

NEWS

Precast project a first for Newfoundland

60-ton Link-Belt LS128 crawler brought in to install rebar cages and concrete caissons for a geothermal system

SAUL CERNOS

A Manitowoc 2250 mobile crane and a Peiner SK315 tower crane will overlook picturesque St. John's harbour as they do the heavy lifting for a 12-storey office tower and parking garage in the city's downtown core.

Under construction at 351 Water St., a block from the harbour, the building will feature a six-level, 446-car precast concrete parking garage, a further six storeys of offices, and street-facing restaurant and retail space.

The building also stands to be one of the tallest in Newfoundland and Labrador, largely because a low population density hasn't called for towering giants. It also stands to be the first building in that Maritime province to use seawater for heating and cooling, as its proponents vie for Gold status through the Canada

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Green Building Council's Leadership in Energy and Environmental Design (LEED) certification program.

The 165,000-square-foot tower was first proposed by East Port Properties, a Halifax-based developer, in early 2010 in response to rising demand for office space downtown.

Construction started in the summer of 2011. Plans include a green roof in an inset area where the top of the garage meets the office tower. However, the building's star is a geothermal system that will use seawater from the harbour for heating and cooling. The building is so close to the water's edge that crews have dug wells and installed pipes directly underneath.

Crews brought in a 60-ton Link-Belt LS128 crawler crane through Montreal-based Petrifond to hoist casing and install rebar cages and concrete caissons for the geothermal system.

This spring, American Steel & Precast Erectors of Greenfield, New Hampshire, will bring in the Manitowoc to help erect the six-storey precast concrete parking garage.

"It's not typical to have a precast parking garage with an office tower on top," said Chris Voisey, president of Toronto-based Trendex Construction and Management, the project's construction manager.

"This will be the first of its kind on the island," Voisey said, explaining that there aren't any companies in Newfoundland that have done a precast project of this magnitude.

Strescon, the fabricator of the precast, is based in Bedford, Nova Scotia.

The Manitowoc will hoist and place the precast pieces, some of which will weigh more than 50,000



Crews use a 60-ton Link-Belt LS128 crawler crane to hoist casing and install rebar cages and concrete caissons for the seawater heating and cooling system of a 12-storey office building in St. John's, Nfld. Photo by Saul Chernos

pounds, Voisey said.

"That's a typical size. Some will be smaller and a few will be larger."

Once the precast garage is in place, the plan is to set up a Peiner SK315 tower crane in the centre core of the building to work on the upper office-tower portion.

Voisey said the Peiner tower crane, which is manufactured by Terex and supplied by All Canada Crane Rental in Mississauga, will have a 229-foot boom and a 6,800-pound capacity. Duties will include handling structural steel, the curtain wall, and various materials for the exterior.

"It's quite a ways down the road before we'll need that crane," Voisey said, adding that he expected this work to commence during the summer, with the building slated for completion by late 2013 or early 2014.

The challenges have largely been on the design side. Building architect Strat Barrett of PHB Group in St. John's said the integration of the modular precast building into the steel frame of the upper structure required integrating materials and minimizing floor-to-floor heights.

"It was a bit of a geometric challenge," Barrett said. "All the heights had to be worked out."

As far as the cranes are concerned, however, all is expected to go smoothly.

"The cranes are probably the easiest part of the whole thing," Voisey said. "I don't see any challenges at all."

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