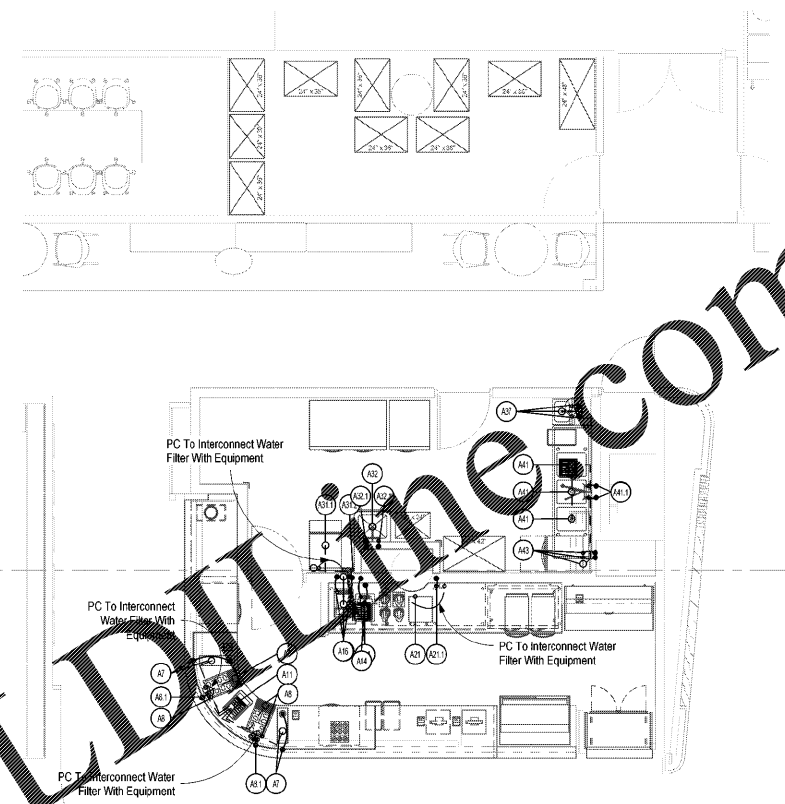


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E
D
C
B
A



① Level 1 Plumbing Plan
SCALE: 1/4" = 1'-0"

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PLUMBING NOTES
THE NOTES BELOW MAY APPLY TO ONE OR ALL DESIGN, CONSTRUCTION, OR CLOSE-OUT PHASES OF THIS PROJECT.
GENERAL NOTES
1. THE ASSIGNED KITCHEN EQUIPMENT CONTRACTOR SHALL PERFORM A THOROUGH PROJECT REVIEW OF ALL CURRENT CONTRACT DOCUMENTS THAT APPLY TO FOODSERVICE ZONES AND EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR SHALL GENERATE ENGINEERING INDEPENDENT OF THIS SHEET CONFORMING TO FIELD CONDITIONS WHERE REQUIRED AND MANUFACTURER'S REQUIREMENTS FOR EQUIPMENT SPECIFIED AND THIS INTENDED TO BE PURCHASED AND SET IN PLACE.
2. ALL PLUMBING WORK SHOWN ON THIS PLAN MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS THEY APPLY TO FOODSERVICE EQUIPMENT AND ZONES.
3. ALL WORK SERVICES, INTERCONNECTIONS, FIELD CONNECTIONS, AND FINAL CONNECTIONS INDICATED ON THIS PLAN SHALL BE COMPLETED BY CONTRACTORS OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR UNLESS SPECIFICALLY ASSIGNED TO THE KITCHEN EQUIPMENT CONTRACTOR.
4. THIS PLAN IS INTENDED TO SHOW PLUMBING REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. REFER TO ARCHITECTURAL/ENGINEERING PLANS FOR SCOPE OUTSIDE OF FOODSERVICE EQUIPMENT.
5. THIS DRAWING IS ISSUED FOR DESIGN INTENT PURPOSES ONLY. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED ROUGH IN DRAWINGS AND APPROVED SHOP DRAWINGS FOR SUPPLEMENTAL, COORDINATION AND INSTALLATION REQUIREMENTS FOR FOODSERVICE EQUIPMENT ON THIS PLAN.
6. ALL EQUIPMENT PROVIDED BY OTHERS INCLUDING BY OWNER/OPERATOR OR OTHERS OR SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY. VERIFY INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR TO VERIFY AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
7. EXISTING TO REMAIN IN PLACE, OR TO BE RELOCATED EQUIPMENT SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED, CONTACT OWNER/OPERATOR FOR INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR TO VERIFY, DISCONNECT, AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
8. GENERAL CONTRACTOR TO VERIFY, DISCONNECT, AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.

