

VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL

CIVIL DIVISION

BUILDING AND PROPERTY LIST

VCAT REFERENCE NO. BP837/2014

CATCHWORDS

Domestic Building Contracts Act 1995 – ABIC Major Works Contract – documents incorporated into Contract - claims for variations – requirements – power of Architect to certify extension of time before final certificate if no claim made – no claim interpreted to mean no valid claim – *Peninsular v. Balmain* principle applied – duty of Architect to certify if fair and reasonable to do so – Tribunal to exercise power if fair and reasonable to do so – extension of time – delay in reaching practical completion – evidence – Builder must prove delay to critical path – calculation of delay period – use of works programs – expert evidence - claim for extension of time costs – how calculated – whether off site overheads included

APPLICANT	Allmore Constructions Pty Ltd (ACN 006 368 896)
RESPONDENT	K7 Property Group Pty Ltd (ACN 153 217 933)
WHERE HELD	Melbourne
BEFORE	Senior Member R. Walker
HEARING TYPE	Hearing
DATE OF HEARING	6 – 17 May and 26 May, 26 July 2016. Final submissions received 15 August 2016.
DATE OF ORDER	20 October 2016
CITATION	Allmore Constructions Pty Ltd v K7 Property Group Pty Ltd (Building and Property) [2016] VCAT 1770

ORDERS

1. Order that the Respondent pay to the Applicant the sum of \$210,209.50 plus interest pursuant to section 53(2)(b)(ii) of the *Domestic Building Contracts Act 1995*, calculated \$37,892.42, making together the sum of \$248,101.92.
2. Liberty to apply for any consequential orders.
3. Costs reserved.

SENIOR MEMBER R. WALKER

APPEARANCES:

For the Applicant	Mr J. Twigg QC with Miss F. Cameron of Counsel
For the Respondent	Mr K. Oliver of Counsel

REASONS

Background

1. By an agreements entered into on or about 2 November 2012 (“the Contract”), the Applicant (“the Builder”) agreed to construct for the Respondent (“the Developer”) 37 apartments in two connected buildings over a basement car park on the Developer’s land in West Brunswick, for a price of \$8,783,804.70, including GST.
2. The form of contract document used as part of the Contract was the ABIC MW-2008 H Vic Major Works Contract for Housing in Victoria. This document provides for the work to be administered by an Architect and CHT Architects Pty Ltd (“the Architect”) was appointed for that purpose.
3. The Builder’s letter of tender, dated 26 September 2012 (“the Tender Letter”), was annexed to and formed part of the Contract.
4. Although the formal documents do not appear to have been executed until 2 November 2012, the Contract provided that possession of the site was to be given to the Builder on 17 September 2012, which is when work appears to have commenced. The construction period stipulated was 250 working days, which meant that the Builder was to bring the works to practical completion by 8 November 2013, failing which it would be liable to pay liquidated damages of \$1,850.00 per day.
5. It is acknowledged that practical completion was achieved on 18 July 2014.
6. During the course of the works there were a number of variations claimed by the Builder, some of which were approved by the Architect. Claims for payment with respect to these were made by the Builder. The majority of these were paid by the Developer but some were not. The Architect has purported to withdraw its approval in regard to some variations and its right to withdraw approval has been challenged by the Builder. Some claims for variations were not approved by the Architect.
7. In addition to the disputes about variations there are also disputes concerning extensions of time claimed by the Builder and liquidated damages claimed by the Developer. The Architect allowed extensions of time of 58.625 working days and adjusted the date for practical completion to 28 February 2014 as a consequence. The Developer claimed liquidated damages of \$259,000.00 with respect to the Builder’s failure to achieve practical completion by that date.
8. The Builder has claimed entitlement to extensions of time and delay costs for a further 187 working days which, it alleges, extended the date for practical completion to 22 September 2014. In the Points of Claim it claimed \$276,480.00 for delay costs but by the time of the hearing that had increased to \$348,106.91.
9. A mediation took place on 21 May 2014 at which a number of matters in dispute were resolved.
10. This proceeding was issued by the Builder on 16 December 2014 claiming damages or alternatively, a fair and reasonable sum for the actual work

performed and the costs incurred by the Builder to complete the works and the variations. The Developer has defended the proceeding, denying that the Builder is entitled to payment of any damages, claiming the sum of \$210,156.19 from the Builder and a declaration that it is entitled to draw on a bank guarantee.

The hearing

11. The matter came before me for hearing on 6 May 2016 with nine days allocated. Mr J. Twigg of Her Majesty's counsel appeared with Miss F Cameron of Counsel for the Builder and Mr K. Oliver of counsel appeared for the Developer.
12. The hearing proceeded until 17 May and was then adjourned for submissions on 26 May. A further directions hearing took place on 26 July 2016 to determine a request by the Developer to file and serve supplementary submissions. On that day leave was given to the Developer to rely upon submissions filed that day, leave was given to the Builder to file and serve further submission by 8 August in relation to a prevention principle argument and the consequences of a compromise and leave was given to the Developer to file and serve any submissions in reply to the prevention principle argument by 15 August 2016.
13. Pursuant to this leave, supplementary submissions were filed on behalf of the Builder on 8 August and submissions in reply were received from the Developer's solicitors on 15 August.

Witnesses

14. The principal witness for the Builder was its project manager, Mr Skinner. Witness statements were also filed from its director, Mr Unsworth and from its financial controller Nikki Pantelidis. For the Developer, witness statements were filed from the Architect, Mr Carabott; from the Architect administering the project on behalf of the Developer, Ms Hollis; from the engineer for the project, Mr De Losa; from the building inspectors, Mr Lee and Mr Cenci; and from the building surveyor's assistant, Mr Pham. Although Ms Hollis was potentially a significant witness for the Developer she was not called or cross-examined.
15. Expert building reports were filed from Mr Lorich for the Builder and Mr Atchison and Mr Croucher for the Developer. On the issue of the calculation of the extensions of time claimed, extensive evidence was given by two quantity surveyors, Mr Andrews on behalf of the Builder and Mr O'Donnell on behalf of the Developer. A quantity surveyor, Mr Buchanan, was also called on behalf the Developer.

The relevant Contractual terms

16. Schedule three of the Contract provides that the order of precedence of the Contract documents was as follows:
 - (a) the special conditions shown in schedule 2A
 - (b) the conditions set out in the Contract and in schedule one;
 - (c) the specifications;
 - (d) the attached drawings;

- (e) the following, which are described as “Any other documents described below”, which are stated to be:

“draft fire engineering report – Rawfire - Dated 7-12-11,
Sustainability statements - Ark Resources - dated 9-9-11,
Outline specification V5 - dated 13-90-11
Planning permit MPS/2012/135.”

These documents appear to rank equally inter se.

17. It was acknowledged that the Tender Letter dated 26 September 2012 was a Contract document but it is not referred to in Schedule three. Mr Oliver suggested that it should take its place as “Any other document described below”. I do not accept that submission because the document is not included in the list “described below”. Since it is nonetheless acknowledged to be part of the Contract I think that it forms part of the conditions of the Contract and takes precedence as such.
18. It is not disputed that the Builder was not responsible for any design deficiencies in the Contract documents. However, in Section B of Schedule 2a containing the special conditions, the following two clauses appear:
- “B1.2 The intent of this contract is to construct 37 apartments, car parking and associated works. The contractor has been involved in the documentation process and has provided advice on the construction technique and detailing, as well as reviewing the documentation and budget throughout the process. The contractor assumes the risk of any minor errors and omissions as defined in Clause B1.3 up to a maximum amount of \$5,000.00 for minor errors and omissions. The contractor will not be entitled to claim any additional costs in respect of any minor errors and omissions as defined in Clause B1.3, unless the aggregate value of all costs incurred by the contractor in respect of minor errors and omissions exceeds \$5,000.00. If the aggregate value of all costs incurred by the contractor in respect of minor errors and omissions exceeds \$5,000.00, then the contractor will be entitled to make a claim to adjust the contract for the value of all costs incurred by the contractor in relation to minor errors and omissions to the extent that such costs exceed \$5,000.00. For the avoidance of doubt, the contractor will be entitled to claim an extension of time for any delay affecting working days caused by minor errors and omissions as defined in Clause B1.3.
- B1.3 The contractor shall perform any works that are necessary to complete minor errors and omissions in the contract documents or the works, provided that the aggregate value of all costs incurred by the contractor in respect of minor errors and omissions does not exceed \$5,000.00.”
19. The role of the Architect under the Contract is twofold. By Clause A6.3, it is the agent of the Developer for the purpose of giving instructions to the Builder but in acting as assessor or value or certifier under the Contract it is required to act independently and fairly and not as the agent of the Developer.

20. The mechanism for the Builder to seek and obtain additional time or payment under the Contract is set out in Clause H. It is to be done by seeking an “adjustment to the Contract”.
21. By Clause H1.1, the Builder is entitled to make a claim to adjust the Contract only if it promptly notifies the Architect in writing of its intention to make a claim and submits a detailed claim to the Architect within 20 working days after receiving the instruction or becoming aware of the event that has resulted in the claim. The formal requirements as to the contents of the claim are set out in Clause H2. By Clause H3, the Architect is to promptly assess the claim after considering the details provided and any further information that it requests the Builder to provide. Any request to the Builder for additional information must be in writing and must be answered promptly by the Builder.
22. Within 20 working days after receiving the claim, the Architect must issue its written decision to the Builder, specifying any adjustment to the Contract price or to the date of practical completion. There is a procedure for the Builder to dispute the Architect’s decision in accordance with Clause A8, but it is required to continue working in the meantime, notwithstanding that the dispute remains unresolved.
23. Reliance is placed by the Builder upon Clause H6, which reads as follows:

“Architect may adjust Contract in absence of claim

If the Contractor has not made a claim to adjust the Contract in relation to any change which results from complying with any instruction given under Section J for a variation or from causes of delay noted in Clause L1 or L2, the Architect may adjust the Contract at any time up to the issue of the final certificate under Clause N12, or a certificate under clauses Q9 or Q 17.”
24. By Clause H.2 b.2 and Item 21 of Schedule 1 of the Contract, the Builder was entitled to include in its claim, on top of any extra costs or savings, a margin of 10% for overheads and profit.
25. Once assessed, the claim is to be taken into account in assessing the next progress claim (Clause N5).

Variations - Contractual provisions

26. Variations to the Contract works are dealt with in Clause J of the Contract. They may be instigated by the Architect or by the Builder. As to the former, by Clause J1.1, the Architect may give the Builder an instruction for a variation at any time before the date of practical completion. By Clause J1.2, the instruction may include an instruction to provide, within 20 working days or a longer period stated in the instruction, a detailed quotation of the whole of the cost of, or any saving, as a result of the variation and its effect on the Contract price and an estimate of the effect of the variation on the date for practical completion.
27. By Clause J1.3 the Builder may request in writing an instruction to proceed from the Architect if it considers that a variation may be required. The request must set out the reason for the variation, its effect on the works, its effect on the date

for practical completion and the full cost of the variation and its effect on the Contract price.

28. Where the Architect has requested the variation, then, by Clause J2, the Builder must review the instruction and, by Clause J2.2, carry it out promptly if it will not result in an adjustment to the Contract price, the date of practical completion or require an alteration to any official document. It is not required to obtain an instruction to proceed and is not entitled to any adjustment to the Contract as a result of carrying out the instruction.
29. However if the instruction will result in an adjustment of the Contract price or the date for practical completion or require the alteration of a permit, then by Clause J2.3, the Builder must, within 20 working days, notify the Architect in writing stating the effect that will have on those things and setting out the full cost of the variation and its effect on the Contract price.
30. Clause J3 provides that, except where Clause J2.2 applies, the Builder must continue to carry out the work in accordance with the Contract documents until a further instruction is received under Clause J3 and it is not entitled to any adjustment to the Contract as a result of carrying out an instruction to which Clause J2.3 applies unless it receives an instruction to proceed following its notification under Clause J2.3.
31. Throughout the project there were extensive communications by email between the Builder and the Architect, the engineer and other persons involved in the construction. Communications by the Builder with the Architect concerning variations appear to have followed the requirements of the Contract in a general sense and, according to Mr Skinner's evidence, no objection was taken by the Architect to the procedure that was adopted or as to the formal sufficiency of the various notifications and claims that the Builder made. All claims appear to have been considered and determined by the Architect on their merits.

