

ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE GRADE
AHAP	AS HIGH AS POSSIBLE
AHU	AIR HANDLING UNIT
BLDG	BUILDING
BSMT	BASEMENT
BTWN	BETWEEN
CAB	CABINET
CG	CEILING GRILLE
CLG	CEILING
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUATION
CONTR	CONTRACTOR
CU	CONDENSING UNIT
DBJ	DUCT BETWEEN JOISTS
DIA	DIAMETER
DOAU	DIRECT OUTDOOR AIR UNIT
DN	DOWN
DRWG	DRAWING
EA	EACH
EF	EXHAUST FAN
EH	ELECTRICAL HEATER
EL	ELEVATION
ELEC	ELECTRICAL
ENT	ENTERING
ER	EXHAUST REGISTER
EXIST	EXISTING
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
FDE	FIRE & SMOKE DAMPER
FLX	FLEXIBLE
FLR	FLOOR
GA	GAUGE
GEN	GENERAL
GC	GENERAL CONTRACTOR
HWR	HIGH WALL REGISTER
HVAC	HEATING, VENTILATING, A/C
IN	INCH
INSUL	INSULATION
LD	LINEAR DIFFUSER
MAX	MAXIMUM
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MED	MEDIUM
MFR	MANUFACTURER
MINUM	MINIMUM
MTD	MOUNTED
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OPG	OPENING
PD	PRESSURE DROP
PRV	POWER ROOF VENTILATOR
RAG	RETURN AIR GRILLE
RD	ROOF DRAIN
REF	REFERENCE
REFRIG	REFRIGERATION
REG	REGISTER
REQ'D	REQUIRED
RET	RETURN
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SHT	SHEET
SF	STATIC PRESSURE
SUP	SUPPLY
T/TCT	TEMPERATURE CONTROL
TEMP	TEMPERATURE
VD	VOLUME DAMPER
VIB	VIBRATION
VRF	VARIABLE REFRIGERANT FLOW
W/	WITH

1. ALL WORK SHALL BE IN ACCORDANCE WITH S.M.A.C.N.A. STANDARDS AND ALL OTHER AUTHORITIES HAVING JURISDICTION (A.H.J.).
2. ALL DUCT DIMENSIONS ARE INSIDE CLEAR UNLESS OTHERWISE NOTED.
3. DUCT LAYOUT DRAWINGS ARE SCHEMATIC. THE CONTRACTOR SHALL PREPARE COMPLETE DETAILED AND COORDINATED SHOP DRAWINGS SHOWING ALL HUNG CEILING ELEVATIONS, BREAK POINTS AND STARTING POINTS, DUCTWORK WITH DIMENSIONED GRILLES, DIFFUSERS, AND REGISTERS. PIPING AND AIR CONDITIONING UNITS SHALL ALSO BE INCLUDED.
4. NOTIFY GENERAL CONTRACTOR OF ANY CONFLICTS BETWEEN DUCTWORK AND THE WORK OF ALL OTHER TRADES PRIOR TO BEGINNING WORK IN THE AREA CONTAINING THE CONFLICT. FAILURE TO NOTIFY WILL RESULT IN THE MECHANICAL CONTRACTOR TAKING FULL RESPONSIBILITY FOR RESOLVING THE CONFLICT(S).
5. REFER TO SPECIFICATIONS FOR DUCT INSULATION.
6. REFER TO THE ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS.
7. ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET-METAL. ALL SUPPLY AND RETURN PLenums AND DUCTWORK WITHIN 15' (FIFTEEN FEET) OF AIR CONDITIONING UNITS SHALL BE LINED WITH 1" ACOUSTICAL DUCT LINER.
8. ALL BRANCH DUCTS SHALL BE PROVIDED WITH VOLUME DAMPERS --- PROVIDE CABLE OPERATED DAMPERS IN ALL INACCESSIBLE AREAS
9. FOR EXACT LOCATION OF ALL CEILING DIFFUSERS, REGISTERS AND GRILLES REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
10. METAL PORTION OF DUCTWORK VISIBLE BEHIND ALL GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED MATTE BLACK.
11. FIRE DAMPERS SHALL HAVE THE SAME RATING AS THE ASSEMBLY IN WHICH THEY ARE LOCATED AND SHALL BE PROVIDED WITH ACCESS DOORS WHERE INACCESSIBLE.
13. INSULATED FLEXIBLE DUCT MAY BE USED UP TO A MAXIMUM OF 2'-0" FROM ALL CEILING DIFFUSERS AND LINEAR DIFFUSERS.
14. ALL THERMOSTATS SHALL BE INSTALLED WITH LOCKING COVERS IN COMMON AREAS SUBMIT CATALOG CUT FOR APPROVAL.
15. IN EACH GUESTROOM PROVIDE REMOTE THERMOSTAT AT LOCATION TO BE DETERMINED BY OWNER. MOUNT AT 54" ABOVE FLOOR EXCEPT IN MOBILITY-HANDICAP GUESTROOMS MOUNT AT 48" ABOVE FLOOR.
16. FINAL LOCATIONS OF ALL THERMOSTATS, DIFFUSER GRILLES ETC. MUST BE APPROVED BY ARCHITECT. FAILURE TO OBTAIN WRITTEN APPROVAL MAY SUBJECT THE CONTRACTOR TO RELOCATION AT HIS EXPENSE.