P. B. PLUMBING NOTES
PLUMBING ENGINEER IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING: PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING, INSTALLING, AND MAKING FINAL CONNECTIONS TO FOODSERVICE EQUIPMENT AND SHALL PROVIDE THE FOLLOWING.
1. DRAIN LINES, FITTINGS, VALVES, AND ALL PLUMBING COMPONENTS SERVICING FOODSERVICE EQUIPMENT SHALL BE CAPABLE TO WITHSTAND HOT WATER TEMPERATURES MORE THAN 180 DEGREE FAHRENHEIT. DRAIN TEMPERATURES OF 150 DEGREE FAHRENHEIT TO BOILING (SOMETIMES UNDER PRESSURE), AND STEAM (IF APPLICABLE) TEMPERATURES AS PER DESIGN PRESSURES. PROVIDE MINIMUM 3/4" (1.9MM) LENGTH CAST IRON PIPING FROM FLOOR SINKS TO WITHSTAND HOT WATER TEMPERATURES.
2. PRESSURE-REDUCING OR REGULATING VALVES, FAUCETS AND WATER INLETS, IN-LINE WATER FILTERS, VACUUM BREAKERS, BACKFLOW PREVENTERS, ANTI-SCALD VALVES, STAINLESS STEEL DOUBLE CHECK VALVES FOR SODA SYSTEM, ETC. NOT OTHERWISE SUPPLIED TO FOODSERVICE EQUIPMENT AS REQUIRED BY LOCAL CODES AND MANUFACTURER'S SPECIFICATIONS.
3. WASTE LINES, DIRECT AND INDIRECT, TO BE PITCHED DOWNWARD AND TO HAVE ADEQUATE CLEAN-OUT PROVISIONS PER CODE.
4. FLOOR SINKS SHOULD BE SPECIFIED AND INSTALLED WITH TOP GRATES AND REMOVABLE SEDIMENT BUCKET INCLUDED. FLOOR SINK TOP TO BE SET FLUSH WITH FINISHED FLOOR UNLESS DIRECTED OTHERWISE BY LOCAL CODE.
5. PROVIDE ACID-RESISTANT FLOOR SINKS FOR EQUIPMENT THAT DISCHARGES CO2 (I.E. SODA AND WATER DISPENSERS). VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.
6. AREA FLOOR DRAINS IN QUANTITY AND PROPOSED LOCATION AS COORDINATED WITH OWNER/OPERATOR. SLOPE FLOORS TO AREA DRAINS AT MINIMUM OF 1/8" (3.2MM) PER FOOT (24MM) WITHIN A 6' (1.8M) RADIUS OR PER LOCAL CODE.
7. GREASE TRAPS, INCLUDING GOING, AS REQUIRED. INSTALL GREASE TRAPS OUTSIDE OF BUILDING WHEREVER POSSIBLE. INSTALLATION WITHIN THE BUILDING MUST COMPLY WITH LOCAL CODES AND REGULATIONS. NOTIFY RICCA DESIGN STUDIOS WHEN INSTALLATION MUST BE WITHIN ANY KITCHEN AREAS OR FOODSERVICE ZONES.
8. PROVIDE AND INSTALL INDIRECT DRAIN LINE FROM WALK-IN OR ROOM COOLING EVAPORATOR COILS TO ASSIGNED FLOOR SINK. DRAIN LINES TO BE TRAPPED AT ELEVATION POINT OUTSIDE OF COOL ZONE. DRAIN LINES WITHIN FREEZER CAVITIES TO BE INSULATED AND WRAPPED WITH HEAT TAPE PROVIDED BY E.C.

