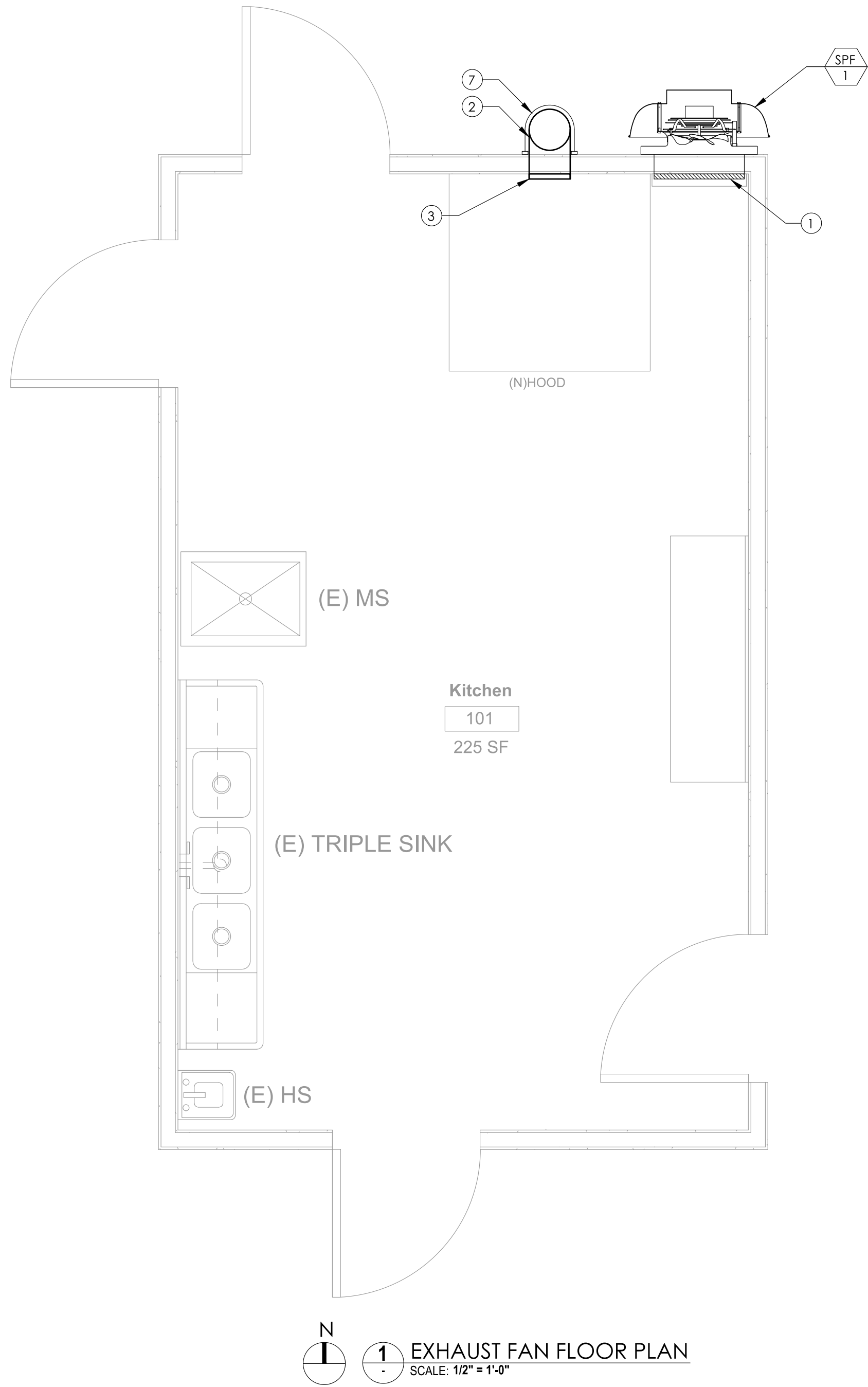
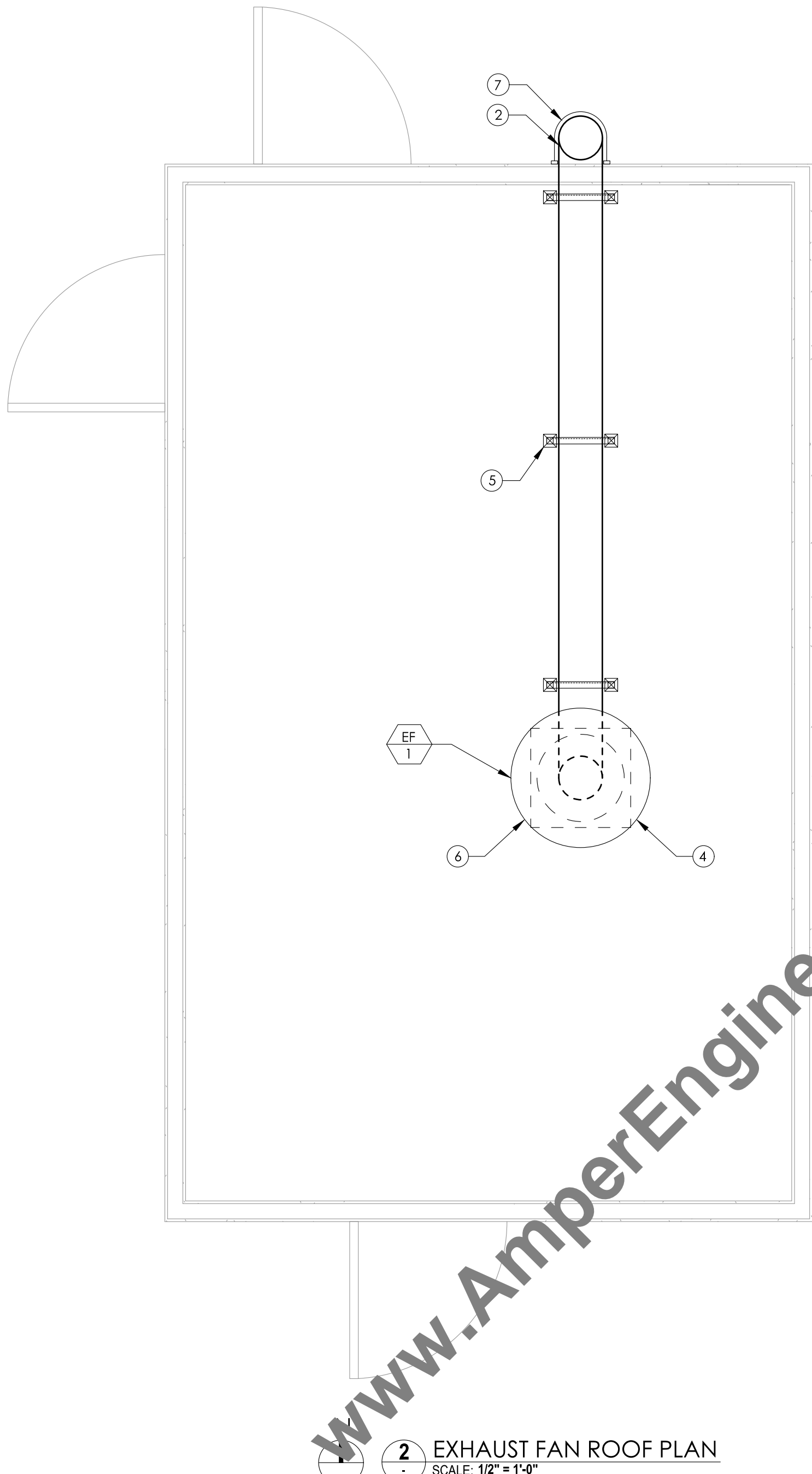


