Contracts, Chemistry, and Communication

THE WOMEN BEHIND SPOHN RANCH'S SHOTCRETE PRECISION

By Mark Bradford

THE INVISIBLE ARCHITECTURE OF SHOTCRETE

Shotcrete looks effortless when it's done right — a smooth wall, a sculpted bowl, a perfect transition that seems to rise from the earth. In reality, each surface hides layers of planning, chemistry, and coordination.

At Spohn Ranch, a design-build-fabricate firm specializing in concrete skateparks and pump tracks, that invisible architecture extends well beyond the nozzle. From contracts and mixture design to field execution, success depends on leaders who turn precision into culture.

At the center are three women whose expertise anchors the company's work worldwide: Kirsten Dermer, Olivia Rich, and Holly Schwartz. Their influence runs through every phase of construction — from California to Saudi Arabia, Israel to Mexico, Peru to the Philippines, and Okinawa to Puerto Rico.

KIRSTEN DERMER — THE FRAMEWORK AND THE FIXER

For more than 30 years, Kirsten Dermer has been the backbone of Spohn Ranch. As CEO, CFO, and managing partner, she has stood beside founder Aaron Spohn since the backyard-ramp days. Under her direction, the company grew into a global design-build leader, blending creative vision with financial and operational discipline.

Kirsten built the infrastructure that maintains active contractor licenses in 19 states and reciprocal agreements allowing work in five others, with additional experience obtaining new licensure in support of emerging projects. She manages bonding, insurance, and certified payroll across all jurisdictions — an achievement few specialty contractors can match. Her oversight also extends to the firm's design studio in Los Angeles, CA, and fabrication facilities in Kennedale, TX, and Perris, CA, where each shipment of pre-bent rebar and prefabricated parts reaches the field ready to assemble: A system made possible by the same structure Kirsten brings to every financial decision.

"Quality starts long before the pump fires," she says. "It starts in the systems and in the people who care enough to get the details right."

That same precision guides how she manages risk.

THE CRACKS THAT APPEARED BEFORE THEIR EYES

On a large pump-track build, a Spohn Ranch crew had just finished shaping a freshly shot section when the ground began to vibrate beneath their boots. A separate contractor — working for the same city client — was compacting an adjacent parking lot with a heavy roller. Within seconds, fractures began to form across the still-green surface, visible as the crew stood and watched.

Hairline cracks are not unusual in large, jointless expansions, but these were different. The vibrations had caused full-depth fractures — structural damage, not shrinkage. The cause seemed clear, yet the proof wasn't. The client hesitated to assign responsibility, leaving Kirsten to make a difficult judgment: Dispute the liability and risk a drawn-out delay, or negotiate a solution that would preserve relationships and schedule alike.

"When you're operating in 19 licensed states, you can't look at one job in isolation," she says. "A delay here can ripple across the whole company."

The choice was clear. Though confident the vibration caused the damage, Spohn Ranch agreed to share replacement costs. The decision balanced ethics, efficiency, and long-term strategy — repairing both the concrete and the relationship.

"It wasn't compliance for convenience," Kirsten explains. "It was a strategic decision — to protect the work, the client, and our credibility."

With winter weather closing in on other projects, keeping crews on schedule across multiple states mattered as much as fixing the cracked section itself. For Kirsten, the calculation wasn't just financial: It was about momentum.

"Our reputation is built one pour at a time," she says. "Sometimes the fix is as important as the finish."

OLIVIA RICH — THE SCIENTIST IN THE MIX

If Kirsten provides the framework, Olivia Rich supplies the science. As Spohn Ranch's lead for quality control and mixture design, she manages the chemistry behind every park — roughly forty projects each year across climates and continents.

At the core is the company's proprietary 7.5-sack

concrete mixture, engineered for 4000 PSI (28 MPa) at 28 days. Because skateparks can't have expansion joints — trip hazards for wheels — the concrete must absorb movement and temperature change while holding tight surface tolerances within ± 0.25 in. (6.3 mm).

