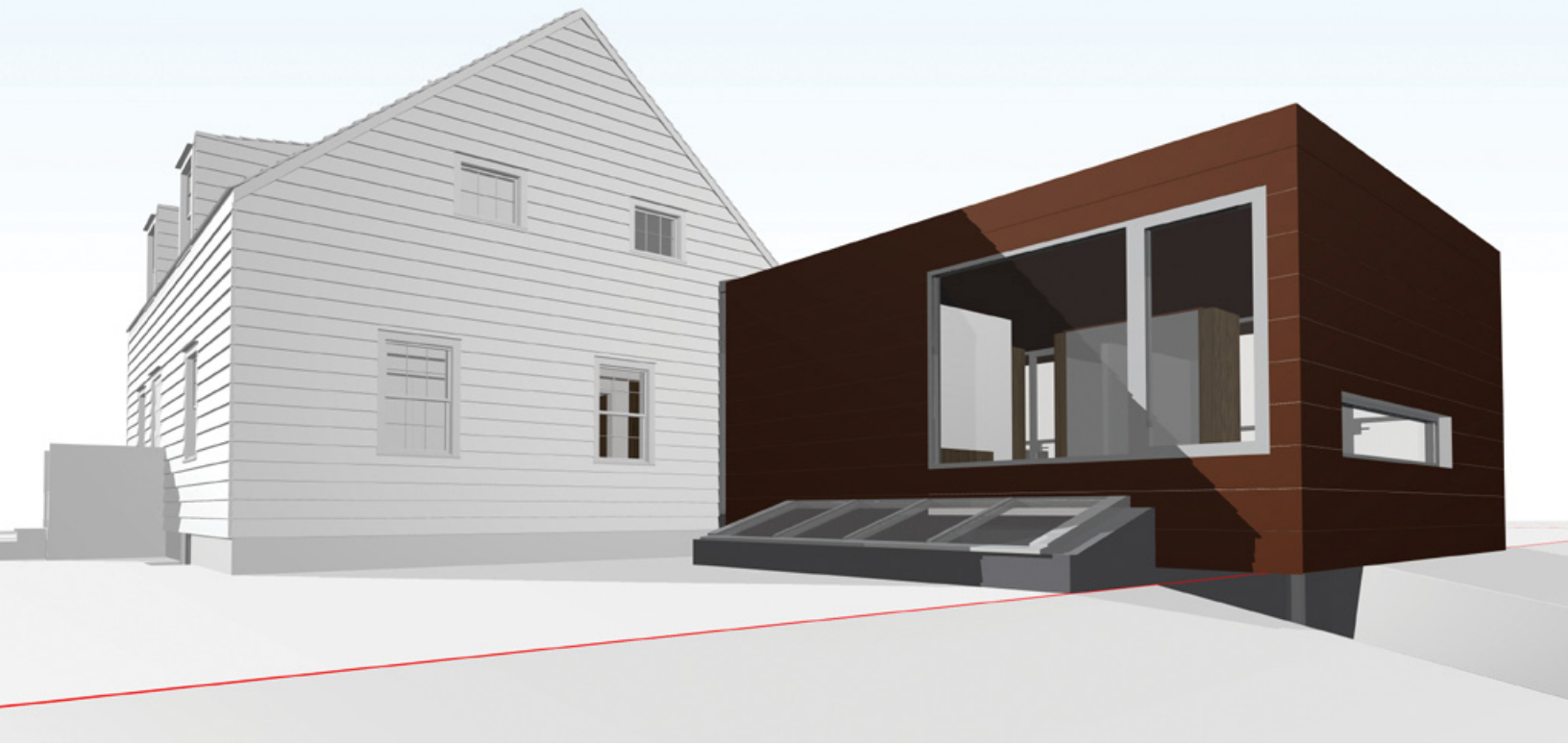


Messana O'Rorke Architects

Unite Past and Present using Vectorworks Architect





Vectorworks Architect helps Messina O'Rorke Architects bring a house with a history into the present vernacular, while respecting its 18th-century roots.

It seemed simple: develop a modern house within the existing frame of an 18th-century cottage and design an addition to provide more living space. The initial intent was to renovate the existing structure and design an extension that reflected the cottage's traditional lines. But, the design evolved organically from there, and the project proved to be more involved than the architects first thought, according to Brian Messina, principal, Messina O'Rorke Architects.

Vectorworks Architect® helped see the project through to the very end—from visualizing the different designs in 3D, to documenting construction in 2D (to ensure the renovated structure was put back in its proper place), to designing custom cabinetry and landscaping.



