

## Springs Preserve

Public Project Over \$10 Million



**Both a cultural and historical** attraction, the 180-acre Springs Preserve provides a vision of a sustainable future for Las Vegas. The site of the Preserve is known as the birthplace of Las Vegas and was once home to bubbling springs that were originally a source of water for Native Americans, and later provided relief to travelers.

The project involved a multitude of new structures including galleries, an outdoor amphitheater, an interpretive trail system, a botanical garden and the Nevada State History Museum. With a 20-million-gallon below-grade water reservoir that actively serves Las Vegas, the Preserve demonstrates how these structures can serve a dual purpose to benefit the public.

The Preserve is also home to an inter-

active-based public outreach and applied research facility designed to promote sustainable living in the Mojave Desert. The community can attend classes to learn about low-water landscaping, arts and crafts and cultural studies. A children's theater called the Tool Shed Theater features molded mushroom-shaped chairs, while visitors can also stop by the weather station for real-time weather data. With live-animal exhibits and interactive experiences featuring different cultural perspectives as well as concerts, shops and dining establishments, the Preserve is open to all members of the community.

**Submitted by:** Lucchesi Galati and Helix Electric

**Owner:** Las Vegas Valley Water District

**Architect:** Lucchesi Galati

**Contractor:** J. A. Tiberti/Whiting Turner Joint Venture

**Other Design:** Deneen Powell Atelier; Valley Crest; AldrichPears Associates; Paladino & Company; Clanton & Associates

**Engineers:** T. J. Krob; Stantec Consulting Engineers Inc.; Harris Consulting Engineers; Keen Engineering Co.; PBS&J; Ninyo & Moore

**Major Subcontractors:** Helix Electric; US Mechanical; Desert Plumbing and Heating; VT; ValleyCrest; SME Steel; Southwest Steel; Benchmark Development; Sunrise; Century Steel

Nevada Best of 2007

## Las Vegas Fire & Rescue Station #47

Public Project Under \$10 million



**Fire Station #47 in Las Vegas**, built for less than \$4 million, is designed to remain functional during a natural disaster or similar event. The 11,283-sq-ft station is full service with two vehicle apparatus bays and one rescue vehicle bay. The station matches the logistical requirements of a fire station with those of the crews who live and work within its walls and includes sleeping quarters for two engine crews and one rescue crew as well as a kitchen, dining room, exercise room

and an outdoor barbeque space.

Masonry bearing walls, steel roof trusses, stucco, cultured stone veneer and a roof trellis to screen the roof-mounted mechanical systems are just some of the construction details. Design elements that go beyond those of the pragmatic include stucco in accented colors, cultured stone veneer and a roof trellis to shade and screen the roof-mounted mechanical equipment.

The fire station was built through a unique public-private partnership. The

developer, the Howard Hughes Corporation provided the land and construction while the City of Las Vegas provided permit-ready drawings and specifications, inspection and quality control. The result is a public project that was produced at the lowest possible cost to taxpayers.

**Submitted by:** City of Las Vegas and The Korte Company

**Owner:** City of Las Vegas

**Developer:** The Howard Hughes Corp.

**Architect:** City of Las Vegas Office of Arch. Svcs; Samuel D. Tolman AIA

**Contractor:** The Korte Company

**Engineers:** TRC-BV Engineering; Comfort Engineering; Engineering System Solutions

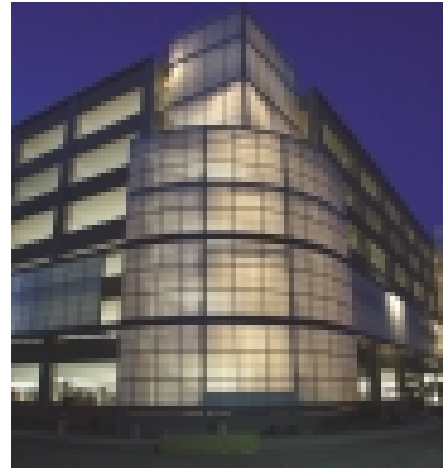
**Major Subcontractors:** Source Refrigeration & HVAC; Stargate Plumbing; Johnson Electric; Westar Fire Protection; Hirschi Masonry; Alpine Steel; Concrete Visions; Ideal Landscapes Unlimited

Nevada Best of 2007

## Renown Regional Medical Center

Private Project Over \$10 Million

PHOTOS COURTESY: VANCEFOX.COM



**Renown Regional Medical Center's** \$318 million expansion consists of an 11-story tower and adjoining seven-level, 1,690-space parking structure.

Situated on 41 acres, the 285-ft-tall steel-and-glass building features 192 new

beds, 18 operating and 39 emergency examination rooms, plus an MRI area, a cardiac cathode laboratory and CT scanner. It houses roughly \$48 million of new medical equipment, with two rooftop helipads for emergency air flight.

The 515,000-sq-ft tower sits on a 10,000-cu-yd concrete mat foundation and is comprised of a steel momentum frame. The building's glass, unitized curtainwall system and aluminum metal panels portray a striking, futuristic look.

Patients now check in at one of the hospital's six new entrances, including an attractive main canopy entry that leads into a double-height lobby with large glass windows. There is also a 30,000-sq-ft landscaped "healing garden."

Construction also included a new central plant and a 400-ft underground concrete tunnel for deliveries.

