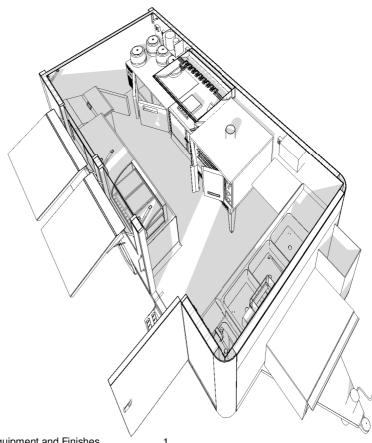
Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

Project #: Q199

Plans and Specifications

Manufactured by Quality Trailers Inc. 971-220-2626 **Bucket Bites LLC** 503-298-9584



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Equipment and Finishes

NOTE: All appliances installed per respective manufacturer's specifications

- Electrical Appliances
 Electric water pump / SHURfilo 2088-594-154 / 115V 1.3A
 LP water heater / Takagi T-D2-IN-LP / 120V 1.1A
 Sandwich Prep Table / Everest EPBNR1 / 120V 4.0A
- Undercounter refrigerator / Everest ETRF2 / 120V 8.1A
 LP Convection Oven / Imperial ICVG-1 / 120V 9.0A
 (4) Food Warmers / Avantco S30 / 120V 3.4A (each)

- (4) F-000 Warmers / AVantos 0.30 / 120V 3.4A (eacn)
 Electric Single Burner / Avantos (101800 / 120V 15.0A
 Electric Single Burner / Avantos (101800 / 120V 15.0A
 Food Warmer Display / Skyfood FWD2-33 / 120V 4.3A
 Upblast exhaust fan / Captive Aire DU30HFA / 115V 3.8A
 Makeup Air Fan / Captive Aire DMUA14FA / 115V 3.5A
 RV Air Conditioner w/ Heat Pump / Atwood 15026 / 115V 13.0A
 LP Generator / Cummins Onan 6.5HGJAE-2145 / 120V 54.1A / 240V 27.1A

- Plumbing Equipment
 75-1/4" Three-basin sink w/ 18"W x 18"L x 12"D basins w/ left side drainboard
- 17" Hand sink / 10"W x 14"L x 5"D basin w/ dual splash guards
 Water pump / SHURflo 2088-594-154/ 3.3 GPM / 45 PSI
 LP water heater / Takagi T-D2-IN-LP / 150 PSI
- Potable water tank / 80 Gal. / Custom Rotomolding Inc. W-426
 Wastewater tank / 93 Gal. / Custom Rotomolding Inc. HT
- 3/4" swivel connect fresh water inlet with backflow prevention valve

- Propane Equipment

 LP Convection Oven / Imperial ICVG-1 / 70,000 BTU/hr

 LP water heater / Takagi T-D2-IN-LP / LPG / 199,000 BTU/hr

 LP Generator / Cummins Onan 6.5HGJAE-2145 / LPG / 140,000 BTU/hr

- All food preparation surfaces are stainless steel
- An iood preparation surfaces are stanless steel
 Flooring is diamond-plate aluminum with seamless welded 3/8" radius base cove
 Subflooring is laminated, pre-undercoated shiplapped 1-1/8" hardwood
 Interior walls are polished stainless steel on 3/4" exterior grade CDX plywood sheathing
 Ceiling constructed of fiber-reinforced plastic (FRP) on plywood sheathing
 Exterior walls are 18-gauge riveted aluminum

Fire Suppression System

• Amerex Cobra Restaurant Fire Suppression System

0. Cover Sheet, Index of Sheets, and Equipment and Finishes

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

Project #: Q199

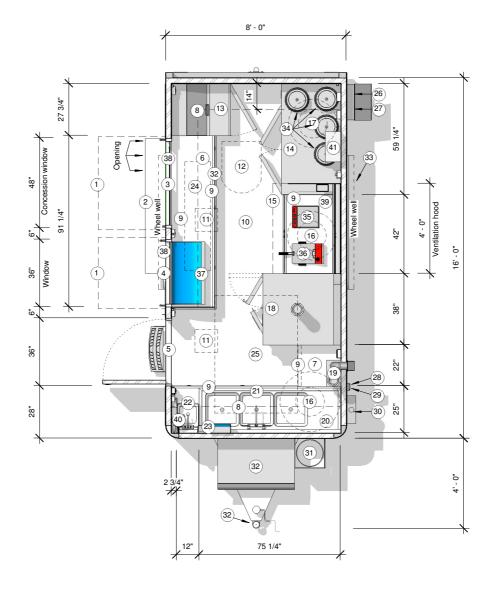
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Sheet 1 of 13 Client Signature

