

## SUMMARY OF DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act, R.S.O. 1990, c. P.28*; and in the matter of a complaint regarding the conduct of RUDOLPH G. BUCHANAN, P.ENG., a member of the Association of Professional Engineers of Ontario.

This Discipline Committee hearing took place on October 30, 2019, and the panel issued its decisions and reasons on January 15, 2020. The panel met again on February 24, 2020, to consider penalty and issued a decision on penalty and costs on June 10, 2020. Counsel for the association was Leah Price, and counsel for Mr. Buchanan was Harp Khukh.

### AGREED FACTS AND ALLEGATIONS

The allegations against Rudolph Buchanan, P.Eng., were set out in the Statement of Allegations dated November 27, 2018, and Buchanan admitted to the facts and allegations as follows:

- 1) Rudolph G. Buchanan, P.Eng. (Buchanan), is a licensed engineer with PEO since 1981. At the time of the events described below, he did not hold a certificate of authorization.
- 2) In or about October 2011, architect J. William Birdsell (Birdsell) verbally retained Buchanan to review structural drawings for a proposed 175 m<sup>2</sup> extension to an industrial building (the Building) located at 137 Arrow Road in Guelph (the Extension Project). The Extension Project was a steel-framed extension that was higher in height than the original Building.
- 3) Buchanan signed and sealed four structural drawings intended for submission in an application for building permit to the City of Guelph (the City). Buchanan signed and sealed the following documents (the Sealed Drawings), all dated October 17, 2011:
  - a) S-1 (Foundation Plan);
  - b) S-2 (Found. Section);
  - c) S-3 (Roof Structure Plan); and
  - d) S-4 (Structural Notes).

Attached as Schedule “A” hereto are (reduced) copies of the Sealed Drawings.
- 4) Buchanan’s engineering education focused on mechanical engineering. At the material time, he had no experience in building structural design or building structural analysis.
- 5) Birdsell prepared the Sealed Drawings. Buchanan signed and sealed the Sealed Drawings relying on Birdsell, without doing any structural review or calculations to determine structural adequacy.
- 6) Between October 2011 and April 2013, Vittorio Torchia from 1090453 Ontario Inc. (Torchia), the owner of the Building, constructed the Extension Project without obtaining a building permit. The extension was constructed based on shop drawings that the supplier of the steel-framing completed in 2012, not on the Sealed Drawings.
- 7) The City discovered that Torchia had constructed the Extension Project without a permit and required that proper documents be filed. Torchia retained Tacoma Engineers (Tacoma) to prepare documents for the building permit. Tacoma conducted a review of the building design as part of their work and discovered numerous structural deficiencies in the Sealed Drawings.
- 8) Tacoma also noted that the general notes contained in one of the Sealed Drawings (S-4) (which was prepared prior to Tacoma’s retainer), included reference to Tacoma and its telephone number, such that Tacoma suspected that Buchanan had used general notes from another project in which Tacoma was involved. As Buchanan did not review the Sealed Drawings, he failed to note or correct the reference to Tacoma.
- 9) As a result, Steve Adema, P.Eng., an engineer at Tacoma, filed the Complaint, Attached as Schedule “B,” is a copy of the Complaint without attachments.
- 10) PEO retained Daria Khachi, P.Eng., as an independent expert to review the design of the Extension Project. Mr. Khachi provided a report dated August 20, 2018 (the Expert Report), in which he opined that the Sealed Drawings contained errors, omissions and deficiencies, including:
  - a) The metal roof deck specified in the Sealed Drawings was inadequate;

- b) A support column was not large enough (although the extension was built according to the steel supplier's shop drawings, which shows a larger column at that location);
  - c) The foundation plan drawings did not accurately show the pit depression and the walls required to support the perimeter of a 710mm deep pit; and
  - d) The proposed roof to the extension was approximately 3.1m taller than the existing building roof, which created substantial snow accumulation on the low [existing] roof. This accumulation would cause overstressing of roof joists by gridline 9, two roof beams between grids 7 and 9, and the end span of the roof deck by gridline 9 (the structural snow accumulation issue). The overstressing would result in member failure. The structural snow accumulation issue was contrary to the minimum design loads and standards set out in the Ontario Building Code, as well as other codes and standards that are necessary for the design of structures, attached as Schedule "C" is a copy of the Expert Report (attachment omitted).
- 11) For the purposes of this proceeding, Buchanan accepts as correct the findings, opinions and conclusions contained in the Expert Report. Buchanan admits that he failed to meet the minimum acceptable standard for engineering, and that he failed to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances.

