



# Gazette

THE DEPARTMENT OF THE REGISTRAR, PEO

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The Discipline Committee of the Association of Professional Engineers of Ontario

In The Matter of a Hearing Under the *Professional Engineers Act*, RS.O. 1990, Chapter P. 28.

And in the Matter of a Complaint Regarding the Conduct of

## Engineer X,

Carrying on Business as

## Engineer X,

a Member of the Association of Professional Engineers of Ontario, and a Holder of a Certificate of Authorization

The Association of Professional Engineers of Ontario and Engineer X cob as Engineer X

## Decisions and Reasons

A panel of the Discipline Committee of the association met in the offices of the association on May 21, 1997 to hear allegations of professional misconduct and incompetence against Engineer X carrying on business as Engineer X.

William Black, Barrister & Solicitor of McCarthy Tétrault, appeared as legal counsel for the association. Paul Sullivan appeared as legal counsel for Engineer X.

The hearing arose as a result of Engineer X's involvement in three separate projects.

At the commencement of the hearing, the Committee was advised by legal counsel for the

association that one of the charges was being withdrawn and that the matter was proceeding by way of an Agreed Statements of Facts, and that Engineer X would be entering a plea of guilt to professional misconduct. Paul Sullivan, representing Engineer X, confirmed this representation by counsel for the association. The agreed Statements of Facts was filed as an exhibit. The following facts were agreed:

### With respect to project "A":

1. Engineer X was at all material times a member of the Association of Professional Engineers of Ontario

(PEO), and Engineer X was the holder of a Certificate of Authorization.

2. On or about October 5, 1993 an inspector from the City attended the site regarding the construction of a carport. The inspector observed that a wood-framed carport with open sides was being erected at the rear of the building. The carport, approximately 18' long x 17' wide, was constructed of eight 4" x 4" pressure-treated posts and four wood beams consisted of three 2" x 10", with 2" x 10" roof joists. The roof was corrugated clear plastic.

3. As no building permit had been issued for this carport,

the City issued an order to comply requiring the owner to submit plans and obtain a building permit within seven days, or alternatively, remove the unauthorized construction.

4. On or about October 27, 1993 Engineer X prepared drawing No.1, showing site plan, ground-floor plan, roof plan and section details of the foundation and footing for the project. The drawing also contained site drainage instructions and specifications regarding wood grade, concrete, and steel bars in the general notes. The drawing was not sealed nor signed by Engineer X.

5. On or about December 3, 1993 Engineer X signed and submitted to the City a permit application together with drawing No.1, dated October 27, 1993. The permit application included a sworn declaration that the information supplied by him in the application and on the drawing was correct.

6. On or about December 29, 1993 the City issued a building permit for the carport.

7. On or about January 19, 1994, Engineer X submitted to the City an application for approval of revised plans deleting the foundations for four load-bearing wood posts, and instead bearing them on the concrete slab-on-grade. The revision was approved based on Engineer X's drawing which indicated that the slab-on-grade was twelve inches thick and was reinforced with #15 bars.

8. On or about February 4, 1994, the City inspector conducted a final inspection using the drawing submitted with the building permit application and noted that:

(a) the actual distance between the carport and the

existing main building was 11'-4" as opposed to 16'-3" as shown on the drawing;

(b) an existing rear porch, measuring 13' - 6" x 9' - 0", was not shown on the drawing;

(c) the distance between the carport and the porch was 2' - 0"; and

(d) the carport overlapped with an adjacent shed which was not shown on the drawing

9. By letter dated March 1, 1994, the City advised the owner and Engineer X that the building permit was revoked on the grounds that the plans on which the permit was based contained inaccurate information and quoted the specific discrepancies from the February 4, 1994, inspection referred to in paragraph eight above.

10. A review of the documents and drawing No.1 by an independent structural consulting engineer engaged by PEO indicated that:

(a) the information and calculations shown on drawing No.1 included dimensions which referred to an existing structure. These dimensions were presented as being in compliance with municipal requirements for landscaping coverage. However, the actual construction did not match the distances shown on the drawing, and the total landscaped area did not meet the required area shown on the drawing; and

(b) Engineer X's actions in not correcting the errors on the drawing were not in keeping with professional engineering standards.