Date:

7/3/18 Revision Date:

Scale:



Equipment and Features

- (2) Operable window awnings Stainless steel fold-out service shelf (72"W x 11"D)
- Plexiglass concession window (48"W x 36"H) w/ sliding opening (20"W x 20"H) Solid plexiglass window (36"W x 36"H)
 Entry door (36"W x 72"H)
- Stainless steel work / prep surfaces (22-3/4"D x 35"H) Stainless steel work / prep surfaces (18-3/4"D x 35"H) Stainless steel storage shelves w/ lip

- Stainless steel cabinets below counters & sinks
- 9. Stanless steel cabinets below counters & sinks
 10. Seamless welded diamond-plate aluminum flooring throughout
 11. (2) Roof air vents (12"W x 12"L)
 12. RV Air Conditioner w/ Heat Pump (Atwood 15026)
 13. 27-3/4" Sandwich Prep Table (Everest EPBNR1)
 14. 59-1/4" Undercounter refrigerator (Everest ETRF2)

- 15. 4' Ventilation hood stainless steel (Captive Aire 5412 SND-2)
 16. Upblast Exhaust fan (Captive Aire DU85HFA) with hinge kit
 17. Makeup Air Fan (Captive Aire DMUA14FA)

NOTE: 1. Shunt trip circuit breaker shell be installed by QT 2. Soap & towel paper dispensers to be installed by Owner

- 18. 38" LP Single Deck Convection Oven (Imperial ICVG-1)
 19. LP tankless water heater (Takagi T-D2-IN-LP)
 20. Electric water pump (SHURflo 2088-594-154)
 21. 75-1/4" Three-basin sink w' 18"W x 18"L x 12"D basin w/ left side drainboard
 22. 12" Hand sink 9"W x 9"L x 5"D basin w/ dual splash guard
 23. Soap & towel paper dispensers to be installed by Owner
 24. 80 gal. potable water tank below counter
 25. 93 gal. wastewater tank below floor
 26. Direct potable water inlet (tank bypass)
 27. Potable water inlet
 28. 25ft, 50A generator power cord
 29. 50A generator/shore power inlet
 30. 125A electrical panel (Eaton Cutler-Hummer)

- Direct potable water inlet (tank bypass)
 Potable water inlet
 25ft, 50A generator power cord
 50A generator/shore power inlet
 125A electrical panel (Eaton Cutler-Hummer)
 100 lb. LP tank cage & 100 lb. empty LP cylinder w/ multi-valve
 4ft Tongue with 2-5/16" ball hitch and jack stand 30. 31. 32.
- 4ft Tongue with 2-5/16" ball hitch and jack stand Double 5200 lb. 89" drop axles, e-rated tires, electric brakers & breakaway kit (4) Electric Food Warmers (Avantco S30) installed by Owner Electric Deep / to be located under the hood during the service time Electric Single Burner (Avantco IC1800) installed by Owner / to be used during the prep time Fryer (Avantco F100) installed by Owner / to be used occationally Food Warmer Display (Skyfood FWD2-33) installed by Owner (2) LED lights under the windows' awning Stainless steel work/prep surgace (30"D x 35"H) Fire extinguisher 33. 34.
- 35.
- 36. 37.
- 38. 39. 40. 41.
- Fire extinguisher Amerex Cobra Restaurant Fire Suppression System

1. Floor Plan

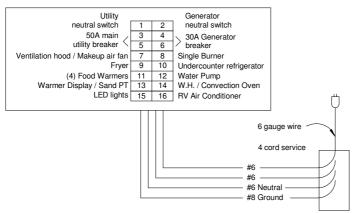
Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

Project #: Q199 Scale: 3/8"=1'-0'

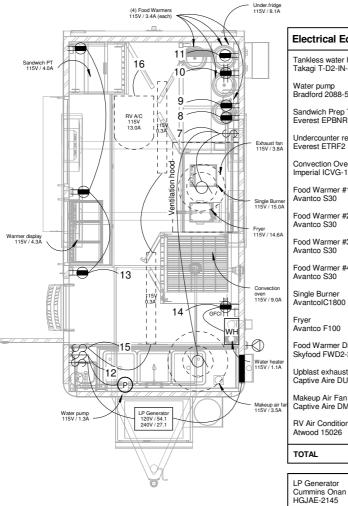
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Service Entry Diagram

