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ON CONSTRUCTION

FALL/WINTER 2014

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CALIFORNIA COURTS NEWEST ADDITION

SAN DIEGO CENTRAL COURTHOUSE BREAKS GROUND

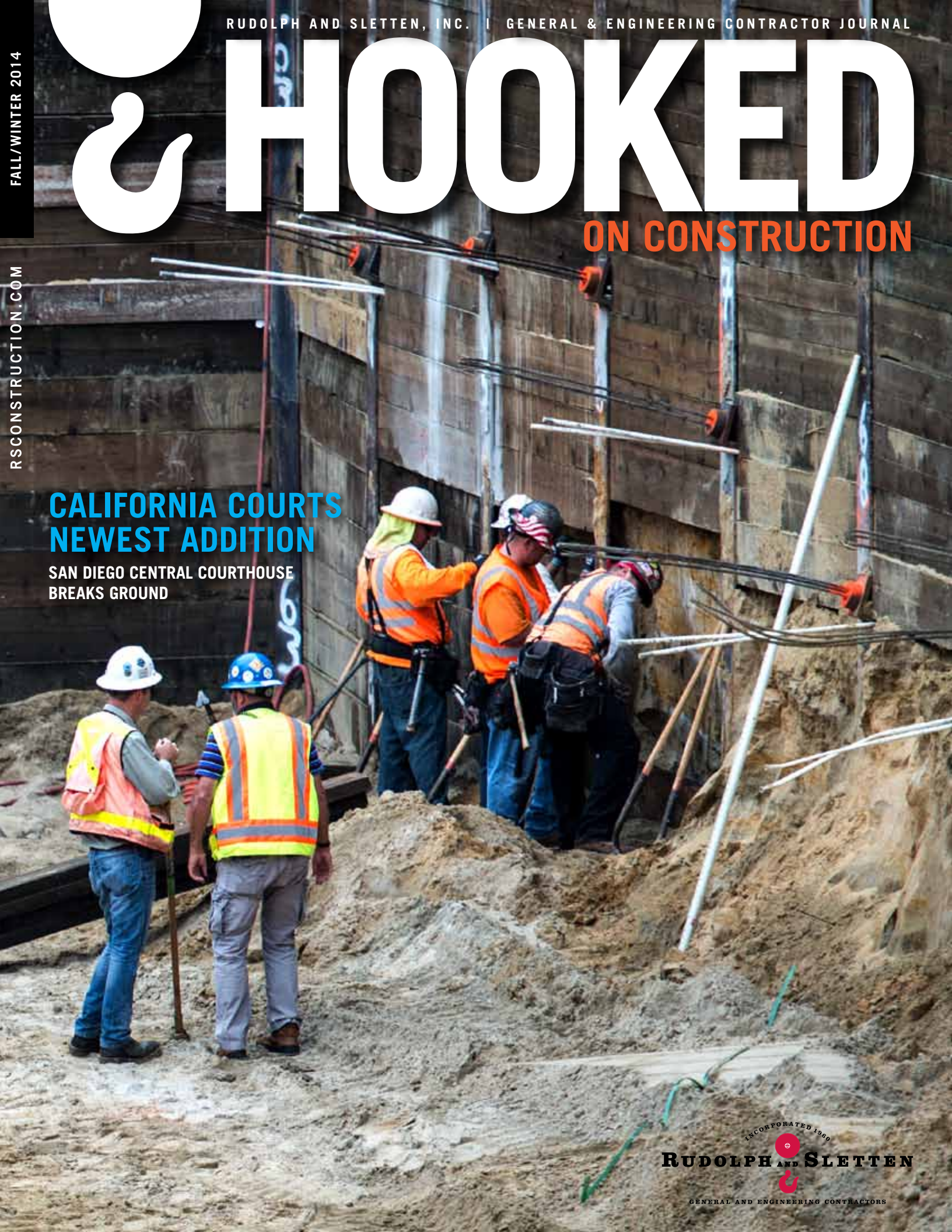

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PHOTO BY: BRUCE HEIMBACH

19 MODERN GEM OPENS IN DOWNTOWN SAN BERNARDINO

Take a look inside the recently opened San Bernardino Justice Center

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FUN AND LEARNING FOR SCIENCE RESEARCH

On April 12th, Rudolph and Sletten's San Diego office sponsored and participated in the Salk Institute's second annual "Step Into Discovery Day," a rare behind-the-scenes peek at the Salk Institute for Biological Studies. More than 1,100 people came out for a day of fun and learning, which combined a fundraising 5K run with free public tours of Salk Institute laboratories. Guests were treated to scientific talks and hands-on activities, including a kids zone and science booths.

Established in the 1960s by polio vaccine developer Jonas Salk, the Salk Institute for Biological Studies is one of the world's preeminent basic research institutions. Visitors to campus were treated to talks by Jonas Salk's son, Dr. Peter Salk, and two of the Institute's faculty, Shrek Chalasani and Janelle Ayres. Guided lab tours provided guests an opportunity to meet with scientists and learn about specific areas of research, including cancer, dynamic brain, genomic medicine, healthy aging, plant biology and core technologies. In all, 15 labs and three cores opened their doors to the tours.

