

Bomanite Exposed Aggregate Systems

PROJECT PROFILE

ST. LOUIS AQUARIUM AT UNION STATION



PROJECT INFORMATION

St. Louis Union Station is an amazing collective adventure of a giant Ferris Wheel, fire and light shows, delicious dining establishments, an old time carousel, 18-hole mini golf, ropes course and the recently opened grand aquarium that features one-of-a-kind exhibits and marine environments for thousands of aquatic animals from the rivers and oceans of the world that is housed in 1.3 million gallons of water. The St. Louis Aquarium is a 120,000-sq-ft, two-story attraction built inside the footprint of a nearly 500,000-sq-ft 19th century iron umbrella train shed that is designated as a National Historic Landmark.

One of the most high-tech and hands-on built aquariums, Architect and designer PGAV Destinations train themed aquatic environment is the centerpiece of a \$187 million St. Louis Union Station family entertainment complex. An immersive, virtual train ride on one of two full-size replica passenger rail cars takes guests inside the aquarium. The ride honors St. Louis Union Station's railroad past with a multimedia experience that travels through a trip to the rivers and oceans of the world, narrated by actor and St. Louis native John Goodman. When the train doors open, visitors find themselves at the confluence of the Mississippi and Missouri rivers where they can see the fish that inhabit America's great rivers, such as alligator gar, paddlefish, sturgeon, catfish, and many more. Additional exhibits include playful North American River Otters, Shark Canyon and The Deep exhibit that is home to animals that include exotic and endangered Leafy Sea Dragons, jellyfish, a Giant Pacific Octopus and a coral reef. Throughout, hands-on opportunities allow guests interactive play while bringing together state-of-the-art technology, animal care, education, and conservation with the excitement of aquatic creatures.

PGAV Destinations, known for their design work on 50 fantastical aquariums around the world, had been searching for the right finish for the "River Pavement" they desired on the exterior plaza feature of the St. Louis Aquarium that represented the confluence. After discovering their original design of epoxy terrazzo was not recommended for exterior use, the search ended when the designer was attending a lunch and learn presented by Bomanite Licensee, Musselman & Hall Contractors, LLC. Nate Harris, Business Development Manager for Musselman & Hall, shared pictures and samples of the Bomanite Revealed decorative concrete system and, as simple as that, the decision was made. That very afternoon PGAV notified McCarthy Building Companies (GC) to contact Musselman & Hall about installing the River Pavement design. Bomanite Revealed is an architectural exposed concrete with varying exposure depths using decorative aggregates that use advanced application procedures to produce a finished product that showcases the seeded aggregate. Musselman & Hall Contractors worked with PGAV to iron out the details of color and aggregates, samples were made for the final decorative concrete selection and installation of the 372 square foot feature proceeded.

To begin the installation Musselman & Hall first had to set the forms to the designed shape to emulate the confluence of the Mississippi and Missouri Rivers. Additionally, blockouts had to be made for the "railroad bridges" to be installed later with pavers. A plain concrete base slab held down 1/2" from the finish elevation needed to be poured first. Once the base placed, the Bomanite Revealed was mixed on site adding the selected blue integral concrete color, a combination of 3 different colors of blue glass aggregates, and clear glass aggregate to the mix. This mixture was applied at a 1/2" thickness directly over the primed base concrete for a monolithic bond. Engraving of the river names completed the work.

Bomanite Revealed provides 100% exposure of the decorative aggregate with no native sands detracting from the finished appearance. The final product is a unique alternative to other decorative concrete finishes while producing a monolithic concrete slab with a low life cycle cost due to the pre-aged nature of the surface. Bomanite Revealed is suited for exterior applications—anywhere that improved wear resistance for light to moderate-duty vehicular or foot traffic combined with an architectural finish is desired. Although very challenging, the task was completed perfectly, resulting in a beautiful educational representation of the river confluence for the St. Louis hi-tech hands-on Aquarium.

Musselman & Hall Contractors, LLC were recognized for their creative solution and intricate installation of Bomanite Revealed decorative concrete with the GOLD AWARD for the Best Bomanite Exposed Aggregate Systems under 6,000 Sq. Ft project for the St. Louis Aquarium at Union Station.

PROJECT DETAILS

LOCATION

St. Louis, MO

PROJECT DESIGNER

PGAV Destinations

GENERAL CONTRACTOR

McCarthy Building Companies

INSTALL COMPLETED

October 2019

SQUARE FEET

372

BOMANITE SYSTEMS

Bomanite Exposed Aggregate Systems - Revealed with Blue Integral Color, Blue Glass and Clear Glass Aggregates

BOMANITE LICENSED CONTRACTOR

Musselman & Hall Contractors, LLC

4922 E. Blue Banks

Kansas City, MO 64130

TEL: 816-861-1234

FAX: 816-861-1237

Email: dkroesen@musselmanandhall.com

Website: www.musselmanandhall.com

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St. Louis Aquarium at Union Station - Bomanite Revealed Exposed Aggregate River Confluence Entry



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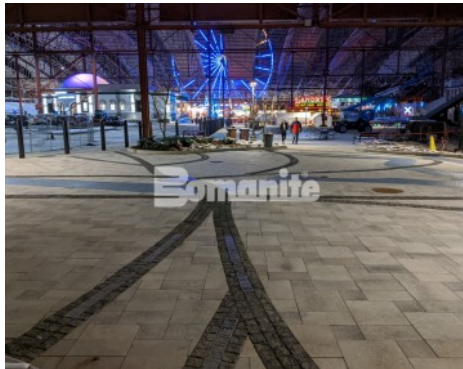
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