HOOD INFORMATION – Job#2627315

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM						HOOD CONSTRUCTION	HOOD CONFIG.	
					TOTAL EXH. CFM	RISER(S)						END TO END	ROW
						WIDTH	LENG.	HEIGHT	DIA.	CFM	S.P.		
1		5430 ND-2	4' 6.00"	450 Deg.	1238			4"	12"	1238	-0.627"	430 SS Where Exposed	ALONE	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)						FIRE SYSTEM PIPING	HOOD HANGING WGHT
		TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 9 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL	SWITCHES		
												TYPE	SIZE	MODEL #	QUANTITY		
1		Captrate Solo Filter	3	20"	16"	93% See Filter Spec.	2	L55 Series E26	NO							YES	268 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		FINISHED BACK- ISL/REV INSTALL 54.00" Long

GREASE DUCT SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 LISTED DOUBLE WALL GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

IT IS RECOMMENDED NOT TO INSTALL HIGH VELOCITY DIFFUSERS OR HVAC RETURNS WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE _____
Your Title _____ Date _____

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

ETL SANITATION LISTED

ETL LISTED FILE# 3054804-001

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

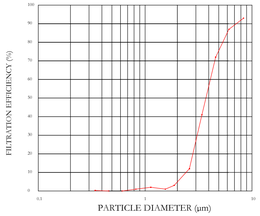
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

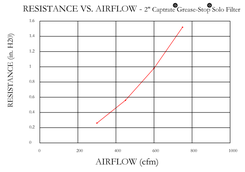
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 90% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

FILTER COLLECTION EFFICIENCY: 2" Captrate® Grease-Stop® Solo Filter





CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96
NSF STANDARD #2
UL STANDARD #1046
INT. MECH. CODE (IMC)
ULC-S649

PATENT NUMBERS

Exhaust Hoods ND-2/BD-2/SND-2 (Canada) - CA Patent 2520435 C

114000 - Item 15 Island Hood Shop Drawings

Per K0101

Approved As Noted

Approved for design content only. Contractor is responsible for field dimensions, quantity and site/equipment coordination as required.

Dennis G. Glore, Inc.

By: MDG Date: 02/22/2017

ND-2 Series Specification

The model ND-2 is an exhaust only canopy hood rated for all types of cooking equipment. The hood shall have the size, shape and performance specified on drawings.

Construction shall be type 430 stainless steel, with a #3 or #4 polish where exposed. The manufacturer, ETL and NSF shall determine the individual component construction. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints and penetrations of the hood enclosure to the lower outermost perimeter that directs and captures grease-laden vapor and exhaust gases shall have a liquid-tight continuous external weld in accordance with NFPA 96. The hood shall be wall type with a minimum of four connections for hanger rods. Connectors shall have 9/16" holes pre-punched in 1 ½" x 1 ½" angle iron at the factory to allow for hanger rod connection by others.

The hood shall be furnished with U.L. classified filters, supplied in size and quantity as required by ventilator. The filters shall extend the full length of the hood and the filler panels shall not be more than 6" in width.

The hood manufacturer shall supply complete computer generated submittal drawings including hood sections view(s) and hood plan view(s). These drawings must be available to the engineer, architect and owner for their use in construction, operation and maintenance.

Exhaust duct collar to be 4" high with 1" flange. Duct sizes, CFM and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

U.L. incandescent light fixtures and globes shall be installed and pre-wired to a junction box. The light fixtures shall be installed with a maximum of 4'0" spacing on center and allow up to a 100 watt standard light bulb.

The hood shall have:
- A double wall insulated front to eliminate condensation and increase rigidity. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
- An integral front baffle to direct grease laden vapors toward the exhaust filter bank.
- A built-in wiring chase provided for outlets and electrical controls on the hood face and shall not penetrate the capture area or require an external chase way.
- Removable grease cup for easy cleaning.

The hood shall be ETL Listed as 'Exhaust Hood Without Exhaust Damper', NSF Listed and built in accordance with NFPA 96.

The hood shall be listed for 450°F cooking surfaces at 150 CFM/Ft, 600°F cooking surfaces at 200 CFM/Ft, and 700°F cooking surfaces at 250 CFM/Ft. The hood shall be ETL Listed as 'Exhaust Hood Without Exhaust Damper'.

