GUIDE TO THE STANDARD FOR DOCUMENTED CHECKS OF ENGINEERING AND GEOSCIENCE WORK

VERSION 4.0
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ENGINEERS &
GEOSCIENTISTS
BRITISH COLUMBIA

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PREFACE

This *Guide to the Standard for Documented Checks of Engineering and Geoscience Work* (the "Guide") was developed by Engineers and Geoscientists British Columbia to explain the standards of practice, conduct, and competence for Professional Registrants related to Checking of professional engineering or professional geoscience activities or work.

This current revision was undertaken to incorporate Registrant Firm requirements, describe the risk assessment requirements related to Checking, add reference to the *Guide to the Standard for Documented Risk Assessments* (Engineers and Geoscientists BC 2026a), and address the use of artificial intelligence (AI) as it relates to Checking.

This Guide provides Engineers and Geoscientists BC's interpretation of Section 7.3.4 of the Bylaws. Professional Registrants and Registrant Firms are required to meet this standard by having regard for the information provided in this Guide. Professional Registrants are required to exercise their professional judgment when applying this standard in their practice. Registrant Firms are required to have documented policies and procedures in their Professional Practice Management Plan (PPMP) to meet this standard. This Guide is a living document that is to be revised and updated as required to reflect the developing state of practice.

ABBREVIATIONS

ABBREVIATION	TERM
AI	Artificial Intelligence
BC	British Columbia
EGBC	Engineers and Geoscientists BC
EIT	Engineer-in-Training
GIT	Geoscientist-in-Training
PPMP	Professional Practice Management Plan

DEFINED TERMS

The following definitions are specific to this Guide. These words and terms are capitalized throughout the document:

TERM	DEFINITION
Act	The *Professional Governance Act*, S.B.C. 2018, c. 47.
Authenticate (and derivatives) (see also Digital Authentication and Manual Authentication)	The act of a Professional Registrant Manually Authenticating or Digitally Authenticating a Document.
Bylaws	The Bylaws of Engineers and Geoscientists BC made under the *Act*.
Check (and derivatives)	A documented process to confirm that the professional engineering or professional geoscience work is complete, meets all Input Requirements, and is suitable for its intended use or purpose. This encompasses all of the various Checks that occur or ought to occur throughout the development, presentation, production, and performance of any Regulated Practice work in any sector.
Corrective Action	Action taken to identify and eliminate root causes of non-conforming work to prevent the non-conformance from recurring.
Digital Authentication (and derivatives)	A Professional Registrant applying all of the following to a Document: (a) the Professional Registrant's digital seal; (b) a digital image of the Professional Registrant's signature; (c) a digital image of the date of Authentication; and (d) the Professional Registrant's digital certificate.
Document(s)	Includes any physical or electronic Record, including but not limited to a report, certificate, memo, specification, drawing, map, or plan, that conveys a design, direction, estimate, calculation, opinion, interpretation, observation, model, or simulation that relates to the Regulated Practice.
Documentation	See the definition for "Record."
Engineers and Geoscientists BC	The Association of Professional Engineers and Geoscientists of the Province of British Columbia, operating as Engineers and Geoscientists BC.
Firm	As defined in the *Act*: "(a) a government registrant; (b) a legal entity or a combination of legal entities that is engaged in a regulated practice, whether the practice occurs solely within the firm or in the provision of services to a person or entity outside the firm, unless the legal entity or combination of legal entities is exempted from this Act by regulation of the Lieutenant Governor in Council;".
Guide	A guide to a program or regulatory topic, published by Engineers and Geoscientists BC. These include Guides to quality management standards that in accordance with the *Act* and Bylaws define professional obligations related to specific processes and explain the minimum standards of practice, conduct, and competence expected from Professional Registrants and Registrant Firms.
Input Data	Data used as the basis for the professional engineering or professional geoscience work that may include, but is not limited to, test and survey data, design assumptions, applicable standards and codes, preliminary designs or reports, work prepared by other professionals, and information provided by the client.

TERM	DEFINITION
Input Requirements	Requirements that the process or deliverable must meet or satisfy that may include, but is not limited to, client objectives and requirements, design criteria, applicable standards, codes and legislation, organizational requirements and standards, and requirements otherwise set out in Engineers and Geoscientists BC professional practice guidelines.
Manual Authentication (and derivatives)	A Professional Registrant applying all of the following to a Document: (a) the Professional Registrant's manual seal; (b) the Professional Registrant's handwritten signature; and (c) the date of Authentication.
Permit to Practice	A certificate bearing a Permit to Practice number that is issued to a Registrant Firm by Engineers and Geoscientists BC and confirms the Registrant Firm is entitled to engage in the Reserved Practice in BC, subject to any suspensions, limitations, conditions, or restrictions on the Registrant Firm's registration.
Professional of Record	The Professional Registrant who is professionally responsible for activities, work, or Documents related to the Regulated Practice.
Professional Practice Management Plan	A Document developed and maintained by a Registrant Firm, which must meet the requirements set out in Section 7.7.3 of the Bylaws.
Professional Registrant	A Registrant of Engineers and Geoscientists BC who is registered in one of the following categories of Registrants: (a) professional engineer; (b) professional geoscientist; (c) professional licensee engineering; (d) professional licensee geoscience; (e) life member prior to 1998; (f) honorary life member.
Quality Control	A set of activities intended to ensure that requirements are actually being met.
Record (Documentation)	Any Document that is evidence of Regulated Practice activities, events, or transactions, or is evidence that a Professional Registrant has met their professional and contractual obligations.
Registrant	As defined in the *Act*: "(a) a professional engineer, (b) a professional geoscientist, (c) a firm that is registered with the regulatory body under this Act, if firms may be registered in respect of that regulatory body, or (d) an individual or firm, as applicable, that is registered with the regulatory body as another category or subcategory of registrant in accordance with the bylaws of the regulatory body".
Registrant Firm	A Firm that is registered with Engineers and Geoscientists BC as a Registrant and is a holder of a Permit to Practice.
Regulated Practice	As defined in the *Act* and the *Regulation*, the carrying on of a profession by a registrant of a regulatory body, which for the purposes of this Guide means the practice of professional engineering or the practice of professional geoscience.
Regulation	The *Engineers and Geoscientists Regulation*, OIC 2021/037.
Reserved Practice	As defined in the *Act* and the *Regulation*, a Regulated Practice for which the right to practice is reserved for registrants of a regulatory body.

