

**VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL
CIVIL DIVISION
BUILDING AND PROPERTY LIST**

VCAT REFERENCE NO. BP214/2014

CATCHWORDS

Domestic building – defective construction of defectively designed building and car park – defects of design and defects of construction each serious enough on its own to warrant demolition – building surveyor issuing permit on deficient documentation and failing to properly inspect work or issue appropriate orders – negligent issue of Occupancy Permit when building not fit for occupation – settlement with engineer and building surveyor – claim continued against Builder - *Wrongs Act 1958 Part IVAA* – apportionment – whether Builder’s want of care causative of loss given design fatally flawed – deficiencies in design documentation known to Builder – Builder seeking Occupancy permit notwithstanding defective construction – loss apportioned equally

FIRST APPLICANT	Sherif Ahmed
SECOND APPLICANT	Soha Fahmi
THIRD APPLICANT	Owners Corporation PS 547523Q
FIRST RESPONDENT	City of Whittlesea
SECOND RESPONDENT	Icon Building Concepts Pty Ltd (ACN 079372008)
THIRD RESPONDENT	CGB Consulting Engineers Pty Ltd (ACN 059 161 205)
WHERE HELD	Melbourne
BEFORE	Senior Member R. Walker
HEARING TYPE	Hearing
DATE OF HEARING	5 - 7 October 2015. Submissions received by 27 October 2015
DATE OF ORDER	23 December 2015
CITATION	Ahmed v City of Whittlesea (Building and Property) [2015] VCAT 2042

Order

1. Order that the Second Respondent pay to the Applicants \$321,970.33.
2. Costs reserved.
3. Liberty to the applicants to apply in regard to the division of the award between them.

SENIOR MEMBER R. WALKER

APPEARANCES:

For the Applicants: Mr A. Noble Solicitor

For the Second Respondent: Mr A. Beck-Godoy of Counsel

REASONS FOR DECISION

Background

1. The first and second Applicants (“the Owners”) are the Owners of a dwelling unit (“the Unit”) in a four lot development built on a corner allotment in Holmes Street East Brunswick. The first three units start at the corner of the site and the Unit, which is Unit 4, is at the rear. Whereas the other three units are two story units at ground level, the Unit is a single story unit built on a suspended slab over a semi-open car park that services all four units. The car park is common property and the legal title is held by the third applicant, (“the Owners Corporation”) which is the Owners Corporation of the subdivision.
2. The Owners purchased the Unit on about 3 December 2010 from a Mr Nielsen, who was a developer who had had the four units constructed. They moved into the Unit in approximately February 2012 when the tenants who were renting it from them moved out.
3. The second respondent (“the Builder”) was the builder that constructed the units including the car park and the suspended slab upon which the Unit is built. It did so pursuant to a domestic building contract dated 5 July 2006 that it entered into with Mr Nielsen.
4. The first respondent (“the Council”) is a municipal council. It provided the services of a building surveyor who was the relevant building surveyor for the construction. It issued the building permit, was obliged to carry out all of the mandatory inspections and if to issue occupancy permits. On 10 July 2007 it issued occupancy permits for units one and two and three and on 27 November 2008 it issued the occupancy permit for the Unit and the car park.
5. The third respondent (“the Engineer”) prepared the engineering design and drawings for the construction and was also involved providing advice to the Builder as the construction progressed. The structural design drawings comprise eight sheets. They are dated 27 March 2006 and were stamped by the Council as part of the building permit on 23 June 2006.
6. After moving into the Unit the Owners noticed mould on windowsills and cracks in the structure which became more extensive. They found that doors were sticking and binding and that tiles were cracking and lifting. Only one of the three reverse cycle air-conditioning units worked and the Unit was very cold in the cooler months. Water on the floor ran downhill and ponded against the skirting boards. They also complained about excessive condensation and the lack of insulation. They engaged a building expert, Mr Beck, who inspected the Unit and provided a report.

7. Further investigation revealed that the suspended slab upon which the Unit is built and which forms the roof of the car park is structurally deficient. The Owners brought this proceeding on 8 August 2014 against the Council, the Builder and the Engineer, claiming the cost of demolishing and reconstructing the suspended slab and the Unit. The Owners Corporation was joined as the third Applicant to the proceeding at the first directions hearing on 9 October 2014. Following a compulsory conference the claims against the Council and the Engineer were settled although they remained parties to the proceeding for the purpose of apportionment of any damages under the provisions of Part IVAA of the *Wrongs Act 1958* (“the Wrongs Act”) and were excused from further participation in the proceedings.

The hearing

8. The proceeding against the Builder came before me for hearing on 5 October 2015 with 10 days allocated. Lay evidence was provided by the second Applicant, by a Mr Brian Tsang on behalf of the Owners Corporation and by Mr Basaran, the director of the Builder
9. Expert Engineering evidence was given by Mr Roland Black on behalf of the Owners and by Mr Tim Gibney on behalf of the Builder. Expert building evidence was given by Mr Jeff Beck on behalf of the Owners and by Mr Bob Lorich on behalf of the Builder. In addition, evidence was given by a Mr Salvatore, a Builder whose company had quoted to carry out the demolition and reconstruction work for a price of \$875,618.30 plus GST.
10. Because much of the evidence was not in dispute, the hearing occupied only three days which included a site visit in company with the parties and their experts. At the conclusion of the hearing I gave directions for the filing and service of submissions and these were received by 27 October 2015.

Bases of liability

11. Although the Owners and the Owners Corporation were not the parties who contracted with the Builder, by reason of s.9 of the *Domestic Building Contracts Act 1995*, they are entitled, as subsequent Owners, to the benefit of the warranties as to workmanship set out in s.8 of that Act. They are:
 - (a) that the work will be carried out in a proper and workmanlike manner and in accordance with the plans and specifications set out in the contract;
 - (b) that all materials to be supplied by the Builder for use in the work will be good and suitable for the purpose for which they are used and that, unless otherwise stated in the contract, those materials will be new;
 - (c) that the work will be carried out in accordance with, and will comply with, all laws and legal requirements including, without limiting the generality of this warranty, the Building Act 1993 and the regulations made under that Act;
 - (d) that the work will be carried out with reasonable care and skill and will be completed by the date (or within the period) specified by the contract;

- (e) that if the work consists of the erection or construction of a home, or is work intended to renovate, alter, extend, improve or repair a home to a stage suitable for occupation, the home will be suitable for occupation at the time the work is completed;
- (f) if the contract states the particular purpose for which the work is required, or the result which the building owner wishes the work to achieve, so as to show that the building owner relies on the Builder's skill and judgement, the Builder warrants that the work and any material used in carrying out the work will be reasonably fit for that purpose or will be of such a nature and quality that they might reasonably be expected to achieve that result.”