The Institute is an independent nonprofit organization and architectural landmark. The title sponsor for the event, Rudolph and Sletten has been working on the Salk campus for more than 15 years. The successful event raised more than $40,000, which will directly support research in the areas of cancer, Alzheimer's, Parkinson's, diabetes and obesity.

San Diego employees and their families helped raise funds and awareness for science research.

Participants included Rick Hausman, David Goodman, Jonathan Waltz, Rebecca Kaiser, Mike Samudio and Dallin Sauser.

FAMILIES HELPING FAMILIES

For the second time this year, preconstruction executive Eric Lascurain and his family traveled to Tijuana, Mexico with Homes of Hope to build a new home for a family in need. In just two days, a new 320-square-foot house will change the health, safety, emotional and economic status of the family, helping to break the cycle of poverty and give them hope for the future.

TEAM WORK I Redwood City employees Marcus Staniford, Klay Adair and Leanna Elserougi competed as a team against Bob Johnston and Jeff Russell.

FRIENDLY COMPETITION AT EPPIE'S GREAT RACE

Sacramento-area restaurateur/entrepreneur Eppie Johnson founded this event in 1974, the first "Modern Triathlon." It has been held every year since and is a Sacramento-area summertime tradition for elite athletes, fitness enthusiasts, friends and families. The race features a 5.82-mile run, a 12.5-mile bike and a 6.35-mile paddle held along the scenic American River Parkway in Rancho Cordova and Sacramento. Over $950,000 in proceeds from Eppie's Great Race have been donated to Therapeutic Recreation Services since 1980. Therapeutic Recreation Services (TRS) has been providing award-winning opportunities for children, teens and adults with disabilities and special needs to explore, learn and have fun since 1975. More than 15,000 people participate annually in the many outstanding programs, receiving training in leisure, social, community, vocational and independent living skills.

BUILDING SELF-ESTEEM THROUGH PERFORMANCE ART

Draka Tucker, R&S human resources coordinator, gives back to the youth in her community through the Counseling and More Restoration Development Center. The center—serving youth ages 11-18—addresses disciplinary problems, truancy and delinquency, academic failure and youth development assets like self-esteem. "I get to be a part of building self-esteem; spending time with these guys and girls talking about life and practicing for mime," explains Draka.

Rudolph and Sletten employees John Elwood, Bryan Fink, Deborah Zimmerman, John Abraham, Vasheta Attaway, Bob Rycerski, Scott Saulsbury, Rav Dhaliwal and their families had some fun while helping the Santa Clara community.

FUN RUN SUPPORTING THE COMMUNITY

An energetic group of Rudolph and Sletten employees joined hundreds of other Santa Clara community members on September 6th for the 6th Annual Mission City 5K Run and 1 mile Family Fun Walk. This year's event led participants through California's Great America amusement park and finished inside the new Levi's Stadium. Proceeds from the fun run benefit education, seniors and veterans within Santa Clara County through the Mission City Community Fund.

BREAKING GROUND

POINT LOMA NAZARENE UNIVERSITY

NEW SCIENCE FACILITY UNDERWAY

Twenty years of planning, campaigning and anticipation came to an end this spring as Point Loma Nazarene University (PLNU) broke ground on its long-awaited science complex.

Demolition of existing buildings has been completed as Rudolph and Sletten has initiated the structural concrete work on the $28 million science building in the heart of the picturesque PLNU campus in San Diego.

Slated for occupancy in fall 2015, the two-story, 35,900-square-foot science complex will include 13 labs for biology, chemistry and anatomy as well as four classrooms and a rooftop patio. Designed by Carrier Johnson + Culture, the building is on target for Silver certification in the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) program.

With nearly 40 percent of PLNU's undergraduate students majoring in one of the science-related disciplines, and all undergraduate students required to complete a laboratory science course during their time at PLNU, the new building is an important addition to campus. Since the 1970s, the university's exceptional science programs have been using outdated and overcrowded facilities.

"Every student will benefit from this investment," said Ken Martin, longtime chair of PLNU's Chemistry Department. "This much-needed facility will better reflect the quality of the faculty and students, further strengthening the undergraduate research programs which offer students the ability to conduct faculty mentored research—a hallmark of our science programs."

△ Current work activities include placing building foundations and wall forms.

◁ The new Science Building will help the university win research grants and attract new students and faculty.

The building, designed by Carrier Johnson + Culture, will feature outdoor decks and terraces aimed at creating a new central campus gathering place.

GRAND OPENING

SAN DIEGO CITY COLLEGE

SCIENCE BUILDING

This spring, San Diego City College faculty, students and staff—along with the design and construction team—celebrated the grand opening of its state-of-the-art Science Center on their downtown San Diego campus.

The new Science Center provides a learning environment and educational opportunities that rival the best of higher education institutions. The 98,000-square-foot, four-story building includes modern laboratories and classrooms for the Astronomy, Life Sciences and Physical Sciences programs. The building also features a planetarium, an outdoor patio area with teaching garden and a rooftop observation deck.

The project is on track to obtain LEED Silver certification by the U.S. Green Building Council. Sustainable design components include sunshade devices to reduce solar heat gain and glare, clerestory windows and light shelves that increase daylight and reduce energy usage, and highly insulated walls and roof to conserve energy resources while making the building more comfortable.

