"



E SCREEN WALL ELEVATION
1/4" = 1'-0"



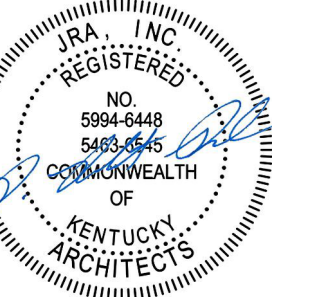
F SCREEN WALL ELEVATION
1/4" = 1'-0"



G SCREEN WALL ELEVATION
1/4" = 1'-0"

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BUILDING ELEVATIONS

A-201

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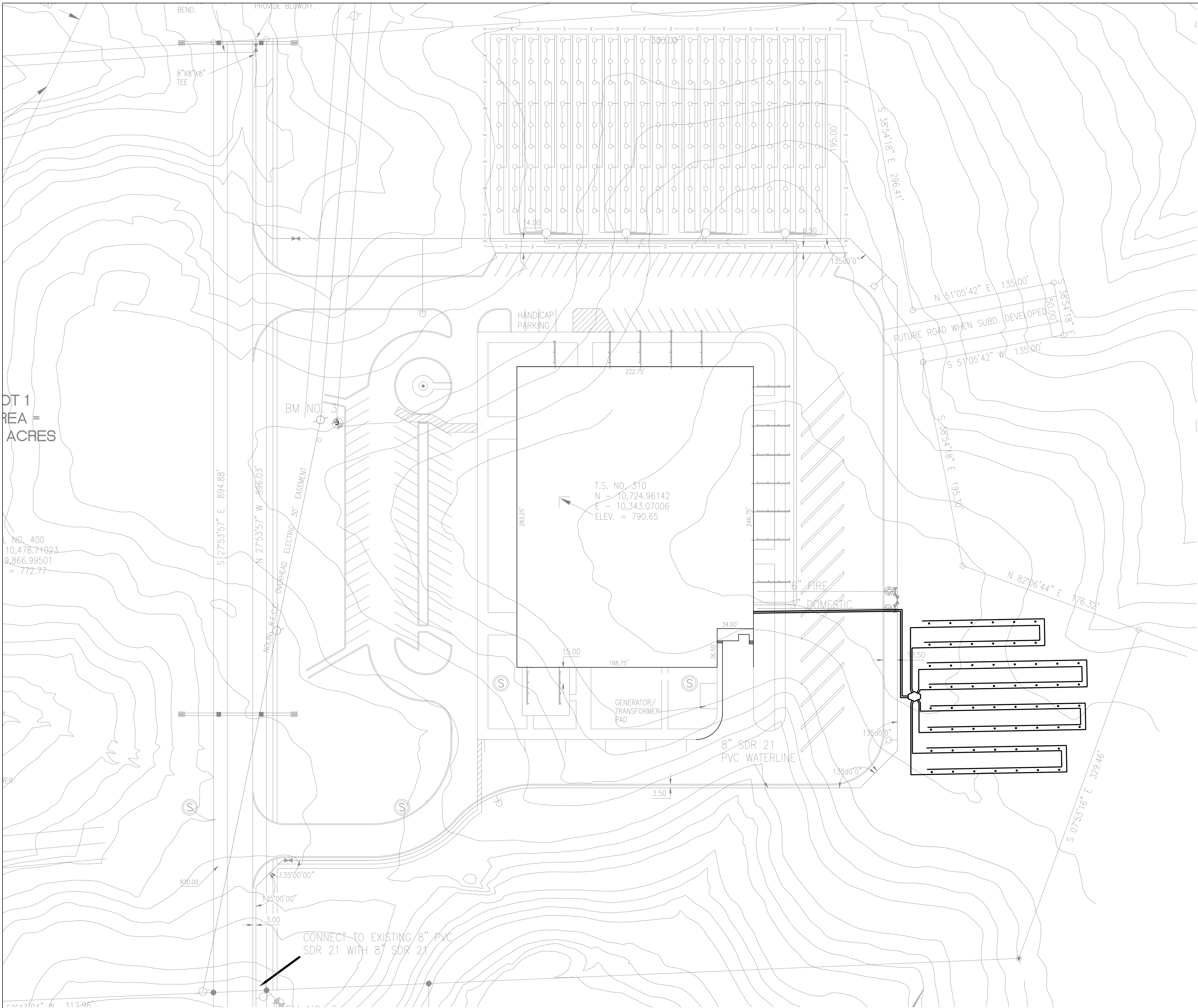
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WALL SECTION AND DETAILS

A-351

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GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY COMPANIES AND SHALL LOCATE AND MARK ALL UNDERGROUND UTILITIES PRIOR TO BORING. CONTRACTOR SHALL ALSO HAVE THE MEANS TO LOCATE THE UTILITIES USING HIS OWN INSTRUMENTS. ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES SHALL BE REPAIRED BACK TO ORIGINAL CONDITION WITHOUT COST TO THE OWNER.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE GEOTHERMAL WELL FIELD AND LATERALS WITH ALL OF THE OTHER PROPOSED SITE UTILITIES AND SITE DRAINAGE PRIOR TO INSTALLATION. PIPING ROUTE ELEVATIONS SHALL BE ALTERED (DEEPER) AS REQUIRED FROM ELEVATIONS CALLED OUT ON THE PLANS, BUT SHALL NOT BE TRAPPED IN ANY INSTANCE. MINIMUM DEPTH OF ALL GEOTHERMAL PIPING SHALL BE 60" BELOW GRADE AS SHOWN ON THE DRAWINGS.
3. INSTALL GEOTHERMAL WELLS MIN. 20 FT. ON CENTER AND TO THE DEPTH INDICATED IN THE WELL LOOP SCHEDULE.
4. THE CONTRACTOR SHALL BRING THE DISTURBED AREAS OF THE WELL FIELD AND LATERALS BACK TO WITHIN 12" OF FINAL GRADE.
5. CONTRACTOR SHALL KEEP DETAILED DRILLING LOGS FOR EACH WELL DRILLED. LOG SHALL INDICATE BORE DIAMETER, GPS COORDINATES, EARTH CONDITIONS DURING DRILLING, WATER (GPM), GAS LEVELS (PPM), AND LINEAR FEET OF CASING INSTALLED.
6. COORDINATE LOCATION OF LATERALS WITH NEW TREES AND SHRUBBERY. WHERE THERE IS CONFLICT IN THESE AREAS BURY LATERALS 60" DEEP.

SHEET KEYNOTES:

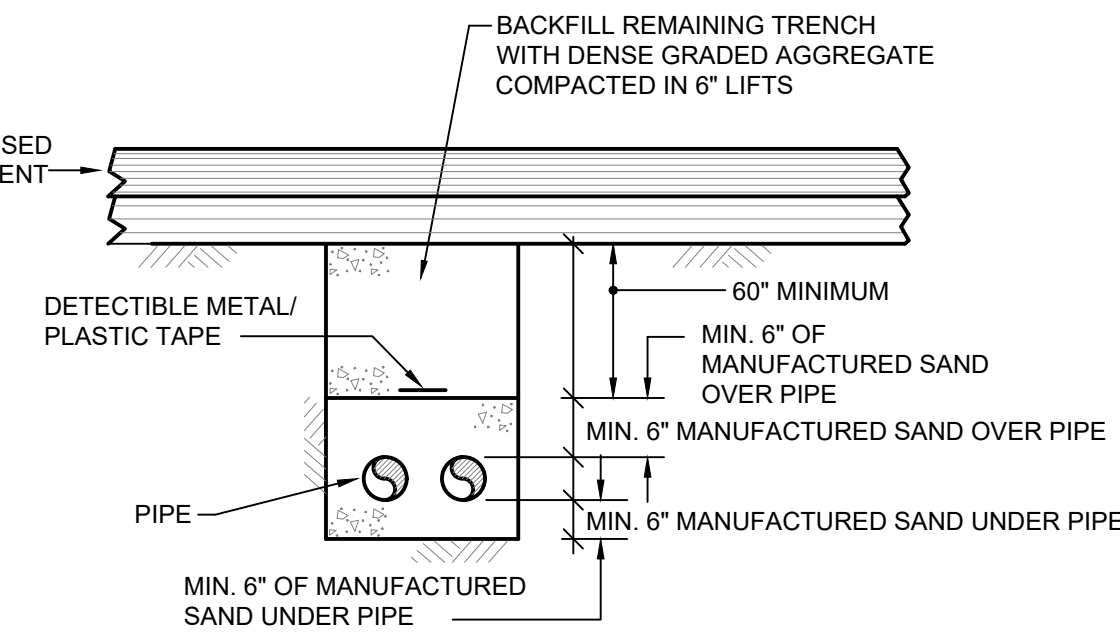
1. PROVIDE AND INSTALL HEADER VAULT IN THIS APPROXIMATE LOCATION (NOT TO SCALE). REFER TO VAULT DETAIL ON THIS SHEET.
2. ROUTE 6" DIA. POLYETHYLENE HEAT PUMP WATER SUPPLY AND RETURN LATERALS MIN. 5'-0" BELOW FINISHED GRADE. REFER TO DETAIL ON SHEET U301 AND SPECIFICATIONS FOR TRENCHING AND BACKFILLING INFORMATION.
3. GEOTHERMAL LATERALS. ROUTE MINIMUM 5'-0" BELOW FINISHED GRADE. PROVIDE WITH TRACE TAPE AS INDICATED ON THIS.
4. REFER TO ENLARGED MECHANICAL ROOM PLAN, SHEET M401, FOR CONTINUATION. COORDINATE BUILDING ENTRANCE WITH ALL OTHER UTILITIES AND TRADES PRIOR TO INSTALLATION.

TEST WELL RESULTS:

- | | |
|-----------|---------------------------------------|
| 0-33' | - CLAY MUD |
| 33'-39' | - FRACTURE, SMALL MUDDY WATER (1 GPM) |
| 39'-44' | - GREY LIMESTONE |
| 44'-73' | - GREY LIMESTONE AND SHALE |
| 73'-76' | - SAND AND WATER (SGPM) |
| 76'-123' | - GREY LIMESTONE |
| 123'-125' | - WATER ZONE (20GPM) |
| 125'-212' | - GREY LIMESTONE AND SHALE |
| 212'-215' | - WATER ZONE (20GPM) |
| 215'-402' | - GREY LIMESTONE AND SHALE |

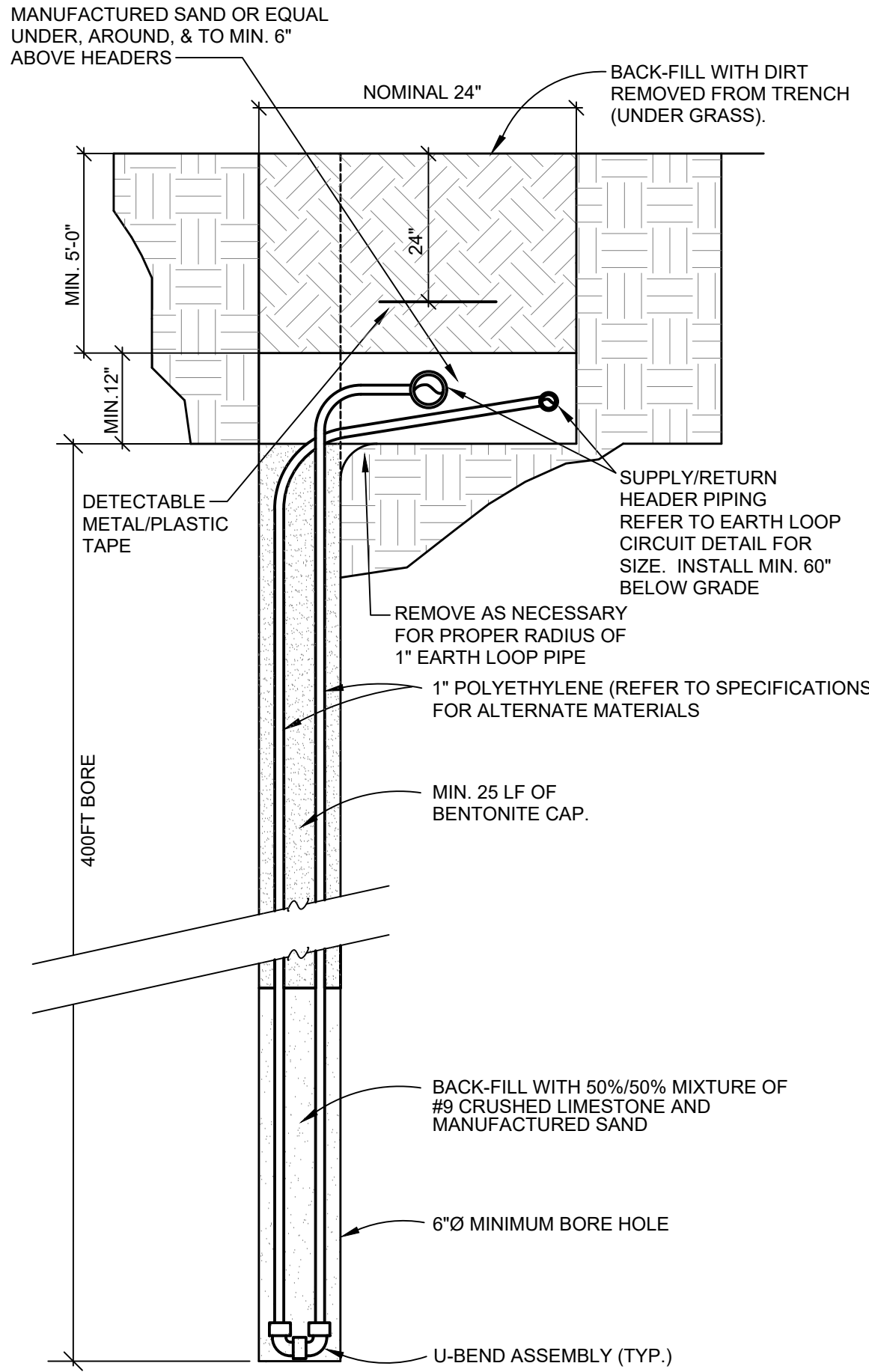
WELL FIELD LOOP SCHEDULE

WELL FIELD DESIGNATION	NO. OF WELLS	EACH WELL DEPTH	WELL PIPE SIZE	GPM PER WELL	
1	58	350	1"	5	290



TRENCH DETAIL FOR UNDER PAVEMENT

NO SCALE



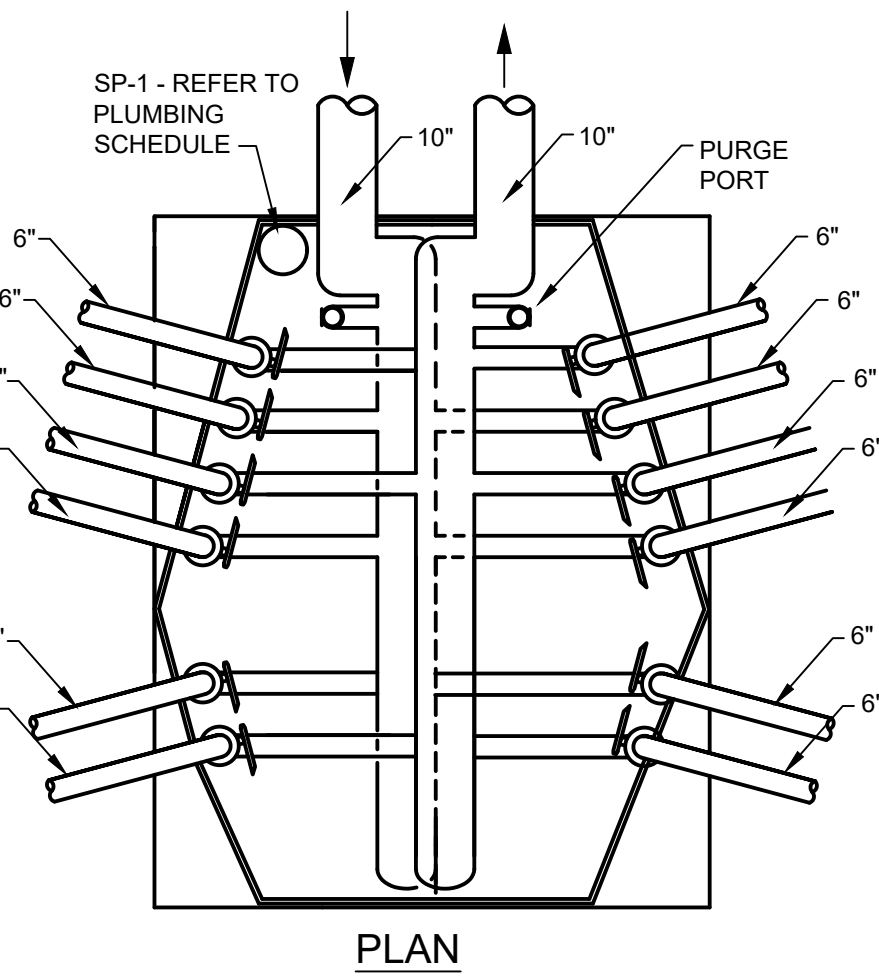
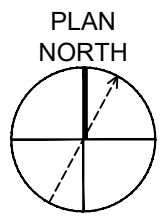
EARTH LOOP BORE DETAIL (TYP.)

NO SCALE

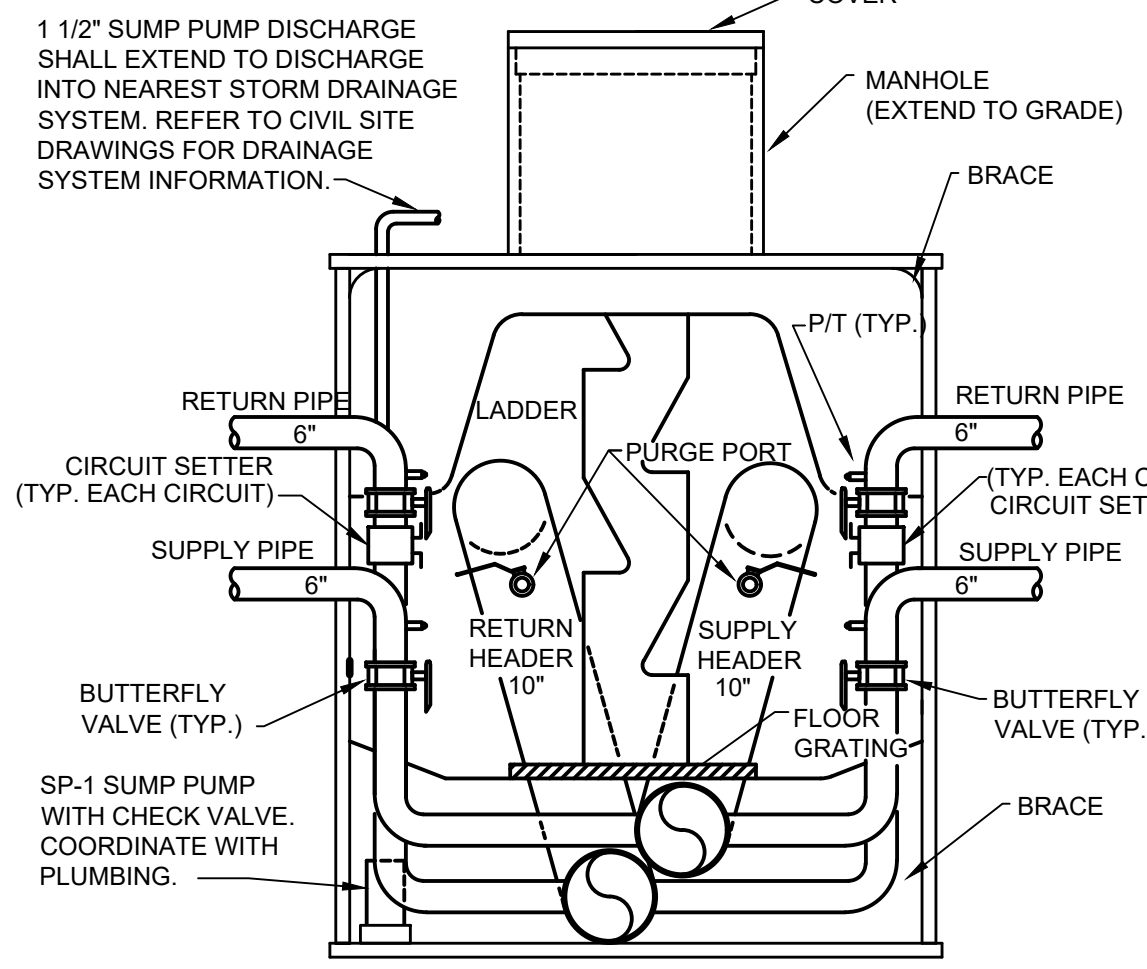
MECHANICAL SITE UTILITIES

SCALE: 1"=50'-0"

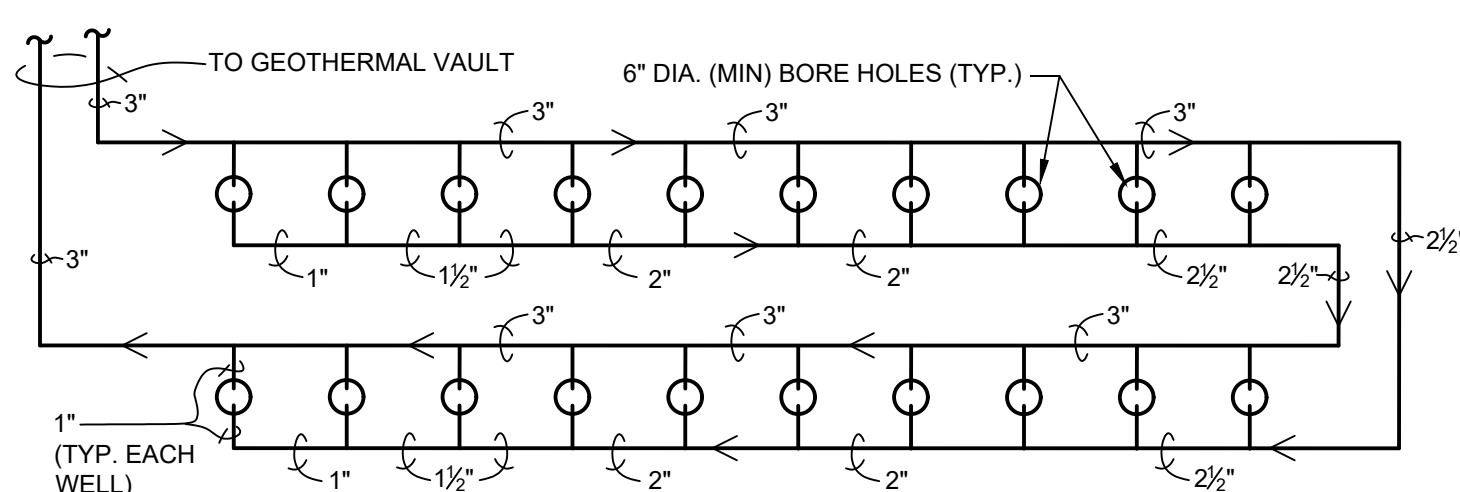
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PLAN

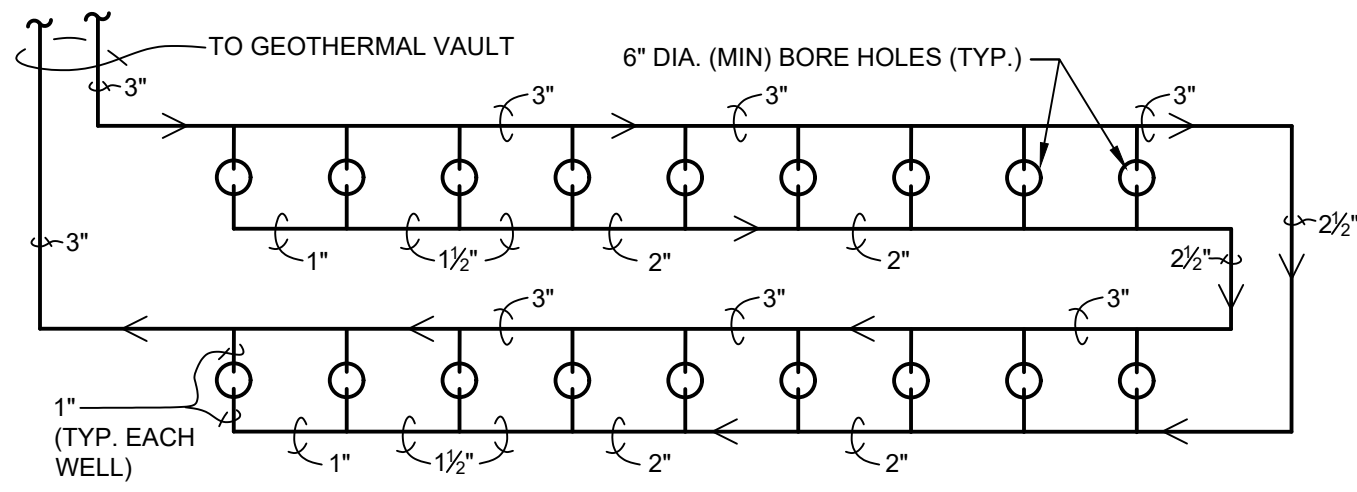


SECTION



GEOTHERMAL LOOP PIPING DIAGRAM (20 WELLS @ 400' DEPTH)

NO SCALE



GEOTHERMAL LOOP PIPING DIAGRAM (18 WELLS @ 400' DEPTH)

NO SCALE



"KY BUD" BEFORE YOU DIG: (811)

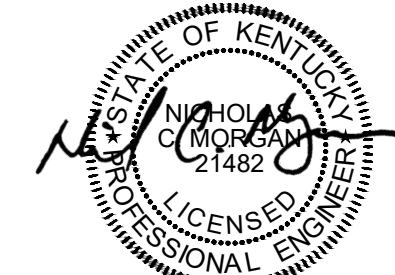
UNDERGROUND UTILITY LOCATIONS WERE DETERMINED FROM SITE SURVEY AND VISUAL INSPECTION OF THE PROPERTY AND SHOULD BE CONSIDERED APPROXIMATE ONLY. CONTACT ALL INDIVIDUAL UTILITY COMPANIES AND "KY BUD" PRIOR TO BEGINNING ANY EXCAVATION.

COORDINATION NOTE

GEOTHERMAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING LOCATION OF WELLS AND LATERALS WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. COORDINATION ITEMS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: EXTERIOR LIGHTING POLE BASES, UTILITY LINES, SANITARY SEWER, STORM SEWER, GAS, DOMESTIC WATER



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01/19/22



CONSTRUCTION DOCUMENTS
WOODLAND ELEMENTARY
SCHOOL HVAC RENOVATION
HARDIN COUNTY SCHOOLS
RADCLIFF, KENTUCKY



MECHANICAL

PROJECT 202159

DATE 01.19.2022

REVISIONS

No.	Description	Date

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MECHANICAL
LEGEND &
GENERAL
NOTES

SU100

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MECHANICAL LEGEND

HVAC	
SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER (4-WAY, 3-WAY, 2-WAY, 1-WAY)
	SUPPLY AIR DIFFUSER (ROUND)
	RETURN GRILLES
	EXHAUST GRILLES
	FLEXIBLE CONNECTION
	SUPPLY AIR DUCT (UP - DOWN)
	RETURN AIR DUCT (UP - DOWN)
	EXHAUST AIR DUCT (UP - DOWN)
	ACCESS DOOR
	RECTANGULAR TO ROUND DUCTWORK TRANSITION
	RECTANGULAR TO RECTANGULAR TRANSITION
	DUCT CHANGE IN ELEVATION; R= RISE, D= DROP
	DUCT SIZE BACKDRAFT DAMPER (ARROW INDICATES FLOW DIRECTION)
	FIRE DAMPER
	MANUAL VOLUME CONTROL BALANCE DAMPER
	SMOKE DAMPER
	MOTORIZED DAMPER
	COMBINATION - FIRE / SMOKE DAMPER
	ELBOW WITH TURNING VANES
	ELBOW ROUND
	CONNECT NEW TO EXISTING
	INDICATES AIR FLOW DIRECTION
	GATE VALVE (HORIZ. - VERT.)
	GLOBE VALVE (HORIZ. - VERT.)
	BUTTERFLY VALVE (HORIZ. - VERT.)
	BALL VALVE (HORIZ. - VERT.)
	CONTROL VALVE (2-WAY, 3-WAY)
	TRIPLE-DUTY VALVE
	PRESSURE GAUGE
	TEMPERATURE GAUGE / THERMOMETER
	PRESSURE REDUCING VALVE
	STRAINER
	CHECK VALVE
	FLOW INDICATOR
	BALANCE VALVE
	EXISTING PIPING/DUCT/EQUIPMENT TO REMAIN
	EXISTING PIPING/DUCT/EQUIPMENT TO BE REMOVED
	CAP OR PLUG
	PIPE DOWN, PIPE UP
	INCREASE / REDUCER
	FLOW SWITCH (FS)
	FLOW METER (FM)(DDC)
	TEMP SENSOR (TS)(DDC)
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	ROOM THERMOSTAT OR DUCT STAT
	SENSOR (CO, CO2, ETC.)
	HUMIDISTAT
	SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM)
	EQUIPMENT IDENTIFICATION
	DETAIL NO. / SHEET NO.
	SECTION NO. / SHEET NO.
	INDICATED TAG OR SHEET NOTE
	DEMOLITION NOTE
	REVISION TAG
	EXTENT OF DEMOLITION
	EXPANSION JOINT

HVAC	
SYMBOL	DESCRIPTION
	PIPE ANCHOR
	COMBINATION FLOW INDICATOR / BALANCING (4"-SMALLER)
	COMBINATION FLOW INDICATOR / BALANCING (6"-LARGER)
	TEMP / PRESS. RELIEF VALVE
	FLANGED CONNECTION
	UNION
	FLEXIBLE CONNECTION
	PUMP

HVAC	
SYMBOL	DESCRIPTION
	CONDENSATE DRAIN LINE
	CHILLED WATER RETURN PIPING
	CHILLED WATER SUPPLY PIPING
	EXHAUST AIR DUCTWORK
	HYDRONIC RETURN PIPING
	HYDRONIC SUPPLY PIPING
	HIGH PRESSURE RETURN
	HIGH PRESSURE STEAM
	HOT WATER RETURN PIPING
	HOT WATER SUPPLY PIPING
	LOW PRESSURE RETURN
	LOW PRESSURE STEAM
	MEDIUM PRESSURE RETURN
	MEDIUM PRESSURE STEAM
	OUTSIDE AIR DUCTWORK
	REFRIGERANT LINE SET PIPING
	RETURN AIR DUCTWORK
	SUPPLY AIR DUCTWORK

ABBREVIATIONS	
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU-X	AIR HANDLING UNIT
AS-X	AIR SEPARATOR
ATV	AUTO. TEMPERING VALVE
B-X	BOILER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
C	COMMON
CAS-X	VARIABLE REFRIGERANT CASSETTE UNIT
CFM	CUBIC FEET PER MINUTE
CH-X	CHILLER
CT-X	COOLING TOWER
CU-X	CONDENSING UNIT
E-X	EXHAUST AIR DEVICE
EF-X	EXHAUST FAN DESIGNATION
EH-X	ELECTRIC HEATER
ERU-X	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
EXT-X	EXPANSION TANK
FCU-X	FAN COIL UNIT
FZT	FREEZSTAT
GBD	GRAVITY BACKDRAFT DAMPER
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HP-X	HEAT PUMP UNIT
HT-X	HEAT TRACE
HX-X	HEAT EXCHANGER
KW	KILOWATT
L-X	LOUVER DESIGNATION
MAU-X	MAKE-UP AIR UNIT
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
P-X	PUMP
PRV	PRESSURE REDUCING VALVE
R-X	RETURN AIR DEVICE
RTU-X	ROOFTOP UNIT
S-X	SUPPLY AIR DEVICE
SF-X	SUPPLY FAN DESIGNATION
SP	TOTAL STATIC PRESSURE
T-X	TRANSFER AIR DEVICE
VAV-X	VARIABLE AIR VOLUME BOX

GENERAL NOTES:

- A. REFER TO SPECIFICATIONS AND THE CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

B. ALL MECHANICAL WORK SHALL BE PERFORMED BY A LICENSED MECHANICAL CONTRACTOR.

C. ALL WORK SHALL BE COORDINATED AND SCHEDULED WITH THE ARCHITECT AND THE CONSTRUCTION MANAGER (CM) OR GENERAL CONTRACTOR (GC). OTHER TRADES, THE OWNER, AND RELATED UTILITY COMPANIES. ALL WORK SHALL COINCIDE WITH THE CONSTRUCTION PHASING PER THE CONTRACT DOCUMENTS OR CONSTRUCTION DOCUMENTS AND/OR AS MODIFIED BY THE CM/GC AND APPROVED BY THE OWNER AND DESIGN TEAM. THE MECHANICAL CONTRACTOR SHALL COORDINATE AND DEVELOP A PHASING PLAN WHERE ONE IS NOT EXPLICITLY SHOWN AND SHALL ENSURE THAT SAID PHASING PLAN IS APPROVED PRIOR TO PROCEEDING WITH WORK. ANY AND ALL DEMOLITION SHALL NOT PERMIT INTERRUPTION OF SERVICE IN AN OCCUPIED BUILDING UNLESS COORDINATED AND APPROVED.

D. ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF DUCTWORK, PIPING, EQUIPMENT, AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, VALVE, OR COMPONENT. CONTRACTOR TO PROVIDE ANY ADDITIONAL DUCT OR PIPING OFFSETS AND/OR FITTINGS, INCLUDING DIVIDED DUCTS AND FLATTENED DUCTS, REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES AS ENCOUNTERED IN THE FIELD.

E. THE MECHANICAL CONTRACTOR SHALL OBTAIN A COPY OF THE ENTIRE SET OF CONTRACT DOCUMENTS PRIOR TO BID AND SHALL COORDINATE ROUTING AND INSTALLATION OF MECHANICAL DUCTWORK, PIPING, AND EQUIPMENT WITH ALL OTHER DISCIPLINES AND TRADES INCLUDING BUT NOT LIMITED TO CIVIL, ARCHITECTURAL, STRUCTURAL, FIRE SUPPRESSION, PLUMBING, AND ELECTRICAL.

F. REFER TO THE ENTIRE SET OF CONTRACT DOCUMENTS FOR DETAILS OF CONSTRUCTION AND INSTALLATION REQUIREMENTS, FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR COMPLETION AND OPERATION OF A FULLY FUNCTIONAL, MECHANICAL SYSTEM AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO THE KENTUCKY BUILDING CODE, ASHRAE, IMC, IECC, SMACNA, AND NFPA.

G. THE EXACT LOCATIONS OF ALL EQUIPMENT, DUCTS, DIFFUSERS, ETC. SHALL BE COORDINATED WITH ALL OTHER TRADES, CEILING MOUNTED LIGHTING AND ELECTRICAL REQUIREMENTS TAKE PRECEDENCE OVER CEILING MOUNTED MECHANICAL EQUIPMENT. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING GRID AND LIGHTING LAYOUT FOR COORDINATION OF FINAL DIFFUSER LOCATIONS.

