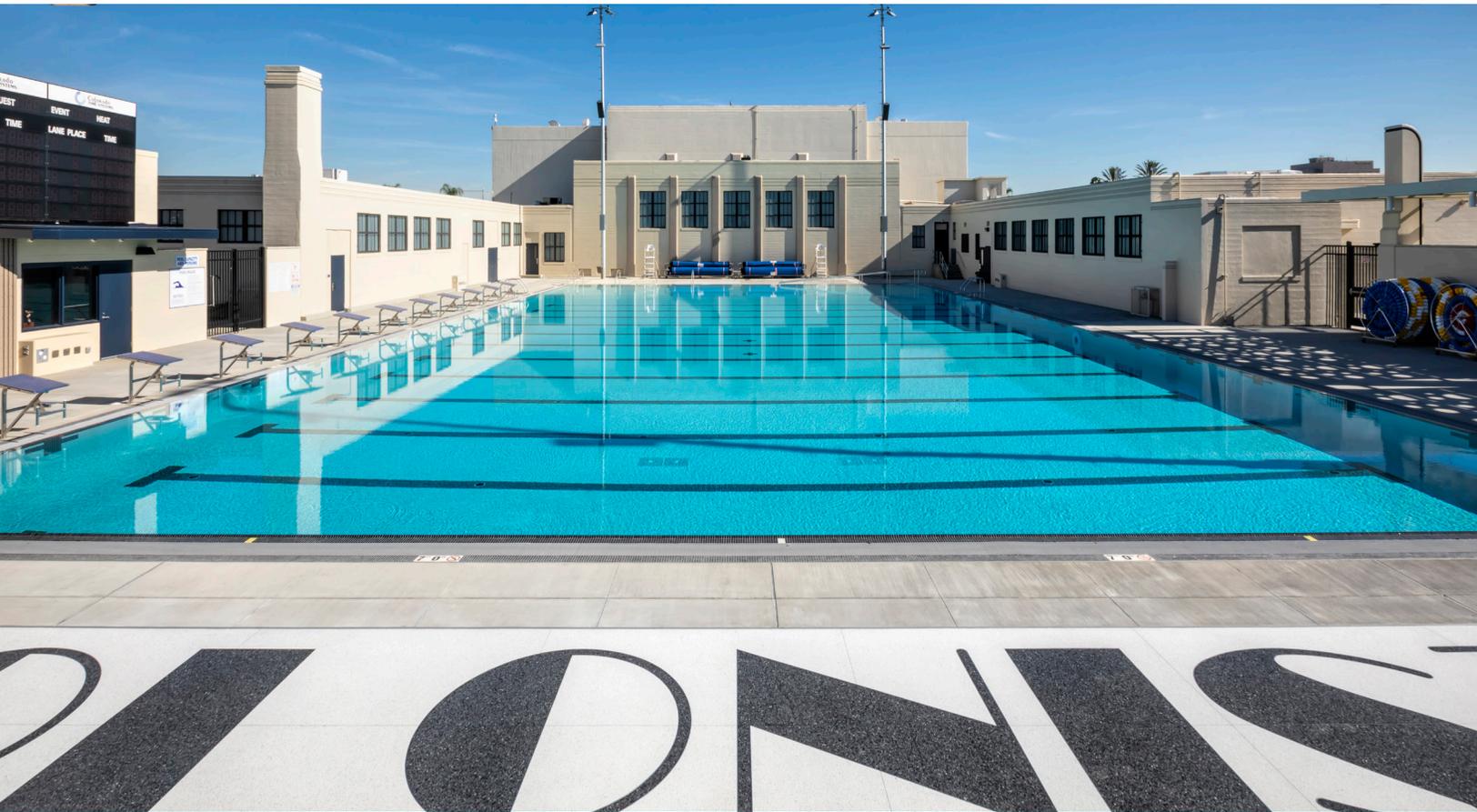


Case Study



Anaheim High School Aquatics Center

Case Study



Anaheim High School Aquatics Center

Official Project Name

Jon Urbanchek Anaheim High School Aquatics Center

Project Location

811 W Lincoln Avenue
Anaheim, CA 92805

Client

Anaheim Union High School District

Owner

Anaheim Union High School District

Cumming's Role

Cumming provided program management, construction management, project controls, and financial management services for this project, which utilized the lease-leaseback delivery method.

Contractor(s)

Balfour Beatty Construction

Architect(s)

Ruhnau Clarke Architects

Other Major Consultants/Vendors

Vital Inspection Services — Project Inspector
Twining Consulting, Inc. — Material & Testing Lab

Start Date

August 18, 2018

Original Completion Date

August 30, 2019

Actual Completion Date

October 30, 2019

Original Budget

\$12,959,323

Actual Final Project Cost

\$12,873,280

The Purpose of this Project

The Anaheim High School Aquatics Center project consisted of the demolition of an existing 3,500-sq.-ft. grandstand; the extensive abatement and demolition of existing basement equipment; the construction of a new 38-meter x 23-meter shotcrete swimming pool, bleachers, and a new 2,600-sq.-ft. pool equipment building; the renovation of more than 16,000 sq. ft. of showers / locker rooms and office space; and the construction of five new concrete basketball courts. The project also incorporated hardscape and landscape improvements to the surrounding swimming complex, including a new fire lane, as well as new decorative and chainlink perimeter fencing around the campus and athletic fields.

