

EXIST. ROOF TOP A/C UNIT SCHEDULE		
TAG	ERTU-1	ERTU-2
MANUFACTURER	CARRIER	CARRIER
MODEL NUMBER	50HC-E08A2A5-OF1C0	50HC-E08A2A5-OF1C0
NOMINAL TONAGE	7.5	7.5
SEER/ EER	---/12.2	---/12.2
INDOOR FAN C.F.M.	3000	3000
MINIMUM OUTDOOR AIR (C.F.M.)	300	300
PERCENT OF OA	10.0%	10.0%
COOLING CAPACITY		
OUTSIDE TEMPERATURE °F	95	95
ENTERING AIR TEMP. DB. / WB. °F	78.7/66.1	78.7/66.1
LEAVING AIR TEMP. DB. / WB. °F	57.7/56.4	57.7/56.4
TOTAL COOLING CAPACITY (M.B.H.)	90.73	90.73
SENSIBLE COOLING CAPACITY (M.B.H.)	68.04	68.04
HEATING CAPACITY		
GAS INPUT (M.B.H.)	---	---
GAS OUTPUT (M.B.H.)	---	---
(AFUE) HEATING EFFICIENCY	---	---
DELTA T	19.6	19.6
ELECTRIC HEAT (KW)	18.60	18.60
MOTOR/ELECTRIC		
VOLTS / PHASE / HERTZ	208/3/60	208/3/60
DESIGN ESP	0.50	0.50
INDOOR MOTOR OPERATING POWER	1.14 BHP	1.14 BHP
FAN MOTOR SIZE, HP	-	-
MINIMUM CIRCUIT AMPACITY (AMPS)	74	74
MAXIMUM OVERCURRENT PROTECTION (AMPS)	80	80
INDOOR FAN MOTOR FLA	6.9	6.9
COMPRESSOR 1 RLA	13.6	13.6
COMPRESSOR 1 LRA	83.0	83.0
COMPRESSOR 2 RLA	13.6	13.6
COMPRESSOR 2 LRA	83.0	83.0
WEIGHT WITH CURB (LBS.)	1261	1261
REMARKS	A THRU N	A THRU N

OUTSIDE AIR CALCULATIONS						
ROOM NUMBER & NAME	OCCUPABLE AREA SQ. FT.	NO. OF PEOPLE	REQ'D OA CFM/PERSON	REQ'D OA CFM/SQ FT	REQ'D OSA ERTU-1&2	EXHAUST FAN
100 SALES AREA	1656	25	7.5	0.12	386.22	
101 HALLWAY	42	-	0.00	0.06	2.52	
102 RESTROOM	53	-	0.00	0.00	0.0	75
103 STOCK ROOM	1406	6	5.00	0.06	114.36	125
104 OFFICE	107	1	5.00	0.06	11.42	
TOTALS	REQUIRED OUTSIDE AIR				514.51	
	PROVIDE OUTSIDE AIR				600	

NOTES:
1. ESTIMATED MAXIMUM OCCUPANCY AND REQUIRED OUTSIDE AIR BASED ON THE 6TH EDITION 2017 FBC TABLE 403.3

CONTROL SEQUENCE OF OPERATIONS: ERTU-1,2 (ELECTRIC HEAT/ ELECTRIC COOLING)	
ELECTRIC HEATING/ELECTRIC COOLING RTU SEQUENCE OF OPERATION	
DAY CYCLE -- COOLING	
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.	
2. OUTSIDE AIR DAMPER SHALL BE IN MINIMUM POSITION.	
3. THERMOSTAT SHALL CYCLE COMPRESSOR(S) TO MAINTAIN ROOM SET TEMPERATURE.	
DAY CYCLE -- HEATING	
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.	
2. OUTSIDE AIR DAMPER SHALL BE IN MINIMUM POSITION.	
3. THERMOSTAT SHALL CYCLE ELECTRIC HEATER TO ACHIEVE ROOM SET TEMPERATURE.	
ECONOMIZER	
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.	
2. OUTSIDE AIR DAMPER SHALL MODULATE FROM MINIMUM TO 100% OUTSIDE AIR TO MAINTAIN ROOM SET TEMPERATURE.	
DAY CYCLE -- DEHUMIDIFICATION	
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.	
2. MECHANICAL OUTSIDE AIR DAMPERS SHALL BE IN OPEN POSITION.	
3. RESTROOM EXHAUST FANS SHALL BE ENERGIZED.	
4. HUMIDITY SHALL USE COOLING COIL STAGES TO MAINTAIN SET POINT HUMIDITY.	
MORNING WARMUP	
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.	
2. OUTSIDE AIR DAMPER SHALL BE IN CLOSED POSITION.	
3. WHEN SET TEMPERATURE IS REACHED COOLING OR HEATING CYCLE SHALL COMMENCE.	
NIGHT REVERSE	
1. OUTSIDE AIR DAMPER SHALL BE IN CLOSED POSITION.	
2. THERMOSTAT SHALL CYCLE EITHER COOLING OR HEATING AND SUPPLY AIR FAN TO MAINTAIN ROOM SET TEMPERATURE.	
SMOKE DETECTOR	
1. WHEN SMOKE DETECTOR IS ACTIVATED SUPPLY AIR FAN SHALL SHUTDOWN.	
2. SUPPLY AIR FAN SHALL BE MANUALLY RESET.	