Disputed variations

32. The following variations which had been disputed have now been agreed. They are CV 45 in respect of concrete variations, which has been agreed at \$210.00; CV 49 in respect of additional soil, which is agreed at \$1,170.67; CV 62 in respect of the main entry booster changes, which is agreed at \$6,800.00; and CV 65 for fencing changes to the western boundary, which is agreed at \$1,155.00. When GST is added the total adjustment for these becomes \$10,269.24.
33. The following variations are still disputed.

Variation CV 7 - in-situ or pre-cast blade walls

34. This variation is with respect to constructing concrete column walls, which were referred to during the hearing as "blade walls". They were constructed "in-situ" (on-site) instead of using precast panels. It was explained that using pre-cast panels instead of walls that would have to be cast in-situ was a substantial saving in both cost and time to the Builder.

35. The Builder claims that it was instructed to construct them in-situ and the additional cost claimed for that, which was assessed by the quantity surveyor and is acknowledged, is \$20,000.00.
36. The amended structural drawings dated 7 March 2012 issued for tender show pre-cast blade walls in the basement and in-situ blade walls for the floors above. However the Tender Letter, forms part of the Contract and Item 12(a) of that letter provides:

“Allmore intend replacing insitu concrete columns with pre-cast columns for the entire project.”
37. On 14th February 2013 the Builder sent shop drawings of the pre-cast panels to the Architect for approval. On the following day the engineer returned the plans with the blade walls circled, stating that they were to be in-situ blade columns. On 27 February 2013 the Builder stated that it proposed to use precast panels. On 1 March 2013 the engineer sent an email to the Builder and the Architect stating that it had designed the building on the basis of all upper-level columns being in-situ, not precast and that that was what was required.
38. The Builder has produced the minutes of a site meeting that took place on 19 March 2013 which was attended by Mr Skinner, Miss Hollis of the Architect’s office and a representative of the Developer. Item 5 of the minutes is as follows:

‘Blade wall composition (in situ vs precast) advised by ONG [*the Engineer*] that needs to be in situ. Allmore to review and advise costs as precast included within the Tender/Head Contract Sum’.
39. Mr Skinner said that the Builder obtained a quotation from its subcontractor for the cost of the change and on 3 May 2013 he sent an email to the Architect and the Developer enclosing the quotation and saying that the Builder would require a variation. The quotation was for \$23,565 plus GST. In the minutes of a subsequent site meeting between the Builder, the Architect and a representative of the Developer held on 14 May 2013, it was noted that the costs of the change were issued for review by the “Consultant Team”. Thereafter the columns were constructed in situ and the Builder claimed a variation.
40. After some further correspondence the Architect had the variation valued by the quantity surveyor and thereafter issued Architect’s Contract Price Adjustment No. 7 on 17 June 2013. This described the variation as an “Agreed cost” of \$20,000. Notwithstanding the date of this document, Mr Skinner says that he did not receive it until 15 November 2013.
41. It is difficult to understand why a Builder would submit a tender for a substantial project incorporating within it a statement that it did not intend to follow the engineering drawings for the buildings that it was tendering to construct. Nevertheless, that is what it did.
42. The fundamental issue is whether or not casting these walls in-situ was a variation to the contractual scope of works directed by the Architect.

43. The Developer relies upon a conversation that took place on 23 February 2012, that is, during the design phase and before the Contract was entered into, between the engineer, Mr De Losa, on behalf of the Developer and Mr Scolaro and Mr Skinner on behalf of the Builder, to discuss the engineering components of the design. According to Mr De Losa, Mr Scolaro asked him during that meeting whether all blade walls or columns for the project could be constructed using pre-cast concrete. Mr De Losa said that he told Mr Scolaro that, due to structural stability issues, he was unable to accommodate blade walls above the ground floor being constructed using pre-cast concrete but suggested that the basement columns could be changed to pre-cast. He said that Mr Scolaro then requested that these be re-documented as such for the tender issue. Mr De Losa said that he then amended the original structural design for the building to require all columns of the basement to be pre-cast concrete and the blade columns above ground floor remained as cast in-situ as originally documented.
44. Mr Skinner agreed that using pre-cast concrete for the blade walls or columns was discussed at this meeting but he denied Mr De Losa's account of the conversation and said that Mr De Losa told them that he would have a look at it. He said that the Builder was aware that the plans that were later produced required in-situ columns and that is why they put in their tender letter that they intended replacing in-situ concrete columns with pre-cast columns for the entire project. As it turned out, the basement columns were poured in-situ because, according to Mr Skinner, the pre-cast company could not have pre-cast blade walls ready on time.
45. Mr Oliver submitted that, since Mr Scolaro was not called to give evidence to deny Mr De Losa's account of the meeting, I should infer that his evidence would not have assisted the Builder. Mr Skinner was called and he denied Mr De Losa's account. It is possible that Mr Skinner and Mr De Losa have different recollections of what was said but I do not believe that I should draw an adverse inference from the failure to call Mr Scolaro because this conversation is of questionable relevance.
46. Counsel for the Builder submitted that evidence concerning this conversation is inadmissible under the parol evidence rule. They also relied upon a clause in the Contract document which provides that the Contract contains everything that had been agreed upon and that neither party may rely on any earlier contract or anything else said or done by the other party before the Contract was entered into. I think that is right. I cannot go beyond the four corners of the Contract except to resolve some ambiguity.
47. Counsel for the Builder further submitted that, since there was no evidence to suggest that the matter had been raised earlier, it is more logical that Mr De Losa would have said that he needed to consider the matter. I do not think that necessarily follows. He might have had a firm opinion at the time.
48. Counsel for the Builder also submitted that it was not open to the Architect to retract its approval of this and the following variation (CV 19). In this regard, I accept the submission of Mr Oliver that if a certificate is disputed by one of the

parties the Architect is required to assess the notice of dispute and to make a decision in regard to it, which could be to amend or revoke the certificate (Clause A8). That said, my attention has not been drawn to any document by which the Developer disputed the certificate. The purported withdrawal occurred the day following the submission by the Builder of a claim of extension of time charges with respect to this variation which might indicate a change of mind by the Architect when implications of the variation in terms of the resulting EOT charges became apparent.

49. I think the question that is now to be asked is, whether this is a valid variation, regardless of what the decision of the Architect at the particular time was.
50. Mr Oliver said that the terms of a commercial contract are to be determined by what a reasonable business person would have understood those terms to mean. He said that that requires consideration, not only of the text of the documents, but also the surrounding circumstances known to them. He relied upon the High Court decision of *Pacific Carriers Ltd v. BNP Paribas* [2004] HCA 35 (at para 12). Although I accept the correctness of that principle, the Builder's claim is based upon a specific clause in the Tender Letter, which forms part of the Contract, and the meaning of that clause is quite clear.
51. Even if I could refer to the conversation and even if I accepted the version of it given by Mr De Losa, I do not think I could interpret Clause 12(a) of the Tender Letter as being nothing more than a statement of future intention as I was urged to do. It forms part of the offer that the Builder made to the Developer. Using precast blade walls was specified and that statement is clear and unambiguous. If, as I think is the case, the Tender Letter ranks in the order of precedence ahead of the drawings and specifications, the in-situ casting of these blade walls was not within the contractual scope of works and so it must be an extra. Since the calculation of the amount is not in dispute, it must be allowed.

Variation CV 19 - installation of the soffit

52. The Contract required the ground floor/basement area to be insulated to a R1.3 level (*Drawing number A0.01*). An energy assessment prepared by Ark Resources dated 9 September 2011 required:

“Floor installation

25 mm Kingspan Kooltherm K 10 soffit board to garage soffit shared with habitable spaces above – R1.19.”

Roof insulation

R2.5 bulk insulation + sarking

Under metal roof construction and all units ceilings with roof areas above - R.5”

53. On 28 March 2012, the energy rating consultant, Ark Resources, issued a further report upgrading the Kingspan Kooltherm K10 soffit board to 35mm in order to achieve R1.67. In the Tender Letter, the Builder stated:

“Allmore have not made any allowance for revised requirements as part of the ‘energy and efficiency report issued’ on the 28/3/12.”

54. On 1 August 2013 the Architect prepared revised drawings that required:

Floor Insulation

35mm Kingspan Kooltherm K10 soffit board: slab soffit and basement car park shared with apartments above R1.67.

50 mm ISO Board soffit board: floor areas over open spaces R1.66.

Roof Insulation

50 mm ISO Board soffit board: underside of concrete ceiling/roof sections shared with terrace above R1.66.

Total R3 .5 value to be achieved with ceiling insulation + starting to underside of metal deck roof R3.5.”

55. By email dated 13 August 2013 the Builder informed the Architect this would be a variation and requested advice as to whether they wished to proceed. On 15 August 2013 the Architect sent to the Builder marked up plans showing the amended installation required for the underside of the balcony soffits and the basement ceiling and asked for a costing.
56. On 10 September 2013 the Builder submitted Contract adjustment No. 19, claiming an adjustment of \$83,603 excluding GST to the Contract price and requesting written approval for the variation. On the same day, the representative of the Developer, Mr Nguyen, denied liability for “...this contract variation”. The work was subsequently carried out by the Builder and its value was assessed by the quantity surveyor on 30 October 2013.
57. I am satisfied that the Architect directed this variation to be carried out. The question to be determined is whether the Builder is entitled to an adjustment to the Contract with respect to it.
58. Mr Oliver referred me to Schedule 2a of the Contract, inserting the following further warranty by the Builder into Clause A3.2 b:
- “The Contractor further warrants to the Owner that:
-
- it has satisfied itself as to the correctness and sufficiency of its tender for the works and that the contract price including any additions expressly required to be made under the contract is sufficient to cover the cost of performing all of its obligations under and in connection with this contract and the costs of all matters and things necessary for the due and proper performance and completion of this contract and the works.”
59. He said that the Builder must be taken to have included in its tender price the level of insulation specified in the Contract documentation. I think that is right and that the claim should only be for the additional cost of the upgraded work.

60. Mr Lorich said that the revised drawings indicated an upgrade over what was required within the scope of the Contract. He assessed \$12,914.00 for the extra material to the car park ceiling and \$24,853.00 for labour and material to supply the 50 mm board to the upper level. With a Builder's margin of 10%, the amount that he said was reasonable was \$41,544.00.
61. In cross-examination Mr Lorich acknowledged that he had not allowed for the apartment 6 ceiling soffit which was required by the drawings. He said that he identified the difference in the price of the board from a price list from another job that he had just completed. He based his calculation on a price of \$100 a square metre to supply and fix the board. He also said that the thicker board was harder to fix. The price that he is using appears to be a recent price rather than a price that would have been applicable in 2011.
62. Mr Oliver submitted that Mr Lorich could not provide any justification for his allowance of \$100 per square metre and that, in the absence of that justification, the lesser figure of \$70-\$75 per square metre assessed by the quantity surveyor should be accepted over that Mr Lorich. He said that the total, including margin, should be \$23,245.85.
63. The onus of proof is on the Builder to establish the amount of the variation. I have to allow for the soffit of apartment 6 on top of Mr Lorich's assessment. I should also take account of the prevailing price at the time the work was done which was the approach of the quantity surveyor. I should therefore allow the amount assessed by the quantity surveyor. With GST it then becomes \$25,570.43 and that amount will be allowed as an adjustment to the Contract price in favour of the Builder.
64. The Builder originally sought an extension of time with respect to this variation but that is no longer claimed. In any case, neither of the extension of time experts thought that this variation caused any delay to the date of practical completion.

Variations CV 28 – fire rated walls

65. According to Mr Lorich's evidence, Architectural drawings A3.01 and A3.02 detail a truss design that arches over the internal walls except between apartments which have an acoustic and fire rated double dividing wall. He said that the drawings shows a wall to the ceiling level only and not up to the underside of the roof.
66. The detail in Architectural drawing A6.20 revision T2 shows that the walls depicted were to go to ceiling level only. Sections 2, 3 and 4, are details of the party wall system for the wall separating the apartments. These show a party wall system to be sandwiched between two stud walls. However, between each unit and the lobby, acoustic walls are drawn where, for sound attenuation, the studs are staggered in a single leaf without any cavity to accommodate a party wall system. It is said that, since there is no separate detail of where these staggered walls should finish, the general detail would apply which shows them to be finishing at ceiling level.

