

AIR HANDLING UNIT SCHEDULE																	
TAG	MANUFACTURER / MODEL	LOCATION	SERVICE	SUPPLY FAN								FILTER					
				TOT. SA (CFM)	TOT. OA (CFM)	ESP IN.WG	TSP IN.WG	FAN QTY	TYPE	DRIVE	FAN RPM	TOT. BHP	MOT. HP EA	MERV	DEPTH AND TYPE	FINAL PD (IN WG)	NOTES
RTU-9	DAIKIN / RAH047C	UPPER ROOF	STUDENT DINING	15000	15000	1.7	3.84	1.0	ODP	DIRECT	813	15.2	20	14	CARTRIDGE	0.37	2' PLEATED PRE-FILTERS

AIR HANDLING UNIT SCHEDULE																																				
TAG	COOLING COIL															HOT WATER HEATING COIL										ELECTRICAL			UNIT DIM. (LxWxH)	OPER. WEIGHT (LB)	NOTES					
	FLUID	AIRFLOW (CFM)	MAX FACE VEL (FPM)	EDBT (°F)	EWBT (°F)	LDWT (°F)	LWBT (°F)	TOT. (MBH)	SENS. (MBH)	FLOW (GPM)	EWT (°F)	LWT (°F)	AIR PD (IN WG)	FLUID PD (FT H2O)	ROWS	FPI	QTY STACKED COILS	FLUID	AIRFLOW (CFM)	MAX FACE VEL (FPM)	EDBT (°F)	LDWT (°F)	LWBT (°F)	CAP. (MBH)	FLOW (GPM)	EWT (°F)	LWT (°F)	AIR PD (IN WG)				FLUID PD (FT H2O)	ROWS	FPI	QTY COILS	POWER V-PH-HZ
RTU-9	H2O	15000	413.1	92.5	73	52.1	1015	659	129.0	44.0	59.7	1.6	6.2	8.0	12.0	1.0	H2O	15000	355.5	14.3	85.0	1065	40.0	180	126.5	0.2	0.3	2.0	9.0	1.0	208-3-60	54.3	125	360x99x97	10936	1,2,3,4

NOTES:
1. PROVIDE UNIT WITH FACTORY MOUNTED FAN VFD, DISCONNECT SWITCH AND BUILT-IN PREPROGRAMMED CONTROLLER.
2. PROVIDE UNIT CONFIGURED FOR 100% OUTDOOR AIR OPERATION WITH SIDE SUPPLY DISCHARGE.
3. PROVIDE WATER COIL CONNECTIONS FROM THE BOTTOM OF THE UNIT. HEATING COIL TO BE INSTALLED BEFORE THE COOLING COIL. COIL CONTROL VALVES TO BE PROVIDED BY UNIT MANUFACTURER AND BE SHIPPED LOOSE TO BE INSTALLED BY MC.
4. PROVIDE UNIT WITH FACE AND BYPASS DAMPERS WITH ACTUATORS AROUND THE COOLING COIL. CONTROLS FOR THE BYPASS DAMPERS TO BE COMPLETED BY CONTROLS CONTRACTOR THROUGH EXTERNAL CONTROL PANEL. UNIT MANUFACTURER VIA FIELD-INSTALLED SUPPLEMENTARY CONTROL PANEL.

