

# CASE STUDY

## Path To Net Zero



### PROJECT OVERVIEW

#### PROJECT

Residential Homes

#### BUILDER

New Tradition Homes

#### LOCATION

Washington

#### RESULTS

Decreased ACH from 2.6 to 0.6 within 90 minutes. This reduction in energy demand means very little solar is required to reach zero energy.

## In A Move to Zero Energy, New Tradition Homes is Testing Product Innovation

For 30 years, New Tradition Homes has led the Washington home building market, constructing over 5000 single-family homes. They are recognized as a top builder in the state based on volume, and are known nationally as a leader in building energy efficient homes.

Some builders claim to build energy efficient homes, but very few build to the level of New Tradition. All New Tradition homes are certified ENERGY STAR and Built Green Washington 3-star –the only high-volume builder in the state to do so. This commitment to excellence is reflected in company values, which emphasize quality, durability, health, and innovation.

### An Industry Leader

In 2005, New Tradition made a commitment to meet or exceed the most stringent standards for energy efficiency. At that time, the builder also committed to focus on



Average, or code minimum, is not an option for us. We are constantly striving for improvement which includes a lower HERS Index. If budget was not an issue, there are a lot of options. But, when considering a new product or new construction strategy, we are challenged with making it standard on every home while remaining market competitive.

**Kelly Helms** – Chief Executive Officer  
New Tradition Homes

**AEROBARRIER®**  
Air Sealing Technology from AeroSeal

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indoor air quality, innovation, and continued improvement. Building to high standards is reflected in the company slogan, 'We Build Homes for Life!'

Steve Tapio, Building Science Team Leader, has worked for New Tradition since 2003. Tapio says, "We are proud of our awards, but the most important driver for our company is our home buyer – we deliver a home that we would proudly build for our mom. Every home we build must pass the 'mom test'."

The 'mom test' translates into a home that is high quality and durable, costs less to live in, is comfortable, and has healthy indoor air quality. These attributes are directly attributed to building strategies that improve energy efficiency, including mechanical design, duct tightness, and particulate control.

### Advanced Envelope Sealing

On a mission to build the best home, Tapio and Helms continuously research new building products and construction strategies, and discovered AeroBarrier. New Tradition wanted to put AeroBarrier to the test – and the timing was perfect. New Tradition was in the process of building a home for Ron Nardozza. Nardozza is New Tradition's third-party energy rater and verifier and the founder and President of Four Walls.

Excited to make his personal home as energy efficient as possible, Nardozza saw AeroBarrier as key to reducing envelope leakage and energy demand. Nardozza said, "Within 90 minutes, the ACH went from 2.6 to .6. It was quite remarkable. The application was easy to setup, and the results were immediate. With a .6 ACH, heating and cooling my home just got easier – and cheaper." Nardozza says the reduced energy demand will mean the 3600 square foot home will require very little solar to achieve zero energy. With the success of Nardozza's home, New Tradition began using AeroBarrier across multiple projects.

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**Ron Nardozza** – Founder & President  
Four Walls Energy Experts

### The Energy Efficiency Scorecard

The typical New Tradition home scores a 54 HERS Index. (ENERGY STAR requires a HERS Index of 65). Meanwhile, the average, code-built home in Washington state scores a 72 HERS Index. The energy requirement for Built Green Washington requires 10% better than code.

Kelly Helms, New Tradition's CEO, says, "Average, or code minimum, is not an option for us. We are constantly striving for improvement which includes a lower HERS Index. If budget was not an issue, there are a lot of options. But, when considering a new product or new construction strategy, we are challenged with making it standard on every home while remaining market competitive."