BUILDING AIR BALANCE SCHEDULE		
MARK	OUTSIDE AIR	EXHAUST
EF-1*		75
EF-2		50
EF-3		75
ERTU-1	300	
ERTU-2	300	
TOTAL:	+600	-200

TOTAL BUILDING PRESSURIZATION +400 CFM
* INTERLOCKED TO LIGHT SWITCH.

THERMOSTAT SCHEDULE						
MARK	SERVES ROOMS	OCCUPIED		UNOCCUPIED		REMARKS
		COOLING	HEATING	COOLING	HEATING	
ERTU-1	100 SALES AREA, 103 STOCK ROOM, 104 OFFICE	75	70	60		
ERTU-2	100 SALES AREA, 101 HALLWAY, 102 RESTROOM, 103 STOCK ROOM		70	78		1

NOTES:
1. CONTRACTOR SHALL COORDINATE EXACT OPERATIONAL TIMES WITH OWNER/MANAGER PRIOR TO PROGRAMMING.

FLEX DUCT SIZE		
0	80 CFM	6"
81	170 CFM	8"
171	300 CFM	10"
301	510 CFM	12"
511	750 CFM	14"
701	1100 CFM	16"
1101	1450 CFM	18"
1451	1900 CFM	20"

BASED ON WIRE HELIX FLEXIBLE DUCT TYPE FLEX-MASTER
UL LISTING:
U-181 / ETL CLASS 1 AIR RESISTANT STANDARD CODE:
NFPA 90A AND 90B, BOCA, SBCCI, HUD/FHA, MIN PROPERTY STD.,
FIRE SPREAD.....LESS THAN 25
SMOKE DEVELOPE.....LESS THAN 50
MIN. 2.0 FOR ATTIC/UNCONDITION SPACE.
MIN. 1.0 FOR RETURN CONDITIONED SPACE.
MANUFACTURER TO BE USED AS A BASIS FOR DESIGN. EQUAL IS APPROVED.

EXHAUST FAN SCHEDULE												
PLAN MARK	MANUFACTURER	MODEL NUMBER	AREA SERVED	CFM	E.S.P.(IN)	ELEC. WATTS	DRIVE	RPM	ELECTRICAL	MISC. CONTROLS	REMARKS	
EF-1	BROAN	XB80	RESTROOM	75	0.15"	5.80	DIRECT	-	120V/1PH	LIGHT INTERLOCK	1,2,3,4,5	
EF-2	BROAN	XB50	MOP SINK	50	0.15"	5.10	DIRECT	-	120V/1PH	WALL SWITCH	1,2,4,5	
EF-3	BROAN	XB80	BATTERY CHARGING STATION	75	0.15"	5.80	DIRECT	-	120V/1PH	CONTINUOUS	1,2,4,5	

REMARKS:
1. PROVIDE ROOF VENT CAP WITH BIRDSCREEN AND BACKDRAFT DAMPER. VENT FOR EXHAUST DUCT, SHALL BE A MINIMUM 36" HIGH ABOVE ROOF SURFACE.
2. PROVIDE FACTORY INSTALLED AND WIRE SPEED CONTROLLER.
3. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
4. FAN SHALL BE SUPPLIED WITH FACTORY WHITE GRILLE.
5. PROVIDE WITH MOUNTING HARDWARE AND ISOLATOR KIT.

AIR DISTRIBUTION DEVICE SCHEDULE (BASED ON PRICE)												
TAG	MODEL	SIZE			MAX CFM	MOUNTING			ACCESSORIES			NOTE
		FACE	NECK	DUCT		SOFFIT	CEIL-ING	DUCT	STEEL	ALUM.	DPR.	
SD-1	SPD	24/24	10"	300		●						1,2,3,4,5,7,8
SD-2	SPD	12/12	6"	80		●						1,2,3,4,5,7,8
SR-1	520D	14/12	12/10	500	●					●		1,2,4
RR-1	530	30/22	28/20	1775		●				●		2,4,8,9

NOTES:
1. PROVIDE WITH OPPOSED BLADE DAMPER AT AIR DEVICE IF SHOWN ON PLANS.
2. MAX NC LEVEL 30 OR LESS.
3. PROVIDE SQUARE TO ROUND NECK ADAPTOR.
4. SEE ARCHITECTURAL DRAWINGS FOR PAINT AND FINISH.
5. PROVIDE 4-WAY AIR THROW PATTERN UNLESS OTHERWISE NOTED OR INDICATED.
6. PROVIDE INSULATED PLENUM.
7. BORDER TYPE 3 FOR LAY-IN INVERTED TEE.
8. PROVIDE INSULATED BACKS ON ALL DIFFUSERS.
9. PAINT INSIDE RETURN AIR PLENUM FLAT BLACK.

Order Plans

04.04.18 PERMIT SUBMIT
03.26.18 OWNER REVIEW
03.23.18 OWNER REVIEW
NO DATE REMARKS
REVISIONS

SHERWIN WILLIAMS
8909 IMMOKALEE ROAD
NAPLES, FL 34120

PROJECT NO: 2018.0102
DATE: 03.19.18

M201
MECHANICAL SCHEDULES

CHECKED: AS DRAWN: AC

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