UNIVERSITY OF MINNESOTA

Twin Cities Campus

College of Science and Engineering
Office of the Dean

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RE: Proposed Chemistry Teaching Laboratory Building

We write to express our support for the University of Minnesota's Chemistry Undergraduate Teaching Facility bonding project before you in the 2022 legislative session. We urge your support of this important project.

The continued success and leadership of Minnesota industries relies upon hiring the best educated students. With some 75% of its graduates staying in-state, the University of Minnesota plays a critical role in preparing many of our employees for the workplace. The increasing demand in STEM-related careers requires students with excellent technical training, creative problem-solving skills, and strong communication skills. These are our future leaders.

The proposed new chemistry teaching laboratory building on the Twin Cities campus is designed specifically to use modern teaching methods that develop the collaborative innovation and research skills employers need. The new building will set the framework early in the coursework of thousands of students across the Twin Cities campus every year. University of Minnesota students will remain among the best, most competitive employees of the future, and ensure the future success of science and technology-based industries that call Minnesota home.

The current teaching laboratories are essentially indistinguishable from the instructional laboratory format of the early 1900's. These facilities were designed to emphasize students following a fixed set of cookbook-style instructions while working alone. These skills are no longer sufficient. The University of Minnesota has been a leader in modern instructional models emphasizing problem solving rather than merely following cookbook instructions. Yet the outdated physical spaces continue to significantly hinder effective implementation of the instructional innovations. Students are forced to do a large fraction of their collaborative work sitting in groups of four on the floor in the hallways. While Minnesota has led on these instructional design principles, peer universities such as Wisconsin, Iowa, Purdue, and Nebraska have taken note, and either recently completed, or are currently constructing modern laboratory classrooms that will allow effective implementation of curricular updates. Their students will be at a significant advantage.

The proposed chemistry teaching laboratory building will address: 1) the need for additional capacity as the demand for STEM-educated students continues to rise in Minnesota, and 2) the need to facilitate modern instruction that will provide the skills needed for future success. Beyond our own industrial employment in a wide variety of science and technology related sectors, these students are also the future physicians, veterinarians, nurses, dentists, high school teachers, and entrepreneurs for the State of Minnesota. All are professions in high demand, and all require the modern skills and creative thinking that will be emphasized with the new building. We believe this building is very important for the future training of a leading science and technology-based Minnesota workforce, and an important investment for our state.

Again, we respectfully request your support of the University of Minnesota's Chemistry Undergraduate Teaching Facility bonding project in the 2022 state legislative session. Thank you for your consideration.

Sincerely,

Amy Abouelenein, VP, Innovation, Technology and Quality, EUAU and ASLA, General Mills

Ashish Khandpur, Group President, Transportation & Electronics, 3M

Gary Obermiller, Chairman, Skywater Technology

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