UNIT VENTILATOR SCHEDULE																										
TAG	MANUFACTURER	MODEL	TYPE	SERVICE	CFM	OA CFM	ESP (IN. WG.)	COOLING COIL										HEATING COIL					ELECTRICAL			
								TOTAL LOAD (BTUHR)	EAT	LAT	EWT (DEGF)	LWT (DEGF)	P.D. (FT HD)	FLOW (GPM)	TOTAL LOAD (BTUHR)	EAT	LAT	EWT (DEGF)	LWT (DEGF)	P.D. (FT HD)	FLOW (GPM)	MOTOR FLA	NOMINAL HP	V.PH.HZ		
UV-1	MAGICAIRE	MAUVF-5	VERTICAL	CLASSROOM 106	1500	425	0	60135	80	53.75	44	56	9.63	10.00	107098	55	120	180	148	9.63	10.00	4.7	0.5	120.1.60		
UV-2	MAGICAIRE	MAUVF-5	VERTICAL	CLASSROOM 105	1500	700	0	60135	80	53.75	44	56	9.63	10.00	107098	55	120	180	148	9.63	10.00	4.7	0.5	120.1.60		
UV-3	MAGICAIRE	MAUVF-5	VERTICAL	CLASSROOM 103	1500	300	0	60135	80	53.75	44	56	9.63	10.00	107098	55	120	180	148	9.63	10.00	4.7	0.5	120.1.60		
UV-4	MAGICAIRE	MAUVF-5	VERTICAL	CLASSROOM 101	1500	300	0	60135	80	53.75	44	56	9.63	10.00	107098	55	120	180	148	9.63	10.00	4.7	0.5	120.1.60		
UV-5	MAGICAIRE	MAUHF5	HORIZONTAL	EXERCISE ROOM	1500	325	0	60135	80	53.75	44	56	9.63	10.00	107098	55	120	180	148	9.63	10.00	4.7	0.5	120.1.60		
UV-6	MAGICAIRE	MAUHF5	HORIZONTAL	FACULTY DINING	1500	875	0	60135	80	53.75	44	56	9.63	10.00	107098	55	120	180	148	9.63	10.00	4.7	0.5	120.1.60		

NOTES:
1. UNIT MIXES RETURN AIR FROM FRONT INTAKE WITH OUTSIDE AIR SUPPLIED TO THE BACK OF THE UNIT VIA DUCT OR PLENUM.
2. PROVIDE UNIT WITH 2-PIPE COIL ARRANGEMENT AND FACE AND BYPASS FUNCTIONALITY FOR FREEZE PROTECTION.
3. PROVIDE UNIT WITH BUILT-IN DIGITAL CONTROLLER.
4. PROVIDE LITTLE GIANT CONDENSATE PUMP FOR SUSPENDED HORIZONTAL UNITS.

PUMP SCHEDULE														
TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	PUMP TYPE	FLUID TYPE	FLOW (GPM)	HEAD (FT.WG)	MOTOR DATA			UNIT DIM. (LxWxH)	OPER. WEIGHT (LB)	NOTES
									RPM	HP	V-PH-HZ			
CHWP-1	BELL & GOSSETT	BG-E80-2.5x2.5x9.5C-SS182JM-1N	BOILER ROOM	CHILLED WATER	INLINE	H2O	129	40	1750	3	208-3-60	21.5"x11.75"x28.13"	265	1,2,3,4,5,6,7
CHWP-2	BELL & GOSSETT	BG-E80-2.5x2.5x9.5C-SS182JM-1N	BOILER ROOM	CHILLED WATER	INLINE	H2O	129	40	1750	3	208-3-60	21.5"x11.75"x28.13"	265	1,2,3,4,5,6,7
HHWP-1	BELL & GOSSETT	BG-E90-150AAB-075-1725-1	BOILER ROOM	HEATING HOT WATER	INLINE	H2O	40	24	1750	0.75	208-3-60	11.5"x3"x17.25"	63	1,2,3,4,5,6,7
HHWP-2	BELL & GOSSETT	BG-E90-150AAB-075-1725-1	BOILER ROOM	HEATING HOT WATER	INLINE	H2O	40	24	1750	0.75	208-3-60	11.5"x3"x17.25"	63	1,2,3,4,5,6,7

NOTES:
1. ALL CONTROL WIRING, RELAYS, MISCELLANEOUS DEVICES SHALL BE BY DIVISION 23.
2. PROVIDE VIBRATION ISOLATORS SIZED FOR MINIMUM 90% DAMPENING EFFICIENCY.
3. PROVIDE PREMIUM EFFICIENCY INVERTER DUTY MOTORS AND VFDs.
4. M.C. TO PROVIDE PUMP INSULATION COVERS.
5. PROVIDE MECHANICAL SEALS FOR INLINE PUMPS.
6. INSTALL PUMP PER MANUFACTURER'S SPECIFICATION.

