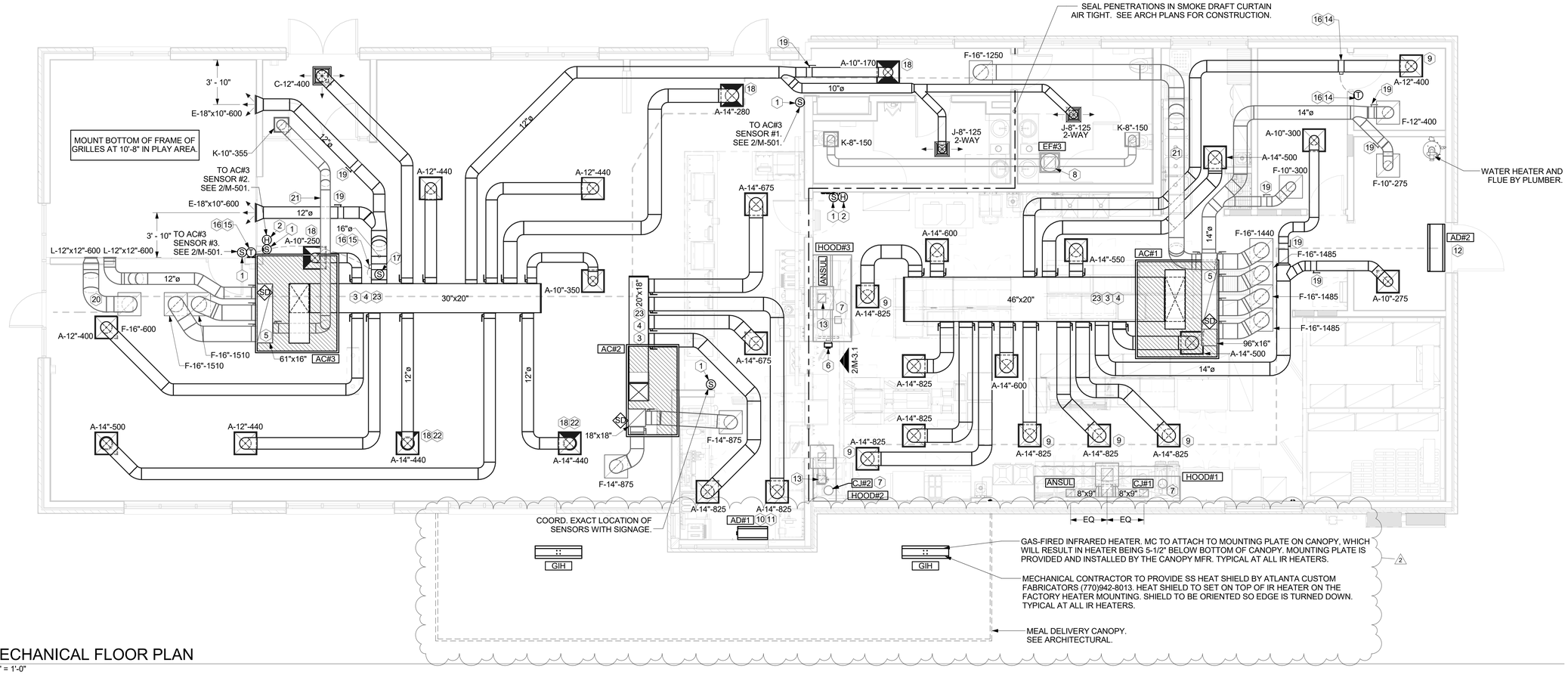


1 MECHANICAL FLOOR PLAN

1/4" = 1'-0"

H.E.S. SYSTEM

MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON M-501 FOR MORE INFORMATION.

LENNOX FRESH AIR TEMPERING SETUP

1. INSTALL FRESH AIR TEMPERING KIT WIRING HARNESS AS RECOMMENDED BY LENNOX.
2. LOCATE SUPPLY AIR TEMPERATURE SENSOR IN SUPPLY DUCT DOWNSTREAM OF FIRST ELBOW. SECURE WIRING TO DUCT OR STRUCTURE WITH RUBBER COATED CLAMPS. DO NOT RUN WIRING INSIDE DUCT WORK. PROTECT ALL WIRING PENETRATIONS WITH RUBBER GROMMETS.
3. CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #156 TO A VALUE OF 66. THIS WILL PREVENT THE SUPPLY AIR TEMPERATURE FROM DROPPING BELOW 66F DEG DURING HEATING MODE WHEN THERMOSTAT IS NOT ACTIVELY CALLING FOR HEAT. NOTICE - THIS PARAMETER #156 MUST BE CHANGED TO ACTIVATE THE FRESH AIR TEMPERING FEATURE.
4. CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #157 TO A VALUE OF 14. THIS WILL MAKE THE DEADBAND VALUE EQUAL 14F.
5. CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #158 TO A VALUE OF 300. THIS WILL MAKE THE CYCLE TIME VALUE EQUAL 5 MINUTES.

SHEET NOTES

1. DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
2. FLEXIBLE DUCT NOT SHOWN FOR CLARITY. ALL TAKE-OFFS SHALL INCLUDE FLEXIBLE DUCT. SEE DETAIL 1/M-401 FOR FLEXIBLE DUCT INSTALLATION REQUIREMENTS.
3. FOR SUPPLY AND RETURN OPENINGS, CUT OPENING AROUND DUCT DROPS 4" TO 8" MINIMUM (EXCEPT WHERE STRUCTURE PREVENTS THIS). SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF ADHESIVE BACKING.
5. UNLESS NOTED OTHERWISE, MC TO ADJUST ALL DIFFUSER AIR PATTERN DEFLECTORS TO THROW HORIZONTALLY ALONG THE CEILING.
6. SUPPORT ALL DUCT DROPS AT BASE OF DROP FROM STRUCTURE.

CANOPY GENERAL NOTES

1. COORDINATE NEW WORK WITH EXISTING CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
2. COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
3. EXPOSED GAS PIPING SHALL BE PAINTED BY GENERAL CONTRACTOR.
4. ACTUAL NUMBER OF GAS INFRARED HEATERS WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.
5. CONTROL WIRING FOR HEATERS BY EC. COORDINATE REQUIRED WIRE GAUGE WITH EC. SEE CONTROLS PLAN AND ELECTRICAL DRAWINGS, TYP.

LEGEND

A-12-400	TYPE - NECK SIZE - CFM	EF#1	EXHAUST FAN #1 (TYP.)
	SPIN-IN FITTING WITH MANUAL BALANCING DAMPER, WITHOUT SCOOP	AC#1	AIR CONDITIONING UNIT #1 (TYP.)
	SPIN-IN HARD ⌀ FLEXIBLE ⌀ DIFFUSER		RETURN/EXHAUST (TYP.)
S	REMOTE TEMPERATURE SENSOR		SUPPLY DIFFUSER, SQ FACE (TYP.)
H	HUMIDITY SENSOR	1	PLAN NOTE REFERENCE
SD	SMOKE DETECTOR		MANUAL VOLUME DAMPER
12x18	DUCT SIZE (reverse for elevation views) 1ST NUMBER - HORIZONTAL DIMENSION 2ND NUMBER - VERTICAL DIMENSION		DIRECTION OF THROW ON DIFFUSER
			CLOSED AIR PATTERN DEFLECTOR
SW	AIR DOOR SWITCH	GIH	GAS INFRARED HEATER (TYP.)
EC	ELECTRICAL CONTRACTOR	B/G	BELOW GRADE
MC	MECHANICAL CONTRACTOR		

AIR BALANCE SCHEDULE

Mark	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	BUILDING POSITIVE PRESSURE
AC#1	9500	8120	1380		
AC#2	3000	1750	1250		
AC#3	6000	3975	2025		
EF#1				1700	
EF#2				1505	
EF#3				300	
	18500	13845	4655	3505	1150

KEY NOTES

1. MOUNT REMOTE SENSOR ON WALL AT 5-0" AFF U.N.O. AND ROUTE WIRING BACK TO SUNCOAST TEMP CONTROL PANEL. FOR SENSOR SERVING AC#1, COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT.
2. MOUNT LENNOX HUMIDITY SENSOR ON WALL ABOVE SPACE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.
3. BRANCH TAKE-OFFS ARE NOT TO BE LOCATED CLOSER THAN 3'-0" FROM ANY OFFSET OR ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
4. TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITH TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING. (0-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
5. TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITHOUT TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING. (0-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
6. CJ#3 MOUNTED INSIDE CABINETRY SERVING SCJ PLENUM, SEE DETAIL 2/M-301.
7. SEE ELEVATIONS ON M-301 FOR CJ FAN DUCTING REQUIREMENTS.
8. 10X10 EXHAUST DUCT DOWN.
9. MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
10. AIR CURTAIN, AD#1 MOUNTED 8'-6" AFF TO BOTTOM OF UNIT.
11. FACTORY PROVIDED AND MOUNTED THERMOSTAT ON RIGHT SIDE OF AIR CURTAIN.
12. AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
13. HALTON KBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. SEE HOOD ELEVATIONS ON M-301 FOR LOCATION.
14. YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT T'STAT AT 5'-0" AFF. POWER OPEN/SPRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
15. YOUNG REGULATOR 16" MODEL 4075LMB24 ROUND ZONE DAMPER WITH MODEL T-720A AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT T'STAT AT 5'-0" AFF. POWER OPEN/CLOSE/MODULATING. ADJUST MECHANICAL LIMIT FOR 300 CFM MINIMUM AIRFLOW. ADJUST MAXIMUM LIMIT TO FULLY OPEN POSITION. INITIAL BALANCE TO BE DONE WITH VAV AT THE FULL OPEN POSITION. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
16. 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. THERE IS NO INTERLOCKING OR MONITORING BY WAY OF THE S.E.C. CFA-500 PANEL. SEE WIRING DIAGRAMS ON M-501.
17. YOUNG REGULATOR FIELD INSTALLED CHANGE OVER SENSOR.
18. MECHANICAL CONTRACTOR TO CLOSE THE AIR PATTERN DEFLECTORS ON SHADED SIDE.
19. RUSKIN MDRS25 MVD W/LOCKING QUADRANT HANDLE.
20. TRANSFER AIR DUCT, NO BALANCING DAMPERS AT GRILLES.
21. ROUTE DUCT WITHIN STRUCTURE.
22. PROVIDE 14" TO 12" TRANSITION ON COLLAR OF DIFFUSER.
23. PROVIDE SEISMIC RESTRAINTS AT BEGINNING AND END OF DUCT HORIZONTAL RUN MINIMUM. SEE DETAILS ON SHEET M-402 FOR RESTRAINT SYSTEM INSTALLATION.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI
MARKET
KURZYNSKE
E-2000153190
REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

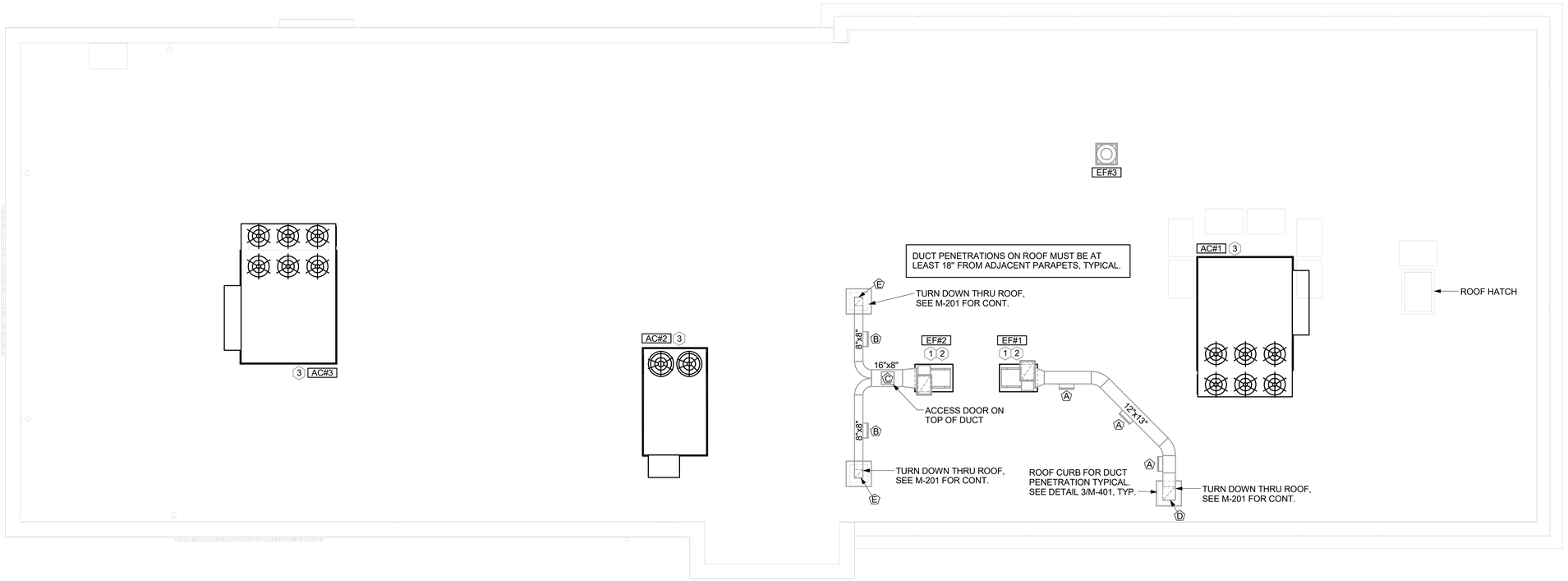
ISSUE FOR CONSTRUCTION

CURRENT DESIGN NOTE APPLIED: 2018-023
ENGINEER'S PROJECT #: 18017.CD.S
PRINTED FOR: ISSUE FOR CONSTRUCTION
DATE: 2/15/18
DRAWN BY: BLM

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET: MECHANICAL FLOOR PLAN

SHEET NUMBER: M-201

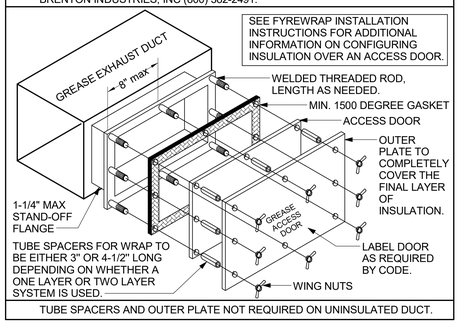


1 MECHANICAL ROOF PLAN

1/4" = 1'-0"

GREASE ACCESS DOOR SCHEDULE			
MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	10.5H X 14W	12.5H X 16W	1
B	5.5H X 14W	7.5H X 16W	1
C	12H X 12W	14H X 14W	1
D	10H X 14W	12H X 16W	1
E	6H X 14W	8H X 16W	1

1. ACCESS DOORs SHALL BE U.L. 1978 LISTED OR FIELD FABRICATED, REQUIRE NO TOOLS FOR REMOVAL AND MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE IMC. ACCESS DOOR ASSEMBLY SHALL BE WELDED IN PLACE TO THE GREASE EXHAUST DUCT AND THE ACCESS DOOR SHALL BE SECURED WITH THUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL EQUIVALENT TO THAT MANUFACTURED BY BRENTON INDUSTRIES, INC (800) 382-2491.



TUBE SPACERS AND OUTER PLATE NOT REQUIRED ON UNINSULATED DUCT.

SHEET NOTES

1. ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM ACRYLIC PRIMER PRIOR TO PAINTING.
2. AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF ADHESIVE BACKING.
3. MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.

⬡ KEY NOTES

1 FABRICATE DISCHARGE AIR NOZZLE. VERIFY EXHAUST TERMINATION IS A MINIMUM 10-0" FROM PARAPETS AND OUTSIDE AIR INTAKES. SEE DETAIL 3/M-401.