DRAWING INDEX	
M-1	KITCHEN LAYOUT
M-2	EQUIPMENT SCHEDULE AND INSTALLATION DETAILS
M-3	EQUIPMENT MANUFACTURER DATA SHEETS



1 EXHAUST FAN FLOOR PLAN
SCALE: 1/2" = 1'-0"



2 EXHAUST FAN ROOF PLAN
SCALE: 1/2" = 1'-0"

KEY NOTES	
1	22"x22" RETURN AIR GRILL FOR SUPPLY AIR. (TITUS MODEL#301FL)
2	10"Ø HOOD EXHAUST DUCT UP TO ROOF.
3	10"Ø EXHAUST HOOD COLLAR.
4	PROVIDE 24" ROOF CURB.
5	ROOF MOUNTED DUCT SUPPORT. (DURA BLOCK#DB SERIES)
6	MECHANICAL EQUIPMENT SHALL NOT BE ERECTED LESS THAN 10' FROM THE ROOF EDGE AS PER OSHA.
7	WALL STRAP DUCT SUPPORT. (DURAVENT# 10DCA-W5 SERIES)

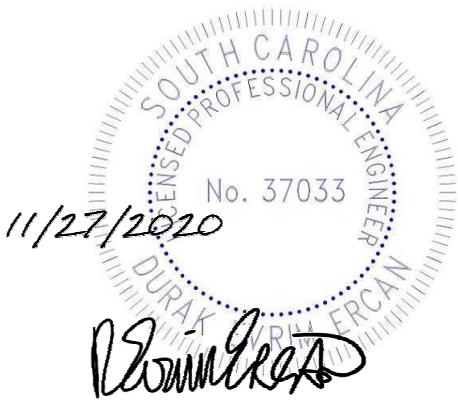
NOTES FOR NFPA 96 (STANDARD FOR THE INSTALLATION OF EQUIPMENT FOR THE REMOVAL OF SMOKE AND GREASE-LADEN VAPORS FROM COMMERCIAL COOKING EQUIPMENT)

- PROVIDE TWO 20X20 OPENINGS EQUALLY SPACED, FOR PERSONNEL ENTRY AT THE HORIZONTAL DUCT & ONE AT THE TOP OF THE VERTICAL RISER TO ACCOMMODATE DESCENT.
- ACCESS PANELS SHALL BE OF THE SAME MATERIAL AND THICKNESS AS THE DUCT. ACCESS PANELS SHALL HAVE A GASKET OR SEALANT THAT IS RATED FOR 1500 DEG F AND SHALL BE GREASE TIGHT. FASTENERS USED TO SECURE THE ACCESS PANELS SHALL BE OF CARBON STEEL OR STAINLESS STEEL AND SHALL NOT PENETRATE DUCT WALLS. DUCTS SHALL BE CONSTRUCTED OF AND SUPPORTED BY 14 GAUGE CARBON STEEL.
- ALL SEAMS, JOINTS, PENETRATIONS, AND DUCT TO HOOD COLLAR CONNECTIONS SHALL HAVE A LIQUID TIGHT CONTINUOUS EXTERNAL WELD.
- ROOF TERMINATION SHALL HAVE:
- THE EXHAUST FLOW DIRECTED UP AND AWAY FROM THE SURFACE OF THE ROOF AND A MINIMUM OF 40 IN. ABOVE THE ROOF SURFACE.
- THE ABILITY TO DRAIN GREASE OUT OF ANY TRAPS OR LOW POINTS FORMED IN THE FAN OR DUCT NEAR THE TERMINATION OF THE SYSTEM TO A RAINPROOF COLLECTION RAINPROOF COLLECTION CONTAINER.
- WITH A HINGED UP-DISCHARGE FAN SUPPLIED WITH WEATHERPROOF ELECTRICAL CABLE & SERVICE HOLD-OPEN RETAINER TO PERMIT PROPER INSPECTION AND CLEANING. AIR VELOCITY SHALL NOT BE LESS THAN 1,500 FT PER MIN. THE OPERATION OF THE HOOD EXTINGUISHING SYSTEM SHALL AUTOMATICALLY SHUT OFF ALL SOURCES OF FUEL WHERE CONCEALED. THE DUCT SHALL HAVE A HIGH TEMPERATURE, INORGANIC, FOIL ENCAPSULATED CERAMIC FIBER BLANKET DUCT WRAP, ALLOWING A ZERO INCH CLEARANCE TO COMBUSTIBLE CONSTRUCTION AND A 2 HOUR FIRE RESISTIVE RATED ENCLOSURE. INSULATION SHALL BE REMOVABLE AT CLEANOUTS. LOCATIONS TO BE TAGGED WITH A 2" BRASS TAG.

MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
	DUCT WIDTH x DEPTH CLEAR INSIDE DIMENSION
	RETURN OR EXHAUST AIR DUCT SECTION UP - DOWN
EXH	EXHAUST AIR
GR.	GRILLE
EF	EXHAUST FAN
W.C.	WATER COLUMN
A.F.F.	ABOVE FINISHED FLOOR
B.O.D.	BOTTOM OF DUCT
CFM	CUBIC FEET PER MINUTE
EL.	ELEVATION
PPM	FEET PER MINUTE
HP	HORSEPOWER
KW	KILOWATT
N.R.	NOT REQUIRED
N.T.S.	NOT TO SCALE
O.A.	OUTSIDE AIR
PSI	POUNDS PER SQUARE INCH
SQ. FT.	SQUARE FEET

REFERENCE CODES	
1.	2018 SOUTH CAROLINA BUILDING CODE, ADOPTS THE IBC 2018 WITH AMENDMENTS.
2.	2018 SOUTH CAROLINA FIRE PREVENTION CODE, ADOPTS THE IFC 2018 WITH AMENDMENTS.
3.	2018 SOUTH CAROLINA FLUE GAS CODE, ADOPTS THE IFGC 2018 WITH AMENDMENTS.
4.	2018 SOUTH CAROLINA MECHANICAL CODE, ADOPTS THE IMC 2018 WITH AMENDMENTS.
5.	2018 SOUTH CAROLINA PLUMBING CODE, ADOPTS THE IPC 2018 WITH AMENDMENTS.
6.	2018 SOUTH CAROLINA RESIDENTIAL CODE, ADOPTS THE IRC 2018 WITH AMENDMENTS.
7.	2009 SOUTH CAROLINA ENERGY CONSERVATION CODE, ADOPTS THE IECC 2009 WITH AMENDMENTS.

SEAL & SIGNATURE:



NO ALTERATION PERMITTED
EXCEPT AS PROVIDED UNDER
DIRECTION OF A LICENSED
PROFESSIONAL ENGINEER.

Digitally signed by
Durak Evrim Ercan
DN: c=US, st=New
Jersey, l=Montclair,
o=Durak Evrim Ercan,
cn=Durak Evrim Ercan,
email=info@AmperEngi
neering.com
Date: 2020.11.27
14:05:02 -05'00'

0	11/26/2020	INITIAL SUBMITTAL
REV.	DATE	DESCRIPTION

CLIENT:

BUILDERS LLC

PROJECT:

3W
ROCK CREEK
DEVELOPMENT
CENTER
ADDRESS:
10000 WOOD RD,
LANCASTER, SC 29720

ISSUE DATE:

11/26/2020

PROJECT NUMBER:

AE# 1243

SCALE:

1/2"=1'-0"

DESIGNED BY:

DEE

DRAWN BY:

DEE

CHECKED BY:

DEE

DRAWING TITLE:

KITCHEN LAYOUT

DRAWING NO:

M-1

REVISION:

0

SCOPE OF WORK:
INSTALLATION OF A KITCHEN HOOD, EXHAUST FAN
AND ASSOCIATED MECHANICAL WORK.

KITCHEN HOOD SCHEDULE									GREASE FILTERS	
TAG	MANUFACTURER	MODEL	LOCATION	SERVING	QUANTITY	CFM	HOOD SIZE (INCH.)	EQUIP. LOCATED UNDER HOOD	QTY.	SIZE (INCH.)
HOOD-1	SELECT AIR SYSTEMS, INC.	EC-T	KITCHEN	KITCHEN	1	900	48x48	BURNER RANGE	2	20x25

