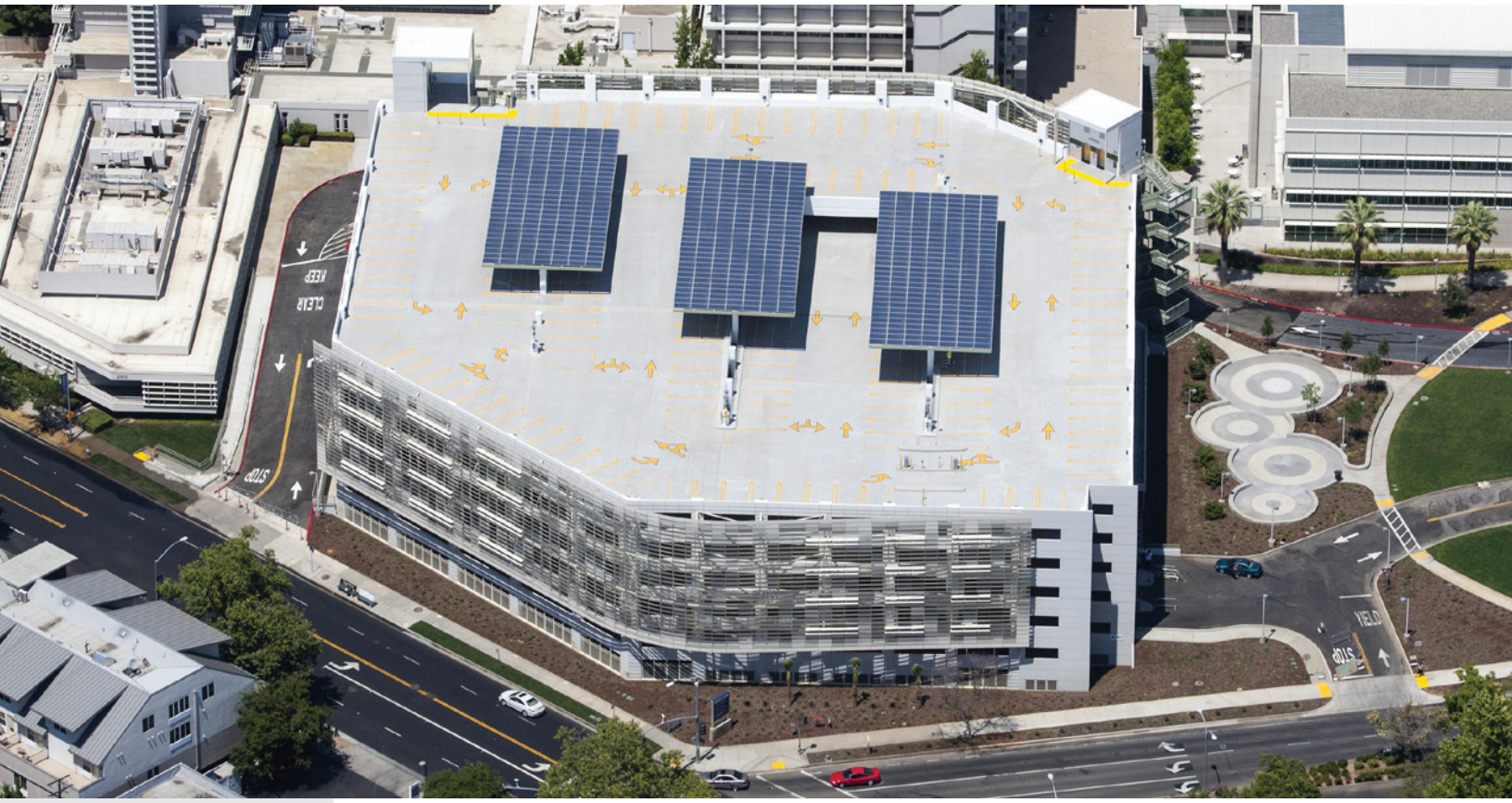


PROJECT FACTS & HIGHLIGHTS

Stalls: 1200
Levels: 6
SF: 400,000
Owner:
UC Davis Health Services
GC: McCarthy Builders
Architects:
Watry Design (Architect of Record); Dreyfuss + Blackford Architects (Design Architect)
SEOR: Watry Design

STRUCTURE ELEMENTS

Gravity Systems:
- Precast Columns, Beams

Lateral System:
- Precast Hybrid Moment Frame

Features:
- Precast elevator shaft
- Architecturally finished moment frame columns and beams, and elevator shafts

