



Terms of Reference

Structural Engineering Assessments of Existing Buildings and Other Structures Subcommittee

(August 6, 2013)

OBJECTIVES

The Structural Engineering Assessments of Existing Buildings and Other Structures Subcommittee is directed by the Professional Standards Committee to investigate the legal, ethical and technical aspects of conducting these assessments. “Buildings” as defined by the Building Code Act of Ontario will be included. Additional structures to be considered by the subcommittee may include bridges, viaducts, dams, tunnels and other existing structures where failure prevention is in the public interest. The subcommittee shall develop best practices for professional engineers undertaking this work and prepare a guideline describing these best practices for use by engineers and others. Furthermore, the subcommittee will prepare a performance standard specifically for structural engineering assessments of existing buildings.

BACKGROUND

Engineers conducting structural engineering assessments of existing structures, such as buildings, may face such challenges in the course of their work as the building codes and design standards generally focus on new structures rather than existing ones. Original design and construction documents of existing structures are not always available; and there can be difficulties in estimating the reliability of existing structures. The best practices in the guideline to be developed by the subcommittee should be able to aid engineers conducting these assessments, with special emphasis on duties to their employers, clients and the public.

Currently the law does not require periodic structural engineering assessments of existing buildings. Nonetheless, there are circumstances where clients will hire practitioners to conduct structural assessments of existing buildings or parts thereof. Generally, structural engineering assessments of existing buildings fall into one of three categories:

1. assessments of the overall structural integrity of buildings; or
2. assessments of buildings or parts thereof affected by structurally compromising events, such as fires, vehicle impact, or flooding; or
3. assessments for modifications and/or additions.

Furthermore, the subcommittee will also identify all activities found in the practice guideline that should be considered mandatory and prepare a performance standard expressly for structural engineering assessments of existing buildings.

MANDATE (Specific Tasks)

This subcommittee, with assistance of a legal advisor, is expected to obtain and provide information that will aid engineers to perform their engineering role when conducting these assessments in accordance with the *Professional Engineers Act* and *Regulation 941*. Tasks that the subcommittee should consider as useful to this process are:

- a) prepare a practice guideline for Structural Engineering Assessments of Buildings and Other Structures,
- b) prepare a performance standard for Structural Engineering Assessments of Existing Buildings, and
- c) review and consider the final recommendations of the Elliot Lake Commission and PEO's own Elliot Lake Task Force when developing the above practice guideline and performance standard.

Furthermore the subcommittee shall provide the Professional Standards Committee with interim progress reports to ensure the tasks are on schedule.

MEMBERSHIP

The subcommittee should be comprised of 5-7 members including 1-2 representatives of organizations such as government regulatory bodies that often request structural engineering assessments of existing buildings and other structures. The majority of members should be engineers working in different engineering services firms that conduct structural engineering assessments of buildings and other structures.

DELIVERABLES

The Subcommittee will present the completed practice guideline and practice standard to the Professional Standards Committee no later than September 2014.

Meeting Schedule: At discretion of the Chair
Completion Date: September 2014