H. THE MECHANICAL DRAWINGS REFLECT A "BASIS OF DESIGN" HVAC SYSTEM THAT HAS BEEN DESIGNED AROUND SPECIFIC PRODUCTS/MANUFACTURER'S (SEE SCHEDULES). THE SELECTION OF A BASIS OF DESIGN HAS INFLUENCED THE DESIGNS OF OTHER TRADES (ELECTRICAL, STRUCTURAL, ETC.). THE CONTRACTOR MAY USE "NON-BASIS OF DESIGN" PRODUCTS/MANUFACTURER'S AS PERMITTED BY THE SPECIFICATIONS AND/OR CONTRACT DOCUMENTS. COORDINATION OF ALL MODIFICATIONS TO EACH DISCIPLINE WHICH RESULT FROM THE USE OF "NON-BASIS OF DESIGN" EQUIPMENT OR MATERIALS SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. IF "NON-BASIS OF DESIGN" MANUFACTURERS, SIZES, OR MODEL NUMBERS ARE BID, SUBMITTED, OR INSTALLED, IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR AND ALL OF HIS OR HER SUBCONTRACTORS TO COORDINATE ALL DIFFERENCES PRIOR TO BID. ALL COSTS OF ALL TRADES ASSOCIATED WITH THE USE OF "NON-BASIS OF DESIGN" EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR AND SHALL BE INCLUDED IN THE BID. SUBSEQUENTLY, ANY ADDITIONAL COST BORE BY THE ENGINEER (MECHANICAL, ELECTRICAL, ETC.) TO ACCOMMODATE "NON-BASIS OF DESIGN" EQUIPMENT SHALL BE BORE BY THE CONTRACTOR AND PAID TO THE ENGINEER OF RECORD DURING SUBMITTALS.

I. EQUIPMENT OR MATERIALS AS ALLOWED BY THE SPECIFICATIONS AND/OR CONTRACT DOCUMENTS, WHICH ARE INSTALLED AND SUBSEQUENTLY VIEWED UNSATISFACTORY BY THE OWNER AND/OR ENGINEER WITHIN THE WARRANTY PERIOD, SHALL BE REMOVED COMPLETELY BY THE CONTRACTOR AND REPLACED WITH THE ORIGINAL DESIGN OR CORRECTED AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.

J. CONTRACTOR SHALL VISIT THE JOB SITE, FIELD VERIFY FIT, COORDINATE WITH OTHER TRADES, AND BECOME FAMILIAR WITH ALL PROJECT CONDITIONS PRIOR TO FABRICATING DUCTWORK, INSTALLING EQUIPMENT, ETC. NO ALLOWANCES WILL BE MADE FOR LACK THEREOF.

K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR ALL PERMITS, TESTING, AND INSPECTIONS.

L. CONTRACTOR TO REMOVE UNUSED/ABANDONED HVAC SYSTEMS AND EQUIPMENT UNLESS INDICATED OTHERWISE ON THE CONTRACT DOCUMENTS.

M. COORDINATE WITH THE CONTRACT DOCUMENTS AND PROVIDE TEMPORARY HEAT AS REQUIRED.

N. INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS BUT NOT SHOWN ON PLANS AND VICE VERSA, SHALL BE PROVIDED AS IF REQUIRED BY BOTH.

O. THE ENTIRE MECHANICAL INSTALLATION SHALL BE AS REQUIRED TO MAINTAIN FIRE/SMOKE RATINGS AND/OR "UL" ASSEMBLY RATINGS AS REQUIRED BY THE CONTRACT DOCUMENTS AND AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS. SEAL AROUND ALL PENETRATIONS THROUGH ALL FIRE/SMOKE SEPARATIONS AND/OR "UL" RATED ASSEMBLIES. COORDINATE ALL PENETRATIONS WITH THE CONSTRUCTION MANAGER AND/OR GENERAL CONTRACTOR. PROVIDE ADDITIONAL FIRE DAMPERS, SMOKE DETECTORS, AND SMOKE DAMPERS (INCLUSIVE OF WIRING) AS REQUIRED FOR A FULLY FUNCTIONAL AND CODE COMPLIANT SYSTEM.
- P. ALL DUCTWORK, PIPING, AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE. NO OTHER TRADES, I.E. ELECTRICAL, CEILING, PLUMBING, ETC., SHALL BE SUSPENDED, HUNG, OR SUPPORTED FROM MECHANICAL DUCTWORK OR MECHANICAL PIPING.

Q. ALL BUILDING PENETRATIONS MUST BE COORDINATED WITH THE ARCHITECT AND SHALL BE FLASHED AND SEALED WEATHER-TIGHT. ALL MATERIALS AND COLORS MUST BE PRE-APPROVED BY THE ARCHITECT. NEW OPENINGS AND/OR PENETRATIONS FOR MECHANICAL ITEMS SHALL BE CUT, SLEEVED, ETC. BY THE MECHANICAL CONTRACTOR. ALL OPENINGS SHALL BE CORE DRILLED OR SAW-CUT. NO "HAMMER DRILLING" WILL BE ALLOWED.

R. ROUTE DUCTWORK AS HIGH AS POSSIBLE TO FACILITATE ACCESS TO ABOVE CEILING SPACE. COORDINATE ROUTING WITH OTHER SERVICES AND TRADES. PROVIDE ADDITIONAL DUCTWORK, OFFSETS, ETC. TO ACCOMMODATE FIELD CONDITIONS AS REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM AT NO ADDITIONAL COST. ADDITIONAL OFFSETS REQUIRE APPROVAL FROM THE ENGINEER. ROUTE DUCTWORK BETWEEN JOISTS WHERE POSSIBLE.

S. ALL AIR DEVICES LOCATED ABOVE GYPBOARD OR HARD CEILINGS SHALL HAVE ACCESSIBLE BALANCING DAMPERS.

T. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

U. PROVIDE AND INSTALL DUCT ACCESS DOORS FOR INSPECTION OF ALL INSTALLED FIRE DAMPERS AS DIRECTED BY SMACNA HVAC CONSTRUCTION STANDARDS.

V. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0". ALL FLEXIBLE DUCT SHALL CONFORM TO THE REQUIREMENTS OF UL 181 FLEXIBLE AIR DUCTS. SUPPORT TO ELIMINATE SAGGING AND KINKING. INSULATED FLEXIBLE DUCTS SHALL MEET MINIMUM R-VALUES REQUIRED BY THE IECC.

W. ALL HVAC EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. UTILIZE FACTORY FILTERS DURING CONSTRUCTION.

X. THE MECHANICAL CONTRACTOR SHALL BALANCE SYSTEM TO AIR QUANTITIES INDICATED ON PLANS AND PROVIDE OWNERS REPRESENTATIVES WITH COMPLETE NEBB/AAO BALANCE REPORT. THE MECHANICAL CONTRACTOR SHALL PROVIDE AS MANY ADDITIONAL SITE VISITS BY THE LICENSED TAB CONTRACTOR AS REQUIRED BY THE ENGINEER FOR A COMPLETE AND FUNCTIONING DEMOLITION SYSTEM IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

Y. ALL RECTANGULAR 90 DEG. AND 45 DEG. ELBOWS SHALL HAVE TURNING VANES.

Z. PROVIDE A MANUAL VOLUME DAMPER AT ALL BRANCH TAKE-OFFS ON SUPPLY, RETURN, AND OUTSIDE AIR DUCTWORK AT NO ADDITIONAL COST. PROVIDE A MAIN RETURN DAMPER UPSTREAM OF OUTSIDE AIR CONNECTIONS IN RETURN AIR FLENUM DESIGNS. COORDINATE ADDITIONAL MANUAL VOLUME DAMPER LOCATIONS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM WITH THE ENGINEER PRIOR TO ORDER, FABRICATION, OR INSTALLATION.
- AA. ALL DUCT DIMENSIONS SHOWN ARE INTERIOR "CLEAR" DUCT DIMENSIONS.

AB. MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN OUTDOOR AIR INTAKES AND EXHAUST, PLUMBING VENTS, ETC. AND/OR AS REQUIRED BY IMC, WHICHEVER IS MORE STRINGENT.

AC. MAINTAIN 10'-0" MINIMUM CLEARANCE FROM EDGE OF ROOFTOP EQUIPMENT TO ROOF EDGE UNLESS RAILING OR PARAPET OF SUFFICIENT HEIGHT IS TO BE PROVIDED IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING BUT NOT LIMITED TO: IRC, IMC, LOCAL CODES, OSHA GUIDELINES (WHERE APPLICABLE), REFER TO ARCHITECTURAL.

AD. PROVIDE CONDUIT, BOXES AND CONTROL WIRING IN COMPLIANCE WITH THE NEC AND DIVISION 26.

AE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND DRAWINGS FOR CONNECTIONS AND LOCATION OF ALL EQUIPMENT.

AF. CONTRACTOR SHALL PROVIDE ADDITIONAL OFFSETS OR BENDS IN PIPING AS REQUIRED TO ALLOW FOR EXPANSION AND CONTRACTION DUE TO TEMPERATURE CHANGES AND DIFFERENCES IN THE AMBIENT TEMPERATURE WHEN PIPING AND EQUIPMENT IS INSTALLED.

AG. PROVIDE MANUAL AIR VENTS AT HIGH POINTS AND DRAIN VALVES AT LOW POINTS OF ALL HYDRONIC PIPING. AUTOMATIC AIR VENTS SHALL BE INSTALLED WHERE INDICATED IN THE CONTRACT DOCUMENTS AND/OR AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM.

AH. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL PLANS AND GC/CM ALL AREAS WHERE MECHANICAL / ELECTRICAL EQUIPMENT AND DEVICES ARE INDICATED TO BE DEMOLISHED AND THE REQUIRED REPAIR AND RESTORATION OF ALL WALLS, ROOFS, CEILINGS, FLOORS, ETC. SHALL BE INCLUDED IN THEIR BID.

AI. ALL ROOF PENETRATIONS SHALL BE IN COMPLIANCE WITH THE ROOFING MANUFACTURER'S GUIDELINES AND THE AMERICAN ROOFING COUNCIL. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AS NECESSARY TO MAINTAIN ALL WARRANTIES.

AJ. STRUCTURAL MEMBERS SHALL NOT BE CUT OR COMPROMISED IN ANY WAY.

AK. DO NOT BLOCK ACCESS TO HVAC OR ELECTRICAL EQUIPMENT. DO NOT INSTALL PIPING, DUCTWORK, OR EQUIPMENT OVER ELECTRICAL PANELS/SWITCHGEAR OR THE 30" x 42" (W x D) CLEARANCE IN FRONT OF THESE ELECTRICAL ITEMS. COORDINATE ADDITIONAL REQUIREMENTS WITH NEC.

GENERAL DEMOLITION NOTES:

- A. GENERAL MECHANICAL DEMOLITION NOTES APPLY TO ALL MECHANICAL SHEETS.

B. SEE ARCHITECTURAL DRAWINGS FOR BUILDING FLOOR PLAN LAYOUT.

C. THE EXISTING CONDITIONS REPRESENTED ON PLANS DEPICT APPROXIMATE LOCATIONS AND SIZES OF EQUIPMENT AND COMPONENTS. FIELD-VERIFY ACTUAL CONDITIONS AND DETERMINE ACTUAL LOCATIONS AND SIZES OF EQUIPMENT PRIOR TO COMMENCING WORK.

D. SUBSTANTIAL DEVIATIONS BETWEEN THE CONTRACT DOCUMENTS DEMOLITION SCOPE AND ACTUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER IN THE FORM OF A REQUEST FOR INFORMATION WITH THE DESCRIPTIONS AND SKETCHES.

E. SCHEDULING OF ALL DEMOLITION OPERATIONS SHALL BE COORDINATED WITH OWNER NO LATER THAN THE DATE OF THE PROJECT PRECONSTRUCTION MEETING.

F. PROVIDE DEMOLITION WORK SHOWN ON THE DRAWINGS AND ALL INCIDENTAL DEMOLITION WORK REQUIRED TO COMPLETE NEW CONSTRUCTION WORK.

G. PROTECT EXISTING EQUIPMENT, PIPING, DUCTWORK, AIR OPENINGS, ETC. FROM DIRT AND DAMAGE DURING DEMOLITION AND CONSTRUCTION.

H. COMPLETELY REMOVE ALL COMPONENTS INDICATED ON PLANS FOR DEMOLITION INCLUDING REMOVAL OF ALL SUPPORTS, HANGERS, PIPING, WIRING, ECT. THAT ARE ASSOCIATED WITH THE COMPONENT BEING REMOVED, UNLESS OTHERWISE STATED.

I. CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGE ASSOCIATED WITH DEMOLITION. ALL FINISHED SURFACES (FLOORS, WALLS, CEILINGS, ROOF, ETC.) SHALL MATCH EXISTING CONDITIONS.

J. PROVIDE 1-HOUR FIRE RATED DUST PROOF BARRIERS (UL DESIGN U309) TO SEPARATE DEMOLITION AREA FROM THE REST OF THE FACILITY.

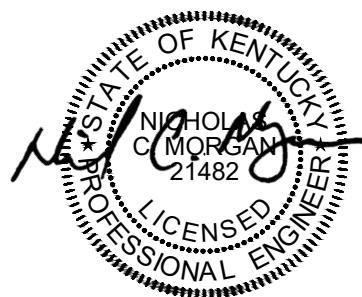
K. WHERE DUST CREATED DURING DEMOLITION MAY ENTER AN HVAC SYSTEM RETURN AIR DUCT, PROVIDE TEMPORARY FILTERS AS REQUIRED TO PREVENT DUST INTRUSION.

L. MAINTAIN OPERATION OF ALL EXISTING SERVICES AND UTILITIES SERVING AREAS THAT ARE OCCUPIED OR IN OPERATION DURING DEMOLITION WORK. COORDINATE AND SCHEDULE ALL DISRUPTIONS TO SERVICES OR UTILITIES WITH OWNER TWO WEEKS IN ADVANCE OF INTERRUPTION.

M. REMOVE, RELOCATE AND REINSTALL ANY COMPONENTS WHEN REQUIRED TO ACCOMMODATE DEMOLITION OR NEW WORK SCOPE. COMMUNICATE TO ARCHITECT/ENGINEER THE EXTENT OF ITEMS TO BE REMOVED PRIOR TO BEGINNING THE WORK.

N. STORE AND PROTECT ALL EXISTING ITEMS WHICH ARE TO BE RELOCATED OR REUSED.

O. WHERE DEMOLITION/RE-WORK OF EXISTING MEP ITEMS CONTAINING HAZARDOUS MATERIALS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER FOR ABATEMENT AND REMEDIATION AS REQUIRED.



01/19/22



CONSTRUCTION DOCUMENTS
WOODLAND ELEMENTARY
SCHOOL HVAC RENOVATION
HARDIN COUNTY SCHOOLS
RADCLIFF, KENTUCKY



MECHANICAL

PROJECT	202159
DATE	01.19.2022

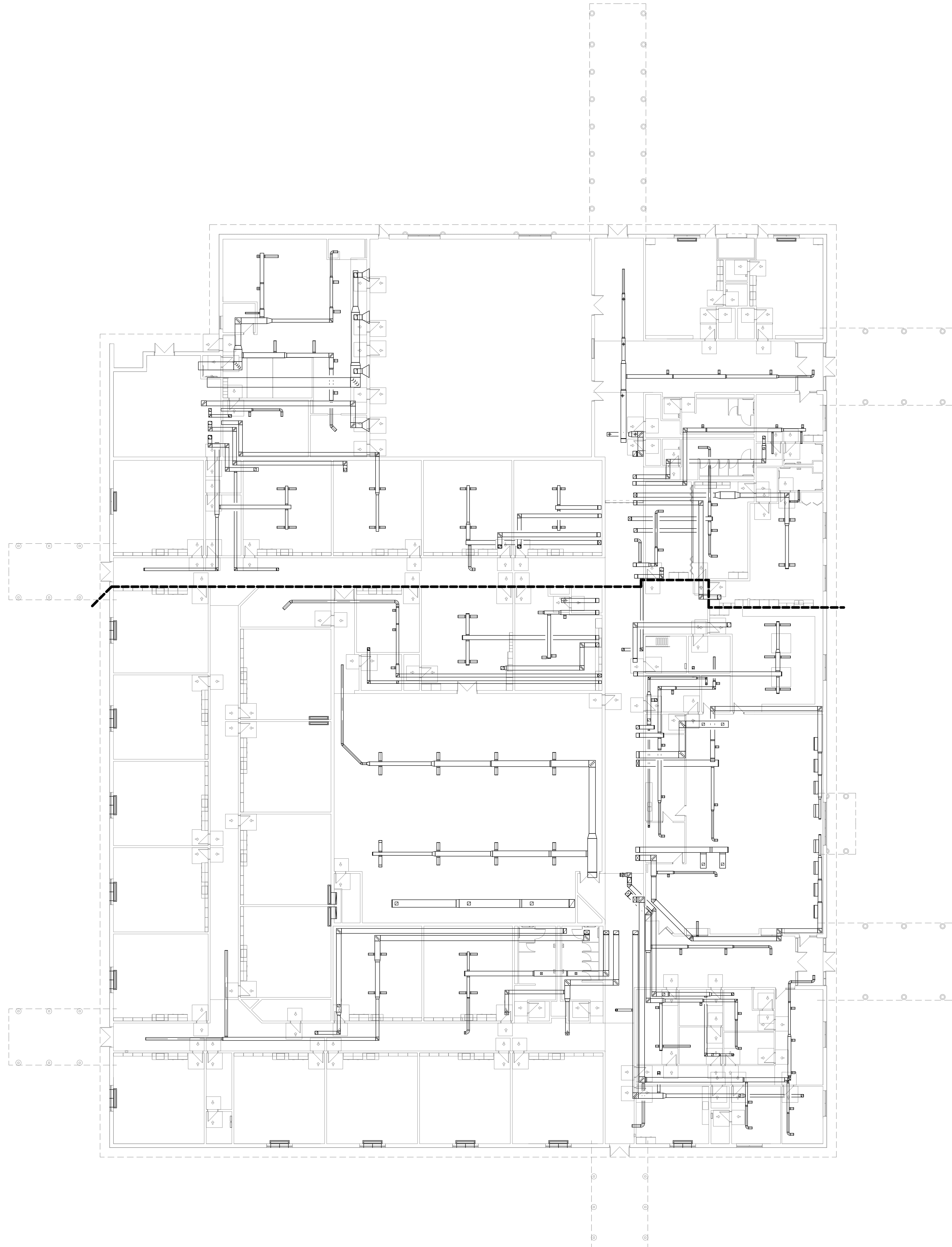
REVISIONS		
No.	Description	Date

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MECHANICAL
LEGEND &
GENERAL
NOTES

M001

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1 FIRST FLOOR DEMOLITION PLAN - OVERALL - HVAC
SCALE: 1/16" = 1'-0"

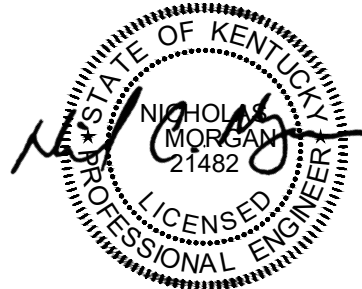
GENERAL NOTES

A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

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HARDIN COUNTY SCHOOLS
RADCLIFF, KENTUCKY



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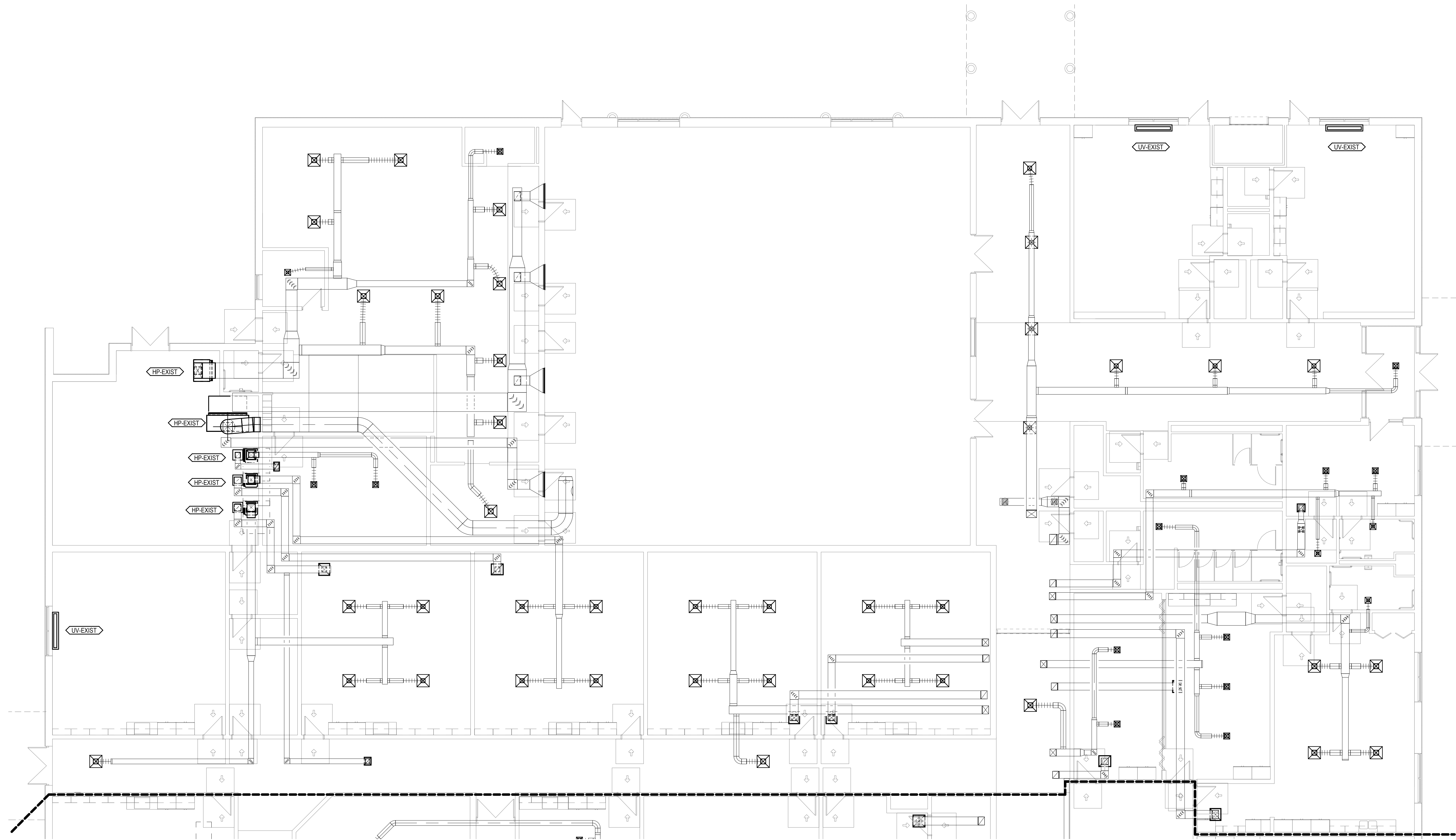
REVISIONS		
No.	Description	Date

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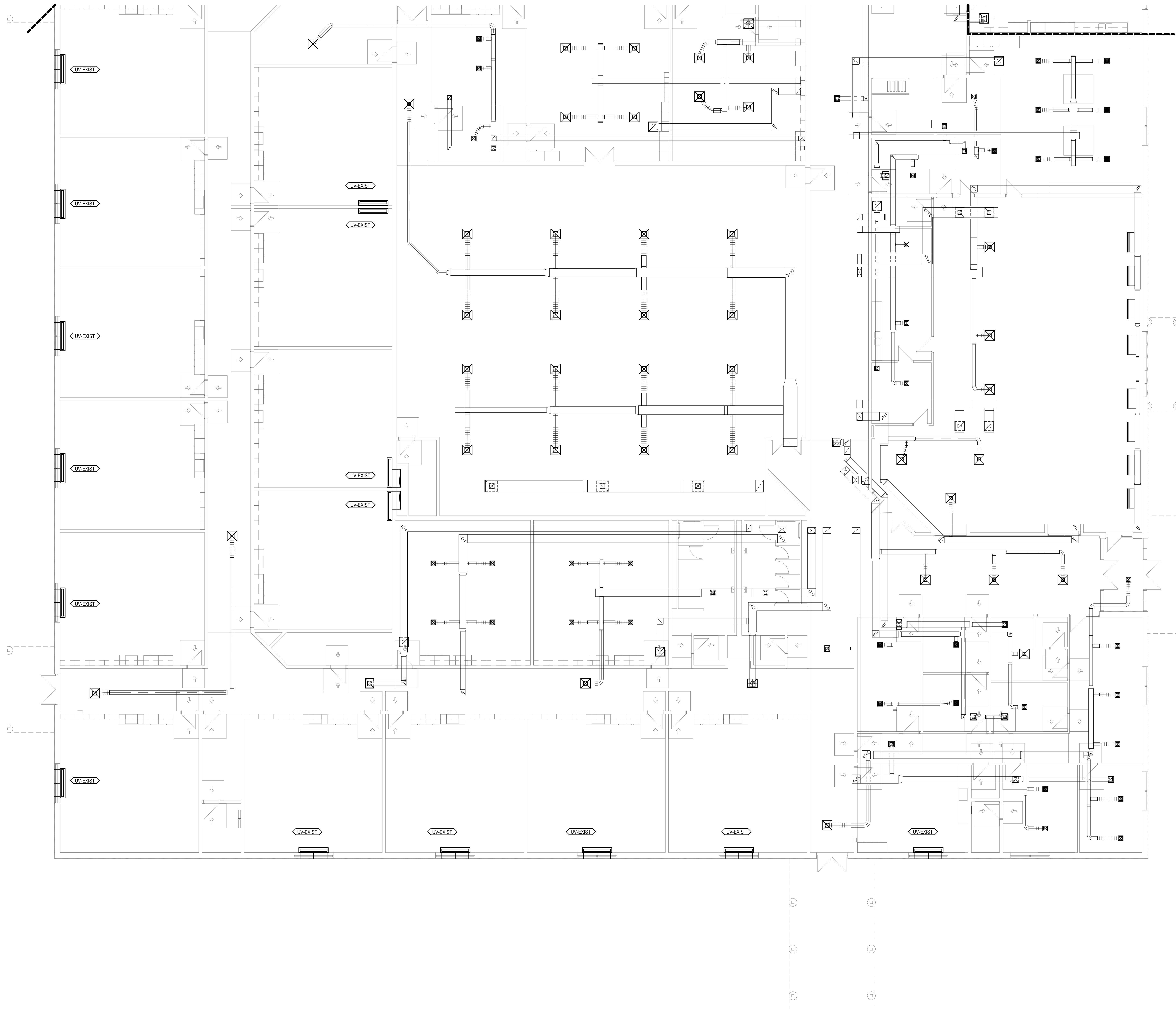
**FIRST FLOOR
DEMOLITION
PLAN - HVAC**

MD100

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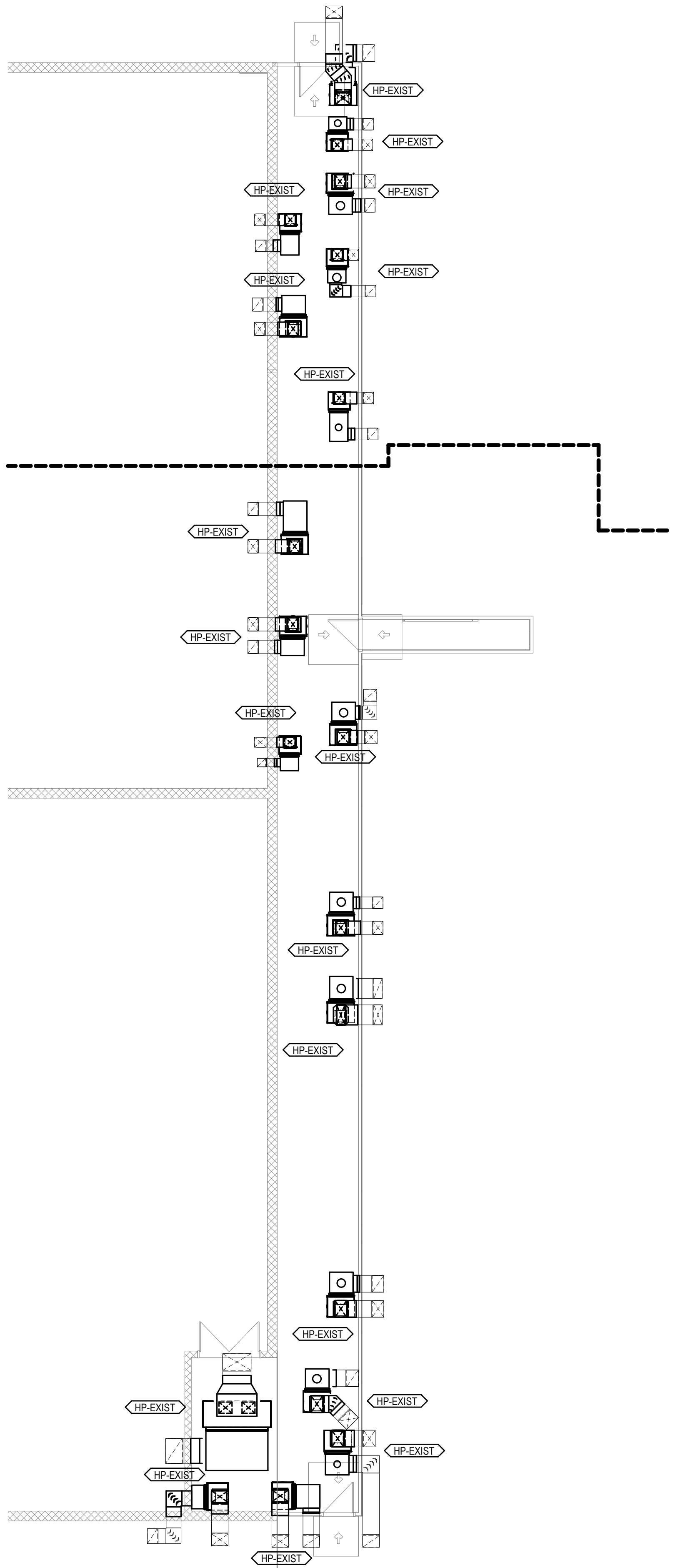


1 FIRST FLOOR DEMOLITION PLAN - AREA A - HVAC
SCALE: 1/8" = 1'-0"



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

PROJECT		202159	
DATE		01.19.2022	
REVISIONS			
No.	Description		Date
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1 PLATFORM PLAN - HVAC DEMO
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

01/19/22

CONSTRUCTION DOCUMENTS

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SCHOOL HVAC RENOVATION
HARDIN COUNTY SCHOOLS
RADCLIFF, KENTUCKY



PROJECT 202159
DATE 01.19.2022

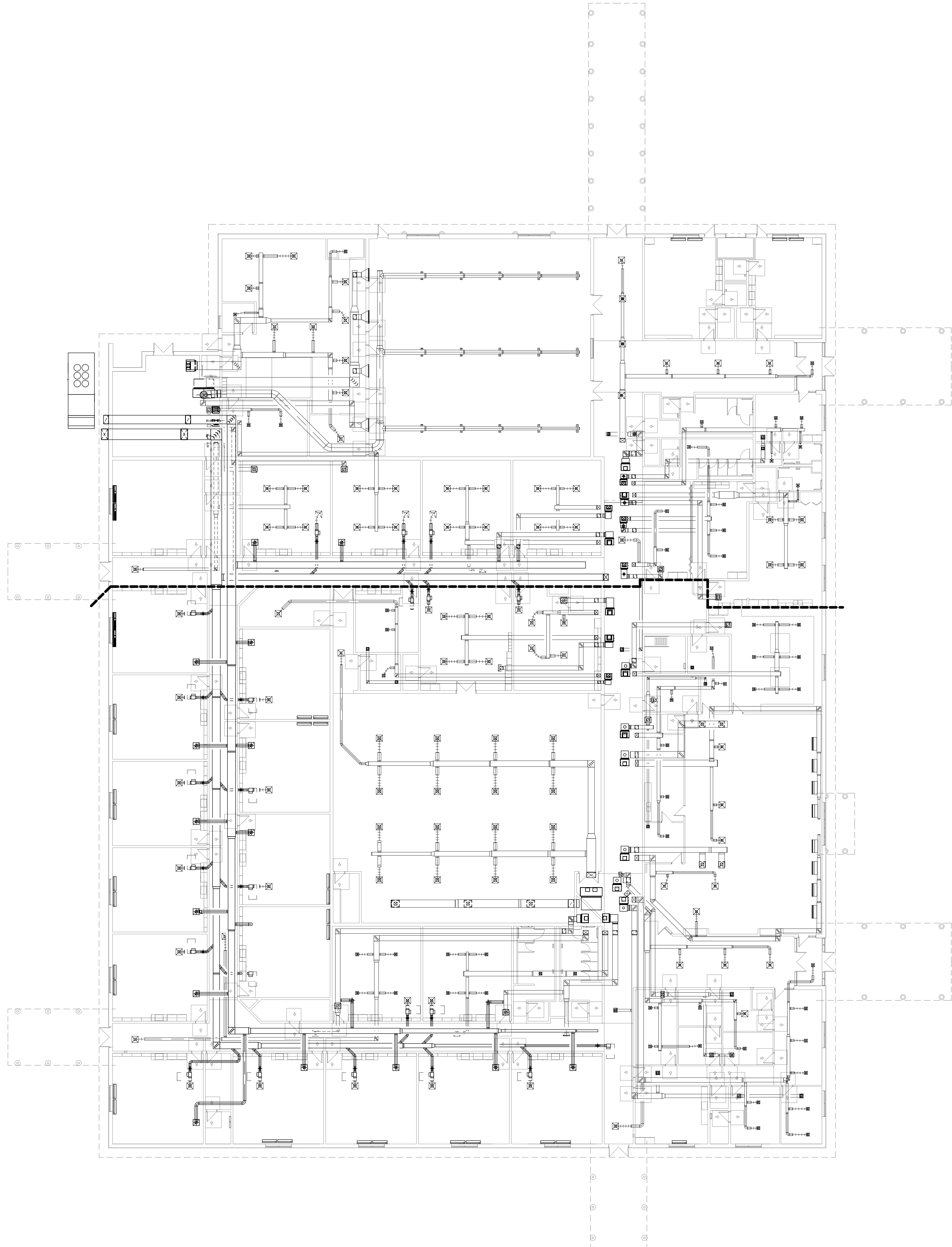
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EXISTING
PLATFORM
PLAN - HVAC

MD102

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1 FIRST FLOOR PLAN - OVERALL - HVAC

SCALE: 1/16" = 1'-0"

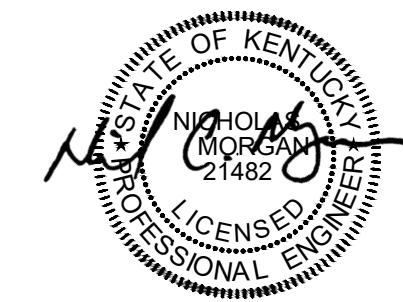
GENERAL NOTES

A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

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OVERALL
FIRST FLOOR
PLAN - HVAC

M100

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GENERAL NOTES

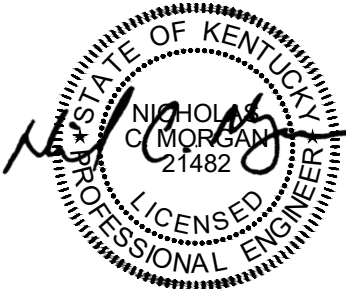
A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

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PROJECT 202159
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REVISIONS

