

GENERAL PLUMBING NOTES

- A. FOOD SERVICE EQUIPMENT: REFER TO OTHER PORTIONS OF PLANS AND SPECIFICATIONS FOR FURTHER INFORMATION ABOUT FOOD SERVICE ITEMS FURNISHED AND WORK PERFORMED BY OTHERS. VERIFY ROUGH-IN REQUIREMENTS WITH EQUIPMENT FURNISHER.
- B. HEALTH DEPARTMENT: COMPLY WITH LOCAL HEALTH DEPARTMENT (HD) REGULATIONS.WHEREVER POSSIBLE, INSTALL ALL PIPING CONCEALED. CONFORM TO HD REQUIREMENTS FOR LOCATIONS OF FLOOR SINKS.
- C. WORKMANSHIP SHALL BE FIRST CLASS, ACCEPTABLE TO OWNER.
- D. MAKE COMPLETE: PROVIDE ITEMS AND WORK AS REQUIRED TO COMPLETE THE INSTALLATION OF PLUMBING SYSTEMS TO FIXTURES AND EQUIPMENT: TRAPS, STRAINERS, GAUGES, GAS AND WATER PRESSURE REGULATORS, FLEXIBLE CONNECTIONS, STOP VALVES, UNIONS, ETC. PROVIDE AND CONNECT PLUMBING PIPE FROM ROUGH-INS TO ITEMS AS SHOWN, SPECIFIED AND REQUIRED.
- E. VERIFY LOCATIONS: EXISTING PIPING, POC SHOWN ON DRAWINGS HAS BEEN LOCATED FROM INFORMATION PROVIDED BY OTHERS. VERIFY EXACT LOCATION ON JOB SITE BEFORE START WORKING.
- F. BACKFLOW PREVENTION: PROVIDE BACKFLOW PREVENTERS (BFP) IN WATER LINES ONLY IF REQUIRED BY LOCAL AUTHORITIES. USE DEVICES OF TYPE (VACUUM BREAKER, DOUBLE CHECK, REDUCED PRESSURE) AND MANUFACTURER APPROVED BY LOCAL AUTHORITIES, ONLY IN LOCATIONS REQUIRED.
- G. RESTROOM TRAP PRIMERS: SOUX CHIEF "TRAP EASE" MODEL 200-090 TRAP PRIMER TAILPIECE. PROVIDE A CONTINUOUS LENGTH OF 3/8" SOFT COPPER TUBE FROM PRIMER TO TRAP, SLOPING TO TRAP; PROVIDE ELASTOMERIC INSULATION ON PIPE INSTALLED BELOW FLOOR SLAB. SEE DETAIL #9 ON SHEET P-500.
- H. WATER CONSERVATION: CONTRACTOR SHALL PROVIDE WATER FLOW LIMITING FEATURES ON FIXTURES IF/AS REQUIRED BY LOCAL AUTHORITIES.
- I. COLD WATER: CONNECT TO DOMESTIC COLD WATER VALVED STUB. EXTEND COLD WATER PIPE, SUSPENDED FROM STRUCTURE ABOVE CEILING AND DOWN IN PARTITIONS, TO SERVE FIXTURES AND EQUIPMENT.
- J. HOT WATER: PROVIDE COMMERCIAL TYPE WATER HEATER, DESIGN PER PLAN. RUN HOT WATER PIPE, SUSPENDED FROM STRUCTURE ABOVE CEILING AND DOWN IN PARTITIONS TO SERVE FIXTURE AND EQUIPMENT.
- K. SANITARY: CONNECT TO SANITARY WASTE LINE.
- L. BRANCHES: PROVIDE HOT AND/OR COLD WATER PIPES DOWN IN PARTITION TO SERVE VARIOUS EQUIPMENT PER "KITCHEN EQUIPMENT SCHEDULE".
- M. SODA CONDUIT: PROVIDE 6" CONDUIT BELOW FLOOR FROM SODA STORAGE TO SODA DISPENSER.
- N. CONDENSATE: PROVIDE 1" INSULATED PRIMARY AND SECONDARY CONDENSATE DRAIN PIPES FROM FAN-COIL UNIT ABOVE CEILING TO NEAREST FLOOR SINK.
- O. GAS SERVICE: PROVIDE ALL PIPES, VALVES AND CONNECTION TO GAS METER. FOR NATURAL GAS SERVICE, COORDINATE WITH GAS UTILITY COMPANY FOR METER REQUIREMENTS, PERMITS AND FEES. ROUTE PIPE AS REQUIRED, SUSPENDED FROM STRUCTURE ABOVE. USE WELDED PIPE, FITTINGS, AND JOINTS IN CEILING SPACE AND IN WALL AS REQUIRED BY LOCAL CODE.
- P. INDIRECT DRAIN: AN AIR GAP TWICE THE SIZE OF THE DRAIN LINE MUST BE PROVIDED BETWEEN THE DRAIN LINE AND THE SANITARY SEWER.
- Q. LIQUID WASTE FROM ALL EQUIPMENT MUST BE DISCHARGED TO THE SANITARY SEWER.
- R. FLOOR DRAIN MUST BE PLACED ADJACENT TO EQUIPMENT WHICH DISCHARGES WASTE. FLOOR DRAIN INSTALLATION MUST NOT INTERFERE WITH PROPER FLOOR MAINTENANCE.
- S. EXPOSED UTILITY LINES ON FLOORS ARE PROHIBITED. UTILITY LINES MUST NOT BE UNNECESSARILY EXPOSED ON WALLS.
- T. ALL WATER AND GAS CONNECTIONS TO ALL PLUMBING FIXTURES TO BE HARD PIPED. NO FLEX PIPE.
- U. ALL PIPES 6" A.F.F. NO FLOOR SUPPORTS ALLOWED.
- V. ALL WATER PIPES IN EXPOSED AREAS OUTSIDE WALLS AND BELOW CEILING MUST BE COPPER UNLESS NOTED OTHERWISE.

