CPEC
Chartered Professional Engineers Council
Kāhui Kaiwetepanga Ngaio Whaimana

APPEAL NUMBER 02/18

In the matter of the Chartered Professional Engineers of New Zealand Act 2002

AND

In the matter of an appeal to the Chartered Professional Engineers Council pursuant to Section 35

Between

Mr A

Appellant

And

Mr B BE (Hons), CPEng., MIPENZ, IntPE(NZ)

Respondent

Decision of the Chartered Professional Engineers Council, 17 August 2018

Introduction

1. This decision relates to an appeal to the Chartered Professional Engineers Council ("the Council") under the Chartered Professional Engineers of New Zealand Act 2002 ("the Act"). The appeal is of a decision of a Chair of Investigating Committees, acting as Adjudicator ('the Adjudicator'), dated 2 February 2018.

2. The Appeal relates to a complaint made by Mr A to the Registration Authority ('the RA') by letter dated 7 March 2017. The original complaint was made against Mr B in respect of engineering design and building consent work for foundation relevelling and void fill of an existing building foundation undertaken at a residential property at Address C, Christchurch in July and August 2016. The relevelling was to be undertaken using the Uretek Method. Mr B was employed at the time by Business D. Mr B is a Chartered Professional Engineer and therefore this Council has jurisdiction over his actions.

Background

3. Mr A is a registered surveyor. We understand from the documents provided to us that he was engaged by a prospective purchaser to provide an assessment of the property at Address C, which included the completed relevelling work. Mr A states in his original complaint (paragraph 7) that: "The relevelling work appears to have been carried out by the current owner, with the property now being offered for sale with numerous Real Estate agents in Christchurch. The Design Review Report and PS1 certificate signed by Mr B is being offered by some of the Real Estate agents as part of the property information pack". Mr A also states (paragraph 6) that he "obtained the information from the publicly available Christchurch City Council property file…".

4. Mr. B's engineering work in relation to this property and the application for an exemption from a building consent that was sought, had been undertaken in July and August 2016. On 8 August 2016, the Building Consent Authority (in this case the Christchurch City Council) issued a building consent exemption under Schedule 1 Clause 2(a) of the Building Act 2004. At the end of October 2016, Mr. A raised concerns about the relevelling work directly with Mr. B. He requested information regarding acceptable limits on floor levels, evidence and justification that the Uretek Method met the New Zealand Building Code in terms of MBIE Guidance, and the specific clauses of the Building Code which had been satisfied by the BRANZ Appraisal 698 [2010].

5. Following a series of email exchanges with Mr. B on these matters, Mr. A said that he had not received satisfactory responses and had therefore decided to raise his concerns with Engineering New Zealand. The RA received the complaint from Mr. A dated Tuesday 7 March 2017. Mr. A summarised his concerns in his complaint as being that Mr. B, in his capacity as the CPEng engineer certifying the work, had:

    a. incorrectly represented MBIE floor level investigation results;
    b. assumed that the proposed relevelling work was an Alternative Solution in terms of the Building Code without providing any supporting evidence, justification, calculations or rational analysis to show that it meets the building code;
    c. incorrectly and falsely used BRANZ Appraisal 698[2010] as a means of

demonstrating compliance with the Building Code when this Appraisal specifically shows that the Uretek Method does not meet any provisions of the Building Code;

d. incorrectly stated that the proposed work meets the provisions of the Building Code without showing any justification or evidence that it does;
e. issued a Design Review Report, PS1, and RBW Certificate stating the building work met the provisions of the Building Code without any evidence to support the claim.
f. failed to provide any evidence, justification or rational analysis to what clauses of the Building Code the work complies with, and how it complies with those provisions.

6. The core of Mr A's complaint to the RA was that Mr B was wrong to issue a Design Review Report, Producer Statement (PS1), and Certificate of Design Work under Section 45 and Section 30(c) of the Building Act 2004 in relation to the Address C, without any evidence to support his certification that the foundation relevelling work met the requirement of the Building Act.

7. After receipt of Mr A's complaint, and following exchanges of emails with him, the RA engaged Mr E MEng (Hons) CPEng CMEngNZ as an Expert Adviser in respect of the complaint. The RA engaged Mr E by letter dated 29 September 2017, to provide a high-level expert review about Mr B's use and explanation of the Uretek method in the context of post-earthquake relevelling in Christchurch. Mr E provided a report to the RA dated 12 October 2017.

