

Concrete Masonry Association of California and Nevada

# CMU Profiles In Architecture

July 2017 Design Awards Edition



2017

## Concrete Masonry Design Awards

Text Includes Excerpts From  
Each Architectural Firm's  
Description of the Project and  
Jury Comments Delivered  
by Jury Chairperson,  
Mickey Jacob, FAIA, NCARB.



# Smart Design Begins with Concrete Masonry

Designing a sustainable building requires taking a larger view of building design, evaluating a building as a whole system that operates in harmony with its natural environment and ensuring it is as energy, material and water efficient as possible.

**1 Healthy, safe and secure.** Good indoor air quality is essential. It requires minimizing pollutant sources and providing adequate ventilation and air filtration. Using concrete masonry construction is smart; indoor air quality is optimized for occupants, because integrally colored concrete masonry materials require no paints or adhesives.

Concrete masonry buildings are structurally sound. They are weather, earthquake, flood and fire resistant. Concrete masonry does not burn, melt, or warp, and is the ideal material for fire-resistant applications. Concrete masonry also resists mold, insects, and other pests that plague other building materials. Thanks to these and other widely recognized safety benefits of concrete masonry, insuring a concrete masonry building is noticeably less expensive, making concrete masonry construction a smart choice.

**2 Thermal, visual, and acoustic comfort.** Thermal comfort means that building occupants should not feel too cold or too hot as they work or learn. Visual comfort requires that quality lighting makes visual tasks, such as reading, following presentations and working on the computer, easier. Lighting for each room should be “designed”, not simply specified. Daylight and electric lights are integrated and glare is minimized. Visual comfort also means providing a connection to the outdoors and visual stimulation through the use of windows at eye level to offer views. Acoustic comfort means occupants can hear one another easily. Noisy ventilation systems are eliminated, and the design minimizes the amount of disruptive outdoor and indoor noise affecting the occupants.

Using concrete masonry for its thermal exchange properties is smart. Using concrete masonry, windows can be designed to provide the proper daylighting and views necessary for visual comfort. Designing with concrete masonry is also a smart choice for its exceptional noise attenuation properties.

**3 Energy efficient.** Energy-efficient buildings save money, while conserving non-renewable energy resources and reducing atmospheric emissions of pollutants and green-house gases. The building’s lighting system uses high efficiency products, optimizes the number of fixtures in each room, incorporates control devices that ensure peak system performance and successfully integrates electric lighting and daylighting strategies. The walls, floors, roofs, and windows of the building are as energy efficient as cost effectively possible. The building shell is integrated and optimizes insulation levels, glazing, shading, thermal mass, air leakage and light-colored exterior surfaces to minimize the use of the HVAC systems.

Concrete masonry’s thermal exchange can significantly reduce the energy usage of a building, because the consistent temperature helps lower energy costs by shifting peak loads to non-peak hours while ensuring the comfort of those who live and work inside the building. Natural daylight openings in the concrete masonry building envelope integrate well with electric lighting strategies. Constructing concrete masonry building envelopes is smart since the units can be used as indoor or outdoor finishes. The intrinsic color of the material, requiring no paints or adhesives, can be chosen to optimize heat resistance, or heat retention, depending on the climate.

**4 Material efficient.** To the maximum extent possible, the design incorporates building materials that have been produced in a way that conserves raw materials. Such materials may be manufactured with recycled content, are durable, or can be recycled or reused. In addition, the building has been designed and built in a manner that reduces waste and keeps useful materials out of the landfill.

Designing with concrete masonry is smart. It lasts longer than other materials, requires little maintenance, and the need to manufacture new materials is reduced with every new concrete masonry building. Concrete masonry materials can be recycled into new masonry materials or aggregates. The ability to reuse existing masonry buildings, including entire structures, further enhances its sustainable properties and makes concrete masonry a smart choice.

**5 Environmentally responsive.** If new materials are required, concrete masonry can often be manufactured locally, reducing transportation requirements. It does not introduce pollutants or degradation to the project site, or the site of production. It uses recycled materials. High content supplemental cementitious grout can be used to lower the structure’s carbon footprint. Concrete masonry also requires less specialized equipment for construction, further reducing impacts on the environment.

**6 Stimulating architecture.** Concrete masonry buildings are a smart choice since they never go out of style. They invoke a sense of timeless permanence and pride with their enduring beauty. Concrete masonry is available in a wide variety of shapes, sizes, colors and textures, offering unparalleled design flexibility. Concrete masonry can be manufactured for specialty applications. It’s an excellent surface on which to bond stucco or other finish materials. It’s easily integrated into the design of buildings using other materials such as steel, glass, stone and brick, creating endless possibilities. Concrete masonry is the smart choice.

**7 Water efficient.** Water scarcity is a major problem in much of California and Nevada. Sustainable buildings are designed to use water efficiently, saving money, while reducing the depletion of aquifers and river systems. The building uses as little off-site water as possible to meet its needs, controls and reduces water runoff from its site, and consumes fresh water as efficiently as possible.

## A Note From Your Jury:

*The 2017 CMACN Design Awards submissions represented a unique cross section of project types, design solutions and creative uses of materials set in a variety of geographic, climatic, socio economic and community conditions. For our jury, the focus of our analysis of these submissions was inspired by Frank Gehry’s quote that “Architecture should speak of its time and place, but yearn for timelessness.”*

*As we reviewed these project submissions, we were very mindful of the time and place in which they were designed and constructed. In our jury deliberations (that were quite energetic and spirited!) we consistently viewed the projects through the lens of real life situations - real projects, in real places, with real client needs that had to be produced on time and on budget while striving for aesthetic, sustainable and functional excellence. The CMACN/AIACC Design Awards submissions showcase a quality of work that demonstrate how architects have thoughtfully and creatively overcome these real life challenges through innovative and visionary design.*

*This year the jury is presenting to you 14 award-winning projects that are a celebration of outstanding work that is sensitive to the responsibility of utilizing regional and sustainable materials anchored with the use of concrete masonry units that offer creative and timeless project solutions. These awards honor what is possible through excellence in design!*

*Congratulations on the outstanding work of your region. You should be very proud of the positive impact all of these projects will have on the quality of life in your communities for decades to come.*

Mickey Jacob, FAIA, NCARB (Head Juror)  
Ken Ross, Jr., FAIA, FACHA  
Michael Broshar, FAIA

Sustainable Jurors:  
Charles Eley, FAIA, P.E.  
Stephan Castellanos, FAIA



Left to right: Ken Ross, Jr., FAIA, FACHA; Stephan Castellanos, FAIA; Mickey Jacob, Head Juror, FAIA, NACARB; Michael Broshar, FAIA; and Charles Eley, FAIA, P.E.

For additional information on the jurors, please see page 19.

# Check-Your-Spec



A change in Building Code is a great time to Check-Your-Spec.

## SPECIFYING CONCRETE MASONRY UNITS (CMUs):

- Only specify that the CMUs meet all the requirements of ASTM C90, along with color and texture. Leave the weight and method of verifying compliance with the design strength ( $f'_m$ ) (Unit Strength of Prism method) to the S-1 Sheet.

Density Classification	Oven-Dry Density of Concrete, lb/ft <sup>3</sup> (kg/m <sup>3</sup> )
	Average of 3 Units
Light Weight	Less than 105 (1,680)
Medium Weight	105 to less than 125 (1,680-2,000)
Normal Weight	125 (2,000) or more

ASTM C90-16a Weight Table (Density Classification Requirements Table from ASTM C90-16a)

- When Unit Strength method is used to verify  $f'_m$  suggest that the structural engineer use a “standard” composite masonry strength (i.e. 2,000psi, 2,250psi, 2,500psi, 2,750psi or 3,000psi) listed in the Unit Strength Table.
- Make sure that your specification does not require a “Grade” or “Type”. These designations have not been found in the ASTM or Building Code for many cycles. Producers will not be able to certify that CMUs meet the requirements of a specification requiring “Grade” or “Type”.