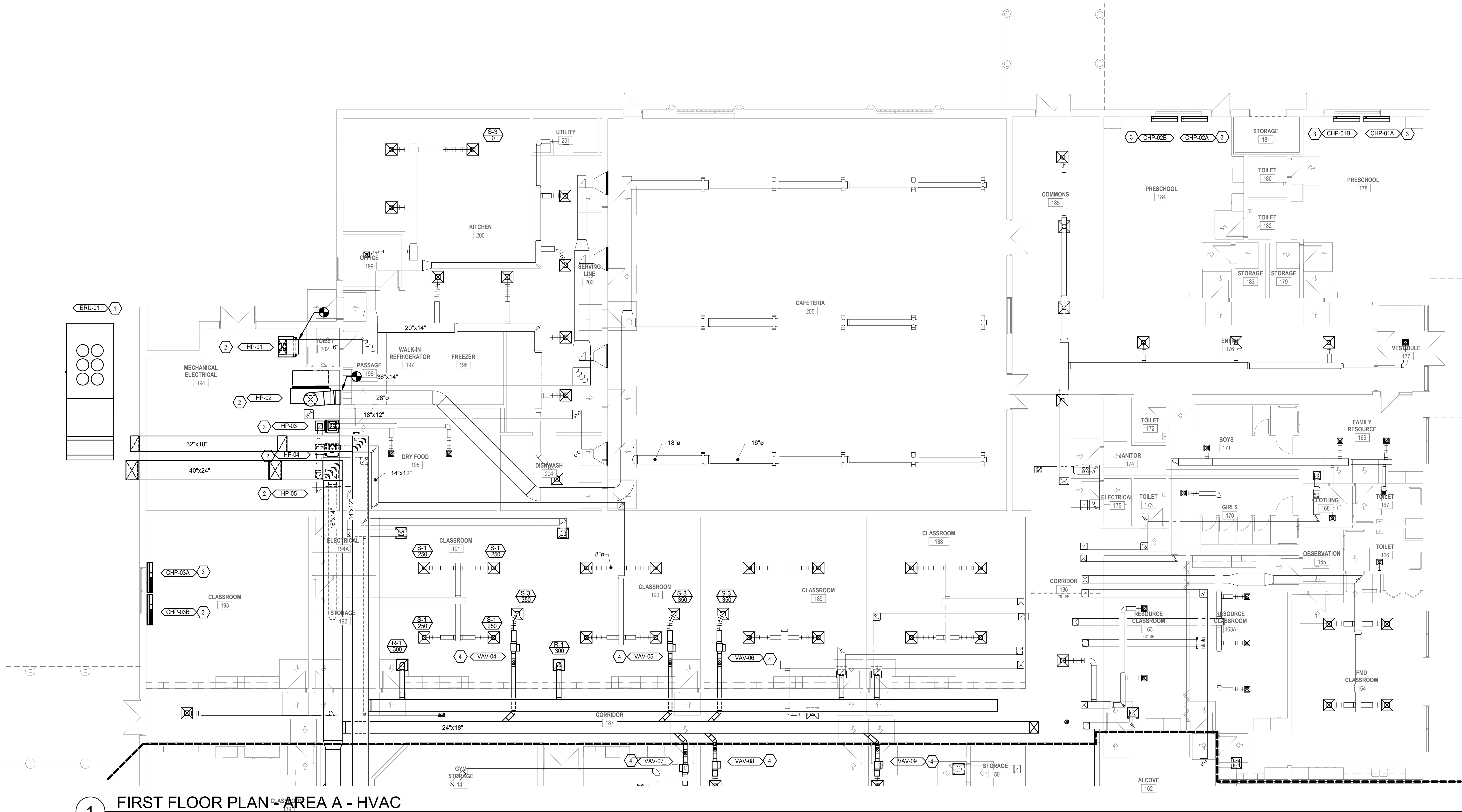
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FIRST FLOOR
CALLOUT PLAN
- AREA A -
HVAC

M101A

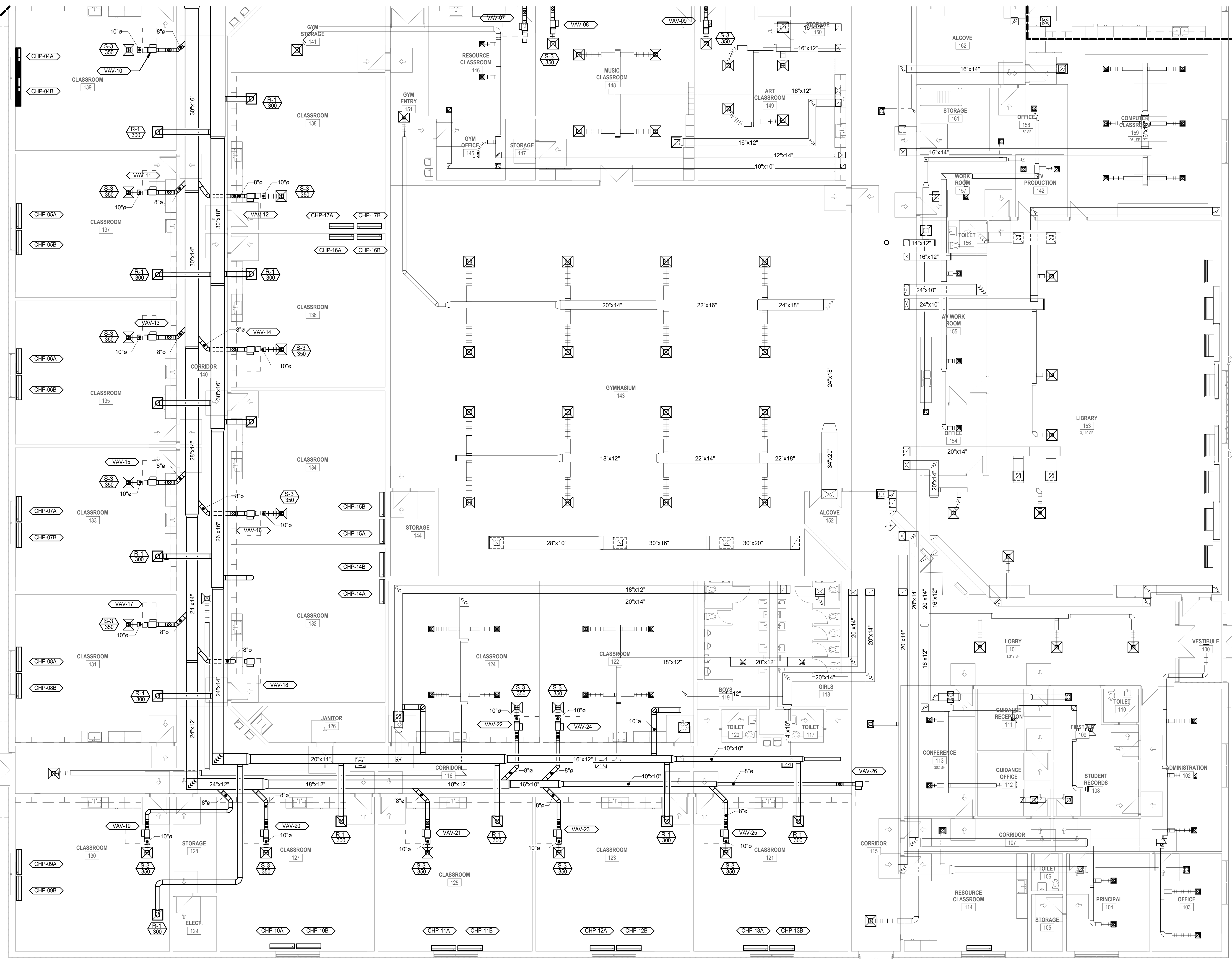
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1 FIRST FLOOR PLAN - AREA A - HVAC
SCALE: 1/8" = 1'-0"

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D
D

D
D
D



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

GENERAL NOTES
A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES
1. SHEET NOTES

VAV BOX SCHEDULE							
MARK	MANUFACTURER	MODEL	INLET	OUTLET	MAX CFM	MIN CFM	EXHAUST CFM
VAV-1	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-2	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-3	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-4	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-5	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-6	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-7	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-8	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-9	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-10	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-11	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-12	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-13	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-14	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-15	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-16	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-17	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-18	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-19	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-20	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-21	TRANE	VCCF	6" DIA.	10" DIA.	350	100	300
VAV-22	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-23	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-24	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-25	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-26	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335

SEE SPECIFICATION SECTION FOR MORE INFORMATION.

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Professional Engineer
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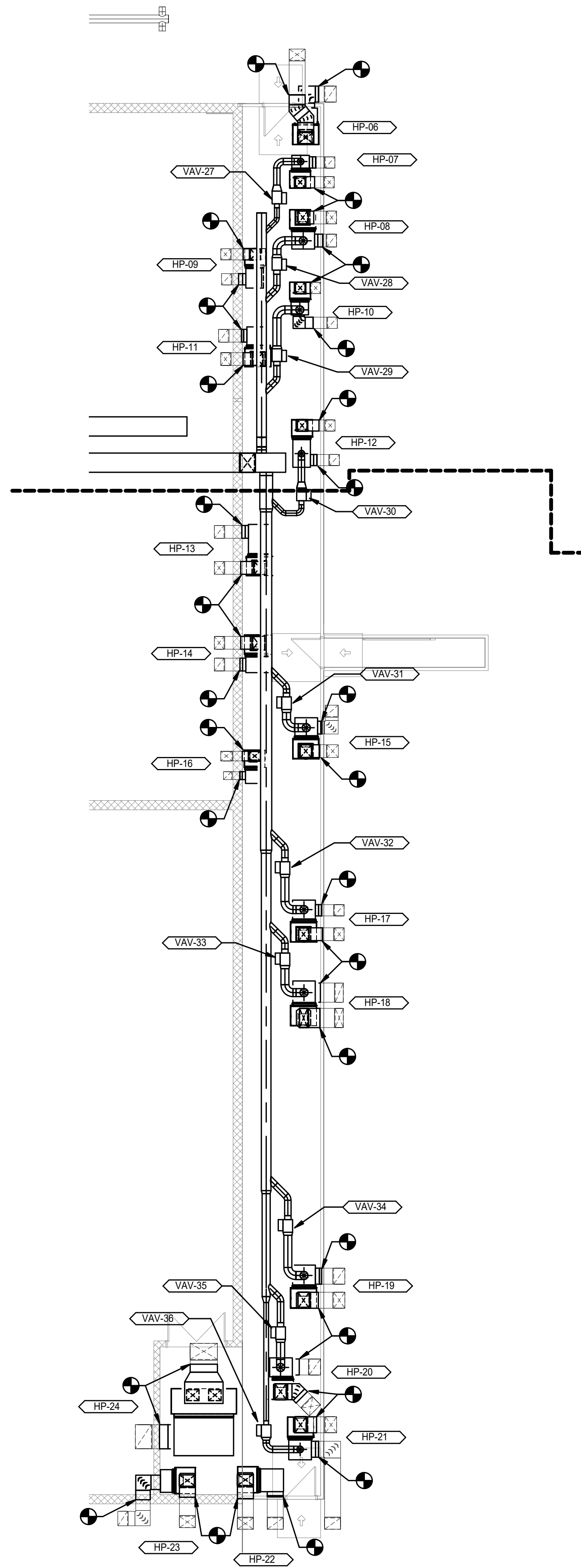
PROJECT	202159
DATE	01.19.2022
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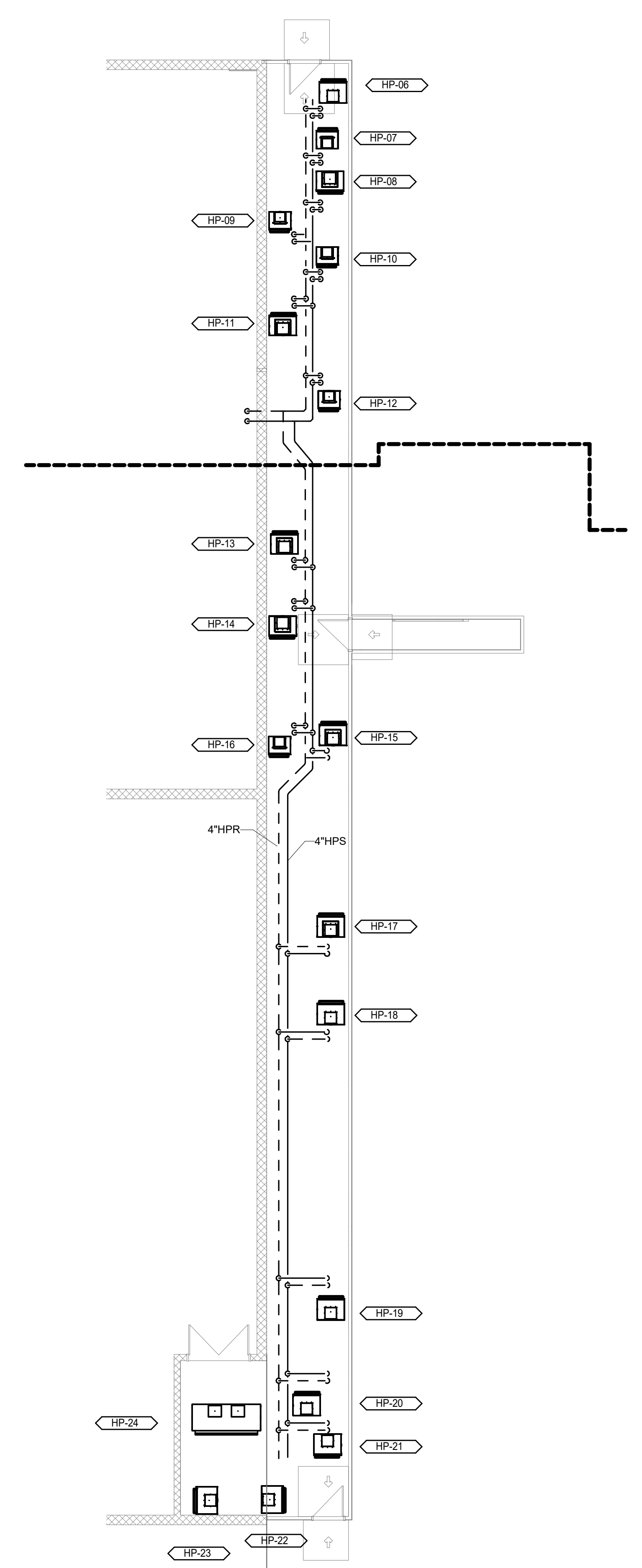
FIRST FLOOR
CALLOUT PLAN
- AREA B -
HVAC

M101B

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1 PLATFORM PLAN - HVAC
SCALE: 1/8" = 1'-0"



2 PLATFORM PLAN - HVAC PIPING
SCALE: 1/8" = 1'-0"

GENERAL NOTES

- A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES

1. PROVIDE AND INSTALL NEW VERTICAL WATER SOURCE HEAT PUMP UNIT WHERE INDICATED PER MANUFACTURERS INSTRUCTIONS. LOCATE IN THE SAME APPROXIMATE LOCATION AS THE EXISTING UNIT. SEE SCHEDULE THIS SHEET FOR CONNECTION SIZES (DUCT AND PIPING).
2. PROVIDE AND INSTALL NEW VAV BOX WHERE INDICATED PER MANUFACTURERS INSTRUCTIONS. COORDINATE LOCATION WITH EXISTING EQUIPMENT AND NEW EQUIPMENT.
3. CONNECT NEW SUPPLY/RETURN DUCT INTO EXISTING AT THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT CONNECTION POINTS AND PROVIDE ADDITIONAL DUCT AND DUCT FITTING AS NECESSARY FOR FINAL TIE IN.

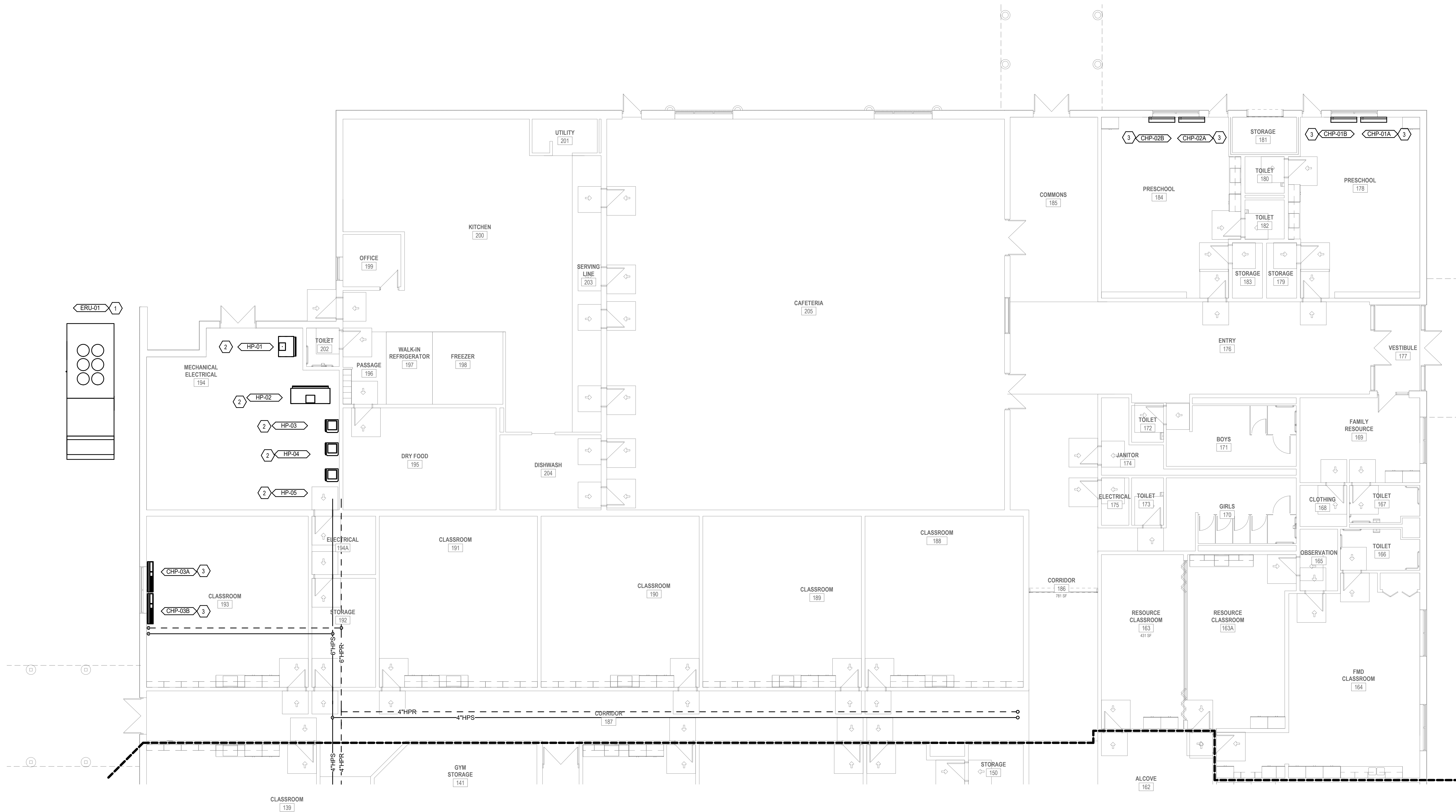
VAV BOX SCHEDULE							
MARK	MANUFACTURER	MODEL	INLET	OUTLET	MAX	MIN	EXHAUST
					CFM	CFM	CFM
VAV-27	TRANE	VCCF	6" DIA.	12" DIA.	400	100	380
VAV-28	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-29	TRANE	VCCF	6" DIA.	10" DIA.	345	95	335
VAV-30	TRANE	VCCF	6" DIA.	10" DIA.	340	140	325
VAV-31	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-32	TRANE	VCCF	6" DIA.	10" DIA.	350	100	335
VAV-33	TRANE	VCCF	6" DIA.	10" DIA.	340	140	325
VAV-34	TRANE	VCCF	6" DIA.	10" DIA.	340	140	325
VAV-35	TRANE	VCCF	6" DIA.	10" DIA.	345	95	335
VAV-36	TRANE	VCCF	6" DIA.	12" DIA.	450	150	430

SEE SPECIFICATION SECTION FOR MORE INFORMATION.

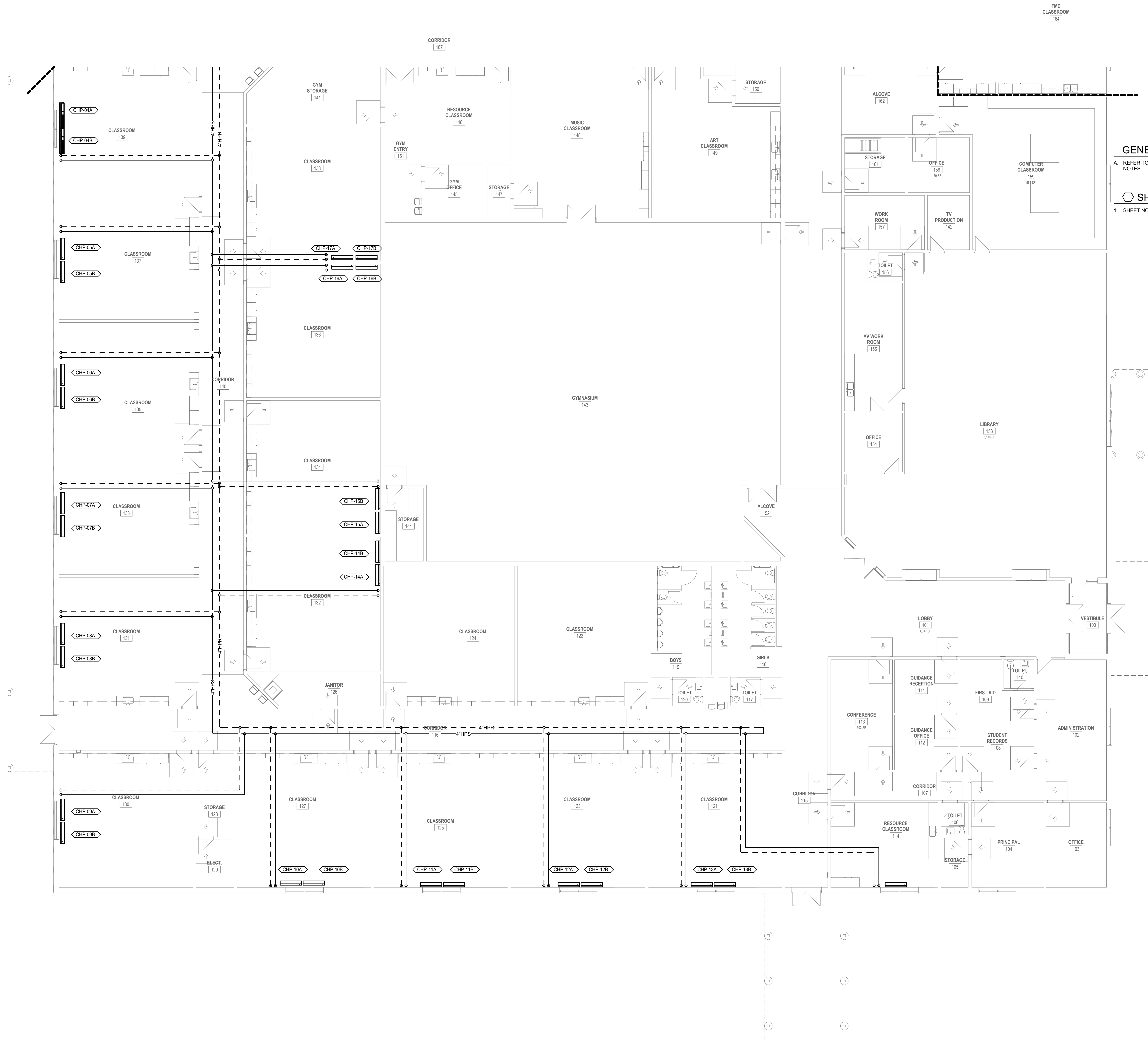
HEAT PUMP UNIT CONNECTIONS SCHEDULE				
ITEM NO.	DUCT CONNECTIONS			
	S/A DUCT	R/A DUCT	E/A DUCT	
HP-06	20X14	20X14	8" DIA.	
HP-07	14X14	14X14	10" DIA.	
HP-08	14X14	14X14	10" DIA.	
HP-09	16X14	16X14	10" DIA.	
HP-10	14X14	14X14	10" DIA.	
HP-11	14X14	14X14	10" DIA.	
HP-12	16X14	16X14	10" DIA.	
HP-13	14X14	14X14	10" DIA.	
HP-14	14X14	14X14	10" DIA.	
HP-15	16X14	16X14	10" DIA.	
HP-16	14X14	14X14	10" DIA.	
HP-17	14X14	14X14	10" DIA.	
HP-18	16X14	16X14	10" DIA.	
HP-19	14X14	14X14	10" DIA.	
HP-20	14X14	14X14	10" DIA.	
HP-21	16X14	16X14	10" DIA.	
HP-22	14X14	14X14	10" DIA.	
HP-23	14X14	14X14	10" DIA.	
HP-24	34X20	34X20	-	

HEAT PUMP UNIT CONNECTIONS SCHEDULE				
ITEM NO.	DUCT CONNECTIONS		COND. DIA.	
	SUPPLY & RET. DIA.	GPM		
HP-06	1-1/2"	9	1"	
HP-07	1-1/2"	9	1"	
HP-08	1-1/2"	9	1"	
HP-09	1-1/2"	9	1"	
HP-10	1-1/2"	9	1"	
HP-11	1-1/2"	9	1"	
HP-12	1-1/2"	9	1"	
HP-13	1-1/2"	9	1"	
HP-14	1-1/2"	9	1"	
HP-15	1-1/2"	9	1"	
HP-16	1-1/2"	9	1"	
HP-17	1-1/2"	9	1"	
HP-18	1-1/2"	9	1"	
HP-19	1-1/2"	9	1"	
HP-20	1-1/2"	9	1"	
HP-21	1-1/2"	9	1"	
HP-22	1-1/2"	9	1"	
HP-23	2"	30	1-1/2"	
HP-24	2"	37.5	1-1/2"	

NOTES: PROVIDE HOSE KITS FOR UNIT SUPPLY AND RETURN PIPE CONNECTIONS. REFER TO SHEET M-313 FOR DETAIL.



1 FIRST FLOOR PLAN - AREA A - HVAC PIPING
SCALE: 1/8" = 1'-0"



GENERAL NOTES

A. REFER TO DRAWING M0.1 FOR MECHANICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

1 FIRST FLOOR PLAN - AREA B - HVAC PIPING

SCALE: 1/8" = 1'-0"

01/19/22

PROJECT	202159
DATE	01.19.2022

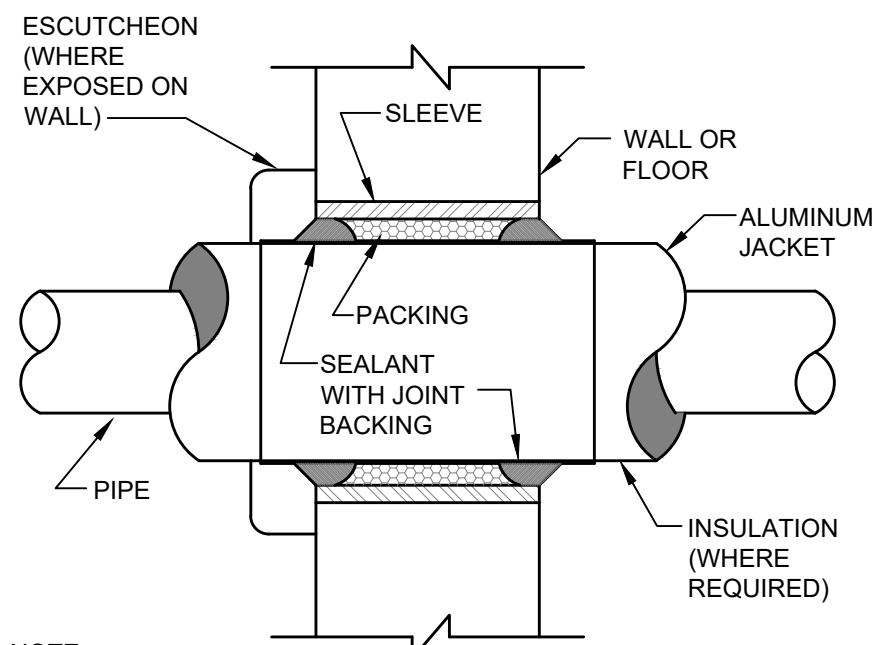
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FIRST FLOOR
LAYOUT PLAN
- AREA B -
HVAC PIPING

M201B

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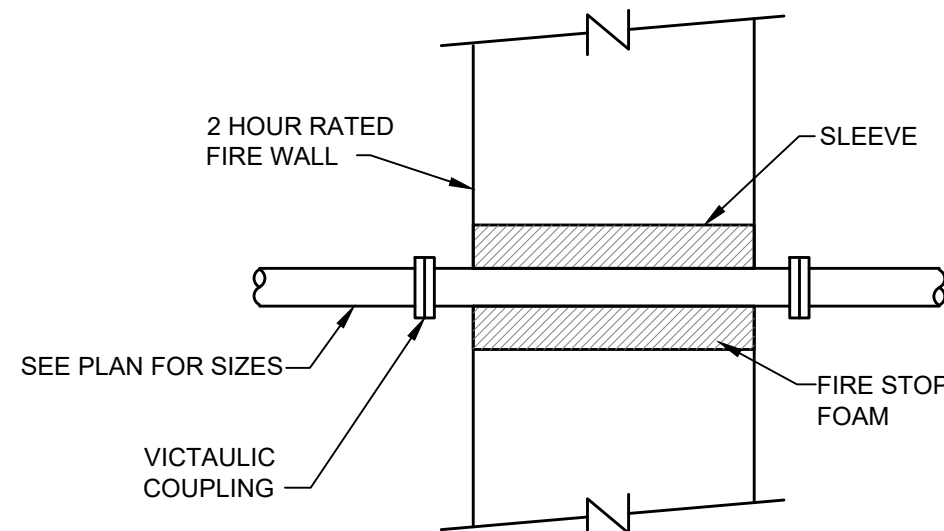


NOTE:
A. THIS DETAIL IS FOR NONFIRE-RATED CONSTRUCTION. PIPE PENETRATIONS IN FIRE-RATED CONSTRUCTION WHERE FIRE DAMPER IS NOT REQUIRED SHALL BE FIRESTOPPED WITH A UL-CLASSIFIED SYSTEM.
B. EXTEND SLEEVE 4" ABOVE FINISHED FLOOR FOR FLOOR SLAB PENETRATIONS. SEAL WATER-TIGHT.

PIPE PENETRATION THROUGH WALLS AND FLOORS DETAIL

NOT TO SCALE

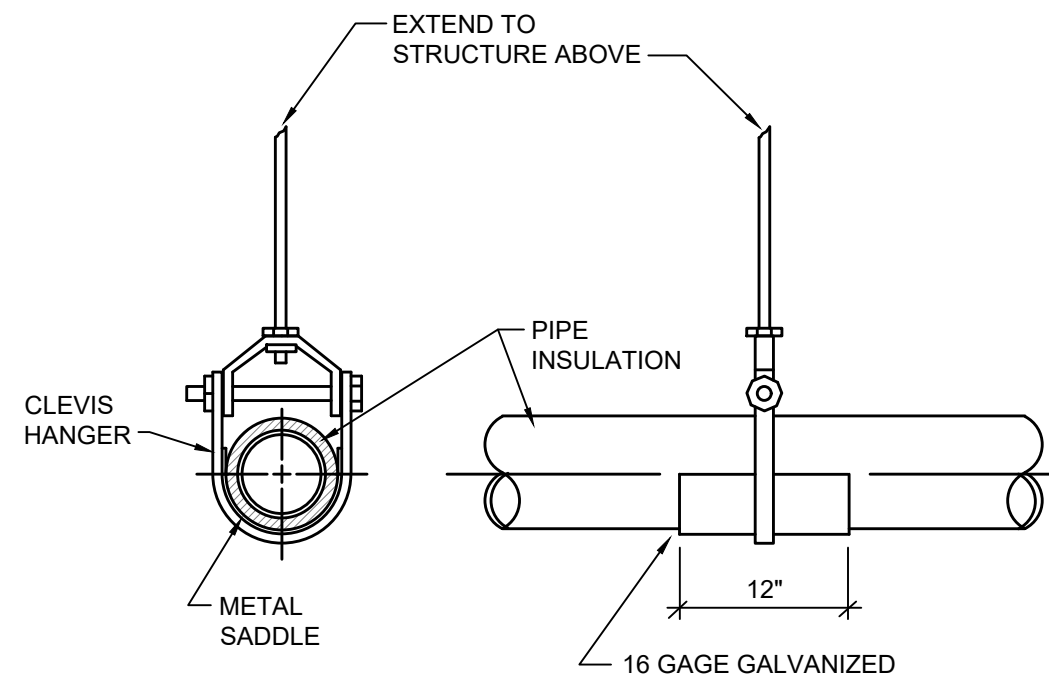
230517



FIRE WALL PIPING PENETRATION DETAIL

NOT TO SCALE

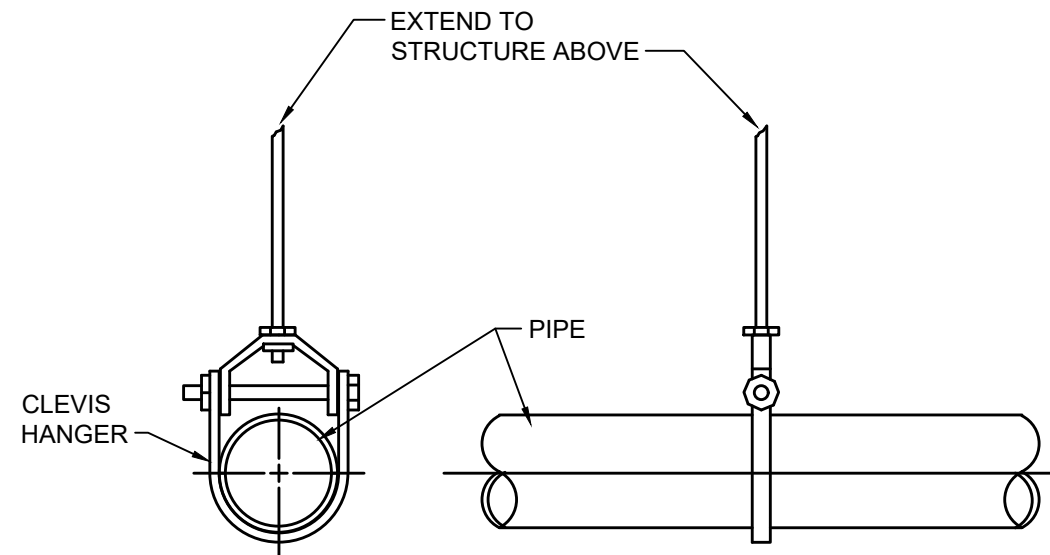
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INSULATED PIPE HANGER DETAIL

NOT TO SCALE

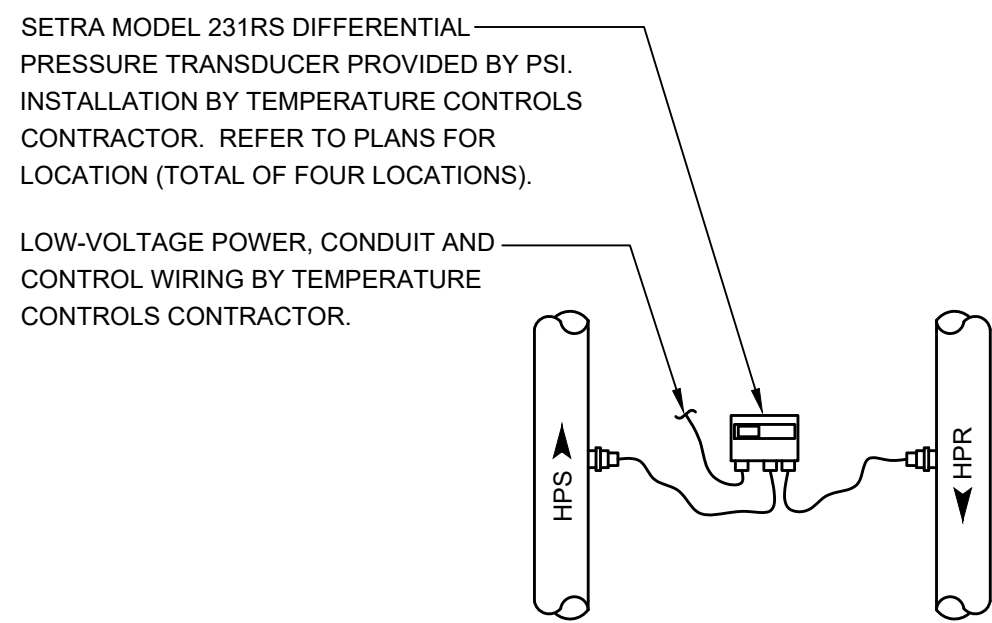
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UNISULATED PIPE HANGER DETAIL