50A 240V Service



Circuit Schedule						
Description	Size	Spaces	Wire			
Bus A						
Ckt. 7 Vent. hood / Makeup air fan	20A	120V	12 AWG			
Ckt. 9 Fryer	20A	120V	12 AWG			
Ckt. 11 (4) Food Warmer	20A	120V	12 AWG			
Ckt. 13 Warmer Display / Sand PT	20A	120V	12 AWG			
Ckt. 15 LED lights	15A	120V	12 AWG			
Bus B						
Ckt. 8 Single Burner	20A	120V	12 AWG			
Ckt. 10 Undercounter refrigerator	20A	120V	12 AWG			
Ckt. 12 Water Pump	20A	120V	12 AWG			
Ckt. 14 W.H. / Convection Oven	20A	120V	12 AWG			
Ckt. 16 RV Air Conditioner	20A	120V	12 AWG			



	Electrical Equipment	Amps
	Tankless water heater Takagi T-D2-IN-LP	1.1
	Water pump Bradford 2088-594-154	1.3
	Sandwich Prep Table Everest EPBNR1	4.0
	Undercounter refrigerator Everest ETRF2	8.1
	Convection Oven Imperial ICVG-1	9.0
,	Food Warmer #1 Avantco S30	3.4
	Food Warmer #2 Avantco S30	3.4
	Food Warmer #3 Avantco S30	3.4
	Food Warmer #4 Avantco S30	3.4
	Single Burner AvantcolC1800	15.0
	Fryer Avantco F100	14.6
	Food Warmer Display Skyfood FWD2-33	4.3
	Upblast exhaust fan Captive Aire DU30HFA	3.8
er	Makeup Air Fan Captive Aire DMUA14FA	3.5
	RV Air Conditioner Atwood 15026	13.0
	TOTAL	91.3

Electrical Plan Legend					
\Rightarrow	Duplex oultet below counter				
=	Duplex oultet above counter				
\Rightarrow	Fourplex oultet below counter				
-	Fourplex oultet above counter				
GFCI	Duplex oultet below counter with GFCI device				
GFCI	Duplex oultet above counter with GFCI device				
GFCI	Fourplex oultet below counter with GFCI device				
GFCI	Fourplex oultet above counter with GFCI device				
\Longrightarrow_{WP}	Waterproof duplex outlet below counter				
= WP	Waterproofduplex outlet above counter				
\Diamond	50A inlet				
\$	Switch				
_	125A panel at exterior				
WH	Water heater				
P	Water pump				
\bigcirc	Exhaust fan				
1	Circuit number				
	☐ LED light				
	12-AWG. rigid metal conduit mounted to inside face of trailer wall				
	8-AWG copper bonding conductor between panel and chassis				

NOTE: Electrical system tested per 2017 NEC 551.60

2. Electrical Floor Plan, Circuit Diagram and Service Entry Diagram

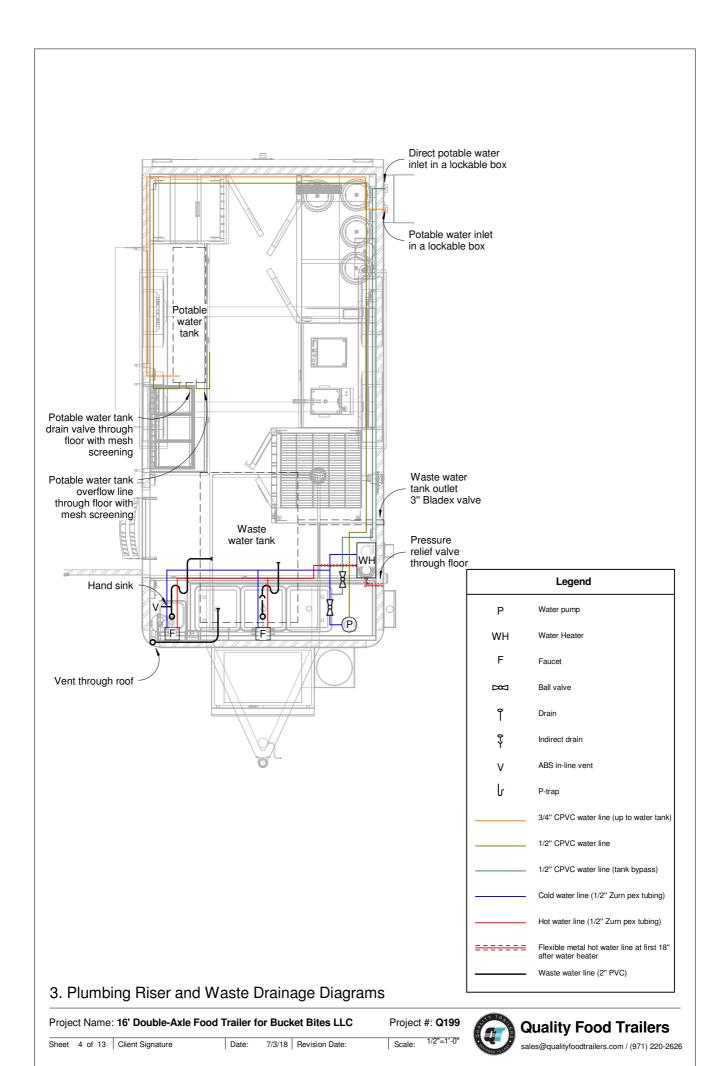
Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

