









ACOUSTIC DUCT LINING MATRIX		
THICKNESS (IN)		
	2"	1.5"
WITHIN 15' DOWNSTREAM OF VAV BOXES	NOT REQUIRED	YES
15' UP AND DOWNSTREAM OF EXHAUST OR TRANSFER FANS (EXCLUDING TX AND DX)	NOT REQUIRED	YES
SUPPLY DUCTWORK WITHIN EXPOSED BAFFLED CEILING	NOT REQUIRED	YES
25' DOWNSTREAM AND 15' UPSTREAM OF AC UNIT/FCU FAN UP TO 10,000 CFM 25' DOWNSTREAM OF BUILDING SHAFTS	NOT REQUIRED	YES
SUPPLY DUCT MAIN WITHIN 25' OF AIR HANDLER OR AC UNIT FAN GREATER THAN 10,000 CFM	YES	NOT PERMITTED
RETURN AIR TRANSFER DUCTS, ALL DUCTWORK ABOVE CONFERENCE ROOMS	NOT REQUIRED	YES
REMARKS:		
• THESE THICKNESS VALUES ARE MEANT ALSO TO PROVIDE AN INSTALLED R VALUE OF 4.2 OR GREATER. IF A MINIMUM OF R6 INSTALLED VALUE CANNOT BE MAINTAINED FOR DUCTWORK CONCEALED IN UNCONDITIONED SPACE OR ABOVE HUNG CEILING, ADDITIONAL EXTERNAL WRAP IS REQUIRED.		

BRANCH DUCT SCHEDULE	
CFM RANGE	DUCT SIZE
UP TO 175	12 X 6
180 - 245	14 x 6
250 - 285	16 x 6, 12 x 8
290 - 335	18 x 6
340 - 375	20 X 6, 14 X 8
380 - 435	16 X 8
440 - 515	18 x 8, 14 x 10
520 - 585	20 x 8, 16 x 10
590 - 645	22 x 8
650 - 715	24 x 8, 18 x 10
720 - 825	26 x 8, 20 x 10
830 - 895	28 x 8, 22 x 10
900 - 1005	32 x 8, 24 x 10, 20 x 12
REMARKS:	
• THIS SCHEDULE APPLIES TO BRANCH DUCTS TO INDIVIDUAL DIFFUSERS THAT ARE NOT SIZED ON PLANS.	

LINEAR DIFFUSER SCHEDULE				
TYPE	SLOT WIDTH (IN.) AND QUANTITY	CAPACITY (CFM/LF)	NOISE CRITERIA	MODEL
◇				
A1	1", 1 SLOT	40	<20	FL-10-HT
A2	1", 2 SLOT	70	<20	FL-10-HT
B1	1-1/2", 1 SLOT	60	<20	FL-15-HT
B2	1-1/2", 2 SLOT	100	<20	FL-15-HT
C1	2", 1 SLOT	70	<20	FL-20-HT
C2	2", 2 SLOT	120	<20	FL-20-HT
REMARKS:				
1. LINEAR DIFFUSERS BASED ON TITUS FL.				
2. RETURN LINEARS TO MATCH SUPPLY.				
3. ALL ACTIVE SECTIONS OF LINEAR DIFFUSERS TO BE FIELD FABRICATED 4'-0" PLENUMS UNLESS OTHERWISE NOTED OR SHOWN ON PLANS.				
4. ALL INACTIVE SECTIONS OF LINEAR DIFFUSERS TO BE PROVIDED WITH LIGHT SHIELDS AND USED AS RETURN.				
5. STANDARD THROW CONFIGURATION SHALL BE DIRECTED INWARD TO THE ROOM. REFER TO PLANS FOR THROW DIRECTION FOR DIFFERENT CONDITIONS.				
6. FOR LINEAR DIFFUSERS LOCATED IN MILLWORK, FABRIC CEILINGS, CEILING TROUGHS, AND BETWEEN TILES, PROVIDE BORDER TYPE 55. FOR LINEAR DIFFUSERS LOCATED IN GYP CEILING, PROVIDE BORDER TYPE 22, TAPE AND SPACKLE, AND WITH WHITE FINISH. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION ON CEILING TYPES, FINAL FINISH AND BORDER TYPE TO BE VERIFIED IN SHOP DRAWINGS FOR EACH LOCATION.				

CEILING DIFFUSER SCHEDULE (PLATE FACE)						
NECK SIZE	NOMINAL SIZE	DIRECTION	SYMBOL	CFM RANGE		
				4-WAY	3-WAY	2-WAY
8"	12 X 12	ALL PATTERNS		UP TO 200	UP TO 150	UP TO 100
8"	24 X 24	ALL PATTERNS		UP TO 200	UP TO 150	UP TO 100
10"	24 X 24	ALL PATTERNS		201 - 325	151 - 240	101 - 160
12"	24 X 24	ALL PATTERNS		326 - 475	241 - 355	161 - 235
14"	24 X 24	ALL PATTERNS		476 - 625	356 - 465	236 - 310
15"	24 X 24	ALL PATTERNS		626 - 750	466 - 560	311 - 375
8"	12 X 12	RETURN		-	-	-
15"	24 X 24	RETURN		-	-	-
REMARKS:						
1. DIFFUSERS BASED ON TITUS MODEL OMNI						
2. RETURN DIFFUSERS BASED ON TITUS MODEL OMNI W/ LIGHT SHIELDS						
3. DIFFUSERS AND GRILLES MUST BE COMPATIBLE WITH CEILING TYPES ON PLAN. REFER TO ARCHITECTURAL PLANS FOR ALL FINISHES AND BORDER TYPES.						

