

**SECTION 01 40 00.01**  
**QUALITY REQUIREMENTS FOR PLUMBING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. All quality-related requirements and standards for plumbing.

**1.02 GENERAL REQUIREMENTS**

- A. The work, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

**1.03 CODES AND STANDARDS**

- A. Comply with Occupational Safety and Health Act (OSHA) requirements.
- B. All Plumbing work requiring a DOB permit must be performed by a NYCHA-approved Plumbing Sub-contractor or performed by the Company's own Plumbing License.

**1.04 FEES, PERMITS AND INSPECTIONS**

- A. Secure all permits and pay all fees required by local and state governing bodies necessary to complete the construction. Failure to investigate all applicable payments before the bid submission shall not constitute grounds for additional monies from the Owner. The Owner shall be furnished with all certificates of approval.
- B. Fees, permits, taxes, or certificates required by governing bodies, Board of Fire Underwriters, OTCR (Office of Technical Certification and Research, Dept of Buildings), or other agencies affecting work as specified herein, shall be obtained and paid for by this Contractor as part of basic contract.
- C. Unless otherwise specifically provided by Code provisions, all required inspections and tests of materials designated for "special inspection" shall be made and witnessed by or under, the direct supervision of a NYS duly licensed professional engineer retained by NYCHA.

**1.05 CARE OF WORK AND SAFEGUARDS**

- A. Protect the work from damage by any cause until it is completed and accepted by the Owner.
- B. Any damaged property resulting from work performed either by this Contractor, his subcontractors, or anyone in his employ shall be repaired and restored to its original state at no cost to the Owner.

**1.06 REFERENCE DOCUMENTS AND STANDARDS**

- A. Accepted plumbing standards and organization whose abbreviations are used to identify such standards are listed below:
  - 1. A.N.S.I., American National Standards Institute, Inc.
  - 2. A.S.S.E., American Society of Sanitary Engineering.
  - 3. A.S.T.M., American Society for Testing and Materials.
  - 4. A.W.W.A., American Water Works Association.
  - 5. C.S., Commercial Standard - National Bureau of Standards.
  - 6. F.S., Federal Specifications.
  - 7. U.L., Underwriters Laboratories.
  - 8. F.M., Factory Mutual.

**1.07 GUARANTEE**

- A. In addition to the requirements stated in the specifications, guarantee all equipment, materials and appurtenances installed to be free from all defects. Upon written notice from the Authority, promptly correct all defects without additional cost to the Owner. Make good, at no extra cost any defects in materials or workmanship that may appear. The guarantee period shall be from one (1) year after final inspection and acceptance of the project.

## **PART 3 EXECUTION**

### **2.01 SUPERVISION**

- A. All work shall be performed by competent mechanics under supervision of an experienced erection supervisor. Upon initiation of construction, keep a suitable force of men (including supervisory personnel) on the site at all times.

### **2.02 COORDINATION**

- A. Schedule construction and time limitations for each phase of the work. Work shall be coordinated to permit proper setting of the work of other trades.
- B. Where piping work and appurtenances are in place prior to completion of adjacent concrete and masonry work, protect work against damage and displacement until construction is completed.

### **2.03 CLEANING AND PROTECTION**

- A. Protect piping, and all other equipment during storage at site, from damage, rain, dirt, and ground water.
- B. After completion of project, clean exterior surface of equipment included in this Division.
- C. During erection protect piping and equipment from damage and dirt. Cap the open top of piping installed vertically.
- D. Contractor shall be fully responsible for the safety of his own trade materials and tools on the job until final completion.
- E. Contractor shall protect the work equipment and material of all other trades from damage by the work or other personnel, and shall make good all damage thus caused.
- F. Contractor shall be responsible for all work, materials and equipment until finally inspected, tested and accepted; protect work against theft, injury or damage; and carefully store material and equipment received on site which are not immediately installed. Close open ends of work with temporary covers or plugs during construction to prevent entry of obstruction material. Contractor shall cover and protect in an acceptable manner to the Architect, all equipments and materials from damage due to water, spray-on fireproofing, construction debris, etc.
- G. Clean equipment and piping of iron cuttings and other foreign matters, as they are installed.

