

The Nevada Living Learning Community

A special edition of ACI Committee 124's Notable Concrete

The Nevada Living Learning Community of the University of Nevada, Reno, is a new five-story, 124,200 ft² (11,540 m²) residence hall located on College Drive at North Virginia Street. It houses 320 students in several “Living Learning Communities,” which provide educational and social opportunities to students who share an interest in academic and professional issues. According to the

University, students “cultivate the skills and abilities needed to succeed (through) close interaction with faculty and experiential connections to the University curriculum, (helping) all participants develop leadership and community service values.”

The building represents a new type of student housing that integrates “smart classrooms” and spaces for study



The Nevada Living Learning Community of the University of Nevada, Reno (photo courtesy of West Coast Contractors)



(photo courtesy of Collaborative Design Studio)

groups and faculty advising (about 10,000 ft²) with student suites and faculty residences. Student suites are designed as “modules” clustered around common lounges and study spaces. Incorporating green principles throughout, the building was designed to create hubs for social and intellectual interaction, enhancing residential life and academic rigor.

The Nevada Living Learning Community is also notable as an exceptional concrete building that features many types of concrete: precast hollow-core plank for floors and roofs, concrete floor topping slabs, concrete masonry bearing and shear walls, and reinforced concrete foundations. Cast stone clads the first story to create a distinctive base.

Tying the Nevada Living Learning Community into neighboring residence halls is a new half-acre plaza (0.2 ha) surfaced with concrete pavers. Previously a parking lot and emergency vehicle turnaround, the design by the Collaborative Design Studio transformed the site into a pedestrian-friendly “backyard” that serves as a social hub for students hosting organized and spontaneous events. The plaza includes an area for a portable stage, benches for sitting and studying, and grassy areas for lounging and recreational activities. Scott Meek and Son Concrete Company of Reno installed 9400 ft² (870 m²) of colorful 3 in. (76 mm) concrete pavers, plus related concrete site work.

Concrete plank allow reduced floor-to-floor heights and building volume, enhancing economy and sustainability. The plank and concrete masonry walls provide superior sound insulation, which is very important in a dormitory. Use of recycled material in the concrete helped the Nevada Living Learning Community receive LEED Silver certification.

Design began in May 2008 and was completed in October 2010. Construction began in January 2011 and was completed in June 2012. LEED Silver certification was awarded in March 2013.

Project Data

124,000 ft² (11,520 m²) of 8 in. (200 mm) thick precast plank

124,000 ft² (11,520 m²) of 3 in. (76 mm) thick concrete topping (1150 yd³ [880 m³])

1825 yd³ (1395 m³) of cast-in-place reinforced concrete
 4500 ft² (420 m²) of 4 in. (101 mm) thick cast stone units
 68,000 lightweight concrete masonry units (two-thirds 12 in. [304 mm], one-third 8 in. [200 mm]), 2500 psi (17.2 MPa) design compressive strength

5800 sacks of Type M mortar (for all masonry)

Project Credits

Owner: University of Nevada, Reno (John Walsh, Senior Director of Planning & Construction)

Architect: Collaborative Design Studio, Reno, NV

Associate Architect: WTW Architects, Pittsburgh, PA



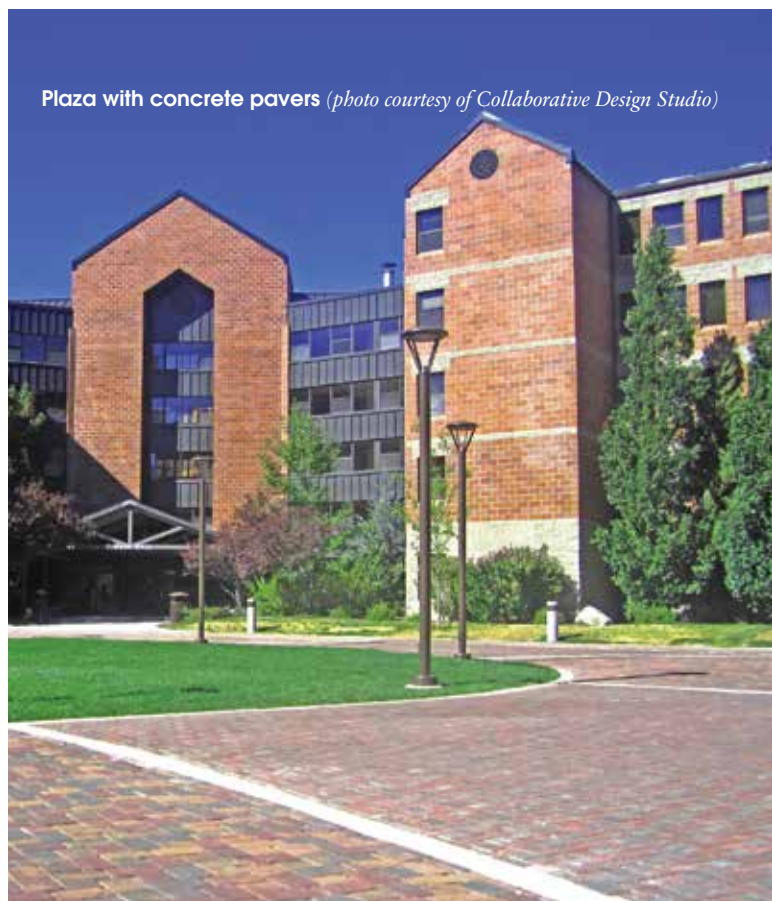
During construction (photo courtesy of Collaborative Design Studio)

Landscape Architect: Lumos & Associates, Reno, NV
 Civil Engineer: Wood Rodgers, Reno, NV
 Structural Engineer: Forbes Engineering, Reno, NV
 Mechanical Engineer: Ainsworth & Associates, Reno, NV
 Electrical Engineer: PK Electrical Engineering, Reno, NV
 General Contractor: West Coast Contractors of Nevada, Inc., Reno, NV
 Concrete Contractor: Tedesco Pacific Construction, Inc., Carson City, NV
 Masonry Contractor: A1 Masonry & Sandblasting, Las Vegas, NV
 Structural Precast Supplier: Kie-Con, Inc., Antioch, CA
 Concrete Masonry Products Supplier: Basalite Concrete Products, LLC, Reno, NV
 Cast Stone Supplier: Arriscraft International, Cambridge, ON, Canada

Acknowledgments

Project submitted by Peter W. Grove, AIA, NCARB, Managing Partner, Collaborative Design Studio, Reno, NV. Additional information provided by Gary Indiano of Basalite and Allen Forbes of Forbes Engineering. Michael Paul of ACI Committee 124, Concrete Aesthetics, wishes to thank Kevin L. Merkling, AIA, and Julie Collins of Collaborative Design Studio for responding to unending requests, with special thanks to Erik Fong, AIA, and the AIA Northern Nevada chapter for publicizing the call for submissions that prompted this article.

Selected for reader interest by the editors.



Plaza with concrete pavers (photo courtesy of Collaborative Design Studio)