

FOR CONSTRUCTION

**DEMOLITION NOTES**

- ① CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL APPLICABLE FEES.
- ② DISPOSAL OF EQUIPMENT AND MATERIALS REQUIRED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK.
- ③ DE-ENERGIZE ALL ELECTRICAL CIRCUITS RELATED TO EQUIPMENT THAT WILL BE MOVED OR REMOVED PRIOR TO STARTING WORK. DE-ENERGIZED CIRCUITS SHALL BE PROTECTED WITH LOCKING DEVICES USING APPROPRIATE WARNING LABELS.
- ④ DISCONNECT GAS PIPING FROM EXISTING KITCHEN ROOFTOP UNIT TO BE REPLACED. PLUMBING CONTRACTOR WILL REMOVE EXISTING GAS PIPING TO BE DEMOLISHED.
- ⑤ CONTRACTOR SHALL INDICATE SALVAGE VALUE IN BID FOR EXISTING ROOFTOP UNIT SERVING KITCHEN.
- ⑥ MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ROOF AFTER REMOVAL OF EXISTING MECHANICAL EQUIPMENT. SEE ARCHITECTURAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.
- ⑦ EXCEPT WHERE NOTED, EXISTING REMOTE TEMPERATURE &/OR HUMIDITY SENSORS TO REMAIN. IF DURING RENOVATION PURPOSES CONTROLS SHALL BE TAKEN DOWN. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLING AND TO PROVIDE ANY ADDITIONAL WIRING NEEDED.

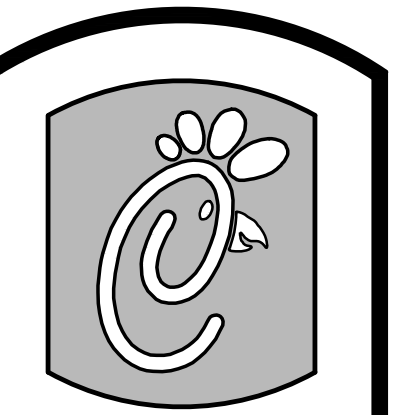
**MECHANICAL DEMOLITION FLOOR PLAN**  
SCALE: 1/4"=1'-0"

DEMOLITION LEGEND	
	EXISTING EQUIPMENT, DUCT, AIR DEVICE ETC. TO REMAIN INTACT
	EQUIPMENT, DUCT, AIR DEVICE ETC. TO BE DEMOLISHED

**DEMOLITION KEY NOTES**

- ① DEMOLISH EXISTING DIFFUSER & FLEX DUCT, EXISTING BRANCH DUCT SHALL REMAIN.
- ② NOT USED
- ③ EXISTING AIR DOOR TO BE REMOVED & RELOCATED. SEE SHEET M11 FOR NEW LOCATION.
- ④ DEMOLISH ENTIRE SUPPLY AIR SYSTEM FROM THE UNIT CURB OPENING DOWNSTREAM, INCLUDING SUPPLY AIR DROP, TRUNK DUCT, BRANCH DUCTS, AND DIFFUSERS.
- ⑤ DEMOLISH ALL EXISTING DUCT & DIFFUSERS FROM EXISTING SPIN-IN COLLAR ON DOWNSTREAM. EXISTING SPIN-IN COLLAR IS TO REMAIN.
- ⑥ DEMOLISH ALL EXISTING DUCT & DIFFUSERS FROM EXISTING TRUNK DUCT ON DOWNSTREAM. CAP AND SEAL TRUNK DUCT AIRTIGHT.

FOR CONSTRUCTION



**Chick-fil-C**  
5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
△		
△		
△		

**Kurzynske & Associates**  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

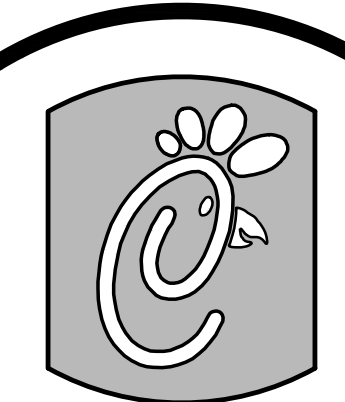
STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

SHEET TITLE  
**MECHANICAL  
DEMO PLAN**

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333  
Store : 1086  
Date: 04.11.14  
Drawn By : MS  
Checked By: MK

Sheet  
**MO.I**



Chick-fil-e

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark Date By

△

Mark Date By

△

Mark Date By

△

Kurzynske & Associates  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

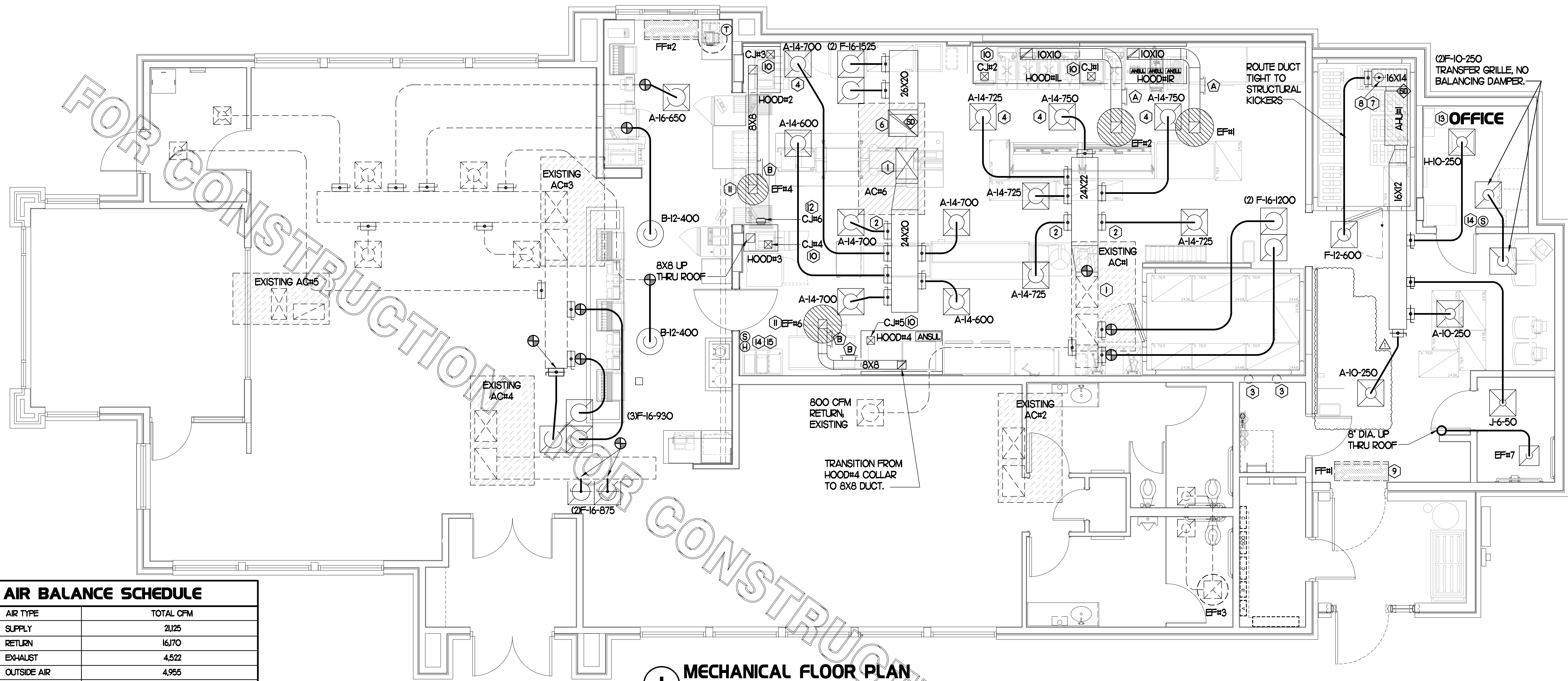
SHEET TITLE  
MECHANICAL  
FLOOR PLAN

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333  
Store : 1086  
Date: 04.11.14  
Drawn By : MS  
Checked By: MK

Sheet

MI



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

AIR BALANCE SCHEDULE	
AIR TYPE	TOTAL CFM
SUPPLY	21,025
RETURN	16,170
EXHAUST	4,522
OUTSIDE AIR	4,955
BUILDING POSITIVE PRESSURE	433

**KEY NOTES (THIS SHEET ONLY)**

- SUPPLY AIR DROP TO BE FULL SIZE FROM UNIT CURB OPENING. TRANSITION TO DUCT SIZE SHOWN ON PLAN. PROVIDE TURNING VANES IN ELBOW. RUN DUCT BETWEEN STRUCTURE, EXTEND 18" MIN. BELOW STRUCTURE TO ALLOW FOR BRANCH TAKE-OFFS.
- BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- EXISTING WATER HEATER COMBUSTION AIR DUCT AND VENT, SEE NOTE ON P31
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- NOT USED.
- RETURN AIR DROP TO BE FULL SIZE FROM UNIT CURB OPENING. TRANSITION TO 26X20 DUCT. PROVIDE TURNING VANES IN ELBOW. RUN DUCT BETWEEN STRUCTURE, EXTEND 18" MIN. BELOW STRUCTURE TO ALLOW FOR BRANCH TAKE-OFFS.
- RUSKIN MDRS25 MVD W/ LOCKING QUADRANT HANDLE, TYP.
- 8" DIA. ROUTED UP THRU TO ROOF. BALANCE VOLUME DAMPER TO ALLOW FOR 200 CFM OF OUTSIDE AIR. SEE SHEET M1.2 FOR TERMINATION DETAILS.
- RELOCATE EXISTING AIR DOOR TO NEW LOCATION SHOWN ON PLAN. MOUNT OVER DOOR HEADER 75" AFF TO BOTTOM OF UNIT. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
- SEE ELEVATIONS ON SHEET M-21 FOR CJ FAN DUCTING REQUIREMENTS.
- LOCATE A MINIMUM OF 10 FT FROM PARAPETS. SEE DETAIL 3/M-31 FOR ORIENTATION OF HINGE SIDE OF FAN ON CURB.
- CJ#6 MOUNTED INSIDE CABINETS SERVING SCJ PLENUM, SEE DETAIL 2/M-21.
- CJ#1 ON ROOF ABOVE OFFICE. REFRIGERANT PIPING ROUTED TO/FROM AHU#1. SEE SHEET M1.2 FOR FURTHER INFORMATION.
- MOUNT REMOTE SENSOR ON WALL AT 5'-0" AFF AND ROUTE WIRING BACK TO EXISTING SUNCOAST TEMP CONTROL PANEL.
- MOUNT LENNOX HUMIDITY SENSOR ON WALL ABOVE SPACE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.

**SHEET NOTES**

- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
- LOCATE HOOD EXHAUST FANS EF#1 THRU EF#5 NOT LESS THAN 10' FROM PERIMETER PARAPET WALLS AND FROM ANY NEW OR EXISTING OUTSIDE AIR INTAKE (2006 IMC). COORDINATE EXACT LOCATION IN FIELD W/ EXIST. EQUIPMENT AND PIPING SEE DETAIL FOR ORIENTATION OF HINGE SIDE OF FAN ON CURB.
- REFER TO ELEVATIONS ON M21 AND HOOD DETAILS ON M41 FOR CAPTURE-JET FANS DUCTING REQUIREMENTS.
- HARDPIPE SHALL BE USED FOR ALL TAKE-OFFS EXCEPT WHERE ALLOWED BY DETAIL 1/M3.1. USE OF FLEXIBLE DUCT SHALL BE LIMITED TO THOSE SITUATIONS WHERE NO OTHER MEANS TO ACCOMPLISH ROUTING IS POSSIBLE.
- COORDINATE NEW WORK WITH EXISTING CONDUITS, STRUCTURE AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR TO NOTIFY DESIGN TEAM WITHOUT DELAY IF ACTUAL LOCATION OF EXISTING MECHANICAL EQUIPMENT DOES NOT MATCH FLOOR PLAN.
- MECHANICAL CONTRACTOR SHALL BALANCE HVAC SYSTEM AS SHOWN ON THIS PLAN & IN SCHEDULES ON SHEET M-3.1. IF AIRFLOWS DIFFER BY MORE THAN 5%, CONTACT CFA CONSTRUCTION MANAGER. TEST AND BALANCE REPORT SHALL BE DONE PRIOR TO STORE TURNOVER AND SUBMITTED TO CFA'S CONSTRUCTION MANAGER.
- MOUNT ALL NEW AND RELOCATED REMOTE WALK-IN COOLER AND FREEZER CONDENSERS & ICE MACHINE CONDENSERS ON NEW AVCOA ALUMINUM STANDS. REFER TO P31.

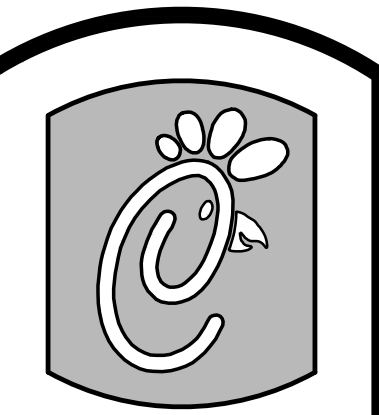
**GREASE ACCESS DOOR SCHEDULE**

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	7.5H X 14W	9.5H X 16W	1
B	5.5H X 14W	7.5H X 16W	

1. ACCESS DOORS SHALL BE UL 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 BRETON INDUSTRIES, INC (800) 382-2491.

**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)
	RETURN/EXHAUST (TYP)		SUPPLY DIFFUSER, SQ FACE (TYP)
	REMOTE TEMPERATURE SENSOR		PLAN NOTE REFERENCE
	HUMIDITY SENSOR		MANUAL VOLUME DAMPER
	SMOKE DETECTOR		DUCT SIZE (REVERSE FOR ELEVATION VIEWS) 1ST NUMBER - HORIZONTAL DIMENSION 2ND NUMBER - VERTICAL DIMENSION
	POINT OF CONNECTION TO EXISTING		DIRECTION OF THROW ON DIFFUSER



Chick-fil-e

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark Date By

△ \_\_\_\_\_

Mark Date By

△ \_\_\_\_\_

Mark Date By

△ \_\_\_\_\_

Kurzynske & Associates  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

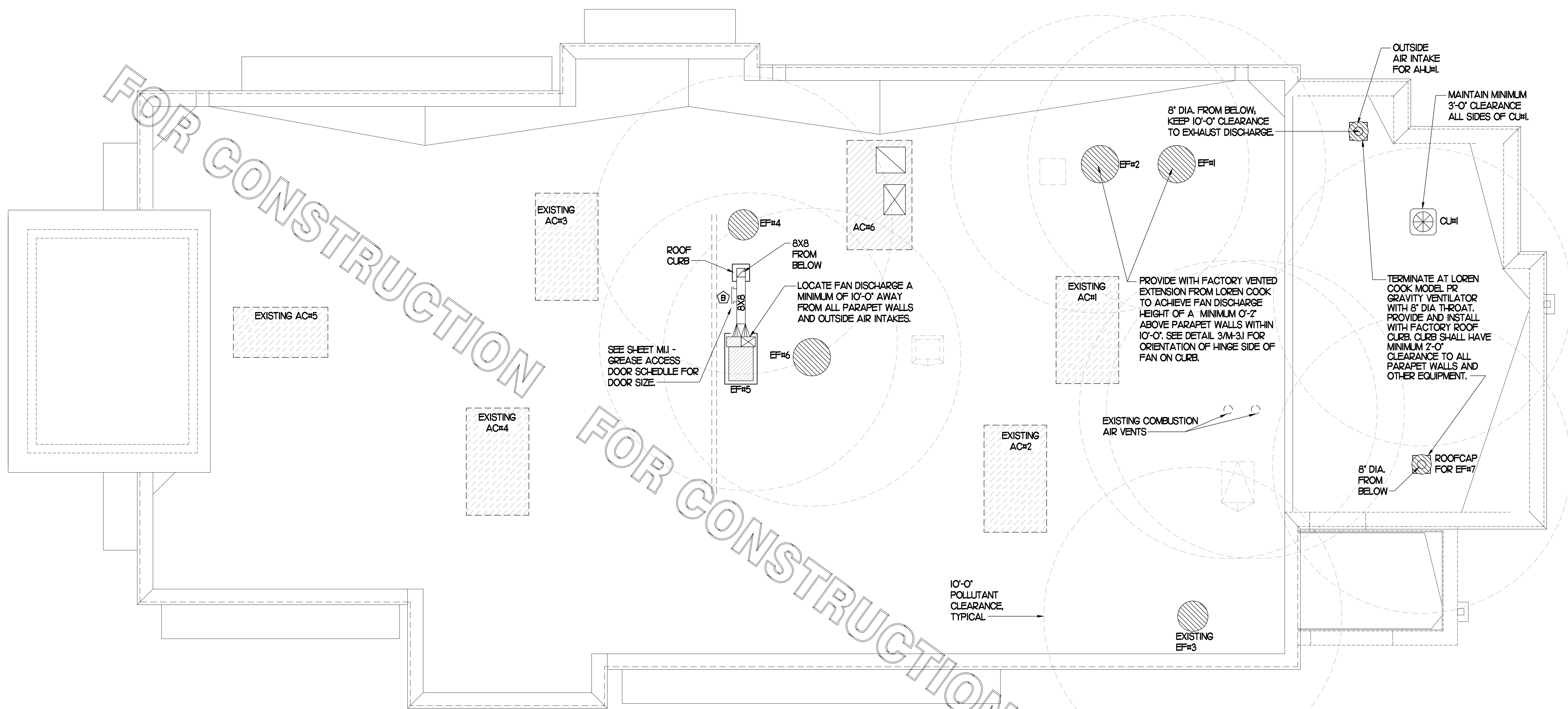
SHEET TITLE  
MECHANICAL  
ROOF PLAN

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333  
Store : 1086  
Date: 04.11.14  
Drawn By : MS  
Checked By: MK