DIFFUSER SCHEDULE										
TAG	MANUFACTURER / MODEL	SERVICE	MAX FLOW CFM	NECK SIZE (IN)	FACE SIZE (IN)	APD (IN.WG)	MAX NC	NOTES		
								1	2	3
SG-1	TITUS / 300RS-HD	SUPPLY	750	36X10	38X12	0.020	10.0			1,2,3,4,5
RG-1	TITUS / 350RL	RETURN	4000	48X30	50X32	0.035	12.5			1,2,3,4,5
EG-1	TITUS / 350RL	EXHAUST	5340	48X48	50X50	0.020	10.0			1,2,3,4,5

NOTES:
1. 1.14-INCH WIDE BORDER ON ALL SIDES. SCREW HOLES SHALL BE COUNTERSUNK FOR A NEAT APPEARANCE. TAMPER RESISTANT SCREWS TO BE USED FOR INSTALLATION. CORNERS...
2. BLADES SHALL BE FIRMLY HELD IN PLACE BY MULLIONS FROM BEHIND THE GRILLE AND FIXED TO THE GRILLE BY WELDING IN PLACE. BLADE DEFLECTION ANGLE SHALL BE 35°.
3. OPPOSED-BLADE VOLUME DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL. DAMPER MUST BE OPERABLE FROM THE FACE OF THE GRILLE.
4. THE GRILLE FINISH SHALL BE #26 WHITE.
5. THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE GRILLE. THE GRILLE SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-1991.

SOUND ATTENUATOR SCHEDULE																			
TAG	MANUFACTURER	MODEL	SERVICE	LOCATION	DIMENSION			AIRFLOW (CFM)	VELOCITY (FPM)	P.D. MAX (IN.WG)	DYNAMIC INSERTION LOSS								OPER. WEIGHT (LB)
					WIDTH (IN)	HEIGHT (IN)	LENGTH (IN)				63 HZ	125 HZ	250 HZ	500 HZ	1000 HZ	2000 HZ	4000 HZ	8000 HZ	
ST-1	VIBRO-ACOUSTICS	RED-UHV-25353	RTU-9 SUPPLY AIR	ROOFTOP DUCTWORK	42	34	60	15000	1513	0.18	6	8	8	16	18	24	18	14	235

NOTES:
1. LENGTH SHOWN FOR ELBOW SILENCERS IS CENTERLINE LENGTH.
2. NON-BASIS OF DESIGN SILENCER MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED ACOUSTICAL CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO DEMONSTRATE THAT THE RESULTANT DUCTBORNE FAN...
3. NON-BASIS OF DESIGN SILENCER MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED PRESSURE DROP CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO DEMONSTRATE THAT THE RESULTANT INSTALLED...
4. FOR NON-BASIS OF DESIGN PRODUCT SUPPLIED, CONTRACTOR IS FINANCIALLY RESPONSIBLE TO ENSURE NOISE CONTROL SOLUTION IS DELIVERED TO ACHIEVE SPECIFIED RC LEVEL IN SPACES AS PER SED DESIGN GUIDELINES FOR HVAC SYSTEM...

ELECTRIC UNIT HEATER SCHEDULE							
TAG	MANUFACTURER	MODEL	SERVICE	TYPE	KW	V-PH-HZ	NOTES
EUH-1	MODINE	HER75	RTU-9	SUSPENDED	7.5	208-3-60	

NOTES:
1. PROVIDE ALL CONTACTS, RELAYS, AND DEVICES NECESSARY FOR STANDALONE OPERATION.
2. PROVIDE STAINLESS STEEL WALL AND CEILING SWIVEL TYPE MOUNTING BRACKET.

