



MECHANICAL ABBREVIATIONS			
EFF	EFFICIENCY	KW	KILOWATT
AC	AIR COMPRESSOR	RECIRC	RECIRCULATE
AMB	AMBIENT	RV	RELIEF VALVE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	RWC-X	REMOTE WATER COOLER
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS	RECQD	REQUIRED
AMP	AMPERE	RPM	REVOLUTIONS PER MINUTE
ANG	ANGLE	RD-X	ROOF DRAIN
A	AREA	RM	ROOM
AD-X	AREA DRAIN	SAN	SANITARY
APPROX	APPROXIMATELY	SCH	SCHEDULE
AUX	AUXILIARY	SEN	SENSOR
ATM	ATMOSPHERE	SS-X	SERVICE SINK
AVG	AVERAGE	SH-X	SHOWER
		SHB-X	SHAMPOO BOWL
		SM	SIMILAR
		SB-X	SITZ BATH
		S-X	SINK
		SPEC(S)	SPECIFICATIONS
		SQ	SQUARE
		STD	STANDARD
		SWH-X	STEAM WATER HEATER
		SUCT	SUCTION
		SP	STATIC PRESSURE
		SP-X	SUMP PUMP
		SSS-X	SURGICAL SCRUB SINK
		NOM	NOMINAL
		NC	NORMALLY CLOSED / NOISE CRITERIA
		NO	NORMALLY OPEN / NUMBER
		NA	NOT APPLICABLE
		NIC	NOT IN CONTRACT
		NTS	NOT TO SCALE
		NT-X	NEUTRALIZATION TRAP
		UL	UNDERWRITERS LABORATORY
		UNO	UNLESS NOTED OTHERWISE
		URNL	URINAL
		US-X	UTILITY SINK
		VAR	VARIABLE
		VFD	VARIABLE FREQUENCY DRIVE
		VEL	VELOCITY
		VTR	VENT THROUGH ROOF
		VERT	VERTICLE
		VOLT	VOLT
		VOL	VOLUME
		WH-X	WALL HYDRANT
		WF-X	WASH FOUNTAIN
		WC-X	WATER CLOSET
		WG	WATER GAUGE
		WP	WATER PRESSURE DROP
		WS-X	WATER SOFTENER
		WSWC-X	WATER STATION WATER COOLER
		W	WATT / WIDTH
		WT	WEIGHT
		WP-X	WELL PUMP
		WB	WET BULB (TEMPERATURE)
		YD	YARD
		YH-X	YARD HYDRANT

GENERAL NOTES :

- COORDINATE LOCATION OF PLUMBING PIPING WITH ELECTRICAL CABLE TRAY. PROVIDE A MINIMUM OF 6" OF CLEAR ACCESS ABOVE CABLE TRAY FOR INSTALLATION OF CABLES.
- ACCESS PANELS IN HARD SURFACE CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED BY PC AND INSTALLED BY GC. COORDINATE EXACT LOCATION WITH ARCHITECT.
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- CONTRACT DOCUMENT DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
- INSTALL ALL PLUMBING EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- PROVIDE VIBRATION ISOLATION FOR ALL PLUMBING EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
- COORDINATE CONSTRUCTION OF ALL PLUMBING WORK WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL, CIVIL, ELECTRICAL, WORK, ETC. SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- MAINTAIN A MINIMUM OF 6" CLEARANCE TO UNDERSIDE OF PLUMBING PIPES, GAS PIPES, CONDUITS, SUSPENDED EQUIPMENT, ETC. THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
- ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
- LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
- TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.
- WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
- COORDINATE ALL FITTURE AND EQUIPMENT CONNECTIONS WITH MANUFACTURERS' DRAWINGS. COORDINATE AND PROVIDE ALL PLUMBING PIPING TRANSITIONS REQUIRED FOR FIELD FITTURE AND EQUIPMENT CONNECTIONS TO THE FURNISHED FIXTURES AND EQUIPMENT. FIELD VERIFY AND COORDINATE ALL PLUMBING PIPING DIMENSIONS BEFORE FABRICATION.
- ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND DIVISION 16 OF THE SPECIFICATION.
- CONCRETE HOUSEKEEPING PADS TO SUIT PLUMBING EQUIPMENT SHALL BE SIZED AND LOCATED BY THE PC. MINIMUM CONCRETE PAD THICKNESS SHALL BE 4" PAD SHALL EXTEND BEYOND THE EQUIPMENT A MINIMUM OF 4" ON EACH SIDE. CONCRETE HOUSEKEEPING PADS SHALL BE PROVIDED BY THE PC.
- THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PLUMBING PIPING AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE PC.
- ALL EQUIPMENT, PLUMBING PIPING, ETC., SHALL BE SUPPORTED AS DETAILED, SPECIFIED, AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- ALL PLUMBING PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH GC. ALL ATTACHMENTS TO STEEL, BAR JOISTS, TRUSSES, OR JOIST ORDERS SHALL BE AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED. THE USE OF C-CLAMPS SHALL NOT BE PERMITTED.
- PLUMBING EQUIPMENT AND PLUMBING PIPING SHALL NOT BE SUPPORTED FROM METAL DECK.
- LOCATIONS AND SIZES OF ALL FLOOR, ROOF, AND WALL OPENINGS SHALL COORDINATED WITH ALL OTHER TRADES INVOLVED.
- ALL OPENINGS IN FIRE WALLS DUE TO PLUMBING PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M OR APPROVED EQUAL.
- REFER TO TYPICAL DETAILS FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION.

