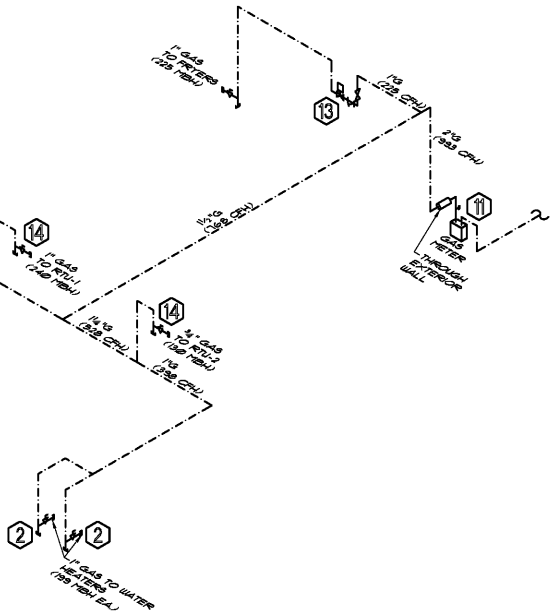


GAS DEMAND SCHEDULE

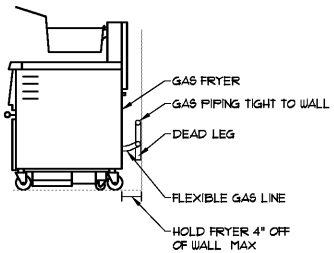
GAS APPLIANCE	BTUH
3 BANK FRYER	225,000 BTUH
RTU-1	240,000 BTUH
RTU-2	130,000 BTUH
GHU	199,000 BTUH
GUH	199,000 BTUH
TOTAL BTUH:	993,000 BTUH

- REQUIRED LINE SIZE: 2"
- NOTES:
- GAS PIPING IS SIZED BASED ON A 60 FOOT DEVELOPED LENGTH OF PIPE
 - GAS PIPING IS SIZED BASED ON 2011 FLORIDA REL. GAS CODE TABLE 407.4(2).
 - BTUH RATINGS ARE AS CALCULATED BY THE MANUFACTURER.
 - GAS PIPING IS SIZED FOR A DELIVERY OF LESS THAN 2 PSI WITH A 5" WC PRESSURE DROP.
 - ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL, WELDED AND SEAMLESS.
 - ALL BRANCH TAPS FROM MAINS MUST BE MADE OFF THE TOP OF THE PIPE.
 - GAS PIPING AND INSTALLATION WILL BE IN ACCORDANCE WITH FLORIDA BUILDING CODE - FUEL GAS AND ALL APPLICABLE CODES AND REGULATIONS.
 - PROVIDE PRESSURE REGULATING VALVE TO ADJUST GAS LINE PRESSURE IN ORDER TO ACCOMMODATE TOTAL BTUH DEMAND.