Sheet

MI.2



FOR CONSTRUCTION

FOR CONSTRUCTION

FOR CONSTRUCTION

### I MECHANICAL ROOF PLAN

SCALE: 1/4"=1'-0"

#### 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.

# KITCHEN HOOD SYSTEMS NOTES

- 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.
- THE FIRE SUPPRESSION SYSTEM SHALL CONSIST OF A COMPLETE WET ANSUL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
- 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 HIRED BY HALTON.
- HOOD EXHAUST DUCTWORK SHALL BE 16 GA. BLACK STEEL WITH CONTINUOUS LIQUID TIGHT WELD OF JOINTS & SEAMS.
- URNS IN GREASE EXHAUST DUCTWORK SHALL BE LONG RADIUS TYPE, WITH A CENTERLINE RADIUS R-3W/2, NO EXCEPTIONS ALLOWED. NO MITERED FITTINGS ALLOWED.
- ALL STAINLESS STEEL CLOSURE PANELS SHALL BE SUPPLIED BY HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- SLOPE ALL GREASE EXHAUST DUCT BACK TO HOOD AT 1/4" PER FOOT OF RUN.
- WRAP NEW GREASE DUCT WITH UNIFRAX FLYEWRAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FLYEWRAP PRODUCT USED SHALL MEET LOCAL CODE REQUIREMENTS.
- SUPPORT HOOD#1L AND HOOD#1R FROM WALL AND STRUCTURE AS SHOWN ON HALTON SHOP DRAWINGS. ATTACHMENT TO WALL REQUIRES FIELD DRILLING OF SUPPORT ANGLE AT BACK OF HOODS. ATTACH HOOD TO WALL AT 16" INTERVALS ALONG FULL LENGTH OF HOOD. EACH WALL ATTACHMENT POINT MUST OCCUR AT A WALL STUD. ATTACHMENT HARDWARE TO BE #12-24 HEX HEAD SHEET METAL SCREW EQUAL TO TETRAX SDS EDT265, LENGTH AS REQUIRED TO FULLY PENETRATE THE STUD. FRONT EDGE OF HOOD TO BE SUPPORTED FROM STRUCTURE WITH MIN 3/8" ATR. SHEATH THE ATR WITH 300 SERIES STAINLESS STEEL TUBING. NO LETTERING OR MARKINGS ON TUBING. TUBING TO EXTEND THRU ACT CEILING. PROVIDE STAINLESS STEEL ESCUTCHEON AT CEILING PENETRATION.
- SUPPORT HOOD#2, HOOD#3 & HOOD#4 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.
- JOIN HOODS #1L AND #1R TOGETHER WITH SAE GRADE 5 HARDWARE AS SHOWN ON HALTON SHOP DRAWINGS.

**GREASE EXHAUST DUCT 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 & SP.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1,085	0.1Z	73 • 0.30"	BACK SHELF	11x8	97"	37"	38"	HALTON	KVL-2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HOOD#1R	1,085	0.1Z	73 • 0.30"	BACK SHELF	11x8	97"	37"	38"	HALTON	KVL-2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HOOD#2	701	0.26"	30 • 0.29"	BACK SHELF	8x8	45"	34"	48"	HALTON	KVL-C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HOOD#3	390	0.26"	18 • 0.30"	BACK SHELF	8x8	24"	34"	48"	HALTON	KVL-D	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HOOD#4	661	0.07"	56 • 0.45"	BACK SHELF	8x7	74"	40"	49"	HALTON	KVM	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

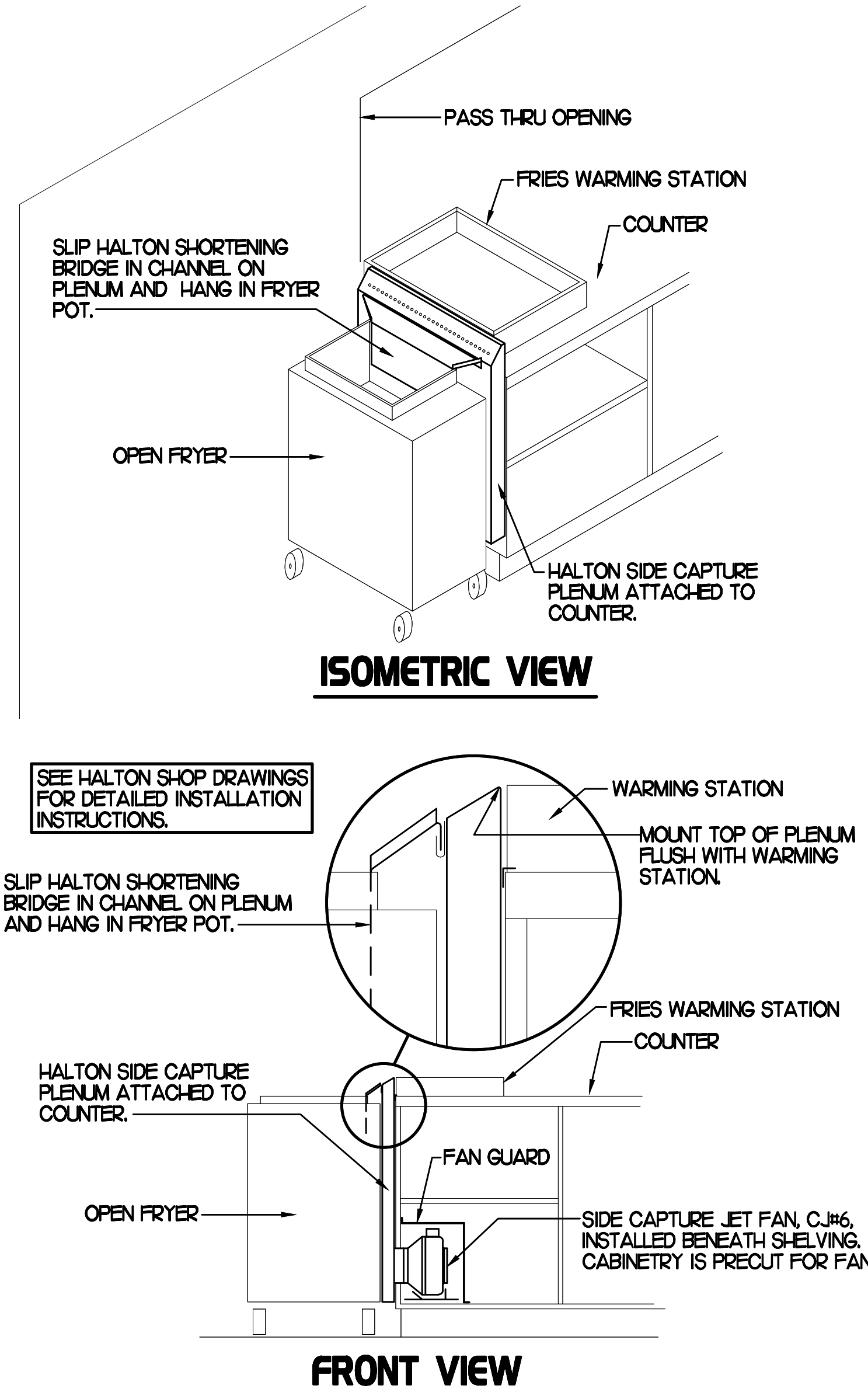
**NOTES**  
DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).  
ALL HOODS SHALL BE STAINLESS STEEL CONSTRUCTION AND PROVIDED W/ FOLLOWING:  
• TOP PLENUM CAPTURE JET FAN, SPEED CONTROLLER AND COLLAR  
• FULL HEIGHT SS CLOSURE PANEL WITH ACCESS PANEL IN FRONT LARGE ENOUGH TO REMOVE CAPTURE JET FAN  
• CAPTURE JET AIR INLET AND COLLAR AT FRONT OF CLOSURE PANEL  
• PRE-PIPED ANSUL R-102 WET FIRE EXTINGUISHING SYSTEM  
• EQUIPMENT I.D. LABELS LOCATED ON FRONT LEADING EDGE OF HOOD  
VERIFY ALL DATA AND REQUIREMENTS LISTED HEREIN W/ HALTON SHOP DRAWINGS. CONSULT FACTORY FOR ANY DISCREPANCIES.

**REMARKS**  
1. ANSUL CABINET AND COMPONENTS ABOVE HOOD, PROVIDE FULL HEIGHT SS CLOSURE PANEL WITH ACCESS PANEL IN FRONT LARGE ENOUGH TO SERVICE ANSUL COMPONENTS.  
2. PROVIDE 3" BACK SPACER (REFER TO SHOP DRAWINGS).  
3. PROVIDE 3" CUSTOM BACK SPACER TO ACCOMMODATE PIN AND SLEEVE ELECTRICAL BOX.  
4. PROVIDE 3" RIGHT SIDE SPACER.  
5. PROVIDE NOTCHED SIDE PANEL(S). REFER TO SHEET M-111.  
6. PROVIDE 3'X3' HORIZONTAL TRIM STRIP FOR STANDOFF ON RIGHT END. 3" SIDE STANDOFF TO HAVE 1" THICK INSULATION.  
7. PROVIDE SIDE SHIELD ON RIGHT SIDE.  
8. PROVIDE COUNTER MOUNTED SIDE CAPTURE JET PLENUM ASSEMBLY AND FAN ON RIGHT SIDE OF HOOD.  
9. PROVIDE PIN AND SLEEVE ELECTRICAL BOX (SINGLE CONNECTION). SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.  
10. PROVIDE PIN AND SLEEVE ELECTRICAL BOX (DOUBLE CONNECTION). SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.  
11. PROVIDE SLOPED FALSE TOP AND DUCT ENCLOSURE.  
12. PROVIDE FACTORY WALL MOUNTING ANGLE AT TOP OF HOOD.

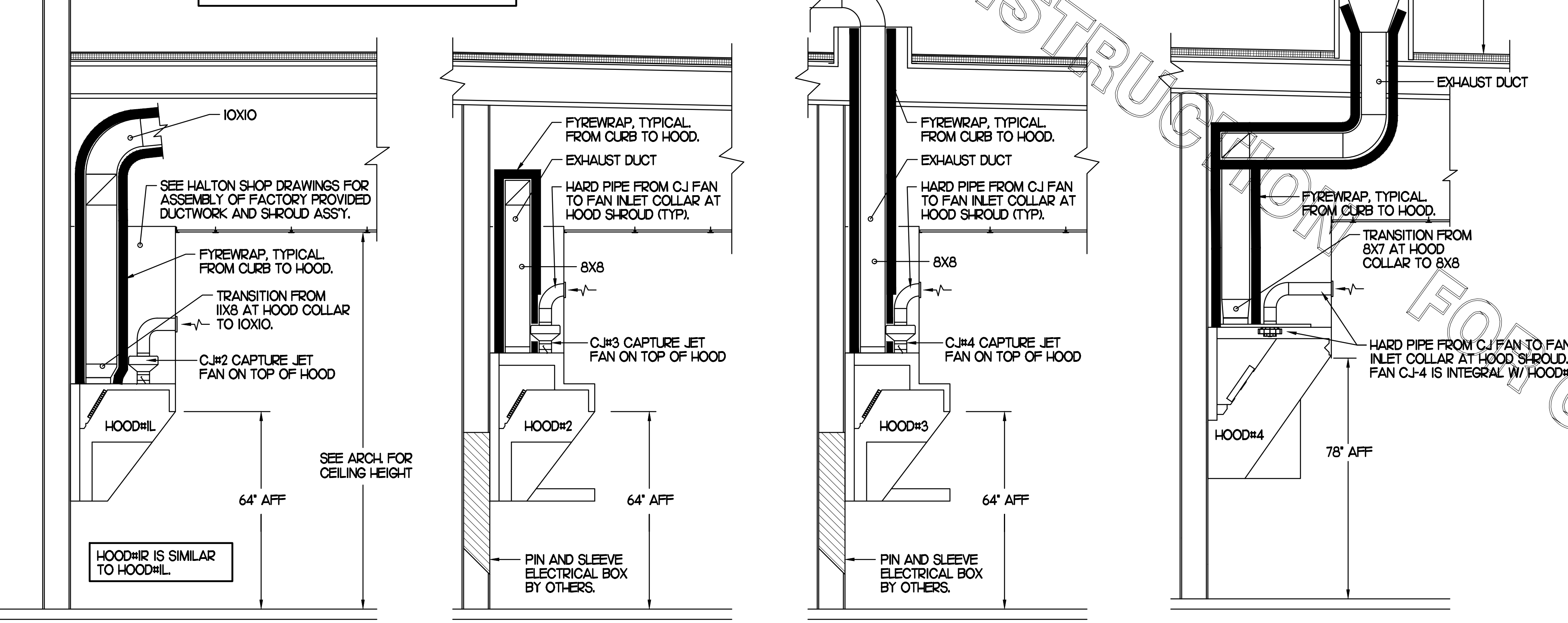
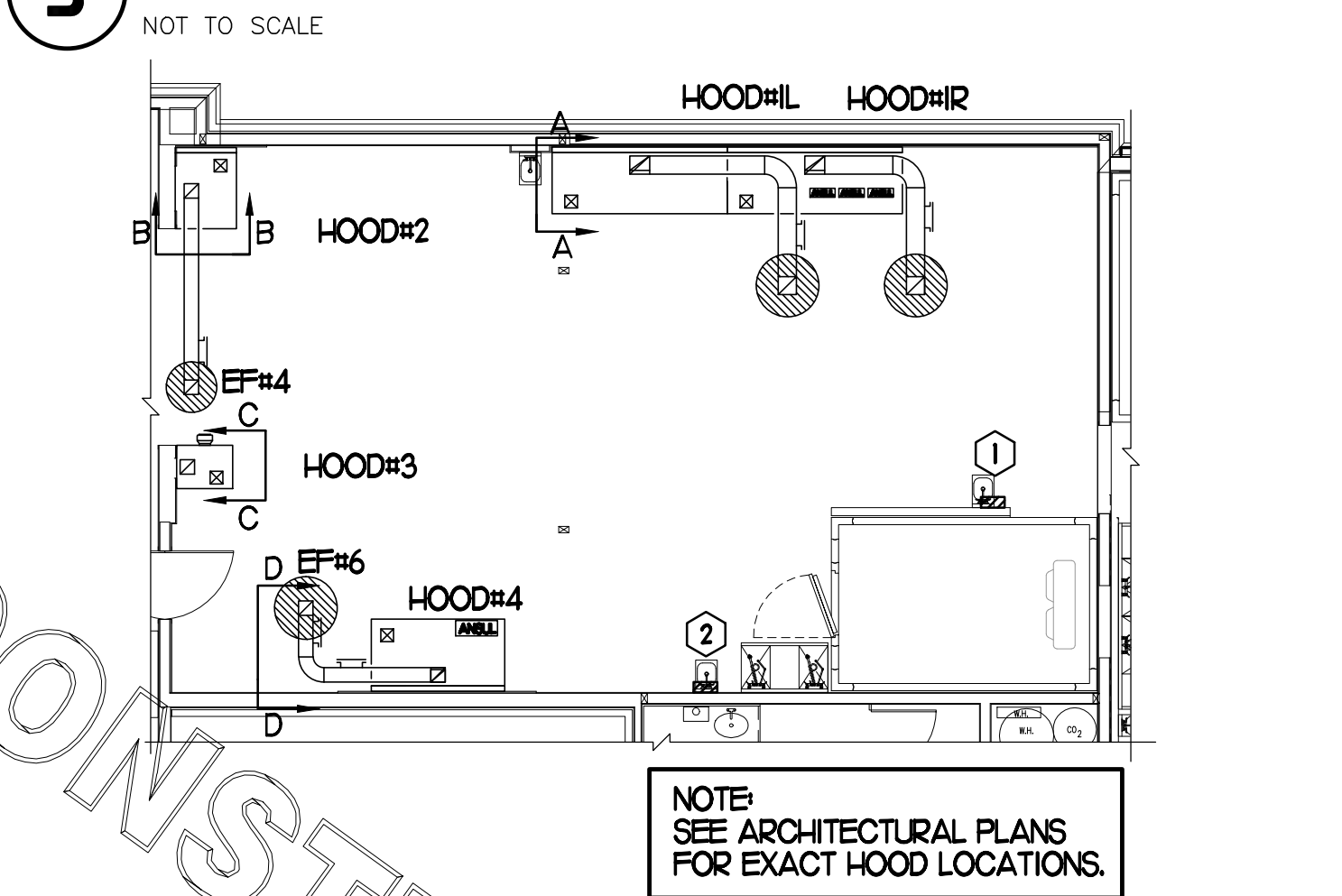
**CAPTURE JET FAN NOTES**  
• REFER TO "CAPTURE JET FAN INSTALLATION AND DIMENSIONAL DATA" SCHEDULE ON HALTON SHOP DRAWINGS (SHEET M-111) FOR INFORMATION ON CAPTURE JET FANS C.J.#1 THROUGH C.J.#6.

**HOOD ELEVATIONS NOTE**  
HOOD ELEVATIONS ON THIS SHEET ONLY SERVE ILLUSTRATIVE PURPOSES. SEE DETAILS ON SHEET A-3.5 AND HALTON SHOP DRAWINGS ON SHEET M-111 FOR DETAILS ON STANDOFFS, CLEARANCES AND HOOD CONSTRUCTION.

• SET LEFT SIDE OF HOOD#2 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.  
• HOOD#3 IS SIMILAR TO HOOD #2, SET RIGHT SIDE OF HOOD#3 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.



