

AIR HANDLING UNIT SCHEDULE		
DESIGNATION	HVAC-1	
LOCATION	GRADE OUTSIDE BAGGAGE DROP	
AREA SERVED	SEE PLANS	
MANUFACTURER- BASIS OF DESIGN	JOHNSON \ YORK	
MODEL	PAQ-78X102	
WEIGHT OF UNIT (LBS)	6,868	
DESIGN DATA:	CURRENT	FUTURE
SUPPLY AIR (CFM)	22,500	26,000
OUTDOOR AIR (CFM)	4,350	4,350
RETURN AIR (CFM)	20,250	23,400
SPILL AIR (CFM)	2,300	1,750
SUMMER OA TEMP (°F) DB/WB	86.4/71.9	86.4/71.9
SUMMER RA TEMP (°F) DB/WB	75/62.5	75/62.5
WINTER OA TEMP (°F)	10	10
WINTER RA TEMP (°F)	68	68
FILTERS:		
PRE-FILTER: PANEL/50% DIRTY PD	2" MERV-8/0.61	2" MERV-8/0.61
MAIN FILTER: BAG/50% DIRTY PD	4" MERV-13/0.93	4" MERV-13/0.93
HOT WATER COIL:		
FACE AREA (SQ. FT.) VEL. FT./MIN	46.8/475	46.8/555
No. OF ROWS/ FPI MIN	1/8	1/8
E.W.T./L.W.T. (°F)	180/160	180/160
E.A.T./L.A.T. (°F)	58/93.3	58/93.3
AIR P.D. (IN H ₂ O)	0.05	.11
CAPACITY (MBH)	796	1,101
GPM	62	98.7
W.P.D. (FT H ₂ O)	5.7	14.2
CHILLED WATER COIL:		
FACE AREA (SQ. FT.)	46.8	46.8
No. OF ROWS/ FPI MIN	8/8	6/8
E.W.T./L.W.T. (°F)	45/56.7	45/56.7
E.A.T. (°F) DB/WB	80/67	80/67
L.A.T. (°F) DB/WB	55.9/54.7	55.9/54.7
AIR P.D. (IN H ₂ O)	0.81	0.73
CAPACITY (MBH) SENS./TOTAL	579.4/859	689.7/938.2
GPM	146	196.91
W.P.D. (FT H ₂ O)	8.5	13.9
SUPPLY FAN:		
DESIGN AIRFLOW (CFM)	22,250	26,000
BHP/HP	29.58/45	37.1/45
RPM	1,261	1,891
ESP/TSP (IN H ₂ O)	3/5.5	3/5.77
STARTER TYPE	VFD	VFD
ELECTRICAL DATA - SINGLE POINT POWER CONNECTION:		
VOLTS/Ø/Hz	460/3/60	460/3/60
FLA/MCA/MOCP (AMPS)	39/48.75/70	54.3/58.8/70
NOTES: 1. PROVIDE THE FOLLOWING MODULES FOR OUTDOOR UNIT (BACK TO FRONT): · TOP RETURN SECTION · OAI, RA, MIXED AIR, AND SPILL DAMPERS SHALL BE A UL LISTED SMOKE DAMPERS. THE CONTRACTOR SHALL REMOVE THE EXISTING DAMPERS AND FIELD INSTALL NEW UL LISTED 555S RATED DAMPERS. · MERV-8 PRE-FILTER · MERV-13 MAIN-FILTER · HOT WATER COIL MODULE. COIL SIZED FOR 30% PROP GLYCOL SOLUTION. · CHILLED WATER COIL MODULE. COIL SIZED FOR 30% PROP GLYCOL SOLUTION. · BIPOLAR IONIZATION · SUPPLY FAN MODULE · DISCHARGE PLENUM MODULE WITH BOTTOM OUTLET. 2. PROVIDE THE FOLLOWING OPTIONAL EQUIPMENT FOR EACH UNIT: · 100% MODULATING ECONOMIZER WITH DIFFERENTIAL ENTHALPY CONTROL. · CHILLED WATER AND HOT WATER PIPING TO UNIT SHALL BE LOCATED IN A FACTORY FABRICATED AND INSULATED PIPE ENCLOSURE. · FURNISH A FREEZE STAT ARRANGED TO OVERRIDE THE HOT WATER CONTROL VALVE AND SHUT DOWN UNIT, AS PER THE SEQUENCE OF OPERATIONS. · FURNISH (1) EXTRA FILTER SET OF EACH KIND OF FILTER. · COORDINATE LEFT/RIGHT COIL CONNECTION AND FAN DRIVE IN FIELD. · FURNISH 2-WAY MODULATING CONTROL VALVE FOR EACH COIL, WITH PIPING PACKAGE AS PER DETAIL #6 ON DRAWING M-701. 5 PSI MAX AT CONTROL VALVE. · ALL MODULATING DAMPERS SHALL BE OPPOSED-BLADE TYPE. · OUTSIDE AIR INTAKE DAMPER SHALL BE ARRANGED MODULATE OAI CFM ACCORDING TO THE DEMAND CONTROL VENTILATION SEQUENCE, INDEPENDENT OF VARIABLE SA CFM. PROVIDE AN OUTSIDE AIR INTAKE AIRFLOW MEASURING STATION. · POWERED CONVENIENCE OUTLET TO BE POWERED BY CONTRACTOR. 3. PROVIDE THE FOLLOWING MOTOR CONTROL OPTIONS FOR EACH UNIT: · UNITARY CONTROLLER BY AUTOMATIC TEMPERATURE CONTROLS MANUFACTURER, SHALL BE JOHNSON METASYS BUILDING AUTOMATION SYSTEM. · PREMIUM EFFICIENCY FAN MOTOR. ALL MOTORS FURNISHED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED & APPROVED FOR VARIABLE SPEED AND TORQUE APPLICATIONS. · SINGLE POINT EXTERNAL POWER CONNECTION AT UNIT. · PROVIDE FACTORY MOUNTED COMBINATION VFD / MOTOR STARTERS AND DISCONNECT SWITCHES IN A WEATHERPROOF ENCLOSURE MOUNTED TO UNIT. 4. PROVIDE DIFFERENTIAL AIR PRESSURE GAGES ON EACH SIDE OF THE FILTER BANK. PROVIDE MODULES TO REPORT PRESSURE READINGS TO BMS AND INDICATE DIRTY FILTER ALARM WHEN PRESSURE DROP ACROSS THE FILTER INCREASES ABOVE 0.5" SP (ADJ.).		

