Concrete Masonry Association of California and Nevada

CMU Profiles in Architecture

Summer 2025

Why Masonry?
www.whymasonry.org

Mar Vista High School Aquatics Center
Delawie
Photo by Paul Mercardo, Pink Media Productions

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Building "M" MakerSpace, San Bernardino City High School

San Bernardino, California

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San Diego, CA 92101

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Principal-in-Charge

Kurt Hunker, FAIA
Chief Design Officer

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KNA Structural Engineers
General Contractor:
Horizon Construction Company
Masonry Contractor:
Majestic Masonry, Inc.
Block Producer:
Angelus Block Company, Inc.
Owner:
San Bernardino Unified School District
©Photography:
Stephen Whalen

Architect's Commentary: Building "M" at San Bernardino City High School addresses several pressing needs on this old, urban campus. While the MakerSpace (Building "M") itself is a focal point, the project also includes digital and analog art studios and a staff assembly room. The project is the outcome of a limited design competition. Notably, its jury included one high school senior, the honorary "mayor" of San Bernardino City High School (politically, an actual city). The mayor cried "tears of happiness" upon seeing how this new design—in which concrete masonry plays a leading role—beautifully accommodates its diverse program while acknowledging the school's rich heritage.

The design responds to the long, narrow project site with a series of small concrete masonry unit (CMU) "pavilions" separated by courtyards. The smallest courtyard is a quiet meditation space, a special request by the student body. Perhaps the most prominent feature is "Cardinal Way," a covered pedestrian path that defines one long edge of the complex and culminates in the Archive, a repository for this venerable high school's trophies, yearbooks, and other historical memorabilia.

Why Masonry?

CMU was an integral part of the design aesthetic from the very beginning. It is valued for its durability and is highly important for spaces inside and out where hands-on building activities occur on a busy campus full of high schoolers. CMU will also prevent acoustics from being a concern. Fully grouted concrete masonry units are an excellent sound barrier for all frequency ranges that will be produced by the diverse set of activities planned at the school. Additionally, designing with CMU offered a relatively maintenance-free material: it will wear well over time.

Building "M"'s north-facing clerestories provide ample, glare-free daylight. No windows occur along the west side, minimizing solar gain which is important in this hot, inland setting. The CMU walls are also important for stabilizing the building's temperature by preventing thermal gain on hot days. Through sustainable passive strategies such as these, Building "M" meets CHPS standards and will continue to provide beauty and function for generations of students attending San Bernardino City High School.

Banning High School Career Technical Education Performing Arts & Construction Academy

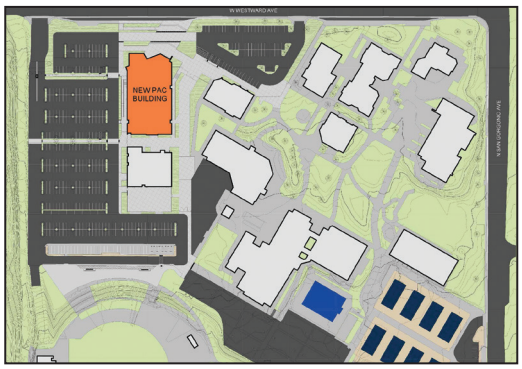
Banning, California

Architect:
PJHM Architects, Inc.
25550 Commercentre Drive,
Suite 175
Lake Forest, CA 92630

Thomas Kruse
Principal-in-Charge

Structural Engineer:
VCA Engineers, Inc.
General Contractor:
Ledesma & Meyer Company Inc.
Masonry Contractor:
Kretschmar & Smith, Inc.
Block Producer:
ORCO Block & Hardscape
Owner:
Banning Unified School District
©Photography:
Ryan Hills Photography

Architect's Commentary: The Banning High School Career Technical Education Performing Arts & Construction Academy includes the addition of a new 670-seat performing arts theater and California career technical education funded learning spaces. The focus of this project was to explore how materials and textures could be used to express the various programs within the facility, public lobby, learning, and performance spaces. The aim was to provide an ease of wayfinding from both interior and exterior.



Why Masonry? Concrete masonry units (CMUs) were used as a structural shell for the grand volume of the auditorium and stage, while the adjacent lower volume classroom and support spaces are enveloped in plaster and drywall. The CMU shell creates a threshold between the learning and lobby spaces and the performance space.

The stage was thought of as the heart of the facility and a space full of energy with unlimited potential for inspiration. Pattern CMUs, in the form of a random pattern projected shadow block, was selected to architecturally represent the energy and significance of the program contained within the CMU walls. The pattern CMUs were used the full height of the nearly 55-foot-tall stage and fly tower and are visible from the exterior of the building and the interior. The proscenium opening framed by the pattern CMUs reinforces the concept and continuity of the texture from the exterior to interior.

