

## AMAZING BARNs

### MASTER PLAN IS PARAMOUNT

As our experts explained, good design begins well before the buildings are even “napkin sketches.” The important first step is visualizing the facility as a whole. According to architect John Blackburn, “Proper planning can reduce costs—fewer roads, less fencing, better drainage—and ensure that the whole farm, not just the horse barn but the entire collection of structures on the site, operates efficiently and safely.”

Joe Martinolich, principal and director of equine facilities design at CMW, says, “People tell me, ‘I need a six-stall barn.’ I ask, what about your tractors, manure, tools, and hay?” He tells them, “First locate your turnout, hay, equipment, and vehicle storage, access for manure pickup, large-truck deliveries, and maybe guests and visitors. These all have interrelationships, and they need to be planned for in the beginning. Only then can you focus on the actual buildings.”

“At most farms, the biggest expense is the labor,” adds Lachlan Oldaker of GH2 Gralla in Oklahoma. “So, efficient planning saves time, and therefore money. Good design means that

Barns can pay tribute to the traditional architectural styles of their locations. A curved driveway at Iron Rose Farm, near Aspen, Colo., references old local mining structures and uses a wooden roadway like those in old bridges. The owner can personally tune the “clackety-clack” sound vehicles make while crossing. The cupola on a private barn on Long Island also reflects local design tradition.



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it requires fewer steps to do the daily routine, turnout, cleaning, and mucking, and therefore saves labor costs.”

Blackburn explains the importance of the orientation of the buildings in the landscape. “A good barn is not just a building, it’s an engine. We design the building to create its own ventilation. We feel the key is to place the building perpendicular to the prevailing summer breeze for the location. Then, a properly pitched roof uses the Bernoulli effect, like the lift of an airplane wing, and creates areas of high and low pressure around the barn. On the backside of the roof, it creates a low-pressure area which, when properly designed, pulls air up and through the barn. Bring air in low near the floor and vent at the top to let the air exit. You want the air to move vertically. Horizontally transfers bacteria and pathogens from one horse to another.”

Creating a master plan does not mean that every part of it needs be built at once. The plan may end up taking years to implement, but as each new structure or paddock is added, it isn’t done in the usual haphazard way. How many of

### OUR EXPERTS



**JOHN BLACKBURN** grew up in with horses in eastern Tennessee. “I played in the barn as a youngster and rode bareback because I didn’t want to fool with tack. Basically I rode until I fell off,” he told EQ. His architectural firm was established in Washington, D.C., in 1983 and has become one of America’s best known, specializing in equestrian projects, from site planning through design and construction management. A book on John’s work is coming out in late summer. (See page 82)



**JOE MARTINOLICH**, principal of CMW Equine Architects, has horses at his home. CMW, based in Lexington, Ky., was formed about 50 years ago and has had over 30 years of equine design experience. CMW began its equine practice with the original master plan and structures for the Kentucky Horse Park and has designed numerous horse facilities locally, nationally and internationally.



**HOLLY MATT** has competed and judged in various disciplines for the past 30 years and is an active competitor in USEF national and FEI international levels of eventing competitions. She began her architectural career in Denver and now leads Pegasus Design Group, in Southern Pines, NC. Holly travels extensively to research planning and construction methods, materials, and new technology, to adequately advise her clients.



**LACHLAN OLDAKER** began working with architect Stan Gralla in 1987 and leads up GH2 Gralla’s equine practice, located in Oklahoma. Lachlan has been an avid equestrian for 40 years. She is directly involved in the planning, design, and production of all equine facility projects, with experience ranging from Class I racetracks and equine event centers to personal training, breeding, boarding, and recreational facilities.



