

VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL

CIVIL DIVISION

DOMESTIC BUILDING LIST

VCAT REFERENCE NO. D244/2006

CATCHWORDS

Domestic Building List; Sale of house by owner builder to purchaser; Alleged breach of statutory warranty as to workmanship; Design fault not an error of workmanship; Edge heave found to be the result of poor workmanship in the installation of slab foundations including in particular the use of uncompacted fill adjacent to footings near master bedroom; Further failure in workmanship with no provision for drainage of surface flows from adjoining property; Limited evidence as to costs of rectification; Order for partial demolition and reconstruction not reasonable in the circumstances; *Building Act 1993* Section 137C

APPLICANT	Karyn Roberts, Warren Roberts
RESPONDENT	Jassam Property Developments Pty Ltd (ACN 101 457 318)
WHERE HELD	Melbourne
BEFORE	M.F. Macnamara, Deputy President
HEARING TYPE	Hearing
DATE OF HEARING	16 to 20 April 2007
DATE OF ORDER	3 May 2007
CITATION	Roberts v Jassam Property Developments Pty Ltd (Domestic Building) [2007] VCAT 750

ORDER

- 1 The respondent must pay to the applicant damages in the sum of \$19,800.
- 2 Costs reserved.

M.F. Macnamara
Deputy President

APPEARANCES:

For Applicant

Mr R.A. Fink of Counsel, instructed by
Anthony Peterson & Co, Lawyers

For Respondent

Mr D. Pumpa of Counsel, instructed by
Guymer Naidoo

REASONS

BACKGROUND

- 1 On 18 February 2003 Jassam Property Developments Pty Ltd, whose principal is Mr Agius, entered into a contract to sell its property at 1 Riversdale Drive, Werribee, to Mr & Mrs Roberts. The price for a newly constructed house on the site with slab foundations of rendered Hebel brick walls (with a timber frame) and a pitched metal roof was \$273,700. The contract provided for a deposit of \$10 with the residue payable on 10 March 2003 'or earlier by agreement'.
- 2 Jassam had constructed the property as 'owner builder'. Mr Agius is a registered builder. This was not a situation where a 'handyman' constructed his own house, lived there for a time and then offered it for sale. It seems that Jassam intended at all times to sell No. 1 Riversdale Drive as a house and land package. It was therefore in substance a 'spec' house. The provisions of the *Building Act* 1993 relative to owner builders mean that until the certificate of occupancy and necessary insurance cover are available the house cannot be offered for sale. Apparently the Roberts family had no alternative accommodation and had therefore been in possession of the property even before the contract of sale was signed. Jassam's workers established flower beds around the front wall of the house leaving the beds with a mound of woodchip in place. The location of these flower beds was selected in consultation between Mr Agius and the Roberts. The evidence does not establish whether these flower beds were provided before or after the contract of sale was signed.
- 3 According to Mr Harrison, a Geotechnical Engineer who gave evidence in the proceeding:

The site [that is No. 1 Riversdale Drive] is identified on the 'Geological Survey of Victoria' Melbourne Sheet (1:63,360) as being within the Quaternary 'Newer Volcanics'. Weathering of these olivine basalt flows typically result in shallow surface residual silts, underlain by highly reactive silty clays which grade to variably weathered basalt at depth.
- 4 The site therefore required careful geotechnical analysis and as one of the preliminaries to construction, a geotechnical soil report was obtained from Mr Harrison's company, Hardrock Geotechnical dated 7 August 2002. The Hardrock report noted that the site is classified as 'Class H' as to its soil in accordance with Australian Standard 2870-1996. Hardrock's investigation included sinking a number of bore holes and their report stated 'that filling was intersected in all bore holes'. AS 2870, which sets out standards which have been adopted in the *Building Code of Australia* for building foundation, classifies sites according to their soil structure making differential provision as to proper procedures for a construction of building

footings in these various classes of site. Class H according to Table 2.1 of the standard describes Class H sites as:

Highly reactive clay sites, which can experience high ground movement from moisture changes.

- 5 The table classifies sites according to their geotechnical soil conditions from the most satisfactory to the most difficult to work with in six categories. Category H is the fourth of those categories. The only higher and more difficult classes or categories are E and P. Class E sites are:

Extremely reactive sites, which can experience extreme ground movement from moisture changes.

- 6 Class P sites are:

Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise.

- 7 It will be seen that Classes E and P exhibit extreme difficulties for the establishment of satisfactory footings and Class H is the classification exhibiting the highest range of difficulty excluding these extreme cases. In the result particular care was required in the design and construction of the footings for No. 1.

- 8 The Hardrock report made particular reference to the requirements of AS 2870-1996, it stated for instance:

Any filling placed across the site to assist in levelling prior to slab construction should conform with requirement for either Controlled or Rolled fill as outlined in clause 6.4.2 AS 2870-1996.

