
AQUATOPIA BY THE NUMBERS

1 MILLION: PERSON-HOURS TO DESIGN-BUILD

3: MILES OF UNDERGROUND POOL PIPING

7: MULTI-LEVEL POOLS

19: WATERSLIDES

250: MILES OF WIRE – ENOUGH TO STRETCH FROM PHILLY TO CAMELBACK AND BACK...AGAIN

4,500: SQUARE FEET OF WATERSLIDES ALONE

7,500: LIGHT FIXTURES PROVIDING MILLIONS OF COLOR COMBINATIONS

12,000: CUBIC YARDS OF CONCRETE POURED

53,000: SQUARE FEET TEXLON® TRANSPARENT ROOF

30,000: SQUARE FEET OF INDOOR DRY ADVENTURE PARK

125,000: SQUARE FEET OF INDOOR WATERPARK AREA

CAMELBACK RESORT’S “AQUATOPIA”: The process of building North America’s most innovative indoor waterpark

From Ski Mountain to Four-Season Resort

Opening in the 1963/64 winter season, Camelback was a small family-owned ski mountain, drawing a few thousand visitors each year from the surrounding New York City and Philadelphia areas. Today, a true four-season resort, Camelback welcomes over 1 million visitors annually and offers an array of winter activities including a 160-acre trail system for skiing and snowboarding, the largest snowtubing park in the US, the CBK Mountain Adventures park, Camelbeach outdoor waterpark, and their newest addition, Camelback lodge and Indoor Waterpark, making Camelback a one-of-a-kind destination resort in the U.S. offering more attractions on one property than any other in North America.

Much of the “evolution” at the resort has occurred over the past two decades and began in earnest in 1998 when Camelback engaged Aquatic Development Group (ADG), a leading company in the design and build of waterparks, to help develop and expand on their existing summer attractions and create Camelbeach Outdoor Waterpark – the mountain’s, and one of the country’s, first forays into building a major waterpark on the side of a ski mountain. With growth and expansion in mind, the two companies have continued their partnership throughout the years, working together to design new waterpark additions and expand mountainside attractions.

Throughout the 2000’s Camelbeach experienced several expansions, including multiple slide complexes and the FlowRider® bodysurfing attraction built by ADG in 2011. During this period an Outdoor Mountain Adventure Park was also developed, and in 2012, as part of a \$3 million expansion, ADG was brought in to design and install a Mountain Coaster, the first of its kind in Pennsylvania.

In 2013 Camelback once again found itself on the crux of a new venture and broke ground on their latest development project – the design and construction of the largest and most innovative indoor waterpark and lodge in North America. A long realized goal, *Aquatopia* is the culmination of a vision that began over 10 years ago when the resort was brought under the ownership of Kenneth Ellis and Arthur Berry III., two friends from college who had the ability to dream big and the tenacity to bring their vision to life.

Vision Becomes Reality

In the late 1990's indoor waterparks were taking off in Europe but had yet to appear in the markets of North America. Ellis and Berry made their way across the ocean to visit and learn about the operations of these indoor parks. Ellis, then Vice President and soon to be owner and President of ADG, was in a unique position to appreciate just how successful indoor waterparks would be in the US, and after returning from his trip he determined not only to have ADG become the foremost designer and builder of indoor water parks but to build one himself.

That vision started on the road to reality in June of 2005 when Berry and Ellis purchased Camelback Ski Mountain and began ramping up the resort's summer and year round offerings. Celebrating Camelback's 50th anniversary in 2013, they announced their plans for creating the "most innovative and interactive resort destination in the country".

Camelback Lodge and Aquatopia Indoor Waterpark would be the largest indoor waterpark resort built in the U.S. in one single phase of construction, and the resort would now offer more year-round recreation activity than any other single property in the world.

Camelback Lodge & Indoor Waterpark

Designed to impress, the new eight-story, 600,000 square foot, 453-suite lodge features a 170,000 square foot entertainment center that includes a 30,000 square foot arcade, game center, kid's club activity center, ropes course, mini-golf, laser tag and more. Guests will also enjoy a 10,000 square foot luxury spa and fitness center, four new restaurants, including a ski-in, ski-out bar and outdoor patio, plus 25,000 square feet of meeting and conference space.