8. This report was provided to Mr A, who responded to the RA in a further letter dated 3 November 2017, rejecting Mr E's conclusions. Mr A has now made a separate complaint to the RA by letter dated 27 May 2018 against Mr E. The RA has declined to consider this as a separate complaint, because it is not a complaint about the performance of engineering services by Mr E. We will nevertheless refer to Mr E's role later in this decision as part of our findings.

9. Following Mr E's report, the matter was referred to a Chair of Investigating Committees ('CIC'), acting as Adjudicator, in terms of Rule 58 of the Chartered Professional Engineers of New Zealand Rule (No 2) 2002. In his adjudication report, the CIC considered the complaint and took account of Mr E's review report as well as Mr A's response to that.

10. The Adjudicator issued his report on 2 February 2018, dismissing the key aspects of Mr A's complaint. He dismissed the complaint that Mr B incorrectly represented the MBIE floor level investigation results under Rule 57(b) on the basis that the alleged misconduct was insufficiently grave to warrant further investigation. He dismissed the complaints relating to compliance with the Building Code under Rule 57 (a) - that there is no applicable ground of discipline under section 21(1)(a) to (d) of the Chartered Professional Engineers' of New Zealand Act 2002.

The grounds of the appeal

11. Following receipt of the decision of the CIC on 12 February 2018 Mr. A appealed to CPEC by way of a letter dated 8 March 2018. The Chairman of CPEC then sent an email to Mr. A, proposing that he revise and focus the grounds for the appeal. A revised statement of appeal was received on 1 May

2018. The grounds for the appeal are set out in Paragraph 1.5 titled "Grounds of Appeal". We repeat these below: the numbering is ours.

a. Engineering NZ based their decision-making on expert advice that was incorrect.

b. Mr B did not, and has still not, provided evidence of how the Uretek Method meets the provisions of the New Zealand Building Code. He has not:
    i. Stated the specific NZ Building Code clauses which he considers MBIE Guidance shows the method as meeting;
    ii. Stated the specific NZ Building Code clauses which he considers BRANZ Appraisal 698 shows the method as meeting;
    iii. Shown that BRANZ Appraisal 698 describes the Uretek Method as either meeting the provisions of the NZ Building Code or is an Alternative Solution in terms of the NZ Building Code;
    iv. Stated any specific clauses of the NZ Building Code when stating the Uretek Method meets the NZ Building Code. Stating the explicit clauses is a pre-requisite in demonstrating NZ Building compliance.
    v. Determined the cause of failure of the house foundation, nor first rectified this cause prior to using the Uretek Method. This is required as outlined in Section 7.6 & .7 of BRANZ Appraisal 698.

c. Neither Mr B, nor Engineering NZ, nor the 'expert' advisor for Engineering NZ have been able to state <u>any</u> specific clauses of the NZ Building Code that BRANZ Appraisal 698 show the Method as meeting.

Process

12. On receipt of the Adjudicator's report, Mr A appealed to CPEC, as noted above.

13. An Appeal Panel to hear this appeal was selected by exchange of emails between Council members and ratified at the next Council meeting on 1 June 2018. All parties were informed by letter dated 28 May 2018 from the Principal of the Appeal Panel, that a panel had been appointed to hear this appeal. In that letter, we advised that the process of the appeal should be the following:

    a. Mr A to file any additional submission he may wish to make addressing the appeal by Monday 11 June 2018.
    b. The Registration Authority to advise whether it wishes to make any submission and, if so decided, it should provide that submission by Monday 11 June 2018.
    c. Mr B may respond to those submissions by Monday 25 June 2018.
    d. Mr A may reply to Mr B's submissions by Monday 2 July 2018. This submission must be <u>strictly in reply</u> and must not raise new matters.

    We also proposed in our letter of 28 May that if the parties consented, the Appeal would be dealt with on the papers. Finally, we drew attention to the Practice Note on appeals published by the Council which guides the procedure we adopt, that is available on the Council's website.

