

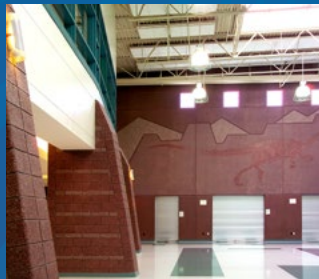
Notable Concrete in Las Vegas



American Concrete Institute
Always advancing

Examples of concrete construction in the vicinity of the ACI convention

As ACI prepares to meet for The ACI Concrete Convention and Exposition, October 14-18, 2018, at The Rio All-Suites Hotel, in Las Vegas, NV, here are several nearby projects of interest:



Acknowledgments: Thanks to Michael Paul of ACI Committee 124 and the Las Vegas Chapter – ACI for compiling this information.

Richfield High School

510 W. 100 S., Richfield, UT 84701



Marking the geographical transition between ACI conventions in Salt Lake City and Las Vegas, the Richfield High School was a total demolition and rebuild project, creating a brand new educational campus. Precast elements in the 280,000 ft² facility included exterior precast caps, banding, sills, and lintels; and interior stair railing base, locker room benches, and cafeteria benches.

Project credits: Kevin Madson & Associates, Architect; Westland Construction, General Contractor; Unlimited Designs, Precast Fabricator.

Submitted by Lana Mousley, Business Development, Unlimited Design, North Salt Lake, UT, +1.801.355.3221, lane@unlimiteddesign.com.



Dixie Convention Center

1835 S. Convention Center Dr., St. George, UT 84790



The Dixie Convention Center in the southwest corner of Utah was the first building in the state to feature curved tilt-up panels. The unique panels surround the rotunda to seamlessly create an impressive cylindrical main entrance. Symbolic concrete flambeaus, topped with curved aluminum, cover each of the panel joints and add mass and interest to the entry. This rotunda could not have been done in any other medium than concrete. Integral coloring was incorporated into the concrete to mirror the unique colors of the southern Utah landscape. The tilt-up convention center includes a 47,500 ft² exhibit hall, ten meeting rooms from 1000 to 2200 ft², a 3500 ft² kitchen, and two separate grand entrances.

Project credits: Naylor Wentworth Lund Architects, Architect; Hughes General Contractors, General Contractor.

Submitted by Amber Ridings, Marketing Communications Specialist, Hughes General Contractors, Inc., North Salt Lake, UT, +1.801.292.1411, amber@hughesgc.com.

Fossil Ridge Intermediate School

383 S. Mall Dr., St. George, UT 84790



The concrete tilt-up panels for Fossil Ridge Intermediate School were integrally colored with Solomon liquid colors Leather and Desert Tan. The two colorings and the use of different depths of cuts during sandblasting give varied colors and textures within the same panel. The integral coloring is featured in the commons area, where four exposed interior architectural concrete tilt-up panels display two 30 ft castings of dinosaur skeletons in a mountain scene. The dinosaur was made using a polycarbonate template, and the mountain scene was created with varying depths of sandblasting and chamfered embeds.

Project credits: Naylor Wentworth Lund Architects, Architect; Hughes General Contractors, General Contractor.

Submitted by Amber Ridings, Marketing Communications Specialist, Hughes General Contractors, Inc., North Salt Lake, UT, +1.801.292.1411, amber@hughesgc.com.

Santa Clara Town Hall

2603 Santa Clara Dr., Santa Clara, UT 84765



Santa Clara City wanted a hand-pitched sandstone veneer to match the appearance of a turn-of-the century school house that had previously stood near the site of the proposed town hall. The estimate for this specific finish came in over budget and would have required sacrificing building space and the much-wanted clock tower. To achieve the desired effect, Pioneer Stone™ was invented. This precast stone is a load-bearing structural masonry system with the appearance of natural sandstone. The estimated savings to the city, when compared to natural sandstone veneer, exceeded \$900,000 on a 27,000 ft² building. The savings meant no sacrifice of space or the clock tower.

Project credits: Naylor Wentworth Lund Architects, Architect; Hughes General Contractors, General Contractor.

Submitted by Amber Ridings, Marketing Communications Specialist, Hughes General Contractors, Inc., North Salt Lake, UT, +1.801.292.1411, amber@hughesgc.com.