Net Area Compressive Strength of Concrete Masonry ( $f'_m$ ), psi	Net Area Compressive Strength of ASTM C90 Concrete Masonry Units, psi	
	Type M or S Mortar	Type N Mortar
1,700	N/A	1,900
1,900	1,900	2,350
2,000	2,000	2,650
2,250	2,600	3,400
2,500	3,250	4,350
2,750	3,900	N/A
3,000	4,500	N/A

TMS 602-13 Compressive Strengths for Concrete Masonry (Unit Strength Table from TMS 602-13)

## SPECIFYING MASONRY MORTAR:

- Only specify that the masonry mortar meets the requirements of ASTM C270 and any color that may be required. Leave the mortar Type (M or S) to the S-1 Sheet.
- Do not specify a mortar strength. Mortar meeting the requirements of ASTM C270 may be either proportioned as shown in the C270 Proportion Table, or meet the physical properties required for the Type specified (i.e. compressive strength). Mortar should never be specified to meet both the proportion and property requirements.
- Do not specify field testing in an effort to verify compressive strength of mortar used in the field. Field testing may be used to establish consistency in mortar used in the field. When field mortar testing is required, mortar must be sampled and tested prior to start of construction in accordance with ASTM C780 to establish a baseline for comparison of field-tested mortar. There are no ASTM requirements that field sampled mortar meet the strength requirements.
- Testing of approved, pre-blended mortar is no longer required on essential services projects (including K-12 and Community Colleges). CBC 2105A.3 Exception 2.

Continued on next page.

# Continued: Check-Your-Spec



## SPECIFYING MASONRY GROUT

- Specify that the masonry grout must meet the requirements of ASTM C476. Leave the strength requirements to the S-1 Sheet. Insist that the mix design submitted indicate compliance with ASTM C476.
- Masonry grout should have a slump between 8 and 11 inches and should contain no water reducers or plasticizers (approved grout-aid should only be specified when required by some agencies for high-lift grouting).
- Total weight of cementitious materials in the mix should not exceed 610 pounds, and Portland Cement may be replaced with up to 40% fly ash or a combination of 70% fly ash and ground granulated blast-furnace slag (see [www.cmacn.org](http://www.cmacn.org) for details).
- Masonry grout mixes developed by ready-mix suppliers are not required to have a  $\frac{1}{3}$  increase in strength when statistical test data is not available.
- Masonry grout should not contain integral water repellants.

## MORTAR JOINTS

- Specify that mortar joints should be tooled to form a waterproof joint and a tight bond with the CMUs. A concave tooled joint is most commonly used.
- Any mortar joints that are cracked or not bonded with the face shells of the CMUs should be removed and joints repointed prior to grout placement.

## CONSTRUCTION TOLERANCES

- Construction tolerances should be specified to meet the requirements of TMS 602 Article 3.3 F. Note that construction tolerances are intentionally compatible with material manufacturing tolerances.

## QUALITY CONTROL AND TESTING PROGRAM

- A quality control and testing program should be specified to meet the requirements of TMS 602 Article 1.6.
- Inspection and testing frequency should be outlined on the S-1 Sheet. Incorporate Tables 3 and 4 from TMS 602 Article 1.6. We suggest creating a table similar to Tables 3 and 4 and indicate project specific tests and inspections and their frequency.

## MOVEMENT AND CONTROL JOINTS

- Movement and control joints should be specified and located on the project documents by the design team. Movement and control joint locations should never be left to the discretion of the contractor.

For more help with your masonry specification, please contact: Kurt Siggard, Concrete Masonry Association of California and Nevada, 916-722-1700; or John Chrysler, Masonry Institute of America, 310-257-9000.



GRAND  
AWARD

EDUCATION DESIGN



**Jury Comments:** Sage Creek High School exemplifies the context of great design that celebrates its surroundings. While challenging site constraints are present, the project design still manages to effortlessly fit the many contours. The high school provides unique spatial experiences for students while applying the use of concrete masonry units in a creative and functional manner. The whimsical patterned use of CMU links the outside to the inside and offers a contrast with its connections to the other materials. Well scaled pedestrian circulation patterns allow for student social interaction that builds a culture of collaboration in an educational facility. The use of connected forms celebrate this unique landscape while clerestory windows in the gymnasium bring a large amount of natural light into this activity space. The thermal chimneys are strikingly expressed as architectural elements that functionally provide natural ventilation and are just one feature that add to the overall campus style design that demonstrates the excellence of this project. An additional favorable component of this project is that the high school has been verified by the Collaborative for High Performance Schools (CHPS) to meet its high standards for sustainability.



**Architect's Commentary:** Sage Creek High School is recognized as a CHPS-Verified School, which stands for the "Collaborative for High Performance Schools". With an emphasis on environmental learning, this new 56-acre campus is at the edge of a state preserve, nestled into the hillside for minimal impact to the native terrain. The campus is organized into four terraces with compact two- and three-story footprints that front a central circulation spine: the Promenade. Student access to the multiple floor levels of each building originate from the Promenade, providing efficient circulation throughout the campus. Public spaces such as the library, cafeteria and gymnasium engage the Promenade as the campus social center. The various sustainable educational elements throughout the campus include: a re-aligned campus bioswale maintaining the original site drainage, the use of native plant material, harvesting rainwater for irrigation, repurposing existing site boulders from site grading, maximizing natural light and utilizing thermal chimneys for ventilation in the classrooms.

The school curriculum engages the site hierarchy, placing the academic classrooms at the highest level of the building where expansive views will inspire students' future growth and advancement. The architectural forms suggest a floating airplane wing-like roof and folded profiles to create visual inertia, intended to promote academic success and to optimize student potential.

**Why Masonry?** Concrete masonry units (CMUs) were selected as a primary building material for their durability, minimal maintenance requirements and sustainable features which include high thermal mass and recycled content. In addition to these robust building attributes, CMUs were used as a scale element and to provide texture to the overall campus aesthetic. The multi-colored earth tones and patterns of the concrete masonry units reflect the traits of the surrounding site, with the intent of merging and thus complementing the buildings with the adjacent environment. Furthermore, the exposed CMUs at the interior spaces enhance a strong connection between the inside and outside.

## Sage Creek High School

Carlsbad, California

**ARCHITECT:**

Roesling Nakamura Terada Architects, Inc.  
363 5th Avenue, Suite 200  
San Diego, CA 92101

Ralph Roesling, FAIA  
Principal-in-Charge

Chikako Terada, Architect, LEED® AP BD+C  
Project Manager

Rommel Olaes, AIA, LEED® AP  
Raúl Díaz, AIA  
Project Architects

Gemma Hsiueh  
Project Designer

**STRUCTURAL ENGINEER:**

Stedman & Dyson Structural Engineers

**GENERAL CONTRACTOR:**

Balfour Beatty Construction

**MASONRY CONTRACTOR:**

New Dimension Masonry, Inc.

**BLOCK PRODUCER:**

ORCO Block & Hardscape

**OWNER:**

Carlsbad Unified School District

**PHOTOGRAPHY:**

Kevin Walsh Photography - Top three photos

Jeff Durkin, Bread Truck Films - Bottom right photo



# Eagle Valley Middle School Expansion

Carson City, Nevada

**ARCHITECT:**  
Van Woert Bigotti Architects  
1400 South Virginia Street, Suite C  
Reno, Nevada 89502

K. Brad Van Woert, III, AIA  
Angela S. Bigotti, AIA  
*Principals-in-Charge*

**STRUCTURAL ENGINEER:**  
Shields Engineering, Inc.  
**GENERAL CONTRACTOR:**  
Miles Construction  
**MASONRY CONTRACTORS:**  
Petersen Masonry, Inc.  
**BLOCK PRODUCER:**  
Basalite Concrete Products, LLC

**OWNER:**  
Carson City School District  
**©PHOTOGRAPHY:**  
Vance Fox Photography



**Jury Comments:** *Eagle Valley Middle School Expansion has simple geometric forms with a well-defined and expressed entry canopy. The project represents a great use of concrete masonry units to support the connections of the forms and provide a strong horizontal base. Eagle Valley Middle School's utilization of CMU to connect the interior to the exterior is a great touch that really brings the project together. The interior volume in addition to the wonderful benefit of clerestory natural lighting creates dynamic and interesting spaces. Likewise, the inclusion of clerestory windows in the gym also provides the advantage of natural lighting to this activity area. The prominent red element over the entry door to the gym is nicely scaled on a massive side wall and complements the sloping roof to provide a clear entry to the facility.*

**Architect's Commentary:** Carson City School District requested a programmatic and aesthetic upgrade to the existing Eagle Valley Middle School originally constructed in 1982. The program included a new gymnasium, administrative offices, classroom upgrades and a new kitchen. Upon review of the function and arrangement of the existing school, Van Woert Bigotti Architects provided a solution that redefined and optimized the key elements of the plan to better identify the main entrance, improve circulation, security and overall building image. By moving the entrance from the south side of the building to the west, the new design provided a new "front door" as the main approach to the building. Redefining the entire front elevation called for an impressive combination of materials that would help to display a contemporary image.

