



Profiles in Architecture

April 2015 Edition



Why Masonry?

www.whymasonry.org

Concrete Masonry Association of California and Nevada

Inside this issue:

Nevada Army National Guard Field Maintenance Shop	2	Costa Mesa High School Performing Arts Center	5
2345 House	3	Dr. Augustine Ramirez Intermediate School	6
San Diego Miramar College Fire Technology & EMT Training Center	4	Hillcrest High School	7
		2015 Design Awards Schedule	8
		CMACN Producer Members	8

*Project: 2345 House
Photo: Provided by CATHEXES*





NEVADA ARMY NATIONAL GUARD FIELD MAINTENANCE SHOP LAS VEGAS, NEVADA

ARCHITECT:
Jacobs Engineering Group, Inc.
501 North Broadway
St. Louis, MO 63102

James F. Kurtz, NCARB, AIA
Principal-in-Charge

Robert Messel, NCARB, AIA
Project Architect

David Thayer, NCARB, AIA
Design Principal

STRUCTURAL ENGINEER:
Terry Braxmeier, P.E., S.E., AIA
Jacobs Engineering Group, Inc.

GENERAL CONTRACTOR:
Core

MASONRY CONTRACTOR:
Marnell Masonry

BLOCK PRODUCER:
Oldcastle Architectural West

OWNER:
Nevada National Guard

©PHOTOGRAPHY:
Jeff Green, Jeff Green Photography



Architect’s Commentary: The Nevada Army National Guard’s (NVARNG) new 40,973 square foot Field Maintenance Shop (FMS) was designed and constructed to accommodate its mission of field maintenance for numerous types of military equipment including tactical vehicles, and other miscellaneous military equipment contained within the NVARNG inventory. The new facility generally consists of maintenance bays, storage, administrative spaces, and other ancillary support spaces.

The exterior architectural theme captures the color palette and forms found in the local natural environment while also responding to the climate of the Las Vegas area. The design provides significant daylighting in both the maintenance work bays and administrative portions of the facility through appropriate quantities of tinted, insulated glazing and translucent polycarbonate panels. Linear shading elements shield the glazed surfaces from summer sun on both the maintenance and administrative portions of the facility. The overhang of the sloped metal roofs and horizontal sunscreen elements are utilized for this purpose in addition to “fins” at the western jamb of the maintenance bay’s southern overhead doors which provide shade from the mid to late day sun. Motorized louvers were added to the northern upper façade of the maintenance bay to facilitate natural flow of air when the overhead doors are open in the cooler months. The xeriscaping utilized at the exterior consists of both plant and hardscape materials native to the region and utilizes only those plantings that are drought resistant and sustainable in the local climate. Additionally, solar panels were utilized for both energy and hot water heating purposes.

Why Masonry? The NVARNG desired a sustainable, functional and cost effective solution for the FMS. The design utilized masonry to both protect the facility in those areas where wear and tear would be the greatest, and also to provide a material that complements the remainder of the architecture. Masonry provides a durable material that can withstand the demanding rigors of the FMS’s maintenance mission throughout the life-cycle of the facility. Utilized both on the exterior and interior, it captures the hardscape features and color palette of the natural environment while protecting the assets of the government.





2345 HOUSE RENO, NEVADA

ARCHITECT OF RECORD:

CATHEXES

250 Bell Street

Reno, NV 89503

Don Clark, AIA

Principal-in-Charge

Jeremy Packer

Project Architect

STRUCTURAL ENGINEER:

Forbes Engineering

GENERAL CONTRACTOR:

Dianda Construction

MASONRY CONTRACTOR:

Sartorial Masonry

BLOCK PRODUCER:

Basalite Concrete Products, LLC

OWNER:

Confidential

©PHOTOGRAPHY:

Vance Fox, Vance Fox Photography, Photos 1 & 2

Ancil Max Hoffman, Photo 3



Architect's Commentary: The 2345 house was for a couple approaching their later years who entertain in a grand fashion. They did not want to impose, nor be imposed upon, by their neighbors. They wanted to live a relaxed life, and hold formal gatherings. Another critical element was a high degree of sustainable design, which included passive and active solar (both PV and solar thermal). Material choices, insulation and natural ventilation also helped shape the house, and the detailed solutions were a reflection of all the afore mentioned criteria.

