

SYMBOL & ABBREVIATIONS						SEQUENCE OF OPERATION	
SYMBOL	ABBREVIATION	DESCRIPTION					
—	AC—	AIR CONDITIONING UNIT		CD	3—WAY	<p>HP UNITS (HP—1)</p> <p>PROVIDE A NEW TEMPERATURE CONTROL PANEL WITH 7—DAY PROGRAMMABLE THERMOSTAT WITH AUTO CHANGE—OVER, SET—BACK, HEAT—OFF—COOL AND ON—AUTO FAN SWITCH. HEATING AND COOLING SHALL BE ENABLED AND DISABLED THROUGH THIS THERMOSTAT.</p> <p>UNIT OFF: THE OUTSIDE AIR INTAKE AND EXHAUST AIR DAMPERS SHALL BE CLOSED, AND THE RETURN AIR DAMPER SHALL BE FULL OPEN.</p> <p>FAN OPERATION: THE UNIT SHALL START AND STOP AT PRE—SET TIMES AS PROGRAMMED THROUGH THE PROGRAMMABLE THERMOSTAT. UPON STARTUP, THE SUPPLY FAN START AND RAMP UP TO THE PROGRAMMED SPEED. THE OUTDOOR AIR DAMPER AND THE EXHAUST AIR DAMPERS SHALL OPEN AND THE RETURN AIR DAMPER SHALL CLOSE TO THE MINIMUM OUTDOOR AIR POSITION. UPON FAN SHUT DOWN THE OUTDOOR AIR DAMPER AND EXHAUST DAMPERS SHALL FULLY CLOSE AND THE RETURN AIR DAMPER SHALL FULLY OPEN.</p> <p>COOLING OPERATION: UNIT SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE CONTROL CIRCUITS ENERGIZED DURING THE PROGRAMMED OCCUPIED PERIODS. THE OUTSIDE AIR INTAKE DAMPER SHALL BE OPEN AND SUPPLY AIR FAN ON. DX COOLING SHALL CYCLE TO MAINTAIN SPACE TEMPERATURE SET—POINT AT 75°F (ADJUSTABLE).</p> <p>HEATING OPERATION: UNIT SUPPLY FAN SHALL RUN CONTINUOUSLY DURING THE PROGRAMMED OCCUPIED PERIODS. THE OUTSIDE AIR INTAKE DAMPER SHALL BE OPEN AND SUPPLY AIR FAN ON. DX HEATING SHALL CYCLE TO MAINTAIN SPACE TEMPERATURE SET—POINT AT 68°F (ADJUSTABLE).</p> <p>MORNING WARM—UP OPERATION: UNIT SHALL START AND OPERATE FOR A PREDETERMINED PERIOD AS PROGRAMMED INTO THE UNITARY CONTROLS. DURING THIS CYCLE; OUTSIDE, INTAKE, AND EXHAUST AIR DAMPERS SHALL REMAIN CLOSED, AND RETURN AIR DAMPER SHALL REMAIN OPEN. THE COMPRESSOR SHALL ENERGIZE TO MAINTAIN DISCHARGE AIR TEMPERATURE SET POINT. WHEN THE ZONE TEMPERATURE COMES TO WITHIN 2°F (ADJUSTABLE) OF SET POINT, THE UNIT SHALL OPERATE IN OCCUPIED MODE.</p> <p>MORNING COOL—DOWN OPERATION: UNIT SHALL START AND OPERATE FOR A PREDETERMINED PERIOD AS PROGRAMMED INTO THE UNITARY CONTROLS. DURING THIS CYCLE; OUTSIDE, INTAKE, AND EXHAUST AIR DAMPERS SHALL REMAIN CLOSED, AND RETURN AIR DAMPER SHALL REMAIN OPEN. THE COMPRESSOR SHALL ENERGIZE TO MAINTAIN DISCHARGE AIR TEMPERATURE SET POINT. WHEN THE ZONE TEMPERATURE COMES WITHIN 2°F OF SET POINT, THE UNIT SHALL OPERATE IN OCCUPIED MODE.