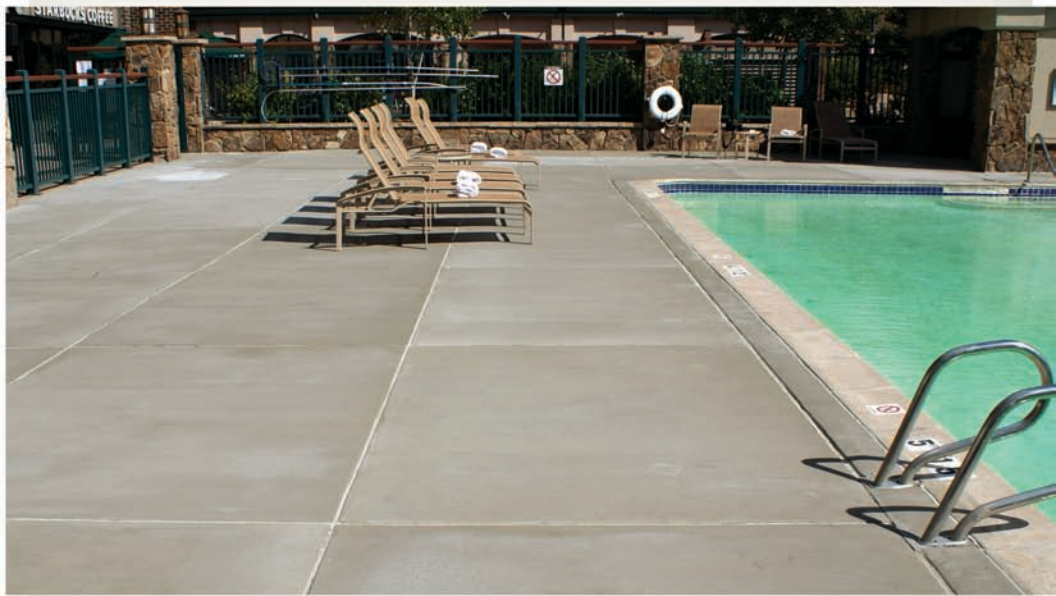


Fusion-Crete®

a next generation concrete solution



Pool Deck Restoration

Sheraton Steamboat Resort

SHERATON STEAMBOAT RESORT POOL DECK RESTORATION

The Sheraton Steamboat Resort is at the center of the base of the Steamboat Ski Resort in the beautiful Rocky Mountains of northwestern Colorado, U.S.A. Steamboat is a premier Colorado ski area and destination resort developed in the town that has produced more Olympic skiers than any other in the United States.

The Sheraton Hotel swimming pool is between the Sheraton Hotel and the main walkway from the transit center and the Steamboat Grand Hotel to Gondola Square at the ski area base. Thousands of people walk by the pool area daily during the summer and winter tourist seasons making it a very high-profile location.

CONDITION OF THE POOL DECK SLAB PRIOR TO RESTORATION

The pool is built into a structural concrete deck with a four-inch topping slab totaling 3840 square feet. The topping slab, being 20 years old, displayed several types of damage due to water intrusion, freeze-thaw cycles to an extreme degree, exposure to UV rays, snowmelt agents, and snow and ice removal by steel blades and ice bars. A few details of the existing damage include:

- Fifty percent of the panels were sound concrete with the top surface spalled to the larger aggregate.
- Most or all of six panels displayed areas of deep rot, spalling, and uncontrolled cracks.
- Other panels contained a total of 150 linear feet of uncontrolled cracks that had been ground with a crack-chaser and filled with self-leveling urethane caulk.
- Sixty-seven linear feet of the edge of a ten-inch wide retaining band for the pool coping stone was deteriorated and filled with self-leveling urethane caulk.
- Near the restroom for the pool there was an irregularly shaped area (approximately 100 square feet) in which water would collect into a puddle due to the failure of a structural member beneath the deck. The repair of the structural member left the elevation of the area approximately one inch lower than its original elevation, causing water to puddle and freeze in winter posing a safety hazard.
- Control joints between panels were filled with urethane caulk from ¼ inch to 1 inch wide that will not accept a cementitious finish coating.



THE RESTORATION

The first step for the Crossroads Concrete Resurfacing's was removing rotten concrete from six panels with the deepest damage and restoring the profile of the panels. The crew used hammer drills and pressure washing to remove the rotten concrete.

After priming with Fusion-Crete II® "premix" (Fusion-Crete II® crystals in water at the specified ratio to mix the repair mortar) and slurry bond coating the repair area, Fusion-Crete II® modified mortar was placed, leveled, and finished by float and sponge in preparation for the finish coat. As usual, the repair mortar was feathered into the surrounding intact surfaces.

Another issue addressed was the uncontrolled cracks filled with self-leveling urethane caulk. The caulk was removed by using grinders with wire brushes. This was in preparation for applying the ABS "crack-stitching" method of repair. Saw cuts were made across the uncontrolled cracks at ten-inch intervals to prepare for the installation of ABS crack-stitching blades (for more information regarding this method, visit:

<http://www.absconcrete.com/crack-stitching>).

The saw cuts were washed out and the wash water blown out of the saw kerfs with a leaf blower before the crack-stitching blades were inserted into the bottom of the cut. Then the crack-stitching blades and cracks were grouted with a high-strength Fusion-Crete II® modified grout. The grout was mixed to a pourable consistency, poured from cups into the saw cuts, and finished with a sponge. This procedure allowed for finish coat application.

The caulk was ground from the damaged edge of the pool coping retainer band with wire brushes on grinders. The profile of the damaged edge was restored with repair mortar in the same fashion as the other repairs.

An overlay was installed in the 100 square foot



area with the drainage problem outside the restroom. The overlay was one inch deep in the center and feathered out to zero at the perimeter. All of the original control joint profiles were maintained. The overlay was finished with magnesium floats and sponges.

(Continued on reverse...)

The last of the restorative work prior to finish coating was filling the shallow spalling. Because it was a shallow fill and not a broom coat, the areas were primed with premix. Finishing was done with pool trowels and sponges.

The urethane caulked control joints throughout the deck were masked with tape prior to the finish coat application.

The profiles of the deck were restored and ready for the finish coat. To give the finish coat a lighter shade of gray concrete color, 25% of the cement portion of the mix was white Portland. After priming with water from a garden sprayer the slurry mix was spread onto the panels with a squeegee and finished with a light-weight polyester broom.

The topping slab has been stabilized and restored and the pool deck is up to par with the standards of the lodging facility. A slurry coat over the repairs has created the consistent appearance of a new concrete deck. The pool area is renewed and revitalized.



Benefits of Fusion-Crete®

- Saves time and money
- Eliminates safety hazards
- Corrects water drainage problems
- Repairs quickly and permanently with minimal disruption
- Versatile, bonds to any surface
- Superior surface - finishes like concrete; looks like concrete
- Eliminates the need to remove and replace – environmentally sound solution

For More Information or to Locate a Distributor

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