2 MECHANICAL CONTRACTOR TO VERIFY THAT GREASE EXHAUST DUCT AT ROOF PENETRATION IS 18" FROM ROOF PARAPETS.

3 MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES FOR RTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI · BRIAN L. KURZYNSKE · E-2000153190 · REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

ISSUE FOR CONSTRUCTION

CURRENT DESIGN NOTE APPLIED	2018-023
ENGINEER'S PROJECT #	18017.CD.S
PRINTED FOR	ISSUE FOR CONSTRUCTION
DATE	2/15/18
DRAWN BY	BLM

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
MECHANICAL ROOF PLAN

SHEET NUMBER
M-250

GREASE EXHAUST DUCT CLEARANCE NOTE:
CLEARANCES ABOVE CEILING ARE TIGHT. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT ROUTING AND CLEARANCES PRIOR TO FABRICATING GREASE EXHAUST DUCT.

CLEANOUT DOOR NOTE:
DUCT WRAP SHALL BE APPLIED TO THE CLEANOUT DOOR PER THE WRAP MFR'S INSTALLATION INSTRUCTIONS, NO EXCEPTIONS. ALSO, THE CLEANOUT DOOR MUST BE REMOVABLE WITHOUT TOOLS AND MUST BE CLEARLY AND PERMANENTLY LABELED.

HOOD SCHEDULE

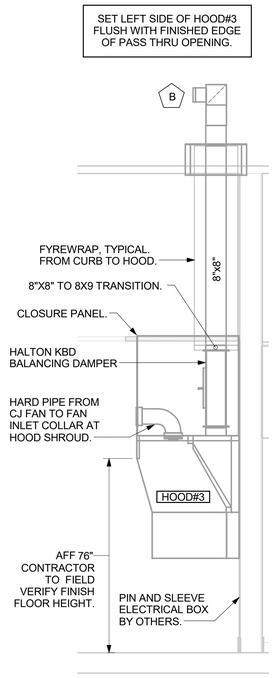
MARK	EXHAUST CFM	SP @ TAB PORT	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1	1700	0.11"	113 @ 0.30"	BACKSHELF	(2) 9"X8"	151"	37"	38"	HALTON	KVL-2	1,2,3,4,5,7,8,9,12,16,20
HOOD#2	701	0.26"	30 @ 0.29"	BACKSHELF	8"X8"	45"	34"	38"	HALTON	KVL-C	1,2,3,6,7,8,9,12,13,15,16,18,21
HOOD#3	804	0.09	68 @ 0.28"	CANOPY	9"x8"	90"	40"	48"	HALTON	KVM	1,2,3,4,6,7,8,10,11,12,14,17,19,21
NOTES	DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).										

REMARKS

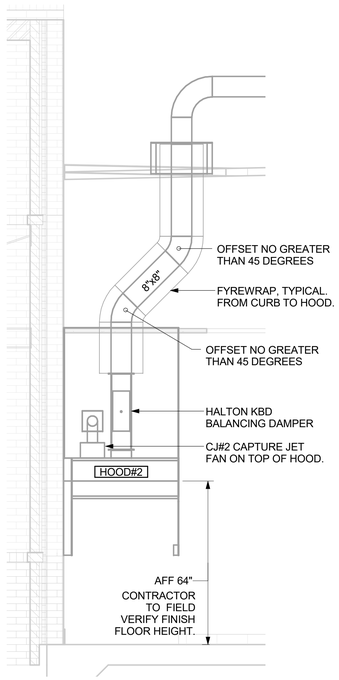
1. STAINLESS STEEL CONSTRUCTION.
2. PROVIDE FULL HEIGHT SS CLOSURE PANEL WITH ACCESS PANEL IN FRONT LARGE ENOUGH TO REMOVE CAPTURE JET FAN, SERVICE ANSUL COMPONENTS, AND/OR TO ACCESS KBD EQUALIZER JACK SCREW.
3. PROVIDE PRE-PIPED ANSUL R-102 WET FIRE EXTINGUISHING SYSTEM.
4. ANSUL CABINET AND COMPONENTS ABOVE HOOD ON RIGHT SIDE.
5. PROVIDE 3" ZERO CLEARANCE TO COMBUSTIBLE BACK SPACER.
6. PROVIDE 3" ZERO CLEARANCE TO COMBUSTIBLE CUSTOM BACK SPACER TO ACCOMMODATE PIN AND SLEEVE ELECTRICAL BOX.
7. PROVIDE EQUIPMENT I.D. LABELS LOCATED ON FRONT LEADING EDGE OF HOOD.
8. PROVIDE FACTORY WALL MOUNTING ANGLE AT TOP OF HOOD.
9. PROVIDE TOP PLENUM CAPTURE JET FAN, SPEED CONTROLLER AND COLLAR.
10. PROVIDE COUNTER MOUNTED SIDE CAPTURE JET PLENUM ASSEMBLY AND FAN ON LEFT SIDE OF HOOD.
11. PROVIDE FACTORY INSTALLED CAPTURE JET FAN IN PLENUM.
12. PROVIDE CAPTURE JET AIR INLET AND COLLAR AT FRONT OF CLOSURE PANEL.
13. PROVIDE PIN AND SLEEVE ELECTRICAL BOX (DOUBLE CONNECTION). SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
14. PROVIDE PIN AND SLEEVE ELECTRICAL BOX (SINGLE CONNECTION). SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
15. PROVIDE 3" ZERO CLEARANCE TO COMBUSTIBLE RIGHT SIDE SPACER.
16. PROVIDE NOTCHED RIGHT END SIDE PANEL.
17. PROVIDE NOTCHED LEFT END SIDE PANEL.
18. PROVIDE 3"X3" HORIZONTAL AND VERTICAL TRIM ANGLE FOR LEFT SIDE OF HOOD TO FINISH OFF GAP AT WALL.
19. PROVIDE FULL RIGHT END SIDE PANEL.
20. PROVIDE FULL LEFT END SIDE PANEL.
21. PROVIDE HALTON KBD EQUALIZER.

KITCHEN HOOD SYSTEMS NOTES

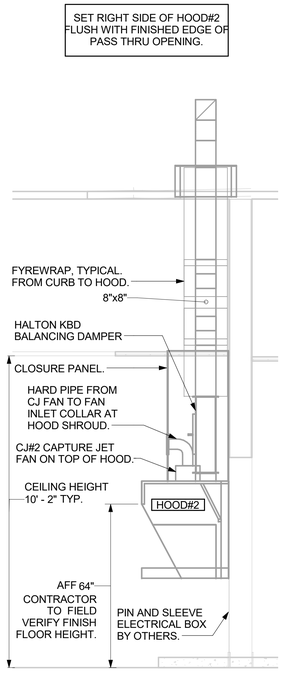
1. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT WITH HALTON CO. FOR THE HOODS. CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
2. THE FIRE SUPPRESSION SYSTEM SHALL CONSIST OF A COMPLETE WET ANSUL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
3. THE R-102 ANSUL FIRE SUPPRESSION SYSTEM EXTERNAL TO THE HOODS SHALL BE INSTALLED IN ACCORDANCE WITH HOOD MANUFACTURER'S SHOP DRAWINGS BY AN AUTHORIZED ANSUL SYSTEM INSTALLER SELECTED AND HIRED BY HALTON. COST FOR ANSUL INSTALLATION INCLUDED IN PRICE OF HOODS TO CFA.
4. HOOD EXHAUST DUCTWORK SHALL BE 16 GA. BLACK STEEL WITH CONTINUOUS LIQUID TIGHT WELD OF JOINTS & SEAMS.
5. TURNS IN GREASE EXHAUST DUCTWORK SHALL BE LONG RADIUS TYPE, WITH A CENTERLINE RADIUS R=3W/2, UNLESS OTHERWISE NOTED. NO MITERED FITTINGS ALLOWED.
6. ALL STAINLESS STEEL CLOSURE PANELS SHALL BE SUPPLIED BY HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. SLOPE ALL GREASE EXHAUST DUCT BACK TO HOOD AT 1/4" PER FOOT OF RUN.
8. WRAP NEW GREASE DUCT WITH UNIFRAX FYREWRAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FYREWRAP PRODUCT USED SHALL MEET LOCAL CODE REQUIREMENTS.
9. SUPPORT ALL HOODS WITH THREADED ROD AT EACH FACTORY SUPPORT POINT. EACH SUPPORT POINT MUST SUPPORT THE HOOD WEIGHT EQUALLY. ATTACH TO STRUCTURE AS DETAILED ON STRUCTURAL DRAWINGS. ATTACH HOOD TO WALL AT 16" INTERVALS ALONG FULL LENGTH OF HOOD ON TOP AND BOTTOM. ATTACHMENT TO WALL REQUIRES FIELD DRILLING OF SUPPORT ANGLE AT BACK OF HOODS. EACH WALL ATTACHMENT POINT MUST OCCUR AT A WALL STUD. ATTACHMENT HARDWARE TO BE #12-24 HEX HEAD SHEET METAL SCREW EQUAL TO TEXTRON SDS EDT265, LENGTH AS REQUIRED TO FULLY PENETRATE THE STUD.
10. MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON M-501 FOR MORE INFORMATION.



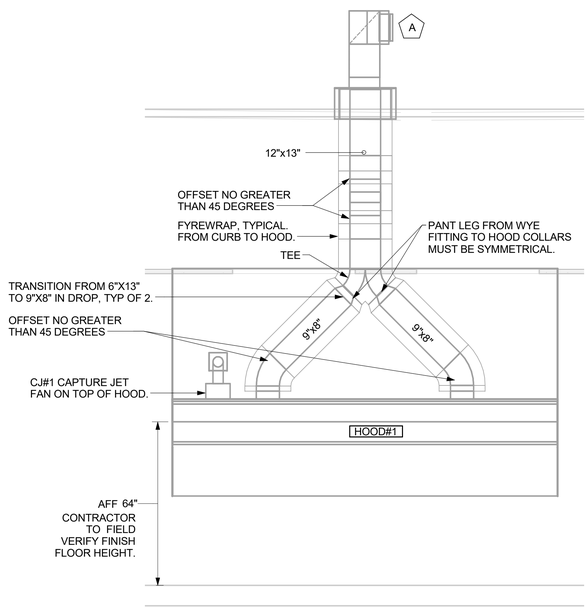
7 HOOD ELEVATION - HOOD#3
NOT TO SCALE



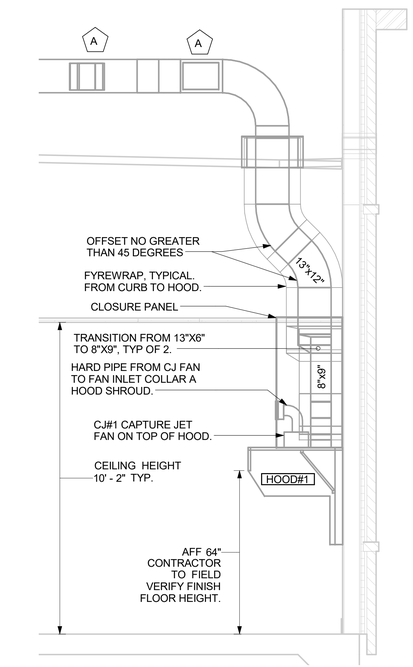
6 HOOD ELEVATION - HOOD#2 - FRONT
NOT TO SCALE



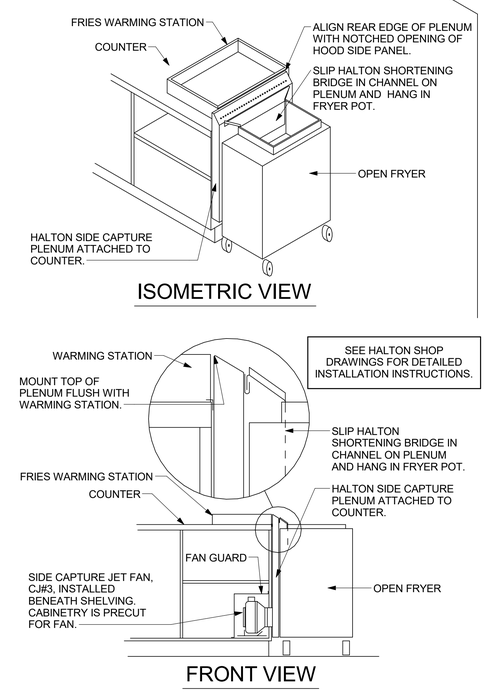
5 HOOD ELEVATION - HOOD#2 - SIDE
NOT TO SCALE



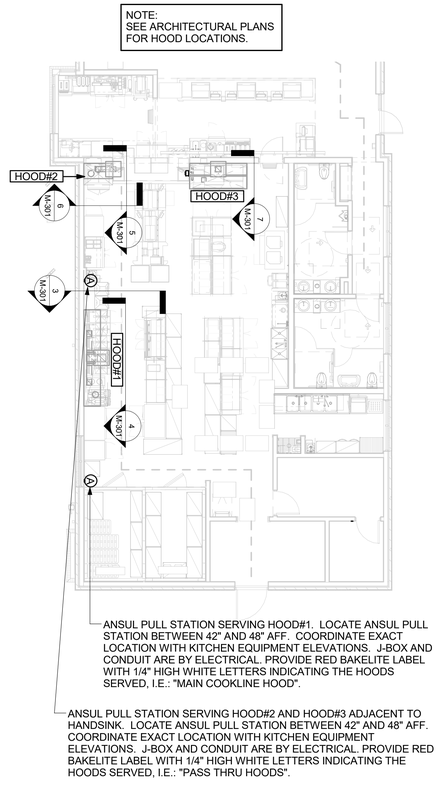
4 HOOD ELEVATION - HOOD#1 - FRONT
NONE



3 HOOD ELEVATION - HOOD#1 - SIDE
NOT TO SCALE



2 HALTON SIDE CAPTURE JET PLENUM
NOT TO SCALE



1 HOOD LAYOUT
1/8" = 1'-0"

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI — MARK T. KURZYNSKE — E-2000153190 — REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

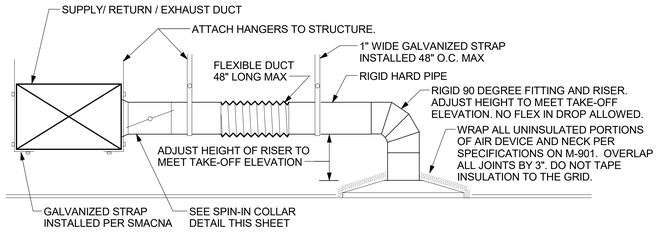
ISSUE FOR CONSTRUCTION

CURRENT DESIGN NOTE APPLIED	2018-023
ENGINEER'S PROJECT #	18017.CD.S
PRINTED FOR	ISSUE FOR CONSTRUCTION
DATE	2/15/18
DRAWN BY	BLM

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET: HOOD DETAILS & SCHEDULES

SHEET NUMBER: M-301

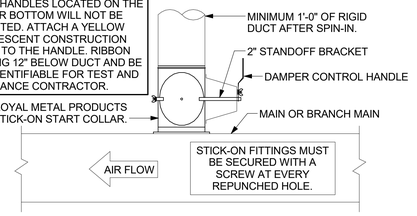


1 SAG/RAG/GRILLE TAKE-OFF
NOT TO SCALE

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ROYAL METAL PRODUCTS START COLLARS FOR BOTH WITH AND WITHOUT A MANUAL BALANCING DAMPER. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL PRODUCTS START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. ROYAL METAL PRODUCTS START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

DAMPER CONTROL HANDLE MUST BE LEFT EXPOSED AND LOCATED ON THE LEFT OR RIGHT SIDE. DAMPER CONTROL HANDLES LOCATED ON THE TOP OR BOTTOM WILL NOT BE ACCEPTED. ATTACH A YELLOW FLUORESCENT CONSTRUCTION RIBBON TO THE HANDLE. RIBBON MUST HANG 12" BELOW DUCT AND BE EASILY IDENTIFIABLE FOR TEST AND BALANCE CONTRACTOR.