67. In the case of the double stud walls containing a party wall system, the ends of the roof trusses would be able to sit on the top plate of the stud wall on each side, which would allow the party wall system to continue upwards to the underside of the roof thereby providing the necessary fire separation. This was not possible on the staggered walls, which had a single top plate, and no detail was provided in the plans showing how the fire rating for these walls was to be achieved above ceiling height. An architectural design was arrived at by the Architect and the Builder carried out the necessary work. Mr Lorich said that the figure of \$44,023.10 appears to be reasonable and necessary in the circumstances although his own assessment was \$42,806.00.
68. It is difficult to understand why this omission in the Contract documents to provide for fire rating above the staggered stud walls was overlooked and why it was picked up so late in the construction by the Builder. It should have been obvious to Mr Skinner that the walls separating each unit from the lobby needed to be fire rated and yet the trusses were installed by the Builder across the tops of these walls without any apparent thought as to how the necessary fire rating would be achieved. The Builder relies upon the fact that the truss design was submitted to the engineer for approval and stamped before the trusses were manufactured and installed but I accept Mr Oliver's submission that the mere stamping of the truss design by the engineer did not relieve the Builder of its responsibility to ensure the correctness of the truss design and its appropriateness in the circumstances.
69. It was suggested by Mr Carobott in cross-examination that the deficiency in the details in the plans was covered by General Note F13 on Sheet A0.01 of the Architectural plans, to the effect that the walls would be carried up to the underside of the roof. That note states:

“All smoke/fire rated walls are to be extended full height to the underside of the roof tray or floor surface above, all penetrations are to be smoke sealed.”
70. Despite what the note says, the detail on the drawings themselves (A.06 T2 – Tribunal Book 0879) shows that the walls other than the double thickness walls containing the shaft liners are to finish at the ceiling. That specific detail which is quite clear and unequivocal is inconsistent with the General Note, F13. Moreover, there is no detail or other provision in the plans as to how to fireproof these staggered stud walls separating the units from the lobby above ceiling level. This deficiency in the plans was, sensibly, acknowledged by Mr Atchison. Further, in an email from Ms Hollis of the Architect dated 19 September 2013 to Gary Dean and copied to Mr Skinner and others, she acknowledged that the walls were documented only to ceiling level and were not specified to be fire rated to the underside of the roof sheeting around the trusses.
71. Mr Oliver pointed out that the Building Code of Australia (“the Code”) required any internal fire rated wall to go to the underside of the roof. The page of the Code to which he refers provides for alternatives, including extending the wall up to a fire resistant ceiling.

43. It is not disputed that the units needed to have fire separation from the lobbies and that in the absence of a fire resistant ceiling, the walls would need to be fire rated but the obligation of the Builder was to build in accordance with the Contract documents and so far as I can see it did so. If the documents are ambiguous the Builder should seek a direction from the Architect and ultimately, that is what occurred.
72. It appears from an email sent on 22 July 2013 that Mr Skinner was aware that, despite the detail A.06 T2, the wall between Apartment 203 and Stairwell A was required to be fire rated to the roof but he does not appear to have turned his mind to the fire rating of these staggered stud walls until after the trusses had been installed. Structural drawing S 30 also shows discontinuous trusses at the walls separating the units that were to be fire rated but there is nothing in the documents to show how any discontinuous trusses would be supported at these staggered stud walls.
73. Mr Skinner acknowledged that the Builder should have seen the problem earlier than it did, but even so, the plans did not provide any direction as to how these walls were to be fire rated above ceiling level and so any work to fire rate them above the ceiling would necessarily be additional work. The Builder was entitled to seek a direction from the Architect as to what to do and to seek payment for carrying it out.
74. The instruction that was given, on 24 October 2013, was AA 38. This involved continuing the same wall construction above ceiling level up to the underside of the sheet roofing with both sides sheeted with 16mm fire rated plasterboard above the ceiling. The trusses are shown penetrating one side of the staggered wall only and resting on the top of a stud. The note directs the Builder to leave gaps between the wall and the end of each truss. Another note says that the timber trusses are not to be continuous. A note on the direction provides the following details:

“Please find attached details for the fire rating to top floor corridor walls. These have been agreed to by building surveyor, fire engineer and acoustic engineer.”
75. Notwithstanding this note, it does not appear that these details were approved by the fire engineer. Mr Skinner said that the work required by this instruction was then carried out.
76. I am satisfied that this is a variation of the scope of works that ought to have been approved.

Variation CV 29 - engineering fee for truss re-design

77. This was a fee incurred by the Builder with respect to the re-design of the trusses. Mr Lorich said that the amount claimed the \$495 was fair and reasonable for the redesign work carried out which he attributed to the Architect's errors. I am satisfied that should also be allowed.

Variation CV 30 - additional inspection for fire rating top floors

78. This was a fee of \$165 charged for a further inspection as a consequence of Variation CV 28. Mr Lorich said that the fee was fair and reasonable and that will also be allowed.

Variation CV 38 - revised fire rating works and truss rectification

79. After the trusses had been altered, purportedly in accordance with AA 38, a fire rating inspection was carried out on 13 November 2013 and the work was still not approved. The fire engineer raised further concerns that the trusses still penetrated the wall on both sides and the party wall extended only up to the insulation and not to the metal roof. The engineer said that the blocking above the wall still projected into the fire rated walls. This blocking appears to have been positioned in order to stabilise the trusses during construction. It should not have been left in position at the time of plastering and it was subsequently removed at the Builder's cost. That cost is not part of the claimed variation.
80. Following this failed inspection a further design was prepared by the Architect which was implemented by the Builder. In this regard the Builder has claimed a variation of \$24,227.13. Mr Lorich thinks that is excessive and he said that a fair and reasonable charge for the work done was \$17,500.
81. According to the evidence of the building inspector, Mr Lee, direction AA 38 was not followed by the Builder in the following respects:
- (a) the fire rated walls extended to the underside of the insulation layer instead of directly to the metal roof;
 - (b) in some areas the shaft liner was not installed around the staggered truss ends sitting on the corridor party walls in the manner shown;
 - (c) the trusses still projected completely through the fire rated walls in many places; and
 - (d) the blocking between trusses still extended through the fire rated walls.
82. As to (a), extending the plasterboard to the insulation instead of to the underside of the roof was ultimately approved by the building surveyor on 27 November 2013 because the insulation itself was fire rated. However the other defects remained. Mr Skinner said that the blocking was removed by the Builder at its own expense but that the design for direction AA 38 still did not work, hence the need for the further instruction from the Architect.
83. Although I am not satisfied that the Builder complied entirely with direction AA 38 by the Architect because the blocking between the trusses still extended through the fire rated walls which was inconsistent with the detail given, the other problems identified seem to arise from the direction itself.
84. Since I am satisfied that direction AA 38 did not provide a workable solution and that the work that is the subject of this further variation was done by the Builder in following a direction from the Architect, it seems to me that the Builder is entitled to a further variation.

Variation CV 55 - additional wall drenchers

85. Item C on page 5 of the Tender Letter excluded from the tender “Any changes to revised hydraulic drawings issued 7/8/12 by CHT”. Item G on the same page of the Tender Letter excluded from the tender any requirements of the fire engineer’s report that was not documented before the original submission. The Tender Letter went on to confirm that a provisional sum of \$50,000 plus GST had been included in the Contract sum and was estimated to cover the excluded items, including these two items.
86. The hydraulics drawings issued for construction include drawing A03 revision 2, dated 19 March 2013, which includes the following note, No.24:

“Supply and install Tyco WS Fire Sprinkler Window Drenchers in accordance with Fire Engineer’s Report, MFB Regulations and Manufacturers Recommendations”.

and the following general note:

“The locations, invert levels and sizes of all services shown on the drawings are indicative only. It is the responsibility of the Contractor to verify and confirm all the services prior to commencement of any works or ordering of any materials.”
87. The Fire Engineer’s Report referred to, which is included amongst the permit drawings, required, on page viii, an external drencher to be provided to the window A4 of apartment G02, and that internal drenchers should be provided to apartments G02, G03, G05 and G06.
88. The design and maintenance of the drencher protection system was required to be in accordance with the Tyco data sheet provided in Appendix D of the report, with each individual pane of glass to be a minimum of 6 mm thick tempered glass without horizontal mullions. Appendix D provided a detailed description of the drenchers to be used and how they should be installed relative to the windows they were intended to protect. In particular, Figure 3(b)(i) stated that a window sprinkler must be provided at each window glazing segment, regardless of the width of the segment. If a segment should be less than 6 m, a baffle or mullion to act as a baffle would have to be provided.
89. By an email dated 11 June 2016 the Builder quoted a price of \$35,770 plus GST to take account of the changes to the Contract required by the hydraulic plans and the addition of wall wetters in line with the fire engineer’s report. This was variation CV 1.
90. By Variation CV 3, the Builder charged a further \$24,160 for the addition of wall wetters (“drenchers”) in accordance with the fire engineer’s report. On 14 October 2013 the Architect issued a Contract price adjustment which allowed the plumbing costs of \$24,160 (Variation CV 3).
91. After they were installed, the building surveyor criticised the installation and in an email dated 12 May 2014 directed further work to be done. By an email of 22 May 2014 Mr Skinner informed the Architect that the drenchers had been installed as per the Code. However it appears that the installation had not complied with the Tyco specification in a number of respects.

92. On 27 May 2014 the Architect marked up the plans, showing alterations to be made to the installation of the drenchers and forwarded these to the Builder and to others together with a very lengthy report from the fire engineer dated 23 January 2014. The Builder claimed an extension of time and there were further communications between the Architect, the engineer and the Builder. Subsequent emails passed between the Builder, the engineer and the Architect and advice was sought from Tyco. In the course of this, the Builder produced a report from its own consultant, Fire Concepts, to justify its installation. It is acknowledged that it had omitted to install an external drencher but it said it would install it.
93. The Architect was not satisfied with the Builder's consultant's report, in that it did not refer to the location of the drenchers or state that they adequately wet the glass. The building surveyor was also dissatisfied with the installation.
94. By instruction AI 22 dated 5 June 2014, the Architect directed the Builder to relocate some of the drenchers and install additional sprinkler heads and baffles. It is for following this instruction that this disputed variation is sought.
95. Mr Lorich said that the extra sprinkler heads that were provided by the Builder were not documented in the earlier report. He said that the Builder's claim of \$12,720.95 for providing these extra sprinkler heads was fair and reasonable in the circumstances.
96. It seems clear to me that before this additional work was done, the installation was not in accordance with the documentation for the agreed earlier variation.
97. It is acknowledged by the Developer that the Builder is entitled to be paid for the materials. The dispute is whether the Builder is entitled to any additional payment for the extra labour and material works to install the additional drenchers to the ground floor of the development.
98. The Builder pointed to the engineering drawings which marked the positions of drenchers. The Developer contended that the Builder ought to have followed the instruction that it was given namely, to supply and install Tyco WS Fire Sprinkler Window Drenchers in accordance with the Fire Engineer's Report, the MFB Regulations and the manufacturer's recommendations.
99. I accept Mr Oliver's submission that the detailed and specific requirements set out in those documents overrode the engineering drawings which were stated to be indicative only. That being so, I do not find that the Builder is entitled to a variation to rectify its inadequate work, either for the additional cost or the additional time taken to carry it out. Its entitlement to the cost of the additional drenchers themselves was not disputed.

Variation CV 63 - changes to the joinery

100. The Builder claimed a variation for an additional \$7,535.00 for the provision of bi-fold doors in the bathroom/laundry of each of apartments G.01, G.03, G.05, 1.03 and 1.04. An invoice from its supplier has been produced to justify the claim.

101. Mr Oliver referred to drawing A 4.01 revision T2 which, he said, shows bi-fold doors in those positions. The details on that sheet are equivocal but there are further details on sheet A 9.20 revision T2 which provides a typical laundry floor plan which clearly shows bi-fold doors.

