



ENGINEERS &
GEOSCIENTISTS
BRITISH COLUMBIA

MEMBER ADVISORY: 2018-04

Field Reviews, Construction Deficiencies and Safety

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BACKGROUND

Building projects are complex and involve many different parties. Engineers and Geoscientists BC has numerous professional practice guidelines addressing the roles and responsibilities of registered professionals and associated parties involved in various technical disciplines related to building projects. Recently, members have expressed concern over misinterpretation from various project participants regarding how the engineer of record's field review relates to addressing construction deficiencies, as well as the role of the engineer relating to construction safety.

CONSTRUCTION DEFICIENCIES

The engineer of record for a specific discipline, or someone under their direct supervision, is required to perform field reviews; this is outlined in the various professional practice guidelines issued by Engineers and Geoscientists BC for engineering services for building projects (structural, mechanical, electrical, geotechnical, and fire protection). Field review is defined in the BC Building Code as *"a review of the work... that a registered professional in his or her professional discretion considers necessary to ascertain whether the work substantially complies in all material respects with the plans and supporting documents prepared by a registered professional."*

A field review is different from an inspection performed by an authority having jurisdiction to confirm alignment with the applicable code or bylaw requirements. Whether or not letters of assurance under the *BC Building Code* or Vancouver Building Bylaw are required for a building project, there is still a professional requirement to perform field reviews.

When field reviews reveal construction deficiencies, field review documentation should outline the deficiencies and state whether the contractor can proceed once the deficiencies are corrected or the contractor must wait for a follow-up field review to be performed. The engineer of record can exercise their professional discretion in determining if and when follow-up field reviews are required in order to address deficiencies, while considering the risk and level of complexity in making such determinations. The engineer of record should also be aware that changes during construction may trigger a permit revision.

Further clarification can be found in Section 3.2.1 of Engineers and Geoscientists BC's *Quality Management Guidelines - Documented Field Reviews During Implementation or Construction*:

Field Reviews are not supervision of the implementation or construction work, nor are they a guarantee that all deficient work will be identified by the Engineering/Geoscience Professional or subordinate. The contractor or other party implementing or constructing the

work is responsible for supervising the work, delivering work that is in conformity with the engineering or geoscience documents, and deciding the means and methods for doing so. The Field Reviewer observes the contractor's work to ascertain whether the work substantially complies in all material respects with the engineering or geoscience concepts or intent reflected in the engineering or geoscience documents prepared for the work, and may reject nonconforming work, but leave the means and methods for achieving what is required to the contractor or others who are tasked with implementing or constructing the work.

If no letters of assurance are required on a project and the contractor is not addressing construction deficiencies noted in field review documentation, Engineers and Geoscientists BC recommends that engineers provide a written record of any concerns to the contractor, the owner, and the authority having jurisdiction.

CONSTRUCTION SAFETY

As required by the *BC Building Code*, the registered professional is responsible for confirming “*that the construction of the project will substantially comply with the BC Building Code and other applicable enactments respecting safety, not including the construction safety aspects.*” (Schedule A)

To provide some context for what constitutes “construction safety aspects,” relevant professional practice guidelines identify that the engineer’s presence or observations on site during construction does not constitute review or approval of the contractor’s safety measures either in or near the work site; the methods of construction including techniques, sequences and procedures; and any acts or omissions of the contractor. Unless the sequence of construction is part of the engineering design, the safety of components under construction are not the responsibility of the engineer.

Further clarity on the roles and responsibilities of the registered professional related to construction safety is provided in Section 3.2.2 and 3.2.3 of Engineers and Geoscientists BC’s *Quality Management Guidelines - Documented Field Reviews During Implementation or Construction*:

Field Reviews are also not an inspection of the work or safety at a contractor-controlled site or a site managed by others, nor are they a review of the relevant safety program. This does not mean that Engineering/Geoscience Professionals may look the other way when they see a safety violation or concern. Engineering/Geoscience Professionals have a duty to hold public safety paramount.

In any event, when an Engineering/Geoscience Professional becomes aware of a safety violation or concern, he or she must advise the appropriate party in control of the site or responsible for the site safety and, if no action is taken, then advise the client or relevant authorities. When actions taken fail, and an Engineering/Geoscience Professional believes that workers or the public are in imminent danger, he or she has a professional duty to act to stop the work. If the Engineering/Geoscience Professional’s attempts to stop the dangerous work fail, the Engineering/Geoscience Professional should call WorkSafeBC or

a similar organization for assistance and indicate the urgency of the situation. When this level of action becomes necessary it must be documented.

Field reviews do not constitute an inspection of construction safety; however registered professionals should still be aware of their duty to report under the Engineers and Geoscientists BC Code of Ethics.