**Submitted by:** Clark & Sullivan  
Constructors

**Owner:** Renown Health

**Architect:** HDR Architecture

**Contractor:** Clark & Sullivan

Constructors/ Sellen Construction JV

**Engineers:** PCS Structural Solutions;  
CFA; HDR Engineering

**Major Subcontractors:** Intermountain Electric; Savage & Son; University Mechanical Contractors; Enclos Corp.; KHS&S; F. Rodgers; Maximum Fire Protection; Simas Floor Co.

Nevada Best of 2007

## World Savings Bank - Aliante

Private Project Under \$10 Million



owner and the local municipality successfully overcame differences in their requirements for the building's orientation and material usage. The building was rotated to allow the most protection from the sun while maximizing the most visually strategic location for signage.

The design provides glass on three sides while sheltering the building from direct sunlight during business hours and not impairing visibility. To shade the expansive glazing even more, weathering steel was used on the exterior skin on the upper and outer portions of an inverted and cantilevered roof.

A strategically-placed porcelain tile-clad vertical mass creates further protection from the sun and balances the building's composition.

**Submitted by:** Carpenter Sellers Architects

**Owner:** World Savings Bank

**Architect:** Carpenter Seller Architects

**General Contractor:** LF Harris & Co.

**Engineers:** MDG; T.J. Krob; Barker Drott Associates

**Subcontractors:** Flores Concrete Construction; Bobby Stephens Masonry; Southern Nevada Welding; Western States Framing; Commercial Roofers; Dean Roofing; Southwest Glazing; River Mountain Drywall; K & G Enterprises; Sands Plumbing; Jenson Total Services; LEI Electric

**The North Las Vegas bank** was completed August 2006 at a cost of just \$817,230. The design consists of an economical wood-framed and plastered rectangular structure with a cantilevered roof.

During initial design, the developer,

# Nevada Best of 2007

## Blue Diamond/I-15 Interchange

Transportation Project



**Begun September 2005**, the project comprised constructing new eight-lane roadway with sidewalks on State Route 160; a new structure over Interstate 15 with new interchange ramps; removing the existing structure and ramps; and constructing auxiliary lanes on I-15.

Las Vegas Paving crews excavated 160,000 cu yds of earth and hauled more than 249,000 cu yds of material to meet fill requirements for the new inter-

change. In addition, the company crushed, hauled and placed more than 250,000 tons of aggregate base for the new roadway and placed 85,000 tons of plantmix surfacing and 12,000 tons of plantmix open-grade. Crews also installed 2,200 lin ft of precast RCBs and 6,000 ft of storm drain pipe.

The project required 61 new street lights, 22 new high-mast lights and four signalized intersections.

Subcontractors placed 1.2 million lbs of reinforcing steel and additional structural steel for the 292-ft-long, 160-ft-wide steel girder bridge.

The project was completed using only four major shifts of traffic control movements and with minimal impact to the surrounding businesses and commuters.

**Submitted by:** Las Vegas Paving Corp.  
**Owner:** Nevada Dept. of Transportation  
**Contractor:** Las Vegas Paving Corp.  
**Major Subcontractors:** ACME Electric; Steel Engineers; Utah Pacific Bridge and Steel; ValleyCrest Landscape; Highway Striping and Signs; Penhall Co.

Nevada Best of 2007

## Desert Living Center & Gardens at the Springs Preserve

Public Green Building Project and Landscape/Hardscape Project



**The Desert Living Center** is an interactive-based public outreach and applied research facility designed to promote sustainable living within the Mojave Desert. The DLC buildings are the first LEED platinum structures in Nevada. With five main buildings and a garden, the DLC is designed to be “of the desert” rather than merely “in the desert.”

Light-colored roofing and paving materials reduce heat islands, while over 40 acres of Mojave Desert ecosystems and 20 acres of wetlands have been restored on-site. All black and gray water

on-site is treated and reused, while mechanical systems, free of HCFC’s and Halons, were designed to achieve up to a 50% reduction in energy use.

Locally sourced building materials were utilized, and recycling collection areas are located throughout the site.

All indoor materials and coatings meet VOC limits to enhance the indoor environmental quality, while the buildings are designed to educate the community about sustainable design. The DLC honors the historical and cultural precedent of sustainability principles

through the research of other habitats. The Anasazi Indians built structures based on solar orientation and used thickened walls as thermal mass to reduce heating and cooling needs. The DLC features buildings that use the earth as a thermal insulator by integrating the buildings into the land, with the design carrying above-ground where the mass, thickness of walls, and depth of openings assist in protecting heat gain and loss.

The botanical gardens and landscaping are integral to the educational purpose of



the DLC. Over 1,200 species of plantings demonstrate sustainable concepts to the public while simultaneously providing a beautiful backdrop for the Preserve. An Asian-themed garden as well as an Enabling Garden, which demonstrates options for the physically challenged, are also included in the DLC. Artificial wetlands are included as part of an engineered water treatment system, and garden paths include solar lighting. Trails feature areas with restored vegetation showcasing thriving Mojave species such as cottonwood, willow, mesquite and acacia trees.

