PLUMBING SPECIFICATIONS

Provide all plumbing items indicated on the drawings, described herein or otherwise required for a complete and proper installation, including:
A. Plumbing fixtures, fittings and equipment.
B. Hot and cold water systems.
C. Drain waste and vent piping systems.
D. Indirect waste piping, including all valves, traps, piping and accessories for all equipment. Size per equipment requirements.

Comply with all applicable codes, standards and ordinances, including requirements of the Georgia State Minimum Standard Plumbing Code (2012 International Plumbing Code with all Georgia State Amendments).

The contractor should not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearance. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or to actual building construction, shall be made at no additional cost to the owner.

The submission of a bid or proposal will be construed a evidence that the contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

Fabrication or ordering of any material or equipment prior to verification of site conditions shall be done at the contractor's risk.

All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings.

Coordinate with all trades and verify all equipment rough–in items and locations with the equipment supplier or contractor. All re–work and corrections required due to lack of coordination shall be the contractor's responsibility, and done at no cost to the owner.

Submit shop drawings and material data submittals to the engineer for approval before installation. No substitutions shall be allowed without prior approval by the engineer. Product data for piping, insulation, valves, specialties and all fixtures and equipment scheduled and specified here. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

All equipment shall be U.L. listed.

Installation shall comply with manufacturer requirements including all clearances recommended for proper operation of service. All serviceable parts shall be readily accessible.

Below ground sanitary drain and vent piping shall be solid–wall ASTM D2665 schedule 40 PVC. Install underground, PVC plastic drainage piping according to ASTM D2321. Above ground sanitary drain and vent piping shall be cellular–core ASTM F891 schedule 40 PVC. Install aboveground PVC piping according to ASTM D 2665. All aboveground piping shall be adequately supported. Sanitary drain and vent piping shall have PVC Socket Fittings (ASTM D 2665, made to ASTM D 3311, drain, waste, and vent patterns and to fit Schedule 40 pipe). Slope at 1/8 inch per foot continuously toward public sewer.

All above ground domestic water distribution piping shall be ASTM D 2846, SDR11, schedule 40 CPVC with socket fittings. All piping shall be adequately supported. Disinfect all domestic water piping after installation. All underground domestic water distribution piping 1" and smaller shall be ASTM D 876 & ASTM F 877 PEX with no fittings underground. All underground domestic water distribution piping 1–1/4" and larger shall be ASTM D 1785 schedule 40 PVC with ASTM D 2466 PVC socket fittings.

Insulate all above ceiling and in exterior wall domestic water piping with 3/4" flexible elastomeric. Flexible Elastomeric Insulation shall be closed–cell, sponge– or expanded–rubber materials. Comply with ASTM C 534, Type I for tubular materials.

Fixture tailpieces, wall escutcheon, and traps for lavatories and sinks shall be brass tubing, semi–cast, or cast iron: All brass tubing shall be 17 gage, chrome plated. Grid drains for lavatories.

Lavatory/ Sink supply fittings: NSF Standard: Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components – Health Effects," for supply–fitting materials that will be in contact with potable water. Standard: ASME A112.18.1/CSA B125.1. Supply Stops: Chrome–plated–brass, one–quarter–turn, ball–type valve with inlet connection matching supply piping. Wheel handle operation. Risers: Chrome–plated, soft–copper flexible tube.

All pipe hangers, clamps and channels shall be adequately sized to carry pipe loads and prevent sagging.

All other materials not specifically described but required for a complete and proper installation of work of this section, shall be new, first quality of their respective kinds, and as selected by the contractor subject to acceptance by the engineer.

Lay out the plumbing system in careful coordination with the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a satisfactorily functioning system. Follow the general layout shown on the drawings in all cases except where other work may interfere. Unless shown otherwise, lay out all pipes to fall within partition, wall floor, or roof cavities, and to not require furring other than as shown on the drawings.

Do not cut into or reduce the size of any load–carrying member without the prior approval of the architect. Install all pipes to clear all beams and obstructions.

Permanently close and make weatherproof any openings or penetrations of the building envelope made for plumbing systems. All wall and floor penetrations shall be sleeved. All exterior wall or foundation wall penetrations shall use a mechanical seal.

Provide shut–off balls valves and unions at all water connections to equipment and appliances.

Isolate all dissimilar metals with "EPCO" dielectric unions, except for brass or bronze valves with steel pipe.

Protect the potable water supply against backflow and siphonage from equipment, fixtures, etc., using approved backflow and anti–siphon devices.

Thoroughly clean all piping and equipment. Removing all dirt, rust, oil, and plaster.

Test Sanitary drainage piping by plugging all openings and filling with water to a height equal to a 10 foot head. Allow to stand one hour or longer as required. Repair leaking joints and then re–test.

No work shall be covered until it has been inspected and accepted by the local authority and the engineer.

Test water lines at 100 PSIG. Retain for 24 hours, repair all leaks and retest.

