

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 TAUPIECE. 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 FULL INTENT OF PLANS. DRAWINGS SHALL NOT BE SCALED 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 SUMNER OR EQUIVALENT PIPE HANGING SYSTEM IN CHARGES. 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 MAN.
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 ZURN PEX (ASTM F877, SDR 5) SHUTTING) WITH ZURN PEX PRE-ASSEMBLED MANIFOLDS. FITTINGS AND JOINTS FOR PEX-A TUBE: ASTM F1989 COMPATIBLE COLD EXPANSION FITTINGS, WATCHING PEX TUBE DIMENSIONS. 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. FLUSH WATER PIPING CLEAR OF DEBRIS AND CLEAN AERATORS AND STRAINERS AT TERMINATION OF INSTALLATION.
11. NATURAL GAS PIPING: INSTALL OUTSIDE THE BUILDING ABOVE GRADE SHALL BE SCHEDULE 40 BLACK STEEL, ASTM A-53, PIPE WITH 125 LB MALLEABLE IRON SCREWED FITTINGS WHERE EXPOSED. PRIMER AND PAINT EXTERIOR GAS PIPING YELLOW TO PREVENT RUST. PROVIDE ALL UNIONS, SHUT OFF VALVES AND DRIP LEES 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 1/2", AND HOT WATER PIPING WITH 1", PREFORMED FIBERGLASS RTRF ALL-SERVICE JACKET WITH VAPOR BARRIER (BY CT, CC, AL, 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 PIPEMARKER.COM. 822-274-6271. INSTALL PER MANUFACTURERS INSTRUCTIONS.
- 13.2. IDENTIFY ALL MANIFOLDS AND ALL VALVES 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, NORDSTROM 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'S SOILS ENGINEER'S RECOMMENDATIONS

PLUMBING KEY NOTES

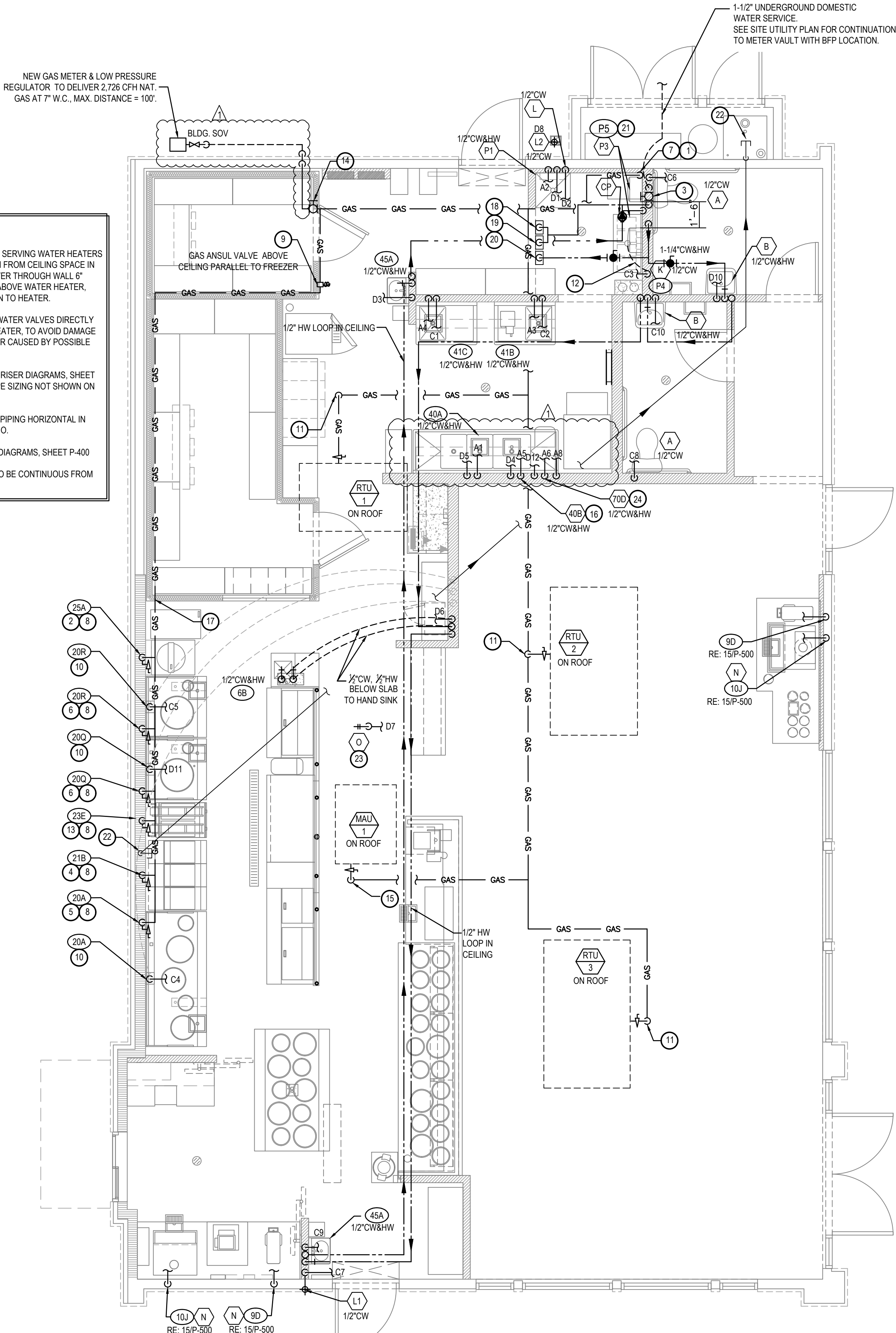
1. 1-1/4" G DOWN TO WATER HEATER W/ SOV (SHUT OFF VALVE).
2. (2)3/4" G DOWN TO RICE COOKER W/ SOV. PROVIDE 6" LENGTH OF RIGID PIPE BETWEEN RICE COOKER AND FLEXIBLE GAS LINE.
3. CW SHUT OFF BALL VALVE LOCATED WITHIN WALL. REFER ARCH INTERIOR ELEVATIONS FOR HEIGHT. PROVIDE ACCESS PANEL.
4. 1/2" G DOWN TO DEEP FRYER W/ SOV.
5. 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 "20Q" OR "20R" 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. GAS ANSUL VALVE PROVIDED BY OWNER (G.C. CALL CAPTIVEWARE FOR DELIVERY). INSTALL GAS ANSUL VALVE AS CLOSE TO EXTERIOR WALL AS ALLOWED PER LOCAL CODE.
10. 1/2" WATER PIPE UP IN CURB. VALVE AND CAP.
11. 1" G UP TO ROOF W/ SOV. FOR ROOFTOP UNITS.
12. 1/2" CW TO TRAP PRIMER. PROVIDE WALL ACCESS PANEL. RUN 1/2" CW BELOW FLOOR TO FLOOR DRAIN. SEE DETAIL #17 ON PLAN P-500.
13. 3/4" GAS DOWN FOR EQUIPMENT.
14. SHUT OFF VALVE W/ HANDLE AT 11'-0" ABOVE FINISH FLOOR, EASILY ACCESSIBLE. G.C. TO INSTANT LOCATION INDICATOR STICKER PROVIDED BY PANDA EXPRESS
15. 1/2" GAS UP TO MAKE-UP AIR UNIT ON ROOF.
16. 1/2" HW & CW TO FAUCET (40B) FOR CHEMICAL FEED SYSTEM. LEFT SIDE PLUMBING ROUGH AT 24" OFF LEFT END OF SINK. SEE DETAIL 7 SHEET P-500
17. GAS HEADER - INSTALL TIGHT TO WALL AND TIGHT TO BOTTOM OF TRUSSES.
18. COLD WATER MANIFOLD "C" BELOW CEILING. REF ARCH ELEVATIONS
19. COLD WATER MANIFOLD "D" BELOW CEILING. REF ARCH ELEVATIONS
20. HOT WATER MANIFOLD "A" BELOW CEILING. REF ARCH ELEVATIONS
21. SEE HOT WATER SYSTEM DIAGRAM 5/P-400
22. 3/4" GALVANIZED PIPE, THREADED AT BOTH ENDS. ROUTE ABOVE CEILING FROM FRYERS TO STEAK STORAGE TANK.
- ROUGH-IN HEIGHT AT STORAGE ROOM: 90" AFF
- ROUGH-IN HEIGHT AT COOKLINE: 18" AFF
- VERTICAL RISE AT FRYER LOCATION HIGH AS POSSIBLE, BUT NOT TO EXCEED 15' IN HEIGHT
- SLOPE OF PIPE TO BE STEEP AS POSSIBLE BUT NO LESS THAN 1/4" PER LINEAR FOOT
23. 1/2" CW UP TO "0" ROOF ROOFYRANT, LOCATE PER OWNER REQUIREMENTS
24. CONNECTIONS TO DISHWASHER TO BE LOCATED UNDER THE DRAIN BOARD OF 3-COMP SINK. SEE DETAIL 7 ON SHEET P-500.