The issues

- 12. It is not disputed that the Unit, the suspended slab upon which it is constructed and the car park all need to be demolished and rebuilt. The issue to be determined is how to apportion responsibility for the cost between the Council, the Engineer and the Builder?
- 13. To the extent that the defects giving rise to the losses claimed are the responsibility of the Council and the Engineer, the Builder claims that it is not responsible.

Apportionment

- 14. The Builder relies upon the apportionment provisions of Part IVAA of the Wrongs Act which, where relevant, are as follows:

“24AF Application of Part

(1) This Part applies to—

(a) a claim for economic loss or damage to property in an action for damages (whether in tort, in contract, under statute or otherwise) arising from a failure to take reasonable care;

.....
 24AH Who is a concurrent wrongdoer?

(1) A concurrent wrongdoer, in relation to a claim, is a person who is one of two or more persons whose acts or omissions caused, independently of each other or jointly, the loss or damage that is the subject of the claim.

.....
 24AI Proportionate liability for apportionable claims

(1) In any proceeding involving an apportionable claim—

(a) the liability of a defendant who is a concurrent wrongdoer in relation to that claim is limited to an amount reflecting that proportion of the loss or damage claimed that the court considers just having regard to the extent of the defendant's responsibility for the loss or damage; and

(b) judgment must not be given against the defendant for more than that amount in relation to that claim.

15. By section 24 AE, an “apportionable claim” is one to which Part IVAA applies. In that regard, s.24 AF, provides (where relevant) as follows:

“Application of Part

(1) This Part applies to—

(a) a claim for economic loss or damage to property in an action for damages (whether in tort, in contract, under statute or otherwise) arising from a failure to take reasonable care;”

16. I was referred in the Owners’ submissions to *Gunston v. Lawley* [2008] VSC 97 where Byrne J noted, with apparent approval, that the tribunal at first instance had adopted as the appropriate principle, whether in each case the breach, when viewed in a practical and common sense way, made a material contribution to the Owners’ loss.
17. On behalf of the Builder, Mr Beck-Godoy submitted that a just assessment of responsibility for damage required a comparison of causation and culpability of each respondent in causing any loss or damage.
18. In *Matthews v SPI Electricity Pty Ltd; SPI Electricity Pty Ltd v Utility Services Corporation Limited* (Ruling No 6) [2012] VSC 70 (14 March 2012), Forrest J provide an extensive review of the authorities. In essence, it appears that the purpose of the legislation is to ensure that each concurrent wrongdoer is only liable for that proportion of the loss suffered which the Court or tribunal considers just, having regard to the comparative responsibilities of all wrongdoers for the plaintiff’s loss.
19. In *Yates v Mobile Marine Repairs Pty Ltd & Anor* [2007] NSW 1463 Palmer J suggested (at Para 93) that:
- “This calls for the exercise of the same kind of judgment as the Court exercises in apportioning responsibility as between a defendant sued in tort for negligence and a plaintiff who, by his or her own negligence, has been partly responsible for the injury.”
20. There appears to be no dispute as to the principles of apportionment or that this is an apportionable claim. What I have to determine is what proportion (if any) of the loss and damage claimed is just, having regard to the extent of the Builder’s responsibility for that loss and damage?

The damage suffered

21. The damage suffered by the Owners is twofold. In the first place, there were numerous building defects identified by Mr Beck in the Unit which were not the subject of any substantial disagreement. For these, the Builder is wholly responsible. However, since the entire unit has to be demolished in any case

they will never be rectified. On the one hand it could be said that the cost of rectifying them will never be incurred and on the other hand it could be said that, when the car park, slab and unit are demolished, what is being demolished in terms of the Unit is a defective unit, the value of which has been diminished by those defects.

22. The damage suffered by the Owners Corporation is the cost of demolishing and rebuilding the car park and the common areas. The losses therefore overlap but I am not asked to address how the proceeds of any award of damages are to be divided between the Applicants.

Defects in the Unit

23. Mr Beck inspected the site on 23 May and 10 June 2014. He said that there were defects in the roof and external wall cladding of the Unit which are allowing water ingress into the Unit. He said that the incomplete balcony of the South and East elevations falls back towards the walls of the Unit, allowing surface stormwater to pool against the external cladding exacerbating the problem. He also noted significant movement of the building structure and the evidence of cracking and calcification of the concrete slab. In particular, he noted the following defects.

External cladding

24. Mr Beck said that the aluminium cladding on the south elevation of the building had been poorly installed and that the manner of installation was not in accordance with the manufacturer's recommendations. He said that wind driven rain could enter behind the cladding where there is no facility to discharge the water. He said that instead, stormwater appears to be discharging via the wall cavity and, since the bottoms of the panels are sealed, moisture that is trapped within the cavity cannot exit and is directed back into the Unit. This was demonstrated to me on site.
25. During the inspection Mr Basaran defended the method of construction, saying that the panels were only decorative. I prefer the evidence of Mr Beck. He is an independent expert and there seemed to be substantial gaps in the cladding and a lack of care taken by the Builder in its installation.
26. Fibre cement sheet was used as an external cladding on the top floors and there are cracks between the panels. Mr Beck said that they are allowing water leakage and he pointed out numerous cracks. Some of the rendered fibre cement cladding on the north side of the building has not been extended over the top of the lower roof flashing, allowing stormwater shedding down the external wall to enter the building by the cavity.
27. Mr Beck also noted rust spots in the cladding which he said were most likely caused by the use of incorrect fixings to the substrate. He criticised the use of decorative stack-stone on the south side of the building, saying that the manufacturer of the blue board to which it is affixed did not recommend its product as a substrate for stone cladding as it is not considered strong enough to support the weight. However Mr Basaran said that he had used a thicker

substrate than normal blue board and since it does not appear that Mr Beck removed any of the stack stone to investigate the thickness of the material supporting it I cannot be satisfied that it is inadequate for the purpose.

