

HVAC Equipment Replacements and Upgrades

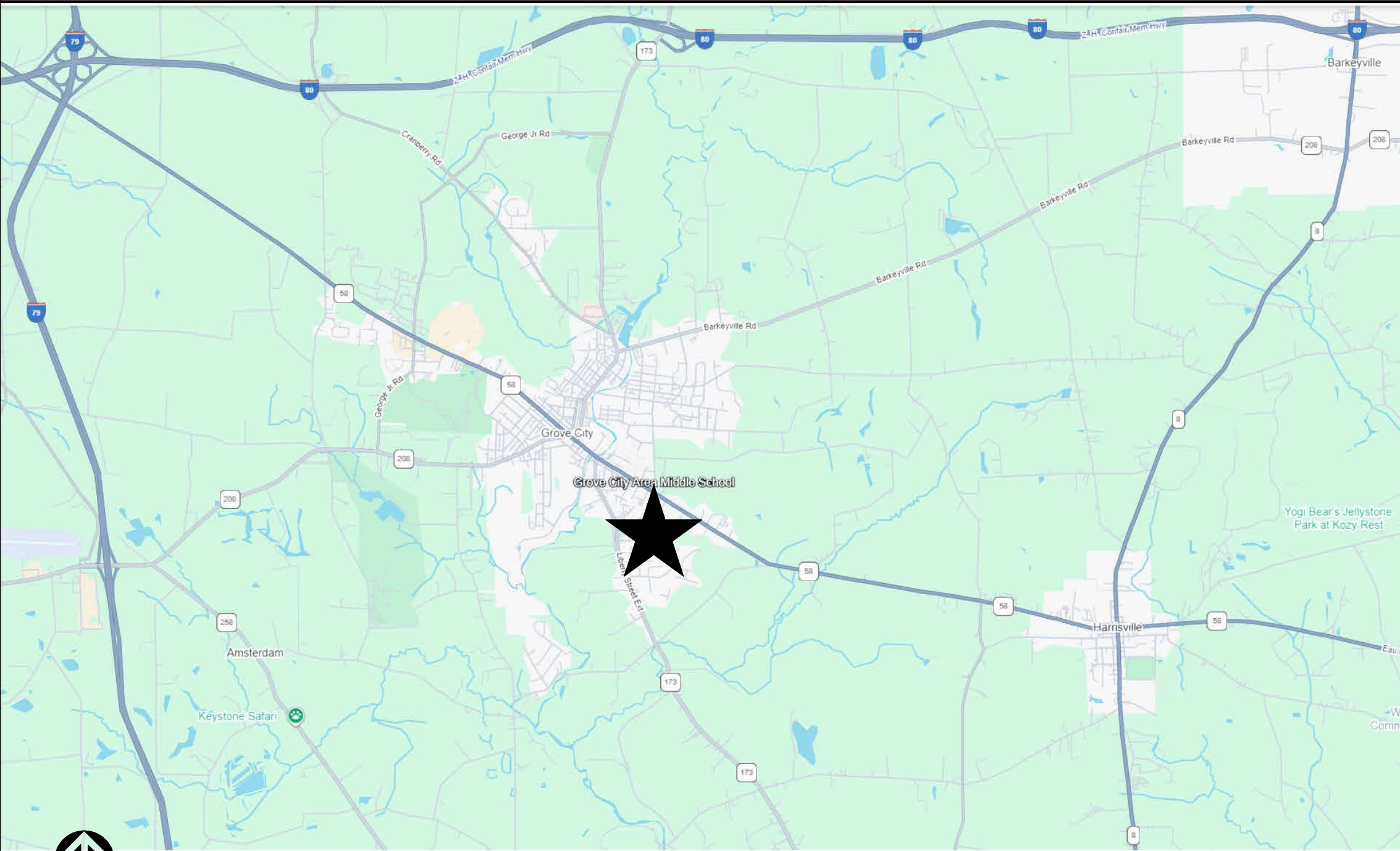
Grove City Area School District

100 Middle School Drive Grove City, Mercer County, PA 16127

DRAWING INDEX

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A.712	FIRST FLOOR - REFLECTED CEILING PLAN - AREAS C AND G
A.713	FIRST FLOOR - REFLECTED CEILING PLAN - AREAS D, E AND F
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E.001	ELECTRICAL SYMBOLS, ABBREVIATIONS, DETAILS & SCHEDULES
E.101	OVERALL MECHANICAL EQUIPMENT CONNECTION PLAN

LOCATION MAP



BUILDING CODE DATA

MODEL CODES REFERENCED: 2018 INTERNATIONAL BUILDING CODE (IBC)
2018 INTERNATIONAL PLUMBING CODE (IPC)
2018 INTERNATIONAL MECHANICAL CODE (IMC)
2018 INTERNATIONAL FUEL GAS CODE (IFGC)
2018 INTERNATIONAL FIRE CODE (IFC)
2017 NATIONAL ELECTRIC CODE (2017 NFPA 70)
NATIONAL FIRE PROTECTION ASSOCIATION (2016 NFPA 110)

WORK SCOPE CLASSIFICATION: ALTERATION - LEVEL 1

TOTAL EXISTING BUILDING AREA: 93,111 NET SQUARE FOOT (INSIDE EXTERIOR WALLS)
95,890 SF (INCLUDING EXTERIOR WALLS)

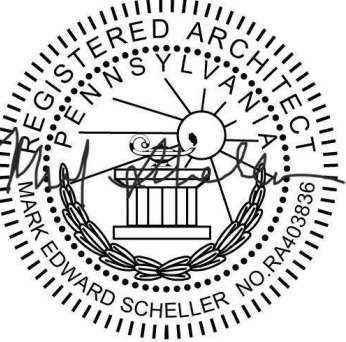
TOTAL NEW BUILDING AREA: 0 SF

USE GROUP: GROUP E - EDUCATIONAL

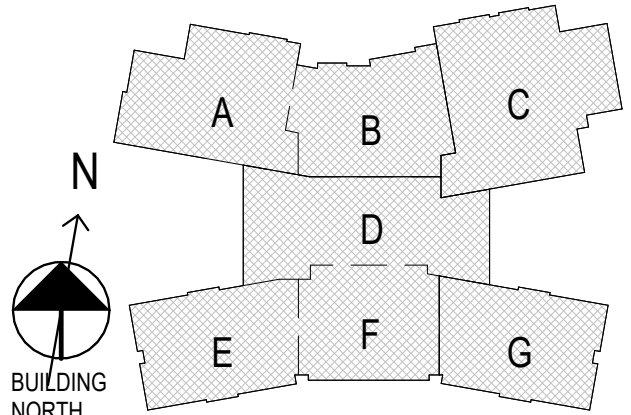
CONSTRUCTION TYPE: IIB FULLY SPRINKLERED



Grove City Area
School District
100 Middle School Drive
Grove City, Mercer County, PA 16127



REVISIONS



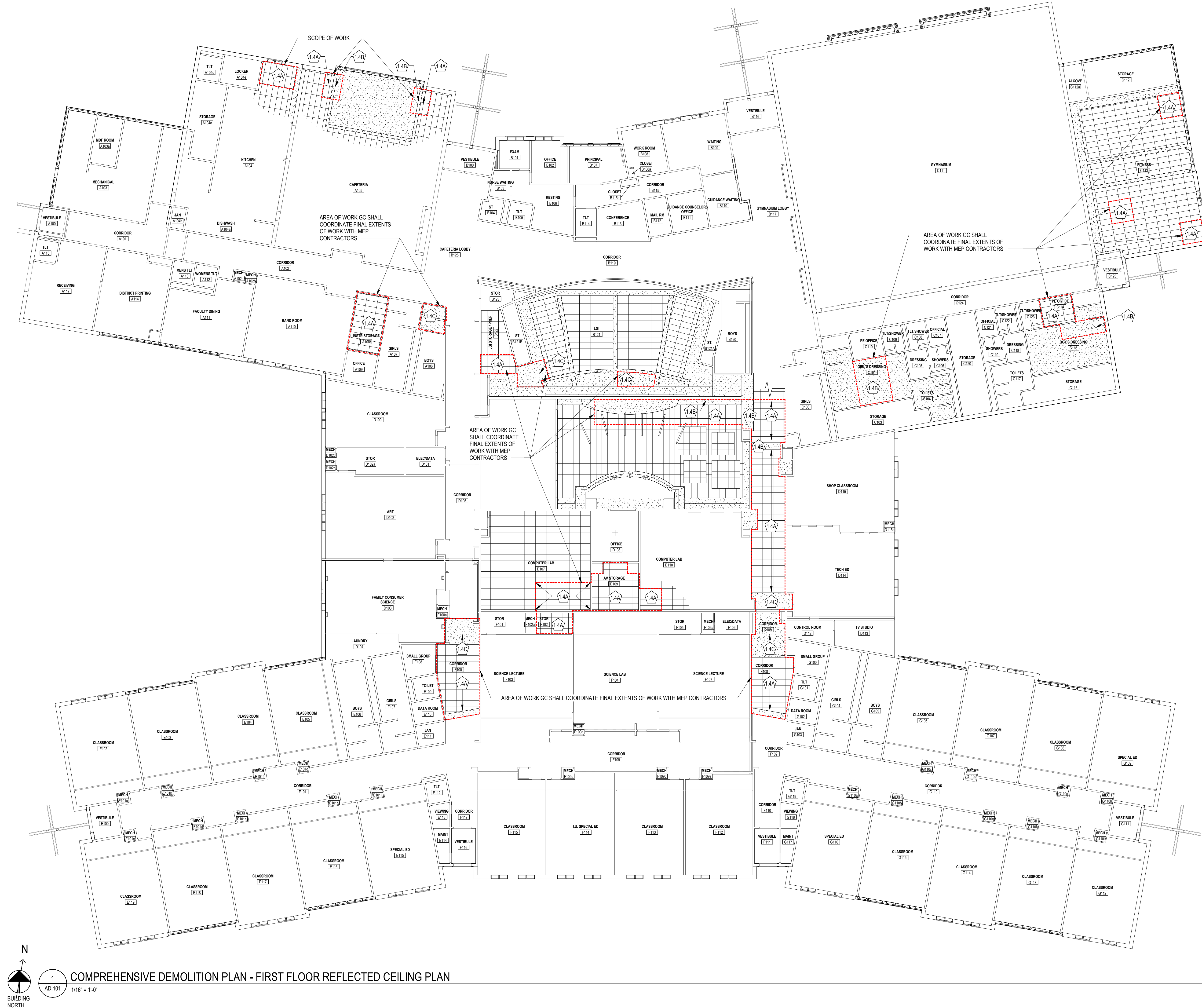
SCALE: NONE
DRAWN BY: TRW
CHECKED BY: MES

DATE: 07/18/2025

COVER SHEET

CS.101

DRAWING NUMBER



GENERAL DEMOLITION NOTES

1. THE DEMOLITION PLANS ARE SCHEMATIC AND SHALL SERVE AS A GENERAL GUIDE AND ARE NOT INTENDED TO BE TOTALLY INCLUSIVE. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL EXISTING CONDITIONS.
2. COORDINATE DEMOLITION ACTIVITIES WITH ALL OTHER CONSTRUCTION IDENTIFIED ON CONSTRUCTION DOCUMENTS.
3. ITEMS SHOWN DASHED ON THE DEMOLITION PLANS SHALL BE REMOVED. TYPICAL UNO KEYNOTES / ARROWS POINT TO A REPRESENTATIVE AMOUNT OF THE DEMOLITION WORK BUT ARE NOT INTENDED TO BE ALL INCLUSIVE.
4. REFER TO SPEC SECTION DIVISION 01 "SELECTIVE DEMOLITION" FOR SPECIFIC REQUIREMENTS REGARDING DEMOLITION SHOWN ON THIS DRAWING.
5. REFER TO SPEC SECTION DIVISION 01 "EXECUTION" FOR SPECIFIC REQUIREMENTS REGARDING CUTTING AND PATCHING SHOWN ON THIS DRAWING.
6. GC SHALL COORDINATE EXTENTS OF CEILING REMOVAL WITH THE HC.
7. GC SHALL SALVAGE AND PROTECT ALL CEILING TILES, SUSPENSION SYSTEM AND ACCESSORIES FOR REINSTALLATION.
8. GC SHALL SUPPORT ADJACENT CEILINGS AS NECESSARY FOR REMOVAL OF THE CEILINGS TO ACCOMMODATE THE WORK. REMOVAL OF ACOUSTICAL PANEL SYSTEMS SHALL BE TO MAIN FRAMING MEMBERS.
9. GC AND HC SHALL REMOVE OR TEMPORARILY SUPPORT ALL ELECTRICAL ITEMS, LIGHTING AND HVAC COMPONENTS FROM THE CEILINGS THAT ARE BEING REMOVED BY THE GC. COORDINATE AS NECESSARY WITH GC AND HC ON EXTENTS OF CEILING REMOVAL.

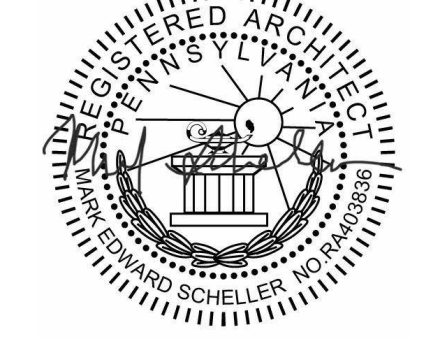
DEMOLITION NOTES	
NUM	DESCRIPTION
1.4A	GC SHALL REMOVE ENTIRE ACOUSTIC CEILING & SUSPENSION SYSTEM / FRAMING IN THIS AREA TO ACCOMMODATE MEP WORK ABOVE CEILING. COORDINATE AS NECESSARY WITH MEP CONTRACTORS. SUPPORT ADJACENT CEILINGS TO REMAIN AS NECESSARY.
1.4B	GC SHALL COORDINATE THE EXTENT OF GYPSUM BOARD CEILING/BULKHEAD & SUSPENSION SYSTEM/FRAMING REMOVAL WITH MEP CONTRACTORS AS REQUIRED TO ACCOMMODATE DEMOLITION AND NEW WORK. THE DESIGNATED AREA OF WORK IS A GENERAL AREA AND SHALL BE MODIFIED AS NECESSARY.
1.4C	GC SHALL REMOVE ENTIRE GYPSUM BOARD CEILING / BULKHEAD & SUSPENSION SYSTEM / FRAMING IN THIS AREA TO ACCOMMODATE MEP WORK ABOVE CEILING. COORDINATE AS NECESSARY WITH MEP CONTRACTORS.



Grove City Area School District
511 Highland Avenue
Grove City, PA 16127



HVAC Equipment
Replacements and
Upgrades

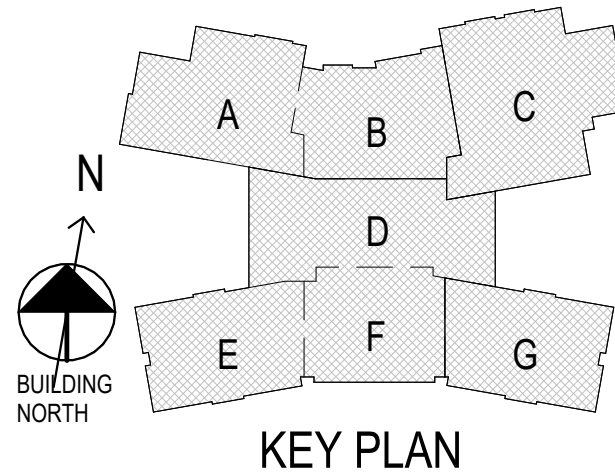


GROVE CITY AREA MIDDLE SCHOOL

100 Middle School Drive
Grove City, PA 16127

CONSTRUCTION DOCUMENTS

REVISIONS



SCALE:
DRAWN BY:
CHECKED BY:

DATE: 07/18/2025

GROUND FLOOR
COMPREHENSIVE
DEMOLITION
PLAN

AD.101

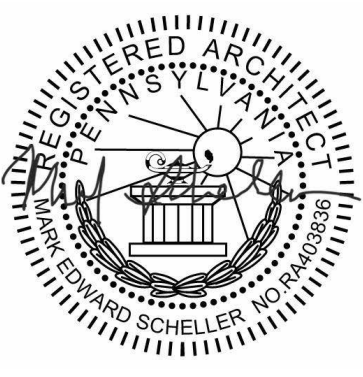
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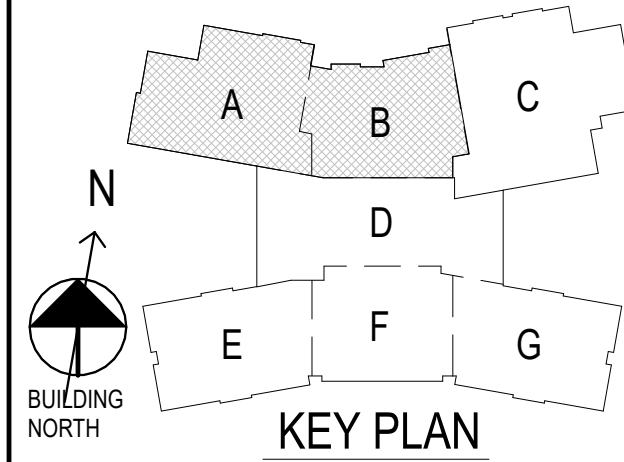


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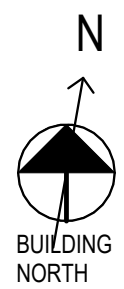
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DATE: 07/18/2025

FIRST FLOOR -
REFLECTED
CEILING PLAN -
AREAS A AND B

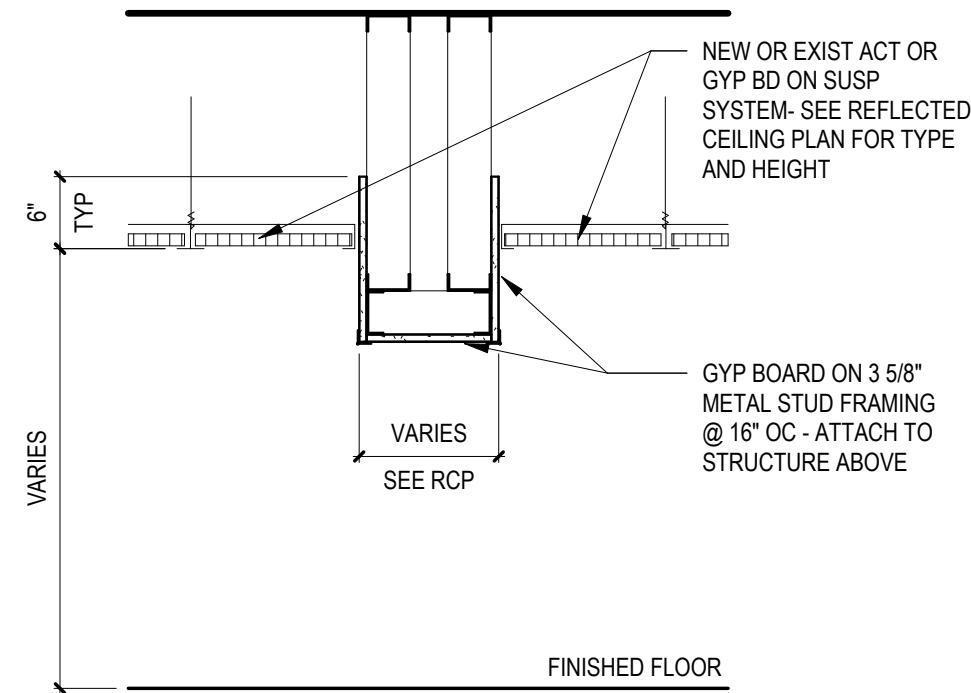
A.711

DRAWING NUMBER



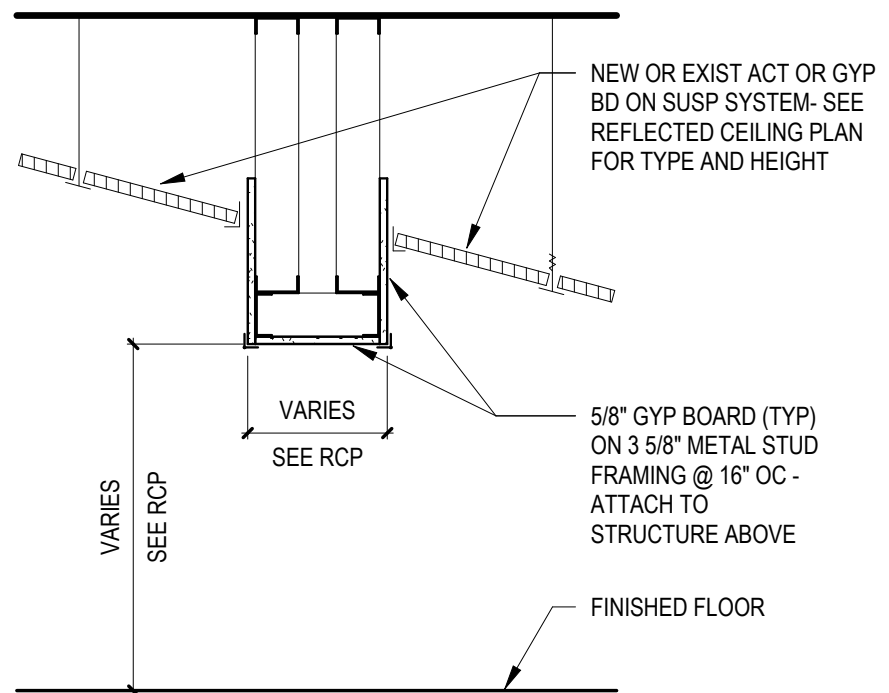
1
A.711
1/8" = 1'-0"

FIRST FLOOR REFLECTED CEILING PLAN - AREAS A AND B



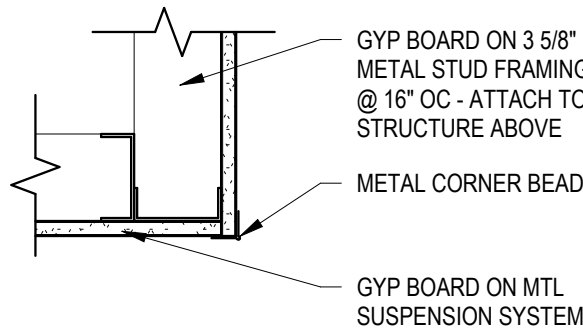
2
A.711
3/4" = 1'-0"

SECTION @ TYPICAL BULKHEAD



3
A.711
3/4" = 1'-0"

BULKHEAD SECTION @ SLOPING ACT



4
A.711
1 1/2" = 1'-0"

SECTION @ TYPICAL SOFFIT

GENERAL RCP NOTES

1. GRILLES, DIFFUSERS, & SPRINKLER CAPS IN GPBD BULKHEADS SHALL BE PAINTED TO MATCH BULKHEAD COLOR TYPE, EXCEPT WHERE BULKHEAD IS WHITE.
2. PAINT ALL EXPOSED SURFACES - FACES AND UNDERSIDE OF GPBD BULKHEADS AND CEILINGS COLOR TO MATCH EXISTING.
3. FIELD CUT REVEAL EDGES IN CEILING ACOUSTIC TILE TO MATCH FACTORY EDGE REVEAL WHERE PANELS HAVE BEEN CUT TO NON STANDARD DIMENSIONS.
4. AT ROOMS WITH PARALLEL AND PERPENDICULAR WALLS, CENTER THE GRID IN THE ROOM.
5. AT GPBD BULKHEADS THAT TRANSITION TO HIGHER ADJACENT CEILINGS, PROVIDE GPBD ON METAL FRAMING AT EXPOSED VERTICAL FACES OF BULKHEADS, TYPICAL, UNO.

REFLECTED CEILING PLAN SYMBOLS LEGEND

- EXISTING / NEW SUSPENDED ACOUSTIC PANEL CEILING (APC-X)
- EXISTING / NEW SUSPENDED GPBD CEILING, SOFFIT, OR BULKHEAD (GPBD)
- DEF'S SYNTHETIC STUCCO CEILING, SOFFIT, OR BULKHEAD (STUC-X)
- SPORTS NETTING
- 2' x 4' RECESSED LIGHT FIXTURE (BY ELECTRICAL CONTRACTOR)
- 2' x 2' RECESSED LIGHT FIXTURE (BY ELECTRICAL CONTRACTOR)
- SUSPENDED PENDANT LIGHT (BY ELECTRICAL CONTRACTOR)
- HVAC AIR DIFFUSER
- HVAC AIR GRILLE

#	DESCRIPTION
1.1	PATCH GYPSUM BOARD CEILING TO MATCH EXISTING ADJACENT. PAINT TO MATCH EXISTING.
1.1A	INSTALL NEW GYPSUM BOARD CEILING AND SUSPENSION SYSTEM WHERE THE EXISTING HAS BEEN REMOVED. THE LOCATION OF THE NEW CEILING SHALL MATCH THE EXISTING. PAINT TO MATCH EXISTING COLOR.
1.4A	REINSTALL SALVAGED ACOUSTICAL CEILING SYSTEM AND PANELS IN SAME LOCATION AND ORIENTATION. TIE INTO ADJACENT MAIN FRAMING MEMBERS AS NECESSARY. REPLACE DAMAGED FRAMING COMPONENTS OR PANELS WITH NEW TO MATCH EXISTING.
1.4D	PAINT EXPOSED SURFACES OF STRUCTURE AND METAL FRAMING THAT MAY HAVE BEEN IMPACTED DURING DEMOLITION OR INSTALLATION OF NEW WORK. PAINT COLOR TO MATCH EXISTING ADJACENT.

CEILING TYPES						
TYPE MARK	DESCRIPTION	EDGE	PANEL SIZE	MODEL	GRID	GRID COLOR
APC-1	ACOUSTIC PANEL CEILING - TYPE 1	SQUARE LAY-IN	2' x 4'	ARMSTRONG CEILING SYSTEMS - CLEAN ROOM VL UNPERFORATED WITH RETENTION CLIPS	1516"	WHITE
APC-2	ACOUSTIC PANEL CEILING - TYPE 2	SQUARE LAY-IN	2' x 4'	ARMSTRONG CEILING SYSTEMS - OPTIMA OPEN PLAN W/ CAC BACKING WITH RETENTION CLIPS	1516"	WHITE
APC-3	ACOUSTIC PANEL CEILING - TYPE 3	SQUARE LAY-IN	2' x 4'	ARMSTRONG CEILING SYSTEMS - SCHOOL ZONE - FINE FISSED - HIGH ACOUSTICS	1516"	WHITE
APC-4	ACOUSTIC PANEL CEILING - TYPE 4	SQUARE LAY-IN	2' x 4'	ARMSTRONG CEILING SYSTEMS - SCHOOL ZONE - FINE FISSED - HIGH ACOUSTICS	1516"	WHITE
APC-5	ACOUSTIC PANEL CEILING - TYPE 5	BEVELED TEGULAR	2' x 4'	ARMSTRONG CEILING SYSTEMS - ULTIMA TEGULAR - FINE TEXTURE W/ CAC BACKING	1516"	WHITE
APC-8	ACOUSTIC PANEL CEILING - TYPE 8	ANGLED TEGULAR	2' x 4'	ARMSTRONG CEILING SYSTEMS - FINE FISSED - OPEN PLAN - MEDIUM TEXTURE	1516"	WHITE
GPBD	GYPSUM BOARD CEILING					




NUM	DESCRIPTION
1.1	PATCH GYPSUM BOARD CEILING TO MATCH EXISTING ADJACENT. PAINT TO MATCH EXISTING.
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- GENERAL RCP NOTES**
- GRILLES, DIFFUSERS, & SPRINKLER CAPS IN GPBD BULKHEADS SHALL BE PAINTED TO MATCH BULKHEAD COLOR TYPE, EXCEPT WHERE BULKHEAD IS WHITE.
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 - AT ROOMS WITH PARALLEL AND PERPENDICULAR WALLS, CENTER THE GRID IN THE ROOM.
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- REFLECTED CEILING PLAN SYMBOLS LEGEND**
- EXISTING / NEW SUSPENDED ACOUSTIC PANEL CEILING (APC-X)
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CEILING TYPES						
TYPE MARK	DESCRIPTION	EDGE	PANEL SIZE	MODEL	GRID	GRID COLOR
APC-1	ACOUSTIC PANEL CEILING - TYPE 1	SQUARE LAY-IN	2' X 4'	ARMSTRONG CEILING SYSTEMS - CLEAN ROOM V.L. UNPERFORATED WITH RETENTION CLIPS	15/16"	WHITE
APC-2	ACOUSTIC PANEL CEILING - TYPE 2	SQUARE LAY-IN	2' X 4'	ARMSTRONG CEILING SYSTEMS - OPTIMA OPEN PLAN W/ CAC BACKING WITH RETENTION CLIPS	15/16"	WHITE
APC-3	ACOUSTIC PANEL CEILING - TYPE 3	SQUARE LAY-IN	2' X 4'	ARMSTRONG CEILING SYSTEMS - SCHOOL ZONE - FINE FISSURED HIGH DURABILITY	15/16"	WHITE
APC-4	ACOUSTIC PANEL CEILING - TYPE 4	SQUARE LAY-IN	2' X 4'	ARMSTRONG CEILING SYSTEMS - SCHOOL ZONE - FINE FISSURED - HIGH ACOUSTICS	15/16"	WHITE
APC-5	ACOUSTIC PANEL CEILING - TYPE 5	BEVELED TEGULAR	2' X 4'	ARMSTRONG CEILING SYSTEMS - ULTIMA TEGULAR - FINE TEXTURE W/ CAC BACKING	15/16"	WHITE
APC-8	ACOUSTIC PANEL CEILING - TYPE 8	ANGLED TEGULAR	2' X 4'	ARMSTRONG CEILING SYSTEMS - FINE FISSURED OPEN PLAN - MEDIUM TEXTURE	15/16"	WHITE
GPBD	GYPSUM BOARD CEILING					

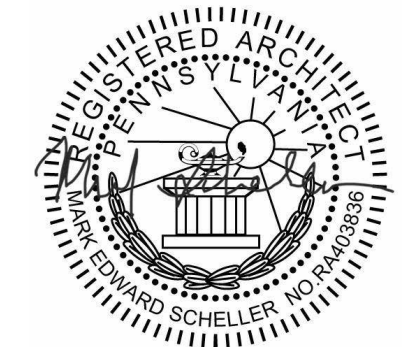


Grove City Area School District
511 Highland Avenue
Grove City, PA 16127



DRAW COLLECTIVE
415 Washington Road, Pittsburgh, Pennsylvania 15229
412.561.7117 • www.drawcollective.com
Proj No. 25-S43-01

HVAC Equipment Replacements and Upgrades

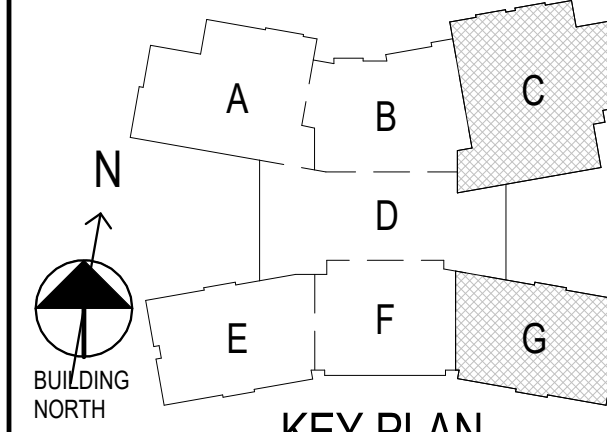


SEAL OF THE STATE OF OHIO
1787

GROVE CITY AREA MIDDLE SCHOOL
100 Middle School Drive
Grove City, PA 16127

CONSTRUCTION DOCUMENTS

REVISIONS



KEY PLAN

SCALE:
DRAWN BY:
CHECKED BY:

DATE: 07/18/2025

FIRST FLOOR - REFLECTED CEILING PLAN - AREAS C AND G

A.712

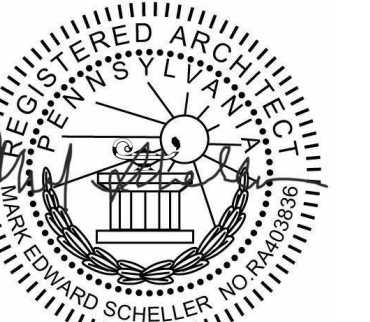
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HVAC Equipment Replacements and Upgrades

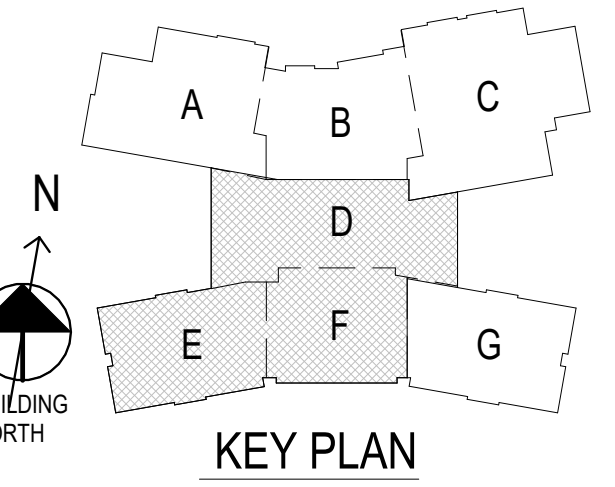


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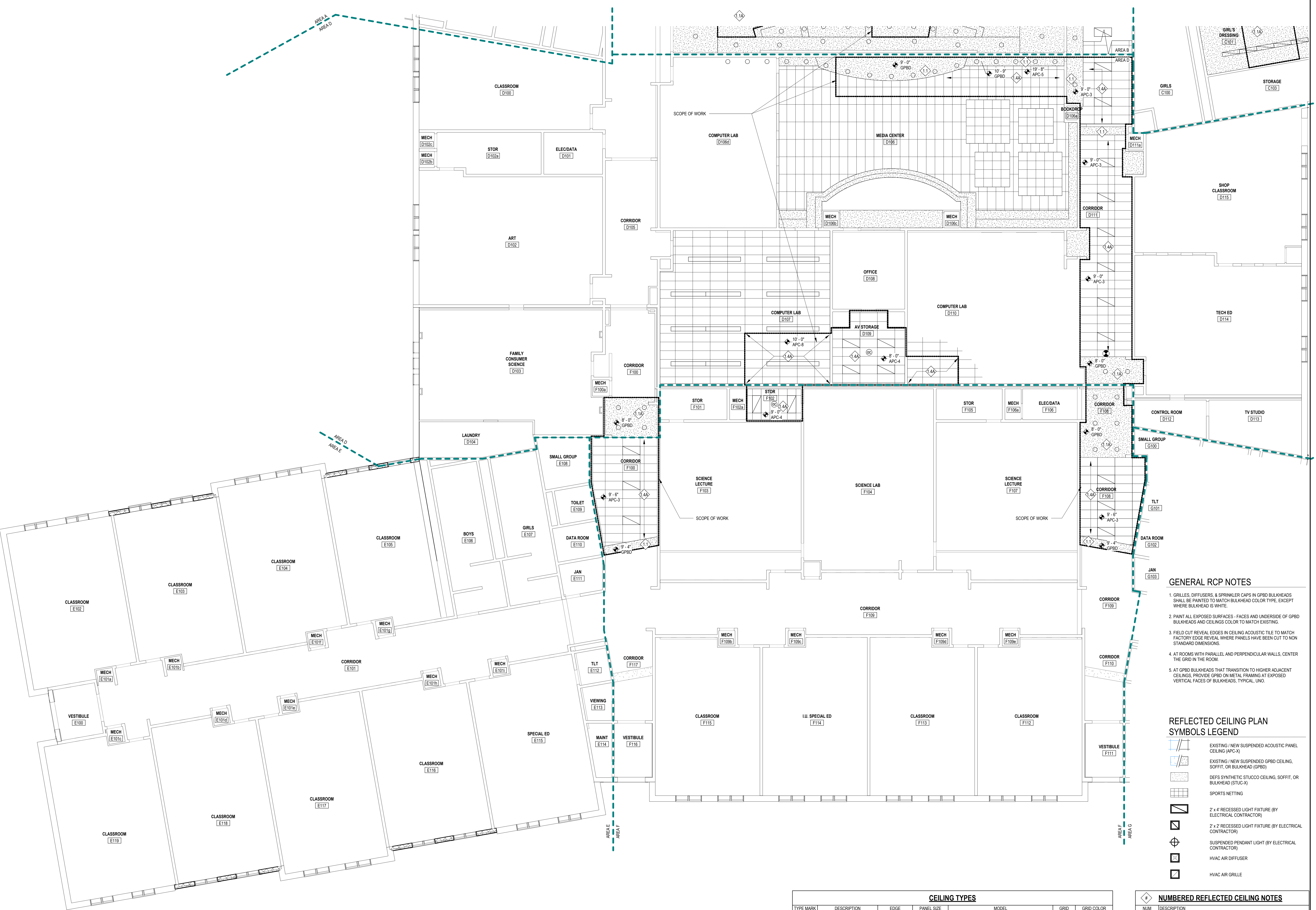
SCALE:
DRAWN BY:
CHECKED BY:

DATE: 07/18/2025

FIRST FLOOR - REFLECTED CEILING PLAN - AREAS D, E AND F

A.713

DRAWING NUMBER



GENERAL RCP NOTES

- GRILLES, DIFFUSERS, & SPRINKLER CAPS IN GPBD BULKHEADS SHALL BE PAINTED TO MATCH BULKHEAD COLOR TYPE, EXCEPT WHERE BULKHEAD IS WHITE.
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REFLECTED CEILING PLAN SYMBOLS LEGEND

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CEILING TYPES

TYPE MARK	DESCRIPTION	EDGE	PANEL SIZE	MODEL	GRID	GRID COLOR
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GPBD	GYPSUM BOARD CEILING					

NUMBERED REFLECTED CEILING NOTES

#	DESCRIPTION
1.1	PATCH GYPSUM BOARD CEILING TO MATCH EXISTING ADJACENT. PAINT TO MATCH EXISTING.
1.1A	INSTALL NEW GYPSUM BOARD CEILING AND SUSPENSION SYSTEM WHERE THE EXISTING HAS BEEN REMOVED. THE LOCATION OF THE NEW CEILING SHALL MATCH THE EXISTING. PAINT TO MATCH EXISTING COLOR.
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1.4D	PAINT EXPOSED SURFACES OF STRUCTURE AND METAL FRAMING THAT MAY HAVE BEEN IMPACTED DURING DEMOLITION OR INSTALLATION OF NEW WORK. PAINT COLOR TO MATCH EXISTING ADJACENT.

N
BUILDING NORTH
1
A.713
1/8" = 1'-0"
FIRST FLOOR REFLECTED CEILING PLAN - AREAS D, E AND F

HVAC SYMBOLS & ABBREVIATIONS

SHEET METAL SYMBOLS

	SUPPLY AIR DUCT TURNED UP
	SUPPLY AIR DUCT TURNED DOWN
	RETURN, EXHAUST OR RELIEF AIR DUCT TURNED UP
	RETURN, EXHAUST OR RELIEF AIR DUCT TURNED DOWN
	RETURN, EXHAUST OR RELIEF AIR DUCT PENETRATION THRU ROOF
	SUPPLY AIR DUCT PENETRATION THRU ROOF
	DIRECTION OF AIR FLOW ARROW
	RECTANGULAR DUCT, DIMENSION IS FREE AREA. REFER TO PROJECT MANUAL FOR DUCT LINER REQUIREMENTS. ADD LINER THICKNESS TO EACH DIMENSION TO GET OUTSIDE DIMENSION OF SHEET METAL. (1ST FIGURE, SIDE SHOWN, 2ND FIGURE, SIDE NOT SHOWN.) DUCT SIZE WITH A 'X' PREFIX (E.G. x24/12) INDICATES EXISTING DUCT SIZE.
	RECTANGULAR MAIN DUCT WITH 45° CLINCH COLLAR, AND VOLUME DAMPER IN SUB-DUCT. (PER SMACNA DUCT CONSTRUCTION STANDARDS)
	ROUND DUCT, SINGLE WALL. FOR DOUBLE WALL DUCT REQUIREMENTS, SEE SPECIFICATION AND/OR SEE CODED NOTES ON PLANS.
	ROUND MAIN DUCT WITH 90° TAP OR 90° SADDLE TAP AND VOLUME DAMPER IN SUB-DUCT. (PER SMACNA DUCT CONSTRUCTION STANDARDS)
	TRANSITIONS, GIVE SIZES. NOTE F.O.T. (FLAT ON TOP), OR F.O.B. (FLAT ON BOTTOM) IF APPLICABLE.
	ACCESS DOOR (AD) OR ACCESS PANEL (AP) AS NOTED.
	INCLINED RISE (UP) OR DROP (DN). ARROW IN DIRECTION OF AIR FLOW.
	DUCT MOUNTED SMOKE DETECTOR (DD). EXISTING DUCT MOUNTED SMOKE DETECTOR (xDD)
	VOLUME DAMPER
	BACKDRAFT DAMPER (BDD). COUNTER BALANCED BACKDRAFT DAMPER (CBBDD)
	AUTOMATIC AIR DAMPER
	FIRE DAMPER (FD). FIRE/SMOKE DAMPER (F/SD). SMOKE DAMPER (SD)
	FLEXIBLE DUCT CONNECTION TO FAN (OR EQUIP. WITH FAN)
	FLEXIBLE DUCT
	FLEXIBLE DUCT CONNECTION, WITH EQUIVALENT 90° ELBOW, TO ROUND DIFFUSER.
	FLEXIBLE DUCT OR ROUND HARD METAL DUCT CONNECTION, WITH NO 90° ELBOW, TO ROUND DIFFUSER.
	FLEXIBLE DUCT CONNECTION, WITH ONE EQUIVALENT 90° TURN OR OFFSET, TO SQUARE DIFFUSER.
	FLEXIBLE DUCT OR ROUND HARD METAL DUCT CONNECTION, WITH NO 90° ELBOW, TO SQUARE DIFFUSER.
	DIRECTION DIFFUSER (SLD). DARKENED QUADRANT(S) NO AIR FLOW. 3-WAY BLOW SHOWN.
	ROUND DUCT
	FLAT OVAL DUCT
	DIRECTION OF AIR FLOW IN OR OUT OF EQUIPMENT OR AN AIR TERMINAL DEVICE.

PIPING SYMBOLS

	CHILLED WATER RETURN
	CHILLED WATER SUPPLY
	COLD (CITY) WATER PIPING
	COIL CONDENSATE DRAIN
	DRAIN
	NATURAL GAS PIPING
	HEAT PUMP CONDENSER WATER RETURN
	HEAT PUMP CONDENSER WATER SUPPLY
	HOT WATER RETURN
	HOT WATER SUPPLY
	LIQUID PROPANE GAS PIPING
	LOW PRESSURE STEAM RETURN
	LOW PRESSURE STEAM
	PUMPED DISCHARGE PIPING (FROM CONDENSATE PUMP)
	REFRIGERANT HOT GAS
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	PIPING TURNED UP
	PIPING TURNED DOWN
	90° RISE OR DROP IN PIPE
	45° RISE OR DROP IN PIPE
	PIPE TAKEOFF FROM TOP OF MAIN
	PIPE TAKEOFF FROM BOTTOM OF MAIN
	PIPE TAKEOFF FROM SIDE OF MAIN
	GATE VALVE
	BALL VALVE
	GLOBE VALVE
	PLUG VALVE
	BUTTERFLY VALVE
	DRAIN VALVE WITH HOSE CONNECTION (HOSE CONNECTION)
	CHECK VALVE
	FLOW CONTROL VALVE WITH GPM INDICATED WHEN LOCATED IN MAINS OR SERVING MULTIPLE UNITS. WHEN SERVING SINGLE-UNIT, REFER TO EQUIPMENT SCHEDULES.
	PRESSURE RELIEF VALVE
	PRESSURE REDUCING VALVE WITH BUILT-IN CHECK VALVE
	UNION
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	AIR VENT. INSTALL AT ALL HIGH POINTS IN SYSTEM. AAV=AUTOMATIC, MAV=MANUAL. EXTEND DRAIN LINE FROM ALL AUTOMATIC AIR VENTS TO NEAREST CONDENSATE DRAIN LINE OR SAFE/WASTE.
	PRESSURE GAUGE AND COCK
	THERMOMETER
	WELL IN PIPING
	PRESSURE/TEMPERATURE PORT
	HOSE BIBB
	HOSE BIBB W/CAP
	STRAINER
	STRAINER WITH BLOWDOWN AND HOSE CONNECTION (HOSE BIBB)
	EXPANSION COMPENSATOR AND GUIDES
	PIPE ANCHOR
	FLOW SWITCH
	FLEXIBLE CONNECTION

GENERAL DRAWING SYMBOLS

	POINT OF CONNECTION - NEW TO EXISTING
	DEMOLITION LIMIT
	CODED NOTE.
	EQUIPMENT TAG. NOTE: A TEXT STRING MAY ALSO BE USED TO IDENTIFY SCHEDULED EQUIPMENT. E.G. "10-NO".
	DIFFUSER, REGISTER, GRILLE TAG. (REFER TO APPROPRIATE SCHEDULE)
	REVISION INDICATOR. NOTE: A TEXT STRING MAY ALSO BE USED TO IDENTIFY SCHEDULED EQUIPMENT. E.G. "10-NO".

CONTROL SYMBOLS

	PILOT SWITCH (FAN CONTROL)
	VARIABLE SPEED CONTROLLER
	PUSH BUTTON CONTROLLER WITH PILOT LIGHT
	HUMIDISTAT OR HUMIDITY SENSOR
	THERMOSTAT OR TEMPERATURE SENSOR
	NIGHT THERMOSTAT
	TEMPERATURE/HUMIDITY CONTROL
	CARBON DIOXIDE SENSOR
	CARBON MONOXIDE SENSOR

GENERAL NOTES: (ALL DRAWINGS)

- UNLESS CONDITIONS DO NOT PERMIT, ALL RADIOUS ELBOWS SHOWN ON THE DRAWINGS SHALL BE PROVIDED. WHERE CONDITIONS DO NOT PERMIT, MITERED RECTANGULAR ELBOWS WITH TURNING VANES MAY BE PROVIDED IN LIEU OF RADIOUS ELBOWS. THE RADIOUS RECTANGULAR ELBOWS SHALL HAVE A RADIOUS KEEL AND A RADIOUS THROAT, AND SHALL HAVE A CENTERLINE RADIOUS NOT LESS THAN 1.5 TIMES THE DUCT WIDTH.
- ALL MITERED RECTANGULAR DUCT ELBOWS HAVING AN ANGLE GREATER THAN 45° SHALL BE PROVIDED WITH TURNING VANES.
- DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. COORDINATE DUCTWORK WITH ELECTRICAL CONTRACTOR.
- FINAL THERMOSTAT, SENSOR, AND EXHAUST FAN SWITCH LOCATIONS MUST BE APPROVED BY THE ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- DUCT DETECTORS SHALL BE PROVIDED BY THE E.C. AND MOUNTED BY THE H.C. THE E.C. SHALL PROVIDE ALL POWER WIRING AND FIRE ALARM CONTROL WIRING FOR THE DETECTOR. THE H.C. SHALL PROVIDE ALL FAN SHUTDOWN CONTROL WIRING.
- REFERENCES MADE TO THE CONTRACTOR, THE HEATING CONTRACTOR, THE HVAC CONTRACTOR, AND THE MECHANICAL CONTRACTOR SHALL MEAN ONE AND THE SAME.
- PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL MEASURE AIR AND WATER FLOW RATES ON EXISTING AIR AND WATER SYSTEMS AND EQUIPMENT MODIFIED UNDER THIS PROJECT. SUBMIT BALANCE REPORT FOR REVIEW. NOTE: THE DATA OBTAINED FROM THIS PRE-CONSTRUCTION AIR AND WATER BALANCE SHALL BE USED TO BALANCE THE AIR AND WATER SYSTEMS AT THE CONCLUSION OF EACH PHASE OF CONSTRUCTION WORK.

NOTE: NOT ALL OF THE SYMBOLS/ABBREVIATIONS SHOWN ON THIS DRAWING ARE USED WITHIN THE DRAWING SET.

ABBREVIATIONS

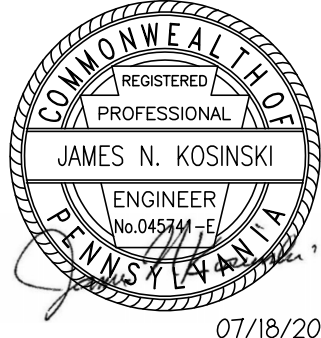
AAD	AUTOMATIC AIR DAMPER	HR	HOUR
AAV	AUTOMATIC AIR VENT	HRU	HEAT RECOVERY UNIT
ABV	ABOVE	HU	HUMIDIFIER
ACU	AIR CONDITIONING UNIT	HVAC	HEATING, VENTILATING & AIR CONDITIONING
AD	ACCESS DOOR	HVD	HEATING AND VENTILATING UNIT
ADC	AIR DIFFUSION COUNCIL	HWC	HOT WATER COIL
AFF	ABOVE FINISHED FLOOR	HWR	HOT WATER RETURN
AGA	AMERICAN GAS ASSOCIATION	HWS	HOT WATER SUPPLY
AHU	AIR HANDLING UNIT	HOF	HOT WATER SUPPLY
ALT	ALTERNATE	IMC	INTERNATIONAL MECHANICAL CODE
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION	IN	INCH
AP	ACCESS PANEL	IRC	INTAKE ROOF CAP
APD	AIR PRESSURE DROP	IWG	INCHES WATER GAUGE
ARI	AIR-CONDITIONING AND REFRIGERATION INSTITUTE	KH	KITCHEN HOOD
AS	AIR SEPARATOR	KSU	KITCHEN SUPPLY UNIT
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS	KW	KILOWATT
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	L	LEAVING AIR TEMPERATURE (°F)
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LAT	LEAVING AIR TEMPERATURE (°F)
ATC	AUTOMATIC TEMPERATURE CONTROL	LBG	LINEAR BAR GRILLE
B	BOILER	LBS	POUNDS
BAS	BUILDING AUTOMATION SYSTEM	LH	LEAVING AIR TEMPERATURE (°F)
BCU	BLOWER COIL UNIT	LRG	LINEAR RETURN GRILLE
BDD	BACK-DRAFT DAMPER	LSO	LINEAR SLOT DIFFUSER
BFP	BACK-FLOW PREVENTER	LSR	LINEAR SLOT RETURN
BTV	BUTTERFLY VALVE	LWT	LEAVING WATER TEMPERATURE
BHP	BREAK HORSE POWER	MANUF	MANUFACTURER
BU	BETWEEN JOISTS	MAU	MAKE-UP AIR UNIT
BL STL	BLACK STEEL	MAV	MANUAL AIR VENT
BLDG	BUILDING	MAX	MAXIMUM
BTUH	BRITISH THERMAL UNITS/HOUR	MBH	1000 BTUH
BV	BALL VALVE	MCA	MINIMUM CIRCUIT AMPS
C	CHILLER	MIN	MINIMUM
CAU	COMBUSTION AIR UNIT	MOCP	MAXIMUM OVER CURRENT PROTECTION
CBBDD	COUNTER BALANCED BACKDRAFT DAMPER	MTD	MOUNTED
CC	COOLING COIL	N.C.	NORMALLY CLOSED
CD	COIL CONDENSATE DRAIN OR CEILING DIFFUSER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CFM	CUBIC FEET PER MINUTE	N.O.	NORMALLY OPEN
CHWR	CHILLED WATER RETURN	NO.	NUMBER
CHWS	CHILLED WATER SUPPLY	NPW	NON POTABLE WATER
CG	CEILING	OA	OUTSIDE AIR
CO	CLEAN OUT	OAI	OUTSIDE AIR INTAKE
CONN	CONNECTION	OAU	OUTSIDE AIR UNIT
CONT	CONTINUED, CONTINUATION	OS&Y	OUTSIDE STEM AND YOKE GATE VALVE
CP	CONTROL PANEL	P	PUMP
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	PC	PLUMBING CONTRACTOR
CS	CIRCUIT SETTER	PD	PRESSURE DROP OR PUMPED DISCHARGE
CU	CONDENSING UNIT	PG	PRESSURE GAUGE
CUH	CABINET UNIT HEATER	PRV	PRESSURE RELIEF VALVE
CV	HOT WATER CONVECTOR	PRS	PRESSURE REDUCING STATION
CW	COLD WATER OR CITY WATER DB	PSI	POUNDS PER SQUARE INCH
DCW	DOMESTIC COLD WATER	P/T	PRESSURE/TEMPERATURE PORT
DEGREE	FAHRENHEIT	PV	PLUG VALVE
DD	DUCT MOUNTED SMOKE DETECTOR	RA	RETURN AIR
DG	DOUBLE DEFLECTION GRILLE	RA	RETURN AIR
DEMO	DEMOLITION	RCD	ROUND CONE DIFFUSER
DL	DRUM LOUVER	RCP	RADIANT CEILING PANEL (HOT WATER)
DX	DIRECT EXPANSION	RG	RETURN GRILLE
EAT	ENTERING AIR TEMPERATURE (°F)	RL	REFRIGERANT LIQUID
EC	ELECTRICAL CONTRACTOR	R/L A	RELIEF AIR
EGG	EGG CRATE GRILLE	RPM	REVOLUTIONS PER MINUTE
ECH	ELECTRIC CEILING HEATER	RR	RETURN REGISTER
ECP	ELECTRIC RADIANT CEILING PANEL	RS	REFRIGERANT SUCTION
ECUH	ELECTRIC CABINET UNIT HEATER	RTU	ROOFTOP UNIT
EDC	ELECTRIC DUCT COIL	RV	ROOF VENTILATOR
EER	ENERGY EFFICIENCY RATIO	S	SUCTION (REFRIGERANT)
EF	EXHAUST FAN	SA	SUPPLY AIR OR SOUND ATTENUATOR
EG	EXHAUST GRILLE	SAN	SANITARY
EJ	EXPANSION JOINT	SDO	SQUARE CONE DIFFUSER (4-WAY BLOW PATTERN)
ER	EXHAUST REGISTER	SD	SMOKE DAMPER
ERC	EXHAUST ROOF CAP	SDG	SPIRAL DUCT GRILLE
ERCPC	ELECTRIC RADIANT CEILING PANEL	SENS	SENSIBLE
ESP	EXTERNAL STATIC PRESSURE	SF	SUPPLY FAN
ET	EXPANSION TANK	SFC	SPLIT FAN COIL UNIT
EUH	ELECTRIC UNIT HEATER	SG	SUPPLY GRILLE
EW	ELECTRIC WALL HEATER	SLD	SQUARE DIRECTIONAL DIFFUSER
EWT	ENTERING WATER TEMPERATURE	SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
EXP	EXPANSION	SPD	SQUARE PLAQUE DIFFUSER
FAN	FRESH AIR INTAKE	SR	SUPPLY REGISTER
FD	FIRE DAMPER	ST STL	(SS) STAINLESS STEEL
FF	FILTER FEEDER UNIT	T	THERMOSTAT OR THERMOMETER
F/S	FIRE AND SMOKE DAMPER	TB	TERMINAL BOX
FCL	FAN COIL UNIT	TDV	TRIPLE DUTY VALVE
FLA	FULL LOAD AMPS	TJ	THREAD JOISTS
FLEX	FLEXIBLE	TPD	THERMALLY POWERED DIFFUSER
FO	FLAT OVAL DUCTWORK	TSP	TOTAL STATIC PRESSURE
FOB	FLAT ON BOTTOM	T STAT	THERMOSTAT
FOT	FLAT ON TOP	TYP	TYPICAL
FPB	FAN POWERED BOX	UH	UNIT HEATER
FT	FEET	UV	UNIT VENTILATOR
FTR	FINNED TUBE RADIATION	V/PH	VOLT / PHASE
FURN	FURNISH	VAV	VARIABLE AIR VOLUME
G	GAS (NATURAL OR REFRIGERANT)	VAVD	VARIABLE AIR VOLUME DIFFUSER
GA	GAUGE	VEL	VELOCITY
GC	GENERAL CONTRACTOR	VFD	VARIABLE FREQUENCY DRIVE
GFU	GLYCOL FEED UNIT	VOL D	(VD) VOLUME DAMPER
GMRU	GROUND MOUNTED ROOFTOP UNIT	WB	WET BULB
QPM	GALLONS PER MINUTE	WG	WATER GAUGE
GUH	GAS FIRED UNIT HEATER	WFR	WELL FIELD RETURN
GV	GATE VALVE	WFS	WELL FIELD SUPPLY
H	HUMIDISTAT	WPD	WATER PRESSURE DROP
HB	DRAIN VALVE WITH HOSE CONNECTION (HOSE BIBB)	WSPH	WATER SOURCE HEAT PUMP
HC	HVAC CONTRACTOR	X	EXISTING
HD	KITCHEN/LAB HOOD	xDD	EXISTING CONDENSATE DRAIN
HDDG	HEAVY DUTY GYM GRILLE	xCHWR	EXISTING CHILLED WATER RETURN
HI	HYDRONICS INSTITUTE	xCHWS	EXISTING CHILLED WATER SUPPLY
HP	HORSEPOWER OR HEAT PUMP	xG	EXISTING GAS (NATURAL OR REFRIGERANT)
HPR	HEAT PUMP CONDENSER WATER RETURN	xHWR	EXISTING HOT WATER RETURN
HPS	HEAT PUMP CONDENSER WATER SUPPLY	xHWS	EXISTING HOT WATER SUPPLY



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HVAC Equipment
Replacements
and Upgrades



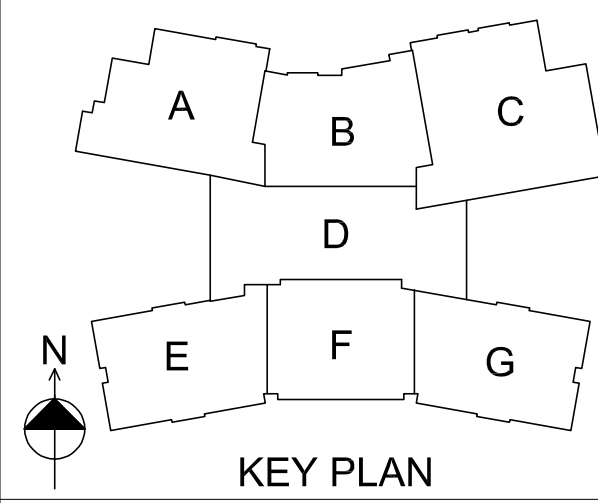
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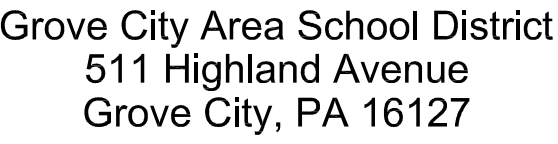
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DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

LEGEND - HVAC

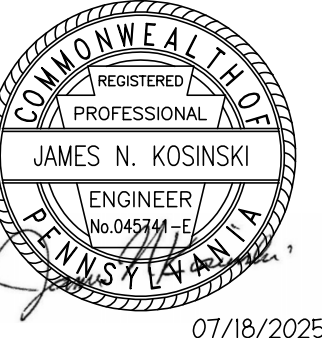
H.001

DRAWING NUMBER



TOWER
ENGINEERING
115 Evergreen Heights Drive, Suite 400, Pittsburgh, Pennsylvania 15229-1346
412.931.6888 • Fax: 412.939.2525 • www.eswtower.com
Project No: 2025064

HVAC Equipment Replacements and Upgrades



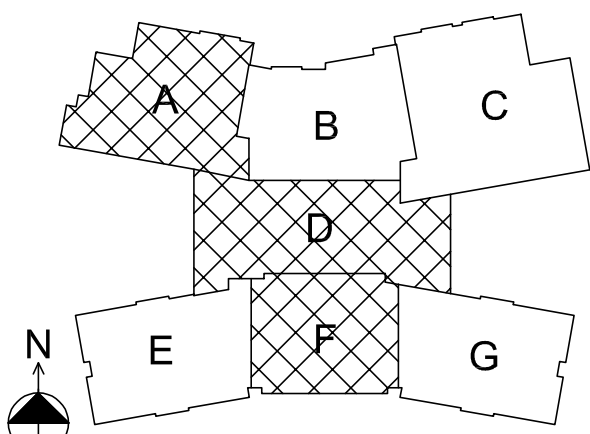
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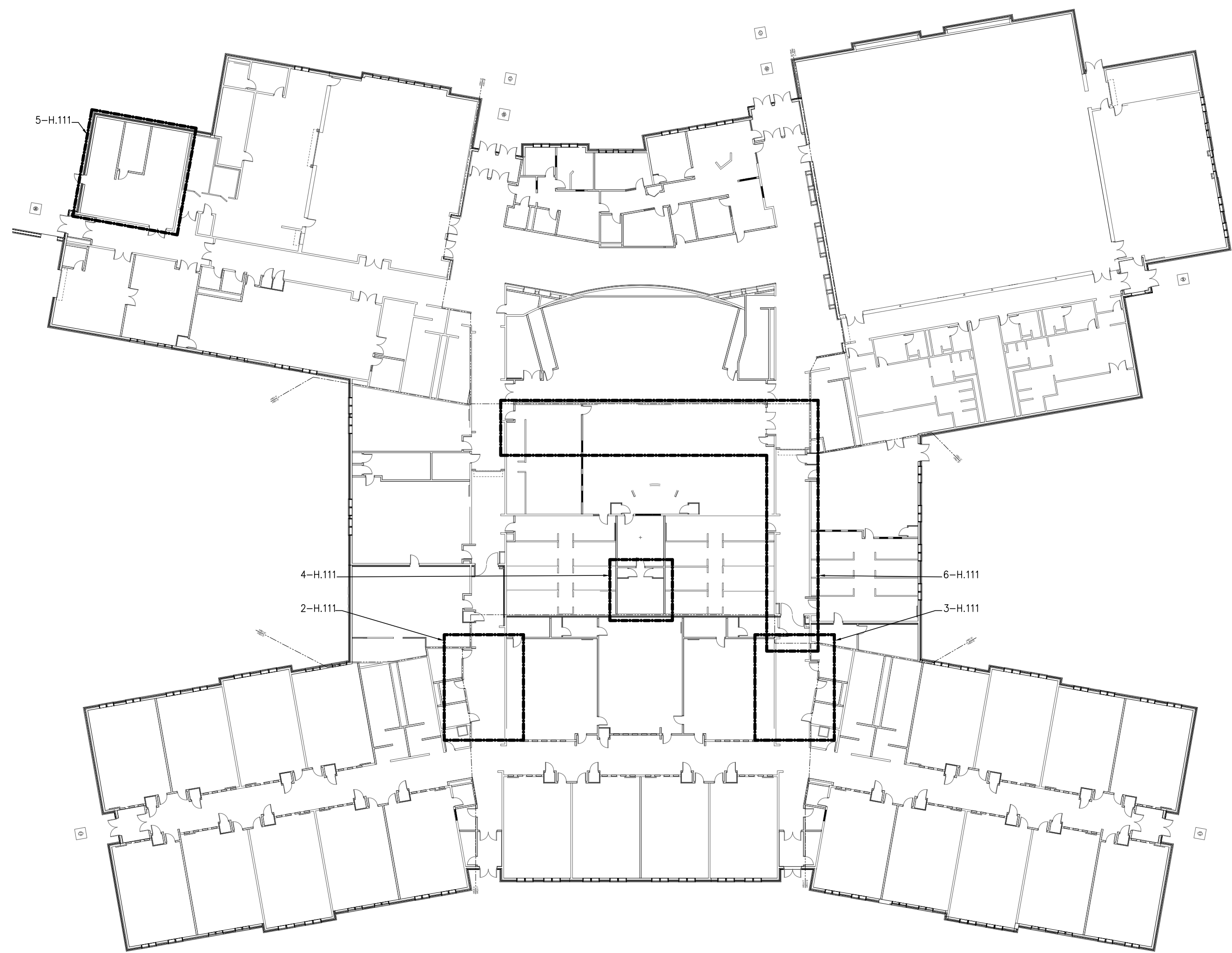
SCALE: AS NOTED
DRAWN BY: JF
CHECKED BY: MC

