

PLUMBING SYMBOLS AND ABBREVIATIONS

(NOT ALL OF THE SYMBOLS SHOWN MAY BE USED ON THE PROJECT.)

SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	ABBREVIATIONS	ABBREVIATIONS
	STORM DRAIN, RAINWATER DRAIN	SD, RT		OUTSIDE YOLK & STEM GATE VALVE	OSY		UPRIGHT FIRE SPRINKLER HEAD	-	A	MAX
	SUBSOIL DRAIN, FOOTING DRAIN	SSD		GATE VALVE	GV		FIRE HOSE RACK	FHR	AC	MPS
	GREASE WASTE	GREASE WASTE		GLOBE VALVE	GLV		AUTOMATIC SPRINKLER PIPE	-	ACU	MTHW
	ABOVE GRADE SOIL, WASTE, OR SANITARY SEWER	S, W, SAN, SS		ANGLE VALVE	AV		DRY PIPE SPRINKLER	-	AHU	MPH
	BELOW GRADE SOIL, WASTE, OR SANITARY SEWER	S, W, SAN, SS		BALL VALVE	BV		PREACTION SPRINKLER PIPE	-	AHP	MIN
	VENT	V		BUTTERFLY VALVE	BFV		FIRE HOSE VALVE	FHV	ALT	N
	ACID WASTE	AW		GAS COCK, GAS STOP	-		FIRE HOSE CABINET (SURFACE-MOUNTED)	FHC	ANSI	NC
	ACID VENT	AV		BALANCING VALVE (SPECIFY TYPE)	BLV		FIRE HOSE CABINET (RECESSED)	FHC	AWG	NO
	INDIRECT DRAIN	D		CHECK VALVE	CV		CLEANOUT PLUG	CO	AMP	NA
	PUMP DISCHARGE LINE	PD		PLUG VALVE	PV		FLOOR CLEANOUT	FCO	ANG	NOT IN CONTRACT
	COLD WATER	CW		ACCESS PANEL LOCATION	AP		WALL CLEANOUT	WCO	ANGI	NIS
	HOT WATER SUPPLY (120°)	HW		PLUMBING FIXTURE DESIGNATION	-		YARD CLEANOUT OR CLEANOUT TO GRADE	CO	ADP	NO.
	HOT WATER SUPPLY (140°)	140°		SOLENOID VALVE	-		PITCH DOWN OR UP-IN DIRECTION OF ARROW	-	APPROX	APP
	HOT WATER RETURN (120°)	HWR		MOTOR-OPERATED VALVE (SPECIFY TYPE)	-		FLOW-IN DIRECTION OF ARROW	-	A	AREA
	HOT WATER RETURN (140°)	140°R		PRESSURE-REDUCING VALVE	PRV		POINT OF CONNECTION	POC	ATM	ATMOSPHERE
	TEMPERED HOT WATER (TEMP.F)	TEMP, HW, TW		PRESSURE-RELIEF VALVE	RV		STEAM TRAP (ALL TYPES)	ST	AVG	AVERAGE
	TEMPERED HOT WATER RECIRCULATING (TEMP.F)	TEMP, HWR, TWR		TEMPERATURE-PRESSURE-RELIEF VALVE	TPV		FUNNEL FLOOR DRAIN	FD	B	BELOW FINISH FLOOR
	(CHILLED) DRINKING WATER SUPPLY	DWS		REDUCED ZONE BACKFLOW PREVENTER	RZBP		FLOOR SINK (3/4 GRATE)	FS	BG	BELOW GRADE
	(CHILLED) DRINKING WATER RECIRCULATING	DWR		DOUBLE-CHECK BACKFLOW PREVENTER	DCBP		FLOOR SINK (1/2 GRATE)	FS	BHP	BRAKE HORSEPOWER
	SOFT WATER	SW		HOSE BIBB	HB		SOIL/VENT STACK DESIGNATION	-	BTU	BRITISH THERMAL UNIT
	CONDENSATE DRAIN	CD		RECESSED-BOX HOSE BIBB OR WALL HYDRANT	WH		REFERENCE DETAIL NUMBER	-	C	CELSIUS
	DISTILLED WATER	DI		VALVE IN YARD BOX (VALVE TYPE SYMBOL AS REQUIRED FOR VALVE USE)	YB		UPRIGHT SPRINKLER	-	C TO C	CENTER-TO-CENTER
	DEIONIZED WATER	DE		UNION (SCREW)	-		UPRIGHT SPRINKLER, NIPPED UP	-	CCW	COUNTERCLOCKWISE
	PIPING TO BE HEAT TRACED	-		UNION (FLANGED)	-		TENDER	-	CT	CUBIC FEET
	LAWN SPRINKLER SUPPLY	LS		STRAINER (SPECIFY TYPE)	-		TENDER	-	IN 3	CUBIC INCH
