

# Backflow Preventers in Urban Areas

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Miami-Dade Water & Sewer Department

# What are Backflow Preventers?

- Backflow preventers are devices that protect the public water supply from contamination.



# Who are Requires Backflow Preventers?

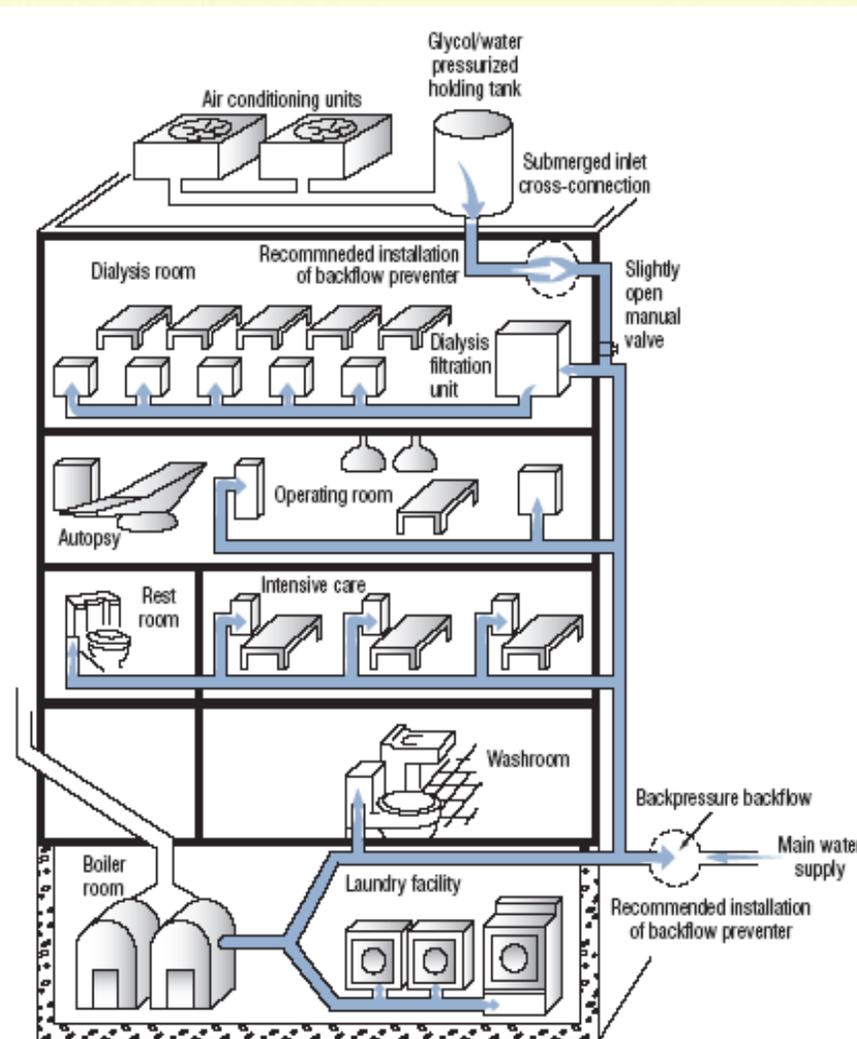
- Backflow preventers are required by Federal, State, and Municipal laws
  - Safe Drinking Water Act of 1974
    - 21 CFR section 1250
  - Florida Administrative Code
    - Section 62-555.360
  - Miami-Dade County Code
    - Chapter 32, Article VIII (sections 32-151 - 32-169)

# Why are Backflow Preventers Required?

## Prevent Backflow

### “Backpressure”

- In this example, backflow can occur at any of the connections in the plumbing system.
- Due to the elevation or the use, the pressure in the customer’s piping can become greater than the water system pressure.