## 3 HALTON SIDE CAPTURE JET PLENUM



## 2 HOOD ELEVATIONS

NONE

## 1 HOOD LAYOUT

1/8"=1'-0"

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:  
Mark Date By  
△  
Mark Date By  
△  
Mark Date By  
△

Kurzynske & Associates  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

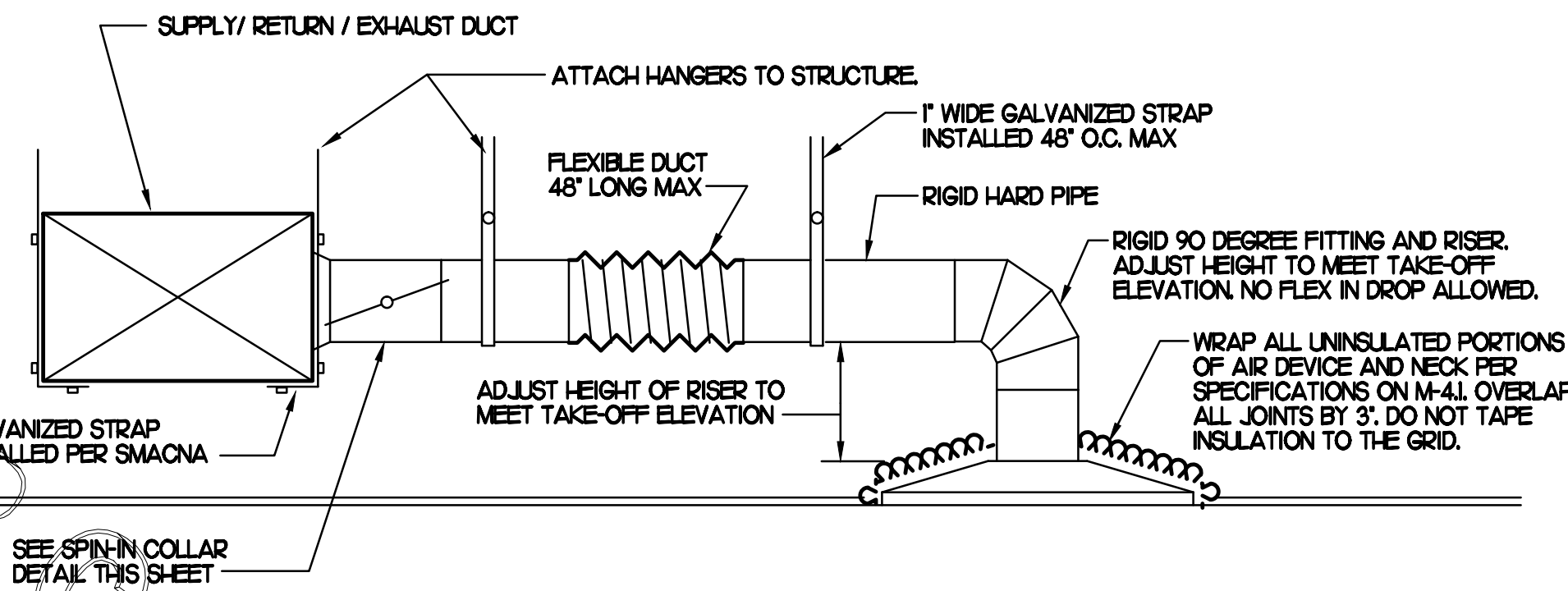
STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

SHEET TITLE  
HOOD DETAILS  
& SCHEDULES

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333  
Store : 1086  
Date : 04.11.14  
Drawn By : MS  
Checked By : MK

Sheet  
**M2.1**



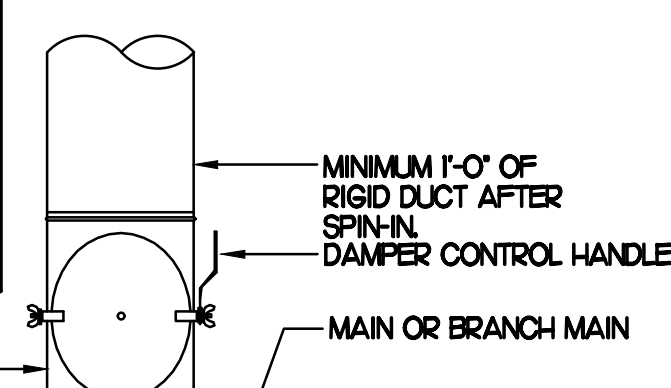
**1 SAG/RAG/GRILLE TAKE-OFF**

NO SCALE

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRROW COMPANY FOR THE JER-AIR START COLLARS. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE JER-AIR START COLLARS DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. JER-AIR START COLLARS NOT PURCHASED THRU TOM BARRROW 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 1/2\"/>

DO NOT APPLY START COLLAR OVER DUCT WRAP.

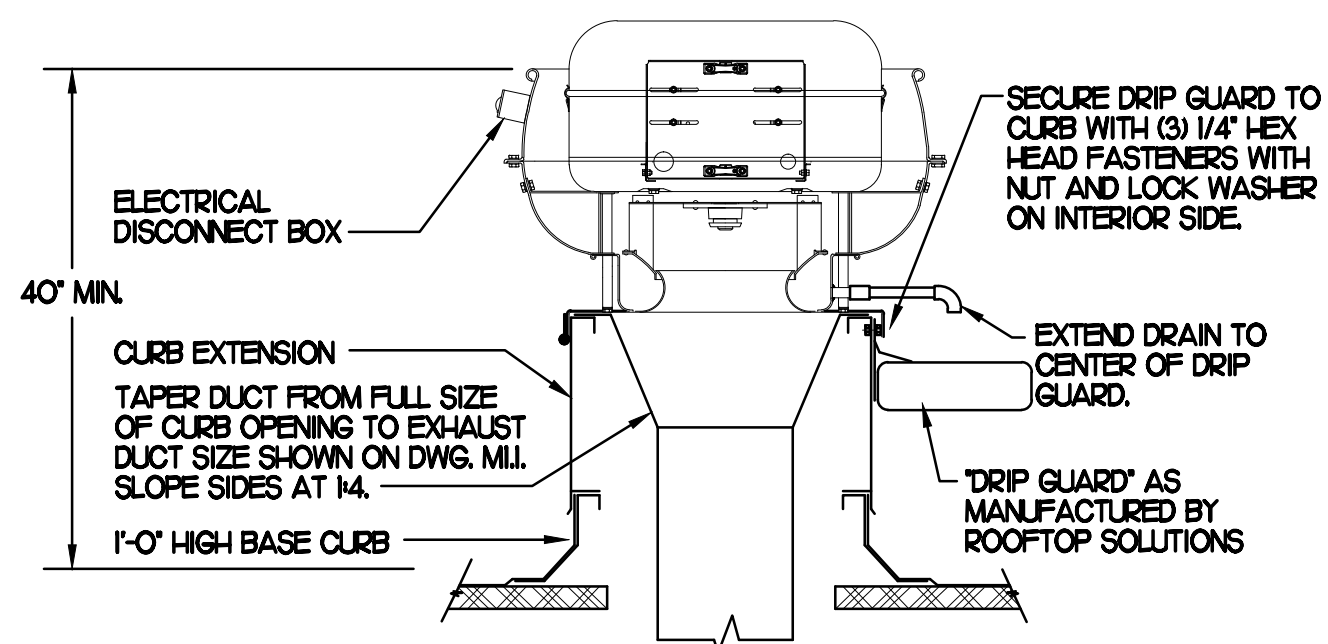


**2 START COLLAR**

NO SCALE

HINGED SIDE OF EF#1,2,4, 6 MUST FACE DRIVE THRU SIDE OF BUILDING.

SECURE FAN TO CURB W/ #12X1/2\"/>

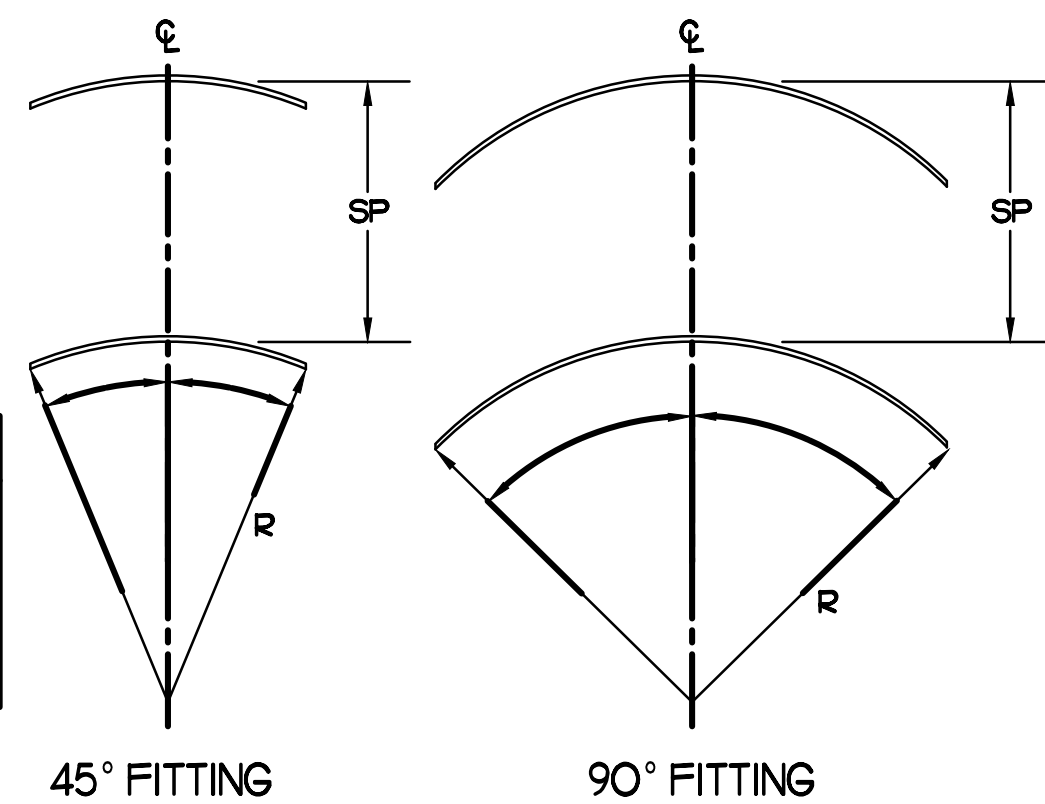


**3 KITCHEN HOOD EXHAUST FAN (EF#1,2,4,6)**

NO SCALE

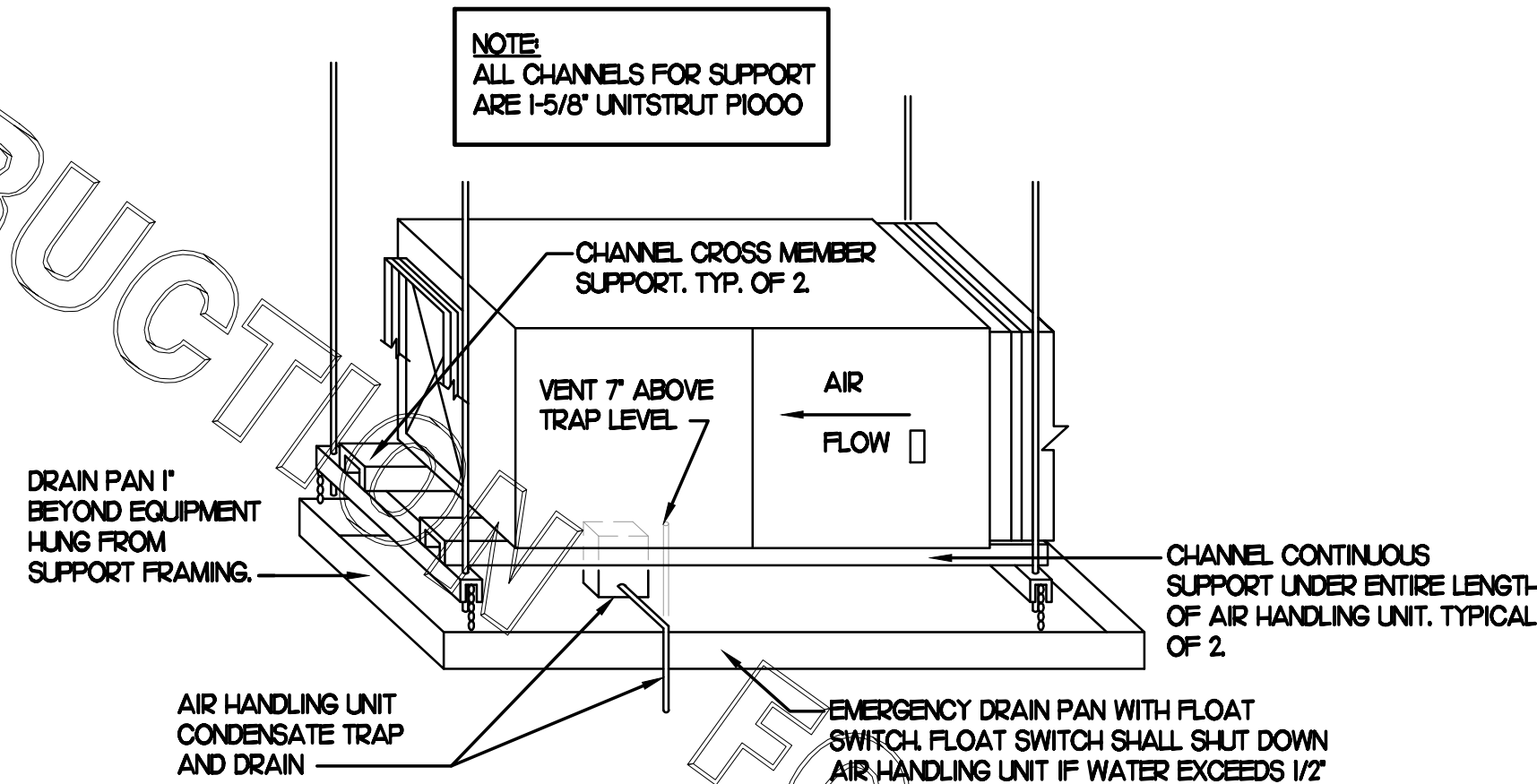
TURNING VANE SCHEDULE		
R	SP	GA
2"	15'	24

1) NO TRAILING EDGE  
2) SINGLE THICKNESS CONSTRUCTION



**4 TURNING VANES**

NO SCALE

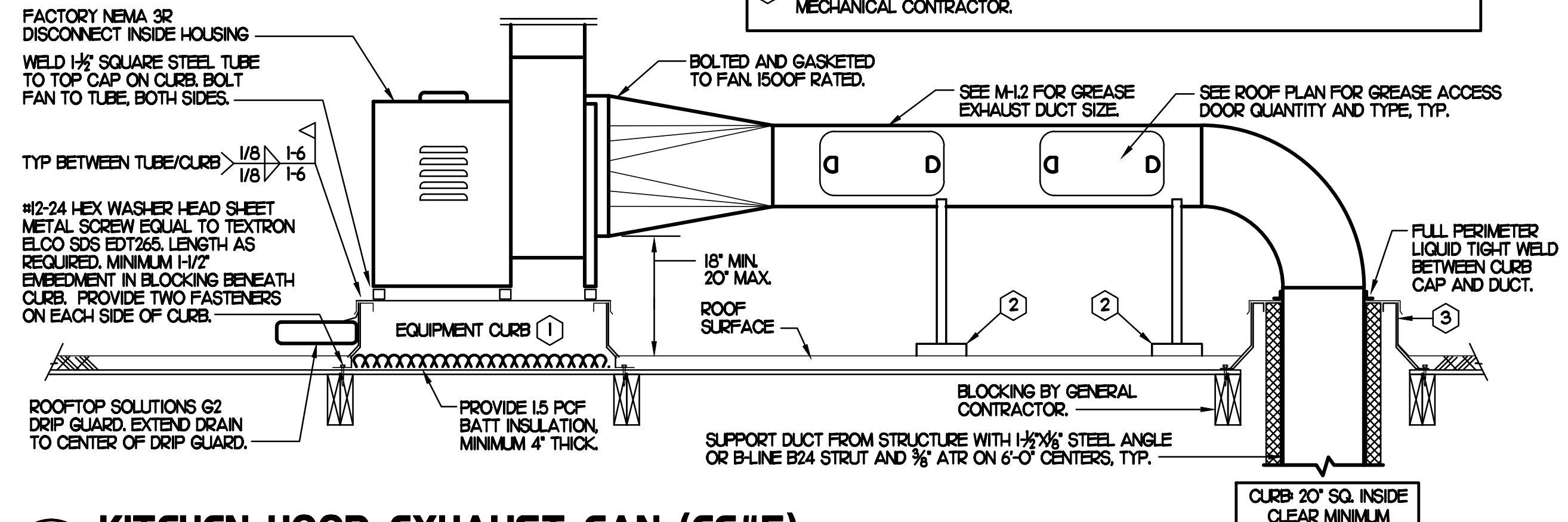


**5 AIR HANDLING UNIT SUPPORT DETAIL**

NO SCALE

AIR DEVICE SCHEDULE						
MARK	DESCRIPTION	LOCATION	NECK SIZE	FACE SIZE	FRAME TYPE	REMARKS
A	PRICE MODEL APD5P ALUMINUM SUPPLY AIR DIFFUSER WITH AIR PATTERN CONTROLLER.	ADDITION KITCHEN	SEE PLAN	24x24	LAY-IN	1,2,3
B	PRICE MODEL RPD STEEL ROUND PLAQUE SUPPLY DIFFUSER.	SERVING	SEE PLAN	VARIES	SURFACE	1,7
F	PRICE MODEL 80 EGGCRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	KITCHEN	SEE PLAN	24x24	LAY-IN	1,2,3
H	PRICE MODEL APD5P ALUMINUM SUPPLY AIR DIFFUSER WITH AIR PATTERN CONTROLLER.	OFFICE	10	24x24	LAY-IN	1,2,6
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	SEE PLAN	16x16	BEVELLED	1,2,4,5
NOTES	MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.					
REMARKS	1. STANDARD OFF WHITE FINISH. 2. FACTORY INSULATED R-6 BACKPAN. 3. SEE MECHANICAL FLOOR PLAN M1 FOR MODULE SIZE 4. PROVIDE MODEL VCS3 NECK DAMPER. 5. FIELD FABRICATE 8\"/>					

