

April 2019 Edition

Concrete Masonry Association of California and Nevada

CMU Profiles in Architecture

Why Masonry? www.whymasonry.org

Inside this issue:

Cape May	2
West Valley College Jean and E. Floyd Kvamme Planetarium	3
Ra <mark>ncho Cucamonga High School</mark> New Auditorium	4
Rancho Los Amigos Rehabilitation Center Warehouse	5
Calabasas High School Performing Arts Education Center	6
Fire Station No. 1	7

CMACN Producer Members

Rancho Los Amigos Rehabilitation Center Warehouse: Taylor Design, SmithGroup Michael McLane, mclane + studio

8

ARCHITECT: Steven Lombardi Architect 1926 Bacon Street San Diego, CA 92107

Steven Lombardi Principal-in-Charge

STRUCTURAL ENGINEER: Simply Strong Engineering, Inc. GENERAL CONTRACTOR: Jeff Kull Construction Development MASONRY CONTRACTOR: DMM Inc. BLOCK PRODUCER: RCP Block & Brick, Inc. OWNER: Thoma Franz ©PHOTOGRAPHY: Steven Lombardi





Cape May Ocean Beach, California

ARCHITECT'S COMMENTARY: The Cap May project includes two detached homes of modest square footage (1,200 square feet each). The two-story and the three-story house sit together on a 25 foot by 140 foot urban beach lot in Ocean Beach, a small eclectic beach community bordering Point Loma to the east and the Pacific Ocean to the west. Both houses have open floor plans with floor to ceiling glass, private outdoor spaces, a solar rooftop collection, and ocean views. The kitchens and living areas are located on the ground floors, while the bedrooms are on the second floors. Also on site is a two-car parking garage and two outdoor parking spaces located in the alley on the back side of the three-story house.

WHY MASONRY? A dense apartment complex is the neighbor that sits to the east. To maintain privacy, acoustics, durability, and structural value, both houses utilized concrete masonry units (CMUs) for the exterior/interior walls. The two-stories of 4 inch by 8 inch by 16 inch CMUs were lightly sandblasted to expose the aggregate to achieve the desired effect, and laid lengthwise to emulate the length of this long, narrow lot. In addition to CMUs, a combination of wood frames, metal exterior shingles, concrete floors, and aluminum windows and door frames with double insulated glass were used.

West Valley College Jean and E. Floyd Kvamme Planetarium



Architect's Commentary: Dedicated to educating and inspiring future generations, the Jean and E. Floyd Kvamme Planetarium was designed to support West Valley College and the local community. Upon entering, visitors experience the awe and wonder of interactive exhibits of astronomy in a museum whose highlights are a Foucault Pendulum and a Meridian Line. Further exploration will lead to the heart of the planetarium, a uniquely suspended, 41-foot diameter domed theater. Visitors can sit comfortably in reclining seats and immerse themselves in the wonders of the Universe created by projecting images with a hybrid optical and a digital planetarium projection system. The planetarium facilitates college coursework and serves as an introduction to the college to K-12 students taking field trips.



WHY MASONRY? Concrete masonry units (CMUs) are a beautiful, three-way marriage of architecture, constructibility, and strength. In many ways, the Kvamme Planetarium, which has become an iconic feature on the West Valley College campus, was meant to be a CMU building. The structural system was chosen for its ability to create a space wide and tall enough to house a planetarium dome. Originally, the building was to be a conventional steel-framed structure, but it proved uneconomical. Various options were examined, and with considerable experience engineering concrete masonry buildings, we determined that using CMU as the structural system was the most economical solution.

Building in such a highly seismic zone, CMU construction was also selected because it is an excellent seismic-force-resisting system. When fully grouted and sufficiently reinforced, concrete masonry units can provide strength comparable to reinforced concrete walls. With the use of 12-inch wide blocks, a 31-foot high single-story space was achieved. CMU allowed the walls to be constructed quickly without a crane and provided a reliable support for the exterior metal cladding. Lastly, the sustainable material of CMU gave this building a sharp, clean, ground faced block look that radiates both warmth and strength.

ARCHITECT: tBP/Architecture 1777 Oakland Blvd., Suite 320 Walnut Creek, CA 94596

Philip J. Newsom, Architect, LEED[®] AP Managing Principal

Gary P. Moon, AIA Design Principal

STRUCTURAL ENGINEER:

KPFF Consulting Engineers **GENERAL CONTRACTOR:** BHM Construction, Inc. **MASONRY CONTRACTOR:** Pengilly Masonry, Inc. **BLOCK PRODUCER:** Basalite Concrete Products, LLC **OWNER:** West Valley-Mission Community College District **©PHOTOGRAPHY: tBP**/Architecture | Jeffrey E. Rosier, LEED® AP, Project Leader BHM Construction - Aerial Photo







ARCHITECT: WLC Architects 8163 Rochester Avenue, Suite 100 Rancho Cucamonga, CA 91730

