

Name of Project: **Gaylord Rockies Resort and Convention Center**

Category:

5 - Best Building Project – Specialty Contractor (\$2 - \$6 Million) 2.5 Million

Company: Colorado Hardscapes

**Solutions of Special Projects:**

*Achieving decorative concrete excellence throughout extreme weather conditions on a high profile, large scale project is no easy task, but Colorado Hardscapes exceeded the grand expectations on the Gaylord Rockies Resort and Convention Center all while meeting demanding schedules and constant coordination needed to have an exceptional guest experience on opening day.*

Single-building construction doesn't get bigger than the Gaylord, which includes 1,501 rooms, 485,000-SF of convention space, and an indoor/outdoor water park on a sprawling 85-acre site. Over a 14-month schedule Colorado Hardscapes completed 150,000-SF of decorative concrete including the incredible Grand Lodge atrium; pool decks and lazy river coping; many hotel and convention center entrances; patios and the west event lawn flatwork. The massive project required a multitude of trades to be working everywhere simultaneously increasing congestion and limiting access. At peak manpower, Colorado Hardscapes had 21 people on site, divided into as many as four crews with a single superintendent overseeing foremen in each work area.

Special considerations in our scope included several unique areas. First pouring concrete continuously across every combination of Colorado's best and worst weather. Over 14 months of continuous construction, Colorado Hardscapes worked in outdoor conditions that ranged from 10 degrees to 100 degrees. Second collaborating with separate interior and exterior architectural teams simultaneously managing different communication styles, expectations and schedules. Then last but certainly not least installing multiple types of concrete inside and out seamlessly among countless other concurrent trades sometimes working in reverse order to meet deadlines and help other trades schedules.

**Excellence in Project Execution and Management/Team Approach:**

*Intricate and beautiful, decorative concrete requires premium products and precise installation to look exceptional and last a lifetime. Collaboration with owners, designers, builders, and adjacent trades is imperative.*

Coordinating and refining buildable design details within an achievable schedule and cost model was the result of many months of preconstruction preplanning. Defining the right combination of materials, finishes, imprints, colors, hardeners, and many other variables went through three rounds of product samples and pricing before finally arriving at the specified package.

Scheduling work sequences was particularly cumbersome due to the incredible volume of overlapping activities - from floors to ceilings, windows, walls, and a real-life train caboose being craned in. The Gaylord's centerpiece atrium is capped by a series of large paneled skylights, which were not in place when indoor activities started. Accounting for Colorado's weather indoors while concrete is curing is less than typical. Portions of interior packages were only turned over for limited time windows and always in less than ideal order. Assuring appropriate manpower, equipment, and materials were in place for every pour was essential.

Coordinating concrete installation in multiple small work zones surrounded by relentless overlapping activities was a challenge planned many months in advance and then continually reconsidered during construction. Rather than looking two-weeks ahead as is typical, the construction planning preview was extended out two months. Almost every item incorporated in the Gaylord is custom. Long- and/or changing- lead times during construction made daily communication and a willingness to flexibly accommodate others a necessity.

Coordinating design details with our high expectations for quality construction on a long timeline remained essential. Pool walkways, for example, were designed with an abundance of decorative joints as wayfinding patterns. Concerned about the long-term impacts of randomly scoring the concrete, which leads to cracking and deterioration, Colorado Hardscapes' Superintendent, Jeremy LeFever, became an ambassador of integrity. He insisted that the designer's ¾" decorative joints be appropriately coordinated with the 1½ control joints to control

weak points and ensure lasting durability. The result is a decorative treatment that achieves the visual objectives of the design without compromising the long-term integrity of the work. The level of consistency in color, texture, and performance over this volume of concrete is remarkable even to us.

**Construction Innovations/State-of-the-Art Advancement:**

*Achieving hyper-realism in decorative concrete isn't something you learn on the fly. Years of craftsmanship, slowly pushing the edge of art with high-performance materials over countless projects is what makes magic happen.*

We routinely take on the most challenging, complex concrete projects in Colorado. Complexity at the Gaylord was highest in the atrium of the Grand Lodge, a visually compelling, texture-rich, mountain fantasy that demanded exceptional realism.