28. Mr Beck said that the fibre cement sheet cladding would need to be removed and disposed of and reinstated in accordance with manufacturer's recommendations, with the joints between the fibre cement sheets being properly sealed and the walls rendered to match. The metal cladding will also to be made good.

Roof drainage

29. Mr Beck said that there was water ingress which he detected with the aid of a thermal camera and a moisture metre. He said that the tray deck roof has a sag which is holding water and this was demonstrated to me on site. He said that there were areas where no roof capping or flashing has been installed, or where they have been poorly installed, and that service penetrations were in very poor condition. He said that the skillion roof gutter was undersized and discharges onto the lower roof without a downpipe or spreader. In addition, when I was on the roof with the experts and Mr Basaran, I saw that a parapet had not been flashed at all and that unprotected timber was exposed to the elements. That appeared in a photograph in Mr Beck's report. I was surprised that Mr Basaran did not seem to think that there was any problem with that. In the course of discussion on site it appeared to be acknowledged that the likely source of the water entry was a roof penetration for one of the air-conditioners.
30. I accept Mr Beck's evidence that the roof has been poorly constructed and the cavities and flashings have either been poorly installed or not installed at all. He said that the cavities and flashings would have to be removed and disposed of, all services on the roof would have to be removed and stored and reinstated, the roof sheets would need to be straightened and reinstated or replaced with new sheets, the skillion roof would need to be reworked, that a new gutter, new cappings and flashings would need to be installed and all consequential damage made good.

Exhaust fans

31. Mr Beck said that the exhaust fans do not discharge to the atmosphere and that the dryer in the laundry has not been fitted with an exhaust fan to vent to the atmosphere. He said this was in breach of the relevant Australian Standard and that they need to be installed.

Front entrance tiling

32. Mr Beck criticised the tiled front entrance terrace but this is not work that was carried out by the Builder and so I do not need to consider it.

Incomplete balcony and balustrade

33. There is a balcony which is common property outside the southern and eastern walls of the Unit. This is accessed by means of a small gate but although there

is a substantial drop to the street below there is no balustrade around it to stop people from falling over the edge.

34. Mr Beck said that the concrete substrate was "...in rough form and was awaiting a waterproof membrane, screed and tiling to direct surface stormwater away from the building..." but that it had not been installed and stormwater was directed towards the building.
35. During the inspection I saw evidence of water having ponded against the side of the Unit and my attention was also drawn to a piece of timber embedded in the top of the slab against the wall of the Unit which was quite rotten and parts of it could be removed.
36. Mr Beck said that the broken gate and the easy access to the unfinished balcony was a serious safety concern and a danger to the occupants or any person visiting the premises. He said that, as a consequence, the building should not have been issued with an occupancy Permit. He said that the rotting timber will need to be removed and any voids filled, the substrate should be inspected for suitability and a sand and cement screed should be applied to create the required fall away from the Unit to a new drainage outlet and overflows. He said the area should be tiled, with articulation joints provided and that a proper balustrade barrier should be installed in compliance with the building regulations.

Flooring levels

37. It was demonstrated on site that the internal floors of the Unit are out of level. It would seem from the Engineering evidence of this is due to the failure of the slab underneath. This is dealt with below.

Penetrations through the slab

38. Mr Beck said that several service penetrations through the slab down into the car park did not appear to have fire collars installed which he said had to be done.

The Engineering evidence

39. Mr Black provided a very comprehensive report which he subsequently updated. He provided a scope of works and a supplementary report commenting on the report by Mr Gibney. I found his analysis highly detailed and impressive.
40. Mr Gibney provided a report that is less detailed and disputed a number of Mr Black's conclusions although there were some areas of agreement. He agreed that the suspended slab has to be demolished but does not consider that the Builder has contributed to its failure. He said that, because it was defectively designed, it would have failed in any event. It appears that when he prepared his report Mr Gibney was not aware of the extent of honeycombing in the slab at the time the formwork was removed.
41. Mr Basaran gave evidence as to the progress of the construction although he was not the supervisor of the project. His witness statement makes no mention

of a number of things that he said in the witness box to do with the vibration of the concrete and the difficulties occasioned by the reinforcing steel. Mr Noble submits that I should find that these are recent invention but I do not propose to make any global finding as to the credibility of Mr Basaran or any other witness. Instead I will look at the evidence on each issue.

Voids in the concrete

42. When the formwork was stripped away from the suspended slab on or about 17 October 2007 it was found that there were substantial voids in the concrete. The photographs tended are quite dramatic and show quite large areas where one can see the exposed reinforcement without any supporting concrete.
43. Mr Basaran called the Council's building inspector, Mr Rontogiannis, who inspected the slab on that day and noted:

“The slab formwork has been removed and revealed many large voids with no concrete around the steel (see attached photo). I informed Danny to immediately prop the slab due to the large amount of visible voids and unknown amount of voids not visible? The design Engineer was advised he still had not submitted Permit of compliance for inspection of slab steel. The Engineer was told to provide further Permit of structural adequacy of slab and to outline proposed rectification works.”(sic.)
44. The Council served an order under s.112 of the *Building Act 1993* (“the Building Act”) directing Mr Nielsen to stop work. He then made an order under section 113 of the Building Act directing the Builder to engage a structural Engineer to provide a detailed report about the current state of the suspended slab, indicating the method of rectification and to also arrange for temporary propping to be erected throughout the car parking area to support the existing suspended concrete slab.
45. On 19 October 2007 the Engineer gave directions for rectification of the voids which involved propping the slab, spraying the areas with “Bondcrete” and then injecting it with a slurry type mix of at least 32 mpa strength. The props were to remain in position for seven days and maximum concrete strength was to be achieved in 28 days. At the time this direction was given, construction of Unit 4 was well advanced and so the defective slab was already loaded. I accept Mr Beck's evidence that it was then deflected.
46. On 30 October 2007 the Builder obtained a quotation from a contractor to carry out the rectification work. The description of the method of repair is not the same as the recommendation of the Engineer but nothing was made of this in the evidence. In its quotation the contractor notes that the quote was to rectify the obvious areas only and that, on the Builder's advice, they did not allow to repair bony concrete with a depth of less than 20 mm or build up any of the existing concrete surface to provide adequate concrete cover over the reinforcement or repair any cracks in the concrete. The following two passages in the quotation are relied upon by Mr Noble:

“From preliminary observations many areas were identified as hollow and bony on the main concrete beams and columns. In some areas the reinforcement has insufficient concrete cover, the areas identified were obvious and no detailed inspection was carried out to determine whether other areas not so obvious were hollow or drummy. We have therefore based our price for the rectification of the obvious areas only.”

and

“We strongly suggest that further examination of the concrete is carried out to determine whether there are drumming areas not obvious to the naked eye. This would be required to establish structural adequacy.”

