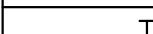


SYMBOL	ABBREV	DESCRIPTION
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RECIRCULATION
	TW	TEMPERED WATER
	SAN	SANITARY SEWER
	PSAN	PUMPED SANITARY
	CV	CIRCUIT VENT
	CW&V	COMBINATION WASTE & VENT
	V	SANITARY VENT
	SD	STORM DRAIN, RAINWATER DRAIN
	PSD	PUMPED STORM DRAIN
	OFD	OVERFLOW ROOF DRAINAGE
	TP	TRAP PRIMER PIPING
	G	GAS
	GV	GAS VENT
	A	COMPRESSED AIR
	[XXX"] HW	HOT WATER [XXX"]
	[XXX"] HWR	HOT WATER RETURN [XXX"]
	LA	LABORATORY COMPRESSED AIR
	LV	LABORATORY VACUUM
	RO	REVERSE OSMOSIS WATER
	DI	DISTILLED WATER
	DE	DEIONIZED WATER
	AW	ACID WASTE
	AV	ACID VENT
	GW	GREASE WASTE
	OW	OIL LADEN WASTE
	MA	MEDICAL COMPRESSED AIR
	MV	MEDICAL VACUUM
	OX	OXYGEN
	N	NITROGEN
	NO	NITROUS OXIDE
	WAGD	WASTE ANESTHESIA GAS DISPOSAL
	CO2	CARBON DIOXIDE
	F	FIRE PROTECTION WATER SUPPLY
	SP	AUTOMATIC FIRE SPRINKLER
	ASD	AUTOMATIC FIRE SPRINKLER SYSTEM DRAIN
		ELBOW TURNED UP
		ELBOW TURNED DOWN
		TEE TURNED UP
		TEE TURNED DOWN
		PIPE UNION
		FLEXIBLE PIPE CONNECTION
		PIPE ANCHOR
		PIPE GUIDE
	EXC	EXPANSION COMPENSATOR
		FLOW ARROW
	GA	GATE VALVE
	BF	BUTTERFLY VALVE
	CK	CHECK VALVE
	CBL	CALIBRATED BALANCING VALVE
	TCBV	THERMOSTATICALLY CONTROLLED BALANCING VALVE
	BA	BALL VALVE
	PL	PLUG VALVE
	R	GAS REGULATOR

PLUMBING SYMBOLS SCHEDULE		
SYMBOL	ABBREV	DESCRIPTION
		GAS COCK
		BACKFLOW PREVENTER
	CO	CLEANOUT FLUSH IN FLOOR
	CO	CLEANOUT IN HORIZONTAL RUN
	WHA-I)	WATER HAMMER ARRESTER (PDI TYPE)
	PRV	PRESSURE REDUCING VALVE
	GPR	GAS PRESSURE REGULATOR
	PS	PRESSURE SWITCH
	TS	VALVE WITH TAMPER SWITCH
	FS	VALVE WITH FLOW SWITCH
		UPRIGHT FIRE SPRINKLER HEADS
		PENDANT FIRE SPRINKLER HEADS
		SIDEWALL FIRE SPRINKLER HEADS
	FHR	FIRE HOSE RACK
	FHC	FIRE HOSE CABINET (SURFACE MTD.)
	FHC	FIRE HOSE CABINET (RECESSED)
	FVC	FIRE VALVE CABINET
	FH	FIRE HYDRANT
	FDC	FIRE DEPARTMENT CONNECTION
		MEDICAL GAS OUTLET
	VS	MEDICAL VACUUM SLIDE BRACKET
		THERMOMETER
		PRESSURE GAGE
		"Y" STRAINER WITH BLOWDOWN VALVE
	WH	WALL HYDRANT
	HB	HOSE BIBB
	FD	FLOOR DRAIN
	RD	ROOF DRAIN
	OFD	OVERFLOW ROOF DRAIN, EMERGENCY ROOF DRAIN
	OFDN	OVERFLOW ROOF DRAIN NOZZLE
		CIRCULATOR
	AP	ACCESS PANEL
	AD	ACCESS DOOR
		DISTANCE FROM FLOOR TO BOTTOM OF OBJECT
		CONNECT TO EXISTING
		POINT OF DEMOLITION
	TXFR	AUTOMATIC FIXTURE TRANSFORMER

REFERENCE NUMBER

SHEET CROSS REFERENCE

SECTION REFERENCE LETTER

DIRECTION OF VIEW

SHEET CROSS REFERENCE

GENERAL NOTES (APPLY TO ALL DRAWINGS):

