LD+A

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Step Lively

Color adds pop to a pedestrian bridge

Esplanade Excels

Charlotte's Crown

Lighting's Effect on Wildlife

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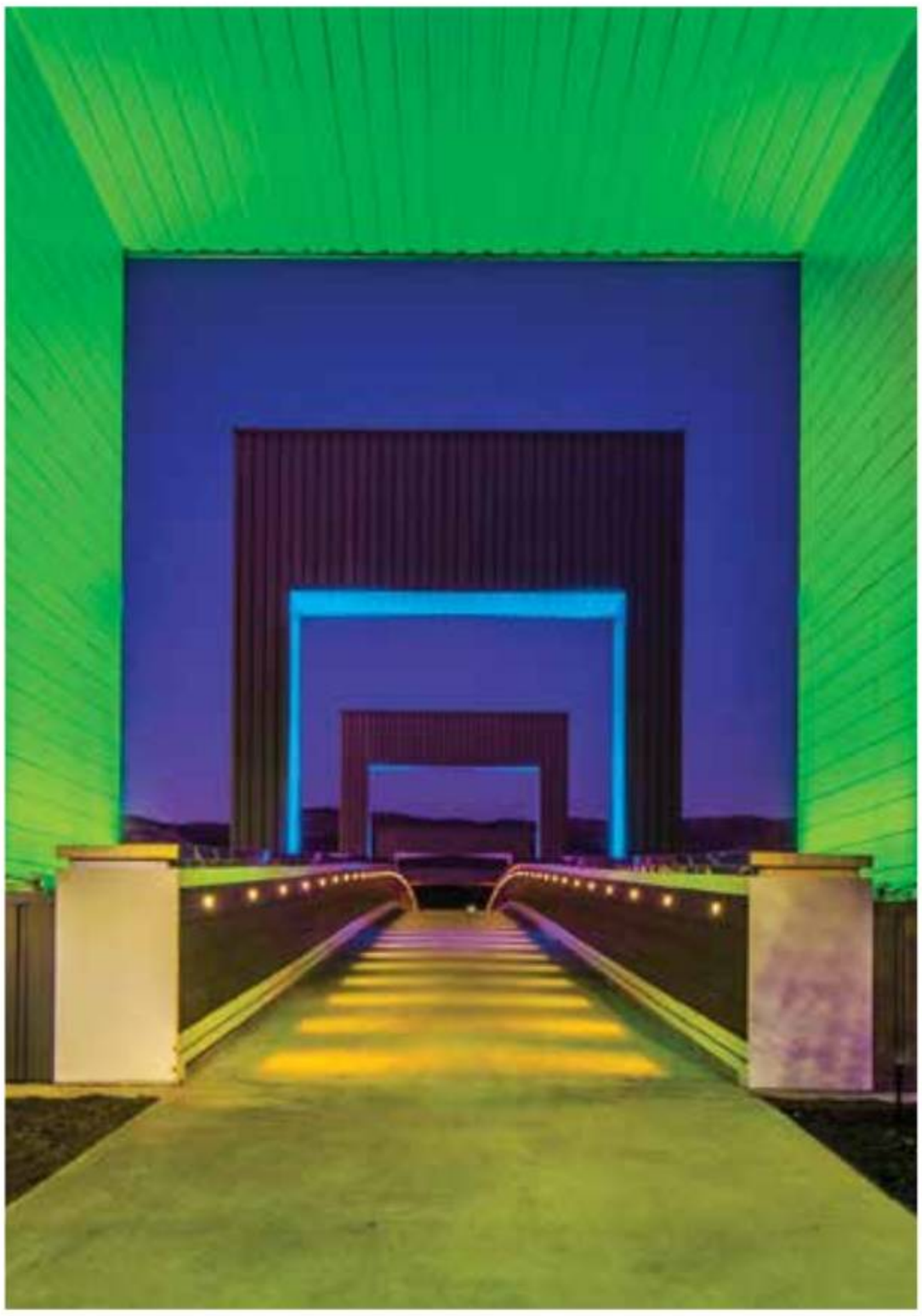

Photo: Brad Nelson

Photo: Cameron Franchuk, Six Mile Road Photography

Pedestrian Pop

Two footbridges in very different locales add a splash of panache to their respective scenery

BY PAUL TARRICONE

When *LD+A* says bridge, you probably think *vehicular*. Most of the bridge lighting coverage that rolls across our pages touches on long-span structures that carry cars and are often well-recognized in their communities. The simple pedestrian bridge can sometimes get lost in the traffic of these more glamorous transportation projects, but in 2017, the two footbridges featured here scored IES Illumination Awards of Merit for their design inspiration. One resides in a suburban setting in Irvine, CA, while and the other graces a rural area of Edmonton. Both are welcome additions to the neighborhood aesthetic.