The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. All labor and materials necessary to repair or replace the system, or portions thereof, during that time shall be warranted for a period of one (1) year from the repair or replacement.

Install piping in concealed locations, unless otherwise indicated and except in equipment rooms, and service areas. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal. Install piping to permit valve servicing. Install piping at indicated slopes. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install piping to allow application of insulation. Select system components with pressure rating equal to or greater than system operating pressure. Install escutcheons for penetrations of walls, ceilings, and floors. Verify final equipment locations for roughing–in.

Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

All side wall vent terminals (SWVT) shall be offset a minimum of 10'–0" from all outside air intakes.

Approved manufactures: (Items submitted shall be approved by architect and engineer. Architect and engineer reserve the right to reject any item substituted for basis of design item for any reason.)

China Fixtures: American Standard, Kohler, Toto, Zurn, Sloan
Faucets: Delta, T&S Brass, Chicago Faucets, Zurn, Kohler, Grohe, Moen, Speakman, Symmons
Supplies & Traps: Engineered Brass CO., Mcguire, Charlotte Pipe, Brasscraft, IPS, Watts, Zurn
Water Heaters: A.O. Smith, EEmax, Rheem, Chronomite
Toilet Seats: Bemis, Centoco, Church Seats, Olsonite, Beneke, Zurn, Mainline
Wall Hydrants/ Hose Bibbs: MIFAB, Jay R. Smith, Wade, Watts, Woodford, Zurn

FIXTURE AND EQUIPMENT SCHEDULE

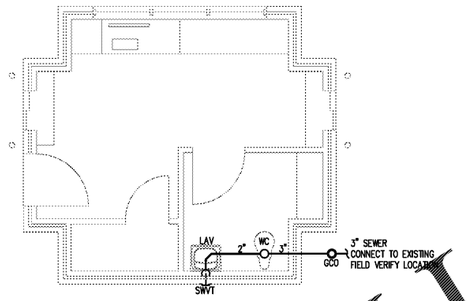
#	FIXTURE TYPE	WASTE BELOW FLOOR	WASTE FIXTURE CONN.	WATER SUPPLY COLD	WATER SUPPLY HOT	WATER FIX. CONN. COLD	WATER FIX. CONN. HOT	MODEL NUMBER
WC	WATER CLOSET	3"	3"	1/2"		3/8"		AMERICAN STANDARD 215A.A.104 WATER CLOSET. CENTOCO 630 SEAT.
LAV	ADA WALL HUNG LAVATORY	2"	1–1/4"	1/2"	1/2"	1/2"	1/2"	AMERICAN STANDARD 0355.012 LAVATORY. MOEN 8430F05 FAUCET.
GCO	GRADE CLEANOUT	3"	3"					WATTS CO–200–RX–4–60.
HB	HOSE BIBB			3/4"		3/4"		WOODFORD 27.
SWVT	SIDE WALL VENT TERMINAL	3"	3"					WATTS MS–8000.

WATER HEATER SCHEDULE

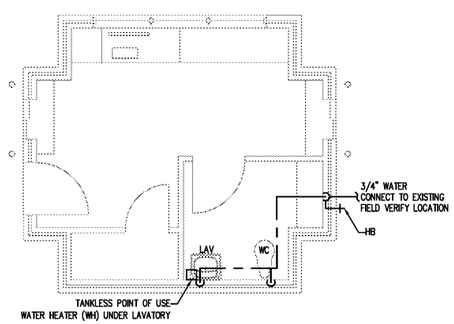
MARK	MANUFACTURER	MODEL NUMBER	TYPE	0.5 GPM RISE	AMPS	KW	VOLTS
WH	AO SMITH	RPVA–24	ELECTRIC TANKLESS	30	20	2.4	120

LEGEND

	COLD WATER	(TYP)	TYPICAL
	HOT WATER	C.T.	COUNTER–TOP
	SEWER VENT	DN	DOWN
	SEWER	CONN.	CONNECTION
	SHUTOFF VALVE	NTS	NOT TO SCALE
	CHECK VALVE	VT	VENT
	PIPE UP	FFE	FINISHED FLOOR ELEVATION
	PIPE DOWN	FLR	FLR
PDI–B	PDI UNIT	VTR	VENT THRU ROOF
(1)	WATER HAMMER ARRESTOR	A/F	ABOVE FINISHED FLOOR
		CW	COLD WATER
		HW	HOT WATER
		B.F.F.	BELOW FINISH FLOOR
		DWGS.	DRAWINGS



1 PLUMBING PLAN - SEWER
SCALE: 1/4"=1'-0"



2 PLUMBING PLAN - WATER
SCALE: 1/4"=1'-0"

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NEW RESTROOMS
AT TOBESOFKEE PARKS
FOR MACON-BIBB COUNTY
MACON, GEORGIA

Revisions:

Sheet Title:
GATEHOUSE
PLUMBING PLANS

TOTAL ENGINEERS
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Project #: 1819 Date: 12/23/19

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