

AZEK TRIM, AZEK SHEET
AZEK-TO-MILL

AZEK[®]
EXTERIORS

CASE STUDY

CALVARY EPISCOPAL CHURCH
TOWER RENOVATION



Builder
Nally Restoration

Consulting Architect
Nolan Engineering, PLLC

Project Location
Burnt Hills, NY

IN 1849 ON CHRISTMAS EVE, THE FIRST WORSHIP SERVICE WAS HELD IN CALVARY EPISCOPAL CHURCH'S WOOD FRAME STRUCTURE.

After nearly 170 years of upstate New York weather, time had taken its toll on the building. While proud of its designation on the National Register of Historic Places, the board was concerned about deterioration of the landmark bell tower. It was severely leaking into the building and there were concerns of collapse of both the tower and its 1000-pound bell.

Enter Jim Nally, owner of Nally Restoration. Not only was he a resident of Burnt Hills, he was coming off a successful steeple renovation in the nearby city of Schenectady. Calvary Episcopal saw his work and listened to his proposal for saving their bell tower. They liked what they heard but paused on one point—Jim was proposing covering the exterior of the structure not in wood but in PVC polymer sheet and trim from AZEK.

Though initially skeptical, Jim changed their minds. He sold with samples: showing the beauty of the material and demonstrating the strength of an AZEK adhesive joint. The strongest men on the board couldn't separate the two glued trim pieces. Once the board saw and felt the strength and beauty of the material, they agreed to its use. The clincher may have been when they understood that this renovation could easily last 50 years with minimal maintenance and no water damage. Considering the height of a steeple, that meant a huge labor and materials savings. "Once I gave them the knowledge of what and how I was using the AZEK material, it really went over quite well," explained Nally.





Then, in a twist worthy of a Hollywood movie, Father Gabriel Morrow, the pastor of the church, found some images showing the appearance of the tower from the early 20th century. The familiar square tower was topped with four magnificent spires and finials, one at each corner. No one living today had seen the tower in this configuration. The repair and renovate project had become a true restoration with AZEK materials front-and-center.



EARLY 1900 STEREOSCOPIC PHOTO OF THE CALVARY CHURCH

“I love construction...I love restoring old things. This new product... this AZEK material brings history a little bit farther ahead. It shows the character of what was built in the mid-1800s.”

Jim Nally, Nally Restoration

Jim Nally’s experience with AZEK Exteriors products started small, with trim and window casings on some of his residential work. The more he used it, the more he and his carpenters liked working with AZEK polymer products. They appreciated the consistency in dimensions and the absence of knots, cupping, and splintering. An added bonus was the material’s relative light weight, reducing jobsite breakage and making it easy to get the materials where they need to go.

As their experience with the material grew, so did their willingness to experiment with wood joinery and fastening techniques to their jobs. For example, Jim and his team use biscuit joinery to make tight seams that won’t open up due to water absorption. For trim work, they use Kreg jigs to create fastener pockets. Unlike some materials like fiber cement, special tools and PPE are not required.



Nally’s carpenters use the same or slightly less labor with AZEK materials compared to wood. “It’s easier to work with than wood. It’s a bit more expensive, but when you factor in the lifespan of the material, it’s a no-brainer to choose AZEK.” Because the polymer material is impervious to moisture, it does not suffer with typical moisture-related issues that wood faces: rotting, swelling, cracking, and the ongoing need for paint for protection. This is the key to the product’s—and the project’s—expected longevity.



PICTURED ABOVE

Early in the project, Jim’s team carefully removed the over-hundred-year-old carved wood detailing for reproduction. The wood sheathing was in rough shape, having survived over a century of Northeast winters and summers. For the spires, designs for the new detail work were created from the pictures found in the church archives. The structure was covered with a modern sheathing system in preparation for the panels of AZEK sheet and trim.





The decorative elements were recreated with AZEK materials. The AZEK-to-Mill (ATM) product is designed for machining—routing and turning—to create panels and other details. To recreate the decorative finials, sheets of material were bonded together to create solid blocks of PVC, which could then be put on a lathe and formed as if they were a piece of wood. “There’s no gaps, no seaming at all. And this stuff turns wonderful.” Smaller pieces of decorative work were individually cut, heat bent, and glued to the substrate. “It’s pretty cool. It makes you look up.”

The project won industry awards for materials use, accolades from the local press, and captured the hearts of the members of Calvary Episcopal Church. On the heels of the success of the tower project, the church is considering the next phases of their building restoration: the siding, eaves, and trim on the building itself—also with Nally Restoration and again using AZEK Exteriors products. Jim summed up the feelings of most people involved with the project: “This church...is going to have a good, long life. I know I won’t be around, but I’d love to see it 50 years from now.”



BUILDER: NALLY RESTORATION

Nally Restoration of Burnt Hills, NY, started with Jim Nally in the residential construction, repair, and remodel business some 35 years ago.