DATE: 07/18/2025

FIRST FLOOR
DEMOLITION PLANS
HVAC

H.111

DRAWING NUMBER



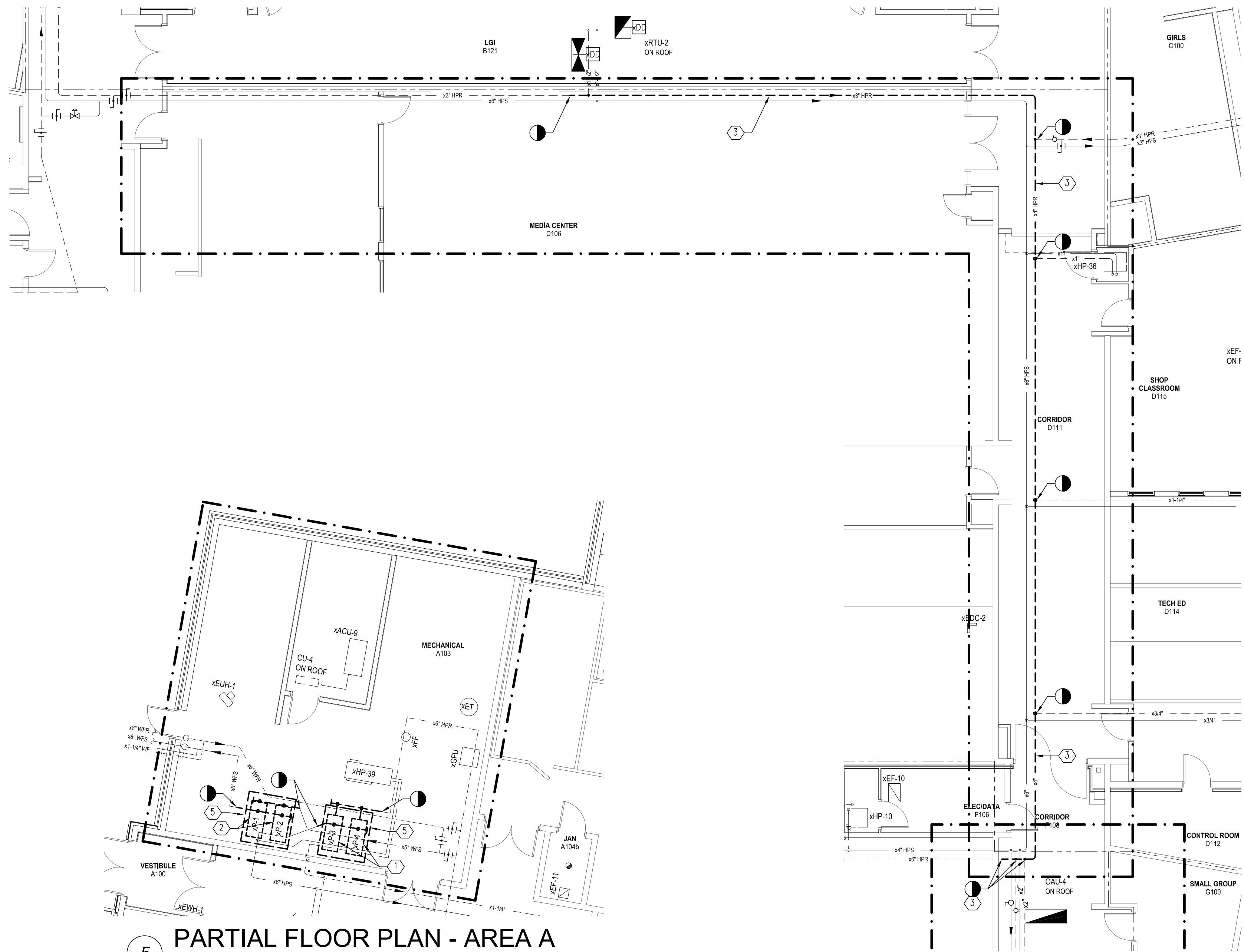
1 FIRST FLOOR PLAN
NOT TO SCALE

GENERAL NOTES: (THIS DRAWING)

- A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- C. EXISTING PIPING SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- D. EXISTING DUCTWORK AND PIPING SIZES ARE BASED ON EXISTING 2009 DRAWINGS. FIELD VERIFY EXACT SIZES AND LOCATIONS.
- E. EXISTING DUCT MOUNTED SMOKE DETECTORS ARE TO REMAIN UNLESS OTHERWISE NOTED.
- F. WHERE EXISTING CEILINGS ARE BEING REMOVED, PROVIDE TEMPORARY SUPPORTS FOR ANY GRILLES, REGISTERS, DIFFUSERS, AND OTHER HVAC EQUIPMENT THAT IS CURRENTLY SUPPORTED BY THE CEILING.

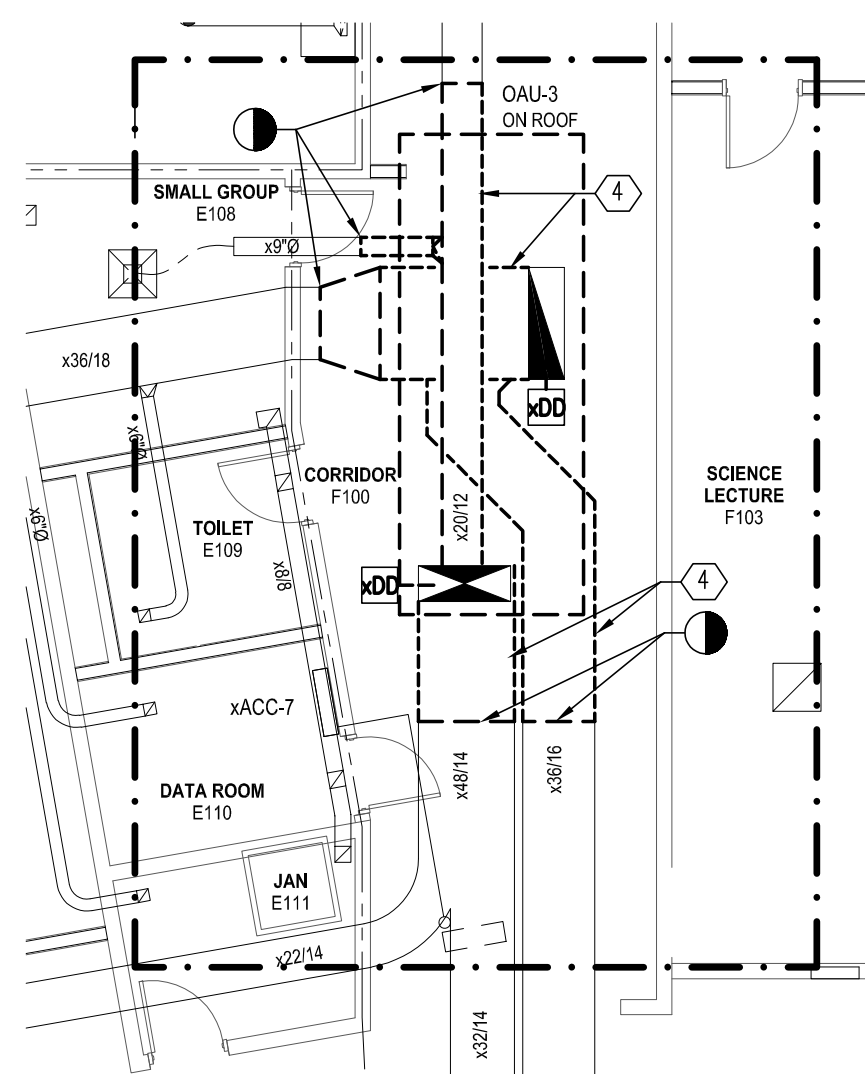
CODED NOTES: (THIS DRAWING)

- ① REMOVE EXISTING BUILDING LOOP PUMP AND ASSOCIATED SPECIALTIES, PIPING AND CONTROLS. REMOVE SUPPLY AND RETURN PIPING FROM PUMP BACK TO POINTS INDICATED.
- ② REMOVE EXISTING WELL FIELD LOOP PUMP AND ASSOCIATED SPECIALTIES, PIPING AND CONTROLS. REMOVE SUPPLY AND RETURN PIPING FROM PUMP BACK TO POINTS INDICATED.
- ③ REMOVE EXISTING HEAT PUMP RETURN PIPING MAIN AND SUPPORTS AS SHOWN. REMOVE BRANCH CONNECTION POINTS FROM DEMOLISHED PORTION OF PIPING.
- ④ REMOVE EXISTING SUPPLY AND RETURN DUCTWORK FROM UNIT CONNECTIONS TO POINTS INDICATED OUTSIDE THE FOOTPRINT OF THE EXISTING ROOFTOP UNIT. PATCH ROOF OPENINGS AT DUCT PENETRATIONS AS REQUIRED.
- ⑤ REMOVE EXISTING CONCRETE EQUIPMENT PAD.

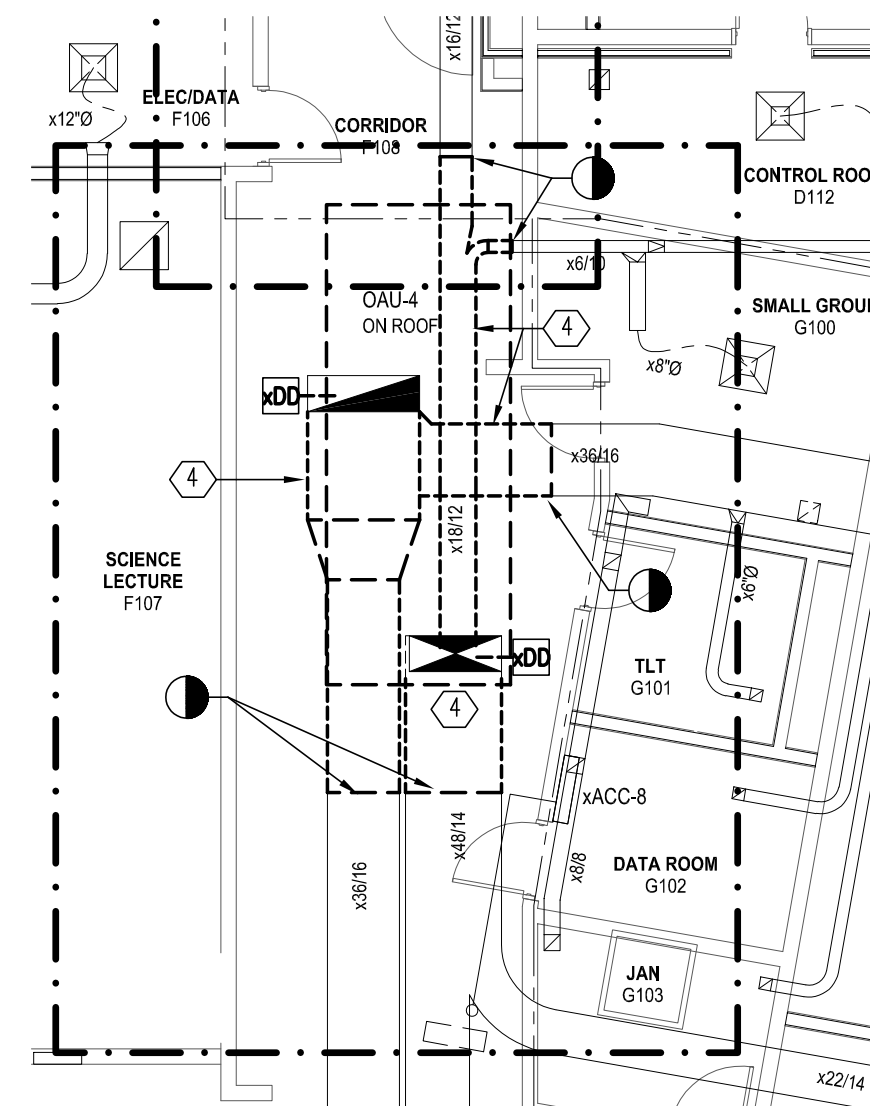


5 PARTIAL FLOOR PLAN - AREA A
1/8" = 1'-0"

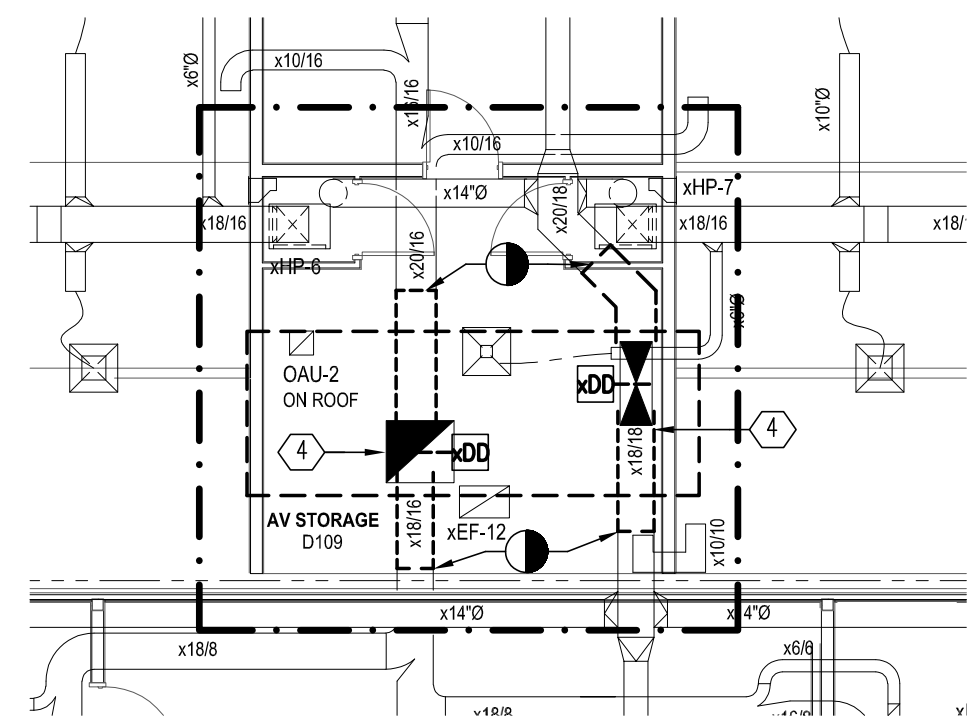
6 PARTIAL FLOOR PLAN - AREA D
1/8" = 1'-0"



2 PARTIAL FLOOR PLAN - AREA F
1/8" = 1'-0"



3 PARTIAL FLOOR PLAN - AREA F
1/8" = 1'-0"



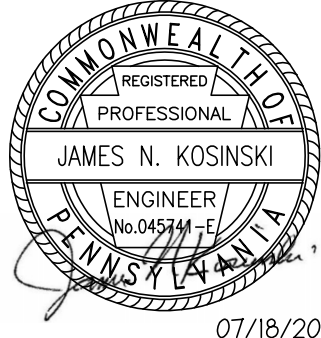
4 PARTIAL FLOOR PLAN - AREA D
1/8" = 1'-0"



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HVAC Equipment
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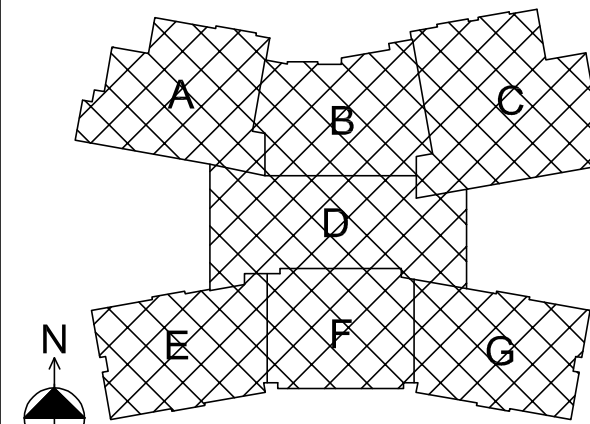
07/18/2025

Grove City Area Middle School

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KEY PLAN

SCALE: 1/16" = 1'-0"
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

ROOF DEMOLITION
PLAN - HVAC

H.121

DRAWING NUMBER



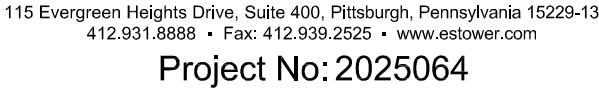
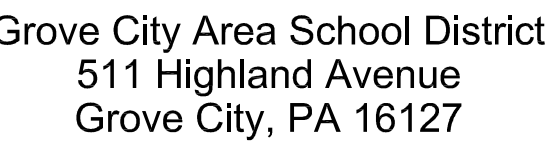
GENERAL NOTES: (THIS DRAWING)

- A. EXISTING EXHAUST FANS (xEF) TO REMAIN AND BE REUSED.
- B. EXISTING CONDENSING UNITS (xOU) TO REMAIN AND BE REUSED.
- C. EXISTING FRESH AIR INTAKES (xFAI) TO REMAIN AND BE REUSED.
- D. EXISTING EXHAUST ROOF CAPS (xERC) TO REMAIN AND BE REUSED.
- E. EXISTING INTAKE ROOF CAPS (xIRC) TO REMAIN AND BE REUSED.

CODED NOTES: (THIS DRAWING)

- ① REMOVE EXISTING WATER SOURCE HEAT PUMP / ELEC ROOFTOP UNIT AND ASSOCIATED CONTROLS. DISCONNECT ALL EXISTING DUCTWORK, PIPING, CONTROL WIRING, ETC. EXISTING ROOF CURB, VIBRATION ISOLATION AND ASSOCIATED SUPPLY AND RETURN DUCT SYSTEMS SHALL REMAIN AND BE REUSED. PROVIDE TEMPORARY CURB CAP ON ROOF CURB.
- ② REMOVE EXISTING WATER SOURCE HEAT PUMP / GAS OUTDOOR AIR UNIT AND ASSOCIATED CONTROLS. DISCONNECT ALL EXISTING DUCTWORK, PIPING, CONTROL WIRING, ETC. EXISTING ROOF CURB, VIBRATION ISOLATION AND ASSOCIATED SUPPLY AND RETURN DUCT SYSTEMS SHALL REMAIN AND BE REUSED. PROVIDE TEMPORARY CURB CAP ON ROOF CURB.
- ③ REMOVE EXISTING ROOF MOUNTED DUCTWORK FROM ROOF TOP UNIT TO POINT INDICATED. REMOVE DUCT AND SUPPORTS.

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

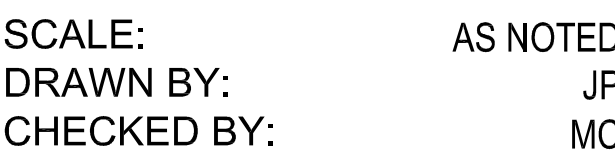


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Grove City Area Middle School

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REVISIONS



DATE: 07/18/2025

H.211

DRAWING NUMBER

GENERAL NOTES: (THIS DRAWING)

- A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- C. EXISTING PIPING SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- D. EXISTING DUCTWORK AND PIPING SIZES ARE BASED ON EXISTING 2009 DRAWINGS. FIELD VERIFY EXACT SIZES AND LOCATIONS.
- E. EXISTING DUCT MOUNTED SMOKE DETECTORS ARE TO REMAIN UNLESS OTHERWISE NOTED.

CODED NOTES: (THIS DRAWING)

- ⑦ RE-BALANCE EXISTING SUPPLY DIFFUSERS AND GRILLES TO AIRFLOWS INDICATED.
- ⑧ RE-BALANCE EXISTING HEAT PUMP OUTSIDE AIR DUCT TO AIRFLOWS INDICATED.
- ⑨ RE-BALANCE EXISTING RETURN/EXHAUST GRILLES TO AIRFLOWS INDICATED.
- ⑩ RE-BALANCE EXISTING OPEN ENDED RETURN/EXHAUST DUCT TO AIRFLOWS INDICATED.

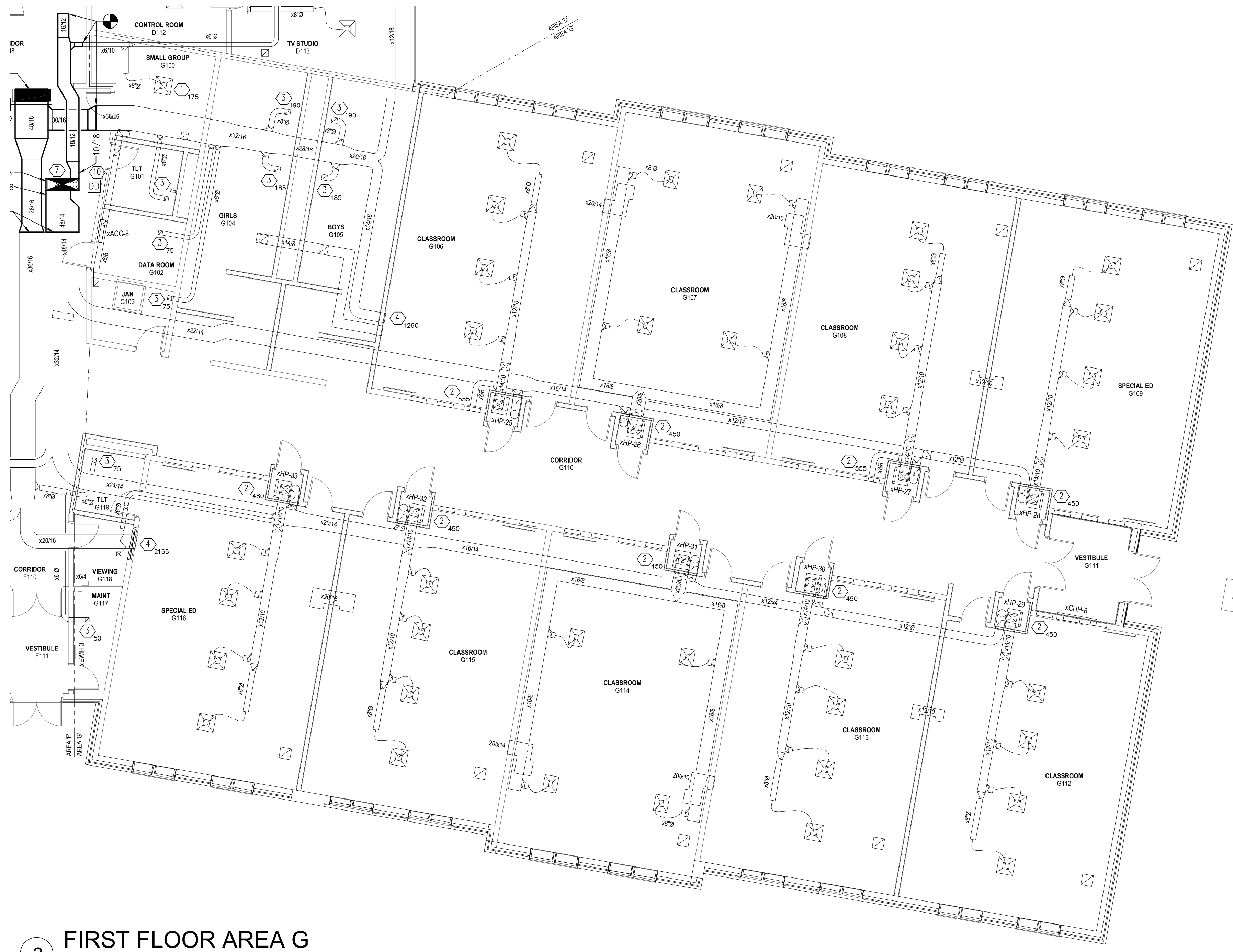


FIRST FLOOR AREAS A & B

$$1/8'' = 1'-0''$$



1 FIRST FLOOR AREA C
1/8" = 1'-0"



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

- GENERAL NOTES: (THIS DRAWING)**
- A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
 - B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
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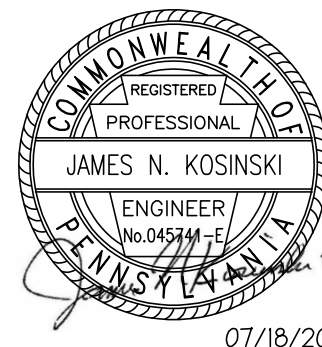
- CODED NOTES: (THIS DRAWING)**
- ① RE-BALANCE EXISTING SUPPLY DIFFUSERS AND GRILLES TO AIRFLOWS INDICATED.
 - ② RE-BALANCE EXISTING HEAT PUMP OUTSIDE AIR DUCT TO AIRFLOWS INDICATED.
 - ③ RE-BALANCE EXISTING RETURN/EXHAUST GRILLES TO AIRFLOWS INDICATED.
 - ④ RE-BALANCE EXISTING OPEN ENDED RETURN/EXHAUST DUCT TO AIRFLOWS INDICATED.



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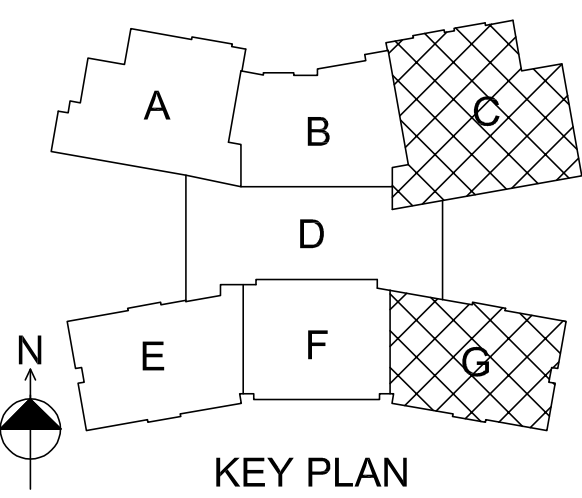
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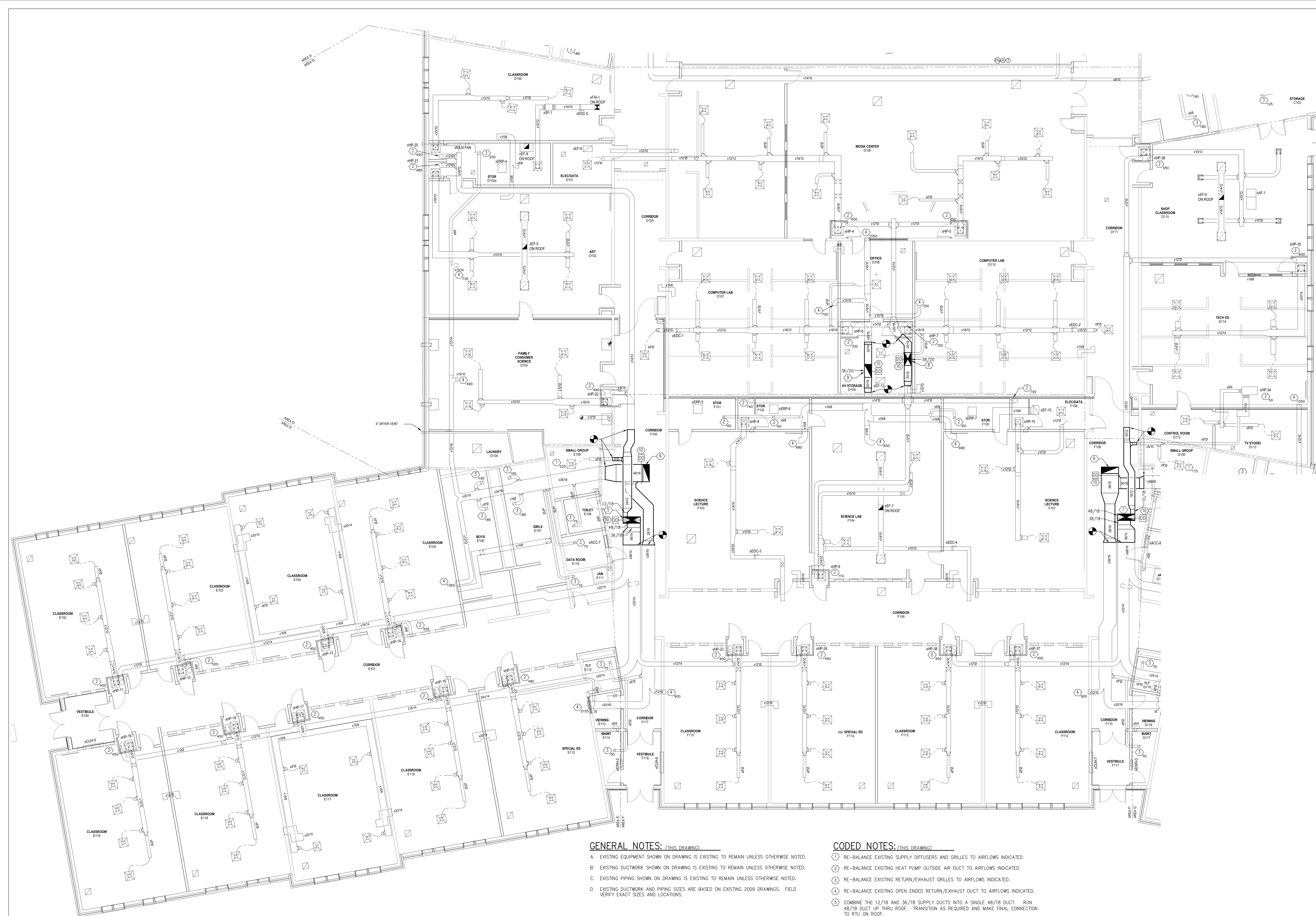
SCALE: AS NOTED
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

FIRST FLOOR PLAN
AREAS C & G -
HVAC

H.212

DRAWING NUMBER



1 FIRST FLOOR AREAS D, E & F
1/8" = 1'-0"

GENERAL NOTES: (THIS DRAWING)

- A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- C. EXISTING PIPING SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- D. EXISTING DUCTWORK AND PIPING SIZES ARE BASED ON EXISTING 2009 DRAWINGS. FIELD VERIFY EXACT SIZES AND LOCATIONS.