NOT TO SCALE

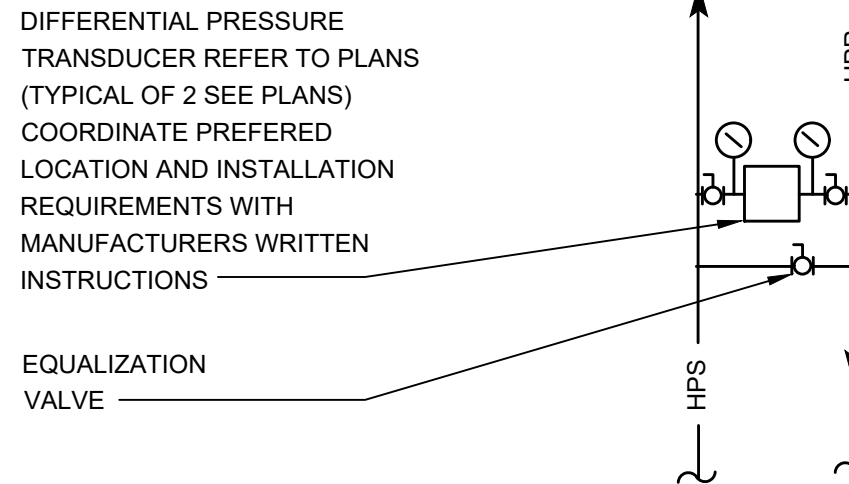
230529



DIFFERENTIAL PRESSURE TRANSDUCER DETAIL

NOT TO SCALE

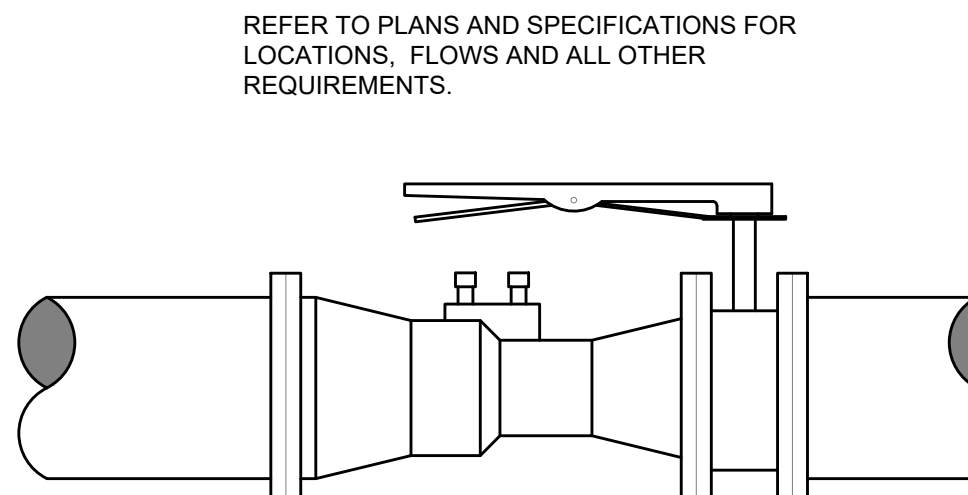
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DIFFERENTIAL PRESSURE TRANSDUCER DETAIL

NOT TO SCALE

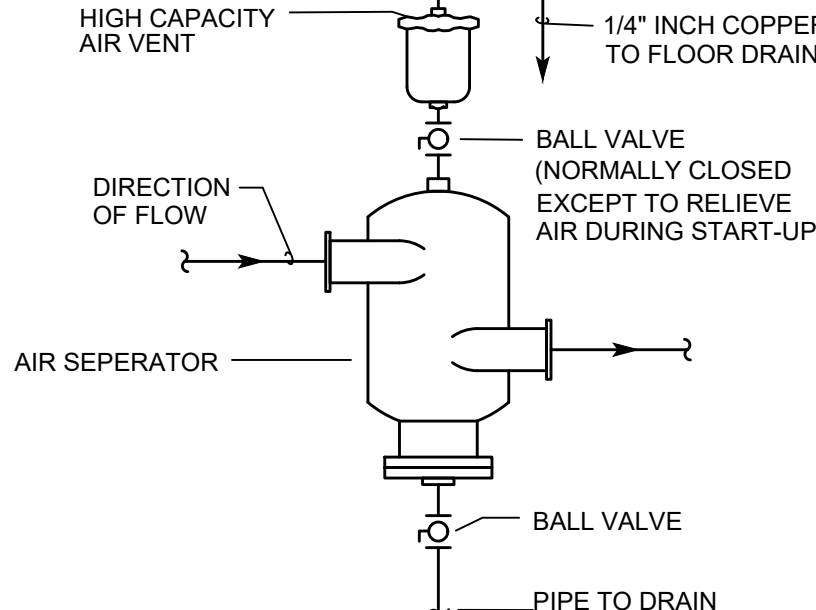
232116



END OF LINE BYPASS VALVE DETAIL

NOT TO SCALE

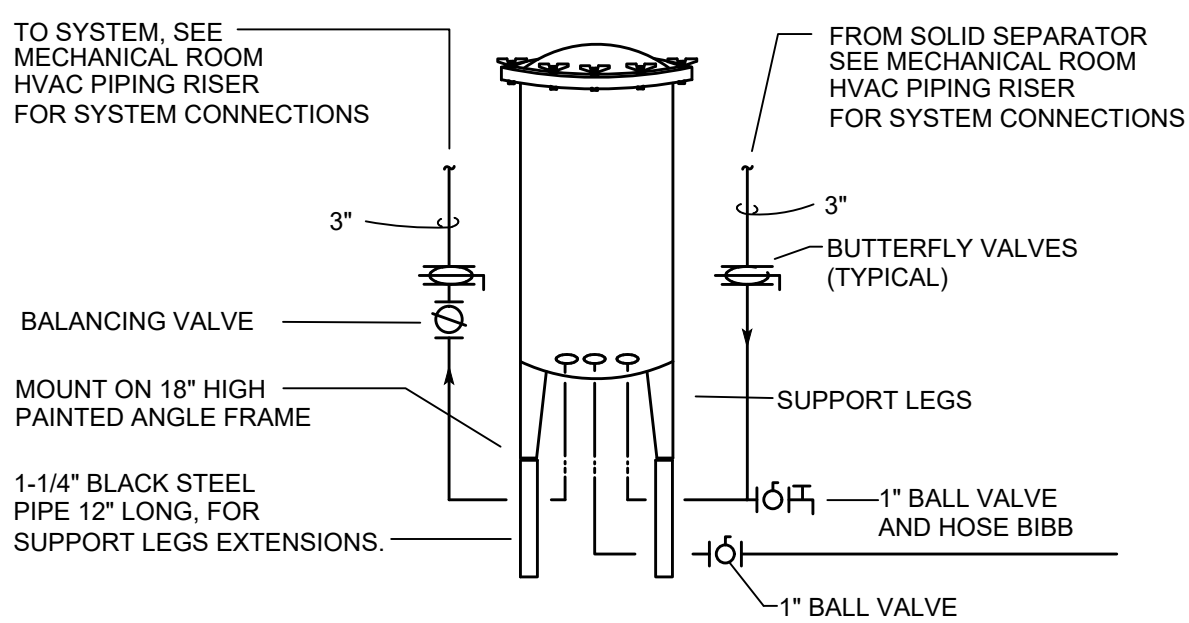
232116



AIR SEPARATOR PIPING DETAIL

NOT TO SCALE

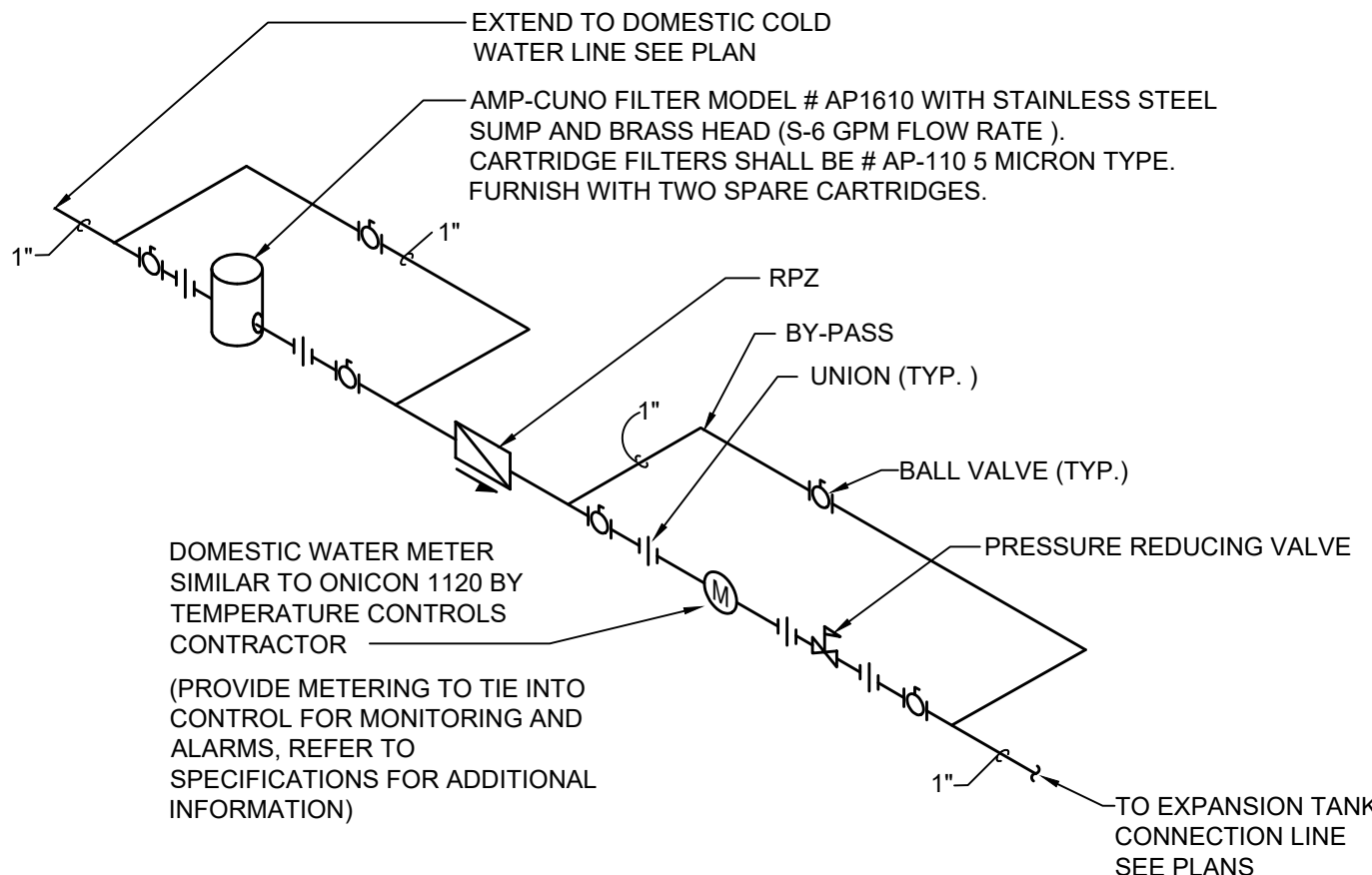
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COMBINATION FILTER/POT FEEDER DETAIL

NOT TO SCALE

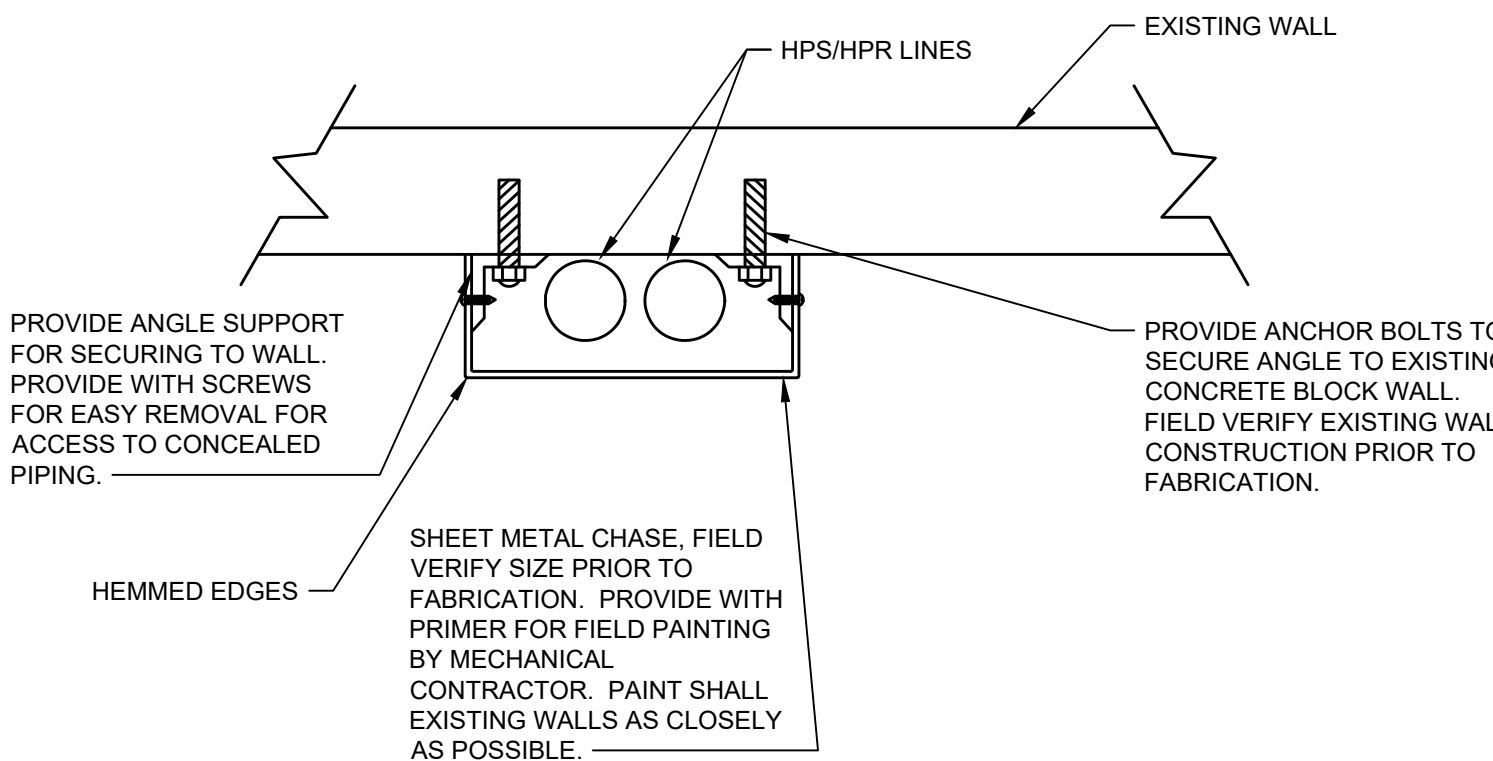
232500



MAKE-UP WATER STATION DETAIL

NOT TO SCALE

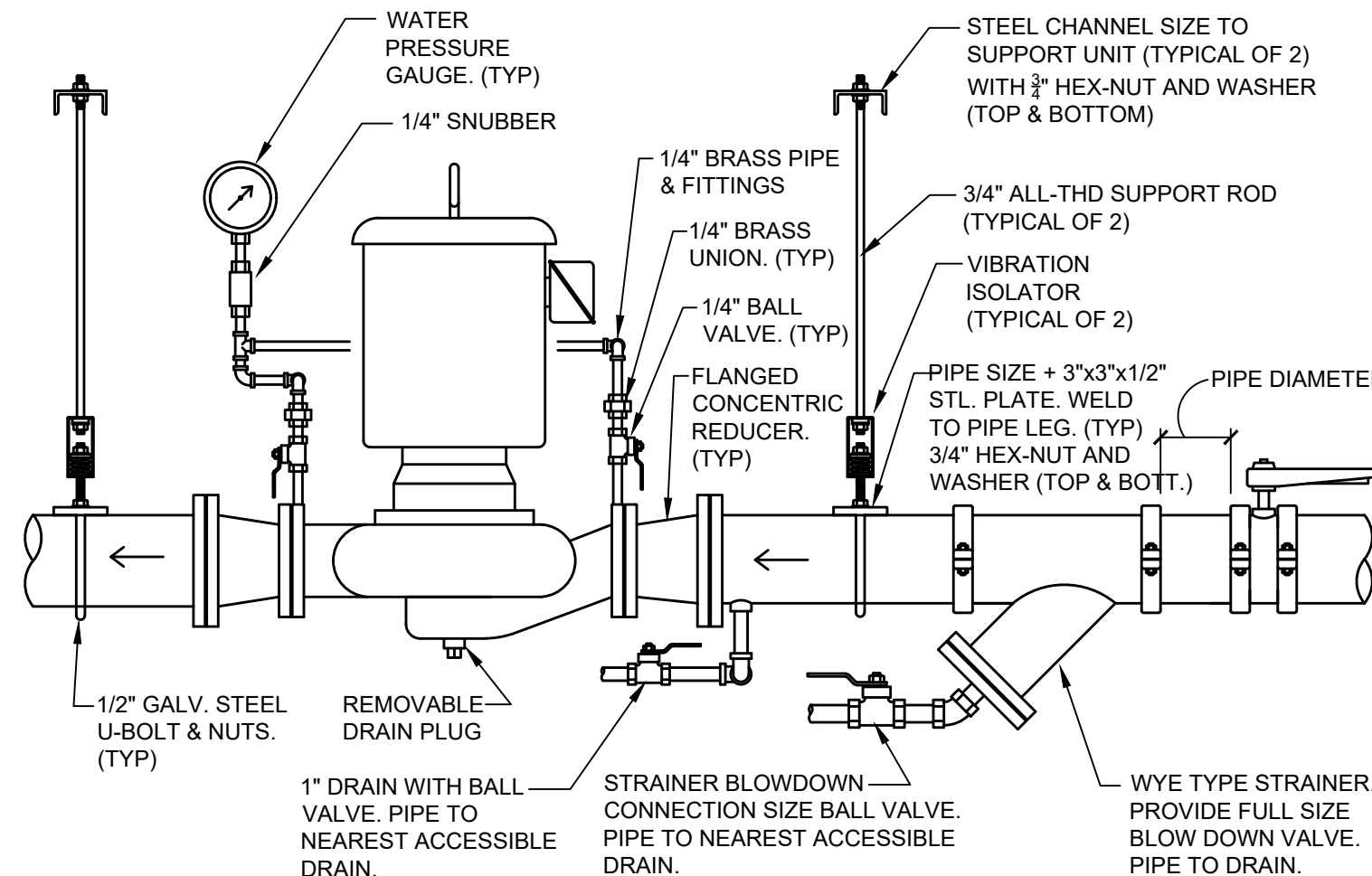
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VERTICAL SHEET METAL CHASE DETAIL

NOT TO SCALE

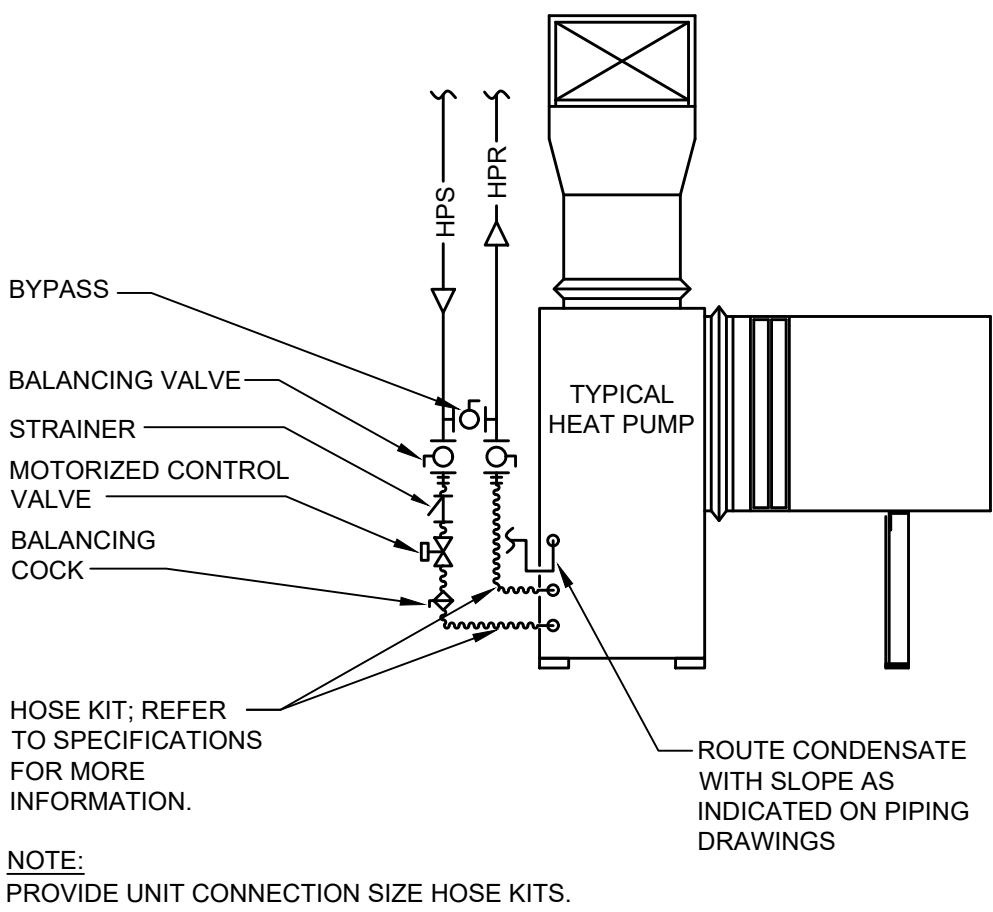
230529



IN-LINE PUMP DETAIL (SUSPENDED)

NOT TO SCALE

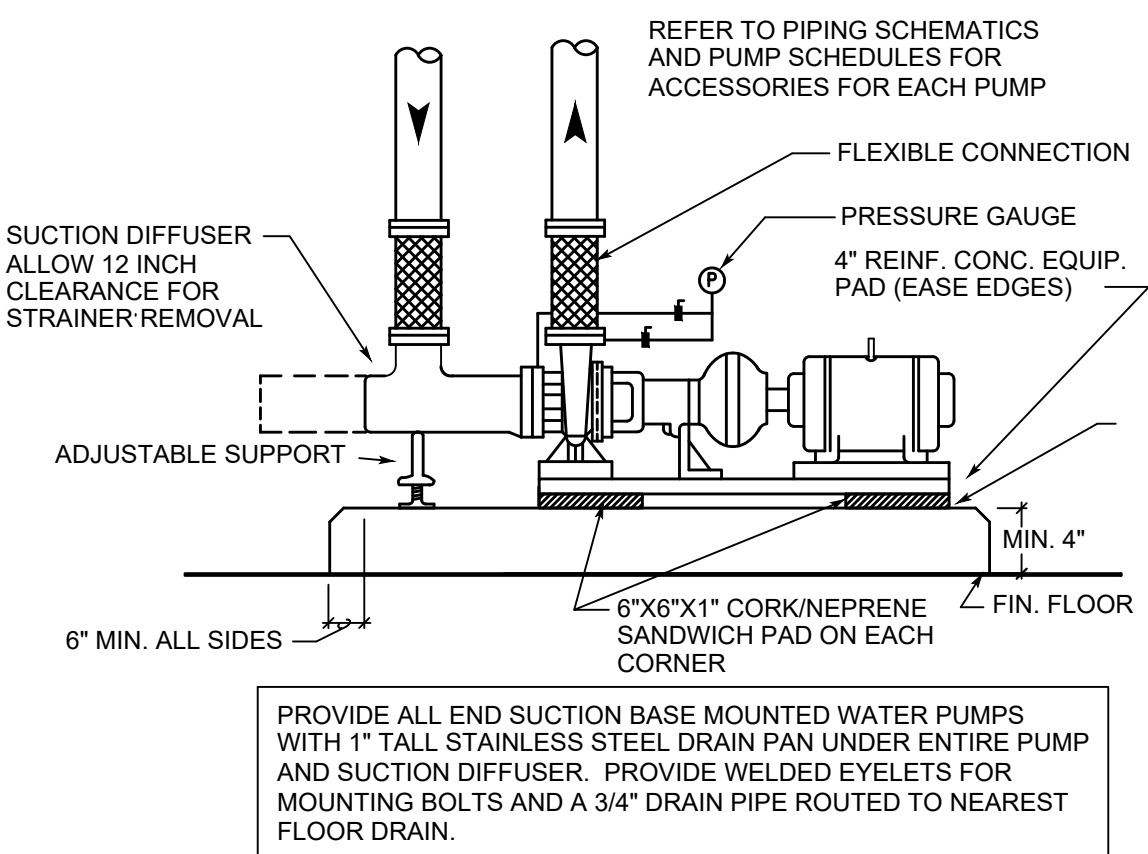
232123



VERTICAL HEAT PUMP PIPING DETAIL

NOT TO SCALE

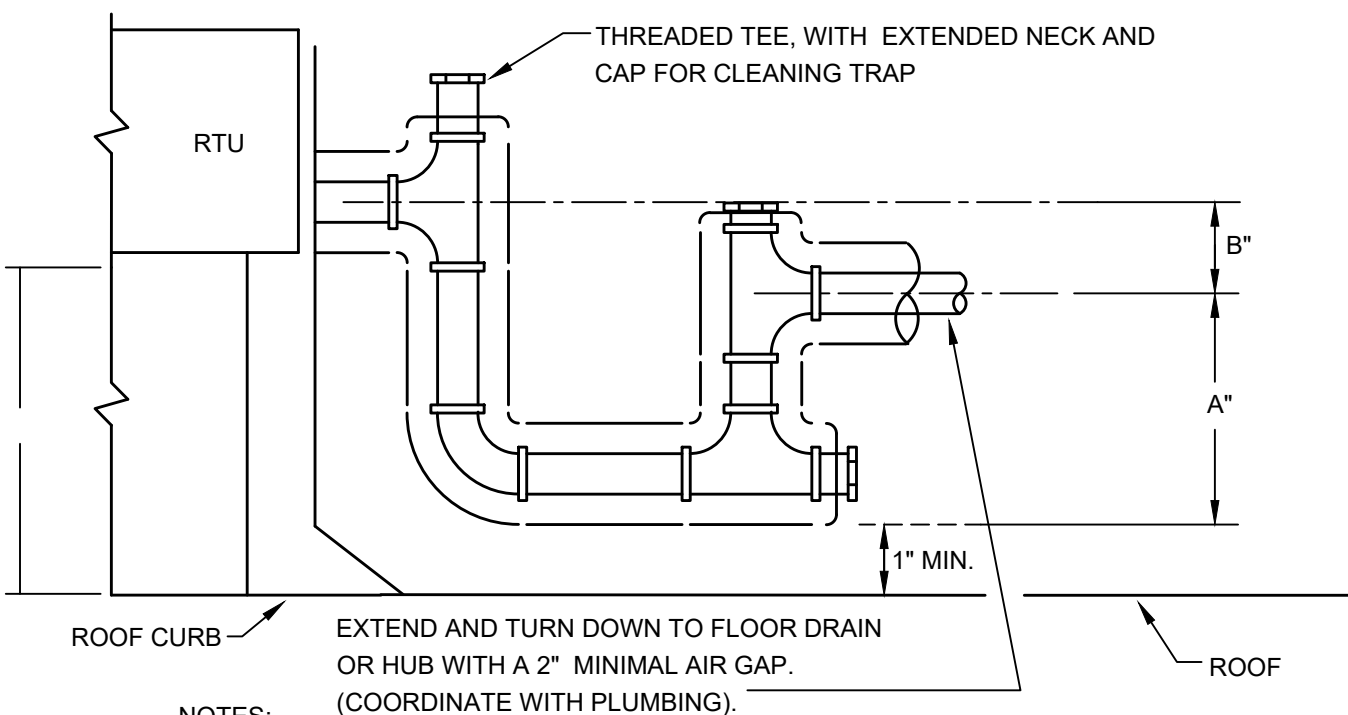
232116



BASE MOUNTED PUMP DETAIL

NOT TO SCALE

232123



CONDENSATE DRAIN TRAP

NOT TO SCALE

232113

01/19/22

MECHANICAL

PROJECT	202159	
DATE	01.19.2022	
REVISIONS		
No.	Description	Date

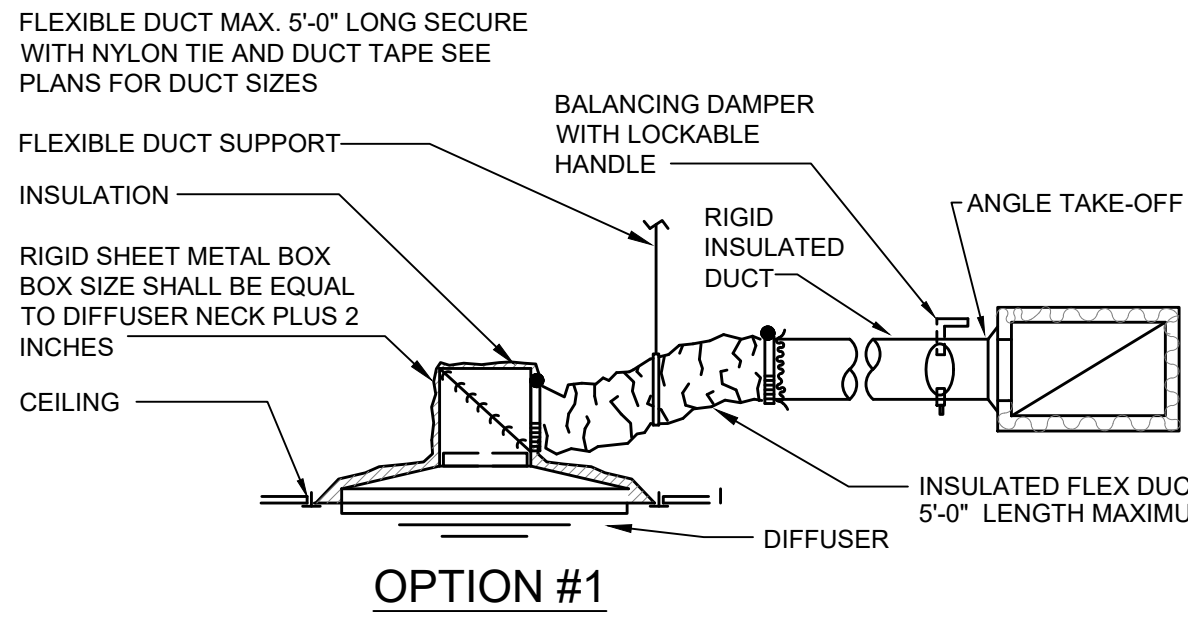
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MECHANICAL DETAILS

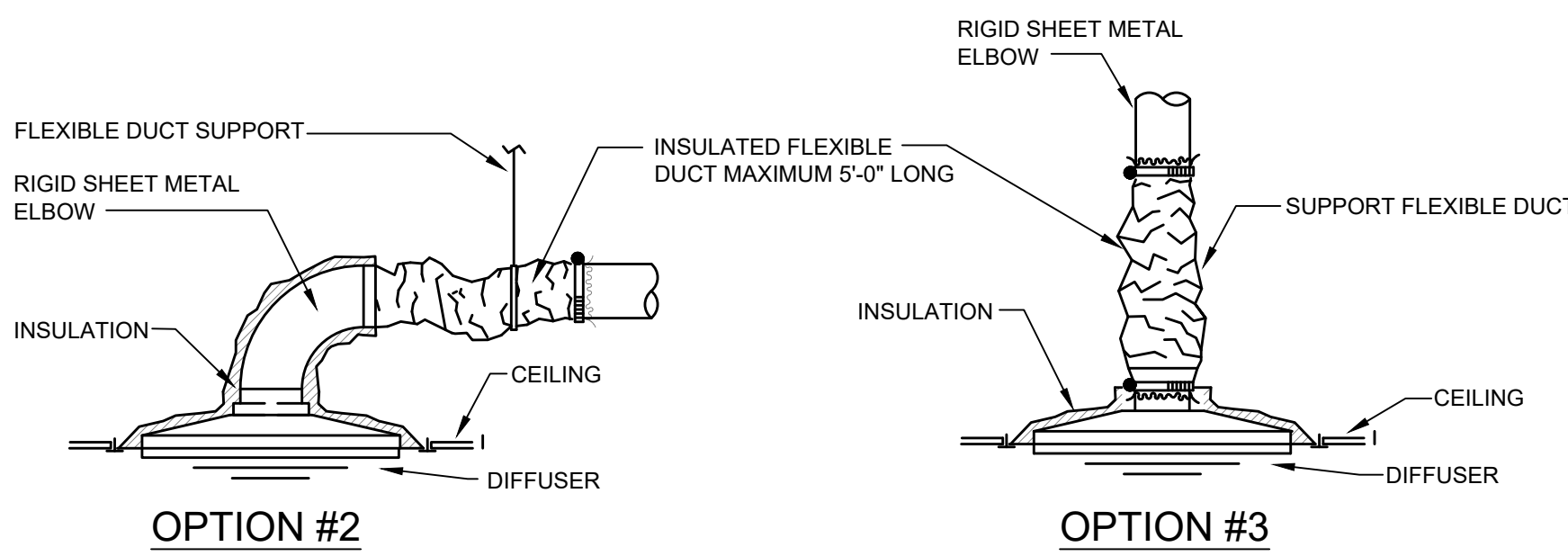
M501

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NOTE:
PROVIDE A MINIMUM OF FOUR (4) SHEET METAL SCREWS THRU 3-WRAPPS OF DUCT TAPE TO SECURE FLEXIBLE DUCT TO THE SHEET METAL PRIOR TO INSTALLING THE 1/4" WIDE PLENUM RATED NYLON TIE. THE FLEXIBLE DUCT INSULATION SHALL BE SECURED WITH 3-WRAPPS OF DUCT TAPE.



NOTE:
ALL MATERIALS USED FOR DUCT CONNECTION MUST BE PLENUM RATED.



