

Building the Future:



Happy New Year to Our Concrete Community



Masek

I am always excited for the end of the year, wrapping up projects, closing the loop on tasks, and taking stock of all we accomplished in the past year. At the same time, I look forward to a fresh start in the New Year.

This may be your first time reading about the ACI Foundation, or you might be a long-time advocate, a dedicated donor, a steadfast volunteer in our

programs and councils, or a beneficiary of one of our programs. As a reader of *Concrete International*, you know that ACI is a technical and educational society dedicated to improving the design, construction, maintenance, and repair of concrete structures. In addition, the Institute is one of the world's largest resources for consensus-based concrete knowledge. As a member of ACI, your annual dues provide you access to all ACI University webinars and on-demand courses, the Institute's 200+ practices (including all ACI guides and reports), and symposium volumes, as well as to its amazing community of volunteers, who are dedicated to the very best use of concrete.

The ACI Foundation's mission and objectives complement ACI's, and through its network of donors and volunteers, it funnels people, innovation, and research to ACI. Donations to the ACI Foundation are contributions over and above ACI dues payments, making it possible to achieve these broad outcomes and amplify the work ACI does, all toward building the future of the concrete industry. Since we formally began fundraising in 2018, our donors have grown to nearly 700 individuals and companies, which is increasing daily.

With their help, we moved the mark in 2024 by helping 44 students fulfill their goals of joining the concrete industry,



Student Meet and Greet at the ACI Concrete Convention – Fall 2024 in Philadelphia, PA, USA. Scholarship Council volunteers Debbie Orsak (left) and Anton Schindler (second from left) chat with fellowship awardees attending the ACI Convention

providing incentives to get involved in the ACI community through our fellowships and scholarships, and funding 16 technical projects that will advance the knowledge and use of concrete.

To our donors, our 75-person-strong volunteer workforce, the ACI Foundation Trustees, the Concrete Research Council, the Concrete Innovation Council, the Scholarship Council, our technical reviewers, the mentors who help guide our fellowship awardees, and our Development Committee—thank you for your devotion to our industry, to ACI, and to our cause!

All our best to you,
Ann Masek, Executive Director

Donations to the ACI Foundation from the community comprise roughly 40% of the available funding used to benefit the industry; ACI provides the remaining 60%. In this way, ACI, the ACI Foundation, and community donors join together, bringing 1.2 million USD annually back into the industry to:

- Foster future leaders in their education in a concrete-related degree through student fellowships and scholarships. These students ensure that the industry remains dynamic and capable of adapting to new challenges. Since we began formally fundraising in 2018, the growth of the Scholarship and Fellowship program has more than tripled, bringing so many more students into the ACI community;
 - Help provide funding to researchers for advancing concrete technology and knowledge, such as code change proposals; designs for community enrichment, resiliency, and sustainability; and new materials and methods that advance sustainability and productivity; and
 - Identify technologies and innovations that provide needed solutions for the concrete industry and help implement their use when appropriate, such as these two projects funded in 2024, “Development of Code Requirements for the Construction of Additively Constructed Walls” and “Improve the safety of Reinforcing Bar Cages Using Innovative Connectors.”
- To learn more about the projects and students, and to donate, visit www.acifoundation.org.

Announcing Major Pledge to Extend the Ronald G. Burg Leadership Fellowship

The Ronald G. Burg Leadership Fellowship was launched in 2024 as a 5-year award created by donations of 75,000 USD from generous community donors in 2023. The award



Ron Burg in 2023

honors the achievements and service to ACI of former ACI Executive Vice President Ronald G. Burg and will be given annually to an exceptional student in an engineering, concrete-related degree program.

In December 2024, Ron Burg and his wife, Jill Humphrey, officially pledged to donate an additional 275,000 USD to the ACI Foundation to convert the award to a sustained one, where students will continue to be funded for numerous years. Ron and Jill have always strongly supported organizations whose missions resonate with them. For Ron, the ACI Foundation's goals and mission provide the opportunity for a positive impact on ACI and the concrete community. "I am passionate about the objectives of the ACI Foundation and believe the outcomes of its programs are helping to make a difference in our community. The growth of the Scholarship and Fellowship program is exciting, and Jill and I are happy to be able to contribute to the continued success in a major way," Ron said. Ann Masek, ACI Foundation Executive Director, stated, "Ron has been a champion of the Foundation for over a decade and has been such an influential factor in its growth. I am grateful for Ron and Jill's past donations and honored by their recent pledge of support. It feels good that we have earned their trust."