IRVINE IN LIVING COLOR

Unless you're famished and eagerly eyeing your morning bowl of oatmeal, the color beige doesn't usually make one's heart flutter. Recognizing this conundrum, the City of Irvine, CA, ordered up a splash of color for a 282-ft pedestrian/cycling bridge that links several family-oriented neighborhoods to an extensive park and trail system. "The beige dominance in Irvine is driven by the primary developer, which has a tendency to build Italian and Spanish style stucco homes with a relatively plain color palette in the white/beige realm," explains Brad Nelson, director-lighting, StudioK1, Irvine. The influence of this particular developer "is very apparent as one drives around the city."

Also predictable are Irvine's existing pedestrian bridges, which connect a series of bike paths/sidewalks/trails to these neighborhoods. Says Nelson: "They're are all very traditional truss bridge structures created from square tube steel to look like train bridges."

However, when a different developer was tapped to build new neighborhoods and a footbridge, "their goal was to stand out and draw attention to the differences of this area from the rest of Irvine. To do this, the team started with a very different shape and new materials, and then added lighting and color, none of which the other bridges have. The team then addressed the various view angles of the bridge—as it appears to vehicles, and also to bridge-goers—with the intent of keeping it simple for roadway traffic but playful for the users."

The new bridge's distinguishing feature is a series of "gateways"—essentially arches—that increase in size and build excitement for those traveling toward the park. The five gateways create a clean architectural aesthetic in which the support structure for the 11-ft wide concrete slab and steel girder bridge is concealed. Starting at 30-ft tall and 3-ft long, the gateways progress to 46-ft tall and 12-ft long at the south end of the bridge. The total length from the first gateway to the last is 282 ft with an open span of 165 ft in the center over the nine lanes of traffic below.

The interior surfaces of the gateways provided the opportunity for a less traditional approach to accent lighting, notes Nelson. Linear LED fixtures (Lumenpulse) are kept out of view and positioned in the gap between the guardrail and gateway so they can light the entire interior of the frames. "With the light washing the inside faces, the square design created a 'hard stop' for the lighting, which increased the pop by leaving the rest of the gateway dark," says Nelson. "Then through program-

Photos: Brad Nelson

ming, each gateway can take on its own personality through different colors, or they can all be themed together for holidays and special occasions."

The exterior surfaces perpendicular to the roadway are uplit from ground level with simple warm white LEDs to provide a soft accent. "We wanted to provide a point of interest to those in traffic without providing a distraction that may have been caused by color. Many of the adjacent trees were also uplit with warm white helping the bridge settle into place amongst the landscape built up to support the ends of the bridge," Nelson adds.

Like the existing pedestrian bridges, the new structure crosses over the heavily trafficked Irvine Boulevard. As a result, the developer and construction team devised a traffic management plan that would not inhibit the average daily use of the boulevard during construction. "To do this, the team elected to not rip up any pavement below which meant that the bridge would be entirely self-contained. All of the utilities were to be routed through the bridge's structure, so

Steplights integrated into the guardrail panels (above) helped meet the footcandle requirement for security, while linear LED luminaires were wall-mounted to the gateway face—in the gap between the guardrail and gateway (left)—to light the interior of each gateway.

conduit for power and control were coordinated with the steel that supports the bridge. Transformers were located inside the gateways with access panels so that the tiny low voltage steplights could be fed appropriately." These steplights, which are integrated into the guardrail panels, were crucial in meeting the 1 footcandle minimum of the Irvine Uniform Security Code for illumination on the bridge surface. Finally, a local DMX controller allows for color changes to accommodate any event or holiday.

Goodbye beige.