47. According to Mr Basaran’s evidence the rectification work quoted for was done but the further examination recommended was not. Mr Basaran was not present when the work was done and neither the contractor nor the supplier of the material used was called to give evidence.
48. There was a dispute between the experts as to the effectiveness of the repair method used. Mr Black pointed out that, at the time the voids were discovered, the formwork had already been stripped away and the structure would then have been at the highest level of strength that it was ever going to achieve. He said that the likely cause of the bony concrete and the large voids was almost certainly due to poor vibration and compaction when the concrete was poured which failed to eliminate trapped air. He said this drastically reduced the strength of the structure because the bond between the concrete and the reinforcing steel was reduced as also was the concrete cover over the steel reinforcement. He said that, since the slab had already deflected, the patching was a cosmetic fix only and would not have strengthened the structure. He said that adding wet concrete would have had no effect on the strength but simply added dead weight.
49. In his report of 21 September 2015, Mr Black included and adopted a data sheet produced by Cement Concrete and Aggregates Australia to do with compaction of concrete. The sheet contains a chart showing the loss of strength in concrete from incomplete compaction. Mr Black said that it indicated that 10% of entrapped air in the concrete would cause a loss of strength of 50%. In addition he said that the honeycombing and voids will allow the flow of water and air through the slab, causing a leaching of cementitious material and a rusting of the reinforcement, thereby further weakening the slab.
50. In his first report, Mr Gibney said that there were some isolated voids in the soffit of the slab and the band beams which had been repaired with an epoxy based repair system. He said that these epoxy based compounds are normally of higher strength than the parent concrete. However he did not produce any technical information concerning the materials used and I am unclear whether he knew what the material was.
51. Mr Gibney said that the maximum depth of honeycombing on the band beams was less than 20 mm, there was cover to the reinforcement and the voids were

localised and were not along the entire length of the beam. He said that the amount of honeycombing and its location would not cause significant reduction in strength of the beams and the suspended slab.

52. At the time that he prepared his reports Mr Gibney had not seen the photographs of the large voids that were found when the formwork was stripped away. These were put to him in cross examination and he agreed that they showed significant construction defects. Indeed, he acknowledged that he had seen only a few jobs with similar voids and that what was depicted in the photos was the worst job that he had ever seen. When asked in cross examination whether he agreed that the slab had 10% of voids and probably more, he said that he did not know.
53. Mr Blake's conclusion was that the failure to compact the concrete was a serious construction defect and that on that basis alone the structure as seen by the building surveyor on 17 October 2007 ought to have been demolished. He said that the Builder had built an inadequate structure which has had its structural capacity reduced by the Builder's failure to properly compact the concrete. He said that on that basis alone he would recommend that the building be demolished.
54. After considering the respective opinions of the two Engineers on this issue I prefer the evidence of Mr Black. It seems logical to me that, at the time of the repair of the voids, the slab would already have been deflected as Mr Black said. Further, the initial opinions of both experts were formed before they were shown the dramatic photographs taken when the formwork was stripped away. Those photographs support Mr Black's opinion that the voids in the concrete were substantial and widespread. I accept Mr Black's evidence that, with 10% of voids in the concrete slab the structural strength is reduced by 50% and that being so I accept his opinion that, on this ground alone the slab would need to be demolished.
55. The voids in the concrete are a building defect for which the Builder alone is responsible.

Reinforcement placed too low

56. Mr Black criticised the depth of coverage of the reinforcement with concrete. I note that inadequate coverage of reinforcement is referred to in the quotation that was given to the Builder for the repair of the voids.
57. Mr Gibney said that he measured the depth of the slab reinforcement at between 17 mm and 30 mm along the northern slab span. He said this would be a problem in an exposed environment in an aggressive atmosphere but that the underside of the slab was covered and had good airflow around it. Mr Black disagreed, saying that the slab was raw concrete in an exposed environment and that the depression in the top of the slab allowed rain water to pond and penetrate the slab. He pointed to what he said was a shadowing of the reinforcement mesh on the underside of the slab soffit to support his opinion that water was passing through the slab and rust is forming.

58. The photographs produced during the hearing taken following the stripping of the formwork support Mr Black's evidence that there is very little concrete coverage over the mesh. In particular, this is shown in the photographs on pages 870, 871 and 874 of the tribunal book. Further, what was pointed out to me as rust stains from the reinforcement mesh on the underside of the slab also supports his conclusion that the mesh is rusting as a consequence. When the photographs were pointed out to Mr Gibney in cross examination he acknowledged that these show that the concrete cover was inadequate.
59. Mr Black suggested that the timber embedded in the top of the slab created a hinge and that the coverage of the mesh in those areas would necessarily be affected. It is unclear what the distances are between the underside of the piece of timber and the mesh but Mr Black has pointed out that there is a crack on the underside of the slab in about the position of this piece of timber which seem to support Mr Black's view that it has affected the structural integrity of the slab.
60. I accept Mr Black's evidence that the reinforcement was inadequately placed. He said that on this basis alone demolition is warranted. In view of the importance of the positioning of the reinforcement to the structural integrity of the slab that is a plausible opinion.
61. The placement of the reinforcement is a building defect for which the Builder is responsible. Since the placement of the steel was to be inspected by the Council's building surveyor, it is also partly to blame.