VERSION HISTORY

VERSION NUMBER	PUBLISHED DATE	DESCRIPTION OF CHANGES
4.0	September 1, 2026	Incorporated content and guidance specific to Registrant Firms from the retired *Regulation of Firms Permit to Practice Manual*; clarified the risk assessment requirements related to Checking; referenced the *Guide to the Standard for Documented Risk Assessments*; addressed the use of AI as it relates to Checking; minor editorial corrections.
3.0	June 15, 2023	Updated content to conform with the *Act* and updated Bylaws; minor editorial corrections.
2.0	February 17, 2021	Updated the content and terminology to conform with the *Act* and updated Bylaws; changed the main title to *Guide to the Standard for Documented Checks of Engineering and Geoscience Work*; changed the document category from "quality management guidelines" to "quality management guides."
1.3	January 9, 2018	Updated format to align with new Engineers and Geoscientists BC brand; minor editorial corrections.
1.2	October 7, 2013	Minor editorial corrections.
1.1	February 25, 2013	Minor editorial corrections.
1.0	May 2012	Initial version.

1.0 INTRODUCTION

1.1 OVERVIEW

1.1.1 Engineers and Geoscientists BC is the regulatory and licensing body for the engineering and geoscience professions in British Columbia (BC). To protect the public interest, Engineers and Geoscientists BC establishes, monitors, and enforces standards for the qualification and practice of Professional Registrants and Registrant Firms.

1.1.2 Engineers and Geoscientists BC provides practice resources to Professional Registrants and Registrant Firms to assist them in meeting their professional and ethical obligations under the *Act* and Bylaws. One category of these practice resources is Guides to quality management standards, which explain the standards of practice, conduct, and competence for quality management in professional activities.

1.1.3 This Guide explains the standards of practice, conduct, and competence for Professional Registrants related to documenting Checking that is carried out in their Regulated Practice. This Guide explains how Professional Registrants should carry out Checks and what Documentation should be retained.

1.1.4 This Guide provides Engineers and Geoscientists BC's interpretation of the standard described in Section 7.3.4 of the Bylaws. Professional Registrants and Registrant Firms are required to meet the standard by having regard for the information included in this Guide. Professional Registrants are required to exercise their professional judgment when applying the standard in their practice. There may be limited circumstances where, in a Professional Registrant's professional judgment, there are sound technical or ethical reasons to depart from the interpretation in this Guide. In those circumstances, Professional Registrants should record the technical or ethical reasons for the departure and use their professional judgment to make sure the resulting work still meets the intent of the standards in the Bylaws. Any opinion, analysis, or other Document containing technical or ethical reasons for the departure is inherently related to the Regulated Practice and therefore constitutes a Record which must be maintained. When departing from the interpretation in this Guide, Professional Registrants remain responsible for exercising their professional judgment to conduct their practice in a manner that meets the intent of the standards in the Bylaws.

1.2 PURPOSE OF THIS GUIDE

1.2.1 This Guide provides a common approach applicable to all Professional Registrants who carry out Checks as part of their professional activities or work.

1.2.2 For Professional Registrants, this Guide is intended to:

- describe the minimum standards for documenting Checks of professional engineering or professional geoscience work;
- assist Professional Registrants in establishing and maintaining documented quality management procedures for regular, documented Checks of professional engineering or professional geoscience work;
- explain what types of Records must be retained when carrying out Checking of professional engineering or professional geoscience work;
- describe the qualities and procedures necessary to ensure Checking is being adequately carried out and documented;
- describe the procedures necessary for the creation, use, and retention of reliable Records for documented Checks; and
- provide guidance on how to meet the quality management requirements under the *Act* and Bylaws when engaged in Checking professional engineering or professional geoscience work.

1.2.3 For Registrant Firms, this Guide details the requirements governing the documented Checks of professional engineering and professional geoscience work. The principal obligation of the Registrant Firm is to establish and maintain documented policies and procedures detailing their approach to documented Checks. The Registrant Firm must also ensure Professional Registrants employed by or under contract with the Registrant Firm follow these policies and procedures so professional engineering or professional geoscience work is complete, meets all Input Requirements, and is suitable for its intended use or purpose.

1.3 ROLE OF ENGINEERS AND GEOSCIENTISTS BC

1.3.1 This Guide was developed under the direction of Engineers and Geoscientists BC's Board and, prior to publication, underwent final legal and editorial reviews. This Guide forms part of Engineers and Geoscientists BC's continuing commitment to establishing and monitoring the quality of professional services Registrants provide to their clients and to the public.