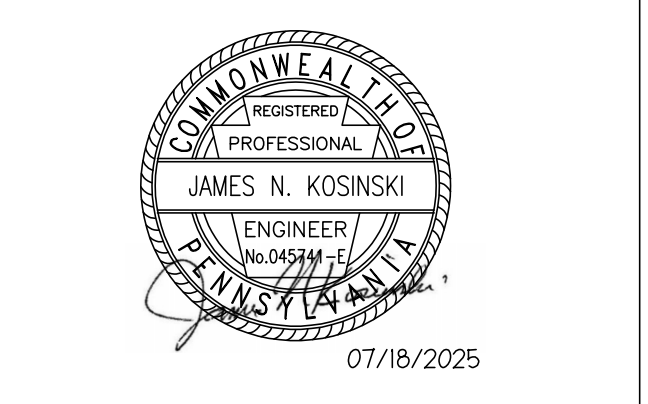
- CODED NOTES: (THIS DRAWING)**
- 1 RE-BALANCE EXISTING SUPPLY DIFFUSERS AND GRILLES TO AIRFLOWS INDICATED.
 - 2 RE-BALANCE EXISTING HEAT PUMP OUTSIDE AIR DUCT TO AIRFLOWS INDICATED.
 - 3 RE-BALANCE EXISTING RETURN/EXHAUST GRILLES TO AIRFLOWS INDICATED.
 - 4 RE-BALANCE EXISTING OPEN ENDED RETURN/EXHAUST DUCT TO AIRFLOWS INDICATED.
 - 5 COMBINE THE 12/18 AND 36/18 SUPPLY DUCTS INTO A SINGLE 48/18 DUCT. RUN 48/18 DUCT UP THRU ROOF. TRANSITION AS REQUIRED AND MAKE FINAL CONNECTION TO RTU ON ROOF.
 - 6 RUN RETURN DUCT UP THRU ROOF. TRANSITION AS REQUIRED AND MAKE FINAL CONNECTION TO RTU ON ROOF.
 - 7 COMBINE THE 10/18 AND 38/18 SUPPLY DUCTS INTO A SINGLE 48/18 DUCT. RUN 48/18 DUCT UP THRU ROOF. TRANSITION AS REQUIRED AND MAKE FINAL CONNECTION TO RTU ON ROOF.
 - 8 COMBINE THE TWO 20/18 SUPPLY DUCTS INTO A SINGLE 20/36 DUCT. RUN 20/36 DUCT UP THRU ROOF. TRANSITION AS REQUIRED AND MAKE FINAL CONNECTION TO RTU ON ROOF.
 - 9 COMBINE THE TWO 20/18 RETURN DUCTS INTO A SINGLE 20/36 DUCT. RUN 20/36 DUCT UP THRU ROOF. TRANSITION AS REQUIRED AND MAKE FINAL CONNECTION TO RTU ON ROOF.
 - 10 NEW DUCT DETECTOR.



Grove City Area School District
511 Highland Avenue
Grove City, PA 16127



HVAC Equipment
Replacements
and Upgrades

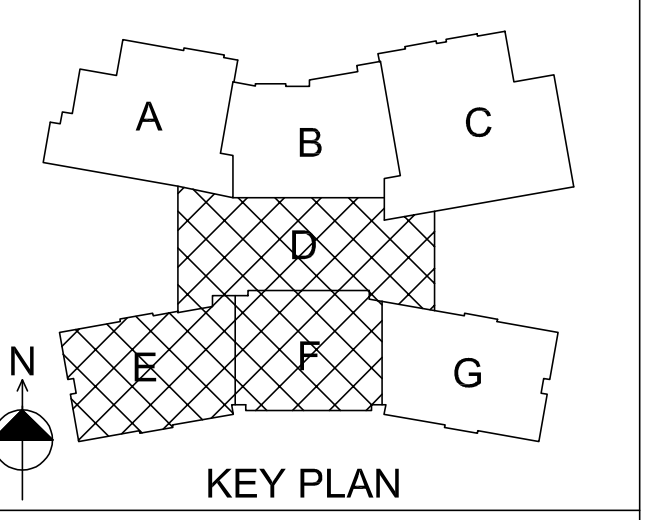


Grove City Area Middle School

100 Middle School Drive
Grove City, PA 16127

CONSTRUCTION DOCUMENTS

REVISIONS



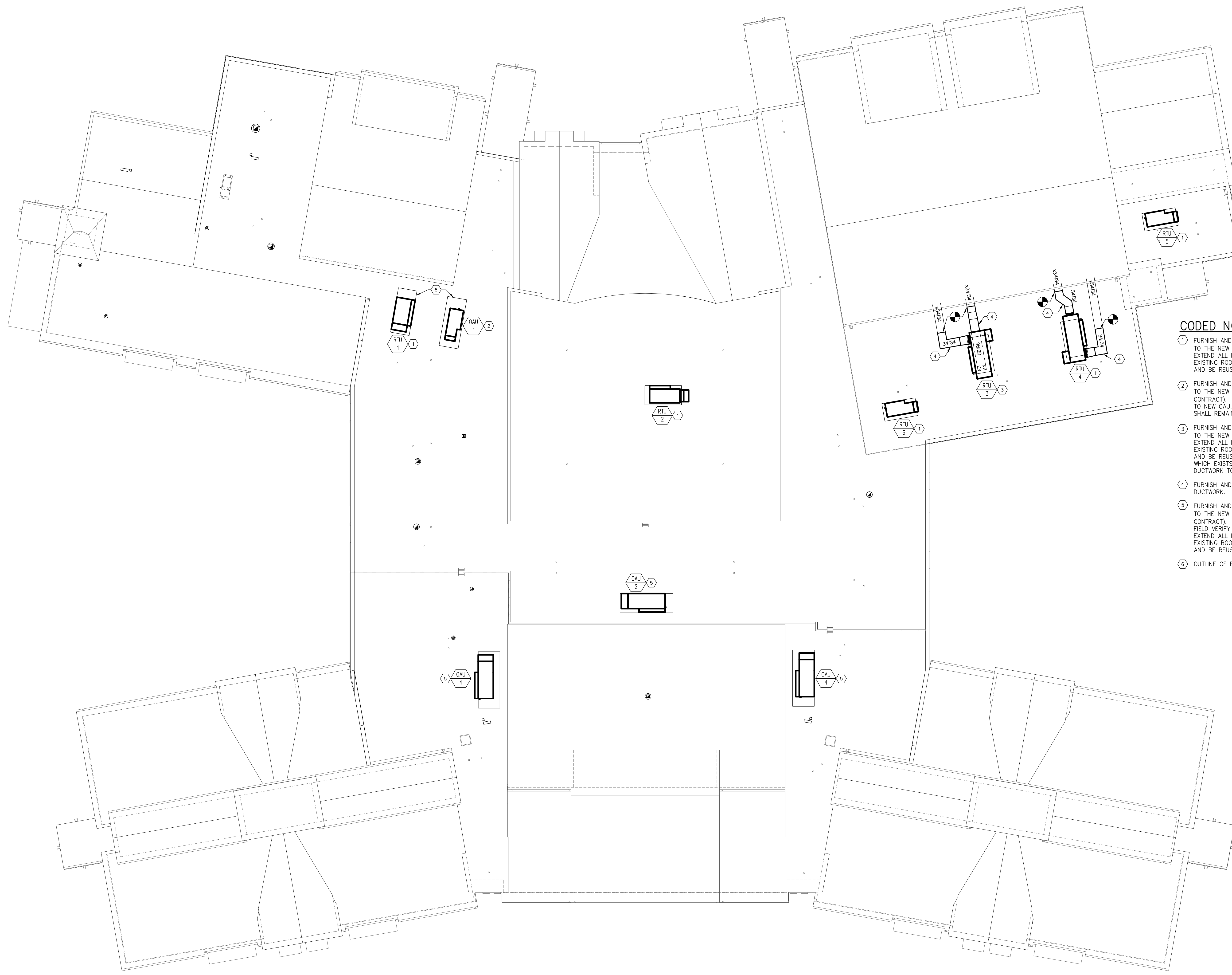
SCALE: AS NOTED
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

FIRST FLOOR PLAN
AREAS D, E & F -
HVAC

H.213

DRAWING NUMBER



- CODED NOTES: (THIS DRAWING)**
- 1 FURNISH AND INSTALL AN ADAPTABLE ROOF CURB TO MATE THE EXISTING ROOF CURB TO THE NEW ROOFTOP UNIT (NEW RTU PRE-PURCHASED UNDER SEPARATE CONTRACT). EXTEND ALL DUCTWORK, PIPING AND CONTROL WIRING AND RECONNECT TO NEW RTU. EXISTING ROOF CURB, VIBRATION ISOLATION AND DUCTWORK SYSTEMS SHALL REMAIN AND BE REUSED.
 - 2 FURNISH AND INSTALL AN ADAPTABLE ROOF CURB TO MATE THE EXISTING ROOF CURB TO THE NEW OUTDOOR AIR UNIT (NEW OAU PRE-PURCHASED UNDER SEPARATE CONTRACT). EXTEND ALL DUCTWORK, PIPING AND CONTROL WIRING AND RECONNECT TO NEW OAU. EXISTING ROOF CURB, VIBRATION ISOLATION AND DUCTWORK SYSTEMS SHALL REMAIN AND BE REUSED.
 - 3 FURNISH AND INSTALL AN ADAPTABLE ROOF CURB TO MATE THE EXISTING ROOF CURB TO THE NEW ROOFTOP UNIT (NEW RTU PRE-PURCHASED UNDER SEPARATE CONTRACT). EXTEND ALL DUCTWORK, PIPING AND CONTROL WIRING AND RECONNECT TO NEW RTU. EXISTING ROOF CURB, VIBRATION ISOLATION AND DUCTWORK SYSTEMS SHALL REMAIN AND BE REUSED. ROOF CURB SHALL HAVE A DOUBLE WALL, INSULATED SUPPLY DUCT WHICH EXISTS OUT THE REAR OF THE CURB TO CONNECT TO THE EXISTING SUPPLY DUCTWORK TO REMAIN.
 - 4 FURNISH AND INSTALL ROOF MOUNTED DUCT SUPPORT RAILS FOR ROOF MOUNTED DUCTWORK.
 - 5 FURNISH AND INSTALL AN ADAPTABLE ROOF CURB TO MATE THE EXISTING ROOF CURB TO THE NEW OUTDOOR AIR UNIT (NEW OAU PRE-PURCHASED UNDER SEPARATE CONTRACT). ADAPTABLE CURB SHALL NOT BE CENTERED OVER THE EXISTING CURB. FIELD VERIFY EXACT DIMENSIONS TO ENSURE ALL RTU CLEARANCES ARE MAINTAINED. EXTEND ALL DUCTWORK, PIPING AND CONTROL WIRING AND RECONNECT TO NEW OAU. EXISTING ROOF CURB, VIBRATION ISOLATION AND DUCTWORK SYSTEMS SHALL REMAIN AND BE REUSED.
 - 6 OUTLINE OF EXISTING TO REMAIN ROOF CURB. TYPICAL ALL RTUs AND OAUs.

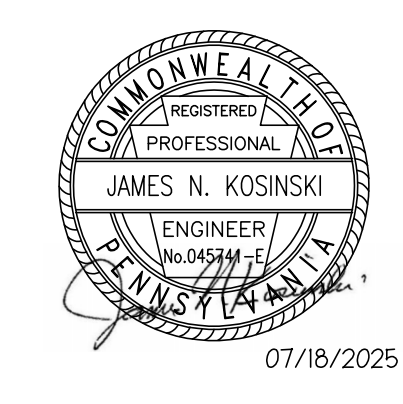
1 ROOF PLAN
1/16" = 1'-0"



Grove City Area School District
511 Highland Avenue
Grove City, PA 16127



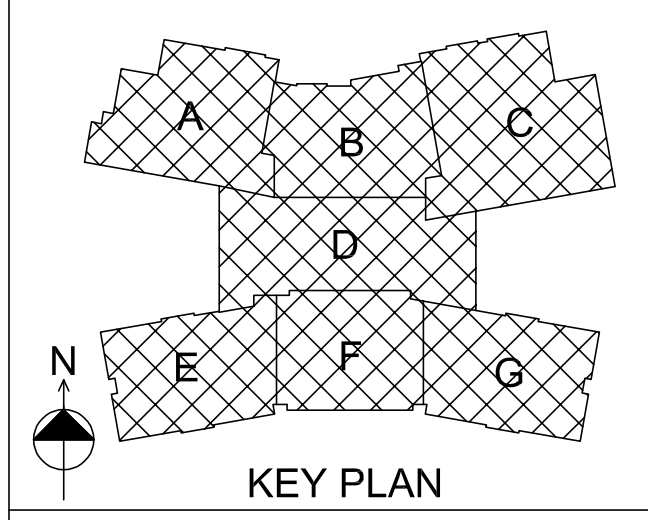
HVAC Equipment Replacements and Upgrades



Grove City Area Middle School
100 Middle School Drive
Grove City, PA 16127

CONSTRUCTION DOCUMENTS

REVISIONS



SCALE: 1/16" = 1'-0"
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

ROOF PLAN - HVAC

H.221
DRAWING NUMBER



1 FIRST FLOOR AREAS A & B
1/8" = 1'-0"

GENERAL NOTES: (THIS DRAWING)

- A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- C. EXISTING PIPING SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- D. EXISTING DUCTWORK AND PIPING SIZES ARE BASED ON EXISTING 2009 DRAWINGS. FIELD VERIFY EXACT SIZES AND LOCATIONS.

CODED NOTES: (THIS DRAWING)

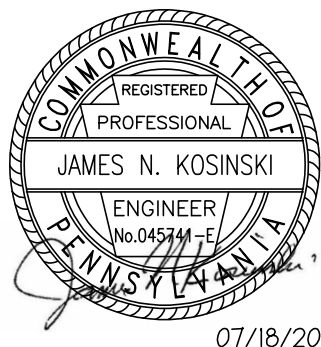
- 1 RE-BALANCE EXISTING WATER SOURCE HEAT PUMP TO FLOW RATE INDICATED. FLOW RATE IN GPM.
- 2 BALANCE RTU / OAU TO FLOW RATE INDICATED. FLOW RATE IN GPM.
- 3 FURNISH AND INSTALL NEW BASE MOUNTED PUMP. EXTEND 6" PIPING FROM MAINS, TRANSITION AS REQUIRED AND MAKE FINAL CONNECTION TO PUMP. SEE DETAIL FOR PIPING REQUIREMENTS.
- 4 FURNISH AND INSTALL NEW CONCRETE EQUIPMENT PAD FOR PUMP.



Grove City Area School District
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HVAC Equipment
Replacements
and Upgrades



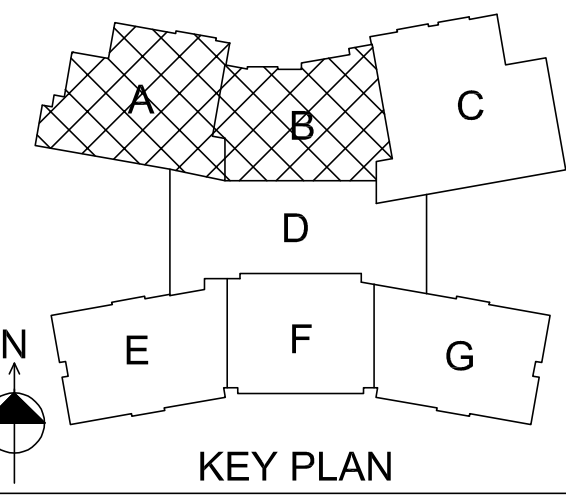
07/18/2025

Grove City Area Middle School

100 Middle School Drive
Grove City, PA 16127

CONSTRUCTION DOCUMENTS

REVISIONS



SCALE: AS NOTED
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

FIRST FLOOR PLAN
AREAS A & B -
PIPING

H.311

DRAWING NUMBER



1 FIRST FLOOR AREA C
1/8" = 1'-0"

GENERAL NOTES: (THIS DRAWING)

A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

C. EXISTING PIPING SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

D. EXISTING DUCTWORK AND PIPING SIZES ARE BASED ON EXISTING 2009 DRAWINGS. FIELD VERIFY EXACT SIZES AND LOCATIONS.

CODED NOTES: (THIS DRAWING)

① RE-BALANCE EXISTING WATER SOURCE HEAT PUMP TO FLOW RATE INDICATED. FLOW RATE IN GPM.

② BALANCE RTU / OAU TO FLOW RATE INDICATED. FLOW RATE IN GPM.



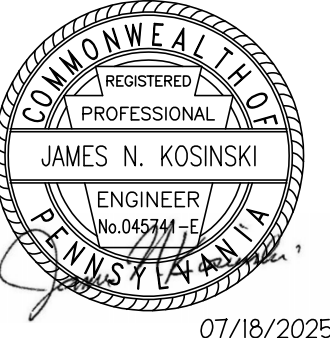
2 FIRST FLOOR AREA G
1/8" = 1'-0"



Grove City Area School District
511 Highland Avenue
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HVAC Equipment
Replacements
and Upgrades



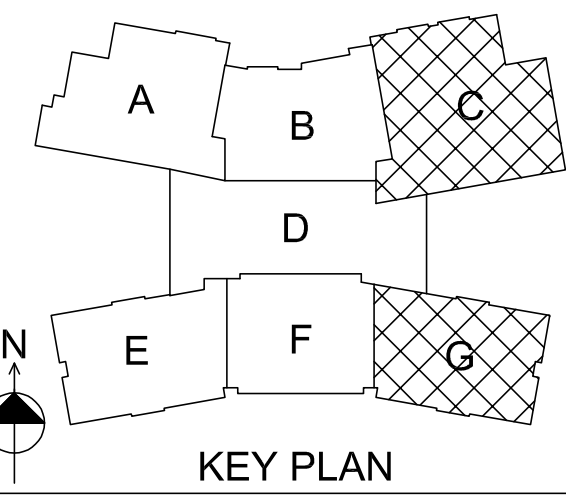
07/18/2025

Grove City Area Middle School

100 Middle School Drive
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CONSTRUCTION DOCUMENTS

REVISIONS



SCALE: AS NOTED
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

FIRST FLOOR PLAN
AREA C & G -
PIPING

H.312

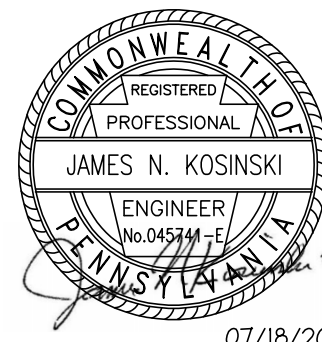
DRAWING NUMBER



Grove City Area School District
511 Highland Avenue
Grove City, PA 16127



HVAC Equipment
Replacements
and Upgrades



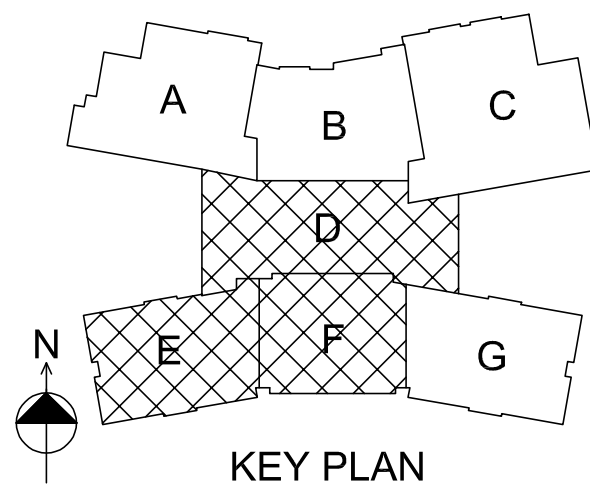
07/18/2025

Grove City Area Middle School

100 Middle School Drive
Grove City, PA 16127

CONSTRUCTION DOCUMENTS

REVISIONS



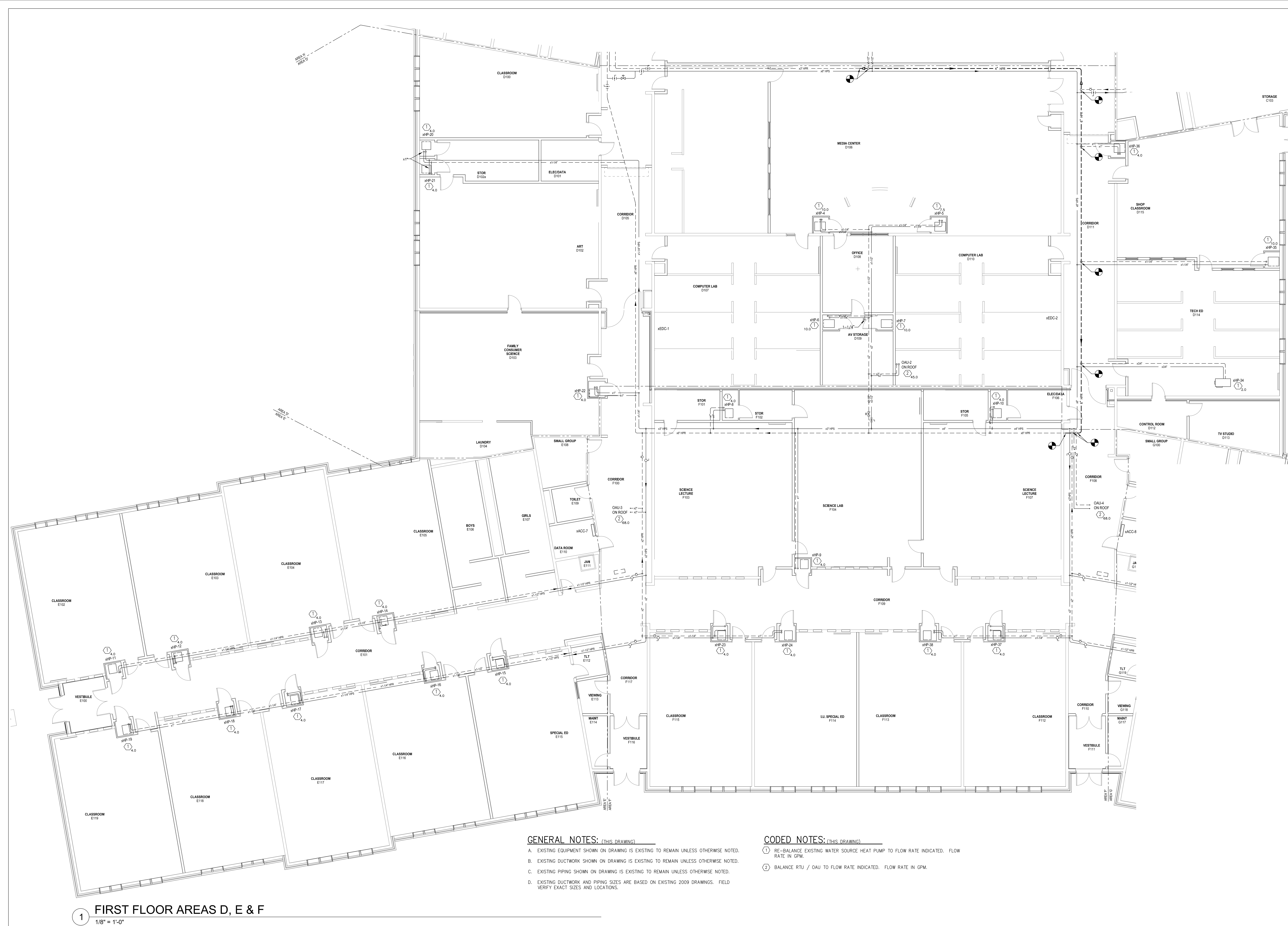
SCALE: AS NOTED
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

FIRST FLOOR PLAN
AREAS D, E & F -
PIPING

H.313

DRAWING NUMBER



1 FIRST FLOOR AREAS D, E & F
1/8" = 1'-0"

GENERAL NOTES: (THIS DRAWING)

- A. EXISTING EQUIPMENT SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- B. EXISTING DUCTWORK SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- C. EXISTING PIPING SHOWN ON DRAWING IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- D. EXISTING DUCTWORK AND PIPING SIZES ARE BASED ON EXISTING 2009 DRAWINGS. FIELD VERIFY EXACT SIZES AND LOCATIONS.

CODED NOTES: (THIS DRAWING)

- 1 RE-BALANCE EXISTING WATER SOURCE HEAT PUMP TO FLOW RATE INDICATED. FLOW RATE IN GPM.
- 2 BALANCE RTU / OAU TO FLOW RATE INDICATED. FLOW RATE IN GPM.

OUTSIDE AIR UNIT SCHEDULE – * FOR INFORMATIONAL PURPOSES ONLY. UNITS WERE PRE–PURCHASED.*

UNIT NO.	SYSTEM TYPE	AREA SERVED	TOTAL SUPPLY AIRFLOW CFM	MIN OA AIRFLOW CFM	SUPPLY FAN			EXHAUST FAN			ENERGY RECOVERY			WATER DATA			WATER SOURCE HEAT PUMP COOLING DATA			TOTAL MBH	SENS. MBH	EWT (°F)	LWT (°F)	EER	HOT GAS REHEAT COIL LAT (°F)	WATER SOURCE HEAT PUMP HEATING DATA					GAS HEAT			ELECTRICAL DATA			BASED ON			REMARKS																															
					E.S.P. (in WG)	TSP (in WG)	BHP	MOTOR HP	E.S.P. (in WG)	TSP (in WG)	MOTOR HP	OA AIRFLOW CFM	EA AIRFLOW CFM	BYPASS AIRFLOW CFM	SUMMER			WINTER									EAT (°F)	LAT (°F)	CAPACITY (MBH)	EWT (°F)	LWT (°F)	COP	EAT (°F)	LAT (°F)	MBH IN	MBH OUT	NO STAGES	UNIT FLA	UNIT MCA		UNIT MOCP	V / PH	MANUF.	MODEL	WEIGHT (LBS)																										
															OA (°F DB / °F WB)	SA (°F DB / °F WB)	RA (°F DB / °F WB)	OA (°F DB)	SA (°F DB)																																																				
OAU-1	SZCV	AREA A & B	2185	2185	1.8	3.8	2.3	3	0.9	2.0	2	2185	2185	0	89 / 72	79.3 / 66.0	75 / 62.5	0	46.8	70	20	6.8	79.3 / 66.0	52.8 / 51.6	90.8	61.8	80	91.6	15.9	75	46.8	82.1	87.2	40	32.4	8.0	0.0	66.1	195.0	156.0	MODULATING	23	25	30	460 / 3	AAON	RNA-009	2800	1	10																					
OAU-2	SZCV	AREAS D, F	4640	4640	1.5	4.0	4.3	5	0.7	1.8	3	4640	4640	0	89 / 72	79.3 / 66.0	75 / 62.5	0	46.6	70	45	16.6	79.3 / 66.0	51.7 / 51.6	192.5	136.9	80	91	15.6	75	46.6	84.0	196.3	40	32.3	8.2	0.0	64.7	405.0	324.0	MODULATING	39	42	50	460 / 3	AAON	RNA-016	4100	1	10																					
OAU-3	SZCV	AREAS D, E, F	6840	6840	2.0	5.2	8.4	10	1.0	2.6	7.5	6600	6600	240	89 / 72	80.4 / 66.6	75 / 62.5	0	41.1	70	68	16.7	80.4 / 66.6	51.1 / 50.8	308.6	214.0	80	91.7	14.1	75	41.1	77.7	286.0	40	32.4	7.1	0.0	58.5	540.0	432.0	MODULATING	65	70	90	460 / 3	AAON	RNA-025	4300	1	10																					
OAU-4	SZCV	AREAS D, F, G	6465	6465	2.0	5.1	7.7	10	1.0	2.5	7.5	6465	6465	0	89 / 72	80.0 / 66.3	75 / 62.5	0	43.0	70	68	16.7	80.0 / 66.3	50.0 / 49.8	302.7	207.1	80	91.3	14.5	75	43.0	81.7	285.3	40	32.5	7.2	0.0	61.9	540.0	432.0	MODULATING	65	70	90	460 / 3	AAON	RNA-025	4300	1	10																					

REMARKS:
1. SINGLE POINT POWER CONNECTION.
2. FULL MODULATING ECONOMIZER WITH BYPASS.
3. 2" DISPOSABLE FILTERS IN OUTSIDE AIR SECTION.
4. SUPPLY AIR TSP INCLUDES A 0.5 INCH WG DIRTY FILTER ALLOWANCE.
5. EXHAUST AIR TSP INCLUDES A 0.3 INCH WG DIRTY FILTER ALLOWANCE.
6. TOTAL ENERGY RECOVERY HEAT WHEEL.
7. 24" HIGH ISOLATION CURB.
8. MOTOR STARTERS/ DISCONNECTS BY HVAC CONTRACTOR.
9. DX – WATER COOLED CONDENSER WITH MODULATING HOT GAS REHEAT FOR DEHUMIDIFICATION AND LAT CONTROL.
10. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES TO OTHER TRADES, INCLUDING REDESIGN COSTS, DUE TO THE USE OF UNITS DIFFERENT FROM THE BASIS OF DESIGN (SCHEDULED).
DESIGN CONDITIONS:
OUTDOOR: SUMMER @ 89°F db / 72 °F wb, WINTER @ 0°F db
INDOOR: SUMMER @ 75°F db / 62.5 °F wb, WINTER @ 70°F db

OUTSIDE AIR UNITS AND ROOF TOP UNITS
SCHEUDLES ARE FOR INFORMATIONAL PURPOSES
ONLY. UNITS WERE PRE–PURCHASED.