Air Device Schedule													
Tag	Service	Mfg.	Model	Neck Size	Module Size (inches)	AirFlow CFM	Max Ptd.	Throw	Max NG	Pattern	Throw Direction	Material	Border
☒	Supply	Titus	R-OMNI	8	18	200	0.04	4	10	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	8	18	225	0.05	5	10	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	8	18	250	0.06	5	13	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	8	18	275	0.07	6	16	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	10	22.5	300	0.03	5	12	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	10	22.5	325	0.03	6	14	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	10	22.5	350	0.04	6	16	4-way	Center	Steel	Default
☒	Supply	Titus	R-OMNI	10	22.5	375	0.04	7	19	4-way	Center	Steel	Default
Notes: 1. Border types shall be compatible with architectural ceiling type for the room in which the air device is located. 2. See the plans for location and air quantities of each air device. 3. All air devices shall be tested in accordance with ASHRAE Standard 70-2006. 4. NG values are based upon a 10 dB Room Attenuation as outlined in the Titus catalog. 5. All Throw Values are Isothermal, and measured in feet. 6. All pressures are in inches, w.g. 7. For rooms with any 22.5 R-omni all other supply diffuser to match.													

TOP REGISTER SCHEDULE				
NOMINAL DUCT SIZE	CFM RANGE	DAMPER	NC	TOTAL PRESSURE
12X6	0 - 200	OBD	<25	0.1
16X6	201 - 300	OBD	<25	0.1
18X6	301 - 400	OBD	<25	0.1
24X6	401 - 500	OBD	<25	0.1
24X8	501 - 700	OBD	<25	0.1
36X8	701 - 1000	OBD	<25	0.1
36X10	1001 - 1350	OBD	<25	0.1
36X12	1351 - 1700	OBD	<25	0.1
REMARKS:				
1. DOUBLE DEFLECTION, 3/4" SPACING, STEEL REGISTER.				
2. BASED ON TITUS MODEL 300RL FOR RECTANGULAR DUCTWORK				
3. BASED ON TITUS MODEL 330FL WITH ASD-AIR SCOOP DAMPER / EXTRACTOR. FOR PLAT OVAL DUCTWORK				
4. DIFFUSER FINISH SHALL MATCH DUCTWORK FOR AREAS WITH EXPOSED CEILING. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR DETAIL.				

CEILING DIFFUSER SCHEDULE (LOUVERED FACE)					
NECK SIZE	NOMINAL SIZE	DIRECTION	SYMBOL	3-WAY	2-WAY
8"	24 X 24	ALL PATTERNS	☒	UP TO 150	UP TO 100
10"	24 X 24	ALL PATTERNS	☒	151 - 240	101 - 160
12"	24 X 24	ALL PATTERNS	☒	241 - 355	161 - 235
14"	24 X 24	ALL PATTERNS	☒	356 - 465	236 - 310
15"	24 X 24	ALL PATTERNS	☒	466 - 560	311 - 375
REMARKS:					
1. DIFFUSERS BASED ON TITUS MODEL TDC.					
2. FACE SELECTION OF TDC LOUVER DIFFUSER TO CORRESPOND TO 3-WAY OR 2-WAY PATTERNS AS SHOWN ON PLAN. (S2, G2, A3 PATTERN TYPES WHERE APPLICABLE BASED ON PATTERN ARROWS SHOWN).					
3. DIFFUSERS AND GRILLES MUST BE COMPATIBLE WITH CEILING TYPES ON PLAN. REFER TO ARCHITECTURAL PLANS FOR ALL FINISHES AND BORDER TYPES.					

VIBRATION ISOLATION SCHEDULE			
Equipment Type	Base Type	Isolator Type	Static Deflection
Precipitators (ESP-14-1)		Type A	2"
Fan-Coil Units		Type C	1"
Fans (Ceiling Mounted)		Type C	1"
Floor Mounted AC / CRAC Units		Type A	2"
AC Units (Ceiling Mounted)		Type F	2"
Water Source Heat Pumps		Type C	2"
Pumps (>2 HP)	Type B-2	Type A	2"
Pumps (<2 HP)		Type D	0.3"
Heat Exchangers		Type A	1"
Transformers (<150kVa)		Type D	0.3"
Transformers (>150kVa)		Type A	2"
UPS	Type B-1, as required	Type D	0.3"
Remarks:			
- PIPING SHALL BE ISOLATOED FOR A MINMUM DISTANCE OF 50' FROM EQUIPMENT OR 100 PIPE DIAMTERS, WHICHEVER IS GREATER			
- ALL ISOLATION OF PLUMBING EQUIPMENT APPLIES TO DOMESTIC AND HVAC RELATED PIPING			
- REFER TO RDA BOOK SPECIFICATIONS SECTION HV-29 FOR ADDITIONAL INFORMATION ON ISOLATOR TYPES			

