

























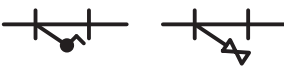



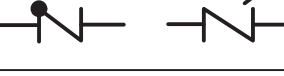







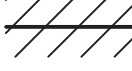





ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
BCU	BUILDING CONTROL UNIT
BTU	BRITISH THERMAL UNIT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
COMM.	COMMUNICATION
CV	CONTROL VALVE
(D)	DEMOLISH
DB	DRY BULB
DCV	DEMAND CONTROLLED VENTILATION
DEG. F	DEGREES FAHRENHEIT
DIA	DIAMETER
DX	DIRECT EXPANSION
'E'	ELECTRICAL CONTRACTOR
(E)	EXISTING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATING
ESP	EXTERNAL STATIC PRESSURE
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
FLA	FULL LOAD AMPS
FT. H2O	FEET OF WATER
FTR	FIN TUBE RADIATOR
'G'	GENERAL CONSTRUCTION CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
H	HEIGHT
'H'	HVAC CONTRACTOR
HP	HORSEPOWER
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUGE)
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LCD	LIQUID CRYSTAL DISPLAY
LDB	LEAVING DRY BULB TEMPERATURE
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	METER
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MMF	MANUFACTURER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OAI	OUTDOOR AIR INTAKE
OD	OUTER DIAMETER
OED	OPEN ENDED DUCT
'P'	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PSIG	LBS / SQUARE INCH (GAUGE PRESSURE)
RA	RETURN AIR
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SEER	SEASONAL ENERGY EFFICIENCY RATING
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDTH
WB	WET BULB
WMS	WIRE MESH SCREEN

DUCTWORK LEGEND		
SYMBOL	ABBREV	DESCRIPTION
		DUCTWORK BRANCH CONNECTION
	VD	VOLUME DAMPER
	CD	ROUND FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	SIDEWALL SUPPLY, RETURN OR EXHAUST GRILLE/REGISTER
	SEE AIR DEVICE SCHEDULE	SQUARE FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	BOTTOM RETURN OR EXHAUST GRILLE/REGISTER
	FC	FLEXIBLE CONNECTION
		TURNING VANES
		RECTANGULAR TO ROUND TRANSITION
	AL	ACOUSTICAL LINING
		END CAP
	SEE AIR DEVICE SCHEDULE	SUPPLY DIFFUSER WITH DIRECTIONAL FLOW (SOLID HATCH INDICATES BLANK OFF PANEL)
		SUPPLY DUCT DROP (TURN DOWN)
		RETURN/EXHAUST DUCT DROP (TURN DOWN)
		SUPPLY DUCT RISE
		RETURN/EXHAUST DUCT RISE
DSD	DSD	DUCT SMOKE DETECTOR
	MD	MOTORIZED DAMPER WITH ACTUATOR
	AD	ACCESS DOOR
	FD/AD	FIRE DAMPER WITH ACCESS DOOR
	FSD/AD	FIRE SMOKE DAMPER WITH ACCESS DOOR
		FAN
		WORK TO BE REMOVED
		POINT OF DISCONNECTION FROM EXISTING
		POINT OF CONNECTION TO EXISTING

CONTROLS LEGEND		
SYMBOL	ABBREV	DESCRIPTION
		CARBON MONOXIDE SENSOR
		THERMOSTAT
		DIGITAL TEMPERATURE SENSOR
		HUMIDITY SENSOR
		CARBON DIOXIDE SENSOR
		PRESSURE SENSOR

PIPING LEGEND		
SYMBOL	ABBREV	DESCRIPTION
		NEW WORK
		PIPING DOWN/ PIPING UP
		BALL VALVE WITH HOSE END CONNECTION
	TH	THERMOMETER
	U	UNION
	FPC	FLEXIBLE PIPE CONNECTION
		DIRECTION OF FLOW
	PSR	PRESSURE SAFETY AND RELIEF VALVE
	PRV	PRESSURE REDUCING VALVE
	BV	BALL VALVE
	BA	BALANCING VALVE
	BFV	BUTTERFLY VALVE
		TEMPERATURE SENSOR WITH THERMOWELL
	GA	GATE VALVE
	GB	GLOBE VALVE
	AV	AUTOMATIC AIR VENT
	CV	2-WAY ELECTRONIC CONTROL VALVE
	CV	3-WAY ELECTRONIC CONTROL VALVE
	CV	2-WAY PNEUMATIC CONTROL VALVE
	CV	3-WAY PNEUMATIC CONTROL VALVE
	STR	STRAINER WITH BLOW OFF VALVE WITH HOSE END CONNECTION
	FD	FLOOR DRAIN
		AIR SEPARATOR
		STEAM TRAPS (INDICATE TYPE)
	CH	CHECK VALVE
	PG	PRESSURE GAUGE WITH GAUGE COCK
	RED	REDUCER
	CO	CLEANOUT END CAP
		PIPE GUIDE
		PIPE ANCHOR
		CAPPED PIPE
		PUMP
		WORK TO BE REMOVED
		POINT OF DISCONNECTION FROM EXISTING
		POINT OF CONNECTION TO EXISTING
	TDV	TRIPLE DUTY VALVE

SYSTEM COMMISSIONING NOTES (NYS):

1. COMMISSION ALL NEW BUILDING MECHANICAL SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2020 NEW YORK STATE (NYS) ENERGY CONSERVATION CODE (ECC) SECTION C408. COMMISSIONING SHALL BE PERFORMED BY AN APPROVED THIRD-PARTY COMMISSIONING AGENCY HIRED BY THE OWNER. REFER TO SPECIFICATION SECTION 230800 - COMMISSIONING OF MECHANICAL SYSTEMS FOR MORE INFORMATION.
2. PROVIDE DRAWINGS, OPERATION & MAINTENANCE (O&M) MANUALS, AND SYSTEM BALANCING REPORTS TO BUILDING OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY OR LETTER OF COMPLETION IN ACCORDANCE WITH THE 2020 NYS ECC SECTION C408.2.5.
3. PROVIDE FINAL COMMISSIONING REPORT TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF THE RECEIPT OF THE CERTIFICATE OF OCCUPANCY OR LETTER OF COMPLETION IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2020 NYS ECC SECTION C408.2.5.4.