- 9 The report suggested three possible foundation designs. First, '*slab on ground*', secondly, '*waffle raft design*' and thirdly, '*strip gridded footing system*'. It appears that Jassam adopted the first option, namely '*slab on ground*'. The Hardrock report stated:

Slab edge beams and heavily loaded internal beams should penetrate through any fill material and be founded a minimum of 100mm into the nature soil profile.

- 10 The report also stated:

To aid in maintaining a constant foundation zone soil moisture content:

- no water shall be allowed to pond or pool at the base of the foundation excavations,
- ...
- ensure that the ground surface and pavements adjacent to the house be graded away from the house, as per the drainage requirements C5.2 AS2870 Supp1-1996,
- garden beds directly adjacent to the building should be avoided.

- 11 At some stage and in circumstances not fully explored in the evidence, the Roberts requested Mr Agius to modify the design and construction of the house so that an area at the front north-eastern corner, which is now the master bedroom and which was originally designed as a '*bay window*', should be widened at the corners so as to be the full width of the room.
- 12 The owner builder Jassam carried out the landscaping of the site. It established flower beds across the front face of the house after consultation with the Roberts. These flower beds were graded into low tan bark '*mounds*' by Jassam. The Roberts then planted a variety of shrubs in the beds and established what Mr Roberts described as a '*low pressure*' watering system in the front garden. This system consisted of black PVC pipes attached to the front garden hose split into two sections. One section served approximately three sprinkler heads in the lawn, the other served a pipe which was laid along the length of the front flower beds. At intervals the pipe was punctured and short pipes with sprinkler heads were inserted. Mr Roberts says that he simply laid the pipe along the front flower beds on the top soil without digging it in. Necessarily it was covered by tan bark and by two loads of mulch which were progressively added by the Roberts. Mr Roberts said that the locality is flat and exposed and so mulch tends to be lost when blow away. When I carried out views at the property it was evident that however the pipe was originally laid, by 2007 it was slightly below the level of the natural top soil, some of which had to be dug away to expose it.
- 13 In September 2003, that is, a little over six months after completion of the contract of sale, Mr Roberts says he noticed the beginning of a '*heave*' at the north-east corner of the house, that is, at the frontage of the master bedroom. In the early months of the Roberts occupancy of the house, Mr Robert says they noticed creaking which at that stage he regarded as part of the normal '*settling in*' process. By September however he said that the walls in the master bedroom had lifted a little less than half an inch. He said more foundation movement followed after September. Now according to Mr Roberts and various experts there is a drop from the front door to the centre of the house of approximately 40mm. There is a variety of manifestations of distress, cracks in walls and cornices, parting of cornices from walls, parting of walls from floor and so forth. These cracks are more than hairline. They are not however at an alarming stage, nevertheless they are quite noticeable. Despite the expert findings as to the drop from the front door to the middle of the house, even when alerted to the phenomenon and seeking to detect it, I had no sense of walking '*down hill*' as I moved from the doorway to the centre of the house during the first view. At the end of that view Mr Roberts called my attention to what he said was a misalignment of the guttering and fascia at the frontage of the house which was as far as I could see, evident as he suggested it was.

- 14 In May 2003 the Roberts engaged a concreter who established concrete paths at the back of the building and at the rear of the eastern wall reaching to the laundry. They also had a large area at the rear and to the east of the family room concreted as a patio. According to Mr Roberts this concrete apron was constructed to slope away from the French windows of the family room. A year after its construction, around May 2004, he says a large crack manifested itself running through the area abutting the French doors such that this area of concrete now slopes inwards towards the French doors rather than away from them. Mr Roberts says that additional concreting was done at the step from the French doors covering the exposed slab at that point and providing additional protection in the area below the door. More recently still a pergola structure has been erected so that the patio area and surrounding flower beds are now under cover.
- 15 To the casual observer the locale in which No. 1 is situated is dead flat. Closer observation however shows that No. 3 Riversdale Drive is marginally higher than No. 1. It contains a two storey residence with a relatively wide concreted area running down the boundary with No. 1. The front-most area of this is shaded by a shade cloth covered structure which is pitched to fall towards No. 1. A photograph produced at the hearing shows the 'infill' slab in the garage at No. 1 which immediately abuts No. 3 under construction with the concrete crossover for No. 3 itself under construction. The building at No. 3 and its concrete strip had been built by this stage.
- 16 In addition to the problems described in the master bedroom, the western wall of the garage which is erected between the frontage of the house and the western boundary to No. 3 has settled slightly and rotated slightly outwards at the top. There are associated areas of distress including difficulties in operating the garage door mechanism.
- 17 When the Roberts moved in they found that their above average size family washer would not fit conveniently in the recess provided for the purpose in the laundry. The laundry is on the eastern side of the building close to the rear corner. The recess was wide enough to accept the machine but its front was left projecting a short distance but sufficient to prevent the door to the side yard opening.