Wheeler Machinery Hurricane

5300 W. Wheeler Way, Hurricane, UT 84737



The entry to the building features complex conical-shaped concrete tilt-up panels that create a unique architectural expression that stretches innovation in tilt-up construction. The integrally colored, curved panels lean away from the building, increasing the perception of depth. They give the sense of pushing earth forward, not unlike a bulldozer. A customized casting bed was meticulously designed and built to produce the required curved shape for these two panels. The Wheeler Machinery facility is made up of two architectural tilt-up concrete buildings totaling 77,000 ft².

Project credits: The Richardson Design Partnership, Architect; Hughes General Contractors, General Contractor.

Submitted by Amber Ridings, Marketing Communications Specialist, Hughes General Contractors, Inc., North Salt Lake, UT, +1.801.292.1411, amber@hughesgc.com.

F-35 Two-Bay Fuel Cell Repair Hangar and Apron

Nellis AFB, NV 89191



The hangar provides space to perform fuel cell maintenance on the F-35 Lightning II stealth fighter aircraft. The project featured approximately 12,000 ft² of hangar concrete slab on ground and 40,000 ft² of concrete apron pavement to accommodate aircraft movement and three parking stations. The 12 in. thick hangar slab was constructed with a vapor barrier and low water-cement ratio to meet low moisture emissivity requirements of the epoxy coating system. The design was accomplished in accordance with the draft version of Unified Facilities Criteria 4-211-01, Aircraft Maintenance Hangars, because the project designer concurrently was assisting with the development of the UFC per requirements of the Army, Navy, and Air Force.

Project credits: United States Army Corp of Engineers Los Angeles District, Owner; Burns & McDonnell, Architect/Engineer; Straub Construction, General Contractor.

Submitted by Don McLaughlin, PE, Structural Department Manager, Burns & McDonnell, Kansas City, MO, +1.816.822.3233, dmclaug@burnsmcd.com.

Camino Al Norte Business Center

5135 Camino Al Norte Rd., North Las Vegas, NV 89031



The Camino Al Norte Business Center is a two-story 49,000 ft² office complex featuring an innovative, award-winning design for which concrete was more suitable than other forms of construction. Step-down wing walls, 20 in. thick, create attractive detail and accent the terrace patios on the five-sided building. The concrete radius entry with individual panels that reach 35 ft in height are enhanced by curtain wall glass construction as a backdrop, creating an impressive visual impact.

Project credits: JD Construction, Tilt-up Contractor; Photographs courtesy of Tilt-Up Concrete Association and Jerry Daugherty.

Submitted by James R. Baty II, FACI, Manager for Regulatory and Technical Affairs, TCA, Mount Vernon, IA, +1.319.895.6911, jbaty@tilt-up.org.

Daugherty Residence

2606 Vinci Ct., Henderson, NV 89052



The durability, economy, and energy efficiency afforded by the tilt-up method were attractive to the Daugherty family when considering building methods for their new residence. This 15,000 ft² project is a great example of the growing acceptance of tilt-up construction for small-scale and residential projects. Approximately 70 tilt-up panels, totaling more than 22,000 ft² of wall panel, were used in the extremely energy-efficient home. The owners estimate that the combination of smart appliances and concrete walls offers a 30% efficiency gain over comparable residences. Further, the home has great architectural appeal, inside and out. With a smooth concrete finish, six interior concrete columns create a unique and inviting entrance, playing off the stone that clads the exterior. The precast walls feature a Venetian texture with actual imprinted grapevines and leaves, while the floors are a balance of slate deck, stained concrete, and custom wood flooring with stone inserts.

Project credits: JD Construction, Tilt-up Contractor; Photograph courtesy of Tilt-Up Concrete Association and Jerry Daugherty.

Submitted by James R. Baty II, FACI, Manager for Regulatory and Technical Affairs, TCA, Mount Vernon, IA, +1.319.895.6911, jbaty@tilt-up.org.