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. THE CONTRACTOR, BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND ITS PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND ITS PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS.
3. PERFORM ALL WORK IN ACCORDANCE WITH THE PLUMBING CODE, FIRE CODE, MECHANICAL CODE, ENERGY CONSERVATION CONSTRUCTION CODE, AND FUEL GAS CODE OF NEW YORK STATE AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
4. COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE REQUIREMENTS OF DIVISION 26 FOR ALL ELECTRICAL INSTALLATIONS.
5. FIRE STOP ALL OPENINGS IN FIRE RATED CONSTRUCTION FOR PIPING, DUCTWORK, CONDUIT, ETC. PROVIDE FIRE DAMPERS AND ACCESS DOORS IN ALL OPENINGS IN FIRE RATED FLOORS, PARTITIONS, AND WALLS FOR DUCTWORK AS PER THE MECHANICAL CODE OF NEW YORK STATE. (SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED CONSTRUCTION.)
6. DO NOT SCALE DRAWINGS. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE. COORDINATE CONTRACT DOCUMENTS, PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS. INSTALL ALL EQUIPMENT AS PER MANUFACTURER'S REQUIREMENTS TO PROVIDE PROPER CLEARANCE FOR INSTALLATION, OPERATION, AND MAINTENANCE. CONTRACTOR'S INTENDED MEANS AND METHODS OF INSTALLATION AND CONTRACTOR'S FABRICATED ITEMS SHALL ENSURE A PROPER "FIT" AND INSTALLATION. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE SUBMITTAL PHASE FOR RESOLUTION PRIOR TO PURCHASING ANY EQUIPMENT.
7. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE FROM FINISHED FLOOR TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
8. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. OBTAIN THE APPROVAL OF THE ARCHITECT/ENGINEER FOR MODIFICATIONS.
9. PROVIDE PRODUCTS OF ONE MANUFACTURER WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF MATERIAL OR EQUIPMENT IS REQUIRED.
10. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. REFER TO DETAILS FOR ADDITIONAL PIPING AND EQUIPMENT INSTALLATION REQUIREMENTS.
11. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER TO ENSURE MANUFACTURER CERTIFIED ACCURACY.
12. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL PIPING AND DUCT TRANSITIONS REQUIRED FOR FINAL CONNECTIONS TO EQUIPMENT.
13. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION WORK.
14. COORDINATE INSTALLATION OF SUPPLY AND RETURN GRILLES WITH INSTALLATION OF FINISHED CEILINGS.
15. COMPLETE ALL PRESSURE TESTS BEFORE ANY MECHANICAL EQUIPMENT, DUCTWORK, OR PIPING INSULATION IS APPLIED.
16. TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). PERFORM ALL TESTING, ADJUSTING, AND BALANCING IN ACCORDANCE WITH THE SPECIFICATIONS.
17. MAKE ALL ATTACHMENTS TO JOISTS, TRUSSES, OR JOIST GIRDERS AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. THE USE OF C-CLAMPS IS NOT PERMITTED.
18. PROVIDE CONCRETE PADS A MINIMUM OF 6 INCHES HIGH FOR ALL FLOOR MOUNTED EQUIPMENT. EXTEND PAD 4 INCHES BEYOND THE EQUIPMENT ON ALL SIDES.
19. INTERNALLY LINE ALL SUPPLY AND RETURN DUCTWORK WITHIN 20 FEET UPSTREAM AND DOWNSTREAM OF FANS WITH 1" THICK INSULATION. INTERNALLY LINED DUCTWORK MEETING THIS REQUIREMENT SHALL ALSO BE PROVIDED WITH EXTERNALLY APPLIED INSULATION AS REQUIRED BY THE SPECIFICATIONS. SEE SPECIFICATION SECTION 230719 FOR ADDITIONAL REQUIREMENTS.
20. PROVIDE TRAPPED DRAIN PIPING FROM DRAIN PANS OF ALL COOLING COILS, FANS, AND OTHER ACTIVE DRAINS EXPOSED TO SYSTEM AIR STREAM. PROVIDE TRAP AT CONNECTION, WATER SEAL DEPTH 1 INCH GREATER THAN UNIT OPERATING PRESSURE. DIRECT DRAINS TO NEAREST FLOOR DRAIN, MOP SINK, OR OTHER LOCATION APPROVED BY THE ARCHITECT/ENGINEER.
21. INSTALL PIPING, DUCTWORK, AND CONDUIT CONCEALED IN AREAS HAVING HUNG CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

WORK IN EXISTING AREAS

1. EXISTING CONDITIONS, INCLUDING EQUIPMENT, DUCT AND PIPE SIZES AND LOCATIONS, INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC. CONFIRM ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH THE WORK.
2. CUT AND ROUGH PATCH EXISTING CONSTRUCTION AS REQUIRED FOR THE PERFORMANCE OF THE WORK. FINISH PATCHING AND FLASHING REQUIREMENTS ARE SHOWN ON THE ARCHITECTURAL DRAWINGS. PERFORM ALL CUTTING AND PATCHING WORK IN A MANNER SUCH THAT ANY EXISTING WARRANTIES/GUARANTEES ARE NOT VOIDED. USE QUALIFIED PERSONNEL IN PERFORMANCE OF THE WORK.

CONTRACT 'M' SCOPE NOTES


1. PROVIDE ALL LOUVERS FOR INSTALLATION BY CONTRACT 'G'. SUBMIT LOUVER COLOR AND CONFIGURATION TO THE ARCHITECT/ENGINEER FOR APPROVAL.
2. INSTALL SMOKE DETECTORS IN DUCTWORK FOR AIR HANDLING UNITS RATED AT 2,000 CFM OR GREATER AND AT FSD/SD. SMOKE DETECTOR SUPPLY AND WIRING IS PART OF CONTRACT 'E'.
3. FURNISH AND INSTALL ALL NECESSARY CONTROL WIRING, CONDUIT, AND ACCESSORIES AS REQUIRED TO PROVIDE FULLY FUNCTIONING SYSTEMS AND SEQUENCES OF OPERATION.
4. FURNISH ALL LINTELS FOR DUCT AND PIPE PENETRATIONS IN MASONRY WALLS FOR INSTALLATION BY CONTRACT 'G'.
5. FURNISH ALL SLEEVES FOR PIPE AND CONDUIT FLOOR, WALL, PARTITION, AND ROOF PENETRATIONS FOR INSTALLATION BY CONTRACT 'G'.
6. FURNISH ALL CURBS FOR ALL ROOF MOUNTED EQUIPMENT AND DUCT PENETRATIONS FOR INSTALLATION BY CONTRACT 'G'.
7. REMOVE CHASE ENCLOSURE COVER WHEN PERFORMING WORK IN ANY CHASE, AND REINSTALL THE CHASE ENCLOSURE COVER WHEN WORK IS COMPLETE.
8. PERFORM ALL CUTTING AND ROUGH PATCHING AS REQUIRED IN THE EXECUTION OF THE WORK. FINISH PATCHING AND FLASHING IS PART OF CONTRACT 'G'.
9. ALL NEW EQUIPMENT TO BE INTEGRATED WITH EXISTING SCHNEIDER ELECTRIC EBO BMS.

LEGENDS/ABBREVIATIONS NOTES

1. ABBREVIATIONS AND SYMBOLS ON THIS SHEET DO NOT DEFINE THE SCOPE OF WORK.

ADD ALTERNATE 1

1. PROVIDE PRICING FOR REMOVAL OF PNEUMATIC RADIATOR CONTROL VALVES AND ASSOCIATED THERMOSTATS SEE MD DRAWINGS FOR FURTHER INFORMATION.
2. PROVIDE PRICING FOR FURNISH AND INSTALL OF NEW DDC RADIATOR CONTROL VALVES (CV-1) SEE DRAWINGS FOR FURTHER INFORMATION.
3. PROVIDE NEW TWO STAGE THERMOSTATS IN PLACE OF NEW SINGLE STAGE THERMOSTATS ON PLAN. STAGE ONE: HEAT PUMP HEATING, STAGE TWO: HOT WATER RADIATOR HEATING. INTEGRATE WITH EXISTING BUILDING MANAGEMENT SYSTEM.



architects
+
engineers

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CONSULTANTS:

[illegible]

DESIGNED BY: MJV				DRAWN BY: KCM		CHECKED BY: MJV		REVIEWED BY: QAQC	
PROJECT No.: WPSD 2205			DATE: OCTOBER 2023			SCALE:			

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School



**7 Nosband Ave.
White Plains, NY 10605**

**SED PROJECT CONTROL
NO. 66-22-00-01-0-010-017**

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR
CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

HVAC LEGENDS, SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

DRAWING No.

