

Tideflex Checkmate Prevents Storm Water Backflow in Ann Arbor

ALLEN CREEK DRAIN, ANN ARBOR, MI



The 48" Tideflex CheckMate installed on the storm sewer at Allen Creek Drain, Ann Arbor, MI.



Allen Creek Drain surging during a storm.



The 48" Tideflex CheckMate ready to be installed.

PROBLEM: During typical rain events, the Allen Creek Drain rises significantly and backflows up a connecting storm sewer causing flooding on heavily traveled streets and property adjacent to the storm sewer. The City installed a duckbill check valve to help prevent backflow. Unfortunately, this valve protruded out from the retaining wall and was severely damaged by the violent surging that occurs at the mouth of the drain during even a 1 year storm event.

The City needed an inline check valve that would be out of the flow path, prevent backflow but also open with positive gravity flow to drain the storm line. An all rubber construction was ideal as it would allow for minimal user maintenance, durability in submerged/weather-exposed conditions, and the ability to open with very little head pressure.

SOLUTION: The new Tideflex CheckMate Inline Check Valve provided the City with the solution they needed. The CheckMate is an all rubber design that will begin to seep open with as little as 1" of head pressure. The CheckMate is designed to close silently when there is an increase in backpressure. The CheckMate also slips entirely inside the pipe and is pressed securely into the pipe I.D. using a Stainless Steel expansion clamp and anchors. Installation is simple, fast and there are no mechanical parts to maintain. The CheckMate has been hydraulically tested to insure reliable performance.

Using the CheckMate, the City was able to prevent storm water backflow from Allen Creek Drain onto streets and surrounding properties. The inline design removed the valve from the surge path, protecting it, and allows it to be nearly unnoticeable to the public. The Tideflex CheckMate will provide the City with years of dependable, cost-saving, back flow prevention.

KEY CHECKMATE FEATURES

- All Rubber, Inline Design
- Extremely Low Headloss
- Opens with as little as 1" Head Pressure
- No Mechanical Parts, Low Maintenance
- Prevents backflow with up to 40ft Back Pressure
- 25+ Year Life Expectancy