CITY OF COLUMBUS

Project Dry Basement
A Description of the Backwater Prevention Program
City of Columbus entered into a consent order in 2003

The Mayor asked the Division to develop a program to address flooded basements

Project Dry Basement was developed in 2004
• Project Dry Basement was developed to install backflow preventers in private residents

• There were several issues to consider:
  • Installing valves on private property
  • Develop a Home Owners agreement
  • Determine who is eligible for the program
  • Identify the home owners responsibility
  • Remove clear water sources from the service line
Eligibility Requirements for a valve

• Home owner must report a flooded basement to the City

• The flooded basement must be a City responsibility

• Stoppages

• Sewer headed up due to heavy rains
Since the inspection of the program

- 2298 residents have been made eligible
- 823 home owners have returned the agreement and had valves installed (36%)
  - The 36% has stayed fairly consistent through the program
  - Home Owners do not like to have their basement tore up
  - They do not like the home owners agreement
  - Rentals do not like to have a code inspection done
  - They do not like the idea of not being able to use water when the valve is closed
The reminder of this presentation is going to focus on the valves we have installed and the Pros and Cons of each valve

Our Disclaimer

• We are not recommending or discouraging the use or purchase of any valve. We are discussing the experience we have had with installing and the use of these valves.

• Please keep in mind that you may have a different experience with these valves. Please feel free to offer any experience you may have.
Valves we have considered or used

- Inexpensive PVC Check Valve -0
- In-Line manual shut-off gate valve (Dual valve) -0
- JR Smith Flood Gate Valve – 242
- Main Line flapper valve – 196
- Clean Check Valve – 270
- Spears Backwater Valve – 19

- Sump Pumps installed - 265
Inexpensive PVC Check valve

- 0 Installed
- PVC flapper
- History prior to PDB
- Most causes for the valve failing was a broken, stuck or missing flapper
In-Line Manual Shut Off Gate Valve
The Dual valve

- 0 installed
- History prior to PDB
Additional Things to Consider

- Maintenance – Maintenance – Maintenance
- Where the concrete floor is cut use bentonite around the concrete joint to prevent ground water from leaking through the joint.
- Size of the foot print of the valve pit.
- If a sump pump is necessary you must have a dedicated circuit in the electrical panel.
- Make sure you have a positive outlet for the sump pump.
- You only have to protract what drains are in the basement.