





Why Masonry? www.whymasonry.org

# **Concrete Masonry Association of California and Nevada**



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### Port of Los Angeles Los Angeles, California

ARCHITECT: Port of Los Angeles, Engineering Division, Architectural Section 425 S. Palos Verdes Street San Pedro, CA 90731

Rodger Kuo, AIA, LEED<sup>®</sup> AP, CDT Principal-in-Charge

STRUCTURAL ENGINEER: Port of Los Angeles, Engineering Division, Structural Section GENERAL CONTRACTOR: S.J. Amoroso MASONRY CONTRACTOR: Winegardner Masonry BLOCK PRODUCER: ORCO Block & Hardscape OWNER: Port of Los Angeles ©PHOTOGRAPHY: Port of Los Angeles, Graphics Division

ARCHITECT'S COMMENTARY: The Port of Los Angeles proudly features four CMU buildings on one of its large shipping container terminals. It celebrated its third certified LEED® Gold building - a four-story, 27,000 square-foot Administration Building. The building achieved LEED® credits from all five major categories and fulfilled four exemplary performances. A wingshaped footprint oriented on the Northeast corner of the terminal allows the marine operators a 270° view of their terminal from the top "brow" floor of the building. The Port building is an iconic gateway that is the first to be viewed by the community as they approach the buffer. The main entrance on the north side of the building extends its wings out as an expression of open arms that welcomes and embraces its surroundings. Shimmering silver metallic wall panels and blue curved standing seam roofs articulate the fluidity and reflection of the maritime water while accenting the tenant's color theme.

The Yard Operations Building, a 21-foot high, 5,700 square-foot facility is the first building labor unions see as they pass into the terminal. The design and material selections use a curved roof to "spill" the labor and send workers on their varying routes throughout the terminal.



The final building, a 450 square-foot Guard Booth, doubles as an equipment room. The booth plays a focal point along a long linear route of trucks passing through canopy arcades. The modular layout promotes functionality by viewing directly towards the truck entrance allowing security to anticipate size, weight and frequency of cargo trucks.

WHY MASONRY? Concrete masonry units were selected for all four buildings as they provide thermal lag to deter radiant heat from the surrounding hardscapes, increase the structural stability of the buildings and protect against outside noise, as train tracks feeding the Alameda corridor are only 65 feet away. Likewise, CMU conforms to the basis of design in using affordable materials with low maintenance cost, acts and aids in the duality of both indoor and outdoor material, and the CMUs contain recycled content contributing to LEED<sup>®</sup> credits.

The use of split face concrete masonry units, which wrap around the base of all four buildings, is both purposeful and beautiful. Aesthetically for the Administration Building, the rough finish juxtaposed next to smooth reflective composite metal panels marry together harmoniously representing how the yard laborers and corporate managers work together in a complementary fashion. The monolithic union labor entry core of the Yard Operations Building is stylized by two CMU finishes. An apron of split face surrounds the main building while precision finish continues up the entry core representing unity with diversity. CMU walls were selected as the base for the Driver Services Building to withstand the wear and tear of the public use. The building has a subtle public-verses-private feature using split face CMU finish for the public and precision finish for the private. Finally, concrete masonry units promote a substantial visual presence for the 15-foot tall Guard Booth. In context, the Guard Booth is a very small structure acting as a beacon in an esoteric sea of many large vehicles passing by.



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**ARCHITECT'S COMMENTARY:** Jurupa Hills High School is the fifth comprehensive campus for this suburban, Southern California school district. This unique campus marks a decidedly different approach to design, curriculum delivery and sustainability.

The 275,000 square-foot complex is completely housed under one roof, which is rare for the region. This approach allowed the District to acquire less land while still building a facility that shields the students and faculty from the routinely 100 degree heat and 70 mph winds that impact the site.