GRAND OPENING

SONOMA STATE UNIVERSITY – GREEN MUSIC CENTER

RECITAL HALL DEBUTS

The opening of Schroeder Hall—the intimate, 250-seat recital hall named for the Peanuts piano-playing prodigy—fills a pivotal role for both the Green Music Center and the University music program. Located adjacent to the 1,400-seat Weill Hall, 3,420-square-foot Schroeder Hall will serve as classroom and lecture space for all majors on weekdays, including faculty and student recitals. On weekends, it will host performances by community groups and visiting artists, including authors and poets.

"This beautiful hall meets our needs today and will serve us far into the future, providing a unique experience for our music students and the rest of the campus," said Brian S. Wilson, chair of SSU's Music Department.

Due to its proximity to Weill Hall's outdoor seating, it was important to minimize potential echoes during performances in the larger venue. The rounded exterior of Schroeder Hall does just that, while also creating a crisp focus within. Schroeder Hall boasts many of the same furnishings as the larger Weill Hall, including custom-crafted wood seats.

Future plans call for construction of a 10,000-seat outdoor amphitheater with both fixed and lawn seating.

BREAKING GROUND 21ST AMENDMENT BREWERY EXPANDS TO SAN LEANDRO

Having opened its brew pub over 14 years ago in San Francisco, 21st Amendment is bringing their production facility to the former Kellogg's cereal plant in San Leandro. The 95,000-square-foot brewery will have an initial brewing capacity of 100,000 barrels a year, with the ability to expand to more than 250,000 barrels. The 100-barrel brew house will have capacity to make eight brews per day, with a production line that can fill 500 cans per minute. This will put 21st Amendment among the largest breweries in the Bay Area and will be one of the largest craft brewing operations in the state.

Demolition of existing mezzanine and floor slab began this spring, with a test brew date slated for the first quarter of 2015. A new concrete floor is being poured to accommodate new brewery equipment, along with partition walls for cold storage. A mezzanine and catwalk system will be installed in the brew house, along with pedestrian circulation in the production area. Interim office and hospitality space will built out until future restaurant and outdoor event spaces are added.

BREAKING GROUND BROADWAY PLAZA RETAIL CENTER BEGINS RENOVATION

Construction broke ground this spring on the first phase of redevelopment of the Walnut Creek high-end retail center, Broadway Plaza. Planned in multiple phases to accommodate continuing operations, the project includes demolishing and rebuilding the parking garages, expanding and remodeling retail spaces, enhancing pedestrian spaces and improving traffic flow.

Located in the affluent East Bay City of Walnut Creek, the 62-year-old retail center—owned and operated by Macerich— is host to many well-known brands and department stores. The expansion and renovation will preserve the shopping destination's appeal while providing opportunities for luxury retailers to bring concept stores to the area.

The work will involve 13 separate buildings and is the largest construction project currently underway in Walnut Creek. 2,480 new parking spaces will be created along with 320,951-square-feet of new retail space, with a goal of LEED Gold certification. The project team is working closely with the center operators to ensure the retail center remains open—with minimal disruptions—during all phases of construction.

GRAND OPENING

STAG'S LEAP WINE CELLARS – FAY OUTLOOK & VISITOR CENTER

SEE AND TASTE THE BEST IN NAPA

"There's no question Stag's Leap Wine Cellars is one of the world's most highly regarded winery estates," said **Ted Baseler, President and CEO of Ste. Michelle Wine Estates.** "We are delighted to open this incredible FAY Outlook & Visitor Center to give our customers a tasting experience worthy of the world-class wines being produced here and one that offers spectacular views of two of Napa Valley's iconic Cabernet vineyards."