**Why Masonry?** In choosing materials to support the bold forms of the new structure, the challenge was to enhance the existing aged and dated aesthetic of slump stone block and a dark brown metal roof. In lieu of replicating the adobe brick, Van Woert Bigotti implemented multiple shades of tan concrete masonry units (CMUs) arranged in a random staggered pattern. This solution offered a much needed improvement, yet complimented the original block while also providing a maintenance free material with the durability required in educational spaces such as the gymnasium.

The integral colored patterned concrete masonry units added both structural and architectural merits to the project while complimenting the new, bright white metal panels and aluminum glass storefront. Exposed CMU is seen in both the main entry gallery and the gymnasium as an interior design solution. The result was a strikingly fresh new image that projects a positive signature for the new entrance and an uplifting image for athletics and school pride.

HONOR  
AWARD

EDUCATION DESIGN



**Architect's Commentary:** With a thriving and growing Automotive Technology Program, Evergreen Valley College identified their need for a state-of-the-art Automotive Technology Building to provide students with a clean, safe and technologically advanced space to learn. Through a collaborative design approach, the new Automotive Technology Building at Evergreen Valley College provides state-of-the-art instruction and state-of-the-art technology which is resulting in state-of-the-art students that local employers cannot wait to hire. Automotive technology is no longer your dad's greasy, dirty garage - the new Automotive Technology Building is equipped with day lit vehicle bays, advanced diagnostic computer systems and the latest vehicles for hands-on learning opportunities. With a growing student body and new vehicular technology such as hybrid cars, automotive technology is in the midst of a transformation.

This new building provides a cutting-edge technical facility with hands-on high bay space for learning about the detailed mechanical design and maintenance of modern vehicles. Daylighting serves as the main light source, minimizing power usage. Simple passive strategies like this along with more complex solutions such as natural ventilation made this project one of the most sustainable community college projects in the state. The project's initial goal was LEED® Silver, but through an integrated approach to sustainability, the building recently achieved LEED® Platinum.

**Why Masonry?** With the building situated along a main campus circulation hub, the exterior concrete masonry unit (CMU) wall acts as a visual and acoustic barrier between the shop spaces and the rest of the campus while complementing the surrounding campus buildings. The durability of the CMUs will withstand many years of use and wear caused by the hands-on nature of automotive labor as well as provide an attractive façade along the walkway. Masonry veneer throughout the non-shop spaces cohesively ties the two distinct program areas together.

## Evergreen Valley College Automotive Technology Building San Jose, California

**ARCHITECT OF RECORD:**

Lionakis

1919 Nineteenth Street  
Sacramento, CA 95811

Jonathan McMurtry, Architect  
Principal-in-Charge

**STRUCTURAL ENGINEER:**

Lionakis

**GENERAL CONTRACTOR:**  
Overaa Construction

**MASONRY CONTRACTOR:**  
Creative Masonry, Inc.

**BLOCK PRODUCER:**  
Basalite Concrete Products, LLC

**OWNER:**

San José-Evergreen Community College District

**©PHOTOGRAPHY:**

Tim Maloney, Technical Imagery Studios

**Jury Comments:** Evergreen Valley College Automotive Technology Building's concrete masonry units are utilized to provide building stability and express the function while acting as a sound barrier for the use as an automotive maintenance training facility. The building offers an elegant horizontal form that integrates natural light into the interior spaces. The roof overhang positioned above the service bays creates shading and protection that is integrated with the building form. The design is completely appropriate for its function and use with simple economical elements that make the building appear larger than it is. The overall simple design solution creates a comfortable building that nevertheless implies an important status of the academic program through the design. This Automotive Technology Building is also impressive by achieving LEED® Platinum.



# New Pacific Trails Middle School

San Diego, California

**ARCHITECT:**  
**Lionakis**  
 4000 MacArthur Blvd., Suite 101  
 Newport Beach, CA 92660

Laura Knauss  
*Principal-in-Charge*

**STRUCTURAL ENGINEER:**  
 Lionakis

**GENERAL CONTRACTOR:**  
 Balfour Beatty Construction

**MASONRY CONTRACTOR:**  
 New Dimension Masonry, Inc.

**BLOCK PRODUCER:**  
 ORCO Block & Hardscape

**OWNER:**  
 San Dieguito Union High School District

**©PHOTOGRAPHY:**  
 Tim Maloney, Technical Imagery Studios

**Jury Comments:** *New Pacific Trails Middle School is a cohesive design with complementary forms and materials. The front elevation of the school is a pleasant composition of the building geometry, and the canopies and trellis really add to the human scale. Integration of the courtyard gathering spaces for students enhance the social culture on campus, which is important in middle school. The use of the concrete masonry unit wing walls are a dynamic element that offer an enjoyable inside to outside connection. Likewise, the sectional doors that provide indoor and outdoor classroom spaces are an excellent touch and very useful for the hands-on courses being taught.*



**Architect's Commentary:** As a new and growing community, the Pacific Highlands Ranch neighborhood in northern San Diego was ready for a new middle school to accommodate its growth. In 2012, with a long range facilities master plan complete, the San Dieguito Union High School District (SDUHSD) passed a \$449 bond initiative that outlined a vision for sustainable and technology-rich learning environments for each of SDUHSD's campuses.

The new Pacific Trails Middle School, planned for 1,000 students, is part of the neighborhood center adjacent to the existing Canyon Crest Academy High School and a community park. Immediately across the street are Town Center retail and service functions. These public functions combine to create a focal point for the growing community. It was the intent of the project design to be a more youthful complement to the adjacent high school, using a brighter color palette and student-centric design strategies.

Designed around a central student quad, outdoor dining commons and adjacent media center, the campus core feels more like a college Student Union rather than a middle school campus, providing student gathering, dining and outdoor learning spaces. The first phase included an administration building, gymnasium, multipurpose building, learning resource center, food service and a classroom building.

**Why Maonry?** Leveraging the concept of "Buildings that Teach", each new building includes exposed braced frames, designed to meet critical seismic demands as well as the District's aesthetic goals. At the new campus' front door, concrete masonry units (CMUs) provide a durable, yet welcoming and permanent design aesthetic, while at the new two-story classroom building, a large CMU veneer wing wall cuts into the building, carrying the concrete masonry units from the exterior to the interior. The same CMUs are used as accents in seating areas and outdoor gathering spaces throughout the site to provide a cost-effective approach to design continuity throughout the campus.

HONOR  
AWARD

EDUCATION DESIGN



## Henry W. Coil and Alice Edna Coil School for the Arts Riverside, California

### ARCHITECT:

LPA, Inc.

5161 California Ave., Ste. 100  
Irvine, CA 92617

Steve Flanagan, AIA, LEED® AP

Principal-in-Charge

### STRUCTURAL ENGINEER:

LPA, Inc.

### GENERAL CONTRACTOR:

Tilden-Coil Constructors, Inc.

### MASONRY CONTRACTOR:

Winegardner Masonry, Inc.

### BLOCK PRODUCER:

Angelus Block Company, Inc.

### OWNER:

Riverside Community College District

### ©PHOTOGRAPHY:

Cris Costea, Costea Photography, Inc.

**Jury Comments:** Henry W. Coil and Alice Edna Coil School for the Arts provides a welcoming design with a beautiful entry sequence that delivers a nice pedestrian scale to the building. This is accomplished with vertical panels delineating the overhang at the front of the building. The creative design solution offers an interesting urban frontage that meets the street in a simple and convenient way. Use of precision scored concrete masonry units add a strong element to frame the composite panels, and the second floor courtyard provides a great gathering space for a variety of academic and social functions. Overall, Henry W. Coil and Alice Edna Coil School for the Arts has a dynamic performance space and is an efficient building for this unique and tight urban infill site while satisfying requirements needed for LEED® Gold certification.

**Architect's Commentary:** Henry W. Coil and Alice Edna Coil School for the Arts serves a dual purpose - to provide space for instruction and to bring the community downtown to enjoy the arts. The center piece of the block is the LEED® Gold designed, 36,420 square-foot Coil School for Arts and Music (CSAM). The CSAM program includes a 450-seat music concert hall, classrooms, practice rooms, a choral room, band room, orchestra room, a piano lab and a state-of-the-art recording studio.

