



Retaining Excellence™

Infineon Raceway

Sonoma, California

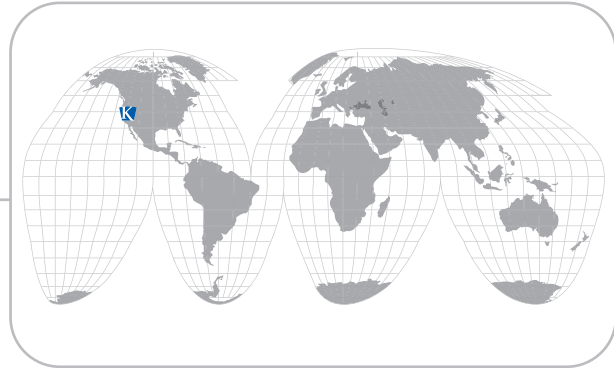
When Speedway Motorsports, Inc., bought Infineon Raceway (formerly Sears Point Racetrack) in 1996, they immediately went to the drawing board to see how they could make a good racetrack even better. Keystone played a major role in the over \$50 million renovation and expansion. Keystone Standard units were used to create a unique and popular race track feature called The Chute. Keystone Compac units were used in building the terraced seating that will add approximately 60,000 extra spectator seats to this popular race venue –built directly into the foothills of the coastal mountain ranges on either side of the Sonoma Valley.



Infineon Raceway wanted to create an exciting atmosphere and give their fans the ultimate race experience. “Fans sitting in the new terraced seating will have a sweeping view of the race track. Fans can still stake out their favorite territory, but thanks to the Keystone terraced seating, people will be able to see more than one limited area, giving everyone a better sense of the race,” said Steve Page, Infineon Raceway General Manager.

The Chute Design and Construction

In 1999, John Clarno, Rex Daysh, and their team from Earth Retention, Inc., were contracted to help create one of the raceway’s more unique racing elements. Keystone Standard units were used to construct The Chute, a section of the Infineon Raceway NASCAR track that was built to create a bank toward Turn 4. Drivers maneuver their cars through The Chute at very high speeds hoping to gain momentum from the banked surface to propel themselves to a passing position.



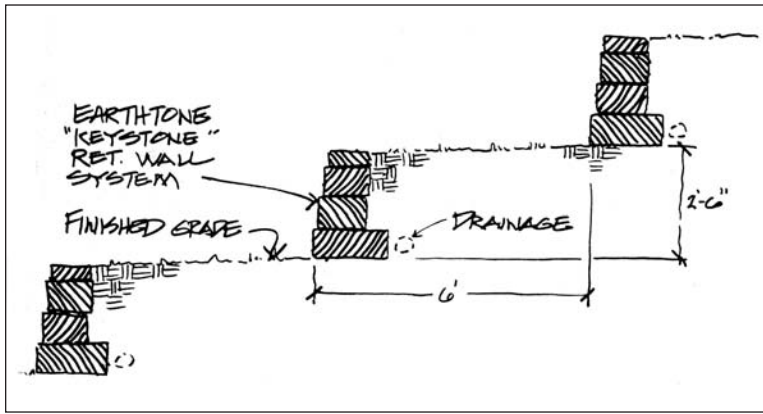
Project:	Infineon Raceway
Location:	Sonoma, California
Keystone Product:	Keystone Classic Standard & Compac Straight-face
Keystone Supplier:	Basalite Concrete Products San Francisco/Sacramento, CA
Owner/Developer:	Speedway Motorsports, Inc.
Square Feet:	336,000 sq. ft.
Wall Contractor:	John Clarno, Earth Retention, Inc. Walnut Creek, CA Rex Daysh, California Retaining Walls Walnut Creek, CA
Grading Contractor:	Ghilotti Construction Santa Rosa, CA
Structural Engineers:	C.S.W./Stuber-Stroh Engineering Group Novato, CA
Geotechnical Engineers:	Jerry Giblon & Associates Santa Rosa, CA
Landscape Architect/Designer:	Landesign Group Sebastopol, CA

Because of the existing water table and the need to create a path for the torrents of rushing water flowing from the foothills during winter and spring rains, The Chute was built atop a tunnel approximately 80 feet long, with a 20-foot span height. A corrugated steel barrel horizontal-ellipse CONTECH Super-Span™ was used for the tunnel because it required only minimal subgrade remediation.

The design and location called for a product that would not cause differential settlement. Settlement had to be uniform so that The Chute’s track would not

CASE STUDY





become uneven as the completed structure settled into the existing soils. Six separate Keystone Compac walls were erected up to 33 feet in height around the tunnel span, although there only appears to be one continuous wall. The site made use of five different soil types to ensure proper phi angles, and thrust block joints were used between wall sections to create the necessary flexibility for uniform settlement.

Terraced Seating Design and Construction

The original design suggested aluminum bleacher seating, although other products were also considered, such as treated timber. Clarno together with Rex Daysh, proposed visually appealing, structurally durable amphitheater-style seating made with Keystone Compac units. "Rex's proposal was more cost-effective," said Jere Starks, Infineon Raceway VP of Facilities. "When it came right down to the figures, the Keystone Compac amphitheater-style seating was less expensive than the aluminum bench seating and provided a much better look."

Because of the tight timeframe for construction, the project took on a "build-as-you-go" feel with each challenge addressed almost as it happened. Building could only be done during California's extremely short racing off-season. Another major challenge was the retention of all the earth moved to make room for track expansion and the additional seating. Construction crews were literally moving mountains, or at least mountain foothills, to complete the project in its

short, three-month building timeframe. Over three million yards of earth was moved and resettled during this phase of construction.

"The idea in the design and construction of the terraced seating was to make the hillside and the products come together," said Clarno. During the first phase of the seating expansion, 35-40 individual, terraced gravity walls were constructed instead of the more time-consuming, interconnected, reinforced tiered walls.

"Actually, almost everywhere you look, there's a Keystone wall. The Keystone units were so versatile that we used them in numerous applications, from short divider walls to a memorial column built in honor of Dale Earnhardt," said Rex Daysh.



The Keystone Difference

The Infineon Raceway project called for a product that was highly adaptable to many challenging site situations. Keystone product installation ease and design versatility were really put to the test with an extremely tight construction timeframe. Because of Keystone's outstanding product integrity and aesthetics, along with enormous creativity on the part of the Earth Retention, Inc. team, Infineon Raceway is now a showpiece among racetracks in the motor sports industry.

For more information on Keystone Retaining Wall Systems products and services, please visit www.keystonewalls.com or call 800-747-8971. Keystone Retaining Wall Systems, Inc. is a subsidiary of CONTECH Earth Stabilization Solutions Inc. (www.contechess.com).