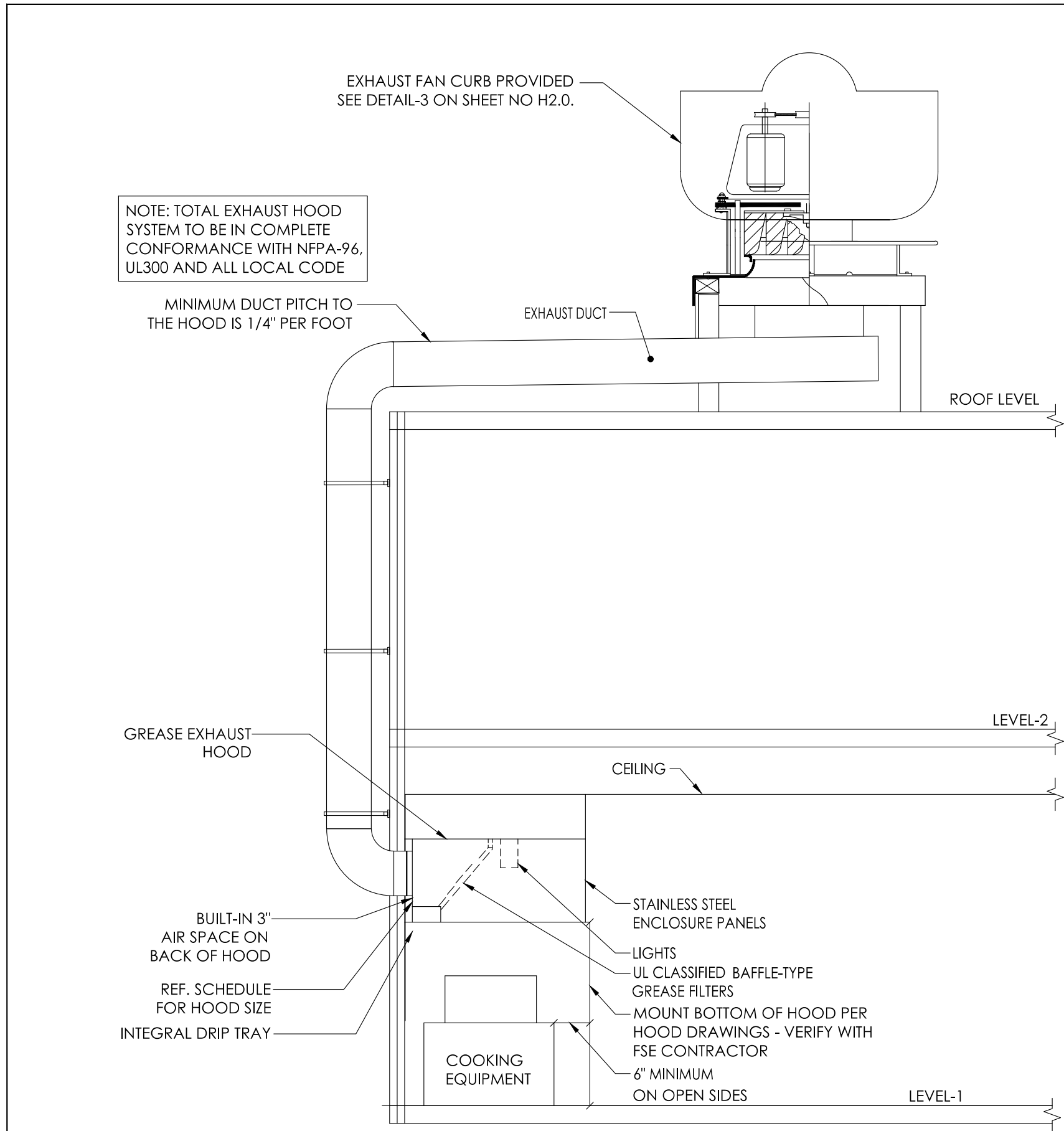
NOTES:
1. SW2 CONTROL PANEL "LIGHTS, FANS" SWITCHES.
2. HEAT SENSOR WITH BUTTON STYLE.
3. TAPERED HOOD FRONT.
4. TWO UL LISTED VP INCANDESCENT HOOD LIGHTS.

EXHAUST FAN SCHEDULE																	
SYMBOL	MANUFACTURER	MODEL	TYPE	LOCATION	SERVICE	QTY.	AIR FLOW CFM	S.P. (IN WG)	FAN SPEED RPM	MOTOR				DIMENTION (INCH.)		WEIGHT LB.	REMARK
										HP	V.	PH.	Hz	WIDTH	HEIGHT		
EF-1	JENCOFAN	STXBRHUL12-1/2	CENTRIFUGAL ROOF EXHAUSTER	ROOF	KITCHEN	1	900	1.3	1742	0.5	115	1	60	32	31	137	1.2

NOTES:
1. PROVIDE PRE WIRED DISCONNECT SWITCH.
2. RAINPROOF ELECTRICAL BOX WIRING CHASE.

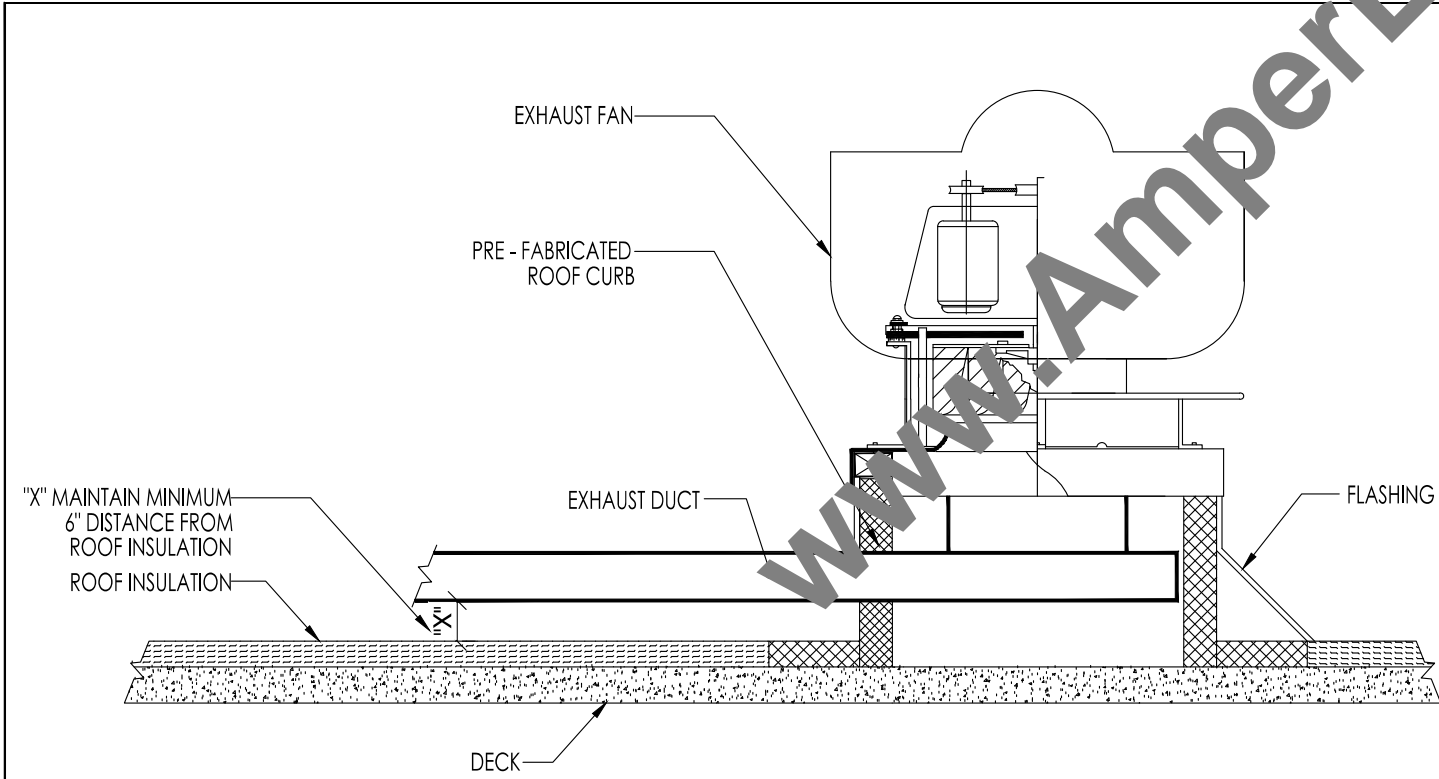
SUPPLY FAN SCHEDULE																			
SYMBOL	MANUFACTURER	MODEL	TYPE	LOCATION	SERVICE	QTY.	AIR FLOW CFM	S.P. (IN WG)	FAN SPEED RPM	MOTOR					WEIGHT LB.	FAN SIZE	DIMENTION (INCH.)		REMARK
										HP	RPM	V.	PH.	Hz			WIDTH	LENGTH	
SPF-1	COOK	REBS	DOWNBLAST PROPELLER	KITCHEN	KITCHEN	1	810	0.38	1006	1/6	1085	115	1	60	121	16	33	16	1.2