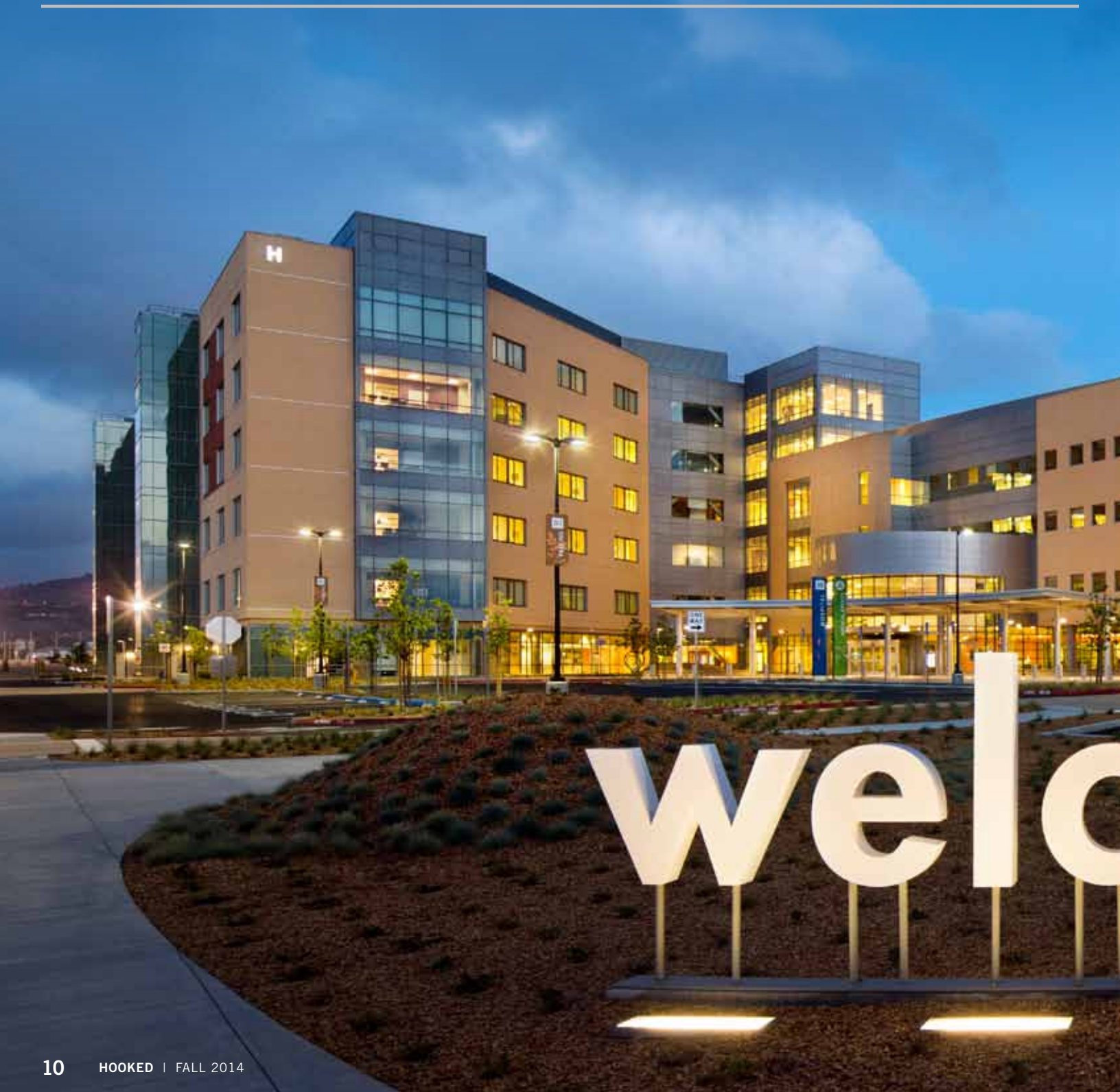
Overlooking its historic estate vineyards, the FAY Outlook & Visitor Center includes development of an entirely new hospitality center complete with a gated entrance, roadways, parking lots and a 6,000-square-foot single-story visitor center. The entry features a custom fabricated corten steel gate and site retaining walls that enhance the natural topography, historic trees and original stacked stone walls.

World-renowned Barcelona-based architect Javier Barba—in collaboration with Daniel McDonald Architects—created the design for the new FAY Outlook & Visitor Center to take advantage of the stunning views of the Stag's Leap Palisades, as the mountain and its legend are central to the Stag's Leap Wine Cellars story.

The center includes a welcome area, tasting area, reserve tasting room with private patio, offices and wine display and storage areas. The venue features skylights, low-profile LED lighting and floor-to-ceiling windows to allow visitors to witness the changing seasons.

The challenging site conditions required geotechnical collaboration for a stiff mat slab solution. Concrete shear walls and frames, as well as CMU walls, were used for the bearing and seismic resisting force systems, which were tested with the recent seismic activity in the area. Hand-fitted stone work is used throughout the center, which came from the property so visitors can appreciate the natural beauty of the earth occurring in the cliffs of the Palisades up close.

THE NEXT GENERATION OF KAISER PERMANENTE HEALTH CARE FACILITIES



Kaiser Permanente's new San Leandro Medical Center, a state-of-the-art facility bringing high-quality care, convenience and comfort with a focus on total health, opened in June and provides a broad range of care and services to the East Bay.

The new facility replaces Kaiser Permanente's Hayward Medical Center and includes a 263-bed, 434,000-square-foot hospital; a 275,000-square-foot hospital support building; a 30,300-square-foot central utility plant to support the entire campus and 1,516,000 square feet of site improvements.

This 'second generation' template hospital, which reflects Kaiser Permanente's program to establish standardized state-of-the-art models for design and construction of its hospitals, includes the latest technology innovations for patient care and support, including the online medical information system KP HealthConnect, private rooms with free Wi-Fi and interactive touch screens near main entrances to provide directions to each department which can also be downloaded to patient smart phones.

"With facilities across the nation," explains Rudolph and Sletten vice president Marcus Staniford, "Kaiser Permanente is a very sophisticated client." With recent experience constructing four medical center campuses for Kaiser Permanente, and an additional hospital under construction, Rudolph and Sletten is well versed in Kaiser Permanente's processes and innovative delivery systems.

ATTENTION TO DETAIL

"We bought out the MEPs, the concrete and the steel first, since these trades go in sequence and much earlier than interior packages," explains project manager Will Bartley. "We spent months pouring over the drawings, asking questions and confirming everything against the Kaiser Permanente Standards. This effort resulted in very detailed Instructions to Bidders (ITBs), allowing us to have confidence in the stability of the pricing." Staniford adds, "If you can include each detail item in the contract documents, you avoid change orders later. That's why owners appreciate the thoroughness of our preconstruction efforts."

KAISER PERMANENTE'S FASTEST HOSPITAL CONSTRUCTION

"This was the quickest template hospital ever built by Kaiser Permanente by two months," explains Bartley, "When you accelerate, that moves all your submittals up exponentially. Everything had to get done right then. We achieved six months early completion." Asking how the team was so successful, Bartley responds, "we had a very good superintendent and very good subcontractors. We worked with subs who could support the accelerated pace of work; a few even moved some of their operations closer to increase efficiency."