</p> <p>LIMIT CONTROLS: PROVIDE A HIGH/LOW LIMIT CONTROL(S) IN THE SUPPLY FAN DISCHARGE ARRANGED TO OVERRIDE TEMPERATURE CONTROLS AND PREVENT DISCHARGE TEMPERATURE FROM DROPPING BELOW 50°F AND RISING ABOVE 110°F (ADJUSTABLE). ALL DAMPERS SHALL GO TO THE UNIT OFF POSITION.</p> <p>MISCELLANEOUS: WHENEVER UNITS ARE SHUTDOWN, THE OUTSIDE AIR INTAKE AND EXHAUST AIR DAMPERS SHALL BE CLOSED AND THE RETURN AIR DAMPER SHALL BE OPEN. PROVIDE ALL WIRING AS REQUIRED.</p> <p>TOILET EXHAUST—FAN: TOILET EXHAUST FAN SHALL BE INTERLOCKED WITH A TIME—CLOCK TO OPERATE DURING OCCUPIED PERIODS.</p> <p>EXHAUST—FAN: EXHAUST FAN SHALL BE INTERLOCKED WITH A TIME—CLOCK TO OPERATE DURING OCCUPIED PERIODS AND/OR 24—7 BASED ON AREA SERVED.</p> <p>ELECTRIC UNIT HEATER: PROVIDE 7—DAY PROGRAMMABLE THERMOSTAT WITH ON—AUTO—OFF SWITCH, LOCATED AS SHOWN ON PLAN AND COORDINATED WITH ARCHITECTURAL DRAWINGS. UNIT HEATER SHALL ENERGIZE TO MAINTAIN TEMPERATURE SET—POINT OF 55°F (ADJUSTABLE).</p>	
—	AD	ACCESS DOOR		CD	4—WAY		
—	AFF	ABOVE FINISHED FLOOR		RR/RG/ER	RETURN REGISTER/GRILLE/EXHAUST REGISTER		
—	AHC	ABOVE HUNG CEILING		—	SUPPLY DUCT UP		
—	AP	ACCESS PANEL		—	SUPPLY DUCT DOWN		
—	BHP	BRAKE HORSEPOWER		—	RETURN DUCT UP		
—	BTU	BRITISH THERMAL UNIT		—	RETURN DUCT DOWN		
—	CFM	CUBIC FEET PER MINUTE		—	TRANSITION FROM SQUARE TO ROUND DUCT		
—	COD	CABLE OPERATED DAMPER		—	TRANSITION		
—	DB	DRY BULB TEMPERATURE		—	DUCT DROP		
—	DIA. OR Ø	DIAMETER		—	DUCT RISE		
—	DX	DIRECT EXPANSION		—	SQUARE VANED ELBOW		
—	EA	EXHAUST AIR		—	DUCT RISE		
—	EAT	ENTERING AIR TEMPERATURE		—	DUCT DROP		
—	ER	EXHAUST REGISTER		—	DUCT TRANSITION		
—	ESP	EXTERNAL STATIC PRESSURE		—	ALUMINUM DUCT		
—	EWT	ENTERING WATER TEMPERATURE		AL	ACOUSTIC LINING		
—	FCU	FAN COIL UNIT		FD/AD	FIRE DAMPER W/ ACCESS DOOR		
—	FPM	FEET PER MINUTE		SD/AD	SMOKE DAMPER W/ ACCESS DOOR		
—	FPS	FEET PER SECOND		CFSD	COMBINATION FIRE/SMOKE DAMPER W/ ACCESS DOOR		
—	GPM	GALLONS PER MINUTE		VD	VOLUME DAMPER		
—	HP	HORSE POWER		AL	ACOUSTIC LINING		
—	LAT	LEAVING AIR TEMPERATURE		—	DUCT SIZE — 1ST FIGURE IS SIDE SHOWN		
—	LF	LINEAR FEET		FC	FLEXIBLE CONNECTION		
—	LWT	LEAVING WATER TEMPERATURE		—	ALUMINUM DUCT		
—	MBH	1000 BRITISH THERMAL UNITS PER HOUR		—	EXHAUST REGISTER		
—	MER	MECHANICAL EQUIPMENT ROOM		—	NEW CEILING DIFFUSER		
—	NIC	NOT IN CONTRACT	—	—	—		
—	OAI	OUTSIDE AIR INTAKE	—	—	—		
—	PSI	POUNDS PER SQUARE INCH	—	—	—		