PLUMBING SPECIFICATIONS

1. WORK INCLUDES CONNECTION OF PLUMBING UTILITIES TO DEVELOPER OR LANDLORD'S UTILITIES AND INSTALLATION OF A COMPLETE PLUMBING SYSTEM WITHIN SPACE. PROVIDE NEW MATERIALS, FITTINGS, ACCESSORIES, FIXTURES AND EQUIPMENT NECESSARY FOR A COMPLETE AND PROPERLY FUNCTIONING SYSTEM AS SHOWN ON PLANS AND AS REQUIRED. WORK INCLUDES FINAL CONNECTIONS TO EQUIPMENT AND FIXTURES PROVIDED BY OTHERS. FURNISH ALL NEW MATERIALS. WORK SHALL BE PERFORMED BY EXPERIENCED TRADESMEN, AND THEIR WORKMANSHIP SHALL BE HIGH STANDARD, ACCEPTABLE TO OWNER.
2. CODES: ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS, OR ORDINANCES. PAY FOR ANY PERMITS REQUIRED, AND CALL FOR ANY REQUIRED INSPECTIONS TO BE MADE BY LOCAL AUTHORITIES.
3. INTENT OF DRAWINGS IS TO INDICATE GENERAL EXTENT OF WORK REQUIRED FOR PROJECT. DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING GENERAL LOCATION, TYPE, PIPING, FIXTURES AND EQUIPMENT REQUIRED. PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FULFILL INTENT OF PLANS. DRAWINGS SHALL NOT BE SOLED FOR EXACT MEASUREMENTS. USE DIMENSIONED ARCHITECTURAL DRAWINGS. REFER TO MANUFACTURER'S STANDARD ROUGH-IN DRAWINGS FOR PLUMBING FIXTURES, AND TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
4. FSE ROUGH-IN DRAWINGS: REFER TO ROUGH-IN DRAWINGS FURNISHED BY THE FOOD SERVICE EQUIPMENT SUPPLIER, FOR EXACT LOCATION OF WATER PIPING SUPPLIES AND DRAIN LOCATIONS TO SERVE FOOD SERVICE EQUIPMENT. DO NOT LAYOUT WORK OF THIS SECTION WITHOUT SUCH DRAWINGS.
5. COORDINATE WITH WORK OF OTHER SECTIONS AND TRADES, WITH EQUIPMENT FURNISHED BY OTHERS, AND WITH CONSTRAINTS OF EXISTING CONDITIONS OF PROJECT SITE.
6. MISCELLANEOUS EXPENSES SUCH AS HOOK-UP CHARGES, PERMITS, INSPECTIONS, AND OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING SYSTEM ARE INCLUDED AS PART OF THIS SECTION.
7. PIPING SYSTEMS, GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK INCLUDING DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIELECTRIC UNION. SEAL PIPE PENETRATIONS OF FIRE FLOORS AND FIREWALLS WITH FIREPROOF PUTTY OR GROUT. PROVIDE SUMMER OR EQUIVALENT PIPE HANGING SYSTEM IN CHASSES. PROVIDE HANGERS AS RECOMMENDED BY HANGER MANUFACTURER AND MSS-SP-58, 69 AND 89.
8. WASTE PIPING: PROVIDE ALL DRAIN, WASTE, AND SEWER PIPING WITHIN PROJECT SPACE WITH CONNECTION TO SANITARY WASTE SYSTEM ON SITE. PROVIDE A COMPLETE SYSTEM OF WASTE PIPING, CONSISTING OF SCH 40 PVC PIPE, CONNECTORS AND FITTINGS ALL PIPING SHALL BE SLOPED UNIFORMLY AT 2% UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS.
- 8.1. CLEANOUTS SHALL BE INSTALLED IN ALL HORIZONTAL DRAINAGE PIPE AND SHALL BE LOCATED NOT MORE THAN 100 FT APART.
- 8.2. CLEANOUTS SHALL BE INSTALLED AT ALL CHANGES OF DIRECTION GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A SINGLE PIPE RUN, ONLY ONE (1) CLEANOUT SHALL BE REQUIRED FOR EVERY 40 FEET OF DEVELOPED LENGTH.
9. VENTS: PROVIDE A COMPLETE SYSTEM OF VENT PIPING, CONSISTING OF SCH 40 PVC PIPE, CONNECTORS AND FITTINGS. COMBINE THE VENT RISERS IN THE CEILING SPACE. CONNECT TO EXISTING VENT MAIN.