Attention to detail was extremely important to our clients, from the massing of the house to the finest of details. They wanted to pay homage to Old World stonework and incorporate industrial materials in an Old World manner. The balance of building materials is a major aspect of the overall design...between the concrete masonry, streamlined steel design, cedar siding with a deep profile, glazing, and zinc siding. Being a passionate gardener, our client felt it very important to surround the home with landscaping and pockets of different local species.

Why Masonry? Harnessing the intrinsic nature of materials while exploring the artistic potential was absolutely vital to the project. We created a rigorous process for the design layout, textural selection and execution in the spirit of masonry as art. While a delicate balance had to be considered with the natural hues of all the exterior materials – this meant using only one color for all the block and pavers – it was important to create richness within. Shadow-play, block orientation (i.e. soldier-coursing in bands), and careful attention to composition were used to achieve this.

Each course of the Concrete Masonry, for every wall, was designed and selected. Bands and angles were placed specifically to balance and layer the composition. Four different finishes or face textures were carefully selected and located – using typical precision face block, split face block, plus honed and shot-blast block. Each texture absorbs and reflects light differently, thereby giving each wall and space a visual richness that evolves throughout the day and over the course of the year.



SAN DIEGO MIRAMAR COLLEGE FIRE TECHNOLOGY & EMT TRAINING CENTER

SAN DIEGO, CALIFORNIA

ARCHITECT:

gkkworks

1775 Hancock Street, Suite 150
San Diego, California 92110

Edward Holakiewicz, AIA

Principal-in-Charge

STRUCTURAL ENGINEER:

KPFF Consulting Engineers

GENERAL CONTRACTOR:

Swinerton Builders

MASONRY CONTRACTOR:

Kretschmar & Smith, Inc.

BLOCK PRODUCER:

RCP Block & Brick, Inc.

OWNER:

San Diego Community College District, Miramar College

©PHOTOGRAPHY:

Lawrence Anderson, Lawrence Anderson Photography



Architect's Commentary: The Miramar Fire Technology & EMT Training Center is a secure, two-acre 'training facility' within the greater Miramar College setting. Located on the northern perimeter of the College Campus, the 27,000 square foot, four-building Center presents a highly visible 'campus entrance marker' to the public. Programmatically, the Center combines Fire Sciences and Emergency Medical Technicians' programs, providing traditional lecture classrooms, a multi-purpose hall that opens to adjacent exterior training areas and an emergency medical response training lab. Additional components include an equipment 'ready room' and apparatus bay, a four-story training tower, large outdoor training areas, a two-acre 'Grinder' plaza for training, and a state-of-the-art mobile command center and digital simulation lab where trainees are exposed to pre-programmed emergency situations.

Architecturally, the Center was designed as a four-building complex organized about central open spaces for group gathering and large-scale training to emphasize connectivity between indoor lecture-study and outdoor training exercises. Exterior spaces include an outdoor courtyard linked to the multi-purpose room and student study/lounge through operable glazed walls, the Grinder training area and a multi-purpose room bleacher seating for observation of large-scale demonstrations.



Why Masonry? A primary building material selection for the Center is burnished concrete masonry units (CMU), set in a stacked-bond pattern to complement the modular design and architectural theme of the Center. The CMU material was both an architectural and structural selection, providing a visually warm and consistent appearance for interior and exterior use, and exceptional long term structural integrity and durability for intense training. Variegated color of the burnished block blends with the campus and complements an adjacent natural preserve landscape. Unique durability was required for the training tower and annex, where extensive fire hose use and external repelling on multiple sides occur. This is also where adjustable roof platforms are utilized for fire-fighting building access exercises.

This LEED® Silver project has been recognized for effective sustainable design by the San Diego Gas & Electric Savings by Design Program. Primary design features include extensive use of natural ventilation and natural daylight to mitigate energy consumption, a 75,000 gallon site water collection/filtering system that recycles water utilized during training exercises, and use of native drought-tolerant planting.





COSTA MESA HIGH SCHOOL PERFORMING ARTS CENTER

COSTA MESA, CALIFORNIA

ARCHITECT:

SVA Architects, Inc.
3 MacArthur Place, Ste. 850
Santa Ana, CA 92707

Robert M. Simons, AIA
Partner-in-Charge

Nathan Herrero, AIA, LEED® AP BD+C
Project Architect

Bill Koster, AIA, NCARB, LEED® AP
Technical & Quality Control

Mel Tan, Architect
Project Designer

STRUCTURAL ENGINEER:

Petra Structural Engineers, Inc.

GENERAL CONTRACTOR:

Sinanian Development, Inc.