NOTES:
1. PROVIDE PRE WIRED DISCONNECT SWITCH.
2. DISCONNECT NEMA 1 PRE-WIRED FAN SPEED CONTROLLER.



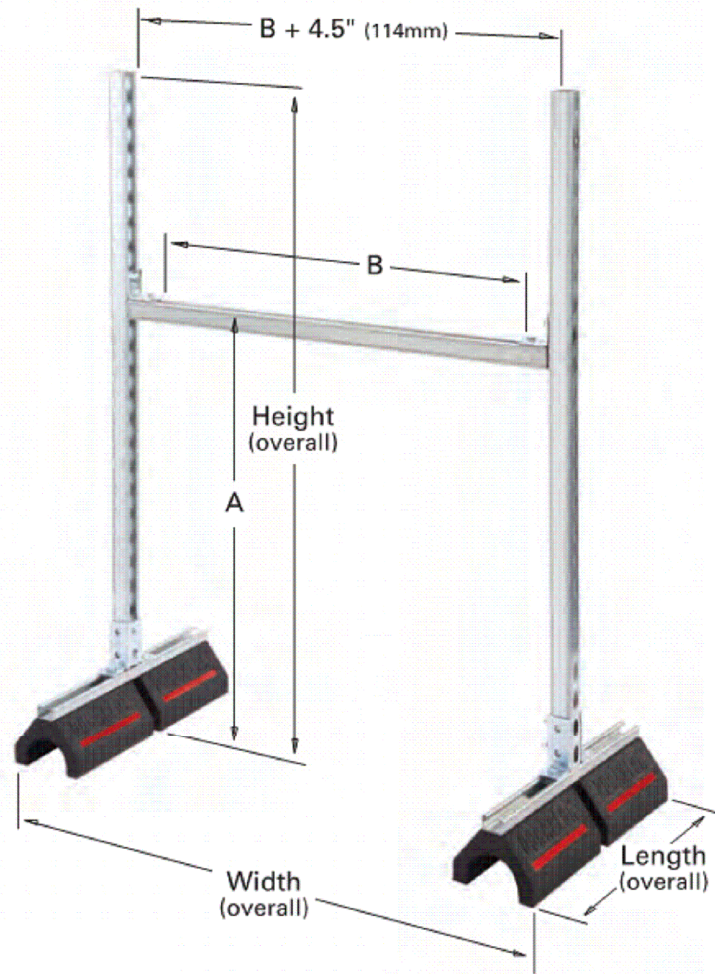
CONCEPTUAL KITCHEN HOOD EXHAUST DETAILS
NOT TO SCALE

1



ROOF UPBLAST EXHAUST FAN DETAILS
NOT TO SCALE

3



ROOF DUCT SUPPORT DETAILS
NOT TO SCALE

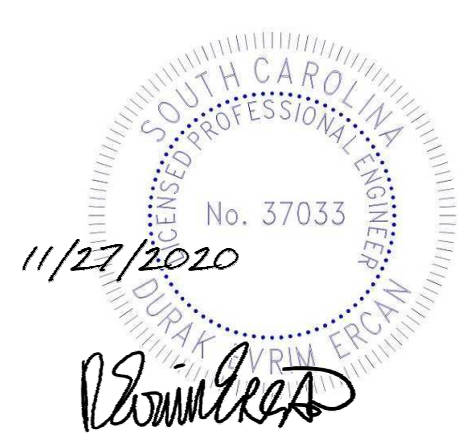
2



PROFESSIONAL ENGINEERING:

DURAK EVRIM ERCAN P.E.
ENGINEERING | CONSULTING | ESTIMATING
201-920-2899 info@AmperEngineering.com

SEAL & SIGNATURE:



NO ALTERATION PERMITTED
EXCEPT AS PROVIDED UNDER
DIRECTION OF A LICENSED
PROFESSIONAL ENGINEER.

0	11/26/2020	INITIAL SUBMITTAL
REV.	DATE	DESCRIPTION

CLIENT:

BUILDERS LLC

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3W
ROCK CREEK
DEVELOPMENT
CENTER
ADDRESS:
10000 WOOD RD,
LANCASTER, SC 29720

ISSUE DATE:

11/26/2020

PROJECT NUMBER:

AE# 1243

SCALE:

N.T.S.

