

## ITEM 476

### HYDROSTATIC TESTING OF PRESSURE LINES

476.1 Description. This item governs for the furnishing of all equipment and the method for performing hydrostatic testing of pressure lines.

After the pipe has been laid and backfilled and prior to the placement of paving, newly laid pressure lines shall be subjected to the hydrostatic testing described herein.

476.2 Performance and Design Requirements. For any section being tested, apply pressure such that at the highest point in any section, pressure to be 125 psi or the pressure specified by the Special Provision to this item.

The permissible leakage shall not exceed that determined from the following formula:

$$L = ND P / 3700$$

Where L= Allowable leakage in gallons per hour

N= Number of rubber gasket joints or rubber seal valves

D= Nominal diameter of pipe or valve, in inches

P= Test pressure during leakage test, in pounds per square inch, gage.

Leakage is defined as the quantity of water supplied into newly laid pipe, or any valved section thereto, necessary to maintain specified leakage test pressure, after pipe has been filled with water and air expelled and the specified test pressure has been applied.

Exposed joints are to be tested for not less than 2-hours with no allowable leakage. Covered joints shall be tested for a minimum of 6 hours.

If leakage at the end of the 6-hour period exceeds the allowable by less than 25 percent, test to continue for not less than 18 additional hours.

476.3 Testing. To test, fill each valved section of the pipe slowly with water and apply the specified test pressure, measured at the point of highest elevation, by means of a pump connected to the pipe. Contractor shall furnish the pump, pipe connections, necessary apparatus, gauges and meters. Contractors shall furnish the necessary labor and assistance for conducting the tests. All testing shall be subject to the approval of the Engineer.

Before applying the specified test pressure, expel all air from the pipe. To accomplish this, make taps in the pipe, if necessary, at points of highest elevation. On completion of tests, taps to be tightly plugged with brass fittings.

At intervals during the test, Contractor shall inspect the route of the pipe to disclose leakage greater than that specified; locate and repair defective joints or defective pipe until testing proves that the leakage is within the specified allowance.

476.4 Measurement and Payment. No separate payment shall be made for work performed under this item. Include the cost in the contract prices bid for items of which this work is a component.

END OF ITEM 476