NUCOR® SKYLINE

CASE STUDY

Trailside Parking Garage

Seattle, Washington

HISTORY

The University District, near the University of Washington in Seattle, has always had a problem with inadequate parking and housing. Most of the apartment buildings were built decades ago, when cars weren't as prolific, and therefore, don't provide onsite parking for their residents or guests.

PROBLEM

With the influx of students to the University of Washington, parking is at a premium, never mind adequate housing for the full-time residents of the district. Much of the university district sits on or very near Lake Washington, a large body of freshwater that surrounds most of the east side of Seattle. With the lake being so near, groundwater levels are very high, making underground parking solutions difficult.

SOLUTION

New development is popping up all over the district, and one new redevelopment project, Trailside, located at 24th Street, is taking the community to a new level. Perched right on the Burke-Gilman trail, a 27-mile multi-use recreational trail that is part of the King County Regional Trail System and occupies an abandoned Seattle, Lake Shore, and Eastern Railway corridor, this new development offers easy access to the trail, while keeping its splendor and beauty alive.

The Walsh group was awarded the contract and began the excavation for the one-story below-grade parking garage for residents and guests of the new 268-apartment living space. After months of teamwork to find the right products, work to meet aggressive construction schedule, and engineering support, Nucor Skyline was chosen as Walsh's project partner on the below-grade space.

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As unforeseen job site conditions were discovered, Nucor Skyline worked with Walsh on design changes and on-the-fly adjustments. Due to a very large, 56” diameter domestic water main adjacent to the new construction, the project team opted to use a Giken Silent Piler sheet pile press with the Giken Auger Crush attachment, to manage vibrations in the area. The press efficiently and safely installed the Nucor Skyline AZ 26-700 and AZ 38-700N steel sheet piles that were used for the below-grade parking.

The excavation area had to be dewatered, however, with the water main being so close, it was imperative that the soils around the main be recharged with up to 1,000 gallons of water to avoid movement of the pipeline. The AZ sheet pile has the Larssen interlock, the most watertight interlock manufactured today. These interlocks were seal welded in place to further reinforce the watertightness of the assembly.

PROJECT PARTNERS

Owners
Trailside SH Holdings, LLC. – Seattle, WA

Contractors
Walsh Group – Chicago, IL

Ramsey Excavating Co.
Minneapolis, Minnesota

PRODUCT

Sheet Piles: AZ 26-700 and AZ 38-700N (approx. 210 pair in different configurations)

PROJECT TIME FRAME

July 2019 through November 2019

Skyline Steel, LLC
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For technical questions and engineering support, please contact us via our technical hotline at: **1-866-875-9546** or email us at: **engineering@nucorskyline.com**.