10. WATER PIPING: CONNECT TO EXISTING WATER PIPING AND PROVIDE A NEW DOMESTIC HOT AND COLD WATER PIPING SYSTEM INSIDE THE BUILDING AS SHOWN ON DRAWINGS. LAY OUT WATER PIPING SO THAT ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL BE PEX WITH ZURU PEX PRE-ASSEMBLED MANIFOLDS. USE BLUE COLOR PEX FOR COLD WATER AND RED COLOR PEX FOR HOT WATER. PEX PIPING SHALL BE CONTINUOUS FROM MANIFOLD CONNECTION TO COPPER STUB-OUT AT EACH FIXTURE. PEX PIPING SHALL NOT BE SPLICED WITHIN WALLS. PROVIDE WATER HAMMER ARRESTERS AT RESTROOM AREA & CHINESE WOK AREA PER DRAWING SHOWN. FLUSH WATER PIPING CLEAR OF DEBRIS AND CLEAN AERATORS AND STRAINERS AT TERMINATION OF INSTALLATION.
11. NATURAL GAS PIPING INSIDE AND OUTSIDE THE BUILDING ABOVE GRADE SHALL BE SCHEDULE 40 BLACK STEEL ASTM A-33 PIPE WITH 125 LB WALLEABLE IRON SCREWED FITTINGS WHERE EXPOSED. PRIMER AND PAINT EXTERIOR GAS PIPING TO PREVENT RUST. PROVIDE ALL UNIONS, SHUT OFF VALVES AND DRIP LESS REQUIRED BY NFPA-54 AND GOVERNING CODES. PROVIDE ALL TESTS, INSPECTIONS, HANGERS AND APPURTENANCES REQUIRED FOR A COMPLETE OPERATING SYSTEM. TAP ON UTILITY GAS MAIN AND GAS METER SHALL BE BY GAS COMPANY. EXTEND PIPING FROM METER TO EQUIPMENT AS DETAILED ON DRAWINGS. PROVIDE ROUTING, HANGING, AND PENETRATIONS PER OWNER'S REQUIREMENTS.
12. PIPE INSULATION: INSULATE ALL COLD WATER AND CONDENSATE PIPING WITH 3/4", AND HOT WATER PIPING WITH 1", PREFORMED FIBERGLASS WITH ALL-SERVICE JACKET WITH VAPOR BARRIER (BY CT, OC, JM, PPG, OR KNAUF). AT CONTRACTOR'S OPTION, PLENUM-RATED ELASTOMERIC INSULATION (BY ARMSTRONG, RUBATEX OR EQUAL) MAY BE USED.
13. PIPE MARKING:
- 13.1. IDENTIFY ALL PIPING WITH ANSI/ASME A13.1 2007 APPROVED PIPE MARKER SYSTEM USING EZ ARROWS AND ARROW BANDING TAPE IN CONJUNCTION WITH EZ PIPE MARKERS. PRODUCTS AVAILABLE AT PIPEMARKERS.COM, 822-274-6271. INSTALL PER MANUFACTURERS INSTRUCTIONS.
- 13.2. IDENTIFY ALL MANIFOLDS AND ALL WALLS ON THE MANIFOLDS FOR CORRESPONDING FIXTURES.
14. SHUT-OFF VALVES WITH UNIONS SHALL BE PROVIDED AT BRANCHES TO GROUPS OF MORE THAN TWO FIXTURES, AND AT THE WATER HEATER, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. USE CHROME-FINISHED FORGED BRONZE BODY BALL VALVE, WITH TEFLON SEATS AND PACKING, 400 LB WOG, WITH SOLDER ENDS, EQUAL TO JENKINS #902-T. GAS VALVES SHALL BE ALL BRONZE LUBRICATED PLUG COCKS FOR SCREWED PIPE, BY WALWORTH, ROCKWELL, NORSTROM OR APPROVED EQUIVALENT.
15. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS OR WALLS WHERE CONCEALED CONTROL DEVICES ARE LOCATED, EXCEPT WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY-IN CEILINGS.
16. SUPPLIES AND TRAPS: PROVIDE WATER SEALED TRAPS AND SUPPLIES INSTALLED AS CLOSE AS POSSIBLE TO ALL PLUMBING FIXTURES, DRAINS, AND FOOD SERVICE EQUIPMENT OR BEVERAGE DISPENSING EQUIPMENT ITEMS FURNISHED BY OTHERS, HAVING A WASTE CONNECTION, OR REQUIRING WATER SERVICE. EXPOSED TRAPS AND SUPPLIES IN EXPOSED AREAS (INCLUDING CABINET INTERIORS) SHALL BE CHROME PLATED BRASS.
17. INSTALLATION: THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES, PER MANUFACTURER'S ROUGH-IN DIMENSIONS. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT. REPAIR ANY DAMAGE DONE TO EXISTING FEATURES AND RESTORE TO ORIGINAL CONDITIONS. PROVIDE CLEAN CONDITIONS AT TERMINATION OF WORK.
18. TEST WATER, GAS, VENT, AND WASTE SYSTEMS PER LOCAL CODE REQUIREMENTS. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP ARE DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST TILL STANDARDS ARE ACHIEVED.
19. GUARANTEE THE WORK AND THE INSTALLATION FOR ONE YEAR AFTER FORMAL ACCEPTANCE BY THE OWNER.
20. ALL SAW CUT AND PATCH BACK OF FLOOR TO MATCH EXISTING FINISHES. BACKFILL PER DEVELOPER OR OWNER' SOILS ENGINEER'S RECOMMENDATIONS