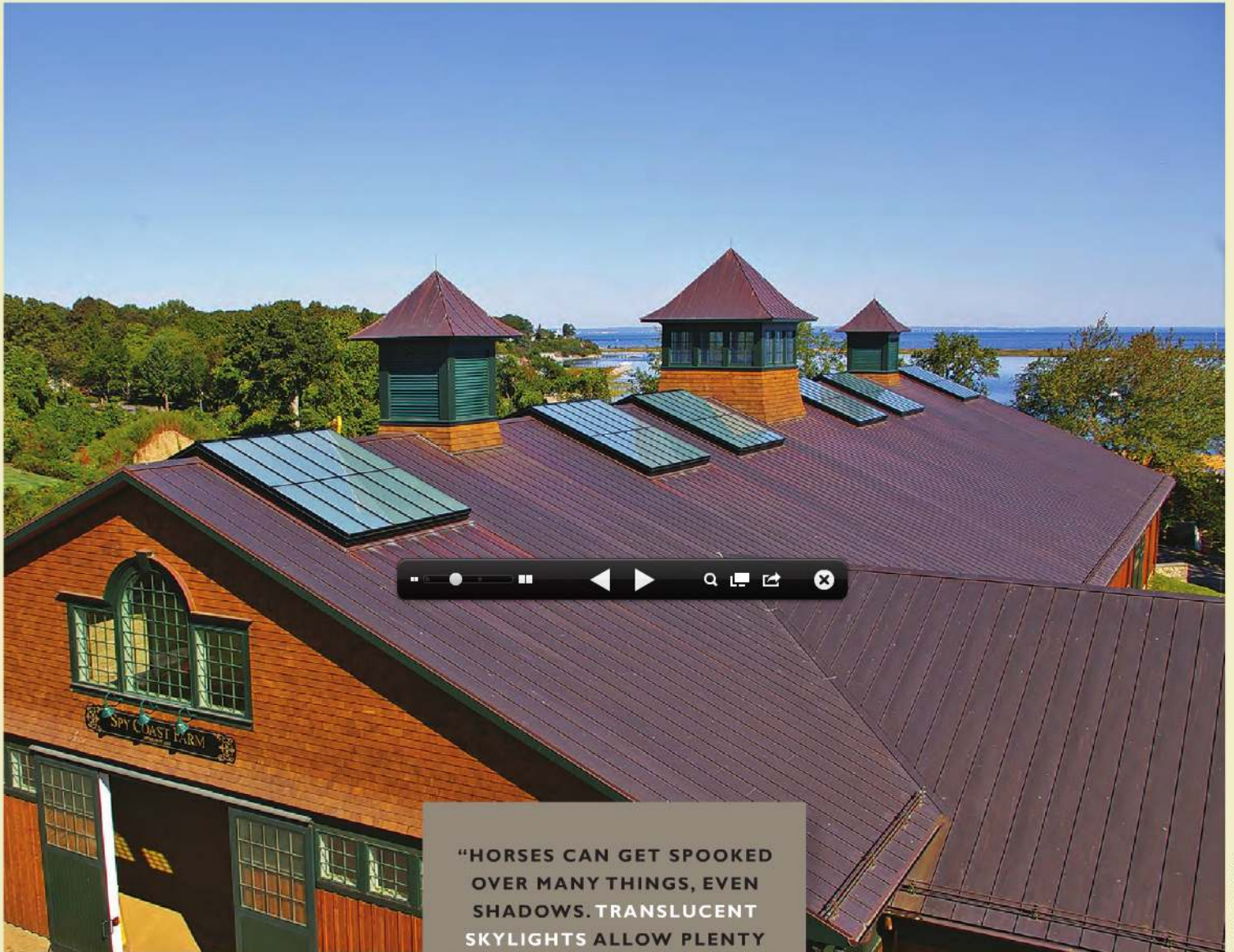
**LAUREL ROBERTS**, daughter of Monty and Pat Roberts, has trained horses her entire life. While managing and working at Flag Is Up Farms in the Santa Ynez Valley, Laurel not only learned to be a champion rider but gained a lifetime of experience building and running equine facilities. She works with some of the best builders and suppliers available. (See “What I Learned” on page 84)



**DAVE ZUBLIN** founded Old Town Barns in 1982 to preserve the traditions of craftsmanship and durability that are representative of the American landscape. From his base in Pawling, New York, Dave has the reputation as one of the best builders of equestrian facilities in the Northeast.

For contact information for these designers, see **EQ+** PAGE 97





**“HORSES CAN GET SPOOKED OVER MANY THINGS, EVEN SHADOWS. TRANSLUCENT SKYLIGHTS ALLOW PLENTY OF LIGHT WITHOUT CASTING SHADOWS.” -DAVE ZUBLIN**

feeling their best they must be provided with three levels of ventilation. Starting at the top level, roof ridge vents, vented skylights, eaves, and cupolas allow stale air to escape, while the main level windows and doors provide fresh air intake. Stall floor-level ventilation allows heavy ammonia gas and dust to escape the stalls. All three levels of ventilation must be provided in order to create an optimal environment for your performance horse.”

Apparently, the designers agree that incorporating numerous skylights into the design seems to be the biggest single change in barn architecture. It has become the norm.

And why not? Skylights provide the double benefit of both natural light and natural ventilation. “Light and ventilation are the biggest ‘green things’ to consider when designing,”



Venting cupolas, clerestory windows, skylights, and sliding barn doors in a riding ring make for a pleasurable indoor riding experience in Long Island, New York.

Martinolich adds. “Plus they just make a barn so much more pleasant. You want to leave a dark, cave-like barn as quickly as you can. But a bright, well-ventilated barn or arena has a whole different feeling. You don't want to leave.”

This feeling of brightness can be enhanced even more with some simple ideas. An indoor arena, painted white or a light color, fitted with adequate skylights, would never need electric lighting during the day, and it would feel as bright as the outdoors. Using translucent rather than clear skylights helps to eliminate shadows that may alarm horses.

Just as location determines barn design, it also affects the choice of materials. Many people naturally gravitate to wood. It is warm, traditional, and may be the most economical,

OLD TOWN BARN