MASONRY CONTRACTOR:

GBC Concrete and Masonry Construction, Inc.

BLOCK PRODUCER:

Angelus Block Company, Inc.

OWNER:

Newport-Mesa Unified School District

©PHOTOGRAPHY:

Brett Moore, RMA Photography, Inc.



Architect's Commentary: The "City of the Arts" is living up to its motto: the Costa Mesa High School Performing Arts Center signals a new beginning for Costa Mesa High students and a bright future for the surrounding community. The building, located prominently across from Orange Coast College, contains a 360-seat auditorium and a 1,600 square foot black box theater. Designed to be one of Newport-Mesa Unified School District's main venues, the new Performing Arts Center features an orchestra pit, catwalks, student performance prep spaces, support areas, theatrical rigging, theater lighting, and sound support systems.

An important design feature of the Center is an iconic curvilinear screen wall wrapping around the front elevation which, also provides sun shading for the three-story glass lobby that opens towards the west. The screen wall, 16 feet high by 270 feet long, features custom graphics in a laminated 3-Form polycarbonate panel, adding composition and a sense of artistry to the structure. The new Performing Arts Center points toward the growth of artistic education and provides a space for the community to flourish in the upcoming years.

Why Masonry? Targeting LEED® Silver certification, concrete masonry was utilized as the primary design material in order to create a structure that is durable, attractive, and flexible. The use of banding and varied concrete masonry unit textures accentuates the grandeur of the theater and stage. Moreover, the color of the concrete masonry units visually imitates existing patterns on the campus, subtly leading the viewer to believe that the auditorium had always been a part of the original campus design. The new Performing Arts Center unifies color and texture in resourceful and striking ways, yet remains a sustainable and economical addition to the city. The SVA design team combined open space and flowing patterns by use of the concrete masonry units; the end product amounts to a lower overall cost, but remains ostensibly spacious, elegant and an inspiration for the future.



DR. AUGUSTINE RAMIREZ INTERMEDIATE SCHOOL

EASTVALE, CALIFORNIA

ARCHITECT:

PJHM Architects, Inc.

24461 Ridge Route Drive, Suite 100
Laguna Hills, CA 92653

Thomas W. Kruse

Principal-in-Charge

STRUCTURAL ENGINEER:

Thornton Tomasetti

GENERAL CONTRACTOR:

Neff Construction, Inc.

MASONRY CONTRACTOR:

New Dimension Masonry, Inc.

BLOCK PRODUCER:

ORCO Block & Hardscape

OWNER:

Corona-Norco Unified School District

©PHOTOGRAPHY:

Greg Rys, Greg Rys Photography



Architect's Commentary: The primary goal for the design of this project was to house over 1,200 students in a single-story building, under one roof. The Owner specifically requested that the school be designed with a strong expression, for a sense of recognition and presence in the community.

The site for Dr. Augustine Ramirez Intermediate School is located within the new residential community of Eastvale, California next to a community center, and is near a large intersection in the community. To respond to the context of the site, the owner's request, and the nearby single-family residential housing, the school is single-story and does not dominate the surrounding housing tracts. Some elements of the buildings are taller due to program requirements, and for visual recognition within the community.

Separate educational 'villages' were conceptualized, one for each grade and a third for common specialty programs. To keep within budget, efficiency with the plan and the materials used were a key concept. A central library and computer lab core were located at the center of the building, with three classroom wings surrounding the core. The fourth side of the core joins to administrative and staff areas, with common and public spaces on the opposite side. The classroom wings use concrete masonry units for perimeter walls on three sides, and around a central core of science and specialty classrooms within each wing. The use of concrete masonry allowed for structural walls to also be used as fire-rated separation walls, and the color and durability of the concrete masonry allowed for the elimination of a separate finish and finish substrate that is typically applied to the wall.

Why Masonry? The use of concrete masonry at the Dr. Augustine Ramirez Intermediate School was essential to the success of the project. This single material provided efficiency, durability and longevity, and the opportunity to create a unique aesthetic for both interior spaces and exterior visibility. The use of concrete masonry at interior corridors and classroom walls provides the durability that is needed by a facility with this user group, and exterior concrete masonry walls will withstand the weather extremes in the school's region. The fire-resistant characteristics of the concrete masonry also allowed the project to be separated into multiple "fire-areas", separated by masonry walls rated to a minimum of two hours, that allowed for a 108,000 square-foot school to be built under one roof.

