



Wellington North Ontario Provincial Police Detachment – Teviotdale

Architects design \$7.5 million project to meet rural county's requirements

Ontario Construction Report special feature

Habibur Rahman on Dec 13, 2013 | Ontario Construction Report

The village of Teviotdale will soon be home to a state-of-the-art \$7.5 million Ontario Provincial Police (OPP) detachment, replacing one in Palmerston.

The 18,600 sq. ft. building has been designed by +VG Architects and is being constructed by Collaborative Structures Ltd.

The site, a former sports field, offered the opportunity to reflect the community's rural feel and location. +VG Architects associate partner Travis Forrest says the sprawling building reflects the region, taking advantage of abundant land.

"The building is comprised of natural stone, aluminum and glass and the roof is a metal shingle," he said. "The look is very much a rural feel. There is even a hitching post in the parking lot according to the region's bylaws (to support the strong Mennonite community, many of who still travel by horse and buggy)."

iSPAN Systems won the contract to provide the design, supply, and erection of the light steel frame structure, which in this case provided the main gravity and lateral load resistance for the building.

President Mike Strickland says this construction method has advantages over typical masonry and concrete projects because light steel framing is quick to put up, as many pieces are pre-fabricated, it is light weight, highly consistent, it uses a smaller

footprint and not subject to weather issues. "It took us about six weeks to substantially erect the structure and this was a complex site to work on."

Strickland said the steel frame design supports sustainable construction because steel pieces made of more than 90 per cent recycled material, are cut to length so there is little waste and because it supports the use of local trades.

"A lot of construction materials require specialized skills," he said. "Light steel construction though is similar to residential work so more local trades can be used."

While typically insufficient trades people have been a barrier to the usage of light steel framing, Strickland noted that iSPAN has invested heavily in technology and has created its own unique steel products that have been specially designed for easy implementation on site. Strickland sited a 150,000 sq. ft. project in Burlington where they are using steel joists with wood construction, an integration otherwise unheard of.

iSPAN provides on-site technical support and training, enabling trades to walk away with additional knowledge and skill to support their work on other projects.

Forrest says this is the fourth OPP detachment +VG has designed, but is the first to use light steel frame construction. However, the design model will be replicated to some extent in a planned new Pembroke detachment. "This design is unique but reflects all of the program requirements standard in all of the detachments."

The building includes a community briefing room with the capability to be transformed into a county emergency operations centre. Forrest says there is an over-sized foundation and seismic restraints have been installed to support the building's mechanical and electrical systems. The building is fully equipped with back-up power generation.

The detachment has been constructed to Wellington County's Green Legacy Building Standards with rainwater harvesting, storm-water management and overall energy efficiencies. "As a rural location we also had to install a septic field and underground cisterns for firewater," Forrest said.

The building will be turned over to the OPP in January to begin commissioning and testing systems.

"Once everything is ready, on a pre-set day in February, the officers will leave work in the morning from one location and return to the new location at the end of the day and that will be the transition," he said.

+VG Architects is a full-service architectural firm offering new design, expansions and heritage restorations for cultural, educational, municipal, justice, healthcare, residential and recreational facilities. Our staff of +50 operates in four offices in Ontario, in Brantford, Kitchener, Toronto and Belleville.

Please go to www.plusvg.com for more information