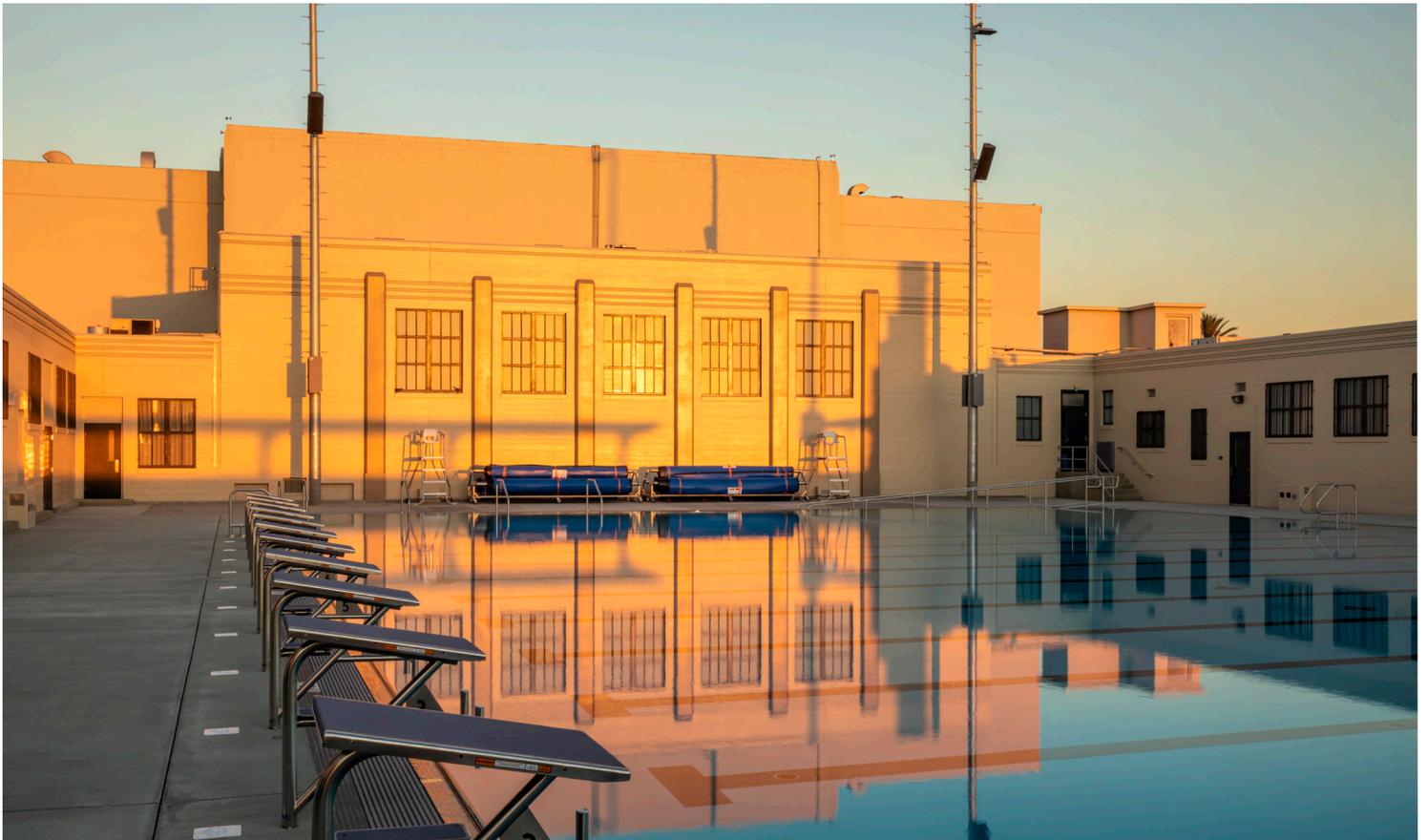
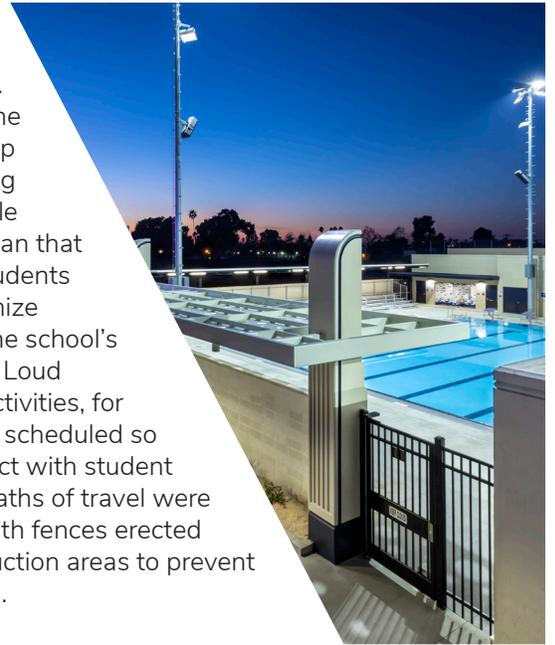
All work was performed while the high school campus was active. A logistics plan, developed by the Program Management Office (PMO), provided direction to the contractor that allowed the project to meet strict milestones, including the turnover of the showers/locker rooms prior to the beginning of the new school year. Through our expert application of program management, project controls, and financial management services, we were able to meet this important milestone and ultimately help deliver the project under budget.

