MECHANICAL DEMOLITION NOTES: 1. COORDINATE WITH EXISTING CONDITIONS PLANS FOR EXACT AREAS TO BE DEMOLISHED. 2. REMOVE ALL EQUIPMENT, DUCTWORK AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL SUPPORTS AND HANGERS, HOUSEKEEPING PADS, DAMPERS, VALVES, FITTINGS, CONTROLS AND ASSOCIATED LOW VOLTAGE WIRING, AND ANY OTHER ASSOCIATED ACCESSORIES WHICH PERTAIN TO THE EQUIPMENT TO BE REMOVED. 3. REMOVAL OF ALL POWER CONNECTIONS TO DEMOLITION ITEMS SHALL BE BY THE E.C. 4. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DEMOLITION WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT, ENGINEER OR BUILDING FACILITIES MANAGER. 5. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT FOR CONNECTION TO NEW EQUIPMENT. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION PLANS. 6. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE NOTED. 7. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. 8. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT. FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK. 9. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION **GENERAL NOTES:** 1. THE DRAWINGS ON THESE PLANS ARE DIAGRAMMATIC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL HVAC WORK WITH OTHER TRADES AND THE BUILDING STRUCTURE. NO EXTRA PAYMENTS WILL BE AUTHORIZED FOR REROUTING OR REMOVAL OF INSTALLED WORK DUE TO LACK OF COORDINATION WITH OTHER SYSTEMS. 2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK. 3. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS, WALLS, FLOORS, ETC., AS REQUIRED TO MAINTAIN ACCESSIBILITY TO VALVES, DAMPERS, TRAPS, COILS, ETC. 4. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR 5. PROVIDE SHUT-OFF VALVES AT ALL PIPING BRANCH TAKE-OFFS AND AT ALL CONNECTIONS TO EQUIPMENT. 6. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE AUTOMATIC AIR VENTS ON PIPING AT ALL HIGH POINTS. 7. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL SUB CONTRACTOR. 8. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL SUB CONTRACTOR. 9. ALL REQUIRED CONTROL EQUIPMENT AND WIRING SHALL BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR. 10. IN THIS PLAN SET, M.C. AND H.C. REFER TO MECHANICAL CONTRACTOR. 11. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. 12. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM. 13. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES. 14. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

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MECHANICAL CONTRACTOR SCOPE ITEMS: 2. INSTALLATION OF NEW HYDRONIC PIPING.

1. REMOVE & REPLACE SPECIFIED UNIT VENTILATORS.

PERSON FOR FIELD INVESTIGATION.

3. CONNECTION TO EXISTING CONDENSATE DRAIN PIPING. 4. ALL CEILINGS TO BE REMOVED AND REINSTALLED BY M.C. TO COMPLETE MECHANICAL

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SCOPE. ANY ADDITIONAL COST FOR ELECTRICAL REMOVAL AND REINSTALLATION BORNE 5. CUTTING, PATCHING, AND PAINTING: UNLESS OTHERWISE NOTED, ALL CUTTING, PATCHING, AND PAINTING IS THE

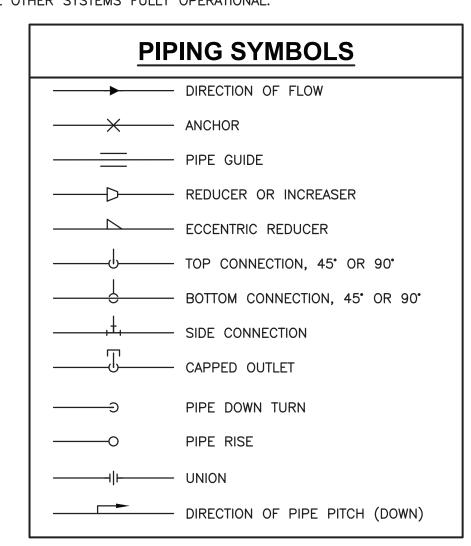
RESPONSIBILITY OF THIS CONTRACTOR FOR ALL HIS WORK INCLUDING: -NEW OPENINGS FOR NEW WORK. -REPAIR ALL EXISTING OPENINGS FOR REMOVAL OR ABANDON WORK. -FILLING ALL OPENINGS, INCLUDING FUR PAINT. -PAINTING OF ALL SURFACES AFTER REMOVAL OF UNIT VENTILATORS,

