OVEN EXHAUST FAN SCHEDULE

MARK	TYPE	CFM RANGE	CFM SETTING	RPM/ S.P. (IN W.C.)	DRIVE	MOTOR DATA				SERVES	EQUAL TO		UNIT WEIGHT	NOTES
						ELEC.	VOLTS	PH	STARTER		MFR.	MODEL		
EF-3	ROOF	200 MIN / 800 MAX	800	1725/1.0"	DIRECT	0.5 H.P.	120	1	X-LINE	BAKING OVEN	GREENHECK	CUE-141HP-VG/5/A	110	1,2,3,4,5,6

1. MECH. CONTRACTOR SHALL PROVIDE MOTOR STARTER INSTALLED BY ELEC. CONTRACTOR.
2. PROVIDE WITH REMOTE FAN SPEED DIAL CONTROLLER. SET TO 800 CFM.
3. FAN SHALL BE RATED FOR KITCHEN DUTY.
4. APPROVED MANUFACTURER'S: DAYTON (GRAINGER), GREENHECK, BROAN, LOREN COOK, ACME, CAPTIVE AIRE AND PENN.
5. REFER TO KITCHEN HOOD SHEETS.
6. PROVIDE WITH VARI-GREEN MOTOR.

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	DELTA	SIG 110	RESTROOM	80	0.1"	8.7	DIRECT	–	120V/1PH	WALL SWITCH	1,2,3,4,5
EF-2	DELTA	SIG 110	UTILITY/DISHWASH	80	0.1"	8.7	DIRECT	–	120V/1PH	TIMECLOCK	1,2,4,5,6

REMARKS:

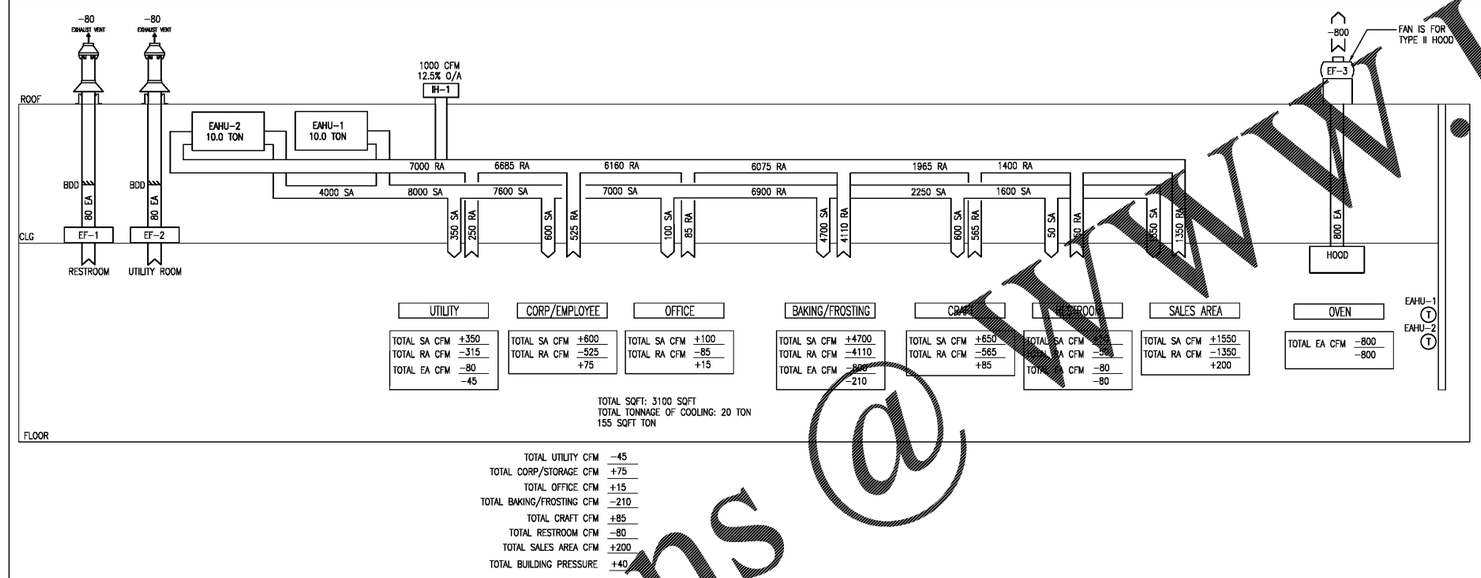
1. PROVIDE ROOF VENT CAP WITH BIRDSCREEN AND BACKDRAFT DAMPER FOR EXHAUST FANS. VENT FOR EXHAUST DUCT, SHALL BE A MINIMUM 36" HIGH ABOVE ROOF SURFACE.
2. PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
3. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
4. FAN SHALL BE SUPPLIED WITH FACTORY WHITE GRILLE.
5. PROVIDE WITH MOUNTING HARDWARE AND ISOLATOR KIT.
6. FAN TO RUN CONTINUOUSLY DURING OCCUPIED HOURS VIA TIME CLOCK. E.C. TO PROVIDE AND INSTALL TIME CLOCK.