1. COMPLY WITH LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS.
2. PLAN DOCUMENTS ARE SCHEMATIC TO CONVEY THE DESIGN INTENT. DO NOT SCALE DRAWINGS FOR EXACT PLACEMENT OF EQUIPMENT AND DISTRIBUTION SYSTEMS.
3. COORDINATION BETWEEN DISCIPLINES IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR AND/OR CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
4. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. IN A CASE OF A CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, REQUEST A DOCUMENTED INTERPRETATION FROM THE ARCHITECT / ENGINEER.
5. INSTALL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND INSURANCE UNDERWRITER REQUIREMENTS.
6. THE LINE-TYPE AND SYMBOLS LEGENDS SHOW ITEMS TYPICALLY INCLUDED WITH THE SPECIFIED SYSTEMS. NOT ALL SYMBOLS AND/OR LINE TYPES ARE UTILIZED.
7. INCLUDE DETAILS IN THE SCOPE OF WORK FOR EVERY SITUATION TO WHICH THAT DETAIL APPLIES EXCEPT WHERE A SPECIFIC DETAIL REFERENCE IS DESIGNATED TO INDICATE OTHERWISE.
8. EXISTING PLUMBING EQUIPMENT, PIPING, AND FIXTURES SHALL REMAIN UNLESS NOTED OTHERWISE.
9. SCHEDULE SYSTEM MODIFICATIONS TO MINIMIZE DISRUPTIONS TO EXISTING BUILDING SERVICES. COORDINATE SHUTDOWN REQUESTS PER SPECIFICATIONS AND OWNER REQUIREMENTS.
10. LOCATE PIPING AS HIGH AS POSSIBLE, UNLESS NOTED OTHERWISE.
11. SEAL PENETRATIONS THROUGH FIRE AND/OR SMOKE BARRIERS WITH AN APPROVED SYSTEM TO MAINTAIN THE INTEGRITY OF THE BARRIER AND SHALL BE MARKED APPROPRIATELY IN ACCORDANCE WITH SPECIFICATIONS.
12. INSTALL EXTERIOR FUEL GAS REGULATORS AND METERS AT LEAST 10 FT FROM DOORS, OPERABLE WINDOWS, FRESH AIR OPENINGS, ETC.
13. COORDINATE ROOF PENETRATIONS WITH THE ROOFING CONTRACTOR OR ROOF WARRANTY UNDERWRITER TO MAINTAIN ROOFING SYSTEM INTEGRITY.
14. MINIMUM PLUMBING PIPING SIZE SHALL BE 1/2" UNLESS NOTED OTHERWISE.
15. INSTALL FLEXIBLE CONNECTIONS ON ALL MOTORIZED EQUIPMENT AND THE CONNECTED SYSTEM. REFER TO SPECIFICATIONS FOR CONNECTION TYPE AND APPLICATION.
16. PROVIDE ALL FUEL GAS PIPING WITH A SHUT OFF VALVE, UNION, AND DRIP LEG AT EACH CONNECTION TO GAS FIRE EQUIPMENT.
17. SANITARY PIPING UNDERGROUND AND BENEATH SLAB ON GRADE SHALL BE NO LESS THAN 2" IN DIAMETER.
18. CONDUCTOR INSPECTION AND TESTING REQUIREMENTS OF PIPING ENCLOSED IN CMU WALLS WITH A/JH PRIOR TO CONSTRUCTION. DURING CONSTRUCTION, DO NOT ENCLOSE, COVER, OR PUT PIPING IN OPERATION UNTIL IT HAS BEEN INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION.

PLUMBING LINETYPE KEY

(APPLIES TO ALL PLUMBING SERVICES OR SYMBOLS)

SYMBOL	DESCRIPTION
=====	HEAVY LINEWEIGHT INDICATES PIPING AND EQUIPMENT TO BE FURNISHED UNDER THIS PROJECT
-----	THIN LINEWEIGHT INDICATES PIPING AND EQUIPMENT THAT ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE
-----	DASHED LINEWEIGHT INDICATES PIPING AND EQUIPMENT THAT ARE EXISTING TO BE REMOVED, UNLESS NOTED OTHERWISE