8. NOTES CONCERNING PLUMBING ROUGH-INS:
A. FURNISH AND INSTALL ALL WATER, WASTE, GAS, AND STEAM LINES AND SIZE SERVICE LINES TO PROVIDE FULL AND VOLUME FOR ALL EQUIPMENT SUPPLIED BY RESPECTIVE MAINS AND BRANCHES. PROVIDE BRASS BALL VALVE (MINIMUM STOP VALVES AND TAG ROUGH-INS WITH THE APPROPRIATE IDENTIFYING LABELS. SERVICE LINES STUBBED OUT OF WALLS, UP FROM FINISHED FLOORS, OR A CONCRETE CURB A MINIMUM OF 2" (50MM). VENT PIPES MUST BE CONCEALED IN WALLS OR COLUMN CHASE. USE ALUMINUM OR AIR GAS ASSEMBLY FOR ISLAND FACILITIES. ALL FLOOR PENETRATIONS MUST BE SEALED WATER-TIGHT.
B. WASTE LINES SHOWN ARE DESIGNED TO COMPLY WITH THE BEST KNOWN AND GENERALLY ACCEPTED HEALTH AND SANITARY CONDITIONS AND CODES. PLUMB LINES TO ENSURE NO INTERFERENCE WITH THE UNTRIPPED USE OR SERVICING OF FOODSERVICE EQUIPMENT. RUN LINES BELOW EQUIPMENT AT THE HIGHEST POSSIBLE ELEVATION ABOVE FINISHED FLOOR. NO LINES ARE TO LAY ON OR BE SECURED TO THE FLOOR. FIELD-CUTTING OF ANY FOODSERVICE EQUIPMENT TO MAKE WAY FOR WASTE LINES WITHOUT CONSENT OF KITCHEN EQUIPMENT CONTRACTOR IS PROHIBITED.
C. SUPPLY 140-DEGREE FAHRENHEIT HOT WATER TO ALL WAREWASHING EQUIPMENT. 105-DEGREE FAHRENHEIT HOT WATER TO HAND WASH SINKS AND 70-DEGREE FAHRENHEIT HOT WATER TO ALL OTHER EQUIPMENT UNLESS OTHERWISE INSTRUCTED BY CODE. INSULATE WATERS AND STEAM LINES (IF REQUIRED) TO CONFORM WITH ACCEPTED PRACTICE. EXPOSED PIPES AND FITTINGS ABOVE A WORKING HEIGHT OF 34" (863MM) ABOVE FINISHED FLOOR SHALL BE CHROME-PLATED OR COVERED WITH A STAINLESS STEEL SLEEVE.
D. SIZE FUEL GAS SERVICE LINES TO PROVIDE THE REQUIRED BTU RATING INDICATED FOR THE EQUIPMENT, AT A LOW PRESSURE OF APPROXIMATELY 7 TO 9" OF WATER COLUMN. INSTALL AUTOMATIC MECHANICAL SHUT-OFF VALVES. FURNISHED BY THE SUPPRESSOR SYSTEM CONTRACTOR. IN GAS SUPPLY LINES TO EQUIPMENT UNDER EXHAUST HOOD ASSEMBLIES.
E. PROVIDE CHILLED WATER (OR CONDENSER WATER) TO AND FROM COMPRESSORS FROM COOLING TOWER (OR BUILDING CONDENSER SYSTEM) AS SHOWN. PROVIDE RICCA DESIGN STUDIOS WITH CHILLED WATER TEMPERATURE TO PROPERLY ENGINEER REFRIGERATION EQUIPMENT. CHILLED WATER PRESSURE SHALL BE PROVIDED AT NO GREATER THAN 150 PSI.

