

**H.E.S. SYSTEM**

MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL NEW HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON SHEET M4.1 FOR MORE INFORMATION.

**KITCHEN RECIRCULATION NOTE**

PER OHIO MECHANICAL CODE 2017, SECTION 403.2.1, EXCEPTION #3, THE RECIRCULATION OF AIR THAT IS CONTAINED COMPLETELY WITHIN A KITCHEN ZONE SHALL NOT BE PROHIBITED. THE KITCHEN ONLY RECIRCULATES AIR WITHIN ITS ZONE. ALL AREAS OTHER THAN THE KITCHEN ARE FREELY OPEN TO THE KITCHEN AND THE OFFICE OPENS DIRECTLY TO THE KITCHEN.

EXISTING CONDITIONS SHOWN ARE FROM PREVIOUS DRAWINGS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL DUCT AND DIFFUSERS. IF MAJOR DIFFERENCES OCCUR IN FIELD, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.

G.C. TO HIRE VENTILATION CLEANING CONTRACTOR CERTIFIED BY NATIONAL AIR DUCT CLEANERS ASSOCIATION (NADCA) TO CLEAN ALL EXISTING DUCTWORK THAT IS TO REMAIN.

PROVIDE INSULATED BACK/BASE FOR TEMP & HUMIDITY SENSORS ON EXTERIOR WALL.

FIELD VERIFY EXISTING AIR DEVICE NECK SIZE PRIOR TO ORDERING REPLACEMENT. TYPICAL

AIR CURTAIN REMOTE WALL SWITCHES BY MECHANICAL REFER TO AIR DOOR SCHEDULE AND AIR CURTAIN WIRING DIAGRAM FOR FURTHER INFORMATION. COORDINATE EXACT LOCATION FOR SWITCHES WITH KITCHEN EQUIPMENT AND PLANS.

NEW AIR CURTAIN, AD#1 MOUNTED IN CEILING GRID, CENTERED ON THE DOOR, AT 4" OFF THE EXTERIOR WALL. MECHANICAL CONTRACTOR SHALL ADJUST AIR DEFLECTORS TOWARD AIR DIVERTER BOX.

HOLD DUCT AT ACH#1 AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE ABOVE CEILING.

**MECHANICAL FLOOR PLAN**  
SCALE: 1/4"=1'-0"


LEGEND			
A-12-400	TYPE - NECK SIZE - CFM	①	KEY NOTE REFERENCE
	SPIN-IN FITTING, MVD, NO SCOOP		EXISTING START COLLAR
	SPIN-IN HARD $\phi$ FLEXIBLE $\phi$ DIFFUSER		EXISTING RETURN/EXHAUST (TYP.)
	REMOTE TEMPERATURE SENSOR		EXISTING SUPPLY DIFFUSER (TYP.)
	REMOTE HUMIDITY SENSOR		EXISTING DUCT (TYP.)
	SMOKE DETECTOR		NEW RETURN/EXHAUST, UNO. (TYP.)
	GREASE ACCESS DOOR TYPE		NEW SUPPLY DIFFUSER, UNO. (TYP.)
	POINT OF CONNECTION TO EXISTING		NEW DUCT (TYP.)
	DIRECTION OF THROW		MANUAL VOLUME DAMPER
	SMOKE DETECTOR ANNUNCIATOR		

TOTAL AIR BALANCE SCHEDULE									
EQUIPMENT MARK	ACH#1 (NEW)	ACH#2 (NEW)	ACH#3 (NEW)	ACH#4 (NEW)	ACH#5 (NEW)	EF#1 (NEW)	EF#2 (NEW)	EF#3 (EXIST)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	MAIN DINING	PLAY AREA	HOOD#1L HOOD#1R	HOOD#2 HOOD#3	REST-ROOM	
SUPPLY AIR CFM	8,500	2,830	4,000	2,765	1,800				19,895
RETURN AIR CFM	6,500	2,080	3,000	2,165	1,500				15,245
OUTSIDE AIR CFM	2,000	750	1,000	600	300				+4,650
EXHAUST CFM						1,913	1,402	400	-3,715
PRESSURIZATION									+935
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.								