UC DAVIS HEALTH SERVICES PARKING STRUCTURE III

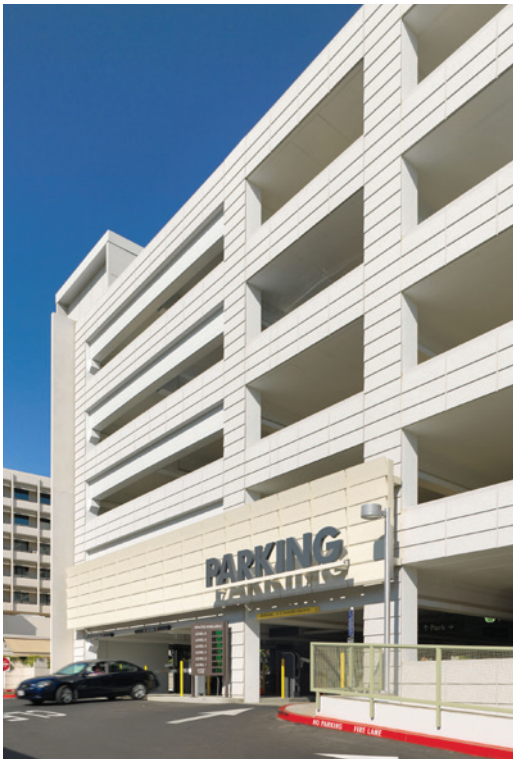
Sacramento, CA

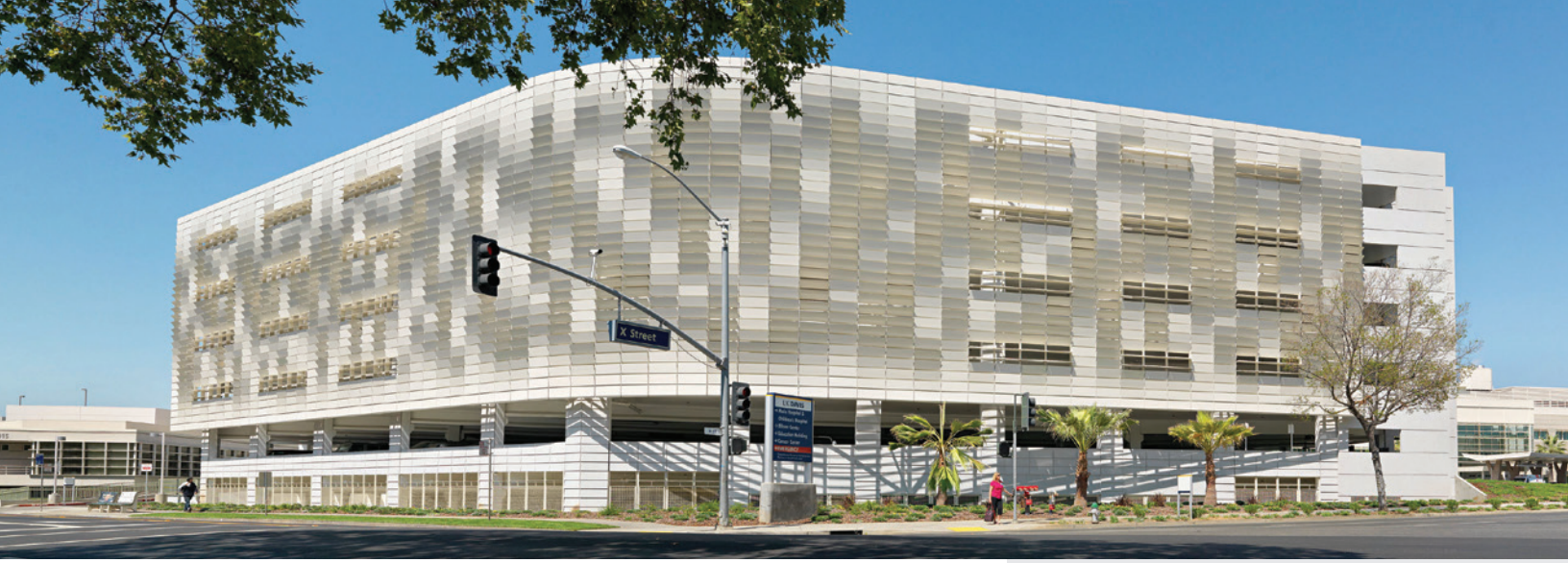
2015 PCI Design Award Winner

Precast parking structure acts as the "front door" for patrons and patients

When you build anything in California, safety and performance are always first in mind. When leaders of the University of California at Davis (UCD) Medical Center began planning for a new six-level parking structure to accommodate 1200 cars, they knew it would have to meet the most rigorous seismic requirements. Administrators also wanted a structure that reflected the hospital's reputation as one of the leading medical facilities in the country — and it had to adhere to a tight timeline and budget. In addition, the structure's location presented challenges as it is surrounded by two narrrow, heavily trafficked streets leading to the main emergency entrance of the hospital.

