Neutral Citation Number: [2014] EWHC 3968 (TCC)

Case No: HT-13-157

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
TECHNOLOGY AND CONSTRUCTION COURT

Royal Courts of Justice
Rolls Buildings, 7 Rolls Buildings
London EC4A 1NL

Date: 28 November 2014

Before :

MR. JUSTICE EDWARDS-STUART

- -

Between:

Rendlesham Estates Plc & Others **Claimants**
- and -
Barr Limited **Defendant**

- -
- -

Alexander Nissen Esq, QC & Jonathan Selby Esq
(instructed by **Walker Morris LLP**) for the **Claimants**
Lord Marks QC, Daniel Crowley Esq & Martin Hirst Esq
(instructed by **DWF LLP**) for the **Defendants**
Ms. Fiona Sinclair QC & Miss Katie Powell
(instructed by **Bond Dickinson LLP**) for the **Solicitor Defendants**

Hearing dates: 13th - 16th January 2014; 22nd - 24thJanuary 2014; 27th - 30th January 2014;
3rd - 7th February 2014; 3rd & 4th March 2014.
Further written submissions: 28th March 2014;

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Judgment

Mr. Justice Edwards-Stuart:

Introduction

1. This is a claim by the owners of 120 apartments in two apartment blocks in Concord Street, Leeds. The Claimants sue the Defendant ("Barr") who built the development. The two blocks were built between 2003 and 2006, as part of one development whose stated object was to provide high quality apartments for young professionals. Many of the apartments were sold off-plan. There are 171 apartments all told, but for various reasons only 120 of them now remain the subject of this litigation.

2. Unfortunately, the tenders that were initially obtained by the developers, City Wall Limited ("CWC"), came in at significantly more than CWC's budget.

CWC was substantially reliant on the Royal Bank of Scotland for financial support and had limited resources of its own.

3. Barr, a construction company based in Scotland, had decided to enter the market for the construction of residential property in England and indicated that it would be prepared to build the development for a price that was within CWC's budget. However, it made it clear that this would involve making significant reductions to the quality of the finishes. Also Barr proposed to use a steel frame instead of the concrete frame on which previous designs had been based.

4. CWC accepted Barr's tender. Barr insisted on having a fairly free hand to make the necessary changes to the specification, some of which had to be negotiated with the planning department of the City Council.

5. The project did not go smoothly. Barr had problems with many of its subcontractors, some of whom were replaced more than once. Practical completion of the South block was achieved in July 2005 and of the North block in January 2006.

6. When the purchasers moved into their apartments they were very taken aback by what they found. Even one of Barr's own witnesses described the buildings as looking like council blocks from the 1960s. There were problems from the outset. Quite apart from the poor quality of the finishes to the common parts, many of the residents found when, or soon after, they moved in that the intercom system did not work properly and that the covered walkways would flood in heavy rain.

7. Within two or three years numerous additional problems had begun to manifest themselves. There were leaks above the walkway on the fifth floors, leaks from the penthouse balconies into the flats below, leaks into the voids above the walkway soffits, the appearance of mould and condensation in a number of apartments and in the common parts and, in a great many apartments, there were leaks and excessive mould in the shower cubicles.

8. In the meantime, there were disputes over Barr's final account and allegations of defects by CWC. Subsequently there was an adjudication in July 2007 which resulted in a decision in CWC's favour, but it seems that CWC spent little, if any, of the sums recovered from Barr in rectifying defects. Not long afterwards, in February 2008, CWC went into administration. By this time over 10% of the apartments were still unsold, so there was a consequent shortfall in the contributions to the management charge and there was no satisfactory management structure in place.

9. The owners were in a quandary. CWC was in administration and, in any event, it seems that the owners would have faced serious contractual difficulties in suing CWC for misrepresentation in relation to the quality of the finishes or the defects. The owners, of course, had no contract with Barr.

10. The result is that the Claimants have had to bring this action against Barr under the Defective Premises Act 1972 ("the Act"), alleging that their

apartments were not fit for habitation when completed. Not all the owners are claimants and, indeed, some owners who joined in the proceedings initially have withdrawn their claims. This appears to have been the result, in part at least, of the terms of a settlement reached between Barr, CWC's administrators and the Royal Bank of Scotland. I will have to say a little more about this settlement later on in this judgment.

