

Skatepark Designs Elevate Shotcrete Craftsmanship

By Mark Leone

In the past decade, there has been an explosion of shotcrete skateparks popping up in parks, recreation areas, schools, churches, and even under bridges. While skateparks have been around for close to 40 years, it is only recently that master builders have emerged in the specialized placement of smooth, consistent shotcrete. As many nozzlemen are also active skateboarders, the complexity of shapes and skate terrain is continuously being pushed to new levels. One of the most complex features found in today's

skateparks is the large, interconnected, amoebic-shaped pools specifically proportioned for skateboarding called “combi-pools” or “flow bowls.” With skateboarding roots closely tied to backyard pool skating, it's no surprise that the design of many of today's modern skatepark bowls seem to mimic inground swimming pools. In fact, many elements found in backyard pools are being replicated in modern skatepark designs. Some of these elements include skimmer boxes (also called “death boxes”), tile bands, entry steps, and bullnose coping.

There is, however, one key difference between skatepark bowl and swimming pool construction. Skateparks do not have the added plaster layer. Although most skate bowls borrow similar methods for excavation and earth shaping, reinforcing bar frequency, and bond beam design, that is where the similarity ends. In swimming pool construction, the shotcrete is placed and rough-cut to the desired shape and allowed to set. Later, a separate layer of plaster is applied that creates a uniform, smooth surface. For skatepark use, however, this plaster coat does not have the strength to withstand the repeated abuse of skateboards and BMX bikes and will quickly chip, causing a major safety concern and a maintenance nightmare.

Therefore, the challenge faced by skatepark builders is to manage the placement and shaping of the shotcrete on highly complex curves while ensuring that the finish is smooth-troweled to a consistent and even riding surface that meets very tight radial tolerances (within 1/8 in. [3 mm]). If you can imagine a skateboard wheel with an average diameter of 2 in. (52 mm) carrying a 150 lb (68 kg) skater rolling at speeds upward of 15 mph (24 km/h) it's easy to see the importance of creating a smooth, predictable riding surface. What may initially appear as chaos on a construction site becomes a symphony of efforts upon closer inspection, as the nozzleman is constantly making adjustments while coordinating sequencing with a team of shapers and finishers—all working to ensure that the finished walls are sculpturally perfect.



Overview of the recently completed skatepark in Glynn County, GA



A skater grinds the volcano in Glynn County, GA

Pool & Recreational Shotcrete Corner



Overview of flow bowl in Glynn County, GA



Skater jumps bowl gap in Glynn County, GA

Ultimately, the success of a skatepark project requires the coordinated effort of a dedicated team of shotcrete professionals who are not only experienced in the application process, but who also grasp the importance of meeting very finite tolerances required in skatepark construction. To ensure that the tight specifications are met, many teams have developed custom ladders and radial wall templates and adjusted mixture designs to ensure that the end product is laser-accurate and butter-smooth.



Skater pumps teardrop hip in Glynn County, GA



*Above and below:
Hardcore Skateparks COO Jeff Araiza*



Night shot of Louisville Extreme Park, KY

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