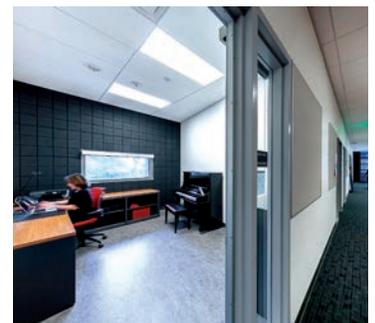
**Why Masonry?** The durability, acoustic properties, thermal mass and cost efficiency of concrete masonry units (CMUs) provide both structure and skin, making it an ideal material for this state funded project. The enclosure system was determined by site context, building program and acoustic control. Light-



weight Trespa cantilevered panels announce the performing arts functions from the street and provide solar protection for the full-height glass entry. Patterned glass “gaskets” separate the Trespa panels from the stacked pattern midnight-black precision scored CMUs that enclose the project’s support spaces. The exterior walls’ simple rectangular openings are accented with steel surrounds and a pattern of “projected” CMUs giving scale and texture to the two-story walls. Sand-colored scored honed CMUs (also in a stack pattern) acoustically isolate the performance space from the support space. The honed surface provides a durable and maintenance free material that is exposed on the interior and exterior of the building.

### Sustainable features:

- 25% performance better than T24
- Tracking LEED® NC GOLD certification
- Thermal mass lag of concrete masonry units
- Alternative fuel vehicles in the four-level, 224 car garage
- Building with local materials and products with recycled content
- High efficiency plumbing fixtures and HVAC systems
- Areas for the storage and collection of recyclables
- 75% construction waste diversion from landfills to recycling centers
- Low/zero VOC materials
- Sustainable signage program



# Calistoga Junior/Senior High School New Gymnasium & Multi-Purpose Building

Calistoga, California

**ARCHITECT:**  
**Lionakis**  
 1919 Nineteenth Street  
 Sacramento, CA 95811

Laura Knauss  
*Principal-in-Charge*

**STRUCTURAL ENGINEER:**  
 Lionakis  
**GENERAL CONTRACTOR:**  
 Blach Construction Company  
**MASONRY CONTRACTOR:**  
 Shannon Masonry Construction  
**BLOCK PRODUCER:**  
 Basalite Concrete Products, LLC

**OWNER:**  
 Calistoga Joint Unified School District  
**©PHOTOGRAPHY:**  
 Tim Maloney, Technical Imagery Studios

**Jury Comments:** *Calistoga Junior/Senior High School New Gymnasium & Multi-Purpose Building shows a great application of design. It represents simple forms with elegant materials that connect and show an expressed transparency. The exterior and interior spaces are well scaled to the students, and the use of concrete masonry units add a strong textural expression that gives the transparency a solid surrounding. The CMU knee wall on the façade of the multi-purpose building similarly delivers a stable feel to the design.*



**Architect's Commentary:** At Calistoga Junior/Senior High School, a new gymnasium, along with a modern and flexible multi-purpose building for dining, performance and student gathering, surround a student plaza which is perfect for outdoor rallies, student gathering and community events. The vision for the campus was "brought to life" with a process that included a workshop with 30 students. These students were engaged in exercises that included "multi-voting" their design preferences as well as discussions regarding the design elements that were most important to them. Not surprisingly, the students that were raised in this rich agricultural area emphasized "green" (the school color) and "green" (environmentally friendly) in their goals for the campus.

**Why Masonry?** The new multi-purpose building walls were infused with concrete masonry units (CMUs) in the school colors of green and black to provide a welcoming new sense of entry to the campus. Inside students find the Wildcats Café and flexible seating for dining and studying which is adjacent to a roll-up garage door that connects to the outdoor plaza and a new rehearsal and performance space for the performing arts. The CMU pattern is likewise repeated on both the interior and exterior of the new gymnasium to enhance school pride with materials that are durable and low-maintenance.

MERIT  
AWARD

EDUCATION DESIGN

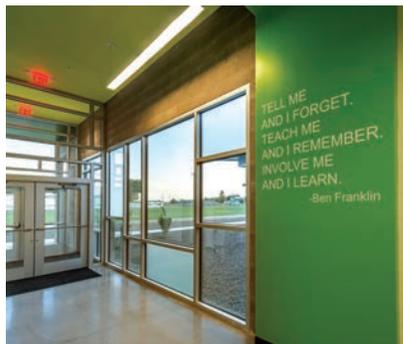


**Jury Comments:** Eliza Pierce Elementary School makes the most out of budget and economy of the design with its nice composition of forms and materials. The expression of the building entry supported by dynamic forms and use of concrete masonry unit walls add a strength to the building. This design articulates the need to overcome the harsh climate while responding thoughtfully to the challenges of site. The utilization of bold colors and cool graphics help to define the interior spaces, while the clerestory windows in circulation spaces provide a delightful solution to the introduction of natural light.

**Architect's Commentary:** Located in the mining community of Battle Mountain, Nevada, a small rural town in the middle of the state with just over 2,000 residents, the Eliza Pierce Elementary School is part of a comprehensive reorganization of the entire school district, resulting in buildings and programs that are more efficient and cost effective. In fact, the school district's re-organization is part of a community wide effort to address all of Battle Mountain's quality of life issues – from education, health care, and government services to recreation. New projects include additions to the hospital, a new courthouse and administration building, a new recreation center and four new school projects of which Eliza Pierce Elementary is one.

Eliza Pierce is a 40,000 square-foot building which houses kindergarten through third grade. It is connected to a remodeled existing school (former middle school) that houses grades four and five. With Battle Mountain's harsh climate, the school is totally enclosed under one roof, providing energy efficiency and a safe and secure learning environment. A single point access system provides total control of who comes and goes, and sight lines throughout the school are clear and unobstructed.

**Why Masonry?** Concrete masonry units (CMUs) played a key part in the design of the school. Saddled with a tight budget, CMUs became a viable material to meet both the utilitarian and aesthetic requirements of the design. The main field of concrete masonry units are precision cast block of a custom color, with a small amount of split face units randomly placed for variation in pattern and texture. Small horizontal openings allow natural light in and views out, but preserves the security of the school by portraying a strong and safe image from the front. The secure side of the school opens up with larger windows in the classrooms to facilitate healthy learning environments.



## Eliza Pierce Elementary School

Battle Mountain, Nevada

### ARCHITECT:

Van Woert Bigotti Architects  
1400 South Virginia Street, Suite C  
Reno, Nevada 89502

K. Brad Van Woert, III, AIA  
Angela S. Bigotti, AIA  
Principals-in-Charge

### STRUCTURAL ENGINEER:

Shields Engineering, Inc.

### GENERAL CONTRACTOR:

CORE Construction

### MASONRY CONTRACTOR:

Silver State Masonry

### BLOCK PRODUCER:

Basalite Concrete Products, LLC

### OWNER:

Lander County School District

### ©PHOTOGRAPHY:

Vance Fox Photography

MERIT  
AWARD

EDUCATION DESIGN



## Paramount High School Science Building

Paramount, California

**ARCHITECT:**

LPA, Inc.

5161 California Avenue, Suite 100  
Irvine, CA 92617

Donald Pender, AIA, ALEP, LEED® AP  
Principal-in-Charge

**STRUCTURAL ENGINEER:**

LPA, Inc.

**GENERAL CONTRACTOR:**

McCarthy Building Companies, Inc.

**MASONRY CONTRACTOR:**

Kretschmar & Smith, Inc.

**BLOCK PRODUCER:**

ORCO Block & Hardscape

**OWNER:**

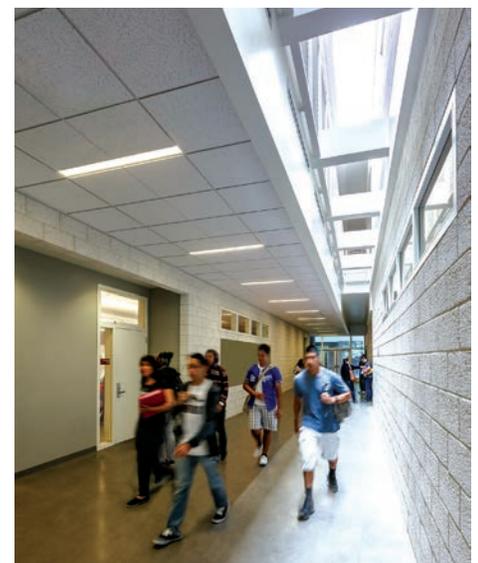
Paramount Unified School District

**©PHOTOGRAPHY:**

Cris Costea, Costea Photography, Inc.

