



A.I Policy

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1. Purpose

This policy sets out how GRIP Engineering Limited ("GRIP") uses artificial intelligence (AI) tools in the delivery of professional engineering services. It establishes the controls that ensure AI use is consistent with:

- The Engineering New Zealand Code of Ethical Conduct
- The Chartered Professional Engineers of New Zealand Act 2002 and associated Rules
- The Privacy Act 2020
- GRIP's Professional Indemnity insurance obligations
- Client confidentiality and contractual undertakings
- New Zealand's Responsible AI Guidance for Businesses (MBIE, July 2025)

2. Scope

This policy applies to all engineering work undertaken by GRIP, including fee proposals, preliminary and detailed design, compliance assessment, specification writing, equipment scheduling, construction phase services, and Independent Commissioning Agent (ICA) deliverables.

It covers all generative AI and AI-assisted tools used by GRIP, including but not limited to large language models (LLMs), AI vision/document extraction, AI-assisted web search, and AI-driven calculation or compliance tools embedded in GRIP's internal toolkit.

3. Guiding Principles

GRIP's approach to AI is consistent with New Zealand's adoption of the OECD AI Principles and the NZ Government's Responsible AI Guidance for Businesses (MBIE, July 2025). These principles promote AI that is trustworthy, innovative, and respectful of human rights, democratic values, fairness, and privacy.

In practice, GRIP applies the following principles:

- **The Chartered Professional Engineer is accountable, not the AI.** AI is a productivity tool. Every engineering output issued by GRIP is reviewed, verified, and authored by Steve Langley CPEng, who carries sole professional responsibility for it.
- **AI output is preliminary until verified.** No AI-generated calculation, specification clause, compliance statement, or recommendation is issued externally without engineering review against first principles, applicable NZ Standards, and the NZ Building Code.
- **Client confidentiality is preserved.** Information shared with AI tools is limited to what is necessary, and is handled in accordance with Section 6.
- **Honesty and transparency.** GRIP discloses its use of AI to clients on request and is transparent about the role AI plays in deliverables.
- **Public safety is paramount.** AI is never used in a way that would compromise the engineer's duty to safeguard health, safety, and the environment.
- **Human decisions remain with the engineer.** AI informs but does not make engineering decisions. Final professional judgement, sign-off, and accountability rest with the Director.
- **Automation bias is actively guarded against.** The engineer is aware that humans can over-rely on AI outputs and accept them without sufficient critical evaluation. GRIP's verification protocol is designed specifically to ensure AI outputs are actively interrogated, not passively accepted. Where AI output aligns with expectation, this is not treated as confirmation of correctness.

4. Approved Tools and Use Cases

Use of any new AI tool, or any new use case for an existing tool, requires a documented assessment by the Director against this policy before adoption.

Tool / Capability	Provider	Use Case
Claude (LLM, Vision, Web Search)	Anthropic PBC	Drafting, calculation assistance, drawing extraction, standards lookup, document review
GRIP Toolkit (internal HTML/JSX modules)	GRIP — built on Claude	Design Module, H1/VM3 Compliance Checker, Equipment Schedule, Specification Builder, ICA Tracker, Fee Proposal

Use of any new AI tool, or any new use case for an existing tool, requires a documented assessment by the Director against this policy before adoption. That assessment will consider: fitness for purpose, provider data handling terms, cybersecurity risk, and alignment with the Privacy Act 2020.

5. Professional Accountability and Verification

5.1 Engineer of Record. All engineering work issued by GRIP is performed under the responsible charge of Steve Langley CPEng. AI-assisted preparation does not alter or dilute this responsibility.

5.2 Verification protocol. Before any AI-assisted output is issued externally, the Director:

- Reviews all calculations against the relevant NZ Standard or first-principles method
- Confirms standards citations are current and correctly applied (AI standards lookups are cross-checked against the published Standard)
- Reviews specification and report text for technical accuracy, completeness, and consistency with project intent
- Confirms drawing extractions (e.g. floor areas, R-values, room schedules) against the source documents
- Records the review in the project file

5.3 No “AI signed” deliverables. No deliverable carries the GRIP letterhead or Steve Langley’s CPEng attribution unless it has been reviewed and accepted by Steve Langley personally.

5.4 Hallucination risk. GRIP recognises that LLMs can produce plausible but incorrect output, including fabricated standards references, citations, and product data. The verification protocol above is the primary control against this risk. Where AI output cannot be independently verified, it is not relied upon.

6. Risk Management

6.1 GRIP applies a proportionate, risk-based approach to AI consistent with the MBIE Responsible AI Guidance for Businesses (July 2025). Risks are managed through a continuous cycle of identification, assessment, management, recording, and review.

6.2 GRIP maintains a brief AI Risk Register covering the tools in Section 4. For each tool, the register records:

- Intended purpose and use case
- Known limitations and failure modes
- Identified risks and current mitigations
- Date of last review

6.3 The Risk Register is reviewed at each annual policy review and updated whenever a new tool or use case is adopted, or following any incident under Section 14.

6.4 Risk management is proportionate to context. GRIP’s primary AI risks are: hallucination in generated content (mitigated by Section 5 verification protocol); cybersecurity exposure (mitigated by Section 8); and professional liability from unverified outputs (mitigated by Section 5 and Section 9). These are classified as medium risk, managed by existing controls, and do not require third-party assessment at this time.

7. Information Handling and Confidentiality

7.1 Default position. Client information is treated as confidential under the Engineering NZ Code of Ethical Conduct and any project-specific confidentiality terms. The Privacy Act 2020 is the primary legal safeguard governing any personal information handled by GRIP, including in the context of AI tool use.