VAV BOX SCHEDULE						
SIZE	MAX. CAP.	MAX. SET	MIN. SET.	PRESSURE DROP MAX CFM P1	N.C. AT 1.0" ΔPs	
					DISCHARGE	RADIATED
6	500	350	80	0.03	21	<20
8	900	750	145	0.01	22	23
10	1400	1100	230	0.01	22	24
12	2000	1600	325	0.01	21	24
14	3000	2100	450	0.01	22	25
16	4100	3100	580	0.01	23	28
REMARKS...						
1. SELECTION BASED ON TITUS DESV SERIES.						
2. MIN. SET POINT SHALL BE 40% OF MAX SHOWN ON DWGS, BUT NOT LOWER THAN SCHEDULED MIN.						
3. CONTROLS SHALL INCLUDE DDC ADJUSTABLE VAV COOLING.						
4. 120V/160 POWER SUPPLY WITH 120V/40V TRANSFORMER.						
5. DDC CONTROLS INSTALLED BY BMS VENDOR.						

FAN COIL UNIT SCHEDULE			
UNIT NO.		FCU-14-1 FCU-16-1	FCU-15-1, -2 FCU-16-2, -3
TYPE		2-PIPE, 6-ROW - HEATING & COOLING	2-PIPE, 6-ROW - HEATING & COOLING
MANUFACTURER		IEC	IEC
MODEL NO.		HPY12	HPY08
RATED CFM		921	550
COOLING CAPACITY	EWTLWT (F)	45/55	45/55
	GPM	7.7	4.6
	PD (FT. OF H2O)	11.1	3.7
	ENT'G AIR	DB (F)	80
		WB (F)	67
	CAPACITY (MBH)	TOTAL	39.3
HEATING CAPACITY		SENSIBLE	26.8
	EWTLWT (F)	150/132.2	150/131.6
	GPM	7.8	4.5
	PD (FT. OF H2O)	8.7	2.9
	ENT'G AIR	DB (F)	70
		WB (F)	-
MOTOR	CAPACITY (MBH)	TOTAL	68.6
	WATTS	217.6	141.2
	NO. SPEEDS	3	3
	RPM (LOW/MED/HIGH)	MED	MED
	FILTER SIZE	LxW (IN.)	14x35
	ELECTRICAL DATA	FLA / MCA / MFS	6.6 / 7.425 / 15
DIMENSIONAL DATA		VOLTS / PH / HZ	115 / 1 / 60
		LxWxH (IN.)	32x37x16
		WEIGHT (LBS)	169
REMARKS:			
1. PROVIDE FIRE ALARM SHUTDOWN TERMINAL.			
2. EACH UNIT TO BE HEATING AND COOLING. EACH UNIT TO BE PROVIDED WITH AQUASTAT ON PIPING TRIM, TIED TO FCU OPERATION BASED ON WATER TEMPERATURE. SEE BOOK SPECIFICATIONS FOR MORE DETAILS ON OPERATION			
3. PROVIDE (2) SPARE FILTERS PER FCU			
4. ALL UNITS TO BE REAR RETURN.			