**Jury Comments:** Paramount High School Science Building has nice, simple forms that are elegantly connected. A thoughtful design with terrific transparency is demonstrated throughout the project. The entry canopy is not only dynamic and expressive, but also has a 56 kW solar system integrated within its structure. There is a great expression of materials anchored with the use of concrete masonry units in different forms. The building's unique volumes are supported by the use of these CMUs, and a robust infiltration of natural light from student corridors penetrates throughout all levels. Daylight from these corridors are borrowed by the classrooms to balance the light received from the operable windows that provide natural ventilation. While the project partners nicely with the existing buildings on the rest of the campus, its strong design elements make this facility a feature building that has been verified by the Collaborative for High Performance Schools (CHPS) to meet its high standards for sustainability.

12. CMACN 2017 July Awards Issue of "CMU Profiles in Architecture"



**Architect's Commentary:** This new 38,100 square-foot state-of-the-art science facility enables Paramount High School to have a more robust science and engineering curriculum. Through the design process, the team utilized environmental building analysis and energy simulation tools to help inform and shape the design of the building. PV Calculator was used to assess the viability of solar installation, Ecotect to evaluate design decisions based on environmental factors and EnergyPro to perform quantitative analysis on building performance. All disciplines utilized Building Information Modeling (BIM) to improve interdisciplinary coordination, enhance deliverable quality and to integrate the design. As a result of these integrated processes, this project exceeded Title 24 energy requirements by 29%, reducing electricity use by 140,000 kW/year, reducing natural gas by 1,400 therms/year and obtaining over \$52,000 dollars in owner incentives from Southern California Edison's Savings by Design program. The facility provides daylight/views and operable windows for all classrooms, which greatly improves the learning environment on the campus for students and teachers alike.

**Why Masonry?** Concrete masonry units (CMUs) were utilized for both structure and enclosure, providing excellent thermal mass and durability. Other sustainable features include:

- CHPS Certified
- Exceeds Title 24 by 29%
- Canopy over the building provides shade for the exterior circulation and provides infrastructure for a 56-kW rooftop photovoltaic system
- Operable windows allow classrooms to be cooled on moderate temperature days
- Exterior circulation promotes connection to the outdoors, increasing daylighting into the classrooms and reducing the mechanical load on the building
- Skylights incorporated to bring in natural light to all occupied spaces in the building
- Utilizes high reflectance, cool roofing to reduce the heat island effect
- Demonstration areas placed within the facility to promote the building's sustainable features as a teaching tool
- Reduced indoor potable water use by more than 40% and irrigation by 52%
- Utilized recycled content and low emitting materials in major building elements

MERIT  
AWARD

EDUCATION DESIGN



## St. Albert the Great Catholic School, Addition Reno, Nevada

**ARCHITECT:**  
Architectural Design Group  
9025 Spanish Trail Drive  
Sparks, Nevada 89441

Rob Fabri, AIA  
Principal-in-Charge

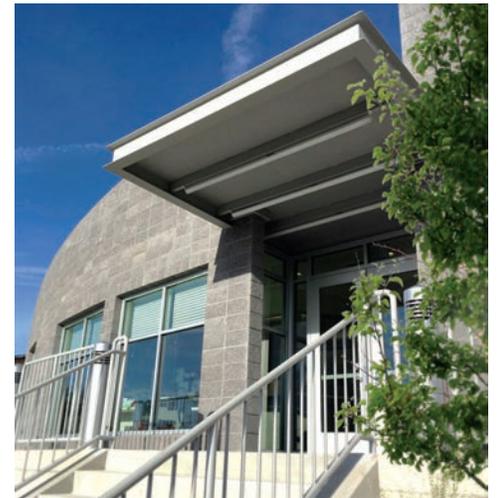
Sam Updike  
Partner

**STRUCTURAL ENGINEER:**  
Aesthetic Engineering  
**GENERAL CONTRACTOR:**  
Frank Lepori Construction, Inc.  
**MASONRY CONTRACTOR:**  
Silver State Masonry  
**BLOCK PRODUCER:**  
Basalite Concrete Products, LLC  
**OWNER:**  
St. Albert the Great Catholic School  
**©PHOTOGRAPHY:**  
Vance Fox Photography



Entrance before addition

*Jury Comments: The St. Albert the Great School addition is an elegant expression of form with the use of concrete masonry units. The project delivers a new significant front door and focus to the building, while the connection to the existing school building provides a new face for the school. The added curved form creates a softer, more inviting entry sequence. While the project is a rather small gesture, it makes a phenomenal difference through its design.*



**Architect's Commentary:** St. Albert the Great Catholic School was in desperate need of a secure and pronounced entry. The existing school was built in the 1960's with concrete masonry units (CMUs), and the owners wanted the entry to make a statement, but also be cohesive with the existing structure. The front wall is based on a 79'-0" radius, and is also raked on a 3:12 slope, tying the school with the aesthetics of the church to create a cohesive campus.

The major materials used during construction were within 500 miles of the construction site and contained recycled content in the steel and concrete. The single-ply roofing membrane is in compliance with the heat island effect, and the site lighting is within the dark sky requirements. The existing facility contained PV panels on the roof, and the new addition increased the number of panels.

On the interior of the building, low emitting materials and low VOC paints were used throughout. All lighting in the facility is LED to reduce operating costs. The R value of insulation within the walls, foundation and roof exceed the basic requirements. The original exterior walls were not insulated, so the new addition exterior walls were furred to create a space for insulation to help with energy conservation. The final landscaping contained drought tolerant planting materials.

**Why Masonry?** The owners appreciate the durability, low maintenance and aesthetics of split-face CMUs for the exterior. The exposed interior walls are composed of shot-blast concrete masonry units that provide a tactile-friendly surface and more closely match the hue of the exterior split-faced material. With only a two month construction window, the proximity of the production plant and availability of CMUs were crucial for the schedule. The texture, along with the anti-graffiti sealant on the exterior helps provide relief from vandals.



