



Stalco Construction, Sidney B. Bowne & Son and Keller Sandgren Architects complete \$10 million Geiger Lake project

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Cheered on by hundreds of gathered children and families, the town supervisor Rich Schaffer, local leaders, and representatives of Stalco Construction, Sidney B. Bowne & Son, and Keller Sandgren Architects opened the new pavilion and the 14,400 s/f spray playground at the Geiger Lake Memorial Park in Wyandanch.

The ceremony marked the completion of a major, \$10 million component of a phased redevelopment of the park, which is located at Grand Blvd., on the border of the hamlets of Wyandanch and Deer Park, within the town of Babylon. The undertaking is a part of Wyandanch Rising, the town's \$500 million public-private initiative to revitalize downtown Wyandanch.

"We are very proud to present this wonderful water park to children and families of Wyandanch and the entire town of Babylon," said Shaffer. "I would like to thank Stalco Construction, Sidney B. Bowne, and KSA Architects for their dedication, skill, and expertise during their work on the new spray park and pavilion."

The project team included general contractor Stalco Construction; construction manager, site surveyor, spray park designer, and mechanical, electrical, plumbing (MEP) and civil engineer Sidney B. Bowne & Son; and pavilion architect Keller Sandgren Architects (KSA). The town's in-house landscaping team developed the landscape design.

The park redevelopment was financed through a combination of local and federal sources, including \$5 million raised through a bond issue, a \$4.1 million community development block grant from the U.S. Department of Housing and Urban Development, and \$1.3 million in other grant money. In the pre-construction and early construction phases, Stalco reduced the cost of construction by nearly \$1 million through value engineering, scope revisions, and use of alternative materials. NYS assemblyman Bob Sweeney and former NYS senator Owen Johnson secured a portion of the funding for the park.

"The new, one-story, 2,500 s/f pavilion with a 1,400 s/f veranda houses a concession stand, a ticket window, an office, public bathrooms, and a pump and filter room for the spray park," said Stalco principal Kevin Harney. "The building, located near a new, 94-car parking lot, serves as the main visitor comfort station for the entire Geiger Lake Memorial Park."

"Drawing inspiration from the surrounding natural woods, lake, and streams, the architectural team designed the pavilion as a visually appealing, unobtrusive Adirondack-style structure, with stone piers, a veranda and deck, and amber-stained cedar siding finish," said KSA project manager Robert Paxton. The pitched roof features Timberline Ultra HD Barkwood color multi-dimensional architectural asphalt shingles reminiscent of wooden shakes. A 600 s/f observation deck above the main entrance offers views Geiger Lake and the forest.

Architecture and engineering: The pavilion's structural system consists of a concrete slab-on-grade

foundation with footings, concrete masonry unit (CMU) block walls, and wooden roof trusses connected to the walls with exposed steel brackets. Heavy timber yellow pine trusses are exposed above the observation deck for visual impact. A pergola attached to the pavilion enhances the outdoors feel of the park. Adirondack-inspired CMU piers with Boral Cultured Stone veneer accentuate the building's cedar siding and support the observation deck and a trellis on the right side of the structure.

Stalco installed a storefront-type windows on the front and back of the building. The interior finishes and fixtures include energy-efficient fluorescent lighting, polished concrete flooring in the office and the concession stand, porcelain tiles in the bathrooms, and drywall ceilings.

"Sidney B. Bowne & Son's planners designed the spray park around a 'Tree of Life' theme, represented by two large artificial tree structures. 100 feet of interconnected play bridge sections are suspended between the trees and retaining walls," said the firm's senior engineer Brian Murrell. The spray ground's 25 play elements include a second bridge, three large water slides, multiple water cannons, a rope climb net, bucket water dumps, and a large spider and snake water play feature equipped with several twisting and spiraling slides. There is also a water play area for smaller children. The total capacity of re-circulated and treated water supplied to the play features is approximately 1,600 gallons per minute.

The most interesting and visually striking elements of the new park are the two artificial trees of slightly varying dimensions. The larger tree, approximately 24 feet high, has an eight-foot-high platform and its branches extend 20 feet. It features an opening with two small slides inside its trunk. The smaller, 22-foot-high, has a six-foot platform and branches extending 18 feet.

Both trees, custom designed by Bowne, required creative structural and fabrication solutions. "Following construction of eight-foot-deep mass concrete footing foundations for the trees, the Stalco team erected support structures consisting of stainless steel pipes and plates. The final shape of trees was achieved with sprayed concrete foam installed on the steel skeletons," said Stalco superintendent Mike Marchese.

"Another unusual feature of the new park is the Greenheart wood sustainably sourced in Guyana and used in the construction of the play bridges. Due to its extraordinary resistance to water rot, Greenheart is used in marine and wet environments without any treatments. Free of chemicals, the wood is safe to use in children's play areas," said Sidney B. Bowne & Son associate partner Kurt Dietrich. "Greenheart beams, some 30 feet long, support the bridge structures. The bridges are surfaced with slip-resistant Fibergrate fiberglass reinforced grating."

The spray ground also features custom designed and fabricated railings that accentuate the wilderness theme of the entire project. Composed of steel pipe cores and outside urethane shells, the rails resemble wood logs.

Construction of the spray park called for several creative civil engineering solutions. The water table level within the park is located just five feet below the grade, due to the proximity of Geiger Lake. This prevented installation of a conventional storm water retention system. Instead, Sidney B. Bowne & Son's engineers developed an innovative shallow drainage system consisting of catch basins, pipes, and several hundred feet of collection chambers located throughout the spray park area, beneath lawns, and underneath the parking lot. The 30-inch-high chambers collect the storm water and then slowly dissipate it into the ground through crushed stone bases.