FAN SCHEDULE - AMENITY FLOORS										
UNIT NO.	TX-13-1, -2 TX-14-1, -2 TX-15-1, -2 TX-16-1, -2		EF-15-4 EF-16-4	DXF-14-1	DXF-14-2	EF-13-1 EF-14-1 EF-15-3 EF-16-3	EF-15-2, -5 EF-16-2, -5	GXF-14-1	EF-15-1 EF-16-1	ADD-ALT. TF-13-1 TF-14-1 TF-15-1 TF-16-1
SERVICE	SEE PLANS		SEE PLANS	14TH FLOOR DISHWASHERS	15TH & 16TH FLOOR DISHWASHERS	SEE PLANS	SEE PLANS	GREASE TRAP ROOM	PANTRY	IDF
LOCATION	CEILING		CEILING	14TH FLOOR MER	14TH FLOOR MER	CEILING	CEILING	14TH FLOOR MER	CEILING	CEILING
MANUFACTURER	GREENHECK		GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NO.	CSP-A1050		CSP-A780	BSQ-160HP	QEI-9	CSP-A510-VG	CSP-A390-VG	CSP-A3300-VG	CSP-A700	CSP-A1300
TYPE	INLINE		INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE
CFM	720		700	600	1200	500	250	2300	600	1200
SP (IN. W.G.)	0.75		0.375	2	3	0.25	0.25	1	0.5	0.25
RPM	1070		1600	1924	2953	1275	1260	1090	1035	1300
MOTOR	TYPE	BC	BC	BELT-DRIVE	BELT-DRIVE	BC	EC	BC	BC	BC
	HP OR KW	0.467 KW	0.49 KW	2 HP	1.5 HP	0.156 KW	0.829 KW	0.8 KW	0.312 KW	0.7 KW
	RPM	1070	1600	1725	3600	1275	1260	1090	1035	1300
	VOLTS/PH/Hz	120/1/60	120/1/60	460/3/60	460/3/60	120/1/60	120/1/60	120/1/60	120/1/60	120/1/60
STARTER	TYPE	BMS	LINE VOLTAGE STAT	BMS	BMS	LINE VOLTAGE STAT	LINE VOLTAGE STAT	BMS	BMS	BMS
	NEMA	-	-	-	-	-	-	-	-	-
DIMENSIONAL DATA	LxWxH (IN.)	23X14X14	18X15X15	28.5x20x22.75	28.5x20x22.75	15x18x15	12x14x12	45x16x16	12x24x12	23X14X14
	WEIGHT (LB)	59	36	188	188	36	23	122	34	59
REMARKS:										
1. ALL FANS SHALL HAVE ECM MOTORS WHERE APPLICABLE.										
2. PROVIDE UNIT MOUNTED SPEED CONTROLLER.										
3. PROVIDE VIBRATION ISOLATION										
4. PROVIDE PERFORMANCE BAFFLE FOR DXF-14-1 TO MEET PRESSURE AND AIRFLOW REQUIRED.										

WATER SOURCE HEAT PUMP SCHEDULE - AMENITY FLOORS

UNIT NO.	AC-14-7, 8	AC-14-3, 4	AC-14-1, 2, 5, 9 AC-15-2 AC-16-2	AC-13-1	AC-13-2 AC-14-6	AC-C-1
SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
LOCATION	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED
MANUFACTURER	FLORIDA HEAT PUMP	FLORIDA HEAT PUMP	FLORIDA HEAT PUMP	FLORIDA HEAT PUMP	FLORIDA HEAT PUMP	FLORIDA HEAT PUMP
MODEL NO.	CL012-HZ	CL018-HZ	CL024-HZ	CL030-HZ	CL036-HZ	CL048-HZ
REFRIGERANT TYPE	R454B	R454B	R454B	R454B	R454B	R454B
FAN PERFORMANCE	CFM E.S.P. (IN. W.G.) MOTOR HP GPM	375 0.4 0.25	600 0.5 0.33	800 0.5 0.5	1,150 0.5 0.75	1,600 0.5 0.75
CONDENSOR WATER	P.D. (FT. OF H2O) WORKING PRESSURE (PSIG)	5.6 7.4	7.4 7.4	5.5 7.4	8.7 7.6	7.6 7.6
COOLING PERFORMANCE	EWTLWT (°F) EAT (°F DBWB) TOTAL COOLING CAPACITY (BTU) SENSIBLE COOLING CAPACITY (BTUH) EER	8799 8067 11.1 8.7	8799 8067 18.1 13.8	8799 8067 22.5 17.9	8799 8067 28.6 21.6	8799 8067 36.7 26.7 33.9
COMPRESSOR	QUANTITY RLA (EA)	1 4.6	1 7.6	1 3.8	1 5.8	1 12.2
ELECTRICAL DATA	VOLTS/PH/Hz FLAMC/MF5	208/160 6.9/8.1/15	265/160 10.2/12.1/15	460/360 5.9/6.9/15	460/360 9/10.4/15	208/360 18.2/21.2/30
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LBS)	33x19x11.5 114	44x21.5x17 154.8	44x21.5x18 183.2	47x21.5x19 205.2	54x24x21 266.6
PROVIDE: 1. UNIT CAPABLE OF COOLING AND HEATING. 2. HOT GAS BYPASS. 3. 5-YEAR COMPRESSOR WARRANTY. 4. EXTENDED RANGE UNIT AND LOW ENTERING WATER KIT. 5. EXTRA QUIET SOUND PACKAGE. 6. ECM MOTORS. 7. FIRE ALARM SHUTDOWN TERMINAL. 8. VIBRATION ISOLATION. 9. AUXILIARY DRIP PAN, LEAK DETECTOR AND CONDENSATE PUMP. 10. CONTROLS TO BE PROVIDED BY CONTROLS VENDOR. 11. UNITS TO BE ORDERED WITH MINIMUM CONTROL REQUIREMENT. 12. UNIT MANUFACTURER/VENDOR TO INSTALL BMS VENDOR CONTROLS PRIOR TO SHIPPING TO SITE.						

