STAFFORD
HOMES & LAND INC

STAFFORD HOMES VS INDUSTRY | PERFORMANCE COMPARISON

Stafford Homes are built beyond what code requires...period.
Starting with the home plan, we start thinking about quality, performance, sustainability, and comfort. Our standard homes are quite like what other builders offer; but our upgraded features go way beyond they have to offer. Our homes leak less air while bringing in more healthy air than others. They function efficiently, operating year after year to save the homeowner money by consuming less natural gas and electricity. The EPS (Energy Performance Score) for each home calculates out to a very low monthly expense. Third party energy audits verify and prove that we are one of the best at surpassing the standard. Please connect with our local Sales Broker and ask about a taking a private tour to show each feature and how it benefits the environment. You will learn how it performs better, and how it is more comfortable and healthy for your family.
We build smarter homes.

STAFFORD HOMES UPGRADED FEATURES:

CODE-BUILT HOME:

Energy Performance Score (EPS) between 69 and 48
Much like a miles per gallon (MPG) rating for a car, our homes have a score for how they perform. How they consume electricity, use natural gas, and even how they leave a carbon footprint emitting emissions into the air. The lower the score, the better the home performs and the lower the monthly utility costs will be. The savings are incredible. The homes are more comfortable, the lifestyle is responsible, and the results are truly measurable.
http://energy-performance-score.com/about

2200sf code built rated average 88 EPS

Path 3 Energy Features- As described by the Energy Trust of Oregon (ETO)
We try to include as many upgraded features in our homes as possible. We have chosen 'Path 3' measures in an effort to make sure our homes are built far better than code. Please click the link to see what it takes to meet this industry high mark.
https://energytrust.org/pathtonetzero/

2011 Oregon Code Guidelines

Energy Performance Ratings - Verified by 3rd party
We employ third-party companies like Earth Advantage and Energy Trust to inspect our homes with an exacting check list. This will prove that we are building to a level well beyond the industry based 'code-built' requirements. Each home goes through rigorous inspections throughout the construction process.
Find out more: http://www.earthadvantage.com/

No verification required on how the home is built

Windows With an Efficiency Rating of 0.3 or Lower
Stafford Homes benefits from 15% less heat loss than 'code-built'. Windows are rated by U Values — the lower the U rating the better the window performs. U-Factor is generally a number between 0.2 and 1.20, indicating the heat loss or gain through a window. A lower number produces a window with a higher level of comfort, value, and saves on energy usage. Read the Oregon Code for windows: https://www.efficientwindows.org/standards.php

Oregon is Climate Zone 5
Window code is 0.35

High-Efficiency Water Heaters
Most of our homes come with a high-efficiency 50 gallon gas water heater with a rating of .97% - .99% EF (energy factor). Many of our homes come with a condensing tank-less water heater, or also named on demand water heaters, boasting one of the highest ratings in the industry. This is achieved by a combination of more efficient burners and the lack of stand-by losses that occur in tank-type water heaters. In our electricity-only home construction we install high-efficiency heat-pump water heaters, typically rated at 2.5-3.5 EF.
This matters. Water heaters are responsible for up to 17% of a home's used energy. Naturally, we wanted to start with higher impact features to save our home buyers money over the decades to come.
Find out more: https://www.rheem.com/innovations/innovation_residential/hybridsavings/

50 Gallon Tank gas water heater
.59 Efficient is code

Rheem EcoNet enabled water heaters
Use the smart phone app with the Rheem EcoNet Home Comfort WiFi Module for installed Rheem Performance Platinum Electric Water Heaters (varies by community).

Not required

Sealed Heat and Cooling Ductwork
Mastic sealed and tested ductwork is a measure to keep ducts from leaking heating and cooling into any spaces around them. It is a painstaking measure that separates our company from others. When ductwork is not sealed it can lose up to 30% of the heating and cooling created for the home. By doing this, we reduce the loss to less than 6% and will help keep contaminants coming in.

Not required

Furnace and Ductwork Inside Conditioned Space
Placing the duct work within the thermal envelope eliminates heat and cooling loss to attics and crawl spaces. It also prevents many of the indoor air problems associated with running ducts in the crawl space and garage. This is done in typical code-built homes, resulting in a healthier home that is much more energy efficient. Furnaces installed in garages bring fumes and toxins into the home.

