



## Message from the Chair



After a very successful 2008, the Willowdale-Thornhill Professional Engineers Ontario (PEO) chapter looks forward to what promises to be a very exciting and busy year for our chapter.

We are planning many events for the upcoming year. I encourage you to join us at our monthly executive meetings. It is a fantastic opportunity to network with your fellow engineers and stay informed of developments in our profession. Our executive meetings take place every second Tuesday evening of each month, starting 7 PM at the PEO head office. I offer an open invitation to all of you to attend these meetings and come and witness the operations of your chapter.

The executive of the chapter is actively looking to promote and enhance our members' professional successes by supporting and facilitating seminars and tours related to their accomplishments. Very soon, we will begin planning our fall 2009 events calendar. With over 3,000 members, this could be a creative and inexpensive way to network with the chapter's diverse engineering community, especially if you are a small business owner. Contact us to discuss your ideas and the ways we can help you make them a reality.

On behalf of the executive, I wish you all the best in 2009.

Regards,  
Noubar Takessian P.Eng.  
Chair, Willowdale-Thornhill PEO chapter

### The Chronicle

**Editor:** Nanda Lwin, **Contributors:** Michael Chan, Michael Friedberg, Changiz Sadr, Noubar Takessian.

### Willowdale-Thornhill PEO Chapter Executive

**Noubar Takessian**, Chair; **Fred Bealle**, Past Chair; **Changiz Sadr**, Vice-Chair; **Mark Friedberg**, Treasurer; **Michael Marr**, Secretary; **Brenda Bao**, Seminars; **Mario Boetto**, Education; **Michael Chan**, Government Liaison; **Nanda Lwin**, Newsletter; **Gary Marcarian**, Event/Seminar Coordinator; **Miriam Mozes**, Seminars; **Frank Sorokin**, Webmaster/Appointed Executive; **Miriam Vasen**, Engineers-in-Training Coordinator

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### Notice of Annual General Meeting, Dinner

**When:** 6:30 PM - 11:00 PM, Tuesday, March 3, 2009.

**Where:** Holiday Inn Hotel & Suites Markham, 7095 Woodbine Avenue, Markham, Ontario. Phone: (905)-474-0444.

**What:** Annual General Meeting (AGM) to elect an executive. A dinner is to follow.

If you plan to attend, please RSVP to:  
[secretary@wtpeo.org](mailto:secretary@wtpeo.org).

### Call for Executive Nominations, Annual General Meeting

Please e-mail Miriam Vasen, P.Eng. at [secretary@wtpeo.org](mailto:secretary@wtpeo.org) if you want to nominate a member for a position on the executive of the chapter. All executive positions are voluntary with no direct monetary compensation, except for specific out-of-pocket expenses. The executive meets once a month and participates in events and functions of the Willowdale-Thornhill PEO chapter.



## Professional Development System

By Changiz Sadr, P.Eng.

At the June 26-27, 2008 Professional Engineers Ontario (PEO) council meeting, council passed three motions with respect to professional development with a proposed system that will consist of the following two "tiers":

- Tier 1: Mandatory Annual Self-Declaration (all licence holders)
- Tier 2: Ongoing Learning Requirements (for Licence Specialists and Designations, in addition to Tier 1)

Along with other chapters' chairs and vice chairs, I was asked to review and comment on a PEO position paper on a proposed professional development system, which details a mandatory requirement for annual self-declaration of competence for all members. I responded and commented on a few points, which I would like to share with you. I think that although this mandatory annual self-declaration mechanism seems to be necessary to assure that practising members stay current, I do not believe it is sufficient for PEO to meet its public interest protection mandates.

In my opinion, PEO is just transferring this responsibility to its members in order to archive written proofs on file, in case something happens. But will this method of PEO relying on members' self-declarations be practical if an engineering deficiency happens or some public interests get lost or damaged? I think the answer to this question is definitely a big "NO."

We need to have a system in place that not only makes use of the members' self-

declarations, but also has a mechanism to evaluate and validate those declarations. It is like the academic requirements of the PEO licensure process that have a well-defined series of procedures to assess and validate those requirements. Can PEO only rely on self-declarations of the applicants to confirm that they have a bachelor degree of engineering?

We need to define and develop a process that can appraise and validate each practicing member's professional development through industry and market-recognized upgrades, as well as professional development certifications and training programs. We also need to assess their engineering work summary reports for the related fields of their practice within a defined time frame-for instance, a three or five-year time frame in which members need to take some courses or certifications, in addition to their practical work experience in their related fields.

I know this means a lot of additional work for PEO and probably a need for another committee to collect and validate this sort of information, and perhaps a need for additional experience interviews. But if we want to do something in this regard, it should be done properly.

**Changiz Sadr, P.Eng., CTP**, is the Vice-Chair of the Willowdale-Thornhill PEO chapter and is a member of the PEO's Experience Requirements Committee. He can be reached at [changiz@sadr.ca](mailto:changiz@sadr.ca). His website is at [www.sadr.ca](http://www.sadr.ca).