PUMP SCHEDULE - AMENITY FLOORS

UNIT NO.	PCWP-15-1, 2	SCWP-15-1, 2	CWP-14-1, 2, 3
SERVICE	15TH FLOOR WCCU	15TH FLOOR WCCU	13-16 FLOORS
TYPE	IN LINE	IN LINE	END SUCTION
LOCATION	CEILING	CEILING	14TH FLOOR MER
MANUFACTURER	GRUNDFOS	GRUNDFOS	GRUNDFOS
MODEL NO.	CR5-DOL5-2P	CR5-DOL3-2P	NBS25-DOL70-2P
FLUID DATA	TEMP (°F) FLUID GPM TOT. OPER. HEAD (FT.) SHUT OFF HEAD (FT.) NPSH REQ. (FT.)	87 WATER 34.18 40' 65.29' 38'	89 WATER 34.18 40' 124' 9.48
OPERATING PRESS. (PSIG)	-	-	-
MOTOR	TYPE HP RPM	WEG 2 3500	TEFC 1 3530
STARTER	VOLTS/PH/Hz TYPE NEMA SIZE	460/360 VFD -	460/360 VFD -
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LB)	10x9x28 100	46x15x18 203

REMARKS:
1. PUMPS CWP-14-1 AND CWP-14-2 TO BE A LEAD LAG CONFIGURATION. CWP-14-3 TO OPERATE AS BACK UP FOR PUMP FAILURE.
2. PCWP-15-1 AND SCWP-15-1 TO BE OPERATING PUMP. PCWP-15-2 AND SCWP-15-2 TO OPERATE AS BACK UP FOR PUMP FAILURE.
3. PROVIDE VFD FOR EACH PUMP CWP-14-1, 2, 3 WITHIN MER.
4. PROVIDE DRIP PAN AND LEAK DETECTOR FOR EACH PUMP.

PUMP SCHEDULE - PRACTICE FLOORS

UNIT NO.	CWP-37-1, 2, 3	CWP-35-1, 2
SERVICE	29TH-44TH FLOORS	MDF CRAC UNITS
TYPE	INLINE	INLINE
LOCATION	37TH FLOOR	35TH FLOOR
MANUFACTURER	GRUNDFOS	GRUNDFOS
MODEL NO.	CRE32-DOL2-1	CRE5-DOL6
FLUID DATA	TEMP (°F) FLUID GPM TOT. OPER. HEAD (FT.) SHUT OFF HEAD (FT.) NPSH REQ. (FT.)	68 WATER 160 120' 100'
OPERATING PRESS. (PSIG)	12.69	8.41
MOTOR	TYPE HP RPM	TEFC 7.5 3500
STARTER	VOLTS/PH/Hz TYPE NEMA SIZE	460/360 VFD -
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LB)	12x12x28 198

REMARKS:
- PROVIDE VFD FOR EACH PUMP
- VFD PANEL TO HAVE INTEGRAL DISCONNECT
- PROVIDE INVERTER DUTY MOTOR FOR IN LINE PUMPS
- PUMPS TO BE LEAD LAG CONFIGURATION

WATER SOURCE HEAT PUMP SCHEDULE - PRACTICE FLOORS

UNIT NO.	AC-29-1 AC-30-1 AC-31-1 AC-32-1 AC-33-1 AC-34-1 AC-35-1 (ADD-ALT) AC-35-2 AC-36-1 AC-37-1 AC-39-1 AC-40-1 AC-40-2 AC-41-1 AC-42-1 AC-43-1 AC-44-1	AC-37-2 AC-37-3	AC-31-2 AC-32-2 AC-33-2 AC-33-3 AC-40-3 AC-41-2 AC-43-2	AC-29-2 AC-31-3 AC-33-4 AC-35-3 AC-39-2 AC-40-3 AC-41-2 AC-43-3	AC-40-5	AC-41-3
SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
LOCATION	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED
MANUFACTURER	FLORIDA HEAT...	FLORIDA HEAT...	FLORIDA HEAT...	FLORIDA HEAT...	FLORIDA HEAT...	FLORIDA HEAT...
MODEL NO.	CL012-HZ	CL018-HZ	CL024-HZ	CL030-HZ	CL036-HZ	CL048-HZ
REFRIGERANT TYPE	R454B	R454B	R454B	R454B	R454B	R454B
FAN PERFORMANCE	CFM E.S.P. (IN. W.G.) MOTOR HP GPM	375 0.4 0.25	600 0.5 0.33	800 0.5 0.5	1,150 0.5 0.75	1,600 0.5 0.75
CONDENSOR WATER	P.D. (FT. OF H2O) WORKING PRESSURE (PSIG)	5.6 7.4	7.4 7.4	5.5 7.4	8.7 7.6	7.6 7.6
COOLING PERFORMANCE	EWTLWT (°F) EAT (°F DBWB) TOTAL COOLING CAPACITY (BTU) SENSIBLE COOLING CAPACITY (BTUH) EER	8799 8067 11.1 8.7	8799 8067 18.1 13.8	8799 8067 22.5 17.9	8799 8067 28.6 21.6	8799 8067 36.7 26.7 33.9
COMPRESSOR	QUANTITY RLA(EA)	1 3.5	1 7.6	1 3.8	1 5.8	1 6.4
ELECTRICAL DATA	VOLTS/PH/Hz FLAMCA MOCP	265/160 5.8/6.7/15	265/160 10.2/12.1/15	460/360 5.9/6.9/15	460/360 9/10.4/15	460/360 9.6/11.2/15
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LBS)	33x19x11.5 114	44x21.5x17 155	44x21.5x18 183.2	47x21.5x19 205.2	54x24x21 213.2
PROVIDE: 1. UNIT CAPABLE OF COOLING AND HEATING. 2. HOT GAS BYPASS. 3. 5-YEAR COMPRESSOR WARRANTY. 4. EXTENDED RANGE UNIT AND LOW ENTERING WATER KIT. 5. EXTRA QUIET SOUND PACKAGE. 6. ECM MOTORS. 7. FIRE ALARM SHUTDOWN TERMINAL. 8. VIBRATION ISOLATION. 9. AUXILIARY DRIP PAN, LEAK DETECTOR AND CONDENSATE PUMP. 10. CONTROLS TO BE PROVIDED BY CONTROLS VENDOR. 11. UNITS TO BE ORDERED WITH MINIMUM CONTROL REQUIREMENT 12. UNIT MANUFACTURER/VENDOR TO INSTALL BMS VENDOR CONTROLS PRIOR TO SHIPPING TO SITE.						