**Submitted by:** Lucchesi Galati and Helix Electric

**Owner:** Las Vegas Valley Water District

**Architect:** Lucchesi Galati

**Contractor:** J. A. Tiberti/Whiting Turner Joint Venture

**Other Design:** Deneen Powell Atelier; Natural Systems International; Keen Engineering Co.

**Engineers:** Harris Consulting Engineers; Stantec Consulting Engineers; PBS&J; Ninyo & Moore

**LEED Consultant:** Paladino & Co.

**Major Subcontractors:** US Mechanical; Helix Electric; Desert Plumbing and Heating; ValleyCrest; SME; Southwest Steel; Century Steel

Nevada Best of 2007

## Molasky Corporate Center

Private Green Project



The \$107 million Molasky Corporate Center made its debut at 100 City Parkway, Las Vegas, in September. Developed by the Molasky Group of Cos., the 17-story tower combines Class-A office space with ground-level shops, including Bank of Nevada, 24-Hour Fitness, Jason's Deli, Java Detour and Legal Copy Cats. The 852,000-sq-ft high-rise is seeking a LEED gold certification.

The Southern Nevada Water Authority signed a 20-year lease to occupy the building's first seven floors - 129,000-sq-ft worth - or enough for roughly 400 employees. Situated on 2.9 acres, the 243-ft-tall

concrete-and-glass tower features a six-level, 1,147-space parking garage. Designed by KKE of Nevada, it will use 37% less energy than a building of similar size.

The project uses such green components as a solar photovoltaic array atop its garage and an under-floor air distribution system. Other green components consist of special low-flow water fixtures that reduce water use by 25%. Construction, meanwhile, relied on 95% recycled steel as well as shredded blue jeans for wall insulation, crushed glass countertops, bamboo wall coverings and corn silk fabrics.

**Submitted by:** Marnell Corrao Associates

**Owner:** Parkway Center LLC

**Architect:** KKE Architects

**Contractor:** Marnell Corrao Associates

**Engineers:** Flack+Kurtz; Englekirk Partners

**Major Subcontractors:** Bombard Electric; Bombard Mechanical; Walters & Wolf; Giroux Glass; Century Steel; Schuff Steel; Southern Nevada Paving

Nevada Best of 2007

## Stardust Hotel & Casino

Engineering Project



PHOTOS COURTESY: JIM LAURIE PHOTOGRAPHY

**Las Vegas' famed Stardust** Casino and Hotel Towers, comprised of one nine-story tower and one 32-story tower, were imploded simultaneously the night of March 13. The higher tower was the tallest building ever imploded on the Las Vegas Strip.

The project included remediation and demolition of 27 structures on the 63-acre site, totaling two million sq-ft. Demolition

began in December 2006, with asbestos abatement and traditional demolition work. More than 100,000 sq ft of asbestos-containing materials were removed from the property. Upon completion, 170,000 tons of debris will have been removed from the site of the Stardust, with 80% being recycled. Removal of all debris within the buildings, wherever possible, was done prior to implosion.

LVI mechanically demolished various structures on the site, and removed interior or non-load bearing walls and internal structures. All utilities were disconnected from the property or protected prior to the implosion and final demolition work.

Cleanup and preparation are complete for development of property owner Boyd Gaming's new Echelon Place resort, which will soon begin construction with plans to open in late 2010.

**Submitted by:** LVI Environmental of Nevada

**Owner:** Boyd Gaming

**Engineer:** LVI Environmental of Nevada

**General Contractor:** Tishman Construction

Nevada Best of 2007

# Springs Preserve Waterworks Facility

Civil/Infrastructure Project



**The Waterworks Facility** is a \$26 million multi-faceted structure and reservoir. Housing ten large water pumps, accompanying pump controls, water service monitoring and educational installations, this three-level concrete structure is 24,140 sq ft. Adjacent to the project is a 20 million gallon below-grade reservoir that stores potable water and lends its roof as the main parking area for the Springs Preserve site.

The facility has an informative tour for the public, who enter the site through a 12-ft-dia concrete pipe. Exhibits showcase the water visitors will eventually use in their homes, an interactive control room area linked to the working machinery, as well as dissected pump fixtures with descriptions of each fixture's role in the water purveying process.



The Waterworks Facility is almost entirely poured-in-place concrete, including exposed concrete at the interior walls and flooring. Lifts varied from 18 in. up to 48 in. for walls that were 12 to 18 in. thick. Screen walls that surround the grade-level mechanical yards are made of integral-colored concrete poured in varied strata to mimic the mountains that surround the Las Vegas Valley. The Waterworks helps serve more than one million Southern Nevada residents.

**Submitted by:** Lucchesi Galati

**Owner:** Las Vegas Valley Water District

**Architect:** Lucchesi Galati

**Contractor:** J. A. Tiberti Construction Co.

**Engineers:** R2H Engineering; Boyle Engineering Company; Pentacore

**Major Subcontractors:** All Electric; Quality Mechanical; Steel Engineers; ValleyCrest; Southern Nevada Welding

Nevada Best of 2007

# Tahoe Center for Environmental Sciences

Higher Education Project



**The Tahoe Center** for Environmental Sciences is dedicated to the preservation and protection of alpine lakes and streams. The research and classroom facility was developed through a partnership between Sierra Nevada College and UC Davis, in collaboration with the Desert Research Institute, the University of Nevada, Reno, the Scripps Institution of Oceanography, the RAND Corporation and Carnegie Mellon University.