The structure of the judgment

11. This judgment consists of a main section, together with fifteen appendices, each of which is concerned with a particular type of defect or a specific topic.

12. The main judgment, which deals with the major issues of principle, is divided into the following sections:

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13. The appendices are as follows:

A	Evidence of the owners and occupiers called as witnesses
B	Balcony doors
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E	External walls
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K	Walkways
L	Internal partitions, doors, etc
M	Shower trays
N	Results of opening up
O	Thermal imaging
P	Heads of claim where a breach of duty is not established

14. The evidence of the owners and occupiers who were called as witnesses is summarised at Appendix A. The evidence of other witnesses is summarised in the main judgment.

These proceedings

15. The Claimants are effectively seeking to have the external envelope of the building substantially rebuilt, together with the rectification of certain defects within the apartments. The claim is for some £14 million.

16. Initially Barr denied liability for almost everything, but it has now conceded liability for a few of the defects whilst disputing the appropriate measure of damages.

17. A difficulty is presented by the fact that only 120 out of the 171 apartments are owned by the Claimants in the action. One point taken by Barr in its defence is that each owner is only entitled to recover his or her contribution to the maintenance charge in respect of the cost of any repairs, and then only if the relevant defect has made that owner's apartment unfit for habitation. For example, Barr contends that only the owners of apartments on the top floors are in a position to make a claim about defects in the roof because, whatever the state of the roof, it will not make apartments at lower levels unfit for habitation. Yet Barr also contends that the claims of the owners of the affected apartments on the top floors are limited to their proportion of the part

of the service charge attributable to the cost of repair of the roof. If this argument is correct, there will always be a substantial shortfall in any recovery.

18. There are also serious issues about what constitutes a "dwelling" for the purposes of the Act and how, and by what criteria, fitness for habitation is to be determined.

19. There has been a direction that this hearing would determine the issues relating to what were described as "purely internal defects" by reference to eight lead apartments, together with issues relating to the common parts. The parties have selected four lead apartments each and the evidence in relation to the internal defects in the apartments has, in accordance with the direction, been largely confined to defects in the lead apartments. In addition, three witnesses (known as "additional B2 witnesses") gave evidence about the condition of the apartments which they owned or occupied. In relation to the common parts, there has been no limitation on the evidence which can be called, save that there was a direction limiting the number of B2 witnesses. Accordingly, where defects in the common parts, such as the external walls, have resulted in damp or mould within non-lead apartments, it is open to the court on this hearing to make findings in relation to those apartments.

20. However, having heard the evidence of the experts and considered the numerous reports and schedules, I do not consider that it is possible to make a finding about the fitness for habitation of non-lead apartments (at least, so far as the effect of the presence of mould and damp is concerned - I regard the position in relation to the malfunctioning intercom as slightly different) without also considering the evidence of the owner or occupier. Even if it were open to me to do so, I do not consider that it would be appropriate to embark on this as a paper exercise and without having submissions from the parties in relation to each apartment.

21. Over 20 witnesses were called on behalf of the claimants, together with three experts. Barr called four witnesses and two experts. In addition, evidence was submitted in writing from expert quantity surveyors on each side. The trial bundle consists of over 70 ring binders containing hard copy documents, together with about 150 electronic bundles consisting of further individual apartment Scott Schedules, schedules, invoices and so on. The parties' closing submissions ran to about 700 pages.

22. The Claimants were represented by Mr Alexander Nissen QC and Mr Jonathan Selby, instructed by Walker Morris. Barr was represented by Lord Marks QC, Mr Daniel Crowley and Mr Martin Hirst, instructed by DWF. The Defendants to the Solicitors' action ("the Solicitor Defendants"), which is a claim by the Claimants against their former solicitors, were represented by Ms. Fiona Sinclair QC and Miss Katie Powell. They were given permission to participate in this action, but by one set of legal representatives only.

The principal areas of dispute

23. The Claimants allege that many of the apartments have the following internal defects:

    i) leaks from poorly installed shower units;

    ii) inadequate insulation of the walls (on both balcony and walkway elevations) resulting in cold spots and the formation of mould on the internal walls and ceilings;

    iii) inadequate support for the partition walls, resulting in the deformation of door frames and inability to close doors;

    iv) non-functioning intercom for remote access to the main door;

    v) poorly installed balcony doors with gaps below the frame;

    vi) gaps below the party walls between apartments.