DO NOT APLY START COLLAR OVER DUCT WRAP

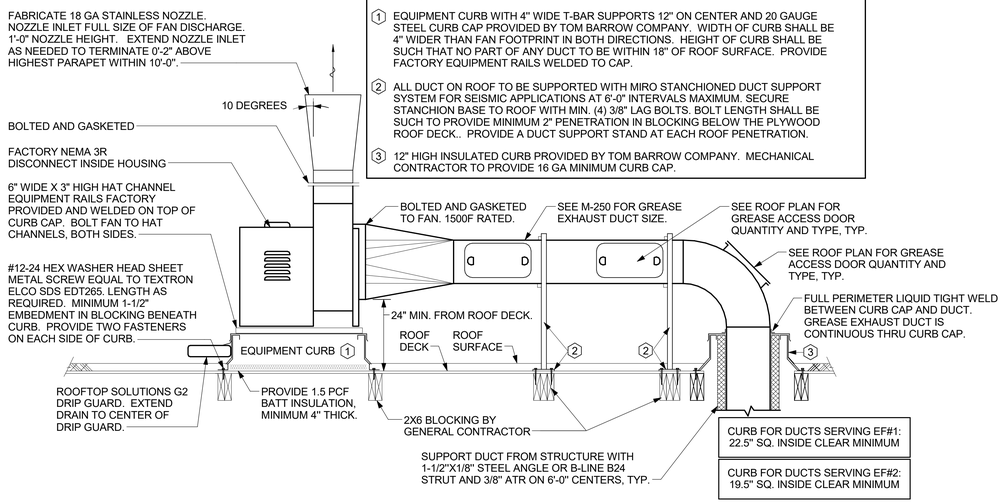


2 START COLLAR
NOT TO SCALE

ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM ACRYLIC PRIMER PRIOR TO PAINTING.

KEYED NOTES:

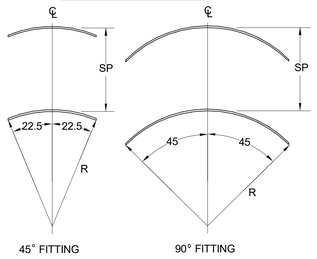
1. EQUIPMENT CURB WITH 4" WIDE T-BAR SUPPORTS 12" ON CENTER AND 20 GAUGE STEEL CURB CAP PROVIDED BY TOM BARROW COMPANY. WIDTH OF CURB SHALL BE 4" WIDER THAN FAN FOOTPRINT IN BOTH DIRECTIONS. HEIGHT OF CURB SHALL BE SUCH THAT NO PART OF ANY DUCT TO BE WITHIN 18" OF ROOF SURFACE. PROVIDE FACTORY EQUIPMENT RAILS WELDED TO CAP.
2. ALL DUCT ON ROOF TO BE SUPPORTED WITH MIRO STANCHIONED DUCT SUPPORT SYSTEM FOR SEISMIC APPLICATIONS AT 6'-0" INTERVALS MAXIMUM. SECURE STANCHION BASE TO ROOF WITH MIN. (4) 3/8" LAG BOLTS. BOLT LENGTH SHALL BE SUCH TO PROVIDE MINIMUM 2" PENETRATION IN BLOCKING BELOW THE PLYWOOD ROOF DECK.. PROVIDE A DUCT SUPPORT STAND AT EACH ROOF PENETRATION.
3. 12" HIGH INSULATED CURB PROVIDED BY TOM BARROW COMPANY. MECHANICAL CONTRACTOR TO PROVIDE 16 GA MINIMUM CURB CAP.



3 KITCHEN HOOD EXHAUST FANS
NOT TO SCALE

TURNING VANE SCHEDULE		
R	SP	GA
2"	1.5"	24

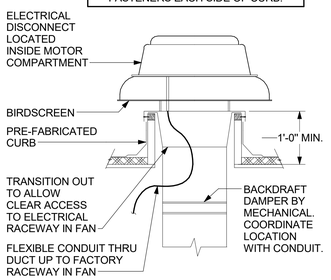
1. NO TRAILING EDGE.
2. SINGLE THICKNESS CONSTRUCTION.



5 TURNING VANES
NOT TO SCALE

SEISMIC FASTENER REQUIREMENTS

SECURE FAN TO CURB AND CURB TO ROOF OPENING BLOCKING WITH SHEET METAL SCREWS (#10 X 1-1/2"). TWO FASTENERS EACH SIDE OF CURB.



4 RESTROOM EXHAUST FAN
NOT TO SCALE

GAS FIRED ROOFTOP UNIT SCHEDULE

MARK	TOTAL COOLING MBH	SENSIBLE COOLING MBH	HEATING INPUT MBH	HEATING OUTPUT MBH	STAGES	SUPPLY	O.A.	HP	ESP	MODEL R-410A	MANUFACTURER	REMARKS
AC#1	288.4	219.2	480	384	2	9500	1380	10	0.80	LGH300S4B	LENNOX	1,3,4,5,7,8,9,10,11,12,13,14,15
AC#2	124.4	89.6	240	192	2	3000	1250	2	0.65	LGH120H4B	LENNOX	2,3,4,6,7,8,9,10,11,12,13,15
AC#3	247.3	192.9	480	384	2	6000	2025	5	0.65	LGH240H4B	LENNOX	1,3,4,7,8,9,10,11,12,13,14,15

NOTES
- COOLING CAPACITIES ARE GROSS, BASED ON ENTERING: 80FDB/67FWB, OUTDOOR: 95FDB, AND 400 CFM PER TON.
- CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.
- MECHANICAL CONTRACTOR TO VERIFY LENNOX SUBMITTAL WITH CONSTRUCTION DOCUMENTS.

REMARKS
1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. ECONOMIZER TO BE HIGH EFFICIENCY LOW LEAKAGE.
2. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC EXHAUST. ECONOMIZER TO BE HIGH EFFICIENCY/LOW LEAKAGE.
3. PROVIDE 14" HIGH FACTORY, FULLY WELDED SEISMIC RATED ROOF CURB.
4. SEE DETAIL 2/M-501 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.
5. PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET.
6. PROVIDE FACTORY INSTALLED 115V GFI SERVICE OUTLET.
7. PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.
8. PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.
9. PROVIDE 2" MERV 8 THROW AWAY FILTERS.
10. PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.
11. ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.
12. PROVIDE FACTORY COIL HAIL GUARD, FIELD INSTALLED.
13. PROVIDE FRESH AIR TEMPERING KIT.
14. PROVIDE HUMIDITROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR (STATES OF CA AND AZ EXCLUDED).
15. PROVIDE FACTORY INSTALLED BELT TENSIONER.

EXHAUST FAN SCHEDULE

MARK	CFM	ESP	RPM	Tip Speed	HP	Area Served	MODEL	MANUFACTURER	REMARKS
EF#1	1700	0.75	1,241	4,873	3/4	HOOD#1	150 CPS	LOREN COOK	1,2,3,4,5,6,7,8,9,10,11,17
EF#2	1505	0.95	1,236	4,853	3/4	HOOD#2 & HOOD#3	150 CPS	LOREN COOK	1,2,3,4,5,6,7,8,9,10,11,17
EF#3	300	0.375	1,294	3,091	1/8	RESTROOMS	ACED-90C15DH	LOREN COOK	3,11,12,13,14,15,16

NOTES
- GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.
- GREASE EXHAUST FANS TO BE U.L. 762 LISTED.
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE FAN/CURB PACKAGE. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS
1. UPBLAST, ARRANGEMENT 10, CW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.
2. PROVIDE FACTORY STEEL FAN WHEEL.
3. PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT.
4. PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
5. PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MECHANICAL CONTRACTOR TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034.
6. PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
7. PROVIDE FACTORY DRAIN CONNECTION.
8. PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
9. PROVIDE FACTORY INSTALLED HELICAL SPRING AUTOMATIC BELT TENSIONER.
10. PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.
11. INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
12. PROVIDE BIRDSCREEN.
13. BACKDRAFT DAMPER IN DUCT BY MECHANICAL CONTRACTOR AS SHOWN ON 4/M-3.1.
14. STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
15. PROVIDE 12" HIGH CURB.
16. PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
17. UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.

AIR DOOR SCHEDULE

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1	750	3050 FPM	7.2 KW	1/5 HP	DRIVE THRU	MP-1-30E	Powered Aire	1,2
AD#2	3867	4220 FPM	N/A	3/4 HP	REAR DOOR	RBT-1-48	Powered Aire	3

NOTES
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS
1. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED THERMOSTAT LOCATED ON RIGHT SIDE.
2. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ON BOTTOM.
3. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.

AIR DEVICE SCHEDULE

MARK	DESCRIPTION	LOCATION	NECK SIZE	FACE SIZE	FRAME TYPE	REMARKS
A	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	DINING/ KITCHEN	VARIES	24"x24"	LAY-IN	1,7
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRY	14"x14"	19"x19"	BEVELLED	1,3,5,6
E	PRICE MODEL 22 DOUBLE DEFLECTION ALUMINUM SIDEWALL SUPPLY GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	18"x10"	20"x12"	SURFACE	1
F	PRICE MODEL 80 EGGCRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING/ OFFICE/ KITCHEN	VARIES	24"x24"	LAY-IN	1,7
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10"x10"	15"x15"	BEVELLED	1,2,3,5,6
K	PRICE MODEL APDDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS/ ENTRY	14"x14"	16"x16"	SURFACE	1,4,5,6
L	PRICE MODEL 21 SINGLE DEFLECTION ALUMINUM SIDEWALL RETURN GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	12"x12"	14"x14"	SURFACE	1

NOTES
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DEVICES. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS
1. STANDARD OFF WHITE FINISH.
2. PROVIDE MODEL VCS3 NECK DAMPER.
3. SEE DRAWING M-201 FOR THROW.
4. PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS SERVING EXHAUST FAN.
5. PROVIDE BACKPAN. MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
6. FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M-401.
7. FACTORY INSULATED R-6 BACKPAN.

GAS FIRED INFRARED HEATER SCHEDULE

MARK	INPUT (MBH)	FRAME LENGTH	FRAME WIDTH	FRAME DEPTH	MOUNTING TYPE	MODEL	MANUFACTURER
GIH	50	48-1/4"	13"	10"	BRACKET	2352-NG	SCHWANK

NOTES
- CONFIRM HEATER QUANTITY WITH CANOPY SHOP DRAWINGS.
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE GAS FIRED INFRARED HEATERS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS
1. STEEL BURNER WITH CERAMIC BURNER TILES.
2. STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.
3. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING FORWARD, 12" LATERALLY FROM THE LONG SIDE OF THE HEATER.
4. MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR.
5. PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI · MARK L. KURZYNSKE · E-2000153190 · REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

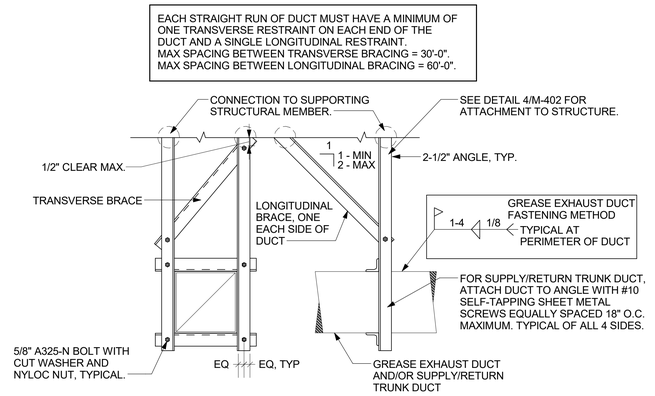
ISSUE FOR CONSTRUCTION

CURRENT DESIGN NOTE APPLIED	2018-023
ENGINEER'S PROJECT #	18017.CD.S
PRINTED FOR	ISSUE FOR CONSTRUCTION
DATE	2/15/18
DRAWN BY	BLM

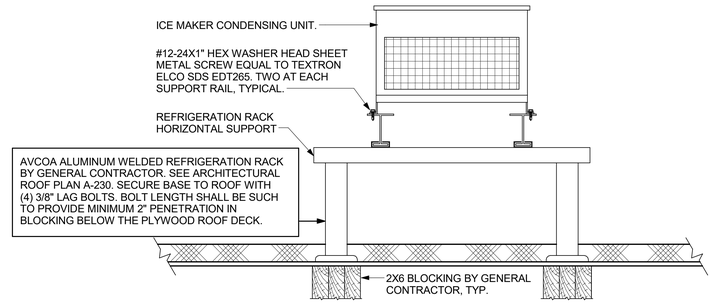
Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET: HVAC DETAILS & SCHEDULES

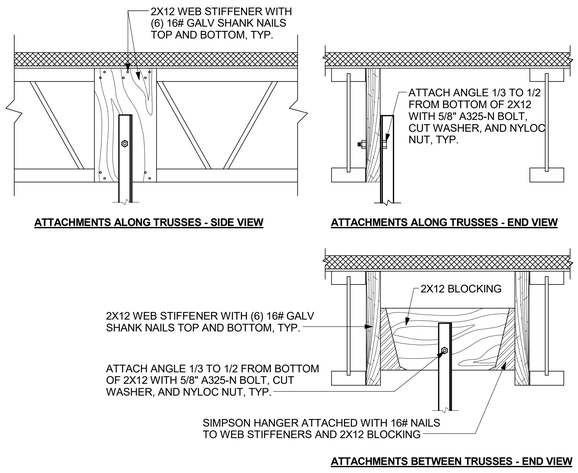
SHEET NUMBER: M-401



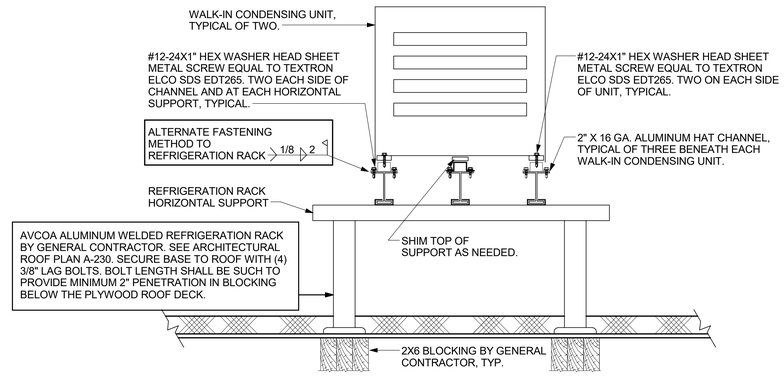
3 RECTANGULAR DUCT RESTRAINT
1/4" = 1'-0"



2 ICE MAKER CONDENSING UNIT TIE DOWN DETAIL
1/4" = 1'-0"



4 DUCT ATTACHMENT
1/4" = 1'-0"



1 WALK-IN CONDENSING UNIT TIE DOWN DETAIL
1/4" = 1'-0"

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI
MARKET KURZYNSKE
E-2000153190
REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

ISSUE FOR CONSTRUCTION

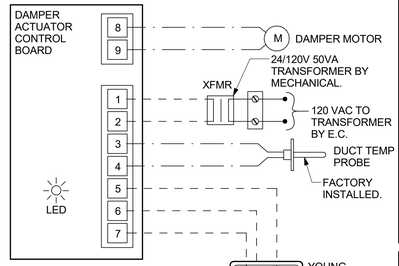
CURRENT DESIGN NOTE APPLIED: 2018-023
ENGINEER'S PROJECT #: 18017.CD.S
PRINTED FOR: ISSUE FOR CONSTRUCTION
DATE: 2/15/18
DRAWN BY: BLM

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET: SEISMIC DETAILS

SHEET NUMBER
M-402

PROVIDE A PROFESSIONALLY LAMINATED COPY OF THESE DETAILS TO BE INSTALLED INSIDE THE ROOFTOP UNIT CONTROL CABINENT. USE A SETON CHART FRAME STYLE #68624, TELEPHONE NUMBER 800-243-6624, FOR MOUNTING THE DETAIL. ATTACH THE FRAME TO THE INTERIOR OF THE UNIT IN PLAIN AND EASY VIEW OF THE CONTROLS SECTION. CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.



