

## Velocity of Change: Renewing ASU's Iconic Memorial Union Artcraft and TEC® Partner to Perform

“Velocity of Change” is a premise that is disrupting the traditional concept of higher education at Arizona State University. Accelerating technology is the impetus for the change in teaching, and it’s creating new opportunities for lifelong learning.

In that same dynamic spirit of change, ASU’s Memorial Union (MU) has recently transformed into a modern and beautiful hub to meet the new ways students, faculty and guests spend their time at this central gathering space. Here, too, technology and knowledge played key roles in how a tile contractor and manufacturer were able to partner to perform beyond traditional expectations.

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Knowing that only a technically adept specialty contractor would be able to meet the high expectations and challenges, CORE sought the expertise and experience of Artcraft Granite,

Project Manager for general contractor CORE Construction. “Initially, we thought we were dealing with a 50-percent timeline compression, a complex offset tile pattern, and requirements to keep the businesses and offices open during construction.”

Marble and Tile Company. Artcraft understood that planning, coordination, and highly efficient tile installation would be vital on the project. The MU’s banks, restaurants, offices and other services attract some 14,000 to 20,000 people to the historic building each day. So work areas on the three floors to be renovated could only be partitioned off for limited periods of time as the demo, prep work and, eventually, tile installation was being done.



But before any work would begin, the challenges mounted. Artcraft was notified that the 40,000 square feet of porcelain floor tile would be delayed some seven weeks – which further compressed the already aggressive timeline down to just six weeks.

Then, what the construction team found as it removed 25,000 square feet of tile and another 15,000 square feet of sheet vinyl, was a multitude of flooring layers, poor transitions and an aged foundation that had seen many additions and

modifications as the building's footprint more than doubled over its 62 years.



“The existing floors did not meet the architectural specifications of 1/8 of an inch in 10 feet for flatness,” explained Artcraft President James Woelfel. “We

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faced a significant amount of remediation with the MU foundation as the time pressures intensified. Our employees were up for the challenge of this high profile job – and we knew TEC® installation materials would provide the advanced technology to support the hard work we were about to undertake.”

Artcraft used TEC Level Set® 200 Self-Leveling Underlayment to quickly flatten difficult surfaces. In areas where old terrazzo was being covered, TEC Multipurpose Primer was applied prior to the Level Set 200 to improve its adhesion and bond strength. TEC Level Set 200 smoothed and flattened all the different elevations of the rough subflooring and was walkable and ready for crack isolation just three hours after application.

TEC HydraFlex™ Waterproofing Crack Isolation Membrane, an ANSI 118.12 membrane, was then used to prevent the new tile installation from cracking.

HydraFlex dries in as little as one hour, which helped Artcraft save precious time on the project. Woelfel explained that TCNA-125 full coverage method was used on about half of the concrete substrate due to existing substrate cracking and TCNA-125A partial coverage was used for the rest of the installation with limited substrate cracking.

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With the 2,200 square feet of 2" X 12" glass tile available domestically, and the 24" X 48" porcelain wall tile already in hand, Artcraft began to demo, prep and install the varying applications in 12 sets of bathrooms, mindful that some had to be open at all times. TEC Super Flex™ Ultra-Premium Thin Set Mortar kept the crews moving without incident as its patented bonding formula and unmatched bond strength proved excellent for this challenging glass and porcelain application. Then, TEC Power Grout® Ultimate Performance Grout was applied to the joints and allowed to cure overnight.

When the 12" X 24" and 6" X 24" mix of dark grey and black Italian porcelain arrived, Artcraft quickly rescheduled its crews for seven ten-hour workdays. Woelfel saw that the intricacies of the MU's floor plan would create some problems for expansion joints at every intersection, change of pattern and where sunlight hit the floor. He determined that

the “random” pattern had to be reworked to meet specifications. Mindful of accessibility ramps, the multiple surface levels and changes in setting direction, Artcraft provided a series of mock-ups for architectural approval to illustrate how critical expansion joints, pattern and surface breaks would be laid.



Artcraft selected TEC® Ultimate Large Tile Mortar for its superior bond strength, and crews deployed to strategic areas to begin the herculean installation effort. Artcraft setters and finishers worked around the clock. As sections of the newly set tile dried, finishers began grouting the already cured areas. TEC Power Grout® Ultimate Performance Grout

was the ideal choice for this challenging job. The predominant factor in choosing Power Grout was its fast-setting properties. It’s ready for foot traffic in just 4 hours. That meant Artcraft could grout at 4:00 a.m. each day and open sections of the new floor to foot traffic by 9:00 a.m. Additionally, Power Grout’s breakthrough technology is easy-to-use, stain proof, guaranteed color consistent and highly resistant to shrinking or cracking – all important considerations in the highly-traveled MU. “I credit Power Grout as one of the main reasons we were able to pull this off,” said Woelfel.

To further ensure the integrity of the installation and prevent cracks, Artcraft added TEC AccuColor 100® Silicone Caulk at the expansion joints in key locations across the varied elevations and at dissimilar planes per TCNA standards.

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“It’s beautiful and we plan on this installation lasting for years to come,” said Executive Director of ASU’s Memorial Union, Michele Grab. “Despite the high level of renovation activity, we required that the building be open and accessible at all times. Artcraft respected our needs while ensuring students, faculty and guests remained safe and minimally inconvenienced by the remodel.”

“Without TEC products and technical support, we couldn’t have turned this project around,” Woelfel commented. “This was really an intense collaboration to resolve issues with technologically advanced products, technical installation knowledge and pure hard work.” Throughout the project, TEC Territory Manager Steve Besendorfer was on-site to support Artcraft. Additional support came from Jeff Williams, Manager at Tom Duffy, the setting materials distributor who kept extra TEC product in stock and available six days/week, specifically for the ASU project. Also, TEC’s excellent system

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warranty further reinforced TEC® products as the right choice.

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The transformation of the ASU MU was truly a remarkable example of a motivated team coming together to achieve a nearly impossible goal. The beautiful new building is a testament to the success of their collaboration.





Contact your local sales rep to request a demo.  
Have a question? Visit [TECQuestions.com](http://TECQuestions.com).



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