24. In relation to the common parts, the Claimants make the following complaints:

    i) the external boarding and render has been badly installed and is likely to fail prematurely;

    ii) cold bridging of the balcony supports and poor detailing around them;

    iii) defective drainage to the walkways;

    iv) leaks from the roof between the main roof and the glazing above the fifth floor walkways;

    v) poor insulation and lack of properly installed vapour control layer in the roof;

    vi) poor detailing and construction of the balconies to the fifth floor apartments;

    vii) inadequate or incomplete insulation to the external walls;

    viii) leaks through the external glazing to the walkway elevations;

    ix) dampness and ponding in the basement car park (this applies particularly to the car park of the North block);

    x) mould formation on the walls of the common parts at lower levels;

    xi) unsafe fire escape staircases;

    xii) unsafe Mansafe system on the roof.

25. The Claimants say that they are entitled to maintain this action in a representative capacity on behalf of those other owners who are not parties.

Barr denies this and, as I have mentioned, asserts that, in relation to defects to the common parts, each claimant can only recover a sum representing its share of the liability under the service charge.

26. The Claimants' primary case is that the two blocks constitute a single "dwelling" within the meaning of the Act; alternatively, that each block constitutes a single dwelling. Barr contends that the extent of each dwelling is limited to the premises the subject of the demise under each lease.

27. In addition, Barr asserts that in order to carry out the remedial works that the Claimants say is necessary, all the apartments will have to be vacated for several months. However, Barr says that this will not be possible because the Claimants cannot compel the occupiers of those apartments owned by people who are not claimants to vacate their apartments while the work is carried out. Since, not being party to the action, those owners will have no entitlement to displacement costs, they are unlikely to be willing to cooperate with this scheme.

28. Since the outcome of these proceedings will turn to a large extent on the proper construction of section 1 of the Act, it is appropriate to turn to that issue first.

The construction of section 1 the Defective Premises Act 1972

29. Section 1 of the Defective Premises Act 1972 ("the Act") provides as follows:

> "A person taking on work for or in connection with the provision of a dwelling (whether the dwelling is provided by the erection or by the conversion or enlargement of a building) owes a duty-
>
> (a) if the dwelling is provided to the order of any person, to that person; and
>
> (b) without prejudice to paragraph (a) above, to every person who acquires an interest (whether legal or equitable) in the dwelling;
>
> to see that the work which he takes on is done in a workmanlike or, as the case may be, professional manner, with proper materials and so that as regards that work the dwelling will be fit for habitation when completed."

30. The course of the argument in this case has revealed three issues of construction in relation to section 1. The first is whether the relevant "dwelling" for the purposes of the Act is the individual apartment demised to the leaseholder, which may arguably include the balcony of which he enjoys exclusive possession (but which does not form part of the demised property), or whether it is the entire building (or even both buildings) in which the apartment is situated. The positions of the parties are diametrically opposed.

31. The second is what is meant by the words "… in connection with the provision of a dwelling" in section 1.

32. The third is what is meant by fitness for habitation. On this issue there is not, I think, much difference of principle between the parties but there are significant differences of application.

The meaning of "dwelling"

33. There is clear authority for the proposition that "dwelling" is not a term of art and regard must be had to the object of the legislation from which the word appears: see *Uratemp Ventures v Collins* [2002] 1 AC 301, at 305 (per Lord Irvine), at 306 (per Lord Bingham) and at 307 (per Lord Steyn).

34. Mr. Nissen relied heavily on the Law Commission report "*Civil Liability of Vendors and Lessors for Defective Premises*" (Law. Com. No. 40) and the distinction drawn by the authors of the report between dwellings, on the one hand, and commercial or industrial premises, on the other. As to this, Mr. Nissen effectively submitted that a particular building must therefore be one or the other and so, if a building is not built for commercial or industrial units it must be a dwelling - all of it.