BASEBOARD ELEMENTS AND ENCLOSURES, UNIT HEATERS, CABINET HEATERS, ETC. 6. SUBMIT PIPING LAYOUT SHOP DRAWINGS PRIOR TO SUBMITTALS. PROVIDE COMPETENT

7. ALL WORK INDICATED AS MECHANICAL, HVAC, PLUMBING, AND CONTROLS SHALL BE PERFORMED BY M.C.

8. PROVIDE CONSTRUCTION BARRIERS AT EACH END OF CORRIDOR THROUGH THE DURATION OF THE PROJECT.

9. PROVIDE CONSTRUCTION BARRIERS IN FIRST FLOOR CORRIDOR AND CLASS ROOM TO SEPARATE AREA OF WORK FROM OCCUPANTS. PERFORM TIE-IN TO DUAL-TEMP LINES AFTER HOURS TO MINIMIZE SHUT-DOWN OF OTHER HVAC EQUIPMENT. PROVIDE NEW ISOLATION VALVES TO CONTINUE NEW PIPING & INSTALLATION IN SECOND FLOOR WHILE LEAVING ALL OTHER SYSTEMS FULLY OPERATIONAL.



COOLING DATA

(°F)

GPM

SENSIBLE TOTAL EWT/LWT

(MBH)

HVAC LINE TYPES ----- EXISTING EQUIPMENT/DUCT TO BE REMOVED ----- EXISTING EQUIPMENT/DUCT TO REMAIN NEW EQUIPMENT / DUCT ATMOSPHERIC VENT FILL LINE LOW TEMPERATURE HOT WATER SUPPLY MAKEUP WATER NATURAL GAS LINE PC———PC———— PUMPED CONDENSATE REFRIGERANT DISCHARGE REFRIGERANT LIQUID REFRIGERANT SUCTION VACUUM LINE VACUUM PUMP DISCHARGE **GENERAL SYMBOLS**

DUCTWORK SYMBOLS

"A" INDICATES DUCT WIDTH; "B"

INDICATES DUCT DEPTH.

SUPPLY AIR DUCT UP

SUPPLY AIR DUCT DOWN

RETURN AIR DUCT DOWN

EXHAUST AIR DUCT UP

EXHAUST AIR DUCT DOWN

MOTORIZED DAMPER w/ ACCESS DOOR

FIRE DAMPER W/ ACCESS DOOR

SUPPLY AIR TERMINAL

EXHAUST AIR TERMINAL

STYLE

MODEL

RETURN/EXHAUST AIR TERMINAL

FLEXIBLE DUCTWORK

→ SUPPLY AIR FLOW

VOLUME DAMPER

RETURN/EXHAUST AIR FLOW

REPRESENTATION: "A" INDICATES DUCT

DUCTWORK SINGLE LINE REPRESENTATION:

WIDTH; "B" INDICATES DUCT DEPTH.