The heart of the campus is the 400 foot-long, two-story mall which connects the academic and public spaces. The plan allows the office, gymnasium, theater and cafeteria to be used independently by spectators, patrons and visitors without opening the remainder of the academic areas.

Academic classrooms and labs are distributed into four focused wings, each with its own office, student center and conference spaces. The fourth of these wings houses the District's Information Technology Magnet program. This wing can also be secured from the rest of the campus so that students from throughout the District can utilize its unique instructional spaces without mingling with the rest of the student body. The Magnet program space includes a TV studio and video conference center.

WHY MASONRY? Concrete masonry was selected as the primary construction material due to its excellent thermal mass properties and its unmatched durability in high traffic areas. The District has a long history with masonry construction, and the material is readily available from local manufacturing plants, thus reducing shipping costs and time. The two-story compact plan reduces the building's exposure to the harsh, inland sun. The school's south facing windows include exterior sun shades, while the north façades feature flush glazing.

### Jurupa Hills High School Fontana Unified School District Fontana, California

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

Jim DiCamillo, Architect, AIA, LEED® TM AP Principal-in-Charge

### STRUCTURAL ENGINEER:

R.M. Byrd and Associates, Inc. CONSTRUCTION MANAGER: Neff Construction, Inc. MASONRY CONTRACTOR: Frazier Masonry Corporation BLOCK PRODUCER: ORCO Block & Hardscape OWNER: Fontana Unified School District ©PHOTOGRAPHY: WLC Architects, Inc.



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# **Urban Discovery Academy**

San Diego, California

ARCHITECT: AVRP Studios 703 16<sup>th</sup> Street San Diego, CA 92101

Douglas H. Austin, FAIA, MAIBC, LEED<sup>®</sup> AP Principal-in-Charge

STRUCTURAL ENGINEER: Dodd & Associates GENERAL CONTRACTOR: Davis Reed Construction, Inc. MASONRY CONTRACTOR: Cleavenger Masonry, Inc. BLOCK PRODUCER: RCP Block & Brick, Inc. OWNER: Urban Discovery Academy ©PHOTOGRAPHY: Pamela Martin, RCP Block & Brick, Inc. Daniel McCarty, Focal Fire Imagery - bottom photo





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ARCHITECT'S COMMENTARY: For four decades Downtown San Diego tried to establish a K-8 educational experience to make the East Village attractive to young families. Through vision and perseverance, Urban Discovery Academy fulfilled its quest finding its ideal location at 840 14<sup>th</sup> Street.

The project site and existing structures had been dilapidated for years and an eyesore for downtown. The 1925 "historically eligible" brick structure on the corner was rehabilitated to its original state with a new addition for a K-8 Charter School. With the natural brick of the historic façade and the colorful addition, the buildings transform into a colorful progression, leading you to the entry with a bold new world of learning possibilities. The colorful façade was selected to highlight the life and energy students find within the building and to create a welcoming eclectic neighborhood. The rooftop encompasses a recreation area and a bell tower that represent a symbol of the typology to the community of San Diego education. This project means more to completing the East Village environment than just a single architectural achievement. It also completes a goal of the architectural experience to capture the unique marriage of what is old and new.

WHY MASONRY? Concrete unit masonry was selected because we liked what it could do aesthetically, as well as the variety of the subtle color choices it provided. An additional benefit of concrete masonry is that it will stand the test of time and look the same in 30 years as it looks today. For a school project, we believe concrete masonry is the best choice for low maintenance and providing a solid structure, as well as a dynamic exterior finish.





**ARCHITECT'S COMMENTARY:** Evoking a variety of rich architectural details found throughout Douglas County, the new Community and Senior Care Center identifies itself appropriately in its surroundings. The 80,000 square-foot facility serves a unique agricultural community at the base of the Sierra Nevada Mountain Range. Developed as a design-build competition, the CORE+TSK team evolved the previous bridging documents into a concept that addressed local agrarian precedents and historic details in an otherwise contemporary response.