35. There is a line of cases dealing with shared accommodation, where a person has exclusive use of some living rooms but shares others, such as a kitchen. In the landlord and tenant cases the courts have held that there is no separate dwelling where a person shares living space with others, whereas a right to use communal facilities, such as a WC or bathroom, does not prevent the part of the building of which the tenant had exclusive use being a dwelling. In *Uratemp* it was not suggested that the dwelling occupied by the tenant, which was a single room, extended to the WC or bathroom which he shared with others. The reasoning was that a WC or a bathroom is a room which one visits for a particular purpose, and would not fairly be described as a living room: see Lord Millett, at [45]-[47]. By contrast, I would regard a broom cupboard or internally accessed cellar in a house occupied by one family as part of that family's dwelling even though no one actually uses either space for living.

36. This line of authority does not support Mr. Nissen's argument based on the Law Commission's report. I readily accept that authorities such as these must be treated with caution when one is considering different legislation with a completely different objective, but in my view they point against the suggestion that parts of the building to which there is shared access can be described as living space, in the ordinary sense of the term, and therefore form part of a dwelling. In the context of the present case I do not derive any assistance from the Law Commission's distinction between residential buildings on the one hand and commercial and industrial buildings on the other. I can find nothing in the report to suggest that it gave any separate consideration to buildings such as residential blocks of flats.

37. The Claimants relied on a decision of HHJ Toulmin CMG QC in *Catlin Estates v Carter Jonas* [2005] EWHC 2315 (TCC), which concerned a shooting lodge. It was alleged that the lodge was not a dwelling. The judge concluded, at [296], that:

> "... a dwelling house is a building used or capable of being used as a dwelling house, not being a building which is used predominantly for commercial and industrial purposes. I have concluded that the claim that the building would have been used as a conference centre was misconceived not least because the covenant imposed by the vendors, Northumbrian Water, was designed to ensure that the building was not used predominantly for commercial purposes."

38. It seems to me that this decision goes to the use to which the building is put, rather than to the question whether a different building, or a different part of the same building, can be regarded as a dwelling house when only one of the buildings, or a certain part only of the same building, is used for the purposes of living.

39. I was also referred to *Andrews v Schooling* [1991] 1 WLR 783, a decision of the Court of Appeal in a claim under the Act in respect of dampness in a flat that made it unfit for habitation. The defendant had arranged for the conversion of the building into flats but had carried out no work to the cellar. The flat suffered from penetrating dampness emanating from the cellar, which formed part of the flat. The decision is authority for the proposition that liability under the Act can arise out of a failure to do something as well as doing something badly. I do not find the case to be of much assistance in the context of this claim. It was not a case where a claimant was complaining that because her cellar was damp the flat, being otherwise free of damp, was thereby rendered unfit for habitation.

40. I can see no reason why some buildings can be neither one nor the other. For example, suppose a detached house is built on a spacious plot of land and the buildings include a detached stable block and garage. In the context of the Act I would say that the stable block is not a dwelling. I am less certain about the garage, which in a broad sense might be said to be occupied by the owners of the house. It may well be that they are buildings that are constructed "in connection with" the provision of a dwelling, namely the house, but that is a separate point. If the garage roof leaks so that rust-contaminated water drips onto the paintwork of the car parked within, does that mean that the "dwelling" is not fit for habitation? I do not regard the answer as obvious.

41. It seems to me to be stretching the language of the statute to treat the stable block as a dwelling, and probably the garage also, if only for the simple reason that neither provides living space for humans, nor is it an integral part of the structure that does indisputably constitute the dwelling. The leak through the garage roof does not affect the health or comfort of the occupiers of the house.

42. I have no difficulty with the concept that where a house has a built-in garage the whole building can properly be regarded as a dwelling: indeed, that was the position in *Bole v Huntsbuild* (see below). This tells us that the answer is not to be found by asking; does anyone live in the garage? Clearly, they do not. A more relevant question might be: does the space said to be the dwelling (or part of a dwelling) form part of a single unit with those parts of the premises that are lived in? However, as the cases show, this single unit test does not necessarily provide the answer in the case of, say, a house or flat

shared by more than one household. Exclusive possession of a particular space for the purpose of living seems to be a better indicator of what constitutes a dwelling.