"The San Leandro Medical Center represents the next generation of Kaiser Permanente health care facilities," said Dr. Robert Greenberg, Physician-in-Chief, Kaiser Permanente Hayward Medical Center. "It will be a facility that allows maximum flexibility and adaptability to changing care practices and technologies."

FASTER—AND BETTER BOTTOM LINE—THROUGH INNOVATION

The Plan Grid app was beta tested on the hospital project; it's a plan viewer app with mark-up capabilities, including photos. It works faster than PDF by making all the drawings available within the app, and allows complex organization the same as a printed set. It's secure and allows each team member to publish mark-ups to the rest of the team and notifies everyone of each change. At project completion, you can backup all the files, markups and linked documents for archiving.

Bartley points out, "It's not only efficient for posting changes and keeping the entire team current, it eliminated reproduction costs, close to $30,000 in savings."

Kaiser Permanente's new acute-care medical center includes inpatient nursing functions, medical imaging/radiology, clinical labs with a blood bank, 10 operating rooms and recovery spaces, pharmacies, an emergency department, a cafeteria and other building support departments. The campus also provides surface parking for up to 2,100 vehicles.

A number of sustainable building features were implemented throughout the facility based on the standards of the Green Guide for Healthcare. Kaiser Permanente's San Leandro Medical Center is designed to use less energy and water, and about 97% of all materials on the site were recycled, diverting 98,000 tons of construction waste material from the landfill.

PROJECT UPDATE

UCSD – ALTMAN CLINICAL AND TRANSLATIONAL RESEARCH INSTITUTE

BRIDGING THE RESEARCH GAP

Rudolph and Sletten is currently erecting the upper floors of the Altman Clinical and Translational Research Institute (CTRI) building. The facility will be in the hub of UC San Diego's intensely collaborative research environment, located on the UCSD East Campus. The facility will enable laboratory and clinical researchers to work side-by-side, to better understand and treat diseases from cancer and diabetes to arthritis. The building will include wet and dry research labs, laboratory support space, a clinical area, offices, an auditorium and a café. As part of the project scope, a bridge will be constructed from the existing Sulpizio Cardiovascular Center to the CTRI facility, allowing access from research facility to patient.

COMPLEX SITE WORK

Integrated into the natural environment, the 365,000-square-foot seven-story research facility has three stories partially below-grade, including a below-grade loading dock. The sloping site was secured with a Permanent Earth Retention System to prevent the building from taking the brunt of the lateral soil pressures, which included anchor bolts drilled deep into the hillside. There is a gap between the retention wall and the building so that, in case of a seismic event, the two will not collide. All of the excavated soil will be used as infill material for nearby sports field expansion.

CONSTRUCTION OF THE HIGHEST CALIBER

The building structure and exterior are composed of architectural concrete. Each lower level is constructed of 10-inch-thick concrete slabs reinforced with steel rebar. Architectural concrete forms were created and used for both interior and exterior vertical walls. The specially formulated mix of concrete impacted the application requiring larger, more experienced crews to work within the quick set time. The results have been outstanding color and surface appearance.

With a completion date estimated for 2016, the project will achieve minimum LEED Silver NC certification and is attempting zero energy strategies.

"The CTRI building will create a unique, multidisciplinary environment that brings together laboratory scientists and clinical investigators to understand disease, develop new methods of treatment and translate clinical research results into clinical practice."

DR. GARY S. FIRESTEIN,
PROFESSOR OF MEDICINE,
DEAN AND ASSOCIATE VICE CHANCELLOR
OF TRANSLATIONAL MEDICINE
AND DIRECTOR OF THE CTRI

TOPPING OUT

NEW CAMPUS HITS MILESTONE

In keeping with this long-standing construction tradition, the final beam used for the facility was painted white and signed by construction crew members, campus and district dignitaries, and other guests before it was lifted into place along with an evergreen tree and American flag.

With a focus on providing career and job training programs to the Barrio Logan neighborhood and surrounding communities, the San Diego Community College District's new César E. Chávez Campus reached its topping out this summer.

A 'topping out' marks the point when a structure's highest element is hoisted into place. Workers traditionally put into place a small evergreen tree as a symbol of good faith and good luck.

The last beam was 28½ feet long and weighed 2,462.5 pounds. The total amount of steel used on the project is 450 tons.

The new 68,000-square-foot campus includes 22 classrooms, a multipurpose room and space for small business development, a student lounge and on-site underground parking for approximately 150 vehicles. This campus will focus on providing career training in allied health as well as job training/certificate programs, English as Second Language, adult basic education, general education diploma preparation, business information technology (BIT), parent education and older adult education programs. The project is scheduled for occupancy in late Spring 2015.

BUILT TO SERVE

SAN DIEGO CENTRAL COURTHOUSE WILL BE LARGEST IN STATE COURT PROGRAM

Photography by Kevin Hirahara

Construction commenced this spring on the San Diego Central Courthouse in downtown San Diego. The new 71-courtroom, high-rise building—scheduled to open in late 2016—will provide the local community with a larger facility offering greater security. The current courthouse, built in 1961, poses numerous security and ongoing maintenance issues, as well as being at risk for major disruption and damage from an earthquake.