The design goals for the 7,000-sq-ft, 3-story with basement center included a need to integrate the structure into the natural environment, creating the least amount of site disturbance. Laboratories generally consume a large amount of energy, but the mechanical and electrical systems were creatively designed to reduce energy consumption while still providing

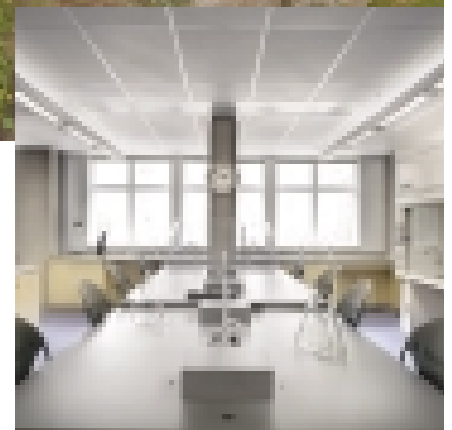
safety for faculty and students. Natural systems of daylighting, shading, ventilating and passive solar were integrated with mechanical and electrical systems. The center's projected energy savings is 63% lower than a conventional building meeting ASHRAE 90.1 standards.

The building features chilled beam, radiant panel and in-floor radiant heating and cooling as well as solar thermal panels which pre-heat domestic hot water. A compressed natural gas refueling station provides refueling capability to the university's fleet of natural gas vehicles.

**Submitted by:** Collaborative Design Studio

**Owner:** Sierra Nevada College & University of California, Davis

**Architect:** Collaborative Design Studio



**Contractor:** Turner Construction Co.  
**Engineers:** Gary Davis Group; John A. Martin & Associates; Rumsey Engineers; Integrated Design Associates

**Major Subcontractors:** Electro/Tech Inc.; RHP Mechanical Systems; Urata & Sons; Kodiak Roofing; Viper Steel; John Jackson Masonry

Nevada Best of 2007

# Andre Agassi High School and Gym

K-12 Education Project



**Founded in 2001**, the Andre Agassi College Preparatory Academy in Las Vegas, Nev., provides academic programs in a social-economically challenged neighborhood. Through technology, small class sizes and extended hours, the school hopes to improve skills and combat lowered expectations.

Begun March 2005 and completed June 2007, the K-12 high school and gym are slab-on-grade, with masonry, structur-

al steel beams, joist and built-up roofing. The interior walls are exposed masonry with a few metal-framed drywall partitions. Exposed masonry and painted stucco are on the exterior, with locally quarried quartzite tile at the entrances. The design ensured daylighting, with flying roof lines as well as glass curtainwalls in the office, large window areas in the gym and a clerestory windows with reflective fabric in the classrooms.

The tight site made it difficult for staging materials, necessitating efficient coordination of delivery. In addition, school is in session year round, so the contractor minimized disruption through phased construction.

**Submitted by:** Sletten Construction of Nevada

**Owner:** Charter School Foundation

**Architect:** Carpenter Sellers Associates

**General Contractor:** Sletten Construction of Nevada

**Engineers:** Civil Works; John A. Martin & Associates; Pahor Mechanical Contractors; TJK Consulting Engineers

**Major Subcontractors:** Big Horn Construction; Bottema Tile; Helix Electric; Hallgreen Company; Red Rose Roofing; O'Rourke Plumbing

Nevada Best of 2007

## Palms Concert Venue: The Pearl

Casino Project



**The Pearl concert hall** inside the 703-room Palms Casino Resort is about as cool as they come. M.J. Dean Construction completed the new \$80 million, 2,500-person capacity venue in March. It made its nationally televised debut during MTV's 2007 Music Awards.

The three-tier, crescent-shaped cast-in-

place concrete theater features a main stage 4 ft from the floor flanked by two 14-ft by 16-ft video screens. The farthest seats are less than 120 ft from center stage for an up-close and personal experience. Designed by Pfeiffer Partners with KGA Architects, The Pearl boasts 18 private and semi-private skyboxes with

bars, lounges and restrooms, along with state-of-the-art lighting. It also features nine public bars, two VIP lounges, dressing rooms and backstage areas.

The Pearl is wired with 60 powerful JBL Vertec loudspeakers that rock the house, and it's connected to an adjacent recording studio that allows artists to create live albums without additional set-up. The 58-ft-tall venue, located right off the Palms' main floor, was created by incorporating space from the casino's movie theaters.

**Submitted by:** M.J. Dean Construction

**Owner:** Palms Casino Resort

**Architect:** KGA Architecture and Pfeiffer Partners

**Contractor:** M.J. Dean Construction

Nevada Best of 2007

## Burkholder Middle School

Renovation/Restoration Project



**This 87,000 sq ft** of new construction renovated and replaced a beloved school near downtown Henderson. Qualifying for a LEED silver rating, the new school preserves the atmosphere and heritage of the original Burkholder site. The original gym was converted into a student center/cafeteria, with the open campus plan being preserved. All interior walls and concrete slabs were removed from the gym without disrupting its structural integrity. The red brick walls and blue accent from the original school influenced construction materials.

One of two area schools to use geothermal power, the system will pay for itself in just six years. Water is pumped through a closed loop system of PVC pipes buried in a series of wells beneath the school's athletic fields. In all, 300, 6-in. wells were drilled 285 ft deep to reach

the required median underground temperature of 78 degrees. Because the site is on a hill, the amount of available power and water pressure to feed the new structure was a challenge. Fire pumps in all buildings and a separate feed for the electrical service were installed once this challenge was recognized. The community was updated throughout the construction process.

