

EQUIPMENT INSTALLATION AND SERVICE CONNECTIONS										NOTE: NOT ALL ITEMS LISTED ARE USED ON THIS PROJECT	
EQUIPMENT	MARK	FURNISHED BY	INSTALLED BY	GAS	CW	HW	DRAIN	WASTE	APPLICABLE DETAILS OR DRAWINGS	COMMENTS AND OTHER RELATED WORK	
GAS WATER HEATER	WH-1 WH-2	PLUMBER	PC	1"	1-1/4" SOFT CW	1-1/4" 1-1/4"	1"	1"		PROVIDE 1" DRAIN PIPING. PROVIDE CIRCULATING PUMP (CPI) AND CONTROL WITH AQUASTAT. EXTEND PVC COMBUSTION AND EXHAUST PIPING THROUGH ROOF AND TERMINATE PER MANUFACTURERS INSTRUCTIONS. FURNISH GAS REGULATOR.	
ELECTRIC WATER HEATER	WH-3A,5,6	PLUMBER	PC, EC		SEE PLAN	SEE PLAN					
TANKLESS WATER HEATER	TWH	PLUMBER	PC, EC		SEE PLAN	SEE PLAN	SEE PLAN		P2.08	REFER TO TANKLESS WATER HEATER DETAIL FOR QUANTITY AND ARRANGEMENT OF UNITS AND FOR VALVES, DEVICES, AND INTAKE AND EXHAUST. FURNISH GAS REGULATOR.	
ELECTRIC WATER COOLER	EWV	PLUMBER	PC, EC		1/2"			1-1/2"		ELKAY WALL MOUNT, BARRIER FREE.	
HAND SINK	HS	OWNERS VENDOR	PC		1/2"	1/2"			P4.1	SENSOR FAUCET AND MIXING VALVE FURNISHED WITH HAND SINK.	
COUNTERTOP SINK - PHARMACY, CHEFS STATION (CHEF STATION SINK FURNISHED BY MILLWORK VENDOR)	S-1A	PLUMBER	PC		1/2"	1/2"				BOWL, SIZE: 12" X 25.3 X 1/2". ELKAY BL-152, PROVIDE GOOSENECK FAUCET, 1.5 GPM FLOWRATE WITH WRIST BLADE HANDLES. PROVIDE P-TRAP AND STOPS.	
COUNTERTOP SINK - BREAKROOM, CLINIC	S-1B	PLUMBER	PC		1/2"	1/2"				BOWL, SIZE: 20"X16"X7.7" W/ BRUSHED SATIN FINISH. ELKAY LR-2222 OR EQUIVALENT, PROVIDE GOOSENECK FAUCET, 1.5 GPM FLOWRATE WITH WRIST BLADE HANDLES. PROVIDE P-TRAP AND STOPS.	
COUNTERTOP SINK - KITCHEN	S-1C	OWNERS VENDOR	PC		1/2"	1/2"				ADVANCE TABCO DI-1-25 MOUNTED IN STAINLESS STEEL COUNTERTOP.	
2 COMPARTMENT SINKS: FLORAL SINK SEAFOOD/SERVICE MEAT COOKING SCHOOL, CLUBMEETING ROOM	S-2A S-2B S-2C	OWNERS VENDOR OWNERS VENDOR PLUMBER	PC PC PC		3/4" 3/4" 1/2"	3/4" 3/4" 1/2"			SEE PLAN SEE PLAN SEE PLAN	P4.1 P4.1 P4.1	INSTALL CUT FLOWER UNIT <input type="text" value="26"/> ON FLORAL SINK. SINK S-2C: 13.5"X16"X7.7" WITH BRUSHED SATIN FINISH. PROVIDE GOOSENECK FAUCET, 1.5 GPM FLOWRATE WITH WRIST BLADE HANDLES. PROVIDE P-TRAP AND STOPS.
3 COMPARTMENT SINKS: BAKERY SALAD PRODUCE/PREP MEAT CUTTING SERVICE DELI	S-3B S-3C S-3D S-3E	OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR	PC PC PC PC		3/4" 3/4" 3/4" 3/4"	3/4" 3/4" 3/4" 3/4"			SEE PLAN SEE PLAN SEE PLAN SEE PLAN	P4.1 P4.1 P4.1 P4.1	PROVIDE WATTS #600 OR EQUAL SPRING CHECK VALVES AND BALL VALVES IN HW AND CW DROPS TO EACH SINK. INSTALL 1/2" CW & HW CHEMICAL DISPENSER ROUGH-IN WITH APPROVED BACKFLOW PREVENTION DEVICE AND VALVES ABOVE 3-COMPARTMENT SINKS. PROVIDE FAUCET UNDER S-3D SINK DECK FOR CHEMICAL DISPENSER. INSTALL APPROVED BACKFLOW PREVENTION DEVICE AS REQUIRED BY AHI.
4 COMPARTMENT SINKS: KITCHEN ASIAN KITCHEN	S-4 S-4	OWNERS VENDOR OWNERS VENDOR	PC, EC PC, EC		3/4" 3/4"	3/4" 3/4"			SEE PLAN SEE PLAN	P4.1 P4.1	INSTALL 1/2" CW & HW CHEMICAL DISPENSER ROUGH-IN WITH APPROVED BACKFLOW PREVENTION DEVICE AND VALVES ABOVE 4-COMPARTMENT SINKS. FAUCET UNDER S-5 SINK DECK FOR CHEMICAL DISPENSER. INSTALL APPROVED BACKFLOW PREVENTION DEVICE AS REQUIRED BY AHI.
PRODUCE SINK	S-5	OWNERS VENDOR	PC		3/4"	3/4"			SEE PLAN	P4.1	
CULINARY SINK	S-6	OWNERS VENDOR	PC		1/2"	1/2"			SEE PLAN	P4.1	INDIRECT WASTE FOR ALL CASES BY REFRIGERATION CONTRACTOR. PROVIDE LINE TO PRODUCE CASES FOR WISER SYSTEM. PROVIDE 3/4" CW TO PRODUCE OR FROZEN CASE WASH-DOWN AS INDICATED ON PLAN. PROVIDE FILTERED WATER PIPING TO MEAT AND SEAFOOD CASES AS NOTED ON PLAN.
REFRIGERATED CASES: GENERAL MEAT PRODUCE		OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR	RC, EC RC, EC RC, EC		3/4" 1/2" 3/4"	3/4" 1/2" 3/4"					
SALAD BAR	<input type="text" value="1"/>	OWNERS VENDOR	RC, PC, EC		1/2"	1/2"	1"	3" FS		PROVIDE FAUCET UNDER SALAD BAR.	
BEVERAGE BAR	<input type="text" value="2"/>	OWNERS VENDOR	PC, EC		1/2"	1/2"		3" FS		PROVIDE 1/2" HW AND CW. INSTALL OWNER SUPPLIED WATER FILTER <input type="text" value="30"/> .	
POP DISPENSER	<input type="text" value="3"/>	OWNERS VENDOR	PC, EC		1/2"	1/2" FW		3" FS		PROVIDE BFP-2 AND SHUT-OFF VALVE. INSTALL FILTER <input type="text" value="30"/> AND PRV-1 PIPE OVERFLOW TO FLOOR DRAIN.	
ARTISAN BREAD DECK OVEN	<input type="text" value="4"/>	OWNERS VENDOR	PC, EC, MC		3/4"		SEE MANUF. DRAWINGS			PROVIDE INDIRECT WASTE TO FLOOR SINK. PROVIDE SHUT-OFF VALVE AT EACH OVEN. PROVIDE INDIRECT WASTE FROM CHARCOAL WATER FILTER TO FLOOR DRAIN.	
ICE MAKER	<input type="text" value="5"/>	OWNERS VENDOR	PC, EC		1/2"		3/4"			PROVIDE INDIRECT WASTE TO FLOOR DRAIN. PROVIDE SHUT-OFF VALVE.	
COMBI OVEN	<input type="text" value="6"/>	OWNERS VENDOR	PC, EC		1/2"		2"	3" FS		ROUTE INDIRECT DRAIN TO FLOOR SINK. UNDER FLOOR PIPING SERVING FLOOR SINK MUST BE CAST IRON FOR A MINIMUM OF 10 FEET DOWNSTREAM OF OVEN.	
STEAMER	<input type="text" value="7"/>	OWNERS VENDOR	EC								
DISHWASHER, AND PRERINSE	<input type="text" value="8"/>	OWNERS VENDOR	PC, EC		1/2"	1/2"	2"	SEE PLAN		PROVIDE INDIRECT WASTE TO FLOOR SINK. PROVIDE SHUT-OFF VALVE. PRV-B AND W/HA ON WATER CONNECTION. PROVIDE WATTS #600 OR EQUAL SPRING CHECK VALVES IN HW AND CW DROPS.	
FIREPLACE	<input type="text" value="9"/>	OWNERS VENDOR	PC, EC	3/4"						PROVIDE GAS SHUTOFF VALVE AT FIREPLACE. VALVE TO BE IN ACCESSIBLE LOCATION.	
TEA, JET, CAPPUCCINO / ESPRESSO ORANGE JUICE	<input type="text" value="10"/>	OWNERS VENDOR	PC, EC		1/2"	1/2" FW		3" FS		PROVIDE SHUT-OFF VALVE UNDER COUNTERTOP.	
PROOF BOX	<input type="text" value="11"/>	OWNERS VENDOR	PC, EC		1/2"	1/2" FW		1/2"		PROVIDE INDIRECT WASTE TO FLOOR SINK.	
MIXER FILL	<input type="text" value="12"/>	OWNERS VENDOR	PC		1/2"					PROVIDE PRV AND INSTALL WALL MOUNT POT FILLER. MOUNT POT FILLER AT 48" AFF.	
PAN WASHER	<input type="text" value="13"/>	OWNERS VENDOR	PC, EC, MC			1/2"				PROVIDE INDIRECT WASTE TO FLOOR SINK. INSTALL W/HA IN HW BRANCH.	
ICE FLAKER	<input type="text" value="14"/>	OWNERS VENDOR	PC, EC		1/2"		3/4"			PROVIDE INDIRECT WASTE TO FLOOR DRAIN. INSTALL OWNER SUPPLIED WATER FILTER <input type="text" value="30"/> .	
WASHROOM	<input type="text" value="15"/>	OWNERS VENDOR	PC		3/4"	3/4"				PROVIDE FAUCET F @ 42" AFF.	
FLOOR MACHINE	<input type="text" value="16"/>	OWNERS VENDOR	PC		3/4"	3/4"				PROVIDE FAUCET F @ 42" AFF AND BFP-2 ON HW AND CW.	
KITCHEN COOKING EQUIP.: GRIDDLE GAS RANGE/OVEN FRYER (ELEC) CONVECTION OVEN CHARROLLER	<input type="text" value="17"/> <input type="text" value="18"/> <input type="text" value="19"/> <input type="text" value="31"/> <input type="text" value="32"/>	OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR	PC, EC PC, EC PC, EC PC, EC PC, EC		SEE PLAN					INSTALL AUTOMATIC GAS VALVE PROVIDED BY IOWA FIRE COMPANY IN BRANCH PIPING TO EQUIP. INSTALL VALVE IN SERVICEABLE LOCATION. PROVIDE GAS COOK AT EACH PIECE OF EQUIPMENT AND INSTALL DOUBLE WALL FLEXIBLE CONNECTOR PROVIDED WITH EQUIPMENT. INSTALL 1" CW WITH LOCKABLE BALL VALVE TO HOOD AUTOMAN SYSTEM. VALVE IS PROVIDED BY IOWA FIRE COMPANY AND MUST BE INSTALLED WITHIN 5' OF AUTOMAN SYSTEM.	
ASIAN / ITALIAN EQUIPMENT: PIZZA OVEN RICE COOKER WOK GAS FRYER	<input type="text" value="20"/> <input type="text" value="21"/> <input type="text" value="22"/> <input type="text" value="23"/>	OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR	PC, EC PC, EC PC, EC PC, EC		SEE PLAN	1/2"		3"		INSTALL AUTOMATIC GAS VALVE PROVIDED BY IOWA FIRE COMPANY IN BRANCH PIPING TO EQUIP. INSTALL VALVE IN SERVICEABLE LOCATION. PROVIDE GAS COOK AT EACH PIECE OF EQUIPMENT AND INSTALL DOUBLE WALL FLEXIBLE CONNECTOR PROVIDED WITH EQUIPMENT. INSTALL 1" CW WITH LOCKABLE BALL VALVE TO HOOD AUTOMAN SYSTEM. VALVE IS PROVIDED BY IOWA FIRE COMPANY AND MUST BE INSTALLED WITHIN 5' OF AUTOMAN SYSTEM.	
BAKERY OVEN	<input type="text" value="24"/>	OWNERS VENDOR	PC, EC, MC		SEE PLAN	1/2" FW		1"		INSTALL AUTOMATIC GAS VALVE PROVIDED BY IOWA FIRE COMPANY IN BRANCH PIPING TO EQUIP. INSTALL VALVE IN SERVICEABLE LOCATION. PROVIDE GAS COOK AT EACH PIECE OF EQUIPMENT AND INSTALL DOUBLE WALL FLEXIBLE CONNECTOR PROVIDED WITH EQUIPMENT. PROVIDE INDIRECT WASTE TO FLOOR DRAIN.	
R.O. WATER PURIFIER and DISPENSING UNIT	<input type="text" value="25"/>	OWNERS VENDOR	PC, EC			1" SOFT CW		3/4"		PROVIDE SHUTOFF VALVES AND PRV AND BFP-3 AT INLET TO R.O. WATER PURIFIER. SEE RO STANDARD FOR PIPING TO SYSTEM.	
CUT FLOWER UNIT	<input type="text" value="26"/>	OWNERS VENDOR	PC			1/2"				MOUNT UNIT ON WALL ABOVE FLORAL SINK. PROVIDE SHUTOFF VALVE, PRV, AND BFP-2 AT INLET.	
WATER SOFTENER	<input type="text" value="27"/>	OWNERS VENDOR	PC, EC			2"				PROVIDE SHUTOFF VALVES W/ FULL SIZE VALVE BYPASS AT EQUIPMENT. PIPE SOFTENED CW TO WATER HEATERS. PROVIDE CW HOSE BIBB NEARBY FOR WASHING DOWN AREA.	
COFFEE KIOSK EQUIPMENT: WATER FILTER	<input type="text" value="28"/>	OWNERS VENDOR	PC, EC, RC			1" SOFT CW			COFFEE KIOSK SHOP DRAWINGS	INSTALL AND HOOK UP EQUIPMENT. PROVIDE SOFT CW WITH BFP-1 TO WATER FILTER UNIT. INSTALL FILTER AND PROVIDE FILTER WATER PIPING TO EACH PIECE OF EQUIPMENT. PROVIDE INDIRECT WASTE AND PIPING TO FLOOR SINKS.	
ROTTISERIE	<input type="text" value="29"/>	OWNERS VENDOR	PC, EC		SEE PLAN	SEE PLAN				FOR GAS ROTTISERIE, INSTALL AUTOMATIC GAS VALVE PROVIDED BY IOWA FIRE COMPANY IN BRANCH PIPING TO EQUIP. INSTALL VALVE IN SERVICEABLE LOCATION. PROVIDE GAS COOK AT EACH PIECE OF EQUIPMENT AND INSTALL DOUBLE WALL FLEXIBLE CONNECTOR. PROVIDE INDIRECT WASTE TO FLOOR SINK.	
WATER FILTER	<input type="text" value="30"/>	OWNERS VENDOR	PC			SEE PLAN				PROVIDE SHUTOFF VALVES AT INLET AND OUTLET AND MOUNT FILTER ON WALL (VERIFY HEIGHT AT EACH LOCATION). PIPE FILTERED CW TO BAKERY OVEN, PROOF BOX, COFFEE BREWERS, POP DISPENSER, ICE MACHINES, MEAT AND SEAFOOD CASES AS INDICATED ON PLAN.	
CHEMICAL DISPENSER	<input type="text" value="33"/>	OWNERS VENDOR	PC			1/2"	1/2"		P4.1	LOCATED ABOVE 3 & 4 COMPARTMENT SINKS AND CONNECTED TO FAUCET F1 BENEATH MEAT SINK S-3D AND PRODUCE SINK S-5. PLUMBING CONTRACTOR IS TO PROVIDE 1/2" CW & HW ROUGH-IN ABOVE 3 & 4 COMPARTMENT SINKS AND S-4 WITH APPROVED BACKFLOW PREVENTION DEVICE AND SHUTOFF VALVES.	
HVAC EQUIPMENT: EVAPORATORS ROOFTOP UNITS MAKE-UP AIR UNITS UNIT HEATERS DEHUMIDIFICATION UNITS	EVAP RTU MUA UH DHU	OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR OWNERS VENDOR	RC, EC MC, PC MC, PC MC, PC MC, PC, EC		SEE PLAN					SEE P3.0 AND 14" or 14" DWGS.	
GENERATOR	GEN	OWNERS VENDOR	PC, EC		SEE PLAN				P4.0	PROVIDE GAS PIPING AND EXHAUST PIPING.	
FREEZER COILS COOLERS COILS	EVAP COIL	OWNERS VENDOR	RC, EC							CONDENSATE PIPING BY REFRIGERATION CONTRACTOR.	
NOTES:										REFERENCES:	
1. PLUMBING, ELECTRICAL, MECHANICAL, AND REFRIGERATION CONTRACTORS SHALL VERIFY ALL CONNECTION AND ROUGH-IN REQUIREMENTS REFER TO ROUGH-IN OF SERVICES.										PC PLUMBING CONTRACTOR	
2. 'OWNERS VENDOR' SHALL BE DEFINED AS HY-VEE CONSTRUCTION CO., HY-VEE EQUIPMENT PURCHASING, HY-VEE ENGINEERING, HY-VEE SETUP SUPERVISORS, OR APPROVED OTHERS.										EC ELECTRICAL CONTRACTOR	
3. 'PROVIDE' SHALL BE DEFINED AS TO FURNISH AND INSTALL ITEM.										MC MECHANICAL (HVAC) CONTRACTOR	
4. FOR EQUIPMENT AND ITEMS FURNISHED BY OWNERS VENDOR AND INSTALLED BY 'PC', 'EC', 'MC', AND 'RC', THE RESPECTIVE CONTRACTOR SHALL RECEIVE, STORE AND PROTECT, SET IN PLACE, ASSEMBLE, AND MAKE FINAL CONNECTIONS TO FIXTURE OR EQUIPMENT ITEM INCLUDING PROVIDING BACKING FOR WALL SUPPORTED ITEMS AND CAULKING AND FINAL CLEANING OF ITEM. PROVIDE ALL ROUGH-IN MATERIALS NECESSARY FOR A COMPLETE INSTALLATION.										RC REFRIGERATION CONTRACTOR	
5. REFER TO DRAWING P-4.0 FOR CROSS CONNECTION AND BACKFLOW PREVENTION INFORMATION.											
6. SINKS AND FAUCETS PROVIDED BY HY-VEE ARE PROVIDED WITH HY-VEE SUPPLIED MIXING VALVES. SINKS AND FAUCETS NOT PROVIDED BY HY-VEE SHALL HAVE PLUMBING CONTRACTOR SUPPLIED MIXING VALVES, WHERE REQUIRED.											

PLUMBING FIXTURES AND SPECIALTIES		NOTE: NOT ALL PLUMBING FIXTURES LISTED ARE USED ON THIS PROJECT	
WC	WATER CLOSET - KOHLER KINGSTON SERIES WALL MOUNTED WATER CLOSET, SLOAN ECOS BATTERY OPERATED FLUSH VALVE DESIGNED TO FLUSH WITH 1.28 GPF, AND BENKE #623 SEAT. PROVIDE WITH COMPATIBLE CARRIER. CARRIER TO FIT IN 12" WALL FOR SINGLE FIXTURES AND 18" WALL WITH BACK-TO-BACK FIXTURES.		
HWC	HANDICAP WATER CLOSET - KOHLER KINGSTON SERIES WALL MOUNTED WATER CLOSET INSTALLED AT ADA HEIGHT, SLOAN ECOS BATTERY OPERATED FLUSH VALVE DESIGNED TO FLUSH WITH 1.28 GPF, AND BENKE #623 SEAT. PROVIDE WITH COMPATIBLE CARRIER. CARRIER TO FIT IN 12" WALL FOR SINGLE FIXTURES AND 18" WALL WITH BACK-TO-BACK FIXTURES.		
WC2	WATER CLOSET - KOHLER HIGHLINE SERIES FLOOR MOUNTED WATER CLOSET, SLOAN ECOS BATTERY OPERATED FLUSH VALVE DESIGNED TO FLUSH WITH 1.28 GPF, AND BENKE #623 SEAT.		
HWC2	HANDICAP WATER CLOSET - KOHLER HIGHLINE SERIES ADA COMPLIANT FLOOR MOUNTED WATER CLOSET, SLOAN ECOS BATTERY OPERATED FLUSH VALVE DESIGNED TO FLUSH WITH 1.28 GPF, AND BENKE #623 SEAT.		
UR	URINAL - KOHLER BARON SERIES URINAL, SLOAN HEU SYSTEMS BATTERY OPERATED FLUSH VALVE DESIGNED TO FLUSH WITH ONE PNT OF WATER. PROVIDE SMITH CARRIER.		
HUR	HANDICAP URINAL - KOHLER BARON SERIES URINAL, INSTALLED AT ADA HEIGHT, SLOAN HEU SYSTEMS BATTERY OPERATED FLUSH VALVE DESIGNED TO FLUSH WITH ONE PNT OF WATER. PROVIDE SMITH CARRIER.		
L-1	LAVATORY - KOHLER K-1728 CHESAPEAKE 16"X17" WALL MOUNT LAVATORY, SLOAN #BFP5480M, 5 GPM OPTIMA BATTERY OPERATED FAUCET WITH BELOW DECK MIXING VALVE, POP-UP DRAIN, TALPIECE, TRAP, LAV CARRIER, AND SUPPLIES WITH STOPS. PROVIDE PIPE INSULATION FOR UNDER SINK WASTE AND WATER PIPING FOR ADA COMPLIANCE WHERE APPLICABLE. MOUNT WITH RIM @ 43" AFF.		
L-3A	LAVATORY - STARON MODEL A321 INTEGRAL LAVATORY BOWL, PEARL COLOR, FURNISHED AND INSTALLED WITH COUNTERTOP. PROVIDE SLOAN #BFP5480M OPTIMA BATTERY OPERATED FAUCET WITH BELOW DECK MIXING VALVE, POP-UP DRAIN, TALPIECE, TRAP, AND SUPPLIES WITH STOPS.		
L-3B	LAVATORY LAVATORY/TOILETS ROOMS SINK - SAME AS L-3A BUT PROVIDE PIPE INSULATION AND JACKET FOR UNDERCOUNTER WASTE AND WATER PIPING. INSTALL IN ACCORDANCE WITH ADA CODE.		
J51	JANITOR'S SINK - MUSTIE #624 24"X30"X10" H. DURASTONE TOP SINK WITH #63.00A HOSE END SERVICE 1.5 GPM FAUCET WITH NON-REMOVABLE VACUUM BREAKER, #65.70 HOSE AND HOSE BRACKET, #6341 BUMPER GUARDS (ALL EXPOSED SIDES), AND #65.80 MOP HANGER.		
J52	JANITOR'S SINK - MUSTIE #624 24"X30"X10" H. DURASTONE TOP SINK WITH #63.00A HOSE END SERVICE 1.5 GPM FAUCET WITH NON-REMOVABLE VACUUM BREAKER, #65.70 HOSE AND HOSE BRACKET, #6341 BUMPER GUARDS (ALL EXPOSED SIDES), AND #65.80 MOP HANGER.		
F	FAUCET - MUSTIE MODEL #63.00A HOSE END FAUCET WITH NON-REMOVABLE VACUUM BREAKER. PROVIDE WATTS #600 OR EQUAL SPRING CHECK VALVES IN HW AND CW DROPS TO FAUCET.		
F1	FAUCET - T&S BRASS #B-673-RH HEAVY DUTY SERVICE SINK FAUCET, 4-1/2" TO WALL TO CENTER OF OUTLET. ROUGH CHROME PLATED FINISH, AND 3/4" HOSE THREAD ON OUTLET. PROVIDE #600 WATTS OR EQUAL SPRING CHECK VALVES IN HW AND CW DROPS TO FAUCET. MOUNT FAUCET UNDER COUNTERTOP, 18" AFF, AND ON OUTBOARD SIDE OF LAVATORY ROUGH-IN.		
FWH	FREEZEPROOF WALL HYDRANT - JOSAM #1050 3/4" WALL HYDRANT, NON-REMOVABLE VACUUM BREAKER, KEY OPERATOR, AND LENGTH AS REQUIRED. FURNISH A KEY FOR EACH HYDRANT. MOUNT FWH 18" ABOVE GRADE UNLESS NOTED OTHERWISE.		
HB1	HOSE BIBB - CHICAGO FAUCET 3/4" SERIES WITH CHROME FINISH, 3/4" INLET, 3/4" HOSE THREADED OUTLET, AND NON-REMOVABLE VACUUM BREAKER. MOUNT HOSE BIBBS 42" AFF UNLESS NOTED OTHERWISE.		
HB2	HOSE BIBB - SAME AS HB1. HB2 HOSE BIBBS TO BE INSTALLED ON TOP OF CASES FOR CASE WASH-DOWN. SEE DRAWING P2.0.		
HB3	HOSE BIBB - WOODFORD MODEL RHY2 FREEZE-RESISTANT ROOF HYDRANT, 3/4" MALE HOSE THREAD DIA. CHECK BACKFLOW PREVENTER ON OUTLET WITH INTEGRAL VENT, 1" NPT INLET, ONE PIECE PLUNGER, 18" AUTOMATIC DRAIN, 6" DIA. OR TO ROOF. BOOT. PIPE DRAIN TO NEARBY RECEPTOR.		
SH	SHOWER UNIT - KOHLER MODEL K-1210C-45 3/4"X26"X26" BARRIER FREE, WHITE, ADA SHOWER UNIT WITH BRUSHED, STAINLESS STEEL GRAB BARS, AND FOLDING SEAT. PROVIDE SLOAN OPTIMA PRESSURE BALANCED SHOWER MIXING VALVE AND 1.5 GPM SHOWER HEAD. SHOWER VALVE SHALL COMPLY WITH LEED CERTIFICATION REQUIREMENTS.		
PRV-A	PRESSURE REDUCING VALVE - WATTS #115E WITH CAST IRON BODY, STANDARD TRIM, AND 263AP CONTROL PILOT. PROVIDE WATTS #223 3/4" LOW DEMAND AUXILIARY REGULATOR AND BYPASS PIPING. SET PRESSURE REDUCING VALVE AT 60 PSI DELIVERY PRESSURE AND SET AUXILIARY REGULATOR FOR 70 PSI DELIVERY PRESSURE. PROVIDE FLANGED CONNECTION AND ELECTRIC KIT FOR INSTALLATION IN COPPER PIPING. THE STRAINER OF THE BACKFLOW PREVENTER WILL PROTECT THE PRV AND THE #115E VALVE MAY BE INSTALLED IN EITHER THE HORIZONTAL OR VERTICAL PIPING.		
PRV-B	PRESSURE REDUCING VALVE - WATTS #45-UP WATER PRESSURE REDUCING VALVE FOR 10-35 PSI RANGE. SET PRV FOR 30 PSI OUTLET PRESSURE.		
EXP	EXPANSION TANK - (WH-1) AMTROL A5T-30 ASME EXPANSION TANK WITH 55 PSIG PRECHARGE. (WH-2) AMTROL A5T-30 ASME EXPANSION TANK. (WH-3) AMTROL A5T-30 ASME EXPANSION TANK. (WH-4) AMTROL A5T-30 ASME EXPANSION TANK.		
CPI	HOT WATER CIRCULATING PUMP - BELL AND GOSSETT #B6-10 1/2" N.P.E. LEAD FREE BRONZE CIRCULATING PUMP FOR 2 GPM AT 12 TDH, 120/180 VOLT MOTOR, HONEYWELL #K006C STRAP-ON AQUASTAT CONTROLLER.		
TS	TIME SWITCH - INTERMATIC #ET1705CSPST, 7 DAY, ONE CIRCUIT SINGLE-POLE SINGLE THROW, ELECTRONIC TIME SWITCH OR EQUAL BY TORK. TIME SWITCH SHALL BE MOTOR RATED (1 HP @ 120 VOLT, SINGLE PHASE), MINIMUM OF 20 SET POINTS X ON/OFF CYCLES AND BATTERY BACK UP. COORDINATE WITH DIVISION 16 FOR INSTALLATION AND WIRE LOGIC OF TIME SWITCH IN SERIES WITH THE AQUASTAT AND RECIRCULATION PUMP.		
WH-1	100 GALLON WATER HEATER AS MANUFACTURED BY AO SMITH. MODEL #B7H-189 'CYCLONE' 95% EXTRA HIGH EFFICIENCY TANK TYPE WATER HEATER, SEALED COMBUSTION DESIGN, 199.000 BTU/HHR.		
WH-2	119 GALLON WATER HEATER AS MANUFACTURED BY RHEEM WATER HEATING & HEATING AND COOLING PRODUCTS. WWH RHEEM COM. MODEL #HE189-189 'ADVANTAGE PLUS' 95% EFFICIENT SEALED COMBUSTION DESIGN WITH POWER VENT, 199.000 BTU/HHR. A.O. SMITH AND STATE ARE APPROVED EQUALS.		
WH-3	EEMAX ACCUMIX MODEL MT004120T WATER HEATER RATED AT 3.5 KW, 120V. LOCATED AT HAND SINKS, BAR SINKS, SINGLE LAVATORIES, AND 1-COMPARTMENT SINKS.		
WH-4	EEMAX SERIES TWO MODEL EX1688T2 WATER HEATER RATED AT 16.6 KW, 208V. LOCATED AT 2-COMPARTMENT SINKS, FLOOR DEPT (WHERE APPLICABLE).		
WH-5	10 GALLON WATER HEATER AS MANUFACTURED BY AO SMITH. MODEL EKC1P0 10 GALLON ELECTRIC WATER HEATER RATED AT 1650 WATTS, 120V-1PH, 98 ENERGY FACTOR. LOCATED AT BACKROOM JANITOR'S SINK. PROVIDE WITH MANUFACTURERS WALL MOUNTING BRACKET AND INSTALL HIGH ON WALL WHERE APPLICABLE. SEE PLAN.		
WH-6	AO SMITH MODEL DEL30 30 GALLON ELECTRIC WATER HEATER, 208V, 3 PHASE, 3 KW INPUT. PROVIDE AMTROL ASME EXPANSION TANK.		
WH-7	60 GALLON WATER HEATER AS MANUFACTURED BY AO SMITH. MODEL #B7H-120 'CYCLONE' 95% EXTRA HIGH EFFICIENCY TANK TYPE WATER HEATER, SEALED COMBUSTION DESIGN, 120,000 BTU/HHR.		
TWH	TANKLESS WATER HEATER - FURNISHED BY OWNER, INSTALLED BY PLUMBING CONTRACTOR. NAVIEN PREMIUM CONDENSING TANKLESS GAS WATER HEATER MODEL NPE-260A, 99,900 BTU, 112 GPM, 120 VOLT, 2" PVC COMBUSTION AND EXHAUST VENT. PROVIDE ASME EXPANSION TANK.		
SV	SOLENOID VALVE - NORMALLY OPEN SOLENOID VALVE WITH STAINLESS STEEL BODY. VALVE SHALL BE NSF LISTED FOR USE IN POTABLE WATER SYSTEMS. OPERATING TEMPERATURE OF 32 DEGREE F TO 120 DEGREE F, 120V 1P. PILOT LIGHT SWITCH BY THE E.C.		
EE-1	EMERGENCY EYEFACE WASH - DECK MOUNTED, HANDLE ACTIVATED, TWIN PLASTIC SPRAY HEADS WITH CAPS AND RETAINING CHAIN/STRAPS MOUNTED ON BRASS SUPPLY ARMS, MINIMUM FLOW RATE OF 3.0 GPM AT 30 PSI, INTEGRAL FLOW CONTROL FITTING, ANSI Z358.1 COMPLIANT. BRADLEY S19-40EFPW OR EQUAL, PROVIDE WITH LEAD FREE MINDING VALVE CAPABLE OF DELIVERING 3 GPM WITH 10 PSI DIFFERENTIAL, ASSE STANDARD 1071 COMPLIANT, POWERS OR EQUAL.		
FOV	FLOW CONTROL VALVE - FLOWDESIGN #1 C55 'AUTOFLOW', SERIES 300 STAINLESS UNION BODY WITH NIKEL PLATED UNION NUT, STAINLESS STEEL PRESSURE COMPENSATING CARTRIDGE, MEETING NSF #1 ANNEX G, NAMEPLATE AND 1/2" VALVE BODY SIZE UNLESS SHOWN OTHERWISE ON PLANS. PROVIDE 0.5 GPM FLOW RATE CARTRIDGE UNLESS SHOWN OTHERWISE ON PLANS.		