3 GAS RISER

SCALE: NONE



2 GAS FRYER CONNECTION DETAIL

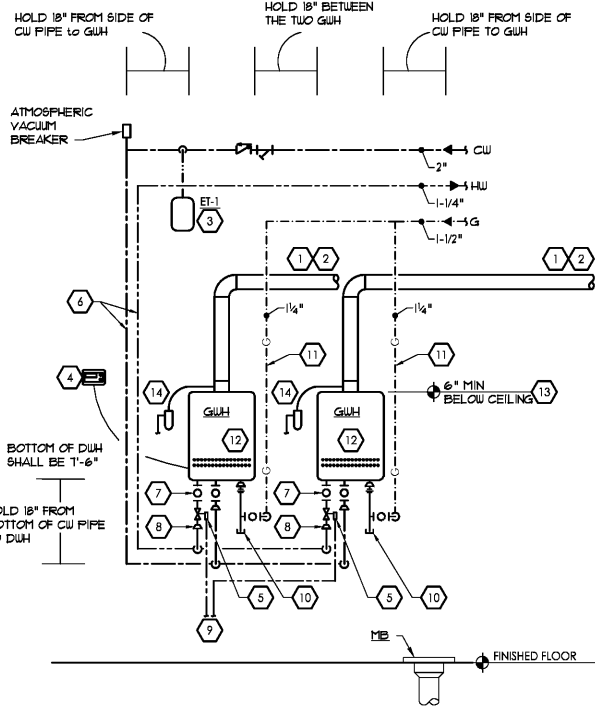
SCALE: NONE

WATER DEMAND SCHEDULE

FIXTURE	CU FIXTURE UNITS EACH	HU FIXTURE UNITS EACH	FIXTURE UNIT TOTAL EACH	QUANTITY	FIXTURE UNIT TOTAL	UNIT TOTAL
WATER CLOSET - FLUSH VALVE	10.0		10.0	3	30.0	3
LAVATORY	1.5		1.5	4	6.0	4
URINAL	5.0		5.0	1	5.0	1
HAND SINK	1.0		1.0	2	2.0	2
3 COMP. SINK	3.0		3.0	4	12.0	4
MOP BASIN	2.25		2.25	3	6.75	3
PREP TABLE W/ SINK	1.0		1.0	1	1.0	1
COUNTER W/ SINK	1.0		1.0	1	1.0	1
TOTAL FIXTURE UNITS					51.6	
TOTAL CFM					29.6	
REQUIRED WATER LINE SIZE						1 1/2"

4 GAS INSTANTANEOUS WATER HEATER DETAIL

SCALE: NONE



- WATER HEATER DETAIL NOTES**
- PROVIDE 5" RINNAI/WEBBINK ROLUX CONCENTRIC VENT SYSTEM AVAILABLE FROM HEATER MANUFACTURER AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS. SLOPE HORIZONTAL SECTION OF VENT 1/4" PER FOOT BACK TOWARDS THE HEATER FOR CONDENSATE DISPOSAL.
 - PROVIDE RINNAI/WEBBINK ROLUX CONCENTRIC VERTICAL TERMINATION KIT FOR FLUE/INTAKE TERMINATION THROUGH ROOF. INSTALL PER MANUFACTURER'S INSTRUCTIONS. REFER TO DETAIL ON SHEET P4-2.
 - PROVIDE EXPANSION TANK AS SHOWN PER MANUFACTURER'S REQUIREMENTS. SUPPORT TANK FROM WALL OR STRUCTURE ABOVE.
 - INSTALL REMOTE CONTROL PANEL 48" IN LOCATION AS SHOWN ON SHEET P2-1. PROVIDE WIRING FROM THE REMOTE CONTROL PANEL TO THE WATER HEATER CONCEAL WIRING WITHIN THE WALL.
 - PROVIDE PRESSURE RELIEF VALVE. PIPE PRESSURE RELIEF VALVE TO MB.
 - ROUTE CU AND HU PIPING EXPOSED ON SURFACE OF WALL. SUPPORT PIPING WITH WALL STANDOFFS. INSULATE PIPING PER SPECIFICATIONS AND COVER EXPOSED INSULATION WITH PVC PROTECTIVE JACKET.