DIFFUSER RUNOUT DETAIL

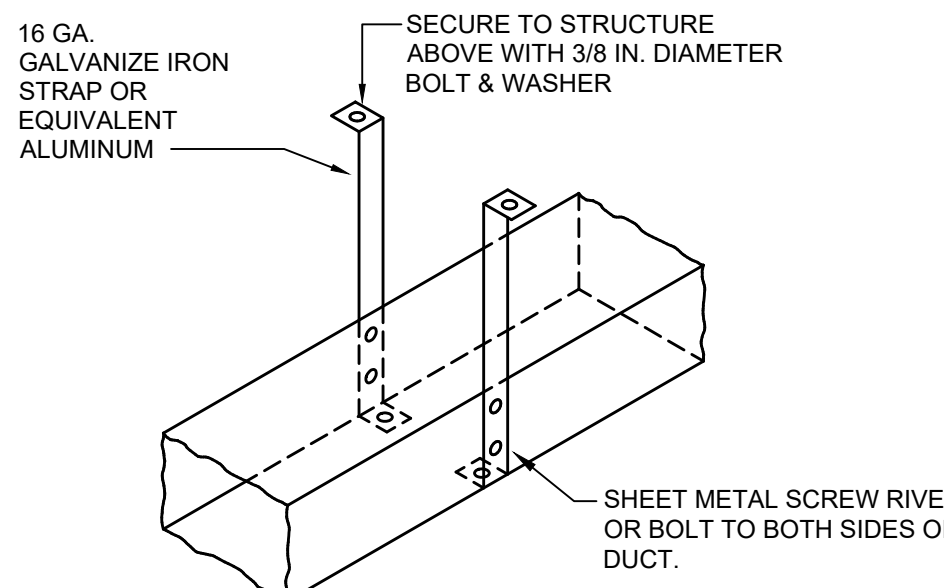
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233113

DUCT OBSTRUCTIONS

NOT TO SCALE

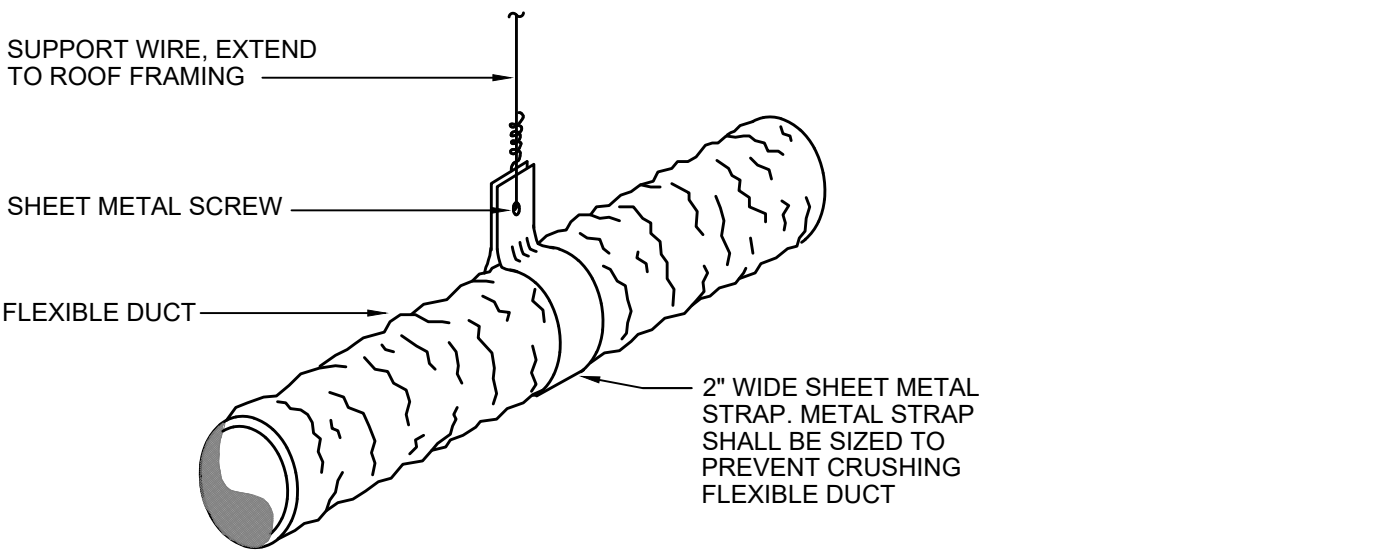
233113



RECTANGULAR DUCT HANGER DETAIL

NOT TO SCALE

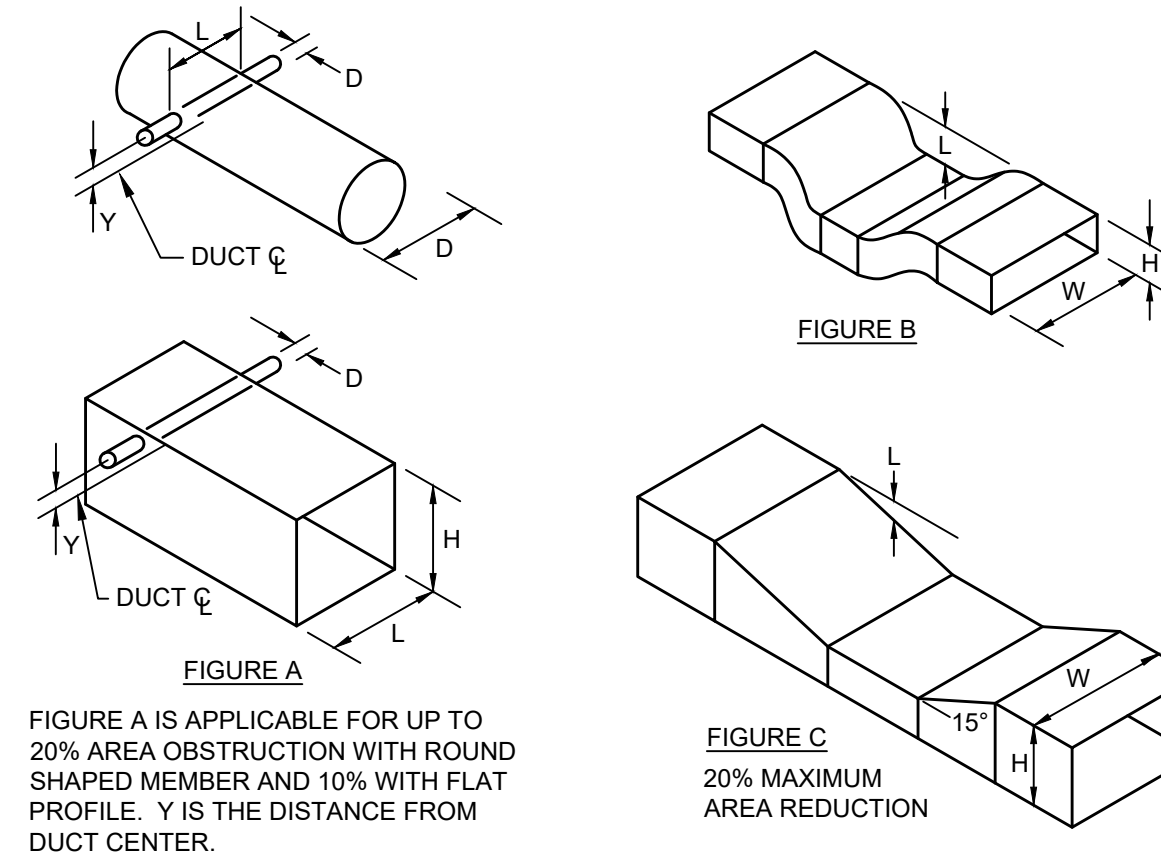
233113



FLEXIBLE DUCT SUPPORT DETAILS

NOT TO SCALE

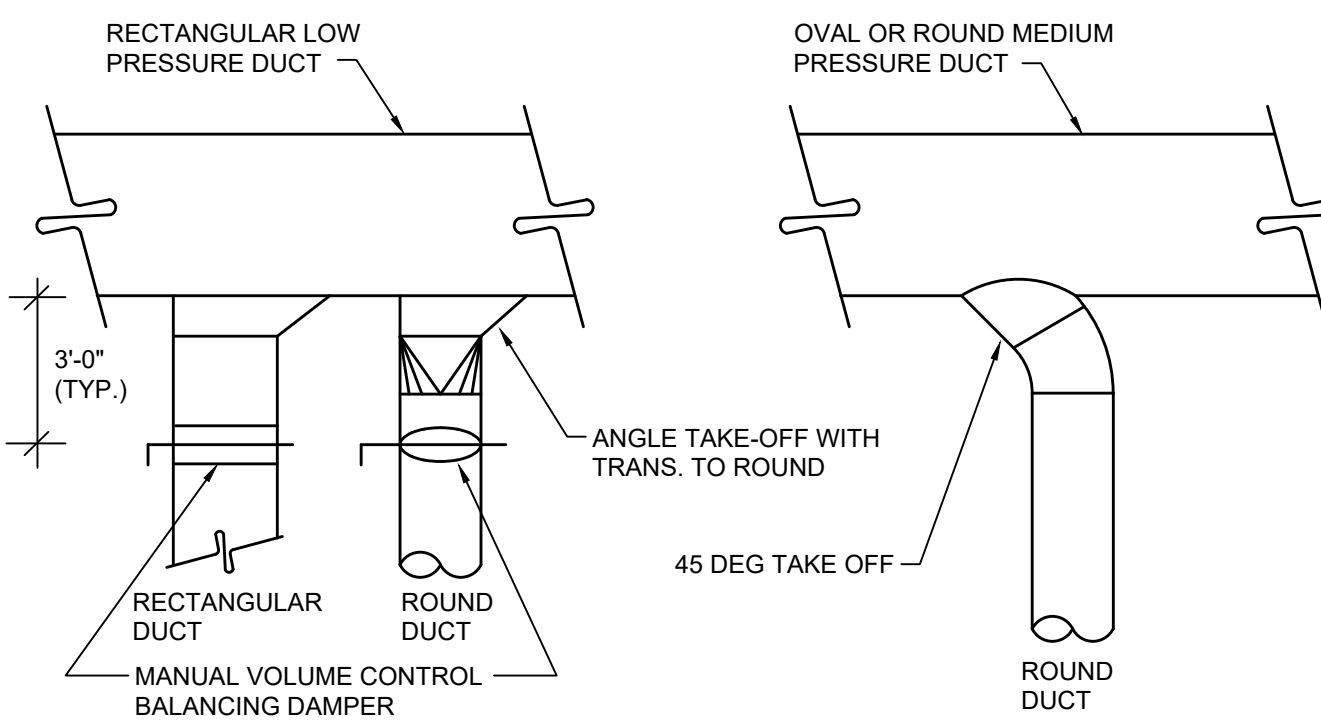
233113



LOW PRESSURE BRANCH TAKE OFF DETAIL

NOT TO SCALE

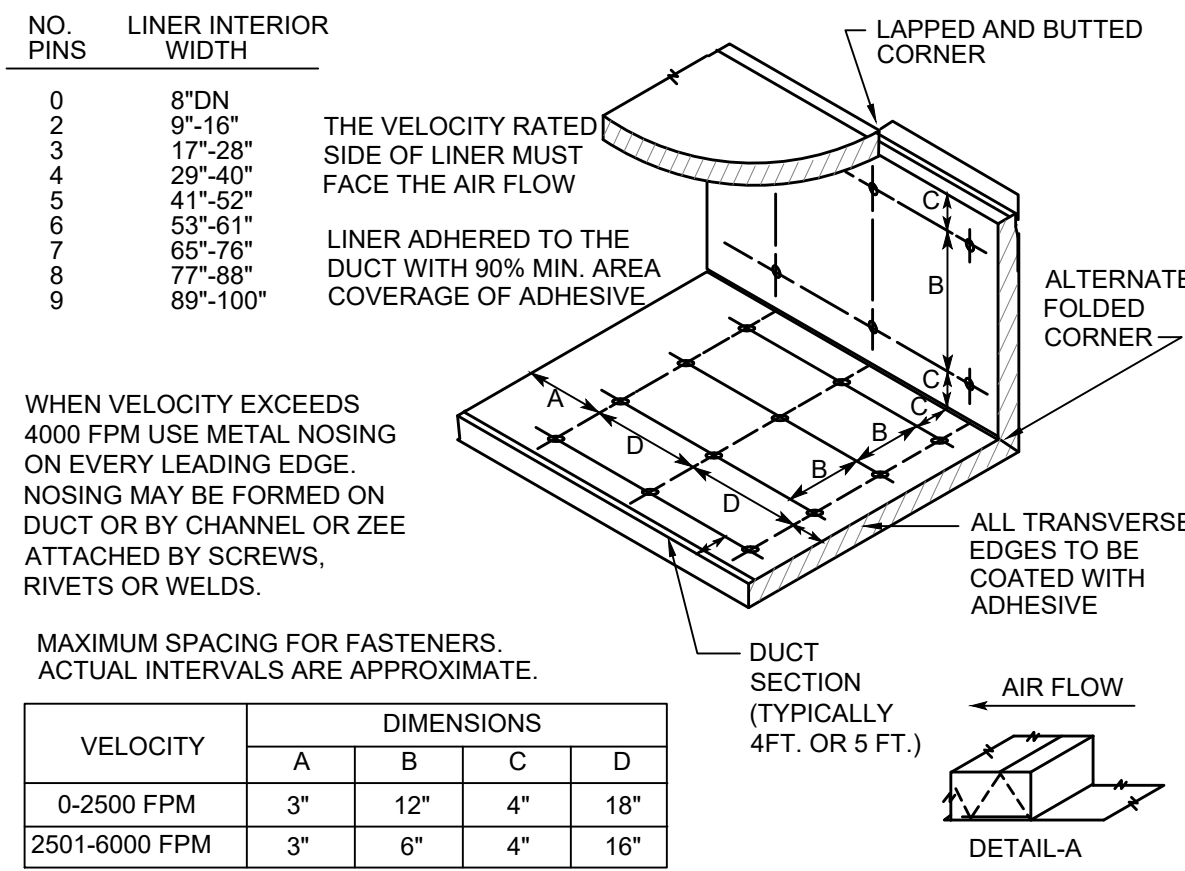
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BRANCH TAKE OFF DUCTWORK DETAIL

NOT TO SCALE

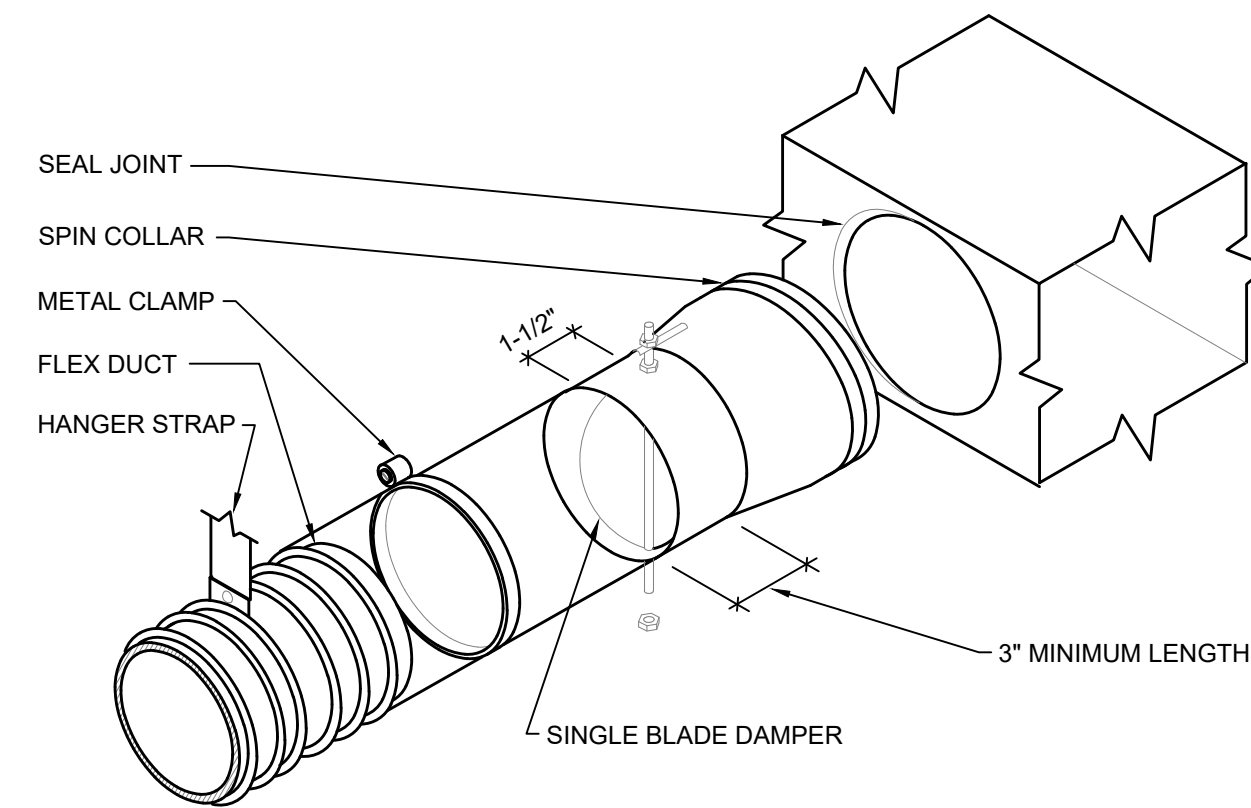
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DUCTWORK LINER INSTALLATION DETAIL

NOT TO SCALE

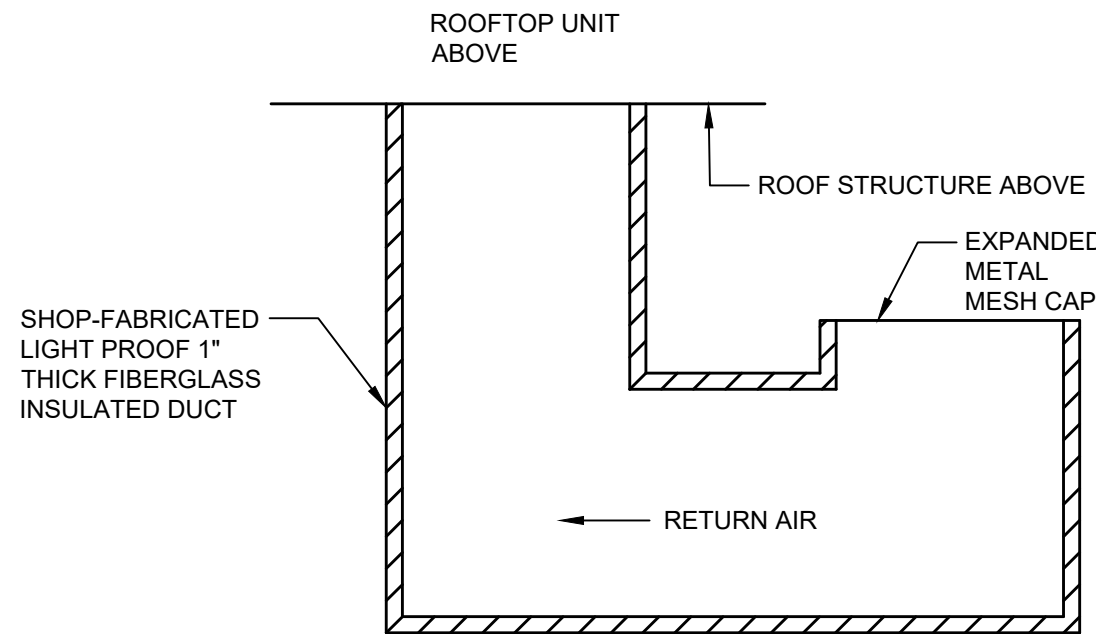
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SPIN COLLAR FLEXIBLE DUCT CONNECTOR WITH DAMPER

NOT TO SCALE

233113



ROOFTOP UNIT RETURN DUCT SOUND TRAP (TYP. OF PLENUM RETURNS)

NOT TO SCALE

233113

No.	Description	Date

JRA ARCHITECTS HAS RETAINED AN ELECTRONIC VERSION OF THESE DRAWINGS. THE CLIENT AGREES NOT TO REUSE THESE DRAWINGS - IN ELECTRONIC OR ANY OTHER FORMAT - IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR THE PROJECT. THE CLIENT AGREES NOT TO TRANSMIT THESE ELECTRONIC FILES TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT. THE CLIENT FURTHER AGREES TO WAIVE ALL CLAIMS AGAINST THE ARCHITECT RESULTING IN ANY WAY FROM ANY UNAUTHORIZED CHANGES TO OR REUSE OF THE ELECTRONIC FILES FOR ANY OTHER PROJECT BY ANYONE OTHER THAN THE ARCHITECT.

WATER-SOURCE HEAT PUMP UNIT SCHEDULE																			
MARK (HP-#)	MANUFACTURER	MODEL	NOMINAL TONNAGE	CAPACITY MODULATION	ESP (IN H2O)	AIRFLOW (CFM)	FLUID FLOW (GPM)	HYD. PIPING CONN. SIZE (IN)	WPD (FT H2O)	COOLING CAPACITIES			HEATING CAPACITIES		ELECTRICAL				REMARKS
										TOTAL (BTU/HR)	SENSIBLE (BTU/HR)	EER AT AHRI GEO LOOP CONDITIONS	TOTAL (BTU/HR)	COP AT AHRI GEO LOOP CONDITIONS	V/Hz/Ø	TOTAL UNIT FLA	MCA	MOCP	
CHP-ALL	TRANE	GEVE009	0.75	FULL	0.44	285	2.1	1/2	4.1	9,130	10,100	14.1	9,300	3.9	208/60/1	4.3	5.23	15	2,3,4,7,8,11
HP-03	TRANE	GEVE018	1.5	FULL	0.512	600	4.5	3/4	8.33	17,850	14,100	13	14,450	4.47	208/60/1	11.7	14.1	20	2,3,4,5,7,8,11
HP-05,11,14,15,16	TRANE	DXVFD24	2	PART	0.50	700	6.00	1	5.65	21,500	16,214	27.7	16,000	4.2	460/60/3	5.6	6.6	15	1,2,3,4,5,7,8,11
				FULL	0.50	836	6.00	1	8.47	26,830	20,340	17.7	20,260	5.3					
HP-04,06,07,08,09,10,12,13	TRANE	DXVFD36	3	PART	0.50	1090	9.0	1-1/4	8.00	30,200	23,514	27.2	24,000	4.3	460/60/3	9.0	10.6	15	1,2,3,4,5,7,8,11
				FULL	0.50	1254	9.0	1-1/4	8.00	38,710	29,630	16.6	31,960	5.1					
HP-17,19,20,21,22,23	TRANE	DXVFD48	4	PART	0.50	1400	12.0	1-1/4	10.33	41,100	39,935	26.7	32,700	4.4	460/60/3	10.7	12.5	15	1,2,3,4,5,7,8,11
				FULL	0.50	1672	12.0	1-1/4	10.33	49,800	37,940	17.1	41,510	5.5					
HP-18	TRANE	GEVE090	7.5	FULL	0.80	3000	22.0	2	16.70	88,470	68,490	14.1	69,280	4.68	460/60/3	15.2	16.8	20	2,3,4,5,7,8,11
HP-01	TRANE	GEVE120	10	FULL	0.80	4000	30.00	2	17.57	119,100	89,280	14.5	90,450	4.5	460/60/3	19.6	21.6	25	2,3,4,5,6,7,8,9,10,11
HP-02,24	TRANE	GEVE150	12.5	FULL	0.80	5000	38.00	2	16.73	151,440	105,020	15.4	117,530	4.8	460/60/3	24.3	27.0	35	2,3,4,5,6,7,8,9,10,11
Remarks:																			
1. TWO STAGE GEOTHERMAL WATER SOURCE HEAT PUMP UNIT																			
2. VERTICAL UNIT																			
3. PROVIDE WITH FLEXIBLE DUCT CONNECTIONS																			
4. PROVIDE WITH HOSE KIT SIZED PER LINE SIZE IN SCHEDULE																			
5. PROVIDE WITH VIBRATION ISOLATORS																			
6. PROVIDE WITH HOT GAS REHEAT.																			
7. PROVIDE WITH MOTORIZED WATER ISOLATION VALVE.																			
8. PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.																			
9. PROVIDE WITH 2" FILTER RACK.																			
10. PROVIDE WITH HOT GAS REHEAT.																			
11. PROVIDE WITH UNIT MOUNTED FILTER RACK.																			
OTHER ACCEPTABLE MANUFACTURERS INCULDE: DAIKIN, CLIMATE MASTER																			

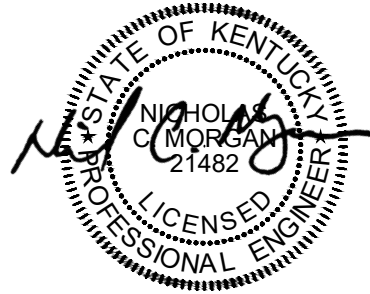
PUMP SCHEDULE														
MARK	MANUFACTURER	MODEL	LOCATION/FEEDING	FLOW (GPM)	HEAD (FT)	RPM	PUMP CONFIG.	CONNECTIONS		ELECTRICAL				REMARKS
								INLET	OUTLET	HP	V / Ø / Hz	MCA	MOCP	
P-1A,1B	BELL & GOSSETT	E1510-3GB	MECH ROOM/GEOTHERMAL	550	155	1800	BASE MTD.	6"	6"	40	208/3/60	65	90	ALL
REMARKS:														
1. PUMPS SHALL BE RATED FOR CONTINUOUS DUTY.														
2. PROVIDE HOA STARTER/DISCONNECT FOR EACH PUMP WITH CONTROL TRANSFORMER.														
3. PROVIDE WITH SUCTION DIFFUSER AND TRIPLE DUTY VALVE.														
4. MOTOR SHALL BE NON-OVERLOADING.														
5. PROVIDE PHASE FAILURE RELAY.														
6. PROVIDE WITH VARIABLE FREQUENCY DRIVE. TO BE PROVIDED BY TEMPERATURE CONTROLS CONTRACTOR.														
7. PROVIDE WITH STRAINER.														
OTHER ACCEPTABLE MANUFACTURERS INCLUDE: TACO, CRANE, ARMSTRONG. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.														

ENERGY RECOVERY UNIT SCHEDULE																													
UNIT										COOLING							HEATING				HEAT RECOVERY				ELECTRICAL			REMARKS	
MARK	MANUFACTURER	MODEL	EER / SEER	GPM	SUPPLY FANS			RETURN/EXHAUST FAN			LAT		TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	COMPRESSOR			TYPE	EWT/LWT	TOTAL CAPACITY (MBH)	EDB/LDB	WINTER SUPPLY LDB/LWB F	WINTER RETURN EDB/EWB F	SUMMER SUPPLY LDB/LWB F	SUMMER RETURN EDB/EWB F	V/Ø/Hz	MCA		MOCP
					AIRFLOW (CFM)	ESP (inH ₂ O)	MOTOR SIZE (HP)	AIRFLOW (CFM)	ESP (inH ₂ O)	MOTOR SIZE (HP)	LDB (F)	LWB(F)			STAGES	QTY	REFRIGERANT												
ERU-01	VALENT	VPRC-352-60G-WSHP-C-5DD	14.8	180	(2) 6750	1.5	(2) 10	(3) 4500	1.5	(3) 5	59.6	57.1	716.1	378	MULTIPLE	2	410A	HEAT PUMP	40/35	587.3	42.9/83.2	42.9/35.3	70/54.4	82.7/71.6	75/62.5	208/3/60	350	400	ALL
REMARKS:																													
COOLING DESIGN CONDITIONS: EAT 75F DB / 62F WB AND 95F DB / 78F WB AMBIENT. HEATING AMBIENT DESIGN CONDITIONS BASED ON 0F DB / 0F WB.													11. FACTORY MOUNTED DDC CONTROLLERS WITH BACNET INTERFACE.																
WATER-SOURCE HEAT PUMP													12. SEE SPECIFICATIONS FOR MORE INFORMATION																
MODULATING HEAT PUMP													13. PROVIDE VFDS ON SUPPLY AND RETURN/EXHAUST FANS																
CROSS-FLOW HEAT EXCHANGER																													
SINGLE POINT POWER CONNECTION WITH FACTORY INSTALLED DISCONNECT SWITCH AND 115V GFI CONVENIENCE OUTLET.																													
MODULATING HOT GAS REHEAT																													
FAN CYCLING CONTROL OPTION																													
HIGH AND LOW PRESSURE SWITCH.																													
COMPRESSOR SHORT CYCLE TIMER.																													
0. PROVIDE WITH 2 COMPLETE SETS OF FILTERS TO THE OWNER UPON COMPLETION																													
OTHER ACCEPTABLE MANUFACTURERS INCLUDE: VENMAR, SEMCO.																													

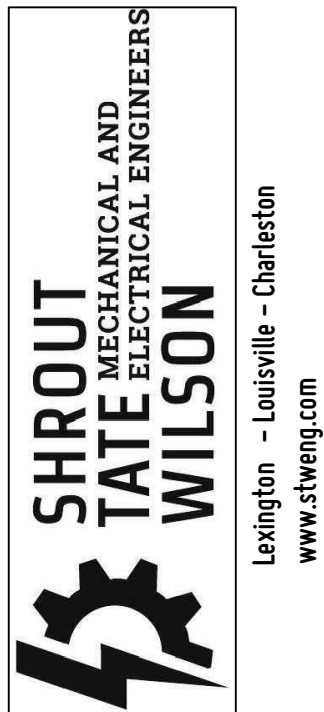
AIR DEVICE SCHEDULE								
MARK	MANUFACTURER	MODEL	MAX CFM	MODULE (IN)	AIR PATTERN	NECK (IN)	MAX NC	REMARKS
S-1	PRICE	SMD	100	24x24	4-WAY	6x6 (8" round)	20	2,5
S-2	PRICE	SMD	200	24x24	4-WAY	6x9 (8" round)	20	2,5
S-3	PRICE	SMD	375	24x24	4-WAY	12x12 (10" round)	20	2,5
R-1	PRICE	530	1,000	24x24	-	22x10	20	2,5,8,9
R-2	PRICE	530	1,000	24x24	-	22x10	20	2,5,8,9,11
<div>Remarks:</div> <div>1. SURFACED MOUNTED; SIDEWALL</div> <div>2. LAY-IN TYPE</div> <div>3. PROVIDE WITH CUSTOM COLOR. SELECTION BY ARCHITECT.</div> <div>4. DUCT MOUNTED</div> <div>5. COORDINATE AIR DEVICE LOCATIONS WITH REFLECTED CEILING PLANS PRIOR TO INSTALLATION. LIGHTING HAS PRIORITY OVER HVAC</div> <div>6. OPPOSED BLADE DAMPER</div> <div>7. PROVIDE SQUARE TO ROUND ADAPTER AS REQUIRED</div> <div>8. PROVIDE INSULATED PLENUM</div> <div>9. PROVIDE WITH 1/2"x1/2"x1" CUBE CORE OR ANGLED CORE.</div> <div>10. LINEAR SLOT DIFFUSER; (4) 1" SLOTS.</div> <div>11. FILTER GRILLE</div> <div>OTHER ACCEPTABLE MANUFACTURERS INCLUDE: KRUEGER, TITUS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.</div>								

EXPANSION TANK SCHEDULE							
MARK	MANUFACTURER	MODEL	LOCATION	SYSTEM VOLUME (GAL)	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	REMARKS
ET-1	BELL & GOSSETT	B800	MECH ROOM	10,500	450	450	ALL
<div>Remarks:</div> <div>1. ASME RATED</div> <div>2. 100 PSIG PRESSURE RATING</div> <div>3. SYSTEM VOLUME CALCULATED FROM DESIGN DOCUMENTS. CONTRACTOR TO VERIFY ACTUAL VOLUME OF INSTALLED SYSTEM.</div> <div>OTHER ACCEPTABLE MANUFACTURERS INCLUDE: WESSELS, WATTS.</div> <div>REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.</div>							

AIR SEPARATOR SCHEDULE					
MARK	MANUFACTURER	MODEL	INLET/OUTLET CONNECTIONS	FLOW GPM	REMARKS
AS-1	BELL & GOSSETT	R-6F	6"6"	550	ALL
<div>Remarks:</div> <div>1. ASME RATED COMPLETE WITH INTERNAL STRAINER AND AUTOMATIC AIR VENT</div> <div>OTHER ACCEPTABLE MANUFACTURERS INCLUDE: ARMSTRONG, WESSELS</div> <div>REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.</div>					



01/19/22



CONSTRUCTION DOCUMENTS

WOODLAND ELEMENTARY
SCHOOL HVAC RENOVATION

HARDIN COUNTY SCHOOLS
RADCLIFF, KENTUCKY



MECHANICAL

PROJECT 202159

DATE 01.19.2022

REVISIONS

No.	Description	Date

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MECHANICAL
SCHEDULES

M601

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ELECTRICAL LEGEND

LIGHTING	
SYMBOL	DESCRIPTION
	SURFACE MOUNTED LUMINAIRE (NORMAL & EMERGENCY)
	RECESSED LUMINAIRE (NORMAL & EMERGENCY)
	WALL MOUNTED LUMINAIRE (NORMAL AND EMERGENCY)
	RECESSED LUMINAIRE (NORMAL AND EMERGENCY)
	SURFACE MOUNTED LUMINAIRE (NORMAL AND EMERGENCY)
	LINEAR PENDANT LUMINAIRE (NORMAL AND EMERGENCY)
	CIRCULAR LUMINAIRE (NORMAL AND EMERGENCY)
	WALL BRACKET LUMINAIRE (NORMAL AND EMERGENCY)
	INDUSTRIAL STRIP LUMINAIRE (NORMAL AND EMERGENCY)
	TRACK LUMINAIRE
	CEILING FAN
	TWO-HEAD EMERGENCY LIGHTING UNIT
	EMERGENCY REMOTE HEAD (SINGLE OR DOUBLE)
	EMERGENCY EXIT SIGN WITH COMBINATION EMERGENCY LUMINAIRE WALL AND CEILING MOUNT
	EMERGENCY EXIT SIGN - SINGLE FACE WITH ARROWS AS INDICATED WALL AND CEILING MOUNTED
	EMERGENCY EXIT SIGN - DOUBLE FACE
	POLE MOUNTED LUMINAIRE
	FLOOD OR SPOT LUMINAIRE
	BOLLARD OR POST TOP LUMINAIRE
	LIGHTING CONTROL RISER REFERENCE TAG
	PHOTOCELL
	EMERGENCY POWER PACK
	EMERGENCY BYPASS RELAY (UL924)
	EMERGENCY TRANSFER CONTROL (UL1008)
	BATTERY PACK
	LIGHTING CONTROL POWER PACK
	PORT INJECTOR
	LOW VOLTAGE LIGHTING RELAY PANEL
	PLUG LOAD CONTROL PACK
	ROOM CONTROLLER
	NETWORK BRIDGE
	SYSTEM CONTROLLER
	USER CONTROLLER
	POWER SUPPLY
	TIME CLOCK
	CONTACTOR, POLES AS REQUIRED
	RJ45 CONTROL WIRE SPLITTER
	DAYLIGHT SENSOR
	DUAL TECHNOLOGY LOW VOLTAGE CORNER MOUNTED OCCUPANCY SENSOR WITH POWER PACK AND CEILING MOUNT OR WALL MOUNT BRACKET AS SHOWN
	DUAL TECHNOLOGY LOW VOLTAGE CEILING MOUNTED, 360° OCCUPANCY SENSOR
	LIGHTING CONTROL PANEL
	LIGHT SWITCH - SUBSCRIPT INDICATES THE FOLLOWING: 3 - 3 WAY, 4 - 4 WAY, K - KEY OPERATED, D - DIMMER, OS - LINE VOLTAGE OCCUPANCY SENSOR, L - LOW VOLTAGE, M - MANUAL MOTOR STARTER W/ HANDLE GUARD KIT AND PADLOCK. SEE LIGHTING CONTROL DIAGRAM SHEET FOR OTHER SUBSCRIPTS.