OUTSIDE AIR CALCULATIONS

ROOM NAME	AREA SQ. FT.	NO. OF PEOPLE	REQ'D OA CFM/PERSON	REQ'D OA CFM/SQ FT	REQ'D OSA	REQ'D EXHAUST PER FIXTURE
SALES AREA	615	10	7.50	0.12	148.8	–
CRAFT	305	3	7.50	0.18	90.0	–
RESTROOM	50	2	7.50	0.18	60.0	70
BAKING/FROSTING	1120	0	0.00	0.00	0.00	–
OFFICE	85	1	7.50	0.06	12.6	–
CORPORATE/EMPLOYEE	156	0	0.00	0.00	0.00	–
UTILITY	140	0	0.00	0.00	0.00	–
TOTALS			REQUIRED OUTSIDE AIR		305.0	–
			PROVIDE OUTSIDE AIR		1000.0	–
			REQUIRED EXHAUST			140
			PROVIDE EXHAUST AIR			160

NOTES
1. ESTIMATED MAXIMUM OCCUPANCY AND REQUIRED OUTSIDE AIR BASED ON THE 2012 INTERNATIONAL MECHANICAL CODE TABLE 403.3

BUILDING BALANCE DIAGRAM



AIR DISTRIBUTION DEVICE SCHEDULE

NOTES:
1. SYMBOL KEY – FIRST LETTER: S-SUPPLY, R-RETURN, E-EXHAUST, T-TRANSFER SECOND LETTER: D-DIFFUSER, R-REGISTER, G-GRILLE, AS-ADJUSTABLE SLOT
2. BORDER STYLE – REFER TO REFLECTED CEILING PLAN

DAMPER: OPERABLE FROM FACE OF OPPOSED BLADE RACK RADIAL OPPOSED BLADE B: BUTTERFLY

AIR DEVICE COLOR SHALL FACTORY ORDERED WHERE POSSIBLY. ALL OTHER AIR DEVICES SHALL BE PAINTED PRIOR TO INSTALLATION

(BASED ON PRICE)

TAG	MODEL	SIZE FACE	SIZE NECK	MAX CFM	MOUNTING SIDE-WALL	MOUNTING CEIL-ING	MATERIAL DUCT	MATERIAL STEEL	MATERIAL ALUM.	DAMPER STEEL	NOTE	AREA SERVED	
RD-1	50FF	24/24	22/22	2000				•		•	1,2,3,4,5,6	BAKING/SALES/UTILITY	WHITE
RG-1	ATGH	14/6	–	600				•		•	1,2,4,5,6,7	CORP/EMPLOYEE	WHITE
TD-1	50FF	24/24	22/22	1400		•		•		•	1,2,3,4,5,6	CRAFT/SALES	WHITE
SD-1	SCD	24/24	10"ø 12"ø	300 500		•				•	1,2,3,4,5,6	BAKING/SALES/UTILITY	WHITE
SD-2			6ø	200		•				•	1,2,3,4,5,6	OFFICE	WHITE
SD-3	SDG	12/10	–	468						•	1,2,4,5,6	CORP/EMPLOYEE	WHITE

NOTES
1. PROVIDE WITH OPPOSED BLADE DAMPER AT AIR DEVICE.
2. MAX NC LEVEL 30.
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 BACK ON ALL AIR DEVICES MIN. R6.
7. DOOR TRANSFER GRILLE

NOTE:
ALL BALANCING DAMPERS MUST BE ACCESSIBLE. CONTRACTOR TO FIELD COORDINATE PRIOR TO INSTALLATION.

THERMOSTAT SCHEDULE

MARK	SERVICE & LOCATION	OCCUPIED COOLING	OCCUPIED HEATING	UNOCCUPIED COOLING	UNOCCUPIED HEATING	REMARKS
EAHU-1	SALES	75	70	78	60	1,2,3,4
EAHU-2	SALES	75	70	78	60	1,2,3,4

NOTES:
1. CONTRACTOR SHALL COORDINATE EXACT OPERATIONAL TIMES WITH OWNER/MANAGER PRIOR TO PROGRAMMING.
2. CONTRACTOR SHALL COORDINATE RESTROOM EXHAUST FAN TIMER WITH T-STAT SCHEDULE.
3. CONTRACTOR MUST VERIFY THAT HUMIDITY CONTROLS AND SENSORS FUNCTIONS PER MANUFACTURERS SPECIFICATIONS. SET TO 50% RH IN THE SPACE.3
4. CONTRACTOR TO PROVIDE ALTERNATING LEAD LAG CONTROLS TO OPERATE AIR HANDLER & HEAT PUMPS AS STAGED HEATING AND COOLING EQUIPMENT.

