



MAGNUSSON
KLEMENCIC
ASSOCIATES

March 28, 2022

FOR IMMEDIATE RELEASE

CONTACT: Laurel Goldammer, Marketing and Communications Manager
 lgoldammer@mka.com

 Todd Matthews, Content Editor
 tmattthews@mka.com

RAINIER SQUARE EARNS ACEC-WA ENGINEERING EXCELLENCE AWARD

BELLEVUE, WA — Magnusson Klemencic Associates (MKA) is pleased to announce the American Council of Engineering Companies of Washington (ACEC-WA) selected Rainier Square to receive a Gold Engineering Excellence Award, which recognizes the top engineering achievements in the state, demonstrating the highest degree of merit and ingenuity. Rainier Square was chosen as the winner in the Structural Systems category, and ACEC-WA presented the award during the organization's annual gala on March 25 in Bellevue. With this recognition, Rainier Square advances to qualify for the ACEC National Awards, the most prestigious awards in the industry, which honor the county's top engineering achievements for the year.

Completed in November 2020, Rainier Square rises 58 stories and 850 feet above downtown Seattle, offering 1.4-million square feet of office, apartment, and retail space. It also represents the first high-rise ever built with SpeedCore—a non-proprietary, first-of-its-kind structural system that uses modular, prefabricated core elements with assembly-line-like efficiency to erect high-rise towers faster, safer, and more economically.

For decades, a high-rise building's most common structural system has consisted of a central core made of reinforced concrete walls—to resist wind and earthquake forces—and surrounded by structural



MAGNUSSON
KLEMENCIC
ASSOCIATES

steel floor beams and exterior steel columns. SpeedCore completely reimagines this structural system by using prefabricated, steel-plate, cross-tied, “sandwich” wall panels that are erected, welded, and filled with concrete onsite and without rebar, allowing workers to build the entire structure at the rapid pace of steel construction.

At Rainier Square, SpeedCore cut 10 months off what would have been a 32-month schedule if constructed with a traditional structural system. Rainier Square was erected 43% faster than usual, with four floors completed weekly, resulting in a topping-out milestone just 10 months after the first steel arrived onsite. The attendant savings in general conditions, construction financing interest, and earlier rental revenue streams were significant. The prefabrication of SpeedCore’s modular panels meant less waste, fewer onsite workers, and fewer truck trips, all of which generated positive environmental benefits.

Rainier Square’s success has led other developers to incorporate SpeedCore into their high-rise projects. SpeedCore is being used to build 200 Park, a 19-story office tower in San José, California. Other applications are slated for Boston and Oakland, and New York City’s Department of Buildings has approved SpeedCore for new-building construction.

SpeedCore is backed by more than 16 years of MKA-initiated and -guided research and testing by the American Institute of Steel Construction (AISC), Charles Pankow Foundation, MKA Foundation, Purdue University, Steel Institute of New York, and the University at Buffalo. In addition to SpeedCore, the project’s design also includes two bi-directional, 35,700-gallon water tanks, which serve as dampers at the roof to reduce wind motion, and performance-based seismic and fire engineering. Adding to the complexity, Rainier Square features seven levels of below-grade parking that required a 100-foot-deep excavation extending 50 feet below the mat foundation of the neighboring, 40-story Rainier Tower. Rainier Tower was supported by an impressive temporary earth retention system that allowed it to remain fully occupied during Rainier Square’s excavation and construction despite both towers’ snug proximities.



MAGNUSSON
KLEMENCIC
ASSOCIATES

Overall, the project transformed the site of an outdated downtown shopping center into a vibrant mixed-use destination. It successfully incorporates a vertical stack of mixed uses, an adjacent 10-story office building, and a Grand Hall lobby space that seamlessly connects to the iconic Rainier Tower, designed by the late architect Minoru Yamasaki.

MAGNUSSON KLEMENCIC ASSOCIATES

Magnusson Klemencic Associates (MKA) is an award-winning, 185-person structural and civil engineering firm founded in 1920 and headquartered in Seattle, Washington. MKA has worked on projects in 48 states and 61 countries, serving clients worldwide. MKA's passion is creating structural systems for buildings of all shapes, sizes, and complexities, and civil site and infrastructure designs for architectural projects.

#####