LEGEND	
M.C.	MECHANICAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
— — —	18 AWG MIN WIRING BY M.C.
— · —	18 AWG MIN LOW VOLTAGE FACTORY WIRING
———	HIGH VOLTAGE BY E.C.

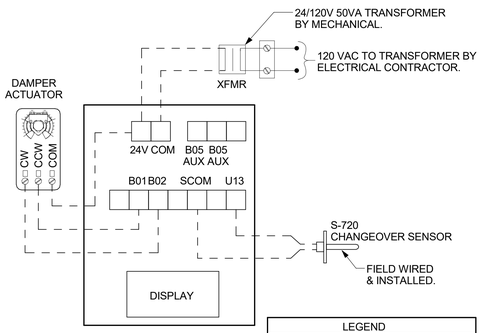
NOTES

1. SEE DWG M-201 FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
2. 120V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND LIVE 24 HOURS EACH DAY.
3. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM.
4. PROVIDE MYLAR LABEL AT ALL NEW THERMOSTATS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "OFFICE THERMOSTAT". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY ON DEVICE.

SEQUENCE OF OPERATION

1. WHEN THE SUPPLY AIR TEMPERATURE IS LESS THAN 72F THE DAMPER WILL OPEN FULLY ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
2. WHEN THE SUPPLY AIR TEMPERATURE IS GREATER THAN 71F THE DAMPER WILL OPEN FULLY ON A FALL IN SPACE TEMPERATURE BELOW THE SETPOINT.

3 VAV DAMPER AND TSTAT - MGRS OFFICE
NOT TO SCALE



LEGEND	
M.C.	MECHANICAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
— — —	18 AWG MIN WIRING BY M.C.
———	HIGH VOLTAGE BY E.C.

NOTES

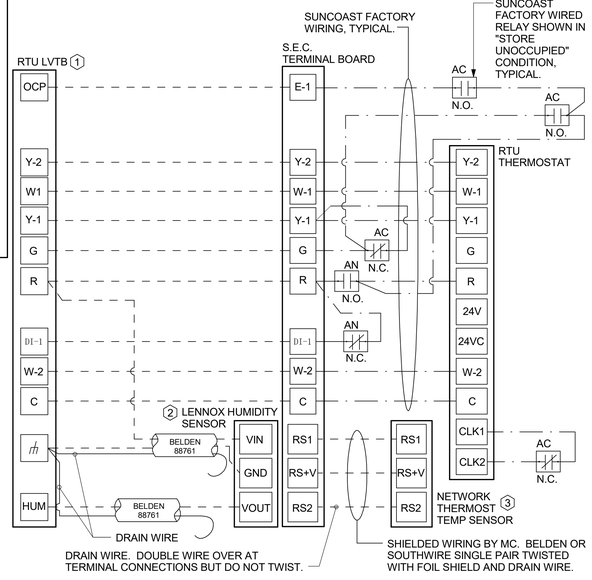
1. SEE DWG M-201 FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
2. 120V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND LIVE 24 HOURS EACH DAY.
3. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM.
4. PROVIDE MYLAR LABEL AT ALL NEW THERMOSTATS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "PLAY AREA THERMOSTAT". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY ON DEVICE.

SEQUENCE OF OPERATION

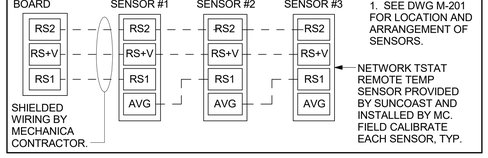
1. WHEN THE SUPPLY AIR TEMPERATURE IS LESS THAN 72F THE DAMPER WILL MODULATE ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
2. WHEN THE SUPPLY AIR TEMPERATURE IS GREATER THAN 71F THE DAMPER WILL MODULATE ON A FALL IN SPACE TEMPERATURE BELOW THE SETPOINT.

4 VAV DAMPER AND TSTAT - PLAY AREA
NOT TO SCALE

LEGEND	
S.E.C.	SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN
1	KEY NOTE REFERENCE
MC	MECHANICAL CONTRACTOR
AC	SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN "STORE OCCUPIED" POSITION.
AN	SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, DENERGIZED WHEN ANSUL FIRE SUPPRESSION SYSTEM IS ACTIVATED, AS NOTED.
— — —	18 AWG MIN LOW VOLTAGE WIRING BY MC, U.N.O. USE BELDEN OR SOUTHWIRE SINGLE PAIR TWISTED WITH FOIL SHIELD AND DRAIN WIRE FOR TEMPERATURE SENSORS (NOT HUMIDITY SENSORS).
— · —	LOW VOLTAGE WIRING BY S.E.C.
———	LINE VOLTAGE BY ELECTRICIAN OR S.E.C.



AC#3 AVERAGING SENSORS (WHERE SHOWN ON PLANS)



NOTES:
1. SEE DWG M-201 FOR LOCATION AND ARRANGEMENT OF SENSORS.

NOTES:
1. FOR ALL RTU'S EXCEPT AT AC#1, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#58 ON LCH UNITS). THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON "OCCUPIED" START. AT AC#1 (LGH TYPE) LEAVE THE SETTING AT THE DEFAULT VALUE SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 60 MINUTES AFTER "OCCUPIED" START. AT AC#1 (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER "OCCUPIED" START.
2. MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
3. SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNICIATOR WIRING.
4. AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #105 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 5 (60% RH).
5. SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
6. AT MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.
7. PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "AC#2 HUMIDITY SENSOR" OR "AC#2 TEMP SENSOR". PLACE LABELS ON WALL ADJACENT TO DEVICE, DO NOT APPLY DIRECTLY TO DEVICE.

KEYED NOTES:
1. LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.
2. HUMIDITROL UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH TWO SEPARATE RUNS OF SHIELDED TWISTED PAIR. TERMINATE SHIELD WIRES AT TB-1, LEAVE OPEN AT SENSOR.
3. NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. FIELD CALIBRATE EACH SENSOR.

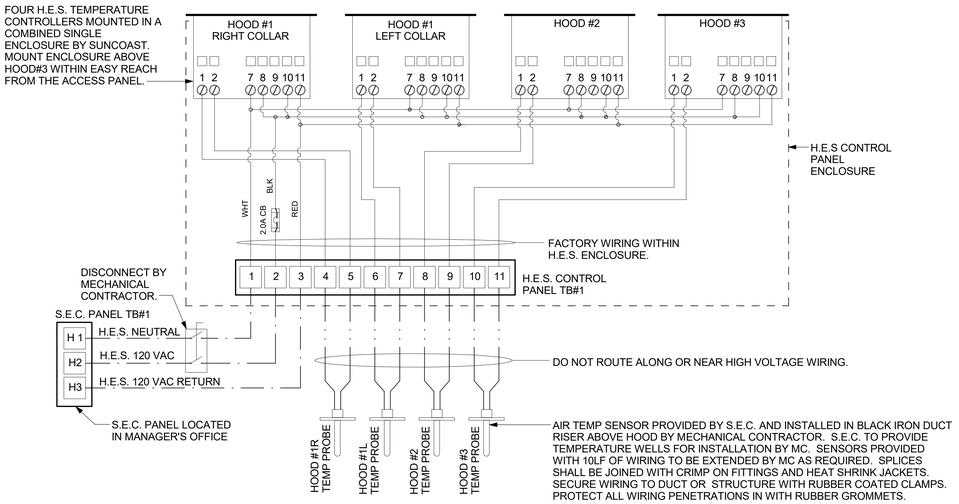
2 ROOFTOP UNIT CONTROL WIRING - LENNOX
NOT TO SCALE

GENERAL NOTES
1. MECHANICAL CONTRACTOR TO PURCHASE THE H.E.S. CONTROL PANEL AND COMPONENTS FROM SUNCOAST ENVIRONMENTAL CONTROLS. TELEPHONE 877-544-6679.
2. CONTROLS COMPONENTS TO BE FACTORY MOUNTED IN LABELED NEMA-1 ENCLOSURES.
3. MECHANICAL CONTRACTOR TO PROVIDE A PROFESSIONALLY LAMINATED COPY OF THIS DETAIL ATTACHED TO THE ENCLOSURE.CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.

LEGEND	
S.E.C.	SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL
H.E.S.	SUNCOAST ENVIRONMENTAL CONTROLS HOOD EXHAUST SAFETY CONTOLLER
M.C.	MECHANICAL CONTRACTOR
———	18 AWG MIN UNSHIELDED LOW VOLTAGE WIRING BY MC, U.N.O.
— · —	120 VAC WIRING BY MECHANICAL CONTRACTOR

S.E.C. H.E.S. OPERATION

IN THE EVENT THAT ANY COOKING EQUIPMENT ITEM BENEATH ANY HOOD IS STARTED WITHOUT THE 'STORE SWITCH' BEING IN THE 'OCCUPIED' POSITION, THE H.E.S. CONTROLLER WILL SENSE THE HEAT RISE WITHIN THE HOOD CANOPY AND ENERGIZE THE EXHAUST FANS.



5 HOOD FAN/EQUIPMENT INTERLOCK
NOT TO SCALE

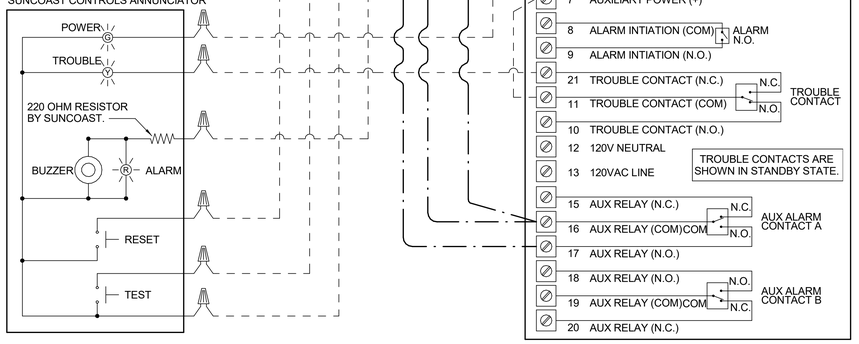
SUPPLY SIDE DETECTORS:
IF SUPPLY SIDE SMOKE DETECTORS ARE SHOWN ON DWG M1.1, AND CALLED FOR ON RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE FACTORY INSTALLED SUPPLY SMOKE DETECTOR FROM BLOWER SECTION TO DUCTWORK. SEE NOTES ON DWG M201.

PRODIGY CONTROL BOARD

FIELD INSTALLED WIRING:
WITHIN THE ROOFTOP UNIT, WIRING SHALL BE ROUTED BY WAY OF FACTORY WIRE WAYS ONLY. WIRING ROUTED OVER THE BLOWER HOUSING OR BY WAY OF OTHER ROUTES DETRIMENTAL TO THE WIRING LIFE WILL NOT BE ACCEPTED.

LEGEND	
— — —	18 AWG MIN WIRING BY MECH CONTRACTOR
———	FACTORY ANNUNCIATOR DETECTOR WIRING
— · —	FACTORY LENNOX WIRING

LABELING:
PROVIDE ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON BLACK BACKGROUND IDENTIFYING UNIT SERVED.



1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM
NOT TO SCALE

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI — MARKET KURZYNSKE — E-2000153190 — REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

ISSUE FOR CONSTRUCTION

CURRENT DESIGN NOTE APPLIED	2018-023
ENGINEER'S PROJECT #	18017.CD.S
PRINTED FOR	ISSUE FOR CONSTRUCTION
DATE	2/15/18
DRAWN BY	BLM

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
HVAC CONTROLS

SHEET NUMBER
M-501

1. SECTION C15000 - MECHANICAL SPECIFICATIONS

PART I - GENERAL

1.01 SCOPE

A. IT IS THE RESPONSIBILITY OF CONTRACTOR TO READ ALL SPECIFICATIONS AND CONSULT ALL DRAWINGS WHICH MAY AFFECT THE INSTALLATION AND COORDINATION OF HIS WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN LOCATION OF EQUIPMENT AND MATERIALS AS NECESSARY TO SECURE COORDINATION.

B. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF NFPA-96, NFPA-90A, NFPA-54, SMACNA, ASHRAE 90.1 AND ASHRAE 62.

C. SYSTEM LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY STRUCTURAL CONDITIONS, COORDINATION WITH OTHER TRADES, COORDINATION WITH FINISHES AND OTHER CONDITIONS. STRUCTURAL SUPPORTS SHALL NOT BE CUT OR ALTERED TO ASSURE FIT OF HVAC SYSTEM. TEN FOOT CLEARANCE SHALL BE MAINTAINED BETWEEN OUTSIDE AIR INTAKES AND EXHAUST FANS AND PLUMBING VENT TERMINALS.

D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED AS PART OF THIS SYSTEM.

E. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO CONDITION ACCEPTABLE TO THE OWNERS REPRESENTATIVE. ALL EQUIPMENT, COMPONENTS AND DUCTWORK SHALL BE INSPECTED AND THOROUGHLY CLEANED, READY FOR USE. AT COMPLETION OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.

F. CONTRACTOR SHALL PROVIDE TWO SETS OF 2" MERV 8 OR HIGHER THROW AWAY TYPE FILTERS. A CLEAN SET SHALL BE PROVIDED PRIOR TO TEST AND BALANCE AND AGAIN PRIOR TO OPENING.

PART II - PRODUCTS

2.01 HEATING AND COOLING EQUIPMENT (C15730)

A. FURNISH AND INSTALL R-410A ROOFTOP SINGLE PACKAGE COMBINATION ELECTRIC COOLING AND NATURAL GAS FIRED HEATING UNITS BY LENNOX AS SHOWN ON DRAWINGS. EQUIPMENT SHALL BE ARI CERTIFIED AND A.G.A. AND U.L. LISTED.

B. ACCESSORIES SHALL INCLUDE LOW AND HIGH PRESSURE SAFETIES, CRANK CASE HEATER, OVERCURRENT AND OVERTEMPERATURE SAFETY, COMPRESSOR VIBRATION ISOLATORS, FILTER DRIERS, REFRIGERANT SERVICE VALVES, COIL HAIL GUARDS WHERE SCHEDULED, CONVENIENCE OUTLETS FACTORY INSTALLED ON SCHEDULED UNITS, UNIT MOUNTED NON-FUSED DISCONNECTS, LOW AMBIENT OPERATION DOWN TO 30 DEGREES F AND EVAPORATOR FREEZE STAT.

C. COMPRESSORS SHALL BE FULLY HERMETIC SCROLL TYPE WITH INTERNAL VIBRATION ISOLATORS. COMPRESSORS SHALL BE PROVIDED WITH A MINIMUM FIVE (5) YEAR FULL WARRANTY.

D. THE UNIT HEAT EXCHANGERS SHALL BE STEEL WITH ALUMINIZED STEEL COATING. HEATING CONTROLS SHALL CONSIST OF REDUNDANT GAS VALVES, INTERMITTENT PILOT WITH ELECTRONIC SPARK OR HOT PLATE IGNITION SYSTEM, COMBUSTION/EXHAUST FAN PROTECTED BY CENTRIFUGAL SWITCHES, HEAT LIMIT SWITCHES, TIME-DELAY RELAY, FLAME, AND PILOT SENSORS. ALL UNITS SHALL BE CAPABLE OF TWO STAGES OF HEAT. HEAT EXCHANGES SHALL HAVE A TEN (10) YEAR WARRANTY. BURNERS SHALL BE ALUMINIZED IN-SHOT TYPE. THE DRAFT MOTOR SHALL BE MONITORED BY THE CONTROL SYSTEM.

E. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. PRICING FOR THE EQUIPMENT HAS BEEN ESTABLISHED IN ADVANCE. CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.

2.02 DUCTWORK (C15735) (SEE DWG M-301 FOR ADDITIONAL GREASE DUCT SYSTEM REQ.)

A. ACCEPTABLE MANUFACTURERS OF INSULATION ARE MANVILLE, OWENS CORNING OR KNAUF.

B. ALL DUCTWORK SHALL BE SHEET METAL, UNLESS NOTED OTHERWISE (U.N.O.).

C. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS, U.N.O.

D. CONSTRUCTION OF DUCTWORK SHALL MEET SMACNA 1" W.C. PRESSURE CLASS STANDARD AND RECOMMENDATIONS. SMACNA SHALL BE FOLLOWED WITH RESPECT TO GAGE THICKNESS, JOINTS, REINFORCING, CONSTRUCTION, INSTALLATION AND SUPPORT FOR PRESSURE CLASS STATED. ALL TRANSVERSE JOINTS IN RECTANGULAR AND ROUND DUCT INCLUDING DUCT CONNECTION TO AIR DEVICE COLLAR SHALL BE SEALED PER SMACNA SEAL CLASS C WITH U.L. DUCT MASTIC SEALANT APPROVED FOR INTENDED USE. DUCT TAPE IS NOT AN ACCEPTABLE SUBSTITUTE FOR MASTIC UNLESS EQUAL TO HARDCAST FOIL-GRIP 1402 BUTYL RUBBER ADHESIVE TAPE.

E. DUCT SHALL BE SUPPORTED AT BASE OF DUCT DROPS. CURB DUCT RAILS ARE NOT INTENDED TO AND SHALL NOT SUPPORT THE WEIGHT OF THE DUCT.

F. ALL DUCT INSULATION SHALL MEET MINIMUM R-VALUE REQUIRED BY ASHRAE 90.1 LATEST EDITION. ALL DUCT WRAP SHALL BE MINIMUM 2" THICK, 3/4 PCF AND 6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 MIL ALUMINUM REINFORCED FOIL/KRAFT FACING.

G. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.

H. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.

I. ALL AIR CONVEYANCE COMPONENTS SUCH AS, BUT NOT LIMITED TO DUCT, DUCT PLENUMS, GRILLES/DIFFUSERS, BACK PANS, AND BOOTS SHALL BE INSULATED. INSULATION TYPE IS COVERED ELSEWHERE IN THIS SPECIFICATION.

J. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK, 1-1/2 PCF INSULATION. RESTROOM ROUND EXHAUST DUCT SHALL BE EXTERNALLY INSULATED PER SECTION 2.02F.

K. TRUNK DUCTS SHALL BE ISOLATED FROM UNIT VIBRATION WITH THE USE OF NFPA AND U.L. APPROVED FLEXIBLE CONNECTORS INSTALLED AT THE TOP OF BOTH SUPPLY AND RETURN DROPS.

L. INSULATED FLEXIBLE DUCT MAY BE UTILIZED FOR RUNOUTS TO GRILLES AND DIFFUSERS ONLY IN THE HORIZONTAL POSITION AND IN MAXIMUM LENGTHS OF 4'-0", NO EXCEPTIONS. SEE TAKE-OFF DETAIL ON DRAWING M3.1.

M. CONSTRUCTION OF FLEXIBLE DUCTWORK SHALL INCLUDE SPIRAL METAL HELIX BONDED TO A POLYESTER CORE, FIBERGLASS INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THERMAFLEX MKE.

N. FLEXIBLE DUCT SHALL BE INSTALLED PER THE "ADC FLEXIBLE DUCT PERFORMANCE AND INSTALLATION STANDARDS, 4TH ED" USING FOIL TAPE AND DRAWBAND ON THE INNER CORE AND TAPE OR DRAWBAND ON THE OUTER JACKET.

O. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.

P. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".

Q. RADIUSED ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO; R=W PER FIGURE NO. 2-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

R. EXTERNAL INSULATION ON BOTTOM OF DUCTS 24" OR WIDER SHALL BE SUPPORTED WITH STICK PINS ON 18" CENTERS. STICK PIN WASHERS SHALL BE COVERED WITH DUCT TAPE OR MASTIC.

2.03 CONTROLS (C15735)

A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). THE PANEL IS PROVIDED AND MOUNTED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING TERMINATIONS ARE BY THE MECHANICAL CONTRACTOR.

B. THE SMOKE DETECTORS SHALL BE FACTORY INSTALLED AND WIRED BY THE ROOFTOP UNIT MANUFACTURER.

C. A FACTORY INSTALLED SMOKE DETECTOR IN THE RETURN AIR SECTION OF EACH AIR CONDITIONING UNIT SHALL STOP THE INDOOR FAN AND CLOSE THE OUTSIDE AIR DAMPER IN THE EVENT OF EXCESSIVE TEMPERATURE OR SMOKE. SMOKE DETECTOR SHALL BE LOCATED PRIOR TO ANY EXHAUST FROM THE BUILDING OR MIXING WITH FRESH AIR MAKE-UP. UPON DETECTION, THE SYSTEM SHALL NOT RESTART UNTIL THE DEVICE IS MANUALLY RESET. DEVICES SHALL BE LOCATED WHERE THEY CAN BE EASILY ACCESSED AND WHERE CLEAR OF FILTERS.

D. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH SUNCOAST ENVIRONMENTAL CONTROLS FOR THE SMOKE DETECTOR TEST/RESET ANNUNCIATOR STATIONS. THE TEST/RESET STATIONS WILL BE PURCHASED BY THE ELECTRICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE AND TURNED OVER TO THE MECHANICAL CONTRACTOR FOR INSTALLATION.

E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU. ELECTRICAL WILL PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION AS SHOWN ON THE ELECTRICAL PLANS. ANNUCIATOR SHALL BE SUNCOAST CONTROLS REMOTE TEST/RESET STATION WITH POWER LED, TROUBLE LED, ALARM LED, 90DB HORN AND TEST/RESET BUTTON.

F. THE RESTROOM FAN SHALL BE INTERLOCKED TO THE LIGHTS SERVING THE MEN AND WOMEN'S RESTROOMS. THE HOOD FANS SHALL BE CONTROLLED VIA THE SUNCOAST CFA-500 CONTROL PANEL. WIRING, RELAYS AND SWITCHES FOR CONTROL OF ALL FANS ARE BY ELECTRICAL CONTRACTOR.

G. LENNOX UNITS - THERMOSTATS ARE PROVIDED AND INTEGRATED INTO THE TEMPERATURE CONTROL PANEL BY SUNCOAST ENVIRONMENT CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-CFA THERMOSTAT PRE-WIRED IN THE TEMPERATURE CONTROL PANEL. A REMOTE TEMPERATURE SENSOR FOR EACH THERMOSTAT IS ALSO PROVIDED. MECHANICAL CONTRACTOR SHALL INSTALL ALL WIRING BETWEEN THE THERMOSTAT, THE REMOTE SENSOR AND THE ROOFTOP UNIT.

H. MECHANICAL CONTRACTOR SHALL INSTALL CONTROL WIRING IN 1/2" CONDUIT WHERE REQUIRED BY CODE. WHERE NOT REQUIRED TO BE IN CONDUIT, ALL WIRING SHALL BE RUN PARALLEL TO STRUCTURAL MEMBERS OR PERPENDICULAR WITH NO DIAGONAL ROUTING. ALL WIRING SHALL BE SECURED TO THE FRAMING TO PREVENT SAGGING IN RUNS. WIRING TO ROOFTOP UNITS SHALL BE ROUTED THROUGH THE FACTORY THRU-BASE FITTING IN THE UNIT BASE. NO SPLICING OF WIRING WILL BE ACCEPTED. ALL WIRING ABOVE THE ROOF SHALL BE INSTALLED IN EXTERIOR GRADE FLEXIBLE CONDUIT. ALL CONTROL WIRING AND CONTROL WIRING CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF NEC. ALL LOW VOLTAGE CONTROL WIRING SHALL BE NO LESS THAN 18 AWG MIN. CONTROL WIRING CONDUCTORS SHALL BE SIZED TO ACCOUNT FOR LOAD AND LENGTH OF RUN TO ALLOW SUFFICIENT VOLTAGE AVAILABLE AT CONTROLLED DEVICE TO OPERATE THE SYSTEM RELIABLY.

PART III - EXECUTION

3.01 SCOPE

A. FURNISH AND INSTALL SYSTEM IN ACCORDANCE WITH REFERENCED STANDARDS, APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.

B. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NCI OR AABC STANDARDS TO ASSURE CONFORMANCE WITH DESIGN. G.C. WILL MAKE MECHANICAL CONTRACTOR AVAILABLE DURING TEST AND BALANCE TO ASSIST TESTING AGENCY AND TO MAKE CORRECTIONS IMMEDIATELY NECESSARY. CONTRACTOR SHALL CORRECT ITEMS ON WRITTEN TEST AND BALANCE REPORT.

C. CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT THROUGH DEMONSTRATION AND EXPLANATION OF OPERATING & MAINTENANCE MANUALS.

D. CONTRACTOR SHALL PROVIDE A "SAMPLE MAINTENANCE PROPOSAL" TO THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.

E. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER.

3.02 LEED PROJECTS

A. CONTRACTOR SHALL COMPLETE RECEIPT INSPECTION CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN WITHIN 5 DAYS OF RECEIVING EQUIPMENT ON SITE.

B. CONTRACTOR SHALL COMPLETE PRE-FUNCTIONAL CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN. CHECKLISTS SHALL BE RETURNED AT LEAST 5 DAYS PRIOR TO SCHEDULING FUNCTIONAL PERFORMANCE TESTING.

C. CONTRACTOR SHALL PROVIDE A TECHNICIAN TO ASSIST THE THIRD PARTY COMMISSIONING AUTHORITY WITH FUNCTIONAL TESTING. FUNCTIONAL TESTING SHALL OCCUR AFTER ALL CONTROLS HAVE BEEN INSTALLED AND VERIFIED AND AFTER TEST AND BALANCE IS COMPLETE. THE FUNCTIONAL PERFORMANCE TEST PROCEDURES CAN BE FOUND IN THE COMMISSIONING PLAN.

D. IF THE TOTAL TIME REQUIRED TO CORRECT PROBLEMS DURING TESTING IS GREATER THAT FORTY-FIVE (45) MINUTES (UNLESS EXTENUATING CIRCUMSTANCES EXIST), THE TEST SHALL BE CONSIDERED FAILED AND MUST BE REPEATED IN ITS ENTIRETY.

E. RE-TESTING: DURING THE COURSE OF THE RETEST, IF AT ANY POINT A MAJOR DEFICIENCY IS DISCOVERED, THE TEST WILL BE STOPPED. REPEAT TESTS UNTIL ACCEPTABLE RESULTS ARE ACHIEVED. IF MORE THAN TWO FUNCTIONAL PERFORMANCE TESTS (ONE INITIAL TEST AND ONE RETEST) FOR ANY TYPE OF EQUIPMENT DUE TO ISSUES THAT THE CONTRACTOR HAD DIRECT OR INDIRECT CONTROL OVER ARE REQUIRED, THE COSTS FOR THE CXA TO WITNESS RETESTING OF SIMILAR TYPES OF EQUIPMENT UNTIL SATISFACTORY RESULTS ARE OBTAINED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

NATIONAL ACCOUNTS

1. LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. LENNOX EQUIPMENT NOT PURCHASED THRU LENNOX NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.
2. LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
3. PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
4. AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
5. SUNCOAST ENVIRONMENTAL CONTROLS - THE CFA 500 PANEL AND THE TEST/RESET STATIONS WILL BE PURCHASED AND PROVIDED BY THE electrical CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE. SEE PART II PARAGRAPH 3A, 3D, AND 3E OF THE MECHANICAL SPECIFICATIONS FOR MORE INFORMATION.
6. HALTON HOODS - CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
7. JER-AIR START COLLARS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
8. SCHWANK INFRARED HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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

STATE OF MISSOURI
MARK T. KURZYNSKE
E-2000153961
REGISTERED PROFESSIONAL ENGINEER

7/2/18

CHICK-FIL-A
FLORISSANT FSU
3155 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR# 3585

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	2/15/18	ISSUED FOR PERMIT
2	5/21/18	ISSUED FOR BID
5	7/02/18	ISSUED FOR CONSTRUCTION

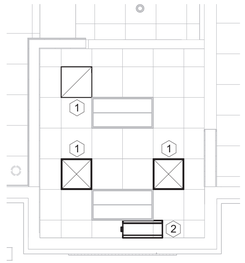
ISSUE FOR CONSTRUCTION

CURRENT DESIGN NOTE APPLIED: 2018-023
ENGINEER'S PROJECT #: 18017.CD.S
PRINTED FOR: ISSUE FOR CONSTRUCTION
DATE: 2/15/18
DRAWN BY: BLM

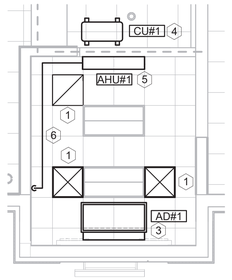
Information contained on this drawing and in all digital files prepared by this consultant may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET: MECHANICAL SPECIFICATIONS

SHEET NUMBER: **M-901**



1 MECHANICAL DEMOLITION PLAN
1/4" = 1'-0"



2 MECHANICAL FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

1. DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
2. FLEXIBLE DUCT NOT SHOWN FOR CLARITY. ALL TAKE-OFFS SHALL INCLUDE FLEXIBLE DUCT. SEE DETAIL 1/M-401 FOR FLEXIBLE DUCT INSTALLATION REQUIREMENTS.
3. FOR SUPPLY AND RETURN OPENINGS, CUT OPENING AROUND DUCT DROPS 4" TO 8" MINIMUM (EXCEPT WHERE STRUCTURE PREVENTS THIS). SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF ADHESIVE BACKING.
5. UNLESS NOTED OTHERWISE, MC TO ADJUST ALL DIFFUSER AIR PATTERN DEFLECTORS TO THROW HORIZONTALLY ALONG THE CEILING.
6. SUPPORT ALL DUCT DROPS AT BASE OF DROP FROM STRUCTURE.

KEY NOTES

1. EXISTING AIR DEVICE TO REMAIN.
2. DEMOLISH AND REMOVE EXISTING AIR CURTAIN. SEE 2/M-200 FOR NEW AIR CURTAIN LOCATIONS.
3. AIR CURTAIN MOUNTED IN CEILING GRID. MECHANICAL CONTRACTOR SHALL INSTALL AD#1 WITH A DIVERTER BOX. REFER TO DETAIL 1/M-300 FOR MORE INFORMATION
4. SET CONDENSING UNIT ON ROOF USING TWO CURBS PLUS CPES-1 EQUIPMENT SUPPORT STANDS, SECURE CONDENSING UNIT TO STANDS ARRANGED IN PARALLEL. SET LONG SIDE OF STAND PARALLEL TO ROOF SLOPE, FLASH INTO ROOF BY GC. FINAL LOCATION TO BE DETERMINED IN THE FIELD. ALL MAINTENANCE CLEARANCE OF NEW AND EXISTING EQUIPMENT SHALL BE MAINTAINED. REFER TO DETAIL 3/M-300 FOR MORE INFORMATION.
5. LOCATE AHU IN MOUNTED 7'-0" AFF TO BOTTOM OF UNIT. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT. REFER TO SCHEDULES FOR MORE INFORMATION.
6. ROUTE CONDENSATE TO EXISTING ICE MACHINE CONDENSATE DRAIN USING 3/4" SOLID WALL PVC PIPING WITH 1/2" ARMACELL INSULATION. SLOPE CONDENSATE LINE AT 1/4" PER FOOT. PROVIDED ESCUTCHEONS AT WALL PENETRATIONS AS NEEDED.