102. I am not satisfied that this is a variation.

Variation CV 67 – Modwood fencing

103. This variation is no longer claimed. I was told that the provision of the fencing was traded off against savings made on the cladding of the building.

Extensions of time

104. In Schedule 3 to the Points of Claim, the Builder alleges that it submitted the following extensions of time claims to the Architect which were not granted:

No.	Date	Description	Days claimed
EOT 13	16.09.13	Install additional insulation to soffit areas	10
EOT 15	15.10.13	Delay in provision of Architect's instruction regarding construction of corridor fire rated walls	27
EOT 16	28.10.13	Delay caused by the performance of work set out in the Architect's delayed instruction	7
EOT 22	21.01.14	Delay in provision of Architect's further instruction regarding construction of corridor fire rated walls	27
EOT 24	21.01.14	Delay caused by the performance of further work set out in the Architect's delayed instruction	13
EOT 20	16.12.13	Delay caused by the performance of works set out in an instruction by the Architect to construct blade walls using in situ concrete columns in lieu of precast concrete columns	9
EOT 25	28.05.14	Delay in provision of Architect's instruction in respect of the layout and installation of additional drenchers and amendments to existing drenchers	18
EOT 26	21.07.14	Delay in the issue of the certificate of practical completion and the certificate of occupancy caused by a delay MFB certification	<u>15</u>
Total days claimed			<u>128</u>

105. Mr Oliver submitted that, if the work had been delayed to the extent claimed, the date of practical completion would be extended to 22 September 2014. He said that, since the Builder achieved practical completion on 18 July 2014, that very fact would suggest that this is an ambit claim on the part of the Builder.

106. The causes of delay which would entitle the Builder to make a claim for an adjustment of time were set out in Clause L1 of the Contract which was amended by Clause 8 of Schedule 2a. Of the causes listed, those that might be relevant are:

(c) an architect's instruction;

- (f) the owner's consultants failing to promptly provide necessary information which is properly due to the contractor which the contractor has specifically requested in writing;
 - (h) a valid suspension by the builder of the work
 - (i) a material breach of the contract by the owner;
 - (j) an active prevention by the owner not otherwise covered by that clause;
107. Clause L1.2 provides that the Builder must take all reasonable steps to minimise the impact of a delay the progress of the works.
108. Clause L2 sets out the causes of delay which entitle the making of a claim for adjustment of time without cost. It provides as follows:
- “L2.1 The Contractor may make a claim for an adjustment to the date for practical completion but not for adjustment of time costs caused by:
 - a disruptive weather conditions exceeding the allowance shown in item 25 of schedule one
 - b any other circumstance exceeding the allowance shown in item 26.
 - L2.2 the requirements for making a claim to adjust the Contract and procedures to be followed are stated in section H.”
109. By Clause H.1.1, the Builder is entitled to make a claim to adjust the Contract only if it follows the procedures set out in that clause. By Clause H.1.3, where the claim to adjust the Contract arises from a delay in the works, a detailed claim must be submitted to the Architect within 20 working days after the urgent instruction is issued, the suspension ends or the delay ends, whichever occurs first. The matters to be included in the claim are set out in Clause H 2, which provides that the claim must identify the Architect's instruction that caused it or, where none has been issued, provide details of the event and the basis of the claim, any required adjustment to the date for practical completion and any adjustment of time costs associated with the claim.
110. By Clause H3, the Architect is to promptly assess the claim in accordance with the material submitted and any additional information that it requests the Builder to supply. The Architect's assessment must be given within 20 working days of receiving the claim. If the Builder is dissatisfied with the Architect's decision it may dispute it in accordance with Clause A8 but until such time as the dispute is resolved, it must continue performing the Contract.
111. The reference to additional information suggests that a claim is not invalidated if the information that is initially provided is, in the opinion of the Architect, insufficient. The Builder may supplement it and the Architect must then assess the claim.
112. In Schedule 2 a of the Contract, there is an additional special condition inserted upon which the Developer relies, which reads as follows:
- ‘L7 Conditions precedent to extension

It is a condition precedent to the Contractor's entitlement to an adjustment of time under this section that the Contractor must:

- a identify the delay as one of the causes set out under clause L1.1 or clause L1.2;
- b give the notice is required by clause L3;
- c not have caused or contributed to the delay;
- d take all necessary steps to preclude the cause of the delay and to avoid or minimise the consequences of the delay, other than committing material extra resources or incurring extra expenditure; and (sic.)'

113. The reference to Clause L1.2 makes no sense since that clause simply provides that the Builder must take all reasonable steps to minimise the impact of the delay the progress of the works.

Assessment of the EOT claims

114. There are two aspects to the Builder's extension of time claims. The first is the assessment of the claimed delays and the second is the assessment of the costs resulting from any delays that are established. The evidence to support the Builder's claim was provided by Mr David Andrews, an engineer and project management expert. Evidence supporting the Developer's position was given by Mr Grant O'Donnell, another programming expert.

115. In forming their opinions, both experts made extensive use of the works programs that had been prepared by the Builder regularly throughout the project. These were in the form of Gantt charts setting out the order in which the Builder proposed to carry out the various items of work. In regard to each item of work, the program specified when it was expected to be commenced and when it was expected to be finished. Many of the lines overlapped, indicating an intention to carry out those items of work simultaneously. Where works had been wholly or partially completed at the time the chart was prepared, the percentage of completion was intended to be indicated on the chart. Quite obviously, if the assumptions upon which the program was based turned out to be unjustified, if any work took longer than anticipated or if something happened that was not contemplated when the program was prepared, it would have to be updated. This appears to have been done on a fortnightly basis.

116. According to Mr Andrews, the extent of the impact of an event on the date of practical completion would be assessed up to the end of the period intended to be covered by the works program. Any impact beyond that period would be taken up in a subsequent program and the date of practical completion would be adjusted according.

117. A claim for an extension of time is made during the course of construction and so the assessment of the claim must take place on the basis of an estimate of the delay that is expected to occur. In the present case, practical completion has already occurred and it was not achieved until well after the original Contract

period had passed. The issue is how much, if any, of that overrun is attributable to events with respect to which the Builder is entitled to extensions of time.

118. Mr O'Donnell suggested that, since the project was completed, the best course is to determine what was built and then try to establish if possible what the true as-built critical path was. However he did not say what the critical path was on that basis and he did not appear to disagree with Mr Andrews' methodology.
119. It is important to bear in mind just what these works programs are. Each program is a plan of the Builder's intentions at the time that it was generated. If something occurred after the program was prepared that the Builder believed was going to cause delay, then that would be expected to be reflected in the next program. However what I have to deal with is not what any program anticipated would occur at any particular time but rather, actual delay caused by an event with respect of which the Builder is entitled under the Contract to an extension of time. The question is, did that event cause the Builder to take longer to reach practical completion?
120. Mr Oliver referred me to the comments of Warren CJ in *Kane Constructions Pty Ltd v. Sopov* [2005] VSC 237, where the learned judge, after referring to the English Court of Appeal decision in *McAlpine Humberoak Ltd v McDermott International Inc* (1990) 51 BLR 34 said (at paragraphs 673 to 675):

“673 *McAlpine* outlines the general approach which should be taken with respect to EOT claims. More specifically, with EOT claims, the burden of proof is on the claimant to establish actual delay. Whilst theoretical calculations, particularly those contained in computer software programs, are useful tools in the building industry, generally further information will be required. Whilst there may be assumptions and calculations, it is necessarily a matter of the claimant proving in the proper way that there has been actual delay such as to substantiate claims for reimbursement.

674 Thus, in this case, it behoved the plaintiff for the purposes of the EOT claims to establish that it had actually been delayed and that damage was actually suffered by reason of that delay. The defendants argued that the plaintiff failed on both counts.

675 As observed, to assist in deciding the point, *McAlpine* casts the necessary approach as one that requires a builder, in this instance the plaintiff, to present a drawing by drawing, beam by beam, column by column, gutter by gutter factual analysis to show how a particular event had the effect of delaying other identified work.”
121. Mr Oliver submitted that, in order to prove an entitlement to an extension of time, the Builder must:
 - (a) prove that the delaying cause was a qualified cause under the Contract;
 - (b) give the notice required by the Contract;
 - (c) not have caused or contributed to the delay;
 - (d) have taken all necessary steps to preclude the cause of the delay and to avoid or minimise the consequences of the delay; and

- (e) prove that the event delayed it in reaching practical completion.
122. I do not accept the implicit suggestion that, any contribution to the delay by the Builder would necessarily disentitle it to any extension at all. If, for example, the Builder was directed to perform additional work that should have taken it 12 days to perform and instead, it took 13 days to perform it, it could be said that the Builder had contributed to the delay by taking one day more than it should have but it is not a sensible interpretation of the Contract to say that, because it had contributed to the delay that occurred, it was entitled to no extension at all. Quite obviously, insofar as the delay is caused by the Builder it is not entitled to an extension of time but in the example given, it would be entitled to the 12 days that it ought to have taken and not the additional day that it wasted. I think a fair interpretation of the Contract is that the Builder's contribution to the delay is taken up in the assessment of the claim.
123. Reference was made by the experts to a table from the *Society of Construction Law Delay and Disruption Protocol* which, at 4.13, sets out in a table, four alternative types of analysis that can be used to assess a claim for delay, one of which is called "Time Impact Analysis".
124. Mr Andrews said that the technique that he used for the purpose of his evidence was a time impact analysis. He said that his approach in assessing each extension of time claim was to:
- (a) review the available contemporaneous records to establish a chronology of key factual information such as key dates and delay periods;
 - (b) identify the relevant contractor's program that was prepared and issued immediately before the delay event commenced;
 - (c) insert the delay activity into the relevant program then link the delay activities to the existing program activities which would be affected by the claimed delay event. He referred to the resulting program as "the impacted program";
 - (d) compare the practical completion date between the initial program and the impacted program to determine the effect of the claimed delay event on the Contract achieving practical completion. He said that this determined the critical delay.
125. Mr Andrews said that the Builder's programs were prepared and issued regularly, generally on a fortnightly basis, and that if the delay period spanned over more than the period between programs then he would repeat the program process from (b) to (d) above for the subsequent programs until the delay event ceased. He would then determine the applicable delay period for the assessment of delay costs.
126. His methodology necessarily relied upon the construction programs that were issued by the Builder. He criticised these programs because he said that they were not "rescheduled", that is, not updated to show that incomplete works were yet to be done and not reorganised on logical linkages. He said that since the

programs were not rescheduled the dates of activities of the programs were unlikely to be accurate and so the impact of delays may not have been readily apparent. He said that it was unclear how a number of specified deadlines for various activities shown in the programs had been determined.

127. Notwithstanding his dissatisfaction, Mr Andrews said that adjustments could be made to the Builder's programs to address these problems so that they could be used for the purpose of assessing the effect of delays. He said that he adjusted the Builder's programs by:
 - (a) removing deadlines that were not required;
 - (b) adding logical linkages to activities where these had been omitted;
 - (c) removing splits in activities that had been manually added;
 - (d) adding a suitable project calendar for the entire work; and
 - (e) re-scheduling the program to show what had yet to be done.
128. He said that in the course of carrying out these changes he corrected the practical completion date for each of the programs that he considered relevant and concluded with an adjusted practical completion date of 20 May 2014 which he said was produced by the last adjusted program, V 36.
129. He said that when those changes were completed the programs reflected the status of the works at the time they were issued and they could then be used to determine the impact of the delay events, which, he said, he then proceeded to do.
130. Mr O'Donnell did not use any of the four alternative types of analysis in the protocol but used what he called "first principles" analysis, that is; whether the Builder had made a case for a claim and a critical delay and extension of time based on the programs. He considered that no credible as-built programs had been produced, that is; programs supported by site diaries. He therefore said that the issues for consideration to support the claims would be:
 - (a) the critical part of the programs at the time and their credibility;
 - (b) how other delayed activities within the Builder's control impacted on the subsequent activities;
 - (c) how the Builder has set out to prove its position and subsequent program impact on subsequent activities;
 - (d) what mitigation has been demonstrated by the Builder; and
 - (e) the implications of over certified extension of time days and existing certified extension of time days concurrent with disputed claims.
131. Mr O'Donnell said that he did not meet the superintendent of the project or the staff of the Builder. He described his own analysis as a desktop review of the claims the Builder made. Attachment 6 to his report is a calendar upon which he sets out the approved and disputed extension of time claims and certain dates upon which he said there appears to have been over-certification.

