

# Contractor's Material and Test Certificate for Underground Piping

## PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with a approving authority's requirements or local ordinances.

Property name	Date	
Property address		
<b>Plans</b>	Accepted by approving authorities (names)	
	Address	
	Installation conforms to accepted plans <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
	Equipment used is approved If no, state deviations <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
<b>Instructions</b>	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? If no, explain <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
	Have copies of appropriate instructions and care and maintenance charts been left on premises? If no, explain <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
<b>Location</b>	Supplies buildings	
<b>Underground pipes and joints</b>	Pipe types and class	Type joint
	Pipe conforms to _____ standard <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> Fittings conform to _____ standard <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If no, explain	
	Joints needing anchorage clamped, strapped, or blocked in accordance with _____ standard <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If no, explain	
	<p><b>Test description</b></p> <p><u>Flushing:</u> Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 390 gpm (1476 L/min) for 4 in. pipe, 880 gpm (3331 L/min) for 6 in. pipe, 1560 gpm (5905 L/min) for 8 in. pipe, 2440 gpm (9235 L/min) for 10 in. pipe, and 3520 gpm (13,323 L/min) for 12 in. pipe. When supply cannot produce stipulated flow rates, obtain maximum available.</p> <p><u>Hydrostatic:</u> All piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at 200 psi (13.8 bar) or 50 psi (3.5 bar) in excess of the system working pressure, whichever is greater, and shall maintain that pressure ± 5 psi (0.35 bar) for 2 hours.</p> <p><u>Hydrostatic Testing Allowance:</u> Where additional water is added to the system to maintain the test pressures required by 10.10.2.2.1, the amount of water shall be measured and shall not exceed the limits of the following equation (For metric equation, see 10.10.2.2.6):</p> $L = \frac{SD\sqrt{P}}{148,000}$ <p style="margin-left: 100px;"> <i>L</i> = testing allowance (makeup water), in gallons per hour  <i>S</i> = length of pipe tested, in feet  <i>D</i> = nominal diameter of the pipe, in inches  <i>P</i> = average test pressure during the hydrostatic test, in pounds per square inch (gauge)         </p>	
<b>Flushing tests</b>	New underground piping flushed according to _____ standard by (company) <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If no, explain	
	How flushing flow was obtained <input type="checkbox"/> Public water <input type="checkbox"/> Tank or reservoir <input type="checkbox"/> Fire pump	Through what type opening <input type="checkbox"/> Hydrant butt <input type="checkbox"/> Open pipe
	Lead-ins flushed according to _____ standard by (company) <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If no, explain	
	How flushing flow was obtained <input type="checkbox"/> Public water <input type="checkbox"/> Tank or reservoir <input type="checkbox"/> Fire pump	Through what type opening <input type="checkbox"/> Y connection to flange and spigot <input type="checkbox"/> Open pipe

FIGURE 10.10.1 Sample of Contractor's Material and Test Certificate for Underground Piping.

Hydrostatic test	All new underground piping hydrostatically tested at _____ psi for _____ hours		Joints covered <input type="checkbox"/> Yes <input type="checkbox"/> No	
Leakage test	Total amount of leakage measured _____ gallons _____ hours			
	Allowable leakage _____ gallons _____ hours			
Hydrants	Number installed	Type and make		All operate satisfactorily <input type="checkbox"/> Yes <input type="checkbox"/> No
Control valves	Water control valves left wide open If no, state reason			<input type="checkbox"/> Yes <input type="checkbox"/> No
	Hose threads of fire department connections and hydrants interchangeable with those of fire department answering alarm			<input type="checkbox"/> Yes <input type="checkbox"/> No
Remarks	Date left in service			
Signatures	Name of installing contractor			
	<b>Tests witnessed by</b>			
	For property owner (signed)	Title	Date	
	For installing contractor (signed)	Title	Date	
Additional explanation and notes				

FIGURE 10.10.1 *Continued*