

PRACTICE ADVISORY

ISSUED FOR BUILDING PERMIT DOCUMENTS

Version 2.0, Published December 12, 2023

This practice advisory was initially issued in October of 2020 to inform registrants of Engineers and Geoscientists BC (engineering professionals) of the standard of practice regarding the completeness of authenticated plans and supporting documents (collectively referred to in this advisory as “Plans”) from an Engineer of Record (EOR) for a building permit application. It summarized the results of a disciplinary decision issued to an engineering professional in March of 2019 that outlined the expectations for completeness of Plans, in particular, structural designs submitted by an EOR in support of a building permit application.

This revision addresses changes to the Letters of Assurance in the *British Columbia Building Code* 2024 (BCBC) related to the Engineers and Geoscientists BC quality management standard for independent review(s) of structural designs.

Plans submitted to an authority having jurisdiction (AHJ) in support of an application for a building permit must:

- substantially comply with the applicable Code – the BCBC, the Vancouver Building By-law (VBBL), or the *National Building Code of Canada* (NBC) – and other applicable enactments respecting safety (except for construction safety aspects);
- contain sufficient detail to enable the design to be checked by another engineering professional to confirm compliance with applicable Codes; and
- have undergone an independent review prior to submission in support of a building permit application.

The submission of an incomplete design as part of a building permit application exposes multiple parties to various types of risks and may be considered evidence of unprofessional conduct.

BACKGROUND

In March 2019, Engineers and Geoscientists BC’s Discipline Committee Panel (“the Panel”) determined that an engineering professional had demonstrated unprofessional conduct when submitting structural Plans in support of a building permit application, as they were materially incomplete and contained deficiencies for the purpose of “getting into the queue” for a building permit.

The Panel that heard the case found that the structural Plans omitted material information; in particular, the Plans depicted incomplete load paths and incomplete beam, joist, and column sizing, and they lacked foundation details and roof-framing details. The Panel accepted expert evidence that the structural drawings were only 50 to 75 percent complete. The Panel also found that, contrary to Section 2.2.4.3(1)(c) of Division C, Part 2 of the BCBC, the structural Plans did not contain the dimensions, location, and sizes of all structural members in sufficient detail to enable the design to be checked.

Submission of incomplete Plans as part of a building permit application exposes multiple parties to various types of risks, especially in the following situations:

- AHJ staff assume that Plans submitted by an EOR substantially comply with the applicable Codes, as stated on the related Letter of Assurance issued by the EOR, and on that basis the AHJ issues a building permit.
- An EOR provides incomplete Plans for a building permit application with the clear intention of preparing compliant Plans prior to construction, but the EOR dies, becomes incapacitated, or is otherwise removed from the project and compliant designs are never prepared after the building permit is issued.
- After a project is constructed, the AHJ is required to investigate the constructed design to assess building performance issues, assess other risks to public safety, and retain the Plans for the future reference of owners or project professionals, but the filed Plans that were provided to the AHJ do not reflect the design that was actually constructed.

At the recommendation of Engineers and Geoscientists BC and the Architectural Institute of British Columbia (AIBC), line 2.5 [*Independent review of structural designs*] was added to the BCBC 2024 Letters of Assurance. This addition to the Letters of Assurance is a change in process, not the addition of a new requirement.

This recommendation was based on complaints, investigations, and discipline cases, as well as public attention related to the practice of structural engineering in BC. The discipline cases indicated that independent reviews were not being conducted at all, or not at the appropriate time; and when feedback was provided by the independent reviewer, it was either not adequate or had not been appropriately addressed by the EOR.

Introducing the requirement for confirmation of independent review of structural design in the Letters of Assurance is a step towards increasing the safety of structural building design in BC. Having the independent review completed before the Plans are submitted for building permit application is expected to decrease the likelihood of permitting delays due to errors or omissions in the Plans.

Structural engineers are reminded that independent review of structural designs has been a quality management requirement of Engineers and Geoscientists BC since 1992. As per Section 7.3.5(3)(f) of the Engineers and Geoscientists BC Bylaws, engineering professionals are required to provide a copy of the documented record of independent review (i.e., the checklist and signoff for an independent review of structural designs) to the AHJ, if requested. The requirement to keep documented records of the independent review is an Engineers and Geoscientists BC requirement; submission of these records to the AHJ is not triggered by the Letters of Assurance.