### Great news for chapter members: Advertise in your local market!

In order to help serve our members better and raise some extra funds, the Willowdale Thornhill PEO chapter will have an advertising section in future editions of The Chronicle. At this time, we intend to keep it simple by limiting it to business cards. At this time, we intend to charge a small fee per business card per newsletter.

The details are still being worked out and we will be sending out a more detailed announcement by e-mail before the next newsletter.



Peter Shurman (left), Conservative MPP for Thornhill, is presented with a gift from GLP committee members Changiz Sadr, P.Eng. (middle) and Nanda Lwin, P.Eng. (right).

## GLP explained!

By Michael Chan, P.Eng.

The Professional Engineers Ontario (PEO) launched the Government Liaison Program (GLP) in early 2005 as a six-month pilot project. The success of the project led to PEO council approving it to be a permanent project in June 2005. The main objectives of GLP are the following:

- To raise awareness among government of the value to the public of a self-regulating engineering profession and educate legislators about the value of self-regulation
  - To help combat and prevent intrusions by the provincial government into our regulatory domain
  - To promote the benefits of consulting with PEO early in the formation of public policy
  - To increase PEO's visibility to the policy makers on their own turf
- To help the recruiting and training of GLP members to ensure consistency, PEO
- Established a process for developing approved PEO position statements on important issues
  - Created a dedicated website for our government relations activities

- Developed a toolkit that includes an introduction to the plan, template letters and the expected conduct of and protocol for the spokesperson
- Dedicated space in Engineering Dimension for regular updates of the program and to highlight individual chapter successes

The current PEO GLP committee members of the Willowdale / Thornhill chapter are Michael Chan, P Eng (Chair), Noubar Takesian, P.Eng, Changiz Sadr, P.Eng., and Nanda Lwin, P.Eng.

The committee has been working on the primary objectives that it was set up to do. We would like to take this opportunity to encourage you as a member of PEO to build a relationship with your local policy makers, play a larger role in policy making as volunteers for elected officials or as candidates in future elections. Please feel free to contact any of the GLP members for matters relating to GLP.

**Michael Chan, P.Eng.** is Chair of the Government Liaison Program committee, Willowdale-Thornhill PEO chapter.

**ENGINEERING NOTES** by Nanda Lwin, P.Eng.

## What exactly is the Infrastructure Deficit?

Canada is in deficit. And it's not the deficit that the Harper government talks about when it proposes spending its way out of this most recent economic downturn. It's a deficit that involves the deterioration of our infrastructure - the roads and bridges we drive on, the wastewater treatment facilities we depend on for clean drinking water, and the sewer systems that takes away un-needed water.

Needless to say, infrastructure plays an important role in contributing to the nation's economic growth as well as establishing a higher standard of living for all of us. Efficient and accessible public infrastructure is essential to attracting and keeping private-sector investment, and to maintaining economic prosperity. Public funding for infrastructure results in cost benefits to the private sector, increasing its productivity and profitability, and contributes to our quality of life.

If you go back far enough to almost five decades ago, one could reasonably expect government to invest consistently in public infrastructure to support the growth and expansion that Canada was experiencing back then. However, that trend came to a screeching stop soon enough. Despite a consistent, steady stream of investment over the decades, public funding in infrastructure has slowed down in recent years. Canadian governments - from all levels (municipal, provincial, and federal) - started tightening their fiscal belts in the 1990's, sending public infrastructure investment to the public-policy backburner. In 1962, 22 cents of every dollar spent by government in Canada was invested in public infrastructure. By 2002, that figure had dropped to 12 cents.

As a result, existing public infrastructure in Canada has suffered from decades of extensive neglect and overuse, leading to bridges, structures, municipal and transpor-

ation infrastructure deteriorating at rapid rates.

This shortfall of funding, commonly referred to as the "infrastructure deficit" or "infrastructure gap," represents the backlog of deferred rehabilitation, inspection and replacement of civil engineering works. In a nutshell, it is the funding required to rehabilitate, maintain and replace existing public works assets and to build new infrastructure to support population and economic growth minus money already earmarked for infrastructure.

So, how big is the infrastructure deficit, you ask. In 2003, a collaborative study by the Canadian Society of Civil Engineering, Engineers Canada (then the Canadian Council of Professional Engineers), Canadian Public Works Association and the National Research Council of Canada pegged the deficit for just municipal infrastructure to be \$57 billion. In another report, Toronto Dominion Economics claimed that the figure climbs by \$2 billion each year. Meanwhile, research led by McGill University in 2003 determined the total deficit for all publicly-owned infrastructure in Canada to be approximately \$125 billion and could reach \$400 billion by 2020.

What got us into this huge hole? What can we do to resolve our infrastructure woes? In upcoming issues, in this very space, I will offer my views of what went wrong and how this enormous national problem can possibly be solved.

*The above article is based on a research paper written by the author and presented and submitted to McMaster University.*

**Nanda Lwin, P.Eng.**, is a professor of civil engineering technology at Seneca College. He is also a journalist and the author of several books. He can be reached at [nanda.lwin@wtpeo.org](mailto:nanda.lwin@wtpeo.org)