GCP Waterproofs Cal Poly Recreation Center

The completion of the Cal Poly Recreation Center exceeds expectations after using Preprufe® SCS Waterproofing

Project Profile

At Cal Poly, recreation is seen as an important part of their students’ educational, physical, and intellectual well-being, while providing the opportunity for social interaction. But with Cal Poly’s growing student population in San Luis Obispo, their existing recreation center was no longer up to the task and the university needed a cost-effective way to remodel and expand. The expanded 166,000 square foot facility would transform the center to create a more accommodating facility and help attract new students.

Designed to achieve green building Leadership in Energy and Environmental Design (LEED) certification, the new facility architecture comprised approximately 95,000 square feet of renovated or reconfigured space and approximately 100,000 square feet of new construction, including six racquetball courts, two basketball courts, a multipurpose court, pool, lobby, and workout rooms.

"The university needed a cost-effective way to remodel and expand."

Client: California Polytechnic State University, San Luis Obispo, CA
Project Architect: Cannon Design, Los Angeles, CA
Applicator: ALCAL Specialty Contracting, Inc., Fremont, CA
General Contractor: Sundt Construction, Inc., San Luis Obispo office, CA
GCP Solution: PREPRUFE® SCS waterproofing
Constructing with cost in mind

The site for the new construction was tight. Part of the recreation center building was adjacent to a higher-grade level and near roads that constrained the property line and would have made excavation beyond the perimeter of the building footprint a difficult task. Accordingly, the architecture design and construction team determined that using spray concrete foundation walls would provide a more cost-effective solution without requiring extensive excavation in that area of construction.

To waterproof the shotcrete walls would have posed some challenges, but the team brought on technical expertise from Blue360℠ Design Advantage and specified a blindside waterproofing product specifically designed for shotcrete applications.

"We got all the support we needed from GCP, and the waterproofing installation went very well. It was completed over a year ago, and we haven't seen any problems."

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Larry Taniguchi, Cannon Design

Preventing water ingress

By using PREPRUFE® SCS blindside waterproofing in the architecture design, there was no need to modify a conventional waterproofing system to try to make it work for a shotcrete application. Installed by trained and approved applicators, PREPRUFE® SCS is designed to prevent water leaks, minimize the potential for water damage, and reduce the time and cost for any needed repairs on foundation walls caused by water damage.

The innovative system is engineered for shotcrete foundation wall applications with a unique combination of waterproofing membranes and injection grout to prevent water leaks and minimize the potential for water damage.

Built to withstand the force of shotcrete, the system's composite membrane was attached to the soil retention system. Then the specially formulated hydrophilic grout was injected into the composite membrane to fill and seal the waterproofing system.

Throughout the approximately 10,000 square feet of shotcrete foundation walls, the system's components worked together to form a continuous and integral bond to the structure that eliminates water migration between the membrane and shotcrete.
“GCP’s reps came out and were very helpful with the installation of the product,” said Larry Taniguchi, the architect on the project from Cannon Design. “We have a sub-floor drainage system in place so we see water there when it rains, and we haven’t seen any evidence of water coming through the waterproofed walls.”

By using the right products with quality construction practices, the education project’s design and construction team helped ensure the project’s success—as a valuable asset to Cal Poly’s students now, and classes for years to come.

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