



Innovative Tile and Stone
Installation Systems

Evergreen Wings and Waves Water Park Project Spotlight: November 2011



LOCATION:
Evergreen Aviation & Space Museum
McMinnville, OR

GENERAL CONTRACTOR:
Hoffman Construction
Portland, OR

ARCHITECT:
Group Mackenzie
Portland, OR

LATICRETE/TILE SUPPLIER:
Paragon Tile & Stone
Tigard, OR



LATICRETE Helps Put 'Seal' of Approval on Water Park

By Michael Pallerino

Delford Smith returned from a business trip one day with an idea. He wanted to build a water park in his hometown of McMinnville, OR, the historic city located in the heart of Willamette Valley's wine country, and strategically nestled between the Pacific Coast and Portland.

Mr. Smith wasn't talking about just any water park. After all, this is the entrepreneur who had purchased Howard Hughes' famed Spruce Goose so that he could add it to his Evergreen Aviation & Space Museum, which features more than 200 exhibits, including military aircraft, helicopters, commercial and private aircrafts. The museum was built in honor of his son, the late Captain Michael King Smith.

Mr. Smith thrives on being unique. So he called a meeting with some local project managers to bounce around the idea. He told them he wanted something to complement his aviation collection. Mr. Smith sought a structure that would not only get people talking, but something they would have to see and experience for themselves.

When one of the project managers mentioned putting an airplane on the roof, Mr. Smith loved the idea. However, his vision went further: he wanted a 747. The entire room was skeptical, but Mr. Smith was convinced that it could be done. Sure, for a German aviation museum outside of Berlin, put a 747 on stilts outside its building; but an airplane on top of what would be a 60-foot building, with a series of waterslides running in and around it, too?

They called it "the pick." After nine months of engineering and design work, construction crews secured two massive cranes on a near-windless

morning in May 2010. Employing one of only seven Boeing recovery slings in the world, they began hoisting the Evergreen International Aviation B747-100, of which the story of its arrival is a tale unto itself. One hour and eight minutes later, the 328,000-pound plane, which had logged more than 25 million miles during its aviation lifetime, was bolted cleanly into place.

Mr. Smith's entrepreneurial vision struck again. The massive plane became the anchor for the Evergreen Wings & Waves water park, located about one-quarter mile west of the Spruce Goose. It is billed as "the only water park that comes with an aviation and space museum" – the first in the country to combine water-borne fun with educational themes that help visitors learn about the power of water and its effects on the world.

The 71,350-square-foot park features 10 water slides – four of them exiting directly out of the fuselage of the Boeing 747 sitting atop the roof – a wave pool and the children's museum. The fastest of the slides is the Nose Dive, a two-person inner tube ride that combines a fast initial drop into a high rate bank turn. It leads the riders into a dark oscillation section before "breaking out of the clouds" through a hologram image and into the circular bowl below. Other slides include the Tail Spin, Sonic Boom and the Mach 1.

Today, the water park and museum park have become one of the most popular tourism attractions in the state. "Helping turn this vision into a reality was one of the coolest things we've ever done," says Dave Garske, operations manager for Hoffman Construction of Portland.

Protecting the building from water damage.

Reflecting on the project, Garske says one of the more interesting challenges was how to figure out a way to protect the building from all the water. "Tile was a major part of this project. Basically, the entire inside of the building is a big swimming pool. There is water and tile everywhere – in the pool, in the bathroom, along the walls. Chlorine can be very corrosive. So we had to figure out a way to keep the building from rusting from the inside out. We had to manage the chlorinated water. We spent a lot of time working on keeping the water safe for the visitors and the employees."

Hoffman worked closely with Paragon Tile of Tigard, OR, which had successfully bid on the project. As Paragon began to map out the project, they knew what they needed. That's when Paul Luttrell, VP of sales for Paragon Tile, called LATICRETE sales representative Mike Werner. Paragon ended up selecting and delivering a number of high-performance LATICRETE products for the job, including LATICRETE® SpectraLOCK® PRO Grout¹, LATICRETE 4-XLT, LATICRETE 254 Platinum, LATICRETE 255 MultiMax™² and LATICRETE Latasil™.

"In particular, we used LATICRETE Latasil because we needed something that would not crack or deteriorate in the wet covered areas and corners for the life of the installation," Luttrell says. And with the amount of tiling prevalent throughout the facility, Luttrell used LATICRETE SpectraLOCK PRO Grout, a product designed to be used for swimming pools, fountains and other wet area applications.

Paragon used the products in the entryway, in each of the restrooms, in the water lines in the pool, in the mezzanine and on a lot of the wainscoting throughout the building. "Everything needed to be waterproofed or have crack isolation. So we chose LATICRETE Hydro Ban® to use behind all our

tile." LATICRETE Hydro Ban is a thin, load bearing waterproofing/crack isolation membrane that DOES NOT require the use of fabric in the field, coves or corners.

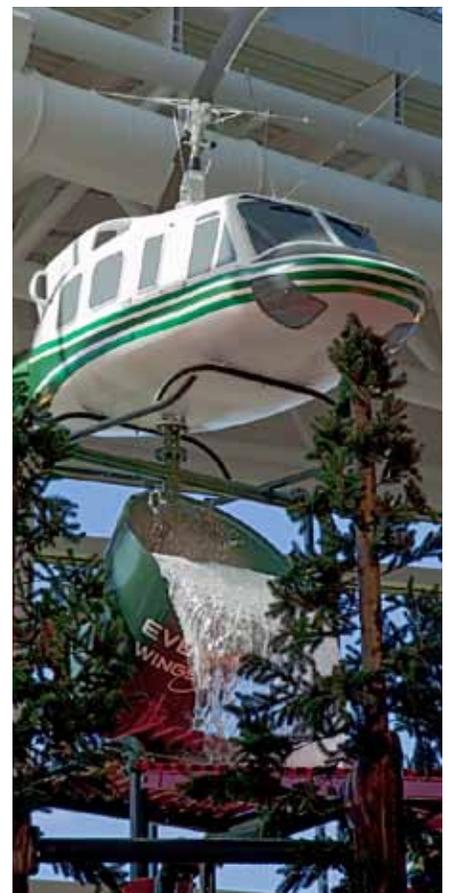
"In the pools," continued Luttrell, "we used LATICRETE 4-XLT, on the water lines we used LATICRETE 254 Platinum, and for the floors, etc., we used the LATICRETE 255 MultiMax. Everything was grouted with LATICRETE SpectraLOCK PRO Grout. It's a such a strong, high performance product; we couldn't use anything else."

Working in and around the other contractor schedules, the job took Paragon nearly five months to complete on their end. "It was a pretty unique job in the fact that there is nothing else like it," Luttrell says. "The pools and the shapes were pretty unique. At some of the counters, you have half of an airplane sticking out of the wall, so that's unique right there. It's an eye-catcher. As far as the installation of the tile, it was a pretty standard install, except for some of the custom mud floating work we had to do. We were confident to use LATICRETE products for the Waterpark, as we know they perform at high levels, and the company stands behind its products, as well.

"This was a project we clearly won't forget."

¹United States Patent No.: 6881768 (and other patents)

²United States Patent No.: 6784229 B



photos © Evergreen Aviation & Space Museum 2012