Ten Broeck Cottage

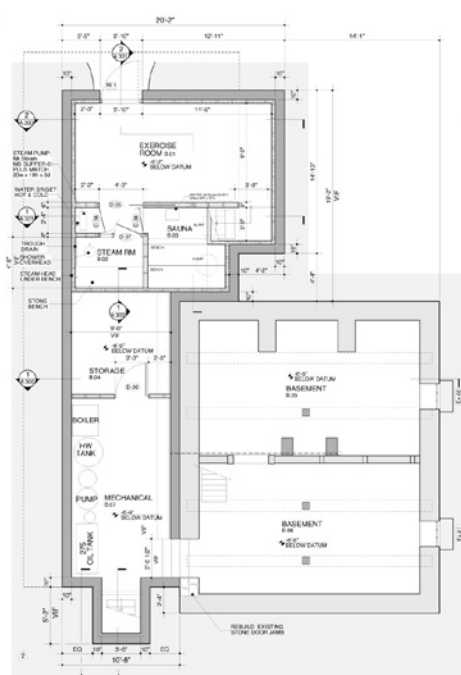
The original structure was an anchor-bent, timber-frame house dating back to 1734—and one of the oldest in Columbia County, New York. Called Ten Broeck Cottage, it was the first residence of the Ten Broeck family, who became one of the largest land owners in the county. Built with massive hand-hewn timbers, the house's basic form echoes those of the Dutch settlers throughout the 17th and 18th centuries. The timbers, some wide-board white pine flooring, and a wattle and daub wall in the field-stone basement were all that remained of the original house.

The cottage was originally clad in cedar siding and shingles. But the existing siding was in serious disrepair, and the roof was covered in tin. So, the architects decided on new wide-board cedar siding and shingles and six-over-six sash windows modeled after the oldest surviving window to echo the original cottage's 18th century origins. The addition is clad in COR-TEN® steel, which will rust to complement the original cottage's cedar siding, and is separated from the house by a continuous glass gasket.

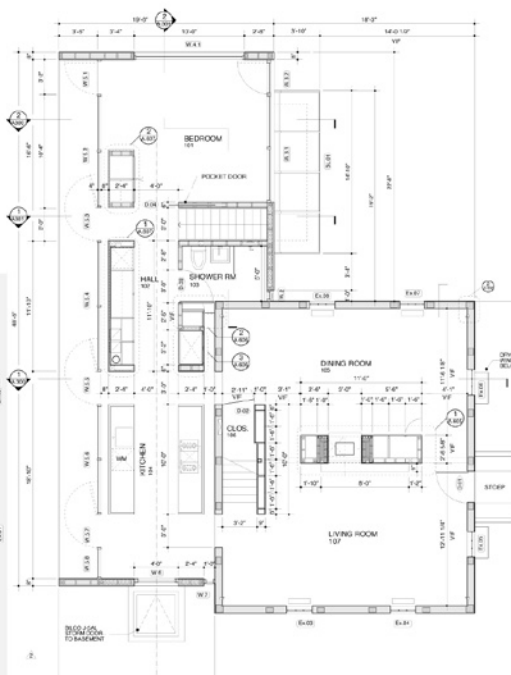
Something Old and Something New

While Messina O'Rorke wanted to respect the cottage's roots, the New York firm also wanted to reflect the cottage's rural environment, replete with a nearby river, rusted objects, and mobile homes. The firm found the simple, rectilinear form of the mobile homes populating the countryside compelling and thought it a perfect complement to the cottage's classic form.

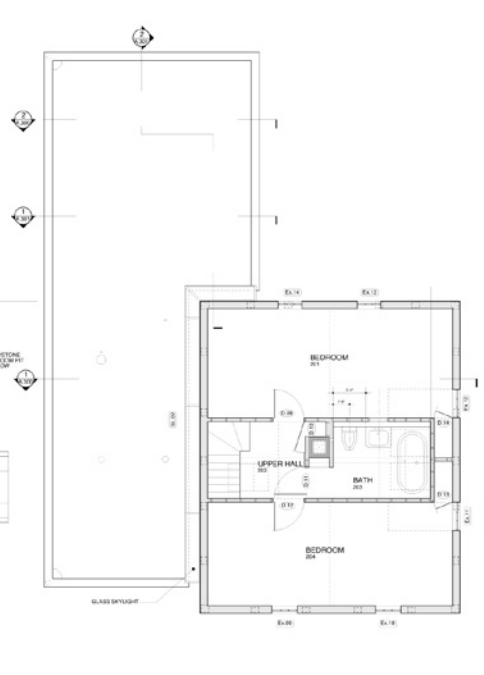
"Our initial design explorations were more in line with the existing structure, but then, after considering the house's context, we realized we were more interested in recreating history, in the juxtaposition of something old and new," explains Messina. "Then the challenge became how to successfully add a modern addition to a classic structure so that it didn't dwarf the original or look out of place. The connection between the two was extremely critical—how can we unite them seamlessly, yet keep them separate, both from a structural standpoint and for aesthetic appeal. Thanks to Vectorworks, we were able to explore all of these issues, literally from every angle."