SITEWORK ACTIVITIES CONTINUE

Downtown San Diego is taking note of the 'big hole' next to the West 'C' Street light rail tracks. Construction activities are currently underway to dig out an entire 300 by 200 foot city block to a depth of 48 feet. The soldier piles and tiebacks being installed—shoring retention system components that consists of diagonal steel rods drilled into soil and grout—provide support and stabilization to the perimeter of the excavated area.

Even with extensive pre-planning, the downtown construction site has challenges—zero material laydown area, limited trucking routes, an active light rail line along one boundary, underground utilities, existing structures known and unknown on and around the site.

"I have three keys to success: Plan, plan and then plan some more," explains senior superintendent Lee Scott. "I break the work into individual tasks; what needs to go in and when. With 12 subcontractors involved in excavation and foundation construction, logistical plans were essential. The plan includes current activities and looks ahead 6 months from now. We map all the crane locations, activities, and concrete pumper truck placement—so subs know on this day to set up in this location."

RECENT PROJECT ACTIVITIES

- Demolition of the old Stahlman structures began on May 2
- Mass excavation began on June 19
- 22 dewatering wells pump out 300-400 gallons of groundwater per minute
- Soil testing and analysis
- Shoring retaining wall installed with 141 solider piles
- 240 tiebacks installed—shoring retention system that consists of diagonal steel rods drilled into the soil and grout) to provide additional support and stabilization
- Development of 3D constructability model to minimize construction conflicts among the trades—information can be pulled up on a tablet by the workers at the site

CONSOLIDATED FACILITIES

The 22-story building—the largest new courthouse in the state's court construction program—will provide the central court district with a full-service, consolidated facility for criminal, probate and family court with adequate space for jury services and administration. It will also provide improved security operations that include holding areas and a secure vehicle sallyport for the transportation of in-custody detainees. This project is the largest in the state's court construction program to be funded by the Senate Bill 1407.

The new San Diego Central Courthouse will connect to the nearby Hall of Justice—which will continue to be used for civil cases—via a pedestrian bridge. The Hall of Justice will be partially remodeled to enable the two buildings to function together efficiently.

The new building's convenient location in downtown San Diego, along with a new public park planned by the City on the current courthouse site, will promote pedestrian access and help to shape the character of an emerging civic district in downtown San Diego.

This project is currently registered as LEED Silver with the U.S. Green Building Council. The new building will consume approximately 17% less energy than a code-minimum facility, mainly by implementing interior day-lighting.

A NEW DIRECTION
IN LARGE-SCALE COURT FACILITIES

Dedicated in May on National Law Day, the San Bernardino Justice Center is the largest project to date constructed by the **Judicial Council of California** and establishes a new direction for the future of large-scale court facilities.


USTICE CENTER
247 WEST THIRD STREET

As the most significant single building project to occur in the Inland Empire and San Bernardino in decades, the new building—designed by SOM—improves the efficiency of the courts by consolidating functions that had previously been spread among twelve different buildings throughout the county.

The complex occupies approximately 380,000 square feet on a seven-acre site and consists of two building elements: an 11-story courtroom tower visible on the skyline and a linear, three-story podium that holds the street edge and correlates to the scale of the adjacent historic courthouse. The building's 35 courtrooms are stacked into an efficient 200-foot-tall tower. Each tower level contains four courtrooms, with public circulation occurring behind a glass facade on the north. The complex also features spaces for court administration, self-help, jury services, child care, sheriff's operations and holding. The site and building design takes a sustainable approach and is expected to receive a minimum LEED Gold certification by the US Green Building Council.

Located near two significant California fault zones—the San Jacinto and San Andreas—the 11-story structure is the first and tallest newly built, base-isolated court building in California. A high level of care was given to the design and construction of the structure to elevate its long-term resiliency.

A NEW LEVEL OF COMPLEXITY

Courthouse construction today is in the midst of a transformation. In addition to the health and safety factors essential to any building, new courthouses must also address security, durability, technology integration, regulations, barrier-free access, mechanical/electrical systems, automation, acoustics, aesthetics, interior finishes and sustainability among other imperatives.

All of which spells complexity when it comes to inspections. This was especially true with the San Bernardino Courthouse, which involved no fewer than 62,000 inspections. "Understanding the inspection process and how to streamline it was a key to the success of this project," Rudolph and Sletten project executive Matt J. Bennett recalls.

"There was no paperwork," Bennett explains. "Subcontractors would request inspections, Rudolph and Sletten would complete their quality assurance and the IORs would check off their inspections or make comments electronically. Trending logs were run weekly with continuous improvement to the process, ultimately saving hundreds of man-hours."

"Fortunately," Bennett says, "Rudolph and Sletten was proactive and innovative in bringing inspection information to the field in realtime using internet-enabled tablets. Inspection tracking software loaded onto tablets was used to initiate, monitor and report on all inspections occurring for the project. The inspection teams, wary at first with the new technology, quickly became converts when they saw the convenience of an interactive system."

