

## PLUMBING GENERAL NOTES:

**SCOPE:** THE SCOPE OF THE WORK IS GENERALLY INDICATED BY THE DRAWINGS AND SUMMARIZED BY THIS SCOPE OF WORK. DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL DETAILS OF THE INSTALLATION OF PLUMBING WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL CONDITIONS AND REQUIREMENTS FOR THE INSTALLATION OF THE WORK.

**CODES & STANDARDS:** BIDDING CONTRACTORS MUST VISIT THE SITE, REVIEW ALL CONSTRUCTION DOCUMENTS, AND OBTAIN WRITTEN COPIES OF ALL REFERENCED CODES AND ORDINANCES PRIOR TO SUBMITTING BIDS. NO ALLOWANCE WILL BE MADE FOR ADVERSE CONDITIONS WHICH WERE ASCERTAINABLE PRIOR TO BID TIME.

**PLUMBING CODE COMPLIANCE:** COMPLY WITH THE REQUIREMENTS OF THE 2012 INTERNATIONAL PLUMBING CODE AND ALL LOCAL ORDINANCES IN THE PERFORMANCE OF PLUMBING WORK REQUIRED FOR THIS PROJECT.

**COORDINATION:** COORDINATE THE PLUMBING WORK WITH THE WORK OF THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS. OBTAIN INFORMATION REGARDING THE ROUGH-IN AND FINAL CONNECTION REQUIREMENTS FOR EQUIPMENT TO BE PROVIDED BY THE OWNER OR OTHER CONTRACTORS PRIOR TO COMMENCING WORK.

**CUTTING & PATCHING:** PROVIDE LABOR, EQUIPMENT AND SPECIAL SERVICES NECESSARY TO CREATE OPENING NECESSARY FOR THE PASSAGE OF PIPING AND OTHER PLUMBING WORK. APPLY A ROUGH PATCH TO CLOSE OFF UNUSED PORTIONS OF OPENINGS USING MATERIALS THAT ARE SUBSTANTIALLY SIMILAR TO THAT OF THE ADJACENT STRUCTURE. FINAL PATCH AND FINISHES WILL BE APPLIED BY THE GENERAL CONTRACTOR.

**MATERIALS, EQUIPMENT, AND SUBMITTALS:** PROVIDE MATERIALS AND EQUIPMENT OF THE TYPE, SIZE, CAPACITY, AND QUANTITY INDICATED BY THESE DOCUMENTS. WHERE MATERIAL SPECIFICATIONS ARE NOT INDICATED, PROVIDE MATERIALS THAT COMPLY WITH THE HIGHEST QUALITY INDUSTRY STANDARD. IF NO SUCH STANDARD EXISTS, CONTACT THE ARCHITECT/ENGINEER TO ASCERTAIN THE APPROPRIATE SPECIFICATION.

**SUBSTITUTIONS:** THE MANUFACTURER AND MODEL OF EQUIPMENT ARE INDICATED ONLY TO ESTABLISH A BASIS OF DESIGN. SUBMITTALS FOR EQUIPMENT OF OTHER MANUFACTURERS WILL BE CONSIDERED IF SPATIAL AND PERFORMANCE REQUIREMENTS ARE MET. BIDDERS MAY REQUEST "PRIOR REVIEW" FROM THE ENGINEER UP TO 3 DAYS PRIOR TO THE BID DATE TO ENSURE THE ACCEPTABILITY OF PROPOSED SUBSTITUTIONS.

**GAS PIPING:** PROVIDE GAS PIPING SYSTEMS IN ACCORDANCE WITH NFPA STD. 54, USING SCHEDULE 40 BLACK PIPE (ASTM A-53/120), PROVIDE MALLEABLE IRON THREADED FITTING UP TO 2" PIPE SIZE AND WROUGHT STEEL BUTTWELDING FITTINGS 2 1/2" PIPE SIZE AND OVER, PROVIDE "DURATHANE" ASTM D-2513 THERMOPLASTIC GAS PRESSURE PIPE FOR UNDERGROUND DISTRIBUTION. PROVIDE APPROPRIATE SUPPORTS AND ANCHORS, SQUARE HEAD GAS COCKS, AND PRESSURE REGULATORS WHERE INDICATED OR NECESSARY. EXTEND THE VENT FROM ALL PRESSURE REGULATORS TO OUTSIDE THE BUILDING, INDIVIDUALLY AND AT THE FULL SIZE OF THE REGULATOR VENT CONNECTION SIZE.