11. It appears that Engineer X and Engineer X:

(a) prepared a drawing for the purpose of a building permit application, when he knew or

ought to have known that the information shown on the drawing did not accurately reflect the construction, contained errors and omissions and violated applicable City by-laws; and

(b) failed to make provision to comply with the City's requirements.

12. Subsequently, owners applied for and obtained approval from the Committee of Adjustments for the necessary variance.

### **With respect to project "B":**

13. On or about September of 1995 Tenant Y (the Tenant) was planning to open a restaurant in a building located in the City. The two-storey building at that location measures approximately 26' wide by 100' deep and has a full basement. The building had previously been used to manufacture and sell metal fixtures for displaying merchandise. There was a retail showroom at the front of the ground floor and a painting and shipping area at the rear of the ground floor. The basement was not finished; however, the ground and second floors had finished ceilings and walls.

14. The Tenant began negotiations with the Landlord for a lease of the building which would include the full use of the basement, first and second floors, and the rooftop for a future rooftop patio. These negotiations took place over the course of several months.

15. Having regard to the age and previous usage of the building, the Tenant sought assurance from the Landlord that the building was structurally sound. To that end, the Tenant negotiated a term which was included in sched-

ule "A" of the letter of intent to lease with respect to the property that the Landlord "engage a structural engineer to test all weight loads for intended use."

16. On April 10, a real estate agent supplied Engineer X with a set of architectural plans and requested that he examine the plans and the site and, to check approximate building loads. Engineer X sealed, signed and dated a letter report on April 10, 1996.

17. In his report, Engineer X stated the following regarding the three levels:

(a) With respect to the ground floor, Engineer X indicated that at the front portion the floor has a live-load capacity of about 130 lbs. per square foot while at the rear portion, the live-load capacity was about 100 lbs. per square foot. Engineer X concluded that both load capacities were sufficient for restaurant occupancy;

(b) with respect to the second floor, Engineer X opined that the front portion had a live-load capacity of about 100 lbs. per square foot while the rear portion of the floor had a live-load capacity of about 40 lbs. per square foot only. Engineer X advised that the five 2" x 13-1/2" built-up wood beams for a span of about 21 feet are inadequate for a restaurant and recommended that a steel beam be provided;

(c) with respect to the roof, Engineer X advised that the roof was likely to have a capacity of 67 lbs. per square foot as indicated on the architectural plans and the design notes or a live-load capacity of approximately 52 lbs. per square foot. Engineer X indicated that for the future assembly occupancy, reinforcement would be required on the

OWSJ; and

(d) Engineer X also advised that the dead-load capacity was assumed to be 15 lbs. per square foot.

18. On April 27, 1996, the Tenant signed an offer to lease with the Landlord containing the following language:

#### **14:(b) STRUCTURAL SOUNDNESS**

*That the lessee satisfies himself within FIFTEEN (15) DAYS of acceptance of this offer that the building is structurally sound and, in that regard, the lessee agrees to obtain at their own expense a structural inspection of the property by a qualified structural engineer of a qualified building inspector, said inspection shall not include heating, wiring or plumbing, which the lessor intends to remove as part of the agreed lessor's demolition/clean-up work.*

*The lessee shall provide notice and evidence to the lessor if the building is not structurally sound and what if any deficiencies there may be which the lessor may or may not undertake to remedy. The lessor agrees to provide access, to the premises for the above, purposes.*

The demolition, and renovation work on the building, commenced shortly thereafter. During this work, the Tenant became concerned about various aspects of the building structure and engaged Engineer Z of Z Engineering to check the demolition of the wall and ceiling cover materials, and inspect the structural elements made visible by the demolition and recommend, corrective actions.