PROCEEDINGS

- 18 On 18 March 2004 the Roberts filed what became Application C4781/2005 in the Tribunal's Civil Claims List seeking payment from Jassam of the sum of '\$9,999 – up to'. The Roberts it seems were under the impression that the Tribunal's jurisdiction was limited to the award of sums not exceeding \$10,000. The claim form which was prepared without professional assistance sought 'payment of money' and 'work to be done'. The claim form stated:

Builders at the time accepted blame (it was their mistake) and advised they would fix all the structural problems with the house. Had been chasing both of them for the past two years. They have been to the

house on numerous occasions to assess what needs to be done and promised they will send a tradesperson to fix the damages.

- 19 The matter came before Senior Member Vassie on 18 November 2005. The learned Senior Member gave a number of directions including the joinder of Mr Roberts (the proceeding had been commenced in the name solely of Mrs Roberts) and ordered the exchange of a number of reports. He set the matter down for hearing on 1 February 2006.
- 20 The matter came before Senior Member Professor Cremean on 15 February 2006. He noted that various interlocutory steps ordered by Senior Member Vassie had not been complied with. He further adjourned the hearing of the matter and amended the applicant's claim so that it sought \$27,000. On 15 March 2006 the Tribunal received a letter from Anthony Peterson and Co who are now the solicitors for the Roberts advising that they had commenced to act for them. On 28 March 2006 this firm wrote requesting that the proceeding be removed to this List [the Domestic Building List]. This proposal was consented to by the solicitors for Jassam, Guymer Naidoo. Deputy President Levine however made an order in chambers on 5 April 2006 refusing the transfer. The matter stood listed for hearing on 10 April 2006. Guymer Naidoo wrote on 6 April 2006 expressing surprise at the refusal of transfer and seeking an adjournment of the matter. Member Barker made an order in chambers on 7 April again refusing an adjournment and confirming Deputy President Levine's order. On 10 April 2006 Member Moriatis ordered transfer of the matter to this List subject to the consents of the deputy presidents in charge of the Domestic Building List and the Civil Claims List and gave a range of directions for the hearing of the matter. Following a number of skirmishes relative to a costs order, further directions were given on 31 May 2006 by Senior Member Professor Cremean. On 17 July 2006 an application in the form employed in this List was filed seeking damages in the sum of \$118,440. Eventually on 2 March 2007 solicitors acting for Jassam filed their amended points of defence. The matter came on for hearing before me on 16 April 2007. Following an opening by Mr Fink, Counsel for the Roberts, the afternoon of 16 April was spent conducting a view of the premises. On 17 to 19 April evidence was called by both sides leaving 20 April available for closing addresses. In light of an issue to which I will return later as to the Roberts' watering system raised for the first time in the evidence of Mr Genitsaris, a structural engineer called as a witness by Jassam, I carried out a further view on the morning of 20 April and final submissions were made on the afternoon of that day.

APPLICANTS' CLAIM

- 21 The Roberts' points of claim dated 17 July 2006 allege that they purchased No. 1 Riversdale Drive from Jassam by contract dated 18 February 2003. They alleged that in the circumstances Jassam was taken to have given warranties to the Roberts in accordance with Section 137C of the *Building*

Act 1993 including a warranty by Jassam that 'all domestic building work carried out in relation to the construction ... was carried out in a proper and workmanlike manner'. The claim alleged that the work was not carried out in a proper and workmanlike manner and alleged that the Roberts had suffered loss and damage such that rectification work would require the partial demolition and reconstruction of the house with a constant necessity for alternative accommodation to be arranged for their family. The claim alleged that the cost of the rectification works inclusive of Goods and Services Tax would be \$110,440 and their damage would increase to the \$118,440 claimed in light of the need to arrange alternate rental accommodation, moving costs and furniture storage.

RESPONDENT'S DEFENCE

- 22 The respondent's amended points of defence admitted the sale of No. 1 to the Roberts and did not dispute that the warranty as to good workmanship alleged to arise by reason of the *Building Act 1993* had been given. It denied poor workmanship and said that the defects alleged were '*caused by poor paving/surface drainage and a leaking garden hose which are the responsibility of the applicants*'. They said that the causative matters, namely poor paving and surface drainage and leaking garden hose, should be rectified with the building left to settle for two years '*prior to carrying out cosmetic remedial works*'. The defence also alleged that if contrary to Jassam's denials it was liable for the Roberts loss and damage this was:

An apportionable claim and is subject to Part IV [scil Part IVAA] of the *Wrongs Act 1958* and that Caruso Paving Pty Ltd which had since been de-registered and had carried out concrete paving around the residence was a concurrent wrongdoer hence any claim against Jassam should be proportionately reduced to take account of the share of responsibility owed by Caruso.