**Submitted by:** McCarthy Building Cos. and SH Architecture

**Owner:** Clark County School District  
**Architect:** SH Architecture  
**Contractor:** McCarthy Building Cos.  
**Engineers:** Mendenhall Smith; Dieli Howe Smith; MSA Engineers; Taney Engineering  
**Major Subcontractors:** Arco Electric; ISEC Construction Services; LVI Environmental of Nevada; M & H Building Specialties; Reliable Steel; Ryan Mechanical; Steel Engineers

Nevada Best of 2007

## ProLogis Park North Building 16

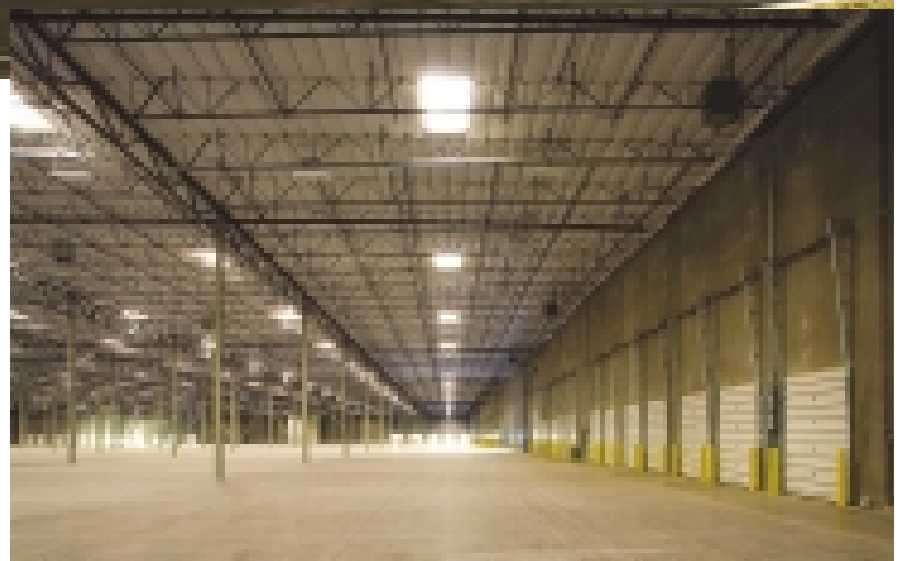
Industrial/Warehouse Project



This 513,240-sq-ft concrete tilt-up industrial building sits on 26.8 acres in North Las Vegas. Located three miles north of downtown Las Vegas and just south of the I-215 Northern Beltway, it is the largest speculative, open-frame industrial building without interior demising walls under one roof in Southern Nevada. Over 168, 8x8 steel columns were used inside for structural support of the 128 tilt-up panels that were cast on site, the heaviest weighing in at 84 tons.

The building has over 103 evaporative coolers and an asphalt and plywood panelized roofing system that contains 238 skylights.

The massive over-X adjacent to a wash on the west side necessitated excavation six to seven ft below the normal undercut, causing a challenge. The area was opened so they could backfill the 5,000-6,000 cu yds that were involved. A one month hydration



prior to excavation was required by the city, with the silt and run-off processed, screened and returned to the soil.

**Submitted by:** United Construction Co.

**Owner:** ProLogis

**Architect:** BJB Architecture

**Contractor:** United Construction Co.

**Engineers:** Walker Engineering; Adobe Electric; Sunrise Air; BJB Architecture; CTE Nevada

**Major Subcontractors:** Precision Concrete; Westar Fire Protection; Quantum Glass; Panelized Structures; Desert West Landscape; Fabtech; Gallagher Plumbing

Nevada Best of 2007

# Sunrise Hospital - Women's and Children's Hospital Expansion

Best Project Management



**In Las Vegas**, the expansion of Sunrise Hospital and Medical Center was a four-phase project including 110,000 sq ft of new construction and 100,000 sq ft of renovation to the 38-year-old tower wings. Construction of the \$57 million project began October 2003 and finished up August 2007.

Phase I expanded three floors to five and converted spaces into single rooms. Phase II was a remodel of Tower Two and the creation of a NICU in Tower

One. Phase III added a Level Two NICU in Tower One as well as the renovation of the LDR department on the first floor for C-Section rooms. The final phase added new sleep rooms, a father's waiting room, new LDRs and a nurse station.

The construction team surmounted a variety of continuing challenges: tying existing medical gas lines and mechanical, electrical and plumbing into the existing system; theming changes; requiring materials cancellation and

reordering; erecting a materials hoist in Tower II past occupied patient rooms; and maintaining hospital occupancy during demolition and construction. In addition, as a result of acute planning, the often difficult state health inspection regimen was passed on the first attempt for several phases.

**Submitted by:** Kitchell Contractors

**Owner:** HCA Sunrise Health Systems

**Architect:** KGA Architecture

**Construction Manager:** Kitchell Contractors

**Engineers:** Barker-Drottar Associates; JBA Consulting Engineers; Lochsa

**Major Subcontractors:** Western Technologies; Commercial Roofers; Custom Floors; Global Landscaping; Midwest Mechanical; Mohave Electric; Quantum Glass; Steel Structures

Nevada Best of 2007

## Hachi Restaurant at Red Rock Casino

Interior/T.I. Project Over \$5 Million



**Hachi Restaurant** is located at the north entry to the Red Rock casino in Summerlin. The contemporary Asian design inspired two large millwork pieces as well as other designs for the \$6.2 million project. The first focal point, the Sake Tower, is a network of strangely-shaped window frames encapsulating illuminated orange-frosted glass that sit atop one another. The 21-ft tower reaches into a faux-veneered ceiling.

