

# Sustainable Fun with a Spray Playground

AS PART OF A \$500 MILLION PUBLIC/PRIVATE EFFORT TO SUSTAINABLY REVITALIZE ONE OF THE MOST ECONOMICALLY AND SOCIALLY DEPRESSED COMMUNITIES IN THE GREATER NEW YORK AREA, SUSTAINABILITY SHARES THE STAGE WITH FUN AT A NEW PARK.

BY JOSEPH M. SERPE



**Cheered on** by hundreds of gathered children and families, the Town of Babylon Supervisor Rich Schaffer, local leaders, and representatives of Stalco Construction, Sidney B. Bowne & Son, and Keller Sandgren Architects (KSA) opened a new pavilion and 14,400-square-foot spray playground at the Geiger Lake Memorial Park in Wyandanch, N.Y.

The ceremony marked the completion of a major \$10-million component of an extensive, phased redevelopment of the park, which is located at Grand Boulevard, on the border of the hamlets of Wyandanch and Deer Park, within the Town of Babylon. The pavilion and playground, which is the largest municipal water park on Long Island, is a part of Wyandanch Rising, a \$500-million public/private initiative to sustainably revitalize the economically and socially depressed community of Wyandanch.

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

The new Geiger Lake Memorial Park spray playground features two large artificial trees, 100 feet of interconnected play bridge sections and 25 other play elements, including 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 features equipped with several twisting and spiraling slides.

IMAGE COURTESY OF OLA WILK/WILK MARKETING COMMUNICATIONS

## PROJECT TEAM



**OWNER:** Town of Babylon

**SPRAY PARK DESIGNER:** Sidney B. Bowne & Son



**PAVILION ARCHITECT AND STRUCTURAL ENGINEER:** Keller Sandgren Architects

**CONSTRUCTION MANAGER:** Sidney B. Bowne & Son

**GENERAL CONTRACTOR:** Stalco Construction

**SITE SURVEYOR:** Sidney B. Bowne & Son

**M/E/P AND CIVIL ENGINEER:** Sidney B. Bowne & Son

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. New York State Assemblyman Bob Sweeney and former NYS Senator Owen Johnson secured a portion of the funding for the park.

“The new, one-story, 2,500-square-foot pavilion with a 1,400-square-foot veranda houses a concession stand, a ticket window, an office, public bathrooms and a pump and filter room for the spray park,” explains Stalco Principal Kevin G. 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,” he adds.

### 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.

“Drawing inspiration from the surrounding natural woods, lake



The “Tree of Life” theme offers a striking visual element.

IMAGE COURTESY OF OLA WILK/WILK MARKETING COMMUNICATIONS

and streams, the architectural team designed the pavilion as a visually appealing, unobtrusive Adirondack-style structure,” explains KSA Project Manager Robert Paxton. A 600-square-foot observation deck above the main entrance offers views of Geiger Lake and the forest.

Stalco installed 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 ar-

tificial tree structures. One hundred feet of interconnected play bridge sections are suspended between the trees and retaining walls,” says 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 features 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 di-





















The new, one-story, 2,500-square-foot Adirondack-style pavilion with a 1,400-square-foot veranda houses a concession stand, a ticket window, an office, public bathrooms, and a pump and filter room for the Geiger Lake Memorial Park spray playground.

IMAGES COURTESY OF OLA WILK/WILK MARKETING COMMUNICATIONS

## SPRAY PARK EQUIPMENT LIST

(MANUFACTURED BY WATER  
ODYSSEY/FOUNTAIN PEOPLE)

