


SUMMIT ORCHARDS LOT 4E
420 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64086



JOB NO.:	20001G
DATE:	01/16/2020
REVISIONS:	
	OWNER REVISIONS 07/28/2020
DESIGNED BY:	GEG
DRAWN BY:	GEG
CHECKED BY:	GEG
SHEET NO.	

MP3.3

<div><div><div>EF</div><div>-</div></div><div>FAN SCHEDULE</div></div>														REMARKS	
MARK NO.	MANUFACTURER	MODEL NO.	CFM	ESP IN W.G.	TYPE	FAN SIZE	RPM	DRIVE	ACCESSORIES	ELECTRICAL					
										VOLT	ø	HZ	HP/W		
EF-1	BY KEC	-	600	.25	ROOF	-	1148	-	-	208	1	60	1/3	NOTE 2,3	
EF-2	BY KEC	-	700	.85	ROOF	-	1336	-	-	208	1	60	1/2	NOTE 2,3	
3	COOK	GC-182	200	.25	CEILING	-	1400	D	-	120	1	60	185 W	NOTE 1	

NOTES:

1. PROVIDE CEILING FANS WITH CEILING GRILLE, DISCONNECT SWITCH, HANGER HARDWARE, BACKDRAFT DAMPER, UNIT MOUNTED VARIABLE SPEED SWITCH, WALL OR ROOF CAP, FLEX CONNECTOR, SWITCH WITH LIGHTS.
2. MAKE-UP AIR UNIT, KITCHEN HOOD AND HOOD EF PROVIDED BY THE KEC AS A PACKAGED SYSTEM. SEE CAPTIVEAIR DRAWINGS. MC SHALL INSTALL SYSTEMS PER MANUFACTURES INSTRUCTIONS.
3. INTERLOCK TO OPERATE WHENEVER KITCHEN APPLIANCES ARE IN OPERATION. SEE CAPTIVEAIR DRAWINGS FOR CONTROL DIAGRAMS.

RTU ROOFTOP UNIT SCHEDULE (GAS-FIRED)																																
MARK NO.	LOCATION	MANUFACTURER	MODEL NO.	ARRANGEMENT	DISCHARGE	SUPPLY						COOLING										HEATING				ELECTRICAL					WEIGHT	REMARKS
						CFM	MIN. O.A.	EXT. S.P. IN. W.G.	FAN TYPE	FAN SIZE	RPM	EVAP. HP	AMBIENT °F	EDB °F	EWB °F	LDB °F	LWB °F	TOTAL MBH	SENS. MBH	MAX FPM	STAGES	UNIT EER	INPUT MBH	OUTPUT MBH	STAGES	VOLT	ø	HZ	MCA	MOCP		
1	ROOF	LENNOX	KGB06054D	HORIZ.	DOWN	1700	235	0.6	-	-	-	0.75	95	80	67	56.8	55.1	59.1	39.6	-	1	11.8	108	86	1	208	3	60	24	35	821	1-4
2	ROOF	LENNOX	KGB10254M	HORIZ.	DOWN	3400	635	1.0	-	-	958	2.0	95	80	67	61.2	57.9	93.3	64.4	-	2	11.0	108	86	2	208	3	60	40	50	1072	1-4

NOTES:

1. SEE "OUTSIDE AIR SUMMARY" FOR OUTSIDE AIR CALCULATION (2018 IMC).
2. EXTERNAL STATIC PRESSURE INCLUDES ALL LOSSES EXTERNAL TO UNIT CASING.
3. PROVIDE WITH ADJUSTABLE OUTSIDE AIR INTAKE, PROGRAMMABLE NIGHT SET BACK THERMOSTAT/SENSOR, 5 YR. COMPRESSOR WARRANTY, 10 YR. HEAT EXCHANGER WARRANTY, COIL HAIL GUARDS, HINGED ACCESS DOORS OR REMOVABLE PANELS, 2" THROWAWAY FILTERS, FACTORY DISCONNECT, RETURN AIR SMOKE DETECTORS.
4. POWER WIRING & SMOKE DETECTOR INTERFACE WITH FIRE ALARM BY ELECTRICAL CONTRACTOR.