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
	GREASE WASTE (GW) 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
6. ALL PEX PIPING TO BE CONTINUOUS FROM MANIFOLD



WATER & GAS PLAN

1

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

P-100



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770

Telephone: 626.799.9898
Facsimile: 626.372.8288

All ideas, designs, arrangement and plans indicated or represented by this drawing are the property of Panda Express Inc. and were created for use on this specific project. None of these ideas, designs, arrangements or plans may be used by or disclosed to any person, firm, or corporation without the written permission of Panda Express Inc.

REVISIONS:

OWNER REVISIONS 01-30-23

ISSUE DATE:

ISSUE FOR PERMIT 10-20-22

ISSUE FOR BID 01-30-23

DRAWN BY: AE/SS

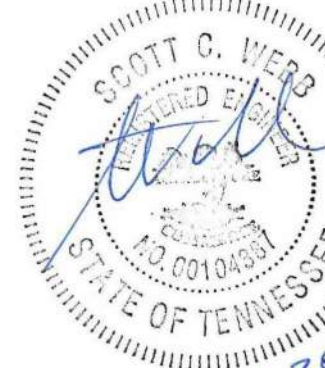
PANDA PROJECT #: D23503

PANDA STORE #: -

ARCH PROJECT #: 261-443



MPW ENGINEERING, LLC
110 W. 7TH STREET • SUITE 600 • PLAZA, OK FALLS
(516) 562-4088 • (516) 562-4087 FAX



PANDA EXPRESS

PANDA HOME 2600
NORTH RIVERSIDE DR & 2ND ST.
CLARKSVILLE, TN 37040

P-100

WATER & GAS PLAN

PANDA HOME 2600 R4

ISSUE FOR BID 01-30-23

ISSUE FOR BID 01-30-23

PLUMBING FIXTURE SCHEDULE					
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. 4142.600 TANK COVER LOCKING DEVICE. AM. STD. 5901.100.020 OPEN FRONT SEAT LESS COVER.				
B	LAVATORY: ZURN MODEL Z5344, 20"x18" WALL HUNG LAVATORY. VITREOUS CHINA, WITH 4" CENTER FAUCET HOLES & ZURN Z-1231 CONCEALED ARM CARRIER. FAUCET: TOTO TEL.101-010ET STANDARD ECOPOWER FAUCET. SENSOR, 1.0 GPM, 0.18gpc, 4" COVER PLATE #THP15840P. THERMOSTIC MIXING VALVE: TOTO TLT10R. PROVIDED & INSTALLED BY CONTRACTOR CONTACT CHRISTINE MCALEXANDER 800-459-7099 PANDAR@HJCINC.COM				
C	NOT USED				
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 # Z1902-31, RECEPTOR WITH 12" SQUARE TOP x 10" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR. RECEPTOR PROVIDED WITH STAINLESS STEEL MESH LINER FOR BUCKET WITHOUT GRATE.				
E1	FLOOR SINK: ZURN # Z1902-3.2, RECEPTOR WITH 12" SQUARE TOP x 10" 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	GREASE INTERCEPTOR: SCHIER GB-250 HYDROMECHANICAL GREASE INTERCEPTOR WITH FLOW CONTROL. REFER TO CIVIL DRAWINGS FOR LOCATION. THE DESIGN OF THE GREASE INTERCEPTOR SHALL BE APPROVED BY LOCAL CITY REQUIREMENT.				
J	NOT USED				
K	PROVIDE ZURN 375ST STAINLESS STEEL REDUCED PRESSURE PRINCIPLE ASSEMBLY AT BAG-N-BOX. REFER TO 15P-500				
L	HOSE BIBB: ACORN #8121 WITH VACUUM BREAKER, CHROME PLATED.				
L1	HOSE BIBB: WOODFORD MB65 FREEZELESS COMMERCIAL CONCEALED BOX TYPE WALL 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.				
L2	LAWN HYDRANT: WOODFORD Y96 ANTI-SIPHON, AUTOMATIC DRAINING, FREEZELESS, WITH LOCKING COVER. INSTALLED FLUSH WITH SURROUNDING AREA				
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.				
M1	TRENCH DRAIN: ZURN #Z-664-ZN, 6" WIDE x 12" LONG, TRENCH DRAIN SYSTEM. PROVIDE ONE BOTTOM OUTLET MODULE AND ONE EXTENSION MODULE WITH INTERLOCK ENDS, STAINLESS STEEL SLOTTED HEEL-PROOF GRATE.				
N	PROVIDE WATTS SD-3 DUAL CHECK VALVE WITH ATMOSPHERIC PORT AND STRAINER AFTER EACH BV.				
O	FREEZE PROOF ROOF HYDRANT: WOOFORD MODEL: SRH-MS				
P1	MOP SINK: GSW # SE2424FM 24"x24" STAINLESS STEEL UNIT , 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 R1 8" OC, 36" A.F.F. PROVIDE 3/4" CW HOSE BIBB, ACORN #8121 W/ VACUUM BREAKER, 48" A.F.F. FOR CHEMICAL CONNECTION.				
P3	TANKLESS GAS WATER HEATER SYSTEM. MFG: RINNAI TRX-02CU (2 CU199), 398.000 BTU/Hr GAS INPUT, 7.6 GPM @ 100" RISE. SEE PIPING DIAGRAM ON SHEET P-400 INCLUDE ALL PIPING, VENTING, WALL MOUNTING BRACKET (PROVIDE "TENNESSEE RACK" 18" BETWEEN UNITS) AND ANY ACCESSORIES NECESSARY TO COMPLETE SYSTEM INSTALL. PLUMBER SHALL REGISTER PRODUCT WITH RINNAI AT TIME OF INSTALLATION TO VALIDATE WARRANTY. CONTACT: RICO VIGLIETTI, RINNAI AMERICA CORPORATION CORPORATE ACCOUNTS MANAGER (901 440-7389 r.viglietti@rinnai.us				
CP	HW CIRC. PUMP - MFG: GRUNDPOS, UP 15-18B5, 1/25 HP, 115 VOLT, 2 GPM @ 7' HEAD OR APPROVED EQUIVALENT.				
RD	RD - ROOF DRAIN: J.R. SMITH #1010 CAST IRON ROOF DRAINS WITH FLASHING COLLAR AND CAST IRON DOME. FURNISH EXTENSION (SUFFIX-E) FOR INSULATED ROOFS. SUMP RECEIVER (SUFFIX-R) AND UNDER-DECK CLAMP (SUFFIX-C) FOR ALL BUT POURED-IN-PLACE INSTALLATIONS. OUTLET CONNECTION TYPE SHALL BE COMPATIBLE WITH PIPING SYSTEM. PLUMBER TO PROVIDE AND INSTALL HEAT TAPE, RADIANT SOLUTIONS #JHGF-30-1 ON BOTH DRAINS IN COLD CLIMATES.				
OD	OD - OVERFLOW ROOF DRAIN: J.R. SMITH #1070 WITH SAME FEATURES AS DESCRIBED FOR "ROOF DRAINS". STANDPIPES SHALL BE ADJUSTED AND SECURED SO THAT AFTER THE INSTALLATION OF THE DRAIN ASSEMBLY, THE TOP OF THE STANDPIPE SHALL BE (2") ABOVE THE ADJACENT ROOF SURFACE.				
40B	FAUCET FOR CHEM: T&S BRASS MODEL #B-0669-POL. PROVIDED BY G.C.				