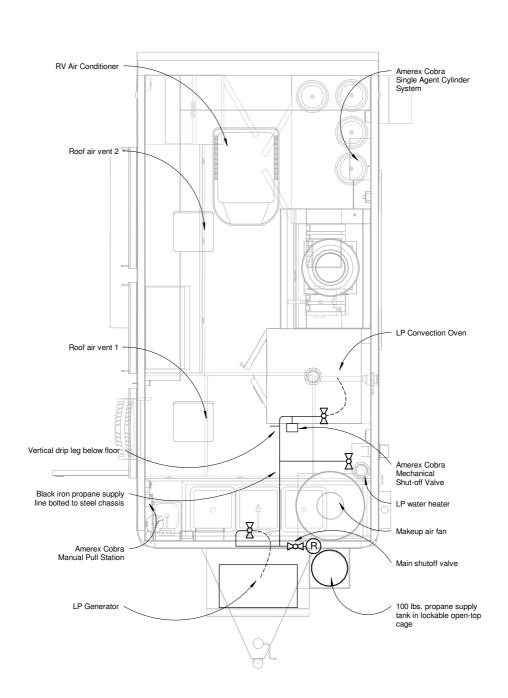
Project #: **Q199**

120V / 54.1A 240V / 27.1A

Sheet 3 of 13 Client Signature Date: 7/3/18 Revision Date: Scale: 3/8"=1'-0"







LPG Appliance	LPG Consumption*	LPG Availability
Convection Oven Imperial ICVG-1	70,000 BTU/hr	Propane Tank / PT
Tankless water heater Takagi T-D2-IN-LP	199,000 BTU/hr	(1) PT=100lbs.=23.6 gal. (2) PT=200lbs.=47.2 gal. 1 gal. of LPG produces 91,333 BTUs heat energy
Cummins Onan 6.5HGJAE-2145	140,000 BTU/hr	per hour 91,333 x 47.2=4,310,918
TOTAL	409,000 BTU/hr	4,310,918 BTU

*NOTE: The data represent the total propane demand of appliances operating at full capacity $% \left(1\right) =\left(1\right) \left(1\right) \left($