M001.00

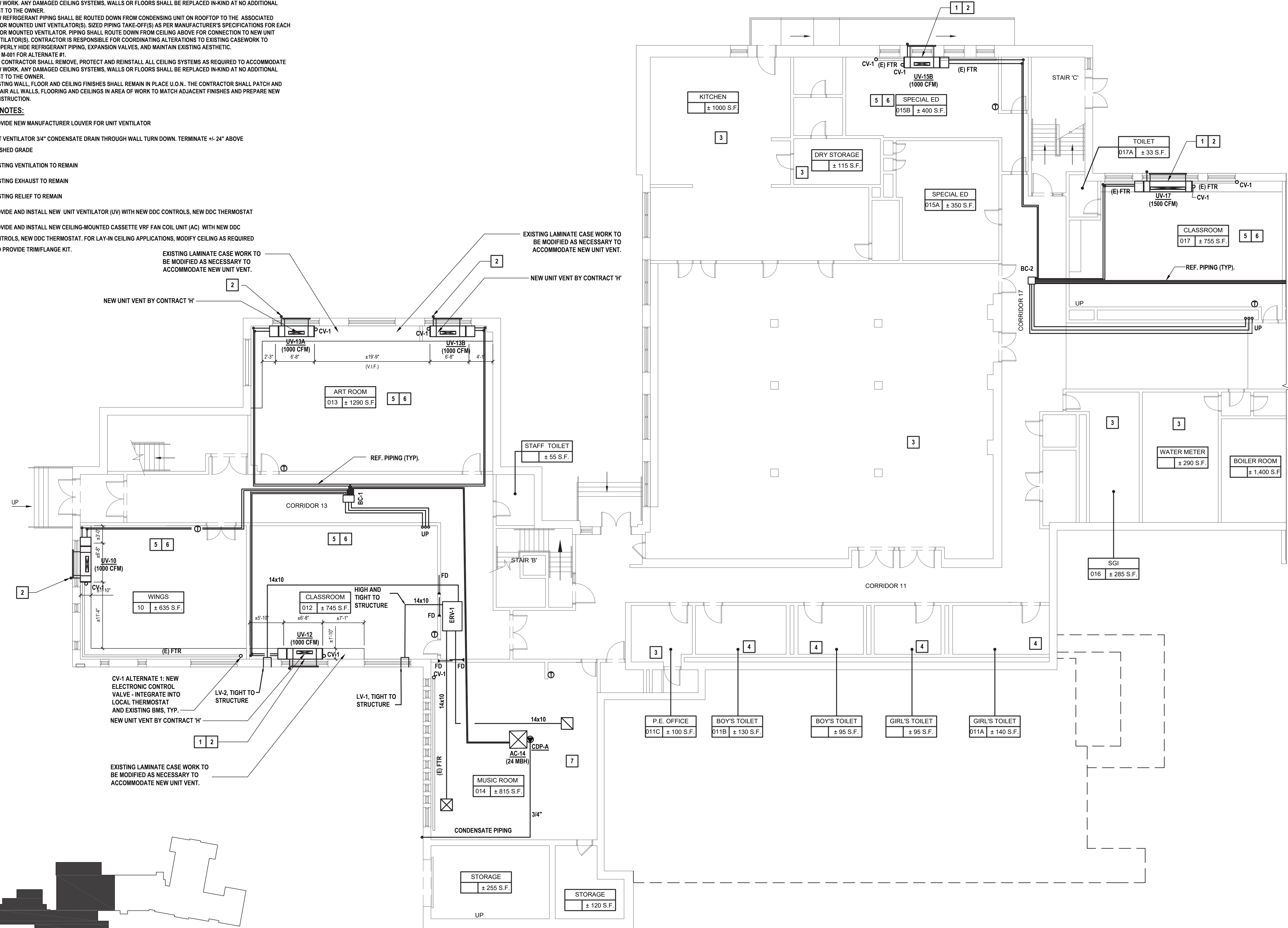
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GENERAL NOTES:

1. REFRIGERANT PIPING IS SCHEMATIC FINAL PIPE LAYOUT AND SIZING TO BE PROVIDED AND VERIFIED THROUGH MANUFACTURER SOFTWARE AND SUBMITTED FOR ENGINEER APPROVAL.
2. RETURN AIR PATHS ARE EXISTING TO REMAIN.
3. ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY IN LOCATIONS SHOWN
4. COORDINATE WITH STRUCTURE AND EXISTING DUCTWORK, OFFSET AS REQUIRED.
5. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
6. THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
7. NEW REFRIGERANT PIPING SHALL BE ROUTED DOWN FROM CONDENSING UNIT ON ROOFTOP TO THE ASSOCIATED FLOOR MOUNTED UNIT VENTILATOR(S), SIZED PIPING TAKE-OFF(S) AS PER MANUFACTURER'S SPECIFICATIONS FOR EACH FLOOR MOUNTED VENTILATOR. PIPING SHALL ROUTE DOWN FROM CEILING ABOVE FOR CONNECTION TO NEW UNIT VENTILATOR(S). CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALTERATIONS TO EXISTING CASEWORK TO PROPERLY HIDE REFRIGERANT PIPING, EXPANSION VALVES, AND MAINTAIN EXISTING AESTHETIC.
8. SEE M-001 FOR ALTERNATE #1.
9. THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
10. EXISTING WALL, FLOOR AND CEILING FINISHES SHALL REMAIN IN PLACE U.O.N.. THE CONTRACTOR SHALL PATCH AND REPAIR ALL WALLS, FLOORING AND CEILINGS IN AREA OF WORK TO MATCH ADJACENT FINISHES AND PREPARE NEW CONSTRUCTION.

KEYED NOTES:

- 1 PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
- 2 UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
- 3 EXISTING VENTILATION TO REMAIN
- 4 EXISTING EXHAUST TO REMAIN
- 5 EXISTING RELIEF TO REMAIN
- 6 PROVIDE AND INSTALL NEW UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT
- 7 PROVIDE AND INSTALL NEW CEILING-MOUNTED CASSETTE VRF FAN COIL UNIT (AC) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT. FOR LAY-IN CEILING APPLICATIONS, MODIFY CEILING AS REQUIRED AND PROVIDE TRIM/FLANGE KIT.



