

PLUMBING SPECIFICATIONS  
FOR  
ALTERATIONS AND ADDITIONS  
TO  
THE IVY STREET GARAGE  
ATLANTA, GEORGIA  
FOR  
EVENING COLLEGE  
UNIVERSITY SYSTEM OF GEORGIA  
ATLANTA, GEORGIA

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Architects

Job No. 4506    Date 9/7/45



1. SCOPE:

These specifications are intended to provide for the installation complete in the Building of all plumbing fixtures, all cold water supply piping, soil, waste, vent piping, including all necessary apparatus, valves, and fittings as hereinafter described or called for on the plans accompanying these specifications. This work to include all labor, insurance, etc.

The drawings and specifications shall be considered supplementary one for the other, so that materials and labor indicated, called for, or implied by the one and not by the other, shall be supplied and installed as though specifically called for by both.

2. ORDINANCES, ETC:

The workmanship and materials covered by these specifications shall conform to all ordinances and regulations of the state, county, and city, and other authorities having jurisdiction.

3. PERMITS:

The plumbing work shall include all permits necessary for the installation of this work, and all expenses in connection therewith, also, the obtaining and delivery to the Architect, free of charge, all certificates of inspection issued by authorities having jurisdiction.

4. CHANGES:

The plans accompanying these specifications, indicate generally the location of the plumbing fixtures, piping, etc., and while these are to be followed as closely as possible, all dimensions shall be checked at the building and any necessary changes shall be made to accord with structural or other unforeseen conditions.

5. CUTTING AND REPAIRING:

The plumbing work shall include all cutting and repairing of walls, floors, ceilings, etc., necessary for the installation of the plumbing work, but the work of any other branch of the work shall not be cut without the permission of the Architects or their representative.



5. CUTTING AND REPAIRING: (Cont.)

All necessary cutting and drilling of existing concrete work, necessary for the installation of plumbing work, is part of the plumbing contract. All work of this nature shall be done in a manner approved by the Architect.

6. GUARANTEE:

The plumbing work shall include a guarantee, which shall guarantee to the Owner that if the workmanship or materials covered by these specifications prove defective within one (1) year after acceptance by the Architect or Owner, such defects shall be made good without cost to the Owner.

7. COLD WATER PIPING:

A system of cold water supply piping shall be installed as shown on the drawings, making connection to the ~~hot water heater~~, plumbing fixtures, etc. The supply pipe shall be extended from the connections to the existing piping, as indicated. Provide valves as indicated on the drawings and as herein specified.

All cold water piping shall be galvanized standard weight genuine wrought iron pipe with galvanized cast or malleable iron, beaded or banded, fittings and screwed joints.

8. ICED WATER PIPING:

A system of iced water piping interconnecting the electric water coolers and drinking fountains shall be provided as shown on the drawings. Piping material to be same as specified for cold water piping, and this piping shall be insulated as noted on the drawings.

9. SOIL, WASTE, AND VENT PIPING:

A system of soil, waste, and vent piping shall be installed as shown on the drawings, connecting the discharge outlets of all fixture traps, floor drains, etc., to the house drain and house sewer, and making vent connections through roof. The house sewer or house drain shall be connected as shown.

All soil, waste, and vent piping buried under floor slabs or underground, inside the building walls, and to a distance of five feet (5'-0") outside the building walls, also all such pipes where they pass through the exterior walls of the building, shall be extra heavy cast iron soil pipe. Soil, waste, and vent piping above ground may be standard weight or victory weight cast iron pipe.

All soil, waste, and vent piping two inches (2") and larger shall be cast iron. All waste and vent piping



smaller than two inches (2") shall be galvanized genuine wrought iron pipe with galvanized fittings. Fittings in threaded waste lines shall be recessed drainage fittings.

10. PIPE GENERAL:

All pipe shall be made in accordance with the "Standard Specifications" of the American Society for Testing Materials for pipe of each material.