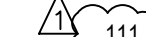


FIXTURE BRANCH SCHEDULE					
FIXTURE	COLD WATER	HOT WATER	WASTE	VENT	
WATER CLOSET (HANDICAPPED)	1/2"	--	4"	2"	
LAVATORY	1/2"	1/2"	2"	1 1/2"	
2 AND 3 - COMP SINK	1/2"	1/2"	3"	2"	
HAND SINK	1/2"	1/2"	2"	1 1/2"	
MOP SINK (U.S.)	1/2"	1/2"	3"	2"	
EQUIPMENT	1/2"	--	--	--	
FLOOR DRAIN/SINK	--	--	2" OR 3"	2"	

KITCHEN EQUIPMENT SCHEDULE	
ITEMS IN THIS SCHEDULE ARE FURNISHED BY THE OWNER (U.N.O.) 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 BN 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. NO LEGS TO BE INSTALLED. MACHINE TO SET DIRECTLY ON COUNTER.
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 LEGS TO BE INSTALLED. MACHINE TO SET DIRECTLY ON COUNTER.
P4	WATER FILTER: PROVIDE 3/2" 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 SODA MACHINE INSTALLER TO HOOK UP BOOSTER PUMP TO WATER FILTER. REFER TO DETAIL 15P-500.
6B	22"D REAR COUNTER WITH HAND SINK, PROVIDE 3/2" CW AND 3/2" HW AT 24" AFF AND 8" OC WITH CHROME-PLATED, 3/4" TURN BALL VALVES. CONNECT TO OWNER SUPPLIED FAUCETS WITH METAL FLEX PROVIDE 2" DRAIN PIPE TO FS WITH 2" AIR GAP. MOUNTED CLEAN-OUT. ALL EXPOSED DRAIN PIPES AND FITTINGS TO BE CHROME PLATED, NOT P.V.C.
9D	ICE TEA MAKER: PROVIDE 3/2" CW AT 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 ICE MACHINE. 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.
20A	CHINESE RANGE: PROVIDE 3/2" 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.
20B	CHINESE RANGE: PROVIDE 3/2" 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.
20Q	CHINESE RANGE: PROVIDE 3/2" 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.
20R	CHINESE RANGE-AUTO WOK: PROVIDE 3/2" CW AT 10" AFF WITH BV. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS. CONTRACTOR TO PROVIDE AND INSTALL THE FOLLOWING: BACKFLOW DEVICE PER LOCAL CODE WATER FAUCET (FISHER 36161) CMI LEAD FREE BRASS BALL VALVE STREAMLINE COPPER-IRON TUBE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP 1" GAS SUPPLY DOWN TO 9" AFF. REDUCE TO 3/4" AT EQUIPMENT CONNECTION WITH EASILY ACCESSIBLE SHUT-OFF VALVE.
21B	FRYER: PROVIDE 1 1/2" 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 P-500
23E	GRIDDLE: PROVIDE 3/4" GAS SUPPLY DOWN TO 20" AFF WITH EASILY ACCESSIBLE SHUT-OFF VALVE. PROVIDE ALL REQUIRED FITTINGS. CONNECT TO UNIT WITH OWNER SUPPLIED QUICK DISCONNECT (3/4"x48", (1) SWIVEL KIT)
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 3/2" CW AND 3/2" HW AT 14" AFF AND 8" OC WITH BVS & CW. 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. SEE DETAIL ON SHEET P-500.
40T	THAWING CABINET: 1-DOOR, STAINLESS STEEL GRIDS, 177GAL (670LT), 28 - 50°F FULLY PRESSED BOTTOM PLATE AND ROUNDED CORNERS. IT IS SUPPLIED WITH 15 AISI 304 GRIDS 21" AND THE RACK SUPPORT CAN BE REMOVED WITHOUT TOOLS. THE 3 FACTORY PRESET AND 1 FREE PROGRAMS. BUILT-IN REFRIGERATION UNIT WITH R134A GAS IN REFRIGERATION CIRCUIT. MEETS HACCP REQUIREMENTS. DELIVERED ON WHEELS
41B	SINGLE BOWL PREP SINK: PROVIDE 3/2" CW AND 3/2" HW AT 14" AFF AND 8" OC WITH BVS. 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 3/2" CW AND 3/2" 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.
70D	POT WASHER: HOBART PW10SER ADVANSYS VENTLESS POT/PAN/UTENSIL WASHER W/ BOOSTER HEATER. INTERNAL CONDENSING SYSTEM. VENTLESS ENERGY RECOVERY SYSTEM. HOOD NOT REQUIRED. PROVIDE (2) BRASS HOSE BIB @20" AFF. HOT WATER HB WITH RED HANDLE. COLD WATER HB WITH BLUE HANDLE.
70D1	WATER SOFTENER: HOBART WS-40, COMPACT CABINET SOFTENER. PROVIDE ON COLD WATER SIDE ONLY
P5	FILTER AT WATER HEATER, ONEFLOW, MODEL #OFTWH FILTER SUPPLIED BY PANDA. PROVIDE TRANSITION FITTINGS AT INLET AND OUTLET OF FILTER. SEE DETAIL 9P-400

WATER PIPE SIZING CHART (HOT WATER)					
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	

- PLUMBING KEY NOTES
- SODA CONDUIT: PROVIDE 6" PVC CONDUIT BELOW FLOOR FROM THE SIDE OF SODA STORAGE. RACK TO SODA DISPENSER PER DETAIL #4 ON SHEET P-500.
 - CONDENSATE: ROUTE SHARED CONDENSATE LINE THROUGH WALK-IN COOLER. DO NOT RUN THROUGH WALK-IN FREEZER. PROVIDE 1" INSULATED CONDENSATE DRAIN PIPE FROM THE EVAPORATIVE COIL. 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.
 - PROVIDE TRAP PRIMER FOR FLOOR SINK. SEE DETAIL 17P-500.
 - RDL & ODL LINES DN. IN WALL. TERMINATE ODL THRU WALL AS CLOSE TO BOTTOM PLATE AS POSSIBLE. EXTEND 1/2" PAST ARCH FINISH. WATER PROOF SEAL ALL AROUND. TERMINATE RDL & ODL WITH 4" PVC LAMB'S TONGUE NOZZLE. COLOR ANTIQUE BRONZE, ARKMANN MODEL #PDN-4. (IF AVAILABLE TIE RD TO STORM SEWER UNDERGROUND)
 - COMBINATION WASTE/VENT
 - LAV. TAILPIECE WITH TRAP PRIMER, RUN 3/2" CW BELOW FLOOR TO FLOOR DRAIN. SEE DETAIL #9 ON PLAN P-500.
 - (AAV) STUDOR MINI-VENT AIR ADMITTANCE VALVE- INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - WYE WITH CLEANOUT ON TOP.

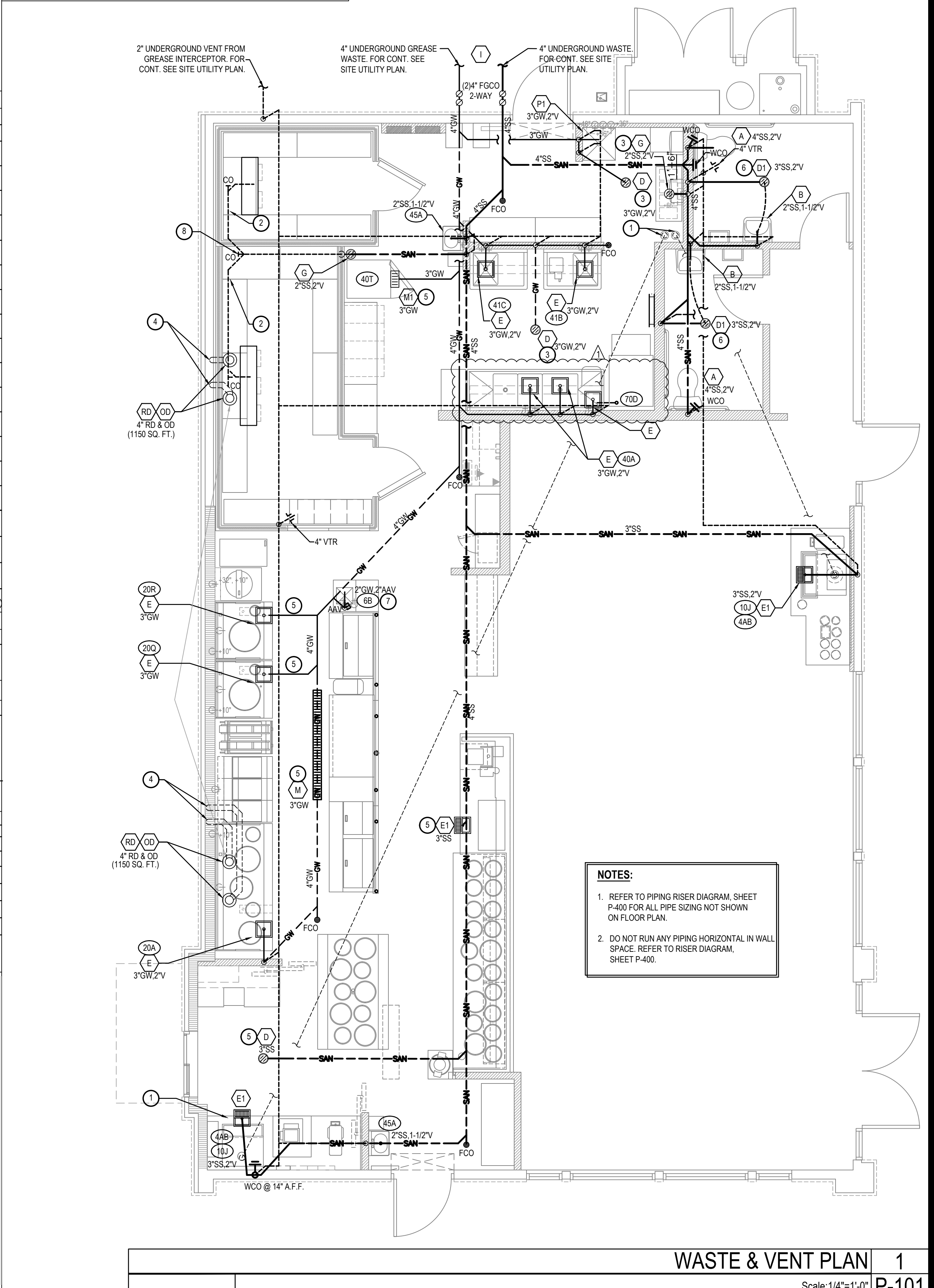
FIXTURE UNIT SCHEDULE						
ITEM	FIXTURE	QTY	WATER FU		SEWER FU	
			EACH	TOTAL	EACH	TOTAL
A	WATER CLOSET	2	5	10	4	8
B	LAVATORY	2	2	4	1	2
D/D1	FLOOR DRAIN 3" TRAP	5	—	—	5	25
E/E1	FLOOR SINK 3" TRAP	11	—	—	5	55
P1	MOP SINK	1	3	3	2	2
G	FLOOR DRAIN W/ FUNNEL 2" TRAP	2	—	—	3	6
L/L1	HOSE BIBB	4	4	16	—	—
M/M1	TRENCH DRAIN 3" TRAP	2	—	—	5	10
4F	FILTER SYSTEM	1	1	1	FS	—
9D	ICE TEA BREWER	2	1	2	FS	—
10J	400 LB ICE MACHINE	2	1	2	FS	—
20A	CHINESE RANGE	1	2	2	FS	—
20Q	CHINESE RANGE	2	2	4	FS	—
40A	POT SINK (3 COMP.)	1	4	4	FS	—
41B	PREP. SINK (1 COMP.)	2	4	8	FS	—
45A	HAND SINK (WALL MOUNT)	3	2	6	1	3
40T	THAWING CABINET	1	-	-	FS	—
70D	POT WASHER	1	4	4	FS	—