- PROVIDE THE ISOLATOR EXP[®] TANKLESS WATER HEATER SERVICE VALVES MANUFACTURED BY WEBSTONE COMPANY, INC. EXPOSED AT THE COLD AND HOT WATER CONNECTIONS TO THE WATER HEATER.
- IF THE COLD, HOT, OR GAS PIPE LINE SIZE AS SHOWN ON THE PLUMBING PLANS IS LARGER THAN THE WATER HEATER CONNECTION SIZES, PROVIDE REDUCERS WITHIN 6" OF THE WATER HEATER.
- PIPE PRESSURE RELIEF VALVE DISCHARGE AND FLUE CONDENSATE DRAIN TO MB. DRAIN THROUGH AN AIR GAP.
- PROVIDE AN EXPOSED DRIP LEG AND LINE-SIZE GAS VALVE ON THE GAS SERVICE TO THE WATER HEATER.
- ROUTE GAS PIPING EXPOSED ON SURFACE OF THE WALL.
- PROVIDE QUICK CONNECT CORD TO CONNECT THE WATER HEATERS. INSTALL THE TWO UNITS 18" - 31 1/4" APART ON CENTER TO ENSURE THE CORD WILL REACH.
- MOUNT HEATER AS HIGH AS POSSIBLE ABOVE CEILING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER.
- PROVIDE CONDENSATE TRAP AVAILABLE WITH WATER HEATER AND INDIRECT DRAIN TO MOP SINK.

- WATER HEATER INSTALLATION NOTES**
- CLEAN INLET STRAINERS AFTER CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO TURNOVER OF THE BUILDING TO THE OWNER.
 - INSTALL PIPING WITH AS FEW ELBOWS AS POSSIBLE.
 - MAINTAIN REQUIRED CLEARANCES TO COMBUSTIBLE MATERIALS.
 - ADJUST WATER HEATER TO A SETPOINT OF 140° F.

WATER HEATER SCHEDULE

TAG	DESCRIPTION	MBH INPUT	RECOVERY	MANUFACTURER/ MODEL NO.
GUH	GAS-FIRED INSTANTANEOUS DOMESTIC WATER HEATER	15,200 - 199,000	3.8 GPM @ 120° RISE	RINNAI C1991
GUH	GAS-FIRED INSTANTANEOUS DOMESTIC WATER HEATER	15,200 - 199,000	3.8 GPM @ 120° RISE	RINNAI C1991

- COMMENTS:
- REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION
 - U.L. LISTED
 - PROVIDE REMOTE CONTROLLERS
 - SET HOT WATER SUPPLY TEMPERATURE TO 140°F

NOTE: COORDINATE RINNAI HOT WATER HEATER INSTALLATION W/ ALL LOCAL HEALTH CODE AND OTHER CODE REQUIREMENTS.

RINNAI CONTACT INFO:
 MAIN PHONE NUMBER: (800)-671-9419
 DAN DRISCOLL, NE REGIONAL SALES MANAGER
 OFFICE: (781)-834-9111
 MOBILE: (404)-396-8252
 driscoll@rinnai.us

GAS CONNECTED LOAD SCHEDULE

TAG	EQUIPMENT	INLET CONNECTION	MIN. SUPPLY INLET PRESSURE (WC)	INPUT LOAD (CFH)
43	3-BANK DEEP FRYER	1"		225
GWH	TANKLESS WATER HEATER	3/4"		199
GUH	TANKLESS WATER HEATER	3/4"		199
RTU-1	HVAC ROOFTOP UNIT	3/4"	5"	240
RTU-2	HVAC ROOFTOP UNIT	3/4"	5"	130
	TOTAL			993