LEGEND

A-12-400	TYPE - NECK SIZE - CFM	EF#1	EXHAUST FAN #1 (TYP.)
	SPIN-IN FITTING WITH MANUAL BALANCING DAMPER, WITHOUT SCOOP	AC#1	AIR CONDITIONING UNIT #1 (TYP.)
	SPIN-IN HARD∅ FLEXIBLE∅ DIFFUSER		RETURN/EXHAUST (TYP.)
S	REMOTE TEMPERATURE SENSOR		SUPPLY DIFFUSER, SQ FACE (TYP.)
H	HUMIDITY SENSOR	1	PLAN NOTE REFERENCE
SD	SMOKE DETECTOR		MANUAL VOLUME DAMPER
12x18	DUCT SIZE (reverse for elevation views) 1ST NUMBER - HORIZONTAL DIMENSION 2ND NUMBER - VERTICAL DIMENSION		DIRECTION OF THROW ON DIFFUSER
			CLOSED AIR PATTERN DEFLECTOR
SW	AIR DOOR SWITCH	GIH	GAS INFRARED HEATER (TYP.)
EC	ELECTRICAL CONTRACTOR	B/G	BELOW GRADE
MC	MECHANICAL CONTRACTOR	T	THERMOSTAT

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		EFFICIENCIES	FAN SECTION (CFM)	ELECTRICAL DATA			R-410A MODEL		MFGR	WEIGHT	
	MIN.	MAX.	SEER2	SUPPLY	CIRCUIT AMPACITY	MOCP	VOLTAGE	AHU	CU		AHU	CU
AHU#1/CU#1 (NEW)	11.0	39.0	19.2	699-830	21.4	35	208/1/60	ACO36BNTDCH	ACO36BXADCH	SAMSUNG	40.8 LBS	189.6 LBS
NOTES	MECHANICAL CONTRACTOR SHALL PURCHASE THE SPLIT SYSTEM HEAT PUMP THROUGH POWERS OF ARKANSAS (POA). CONTACT CHAD FISHER WITH POA AT 479-927-9999											
REMARKS	1. ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT. 2. MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS. 3. PROVIDE ENGRAVED PLASTIC LABEL AT AHU#1 AND CU#1 WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET. 4. PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING. 5. PROVIDE WITH FACTORY WIRED WALL THERMOSTAT, MODEL MWR-WG00UN, MOUNT NEXT TO POWERED AIRE DOOR CONTROL PANEL. USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR COM2. 6. PROVIDE WITH FACTORY FRONT AND BACK WIND BAFFLES FOR LOW AMBIENT CONDITIONS. 7. PROVIDE MIM-B14 CONNECTOR AT INDOOR UNIT CONNECTOR CN83, WIRE MIM-B14 TERMINALS 5 AND 6 TO SPARE POLE ON RELAY R-1 IN SUNCOAST T-500 PANEL (TERMINALS 11 AND 7 RESPECTIVELY). GC TO VERIFY THAT SPARE CONTACTS ARE AVAILABLE ON THE R1 RELAY PRIOR TO INSTALLATION. 8. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR AND CONDENSATE PUMP LOCATION AND REQUIREMENTS.											

AIR DOOR SCHEDULE

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1 (NEW)	1,765	2670 FPM	10 KW	3/4	DRIVE THRU	CHA-1-48E	POWERED-AIRE	1,2,3,4
NOTES	• CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.							
REMARKS	1. FACTORY PROVIDED, WIRED AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING. 2. FACTORY WIRED DISCONNECT. 3. FACTORY PROVIDED, FIELD INSTALLED BY MC, REMOTE W ALL SWITCHES FOR HEATNG ON/OFF AND FAN ON/AUTO SWITCH. 4. PROVIDE WITH A DIVERTER BOX. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL 6" FROM THE WALL.							

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

INTERPLAN
INTERPLAN LLC

ARCH COA #2015008774
ENG COA #2005026904

ARCHITECTURE
ENGINEERING
PERMITTING

220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

SEAL:

STATE OF MISSOURI
STACY TREVOR HENSON
NUMBER PE-2016036828
PROFESSIONAL ENGINEER

STACY HENSON - P.E.
LIC. # PE-2016036828

CHICK-FIL-A FLORISSANT

3159 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR#03585

BUILDING TYPE / SIZE: P12 LS Reverse
RELEASE: -
PRINTED FOR
CONSTRUCTION

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	08/15/25	OWNER REVISIONS

CONSULTANT PROJECT # 2024.0853
DATE 08/28/25
DRAWN BY JR

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written permission or verbal consent from authorized project representatives.

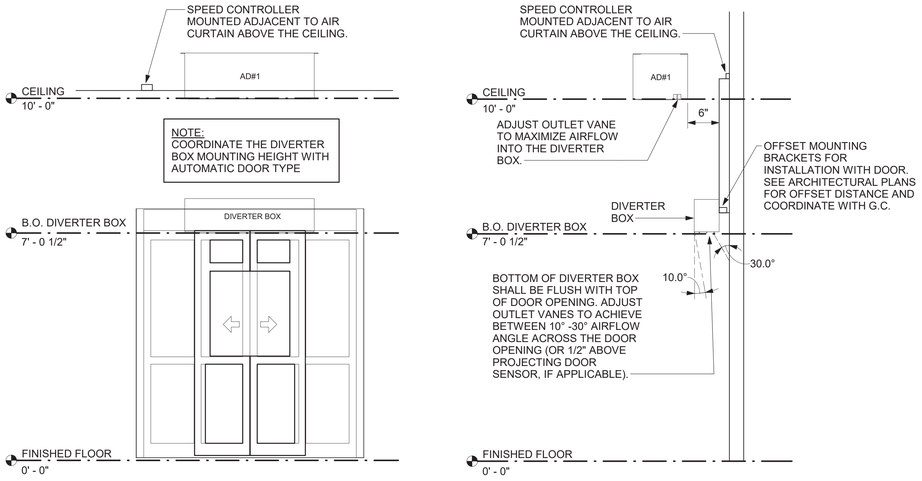
COPYRIGHT © 2025 INTERPLAN LLC. RESERVES COPYRIGHT & OTHER RIGHTS RESTRICTING THESE DOCUMENTS TO THE ORIGINAL SITE OR PURPOSE FOR WHICH THEY WERE PREPARED. REPRODUCTIONS, CHANGES OR ASSIGNMENTS ARE PROHIBITED.

SHEET
MECHANICAL FLOOR PLAN

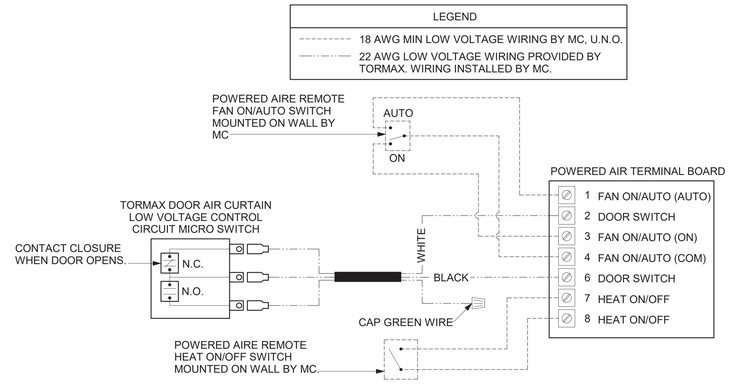
SHEET NUMBER
M-200

9/24/2025 4:26:18 PM Autodesk Docs://MO_03585_Florissant_2025.1_CPS/03585_FLORISSANT_MECH TORMAX.rvt
30-LS-03585-M-200-MECHANICAL FLOOR PLAN

marjbr - 11/04/2025 8:11:56 AM



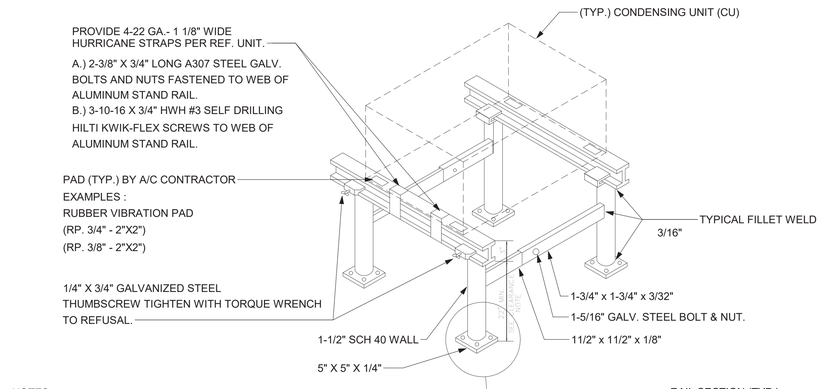
1 AIR CURTAINS AND DIVERTER BOX MOUNTING
1" = 1'-0"



2 AIR CURTAIN WIRING DIAGRAM
1/4" = 1'-0"

CLEARANCE NOTE:

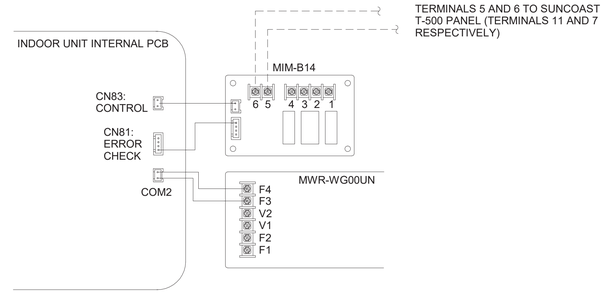
CONTRACTOR TO VERIFY THICKNESS OF ROOF ASSEMBLY. 18" CLEARANCE REQUIRED FROM BOTTOM OF SUPPORT RACK STRUCTURAL MEMBER TO TOP OF ROOF ASSEMBLY. IF ANY PIECE OF EQUIPMENT MOUNTED ON RACK EXCEEDS 36" IN THE LATERALLY MOUNTED DIMENSION, THE CLEARANCE NEEDS TO BE INCREASED TO 24".



NOTES:

1.) ALL CONSTRUCTION TO MEET ALUMINUM ASSOCIATION SPECS.
2.) VIBRATION INSULATOR PADS SHALL BE PROVIDED BY THE A/C CONTRACTOR SO AS NOT TO CAUSE VIBRATION TO EXISTING SUB-STRUCTURE.
3.) ALUMINUM EQUIPMENT STAND SUPPORTS AS MANUFACTURED BY AVCOA CORPORATION OF FORT LAUDERDALE, FLA. OR APPROVED EQUAL. STANDS SHALL PROVIDE 18" MINIMUM CLEARANCE AND SHALL BE SIZED AND INSTALLED ACCORDING TO THE MANUFACTURERS LOAD CHARTS AND PRINTED INSTALLATION DETAILS.
CONTACT: (800) 266-7212
4.) STRAP DOWN UNITS WITH 22 GAUGE STRAPS AT 4 CORNERS WITH TEK SCREWS

3 SPLIT SYSTEM CONDENSING UNIT
1" = 1'-0"



4 SPLIT SYSTEM WIRING DIAGRAM
1" = 1'-0"

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

INTERPLAN
INTERPLAN LLC
ARCH COA #2015008774
ENG COA #2005026904
ARCHITECTURE
ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

SEAL:

STATE OF MISSOURI
STACY TREVOR HENSON
NUMBER PE-2016036828
PROFESSIONAL ENGINEER

STACY HENSON - P.E.
LIC. # PE-2016036828

CHICK-FIL-A
FLORISSANT

3159 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR#03585

BUILDING TYPE / SIZE: P12 LS Reverse
RELEASE: -
PRINTED FOR
CONSTRUCTION

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	08/15/25	OWNER REVISIONS

CONSULTANT PROJECT # 2024.0853
DATE 08/28/25
DRAWN BY JR

SHEET
MECHANICAL DETAILS

SHEET NUMBER
M-300

Information contained on this drawing and in all digital files produced for above named project may not be reproduced, in any manner, without express written or verbal consent from authorized project representatives.
COPYRIGHT © 2025 INTERPLAN LLC RESERVES COPYRIGHT & OTHER RIGHTS RESTRICTING THESE DOCUMENTS TO THE ORIGINAL SITE OR PURPOSE FOR WHICH THEY WERE PREPARED. REPRODUCTIONS, CHANGES OR ASSIGNMENTS ARE PROHIBITED.

9/24/2025 4:26:18 PM Autodesk Docs://MO_03585_Florissant_2025.1_CPS/03585_FLORISSANT_MECH TORMAX.rvt
30-LS-03585-M-300-MECHANICAL DETAILS
maribr - 11/04/2025 8:12:37 AM

1. SECTION C15000 - MECHANICAL SPECIFICATIONS

PART I - GENERAL

1.01 SCOPE

A. IT IS THE RESPONSIBILITY OF CONTRACTOR TO READ ALL SPECIFICATIONS AND CONSULT ALL DRAWINGS WHICH MAY AFFECT THE INSTALLATION AND COORDINATION OF HIS WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN LOCATION OF EQUIPMENT AND MATERIALS AS NECESSARY TO SECURE COORDINATION.

B. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF NFPA-96, NFPA-90A, NFPA-54, SMACNA, ASHRAE 90.1 AND ASHRAE 62.

C. SYSTEM LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY STRUCTURAL CONDITIONS, COORDINATION WITH OTHER TRADES, COORDINATION WITH FINISHES AND OTHER CONDITIONS. STRUCTURAL SUPPORTS SHALL NOT BE CUT OR ALTERED TO ASSURE FIT OF HVAC SYSTEM. TEN FOOT CLEARANCE SHALL BE MAINTAINED BETWEEN OUTSIDE AIR INTAKES AND EXHAUST FANS AND PLUMBING VENT TERMINALS.

D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED AS PART OF THIS SYSTEM.

E. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO CONDITION ACCEPTABLE TO THE OWNERS REPRESENTATIVE. ALL EQUIPMENT, COMPONENTS AND DUCTWORK SHALL BE INSPECTED AND THOROUGHLY CLEANED, READY FOR USE. AT COMPLETION OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.

F. CONTRACTOR SHALL PROVIDE TWO SETS OF 2" MERV 8 OR HIGHER THROW AWAY TYPE FILTERS. A CLEAN SET SHALL BE PROVIDED PRIOR TO TEST AND BALANCE AND AGAIN PRIOR TO OPENING.

PART II - PRODUCTS

2.01 HEATING AND COOLING EQUIPMENT (C15730)

A. FURNISH AND INSTALL R-410A ROOFTOP SINGLE PACKAGE COMBINATION ELECTRIC COOLING AND NATURAL GAS FIRED HEATING UNITS BY LENNOX AS SHOWN ON DRAWINGS. EQUIPMENT SHALL BE ARI CERTIFIED AND A.G.A. AND U.L. LISTED.

B. ACCESSORIES SHALL INCLUDE LOW AND HIGH PRESSURE SAFETIES, CRANK CASE HEATER, OVERCURRENT AND OVERTEMPERATURE SAFETY, COMPRESSOR VIBRATION ISOLATORS, FILTER DRIERS, REFRIGERANT SERVICE VALVES, COIL HAIL GUARDS WHERE SCHEDULED, CONVENIENCE OUTLETS FACTORY INSTALLED ON SCHEDULED UNITS, UNIT MOUNTED NON-FUSED DISCONNECTS, LOW AMBIENT OPERATION DOWN TO 30 DEGREES F AND EVAPORATOR FREEZE STAT.

C. COMPRESSORS SHALL BE FULLY HERMETIC SCROLL TYPE WITH INTERNAL VIBRATION ISOLATORS. COMPRESSORS SHALL BE PROVIDED WITH A MINIMUM FIVE (5) YEAR FULL WARRANTY.

