



City of Peoria Fire-Medical Department

8401 West Monroe Street, Peoria, Arizona 85345
Phone: 623-773-7279 Fax: 623-773-7295

Fire Hydrant Flow Test Request

In order for a fire hydrant flow test to be scheduled, the following information must be provided and this form faxed to the Fire Department at (623) 773-7295. Once this form is received, the request will be reviewed and the person listed on this form will be contacted to schedule a specific time to witness the flow test. Failure to provide all of the required information or incorrect information can delay or prevent the scheduling of the test.

Project Information

Required fire flow for the project: _____ gpm @ 20 psi
Project Name: _____
Project Address: _____
Project Permit Number: _____
City of Peoria water service: Yes _____ No _____
Private water service: Yes _____ No _____ Water Company: _____

Billing Information (flow tests are billed out at \$50.00 for each test)

Company Name: _____
Company Address: _____
Phone Number: _____
Fax Number: _____
Contact Person: _____

Disclaimers

- The Fire Department only witnesses the fire hydrant flow test and does not provide the equipment or personnel necessary to perform the tests.
- It is the responsibility of the company performing the test to ascertain what the required fire flow for the project is, which utility company the water system belongs to, that the fire hydrants tested are in the correct water service/pressure zone for the project, etc.
- Fire flow requirements are determined by applying the total building square footage and building construction type to Table B105.1 of the *International Fire Code*. Reductions in the required fire flow are not automatic and must be approved in writing by the Fire Marshal. In claiming a reduction, a copy of the approval must be provided.
- Fire hydrant flow tests can be cancelled by the Fire Inspector due to inclement weather, safety concerns, insufficient access to a job site or if the contractor is late (more than 15 minutes) to the appointment. Tests not cancelled prior to the Fire Inspector's arrival will be charged the inspection fee and will be required to reschedule the test.
- **Fire hydrant flow tests are not official until the test results are sent to the Fire Inspector by the testing company and recorded into the* Fire Department database. The test results will be reviewed and the contractor will be notified should the flow test results not meet the requirements. Plans are not approved until tests are approved and recorded.**
- Fire hydrant flow tests are to be conducted per the included City of Peoria Fire-Medical Department's written policy (SOP 600.05) and NFPA 291 *Recommended Practices for Fire Flow Testing and Marking of Fire Hydrants* (2007).
- The contractor is responsible for any and all damages or clean-up associated with the flow test. The contractor shall provide the necessary clean-up or repairs at the time of the flow test. Clean-up or repairs in a City of Peoria right of way that are not corrected immediately will be corrected by the Public Works Division and charged back to the contractor.
- Water from flow tests will not be allowed to flow on to major streets or roads without approved safety precautions in place. Prior approval in the form of an approved traffic control plan will be required from the Engineering Department – Traffic Engineering.
- By signing this form you are agreeing to the terms and conditions stated for conducting a fire hydrant flow test with the City of Peoria Fire-Medical Department.

Signature: _____
Print Name: _____
Date: _____



Fire Hydrant Flow Test Policy

This policy memorandum is derived from City of Peoria Fire-Medical Department SOP 600.05

PURPOSE

Fire flow tests are conducted on water distribution systems to determine the rate of flow available at various locations for fire fighting purposes and systems design.

POLICY

In order to accurately predict the strength of the distributing system, the fire flow test shall comply with the NFPA 291 *Recommended Practice for Fire Flow Testing and Marking of Hydrants* (2007) with modifications. The flow tests for design purposes shall be witnessed by authorized personnel of City of Peoria Fire-Medical Department.

PROCEDURE

- Tests are to be conducted during a period of ordinary demand that approximates maximum daily demand. The testing time is between 6:00am and 8:00am. The testing agents shall check with the Fire Department and/or the Utilities Department for system map prior to the tests.
 - This is to verify that the both the test hydrant and the flow hydrant are in the same pressure zone.
- One hydrant, designated the residual hydrant, is chosen to be the hydrant where normal static pressure will be observed with the other hydrants in the group closed, and where the residual pressure will be observed with other hydrants flowing.
- The residual hydrant is chosen so it will be located between the hydrant to be flowed and the large mains that constitute the immediate sources of water supply in the area.
- To obtain a satisfactory theoretical calculation of the expected flows, sufficient discharge should be achieved to cause a drop in pressure at the residual hydrant of at least 25 percent, or you must flow the total demand necessary (fire flow) for fire-fighting purposes.
 - Exception 1: When the actual flow is larger than the required flow, the 25% pressure drop shall not be required.
- In the tests without a 25% pressure drop, the actual recorded flow will be used as the available flow at 20psi.
- All pressure gauges should be calibrated at least every 12 months.
- From the standpoint of accuracy, the 2.5-in. outlets should be used. When two or more hydrants are open, and the pressure drop is less than 25%, the pumper outlets (4.5") can be used. The coefficient of discharge of 0.83 should be applied for pumper outlets with a pitot reading of 7psi or greater.
- The test results shall be prepared and submitted in an acceptable format and shall be calculated to 20 psi.
- The flow test results are to be recorded in the Zoll database. The flow test results are valid for 180 days unless the Fire Code Official determines that the area is subject to changes due to development.