Key Plan



Ground Floor Plan Part A

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



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CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT



DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NO:	DATE:	SCALE:	QA/QC
WPSP 2205	OCTOBER 2023		

CLIENT
White Plains City School District

**AC and Ventilation Upgrades
at Mamaroneck
Elementary School**



**7 Nosband Ave.
White Plains, NY 10605**

**SED PROJECT CONTROL
NO. 66-22-00-01-0-010-017**

CONTRACT
**CONTRACT H
HEATING VENTILATION AND AIR
CONDITIONING**

STATUS
FINAL BID DOCUMENT

SHEET TITLE
**MECHANICAL GROUND
FLOOR PLAN PART A**

DRAWING No.
M100.00

DRAWING No. **M101.00**

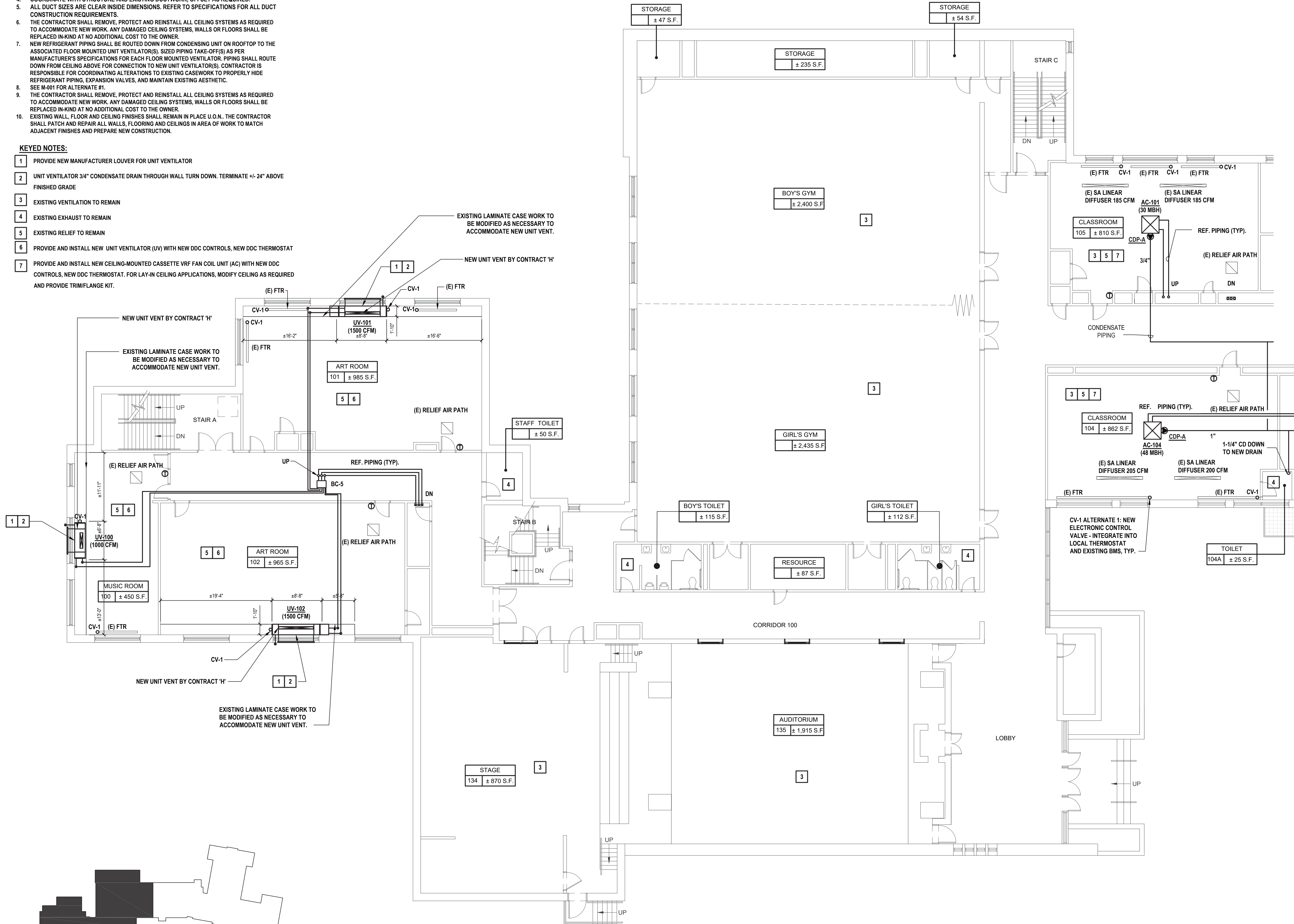
X:\WPSD (White Plains Central School District) - 10991\WPSD 2205 - (AC & Ventilation at Mamaroneck Elem School)\02-BIM-CADD\Con-doshvacM101.00 Mechanical Ground Floor Plan Part B.dwg Last Modified: Sep 20, 2023 - 11:19am Plotted on: Sep 22, 2023 - 12:44pm By mmltrano

GENERAL NOTES:

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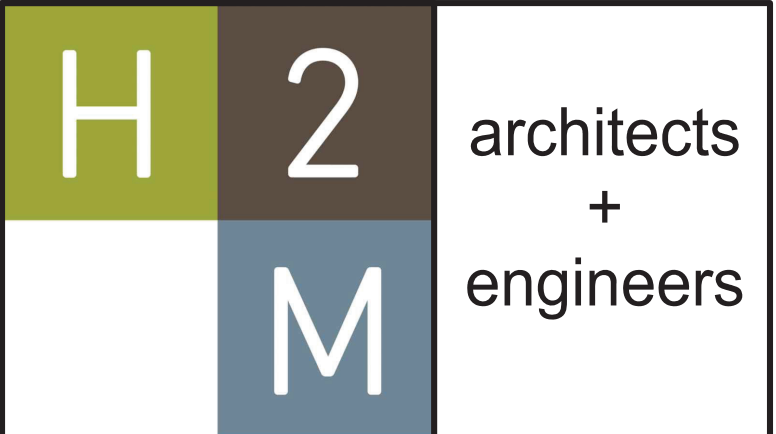
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Key Plan

First Floor Plan Part A

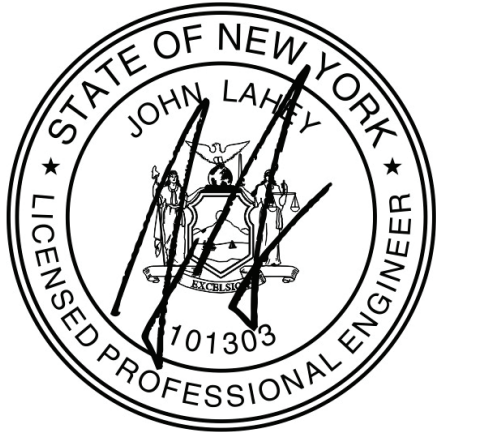
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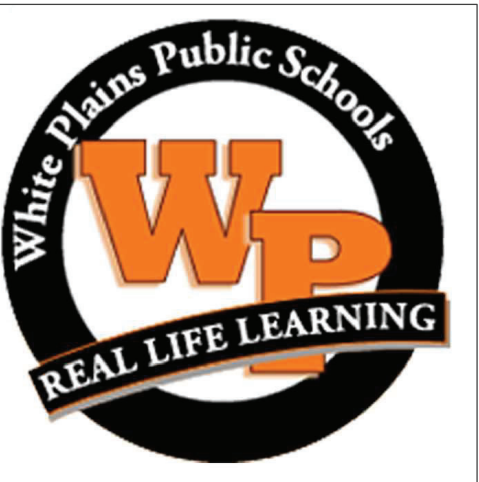
MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT



DESIGNED BY: MJV	DRAWN BY: KCM	CHECKED BY: MJV	REVIEWED BY: QAQC
PROJECT NO: WPSD 2205	DATE: OCTOBER 2023	SCALE:	

White Plains City School District

AC and Ventilation Upgrades
at Mamaroneck
Elementary School



7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL
NO. 66-22-00-01-0-010-017