THE EXPERTS

- 23 Mr Fink on behalf of the Roberts called evidence from Mr Stephen G. Mayer, a geotechnical engineer. Mr Mayer provided a report dated 14 September 2006. Mr Mayer's investigations included the exposure of the footings of the house in a number of places and the sinking of some five bore holes. Mr Mayer noted amongst other things, that:

Surface-run-off water from the concrete paving on the adjoining property to the west (No. 3 Riverside Drive [sic]) ponded against the west boundary of the masonry garage.

- 24 He also noted a:

localised depression in the ground immediately adjacent to the length of the concrete paving along the south side of the dwelling [which] allowed accumulation of run-off water.

- 25 As to the structural distress at the north-east corner and the north-west corner [the garage] Mr Mayer concluded that the perimeter of the slab '*over the north-east corner of the house (bedroom 1) had heaved*'. He noted levels taken by another consultant:

Indicated the floor surface level in the doorway between the family and rumpus rooms to be approximately 50mm lower than that immediately inside the front door. Levels along the length of the dwelling indicated a relatively uniform slope between the rumpus room and the front entrance.

- 26 He noted that the footings at the north side [that is the front] of the house:

Has heaved approximately 5mm relative to the surrounding concrete paving. ... The heaving of the footing has resulted in distortion of the roof over the verandah.

- 27 He also noted movement in the ceiling of the laundry which he said was '*consistent with heave of the raft slab perimeter edge beam and lifting of the roof trusses relative to the internal walls*'. He said:

The west wall of the garage had rotated outwards and settled causing the articulation joints in the blockwork above the garage doors to open by approximately 10mm.

- 28 He also said that '*the south-east corner of the garage had pulled away from the dwelling*'. According to Mr Mayer fill had been encountered in all six bore holes:

The fill predominately comprised high plasticity silty clay and clayey silt, which generally appeared poorly compacted. The fill contained variable quantities of gravel and rubble including concrete, glass, metal and plastic. The fill in bore hole 2 also contained carbonates.

- 29 Mr Mayer said that he identified the following causes of foundation movement:

1. Run-off water from the concrete paving on the adjoining property to the west (No. 3 Riverside [sic] Drive) ponding against the west boundary wall of the masonry garage accounts for the very high moisture contents recorded in bore hole 6. Seasonal variations in the amount of run-off and evaporation of moisture from the soil profile has caused cyclical wetting and drying of the clay beneath the strip footing. This has caused outward rotation and net settlement of the boundary wall. If the gap between the concrete paving on the adjoining property to the west and the garage boundary wall had have been appropriately sealed and drained at the time of construction the footing movement which has taken place within the garage is unlikely to have occurred.
2. Run-off water from the concrete paving adjacent to the laundry in conjunction with the poor localised drainage or the ground surface immediately adjacent to the paving accounts for the very high moisture contents recorded in bore hole 4 and the

associated heaving of the raft slab in the vicinity of the laundry. If the fill to the east of the dwelling had been properly compacted and the ground surface appropriately graded at the time of construction the heaving of the raft slab in the vicinity of the laundry is unlikely to have occurred.

3. The mounded garden beds located along the north side of the dwelling, [that is the front] including along the verandah, has resulted in localised very poor drainage. The poor surface drainage combined with poorly compacted and permeable fill adjacent to the north side of the dwelling has resulted in relatively unimpeded moisture ingress into the clay binding stratum along the north side of the dwelling. This is demonstrated by the relatively high moisture contents recorded at depths in excess of 1.0m in bore hole 3. The ingress of moisture has resulted in heaving of the north end of bedroom 1 and the post. If the fill to the north of the dwelling had have been properly compacted and the ground surface appropriately graded at the time of construction the heaving of the raft slab in the vicinity of bedroom 1 and the verandah post footing is unlikely to have occurred.

- 30 Mr Mayer said that once a foundation was found to have been inadequate for its site:

It is extremely difficult if not impossible to eliminate all future movements.

- 31 He said that surface drainage should be improved with water run-offs collected and diverted away from the structure. Water should not be allowed to pond against the footings. A minimum 5% grading away from the footings should be maintained. Water services and drains should be maintained to avoid leakages with the house left to stabilize for a period of 12 to 18 months.

- 32 He said that in addition to carrying out cosmetic repairs, the strip footing on the western side of the garage should be underpinned. He observed:

It is essential to prevent moisture ingress down to the base of the underpins. The back fill to the front of the underpins must comprise mean mix concrete or a low permeability proprietary back fill product such as '*liquifill*' by Hanson. The use of site derived clay should not be considered. The compaction of clay within a confined excavation is highly problematic. If the clay is not properly compacted it will allow moisture ingress at the base of the underpins.