AWARD-WINNING SAFETY

Rudolph and Sletten took the initiative of reaching out to Cal/OSHA Consolation Service, requesting a full-service on-site visit to the courthouse jobsite. The visit was the first step of the Golden Gate Partnership recognition process, which consisted of three different site visits to evaluate Rudolph and Sletten's Injury

and Illness Prevention Program on the San Bernardino Justice Center. This site-specific Cal/OSHA recognition recognizes the "best of" in Injury and Illness Prevention Programs (IIPP) across the state of California.

"This was a great opportunity to enhance our IIPP and strengthen our working relationship with Cal/OSHA," recalls Alan Spears, Rudolph and Sletten regional safety manager.

The effort paid off with zero lost time accidents during more than two years of continuous construction operations.

With highly organized documents and meticulous notes provided by the project team, Cal/OSHA was able to review all records within just a few days, confirming with the San Bernardino Justice Center team that they had earned the Golden Gate Partnership recognition.

The San Bernardino Justice Center team also achieved California Voluntary Protection Program (VPP) recognition, recognizing Rudolph and Sletten's knowledgeable employees and management who work together in partnership with Cal/OSHA to systematically identify and correct hazards.

COMPLETELY CONNECTED

The new courthouse takes advantage of state-of-the-art networking technology and environmentally sustainable features. All the systems are digital and run on a single Internet protocol network—security, phones, data, audiovisual, building automation and lighting control. Getting the network up and running required a lot of up-front coordination, but the benefits include refined control of each system, up-front cost savings and streamlined maintenance.

"With digital, we can provide specific percentages of light of any ballast in the courtroom," says James Fabry, MEP coordinator. "Every single fixture is controllable, not just a bank of fixtures. Every courtroom has a digital interface. The A/V system is on a similar system. Overall, I think it is a benefit to the owner."

SUSTAINABLE, INSIDE AND OUT

On track to receive LEED Gold certification by the US Green Building Council, the design solution carefully considered orientation, shading, material selection and landscaping so that the building will thrive and remain efficient within its desert environment. Each facade is tuned to its solar orientation for strategic sun control and quality interior daylighting. The material selection process prioritized lowering embodied energy with 24% recycled content and 18% regionally sourced products.

"Over 95 percent of our construction waste was diverted from the landfill," Fabry says.

Bioswales and biofilters purify runoff and promote groundwater recharge, with a goal of capturing and removing pollutants from 90% of the annual storm water runoff.

The top of the podium is covered by a green roof landscape consisting of meadowlike planting, and runoff from this roof is captured and used for irrigation and for the plaza fountain. This holistic landscape design resulted in measurable outcomes: a 51% savings in water for irrigation.

REALIZING DESIGN THROUGH QUALITY CRAFTSMANSHIP

As the most significant single building project to occur in San Bernardino in decades, the Justice Center bridges the scale of downtown development to unify the urban fabric, creating a visible landmark for the city while engaging the public with vibrant open space.

An integral part of the unifying theme of the design are lines, carried from the outside site through the top level of the building.

Flooring, wall and ceiling systems were all aligned precisely, down to a sixteenth of an inch. All stone tile floor lines align to the tile wall lines, which in turn align to the perforated wood ceiling lines. Any misalignment would be easy to see at any distance.

Rudolph and Sletten used model-based survey tools to plan the exact installation for all trades. Strict quality control protocols were implemented to ensure the precise placement of all finishes. Utilizing Rudolph and Sletten's "Zero Punch List" approach— including full-scale mock-ups and first-in-place quality reviews of all elements—ensured the quality of all installed systems and finishes. Full-time quality managers were key in managing the review and inspection process.

ART + SCIENCE

NEW ARTS BUILDING AND SATELLITE CENTRAL PLANT ENHANCE GROWING CAMPUS IN THE CENTRAL VALLEY

Located on the northwest corner of the California State University, Bakersfield (CSUB) campus, the 15,000-square-foot Arts Center is a state-of-the-art facility in the new humanities quadrant of the campus. Housing studios for ceramics, sculpture, drawing and painting, digital arts and printing are organized around a central courtyard. This facility will be an educational gathering place for CSUB arts and humanities students, and enhance the University's offerings to prospective students.

The ceramics, sculpture and printing studio open to a large covered service yard to the south. When combined with the service and courtyards, the usable space is doubled. All studios have extensive northern daylighting as well as shaded circulation provided by covered walkways. Other support areas include lockers, equipment storage and a repair shop. The project is designed to LEED Silver requirements but is not seeking certification.

The project also includes a new satellite central plant (MEP utility) requiring the construction of a 3,000-square-foot plant building and 1,600-square-foot cooling tower enclosure. Attached to the plant building is a 600,000-gallon thermal energy storage tank, a 600-ton chiller, all associated utilities, piping and controls. This utility plant serves the Art Center but is also intended to serve future expansion of the campus.

> "You have worked hard on this project and your entire team and the result speaks for itself. Not only was the project successfully completed but also finished around 84 days ahead of schedule and yielded savings of around 125K out of CM contingency and allowance. I thank you and your entire team."

HASIT PANCHAL, PROJECT MANAGER
FACILITIES PLANNING, DEVELOPMENT & OPERATIONS
CSU BAKERSFIELD

SURPASSING ESTABLISHED GOALS

"This project was a huge success for the University and Rudolph and Sletten," says Rudolph and Sletten project manager John Abraham. "We built great relationships with a new client and delivered the project 84 days ahead of the University's scheduled completion. We were also able to return $124,954 of allowances and contingency back to the owner."