The crowning glory of the lodge is comprised of a year-round, 84-degree, 125,000 square foot indoor waterpark aptly dubbed "Aquatopia." Ellis, along with his team at ADG, oversaw the designing and building of the resort and indoor waterpark and is enthusiastic about the park's unique blend of adventure, attention to detail and one-of-a-kind thrills that guests will delight in.

Wearing two hats has definite benefits for both Ellis and his team at ADG. "It's a very unique advantage that ADG holds in the industry. ADG designers and engineers are on-site all the time and experience firsthand what works and what doesn't work when it comes to the operation of a resort. And we pass this advantage on to all of our clients in terms of creating innovative aquatic designs and products that benefit resorts from an operational and profitability factor, as well as from an excitement factor."

Design & Construction Challenges

From the initial concept to the completed structure, the ADG team worked with ACDI, the project architect, and Camelback to ensure the entire concept – from marketability and guest-flow, to quality, safety and overall design - fit the needs of the current resort and also left room for future expansion. The team needed to master plan a very unique design to fit the new lodge on the current site, leveraging the existing infrastructure without disrupting current park operations in the process.

“Small modifications can make a huge impact on how people experience the park,” says Jim Dunn, Executive Vice President at ADG. “Our development process helps guide park owners to the right solutions – asking questions and ensuring they consider all the options. It’s all about leveraging what you have and incorporating those elements into the overall design of a project. It really comes down to the ability to embrace challenges and creatively solve problems.”

Topography of the site also presented a welcomed challenge and design opportunity. “This was not a simple project,” says Dunn. “Building on top of a mountain is not the least expensive or easiest place to build a lodge and waterpark, but it is definitely the most fun for guests. The panoramic mountain views are magnificent and served as quite an inspiration. With our capacity to “dream big” and then make those dreams a reality, we incorporated a lot of vertical play and dimension into the design of the waterpark. The very idea of it is fun and adventurous, and like the mountains themselves, it doesn’t present itself all in one glance. Various widths, depths, light play, heights and adventure levels create a truly unique and adventurous indoor landscape.”

When creating a project of this scope, the team at ADG also takes a step-by-step approach to how design can impact the experience of the park as well as the business’s bottom line. For natural light, warmth and energy efficiency, ADG installed their Texlon® transparent roofing system that keeps the park at a balmy 84-degrees year round, not only reducing energy costs, but adding to the beauty and openness of the waterpark. By adding an ever-changing LED colored light display, showcasing one million different light combinations, the waterpark is able to achieve a multitude of different looks to match the season or occasion. With ADG’s energy efficient filtration systems installed, they ensured that the park operations would take advantage of the latest in technology for safety, cleanliness and cost savings.

Theming: Adventure and Exploration

With *Aquatopia*, the ADG design team takes the waterpark experience to an entirely new level, bringing us not just a plethora of fun rides, but a cohesive and narrative story of world exploration and discovery intertwined throughout the entire park, making *Aquatopia* the most immersive and educational indoor water and adventure park ever created.

“By developing a solid entertainment plan, incorporating detailed theming and working with The Weber Group, Inc. to design many “world’s first” attractions all based on a creative storyline, Camelback is able to provide an immersive, fun and unique ‘edutainment’ experience to their guests,” says Ryan Snyder, Manager of Project Planning for ADG.

ADG and The Weber Group developed *Aquatopia*’s theme around Camelback’s mysterious and inspiring worldly explorer character called *Kartrite Van Der Berris* who is always on an adventure somewhere around the globe. Through a sophisticated treatment of words, textures, colors, pieces of equipment and finishes his presence is felt throughout the park – all in terrific detail that you won’t find in any other waterpark. Each area of the resort is specifically designed as a place or event taken straight

from the pages of *Kartrite Expeditions*, and is full of light, sound and fun - be it the Australian-surfing themed *Bombora Double FlowRider*® attraction, the *Great Kanagawa Wave Pool* that creates the illusion of a mountain avalanche causing the high waves, or the impressive *Lost River* with light and dark adventure areas, lagoons, underwater temple and 60 ft waterfall. A Nautilus-themed lobby bar that overlooks the indoor waterpark and a Himalayan-themed family entertainment center carries the theme from the waterpark into the lodge where guests are welcomed into Kartrite's grand entrance lobby.