- SHEET NOTES**
- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
  - REFER TO ELEVATIONS ON M2.1 AND HOOD DETAILS ON M-1.1 FOR CAPTURE-LET FANS DUCTING REQUIREMENTS.
  - HARDPIPE SHALL BE USED FOR ALL TAKE-OFFS EXCEPT WHERE ALLOWED BY DETAIL 1/M3.1. USE OF FLEXIBLE DUCT SHALL BE LIMITED TO THOSE SITUATIONS WHERE NO OTHER MEANS TO ACCOMPLISH ROUTING IS POSSIBLE.
  - COORDINATE NEW WORK WITH EXISTING CONDUITS, STRUCTURE AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR TO NOTIFY DESIGN TEAM WITHOUT DELAY IF ACTUAL LOCATION OF EXISTING MECHANICAL EQUIPMENT DOES NOT MATCH FLOOR PLAN.
  - MECHANICAL CONTRACTOR SHALL BALANCE HVAC SYSTEM AS SHOWN ON THIS PLAN & IN SCHEDULES ON SHEET M3.1. IF AIRFLOWS DIFFER BY MORE THAN 5%, CONTACT CFA CONSTRUCTION MANAGER. TEST AND BALANCE REPORT SHALL BE DONE PRIOR TO STORE TURNOVER AND SUBMITTED TO CFA'S CONSTRUCTION MANAGER.