ONE LINE DIAGRAM	
SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	GROUND FAULT PROTECTION
	VARIABLE FREQUENCY DRIVE
	DIGITAL MONITORING METER
	SURGE PROTECTION DEVICE
	DIGITAL METER DISPLAY
	POWER METERING DEVICE
	NON FUSED SWITCH
	FUSED SWITCH
	FUSE
	RELAY (NORMALLY OPEN)
	PANEL
	DOUBLE THROW SWITCH OR TRANSFER SWITCH

POWER	
SYMBOL	DESCRIPTION
	TAMPER RESISTANT DUPLEX RECEPTACLE - SUBSCRIPT INDICATES THE FOLLOWING: C - INSTALL 4 INCHES ABOVE COUNTER OR BACKSPLASH, CM - CEILING MOUNTED, E - EMERGENCY, G - GROUND FAULT CIRCUIT INTERRUPTER, GB - BLANK FACE GROUND FAULT INTERRUPT, IG - ISOLATED GROUND, P - SPLIT-WIRED PLUG LOAD CONTROL, WP - WEATHER PROOF, U - WITH USB PORT
	TAMPER RESISTANT QUADRUPLX RECEPTACLE
	TAMPER RESISTANT SINGLE RECEPTACLE
	TAMPER RESISTANT SPECIAL PURPOSE RECEPTACLE
	TAMPER RESISTANT PEDESTAL MOUNTED RECEPTACLE
	TAMPER RESISTANT FLOOR MOUNTED RECEPTACLE AND COVERPLATE. SEE PLAN FOR CONFIGURATION.
	POKE THRU BOX
	COMBO POKE THRU BOX
	COMBINATION FLOOR BOX WITH THREE DUPLEX RECEPTACLES AND RJ45 DATA JACKS. PROVIDE WITH COVERPLATE. INSTALL CATEGORY UTP WET LOCATION CABLES IN A 1 INCH CONDUIT FROM THE DATA COMPARTMENT TO THE NEAREST MDF OR IDF (X - X - INDICATES THE NUMBER OF JACKS AND CABLES)
	EMERGENCY SHUT-OFF BUTTON
	JUNCTION BOX
	HAND DRYER
	DISCONNECT SWITCH (SIZE/FUSING/POLES/NEMA - OPTIONAL)
	ENCLOSED CIRCUIT BREAKER DISCONNECT (SIZE/POLES/NEMA - OPTIONAL)
	COMBINATION MOTOR STARTER AND DISCONNECT (SIZE/FUSING/POLES/NEMA - OPTIONAL)
	MOTOR STARTER (SIZE/FUSING/POLES/NEMA - OPTIONAL)
	VARIABLE FREQUENCY DRIVE
	MOTOR
	CORD REEL
	CONDUIT TURNED DOWN
	CONDUIT TURNED UP
	CONDUIT WITH END CAP
	EQUIPMENT CONNECTION
	CONDUIT CONTINUATION
	TRANSFORMER: X - INDICATES IDENTIFICATION
	SURFACE MOUNTED PANELBOARD/DISTRIBUTION PANEL/AUTOMATIC TRANSFER SWITCH: X - INDICATES IDENTIFICATION
	FLUSH MOUNTED PANELBOARD: X - INDICATES IDENTIFICATION
	EXISTING SURFACE MOUNTED PANELBOARD/DISTRIBUTION PANEL: X - INDICATES IDENTIFICATION
	EXISTING FLUSH MOUNTED PANELBOARD: X - INDICATES IDENTIFICATION
	GROUND ROD
	LOW-VOLTAGE CIRCUIT WITH CONDUCTOR TYPES AS REQUIRED BY THE MANUFACTURER FOR THE PARTICULAR SYSTEM
	UTP LIGHTING CONTROL CABLE
	CIRCUIT CONNECTED TO EMERGENCY POWER
	SURFACE MOUNTED RACEWAY
	BRANCH CIRCUIT HOMERUN TO PANELBOARD. THE NUMBER OF TICK MARKS INDICATES THE NUMBER OF CONDUCTORS. LONG TICK MARKS REPRESENT UNGROUNDED CONDUCTORS. SHORT TICK MARKS REPRESENT GROUNDED CONDUCTORS (NEUTRAL). A GROUNDING CONDUCTOR (GROUND) SHALL BE INSTALLED WITH ALL CIRCUITS. TICK MARKS AND CONDUCTOR SIZES ARE ONLY SHOWN ON THE HOMERUN. INSTALL THE REQUIRED QUANTITY AND SIZE CONDUCTORS TO EACH DEVICE ON THE SAME CIRCUIT AS INDICATED ON THE DRAWINGS. MINIMUM CONDUCTOR SIZE = #12. MINIMUM CONDUIT SIZE = 3/4 INCH. SUBSCRIPT EXAMPLE: 4#8 = (3) UNGROUNDED AND (1) NEUTRAL CONDUCTORS SIZE #12. 1#10 = GROUNDING CONDUCTOR SIZE #10. 1" = CONDUIT SIZE. A-1 = PANEL NAME - POLE POSITION IN PANEL.
	ELECTRICAL METER
	EXISTING UTILITY POLE
	NEW UTILITY POLE
	NEW UTILITY POLE WITH POLE MOUNTED TRANSFORMERS
	EXISTING UTILITY POLE WITH POLE MOUNTED TRANSFORMERS

DEMOLITION vs EXISTING LINE WEIGHTS	
DEMO	EXISTING

	3 POSITION SELECTOR SWITCH: LOCAL-OFF-REMOTE HAND-OFF-AUTOMATIC
	GROUND
	ELECTRIC HEATER

FIRE ALARM	
SYMBOL	DESCRIPTION
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM NOTIFICATION DEVICE (WALL & CEILING) - SUBSCRIPT INDICATES THE FOLLOWING: S - STROBE, SS - SPEAKER STROBE, H - HORN, HS - HORN STROBE, SP - SPEAKER
	FIRE ALARM INITIATION DEVICE (WALL & CEILING) - SUBSCRIPT INDICATES THE FOLLOWING: S - SMOKE, H - HEAT, CO - CARBON MONOXIDE, CS - COMBINATION CARBON MONOXIDE/SMOKE, CH - COMBINATION CARBON MONOXIDE/HEAT
	FIRE ALARM INITIATION AND NOTIFICATION DEVICE (WALL & CEILING) - SUBSCRIPT INDICATES THE FOLLOWING: SS - COMBINATION SMOKE DETECTOR/SOUNDER BASE
	FIRE ALARM DUCT TYPE SMOKE DETECTOR - SUBSCRIPT INDICATES EQUIPMENT IDENTIFICATION TAG
	MAGNETIC DOOR HOLDER (WALL & CEILING)
	FIRE ALARM TAMPER SWITCH
	FIRE ALARM FLOW SWITCH
	FIRE ALARM CONTROL PANEL. PANEL IS RECESSED TYPE WHEN SHOWN WITHIN WALLS ON DRAWING.
	FIRE ALARM ANNUNCIATOR. PANEL IS RECESSED TYPE WHEN SHOWN WITHIN WALLS ON DRAWING.

SYSTEMS	
SYMBOL	DESCRIPTION
	EXISTING COMMUNICATIONS OUTLET
	DATA OUTLET FOR WIRELESS ACCESS POINT WITH TWO RJ45 DATA JACKS WITH TWO UTP CABLES IN SURFACE RACEWAY, 1 INCH CONDUIT OR CABLE TRAY TO THE NEAREST MDF OR IDF (WALL & CEILING)
	VOICE/DATA OUTLET WITH # VOICE AND # OF DATA JACKS AND # UTP CABLES IN SURFACE RACEWAY, 1 INCH CONDUIT, OR CABLE TRAY TO THE NEAREST MDF OR IDF (#V - INDICATES THE NUMBER OF VOICE JACKS AND CABLES, #D - INDICATES THE NUMBER OF DATA JACKS AND CABLES). C - INSTALL 4 INCHES ABOVE COUNTER OR BACKSPLASH, CG - CEILING MOUNTED.
	PEDESTAL MOUNTED VOICE/DATA OUTLET WITH #VOICE AND # DATA JACKS AND # RJ45 DATA JACKS AND # UTP WET LOCATION CABLES IN A 1 INCH CONDUIT TO THE NEAREST MDF OR IDF (#V - INDICATES THE NUMBER OF VOICE JACKS AND CABLES, #D - INDICATES THE NUMBER OF DATA JACKS AND CABLES)
	FLOOR BOX WITH # RJ45 DATA JACKS. PROVIDE WITH COVERPLATE. INSTALL # UTP WET LOCATION CABLES IN A 1 INCH CONDUIT FROM THE DATA COMPARTMENT TO THE NEAREST MDF OR IDF (# - INDICATES THE NUMBER OF JACKS AND CABLES)
	MULTIMEDIA OUTLET: 4-1/16 INCHES OUTLET BOX WITH TWO 1-1/4 INCH CONDUITS TO ABOVE ACCESSIBLE CEILING (WALL & CEILING)
	VGA/ICA OUTLET WITH ONE VGA CONNECTOR AND TWO RCA CONNECTORS. INSTALL CABLES IN SURFACE RACEWAY, 1-1/4 INCH CONDUIT, J-HOOKS OR CABLE TRAY. THE VGA CABLE MUST BE RAPID RUN TYPE WITH REMOVABLE LEADS OR APPROVED EQUAL.
	TELEVISION OUTLET WITH ONE F-TYPE CONNECTOR WITH COAXIAL CABLE IN SURFACE RACEWAY, 3/4 INCH CONDUIT, OR CABLE TRAY TO THE TELEVISION DISTRIBUTION SYSTEM
	PROJECTOR (CEILING & WALL MOUNT)
	ADMINISTRATIVE CONTROL CENTER. CONNECT TO THE INTERCOM SYSTEM AS REQUIRED
	DOOR RELEASE BUTTON
	INTERCOM SPEAKER (CEILING; RECESSED WALL-MOUNTED; HORN-TYPE WALL MOUNTED)
	INTERCOM SPEAKER WITH INTEGRAL VOLUME CONTROL (CEILING & WALL MOUNT)
	SELF-AMPLIFIED SPEAKER (CEILING & WALL MOUNT)
	SOUND SYSTEM SPEAKER (SC - CAFETERIA; SG - GYMNASIUM; SM - MEDIA CENTER)
	SPEAKER VOLUME CONTROL
	SINGLE SIDED CLOCK (DIGITAL & ANALOG)
	DOUBLE SIDED CLOCK (DIGITAL & ANALOG)
	MICROPHONE OUTLET
	AUXILIARY INPUT OUTLET FOR THE LOCAL SOUND SYSTEM
	INTERCOM CALL BUTTON
	CABLE TRAY. MINIMUM DIMENSIONS AS INDICATED ON DRAWINGS.
	J-HOOK PATHWAY
	FLOOR MOUNTED FOUR POST DATA RACK, 84 INCHES TALL, 30 INCHES DEEP, WITH VERTICAL WIRE MANAGEMENT.
	FLOOR MOUNTED TWO POST DATA RACK, 84 INCHES TALL, 30 INCHES DEEP, WITH VERTICAL WIRE MANAGEMENT.
	DOORBELL PUSH BUTTON
	DOORBELL AUDIO/VISUAL NOTIFICATION DEVICE
	SECURITY SYSTEM SIREN
	SECURITY INTERCOM STATION
	SECURITY SYSTEM KEY PAD
	SECURITY SYSTEM CARD READER
	SECURITY SYSTEM AUDIO SENSOR
	SECURITY SYSTEM MOTION DETECTOR (CEILING & WALL); X - DEGREE OF MOTION
	CEILING MOUNTED SECURITY SYSTEM CAMERA
	WALL MOUNTED SECURITY SYSTEM CAMERA
	DOOR CONTACT/POSITION SWITCH
	PRESS PLATE FOR AUTOMATIC DOOR OPERATOR
	ACCESS POINTS WITH ELECTRIFIED DOOR HARDWARE
	SOUND SYSTEM ANTENNA

ABBREVIATIONS	
±10'	+10' INDICATES THE MOUNTING HEIGHT OF THE DEVICE TO BOTTOM.
10	1-PHASE
30	3-PHASE
ATS	AUTOMATIC TRANSFER SWITCH
BTM	BOTTOM
CT	CURRENT TRANSFORMER
EOE	EXISTING OVERHEAD ELECTRIC
EOF	EXISTING OVERHEAD FIBER OPTIC
EOP	EXISTING OVERHEAD PRIMARY
EOS	EXISTING OVERHEAD SECONDARY
EOT	EXISTING OVERHEAD TELEPHONE
EUE	EXISTING UNDERGROUND ELECTRIC
EUF	EXISTING UNDERGROUND FIBER OPTIC
EUP	EXISTING UNDERGROUND PRIMARY
EUS	EXISTING UNDERGROUND SECONDARY
EUT	EXISTING UNDERGROUND TELEPHONE
EOTV	EXISTING OVERHEAD TELEVISION
EUTV	EXISTING UNDERGROUND TELEVISION
GF	GROUND FAULT PROTECTION
GND	GROUND
KWH	KILO WATT HOUR
OE	OVERHEAD ELECTRIC
OF	OVERHEAD FIBER OPTIC
OP	OVERHEAD PRIMARY
OS	OVERHEAD SECONDARY
OT	OVERHEAD TELEPHONE
OTV	OVERHEAD TELEVISION
PT	POTENTIAL TRANSFORMER
SPD	SURGE PROTECTIVE DEVICE
UE	UNDERGROUND ELECTRIC
UF	UNDERGROUND FIBER OPTIC
UP	UNDERGROUND PRIMARY
US	UNDERGROUND SECONDARY
UT	UNDERGROUND TELEPHONE
UTP	UNSHIELDED TWISTED PAIR
UTV	UNDERGROUND TELEVISION
WG	PROVIDE DEVICE WITH MANUFACTURER'S WIREGUARD.
WP	PROVIDE DEVICE WITH WEATHERPROOF COVER. RECEPTACLES TO BE WEATHER-RESISTANT TYPE AND PROVIDED WITH A CAST ALUMINUM, EXTRA DUTY, WHILE-IN-USE COVER.

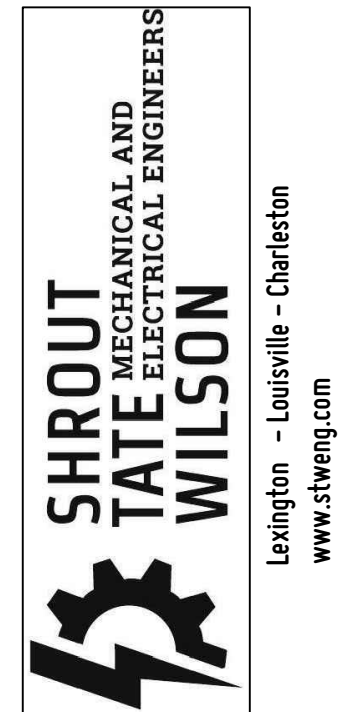
ELECTRICAL DEVICE MOUNTING HEIGHTS	
SWITCHES	48 INCHES TO TOP
INTERIOR RECEPTACLES	16 INCHES TO BOTTOM
EXTERIOR RECEPTACLES	24 INCHES TO BOTTOM
COMMUNICATIONS / DATA OUTLETS	16 INCHES TO BOTTOM
FIRE ALARM MANUAL PULL STATIONS	48 INCHES TO TOP
FIRE ALARM HORN/STROBE SIGNAL	80 INCHES TO BOTTOM
FIRE ALARM STROBE SIGNAL	80 INCHES TO BOTTOM
WALL TELEPHONES	48 INCHES TO TOP
TELEVISION OUTLETS	72 INCHES TO BOTTOM
CLOCKS	96 INCHES TO TOP
NOTE: MOUNTING HEIGHTS UNLESS OTHERWISE NOTED ON DRAWINGS.	



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ELECTRICAL

PROJECT 202159

DATE 01.19.2022

REVISIONS

No.	Description	Date

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ELECTRICAL
LEGEND

E-001

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GENERAL NOTES:

DEMOLITION

- A. ALL ELECTRICAL ITEMS SHOWN AS LIGHTER WEIGHT ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- B. ALL ELECTRICAL ITEMS SHOWN IN HEAVIER WEIGHT SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- C. THE CONDUIT, CONDUCTORS, HANGERS, SUPPORTS, CONCRETE BASES, HOUSEKEEPING PADS, AND ANY OTHER ITEMS ASSOCIATED WITH EQUIPMENT SHOWN TO BE REMOVED SHALL ALSO BE REMOVED UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE REMOVED BACK TO THE SOURCE. ALL ACCESSIBLE CONDUITS SHALL BE REMOVED. EXISTING UNDERGROUND CONDUITS MAY BE ABANDONED IN PLACE AFTER THEIR ENDS HAVE BEEN REMOVED TO A MINIMUM OF 30 INCHES BELOW GRADE AND CAPPED.
- D. WHERE ANY EXISTING ELECTRICAL ITEMS ARE SHOWN TO BE REMOVED, THE ELECTRICAL CONTRACTOR SHALL RECONNECT WIRING AS REQUIRED TO ENSURE ALL DOWNSTREAM DEVICES REMAIN OPERATIONAL.
- E. REMOVE ALL EXISTING AND ACCESSIBLE ABANDONED LOW VOLTAGE CABLING. ACCESSIBLE AREAS INCLUDE, BUT NOT LIMITED TO, ABOVE LAY-IN CEILINGS, BELOW RAISED FLOORS AND EXPOSED LOCATIONS.
- F. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PATCHING AND REPAIRING ALL AREAS WHERE WALLS, SLABS AND MATERIALS HAVE BEEN CUT, REMOVED OR MODIFIED AS A RESULT OF DEMOLITION. PATCHING AND REPAIRS SHALL MATCH THE ADJACENT EXISTING MATERIALS, RATINGS AND FINISHES.
- G. REFER TO THE MECHANICAL, PLUMBING, AND FIRE PROTECTION PLANS FOR LOCATION OF EQUIPMENT REQUIRING ELECTRICAL DEMOLITION. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DISCONNECTING EQUIPMENT AND DEMOLISHING THE ASSOCIATED CONDUIT, CONDUCTORS, DISCONNECTS, STARTERS, ETC.
- H. ALL EXISTING ITEMS SHOWN HAVE BEEN COMPILED FROM SITE SURVEYS, RECORD DRAWINGS AND VISUAL SITE INSPECTIONS. ALL ITEMS TO BE REMOVED MAY NOT BE SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO BECOME FAMILIAR WITH THE EXTENT OF THE DEMOLITION WORK REQUIRED.
- I. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL EXISTING SYSTEMS ACTIVE UNTIL THEY ARE DEMOLISHED IN THEIR RESPECTIVE PHASES. PROVIDE ALL TEMPORARY CONNECTIONS AS REQUIRED. COORDINATE ALL DEMOLITION WORK WITH THE TIMING/SEQUENCE OF NEW WORK.
- J. WHERE THE CONTRACT DOCUMENTS INCLUDE THE REMOVAL OF THE EXISTING CEILINGS, EXISTING CEILING MOUNTED DEVICES NOT SHOWN TO BE REMOVED SHALL BE PROTECTED, SUPPORTED IN PLACE AND REINSTALLED IN THE NEW CEILING.

SITE UTILITIES:

- A. COORDINATE ALL SITE UTILITY WORK WITH THE FOLLOWING:
- POWER COMPANY
NAME - NUMBER

TELEVISION COMPANY
NAME - NUMBER

TELEPHONE COMPANY
NAME - NUMBER
- B. ALL COSTS FROM THE UTILITY COMPANIES LISTED ABOVE SHALL BE THE ELECTRICAL CONTRACTOR'S FINANCIAL RESPONSIBILITY.
- C. KY B.U.D.: BEFORE YOU DIG PHONE 1-800-752-6007. THE UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS ARE FROM SITE SURVEYS, RECORD DRAWINGS AND FROM VISUAL SITE INSPECTIONS. UTILITY LOCATIONS ARE APPROXIMATE AND THERE MAY BE OTHER UNDERGROUND UTILITIES IN THE AREA. CONTACT ALL UTILITY COMPANIES PRIOR TO BEGINNING ANY EXCAVATION.
- D. COORDINATE ALL ELECTRICAL SITE WORK (DEMOLITION AND NEW INSTALLATIONS) WITH THE NEW SITE GRADING.
- E. UNDERGROUND CONDUITS SHALL BE BURIED A MINIMUM OF 30-INCHES BELOW GRADE UNLESS OTHERWISE NOTED.

LIGHTING

- A. THE CONTRACTOR SHALL INSTALL THE REQUIRED NUMBER OF CONDUCTORS BETWEEN SWITCHES, LIGHT FIXTURES AND ASSOCIATED DEVICES FOR A COMPLETE AND WORKING SYSTEM. PROVIDE SINGLE-LEVEL OR DUAL-LEVEL SWITCHING, THREE-WAY SWITCHING OR OTHER SWITCHING METHOD AS INDICATED ON THE DRAWINGS.
- B. INSTALL AN UNSWITCHED CONDUCTOR TO ALL EXIT LIGHTS, EMERGENCY LIGHTS AND ALL OTHER FIXTURES USED FOR EMERGENCY ILLUMINATION AND SUPPLIED WITH INTEGRAL OR EXTERNAL BATTERIES. INSTALL A NORMAL UNSWITCHED CONDUCTOR TO ALL EMERGENCY RELAYS WHEN EMERGENCY POWER IS PROVIDED BY A GENERATOR OR MEANS OTHER THAN BATTERY POWER. THE UNSWITCHED CONDUCTOR SHALL BE FED FROM THE SAME CIRCUIT AS THE SWITCHED CONDUCTOR(S).
- C. CABLING ASSOCIATED WITH THE LOW VOLTAGE LIGHTING CONTROLS, INCLUDING DIMMING, NETWORK AND CONTROL CABLES, SHALL BE INSTALLED AND SUPPORTED IN A SIMILAR MANNER AS THE TELECOMMUNICATIONS CABLING. CABLING SHALL BE INSTALLED IN CONDUIT WHEN LOCATED IN AREAS WITH EXPOSED CEILINGS OR STRUCTURES, ABOVE INACCESSIBLE CEILINGS AND WHERE LOCATED WITHIN WALLS. CABLING INSTALLED ABOVE ACCESSIBLE, CONCEALED CEILINGS SHALL BE INSTALLED IN CONDUIT OR SHALL BE SUPPORTED BY J-HOOKS. THE CABLING SHALL BE INSTALLED SEPARATE FROM LINE VOLTAGE CONDUCTORS AND TELECOMMUNICATIONS CABLING. J-HOOKS MAY BE ATTACHED TO THE OUTSIDE OF THE TELECOMMUNICATIONS CABLE TRAY, IF AVAILABLE, PROVIDING THE MAXIMUM RATED WEIGHT CAPACITY OF THE CABLE TRAY IS NOT EXCEEDED.

SYSTEMS

- A. ALL FIRE ALARM CABLING SHALL BE INSTALLED WITHIN A MINIMUM OF 3/4 INCH CONDUIT.
- B. ALL ELECTRICALLY CONDUCTIVE CABLES INSTALLED OUTDOORS SHALL BE PROVIDED WITH SURGE PROTECTION DEVICE(S). THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: FIRE ALARM CABLING FOR TAMPER SWITCHES, EXTERIOR MOUNTED SECURITY CAMERA CABLING, EXTERIOR MOUNTED SPEAKER CABLING AND CABLING BETWEEN SEPARATE BUILDINGS.
- C. INSTALL A DEDICATED 4-PAIR CATEGORY 6A TELEPHONE CABLE FROM THE TELEPHONE DEMARICATION TO THE FIRE ALARM COMMUNICATOR/TRANSMITTER. CONNECT CABLE AHEAD OF ANY TELEPHONE SYSTEM AS REQUIRED FOR THE COMMUNICATOR/TRANSMITTER TO CAPTURE TWO TELEPHONE LINES.

SURFACE RACEWAY

- A. ALL SURFACE RACEWAYS SHALL BE WIREMOLD 700, AND 2400 SERIES OR APPROVED EQUAL UNLESS NOTED OTHERWISE.
- B. 700 SERIES SHALL BE USED FOR RECEPTACLES, SWITCHES AND FIRE ALARM DEVICES. 2400 SERIES SHALL BE INSTALLED FOR VOICE AND DATA CABLING.
- C. ALL SURFACE RACEWAY IS TO BE MOUNTED ON EXISTING WALLS ONLY. USE SUPPORTING CLIPS AND NOT MOUNTING STRAPS. THE CONTRACTOR HAS THE OPTION TO FISH FLEXIBLE CONDUIT DOWN EXISTING WALLS IN LIEU OF USING SURFACE RACEWAY.
- D. COORDINATE THE ROUTING OF ALL RACEWAY WITH WALL MOUNTED FURNISHINGS (I.E. TACKBOARDS, MARKERBOARDS, INTERACTIVE WHITEBOARDS, ETC.).

CABLING

- A. ALL EXPOSED LOW VOLTAGE CABLING SHALL BE PLENUM RATED.

KITCHEN

- A. THE ELECTRICAL CONTRACTOR IS TO MAKE ALL ELECTRICAL CONNECTIONS BETWEEN THE KITCHEN HOOD AND ASSOCIATED ROOF-TOP MECHANICAL UNITS. COORDINATE ALL REQUIREMENTS AND CONNECTION LOCATIONS.
- B. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED CONNECTIONS BETWEEN THE KITCHEN HOOD CONTROL PANEL AND THE FIRE ALARM SYSTEM, KITCHEN HOOD MAKE-UP AIR UNIT SUPPLY FAN MOTOR(S) AND THE SHUNT-TRIP BREAKERS SERVING WITH THE KITCHEN EQUIPMENT. IN THE EVENT THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM IS ACTIVATED, THE FIRE ALARM SYSTEM SHALL ACTIVATE, THE SHUNT-TRIP BREAKERS SHALL TRIP AND THE SUPPLY FAN MOTOR(S) SHALL SHUT-OFF.
- C. WHERE RECEPTACLES ARE LOCATED IN THE KITCHEN, ALL 120 VOLT AND 208 VOLT SINGLE PHASE RECEPTACLES RATED 50 AMPS OR LESS AND ALL 208 VOLT THREE-PHASE RECEPTACLES RATED 100 AMPS OR LESS SHALL BE GFCI PROTECTED.
- D. INSTALL AN APPROPRIATE SEALING CONDUIT FITTING AT EACH LOCATION CONDUIT ENTERS THE WALK-IN COOLER/FREEZER. SEAL WITH AN APPROVED SEALING COMPOUND.
- E. KITCHEN EQUIPMENT ELECTRICAL LAYOUT AND POWER REQUIREMENTS ARE SHOWN FOR BID PURPOSES ONLY. COORDINATE ALL KITCHEN EQUIPMENT ELECTRICAL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH THE REVIEWED KITCHEN SHOP DRAWINGS AND THE KITCHEN EQUIPMENT CONTRACTOR PRIOR TO INSTALLATION OF ANY CIRCUITS SERVING THE KITCHEN EQUIPMENT.
- F. PROVIDE AN OCCUPANT NOTIFICATION SYSTEM IN THE KITCHEN CONSISTING OF A COMBINATION AUDIBLE AND VISUAL NOTIFICATION DEVICE IN THE KITCHEN WORK AREA WITH A PUSHBUTTON ACTUATOR LOCATED AT THE EXTERIOR ENTRANCE TO THE KITCHEN. REFER TO THE KITCHEN PLAN FOR LOCATIONS. THE AUDIBLE/VISUAL DEVICE SHALL BE 120V WITH CLEAR LENS, EDWARDS 8695TRC-N5 OR EQUIVALENT. THE PUSHBUTTON SHALL BE 120V, MOMENTARY CONTACT WITH STAINLESS STEEL COVERPLATE, EDWARDS 852 OR EQUIVALENT.

NOMINAL VOLTAGE

- A. THE NOMINAL VOLTAGE FOR THE POWER DISTRIBUTION SYSTEM SHALL BE 120/240V, 120/208V OR 277/480V AS NOTED ON THE DRAWINGS.
- B. THE CONTRACTOR SHALL CONFIRM THE SUPPLY VOLTAGE AT THE SERVICE IS NOMINAL PRIOR TO ENERGIZING PERMANENT POWER. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY AND ADJUST THE TAPS ON THE UTILITY TRANSFORMER AS NECESSARY TO PROVIDE THE SPECIFIED NOMINAL VOLTAGE AT THE SERVICE.
- C. THE CONTRACTOR SHALL CONFIRM THE SUPPLY VOLTAGE ON EQUIPMENT CONNECTED TO THE SECONDARY OF DISTRIBUTION TRANSFORMERS IS NOMINAL PRIOR TO ENERGIZING. THE CONTRACTOR SHALL ADJUST THE TAPS ON DISTRIBUTION TRANSFORMERS AS NECESSARY TO PROVIDE THE SPECIFIED NOMINAL VOLTAGE AT THE EQUIPMENT.
- D. THE CONTRACTOR SHALL INFORM THE ENGINEER IF THE VOLTAGE AT THE SERVICE OR AT THE EQUIPMENT CONNECTED TO THE SECONDARY OF DISTRIBUTION TRANSFORMERS IS MORE THAN +/- 2% OF NOMINAL.
- E. THE CONTRACTOR SHALL PROVIDE A WRITTEN RECORD OF THE MEASURED VOLTAGES TO THE ENGINEER AND INCLUDE A COPY IN THE O&M MANUALS.

ELEVATOR

- A. COORDINATE THE LOCATION OF ALL ELECTRICAL EQUIPMENT WITH THE ELEVATOR EQUIPMENT.
- B. PROVIDE A DEDICATED 4-PAIR, CATEGORY 6A, UTP TELEPHONE CABLE FROM THE TELEPHONE SERVICE DEMARICATION TO THE CONTROLLER IN THE ELEVATOR MACHINE ROOM.
- C. PROVIDE ALL CONNECTIONS BETWEEN THE FIRE ALARM SYSTEM, SHUNT-TRIP BREAKER, AND THE ELEVATOR CONTROLLER. THE FIRE ALARM SYSTEM SHALL MONITOR THE SHUNT-TRIP CIRCUIT, OPERATE/ OPEN THE SHUNT-TRIP BREAKER, AND INITIATE ELEVATOR RECALL.
- D. PROVIDE THE SHUNT-TRIP BREAKER AND/OR DISCONNECT SWITCH CONNECTED TO THE MAIN LINE CIRCUIT WITH AUXILIARY CONTACTS. THE AUXILIARY CONTACTS WILL BE UTILIZED AS A DISCONNECTING MEANS FOR THE ELEVATOR CONTROLLERS' BATTERY OPERATED LOWERING DEVICE.
- E. ALL NON-ELEVATOR RELATED CONDUITS AND EQUIPMENT SHALL BE PROHIBITED FROM ENTERING OR PASSING THROUGH THE ELEVATOR MACHINE ROOM.

INTERRUPTIONS OF SERVICE

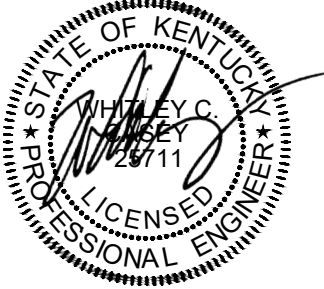
- A. THE BUILDING SERVICES AND SYSTEMS SHALL REMAIN OPERATIONAL THROUGHOUT THE DURATION OF THE PROJECT, IF INTERRUPTIONS TO ANY SERVICE OR SYSTEM ARE NECESSARY TO FACILITATE COMPLETING THE PROJECT, THE CONTRACTOR SHALL:
- A.A. APPRISE THE OWNER OF ANTICIPATED INTERRUPTIONS IN ADVANCE AND SCHEDULE FOR TIMES THAT ARE CONVENIENT TO THE OWNER AND ALL OTHER AFFECTED PARTIES.
- A.B. COORDINATE AN ACCEPTABLE DURATION AND WORK AS NECESSARY TO MEET THE AGREED UPON SCHEDULE.
- A.C. NO INTERRUPTIONS SHALL OCCUR PRIOR TO RECEIVING WRITTEN APPROVAL FROM THE OWNER AND ALL OTHER AFFECTED PARTIES.
- B. FOR UNPLANNED INTERRUPTIONS, THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE THE AFFECTED SERVICE(S) AND SYSTEM(S).

ICF CONSTRUCTION

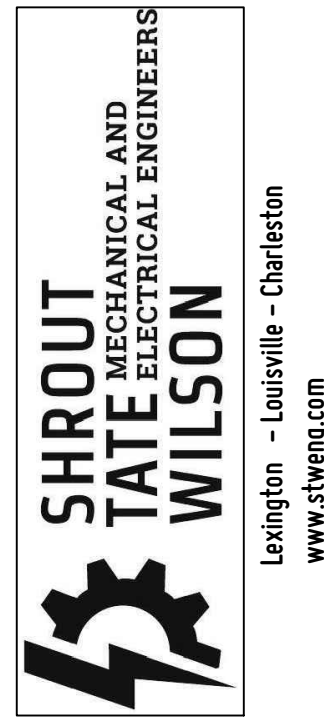
- A. DO NOT INSTALL CONDUIT WITHIN THE CONCRETE WALLS.
- B. USE A HOT KNIFE, OR SIMILAR INSTRUMENT APPROVED BY THE ICF MANUFACTURER, TO CUT THE INSULATING FORMS AS NECESSARY TO SURFACE MOUNT CONDUIT AND BOXES ON THE CONCRETE WALLS.
- C. PROVIDE POLYURETHANE SPRAY FOAM TO FILL VOIDS IN THE INSULATION AFTER CONDUIT AND BOXES ARE INSTALLED.



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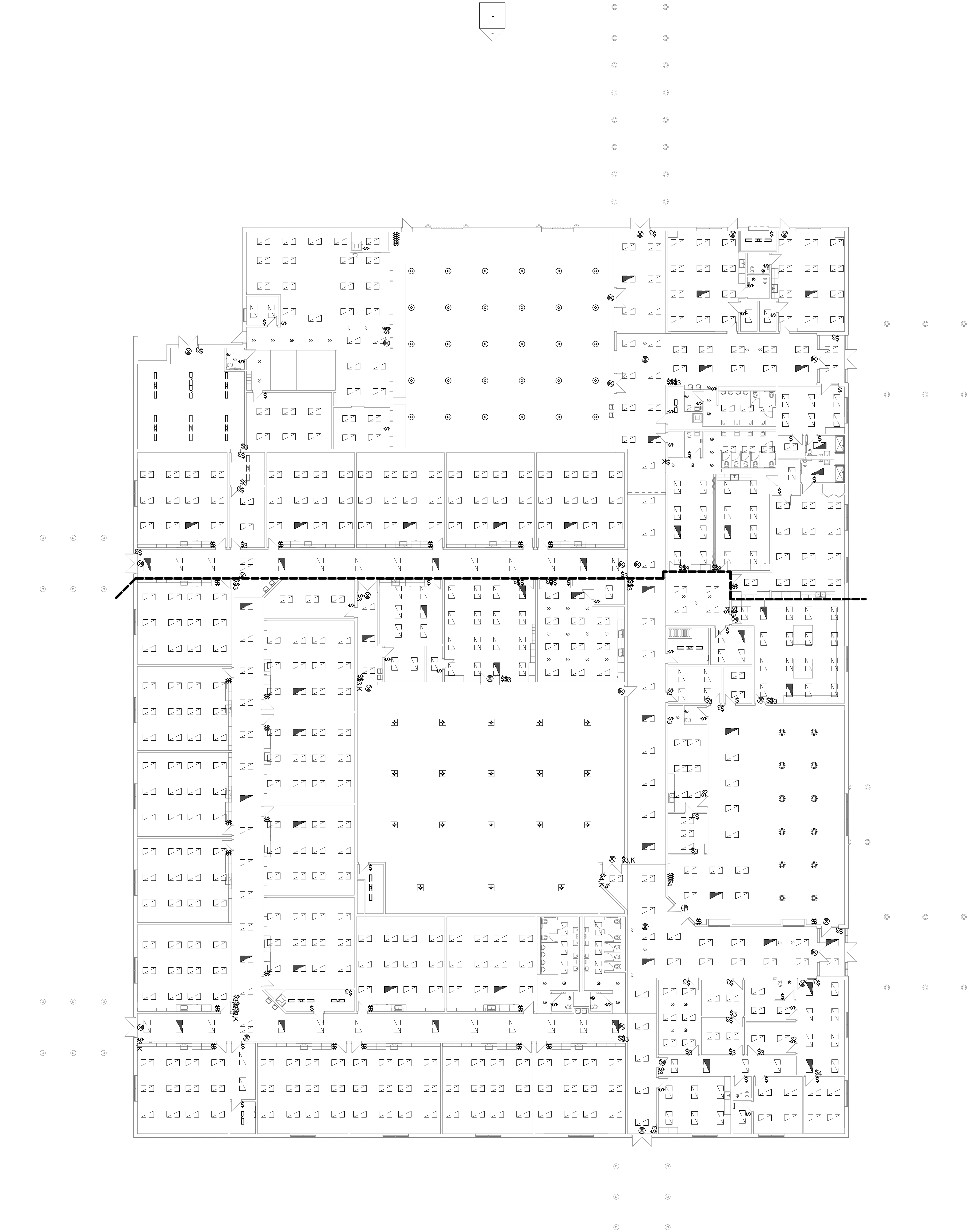
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ELECTRICAL
GENERAL NOTES

E-002

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1 FIRST FLOOR DEMOLITION PLAN - LIGHTING
SCALE: 1/16" = 1'-0"

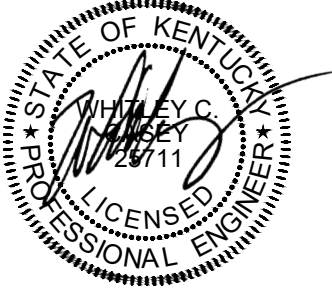
GENERAL NOTES

A. REFER TO DRAWING E01 FOR ELECTRICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

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FIRST FLOOR
DEMOLITION
PLAN -
ELECTRICAL

ED100

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A. REFER TO DRAWING E0.1 FOR ELECTRICAL GENERAL NOTES.