### **2.04 WORK SCHEDULE AND SHUTDOWNS**

- A. Prior to starting of work, submit a proposed schedule and sequence of performing the work. Any overtime necessary to maintain this schedule shall be paid for by the Contractor at no additional cost to the Authority. For two tank systems, only one tank shall be replaced at a time; the other tank shall remain in service until the new tank is in operation.
- B. Under no conditions may water service or any portion thereof be shut down for a period exceeding eight hours in any 24 hour period. Shut down, and draining of the piping systems or any portion thereof is the responsibility of the Contractor. All work shall be performed between the hours of 8:00 A.M. and 4:00 P.M., and only after a minimum of 48 hours notice to the Development management. No shutdown will be permitted on weekends or legal holidays.
- C. There shall be a minimum of interruption to the domestic hot and cold water supply to the tenants. Schedule work so that shutdowns shall be performed only after all peripheral work has been performed and the shutdown made only as required for the final connection.
- D. Notify the Superintendent of the Development and the Project Administrator, New York City Housing Authority, at least forty-eight (48) hours before commencement of work. Sign the Contractors log upon arrival at the Development, alert the Superintendent of the Scope of Work and the location of work planned for the day. Notify the Fire Department of fire standpipe system shutdown.
- E. Notify the tenants (48 Hr. notice) as to the installation dates for each building. The Development Superintendent shall render any possible assistance during scheduling. However, it shall be the Contractor's responsibility to schedule his work with the tenants of the Development.

- F. In performing this work the Contractor shall, at his own expense provide temporary piping or means of providing water supply or making any temporary connections. All such work shall be performed in accordance with the rules and regulations of all public agencies having jurisdiction and the Contractor shall have sole responsibility for obtaining any necessary approvals.
- G. Prior to restoration of hot and cold water service the Contractor shall, with his own staff, inspect all apartments affected by the water shutoff to insure that all faucets are secured, to prevent flooding. The Authority will provide the Contractor access to the apartments for this purpose

#### **2.05 CUTTING AND PATCHING**

- A. Cutting, chasing, or boring in construction shall be done by this Contractor. Where existing foundations or walls below grade are involved, specific instructions shall first be obtained from the Authority.
- B. Cutting, chasing or boring will not be permitted in bearing walls, trusses, girders, or similar structural items unless special permission is obtained from the Authority. Be responsible for damages resulting from failure to observe this provision.
- C. All openings and cuttings shall be done as neatly as possible and shall be filled, patched and finished with material equal to existing.

#### **2.06 ROUGH-IN**

- A. Verify final locations for rough-ins with field measurements and with the requirements of the actual equipment to be connected.

#### **2.07 WELDING PROCEDURES**

- A. Solder joints shall conform to ANSI B 9.1 code for pressure piping.
- B. Brazed joints shall conform to ANSI B 9.1 code for pressure piping and ANSI/ASHRAE standard 15-78.
- C. Brazed joints are to be made up with brazing filler metal - an alloy of copper-phosphorus (BCuP) containing no more than 15 percent silver in accordance with Fed. Spec. QQ-B-650 (to be cadmium and lead free).
- D. Soldered joints are to be coated with a paste form of flux consisting of a petrolatum base impregnated with zinc and ammonium chloride.
- E. Soldered joints are not to be "pretinned" prior to assembly. Soldered and brazed joints shall be thoroughly cleaned prior to assembly.

#### **2.08 ADJUSTING AND BALANCING**

- A. Make all required adjustments to plumbing system devices until all specified performances are met.

#### **2.09 CLEAN-UP**

- A. Be responsible for the general clean up of all areas affected by the work in the Contract. All rubbish and accumulative material shall be removed from the premises and the premises left "broom clean" upon completion.

#### **2.10 IDENTIFICATIONS**

- A. Piping System:
  - 1. All piping systems shall be identified by the name of contents and the direction of flow in accordance with ANSI A13.1 (1981).
  - 2. Name of contents and directional arrows shall be placed near each valve, on both sides of pipes passing through walls, on long pipe runs at 30-foot intervals.
  - 3. Names of contents and directional arrows shall be laminated in plastic and wraparound pipe marker as manufactured by Seton Nameplate Co., or approved equal.

#### **2.11 SCAFFOLDING AND HOISTING EQUIPMENT**

- A. Provide all scaffolding, ladders and other equipment required for the proper execution of this work, all of which must conform to all laws, rules and regulations governing same.

- B. Furnish, install, operate and maintain in safe condition hoisting equipment and machinery required for the project to properly carry out and complete the work, except as may otherwise be specifically provided for in each trade sections of Specifications.
- C. Hoisting equipment and machinery, and operation to comply in all respects to applicable federal, state, and local laws, ordinances, codes, rules, and regulations applicable to the work.
- D. Remove equipment from job site after completion.