CONTRACT
CONTRACT H
HEATING VENTILATION AND AIR
CONDITIONING

STATUS
FINAL BID DOCUMENT

SHEET TITLE
MECHANICAL FIRST FLOOR
PLAN PART A

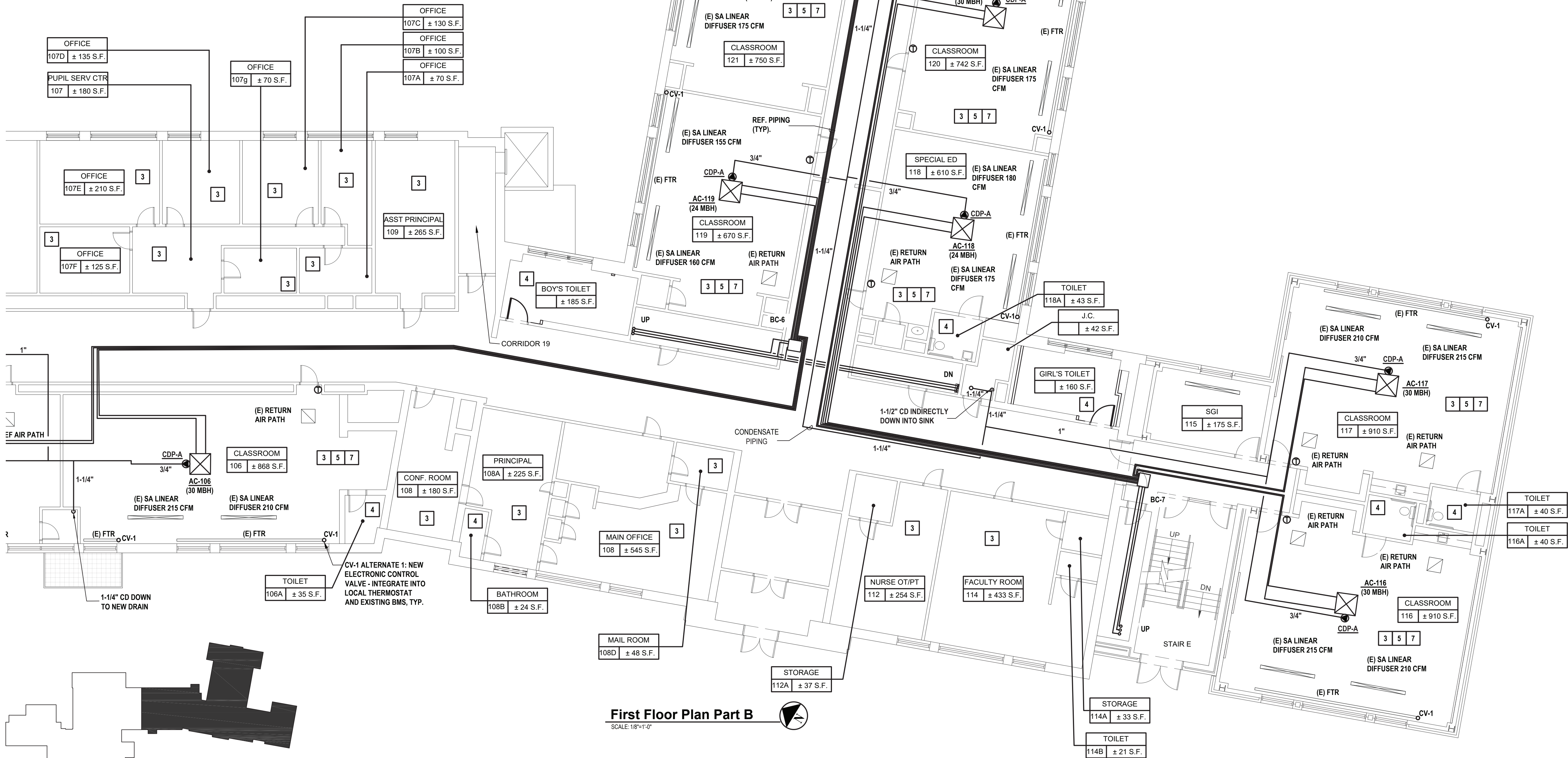
DRAWING No.
M110.00

GENERAL NOTES:

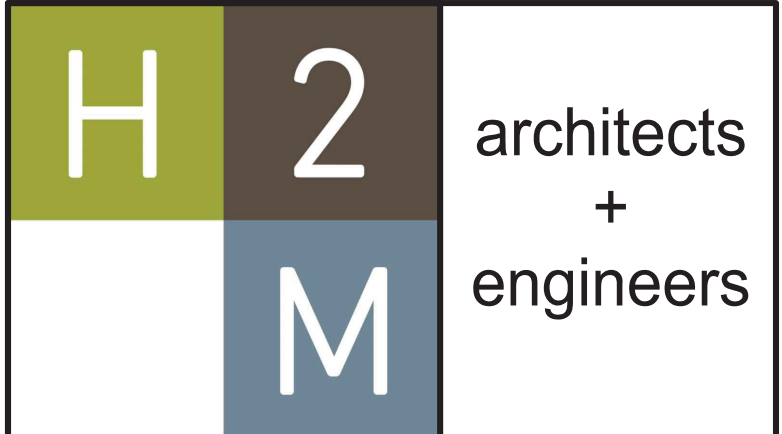
- REFRIGERANT PIPING IS SCHEMATIC FINAL PIPE LAYOUT AND SIZING TO BE PROVIDED AND VERIFIED THROUGH MANUFACTURER SOFTWARE AND SUBMITTED FOR ENGINEER APPROVAL.
- RETURN AIR PATHS ARE EXISTING TO REMAIN.
- ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY IN LOCATIONS SHOWN
- COORDINATE WITH STRUCTURE AND EXISTING DUCTWORK. OFFSET AS REQUIRED.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
- THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
- NEW REFRIGERANT PIPING SHALL BE ROUTED DOWN FROM CONDENSING UNIT ON ROOFTOP TO THE ASSOCIATED FLOOR MOUNTED UNIT VENTILATOR(S). SIZED PIPING TAKE-OFF(S) AS PER MANUFACTURER'S SPECIFICATIONS FOR EACH FLOOR MOUNTED VENTILATOR. PIPING SHALL ROUTE DOWN FROM CEILING ABOVE FOR CONNECTION TO NEW UNIT VENTILATOR(S). CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALTERATIONS TO EXISTING CASEWORK TO PROPERLY HIDE REFRIGERANT PIPING, EXPANSION VALVES, AND MAINTAIN EXISTING AESTHETIC.
- SEE M-001 FOR ALTERNATE #1.
- THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING WALL, FLOOR AND CEILING FINISHES SHALL REMAIN IN PLACE U.O.N.. THE CONTRACTOR SHALL PATCH AND REPAIR ALL WALLS, FLOORING AND CEILINGS IN AREA OF WORK TO MATCH ADJACENT FINISHES AND PREPARE NEW CONSTRUCTION.

KEYED NOTES:

- PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
- UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
- EXISTING VENTILATION TO REMAIN
- EXISTING EXHAUST TO REMAIN
- EXISTING RELIEF TO REMAIN
- PROVIDE AND INSTALL NEW UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT
- PROVIDE AND INSTALL NEW CEILING-MOUNTED CASSETTE VRF FAN COIL UNIT (AC) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT. FOR LAY-IN CEILING APPLICATIONS, MODIFY CEILING AS REQUIRED AND PROVIDE TRIM/FLANGE KIT.



