



APPLICATION BRIEF

IRVINE, CA PREVENTS COSTLY IRRIGATION SYSTEM LEAKS WITH QS200

PROJECT OVERVIEW

September 19, 2022

Quail Hills is a sub-division of the City of Irvine, California. Irvine is a master-planned city in Orange County, California, which is part of the Los Angeles metropolitan area. The 66-square-mile city has a population of 276,000. All streets have landscaping allowances. Rights-of-way for power lines also serve as bicycle corridors, parks, and greenbelts to tie together ecological preserves. The city irrigates the greenery with reclaimed water. As with every municipality in California, saving water is a critical part of the city's budget.

The Irrigation Field Supervisor at Villa Park Landscape was overseeing a retrofit replacement of a data industrial impeller flow sensor.



PRODUCT SOLUTION

FLOMEC's **QS200 Insertion Ultrasonic Flowmeter** was chosen as the replacement of the impeller flow sensor.

The team began by estimating the expected flow rate in the test zone by counting the number of sprinkler heads. The estimated flow rate was 70 GPM. This was pretty close to the actual flow rate measured by the QS200 at 73.3 GPM. After the test, the master valve was shut off. However, the controller was displaying a flow rate of 0.3 GPM. This suggested a leak in the system on the city side of the water line. The 2" utility water meter did not indicate any flow because 0.3 GPM is below the threshold of its measurement capability.

The next step was to manually close the master valve to make sure it was not leaking. Upon doing this, the controller displayed a flow rate of 0 GPM. The obvious conclusion was that the master valve was leaking. This is not a rare occurrence and accounts for a lot of wasted water in commercial irrigation systems. In this case, 0.3 GPM translates to the following water volumes over time: 18 gallons every hour, 432 gallons over 24 hours, 12,960 gallons in a month, and 157,680 gallons over a one year.

QS200 is designed to support commercial irrigation applications and measures flow rates five times lower than current flow sensors on the market, as low as 0.22 gallons per minute. It provides extended leak detection down to 0.1 feet per second.

- Flow sensors for or with PVC tees: 1-inch thru 4-inch
- Saddle series: 6-, 8-, 10-, and 12-inch