1. SHEET NOTES



SCALE: 1/8" = 1'-0"



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WOODLAND ELEMENTARY SCHOOL HVAC RENOVATION

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ED101

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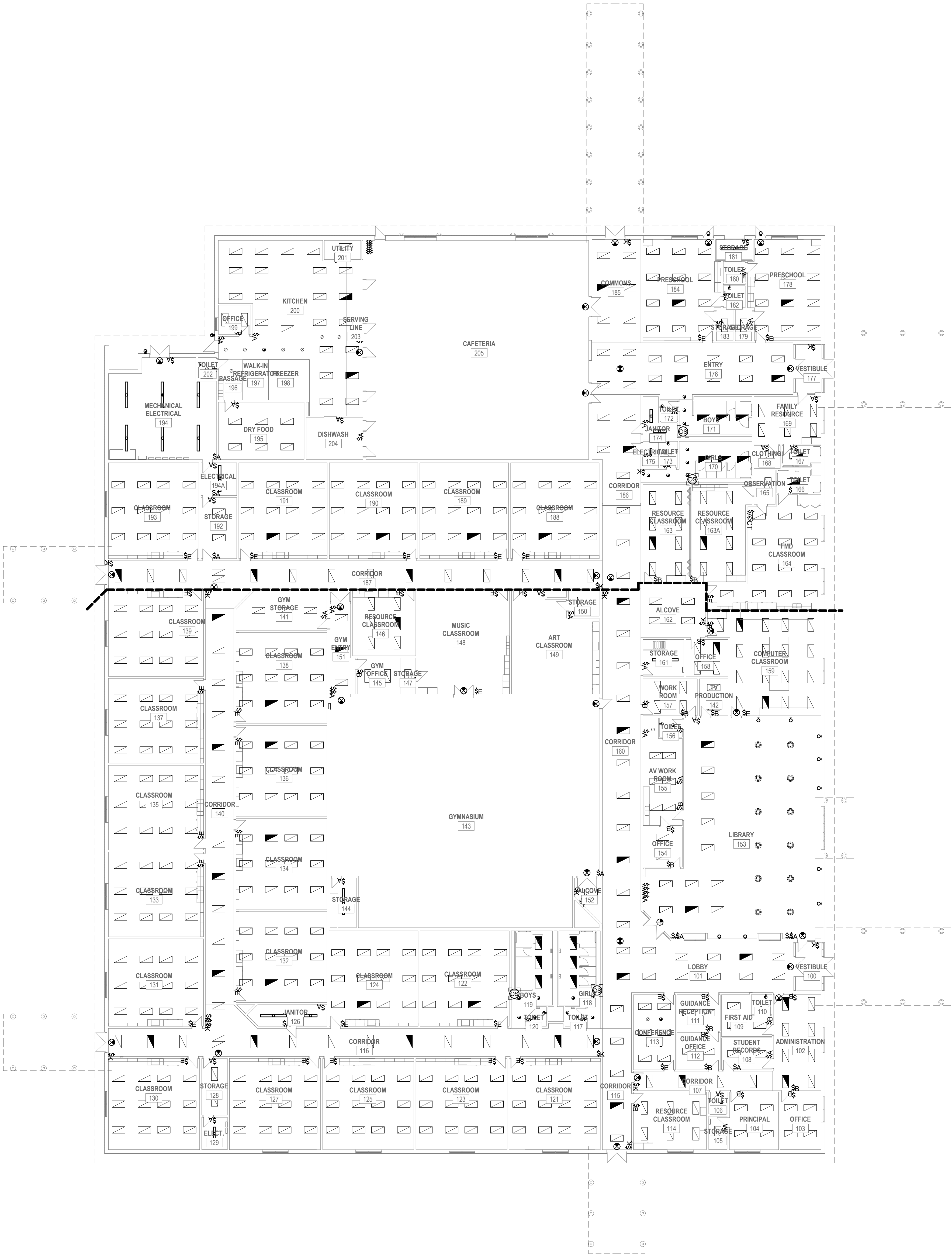
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GENERAL NOTES

A. REFER TO DRAWING E01 FOR ELECTRICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES



1 OVERALL FIRST FLOOR PLAN - LIGHTING

SCALE: 1/16" = 1'-0"

01/19/22

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OVERALL
FIRST FLOOR
PLAN -
LIGHTING

E100

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GENERAL NOTES

A. REFER TO DRAWING E01 FOR ELECTRICAL GENERAL NOTES.

SHEET KEYNOTES

1. LIGHT SWITCH TO CONTROL LIGHT FIXTURE IN ROOM OBSERVATION - 164. CONNECT LIGHT SWITCH TO UNSWITCHED NORMAL POWER FROM FMD CLASSROOM - 164.
2. OCCUPANCY SENSOR NOT TO BE INSTALLED IN THIS AREA.
3. EXTEND EXISTING EMERGENCY LIGHTING CIRCUIT TO ALL LIGHT FIXTURES IN THIS AREA.

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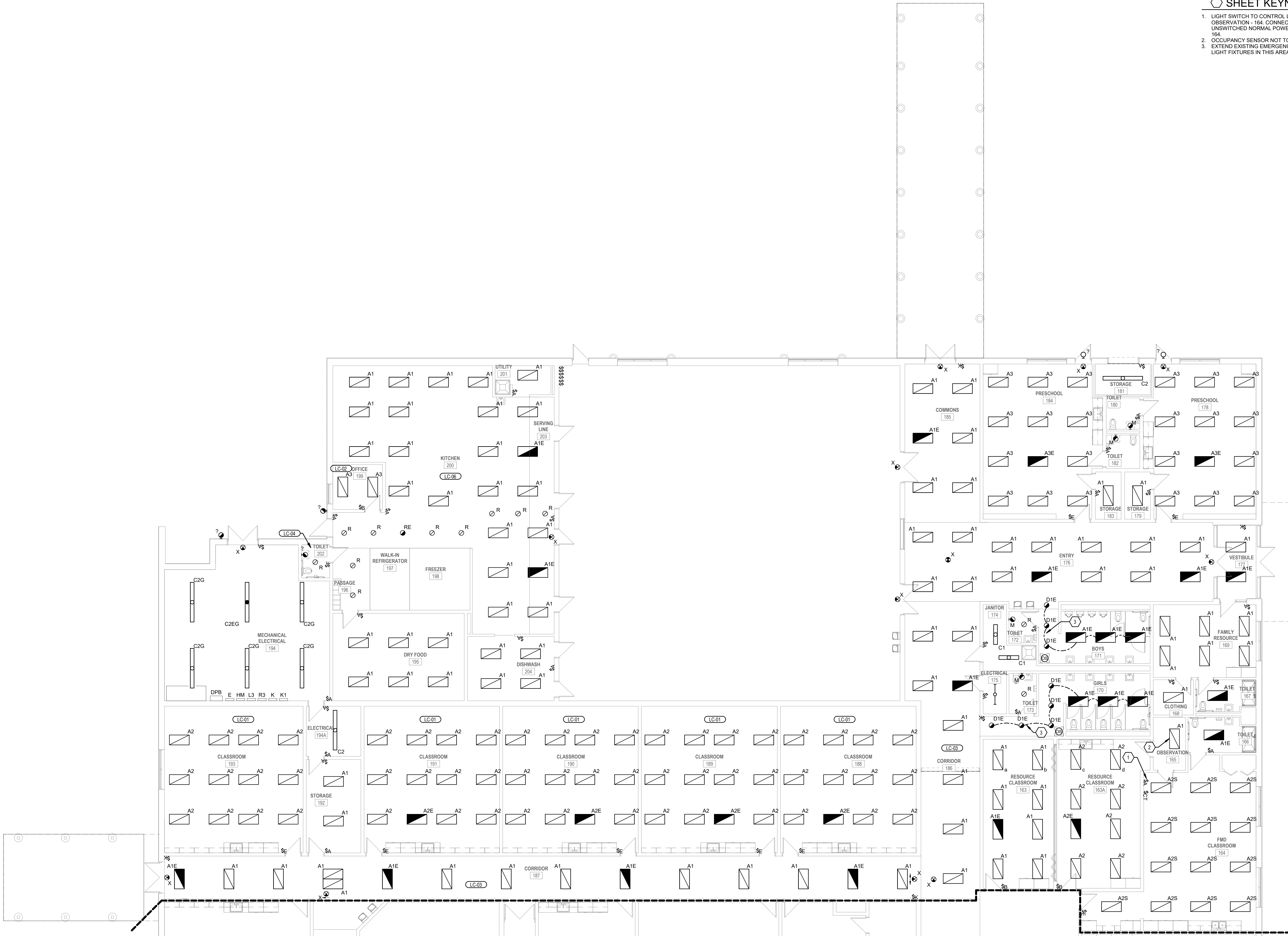
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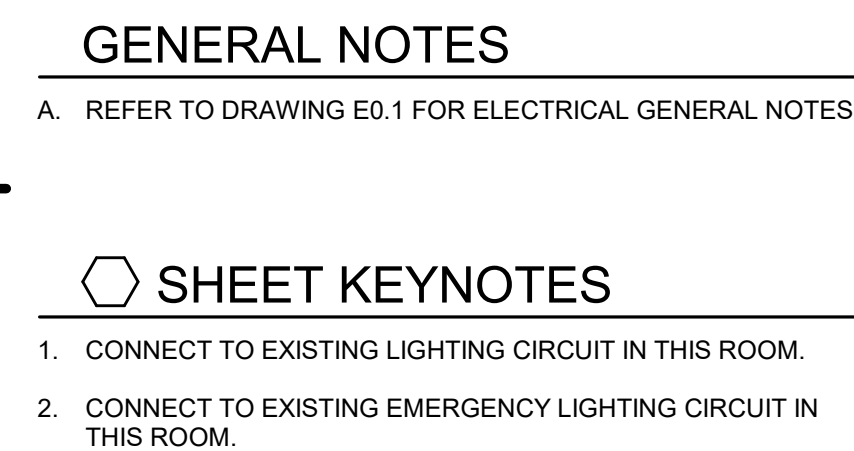
FIRST FLOOR
CALLOUT PLAN
- AREA A -
LIGHTING

E101A

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1 FIRST FLOOR PLAN - AREA A - LIGHTING
SCALE: 1/8" = 1'-0"



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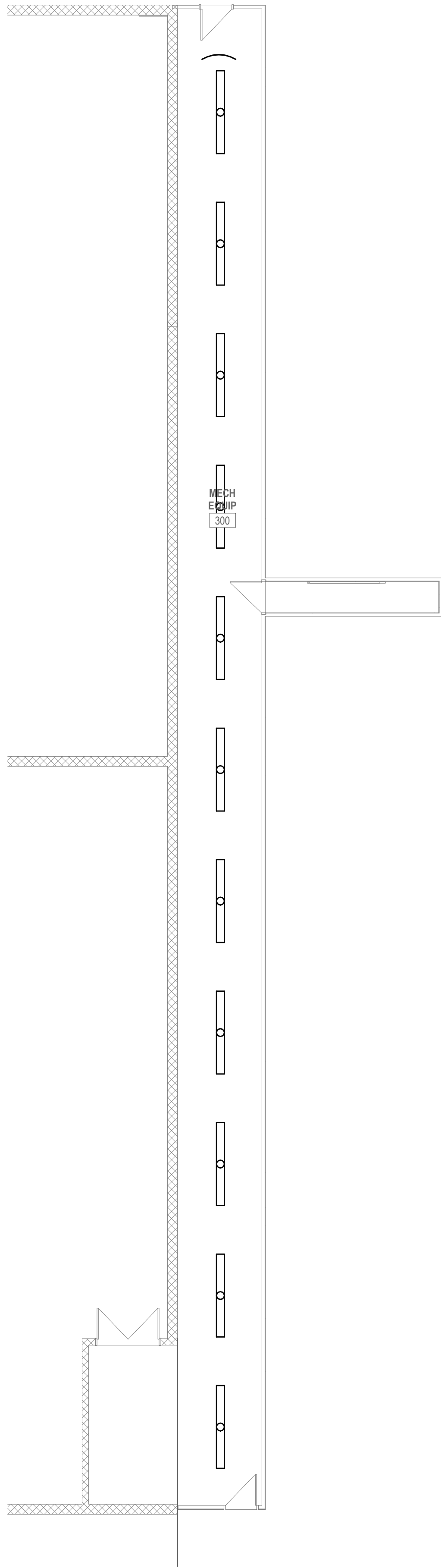
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**FIRST FLOOR
CALLOUT PLAN
- AREA B -
LIGHTING**

E101B

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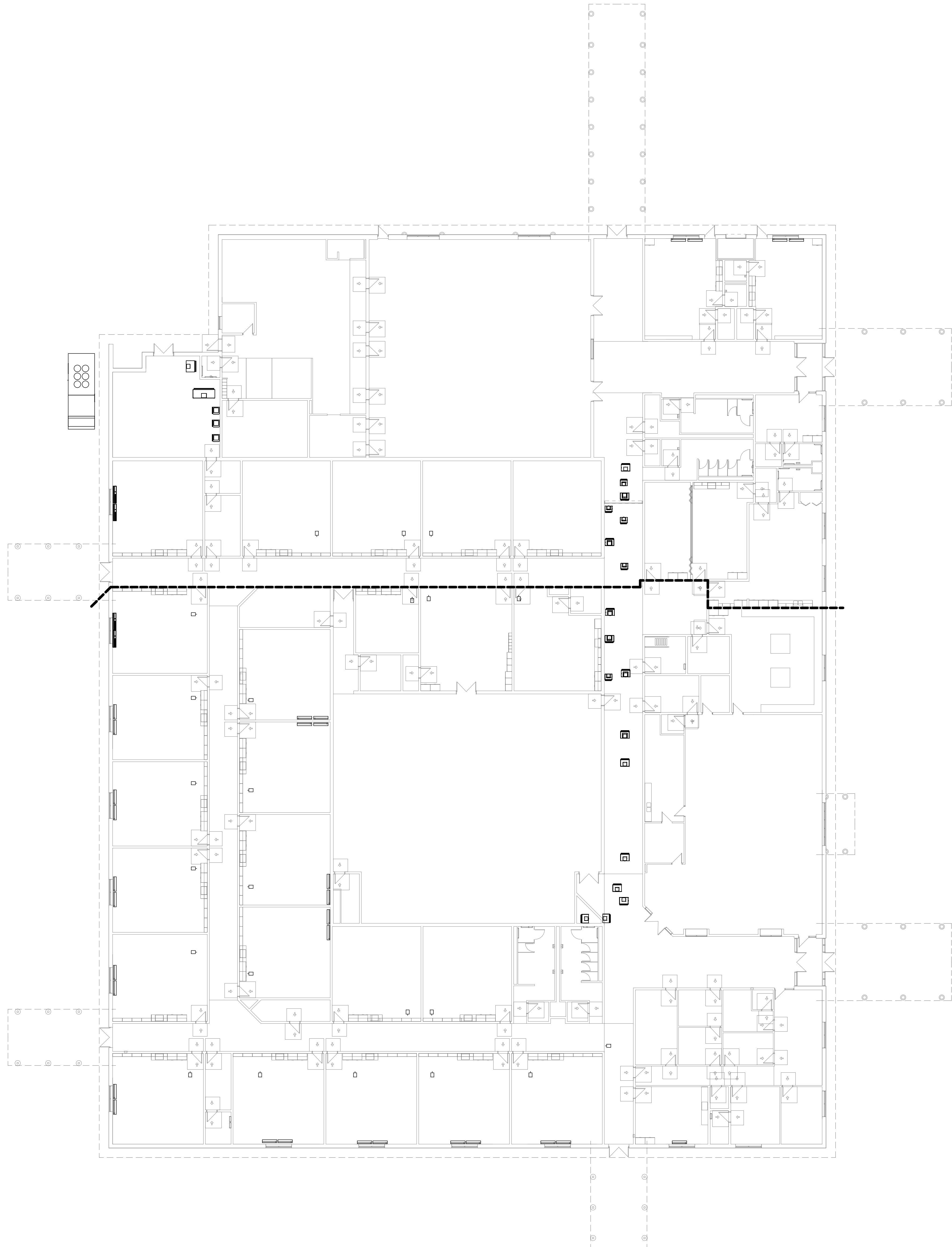
1 FIRST FLOOR PLAN - AREA B - LIGHTING
SCALE: 1/8" = 1'-0"



1 PLATFORM PLAN - LIGHTING
SCALE: 1/8" = 1'-0"

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1 OVERALL FIRST FLOOR PLAN - POWER
SCALE: 1/16" = 1'-0"

GENERAL NOTES

A. REFER TO DRAWING E01 FOR ELECTRICAL GENERAL NOTES.

SHEET KEYNOTES

1. SHEET NOTES

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3225 Summit Square Place, Suite 200
Lexington, Kentucky 40509
859.252.6781



01/19/22

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CONSTRUCTION DOCUMENTS

**WOODLAND ELEMENTARY
SCHOOL HVAC RENOVATION**
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RADCLIFF, KENTUCKY



PROJECT	202159	
DATE	01.19.2022	
REVISIONS		
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**OVERALL
FIRST FLOOR
PLAN - POWER**

E200

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GENERAL NOTES

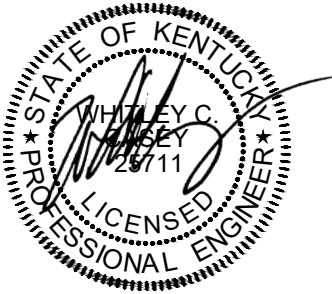
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PROJECT 202159
DATE 01.19.2022

REVISIONS

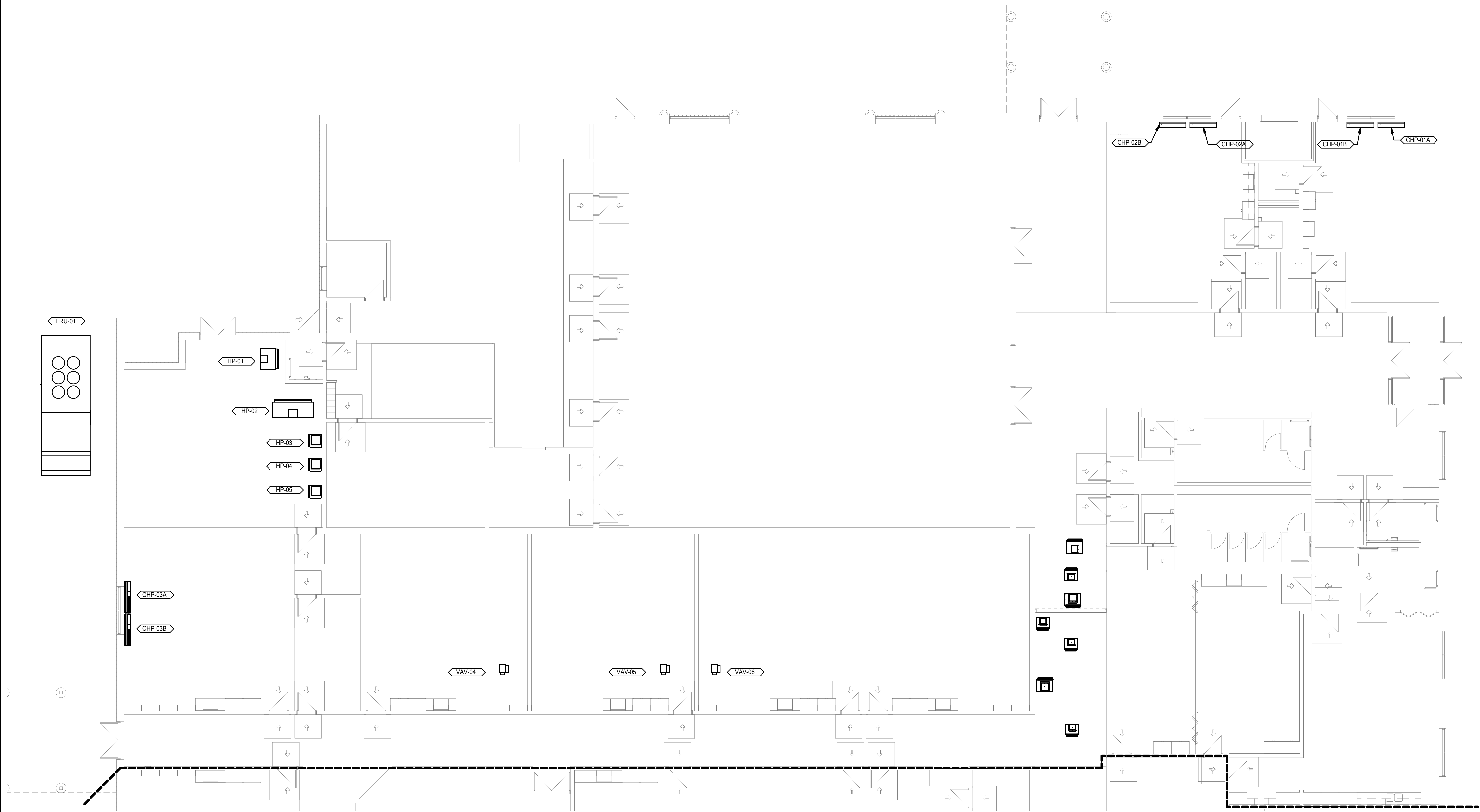
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FIRST FLOOR
CALLOUT PLAN
- AREA A -
POWER

E201A

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1 FIRST FLOOR PLAN - AREA A - POWER

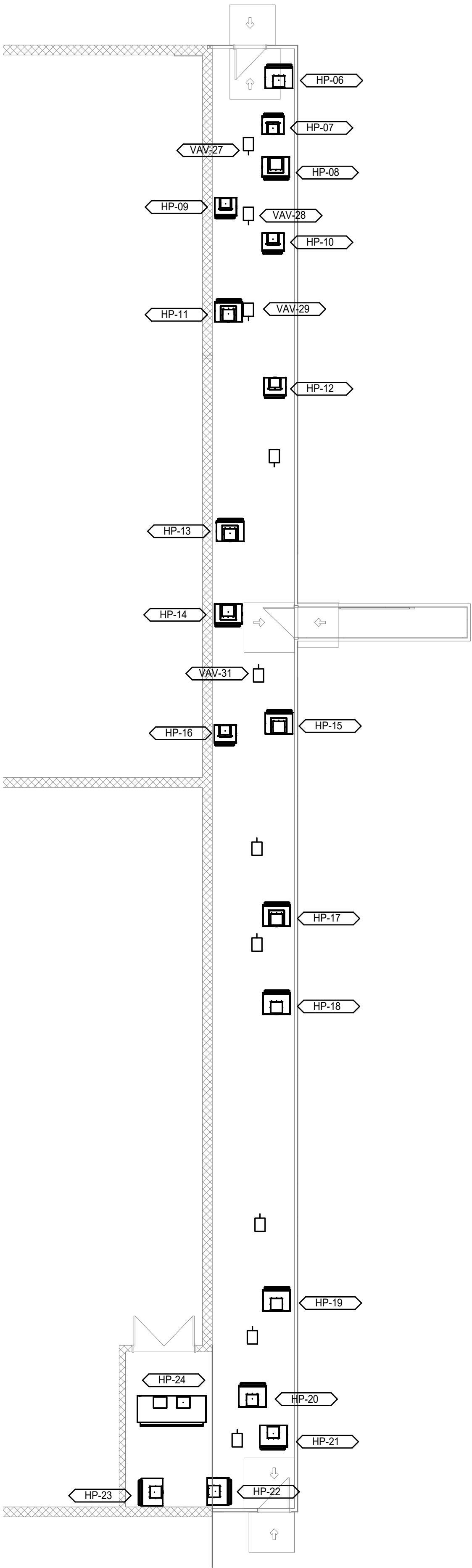
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GENERAL NOTES

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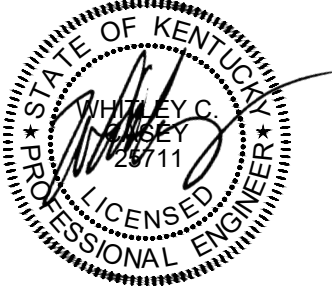
SHEET KEYNOTES

1. SHEET NOTES



1 PLATFORM PLAN - POWER
SCALE: 1/8" = 1'-0"

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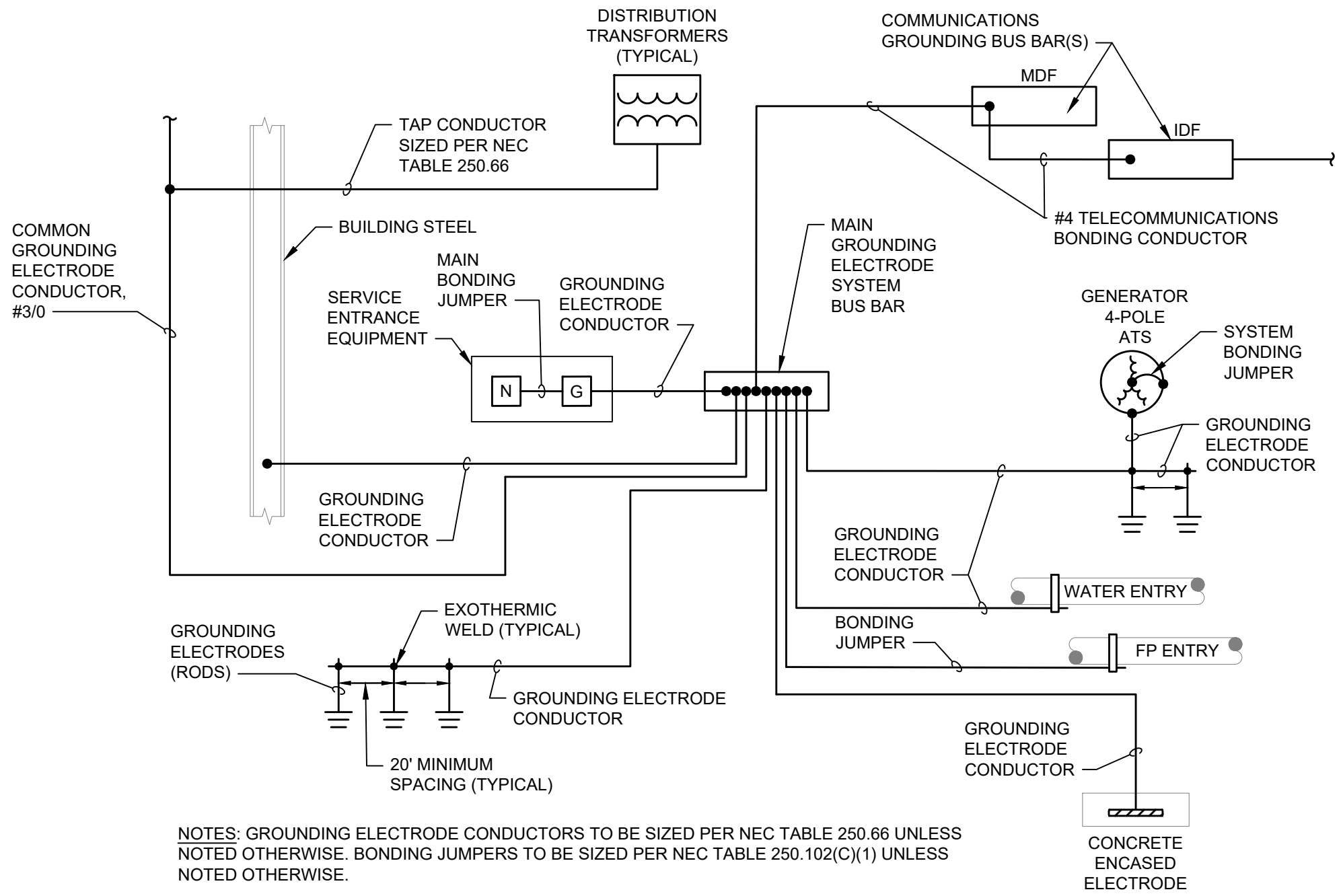


PROJECT			202159		
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PLATFORM
PLAN - POWER

E202

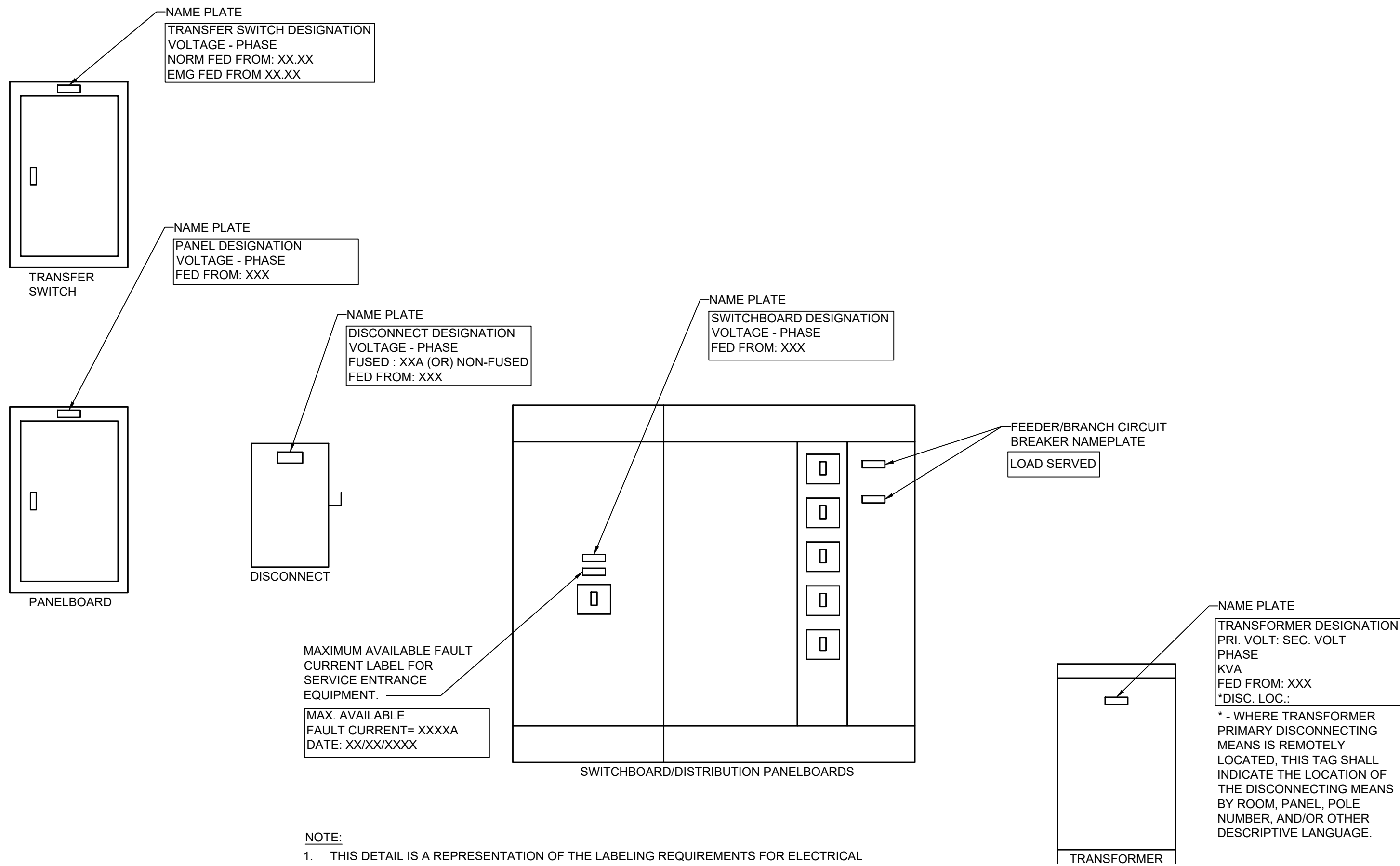
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NOTES: GROUNDING ELECTRODE CONDUCTORS TO BE SIZED PER NEC TABLE 250.66 UNLESS NOTED OTHERWISE. BONDING JUMPERS TO BE SIZED PER NEC TABLE 250.102(C)(1) UNLESS NOTED OTHERWISE.

ELECTRICAL SYSTEM GROUNDING DETAIL

NOT TO SCALE



NOTE:

- THIS DETAIL IS A REPRESENTATION OF THE LABELING REQUIREMENTS FOR ELECTRICAL EQUIPMENT. ALL ELECTRICAL EQUIPMENT, WHETHER IT IS EXPLICIT SHOWN OR NOT, SHALL BE LABELED IN A SIMILAR MANNER.
- ALL LABELS SHALL BE ENGRAVED LAMINATED ACRYLIC. THE EQUIPMENT DESIGNATION SHALL HAVE A MINIMUM TEXT HEIGHT OF 3/8". THE REMAINING TEXT SHALL HAVE A MINIMUM HEIGHT OF 1/8".
- LABELS FOR EQUIPMENT CONNECTED TO THE NORMAL POWER SYSTEM SHALL BE BLACK WITH WHITE TEXT. LABELS FOR EQUIPMENT CONNECTED TO THE EMERGENCY POWER SYSTEM SHALL BE RED WITH WHITE TEXT.
- NAMEPLATES FOR EQUIPMENT LOCATED IN THE INTERIOR OF THE BUILDING SHALL BE ATTACHED WITH 3M SELF-ADHESIVES. EQUIPMENT INSTALLED AT EXTERIOR OF THE BUILDING SHALL BE ATTACHED WITH SCREWS AND THE LABEL SHALL HAVE PRE-PUNCHED OR PREDRILLED HOLES.