TOTAL					
FIXTURE UNIT SUMMARY					
SERVICE		TOTAL F.U.			
DOMESTIC WATER					
SANITARY SEWER					
SERVICE REQUIREMENTS					
SERVICE	SIZE MAIN		CAPACITY		
DOMESTIC WATER	1-1/2 INCH		31	GPM	
SANITARY SEWER	4 INCH		106	F.U.	
FUEL GAS	3 INCH		2,726	CFH	
FIRE PROTECTION	INCH			GPM	

WATER PIPE SIZING CHART (COLD WATER)					
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"	13.4	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	

* DOMESTIC WATER BACKFLOW PREVENTER MODEL: "WILKINS" 975XL SIZE 1-1/2"	
** PRESSURE REGULATING VALVE MODEL: N/A SIZE N/A	
GREASE INTERCEPTOR CALCULATIONS	
Reference No. 43664	Project Name: Panda Express - Clarksville, TN (23503)*
Step 1: Flow rate to grease interceptor	
Fixture flow rate: (cu in / 231) = gal x 0.75 / 2 min = 2 min flow rate	
Fixture	Flow Rate (GPM)
20A	Wok Range
20Q	3 Compartment Sink
41B	Prep Sink One Bowl
41C	Prep Sink One Bowl
45A	Hand Sink
6B	Hand Sink
70D	Condenser (dishwasher)
M - Trench Drain	Floor Drain
M1 - Trench Drain	Floor Drain
P1	Mop Basin
Total	93.37 GPM
Flow rate used to size interceptor (less of fixture or pipe size)	
Pipe size (4 in):	75 GPM
Pipe Size Flow rate per Manning's Formula	
Step 2: Grease Production	
Servings per day x Grease production value x Days between pump-outs = Grease output	
Number of meals served per day: 500	
Grease production value: 0.025 lbs per serving (Chinese: High / No flatware)	
Days between pump-outs: 90 days	
500 x 0.025 x 90 = 1575 lbs of FOG	
SCHIER MODEL	
Description: Polyethylene Grease Interceptor	
Dimensions: Length: 87", Width: 33", Height: 44"	
Flow Rates/Grease Capacities: 100 GPM / 1895.0 lbs	
Liquid Capacity: 277 gal	

PIPE MATERIAL SCHEDULE		
SERVICE	UNDERGROUND	ABOVE GROUND
COLD & HOT WATER	TYPE "K" OR "L" HARD DRAWN COPPER TUBE	PEX
SANITARY WASTE	*SCH. 40 PVC	*SCH. 40 PVC
SANITARY VENT	*SCH. 40 PVC	*SCH. 40 PVC
GAS	---	BLACK STEEL, SCHEDULE 40
INDIRECT DRAIN	---	HARD DRAWN COPPER TUBE TYPE "M"
*SCH. 40 PVC IS PREFERRED IF APPROVED BY AUTHORITY HAVING JURISDICTION. PROVIDE SCHEDULE 40 PVC FOR ALL WASTE VENT PIPING & FITTINGS.		