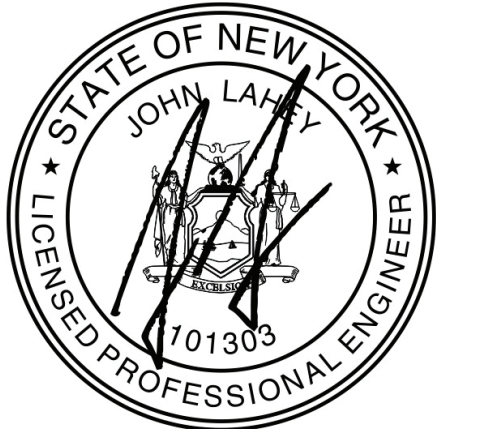
Key Plan



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CONSULTANTS:

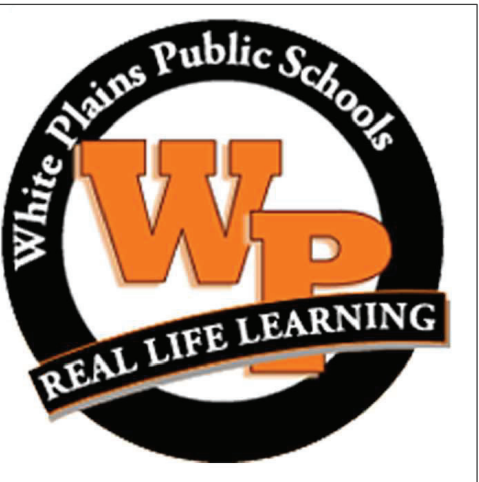
MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT



DESIGNED BY: MJV	DRAWN BY: KCM	CHECKED BY: MJV	REVIEWED BY: QAQC
PROJECT NO: WPSD 2205	DATE: OCTOBER 2023	SCALE:	

White Plains City School District

AC and Ventilation Upgrades
at Mamaroneck Elementary School



7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL
NO. 66-22-00-01-0-010-017

CONTRACT H
HEATING VENTILATION AND AIR
CONDITIONING

FINAL BID DOCUMENT

MECHANICAL FIRST FLOOR
PLAN PART B

M111.00

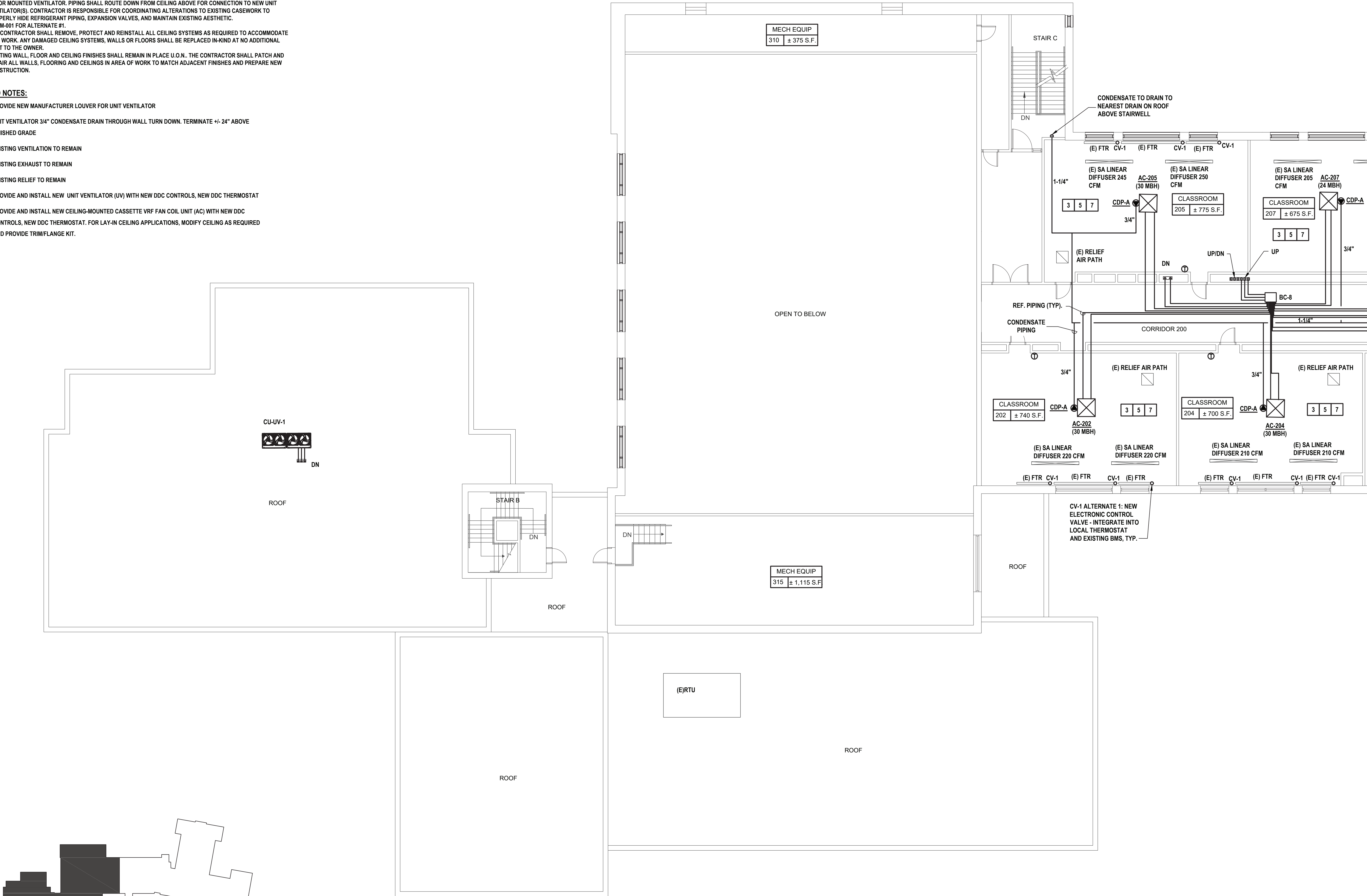
X:\PSPD\White Plains Central School District - 10001\WPSD 2205 - AC & Ventilation at Mamaroneck Elementary School\02-BIM\CADD\Construction\12010 Mechanical Second Floor Part A.dwg Last Modified: Sep 20, 2023 - 2:03pm Plotted on: Sep 22, 2023 - 1:44pm By: mlwano

GENERAL NOTES:

- REFRIGERANT PIPING IS SCHEMATIC FINAL PIPE LAYOUT AND SIZING TO BE PROVIDED AND VERIFIED THROUGH MANUFACTURER SOFTWARE AND SUBMITTED FOR ENGINEER APPROVAL.
- RETURN AIR PATHS ARE EXISTING TO REMAIN.
- ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY IN LOCATIONS SHOWN
- COORDINATE WITH STRUCTURE AND EXISTING DUCTWORK, OFFSET AS REQUIRED.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
- THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
- NEW REFRIGERANT PIPING SHALL BE ROUTED DOWN FROM CONDENSING UNIT ON ROOFTOP TO THE ASSOCIATED FLOOR MOUNTED UNIT VENTILATOR(S). SIZED PIPING TAKE-OFF(S) AS PER MANUFACTURER'S SPECIFICATIONS FOR EACH FLOOR MOUNTED VENTILATOR. PIPING SHALL ROUTE DOWN FROM CEILING ABOVE FOR CONNECTION TO NEW UNIT VENTILATOR(S). CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALTERATIONS TO EXISTING CASEWORK TO PROPERLY HIDE REFRIGERANT PIPING, EXPANSION VALVES, AND MAINTAIN EXISTING AESTHETIC.
- SEE M-801 FOR ALTERNATE #1.
- THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING WALL, FLOOR AND CEILING FINISHES SHALL REMAIN IN PLACE U.O.N.. THE CONTRACTOR SHALL PATCH AND REPAIR ALL WALLS, FLOORING AND CEILINGS IN AREA OF WORK TO MATCH ADJACENT FINISHES AND PREPARE NEW CONSTRUCTION.