PLUMBING ABBREVIATIONS

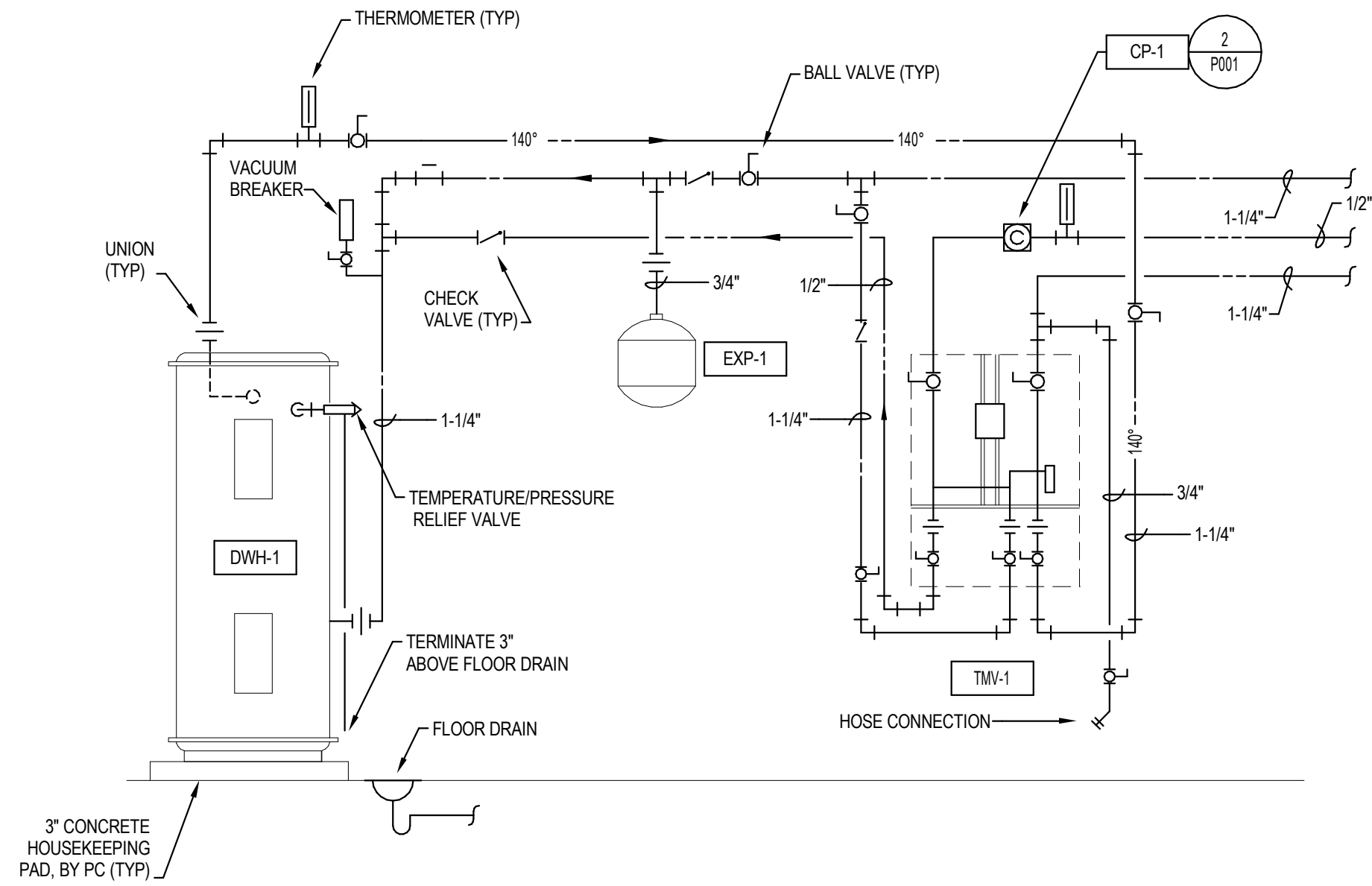
AB	CEILING	KW	HORSEPOWER
AT	STRUCTURE	HP	KILOWATT
BL	BELOW	MC	MECHANICAL CONTRACTOR
AF	ABOVE FINISHED FLOOR	PC	PUMPS CONTRACTOR
AFG	ABOVE FINISHED GRADE	PSIG	POUNDS PER SQUARE INCH GAGE
BJ	BETWEEN	RPM	REVOLUTIONS PER MINUTE
CB	CUBIC FEET PER MINUTE	SV	SOIL & WATER
CI	CAST IRON PIPE	ST	STACK
Da	DIAMETER	TJ	TRUCK JOIST
EC	ELECTRICAL CONTRACTOR	TR	THROUGH ROOF
EX	EXISTING	UF	UNDER FLOOR
FPM	FEET PER MINUTE	US S	UNDERSTEEL
FT HD	FEET OF HEAD	UNO	UNLESS NOTED OTHERWISE
GA	GENERAL CONTRACTOR	YTR	YIELD THRU ROOF
GPM	GALLONS PER MINUTE	WS	WASTE STACK
HC	HEATING/HVAC CONTRACTOR		