# Freeman/Jardini Studio

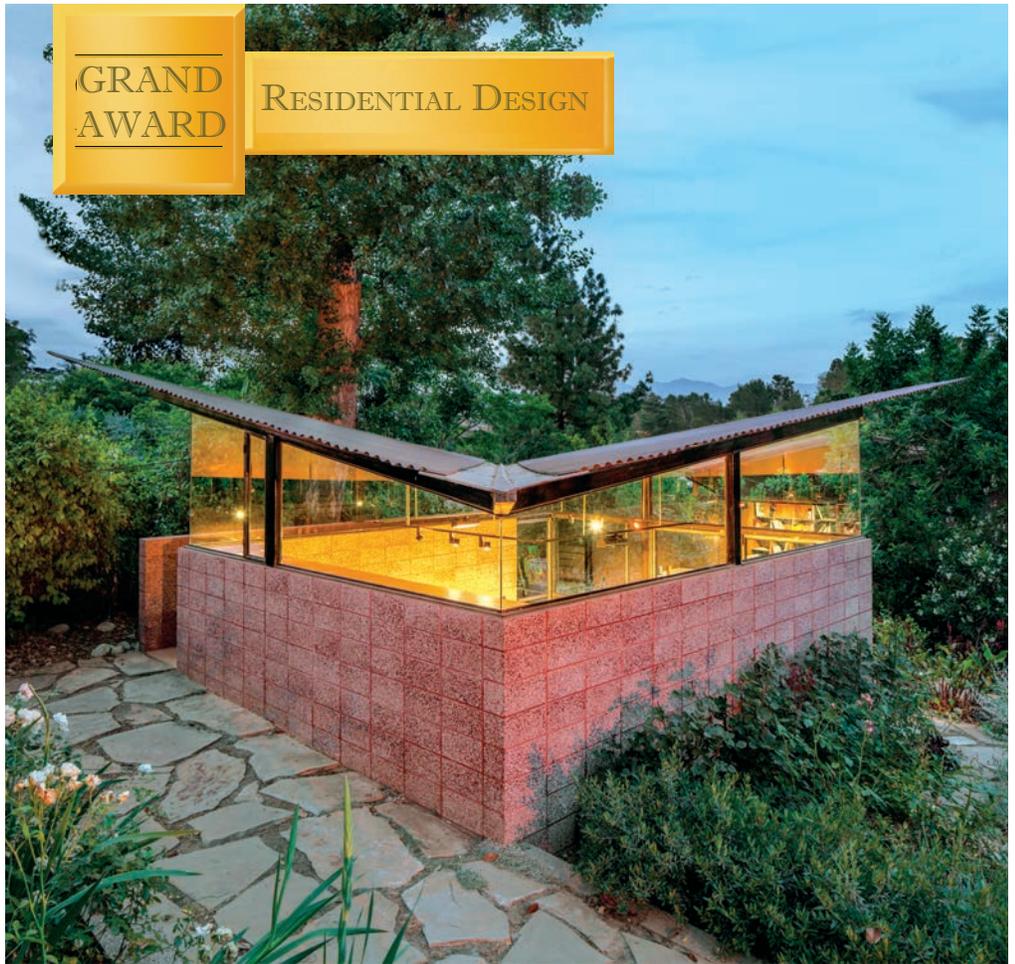
Los Angeles, California

**ARCHITECT:**  
Corsini Stark Architects, LLP  
3630 Tyburn Street  
Los Angeles, CA 90065

Richard Corsini, AIA  
Principal-in-Charge

**STRUCTURAL ENGINEER:**  
Charles Tan + Associates, Inc.  
**GENERAL CONTRACTOR:**  
Amron Construction Services  
**MASONRY CONTRACTOR:**  
G.C. Masonry  
**BLOCK PRODUCERS:**  
ORCO Block & Hardscape  
**OWNER:**  
Freeman/Jardini  
**©PHOTOGRAPHY:**  
Steve King Architectural Photography

GRAND  
AWARD  
RESIDENTIAL DESIGN



**Jury Comments:** *The programmatic concept for the Freeman/Jardini Studio is expressed through an elegant and simple floor plan and topped by a floating framed roof. There is an interesting detail at the perimeter edge of the roof with the plywood ceiling extending just beyond the enclosure allowing the roof ribbing to read through and slim the floating roof element. It is an example of a thoughtful use of materials with concrete masonry units providing a strong base, highlighting a wonderful integration of light and expression of form. The building scale is successful in proportion to the functional use and how it is sited in the lush vegetative surroundings. The orientation of the studio space in relation to the landscape offers a comforting spatial experience that encourages creative flow. The Freeman/Jardini Studio is a delightful treatment to illustrate how design excellence expresses the positive impact of a simple space.*

**Architect's Commentary:** The project is an artist's studio, separate from main residence, with outdoor spaces. The existing house is a 1909 shingle-style Los Angeles Historical-Cultural Monument, subject to review and approval by the City of Los Angeles Office of Historic Resources.

The thin, wing-like steel roof - a square folded upward along the diagonal - floats above the cave-like concrete masonry unit (CMU) enclosure, allowing transparency from house and deck, through the studio clerestories, to the horizon. The new steel roof is the inverse of the historic wood frame roof of the shingle style house.

A welded steel tube roof frame and columns, tied together with grade beams, serve as the primary structure with CMU to enclose the workspace and create retaining walls. A steel plate is welded to the top of steel tube perimeter beams and cantilevered, which in turn supports cantilevered corrugated steel roofing to produce a very thin roof overhang, shading the clerestory windows from direct solar heat gain. A concrete slab floor, integrally-colored to match exterior flagstone paving, enhances the relationship of interior and exterior space. Oiled Okume-veneer marine plywood is used for ceiling finish panels and interior cabinetry.

**Why Masonry?** There is no active heating or cooling system. Natural cross-ventilation, thermal mass of CMU walls, floor and site, deep overhangs and a lush site microclimate keep the studio workspace comfortable year-round. Custom-colored, burnished concrete masonry units form the enclosure and retaining walls for an aesthetically pleasing and rustic appearance. Clear solar glass clerestory panels infill between concrete masonry unit walls and the steel roof.



HONOR  
AWARD

RESIDENTIAL DESIGN



## Gilbert/Kivett Residence

Palm Springs, California

**ARCHITECT:**  
Corsini Stark Architects, LLP  
3630 Tyburn Street  
Los Angeles, CA 90065

Anthony Stark, RA  
Principal-in-Charge

**STRUCTURAL ENGINEER:**  
W-T Civil Engineering, LLC  
**GENERAL CONTRACTOR:**  
Palm Pacific Construction, LLC  
**MASONRY CONTRACTOR:**  
Palm Pacific Construction, LLC  
**BLOCK PRODUCER:**  
ORCO Block & Hardscape

**OWNER:**  
Gilbert/Kivett  
**©PHOTOGRAPHY:**  
Steve King Architectural Photography



**Jury Comments:** *Gilbert/Kivett Residence is a terrific renovation that maximizes an honest and elegant use of concrete masonry units while respecting the vernacular of design style for this region. It offers a transparent and very open interior space in comparison to the appearance of the residence exterior. The renovation's front approach to the house softens the original opaque elements from the street, while the overall renovation is respectful of the original forms offering a new view of the original design concept. The use of CMU is well done and thoughtfully placed, providing a great interior to exterior connection. The pool house addition adds tremendously to the residence as it is nicely scaled and well sited in context with the original structure and pool courtyard, easily making it our favorite part of the project. The project achieves a high level of sustainability through its use of regional materials and the integration of native vegetation throughout the site.*



**Architect's Commentary:** This 2,800 square-foot, one-story house, located on a corner lot at the base of the San Jacinto Mountain in Palm Springs, was designed by Charles Dubois in the 'Atomic Ranch' style with sweeping mountain views to the west and south. Insensitive alterations over the years disconnected the large rear yard from the house, and a streetwall masked it from the neighborhood.

The new owners requested a comprehensive interior and exterior renovation of the property. The residence was completely remodeled with new finishes, fixtures, equipment and alterations to enhance the flow of interior and exterior space. Site improvements included a new entry sequence that visually opens the house up to the street, an enlarged pool and spa, a new bocce court and a 600 square-foot, free-standing pool pavilion at the southeast corner of the site, anchoring the new garden landscape with a true outdoor living space.



Linking the existing residence with the exterior space was achieved by layering the entire site from west to east with concrete masonry unit (CMU) walls, landscaping, water features and hardscape elements as a total design composition.

**Why Masonry?** White burnished CMU was used for the exterior walls of the pool pavilion, an outdoor fireplace, a screen patio wall/fountain at the residence entrance and as interior walls for the bathrooms. Concrete masonry units were selected for their durability and solidity in the desert and to match the sand color of the new ground plane. The concrete masonry units' color and texture complement the clear Douglas-fir paneling and terrazzo floor.



# Party of 4

Reno, Nevada

**ARCHITECT:**  
hawkins & associates, inc.  
1400 South Virginia Street, Suite A  
Reno, NV 89502

Jack Hawkins  
Principal-in-Charge

Baron Hershberger  
Project Manager

**STRUCTURAL ENGINEER:**  
Gabbart and Woods Structural Engineers

**GENERAL CONTRACTOR:**  
Murphy Built Construction

**MASONRY CONTRACTOR:**  
Hakansson Masonry, Inc.

**BLOCK PRODUCER:**  
Basalite Concrete Products, LLC

**OWNER:**  
Party of 4 Residents  
©PHOTOGRAPHY:  
Asa Gilmore, Ag Studio

**Jury Comments:** Party of 4 is a nicely thought out urban infill project with a pleasant application that remains sensitive to the neighborhood in scale, materials and streetscape connections. The plan layout has a simple elegance with a sequence of design element pieces fitting together elegantly to form a pleasantly unexpected design. The project is well sited in the urban context of the neighborhood and demonstrates a wonderful way to increase the neighborhood density. The materials mix together seamlessly, and the use of concrete masonry units add a textured accent that anchors the design. The exterior and interior stairs are very dramatic in contrast to the simplicity of interior elements and help create a sense of larger interior spaces than in actuality. The inclusion of sectional roll-down doors are a great feature that cover the second and third floor allowing them to float while connecting the loft and living level. This significant feature also provides passive solar heat in the winter and sun shading in the summer. The inclusion of subtle clerestory windows are a unique application while the Murphy bed detail is an unexpected surprise that adds versatility to the design.



**Architect's Commentary:** The Party of 4 development consists of 4 units - two 1100 square-foot units and two 1400 square-foot units on two separate urban infill lots in one of the oldest neighborhoods in Reno, Nevada. Two units reside behind an existing 1938 bungalow, and two other units reside behind a different bungalow with a home and lot in between the two developments. This creates an amazing urban courtyard for the home in the middle. The landscaping ties the three 50'x140' urban properties together and at the same time creates privacy and a cohesive street-scape. The original bungalows have been renovated and modified for living in the 21st Century while the townhomes offer modern, energy efficient loft living.