KEYED NOTES:

- PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
- UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
- EXISTING VENTILATION TO REMAIN
- EXISTING EXHAUST TO REMAIN
- EXISTING RELIEF TO REMAIN
- PROVIDE AND INSTALL NEW UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT
- PROVIDE AND INSTALL NEW CEILING-MOUNTED CASSETTE VRF FAN COIL UNIT (AC) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT. FOR LAY-IN CEILING APPLICATIONS, MODIFY CEILING AS REQUIRED AND PROVIDE TRIM/FLANGE KIT.



Second Floor Plan Part A

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



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DESIGNED BY: MJV	DRAWN BY: KCM	CHECKED BY: MJV	REVIEWED BY: QAQC
PROJECT NO: WPSD 2205	DATE: OCTOBER 2023	SCALE:	

White Plains City School District

AC and Ventilation Upgrades
at Mamaroneck
Elementary School



7 Nosband Ave.
White Plains, NY 10605

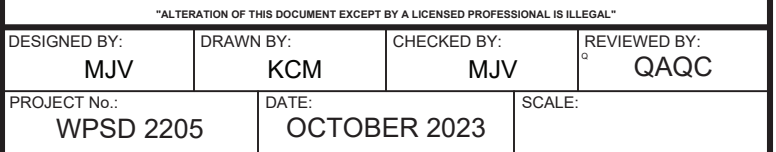
SED PROJECT CONTROL
NO. 66-22-00-01-0-010-017

CONTRACT H
HEATING VENTILATION AND AIR
CONDITIONING

FINAL BID DOCUMENT

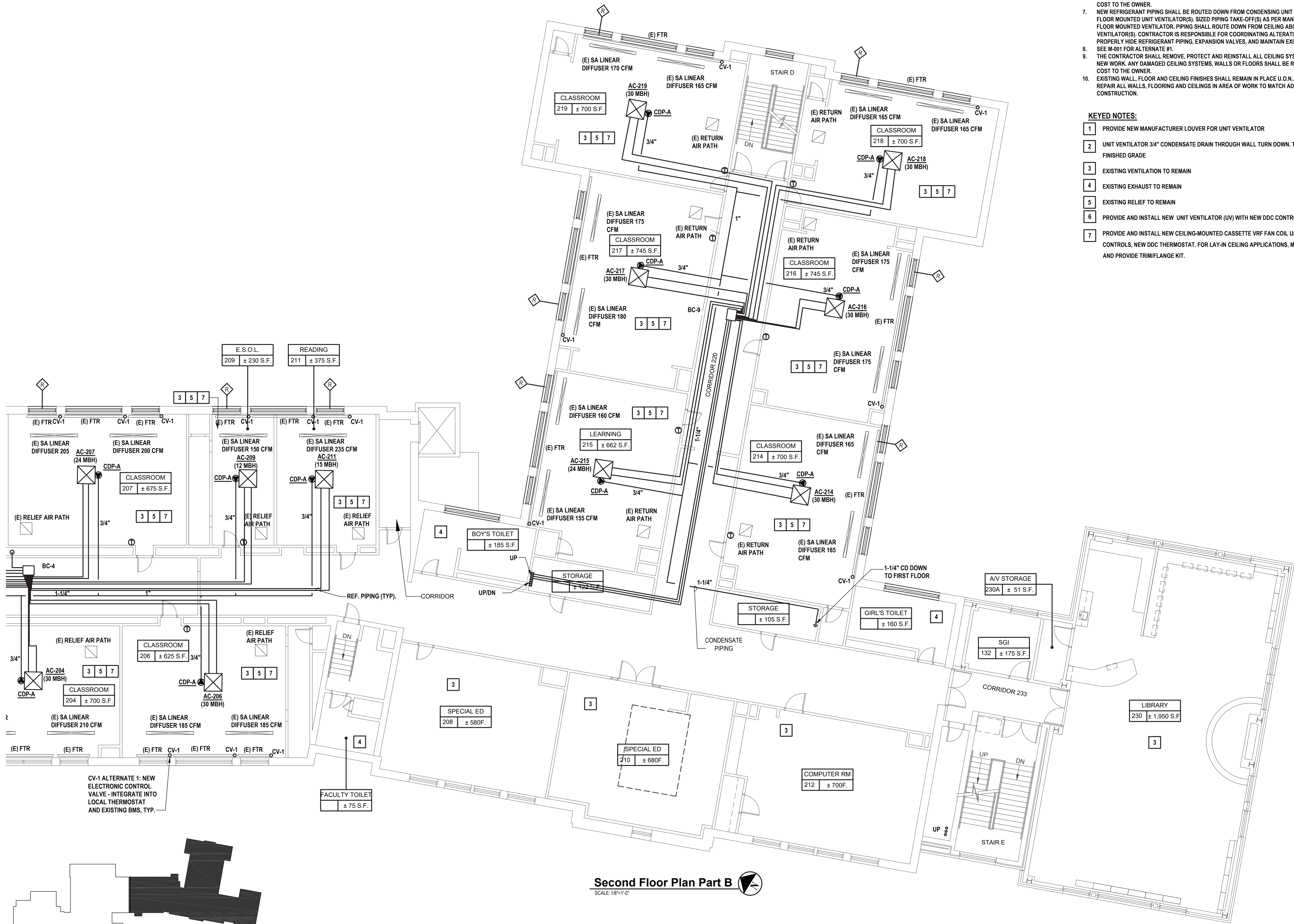
MECHANICAL SECOND FLOOR
PART A

M120.00

[illegible]

DRAWING No. **M121.00**

- | | |
|---|---|
| 1 | PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR |
| 2 | UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN, TERMINATE +/- 24" ABOVE FINISHED GRADE |
| 3 | EXISTING VENTILATION TO REMAIN |
| 4 | EXISTING EXHAUST TO REMAIN |
| 5 | EXISTING RELIEF TO REMAIN |
| 6 | PROVIDE AND INSTALL NEW UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT |
| 7 | PROVIDE AND INSTALL NEW CEILING-MOUNTED CASSETTE VRF FAN COIL UNIT (AC) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT. FOR LAY-IN CEILING APPLICATIONS, MODIFY CEILING AS REQUIRED AND PROVIDE TRIM/FLANGE KIT. |