DESIGNED BY:

DEE

DRAWN BY:

DEE

CHECKED BY:

DEE

DRAWING TITLE:

EQUIPMENT SCHEDULE
AND INSTALLATION
DETAILS

DRAWING NO:

M-2

REVISION:

0

STXBRHUL12-1/2

Centrifugal Roof Exhauster-UL762 Restaurant-Belt Drive

STANDARD FEATURES:

•MCA Air and Sound Licensed • cULus 705 & 762 for Grease Removal Certified • Disconnect standard with ODP and TE single speed motors • Rainproof Electrical Box with Wiring Chase • Drives Sized for a Minimum of 150% of Drive Horsepower • 2 Year Fan and 1 Year Motor Warranty • Heavy Duty Aluminum Construction • Heavy Duty 200,000 Hour Rated Pillow Block Bearings • Non-Overloading Aluminum Curved Backward Inclined Wheel • Integral Deep Spun Inlet • Quick-Release latches on motor cover for easy access to motor compartment

Performance

Fan RPM	Flow (CFM)	SP (in W.G.)	Power (HP)	SE	TE	FPM (TS)	FPM (OV)
1742	900	1.25	.439	40%	41%	5929	747

Altitude (Feet): 568 Temperature (Fahrenheit): 70 Density (Lb/Ft³): .073

Motor Information: (Wired for 115V)

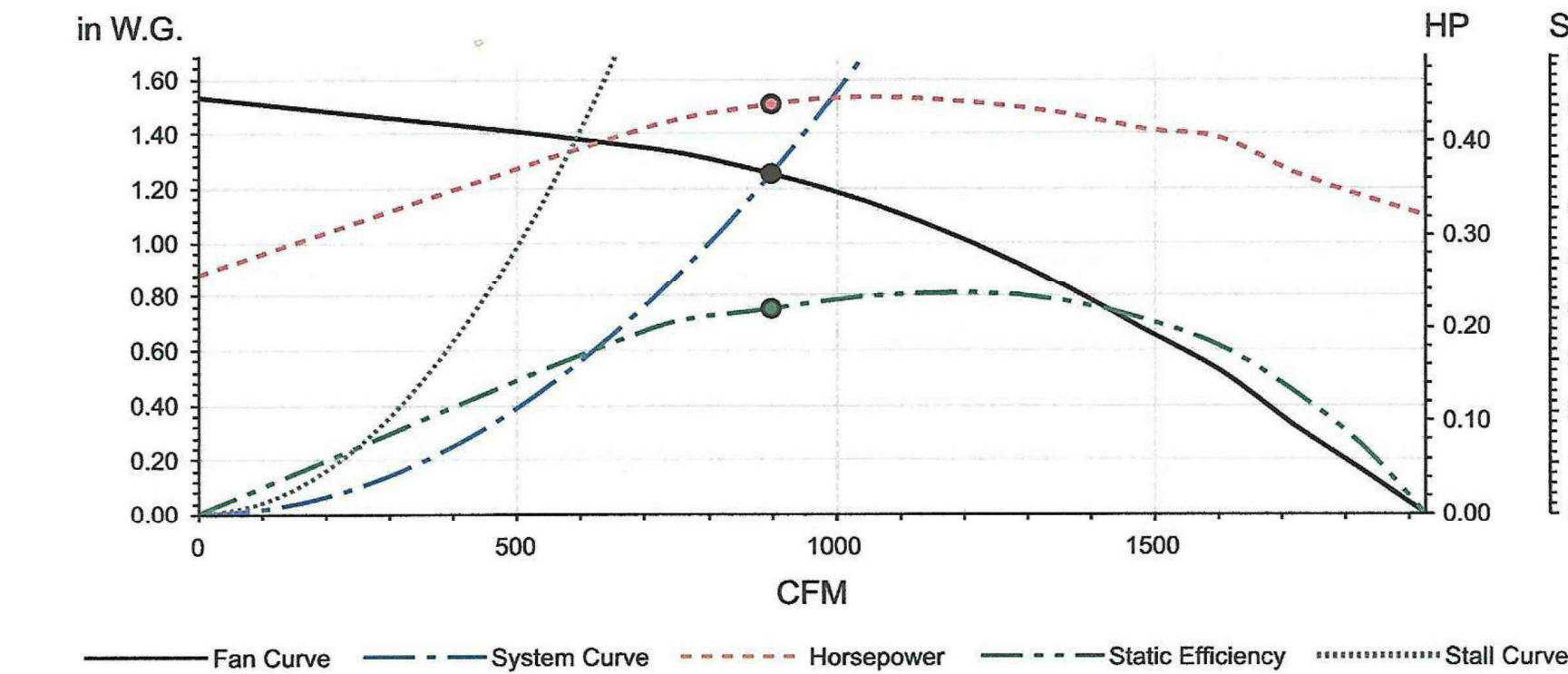
HP	RPM	Volts/PH/Hz	Enclosure	Efficiency	Mounted
.5	1725	115V/1PH/60HZ	OPEN DRIP PROOF	STANDARD	YES

Sound Power Levels - Octave Bands

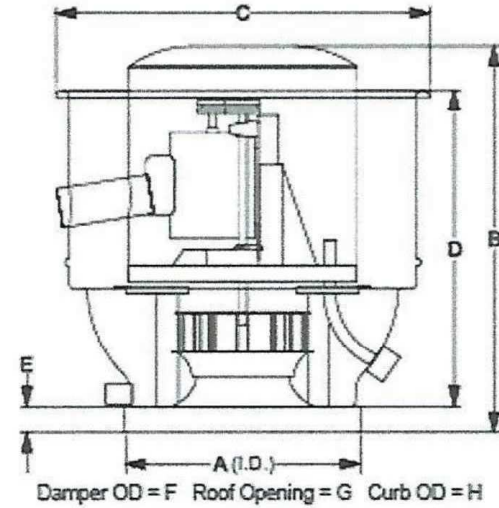
LwA dBA	dB	dB	dB	dB	dB	dB	dB	dB	dB
76	64	12.9	81	76	78	73	67	69	62

Accessories:

GREASE CONTAINER TXD/TXB/STXB 6-16 / STXB24-36 / STXB48



Qty: 1
Tag: EXHAUST
Project: LANCASTER CHILD CARE
Optimizer Version 2.0
Printed: 2020-09-11



Dimensions (Inches)									
A	20.00	B	30.88	C	31.31	D	25.94	E	2.00
F	14.00	G	15.50	H	18.50	I		J	15.50
K	19.75	L		M		N		O	
P		Q		R		S		T	
U		V		W		X		Y	

Note: Accessories may effect dimensions shown.