1.3.2 Documented Checks of professional engineering and professional geoscience work is a critical requirement for assisting Professional Registrants in fulfilling their obligations, including holding paramount the safety, health, and welfare of the public. Checking work ensures Professional Registrants appropriately obtain confirmation the professional engineering or professional geoscience work is suitably completed for its intended use or purpose and satisfies all Input Requirements.

1.4 SCOPE

1.4.1 Proper and appropriate Checks of professional engineering and professional geoscience work are fundamental to upholding the *Act* and Bylaws, including the Code of Ethics in Schedule A of the Bylaws, which require all Professional Registrants hold paramount the safety, health, and welfare of the public, including the protection of the environment, and the

promotion of health and safety within the workplace.

1.4.2 As required by the Bylaws, Professional Registrants must meet the requirement of establishing, maintaining, and following documented Checks according to a documented process.

1.4.3 Registrant Firms are required to establish, maintain, and ensure adherence to documented policies and procedures in relation to documented Checks of professional engineering or professional geoscience work.

1.4.4 This Guide is intended to assist Professional Registrants in establishing and maintaining a documented quality management procedure for regular, documented Checks of their professional engineering and professional geoscience work that complies with the requirements of the *Act* and of the Bylaws by:

- assessing the type, extent, and frequency of Checking required, as well as the appropriate qualifications of the checker, through a documented risk assessment according to the requirements of Section 7.3.9 of the Bylaws;
- scheduling, resourcing, and budgeting for Quality Control;
- confirming and documenting Input Requirements;
- gathering and Checking Input Data;
- self-Checking or Checking by others of calculations;
- Checking, verifying, and validating professional engineering or professional geoscience work; and
- documenting and retaining appropriate Records of Checks, corrections, and Corrective Actions.

1.4.5 This Guide is intended to assist Registrant Firms in ensuring:

- documented policies and procedures are contained within their PPMP for their Professional Registrants to follow in order to meet the intent of this Guide;
- the applicable sections of their PPMP are communicated to and followed by all individuals employed by or under contract with the Registrant Firm; and
- reasonable steps are taken to assist Professional Registrants in meeting their obligations as set out in the Bylaws and in this Guide.

1.4.6 If a Professional Registrant is working for a Firm that does not have a Permit to Practice, the Professional Registrant still has the obligation to carry out documented Checks if they are engaging in the Regulated Practice. In this case, the Professional Registrant must ensure a documented policy and procedure is in place for documented Checks.

1.4.7 Records of Checks must indicate what, if any, concerns were raised, how they were addressed and what, if any, Corrective Actions were identified, approved, and undertaken.

1.4.8 Documented Checking obligations apply to Professional Registrants acting in their professional capacity in all industries and to all forms of professional engineering or professional geoscience activities or work, including:

- ongoing or time-limited activities or work;

- temporary or permanent activities or work;
- products, services, and operations requiring professional application of activities or work;
- construction or implementation performed by the Professional Registrant, the Registrant Firm, or others; or
- activities or work carried out for internal or external use.

1.4.9 Terminology used within an industry may not match the terminology used in this Guide. However, the obligations of Professional Registrants and Registrant Firms in all industries remain the same: to ensure documented Checks of the Professional Registrant's work meet the intent of the *Act*, the Bylaws, and this Guide.

2.0 REGULATORY FRAMEWORK

2.1 Section 57(1) of the *Act*, Standards of conduct and competence, states that:

"(1) Subject to subsections (2) and (3), the board of each regulatory body must make bylaws establishing the following:

(a) standards of professional and ethical conduct for registrants, which standards may be different for different categories or subcategories of registrants;

(b) standards of competence for registrants, which standards may be different for different categories or subcategories of registrants or different areas of practices;

..."

2.2 Section 7.3.4 of the Bylaws, Standard for Checks, states that:

"(1) A Professional Registrant must establish, maintain, and follow documented procedures for regular, documented checks of the Professional Registrant's work related to the Regulated Practice using a written quality control process appropriate to the level of risk that has been assessed through a documented risk assessment pursuant to section 7.3.9 of the Bylaws [*Standard for Documented Risk Assessment*].

(2) The procedures established pursuant to subsection (1) must include:

(a) [Repealed 2026-05-15];

(b) the minimum frequency for checks to be conducted;

(c) the required qualifications of the checker;

(d) how the check will be documented, including:

(i) who conducted the check;

(ii) the date that the check was completed;

(iii) what was checked; and

(iv) issues identified by the checker, if any; and

(v) correction(s) and corrective action(s), if any, in response to issues identified by the checker.

(e) what must be checked, including but not limited to:

(i) input requirements;

(ii) input data;

(iii) calculations;

(iv) drawings;

(v) assessments;

(vi) designs;

(vii) software outputs;

(viii) communications that include directives, recommendations, or opinions related to the Regulated Practice;

(ix) reports;

(x) recommendations; and,

(xi) other activities or work related to the Regulated Practice, including activities or work related to manufacturing, high technology, computer software development, operations, and maintenance activities.

(3) A Professional Registrant must ensure that a documented check has been conducted in accordance with the procedures established pursuant to subsection (1) on all activities or work related to the Regulated Practice that will be issued or delivered to any other party.