FAN SCHEDULE														
TAG	MANUFACTURER / MODEL	LOCATION	SERVICE	TYPE	DRIVE	FLOW (CFM)	TSP IN.WG	ELECTRICAL				UNIT DIM. (LxWxH)	OPER. WEIGHT (LB)	NOTES
								HP	BHP	RPM	V-PH-HZ			
EF-10D	GREENHECK / USF-30	ROOF	AUDITORIUM	UTILITY SET FAN	DIRECT	5340	0.50	5.00	0.61	870	208-3-60	50.47x51.13x76.77	814	1,2,3

NOTES:
1. PROVIDE MOTORIZED BACK DRAFT DAMPER.
2. PROVIDE FACTORY MOUNTED ISOLATION BASE WITH RESTRAINED SPRING ISOLATORS SIZED FOR MINIMUM 90% DAMPENING EFFICIENCY.
3. MC TO INSTALL VFD LOCATED NEAR EF-10A.

VARIABLE FREQUENCY DRIVE SCHEDULE					
ID	MANUFACTURER	MODEL	TECHNICAL DATA	COMMENTS	
EC-10 VFD	ABB	ACH580-BCR-114A-2+B056+F267+G390+K491	208 VAC 3-PHASE; 40 HP; 6-PULSE. SOFT START BYPASS	NEMA 12 ENCLOSURE	
CHWP-1 VFD	B&G	A2	208 VAC 3-PHASE; 3 HP	NEMA 12 ENCLOSURE	
CHWP-2 VFD	B&G	A2	208 VAC 3-PHASE; 3 HP	NEMA 12 ENCLOSURE	
HHWP-1 VFD	B&G	A2	208 VAC 3-PHASE; 1.5 HP	NEMA 12 ENCLOSURE	
HHWP-2 VFD	B&G	A2	208 VAC 3-PHASE; 1.5 HP	NEMA 12 ENCLOSURE	
EF-10D VFD	ABB	ACH550-BCR-06A6-2+B055	208 VAC 3-PHASE; 1.5 HP; 6-PULSE.	NEMA 12 ENCLOSURE	

NOTE:
1. VFD TO BE PROVIDED BY MC AND INSTALLED BY EC

VENTILATION SCHEDULE									
ZONE	Az	OCCUP. DENSITY	Code Occupancy	Rp	Ra	Ez	Voz	Design OAI	
TAG	NAME	SF	PER/1000 SQFT	Category	CFM/PER	CFM/SF	/	CFM	CFM
UV-1	CLASSROOM 106	876	35	CLASSROOM	10	0.12	1.0	412	425
UV-2	CLASSROOM 105	1446.47	35	CLASSROOM	10	0.12	1.0	680	700
UV-3	CLASSROOM 103	776.87	25	COMPUTER LAB	10	0.12	1.0	287	300
UV-4	CLASSROOM 101	1037.9	35	CLASSROOM	10	0.12	1.0	488	500
UV-5	EXERCISE ROOM	987.14	10	WEIGHT ROOM	20	0.06	0.8	321	325
UV-6	FACULTY DINING	734.93	100	CAFETERIA	7.5	0.18	0.8	854	875
RTU-9	STUDENT DINING	4205	100	CAFETERIA	7.5	0.18	1.0	3911	15000

PROJECT TITLE

SAUNDERS TRADES AND TECHNICAL HIGH SCHOOL HVAC UPGRADES

PROJECT ADDRESS

**183 PALMER RD
YONKERS, NY 10701**

OWNER

YONKERS PUBLIC SCHOOLS

ARCHITECT

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MEP ENGINEER AND ENVIRONMENTAL ENGINEER



KEY PLAN: NOT TO SCALE

SHEET SIZE 30X42

MARK DATE DESCRIPTION

08/18/20 ADENDUM 1

04/17/20 100% CONSTRUCTION DOCUMENTS

03/27/20 90% CONSTRUCTION DOCUMENTS

ISSUE

SED #: 66-23-00-01-0-206-017

YPS JOB: 10881

DESIGN BY: SHB

DRAWN BY: SHB

CHKD BY: SFA

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ENGINEER'S SEAL



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MECHANICAL SCHEDULES

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