

SHAPING FUTURES

Mt. San Antonio Community College Hilmer Lodge Stadium



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Shaping Futures at Mt. San Antonio Community College

Founded in 1946, Mount San Antonio College (Mt. SAC) is located on 420 acres in the rolling hills of Walnut and is a Top 10 California Transfer College. Over 50,000 students annually enroll in high quality degree, certificate, workforce development and community programs. Mt. SAC is one of the most affordable colleges at \$46 per unit and seventy-five percent of students receive financial aid. Its core values reflect its mission: integrity, equity and diversity, community building, student focus, social justice, lifelong learning, positive spirit, effective stewardship, and sustainability/restoration.

Tilden-Coil Constructors has been Mt. SAC’s partner to construct the Hilmer Lodge Stadium among many other projects.



Mt. SAC Athletics Complex Quick Facts

Architect: HMC Architects
Delivery: CM Multi-Prime
Size: 32 acre complex
Completion: March 2020

Hilmer Lodge Stadium Reconstruction

“If you build it, he will come,” from the 1989 movie Field of Dreams, is in some ways parallel to the vision and creation of the new Mt. SAC Athletic Complex. Mt. SAC has hosted the world-renowned Mt. SAC Relays for near 60 years, and its Cross-Country Invitational, with a 70-year history, is the largest in the world! The new 73,000 square foot Athletic Complex replaces facilities built in the 1940s and now provides state-of-the-art facilities that will meet the growing needs of students, the local community, and athletes worldwide.

In July 2020, the newly constructed Hilmer Lodge Stadium was selected as one of seven locations across the globe chosen for a virtual track meet featuring world-class athletes. The event, Weltklasse Zurich Inspiration Games, was simulcast across the world. Intricate starting devices controlled from Switzerland allowed athletes to start their races at the same time. Mt. SAC hosted world renown Olympic and World Champions including sprinter Allyson Felix, the most decorated woman in U.S. Track & Field history, and 2016 Women’s Pole Vault Olympic Champion Katerina Stefanidi of Greece. In the backdrop of a global pandemic, athletes competed individually, without spectators or media, to ensure safety.



Funded by community support of Measure RR, the new Athletic Complex achieved LEED Silver certification and includes:

- New 400M 9 lane IAAF compliant synthetic track (natural turf infield)
- 4 throwing circles
- 2 long jump/triple jump runways
- 2 pole vault runways
- 2 “D” aprons for high jump/javelin
- NCAA artificial turf football practice field
- 3-lane synthetic practice track with 6 lane straight away
- 2 natural turf flex fields
- 9 tennis courts with lighting
- Event plazas to support activities
- Permanent seating for 11,000 spectators, expandable to 20,000
- Increase and improved restroom facilities
- Professor/coach offices and meeting facilities
- 2 active learning lab classrooms
- Locker rooms for students/athletes
- 2 weight rooms with adjoining mat room
- Athletic training facilities
- Athletic equipment facilities
- New press box
- Entry/event support space



Adjacent to the Athletic Complex, Tilden-Coil also constructed Parking Structure R, a two-level, 709 space structure including 12 electric vehicle charging stations. The nine tennis courts with bleachers and lighting sit atop this parking structure.

In a collaborative partnership with HMC Architects, Tilden-Coil performed constructability reviews, BIM coordination and design assist at each design milestone for two years prior to DSA submittal. Tilden-Coil’s BIM team used in-house 3D laser scanners, total station, drone, and BIM software to ensure Mt. SAC’s quality expectations were met. To proactively address quality control, a 3D laser scan of the construction site was used to verify the accuracy of layout at certain milestones. The coordinated building information model was then overlaid on the real-world conditions in a 3D environment to confirm accuracy and quickly resolve conflicts.