14. A submission was subsequently received from the RA on 8 June 2018. In a further letter to the parties dated 12 June 2018, the Principal of the Appeal Panel advised that we had received no further submission from Mr A and that the Appeal Panel would therefore base its consideration on Mr A's original appeal submission to CPEC dated 1 May 2018. The Principal of the Appeal Panel therefore directed that Mr B may respond to Mr A's original appeal submission, and any issues arising out of the Registration Authority's submission, by Tuesday 26 June 2018. Mr A would then be given a further opportunity to respond.

15. Mr B advised by email dated 13 June 2018 that he had nothing further to add with regard to Mr. A's original appeal submission, nor anything arising out of the Registration Authority's submission. Mr A provided his final submission, responding to the RA, on 21 June 2018. On 22 June 2018 he wrote again to the Appeal Panel, providing copies of two attachments that had been omitted when sending his final submission the previous day. These were (a) a copy of his complaint to Engineering NZ dated 27 May 2018 regarding Mr E, and (b) a copy of BRANZ Bulletin BU544. This Bulletin described the role of BRANZ appraisals.

16. On 28 June 2018 the RA wrote to the Appeal Panel and noted that Mr A had attached to his documentation, a letter he wrote to Engineering New Zealand about Mr E. The RA accordingly provided the Panel with a copy of their letter responding to Mr A regarding his complaint about Mr E.

17. The Panel held its hearing by teleconference on Wednesday 4 July 2018. The hearing was considered on the basis of the papers and submissions provided. This is consistent with Appeal Regulation 13(1) which states:

    "The Council must conduct hearings with as little formality as it considers is consistent with a fair and efficient process and a just and quick determination of the appeal."

    None of the respondent parties had advised that a hearing of the matter in person was required.

Consideration of the appeal

18. The decision appealed in this case is that of a CIC acting as Adjudicator to dismiss Mr A's complaint under rule 57 (a) of the Chartered Professional Engineers of New Zealand Rules (No2) 2002 on the basis that there is no applicable ground of discipline under section 21(1)(a) to (d) of the Act. The complaint, as detailed above, is in summary that Mr B had not provided the necessary justification to demonstrate that the proposed relevelling solution (the Uretek Method) is an Alternative Solution in terms of the Building Code.

19. Appeals to the Council are by way of rehearing (section 37(2) of the Act). We are entitled to confirm, vary or reverse a decision (section 37(5) (a)). We may make any decision that could have been made by the decision authority (section 37(5) (c)). Following *Austin, Nichols & Co Inc. v Stichting Lodestar* [2008] 2 NZLR 141 we are entitled to take a different view from the Investigating Committee but the appellant carries the burden of satisfying us that we should do so.

20. In the hearing, the Appeal Panel has considered whether there are any grounds for discipline under section 21 of the Act, and whether the CIC's decision to dismiss the complaint was correct i.e.:

> **"21 Grounds for discipline of chartered professional engineers**
>
> (1) The Registration Authority may (in relation to a matter raised by a complaint or by its own inquiries) make an order referred to in section 22 if it is satisfied that a chartered professional engineer—
>
> (a) has been convicted, whether before or after he or she became registered, by any court in New Zealand or elsewhere of any offence punishable by imprisonment for a term of 6 months or more if, in the Authority's opinion, the commission of the offence reflects adversely on the person's fitness to practise engineering; or
>
> (b) has breached the code of ethics contained in the rules; or
>
> (c) has performed engineering services in a negligent or incompetent manner; or
>
> (d) has, for obtaining registration or a registration certificate (either for himself or herself or for any other person),
>
> (i) either orally or in writing, made any declaration or representation knowing it to be false or misleading in a material particular; or
> (ii) produced to the Authority or made use of any document knowing it to contain a declaration or representation referred to in subparagraph (i); or
> (iii) produced to the Authority or made use of any document knowing that it was not genuine."

21. Clearly, the criteria established under Sections 21 (1) (a), and (d) of the Act do not apply in this case. The question that the Panel has therefore considered is whether there is prima facie evidence that Mr. A:

> (i) has breached an aspect of the Code of Ethical Conduct set out in the Rules 43-53 respectively;
> (ii) has performed engineering services in negligent/incompetent manner.

22. If the complaint had not been dismissed, then it would have proceeded to an Investigating Committee. Under section 37 of the Chartered Professional Engineers of New Zealand Act (the Act) the Council may "*confirm, vary or reverse*" the decision to which the appeal relates and can "*make any decision that could have been made by the decision authority*".

