

**SECTION 01420
CONSTRUCTION REVIEW AND
ACCEPTANCE PROCESS
WATER SUPPLY**

PART I GENERAL

1.01 PRECONSTRUCTION MEETING

- A. Sequence
 - 1. Prior to Shop Drawings
- B. Prerequisites
 - 1. Final Plan Approval
 - 2. Executed water/sewer service agreements
 - 3. Escrow established
 - 4. Linens signed
- C. Notification
 - 1. Authority Engineer
- D. Participants
 - 1. Authority Staff
 - 2. Authority Engineer
 - 3. Developer
 - 4. Developer's Engineer
 - 5. Contractor(s)
 - 6. Others as required
- E. Distribution of Stamped Plans - three (3) sets to Authority.

1.02 CONSTRUCTION REVIEW

- A. Sequence
 - 1. Throughout Construction

B. Notification

1. Notify the following 48 hours in advance (minimum) before commencing construction.
 - a. Notify Authority Engineer.
 - b. Notify Authority Manager to turn on water before making taps and construction services.

Contractor must not operate water system valves or hydrants of systems that are operating.

C. Process

1. Disinfectant must be applied to mains as they are constructed. AWWA C651-92 tablet method is to be used unless alternate is approved.
2. All taps should be made when mains are under pressure.
3. Hydrants shall be installed with the large (steamer) connection facing the street.
4. The Authority will be responsible for bagging of hydrants as required.
5. Authority Engineer shall make visits to the site at intervals appropriate to the various states of construction to observe as an experienced and qualified design professional, the progress and quality of the executed work of Contractor(s) and to determine in general if such work is proceeding in accordance with the approved plans and Authority Standards. Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of such work. Authority Engineer shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by contractor(s) or the safety precautions and programs incident to the work of Contractor(s). Authority Engineer's efforts will be directed toward providing a greater degree of confidence for Authority that the completed work of Contractor(s) will conform to the approved plans and Authority standards, but Authority Engineer shall not be responsible for the failure of Contractor(s) to perform the construction work in accordance with the approved plans and Authority standards.
6. During such visits and on the basis of his on-site observations, Authority Engineer shall keep Authority informed of the progress of the work, shall endeavor to guard Authority against defects and deficiencies in Contractor(s)' work and may disapprove or reject work failing to conform to the approved plans and Authority standards.
7. Engineer will submit one copy of all site visit reports to the Authority weekly.
8. Authority may elect to inspect in conjunction with Engineer and advise Engineer of any deficiencies. Authority inspectors shall not make or approve field

changes, but rather act in an advisory capacity to Engineer who shall have final say in all such matters.

1.03 TESTING - PRESSURE

A. Sequence

1. Follow base paving

B. Prerequisite

1. All service to be installed. Testing will include service line (to curb stops).
2. Testing prior to minimum base paving is at the option of and convenience of Developer/Contractor.

C. Notification

1. Notify Authority Engineer 48 hours in advance.
2. Consultant will notify Hilltown Authority.

D. Process

1. With the Authority present, flush out all dirt and debris, after proper disinfecting, and blow off air in all mains and services before starting pressure test.
2. Pressure test in strict conformance with AWWA Standards as adopted. This will never be less than a two-hour test at not less than 150 psig at all times during test.
3. Test equipment shall consist of a pump, a water supply (such as a tank truck) and an accurate test gauge (minimum 4-inch, 2% accuracy, and pressure snubbed or liquid filled). A water meter or calibrated tank shall be used for measuring leakage.
4. If leakage test fails, test shall be repeated as often as necessary until all parts of the installed system passes. Leakage will be calculated from drawings using AWWA Standards as adopted.

1.04 TESTING - BACTERIOLOGICAL

A. Sequence

1. Following pressure testing.

B. Prerequisite

1. Pressure testing completed.

2. Authority must be present during flushing lines of chlorine residual and debris. Owner/Contractor must assure adequate dechlorination and erosion control during flushing.

C. Notification

1. Notify Authority Manager two weeks prior to intended use of system.

D. Process

1. Notify Authority Manager at least 2 weeks in advance of application for occupancy permit. The Authority will collect samples and conduct the tests.
2. A Developer will be required to disinfect water main again until satisfactory test is made. A satisfactory test shall be both 0 (zero) coliforms per 100 ml and a heterotrophic plate count of less than 500 per 100 ml.
3. No permanent or temporary Certificates of Occupancy will be issued without full satisfactory test reports received by the Authority.
4. Authority will notify Developer that test has been conducted and its results.

1.05 APPROVAL FOR USE

A. Sequence

1. Following successful bacteriological test.
2. Following preparation and completion of punch list.

B. Prerequisite

1. Successful testing completed.
2. All upstream water lines have been accepted.

C. Notification

1. Developer notifies Authority Engineer 14 days prior to request for occupancy permit.
2. Authority Engineer will notify Authority Manager.
3. Authority Engineer will issue recommendation to Authority for acceptance by Authority following successful inspection and completion of all punch list items.
4. Authority will issue final acceptance letter.

D. Process

1. Final Inspection and Acceptance.

- a. Streets must be paved with base and all lots at final grade near curb stops and valves.
- b. Hydrants must be at the final elevation; in the right position; and in perfect operating condition.
- c. Valves and valve boxes, including blow-offs and curb stops, shall be free of water and debris at final elevation. All valves must pass test for proper operation.
- d. Elevation of water mains and services shall be measured from final grade and shall have a minimum of 42 inches of cover to top of pipe from grade.
- e. If final inspection is satisfactory, Developer may request Authority to activate system using interconnecting valves.

1.06 RECONSTRUCTION AND ADDITIONS

- A. Pressure and bacteriological tests must be repeated if there are any additions or reconstruction after acceptance and prior to dedication.

1.07 APPROVAL FOR DEDICATION

A. Sequence

1. Following acceptance of facilities for use.
2. Not more than two months prior to date of anticipated dedication.

B. Prerequisite

1. Acceptance for use.
2. Completion of punch list.
3. Final Paving is in place and all grades are final.

C. Notification

1. Developer to notify Authority Manager 45 days prior to date of anticipated dedication or as otherwise provided by state law.
2. Authority Manager to notify:
 - a. Authority Engineer

D. Process

1. A pre-dedication walk-through will be conducted as follows:
 - a. Coordinated by Authority Engineer.
 - b. Conducted after final paving.
 - c. All valves, hydrants and other appurtenances located and operated.
 - d. All valve boxes, curb boxes, hydrants shall be set at final grade with final paving in place.
2. Participants will be notified by Authority Engineer and include:
 - a. Authority Manager
 - b. Contractor
 - c. Developer
3. Punch List
 - a. The Authority Engineer will generate a draft punch list within three days of the walk-through and distribute to all participants as well as Authority Manager. Comments on the draft list shall be received by Authority Engineer for five (5) subsequent days after which the punch list will be appropriately amended and issued to all participants. Punch list may be amended as deemed necessary by Authority Engineer.
4. Other Requirements
 - a. Legal descriptions of all easements and land to be dedicated.
 - b. As-built drawings signed and sealed by Developer's Engineer.
5. Dedication
 - a. The Authority Engineer will make a recommendation on dedication to the Authority Manager detailing the punch list in order to comply with Section 510 of the PA Municipal Planning Code. Once all items are completed satisfactorily, Authority Engineer will so notify Authority with copies to Developer, Contractor.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

(Not Used)

END OF SECTION