Brick wall on the north-western corner

62. Mr Black pointed out that the Engineering drawings required all supporting walls to be at least 350 mm wide. As built, the north-western brick wall upon which the slab is supported is only 230 mm wide, so also are the walls around the stairs which provide support to the end of Beam B2.
63. Mr Gibney pointed out that the revised plan of the slab, which positioned the beams differently, makes no mention of the dimensions of the supporting walls. Mr Black said Builder ought to have queried the dimension of the wall but instead, it simply followed the architectural drawing, which showed the walls to be 230 mm wide. Mr Basaran said that he was told by the Engineer that the walls around the stairs could be 230 mm wide but that the other supporting walls should be 350 mm wide. This does not appear from the drawings. In any case, the other supporting walls were only 230 mm wide.
64. I accept that the Engineering drawings are deficient but, as Mr Black pointed out, since the amended design of the proposed slab did not purport to alter the earlier direction that supporting walls were to be 350 mm wide, that dimension should have been followed. I think that is a reasonable interpretation of the drawings the Builder had.
65. Both experts agreed that the support provided by the 230 mm walls is inadequate. Indeed, Mr Black pointed out that the wall on the south side of the car park has split, with the inner leaf which is supporting the slab separating from the outer leaf which is not.

66. Mr Black said that as a consequence of the Builder using the architectural dimension for the supporting walls rather than the Engineers dimension as he should have done, the wall is so heavily overloaded that this on its own would be sufficient for him to recommend demolition. I accept that the slab would have to be demolished on that account alone. This is a building defect for which the Builder is responsible

The column in the Southwest corner

67. There are two columns supporting the northern B1 beams which are shown on the plans as being 350 mm x 1200 mm. This was acknowledged by Mr Gibney who said that, although undersized, the columns have more strength than is required. Mr Black pointed out that it was not for the Builder to depart from the Engineering drawings. That is so, but if the columns are nonetheless sufficient there would seem to be nothing to be done.
68. The real problem with the columns is that the pads upon which they are built are not detailed in the Engineering drawings and it is not known how the columns are supported. Mr Black said that on this account the slab should be demolished since the support may be inadequate. I can understand that but in the absence of some evidence or indication of some inadequacy in the foundation I cannot be satisfied that demolition is warranted on that account.

Lack of adequate waterproofing

69. Mr Black said that the top of the slab has not been waterproofed and that water was passing through the slab causing the reinforcement to deteriorate. Mr Gibney said that there was a screed on top of the slab to provide waterproofing.
70. Although Mr Gibney agreed that there was water ponding on top of the slab, he said that there was no evidence of moisture resulting from penetration through the slab and that, if that was occurring, one would expect to see rust under the soffit all the slab and on the band beams in the garage
71. Mr Black pointed out that the slab was dished in the middle and that water was running towards the unit and, he believes, ponding underneath. He pointed to the rust marks under the slab and said that this was the start of concrete cancer and that this was due to the steel being close enough to the concrete surface to be affected by moisture laden air. He said that the problem was exacerbated by water and air passing through the slab. The photographs and my own observation support Mr Black's opinion that water is passing through the slab.
72. This seems to be due to the inadequacies of the slab in both the construction and design. These inadequacies have combined to result in the deflection of the slab. The excessive deflection is causing the water to accumulate on top.
73. The problem is therefore due to defective design by the Engineer, defective construction by the Builder and defective supervision by the Council.

Sawdust and rubbish in the formwork

74. Sawdust and rubbish embedded in the underside of the slab and the supporting beams was pointed out to me during the on-site inspection. The significance of

this observation is in the effect it might have in the amount of concrete cover for the reinforcement and in the reduction of the structural capacity of the concrete. The extent of the problem is impossible to assess because all that can be seen is what is on the surface and it is not known whether there is any other material embedded within the concrete that cannot be seen.

75. Mr Gibney said that he thought that this was not a major issue. He said that the steel at the bottom of a concrete beam is in the tension zone and is only considered in engineering calculations for the strength of the concrete elements. He said that the concrete only positions the steel and the material seen which is embedded in the surface of the concrete would not affect the strength of the beam. Mr Black said that the whole area of the concrete section is considered by the Engineer's calculations.
76. I accept Mr Black's point that any Engineering calculations would not take into account any foreign material of this nature but it is impossible to make a finding that the concrete is structurally inadequate because of what can be seen on the surface. I accept Mr Black's comment that it is sloppy building practice on the part of the Builder and the issue is solely the fault of the Builder. The Council's inspector directed the Builder to remove this material before the concrete pour and it would not seem that it was done or at least, done adequately.

Defective design

77. Both experts agreed that the slab was defectively designed. The deficiencies identified in the evidence of Mr Black and Mr Gibney were:
- (a) insufficient details are provided on the connection of band beam B1 to the columns C1;
 - (b) no detail is provided on how the primary band beams are connected into the eastern secondary beam B1;
 - (c) the shear ligatures shown on the slab plan are inadequate along both the length of the beam and across the beam;
 - (d) the structural design is inadequate in sheer and deflection;
 - (e) the beam spans were incorrect;
 - (f) the beam depth was inadequate;
 - (g) there is insufficient steel in the suspended slab;
 - (h) the south wall was inadequate to bear the load of the slab;
 - (i) the shear capacity of beam B2 was inadequate;
 - (j) some notations on the plan were unintelligible;
 - (k) there was no design of the pads for the supporting columns;
 - (l) the walls supporting the slab were not dimensioned on the final revised plan;

78. In addition to the Engineering design, Mr Black considered that the Builder had taken upon itself some aspects of the design by filling in missing parts of the documentation with its own solutions. In his later report he said that these were as follows:
- (a) the column footings were not detailed in the Engineering drawings and it is not known how these have been constructed by the Builder;
 - (b) the wall footings were also not detailed and again, it is not known how these were constructed by the Builder;
 - (c) the supporting walls were very poorly detailed in the Engineering plans and have been constructed by the Builder in its own way and loaded eccentrically by the slab. What is built is not in the plans and the wall on the south side has split;
 - (d) stairs to the unit double as a fire escape and are not as contemplated in the plans. Most significantly, they are too narrow and they are also inadequate in several other respects. The building surveyor's directions concerning the stairs were not complied with by the Builder;
 - (e) according to Mr Black the Engineering drawings contain "unresolved details" about the ground floor slab and it is not known how the Builder resolved these were how the slab was constructed;
 - (f) Mr Black said that the orientation of beams B1 and B2 was changed by the Engineer without defining the location of the beams or resolving details about how the steel was the arranged where the beams meet and it is unknown how the Builder resolved these inadequacies in the design.

Mr Black said that, following construction the Builder arranged for drawings to be prepared to match what it had built.