ROOF TOP UNIT SCHEDULE – * FOR INFORMATIONAL PURPOSES ONLY. UNITS WERE PRE–PURCHASED.*

UNIT NO.	SYSTEM TYPE	AREA SERVED	TOTAL SUPPLY AIRFLOW CFM	MIN OA AIRFLOW CFM	SUPPLY FAN		EXHAUST FAN		ELECTRIC PRE-HEAT			CAPACITY MBH	CAPACITY USED KW	TOTAL CAPACITY KW	NO STAGES	ENERGY RECOVERY			BYPASS AIRFLOW CFM	SUMMER		WINTER		REMARKS			
					E.S.P. (in WG)	TSP (in WG)	BHP	MOTOR HP	E.S.P. (in WG)	TSP (in WG)	MOTOR HP					EAT (°F DB)	LAT (°F DB)	OA AIRFLOW CFM		EA AIRFLOW CFM	OA (°F DB / °F WB)	SA (°F DB / °F WB)	RA (°F DB / °F WB)		OA (°F DB)	SA (°F DB)	RA (°F DB)
RTU-1	SZVAV	CAFETERIA / KITCHEN	8400	4025	1.5	3.7	8.5	15	0.5	0.9	7.5	0	15.0	65.2	19.1	20.0	SCR	–	–	–	–	–	–	–			
RTU-2	SZVAV	LGI	3800	2000	1.0	3.2	2.8	7.5	0.3	1.4	2	0	14.0	30.7	9.0	20.0	SCR	2000	2000	0	89 / 72	78.9 / 65.8	75 / 62.5	14	53.2	70	
RTU-3	SZVAV	GYM	6000	4200	1.25	3.7	7.4	15	0.5	1.9	7.5	–	–	–	–	–	4200	4200	0	89 / 72	79.0 / 65.8	75 / 62.5	0	48.4	70		
RTU-4	SZVAV	GYM	6000	4200	1.25	3.7	7.4	15	0.5	1.9	7.5	–	–	–	–	–	4200	4200	0	89 / 72	79.0 / 65.8	75 / 62.5	0	48.4	70		
RTU-5	SZVAV	FITNESS	2200	1250	1.25	2.9	1.7	2	0.3	0.9	1	0	18.0	25.3	7.4	10.0	SCR	1250	1250	0	89 / 72	78.3 / 65.2	75 / 62.5	18	56.7	70	
RTU-6	SZCV	LOCKER AREA	1625	1625	1.7	3.4	1.6	2	0.7	1.4	1	0	38.0	68.3	19.9	20.0	SCR	1625	1625	0	89 / 72	79 / 65.6	75 / 62.5	38	60.5	70	

ROOF TOP UNIT SCHEDULE CONTINUED – * FOR INFORMATIONAL PURPOSES ONLY. UNITS WERE PRE–PURCHASED.*

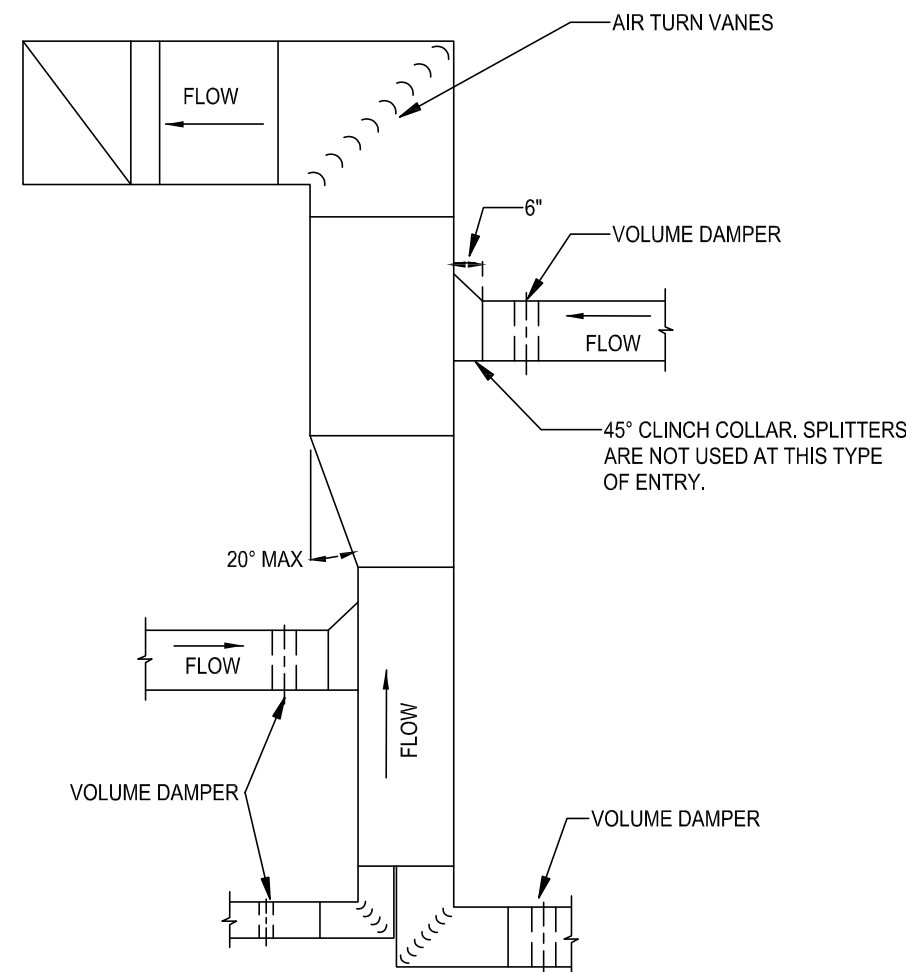
UNIT NO.	SYSTEM TYPE	AREA SERVED	TOTAL SUPPLY AIRFLOW CFM	MIN OA AIRFLOW CFM	WATER DATA		WATER SOURCE HEAT PUMP COOLING DATA							TOTAL MBH	SENS. MBH	EWT (°F)	LWT (°F)	EER	HOT GAS REHEAT COIL LAT (°F)	WATER SOURCE HEAT PUMP HEATING DATA					ELECTRIC RE-HEAT		ELECTRICAL DATA			BASED ON			REMARKS	
					30% PG FLOW GPM	W.P.D (FT HEAD)	EAT (°F DB / °F WB)	LAT (°F DB / °F WB)	TOTAL MBH	SENS. MBH	EWT (°F)	LWT (°F)	COP							EAT (°F DB)	LAT (°F DB)	CAPACITY MBH	CAPACITY KW	NO STAGES	UNIT FLA	UNIT MCA	UNIT MOCP	V / PH	MANUF.	MODEL	WEIGHT (LBS)			
RTU-1	SZNAV	CAFETERIA / KITCHEN	8400	4025	75	20.2	81.7 / 67.3	53.4 / 53	352.9	253.7	80	91.9	10.6	75	43.6	76.6	316.7	40	32.4	3.90	76.6	91.6	136.5	40.0	SCR	104	112	125	460 / 3	AAON	RNA-030	3900	1	10
RTU-2	SZNAV	LGI	3800	2000	35	19.6	77.0 / 64.2	53.0 / 52.5	127.1	98.5	80	89.1	16.1	71	61.2	88.1	112.9	40	34.3	6.40	88.1	104.7	68.3	20.0	SCR	86	90	460 / 3	AAON	RNA-011	3000	1	10	
RTU-3	SZNAV	GYM	6000	4200	52	21.8	77.8 / 64.8	53.7 / 53.5	197.6	155.3	80	89.7	12.8	72	54.9	84.5	197.8	40	33.3	6.70	-	-	-	-	-	58	63	80	460 / 3	AAON	RNA-016	4100	1	10
RTU-4	SZNAV	GYM	6000	4200	52	21.8	77.8 / 64.8	53.7 / 53.5	197.6	155.3	80	89.7	12.8	72	54.9	84.5	197.8	40	33.3	6.70	-	-	-	-	-	58	63	80	460 / 3	AAON	RNA-016	4100	1	10
RTU-5	SZNAV	FITNESS	2200	1250	15	18.5	76.9 / 64.0	53.1 / 52.7	71.5	56.3	80	92.1	16.0	75	62.4	87.5	60.6	40	33.0	6.40	62.4	91.1	68.3	20.0	SCR	51	62	70	460 / 3	AAON	RNA-006	2200	1	10
RTU-6	SZCV	LOCKER AREA	1625	1625	13	14.1	79 / 65.6	51.1 / 50.8	68.5	48.6	80	93.5	17.7	75	60.5	93.5	59.1	40	32.3	5.80	60.5	99.2	68.3	20.0	SCR	54	67	70	460 / 3	AAON	RNA-006	2200	1	10

REMARKS:
1. SINGLE POINT POWER CONNECTION.
2. FULL MODULATING ECONOMIZER WITH BYPASS.
3. 2" DISPOSABLE FILTERS IN OUTSIDE AIR SECTION.
4. SUPPLY AIR TSP INCLUDES A 0.5 INCH WG DIRTY FILTER ALLOWANCE.
5. EXHAUST AIR TSP INCLUDES A 0.3 INCH WG DIRTY FILTER ALLOWANCE.
6. TOTAL ENERGY RECOVERY HEAT WHEEL.
7. 24" HIGH ISOLATION CURB.
8. MOTOR STARTERS/ DISCONNECTS BY HVAC CONTRACTOR.
9. DX – WATER COOLED CONDENSER WITH MODULATING HOT GAS REHEAT FOR DEHUMIDIFICATION AND LAT CONTROL.
10. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES TO OTHER TRADES, INCLUDING REDESIGN COSTS, DUE TO THE USE OF UNITS DIFFERENT FROM THE BASIS OF DESIGN (SCHEDULED).
DESIGN CONDITIONS:
OUTDOOR: SUMMER @ 89°f db / 72 °f wb, WINTER @ 0°f db
INDOOR: SUMMER @ 75°f db / 62.5 °f wb, WINTER @ 70°f db

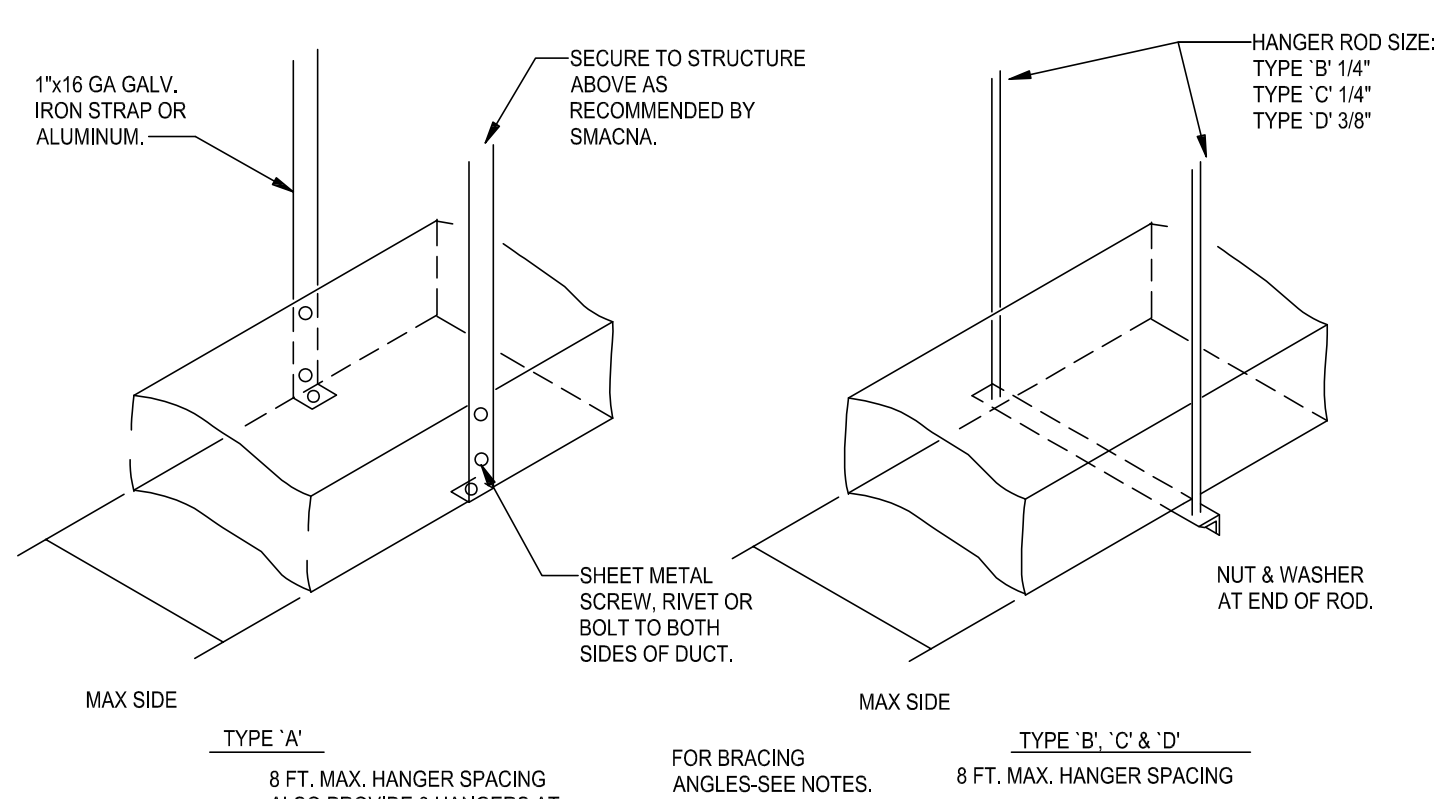
UNIT HEATER SCHEDULE – *TEMPORARY HEAT*

UNIT NO.	AREA SERVED	KW	V/PH	BASED ON		REMARKS
				MANUF.	MODEL	
EUH-1	A104 KITCHEN	3	208 / 1	HEAT WAGON	P300	
EUH-2	A105 CAFETERIA	6	208 / 1	HEAT WAGON	P600	
EUH-3	A105 CAFETERIA	9	208 / 1	HEAT WAGON	P900	
EUH-4	B121 LGI	3	208 / 1	HEAT WAGON	P300	
EUH-5	B122 LGI STORAGE	1.5	120 / 1	HEAT WAGON	P1500	
EUH-6	C101 GIRLS DRESSING	1.5	120 / 1	HEAT WAGON	P1500	
EUH-7	C111 GYM	6	208 / 1	HEAT WAGON	P600	
EUH-8	C111 GYM	9	208 / 1	HEAT WAGON	P900	
EUH-9	C111 GYM	9	208 / 1	HEAT WAGON	P900	
EUH-10	C111 GYM	6	208 / 1	HEAT WAGON	P600	
EUH-11	C113 FITNESS	9	208 / 1	HEAT WAGON	P900	
EUH-12	C113 FITNESS	9	208 / 1	HEAT WAGON	P900	
EUH-13	C115 BOYS DRESSING	3	208 / 1	HEAT WAGON	P300	
EUH-14	C120 STORAGE	3	208 / 1	HEAT WAGON	P300	

EXISTING ROOF CURBS



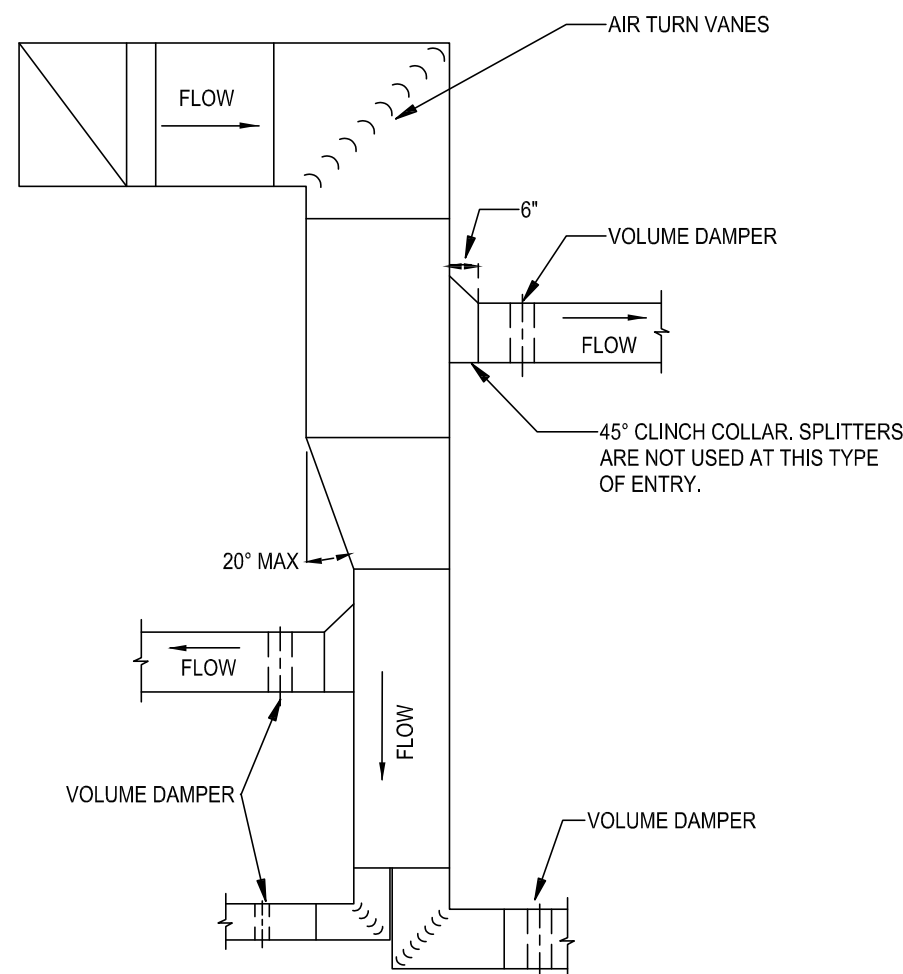
DUCTWORK - EXHAUST OR RETURN DETAIL
NO SCALE



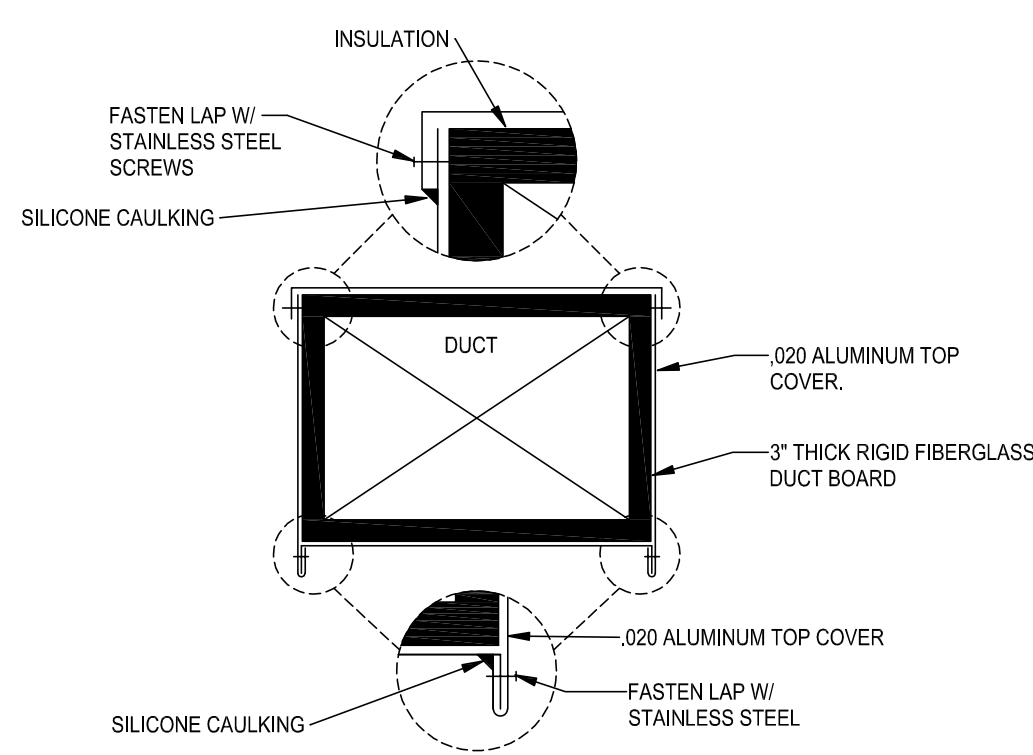
DUCT SCHEDULE		
DUCT DIMENSIONS INCHES		TYPE HANGER
UP THRU 12		A
13	18	A
19	30	A/B
31	42	B
43	54	B
55	60	B
61	84	C
85	96	C
OVER	96	D

NOTES:
1. FOR SEVERAL DUCTS ON ONE HANGER TYPE 'B', 'C' OR 'D' MAY BE USED. SIZE OF HANGER WILL BE SELECTED ON THE SUM OF DUCT WIDTHS EQUAL TO MAX. WIDTH OF DUCT SCHEDULES.
2. SCHEDULES FOR ANGLES FOR BRACING: TYPE 'B' 1 1/2" x 1 1/2" x 1/8" ANGLE. MAX. SPACING 8'-0". CENTERS TYPE 'C' 1 1/2" x 1 1/2" x 1/8" ANGLE. MAX. SPACING 8'-0". CENTERS TYPE 'D' 2" x 2" x 1/4" MAX. SPACING 4'-0" CENTERS.

DUCTWORK HANGER DETAILS
NO SCALE

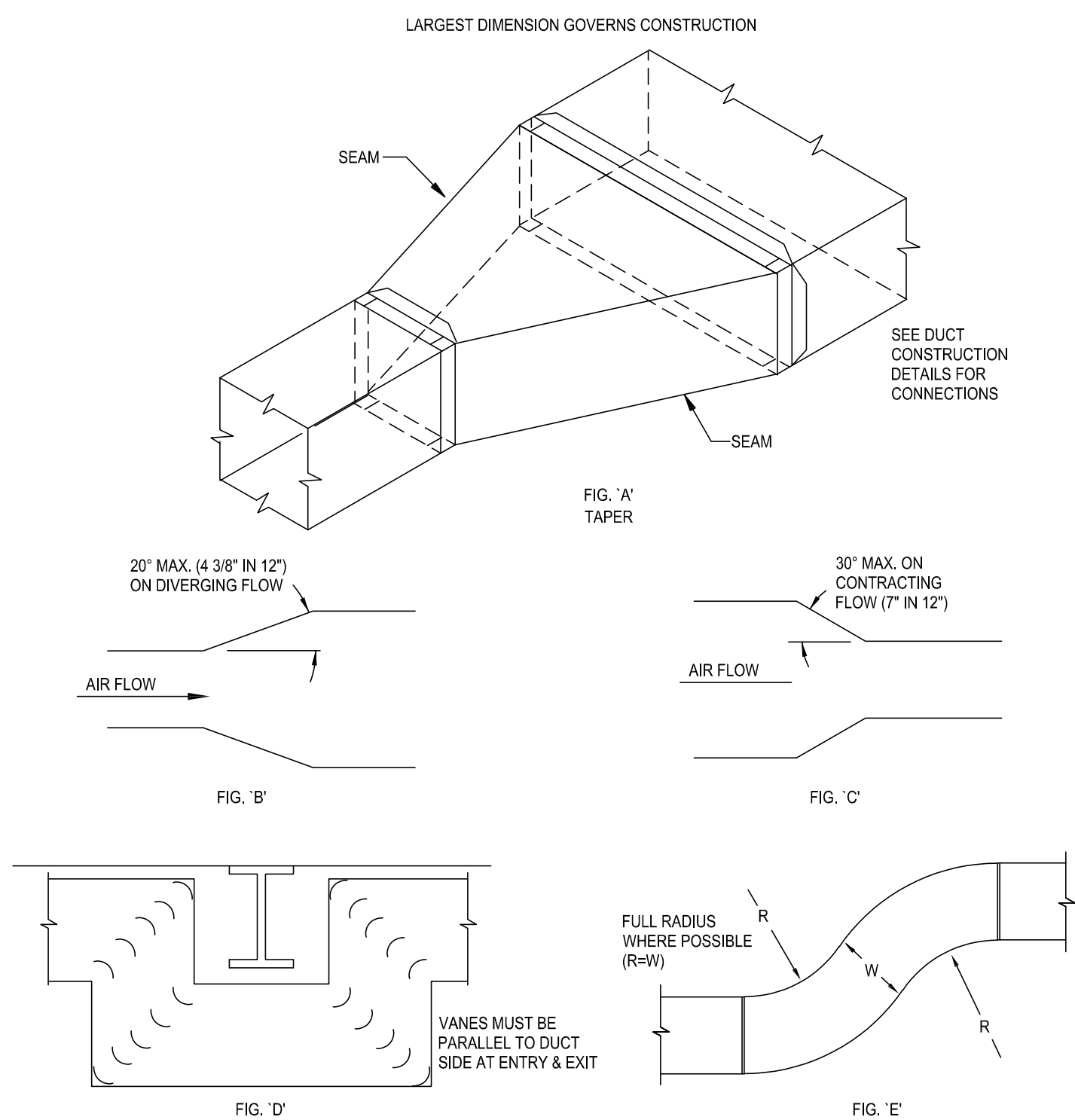


DUCTWORK - SUPPLY OR OUTDOOR AIR DETAIL
NO SCALE

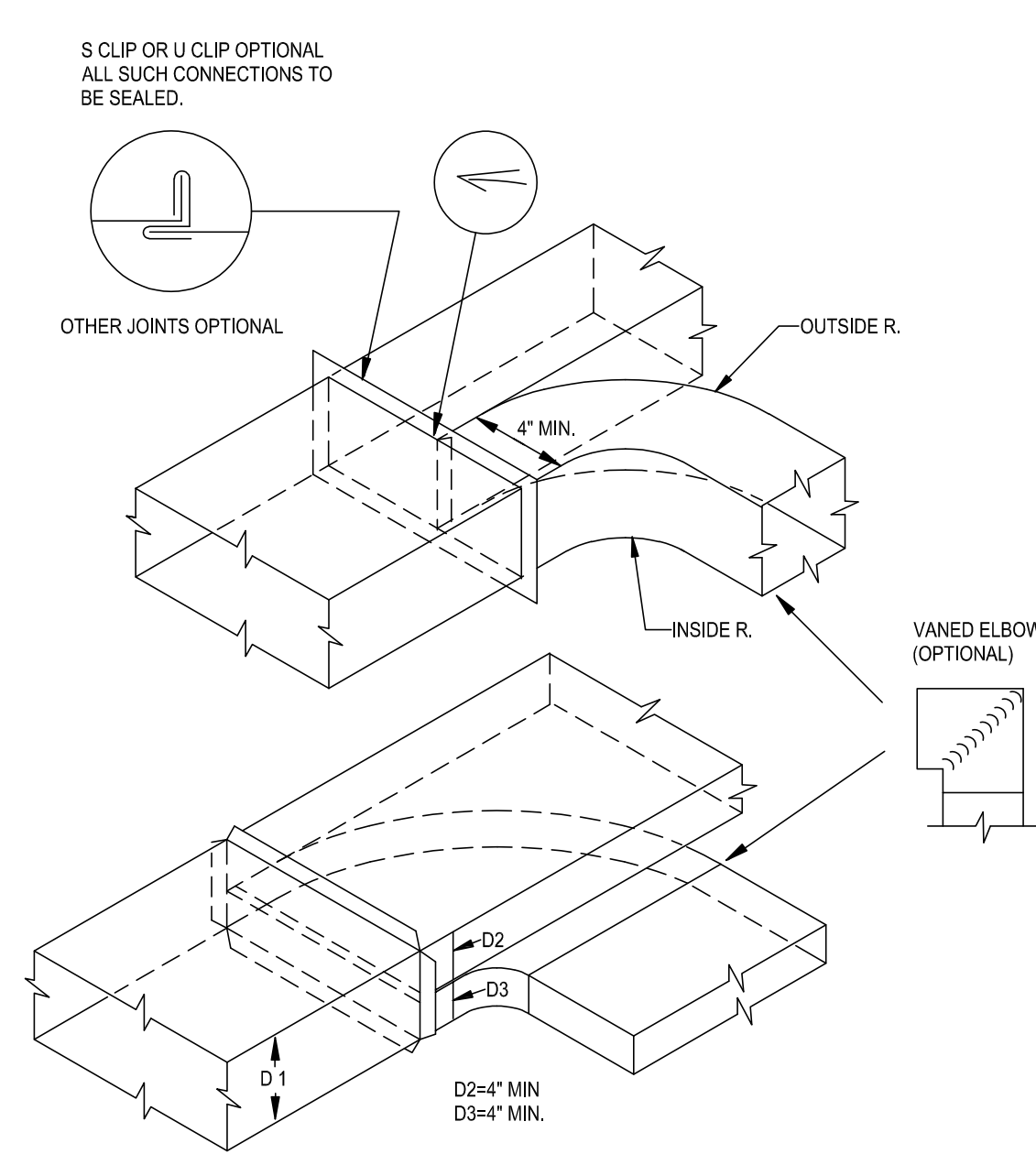


NOTES:
1. ALL LAP SEAMS SHALL HAVE A MINIMUM LENGTH OF 1'-2"

