



Building On An Island: Unico System the Choice for Custom Comfort

Wade Paquin has building in his blood. The president and CEO of WKP Construction, a custom homebuilding firm out of Newport, RI, Wade practically grew up with a hammer in his hand working as a framer for his master builder father's company. Wade is so successful that he is one of the resident experts who hosts his own series on the *Build Show Network*, an online video showcase for the very best in

modern homebuilding launched in 2019 by fellow master builder Matt Risinger.

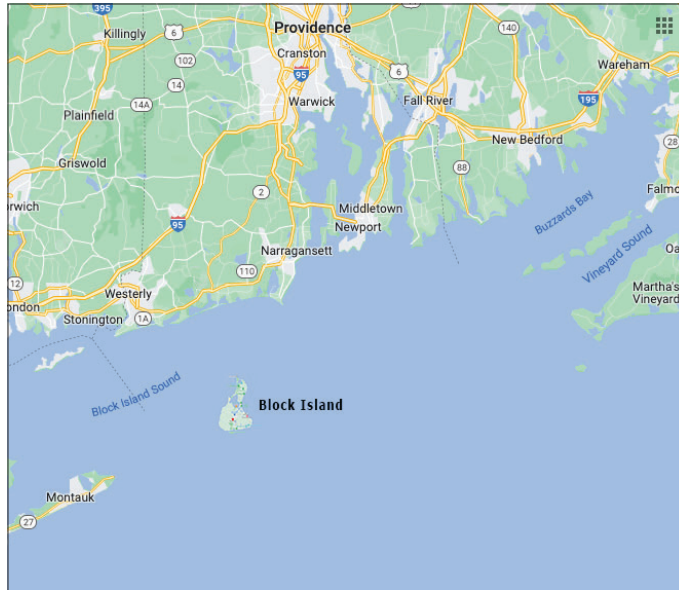
Wade's inaugural project with the network is the ambitious "Building On An Island" – an attempt to build a custom home twelve-miles off the coast of Rhode Island, battling weather, supply chain woes, the Covid pandemic and a whole host of other issues to bring this project in time and under budget.

The Unico System[®]

The Challenge

Block Island lies twelve miles off the coast of Rhode Island and is only accessible by light aircraft and ferry. With all materials and tradespeople needing to be transported via an hour-long ferry ride, building new structures on the island is a challenge in normal times. Throw in a global pandemic and unpredictable weather events and Wade and his team have their hands full in trying to get the client's home built in a reasonable timeframe without going wildly over estimated costs.

There were challenges when it came to choosing an HVAC system, too. The home's design demanded high ceilings throughout the structure, including the walkout basement, and a tray ceiling was designed for the second floor. These features meant there wasn't room left for traditional forced air



ductwork. Luckily, Wade and his crew were already familiar with The Unico System's ability to provide superior indoor comfort while seamlessly blending into a home's custom design and the client agreed with their recommendation.

The Solution

Wade tapped Evan

Trethewey, president of RST Thermal, Unico experts and manufacturer's representatives out of Boston, to help design the HVAC systems for the new home. Evan is no stranger to televised home improvement programs. His father and RST owner, Richard, has been the HVAC expert on *This Old House*, the grandfather of all restoration shows, for decades.

Evan and his team designed three Unico Systems with heat load calculations provided by Unico's System Design Services division. All units are equipped with a hot water coil



Low-profile Unico System ducting (half the size of conventional ducts) leaves plenty of headroom in the basement.



Two Unico air handlers, both equipped with a hot water coil for hydronic heating, are located in a small mechanical area in the basement.

to be one long 1/2-inch high slot that will be virtually invisible to the naked eye.

The Results

The Block Island custom home is slowly rising from the dunes and, as of summer 2022, the exterior is about 95% complete. We'll be checking back with Wade and the Build Show folks once the interior work is completed and all the HVAC systems are up and running. Until then, tune into "Building On An Island" to follow the project's progress.

for hydronic heating, two located in the basement to feed that area and the first floor, and one in a small attic above a portion of the second floor.

Round outlets will terminate in the basement ceiling and eventually be painted to blend in, while the round outlets on the first floor will be made of oak and stained to match the proposed finished flooring where they will be situated. For the second floor, the design team came up with an ingenious plan to conceal the outlets.

A tray ceiling has been framed in under the small attic area where the air handler units are situated. One side of this tray structure will be lined with Unico slotted outlets placed side-to-side. This side will later be finished by plasterers in such a way in that the side-to-side outlets will appear



Round, terminating outlets in the first floor are made of oak and will eventually be stained to match the finished flooring.

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Air handling equipment for the second floor is located in a small attic area above.



A detailed look at the Unico slotted outlet.

Evan demonstrates to Wade how Unico slotted outlets will be placed side-to-side, along the tray ceiling then finished to virtually disappear as one long ½-inch high slot opening.



Unico, Inc. manufacturing plant and sub-assembly plant

The Unico System®

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Unico, Inc. is the leader in Small-Duct High Velocity (SDHV) heating and cooling systems and other high-end HVAC systems. The company manufactures all of its products in St. Louis, Missouri, with over 125,000 square feet of modern manufacturing space. The company is well known for extensive use in older, architecturally unique homes and buildings as well as elite, high-end custom homes. The company is family owned and operated and is available throughout the United States and Canada, and in over 28 countries around the world.



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