**GAS VENTING:** PROVIDE GAS VENTING SYSTEMS IN ACCORDANCE WITH NFPA STD. 54. GENERALLY PROVIDE: METALBESTOS "DF", OR EQUAL, TYPE B GAS VENT PIPE, FITTINGS, AND SPECIAL TIES FOR ATMOSPHERIC BURNERS; METALBESTOS "PS", OR EQUAL, POSITIVE PRESSURE GAS VENT PIPE, FITTINGS, AND SPECIAL TIES FOR POWER BURNER SYSTEMS. WHERE THE MANUFACTURER OF GAS-BURNING APPLIANCES RECOMMENDS THE USE OF MATERIALS OTHER THAN THOSE SPECIFIED HEREIN, THE CONTRACTOR MAY IMPLEMENT SUCH RECOMMENDATIONS IF THE MATERIALS AND DESIGN ARE SUITABLE TO THE APPLICATION AND COMPLY WITH BUILDING CODE REQUIREMENTS.

**WATER DISTRIBUTION PIPING:** PROVIDE DOMESTIC COLD WATER, HOT WATER, HOT WATER RETURN AND OTHER INDICATED WATER DISTRIBUTION PIPING SYSTEMS OF TYPE, SIZE, QUANTITY, AND CAPACITY INDICATED ON THE DRAWINGS, OF MATERIALS INDICATED IN THE PLUMBING MATERIALS TABLE. PROVIDE HANGERS, ANCHORS, CLAMPS, SUPPORTS, AND ACCESSORIES REQUIRED FOR A COMPLETE SYSTEM.

**DRAINAGE PIPING:** PROVIDE DRAIN, WASTE, VENT AND OTHER INDICATED DRAINAGE PIPING SYSTEMS OF TYPE, SIZE, QUANTITY, AND CAPACITY INDICATED ON THE DRAWINGS, OF MATERIALS INDICATED IN THE PLUMBING MATERIALS TABLE. PROVIDE HANGERS, ANCHORS, CLAMPS, SUPPORTS, AND ACCESSORIES REQUIRED FOR A COMPLETE SYSTEM.

**UTILITY TAPS:** THE PLUMBING CONTRACTOR SHALL COORDINATE SEWER AND WATER TAPS WITH THE LOCAL UTILITY. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY TAP FEES.

**PIPING INSULATION:** PROVIDE 1" THICK FIBERGLASS PIPE INSULATION WITH ALL-SERVICE JACKET (ASTM C-547, C-921, TYPE I or II AS APPROPRIATE FOR TEMPERATURE) ON ALL COLD WATER, HOT WATER, HOT RETURN AND COLD DRAINAGE PIPING AS WELL AS ROOF DRAIN LEADERS TO 5'-0" FROM ROOF DRAIN. PROVIDE PRESSURE SENSITIVE TAPE, MASTIC, OR OTHER MATERIALS AS MAY BE REQUIRED TO MAINTAIN A CONTINUOUS VAPOR BARRIER THROUGHOUT THE SYSTEM. PROVIDE PRE-MOLDED PVC COVERS AT ALL FITTINGS. JACKETS AND VAPOR BARRIER MATERIALS MUST MEET LOCAL ORDINANCE REQUIREMENTS FOR FLAME SPREAD AND SMOKE DEVELOPED RATINGS. (SEE FLOOR PLANS FOR INSULATION REQUIREMENTS AT SPECIAL SYSTEMS.)

**INSTRUMENTATION:** PROVIDE THERMOMETERS, THERMOWELLS, PRESSURE GAUGES, FLOW INDICATORS, CALIBRATED BALANCING VALVES, PAT PLUGS, AND OTHER INSTRUMENTATION INDICATED ON THE DRAWINGS. IN THE ABSENCE OF SUCH INDICATION, PROVIDE, AT MINIMUM, THERMOWELLS AND THERMOMETERS AT EACH ITEM OF HEAT TRANSFER EQUIPMENT (WATER HEATER, WATER CHILLER, HOT WATER GENERATOR, ETC.) AND PRESSURE GAUGES WITH GAUGE COCKS AND SNUBBERS, AT ITEM OF HEAT TRANSFER EQUIPMENT AND EACH PRIME MOVER (PUMP, ETC.).