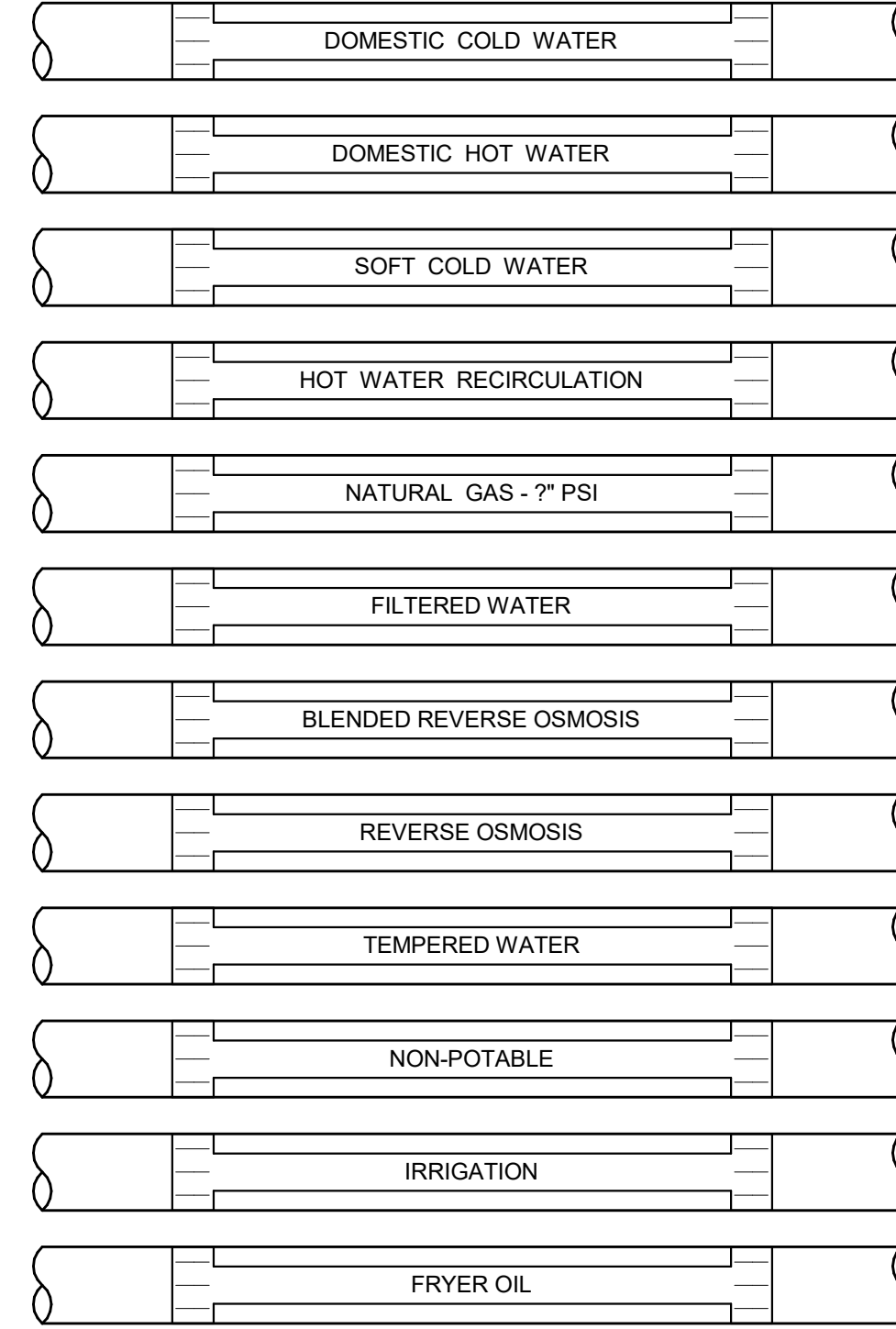
PLUMBING SYMBOLS			
THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS MAY BE USED.			
ANNOTATION		PIPING	
	PLUMBING PLAN NOTE CALLOUT	—SCW—	DOMESTIC COLD WATER
	PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES	—S—	SOIL
	EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)	—T—	TRAP
	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)	—S—	SOIL
	CONNECTION POINT OF NEW WORK TO EXISTING	—W—	WASTE
	DETAIL REFERENCE UPPER NUMBER INDICATES DETAILED NUMBER LOWER NUMBER INDICATES SHEET NUMBER	—FW—	FILTERED WATER
	SECTION CUT DESIGNATION	—GW—	GREASE
STANDARD MOUNTING HEIGHTS		—CGWV—	COMBINATION GREASE WASTE AND VENT
REFER TO THE ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHTS. UNO, INSTALL PLUMBING FIXTURES WITH THE MOUNTING HEIGHTS AS LISTED BELOW WITH FINAL APPROVAL OF THE ARCHITECT.		—CW—	COMBINATION WASTE AND VENT
LAVATORY OR SINK		—ST—	STORM
STANDARD HEIGHT		—OST—	OVERSEAT
ADA ACCESSIBLE		—F—	FLOOR
CHILD HEIGHT		—VBG—	VENT BELOW GRADE
URINAL		—VBF—	VENT BELOW FLOOR
STANDARD HEIGHT		—IND—	INDIRECT
ADA ACCESSIBLE		—CDH—	CONDENSATE DRAIN
CHILD HEIGHT		—RTU—	RETURN TUB
WATER CLOSET		—ACD—	AUXILIARY COLD DRAIN
STANDARD HEIGHT		—SPD—	SUMP PUMP DRAIN
ADA ACCESSIBLE		—G—	GAS
CHILD HEIGHT		—MPG—	MEDIUM PRESSURE
SHOWER VALVES		—MPG—	MEDIUM PRESSURE
STANDARD HEIGHT - MEN		—G—	GAS
STANDARD HEIGHT - WOMEN		—NPNW—	NON PRESSURE NON WATER
ADA ACCESSIBLE		—LPG—	LOW PRESSURE
SHOWER HEADS		—WS— </td <td>WATER SUPPLY</td>	WATER SUPPLY
MEN		—F—	FLOOR
WOMEN		—PD—	PIPE DRAIN
TUB VALVES		—EXIST—	EXISTING
STANDARD HEIGHT		—V—	VENT
ADA ACCESSIBLE		—AW—	AIR WASTE
CLINIC SERVICE SINKS		—ACV—	ACID VENT
SURGEON'S SCRUB-UP SINKS		—ACV—	ACID VENT
ICE MAKER OUTLET BOXES		—ACV—	ACID VENT
WASHING MACHINE OUTLET BOXES		—ACV—	ACID VENT
JANITOR'S SINK FAUCET FITTINGS		—CA—	CARBONATE
HOSE BIBBS		—MD—	MEDIUM DRAIN
NON FREEZE WALL HYDRANTS		—MV—	MEDIUM VENT
UNLESS NOTED OTHERWISE, MOUNTING HEIGHTS LISTED ARE ABOVE FINISHED FLOOR (AFF) OR ABOVE FINISHED GRADE (AFG).		—N2—	NITROGEN
ABBREVIATIONS		GENERAL PLUMBING NOTATION	
ADA	AMERICANS WITH DISABILITIES ACT	M/N	MINIMUM NORMALLY CLOSED
AFF	ABOVE FINISHED FLOOR	N/O	NORMALLY OPEN
AG	ABOVE FINISHED GRADE	NOT IN CONTRACT	NOT IN CONTRACT
AHU	AIR HANDLING UNIT	ORD	OVERFLOW ROOF DRAIN
ACC	ACCESS PANEL	PD	PLUMBING DRAINAGE
BS	BUILDING	PH	PHASE
BFF	BOTTOM FINISHED FLOOR	PRV	PRESSURE REDUCING VALVE
BOP	BOTTOM FINISHED GRADE	PVC	POLYVINYL CHLORIDE
BP	BOTTOM OF STRUCTURE	R/C	REINFORCED CONCRETE
BTU	BRITISH THERMAL UNIT	RD	ROOF DRAIN
CP	CONDENSATE PUMP	RP	REVOLUTIONS PER MINUTE
CPVC	CHLORINATED POLY-VINYL CHLORIDE	RTU	RETURN TUB
CU	COPPER	SP	SUMP PUMP
DI	DUCTILE IRON	SS	STAINLESS STEEL
DN	DOWN	ST	SANITARY SEWER, SOIL
DFU	DRAINAGE FIXTURE UNIT	TDH	TOTAL DYNAMIC HEAD
DS	DOWNSTREAM	TL	FLOOR ABOVE FLOOR BELOW
E	EXISTING	UB	UNDER BUILDING
EMS	ENERGY	UL	UNDERLINTERS
EW	ELECTRIC WATER	UN	UNDER
FC	FLOOR DRAIN	UN	UNDER
FF	FROM FLOOR ABOVE	UN	UNDER
FF	FROM FLOOR BELOW	UN	UNDER
FF	FINISHED FLOOR	UN	UNDER
FF	FLOW LINE	UN	UNDER
FL	FULL LOAD AMPS	UN	UNDER
FLM	FLOORS PER MINUTE	UN	UNDER
FW	HEAD, HEADRAIN	UN	UNDER
HZ	HERTZ	UN	UNDER
IE	INVERT ELEVATION	UN	UNDER
IN WC	INTERRUPTIBLE	UN	UNDER
JB	JUNCTION BOX	UN	UNDER
J-BOX	JUNCTION BOX	UN	UNDER
KW	KILOWATT	UN	UNDER
MAU	MAKE-UP AIR UNIT	UN	UNDER
M	MAXIMUM	UN	UNDER
MH	1000 TYP PER HOUR MANIFOLD	UN	UNDER

GENERAL DEMOLITION NOTES:

1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. OWNER RETAINS RIGHTS OF SALVAGE FOR EQUIPMENT AND FIXTURES TO BE REMOVED. COORDINATE WITH THE OWNER THE EQUIPMENT AND FIXTURES TO BE SALVAGED AND THE LOCATION FOR STORAGE. AVOID DAMAGE TO EQUIPMENT, FIXTURES AND DEVICES DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.
4. REMOVE ITEMS SHOWN HEAVY LINED AND/OR CROSSHATCHED AND/OR NOTED TO BE REMOVED.
5. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION. REPAIR ANY DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER.
6. SEAL ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE PLUMBING COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR SURFACES TO MATCH ADJACENT AREAS.
7. INSTALL PERMANENT CAPS WHERE PIPING IS REMOVED AND THE EXISTING TAPS ARE NOT USED FOR THE NEW INSTALLATION. INSTALL TEMPORARY CAPS WHERE PIPING IS REMOVED AND THE EXISTING TAPS WILL BE USED FOR THE NEW INSTALLATION TO PROTECT THE INTERIOR SURFACES UNTIL NEW PIPING IS INSTALLED.
8. REMOVE PIPE HANGERS, PIPE SUPPORTS AND EQUIPMENT SUPPORTS WHERE PIPING OR EQUIPMENT IS REMOVED AND THE EXISTING HANGERS AND SUPPORTS ARE NOT USED FOR THE NEW INSTALLATION.
9. VERIFY THAT EXISTING EQUIPMENT TO REMAIN IS OPERATING PROPERLY. NOTIFY THE ARCHITECT, ENGINEER AND/OR OWNER OF ANY DAMAGED AND/OR MALFUNCTIONING COMPONENTS.
10. WHERE SHUTDOWN OF EXISTING ACTIVE PIPING SYSTEMS IS REQUIRED DURING DEMOLITION PHASE OF WORK IN PREPARATION FOR NEW TIE-IN PHASE OF WORK, COORDINATE WITH THE OWNER AND MINIMIZE DOWNTIME. VERIFY EXISTING SYSTEMS, EQUIPMENT, AND COMPONENTS WILL BE PROVIDED WITH BACKUP SERVICE WHERE REQUIRED. NOTIFY OWNER A MINIMUM OF SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.

PIPING MARKERS

ALL HOT WATER, RECIRCULATING HOT WATER, COLD WATER, SOFTENED COLD WATER, AND GAS PIPING SHALL BE CLEARLY MARKED WITH IDENTIFYING LABELS STATING DIRECTION OF FLOW AND CONTENTS. THE LABELS SHALL BE APPLIED AT 8 FEET ABOVE THE FLOOR ON VERTICAL PIPING AND EVERY 20 FEET HORIZONTALLY. EXAMPLES OF LABELS ARE AS FOLLOWS:



KEYED NOTES:

1. PERMANENTLY LABEL AT THE CONNECTION POINT.
2. LOCATE PIPING IDENTIFICATION AT VALVE LOCATION, AT POINTS WHERE PIPING ENTERS AND LEAVE A PARTITION, AND AT INTERVALS OF 20 FEET ON STRAIGHT RUNS. IN AREAS WITH OPEN STRUCTURE OVER THE SALES FLOOR, PIPING MARKERS NEED ONLY BE INSTALLED AT MAJOR JUNCTURES AND CHANGES OF DIRECTION.

PIPING APPLICATION SCHEDULE

SYSTEM (NOTE 1)	LOCATION	DESIGN WORKING PRESSURE (PSI)	MATERIAL	JOINTS	INSULATION APPLICATION			NOTES
					USAGE SIZE RANGE	THICKNESS (IN.)	TYPE (NOTES 2,3)	
DOMESTIC COLD WATER FILTERED DRINKING WATER	ABOVE GRADE	125	TYPE L COPPER "HARD"	SOLDER OR MECHANICAL PRESS CONNECTION	1-1/4" OR SMALLER	1/2"	ELASTOMERIC FOAM OR FIBERGLASS	-
			PEX	PEX MECHANICAL CRIMP	1-1/2" & GREATER	1"	ELASTOMERIC FOAM OR FIBERGLASS	4
	BELOW GRADE	125	TYPE K COPPER "SOFT"	SOLDER	LESS THAN 2 1/2"	-	-	-
			DUCTILE IRON PRESSURE WATER PIPE	MECHANICAL OR PUSH-ON	3" & GREATER	-	-	5
DOMESTIC HOT WATER	ABOVE GRADE	125	TYPE L COPPER "HARD"	SOLDER OR MECHANICAL PRESS CONNECTION	1-1/4" OR SMALLER	1"	ELASTOMERIC FOAM OR FIBERGLASS	-
			PEX	PEX MECHANICAL CRIMP	1-1/2" & GREATER	1"	ELASTOMERIC FOAM OR FIBERGLASS	4
	GENERAL	175	DUCTILE IRON PRESSURE WATER PIPE OR GALVANIZED AS REQUIRED BY NFPA	MECHANICAL OR PUSH-ON	ALL	-	-	5
FIRE PROTECTION SERVICE	BELOW GRADE	N/A	CAST IRON AND/OR SCH 40 PVC	BELL & SPIGOT, NO HUB, OR SOLVENT	ALL	-	-	12
	ABOVE GRADE	N/A	CAST IRON, DWV COPPER, AND/OR SCH 40 PVC	BELL & SPIGOT, NO HUB, SOLDER, OR SOLVENT	ALL	1"	FIBERGLASS	6, 7, 12
EQUIPMENT DRAINS (GRAVITY & PUMPED CONDENSATE)	ABOVE GRADE	N/A	DWV COPPER	SOLDER	ALL	1"	FIBERGLASS	8
	EXPOSED ABOVE GRADE IN FINISHED AREAS	N/A	CHROME PLATED BRASS PIPE	THREADED	ALL	-	-	9
GREASE SANITARY	BELOW GRADE	N/A	CAST IRON OR SCH 40 PVC	BELL & SPIGOT, NO HUB, OR SOLVENT	ALL	-	-	-
NATURAL GAS/GENERATOR EXHAUST	BELOW GRADE GAS OUTSIDE BUILDING	125	POLYETHYLENE	ELECTRICAL FUSION	ALL	-	-	-
	ABOVE GRADE	125	SCH 40 BLACK STEEL	THREADED OR WELDED	SMALLER THAN 2"	-	-	10, 11
				WELDED	2 1/2" & GREATER	-	-	10, 11
REVERSE OSMOSIS BLENDED REVERSE OSMOSIS	RIGID ABOVE GRADE	125	SCH 40 CPVC, PEX, PRIOR APPROVED OTHER	SOLVENT, PEX MECHANICAL CRIMP	ALL	-	-	13
	FLEXIBLE ABOVE GRADE	125	BRADED STAINLESS STEEL, PRIOR APPROVED OTHER	THREADED	ALL	-	-	13

NOTES:

1. REFER TO EACH PIPING SPECIFICATION FOR SPECIFIC PIPING REQUIREMENTS.
2. SEE SPECIFICATION SECTION 230719 FOR COMPLETE INSULATION AND JACKETING REQUIREMENTS. ALL INSULATION SHALL BE PLENUM RATED WHERE INSTALLED IN A RETURN AIR PLENUM.
3. INSTALL RIGID CALCIUM SILICATE INSERTS AT ALL PIPING HANGERS.
4. PIPING BRANCHES 2" AND SMALLER MAY BE PEX WHERE PERMITTED BY CODE. USE RED AND BLUE PIPING. INSTALL MANIFOLD DOWNSTREAM OF BRANCH ISOLATION VALVES.
5. PIPE SHALL BE CEMENT MORTAR LINED PER ANSI/AWWA STANDARDS. FITTINGS SHALL BE LONG RADIUS, 200 PSI RATED, CEMENT MORTAR LINED.
6. INSULATE RISERS WITHIN 10' OF VENT THROUGH ROOF CONNECTION.
7. PIPING MAY BE PVC WHERE NOT INSTALLED IN A RETURN AIR PLENUM.
8. INSULATION ONLY REQUIRED FOR COLD SERVICE PIPING. EQUIPMENT DRAIN PIPING LESS THAN 5' IN LENGTH NEED NOT BE INSULATED.
9. PIPING SERVING FOOD SERVICE EQUIPMENT AND EXPOSED TO PUBLIC OR USERS.
10. ALL NATURAL GAS PIPING LOCATED IN A CEILING RETURN AIR PLENUM SHALL BE WELDED.
11. ALL CONCEALED NATURAL GAS PIPING TO BE WELDED.
12. PIPING MAY BE PVC WHERE PERMITTED BY CODE.
13. ALTERNATE MATERIALS WILL BE CONSIDERED. SUBMIT ALTERNATES TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

TOTAL CONNECTED NATURAL GAS LOAD

KITCHEN EQUIPMENT				
EQUIPMENT DESIGNATION	QUANTITY	DESCRIPTION	CFH (EACH)	TOTAL CFH
18	1	CHARBROILER	87	87
20	1	PIZZA OVEN	225	225
23	1	FRYER	150	150
29	1	ROTISSERIE	175	175
32	1	6 BURNER RANGE W/ OVEN	240	240
34	1	MONGOLIAN BBQ	123	123
ETR	1	WOK	440	440
ETR	1	CONVECTION OVEN	120	120
ETR	1	BAKERY OVEN	240	240
TOTAL =			1800	
MECHANICAL EQUIPMENT				
EQUIPMENT DESIGNATION	QUANTITY	DESCRIPTION	CFH (EACH)	TOTAL CFH
RTU-1	1	ROOFTOP UNIT	1000	1000
RTU-2	1	ROOFTOP UNIT	1000	1000
RTU-3	1	ROOFTOP UNIT (ETR)	180	180
RTU-4	1	ROOFTOP UNIT (ETR)	240	240
RTU-5	1	ROOFTOP UNIT (ETR)	240	240
RTU-6	1	ROOFTOP UNIT	120	120
RTU-7	1	ROOFTOP UNIT (ETR)	235	235
RTU-8	1	ROOFTOP UNIT (ETR)	200	200
RTU-9	1	ROOFTOP UNIT	180	180
RTU-10	1	ROOFTOP UNIT	120	120
RTU-11	1	ROOFTOP UNIT	180	180
RTU-12	1	ROOFTOP UNIT	180	180
UH-1	1	UNIT HEATER (ETR)	250	250
UH-2	1	UNIT HEATER (ETR)	125	125
UH-3	1	UNIT HEATER (ETR)	125	125
MAU-1	1	MAKE UP AIR UNIT	356	356
MAU-2	1	MAKE UP AIR UNIT	197	197
WH-1	2	WATER HEATER	199	398
WH	1	WATER HEATER (ETR)	100	894
GEN	1	GENERATOR	894	
TOTAL =			6320	
NATURAL GAS SYSTEM OPERATING PRESSURE:			2 PSI	
NATURAL GAS SYSTEM SIZED WITH TOTAL DEVELOPED LENGTH FROM				
GAS METER TO MOST REMOTE PIECE OF EQUIPMENT:			730 FEET	
SYSTEM DESIGN PRESSURE DROP:			1 PSI	
BUILDING TOTAL CONNECTED LOAD =			8120	

PLUMBING ROUGH-IN SCHEDULE

FIXTURE TYPE	WASTE	VENT	CW	HW
WC AND HWC	4"	2"	1"	--
UR	2"	1-1/2"	3/4"	--
EWIC	1-1/2"	1-1/4"	1/2"	--
JS	3"	1-1/2"	3/4"	3/4"
LAVS	2"	1-1/2"	1/2"	1/2"
S-1A,B,C	2"	1-1/2"	1/2"	1/2"
S-2C	2"	1-1/2"	1/2"	1/2"
S-2A	2"	--	1/2"	1/2"
S-2B	2"	--	3/4"	3/4"
S-3S	2"	--	3/4"	3/4"
S-4S	2"	2"	3/4"	3/4"
S-5	2"	2"	3/4"	3/4"
S-6	2"	1-1/2"	3/4"	3/4"
HS	1-1/2"	1-1/2"	1/2"	1/2"

NOTES:
UNDERFLOOR SANITARY PIPING SHALL NOT BE SMALLER THAN 2"

GAS PRESSURE REGULATOR SCHEDULE FOR 2 PSI SYSTEMS

MARK	MANUFACTURER / MODEL#	VALVE TYPE	VALVE BODY SIZE (INCHES)	MAX. FLOW RATE CFH	INLET PRESSURE PSI	OUTLET PRESSURE INCHES WATER COLUMN	SERVICE	NOTES
GPR-1	PIETRO-FIORENTINI 31051	C	1/2"	352	1	7"	ROOFTOP UNIT	A, B, D, E, F, G, H & I

NOTES:

A. C = SELF CONTAINED "DIRECT ACTING" DIAPHRAGM TYPE WITH INTERNAL VENT LIMITER

B. DROOP = 1" WATER COLUMN MAXIMUM

C. DROOP = 2" WATER COLUMN MAXIMUM

D. 65# ALUMINUM BODY, SCREWED CONNECTIONS AND OVERPRESSURE PROTECTION TO 25#

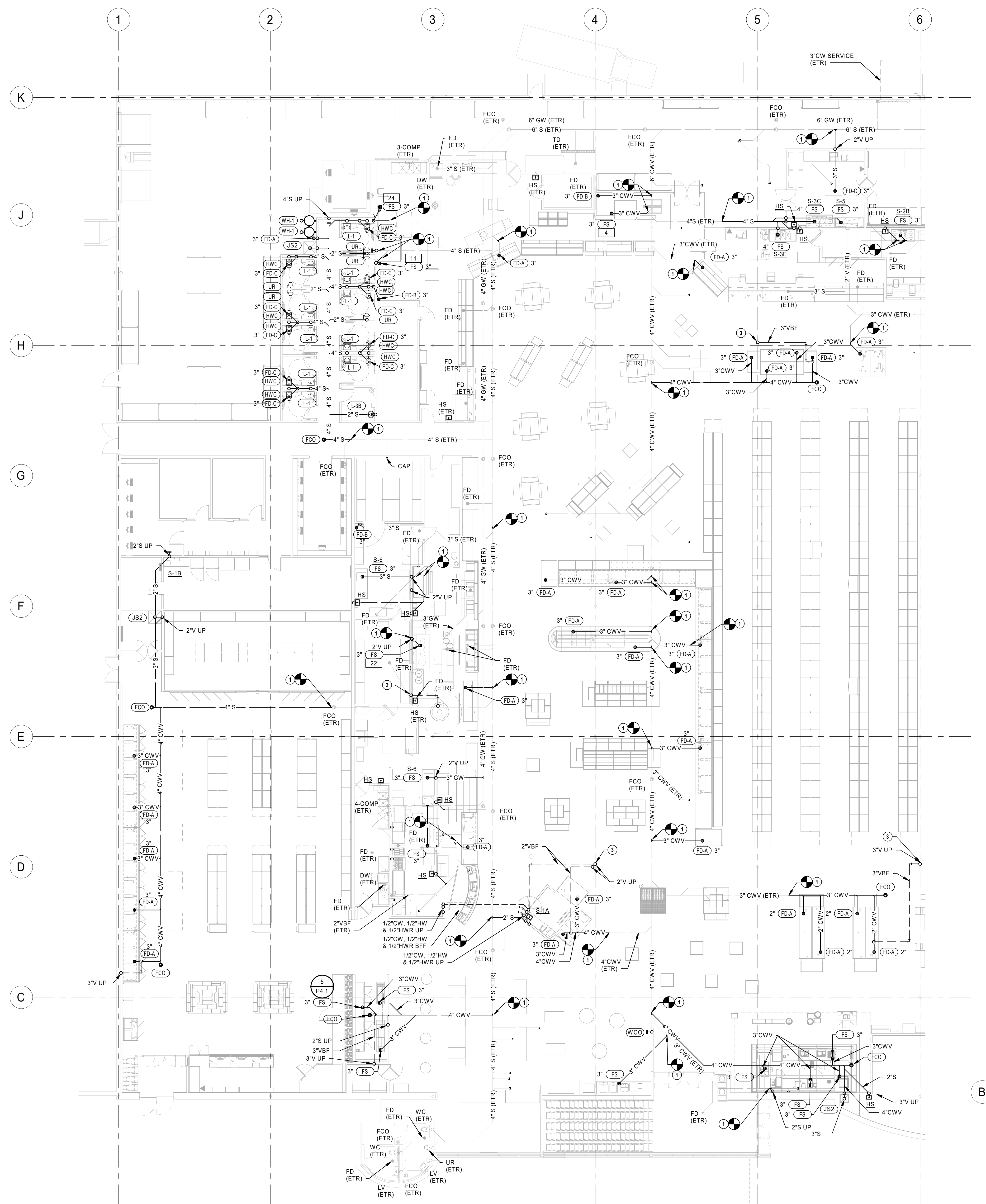
E. MAXIMUM FLOW RATE SCHEDULED, MATCH BODY SIZE AND MAXIMUM FLOW RATE TO EQUIPMENT FLOW RATE. REFER TO EQUIPMENT SHOP DRAWINGS FOR EXACT LOADS

F. LISTED TO MEET ANSI Z21.80 / CSA 6.22 WITH CSA LISTING STAMP ON REGULATOR BODY

G. GAS PRESSURE REGULATOR INLET PRESSURE = OPERATING PRESSURE - DESIGN FRICTION LOSS

H. 2PSI MAXIMUM INLET PRESSURE & 1 PSI MINIMUM INLET PRESSURE

I. PROVIDE EXTERNAL VENT LIMITER (WHERE APPROVED BY LOCAL AUTHORITIES) FOR INDOOR INSTALLATION AND INSTAL PER SPECIFICATIONS. INSTALL OUTDOORS PER SPECIFICATIONS.