MARK	MODEL	COOLING	HEATING	O.A. HEATER	AUXILIARY HEATING
PTAC-1	AMANA DIGI-AIR PMH093G25ELRX	9.0 MBH	8.3 MBH	0.2 KW @ 208v	2.5 KW @208v

NOTES:

- FURNISH ALL UNITS WITH AUXILIARY DRAIN KIT, ELECTRIC SUB-BASE, INSULATED WALL SLEEVE, REMOTE THERMOSTAT, AND FRONT DESK INTERFACE. REFER TO PLUMBING DRAWINGS FOR ROUTING OF CONDENSATE.
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THRU-WALL HEAT PUMPS ("PTACs")

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MARK	SERVICE	TYPE	MODEL	KW	REMARKS
EUH-1	UTILITY	UNIT HEATER	TRANE UHEC-03-1-A--A	3.0	
EWH-1	STAIRS & VESTIBULES	PANEL CONVECTOR	DIMPLEX PPC-2000	15	
EH1	MISC	BASEBOARD HEATER	QMARK QMKC-2504W	1.0	
DBC	MISC	DRAFT BARRIER CONVECTOR	QMARK SLQDB-N-100-B-20-S-C-1-*--T		1, 2

- SEE ELECTRICAL PLANS FOR LOCATIONS AND LENGTHS OF UNITS
- POWER DENSITY = 100 WATTS PER FOOT

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ELECTRIC HEAT








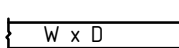
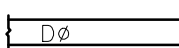


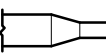
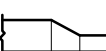
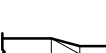



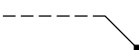
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CONDENSING UNITS										
CU TAG	MODEL (MITSUBISHI)	NOMINAL TONNAGE	TOTAL COOLING (BTUH)	HEATING CAP.@17°F (BTUH)	SYSTEM (KW)	V/PH/HZ	MCA	WEIGHT (LBS)	NOTES	
CU-1	PUHY-HP192TSJMU-A	16	192,000	216,000	18	208-230/3/60	74 + 74	1170	MOUNTING CURB, COIL GUARDS, SERVICE VALVES	
CU-2	PUMY-P36NHMU	3	36,000	40,000	4	208-230/1/60	26	290	LOW AMBIENT COOLING TO -20 DEG F, COIL GUARDS, SERVICE VALVES	