Three basic types of CMU were used on the project: 8" x 8" x 16" split face (Red Brown), 8" x 8" x 16" precision with vertical score (Sourdough) and 8" x 8" x 16" burnished (White) block. The concrete masonry in the project was used to accomplish many things. It provided structural support and lateral force resistance; it was used for its fire-resistant characteristics; and it was left exposed as an interior and exterior finish material. A unique banding pattern was developed for concrete masonry walls in this project, which created a visual statement at building interiors and the exterior. A horizontal striped pattern was created with multiple block colors and textures. This pattern carries through interior and exterior walls, bringing visual consistency through the project. The masonry was left exposed and was not painted at any location in the project allowing the rich colors and different textures to be celebrated and experienced.





HILLCREST HIGH SCHOOL

RIVERSIDE, CALIFORNIA

ARCHITECT:

HMC Architects

3546 Concours Street

Ontario, CA 91764

Brian Staton, *President/CEO*

Principal-in-Charge

Angel Hosband

Senior Project Manager/Designer

Mark Schoeman, AIA

Senior Designer

James Krueger

Designer

STRUCTURAL ENGINEER:

K. B. Leung and Associates

CONSTRUCTION MANAGER:

Neff Construction

MASONRY CONTRACTOR:

IBI Masonry

BLOCK PRODUCER:

Angelus Block Company, Inc.

OWNER:

Alvord Unified School District

©PHOTOGRAPHY:

Ryan Beck, Ryan Beck Photography

Architect's Commentary: Designed to accommodate Alvord Unified School District's increasing student enrollment and to support career/technology education, Hillcrest High School is part of a district-wide addition and new construction program and utilizes masonry as its primary building material. Completed in 2012, the new school creates a safe, controlled campus; integrates new buildings with the existing landscape; and enhances the level of curb appeal at the public face of the school.

Why Masonry? Masonry was chosen by HMC and the District because of its durability, ease for maintenance and natural response to the site context. Different masonry depths, colors and textures were incorporated in the design to create visual interest and break up the scale of multi-story buildings throughout the campus. For example, 16" split-face masonry was combined with 12" precision block and 8" orange block on the three-story classroom building to add vibrancy and color to the exterior. For the library, squares of dark brown block were integrated to notate the children's library and create a fun play on the masonry design.

The design of Hillcrest High School incorporates sustainable strategies such as north-facing orientation to optimize natural daylighting and outdoor circulation paths between classrooms to eliminate the need for heating and cooling indoor corridors. To reduce energy costs and create comfortable learning environments, classroom buildings are wrapped with a sunshade system to screen direct sun. The new school also mitigates a brownfield condition created by an abandoned irrigation reservoir on the site.

Funded by both local and state sources, Hillcrest High School provides play field, library, black-box theater, gymnasium and aquatic center facilities for joint-use by the neighboring community.



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

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

CHANGE SERVICE REQUESTED

2015

CMACN/AIACC CONCRETE MASONRY DESIGN AWARDS

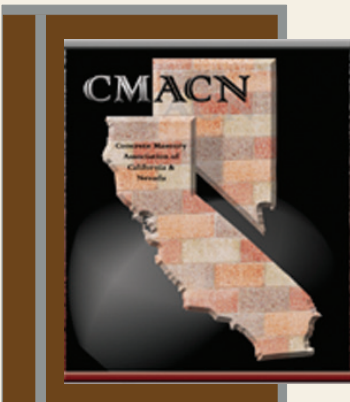
The 2015 CMACN/AIACC
Concrete Masonry Design
Awards Competition schedule:

Completed Entry Materials Due:
April 13, 2015

Jury Deliberations:
June 5, 2015

Announcement of Award Winning Projects:
June 15, 2015

Design Awards Banquet:
Friday, September 18, 2015
The Island Hotel
Newport Beach, California



ARCHITECTURAL CONCRETE MASONRY

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

*Funding for the production and publication of
the 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, CA 92316
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
Sunnyvale, CA 94086

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

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

ORCO BLOCK & HARDSCAPE
(800) 473-6726
Stanton, CA 90680
Indio, CA 92203
Oceanside, CA 92056
Riverside, CA 92509
Romoland, CA 92585

RCP BLOCK & BRICK, INC.
(619) 460-7250
Lemon Grove, CA 91946
San Diego, CA 92154
Santee, CA 92071

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

**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
Nevada by:

- 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
Web Site: www.cmacn.org

NOTE: Some photos may have been altered to fit the individual page format.