FAN SCHEDULE		
DESIGNATION	RF-1A & RF-1B	
	CURRENT	FUTURE
LOCATION	BAGGAGE DROP	
AREA SERVED	SEE PLANS	
MANUFACTURER	GREENHECK	
MODEL	BSQ-300	
WEIGHT (LBS)	523	
FAN TYPE	INLINE CENTRIFUGAL	
DRIVE TYPE	BELT	
CFM	10,250	11,700
BHP	3.7	4.6
HP	5	5
RPM	739	795
SP (IN H ₂ O)	1	1
VOLTS/Ø/Hz	460/3/60	460/3/60
STARTER TYPE	VFD	VFD
STARTER LOCATION	BAGGAGE DROP	BAGGAGE DROP
INTERLOCK	HVAC-1	HVAC-1
NOTES: 1. ALL MOTORS 1 HP OR GREATER SHALL BE PREMIUM EFFICIENCY. 2. ALL MOTORS FURNISHED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED & APPROVED FOR VARIABLE SPEED AND TORQUE APPLICATIONS. 3. FURNISH RUBBER IN SHEAR OR SPRING VIBRATION ISOLATORS AS PER THE SPECIFICATION. 4. FURNISH MOTOR AND BELT GUARDS FOR ALL EXTERNAL MOTOR DRIVES. 5. MOTOR STARTER AND DISCONNECT SWITCH FOR EACH FAN SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY THE CONTRACTOR.		