SPLIT SYSTEM UNIT SCHEDULE											
MARK	COOLING CAPACITY (MBH)			HEATING CAPACITY		FAN SECTION (CFM)			MODEL	MFR	REMARKS
	TOTAL	SENS	SEER	OUTPUT (KW)	STAGES	SUPPLY	O.A.	HP			
AC#1	240	180	145	60 x 208V	1	800	200	1/2	0.50	CRX32MV-030 13ACK-024	LENNOX H2
NOTES	<ul style="list-style-type: none"> <li>COOLING CAPACITIES ARE GROSS, BASED ON INDOOR EDB# 80F, INDOOR EWB# 67F, OUTDOOR EDB# 95F.</li> <li>CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6219 (OR BY FAX AT 972-497-5121) FOR PRICING, ORDERING AND AVAILABILITY.</li> <li>MECHANICAL CONTRACTOR TO VERIFY LENNOX SUBMITTAL WITH CONSTRUCTION DOCUMENTS.</li> <li>FOR PROPER BUILDING AIR BALANCE, VERIFY AMOUNT OF OUTSIDE AIR PROVIDED BY ALL EXISTING UNITS. ADJUST AS PER SCHEDULE IF NECESSARY.</li> <li>VERIFY MIN. 10' DISTANCE OF O.A. INTAKE OPENINGS OF A/C UNITS FROM ANY EXISTING SOURCE OF AIR POLLUTION (EXHAUST FAN, COMBUSTION FLUE, VENT ETC). IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.</li> </ul>										
REMARKS	<ul style="list-style-type: none"> <li>SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS PRIOR TO ORDERING EQUIPMENT. CURB: 208 VOLT, 1 PHASE, 17.5 MCA, 30 MOCP. AHJM 208 VOLT, 1 PHASE, 31.0 MCA, 35 MOCP.</li> <li>PROVIDE FIELD INSTALLED RETURN SIDE SMOKE DETECTOR.</li> <li>PROVIDE FIELD INSTALLED NON-FUSED DISCONNECT AT AHJM AND CURB.</li> <li>PROVIDE COIL HAIL GUARD.</li> <li>REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.</li> <li>PROVIDE ENGRAVED PLASTIC LABEL AT CURB AND AHJM WITH 1\"/&gt; </li></ul>										



**6 KITCHEN HOOD EXHAUST FAN (EF#5)**

NO SCALE

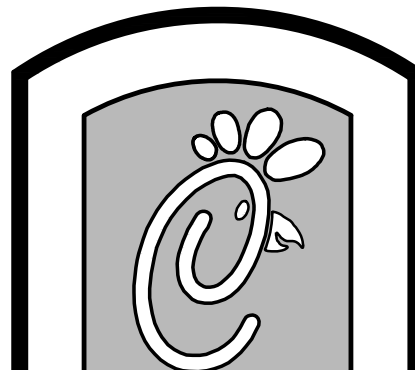
ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM ACRYLIC PRIMER PRIOR TO PAINTING.

**KEYED NOTES:**

1. THYCURB MODEL TC-3 EQUIPMENT CURB WITH 4\"/>

GAS FIRED ROOFTOP UNIT SCHEDULE											
MARK	COOLING CAPACITY (MBH)			HEATING CAPACITY (MBH)		FAN SECTION (CFM)			MODEL	MANUFACTURER	REMARKS
	TOTAL	SENS	SEER	INPUT	OUTPUT	SUPPLY	O.A.	HP			
AC#1	-	-	-	-	-	4,400	1,200	-	-	EXISTING UNIT	LENNOX 12
AC#2	-	-	-	-	-	3,150	680	-	-	EXISTING UNIT	LENNOX 12
AC#3	-	-	-	-	-	4,000	1,000	-	-	EXISTING UNIT	LENNOX 12
AC#4	-	-	-	-	-	2,750	600	-	-	EXISTING UNIT	LENNOX 12
AC#5	-	-	-	-	-	2,025	325	-	-	EXISTING UNIT	LENNOX 12
AC#6	1244	896	-	240.0	192.0	4,000	950	3.0	1.00	LG4204B	LENNOX 1-11
NOTES	<ul style="list-style-type: none"> <li>COOLING CAPACITIES ARE GROSS, BASED ON INDOOR EDB# 80F, INDOOR EWB# 67F, OUTDOOR EDB# 95F.</li> <li>CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6219 (OR BY FAX AT 972-497-5121) FOR PRICING, ORDERING AND AVAILABILITY.</li> <li>MECHANICAL CONTRACTOR TO VERIFY LENNOX SUBMITTAL WITH CONSTRUCTION DOCUMENTS.</li> <li>FOR PROPER BUILDING AIR BALANCE, VERIFY AMOUNT OF OUTSIDE AIR PROVIDED BY ALL EXISTING UNITS. ADJUST AS PER SCHEDULE IF NECESSARY.</li> <li>VERIFY MIN. 10' DISTANCE OF O.A. INTAKE OPENINGS OF A/C UNITS FROM ANY EXISTING SOURCE OF AIR POLLUTION (EXHAUST FAN, COMBUSTION FLUE, VENT ETC). IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.</li> </ul>										
REMARKS	<ul style="list-style-type: none"> <li>1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST.</li> <li>2. PROVIDE 14\"/&gt; </li></ul>										

EXHAUST FAN SCHEDULE											
MARK	CFM	ESP	RPM	TIP SPEED (FPM)	HP (WATTS)	AREA SERVED	MODEL	MANUFACTURER	REMARKS		
EF#1	1,085	0.75	1,057	4,565	1/2	HOOD#R	165 VCR-HP	LOREN COOK	123,4,5		
EF#2	1,085	0.75	1,057	4,565	1/2	HOOD#L	165 VCR-HP	LOREN COOK	123,4,5		
EF#3	500	-	-	-	-	RESTROOMS	EXISTING	-	-		
EF#4	701	0.75	1,222	4,798	1/3	HOOD#2	150 VCR-HP	LOREN COOK	123,4,5		
EF#5	390	0.75	1,305	4,099	1/2	HOOD#3	120 CPS	LOREN COOK	123,4,5,6		
EF#6	661	0.75	1,200	4,712	1/3	HOOD#4	150 VCR-HP	LOREN COOK	123,4,5		
EF#7	100	0.75	1,100	2,197	83.9W	EMPLOYEE RESTROOM	60-144	LOREN COOK	7		
NOTES	<ul style="list-style-type: none"> <li>GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.</li> <li>GREASE EXHAUST FANS TO BE UL 762 LISTED.</li> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRROW COMPANY FOR FAN/CURB PACKAGE. MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.</li> </ul>										
REMARKS	<ul style="list-style-type: none"> <li>1. PROVIDE FACTORY 1\"/&gt; </li></ul>										



5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
△		
△		
△		

Kurzynske & Associates  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

SHEET TITLE  
HVAC DETAILS  
& SCHEDULES

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333  
Store : 1086  
Date : 04.11.14  
Drawn By : MS  
Checked By : MK

Sheet  
**M3.I**



COMcheck Software Version 3.9.2  
Mechanical Compliance Certificate

2012 IECC

Section 1: Project Information

Project Type: Addition  
Project Title: Chick-fil-A #1086

Construction Site: 408 Constant Friendship Blvd, Abingdon, MD 21009  
Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349  
Designer/Contractor: Kurzynske & Associates, 825 Third Avenue South, Nashville, TN 37210, 615-255-5203

Section 2: General Information

Building Location (for weather data): White Marsh, Maryland  
Climate Zone: 4a

Section 3: Mechanical Systems List

Quantity System Type & Description

- AC#6 (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 240 kBtu/h, Proposed Efficiency = 80.00% EER, Required Efficiency = 80.00% EER; Cooling: 1 each - Rooftop Package Unit, Capacity = 124 kBtu/h, Air-Cooled Condenser, Air Economizer, Proposed Efficiency = 12.00 EER, Required Efficiency = 11.00 EER, Fan System: None
- AHU#1/CU#1 (Single Zone): Heating: 1 each - Central Furnace, Electric, Capacity = 21 kBtu/h, No minimum efficiency requirement applies; Cooling: 1 each - Split System, Capacity = 24 kBtu/h, Air-Cooled Condenser, Proposed Efficiency = 14.50 SEER, Required Efficiency = 13.00 SEER, Fan System: None

Section 4: Requirements Checklist

Requirements Specific To: AC#6 :

- Equipment minimum efficiency: Central Furnace (Gas): 80.00 % EER
- Equipment minimum efficiency: Rooftop Package Unit: 11.00 EER (11.2 IEER)
- Integrated air economizer is required for individual cooling systems and allows modulation of outdoor air and return air dampers to provide up to 100% of the design supply air quantity as outdoor air for cooling. All air economizers shall be capable of automatically reducing outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will no longer reduce cooling energy usage.
- Air economizer dampers can be sequenced with the cooling equipment and not controlled exclusively by mixed air temperature.
  - System controlled from space temperature (such as single-zone systems).
- Cooling system provides a means to relieve excess outdoor air during economizer operation.
- Hot gas bypass prohibited unless system has multiple steps of unloading or continuous capacity modulation
- Hot gas bypass limited to 50% of total cooling capacity

Requirements Specific To: AHU#1/CU#1 :

- Equipment minimum efficiency: Split System: 13.00 SEER

Project Title: Chick-fil-A #1086 Report date: 11/07/13  
Data filename: F:\Prototypes\Chick-fil-A\2013-CFA Mall and Remodels\CFM1333 - Constant Friendship FSUR\CFA #1086  
ComCheck.cck Page 1 of 3

- Newly purchased equipment meets the efficiency requirements
- Generic Requirements: Must be met by all systems to which the requirement is applicable:

- Plant equipment and system capacity no greater than needed to meet loads
  - Standby equipment automatically off when primary system is operating
  - Multiple units controlled to sequence operation as a function of load
- Minimum one temperature control device per system
- Minimum one humidity control device per installed humidification/dehumidification system
- Load calculations per ASHRAE/ACCA Standard 183.
- Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
  - Continuously operating zones
  - 2 kW demand or less, submit calculations
- Automatic start controls that can automatically adjust the daily start time of the HVAC system are provided for each system.
- Outside-air source for ventilation; system capable of reducing OSA to required minimum
- R-6 supply and return air duct insulation in unconditioned spaces
  - R-8 supply and return air duct insulation outside the building
  - R-8 insulation between ducts and the building exterior when ducts are part of a building assembly
- Ducts located within equipment
  - Ducts with interior and exterior temperature difference not exceeding 15°F.
- Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- Pipe serving heating and/or cooling systems is insulated per Section C403.2.8. General applicable insulation requirements are:
 

Fluid Temp Range (°F)	Insulation
> 350	< 1.0" pipe = 4.5" insulation, otherwise 5.0" insulation
251-350	< 1.0" pipe = 3.0" insulation, < 1.5" pipe = 4.0" insulation, otherwise 4.5" insulation
201-250	< 4.0" pipe = 2.5" insulation, otherwise 3.0" insulation
141-200	< 1.5" pipe = 1.5" insulation, otherwise 2.0" insulation
105-140	< 1.5" pipe = 1.0" insulation, otherwise 1.5" insulation
40-80	< 1.5" pipe = 0.5" insulation, otherwise 1.0" insulation
< 40	< 1.0" pipe = 0.5" insulation, < 8.0" pipe = 1.0" insulation, otherwise 1.5" insulation

  - Piping within HVAC equipment.
  - Fluid temperatures between 60 and 105°F.
  - Fluid not heated or cooled with renewable energy.
  - Piping within room fan-coil (with AHR1440 rating) and unit ventilators (with AHR1840 rating).
  - Strainers and valves associated with piping <= 1.0".
  - Direct buried piping with fluid temperatures <= 60°F.
- Operation and maintenance manual provided to building owner
- Thermostatic controls have 5°F deadband
  - Thermostats requiring manual changeover between heating and cooling
- Demand control ventilation (DCV) present for high design occupancy areas (>25 person/1000 ft2 in spaces >500 ft2) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm.
  - Systems with heat recovery.
  - Multiple-zone systems without DDC of individual zones communicating with a central control panel.
  - Systems with a design outdoor airflow less than 1200 cfm.
  - Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.
  - Ventilation for process loads only.
- Total cooling capacity without economizers must be less than 300 kBtu/h. This project lists 24 kBtu/h capacity without economizers.
- Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings
  - Gravity dampers acceptable in buildings <3 stories
- Automatic controls for freeze protection systems present
- Each fan system has an energy recovery system when one of the following conditions are met:

Project Title: Chick-fil-A #1086 Report date: 11/07/13  
Data filename: F:\Prototypes\Chick-fil-A\2013-CFA Mall and Remodels\CFM1333 - Constant Friendship FSUR\CFA #1086  
ComCheck.cck Page 2 of 3

- 30% >= POA < 40% AND DAF >= 5,500 cfm
  - 40% >= POA < 50% AND DAF >= 4,500 cfm
  - 50% >= POA < 60% AND DAF >= 3,500 cfm
  - 60% >= POA < 70% AND DAF >= 2,000 cfm
  - 70% >= POA < 80% AND DAF >= 1,000 cfm
  - 80% >= POA AND DAF >= 0 cfm
- where POA = Percent outdoor air at full design airflow rate and DAF = Design supply fan airflow rate
- Exception(s):
- Laboratory fume hood systems with a total exhaust rate <= 5000 cfm.
  - Systems serving spaces that are not cooled and heated to <= 60°F.
  - Systems with more than 60% of the outdoor heating energy is provided from site-recovered or site solar energy.
  - Systems exhausting toxic, flammable, paint, or corrosive fumes or dust.
  - Systems requiring dehumidification with cooling coil energy recovery in series with the cooling coil.
  - Systems expected to operate < 20 hrs per week when outdoor air percentage >= 30%.
  - Where the largest exhaust source is less than 75% of the design outdoor airflow.

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2012 IECC, Chapter 6, requirements in COMcheck Version 3.9.2 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title	Signature	Date
--------------	-----------	------

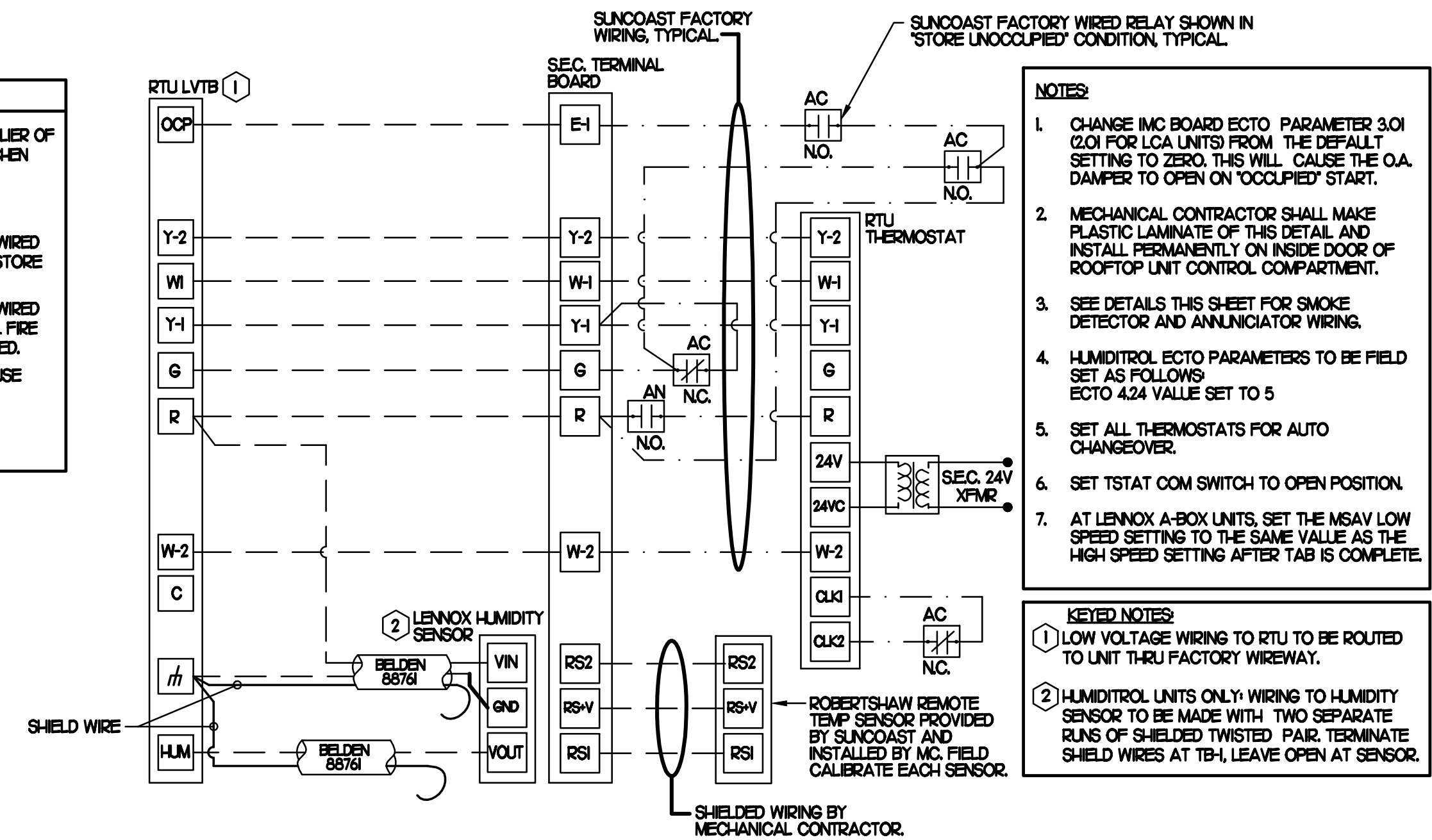
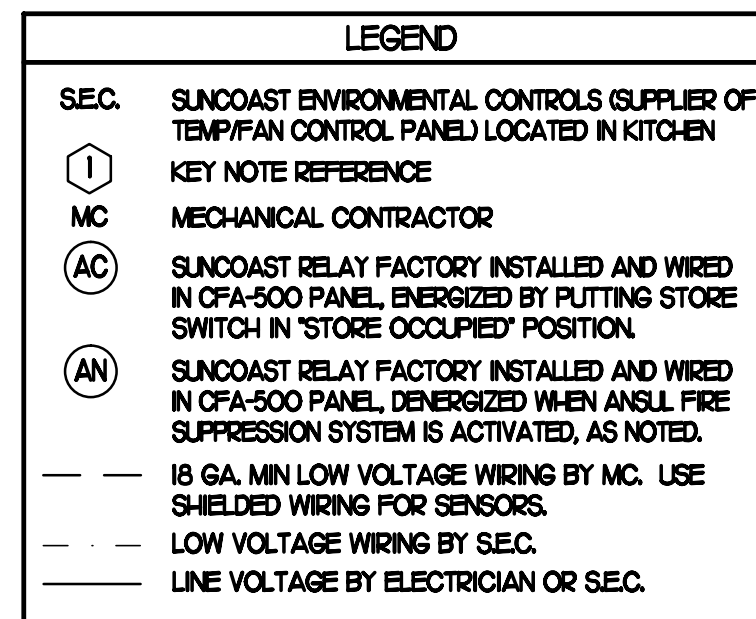
Section 6: Post Construction Compliance Statement

- HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.
- HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
- Written HVAC balancing and operations report provided to the owner.