The building surveyor

79. There are numerous inadequacies in the drawings identified in Mr Black's report which ought to have been apparent to the building surveyor. Mr Black draws attention to some annotations on plans which are unintelligible and says that the building surveyor should have required clarification of them before issuing a permit. After reviewing the documents Mr Black concluded that, given the errors and other matters referred to, the documents were not fit for the purpose of constructing the building. That being so, the building surveyor could not have been satisfied that a permit should issue.
80. Mr Black said that the documents used for the permit issued on 23 June 2, 2006 do not include any structural calculations while those used for the later permit were inadequate and incorrect. He said that it does not appear that the building surveyor engaged another Engineer to check the design or the structure at any time during the design or building process. He said that, had this been done, unacceptable departures from the relevant Australian standards would have been found.

- 81 Mr Black said that neither the building permit nor the occupancy permit issued by the building surveyor mention the list of drawings and documents used when issuing the permits, which, he said, renders the permits invalid and useless. He said that this oversight was compounded when later versions of the permit were issued because previously stamped documents were superseded but the revised permit does not show that.
82. Mr Black said that, if the first mandatory inspection, which was “Pad Footings”, had been properly carried out then it would have been noticed that the Engineering drawings do not show the size they should be or the size and placement of the reinforcing steel. The Engineer had also not provided a Permit of compliance. He said this should have raised their concerns about the rest of the structure and the building surveyor should have issued a stop work notice until all the necessary details had been provided.
83. He said that there was only one Permit of compliance issued by the Engineer, which was on 3 December 2007, and refers to an inspection of the steel reinforcement to the suspended slab and band beams which had supposedly been performed on 27 August 2007. He said that the occupancy permit shows inspections supposedly made on various dates but there do not appear to be any Permits of compliance that correspond to those dates. He said that in the absence of a Permit of compliance the relevant building surveyor is responsible for checking the Engineering design as part of the building permit process. He said that it is common practice in these circumstances for the building surveyor to engage the services of another Engineer to check the design or to provide on-site verification. This does not appear to have been done in the present case.
84. The Whittlesea building services building inspection field sheet shows that on 17 October 2007 when the formwork was stripped from the suspended slab and the voids in the concrete were discovered, the building surveyor directed that the slab be propped and the Engineer was told to provide a compliance report of its structural adequacy. The building surveyor subsequently issued a stop work notice and Mr Black says there is then no further mention of this matter in the field notes.
85. Mr Black said that the building surveyor should have immediately engage an independent Engineer to review the situation and provide advice about what needed to be done about the faulty structure. He said that he would have expected that an independent Engineer would have discovered the shortcomings in the design, documentation and construction and may then have provided recommendations about what had to be done in order to stabilise the structure and provided directions to complete it properly. Instead, the building surveyor allowed the Builder and Engineer to proceed “as they saw fit”.
86. Mr Black said that the occupancy permit was issued by the building surveyor notwithstanding that the building contained many visible and obvious faults that provided serious reasons to doubt that it would have complied with the permit. He said the concrete contain many areas of serious degradation, the top surface of the concrete structure was deflecting downwards resulting in

persistent ponding, the only escape stair from the unit was not wide enough to meet the requirements of the Building Code of Australia and there was no balustrading around the accessible common property on the first floor along the Albion Street frontage.

87. He added that, in his opinion, the Unit and the common property were not suitable for occupation under the terms of the occupancy permit. He said that the structural documentation was incomplete and there was no opportunity for the building surveyor to satisfy himself as to what was intended by the Engineer. He said that various mandatory inspections did not appear to have been properly executed or documented, the concerns raised in the field notes did not appear to have been resolved or even acted upon and no consideration here to have been made for essential services.
88. For these reasons Mr Black said that he did not believe that it was reasonable for the building surveyor to have issued an occupancy Permit. He pointed out that the treads on the stairs had not been rectified as the building surveyor had earlier directed. Mr Black noted that the stairs were not wide enough which she described as a “significant departure”.
89. Quite obviously, if the occupancy Permit had not been issued the Unit and the other units in the development could not have been occupied (s.40) and so could not have been sold to the present unit holders, including the Owners, with the building in its present condition. The losses suffered and therefore could not have arisen.

The respective liabilities

90. The Builder’s liability and its obligations in contract are defined first by the contract documents and secondly, by the warranties implied into the contract by s. 8 of the *Domestic Building Contracts Act 1995* referred to above. In addition, the Builder knew or ought to have known of the deficiencies in the plans and the defective nature of the work but it nonetheless sought to proceed with the construction and obtain an occupancy Permit for a building that was not fit for occupation. He said in evidence that he would have done whatever it took to get the occupancy permit and to that end he provided a letter to the building surveyor certifying that the repair work done to the voids in the slab was in accordance with the engineer’s recommendations and to the original approved plans.
91. The building surveyor’s liability lies in negligence. The liability of a building society to a subsequent owner was considered in the case of *Moorabool Shire Council & anor v. Taitapanui & ors* [2006] VSCA 30 where the Court of Appeal said (at Para 620):

“Where a private building surveyor has incompetently and unprofessionally carried out his functions under the Act and regulations what avenues does the building owner have against such private building surveyor? If the building owner engaged the private building surveyor they have a cause of action in contract; otherwise, it must be in tort. Therefore, I consider it a significant feature that if it was held no

duty existed, a building owner would have no redress against a private building surveyor in circumstances where the statutory structure required that private building surveyors to have professional insurance to cover the eventuality of the private building surveyor failing to perform his functions satisfactorily competently. Under s. 131 of the Act with a respondent only required to pay its apportioned liability, the building owner could not recover for the private building surveyor's degree of liability unless a duty is established. Therefore, to ensure that the 1993 statutory structure for building control operates satisfactorily for all Owners, including those whose claims are in negligence, it is necessary that private building surveyors be under a duty to building Owners.”

