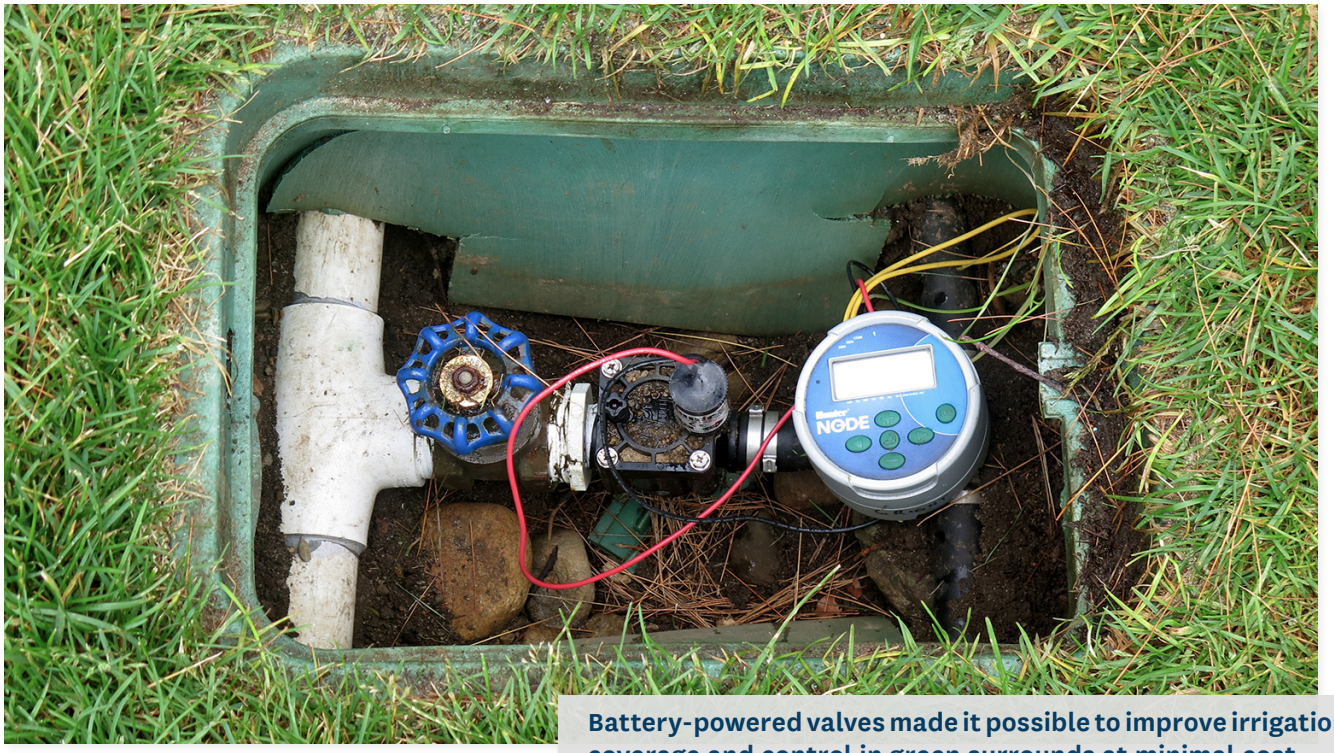

Battery-powered valves made it possible to improve irrigation coverage and control in green surrounds at minimal cost.

BATTERY-POWERED VALVES

EXTEND IRRIGATION COVERAGE

Needham Golf Club | Needham, Mass. 02492

Tim Hood, superintendent

ISSUE

Needham Golf Club is a nine-hole golf facility in Needham, Massachusetts. The golf course has an old irrigation system that did not allow putting greens and their surrounds to be irrigated separately. The inability to irrigate these areas independently often caused turf conditions in the surrounds to deteriorate by midseason. In addition, necessary renovations to bunker banks and green surrounds could not be performed because the irrigation system would not allow for proper maintenance of these improvements. Additional coverage, pressure and enhanced irrigation control was needed to deliver the appropriate amount of water to the surrounds, but the facility was unable to invest in large-scale irrigation improvements.

ACTION

Superintendent Tim Hood decided to add supplemental irrigation to one green surround as part of a renovation project. This test case would determine if adding supplemental irrigation in the green surrounds was worthwhile and determine whether the use of battery controllers was a cost-effective way to provide the needed coverage. The new surrounds irrigation was connected to the irrigation line that served the putting green and the new zone was operated by battery-powered valves and controllers. This system was successful and cost effective so Needham Golf Club decided to install similar systems around the remaining green complexes. There are now a total of 16 battery-powered valves controlling irrigation in all of the green surrounds. Each valve is operated by its own individual controller that is located inside the valve box.

RESULTS

The battery-powered valve system allowed Needham Golf Club to irrigate green surrounds independently from the putting greens, providing each playing surface with the correct amount of water. This has improved playing conditions in the green surrounds and on bunker banks. The supplemental irrigation has also saved countless hours associated with hand watering surrounds. The battery-powered controllers are durable and require very little maintenance. They are brought inside each winter and the nine-volt battery in each controller is replaced once a year.

The system has worked very well; providing the control, coverage and pressure needed to successfully irrigate the surrounds. The cost of supplemental irrigation in each surrounds zone, including the controllers, was approximately $500. Using battery-powered valves has provided an inexpensive way to expand and improve irrigation coverage at Needham Golf Club.