

PART I – GENERAL**WORK SPECIFIED HEREIN**

- Complete waste, drain, and vent system for domestic plumbing within the building, to a minimum of 5'-0" outside the building as shown and provide final connection.
- Drain connections to all fixtures, devices and equipment requiring drain connections, including connections to air conditioning equipment, and equipment specified under other Sections.
- Excavation, trenching, backfill, and disposal of excess earth in connection with above system, in accordance with the requirements of Division 2, Site Work.

SUBMITTALS

- Unless otherwise noted, the contractor shall prepare all shop drawings, product literature, etc. only as required to properly coordinate and construct the project.
- Review of submittals by the Professional of Record is limited to specific shop drawings as called for in the Project Manual.

PART II – PRODUCTS**MATERIALS**

- Basic materials, as specified in Section 15101 Basic Materials and Methods Plumbing.
- Plumbing fixtures, equipment, and trim as specified in Section 15105 Plumbing Fixtures, Equipment and Trim.

PART III – EXECUTION**WORKMANSHIP**

- Verify fall measurements before starting work; be responsible for their correctness. Make variations only with Architect's permission.
- Do all cutting and patching of new and existing work necessary to accommodate plumbing. Cut structural members only where permitted by Architect. Perform all excavation and backfill required.
- Coordinate with others to provide necessary holes, slots, chases, etc., to accommodate plumbing as work progresses. Obtain Architect's approval for sizes of all openings.
- Pipe rough-in work shall proceed as rapidly as general construction of building will permit. Complete and test pipe rough-in before insulation of any other finish work is applied.
- Run pipe parallel to building elements and conceal all piping in walls, floors, ceilings, chases, unless otherwise noted on drawings. Install pipe work accurately to fit rough-in drawings of plumbing fixtures, heating equipment, cooling equipment, etc., in which it connects. Install pipes so that contraction and expansion will not damage the work.
- Drain vent lines back to waste lines. Collect vents together into one vent, where possible, to minimize number of vents terminating

through roof. Verify location of fresh air intakes indicated. Offset vents through roof to maintain distance of 10 feet away from said items. Install vent piping with each bend 45 degree minimum from the horizontal wherever structural conditions will permit.

- Vent piping penetrating the roof structure shall be rigidly anchored with angle iron frame work below the roof, bolted to roof structure.
- Locate all pipes out of the way of all doors, windows, service area, access holes, etc. Run no piping in or interfere with, bond beams or other structural elements.
- Test all pipe systems in presence of PETSMART and prove to be tight as per test prescribed by the latest edition - "Uniform Plumbing Code" and/or any other governing provincial or local code. Covering of work before acceptance is prohibited.
- Locate cleanouts as indicated on drawings or at a maximum 50 feet intervals. Fittings shall be long sweep bends, cleanout tees or combination Y and 1/8th bends. Plugs shall be heavy cast brass set with graphite and oil compound. Covers shall be flush with walls or floors and brass plugs shall be located and installed that they are readily accessible for removal. Where cleanouts are installed at fixtures or in plumbing chases, they shall be located above the floor rim of the fixture having the highest flood rim. Bring exterior cleanouts up to grade and set flush in concrete pad with top of pad set flush with grade.
- Slope all waste lines inside building 3" and smaller 1/4" per foot, 4" and larger 1/8" per foot minimum.
- Establish grade lines with surveyor's level. Verify location of all sewer connections before start of work and make necessary grade adjustments.
- Cushion all traps and bearings to minimize transfer of sound.
- Flush piping clean with water after installation.
- Install all plumbing to operate without objectionable noise or vibration.
- Install cleanouts on all waste stacks serving sinks, as indicated on the drawings and on waste lines at all change of directions, 100 foot maximum on center on straight runs and/or as required by local plumbing codes. Cleanouts to be the same size as the piping which they serve. Make all cleanouts accessible by either locating in wall within 6" of ceiling access panel, extending to floor or grade, or locating in wall with removable plate. Where surfacing materials, such as resilient floor covering or ceramic tile is used, install the cleanout with top so that finished surface is smooth and flush.

Where installed in waterproofed slabs, provide cleanouts with a non-puncturing flashing device and anchoring flange. See Section 15101 Basic Materials and Methods for all cleanout information. Insure cleanout plugs are hand tight.

TESTS

After completion inspect all systems and proper flow and make necessary adjustments. Cooperate with other trades in testing work under this section. Soil, waste and vent system shall be filled with water to highest point, not less than 5 psi static head, maintaining pressure without leaks or pressure for eight hours, without any leakage.

END OF SECTION