After reviewing other systems, precast was chosen because it enabled them to achieve all of these goals. **"The use of precast concrete minimized the impact of the structure, while reducing the actual on-site duration of the project," says Genaro Morales, director of architectural design for Watry Design in San Jose, Calif.** "Cast-in-place would have required substantially more construction activity for forming and placement of the concrete and rebar."





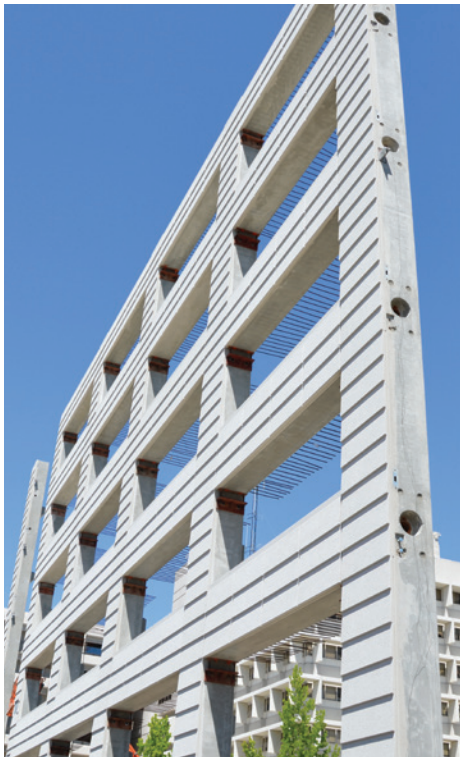
CLARK PACIFIC SOLUTION

To meet seismic design goals, designers incorporated Clark Pacific's Precast Hybrid Moment Frame system for lateral resistance. The use of the frame eliminated the need for shear walls, which helped to create more wide-open interiors to maximize space.

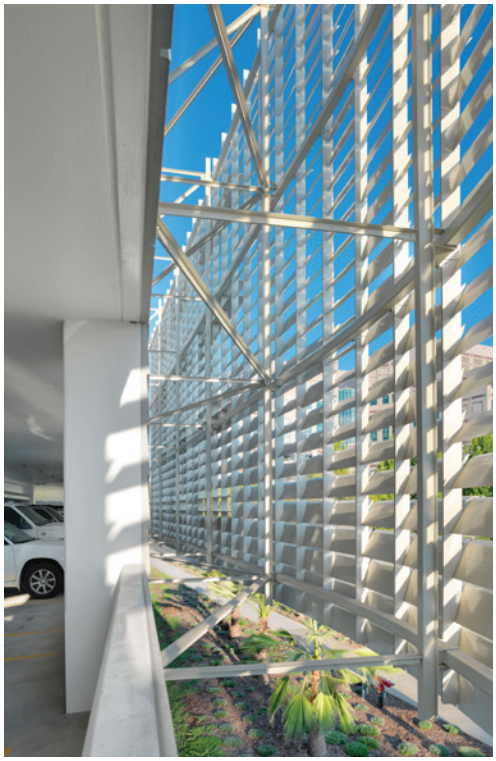
The architect chose a white architectural finish for the structural precast concrete columns and spandrels to match the precast concrete's color to that of the hospital finish. "Shingles" were added to the spandrels, to emphasize the horizontal look of the parking structure, and aluminum louvers were attached to the precast concrete facades facing the street.

"Precast concrete allowed us to meet all of the exterior facade detailing within budget," Morales says. "Shapes, textures, and color matches were much easier and economical to achieve with precast concrete than would have been possible with cast-in-place concrete."

The end result is a parking structure that provides optimal access for patients and visitors, while showcasing the functionality and aesthetic versatility of precast concrete.



Precast Hybrid Moment Frame



Integrated Architectural Features

AESTHETIC VERSATILITY

The building's exterior features an integrally colored white architectural finish on the structural precast columns and spandrels. *The architect noted that beauty of working with precast concrete is the precision that can be specified.*

RESILIENCY

The structure features the latest in seismic design by incorporating the **Precast Hybrid Moment Frame** for seismic resistance. The use of the frame obviates the need for shear walls, helping create more wide-open (shear wall-free) interiors that promote passive safety & security.

ACTIVE SITE CONSTRAINTS

The structure's location represented challenges during erection. The site is surrounded by two narrow, heavily trafficked streets leading to the main emergency entrance that had to remain open during construction.

AWARD WINNING

- PCI Design Award
- AIACC Design Merit Award in Architecture
- NPA Innovative Parking Facility of the Year