WASTE & VENT PLAN		1
Scale: 1/4"=1'-0"		P-101



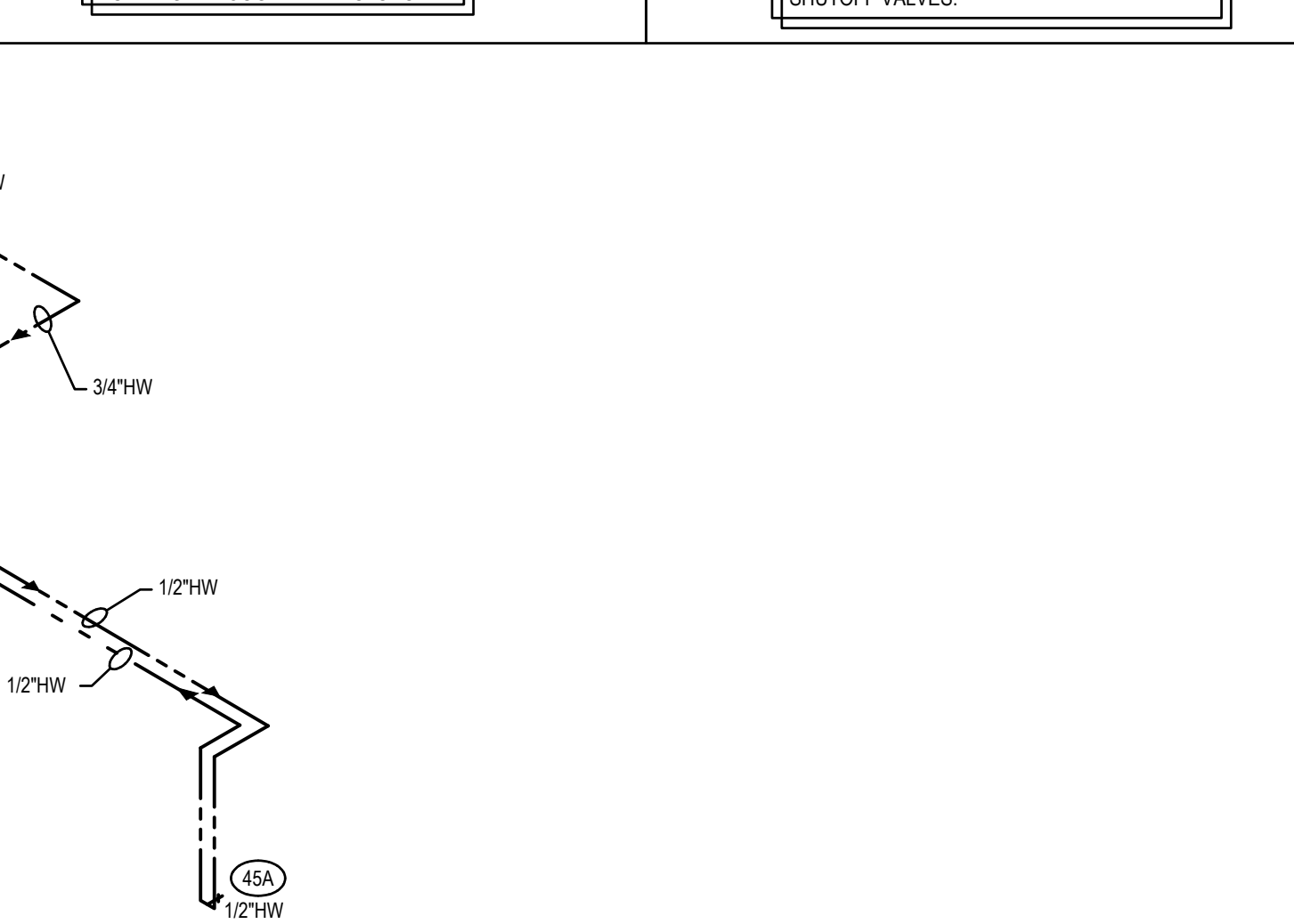
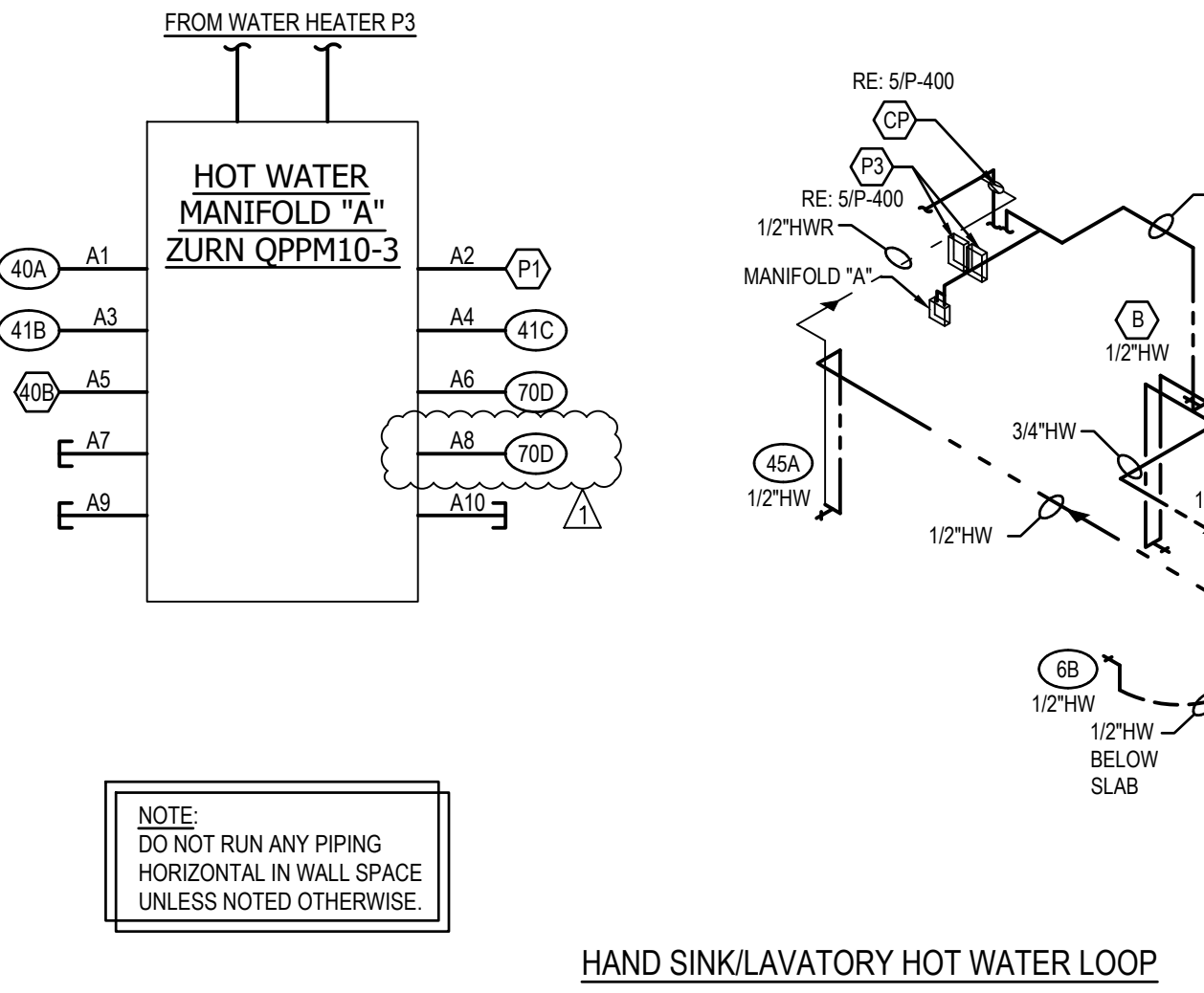
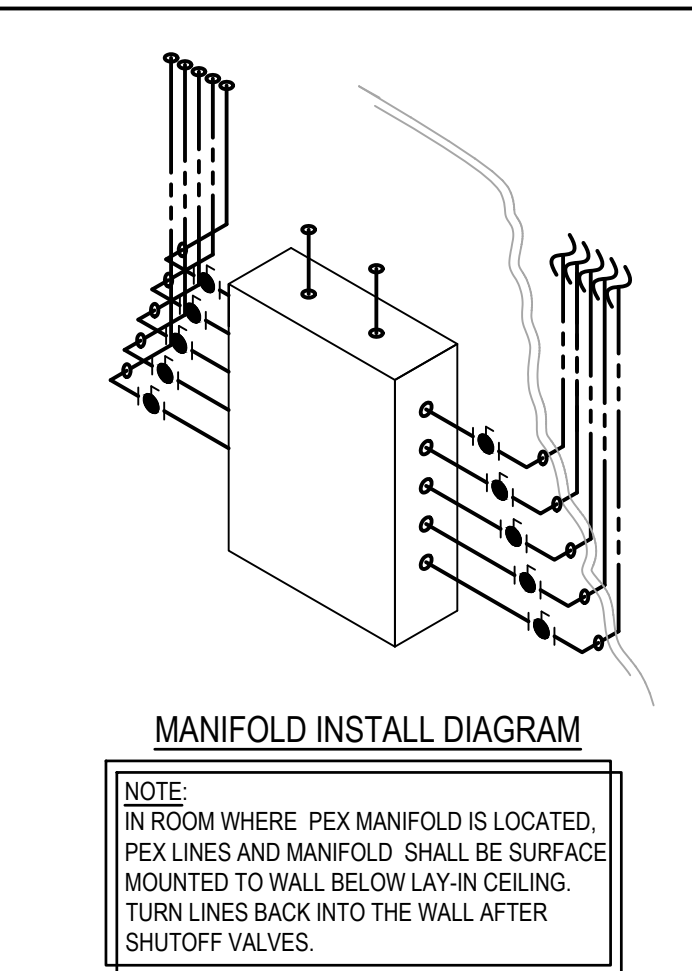