Avg. Shipping Weight (Lbs)*: 137

*Includes fan, motor, and packaging.

Submittal Notes:



REBS

Downblast Propeller

Supply Ventilator

Roof Mounted/Direct Drive

STANDARD CONSTRUCTION FEATURES:

Aluminum propeller blades attached to a steel hub - Spun aluminum topcap - Plated steel motor mount/wire guard - Aluminum curb cap w/welded corners - Aluminum inlet venturi - Corrosion resistant fasteners - Two speed motor.

Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	165REBS	810	.375	1006	.139	n/a(<1HP)	FSC

Altitude (ft): 568 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/6	1085	115/1/60	ODP -SE

Sound Data Outlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA dBA	Sones
76	77	74	69	66	62	58	52	72	60

Accessories:

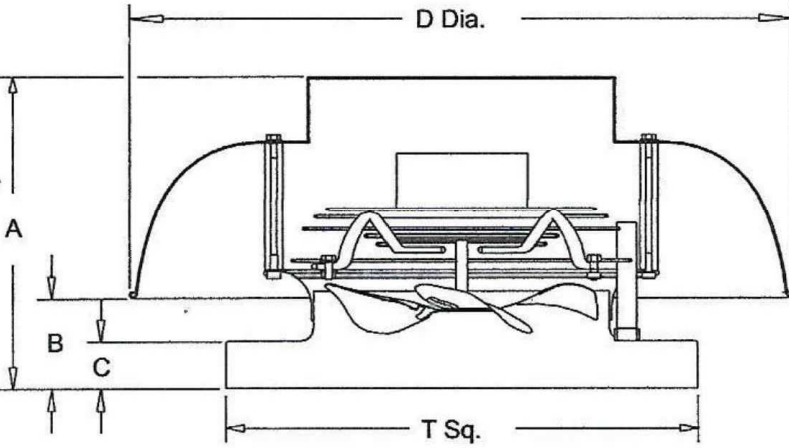
DISCONNECT NEMA 1 PRE-WIRED
FAN SPEED CONTROLLER-5 AMP
BIRDSCREEN



MARK: SUPPLY

PROJECT: LANCASTER CHILD CARE

DATE: 9/11/2020



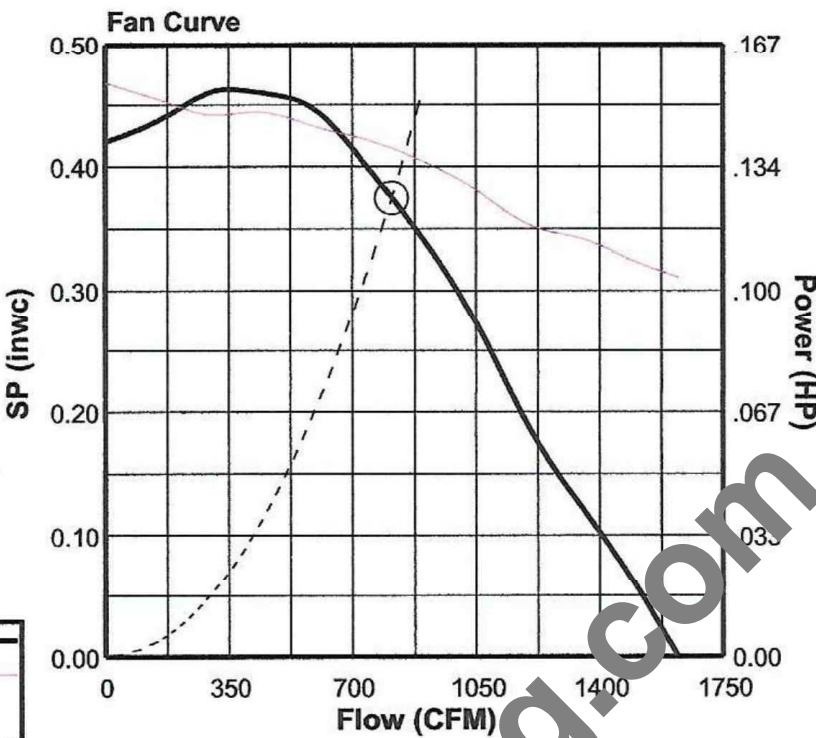
Dimensions (inches)

A	16
B	6-1/8
C	2
D Dia.	33-1/4
T Sq.	28
Roof Open.	23-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)*** Shipping 121 Unit 22