(4) A Registrant Firm must do all of the following:

(a) establish and maintain documented policies and procedures for Professional Registrants employed by or under contract with the Registrant Firm to follow in relation to documented checks and the obligations of Professional Registrants pursuant to this section of the Bylaws, which may include

(i) process flowcharts,

(ii) checklists, or

(iii) forms;

(b) ensure that the Professional Registrants employed by or under contract with the Registrant Firm adhere to the documented policies and procedures established pursuant to subsection (a);

(c) take reasonable steps to facilitate the Professional Registrants employed by or under contract with the Registrant Firm in adhering to the obligations of Professional Registrants pursuant to subsections (1), (2), and (3);

(d) retain complete documentation related to checks conducted by any Professional Registrant employed by or under contract with the Registrant Firm, in accordance with section 7.3.2 of the Bylaws [*Standard for Retention and Preservation of Complete Project Documentation*].

2.3 This Guide is intended to assist Registrants in understanding the standard of practice and in fulfilling their professional obligations in accordance with Section 7.3.4 of the Bylaws. This Guide may be used by Engineers and Geoscientists BC in disciplinary proceedings as evidence of professional standards, and of the conduct expected of a Registrant in particular circumstances, in support of allegations of conduct unbecoming a Registrant, incompetence, or professional misconduct.

3.0 STANDARDS FOR PRACTICE

3.1 PURPOSE AND REQUIREMENTS OF CHECKING

3.1.1 Checking is a Quality Control process to confirm the underlying work is complete and meets all Input Requirements and the appropriate standards of practice, conduct, and competence expected of Professional Registrants for similar professional work. When Checking is carried out in accordance with this Guide, it enables the Professional Registrant who prepared the work to avoid errors and omissions, and to confirm the work is ready to be issued for its intended use or purpose.

3.1.2 Checking may be carried out by qualified individuals, whether they are independent of or involved in the work.

3.1.3 The Code of Ethics requires Professional Registrants practice only in fields where they are competent based on their training, experience, and ability. Projects or work should be carried out only when appropriate resources are available with adequate time and budget to properly perform the work. No amount of Checking later can make up for lack of expertise and inadequate resourcing.

3.1.4 As per Section 7.3.9 of the Bylaws, prior to the initiation of professional engineering or professional geoscience activities or work, Professional Registrants must complete a documented risk assessment and use it to determine the type, extent, and frequency of Checking required, as well as the appropriate qualifications of the checker. Refer to the *Guide to the Standard for Documented Risk Assessments* (Engineers and Geoscientists BC 2026a) for guidance on how to meet the documented risk assessment requirements.

3.1.5 To comply with the Bylaws, Professional Registrants must have established, or have access to through the Registrant Firm's PPMP, a documented Quality Control process that includes performing Checks appropriate to the risk associated with the work they are undertaking.

3.1.6 A documented Checking process may be captured in a written procedure, process flowchart, checklists, forms to record Checks, or other Documentation developed to suit the nature of the work.

3.1.7 The documented Checking process should be designed to account for factors including:

- the complexity and risk associated with the work;
- the Professional Registrant's experience in preparing similar work;
- the checker's experience in Checking similar work;
- extent and frequency of Checking;
- statutory, regulatory, and other requirements that apply to the work;
- the Registrant Firm's contractual obligations;

- recommendations for similar work contained in Engineers and Geoscientists BC professional practice guidelines and practice advisories; and
- what level of analysis should be involved in the Check.

3.1.8 The documented Checking process should indicate:

- what should be Checked;
- when it should be Checked;
- who should do the Checking;
- how it should be Checked; and
- what Records of the Checking must be created and retained.

3.1.9 A sample flowchart of a generic Checking process is shown in Appendix A: Example Checking Process Using a Flowchart and Checklists.

3.1.10 Considerations for developing documented Checking procedures that meet the Bylaw are included in Appendix B: Checklist of Considerations for Documented Checking Procedures.

3.2 HOW MUCH CHECKING IS REQUIRED

3.2.1 LEVEL OF CHECKING REQUIRED

3.2.1.1 For Checks to be effective, proper planning must occur before professional engineering or professional geoscience work is carried out. When Professional Registrants prepare proposals, business cases, or project plans, they must assess the complexity and duration of the work being undertaken, the risk associated with that work (through a documented risk assessment), and the applicable documented Checking process, to determine the extent and frequency of documented Checks that are required.

3.2.1.2 Once the extent and frequency of Checking is determined, a plan or scope of work that includes appropriate Checking may then be developed, scheduled, budgeted, and resourced. The plan should indicate what Checks will be carried out, when, how, and by whom.

3.2.1.3 Effective resourcing involves assessing the qualifications required to perform the Checks, and confirming the availability of appropriately qualified checkers.

3.2.1.4 Insufficient time or budget to conduct appropriate Checks is not an excuse for failing to conduct appropriate Checks.

3.2.1.5 The Professional Registrant who is taking professional responsibility for the professional engineering or professional geoscience Documents that are prepared for delivery to others must ensure the Documents are Checked before Authenticating them. The Checking is intended to confirm that the Documents are complete, meet all Input Requirements, are suitable for their intended use, and are ready to be Authenticated, before the work is issued or put into use.

3.2.1.6 A Professional Registrant may not rely on the expectation that a client, owner, certification body, or regulatory authority will subsequently carry out reviews as a reason to reduce the Checking that a Professional Registrant conducts. Despite any expectation by a Professional of Record that work will be subsequently reviewed or Checked by others, the

Professional of Record remains responsible for the professional engineering or professional geoscience work that the Professional of Record Authenticates.