Jim DiCamillo, AIA, LEED[®] AP *President/Principal-In-Charge*

STRUCTURAL ENGINEER: KB Leung & Associates, Inc. MASONRY CONTRACTOR: GBC Concrete and Masonry Construction, Inc. BLOCK PRODUCER: Angelus Block Company, Inc. OWNER: Chaffey Joint Union High School District ©PHOTOGRAPHY: Dale Lang, NW Architectural Photography



ARCHITECT'S COMMENTARY: The New Auditorium at Rancho Cucamonga High School is a single-story facility and the last permanent addition to this 25-year-old campus. The auditorium house seats 800 at full capacity, enough to accommodate the high school's freshman class. The house is supported by a lobby, restrooms, ticket booth, dual-level control room(s), and full production stage and rigging. Technical catwalks traverse the house at three points for lighting and production support. The facility also includes a scene shop, choral room, drama room and additional classroom space. In order to facilitate stage tech instruction, students and their drama teacher can access the entire catwalk system and upper control room without ever having to go back down to the stage floor level.





WHY MASONRY? The building's structure is made of concrete masonry units (CMUs) and steel in keeping with the remainder of the campus. The multi-color CMU banding ties the Auditorium into the existing architecture designed by WLC Architects almost 25 years earlier, and a new public plaza with an expansive roof overhang overlooks the school's central quadrangle, replacing the school's original flag court.

Having worked with the Chaffey Joint Union High School District (CJUHSD) for over thirty years, the District has consistently chosen CMU for its long term durability, streamlining of construction sequencing, vandal resistance, energy efficiency, and environmentally conscious local material sourcing. CMU is CJUHSD's "go to" material of choice!

Rancho Los Amigos Rehabilitation Center Warehouse

Downey, California







ARCHITECT'S COMMENTARY: The 13,689 square foot, two-story warehouse building is part of the first phase of a \$400 million campus expansion and construction project for the Rancho Los Amigos National Rehabilitation Center. The first floor of the new warehouse building houses the Shipping and Receiving Center, loading docks, carpentry shop, paint and sign shop, lock shop, and HVAC repair shop. The second floor houses staff offices for Materials Management and Procurement.



WHY MASONRY? The exterior walls of the warehouse building are concrete masonry units (CMUs). The cost effective, durable, and elegant design was accomplished using only two colors of contrasting, conventional, precision CMU: a cool gray and a black precision. The two colors were placed in a random pattern determined by assigning the colors of block to the black and red of playing cards, and then picking from a shuffled deck to determine which color to lay next. In addition to CMU allowing for the desired aesthetic, it also helped provide the thermal protection and fortification needed for a storage facility.

ARCHITECT OF RECORD: Taylor Design 17850 Fitch Irvine, CA 92614

D. Randy Regier, ACHA, AIA *President/Principal-In-Charge*

DESIGN ARCHITECT: SmithGroup 550 South Hope St., Suite 1950 Los Angeles, CA 90071

Bonnie Khang-Keating Vice President/Principal-In-Charge

STRUCTURAL ENGINEER: IMEG Corp GENERAL CONTRACTOR: McCarthy Building Companies, Inc. MASONRY CONTRACTOR: Kretschmar & Smith, Inc. BLOCK PRODUCER: ORCO Block & Hardscape OWNER: County of Los Angeles ©PHOTOGRAPHY: Michael McLane, mclane + studio



Calabasas High School Performing Arts Education Center

Calabasas, California



ARCHITECT: John Sergio Fisher & Associates, Inc. 5567 Reseda Blvd., Suite 209 Los Angeles, CA 91356

John Fisher, AIA Principal-in-Charge

STRUCTURAL ENGINEER: KPFF Consulting Engineers GENERAL CONTRACTOR: S.C. Anderson, Inc. MASONRY CONTRACTOR: Frazier Masonry Corporation BLOCK PRODUCER: ORCO Block & Hardscape OWNER: Las Virgenes Unified School District ©PHOTOGRAPHY: Ciro Coelho Photography







ARCHITECT'S COMMENTARY: The Calabasas High School Performing Arts Education Center contains a 660-seat main theatre and 100-seat black box theatre support spaces. It was designed so that the juxtaposition of the curved roofs and lobby glazing creates an icon that serves as a beacon for the arts at the campus entrance. The building is acoustically ideal with the high curving exposed ceilings/roofs and concrete masonry unit (CMU) bearing walls which allow for long reverberation times for orchestras. Adjustable acoustics are achieved by means of moving draperies, dampening the sound for drama, and sound systems.



WHY MASONRY? CMU is the preferred building material on all of our performance facilities for three main reasons. The first reason is acoustical; the heavy mass of the CMU provides sound attenuation both externally and internally. The mass also prevents low frequency vibration (flutter) during music performances. The second reason is CMU helps to achieve green building, whether it is LEED® or other sustainable programs, not only because it is locally manufactured, but also because of its thermal capacity that allows for time lag. The coolness of the evening is stored for release during the heat of the day, and vice versa. The third reason is we love the look of running bond CMU walls, including the color choices. These choices allow us to make sure the new buildings work very well with the pre-existing colors on campus. In addition, the CMU not only gives a solid/durable look, but is maintenance free. Structurally CMU also provides bearing walls to make the construction simpler and faster, and without the necessity of steel column and base plate shop drawings. We endeavor to use CMU for all of our high school Performing Art Centers.