STANDARD OF PRACTICE

The standard of practice for the submission of engineering Plans to an AHJ by an EOR in support of an application for a building permit requires that the engineering Plans:

- be complete for their intended purpose;
- substantially comply with the Codes and other applicable enactments respecting safety (except for construction safety aspects);
- contain “sufficient detail to enable the design to be checked” by another engineering professional for conformance to the Codes (as noted expressly for the structural discipline in Section 2.2.4.3(1)(c) of Division C, Part 2 of the BCBC, and as interpreted in the *Guide to the Standard for Documented Independent Review of Structural Designs* [Engineers and Geoscientists BC 2023a]);
- be appropriately checked, with records of the checks performed retained for a minimum of 10 years, as outlined in the *Guide to the Standard for Documented Checks of Engineering and Geoscience Work* (Engineers and Geoscientists BC 2023b);
- have undergone an independent review as outlined in the *Guide to the Standard for Documented Independent Review of Structural Designs* (Engineers and Geoscientists BC 2023a); and
- have the firms’ Permit to Practice number displayed visibly somewhere on the Plans and be authenticated by the EOR by applying their seal complete with signature and date as outlined in the *Guide to the Standard for Authentication of Documents* (Engineers and Geoscientists BC 2023c).

It should be noted that the type of “checking” that may be conducted by an AHJ in its permitting process must be distinguished from, and not confused with, the checking that engineering professionals are required to undertake for their own engineering work. Any check or review that an AHJ conducts will not relieve the EOR of their professional obligation to ensure appropriate documented checks and independent reviews are carried out in accordance with Engineers and Geoscientists BC Bylaw requirements. See the [Professional Practice Guidelines – Peer Review](#) (Engineers and Geoscientists BC 2022) for clarification on the different types of peer reviews and the [Practice Advisory – Professional Conduct Between Submitting Professionals and Authorities Having Jurisdiction](#) (Engineers and Geoscientists BC 2023d) for clarification on the expectations for conduct in a permit review or related process.

It is not acceptable for an EOR to submit incomplete Plans for a building permit application to secure a place in the administrative queue with the intention of providing a more complete version of the documents at a later date. Any design documents submitted to an AHJ must substantially comply with the applicable Codes.

However, an EOR may submit design documents for permitting purposes that are marked as “Issued for Permitting Purposes,” along with the following statement:

This submission is provided for permitting purposes. For construction, refer to the Issued for Construction version of these plans and supporting documents.

In such event, the EOR must issue the “Issued for Construction” version of the documents to their client prior to construction. Both the “Issued for Permitting Purposes” and “Issued for Construction” versions of the Plans are expected to substantially comply with the applicable Codes.

REFERENCES AND RELATED DOCUMENTS

For further information, see Engineers and Geoscientists BC’s web pages for Quality Management Guides: egbc.ca/Quality-Management-Guides and Discipline Notices: egbc.ca/Complaints-Discipline/Discipline-Notices.

Engineers and Geoscientists BC. 2023a. Guide to the Standard for Documented Independent Review of Structural Designs. Version 3.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2023 Oct 18]. egbc.ca/Quality-Management-Guides

Engineers and Geoscientists BC. 2023b. Guide to the Standard for Documented Checks of Engineering and Geoscience Documents. Version 3.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2023 Oct 18]. egbc.ca/Quality-Management-Guides

Engineers and Geoscientists BC. 2023c. Guide to the Standard for Authentication of Documents. Version 4.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2023 Oct 18]. egbc.ca/Quality-Management-Guides

Engineers and Geoscientists BC. 2023d. Professional Conduct Between Submitting Professionals and Authorities Having Jurisdiction. Version 1.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2023 Oct 18]. egbc.ca/Practice-Resources/Individual-Practice/Guidelines-Advisories

Engineers and Geoscientists BC. 2022. Peer Review. Version 1.0. Version 4.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2023 Oct 18]. egbc.ca/Practice-Resources/Individual-Practice/Guidelines-Advisories

VERSION HISTORY

VERSION NUMBER	PUBLISHED DATE	DESCRIPTION OF CHANGES
2.0	December 12, 2023	Updated to address changes to the Letters of Assurance in the <i>British Columbia Building Code 2024</i> related to the Engineers and Geoscientists BC quality management standard for independent review(s) of structural designs.
1.0	October 29, 2020	Initial version.

© 2023 ENGINEERS AND GEOSCIENTISTS BRITISH COLUMBIA. ALL RIGHTS RESERVED.