The second, the Sake Screen, mesmerizes patrons with a combination of exotic wood and resin which zigzag while following the radius of the waterfalls below it.

Illuminated orange-frosted glass leads patrons into the restaurant, past the bar

area with a 7-ton granite stone art piece finished as a tabletop. An art wall featuring large photographs of cherry blossoms is bathed in pink and orange backlighting in the dining room. The Flying Dragon light fixture features thousands of blown-glass and resin cherry blossoms suspended overhead among an array of lights and undulating millwork.

The Tatami Rooms feature private dining areas where guests are seated on the floor, per Japanese tradition. A dramatic chandelier made from seashells hangs

above the table, while a water feature is on the east side of the room.

**Submitted by:** The PENTA Building Group

**Owner:** Station Casinos

**Architect:** Friedmutter Group

**Major Subcontractors:** Vergith

Contracting; F. Rodgers Corp.; T.

Nickolas Tile; Bombard Electric;

Hansen Mechanical; Alexander

Services; Embassy Glass; Southland

Fire Protection

# Nevada Best of 2007

## Maize

Interior/T.I. Project Under \$5 Million



Screens accented with a twig design break up the dining booths and echo the landscape and hardscape of the exterior

**This neighborhood tavern** was designed to mimic the traditional building techniques of early desert settlers through the use of natural materials, such as weathering steel, glass and board-formed concrete. The walkway to the entrance has 10-ft to 25-ft-long rebar scattered throughout the landscape to mimic maize, or corn stalks.

The interior is designed around a circular bar layout based on the traditional

Native American hogan. Clerestory windows allow beams of light to penetrate the space. Perimeter seating around the bar reinforces the circular shape and breaks up the space to create nooks for intimate dining. The interior steel was designed to feel organic, as if the structure arose from the earth and will one day return. The beams shoot through the roof and are visible from the exterior of the building.

**Submitted by:** Carpenter Sellers Architects

**Owner:** Corrigan Investments

**Architect:** Carpenter Sellers Architects

**Interior Design:** Yates Silverman; Carpenter Sellers

**General Contractor:** Breslin Builders

**Engineers:** Malpass Design Group; Wright Engineers

**Subcontractors:** Premier Mechanical; Auburn Electric; Gallagher Plumbing; Extreme Commercial Concrete; Monty Malloy Masonry; Southern Nevada Welding; T. Barras Framing

# Nevada Best of 2007

## Fay Herron Elementary School Modernization

Mechanical/Electrical Project

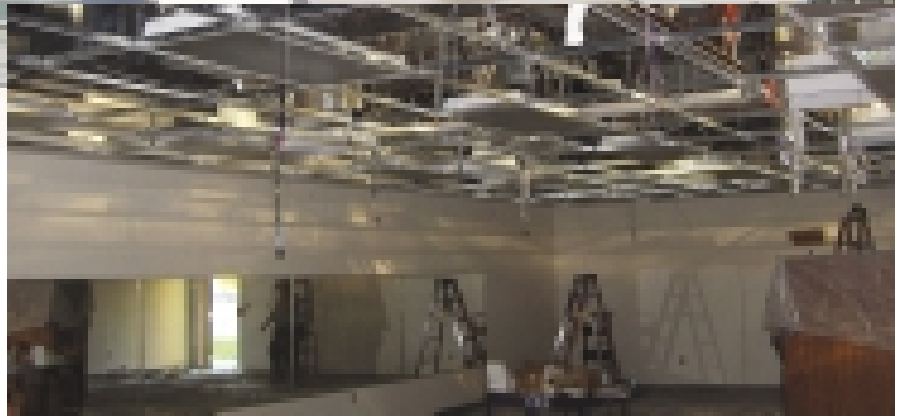


**This \$10.8 million** modernization of Fay Herron Elementary School in North Las Vegas was completed in July. The 916-student public school teaches grades K-5.

The project reduces annual energy demands at the aging 44-year-old, 61,801-sq-ft school complex by 80 tons for a 49% cost savings.

The feat was achieved by installing a highly-efficient, prefabricated central chiller and boiler plant with a new four-pipe chilled water and hot water piping system. Individual multi-zone air handlers with roof-mounted refrigeration units were placed atop roofs of the 12-building campus while exterior and interior wall insulation and heavy-duty doors were added.

Roughly 300, 21-in.-dia solar reflective tube skylights were installed throughout to increase daylighting, cutting electrical expense by up to 50% and improving student productivity. Lighting control systems automatically base lighting deci-



sions upon natural light levels and room occupancy. It is expected that many classrooms will operate with no electric lighting most of the time.

New high-efficiency power transformers were relocated to the roof to prevent heat transfer to the conditioned space. Restrooms were fitted with electrically-operated faucets powered from ambient light through photovoltaic cells.

Judges appreciated the innovative combination of energy-saving techniques used to add another 50 years of life to the building at a fraction of the cost of new construction.