The findings of the programming experts

132. Mr Andrews said that, adopting his own methodology, his assessments of the delay events included in the extension of time claims are as follows:

No.	Description	Days	
		Builder's Claim	Andrews Assessed
EOT 13	Additional insulation to soffit areas	10	0
EOT 15, 16, 22 & 24	Fire rated corridor walls	76	43
EOT 20	Blade walls	9	7
EOT 25	Drenchers	18	22
EOT 26	Delay by MFB certification15	16

133. Mr O'Donnell agreed that nothing should be allowed for EOT 13, given the impact methodology adopted by Mr Andrews. In regard to EOT 15, he said that there was no delay up to 29 October. He said that EOT 24, was ruled out by Mr Andrews' combined impact delay analysis. As to EOT 16 and 22, he referred to a diagram for an indicative overlay of the claimed impact on the actual claims and said that this showed that there were periods of time when there was no delay. He said that EOT 16 was an on-site delay with no concurrent extensions of time and that the 5 days assessed by Mr Andrews for that could be a genuine delay but he said that the critical path was not proven or explained.
134. Mr O'Donnell went extensively through the various work programs and said that, up to work program V 26 on 3 September 2013, the project appeared to be on track but after that the completion date was pushed out. He said that between V 29 and V 35, fifty working days elapsed with a further fifty-six working days still to go but after a further fifty days of work the Builder advised of a further 110 days to go. Mr O'Donnell queried why it appeared from the Builder's charts that the project was going backwards.
135. I suggested during concurrent evidence that the only way the project could go backwards was if someone started dismantling the building. That was acknowledged but Mr Andrews said that it could go backwards in a programming sense if, for example, the Builder decided that something would take longer than first anticipated, if the work was re-sequenced to take longer or if the Builder decided that in the earlier program it had overestimated the amount of work that had already been done.
136. Mr Oliver criticised Mr Andrews' report suggesting that Mr Andrews had not justified the adjustments that he made to the Builder's programs. However, although in oral evidence Mr O'Donnell suggested that Mr Andrews had adjusted the Builders programs reasonably arbitrarily, he did not disagree overall with Mr Andrews' methodology in that respect. It is apparent that Mr O'Donnell has used the results that Mr Andrews has arrived at in the process in forming his own opinion. I am not satisfied that I should discount Mr Andrews' opinion on the basis of the adjustments that he made to the Builder's programs. Indeed, I

accept Mr Andrews' evidence that Mr O'Donnell's approach has largely been a critique of his own analysis.

137. A significant issue raised by Mr O'Donnell is the danger of double counting. In the charts that he produced, the periods of the claimed impact on the work programs are shown as sequential calendar days. For instance, in Diagram 1 of his analysis, Mr O'Donnell sets them out as commencing on one date and finishing on another, the difference between the two dates being the period claimed. He also produced a calendar of the available workdays in which he incorporated the various extension of time claimed and the extensions of time already granted by the Architect. This indicates that, for some of the days falling within these periods, extensions of time had already been granted by the Architect.
138. Clearly, the same day cannot be claimed twice. However it was acknowledged during discussion that if the Builder had to carry out work that would take it a given number of days to carry out and if work cannot be carried out on one particular day because of bad weather, that bad weather date cannot be counted as one of those days because the work still has to be done. On the other hand, if the delay was simply waiting for instructions, such as for EOT 15 and EOT 22, then any day during the waiting period that has already been counted as a rain day cannot be counted again.
139. By working from the various programs, the experts have effectively repeated, no doubt with greater expertise, what the Builder and the Architect would have done had the claims for extensions of time been dealt with appropriately at the time the progress of the work was affected by each delaying event. In making or assessing such a claim, the Builder and the Architect could only have made a prediction based upon the then current state of the project, what was intended to be done, when it was intended to be done and what effect, if any, the delaying event would be likely to have upon the ability of the Builder to achieve practical completion by the required date. The extension of time would then be claimed by the Builder and assessed by the Architect at the time and on that basis.
140. Mr O'Donnell suggested that Mr Andrews had failed to link the extensions of time claimed to existing critical activities that is, there was no link from the works in the construction program to the actual inserted delay events. Mr Andrews denied that and referred by way of example to the chronology that he prepared of relevant events relating to the fire rated walls claim which is found on pages 6,7 and 8 of his initial report. He said that he had looked at all the contemporaneous information in order to prepare a chronology of every single delay event. Mr O'Donnell said that Mr Andrews had not produced a "sub-network" to explain what happened and how it connected to the critical path but I am satisfied that Mr Andrews has reached his conclusions after examining all the contemporaneous material.
141. The methodology used by the experts appears to be extrapolations from work programs. As the learned Chief Justice pointed out in *Kane Constructions V. Sopov*, whilst theoretical calculations are useful tools in the building industry, it

is necessary for the Builder to prove that there has been actual delay. In many cases it is possible to adopt a common sense approach in regard to claims for extensions of time. To take a simple example, it is quite obvious that a wall cannot be painted until it is built. Indeed, any building task that cannot be commenced until another is done will be held up until that other task has been completed. When the doing of one thing is a necessary precursor to the doing of another then it is said to be in the critical path.

142. Not every step of the building process occurs sequentially. Many occur in parallel, so that if one task is delayed it may be possible for the Builder to usefully occupy his time performing another task that might otherwise have been done later. Sometimes that is not possible and it can be demonstrated in a fairly straightforward way that the job has been delayed and the extent of the delay can be assessed. Such an approach seems to work in a simple case. However this is a very large project and a very complex construction. By delay, I mean delay in reaching practical completion.
143. Another issue raised by the experts are float days where, until the float days attached to an activity are used up, a delay impacting that activity will not translate to a delay in reaching practical completion. When there are float days and when there are not was not clearly explained to me. The existence or otherwise of float days appears to be a matter for expert assessment.
144. Overall, I found the evidence of both programming experts to be highly technical and very difficult to understand. Although it is easy enough to find that work has been delayed by particular events, I find the assessment of the impact of a variation upon the practical completion date of a major project such as this to be a complex science. I do not have the expertise to conduct such an exercise myself and must rely upon the expert witnesses.
145. Since not every variation will interfere with the critical flow I think I should look first at the evidence of what has occurred, including the evidence of the experts, and find whether, on the balance of probabilities, it has been demonstrated by the Builder that it is more probable than not that the variation has caused it some delay. I should then look to the programming experts to ascertain the probable extent of the delay and at their evidence as to how the delay damages should be calculated.

Is the Builder out of time to claim an adjustment for delay?

146. Mr Oliver submitted that the time for the Builder to submit a claim for delay costs is long gone. He referred to Clause H.1b of the Contract that provides that the Builder is only entitled to make a claim to adjust the Contract if the claim is submitted within 20 working days after receiving instruction or, if no instruction is issued, within 20 working days after becoming aware of the event that has resulted in the claim. I do not think that is the relevant clause. Since these are claims resulting from delays in the progress of the works, Clause H1.3 applies and the detailed claim must be submitted in each case within 20 working days after the delay ends and the Builder is only entitled to an adjustment of the Contract if it does so.

147. The claim for an extension of time for CV 32 (EOT 20) relating to the blade walls was submitted on 16 December 2013 and the claim for extension of time costs was not submitted until 11 February 2014. Since the instruction from the engineer to proceed with the construction in situ was on 6 March 2013 and construction of the Blade walls was completed before 31 May 2013, the claim for delay costs is well out of time.
148. As to the fire separation, Contract variations CV 25 and CV 26 were sent to the Architect on 28 October 2013, Contract adjustment CV 31 was sent to the Architect on 21 January 2014 along with its extension of time claim. CV 37 was sent to the Architect 19 February 2014 together with its extension of time claim. In each case the claim was sent within 20 working days after the delay ended and so was within time.

The “Peninsula Balmain” principle

149. In case I should find the claims made were not in accordance with the requirements of the Contract, counsel for the Builder relied upon Clause H6 of the Contract and submitted that, since a final certificate has not been issued, it is open to me, standing in the shoes of the Architect, to allow an extension of time pursuant to that clause, even though the requirements of the Contract were not complied with. That clause states:
- ‘If the Contractor has not made a claim to adjust the Contract in relation to any change which results from complying with any instruction given under section J for a variation or from causes of delay noted in clause L1 or L2, the Architect may adjust the Contract at any time up to the issue of the final certificate under clause N.2, or a certificate under clauses Q.9 or Q.17.’
150. Since no final certificate has been issued it is submitted on behalf of the Builder that the power conferred by this clause may still be exercised and that it is open to me to exercise it now.
151. In *Peninsula Balmain Pty Limited v Abigroup Contractors Pty Limited* [2002] NSWCA 211 the New South Wales Court of Appeal upheld the finding of an arbitrator that it was open to him, on a somewhat similar clause, to grant extensions of time notwithstanding that:
- (a) no claim had been made by the Builder for such extensions in accordance with the procedure set out in the Contract;
 - (b) it was mandatory to follow that procedure and any right to an extension of time was lost if the procedure were not followed.
152. The court upheld the view that, in circumstances where the superintendent is empowered to grant an extension of time even when the Builder has not applied for it, the superintendent must exercise that power fairly, and further, that the principal might be in breach of Contract to the Contractor if the superintendent does not exercise its right to unilaterally extend time in the Contractor's favour.
153. As to whether it was fair to exercise the right, the court said (at para 72):

“The referee expressed the view that, of the five extensions contended for before him by Abigroup, four were variations that could be classed as acts of prevention by Peninsula, and one was a "neutral delay"; and that the Superintendent should have granted extensions for the former, and should have granted an extension for the latter since it was reasonable for it to do so. The referee continued:

‘Using the power which I believe I have to open up and review the decisions (including non-decisions) of the Superintendent, I therefore find that EOTs should be granted for all the delays listed at the head of this section, and for the times involved.’”

154. The Court of Appeal continued (at para79 – 81):

“79 In my opinion, no error is shown regarding the primary judge's acceptance of the referee's conclusion based on the Superintendent's power. In my opinion, this power is one capable of being exercised in the interests both of the owner and the Builder, and in my opinion the Superintendent is obliged to act honestly and impartially in deciding whether to exercise this power. Of course, if a timely claim has not been made, and the ground on which an extension is claimed is one which is difficult to decide because of the time that has elapsed since the time when the claim should have been made, that may be a ground on which the Superintendent can fairly refuse the extension; but there is no suggestion that that is the case here.

80 In my opinion also, the power to extend time, including the power to do so even if no claim has been made within time, does not automatically come to an end with the termination of the Contract for the Builder's breach. Clause 35.6, providing for liquidated damages, expressly operates after the Contract has been terminated under cl.44; and in order for it to so operate there must be a date for practical completion on which the clause can operate after termination of the Contract. If an application had been made within time before termination and not yet determined by the Superintendent at the time of termination, it is plain in my opinion that the Superintendent would have power to determine that claim after termination. If a claim had been made before termination but outside the time provided by cl.35, and the Superintendent had not made a decision in exercise of the Superintendent's power to extend time notwithstanding non-compliance, in my opinion the Superintendent could still do so after termination. In those circumstances, I do not think the Superintendent's power is lost on termination, even if the claim for exercise of the power to extend notwithstanding non-compliance had not been made until after termination.

81 For those reasons, it was in my opinion open to the referee to do what he considered the Superintendent should have done in response to the claims made to the referee; and it was open to the referee to conclude that the Superintendent, acting fairly, would have granted the extensions which the referee found to be justified. This view may have some further support from the referee's finding that Peninsula was itself in breach of cl.23 in failing to ensure that the Superintendent arrive at a reasonable measure of time in respect of delays caused by Peninsula and the Superintendent.”