BUILDING AIR BALANCE SCHEDULE

MARK	OUTSIDE AIR	EXHAUST
EF-1 RESTROOM	–	-80
EF-2 UTILITY	–	-80
EF-3 OVEN	–	-800
EAHU-1	+500	–
EAHU-2	+500	–
TOTAL:	+1000	-960
TOTAL BUILDING PRESSURIZATION +40 CFM WITH RESTROOM EXHAUST OFF +120 CFM		

SPLIT SYSTEM UNIT SCHEDULE

AIR HANDLING UNIT:	
TAG	EAHU-1/EHP-1
TONNAGE	10.0
SYSTEM TYPE	SPLIT
SUPPLY AIR (CFM)	4000
OUTSIDE AIR (CFM)	500-1000
PERCENT OF OUTSIDE AIR	12.5-25%
ENT. AIR TEMP. (DB/WB)	80.0/67.0
CONDENSER ENT. TEMP.	95
TOTAL COOLING (MBTUH)	–
SENSIBLE COOLING (MBTUH)	–
MANUFACTURER	RUUD
AHU MODEL NO.	RHGM-120ZL
FAN MOTOR BHP (MAX)	---
UNIT TOTAL S.P.	–
VOLTS/PH	208/3/60
MCA	89
MOCP	90
WEIGHT (LBS)	441
HEAT PUMP UNIT:	
REFRIGERANT	R-410-A
NUMBER OF COMPRESSORS	1 SCROLL
CAPCITY CONTROL STEPS	1
VOLT/PHASE/HZ	208-230/3/60
MCA/MAX FUSE	43/70
MANUFACTURER	RUUD
HP MODEL NUMBER	RPWL-120CAZ
SYSTEM SEER/EER	11 EER
COP	9
THERMOSTAT	–
SHIPPING WEIGHT- INDOOR/OUTDOOR (IBS)	–

NOTES FOR SPLIT SYSTEM SCHEDULE

NOTES FOR HP:
1. EXSITING HEAT PUMP TO REMAIN.
2. PROVIDE NEW T-STATS

NOTES FOR AHU:
1. EXISTING AHU TO REMAIN.
2. MECHANICAL CONTRACTOR TO VERIFY SMOKE DETECTORS INSTALLED IN THE SUPPLY AND RETURN AIR DUCTS ARE IN WORKING CONDITION. IF FOUND TO NOT BE IN WORKING CONDITION, INSTALL SMOKE DETECTORS AND TEST PORT FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR, INSTALLED BY THE MECHANICAL CONTRACTOR.

SPLIT SYSTEM UNIT SCHEDULE

AIR HANDLING UNIT:	
TAG	EAHU-2/EHP-2
TONNAGE	10.0
SYSTEM TYPE	SPLIT
SUPPLY AIR (CFM)	4000
OUTSIDE AIR (CFM)	500-1000
PERCENT OF OUTSIDE AIR	12.5-25%
ENT. AIR TEMP. (DB/WB)	80.0/67.0
CONDENSER ENT. TEMP.	95
TOTAL COOLING (MBTUH)	–
SENSIBLE COOLING (MBTUH)	–
MANUFACTURER	RUUD
AHU MODEL	RHGM-120ZL
FAN MOTOR BHP (MAX)	---
UNIT TOTAL S.P.	–
VOLTS/PH	208/3/60
MCA	89
MOCP	90
WEIGHT (LBS)	441
HEAT PUMP UNIT:	
REFRIGERANT	R-410-A
NUMBER OF COMPRESSORS	1 SCROLL
CAPCITY CONTROL STEPS	1
VOLT/PHASE/HZ	208-230/3/60
MCA/MAX FUSE	43/70
MANUFACTURER	RUUD
HP MODEL NUMBER	RPWL-120CAZ
SYSTEM SEER/EER	11 EER
COP	9
THERMOSTAT	–
SHIPPING WEIGHT- INDOOR/OUTDOOR (IBS)	–

NOTES FOR SPLIT SYSTEM SCHEDULE

NOTES FOR HP:
1. EXSITING HEAT PUMP TO REMAIN.
2. PROVIDE NEW T-STATS

NOTES FOR AHU:
1. EXISTING AHU TO REMAIN.
2. MECHANICAL CONTRACTOR TO VERIFY SMOKE DETECTORS INSTALLED IN THE SUPPLY AND RETURN AIR DUCTS ARE IN WORKING CONDITION. IF FOUND TO NOT BE IN WORKING CONDITION, INSTALL SMOKE DETECTORS AND TEST PORT FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR, INSTALLED BY THE MECHANICAL CONTRACTOR.