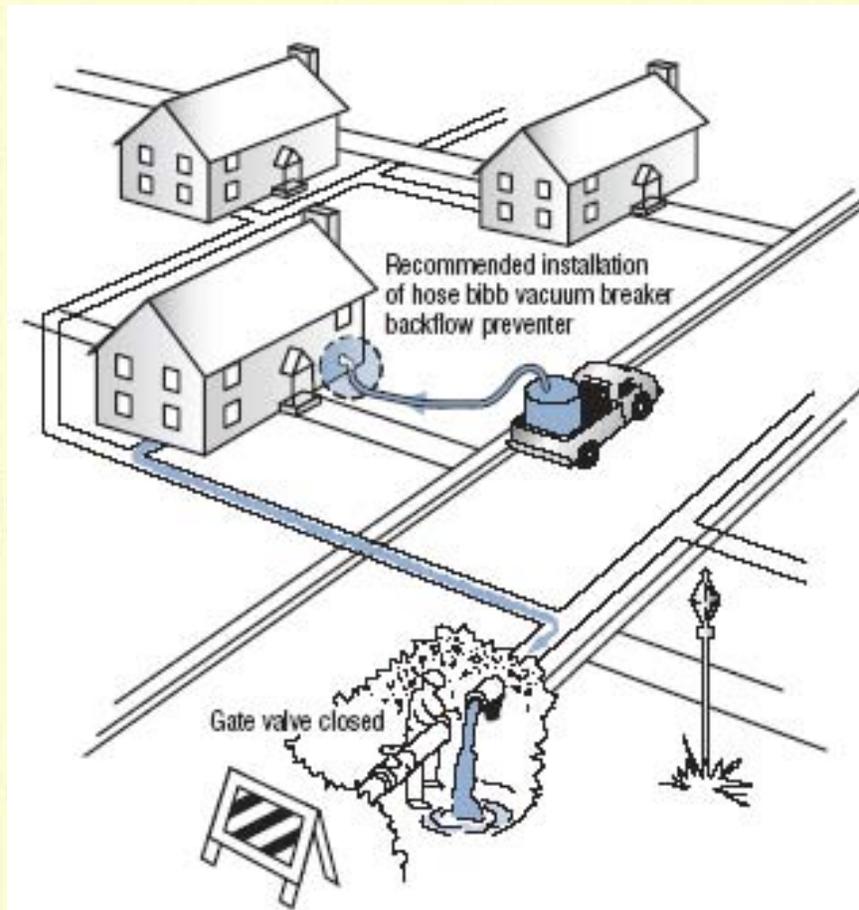


# Why are Backflow Preventers Required?

## Prevent Backflow

### “Backsiphonage”

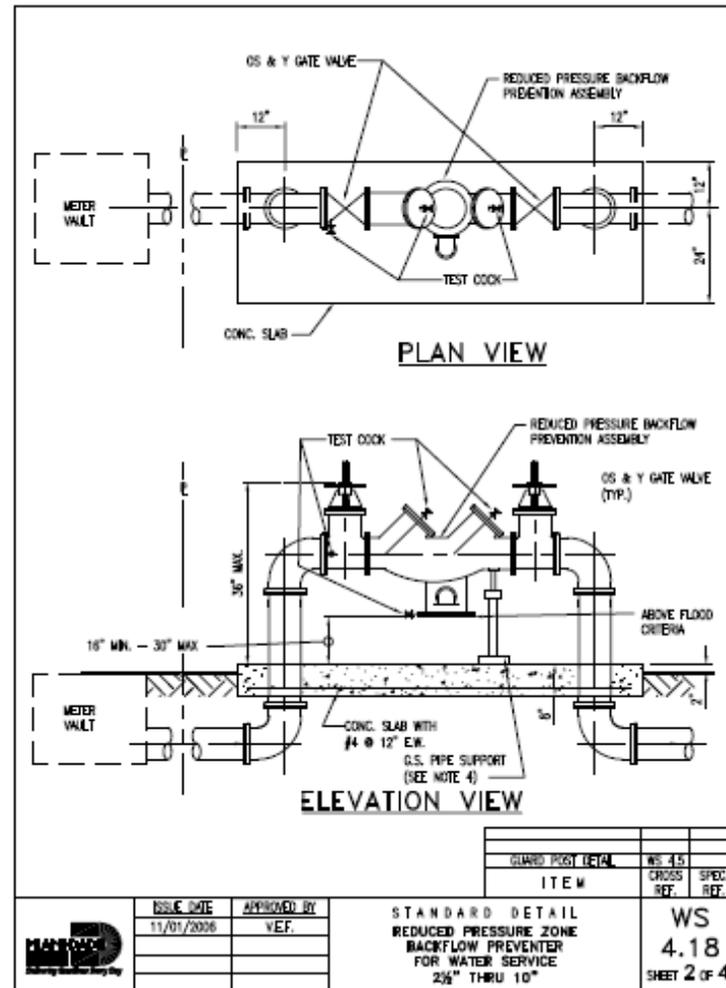
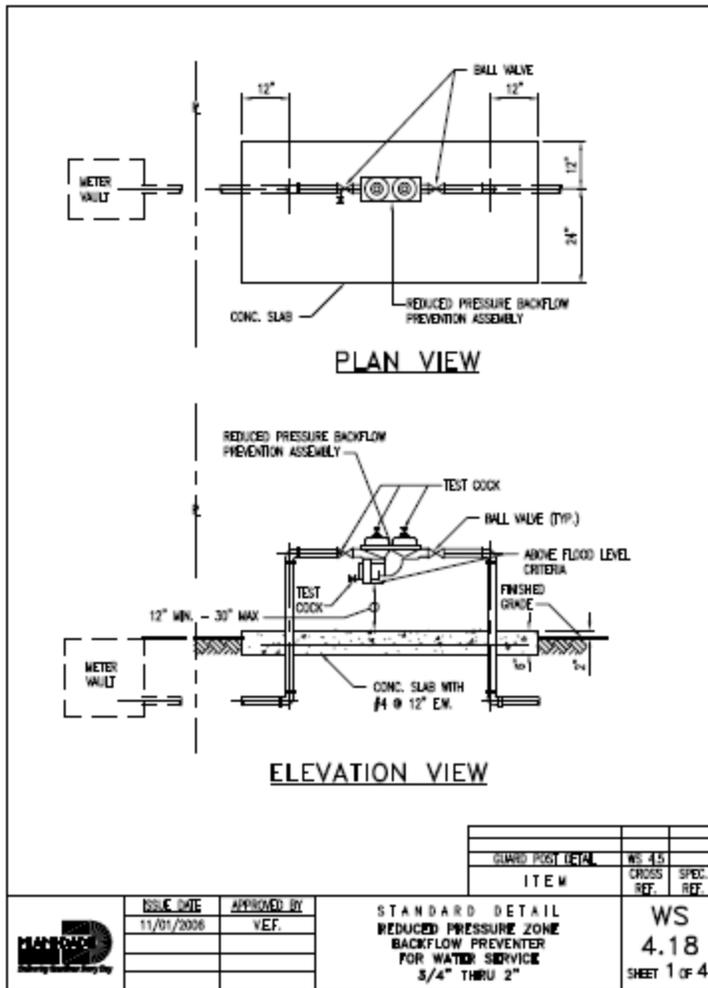
- The water pressure in the area of the a water main break can lower, causing a negative pressure in the piping.
- In this example, an unknown substance can be siphoned into the public water system.