	FIRE PROTECTION WATER SUPPLY	F		PIPE ANCHOR	PA		UPRIGHT SPRINKLER, NIPPED UP	-	CFM	CUBIC FEET PER MINUTE
	GAS-LOW-PRESSURE	G		PIPE GUIDE	-		TENDER	-	SCFM	CFM, STANDARD CONDITIONS
	GAS-MEDIUM-PRESSURE	MG		EXPANSION JOINT	EJ		TENDER	-	CCFS	CUBIC FEET PER SECOND
	GAS-HIGH-PRESSURE	HG		FLEXIBLE CONNECTOR	FC		TENDER	-	FT	FOOT
	GAS VENT	GV		TEE	-		TENDER	-	FTLB	FOOT-POUND
	CONCENTRIC REDUCER	-		SIAMESE FIRE DEPARTMENT CONNECTION	-		TENDER	-	FCO	FLOOR CLEANOUT
	ECCENTRIC REDUCER	-		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-		TENDER	-	G	GAGE OR GAUGE
	EQUIPMENT DESIGNATION (GAS WATER HEATER #1)	-		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-		TENDER	-	GAL	GALLONS
	NEW PLUMBING FIXTURE DESIGNATION	-		FIRE PUMP / JOCKEY PUMP	FP/JP		TENDER	-	GPH	GALLONS PER HOUR
	EXISTING PLUMBING FIXTURE TO BE REMOVED	-		TRAP PRIMER	TP		TENDER	-	STD GPH	GPH, STANDARD
	PLUMBING KEYED NOTE	-		PUMP GAS	PG		TENDER	-	GPD	GALLONS PER DAY
	AQUASTAT	-		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-		TENDER	-	GR	GRAINS
	TAMPER SWITCH	TS		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-		TENDER	-	H	HEAD
	FLOW SWITCH	FS		FIRE PUMP / JOCKEY PUMP	FP/JP		TENDER	-	HD	HEAD
	PRESSURE SWITCH	PS		TRAP PRIMER	TP		TENDER	-	HT	HEATER
	WATER HAMMER ARRESTER (PDI DESIGNATION "A")	WHA		PUMP GAS	PG		TENDER	-	HTR	HEIGHT
	PRESSURE GAUGE WITH GAUGE COCK	PG		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-		TENDER	-	HGT	HEIGHT
	THERMOMETER (SPECIFY TYPE)	-		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-		TENDER	-	HPS	HIGH-PRESSURE STEAM
	AUTOMATIC AIR VENT	AAV		FIRE PUMP / JOCKEY PUMP	FP/JP		TENDER	-	HTHW	HIGH-TEMPERATURE HOT WATER
	CIRCUIT SETTER	-		TRAP PRIMER	TP		TENDER	-	HP	HORSEPOWER
	VALVE IN RISER (TYPE AS SPECIFIED OR NOTE)	-		PUMP GAS	PG		TENDER	-	H	HOUR(S)
	RISER DOWN (ELBOW)	-		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-		TENDER	-	I	INTERNATIONAL PIPE STD
	RISER (ELBOW)	-		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-		TENDER	-	IPS	IRON PIPE SIZE
	AIR CLEANER	-		FIRE PUMP / JOCKEY PUMP	FP/JP		TENDER	-	K	KELVIN
	RISE OR DROP	-		TRAP PRIMER	TP		TENDER	-	KW	KILOWATT
	BRANCH-BOTTOM CONNECTION	-		PUMP GAS	PG		TENDER	-	KWH	KILOWATT HOUR
	BRANCH-TOP CONNECTION	-		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-		TENDER	-	L	LENGTH
	CAP ON END PIPE	-		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-		TENDER	-	LG	LINEAR FEET
	FLOW INDICATOR FOR STATIONARY METER (ORIFICE)	-		FIRE PUMP / JOCKEY PUMP	FP/JP		TENDER	-	LIN FT	LINEAR FEET
	FLOW INDICATOR FOR PORTABLE METER (SPECIFY FLOW RATE)	-		TRAP PRIMER	TP		TENDER	-	LQ	LIQUID