23. So, in this matter, if the CIC decision is confirmed, the appeal will be dismissed. If the decision is reversed, then the only relief that can be granted is for the Council to send the matter to an Investigating Committee.

The URETEK Method, and the BRANZ Appraisal of it

24. In the following paragraphs, we discuss the Uretek Method and the BRANZ appraisal, which are central to Mr A's submissions.

25. Mr. B prepared the following documents in relation to the repairs:

    a. A Design Features Report titled "Building Relevelling at the Property" dated 28 July 2016 (the DFR). This report was addressed to Business F, the ground improvement contractor for the works. The relevelling was to be undertaken using the Uretek Method.
    b. A Producer Statement titled "Building Assessment for Foundation Re-Levelling" dated 28 July 2016 (the PS1) addressed to the Christchurch City Council.
    c. Memorandum from Licensed Building Practitioner titled "Certificate of Design Work, Section 45 and Section 30C, Building Act 2004" dated 27 July 2016 (the Memorandum).

26. The house at Address C is described by Mr B as having 'differentially settled up to 206mm across its footprint' (the DFR page 1) following the Canterbury earthquakes. He noted that the figure was taken from a plan provided to him, with levelling undertaken by others. Business F was to confirm the levels prior to undertaking the relevelling works. Mr B advised that he was satisfied that the house appeared structurally suitable for relevelling and recommended that relevelling occur using Uretek Jack on Grout under the perimeter beam and Uretek Slab Lift under the remainder of the slab area.

27. In the Producer Statement (PS1), Mr. B certified that the proposed Uretek work complied with the purposes of the Building Act. He noted however that the producer statement does not confirm that the existing foundations, floor slab, or existing structure complies with the current Building Code. In that Statement Mr. B also stated that he was satisfied from Business F's documents sighted, that the products used will have a design life of more than 50 years and will therefore meet the requirements of Clause B2 of the Building Code.

28. Mr. A subsequently challenged Mr. B to produce evidence that the Uretek method will qualify as an Alternative Solution in terms of the Building Code. Mr. B's Producer Statement had claimed that "the proposed relevelling works is an Alternative Solution in terms of the Building Code B1, using Uretek Products and techniques…". Mr. B had also cited MBIE Guidelines and BRANZ Appraisal 698 (2010) in that PS1 as 'related documents' (our underlining) as well as Business F's draft PS3 statement.

29. The most significant aspect of the complaint from Mr. A relates, in brief, to the use made by Mr. B of the BRANZ appraisal of the Uretek method. Mr. A argues that Mr. B has not followed the specific conditions or requirements of that appraisal, and that he has therefore not properly demonstrated that the use of this Method in respect of the affected property meets the requirements of the Building Code.

30. Our first observation is that it is not within our jurisdiction to make any comment on whether the requirements of the Building Code have been met. That is a matter for the relevant Building Consent Authority (BCA), in this case the Christchurch City Council. The Council had at the time (2016), granted an exemption from the requirement for a building consent for the work to be done, based on the documents submitted to them.

31. Mr. A also justifies his argument by referring to BRANZ Bulletin BU544 titled 'BRANZ Appraisals', which describes the role of Appraisals, how they should be used and the process of applying for and obtaining an Appraisal. The Bulletin was provided as an attachment to Mr. A's further submissions to this appeal dated 22 June 2018. We have considered both the Bulletin and the BRANZ appraisal relating to the Uretek Method.

32. Bulletin BU 544 States in Section 3.3 as follows:

"3.3.1 Products are assessed for Building Code compliance and their suitability for the intended job.

3.3.2 Although Appraisals have no legal status, they are usually accepted by BCA's on the basis that the product meets Building Code compliance and fitness for purpose, the BCAs knowing the rigour that BRANZ brings to its assessment process."

33. We now turn to the Appraisal itself. There are two versions of the Appraisal provided in the evidence available to us. Pages 29-35 of the Bundle of Documents contain Appraisal version 698 (2010), and pages 87-92 contain version 698 (2016). However, as the 2016 version was signed and promulgated in December 2016, it is not relevant to our consideration of this appeal as it was not available at the time of Mr. B's work. We understand from Mr. E's report to the RA that there may have been a re-issue of the BRANZ Appraisal (page 129 BoD) published on 28 November 2015, but we have not been provided with that version. Our consideration has therefore been based on the 2010 version of the Appraisal, and it is our understanding that in respect of the matters covered below in our discussions and findings, the substantial elements of the Appraisal have not changed.