PLUMBING KEY NOTES

1. 1" G DOWN TO WATER HEATER W/ SOV (SHUT OFF VALVE).
2. 3/4" G DOWN TO RICE COOKER W/ SOV. PROVIDE 6" LENGTH OF RIGID PIPE BETWEEN RICE COOKER AND FLEXIBLE GAS LINE.
3. CW SHUT OFF BALL VALVE LOCATED WITHIN WALL AT 24" AFF. REFER TO ARCHITECTURAL DRAWINGS FOR ACCESS PANEL DETAIL.
4. 1-1/4" G DOWN TO DEEP FRYER W/ SOV.
5. 1 1/2" G DOWN TO CHINESE RANGE "20A OR 20B" W/ SOV. LOCATE STUB OUT BEHIND THE END OF RANGE FOR EASY ACCESS.
6. 1" G DOWN TO CHINESE RANGE "200" W/ SOV.
7. EXHAUST & INTAKE VENTS UP TO ROOF. COORDINATE WITH MECHANICAL DRAWINGS AND DETAIL #10 ON SHEET P-500.
8. ROUTE NEW PIPING IN WALL.
9. 2" GAS ANSUL VALVE PROVIDED BY OWNER (G.C. CALL CAPTMEARE FOR DELIVERY). INSTALL GAS ANSUL VALVE AS CLOSE TO EXTERIOR WALL AS ALLOWED PER LOCAL CODE.
10. NOT USED.
11. 1" G UP TO ROOF W/ SOV. FOR ROOFTOP UNITS.
12. 3/4" CW TO TRAP PRIMER. PROVIDE WALL ACCESS PANEL. RUN 3/4" CW BELOW FLOOR TO FLOOR DRAIN. SEE DETAIL #17 ON PLAN P-500.
13. LAV. TAILPIECE WITH TRAP PRIMER, RUN 3/4" CW BELOW FLOOR TO FLOOR DRAIN, SEE DETAIL #9 ON PLAN P-500.
14. NOT USED
15. SHUT OFF VALVE W/ HANDLE AT 11'-0" ABOVE FINISH FLOOR, EASILY ACCESSIBLE. G.C. TO INSTALL LOCATION INDICATOR STICKER PROVIDED BY PANDA EXPRESS
16. 1 1/2" GAS UP TO MAKE-UP AIR UNIT ON ROOF.
17. 3/4" HW & CW TO FAUCET (40B) FOR CHEMICAL FEED SYSTEM.
18. GAS HEADER - INSTALL TIGHT TO WALL AND TIGHT TO BOTTOM OF TRUSSES.
19. COLD WATER MANIFOLD "C" BELOW CEILING. REF ARCH ELEVATIONS
20. COLD WATER MANIFOLD "D" BELOW CEILING. REF ARCH ELEVATIONS
21. NOT USED
22. HOT WATER MANIFOLD "A" BELOW CEILING. REF ARCH ELEVATIONS
23. CONNECT NEW WATER PIPING TO EXISTING WATER HEATER.

PLUMBING SYMBOLS

	COLD WATER PIPING
	HOT WATER PIPING
	GAS LINE
	PLUMBING VENT (V)
	PLUMBING VENT (V) BELOW SLAB/GRADE
	SANITARY WASTE (SAN) BELOW SLAB/GRADE
	PIPE TURNING UP/DOWN
	GAS COCK
	F.S. WITH HALF GRATE
	FLOOR DRAIN
	FIXTURE IDENTIFICATION
	PLAN NOTE
	KITCHEN EQUIPMENT IDENTIFICATION
	VENT THRU ROOF
	ABOVE FINISHED FLOOR/GRADE
	CLEANOUT
	WALL CLEANOUT
	FLUSH FLOOR/GRADE CLEANOUT
	FIRE PROTECTION CONTRACTOR
	DEPARTMENT OF NATURAL RESOURCES
	TYPICAL
	EXISTING
	POINT OF CONNECTION
	BALL VALVE
	CHECK VALVE
	GREASE WASTE

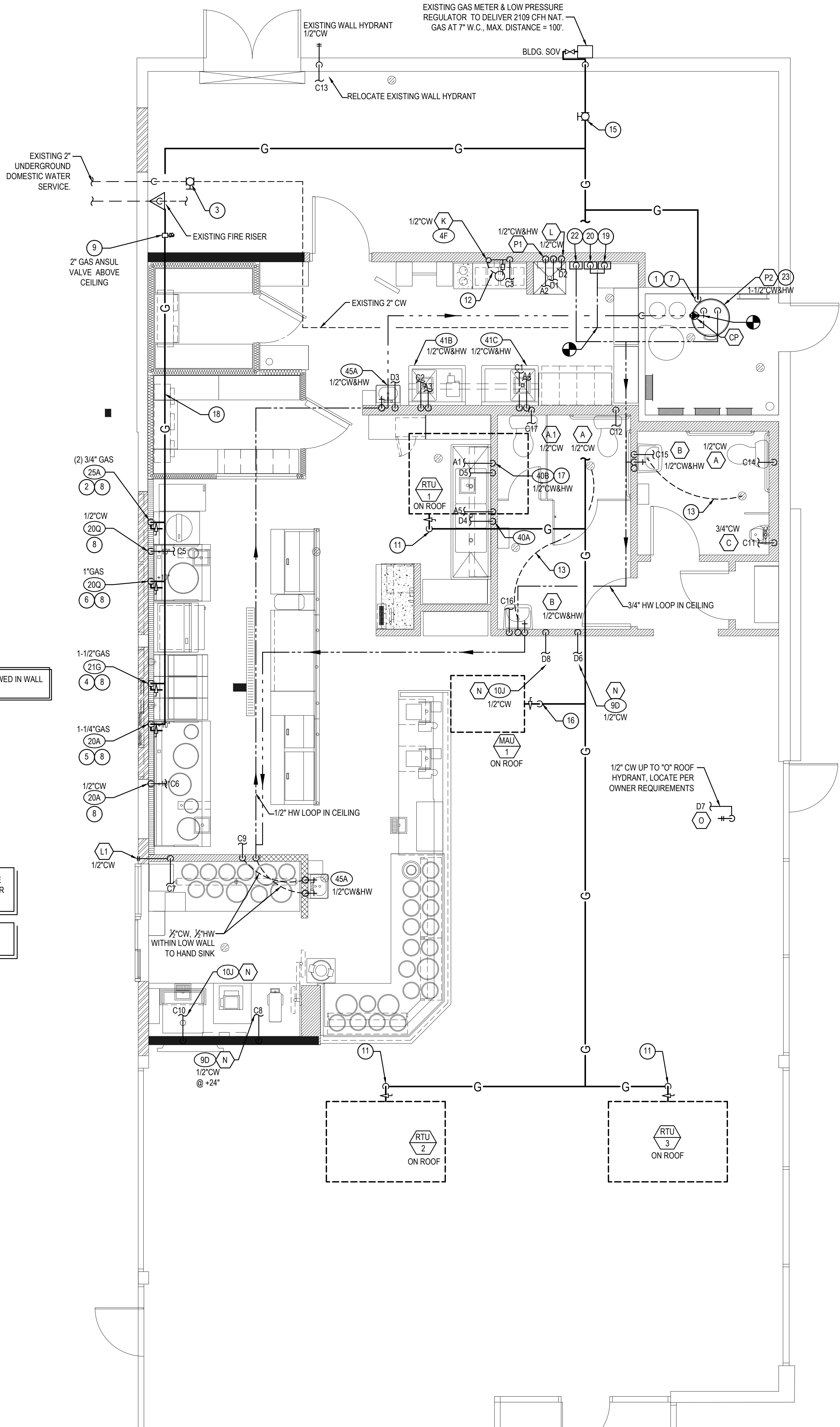
NOTES:

1. ALL WATER LINES SERVING WATER HEATERS SHALL RUN DOWN FROM CEILING SPACE IN WALL, OFFSET OVER THROUGH WALL 6" BELOW CEILING, ABOVE WATER HEATER, THEN DROP DOWN TO HEATER.
2. AVOID RUNNING WATER VALVES DIRECTLY ABOVE WATER HEATER, TO AVOID DAMAGE TO WATER HEATER CAUSED BY POSSIBLE LEAKS.
3. REFER TO PIPING RISER DIAGRAMS, SHEET P-400 FOR ALL PIPE SIZING NOT SHOWN ON FLOOR PLAN.
4. DO NOT RUN ANY PIPING HORIZONTAL IN WALL SPACE, U.N.O.
5. REFER TO RISER DIAGRAMS, SHEET P-400

NO COMBUSTIBLE MATERIALS ALLOWED IN WALL BEHIND HOOD.

FIRE SPRINKLER LINES AND SPRINKLER HEADS SHALL BE INSTALLED AS REQUIRED BY A LICENSED FIRE SPRINKLER CONTRACTOR AND CONFORM TO NFPA 13.

DEMO ALL PLUMBING PIPING AND FIXTURES NOT SHOWN TO BE REUSED.





A	TANK WATER CLOSET (HANDICAPPED): AMERICAN STANDARD 2467.016, FLUSH TANK WITH TRIP LEVER ON OPEN SIDE OF TOILET. FLOOR MOUNTED. STANDARD WHITE FINISHED. ELONGATED. FRONT BOWL. PRESSURE ASSISTED 1.6 GPF. RIM 16 1/2" A.F.F. AM. STD #142.600 TANK COVER LOCKING DEVICE
A.1	TANK WATER CLOSET (HANDICAPPED): AMERICAN STANDARD 2462.016, FLUSH TANK WITH TRIP LEVER ON OPEN SIDE OF TOILET. FLOOR MOUNTED. STANDARD WHITE FINISHED. ELONGATED. FRONT BOWL. PRESSURE ASSISTED 1.6 GPF. RIM 16 1/2" A.F.F. AM. STD #142.600 TANK COVER LOCKING DEVICE
B	LAVATORY (HANDICAPPED UNDER COUNTER): KOHLER MODEL K-2214-G-0, 18"x12" UNDER COUNTER MOUNT LAVATORY, VITREOUS CHINA. FAUCET BY TOTO, SELF GENERATING ECOPOWER SYSTEM, LOW-FLOW SENSOR FAUCET SPOUT WITH THERMAL MIXER AND CONTROLLER, TEL101-D10ET #10P. INSULATE WATER AND WASTE PIPING UNDER LAVATORY WITH TRUSBO "HANDI LAV-GUARD" #102 KIT. RI 3/4" A.F.F. TO PROVIDE & INSTALLED BY CONTRACTOR. CONTACT CHRISTINE MCALLEXANDER 800-459-7099 PANDARG@HUCINC.COM
C	AMERICAN STANDARD WASHBROOM 6590.525 0.125 GPF TOP SPUD URINAL, WITH BATTERY OPERATED FLUSH VALVE.
D	FLOOR DRAIN: ZURN # ZB415-B5 CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP. MEMBRANE FLASHING CLAMP. PROVIDE 3" OUTLET WITH P-TRAP. CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL 17P-500. PROVIDE TRAP PRIMER
D1	FLOOR DRAIN: ZURN # ZB415-B5 CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP. MEMBRANE FLASHING CLAMP. PROVIDE 3" OUTLET WITH P-TRAP. CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL 9P-500. PROVIDE TRAP PRIMER
E	FLOOR SINK: ZURN # Z1901-32, RECEPTOR WITH 12" SQUARE TOP x 8" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR. RECEPTOR PROVIDED WITH ALUMINUM DOME STRAINER WITHOUT GRATE.
E1	FLOOR SINK: ZURN # Z1901-2-32, RECEPTOR WITH 12" SQUARE TOP x 8" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR. RECEPTOR PROVIDED WITH PORCELAIN ENAMEL LOOSE-SET 1/2 GRATE AND ALUMINUM DOME STRAINER.
F	NOT USED
G	FLOOR DRAIN WITH FUNNEL: ZURN # ZB415-AR.4 ACID RESISTING EPOXY COATED CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP. 4" FUNNEL. PROVIDE 2" OUTLET WITH P-TRAP. CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL. PROVIDE TRAP PRIMER
H	NOT USED
