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May/June 2016

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“Who is overseeing this work, and who is ensuring the design is optimizing our investment?”

OPPORTUNITY FOR OVERSIGHT

By Ping Wu

Governments need to ensure every dollar is wisely spent, so engineering oversight is a key issue if infrastructure commitments are to be met over the next 20 years. One of the federal election promises was to fund bridges, roads, transit, and more across Canada. How do we know projects will be completed on time, on budget, and with proper oversight?

As the president of Professional Engineers Government of Ontario (PEGO)—the association representing close to 600 engineers and land surveyors who work in the Ontario public service—I am in a unique position. More than half of our engineers work in the Ministry of Transportation, a key ministry responsible for spending a large amount of the promised infrastructure dollars. We believe government should provide frontline oversight on these projects.

Take the \$1.5-billion Rt. Hon. Herb Gray Parkway in Windsor, Ontario, an 11-kilometre corridor made up of three segments: a six-lane extension of Highway 401, a four-lane extension of Highway 3, and the Parkway Trail running approximately 20 kilometres. Construction began in 2011 and created approximately 12,000 jobs through direct employment from construction activity and indirectly through suppliers and service providers. Opened in June 2015, it was an example of a site where professional engineers working for the Ministry of Transportation found proper oversight was lacking.

An issue with newly fabricated concrete girders came up during construction, and government engineers suspected the

contractor was not meeting standards set by the Canadian Standard Association. After extensive investigation, it was discovered hundreds of girders did not meet the Canadian Highway Bridge Design Code but had already been installed. These defective girders would have been left in place had officials not intervened, which would have resulted in added costs, road closures, and future bridge closures to replace girders prematurely.

The issue was raised in the Ontario Legislature in 2013 by Windsor-Tecumseh NDP MPP Percy Hatfield. “The model isn’t working well,” Hatfield said during a meeting of the Standing Committee on Government Agencies. “You don’t have an engineer on site and the girders are defective. According to the experts, some of them will eventually be removed. It’s going to cost a lot of money. Infrastructure Ontario wasn’t providing a supervisory role.”

Since the fall federal election, a lot of talk has surrounded infrastructure deficits and increased infrastructure spending. Is the same amount of thought being put toward what systems need to be in place to deliver this increased spending?

Who is overseeing this work, and who is ensuring the design is optimizing our investment? Engineers have been doing this for decades, yet there has been a push to outsource the work of government engineers.

Ultimately, public dollars are being spent. How do we ensure they are spent properly?

Normally in these situations, the contractors have full authority on the day-to-day activities at the site. There

are inspections at selected times by the government; however, there is no consistent oversight. I believe the government would benefit from having their own engineers carry out ongoing on-site inspections.

In the specific case of the Windsor girders, it was an engineer working for the Ministry of Transportation who discovered the problem. Across Canada, there are definitely other examples of projects that would have benefitted from an on-site review by government engineers. Oversight could result in increased savings and accountability. The short-term costs of employing an engineer are far less than the cost of replacing substandard parts in the long run. An engineer who is responsible to the government—and not the contractors and consultants—has more independence and ability to point out flaws without job repercussions.

We need to ensure continued public confidence in organizations that oversee infrastructure funding. It remains important for government to ensure its own engineers are monitoring the infrastructure projects, so issues like the Rt. Hon. Herb Gray Parkway are avoided.

Much advancement has been made to ensure good value of public funds. Having worked in both the public and private sector, I know we can continue to work together as allies. ✦

Ping Wu, P.Eng., is president of Professional Engineers Government of Ontario (PEGO). Prior to government, he worked for many years in the private sector.