Protected Ductwork Vents and Furnace Equipment During construction, much debris falls into ductwork and is left in the home well after move in. In our homes we protect the ductwork from the debris and we use outside heat sources to construct the home rather than a permeant furnace. The construction debris from sawdust, drywall dust, paint particles, carpet fibers and other air pollutants all contribute to the wear and tear of the furnace. In the final phase of construction, we even clean the vents before finishing the home.	Not protected
Kiln Dried Lumber Coupled with Certified Moisture Testing We choose to install Kiln Dried Lumber that contains much less moisture. We test the moisture in the lumber after the home is framed we assure the home contains no more than 12-14% moisture before covering with drywall. This reduces the shrinking behind the walls and floors that occurs and saves on damage to the home. Our homes are also third party tested, and we obtain a moisture certificate before covering our walls. Our crawl spaces are dried to less than 16%. Reports show mold cannot grow at 16% and below.	Not required. Code is 19%
Intermediate and Advanced Framing Techniques When designing the home, we make sure our homes create less wasted lumber, while making sure our exterior walls have less transmission of energy in or out through the lumber. Most of our headers are insulated and moving most junctions where lumber can transmit energy and replacing with insulation helps keep the home more efficient and aids in the prevention of air leakage.	No inspection or requirement for lumber waste or heat loss and gain. Headers are not required to be insulated.
Balanced Ventilation System When sealing a home for less leakage it is necessary to balance air intake and exhaust that is flushed from the home. Our homes have fan systems integrated into them that exhaust stale, moisture laden indoor unhealthy air. We use a combination of exhaust and ventilation strategies including quiet fans that move the stale air across the home and pushes it out, while pulling in new fresh air for a more healthy living condition.	Code grade fans used with no balancing
Building House Wrap DuPont™ Tyvek® DrainWrap™ is a moisture barrier designed to provide enhanced drainage in areas subject to extreme, wind driven rain. It combines the superior air and water resistance, vapor permeability and strength of Tyvek®, with a vertically grooved surface to help channel water safely to the outside. http://www.dupont.com/products-and-services/construction-materials/building-envelope-systems/brands/water-barrier-systems/products/tyvek-drainwrap-moisture-barrier.html	

Superior Insulation Measures added for Home Comfort

Most of our homes have additional insulation in the attic and walls. The window framing headers and any part of the home that touches the exterior with wood have what are called "thermal bridges." We insulate and create breaks in the thermal bridges of a home, which can be heavy lumber, concrete and any other piece of the structure than energy can transmit through in or out. The upgraded features of insulation in our homes helps us make sure our homes are more comfortable, more quiet, healthier, and more energy efficient than a code built home.

https://www.energystar.gov/newhomes/explore_features_benefits/thermal_enclosure

- Attic Insulation- R-60, which keeps heat from escaping through the roof and covers duct runs to rooms.
- Wall Insulation- R-23 - BIBS (blown in blankets) making less room for leakage and our homes are so quiet.
- Floor Insulation- R-30

Home Air Sealing Measures- 2.0- 3.0 ACH or less

Sealing a home to prevent air leakage in or out of the building envelope is one of the most important measures to make a home more comfortable. Air Changes Per Hour (ACH) is a measurement used to signify a properly sealed home with fewer air leaks. Our homes are designed and sealed to meet ACH of 3.0 or less. We spend more effort sealing areas of a home that are more prone to leaking, which can be in the roof, windows, walls and any penetration in the exterior envelope like Air Conditioning lines, drains, vents. Sealing efforts coming from caulking top and bottom plates of framing, between framing lumber at exterior wall connections and spray foam inside of the joist systems and at any gap or hole in the shell.https://www.energystar.gov/newhomes/explore_features_benefits/thermal_enclosure

Recycling Jobsite Waste

Almost all of our metal, drywall, plastic, shrink wrap and a great portion of the rest of construction debris is recycled rather than sent to landfills. This results in over 85% of the home's waste being recycled and not in landfills or it is separated at the landfill and recycled.

Bare minimum required by code

R-49 batts and blown in minimum code

R-21 insulation is minimum code

R-30 floors

6.0 is minimum is low bar for leakage

100% CFL OR LED High Efficiency Lighting
Our homes come with 100% CFL or LED efficient light bulbs. CFL's produce light differently than incandescent bulbs. In an incandescent bulb, electric current is driven through a tube containing Argon and a small amount of Mercury vapor. This generates invisible ultraviolet light that excites a fluorescent coating (called phosphor) on the side of the tube, which then emits visible light. CFL's need a little more energy when turned on, but once the electricity starts moving, CFL's use about 70% less energy than normal incandescent bulbs. For more information click the link: https://www.energystar.gov/index.cfm?c=cfls.pr_cfls_about

100% of the home must use efficient lighting

Sealed Gas Fireplaces w/ Electric Ignition
There is no continuous burning pilot light so our homes produce less carbon monoxide with electronic ignition, promoting a healthy indoor air quality.