INDOOR(FANCOIL) UNITS												
TAG	SERVICE	MODEL (MITSUBISHI)	NOMINAL TONNAGE	TOTAL CFM	COOLING	HEATING		V/PH/HZ	MCA	MOCP	CONNECTED TO OUTDOOR UNIT	NOTES
						HEATING (BTUH)	AUXILIARY HEAT					
FC-1	OFFICE	PMFY-P06NBMU-E	0.5	230-307	6000	6700		208-230/1/60	0.25	15	CU-1	1, 2
FC-2	BREAKROOM	PMFY-P08NBMU-E	0.75	258-328	8000	9000		208-230/1/60	0.25	15	CU-1	1, 2
FC-3	LAUNDRY	PLFY-P24NBMU-E	2.0	530-700	24,000	27,000		208-230/1/60	0.5	15	CU-1	1, 2
FC-4	OFFICE	PMFY-P06NBMU-E	0.5	230-307	6000	6700		208-230/1/60	0.2	15	CU-1	1, 2
FC-5	OFFICES	PEFY-P24NMAU-E	2.0	477-671	24,000	27,000		208-230/1/60	1.0	15	CU-1	1, 2
FC-6	DATA	PKFY-P12NHMU-E	1.0	320-390	12,000	13,500		208-230/1/60	0.2	15	CU-2	1, 2
FC-7	LOUNGE	PVFY-P36NAMU-E	3.0	770-1100	36,000	40,000		208-230/1/60	2.5	20	CU-1	1, 2
FC-8	KITCHEN	PEFY-P30NMAU-E	2.5	512-742	30,000	34,000		208-230/1/60	1.2	20	CU-2	1, 2
FC-10	MEETING	PVFY-P30E00A	2.5	637-886	30,000	34,000		208-230/1/60	2.5	20	CU-1	1, 2
FC-9	LOUNGE	PVFY-P30E00A	2.5	637-886	30,000	34,000		208-230/1/60	2.5	20	CU-1	1, 2
FC-11	EXERCISE	PEFY-P30NMAU-E	2.5	512-742	30,000	34,000		208-230/1/60	1.2	20	CU-1	1, 2
FC-12	STAIR TOWER	PKFY-P18NHMU-E	1.5	320-405	15,000	17,000		208-230/1/60	0.3	20	CU-1	1, 2
FC-13	STAIR TOWER	PKFY-P18NHMU-E	1.5	320-405	15,000	17,000		208-230/1/60	0.3	20	CU-1	1, 2
FC-14	COLLABORATION	PMFY-P15NBMU-E	1.25	270-380	15,000	17,000		208-230/1/60	0.3	20	CU-1	1, 2
NOTES: 1. OWNER WILL SUPPLY COLD PLASMA GENERATOR PHENOMINAL-AIRE D-12-2 FOR INSTALLATION BY HVAC CONTRACTOR. 2. PROVIDE INTEGRAL CONDENSATE PUMP AND WALL MOUNT 7-DAY PROGRAMMABLE T-STAT (NO REMOTE)												

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HVAC SPLIT SYSTEMS SCHEDULE

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	CEILING SUPPLY DIFFUSER
	RETURN AIR GRILL
	EXHAUST FAN
 HWD	HIGH WALL DIFFUSER
 LD	LINEAR CEILING DIFFUSER
 TG	TRANSFER GRILL
	SIDE WALL REGISTER OR GRILLE
 W x D	RECTANGULAR DUCT- WIDTH x DEPTH
 D φ	ROUND DUCT-DIAMETER
	PIPE RISE UP
	PIPING DOWN OR DROP
	DUCT TRANSITION- CONCENTRIC
	DUCT TRANSITION- ECCENTRIC
	DUCT TRANSITION- RECT TO RND
 VD	MANUAL VOLUME DAMPER
	CARBON DIOXIDE SENSOR
	THERMOSTAT
	SMOKE & FIRE DAMPER
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HVAC NOTES

Outdoor Air →

Return Air →

Supply Air →

POOL

MANUAL RECOVERY AND EVACUATION VALVES

Liquid

HOT GAS

SPLIT SYSTEM NDU-1

ELECTRICAL PANEL

FILTER

IF AIR-COOLED CONDENSER IS MORE THAN 20 FT (6 M) ABOVE THE DRY-G-TRON, INSTALL TRAPS IN RISER EVERY 20 FT (6 M).