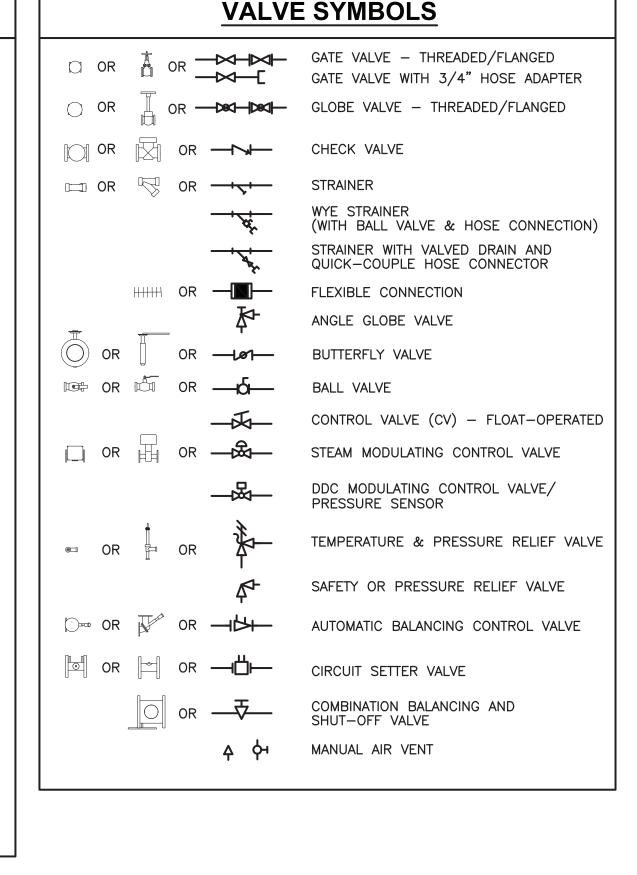
AxB DUCTWORK DOUBLE LINE

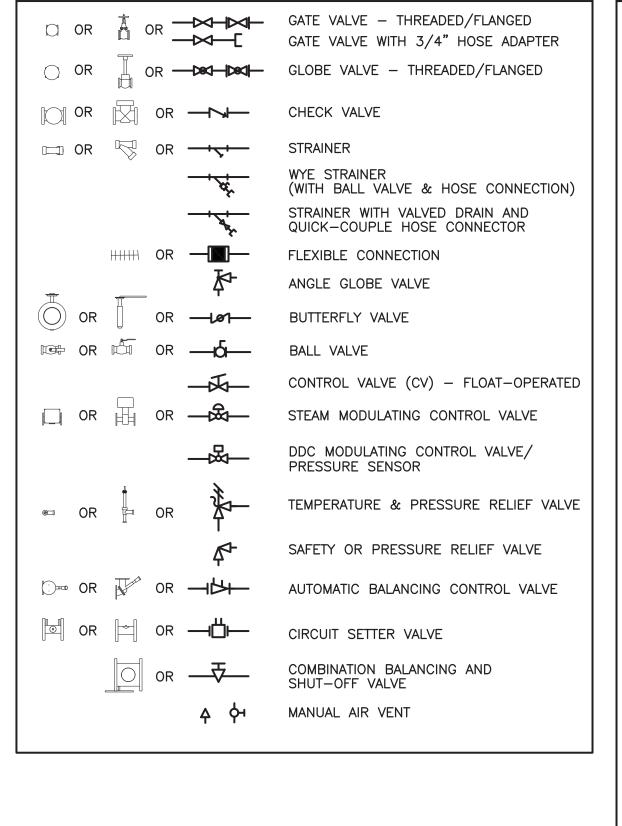
POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK POINT OF DISCONNECT — INDICATES SECTION LETTER INDICATES DRAWING NUMBER WHERE LOCATED - INDICATES TYPE OF AIR OUTLET - INDICATES AIR FLOW REQUIREMENTS TEMPERATURE SENSOR (FLAT PLATE) DUCT SMOKE DETECTOR CARBON DIOXIDE SENSOR