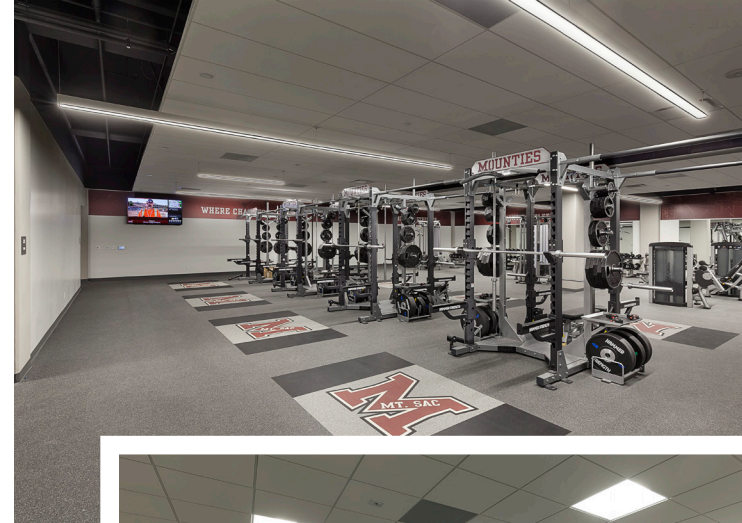
To prepare the site for the new Stadium, 680,000 cubic yards of soil were required to be relocated on campus or exported. After months of export operation with comprehensive dust management and SWPPP plans in place, while respecting truck trip limitations to minimize impact to local neighbors, the massive excavation was accomplished with zero campus and neighbor issues.

Throughout design and construction, Tilden-Coil served with flexibility and focus on achieving Mt. SAC's user expectations and design/program

evolutions. Pivoting to incorporate added scope and design enhancements, the overall completion of the athletic complex for a Fall semester opening could not waiver. Originally, adjacent parking was a paved surface lot. The 709 space Parking Structure R was designed after construction began on the athletic complex. The team responded immediately by integrating the retaining wall for the parking structure into the stadium construction. When it came time to begin excavating the 200,000 cubic yards for the parking structure, the team re-designed the entire four-story stadium scaffold system required to build the canopy above the stadium field house and bleacher structure, so that construction of both the stadium and Parking Structure R could advance concurrently.

The originally designed scoreboard was holistically re-designed with a new, more substantial 100'x10'x60' scoreboard structure to provide a greater visual presence. With stadium construction underway, underground utility work was advanced to complete the re-designed scoreboard within the original schedule duration.

As the stadium advanced to 85% completion, Mt. SAC commenced design of a future 12,000 sf Heritage Hall and Gym to be sited between the new stadium and concession building. With a portion of underground utilities already in place at the future pad site, Tilden-Coil and their in-house BIM team pivoted again to re-design the underground utilities to prepare these two future sites. Using the BIM model, Tilden-Coil located the two new building sites to determine utility conflicts and resolved the re-design within about three weeks including engineer review and approval. Storm drain, sewer, chiller lines, gas and electrical were re-aligned around the site to provide an unencumbered future pad for these enhancements with the substantial completion of the athletic complex remaining on track.



Throughout all the design enhancements, additions and changes, Tilden-Coil maintained and delivered the athletic complex on its original schedule! As with many successful achievements, team members are often both professionally and personally connected to the work. Several of the subtrade partners are personally connected to Mt. SAC as alums and some are parents of current students, who will now be able to use these expanded athletic facilities.

The Tilden-Coil team is living out its purpose of shaping futures in partnership with Mt. SAC. Integrity, flexibility, impactful solutions, and delivering results that consistently meet Mt. SAC's objectives has forged a longstanding partnership based on trust. Grateful for this valued partnership, Tilden-Coil continues to serve in creative ways to enhance the educational experience at Mount San Antonio College.