EQUIPMENT NOTES				
1. VOLUME CONTROL DAMPERS: FOR ALL ROUND & RECTANGULAR VOLUME CONTROL DAMPERS THAT ARE LOCATED ABOVE INACCESSIBLE CEILINGS, PROVIDE CABLE OPERATED DAMPERS: ROUND DAMPERS SHALL BE YOUNG BOWDEN MODEL 5020-CC. RECTANGULAR DAMPERS SHALL BE MODEL 830-CC2. CABLE CONTROLS SHALL BE MODEL 270-275 FOR CONCEALED LOCATIONS & MODEL 270-896C FOR LOCATIONS WHERE CABLES TERMINATE IN FINISHED SPACES. COORDINATE LOCATIONS IN THE FIELD. 2. MOTORIZED DAMPERS: SHALL BE RUSKIN MODEL SD60-2, 4" DEEP EXTRUDED ALUMINUM AIRFOIL DAMPER. DAMPER SHALL HAVE OPPOSED BLADES, MOTOR AND LINKAGE. DAMPER SHALL BE LISTED TO UL 555S. DAMPERS SHALL BE 120V/1Ø/60Hz, 3 AMPS MAX. FURNISH DISCONNECT SWITCH. 3. FIRE DAMPERS: SHALL BE RUSKIN MODEL DIBD-2, 1-1/2 HOUR UL555 RATED, SUITABLE FOR INSTALLATION IN WALL AND FLOOR PARTITIONS WITH FIRE RATINGS OF LESS THAN 3 HOURS. DAMPER SHALL BE A COMPLETE FACTORY PACKAGE INCLUDING U.L. APPROVED ANGLES, WALL SLEEVE, AND BREAKAWAY CONNECTIONS. DAMPER SHALL BE RATED FOR DYNAMIC AIRFLOW CONDITIONS OF 2,000 FPM AND 4.0" SP. 4. DUCT INSULATION (INTERIOR): SHALL BE OWENS CORNING 2" MIN, 700 SERIES TYPE 705, 6.0 PEF RIGID FIBER GLASS BOARD WITH POLY ENCAPSULATED ASJ MAX FACING WITH K FACTOR OF .25 AT 100 DEG FAHRENHEIT MEAN TEMPERATURE INSULATION SHALL BE NO LESS THEN THE HEIGHT OF DUCT STANDING SEAM. 5. DUCT INSULATION (EXTERIOR): SHALL BE AEROFLEX/AEROCEL WLP EPDM SHEET OR ROLL. MINIMUM OF 2" BUT NOT LESS THAN THE DUCT STANDING SEAM. INSTALL WITH AEROFLEX ADHESIVES. GLUE ALL BUTT JOINTS AND SEAM AND TAPE WITH EPDM TAPE. PERMEABILITY SHALL BE 0.01 PER INCH. K±.245 6. PIPE INSULATION (INTERIOR): SHALL BE JOHNS MANVILLE MICROLOK FIBERGLASS K FACTOR .24 AT 100 DEGREE FAHRENHEIT MEAN TEMP 2" THICK WITH WHITE ALL SERVICE JACKET (ASJ) WITH FLAME AND SMOKE SPREAD RATING OF LESS THAN 50/25. PROVIDE ZESTOY 2000 PVC JACKETING ON ALL INTERIOR INSULATED PIPES. HW, CHW, CW. 7. PIPE INSULATION (EXTERIOR): SHALL BE AEROFLEX AEROCELL WLP EPDM TUBE OR SHEET FOR PIPING WITH PREMOULDED PIPE FITTING INSULATION. INSTALL WITH AEROFLEX EPDM TAPE. PERMEABILITY SHALL BE .01 PER INCH. K±.245. 8. EXTERIOR PIPE AND DUCT JACKET: SHALL BE POLYGUARD-ALUMNAGUARD ALL WEATHER JACKET. COMPOSITE MEMBRANE CONSISTING OF MULTIPLE UV RESISTANT ALUMINUM FOIL POLYMER LAMINATE. 9. DUCT MOUNTED BIPOLAR IONIZATION (BPI-182): SHALL BE ATMOSAIR 508FC, CAPABLE OF SERVING AIRFLOWS UP TO 15,000 CFM. 120V/1PH/60HZ POWER SUPPLY, 28 WATTS, 0.25 AMPS. FIELD ELECTRICAL CONNECTION TO BE WIRED TO JUNCTION BOX. PROVIDE MOUNTING BRACKET AND AIR PRESSURE SWITCH TO ACTIVATE THE UNIT ONLY WHEN AIRFLOW IS PRESENT. 10. SIDEWALL SUPPLY AIR REGISTERS: SHALL BE TITUS MODEL 300FS, ALUMINUM CONSTRUCTION, WITH 3/4" SPACING, DOUBLE DEFLECTION AIRFOIL BLADES, OPPOSED BLADE VOLUME DAMPER IN NECK. SIZE AND CFM AS NOTED ON PLANS. FINISH SHALL BE BAKED ON ENAMEL. SUBMIT COLOR CHART FOR APPROVAL. FRAME SHALL BE SUITABLE FOR LAY-IN OR SURFACE MOUNTING AS REQUIRED. COORDINATE WITH ARCH PLANS.				
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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
RECORD DRAWING CERTIFICATION				
☐ AS BUILT – CHANGES AS NOTED ☐ AS BUILT – NO CHANGES				
CONTRACTOR		PROJECT COORDINATOR		
NAME _____	NAME _____			
SIGNATURE _____	SIGNATURE _____			
TITLE _____	DATE _____	TITLE _____	DATE _____	
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING				CONTRACT NUMBER 23–532–Rev. SHEET NO.10 OF 19
TERMINAL BUILDING HVAC-1 & HVAC-2 UPGRADES WESTCHESTER COUNTY AIRPORT TOWNS OF HARRISON, NORTH CASTLE & VILLAGE OF RYE BROOK				SCALE: AS SHOWN DATE: 10/29/24 DPW FILE NO. 48–15–M–883–0
MECHANICAL SCHEDULES				REV. NO. 0

IN CHARGE OF PATRICK LYNCH, P.E.

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