19. Pursuant to this engagement, Engineer Z issued three site visit reports dated June 3, 1996; June 24, 1996; and July 11, 1996 in which he found that:

(a) The floor joists over the

previously designated shipping room on the west side were fire-damaged;

(b) The floor joists over the previously designated shipping room on the east side were cut short and the supporting bearing wall removed under the short-cut ends;

(c) The support beam at the centre of this area was fire-damaged;

(d) Several of the ground floor supporting joists were cracked, split and burned;

(e) Ground floor supporting joists over the brick pit in the basement were heavily notched. The joists and the lintel in the east wall supporting these joists were not adequate for any loading;

(f) The wall separating the building from an adjacent structure was missing;

(g) The second floor supporting joists framing into the headers at the east and west walls were connected without joist hangers;

(h) The second floor supporting laminated beam under the floor joists at the south portion of the building was under-designed. Engineer Z's analysis showed that the carrying capacity of the floor joists in this area was much larger than the capacity of the support beam;

(i) The ground floor supporting joists were not protected when framed into the east and west brick wall as required by the OBC. Most of these joists were partially and completely decayed at their bearing, and had virtually no bearing capacity;

(j) The existing 6" x 8" beams under the ground floor joists at the north portion of the building were not adequate for the assigned loading and resisting shear forces; and

(k) pier #3 which supported the

first steel column from the north wall had no footing.

20. Engineer Z also provided recommendations for the findings listed in his reports.

21. Having been provided with the information set out above, PEO engaged an independent structural consulting engineer to attend at the project site on September 25, 1996 and to review Engineer X's letter report and Engineer Z's three site visit reports.

22. The independent expert's report is attached and forms a part of this Agreed Statement of Facts.

23. By reason of the facts aforesaid, it is agreed by Engineer X and Engineer Z that they are guilty of professional misconduct as defined in Section 28(2)(b) of the Professional Engineers Act R.S.O. 1990 Chapter P.28 as defined in Regulation 941.

No witnesses were called by either party.

A report prepared by the PEO expert was filed with the agreed statement of facts. This report pertained to project B. The Expert had reviewed the report by Engineer X dated April 10, 1996 and the Site Visit reports by Engineer Z. The Expert reported that Engineer X's report is basically a statement without clarification of the structural capacities of the floors and roofs for Project B. Engineer Z's report recorded observations made during demolition work for the construction of the new restaurant in the facility. The Expert in his report indicates that a variety of unsafe conditions are reported that were not addressed in Engineer X's April 10, 1996 report. In his report, the Expert indicates that while there was no complaint that the capacities in Engineer X's report are incorrect for the member sizes and

spacing in the building, the issue appears to be that many members are damaged or modified so that the capacities cannot or may not be achieved. Engineer X's report does not mention the assumptions made to determine the capacity of the floor structure and also does not mention any of the deficiencies that were clearly evident.

While the Expert saw no evidence that Engineer X was engaged to perform a condition survey, in his opinion, it was imprudent of Engineer X not to record the evidence of deterioration in the April 10, 1996 report. The Expert states, "furthermore, his unqualified report is easily misinterpreted. The observations and calculations are not provided for reference to ensure that the limits of the investigation are known to any reader."

In conclusion, the Expert states, "I believe the reporting is deficient, if only because of its brevity. This makes it misleading even if the underlying assumptions would be correct. Engineer X has not adequately laid out the basis of his opinion. These are matters representing inadequate practice, management and communication. He does not appear to understand the potential risks associated with presenting conditions without explaining their origin. The standard of care is below that expected of professional engineers.

Paul Sullivan, on behalf of Engineer X, entered a guilty plea to the charges of professional misconduct as defined in Section 28(2)(b) of the *Professional Engineers Act*, R.S.O. 1990, Chapter P.28 which prescribes as follows:

28(2) "A member of the association or a holder of a

Certificate of Authorization, a temporary licence or a limited licence may be found guilty of professional misconduct by the Committee if:

(b) the member or holder has been guilty in the opinion of the Discipline Committee of professional misconduct as defined in the regulations."

The Notice of Hearing alleged that the sections of Regulation 941 made under the Act relevant to professional misconduct are:

Section 72(2)(a): "negligence"

As defined at Section 72(1): "In this section, 'negligence' means an act or omission in the carrying out of the work of a practitioner that constitutes a failure to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances";

Section 72(2)(b): "failure to make reasonable provision for the safeguarding of life, health or property of a person who may be affected by the work for which the practitioner is responsible; "

Section 72(2) (d): "failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, by-laws and rules in connection with work being undertaken by or under the responsibility of the practitioner; "

Section 72(2)(h): "undertaking work the practitioner is not competent to perform by virtue of the practitioner's training and experience; " and

Section 72(2)(j): "conduct or an act relevant to the practice of professional engineering that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as disgraceful, dishonourable or unprofessional."