At the beginning of the project, Rudolph and Sletten's team worked directly with Hasit Panchal, project manager for the CSUB Facilities Department, to establish ground rules for a successful project. Budget control was at the top of the list, and we worked closely with Mr. Panchal to track the budget on a weekly basis. The frequent and thorough tracking helped him evaluate any change requests that came from user groups as the project evolved.

The team also conducted multiple field walks with both user and maintenance groups to ensure the facility would not only serve the intended function but also be easily serviceable and maintained.

PROTECTING ONE OF CALIFORNIA'S MOST ENDANGERED ANIMALS

Much of the undeveloped site is designated a San Joaquin kit fox habitat, one of California's most endangered animals, with specific restrictions for working in undisturbed areas. John and his team closely coordinated with CSUB and a biologist to avoid any disruption to the habitat area. The area was continuously monitored and written clearance was requested prior to any work taking place in the area.

BUILDING EFFICIENCIES

The Art Center had multiple structural and framing elements. Comprised of CMU walls, structural steel columns, wood framing beams, premanufactured wood trusses and a combination of wood and metal decking roofs—the contract drawings called for different methods to hang overhead utilities. Working with our subcontractors, the structural engineer and the truss manufacturer's guidelines, the team developed standard details that could be installed at any condition. This resulted in economies for the subcontractors to install and for the inspectors to review, while also providing an aesthetically pleasing finish within the open ceiling design.

DEVELOPING NEW SUBCONTRACTOR RELATIONSHIPS

"Over the course of my career I have had the luxury of working with subcontractors that we have strong working relationships with," explains Abraham. "This always resulted in a clear understanding of the contract, general requirements and the ITB's, and the highest quality work. The location of this project was out of range for many of our subcontracting partners. With a large group of new subcontractors, we partnered with them very early and closely so that they understood what the expectations were on a Rudolph and Sletten project and the quality that we sought to deliver to the client."

John and his team established expectations in conjunction with the subcontractors and assisted them in achieving the required results for the University. Our daily communications and coordination with CSUB project manager Hasit Panchal also helped clearly define project goals and guided subcontractors efficiently to the finish line.

PROJECTS ON THE HORIZON

RECENTLY AWARDED PROJECTS & PROJECTS BEGINNING

JUDICIAL COUNCIL OF CALIFORNIA
RED BLUFF COURTHOUSE
RED BLUFF, CA

- 62,000sf Replacement Courthouse
- Targeting LEED Silver
- Designer: LPAS

UC DAVIS
VETERINARY MEDICINE STUDENT SERVICES AND ADMIN CENTER
DAVIS, CA

- 32,000sf Higher Education Facility
- Targeting LEED Gold
- Designer: WRNS Studio

21ST AMENDMENT
SAN LEANDRO BREWERY FACILITY
SAN LEANDRO, CA

- 95,000sf Brewery & Production Facility, Tenant Improvement
- Designer: Aidlin Darling Design

WASHINGTON HOSPITAL HEALTHCARE SYSTEM
HYMAN CRITICAL CARE PAVILION
FREMONT, CA

- 224,000sf Acute Care Healthcare
- Targeting LEED Silver
- Designer: Ratcliff

UC SANTA BARBARA
BIOENGINEERING BUILDING
SANTA BARBARA, CA

- 89,000sf Higher Education Research Facility
- Targeting LEED Gold
- Designer: Moore Ruble Yudell

2014 ACHIEVEMENTS

CORPORATE RANKING & PROJECT DISTINCTIONS

CORPORATE RANKING

8 CALIFORNIA GENERAL BUILDING CONTRACTOR
ENR CALIFORNIA

7 REGIONAL CONTRACTOR
SACRAMENTO BUSINESS JOURNAL

7 GENERAL BUILDING CONTRACTOR
SAN FRANCISCO BUSINESS TIMES

2013 SAFETY EXCELLENCE AWARD
CONSTRUCTION EMPLOYERS' ASSOCIATION (CEA)

UCSD GAINS LEED PLATINUM CERTIFICATION

The Marine Ecosystem Sensing, Observation and Modeling (MESOM) Laboratory at UC San Diego received LEED Platinum certification this Spring. It is one of only a handful of LEED Platinum laboratories in the U.S.

Sustainable features of the building include natural ventilation and passive heating for all offices and workspaces; regionally sourced materials for the exposed concrete structure; exposed concrete structure to provide thermal mass; analyzed and reduced air flows in the laboratories; water-efficient landscaping focused on restoring native coastal plant species; use of FSC-certified wood at exterior siding and shade screens; and use of high solar reflectance index roofing materials.

A 61-kilowatt solar panel system with a 6kW/10kWh battery energy storage system was installed on the MESOM rooftop. The energy produced goes directly into the local electrical power grid, providing energy to the neighboring community. The energy produced by the solar panels is enough to power 40 homes and prevents 128,000 pounds of CO_2 from entering the earth's atmosphere each year.

The 19,000-square-foot MESOM Laboratory, completed in 2013, supports the University's multidisciplinary research of marine ecosystem forecasting with formal and informal collaboration spaces.

HOOKED
ON CONSTRUCTION

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COVER PHOTO BY: KEVIN HIRAHARA

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RUDOLPH AND SLETTEN

GENERAL AND ENGINEERING CONTRACTORS

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