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PLUMBING & MECHANICAL

**PML Professional
Mechanical delivers
complex View Royal
Surgical Centre**

CHAPMAN BURNER & HEATING SERVICE LTD. | HVAC

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ON THE COVER: View Royal Surgical Centre in Victoria

MCABC

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ONE-OF-A-KIND CHALLENGE

BY CHERYL MAH



**PUTTING A
TECHNOLOGICALLY
ADVANCED SURGICAL CENTRE**
into an existing office building is highly unusual,
but PML Professional Mechanical Ltd. was up for
the challenge.

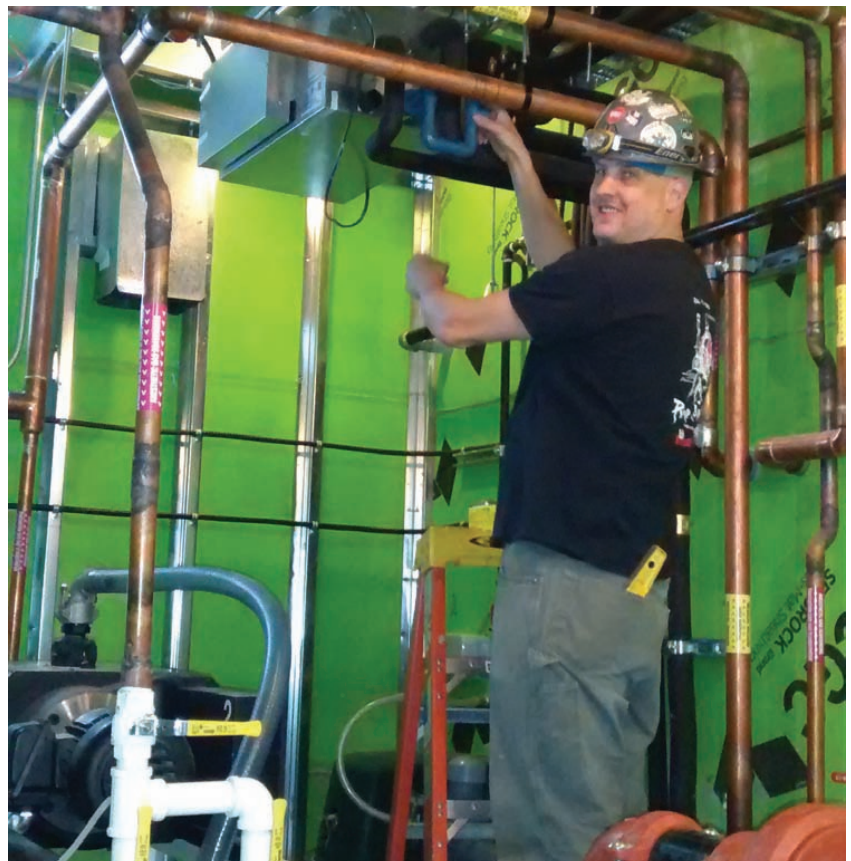


The new View Royal Surgical Centre in Victoria is a 17,000-square-foot facility that occupies one and a half levels within a five-storey office building. PML completed the base building in early 2016 before mobilizing again in October 2016 for the addition of the centre.

“This wasn’t a purpose-built building for a surgical centre — it’s an office building,” says Edwin Wong, project manager at PML. “In addition, this was a fast-paced project — an accelerated schedule to put a hospital into a non-purpose-built building. That’s been our biggest challenge.”

Completed in April 2017, View Royal is the first private surgical centre in Victoria, providing outpatient surgical services. It is expected to perform 2,500 to 2,750 surgeries annually. Procedures will include carpal-tunnel surgery, hernia repairs, colonoscopy and other endoscopy procedures. It is part of Island Health’s larger strategy to reduce surgical wait times and improve care.

Located in Eagle Creek Village and next to Victoria General Hospital, the facility occupies level five and half of level four in the office building. It features five operating rooms, multiple endoscopy rooms and a dental procedures room. The facility also has four overnight rooms.





It's all about the experience.

A construction worker wearing a blue jacket and a high-visibility yellow and red safety vest is shown from the side, looking out over a construction site. In the background, several tall red and white cranes are visible against a hazy sky, with the skeletal steel framework of a building under construction.

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PML was faced with installing multiple complex and specialized systems with specific requirements. The scope of work included medical gas, HVAC, plumbing, insulation, controls and fire sprinklers. The roof was used to accommodate all the new equipment required to service the medical facility.

PML was faced with installing multiple complex and specialized systems...

"To accommodate all the changes, they had to upgrade all the structural steel in the building, which already has tenants on the first two floors. They ripped out the roof in the middle of December," says Wong. "For the structural steel upgrades, all the heat pumps that we hung [during the base building], we had to take down and put them back up. So not only did we have new equipment, we had to take down existing equipment and then hang them back up and re-commission them."

The facility requires multiple back-ups and highly redundant mechanical systems, which meant getting a large amount of equipment onto the roof. Equipment includes two air handling units (weighing in excess of 11,000 lbs each), two 800,000 BTU heating boilers and a 1.5 million BTU electric boiler.

"The air handling units are huge — 40 feet long — and they had to be craned up onto the roof and they sit on structural steel supports that are bolted to the frame of the building," notes Wong. "There is a diesel generator in the parkade as well."

A 270-ton mobile crane was necessary to lift all the large equipment onto the roof. "Anything that didn't fit into the elevator had to be craned onto the roof. That was a challenge," he says, noting they had to notify Victoria General Hospital whenever they were using the crane.

PML also had to run new lines to serve the centre. It does not share domestic hot water with the base building. It requires its own electric and gas domestic hot water heaters.

"We had to run a new three-inch domestic water main up from the parkade through an existing building. Finding a path and space was challenging," says Wong. Once all the new equipment was added, "the natural gas had to be boosted from a two-pound system to a five-pound system, so that meant new meters — new regulators. A lot of things had to be changed out."

An army of trades was on site to meet the aggressive schedule. Wong estimates at

peak there were 100 trades on the job and coordinating everyone was another challenge. "For a 17,000-square-foot construction job, that's a lot of guys working in the same space," he said, estimating PML peaked at a crew of 25.

Prefabrication was necessary to meet the tight schedule. For example, sheet metal and welded pipe were prefabricated and then assembled onsite. There was also no room for error on the commissioning process because of the accelerated schedule.

"Everyone pushed hard on this job — working weekends and nights," he says. "The consultants were also good at getting us answers — consultants being on the ground and solutions-oriented engineers."

Omicron is the construction manager and the mechanical engineer is AME Group. Omicron is also the developer of Eagle Creek Village, a 10.4-acre mixed-use development that brings a host of new retail, commercial and housing options to the area. Phase II is under construction and comprises 114 residential rental units.

"It's a beautiful location and there are water views from the fifth floor. It will be great for patients needing surgeries," says Wong.

PML has been providing mechanical contracting in Western Canada since 1995 with specialized expertise in healthcare facilities. The company recently completed a hospital in Medicine Hat and their largest project to date is the Fort St. John Hospital.

"I've done care facilities and hospitals but I've never done something like this," says Wong. "This is one-of-a-kind." [PM](#)





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