Key Stakeholders and Their Concerns

AUHSD's primary concern was that disruption to learning activities be minimized. To address this concern, Cumming's project management team met with key stakeholders during the planning phase to understand their needs and identify the school's schedule for testing,

holidays, sports, and other activities. This enabled the team to develop a corresponding project schedule and logistics plan that would keep students safe and minimize disruption to the school's daily activities. Loud construction activities, for example, were scheduled so as not to conflict with student testing. Safe paths of travel were established, with fences erected around construction areas to prevent student access.

In the logistics plan, each phase represented a necessary and logical step in the sequence of activities and milestones that would need to be reached in order to achieve a successful project. The plan focused on the project's scope, as well as the roles and responsibilities of each team member, and emphasized an integrated team approach with the architect, contractor, and consultants. The plan was an important element in the team's approach and played a significant role in addressing the owner's concerns while helping to deliver the project under budget.



The original cast-in-place concrete pool was constructed in the 1930s, making it approximately 80 years old; The pool complex had a unique mechanical equipment room located under the pool deck in the basement, below water level.



Proprietary or Unique Processes/Procedures

The PMO developed standard forms for the client's use throughout the project's design phase, such as a design checklist and standard budget template for various delivery methods. The PMO also developed standard construction change management forms — including intermediate change directives, requests for proposals, change negotiation forms, and more — as well as a payment log to track the project's budget against its various funding sources to ensure that both funding and project costs remained on track.

The Anaheim High School Aquatics Center will pave the way for other swimming pools to be built within the district. The PMO performed extensive research on the strengths and weaknesses of different types of swimming pools, including their component materials, size options, and required maintenance and equipment. The PMO also held user group meetings with the Maintenance and Operations department, the Facilities department, and others, to develop District standards related to pool equipment and maintenance, toilet accessories, perimeter security, and other elements.

Unique Project Challenges

Cumming helped the project team overcome several complex issues that were encountered on the project. First, the existing pool was officially condemned in 2007. The original cast-in-place concrete pool was constructed in the 1930s, making it approximately 80 years old at the time. Due to the age and condition of the facility, numerous ADA compliance upgrades needed to be made not only to the pool itself, but to the surrounding pool areas and restrooms.

Additionally, the pool complex had a unique mechanical equipment room located under the pool deck in the

basement, below water level. Because of this, the existing piping, valves, conduit, and other metal items in the basement were significantly rusted and deteriorated. Seismic anchorage and bracing of pool equipment and piping in the basement was either non-existent or sub-standard, at best. Cumming worked with AUHSD to gather feasibility reports, geotechnical reports, hazardous material testing reports, and other supplementary reports to ensure that all existing conditions were taken into consideration by the architect.

The project also faced a great deal of vandalism. In total, there were more than eight vandalism events where much of the new construction was damaged. This had some effect on the schedule of upcoming work, as the vandalism required repairs that had to be made before the next phase of work could begin. To prevent further issues, Cumming partnered with the contractor to hire security guard services for the remainder of the project.

Another challenge was that the District faced financial constraints. Although design efforts for the project began in 2016, AUHSD was not able to move forward with construction as soon as they would have liked due to funding parameters. Because of its current state, the pool complex required many more upgrades than anticipated, thus increasing the scope and cost. The Cumming-led PMO assisted the District in applying for a financial hardship grant based on the evaluation of the existing concrete deck and pool. The condition of the pool was found to pose significant health and safety risks to students and staff. Thus, in 2019, the District was awarded \$2.5 million in hardship funding and all the needs of the project could be met.



Project Outcome

The Anaheim High School Aquatics Center project was delivered under budget. The final guaranteed maximum price for the project was \$12,873,280, with a construction deductive change order of \$86,043. The final construction cost savings, including budgeted contingencies outside the GMP, was \$1,317,178.

The general contractor achieved substantial completion on October 30, 2019, 61 days after the originally planned schedule. The causes of the extended time were due to unforeseen conditions and excessive rain delays. Although the project did not meet its original substantial completion date, it did succeed in meeting the milestone of turning over all of the facility locker rooms before the start of the new school year in August 2019.