GENERAL PLUMBING NOTES:

- ALL WORK SHALL CONFORM TO ALL STATE AND LOCAL CODES, RULES AND REGULATIONS, AND ORDINANCES.
- PLUMBING PLANS ARE DIAGRAMMATIC ONLY. THEY ARE INTENDED TO INDICATE CAPACITY, SIZE, LOCAL DIRECTION AND GENERAL ARRANGEMENT. WHERE NOT SPECIFICALLY SHOWN ON PLANS, CONTRACTOR SHALL APPLY PROFESSIONAL STANDARDS SUCH AS THAT OF THE AMERICAN SOCIETY OF PLUMBING ENGINEERS.
- WORK SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS AND OTHER COSTS AS ARE NECESSARY FOR THE INSTALLATION OF A COMPLETE AND SATISFACTORY OPERATIONAL PLUMBING AND SANITARY SYSTEM. EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER AS TO MAINTAIN ITS LISTING AND THE MANUFACTURER'S GUARANTEES AND WARRANTIES.
- THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER TRADES TO INSURE THAT EACH TRADE SHALL HAVE SUFFICIENT SPACE TO INSTALL THEIR EQUIPMENT (DUCTWORK, PIPING, ELECTRICAL, ETC.), ALONG WITH THE PLUMBING WORK.
- WHERE THE TERM "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL". THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL THE OTHER TRADES PRIOR TO THE FABRICATION, PURCHASE AND/OR INSTALLATION OF THE WORK.
- UNLESS NOTED, ALL MATERIALS SHALL BE NEW, COMPLETE, INCLUDE MANUFACTURER'S WARRANTY, AND BE U.L. APPROVED IF APPLICABLE. ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
- FIELD VERIFY ALL DIMENSIONS. CONTRACTOR SHALL VERIFY ELEVATION OF UTILITY CONNECTIONS ON SITE PRIOR TO COMMENCING WORK. FINAL CONNECTION TO SITE UTILITIES SHALL BE BY THE PLUMBING CONTRACTOR.
- PIPING ROUTED THROUGH FOUNDATIONS SHALL BE SLEEVED AND INSTALLED IN ACCORDANCE WITH THE AMERICAN SOCIETY OF PLUMBING ENGINEERS STANDARDS.
- PLUMBING SYSTEM INSTALLER SHALL PROVIDE ALL STRUCTURAL MEMBERS, SUPPORT BRACKETS, FLASHING, HARDWARE, ETC., REQUIRED TO INSTALL A COMPLETE SYSTEM.
- DRAIN WASTE AND VENT PIPING SHALL BE PVC SCH. 40 WHEN INSTALLED BELOW GRADE OR UNDER CONCRETE SLABS. DRAIN WASTE AND VENT PIPING INSTALLED ABOVE GRADE SHALL BE PVC SCH. 40.
- DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER.
- PLUMBING CONTRACTOR SHALL CERTIFY ALL WATER PIPING AND SPECIALTIES FREE FROM MICROBIAL CONTAMINATION BY SANITIZING THE PLUMBING SYSTEM BEFORE OCCUPATION OF BUILDING.
- EXPOSED FIXTURE TRIM SHALL BE CHROME PLATED BRASS. PROVIDE INDIVIDUAL STOPS FOR EACH HOT AND COLD WATER CONNECTION TO FIXTURES.
- ALL SANITARY PIPING CHANGES OF DIRECTION 45 DEGREES OR MORE SHALL BE ACCOMPLISHED BY USING 45 DEGREE 1/8 BEND ELBOWS UNLESS OTHERWISE NOTED.
- ALL SANITARY PIPING UNDER SLAB SHALL BE 2" OR LARGER.
- INSTALL HEAT TRAPS ON ALL WATER HEATERS, WHERE THE SYSTEM IS NOT RECIRCULATED.
- PROVIDE MAINTENANCE AND/OR OTHER CLEARANCES AT EACH PIECE OF EQUIPMENT AS REQUIRED OR RECOMMENDED BY THE EQUIPMENT MANUFACTURER. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE ANY ADDITIONAL SPACE REQUIRED FOR SUBMITTED EQUIPMENT.
- PROVIDE ACCESS DOORS IN INACCESSIBLE FINISHES FOR ALL VALVES TRAP PRIMER, ETC., THAT REQUIRES PERIODIC ADJUSTMENTS OR MAINTENANCE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTY AGAINST FIRE THEFT OR ENVIRONMENTAL CONDITIONS.
- ALL MODEL NUMBERS INDICATED ARE PROVIDED TO ESTABLISH THE QUALITY LEVEL AND FEATURES REQUIRED. LISTED MANUFACTURERS AND OTHER PRIOR APPROVED EQUALS MAY BE SUBSTITUTED WHEN PROVIDED WITH EQUAL FEATURES, EITHER STANDARD OR AS ACCESSORIES. SUBSTITUTED AIR DEVICES AND PLUMBING FIXTURES MUST BE SIMILAR IN APPEARANCE TO THE ITEMS SPECIFICALLY INDICATED.
- ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER. CLEAN THE SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE WORK INCLUDED IN THIS CONTRACT.
- PROVIDE 1" ARMAFLEX INSULATION ON ALL HOT AND CIRCULATING WATER PIPING.

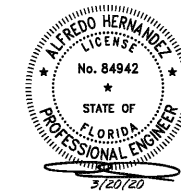
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