Visitor center design boasts many ‘green’ aspects

By Liesel Nowak

WITH THE construction of the new Thomas Jefferson Visitor Center and Smith Education Center, a culture of environmental stewardship with roots in Jefferson’s time is in full bloom at Monticello.

Joining the growing number of municipalities, universities, and museums that are adopting environmentally sensitive building methods, Monticello is on its way toward reaching the gold level in Leadership in Energy and Environmental Design, or LEED, certification, a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

Plantings and a fountain in the center’s courtyard will reduce the ‘heat island effect’ of the pavement.

“Sustainable design is a Jeffersonian concept,” said Daniel P. Jordan, president of the Thomas Jefferson Foundation. “It also advances our preservation mission and makes good business sense over the long haul. The Foundation wants not only to practice stewardship but also to be a leader in the field.”

Slated to open in November, the $43 million visitor center will provide enhanced educational, exhibition, ticketing, dining, service, and shopping features in one location on the Monticello grounds.

Robert Claiborne, project manager for the Baltimore-based Ayers/Saint/Gross Architects + Planners, which designed the facility, said his firm has collaborated with many colleges and other clients wanting to “go green.”

“It’s been a great opportunity to work at Monticello,” Claiborne said. “To be building out in the landscape with all the sensitivities and design concepts has been a rewarding challenge.”

The center will consist of five pavilions organized around a central courtyard: a reception pavilion for visitor information and ticket sales; a two-story exhibition building with spaces for both permanent and changing exhibitions; the two-story Smith Education Center with facilities for Monticello’s education programs on the lower level and a multipurpose theater on the courtyard level; a retail pavilion with indoor and outdoor spaces; and a cafe.

Sustainable design features include a geothermal heating and cooling system, two green roofs, enhanced indoor air quality, advanced storm water treatment, recycling during and after construction, the use of local and sustainable products, and water conservation and treatment.

Plantings and a fountain in the visitor center’s courtyard will reduce the “heat island effect” of pavement; walls, stairs, and columns will be made out of local fieldstone; and cafe patrons will dine with utensils made from cornstarch.

The Thomas Jefferson Visitor Center and Smith Education Center marks the first time the Foundation has pursued LEED certification for a building project, but not the first time it has employed energy-efficient technology. The Foundation installed geothermal heating and cooling wells in construction of the Jefferson Library, which opened in 2002, and replaced the oil furnace in the Kenwood house with geothermal in 2006. Monticello is still reaping the benefits of those wells, having recouped the initial installation costs with lower energy bills, while enjoying the aesthetic bonus of having no noisy and unattractive exterior air conditioning equipment.

As planning for the new visitor center began, the Foundation revisited the idea of energy efficiency and soon found a partner in John A. Griffin, a member of the Board of Trustees.

When informed that the Foundation would need additional funds to implement LEED design features, Griffin not only pledged the money but also challenged Monticello to pursue the LEED certification.

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at the Gold level. New construction can be LEED certified at one of four levels—Certified, Silver, Gold, and Platinum.

“LEED certification entails a lot of work, before, during, and after construction” said Mike Merriam, Monticello’s director of construction management. “It is not something you try for as an afterthought.”

With the funding boost, architects merged sustainable design features and construction practices into the drawings and specifications. The builder, Barton Malow Company, has systematically followed the LEED guidelines and has been able to recycle nearly four-fifths of all the construction debris.

The overall design of the new center embodies a Jeffersonian approach to architecture and environmental stewardship. Though nearly four times the size of Jefferson’s house, the building appears as a series of dependencies tucked unobtrusively into the slope of Monticello mountain. It sits lightly in a landscape that has been preserved to the maximum extent possible.

“It’s a wonderful mix of practicality and idealism,” Merriam said. “The building techniques and style are new, but the goals of sustainable design are very Jeffersonian.”

Liesel Nowak is a communications specialist at Monticello.

This system, now buried under a new parking lot, provides temporary storm water storage to buffer the impact of runoff on local streams and ponds.

TIF/Mike Merriam