- 33 Mr Fink on behalf of the Roberts, also called evidence from Mr Nicholas Tineo of Pat Baygar and Associates, Consulting Structural and Civil Engineers. Mr Tineo considered that the cause of the heave on the front or northern side of the building arose because:

Fill has been placed adjacent to the raft slab edge ribs. The fill is poorly compacted and the ground adjacent to the building does not have adequate grading away from the building. The water appears to

be percolating through the fill and is being absorbed by the clays causing swelling of the clays and heaving of the slab. ... the movement of the garage west wall is consistent with excessive wetting and drying of the soil due to collection of water adjacent to the wall, caused by run-off from the adjoining neighbour's paving. Adequate protection has not been provided to the footing along this wall, the ground adjacent [to] the wall and fence needs to be sealed or an adequate drainage system provided.

34 Mr Tineo recommended the following remedial action:

- Remove the existing backfill adjacent to the rib along the east and west walls and replace with fill that meets the requirements of AS 2870-1996. This fill is to be compacted in accordance with the code requirements.
- Underpin the north-east corner of the building so that all ribs currently founded in the fill will be extended down into the natural clays.
- Ensure that the ground adjacent to the building is graded away from the building or footings in accordance with AS 2870-1996.
- Avoid garden beds adjacent to the building.
- Along the west wall of the garage provide a spoon drain to collect water run-off from the adjoining paving. Ensure that the water from the spoon drain is collected and diverted away. An alternative may be to underpin the whole length of this footing.

35 Mr Fink also called evidence from Mr Branko Mladichek, a domestic builder specialising in remedial work. Mr Mladichek's view was that No. 1 had suffered serious damage which could not be rectified '*to an acceptable standard*'. He said therefore, that a partial demolition and reconstruction was necessary. He provided the costings which formed the basis for the quantification of the Roberts' claim. He added however:

This costing report is nothing more than an educated guess offered in good faith because engineering rectification specification has not been prepared. This report should be revised once full documentation is available.

36 Mr Pumpa, on behalf of Jassam, called evidence from two experts, one a Mr Harrison of Hardrock Geotechnical Services which company it will be recalled provided the initial soil report prior to construction and Mr Genitsaris, a consulting structural engineer.

37 Mr Harrison sank his own bore holes. He concluded that the foundation movement was '*related to the high reactivity (shrink/swell) characteristics of the foundation zoned soils*'. He said that the problems appeared to be associated with excessive moisture levels, continuing:

The cause of excessive moisture levels could not be identified with certainty during the investigation, however:

- excessive garden watering or leaking or disrupted service pipes may be implicated in the movement around the front of the residence, this may be exacerbated by;
- the high permeability of filling about the edge beams.

38 He suggested further investigations be made relative to leaking down pipes, water services and so forth. He said:

It is unclear whether slab panels were suspended internally where necessary (ie where FINAL fill depths exceeded the limit specified in clause 6.4.2 AS 2870-1996), or whether the design meets Australian Standards.

39 Two bore holes which Mr Harrison had sunk in the vicinity of the north-east corner in his report designated as bore holes 4 and 5 appeared, he said, to be lined with timber:

The timber was formed vertically against the side of the edge beam, and appears to extend to its base.

It is unclear why this formwork was necessary however, filling has been placed to 'level' the site prior to construction, noting a batter fronted on to Thames Boulevard ... Founding depths may have deepened to penetrate filling.

The nature of the timber or formwork needs to be confirmed.

It should be noted that normally, deepening of the trenches is conducted using an excavator or similar and bulk concrete ('blinding') used to backfill the trenches. The foundation is then formed on the blinding concrete as necessary, and no formwork is usually necessary. This is good building practice, as the concrete can form a reasonable bond with the surrounding soil and limit the movement of excessive moisture close to the foundation.

For timber formwork to be used, the trenches may have been over excavated, formwork placed concrete poured and then backfilling placed in the void behind the formwork.

The presence of filling and presence of timber adjacent to the foundation will compromise good site drainage practices specified in AS2870-1996, with particular reference to Section 5.2.1 (c) and (e) and AS2870 Supp1-1996 C5.2.1, noting Figure C5.1.

40 In viva voce evidence Mr Harrison explained that the clay subsoil on this site would provide an impervious layer, however filling which is not properly compacted or the use of formwork which might leave voids would facilitate the passage of water to the clay subsoil leading to its swelling and to 'heaving' of the clay sub-soil.

41 Mr Genitsaris was engaged by Jassam to provide a report as consulting engineer. He attended No. 1 with his assistant Mr Talevski and had carried out an extensive investigation. At the end of his visit when he was preparing to leave the site Mr Roberts called him to inspect one more issue. This entailed excavation at the front of the house outside the master

bedroom where Mr Roberts showed an 'overhang' of hebeled bricks over the edge of the floor slab. Mr Genitsaris at that stage said that he had not found any definitive cause for the distress in the property. He noticed what he described as a 'slit' in the PVC pipe providing the watering system along the front of the house. Mr Roberts turned on the tap, he said, a couple of revolutions and water spurted out of the slit, according to Mr Genitsaris reaching 'head high'. Mr Genitsaris said he was 172cm tall. Mr Talevski, his assistant on site at that time who was present at these events, separately gave evidence that the water emerging from the slit reached between half a metre and one metre high, that is 50cm to 100cm. He suggested at one stage 70cm. Mr Genitsaris concluded that this leak in the pipe was the cause of the problem in the north-eastern corner. This was not he said the responsibility of the builder, rather the defective watering system was the responsibility of the Roberts. The proper action to take was to ensure that no further water emanated from the leak, leave the building to stabilise for 18 months to two years and then complete cosmetic repairs. Mr Genitsaris did not disagree with the attribution of the problems on the western wall of the garage to the ingress of the water from No. 3. His view was however, that this was the responsibility of the occupier of No. 3 not of Jassam as builder of the house at No. 1.

