WHAT ARE SIP PANELS?

Structural insulated panels (SIPs) are a high-performance building system for construction. The panels consist of an insulating foam core sandwiched between two structural facings, we use plywood. SIPs are manufactured under factory controlled conditions and can be fabricated to fit nearly any building design. The result is a building system that is extremely strong, energy-efficient and cost-effective.

FEWER TRADESMEN

SIP panels are manufactured with the electrical chases already drilled when they are received on-site. The insulation is already there and the exterior is ready for cladding. This all means that fewer tradesmen are needed for construction.

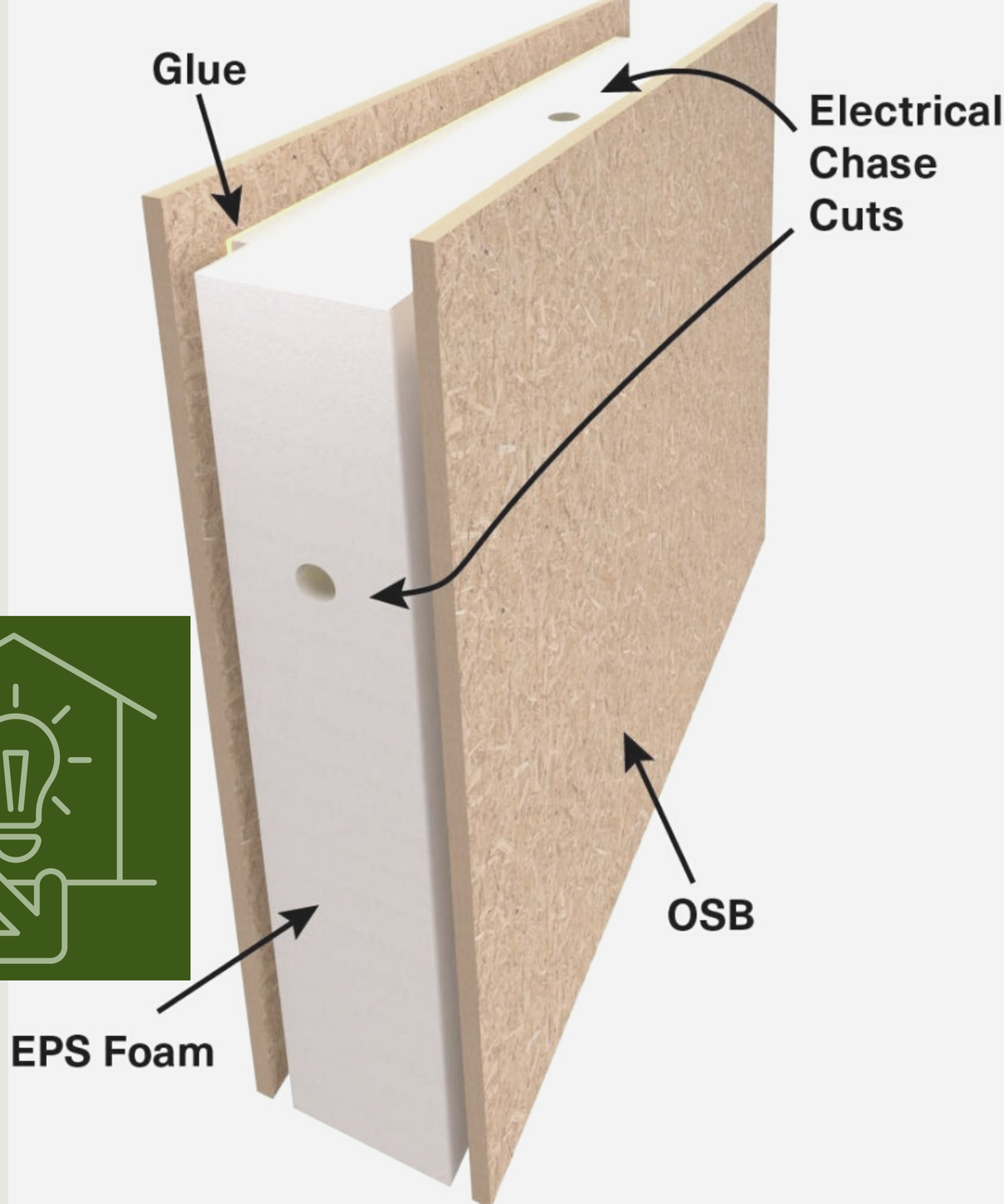
QUICKER BUILD TIME

By using SIP panels over traditional timber-framing methods, total construction time is reduced by 55%. By using traditional methods, framing a 1200 SQ FT home typically takes a month or more. Using SIP panels brings the framing time to just 3 days.

ENERGY EFFICIENCY

SIP panels are extremely energy-efficient and meet the new net-zero-ready building code. With the panels insulation and thermal gathering windows, you no longer have a need for a furnace to heat the home in the winter. Which further reduces construction costs.