1	OUTDOOR AIR FILTER	A
2	POOL WATER ISOLATION VALVES	B
3	P-TRP & CONDENSATE RETURN	C
4	WATER FLOW METER	B
5	POOL WATER CONNECTION	B
6	AIR CONDITIONING PRESSURE/TEMPERATURE PORTS	A
7	FLEXIBLE DUCT CONNECTION	D
8	DUCT HEATER	D
9	OPERATOR PANEL	A
10	REFRIGERANT ACCESS VALVES	A
11	AIR VENT	B
12	AUXILIARY WATER HEATER	B
13	AUTOMATIC CHEMICAL FEEDER	B
14	THROTTLING BALL VALVE	B
15	WATER PRESSURE SWITCH	A
16	BYPASS VALVE	D
17	SECONDARY CIRCULATING PUMP	D
18	WATER PRESSURE SWITCH	B
19	MAIN FILTER PUMP	B
20		

A	NATATORIUM ENVIRONMENTAL CONTROL SYSTEM CONTRACTOR
B	POOL CONTRACTOR
C	PLUMBING CONTRACTOR
D	HVAC CONTRACTOR

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NATATORIUM DEHUMIDIFIER (NDS) & POOL HEATER SCHEMATIC

MARK	SERVICE	INSTALL LOCATION	MANUF. & MODEL	CFM	POWER	S.P.	SONES	VOLTS-PH	WEIGHT (LBS)	NOTES
EF-1	GUEST BATH, MISC.	CEILING	COOK/GC-126	50	40W	0.250"	0.3	120	13	1
EF-2	MISCELLANEOUS	CEILING	COOK/GC-162	150	95W	0.250"	2.9	120	15	1
EF-3	EQUIPMENT ROOM	CEILING	COOK/GC-420	300	170W	0.250"	4.0	120	30	1,4
EF-4	MISCELLANEOUS	CEILING	COOK/GC-142	80	59W	0.250"	1.9	120	15	1, 3, 4
EF-5	TOILET EXHAUST STACKS	ROOF	COOK/120 REBE	115	70W	0.250"	3.0	120	85	2, 3
EF-6	TOILET EXHAUST STACKS	ROOF	COOK/120 REBE	170	70W	0.250"	3.0	120	85	2, 3
EF-7	TOILET EXHAUST STACKS	ROOF	COOK/125 REBE	600	100W	0.250"	4.0	120	85	2, 3
EF-8	POOL	ROOF	COOK/120 REBE	400	80W	0.250"	3.0	120	25	1, 2, 5
EF-9	POOL VEST.	CEILING	COOK/GC-126	50	40W	0.250"	0.3	120	13	3, 4

NOTES:
1. BACKDRAFT DAMPER.
2. PREWIRED FAN SPEED CONTROLLER.
3. FAN TO RUN CONTINUOUSLY.
4. WALL CAP. MOUNT AT LEAST 10' ABOVE GRADE. PAINT TO MATCH ADJACENT EXTERIOR.
5. LINKED TO NDU. NORMALLY ON AT 25% --- ON AT 100% WHEN NDU IS RUNNING

FAN MARK SUFFIXES ON PLANS:
"a" INDICATES FAN IS TO BE CONTROLLED BY OCCUPANCY SENSOR WITH 10 MINUTE OVERRUN
"b" INDICATES FAN IS TO BE CONTROLLED BY THERMOSTAT
NO SUFFIX INDICATES LOCAL SWITCH CONTROL

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FAN SCHEDULE

The diagram illustrates a vertical duct shaft for a Direct Outdoor Air Unit (DOAU). At the top, a box labeled "DIRECT OUTDOOR AIR UNIT" is connected to a vertical duct. The duct passes through five floor levels, labeled 1 through 5 from bottom to top. At each floor level, there are two types of duct components: a "FSD" (Floor Service Duct) and an "HWD" (Horizontal Wall Duct). The duct is labeled "DASH" (Duct Air Supply Hose) and "DASH" (Duct Air Supply Hose) at each floor level. The duct is shown with various fittings and connections, including a "DASH" (Duct Air Supply Hose) at the bottom. The diagram is a schematic section showing the internal components and connections of the DOAU duct shaft.



**A NEW 108-ROOM
COURTYARD BY
MARRIOTT
HOTEL & SUITES**

Turner Road
Woodbury, New York
location #12121

for

**RAINBOW
ENTERPRISES**

4758 Highway 28
Cooperstown, NY

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DRAWING TITLE
MECHANICAL SCHEDULES & NOTES
DATE
MARCH 1, 2021
PROJECT NUMBER
17971
SHEET NUMBER
M600