D. THE UNIT HEAT EXCHANGERS SHALL BE STEEL WITH ALUMINIZED STEEL COATING. HEATING CONTROLS SHALL CONSIST OF REDUNDANT GAS VALVES, INTERMITTENT PILOT WITH ELECTRONIC SPARK OR HOT PLATE IGNITION SYSTEM, COMBUSTION/EXHAUST FAN PROTECTED BY CENTRIFUGAL SWITCHES, HEAT LIMIT SWITCHES, TIME-DELAY RELAY, FLAME, AND PILOT SENSORS. ALL UNITS SHALL BE CAPABLE OF TWO STAGES OF HEAT. HEAT EXCHANGES SHALL HAVE A TEN (10) YEAR WARRANTY. BURNERS SHALL BE ALUMINIZED IN-SHOT TYPE. THE DRAFT MOTOR SHALL BE MONITORED BY THE CONTROL SYSTEM.

E. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. PRICING FOR THE EQUIPMENT HAS BEEN ESTABLISHED IN ADVANCE. CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.

2.02 DUCTWORK (C15735) (SEE DWG M-301 FOR ADDITIONAL GREASE DUCT SYSTEM REQ.)

A. ACCEPTABLE MANUFACTURERS OF INSULATION ARE MANVILLE, OWENS CORNING OR KNAUF.

B. ALL DUCTWORK SHALL BE SHEET METAL, UNLESS NOTED OTHERWISE (U.N.O.).

C. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS, U.N.O.

D. CONSTRUCTION OF DUCTWORK SHALL MEET SMACNA 1" W.C. PRESSURE CLASS STANDARD AND RECOMMENDATIONS. SMACNA SHALL BE FOLLOWED WITH RESPECT TO GAGE THICKNESS, JOINTS, REINFORCING, CONSTRUCTION, INSTALLATION AND SUPPORT FOR PRESSURE CLASS STATED. ALL TRANSVERSE JOINTS IN RECTANGULAR AND ROUND DUCT INCLUDING DUCT CONNECTION TO AIR DEVICE COLLAR SHALL BE SEALED PER SMACNA SEAL CLASS C WITH U.L. DUCT MASTIC SEALANT APPROVED FOR INTENDED USE. DUCT TAPE IS NOT AN ACCEPTABLE SUBSTITUTE FOR MASTIC UNLESS EQUAL TO HARDCAST FOIL-GRIP 1402 BUTYL RUBBER ADHESIVE TAPE.

E. DUCT SHALL BE SUPPORTED AT BASE OF DUCT DROPS. CURB DUCT RAILS ARE NOT INTENDED TO AND SHALL NOT SUPPORT THE WEIGHT OF THE DUCT.

F. ALL DUCT INSULATION SHALL MEET MINIMUM R-VALUE REQUIRED BY ASHRAE 90.1 LATEST EDITION. ALL DUCT WRAP SHALL BE MINIMUM 2" THICK, 3/4 PCF AND 6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 MIL ALUMINUM REINFORCED FOIL/KRAFT FACING.

G. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.

H. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.

I. ALL AIR CONVEYANCE COMPONENTS SUCH AS, BUT NOT LIMITED TO DUCT, DUCT PLENUMS, GRILLES/DIFFUSERS, BACK PANS, AND BOOTS SHALL BE INSULATED. INSULATION TYPE IS COVERED ELSEWHERE IN THIS SPECIFICATION.

J. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK, 1-1/2 PCF INSULATION. RESTROOM ROUND EXHAUST DUCT SHALL BE EXTERNALLY INSULATED PER SECTION 2.02F.

K. TRUNK DUCTS SHALL BE ISOLATED FROM UNIT VIBRATION WITH THE USE OF NFPA AND U.L. APPROVED FLEXIBLE CONNECTORS INSTALLED AT THE TOP OF BOTH SUPPLY AND RETURN DROPS.

L. INSULATED FLEXIBLE DUCT MAY BE UTILIZED FOR RUNOUTS TO GRILLES AND DIFFUSERS ONLY IN THE HORIZONTAL POSITION AND IN MAXIMUM LENGTHS OF 4'-0", NO EXCEPTIONS. SEE TAKE-OFF DETAIL ON DRAWING M-401.

M. CONSTRUCTION OF FLEXIBLE DUCTWORK SHALL INCLUDE SPIRAL METAL HELIX BONDED TO A POLYESTER CORE, FIBERGLASS INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THERMAFLEX MKE.

N. FLEXIBLE DUCT SHALL BE INSTALLED PER THE "ADC FLEXIBLE DUCT PERFORMANCE AND INSTALLATION STANDARDS, 4TH ED" USING FOIL TAPE AND DRAWBAND ON THE INNER CORE AND TAPE OR DRAWBAND ON THE OUTER JACKET.

O. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.

P. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".

Q. RADIUSED ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO; R=W PER FIGURE NO. 4-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

R. EXTERNAL INSULATION ON BOTTOM OF DUCTS 24" OR WIDER SHALL BE SUPPORTED WITH STICK PINS ON 18" CENTERS. STICK PIN WASHERS SHALL BE COVERED WITH DUCT TAPE OR MASTIC.

2.03 CONTROLS (C15735)

A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). THE PANEL IS PROVIDED AND MOUNTED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING TERMINATIONS ARE BY THE MECHANICAL CONTRACTOR.

B. THE SMOKE DETECTORS SHALL BE FACTORY INSTALLED AND WIRED BY THE ROOFTOP UNIT MANUFACTURER.

C. A FACTORY INSTALLED SMOKE DETECTOR IN THE RETURN AIR SECTION OF EACH AIR CONDITIONING UNIT SHALL STOP THE INDOOR FAN AND CLOSE THE OUTSIDE AIR DAMPER IN THE EVENT OF EXCESSIVE TEMPERATURE OR SMOKE. SMOKE DETECTOR SHALL BE LOCATED PRIOR TO ANY EXHAUST FROM THE BUILDING OR MIXING WITH FRESH AIR MAKE-UP. UPON DETECTION, THE SYSTEM SHALL NOT RESTART UNTIL THE DEVICE IS MANUALLY RESET. DEVICES SHALL BE LOCATED WHERE THEY CAN BE EASILY ACCESSED AND WHERE CLEAR OF FILTERS.

D. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH SUNCOAST ENVIRONMENTAL CONTROLS FOR THE SMOKE DETECTOR TEST/RESET ANNUNCIATOR STATIONS. THE TEST/RESET STATIONS WILL BE PURCHASED BY THE ELECTRICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE AND TURNED OVER TO THE MECHANICAL CONTRACTOR FOR INSTALLATION.

E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU. ELECTRICAL WILL PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION AS SHOWN ON THE ELECTRICAL PLANS. ANNUCIATOR SHALL BE SUNCOAST CONTROLS REMOTE TEST/RESET STATION WITH POWER LED, TROUBLE LED, ALARM LED, 90DB HORN AND TEST/RESET BUTTON.

F. THE RESTROOM FAN SHALL BE INTERLOCKED TO THE LIGHTS SERVING THE MEN AND WOMEN'S RESTROOMS. THE HOOD FANS SHALL BE CONTROLLED VIA THE SUNCOAST CFA-500 CONTROL PANEL. WIRING, RELAYS AND SWITCHES FOR CONTROL OF ALL FANS ARE BY ELECTRICAL CONTRACTOR.

G. LENNOX UNITS - THERMOSTATS ARE PROVIDED AND INTEGRATED INTO THE TEMPERATURE CONTROL PANEL BY SUNCOAST ENVIRONMENT CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-CFA THERMOSTAT PRE-WIRED IN THE TEMPERATURE CONTROL PANEL. A REMOTE TEMPERATURE SENSOR FOR EACH THERMOSTAT IS ALSO PROVIDED. MECHANICAL CONTRACTOR SHALL INSTALL ALL WIRING BETWEEN THE THERMOSTAT, THE REMOTE SENSOR AND THE ROOFTOP UNIT.

H. MECHANICAL CONTRACTOR SHALL INSTALL CONTROL WIRING IN 1/2" CONDUIT WHERE REQUIRED BY CODE. WHERE NOT REQUIRED TO BE IN CONDUIT, ALL WIRING SHALL BE RUN PARALLEL TO STRUCTURAL MEMBERS OR PERPENDICULAR WITH NO DIAGONAL ROUTING. ALL WIRING SHALL BE SECURED TO THE FRAMING TO PREVENT SAGGING IN RUNS. WIRING TO ROOFTOP UNITS SHALL BE ROUTED THROUGH THE FACTORY THRU-BASE FITTING IN THE UNIT BASE. NO SPLICING OF WIRING WILL BE ACCEPTED. ALL WIRING ABOVE THE ROOF SHALL BE INSTALLED IN EXTERIOR GRADE FLEXIBLE CONDUIT. ALL CONTROL WIRING AND CONTROL WIRING CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF NEC. ALL LOW VOLTAGE CONTROL WIRING SHALL BE NO LESS THAN 18 AWG MIN. CONTROL WIRING CONDUCTORS SHALL BE SIZED TO ACCOUNT FOR LOAD AND LENGTH OF RUN TO ALLOW SUFFICIENT VOLTAGE AVAILABLE AT CONTROLLED DEVICE TO OPERATE THE SYSTEM RELIABLY.

PART III - EXECUTION

3.01 SCOPE

A. FURNISH AND INSTALL SYSTEM IN ACCORDANCE WITH REFERENCED STANDARDS, APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.

B. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NCI OR AABC STANDARDS TO ASSURE CONFORMANCE WITH DESIGN. G.C. WILL MAKE MECHANICAL CONTRACTOR AVAILABLE DURING TEST AND BALANCE TO ASSIST TESTING AGENCY AND TO MAKE CORRECTIONS IMMEDIATELY NECESSARY. CONTRACTOR SHALL CORRECT ITEMS ON WRITTEN TEST AND BALANCE REPORT.

C. CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT THROUGH DEMONSTRATION AND EXPLANATION OF OPERATING & MAINTENANCE MANUALS.

D. CONTRACTOR SHALL PROVIDE A "SAMPLE MAINTENANCE PROPOSAL" TO THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.

E. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER.

3.02 LEED PROJECTS

A. CONTRACTOR SHALL COMPLETE RECEIPT INSPECTION CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN WITHIN 5 DAYS OF RECEIVING EQUIPMENT ON SITE.

B. CONTRACTOR SHALL COMPLETE PRE-FUNCTIONAL CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN. CHECKLISTS SHALL BE RETURNED AT LEAST 5 DAYS PRIOR TO SCHEDULING FUNCTIONAL PERFORMANCE TESTING.

C. CONTRACTOR SHALL PROVIDE A TECHNICIAN TO ASSIST THE THIRD PARTY COMMISSIONING AUTHORITY WITH FUNCTIONAL TESTING. FUNCTIONAL TESTING SHALL OCCUR AFTER ALL CONTROLS HAVE BEEN INSTALLED AND VERIFIED AND AFTER TEST AND BALANCE IS COMPLETE. THE FUNCTIONAL PERFORMANCE TEST PROCEDURES CAN BE FOUND IN THE COMMISSIONING PLAN.

D. IF THE TOTAL TIME REQUIRED TO CORRECT PROBLEMS DURING TESTING IS GREATER THAT FORTY-FIVE (45) MINUTES (UNLESS EXTENUATING CIRCUMSTANCES EXIST), THE TEST SHALL BE CONSIDERED FAILED AND MUST BE REPEATED IN ITS ENTIRETY.

E. RE-TESTING: DURING THE COURSE OF THE RETEST, IF AT ANY POINT A MAJOR DEFICIENCY IS DISCOVERED, THE TEST WILL BE STOPPED. REPEAT TESTS UNTIL ACCEPTABLE RESULTS ARE ACHIEVED. IF MORE THAN TWO FUNCTIONAL PERFORMANCE TESTS (ONE INITIAL TEST AND ONE RETEST) FOR ANY TYPE OF EQUIPMENT DUE TO ISSUES THAT THE CONTRACTOR HAD DIRECT OR INDIRECT CONTROL OVER ARE REQUIRED, THE COSTS FOR THE CXA TO WITNESS RETESTING OF SIMILAR TYPES OF EQUIPMENT UNTIL SATISFACTORY RESULTS ARE OBTAINED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

NATIONAL ACCOUNTS

1. LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. LENNOX EQUIPMENT NOT PURCHASED THRU LENNOX NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.
2. LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
3. PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
4. AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
5. SUNCOAST ENVIRONMENTAL CONTROLS - THE CFA 500 PANEL AND THE TEST/RESET STATIONS WILL BE PURCHASED AND PROVIDED BY THE electrical CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE. SEE PART II PARAGRAPH 3A, 3D, AND 3E OF THE MECHANICAL SPECIFICATIONS FOR MORE INFORMATION.
6. HALTON HOODS - CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
7. JER-AIR START COLLARS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
8. SCHWANK INFRARED HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

INTERPLAN
INTERPLAN LLC

ARCH COA #2015008774
ENG COA #2005026904

ARCHITECTURE
ENGINEERING
PERMITTING

220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

SEAL:

STATE OF MISSOURI
STACY TREVOR HENSON
NUMBER PE-2016036828
PROFESSIONAL ENGINEER

STACY HENSON - P.E.
LIC. # PE-2016036828

CHICK-FIL-A
FLORISSANT

3159 N. HIGHWAY 67
FLORISSANT, MO 63033

FSR#03585

BUILDING TYPE / SIZE: P12 LS Reverse
RELEASE: -
PRINTED FOR
CONSTRUCTION

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	08/15/25	OWNER REVISIONS

CONSULTANT PROJECT # 2024.0853
DATE 08/28/25
DRAWN BY JR

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

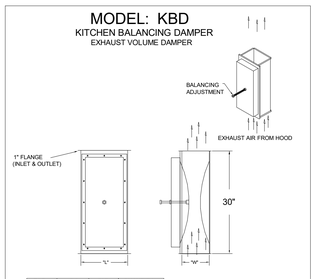
SHEET
MECHANICAL SPECIFICATIONS

SHEET NUMBER
M-900

COPYRIGHT © 2025 INTERPLAN LLC RESERVES COPYRIGHT & OTHER RIGHTS RESTRICTING THESE DOCUMENTS TO THE ORIGINAL SITE OR PURPOSE FOR WHICH THEY WERE PREPARED. REPRODUCTIONS, CHANGES OR ASSIGNMENTS ARE PROHIBITED.

9/24/2025 4:26:19 PM Autodesk Docs://MO_03585_Florissant_2025.1_CPS/03585_FLORISSANT_MECH TORMAX.rvt
30-LS-03585-M-900-MECHANICAL SPECIFICATIONS
maribr - 11/04/2025 8:13:13 AM

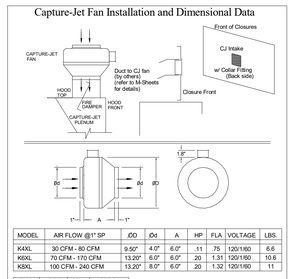
MODEL: KBD
KITCHEN BALANCING DAMPER
EXHAUST VOLUME DAMPER



TAG	"L"	"W"	QUANTITY
H-2	8"	8"	1
H-3	9"	8"	1

MATERIAL:
FRAME:- 16GA CONT. WELDED GALV.
ADJUSTABLE PANEL 18 GA S.S.