3.2.2 CHECKING BY OTHERS VERSUS SELF-CHECKING

3.2.2.1 Do not use self-Checking as the only type of Check when any of the following apply:

- the Professional Registrant has reviewed the documented risk assessment, has evaluated the probability and impact of potential errors, and has determined self-Checking is inappropriate;
- the work uses innovative rather than established methods;
- the work involves structural designs or high-risk professional activities or work that fall under the requirement for an independent review; or
- the work is complex.

3.2.2.2 Some Engineers and Geoscientists BC professional practice guidelines and practice advisories may not permit self-Checking as the only Check. A Professional Registrant must refer to related Engineers and Geoscientists BC practice guidelines and practice advisories to confirm whether a Check by others is required for the activity the Professional Registrant has undertaken.

3.2.2.3 Registrant Firms may prohibit self-Checking from being the sole Checking method used on professional engineering or professional geoscience work in its policies and procedures.

3.2.2.4 If a Registrant Firm allows self-Checking, it may be used solely in circumstances when all the following conditions are met:

- the Professional Registrant is experienced in the work being Checked;
- the work is straightforward, repetitive, or uses established methods and practices, such as prescriptive codes and standards requiring minimal professional judgment;
- applicable professional practice guidelines and practice advisories permit self-Checking;
- the work does not involve structural design or high-risk professional activities or work; and
- the Professional Registrant has reviewed the documented risk assessment, has evaluated the probability and impact of potential errors, and has determined self-Checking is appropriate.

A Registrant Firm may set more stringent criteria than those listed above.

3.2.2.5 Sole practitioners may use a different means of analysis to self-Check their work. Before proceeding to self-Check their work, sole practitioners must ask themselves whether self-Checking alone will meet the standard exercised by other reasonable, prudent, and competent Professional Registrants performing the same work. Such self-Checks must be documented, and Records must be retained to confirm a required Check has occurred. Refer to Section 3.5 of this Guide for information on documenting Checks and retaining Records of Checks.

3.2.2.6 Even when a Check by others is performed, Professional Registrants must self-Check their work and not rely on others to find any errors or omissions.

3.3 WHAT SHOULD BE CHECKED AND WHEN

3.3.1 INPUT REQUIREMENTS

3.3.1.1 One of the core purposes of Checking is to ensure the professional work meets the Input Requirements. Carrying out professional engineering or professional geoscience work without a complete and confirmed set of Input Requirements may lead to costly rework or, in the worst case, a failure.

3.3.1.2 The frequency, extent, and scope of Checking any specific professional engineering or professional geoscience work will vary, depending on the complexity and stringency of the applicable Input Requirements. The Record of these Input Requirements will also be used by the checker to verify the deliverable or output meets the Input Requirements.

3.3.2 INPUT DATA

3.3.2.1 Input Data is the information used as the basis for professional engineering or professional geoscience work and must be Checked before it is used for further development or implementation. Input Data should be Checked to confirm it is current, complete, accurate, suitable, and fit for the purposes for which it will be used. Some examples of Checks of Input Data include:

- confirming the government or industry standards being used are the most current;
- confirming the geotechnical report includes relevant information appropriately located for the construction;
- Checking that materials used in a process have been tested and certified to meet Input Requirements;
- confirming all inspection, measuring, surveying, and testing procedures requiring a known accuracy have been performed using equipment calibrated to recognized standards; and
- Checking that a preliminary design used for detailed design has been approved by the client.

3.3.2.2 Checking Input Data does not mean recalculating or carrying out detailed Checks of work outside of the professional practice of the Professional Registrant doing the Checking, or work certified by a recognized authority. However, once Input Data is incorporated into the professional engineering or professional geoscience work, the Professional of Record is confirming its suitability for their work, regardless of its source.

3.3.3 DESIGN SOFTWARE

3.3.3.1 Design software and spreadsheets used by Professional Registrants must be validated periodically by performing a known design calculation, such as one from a textbook exercise or confirmed in past work. Alternatively, the software can be validated against hand calculations, site verification, or performance data.

3.3.3.2 It is imperative to keep a Record of when the validation was last conducted, by whom, and what, if any, Corrective Actions were needed. Registrant Firms must have a documented procedure within their PPMP for validating design software, spreadsheets, or related Input Data. Records of these validations must be documented and readily available.

3.3.4 ENGINEERING AND GEOSCIENCE WORK

3.3.4.1 Depending on the type, duration, and complexity of the professional engineering or professional geoscience work, Checks may occur periodically throughout the project or work, or at pre-defined stages.

3.3.4.2 A Check is distinct from an independent review. Documented Checks do not satisfy the requirements of an independent review. Conversely, an independent review does not satisfy the requirements of a documented Check as it does not include detailed evaluation of all components. Most structural designs require an independent review. Refer to the *Guide to the Standard for Documented Independent Review of Structural Designs* (Engineers and Geoscientists BC 2026b) for more information about these requirements.

3.3.4.3 Independent review of professional engineering or professional geoscience concepts and deliverables may be necessary in other disciplines besides structural, before they are used for construction, implementation, or operations, especially when the work is identified as high risk. Refer to the *Guide to the Standard for Documented Independent Review of High-Risk Professional Activities and Work* (Engineers and Geoscientists BC 2026c) for more information about these requirements.