34. Mr. A refers to the conditions of the BRANZ appraisal. Section 1. of the Conditions states that:

"This Appraisal

a) *relates only to the product as described herein;*
b) *must be read and used in full together with the technical literature;*
c) *does not address any legislation, Regulations, Codes or Standards, not specifically named herein…".*

35. The Appraisal summarises the technical investigations done by BRANZ as follows (Sections 13.1 to 13.5):

"13.1 BRANZ has assessed The Uretek Method for function and fitness for purpose, based on historical use and documented in-service performance and found it to be satisfactory.

13.2 The Uretek Method has a history of use internationally since the early 1980's in Europe and the USA and has been used in Australia since 1996 and New Zealand since 2001.

13.3 An assessment was made of the Uretek material by BRANZ technical experts.

13.4 The practicability of corrections undertaken using The Uretek Method has been assessed by BRANZ on site and has been found to be satisfactory

13.5 The Technical Literature and training system for Uretek installation personnel has been examined by BRANZ and found to be satisfactory."

36. Turning now to the specific reference in the Appraisal relating to Building Regulations we note that Section 3.1 states:

"The Uretek Method is only for use in remedial ground work. It is not for use in relation to new building work.".

Mr. A claims that the Appraisal does not refer to specific Building Code Clauses that the product meets and is therefore not compliant with BRANZ requirements as described in the Bulletin (c.f. Table 2 that an appraisal should state in Section 3 which building code

clauses that a product meets). He then further claims that as Mr. B simply refers to the Appraisal in his Producer Statement as evidence that the product meets the requirements of the Building Code, that he has not only not fulfilled his responsibilities but indeed has failed to meet competency and ethical obligations as a chartered professional engineer.

37. But the BRANZ Appraisal specifically states on its signature page (page 35 of the BOD) that

> "in the opinion of BRANZ the Uretek Method for Ground Engineering is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed and installed and maintained as set out in the Appraisal".

The only such specification set out in Section 3 of the Appraisal is that the Method is for use in remedial ground work, not new building work.

38. Mr. A further states in his appeal submission (1 May 2018) that he telephoned the BRANZ helpline to discuss the issue of BRANZ appraisals, and specifically this point.

> *"It was confirmed to me that a specific clause or clauses of the NZ Building Code were required to be specifically stated in Section 3 of an Appraisal for BRANZ to consider that the product or method as meeting those particular clauses of the NZ Building Code, and that where a Building Code clause was not stated in Section 3, that this indicated that BRANZ did not consider it met the provisions of the NZ Building Code".*

We do not know from the above whether Mr. A referred to the Uretek Appraisal No 698 [2010] during this telephone call. Moreover, as we have no independent evidence on the question available to us from BRANZ other than this anecdotal report from Mr. A, we cannot therefore take this submission into account. The BRANZ Appraisal is what it is, as written.

39. We note in addition that the BRANZ Appraisal has been re-issued since it was first promulgated, in 2016 (the latter re-issue being part of the evidence on page 80 of the BoD). The appraisal has not been amended in respect of the aspects of it that we have discussed above.

40. Mr. A questions also in his appeal submission whether Mr B (and Mr E and the Adjudicator) complied with section 1(b) of the 'Conditions of Appraisal'? Did they <u>read, consider and use</u> (our underlining) Appraisal 698 [2010] in full together with the Technical Literature? The sections (6.1 and 6.2) of the Appraisal to which Mr A also refers in his submissions states that the Technical Literature is <u>available</u> to a specifier. It does not require the specifier to quote aspects of it: it is there for the specifier to use as is appropriate. These paragraphs of the Appraisal also similarly state that the technical literature is <u>available for reference</u> by Uretek technicians. If there were to be any requirement that either technicians or specifiers <u>must</u> both use the literature and prove that they had done so, then that would presumably also be stated. But it is not.