Marce Herz Middle School

Reno, Nevada

Architect:
Van Woert Bigotti Architects
1400 South Virginia Street, Suite C
Reno, NV 89502

Structural Engineer:
Hartman Structural Engineering, LLC
General Contractor:
Clark / Sullivan Construction
Masonry Contractor:
Silver State Masonry
Block Producer:
Basalite Concrete Products, LLC
Owner:
Washoe County School District
©Photography:
Vance Fox Photography

Architect's Commentary: The design is an adaptable "kit of parts" organized by a main street corridor. Separate wings are organized around an outdoor courtyard with outdoor learning sub-courts. Grade levels are individually paired as "Schools within a school"; 6th grade with Electives and 7th grade with 8th grade in separate two-story wings with Team Teaching spaces for each grade level. The central wing accommodates the Main Entrance(s), Administration, and the Media Center. The "main street", monitored by the school office, organizes the building parts. It is the main conduit of the school and includes wall graphics that honor the schools' namesake and provide inspirational phrases and words of wisdom for the students as they go from class to class. Collectively, the building acts as a campus yet functions as one facility. Separating 7th and 8th grades in one wing and 6th grade and electives in another directly responds to the district's brief to address age differences.

To address the strict budget constraints, the design team set out to create simple construction systems by applying an "economy of means" building approach. A repetition of concrete masonry unit (CMU) walls uninterrupted from ground to parapet, alternating with glass curtain walls providing expedient construction measures, as well as rhythmic composition for aesthetics. Metal panel volumes highlight programmatic areas for architectural interest and school colors and identity. This strategy of simple construction methodology on the majority of the building allowed for the hierarchical treatment of the centralized entry wing (including main single point entry, library, and the student entrance from the outdoor commons space). For this element, an expressive simple framed inverted roof celebrates the importance of function and offers a unique identity for the school.

Why Masonry?

Concrete masonry units provided the ideal construction material for this project. Cost effective, durable, and maintenance free, CMU met all the school district's criteria for achieving their goal of creating a design standard for new schools in the future. Working closely with the concrete block supplier, the project was given the freedom to select a custom blend of colors that match the context and texture of the high desert setting in which the school is located.

Mar Vista High School Aquatics Center

Imperial Beach, California

Architect:
Delawie
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San Diego, CA 92110

Paul Schroeder, Associate DBIA
Principal-in-Charge

Structural Engineer:
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General Contractor:
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Masonry Contractor:
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Block Producer:
RCP Block & Brick, Inc.
Owner:
Sweetwater Union
High School District
©Photography:
Paul Mercardo, Pink Media
Productions

Architect's Commentary: The Mar Vista High School Aquatics Facility project extends the tradition of using concrete masonry units (CMUs) for the school's sports facilities, including the previous pool support building and adjacent gymnasium. This project replaced the prior, 50+ year old building and meets the needs of the students' and community's multiple athletic endeavors with the minimal maintenance CMUs require. The new facility includes women's, men's, and family restrooms, showers, lockers, concession room, lifeguard room, meeting space, operations ticket office, storage spaces, and equipment room.

Why Masonry? The versatility of concrete masonry units as a building material supports the design intent with multiple color and texture options and provides the opportunity to maintain exposed CMUs on select interior spaces. In addition, the precision and split face CMUs creates a pattern that complements existing, adjacent buildings at Mar Vista High School. The resiliency of masonry is instrumental to the success of the project for the future longevity of the aquatics facility. Although not designed to meet LEED® or CHPS, Mar Vista High School Aquatics Facility is designed to hold future photovoltaic panels that will have a greater impact due to the temperature regulation CMUs provide.

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Long Beach, CA 90802

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Prinicpal-in-Charge

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General Contractor:
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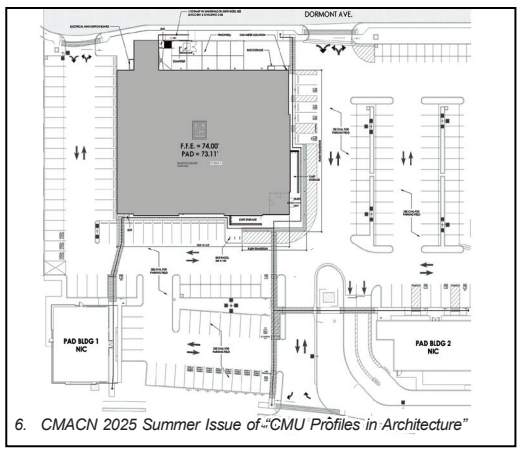
Vera's Masonry, Inc.
Block Producer:
Angelus Block Company, Inc.
Owner:
ALDI Inc.
©Photography:
Aline Espino Media

ALDI No. 07
Torrance, California



6. CMACN 2025 Summer Issue of "CMU Profiles in Architecture"

Architect's Commentary: Situated at the Northeast corner of Crenshaw and Amsler in Torrance, California, the newly constructed ALDI grocery store spans 19,035 square feet and is part of a new commercial development that includes a new Chick-fil-A drive through and a standalone bank building. ALDI's design draws from their latest California prototype, boasting a modern aesthetic with a slanted entry tower adorned with aluminum composite panels and projecting eyebrow canopy elements.