The above post construction requirements have been completed.

Principal Mechanical Designer-Name	Signature	Date
------------------------------------	-----------	------

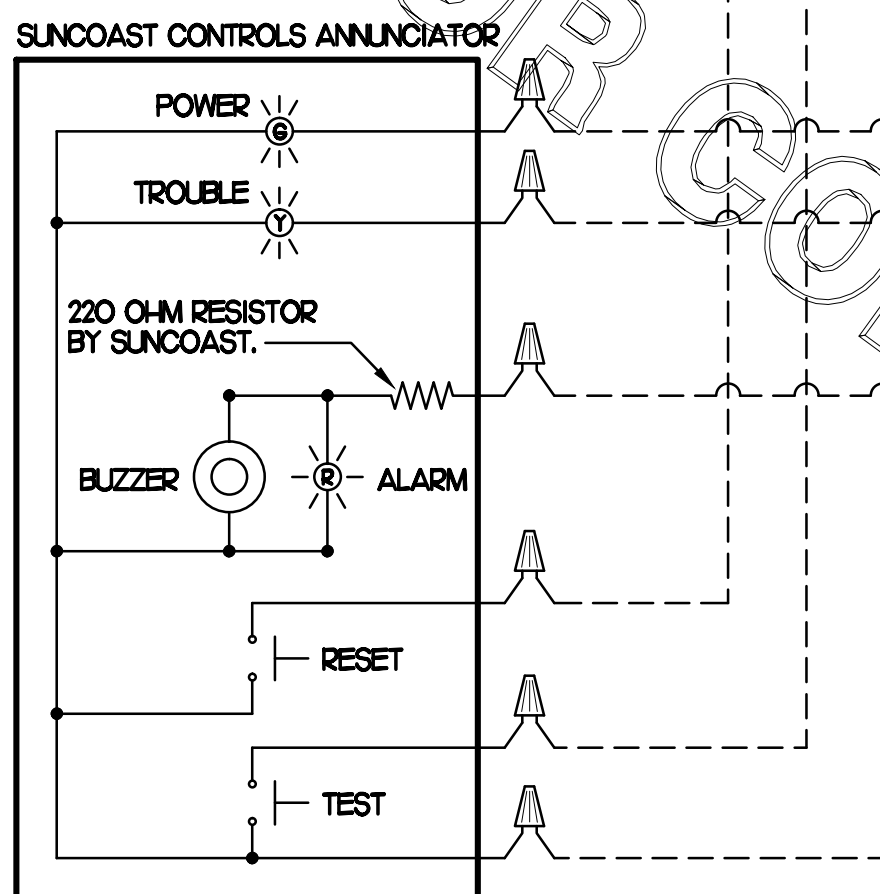
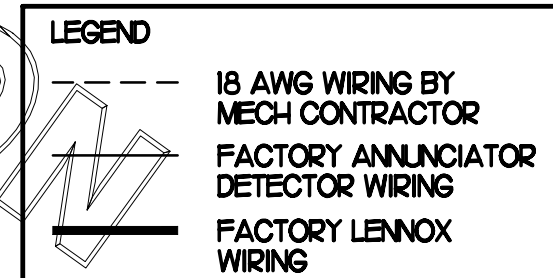
Project Title: Chick-fil-A #1086 Report date: 11/07/13  
Data filename: F:\Prototypes\Chick-fil-A\2013-CFA Mall and Remodels\CFM1333 - Constant Friendship FSUR\CFA #1086  
ComCheck.cck Page 3 of 3



4 ROOFTOP UNIT CONTROL WIRING - LENNOX

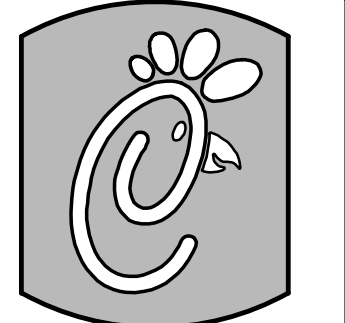
NONE

SUPPLY SIDE DETECTORS: IF SUPPLY SIDE SMOKE DETECTORS ARE SHOWN ON DWG MILL 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 MILL.



5 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX

NONE



5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
------	------	----

△		
---	--	--

Mark	Date	By
------	------	----

△		
---	--	--

Mark	Date	By
------	------	----

△		
---	--	--

Kurzynske & Associates  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

SHEET TITLE  
HVAC  
CONTROLS

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333

Store : 1086

Date: 04.11.14

Drawn By: MS

Checked By: MK

Sheet

M4.I

## 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 BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.
3. PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.
4. AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARRON 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 BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.

## I. MECHANICAL SPECIFICATIONS

### PART I GENERAL

1. 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.
2. 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.
3. 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.
4. 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.
5. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO CONDITION ACCEPTABLE TO THE OWNER'S 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.
6. CONTRACTOR SHALL PROVIDE TWO SETS OF 2" MERV 7 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

#### I. HEATING AND COOLING EQUIPMENT

- 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 UL 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. DUCTWORK, INSULATION & INSTALLATION (SEE DWG M2) FOR GREASE DUCT)

- A. ACCEPTABLE MANUFACTURERS OF INSULATION ARE MANVILLE, OWENS CORNING OR KNAUF.
- B. ALL DUCTWORK SHALL BE SHEET METAL, UNLESS NOTED OTHERWISE (UNO).
- C. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS, UNO.
- D. CONSTRUCTION OF DUCTWORK SHALL MEET SMACNA I" 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 SHALL BE SEALED PER SMACNA SEAL CLASS C WITH UL DUCT MASTIC SEALANT APPROVED FOR INTENDED USE. DUCT TAPE IS NOT AN ACCEPTABLE SUBSTITUTE FOR MASTIC.
- E. 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 5.6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 MIL ALUMINUM REINFORCED FOIL/KRAFT FACING.
- F. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.
- G. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.
- H. 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.
- I. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK, 1/2 PCF INSULATION.
- J. TRUNK DUCTS SHALL BE ISOLATED FROM UNIT VIBRATION WITH THE USE OF NFPA AND UL APPROVED FLEXIBLE CONNECTORS INSTALLED AT THE TOP OF BOTH SUPPLY AND RETURN DROPS.
- K. 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.
- L. 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 UL APPROVAL AND SHALL BE EQUIVALENT TO THERMAFLEX MKE.
- M. 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.
- N. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.
- O. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
- P. RADIUSSED ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO 3W/2 PER FIGURE NO. 2-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- Q. 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.

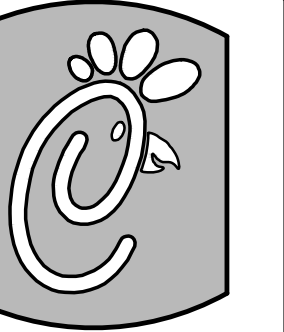
#### 3. CONTROLS

- A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (P# 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 SUPPLY 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. 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. ANNUNCIATOR 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 ENVIRONMENTAL CONTROLS. SUNCOAST WILL PROVIDE A ROBERTSHAW SERIES 300 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.

### PART III EXECUTION

1. FURNISH AND INSTALL SYSTEM IN ACCORDANCE WITH REFERENCED STANDARDS, APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.
2. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NEI 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.
3. 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.
4. 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.
5. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER.



5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

#### Revisions:

Mark Date By

△

Mark Date By

△

Mark Date By

△

Kurzynske & Associates  
CONSULTING ENGINEERS  
825 Third Avenue, South  
Nashville, Tennessee 37210  
Telephone: (615) 255-5203  
Fax: (615) 255-5207  
Email: mail@kurzynske.com

STORE  
408 Constant  
Friendship Blvd.  
Abingdon,  
MD 21009

SHEET TITLE  
MECHANICAL  
SPECIFICATIONS

DWG EDITION 00-0  
REVISION 00

Job No. : CFM1333  
Store : 1086  
Date : 04.11.14  
Drawn By : MS  
Checked By : MK

Sheet

MS.I

**MODEL: KVL-2** \* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE HOOD/UNIT HAVING JURISDICTION AT TIME OF QUOTE

STANDARD FEATURES			
S.S. FILTERS (KSA)	4		
1/2 S.S. FILTERS (KSA)	1		
CAPTURE-JET FIRE DAMPER	*		
STAND-OFF	*		

OPTIONS			
REMOTE SWITCH PANEL	*		
FIRE PROTECTION	*		
ETL LISTED W/D EXHAUST DAMPER	*		
CEILING CLOSURE	2		
STD. BACKSPASH	*		
INSULATED BACKSPASH	*		

MATERIAL			
EXPOSED SURFACES	18 GA. S.S.		
ALL 18 GA. S.S.			

COMMENTS:  
 1) CLOSURE HEIGHT = TBD (TWO SIDES)  
 CEILING HEIGHT = ADVISE  
 18"x18" ACCESS DOOR LEFT SIDE AT CAPTURE-JET W/ FRONT CJ INTAKE  
 CONTINUOUS CAPTURE INTERNAL RIGHT END OUTDUT  
 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION HOOD TO GET ADJUSTABLE TRIM ANGLES  
 \*EQUIPMENT COVERED (4) PRESSURE FRYER  
 HOOD WEIGHT= 606 LBS

EXHAUST AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-1L	CFM TAB SP
PROJECT: CHICK-FIL-A #1086		1085	.12' .44'

CAPTURE AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-1R	CFM TAB SP
LOCATION: ABINGDON, MD		73	.30'

DATE: 10.29.13 DWG: UI3-598-1

**MODEL: KVL-2** \* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE HOOD/UNIT HAVING JURISDICTION AT TIME OF QUOTE

STANDARD FEATURES			
S.S. FILTERS (KSA)	4		
1/2 S.S. FILTERS (KSA)	1		
CAPTURE-JET FIRE DAMPER	*		
STAND-OFF	*		

OPTIONS			
REMOTE SWITCH PANEL	*		
FIRE PROTECTION	*		
ETL LISTED W/D EXHAUST DAMPER	*		
CEILING CLOSURE	2		
STD. BACKSPASH	*		
INSULATED BACKSPASH	*		

MATERIAL			
EXPOSED SURFACES	18 GA. S.S.		
ALL 18 GA. S.S.			

COMMENTS:  
 1) CLOSURE HEIGHT = TBD (TWO SIDES)  
 CEILING HEIGHT = ADVISE  
 FRONT CLOSURE PANEL WITH 30"x24" ACCESS DOOR RIGHT SIDE ACCESS TO ANSUL TANKS  
 18"x18" ACCESS DOOR LEFT SIDE AT CAPTURE-JET W/ FRONT CJ INTAKE  
 CONTINUOUS CAPTURE INTERNAL LEFT END OUTDUT  
 HOOD TO GET SPLICE STRIP AND U-CHANNEL  
 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION HOOD TO GET ADJUSTABLE TRIM ANGLES  
 \*EQUIPMENT COVERED (4) PRESSURE FRYER (3) INDUCTION COOKTOP (3) CHAR GRILL  
 ANSUL WEIGHT= 63 LBS  
 HOOD WEIGHT= 606 LBS

EXHAUST AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-1R	CFM TAB SP
PROJECT: CHICK-FIL-A #1086		1085	.12' .44'

CAPTURE AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-1R	CFM TAB SP
LOCATION: ABINGDON, MD		73	.30'

DATE: 10.29.13 DWG: UI3-598-1

**MODEL: KVL-C** \* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE HOOD/UNIT 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/D EXHAUST DAMPER	*		
CEILING CLOSURE	2		
STD. BACKSPASH	*		
INSULATED BACKSPASH	*		

MATERIAL			
EXPOSED SURFACES	18 GA. S.S.		
ALL 18 GA. S.S.			

COMMENTS:  
 1) CLOSURE HEIGHT = TBD (TWO SIDES)  
 CEILING HEIGHT = ADVISE  
 FRONT CLOSURE PANEL WITH 30"x24" ACCESS DOOR RIGHT SIDE ACCESS TO ANSUL TANKS  
 18"x18" ACCESS DOOR LEFT SIDE AT CAPTURE-JET W/ FRONT CJ INTAKE  
 CONTINUOUS CAPTURE INTERNAL LEFT END OUTDUT  
 HOOD TO GET SPLICE STRIP AND U-CHANNEL  
 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION HOOD TO GET ADJUSTABLE TRIM ANGLES  
 \*EQUIPMENT COVERED (2) FRYERS  
 HOOD WEIGHT= 850 LBS

EXHAUST AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-2	CFM TAB SP
PROJECT: CHICK-FIL-A #1086		701	.26' .48'

CAPTURE AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-2	CFM TAB SP
LOCATION: ABINGDON, MD		30	.29'

DATE: 10.29.13 DWG: UI3-598-1

**MODEL: KVL-D** \* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE HOOD/UNIT HAVING JURISDICTION AT TIME OF QUOTE

STANDARD FEATURES			
S.S. HALF FILTERS (KSA)	2		
CAPTURE-JET FIRE DAMPER	*		
STAND-OFF	*		

OPTIONS			
REMOTE SWITCH PANEL	*		
FIRE PROTECTION	*		
ETL LISTED W/D EXHAUST DAMPER	*		
CEILING CLOSURE	3		
STD. BACKSPASH	*		
INSULATED BACKSPASH	*		

MATERIAL			
EXPOSED SURFACES	18 GA. S.S.		
ALL 18 GA. S.S.			

