

IN MEMORIAM

Duane Ellifritt, Distinguished Educator and Structural Engineer, Dies at 82

Duane Ellifritt, a University of Florida professor best known for creating the first AISC Steel Teaching Sculpture, died on January 22 at the age of 82.

Ellifritt was heavily involved in the AISC Committee on Specifications, serving as a long-time member, task committee leader and innovator. In addition to his expertise on steel, he was an accomplished artist and his home and art studio are covered wall-to-wall with a wide range of his work, including many images of bridges and other structures.

In the mid-1980s, he melded his two loves—steel and art—to create the first steel teaching sculpture.

“I got frustrated in 1985,” Ellifritt once reminisced. “I was teaching steel and when we taught connections, many students had a hard time visualizing a 3D connection. You can show them two or three views of it, but to show them the whole thing in their mind, they had trouble doing that. I was trying to think of ways that I could help them with that. Field trips were good, but there’s not always a field trip available when you want one. Contractors are not always happy about your coming onto a job site with a bunch of students. My best solution was to create a sculpture on campus with all the different connections and members commonly used, shown in full scale. I designed the sculpture, and it was fabricated in Ft. Lauderdale and erected in October 1986.”

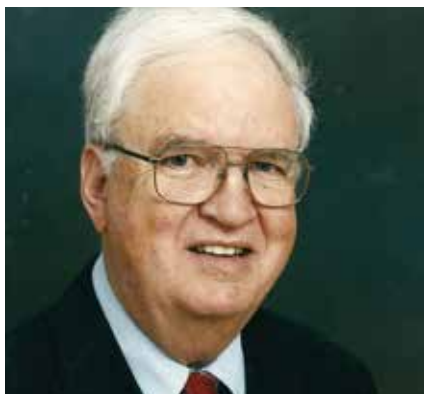
That sculpture became the model for an AISC initiative, and there are now more than 170 sculptures on college

campuses throughout the country. (For more information on Ellifritt’s love of art as well as the sculpture, please visit www.aisc.org/ellifritt to read “Creating Art in Unlikely Places.”)

“Duane Ellifritt was a kind and caring person,” said Charlie Carter, AISC’s president. “Soft-spoken and yet always authoritative, Duane led the advancement of member design requirements in the AISC Specification for many years when he served as a task committee chair. And he continued to contribute thereafter as a member, most recently having been honored as an emeritus member of the Committee on Specifications. We will miss his smile as much as his talents.”

Ellifritt was well respected by his students. “Without a doubt, I owe my career to Duane,” explained Thomas Sputo of Sputo and Lammert Engineering and a former doctoral student of Ellifritt’s. “He presented opportunities to me, made introductions and got me involved with many things outside of my research project. There is no way that I would have been able to pursue my passion for steel without Duane. In fact, I came back to UF to work on my PhD specifically because of Duane.”

In addition to the AISC Committee on Specifications, Ellifritt served on the AISI Committee on Specifications for the Design of Cold-Formed Members. He received an AISC Special Achievement Award in 1999, an AISC Lifetime Achievement Award in 2010 and the George Winter Award from the American Society of Civil Engineers in 2006.



People



Steel Profiles Podcast Series to Feature AISC's Own Larry Kruth

“It started one day in fourth grade when I was sitting in a parking lot with my father, watching them build a new elementary school,” recounts Lawrence F. Kruth, PE, vice president of engineering and research at AISC, on how his father inspired him to be an engineer. “I asked my father specifically how they knew what size beams went into the building, and he said, ‘That’s what engineers know how to do.’ And I said, ‘Well, I’d like to do that.’” Kruth is featured in the latest episode of AISC’s *Steel Profiles* podcast series at www.aisc.org/podcasts.

Tune in to hear his fascinating 30-minute conversation with Margaret A. Matthew, PE, AISC senior engineer and host of *Steel Profiles*. Kruth gives an inside look at his life and career, from his plans for the future of AISC’s engineering and research department, to where he sees the next big innovations and advancements in structural engineering, to his favorite Star Trek episode.

AISC’s *Steel Profiles* series provides an enlightening and entertaining look at the personalities from our industry. You can play or download all 27 episodes at www.aisc.org/podcasts or on iTunes. In iTunes, simply search for “Steel Profiles” to access all of the episodes. You can also subscribe to the series for free, and each new episode will automatically be downloaded for you.

SPECIFICATIONS

Nuclear Spec Review Period Still Open

The current draft of the 2018 AISC *Specification for Safety-Related Steel Structures for Nuclear Facilities* (AISC N690) is available for public review until March 12, 2018. To access the draft and review form, visit www.aisc.org/publicreview. You can also order a hard copy—for a \$35 charge—by calling Rachel Jordan at 312.670.5411.

Please submit comments to Cynthia J. Duncan, AISC director of engineering, at duncan@aisc.org, by March 12 for consideration.

PROJECTS

Rainier Square Tower Uses Revolutionary Composite Steel Frame

A new steel/concrete composite core wall system has been called “revolutionary” in the design and construction of tall buildings and is now being put into practice in constructing the new 850-ft-tall Rainier Square Tower in Seattle. Developed through a series of studies and advancements by Magnusson Klemencic Associates (MKA), the system uses two steel plates connected by steel spacing ties, with the cavity between the plates filled with high-strength concrete. It provides the potential to shave months off the construction schedule—and reduces costs—compared with a traditional concrete core system. The new system has performed well in laboratory tests, and an MKA study has even indicated that the system could shave nearly 100 days from a construction schedule compared to a concrete core system.

“The 97 working day difference equals 136 calendar days, which means the owner will benefit from four-and-a-half months lower contractor’s overhead and general conditions costs, four-and-a-half months lower financing costs and four-and-a-half months of earlier rental income,” explained Ron Klemencic, chairman and CEO of MKA.

You can read more about the core wall system in “Core Solution” in the February 2017 issue, available at www.modernsteel.com. The article previews a presentation that Klemencic and Varma are giving on the system, “Innovative Composite Coupled Core Walls for High-Rise Construction,” scheduled for the 2018 NASCC: The Steel Conference, April 11-13 in Baltimore. For more information and to register, visit www.aisc.org/nascc.