

## Gillette Castle's latest structural improvement hiding in plain sight

Written by Press Staff; September 22, 2020



Jack Hine, left, supervisor of Gillette Castle State Park in East Haddam, meets with Heather Welsh of Mattern Construction, right, to look over the newly reconstructed staircase and concrete-reinforced retaining wall at William Gillette's century-old home.

*John C. Sherwood photo / For the Friends of Gillette Castle State Park*

**EAST HADDAM** - Those who are as observant as Sherlock Holmes, may want to consider a new challenge: Try to spot the latest exciting improvement at Gillette Castle State Park.

“Even though the change is huge, it’s so well-disguised that you might not realize it’s there,” John C. Sherwood said in a press release.

People can obtain a clue by looking up the slope at the castle's entrance at 67 River Road. There sits a set of stone stairs and a retaining wall buttressing the terraces. "Both appear to be as rustic as William Gillette's eccentric, century-old home, nestled atop the 'Seventh Sister' hill in Gillette Castle State Park," the release said.

"But it's all an elaborate illusion, in keeping with Gillette's famous reputation for theatrical flair while portraying the fictional detective on stage," Sherwood said in the prepared statement. "Those structures actually are new, disguising a modern, steel-reinforced concrete retaining wall nearly 200 feet long and incorporating updated conveniences and building materials."

Rodney Young, vice president of Baltic-based Mattern Construction, said the renovation is subtle. Mattern completed the project earlier this year at the park, which straddles the towns of East Haddam and Lyme along the Connecticut River.

In fact, Young hopes visitors familiar with the old wall and staircase don't notice any difference between the updated features and their appearance from past years.

Decades of weathering and frost had rendered the original, dry-built retaining wall fragile and in need of persistent repairs. Replacement became a priority after a section collapsed a few years ago.

To prevent further deterioration, and to bring the staircase into compliance with the Americans with Disabilities Act by including modern handrails, the Connecticut Department of Energy and Environmental Protection directed approximately \$750,000 toward the project. It's all part of a multi-phase funding package approved by the State Bonding Commission for improvements at the site.

Mattern Construction was awarded the first-phase project last year. As work got under way that September, Young and his crews knew they wouldn't be allowed to change the structures' historical appearance.

That called for careful coordination among Young, Mattern Construction project manager Heather Welsh, DEEP civil engineer Bill Coleman, Phil Yuris and Jack Hine, former and current park supervisors; Scott Dawley, supervisor of the state parks system's Eastern District; and State Historic Preservation Office representatives, the release said.

Stones that Gillette's own construction crews had set in place in the early 20th century were removed, labeled and meticulously preserved, Young said. Then, a significant challenge loomed when it was found that a subsurface ledge required demolition - but without explosives.

"We didn't want to do any blasting because of the damage it could have done to the castle," Young said, adding the home stands relatively nearby. The solution was to have his crews drill a multitude of deep holes into the ledge, then inject them with a chemical that expanded, cracking the old foundation into small pieces that could be removed easily.

A new, reinforced concrete wall then was installed on the same location and covered with a veneer of stones from the original wall. All of the original rocks and flagstones were reused, Young said.

"The biggest challenge we met was the ledge," said Welsh, who managed the project for Mattern Construction. "Everything else went very well."

Young said he has handled many such projects over nearly three decades of supervising reconstruction efforts, but said the castle work was particularly demanding because of the historical features that demanded preservation.

“The rocks you see are the same that were laid 100 years ago,” he said, adding that the new wall is resistant to the weather conditions that had attacked the old wall. “It was very satisfying, knowing that we put together something that [originally] was put together 100 years ago.”

“We’ve had numerous compliments from the public about how this was done,” Hine said.

Visitors aren’t likely to notice some other aspects, Hine noted - such as an updated method by which the stairway is drained of rainwater. The filling between the flagstones is a substance called polymeric sand, not mortar, and helps prevent frost heaving and ice from forming.

The work’s completion earlier this year ended the first phase of the state’s three-phase capital-improvement effort at the park. Upcoming improvements include stonework repair at the sheltered vehicle entrance and resurfacing of the terrace. The work, including the retaining wall and staircase, is being funded through a \$1.993 million allocation by the bonding commission.

Hine said the use of polymeric sand on the staircase serves as a trial method for what’s being specified to resurface the terrace during the overall project’s eventual third phase.

“After years of patchwork, it is now rebuilt to stand for the long term,” Schiller said in the statement. Likewise, the aesthetic value cannot be understated. Looking at photos of the finished wall, it looks so crisp and clean, you can tell that it is not an addition but an extension of the castle structure.”