

Wood buildings are looking up

New rules allow for the city's first mid-rise wood buildings

BY STEVE MACNAULL

They don't look that much different, but these three Kelowna housing projects are making history.

They are the first five and six storey buildings in the city to fall under the province's new mid-rise wood frame initiative.

The five-storey, 212 room Purcell Residences at UBC Okanagan and the 72 unit Apple Valley Seniors Housing at Springfield Road and Benvoulin Court are under construction.

Apple Valley is set for January 31 completion, Purcell for August 2011.

And the six-storey, 54 unit Sole condominium downtown on St. Paul Street will start construction in January for Spring 2012 completion.

Earlier this year, Victoria amended the BC Building Code to allow for wood frame buildings of up to a maximum of six storeys.

The previous maximum was four storeys, thus the multitude of four storey condo, apartment and commercial buildings in Kelowna.

Old rules meant any building over four-storeys had to be made with more expensive steel framing and concrete walls.

The nod to six storeys in wood is in keeping with new building methods that means wood – including timber frame and plywood walls – is strong enough to support taller structures.

Wood is also cheaper to build with than concrete and steel and is a sustainable resource because it sequesters carbon and a tree is planted for everyone that it cut down.

The initiative also recognizes forestry is BC's No. 1 economic engine.

The more wood is used in construction, the more economic activity and jobs there are in the province.

BC also has a new Wood First Act that means any publicly-funded construction has to use as much wood as possible.

"It's kind of deceiving," said Sole developer Kevin Edgcombe of Kelowna-based Edgcombe Builders.

"Sole does fall under the new five and six storey wood frame rules, but it is really a four-storey condo built on top of two floors of concrete. However, this couldn't have happened under the old rules because wood frame couldn't be used any higher than four storeys."

It's much the same story (excuse the pun) at the Purcell Residences and the Apple Valley Senior's Housing.

Both are five-storey buildings made up of four storeys of wood frame units on top of a single floor of concrete.

"I guess it's not a true mid-rise in that sense," said Purcell project manager David Roche.

"But we couldn't have done this before the mid-rise rules, so it is new and ground breaking in that sense."

Rob Lair, general manager at Apple Valley developer Scuka Enterprises added: "It does fall under the new criteria because we've used wood framing on the second, third, fourth and fifth floors."

While the first three projects under the new rules are hybrids, all three developers are looking forward to building full five and six storey buildings in wood.

"In the future, we'll definitely go five and six in full wood," said Lair.

“there are few things you have to do to go that high in wood. In Oregon and Washington (states) they’ve been doing six-storey wood frame buildings for years.”

Some of the extras that have to be done for taller wood buildings are extra engineering to take into account wood shrinking a bit as it dries around elevator shafts, windows and doors; plywood shear walls put in certain counterbalancing patterns to provide floor to floor support; additional fireproofing of walls; and sprinklers.

“Five and six storeys in wood is not setting any new engineering feats,” said Roche.

“In Europe they go higher and there’s even an 11-storey wood building in Norway.”

Edgecombe added: “With the right lumber and methods six storeys in wood is safe and strong. IN the future we’ll work with the six-storey wood frame model. It makes sense to promote BC wood.”