41. BRANZ Bulletin BU544 states that an appraisal has no legal status. BRANZ appraisals provide an independent opinion of building products, materials systems and methods of design and construction. Whether a product used in remedial ground work or building work meets the Building Code is ultimately a matter for the relevant BCA or the Ministry of Business, Innovation and Employment (MBIE).

42. Mr A's complaint in this respect is stated in his original complaint to the RA (page 13 of the (BoD)

"He in essence signed his reports, producer statement and RBW certification without any understanding of whether the method did or did not meet the provisions of the NZ Building Code. It appears he just assumed it was an Alternative Solution without any evidence to support this and just assumed that it met the NZ Building Code without any evidence to support this".

The allegation that Mr. B 'just assumed' that the Uretek Method would qualify as an Alternative Solution under the Building Code (and that it does not qualify) is not supported by the evidence provided to us. As we have discussed above, the BRANZ Appraisal specifically states, as we have shown above, that the Uretek Method for Ground Engineering is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal. The specification also made is that it is to be used in remedial ground work only.

Findings

43. The Appeal Panel has carefully read all the submissions and supporting documents provided by the appellant and the RA, and the subsequent submissions made both in terms of the complaint and the appeal.

44. The requirement on Mr. B is to perform engineering services in a competent manner i.e. as should be expected of a chartered professional engineer, and in accordance with the Code of Ethical Conduct set out in the Rules 43-53 respectively. That is, did Mr. B act reasonably and in accordance with accepted standards? The adjudicator interprets this as what a reasonable body of his peers would have done in the same situation. We therefore turn now to the specific grounds of appeal and discuss each of them in turn, with that question in mind.

45. The grounds put forward by Mr. A in his appeal that:
    a. *Engineering NZ based their decision-making on expert advice that was incorrect.*

    In his appeal letter dated 1 May 2018, Mr A states that neither Mr B, nor Engineering NZ, nor the expert advisor for Engineering NZ have been able to state any specific clauses of the NZ Building Code that BRANZ Appraisal show the Uretek Method as meeting.

    Mr E was engaged by letter dated 28 September 2017, to provide expert advice to IPENZ. IPENZ was 'seeking a high-level review and his opinion about (an engineer's) use of the Uretek Method in the context of post-earthquake relevelling in Christchurch'. Terms of reference were set out in that letter.

    Upon receipt of Mr E's report that was provided to him, Mr A challenged the report, stating that Mr E had not provided the specific clauses of the NZ Building Code that BRANZ Appraisal 698 (2010) states the Uretek Method as meeting (page 135 (BoD). He also challenged the independence of Mr E in a written submission to the RA dated 3 November 2017. "He works for insurance companies that have promoted the use of engineered resin for lifting buildings. He has signed PS1s and PS4's for Business F's Uretek resin citing MBIE guidance as the means for demonstrating compliance with the Building Code. Mr E has been using MBIE Guidance incorrectly."

    Mr A also challenged other aspects of Mr E's report and his response to the terms of reference for his engagement.

The RA provided some background on the engagement of Mr E in their submission to this appeal hearing. We refer to paragraphs 4.2 to 4.10 on pages 5 and 6:

> The legal test for professional disciplinary processes is whether the professional acted reasonably and in accordance with accepted standards. Expert advice can help inform whether an engineer's actions were reasonable and in accordance with accepted standards. To ensure that the advice obtained is a fair assessment as to whether the engineer's actions were consistent with what a reasonable engineer, in the same circumstances, would likely have done, it is normal practice to seek advice from a peer of the engineer.
>
> Before appointing an expert advisor, the Registration Authority will consider factors such as an engineer's expertise in the area, their standing within the profession, and conflicts of interest.
>
> The Registration Authority considers that Mr E was an appropriate person to act as an expert in this case due to his extensive experience in post Canterbury earthquake repairs **[BoD 128].**
>
> Mr E declared that he did not have a conflict of interest in this case and signed a confidentiality agreement. To further ensure the independence of his advice, he was not made aware that Mr A was involved until after he had issued his expert advice.
>
> On 12 October 2017, Mr E issued his expert advice to the Registration Authority **[BoD 128].**
>
> Mr E was asked about the consensus among professional engineers (i.e. Mr B's peers) about the Uretek Method in July 2016 in the context of earthquake related re-levelling. Mr E considered that it would have been reasonable in July 2016 for Mr B to recommend the use of this method. He held this opinion based on his own experience in the field, the Appraisal, the MBIE Guidance, and the fact that the Council granted a building consent exemption **[BoD 129].**
>
> Mr E also considered that Mr B cited sufficient evidence in his documentation to support the solution proposed **[BoD 130].**
>
> Mr E was not asked to comment on whether the Uretek Method complies with the Building Code or would comply in this case. The question of whether the Uretek Method complies with the Building Code is a question more appropriately determined by MBIE.
>
> Mr E was asked whether it would be **reasonable** for an engineer to recommend this method in July 2016, not whether the method complies with the Building Code".