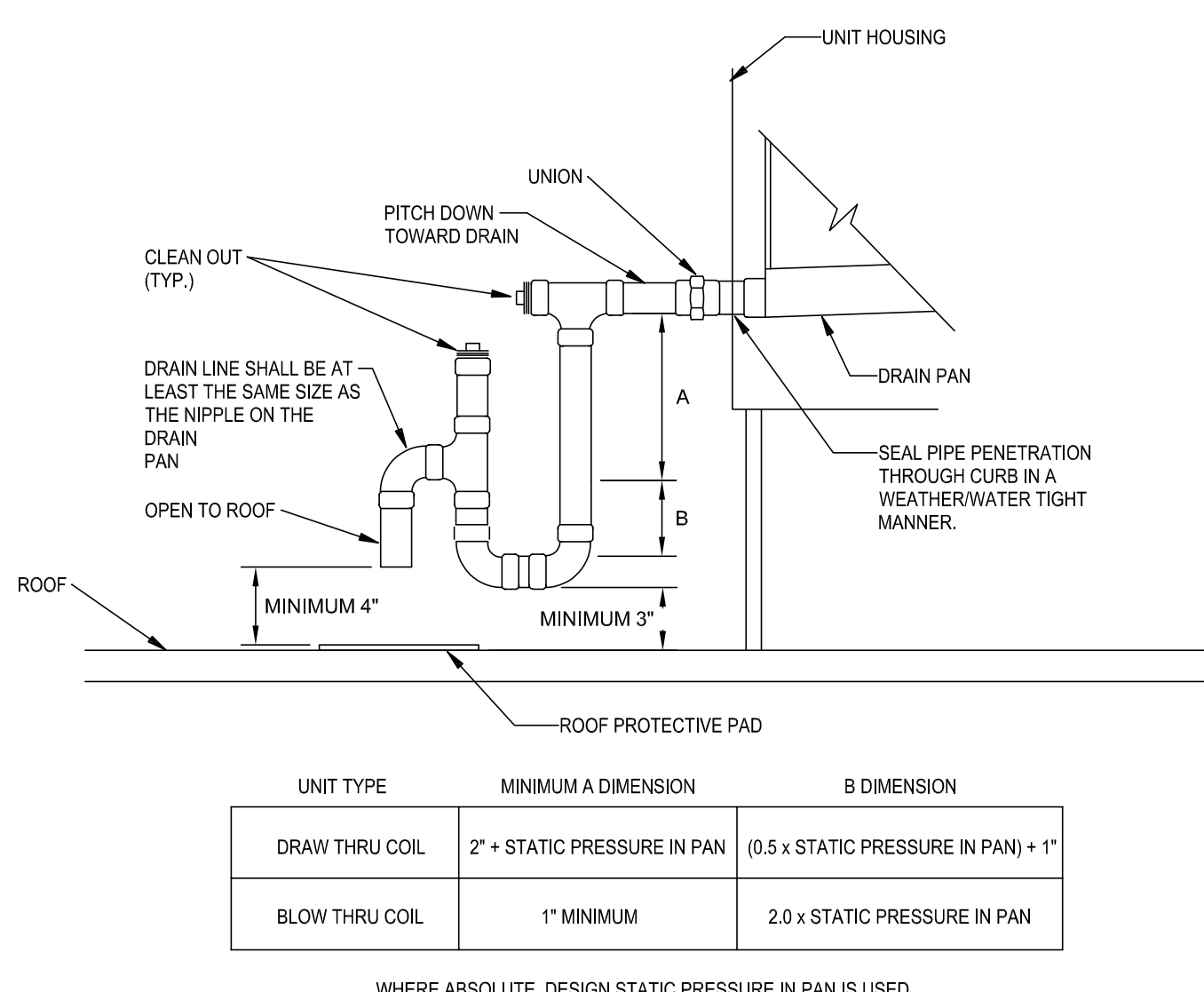
DUCTWORK OUTDOOR AIR JACKETING DETAIL
NO SCALE



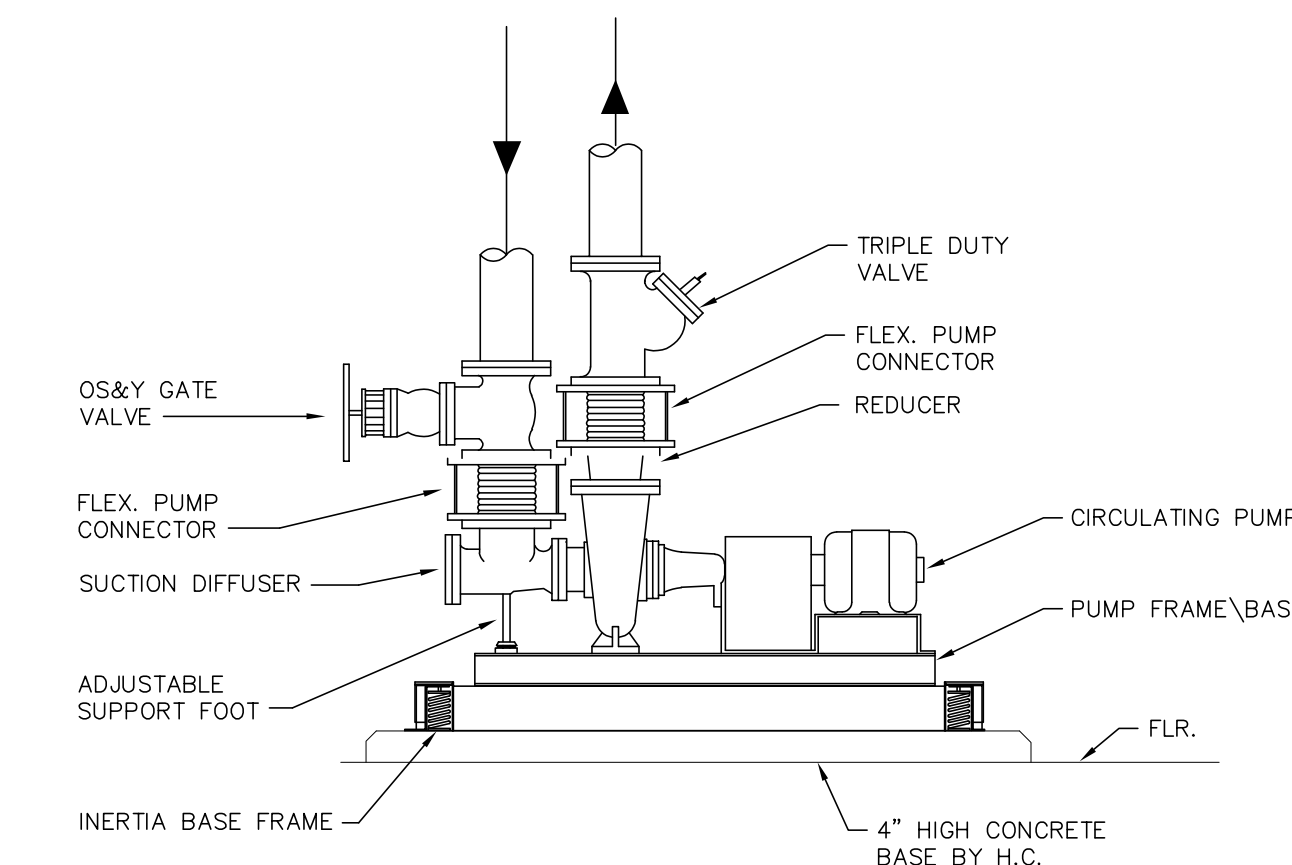
DUCTWORK CONSTRUCTION DETAILS
NO SCALE



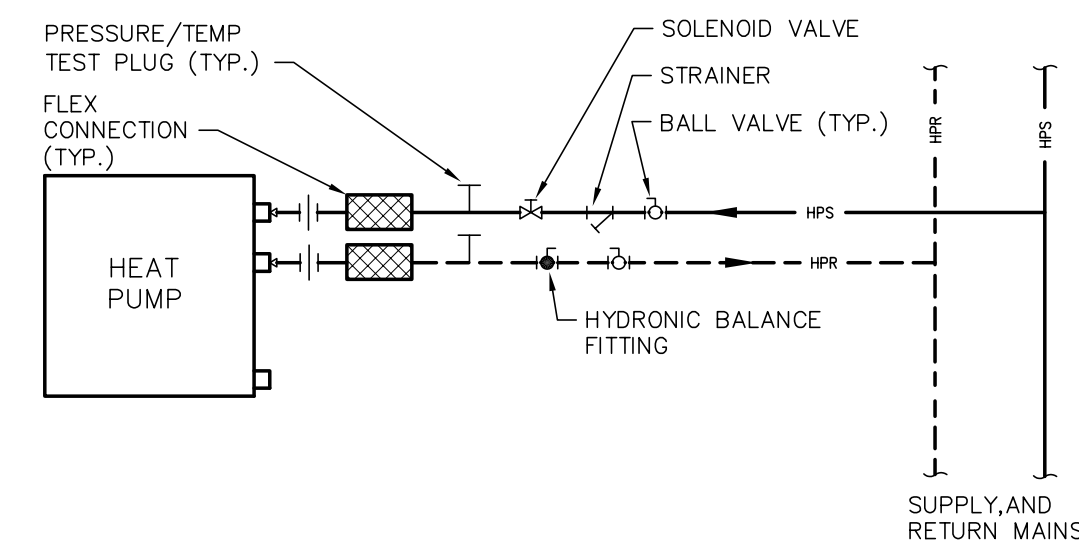
DUCTWORK PARALLEL FLOW BRANCH DETAIL
NO SCALE



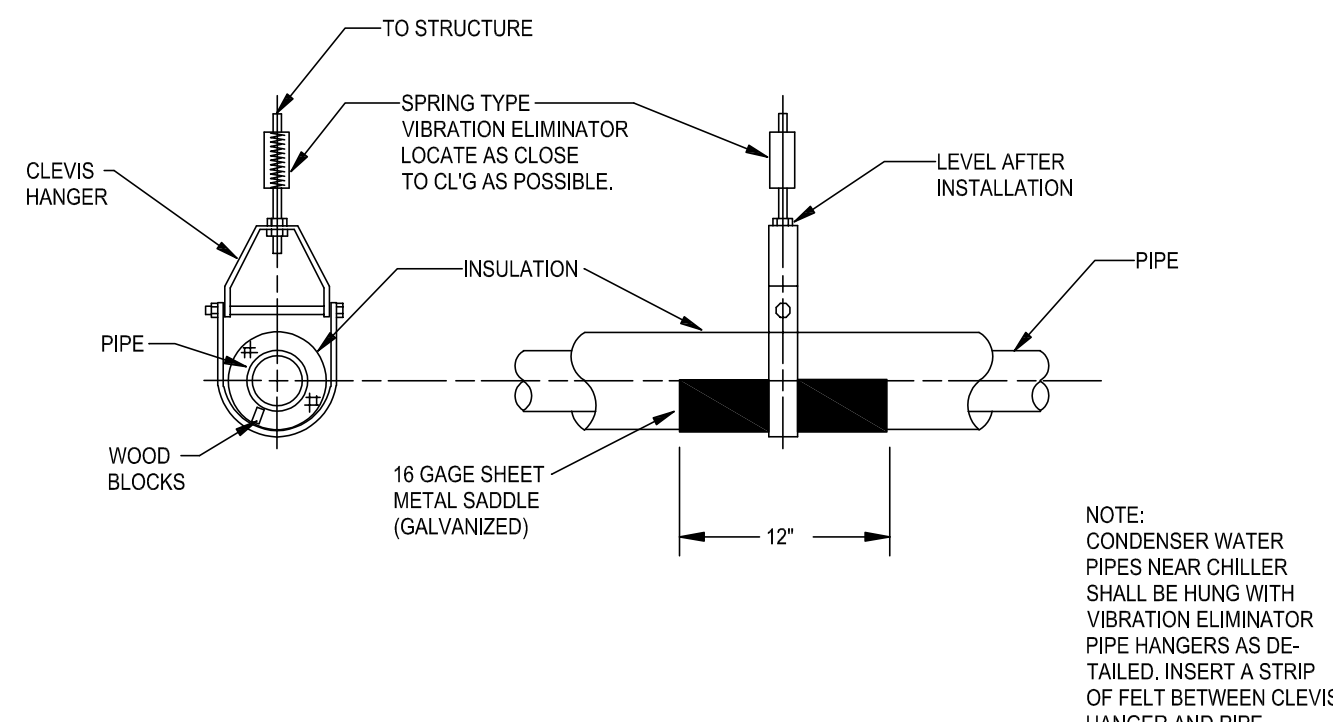
CONDENSATE DRAIN TRAP PIPING DETAIL - RTU
NO SCALE



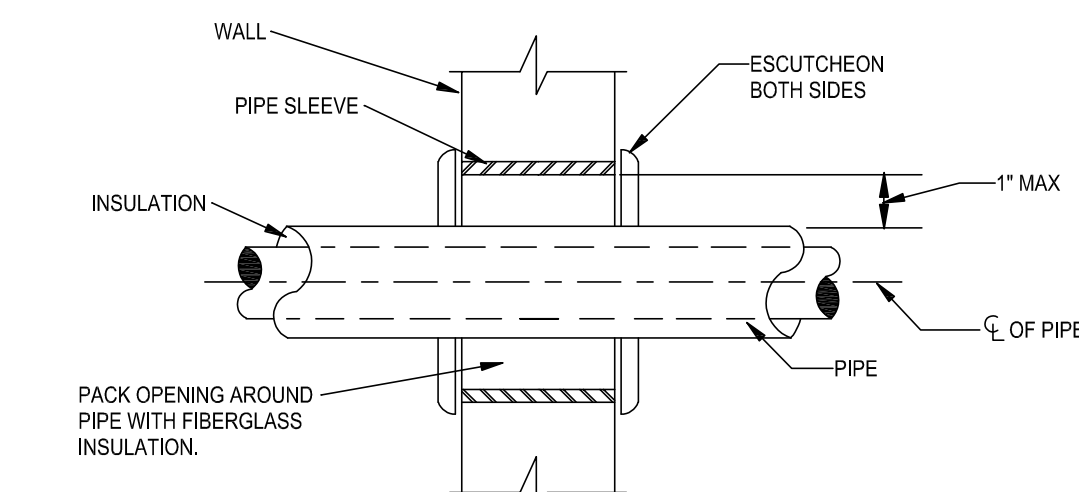
BASE MOUNTED PUMP PIPING DETAIL
NO SCALE



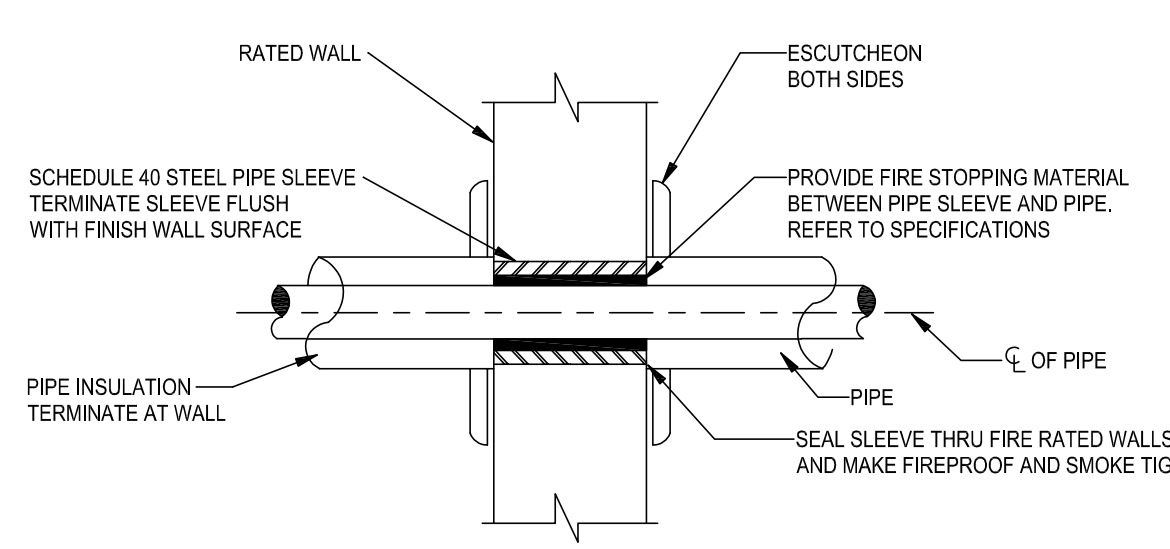
HEAT PUMP PIPING DETAIL
NO SCALE



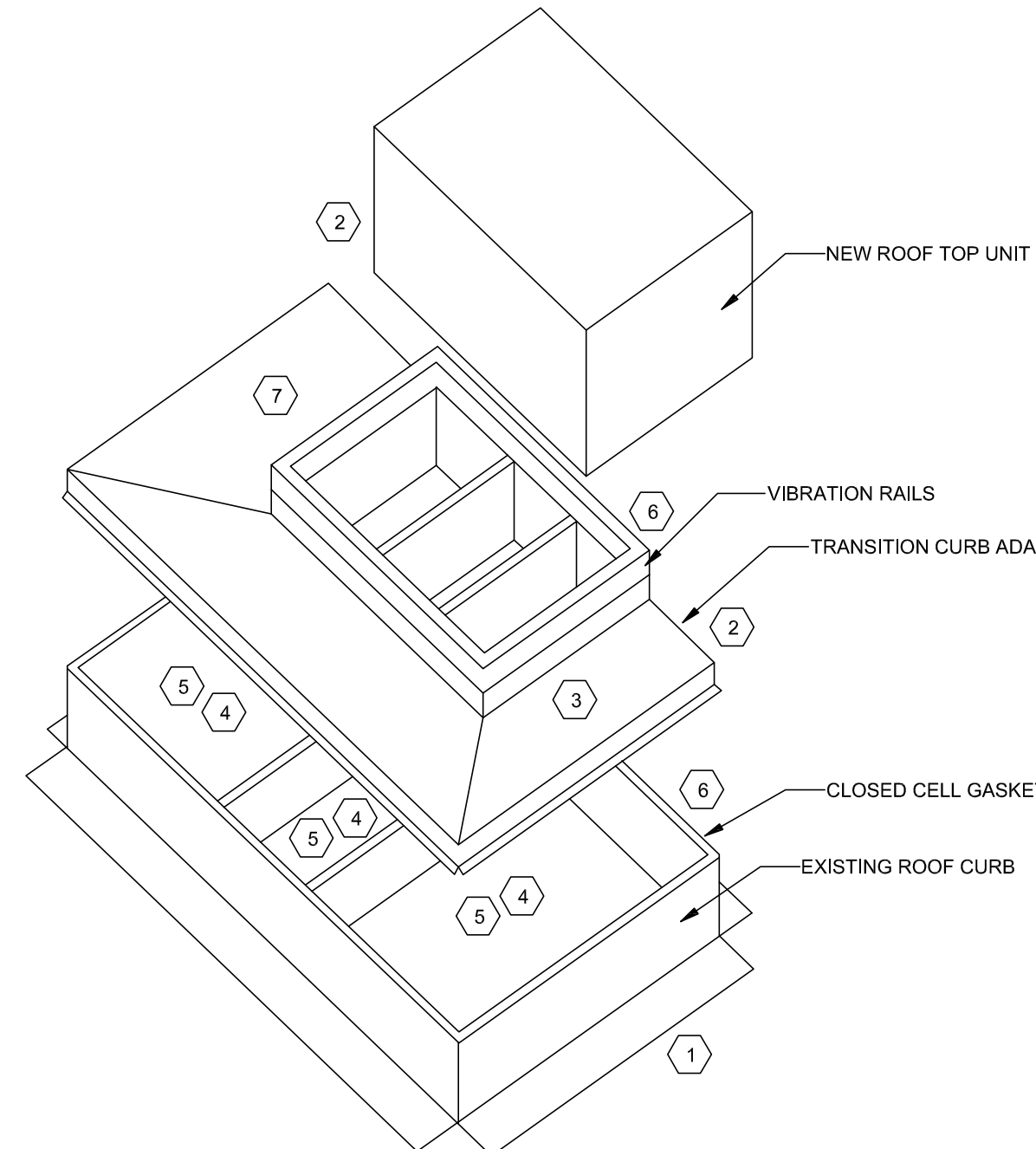
PIPE CLEVIS HANGER DETAIL
NO SCALE



PIPE SLEEVE DETAIL
NO SCALE



PIPE SLEEVE THRU RATED WALL DETAIL
NO SCALE



ROOF CURB - TRANSITION ADAPTER DETAIL
NO SCALE

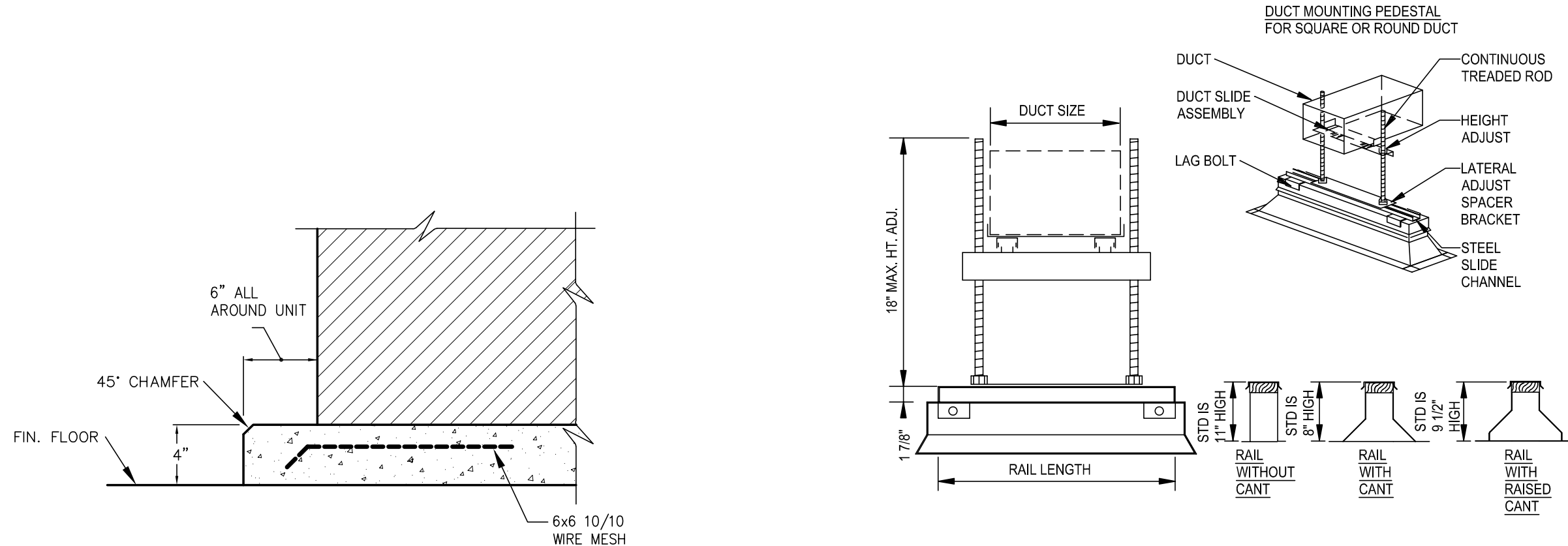
NOTES FOR TRANSITION CURB ADAPTER INSTALLATION

GENERAL NOTES:

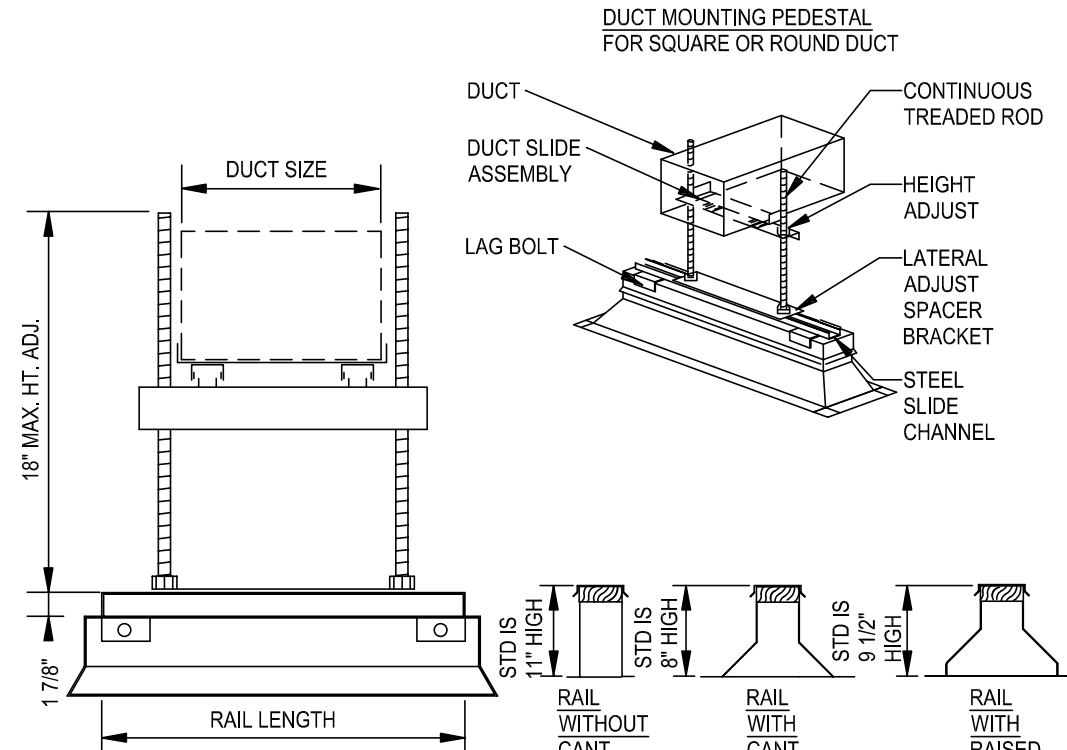
- ADAPTER DETAILS VARY SLIGHTLY FROM MANUFACTURER TO MANUFACTURER. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION WITH THE ADAPTER DETAILS PROVIDED BY THE MANUFACTURER OF THE ROOFTOP UNIT PROVIDED.
- REFER TO SPECIFICATIONS FOR IN-CURB ACOUSTIC TREATMENT.
- ANY SUPPLEMENTAL STEEL REQUIRED FOR THE SUPPORT OF THE ROOFTOP UNIT SHALL BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR.
- CONTRACTOR TO EXTEND CONDENSATE DRAIN TO DISCHARGE ONTO SPLASH PAD ON ROOF. DISCHARGE DRAINING ONTO ADAPTER CURB IS NOT ACCEPTABLE.

CODED NOTES:

- ROOF DECK, (BY G.C.)
- ATTACH TRANSITION TO EXISTING CURB AND TRANSITION TO ROOFTOP UNIT.
- SUPPLEMENTAL STEEL AS REQUIRED (BY STRUCTURAL STEEL INSTALLER.)
- PATCH EXISTING OPENINGS IN THE ROOF DECK WITHIN THE ROOF CURB AND MAKE SURE THAT THE ROOF DECK IS TIGHT TO THE DUCTWORK PENETRATIONS INTO THE BUILDING. FILL ALL GAPS BETWEEN DUCTWORK AND DECK WITH WEST SYSTEM BRAND EPOXY (OR EQUAL) THICKENED WITH A FAIRING FILLER.
- ALL VOID AREAS WITHIN THE CURB AND OUTSIDE OF THE DUCTWORK SHALL BE FILLED WITH MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS IN-CURB ACOUSTIC TREATMENT REQUIREMENTS.
- PROVIDE CLOSED-CELL SPONGE WEATHER-SEAL BETWEEN THE BOTTOM OF THE TRANSITION CURB ADAPTER AND THE TOP OF THE EXISTING ROOF CURB, ALONG WITH AROUND ALL SA AND RA DUCT PASSAGES.
- TRANSITION CURB SHALL BE DOUBLE WALL WITH 2" THICK INSULATION.



CONCRETE PAD DETAIL
NO SCALE



ROOF MOUNTED DUCT SUPPORT DETAIL
NO SCALE

DUCT SIZE	EQUIPMENT RAIL LENGTH
UP TO 12"	2'-0"
12 1/4" TO 24"	3'-0"
24 1/4" TO 36"	4'-0"
36 1/4" TO 48"	5'-0"
48 1/4" TO 60"	6'-0"
60 1/4" TO 72"	7'-0"
72 1/4" TO 84"	8'-0"

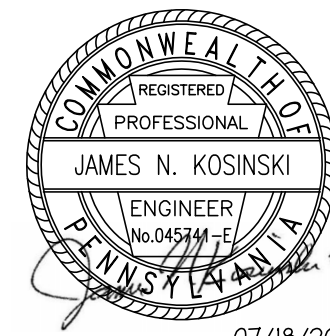
NOTE: WHEN DUCT IS INSULATED, TOTAL OUTSIDE DIMENSIONS OF DUCT & COVERING SHOULD BE USED TO DETERMINE SIZE OF SLIDE ASSEMBLY



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TOWER
ENGINEERING
115 Evergreen Heights Drive, Suite 400, Pittsburgh, Pennsylvania 15229-1346
412.931.8868 • Fax: 412.939.2525 • www.towereng.com
Project No: 2025064

HVAC Equipment
Replacements
and Upgrades

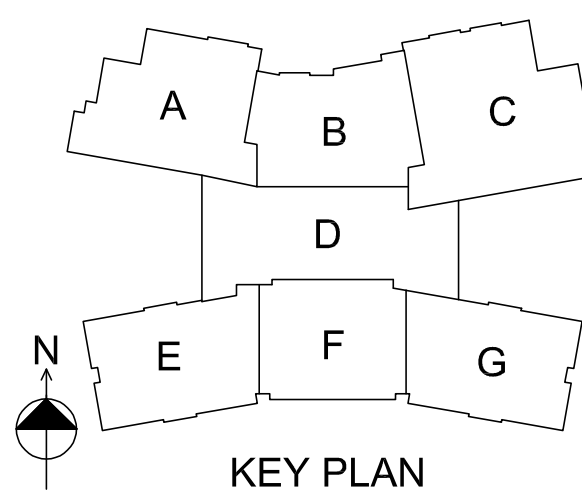


07/18/2025

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CONSTRUCTION DOCUMENTS

REVISIONS



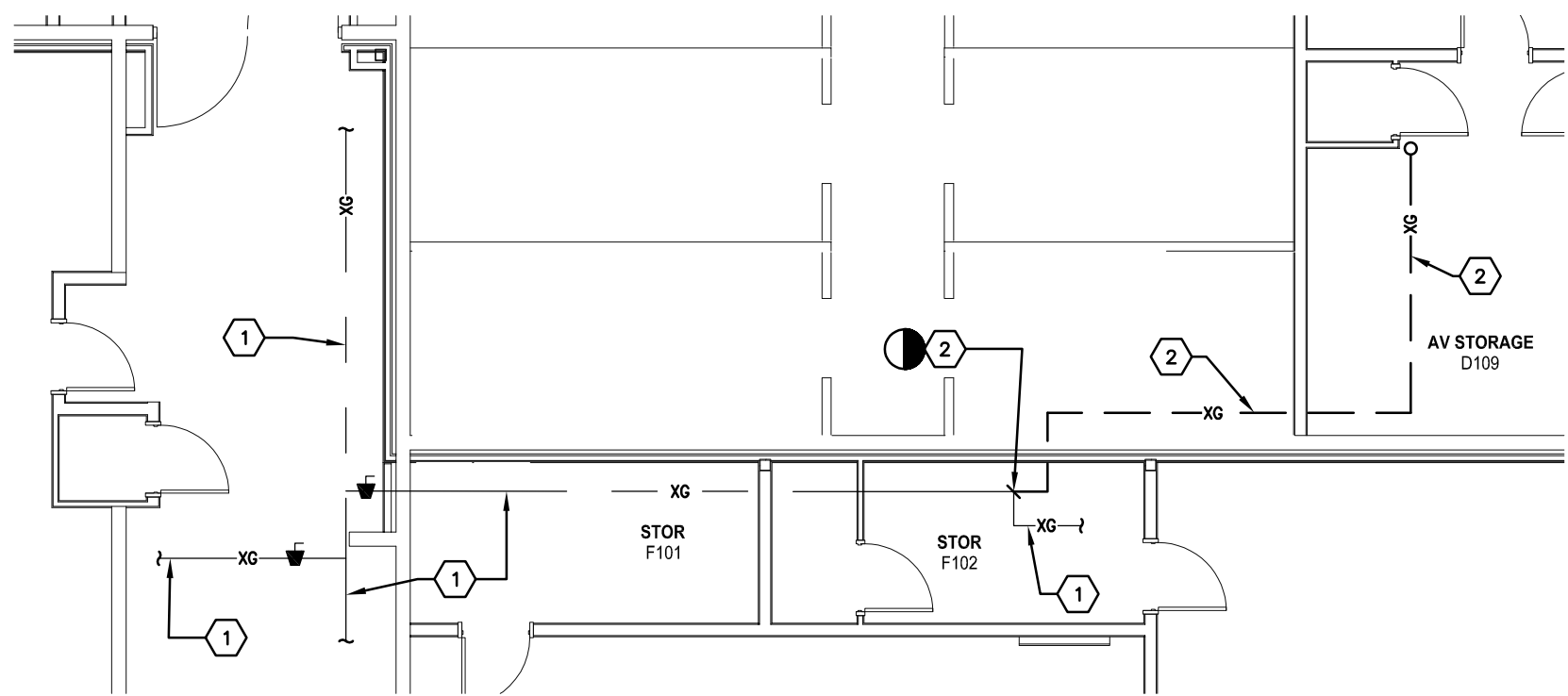
SCALE: AS NOTED
DRAWN BY: JP
CHECKED BY: MC

DATE: 07/18/2025

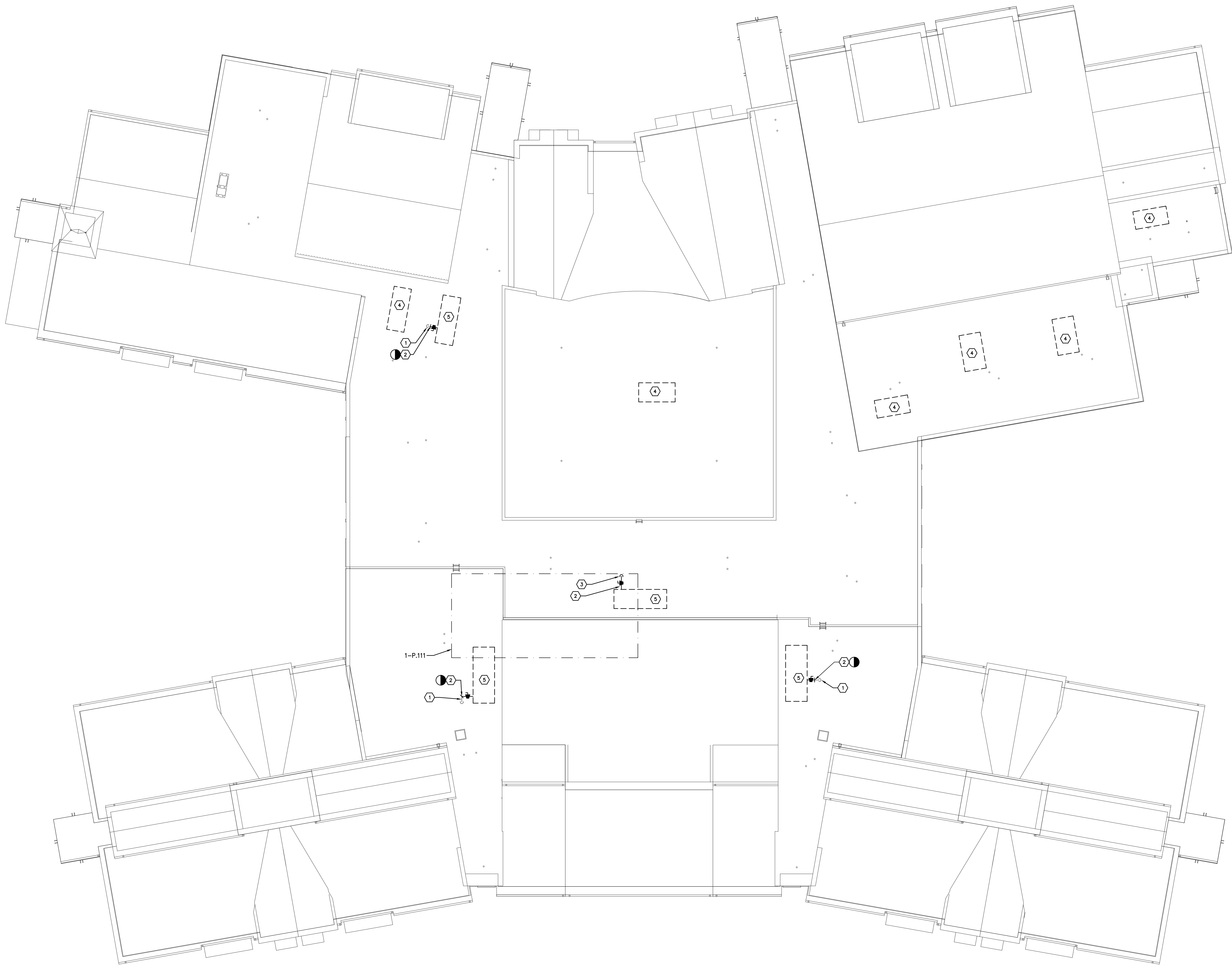
DETAILS - HVAC

H.511

DRAWING NUMBER



1 PARTIAL FIRST FLOOR PLUMBING DEMO PLAN - AREA D
1/8" = 1'-0"



2 ROOF PLUMBING DEMO PLAN
1/16" = 1'-0"

CODED NOTES: (THIS DRAWING)

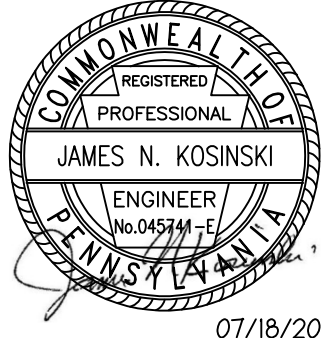
- 1 EXISTING GAS PIPING TO REMAIN.
- 2 EXISTING GAS PIPING AND ALL RELATED APPURTENANCES TO BE REMOVED UP TO DEMOLITION LIMITS AS SHOWN. TEMPORARILY CAP PIPING AS REQUIRED TO PREVENT CONTAMINANTS FROM ENTERING THE SYSTEM. FIELD VERIFY EXACT LOCATION. COORDINATE WITH HC AND NEW WORK.
- 3 EXISTING GAS PIPING THRU ROOF TO BE REMOVED. REFER TO DRAWING 1 ON THIS SHEET FOR CONTINUATION. REMOVE ALL RELATED APPURTENANCES EXCEPT EXISTING PIPE PORTAL. TEMPORARILY CAP PIPING AS REQUIRED TO PREVENT CONTAMINANTS FROM ENTERING THE SYSTEM. FIELD VERIFY EXACT LOCATION. COORDINATE WITH HC AND NEW WORK.
- 4 BY HC.
- 5 PC TO DISCONNECT AND REMOVE EXISTING GAS PIPING, VALVES, ETC. HC TO REMOVE EQUIPMENT. FIELD VERIFY EXACT LOCATION. COORDINATE WITH HC AND NEW WORK.