3.3.4.4 The decision to carry out independent reviews may arise from:

- legislative requirements;
- the complexity of the work;
- results of the documented risk assessment;
- availability, quality, and reliability of background information and field data;
- client requirements;
- requirements of Engineers and Geoscientists BC professional practice guidelines and practice advisories;
- the Professional Registrant's judgment, training, and experience; or
- requirements contained within the Registrant Firm's PPMP.

3.3.4.5 Calculations used as the basis for professional engineering or professional geoscience work should be independently Checked or, if acceptable in the opinion of the Professional Registrant and allowed in the Registrant Firm's PPMP, they may be self-Checked only.

3.3.4.6 Professional engineering or professional geoscience work prepared and delivered to others who will use and rely on it must be Checked and Authenticated by the Professional of Record.

3.3.5 TYPES OF CHECKS

3.3.5.1 Types of Checking may include:

- self-Check or Check by others of calculations (see Section 3.2.2 for more context);
- intra-disciplinary Checks to identify and solve any problems, and to verify work prepared by any one discipline meets the Input Requirements;
- inter-disciplinary Checks to coordinate the work of several disciplines to identify and solve any problems, and verify the work of all disciplines collectively meets the Input Requirements and does not conflict;

- planned periodic Checks throughout the project or work, as revisions are made;
- Checks to confirm compliance with applicable codes, standards, regulations, and Bylaws;
- constructability or operational Checks to confirm the work can be constructed as shown or will operate as planned;
- health, safety, and environmental Checks to confirm the work is safe in operation and will not harm the public, users, or the environment;
- verification to confirm the work meets the Input Requirements;
- validation to confirm the work meets its intended purpose and will perform under expected conditions;
- deliverable Checks to confirm the work is represented clearly, consistently, completely, and professionally;
- Checks by an independent party to verify the work satisfies the Input Requirements;
- testing or surveying a process, installation, program, or product;
- third-party Checks for a client, owner, or other interested party to confirm the work satisfies their Input Requirements; and
- sub-consultant or supplier Checks to confirm work prepared by the sub-consultant or supplier meets all Input Requirements and does not conflict with other work before it is incorporated into the design or used in the product.

3.3.5.2 When Professional Registrants are determining the type of Checking to utilize in a specific circumstance, they must consider the risk associated with that work (through a documented risk assessment) to determine the appropriate type(s) of Checking.

3.3.6 DOCUMENTS AND DELIVERABLES

3.3.6.1 Professional engineering and professional geoscience work and deliverables that may need to be Checked include:

- proposals;
- agreements and contracts;
- drawings;
- specifications;
- reports;
- letters related to professional engineering or professional geoscience work; or
- other deliverables prepared and delivered containing or representing professional engineering or professional geoscience work, including those related to manufacturing, high technology, computer software development, operations, and maintenance activities.

3.4 WHO IS QUALIFIED TO CHECK

3.4.1 Checks must be carried out by Professional Registrants, EITs, GITs, or other parties who are appropriately qualified. The supervising Professional Registrant may be the person performing the Check. The documented risk assessment completed prior to initiation of the work must inform the appropriate qualifications of the checker.

The checker(s) must:

- have current expertise in the discipline and type of work being Checked;
- be sufficiently experienced and have the required knowledge to identify the elements to be Checked;
- understand the Checking process;
- have reviewed and understood all relevant Input Requirements;
- be objective;
- be thorough and diligent in Checking and recording observations, corrections, and Corrective Actions; and
- be aware of any tools required to assist in the Checking.

3.4.2 Although checkers are not assuming professional responsibility for the work, the checkers will be responsible for the quality of Checks they carry out.

3.4.3 Professional Registrants should recognize the use of AI-based systems in producing or Checking work may affect the appropriate scope, depth, and focus of Checks. Professional Registrants must understand the risks when using AI in their professional practice and mitigate those risks, where applicable, in their professional activities or work. Regardless of how or by whom AI is used, Professional Registrants remain professionally responsible for the final work product.

3.4.4 Refer to the practice advisory *Use of Artificial Intelligence in Professional Work* (Engineers and Geoscientists BC 2024) for guidance on using AI appropriately in professional activities or work. As this is a rapidly evolving context, professional judgment should be applied to the specific circumstances, recognizing that the published guidance may not keep pace with technological change.

3.4.5 A Registrant Firm's PPMP should contain guidance on who should be conducting Checks and the qualifications required.

3.5 HOW ARE CHECKS DOCUMENTED AND WHAT RECORDS ARE RETAINED

3.5.1 Checks must be documented and Records must be retained to confirm a required Check has occurred. Where self-Checking is used as the only Check, Records of self-Checks must be retained.

3.5.2 The Record of Checks must include:

- who conducted the Check;
- the date the Checking occurred;
- what was Checked;
- issues identified by the checker, if any; and
- corrections made and Corrective Actions taken, if any, in response to issues identified by the checker.

3.5.3 The Documentation may be in electronic or hard copy format, and may include:

- mark-ups of Checked work;
- Records of equipment calibration if the Check involved using equipment for inspection, measurement, testing, surveying, or similar purposes;
- completed forms or checklists; and
- emails or other communications documenting comments, corrections, and Corrective Actions.