WATER COOLED COMPUTER ROOM AC UNIT SCHEDULE - PRACTICE FLOORS

UNIT NO.	CRAC-35-2 CRAC-35-3 CRAC-35-4	CRAC-29-1 CRAC-30-1 CRAC-31-1 CRAC-32-1 CRAC-33-1 CRAC-34-1 CRAC-35-1 CRAC-36-1 CRAC-37-1 CRAC-38-1 CRAC-39-1 CRAC-40-1 CRAC-41-1 CRAC-42-1 CRAC-43-1 CRAC-44-1
SERVICE	MDF	IDF
LOCATION	FLOOR MOUNTED	FLOOR MOUNTED
MANUFACTURER	ABOVE AIR	ABOVE AIR
MODEL NO.	MCW-018S1-4-00ERH-EC-FE-UF0-1A	MCW-007S1-7-00000-EC-00-UF2-XS
EER		
FAN	CFM E.S.P. (IN. W.G.) MOTOR (KW)	2800 0.5 4.5
DX COIL	CFM ENTG AIR CAPACITY MBH	2800 75 50 68.9 65.1
CONDENSOR	E.W.T. (°F) L.W.T. (°F) GPM P.D.(FT. OF H2O) WORKING PRESSURE (PSI)	87 99 13.7 9.3 -
COMPRESSOR	QUANTITY REFRIGERANT RLA(EA)	1 R-410A 7.8
FILTER	TYPE NO./SIZE	MERV-8 (1) 15x29x4
HUMIDIFIER	TYPE FLA LBS/HR	STEAM CANISTER 7.4 10
ELECTRIC REHEAT	NO. OF STAGES FLA KW	2-STAGE ELECTRIC HEAT 12.6 10
ELECTRICAL DATA	VOLTS/PH/Hz FLAMCA MOCP	460/360 26.4X31.5X35
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LBS)	40X34X77 625

PROVIDE:
1. HOT GAS BYPASS.
2. 5-YEAR COMPRESSOR WARRANTY.
3. EXTENDED RANGE UNIT AND LOW ENTERING WATER KIT.
4. EXTRA QUIET SOUND PACKAGE.
5. FIRE ALARM SHUTDOWN TERMINAL.
6. VIBRATION ISOLATION.
7. AUXILIARY DRIP PAN, LEAK DETECTOR AND CONDENSATE PUMP.
8. MICROPROCESSOR CONTROLLER WITH GRAPHIC DISPLAY.
9. BMS INTEGRATION CARD.
10. PROVIDE WATERSIDE ECONOMIZER FOR CRAC-35-2,3,4 AND UNITY CONTROLLER

FLOOR MOUNTED WATER COOLED AC UNIT SCHEDULE - AMENITY FLOORS

UNIT NO.	AC-15-1	AC-16-1
SERVICE	SEE PLANS	SEE PLANS
LOCATION	MER - SEE PLANS	MER - SEE PLANS
MANUFACTURER	MAAMOTH	MAAMOTH
MODEL NO.	WWW-393-CXST	WWW-393-CXST-L
EER	16.53	17.03
FAN	CFM E.S.P. (IN. W.G.) MOTOR HP MAX. FACE VEL. ENTG AIR F' WB L'V.G. AIR F' WB CAPACITY MBH SENSIBLE	10,500 2 15 420 80 67 54.3 53.8 421.5 295.2
CONDENSOR	MIN. NO. OF ROWS EWT / LWT (°F) GPM PRESS. DROP (FT OF H2O) WORKING PRESSURE (PSI) NO.	6 8799 96 4.2 300 3
COMPRESSOR	TYPE FLA (EA)	SCROLL 15.3
FILTER	TYPE NO./SIZE	MERV-8 (PRE) MERV-15 9 / 24x24x4 9 / 24x24x4
ELECTRICAL DATA	VOLTS/PH/Hz FLA / MCA / MOP LxWxH (IN.) WEIGHT (LBS)	MERV-8 (PRE) MERV-15 9 / 24x24x4 460/360 72 / 78 / 100 76.5x82x92 6.800