INTAKE HOOD SCHEDULE

MARK	LOCATION	CFM	ESP (IN. WC)	MODEL SIZE	DAMPER TYPE	VOLT	WEIGHT(LBS)	MANUFACTURER	MODEL	NOTES
IH-1	ROOF	1000	0.1	18IN ø	MOTORIZED	120	45	GREENHECK	GRSI	1,2,3

1. FURNISH MOTORIZED DAMPER. 120/1/60 VOLTS.
2. FURNISH INTAKE HOOD WITH 1/2" X 1/2" GALVANIZED MESH BIROSCREENS.
3. FURNISH AND INSTALL 14" ROOF CURBS FOR ALL ROOF MOUNTED INTAKE HOODS. COORDINATE ROOF CURB INSTALLATION WITH ROOF CONSTRUCTION.

SEQUENCE OF OPERATION:

ALTERNATING LEAD LAG
AHU-1/HP-1 AND AHU-2/HP-2 TO OPERATE AS ALTERNATING LEAD/LAG AS STAGED EQUIPMENT.

THERMOSTAT:
PROGRAM T-STAT FOR 7 DAY OPERATION WITH AUTOMATIC CHANGE OVER FROM HEATING TO COOLING AND NIGHT SETBACK.

OCCUPIED MODE:
DURING OCCUPIED PERIODS, THE SYSTEM FAN SHALL RUN CONTINUOUSLY. THE OUTSIDE AIR MOTORIZED DAMPER SHALL OPEN. THE HEAT PUMP SHALL STAGE TO MAINTAIN THE ROOM COOLING SET POINT. THE HEAT PUMP SHALL STAGE TO MAINTAIN THE HEAT SET POINT. THE HEAT PUMP SHALL ALTERNATE BETWEEN HEATING AND COOLING MODES TO MAINTAIN THE ROOM HEATING SET POINT.

UNOCCUPIED MODE:
DURING UNOCCUPIED PERIODS, THE SYSTEM FAN SHALL BE ENABLED AND THE HEAT PUMP SHALL STAGE AND ALTERNATE WITH THE HEAT AND COOLING MODE TO MAINTAIN THE ROOM SETBACK TEMPERATURE SET POINT. THE SYSTEM FAN SHALL BE DISABLED WHEN THERE IS NO CALL FOR HEAT OR COOLING. THE OUTSIDE AIR MOTORIZED DAMPER SHALL CLOSE.

HEATING MODE:
THE UNIT CONTROLLER SHALL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SET POINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEATING, WHEN THE SPACE TEMPERATURE FALLS BELOW THE SET POINT. THE UNIT CONTROLLER SHALL ENABLE THE HEAT PUMP HEATING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SET POINT. THE COMPRESSOR SHALL ENERGIZE AFTER ITS MINIMUM 3-MINUTE OFF TIME HAS EXPIRED. ONCE THE SPACE TEMPERATURE RISES ABOVE THE SET POINT THE COMPRESSOR SHALL BE DEACTIVATED.

COOLING MODE:
THE UNIT CONTROLLER SHALL USE SPACE TEMPERATURE AND SPACE COOLING. WHEN THE SPACE TEMPERATURE RISES ABOVE THE SET POINT, THE UNIT CONTROLLER SHALL ENABLE THE HEAT PUMP COOLING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SET POINT. THE COMPRESSOR SHALL ENERGIZE AFTER ITS MINIMUM 3-MINUTE OFF TIME HAS EXPIRED. ONCE THE SPACE TEMPERATURE FALLS BELOW THE SET POINT THE COMPRESSOR SHALL BE DEACTIVATED.

DEADBAND:
A MINIMUM 5° DEADBAND FOR HEATING AND COOLING CHANGE OVER.

INTERPLAN LLC
ARCHITECTURE
ENGINEERING
INTERIOR DESIGN
PROJECT MANAGEMENT
604 COURTLAND STREET
SUITE 100
ORLANDO, FLORIDA 32804
PH 407.645.5008
FX 407.629.9124

SEAL:
THIS DOCUMENT IS **'NOT FOR CONSTRUCTION'** UNLESS THE ARCHITECT OR ENGINEER'S SIGNATURE AND SEAL APPEAR BELOW.

Larson Engineering, Inc.
1488 Bond Street, Suite 100
Naperville, Illinois 60563-6503
(P) 630.357.0540 (F) 630.357.0184
ILLINOIS LICENSE NO. 184-001442
LEIL Comm. No. 24180016.006

04.11.18 PERMIT SUBMIT
04.04.18 OWNER REVIEW
NO DATE REMARKS
REVISIONS

NOTHING bundt CAKES

CREEKSIDE PLAZA
4110 N MT. JULIET RD.
MT. JULIET, TN 37122

PROJECT NO: 2018.0044
DATE: 04.11.18

M2.0
MECHANICAL SCHEDULES

CHECKED: MFG DRAWN: ADW