The neighborhood character has been preserved and enhanced while the derelict backyards have been replaced with the units and landscaping. Prior to the development there were three neglected homes with unused, derelict back yards housing three families. The goal was to create higher density while enhancing the environment for the neighborhood and occupants. With the completion of the development there are now seven households occupying the same amount of land.

Baron Hershberger played an essential role in the Party of 4 project as the Hawkins and Associates Project Manager and as one of the original unit owners. He is now practicing on his own at Baron Hershberger Architect. The original developer/architect still lives in one of the units with his spouse.

**Why Masonry?** Concrete masonry units (CMUs) were selected as a modern material that anchors the project to the site and gives the design a unique permanence that is rare in multi-family developments in the Reno area. CMUs were also selected for loadbearing, and more importantly, lateral shear walls that allow for more south facing glazing to capture the views of the mountains, while allowing higher passive solar energy to enter the units in the winter. The natural grey-colored concrete masonry units with added black cinder was laid in a stack bond pattern, which gives the small development modern, clean lines. The CMUs were site sand-blasted and sealed giving them a beautiful texture and exposing the black aggregate. The joints are raked and recessed. Concrete masonry units were also selected as a product that could be used on the exterior as well as the interior, which enhances this relationship. Additionally, CMUs are a substantial, fire resistive, rodent resistant, long lasting, low maintenance material.

MERIT  
AWARD

PUBLIC/CIVIC DESIGN



## Encinitas Fire Station 2

Encinitas, California

**ARCHITECT:**

**domusstudio architecture**  
2150 W Washington #303  
San Diego, CA 92110

Wayne Holtan, AIA, Principal  
*Principal-in-Charge*

**STRUCTURAL ENGINEER:**

Structural Engineering Solutions

**GENERAL CONTRACTOR:**

The Vertex Companies, Inc.

**MASONRY CONTRACTOR:**

The Patterson Company, Inc.

**BLOCK PRODUCER:**

ORCO Block & Hardscape

**OWNER:**

Encinitas Fire Department

**©PHOTOGRAPHY:**

Jim Brady, Brady Architectural Photography

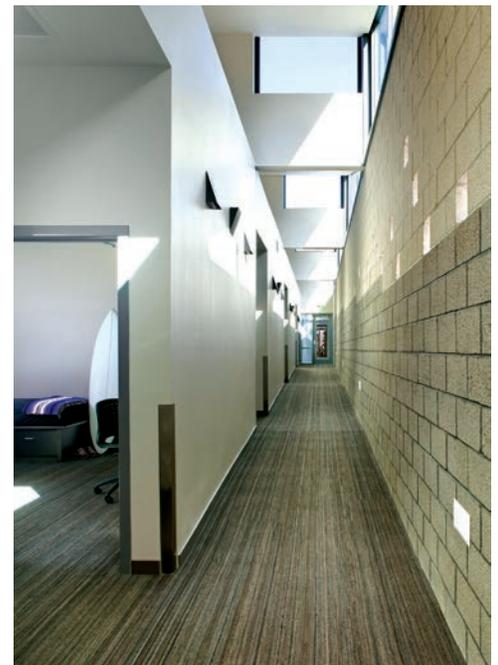


**Jury Comments:** Encinitas Fire Station 2 demonstrates a great combination of aesthetics and function through simple geometric forms that are well expressed with the use of concrete masonry units both on the interior and exterior. This concept is well expressed by the series of narrow, vertical slots in the CMU wall that bring light into the circulation corridor and add an interesting glow to the monolithic wall on the exterior side. The concrete masonry units provide a sense of strength to the building and a buffer to the adjacent freeway while acting as a stable base for the transparent light wells on the roof. The hose drying tower is a strong aesthetic building feature combined with important traditional fire station function. Likewise, it is impressive the project achieved LEED® Silver.

**Architect's Commentary:** Inspired by the rapidly disappearing saw-tooth roof greenhouses as the City of Encinitas has developed, this fire station is a 6,330 square-foot, LEED® Silver Certified building. The building is designed incorporating a continuous concrete masonry unit (CMU) wall fronting the Interstate 5 freeway. Between the concrete masonry unit wall and roof, triangular clearstory windows are formed providing effective interior day-lighting of the main circulation hallway. Conceptually, the series of sloping roof lines and clearstory windows are intended to emulate Encinitas's history of greenhouses as "the flower capital of the world". To further project this history, a graphic poinsettia flower (with LED night lighting) punctuates the south end of the CMU wall. The free standing hose tower provides identity signage while also serving basic functional uses. It is clad in perforated metal panels and includes a lift platform to raise the fire hoses which allow the canvas hoses to naturally drain/air dry between uses. The building is intended to convey a simple design of modular elements with a sense of permanence and energy consciousness.

Site sustainable design elements such as storm water control, with a planted bioswale that traverses the length of the long narrow site, drought tolerant landscaping, and reserved parking for fuel efficient vehicles allows the design to take advantage of many site and program challenges to create a highly functional, sustainable and visible building.

**Why Masonry?** For the 320 foot-long, 14 foot-tall wall, concrete masonry units were selected for their mass, specifically to help mitigate the adjacent freeway noise. With offsetting faces, the heavy fluted and split-face textured CMUs in shades of gray were specified for design impact, to discourage potential graffiti and remain maintenance free. The standing seam metal roofs are sloped facing south to allow optimal day-lighting orientation to the north and efficient future solar collecting panels to the south.



# Stanislaus County Day Reporting Center

Modesto, California

**DESIGN & CRITERIA/ OVERSIGHT ARCHITECT:**

**LDA Partners, LLP**  
222 Central Court  
Stockton, CA 95204

Eric Wohle, AIA, LEED®  
*Principal-in-Charge*

**ARCHITECT OF RECORD:**

**Pacific Design Associates, Inc.**  
1218 K Street, Suite 100  
Modesto, CA 95354

Donald Phillips, AIA, LEED® AP  
*Principal*

**PROGRAMMING ARCHITECT:**

**HOK**  
One Bush Street, Suite 200  
San Francisco, CA 94104

David Crotty, AIA  
*Vice President*

**STRUCTURAL ENGINEER:**

JH Lawder, Inc. Structural Engineers  
Justin W. Capp, Inc.

**GENERAL CONTRACTOR:**

Simile Construction

**MASONRY CONTRACTOR:**

Pengilly Masonry, Inc.

**BLOCK PRODUCER:**

Basalite Concrete Products, LLC

**OWNER:**

Stanislaus County

**©PHOTOGRAPHY:**

Ed Asmus Photography



**Jury Comments:** *Stanislaus County Day Reporting Center demonstrates elegant forms expressed by the materials with a simple but powerful use of concrete masonry units on the exterior face and interior spaces. The design solution is a thoughtful application from an aesthetic standpoint that satisfies the functional and operational criteria of the building. Likewise, it has a uniquely inviting entry sequence that doesn't feel like a space in a correctional facility. The minimized solar exposure on the west side helps prevent unwanted solar gain, yet the building's clerestory placement allows for maximum exposure to natural light.*

**Architect's Commentary:** Located within the larger Public Safety Center campus, the Day Reporting Center (DRC) is a public safety facility intended to help people get their lives back on track after release from custody. Made up of three independent public safety departments: probation, sheriff and behavioral health, the DRC does not house a permanent custodial population. Rather it serves as a gathering and educational place for people who have recently been released from custody. Architecturally and programmatically, this 14,000 square-foot facility can be broken into three main program elements: staff, public and educational.

**Why Masonry?** In a homage to the reverse nature of the DRC, inviting those released from custody back to the Public Safety Campus, the staff is housed in the main concrete masonry unit (CMU) portion, while the educational and public components are on the opposite side. Due to its extreme durability, ease of maintenance and its ability to respond to the overall public safety center's architectural context, CMUs were a natural choice as one of the facilities primary building materials.

The concrete masonry units consist of a repeating pattern made up of three separate colors, each with a ground-face and split-face finish. However, when placed, the CMUs have the appearance of a random pattern. The result was a look of a variegated mass that not only anchors the building, but also provides substantial visual interest.

Within the interior, the pattern was retained, but only ground-face units were used, still creating a visual mosaic. Interior clerestory windows wash the interior CMU walls with natural light and highlight subtle differences in the aggregates. The use of concrete masonry units were a logical choice to help with the interior environmental systems. The large mass of the CMUs help provide a thermal lag to mitigate the effects of the hot Central Valley sun.