LEGEND

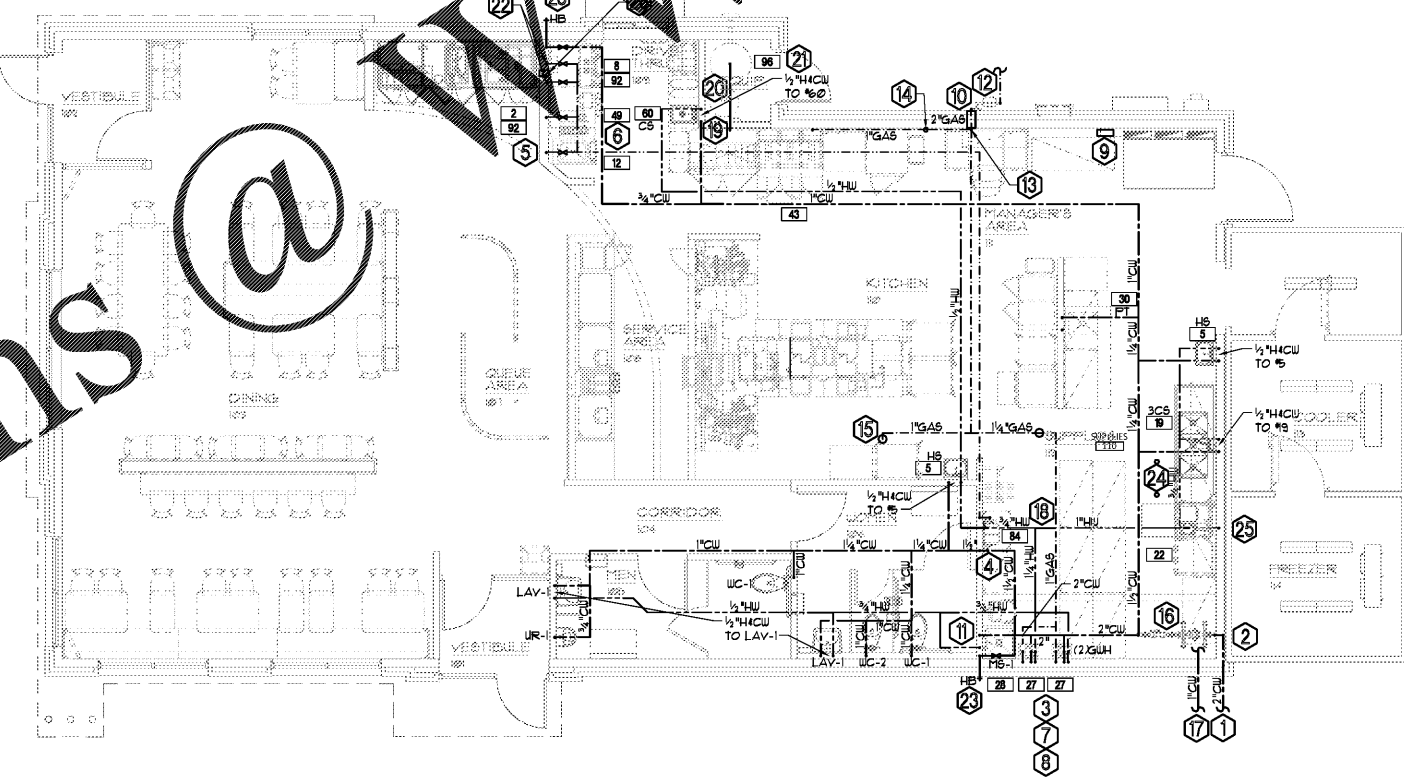
GAS	---
COLD WATER	---
HOT WATER	---
FILTERED WATER	---
USED FRYER OIL	---

PLUMBING GENERAL NOTES:

- PLUMBING CONTRACTOR SHALL PROVIDE ALTERNATE BID FOR SURE SEAL TRAP GUARD OR EQUIVALENT TRAP GUARD AS OPPOSED TO TRAP PRIMERS IF LOCAL CODE PERMITS THE USE OF TRAP GUARDS.
- PLUMBING CONTRACTOR SHALL PROVIDE ALTERNATE BID FOR UPONOR PEX TUBING SYSTEM ON THE DOMESTIC WATER SYSTEM INCLUDING ALL THE FITTINGS, MANIFOLDS, REGULATORS, SUPPORTS, ETC. SEE PLUMBING SPECIFICATIONS FOR PEX TUBING SYSTEM SPECIFICATIONS.
- ROUTE PIPING UP IN TRUSS SPACE WHERE CEILING SPACE IS LIMITED.
- ALL PIPING AND ASSOCIATED PLUMBING EQUIPMENT FOR SODA SYSTEM SHALL BE INSTALLED BY A STATE LICENSED PLUMBING CONTRACTOR.
- ALL GAS PIPING IN CONCEALED AREAS SHALL BE WELDED.