43. With these considerations in mind, it seems to me that Mr. Nissen's argument that the entire building is a dwelling faces insuperable difficulties. If a dwelling is the place where a person or household lives to the exclusion of members of another household, as it seems to me that it must be[1], then I have difficulty in seeing how the occupiers of, say, Apartment 1 can possibly be described as occupying or even sharing the living space that is Apartment 2. Apartments 1 and 2 must on any view be regarded as separate dwellings. In these circumstances I reject the suggestion that the two blocks, or even one of them, can constitute a dwelling within the meaning of the Act. In reality each block is a building that contains a number of separate dwellings.

44. Turning to the facts of this case, I cannot see how the walkways or the basement car park can form part of the dwelling occupied by any particular claimant. The fact that an occupier of an apartment on the first floor has the right to use the walkway on the fifth floor cannot in my view mean that the walkway is part of her living space. It is space that she shares with others, which none of them actually uses as living space.

45. In relation to the basement car park the question can be tested in this way. Suppose that a person exchanges contracts for the purchase of an apartment which, on that date, is in all respects fit for habitation. He then decides to purchase a car parking space in the basement car park. Contracts for the purchase of both the apartment and the car parking space are completed at the same time. However, the car park is quite unfit for parking cars. Does this mean that as at the completion date the apartment has become unfit for habitation? In my view this is a proposition that has only to be stated in order to be rejected.

46. In my judgment, the dwelling for the purposes of section 1 of the Act is the individual apartment as described in the lease together with, possibly, those parts of the building to which the occupiers of a particular apartment have in practice exclusive access for living - such as their balcony. I therefore reject the submission that the common parts form part of any dwelling, still less the whole block. However, for the reasons which I give in the next section of this judgment, I consider that Barr does owe the Claimants a duty under section 1 in relation to the common parts of the two blocks.

The meaning of "… in connection with the provision of a dwelling"

47. It is to my mind self evident that an apartment block such as those at Concord Street cannot be built without foundations, a roof, a structural frame or without suitable access to the various properties in it. Accordingly, it must follow that

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1 For the purposes of this discussion, I am leaving out of consideration buildings such as schools or hostels which may have dormitory accommodation.

the structural and common parts of each block represent work that is carried out in connection with the provision of each apartment in the block.

48. More difficult is the question of whether it can be said that the design and construction of the structural and common parts of, say, the North block is work that is taken on in connection with the provision of a dwelling in the South block. In one sense the work is clearly connected because the two blocks were designed and built by one contractor pursuant to one contract and to similar specifications using the same materials. Further, it is clear from CWC's promotional material that the two blocks, with the balcony elevations built facing each other on either side of Concord Street, were intended to create a single attractive environment for each apartment.

49. On the facts of this particular case there is a further connection. By the terms of the leases under which the apartments were purchased the management company is responsible for the maintenance and repair of the common parts of both blocks. Further, each leaseholder is required to pay his or her proportion of the service charge in respect of the maintenance and repair of both blocks. So the leaseholder of an apartment in the South block has a very clear interest in the quality of construction of the common parts in the North block, and *vice versa*.

50. There is no evidence as to whether Barr knew of the terms on which the long leases would be granted, but it is its submission that the arrangements were typical for developments of this sort. In these circumstances it does not seem to me that it would be unreasonable to extend the scope of the duty to the structural and common parts of both blocks.

51. In the ordinary course of events I would have thought that a structure would have to be either physically or functionally connected with the relevant dwelling before it could be said that it had been constructed "in connection with" the provision of that dwelling. For example, the construction of a separate structure, comprising, say, an electrical substation or an effluent treatment plant, serving apartments in a building would in my view amount to work done in connection with the provision of an apartment in that building. If on completion of the development such an effluent treatment plant did not work properly with the result that no-one in the building could flush a lavatory, that in my view would make the individual dwellings in the building unfit for habitation, at least if that state of affairs persisted for any length of time.

52. In a rather different context, that of the arbitration clauses, the words "… in connection with" have been described as "words of the widest import" (see, for example, *Ashville Investments Ltd v Elmer* [1989] QB 488, per Balcombe LJ).

53. In my opinion, the application of the section to any particular piece of work is very fact specific. If the work for the provision of the dwelling in question is part of a larger development carried out by the same contractor under the same contract to the same specification, then it is certainly arguable that all the work

done in the course of the development is done in connection with the provision of the relevant dwelling.