Capture-Jet Fan Installation and Dimensional Data



MODEL	AIR FLOW @1" SP	ØD	Ød	A	HP	FLA	VOLTAGE	LBS.
K4XL	30 CFM - 80 CFM	9.50"	4.0"	6.0"	.11	.75	120/1/60	6.6
K6XL	70 CFM - 170 CFM	13.20"	6.0"	6.0"	.20	1.31	120/1/60	10.6
K8XL	100 CFM - 240 CFM	13.20"	8.0"	6.0"	.20	1.32	120/1/60	11

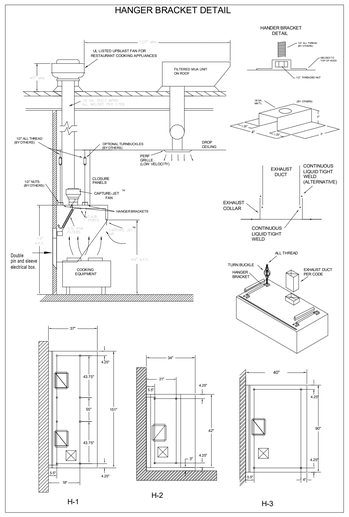
TAG	MODEL	QTY	AIRFLOW
H-1	K6XL	1	113
H-2	K4XL	1	30

5 AMP SPEED CONTROLLER LOCATION
* TOP OF HOOD
MOTOR COTROL PANEL

PROJECT:	CFA P12x2 - LS/LE/SE BUILDING - REV.	DATE:	10.11.16
LOCATION:		DWG:	U16-673-01

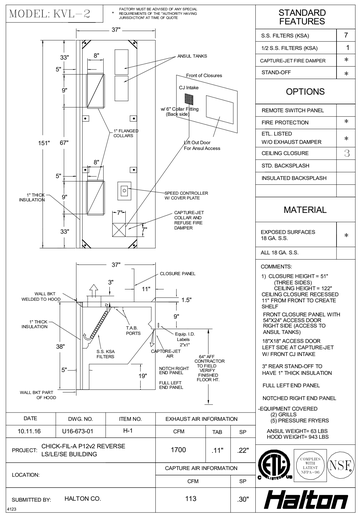
Halton

HANGER BRACKET DETAIL



MODEL: KVL–2

* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE "AUTHORITY HAVING JURISDICTION" AT TIME OF QUOTE



STANDARD FEATURES	
S.S. FILTERS (KSA)	7
1/2 S.S. FILTERS (KSA)	1
CAPTURE-JET FIRE DAMPER	*
STAND-OFF	*
OPTIONS	
REMOTE SWITCH PANEL	
FIRE PROTECTION	*
ETL LISTED W/O EXHAUST DAMPER	*
CEILING CLOSURE	3
STD. BACKSPLASH	
INSULATED BACKSPLASH	
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. S.S.	

COMMENTS:
1) CLOSURE HEIGHT = 51"
(THREE SIDES)
CEILING HEIGHT = 122"
CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
FRONT CLOSURE PANEL WITH 54"OAF ACCESS DOOR
RIGHT SIDE (ACCESS TO ANSUL TANKS)
18"X18" ACCESS DOOR
LEFT SIDE AT CAPTURE-JET W/ FRONT CJ INTAKE.
3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
FULL LEFT END PANEL
NOTCHED RIGHT END PANEL
-EQUIPMENT COVERED
(2) GRILLS
(5) PRESSURE FRYERS

ANSUL WEIGHT= 63 LBS
HOOD WEIGHT= 943 LBS

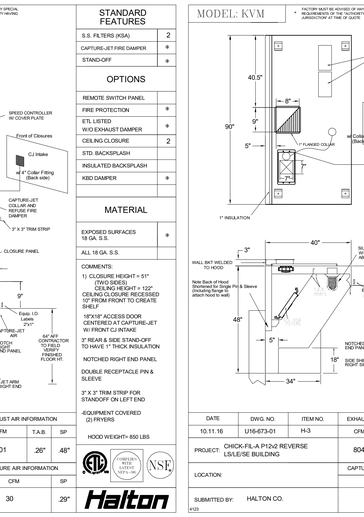
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION			
10.11.16	U16-673-01	H-1	CFM	TAB	SP	
PROJECT:	CHICK-FIL-A P12x2 REVERSE LS/LE/SE BUILDING		1700	.11"	.22"	
LOCATION:			CAPTURE AIR INFORMATION			
			CFM		SP	
SUBMITTED BY:	HALTON CO.		113		.30"	

4123

Halton

MODEL: KVL–C

* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE "AUTHORITY HAVING JURISDICTION" AT TIME OF QUOTE



STANDARD FEATURES	
S.S. FILTERS (KSA)	2
CAPTURE-JET FIRE DAMPER	*
STAND-OFF	*
OPTIONS	
REMOTE SWITCH PANEL	
FIRE PROTECTION	*
ETL LISTED W/O EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	
INSULATED BACKSPLASH	
KBD DAMPER	*
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. S.S.	

COMMENTS:
1) CLOSURE HEIGHT = 51"
(TWO SIDES)
CEILING HEIGHT = 122"
CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
18"X18" ACCESS DOOR CENTERED AT CAPTURE-JET W/ FRONT CJ INTAKE.
3" REAR & SIDE STAND-OFF TO HAVE 1" THICK INSULATION
NOTCHED RIGHT END PANEL
DOUBLE RECEPTACLE PIN & SLEEVE
3" X 3" TRIM STRIP FOR STANDOFF ON LEFT END
-EQUIPMENT COVERED
(2) FRYERS

HOOD WEIGHT= 850 LBS

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION			
10.11.16	U16-673-01	H-2	CFM	T.A.B.	SP	
PROJECT:	CHICK-FIL-A P12x2 REVERSE LS/LE/SE BUILDING		701	.26"	.48"	
LOCATION:			CAPTURE AIR INFORMATION			
			CFM		SP	
SUBMITTED BY:	HALTON CO.		30		.29"	

4123

Halton

MODEL: KVM

* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE "AUTHORITY HAVING JURISDICTION" AT TIME OF QUOTE

STANDARD FEATURES	
S.S. FILTERS (KSA)	4
CAPTURE-JET FIRE DAMPER	*
STAND-OFF	*
INCANDESCENT LIGHT	1
OPTIONS	
REMOTE SWITCH PANEL	
FIRE PROTECTION	*
ETL LISTED W/O EXHAUST DAMPER	*
CEILING CLOSURE	3
STD. BACKSPLASH	
KBD DAMPER	*
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. S.S.	

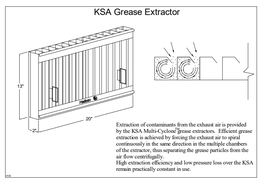
COMMENTS:
1) CLOSURE HEIGHT = 39"
(THREE SIDES)
CEILING HEIGHT = 122"
FRONT CLOSURE PANEL WITH 54"OAF ACCESS DOOR
RIGHT SIDE (ACCESS TO ANSUL TANKS) & 18"X18" ACCESS DOOR LEFT SIDE (ACCESS CJ FAN)
SIDE-JET PLENUM SUPPLIED BY HALTON INSTALLED BY OTHERS (DETAIL "A")
3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
CUSTOM 10" SINGLE RECEPTACLE PIN & SLEEVE
NOTCHED LEFT END PANEL
SIDE SHIELD ON RIGHT SIDE
-EQUIPMENT COVERED
FRYER, GRIDDLE, OVEN
ANSUL WEIGHT= 63 LBS
HOOD WEIGHT= 600 LBS

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION		
10.11.16	U16-673-01	H-3	CFM	T.A.B.	SP
PROJECT:	CHICK-FIL-A P12x2 REVERSE LS/LE/SE BUILDING		804	.09"	.31"
LOCATION:			CAPTURE AIR INFORMATION		
			CFM		SP
SUBMITTED BY:	HALTON CO.		68		.28"

4123

Halton

KSA Grease Extractor



Extraction of contaminants from the exhaust air is provided by the KSA Multi-Cyclone® grease extractors. Efficient grease extraction is achieved by forcing the exhaust air to spiral continuously in the same direction in the multiple chambers of the extractor, thus separating the grease particles from the air flow centrifugally.
High extraction efficiency and low pressure loss over the KSA remain practically constant in use.

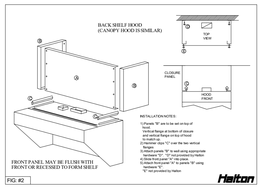
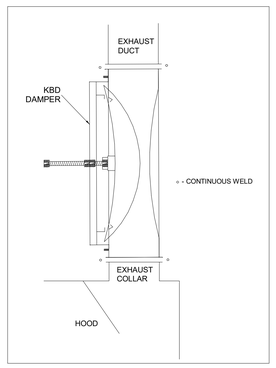
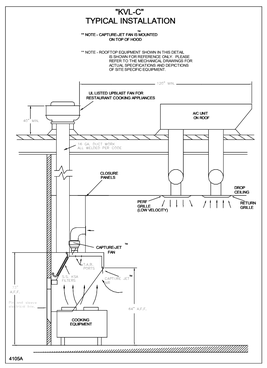


FIG. #2

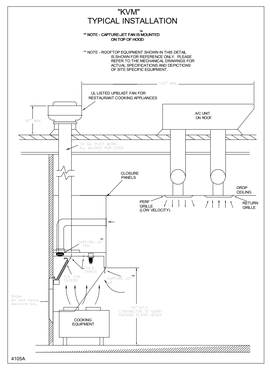
Halton



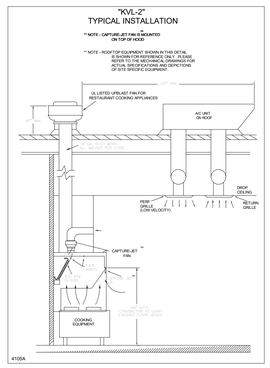
"KVL-C" TYPICAL INSTALLATION

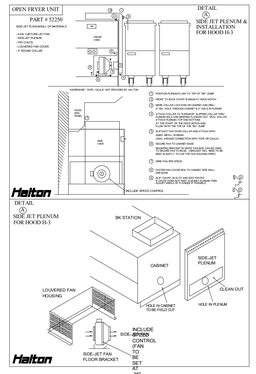


"KVM" TYPICAL INSTALLATION

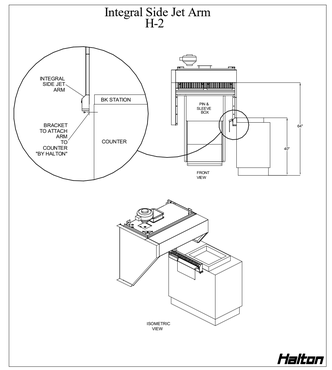


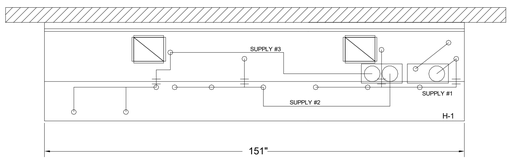
"KVL-2" TYPICAL INSTALLATION





Integral Side Jet Arm H-2

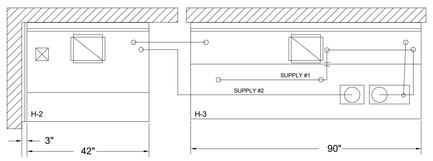




ANSUL R-102 FIRE SYSTEM

A) 9 GALLON SYSTEM (3 TANKS) (MOUNTED ON HOOD H-1) (FOR HOOD H-1)
B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS

(1) REGULATED RELEASE WITH (SINGLE TANK) (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.) (1) DOUBLE TANK ENCLOSURE (3) 3 GALLON TANKS

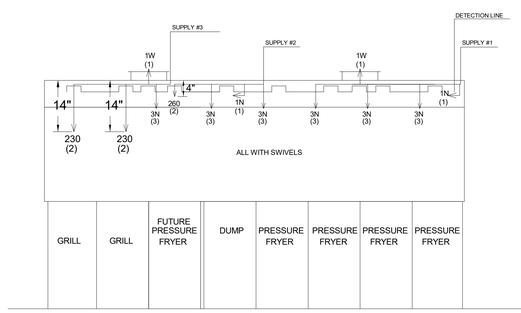


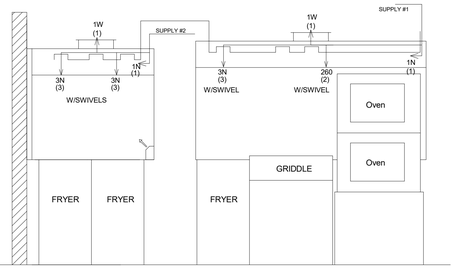
ANSUL R-102 FIRE SYSTEM

A) 6 GALLON SYSTEM 2 TANKS (MOUNTED ON HOOD #H-3)

B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS

(1) REGULATED RELEASE WITH (SINGLE TANK) (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.) (1) SINGLE TANK ENCLOSURE (2) 3 GALLON TANKS





ANSUL R-102 FIRE SYSTEM LAYOUT

FUSIBLE LINK RATINGS

ITEM	TEMP
OPEN FRYERS	450°
2 BURNER / FLAT TOP	450°
PRESSURE FRYERS	450°
GRILL	450°
EXHAUST COLLARS	450°

ANSUL R-102 FIRE SYSTEM NOTES
THREE TANK SYSTEM MOUNTED ON TOP OF (H-1)
MAXIMUM FLOW POINTS = 33

ANSUL R-102 FIRE SYSTEM NOTES
TWO TANK SYSTEM MOUNTED ON TOP OF (H-3)
MAXIMUM FLOW POINTS = 22

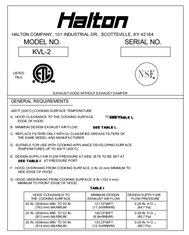
ITEM #	QTY	DESCRIPTION	FLOW PTS (TOTAL)
1W	4	DUCT NOZZLES	4
1N	4	PLENUM NOZZLES	4
230	2	APPLIANCE NOZZLES	4
3N	9	APPLIANCE NOZZLES	27
260	2	APPLIANCE NOZZLES	4
		TOTAL FLOW POINTS -	43

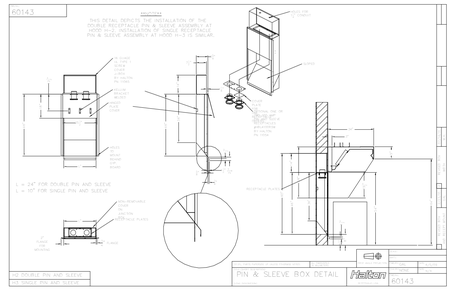
ITEM #	QTY	DESCRIPTION
#200	14	SERIES DETECTORS W/ FUSIBLE LINKS
#201	2	TERMINAL DETECTOR W/ FUSIBLE LINKS
#202	2	3 GALLON REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#203	1	SINGLE TANK ENCLOSURE
#204	1	DOUBLE TANK ENCLOSURE
#205	5	3 GALLON TANKS
#206	2	REMOTE PULL STATION

ANSUL R-102 FIRE SYSTEM
UL LISTED PER STD LATEST STD 300

1. FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICAPBLE CODES
2. ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY ANSUL INSTALLER
3. REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

HALTON HOODS
– ETL LISTED PER LATEST 710 STANDARD
– BUILT PER NFPA 96
– NSF LISTED





MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW; WEBSITE: WWW.HALTONCOMPANY.COM
HALTON CO. (CANADA) 1021 BREVIK PLACE MISSISSAUGA, ON L4W 3R7 1-905-624-0501
REVISION DESCRIPTION
REV.
DATE
BY
1 2 3 4 5 6 7
THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY BEFORE ANY EQUIPMENT IS MANUFACTURED.
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES.
2. THE LOCATION AND TYPE OF CONNECTIONS.
ANY FAILURE TO CHECK EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON WILL BE NOTIFIED IF ANY CHANGES ARE MADE AFTER DRAWINGS ARE RETURNED.
APPROVED FOR FABRICATION
REVISE AND RESUBMIT
APPROVED WITH NO CHANGES
APPROVED WITH CHANGES AS NOTED
DATE
APPROVED BY

PROJECT: CHICK-FIL-A
FLORRISANT FSU
LOCATION: FLORRISANT, MO
DRAWN BY:
DATE: 05/21/18
SCALE: NTS
Halton Dwg: U16-673-01 REVERSE PROTOTYPICAL
SN#: 03585
Halton CAPE FOR INDOOR AIR

Sheet
MH-101