KEYED NOTES:

- CONNECT WATER LINE TO SITE UTILITY CONTRACTOR PROVIDED WATER SERVICE LINE 2" OUTSIDE BUILDING WALL AND EXTEND TO BUILDING. COORDINATE EXACT LOCATION AND POINT-OF-CONNECTION WITH SITE UTILITY CONTRACTOR AND ARBY'S CONSTRUCTION MANAGER.
- DOMESTIC WATER SERVICE ENTRANCE. REFER TO DETAIL ON SHEET P4.
- PROVIDE WATER HEATERS ON FACE OF WALL REFER TO DETAIL ON THIS SHEET.
- 1/2" CU WITH BALL SHUT OFF VALVE AND ASSE 1022 LISTED BPP 6" BELOW CEILING TO WATER BOOSTER FILTER SYSTEM (84). COORDINATE EXACT REQUIREMENTS WITH PEPSI VENDOR. REFER TO WATER FILTER SYSTEM DETAIL ON SHEET P4.1.
- CONNECT TO PEPSI PROVIDED FILTERED WATER LINE ABOVE CEILING AND PROVIDE 1/2" FU DROP IN WALL TO 2" AFF FOR SHAKE MACHINE (12). PROVIDE BALL STOP VALVE, ASSE 1022 LISTED BPP AND FINAL CONNECTION TO EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH PEPSI VENDOR.
- CONNECT TO PEPSI PROVIDED FILTERED WATER LINE ABOVE CEILING AND PROVIDE 1/2" FU DROP DOWN IN WALL AND UNDER COUNTERTOP TO 44" AFF FOR COFFEE MAKER (49). PROVIDE BALL SHUTOFF VALVE, ASSE 1022 LISTED BPP AND FINAL CONNECTION TO EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH PEPSI VENDOR.
- INSTALL WATER HEATER CONCENTRIC INTAKE AIR AND FLUE VENT PIPING THROUGH ROOF PER DETAIL ON SHEET P4.2.
- CU, HU, HUR, AND GAS PIPING ROUTED TO WATER HEATERS. REFER TO WATER HEATER DETAIL ON THIS SHEET.
- 1/2" CUH REMOTE CONTROLS (5 STACKED). PC TO COORDINATE THIS WORK WITH EC.
- ROUTE GAS PIPING INTO BUILDING AND RISE IN WALL CAVITY TO ABOVE CEILING WITHIN TRUSS SPACE. PROVIDE WATERTIGHT SEAL AT WALL PENETRATION. PAINT EXTERIOR PIPING TO MATCH EXTERIOR WALL FINISHES. COORDINATE COLOR WITH CONSTRUCTION MANAGER AND ARCHITECT.
- 1/2" CUH DOWN IN WALL TO MOP SINK.
- GAS METER AND SERVICE ENTRANCE. REFER TO DETAIL ON SHEET P4.1. PC SHALL COORDINATE NEW GAS SERVICE AND METER WITH LOCAL NATURAL GAS AUTHORITY. TOTAL GAS LOAD: 995 CFH DELIVERY PRESSURE: 1" WC. TOTAL EQUIVALENT LENGTH OF PIPE: 125 FEET.
- GAS PIPING ROUTED ABOVE CEILING WITHIN TRUSS SPACE.
- PROVIDE 1" GAS PIPING DOWN THROUGH CEILING TO MECHANICAL GAS SHUT-OFF VALVE. MECHANICAL GAS SHUT-OFF VALVE FURNISHED BY HOOD MANUFACTURER AND INSTALLED BY THE PC. MANUAL SHUT-OFF VALVE PROVIDED BY PC. INSTALL MECHANICAL VALVE AND MANUAL VALVE BELOW CEILING. REFER TO GAS RISER DIAGRAM ON THIS SHEET AND DETAIL ON SHEET P4.2.