In keeping with the spirit of Main Street, the building is organized around a central interior corridor that features a variety of services for visitors. High quality energy efficient mechanical equipment is used throughout the facility ensuring low-operational costs, and the orientation accommodated the desired installation of a photovoltaic parking shade canopy. Through a series of collaborative meetings with the County, the final solution provided for a collective environment that will serve local residents for generations to come.



WHY MASONRY? Small details, such as the building signage, are familiar to the local landmark Butter Building, while large gestures, such as the gymnasium roof, appear similar to many of the barns found on family farms. Points of entry and building articulation are detailed similar to that of the C.V.I.C. building. Clerestory windows and office spaces protrude from the building mass and reflect the historic flour mill, while the massive cylindrical metal elements on the gymnasium pay homage to the easily recognizable historic grain silos along the community's Main Street. Historic buildings along this corridor are referenced through the thoughtful articulation of spec-brick. This concrete masonry unit element allowed the design team to effectively incorporate familiar aesthetics in a modern facility.

### Douglas County Community and Senior Care Center Gardenerville, Nevada

ARCHITECT: TSK Architects 225 S. Arlington Avenue, Suite B Reno, NV 89501

Pat Pusich, AIA Principal-in-Charge

Mike Purtill, AIA Project Manager

Chris Lujan, Associate AIA Project Designer

STRUCTURAL ENGINEER: Forbes Engineering GENERAL CONTRACTOR: Core Construction Services of Nevada, Inc. MASONRY CONTRACTOR: Silver State Masonry BLOCK PRODUCER: Basalite Concrete Products, LLC OwnER: Douglas County Community Services ©PHOTOGRAPHY: Arthur Domagala Photography



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**ARCHITECT'S COMMENTARY:** Saddleback College's project entailed the renovation of thirteen existing relocatable wood buildings and the design of two new concrete masonry unit (CMU) automotive technology buildings. The new CMU structures total approximately 12,000 square-feet in area and are located near the District's existing warehouse buildings at the southeast corner of the campus. The contemporary facility partners well with the existing campus warehousing and serves as the temporary swing space for Saddleback College's Technology and Applied Sciences (TAS) programs while the existing TAS building is undergoing renovation. Once the Automotive Technology Department returns to its renovated facility, this complex will serve as the new District Maintenance and Operations headquarters.

The features within the new buildings include a cleaning bay, a machine workroom, an engine mechanic's lab, an engine storage room, a dynamometer room, a seven-lift auto shop, an alignment bay, tool storage, shop equipment storage, a hot tank room, a dedicated compressor room and provisions for support functions, such as restrooms and intermediate distribution frame rooms. The swing space project required the relocation and anchorage of hundreds of pieces of heavy equipment associated with the Automotive Technology Department. In addition, the facility has a new exterior service yard with an expansive illuminated concrete apron that serves as an exterior classroom, which is utilized during the day and night.

WHY MASONRY? The TAS Project was designed as an educational facility for the instruction of automotive repair, subsequently causing durability to be a primary concern in addition to cost. During the course of the project's development, the architect was tasked with carefully balancing an extremely tight budget against the facility's construction type. The District requested that the architect explore several construction options: bearing wood stud construction utilizing Portland cement stucco veneer, steel structure with metal stud construction utilizing Portland cement stucco veneer, steel structure. After many comparative cost estimates were produced, it became apparent that CMU was the preferred method of construction - not only due to price, but also due to durability, abuse resistance and longevity.

The concrete masonry unit system was designed as a load bearing structure, and the blocks provided the much needed lateral support that was required due to the large openings for the automotive overhead doors. The use of Eastern influenced roof drain chains that deposit water into a concrete bio-swale planter system provide a contributing aesthetic in concert with the CMU and help condition the rainwater before reintroduction back into the environment.