- PLUMBING GENERAL NOTES**
1. FURNISH AND INSTALL PLUMBING SYSTEMS IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES.
 2. ALL FLOOR DRAINS, FLOOR SINKS, AND TRENCH DRAINS OUTLETS AND BRANCH SANITARY ARE 3" UNLESS NOTED OTHERWISE.
 3. ALL FLOOR CLEANOUTS ARE TO BE ACCESSIBLE AND NOT BENEATH MILLWORK, CASEWORK, SHELVES OR OTHER OBSTRUCTIONS. CLEANOUTS SHALL BE THE SAME SIZE AS PIPING BEING SERVED AND AT THE TRANSITION OF PIPE SIZE.
 4. COORDINATE UNDERFLOOR PIPING ROUTING WITH REFRIGERATION AND ELECTRICAL CONTRACTORS.
- PLUMBING PLAN NOTES**
1. CONNECT NEW SANITARY/GREASE WASTE PIPING INTO EXISTING PIPING. FIELD VERIFY EXACT LOCATION, SIZE AND INVERT PRIOR TO START OF WORK.
 2. ROUTE 1/2" PIPE UNDERFLOOR IN 4" CONDUIT.
 3. ROUTE VENT PIPING TIGHT TO COLUMN.

1 UNDERFLOOR PLUMBING PLAN - A
3/32" = 1'-0"

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM

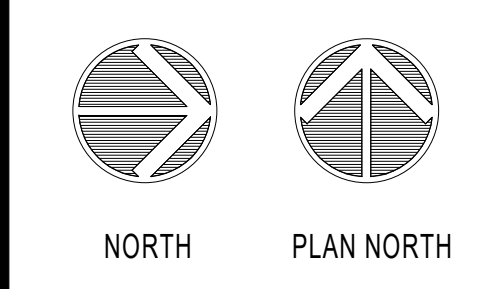
1950003081
MO. CORPORATE NO. E-558D
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD

Hy-Vee
EMPLOYEE OWNED

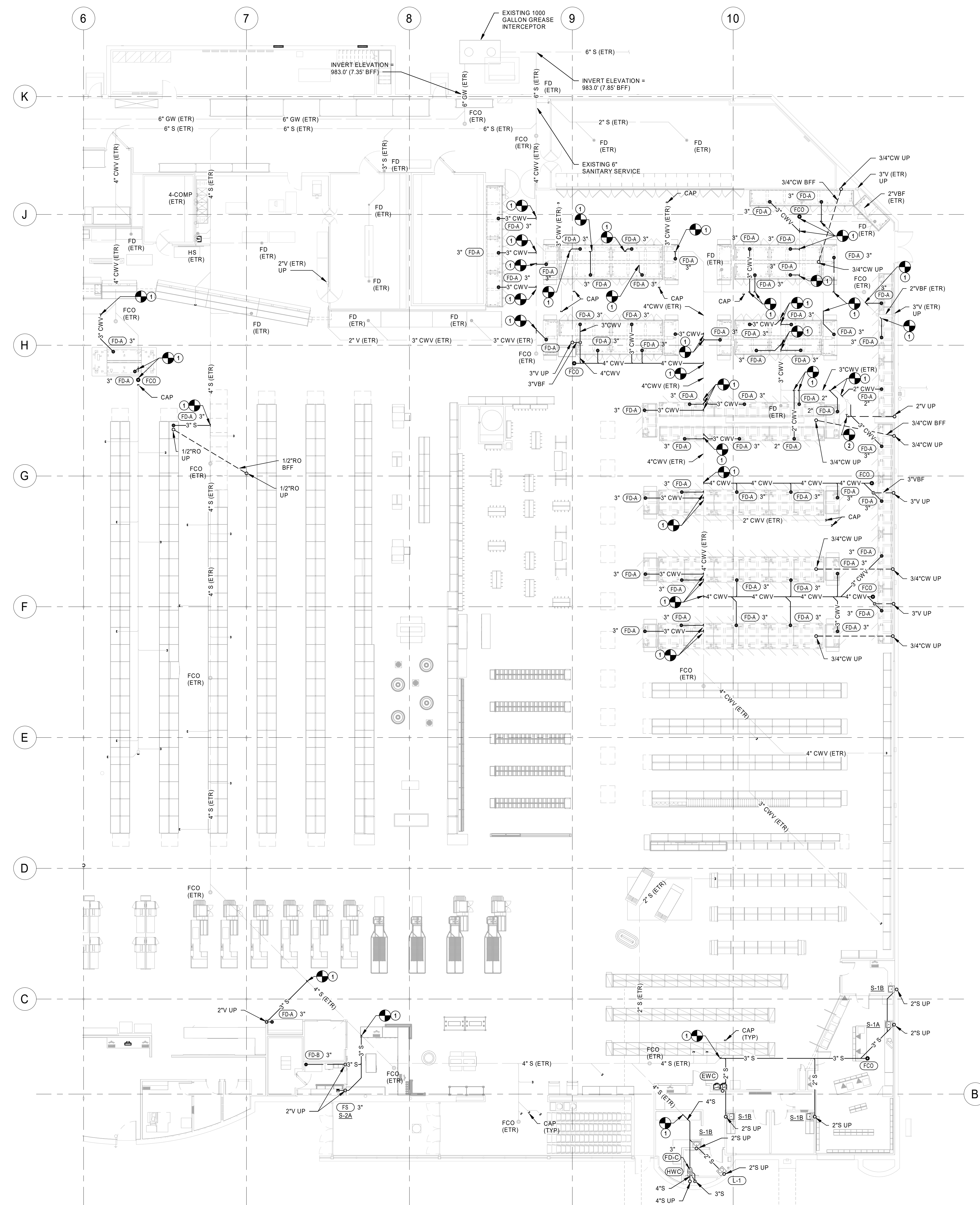
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL 515.281.5333 FAX 515.267-4335



UNDERFLOOR
PLUMBING PLAN -
A

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY: HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

P1.0A



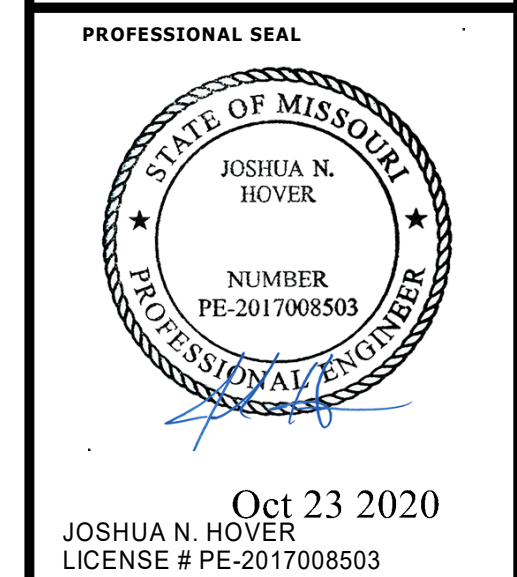
PLUMBING GENERAL NOTES

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4. COORDINATE UNDERFLOOR PIPING ROUTING WITH REFRIGERATION AND ELECTRICAL CONTRACTORS.

PLUMBING PLAN NOTES

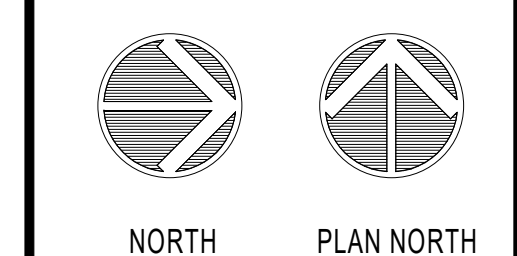
1. CONNECT NEW SANITARY/GREASE WASTE PIPING INTO EXISTING PIPING. FIELD VERIFY EXACT LOCATION, SIZE AND INVERT PRIOR TO START OF WORK.
2. CONNECT NEW VENT PIPING TO EXISTING VENT PIPING AS FIELD CONDITIONS REQUIRE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO START OF WORK.

① UNDERFLOOR PLUMBING PLAN - B
3/32" = 1'-0"



LOCATION
LEE'S SUMMIT, MO #2
3310 SW WARD RD
HAZEL, MO
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50266
TELEPHONE: (515) 267-2800
FAX: (515) 267-2835

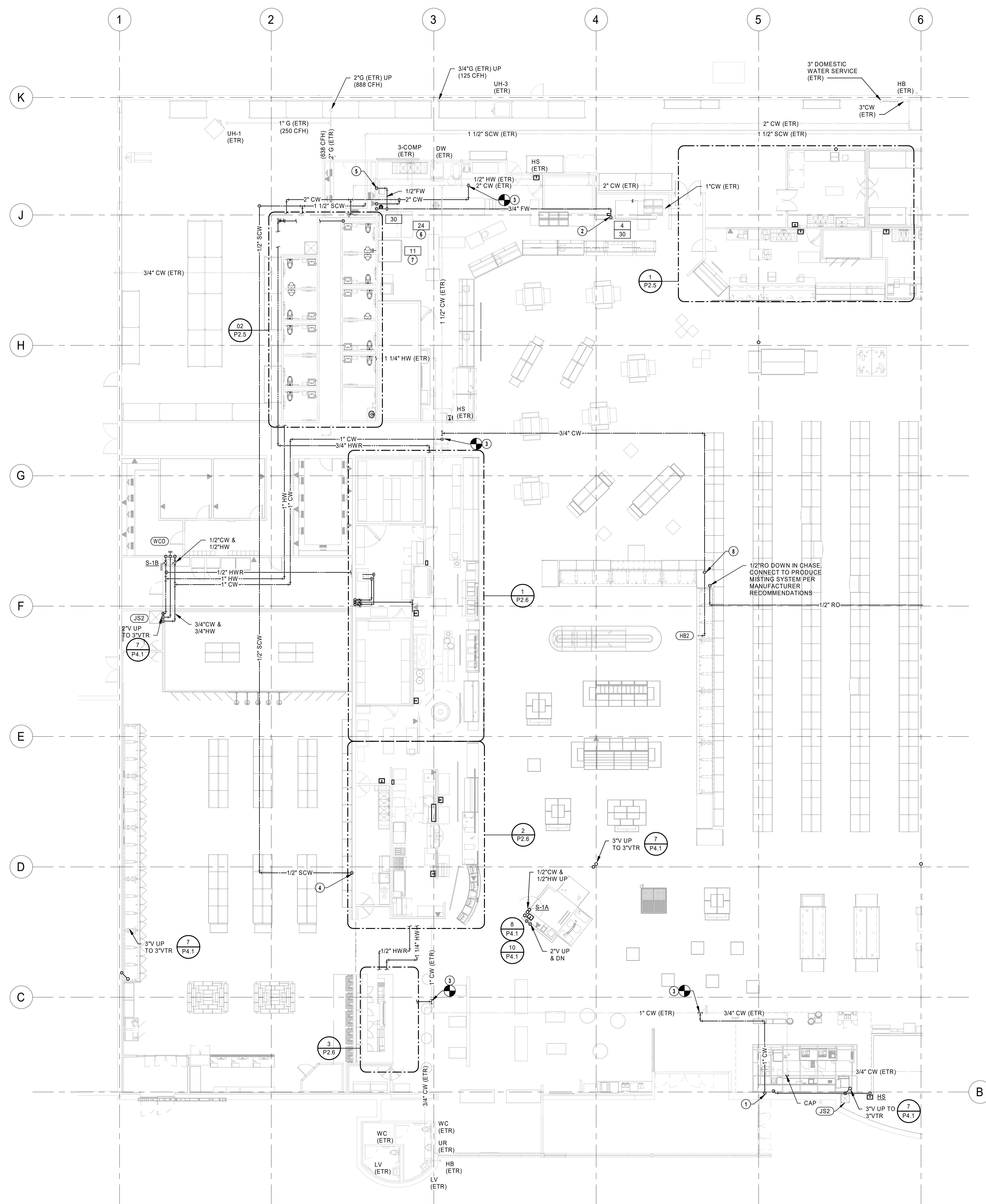
Hypac[®]
EMPLOYEE OWNED



UNDERFLOOR
PLUMBING PLAN -
B

PROJECT MANAGER SL	CHECKED BY: HEI
DRAWN BY: HEI	DATE: 10/19/2020
SCALE: AS NOTED	JOB NUMBER: 62930547
SHEET	

P1.0B



- PLUMBING GENERAL NOTES**
- FURNISH AND INSTALL PLUMBING SYSTEMS IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES.
 - ALL FLOOR DRAINS, FLOOR SINKS, AND TRENCH DRAINS OUTLETS AND BRANCH SANITARY ARE 3" UNLESS NOTED OTHERWISE.
 - ALL FLOOR CLEANOUTS ARE TO BE ACCESSIBLE AND NOT BENEATH MILLWORK, CASEWORK, SHELVES OR OTHER OBSTRUCTIONS. CLEANOUTS SHALL BE THE SAME SIZE AS PIPING BEING SERVED AND AT THE TRANSITION OF PIPE SIZE.
 - COORDINATE UNDERFLOOR PIPING ROUTING WITH REFRIGERATION AND ELECTRICAL CONTRACTORS.
 - ROUTE BRANCH PIPING 12" ABOVE THE ACCESSIBLE CEILING.
- PLUMBING PLAN NOTES**
- 1" CW DOWN IN WALL TO STARBUCKS KIOSK. ROUTE IN WALL TO EACH FIXTURE AND CONNECT PER STARBUCKS STANDARDS.
 - ROUTE 3/4" FW DOWN IN WALL AND CONNECT TO OVEN. PROVIDE FLEXIBLE COPPER TUBING FROM WALL TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. PROVIDE ESCUTCHEON AT WALL.
 - CONNECT NEW DOMESTIC WATER PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.
 - 1/2" SCW DOWN. CONNECT 1/2" CW TO HUMIDOR PER MANUFACTURER'S RECOMMENDATIONS.
 - ROUTE 1/2" FW TO BAKERY WATER METER AND CONNECT PER MANUFACTURER'S RECOMMENDATIONS.
 - CONNECT NEW BAKERY OVEN TO EXISTING WATER AND GAS PIPING AS FIELD CONDITIONS REQUIRE AND PER MANUFACTURER'S RECOMMENDATIONS.
 - CONNECT NEW PROOFER TO EXISTING WATER PIPING AS FIELD CONDITIONS REQUIRE AND PER MANUFACTURER'S RECOMMENDATIONS.
 - ROUTE CW PIPING ON TOP OF CASE. INSTALL AND SECURELY FASTEN HB2 IN CENTER OF CASE ARRANGEMENT.

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM

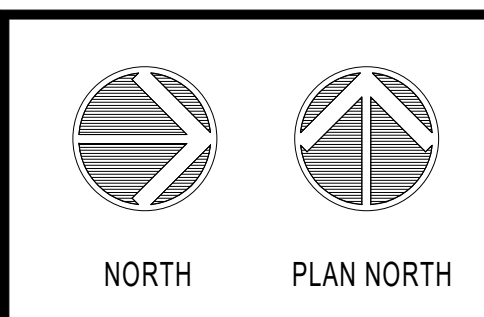
1950003081
MO. CORPORATE NO. E-556D
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD

HY-VEE INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL (515) 267-2800
FAX (515) 267-4335

Hy-Vee
EMPLOYEE OWNED

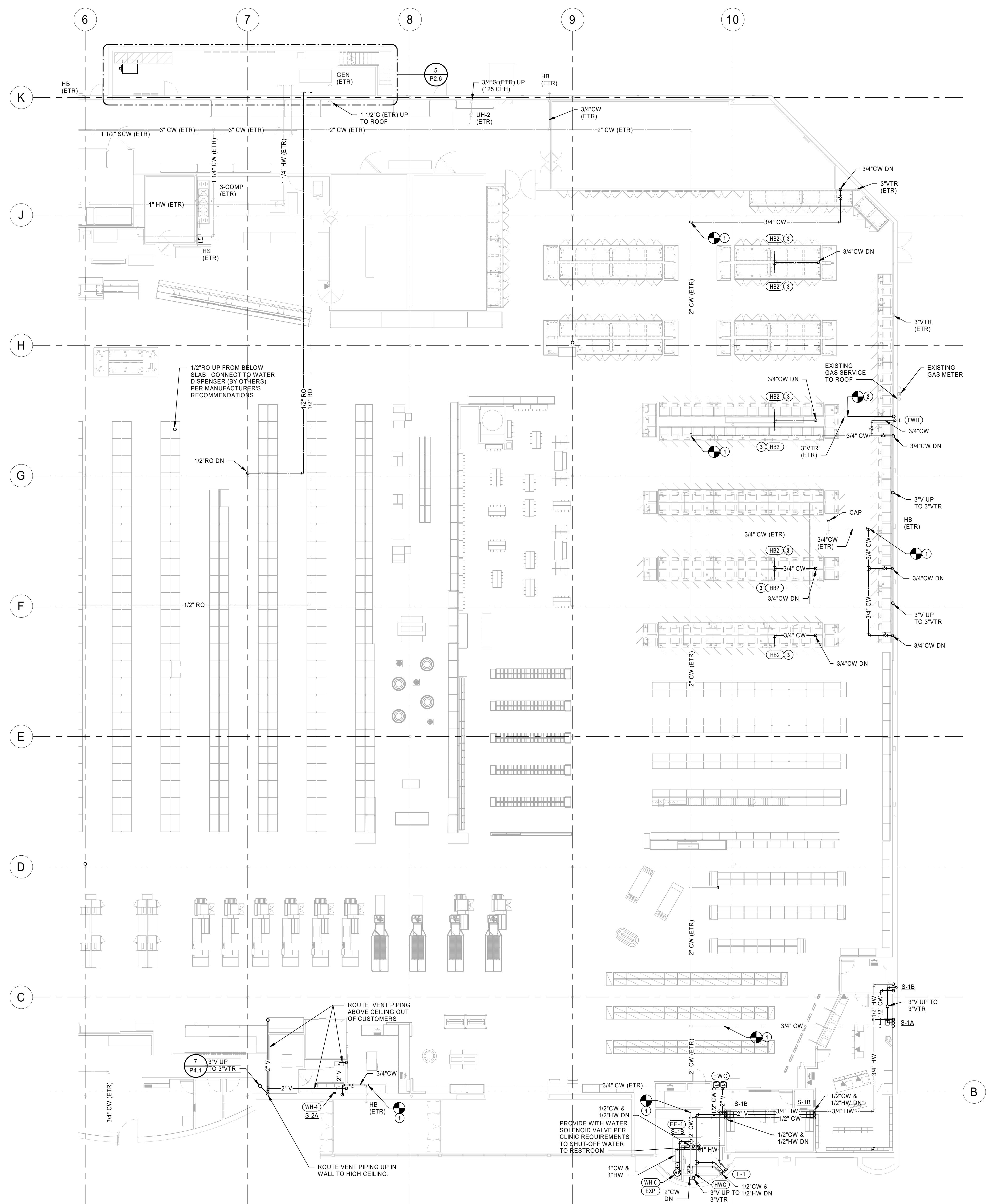


**PLUMBING FLOOR
PLAN - A**

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

P2.0A

1 PLUMBING FLOOR PLAN - A
3/32" = 1'-0"



PLUMBING GENERAL NOTES

1. FURNISH AND INSTALL PLUMBING SYSTEMS IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES.
2. ALL FLOOR DRAINS, FLOOR SINKS, AND TRENCH DRAINS OUTLETS AND BRANCH SANITARY ARE 3\"/>

PLUMBING PLAN NOTES

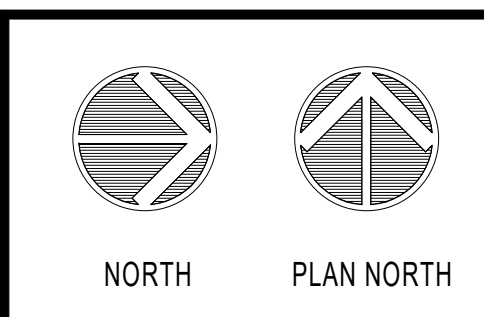
1. CONNECT NEW DOMESTIC WATER PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.
2. CONNECT NEW VENT PIPING INTO EXISTING VTR. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.
3. ROUTE CW PIPING ON TOP OF CASE. INSTALL AND SECURELY FASTEN HB2 IN CENTER OF CASE ARRANGEMENT.

1 PLUMBING FLOOR PLAN - B
3/32\"/>

HENDERSON
ENGINEERS
8345 LENEKA DRIVE, SUITE 300
LENEKA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
1950003081
MO. CORPORATE NO. E-558D
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL 515.267-2800 FAX 515.267-4335
Hy-Vee
EMPLOYEE OWNED



PLUMBING FLOOR PLAN - B

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY: HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

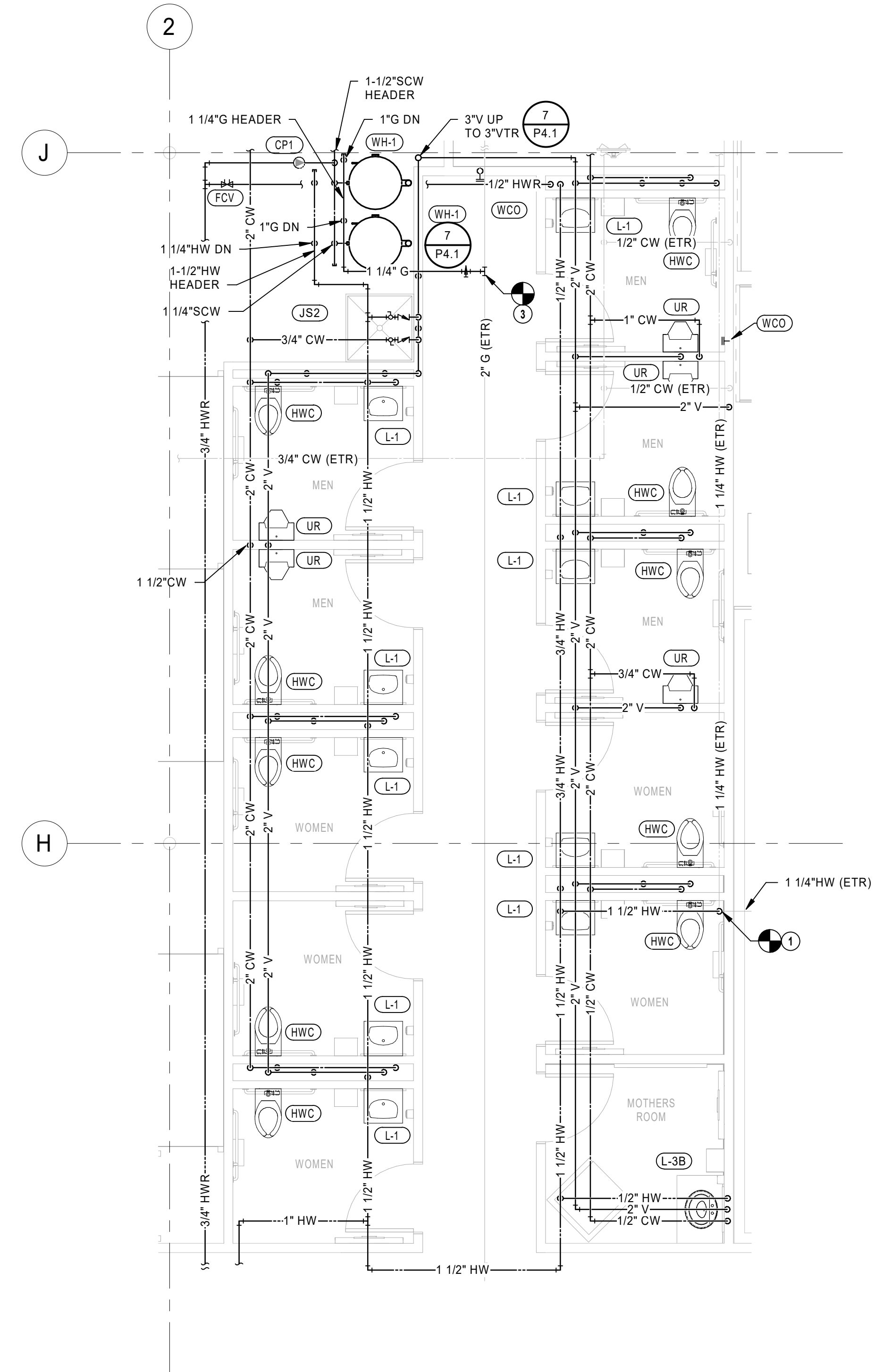
P2.0B

PLUMBING GENERAL NOTES

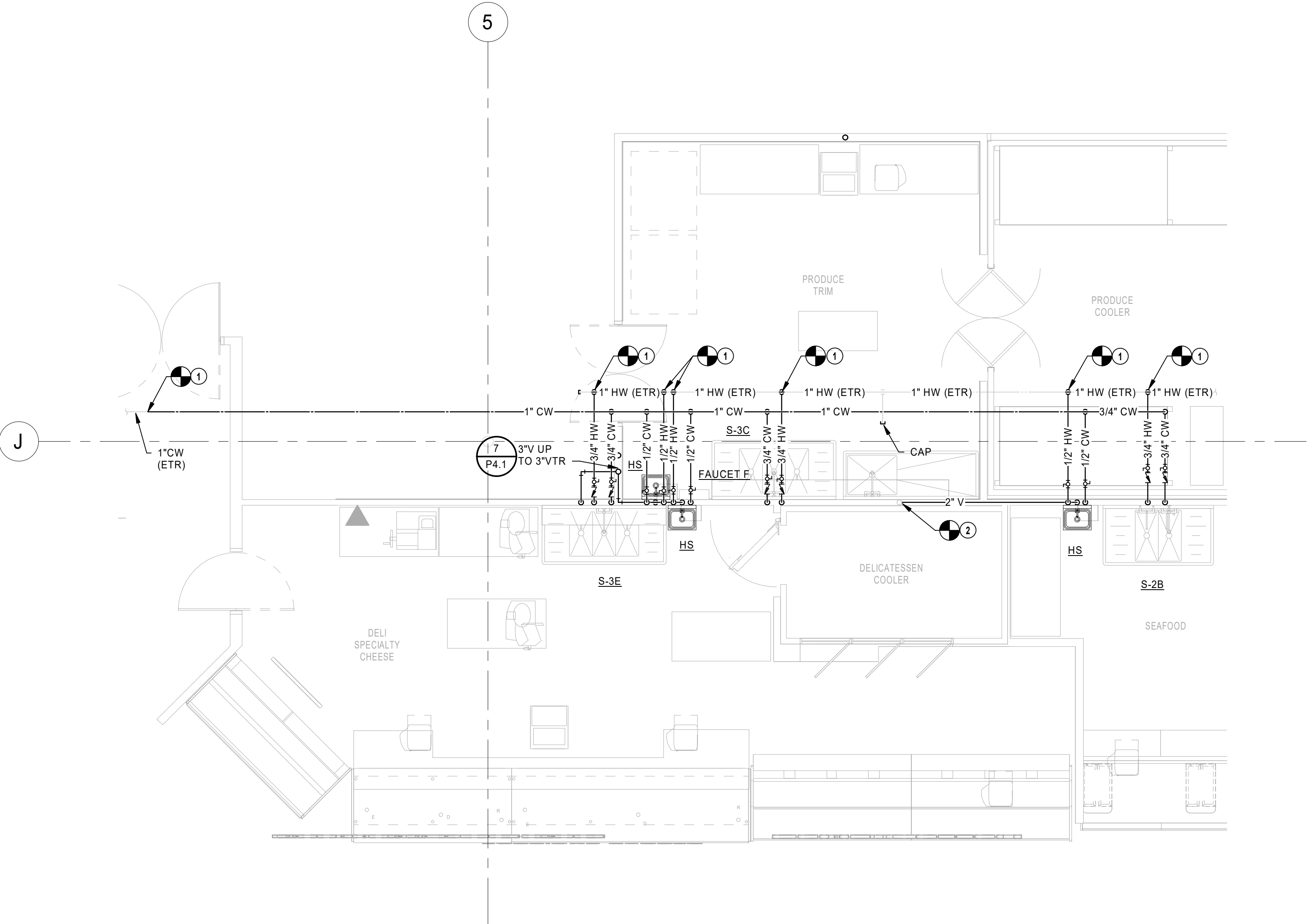
1. AVOID ROUTING IN EXTERIOR WALLS WHERE POSSIBLE. ALL PIPING TO BE ON THE WARM SIDE OF THE WALL INSULATION TO PROTECT AGAINST FREEZING.
2. INSTALL ISOLATION VALVES IN ALL FIXTURE BRANCHES AND UNDERFLOOR BRANCH PIPING. ENSURE VALVES ARE INSTALLED IN AN ACCESSIBLE LOCATION.
3. VERIFY LOCATION OF ALL EQUIPMENT REQUIRING PLUMBING (APPLIANCES, PLUMBING FIXTURES, HVAC, ETC.) PRIOR TO ROUGHING IN ANY PIPING.
4. PROVIDE BACKFLOW PREVENTERS THROUGHOUT STORE ONLY WHERE REQUIRED BY LOCAL AND STATE CODES. SEE BACKFLOW PREVENTER SPECIFICATIONS ON SHEET P0.0 AND "CROSS CONNECTION & BACKFLOW PREVENTER SCHEDULE" ON SHEET P4.0.
5. INSTALL ISOLATION VALVES ON THE INLET AND OUTLET ON ALL POINT-OF-USE WATER FILTERS.
6. COORDINATE PIPE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION.
7. ALL BACKFLOW PREVENTERS INSTALLED IN FOOD PREPARATION AREA MUST HAVE FABRICATED, CLEANABLE, STAINLESS STEEL COVERS.
8. ALL INDIRECT DRAIN LINES MUST BE INSTALLED +/- 6" A.F.F. AND NOT SUPPORTED FROM THE FLOOR.

PLUMBING PLAN NOTES

1. CONNECT NEW DOMESTIC WATER PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.
2. CONNECT NEW VENT PIPING TO EXISTING VENT PIPING AS FIELD CONDITIONS REQUIRE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO START OF WORK.
3. CONNECT NEW GAS PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.



ENLARGED PLUMBING FLOOR PLANS -
RESTROOMS
1/4" = 1'-0"



ENLARGED PLUMBING FLOOR PLANS -
DELI
1/4" = 1'-0"

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
1950003081
MO. CORPORATE NO. E-5580
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL 515.281.5938 FAX 515.267-2600
HY-VEE
EMPLOYEE OWNED

NORTH
PLAN NORTH

PLUMBING
ENLARGED PLANS

PROJECT MANAGER
SL
CHECKED BY
HEI
DRAWN BY:
HEI
DATE
10/19/2020
SCALE
AS NOTED
JOB NUMBER
62830547
SHEET:

P2.5

PLUMBING GENERAL NOTES

1. AVOID ROUTING IN EXTERIOR WALLS WHERE POSSIBLE. ALL PIPING TO BE ON THE WARM SIDE OF THE WALL INSULATION TO PROTECT AGAINST FREEZING.
2. INSTALL ISOLATION VALVES IN ALL FIXTURE BRANCHES AND UNDERFLOOR BRANCH PIPING. ENSURE VALVES ARE INSTALLED IN AN ACCESSIBLE LOCATION.
3. VERIFY LOCATION OF ALL EQUIPMENT REQUIRING PLUMBING (APPLIANCES, PLUMBING FIXTURES, HVAC, ETC.) PRIOR TO ROUGHING IN ANY PIPING.
4. PROVIDE BACKFLOW PREVENTERS THROUGHOUT STORE ONLY WHERE REQUIRED BY LOCAL AND STATE CODES. SEE BACKFLOW PREVENTER SPECIFICATIONS ON SHEET P6.0 AND "CROSS CONNECTION & BACKFLOW PREVENTER SCHEDULE" ON SHEET P4.0.
5. INSTALL ISOLATION VALVES ON THE INLET AND OUTLET ON ALL POINT OF USE WATER FILTERS.
6. COORDINATE PIPE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION.
7. ALL BACKFLOW PREVENTERS INSTALLED IN FOOD PREPARATION AREA MUST HAVE FABRICATED, CLEANABLE, STAINLESS STEEL COVERS.
8. ALL INDIRECT DRAIN LINES MUST BE INSTALLED +/- 6" A.F.F. AND NOT SUPPORTED FROM THE FLOOR.

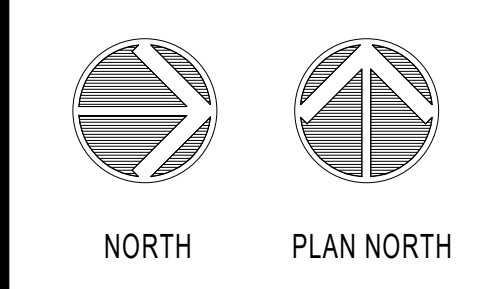
PLUMBING PLAN NOTES

1. CONNECT NEW GAS PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.
2. CONNECT NEW DOMESTIC WATER PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.
3. ROUTE 1/2" CW AND 1/2" HW DOWN IN WALL TO BELOW SLAB. RE: P1.0 FOR CONTINUATION.
4. 1/2" CW, 1/2" HW AND 1-1/2" V DOWN IN WALL SECTION BESIDE WINDOW.
5. CONNECT NEW VENT PIPING TO EXISTING VENT PIPING AS FIELD CONDITIONS REQUIRE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO START OF WORK.
6. INSTALL MECHANICAL GAS VALVE FURNISHED BY IOWA FIRE EQUIPMENT COMPANY IN SERVICEABLE LOCATION AS NEAR TO THE HOOD AS POSSIBLE. COORDINATE REQUIREMENTS WITH IOWA FIRE EQUIPMENT COMPANY.
7. CONNECT NEW GAS COOKING EQUIPMENT TO EXISTING GAS HEADER AS FIELD CONDITIONS REQUIRE. MAKE FINAL CONNECTION TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
8. ROUTE 1" G PIPE UNDERFLOOR IN 4" CONDUIT.
9. 1" CW, 1" HW AND 1/2" HW DOWN IN WALL. ROUTE IN WALL TO EACH FIXTURE AND CONNECT AS REQUIRED. ROUTE 1/2" HW TO END OF HOT WATER PIPING AND CONNECT TO HOT WATER PIPING TO COMPLETE HOT WATER RETURN LOOP.
10. ROUTE 3/4" FW DOWN TO BAG-IN-BOX SYSTEM AND PROVIDE STAINLESS STEEL BFP-2 AS SCHEDULED ON P4.1. ROUTE 1/2" FW TO EACH SODA MACHINE IN CONDUIT WHERE INDICATED ON PLANS.

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
1950003081
MO. CORPORATE NO. E-5560
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

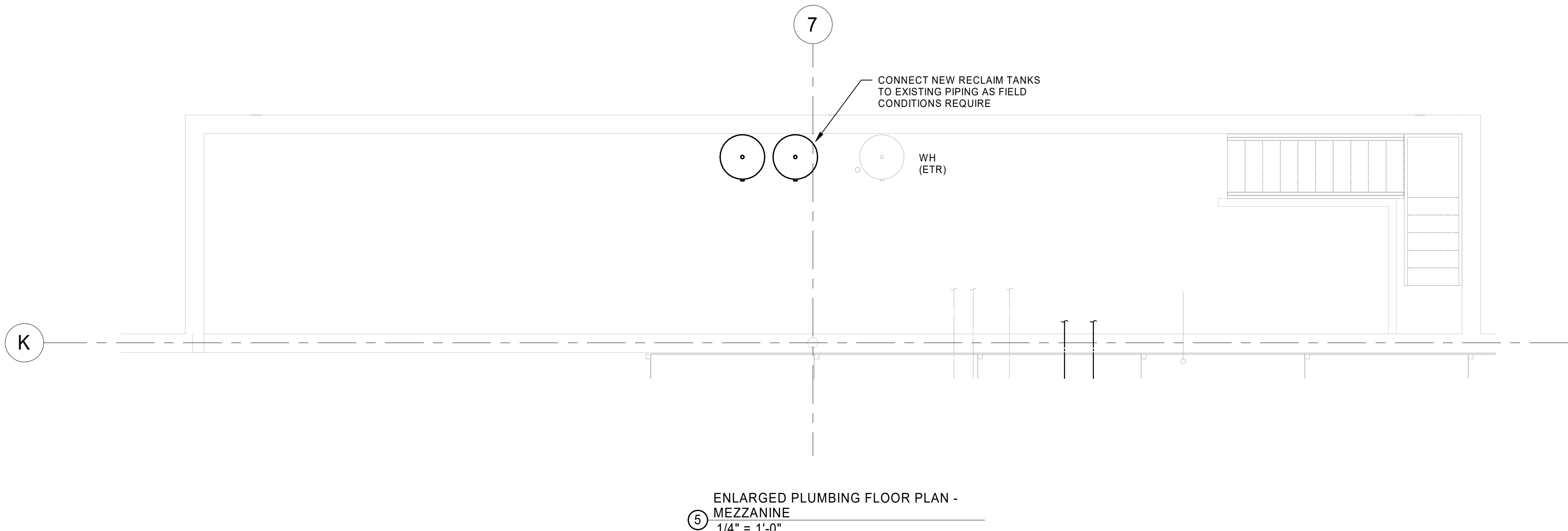
LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL (515) 267-2600
FAX (515) 267-2636
HY-VEE
EMPLOYEE OWNED



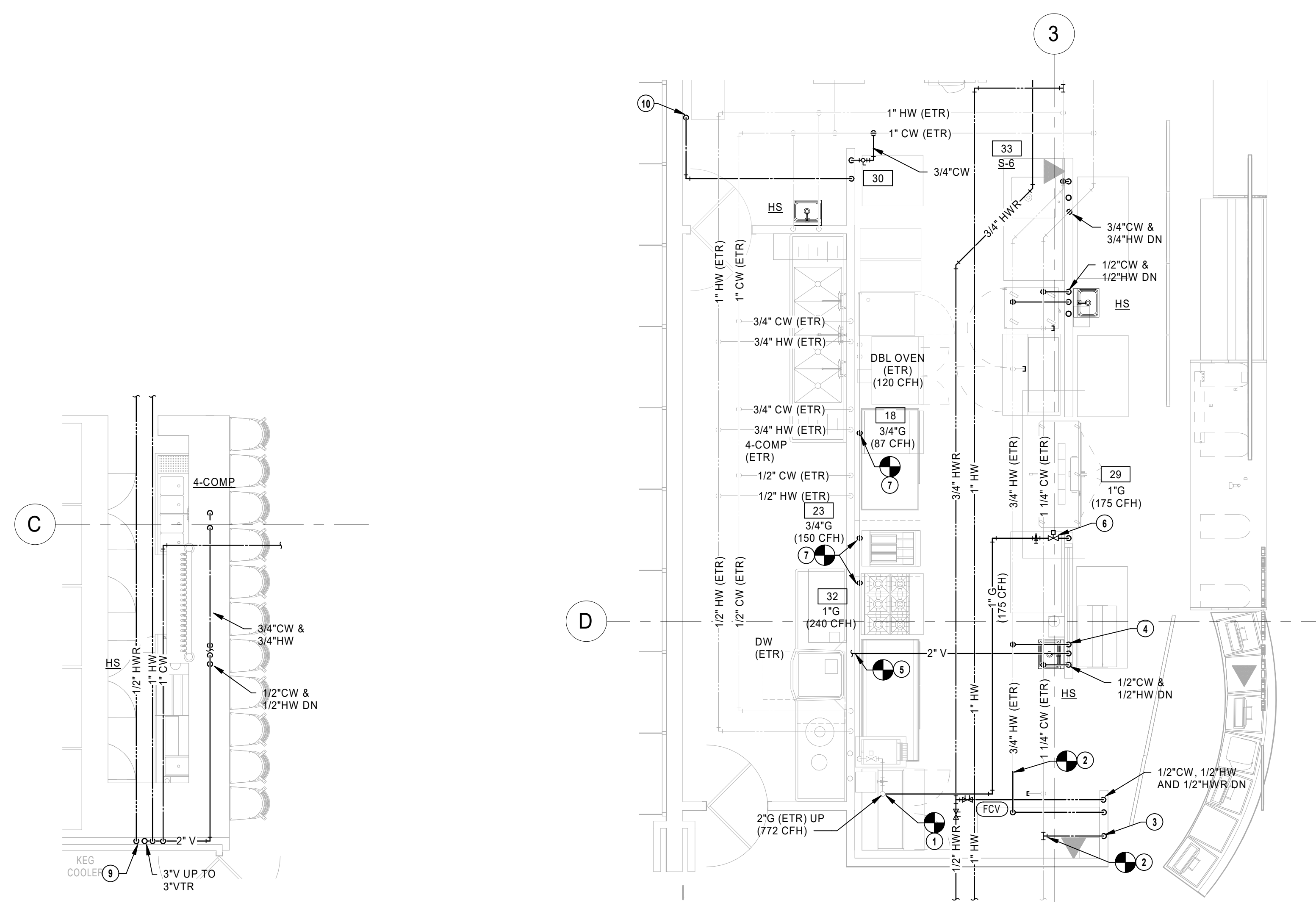
PLUMBING
ENLARGED PLANS

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY: HEI	DATE: 10/19/2020
SCALE: AS NOTED	JOB NUMBER: 62930547

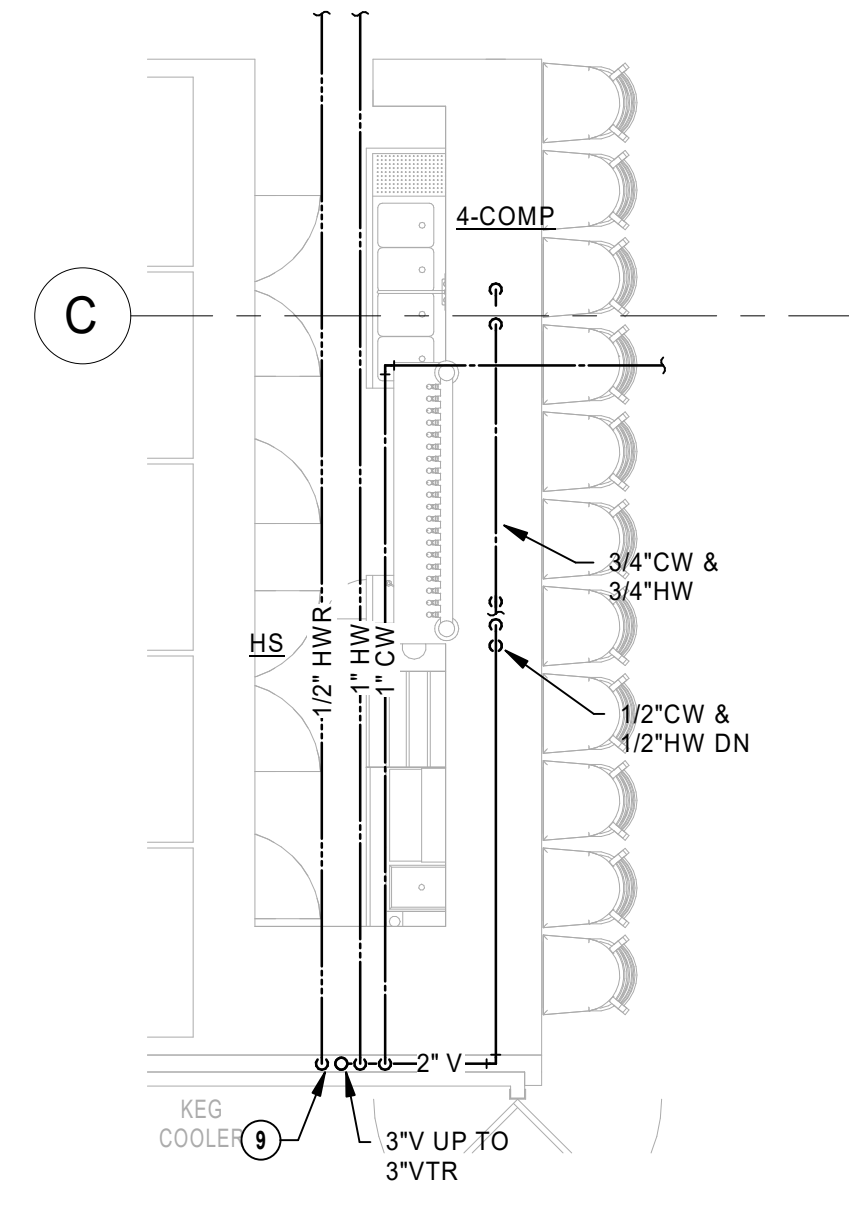
SHEET:
P2.6



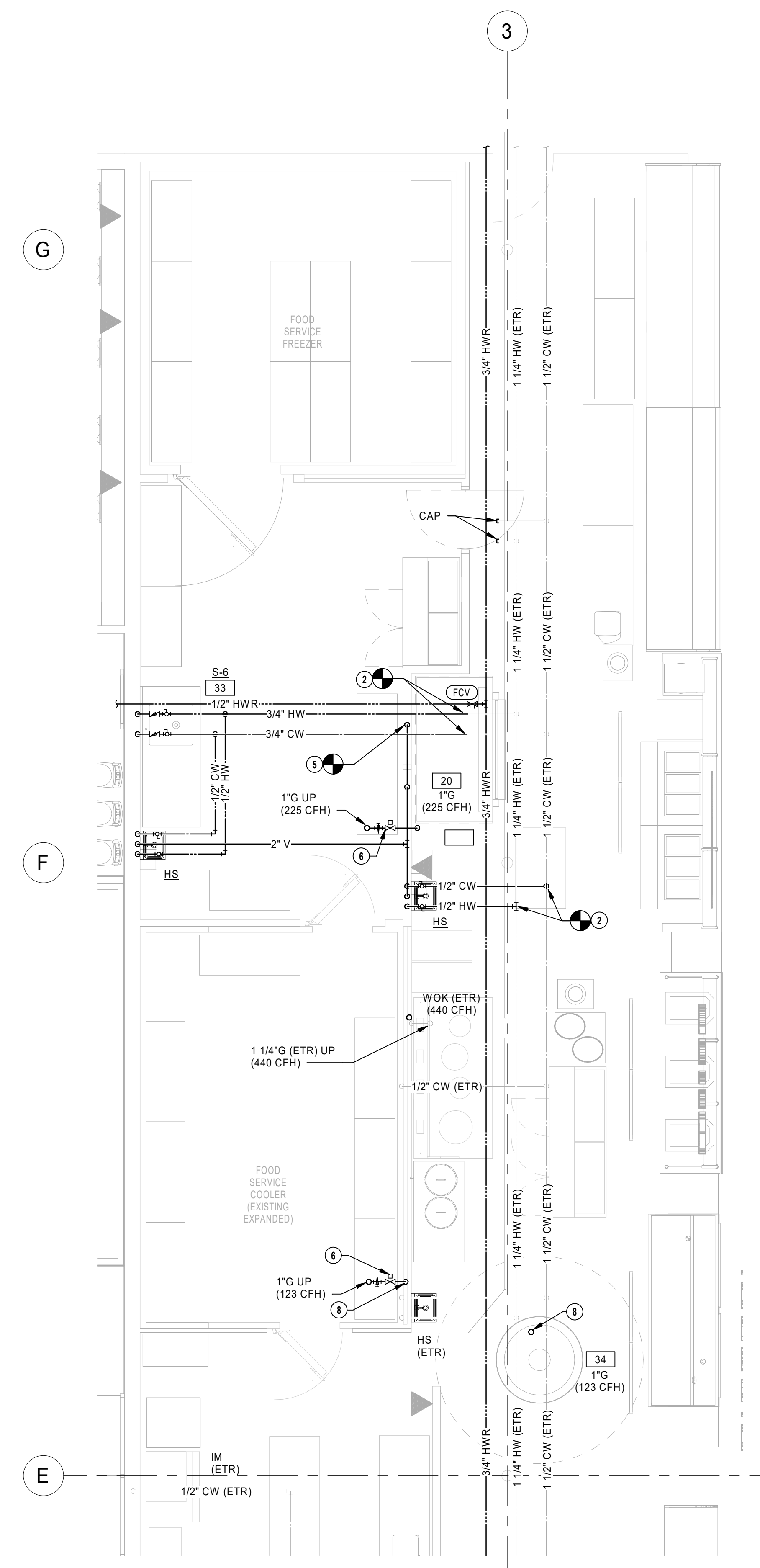
ENLARGED PLUMBING FLOOR PLAN -
MEZZANINE
1/4" = 1'-0"



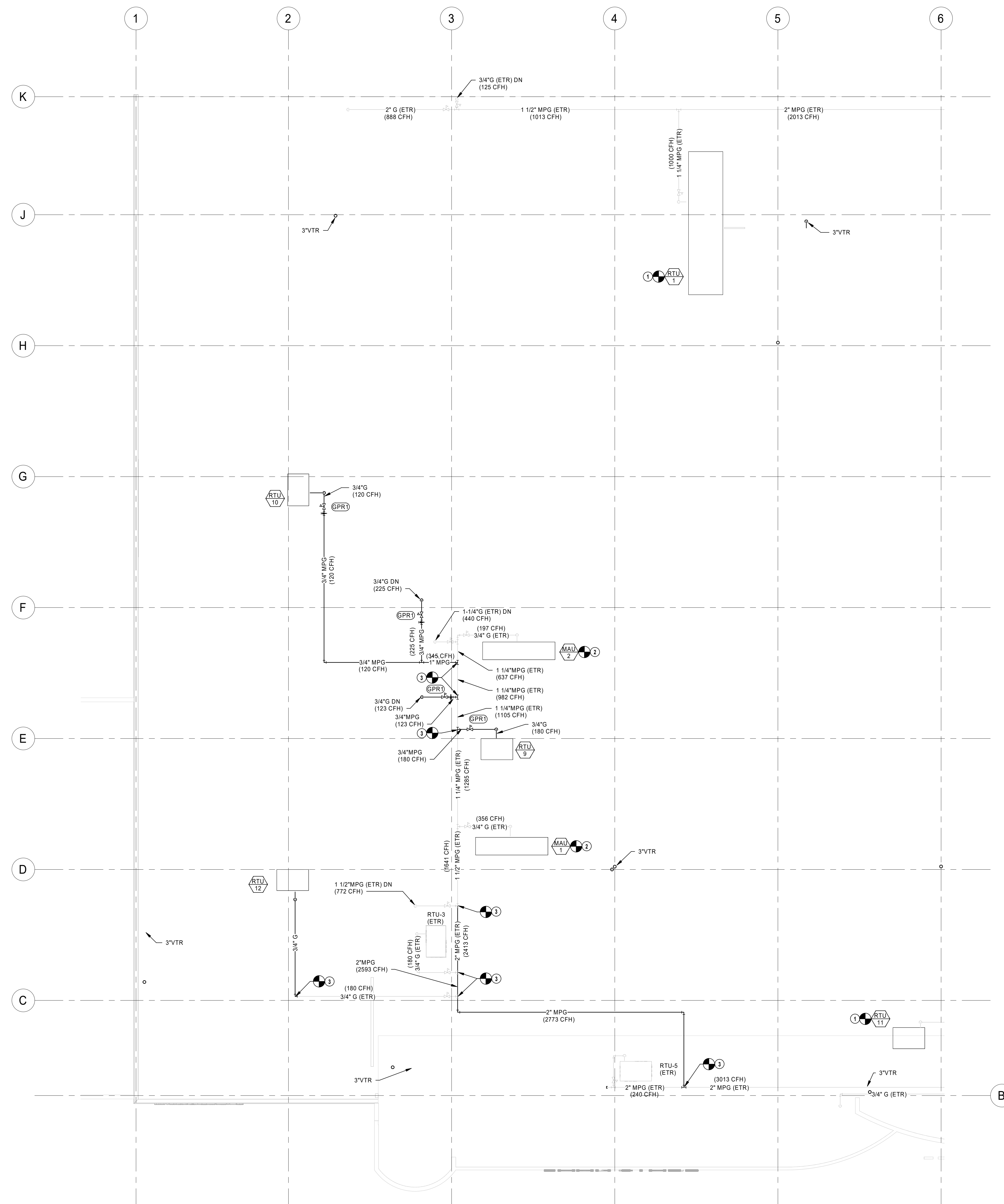
ENLARGED PLUMBING FLOOR PLANS -
KITCHEN
1/4" = 1'-0"



ENLARGED PLUMBING FLOOR PLANS -
BAR
1/4" = 1'-0"



ENLARGED PLUMBING FLOOR PLANS -
DELI/ITALIAN/ASIAN
1/4" = 1'-0"



PLUMBING PLAN NOTES

- 1 CONNECT NEW ROOFTOP UNIT TO EXISTING GAS PIPING AS FIELD CONDITIONS REQUIRE.
- 2 CONNECT NEW MAKE-UP AIR UNIT TO EXISTING GAS PIPING AS FIELD CONDITIONS REQUIRE.
- 3 CONNECT NEW GAS PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.

① PLUMBING ROOF PLAN - A
3/32" = 1'-0"

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
1950003081
MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

PROFESSIONAL SEAL

STATE OF MISSOURI

JOSHUA N. HOVER

NUMBER

PE-2017008503

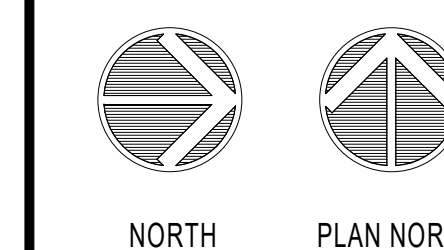
PROFESSIONAL ENGINEER

Oct 23 2020

JOSHUA N. HOVER

LICENSE # PE-2017008503

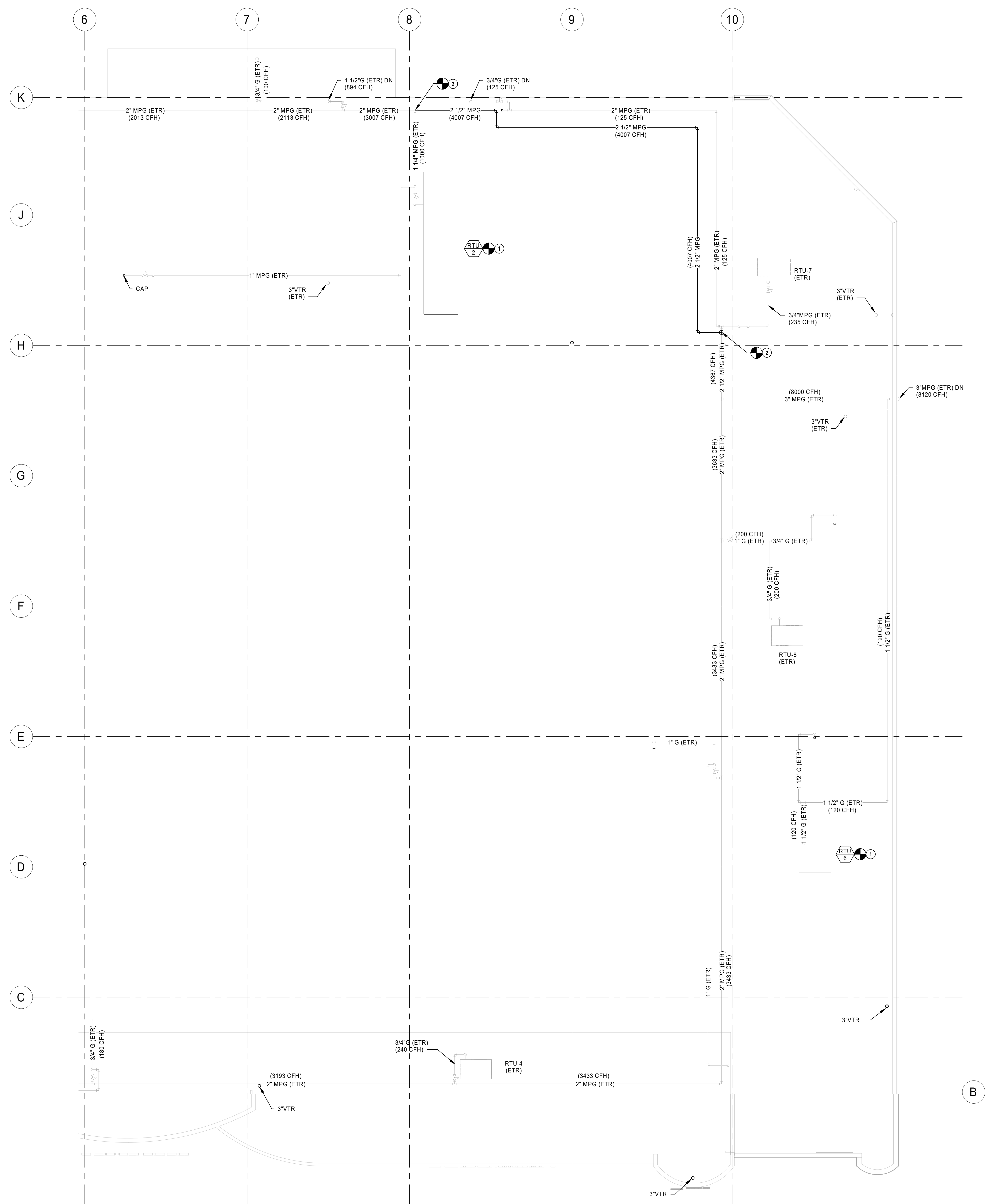
LOCATION
LEE'S SUMMIT, MO #2
3310 SW WARD RD
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50266
TELEPHONE: (515) 267-2800
FAX: (515) 267-2935
EMPLOYEE OWNED



PLUMBING ROOF
PLAN - A

PROJECT MANAGER SL	CHECKED BY: HEI
DRAWN BY: HEI	DATE: 10/19/2020
SCALE: AS NOTED	JOB NUMBER: 62930547
SHEET:	

P3.0A



- PLUMBING PLAN NOTES
1. CONNECT NEW ROOFTOP UNIT TO EXISTING GAS PIPING AS FIELD CONDITIONS REQUIRE.
 2. CONNECT NEW GAS PIPING TO EXISTING PIPING. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO START OF WORK.

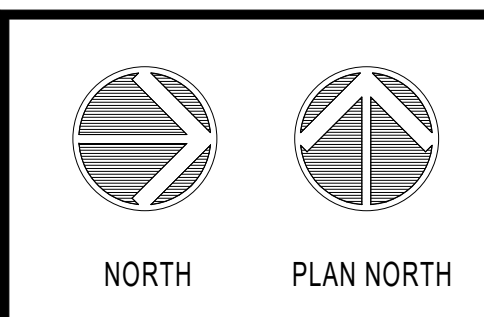
1 PLUMBING ROOF PLAN - B
3/32" = 1'-0"

HENDERSON ENGINEERS
8345 LENEKA DRIVE, SUITE 300
LENEKA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM

1950003081
MO. CORPORATE NO. E-5560
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

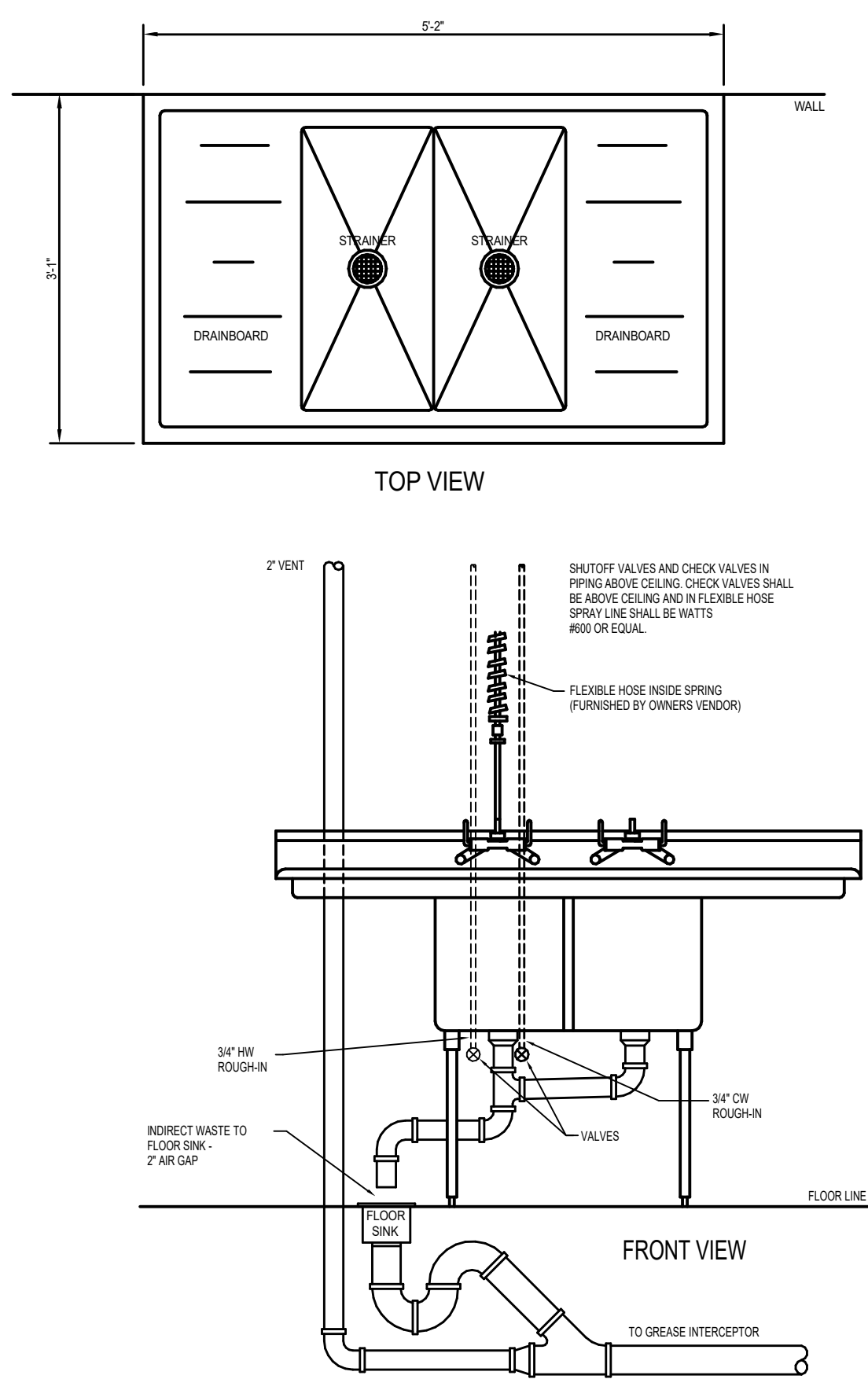
LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50386
TEL 515.267.4330 FAX 515.267.4335
Hy-Vee
EMPLOYEE OWNED



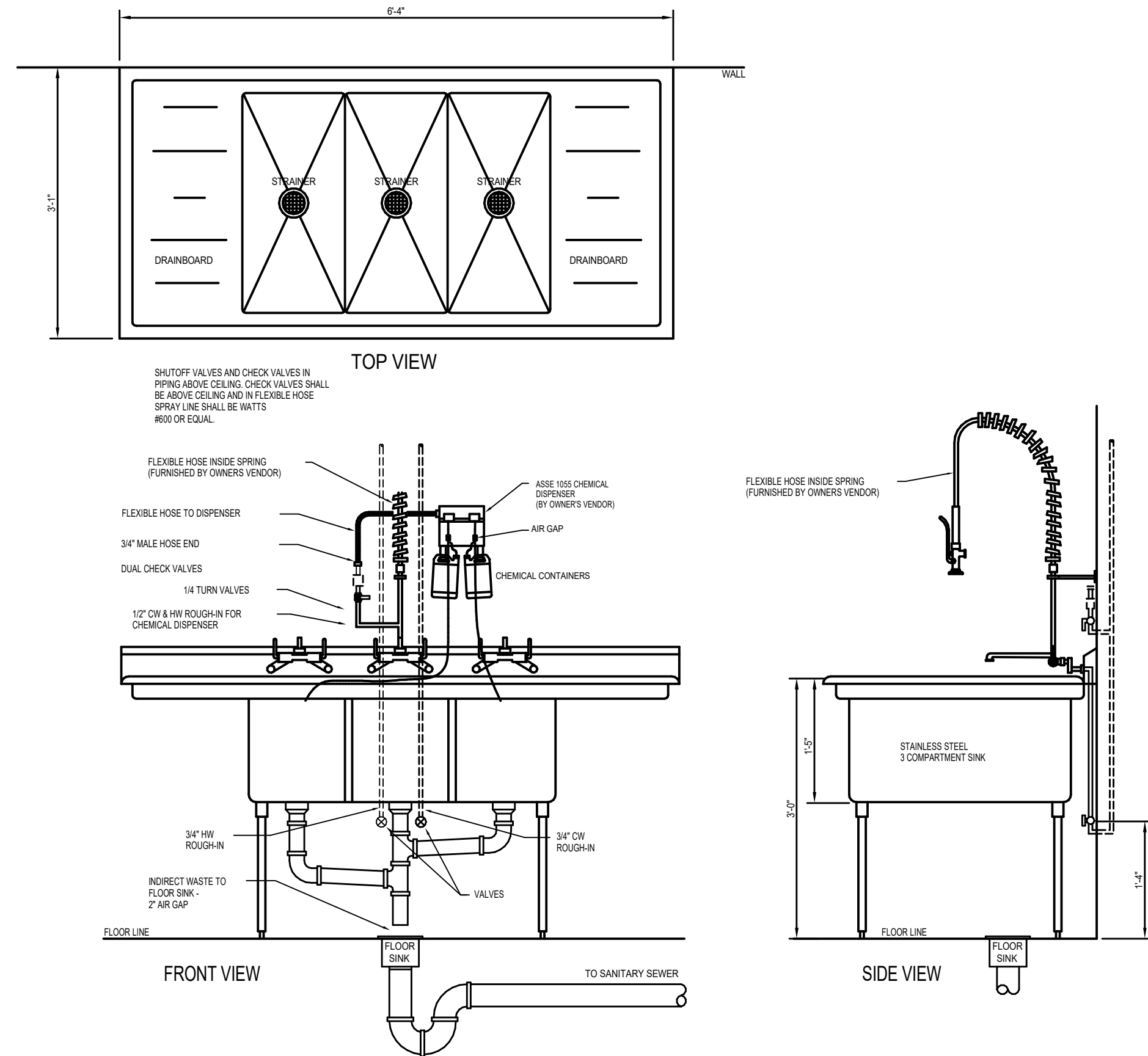
PLUMBING ROOF
PLAN - B

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY: HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

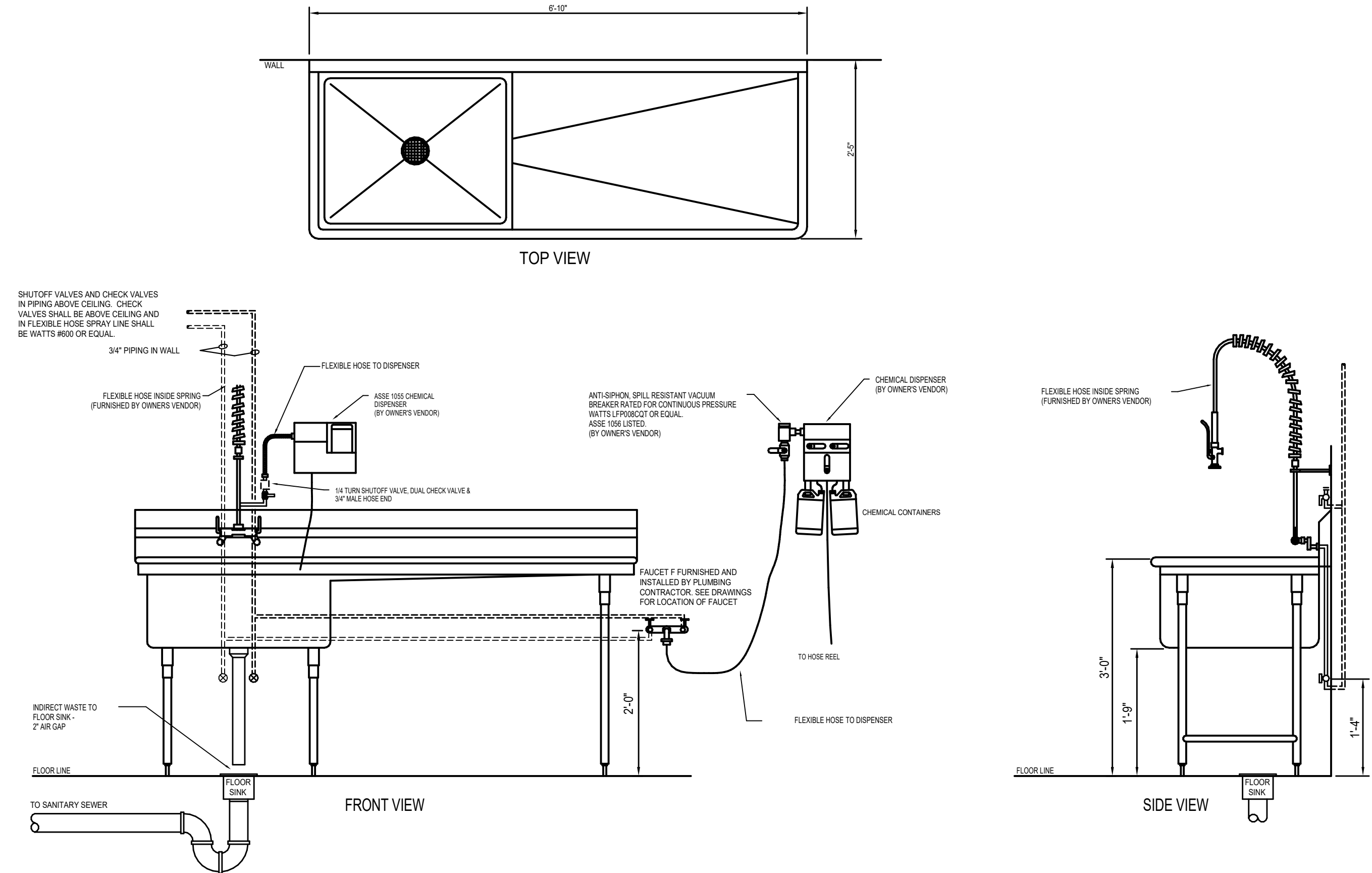
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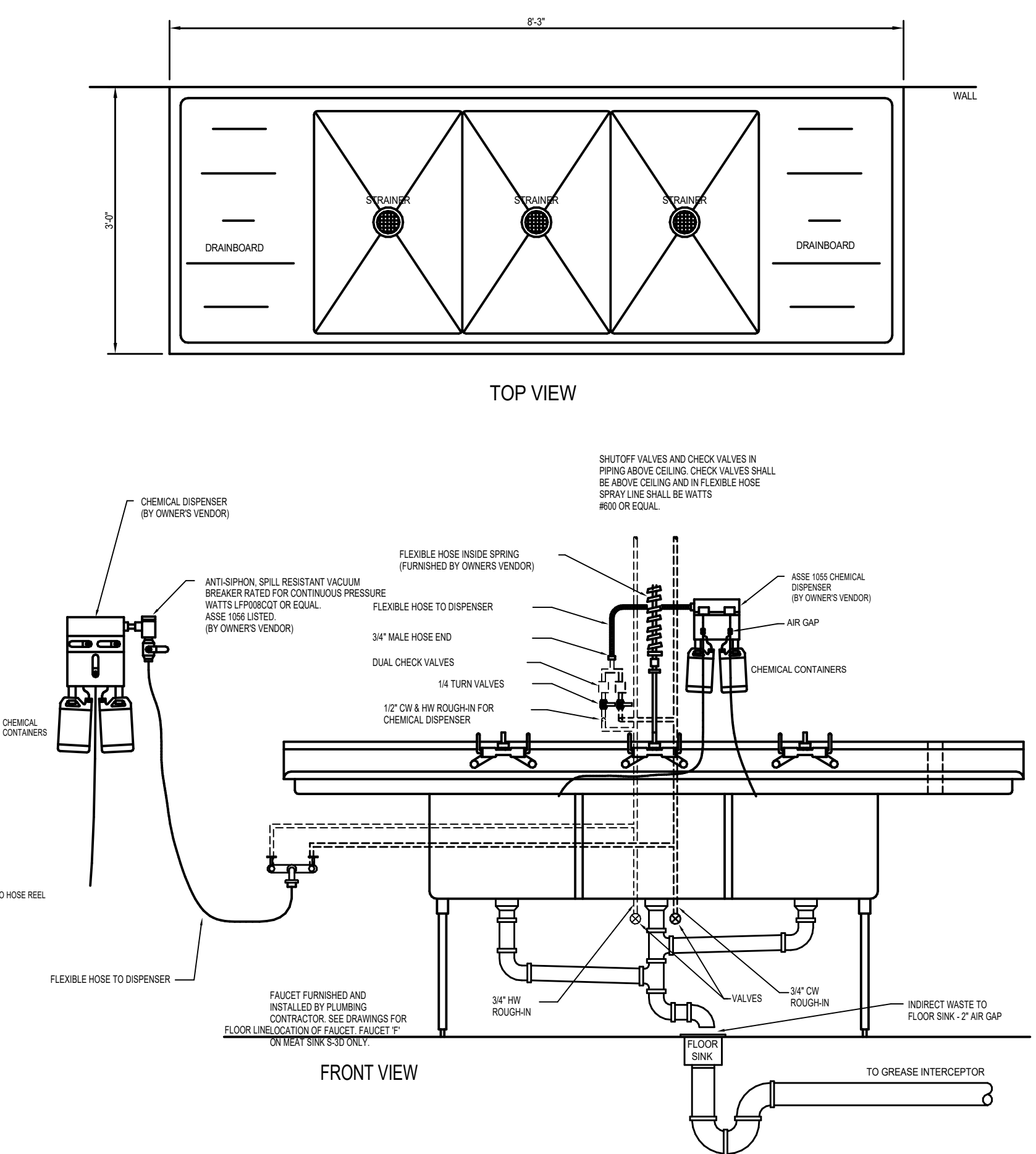
SEAFOOD / SERVICE MEAT SINK - S-2B
SCALE: 3/4" = 1'-0"



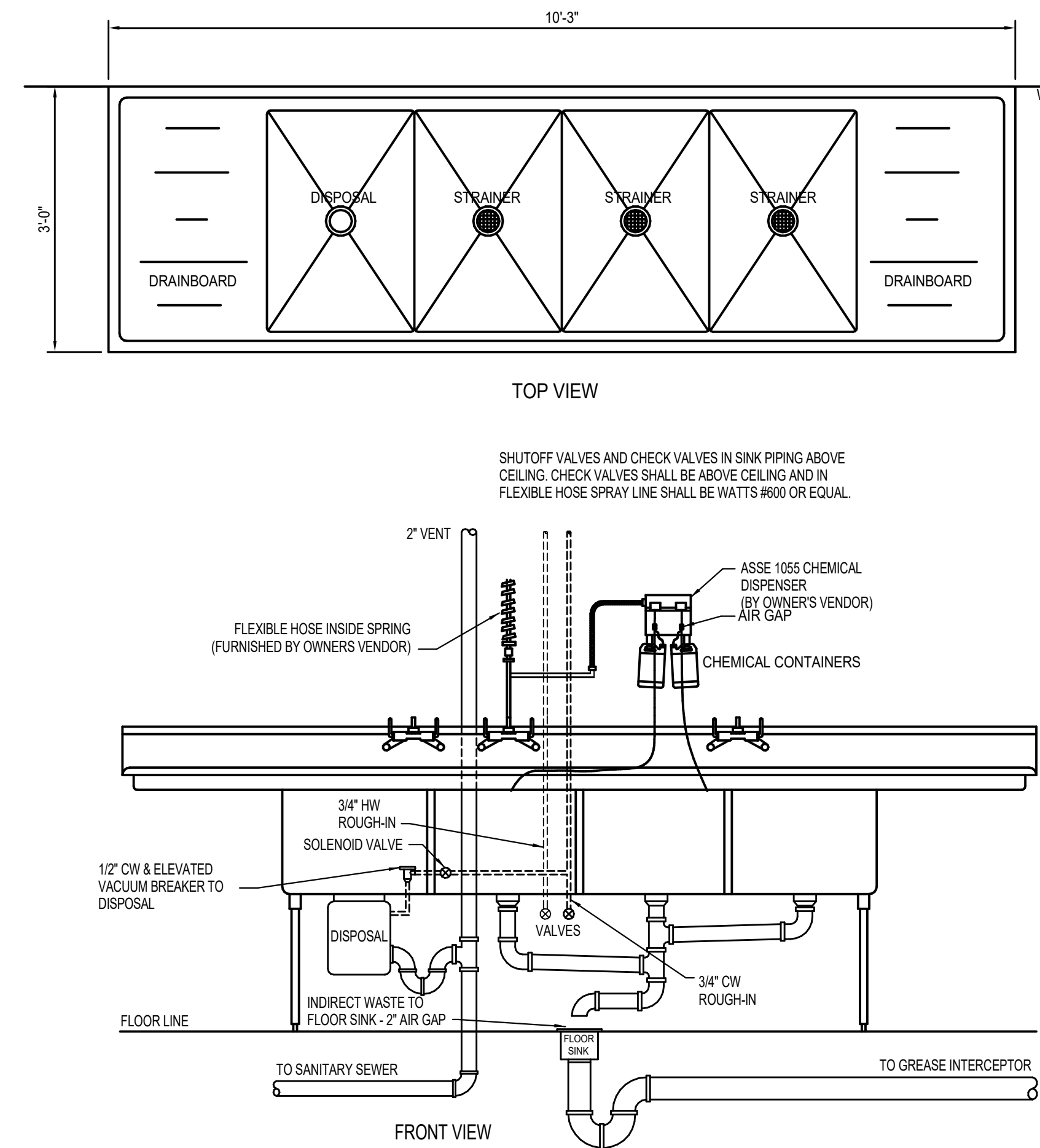
SALAD PREP SINK - S-3C
SCALE: 3/4" = 1'-0"



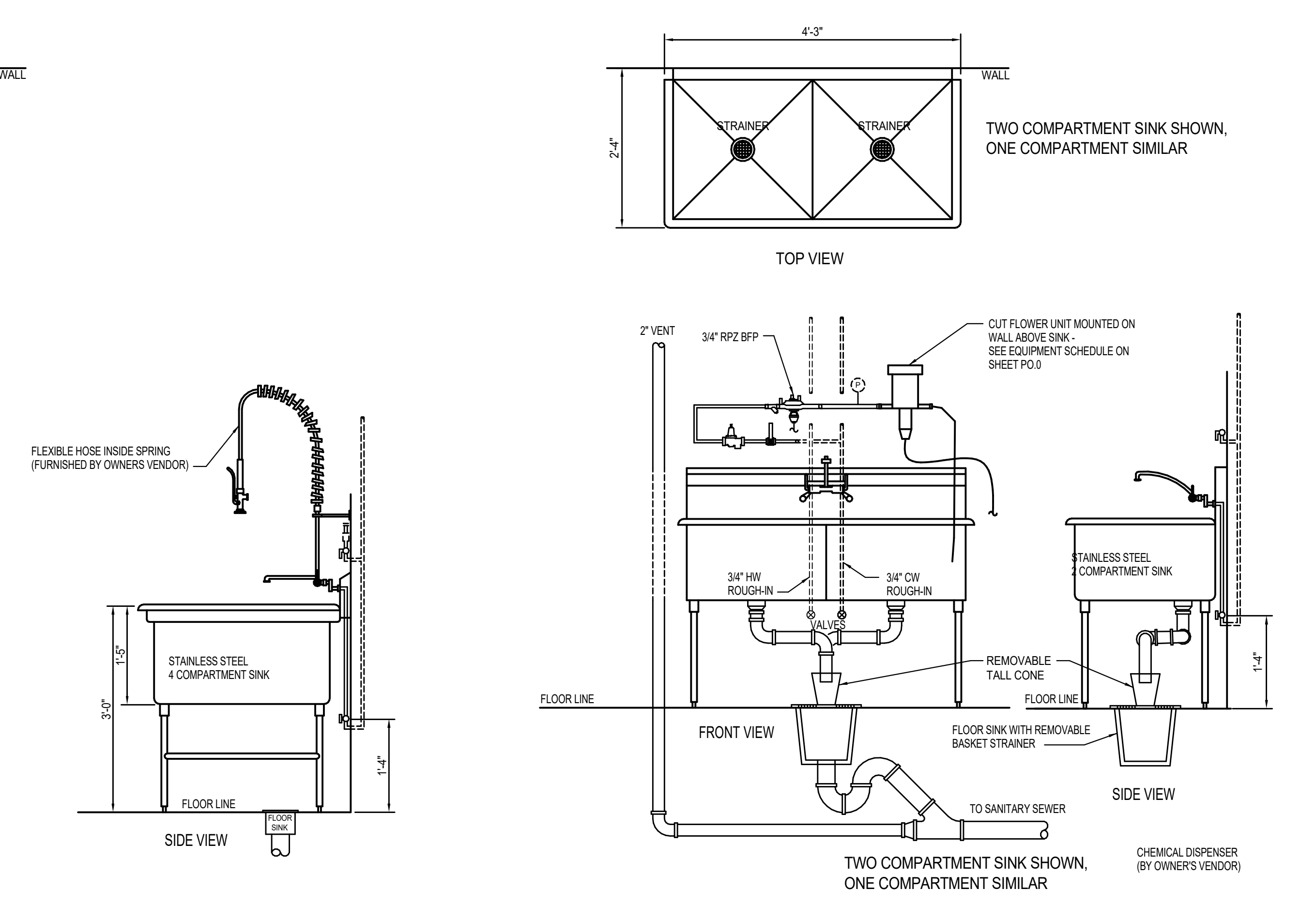
PRODUCE SINK - S-5
SCALE: 3/4" = 1'-0"



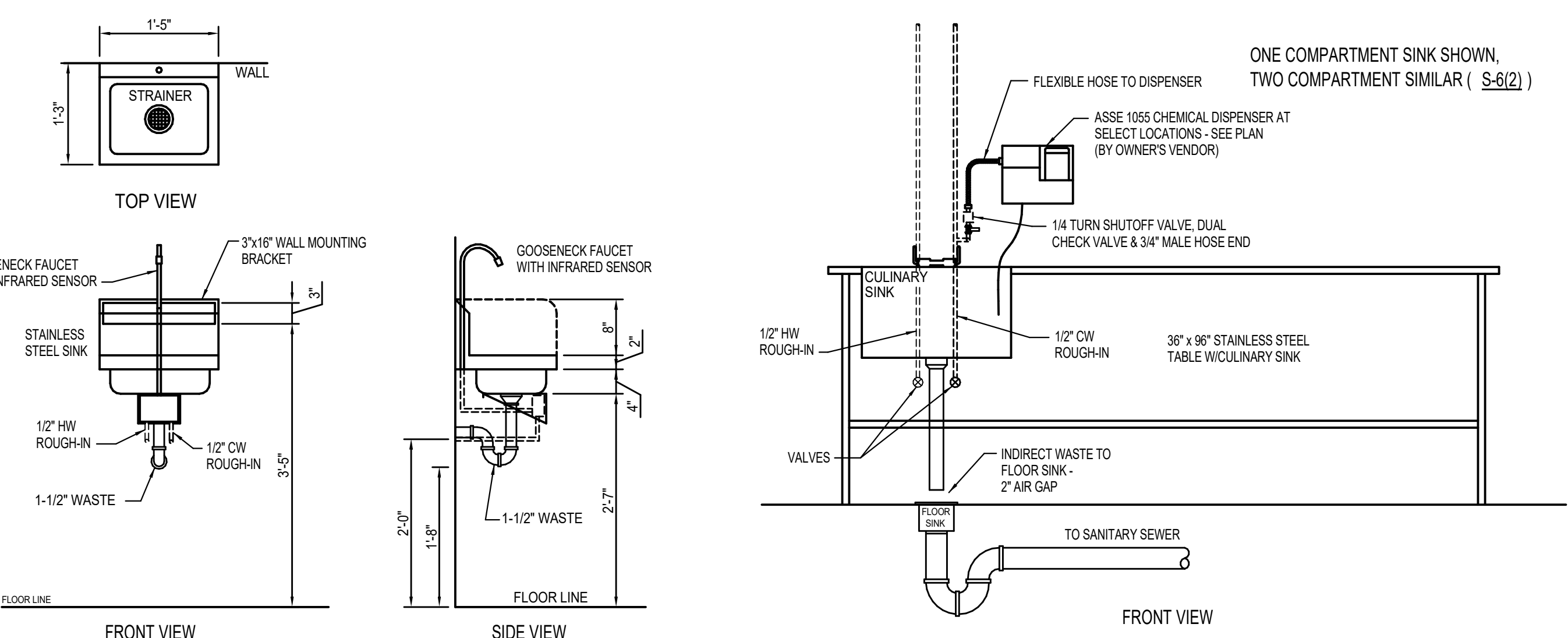
BAKERY SINK - S-3B, MEAT SINK - S-3D, or DELI SINK S-3E
SCALE: 3/4" = 1'-0"



KITCHEN or ASIAN SINK - S-4
SCALE: 3/4" = 1'-0"



FLORAL SINK - S-2A
SCALE: 3/4" = 1'-0"

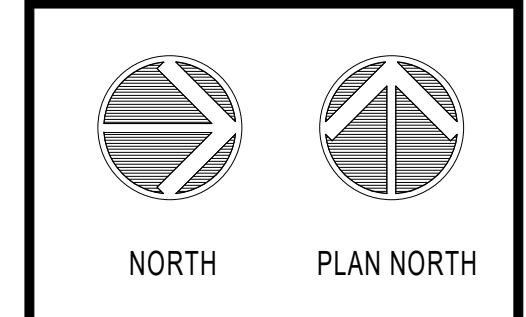
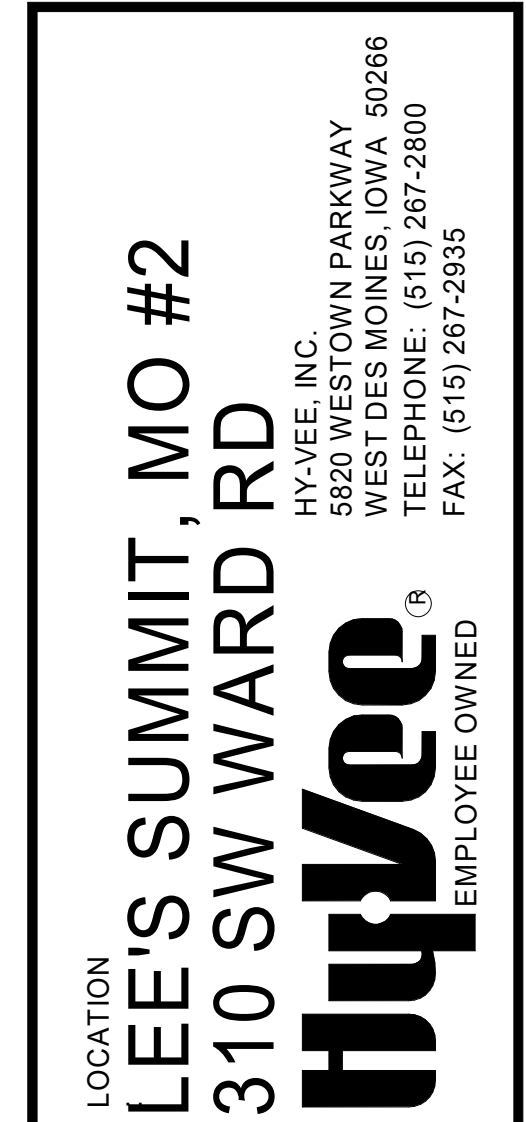


HAND SINK - HS
SCALE: 3/4" = 1'-0"

CULINARY SINK - S-6
SCALE: 3/4" = 1'-0"

MULTI-COMPARTMENT SINK SCHEDULE					
MARK	MFR/MODEL	DESCRIPTION	MARK	MFR/MODEL	DESCRIPTION
S-2A	JOHN BOOS T&S B-0230L/N040904	2 COMPARTMENT FLORAL SINK FAUCET WITH 12" THREADED SPOUT AND VACUUM BREAKER	S-4	JOHN BOOS T&S B-0133-B T&S B-0230L/N040904X T&S B-0230L/N040903 T&S 3952	4 COMPARTMENT KITCHEN or ASIAN SINK PRERINSE 16" SPOUT FAUCET FAUCET WITH 8" THREADED SPOUT AND VACUUM BREAKER LEVER WASTE
S-2B	JOHN BOOS T&S B-0133-B T&S B-0230L/N040903 T&S 3952	2 COMPARTMENT SEAFOOD/SERVICE MEAT SINK PRERINSE FAUCET WITH 8" THREADED SPOUT AND VACUUM BREAKER LEVER WASTE	S-5	JOHN BOOS	PRODUCE SINK
S-3B	JOHN BOOS T&S B-0133-B T&S B-0231 T&S B-0230L/N040903 T&S 3952	3 COMPARTMENT BAKERY SINK PRERINSE 12" SPOUT FAUCET FAUCET WITH 8" THREADED SPOUT AND VACUUM BREAKER LEVER WASTE	S-6	JOHN BOOS	CULINARY SINK
S-3C	JOHN BOOS T&S B-0133-B T&S B-0231 T&S B-0230L/N040903 T&S 3952	3 COMPARTMENT SALAD PREP SINK PRERINSE 12" SPOUT FAUCET FAUCET WITH 8" THREADED SPOUT AND VACUUM BREAKER LEVER WASTE	HS	JOHN BOOS	HAND SINK
S-3D	JOHN BOOS T&S B-0133-B T&S B-0231 T&S B-0230L/N040903 T&S 3952	3 COMPARTMENT MEAT SINK PRERINSE 12" SPOUT FAUCET FAUCET WITH 8" THREADED SPOUT AND VACUUM BREAKER LEVER WASTE	MULTI-COMPARTMENT SINK NOTES 1. ALL SINKS, FAUCETS, STRAINERS, SPRAYHEAD ASSEMBLIES, KNEE VALVES, AND CONTROLS SHOWN HERE ARE FURNISHED BY HY-VEE AND INSTALLED BY PLUMBER. 2. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ROUGH-INS, PIPING, STOP VALVES, VACUUM BREAKER AND CHECK VALVES FOR COMPLETE INSTALLATION OF SINKS AND TRIM. 3. ALL PIPE SIZES ARE SHOWN I.P.S. 4. SECURE ALL SINKS TO WALL WITH CHROME PLATED 4" SCREWS 5. ALL EXPOSED SINK WASTE LINES AND WATER LINES LESS THAN 2" DIAMETER SHALL BE CHROME PLATED, 2" DIAMETER AND LARGER SHALL BE WHITE PVC. 6. SINK DETAILS ON THIS SHEET ARE FOR INFORMATION ONLY, INTENDED TO SHOW QUANTITY OF HOOKUPS AND GENERAL LAYOUT OF ITEMS FURNISHED BY HY-VEE. PLUMBING CONTRACTOR TO VERIFY EXACT LOCATIONS OF WATER AND WASTE AND VENT ROUGH-INS PRIOR TO INSTALLING ANY PIPING.		
S-3E	JOHN BOOS T&S B-0133-B T&S B-0231 T&S B-0230L/N040903 T&S 3952	3 COMPARTMENT DELI SINK PRERINSE 12" SPOUT FAUCET FAUCET WITH 8" THREADED SPOUT AND VACUUM BREAKER LEVER WASTE			

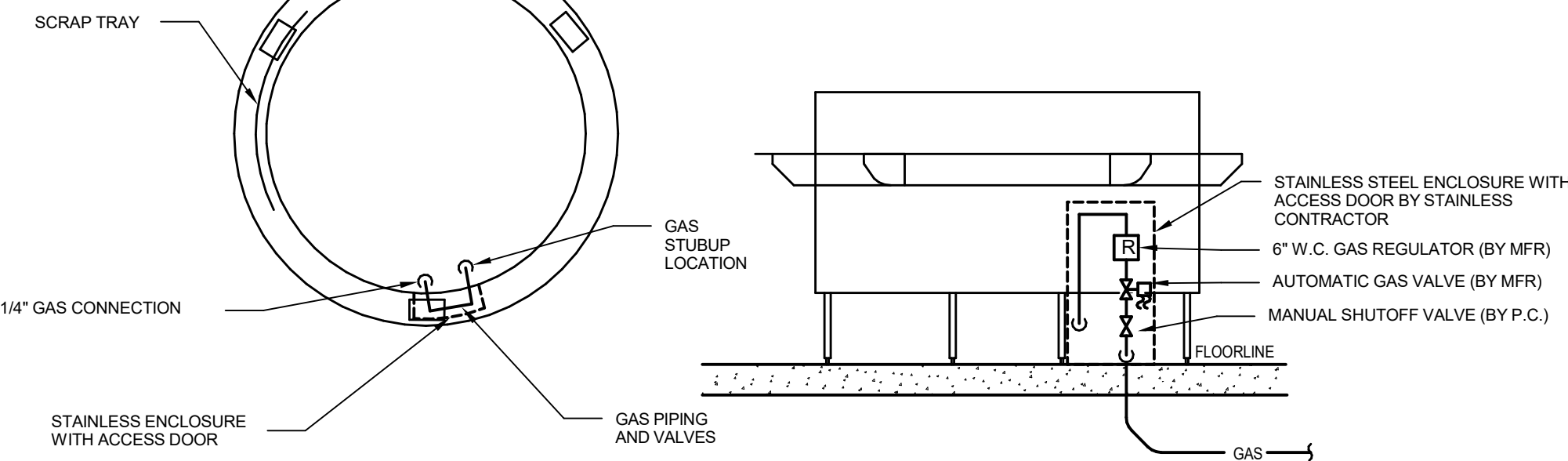
NOTE: SEE FIXTURE AND EQUIPMENT PLAN FOR ORIENTATION OF SINKS (RIGHT or LEFT HAND)



SINK DETAILS

PROJECT MANAGER	CHECKED BY:
SL	HEI
DRAWN BY:	DATE:
HEI	10/19/2020
SCALE:	JOB NUMBER:
AS NOTED	62830547
SHEET:	

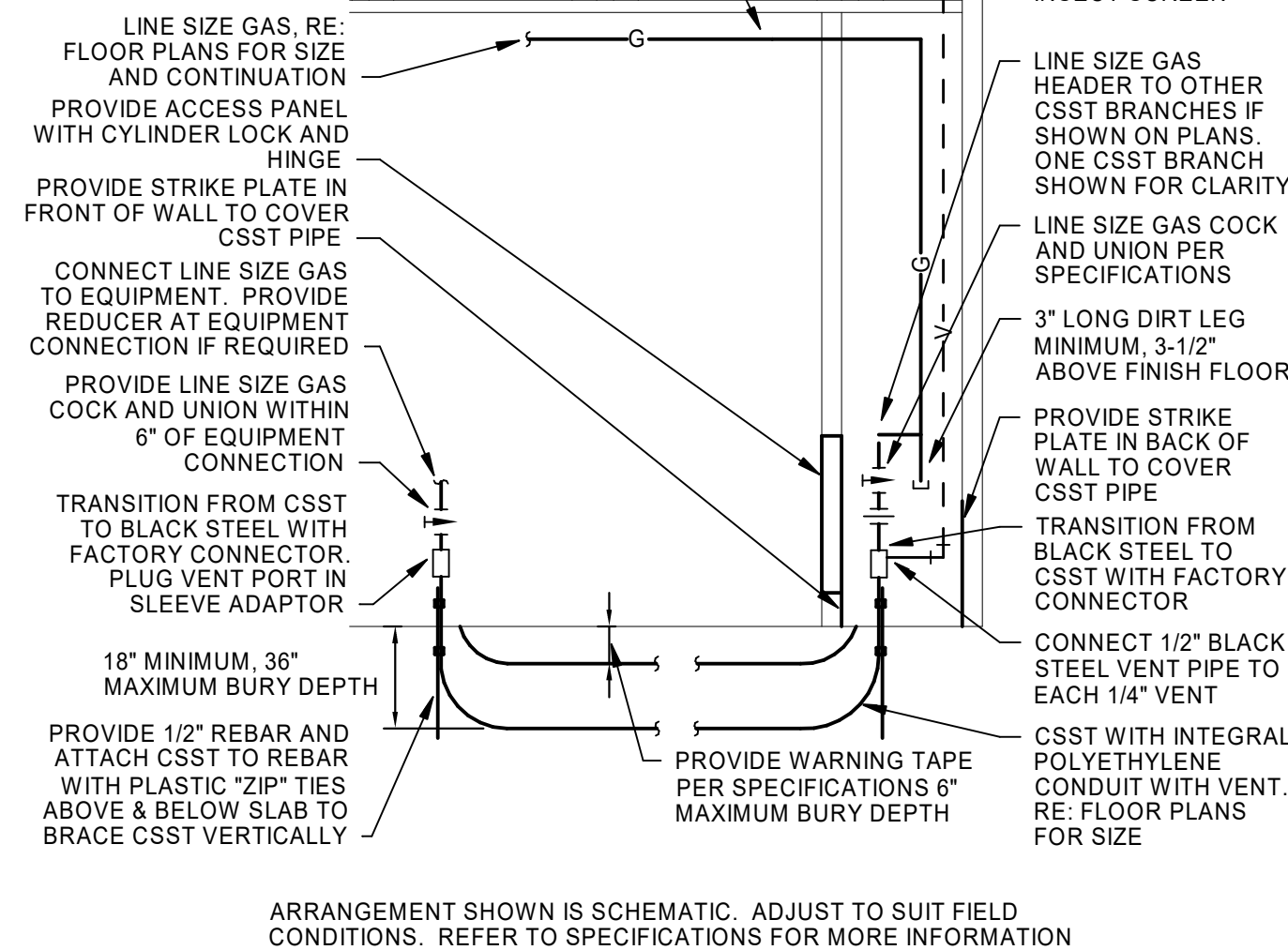
P4.0



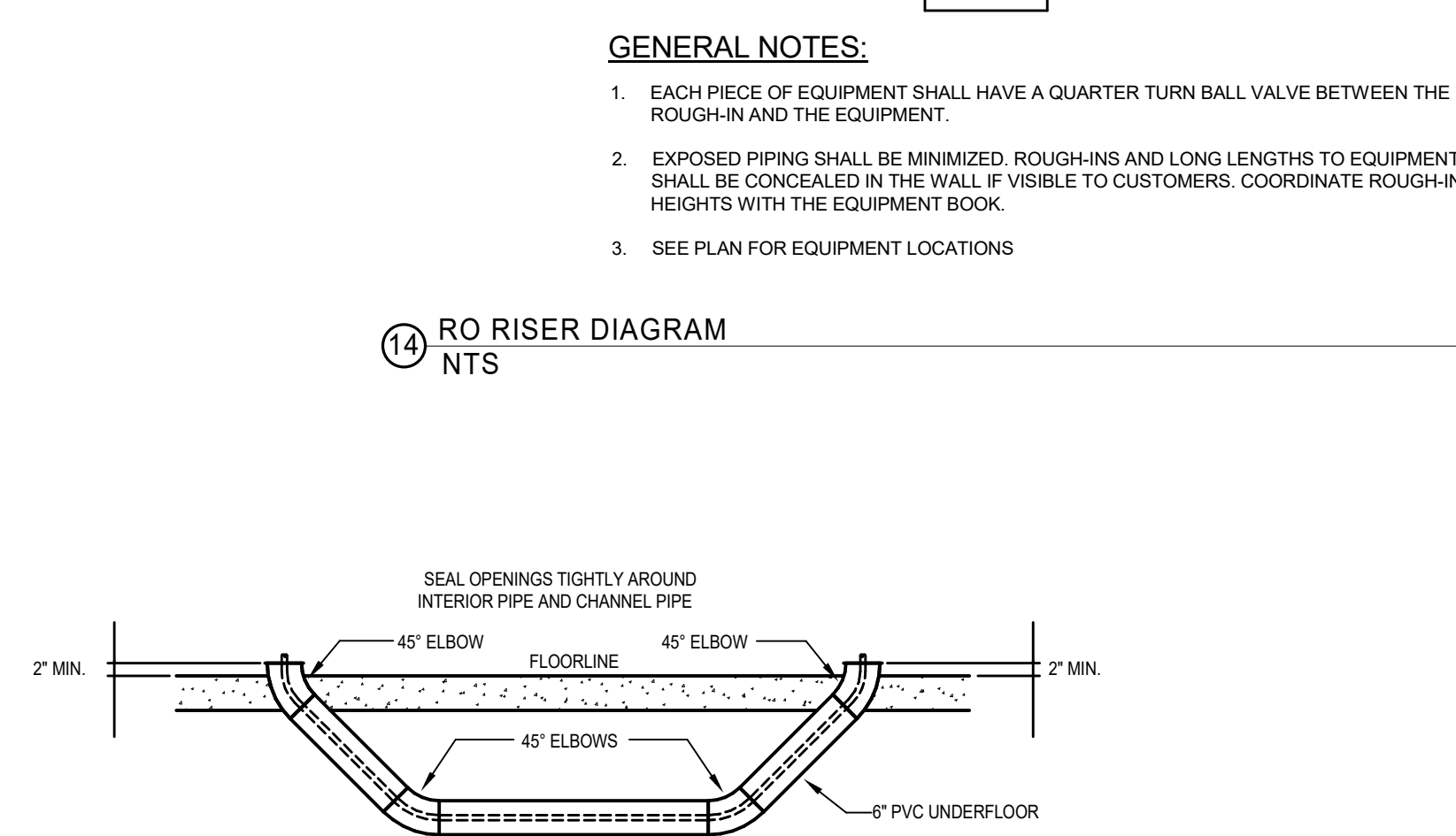
GENERAL NOTES:

1. PIPE GAS SO THAT PIPING DOES NOT OBSTRUCT ACCESS DOORS OR BURNER VALVES OF EQUIPMENT.

⑬ MONGOLIAN GRILLE PIPING DETAIL
NTS



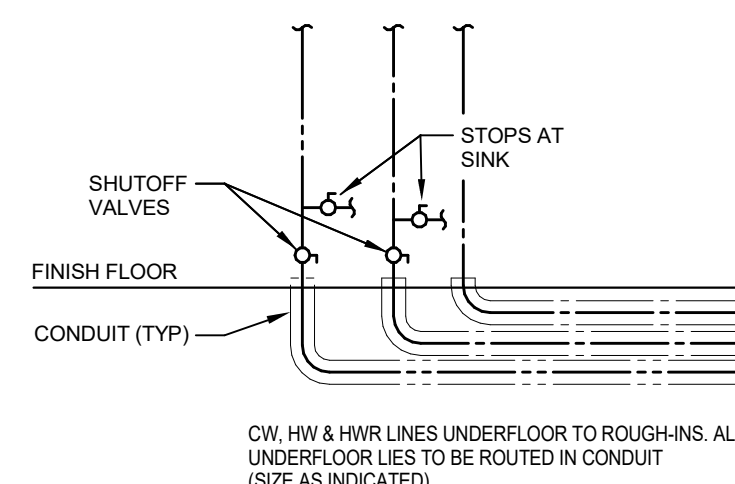
⑫ UNDERGROUND CSST WITH INTEGRAL CONDUIT INSTALLATION DETAIL
NTS



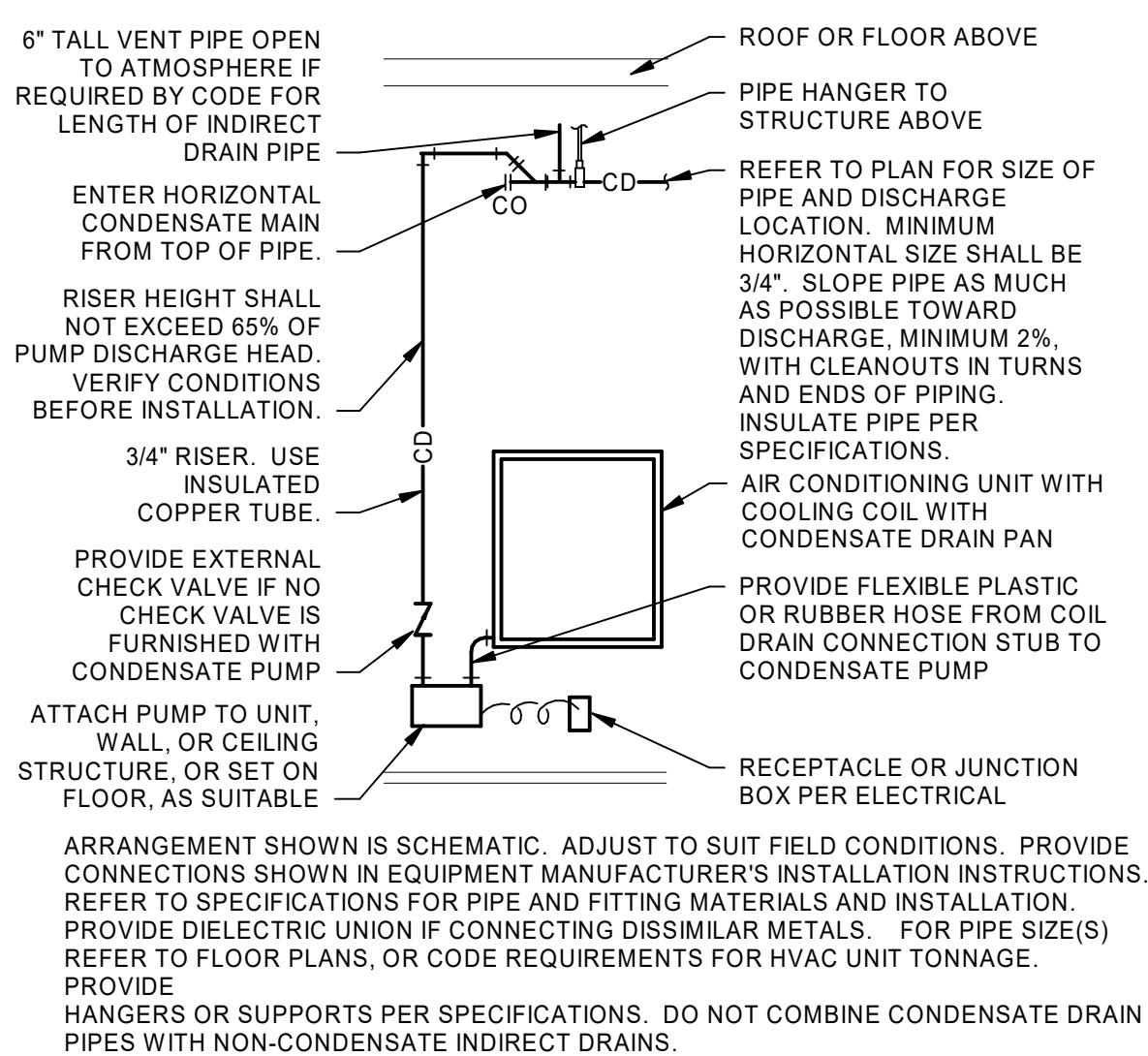
14 RO RISER DIAGRAM
NTS

GENERAL NOTES:

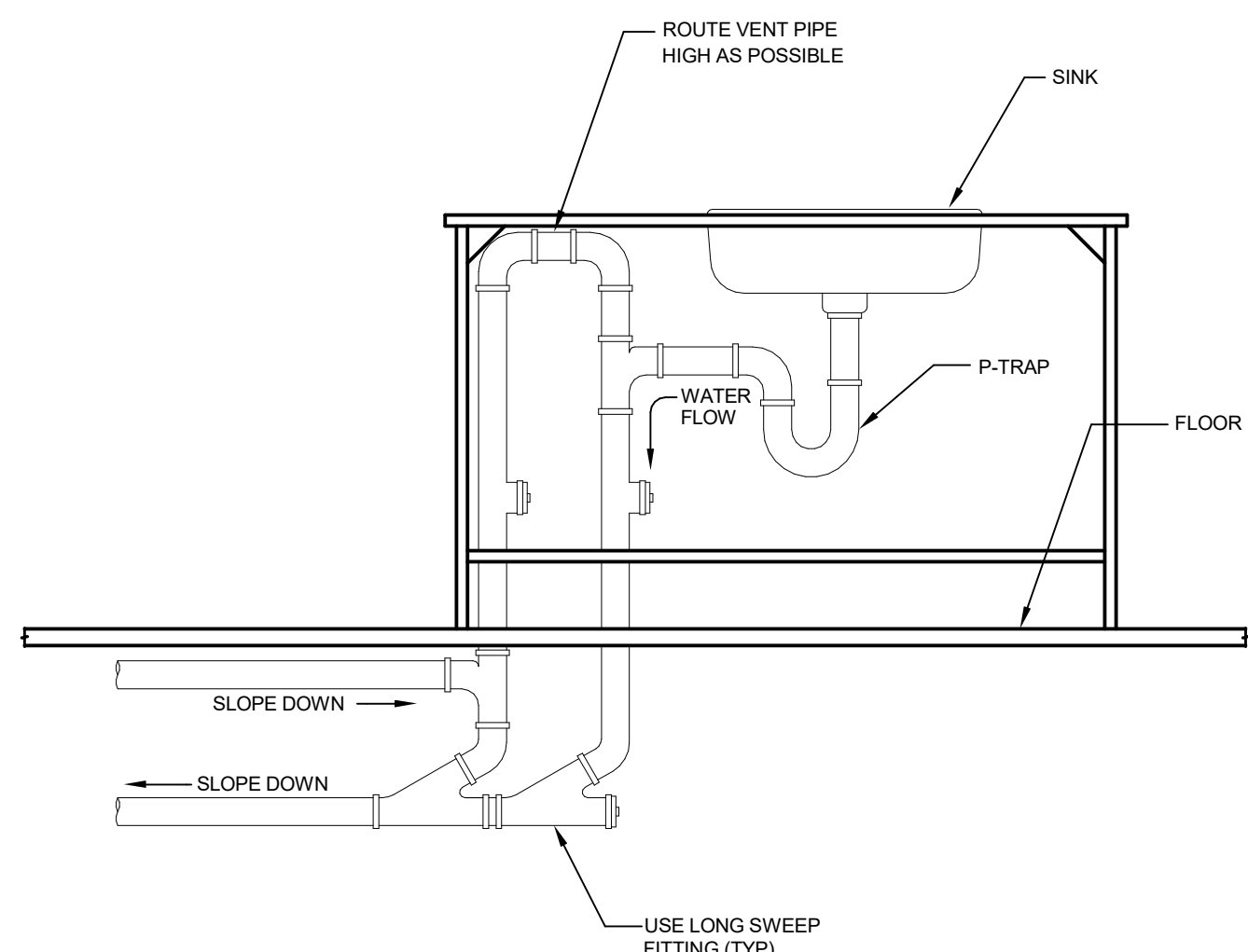
1. EACH PIECE OF EQUIPMENT SHALL HAVE A QUARTER TURN BALL VALVE BETWEEN THE ROUGH-IN AND THE EQUIPMENT.
2. EXPOSED PIPING SHALL BE MINIMIZED. ROUGH-INS AND LONG LENGTHS TO EQUIPMENT SHALL BE CONCEALED IN THE WALL IF VISIBLE TO CUSTOMERS. COORDINATE ROUGH-IN HEIGHTS WITH THE EQUIPMENT BOOK.
3. SEE PLAN FOR EQUIPMENT LOCATIONS



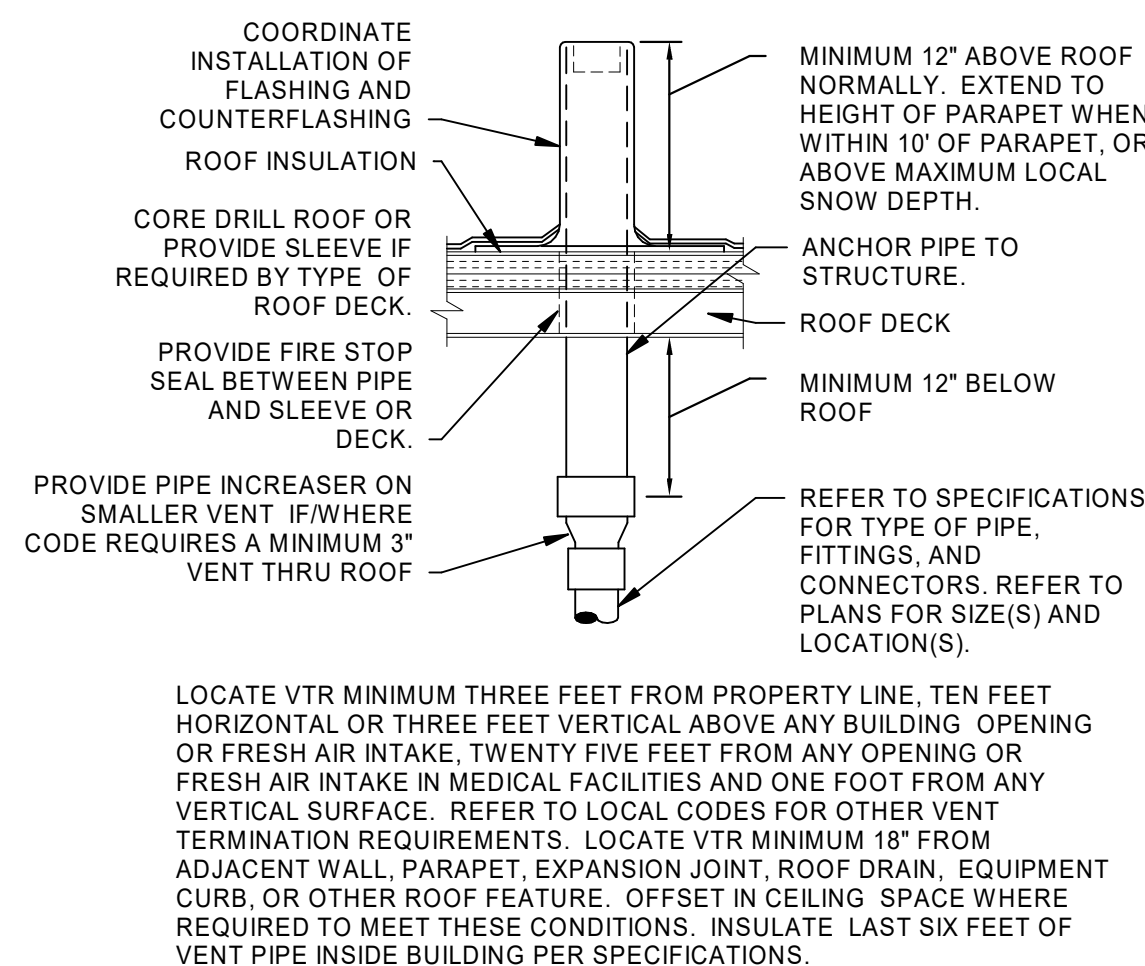
SHUTOFF VALVE DETAIL @ CW & HW
 (10) PIPING UNDERFLOOR
 NTS



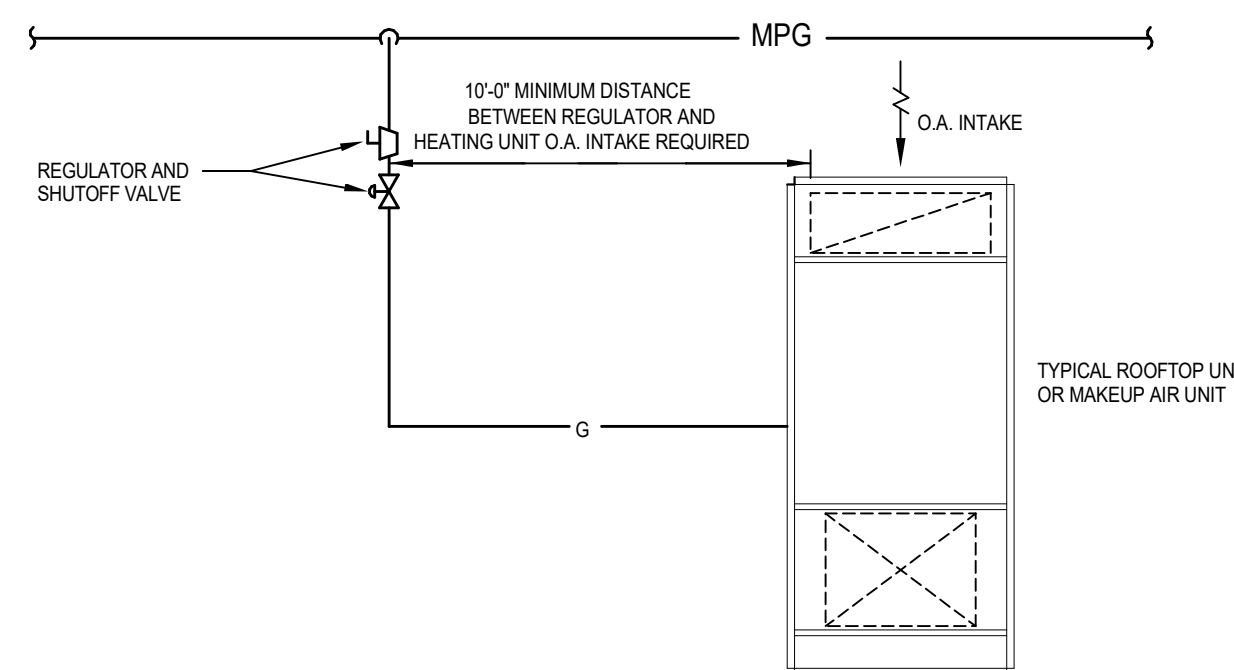
⑨ CONDENSATE PUMPS



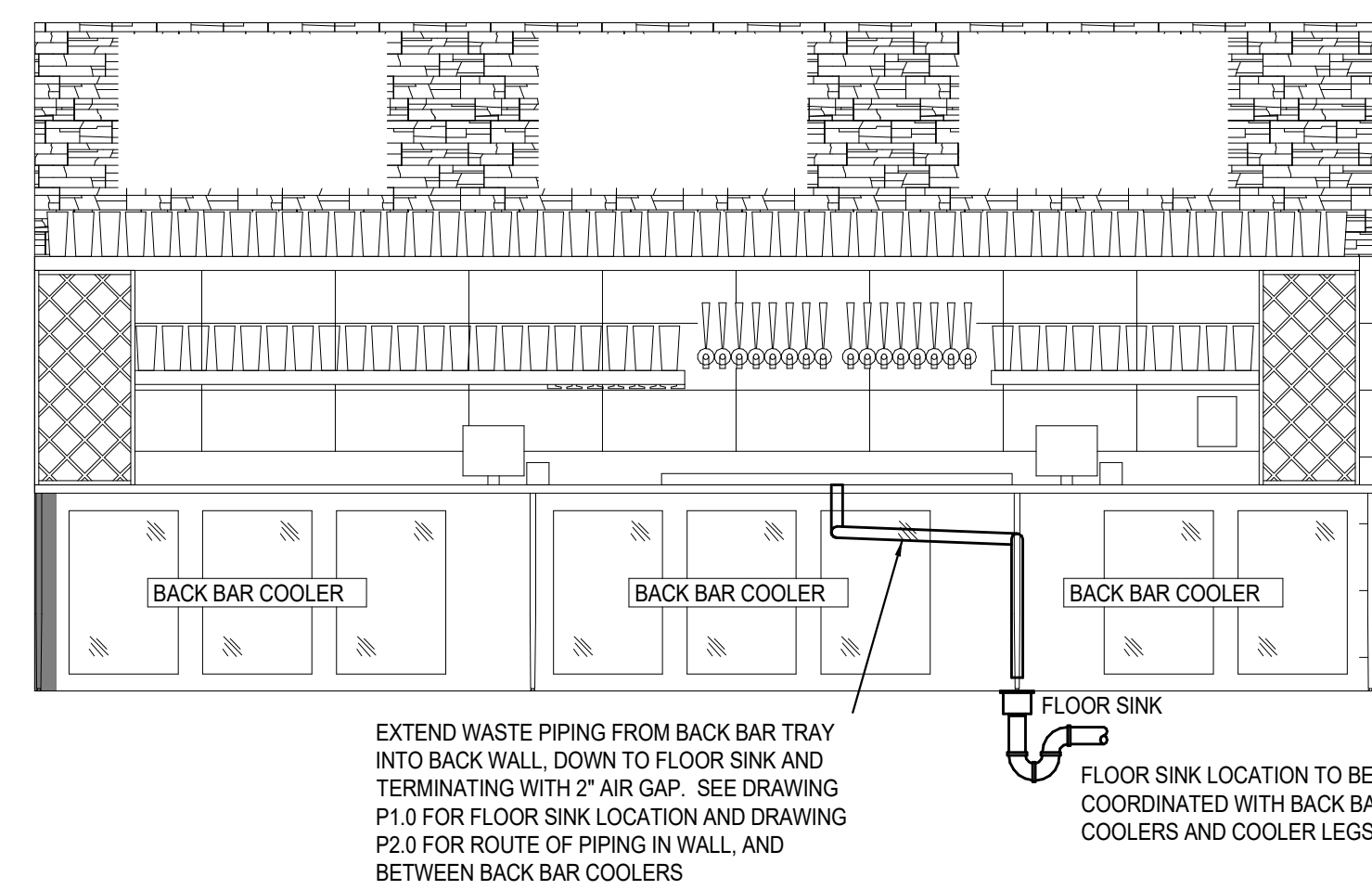
⑧ ISLAND LOOP VENT DETAIL
NTS



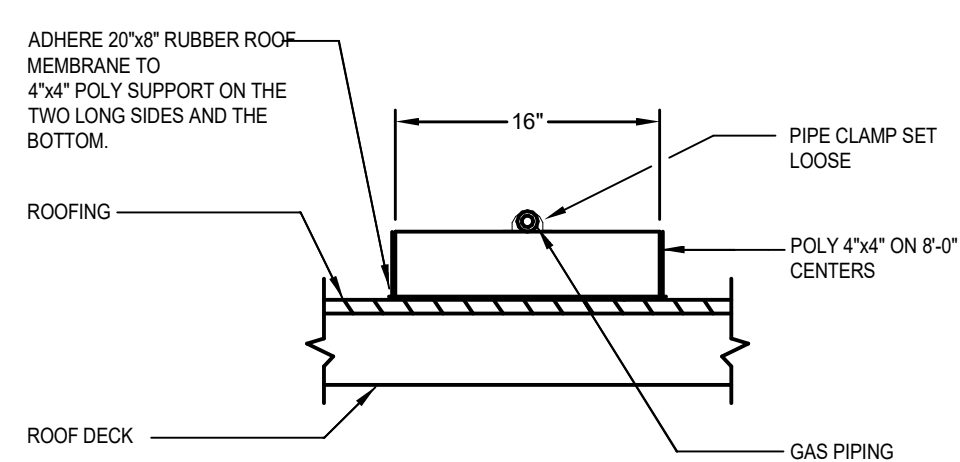
⑦ VENT THRU ROOF
NTS



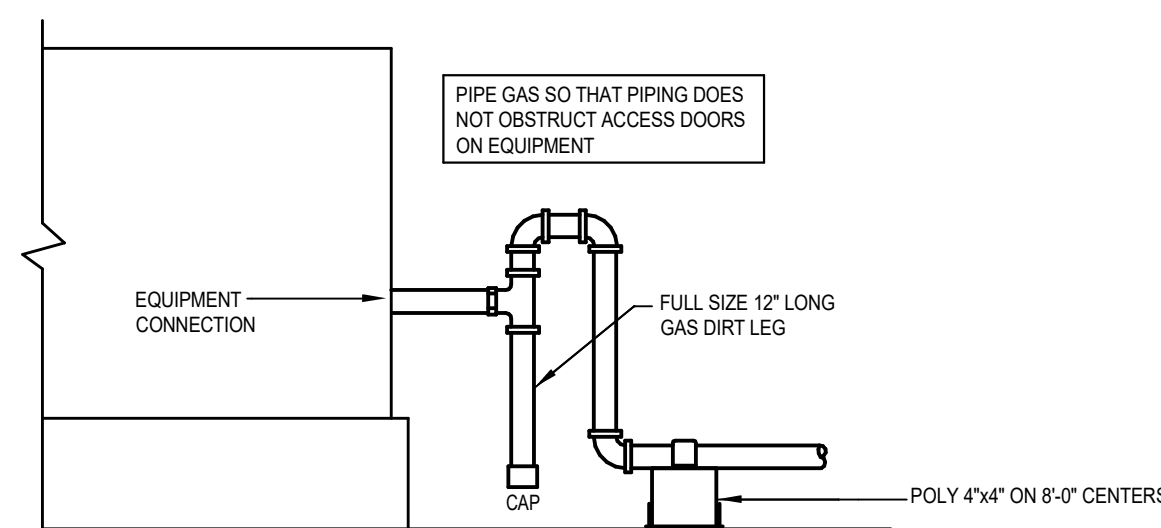
6 GAS REGULATOR MINIMUM DISTANCE



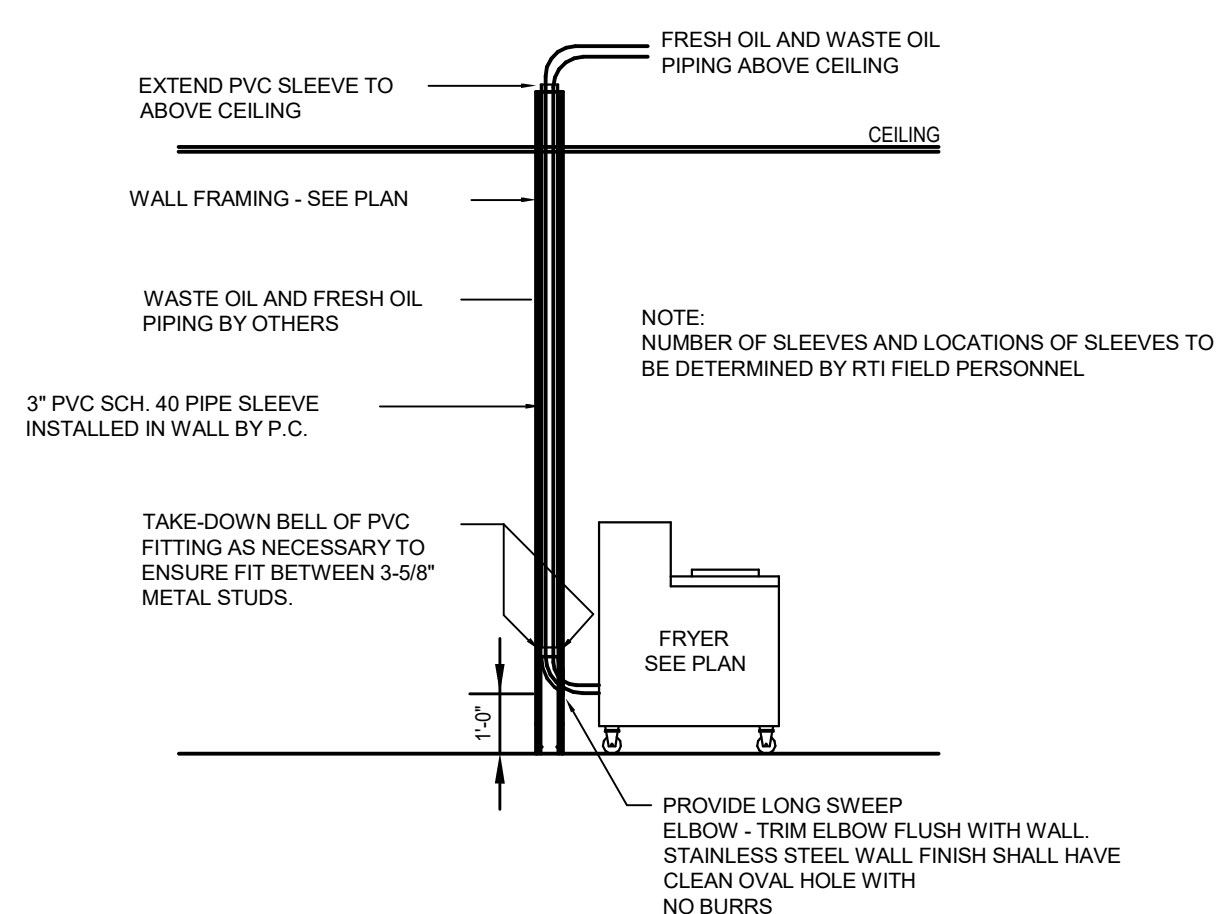
⑤ INDIRECT WASTE AT BACK BAR
NTS



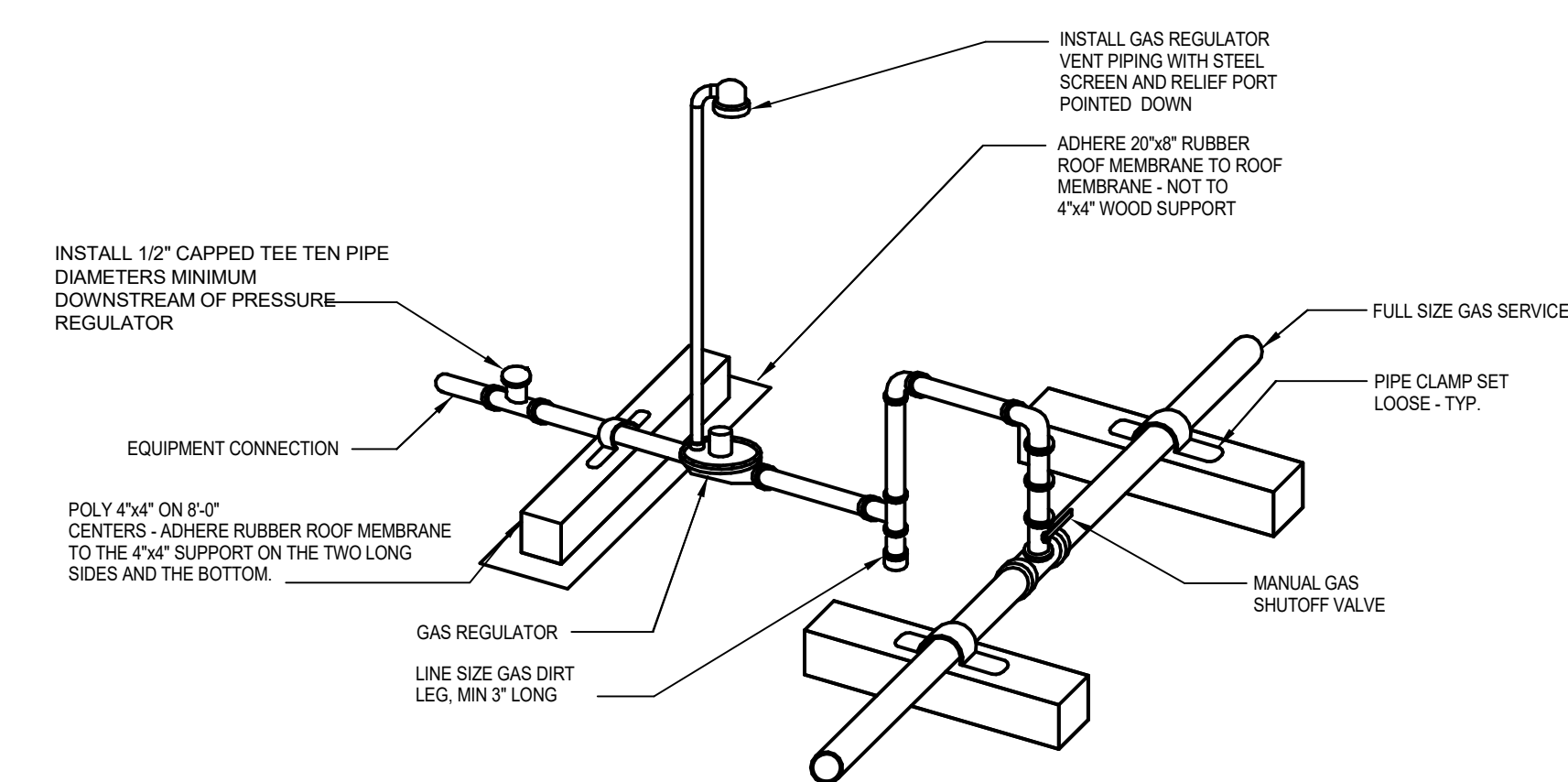
④ GAS PIPE SUPPORT ON ROOF
NTS



③ GAS DIRT LEG AT EQUIPMENT
NTS



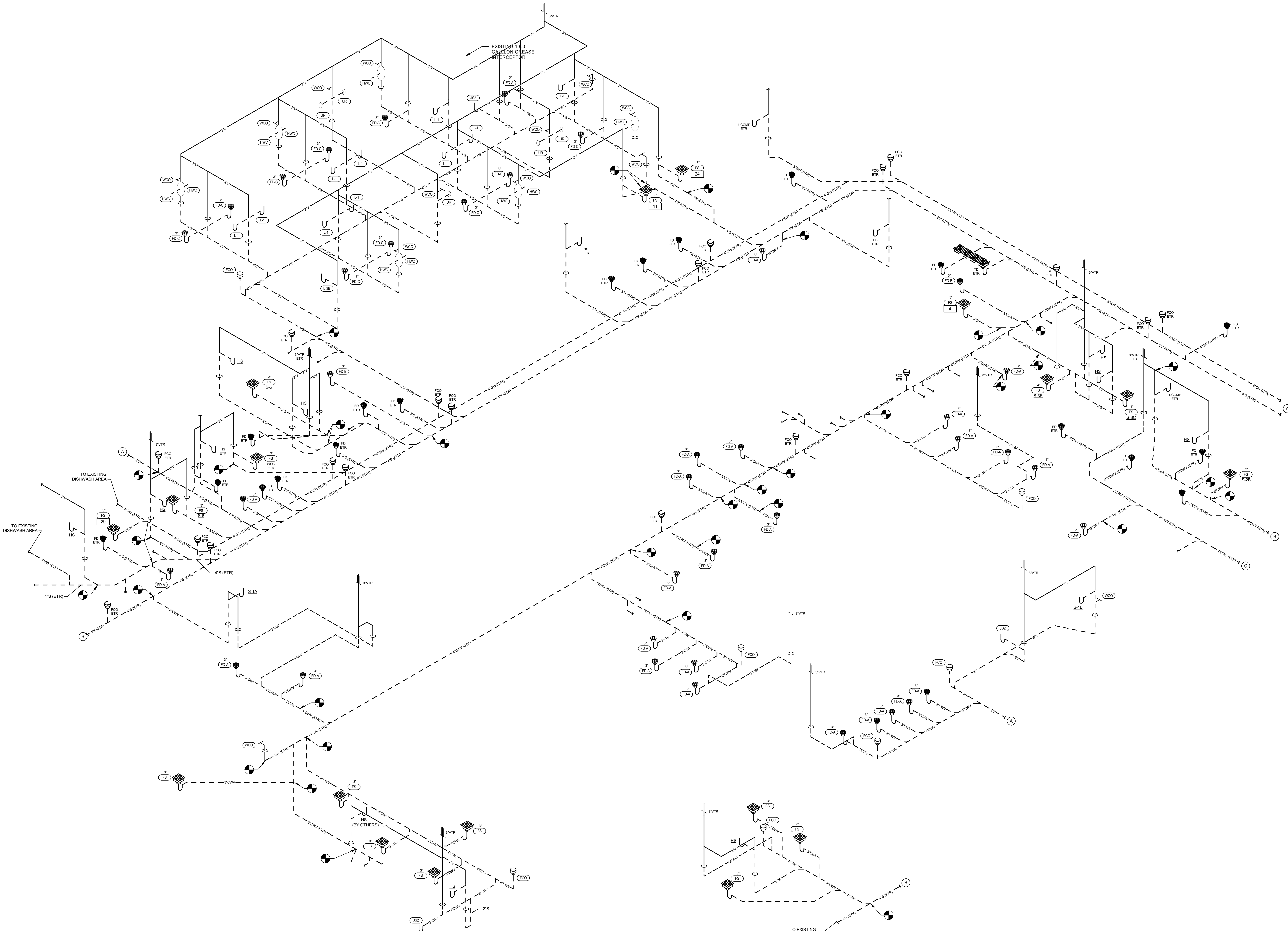
② FRYER OIL PIPING DETAIL
NTS



GENERAL NOTES:

1. PIPE GAS SO THAT PIPING DOES NOT OBSTRUCT ACCESS DOORS ON EQUIPMENT.
2. MAINTAIN A MINIMUM OF 10 FEET BETWEEN REGULATOR VENT AND FRESH AIR INTAKES.
3. DOWN-TURNED REGULATOR VENT SHALL HAVE AN INSECT SCREEN OR OTHER MEANS OF PROTECTION. PLASTIC VENT PROTECTOR CAPS WILL NOT BE ACCEPTED.

① TYPICAL BRANCH GAS PIPING DETAIL AT UNIT
NTS



1 WASTE AND VENT RISER DIAGRAM - A
NTS

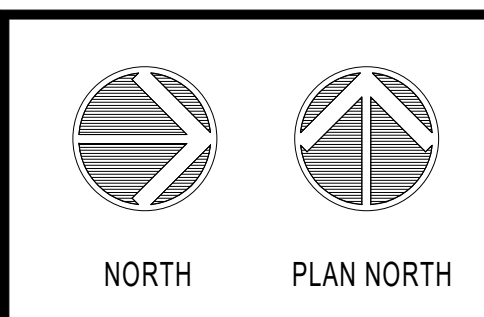
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LENEKA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM

1950003081
MO. CORPORATE NO. E-5580
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL 515.267-2800
FAX 515.267-2836

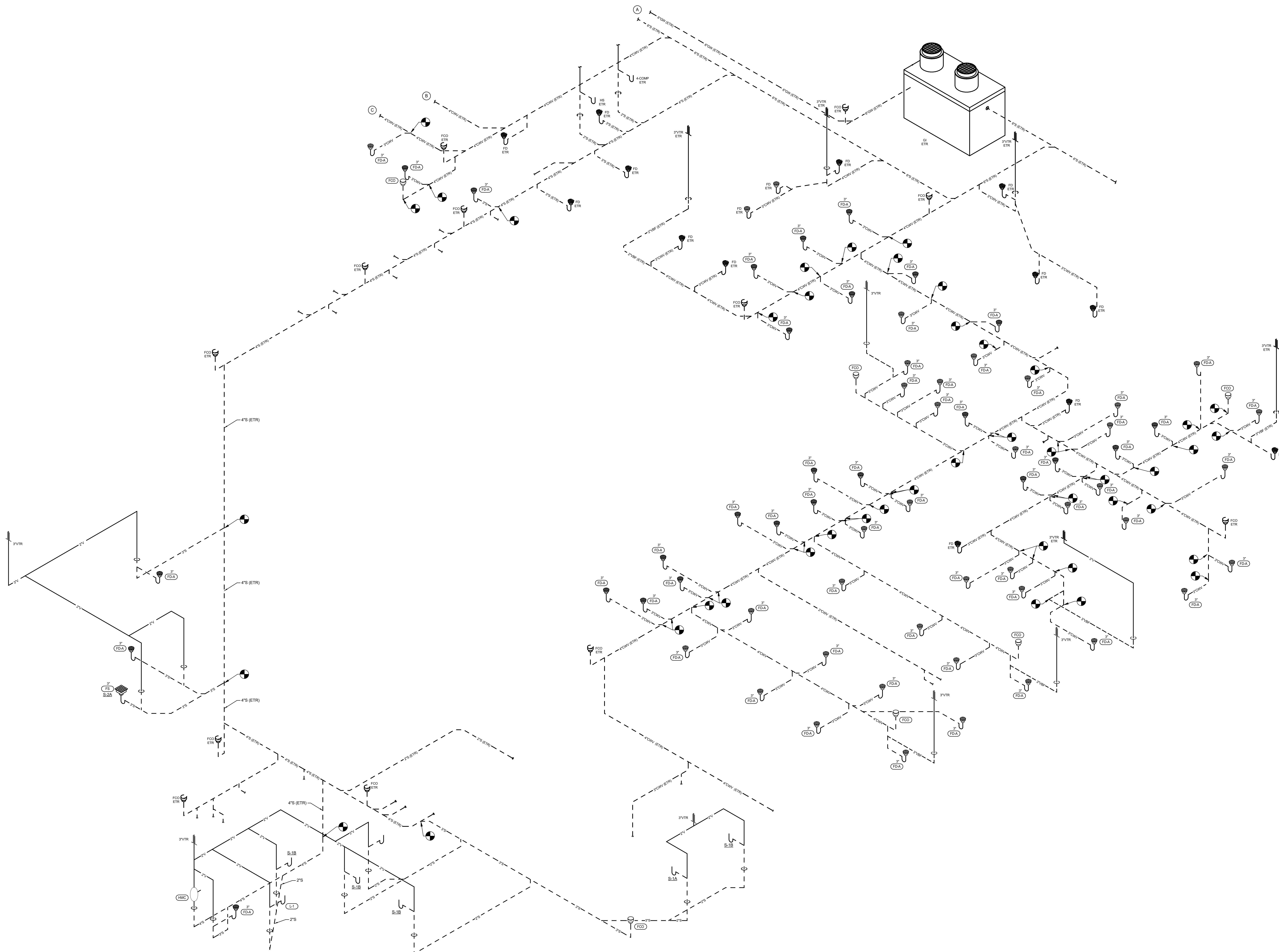
Hy-Vee
EMPLOYEE OWNED



WASTE & VENT
RISER DIAGRAM -
A

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY: HEI	DATE: 10/19/2020
SCALE: AS NOTED	JOB NUMBER: 62830547
SHEET:	

P5.0



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LENEXA, KS 66214
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1950003081
MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

PROFESSIONAL SEAL

STATE OF MISSOURI

JOSHUA N. HOVER

NUMBER

PE-2017008503

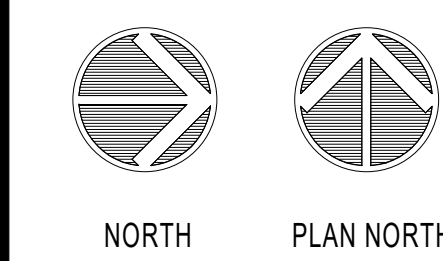
PROFESSIONAL ENGINEER

Oct 23 2020

JOSHUA N. HOVER

LICENSE # PE-2017008503

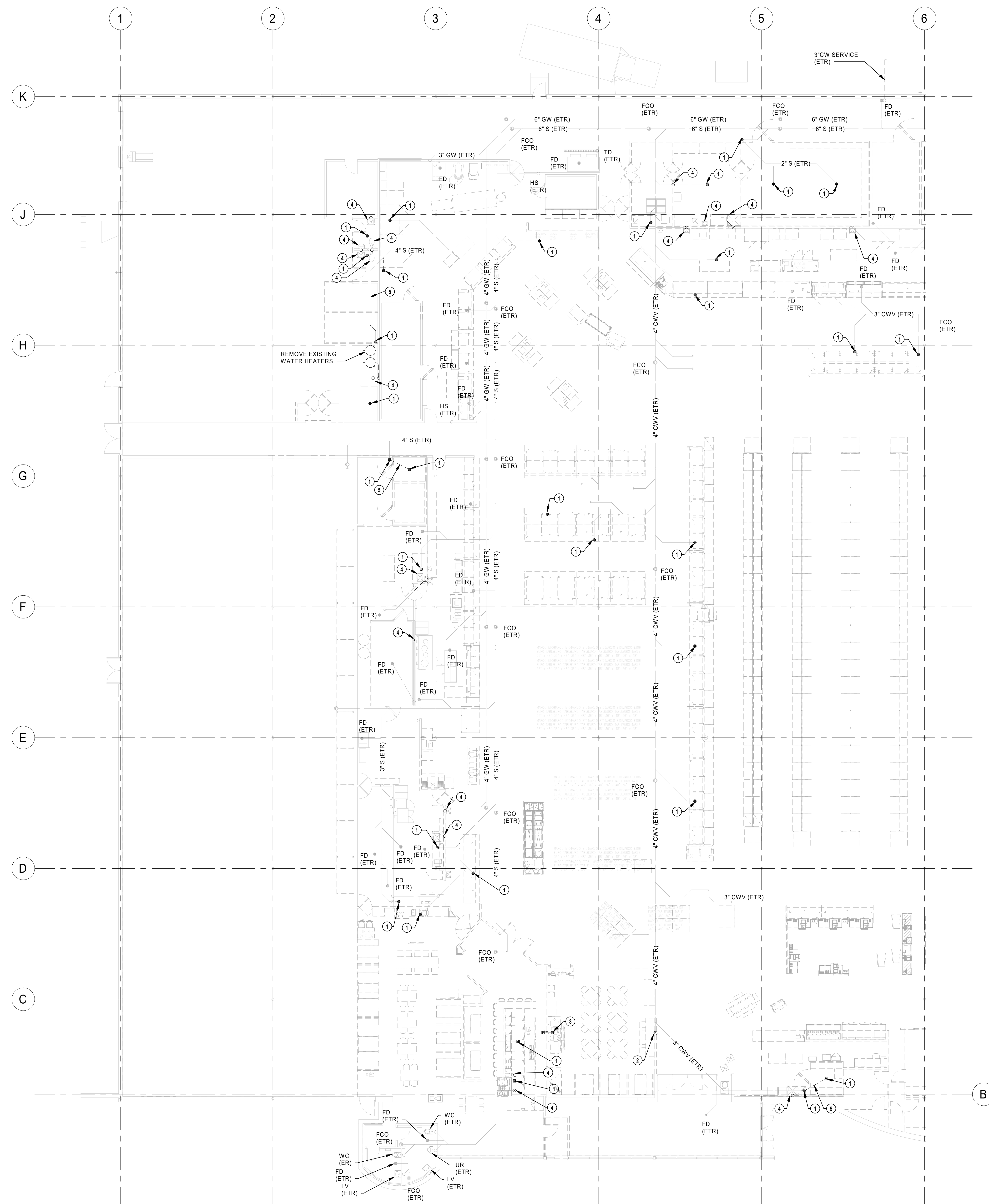
LOCATION
LEE'S SUMMIT, MO #2
3310 SW WARD RD
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50266
TELEPHONE: (515) 267-2800
FAX: (515) 267-2935
HY-VEE[®]
EMPIRICALY OWNED



WASTE & VENT RISER DIAGRAM B

PROJECT MANAGER SL	CHECKED BY: Checker
DRAWN BY: Author	DATE: 10/19/2020
SCALE: AS NOTED	JOB NUMBER: 62930547

P5.1



- 1 REMOVE EXISTING FLOOR DRAIN/SINK GRATE, BODY AND TRAP. CAP AND ABANDON WASTE PIPE BELOW FLOOR IF NOT REUSED IN NEW WORK. PATCH FLOOR TO MATCH EXISTING.
- 2 REMOVE EXISTING FLOOR CLEANOUT BODY AND TOP. PATCH FLOOR TO MATCH EXISTING.
- 3 REMOVE EXISTING FLOOR DRAIN GRATE, BODY AND TRAP. AS IS PIPING (W/ FLOOR AND WENT) TO BELOW. FINISHED FLOOR TO AND TO ACTIVE MAINS ABOVE CEILING AND CAP. ABANDON WASTE PIPING BELOW FLOOR, IF NOT USED IN NEW WORK.
- 4 REMOVE EXISTING PLUMBING FIXTURE, CAP AND ABANDON WASTE PIPE BELOW FLOOR IF NOT REUSED IN NEW WORK. PATCH FLOOR TO MATCH EXISTING.
- 5 REMOVE WASTE PIPING AS INDICATED. CAP AND ABANDON ANY UNSUFSR, WASTE PIPING.

① PLAN - A
 $3/32" = 1'-0"$

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8345 LENEXA DRIVE, SUITE 300
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1950003081
MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

PROFESSIONAL SEAL

STATE OF MISSOURI

JOSHUA N. HOVER

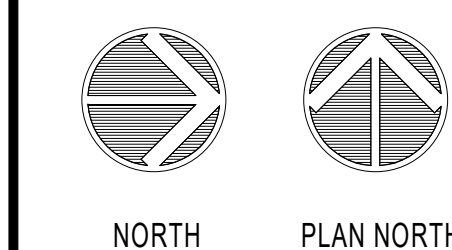
NUMBER
PE-2017008503

PROFESSIONAL ENGINEER

Oct 23 2020

JOSHUA N. HOVER
LICENSE # PE-2017008503

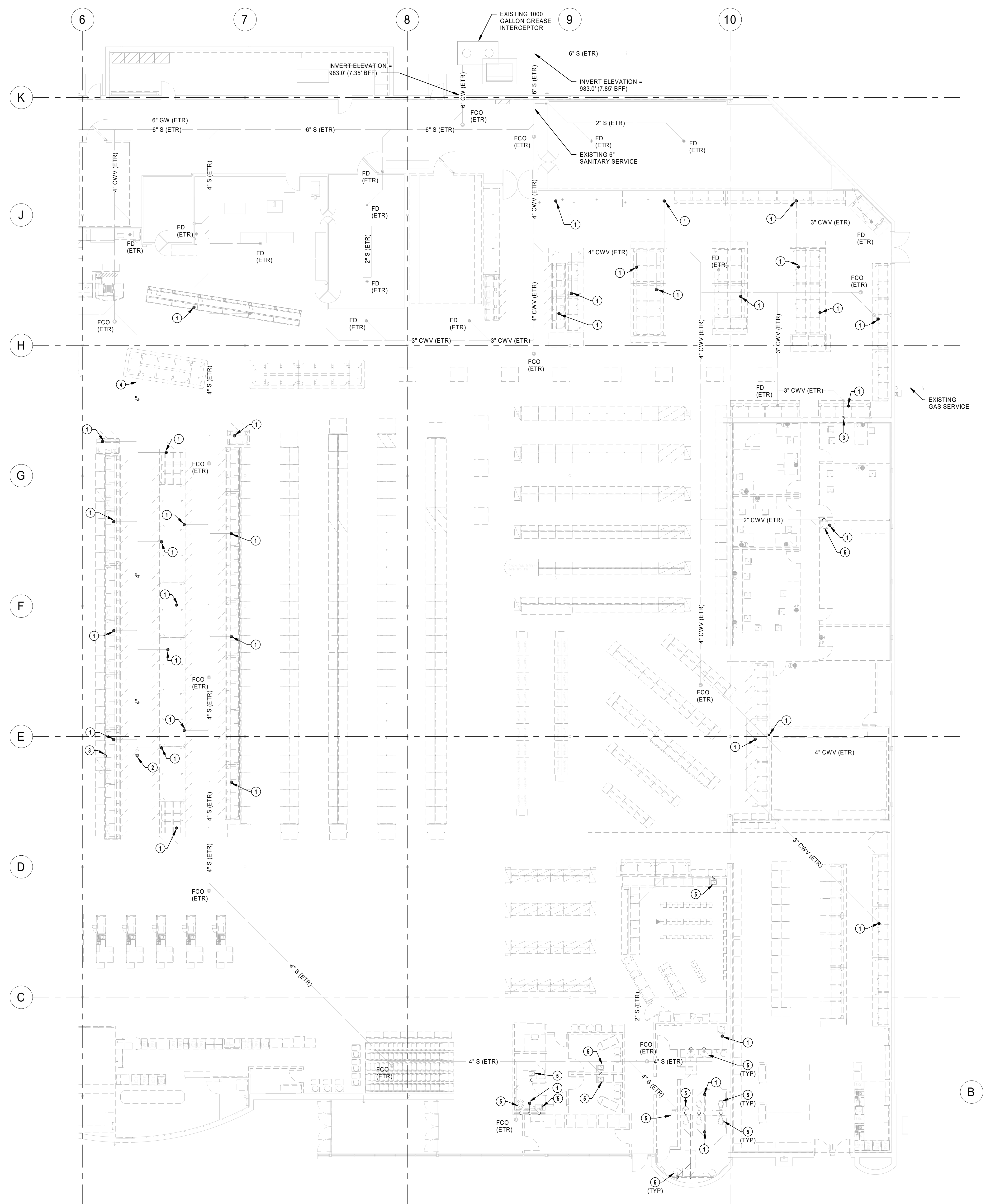
LOCATION
LEE'S SUMMIT, MO #2
3310 SW WARD RD
HY-VEE, INC.
5520 WESTOWN PARKWAY
WEST DES MOINES IOWA 50286
TELEPHONE: (515) 267-2800
FAX: (515) 267-2835
Hy-Vee®
EMPLOYEE OWNED



UNDERFLOOR
DEMOLITION
PLUMBING PLAN
A

PROJECT MANAGER SL	CHECKED BY: HEI
DRAWN BY: HEI	DATE: 10/19/2020
SCALE: AS NOTED	JOB NUMBER: 62930547

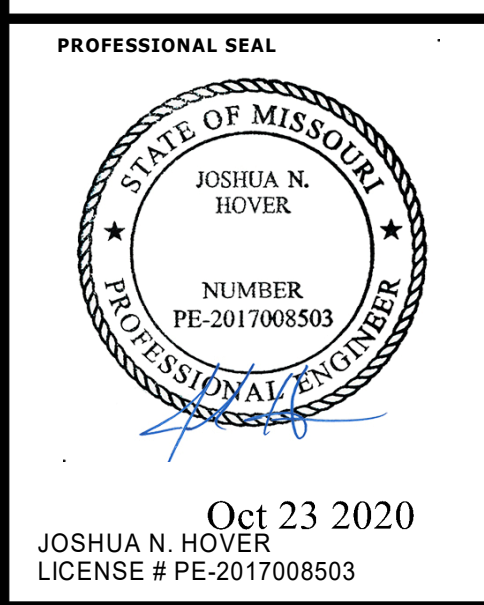
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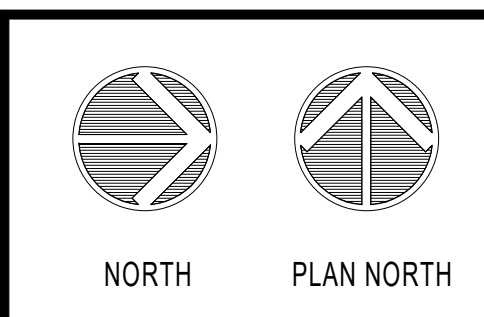
- PLUMBING PLAN NOTES**
- 1 REMOVE EXISTING FLOOR DRAIN/SINK GRATE, BODY AND TRAP. CAP AND ABANDON WASTE PIPE BELOW FLOOR IF NOT REUSED IN NEW WORK. PATCH FLOOR TO MATCH EXISTING.
 - 2 REMOVE EXISTING FLOOR CLEANOUT BODY AND TOP. PATCH FLOOR TO MATCH EXISTING.
 - 3 REMOVE EXISTING VENT PIPING BACK TO ACTIVE MAIN AND CAP.
 - 4 REMOVE WASTE PIPING AS INDICATED. CAP AND ABANDON ANY UNUSED WASTE PIPING.
 - 5 REMOVE EXISTING PLUMBING FIXTURE. CAP AND ABANDON WASTE PIPE BELOW FLOOR IF NOT REUSED IN NEW WORK. PATCH FLOOR TO MATCH EXISTING.

UNDERFLOOR DEMOLITION PLUMBING
PLAN - B
3/32\"/>

HENDERSON
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1950003081
MO. CORPORATE NO. E-558D
EXPIRES 12/31/2020



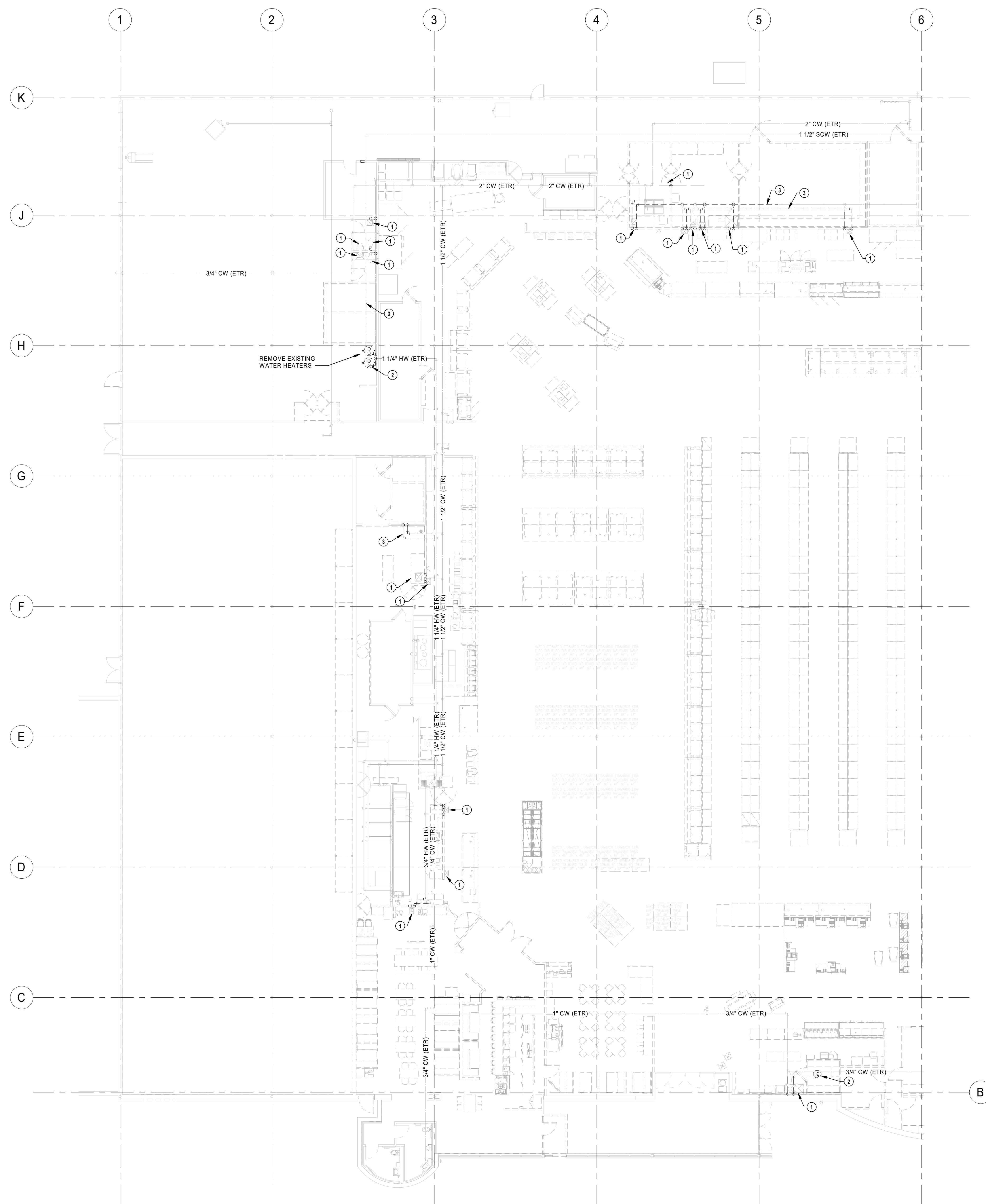
LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50319
TEL (515) 267-2800
FAX (515) 267-4335
Hy-Vee
EMPLOYEE OWNED



UNDERFLOOR
DEMOLITION
PLUMBING PLAN -
B

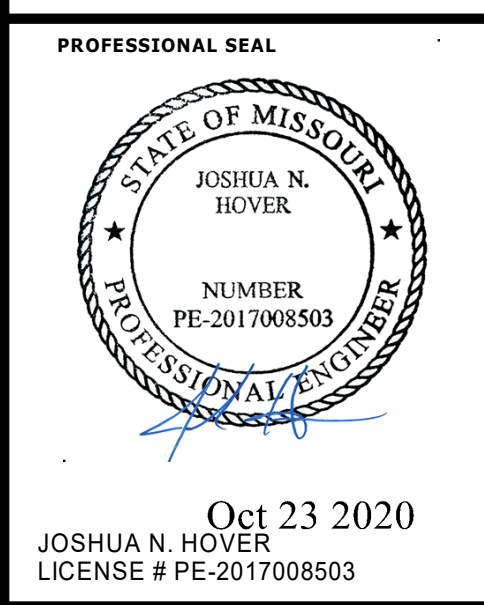
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DRAWN BY: HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

PD1.0B

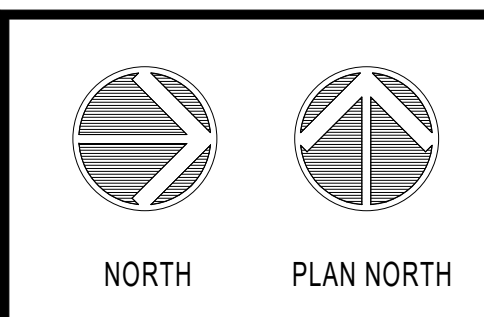


- PLUMBING PLAN NOTES
- 1 REMOVE EXISTING PLUMBING FIXTURE AS WELL AS PIPING (VENT, HOT AND COLD WATER) TO BELOW FINISHED FLOOR AND TO ACTIVE MAINS ABOVE CEILING AND CAP.
 - 2 REMOVE EXISTING WATER HEATER AS WELL AS PIPING (GAS, HOT AND COLD WATER) TO ACTIVE MAINS ABOVE CEILING AND CAP.
 - 3 REMOVE EXISTING PORTION OF WATER PIPING AS INDICATED.

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MO. CORPORATE NO. E-5560
EXPIRES 12/31/2020



LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE, INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50386
TEL (515) 267-2800 FAX (515) 267-4335
Hy-Vee
EMPLOYEE OWNED



DEMOLITION
PLUMBING PLAN -
A

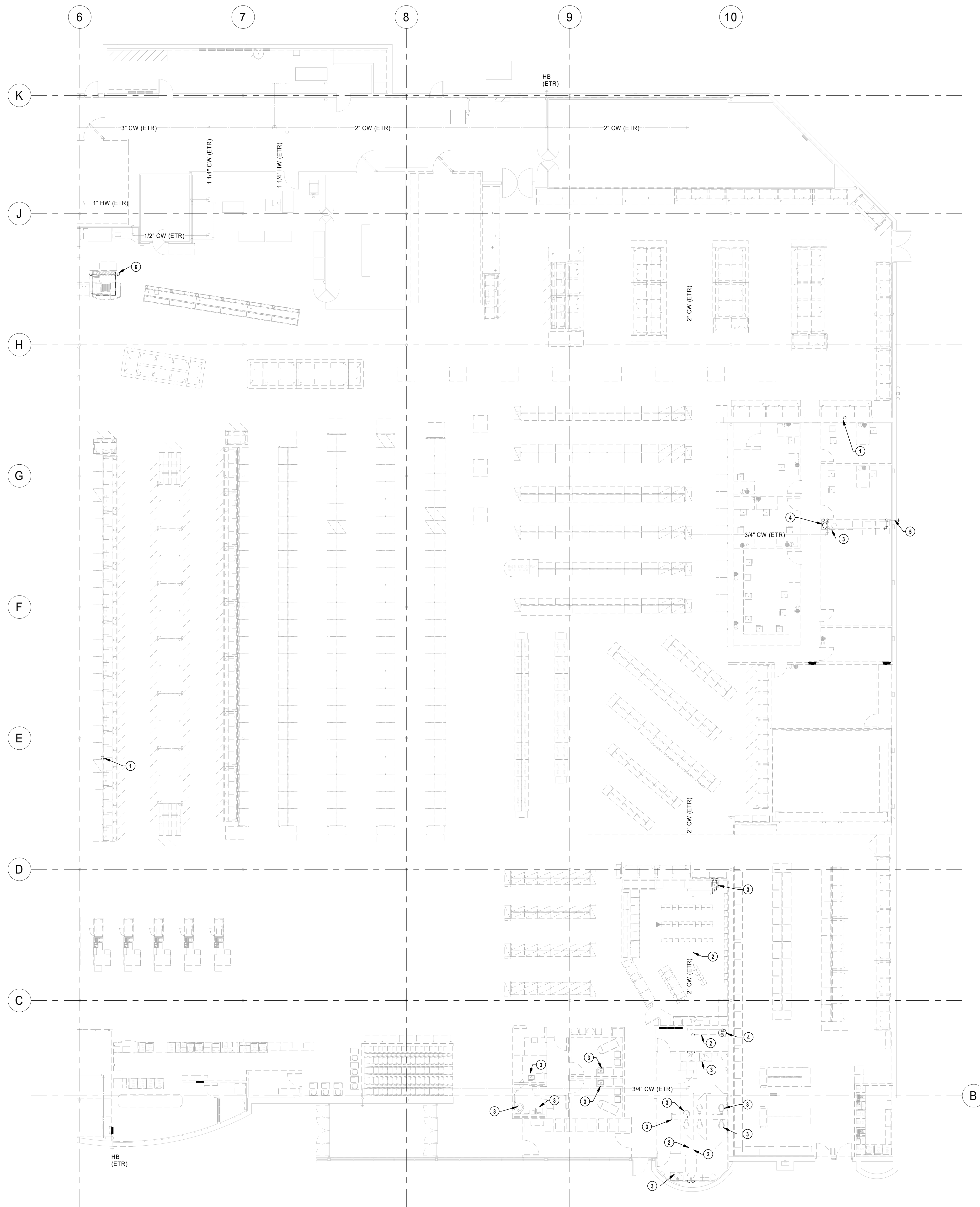
PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY: HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

PD2.0A

1 DEMOLITION PLUMBING PLAN - A
3/32" = 1'-0"

PLUMBING PLAN NOTES

- 1 REMOVE EXISTING VENT PIPING BACK TO ACTIVE MAIN AND CAP.
- 2 REMOVE EXISTING PORTION OF WATER PIPING AS INDICATED.
- 3 REMOVE EXISTING PLUMBING FIXTURE AS WELL AS PIPING (VENT, HOT AND COLD WATER) TO BELOW FINISHED FLOOR AND TO ACTIVE MAINS ABOVE CEILING AND CAP.
- 4 REMOVE EXISTING WATER HEATER AS WELL AS PIPING (GAS, HOT AND COLD WATER) TO ACTIVE MAINS ABOVE CEILING AND CAP.
- 5 REMOVE EXISTING HOSE BIBB AND CAP WATER PIPING ABOVE CEILING BACK TO ACTIVE MAIN. PATCH EXISTING WALL TO MATCH EXISTING.
- 6 REMOVE EXISTING GAS PIPING TO COOK LINE TO ACTIVE MAIN ABOVE CEILING AND CAP.

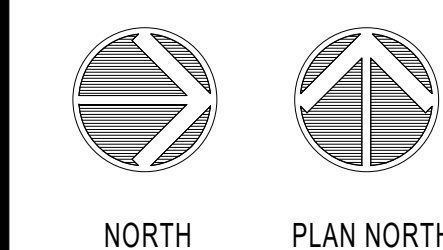


1 DEMOLITION PLUMBING PLAN - B
3/32" = 1'-0"

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1950003081
MO. CORPORATE NO. E-558D
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
PROFESSIONAL ENGINEER
Oct 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

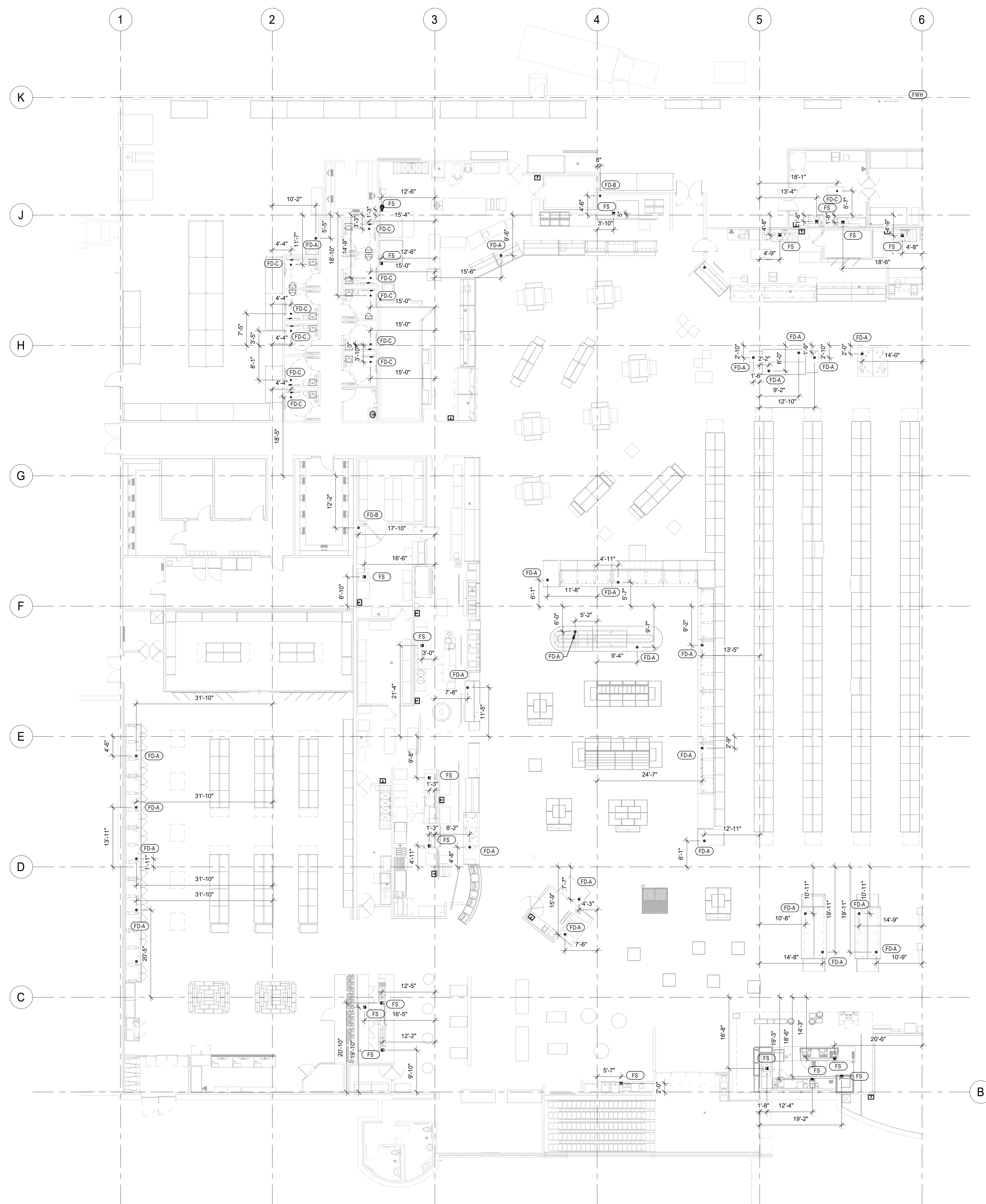
LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE INC.
5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50386
TEL (515) 267-4330 FAX (515) 267-4335
Hy-Vee
EMPLOYEE OWNED



DEMOLITION
PLUMBING PLAN -
B

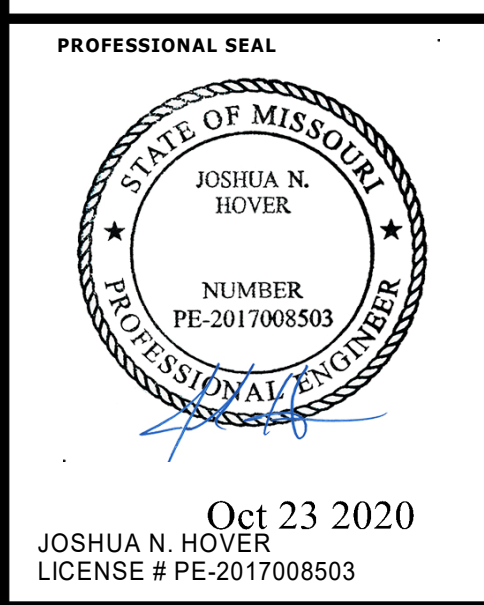
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SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

PD2.0B

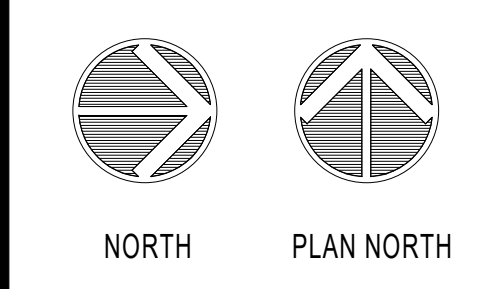


1 PLUMBING STUBUP PLAN - A
3/32" = 1'-0"

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8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
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MO. CORPORATE NO. E-556D
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LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
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5820 WESTOWN PARKWAY
WEST DES MOINES, IOWA 50386
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FAX (515) 267-4335
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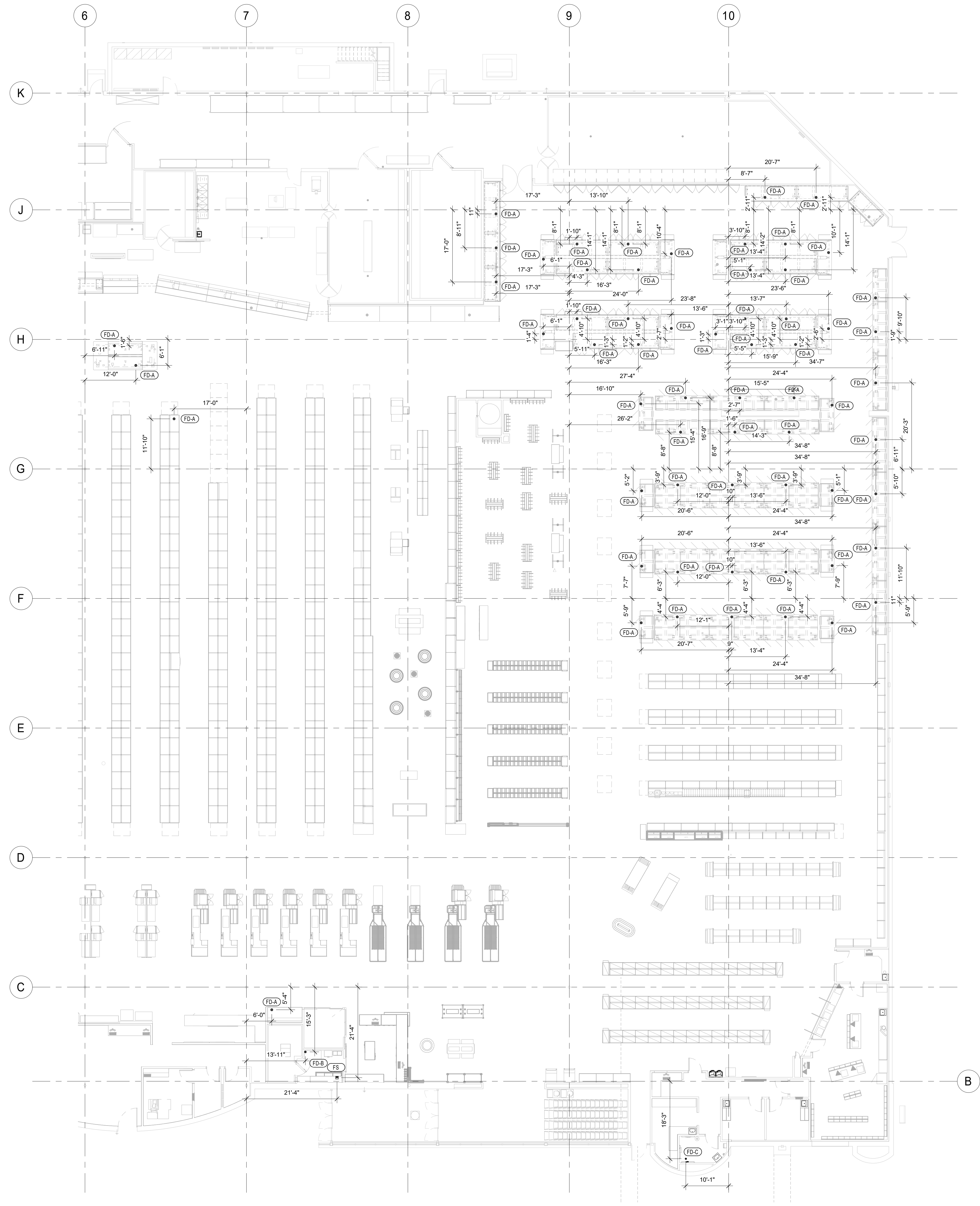


PLUMBING
STUB-UP PLAN - A

PROJECT MANAGER SL	CHECKED BY HEI
DRAWN BY HEI	DATE 10/19/2020
SCALE AS NOTED	JOB NUMBER 62830547
SHEET:	

PE1.0A

PLUMBING PLAN NOTES

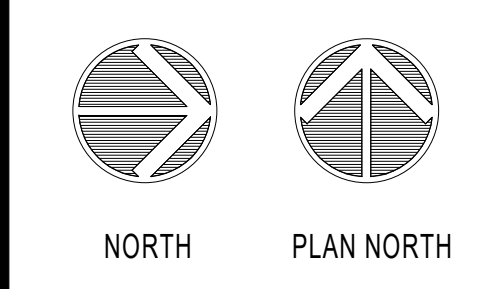


1 PLUMBING STUBUP PLAN - B
3/32" = 1'-0"

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LENEKA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
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1950003081
MO. CORPORATE NO. E-558D
EXPIRES 12/31/2020

PROFESSIONAL SEAL
STATE OF MISSOURI
JOSHUA N. HOVER
NUMBER
PE-2017008503
OCT 23 2020
JOSHUA N. HOVER
LICENSE # PE-2017008503

LOCATION
LEE'S SUMMIT, MO #2
310 SW WARD RD
HY-VEE, INC.
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WEST DES MOINES, IOWA 50387
TEL 515.281.5331 FAX 515.267-2800
FAX 515.267-2800
Hy-Vee
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PLUMBING
STUB-UP PLAN - B

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