- 1" GAS PIPING ROUTED UP THROUGH ROOF. REFER TO SHEET P2.2 FOR CONTINUATION REFER TO ROOF PENETRATION DETAIL ON SHEET P4.2.
- AREA FOR WATER METER AND BACKFLOW PREVENTER ACCESS.
- IF IRRIGATION SYSTEM IS REQUIRED, PROVIDE 1" TAP METER AND ASSE 1013 BACKFLOW ASSEMBLY INSIDE BUILDING FOR IRRIGATION SYSTEM. DO NOT PROVIDE IF NOT REQUIRED. CONTRACTOR TO VERIFY REQUIREMENTS WITH CONSTRUCTION MANAGER AND LOCAL CODE AUTHORITY.
- PROVIDE CHECK VALVE, BALL VALVE AND PETE'S PLUGS ABOVE CEILING IN HUR PIPING.
- PC SHALL ROUTE 3/4" GALVANIZED USED FRYER GREASE PIPING DOWN ON WALL AND HORIZONTALLY TO THE FRYERS PER MANUFACTURER'S RECOMMENDATIONS. SECURE INLET PIPE TO WALL WITH STANDOFF BRACKETS AND PIPE COVER. REFER TO PIPE COVER DETAIL ON SHEET P4.1. REFER TO NOTE 22 AND 23 FOR COORDINATION.
- USED FRYER GREASE PIPING ROUTED ABOVE CEILING. INSTALL PIPE PER MANUFACTURER'S RECOMMENDATIONS WITH 1/8" MIN SLOPE TO ALLOW FOR RESIDUAL GREASE TO DRAIN INTO STORAGE TANK WHEN THE SYSTEM IS NOT IN USE.
- USED FRYER GREASE HOLDING TANK (36") BY KITCHEN EQUIPMENT SUPPLIER.
- CONNECT TO PEPSI PROVIDED FILTERED WATER LINE ABOVE CEILING AND PROVIDE 1/2" FU DROP TO 2" AFF TO ICE MAKER (92) WITH UNIP CONNECTOR FURNISHED BY PEPSI VENDOR. PROVIDE BALL SHUTOFF VALVE, ASSE 1022 LISTED BPP AND FINAL CONNECTION TO EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH PEPSI VENDOR.
- 1/2" CUH DOWN IN WALL TO EXTERIOR WALL HYDRANT. PIPE INSULATION TO RUN CONTINUOUSLY WITHIN WALL STRUCTURE. COORDINATE MOUNTING HEIGHT OF WALL HYDRANT WITH ARCHITECT AND ARBY'S CONSTRUCTION MANAGER.
- INSTALL VERTICAL CONCENTRIC ROOF TERMINATION KIT FURNISHED BY WATER HEATER MANUFACTURER. REFER TO DETAIL ON SHEET P5.
- PROVIDE 1/2" VALVED HU DOWN IN WALL TO DISHWASHER (22) AND CONNECT. PROVIDE ASSE 1013 BACKFLOW PREVENTER ON HU LINE IN AN ACCESSIBLE LOCATION. PROVIDE DRAIN LINE FROM BACKFLOW PREVENTER TO NEAREST DRAIN. COORDINATE EXACT LOCATION OF DRAIN WITH CONSTRUCTION MANAGER.
- PROVIDE 4" CONDUIT IN WALL BETWEEN SODA DISPENSERS FOR SODA CONDUIT. PROVIDE 6X6 CUT OUT HOLE UNDER DRIVE THROUGH COUNTER TO CONNECT SODA LINES.



1 PLUMBING WATER & GAS PLAN

SCALE: 3/16" = 1'-0"

REVISIONS BY

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Case No. 18-000002
 New Building for
ARBY'S
 Store #8149
 1058 Dunlawton Ave.
 Port Orange, Florida

Date: 08.24.18
 Project Mgr: DM
 Drawn: BMD
 Job: 18-082
 Sheet

P3