Furthermore, scored, split face CMU is already present on campus in a vast number of the existing buildings. The District and the College felt strongly that concrete masonry unit construction would enable the new automotive technology facility to integrate better with the rest of the existing campus structures. The specific scored, split face CMU and the precision block were carefully selected to match as closely as possible to the block already present on campus.

### Saddleback College Technology and Applied Sciences (TAS) Project Mission Viejo, California

ARCHITECT: **R<sup>2</sup>A Architecture** 2900 Bristol Street, Suite E-205 Costa Mesa, CA 92626

Etienne G. Runge, AIA, RID, NCARB, ISPE *Principal-in-Charge* 

STRUCTURAL ENGINEER: KNA Consulting Engineers, Inc. GENERAL CONTRACTOR: Soltek Pacific Construction MASONRY CONTRACTOR: Herrera & Sons Masonry BLOCK PRODUCER: Angelus Block Company, Inc. Owner: South Orange County Community College District ©PHOTOGRAPHY: Lucien G. Runge, AIA, RID, NCARB, LEED®, IIDA







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### North Valley Fire Station No. 7 Los Angeles, California

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

Kelley Needham, Architect, AIA Principal-in-Charge

Simon Chang, Architect Project Designer

Bernhard Wassink, LEED<sup>®</sup> AP BD+C Project Manager

STRUCTURAL ENGINEER: K.B. Leung and Associates, Inc. GENERAL CONTRACTOR: Sinanian Development, Inc. MASONRY CONTRACTOR: Nibbelink Masonry Construction Corporation BLOCK PRODUCER: Angelus Block Company, Inc. Owner: City of Los Angeles ©PHOTOGRAPHY: Dale Lang, NW Architectural Photography













Architect's Commentary: North Valley Fire Station No. 7 is a replacement station built by the City of Los Angeles to meet the current and future growth of the surrounding community. It is situated north of the city and provides coverage for the North Valley area of Los Angeles. Designed to be home to both men and women firefighters, the building can flex to accommodate various gender ratios. The station is part of the Los Angeles Fire Bond Program and fulfills those requirements including obtaining a LEED<sup>®</sup> Silver Certification.

The 1.9 acre site is located in a predominately residential neighborhood of single-family and multi-tenant housing. The site includes parking for visitors as well as secured parking for fire personnel. An expanded concrete paved area is large enough to accommodate future training activities, can serve as exterior storage for fire vehicles and equipment or act as a staging area for local wildfire response. Other site amenities include an emergency generator, above-ground fueling and a hose drying tower.

The two-story 16,000 square-foot fire station is comprised of living areas, office space, apparatus bays and support areas. The 18-bed living area has a separate Captain's Quarters, locker/shower facilities, day room, weight room, racquetball court and a kitchen/dining area with an adjacent covered outdoor patio. The office areas are comprised of administrative offices, a large conference room and a lobby with accessible restrooms for the public. Apparatus bays flank each side of the building and are sized to contain three light-duty and three heavy-duty vehicles.

Why Masonry? This project incorporated single-scored concrete unit masonry for the construction of both apparatus bays and the fitness areas, including all site walls and enclosures. Concrete masonry is a great choice as it fulfills the durability and maintenance requirements of these highly used and abused spaces in a fire station. It serves the primary structure for these volumes, but also acts as the finish material, both on the interior and exterior walls. Concrete masonry units (CMUs) also contributed to the acquisition of LEED<sup>®</sup> points in terms of their recycled content and consideration as a regionally sourced and manufactured material.

## Concrete Masonry Association of California and Nevada

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# 2017

# CMACN/AIACC Concrete Masonry Design Awards "Call for Entries"

The 2017 CMACN/AIACC Concrete Masonry Design Awards competition "Call for Entries/Request for Entry Forms" will be available at <u>www.cmacn.org</u> January 2017.

The 2015 award winning projects can be viewed at <u>www.cmacn.org</u>.

Please contact the CMACN Office at (916) 722-1700 or <u>info@cmacn.org</u> with any questions.



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

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