PLUMBING FIXTURE SCHEDULE						
DESIG	DESCRIPTION	CW	HW	1/2"	SAN*	VENT
DF-1	DRINKING FOUNTAIN: FREE-STANDING, 8.5-GALLON, 1/2" BOTTLE FILLER, ADA COMPLIANT	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"
L-1*	LAVATORY: WALL HUNG, BATTERY OPERATED FAUCET, ADA COMPLIANT	1/2"	1/2"	3/8"	1-1/4"	1-1/4"
MR-1	MOI RECEPTOR: TERRAZZO, 24" X 24" X 1/2"	1/2"	1/2"	2"	3"	2"
UR-1	URINAL: WALL HUNG, WATERLESS			2"	2"	1-1/2"
UR-2	URINAL: WALL HUNG, WATERLESS, ADA COMPLIANT			2"	2"	1-1/2"
WC-1	WATER CLOSET: WALL HUNG, BATTERY OPERATED FLUSH VALVE	1"			4"	2"
WC-2	WATER CLOSET: WALL HUNG, BATTERY OPERATED FLUSH VALVE, ADA COMPLIANT	1"			4"	2"

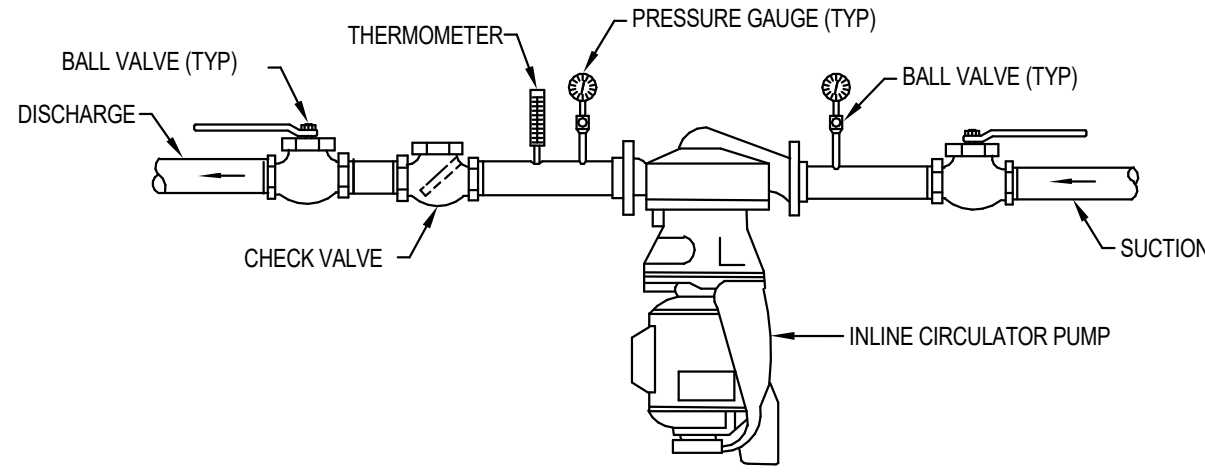
* SANITARY PIPING BENEATH SLAB ON GRADE SHALL BE NO LESS THAN 2" IN DIAMETER.

“ PROVIDE THERMOSTATIC MIXING VALVE, TMV-2, BELOW LAVATORY/SINK TO PROVIDE A 110° HOT WATER DELIVERY TEMPERATURE TO FAUCET. REFER TO DETAIL ON THIS SHEET.

PLUMBING EQUIPMENT SCHEDULE	
SYMBOL	DESCRIPTION
DWH-1	ELECTRIC WATER HEATER: 40 GALLONS STORAGE, 10 KW, 41 GPM RECOVERY AT 100° F RISE, 220V/1PH/60 HZ. SET AT 140° F.
EXP-1	DOMESTIC HOT WATER EXPANSION TANK: MAXIMUM ACCEPTANCE VOLUME - 0.9 GALLONS. TOTAL VOLUME 2.0 GALLONS. 8"DIA X 1'1" HEIGHT.
CP-1	INLINE CIRCULATOR PUMP: PUMP SHALL BE RATED FOR 2.0 GPM AT 4.0 FT HD, 1/12 HP, 3250 RPM, 120V/1PH/60 HZ.
TMV-1	DIGITAL MIXING VALVE: 23 GPM @ 10 PSI PRESSURE DROP ACROSS VALVE. MINIMUM FLOW: 0.5 GPM. SET OUTLET TEMPERATURE @ 130° F
TMV-2	THERMOSTATIC MIXING VALVE: 1.0 GPM @ 15 PSI PRESSURE DROP ACROSS VALVE (FLOW RANGE 0.25-2.25 GPM). SET OUTLET TEMPERATURE @ 110° F



DETAIL 1
NO SCALE
ELECTRIC WATER HEATER



DETAIL 2
NO SCALE
CIRCULATOR