1 Basement Plan



2 Ground Floor Plan

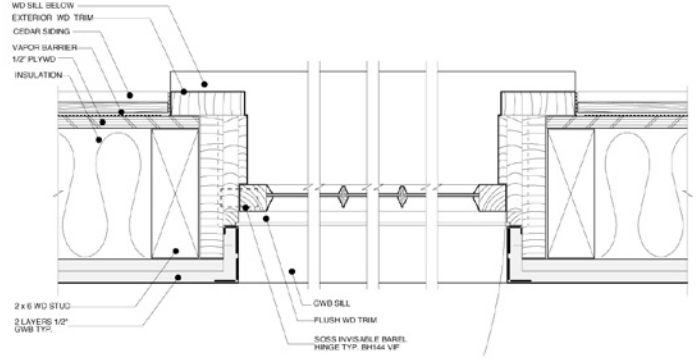


3 Second Floor Plan

Vectorworks: the Perfect Partner

According to Messina, the design changed directions several times, and using Vectorworks kept the process moving along smoothly. In fact, Vectorworks has always been a valuable partner for the firm.

"Vectorworks enabled us to quickly and methodically evolve the design from beginning to end and to easily keep track of all of those evolutions," says Messina. "We're able to make countless iterations until we find the best, most intelligent resolution to an idea or problem. For us, Vectorworks makes every project very fluid. It saves us an enormous amount of time throughout our entire production process, tremendously reducing man hours. Vectorworks has given us the ability to produce projects quickly, efficiently, and accurately for 12 years—we wouldn't have been as successful without Vectorworks."



Visualizing in 3D

Vectorworks' best-in-class 3D capabilities allowed the architects to see how they were going to make the project work.

"We modeled the entire project quite extensively in 3D, from start to finish," explains Messina. "Using Vectorworks' 3D capabilities helped us to visualize our ideas down to every last detail. We were able to explore the relationship between old and new, the massing, and how we were going to transition the two buildings. And, the only way we could effectively and accurately do that was in 3D."

The architects wanted the buildings to be independent, intending the buildings not to touch. "The critical point is where there's a 12-inch gap between the old building and the new addition—horizontally it's a skylight and vertically, it's a window," he continues. "By using a 3D model, we could visualize exactly how it was going to work."

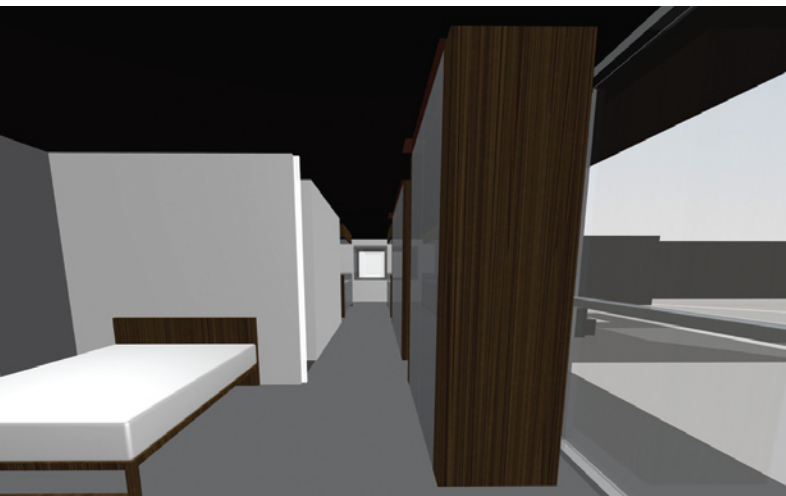
Renovating a Relic

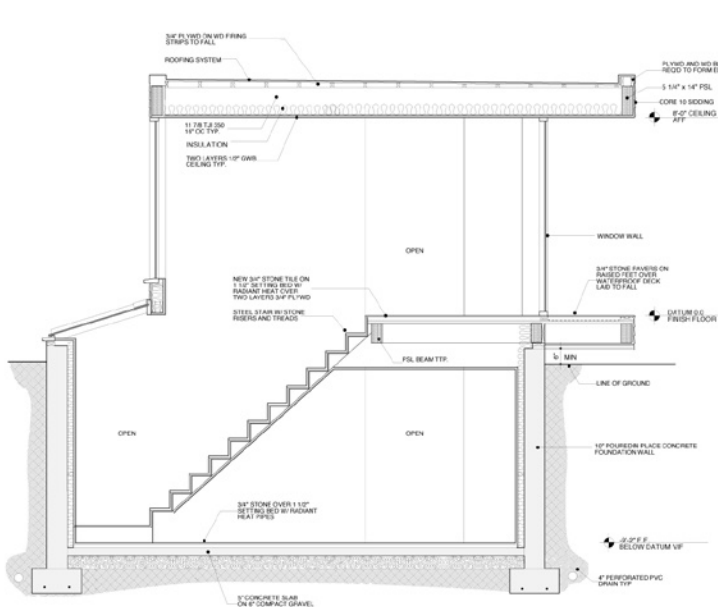
When it came time to begin construction, documenting every detail in Vectorworks ensured that the cottage was reassembled correctly.

