

» **GOLD** Mechanical Contractor Up To \$3 Million  
Alpha Mechanical — Canada Line: Yaletown Round House Station

# Underground Success

BY JEAN SORENSEN



WHEN ALPHA MECHANICAL TOOK on the mechanical contract for the Yaletown Canada Line station, the experience plunged the company some 80 feet underground. But, it was a challenge that also saw the company find gold in the Vancouver Regional Construction Association (VRCA) Awards of Excellence in the category of mechanical contractor under \$3 million.

"It was a monstrous hole in the ground," says Alpha construction manager and vice-president Andrew Wong, adding the depth was equal to the height of a five-storey building. "It really compared to working at a mine site" but without the logistical challenges.

Alpha faced the daily challenge of difficult working conditions such as limited or no storage or equipment lay down areas, accommodating other construction crews, and working around the tunneling contractor. As well, the work was carried out in a very public residential and commercial area with foot and vehicle traffic.

"Access to the site was extremely constrained," says Wong. Crews had no elevator and had to manually enter via stairways, all materials had to be mechanically craned or hoisted into the hole, and, at the same time tunnel boring was being carried on. The tunneling pace was slow with some days only three feet of progress made.

"We supplied all the piping systems. There was a lot of drainage and pumping as we were below

ground with a lot of storm water to deal with. We also supplied the fire protection systems — both wet and dry. There was a lot of special ventilation required, including some of the tunneling ventilation systems," says Wong, adding that some air systems vented onto the street level.

Good communications between the crew members and sequencing of work were key to ensuring that the job moved smoothly, Wong tells. "We really had to time our work appropriately."

All materials such as pipes were dropped from a five-ton crane into the bowels of the tunnel and each lift precisely placed. The scheduling of materials not only had to coincide with what was going on at street level, but the work of crews down in the hole. The hole was more than simply a straight drop. There were really five levels, with each having its own construction requirements.

"We had a total of 230 site instructions, which were combined with a fluctuating schedule and tough working conditions," says Wong. "It meant that we really had to stay on the ball and arrive every day with a clear mind to deal with things on a daily basis."

Coordinating the four to 12 men on site and dealing with the issues that arose was extremely "onerous" on our site crews, says Wong. "Foreman Mike Evans rose to the challenge operated every day with the highest level of expertise, professionalism and commitment."

Alpha's work didn't go unnoticed. "We found their work to be exceptional," says Brent Fisher, SNC Lavalin's mechanical manager for the project. "They seemed right on top of it. They performed well under the critical time line we gave and they were very committed to the project."

The gold award is not the first time that Alpha Mechanical has been honoured for its work. "We are proud to have been the recipient of a VRCA gold award four times since 1997," says Wong, adding one such award came for the large solar panel expansion at the Vancouver International Airport, which has since resulted in energy cost savings for the YVR Airport Authority.

Now that the Canada Line station is finished, Wong says the men look back at it with a source of accomplishment. "There is pride more than anything else (even though the job was tough)," he says, adding that these are the kinds of challenging jobs that the company is becoming known for and has successfully accomplished over the past 35 years.

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*2009 Mechanical Contractor  
VRCA Gold Award of Excellence  
for the Yaletown Roundhouse Station.*



*Thank you to all our sub-trades and suppliers for your dedication and support on this project.*



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Congratulations **Alpha Mechanical** on your 2009 Mechanical Contractor VRCA Gold Award of Excellence

**We are proud to have worked with you on the Canada Line Yaletown Roundhouse Station**

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**FRONTIER FIRE PROTECTION LTD.**

We at Frontier Fire Protection would like to congratulate **Alpha Mechanical** on their gold medal achievement for the Yaletown Roundhouse Station along the new Canada Line. We would also like to extend our gratitude for the privilege of being able to work along side them in achieving this wonderful result. The achievement is an obvious reflection on Alpha's pride in workmanship, and the co-operation needed to bring a project of this magnitude to completion. Good luck in your pursuit of the next medal worthy project, from all the staff at Frontier Fire Protection Ltd.

Robin Westie, President

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