Second Floor Plan Part B

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



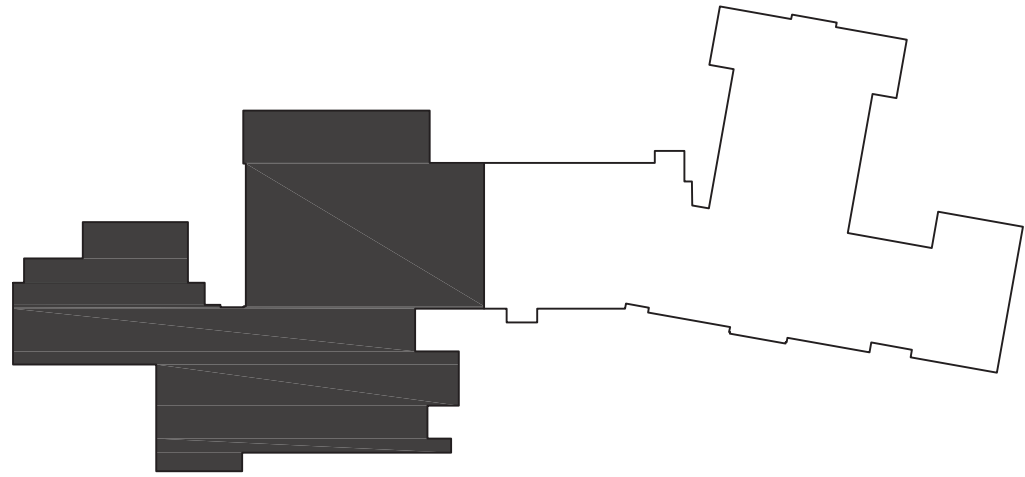
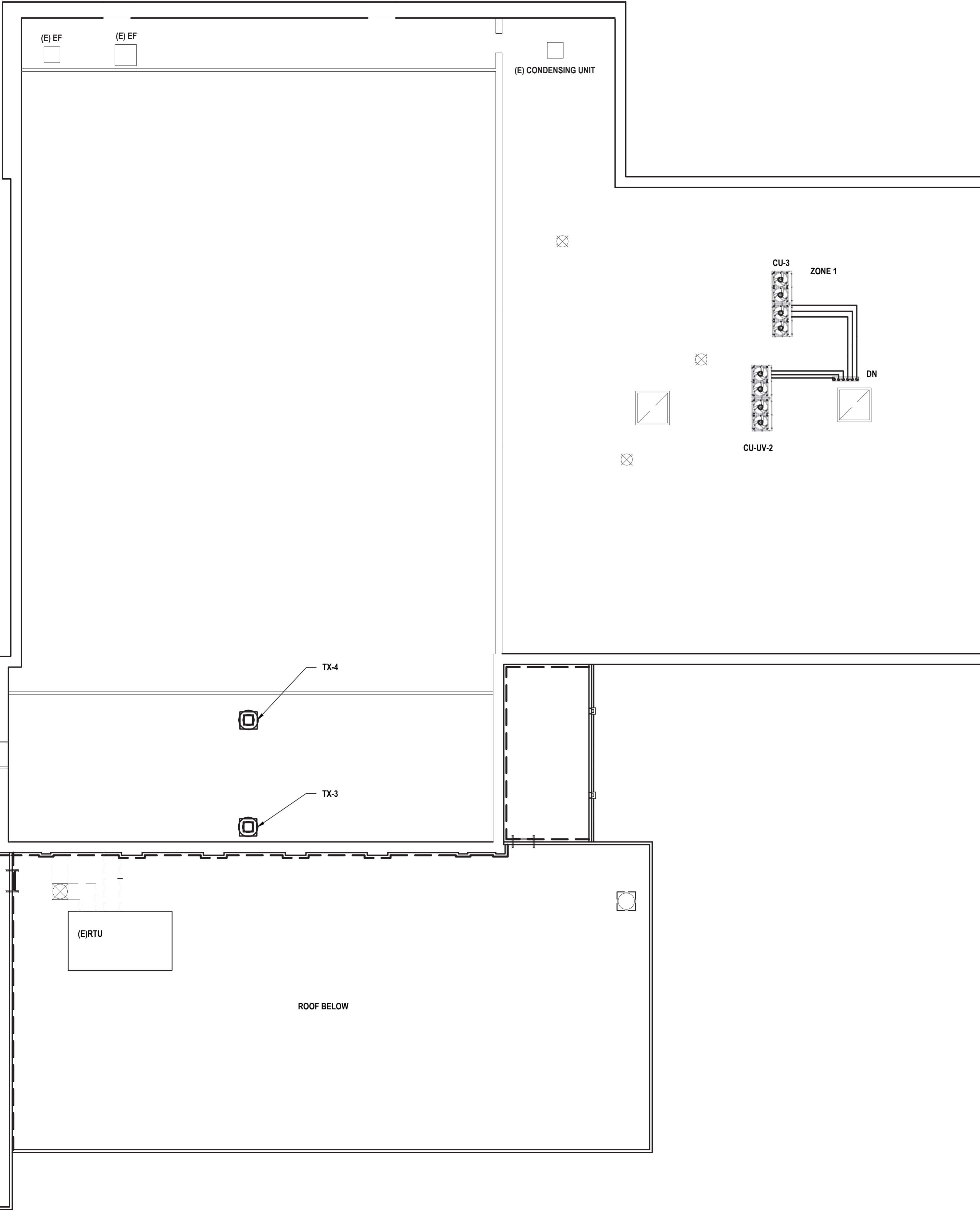
Key Plan



GENERAL NOTES:

- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
- ALL SUPPLY, RETURN AND EXHAUST BRANCH DUCTWORK SHALL BE PROVIDED WITH VOLUME DAMPERS.
- COORDINATE WITH STRUCTURE AND EXISTING DUCTWORK, OFFSET AS REQUIRED.
- PROVIDE NEW THERMOSTAT LINKED TO RTUS IN ASSOCIATED SPACE.
- DOAS UNITS SHALL BE PROVIDED WITH DISCHARGE AIR TEMP SENSORS.
- ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY TO ROOF DRAINS.
- CONTRACTOR TO PROVIDE SEISMIC/WIND RATED ROOF CURB MANUFACTURED THYBAR OR APPROVED EQUAL.
- CONTRACTOR TO PROVIDE PROJECT SPECIFIC ROOF CURB DESIGNED IN ACCORDANCE WITH WIND LOADS PROVIDED ON DRAWINGS, SIGNED AND SEAL BY A LICENSED PROFESSIONAL ENGINEER REPRESENTING THE ROOF CURB MANUFACTURER.

WIND LOADS (MC 301.15 & BC 1609)		
ZONE ID	POSITIVE WIND PRESSURE (PSF)	NEGATIVE WIND PRESSURE (PSF)
ROOF (INT. ZONE)	13.0	-57.0
ROOF (END ZONE)	13.0	-67.3
ROOF (CORNER ZONE)	13.0	-91.8
WALLS (INT. ZONE)	32.0	-34.7
WALLS (END ZONE)	32.0	-42.9



Key Plan

Roof Plan Part A

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



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CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT



DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MJV	KCM	MJV	QAQC
PROJECT NO:	DATE:	OCTOBER 2023	SCALE:
WPSD 2205			

CLIENT

White Plains City School District

AC and Ventilation Upgrades
at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL
NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR
CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL ROOF PLAN
PART A

DRAWING No.

M140.00