3.5.4 Checklists and other tools act as reminders of aspects of the work that must be Checked. They can also be used as a Record that the Check occurred. Checklists and other tools may be developed based on the discipline, type of work, stage or phase of work, deliverable or product, or other content and structure suited to the Professional Registrant's work. Checklists and other tools must never be used as a substitute for the professional judgment of the person designated to perform the Check.

3.5.5 As stated in the *Guide to the Standard for Retention of Project Documentation* (Engineers and Geoscientists BC 2026d), retaining complete and easily retrievable project Records is critical to the professional practice of Professional Registrants. It allows for an orderly handoff from one project manager or other team member to another, even when the handoff is unexpected or on a short timeframe. By maintaining Records of Checks, a new Professional Registrant picking up the file will, after reviewing its content, be able to understand the status of the Checks that were carried out.

3.5.6 Registrant Firms must have policies and procedures within their PPMP ensuring Checks are taking place for the professional engineering and professional geoscience work carried out by their Professional Registrants, and Records of the Checks are retained. When Checking identifies issues, a Registrant Firm's procedures should require Professional Registrants to create Records of the issues and any Corrective Actions taken in response. If a Registrant Firm is using checklists or forms for Checking, it should consider having space for the checkers to Document issues and track responses.

4.0 REFERENCES AND RELATED DOCUMENTS

4.1 LEGISLATION

Engineers and Geoscientists Regulation, OIC 2021/037.

Professional Governance Act, S.B.C. 2018, c. 47.

4.2 CITED WORKS

Engineers and Geoscientists BC. 2026a. Quality Management Guides – Guide to the Standard for Documented Risk Assessments. Version 1.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2026 August 18]. https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides.

Engineers and Geoscientists BC. 2026b. Quality Management Guides – Guide to the Standard for Documented Independent Review of Structural Designs. Version 4.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2026 August 18]. https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides.

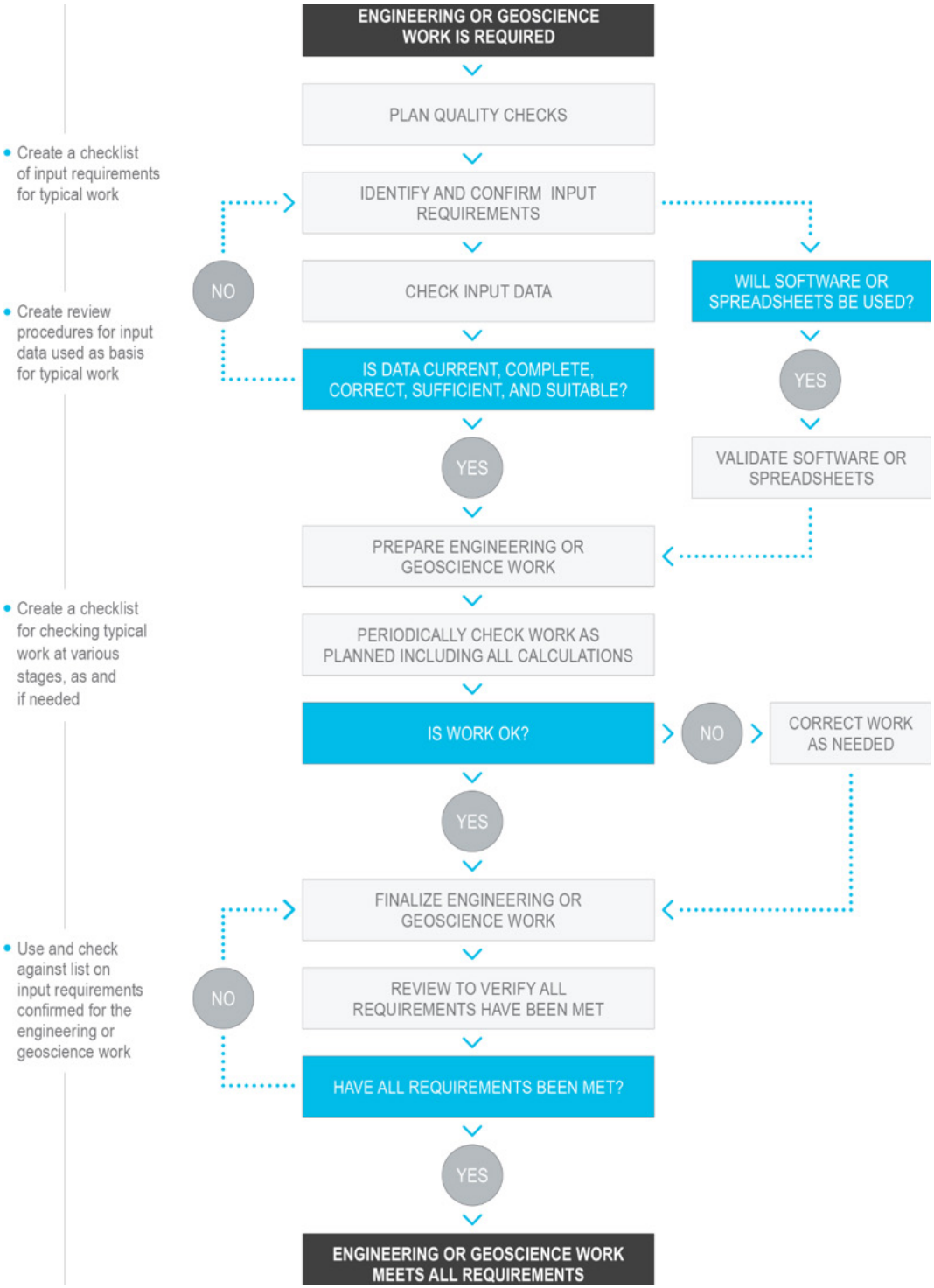
Engineers and Geoscientists BC. 2026c. Quality Management Guides – Guide to the Standard for Documented Independent Review of High-Risk Professional Activities or Work. Version 3.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2026 August 18]. https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides.