Not required

Low Volatile Organic Compound (VOC) Latex Indoor and Outdoor paint
Low VOC paint reduces the amount of harmful chemicals in a home during and even after construction. Our homes use Sherwin Williams circle. Certified indoor paint which are certified by a third-party organization to meet requirements for product and company responsibility.

Not required

Low VOC Adhesives and Caulking
The use of these types of products maintain indoor air quality by reducing off gas of VOC-Volitile organic compounds in the home.

Open Web floor truss system - In our LEED Certified Homes
We use the open web floor truss system in many of our plans to allow ductwork to be tucked away We use the open web floor truss system in many of our plans to allow ductwork to be tucked away inside the homes conditioned space. This reduces the energy that escapes when ductwork is ran through attics and floors and results in a more comfortable and energy efficient home.

Ductwork ran in attic and floors wastes energy and allows for heat and cooling loss

Window and Door Flashing
We take steps and measures during construction at vulnerable points of the home where water damage can occur. Windows and doors must be flashed and installed properly for a true exterior barrier to occur against the weather. Our windows are installed by a professional window installer certified and insured to only install windows the correct way.

Windows often installed by a framer or a siding contractor, not window installation company who is insured and only installs windows. Bare minimum use leaves more carpets.

Generous use of Laminate Wood Flooring Throughout Main Living Areas
Hard surface flooring cuts down on areas in the home where dust can collect and settle. We use more solid surfaces in the spirit of making healthy homes. Our wood flooring is made from recycled wood, short growth forests, and lumber cutoffs from normal milling efforts. These efforts dramatically reduce demand on forest timber.

Not required

Green Label Plus Certified Carpet
Our Carpets pass rigorous testing to obtain the Green Label Plus designation. The Green Label Plus designation signifies the carpet has passed Air Quality Carpet Testing (IAQ) and has low emission criteria to maintain. See the link for more info:
http://www.carpet-rug.org/Documents/Factsheets/GLP-Fact-Sheet.pdf

1.6 gl is above code

Water Conservation Measures and Low Flow fixtures
Plumbing fixtures and appliances in the home have been chosen to perform better while consuming less water. They use aerators to mix air with the flowing water. The perceived flow is comparable to code built fixtures, but can save up to 500 combined gallons of water per year, which reduces energy bills and helps the environment.

Standard construction generates 5 lbs of waste per sf of structure, which typically ends up in local landfills A normal 2000sf home generates 10,000 lbs of waste

Merv Air Filtering and Handling
Particles in the air can cause the air in your home to be very unhealthy. See the chart linked below about how the Merv rating works. Our homes come standard with Merv 13 filters or higher which is a higher grade filter just below hospital laboratory air filtration. Merv ratings range from 1-16 and are 35% to 50% more efficient at filtering particulates, pollen, dust, and mold before they are introduced into the home. Merv 13 is one of the highest filtration filters and is rated clean for Hospital Air. http://www.mechreps.com/PDF/Merv_Rating_Chart.pdf

Merv 2 is considered a standard residental filter, but there is no test

96% High Efficiency Gas Furnace
Our homes have a minimum efficiency of 96% AFUE (Annual Fuel Utilization Efficiency). When shopping new homes, it is best to make sure the ductwork is not only insulated, but sealed and tested for leakage. This key factor is crucial in keeping the heating and cooling inside the rooms and ductwork, and not in a crawl space or attic.
https://www.energystar.gov/newhomes/explore_features_benefits/heating_cooling

92% AFUE Gas Furnace

Solar and Net Zero Plumbed and Wired
Most of our homes are solar ready. Plumbing and electricity is already ran ahead of time anticipating the use of solar panels to product energy and allow the home to be off the main power grid.

Energy Star Circle rated Dishwasher and High Performance Appliances
Our dishwashers are rated and use 25% less energy which saves about 1000 gallons of water each year when compared to a conventional type.

Not rated

James Hardie- Fiber Cement Siding
Fiber Cement is made from recycled materials and creates a very sustainable alternative that performs better and lasts longer than lumber products. This material is extremely durable and comes with a 25-30 year warranty. This siding also reduces the impacts on forests and the products made from them. It can be produced in specific lengths to match the parts of the home, thus reducing waste further.
http://www.jameshardie.com/pdf/warranty/hz5-trim.pdf

White wood decays at a much faster rate