Wrought iron pipe and steel pipe shall be heavily galvanized. Each length of pipe, fitting, trap, fixture, and device used in the plumbing or drainage system shall be stamped or indelibly marked with the weight or quality thereof and the maker's name or mark.

11. CAST IRON PIPE AND FITTINGS:

Cast iron pipe shall be of the best quality hub and spigot, soil pipe having the Maker's name and weight per foot, clearly cast upon each section.

Fittings for cast iron pipe shall be cast iron, of quality, weight, etc., corresponding to the pipe.

All cast iron pipe and fittings shall be "tar-coated" and shall be sound and free from holes, cracks, and defects of any kind.

12. FITTINGS:

Fittings in wrought iron water supply lines shall be cast or malleable iron, beaded or banded fittings. Fittings in galvanized lines shall be galvanized.

12. EXCAVATING:

All necessary excavating for the water supply pipes, drainage pipes, etc., and the refilling of such trenches, necessary repairing of pavements, sidewalks, etc., shall be included in this work. All trenches to have puddled and tamped backfill, backfilling in twelve inch (12") layers, puddling and tamping each layer compactly.

13. FLASHINGS:

All pipes passing through the roof shall be flashed and counter-flashed with sheet lead weighing at least six (6) pounds per square foot. Base of flashing shall be not less than eighteen inches (18") square.

14. VALVES, GENERAL REQUIREMENTS:

Valves, sill cocks and hose bibbs, etc., shall be furnished and installed as shown on the drawings and as specified herein. All valves shall be of the same manufacture.



15. GATE, GLOBE, AND ANGLE VALVES:

All gate, globe, and angle valves shall be provided with suitable operating wheels, stuffing boxes, and means for packing while open and under pressure.

Valves smaller than two and one-half inches (2-1/2") shall, unless otherwise specified, be bronze and brass throughout with gland boxes, nuts, and screwed bonnets.

Gate valves shall be of the solid wedge type, with double seat.

All valves shall be designed, for at least one hundred and twenty-five pounds (125 lbs.) steam working pressure.

Valves shall be Jenkins Bros., Pratt & Gady, Ohio Injector Co., make or equal.

16. FLOOR AND CEILING PLATES, THIMBLES, ETC:

Approved heavy steel floor plates and ceiling plates, of a type which will remain permanently in position shall be installed on all pipes in finished rooms where they pass through the floors, walls, or ceilings. Wall plates to have prime coat finish; floor plates, chromium finish.

Where pipes pass through masonry walls, steel sleeves shall be used the full thickness of the wall, and of sufficient size to allow for contraction and expansion.

Where pipes pass through concrete floor slabs, metal sleeves filled with sand shall be placed in the forms before the concrete is poured.

17. HANGERS AND SUPPORTS:

Cast iron pipes and tile pipe underground shall be firmly bedded on solid ground on the body of the pipe, and bell holes shall be provided in all trenches. All excavating and back-filling for plumbing pipes shall be included in this work and the bottom of trenches, before the pipe is laid, shall be firmly tamped.

Cast iron soil, waste, and vent piping shall be supported near or at each hub, not including the fittings, at intervals of not more than five feet (5'-0").

Supports for horizontal lines of wrought iron pipe and steel pipe shall be provided at not more than ten feet (10'-0") intervals and at each change in horizontal direction.



17. HANGERS AND SUPPORTS: (Cont.)

Soil, waste, and vent stacks shall be well supported at the base on brick piers or other rigid support and at floor levels.

Supports for cast iron and wrought iron pipe shall be wrought or malleable iron pipe hangers, Grinnell #104, or equal.

All risers shall be properly anchored and allowance made for expansion, in all lines.

Inserts shall be used in the new concrete construction for supporting the hangers. Brackets and caulking type anchors to be used in existing concrete work. Hangers, rods, inserts, brackets, and strap-iron shall be of ample size and weight to safely support the pipe.

18. GENERAL FOR PIPE INSTALLATION:

Horizontal drain and waste pipes shall be carried with a minimum fall of one-fourth inch ( $1/4''$ ) per foot ( $1'0''$ ).