Activities & Attractions

Aquatopia offers some of the most unique play experiences ever developed, including *Kartrite's Continent Quest*, a next-generation interactive play structure created by WhiteWater West, offering an unparalleled number of activities with five ride experiences from the toddler-friendly *Kid-Lantis* to the dizzying heights of the *Out-N-Back Trek* and *Silk Road Runner* body slides. Also by WhiteWater is America's longest indoor uphill water coaster, the *Storm Chaser*, that propels riders up and down twists and turns akin to a cyclone; and the signature *Venus SlideTrap*, a thrilling 6-person raft ride that thrusts teams of 'expedition members' through light shows, twists and turns, culminating in a zero gravity plunge.

"The effort put into the development of Aquatopia from both WhiteWater and ADG was extremely collaborative," says Geoff Chutter, President and CEO of WhiteWater West. "As we brought innovative and exciting products to the table, ADG introduced theming and narrative to further elevate the play experience. Every step of the way, ADG challenged us to take our products to the next level with unique colors and theming, adding to the many layers of an intricate story that will blow guests away. Aquatopia truly redefines the indoor waterpark experience and we are proud to be a part of it."

All part of the experience, ADG's designers ensured that guests would have plenty of opportunities for food, beverage and retail purchases without having to leave the fun. Incorporated into the park are multiple eateries and retail outlets including the aptly named, *Flyboys*, a south pacific themed adult swim-up/walk-up bar replete with a vintage seaplane. *The Relic* gift shop, where guests can take home a piece of Kartrite's treasure, and the 1700's American-themed restaurant *Colonial Commons*, offer compelling alternatives to the water rides that entice guests to stay in the park for longer periods of time.

"We designed Aquatopia to be a limitless environment of play and relaxation, one that will increase length of stay and guest satisfaction in every season, across the entire resort," says Snyder. "At ADG it isn't just about the waterpark itself. For us it's all about helping to achieve our client's bottom-line business goals, attracting more guests all year, all around – mountainside to poolside."

Open For Business

Camelback Resort has been busy planning for a strong spring and summer season as they welcome crowds to their new lodge and indoor waterpark and looks forward to continually offering its guests something new to experience year round.

“Camelback is very fortunate to be situated in a tremendous market area, 35 million people within a couple hour drive, that allows us to take on all of these projects and successfully implement them,” says Ellis. “Not every resort can do all of this – you really have to look at your market and determine what will work for you.”

He also goes on to note that, “Almost every resort can add more features and be successful regardless of size if developed and implemented correctly. ADG’s work in the industry has proven that. The approach we take is to help determine what makes the most sense for our clients. More than just design and marketability, we consider all aspects in operational procedures to maximize efficiencies and ROI. And one important key to future long term success, always plan for expansion and incorporate room for growth in every design.”

The team of ADG and Camelback welcome potential clients to come and experience firsthand their partnership at work; experience the resort, learn about the evolution from ski mountain to resort destination, and discover how it all came together. When adding to a resort like Camelback, Ellis stresses the importance of considering and honoring the history of the place and its most valued repeat guests, as well as taking into account the way new guests will experience the resort. All of these factors should be part of the overall plan.

“The waterpark is geared towards everyone who visits,” said Ellis. “We are not only focused on offering something special to kids and families, but to our valued skiers and boarders who have been coming to the mountain for years; to couples on a romantic escape; and to business travelers who may be attending meetings or a conference. The theme and design of our park is more sophisticated than most and this has allowed us to create a resort that caters to all ages and interests.”

For more information visit www.aquaticgroup.com/camelbackresort