PROVIDE:
1. HOT GAS BYPASS.
2. 5-YEAR COMPRESSOR WARRANTY.
3. FACTORY MOUNTED VFD
4. WATERSIDE ECONOMIZER
3. EXTENDED RANGE UNIT.
4. EXTRA QUIET SOUND PACKAGE.
5. FIRE ALARM SHUTDOWN TERMINAL.
6. VIBRATION ISOLATION.
7. AUXILIARY DRIP PAN, LEAK DETECTOR AND CONDENSATE PUMP.
8. MICROPROCESSOR CONTROLLER WITH GRAPHIC DISPLAY.
9. BMS INTEGRATION CARD.

PLATE & FRAME HEAT EXCHANGER SCHEDULE - AMENITY FLOORS

UNIT NO.	HX-15-1
SERVICE	WCCU
LOCATION	15TH FLR MER
MANUFACTURER	HEXONIC
MODEL NO.	LB60-DOL110H-1
HOT SIDE	GPM EWT/LWT (°F) PRESS. DROP (PSI) WORKING PRESSURE (PSIG)
COLD SIZE	34.18 89/101 4 43.5
CONNECTION SIZES (IN.)	HOT SIDE 2-1/2" COLD SIDE 2-1/2"
HEAT TRANSFER AREA (SQ FT.)	95.7
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LB)

REMARKS:
- SEE BOOK SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
- PROVIDE CROSS-FLOW CONFIGURATION FOR ALL PIPING CONNECTIONS

WATER COOLED COMPUTER ROOM AC UNIT SCHEDULE - AMENITY FLOORS

UNIT NO.	CRAC-13-1 CRAC-14-1 CRAC-15-1 CRAC-16-1	CRAC-14-2 CRAC-15-2 CRAC-16-2
SERVICE	IDF	SEE PLANS
LOCATION	IDF	CEILING MOUNTED
MANUFACTURER	ABOVE AIR	FLORIDA HEAT PUMP
MODEL NO.	MCW-005S1-7-00000-EC-00-UF2-XS	CL036-HZ
EER		
FAN	CFM E.S.P. (IN. W.G.) MOTOR KW or HP CFM	1000 0.5 1 KW 1000
DX COIL	ENTG AIR DB°F WB°F CAPACITY MBH TOTAL SENSIBLE	1200 75 62.5 25.4 20.7 23.2
CONDENSOR	E.W.T. (°F) L.W.T. (°F) GPM P.D.(FT. OF H2O) WORKING PRESSURE (PSI)	87 99 5.2 9.6 7.9
COMPRESSOR	QUANTITY REFRIGERANT RLA (EA)	1 / SCROLL R-410A 2
FILTER	TYPE NO./SIZE	MERV-8 (1)18X24X2
HUMIDIFIER	TYPE KW LBS/HR	MERV-8 -
ELECTRIC REHEAT	NO. OF STAGES KW	- -
ELECTRICAL DATA	VOLTS/PH/Hz FLAMC/MF5	277/160 13.3 / 15.7 / 25
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LBS)	208/360 47x21.5x19 480

PROVIDE:
1. HOT GAS BYPASS.
2. 5-YEAR COMPRESSOR WARRANTY.
3. EXTENDED RANGE UNIT AND LOW ENTERING WATER KIT.
4. EXTRA QUIET SOUND PACKAGE.
5. FIRE ALARM SHUTDOWN TERMINAL.
6. VIBRATION ISOLATION.
7. AUXILIARY DRIP PAN, LEAK DETECTOR AND CONDENSATE PUMP.
8. MICROPROCESSOR CONTROLLER WITH GRAPHIC DISPLAY.
9. BMS INTEGRATION CARD.

PROJECT NOTES.

- TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 NEW YORK CITY ENERGY CONSERVATION CODE
- BOOK SPECIFICATION IS PART OF THIS CONTRACT
- THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

WATER COOLED MAKE-UP AIR UNIT SCHEDULE

UNIT NO.	MUA-14-1
SERVICE	14TH FLOOR KITCHEN
LOCATION	14TH FLOOR MER
MANUFACTURER	MAAMOTH
MODEL NO.	VWX-684-GEL
FAN	QUANTITY CFM E.S.P. (IN. W.G.) MOTOR HP (EA)
DX COIL	QUANTITY / CIRCUITS (EA) MAX. FACE VEL. (FPM) ENTG AIR F' WB L'V.G. AIR F' WB CAPACITY MBH SENSIBLE
CONDENSER	MIN. NO. OF ROWS (EA) EWT / LWT (°F) GPM PRESS. DROP (FT. OF H2O) WORKING PRESSURE (PSI) NO.
COMPRESSOR	TYPE FLA (EA)
FILTER	QUANTITY ROWS / CIRCUITS ENTG AIR F' WB L'V.G. AIR F' WB HEATING CAPACITY (MBH)
HEATING COIL (ELECTRIC, DUCT MOUNTED)	TAC EAT / LAT (°F) CAPACITY (MBH) KW
FILTER	TYPE MERV-8 (PRE) MERV-15 MERV-8 (PRE) MERV-15
ELECTRICAL DATA	NO./SIZE FLA / MCA / MOP LxWxH (IN.)
DIMENSIONAL DATA	WEIGHT (LBS)

