

Putting WaterSense® to Work

Texas Shopping Mall Buys Into Outdoor Water Savings



Sector: Shopping Malls; Focus: Outdoor Water Use

Project Summary

Outdoor shopping malls have a business model that relies on both the shops themselves and the adjacent outdoor walking and sitting areas to encourage lingering and shopping. The Village at Stone Oak outdoor shopping mall in San Antonio, Texas, has worked to ensure that an attractive landscape is compatible with the city's frequent droughts and need for water conservation.

The Village at Stone Oak has more than 622,000 square feet of retail space, 37 shops and restaurants, and landscaped seating areas. Originally, like many other outdoor shopping malls in the area, the landscape was dominated by turf grass.

About 61 percent of San Antonio's residential water use goes toward outdoor irrigation, with a spike in water use during the summer months. Through a partnership with the San Antonio Water System (SAWS) Commercial Custom Rebate program, the Village replaced turf grass with drought-tolerant plant species and increased irrigation system water efficiency. By converting nearly 50,000 square feet of turf grass to xeriscape and modifying nearly 85,000 square feet of its irrigation system, the Village has saved nearly 14 million gallons of water annually while maintaining an attractive landscape for storefront tenants and customers.

Rethinking the Landscape

Traditionally, outdoor shopping malls have depended largely on turf grass as filler landscape to create pleasant green spaces for customers. However, maintaining a turf grass-dominated landscape demands a large amount of water, particularly in San Antonio's hot, dry climate. In 2009, the Village began making changes to create a more water-efficient landscape, with the ultimate goal of eliminating all turf grass on the property by 2018. The Village took steps toward this goal by replacing turf grass with xeric plants that are more drought-tolerant and require less water to survive. In addition to saving water, xeric plants provide the mall with a lush landscape suited to tenant interests and customer enjoyment.

Upon partnering with the SAWS Commercial Custom Rebate program in 2012, the Village continued its focus on removing turf grass and replacing it with drought-tolerant and native plants and hardscapes. Since then, the mall has converted 36 parking islands, the turf grass surrounding the Village's main water feature, and 14,000 square feet of additional turf grass to xeriscape.

Highlights



- **Facility name:** The Village at Stone Oak
- **Location:** San Antonio, Texas
- **Property size:** 622,000 square feet
- **Water savings:** Reduced water use by 60 percent, saving nearly 14 million gallons of water annually.
- **Cost savings:** \$84,000 annually



VILLAGE
at Stone Oak

Set the Controls for Smart Irrigation

The Village saw additional opportunities for water savings by assessing possible changes to its irrigation system. In 2009, the Village worked with SAWS' Commercial Irrigation Redesign Program to convert 160 beds from spray to drip irrigation, which typically uses 20 to 50 percent less water than conventional pop-up sprinkler systems. As a result of the conversion, the Village saved more than 6 million gallons of water annually. What's more, the Village's replacement of turf grass with plants that did not require supplemental irrigation allowed it to remove parts of the irrigation system. This effort resulted in the Village capping 514 sprinkler heads and eliminating 17 entire irrigation zones.

In 2015, the Village became one of the first commercial businesses to install a Smart Water Management System. This device gives property managers complete control over the irrigation system, allowing them to ensure that plants receive only as much water as they need. For example, this system allows property managers to skip watering on rainy days, when plants do not need additional water.

It Takes a Village

Through its partnership with SAWS, the Village was not the only entity to reap the benefits of saving water. The business owners with shops in the mall saved money on water utility costs, while xeric landscaping reduced overhead costs by requiring less maintenance. In addition, watering restrictions imposed during drought conditions have less of an impact on xeric landscapes, which can thrive with less water. The partnership also ensured that the outdoor water efficiency changes were financially feasible for the Village. Because the Commercial Custom Rebate is based on projected savings, a portion of the rebate was received up front, with the rest distributed after the percentage of water use reduction had been confirmed.



Acknowledgements

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