*It also reduces utility bills

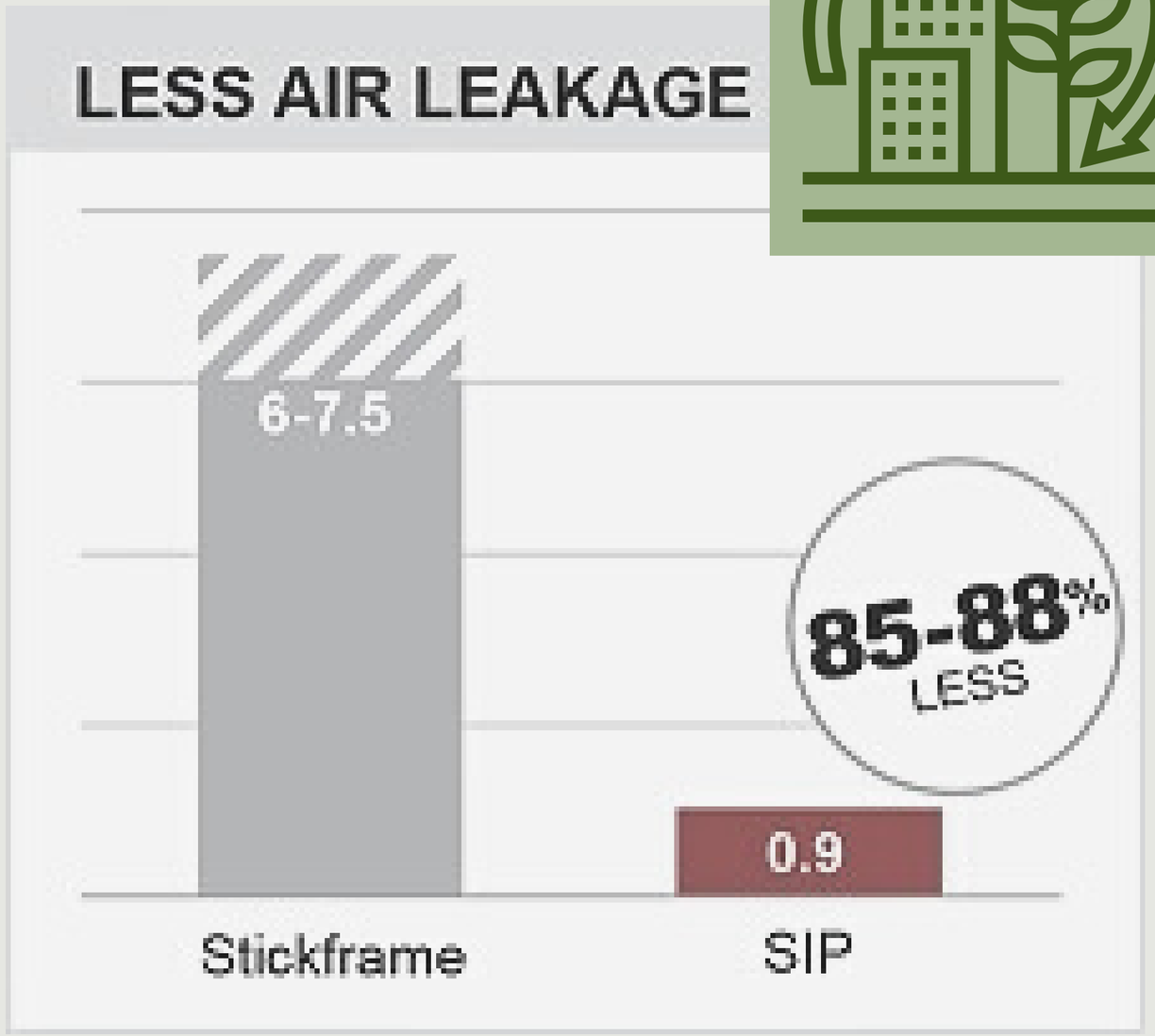


CONSTRUCTION COSTS

When you drastically reduce the labour needed to frame a home, omit a furnace and ductwork and remove now unnecessary tradesmen, you also reduce the cost of construction significantly. By using SIP panels, construction costs are reduced by 20% - 30%.

SUSTAINABLE BUILDING

A SIP building provides continuous insulation and is exceptionally airtight. This allows for much better indoor air quality. By using SIP panels, construction waste is drastically diminished and you're helping to conserve natural resources. With the reduced energy use and greenhouse gas emmissions, SIP designs can save over 40% more CO2 than standard timber-framing.



HOW STRONG ARE SIP PANELS

Structurally, SIP panels are similar to a steel I-beam. The plywood acts as the flange of the I-beam, while the rigid foam core provides the web. This gives an advantage when handling in-plane compressive loads. SIPs are designed for use with winds in excess of 250 kph. The load-bearing area of SIPs is equivalent to building with 2x10 lumber framing at 16 inches on center.

ADVANTAGES

EXCEPTIONAL THERMAL PERFORMANCE

Approximately 50% more energy-efficient than traditional timber framing. A SIP building has minimal thermal bridging and delivers excellent airtightness, which lends itself to net-zero-ready building standards.

FASTER CONSTRUCTION WITH LESS LABOUR

SIP panels are manufactured off-site and are assembled on-site quickly. This reduces labour time by 55%, which in turn reduces total construction costs.

SUSTAINABILITY CREDENTIALS

SIPs are highly energy-efficient and therefore contribute positively to the environment by reducing CO2 levels. They also use significantly less energy during the manufacturing process compared to traditional construction methods and have lower embodied energy than traditional construction materials, such as steel, concrete and masonry.


Thank you