9. NOTES CONCERNING PLUMBING CONNECTIONS:
A. ALL WATER, GAS, AND STEAM WHERE APPLICABLE SERVICES FOR PORTABLE AND COINTEGRATED EQUIPMENT MUST BE CONNECTED TO THE EQUIPMENT WITH A COMMERCIAL TYPE FLEXIBLE HOSE AND QUICK DISCONNECT FITTINGS TO MEET AS A GENERAL APPROVAL FOR COMMERCIAL KITCHEN EQUIPMENT.
B. WATER PROVIDED FOR STEAM PRODUCING EQUIPMENT MUST HAVE A WATER HARDNESS NO GREATER THAN 20 GRAMS AND A PH LEVEL BETWEEN 7.0 AND 7.5.
C. WATER USED FOR COOLING WATER TO CONDENSING UNITS OR COMPRESSORS MUST BE TREATED TO INHIBIT THE FORMATION OF DEPOSITS IN THE CONDENSING TUBES.
D. STEAM (WHERE APPLICABLE) THAT COMES IN DIRECT CONTACT WITH FOOD, FOOD HOLDING EQUIPMENT, OR WAREWASHING EQUIPMENT MUST BE POTABLE STEAM.
E. INTERPIPE HOT WATER SUPPLY LINES BETWEEN BOOSTER HEATER AND WAREWASHING EQUIPMENT WHEN SPECIFIED SEPARATELY. LINES SHALL BE INSULATED THE LENGTH OF THE LINE-RUN.
F. INTERPIPE WATER LINES BETWEEN WATER WASH VENTILATOR ASSEMBLIES AND CONTROL PANELS. SUPPLY A MINIMUM OF 140 DEGREE FAHRENHEIT HOT WATER AT CONTROL PANEL. LINES SHALL BE INSULATED THE LENGTH OF THE LINE-RUN. REFER TO MANUFACTURER DRAWINGS FOR EXACT REQUIREMENTS.
G. INTERPIPE CENTRALIZED WASTE GREASE PLUMBING LINE FROM PUMPING/COLLECTION STATION TO GREASE WASTE COLLECTION TANK IN PITCHED MANNER PER MANUFACTURER'S DIRECTION. PROVIDE HEAT TRACE CABLE/TAPE ON LINE-RUN WHERE AMBIENT AIR TEMPERATURE ALONG LINE-RUN IS BELOW 70 DEGREE FAHRENHEIT. HEAT TRACE CABLE/TAPE SHALL BE PROVIDED BY E.C.
H. WASTE CONNECTIONS FOR INDIVIDUAL SECTIONS OF WATER WASH VENTILATORS TO A MAIN DRAIN CONNECTION. REFER TO MANUFACTURER'S DRAWINGS FOR EXACT REQUIREMENTS.
I. INSTALL IN-LINE WATER FILTERS AS WELL AS INCOMING AND OUTGOING LINES AS FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR.
J. WATER PIPES BETWEEN THE BACKFLOW PREVENTER AND WATER FILTERS SHALL BE STAINLESS STEEL, NOT COPPER OR ALLOYS CONTAINING COPPER (SUCH AS BRASS).

9. NOTES CONCERNING PLUMBING CONNECTIONS:
K. WATER PIPES BETWEEN THE BACKFLOW PREVENTER AND WATER FILTER AT SODA SYSTEM CARBONATOR SHALL BE STAINLESS STEEL. HOT COPPER OR ALLOYS CONTAINING COPPER (SUCH AS BRASS). DRAIN PIPE AT SODA DISPENSERS SHALL BE STAINLESS STEEL OR PLASTIC PIPE WASTE LINE UNTIL A POINT WHERE THE WASTE HAS BEEN DILUTED BY AN UPSTREAM FIXTURE.
L. INTERCONNECT FOOD WASTE SYSTEMS PER MANUFACTURER'S DRAWINGS. AUTOMATICALLY DISPENSED CHEMICALS FOR CLEANING SHALL HAVE AN ACCESSIBLE BACK FLOW PREVENTION DEVICE INSTALLED.
M. EQUIPMENT THAT IS CONNECTED TO POTABLE WATER AND UTILITIES.
N. DRAIN LINES FROM ICE BINS ARE TO BE INSULATED THE ENTIRE LINE-RUN TO FLOOR SINK.
P-C ADDITIONAL NOTES

Plumbing Symbol Legend

	HOT/COLD WATER
	DIRECT WASTE (DW)
	INDIRECT WASTE (IW)
	FUEL GAS
	STEAM SUPPLY
	STEAM CONDENSATE RETURN
	COOLING WATER SUPPLY
	COOLING WATER RETURN
	HOSE BIBB, HOT or COLD WATER
	HOSE BIBB, HOT and COLD WATER with MIXING VALVE and VACUUM BREAKER
	AREA FLOOR DRAIN (FD)
	ABOVE FINISHED FLOOR
	BELOW FINISHED FLOOR
	BRANCH TO CONNECTION
	DOWN FROM ABOVE
	REFER TO INDICATED NOTE

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FOODSERVICE
PLUMBING PLAN

STATE PROJECT NO. 19244
A/E PROJECT NO. QF400-4
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