155. The approach adopted in *Peninsula Balmain* has been followed in a number of other cases including *Kane Constructions Proprietary Limited v. Sopov* [2005] VSC 237 per Warren CJ and *620 Collins Street v. Abbey Group Contractors Proprietary Limited (No. 2)* [2006] VSC 491 per Osborn J.. I considered the exercise of this power to extend time under a similar clause in the case of *TCM Building Group Pty Ltd v Mercuri* [2015] VCAT 983.
156. Mr Oliver sought to distinguish *Peninsula Balmain* from the present case. He pointed out that the relevant part of the equivalent clause in that case was as follows:
- ‘Notwithstanding that the Contractor is not entitled to an extension of time the superintendent may at any time and from time to time before the issue of the final certificate by notice in writing to the Contract to extend the time for practical completion for any reason.’
157. Clause H 6 in the present case is worded quite differently. It is said to apply: “If the Contractor has not made a claim to adjust the Contract”. The phrase ‘a claim to adjust the Contract’ is defined in section S1 of the Contract as:
- ‘a claim made to the Architect to adjust the Contract price including adjustment of time costs or the date for practical completion or both’.
158. He said that the power in the present case to adjust the Contract is not unlimited and is only exercisable if the Builder has not made a claim to adjust the Contract. He said that the Builder has made a claim to the Architect for extensions of time for all of these matters under consideration and therefore the precondition for the exercise of the power to extend time under clause H6 does not exist.
159. The conclusions reached in *Peninsula Balmain* were dependent upon the interpretation of the Contract in question and in particular, of the critical clause conferring the power that was exercised. In that case, the superintendent was empowered to grant an extension, notwithstanding that the Builder was not entitled to an extension. The court found that the superintendent was obliged to exercise the power and certify an extension of time where it may be fair and reasonable to do so. The clause in the present case is constrained by the opening words that is, it is exercisable if the Contractor has not made a claim to adjust the Contract in relation to any change which results from complying with any instruction given under section J for a variation on causes of delay noted in clauses L1 or L2.
160. It seems to me that, on the wording of this particular clause, H6, once the Builder has made a claim to adjust the Contract in regard to a change of the nature described, the powers conferred by the clause cannot thereafter be exercised in relation to that change. In the present case, as Mr Oliver has pointed out, a claim to adjust the Contract has been made in regard to each of the delays with respect to which extensions an extension of time costs have been claimed.
161. Mr Oliver submitted that the time for the Builder to submit a claim for delay costs is long gone. He referred to Clause H.1b of the Contract that provides that the Builder is only entitled to make a claim to adjust the Contract if the claim is

submitted within 20 working days after receiving instruction or, if no instruction is issued, within 20 working days after becoming aware of the event that has resulted in the claim. I do not think that is the appropriate clause. Since these are claims resulting from delays in the progress of the works, clause H1.3 applies and the detailed claim must be submitted in each case within 20 working days after the delay ends.

162. The claim for an extension of time for CV 32 (EOT 20) was submitted on 16 December 2013 and the claim for extension of time costs was not submitted until 11 February 2014. Since the instruction from the engineer to proceed with the construction in situ was on 6 March 2013 and construction of the Blade walls was completed before 31 May 2013, the claim for delay costs is well out of time. I do not see in the Contract that I have any power to extend the time.
163. Contract variations CV 25 and CV 26 were sent to the Architect's Contract adjustment CV 31 was sent to the Architect on 21 January 2014 along with its extension of time claim. CV 37 was sent to the Architect 19 February 2014 together with its extension of time claim. In each case the claim was sent within 20 working days after the delay ended and so was within time.

The "Peninsula Balmain" principle

164. I am satisfied that the claim for an extension of time with respect to the construction of the blade walls is out of time because it was not made within the time specified in Clause H1.3.
165. In case I should find the claims made were not in accordance with the requirements of the Contract, counsel for the Builder relied upon Clause H6 of the Contract and submitted that, since a final certificate has not been issued, it is open to me is to allow an extension of time pursuant to that clause, even though the requirements of the Contract were not complied with. The full wording of that clause is set out in paragraph 23 above. The power is available "If the Contractor has not made a claim to adjust the Contract in relation to any change..." of the nature described, and if it is available, the Architect is empowered to "...adjust the Contract at any time up to the issue of the final certificate..."
166. Since no final certificate has been issued it is submitted on behalf of the Builder that the power conferred by this clause may still be exercised and that it is open to me to exercise it now.
167. In *Peninsula Balmain Pty Limited v Abigroup Contractors Pty Limited* [2002] NSWCA 211 the New South Wales Court of Appeal upheld the finding of an arbitrator that it was open to him, on a somewhat similar clause, to grant extensions of time notwithstanding that:
 - (a) no claim had been made by the Builder for such extensions in accordance with the procedure set out in the Contract;
 - (b) it was mandatory to follow that procedure and any right to an extension of time was lost if the procedure were not followed.

168. The court upheld the view that, in circumstances where the superintendent is empowered to grant an extension of time even when the Builder has not applied for it, the superintendent must exercise that power fairly, and further, that the principal might be in breach of Contract to the Contractor if the superintendent does not exercise its right to unilaterally extend time in the Contractor's favour.

169. As to whether it was fair to exercise the right, the court said (at para 72):

“The referee expressed the view that, of the five extensions contended for before him by Abigroup, four were variations that could be classed as acts of prevention by Peninsula, and one was a "neutral delay"; and that the Superintendent should have granted extensions for the former, and should have granted an extension for the latter since it was reasonable for it to do so. The referee continued:

‘Using the power which I believe I have to open up and review the decisions (including non-decisions) of the Superintendent, I therefore find that EOTs should be granted for all the delays listed at the head of this section, and for the times involved.’”

170. The Court of Appeal continued (at para 79 – 81):

“79 In my opinion, no error is shown regarding the primary judge's acceptance of the referee's conclusion based on the Superintendent's power. In my opinion, this power is one capable of being exercised in the interests both of the owner and the Builder, and in my opinion the Superintendent is obliged to act honestly and impartially in deciding whether to exercise this power. Of course, if a timely claim has not been made, and the ground on which an extension is claimed is one which is difficult to decide because of the time that has elapsed since the time when the claim should have been made, that may be a ground on which the Superintendent can fairly refuse the extension; but there is no suggestion that that is the case here.

80 In my opinion also, the power to extend time, including the power to do so even if no claim has been made within time, does not automatically come to an end with the termination of the Contract for the Builder's breach. Clause 35.6, providing for liquidated damages, expressly operates after the Contract has been terminated under cl.44; and in order for it to so operate there must be a date for practical completion on which the clause can operate after termination of the Contract. If an application had been made within time before termination and not yet determined by the Superintendent at the time of termination, it is plain in my opinion that the Superintendent would have power to determine that claim after termination. If a claim had been made before termination but outside the time provided by cl.35, and the Superintendent had not made a decision in exercise of the Superintendent's power to extend time notwithstanding non-compliance, in my opinion the Superintendent could still do so after termination. In those circumstances, I do not think the Superintendent's power is lost on termination, even if the claim for exercise of the power to extend notwithstanding non-compliance had not been made until after termination.

81 For those reasons, it was in my opinion open to the referee to do what he considered the Superintendent should have done in response to the claims made to the

referee; and it was open to the referee to conclude that the Superintendent, acting fairly, would have granted the extensions which the referee found to be justified. This view may have some further support from the referee's finding that Peninsula was itself in breach of cl.23 in failing to ensure that the Superintendent arrive at a reasonable measure of time in respect of delays caused by Peninsula and the Superintendent.”

171. The approach adopted in *Peninsula Balmain* has been followed in a number of other cases including *Kane Constructions Proprietary Limited v. Sopov* [2005] VSC 237 per Warren CJ and *620 Collins Street v. Abbey Group Contractors Proprietary Limited (No. 2)* [2006] VSC 491 per Osborn J..
172. Mr Oliver said that the principle did not apply here. He pointed out that the relevant part of the equivalent clause in *Peninsula Balmain* was as follows:

‘Notwithstanding that the Contractor is not entitled to an extension of time the superintendent may at any time and from time to time before the issue of the final certificate by notice in writing to the Contract to extend the time for practical completion for any reason.’
173. He said that Clause H 6 in the present case is worded quite differently. It is said to apply: “If the Contractor has not made a claim to adjust the Contract”. The phrase ‘a claim to adjust the Contract’ is defined in section S1 of the Contract as:

‘a claim made to the Architect to adjust the Contract price including adjustment of time costs or the date for practical completion or both’.
174. He said that the power in the present case to adjust the Contract is not unlimited and is only exercisable if the Builder has not made a claim to adjust the Contract. He said that the Builder has made a claim to the Architect for extensions of time for all of these matters under consideration.
175. The conclusions reached in *Peninsula Balmain* were dependent upon the interpretation of the Contract in question and in particular, of the critical clause conferring the power that was exercised. In that case, the superintendent was empowered to grant an extension, notwithstanding that the Builder was not entitled to an extension. The court found that the superintendent was obliged to exercise the power and certify an extension of time where it may be fair and reasonable to do so. The clause in the present case is constrained by the opening words that is, it is exercisable if the Contractor has not made a claim to adjust the Contract in relation to any change which results from complying with any instruction given under section J for a variation on causes of delay noted in clauses L1 or L2.
176. Mr Oliver’s submission is that, on the wording of this particular clause, H6, once the Builder has made a claim to adjust the Contract in regard to a change of the nature described, the powers conferred by the clause cannot thereafter be exercised in relation to that change. Since a claim to adjust the Contract has been made in regard to each of the delays with respect to which extensions an extension of time costs have been claimed, the clause is not available in regard to any of the extensions of time claimed.

177. I think the fallacy in this argument is that, a claim is either a valid claim for an extension of time or it is not. If it is valid, then recourse need not be had to Clause H6. It is invalid, then a claim for an extension of time has not been made because the requirements for it have not been satisfied. If the requirements have not been satisfied it is not a claim of the nature contemplated by the Contract.
178. It seems to me that I am now standing in the shoes of the Architect and, if I consider that it would be fair and reasonable to grant any of the extensions of time that are sought, I should do so. I should therefore look at each of the claims on the merits rather than ignore them on the basis that the contractual procedures were not followed. That is not to say, of course, that the procedures set out in the Contract should be ignored by the Builder. As was pointed out in the case cited, if a timely claim has not been made, and the ground on which an extension of time is claimed is now difficult to decide because of the time that has elapsed since the time the claim should have been made, that may be a ground on which an extension should fairly be refused. However that does not appear to be the case here.
179. It would appear from the above passage that an extension of time should be granted with respect to any delay arising from something that would have amounted to an act of prevention, if that principle had been applicable, but it also seems that even a "neutral delay" would qualify for an extension of time if it were fair and reasonable to grant an extension in the circumstances.
180. I considered the exercise of this power to extend time under a similar clause in the case of *TCM Building Group Pty Ltd v Mercuri* [2015] VCAT 983. The following extract from the decision that I made in that case still reflects my view about how the matter should be approached (at para 540-1):
- ‘540. In general, an owner cannot recover liquidated damages for delay in the completion of works by a builder where that delay has been caused by an act or omission of the owner in breach of the contract. This prevention principle does not apply where the building contract, as here, contains a provision giving to the builder a right to an extension of time for delays caused by the owner’s breach of contract but the person having power to extend time must exercise it honestly and fairly and the owner will be in breach of contract if he does not do so, even though the builder has no absolute entitlement to an extension of time
541. Where work by a builder is dependent upon an owner supplying an instruction, design, material, earlier work or anything else which is required to be done or supplied in order for the work to be performed, the builder cannot be blamed for delay in doing his work insofar as that delay is caused by the failure of the owner to supply what was needed in order for him to do it. In such a case the owner himself is the cause of the delay and it would be most unfair not to extend time for Practical Completion in such circumstances.’
181. Quite obviously, the exercise of the power is not confined to the circumstances I referred to in this passage but extends to any situation where it would be fair and reasonable to grant an extension of time.

EOT 13 - Additional insulation to soffit areas

182. It does not seem to me that the additional insulation on the soffit ceilings would have been something that interfered with the critical flow of work and I note that the experts have agreed that no extension of time is warranted for that.