SCS Written Specification

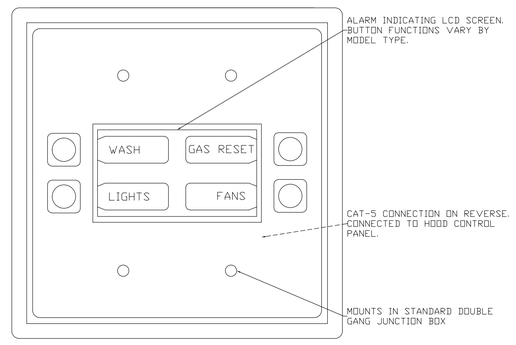
The panel shall consist of a plumbing compartment and an electrical controls compartment. These two compartments shall be separated and water tight to prevent any damage to the electrical components in the electrical compartment. All plumbing shall be standard brass pipefitting.

The manifold shall include a combination pressure/temperature gauge, shock absorber, pressure reducing valve, water solenoid valve, surfactant pump, surfactant tank, line strainer and ball valve. The panel shall be available in ?", 1" and 1.5" manifold size and shall allow for an optional back flow preventer.

All surfactant injection shall be done after a vacuum breaker or a backflow prevention valve.

The controls shall include a smart processor and a touch screen for total control of Self Cleaning operation. The touch screen interface shall be located on the front of the panel and shall allow for user-friendly configuration of different options including multiple wash zones, wash time and 7-day/24-h programmable schedule for the fans and wash cycle.

The panel shall allow for optional Building Management remote Control, Pollution Control Unit pressure switch connection for filter change indication, electric gas valve connection with integrated Reset Relay logic, thermostatic control of the fans and Integration with Demand Ventilation Controls.



REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

CAPTIVE-AIRE
St. Louis Office
1720 West Park Center Dr. Ste C&D, Fenton, MO, 63026 PHONE: (636) 225-3113 FAX: (919) 227-5939 EMAIL: reg72@captiveaire.com
www.captiveaire.com

WEBSTER
SAINT LOUIS, MO,

DATE: 2/6/2017

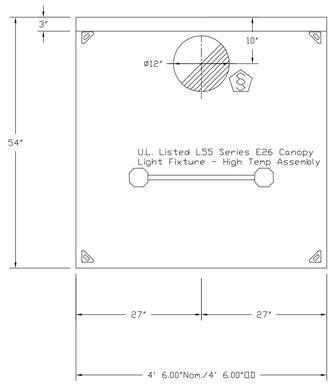
DWG.#: 2627315

DRAWN BY: TT-72

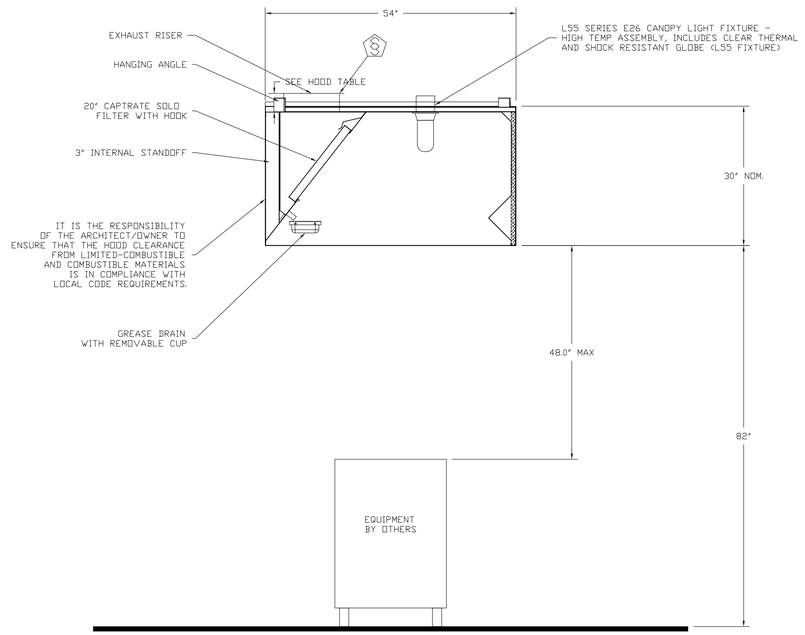
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 1



PLAN VIEW – Hood #1
4' 6.00" LONG 5430ND–2



SECTION VIEW – MODEL 5430ND–2
HOOD – #1

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

CAPTIVE-AIRE
www.captiveaire.com
St. Louis Office
1720 West Park Center Dr, Ste C&D, Fenton, MO, 63026 PHONE: (636) 225-3113 FAX: (919) 227-5939 EMAIL: reg72@captiveaire.com

WEBSTER SAINT LOUIS, MO,

DATE: 2/6/2017

DWG.#: 2627315

DRAWN BY: TT-72

SCALE: 3/4" = 1'–0"

MASTER DRAWING

SHEET NO. 2

ELECTRICAL PACKAGES – Job#2627315

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED			
				LOCATION	QUANTITY		TYPE	Q	H.P.	VOLT	FLA
1		SC-310110FP	Wall Mount In SS Box	05 - SS Wall Mount Box	1 Light 1 Fan	Smart Controls Thermostatic Control	Exhaust	2	1.000	208	3.4

VERIFY FAN VOLTAGE

JOB NO 2627315

MODEL NUMBER SC-310110FP

JOB NAME WEBSTER

DRAWN BY

DATE 2/6/2017

SCHEMATIC TYPE INSTALL

DWG NO ECP #1-1

DESCRIPTION OF OPERATION:
3 Phase w/ control for 1 Exhaust Fan, Exhaust on in Fire, Lights out in Fire, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation.

BREAKER PANEL TO CONTROL PANEL
Responsibility: Electrician
BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

BREAKER PANEL

BREAKER 1PH 120 V 15 A

CONTROL POWER. DO NOT WIRE TO SHUNT TRIP BREAKER.

1ST HOOD LIGHT BREAKER SHARED W/ CONTROL POWER SWITCH #1

BREAKER 3PH 208 V MCA: 4.2 A MOCP: 15 A

EXH-1

CONTROL PANEL

CONTROL PANEL TO FANS
Responsibility: Electrician

CONTROL PANEL

Load Wiring ST-1 WIRE DIRECT TO STARTER

FANS

EXH-1

FLA:3.4 HP: 1.000 VOLTS: 208 V

WIRE TO DISCONNECT

CONTROL PANEL TO ACCESSORY ITEMS
Responsibility: Electrician

CONTROL PANEL

CONTROL PANEL TO MICROSWITCH

IF MORE THAN ONE FIRE SYSTEM ARE IN SERIES AS SHOWN

CONTROL PANEL TO SWITCHES

COMPONENT

MICROSWITCH 1

MS-1, 6 AND 8

MS-2, 6 AND 8

WIRE C1 TO COMMON (C), WIRE NR1 TO NORMALLY CLOSED (NC). C1 TO NR1 SHOULD HAVE CONTINUITY WHEN ARMED.

ALL SWITCHES FACTORY WIRED CAT-5 CONNECTION

CONTROL PANEL TO HOOD LIGHTS 1400 W MAX

HOOD LIGHTS 1

BLACK, WHITE, GREEN

WIRE TO J-BOX ON TOP OF HOOD

CONTROL PANEL TO KITCHEN TEMP SENSOR

ROOM TEMP

WIRE TO CONTROL BOARD. SENSOR MOUNTED IN ROOM AWAY FROM HEAT SOURCES. SEE MANUAL

CONTROL PANEL TO DUCT SENSOR

HOOD 1 RISER 1

WIRE TO CONTROL BOARD. SENSOR MOUNTED IN EXHAUST DUCT

THE FOLLOWING CONNECTIONS MAY OR MAY NOT BE REQUIRED BASED ON JOBSITE SPECIFICATIONS

CONTROL PANEL SIGNAL FOR EXTERNAL SHUNT TRIP

SHUNT COIL

HOT TO SHUNT COIL, NEUTRAL FROM SHUNT COIL

ST TERMINAL IS ENERGIZED IN FIRE CONDITION.

