

Fire Protection Backflow Prevention

New Fire Sprinkler Systems:

All new fire sprinkler systems installed in the City of Plano will require backflow prevention.

Existing Building Sprinkler Systems:

Interior finish projects **exceeding 10,000 square feet or affecting 50 or more sprinkler heads** will require the existing building to be equipped with a new backflow preventer as approved by the Utility Operations Department.

A thorough hydraulic analysis, including plans, hydraulic analysis, revised hydraulic calculations, new fire flow data, and all necessary system modifications to accommodate the additional friction loss will need to be provided for existing systems being retrofit with a backflow preventer.

The existing system design will need to meet the safety factor that the system was built under as shown below. New areas of a building or changes to the existing design to a new hazard will need to meet the current sprinkler design requirements.

Existing System Safety Factor:

- Prior to the 1997 Uniform Fire Code (3-28-1998) systems will need a 10 % safety factor is required.
- Under the 1997 Uniform Fire Code (3-28-1998 to 9-10-2001) a 5 psi safety factor is required.
- Since the 2000 International Fire Code adoption (9-10-2001) a 10 psi safety factor is required.

All backflow assemblies shall be located inside of the building. Adequate room shall be accounted for and shown on the approved plans.

All backflow assemblies must be capable of being monitored electronically or locked in the full and open position.

Backflow assemblies must also be listed for use with fire protection systems.

All Fire Sprinkler Plan Submittals:

Must include a backflow prevention statement stating the make and model of the existing backflow preventer provided for the buildings fire sprinkler systems or shall state that an existing backflow preventer is not provided for the main building fire sprinkler systems.

For additional information, contact the City of Plano Utility Operations department at 972-769-4160.