The appeal panel is of the view is that it was quite appropriate for the RA to have engaged Mr E to advise them, based on his considerable experience in designing repair and rebuild solutions for residential properties in Christchurch, and his affirmation that he had no conflicts of interest in this instance. We also consider that Mr E had the appropriate experience and skills for this task.

Mr E was asked the following questions:

"If an engineer recommends an 'alternative solution' in terms of the NZ Building Code would you usually expect them to refer to evidence to support the use of that alternative solution?"; and

> "If yes, what level of evidence would you generally expect the engineer to

refer to in support of the alternative solution?" (Pages 129 and 130 BoD):

Mr E responded to those questions, stating:

> "Yes I would expect an engineer to cite evidence to support the use of an alternative solution….. there are many forms of evidence that can be provided… One of these forms of evidence is Appraisals" (Page 130 BoD)

Mr A maintains that this response is inadequate and misleading, referring to his contention that neither Mr B, nor Mr E can cite specific clauses of the Building Code to which Appraisal 698 actually refers. The claim is therefore that the Uretek Method cannot qualify as an Alternative Solution.

Mr E also pointed out that Mr A had cited MBIE Determination 2016/53 dated 1 November 2016 (pages 56-64 BoD) as evidence that the Uretek method does not comply with the Building Code. We accept Mr E's response on this point. The matter under determination was whether the relevant BCA had correctly exercised its powers by declining an application for exemption applied under clause 1, schedule 1 of the Building Act. In the case of the property at Address C for which Mr B was engaged, Christchurch City Council granted a discretionary exemption under clause 2(a), Schedule 1 of the Building Act In addition the exemption was granted on 8 August 2016, i.e. before the MBIE determination was completed or promulgated.

We appreciate that Mr E pointed out to the RA that there are some minor errors in the PS1 statement submitted by Mr B. These were seen as minor, and therefore not a matter detracting from an overall assessment (from the RA) that Mr B had performed appropriately to his brief.

Our overall view is that Mr E has responded adequately and appropriately to his terms of reference and the questions asked of him. Mr A has not been able to demonstrate to us that Mr E's advice was in any way incorrect. The CIC was therefore entitled to rely on it in making his determination and we see no reason to come to any different view.

b. Mr B did not, and has still not, provided evidence of how the Uretek Method meets the provisions of the New Zealand Building Code. He has not:

i. Stated the specific NZ Building Code clauses which he considers MBIE Guidance shows the method as meeting;

As we have stated above in paragraph 37, the BRANZ Appraisal specifically states on its signature page (page 35 of the BOD) that

> "in the opinion of BRANZ the Uretek Method for Ground Engineering is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed and installed and maintained as set out in the Appraisal".

The only such specification set out in Section 3 of the Appraisal is that the Method is for use in remedial ground work, not new building work. A reasonable conclusion therefore from reading these two references together is that provided that the Uretek Method is used in a situation where remedial ground works is involved, and not new building work, then the work is likely to comply with the Building Code. We therefore disagree with Mr. A. His appeal on this point fails.

ii. Stated the specific NZ Building Code clauses which he

considers BRANZ Appraisal 698 shows the method as meeting;

Mr A's appeal on this ground also fails. We consider that BRANZ Appraisal 698 (2019) can be read as is, and that the words "will comply with the Building Code to the extent specified in this Appraisal" do not require that in addition there is a need for additional reference by engineers to Clauses in the Building Code if these are not already specified in the Appraisal.