PLUMBING GENERAL NOTES :

- DO NOT RUN PIPING ABOVE ELECTRICAL PANEL OR IN CODE-REQUIRED CLEARANCE SPACES. COORDINATE ALL ROUTES WITH ALL TRADES PRIOR TO INSTALLATION.
- SEE WASTE AND VENT RISER DIAGRAMS ON SHEET P3-0 FOR ADDITIONAL PIPE SIZES.
- SEE SPECIFICATIONS FOR ALL PLUMBING CONNECTION SIZES TO ALL PLUMBING FIXTURES.
- INSTALL AND ROUTE ALL FUEL GAS PIPING AS REQUIRED BY CODE.
- PROVIDE WALL- AND FLOOR-MOUNTED SEWER CLEANOUTS AS REQUIRED BY CODE. COORDINATE LOCATION IN FIELD.
- LOCKE PLUMBING VENTS THROUGH THE ROOF AT A MINIMUM OF 10'-0" AWAY FROM ALL OUTDOOR AIR INTAKES ON HVAC EQUIPMENT OR OPERABLE WINDOWS.
- TERMINATE ALL NATURAL GAS FUEL VENTS A MINIMUM OF 2'-0" HIGHER THAN ANY SURFACE OR EQUIPMENT WITHIN 10'-0" OR AS REQUIRED BY CODE.
- DO NOT ROUTE PLUMBING BRANCHES OR MAINS WITHIN SPACE REQUIRED TO SERVICE ALL HVAC EQUIPMENT ABOVE CEILING.
- REFER TO FOOD SERVICE PLAN FOR ROUGH-IN SIZES AND LOCATIONS.
- COORDINATE FINISH FLOOR ELEVATIONS TO SET FLOOR DRAINS AND FLOOR SINKS.
- RUN ALL WASTE AND VENT PIPING WITH 2% MINIMUM GRADE UNLESS OTHERWISE NOTED. HORIZONTAL VENT PIPING SHALL BE GRADED TO DRIP BACK TO THE SOIL OR WASTE PIPE BY GRAVITY.
- ELEVATIONS AS SHOWN ON THE DRAWINGS ARE TO THE CENTERLINE OF ALL PRESSURE PIPING AND TO THE INVERT OF ALL GRAVITY PIPING.
- MAINTAIN A MINIMUM OF 3'-6" OF GROUND COVER OVER ALL UNDERGROUND WATER MAINS AND A MINIMUM OF 3'-0" OF GROUND COVER OVER ALL UNDERGROUND SEWERS AND DRAINS.
- PROVIDE SHUTOFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES IN WHICH BRANCH PIPING SERVES TWO OR MORE FIXTURES.
- UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO THE UNDERSIDE OF STRUCTURE, WITH SPACE FOR INSULATION IF REQUIRED.
- INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- WHERE DOMESTIC COLD AND HOT WATER PIPING DROPS INTO A PIPE CHASE, THE SIZE SHOWN FOR THE PIPE DROPS SHALL BE USED TO THE LAST FITTURE.
- INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
- ALL PIPING SHALL GRADE TO LOW POINTS. PROVIDE HOSE END DRAIN VALVES AT THE BOTTOM OF ALL RISERS AND LOW POINTS.
- UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES, AND IN LONG PIPING RUNS (100'-0" OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
- ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
- ALL VALVES (EXCEPT CONTROL VALVES) AND STRAINERS SHALL BE FULL SIZE OF PIPE BEFORE REDUCING SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS.
- PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE 1/2 TURN STOPS.
- PROVIDE CLEANOUTS IN SANITARY AND STORM DRAINAGE SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 50'-0" IN HORIZONTAL RUNS AND ELSEWHERE AS INDICATED.
- ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE SIZES 6" AND SMALLER AND SHALL BE 6" FOR PIPE SIZES LARGER THAN 6".
- ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
- ALL VALVES SHALL BE INSTALLED SO THAT VALVE REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
- ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE OR AS INDICATED ON THE DRAWINGS.
- PROVIDE A PRESSURE REGULATOR TO ALL EQUIPMENT AND APPLIANCES THAT ARE SERVED WITH GAS.

