

Case Study

Kalahari Waterpark Conference Center Combines Desert African Look with Modern Sto Exterior Materials



Kalahari Waterpark, Sandusky, Ohio

If you closely study the huts in this area, you can almost hear the rhythmic pulse of the desert land where they originated. But then you realize that these authentic reproductions are part of a cleverly designed entertainment and meeting center in central Ohio, about as far away from the African landscape as you can get.

The 100,000 square foot Nia Center at Kalahari Waterpark in Sandusky, Ohio resembles African huts, thanks to the creative design work of Todd Nelson, owner, and Steve Pine, director of development, of Kalahari Resorts, and Eric First of J&B Acoustical of Mansfield, Ohio.

“We’ve been working with Kalahari Waterpark since its origination two years ago,” said Ken Navratil of J&B Acoustical, contractor for the project. “They wanted the new conference center to look like African huts. It was our job to help them find the right products and design to make it happen.”

The conference center has pop outs that look like authentic African huts, according to Navratil. “The owner brought back books and photos from Africa to show us how he wanted it to look, and with Eric’s artistic abilities we were able to come up with a very unique look,” said Navratil.

The huts are 24 foot to the peak. Exterior Insulation and Finish System (EIFS) covers the entire outside of the convention center, creating the look of five huts, with the largest hut encompassing the circular staircase. There is stone along the bottom that EIFS hangs down over. Old stones, that look like they are made out of mud, were also used. The same finish used on the outside is carried throughout the inside, using a variety of stones, patterns, colors, and textures.

J&B Acoustical has worked with Sto Corp. for many years and knew Sto had products that offered the versatility and choices needed for this project. Navratil contacted Sto distributor Wayne Lloyd of ACD Inc. in Cleveland to select the best products for the job. The huts are assembled with two key products from Sto Corp. – StoGuard™, a spray-on waterproofing/air barrier, and StoTherm™ EIFS (Exterior Insulation and Finish System), which together creates StoTherm™ NExT (New Exterior Technology). StoGuard is a breathable, spray-on waterproofing/air barrier that provides superior protection against air and moisture intrusion in a variety of applications. Problems that can occur because of air leakage and condensation are minimized because StoGuard is an effective and economical means of controlling moisture in wall assemblies. By constructing an airtight building envelope, the risk of moisture problems – decay, corrosion, loss of insulation value, mold growth, and IAQ (Indoor Air Quality) – may be minimized.

EIFS is a multi-layered exterior wall system that is used on commercial and residential applications. EIFS consists of insulation board which is secured to the exterior wall

surface, a durable, water-resistant base coat applied on top of the insulation and reinforced with fiberglass mesh for added strength, and a durable finish coat which holds its color and is crack-resistant. Continuous exterior insulation provides significant energy savings and superior interior climate control and comfort, which was important to the people at Kalahari Waterpark.

“EIFS allows us to capture the exterior of the huts,” said Nelson. “We are just scratching the surface of what this product can do.”

The project needed a cladding with design flexibility and StoTherm™ NExT was the perfect choice, according to Lloyd. “This project had a lot of challenges because of the unique look, and with the flexibility of StoTherm NExT, it was able to be shaped into whatever they needed.”



For example, wood poles were created without wood and a distressed look was desired, which was accomplished with the different finishes Sto has to offer. “The versatility of EIFS in general and Sto’s complete product line with many choices for colors and textures, plus the advantage of having a single source to work with, made Sto the right manufacturer for the job,” said Lloyd.

“They wanted a water managed system and a sheet good product was originally specified. We introduced them to StoGuard, as it protects under stone as well as under EIFS, and because it is liquid applied, there are no seams, no flapping paper, and it’s all part of a system,” said Lloyd.

Sto EmeraldCoat®, which is part of the StoGuard family, was used behind the stone. It is applied directly to wall sheathing and functions as a vertical, above grade waterproofing/air barrier when combined with Sto Gold Fill® and StoGuard Mesh.

EmeraldCoat was produced to work with most claddings. Sto Gold Coat®, along with Sto Gold Fill and StoGuard Mesh, was used under the EIFS. It’s all part of the StoGuard system, so it was easy to transition from Gold Coat to EmeraldCoat, according to Lloyd.

“It’s such an interesting project because of the different materials,” said Navratil. “We like to say it’s nasty but neat. They wanted ‘non-uniformity correctly intact’.”

The conference center is part of the Kalahari Waterpark Resort which includes a huge indoor waterpark, two hotels and a six-story condominium. The Nia Center opened in August 2006. The next phase of the resort will feature a new hotel addition.

About StoGuard™

StoGuard is a spray-on waterproofing/air barrier. The StoGuard assembly consists of two major components:

1. Joint / rough opening treatment with StoGuard Mesh and Sto Gold Fill® - Prevents air infiltration through joints and around rough openings
2. Sheathing treatment with either Sto Gold Coat® or Sto EmeraldCoat®Sto Gold Fill® - prevents ingress of water into the building and protects moisture sensitive components such as wood or gypsum-based sheathing. StoGuard provides superior protection against air and moisture intrusion in a variety of applications, including underneath brick, wood, vinyl, cement siding, and exterior insulation and finish systems, and even cement stucco if used in conjunction with a bond breaker.

Together these components create a seamless, structural air barrier and moisture barrier that greatly improves resistance to air leakage and water infiltration resistance in comparison to sheet goods in wall assemblies. For more information on fluid-applied air and moisture barriers, visit these helpful web sites: www.airbarrier.org; www.buildingscience.com; www.stocorp.com/stoguard.

About Sto Corp.

Sto Corp., based in Atlanta, Georgia, is an innovative world leader and producer of a broad range of versatile cladding and coating systems for building construction, maintenance and restoration. Sto Corp. is ISO 9001:2000 certified and operates production plants strategically located to serve more than 170 distributor locations across North America. At research and development laboratories in the U.S. and Europe, Sto continues to revolutionize the industry with the highest quality products and application technology.

For more information, visit www.stocorp.com or call toll free (800) 221-2397 or (404) 346-3666.

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