Engineers and Geoscientists BC. 2026d. Quality Management Guides – Guide to the Standard for Retention of Project Documentation. Version 4.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2026 August 18]. https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides.

Engineers and Geoscientists BC. 2024. Practice Advisory - Use of Artificial Intelligence in Professional Work. Version 1.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2026 August 18]. https://tools.egbc.ca/Registrants/Practice-Resources/Guidelines-Advisories.

5.0 APPENDIX

APPENDIX A: EXAMPLE CHECKING PROCESS USING A FLOWCHART AND CHECKLISTS



APPENDIX B: CHECKLIST OF CONSIDERATIONS FOR DOCUMENTED CHECKING PROCEDURES

	CONSIDERATIONS	√
CAPABILITY TO PERFORM THE WORK		
1.	Confirming the qualifications of the individual(s) performing the engineering or geoscience work	
2.	Providing adequate time and budget to perform and Check work	
LEVEL OF CHECKING REQUIRED		
3.	Confirming that a risk assessment for the professional engineering and geoscience work occurred	
4.	Confirming complexity and duration of work	
5.	Confirming any required Checking procedures	
6.	Using the risk assessment to determine the type, extent, and frequency of Checks	
7.	Preparing plans indicating what types of Checks are required, when the Checks are to be performed, and by whom the Checks are to be conducted as informed by the risk assessment	
SELF-CHECKING AS THE ONLY CHECK		
8.	Setting clear policies about self-Checking of engineering and geoscience work	
9.	Not allowing self-Checking as the only Check for complex or innovative work	
10.	Not allowing self-Checking as the only Check, when the Professional Registrant considers the probability of occurrence and the magnitude of the potential result unacceptable for self-Checking	
11.	Not allowing self-Checking as the only Check, when the standard exercised by other reasonable, prudent, and competent Professional Registrants performing the same work would suggest an independent Check is required	
12.	Not allowing self-Checking as the only Check, when applicable professional practice guidelines or practice advisories recommend or require an independent Check	
13.	Not allowing self-Checking as the only Check of structural or high-risk Professional Activities or Work requiring an Independent Review	
14.	Where self-Checking is allowed, consider having self-checkers use a different means of analysis, if available	
INPUT REQUIREMENTS		
15.	Confirming Input Requirements, such as client or user objectives and requirements, design or implementation criteria, applicable codes, standards and legislation, Firm-specific requirements and standards, and related professional practice guidelines and practice advisories	
16.	Documenting Input Requirements	
17.	Using documented Input Requirements on Checks throughout the project or work, to verify all requirements have been met	
INPUT DATA		
18.	Identifying Input Data, such as test and survey data; design or implementation assumptions; applicable codes or standards; preliminary designs or earlier reports, investigations, or studies; work prepared by other professionals; and information provided by the client, owner, operator, or user	
19.	Checking Input Data to confirm it is current, complete, accurate, suitable, and sufficient	
20.	Keeping a Record of Input Data Checks	

CONSIDERATIONS		√
DESIGN SOFTWARE		
21.	Validating software and spreadsheets used in engineering or geoscience calculations by ensuring they are based on current standards, and periodically Checking their accuracy using textbook examples, previously confirmed results, or hand calculations	
22.	Keeping a Record or log of any software or spreadsheet validation	
ENGINEERING AND GEOSCIENCE WORK		
23.	Confirming the types of Checks required (e.g., inter-disciplinary, constructability, operability, code, and health and safety)	
24.	Checking engineering and geoscience work at predefined stages of work	
25.	Checking calculations used in engineering and geoscience work	
26.	Checking and Authenticating engineering and geoscience work that is prepared and will be delivered to others who will use and rely on it	
27.	Confirming deliverables containing engineering and geoscience work, such as drawings, specifications, agreements, business cases, reports, and letters, are Checked	
QUALIFICATIONS OF CHECKERS		
28.	Having Checking undertaken by a Professional Registrant, Trainee (EIT, GIT), or other appropriately qualified party who meets the following requirements: • Has current expertise in the discipline and type of work being Checked • Is sufficiently experienced to identify the elements to be Checked • Understands the Checking process • Has reviewed and understood all relevant requirements • Is objective • Is thorough and diligent in Checking and recording observations	
CHECKING TOOLS		
29.	Developing Checking tools, such as checklists based on discipline, type of work, phase or stage of work, deliverable or product, or other content or structure suited to the work	
30.	Reminding checkers these tools do not replace their professional judgment	
31.	Providing training on Checking tools and procedures	
RECORDS AND FOLLOW-UP		
32.	Keeping a Record of Checks	
33.	Identifying project or work, Professional of Record, checker, purpose of Check, when Checking occurred in all Records, and any issues raised by the checker	
34.	Documenting how the issues raised by the checker were addressed and what, if any, Corrective Actions were identified, approved, and undertaken	
35.	Tracking issues identified in Checks to confirm they are addressed and any required Corrective Actions have been taken	
36.	Retaining a Record of Checks in digital or hard copy	

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