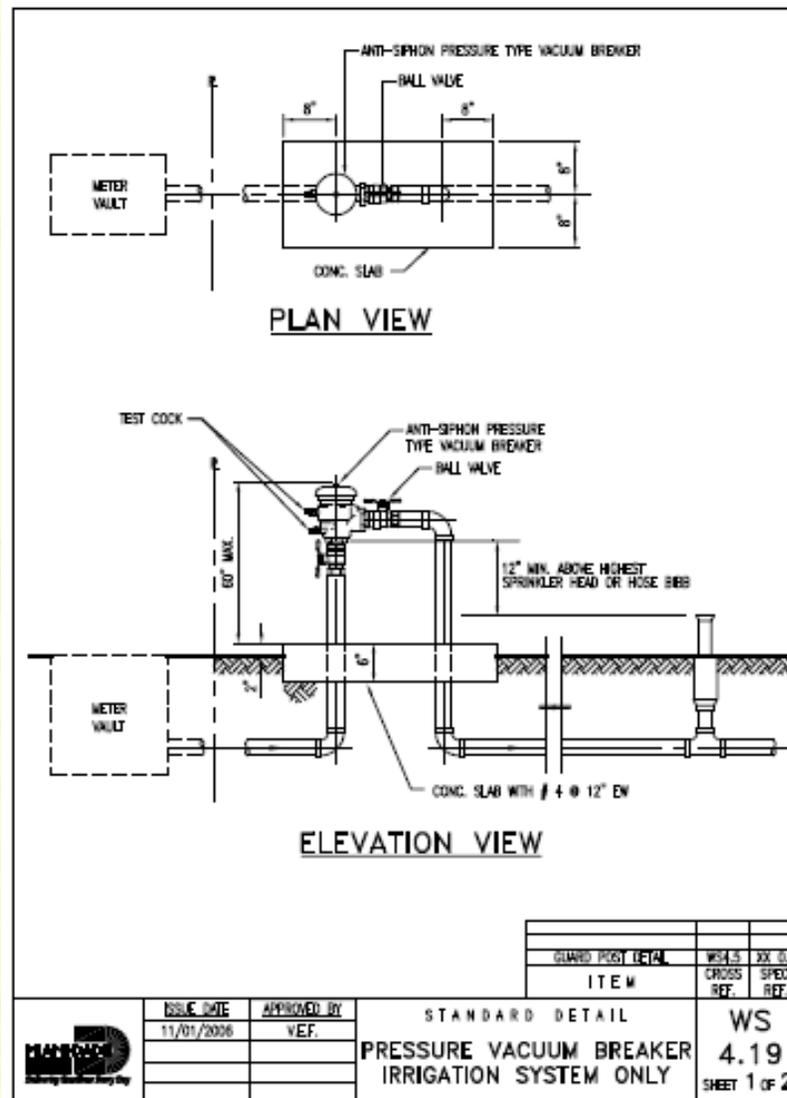
# Installing Backflow Preventers

- Must be installed above ground
- Must be installed in accordance with Miami-Dade Water & Sewer Department Standard Details
- Should be as close to the water meter as practicable
  - Exceptions can be made on a case-by-case basis