**IDENTIFICATION:** PROVIDE MECHANICAL SYSTEMS IDENTIFICATION TO INDICATE THE TAG, TYPE, FLOW, TEMPERATURE RANGE, CAPACITY, ETC. OF EACH ITEM OF EQUIPMENT AND ALL CONVEYANCES (PIPING SYSTEMS). PROVIDE ENGRAVED PLASTIC LAMINATE PLATES FOR EQUIPMENT, "SNAP-ON" PIPE MARKERS FOR PIPING, AND ADHESIVE BACKED PLASTICIZED MARKERS FOR DUCTWORK. PROVIDE ENGRAVED PLASTIC LAMINATE VALVE TAGS AT EACH VALVE AND A VALVE TAG SCHEDULE FRAMED UNDER GLASS.

**CONTROLS:** PROVIDE ALL CONTROL DEVICES, CONDUIT, CONDUCTORS, AND ACCESSORIES REQUIRED TO FURNISH AND INSTALL A COMPLETE AND OPERATING SYSTEM OF PLUMBING EQUIPMENT CONTROLS TO ACCOMPLISH THE INDICATED SEQUENCE OF OPERATION.

**TEST & BALANCE:** TEST, BALANCE, AND ADJUST ALL WATER FLOW QUANTITIES TO WITHIN 10% OF THOSE INDICATED ON DRAWINGS. PROVIDE ADDITIONAL DRIVES, MOTORS OR OTHER DEVICES AND ACCESSORIES AS MAY BE REQUIRED TO ADJUST FLOW QUANTITIES AS REQUIRED. SUBMIT THREE COPIES OF THE FINAL REPORT TO THE ARCHITECT WITHIN 10 DAYS OF THE COMPLETION OF BALANCING WORK.

**CONTRACT CLOSEOUT:** PROVIDE EVIDENCE THAT ALL CONTRACTUAL OBLIGATIONS HAVE BEEN MET, INCLUDING, BUT NOT NECESSARILY LIMITED TO, PROVIDING "AS-BUILT" DRAWINGS, SYSTEM COMMISSIONING REPORTS, OPERATING AND MAINTENANCE MANUALS, TRAINING OF PERSONNEL, FULLY EXECUTED PUNCHLIST, WARRANTIES, EXTENDED WARRANTIES, AND OTHER DOCUMENTS THAT MAY BE PERTINENT TO THE PLUMBING PORTION OF THE PROJECT.

**WARRANTY:** THE CONTRACTOR SHALL WARRANT THE WORK PROVIDED AS PART OF THIS PROJECT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE COMMISSIONING ACCEPTANCE DATE.

2012 INTERNATIONAL PLUMBING CODE PIPING MATERIALS										
PIPING TYPE	COPPER PIPE ASTM B42, ASTM B302	COPPER TUBE ASTM B75, ASTM B88, ASTM B251, ASTM B306	GALV. STEEL ASTM A53	PEX-AL-PEX PIPE ASTM F1281, ASTM F2262, CAN/CSA B137.10M	PEX TUBE ASTM 876, ASTM F877, CSA B137.5	PVC PLASTIC ASTM D2665, ASTM D2949, ASTM F1488	ABS PLASTIC ASTM D2681, ASTM F628	CAST IRON ASTM A74, CISPI 301, ASTM A888	CONCRETE ASTM C14, ASTM C76	VITRIFIED CLAY ASTM C4, ASTM C70
WATER SERVICE	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
WATER DISTRIBUTION	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
ABOVE GROUND DRAINAGE & VENT	YES	YES	YES	NO	NO	YES	YES	YES	NO	NO
UNDERGROUND BLDG. DRAINAGE & VENT	NO	YES	NO	NO	NO	YES	YES	YES	NO	NO
BUILDING SEWER	NO	YES	NO	NO	NO	YES	YES	YES	YES	YES
BUILDING STORM SEWER	NO	YES	NO	NO	NO	YES	YES	YES	YES	YES
SUBSOIL DRAIN	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES

WATER SUPPLY SIZING WORKSHEET					
FIXTURE OR GROUP TYPE	OCCUPANCY	CONTROL	W.S.F.U.	QUANTITY	S/T DEMAND
WATER CLOSET	PUBLIC	FLUSH TANK			10
LAVATORY	PUBLIC	FAUCET	2		
DRINKING FOUNTAIN	PUBLIC	3/4" VALVE	.25		0.5
SUM OF W.S.F.U.					14.5 W.S.F.U.
CONVERT TO GPM					15 GPM
DETERMINE BUILDING WATER SERVICE SIZE					1"

NEW WORK		PLUMBING LEGEND	
—S—	SANITARY	—○—	PIPE ELBOW UP
—V—	VENT	—→—	PIPE ELBOW DOWN
—CW—	DOMESTIC COLD WATER	—◇—	GATE VALVE
—HW—	DOMESTIC HOT WATER	— —	CHECK VALVE
—NG—	NATURAL GAS	—◇—	BALL VALVE
—GD—	GREASE DRAIN	—◇—	CALIBRATED BALANCING VALVE
		—◇—	GAS COCK
		—◇—	DRAIN VALVE W/ 3/4" HPT
		—◇—	FLOOR CLEANOUT
		—◇—	EXTERIOR CLEANOUT
		—◇—	WALL CLEANOUT
		—◇—	VENT THROUGH ROOF (INCREASER AS REQUIRED)
		—◇—	FREEZE PROOF WALL HYDRANT - 3/4"
		—◇—	TAKE OVER POINT

WATER HEATER SCHEDULE									
TAG	TYPE	FUEL	MFR.	MODEL	STORAGE GALLONS	FUEL INPUT	GPH RECOV. @ 100°F	ELECTRICAL	ACCESSORIES / REMARKS
WH-1	STORAGE TYPE	ELECTRIC	RHEEM	XE20P06PU20U0	20	2 KW	-	240/1/60	ASME T&P RELIEF VALVE, ASSE 1070 COMPLIANT MIXING VALVE

PLUMBING FIXTURE SCHEDULE													
TAG	TYPE	MOUNTING	RIM HT.	MFR.	MODEL NO.	MATERIAL	FINISH	CW	HW	TRAP	DRAIN	VENT	TRIM / REMARKS
P-1	ADA FLUSH TANK PRESSURE ASSIST	FLOOR	16 1/2"	AMERICAN STANDARD	2467.016	VITREOUS CHINA	WHITE	1/2"	-	3"	4"	2"	K-7637 SUPPLY, K-4731-C-0 SEAT
P-2	ADA LAVATORY	WALL HUNG	34"	KOHLER	K-1728 "CHESAPEAKE"	VITREOUS CHINA	WHITE	1/2"	1/2"	1 1/4"	1 1/2"	1 1/2"	K-7605-P SUPPLIES, K-7131-A OFFSET DRAIN, K-8998 P-TRAP, K-15243-4 FAUCET & GRID DRAIN, JOSAM #17100 FLOOR MOUNT CARRIER
P-3	UTILITY SINK	-	-	MUSTEE	#10F	-	-	1/2"	1/2"	1 1/4"	1 1/2"	1 1/2"	
P-4	ELECTRIC COOLER	WALL	SEE ARCH	ELKAY	-	-	-	1/2"	1/2"	1 1/4"	1 1/2"	1 1/2"	
P-5	EMER. EYE WASH	WALL		GUARDIAN	-	-	-	1/2"	1/2"	1 1/4"	1 1/2"	1 1/2"	
FCO	FLOOR CLEANOUT	FLOOR		JOSAM	5600(*)	COATED CAST IRON	NIKALOY SATIN						* SIZE TO PIPE, 3" MIN.
WH	FREEZEPROOF WALL HYDRANT	WALL	-	JOSAM	71000	BRONZE	NIKALOY SATIN	3/4"	-	-	-	-	INTEGRAL VACCUUM BREAKER, SPARE CONTROL KEY
WCO	WALL CLEANOUT	WALL	-	JOSAM	5870(*)		POLISHED	-	-	-	-	-	* SIZE TO PIPE, 3" MIN.



Express Oil Change & Tire Engineers

Single Building Right Hand Oil Change

Augusta, GA

FINAL

No.	Description	Date

© 2017 Aho Architects, LLC. All Rights Reserved.

### PLUMBING LEGENDS AND NOTES

Project number	16031
Date	03/29/17
Drawn by	JJH
Checked by	CJD

P001

Scale 12" = 1'-0"

Order Plans