After a lifelong career in concrete and 13 years as the staff

leader of ACI, Ron retired from his role at ACI in 2023 but remains engaged in the activities of ACI and the ACI Foundation. Read more about Ron's life and achievements in the June 2023 issue of *Concrete International*.

Year-End Funding on Research for Advancing ACI Committees

In the last quarter of 2024, the ACI Foundation approved funding for five initiatives with outcomes that will enhance existing ACI committee documents by improving design requirements and providing updated data and guidance to the industry, filling gaps in important areas. The five initiatives include:

- "Evaluation of Breakout Strength of Beam-Column Connections of Non-Seismic or Ordinary Frames"—Gustavo J. Parra-Montesinos, University of Wisconsin–Madison, PI; Michael E. Kreger, The University of Alabama, Co-PI; supports ACI Committee 318, Structural Concrete Building Code, and Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures. This is Phase 2 of a testing and evaluation project initially funded in 2023. The initial tests on exterior beam-column connections designed by Chapter 15 of ACI CODE-318-19(22) with either headed or hooded bars terminated at the joint indicate that these connections are susceptible to breakout failure. Additional testing will evaluate the breakout strength of connections with different bar sizes, assess and refine the model, and develop a code change proposal to be considered during the 2031 ACI CODE-318 cycle;
- "ACI 551.2R Design Guide Appendix Overhaul"—Kimberly Kramer, KDK Engineering, LLC, PI; supports ACI Committee 551, Tilt-Up Concrete Construction. This project will update the 10 design examples of ACI-PRC-551.2 from the ACI CODE-318-11 reference to ACI CODE-318-19/24 and incorporate two additional design examples for a more effective reference tool;
- "Development of Temperature Tables, ACI 306 Guide and Specification"—Kevin MacDonald, Beton Consulting Engineers, LLC, PI; supports ACI Committee 306, Cold Weather Concreting. The current data and figures used in ACI PRC-306 are based on out-of-date data from the 1950s and 1960s, which did not include supplementary cementitious materials, concrete admixtures, and low-carbon cement now used throughout North America. The objective is to develop data using modern materials and more sustainable options to support improved practices for cold-weather construction, with new guidance based on updated data with sound modeling for a wide range of types of concrete;
- "Design Requirements for Mechanically Spliced High-Strength Reinforcing Bars in Hinge Regions, An Extension

of Existing Work”—Wassim M. Ghannoum, The University of Texas at San Antonio, PI; supports ACI Committee 318, Structural Concrete Building Code, and ACI Subcommittee 318-B, Anchorage and Reinforcement. The ACI Foundation is partnering with the Charles Pankow Foundation and the Concrete Reinforcing Steel Institute Foundation to address the performance concerns of mechanical splices for Grades 80 and 100 steel reinforcing bars in hinge regions. Based on the initial results of testing, landmark changes were introduced to ACI CODE-318-25, redefining mechanical coupler categories and acceptance criteria for No. 8 bar sizes. The extended funding will test different bar sizes (No. 11 and 14), which is critical to ensure that safe criteria are applied confidently across bar sizes; and

- “Improving Global Warming Potential Benchmarking for Use in Low Carbon Concrete Codes and Policies”—Matthew P. Adams, New Jersey Institute of Technology, PI; Christopher Ferraro, University of Florida, Co-PI; supports ACI Committees 323, Low-Carbon Concrete Code, and 130, Sustainability of Concrete. In the pursuit of

meaningful sustainability and lower carbon emission goals in the concrete industry, stakeholders need appropriate benchmarks to measure and compare individual project performance. Currently, no guidance exists to assist policymakers in delineating what data should be collected from concrete projects and how to create local benchmarks. This project will use available data to test potential best practices, determine key indicators for predicting global warming potential, and develop protocols and guidance for jurisdictions to create their own benchmarks.

The activities of the ACI Foundation are also supported by ACI Foundation staff:

- Tricia Ladely, Assistant Director, Research and Innovation Program Manager;
- Chandice Moore, Students and Awards Program Manager;
- Kari Martin, Fundraising Manager; and
- Stacey McCann, Marketing Manager.

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