Counsel for the association and Engineer X agreed that the applicable Sections of Regulation 941 to Engineer X's professional misconduct were Section 72(2) (a) "negligence", and Section 72(2)(j) "unprofessional conduct." Both counsels submitted that the conduct of Engineer X was not disgraceful or dishonourable, but agreed that it was unprofessional.

Mr. Black for the association submitted that with respect to Project B, a finding should be made under Section 72(2)(b) for the failure to make reasonable provision for the safeguarding of property of a person, as the report may have put the property in jeopardy.

After considering the evidence and the exhibits filed, the Committee accepted the joint submission by counsels with respect to Section 72(2)(a) and Section 72(2)(j) with respect to unprofessional conduct or an act only.

With respect to Section 72(2)(b), based on the Agreed Statement of Facts, the exhibits filed, and the withdrawal by the association of the aspects related to the safeguarding of life and health, the Committee found that there was insufficient evidence to establish guilt with respect to the safeguarding of property.

Sections 72(2)(d) and (h) were withdrawn.

The Committee accepted Engineer X's guilty plea to professional misconduct.

**On the basis of the guilty plea in the Agreed Statement of Facts, counsels for the association and Engineer X entered a joint submission as to penalty as follows:**

**1. Engineer X's licence and his company's Certificate of Authorization will be suspended for a period of four (4) months;**

**2. That suspension will in turn be suspended conditional upon the occurrence within one year from the date of the guilty plea of the following:**

**(a) for the one-year period at agreed intervals (relating to milestones on projects in which Engineer X is involved) an inspector appointed by the PEO shall attend at Engineer X's premises to review the state of ongoing projects and develop with Engineer X plans for ongoing steps within those projects. At the conclusion of the year (or earlier if appropriate), the inspector will prepare a report with recommendations to the Discipline Committee;**

**(b) Engineer X shall bear the cost of such inspections up to a maximum of \$1,000 within the year;**

**(c) Engineer X shall attend at the PPE course and pass the PPE examination;**

**(d) Engineer X shall attend and pass course 92-CIV-A2, Elementary Structural**

**Design, from the CCPE syllabus of examinations, or alternatively, pass the equivalent confirmatory examination designated by the PEO.**

**By virtue of the power vested in it by Section 28 of the Professional Engineers Act, the Committee ordered that:**

**1. The practitioner and the Certificate of Authorization holder be suspended for a period of four (4) months, the suspension to be suspended provided that the following terms and conditions are complied with within one year of this order:**

**(a) at agreed intervals (relating to milestones on projects on which the practitioner is involved) an inspector appointed by the PEO shall attend at the practitioner's**

**offices, to review the state of ongoing projects and develop procedures with Engineer X within these projects. At the conclusion of the year (or earlier if appropriate), the inspector will prepare a report for the PEO;**

**(b) Engineer X shall bear the cost of such inspections up to a maximum of \$1,000;**

**(c) Engineer X shall attend the PPE course and pass the PPE examination;**

**(d) Engineer X shall attend and pass course 92-CIV-A2, Elementary Structural Design, from the CCPE syllabus of examinations, or alternatively pass the equivalent confirmatory examination designated by the PEO;**

**(e) In the event that Engineer X fails to meet the conditions set out above by May 21, 1998, his licence will be suspended for a four-month period effective on that date;**

**(f) that the matter be published forthwith in the official journal of the association without names or project identifiers;**

**(g) in the event that the conditions are not met and there is a suspension, the Decision be published in summary form in the official journal of the association with the name of the Engineer.**

Jag Mohan, P.Eng. (Chairman)

FOR AND ON BEHALF OF THE COMMITTEE

Barry Batchelor, P.Eng.  
Richard Braddock, P.Eng.  
William Fredenburg, P.Eng.  
Ed Rohacek, P.Eng.