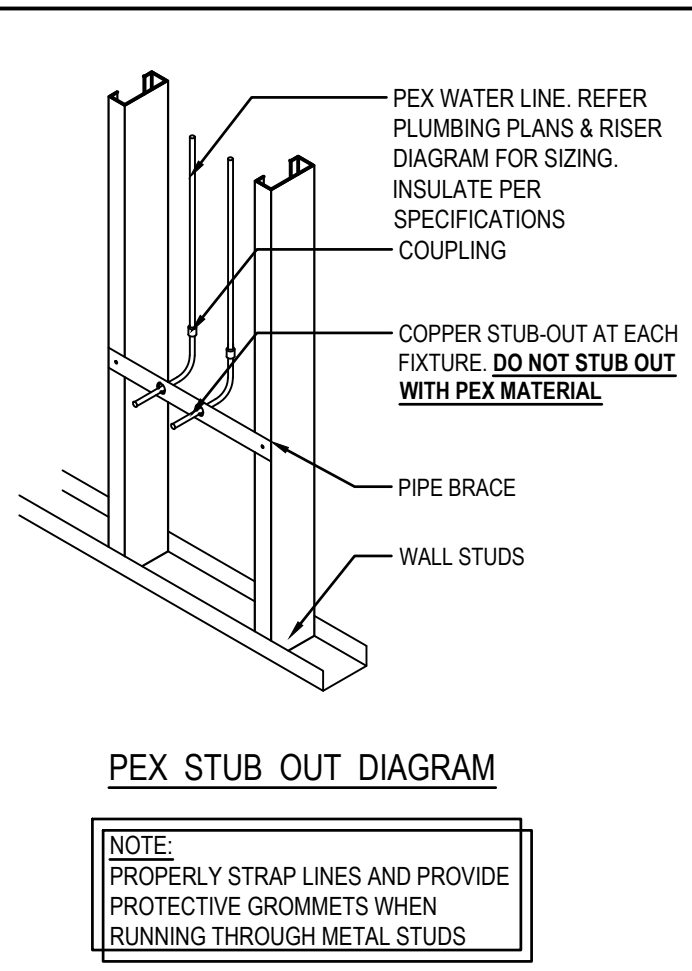
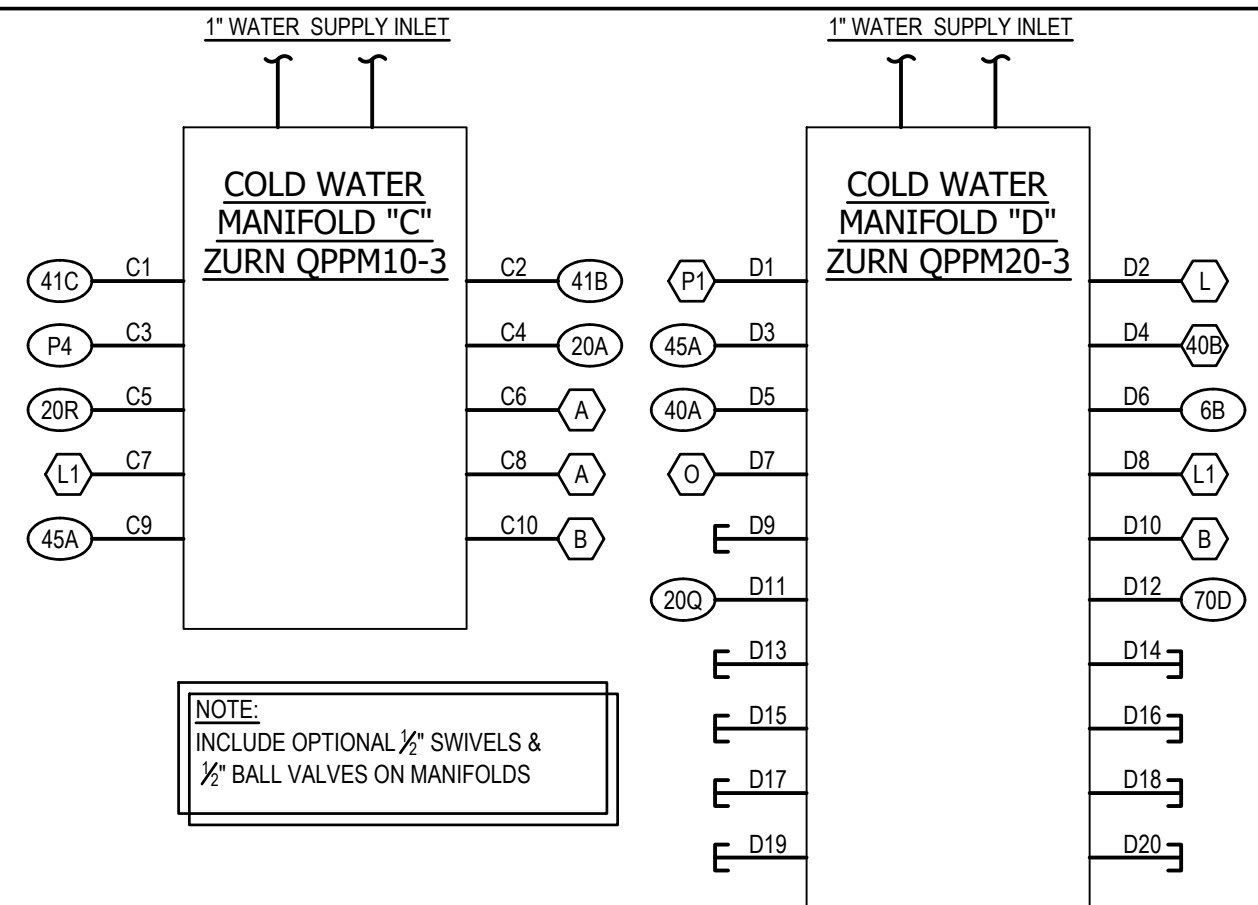
PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