PROVIDE:
1. HOT GAS BYPASS.
2. 5-YEAR COMPRESSOR WARRANTY.
3. EXTENDED RANGE UNIT.
4. EXTRA QUIET SOUND PACKAGE.
5. FIRE ALARM SHUTDOWN TERMINAL.
6. VIBRATION ISOLATION.
7. AUXILIARY DRIP PAN, LEAK DETECTOR AND CONDENSATE PUMP.
8. MICROPROCESSOR CONTROLLER WITH GRAPHIC DISPLAY.
9. PROVIDE DDC CONTROLLER WITH BAC-NET INTERFACE TO INTEGRATE WITH BMS AND KITCHEN EXHAUST HOOD CONTROL SYSTEM. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERCONNECTING WIRING.
10. REMOTE MOUNT ELECTRIC HEATER CONTROL PANEL WITHIN MER.
11. WATERSIDE ECONOMIZER

ELECTROSTATIC PRECIPITATOR SCHEDULE

UNIT NO.	ESP-14-1
SERVICE	KITCHEN
LOCATION	MER
MANUFACTURER	HALTON
MODEL NO.	PST-18-ESP-ESP-EF-OCUW-OC-C-B
UNIT ESP (IN W.G.)	2.42
FAN SECTION	MANUFACTURER MODEL NO. CFM TOTAL STATIC PRESSURE (IN W.G.) RPM HP CONFIGURATION
ELECTROSTATIC PRECIPITATOR SECTION	HALTON ATZAF 22-22-FF-T2 DWOI 16,000 5.99' 1800 25 CUSTOM - SIDE BLAST
BAFFLE PREFILTERS	NUMBER OF PASSES CELLS PER PASS CELL DIMENSIONS - LxWxH (IN) PRESSURE DROP (IN W.G.) NUMBER OF FILTERS 9 (8-POCKET FULL DEPTH)
CARBON FILTERS	2 12 24x24x12 0.2' 24x24x2 0.25' NUMBER OF FILTERS 72 (FULL SIZE) PREFILTER DIMENSIONS (IN) 24x24x2 PRESSURE DROP (IN W.G.) 0.25' HOT WATER FLOW RATE (GPM) 69.3
IN-PLACE CLEANING SYSTEM	HW PRESSURE (PSIG) HW FLOW PER PASS (GAL) DETERGENT PER PASS (GAL) DETERGENT TANK CAPACITY (GAL)
ELECTRICAL DATA (FAN)	VOLTS/PH/Hz FLA / MCA / MOCP 34 / 42.5 / 76.5
ELECTRICAL DATA (CONTROL)	VOLTS/PH/Hz FLA 30
ELECTRICAL DATA (DETERGENT CABINET)	VOLTS/PH/Hz FLA 120/160 30
DIMENSIONAL DATA	LxWxH (IN.) WEIGHT (LB)

PROVIDE:
1. ALL COMPONENTS ON MANUFACTURER PROVIDED SKID.
2. DETERGENT TANK AS REQUIRED FOR WASH-DOWN OPERATION. DETERGENT ONLY CONSUMED ONCE PER WEEK.
3. FACTORY MOUNTED AND MANUFACTURER PROVIDED VFD
4. PROVIDE DDC CONTROLLER WITH BAC-NET INTERFACE TO INTEGRATE WITH BMS AND KITCHEN EXHAUST HOOD CONTROL SYSTEM. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERCONNECTING WIRING.
5. ANSUL TANK AND PANEL FOR INTEGRATION WITH KITCHEN ANSUL SYSTEM.
6. DISCONNECT SWITCH
7. VIBRATION ISOLATION PER SCHEDULE AND SPECIFICATIONS
8. BREAKAPART CONSTRUCTION.

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Date Description

- 11/08/2024 ISSUED FOR 100% DD
- 01/17/2025 ISSUED FOR 25% CD
- 02/12/2025 ISSUED FOR 50% CD
- 03/28/2025 ISSUED FOR 75% CD
- 04/16/2025 ISSUED FOR 90% CD
- 05/02/2025 ISSUE FOR BID/LL REVIEW

Seal / Signature

Project Name

Paul, Weiss - 1345 AoA
Relocation

Project Number

877207

Description

MECHANICAL SCHEDULES II

Scale

NO SCALE PE: PM:

M-101.00

DOB NOW JOB #

DRAWING NO. ____ OF ____

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