**Submitted by:** Petty & Associates

**Owner:** Clark County School District

**Mechanical Engineer:** Petty & Associates

**Electrical Engineer:** Professional Design Associates

**Architect:** Welles-Pugsley Architects

**Mechanical Contractor/GC:** Ryan Mechanical

**Electrical Contractors:** CCI; CES

**Suppliers:** Mechanical Products Nevada; Long Building Tech.; Nevada Sales; Control Contractors; Current Systems

Nevada Best of 2007

## NDOT Contract 3282 Soundwall I-515 from Sahara Ave. to Las Vegas Blvd.

Concrete Project



The \$22 million project involved construction of a soundwall along Interstate 515 in Las Vegas, comprised of I-beam-style precast concrete posts and precast concrete panels. Some of the posts and all of the panels carry multi-colored architectural designs.

Olson Precast Co. was contracted by general contractor Frehner Construction for the 5-mi-long project. Olson manufactured the posts and delivered them to the jobsite, where they were set in place by Frehner. Frehner poured a reinforced concrete encasement around the base of each post, then set the panels in place.

Two dozen different panel sizes were required for the project, which provided some challenges to the team. The project could not be completed moving from one end to the other, as Frehner's schedule required that it work at several



locations of the site at one time. As a result, Olson had to cast different panel sizes daily rather than producing numerous panels of the same size at one time. In addition, the soundwall had to be positioned carefully around existing signage, street lights and overhead powerlines.

**Submitted by:** Olson Precast Co.

**Owner:** Nevada Dept. of Transportation

**Engineer:** Parsons

**Architect:** G.C. Wallace

**General Contractor:** Frehner  
Construction

**Concrete Contractor:** Olson Precast Co.

**Other Subcontractors:** Mastec; Penhall;  
Steel Engineers; R.P.I.

Nevada Best of 2007

# River Mountain Water Treatment Facility

Masonry Project



On the southeast side of Las Vegas, this 11-acre project provides space for the Water Quality Lab and Applied Research Facility at Southern Nevada Water Authority's River Mountain Water Treatment Facility. Work included a new 50,000-sq-ft concrete masonry laboratory with classrooms, a 3,500-sq-ft utility building, pedestrian bridge, landscaping and site work.

The laboratory is accented with glazed aluminum curtain walls, ornamental grilles, frames and sunshade canopies, stone veneer and Arizona sandstone.

The team had to work under high security because of the nature of the public facility. The team was also required to protect endangered species, such as rare tortoises living in and near the site. Working compatibly with the desert environment on design as well, the team installed block wall colored to blend with the adjacent mountain.



The plant now delivers 300 million gallons of water to Southern Nevada, but has the capacity to double that, making it the largest treatment facility on the west coast.

**Submitted by:** Clark & Sullivan Constructors

**Owner:** Southern Nevada Water Authority

**Architect:** Black & Veatch Architects; Lucchesi Galati

**Engineers:** Carollo Engineers; Black & Veatch

**General Contractor:** Clark & Sullivan Constructors

**Masonry Contractor:** H & H Contracting

**Major Subcontractors:** Acme Electric; Quality Mechanical Contractors; Tracy & Ryder Landscaping; Dynamic Building Systems; J&J Enterprises

Nevada Best of 2007

## World Market Center - Building 3

Steel Project



**Building 3 sits on five acres** adjacent to the first two buildings of the World Market Center near downtown Las Vegas. The \$52 million steel portion of the project began September 2006 and was completed in August 2007.

The 2.1-million sq ft, 16-story building required an excavation of 72,000 cu yds of material to make way for a 27,500-cu-yd concrete mat foundation, which was poured in three phases.

The team placed 194 anchor bolt setting templates into the concrete mat foundation. The templates ranged from 3 ft, 5 in. to 5 ft, 7 in. in length and weighed up to 5,300 lbs each. Into these were placed 16,500 tons of structural steel. The heaviest members, rolled in Germany, weighed 48,000 lbs and were 57 ft, 8 in. long.

The project is notable as the first in Las Vegas to use CoreBrace buckling restrained braces, which bear the cyclical loading that braces experience

during an earthquake. The braces yield in tension and compression to dissipate seismic energy. Their usage eliminated the need for field welding, which saved the owner more than \$700,000.

**Submitted by:** The PENTA Building Group and SME Steel

**Owner:** World Market Center LLC

**Architect:** JMA

**General Contractor:** The PENTA Building Group

**Steel Contractor:** SME Steel

**Major Subcontractors:** George M. Raymond; Dynaelectric; Quality Mechanical; TAB Contractors; Embassy Glass; Schindler Elevator Corporation; Desert Fire Protection



Nevada Best of 2007

## Polly Gonzalez Memorial Park

Honorable Mention, Public Project Under \$10 million



**This five-acre park**, dedicated to the memory of KLAS Channel 8 news anchor Polly Gonzalez, features a tile mural composed of more than 400 pieces created by the community in her honor. A memorial garden is another design feature of the park. With a concrete walking loop and a softer natural

surface trail, the park serves all members of the surrounding community.

A large natural turf area, composed of hybrid Bermuda grass, was graded and sized so that a regulation-size football or soccer field could be set into the turf boundary. The turf is surrounded by drought-tolerant landscaping to serve as

a public model of beauty, low water consumption and efficient use of turf.

A raised berm separates the park from the busy street that runs along its perimeter. Community members can take advantage of a splash water feature, a large covered picnic area as well as five individual picnic tables, walking paths and a covered children's play area.