-  Under-Brella (FRP Top Dome),  
W007F
-  Water Snake, complete 5-piece  
assembly, W0066
-  Roll-A-Rail, W080
-  Flower Shower, W128
-  Splash Tower, 5-arm assembly,  
W133
-  Tidal Bucket, Less Tidal Series  
Controller, W185-LC
-  Water Rings, 4-coil assembly,  
W238
-  G2 Shooter, W283
-  Big Sqwerts Cannon, W287
-  Six Custom Log Theme Shooters  
(installed on the bridges),  
W290-11422
-  Six Aqua Arches, W006
-  Six Jet Ways, W011
-  Two Baby Long Legs, W036
-  Four Water Sprouts, W057
-  Two Water Flowers, W071
-  Three Geysers, W073
-  Two Splash-O-Lators, W085
-  Eight Bubblers, W091
-  Six Anywaysprays (water  
conserving), W100C
-  Fun Forms Carl Clown Fish Slide  
with water spray effect, F1004-E
-  Fun Forms Stanton Sea Turtle  
Aqua Sprayer, F2016
-  Fun Forms Pansy Aqua Sprayer,  
F2020
-  Fun Forms Lilly Frog Aqua  
Sprayer, F2028
-  Fun Forms Finn the Fish Aqua  
Spout, F3007
-  Fun Forms Baby Bee Aqua Spout,  
F3022
-  UL-1563 Listed Controller, without  
module for hard-wired inputs,  
modules for 48 wired outputs,  
supplied with antenna/  
receiver and 150' integral  
cable.

mensions. The larger tree, approximately 24 feet high, has an 8-foot-high platform and its branches extend 20 feet. It features an opening with two small slides inside its trunk. The smaller, at 22 feet

high, has a 6-foot platform and branches extending 18 feet.

Both trees, custom designed by Bowne, required creative structural and fabrication solutions. "Following construction

## FILTERS AND PUMPS



One ITT-Marlow filter pump, rated for 600 GPM, 15 HP motor



Two ITT-Marlow spray feature pumps, rated for 566 GPM and 485 GPM, 15 HP motor

One ITT-Marlow feature pump, rated for 596 GPM, 40 HP motor

One Mermade filter, 60" diameter, 113 feet length fiberglass, horizontal, high-flow pressure sand filter,

41.7 square feet of filter area

Three ETS low intensity UV filters, medium pressure

Four Kobolt flow meters with compact thermal flow sensors

Four Griswold Class 150 flow controllers, set at respective pump's flow rate

One PoolLink chemical controller

One Arch Pulsar chlorinator, 200lb. capacity, self-cleaning, with 1 HP recirculation pump

One LMI acid feeder with a four-function valve wired to pool control panel

One Chemtainer 16-gallon, polypropylene container acid storage tank



A variety of water features are available for the children's enjoyment.

IMAGE COURTESY OF OLA WILK/WILK MARKETING COMMUNICATIONS

of 8-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," explains 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," adds 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 Fibergate fiberglass reinforced grating," he adds.

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.

The surface of the playground is coated with the Ultra Tuff non-skid rubberized coating for safety and impact resistance. The coating is a water-based, single-component compound created through cross-linking urethanes, acrylics and copolymers, and it utilizes recycled rubber crumb as an aggregate.

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 stormwater retention system. Instead, Sidney B. Bowne & Son's engineers developed an innova-

tive 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 stormwater and then slowly dissipate it into the ground through crushed stone bases.

Given the project team's attention to sustainability with the park, the children playing at Geiger Lake Memorial Park will have plenty more to cheer about in the years to come. *edc*

JOSEPH SERPE IS VICE PRESIDENT AT ISLANDIA, N.Y.-BASED STALCO CONSTRUCTION AND SERVED AS THE PROJECT EXECUTIVE FOR THE GEIGER MEMORIAL PARK SPRAY PLAYGROUND. HE MANAGES ALL CONSTRUCTION OPERATIONS AT THE GENERAL CONTRACTING AND CONSTRUCTION MANAGEMENT FIRM ACTIVE IN THE GREATER NEW YORK AREA. SERPE MAY BE REACHED AT [JOES@STALCOCONSTRUCTION.COM](mailto:JOES@STALCOCONSTRUCTION.COM).