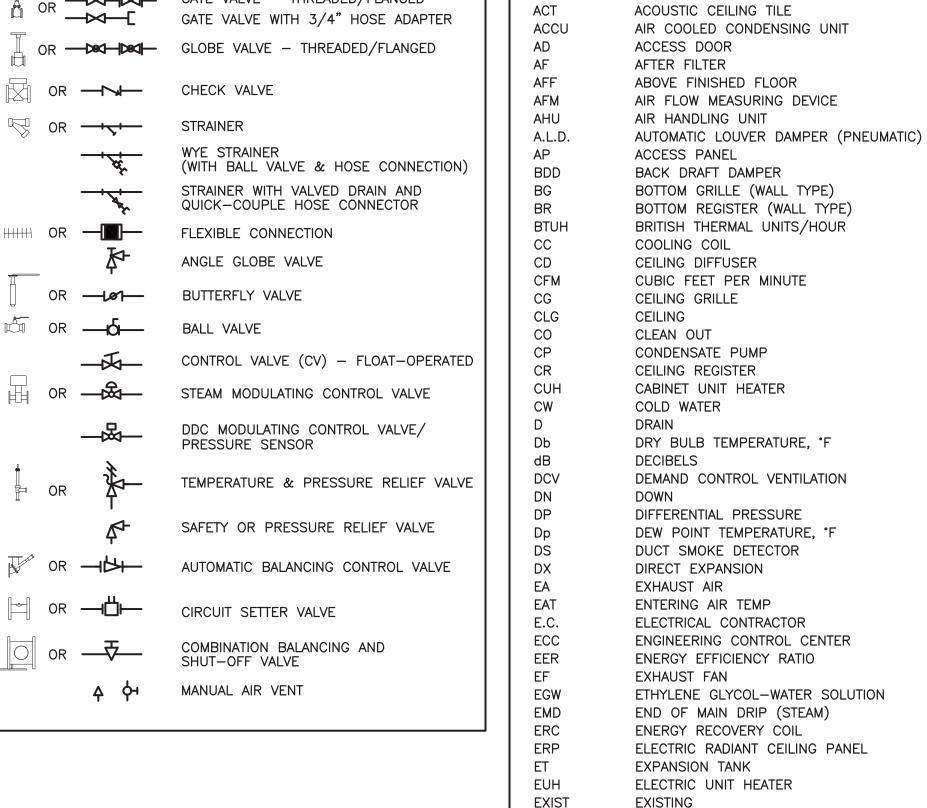
ELECTRICAL DATA (ECM MOTOR)

MOCP

MCA







UNIT NO.	CFM	LENGTH (IN.)	OA OPENING (IN.)	WEIGHT (LBS)
UV-1	700	74	48	445
UV-2	1150	98	62	600
UV-3	1475	98	62	600

2020 ENERGY CONSERVATION CONSTRUCTION

CODE OF NYS TABLE C403.11.3 MINIMUM PIPE

INSULATION THICKNESS (IN INCHES) a,c										
FLUID OPERATING	INSULATION CON	DUCTIVITY	NOMINAL PIPE OR TUBE SIZE (INCHES)							
TEMPERATURE RANGE AND USAGE (*F)	CONDUCTIVITY (BTUxIN)/(HxFT2xF)	MEAN RATING TEMPERATURE 'F	<1"	1 TO <1½"	1½" TO <4"					
> 350	0.32-0.34	250	4.5	5.0	5.0					
251-350	0.29-0.32	200	3.0	4.0	4.5					
201-250	0.27-0.30	150	2.5	2.5	2.5					
141-200	0.25-0.29	125	1.5	1.5	2.0					
105-140	0.21-0.28	100	1.0	1.0	1.5					
40-60	0.21-0.27	75	0.5	0.5	1.0					
< 40	0.20-0.26	50	0.5	1.0	1.0					

FOR SI: 1" = 25.4mm, C = [(*)-32]/1.8

a. FOR PIPING SMALLER THAN 1 $5 ^{\circ}$ and located in partitions within conditioned spaces, $\|\cdot\|$ REDUCTION OF THESE THICKNESSES BY 1" SHALL BE PERMITTED (BEFORE THICKNESS ADJUSTMENT REQUIRED IN FOOTNOTE B) BUT NOT TO A THICKNESS LESS THAN 1". FOR INSULATION OUTSIDE THE STATED CONDUCTIVITY RANGE, THE MINIMUM THICKNESS (T)

SHALL BE DETERMINED AS FOLLOWS: $T=r[(1+t/R)^{\kappa/\kappa}-1]$

WHERE: T = MINIMUM INSULATION THICKNESS r = ACTUAL OUTSIDE RADIUS OF PIPEt = INSULATION THICKNESS LISTED IN THE TABLE APPLICABLE FLUID TEMPERATURE AND

THE APPLICABLE FLUID TEMPERATURE [(BTUxIN)/HxFT2x*F)] k = THE UPPER VALUE OF THE CONDUCTIVITY RANGE LISTED IN THE TABLE FOR THE APPLICABLE FLUID TEMPERATURE FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 11/2" (38mm) SHALL BE PERMITTED (BEFORE THICKNESS ADJUSTMENT REQUIRED IN FOOTNOTE B BUT NOT TO THICKNESSES LESS THAN 1".