I	EXISTING 1,500 GALLON GREASE INTERCEPTOR, CONTRACTOR TO SERVICE INTERCEPTOR AND CONFIRM PROPER OPERATION.
J	WATER HAMMER ARRESTER: J.L.R. SMITH #5020, 1" NIPPLE OR EQUAL
K	PROVIDE: ZURN 375ST STAINLESS STEEL REDUCED PRESSURE PRINCIPLE ASSEMBLY AT BAG-N-BOX. REFER TO 19P-500
L	HOSE BIBB: ACORN #8121 W/ VACUUM BREAKER, CHROME PLATED.
L1	HOSE BIBB: WOODFORD MB66 FREEZELESS COMMERCIAL CONCEALED BOX TYPE VACUUM HYDRANT IN SECURE LOCK STYLE MODULAR BOX. SINGLE CHECK ANTI SIPHON VACUUM BREAKER, CHROME HEAD, BRASS VALVE BODY HYDRANT WITH 3/4" HOSE CONNECTION 18" A.F.F.
M	TRENCH DRAIN: ZURN #Z-886-RFS, 6" WIDE x 80" LONG, TRENCH DRAIN SYSTEM. MODULAR CHANNEL SECTIONS SHALL BE MADE OF HIGH DENSITY POLYETHYLENE WITH INTERLOCK ENDS, A RADIUS BOTTOM AND REINFORCED STAINLESS STEEL SLOTTED GRATE.
N	PROVIDE WATTS SD-3 DUAL CHECK VALVE WITH ATMOSPHERIC PORT AND STRAINER AFTER EACH BV.
O	FREEZE PROOF ROOF HYDRANT: WOODFORD MODEL: SRH-MS
P1	MOP SINK: GSW # SE2424FM 24"x24" STAINLESS STEEL UNIT WITH 13" HIGH SIDES, 18 GA. STAINLESS STEEL CHICAGO FAUCET #897 WITH INTEGRAL STOPS IN SHANKS, WALL BRACE, HOSE THREADS, PAIL HOOK, VACUUM BREAKER; ROUGH BRASS FINISH; THREE FOOT RUBBER HOSE, 3" TRAPPED AND VENTED WASTE CONNECTION. PROVIDE 3/4" HW & CW RI 8" OC, 36" A.F.F. PROVIDE 3/4" CW HOSE BIBB. ACORN #8121 W/ VACUUM BREAKER, 48" A.F.F. FOR CHEMICAL CONNECTION.
P2	EXISTING GAS WATER HEATER MFG: A.O. SMITH MODEL: B7H-190, 100 GALLON, 199.900 BTU/HR GAS INPUT, 230 GPH CONTINUOUS RECOVERY @ 100° RISE.
P3	NOT USED.
CP	HW CIRC. PUMP - MFG: BELL & GOSSETT. MODEL: NBF-22U, 1/12 HP, 120 VOLT, 7.5 GPM @ 10' HEAD
RD	RD - ROOF DRAIN: EXISTING ROOF DRAIN TO REMAIN
OD	OD - OVERFLOW ROOF DRAIN: EXISTING OVERFLOW ROOF DRAIN TO REMAIN

CEMS IN THIS SCHEDULE ARE FURNISHED BY THE OWNER AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE AND CONNECTED TO THE PLUMBING UTILITIES BY THE PLUMBING CONTRACTOR, WHO SHALL INSTALL ALL PLUMBING DEVICES FURNISHED WITH EQUIPMENT.

WASTE, FS = FLOOR SINK, CFD = CONDENSATE FLOOR DRAIN, VB = VACUUM BREAKER, FLEX = A SIX FOOT COILED LENGTH OF FOOD QUALITY FLEXIBLE REINFORCED PLASTIC TUBING CONNECTED FROM THE ROUGH IN TO THE EQUIPMENT WITH ALL REQUIRED ADAPTERS AND HOSE CLAMPS.

ALL PIPES MUST MAINTAIN A MINIMUM CLEARANCE OF 6" AFF AND MUST BE WELL SUPPORTED. NO FLOOR SUPPORTS ALLOWED.

**(4A)** SERVING COUNTER MOUNTED SODA MACHINE: IF PROVIDED, SODA MACHINE INSTALLER TO PROVIDE DRAIN LINES FROM ICE BIN AND SODA MACHINE TO FS WITH 1" AIR GAP. DRAIN LINE TO BE INSULATED. WATER TO SODA MACHINE TO BE PROVIDED THROUGH BUNDLE FROM FILTER AND RACK IN KITCHEN BY SODA MACHINE INSTALLER.

**(4AB)** BEVERAGE COUNTER MOUNTED SODA MACHINE WITH ICE MACHINE: PROVIDE 3/4" COPPER PIPE IW FROM COUNTER TROUGH DRAIN TO FS WITH 1" AIR GAP. INSULATE WATER TO SODA MACHINE TO BE PROVIDED THROUGH BUNDLE FROM FILTER AND RACK IN KITCHEN BY SODA MACHINE INSTALLER. NO LESS TO BE INSTALLED. MACHINE TO SET DIRECTLY ON COUNTER.