CONTROL PANEL SPARE FIRE SYSTEM DRY CONTACT

COMMON, NORMALLY OPEN

SPARE CONTACTS WILL MAKE C2 TO NR2 WHEN SYSTEM IS ARMED. THESE CONTACTS CLOSE WHEN THE BUILDING FIRE ALARM WHICH MUST BE WIRED DIRECT TO THE ANSUL ALARM INITIATING SWITCH LOCATED IN ANSUL AUTOMAN

BMS SWITCH

CONTROL PANEL TO EXTERNAL SWITCH

SIGNAL SWITCH THROUGH BMS WILL ACTIVATE ZONES FANS AND LIGHTS

UNLESS SPECIFIED OTHERWISE, ALL FACTORY AC WIRING 16 AWG. ALL FACTORY DC WIRING 18 AWG.

J9 120V

PANEL LID

CONTROL INPUT 120V HI=LINE, NI=NEUTRAL, 15A BREAKER. DO NOT CONNECT TO SHUNT TRIP BREAKER. SEE INSTALLATION SCHEMATIC FOR ADDITIONAL REQ

24V J6

J7 120V

RP-1

JUMPER

MAKE UP AIR INTERLOCK. JUMPER

MOTOR POWER CIRCUIT

14 AWG

3 PH 208 V 15 A

ST-1 DL-1 T1 T2 T3

MTR-EXH-1 CONT-150-M3S20 DVL:0.193-KB40 FLA:3.4 HP:1.000

DRY CONTACTS (SHOWN DE-ENERGIZED)

14 AWG RA-1-1

ON/OFF WITH FIRE

14 x 18 x 6 Box

FACTORY WIRING SCHEMATIC CIRCUIT BOARDS
ECPM03 Rev. 2.00
HMI Rev. 2.00

RA-x 120 VAC RELAY NO COM NC

RB-x 24 VDC RELAY NO COM NC

COMPONENT LIST

UNIT	DESCRIPTION
ST-x	Starter Fixtures
DL-X	Overload Fixtures
C-x	Contactor Fixtures
PS-1	Power Sup. 24VDC PHOPS1-2AA-12
RA-x	120V Relay, P/ST PN3410058AJ
RB-x	24VDC Light Relay PN3410058BB

LEGEND
—— FIELD WIRING
—— FACTORY WIRING
BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
GN- GREEN RD- RED
WH- WHITE
OR/BL- OR/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GN- RD/GN STRIPE
WH/BL- WH/BL STRIPE

JOB NAME WEBSTER
DESCRIPTION
SC-310110FP
DESCRIPTION OF OPERATION
3 Phase w/ control for 1 Exhaust Fan, Exhaust on in Fire, Lights out in Fire, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for Field installation.

JOB NO 2627315 | DRAWN BY
DATE FACTORY | 2/6/2017
DWG NO ECP #1-2

REVISIONS

	DESCRIPTION	DATE:
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△		

CAPTIVE AIRE
www.captiveaire.com
St. Louis Office
1720 West Park Center Dr, Ste C&D, Fenton, MO, 63026 PHONE: (636) 225-3113 FAX: (919) 227-5939 EMAIL: req72@captiveaire.com

WEBSTER
SAINT LOUIS, MO,

DATE: 2/6/2017

DWG.#: 2627315

DRAWN BY: TT-72

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

114000-007
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

114000
SPECIFICATION SECTION / PARAGRAPH

Self Perform
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◉ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◯ Record Documents
- ◯ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC
PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Approved As Noted

Approved for design content only. Contractor is responsible for field dimensions, quantity and site/equipment coordination as required.

Dennis G. Glore, Inc.
By: MDG Date: 02/22/2017

Joe Voypick
REVIEWED BY

2/21/17
DATE

To be completed by Reviewer

11 4000-007
CANNON DESIGN SUBMITTAL NUMBER

2/21/17
RECEIVED DATE

- ◯ A. No Exceptions Taken
  No further review of submittal is required.
- ◉ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ◯ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ◯ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ◯ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

REVIEWED BY

DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0505

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 02/21/2017

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Kitchen Hood Shop Drawings

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☑ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☐ Other:	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		114000-007	1		02/21/2017	Kitchen Hood Shop Drawings	Submitted

NOTES:

CC:

Signed: _____
Devin Gates

Approved As Noted

Approved for design content only. Contractor is responsible for field dimensions, quantity and site/equipment coordination as required.

Dennis G. Glore, Inc.

By: MDG Date: 02/22/2017