



**Technical Guideline**

<b>Issue Date</b>	1/18/11 Update – Initial issue date 6/15/94 rev 12/1/94
<b>Code/Section</b>	2006 Uniform Plumbing Code (UPC), Section 602 & 603 City Code Section 37-114 (b)
<b>Approved:</b>	Julie Belyeu, Building Official
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<b>References:</b>	City Code Chapter 37, 2006 Uniform Plumbing Code, AZ Title R18-4-215

**LOCATION OF SECONDARY BACKFLOW PREVENTION ASSEMBLIES**

**PURPOSE**

The intent of City Code Chapter 37 is to provide SECONDARY backflow prevention for the City water system in addition to the PRIMARY protection required by the Phoenix (Uniform) Plumbing Code.

Based on this intent, the general preference is for required SECONDARY backflow prevention assemblies to be located "as close as practicable" to the point of water service delivery (typically the water meter).

Section 37-1. "POINT OF SERVICE DELIVERY" MEANS THE TERMINAL END OF A SERVICE CONNECTION FROM THE PUBLIC WATER SYSTEM. IF A METER IS INSTALLED AT THE END OF THE SERVICE CONNECTION, THEN THE POINT OF SERVICE DELIVERY SHALL MEAN THE DOWNSTREAM END (I.E., CUSTOMER'S SIDE) OF THE METER. IF AN UNMETERED CONNECTION EXISTS, THEN THE POINT OF SERVICE DELIVERY SHALL MEAN AT THE POINT OF DEMARCATION BETWEEN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS AND PRIVATE PROPERTY.

Section 37-144 (f) "CLOSE AS PRACTICABLE" IS THE POINT NEAREST THE SERVICE DELIVERY WHERE THE ASSEMBLY CAN BE INSTALLED. WHERE THE ASSEMBLY INSTALLATION LOCATION MAY INTERFERE WITH OBSTACLES SUCH AS DRIVEWAYS AND SIDEWALKS, THEN CLOSE AS PRACTICABLE IS THE NEAREST POINT AFTER THE OBSTACLE, BUT IN NO EVENT BEYOND THE FIRST TAP.

Section 37-144 (g) AN AIR GAP SEPARATION SHALL BE LOCATED AS CLOSE AS PRACTICABLE TO THE CUSTOMER'S POINT OF SERVICE DELIVERY. ALL PIPING BETWEEN THE CUSTOMER'S CONNECTION AND RECEIVING TANK SHALL BE ENTIRELY VISIBLE UNLESS OTHERWISE APPROVED BY THE DIRECTOR.

**A. GENERAL GUIDELINES FOR LOCATION OF SECONDARY BACKFLOW PREVENTION ASSEMBLIES.**

- A1. The basic criteria call for location of backflow prevention assemblies as close as practicable to the point of water service to the property.
- A2. Any alternative design MUST provide adequate protection for the public water supply.
- A3. Adequate protection MUST be located ahead of every potential cross-connection.

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- A4. The closer the assembly is located to the water meter the better.
- A5. Assemblies must NOT be located in traffic visibility triangles or where utility devices are prohibited by the Zoning Ordinance.
- A6. Locating an assembly behind the front yard zoning setback line, just around a building corner, or otherwise in coordination with a building design element is typically acceptable without special justification provided the reason for the chosen location is readily apparent on the plan.

## **B. APPLICATION PROCEDURES**

### **B1. PERMITS REQUIRED**

- Installation, alteration or replacement of all backflow prevention assemblies requires a plumbing permit from the Planning and Development Services Department. This includes internal (primary or plumbing code-required assemblies) and external or secondary protection assemblies. All backflow prevention assemblies located on a fire line or fire sprinkler system line require permits from both the Planning and Development Services and Fire Departments.

### **B2. PLANS**

- Plumbing plans must include the location and size of all water services and location, type and size of all required backflow prevention assemblies.
- Site plans must also include the location and type of all required secondary backflow prevention assemblies, including the location of all water service piping between the assembly and the water meter(s).

### **B3. SPECIFICATIONS**

- Backflow prevention assemblies shall comply with all plumbing code requirements and in addition shall be certified by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR) or other such third party certifying entity as may be approved by the Arizona Department of Environmental Quality.