COMMENTS:  
 1) CLOSURE HEIGHT = TBD (TWO SIDES)  
 CEILING HEIGHT = ADVISE  
 18"x24" ACCESS DOOR TO CAPTURE-JET FAN W/ FRONT CJ INTAKE  
 SIDE-JET PLENUM SUPPLIED BY HALTON INSTALLED BY OTHERS (DETAIL "A")  
 NOTCHED LEFT END PANEL  
 DOUBLE RECEPTACLE PIN & SLEEVE INTERNAL LEFT END OUTDUT  
 3" X 3" TRIM STRIP FOR STANDOFF ON RIGHT END  
 3" SIDE STAND-OFF TO HAVE 1" THICK INSULATION HOOD TO GET ADJUSTABLE TRIM ANGLES  
 \*EQUIPMENT COVERED (1) FRYER  
 HOOD WEIGHT= 140 LBS

EXHAUST AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-3	CFM TAB SP
PROJECT: CHICK-FIL-A #1086		390	.26' .31'

CAPTURE AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-3	CFM TAB SP
LOCATION: ABINGDON, MD		18	.30'

DATE: 10.29.13 DWG: UI3-598-1

**MODEL: KVM** \* FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OF THE HOOD/UNIT HAVING JURISDICTION AT TIME OF QUOTE

STANDARD FEATURES			
S.S. FILTERS (KSA)	3		
1/2 S.S. FILTERS (KSA)	1		
CAPTURE-JET FIRE DAMPER	*		
STAND-OFF	*		

OPTIONS			
REMOTE SWITCH PANEL	*		
FIRE PROTECTION	*		
ETL LISTED W/D EXHAUST DAMPER	*		
CEILING CLOSURE	3		
STD. BACKSPASH	*		
INSULATED BACKSPASH	*		

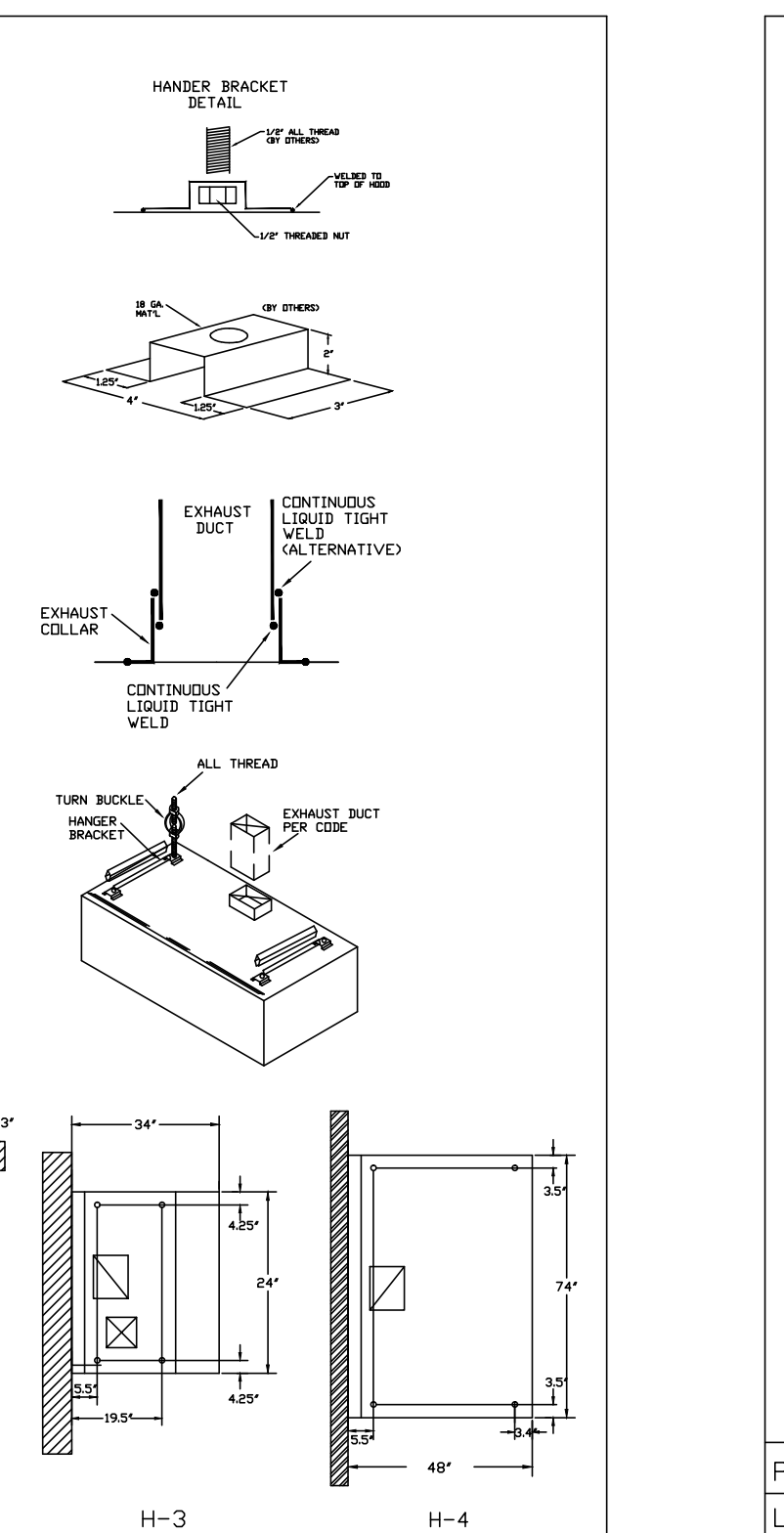
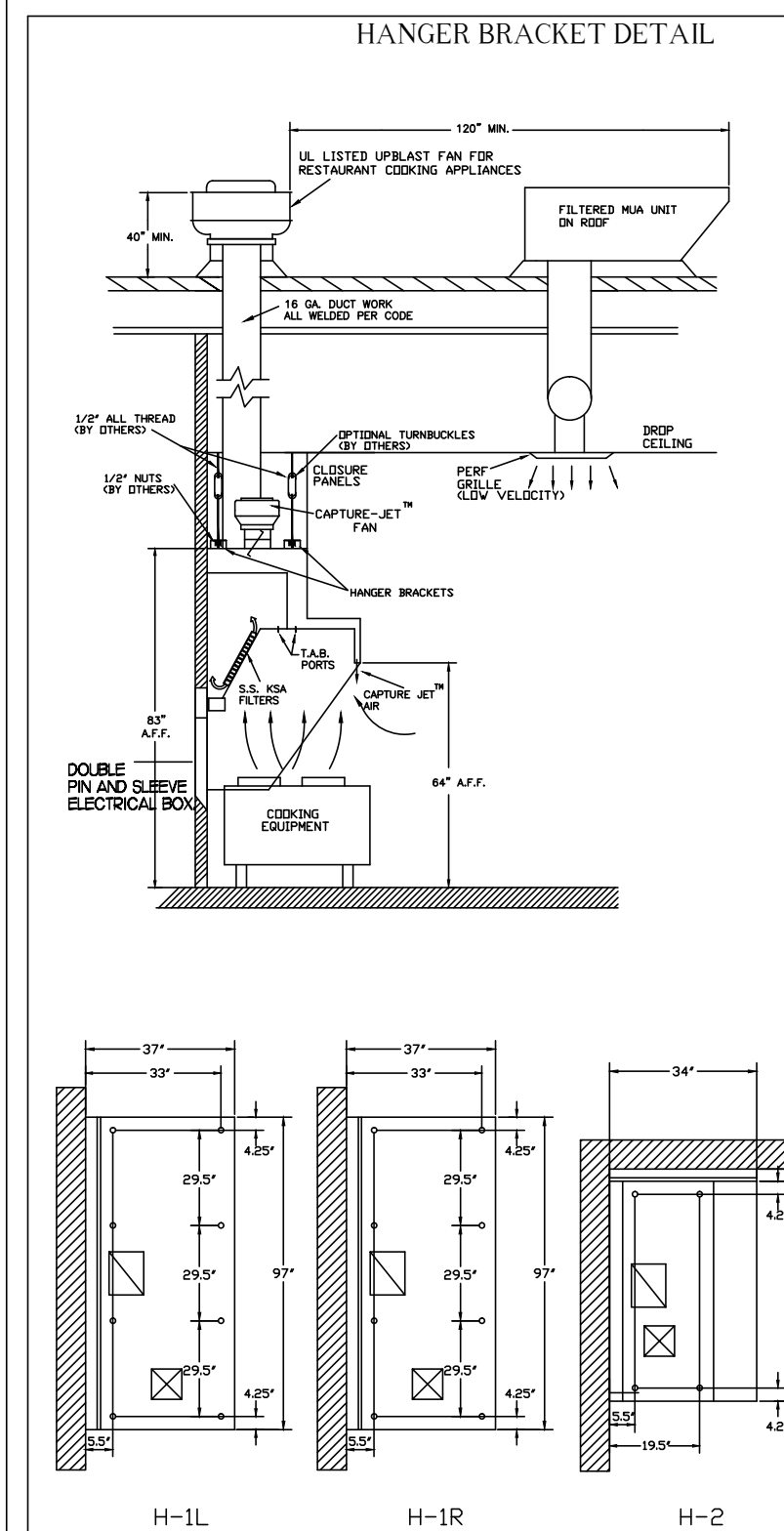
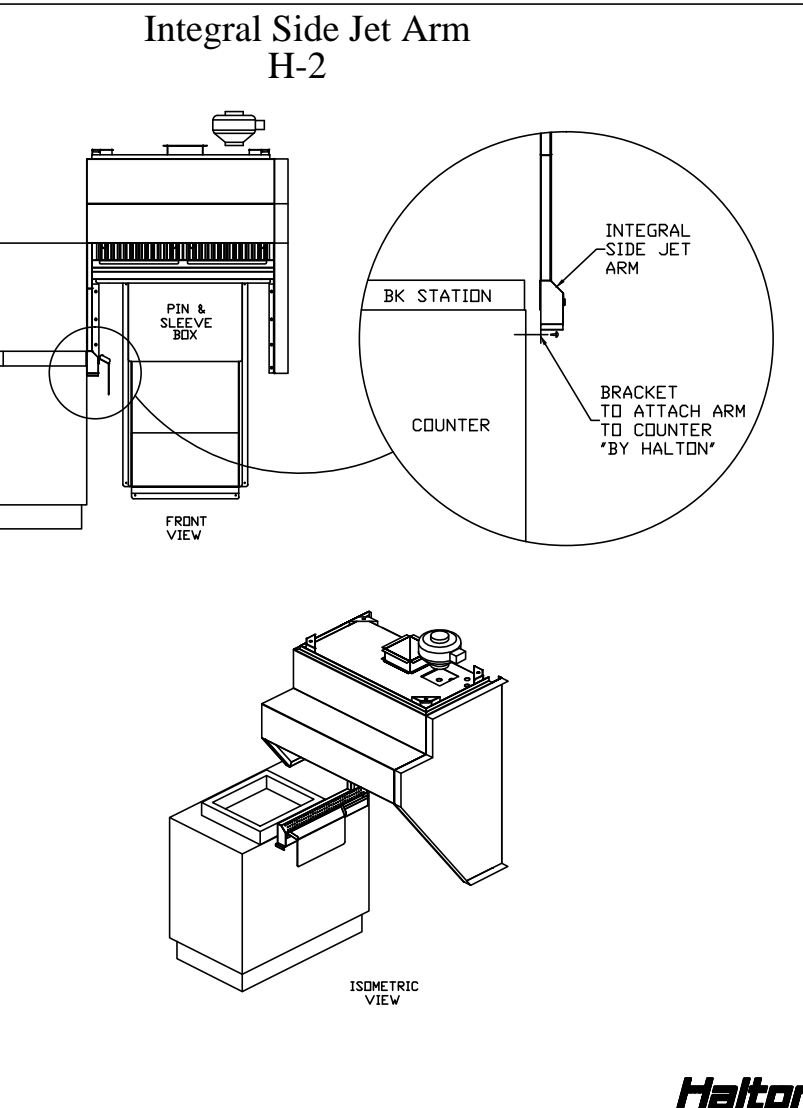
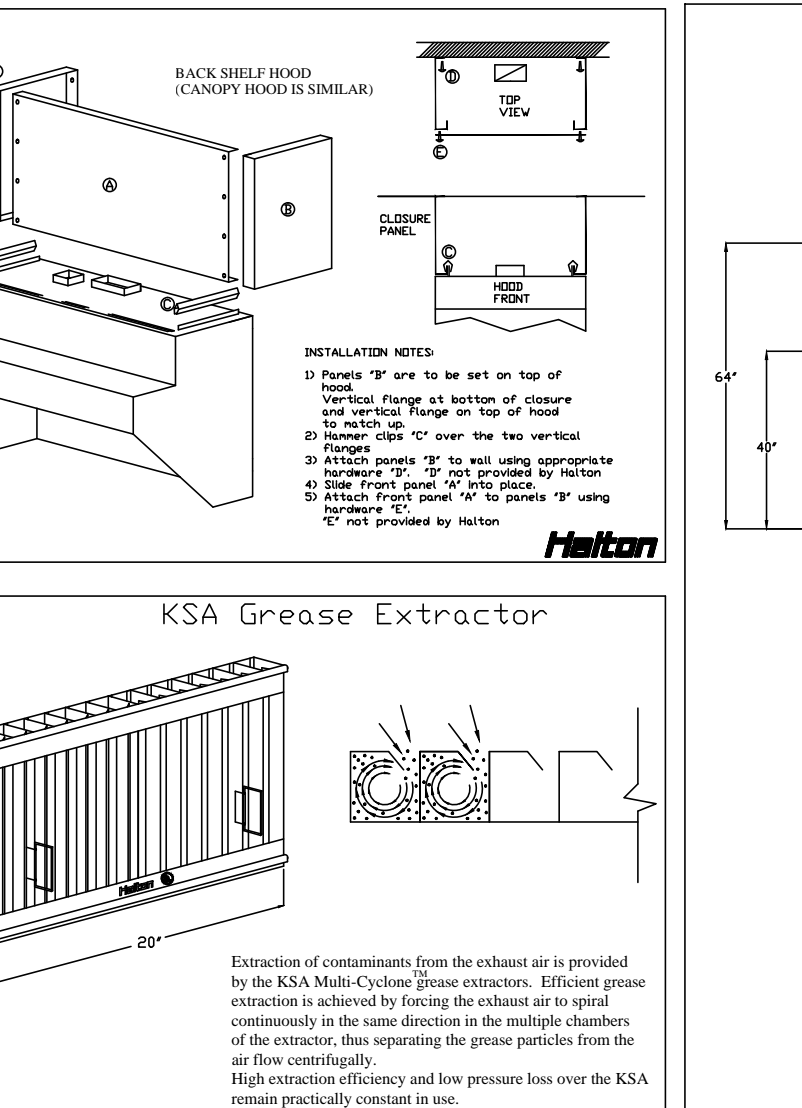
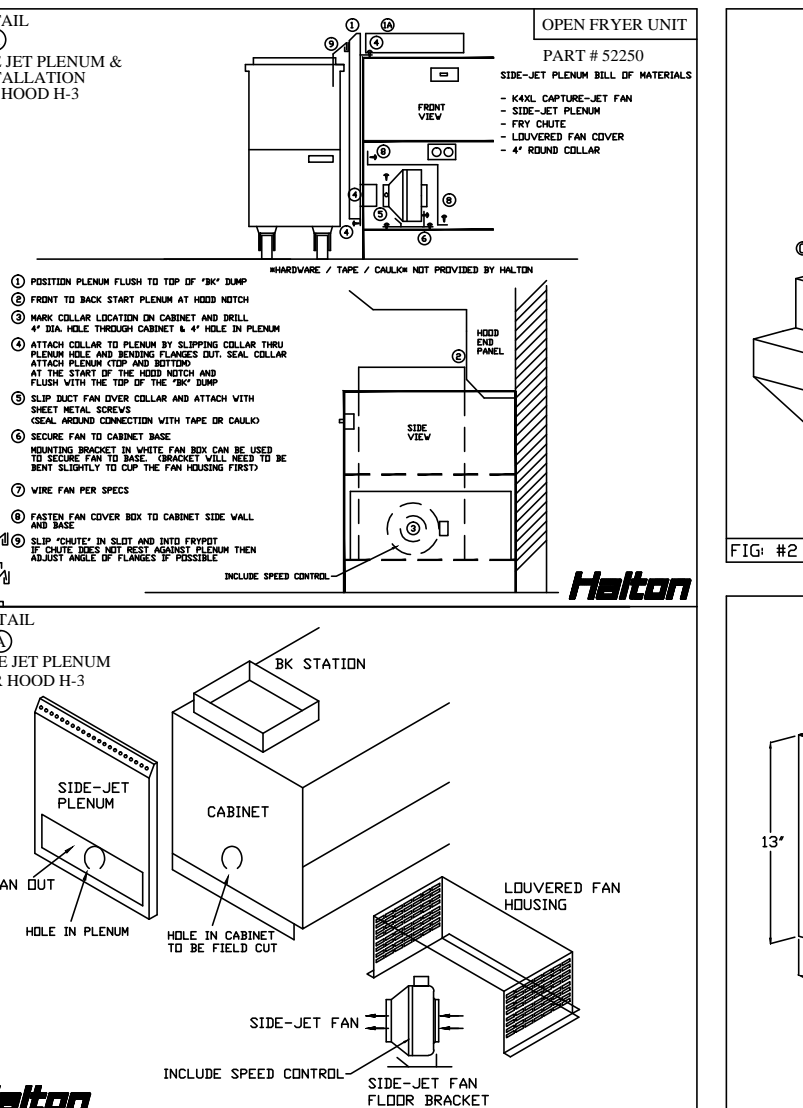
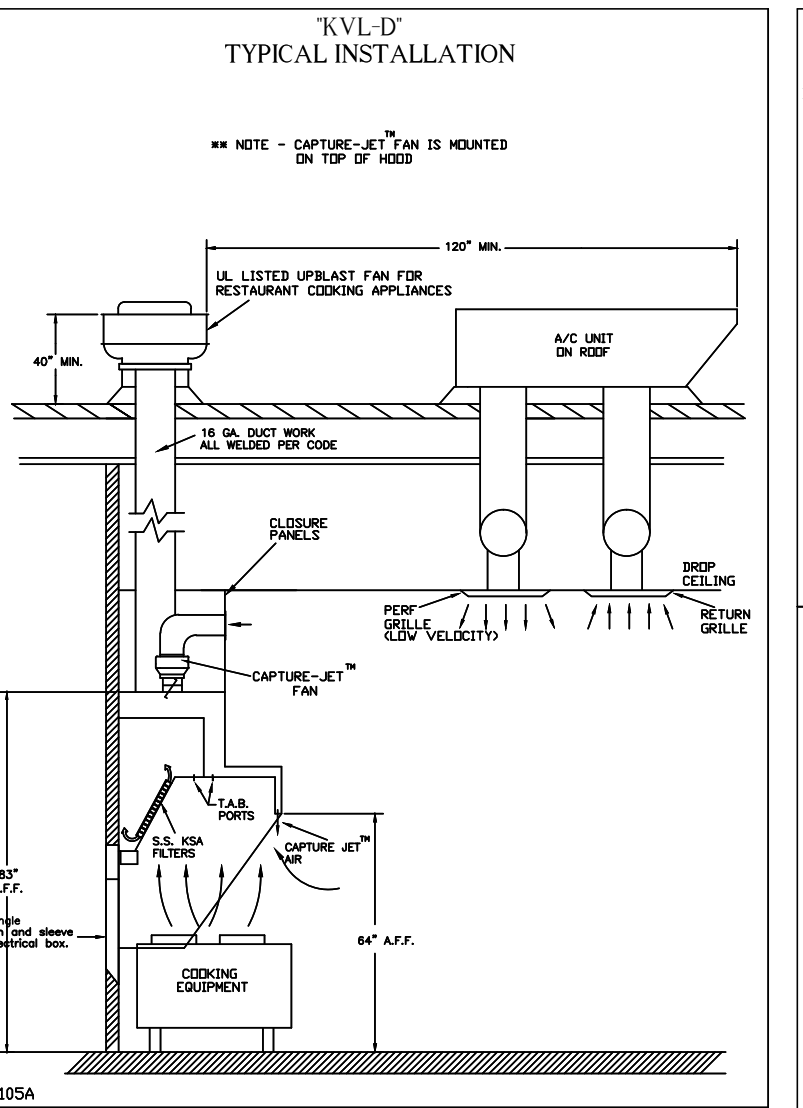
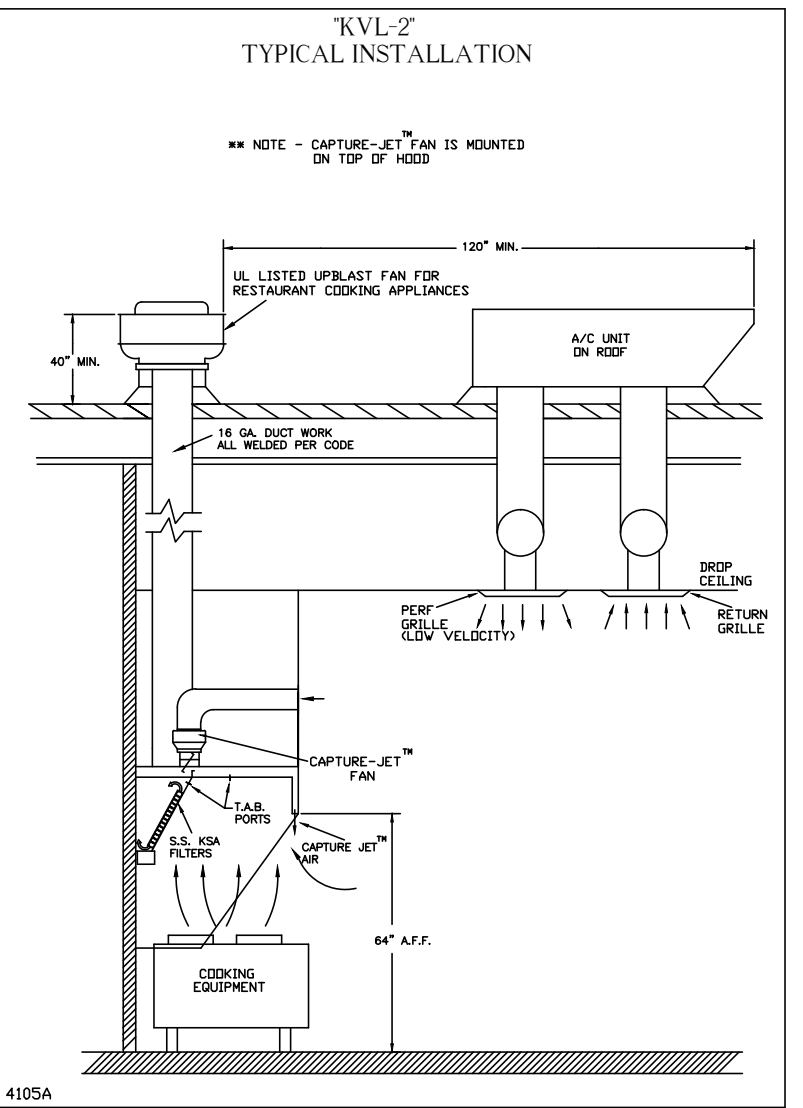
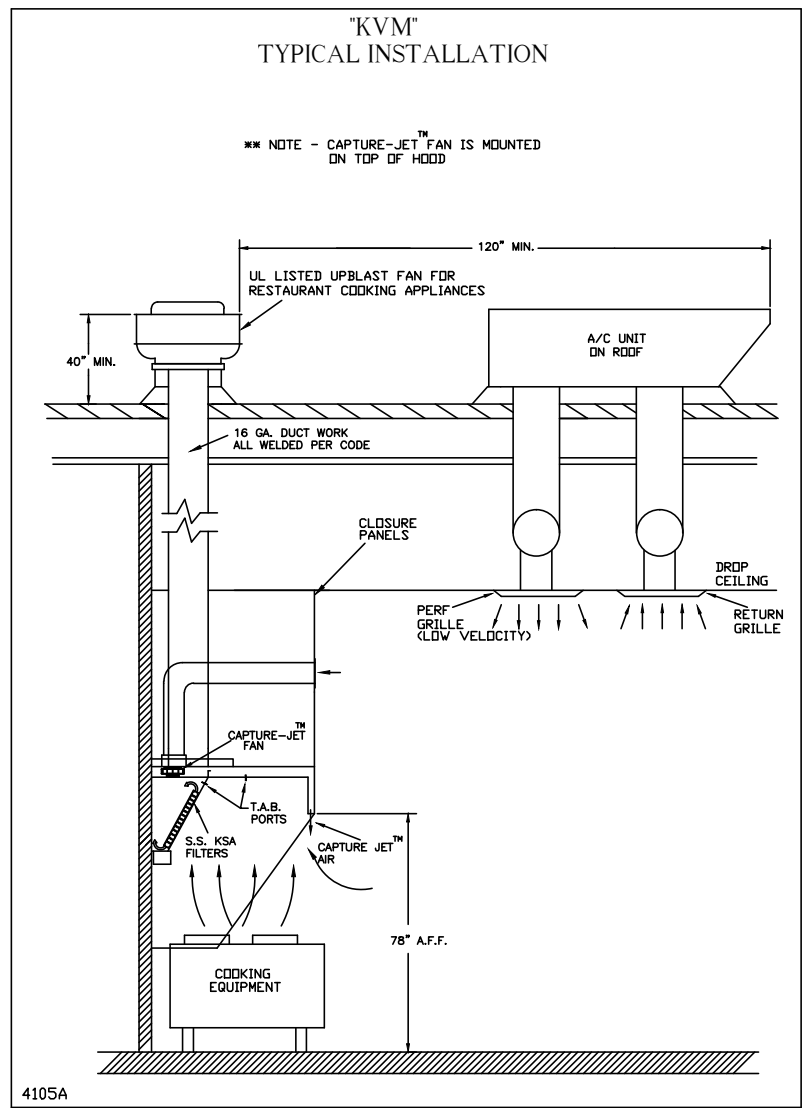
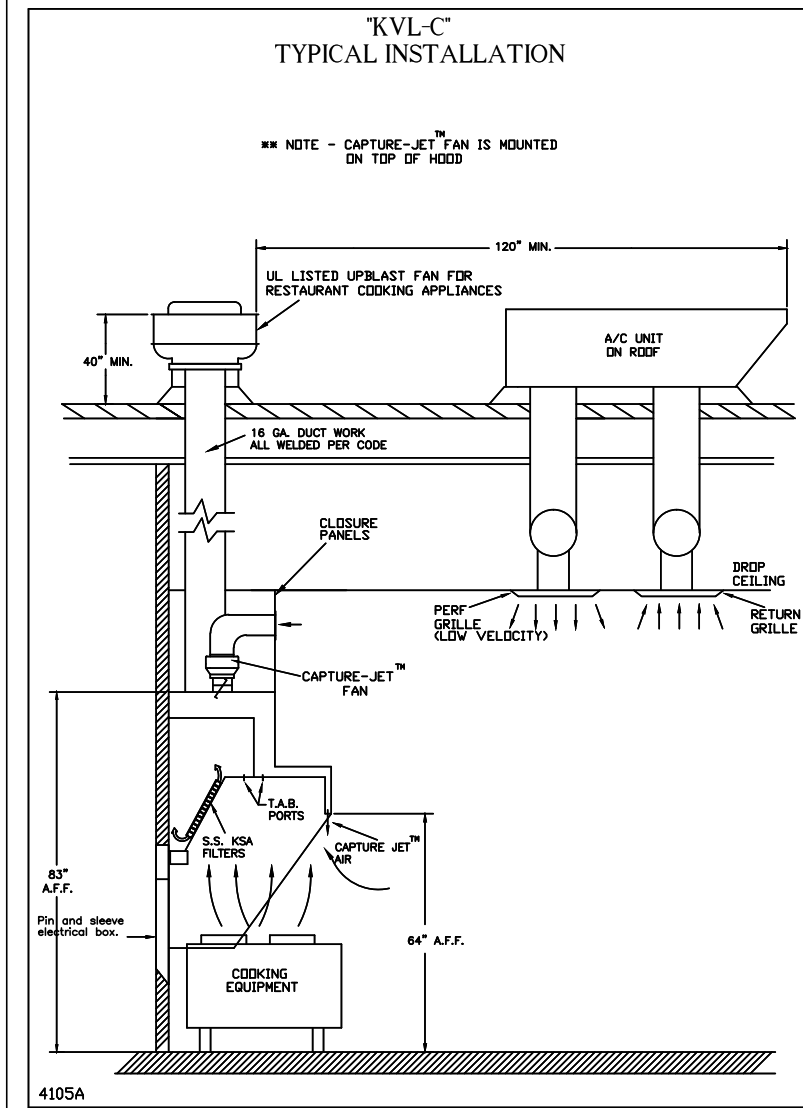
MATERIAL			
EXPOSED SURFACES	18 GA. S.S.		
ALL 18 GA. S.S.			