ARCHITECT: WLC Architects, Inc. 8163 Rochester Ave., Suite 100 Rancho Cucamonga, CA 91730

Kelley Needham, AIA Principal-in-Charge

STRUCTURAL ENGINEER: R.M. Byrd and Associates, Inc. GENERAL CONTRACTOR: Horizons Construction Company, Inc. MASONRY CONTRACTOR: Majestic Masonry, Inc. BLOCK PRODUCER: Angelus Block Company, Inc. OWNER: City of Costa Mesa ©PHOTOGRAPHY: Lawrence Anderson Photography, Inc.





ARCHITECT'S COMMENTARY: Costa Mesa Fire Station No. 1 serves as the flagship for the Costa Mesa Fire Department, replacing an outdated station that previously occupied the site. It provides coverage to the northwestern portion of the city, and facilitates the rapid response of emergency vehicles and personnel stationed within its walls. This station is the center of life for those on-duty by providing living, sleeping, and working spaces for the men and women of the fire department.

Designed as an Essential Services Facility, the building is constructed to the highest standards to allow for continued operation under extremely adverse conditions. The 1-story, 11,750 square foot facility is comprised of a 10-bed living area, a 4-bay double deep apparatus room, and an attached office area. The site includes a secured parking area for the fire staff that also contains an emergency generator, a hose tower, and an above-ground fuel tank. The fire station is on track to receive a LEED[®] Gold certification.

The building's design is influenced by its immediate surroundings and fire station vernacular. The station's form and massing are two simple intersecting rectangular forms which are carved-out to create interesting and functional spaces that define areas of importance and bring natural light into its interior. Its skin is a redefinition of traditional fire station materials.

WHY MASONRY? Building with concrete masonry units (CMUs) is a fundamental technique that continues to be relevant today. CMU has been utilized in projects since our firm's inception and will continue to be used for the foreseeable future. Specifically, CMUs were selected for their durability and longevity, both of which are required for a fire station. It is not only unquestionably easy to maintain, durable, and stout, but also extremely versatile and can be beautifully refined. In our environmentally-sensitive culture, it is an honest material that is two-fold as both structure and finish, and also contributes to LEED® points.



Concrete Masonry Association of California and Nevada

PRESORT STANDARD **US POSTAGE** PAID PERMIT NO. 604 SACRAMENTO, CA

CHANGE SERVICE REQUESTED

AC

6060 Sunrise Vista Drive Suite 1990 Citrus Heights, CA 95610 www.cmacn.org

2019

CMACN/AIACA CONCRETE **MASONRY DESIGN AWARDS** COMPETITION

Jury Deliberations

Friday, June 21, 2019

Design Awards Banquet

Friday, September 20, 2019 Huntington Beach, California

Please contact the CMACN office at (916) 722-1700 or info@cmacn.org if you are interested in attending the Design Awards Banquet.

2017 award winning projects can be viewed at www.cmacn.org.



ARCHITECTURAL CONCRETE MASONRY

Concrete Masonry Units (CMUs) are dimensionally and aesthetically pleasing for ANY of your existing or future designs. CMUs can be integrally pigmented and textured to meet a wide range of client and project demands. CMUs are design flexible, versatile, noncombustible, durable, economical and locally produced.

Funding for the production and publication of "CMU Profiles in Architecture" is provided by:

AIR VOL BLOCK. INC. (805) 543-1314 San Luis Obispo, CA 93401

ANGELUS BLOCK

COMPANY, INC. (818) 767-8576 Fontana, CA 92335 Gardena, CA 90248 Indio, CA 92202 Orange, CA 92668 Oxnard, CA 93030 Rialto, CA92316 Sun Valley, CA 91352

BASALITE **CONCRETE PRODUCTS, LLC** (707) 678-1901 Carson City, NV 89706 Dixon, CA 95620 Selma, CA 93662 Sparks, NV 89431

Tracy, CA 95376 CALSTONE COMPANY, INC. (408) 984-8800 San Martin, CA 95046

the page format.

NOTE: Some Photos may have been altered to fit

CEMEX (702) 643-1332 Las Vegas, NV 89115

DESERT BLOCK COMPANY, INC. (661) 824-2624 Bakersfield, CA 93307

ORCO BLOCK & HARDSCAPE (800) 473-6726

Indio, CA 92203 Oceanside, CA 92056 Riverside, CA 92509 Stanton, CA 90680

RCP BLOCK & BRICK, INC. (619) 460-7250 Lemon Grove, CA 91946 San Diego, CA 92154

SUPERLITE AN OLDCASTLE COMPANY (702) 633-5787 North Las Vegas, NV 89030

a nonprofit professional trade association established in 1977, is committed to strengthening the masonry industry in California and Nevada by:

Concrete Masonry Association of California and Nevada (CMACN)

- 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 Web Site: www.cmacn.org

Providing technical information