Findlay Cadillac

310 Gibson Rd., Henderson, NV 89014



This project used tilt-up construction to strengthen the branding of the property, creating an attractive building for a very functional and efficient program. Even the parking garage was built using tilt-up systems. The panels were fabricated 18 ft below finish grade in an excavation with very tight and limited space. The crane to erect the panels also was set up in the excavation, adding to the congestion, along with the 50 ft braces for the panels. These construction challenges enabled the panels to serve as basement walls below the showroom floor.

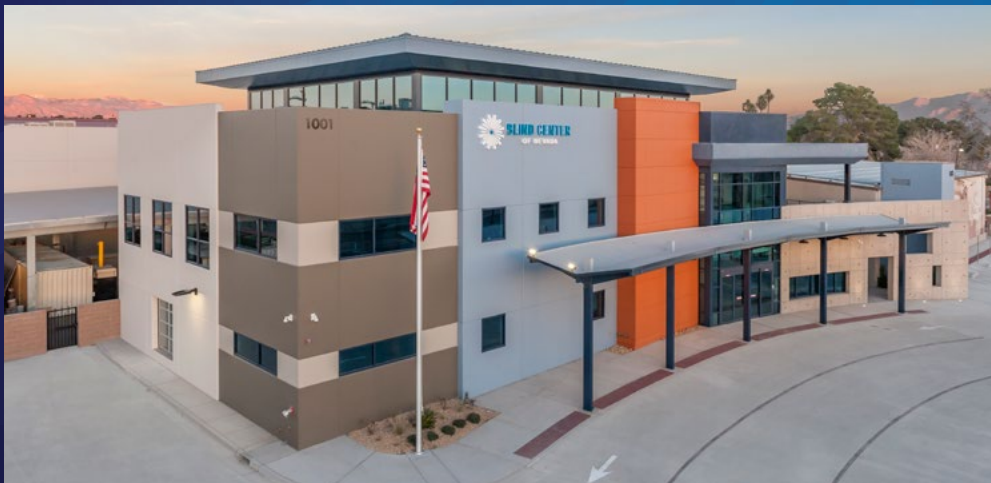
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Submitted by James R. Baty II, FACI, Manager for Regulatory and Technical Affairs, TCA, Mount Vernon, IA, +1.319.895.6911, jbaty@tilt-up.org.



Blind Center of Nevada

1001 N. Bruce St., Las Vegas, NV 89101



This 36,000 ft² office and warehouse structure was built next to the original facility, which remains in service. The new 15,000 ft² warehouse is a major upgrade from the 3000 ft² warehouse space next door. Another feature is the 1200 ft² commercial kitchen used for a culinary arts programs that teaches members basic- to master-level skills. The striking new building also houses the center's electronics recycling program, providing employment to members and generating more than 50% of the center's funding. Other spaces include classrooms for visually impaired children and teens, a new computer lab, a fitness center with tutors and trainers on site, and a large meeting room that can be rented out.

Project credits: Ethos three Architecture, Architect; Vector Engineers, Structural Engineer; Alston Construction, General Contractor; Balova Engineering, Tilt-up Contractor; Photographs courtesy of Tilt-Up Concrete Association.

Submitted by James R. Baty II, FACI, Manager for Regulatory and Technical Affairs, TCA, Mount Vernon, IA, +1.319.895.6911, jbaty@tilt-up.org.

Stratosphere Tower

2000 S. Las Vegas Blvd., Las Vegas, NV 89104



The Stratosphere Tower (originally called the Stupak Tower) was opened on April 30, 1996. At 1149 ft tall, it was then and remains the tallest building in Las Vegas. Its foundation is a 10 ft thick reinforced concrete mat that bears on a thick layer of caliche. The reinforced concrete tower shaft is 799 ft tall and varies in thickness from 12 to 30 in. The 16 ft deep reinforced concrete ring beam that supports all 13 levels of the tower pod rests 778 ft above the ground and spans approximately 65 ft between the tower's supporting arms. The tower shaft and ring beam are both exposed and form the distinctive shape of the tower beneath the glass "pod."

Project credits: Gary Nelson, Architect, Mendenall Smith Wright, Structural Engineer, Scott Dawes, Construction Manager, Taylor International, General Contractor.

Submitted by Brent Wright, PE, SE, CEO, Wright Engineers, Las Vegas, NV, +1.702.933.7000, bw@wrighte.com.

Map

Click on the map below to view the Google map.