COMMENTS:  
 1) CLOSURE HEIGHT = TBD (TWO SIDES)  
 CEILING HEIGHT = ADVISE  
 30"x24" ACCESS DOOR LEFT SIDE ACCESS TO ANSUL TANKS & 18"x18" ACCESS DOOR RIGHT SIDE ACCESS TO FAN  
 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION HOOD TO GET ADJUSTABLE TRIM ANGLES  
 SIDE SHIELD ON RIGHT SIDE  
 \*EQUIPMENT COVERED (2) OVEN  
 ANSUL WEIGHT= 63 LBS  
 HOOD WEIGHT= 493 LBS

EXHAUST AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-4	CFM TAB SP
PROJECT: CHICK-FIL-A #1086		661	.07' .18'

CAPTURE AIR INFORMATION			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.29.13	UI3-598-1	H-4	CFM TAB SP
LOCATION: ABINGDON, MD		56	.45'

DATE: 10.29.13 DWG: UI3-598-1

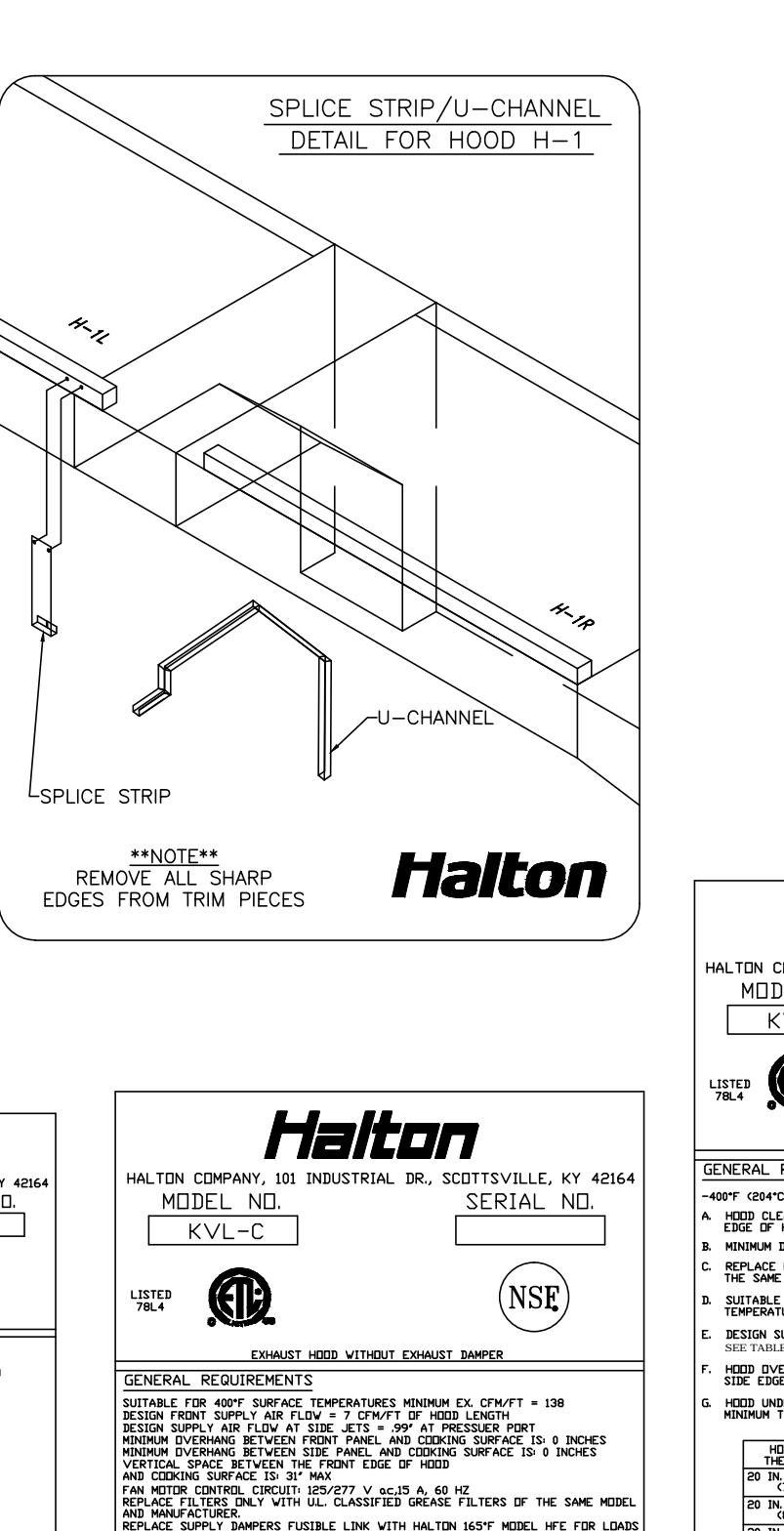
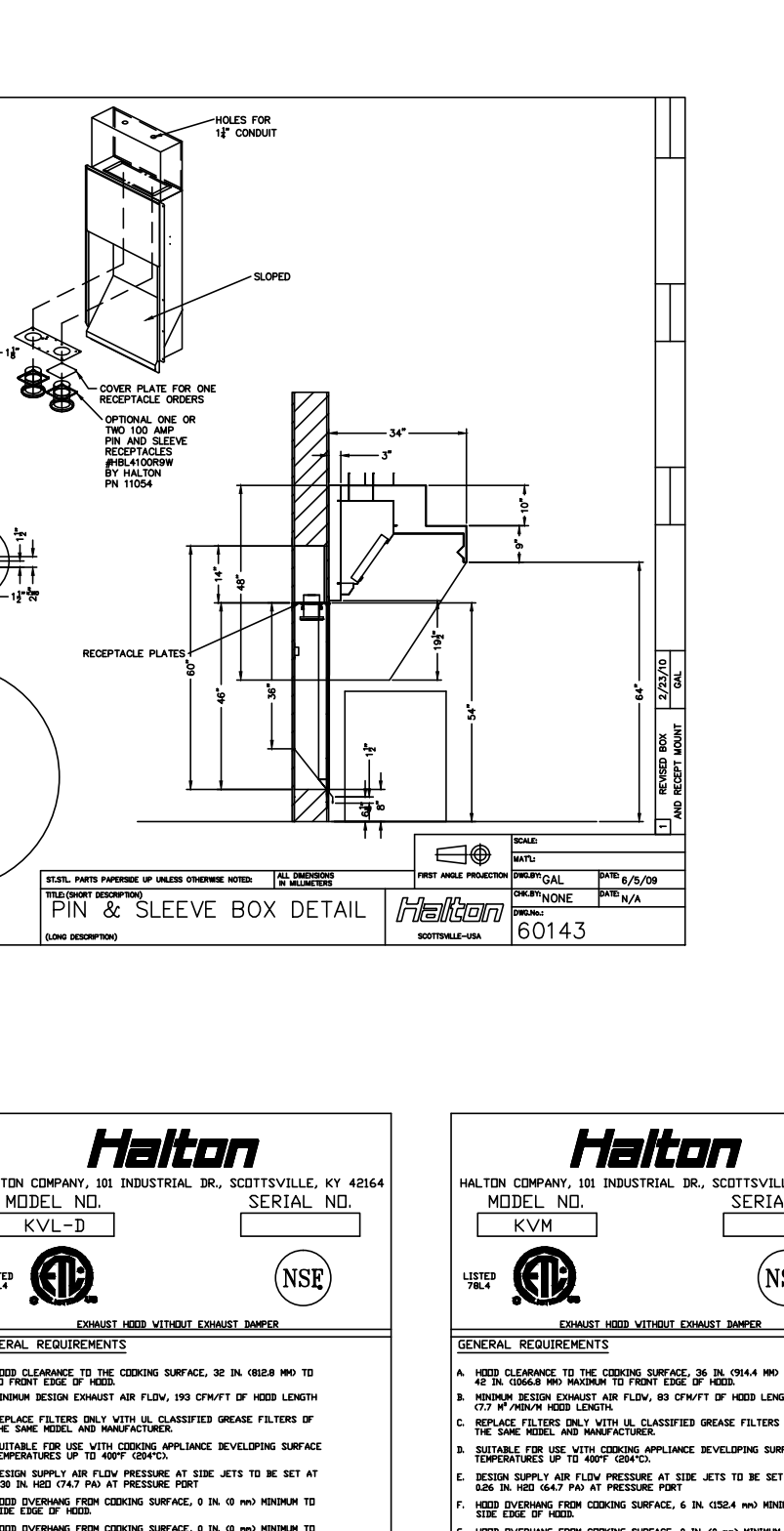
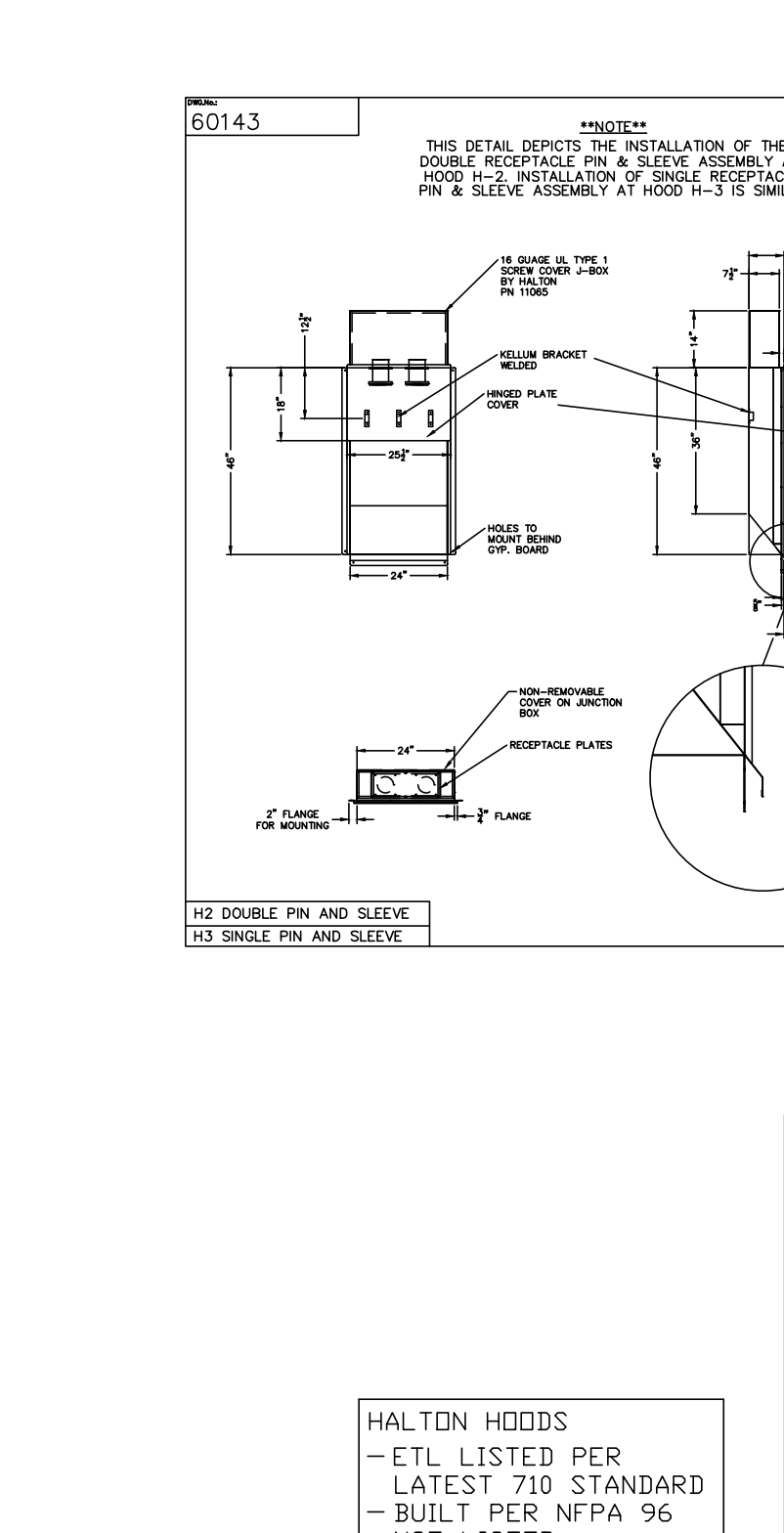