KITCHEN GENERAL NOTES :

- REFER TO FOOD SERVICE PLANS FOR ROUGH-IN LOCATIONS.
- PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL SHUT-OFF VALVES FOR WATER SUPPLY AT ALL EQUIPMENT ITEMS.
- KITCHEN EQUIPMENT FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR. PLUMBING CONTRACTOR TO ROUGH-IN AND MAKE FINAL CONNECTIONS TO ALL UTILITIES REQUIRED AND PROVIDE ALL PIPING, STOPS, VACUUM BREAKERS, WATER HAMMER ARRESTERS, PRESSURE REDUCING VALVES, TRAPS AND ALL FITTINGS NECESSARY FOR EQUIPMENT TO BE IN OPERATING ORDER. COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR AND SEE KITCHEN EQUIPMENT.
- CUT FLOOR SINK GRATES AS REQUIRED TO ACCEPT INDIRECT WASTE.
- COORDINATE ELEVATION OF ALL FLOOR DRAINS IN KITCHEN WITH KITCHEN SUPPLIER, GENERAL CONTRACTOR, AND CITY/COUNTY HEALTH INSPECTOR.
- COORDINATE FINISHED FLOOR ELEVATIONS TO SET FLOOR DRAINS AND FLOOR SINKS.
- ALL EXPOSED WATER PIPING TO FIXTURES AND KITCHEN EQUIPMENT TO BE CHROME PLATED.

REV	DESCRIPTION	DATE

PLUMBING SYMBOLS			
PLUMBING		PLUMBING	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING SANITARY DRAIN (ABOVE FLOOR)		NEW SANITARY DRAIN (ABOVE FLOOR)
	EXISTING SANITARY SINKER (BELOW FLOOR)		NEW SANITARY SINKER (BELOW FLOOR)
	EXISTING STORM DRAIN (ABOVE FLOOR)		NEW STORM DRAIN (ABOVE FLOOR)
	EXISTING STORM DRAIN (BELOW FLOOR)		NEW STORM DRAIN (BELOW FLOOR)
	EXISTING COLD WATER (CW)		NEW OVERFLOW STORM DRAIN (ABOVE FLOOR)
	EXISTING HOT WATER (HW)		NEW OVERFLOW STORM DRAIN (BELOW FLOOR)
	EXISTING HOT WATER CIRCULATING (HWC)		VENT
	EXISTING VENT		COLD WATER (CW)
	EXISTING GAS LINE		HOT WATER (HW)
	GRADE CLEAN OUT		HOT WATER CIRCULATING (HWC)
	DOUBLE GRADE CLEAN OUT		COOL OR EQUIPMENT DRAIN LINE
	END OF MAIN CLEANOUT		GAS LINE
	END CAP		ACID VENT
			ACID WASTE
			PLUMBING RISER NUMBER