***Includes fan, motor & accessories.



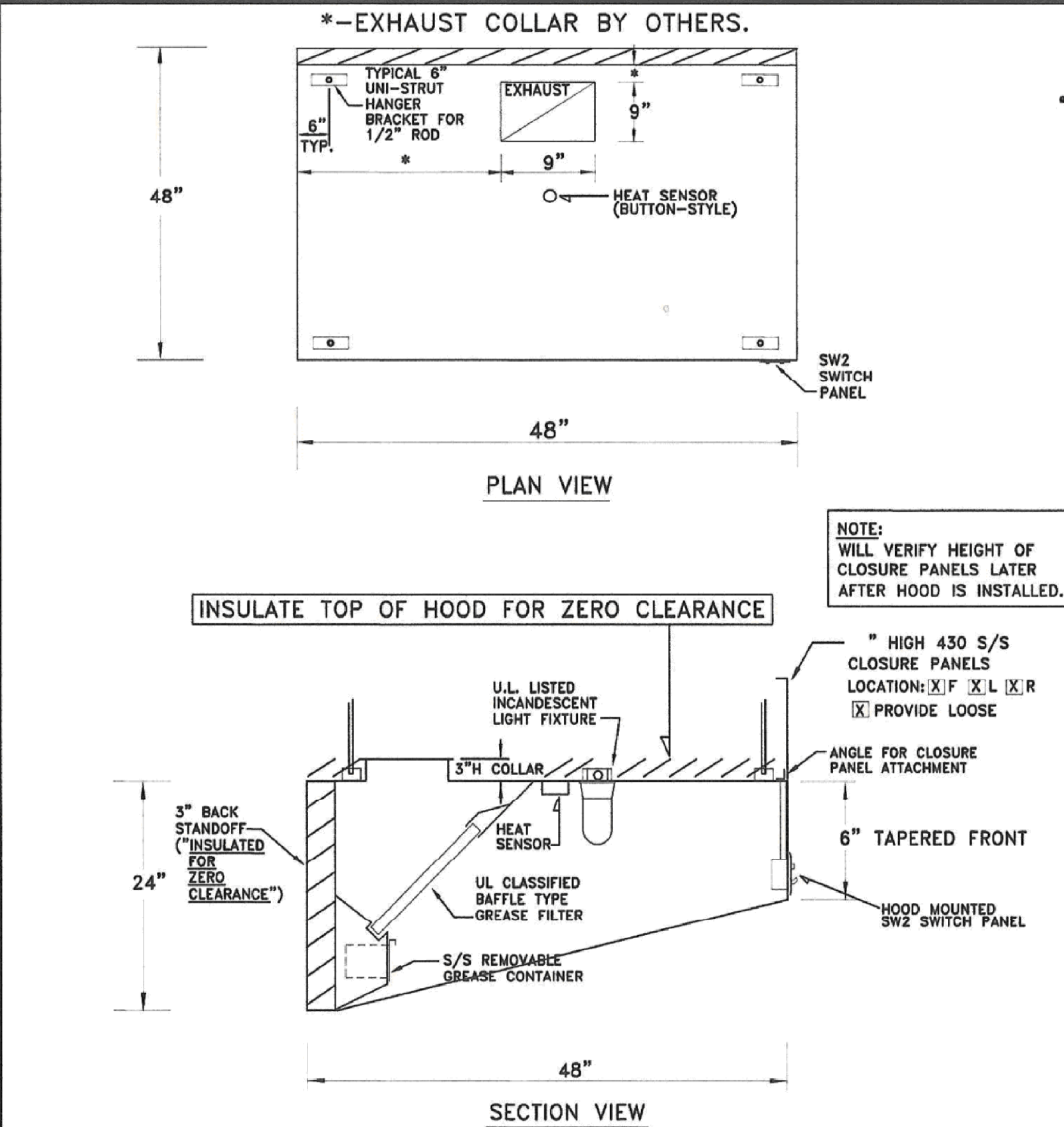
Fan Curve Legend

CFM vs SP	
CFM vs HP	
Point of Operation	○
System Curve	

v7.3.345.14848

Page 1 of 1

NOTE: HOOD IS LISTED FOR ZERO CLEARANCE TO COMBUSTIBLES. (MUST HAVE "ZERO CLEARANCE" LABEL!)



KITCHEN HOOD-MODEL EC-T
HOOD CONSTRUCTION: 18 GAUGE 430 STAINLESS STEEL (WHERE EXPOSED)
FINISH: # 3 POLISH
GREASE FILTERS: ALUMINUM BAFFLE (1) 20x25, (1) 20x25
HOOD LIGHTS: (2) UL LISTED VP INCANDESCENT
EXHAUST CFM: 900
CONTROLS: SW2 Control Panel "Lights, Fans" SWITCHES
OTHER: TAPERED HOOD FRONT
OTHER: HEAT SENSOR (BUTTON-STYLE)
TAG: HOOD
HOOD WGT: (INSTALLED) 200#

ETL	NSF	NFPA 96	ICC
PROJECT NAME LANCASTER CHILD CARE			
LOCATION LANCASTER, SC			
DATE 9/11/20	PROJECT # 42343		
SUBMITTAL APPROVAL: DATE:			
<input type="checkbox"/> APPROVED <input type="checkbox"/> REVISE & RESUBMIT			
2716 CHAMBER DRIVE MONROE, NC 28110 PH: (704) 289-1122 PH: (888) 882-8130 FAX (704) 289-1227			

PROFESSIONAL ENGINEERING:

DURAK EVRIM ERCAN P.E.
ENGINEERING | CONSULTING | ESTIMATING
201-920-2899 info@AmperEngineering.com

SEAL & SIGNATURE:

NO ALTERATION PERMITTED
EXCEPT AS PROVIDED UNDER
DIRECTION OF A LICENSED
PROFESSIONAL ENGINEER.

0 11/26/2020 INITIAL SUBMITTAL

REV. DATE DESCRIPTION

CLIENT:

BUILDERS LLC

PROJECT:

LANCASTER CHILD CARE
DEVELOPMENT
CENTER
ADDRESS: 2000 W. 10TH RD,
LANCASTER, SC 29720

ISSUE DATE:

11/26/2020

PROJECT NUMBER:

AE# 1243

SCALE:

N.T.S.

DRAWN BY:

DEE

CHECKED BY:

DEE

DRAWING TITLE:

EQUIPMENT
MANUFACTURER DATA
SHEETS

DRAWING NO:

M-3

REVISION:

0