EOT 15, 16, 22 & 24 Fire rated corridor walls

183. The problem with the fireproofing of the walls above the ceiling was identified at the site meeting of 17 September 2013. On 20 September a report of a framework inspection by the building surveyor was sent to the Builder explaining the problem. On 23 September the Architect asked the building surveyor and the Builder what should be done about it and the Builder asked the Architect by email on that day how the fire rating was to be achieved.
184. Notification of delay was submitted by the Builder to the Architect on 14 October 2013 (NOD 22). The instruction (AA 38) was received from the Architect on 24 October 2013 which is the subject of Variation CV 28. Referring to the calendar attached to Mr Andrew's report, that would represent a loss of 25 working days. By EOT 15 (following NOD 22), a delay of 27 days is claimed. The cost of that delay was quantified in CV 25 at \$58,320.
185. By EOT 16 a further seven days was claimed for the delay in carrying out the work required by AA 38. The costs of that delay was quantified in CV 26 at \$15,120. On the same day the Builder submitted notice of delay (NOD 24), specifying the cause of the delay as: "An Architect's instruction fire engineering requirements to upper floor corridor to apartment walls above ceiling line". The delay is said to have been between 28 October 2013 and 8 November 2013.
186. In an email dated 6 November 2013, the Architect Miss Hollis said that she found it difficult to understand how the Builder could claim a delay of five weeks to the entire project while waiting for fire rating details when work was still continuing elsewhere. Mr Skinner replied that the works fell directly on the critical path as they could not plaster, which held up all trades from commencing. That sounds plausible. Until the fireproofing of the walls was attended to, the cladding of the walls and ceilings could not proceed on that floor and all later work there would be delayed. However, although some delay is likely to have been suffered, it is unlikely to have been as much as five weeks.
187. On 13 November 2013 the work done by the Builder which was the subject of Variation CV 28 was inspected by the building surveyor and not approved for the reasons stated above. An email exchange then followed in which Mr Skinner insisted that the Builder had complied with what had been requested.
188. On 19 December 2013 the Architect sent Architect instruction 6 to the Builder instructing the Builder as follows:
- "CV 028 – Fire Rating Works and CV 029 – Re-design of trusses
CV 028 – Fire Rating Works and CV 029 – Re-design of trusses

As per our letter sent by David Carabott dated 16 November 2013, we maintain that in our opinion the cost involved with the fire engineering to the top floor of the truss redesign are the responsibility of Allmore constructions i.e. CV 028 and CV 029.

Proceed forthwith without adjustments of cost or time for completion”.

189. As to the rectification work following the Builder’s attempt to carry out the work directed in AA 38, in an email of 18 November, Mr Skinner said that the Builder required clear formal instructions on exactly what to do. On the same day he sent NOD 25, specifying as the delay:

“Awaiting an Architect instruction (Requirements changed for approval of fire rating to upper levels – contrary to previous instructions)”.

It claimed the commencement of delay to be 15 November 2013 with no specified end.

190. On 12 December 2013 the Architect sent Architect advice AA 48, directing the Builder to modify the trusses. The document states that if the instruction in any way results in additional costs the Builder is to notify the Architect immediately prior to commencing works.

191. Extensive email communication then occurred, the thrust of which appears to have been to try and adapt what the Builder had done in order to make it work.

192. On 21 January 2014 the Builder submitted an amended NOD 25, inserting an end date for the period of delay, being 17 January 2014, and claiming 29 days for the same day the Builder served NOD 033 for the delay in carrying out the remedial works. Also on 21 January 2014 and following on from NOD 025, the Builder submitted EOT 22, which was a claim for 29 days for the delay while waiting for instructions in regard to the remedial work. This was the subject of CV 38 and, by CV 31 served the same day, delay costs of \$62,640 were claimed with respect to it.

193. On 19 February 2014 the Builder submitted NOD 033 notifying the delay from 21 January 2014 to 18 February 2014. Accompanying this was EOT 24 claiming a further 13 days for carrying out the work associated with CV 38 over that period.

194. Mr Oliver submitted that the claims for an extension of time in regard to fire rating should be rejected because the Builder caused or contributed to the delay by failing to:

- (a) construct the top floor in accordance with the approved drawings and the Code;
- (b) promptly rectify the defective roof frame after the problem became apparent;
- (c) properly supervise its subcontractors;
- (d) notify the Architect of ambiguities in the drawings; and
- (e) properly carry out the work required by AA 38.

195. I do not find any of this to be established. Construction appears to have been in accordance with the Contract documents. The problem was the absence of any provision in the documents for the fire separation of the area in question. It does not appear to me that the roof frame was defective. Rather, there was no provision for fire separation.
196. Mr Oliver also pointed out that the Builder failed to notify the Architect in writing within 2 working days of becoming aware of the start of the delay as required by Clause L3. He said that the notice of delay was not issued until 14 October 2013 although the delay is alleged to have commenced on 15 September 2013.
197. No objection of late service was taken by the Architect at the time. Clause L3 requires the Builder to notify the Architect in writing within two working days that the works were being delayed, state when the delay began, give a description of the cause or causes of delay and give an estimate of the number of working days affected. Although this is required to be done by the Builder, there is nothing in the clause itself that the failure to comply with this requirement is a condition precedent to the right of the Builder to claim an extension of time. However in this particular Contract the additional clause L7 makes it so.
198. Although the formal notice of delay was not sent to the Architect until 14 October there had been an extensive exchange of emails between the Builder and the Architect from the time the problem was discovered concerning the problem and what could be done about it. It is quite clear that the Architect knew of the problem right at the beginning and knew that the work would be delayed until such time as it instructed the Builder what to do about the problem. As to giving an estimate of the number of working days affected, the first delay was a delay in receiving advice from the Architect. At the start of the delay period, the Builder had no way of knowing how long the Architect would take to provide a solution to the problem. That was peculiarly within the knowledge of the Architect, if anyone. As to the other delays, delay periods are set out in the notices.
199. Finally, Mr Oliver said that the Builder has failed to prove that the issue delayed it from reaching practical completion. The evidence of the time taken to receive the instructions from the Architect and to carry out the work required is not disputed. I think that it is more probable than not that the Builder was delayed while waiting for the Architect's instructions on both occasions and also while carrying out the initial works and then the revised works. All that had to be done before the work on the top floors could be proceeded with. The issue is how to quantify the delay in reaching practical completion.
200. Mr Andrews identified six work programs that he said were relevant and that four of them were impacted by the four delays. He said that there was no impact on programs V 28 and V 29 but that program V 30 was impacted by five days, V 31 was impacted by nine days, V 32 was impacted by 11 days and V 34 was impacted by 18 days. He assessed the total impact as being 43 working days.

201. Mr O'Donnell said that only EOT 16 and EOT 24 affected the Builder's ability to bring the work to practical completion because the other two were affected by other concurrent claims by the Builder, being EOT 13 and EOT 15 or extensions of time already granted. He did not seem to dispute that an extension of time of five days for EOT 16 was appropriate but he said that the work programs indicated there was no delay caused by EOT 15 and that EOT 24 was not on the critical path.
202. The claim for EOT 13, which is not to be allowed, coincided with the first 10 days of EOT 15. Mr Andrews agreed that there should be no allowance before 29 October 2013 which would cover the period of that delay. Mr O'Donnell agreed that there was no concurrent approved or claimed extensions of time with EOT 16, which was for the work from 28 October to 8 November 2013. In regard to EOT 22 he said that there were concurrent certified extensions of time for inclement weather but said that there was no plausible link demonstrated between the events and the claimed delay. In regard to EOT 24 again, he agreed there were no concurrent approved or claimed extensions of time. On all of these, he said that, because the Builder deferred the construction of the basement ramp until the end of the job as part of the landscaping of the project, the delay in the construction of the ramp was a concurrent delay on the critical path. It does not appear to me that that has any relevance so far as the fire rating issue was concerned.
203. Mr Andrews said that the key question is what the event links to, that is: "What is it affecting and will it delay something else?" In relation to the firewall claim, he said that it affects the next activity which is to install the wall lining and the suspended ceilings. That seems logical.
204. I prefer Mr Andrews' opinion. It took a great deal of time and two designs to resolve this deficiency in the drawings and to finally arrive at a solution that worked. It seems to me to be more probable than not that the work was delayed to some substantial extent. Mr Andrews conceded that wet weather days occurring during the period of the extension, which commenced on 29 October 2013 should be deducted. The wet weather days from then until the end of the period claimed total 8.1 and so the figure of 43 assessed by Mr Andrews will be reduced to 34.9 working days.

EOT 20 - Blade walls

205. Mr Skinner gave evidence that the amount of time that it would have taken to construct the Blade walls using precast panels was about half a day per floor compared with one week per floor for constructing the walls on site. It appears to be common ground that constructing the Blade walls in situ was more labour-intensive and took longer than using precast panels.
206. Mr Oliver pointed to the wording of the Notice of Delay which was:
"Consultant's direction to install Blade wall columns in lieu of precast nominated in Contract".

He said that that was not a prescribed cause of delay under the Contract and that the subsequent articulation of the cause of delay in Schedule 3 of the Points of Claim namely, that it was a delay caused by the performance of work set out in an instruction by the Architect to construct Blade walls using in situ concrete columns in lieu of precast concrete columns, was a new claim. He pointed out that, on 19 December 2013 the Architect rejected the claim on the basis that the Builder was not instructed by the Architect to change the Blade walls from precast to in situ.

207. On 16 December 2013 the Builder submitted an extension of time claim of 9 days with respect to the change to in situ Blade walls and the following day, 17 December, the Builder received Contract price adjustment No. 29 by which the Architect purported to reverse the allowance of the variation of \$20,000 with the following notation:

‘The structural Contract drawings show precast Blade walls in the basement and in situ to the floors above. In our opinion there is no claim as it was Allmore Construction’s choice to modify the basement to build in situ Blade walls and the columns above basement were built in accordance with the Contract documents. We retract this variation.’

208. Two days later, on 19 December, the Architect rejected the extension of time claim on this variation on the basis that the Builder was not instructed by the Architect to change the Blade walls from precast to in situ. That was not how the reason for rejecting the variation itself was expressed.

209. My attention has not been drawn to any document wherein the Architect specifically instructs the Builder to construct the walls in this way. However the Architect was involved in the correspondence between the Builder and the engineer which required the Builder to build the columns in situ. The Architect’s representative was also present at the site meetings referred to when it was acknowledged that the Builder was required to build columns in situ. Although the Architect seems to have left the correspondence concerning this matter to the engineer it was the Architect that was supervising the Contract. I think it is artificial to say that the direction to cast these walls in situ was not given by the Architect.

210. Moreover, in Architect’s instruction 9 issued on 21 January 2014, the Architect instructed the Builder that it was to construct the columns in the basement using precast and on the other floors in situ. By this stage of course the construction had long been completed. The purpose of this instruction seems to have been to justify its earlier rejection of the Builder’s claims.

211. Mr Oliver submitted that the Builder also failed to notify the Architect in writing within two working days becoming aware of the start of the delay or within two working days of becoming aware of the end of it. This requirement is not readily applicable to the delay that is claimed. The delay arose not as the result of any event that might cause delay but rather, because a more time-consuming and costly construction method of construction was required to be undertaken. It is difficult to see how one would fix the times when such a delay would start and

when it would finish. Presumably, it would coincide with the performance of the work.

212. Mr Andrews said that the most relevant works program for this claim was V 9, into which he inserted the changed activities. He said that he determined the additional duration of the work for the in situ construction compared with precast columns by reviewing the duration of those works and subsequent programs. He concluded that the additional time was four days for the ground floor, four days for the first floor and three days for the second floor. Allowing for the operations of the program he said that the Builder was delayed in achieving practical completion by seven working days.
213. Mr O'Donnell said that it was not demonstrated that the construction of the Blade walls in situ created seven days of impact. He said there were concurrent critical activities in that the Builder had to build a stair and a lift enclosure and all the vertical elements to get up to the next level. He said that the construction in situ of the Blade walls might have added one day per floor in his opinion but he did not believe that had been demonstrated.
214. Mr Andrews disagreed. He described the construction process and said that prefabrication of the walls was significantly faster. I am satisfied that the requirement to construct the Blade walls in situ caused delay
215. Mr Andrews assessed the delay arising from the requirement to construct the walls in situ at seven days. There are one and a half wet weather days that coincide with this claim but since it relates entirely to work carried out on site which could not have been progressed during that one and a half days there is no reason to make any deduction from that seven days. I find that the Builder is entitled to an extension seven working days.