Unions shall be used in the erection of screwed piping so that piping may be taken down without the breakage of fittings.

Reducing fittings shall be used in making reductions in size of pipe.

Wrought iron and steel pipe shall be well reamed after cutting and each pipe shall be turned on end and all loose dirt, scale, etc., shall be knocked out.

All changes in horizontal direction of soil, and other drainage lines, shall be made with long radius fittings or with Y-branches and one-eighth ( $1/8$ ) or one-sixteenth ( $1/16$ ) bends.

19. PIPE JOINTS:

Joints for cast iron pipe and fittings shall be caulked joints, made with a gasket of picked oakum and not less than twelve ounces (12 oz.) of bar lead for every inch of diameter of pipe. All joints in cast iron pipe shall be thoroughly caulked and made perfectly air and water tight.

Joints between lead pipe and cast iron pipe shall be made with approved brass ferrules, solder -wiped to the lead pipe and caulked into the hub of the pipe.

Joints in screwed wrought iron pipe shall be screwed joints, made up with white lead and linseed oil applied to the male threads only.



19. PIPE JOINTS: (Cont.)

Joints in brass pipe and fittings shall be screwed joints. The pipe shall be screwed up the shoulder of the fittings, and in all polished and plated work, no threads shall show at the fittings.

No slip joints or coupling joints in brass pipe will be permitted except on fixture side of traps.

Joints in lead pipe shall be solder-wiped joints.

Joints between lead pipe and wrought screwed pipe or screwed fittings shall be made with heavy brass soldering ferrules or nipples.

Joints between brass traps and brass pipes shall be screwed joints.

20. UNIONS:

Unions on drainage pipes on fixture side of traps may be slip or flanged joints, with soft rubber, leather, or lead gaskets.

Unions in wrought iron pipe shall be galvanized cast or malleable iron unions with brass inserts, where pipe is two inches (2") or smaller.

21. AIR CHAMBERS:

Air chambers shall be provided at all hot water and cold water connections to fixtures and equipment. The chambers shall extend vertically above the fixture connection and shall be full size of the connection and of at least 12" long with top of chamber provided with a cap.

22. VENT PIPES:

Vertical vent pipes shall be carried through the roof separately or shall be connected to the adjacent soil or vent stack. All vent lines shall be dripped at the bottom by connecting to the soil or waste pipe. They shall project at least 12" and not more than 18" above the roof line.

23. CLEAN-OUTS:

Clean-outs shall be provided in soil and waste lines, as shown on the plans and as follows:

At the bottom of each fixture trap which is not integral with the fixture, at the end of each branch drainage line, at each change of horizontal direction, at the foot of



23. CLEAN-OUTS: (Cont.)

each soil and waste stack, and in horizontal lines at intervals of not more than fifty feet (50'-0").

Clean-outs in cast iron pipe shall consist of caulking ferrules and screw caps. The screw caps shall be extra heavy, not less than one-eighth inch (1/8") thick, with solid square or hexagon nuts not less than five-eighths inch (5/8") high and one and one-half inches (1-1/2") in diameter, and having at least six (6) engaging threads tapered and of iron pipe size.

Clean-outs for piping concealed in floor or ceiling construction shall extend through the floor and shall be provided with counter-sunk caps. Clean-outs through floor construction shall be terminated flush with finished floor lines.

24. PIPE COVERING:

All cold water piping, including branches to fixtures, shall be covered with one inch (1") thick wool felt pipe covering with asphalt impregnated inner lining and pasted jackets.

The fittings of all covered piping shall be covered with plastic asbestos and encased with pasted jackets.

Provide three brass lacquered bands to each section of covering and one at each side of each fitting.

Pipe covering shall be Keasby-Mattison make or approved equal.

25. ACID RESISTING PIPE AND FITTINGS:

All acid resisting pipe, fittings, traps, etc., to be of high silicon content iron, having an acid resistance suitable for chemical laboratory use, and shall be Duriron or equal pipe and fittings with caulked joints made up as recommended by the Manufacturer. Capped outlets shall be left, as indicated on the drawings, for future connection by the Owner.