His partner has been with him 32 of those years and the company keeps a staff of about eight to ten people busy. While residential renovation and new construction are their bread and butter, Jim’s favorite types of jobs—the “ice cream” jobs—are when he gets to preserve an old structure and bring it into the 21st century. “I just love old things. I love to see old become new and have a life again.”



SUSTAINABILITY FOR TODAY... AND TOMORROW

The builders and parishioners at Calvary Episcopal look at their tower restoration as a gift to future generations. In essence, this is what is at the heart of sustainability.

Organizations like Calvary Episcopal have an appreciation for the here and now but naturally have a long-term point of view. The sustainability of AZEK trim, siding, and sheet is a great complement to their outlook and needs. The significant recycled content of AZEK products and programs that increase recycling at job sites help Calvary with their mission to be good stewards of the earth today. The expected longevity of the project work means lower lifetime costs and less use of paints, materials, and labor in the future, helping them be good stewards of both financial and environmental resources.



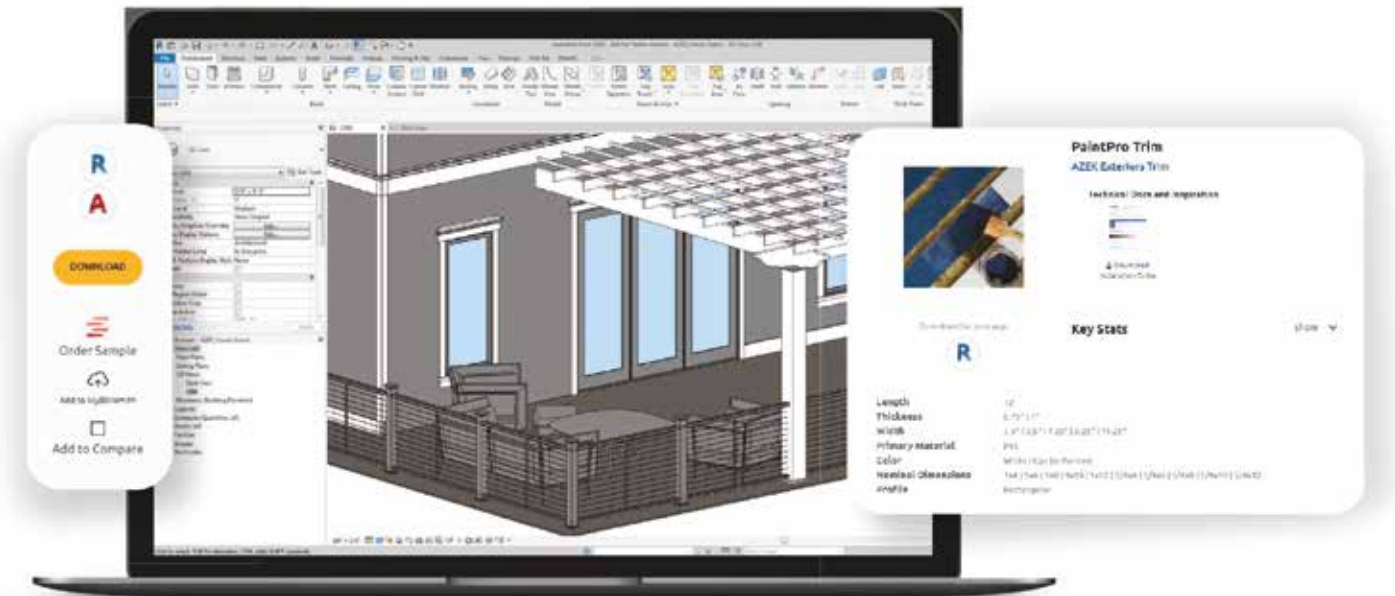
LEARN ABOUT OUR SUSTAINABILITY EFFORTS AND PROGRAM

JOIN US IN CREATING A MORE SUSTAINABLE FUTURE

For years, AZEK has been a leader in recycling and using hard-to-recycle materials in our products. In 2021, over 500 million pounds of waste has been diverted from landfills and oceans to become part of our products. By 2026, our goal is to recycle over a billion pounds of plastics. Today, AZEK is the largest vertically integrated recycler of PVC in the country.



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AZEK INSTALLS LIKE WOOD BUT LASTS BEAUTIFULLY

MOISTURE-RESISTANT

AZEK boards are 100% protected, inside and out, from both water exposure and absorption.

UNPRECEDENTED DURABILITY

Our flexible and durable engineered polymer prevents jobsite breakage and delivers long-lasting protection for homeowners.

ROT-RESISTANT

Say goodbye to splitting, splintering, and rotting caused by constant exposure to the elements.



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FREE SAMPLE



Stands up to the elements; maintains a beautiful finish even through harsh weather



Moisture-resistant; will not rot, split, splinter, warp, or swell from excessive moisture



Insect-resistant; unappetizing to destructive pests



Durable, lasting beauty with less long-term maintenance



Lightweight makes the transport on the job much easier

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