This was a very complicated project to renovate, according to Messina. The architects wanted to preserve as much of the original structure as possible, but the house was sagging and leaning. So they stripped everything down to post and beams, lifted the house off the ground, and rebuilt the dry stone foundation. Most of the posts were rotten at the base and had to be refilled. Keeping the original structural skeleton, the architects braced it a bit and propped it until it could be underpinned to the new foundation.

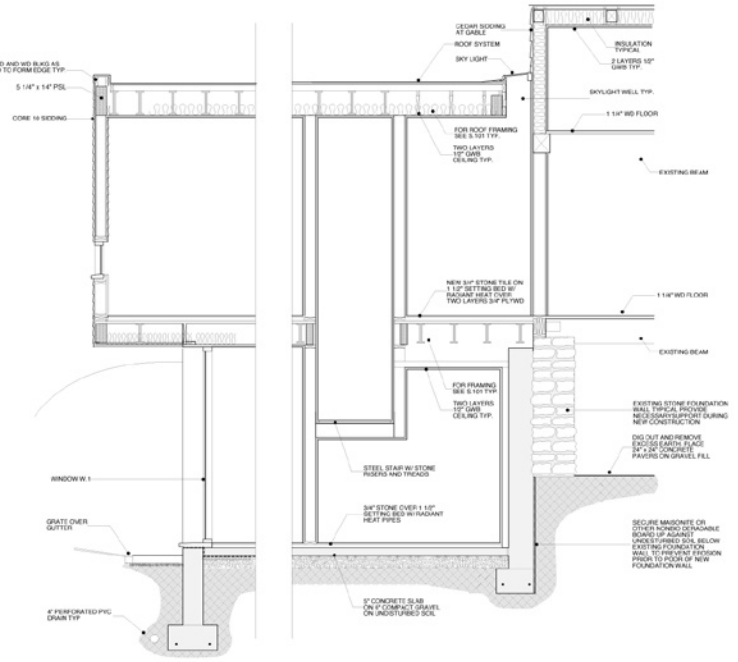
"The biggest challenge for us on this project was putting back the existing structure to ensure it was structurally sound," Messina says. "Again, we documented everything in Vectorworks—plans, elevations, sections—so we could see exactly how to put everything back together again."

The firm also relied on the documents to ensure the new addition abutted the old cottage precisely.





1 Section 3



2 Section 4

The Ultimate Design Tool

Messana O'Rorke finds Vectorworks to be a versatile solution for all of the firm's design disciplines. "There's nothing in this house that Vectorworks hasn't designed, including the house's interiors, custom cabinets, and landscaping," says Messina.

The architects designed the dining room table out of a slab of wood from a tree that had died on the property, placed it on saw horses from Home Depot, and paired it with chairs by Hans Wegner.

Whether Messina O'Rorke is designing a high-end \$100,000 bathroom in a New York City high rise or a rough-hewn table for a 300-hundred-year-old cottage, Vectorworks gives the firm the upper hand.

"Everything we design is custom, and we use Vectorworks seamlessly in the same manner for projects of all types and scale," Messina concludes. "Vectorworks gives us the versatility to do it all."

Finding Flexibility and Ease of Use

As a design-oriented firm, Messina O'Rorke uses Vectorworks to put a personal stamp on all work produced.

"Vectorworks gives us an enormous amount of flexibility to use it in a very personal way, so that the final output can be very individualized and artistic," says Messina. "We use it just as we would a pencil or pen for everything we do—for drawing up existing documents, making floor plans, doing interior elevations, designing a custom table, or creating a landscape plan. For us, Vectorworks is a drawing tool. People always know our drawing sets."

Perhaps the best thing about Vectorworks for the firm is how easy it is to use.

"Vectorworks is intuitive," he states. "It's just that simple. When new employees come into our office, we can train them in a few hours. I hear horror stories from people who use AutoCAD®; Vectorworks is so much more user friendly. For us, there's no other option."