92. The first function performed by the building surveyor was the issue of the permit. In that regard, the court said in *Taitapanui*:

“A permit, when granted under the hand of the surveyor, is a written certification which both authorizes building work and declares that the building work as described in the application will comply with the Act and the Regulations.”
93. It is the duty of the building surveyor to examine the application for the building permit and the accompanying documents and satisfy himself as to these matters. If the documentation is deficient or indicates that the construction will not be in accordance with the Act and the Regulations then he must not issue the permit (*Building Act 1993 s.24(1)*). If he does not have the knowledge to assess the documents then he should obtain advice from someone who does. If the documentation is deficient and the building surveyor refuses to issue a permit on that basis then, quite obviously, no loss can ever arise from the deficiencies in the design because the defective design will not be built.
94. Following the issue of the permit the building surveyor must carry out the required inspections as the work progresses (s.34) and if any deficiencies are identified he must give appropriate directions to the Builder to rectify them before the work proceeds further (s.37). Again, if he fails to do so then the result will be a deficiently constructed building.
95. The Engineer’s liability is also acknowledged to be in negligence. It was retained and paid to provide an Engineering design that would ensure that what was to be built would be structurally sound and it should have exercised all reasonable professional care and skill to that end. The Owners and the Owners Corporation, as subsequent Owners, were in a position of vulnerability in that they had no right or ability to direct how the Engineer would carry out its task, they will now bear any loss arising from any lack of care on its part and they were not able to protect themselves from such a loss. It was not disputed in the present case that the Engineer owed a duty of care to the Owners and to the Owners Corporation. It was also common ground that that duty was breached.

Apportionment

96. It was argued by Mr Beck-this Godoy that I should look at the extent to which the negligence of each of the three participants contributed to the loss. He said that the negligence of the Builder did not result in any loss to the Applicants in

that, even if it had constructed the building without any defects, the deficiencies in the design would themselves have necessitated its demolition.

97. Causation in this case is very difficult to determine because the negligence of either the Engineer or the Builder on its own would have been sufficient to cause the loss and in each case, the loss might have been avoided had the building surveyor not also been negligent.
98. It is too simplistic to say that, had the deficient design been perfectly constructed the slab would still have failed and therefore the Builder is not responsible. In fact, the slab was very imperfectly constructed. The Engineer could likewise say that its faulty design was not causative of any loss because, even if it had produced a perfect design, if the Builder had carried out the construction with the same want of care that it exercised in the construction of this building, demolition would still have been required for the reasons given by Mr Black.
99. The Engineer could also say that, had the building surveyor not been negligent, no building permit would have been issued to construct the building in accordance with the deficient design and documentation, and so the loss would have been avoided.
100. Both the engineer and the surveyor could say that, if the builder at not sought an occupancy permit for a building that knew or ought to have known was seriously defective, the building would not be sold to 3rd parties and the losses now sought not been suffered. In all these scenarios, the situation suggested is hypothetical.
101. In addition, both the Engineer and the Council could say that they should not be responsible for contributing to the cost of reconstructing the Unit as if it was free from defects because it was not. The deficiencies in the Unit were the sole responsibility of the Builder and so the shares of the Engineer and the Council in the cost of its reconstruction should reflect the fact that the Unit is worth less than it should have been, because of the defective construction.
102. I am satisfied that the Engineer, the Builder and the Council's building surveyor were all negligent in the respects described above and that they were persons whose acts or omissions caused, independently of each other or jointly, the loss or damage that is the subject of the claim.
103. Apart from the principles referred to above, some guidance as to how the task of apportionment should be approached is to be found in *Taitapanui*, where the Court of Appeal said (at paras. 8.3 et seq.):

“8.3. Under s. 131 the Tribunal must give judgment for such proportion of the total amount of damages as the court considers just and equitable having regard to the extent of that defendant's responsibility for the loss or damage. This indicates an apportionment based on percentages of perceived degrees of responsibility. Generally, I do not consider that such an assessment can be too fine; I consider I should stand back and look at both parties with respect to the obligations they undertook when assessed against what are major shortcomings in the design and

construction that resulted in the damage. Assessed from this viewpoint it is obvious that the crucial default is the preparation of the design without nominating the exterior wall material and with the stump footings by the Builder, followed by the subsequent approval of the defective plans by the private building surveyor.

8.4. There were many errors in construction resulting in significant defects carried out by the Builder during the construction and as described above, I have accepted Mr Browning's evidence that a number of these should have been identified by the private building surveyor during his mandatory inspections.

8.5. An argument can be made that the Builder has the primary obligation to satisfactorily design and construct the dwelling in accordance with the assumed terms of any building contract and definitely in accordance with the statutory warranties under s. 8 of the Domestic Building Contracts Act; and, the failure to do so is the substantial cause of the damage.

8.6. However, equally, the view can be taken that the private building surveyor's sole participation in the design and construction of this property is a statutory role set out under the Act and regulations to ensure that the Act and regulations are complied with, for this he takes a professional fee. The private building surveyor failed in both his roles of issuing the building permit and carrying out the mandatory inspections.

8.7. In both the case of the Builder and private building surveyor they fell far short of the competence required of them. Given their areas of responsibility and the importance of both their roles I consider they are equally liable for the damage sustained by the Owners.”

- 104, In the present case the Builder is responsible for the numerous construction defects identified in the foregoing reasons. The Unit itself contains many defects and the construction of the supporting slab and car park contains more serious defects, any one of a number of which would have required the demolition of the building. The Engineer is responsible for preparing a wholly inadequate design, insufficient documentation and defective calculations. The design was incomplete because not all the necessary information and instruction was provided, but what was designed was not structurally sound and would have to be demolished. The Council’s building surveyor issued a building permit on wholly inadequate documentation, which included a structurally deficient design, and should not have done so. Had he not done so then it may be that the construction would not have proceeded and that the losses now claimed would have been avoided. The resulting loss was a combination of all these shortcomings.
105. Mr Beck Godoy submitted that, if the Builder had contributed to any of the loss then its contribution was minor and much less than that of the Engineer or the building surveyor. I think there was substantial negligence on the part of all three parties. I cannot see how to differentiate between them in terms of blameworthiness and consider that they are all equally liable for the Applicants’ losses.