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HVAC Equipment
Replacements
and Upgrades

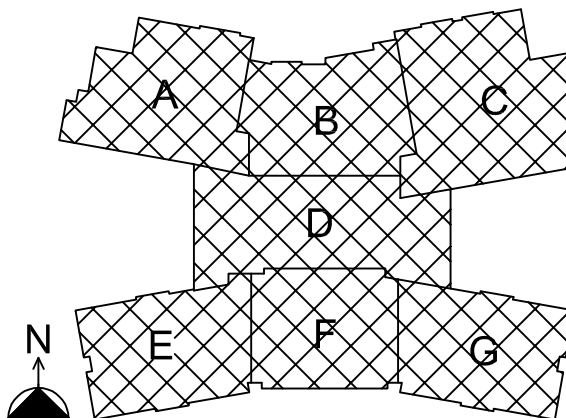


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CONSTRUCTION DOCUMENTS

REVISIONS



KEY PLAN

SCALE: AS NOTED
DRAWN BY: PJM
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DATE: 07/18/2025

DEMOLITION PLANS
PLUMBING

P.111

DRAWING NUMBER

PLUMBING GENERAL NOTES

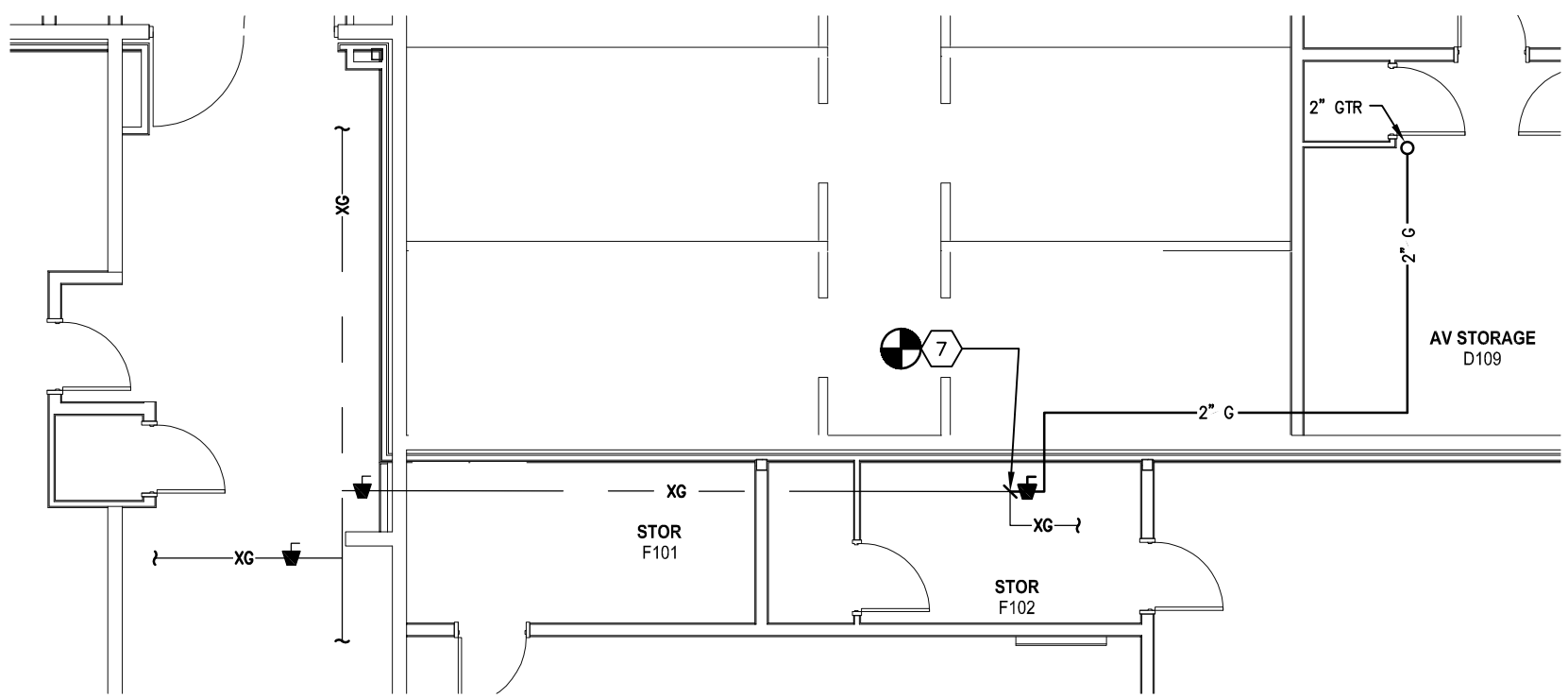
- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
- B. VALVES AND FITTINGS SHALL BE OF THE SAME SIZE AS THE PIPING OF WHICH THEY ARE INSTALLED.
- C. THE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS AT THE SITE PRIOR TO ANY INSTALLATION.
- D. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS.
- E. ALL PIPING SHALL BE INSTALLED AS CLOSE TO DRAWINGS AS POSSIBLE WITH NO CHANGES IN SIZING.
- F. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN THE CONTRACT DRAWINGS AND AS SPECIFIED.
- G. CONTRACTOR SHALL GIVE SUITABLE NOTICE TO ALL APPLICABLE UTILITY COMPANIES AND OWNER PRIOR TO PERFORMING WORK INVOLVING UTILITIES.
- H. ALL PIPING SHALL BE ROUTED CONCEALED ABOVE CEILINGS, WITHIN WALLS OR IN CHASES EXCEPT FINAL CONNECTIONS TO FIXTURES, OR IN MECHANICAL ROOMS AND AS SPECIFICALLY NOTED OTHERWISE.
- I. PROVIDE ACCESS PANELS FOR ALL VALVES WITHIN CHASES OR ABOVE NON- ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- J. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
- K. THE CONTRACTOR SHALL ORDER ALL MATERIALS IN SUFFICIENT TIME TO AVOID DELAYING THE COMPLETION OF THE PROJECT. DELAY IN DELIVERIES WILL NOT BE CONSIDERED A JUSTIFIABLE REASON FOR SUBMISSION OF SUBSTITUTE MATERIALS.
- L. NATURAL GAS PIPING IS ABOVE THE CEILING UNLESS OTHERWISE NOTED.
- M. PROVIDE SLEEVES AND FIRE STOP SEALANTS AT ALL PIPE PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS. COMPLY WITH ASTM E-814 AND UL 1479.
- N. SPRINKLER SYSTEM NOT SHOWN. ALL EXISTING SPRINKLER HEADS, RELATED PIPING, VALVES, FITTINGS, ETC. ARE EXISTING TO REMAIN.

PLUMBING ABBREVIATIONS

ABV	ABOVE	GC	GENERAL CONTRACTOR
AFF	APPROXIMATELY	HC	HEATING CONTRACTOR
BTUH	BRITISH THERMAL UNIT	ID	INSIDE DIAMETER
CFH	CUBIC FOOT PER HOUR	MAX	MAXIMUM
CLG	CEILING	MBH	THOUSAND BTUH
CONN	CONNECT, CONNECTION	MIN	MINIMUM
CONT	CONTINUED, CONTINUATION	NIPC	NOT IN PLUMBING CONTRACT
DIA	DIAMETER	OAU	OUTSIDE AIR UNIT
DWG	DRAWING	OD	OUTSIDE DIAMETER
EA	EACH	PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR	PRESS	PRESSURE
EL	ELEVATION	PSI	POUNDS PER SQUARE INCH
ELEV	ELEVATOR, ELEVATION	RTU	ROOF TOP UNIT
EXIST	EXISTING	SPEC	SPECIFICATION
G	NATURAL GAS	TYP	TYPICAL
		XG	EXISTING NATURAL GAS

PLUMBING LEGEND

---	EXISTING PIPING	○→	ELBOW UP, DOWN
---	EXISTING PIPING TO BE REMOVED	⊠	FLEXIBLE CONNECTION
—G—	NATURAL GAS PIPING	○—○	TEE UP, DOWN
—G—	GAS PRESSURE REGULATOR	●	NEW CONNECTION SYMBOL
—G—	PLUG VALVE	⊙	DEMOLITION LIMIT
—G—	CAP	①	CODED NOTE



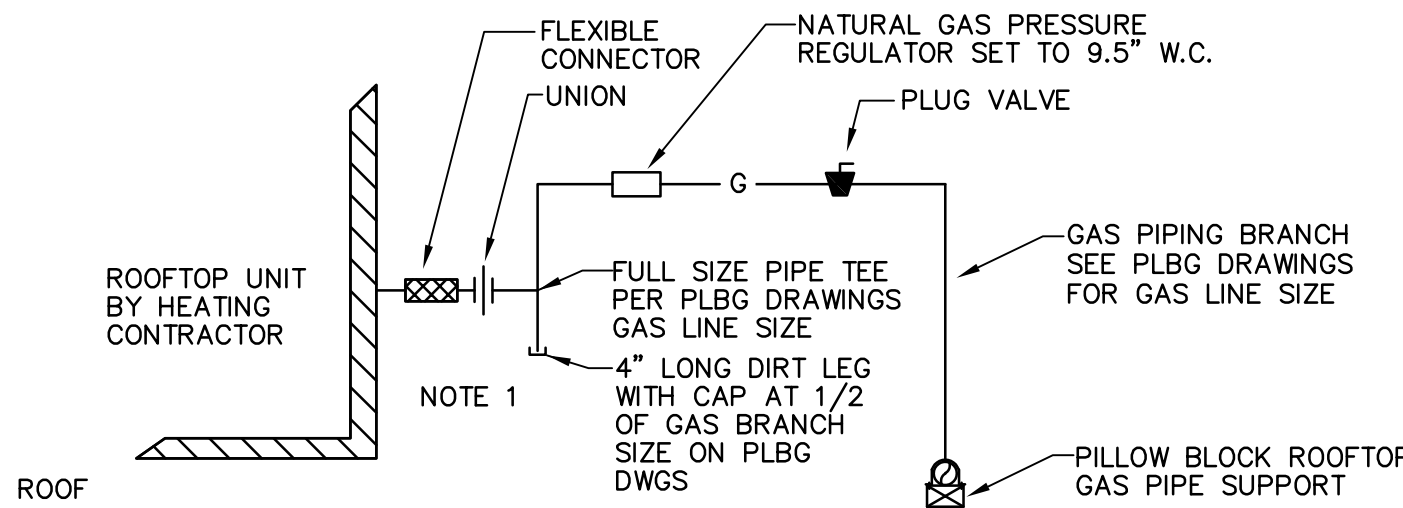
1 PARTIAL FIRST FLOOR PLUMBING NEW WORK PLAN - AREA D
1/8" = 1'-0"

PLUMBING DEMOLITION – GENERAL NOTES

- A. COORDINATE DEMOLITION WORK WITH OTHER TRADES AND EXISTING CONDITIONS.
- B. THE DRAWINGS ARE DIAGRAMMATIC. VERIFY ACTUAL CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
- C. OWNER RETAINS THE RIGHTS TO ALL ITEMS AND EQUIPMENT SCHEDULED FOR REMOVAL.
- D. COORDINATE STAGING OF DEMOLITION AND NEW CONSTRUCTION TO AVOID INTERRUPTION OF BUILDING UTILITIES AND SERVICES.
- E. DISCONNECT AND REMOVE FIXTURES, PIPING, AND EQUIPMENT TO ACCOMPLISH DEMOLITION SHOWN. SALVAGED ITEMS NOT SCHEDULED FOR REUSE ARE TO BE TURNED OVER TO OWNER.
- F. COORDINATE DEMOLITION DRAWINGS WITH FLOOR PLANS FOR CONNECTION LOCATIONS OF NEW WORK WITH EXISTING SYSTEMS.
- G. FIXTURES, PIPING AND EQUIPMENT WITHIN THE CONSTRUCTION AREAS ARE NOT AFFECTED BY THE WORK OF THIS CONTRACT SHALL BE PROTECTED PRIOR TO COMMENCEMENT AND UNTIL THE COMPLETION OF THE WORK.
- H. PROTECT (OR REMOVE AND STORE) EXISTING FIXTURES, FITTINGS AND EQUIPMENT TO BE REUSED OR RELOCATED, THROUGHOUT ALL STAGES OF DEMOLITION AND CONSTRUCTION. REINSTALL AS INDICATED ON FLOOR PLANS.
- I. REFER TO CODED NOTES FOR ADDITIONAL INFORMATION FOR DEMOLITION WORK.

CODED NOTES: (THIS DRAWING)

- 1 CONNECT NEW 2" GAS PIPING TO OAU PER ROOF TOP CONNECTION DETAIL. COORDINATE POINTS OF CONNECTION WITH HC.
- 2 CONNECT NEW 1-1/4" GAS PIPING TO OAU PER ROOF TOP CONNECTION DETAIL. COORDINATE POINTS OF CONNECTION WITH HC.
- 3 CONNECT NEW 2" GAS PIPING TO EXISTING GAS PIPING. FIELD VERIFY EXACT LOCATION. RUN NEW 2" GAS PIPING EXPOSED ALONG ROOF AS SHOWN. FURNISH AND INSTALL ROOF MOUNTED PIPE SUPPORTS FOR ALL ROOF MOUNTED GAS PIPING.
- 4 CONNECT NEW 1-1/4" GAS PIPING TO EXISTING GAS PIPING. FIELD VERIFY EXACT LOCATION. RUN NEW 2" GAS PIPING EXPOSED ALONG ROOF AS SHOWN. FURNISH AND INSTALL ROOF MOUNTED PIPE SUPPORTS FOR ALL ROOF MOUNTED GAS PIPING.
- 5 2" GAS THRU ROOF TO SERVE OAU. USE EXISTING PIPE PORTAL AND RUN 2" GAS PIPING EXPOSED ALONG ROOF SHOWN. FURNISH AND INSTALL ROOF MOUNTED PIPE SUPPORTS FOR ALL ROOF MOUNTED GAS PIPING.
- 6 NATURAL GAS PRESSURE REGULATOR BY P.C. COORDINATE WITH H.C. INLET AND OUTLET PRESSURE REQUIREMENTS.
- 7 CONNECT NEW 2" GAS PIPING TO EXISTING GAS PIPING IN FIRST FLOOR CEILING SPACE AS SHOWN. FIELD VERIFY EXACT LOCATION.
- 8 BY HC.
- 9 OAU INSTALLATION BY HC. GAS CONNECTION BY PC.



ROOFTOP GAS CONNECTION DETAIL
NO SCALE

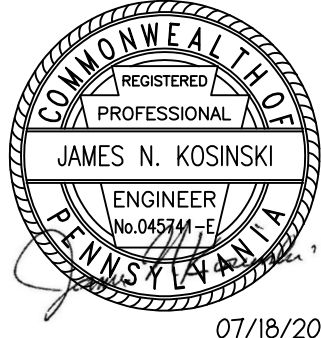
2 ROOF PLUMBING NEW WORK PLAN
1/16" = 1'-0"



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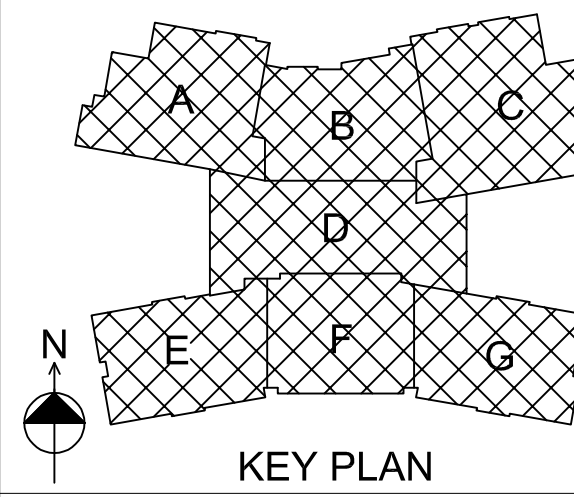
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CHECKED BY: MTS

DATE: 07/18/2025

NOTES, DETAILS,
ABBREVIATIONS,
LEGEND, AND
NEW WORK PLANS
PLUMBING

P.211

DRAWING NUMBER

ELECTRICAL SYMBOL LEGEND

GENERAL NOTES

- A. NOTES PERTAINING TO ALL BRANCH CIRCUITING:
- ALL ELECTRICAL DEVICES HAVE BRANCH CIRCUIT NUMBERS AND PANELS INDICATED ADJACENT TO THE POWER CONNECTION SYMBOL ON THE PLANS. ALTHOUGH THE INTERCONNECTING BRANCH CIRCUITING IS NOT SHOWN, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL WIRE AND CONDUIT REQUIRED FOR A COMPLETE AND OPERATIONAL POWER DISTRIBUTION SYSTEM.
 - UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL BRANCH CIRCUITING SHALL BE INSTALLED CONCEALED IN EMT, 3/4" MINIMUM.
 - ALL CONDUIT SHALL BE 3/4" EMT, UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE FOLLOWING EXCEPTIONS ALSO APPLY:
 - THE CONDUIT FOR ALL HVAC EQUIPMENT SHALL BE AS SCHEDULED UNDER THE MECHANICAL EQUIPMENT SCHEDULE.
 - THE WIRE FOR ALL HVAC EQUIPMENT SHALL BE AS SCHEDULED UNDER THE MECHANICAL EQUIPMENT SCHEDULE.
 - THE MAIN/MAIN NUMBER OF CURRENT CARRYING WIRING DOES NOT INCLUDE GROUND WIRE IN ANY ONE CONDUIT SHALL NOT EXCEED SIX (6), UNLESS NOTED OTHERWISE ON THE DRAWINGS.
 - THE MAIN/MAIN NUMBER OF CURRENT CARRYING WIRING DOES NOT INCLUDE GROUND WIRE IN ANY ONE CONDUIT SHALL NOT EXCEED SIX (6), UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- B. NOTES PERTAINING TO GROUNDING:
- PROVIDE A SEPARATE INSULATED GROUND WIRE IN EACH CONDUIT RUN. MINIMUM WIRE SIZE SHALL BE #12AWG. GROUND WIRE IS TYPICALLY NOT SHOWN.
- C. NOTES PERTAINING TO THE LOCATION OF ALL EQUIPMENT AND DEVICES:
- OBTAIN WRITTEN APPROVAL OF LOCATIONS OF ALL ELECTRICAL DEVICES FROM THE OWNER AND THE ARCHITECT PRIOR TO ROUGH-IN. THE OWNER RESERVES THE RIGHT TO MOVE ANY OR ALL ELECTRICAL DEVICES PRIOR TO ROUGH-IN, AT NO ADDITIONAL COST.
 - COORDINATE THE LOCATION AND SERVICE REQUIREMENTS OF ALL HVAC EQUIPMENT WITH THE RESPECTIVE CONTRACTORS. INFORM THE ARCHITECT OF ANY CONFLICTS IMMEDIATELY.
- D. NOTES PERTAINING TO CUTTING AND PATCHING:
- ALL OPENINGS IN EXISTING STRUCTURAL ELEMENTS, REQUIRED FOR COMPLETION OF THE CONTRACT (SUCH AS FLOORS, WALLS, CEILINGS, AND ROOFS), SHALL BE CUT AND/OR PATCHED BY THE ELECTRICAL CONTRACTOR.
- E. NOTES PERTAINING TO EXISTING FIRE ALARM SYSTEM
- THE EXISTING FIRE ALARM SYSTEM (DEVICES, INSTALLED IN 2019) SHALL REMAIN, ALL RELOCATED AND NEW DEVICES SHOWN ON DRAWINGS SHALL BE CONNECTED TO THE EXISTING FIRE ALARM SYSTEM. PROVIDE ALL CONNECTIONS REQUIRED TO INTEGRATE NEW DEVICES TO THE EXISTING SYSTEM. PROVIDE A MINIMUM OF 8 HOURS OF TECHNICIAN LABOR FROM LOCAL MANUFACTURERS REPRESENTATIVE TO CONNECT DEVICES AND PROGRAM DEVICES INTO SYSTEM.
- F. NOTES PERTAINING TO EXISTING PANELBOARD SCHEDULES
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE TYPE-WRITTEN PANELBOARD DIRECTORIES IN ALL EXISTING PANELBOARDS WHERE CIRCUITS HAVE BEEN ADDED OR DELETED. THE INFORMATION FOR EACH CIRCUIT SHALL INCLUDE TYPE OF LOAD AND LOCATION OF CIRCUITING. THE ROOM NUMBERS USED TO CREATE THESE PANELBOARD DIRECTORIES WILL BE BASED ON THE AS-BUILT ROOM NUMBERS. IF DIFFERENT THAN THE ROOM NUMBERS ON DRAWINGS, COORDINATE THE ROOM NUMBERS WITH OWNER AND ARCHITECT PRIOR TO CREATING DIRECTORIES. AFTER ALL DIRECTORIES HAVE BEEN INSTALLED IN PANELBOARDS, THE CONTRACTOR WILL PROVIDE ALL DIRECTORIES ON A COMMON LISTING SOFTWARE (USED TO CREATE THE FILES FOR USE BY THE OWNER.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE PLASTIC IDENTIFICATION LABELS FOR NEW CIRCUIT BREAKERS LOCATED IN DISTRIBUTION SECTION IN MAIN DISTRIBUTION PANELBOARD MDP.
- G. NOTES PERTAINING TO EXISTING CIRCUIT NUMBERS
- THE CIRCUIT NUMBERS SHOWN ON THE DRAWINGS ARE BASED ON THE ORIGINAL CONTRACT DOCUMENTS AND EXISTING PANELBOARD SCHEDULES. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CIRCUIT NUMBERS IN FIELD PRIOR TO COMMENCING WORK.

GENERAL ABBREVIATIONS

A	AMPERE	MTD	MOUNTED
AF	ABOVE FINISHED FLOOR	MTG	MOUNTING
AWG	AMERICAN WIRE GAUGE	NA	NOT APPLICABLE
C	CONDUIT	NOT IN THIS CONTRACT	
CKT	CIRCUIT	NO	NUMBER
CB	CIRCUIT BREAKER	NTS	NOT TO SCALE
CU	COPPER	OEM	ORIGINAL EQUIPMENT MANUFACTURER
DISC	DISCONNECT	P	PHASE
DWG	DRAWING	PH	PLUMBING CONTRACTOR
E	EMERGENCY OR EMERGENCY SYSTEM	PL	PANELBOARD
EC	ELECTRICAL CONTRACTOR	POS	POSITION
EMT	ELECTRIC METALLIC TUBING	PR	PRIMARY
EQUIP	EQUIPMENT	PWR	POWER
EX	EXISTING	REC	RECESSED
FA	FIRE ALARM	RECP	RECEPTACLE
FBO	FURNISHED BY OTHERS WITH ALL RELATED ELECTRICAL WORK BY ELECTRICAL CONTRACTOR	REQ	REQUIRED
FEET		RVC	RIGID GALVANIZED METAL CONDUIT
GC	GENERAL CONTRACTOR	SCH	SCHEDULE
GND	GROUND OR GROUNDED	SEC	SECONDARY
GRD	GROUND OR GROUNDED	SWBD	SWITCHBOARD
HC	HVAC CONTRACTOR	TYP	TYPICAL
HP	HORSEPOWER	UNO	UNLESS NOTED OTHERWISE
IN	INCH	V	VOLT
JB	JUNCTION BOX	W	WATT
KW	KILOWATT	WI	WITH
LTG	LIGHTING	W/O	WITHOUT
MC	MECHANICAL CONTRACTOR	WP	WEATHER PROOF ENCLOSURE
MCB	MAIN CIRCUIT BREAKER	X	EXISTING TO REMAIN
MLO	MAIN LUG ONLY	Y	STAR OR WYE DISTRIBUTION SYSTEM

GENERAL DRAWING SYMBOLS

(NO WIRE)	DETAIL INDICATOR	NO	NO DENOTES SEQUENTIAL ALPHANUMERIC DESIGNATION
(A)	REVISION INDICATOR	DWG	DENOTES NUMBER WHERE DETAIL IS DRAWN
(NO)	CODED NOTE		

POWER

(DUP)	DUPLEX OUTLET RECEPTACLE - MOUNT 18" AFF. UNO
(NEMA)	NEMA SPECIAL OUTLET RECEPTACLE - MOUNT 18" AFF. UNO
(FSD)	FUSED SAFETY DISCONNECT SWITCH - MOUNT 6'-0" AFF TO TOP OF ENCLOSURE, UNO
(CM)	COMBINATION MOTOR STARTER/DISCONNECT SWITCH - MOUNT 6'-0" AFF TO TOP OF ENCLOSURE, UNO
(100/380)	NOMENCLATURES: - "SR" DENOTES NEMA RATING - "S" DENOTES FUSE SIZE - "P" DENOTES NUMBER OF POLES - "R" DENOTES SWITCH RATING
(PANEL)	EXISTING PANELBOARD
(PANEL 11A 120V 3P3 W)	NOMENCLATURES: - DENOTES PANELBOARD NAME - DENOTES VOLTAGE SYSTEM
(EQUIP)	EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS - REFER TO EQUIPMENT SCHEDULE FOR SPECIFICATION
(EQUIP 11A 120V 3P3 W)	NOMENCLATURES: - DENOTES EQUIPMENT NUMBER (REFER TO SCHEDULE) - DENOTES POSITION NUMBER IN PANELBOARD. TWO NUMBERS SEPARATED BY A SLASH (e.g. 31/33) INDICATES A 3-POLE CIRCUIT TO BE CONNECTED TO POSITIONS 31 AND 33 IN THE PANELBOARD. THREE NUMBERS SEPARATED BY A SLASH (e.g. 31/33/35) INDICATES A 3-POLE CIRCUIT IN THE PANELBOARD. NUMBERS SEPARATED BY COMMAS, INDICATES INDIVIDUAL SINGLE-POLE CIRCUITS (e.g. 31/33/35).
(EQUIP 11A 120V 3P3 W)	- DENOTES PANELBOARD EQUIPMENT SHALL BE CONNECTED TO - DENOTES REFERENCE TO EQUIPMENT CONNECTION DETAIL

FIRE ALARM SYSTEM

(EQUIP)	EXISTING FIRE ALARM CONTROL PANEL
(D)	DUCT TYPE SMOKE DETECTOR - MOUNTING LOCATION SHALL BE COORDINATED WITH THE HEATING CONTRACTOR. REFER TO DETAIL 5.E.001 FOR ADDITIONAL INFORMATION
(RTU-X)	NOMENCLATURE: - "RTU-X" DENOTES DETECTOR FOR DESIGNATED ROOF TOP UNIT - "OALX" DENOTES DETECTOR FOR DESIGNATED OUTSIDE AIR UNIT
(C)	CARBON MONOXIDE DETECTOR; CEILING MOUNTED

MECHANICAL EQUIPMENT CONNECTION SCHEDULE										
EQUIPMENT TAG	DESCRIPTION	LOAD	VOLTAGE & PHASE	BRANCH CIRCUIT PROTECTION	BRANCH CIRCUIT SIZE AND TYPE			NOTES	CIRCUIT	
					CONDUCTORS	GROUND	CONDUIT			
EUIH1	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	20A/2P	2	10AWG	12AWG	3/4"	SEE NOTES 2 & 4. LA2-3133	
EUIH2	ELECTRIC UNIT HEATER - TEMPORARY	6.0KW	208V,1Ø,2W	30A/2P	2	8AWG	10AWG	1"	SEE NOTES 2 & 5. LA2-3537	
EUIH3	ELECTRIC UNIT HEATER - TEMPORARY	9.0KW	208V,1Ø,2W	50A/2P	2	4AWG	10AWG	1-1/4"	SEE NOTES 2 & 6. LA2-3841	
EUIH4	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	20A/2P	2	10AWG	12AWG	3/4"	SEE NOTES 2 & 4. LC3-4042	
EUIH5	ELECTRIC UNIT HEATER - TEMPORARY	1.5KW	120V,1Ø,2W	20A/1P	2	10AWG	12AWG	3/4"	SEE NOTES 2 & 3. LC3-38	
EUIH6	ELECTRIC UNIT HEATER - TEMPORARY	1.5KW	120V,1Ø,2W	20A/1P	2	10AWG	12AWG	3/4"	SEE NOTES 2 & 3. LC3-33	
EUIH7	ELECTRIC UNIT HEATER - TEMPORARY	6.0KW	208V,1Ø,2W	30A/2P	2	8AWG	10AWG	1"	SEE NOTES 2 & 5. LC3-3941	
EUIH8	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	50A/2P	2	4AWG	10AWG	1-1/4"	SEE NOTES 2 & 6. LC3-3537	
EUIH9	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	50A/2P	2	4AWG	10AWG	1-1/4"	SEE NOTES 2 & 6. LC3-3133	
EUIH10	ELECTRIC UNIT HEATER - TEMPORARY	6.0KW	208V,1Ø,2W	30A/2P	2	8AWG	10AWG	1"	SEE NOTES 2 & 5. LC3-3841	
EUIH11	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	50A/2P	2	4AWG	10AWG	1-1/4"	SEE NOTES 2 & 6. LC3-3537	
EUIH12	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	50A/2P	2	4AWG	10AWG	1-1/4"	SEE NOTES 2 & 6. LC3-4042	
EUIH13	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	20A/2P	2	10AWG	12AWG	3/4"	SEE NOTES 2 & 4. LC3-3841	
EUIH14	ELECTRIC UNIT HEATER - TEMPORARY	3.0KW	208V,1Ø,2W	20A/2P	2	10AWG	12AWG	3/4"	SEE NOTES 2 & 4. LC3-3838	
DAU1	OUTSIDE AIR UNIT	23 FLA	480V,3Ø,4W	30A/3P	3	10AWG	10AWG	3/4"	SEE NOTE 1. MDP	
DAU2	OUTSIDE AIR UNIT	38 FLA	480V,3Ø,4W	50A/3P	3	8AWG	10AWG	1"	MDP	
DAU3	OUTSIDE AIR UNIT	65 FLA	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	SDP-1	
DAU4	OUTSIDE AIR UNIT	65 FLA	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	SDP-2	
PA1	HOT WATER PUMP - WELLFIELD LOOP	30 HP	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	PA1-1308	
PA2	HOT WATER PUMP - WELLFIELD LOOP	30 HP	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	PA1-78/11	
P3	HOT WATER PUMP - BUILDING LOOP	40 HP	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	MDP	
P4	HOT WATER PUMP - BUILDING LOOP	40 HP	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	MDP	
RTU1	ROOF TOP UNIT	104 FLA	480V,3Ø,4W	150A/3P	3	10AWG	6AWG	2"	MDP	
RTU2	ROOF TOP UNIT	86 MCA	480V,3Ø,4W	110A/3P	3	1AWG	3AWG	1-1/2"	MDP	
RTU3	ROOF TOP UNIT	86 FLA	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	SEE NOTE 1. MDP	
RTU4	ROOF TOP UNIT	58 FLA	480V,3Ø,4W	80A/3P	3	2AWG	3AWG	1-1/2"	SEE NOTE 1. MDP	
RTU5	ROOF TOP UNIT	81 FLA	480V,3Ø,4W	70A/3P	3	4AWG	3AWG	1-1/4"	MDP-3	
RTU6	ROOF TOP UNIT	54 FLA	480V,3Ø,4W	70A/3P	3	4AWG	3AWG	1-1/4"	SEE NOTE 1. MDP	

NOTES:

1) EXISTING BRANCH CIRCUITING FROM PANELBOARD TO DISCONNECT SWITCH LOCATION TO REMAIN. EXTEND AS NECESSARY AND RECONNECT TO NEW DISCONNECT SWITCH.