All ideas, designs, arrangement and plans indicated or represented by this drawing are the property of Panda Express Inc. and were created for use on this specific project. None of these ideas, designs, arrangements or plans may be used by or disclosed to any person, firm, or corporation without the written permission of Panda Express Inc.

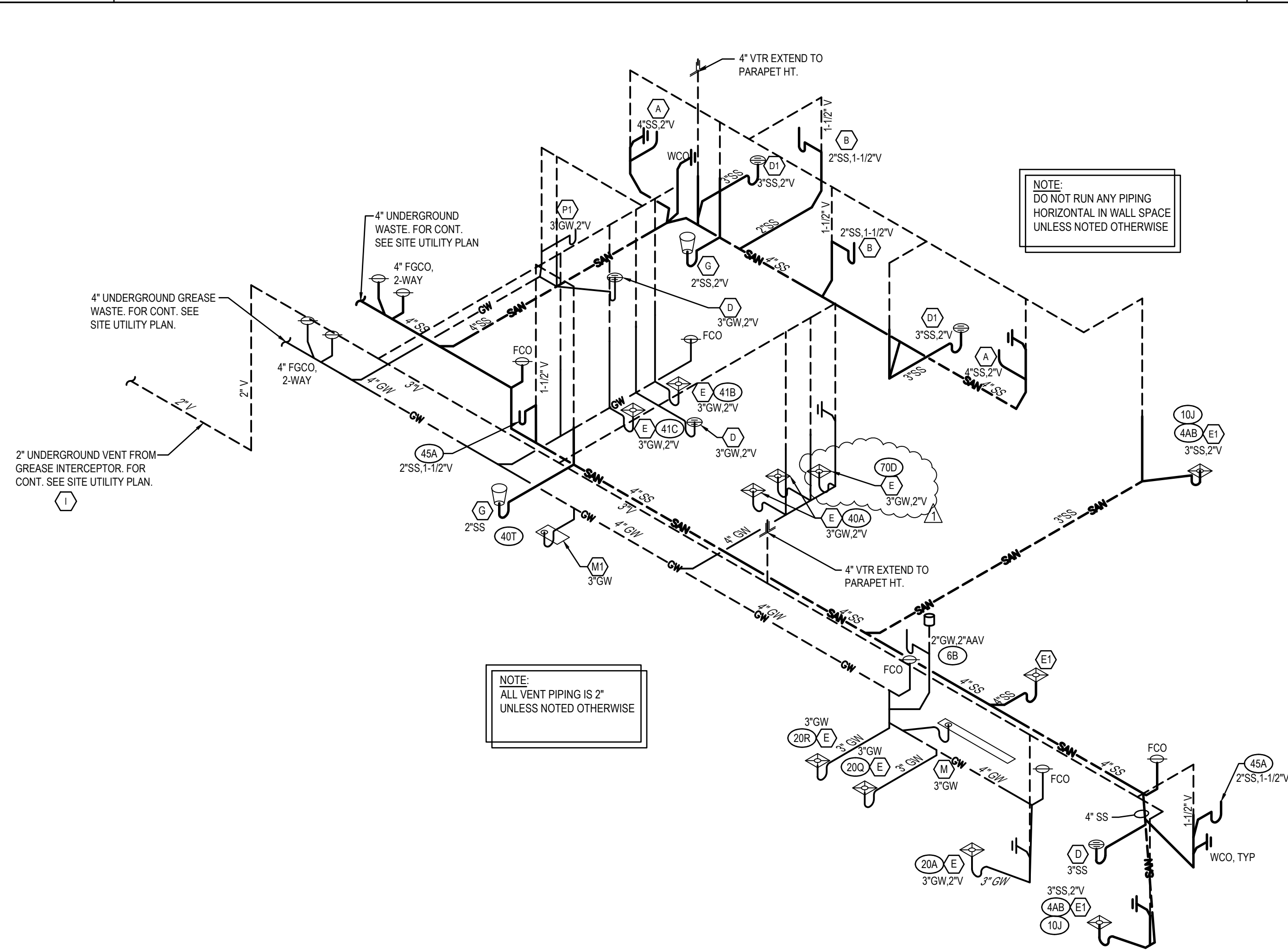
REVISIONS:	
OWNER REVISIONS	01-30-23

ISSUE DATE:	
ISSUE FOR PERMIT	10-20-22
ISSUE FOR BID	01-30-23

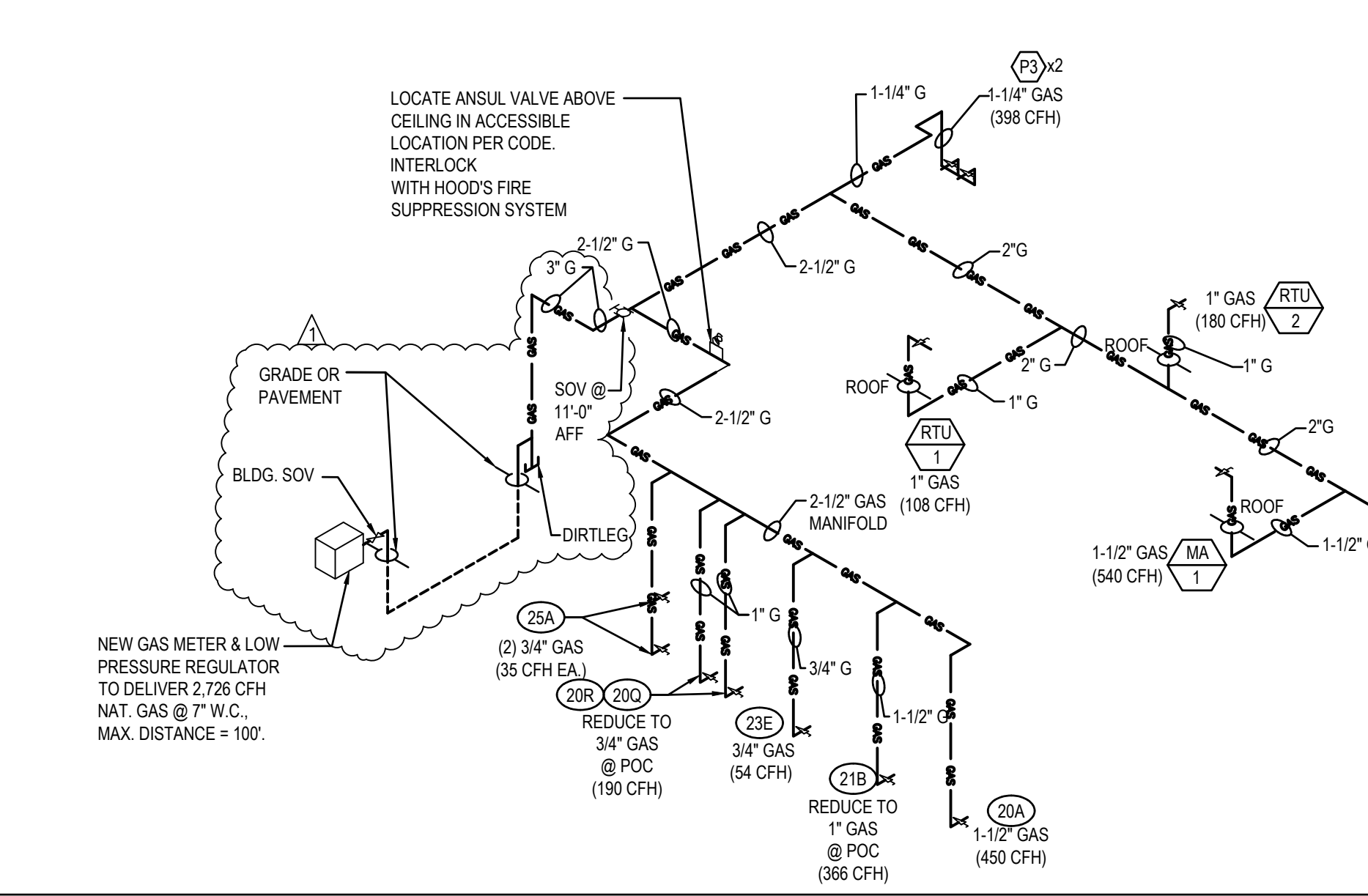
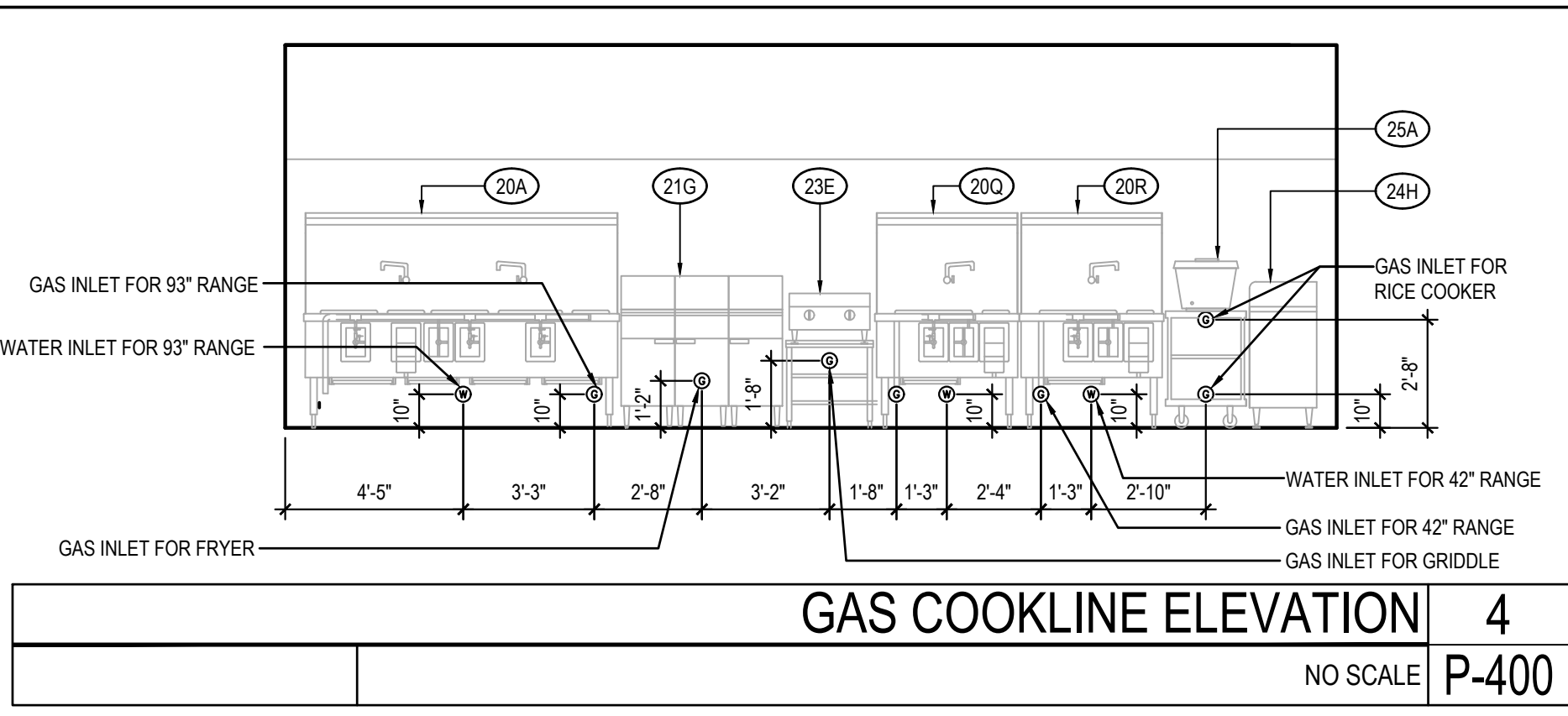
DRAWN BY:	AE/SS
PANDA PROJECT #:	D23503
PANDA STORE #:	-
ARCH PROJECT #:	261-443