**Submitted by:** City of Las Vegas

**Owner:** City of Las Vegas

**Landscape Architect:** Larson Associates

**Contractor:** CG&B Construction

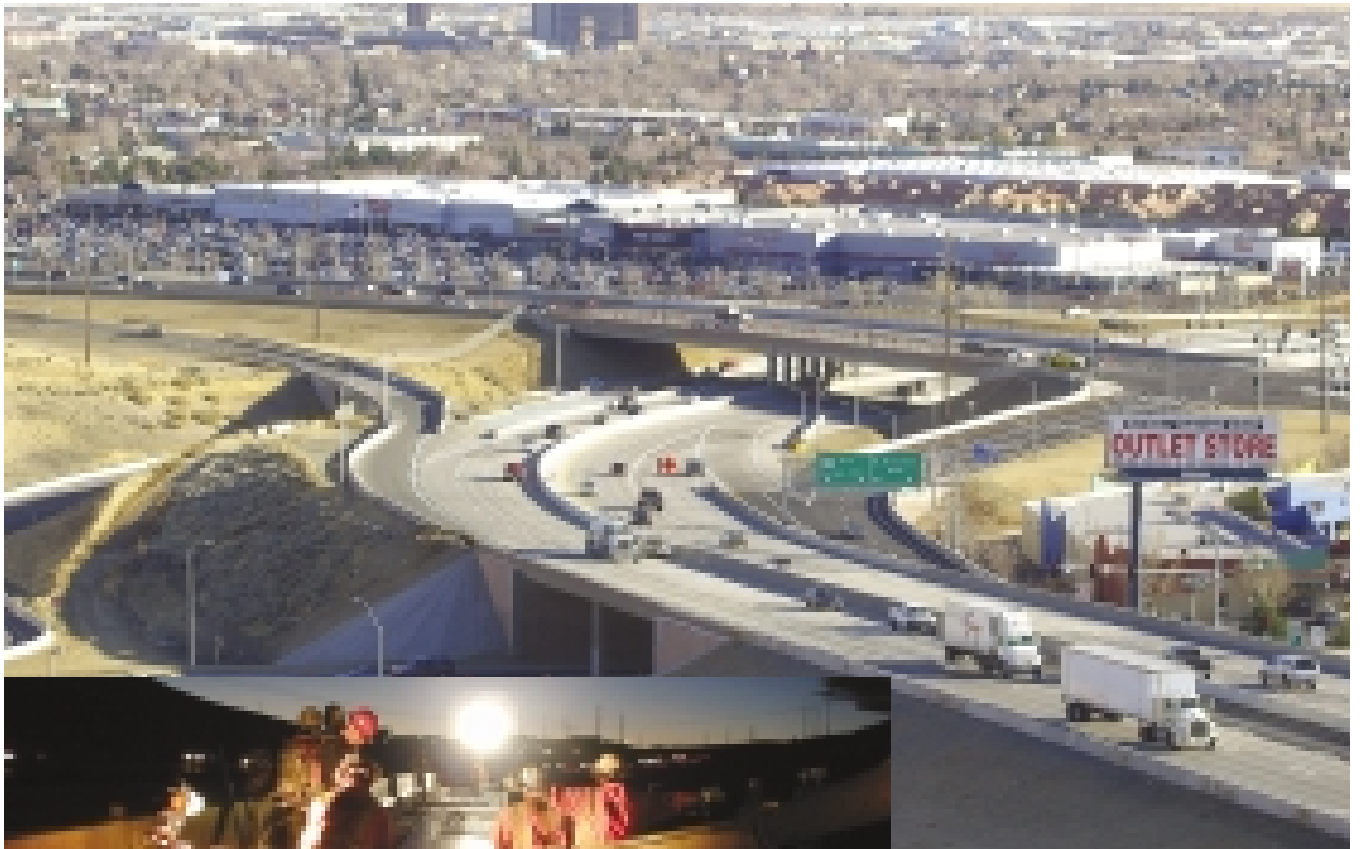
**Engineers:** Wright Engineers; Ninyo and Moore; GRG Inc.

**Major Subcontractors:** Wheeler Electric; Key Plumbing; Geneva Landscape; Great Western Park and Playground; Sunports; Henderson Masonry

Nevada Best of 2007

## US 395/Clear Acre Interchange Improvement Project

Honorable Mention, Transportation



1,000 ft apart. Constructing them in such close proximity while also maintaining the flow of traffic required numerous phases of bridge and ramp construction.

**This project is situated** in an urbanized area in Reno at the juncture of several main roadways. To allow for better freeway access, improved traffic flows and enhanced local circulation, the project provided a new interchange at Clear Acre Lane, widened McCarran Boulevard from four to six lanes and modified the existing McCarran Interchange. Two freeway bridges and one overpass needed to be demolished

and reconstructed, while improving traffic for pedestrians and cyclists. Since no significant alternate routes were available that could handle the traffic density, the project was completed in phases.

Two new cast-in-place post-tensioned girder bridges were constructed at US 395 over Clear Acre Lane, with a new spliced U-girder bridge at McCarran Boulevard over US 395. These two interchange structures are just a little over

**Submitted by:** Regional Transportation Commission of Washoe County/CH2M Hill

**Owner:** Regional Transportation Commission; Nevada Dept. of Transportation

**Construction Manager:** CH2M HILL

**Contractor:** Granite/Q&D, a joint venture

**Designer:** CH2M HILL

**Engineers:** Black Eagle Consulting