**(4F)** WATER FILTER: PROVIDE 3/4" CW AT 96" AFF WITH BV. PROVIDE FLEX AND REDUCED PRESSURE STAINLESS STEEL BACKFLOW PREVENTOR, OR OTHER DEVICE AS REQUIRED BY LOCAL CODE. INSTALL OWNER PROVIDED WATER FILTER AND MAKE CONNECTIONS TO BACKFLOW PREVENTOR AND WATER SUPPLY. PROVIDE ALL REQUIRED FITTINGS TO ALLOW CHINA SODA MACHINE INSTALLER TO HOOK UP BOOSTER PUMP TO WATER FILTER. REFER TO DETAIL 19P-500.

**(9D)** ICE TEA MAKER: PROVIDE 3/4" CW @ 24" A.F.F. PROVIDE ALL REQUIRED FITTINGS TO ALLOW ICE TEA INSTALLER TO HOOK UP ONE BV, OTHER BV FOR OTHER EQUIPMENT.

**(10J)** SODA MACHINE MOUNTED TO COUNTER: PROVIDE 1/2" CW AT 24" A.F.F. WITH BV. PROVIDE ALL REQUIRED FITTINGS TO ALLOW ICE MACHINE INSTALLER TO HOOK UP ICE MACHINE TO CW.

**(10L)**

**(20A)** CHINESE RANGE: PROVIDE 3/4" CW AT 10" AFF WITH BV. PROVIDE PRESSURE TYPE VB OR OTHER BACKFLOW DEVICE AS REQUIRED BY LOCAL CODE, AND CONNECT TO OWNER SUPPLIED FAUCETS. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP. PROVIDE 1/2" GAS SUPPLY AT 9" AFF WITH EASILY ACCESSIBLE SHUT-OFF VALVE. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS.

**(20B)**

**(20C)** CHINESE RANGE: PROVIDE 3/4" CW AT 10" AFF WITH BV. PROVIDE PRESSURE TYPE VB OR OTHER BACKFLOW DEVICE AS REQUIRED BY LOCAL CODE, AND CONNECT TO OWNER SUPPLIED FAUCETS. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP. PROVIDE 1" GAS SUPPLY DOWN TO 9" AFF REDUCE TO 3/4" AT EQUIPMENT CONNECTION WITH EASILY ACCESSIBLE SHUT-OFF VALVE. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS.

**(21G)** FRYER: PROVIDE 1-1/4" GAS SUPPLY DOWN TO 14" AFF THEN TRANSITION TO 1" WITH 90° ANGLE AND SHUT OFF VALVE. PROVIDE ALL REQUIRED FITTINGS AND INSTALL OWNER SUPPLIED QUICK DISCONNECT FLEXIBLE PIPE AND CONNECT TO UNITS WITH 90° ANGLE. SEE DETAIL ON 500

**(25A)** RICE COOKER: PROVIDE 3/4" GAS SUPPLY AT 30", AND 3/4" GAS SUPPLY AT 10" AFF WITH SHUT OFF VALVES, ONE FOR EACH UNIT. PROVIDE ALL REQUIRED FITTINGS AND INSTALL OWNER SUPPLIED QUICK DISCONNECT FLEXIBLE PIPE AND CONNECT TO UNITS.

**(31)** WALK-IN COOLER: PROVIDE 1" COPPER PIPE IW FROM DRAIN PAN ON EACH UNIT TO FLOOR DRAIN WITH P" TRAP AND 1" AIR GAP. MOUNT ALL PIPES WITHIN WALK-IN BOX WITH 1" HOLD-OFF SUPPORTS.

**(32)** WALK-IN FREEZER: PROVIDE 1" COPPER PIPE IW FROM DRAIN PAN ON EACH UNIT TO FLOOR DRAIN WITH P" TRAP AND 1" AIR GAP. MOUNT ALL PIPES WITHIN WALK-IN BOX WITH 1" HOLD-OFF SUPPORTS. PROVIDE HEAT TRACE REFER TO ELECTRICAL DRAWING.

**(40A)** POT SINK: PROVIDE 3/4" CW AND 3/4" HW AT 14" AFF AND 8" OC WITH BVS & CV. CONNECT TO OWNER SUPPLIED FAUCET WITH COPPER PIPING. PROVIDE 2" COPPER PIPE IW (MANIFOLD ALL COMPARTMENT DRAINS INTO ONE LINE) TO FS WITH 2" AIR GAP, OR, IF REQUIRED BY LOCAL CODE, INSTALL 2" COPPER PIPE DIRECTLY TO SEWER SYSTEM. INSTALL OWNER SUPPLIED LEVER DRAIN STOPS. SEE DETAIL ON SHEET P-500.

**(40B)** FAUCET FOR CHEM: T&S BRASS MODEL #0669-POL. PROVIDED BY G.C.

**(41B)** SINGLE BOWL PREP SINK: PROVIDE 3/4" CW AND 3/4" HW AT 14" AFF AND 8" OC WITH BVS. TRANSITION TO 3/4" PRIOR TO CONNECTION. CONNECT TO OWNER SUPPLIED FAUCETS WITH COPPER PIPING. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP, OR, IF REQUIRED BY LOCAL CODE, INSTALL 2" COPPER PIPE DIRECTLY TO SEWER SYSTEM. INSTALL OWNER SUPPLIED LEVER DRAIN STOPS.

**(41C)**

**(45A)** HAND SINK: PROVIDE 3/4" CW AND 3/4" HW AT 24" AFF AND 8" OC WITH CHROME-PLATED, 3/4" TURN BALL VALVES. CONNECT TO OWNER SUPPLIED FAUCETS WITH METAL FLEX PIPING. PROVIDE 2" DRAIN PIPE WITH P" TRAP AND WALL MOUNTED CLEAN-OUT. ALL EXPOSED DRAIN PIPES AND FITTINGS TO BE CHROME PLATED, NOT P.V.C.