WATER RISER DIAGRAM 11
NO SCALE P-400



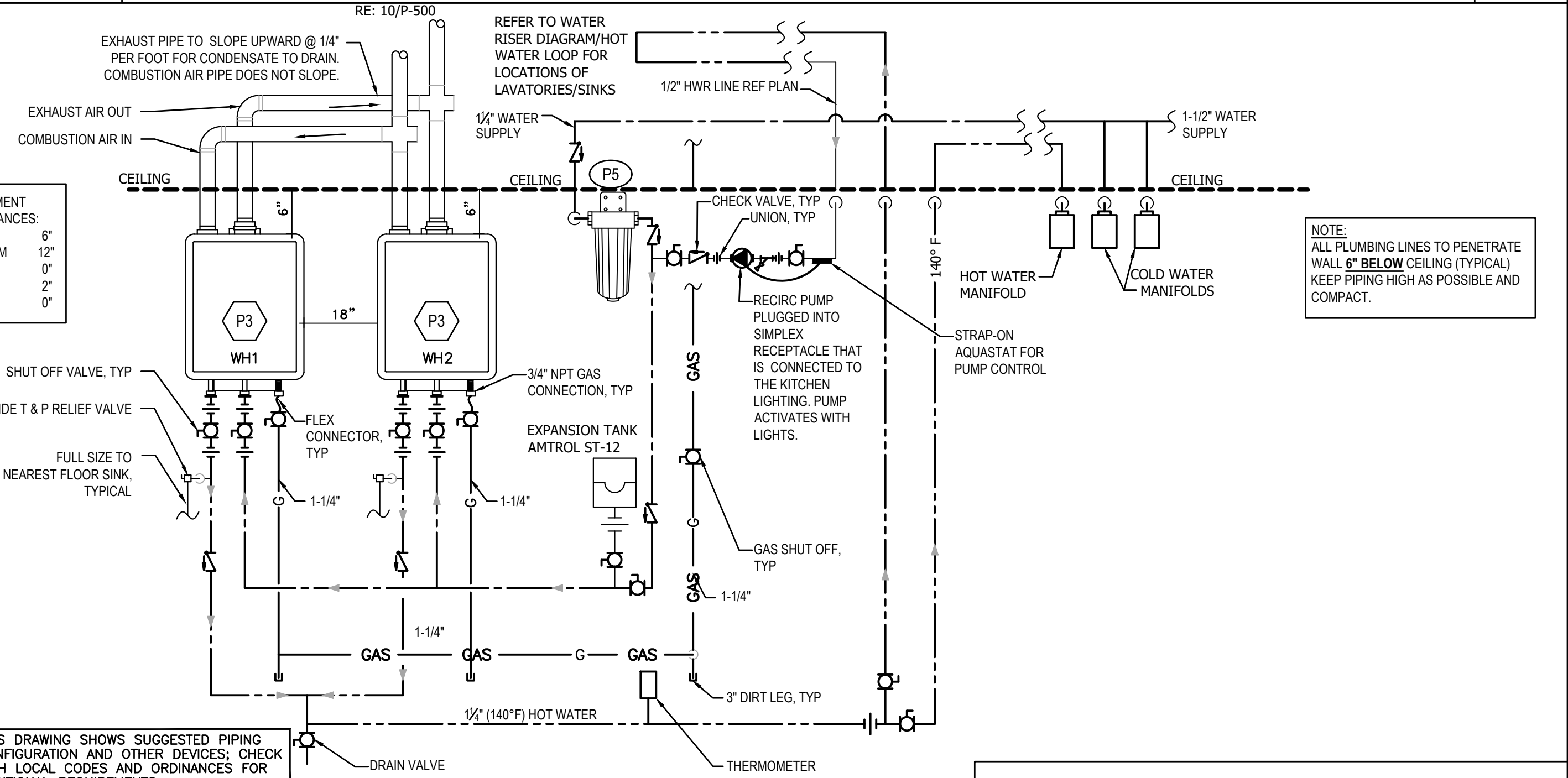
WASTE AND VENT RISER DIAGRAM 9
NO SCALE P-400



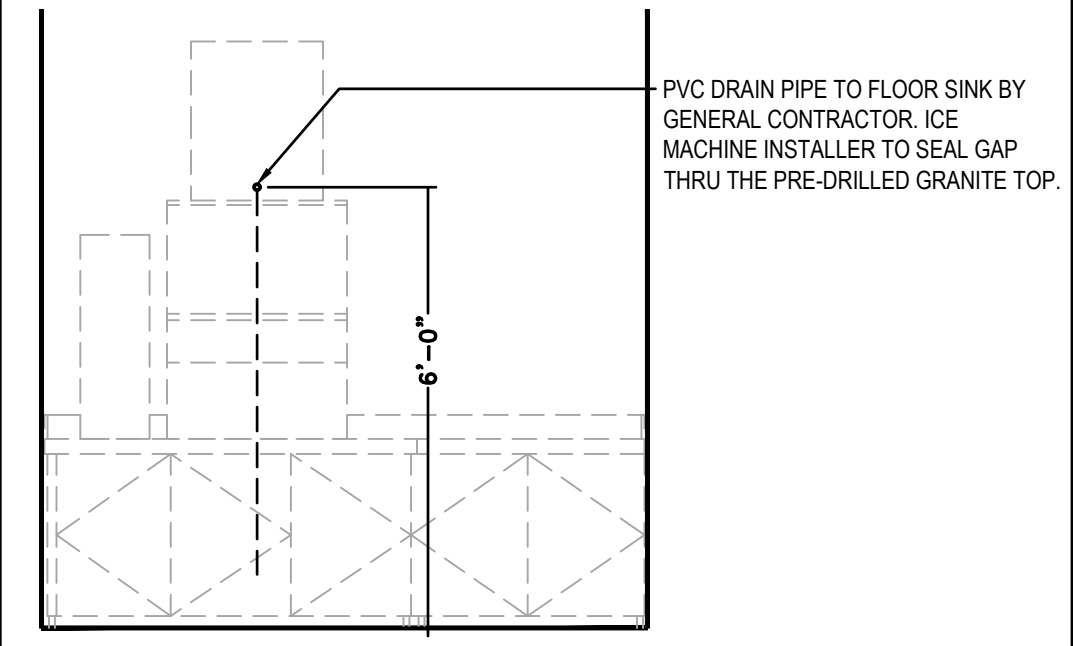
GAS EQUIPMENT SCHEDULE				
ITEM	QTY	EQUIPMENT	MBH	CFH
			EACH	TOTAL
P3	2	WATER HEATER	199	398
20A	1	CHINESE RANGE	450	450
20Q	2	CHINESE RANGE	190	380
21B	3	DEEP FRYER	122	366
23C	1	GRIDDLE	54	54
25A	2	RICE COOKER	35	70
RTU-1	1	AIR CONDITIONER	108	108
RTU-2,3	2	AIR CONDITIONER	180	360
MAU-1	1	MAKE-UP AIR	540	540
TOTAL			2,726	

LOW PRESSURE NATURAL GAS CALCULATION
SIZED PER 2015 IFGC TABLE 402.4(2)
TOTAL DEVELOPED LENGTH: 100'
TOTAL LOAD: 2,726 CFH
NOTE:
DO NOT RUN ANY PIPING
HORIZONTAL IN WALL SPACE

GAS RISER DIAGRAM 3
NO SCALE P-400



- THIS DRAWING SHOWS SUGGESTED PIPING CONFIGURATION AND OTHER DEVICES; CHECK WITH LOCAL CODES AND ORDINANCES FOR ADDITIONAL REQUIREMENTS.
- NOTES:
- ALL VENT PIPING SERVING WATER HEATERS SHALL TRANSITION TO 3" IMMEDIATELY AFTER CONNECTION. MANIFOLD BOTH VENTS TOGETHER AND ROUTE PIPING UP THROUGH THE CEILING TO THE ROOF. AVOID UNNECESSARY BENDS.
 - AVOID RUNNING WATER PIPING DIRECTLY ABOVE WATER HEATER TO AVOID DAMAGE TO WATER HEATER CAUSED BY POSSIBLE LEAKS.
 - DO NOT INSTALL VALVES, EQUIPMENT OR PIPING MAINS DIRECTLY OVER THE WATER HEATERS P3
 - ALL WATER PIPES IN EXPOSED AREAS OUTSIDE WALLS AND BELOW CEILING MUST BE COPPER UNLESS NOTED OTHERWISE.
 - DIAGRAM ONLY. ADJUST LAYOUT TO SPECIFIC FLOOR PLAN AND FOLLOW CONNECTIONS PER THIS DIAGRAM
 - INSTALL ALL DEVICES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
 - PREFERRED PIPING DIAGRAM. THE TEMPERATURE AND PRESSURE RELIEF VALVE SETTING SHALL NOT EXCEED PRESSURE RATING OF ANY COMPONENT IN THE SYSTEM.
 - SERVICE VALVES ARE SHOWN FOR
 - SERVICING UNIT. HOWEVER, LOCAL CODES SHALL GOVERN THEIR USAGE.
 - REF. TO DETAIL 13/P-500 FOR ALL LINES TO BE INSULATED.
 - REF. TO PLUMBING FIXTURE SCHEDULE ON SHEET P-101.
 - INSTALL EXPANSION TANK AS CLOSE TO THE CEILING AS POSSIBLE.
 - ALL PIPING BELOW IS TO BE HELD AS TIGHT TO THE BOTTOM OF THE TANKS AS POSSIBLE.



HOT WATER SYSTEM DIAGRAM 5
NO SCALE P-400

DRINK STATION PLUMBING 1
NO SCALE P-400



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

All ideas, designs, arrangement and plans indicated or represented by this drawing are the property of Panda Express Inc. and were created for use on this specific project. None of these ideas, designs, arrangements or plans may be used by or disclosed to any person, firm, or corporation without the written permission of Panda Express Inc.

REVISIONS:
OWNER REVISIONS 01-30-23

ISSUE DATE:
ISSUE FOR PERMIT 10-20-22
ISSUE FOR BID 01-30-23

DRAWN BY: AE/SS

PANDA PROJECT #: D23503
PANDA STORE #: -
ARCH PROJECT #: 261-443



PANDA EXPRESS
PANDA HOME 2600
NORTH RIVERSIDE DR & 2ND ST.
CLARKSVILLE, TN 37040

P-400

WATER, GAS, WASTE
& VENT RISER DIAGRAMS

PANDA HOME 2600 R4

ISSUE FOR BID 01-30-23

ISSUE FOR BID 01-30-23