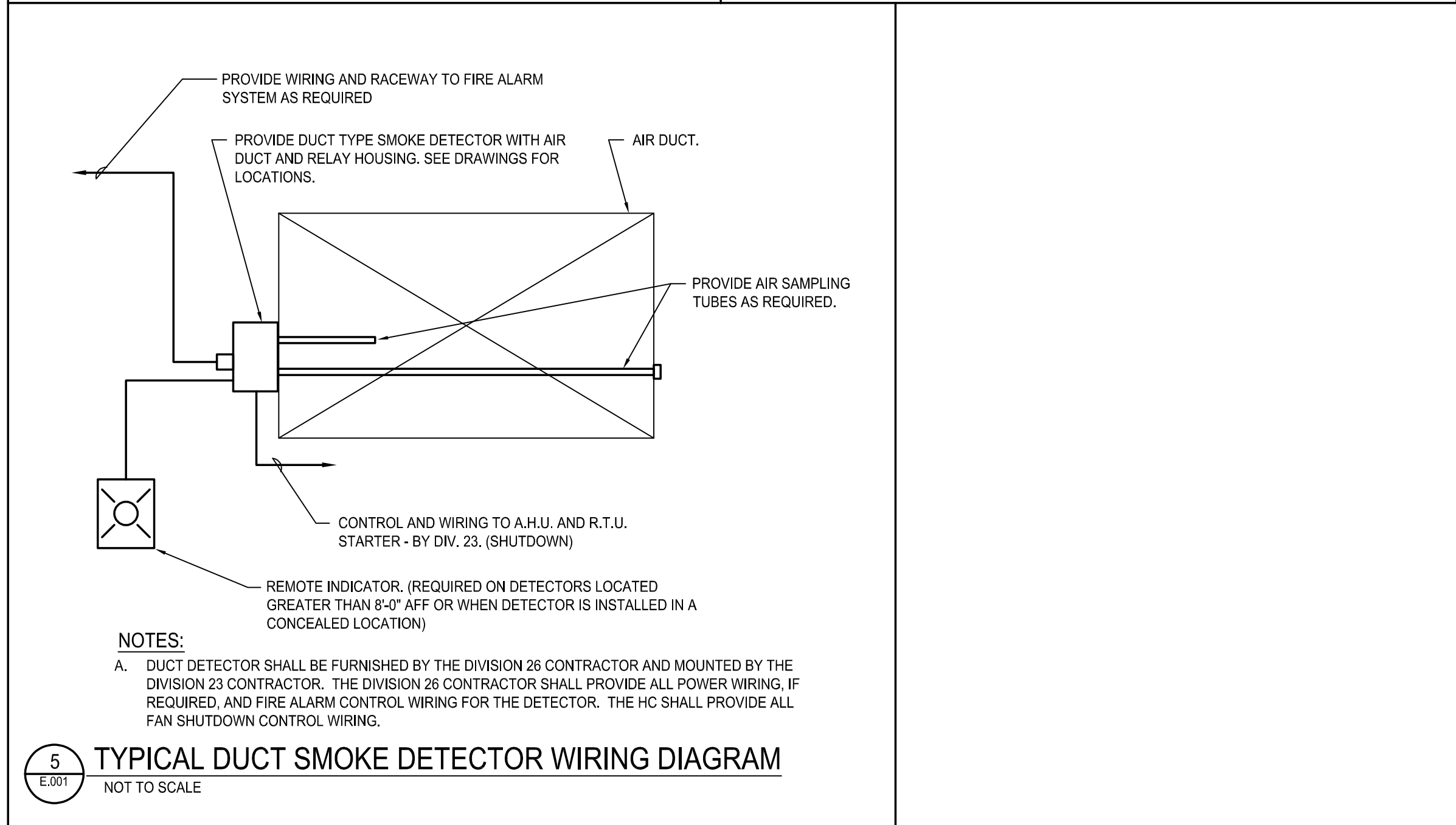
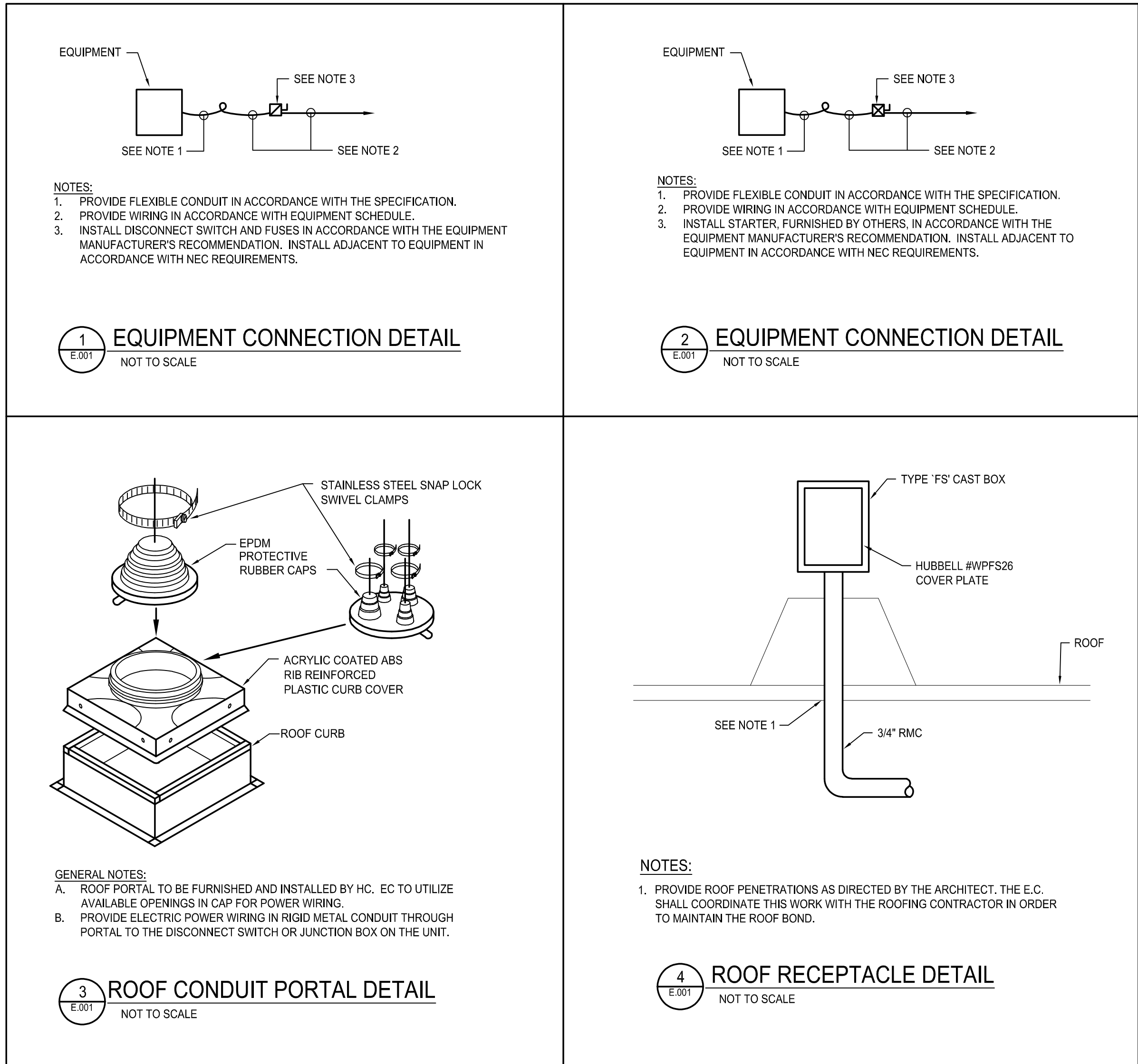
2) PROVIDE RECEPTACLES FOR ALL LOADS FROM UNIT HEATER TO BE USED TEMPORARILY DURING CONSTRUCTION AS REQUIRED BY THE PHASING SCHEDULE. UPON COMPLETE INSTALLATION OF PERMANENT HVAC SYSTEMS, REMOVE RECEPTACLE AND CABLE LING TO PANELBOARD, TURN OFF BREAKERS AND LEAVE AS SPARE.

3) PROVIDE STANDARD 5-6C RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURERS REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.

4) PROVIDE NEMA 14-30R RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURERS REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.

5) PROVIDE NEMA 14-30R RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURERS REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.

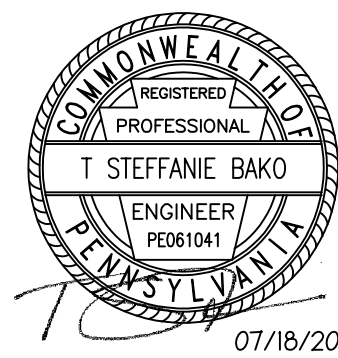
- NOTES:
- EXISTING BRANCH CIRCUITING FROM PANELBOARD TO DISCONNECT SWITCH LOCATION TO REMAIN. EXTEND AS NECESSARY AND RECONNECT TO NEW DISCONNECT SWITCH.
 - PROVIDE RECEPTACLE ON 50 CIRCUIT FOR UNIT HEATER TO BE USED TEMPORARILY DURING CONSTRUCTION AS REQUIRED BY THE PHASING SCHEDULE. TURN OFF BREAKER AND LEAVE AS SPARE.
 - PROVIDE STANDARD 4-20R RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.
 - PROVIDE NEMA 4-10R RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.
 - PROVIDE NEMA 14-30R RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.
 - PROVIDE NEMA 14-50R RECEPTACLE FOR THIS UNIT. VERIFY WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.



Grove City Area School District
511 Highland Avenue
Grove City, PA 16127



HVAC Equipment
Replacements
and Upgrades



07/18/2025

Grove City Area Middle School

100 Middle School Drive
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CONSTRUCTION DOCUMENTS

REVISIONS

KEY PLAN

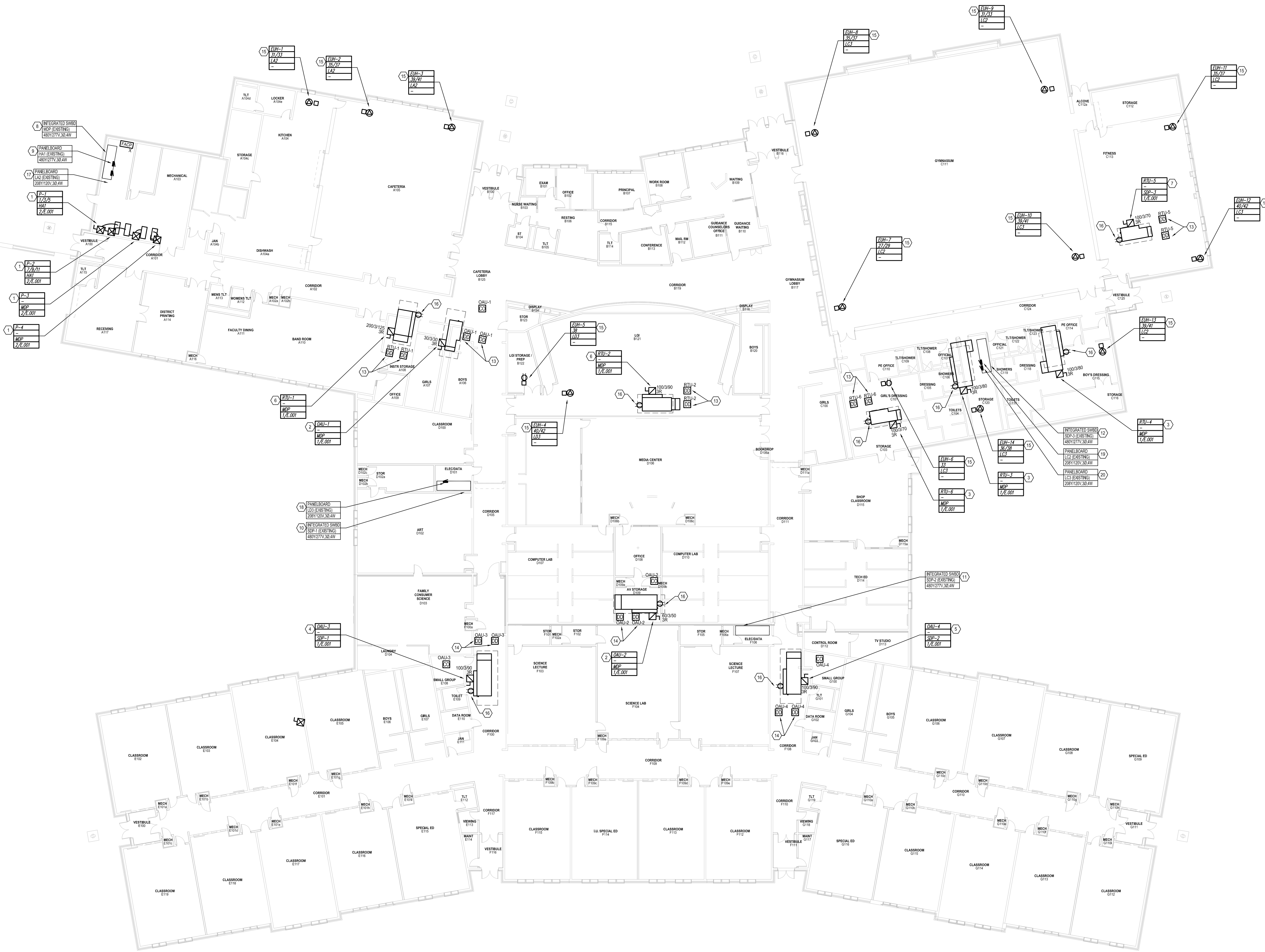
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DRAWN BY: TSB
CHECKED BY: NJK

DATE: 07/18/2025

ELECTRICAL
SYMBOLS,
ABBREVIATIONS,
DETAILS &
SCHEDULES

E.001

DRAWING NUMBER



1 OVERALL MECHANICAL EQUIPMENT CONNECTION PLAN
1/16" = 1'-0"

GENERAL NOTES: (THIS DRAWING)

- COORDINATE REMOVAL OF POWER CONNECTIONS FROM EXISTING HVAC EQUIPMENT WITH HC.
- COORDINATE INSTALLATION OF POWER CONNECTIONS TO NEW HVAC EQUIPMENT WITH HC TO ROUGH-IN.
- WHERE NEW EQUIPMENT IS CONNECTED TO EXISTING BRANCH CIRCUITING, EXTEND EXISTING BRANCH CIRCUITING AS REQUIRED TO MATCH POWER CONNECTIONS AT NEW EQUIPMENT.
- ROOF TOP UNITS (RTUs) AND OUTSIDE AIR UNITS (OAUs) SHOWN ON THIS PLAN ARE LOCATED ON THE ROOF ABOVE THESE SPACES.
- REFER TO DETAIL 3E.01 FOR REQUIREMENTS AT ROOF PENETRATIONS.
- ROUTE ALL NEW BRANCH CIRCUIT CONDUIT ABOVE CEILINGS, WHERE NO CEILING EXISTS (EXPOSED TO STRUCTURE), ROUTE CONDUIT TIGHT TO STRUCTURE AND PAINT CONDUIT TO MATCH EXISTING EQUIPMENT.
- WHERE NEW CIRCUIT BREAKERS ARE REQUIRED, MANUFACTURER AND AIC RATINGS SHALL MATCH EXISTING EQUIPMENT.
- WHERE EXISTING CIRCUIT BREAKERS ARE LEFT AS SPARE, LEAVE CIRCUIT BREAKER IN THE 'OFF' POSITION.
- WHERE EXISTING CIRCUIT BREAKERS ARE REMOVED, TURN OVER TO OWNER FOR REUSE.
- WHERE EXISTING CEILINGS ARE BEING TEMPORARILY REMOVED DURING CONSTRUCTION, EC TO TEMPORARILY SUPPORT ALL CEILING MOUNTED DEVICES INCLUDING, BUT NOT LIMITED TO, SPEAKERS, SURVEILLANCE CAMERAS, WIRELESS ACCESS POINTS, AND PROJECTORS, EC TO REINSTALL ALL DEVICES IN APPROXIMATELY THE SAME LOCATION IN THE REINSTALLED CEILING. DEVICES SHALL BE ADEQUATELY SUPPORTED FROM STRUCTURE AND SHALL BE INSTALLED PARALLEL TO THE FLOOR FOR BOTH TEMPORARY AND PERMANENT INSTALLATIONS. NOTIFY ARCHITECT OF ANY EXISTING DAMAGE PRIOR TO REMOVAL. EC IS RESPONSIBLE FOR ANY DAMAGE NOT REPORTED TO OWNER. COORDINATE REMOVAL, TEMPORARY SUPPORTS AND REINSTALLATION WITH GC. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

CODED NOTES: (THIS DRAWING)

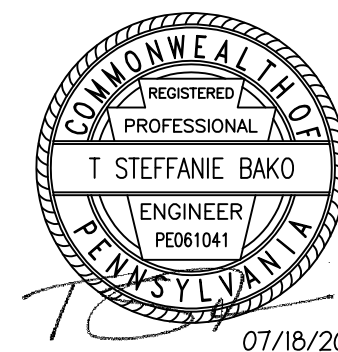
- EXISTING PUMP TO BE REMOVED AND REPLACED WITH NEW BY HC. REMOVE EXISTING MOTOR STARTER AND REMOVE BRANCH CIRCUITING FROM PUMP BACK TO MOTOR STARTER AND FROM MOTOR STARTER BACK TO PANELBOARD HA-1. INSTALL NEW VFD AND PROVIDE NEW BRANCH CIRCUITING AS SHOWN.
- EXISTING OUTSIDE AIR UNIT TO BE REMOVED AND REPLACED WITH NEW BY HC. EC TO DISCONNECT POWER. REMOVE EXISTING DISCONNECT SWITCH AND REMOVE BRANCH CIRCUITING AND CONDUIT BETWEEN DISCONNECT SWITCH AND UNIT. PROVIDE NEW DISCONNECT SWITCH AT UNIT AND EXTEND BRANCH CIRCUITING THROUGH DISCONNECT SWITCH TO POWER CONNECTION AT NEW UNIT.
- EXISTING ROOF-TOP UNIT TO BE REMOVED AND REPLACED WITH NEW BY HC. EC TO DISCONNECT POWER. REMOVE EXISTING DISCONNECT SWITCH AND REMOVE BRANCH CIRCUITING AND CONDUIT BETWEEN DISCONNECT SWITCH AND UNIT. PROVIDE NEW DISCONNECT SWITCH AT UNIT AND EXTEND BRANCH CIRCUITING THROUGH DISCONNECT SWITCH TO POWER CONNECTION AT NEW UNIT.
- EXISTING OUTSIDE AIR UNIT TO BE REMOVED AND REPLACED WITH NEW BY HC. EC TO DISCONNECT POWER. REMOVE EXISTING DISCONNECT SWITCH AND REMOVE BRANCH CIRCUITING AND CONDUIT BETWEEN DISCONNECT SWITCH AND UNIT. PROVIDE NEW DISCONNECT SWITCH BACK TO PANELBOARD MDP. PROVIDE NEW DISCONNECT SWITCH AND PROVIDE NEW BRANCH CIRCUITING FROM PANELBOARD SDP-1 AS SHOWN.
- EXISTING OUTSIDE AIR UNIT TO BE REMOVED AND REPLACED WITH NEW BY HC. EC TO DISCONNECT POWER. REMOVE EXISTING DISCONNECT SWITCH AND REMOVE BRANCH CIRCUITING AND CONDUIT BETWEEN DISCONNECT SWITCH AND UNIT. PROVIDE NEW DISCONNECT SWITCH BACK TO PANELBOARD MDP. PROVIDE NEW DISCONNECT SWITCH AND PROVIDE NEW BRANCH CIRCUITING FROM PANELBOARD SDP-2 AS SHOWN.
- EXISTING ROOF-TOP UNIT TO BE REMOVED AND REPLACED WITH NEW BY HC. EC TO DISCONNECT POWER. REMOVE EXISTING DISCONNECT SWITCH AND REMOVE BRANCH CIRCUITING AND CONDUIT BETWEEN DISCONNECT SWITCH AND UNIT. PROVIDE NEW DISCONNECT SWITCH BACK TO PANELBOARD MDP. PROVIDE NEW DISCONNECT SWITCH AND PROVIDE NEW BRANCH CIRCUITING FROM PANELBOARD SDP-3 AS SHOWN.
- EXISTING ROOF-TOP UNIT TO BE REMOVED AND REPLACED WITH NEW BY HC. EC TO DISCONNECT POWER. REMOVE EXISTING DISCONNECT SWITCH AND REMOVE BRANCH CIRCUITING AND CONDUIT BETWEEN DISCONNECT SWITCH AND UNIT. PROVIDE NEW DISCONNECT SWITCH BACK TO PANELBOARD MDP. PROVIDE NEW DISCONNECT SWITCH AND PROVIDE NEW BRANCH CIRCUITING FROM PANELBOARD SDP-4 AS SHOWN.
- EXISTING DISTRIBUTION SECTION IN MDP (200A, 480Y/277V, 3PH, 4W, SQUARE D QED, PART OF INTEGRATED FACILITY SWITCHBOARD MDP). PROVIDE THE FOLLOWING MODIFICATIONS:
 - REPLACE 40A TRIP UNIT IN EXISTING SQUARE D HJ060 CIRCUIT BREAKER FEEDING OAU-1 WITH 30A TRIP UNIT
 - REPLACE 125A TRIP UNIT IN EXISTING SQUARE D HJ150 CIRCUIT BREAKER FEEDING RTU-1 WITH 150A TRIP UNIT
 - REPLACE 70A TRIP UNIT IN EXISTING SQUARE D HJ150 CIRCUIT BREAKER FEEDING RTU-2 WITH 110A TRIP UNIT
 - REPLACE 70A TRIP UNIT IN EXISTING SQUARE D HJ150 CIRCUIT BREAKER FEEDING RTU-3 WITH 80A TRIP UNIT
 - REPLACE 70A TRIP UNIT IN EXISTING SQUARE D HJ150 CIRCUIT BREAKER FEEDING RTU-4 WITH 80A TRIP UNIT
 - REMOVE EXISTING 60A/3P CIRCUIT BREAKER AND REPLACE WITH 70A/3P TO FEED RTU-5
 - PROVIDE 80A/3P CIRCUIT BREAKER IN AVAILABLE SPACE TO FEED P-3
 - PROVIDE 80A/3P CIRCUIT BREAKER IN AVAILABLE SPACE TO FEED P-4
- EXISTING PANELBOARD HA-1 (250A, 480Y/277V, 3PH, 4W, SQUARE D NF, PART OF INTEGRATED FACILITY SWITCHBOARD MDP). PROVIDE THE FOLLOWING MODIFICATIONS:
 - REMOVE EXISTING 60A/3P CIRCUIT BREAKER FROM SPACES 13/5 AND REPLACE WITH 80A/3P TO FEED P-1
 - REMOVE EXISTING 80A/3P CIRCUIT BREAKER FROM SPACES 7/9/11 AND REPLACE WITH 80A/3P TO FEED P-2
 - LEAVE 60A/3P CIRCUIT BREAKER FORMERLY FEEDING P-3 IN SPACES 2/4/6 AS SPARE
 - LEAVE 60A/3P CIRCUIT BREAKER FORMERLY FEEDING P-4 IN SPACES 8/10/12 AS SPARE
- EXISTING DISTRIBUTION SECTION IN SDP-1 (800A, 480Y/120V, 3PH, 4W, SQUARE D HCM, PART OF INTEGRATED FACILITY SWITCHBOARD SDP-1). PROVIDE THE FOLLOWING MODIFICATIONS:
 - PROVIDE 80A/3P CIRCUIT BREAKER IN AVAILABLE SPACE TO FEED OAU-3
- EXISTING DISTRIBUTION SECTION IN SDP-2 (800A, 480Y/120V, 3PH, 4W, SQUARE D HCM, PART OF INTEGRATED FACILITY SWITCHBOARD SDP-2). PROVIDE THE FOLLOWING MODIFICATIONS:
 - PROVIDE 80A/3P CIRCUIT BREAKER IN AVAILABLE SPACE TO FEED OAU-5
- EXISTING DISTRIBUTION SECTION IN SDP-3 (800A, 480Y/120V, 3PH, 4W, SQUARE D HCM, PART OF INTEGRATED FACILITY SWITCHBOARD SDP-3). PROVIDE THE FOLLOWING MODIFICATIONS:
 - PROVIDE 70A/3P CIRCUIT BREAKER IN AVAILABLE SPACE TO FEED RTU-5
- HC TO REMOVE EXISTING DUCT DETECTORS LOCATED ON SUPPLY AND RETURN DUCTS. REINSTALL ON NEW DUCTS, DISCONNECT, EXTEND, AND RECONNECT CABLING AS REQUIRED TO MAINTAIN CONNECTION TO FIRE ALARM SYSTEM. COORDINATE WITH HC.
- HC TO REMOVE EXISTING DUCT DETECTORS LOCATED ON SUPPLY AND RETURN DUCTS. DISCONNECT AND REMOVE ASSOCIATED CABLING. PROVIDE NEW DUCT DETECTORS AS SHOWN AND PROVIDE ASSOCIATED CABLING AND CONNECTION TO EXISTING FIRE ALARM SYSTEM. COORDINATE WITH HC.
- PROVIDE RECEPTACLE ON 30' CONDUIT FOR UNIT HEATER TO BE USED TEMPORARILY DURING CONSTRUCTION AS REQUIRED BY THE PHASING SCHEDULE. PROVIDE RECEPTACLE AND WIRE SIZE AS DESCRIBED IN MECHANICAL EQUIPMENT CONNECTION SCHEDULE. UPON COMPLETE INSTALLATION OF PERMANENT HVAC SYSTEMS, REMOVE RECEPTACLE AND CABLING BACK TO PANELBOARD. TURN OFF BREAKER AND LEAVE AS SPARE.
- PROVIDE WEATHER-RESISTANT, GFCI-TYPE RECEPTACLE WITH WEATHERPROOF COVER MOUNTED ON ROOF AT HVAC EQUIPMENT IN ACCORDANCE WITH DETAIL 4E.001. CIRCUIT RECEPTACLE TO NEAREST EXISTING RECEPTACLE CIRCUIT USED IN SPACE BELOW.
- EXISTING PANELBOARD LA-2 (250A, 208Y/120V, 3PH, 4W, SQUARE D NO, PART OF INTEGRATED FACILITY SWITCHBOARD MDP). PROVIDE THE FOLLOWING MODIFICATIONS:
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 31/33 AND REPLACE WITH 20A/2P TO FEED EUH-1
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 35/37 AND REPLACE WITH 30A/2P TO FEED EUH-2
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 39/41 AND REPLACE WITH 30A/2P TO FEED EUH-3
- EXISTING PANELBOARD LD-3 (400A, 208Y/120V, 3PH, 4W, SQUARE D NO, PART OF INTEGRATED FACILITY SWITCHBOARD SDP-1). PROVIDE THE FOLLOWING MODIFICATIONS:
 - UTILIZE EXISTING 20A/1P CIRCUIT BREAKER IN SPACE 38 TO FEED EUH-5
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 40/42 AND REPLACE WITH 20A/2P TO FEED EUH-4
- EXISTING PANELBOARD LC-2 (250A, 208Y/120V, 3PH, 4W, SQUARE D NO, PART OF INTEGRATED FACILITY SWITCHBOARD SDP-3). PROVIDE THE FOLLOWING MODIFICATIONS:
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 35/37 AND REPLACE WITH 30A/2P TO FEED EUH-7
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 31/33 AND REPLACE WITH 30A/2P TO FEED EUH-9
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 35/37 AND REPLACE WITH 30A/2P TO FEED EUH-11
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 39/41 AND REPLACE WITH 30A/2P TO FEED EUH-13
- EXISTING PANELBOARD LC-3 (400A, 208Y/120V, 3PH, 4W, SQUARE D NO, PART OF INTEGRATED FACILITY SWITCHBOARD SDP-3). PROVIDE THE FOLLOWING MODIFICATIONS:
 - UTILIZE EXISTING 20A/1P CIRCUIT BREAKER IN SPACE 33 TO FEED EUH-6
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 35/37 AND REPLACE WITH 30A/2P TO FEED EUH-8
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 39/41 AND REPLACE WITH 30A/2P TO FEED EUH-10
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 36/38 AND REPLACE WITH 20A/2P TO FEED EUH-14
 - REMOVE EXISTING 20A/1P CIRCUIT BREAKERS FROM SPACES 40/42 AND REPLACE WITH 30A/2P TO FEED EUH-12



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HVAC Equipment Replacements and Upgrades

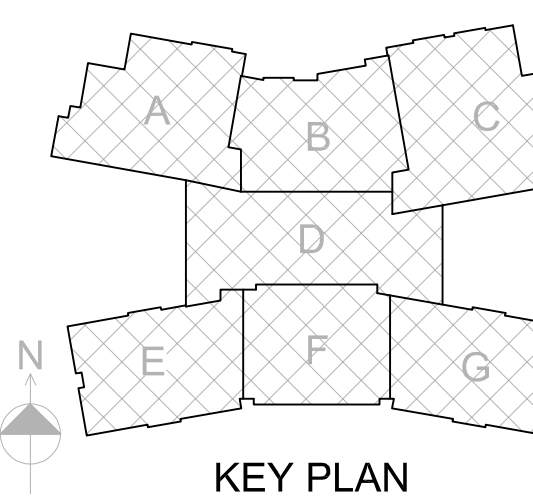


Grove City Area Middle School

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CONSTRUCTION DOCUMENTS

REVISIONS



SCALE: AS NOTED
DRAWN BY: TSB
CHECKED BY: NJK

DATE: 07/18/2025

OVERALL MECHANICAL EQUIPMENT CONNECTION PLAN

E.101

DRAWING NUMBER