EOT 25 - Drenchers

216. I am not satisfied that the Builder is entitled to a variation with respect to the work done on the drenchers. Consequently, there is no reason to allow an extension of time with respect to the work done on rectifying the problems with the drenchers that the Builder installed.

EOT 26 - Delay by MFB certification

217. The final claim for an extension of time is said in the Points of Claim to be: "Delay in the issue of the certificate of practical completion and the certificate of occupancy caused by a delay in MFB certification".
218. Particulars of the claim are said to be that all certificates, inspections and compliances had been provided as required under the Contract on 27 June 2014. It was alleged that the Builder was delayed in reaching practical completion under the terms the Contract as a result of the delay in the issuing of the practical completion certificate by the Architect and the issue of the certificate of occupancy from the building surveyor, "...due to awaiting certification/approval for the project".

219. By EOT 26 the Builder claimed that it was delayed 15 days in achieving practical completion from 28 June 2014 to 18 July 2014 when practical completion was certified by the Architect. On 21 July 2014, the Builder claimed an extension of time in EOT 20 of 15 days. The delay of this period appears to have been due to the building surveyor organising MFB certification. On 15 July 2014 the Architect informed the Builder that it would not be issuing a notice of completion until they receive the occupancy permit from the relevant building surveyor and a sign off on the Melbourne Fire Brigade. That is understandable.
220. The Developer denies that there was any delay caused in the issuing of the certificate of practical completion. According to the witness statement of Mr Pham, the building surveyor was required by the building regulations to apply for Fire Brigade consent before it could issue an occupancy permit for the building. In order to get that consent, certificates relating to the sprinkler system and other fire engineering items on the job had to be provided. He referred to various emails passing between himself and Mr Skinner and said that he finally received these on 27 June 2014 and then submitted an application for the MFB consent a week later on 4 July 2014. He said that he received the MFB consent on 17 July 2014 and the building surveyor issued the occupancy permit on the following day, 18 July 2014.
221. The only delay that I can see in this scenario is first, Mr Pham taking a week to review the material sent to him by Mr Skinner and secondly, the Fire Brigade taking 12 days to issue its consent. There is no evidence that either of these times was unreasonable considering what had to be done. In any case, I do not understand how these facts entitle the Builder to an extension of time under Clause L1 of the Contract. There was certainly no delay on the part of the Architect because it issued the certificate of practical completion immediately upon receipt of the MFB consent.

The Builder's monetary claim for an extension of time

222. The following monetary claims with respect to extensions of time are claimed in the further and better particulars of the Builder's Points of Claim:

Claim	EOT	Details provided	Amount
CV 22	EOT 13	Install additional insulation to soffit	\$21,600
CV 25	EOT 15	Delay costs to preliminaries for awaiting fire engineering information	\$58,320
CV 26	EOT 16	Delay costs to preliminaries for fire engineering works to top floors	\$15,120
CV 31	EOT 22	Delay costs to preliminaries for awaiting revised top level fire engineering info	\$62,640
CV 37	EOT 24	Delay to perform revised fire rating works to top floors	\$28,080
CV 32	EOT 20	Delay caused by constructing Blade walls using in situ concrete columns	\$19,440
CV 59	EOT 25	Delay in the provision of Architect's instruction for layout and installation of additional drenchers	

		and delay caused by performance of works	\$38,880
CV 64	EOT 26	Delay in the issue of the certificate of practical completion and the certificate of occupancy caused by a delay in MFB certification	<u>\$32,400</u>
		Total (excluding GST)	<u>\$276,480</u>

223. Of these, the only ones that I need to be concerned with are CV 25, CV 26, CV 31, CV 37, and CV 32.
224. In the present case I think that time should be extended with respect to each of the variations that I have allowed for the same reasons that the variation was allowed in each case that is, that it was a delay caused by the Developer and its consultants, not by the Builder. Consequently, it is not fair and reasonable that the Builder should bear the cost of the variation and it is fair and reasonable to extend time for the period of the resulting delays.
225. The date for practical completion has been extended by the Architect to 27 February 2014. I am satisfied that further extensions of time totalling 34.9 days should be granted in relation to the fire rated corridor walls and a further 7 days in relation to the construction of the blade walls. That makes a total of 41.9 working days. Referring to the working days calendar to be found on page 374 of the tribunal book, when these additional days are added on, the date for practical completion becomes 29 April 2014. Pursuant to the power conferred by Clause H6 of the Contract, the Contract is adjusted so that the date for practical completion is 29 April 2014.

Extension of time costs

226. By Clause H5 of the Contract, the Builder is entitled to an adjustment to the Contract price equal to the loss, expense or damage incurred as a result of the approval of an adjustment by the Architect to the date for practical completion. There are different opinions between the experts as to how this should be calculated.
227. Mr Andrew said that his methodology was to take the actual preliminaries cost and the actual overhead costs of the Builder and establish a cost per day for each. The preliminaries costs were the costs identified by the Builder as being preliminary costs on this particular project. The overhead costs figure was derived by taking the whole of the Builder's overhead costs and assessing the value of this project as a percentage of all projects that it had at the time, the idea being that the resulting figure would represent the share of the Builder's overheads that would be expected to be borne by the current project.
228. Both the preliminaries and overhead costs were extracted from the Builder's accounts which appear in schedules L1 and L2 to his report. He said that the daily rate for the preliminaries fluctuated according to when the delay occurred but the overhead cost was a fixed amount per calendar day. The calculation is made on the basis of calendar days because it is on the basis of annual figures.
229. In his first report, Mr Andrews calculated the delay costs relating to extensions of time 15, 16, 22 and 24 at total of \$172,596.32 for 71 calendar days. However

since I have reduced the 43 working days that he allowed for these extensions of time by 8.1 working days in order to take account of the wet weather days, If I accept his figures, I must correspondingly reduce his calculation of the delay costs. That will involve dividing his figure by 71 and multiplying it by 62.9. His figure for delay costs then becomes \$152,905.74 for EOTs 15, 16, 22 and 24. When this figure is added onto his figure of \$27,083.30 for the blade walls, the total delay cost becomes \$179,989.04.

230. The costing of the Builder's extension of time claim relied upon by the Developer was given by Mr Buchanan, a quantity surveyor. Mr Buchanan agreed with Mr Andrews definitions but there are a number of differences. First, whereas Mr Andrews calculated delay costs on the basis of calendar days, Mr Buchanan said that, since the Contract period was nominated as 250 working days, extensions of time should be assessed on the basis of working days.
231. He said that typically, delay claims are assessed by dividing the preliminaries cost by the Contract period, in this case, 250 working days, which converts to 417 calendar days. He said that the total value of preliminaries on the Contract, as identified in the progress claim submissions by the Builder, was \$807,789, which was \$1,937 per calendar day or a slightly lesser amount if one calculates the cost on the basis of working days. That compares with the variable figures from \$1,070 to \$2,688 per calendar day used by Mr Andrews.
232. He said that typically a Contractor will apply a standard percentage to all Contracts calculated on historic and projected costs to cover overheads and that this percentage will then be applied to the Contract value. He said that he had assessed the overheads to be applied in the present case on that basis, and the appropriate percentage was 6.75%. On that basis he assessed daily preliminaries cost at \$130.75 per calendar day or \$224.17 per working day.
233. Although there does not appear to be a great difference in the end result, I prefer Mr Andrews' approach which is focussed on the period of the additional time taken for the work, rather than the figures used to arrive at the original Contract price. The purpose of awarding extension of time costs is to compensate the Builder but having been on-site for longer than the Contract contemplated. The Builder's overheads would accrue on a calendar daily basis. It is on-site costs that are more likely to be incurred on working day basis.
234. Mr Oliver submitted that the Builder should not be awarded anything for its off-site overheads because it had not demonstrated that they were "...a loss expense or damage..." incurred as a result of the adjustment to the date for Practical Completion. He said that the off-site overheads were not allocated to any particular project and that in order to make a claim for the overheads the Builder would need to prove that, by reason of the delays it was unable to carry out any additional work during the period delay. He said there was no evidence of that.
235. That is strictly true but it is unlikely that the Builder's capacity to build would be unlimited. Moreover, I do not think Mr Oliver's submission accords with Mr Buchanan's evidence. Mr Buchanan appeared to accept that the off-site overheads would be counted in determining the extension of time claims.

236. I accept Mr Andrews evidence that off-site overheads should be included and they are assessed at \$179,989.04.

Liquidated damages

237. The adjusted date for practical completion is 29 April 2014. The Architect certified that practical completion was achieved on 18 July 2014 and so the Builder therefore ran over time by 80 calendar days. The Contract provided for liquidated damages or \$50 per apartment per calendar day, being \$1,850 in total, including GST. The Developer is therefore entitled to be paid liquidated damages of \$148,000.

The financial reconciliation

238. The Developer has paid \$8,215,930.38 plus GST.

239. Mr Oliver submitted that the Architect's assessment of the entitlements of the Builder, amended to take account of the agreed allowances, the Contract should be adjusted as follows and that I should find that the Builder should pay to the Developer \$214,750.30:

Original Contract Price	\$7,985,277.00
Adjustments to the Contract price	<u>\$ 270,880.39</u>
Adjusted Contract price	\$8,256,157.39
GST	<u>\$ 825,615.74</u>
Total adjusted Contract price	\$9,081,773.13
Less liquidated damages claimed by the Developer	<u>\$ 259,000.01</u>
Balance payable to the Builder	\$8,822,773.12
Amount paid to the Builder by the Developer	<u>\$9,037,523.42</u>
Amount payable by the Builder to the Developer	<u>\$ 214,750.30</u>

240. As a result of the findings that I have made, the financial position as between the parties would seem to be as follows:

Original Contract price	\$7,985,277.00
Adjustments to the Contract price	<u>\$ 270,880.39</u>
Adjusted Contract price	\$8,256,157.39
GST	<u>\$ 825,615.74</u>
	\$9,081,773.13
Less liquidated damages	<u>\$ 148,000.00</u>
	\$8,933,773.13

Add variations:

CV 7	\$20,000.00
CV 19	\$23,245.85

CV 28	\$44,023.10	
CV 29	\$ 495.00	
CV 30	\$ 165.00	
CV 38	<u>\$17,500.00</u>	
	\$105,428.95	
Add GST	<u>\$ 10,542.90</u>	\$ 115,971.85
		\$9,049,744.92
Add EOT costs	\$179,989.04	
Plus GST	<u>\$ 17,998.90</u>	\$ 197,987.94
		\$9,247,732.92
Less paid by Developer		<u>\$9,037,523.42</u>
Balance due to Builder		<u>\$ 210,209.50</u>

Interest

241. In the prayer for relief in its points of claim, the Builder claimed interest on the amount due “pursuant to Statute”. The power to award interest in a domestic building dispute is conferred upon this tribunal by section 53(2)(b)(ii) of the *Domestic Building Contracts Act* 1995. By section 53(3), in awarding damages and the nature of interest the tribunal may base the amount ordered on the interest rate fixed from time to time under section 2 of the *Penalty Interest Rates Act* 1983 or on any lesser rate thinks appropriate. I see no reason to award any lesser rate other than that fixed by the latter act and so interest will be awarded on the balance found to be due from the date of the commencement of the proceeding, which was 16 December 2014, until the date of this order at 10.5% until 31 May 2015 and thereafter at 9.5%. I calculate that to be \$37,892.42.

Orders to be made

242. There will be an order that the Respondent pay to the Applicant the sum of \$210,209.50 plus interest pursuant to section 53(2)(b)(ii) of the *Domestic Building Contracts Act* 1995, calculated \$37,892.42, making together the sum of \$248,101.92.
243. There is mention in the material of a bank guarantee that may need to be dealt with. In case any order or direction is required to be given in regard to that, liberty to apply for any consequential orders will be included in the order.
244. Costs will be reserved for further argument.

SENIOR MEMBER R. WALKER