CONCLUSION

Laundry

42 The warranty relied upon by the Roberts is as to good workmanship. In *Minchillo v Ford* [1995] 2 VR 594 the plaintiff sought damages for breach of a statutory and contractual warranty covering, inter alia, faults in workmanship. Ormiston J (as he then was) with whom Fullagar and Brooking JJ concurred on this point said:

'Workmanship' itself must refer to that which occurs during the manufacturing process because it describes the nature of the work leading to the production of the part about which complaint is made ... the end result is that I agree that any defect which arises from faulty design of the prime mover or any vehicle covered by the Ford vehicle warranty is not intended to be covered by that warranty.

[1995] 2 VR 594, 612, 613

43 Here, the problem, if there be a problem, is that the house was designed leaving insufficient room for the washing machine to fit and the door to open. The warranty as to workmanship to adapt the situation to a house, rather than a truck prime mover as in *Minchillo's* case relates to what goes on during construction not what goes on during design. The claim with respect to the laundry recess fails.

44 In the course of the view Mr Roberts said that he had declined to allow the final paint to be added to the door leading from the laundry to the outside. This was because he said that the door which had been employed was

proper only for internal use and was not properly used in an external doorway. This matter was not gone into otherwise in the course of the hearing. There was no evidence which would enable me to make a finding as to the appropriateness of the door and no evidence as to what damages, if any, might be awarded if such a finding were made. If this claim is to be regarded as having been pressed, it fails for lack of evidence.

Causation of Foundation Movement North-East Corner

- 45 If I accept Mr Genitsaris' theory as advanced on behalf of Jassam that the edge heave, which has admittedly occurred in the north-east corner of this house around the master bedroom, is caused by a leaking watering system, the claim on this score must necessarily fail. Mr Genitsaris gave his evidence late in the hearing. He was the last witness. He was present at the view which I conducted on Monday 16th. By the time he gave his evidence on 19 April he had concluded, after reflection and after having viewed a colour photograph which he took on his initial inspection, that the break in the black PVC pipe which was displayed to me on 16 April was not the one which he and his assistant Mr Talevski had viewed at the time of their earlier inspection. At the view Mr Roberts who had been sworn in as a witness, said that since the watering system was a '*low pressure*' one, he only turned it on approximately a quarter of a turn and left it on only for 10 minutes twice a week. The water flow out of the PVC pipe which I saw bore no resemblance to the head high spurt described by Mr Genitsaris. It was presumably because of this disconformity that Mr Genitsaris set to considering matters to find an explanation. Mr Fink cross-examined Mr Genitsaris at some length and Mr Genitsaris was voluble in his replies. Unsurprisingly the matter remained unresolved when Mr Genitsaris completed his evidence. Reflecting on this question over the adjournment on Thursday evening, I considered the most expeditious way of clarifying matters was to have a further view with the intention of exposing the pipe over a sufficient length that if an additional break as described or suggested by Mr Genitsaris had existed, it would be exposed to view. Returning for that further view at midday on 20 April only Counsel and Mr Roberts were in attendance, Mr Agius and Mr Genitsaris were not present. No additional '*slit*' appeared to exist. It was not suggested to Mr Roberts that he had substituted a different pipe from the one which had been there when Mr Genitsaris carried out his original inspection. If it mattered, the pipe that I viewed appeared to have been buried for a considerable period of time. It follows that at least part of Mr Genitsaris' analysis based upon the existence of a further slit or hole must be rejected.
- 46 Mr Roberts' evidence was that he caused the nick or hole as he excavated the area with a spade on the day that Mr Genitsaris inspected. If that were accepted then the heave had taken place before the nick even existed and it could have no connection with the problems of movement in the foundation. Mr Roberts' evidence on this point was somewhat unconvincing. At one stage he suggested that the nick or slit was inflicted

in January 2006, at another time he suggested it was made in April. It was clear that he was not purporting to describe an actual recollection of having damaged the pipe. His evidence really was, the pipe was intact when I laid it, it has a hole in it now, I must have done it while exposing the pipe for inspection. Mr Genitsaris suggested that the hole in the pipe might have been made during storage, installation or transport of the pipe prior to installation. Some of his evidence was a little contradictory on this point. He expressed some scepticism that the nick or slit could have been made with a spade stressing the toughness of the PVC pipe. On the other hand this very toughness would tend to discount other suggestions which he made such as damage to the pipe whilst it was being carried in a car boot from point of sale to site.