## The Jury

The Jury is comprised of a Base Jury of three leading architects from across the nation selected by AIACC and a Sustainable Design Award Jury which is comprised of two professionals significantly involved in the promotion of sustainability in California or Nevada. The Jury has the duty to view projects, remain impartial and select winning entries that best exemplify outstanding sustainable architectural design incorporating concrete masonry construction.

*The Distinguished Base Jury for the 2017 Concrete Masonry Design Awards Program includes:*

### Head Juror: Mickey Jacob, FAIA, NCARB



A native of Windsor, Ontario, Canada, Mickey Jacob graduated from the University of Detroit School of Architecture in 1981 and relocated immediately to Tampa where he has practiced Architecture for 35 years. A founding partner at Urban Studio Architects for over 25 years, currently he is the Chief Marketing Officer at BDG Architects. Over the years, his work has focused on Corporate Interiors and Hospitality projects.

Mickey's previous leadership positions at the American Institute of Architects (AIA) includes AIA Tampa Bay, AIA Florida and AIA National. Likewise, Mickey has chaired numerous committees with the AIA including ArchiPAC, the Government Advocacy Committee, the 2013 AIA Convention Committee and the American Architectural Foundation. In recognition of his work and commitment to leadership, AIA Florida created the "Jacob Leadership Institute" (JLI) to provide leadership training and support to emerging professionals in architecture, and in 2009 he was elevated to the AIA College of Fellows. Additionally, in 2013 Mickey served as the 89<sup>th</sup> President of the AIA.

Mickey is active in a variety of business, professional, educational and charitable organizations including the Tampa Downtown Partnership, the Greater Tampa Chamber of Commerce, the Hillsborough Area Regional Transit Authority Board and the Tampa Historic Streetcar Board. He is a regular speaker on leadership and the importance of civic engagement, and over the past few years has provided keynote addresses and speeches for AIA Chapters nationwide and has been a featured speaker at many prestigious conventions, festivals and organizations. Mickey has also represented the AIA as a Co-Host in partnership with the US Department of Commerce leading architecture trade missions to India and Brazil.



### Ken Ross, Jr., FAIA, FACHA

A 1971 graduate of the University Of Tennessee School of Architecture, Ken was a founding member and President of the school's AIAS chapter and Gulf Coast Regional Director on the AIAS national board. He has since been licensed in thirty-six states, the District of Columbia and two Canadian Provinces, while practicing in 26 states and four foreign countries. He continued his volunteer service to the profession through numerous appointed and elected roles with

AIA, including service on local and state committees, boards and foundations. Ken also served as the Texas Regional Director on the AIA national's Board of Directors. In 2000, Ken's achievements and contributions to the profession were recognized with investiture into the AIA College of Fellows, and in 2001 Fellowship in the American College of Healthcare Architects.

Ken joined the AIA staff in late 2010 after a brief sabbatical and retirement from traditional practice as Senior Principal and former President of WHR Architects, Inc., a 170+ person Houston based architectural firm whose work is in architecture, planning, interior design and consulting for healthcare, education, science and technology facilities. During Ken's forty year career, he worked with nationally and internationally known firms specializing in healthcare architecture, becoming recognized for his expertise in the management of multi-disciplinary teams.

Ken recently retired from his tenure at the American Institute of Architect (AIA) as Senior Vice President of Advocacy and Strategy. His responsibilities included AIA's continuing commitment as the voice of the profession supported by the development of policies, positions and initiatives for federal government affairs and the support of AIA's state and local component government advocacy efforts.



### Michael Broshar, FAIA

Broshar began work in his Waterloo, Iowa architecture firm in 1972 as a student and continued through his academic years. He received his undergraduate education at Iowa State University, receiving a Bachelor of Arts in Architecture, with Distinction, and completed his Master of Architecture at Rice University.

Following graduation he spent two years in Minneapolis, working on a large mixed-use facility as a project designer. In 1982, he returned to Waterloo and was named partner in 1991. He oversaw the merger of his firm with another firm to form INVISION planning | architecture | interiors in 2000. INVISION has a staff of 50+ with offices in Des Moines and Waterloo, Iowa focusing on Healthcare, Education and Hospitality design. Broshar is President and Managing Partner of the organization. His current focus is leading the Healthcare Studio within INVISION, however, he has designed and led several key civic projects in Waterloo, including the recent redevelopment of the riverfront through downtown Waterloo.

Broshar has served as President of AIA Iowa, and subsequently was elected to represent the Central States Region on the AIA National Board. He served as a National Vice President from 2005-2007, chairing the AIA Knowledge Committee. In addition, he was a Director and Treasurer for the National Architectural Accreditation Board and has served on several accreditation teams. He has also served on several design award juries, including the Tangzhan Earthquake Memorial International Ideas Competition in Tangzhan, China.

*In Addition to the Base Jury The Distinguished Sustainable Jury for the 2017 Concrete Masonry Design Awards Program includes:*



### Stephan Castellanos, FAIA

Mr. Castellanos received a Bachelor of Architecture from CA State Polytechnic College in 1971. While with the AIA Sierra Valley, he served as Director from 1986-87, Treasurer from 1987-88, First VP/President Elect in 1989 and as President in 1991. His accomplishments with the AIA California Council include BOD from 1992-94 and 1997-2000, and Governmental Relations Legislative Committee from 1993-98. He served as Chair Diversity and Political Outreach Task Forces

in 1994, Vice-President, Communication/Public Affairs from 1995-96, ARC PAC Board of Trustees from 1997-98, and Vice-Chair, California Hospital Building Safety Board from 1997-2000. Mr. Castellanos has also served as First Vice President and President of the AIACC from 2006-08. He was the AIACC Regional Director from 2006-08, and served on the board of C.H.P.S. Mr. Castellanos completed his term as AIA CA Regional Director in 2009, and was president of the California Architecture Foundation in 2009.

Mr. Castellanos has also served on the AIA Board of Directors from 1998-2000, Board Rep., National AIA Diversity Conf. in 1998, as Chair, Committee on Licensing from 1998-2000, Chair, Interior Design Task Force in 1999, Intern Development Program (IDP) Commission Coordinating from 1998-2000, and as Secretary from 2000-2002. He served as California State Architect from 2001-04. His professional career includes Partner of Derivi Castellanos Architects 1979-2002.



### Charles Eley, FAIA, P.E.

Charles Eley is an architect, mechanical engineer and author with 40 years of experience in energy efficient and sustainable design. His latest book is *Design Professionals Guide to Zero Net Energy Buildings* (Island Press 2016). During his career, Mr. Eley has made significant contributions to the California energy standards, ASHRAE Standard 90.1, and energy codes in Hong Kong, Hawaii, Guam, American Samoa and Australia. Mr. Eley

worked as the lead consultant to the California Energy Commission to update the state energy efficiency standards for five code update cycles.

In addition to his energy codes and policy work, Mr. Eley has also developed a number of important technical manuals and publications. He has served as the founding executive director of the Collaborative for High Performance Schools and was the technical editor of the CHPS Best Practices Manual. He has also developed a number of energy analysis software applications and has served as energy consultant for a number of landmark green buildings.

Mr. Eley currently writes, serves on non-profit boards, provides specialized consulting, and teaches building energy efficiency and green technologies classes.



6060 Sunrise Vista Drive  
Suite 1990  
Citrus Heights, CA 95610  
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# 2017

## CMACN/AIACC CONCRETE MASONRY DESIGN AWARDS BANQUET AND CEREMONY

The Design Awards Banquet will be held  
Friday, September 22, 2017  
Paséa Hotel and Spa  
21080 Pacific Coast Highway  
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Please contact CMACN at info@cmacn.org or by calling  
(916) 722-1700 if you are interested in attending.

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*Concrete Masonry Association of  
California and Nevada (CMACN)  
a nonprofit professional trade  
association established in 1977,  
is committed to strengthening the  
masonry industry in California and  
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- Providing technical information on concrete masonry for design professionals.
- Protecting and advancing the interests of the concrete masonry industry.
- Developing new and existing markets for concrete masonry products.
- Coordinating Members' efforts in solving common challenges within the masonry industry.

For further information contact us at:  
Concrete Masonry Association  
of California and Nevada  
6060 Sunrise Vista Drive, Suite 1990  
Citrus Heights, CA 95610-7004

Tel: (916) 722-1700  
Fax: (916) 722-1819  
Email: info@cmacn.org  
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