Costings

106. No assessment has been made of the cost of rectifying the defects in the Unit which are identified by Mr Beck in his report of 7 July 2014. Instead Mr Black has provided a highly detailed scope of works for the demolition and reconstruction of the car park and the Unit. Mr Beck has costed the work at \$917,374.00 whereas Mr Lorich assessed the cost at \$775,158.
107. Mr Salvatore gave evidence that his company had quoted to carry out the demolition and reconstruction work for a price of \$875,618.30 plus GST but he was not able to justify this figure in the witness box, saying that the calculations had been done by others and the figures were back at the office. In these circumstances I must look at the evidence that I have of the costs that will be incurred in order to arrive at a likely figure. Mr Basaran suggested that all four units could be built for as little as \$800,000 but he gave no figures to justify this assessment and it seems to ignore the obvious fact that the existing structure will need to be demolished and removed.
108. There are three areas of dispute between the two experts. The first dispute is in regard to the margin to be applied. Mr Beck allowed 30% for overheads and a further 10% for profit. Mr Lorich thought that was too much and said that figure of 30% was reasonable for both overheads and profit. In his submission Mr Noble referred me to margins that have been allowed in other cases ranging from 33% to 35%. Mr Beck Godoy pointed out, correctly, that the job was a demolition and reconstruction rather than a rectification and so should not attract anything more than 30%. It is a reconstruction rather than a rectification but both experts pointed out the difficulties of access. I cannot arrive at an appropriate margin by looking at other cases or deciding what I might think would be reasonable. I must confine myself to the expert evidence given in this case.
109. Mr Beck said that the project would require extensive supervision and care due to the complexity of removing the structure attached to unit three without damage, the proximity of the main road and laneway, which require continuous access and construction on boundaries. He said that it would require high-level site management. Mr Lorich said that he was familiar with the area and agreed that the scope of works proposed would not suit all builders and that any builder pricing the project would add a premium for access difficulties. Nevertheless he said that he thought that 40% was too high and that a 30% overall margin, which includes profit, is generally acceptable for this type of rectification work.
110. Weighing up this evidence I think that I should allow a margin of 35% including overheads and profit. Each of Mr Beck's calculations includes a profit figure which I will halve in each case and deduct. I will also deduct the GST which has been calculated on that proportion.
111. Mr Beck allowed for the installation of a sprinkler system in the car park at a gross cost of \$18,542.37. Mr Lorich pointed out that fire sprinklers were not included in the Builder's original scope of works and that is the case. However the building must now be reconstructed and the question is, what that will that cost? If a fire system has to be installed in order for it to be reconstructed then

that is part of the cost, regardless of whether it forms part of the existing structure or was within the scope of works of the Builder. The requirement of a sprinkler system depends upon whether the car park can be described as an “Open deck car park”. According to part A3.4 of the Code, to be an Open deck car park it must be cross ventilated by permanent unobstructed openings in not fewer than two opposite, or approximately opposite, sides and the openings must be not less than one half of the wall area of the side concerned. The present building would not seem to meet these requirements. Mr Beck said that if a car park is not an Open deck car park the Code requires that it must be protected with sprinkler system. I will therefore include his allowance of \$18,542.37.

112. The difference between the experts in regard to the concrete relates to the hourly rate to be applied. Mr Lorich acknowledged that Mr Beck’s figure for labour was not unreasonable but maintained his own figure which he said was obtained from his database. Both experts are equally qualified to give these assessments and it must be borne in mind that they are estimates rather than quotations by a rectifying Builder. The ultimate contract price might favour Mr Beck’s assessment for Mr Lorich’s assessment. Looking at his assessments, Mr Beck’s figures for labour do not seem unusually high and taking into account the difficulty of the job and Mr Lorich’s acknowledgement that his figures are not unreasonable I will allow his rate.
113. That gives a rectification figure of \$867,682 for the cost of rectification, which is calculated as follows:

Item	Allowance	With reduced margin (and GST on reduction)
Preliminaries	\$255,668	\$251,807
Demolition	\$129,021	\$124,413
Concreter	\$181,439	\$175,009
Car park	\$ 97,786	\$ 92,294
Reconstruction of the Unit	<u>\$232,461</u>	<u>\$224,159</u>
Cost of rectification	<u>\$896,375</u>	<u>\$867,682</u>

Other losses

114. In addition to the cost of rectification, the Owners Corporation has spent \$14,127 in propping up the defective slab and invoices totalling that sum have been produced.
115. The Owners claim nine months alternate accommodation as well as storage and removal costs. They have produced a quotation for \$249 per week for a two bedroom apartment in Fitzroy which includes car parking as well as other quotations which are either higher or relate only to a single bedroom apartment. Given the size of the Unit and the fact that the Owners have a young child it is appropriate to allow accommodation in a two-bedroom apartment. The amount claimed is \$67,977 for the nine months that the work of demolition and reconstruction will take and that amount will be allowed.

116. The Owners also claim the costs of packing, storing and moving back their furniture and possessions at a cost of \$11,125. They have produced a quotation from a removalist company to verify the cost and that sum will also be allowed
117. The Owners also claim loss of amenity. I was referred to an earlier decision of mine in *Anderson & anor v. Wilkie* [2012] VCAT 432 and also to the decision of the West Australian Court of Appeal in *Willshee v. West Court Ltd* [2009] WASCA 87. In each of those cases the Owners suffered the inconvenience of living in defective premises and were subsequently required to move out for extended periods while rectification work was carried out. In each of the two cases the amount awarded for general damages for loss of amenity was \$5,000 although, quite obviously, there is nothing special about that sum. In the present case the Owners have been living in a substandard unit for an extended period, they must now move out and live elsewhere for nine months. The amount claimed for general damages of \$5,000 is reasonable and will be allowed.

118. The total of the damages suffered is as follows:

Rectification cost	\$867,682
Propping of defective slab	\$ 14,127
Alternate accommodation during reconstruction	\$ 67,977
Removalist costs	\$ 11,125
Loss of amenity	<u>\$ 5,000</u>
Total	<u>\$965,911</u>

The Builder's one third proportion of this amount is \$321,970.33

119. I am not asked to divide the amount to be awarded between the respective Applicants. The rectification cost is common to all Applicants whereas the other losses are not. The extent to which these claims have already been satisfied from monies received from the settlement of the claims against the Engineer and the Council is unknown. I propose to make a single order against the Builder for its one third share of the total damages suffered and leave it to the Applicants to divide the award between them. In case any difficulty should arise in that regard I will reserve liberty to apply for further orders apportioning the award between them.

Orders to be made

120. There will be an order for payment by the Builder to the Owners and to the Owners Corporation the sum of \$321,970.33, that being the proportion of the amounts claimed that I consider just having regard to the extent of the Builder's responsibility for the loss or damage.
121. Costs will be reserved further argument.

SENIOR MEMBER R. WALKER