7.2 Permitted use of client information with AI tools:

- Architectural drawings, specifications, and design briefs may be uploaded to AI tools to assist with extraction, calculation, and drafting
- Project addresses, building types, and technical parameters may be shared
- Subconsultant inputs may be included where they form part of the engineering scope

7.3 Information not to be shared with AI tools:

- Personal information of building occupants beyond what is strictly necessary
- Commercially sensitive financial information of clients (e.g. construction budgets) unless required for the task
- Information specifically marked as restricted by the client
- Any information where the client has expressly withheld consent for AI use

7.4 Data quality. Information entered into AI tools is accurate and well-structured. GRIP does not rely on AI outputs where the underlying input data is incomplete, unverified, or of uncertain provenance.

7.5 Provider terms. AI tools are used in accordance with the provider's published terms and data handling commitments at the time of use. The Director reviews these terms at adoption and on each policy review.

7.6 Local storage. Working state for the GRIP Toolkit is held in browser local storage on Steve Langley's work device. Word exports are the record of truth and are filed in the relevant project folder under GRIP's standard records procedure.

7.7 Client consent. Where a client requests in writing that AI not be used, or restricts the type of information shared with AI tools, GRIP will comply.

8. Cybersecurity

8.1 GRIP recognises that the use of AI tools carries cybersecurity risks, including the potential for sensitive project information to be exposed through insecure tools or connections.

8.2 The following controls are in place:

- Only reputable, business-grade AI tools with published security postures are used
- AI tools are accessed via secured, password-protected devices
- Project information is not entered into publicly shared, experimental, or unknown AI tools
- The Director reviews the security posture of AI tools at adoption and on each policy review

8.3 Any suspected security incident involving AI tool use is treated in accordance with Section 13.

9. Document Control and Marking

9.1 Preliminary status. Outputs from the Design Module, Spec Builder, Equipment Schedule, and Compliance Checker are marked "Preliminary" until the Director has completed engineering review.

9.2 Issued documents. Final issued documents carry the GRIP revision block, Steve Langley CPEng attribution, and standard issue status (e.g. For Building Consent, For Construction).

9.3 Disclosure of AI assistance. Where a deliverable has been materially assisted by AI tools, this is not concealed. On client request, GRIP will describe the role AI played in preparation and the verification undertaken.

10. Records and Auditability

- The Word export from each toolkit module is the saved record for that stage of work
- Project records include the issued deliverable, the underlying calculations, and any standards or product data referenced
- AI prompts and outputs are not retained as formal records; the engineer's verified output is the record
- This policy and any revisions are retained indefinitely

10.1 In addition to project-level records, GRIP maintains an AI System Register summarising each approved tool. The register records: tool name and provider; version or model in use at last review; approved use cases; data handling terms reference; date of last provider terms review; and known limitations. This register is updated at each annual policy review and is available on request to clients and auditors.

10.2 Clients who have concerns about AI use in GRIP's work — including questions about how AI was used in a specific deliverable, the verification undertaken, or a request to limit AI use on their project — may raise these directly with the Director at steve@gripengineering.co.nz. GRIP will respond in writing within five working days.

11. Limitations and Disclosure to Clients

GRIP discloses the following to clients on request, and on the face of fee proposals where appropriate:

- AI tools are used to improve speed, consistency, and breadth of analysis
- All engineering outputs remain the responsibility of Steve Langley CPEng
- AI does not replace engineering judgement, site verification, or specialist input where required
- Preliminary AI-assisted outputs are clearly marked and not relied upon for construction without review

12. Professional Indemnity Insurance

GRIP discloses AI use to its PI insurer at policy renewal. The verification protocol in Section 5 and the cybersecurity controls in Section 7 are the primary controls relied upon to manage AI-related risk. Any insurer requirement that goes beyond this policy takes precedence and triggers a policy review.

13. Competence and Continuing Development

13.1 The Director maintains competence in:

- The engineering disciplines GRIP practices in (mechanical, hydraulic, building services)
- The AI tools GRIP uses, including their known limitations
- Current NZ Standards, the NZ Building Code, and Engineering NZ guidance on AI use

13.2 The Director maintains awareness of developments in AI tools used by GRIP, including their known limitations, and considers this as part of ongoing professional practice and CPD where relevant.

13.3 Between annual policy reviews, the Director monitors whether AI tools in use are performing as expected. This includes: noting any change in output quality, accuracy, or behaviour; checking provider communications for material updates to models or data handling terms; and reviewing any new guidance from Engineering NZ or MBIE. Where a material change is identified, a prompt policy review is triggered rather than waiting for the scheduled annual review.

14. Incident and Error Handling

14.1 If an error in an AI-assisted deliverable is identified — by GRIP, the client, a reviewing authority, or any other party — the Director will:

- Confirm the error and its scope
- Notify the client in writing without unreasonable delay
- Issue a corrected deliverable
- Notify the PI insurer if the error meets the policy's notification threshold
- Record the incident, root cause, and any change to GRIP's verification process

14.2 Repeated errors traced to a specific AI tool or use case will trigger a use-case suspension pending review.

15. Alignment with NZ Government Guidance

This policy has been developed with reference to:

- New Zealand's Strategy for Artificial Intelligence: Investing with Confidence (MBIE, July 2025)
- Responsible AI Guidance for Businesses (MBIE, July 2025)
- OECD AI Principles (adopted by NZ Cabinet, June 2024)
- Privacy Act 2020
- Engineering NZ — Engineering and AI (current guidance, refer to engineeringnz.org for latest version)

GRIP will review alignment with updated government and professional body guidance at each annual policy review, including any updates to Engineering NZ's AI-specific guidance.

Signed: Steve Langley **CPEng** — Director, GRIP Engineering Limited

Date: _____ 06.05.2026