Why Masonry?

Integral colored 4 inch high concrete masonry units (CMUs) were the primary building material, complemented by vintage wood siding and natural anodized aluminum storefronts on the main façades. The storefront glazing, including clerestory components within the siding projections, allows natural daylight into the building, enhancing its visual appeal. The combination of materials provides depth and variation in height, creating an engaging visual experience.

Unique to this project is the use of 4 inch high concrete masonry units, offering a distinct appearance reminiscent of brick construction rather than the standard 8"x8"x16" CMUs coursing typical in large retail buildings. The textures and elements blend harmoniously with ALDI's modern design ethos.

The project earned CAL-green certification and incorporates Tier 1 sustainability features, such as energy-efficient LED lighting, low-use water plumbing fixtures, environmentally friendly CO_2 refrigeration systems, and photovoltaic panels for energy generation. Additionally, electric vehicle charging stations underscore ALDI's commitment to sustainability, positioning it as one of the leading environmentally conscious grocers in the United States.

Wild Goose Mixed-Use
Costa Mesa, California

Architect:
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Costa Mesa, CA 92626
rhainc.net

Alex Arie
Principal-in-Charge

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General Contractor:
DBaC, Inc.
Masonry Contractor:
Palmer Masonry
Block Producer:
ORCO Block & Hardscape
Owner:
Lounge Group
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Robinson Hill Architecture, Inc.
Joseph Barber

Architect's Commentary: The Wild Goose Mixed-Use commercial development is an integration of a new, modernist office building with the expansion of the existing Wild Goose restaurant and bar that has been embedded in the community for many years. With the expansion of the Wild Goose and the neighboring restaurant property, the office building is designed as an urban infill within the limiting constraints of the overall property site.

Why Masonry? The geometric proportions required to maximize leasable square footage made concrete masonry units (CMUs) the ideal construction material. The inherent fire protection ratings of the CMUs permitted the building to be placed as tightly as possible to the property line as code would allow. Additionally, with the long and narrow geometry of the building, the CMUs act as the building's primary structure and shear walls allowing for open and adaptable floor plans.

Visually, the standard 8"x8"x16" module of CMUs informs the intermittent rhythm of the glass storefronts along the connective breezeway, while the variegated gray/brown split-face CMUs are especially effective at integrating the glass and aluminum materials of the modernist office block and the well-worn wood and steel of the original bar and saloon. The irregular texture of the CMUs softens the patio facing edge while maintaining the formal qualities of the modern office building. The CMU blocks also enhance the interior environment by informing the overall industrial qualities of the office and retail tenants, making this project striking and seamless.

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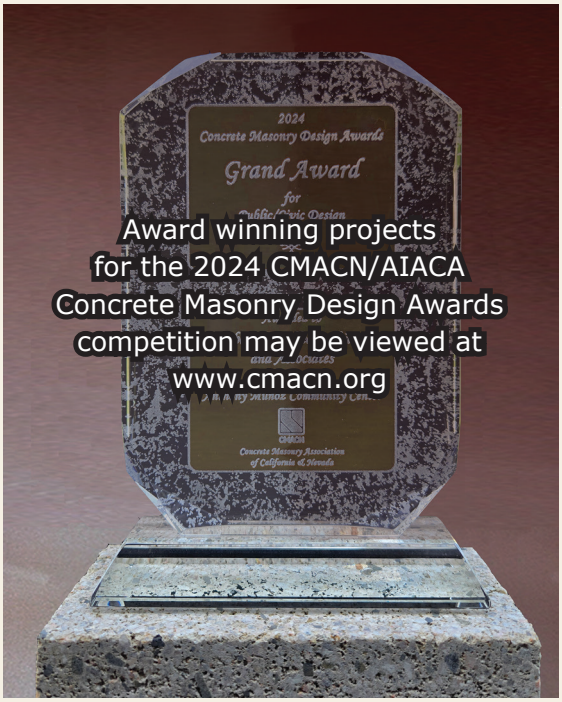

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Concrete Masonry Association of California and Nevada (CMACN)
a nonprofit professional trade association established in 1977, is committed to strengthening the masonry industry in California and Nevada by:

- 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.

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