ELECTRICAL EQUIPMENT IDENTIFICATION

NOT TO SCALE

01/19/22

ELECTRICAL

PROJECT 202159

DATE 01.19.2022

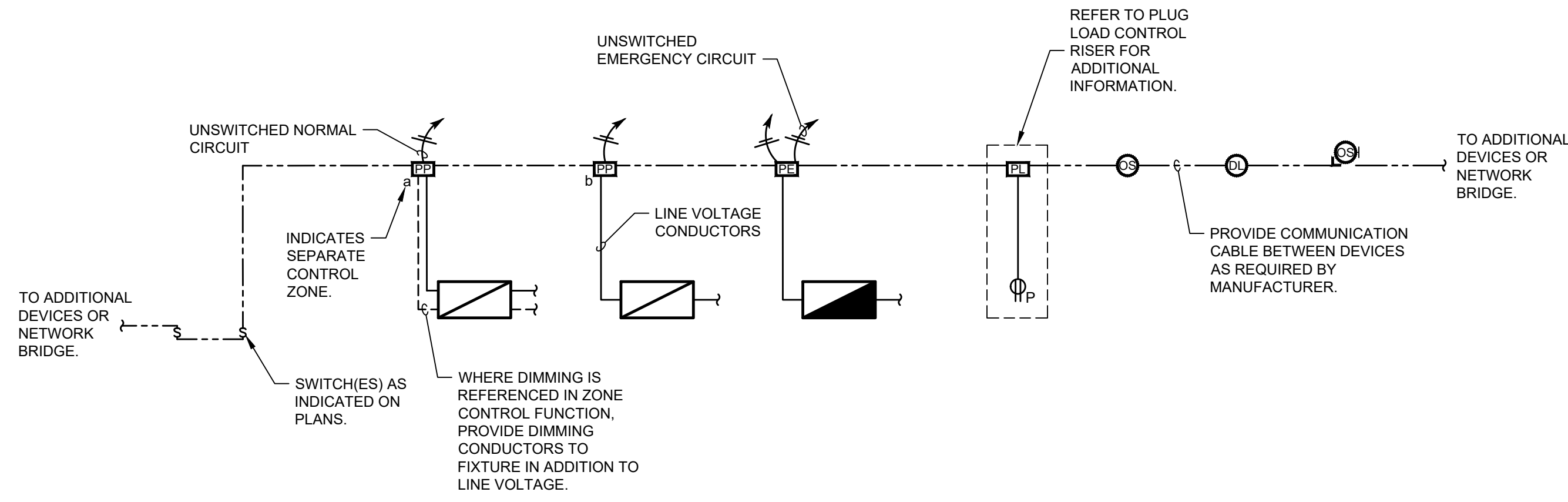
REVISIONS

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ELECTRICAL DETAILS

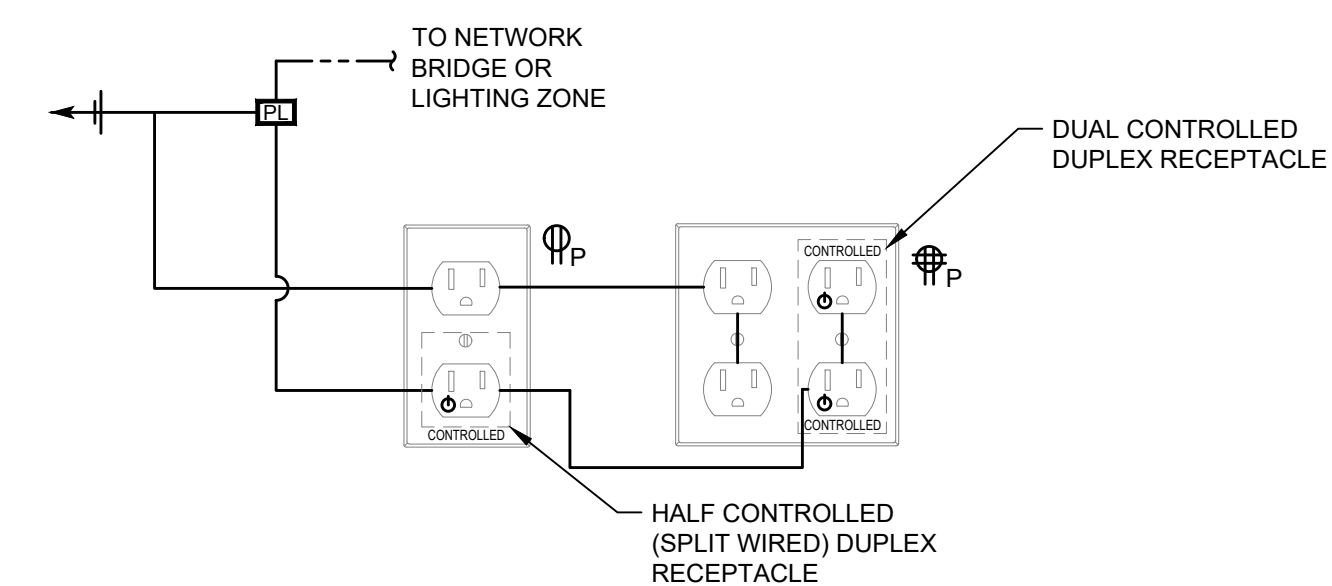
E-501



TYPICAL LIGHTING CONTROL RISER

NOT TO SCALE

NOTE: LIGHTING CONTROL RISER SHOWS TYPICAL CONNECTIONS BETWEEN DEVICES AND LIGHT FIXTURES. REFER TO THE FLOOR PLANS FOR QUANTITIES OF DEVICES, LIGHT FIXTURES, AND ZONES.



ZONE CONTROL (NETWORKED SYSTEM)

1. OCCUPIED TIME - 6AM-6PM
2. UNOCCUPIED TIME - 6PM-6AM
3. OCCUPIED TIME
 - A. AUTO-ON, REMAIN ON.
4. UNOCCUPIED TIME
 - A. AUTO-ON WHEN OCCUPANCY DETECTED
 - B. AUTO-OFF AFTER ON OCCUPANCY DETECTED FOR 15 MINUTES.

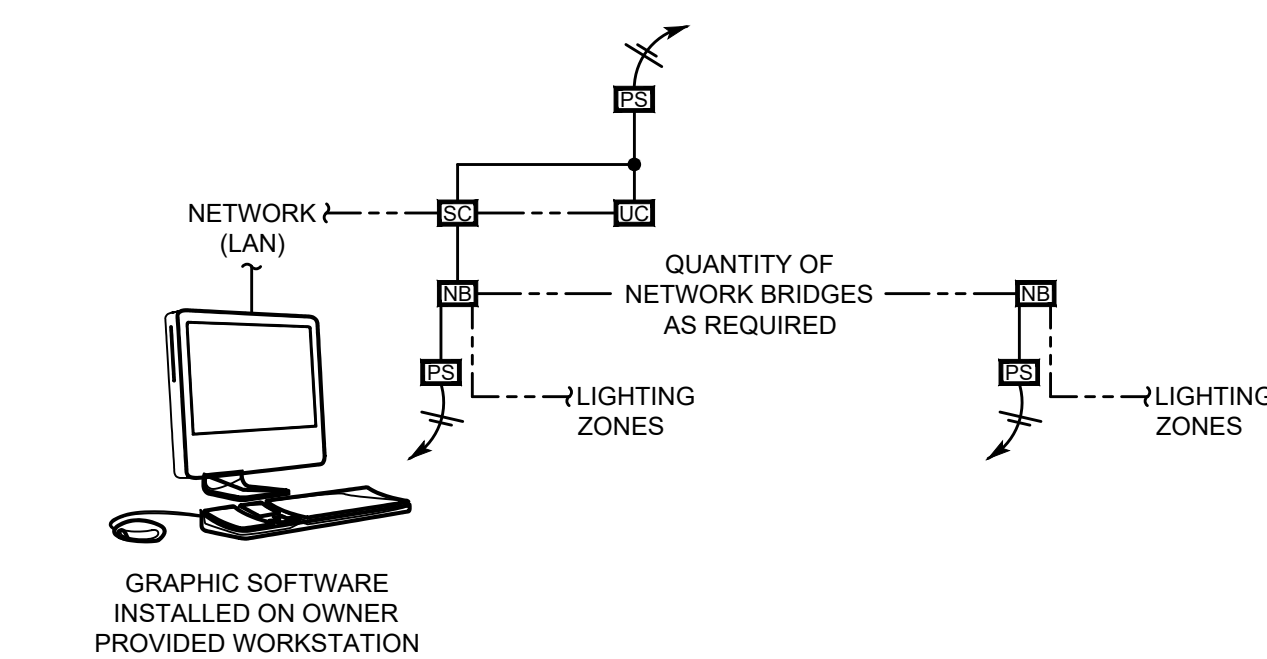
ZONE CONTROL (STAND ALONE SYSTEM)

1. AUTO-ON WHEN OCCUPANCY DETECTED
2. AUTO-OFF AFTER ON OCCUPANCY DETECTED FOR 15 MINUTES.

TYPICAL PLUG LOAD CONTROL RISER

NOT TO SCALE

- NOTES
1. CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED FROM THE FACTORY.

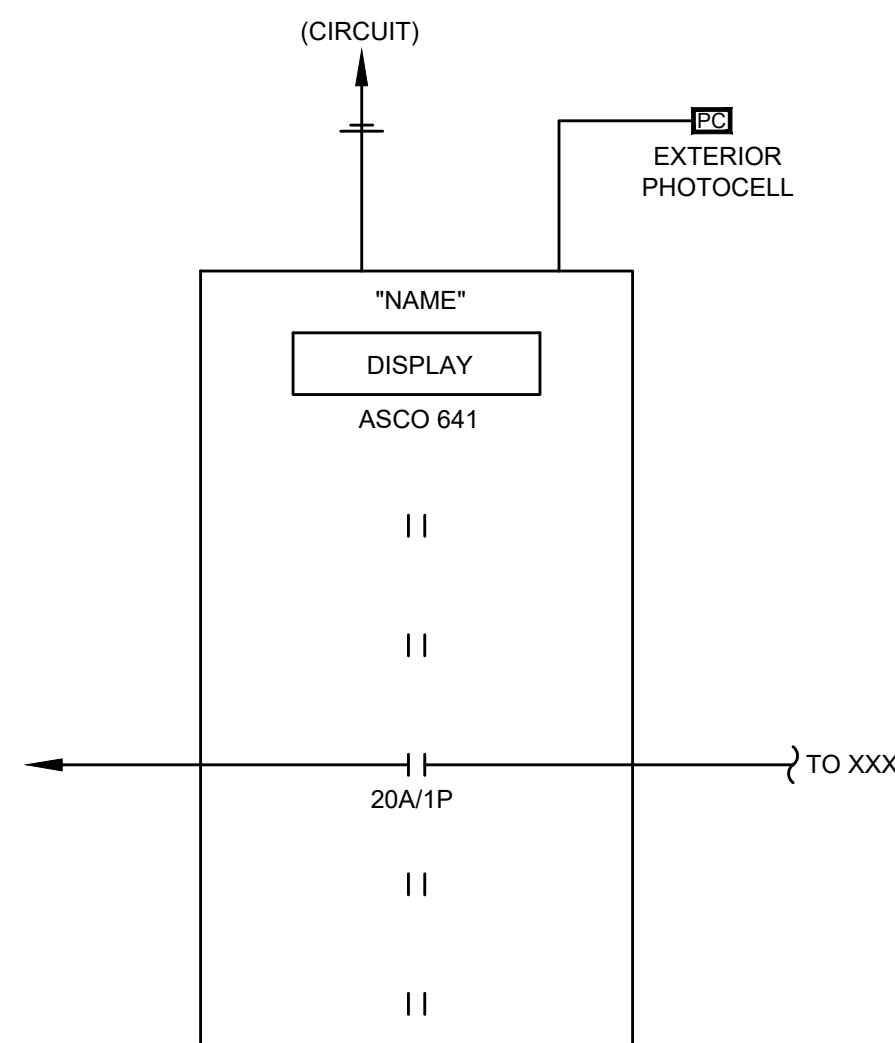


NOTES

1. PROVIDE COMPLETE NETWORK LIGHTING CONTROL SYSTEM.
2. COORDINATE ALL PROGRAMMED TIME-OF-DAY SCHEDULES WITH OWNER.

LIGHTING CONTROL SYSTEM NETWORK

NOT TO SCALE



LIGHTING CONTACTOR AND TIMECLOCK DIAGRAM

NOT TO SCALE

LIGHTING ZONE CONTROL SCHEDULE																			
LC-#	SPACE TYPE/FUNCTION	OCCUPANCY SENSOR		TIME CLOCK			WALL SWITCH			DAYLIGHT SENSOR		OTHER		ZONE CONTROL					NOTES
		VACANCY MODE	OCCUPANCY MODE	SENSOR TIMEOUT PERIOD (MINUTES)	DUAL TECHNOLOGY	SCHEDULED ON AT	SCHEDULED OFF AT	SCHEDULE OVERRIDE SWITCH MANUAL (ON/OFF)	MANUAL DIMMING (0-10V)	KEY SWITCH	SCENE CONTROL	GRAPHICAL TOUCHSCREEN	SWITCHING (ON/OFF)	DIMMING	TARGET LIGHT LEVEL (FC)	EXTERIOR LOCATION	PLUG LOAD CONTROLS		
LC-01	CLASSROOM	X	-	15 MIN	X	-	-	-	X	X	-	X	-	X	-	-	-	SCENE 1: ALL ON AT 80% SCENE 2: INSTRUCTIONS WALL ON AT 10%, REMAINDER OF FIXTURES AT 50% SCENE 3: ALL ON AT 50% SCENE 4: ALL ON AT 100%	
LC-02	SMALL OFFICE	X	-	15 MIN	-	-	-	-	X	-	-	-	-	X	-	-	X		
LC-03	CORRIDOR	-	X	15 MIN	-	-	-	-	X	X	-	-	-	-	-	-	-	2 HR MANUAL OVERRIDE DURING AFTER HOURS LIGHTS TO SWEEP OFF PER TIME OF DAY SCHEDULE	
LC-04	WORKROOM	X	-	15 MIN	X	-	-	-	X	-	-	-	-	-	-	-	-		
LC-05	CAFETERIA/GYMNASIUM	-	X	15 MIN	X	-	-	-	X	X	-	-	-	X	-	-	-	2 HR MANUAL OVERRIDE DURING AFTER HOURS LIGHTS TO SWEEP OFF PER TIME OF DAY SCHEDULE	

GENERAL NOTES

- A. PROVIDE A COMPLETE NETWORKED LIGHTING CONTROL SYSTEM.
- B. PROVIDE ALL MATERIAL AND LABOR NECESSARY TO PERFORM THE ZONE CONTROL FUNCTIONS DESCRIBED ABOVE.
- C. BOX MARKED WITH 'X' INDICATES THAT ZONE FUNCTION IS REQUIRED.
- D. PROVIDE DETAILED LIGHTING CONTROL PLANS, RISERS, ETC. WITH SHOP DRAWING SUBMITTAL.
- E. BASIS-OF-DESIGN = nLIGHT, WATTSTOPPER AND HUBBELL EQUIVALENTS.
- F. COORDINATE ALL PROGRAMMED TIME OF DAY SCHEDULES WITH OWNER.
- G. PROVIDE AUXILIARY POWER PACK OR AUXILIARY CONTACTS IN SENSORS AND CAT56 CABLING CONNECTION FROM ROOM CONTROLLER/RELAY POWER PACK FOR TEMPERATURE CONTROLS CABLING CONNECTIONS. ALL DEVICES AND CABLING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR WITH THE EXCEPTION OF THE CONNECTION BETWEEN THE AUXILIARY POWER PACK/CONTACTS AND THE TEMPERATURE CONTROLS SYSTEM. COORDINATE ALL REQUIREMENTS WITH TCC AS REQUIRED.
- H. ALL LOW-VOLTAGE LIGHTING CONTROLS CABLING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
- I. THE DETECTION OF OCCUPANCY BY ONE OCCUPANCY SENSOR SHALL ENABLE ALL LIGHTS WITHIN THAT CONTROL ZONE TO OPERATE. CONNECT OCCUPANCY SENSORS TOGETHER AS REQUIRED FOR THIS FUNCTION.
- J. PROVIDE MOUNTING BRACKETS AND ADDITIONAL SUPPORTS, HARDWARE, ETC. FOR CEILING MOUNTED SENSORS. DEVICES SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS. SUPPORTING DEVICES BY THE CEILING TILE OR GRID IS NOT PERMITTED.
- K. PROVIDE ADDITIONAL 25 FEET OF CONTROLS CABLING COILED UP ABOVE CEILING AT EACH OCCUPANCY AND DAYLIGHT SENSOR.
- L. WALL STATION BUTTONS SHALL BE PROVIDED WITH CUSTOM ENGRAVED LABELS. EXAMPLE: "ON/OFF", "(UP ARROW)". VERIFY ENGRAVING WITH OWNER/ENGINEER PRIOR TO RELEASE OF SHOP DRAWINGS.
- M. WHERE MULTIPLE CONTROL ZONES ARE PRESENT IN SINGLE ROOM/AREA, PROVIDE ENGRAVING ON EACH WALL STATION INDICATING THE ZONE BEING CONTROLLED. EXAMPLE: "CHECKOUT DESK", "CLASSROOM AREA". VERIFY ENGRAVING WITH OWNER/ENGINEER PRIOR TO RELEASE OF SHOP DRAWINGS. POWER PACKS SHALL BE LABELED WITH CORRESPONDING LETTERING ON PERMANENT LAMACOID LABELS.

NOTES:

1. LIGHTS SHALL AUTOMATICALLY TURN ON AT 50% AND TURN OFF WHEN THE SPACE IS VACANT.
 2. LIGHTS SHALL AUTOMATICALLY TURN ON AT 100%, DIM TO 30% WHEN UNOCCUPIED, AND TURN OFF AFTER 5 MINUTES OF ADDITIONAL VACANCY.
 3. LIGHTS SHALL TURN ON AT DUSK AND TURN OFF AT CLOSE OF BUSINESS. IN THE MORNING, LIGHTS SHALL TURN ON AT TIME OF EXPECTED OCCUPANCY AND TURN OFF AT DAWN.
- *LIGHTING SHALL BE ADDITIONALLY CONTROLLED BY A DEVICE THAT AUTOMATICALLY TURNS OFF (OR DISABLES) ARTIFICIAL LIGHTING WHEN SUFFICIENT DAYLIGHT IS AVAILABLE.

LIGHTING CONTROL LEGEND

SYMBOL	DESCRIPTION
\$ ^A	ON/OFF
\$ ^B	ON/OFF, RAISE/LOWER
\$ ^C	2-ZONE, ON/OFF
\$ ^E	2-ZONE, ON/OFF, RAISE/LOWER
\$ ^F	OCCUPANCY SENSOR, ON/OFF
\$ ^G	OCCUPANCY SENSOR, ON/OFF, RAISE/LOWER
\$ ^H	4-ZONE, ON/OFF, RAISE/LOWER
\$ ^L	LOW VOLTAGE SWITCH
PP _a	POWER PACK WITH 0-10V DIMMING - 'a' SUBSCRIPT INDICATES ZONE
EP _a	EMERGENCY POWER PACK WITH 0-10V DIMMING - 'a' SUBSCRIPT INDICATES ZONE
PL _a	PLUG LOAD CONTROL POWER PACK - 'a' SUBSCRIPT INDICATES ZONE
SC	SYSTEM CONTROLLER
UC	USER CONTROLLER
NB	NETWORK BRIDGE
LD _a	LIGHT FIXTURE DRIVER. REFER TO LIGHT FIXTURE SCHEDULE - 'a' SUBSCRIPT INDICATES ZONE CONTROL.
IS	RJ45 SPLITTER
PS	POWER SUPPLY
CS	360 DEGREE DUAL TECHNOLOGY OCCUPANCY SENSOR
CS _C	CORNER MOUNTED, DUAL TECHNOLOGY OCCUPANCY SENSOR
DS	DAYLIGHT SENSOR
-----	2#18 DIMMING CONDUCTOR CABLE
-----	CATEGORY 5E UTP NETWORK CABLE

EXTERIOR LIGHTING CONTROL NOTES:

- A. ALL COMPONENTS SHALL BE INSTALLED IN A NEMA-1 ENCLOSURE AS INDICATED ON THE FLOOR PLANS.
- B. CONTROLLER SHALL BE 366 DAY, WITH MINIMUM OF TWO CIRCUITS. PROVIDE ONE CIRCUIT PER CONTACTOR FOR SEPARATE CONTROLS: INTERMATIC # ET90215CE OR EQUAL.
- C. PHOTOCELL SHALL HAVE NORTH FACING EXPOSURE AND SHALL BE PROVIDED A WEATHER HEAD. CONTRACTOR SHALL FIELD VERIFY BEST LOCATION ON NORTH EXTERIOR WALL OF KITCHEN 108. INTERMATIC #K4100 OR EQUAL.
- D. ALL TIME SWITCHES SHALL BE CAPABLE OF RETAINING PROGRAMMING AND THE TIME SETTING DURING LOSS OF POWER FOR A PERIOD OF 10 HOURS MINIMUM.
- E. EXTERIOR LIGHTING CONTROL TIMECLOCKS SHALL BE ASTRONOMICAL 7-DAY WEEK PROGRAMMABLE WITH PHOTOCELL OVERRIDE INPUT (TORK, OR EQUAL).
- F. CONTRACTOR TO PROGRAM TIMECLOCK PER OWNER REQUIREMENTS.
- G. CONTRACTOR TO PROVIDE TIMECLOCK PROGRAMMING TRAINING.
- H. CONTRACTOR SHALL ADD CONTACTORS AS NEEDED TO PROVIDE CONTROL TO ALL EXTERIOR LIGHTING CIRCUITS.
- I. ACTIVATION OF 7-DAY TIMECLOCK AND EXTERIOR PHOTOCELL SHALL AUTOMATICALLY TURN ON LIGHTS.

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DATE 01.19.2022

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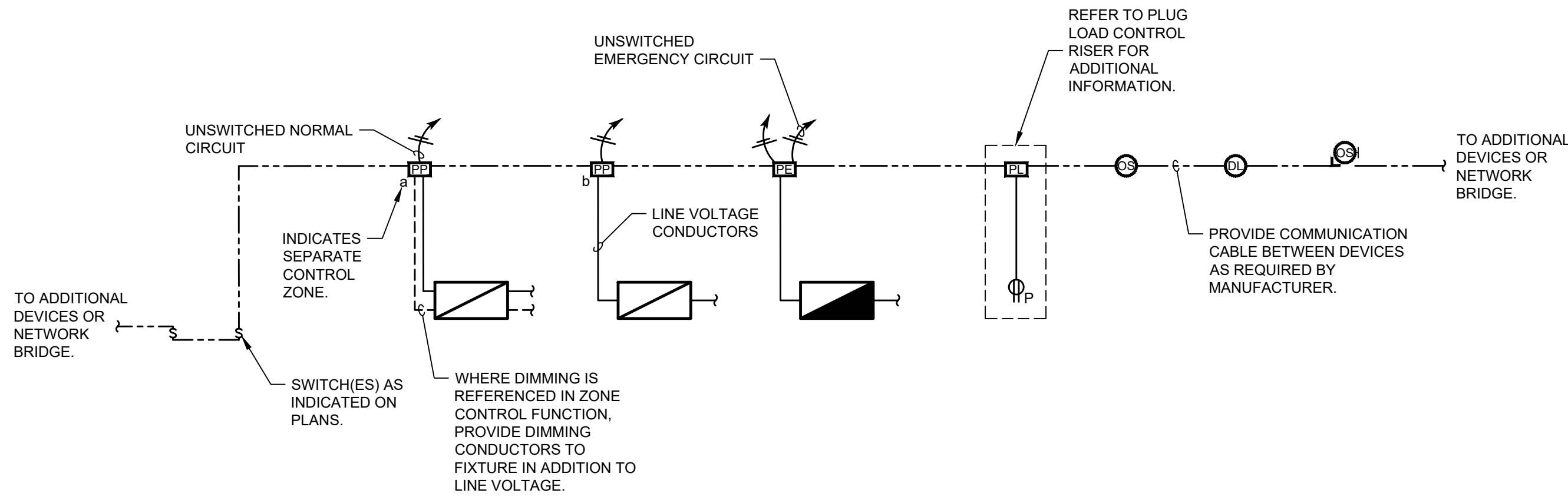
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ELECTRICAL SCHEDULES

E-502

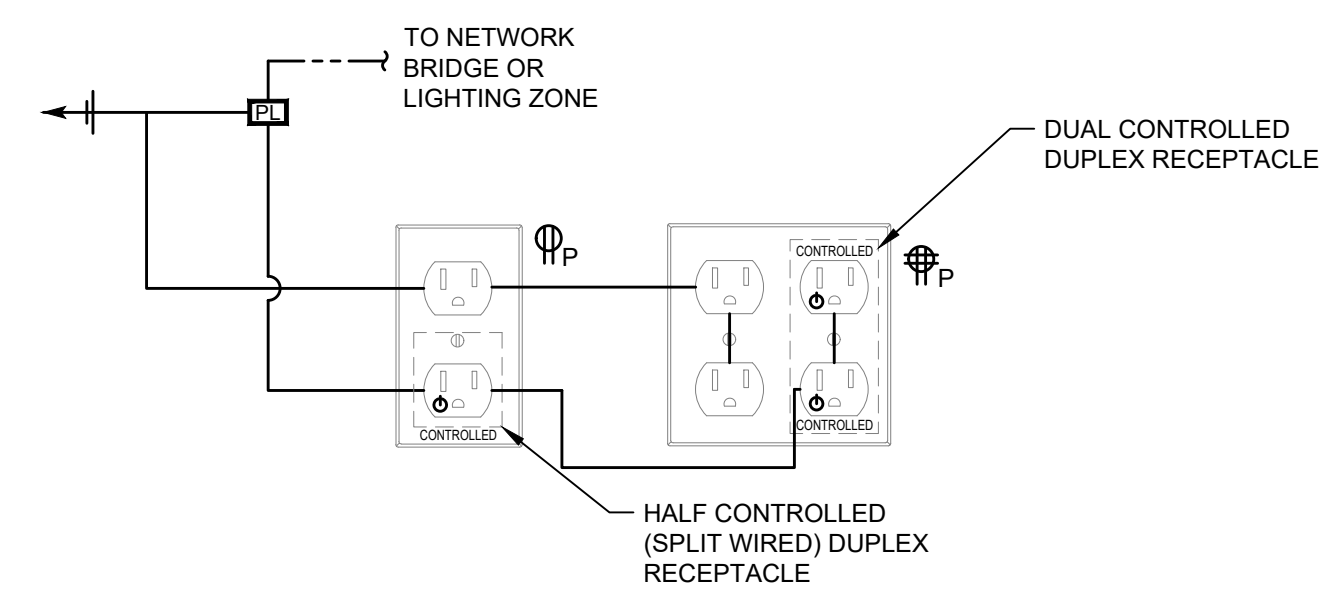
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TYPICAL LIGHTING CONTROL RISER

NOT TO SCALE

NOTE: LIGHTING CONTROL RISER SHOWS TYPICAL CONNECTIONS BETWEEN DEVICES AND LIGHT FIXTURES. REFER TO THE FLOOR PLANS FOR QUANTITIES OF DEVICES, LIGHT FIXTURES, AND ZONES.



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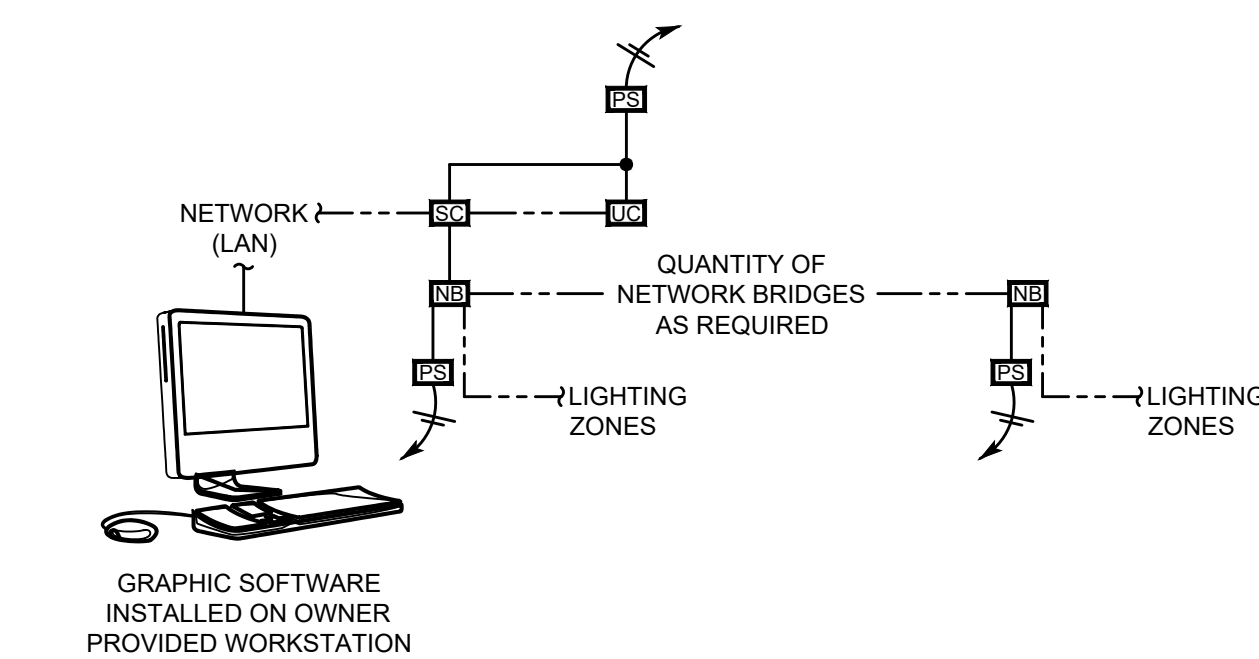
ZONE CONTROL (STAND ALONE SYSTEM)

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TYPICAL PLUG LOAD CONTROL RISER

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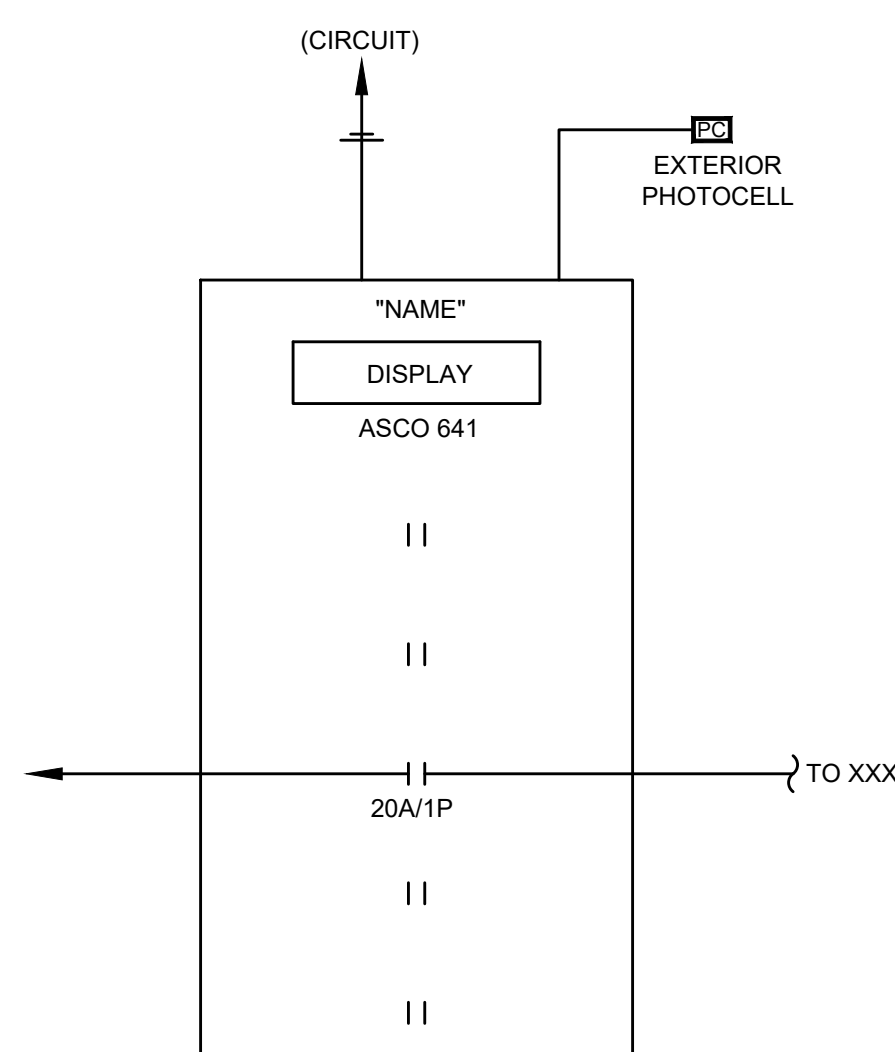


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LIGHTING CONTROL SYSTEM NETWORK

NOT TO SCALE



LIGHTING CONTACTOR AND TIMECLOCK DIAGRAM

NOT TO SCALE

LIGHTING ZONE CONTROL SCHEDULE																		
LC-#	SPACE TYPE/FUNCTION	OCCUPANCY SENSOR		TIME CLOCK			WALL SWITCH			DAYLIGHT SENSOR	OTHER		ZONE CONTROL					NOTES
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LC-02	SMALL OFFICE	X	-	15 MIN	-	-	-	-	X	-	-	-	-	X	-	-	X	
LC-03	CORRIDOR	-	X	15 MIN	-	-	-	-	X	X	-	-	-	-	-	-	-	2 HR MANUAL OVERRIDE DURING AFTER HOURS LIGHTS TO SWEEP OFF PER TIME OF DAY SCHEDULE
LC-04	WORKROOM	X	-	15 MIN	X	-	-	-	X	X	-	-	-	-	-	-	-	
LC-05	CAFETERIA/GYMNASIUM	-	X	15 MIN	X	-	-	-	X	X	-	-	-	X	-	-	-	2 HR MANUAL OVERRIDE DURING AFTER HOURS LIGHTS TO SWEEP OFF PER TIME OF DAY SCHEDULE

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LIGHTING CONTROL LEGEND

SYMBOL	DESCRIPTION
\$ ^A	ON/OFF
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\$ ^E	2-ZONE, ON/OFF, RAISE/LOWER
\$ ^F	OCCUPANCY SENSOR, ON/OFF
\$ ^G	OCCUPANCY SENSOR, ON/OFF, RAISE/LOWER
\$ ^H	4-ZONE, ON/OFF, RAISE/LOWER
\$ ^L	LOW VOLTAGE SWITCH
PP _a	POWER PACK WITH 0-10V DIMMING - 'a' SUBSCRIPT INDICATES ZONE
EP _a	EMERGENCY POWER PACK WITH 0-10V DIMMING - 'a' SUBSCRIPT INDICATES ZONE
PL _a	PLUG LOAD CONTROL POWER PACK - 'a' SUBSCRIPT INDICATES ZONE
SC	SYSTEM CONTROLLER
UC	USER CONTROLLER
NB	NETWORK BRIDGE
LD _a	LIGHT FIXTURE DRIVER. REFER TO LIGHT FIXTURE SCHEDULE - 'a' SUBSCRIPT INDICATES ZONE CONTROL.
IS	RJ45 SPLITTER
PS	POWER SUPPLY
CS	360 DEGREE DUAL TECHNOLOGY OCCUPANCY SENSOR
CS _C	CORNER MOUNTED, DUAL TECHNOLOGY OCCUPANCY SENSOR
DS	DAYLIGHT SENSOR
-----	2#18 DIMMING CONDUCTOR CABLE
----	CATEGORY 5E UTP NETWORK CABLE

EXTERIOR LIGHTING CONTROL NOTES:

- A. ALL COMPONENTS SHALL BE INSTALLED IN A NEMA-1 ENCLOSURE AS INDICATED ON THE FLOOR PLANS.
- B. CONTROLLER SHALL BE 366 DAY, WITH MINIMUM OF TWO CIRCUITS. PROVIDE ONE CIRCUIT PER CONTACTOR FOR SEPARATE CONTROLS: INTERMATIC # ET90215CE OR EQUAL.
- C. PHOTOCELL SHALL HAVE NORTH FACING EXPOSURE AND SHALL BE PROVIDED A WEATHER HEAD. CONTRACTOR SHALL FIELD VERIFY BEST LOCATION ON NORTH EXTERIOR WALL OF KITCHEN 108. INTERMATIC #K4100 OR EQUAL.
- D. ALL TIME SWITCHES SHALL BE CAPABLE OF RETAINING PROGRAMMING AND THE TIME SETTING DURING LOSS OF POWER FOR A PERIOD OF 10 HOURS MINIMUM.
- E. EXTERIOR LIGHTING CONTROL TIMECLOCKS SHALL BE ASTRONOMICAL 7-DAY WEEK PROGRAMMABLE WITH PHOTOCELL OVERRIDE INPUT (TORK, OR EQUAL).
- F. CONTRACTOR TO PROGRAM TIMECLOCK PER OWNER REQUIREMENTS.
- G. CONTRACTOR TO PROVIDE TIMECLOCK PROGRAMMING TRAINING.
- H. CONTRACTOR SHALL ADD CONTACTORS AS NEEDED TO PROVIDE CONTROL TO ALL EXTERIOR LIGHTING CIRCUITS.
- I. ACTIVATION OF 7-DAY TIMECLOCK AND EXTERIOR PHOTOCELL SHALL AUTOMATICALLY TURN ON LIGHTS.

01/19/22

ELECTRICAL

PROJECT 202159

DATE 01.19.2022

REVISIONS

No.	Description	Date

JRA ARCHITECTS HAS RETAINED AN ELECTRONIC VERSION OF THESE DRAWINGS. THE CLIENT AGREES NOT TO REUSE THESE DRAWINGS - IN ELECTRONIC OR ANY OTHER FORMAT - IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR THE PROJECT. THE CLIENT AGREES NOT TO TRANSFER THESE ELECTRONIC FILES TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT. THE CLIENT FURTHER AGREES TO WAIVE ALL CLAIMS AGAINST THE ARCHITECT RESULTING IN ANY WAY FROM ANY UNAUTHORIZED CHANGES TO OR REUSE OF THE ELECTRONIC FILES FOR ANY OTHER PROJECT BY ANYONE OTHER THAN THE ARCHITECT.

ELECTRICAL SCHEDULES

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