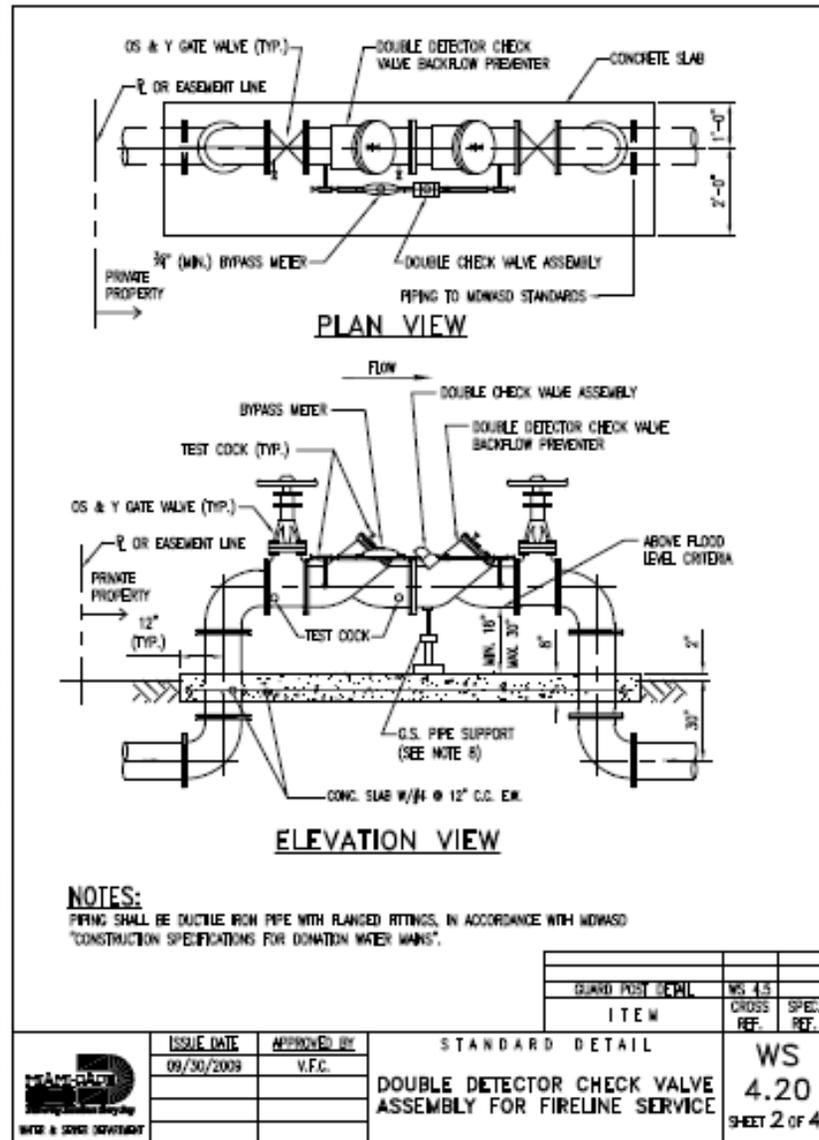
# Domestic Water: Reduced Pressure Principle Assembly



# Sprinkler / Irrigation: Pressure Vacuum Breaker



# Fire Suppression: Double Check Detector Assembly



# Urban Areas



# Miami-Dade County Code

## Section 32-157

- (d) The installation shall be located at the front property line at one (1) side of the property in accordance with the Department's standard details. All backflow preventers that are installed where visible from an area accessible to the public shall be shielded from public view by a visual barrier as listed below:
- 1) A barrier wall not more than six (6) inches above the highest point of the body of the assembly whereas the stems of the shutoff valves are visible from outside of the wall structure; or
  - 2) A recessed covered space which is part of the building envelope; or
  - 3) A manufactured cover for small diameter assemblies up to two (2) inches

Such barriers shall be at least two (2) feet apart from the backflow preventer and must not obstruct access for maintenance and testing.

# Backflow Preventers in Urban Areas – Brickell Ave



# Backflow Preventers in Urban Areas – Downtown

Biscayne Blvd. & NE 1<sup>st</sup> Street (on 1<sup>st</sup> Street)



# Backflow Preventers in Urban Areas – Downtown

“Ivy Condo” located at rear of building in service entrance



# Indoor Installations



# What to Avoid



# Thank You.

## Contact Information:

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