**Small but mighty…efficient**

*Sprouts Dwellings tackles housing and climate issues with their particular brand of small, beautiful housing options.*

By Zack Metcalfe
Climate Story Network

A new kind of home is popping up in backyards across the HRM, small without being tiny, and simple without being plain. They’re called *Sprouts*.

Sprouts, says co-founder Sean Kirkwood, are a form of “soft densification,” bringing more homes into existing neighbourhoods, typically via underused backyards. They can be multigenerational dwelling for seniors or college students, or they can be rentals —easing the city’s housing crisis by harnessing its empty space.

Sprout Dwellings Inc. came into being in 2021 — co-founded by Kirkwood, Oliver Nemeskéri, and Erin Crosby, just as the city began embracing backyard suites.

“At the time,” says Kirkwood, “we didn’t realize the need would become so dire so quickly.”

The power of Sprouts — in fact, their defining characteristic — is their “repeatability.” Sprouts are built from one of a handful of established designs, ranging from two-bedroom suites to studios, and more recently, lofts. While there’s always room to customize, one Sprout looks pretty much like another; their multitudinous details largely pre-determined. Even minor components, like trusses, windows, and doors are stockpiled ahead of time to overcome supply line issues. So, while a Sprout’s ultimate size and shape depends on the space available and the whims of the client, the basic design from which it springs is very consistent from one project to the next — much like creating novel structures from the same few Legos.

“We have our own personal approach to what a house *should* be,” said Kirkwood.

These relatively few designs were chosen very carefully to do several things — hasten construction, maintain affordability, stay accessible to all demographics, emphasize locally sourced materials, and perhaps most importantly, to use less power. According to one energy audit (conducted by HomeSol on behalf of Efficiency Nova Scotia) a two-bedroom Sprout requires 28.4 per cent less energy than a new home of traditional construction and similar dimensions. These efficiencies are achieved in several ways.

The first, and perhaps most fundamental can be found in the concrete slab-on-grade foundation. Designed in Dartmouth and marketed as FASTSLAB, this foundation is poured using an insulated mold which stays put, wrapped around its concrete in the ground — producing an exceptionally well insulated floor, resistant to dramatic dips in temperature.

The walls are layered with spray foam, then a structural panelling called “ZIP System R-sheathing” (board, weather barrier, and insulation all in one) is installed, and finally, a coat of metal cladding, like a suit of armour ready for hail or hurricane. These components come together is a way which prevents “thermal bridging,” (the direct exchange of heat through the building’s walls (or floor)) keeping Sprouts warm in winter and cool in summer.

“You’re left with a very tight, well insulated building,” said Kirkwood.

These designs and materials are common to each Sprout build, but other efficiencies can be added on as required. Clients can, for instance, include a heat pump in their design (almost all have done so to date) or, more ambitiously, can choose a “solar ready” roof, with tighter rows of trusses able to support the weight of an array. They can even go a step further and have Sprout Dwellings Inc. organize the installation of panels.

For now, Kirkwood and his colleagues are willing to build Sprouts within an hour’s drive of Halifax, but he expects to be able offer them across the Maritimes as the business scales up, and as financing becomes available for their kind of building. Right now, they’re on track to build ten a year, a number he’d like to push to 20. He’d also like to see Sprouts graduate from the backyards of the HRM to become the primary structures on a given lot, composing entire communities of their very own — efficient both in their use of space and energy.

“We strongly believe in building a high-performance home,” said Kirkwood, “one that’s going to stand the test of time, and weather a changing climate.”