—	RA	RETURN AIR	<h3>GENERAL NOTES</h3> <ol style="list-style-type: none"><li>DUCT DIMENSIONS SHOWN ON MECHANICAL DRAWINGS REFER TO INSIDE CLEAR DUCT DIMENSIONS. WHERE DUCTWORK IS LINED THE CONTRACTOR SHALL INCREASE THE SIZE OF DUCT TO COMPENSATE FOR LINING.</li><li>CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE BEGINNING OF WORK AND COORDINATE NEW WORK.</li><li>THE CONTRACTOR SHALL INSTALL FIRE DAMPERS WITH ACCESS DOORS IN ALL DUCTS PENETRATING FIRE RATED WALLS WHETHER SPECIFICALLY SHOWN ON THE DRAWING OR NOT.</li><li>PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES. FOR PIPES PENETRATING FIRE RATED PARTITIONS, THE SPACE BETWEEN THE PIPE AND THE SLEEVE SHALL BE SEALED WITH FIRE STOPPING MATERIAL.</li><li>COORDINATE DUCTWORK, GRILLE, DIFFUSER AND REGISTER LOCATIONS WITH LIGHTS, ARCHITECTURAL ELEMENTS AND SHELING.</li><li>THIS CONTRACTOR SHALL SUBMIT FOR REVIEW A COMPOSITE SHOP DRAWING, FULLY COORDINATED WITH ALL OTHER TRADES, INDICATING DUCTWORK, PLUMBING PIPING, SMOKE DETECTORS, LIGHTS, CONDUITS, DIFFUSERS, GRILLES, ETC.</li><li>CONTRACT DRAWINGS AS FAR AS THEY RELATE TO THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, PIPING AND SHEETMETAL, SHALL BE UNDERSTOOD AS DIAGRAMMATIC. ANY CHANGES TO SHEETMETAL AND EQUIPMENT LOCATIONS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST.</li><li>PROVIDE CABLE OPERATED DAMPERS ON DUCTWORK ABOVE DRYWALL CEILINGS.</li><li>ALL RETURN DUCTWORK ENDING ABOVE HUNG CEILING TO HAVE ½"WMS.</li><li>SEE ARCHITECTURAL DRAWINGS FOR EXACT PHASING AND TIME SCHEDULE FOR CONSTRUCTION.</li></ol>				
—	RF—	RETURN FAN					
—	RPM	REVOLUTIONS PER MINUTE					
—	SA	SUPPLY AIR					
—	SP	STATIC PRESSURE					
—	TD	TRANSFER DUCT					
—	TF—	TRANSFER FAN					
—	TSP	TOTAL STATIC PRESSURE					
—	TYP.	TYPICAL					
—	U.O.N.	UNLESS OTHERWISE NOTED					
—	WB	WET BULB TEMPERATURE					
—	WG	INCHES OF WATER GAUGE					
—	EX.	EXISTING TO REMAIN					
—	REL.	REMOVE AND RELOCATE					
—	NEW	NEW WORK					
—	DEM.	EXISTING TO BE REMOVED					
Ⓢ	—	THERMOSTAT					
↗	—	AIR INTO REGISTER					
⊗	—	POINT OF CONNECTION DISCONNECTION					
↗	SR	SUPPLY REGISTER					
⊗	CD	1—WAY					
⊗	CD	2—WAY					
⊗	CD	2—WAY					
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CONTRACTOR		PROJECT COORDINATOR		
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SIGNATURE	SIGNATURE			
TITLE	DATE	TITLE	DATE	
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING				CONTRACT NUMBER 17 - 539
				SHEET NUMBER M-001
NEW GOLF CART STORAGE FACILITY AND CLUBHOUSE UPGRADES MOHANSIC GOLF COURSE, YORKYOWN, NEW YORK MECH. SYMBOLS, ABBREVIATIONS, & NOTES				SCALE: NONE DATE: 6/4/21
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