Propane Floor Plan Legend				
8	Ball valve (Legend T-3005)			
R	Regulator (Fisher R232A-BBF)			
	ASTM A53 type E grade B 3/4" steel pipe			
```	Flexible stainless steel supply line			

Total approx. length of piping: 20'

Propane supply lines tested before and after appliance installation to comply with WAC 296-150V-1450 and -1460.

# 4. Propane Floor Plan

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC Proj

Project #: **Q199** 

Sheet 5 of 13 Client Signature Date: 7/3/18 Revision Date: Scale: 1/2"=1'-0"



Upblast exhaust fan

Shut-off Valves

Amerex Cobra

Shut-of Valves

Mechanical

Oven

for LP Convection

**Detection Network** 

(3) discharge nozzles

4' Ventilation hood

(2) Electric cooking appliances

Zoomed right view

2 Shut-off Valves

(green color) w/

7/3/18 Revision Date

**Bucket Bites LLC** 16' Double-Axle Food Trailer Client Signature

Project Name:

13

Fire Suppression System Perspective View

Date:

**KITCHEN & HOOD SYSTEM** 

AMEREX COBRA RESTAURANT FIRE SUPPRESION SYSTEM

Amerex Cobra Single Agent Cylinged System 4.1 gal. Regualted Release Assembly

**TOTAL FLOW POINTS USED - 8 MAXIMUM ALLOWED BY THIS SYSTEM - 12** 

ALL PIPE & FITTINGS 5/8 OD STAINLESS STEEL

THE SPOT HEAT DETECTORS ARE PLACED ON MAX. 24" CENTER TO CENTER DISTANCE STARTING AT MAX. 24" FROM THE END OF THE HOOD & ENDING AT MAX. 24"

ZONE OF PROTECTION (ZoP) MEASURES 30" DEEP BY THE LENGTH OF THE RPOTECTED HOOD

**DISCHARGE NOZZLES ARE LOCATED AT 8" EACH** END OF THE HOOD, MAX. 20" THOSE IN BETWEEN & ALL 35" - 45" ABOVE THE COOKING SURFACE OF APPLIANCES (as per COBRA Manual Rev A Oct 2017, ZoP - OPTION B)

FOR EACH DISCHARGE NOZZLE OF APPLIANCES 2 FLOW POINTS ARE ASSIGNED WHILE FOR PLENUM & DUCT 1 POINT (EACH)

# **TOTAL SPOT HEAT DETECTORS - 3, INCL.:**

- APPLIANCES PROTECTION 2
- DUCT PROTECTION 1

- LP APPLIANCES PROTECTION 3
- PLENUM PROTECTION 1

**TOTAL DISCHARGE NOZZLES - 5, INCL.:** 

Fire Suppression System Perspective View

- DUCT PROTECTION - 1

Distribution Network (5) discharge nozzles

> Amerex Cobra STRIKE Electronic

Control System

(blue color) w/

NOTE: Amerex Cobra Manual Pull Station mounted in path of egress no higher than 48 inches from the floor

7/3/18 Revision Date

Date:

Client Signature

5

75

# **Bucket Bites LLC** 16' Double-Axle Food Trailer Project Name:

# Fire Suppression System Design Specification

# **KITCHEN & HOOD SYSTEM** AMEREX COBRA RESTAURANT FIRE SUPPRESSION SYSTEM

COBRA Manual Rev Oct 2017 provides 2 options (A & B) for Zone of Protection. The Option B is designed for a Single Agent Cylinder Network (hoods up to 8' long) or a Double Agent Cylinder Separate Networks using the Cobra 2MZ Zone Discharge Nozzles (P/N25755). The current project w/ a 4 long hood uses a Single Agent Cylinder System - Option B.