Because Spohn Ranch's parks are sculpted rather than poured flat, the concrete has to stay workable for extended trowel time yet hold its shape once placed. The ratio between cement, water, and admixtures is tuned to achieve that rare balance; fluid enough to finish, firm enough to stand.

Each batch uses 0.375 in. (9.5 mm) aggregate for pumpability through a 2 in. (50 mm) wet-mix hose, with low water-cement ratios to limit shrinkage. All admixtures are polycarboxylate-based, giving the concrete structure that 'stands up' on sculpted transitions.

Local plants often default to lignosulfonate water reducers and 6 percent air entrainment. Olivia's experience shows that 3 percent and below works best to prevent delaminations from troweled surfaces exposed to freezing and thawing cycles. When plants can't supply the right materials, Spohn Ranch ships its own admixtures for field dosing.

Convincing regional concrete producers isn't always easy. Many QC managers are accustomed to conventional admixture packages or higher entrained air targets, but Olivia's data-driven approach often changes minds. Once they see the smoothness, density, and lack of spalling in the finished skate surfaces, they become advocates for the tighter mix parameters Spohn Ranch demands.

Olivia reviews every ticket and test report, maintaining a national database that keeps mixtures consistent from the seismic activity of California to the heat of Saudi Arabia and the humidity of the Philippines. She continues refining and documenting the company's shotcreted concrete performance data to push consistency and durability even further.

"Quality control isn't about catching mistakes," she says. "It's about knowing the material so well that problems can't hide."

HOLLY SCHWARTZ — THE CONNECTOR IN THE FIELD

If Kirsten builds the structure and Olivia defines the chemistry, Holly Schwartz connects it all on site. As project manager, she links Spohn Ranch's design studio, fabrication shops, working foremen, and general contractors, keeping projects synchronized from first layout to final finish.

Because Spohn Ranch often serves as both designer and subcontractor, Holly's coordination spans multiple worlds, including technical drawings, logistics, and field execution.

"Most of our foremen are literally in the trenches," Holly says. "My job is to keep them supplied and supported so they can build."

A major part of her role involves prefabrication coordination. Every project begins as a digital model. From those files, CNC routers cut templates, screeds, and stop forms, while fabrication teams in Kennedale, TX, and Perris, CA, produce steel edging, grind rails, coping, and pre-bent rebar kits. Holly manages the scheduling and shipping of those parts, so each site receives a precise, plug-together kit that defines geometry before fine grading begins.

Once construction is underway, she becomes the communication hub between Spohn Ranch's crew leads and the general contractor, resolving inspection issues, juggling schedules, and adjusting for weather or delivery delays without compromising cure times or finish quality.

"Every pour is a choreography," she says. "You plan it all day, but you have to read the crew and the concrete in real time."

Her coordination keeps projects on spec and on schedule — the quiet force that turns design and mix into rideable form.

THE COMPLETE POUR

Shotcrete placement rewards precision and punishes shortcuts. At Spohn Ranch, that precision begins long before concrete meets air — in contracts, chemistry, and communication — and Kirsten Dermer, Olivia Rich, and Holly Schwartz embody that continuum of excellence. Their leadership, science, and coordination transform ideas into strong concrete environments that perform beautifully and endure for decades around the world.

"What people see is concrete," says Mark Bradford, Principal/VP of Skatepark Construction at Spohn Ranch. "What they don't see are the women whose leadership and collaboration hold it all together — one perfect pour at a time."

Mark Bradford *is the Principal/VP of Skatepark Construction at Spohn Ranch Skateparks and has spent his entire adult life eating and breathing wheeled sports. He is highly skilled in all facets of construction, from steel fab to mass grading, but is considered a concrete virtuoso with multiple certifications from the American Concrete Institute and expert analysis featured in industry publications. As the primary leader of Spohn Ranch's major builds, Mark is often on the road over 300 days per year – flying from critical shotcrete placement to Mountain Dew Tour arena set-up to supervising coping fabrication at Spohn Ranch's shop.*