- 47 I suspect that Mr Genitsaris witnessed a much more impressive spout of water than the one which I saw on 16 April 2007. I think it likely that far more pressure was used by the Roberts in using this watering system than they are now prepared to admit. This would have produced a much more significant discharge of water. There must be a substantial likelihood that the nick or slit was caused in the manner described by Mr Roberts and around the time that he suggests, namely during an excavation after the heave had taken place. Even if that view of things is not accepted and even allowing for the fact that the watering system was probably operated for a longer period perhaps more frequently and most likely at a higher pressure than Mr Roberts now admits, I do not accept that this leak could have been causative of the edge heave. First, even making the allowances that I have described above, the discharge would have been of short duration and intermittent. It is quite different from a perpetually leaking water pipe or stormwater drain. Moreover, there are a substantial number of sprinkler heads ejecting water at the surface from this pipe. The fact that there are so many other outlets from the pipe, in itself, would tend to limit the discharge which might come from the slit or nick.
- 48 Mr Pumpa submitted that no finding should be made that any fault in workmanship had caused the edge heave. He drew attention to the findings made by Mr Harrison of Hardrock Geotechnical Pty Ltd that bore hole 4 which is at the western end of the master bedroom was much wetter than bore hole 5 which is at the eastern side of the master bedroom. Mr Pumpa submitted in the circumstances that this demonstrates a localised cause for the heave, localised to the point of the '*nick or slit*' in the PVC pipe. For the reasons which I have already given I am unable to accept that the nick or slit is the explanation. It may have happened as Mr Roberts believes in a relatively recent past, after the heave occurred. Even if it did not, I do not believe that it would be sufficient in itself to create the heave. The distinction between the two bore holes might lie in the precise materials which the bore logs reveal to have been intercepted, for instance Mr Harrison noted:

Samples obtained from bore hole 5 below 1.5m depth may have been affected by calcrete banding and gravel, and thus exhibit a lower moisture content than the overlying soil (soil moistures are influenced by numerology and grain size).

- 49 Moreover the findings are that in the location of the master bedroom generally there is a variety of fill materials to be found as well as timber formwork. The precise layout of these materials and the orientation of particular objects such as formwork or items of rubble may have a crucial effect upon the drainage of the soil in that vicinity and the volume of water which has reached the point at which the slab founds itself on the clay sub-soil. Mr Mayer made a finding of dampness and some heave in the vicinity of the laundry. There has been no explanation tendered as to why a higher level of moisture should have been found there, which once again suggests that a failure to remove uncompacted fill from the vicinity of the edge of the slab may be the explanation. Mr Pumpa observed that the test bore hole near the laundry was somewhat further from the edge of the slab, the location of the hole being dictated by the existence of the concrete path constructed at that point. This is a somewhat speculative explanation I think.
- 50 There was no suggestion in Mr Agius' evidence that blinding was used to backfill the excavation for the slab. The findings made by Mr Harrison indicate that formwork rather than blinding was used. This carries with it essential risks. There seemed to have been particular pieces of poor workmanship associated with the area near the master bedroom. The explanation for this seems to lie in the fact that the design here was changed at a fairly late stage so as to increase the footprint of the house at this point by converting what was to be a bay window into a full room's width. Once again the presence of foreign fill material suggests that corners were cut in this process. Clause 6.4 of AS 2870-1996 deals with the use of filling in association with the construction of slabs, it stipulates that either controlled fill or rolled fill should be employed where necessary. The findings made by Mr Harrison indicate that fill other than of this type was used. Again Mr Agius did not suggest that either controlled fill or rolled fill was used. Exclusion of the '*slit*' explanation necessarily incriminates the poor workmanship associated with the use of this uncompacted filling as the cause of the edge heave.
- 51 There seemed little debate as to the cause of the settling and rotation of the western wall. Mr Pumpa raised queries as to the relative timing of the construction of No. 1 and No. 3. The photograph produced suggests that the two structures may have been built around the same time. On the highly reactive clay sub-soil on which this property was built it seems to me that proper workmanship would require that appropriate protection be given to the western edge of the garage structure. It appears that No. 3 is slightly more elevated than No. 1, even if there were no structure on No. 3 at all. Proper workmanship would dictate that protection be provided against the

likelihood or near certainty that a house would shortly be built on the adjoining house allotment, the paved surfaces of which would necessarily have a tendency to create surface flows across the western boundary onto No. 1. The photographic evidence shows it is more likely that No. 3 was in the course of construction whilst No. 1 was. The danger would have been obvious enough and certainly it was an issue that was clear before construction of No. 1 was complete. The photograph shows No. 1 under construction and the offending brick pavement at No. 3 already in existence.

- 52 The fact that potentially relief could be obtained under the *Water Act* 1989 based upon an assertion under Section 16 of that Act that an unreasonable flow of water was occurring from No. 3 onto No. 1 does not affect my conclusion. In all fields of endeavour there are both primary and secondary safety and protective measures. Secondary measures such as seatbelts in motorcars provide against the possibility that for one reason or another the primary protective systems or regimes have not functioned or succeeded. In my view good workmanship and building practice would require someone constructing a house such as No. 1 to provide against the possibility that proper drainage interception measures were not or would not be taken by the occupier of No. 3.
- 53 I reject the suggestion that the concreting company should be regarded as a concurrent wrongdoer. It could not be suggested that the problems at the north-east corner of No. 1 are in any way attributable to what was done on the far side of that building and the patio area, indeed Mr Pumpa did not suggest any such thing. He contended that a failure to grade the concrete surface of the patio away from the structure and the area of the garage contributed to the problems in the garage. I cannot exclude the possibility that there may be some connection, though this is not something that Mr Genitsaris mentioned in his report. Overwhelmingly however I believe that the problems of water from the west explain the problems in the garage area.

Damages

- 54 The question of damages is the most perplexing one in a somewhat perplexing proceeding. I have already referred to the costings made by Mr Mladichek and the wide ranging disclaimer which he made. Neither Mr Mayer nor Mr Tineo suggested that this structure needed to be demolished and reconstructed. Mr Mayer for instance, explained his not making this suggestion on the basis that in the case of such foundation damage it was a matter simply not contemplated. The price for the present land and building package was \$273,700. Demolition and reconstruction as suggested by Mr Mladichek would entail an outlay approaching half that entire price. When one considers that the value of the land on which the building is erected must have a substantial value the relationship between

the suggested expenditure and the original cost of the building to be restored becomes even more striking.

- 55 The cost of demolition and reconstruction may be an appropriate measure of damages for defective building work but as the famous joint judgment in *Bellgrove v Eldridge* (1954) 90 CLR 613, 618 states such damages are awarded where the demolition and reconstruction work is:

Not only ... necessary to produce conformity, but ... also, it must be a reasonable course to adopt.

- 56 Mr Mayer, an expert called by the applicant, said that normally he did not contemplate demolition and reconstruction in these circumstances because '*normally nobody entertained it*'. This is powerful expert evidence leading to the conclusion that partial demolition and reconstruction would not be a reasonable course to adopt in these circumstances. Mr Tineo did not, as I understood his evidence, recommend demolition and reconstruction. The present problems are worrying for the Roberts. Once they have become aware of them they are no doubt a constant irritant and constantly visible. Nevertheless, their house remains eminently liveable unlike the structures which feature in some of the '*horror stories*' which we hear in this List. Whilst I myself was on the lookout for the '*dishing effect*' from the front door to the middle of house even being aware and looking for it, I did not perceive it. I do not believe that demolition and reconstruction is reasonably necessary in accordance with the formulation in *Bellgrove v Eldridge*.

- 57 The applicant's experts other than Mr Mladichek gave their recommendations but furnished no costings. After the cases of both parties had closed and final addresses were to commence Mr Fink produced a quotation for the cost of a new process to rectify the problems with the foundation slab. This attempted tender elicited vigorous opposition from Mr Pumpa. Given the gap in the applicant's evidence on the point of costing I was reluctant to reject the tender, however I felt in all the circumstances that it could not be in conformity with the rules of natural justice to allow this material in at so late a stage and I rejected it. Once I reject the Mladachek costings there are no costings at all to be relied upon on behalf of the applicant.

- 58 In supplementary reports however Mr Genitsaris produced costings for what have been described as the cosmetic restoration works which should be carried out once the house has stabilised, after say 18 months or two years. He costed these amounts at \$19,000. Those costings were vigorously challenged as being too low by Mr Fink, however he did not descend to any detailed consideration of the particular items. In a further supplementary report Mr Genitsaris costed the rectification works advocated by Mr Tineo and Mr Mayer at some \$12,900 inclusive of Goods and Services Tax. This would leave a total figure of \$14,800. In the absence of the further material or detailed cross-examination it is difficult

for me to apply any very critical approach to the costings made by Mr Genitsaris, nevertheless I felt that Mr Genitsaris was a relatively partisan witness (I do not suggest that he was in any way seeking to be other than truthful and to give proper expert evidence). He had I think a fairly clear commitment to the respondent's cause in the proceeding. That being the case I believe it is reasonable for me to conclude that his costings would be on the lower rather than the higher side and would be unlikely to allow for the sort of contingencies which inevitably arise in rectification work. That being the case I believe I should add an additional sum to make provision for those matters, hence assessing the costs of the rectification work advocated by Messrs Tineo and Mayer and the cosmetic repair works at \$19,800.

59 In my view that is a proper sum to award for damages in the circumstances.

COSTS

60 I have heard no submissions on costs and so I will reserve that question.

MF:RB