# SUPPRESSION SYMBOL LEGEND

QTY	SYMBOL	DESCRIPTION	BRAND / MODEL
1	MR	4.1 Gallon Regulated Release Assembly	Amerex Cobra
1		Electronic Control Unit	Strike
1		2.5 Gallon Fire Extinguisher	Amerex Cobra W-250
1	<b>(8)</b>	Manual Pull Station	Strike
1	<b>\$</b>	Mechanical Shut-Off Valve	Amerex Cobra
2	All of	Spot Heat Detectors for Appliances	Amerex Cobra P/N 24514
1	All of the same of	Spot Heat Detector for Duct	Amerex Cobra P/N 24514
1		Discharge Nozzle for Exhaust Duct	Amerex Cobra P/N 11982
1		Discharge Nozzle for Plenum	Amerex Cobra P/N 11982
3		Discharge Nozzles for Single Burner	Amerex Cobra P/N 25755
٥		Discharge Nozzles for Fryer	Amerex Cobra P/N 25755

# Supply Line Limitations

Supply Line Limitations						
Cylinder Flow Points	Tubing Size	Maximum Linear Length of Tubing, ft (m)	Maximum # of Tees	Maximum # of Elbows	Maximum # of Adapter Bushings	
12 (4.1 gal)	5/8° OD	16 (4.87)	1	5	1 (see note 6)	

## 

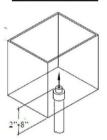
Supply Branch Line Limitations				
Cylinder Flow Points	Tubing Size	Maximum Linear Length of Tubing, ft (m)	Maximum # of Tees	Maximum # of Elbows
12 (4.1 gal)	5/8° OD	20 (6.09)	10	10

# Nozzle Branch Line Limitations:

Nozzle Branch Line Limitations						
Cylinder Flow Points	Tubing Size	Total Linear Length of Tubing, ft (m)	Maximum # of Tees	Maximum # of Elbows	Maximum # of Flow Points per Branch	Maximum # of Adapter Bushings
12 (4.1 gal)	5/8" OD	32 (9.75)	8	12		7 (see note 6)
Zone of Protection	on Branch	4 (1.21)	1	6	3	
Duct Nozzle I	Branch	6 (1.82)	2	4	3	
Plenum Nozzle	Branch	3 (0.91)	1	3	1	
Dedicated Nozz	le Branch	7 (2.13)	1	6	4	

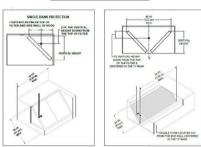
- All of the agent distribution network tubing must be 5/8 O.D. x .035 Wall ASTM A-249 Stainless Steel Tubing utilizing either ferrule style bite type compression fittings or push-on Amerex fittings where allowed.
- Tubing limitations are expressed in linear length of tubing. Linear tubing is the actual length of straight tubing used throughout the system.
- The supply line from the Agent Cylinder adapter to the supply branch line can have a maximum vertical rise of 6 ft (1.82 m). The Duct Nozzle Branch can have a maximum vertical rise above the supply branch line of 4 ft (1.22 m)
- Maximum Flow Points for a single Agent Cylinder: 12 (See Figure 3.3.2e/3.3.2f) Two Agent Cylinders with manifolded supply lines not allowed with this Zone Option B (See Figure 3.3.2g).
- Reducing bushings are necessary to adapt from the Agent Cylinder outlet adapter to the 5/8" OD stainless tubing network and to adapt from the 5/8" OD stainless discharge tubing network to the Flexible Distribution Hoses (P/N 20473) when used on the nozzle branch lines.