CAPTIVEAIRE MAKE-UP AIR UNIT SCHEDULE (DX COOLING/NG HEATING)

UNIT	LOCATION	"MFR" MODEL NO.	CFM	ESP (IN. W.G.)	SENS. COOLING CAP (MBH)	TOTAL COOLING CAP. (MBH)	EVAP.		GAS HEATING					ELECTRICAL DATA						OPER. WT. (LBS.)	REMARKS	
							EDB (° F)	EWB (° F)	INPUT (MBH)	OUTPUT (MBH)	GAS PRESSURE (PSI)	EAT	° F RISE	VOLT/PHASE	SUPPLY FAN		CONDENSING UNIT					
															HP	FLA	NO. 1	NO. 2	MCA			MOCP
MAU-1	ROOF	BY KEC	1040	.25	-	-	-	-	75.6	69.6	7"WC	0°	65	208/1	1.0	6.9	-	-	-	-	482	1,2

NOTES:

1. MAKE-UP AIR UNIT, KITCHEN HOOD AND HOOD EF PROVIDED BY THE KEC AS A PACKAGED SYSTEM.
SEE CAPTIVEAIR DRAWINGS. MC SHALL INSTALL SYSTEMS PER MANUFACTURES INSTRUCTIONS.
2. INTERLOCK TO OPERATE WHENEVER KITCHEN APPLIANCES ARE IN OPERATION. SEE CAPTIVEAIR DRAWINGS FOR CONTROL DIAGRAMS.

<div><div><div>WH</div><div></div></div><div>HIGH EFFICIENCY WATER HEATER SCHEDULE (GAS-FIRED)</div></div>																				
MARK NO.	MANUFACTURER	MODEL NO.	TYPE	TANK	ASME	STORAGE (GALLONS)	RECOVERY GAL./HR	MIN FLOW GPM	TEMP. RISE °F	INLET °F	DISCH °F	GAS				ELECTRICAL				REMARKS
												MBH INPUT	MBH OUTPUT	EFFICIENCY	TURNDOWN	VOLT	Ø	HZ	HP	
1	LOCHNIVAR	SNR126-065	-	Y	N	65	145	-	100	50	120	125	-	95	-	120	1	60	-	1

1. WATER HEATER PROVIDED BY KEC, INSTALLED BY PC. UNITS SHALL BE PROVIDED WITH GLASS LINED STEEL TANK, MAGNESIUM ANODE RODS, ASME P&T VALVES, ASME CONSTRUCTION, CPVC VENT WITH CONCENTRIC SIDEWALL VENTING KIT, MODULATING BURNER (120V POWER REQUIRED), DIRECT SPARK IGNITION AND 3-YEAR LIMITED WARRANTY. PROVIDE CONDENSATE DRAIN WITH CONDENSATE NEUTRALIZATION KIT.

AIR BALANCE SCHEDULE				
PLAN MARK	AREA SERVED	OUTSIDE AIR CFM	EXHAUST AIR CFM	NOTES
RTU-1	C-STORE	330		
RTU-2	C-STORE	330		
MAU-1		1040		
EF-1	HOOD #1		600	
EF-2	HOOD #2		700	
EF-1	RESTROOM (2)		400	
	SUBTOTAL	1700	1700	

NOTES:

1. OUTSIDE AIR CFM INDICATED FOR OPERATION IN CONJUNCTION WITH TYPE 1 HOOD EXHAUST AND MAKE-UP AIR SYSTEM. CFM MAY REVERT TO MINIMUM OA AS CALCULATED IN "OA CALCULATION" WHEN THESE SYSTEMS ARE OFF.

FIXTURE BRANCH SCHEDULE					
FIXTURE	WASTE	VENT	COLD	HOT	
Water Closet (ft)	4"	2"	?"	---	
Water Closet (fv)	4"	2"	1"	---	
Urinal	2" 1/2"	2"	3/4"	1"	
Lavatory	1 1/2"	1 1/2"	2"	2"	
Sink	2"	1 1/2"	2"	2"	
Triple Sink	2"	1 1/2"	(2) 2"	(2) 2"	
Shower, Tub	2"	1 1/2"	2"	2"	
Water Fountain	1 1/2"	1 1/2"	2"	---	
Janitor Sink (fir)	3"	2"	3/4"	3/4"	
Janitor Sink (wall)	2"	1 1/2"	2"	3/4"	
Floor Drain	2"	1 1/2"	---	---	
Floor Sink	3"	2"	---	---	
Exptl Floor Drain	3"	2"	---	---	
Hub Drain	2"	1 1/2"	---	---	
Dishwasher	2"	1 1/2"	---	2"	
Washer Box	2"	1 1/2"	?"	---	
Ice Maker	---	---	?"	---	
FPWH, HB	---	---	3/4"	---	

1. Minimum waste or vent size below slab on grade shall be 2".
2. Size as shown on drawings and diagrams, but not less than listed.