Using proprietary products and installation techniques from Bomanite, an Apex Slate imprint pattern created a textured, rock walkway. Careful impression-by-impression placement assured a non-repetitive, natural-looking result. Conversely, the Belgian Block imprint required extreme consistency to achieve its appeal. A late addition Zen garden patio at the Japanese restaurant got an improvised rake treatment and all of it required extensive preplanning, consideration of mix-design constraints related to accessing work areas, and trade coordination.

Due to the area-by-area installation and complexity of decorative treatments in the Grand Atrium, the concrete was site mixed. Rather than trucking in large loads of concrete based on a delivery schedule, site mixing the material means every wheelbarrow is fresh and is placed at the pace of the finishers. This assures each imprint is placed at exactly the right time, for the right duration to deliver uniformity and increase quality. Site mixing also essentially eliminates overage, which impacts profitability positively.

Outside, Sandscape was mixed with three different integral colors for a high-profile hardscape that feels great under bare feet and looks great against natural surroundings. Sandscape step work

was incorporated along the lazy river and the edges of pools, and rivers, incorporated coping in Sandscape finish.

The dry, loose soil of the Colorado prairie is difficult to grade and doesn't hold moisture well. Crews took special care to compact and re-compact work areas during site preparation to assure long-lasting work.

**Environmental/Safety:**

*Concrete can be dirty and dangerous work, but it doesn't have to be. Small steps make a big impact when working among 1,600 other construction professionals who have their careers and lives on the line as well.*

Safety is significant in any measure of success and we happily report no incidents or violations on over 21,000 man-hours of labor at the Gaylord. Preplanning, integrating safety into every action and process, and delivering key components one batch at a time made safe, smooth, continual progress a daily focus.

Negative Air Machines: imprinting concrete requires a powered release agent, which sends dust into the air when the stamp is pounded into place. With dozens of trades working adjacently, everything would be coated in dust, if not for the five continually running negative air machines placed strategically each week in a coordinated effort.

Saw Cut Vacuums: Every saw cut was completed with a vacuum attached to the tool to eliminate dust and debris on the site throughout construction.

Slurry Removal: Throughout the pool and lazy river areas, subsurface drainage relies on French drains incorporating a perforated pipe that would be clogged if exposed to concrete runoff. Rather than washing the concrete slurry off of the deck, it was vacuumed off to assure the drains would be unaffected.

In-slab Heating Coils: Around the heavily trafficked convention center entrances and walkways, all of flatwork is heated by tubing inserted into the concrete. This will keep things warm and dry throughout the busy winter convention season. This reduces long-term maintenance costs and immediately assures a safe, non-slip surface year-round.

**Excellence in Client Service and/or Contribution to Community:**

*T-E-A-M W-O-R-K doesn't say it loud enough.* Beginning with the leadership of General Contractor/Construction Manager, Mortenson Construction Company, in an industry where collaboration is the cornerstone of success and the root of every fruitful relationship, the comradery, commitment, and intra-trade enthusiasm for being a part of this incredible project was amazing. Mortenson demonstrated strong leadership by assembling an exceptional team of subcontractors; preplanning in excruciating detail; and encouraging personal responsibility and accountability.

As the subcontractor set up in the middle of the room finishing concrete, Colorado Hardscapes was essentially in everyone's way a little bit, all the time. Communication and a willingness to work backward at times helped establish our team as the go-to-guys on tough questions with heavy schedule implications. Working in less than ideal order was often required of us to allow other trades to solve problems unrelated to concrete in many of the interconnected areas of the Grand Lodge.

Recognition by industry partners for exceptional performance is the surest sign of success. We are proud recipients of Mortenson's Star Award for Quality in 2018. Chosen annually from Mortenson's entire pool of subcontractors on all active projects, this Star Award recognizes the best-of-the-best in Subcontractor Quality. The Gaylord was one of three Colorado Hardscapes projects bundled together in Mortenson's evaluation of our firm, demonstrating a very high level of consistent performance across a wide range of work. In the remarks, Mortenson noted that on the Gaylord our dedication, constant communication, and relentless commitment to high-quality set the stage for success on a once in a lifetime project.



