26. TESTS:

All materials used in this work shall be tested by the Manufacturer before shipment.

All drainage, vent, and inside conductor piping shall be tested before fixtures are installed by capping or plugging



26 TESTS: (Cont.)

the openings, filling the entire system with water, and allowing it to stand thus filled for three (3) hours.

All hot and cold water supply piping inside the building, shall be tested before fixtures and faucets are connected with it, by capping or plugging the openings, connecting up a test pump, filling the system with water and applying to a hydrostatic pressure of one hundred and fifty pounds (150 lbs.) per square inch.

Each fixture shall be tested for soundness, stability of support and satisfactory operation of all its parts.

After all fixtures are installed, a smoke or peppermint test shall be applied if required.

All piping shall be absolutely tight under test.

Screwed piping which is not tight under test shall be taken down and reassembled. Joints in cast iron piping not tight under test shall be dug out, and the joints repoured and caulked.

All joints repaired shall be retested.

27. PLUMBING FIXTURES:

Furnish and install plumbing fixtures as shown on the drawings complete with all equipment, fittings, trimmings, etc., as described.

All fixtures shall be grade "A". The name and trade mark of the manufacturer shall be printed or pressed on all closets and lavatories, and a label which cannot be removed without destroying it, containing the manufacturer's name or trade mark, and the quality or class of the fixture shall be affixed to all fixtures, and not removed until after the work has been accepted.

Plumbing fixtures of the Standard Sanitary Mfg. Co. are used as guide, but fixtures of the Kohler Co., Crane Co., or equal, may be used, if in all respects, equal to those mentioned below.

28. FIXTURE LIST:

All Water Closets: "Standard" Plate F2223VS MADERA syphon jet elongated closet with top spud, fitted with Church Sani-black open front seat less cover; No. M532 U.V.B. Imperial flush valve with vacuum breaker and stop, closet floor flange, flange bolts, china caps.



All Urinals: "Standard" Plate F6230C CASAL vitreous china blow-out urinal fitted with Sloan Star flush valve #180 with quiet acting features, vacuum breaker and stop, lag screw, wall hangers.

All Lavatories: "Standard" Plate F367WZ LUCERNE, 20" x 18" vitreous china lavatories with 6" integral back, fitted with B1011 compression faucet for cold water only, faucet hole cover for hot water side, P.O. plug, chain and stopper, 3/8" supply to wall with stop, 1-1/4" "P" trap to wall, wall hangers.

Service Sink: "Standard" Plate 7650, size 22" x 19" ARD-MORE vitreous china service sink, 12" integral back, fitted with P7782L enameled inside "P" trap to floor, B-1141 faucet, faucet hole cover for hot water side, and B-997V plug.

Electric Water Coolers: Halsey Taylor Company's 816AF electric air-cooler bubbler type drinking fountain, fitted with anti-squirt bubbler and self closing control valve. Unit to have three (3) gallon storage capacity and a cooling capacity of not less than 15.2 gallons per hour, cooled from 80° to 50° with ambient room temperature of 80°. Unit to be provided with remote tappings for connection to auxiliary bubbler mounted below unit.

Drinking Fountain: Halsey Taylor No. 2608 vitreous china drinking fountain fitted with anti-squirt bubbler, self closing stop, loose key regulator, brass 1-1/4" "P" trap with metal plate and trap housing. Units to be suitable for use with refrigerated water and shall be insulated to avoid condensation.

GENERAL NOTE:

The Contractor shall state in his bid that he will furnish plumbing fittings in chromium plated finish if plated fittings are available in sufficient time to complete the work. He shall state in his bid the amount to be deducted from his bid should it be necessary to use polished brass fittings instead of chromium plated fittings. He shall notify the Architect in sufficient time relative to the obtainment of plated fittings so that the Architect can make a decision as to which type of fittings shall be used.