1. SODA CONDUIT: PROVIDE 6" PVC CONDUIT ABOVE CEILING FROM THE SIDE OF SODA STORAGE RACK TO SODA DISPENSER PER DETAIL #4 ON SHEET P-500.
2. CONDENSATE: ROUTE SHARED CONDENSATE LINE THROUGH WALK-IN COOLER. DO NOT RUN THROUGH WALK-IN FREEZER. PROVIDE 1" INSULATED CONDENSATE DRAIN PIPE WITH 1/2" COMPRESSIVE DISCHARGE TO FLOOR SINK OR MOP SINK WITH AIR GAP OF TWICE PIPE DIAMETER. INSTALL AT MINIMUM 76" HEIGHT A.F.F. REFER TO DETAIL #2 ON SHEET P-500.
3. ROUTE WATER HEATER DRAIN PAN TO EXISTING FLOOR DRAIN WITH AIR GAP.
4. PROVIDE TRAP PRIMER FOR FLOOR DRAIN. SEE DETAIL 17P-500.
5. ROUTE CONDENSATE DRAIN LINE DOWN IN COOLER TO LOWEST POSSIBLE LOCATION. ROUTE THROUGH WALL TO ABOVE FLOOR DRAIN. TERMINATE WITH AIR GAP DIRECTLY ABOVE FLOOR DRAIN.
6. TRAP PRIMER REFER TO DETAIL 9/P-500.
7. COMBINATION WASTE/VENT.
8. 3" PVC ROOF DRAIN WITH 3" PVC LAMB'S TONGUE NOZZLE. COLOR ANTIQUE BRONZE, ARKMAN MODEL #3N-DON/FLV ACHIEVED WITH SKUPPER AT THIS CONDITION.

ITEM	FIXTURE	QTY	WATER FU		SEWER FU	
			EACH	TOTAL	EACH	TOTAL
<b>A</b> <b>A.1</b>	WATER CLOSET	3	5	15	4	12
<b>B</b>	LAVATORY	2	2	4	1	2
<b>C</b>	URINAL	1	3	3	3	3
<b>D</b> <b>D.1</b>	FLOOR DRAIN 3" TRAP	7	—	—	5	35
<b>E</b> <b>E.1</b>	FLOOR SINK 3" TRAP	8	—	—	5	40
<b>P</b> <b>P.1</b>	MOP SINK	1	3	3	2	2
<b>G</b>	FLOOR DRAIN W/ FUNNEL 2" TRAP	2	—	—	3	6
<b>L</b> <b>L.1</b>	HOSE BIBB	2	4	8	—	—
<b>M</b>	TRENCH DRAIN 3" TRAP	1	—	—	5	5
<b>O</b>	ROOF HOSE BIBB	1	4	4	—	—
<b>4F</b>	FILTER SYSTEM	1	1	1	FS	—
<b>9D</b>	ICE TEA BREWER	2	1	2	FS	—
<b>10J</b>	400 LB ICE MACHINE	2	1	2	FS	—
<b>20A</b>	CHINESE RANGE	1	2	2	FS	—
<b>20Q</b>	CHINESE RANGE	1	2	2	FS	—
<b>40A</b> <b>40B</b>	POT SINK (3.COMP.)	1	4	4	FS	—
<b>41B</b> <b>41C</b>	PREP. SINK (1.COMP.)	2	4	8	FS	—
<b>45A</b>	HAND SINK (WALL MOUNT)	2	2	4	1	2
<b>TOTAL</b>			62		107	

SERVICE	TOTAL F.U.
DOMESTIC WATER	62
SANITARY SEWER	107

SERVICE	SIZE MAIN	CAPACITY
DOMESTIC WATER	1-1/2 INCH	33 GPM
SANITARY SEWER	4 INCH	107 F.U.
FUEL GAS	3 INCH	2109 CFH
FIRE PROTECTION	INCH	GPM

PIPE SIZE	GPM	VELOCITY FT/SEC	FIXTURE UNITS		
			F - TANK	F - VALVE	
1/2"	2.5	3.5	2 F.U. @ psi	6.0	F.U. @ psi
3/4"	6.6	4.4	8 F.U. @ psi		F.U. @ psi
1"	13.4	5.2	19 F.U. @ psi		F.U. @ psi
1-1/4"	23.3	5.9	37 F.U. @ psi		6 F.U. @ psi
1-1/2"	36.7	6.6	74 F.U. @ psi		23 F.U. @ psi
2"	76.4	7.9	254 F.U. @ psi		132 F.U. @ psi

PIPE SIZE	GPM	VELOCITY FT/SEC	FIXTURE UNITS	
			F - TANK	F - VALVE
1/2"	2.5	3.5	2 F.U. @ psi	F.U. @ psi
3/4"	6.6	4.4	8 F.U. @ psi	F.U. @ psi
1"	13.2	5.0	19 F.U. @ psi	F.U. @ psi
1-1/4"	19.0	5.0	37 F.U. @ psi	6 F.U. @ psi

FIXTURE	QTY.	FU	FU TOTAL
FLOOR DRAIN/FLOOR SINK 3" TRAP	7	5	35
TRENCH DRAIN 3" TRAP	1	5	5
MOP SINK	1	2	2
TOTAL			42 (25 GPM)

FLOW THROUGH TYPE GREASE INTERCEPTOR MINIMUM SIZE WILL BE 50 POUND GREASE CAPACITY PER 2012 IPC, TABLE 1003.34.1.

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