**Capture-Jet Fan Installation and Dimensional Data**

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-1L	K6XL	1	73
H-1R	K4XL	1	59
H-2	K4XL	1	30
H-3	K4XL	1	18

5 AMP SPEED CONTROLLER LOCATION:  TOP OF HOOD  MOTOR CTRL. PANEL



**Halton**  
 HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSDALE, KY 42664  
 MODEL NO. SERIAL NO.  
 KVM

**Halton**  
 HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSDALE, KY 42664  
 MODEL NO. SERIAL NO.  
 KVL-C

**Halton**  
 HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSDALE, KY 42664  
 MODEL NO. SERIAL NO.  
 KVL-C

**Halton**  
 HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSDALE, KY 42664  
 MODEL NO. SERIAL NO.  
 KVL-2

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW: WEBSITE: WWW.HALTONCOMPANY.COM

PROJECT: CHICK-FIL-A #1086

LOCATION: ABINGDON, MD

DRAWN BY: M.H. DATE: 10.29.13

SCALE: NTS

Halton Dwg: UI3-598-1

REVISION DESCRIPTION

REV.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

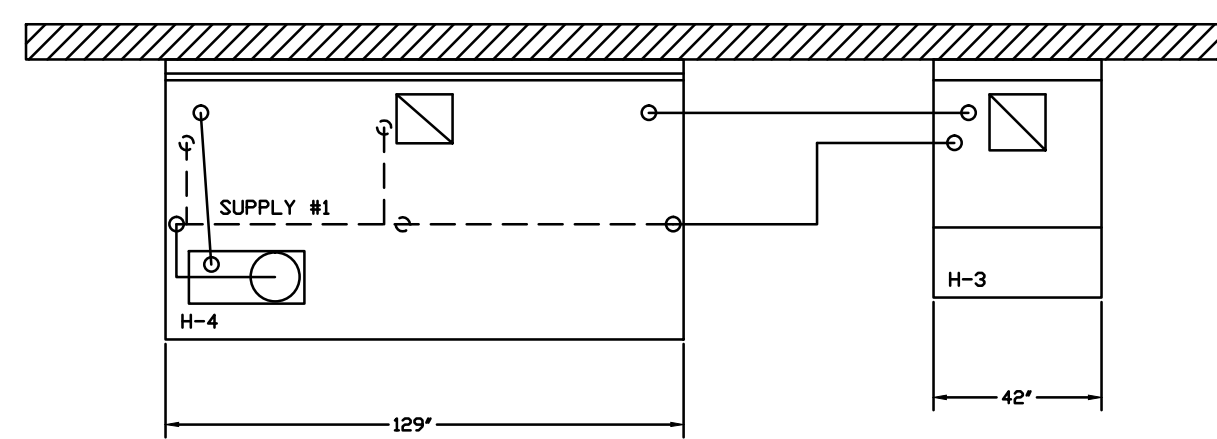
THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:

- PERSONNEL INFORMATION, MOUNTING POSITIONS AND DIMENSIONS.
- THE LOCATION AND TYPE OF COOKING EQUIPMENT.

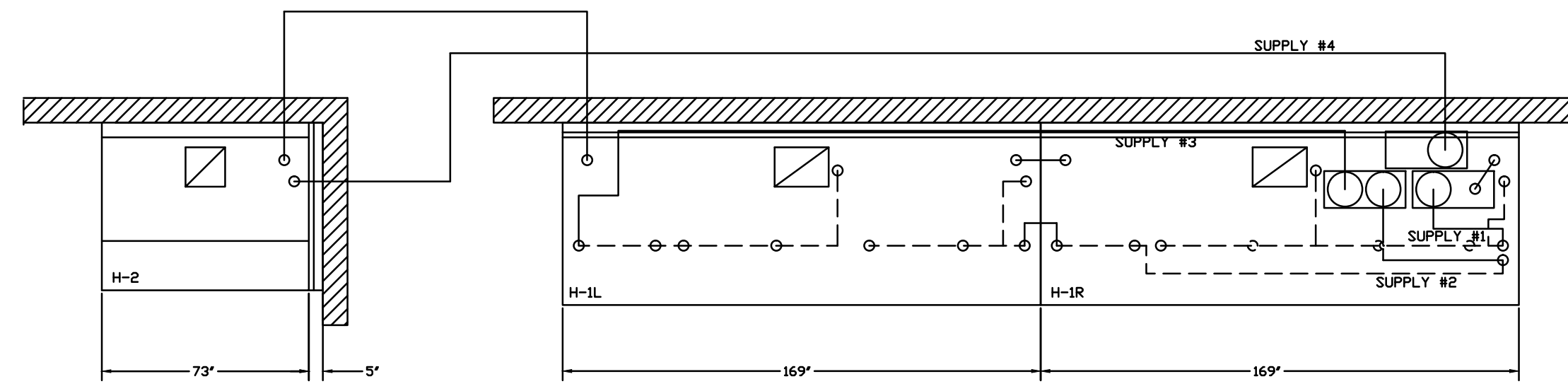
NOTE TO APPROVER: ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

REVISION APPROVED FOR FABRICATION  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED

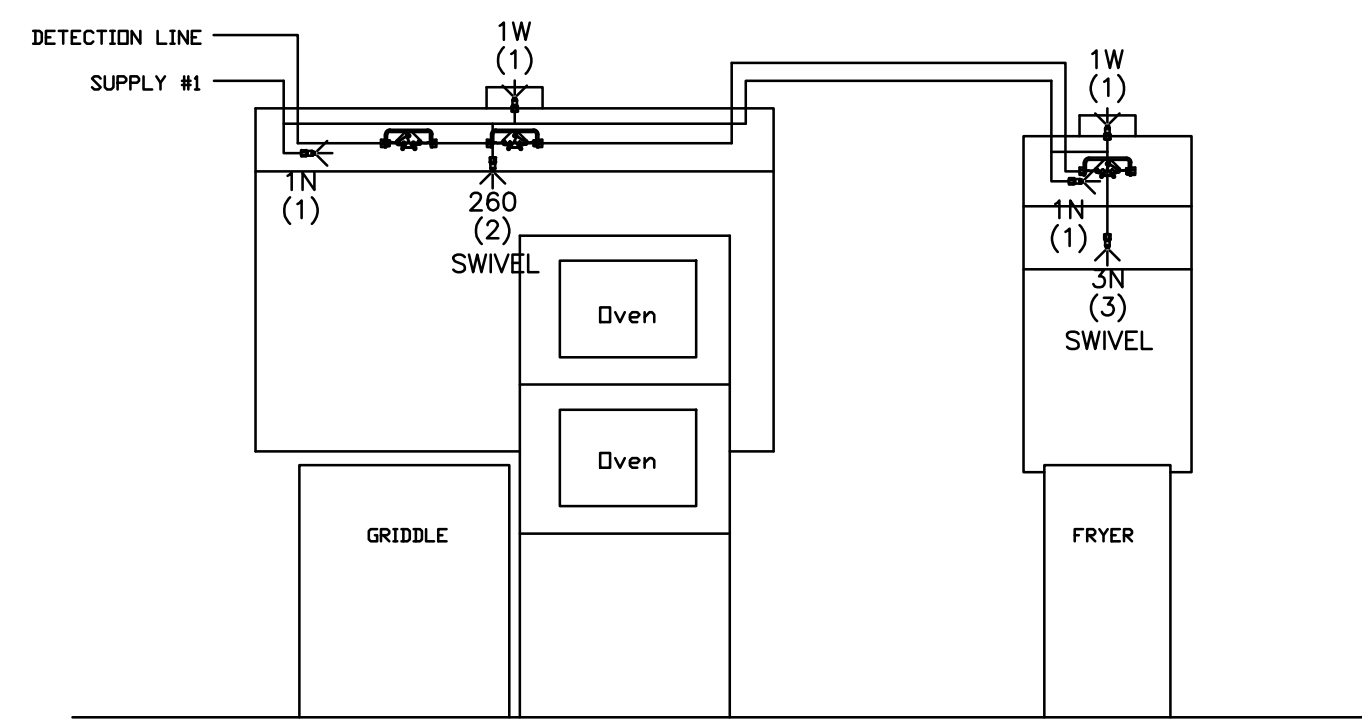
Sheet **MHI**



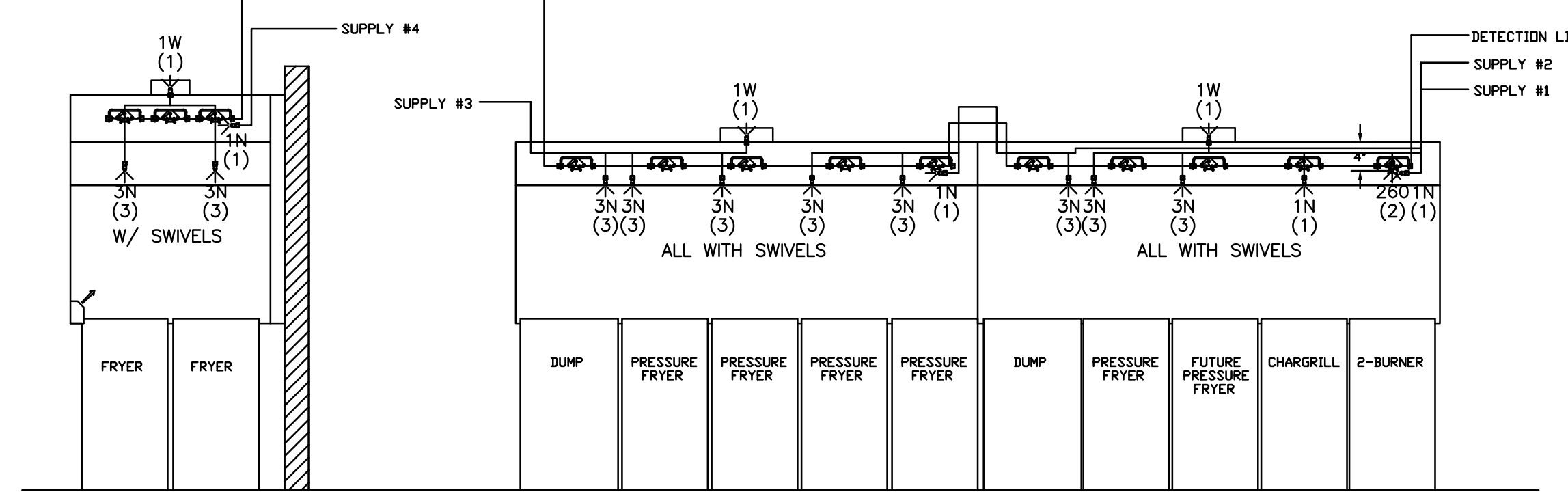
- ANSUL R-102 FIRE SYSTEM**
- A) 3 GALLON SYSTEM (1 TANK) MOUNTED ON HOOD H-4 (FOR HOODS H-3 & H-4)
  - B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS
  - (1) REGULATED RELEASE
  - (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)
  - (3) 3 GALLON TANK



- ANSUL R-102 FIRE SYSTEM**
- (2) REGULATED RELEASE
  - (3) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)
  - (4) DOUBLE TANK ENCLOSURE
  - (1) REGULATED ACTUATOR
  - (4) 3 GALLON TANKS
  - A) 12 GALLON SYSTEM (4 TANKS) MOUNTED ON HOOD H-1R (FOR HOODS H-1L, H-1R, & H-2)
  - B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS



ANSUL R-102 FIRE SYSTEM LAYOUT



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  
FOUR TANK SYSTEM MOUNTED ON TOP OF (H-1R)  
MAXIMUM FLOW POINTS = 44

ANSUL R-102 FIRE SYSTEM NOTES  
TWO TANK SYSTEM MOUNTED ON WALL  
MAXIMUM FLOW POINTS = 22

ITEM #	QTY	DESCRIPTION	FLOW PTS (TOTAL)
1W	5	DUCT NOZZLES	5
1N	5	PLENUM NOZZLES	5
1N	1	APPLIANCE NOZZLES	1
3N	11	APPLIANCE NOZZLES	33
260	2	APPLIANCE NOZZLES	4
<b>TOTAL FLOW POINTS - 48</b>			

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

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

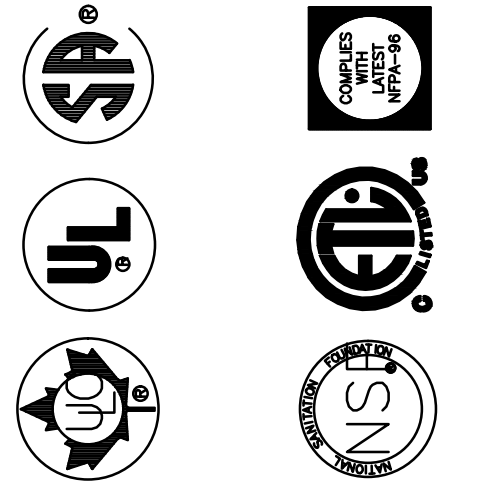
- FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES
- ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY ANSUL INSTALLER
- REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFYING THE FOLLOWING:

- ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES TO TYPE OF COOKING EQUIPMENT.
- TO APPROVE ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

REVISION AND RESUBMIT  APPROVED FOR FABRICATION  WITH NO CHANGES  WITH CHANGES AS NOTED

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_



MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW: WEBSITE: WWW.HALTONCOMPANY.COM

HALTON CO. (USA)  
101 INDUSTRIAL DRIVE  
SCOTTSDALE, KY 42164  
1-270-237-5600

HALTON CO. (CANADA)  
1021 BREVIK PLACE  
MISSISSAUGA, ON L4W 3R7  
1-905-624-0301

REV.	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			

PROJECT: CHICK-FIL-A #1086

LOCATION: ABINGDON, MD  
DRAWN BY: M.H. DATE: 10.29.13  
SCALE: NTS  
Halton Dwg: U13-598-2

**Halton**  
CARE FOR INDOOR AIR

Sheet

MHI.2