NEW INVENTION

Lifting houses safely

By MATTHEW BARTON
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The disastrous collapse of a house at 4920 Dewdney Ave. in May exposed the problem of shoddy standards and unqualified contractors. Regina contractor Monty Wensel was inspired to do something about it.

"Everyone knows what happened on Dewdney. So let's do something about it," Wensel said.

Wensel said he was unimpressed by the lax attitude towards safety and poor construction techniques used by some Regina contractors. When he looked for a company to lift a house, he wasn't satisfied with the available systems.

"The potential for catastrophe is high when you have 40 tonnes in the air," Wensel said.

The owner of Monty's Design, Construction and Fail Safe Foundations approached engineer George Labelle with his idea. The two hit the drawing board and came up with the idea of lifting towers.

Shortly after that, the two approached Regina's Ground Effects Environmental Services to build the new invention, bringing their idea into reality.

"(The towers) are the cat's meow," Labelle said.

Two weeks ago, Wensel had a house in the air, held aloft by his new invention for the first time.

The Toronto Street house was supported by four towers. Each tower had a base of six feet by six feet, capable of supporting 30 tonnes apiece.

Two steel beams run lengthwise and five support beams run crosswise. It was excavated underneath. Men worked in the hole below to install a new basement.

He said that the towers are faster, safer and more stable than the old method.

The traditional way to lift a house is by using steel beams and lumber stacks called cribs. The cribs have a footprint of two feet by two feet.

On-site safety was also a big concern for Wensel.

"The bar has to be raised. Everyone needs to have new standards. We want to lead the way," Wensel said.

The company uses digital scales on each tower to monitor the weight and plumblines to monitor the level of the house. Their instruments monitor the load on each lift. They record the effect wind has on a home in the air to learn more and improve future designs.

The soil temperature is also managed to prevent unwanted shifting.

"A house is like a big sail. When you get a big wind a house can blow right over," Wensel said.

They also installed motion and fire sensors and a perimeter fence to protect children. They are critical of open work sites because children could be injured.

He said Regina is a growing market for foundation repairs as houses age.

"There's a saying: 'There are the houses that have been braced, and the ones that need to be,' " Wensel said.

He attributes growing demand to Saskatchewan's shifting clay subsoil — "gumbo." The expansion and contraction of the ground has caused damage to many homes, leaving them in need of structural repair.

BRYAN SCHLOSSER/Leader-Post

Regina contractor Monty Wensel with his new house lifting system.