We note also here that the BCA stated in their letter to Business D (Mr B's employer at the time) dated 8 August 2016 (page 119 BoD), that "We are satisfied that the completed work is likely to comply with the building code, provided it is carried out in accordance with your proposal".

iii. Shown that BRANZ Appraisal 698 describes the Uretek Method as either meeting the provisions of the NZ Building Code or is an Alternative Solution in terms of the NZ Building Code;

The BRANZ Appraisal specifically states on its signature page (page 35 of the BOD) that

> "in the opinion of BRANZ the Uretek Method for Ground Engineering is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed and installed and maintained as set out in the Appraisal".

This ground of appeal therefore fails.

iv. Stated any specific clauses of the NZ Building Code when stating the Uretek Method meets the NZ Building Code. Stating the explicit clauses is a pre-requisite in demonstrating NZ Building compliance.

We consider that this matter is best addressed by the relevant BCA or MBIE.

46. Mr. A further states in his appeal submission (1 May 2018) that he telephoned the BRANZ helpline to discuss the issue of BRANZ appraisals, and specifically this point.

> *"It was confirmed to me that a specific clause or clauses of the NZ Building Code were required to be specifically stated in Section 3 of an Appraisal for BRANZ to consider that the product or method as meeting those particular clauses of the NZ Building Code, and that where a Building Code clause was not stated in Section 3, that this indicated that BRANZ did not consider it met the provisions of the NZ Building Code".*

We do not know from the above whether Mr. A referred to the Uretek Appraisal (No 698 (2010) during this telephone call. Moreover, as we have no independent evidence on the question available to us from BRANZ other than this anecdotal report from Mr. A, we cannot therefore take this submission into account. The BRANZ Appraisal is what it is, as written. This ground of appeal therefore fails as well.

v. *Determined the cause of failure of the house foundation, nor first rectified this cause prior to using the Uretek Method. This is required as outlined in Section 7.6 & .7 of BRANZ Appraisal 698.*

Mr E's report to the RA (page 130 BoD) notes that

> *"the design features report prepared by Mr B indicates that the house had differentially settled up to 206mm. This is a significant amount of settlement. Withe reference to the MBIE Guidance Table 2.3 the indicator criteria for floor level variation indicating a foundation rebuild is 150mm for a Type C foundation, this has been exceeded by some margin in this case. Although I accept that the indicator criteria are guidelines only and are not absolutes".*

Mr E also noted that he had not seen a geotechnical investigation report but that Mr B appeared to have relied on a geotechnical report for a property at Address G. Mr B had also referred to a cone penetration test (CPT) for Address H. Mr E made no comment on whether these tests were adequate. Whether indeed they were adequate is not a matter within our jurisdiction or competence to determine. That is a matter for the BCA to consider, in this instance the Christchurch City Council. The BCA has as we have noted earlier, approved the Building Act exemption application. Mr B has therefore apparently met the requirements in terms of providing adequate supporting evidence for his application for exemption. This ground of appeal fails.

c. *Neither Mr B, nor Engineering NZ, nor the 'expert' advisor for Engineering NZ have been able to state <u>any</u> specific clauses of the NZ Building Code that BRANZ Appraisal 698 show the Method as meeting.*

We have dealt with this ground of appeal adequately above.

Conclusions

47. Mr. B has met the essential requirement of his obligations as a Chartered Professional Engineer in terms of his design features report, and the Producer Statements etc. He has quoted relevant evidence for his work (the BRANZ Appraisal), and has had this evidence affirmed by an expert adviser engaged by the RA. The BCA (the Christchurch City Council) had no issues with his work.

48. Mr. B has also clearly thought carefully and appropriately (from the evidence of his PS1 statement – pages 114 and 115 BoD) about the state of the ground underneath the foundations at Address C, the relevelling required, and the appropriateness of the solution proposed. There is no indication that his actual client (the owner of the property at the time) or the BCA considers otherwise.

49. Our judgement is therefore that Mr. B has performed engineering services in a competent manner i.e. as should be expected of a chartered professional engineer, and in accordance with the Code of Ethical Conduct set out in the Rules 43-53 respectively.

Decision

50. The Appeal is declined, and the decision of the CIC Acting as Adjudicator is confirmed.

Costs

51. It is the view of the Appeal Panel that the costs incurred by all parties to this appeal should remain where they lie.

Dated this 17th day of August 2018

Mr Ross Tanner
Principal

Mr Jon Williams

Ms Sandra Hardie