WATER HAMMER ARRESTOR SCHEDULE

MARK NO.	MANUFACTURER	MODEL NO.	PDI UNIT RATING	FIXTURE UNIT CAPACITY	REMARKS
AA	SIUOX CHIEF	660 SERIES	AA	4 (SINGLE FIXT)	X
A	SIUOX CHIEF	652	A	1 - 11	X
B	SIUOX CHIEF	653	B	12 - 32	X
C	SIUOX CHIEF	654	C	33 - 60	X
D	SIUOX CHIEF	655	D	61 - 113	X
X	X	X	X	X	X

NOTES:

1. INSTALL IN AN ACCESSIBLE LOCATION IN ACCORDANCE WITH THE PLUMBING CODE.

[illegible]

NOTES:

1. PROVIDE POLYPROPYLENE LINED BLADDER TYPE EXPANSION TANK WITH BUTYL RUBBER DIAPHRAGM, AIR CHARGE & SYSTEM CONNECTION FITTING, MOUNING HARDWARE.

DUCT INSULATION SCHEDULE						NOTES
	INTERNAL INSULATION			EXTERNAL INSULATION		
	1/2"	1"	OTHER	1"	2"	OTHER
LOW VELOCITY DUCTS:						
RETURN DUCTS		o				1
SUPPLY DUCTS (RECT.)		o				
SUPPLY DUCTS (ROUND)					o	3,4
EXHAUST DUCTS	o			o		2
OUTSIDE AIR DUCTS				o		
RELIEF DUCTS	o					1
MEDIUM/HIGH VELOCITY DUCTS:						
ROUND SUPPLY				o		
FLAT OVAL SUPPLY				o		














NOTES:

1. INSULATION SHALL BE INSTALLED WHEN INDICATED OTHERWISE IN THE CONSTRUCTION DOCUMENTS. OTHERWISE, NO INSULATION IS REQUIRED.
2. INSULATION IS REQUIRED WITHIN 6'-0" OF TERMINATION POINT OF EXHAUST AIR. RECTANGULAR DUCTS SHALL BE LINED, ROUND DUCTS SHALL BE WRAPPED.
3. CONCEALED ROUND SUPPLY AIR DUCTS AND ROUND SUPPLY AIR DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED AS INDICATED AND SHALL INCLUDE A VAPOR BARRIER TO PREVENT CONDENSATION FROM FORMING ON COLD METAL SURFACES. NO INSULATION IS REQUIRED FOR ROUND SUPPLY AIR DUCT EXPOSED IN CONDITIONED SPACES UNLESS INDICATED OTHERWISE.
4. AT CONTRACTORS OPTION, GALVANIZED STEEL ROUND DOUBLE WALL DUCT MAY BE USED WHERE ROUND SUPPLY AIR DUCTS ARE REQUIRED TO BE INSULATED. DOUBLE WALL DUCT SHALL BE LINK LINDLAB SPIRO-SAFE, SPIRAL LOCKSEAM DUCTWORK. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. AT CONTRACTOR'S OPTION, ROUND DUCT LINER MAY BE USED WHERE ROUND SUPPLY AIR DUCTS ARE REQUIRED TO BE INSULATED. DUCT LINER SHALL BE JOHNS MANVILLE SPIRACOUSIC PLUS, OR APPROVED EQUAL, 1.5" THICK (R6.4). SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

INSULATED OR LINED DUCT DETAIL

NO SCALE

MECHANICAL SYMBOLS

- | | |
|---|--|
|  | NEW SHEET METAL DUCTWORK & SIZE. |
|  | NEW SHEET METAL DUCTWORK & SIZE. |
|  | SUPPLY AIR DUCT OR OUTSIDE AIR INTAKE. |
|  | RETURN AIR DUCT OR EXHAUST AIR DUCT. |
|  | DIRECTION OF RETURN AIRFLOW. |
|  | THERMOSTAT OR TEMPERATURE SENSOR. |
|  | CONDENSATE DRAIN. |
|  | ELBOW DOWN. |
|  | ELBOW UP. |
| SA | SUPPLY AIR. |
| OA | OUTSIDE AIR. |
| RA | RETURN AIR. |
| EA | EXHAUST AIR. |
| CU | CONDENSING UNIT. |
| EF | EXHAUST FAN. |
| RTU | ROOFTOP UNIT. |
|  | PLAN NOTE DESIGNATION. |
|  | PLAN REVISION DESIGNATION. |
|  | CONNECT TO EXISTING. |
|  | MECHANICAL EQUIPMENT DESIGNATION - TOP PORTION IS EQUIPMENT (RTU, EF, HP, ETC.), BOTTOM PORTION IS NO. OR LETTER (SEE APPROPRIATE SCHEDULE). |