#### PLEA BY THE MEMBER

The member pled guilty to all of the allegations of professional misconduct as were set out in the Agreed Statement of Facts. The panel conducted a plea inquiry of the member and was satisfied that the member's plea was voluntary, informed and unequivocal.

#### DECISION

The panel considered the Agreed Statement of Facts and the guilty plea of the member. The panel found

the member guilty of professional misconduct under section 28(2)(b) of the act and its Regulation 941.

The hearing was adjourned to February 24, 2020, to address the issue of penalty.

#### DECISION AND REASON

The panel considered the Agreed Statement of Facts and finds that the facts support a finding of professional misconduct and, in particular, finds that Rudolph G. Buchanan, P.Eng., a member of the Association of Professional Engineers of Ontario, committed an act of professional misconduct as alleged in paragraphs 12 a., b., c., d., e., f., and g. of the Agreed Statement of Facts.

#### ADJOURNMENT ON THE ISSUE OF PENALTY

The parties explained that an independent expert had been jointly retained by PEO and the member. They sought an adjournment to February 24, 2020, in order to have an opportunity to receive and consider a report. The purpose of considering the report was to arrive at a joint submission on penalty.

#### DECISION ON THE REQUEST TO ADJOURN ON PENALTY

The panel considered the request for the adjournment. The panel was mindful of the fact that the request was being made on consent of both the association and the member. The panel was at the same time concerned about the fact that a finding of misconduct had been made and considered whether it was appropriate in all of the circumstances to delay the imposition of the penalty.

The association submitted that it was their belief that the adjournment would result in a joint submission on penalty, although it could not guarantee that. The issue of peer review was discussed. The expert report was expected to be of assistance in determining the appropriate scope of a peer review. The independent, jointly retained expert was to review projects completed by the member beyond the one that was the subject of the allegations before the panel. The panel requested submissions from the parties regarding the nature of the work he was doing and regarding how the review by the independent, jointly retained expert was progressing.

The parties added to additional agreed facts:

1. The work that the expert had reviewed to date was safe and did not pose a risk to the public;
2. The work the member is currently doing is not the same as the work that is the subject of the complaint.

The panel granted the adjournment.

### PENALTY DECISION

The panel accepted the Joint Submission as to Penalty and, accordingly, orders:

1. Pursuant to s. 28(4)(f) of the *Professional Engineers Act*, Buchanan shall be reprimanded, and the fact of the reprimand shall be recorded on the register permanently;
2. Pursuant to s. 28(4)(b) of the *Professional Engineers Act*, Buchanan's licence shall be suspended for a period of two (2) weeks, commencing on March 2, 2020;
3. The finding and order of the Discipline Committee shall be published in summary form under s. 28(4)(i) and s. 28(5) of the *Professional Engineers Act*, together with the name of the member;
4. Pursuant to s. 28(4)(d) and s. 28(4)(e) of the *Professional Engineers Act*, there shall be a term, condition and restriction on Buchanan's licence prohibiting him from practising structural engineering. It is understood and agreed that the member's current work for Progressive Industrial Millwright Limited in connection with the preparation of unsealed fabrication and detail drawings (Shop Drawings) for small steel structures such as: platforms not larger than two hundred (200) square feet in area and ten (10) feet in height, and stairs spanning no more than two (2) storeys; does not constitute the practice of structural engineering. In preparing the Shop Drawings, the member shall not assume responsibility for any design elements, which includes, but is not limited to load requirements, welding requirements, connections or components; and
5. There shall be no order as to costs.

### REASON FOR PENALTY DECISION

The panel concluded that the proposed penalty is reasonable and in the public interest. Rudolph G. Buchanan, the member, has co-operated with the association. With respect to the order for costs, by agreeing to the facts and a proposed penalty, the member has accepted responsibility for his actions and has avoided unnecessary expense to the association. With respect to the remaining aspects of the penalty, the panel agrees generally with the submissions of counsel for the association and notes, in particular, that the member agreed voluntarily and, as part of the process of determining what the penalty would be, to undergo a practice review. He accepted that he should not have done work in the area of structural engineering. He regretted having done so. He agreed with having a permanent restriction on practising structural engineering, which would prevent him from sealing a drawing for the design of structures as described at paragraph 4 above. The panel considered whether there was any aspect of the penalty that would justify varying from the joint submission made by the parties. The panel found that there was nothing about the joint submission that justified varying from it. The panel was satisfied that the penalty proposed by the parties did meet all of the elements required of it, and so ordered.

Ishwar Bhatia, P.Eng., signed this Decision and Reasons for the decision as chair of this discipline panel and on behalf of the members of the discipline panel: Kathleen Robichaud, LLB, Michael Rosenblitt, P.Eng., Virendra Sahni, P.Eng., and Anthony Warner, P.Eng.