Partners

Great accomplishments require great partnerships! Tilden-Coil recognizes those exceptional prime contractors who played a major role in completing this project:

- Aire-Masters Air Conditioning
- Best Contracting Services, Inc.
- Borbon, Inc.
- BrightView Landscape Development, Inc.
- Daniel's Electrical Construction Company Inc.
- Econo Fence, Inc.
- Exbon Development, Inc.
- F3 & Associates
- Guy Yocum Construction, Inc.
- Huntington Glazing, Inc.
- Inland Building Construction Companies, Inc.
- Inland Pacific Tile, Inc.
- J.G. Tate Fire Protection Systems, Inc.
- J.M. Farnan & Company, Inc.
- K.A.R. Construction, Inc.
- Los Angeles Engineering, Inc.
- McMahon Steel Company, Inc.
- Montgomery Hardware Co.
- Pacific Waterproofing & Restoration, Inc.
- Pro-Craft Construction, Inc.
- Sierra Lathing Co., Inc.
- SJD&B, Inc.
- Southcoast Acoustical Interiors, Inc.
- Southern Bleacher Company, Inc.
- Stolo Cabinets, Inc.
- Terra Pave, Inc.
- TriMark Orange County
- Winegardner Masonry Inc.



*“Everyone that has been involved with this project has really taken it personally. I have seen the **care** and **craftsmanship** of the construction team and it is really the focus of **quality** on the workmanship that has been extraordinary.”*

- Gary Gidcumb, Senior Manager, Construction Projects, Mt. SAC

Local Participation

We have invested heavily throughout the years in maintaining close relationships with qualified subcontractors through Southern California.

We involved the expertise of our trade partners early on in the preconstruction phase of the project. Having subcontractor experts participate in design review and constructability brought many solutions to the table and provided Mt. SAC with reliable information to make informed and educated decisions.

What makes the Athletics Complex East project even more unique is that there were multiple team members that had a personal connection with the campus.



“I was born and raised out here in the area so being able to work at home on a college that my kids will go to, that my friends have gone to, it always makes it more special and local.”
- Ray Martinez, Leadman, Sierra Lathing Co.

“I went to school here 40 years ago so I have a personal connection to the school and it is really special for me to come back 40 years later and be a part of this project.”
- Joe Herzog, Superintendent, Tilden-Coil Constructors



“I was very excited to find out I was doing the plumbing here at Mt. SAC for the new stadium. I came here and started working out with the soccer team until I actually ended up signing a pro contract with Newcastle United in the Premier League. I credit it mostly here to Mt. SAC and their coaches and training crews that got me to where I needed to be. So that is why it is an honor to be here and working on this stadium.”
- Carlos Zubia, J.M. Farnan Co.



Having individuals who have a personal interest and take pride in their work makes for a phenomenal final product. Joe Jennum, Mt. SAC Athletics Director said, “I think ‘thank you’ isn’t strong enough for the amount of attention and pride that they have in building such an amazing facility. I just have an immense level of appreciation for all those workers and the time and energy they put into building this facility.”

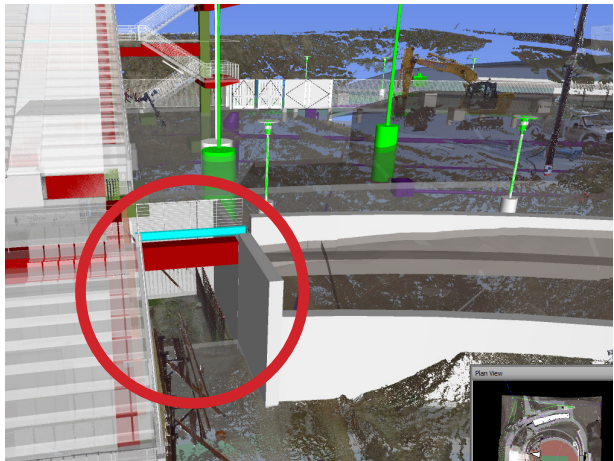


Quality Control

Our team regularly utilizes the latest technology to ensure our clients' quality expectations are met. This includes utilizing our in-house tools such as our 3D laser scanner, total station, drone, and BIM software.

During the construction of the Mt. San Antonio College Athletics Complex project, our team's proactive approach to quality control quickly revealed from a 3D scan of the construction site, to verify construction layout, that a wall foundation was installed in the wrong place by the subcontractor.

The augmented reality view (pictured below), shows the coordinated building information model overlaid with real-world conditions in a 3D environment. Having this data accessible quickly allowed our team to analyze options to fix the condition without impacting the schedule. The fix was implemented with the subcontractor quickly, prior to the wall being poured, mitigating a potential delay.





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