K = CONDUCTIVITY OF ALTERNATE MATERIAL AT MEAN RATING TEMPERATURE INDICATED FOR

FLOOR FIRE PROTECTION CONTRACTOR COMBINATION FIRE/SMOKE DAMPER F/SD FIN TUBE RADIATION GENERAL CONTRACTOR GRAVITY HOOD GPM GALLONS PER MINUTE HVAC CONTRACTOR HEPA FILTER HORSEPOWER HRP INLET VANES LCD LFD

FRESH AIR INTAKE

FAN COIL UNIT

FIRE DAMPER

FLEXIBLE CONNECTION

F.A.I.

FCU

LBS/HR

MD

MER

MAX.

MBH

MIN.

NOM.

OA

P.C.

PD

PF

PGW

PH

S.S.

WMS

HYDRONIC RADIANT CEILING PANEL HEATING AND VENTILATING UNIT LINEAR CEILING DIFFUSER LAMINAR FLOW DIFFUSER LINEAR FEET POUNDS PER HOUR MIXING BOX MOTORIZED DAMPER MECHANICAL EQUIPMENT ROOM

MAXIMUM ONE THOUSAND BTUH MINIMUM NOMINAL OUTSIDE AIR

PUMP PLUMBING CONTRACTOR PRESSURE DROP (FEET OF WATER) PRE-FILTER PROPYLENE GLYCOL-WATER SOLUTION PREHEAT

PRESSURE REDUCING VALVE POUNDS PER SQUARE IN. RETURN AIR RETURN FAN REHEAT COIL RELATIVE HUMIDITY REDUCED PRESSURE ZONE SUPPLY AIR

SMOKE DAMPER SPECIFIC GRAVITY Sp. Gr. STEAM HUMIDIFIER STATIC PRESSURE SPD SPLITTER DAMPER STATIC PRESSURE SENSOR SPS STAINLESS STEEL TOP GRILLE (WALL TYPE)

TOP REGISTER (WALL TYPE) THRU WALL UNIT UNIT HEATER U.N.O. UNLESS NOTED OTHERWISE UNIT VENTILATOR UVH

UNIT VENTILATOR (HORIZONTAL) VALVE VOLUME DAMPER VOLUME EXTRACTOR VIBRATION ISOLATOR VERIFY IN FIELD

WIRE MESH SCREEN

WET BULB TEMPERATURE, 'F WATER FLOW MEASURING DEVICE

ABBREVIATIONS

AIR CONDITIONING UNIT

215 W 40th St - 15th flr New York, NY 10018 646.435.0660 office www.ksq.design NORTH SALEM CENTRAL SCHOOL DISTRICT

230 June Road

FE Job #: 21-295

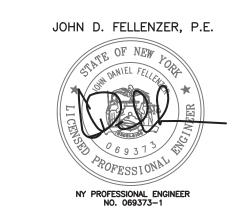
North Salem, NY 10560

KSQ Architects PC dba KSQ Design

ARCHITECT

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SED #66-13-01-04-0-006-028

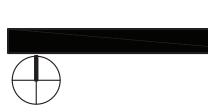




NORTH SALEM **WORLD LANGUAGES UV REPLACEMENT**

230 June Road

North Salem, NY 10560



	REVISIONS		
	No.	Description	Date
3			
	ISSUED:	BID ISSUANCE	
	DATE:	February 23, 20	22

SHEET NAME: HVAC: SYMBOLS, NOTES, ABBREVIATIONS, &

SHEET NUMBER:

SCHEDULES

SCALE: AS SHOWN

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UV-1	700	4	16.8	27.5	45/54.2	6	4.33	46.2	180/160	4.6	3.5	7/8	6.5	15	120/1ø	UAHF9H10	CEILING
UV-2	1150	4	31.2	50.4	45/54.2	11	7.94	74.0	180/160	7.4	5.3	7/8	6.5	15	120/1ø	UAVS9H15	FLOOR
UV-3	1475	4	37.4	56	45/55.2	11	7.94	90.0	180/160	9.0	6.0	7/8	6.5	15	120/1ø	UAVS9H15	FLOOR
UV-4	600	3	11.1	17.2	45/53.6	4	2.58	20.0	180/160	2.0	.64	7/8	6.5	15	120/1ø	UAVS9H07	CEILING
1. ALL (MANU 2. TEMP	NOTES: 1. ALL CONTROLS BY TBS. UNIT VENTILATORS SHALL NOT BE PROVIDED WITH INTEGRAL MANUFACTURER STAND ALONE DDC CONTROLS OPTION. 2. TEMPERATURE SENSORS TIED TO BMS. 3. PROVIDE TWO—WAY MODULATING CONTROL VALVE.																

OWNER SUPPLIED EQUIPMENT: DAIKIN - UNIT VENTILATOR SCHEDULE

EWT/LWT (°F)

W.P.D. TOTAL

(FT H₂0) (MBH)

HEATING DATA

GPM

(FT H₂0) (IN)

(MBH)

5. PROVIDE ALL UV'S WITH TWO (2) ADDITIONAL SETS OF MERV 8 FILTERS TO BE USED AS

6. UNIT VENTILATORS SHALL BE SWITCHED TO OCCUPIED MODE BY THE BMS SCHEDULING. COLOR BY ARCHITECT.

8. SEE "UNIT VENTILATOR SIZING SCHEDULE" FOR DIMENSIONAL INFORMATION. 9. PROVIDE WITH FACTORY ECM, 3-SPEED MOTORS.

SUPPLY CFM NUMBER OF

ROWS

SYMBOL

10. PROVIDE WITH FACE & BYPASS DAMPERS. 11. PROVIDE UV-1 WITH BOTTOM RETURN GRILLE, TOP MOUNT OA CONNECTION AND FRONT

MOUNT DUCT COLLAR. 12. PROVIDE UV WITH REAR PIPING ENCLOSURE WHERE REQUIRED FOR EXISTING BASEBOARD. 13. PROVIDE WITH FACTORY 6" DEEP END PANELS TO MATCH EXISTING UV INSTALLATION.

North Salem MS/HS School Ventilation Table										
Unit No.	Occupancy Classification	Square Footage	Occupancy Density	# of Occupants	OA (CFM/person)	OA (CFM/ft²)	Uncorrected OA (CFM)	Air Distribution Effectiveness	Zone Outdoor Airflow (CFM)	Unit Designation
Office F-204	Office	223	5	2	5	0.06	23.38	0.8	30	UV-4
Classroom F-205	Classroom (age 9 plus)	791	35	28	10	0.12	374.92	0.9	417	UV-3
Classroom F-206	Classroom (age 9 plus)	805	35	29	10	0.12	386.6	0.9	430	UV-2
Classroom F-207	Classroom (age 9 plus)	792	35	28	10	0.12	375.04	0.9	417	UV-3
Classroom F-208	Classroom (age 9 plus)	805	35	29	10	0.12	386.6	0.9	430	UV-2
Classroom F-209	Classroom (age 9 plus)	805	35	29	10	0.12	386.6	0.9	430	UV-3
Clasroom F-210	Classroom (age 9 plus)	805	35	29	10	0.12	386.6	0.9	430	N/A
Resource Room F-211	Classroom (age 9 plus)	364	35	13	10	0.12	173.68	0.8	218	UV-1
Clasroom F-212	Classroom (age 9 plus)	805	35	29	10	0.12	386.6	0.9	430	UV-2
Sp. Ed. F-213	Classroom (age 9 plus)	456	35	16	10	0.12	214.72	0.8	269	UV-1

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10

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1. BALANCE EACH UV AND GRAVITY RELIEF WITH CORRESPONDING ROOMS OUTDOOR AIR REQUIREMENTS.

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