**KEY NOTES (THIS SHEET ONLY)**

- CONNECT NEW AIR DEVICE TO EXISTING TAKE-OFF. IF NECESSARY, MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW DUCT IN ORDER TO MAKE CONNECTION TO AIR DEVICE IN NEW LOCATION. ANY FLEX DUCT USED SHALL NOT BE LONGER THAN 4'-0". SEE DETAIL 1/M3.1. COORDINATE AIR DEVICE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. PROVIDE BLOCKING IN WALL BEHIND AIR CURTAIN. USE FACTORY PRE-PUNCHED MOUNTING HOLES ON BACK SIDE OF AIR CURTAIN ONLY. ATTACH AIR CURTAIN TO WALL USING 3/8" LAG BOLTS. LENGTH AS REQUIRED TO FULLY PENETRATE BLOCKING. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
- BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. PROVIDE TURNING VANES IN ELBOWS, INCLUDING THE SUPPLY AIR DROP FROM UNIT.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. NO TURNING VANES IN ELBOW.
- HALTON MED DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. REFER TO SHEET M2.1 AND M-1.1 FOR FURTHER INFORMATION.
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- GREASE DUCT UP THRU ROOF FROM FULL SIZE OF MED COLLAR. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M1.2 FOR CONTINUATION.
- MOUNT NEW SMOKE DETECTOR TEST/RESET STATIONS FOR ALL A/C UNITS ON WALL. COORDINATE EXACT LOCATION WITH KITCHEN ELEVATIONS AND ELECTRICAL CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATION FOR EACH RTU.
- ROUTE DUCT BETWEEN WALL STUDS ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION. USE 1" WRAP AT WALL PENETRATION.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- PROVIDE & INSTALL NEW SPIN-IN COLLAR AND ROUTE NEW DUCT TO NEW GRILLE AS SHOWN.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- G.C. TO CONFIRM EXACT LOCATION OF ACH#3 MAIN DUCT RUNS RELATIVE TO PROPOSED NEW WALL PRIOR TO START OF CONSTRUCTION. CONTACT JLL PM OR AOR IF DETERMINED THERE IS A CONFLICT.
- MOUNT AIR HANDLER ON OVER-HEAD WALL ABOVE CASED OPENING. MOUNT UNIT AT 12" ABOVE CASED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT, CU#1. SEE SHEET M1.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
- ROUTE CONDENSATE ABOVE CEILING FROM AH#1 AND DOWN IN WALL CAVITY TO EXIT POINT 12" ABOVE FLOOR DRAIN TO TERMINATE INTO FLOOR DRAIN LOCATED BEHIND ICE MAKER IN DRIVE THRU WITH CODE APPROVED AIR GAP. COORDINATE EXACT LOCATION OF DRAIN WITH PLUMBING PLANS. CONDENSATE PIPING SHALL BE TYPE K COPPER WITH 1/2" ARMAFLEX INSULATION. CONDENSATE MUST SLOPE MIN 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE ABOVE CEILING.
- MOUNT AH#1 THERMOSTAT ON WALL NEXT TO AD#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.1 FOR INTERLOCK WITH T500 PANEL.
- ELECTRICAL CONTRACTOR TO PURCHASE AND INSTALL NEW CFA T500 TEMP CONTROL PANEL WITH AUTOMATIC TIMER FOR LIGHTING CONTROLS AND 6-THERMOSTAT TEMP CONTROL CABINET. COORDINATE WITH ELECTRICAL CONTRACTOR FOR NEW LOCATION OF TEMP CONTROL CABINET. CONTROL WIRING TERMINATIONS BETWEEN NEW THERMOSTATS, NEW SENSORS, AND NEW/EXISTING RTUS BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M4.1.
- YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/SRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRON COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0101. FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.
- PROVIDE 120V/24V 50 VA TRANSFORMER TO SERVE YOUNG REGULATOR ZONE DAMPER ACTUATOR AND THERMOSTAT. POWER TRANSFORMER FROM 120V POWER CIRCUIT THAT REMAINS LIVE 24/7. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM. SEE DETAIL ON SHEET M4.1 FOR MORE INFORMATION.
- MOUNT NEW REMOTE TEMP SENSOR AND NEW LENOX HUMIDITY SENSOR FOR ROOFTOP UNIT AS NOTED BELOW (OR ABOVE WAINGSCOTING IF APPLICABLE). ROUTE NEW WIRING FOR NEW REMOTE TEMP SENSOR TO NEW TSTAT IN CFA T500 PANEL. ROUTE NEW WIRING FOR NEW LENOX HUMIDITY SENSOR TO UNIT ON ROOF. REFER TO WIRING DIAGRAM ON SHEET M4.1.
  - ACH#1 MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-8" AFF. COORDINATE FINAL MOUNTING LOCATION IN FIELD WITH KITCHEN EQUIPMENT, SHELVS, AND ELECTRICAL MOUNT NEW LENOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.
  - ACH#3 & ACH#5 MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-0" AFF. MOUNT NEW LENOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.
  - ACH#2 & ACH#4 MOUNT NEW SENSORS IN THE SAME LOCATION AS DEMOLISHED SENSORS.



5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:  
 1 Mark Date By 09.22.22 PERMIT REVISIONS  
 2 Mark Date By 10.28.22 PERMIT REVISIONS  
 3 Mark Date By 01.31.23 ISSUE FOR CONSTRUCTION  
 4 Mark Date By 02.17.23 IFP-REVISION

STATE OF OHIO  
 MARK T. KURZYNSKI  
 #58089  
 #9-23  
 Expires: 12/31/23

Kurzynski & Associates  
 CONSULTING ENGINEERS  
 2900 Lebanon Pike, Ste. 201  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203  
 Fax: (615) 255-5207  
 Email: mail@kurzynske.com

STORE #02182  
 BENCHWOOD

3339 BENCHWOOD RD.  
 DAYTON, OH 45414

SHEET TITLE  
 MECHANICAL FLOOR PLAN

VERSION: S06C-R  
 ISSUE DATE: 6.28.2022

Job No. : 20133.CD.R  
 Store : #2182  
 Date : 6.28.22  
 Drawn By : DSF  
 Checked By : MK

Sheet

**MI.1**