# **DUCT PROTECTION**



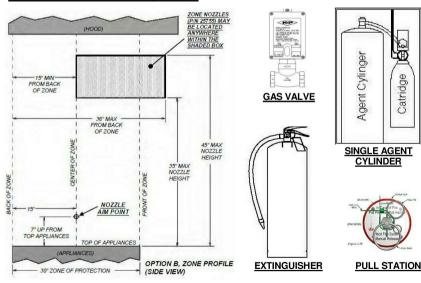
QUANTITY OF NOZZLES USED FOR DUCT Ø16" - 1 REQUIRED NOZZLES FOR DUCT NOT EXEEDING Ø 18.5 " - 1

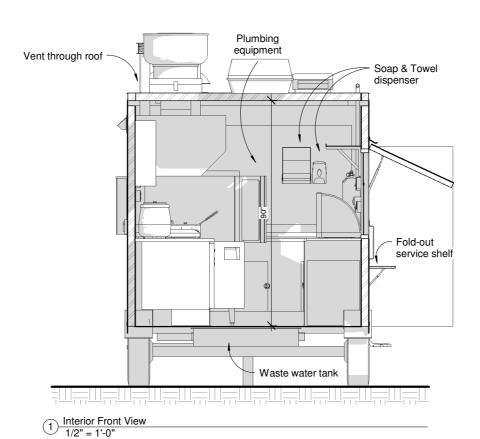
# PLENUM PROTECTION

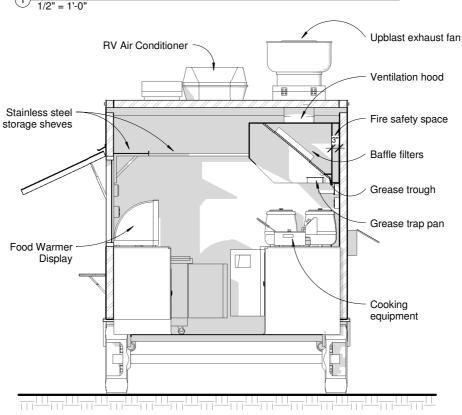


AMEREX PLENUM NOZZLE (P/N 11982) CAPABLE OF PROTECTING PLENUMS UP TO 10 FEÉT LONG QUANTITY OF PLENUM NOZZLES USED FOR A HOOD - 1

# Zone of Protection - Option B







# 7. Cross Sections I & II

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

2 Interior Rear View 1/2" = 1'-0"

Project #: Q199

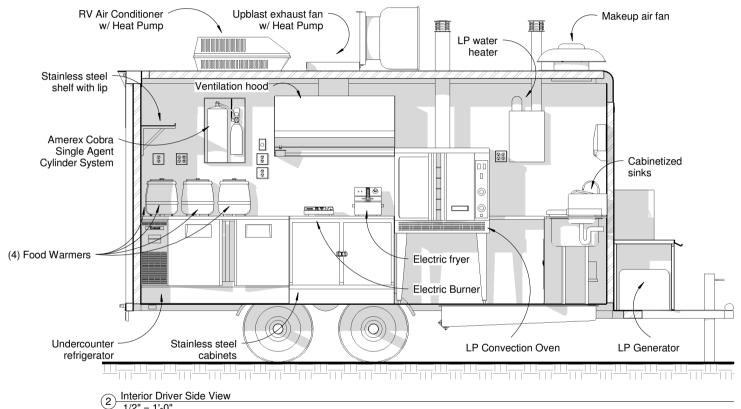
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Sheet 9 of 13

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

8. Cross Sections III



1/2" = 1'-0"

NOTE: The Exhaust Fan with Hinge Kits is installed as per NFPA 96 Fire Code, Chapter 8 - Standard for ventilation Control and Fire Protection of Commercial Cooking Operations in order to reduce the risk of fire by enabling acces to the ventilation fan for cleaning out of grease and oil buildup as well as to prevent mechanical malfunctions of the Ventilatio System.

# 9. Cross Section IV

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

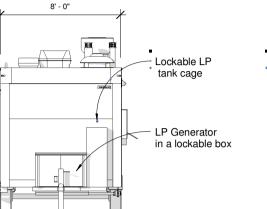
Date: Sheet 10 of 13 | Client Signature

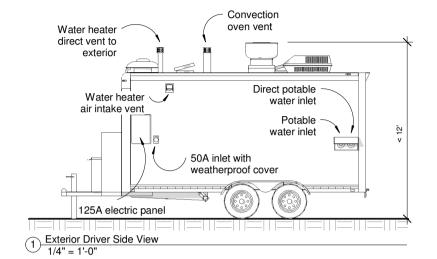
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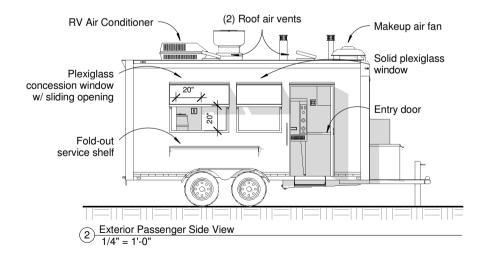
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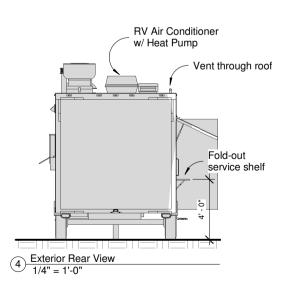
1/2"=1'-0" Project #: Q199

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Exterior Front View 1/4" = 1'-0"

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

Sheet 11 of 13 | Client Signature

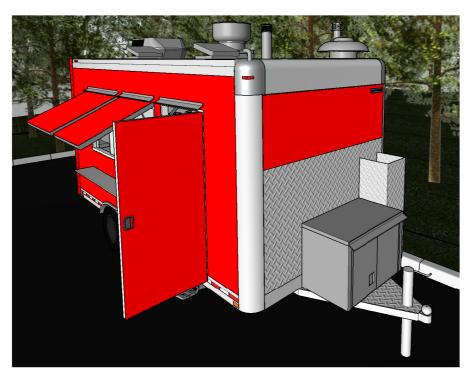
Date:

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

PPG color code: TBD



1) Front Driver Side Perspective View



Pront Passenger Side Perspective View

**Note:** The color displayed herein may not match the actual color of the trailer.

# 11. Front Perspective Views

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

Project #: Q199

Sheet 12 of 13 | Client Signature | Date: 7/3/18 | Revision Date: Scale:



PPG color code: TBD



Rear Passenger Side Perspective View



2 Rear Driver Side Perspective View

**Note:** The color displayed herein may not match the actual color of the trailer.

# 12. Rear Perspective Views

Project Name: 16' Double-Axle Food Trailer for Bucket Bites LLC

Project #: **Q199** 

Sheet 13 of 13 Client Signature

Date: 7/3/18 Revision Date:

Scale:

