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GENERAL NOTES

A. BOLD - DASHED LINES ON NEW WORK PLANS INDICATE UNDERGROUND PLUMBING.

B. PIPING ROUTED IN COOLER OR FREEZER WALLS WILL NOT BE PERMITTED.

C. WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES WILL NOT BE PERMITTED.

D. REFER TO ARCHITECTURAL CONCRETE PLACEMENT PLAN FOR REFRIGERATION PITS, TRENCHES.

G. WHEN POSSIBLE, LOCATE CLEANOUTS SO AS NOT TO FALL IN DOOR OPENINGS, UNDER PALLET RACKS, OR IN MAIN TRAFFIC AISLES.

H. ALL GAS, WATER, AND SPRINKLER LINES INSIDE BUILDING TO BE INSTALLED AS HIGH AS PRATICAL.

I. MAKE FINAL CONNECTION TO KROGER SUPPLIED EQUIPMENT.

J. BRANCH ISOLATION VALVES TO BE MOUNTED AT 10'-6" A.F.F. UNLESS OTHERWISE NOTED. IF MOUNTING AT 10'-6" A.F.F. IS PHYSICALLY IMPOSSIBLE MOUNT AS CLOSE TO 10'-6" A.F.F. AS POSSIBLE, MAKE ACCESSIBLE, AND HIDDEN FROM PUBLIC VIEW.

K. WHEREVER POSSIBLE, NEW PIPING SHALL BE RUN CONCEALED. COORDINATE LOCATION OF ALL PIPING WITH HVAC AND ELECTRIC SUBCONTRACTOR. COORDINATE CUTTING AND PATCHING WITH GENERAL CONTRACTOR.

L. WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OWNER, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS.

L. ALL PIPE DROPS IN SALES AREA FROM ROOF TO LOW WALLS OR EQUIPMENT SHOULD BE COORDINATED AND GROUPED TOGETHER WITH OTHER MECHANICAL PIPES. ENSURE ALL PIPING DROPS ARE SUPPORTED EVERY 10'. COORDINATE WITH GENERAL CONTRACTOR.

M. PIPING TO SERVICE AREAS SHALL BE INSTALLED IN FRAMED WALL ON WARM SIDE OF INSULATED WALL PANELS USED FOR PREP ROOMS WALL. RUN SHORTEST DISTANCE TO EQUIPMENT. GROUP INSULATED LINES TOGETHER WHERE EXPOSED IN SALES AREA FOR ALL LINES AT BOTTOM OF BAR JOISTS. PIPING IS NOT ALLOWED INSIDE COOLERS OR FREEZERS.

N. NO PIPE ROUTING ALLOWED TO RUN THROUGH ELEVATOR EQUIPMENT ROOMS.

O. DROP WATER DOWN IN WALL. ROUTE WATER THRU WALL TO SERVE MULTIPLE FIXTURES ON COMMON WALL. REFER TO FIXTURE CONNECTION SCHEDULE FOR EQUIPMENT REQUIREMENTS.

P. ALL MEP TRADES, INCLUDING SPRINKLER MUST COORDINATE WITH EACH OTHER PRIOR TO INSTALLATION.

Q. PROVIDE BACKFLOW PROTECTION ON ALL FIXTURES WITH THE POTENTIAL TO MIX. FOR EXAMPLE MOP SINK FAUCET SUPPLY, 3 COMPARTMENT SINK FAUCET SUPPLY, ICE MAKER, COFFEE MAKER, DRINKING MACHINE, ETC. REFER TO PLUMBING CONNECTION SCHEDULE.

R. NO SURFACE MOUNTED WATER OR VENT PIPING PERMITTED INSTALLED EXPOSED IN PREP ROOMS.

S. EXPOSED WATER, WASTE, SODA SYRUP LINES, AND CONDUITS ON WALL, FLOOR, AND CEILING SURFACES ARE PROHIBITED.

T. ALL EQUIPMENT MUST MEET APPLICABLE ANSI STANDARDS FOR CONSTRUCTION AND INSTALLATION. ALL EQUIP. LISTED AS CUSTOM FABRICATED MUST MEET THE APPROPRIATE ANSI STANDARDS.

GENERAL PLUMBING DEMOLITION NOTES

A. PLUMBING SYSTEMS SERVING EXISTING TO REMAIN PLUMBING FIXTURES AS IDENTIFIED ON ARCHITECTURAL DEMOLITION SHEET SHALL REMAIN INTACT AND IN GOOD WORKING ORDER.

B. AT ALL LOCATIONS WHERE PLUMBING FIXTURES ARE TO BE REMOVED, PLUMBING SUBCONTRACTOR SHALL REMOVE PIPING (WATER, WASTE, VENT) TO A POINT BEYOND FINISH SURFACE AND CAP OFF. WHERE PIPING SERVING EXISTING FIXTURE TO BE REMOVED ALSO SERVES FIXTURES THAT ARE TO REMAIN, PIPING SHALL BE REROUTED AND RECONNECTED AS REQUIRED TO ACCOMMODATE REMODELED AREAS AS REQUIRED.

C. WHERE EXISTING WALLS ARE REMOVED AND PIPING IS FOUND THAT MUST REMAIN, PLUMBING SUBCONTRACTOR SHALL REROUTE AND RECONNECT PIPING AS REQUIRED, E.G. DOMESTIC WATER PIPING, GAS, SOIL, WASTE, VENT, AND ROOF LEADER PIPING.

D. ALL PLUMBING PIPING THAT IS FOUND TO NO LONGER SERVE ANY PURPOSE SHALL BE REMOVED AND CAPPED OFF BEYOND FINISH SURFACE.

E. COORDINATE ALL REMOVED PLUMBING FIXTURES WITH G.C FOR RELOCATION OR FUTURE USE.

STANDARD PLUMBING ABBREVIATIONS

1 COMP	1 COMPARTMENT SINK	L	LITER
3 COMP	3 COMPARTMENT SINK	LAV	LAVATORY
A	COMPRESSED AIR	LAS	LIMITED AREA SPRINKLER
A/E	ARCHITECT / ENGINEER	L/H	LITERS PER HOUR (OR LITERS/HOUR)
AAV	AIR ADMITTANCE VALVE		
ACCESS	ACCESSORIES	L/M	LITERS PER MINUTE (OR LITERS/MINUTE)
AD	AREA DRAIN		
AFF	ABOVE FINISHED FLOOR	L/S	LITERS PER SECOND (OR LITERS/SECOND)
AFG	ABOVE FINISHED GRADE		
AMP	AMPERE	LBS/HR	POUNDS PER HOUR
ANG	ANGLE	LF	LINEAR FOOT (FEET)
ANSI	AMERICAN NATIONAL	LIQ	LIQUID
STANDARDS	INSTITUTE	LPG	LIQUID PROPANE GAS
AP	ACCESS PANEL	LVG	LEAVING
APPROX	APPROXIMATE	M	METER, SI UNIT
ASPE	AMERICAN SOCIETY OF	M/S	METERS PER SECOND (OR METERS/SECOND)
PLUMBING	ENGINEERS		
AV	ACID VENT	MAU	MAKE-UP AIR UNIT
AW	ACID WASTE	MAX	MAXIMUM
BAS	BUILDING AUTOMATION SYSTEM	MBH	1000 BTUH
BFP	BACKFLOW PREVENTER	MGAP	MED GAS ALARM PANEL
BIM	BILL OF MATERIALS	MGZV	MED GAS ZONE VALVE
BT	BLOWOFF TANK	MH	MANHOLE
BTC	BLOWOFF TANK CONTROL VALVE	MHP	MOTOR HORSEPOWER
BTU	BRITISH THERMAL UNIT	MIN	MINIMUM
BV	BALANCING VALVE	MM	MILLIMETER
BT	BATHTUB	MOCP	MAXIMUM OVERCURRENT PROTECTION
BTUH	BRITISH THERMAL UNIT PER HOUR		
		MS	MOP SINK
BWV	BACK WATER VALVE	MV	MIXING VALVE
C	CENTIGRADE (CELCIUS)	N	NITROGEN
CA	COMPRESSED AIR	NA	NOT APPLICABLE
CB	CATCH BASIN	NC	NORMALLY CLOSED
CD-1	CONSTRUCTION DOCUMENTS (SUBMISSION1)	NFC	NOT FOR CONSTRUCTION
		NG	NATURAL GAS
CD-2	CONSTRUCTION DOCUMENTS (SUBMISSION2)	NIC	NOT IN CONTRACT
		NO	NITROUS OXIDE
CFH	CUBIC FEET PER HOUR	NO	NUMBER
CFM	CUBIC FEET PER MINUTE	NOAA	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
CF	CUBIC FEET		
CI	CAST IRON	NOM	NOMINAL
CM/S	CUBIC METER PER SECOND	NTS	NOT TO SCALE
CO	CLEAN OUT	NUM	NUMBER
CO2	CARBON DIOXODE	O2	OXYGEN
COMP	COMPRESSOR UNIT	OCP	OVER CURRENT PROTECTION
CP	CIRCULATION PUMP	OD	OUTSIDE DIAMETER
CPVC	CHLORINATED POLYVINYL CHLORIDE	OD	OVERFLOW DRAIN
		OI	OIL INTERCEPTOR
CW	COLD WATER (POTABLE)	OR	OPERATING ROOM
DD-1	DESIGN DEVELOPMENT (SUBMISSION1)	OUT	OUTPUT
		P	PUMP
DD-2	DESIGN DEVELOPMENT (SUBMISSION2)	PA	PASCAL
		PC	PLUMBING CONTRACTOR
DEG	DEGREE	PCF	POUNDS PER CUBIC FOOT (FEET)
DELTA	CHANGE IN TEMPERATURE	PG	PRESSURE GAGE
DF	DRINKING FOUNTAIN	PIV	POST INDICATOR VALVE
DI	DEIONIZED WATER	PPM	PARTS PER MILLION
DIA	DIAMETER	PRV	PRESSURE REGULATING VALVE
DN	DOWN	PSI	POUNDS PER SQUARE INCH
DS	DOWNSPOUT	PSIA	POUNDS PER SQUARE INCH – ABSOLUTE
EC	ELECTRICAL CONTRACTOR		
EGS	EMERGENCY GAS SHUTOFF	PSIG	POUNDS PER SQUARE INCH –
EJ	EXPANSION JOINT	GAGE	
EL	ELEVATION	PVC	POLYVINYL CHLORIDE
ET	EXPANSION TANK	QUAN	QUANTITY
EXP	EXPANSION	RAD	RADIUS
EWC	ELECTRIC WATER COOLER	RD	ROOF DRAIN
EWH	ELECTRIC WATER HEATER	RH	ROOF HYDRANT
EX	EXISTING	RL	ROOF LEADER
F	FAHRENHEIT	RO	REVERSE OSMOSIS
FCO	FLOOR CLEAN OUT	RPBF	REDUCED PRESSURE BACKFLOW PREVENTER
FD	FLOOR DRAIN		
FDC	FIRE DEPARTMENT CONNECTION	RPM	REVOLUTIONS PER MINUTE
FFE	FINISHED FLOOR ELEVATION	RPZ	REDUCED PRESSURE ZONE
FLA	FULL LOAD AMPERES	VALVE	
FOP	FUEL OIL PUMP	RTU	ROOF TOP UNIT
FOT	FUEL OIL TANK	RV	RELIEF VALVE
FP	FIRE PUMP	S	SANITARY
FPM	FEET PER MINUTE	SAN	SANITARY
FPS	FEET PER SECOND	SC	SPRINKLER CONTRACTOR
FS	FLOOR SINK	SD	SHOWER DRAIN
FSTAT	FREEZESTAT	SD-2	SCHEMATIC DESIGN (SUBMISSION2)
FT	FEET		
FT-LB	FOOT-POUND	SE	SEWAGE EJECTOR
FURN	FURNISHED	SH	SHOWER
FW	FILTERED WATER	SI	SOLIDS INTERCEPTOR
G	GAS	SK	SINK
GA	GAUGE	SOFT	SOFT WATER
GAL	GALLONS	SOL	SOLENOID
GAS	NATURAL GAS	SPEC	SPECIFICATION
GCO	GRADE CLEAN OUT	SP	STAND PIPE
GEN	GENERAL	SP GR	SPECIFIC GRAVITY
GFWH	GAS FIRED WATER HEATER	SQ	SQUARE
GI	GREASE INTERCEPTOR	SQ FT	SQUARE FOOT (FEET)
GPD	GALLONS PER DAY	SS	STAINLESS STEEL
GPH	GALLONS PER HOUR	ST	STORM PIPING
GPM	GALLONS PER MINUTE	STD	STANDARD
GPR	GAS PRESSURE REGULATOR	SYS	SYSTEM
GR	GRAINS	TAB	TESTING, ADJUSTING, BALANCE
GT	GREASE TRAP	TD	TRENCH DRAIN
GW	GREASE WASTE	TDH	TOTAL DYNAMIC HEAD
H&CW	HOT & COLD WATER	TEMP	TEMPERATURE
HB	HOSE BIBB	TMV	THERMOSTATIC MIXING VALVE
HC	HVAC CONTRACTOR	TP	TRAP PRIMER
HD	HUB DRAIN	TS	TAMPER SWITCH
HDPE	HIGH DENSITY POLYETHYLENE	TSTAT	THERMOSTAT
HGT	HEIGHT	TU	TERMINAL UNIT
HP	HORSEPOWER	UH	UNIT HEATER
HT	HOT TAP	UL	UNDERWRITERS LABORATORY
HW	HOT WATER	UN	UNION
HWR	HOT WATER RETURN	URN	URINAL
I/O	INPUT/OUTPUT	V	VALVE
ICU	INTENSIVE CARE UNIT	VAC	VACUUM
ID	INSIDE DIAMETER	VAL	VALVE
IE	INVERT ELEVATION	VFD	VARIABLE FREQUENCY DRIVE
IN	INCHES	VP	VACUUM PUMP
IND	INDIRECT	VTR	VENT THRU ROOF
IN WC	INCH WATER COLUMN	W	WATER
IN-LB	INCH-POUND	WAG	WASTE ANESTHESIA GAS
INST	INSTALLED	WB	WASHER BOX
JP	JOCKEY PUMP	WC	WATER CLOSET
KG	KILOGRAM	WCO	WALL CLEAN OUT
KG/HR	KILOGRAM PER HOUR	WH	WALL HYDRANT
KH	KITCHEN HOOD	WF	WATER FILTER
KW	KILOWATT	WTR	WATER
KWH	KILOWATT HOUR	YH	YARD HYDRANT
		YR	YEAR

PLUMBING LEGEND

SYMBOL	DESCRIPTION
PLAN-VIEW LINE TYPES	
	WORK SHOWN FADED INDICATES EXISTING WORK TO REMAIN OR NEW WORK BY OTHERS AS APPLICABLE
	WORK SHOWN BOLD-DASHED INDICATES SELECTIVE DEMOLITION WORK
	WORK SHOWN BOLD-CONTINUOUS INDICATES NEW WORK
	DIRECTION OF FLOW
PIPING LINE TYPES	
S	SANITARY WASTE PIPING
V	SANITARY VENT PIPING
GW	GREASE WASTE PIPING
IW	DEDICATED FLOOR DRAIN PIPING (INDIRECT WASTE)
CW	DOMESTIC COLD WATER PIPING
HW	DOMESTIC HOT WATER PIPING
HWR	DOMESTIC HOT WATER RETURN PIPING
FW	FILTERED WATER PIPING
RO	REVERSE OSMOSIS WATER PIPING
G	NATURAL GAS PIPING
PLUMBING ACCESSORIES	
	UNION
	PIPE CAP
	STRAINER
	PRESSURE GAUGE
WCO CO	CO - CLEANOUT, FCO - FLOOR CLEANOUT, GCO - GRADE CLEANOUT, WCO - WALL CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
HD	HUB DRAIN
PIPE VALVES	
	CONTROL VALVE , SHUT-OFF VALVE
	CHECK VALVE
TMV	THERMOSTATIC MIXING VALVE
	PRESSURE REGULATOR VALVE
WH	FROST PROOF WALL HYDRANT (EXTERIOR)
HB	HOSE BIBB (INTERIOR)
PLUMBING SYMBOLS	
	PIPE UP
	PIPE DOWN
	PIPE TEE DOWN
	PIPE TEE UP
	PIPE CONTINUATION
1	RISER NUMBER
	CONNECT TO EXISTING (FIELD VERIFY EXISTING UTILITY SERVICE TYPE, PRIOR TO MAKING CONNECTION)
PLUMBING MISCELLANEOUS	
TAG NOTATION	
D.	EXISTING FIXTURE / ACCESSORY / EQUIPMENT TO BE DEMOLISHED
R.	EXISTING FIXTURE / ACCESSORY / EQUIPMENT BEING RELOCATED
EX.	EXISTING FIXTURE / ACCESSORY / EQUIPMENT REMAINING IN SAME LOCATION

2" REFERENCE LINE

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12/10/19

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PLUMBING ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES

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