54. On the facts of this case it seems to me to be an inescapable conclusion that the work to the structural and common parts of both blocks was work done in connection with the provision of each of the apartments in the two blocks, since the owner of every apartment has an interest in and a financial responsibility for the maintenance and repair of the structural and common parts of both blocks. Further, each leaseholder has a right of access to the common parts of the other block.

The standard of design and workmanship

55. The standard set by section 1 is clearly stated. The work has to be done in a professional or workmanlike manner and with proper materials. That suggests that the work must be carried out in accordance with the relevant regulations and standards in force when the work is carried out.

56. In my view it is no answer to say that buildings constructed in a previous era and much sought after as dwellings were built to different standards and therefore such standards should be regarded as acceptable under section 1. Time marches on; so do industrial and professional standards. In my judgment the design or workmanship must be judged by the standards prevailing at the time.

57. It follows from this that if work was badly done in breach of a relevant Building Regulation such that a local authority, if aware of the breach, would require it to be rectified before the building was occupied, that would constitute a breach of section 1.

58. It was suggested by Barr at one stage in this case that if a defect could be remedied at relatively modest cost, its presence could not amount to a state of affairs that would make a dwelling unfit for habitation. I think that Lord Marks thought better of pursuing this point. In my view he was right to do so. For example, suppose that the lavatory in a flat has been installed so that there is no washer between the bowl and the soil pipe, with the result that foul water is discharged all over the floor. If it is the only lavatory in the flat, then in my view any suggestion that the flat was fit for habitation because it would only cost £50 to fit the necessary washer would be unarguable.

59. Of course the cost of any remedial work would be very relevant to questions of mitigation and measure of damages, but that is a different point. There would clearly be a breach of section 1.

The meaning of fit for habitation

60. It is common ground that I am bound to hold that there is no cause of action under section 1 of the Act unless the building is not fit for habitation when completed.[2] Work that falls short of the standard described in the section does

[2] The Claimants reserved their right to challenge this in a higher court.

not, of itself, give rise to a cause of action. A cause of action arises only if the result of the defects in the work, when completed, is that the dwelling is not fit for habitation: see *Harrison v Shepherd Homes Ltd* [2011] EWHC 1811 (TCC); (2011) Con LJ 709.

61. In *Bole v Huntsbuild* [2009] EWHC 483 (TCC), His Honour Judge Toulmin CMG QC summarised the law on fitness for habitation in these terms, at [38]:

> "i) The finding of unfitness for habitation when built is a matter of fact in each case.
>
> ii) Unfitness for habitation extends to what Lord Bridge described as 'defects of quality' rendering the dwelling unsuitable for its purpose as well as to 'dangerous defects'.
>
> iii) Unfitness for habitation relates to defects rendering the dwelling dangerous or unsuitable for its purpose and not to minor defects.
>
> iv) Such a defect in one part of the dwelling may render the dwelling unsuitable for its purpose and therefore unfit for habitation as a dwelling house even if the defect does not apply to other parts of the dwelling. This is also the case under the Housing Act – see *Summers v Salford Corporation*.
>
> v) The Act will apply to such defects even if the effects of the defect were not evident at the time when the dwelling was completed.
>
> vi) In considering whether or not a dwelling is unfit for habitation as built one must consider the effect of the defects as a whole."

62. The decision was appealed. One ground of appeal was that the judge used the expression "unsuitable for its purpose", which did not appear in the section, so that he applied the wrong test. Dyson LJ (as he then was), giving the leading judgment in the Court of Appeal ([2009] EWCA Civ 1146; [2009] 127 Con LR 154), observed that it might have been better if the judge explained what he meant by a dwelling being unfit for its purpose, but that it was quite clear that he meant unfit for habitation and that he equated "unsuitable for its purpose" with "unfit for habitation".

63. Another ground of appeal was that the judge should have considered each defect individually and determined whether or not it rendered the dwelling unfit for habitation. Dyson LJ rejected this submission in the following terms, at [34]:

> "I do not agree. The judge was not obliged to approach the question of whether there had been a breach of s 1 in this case, by considering each defect individually and asking whether that defect, or indeed, that defect taken in conjunction with other individual defects, rendered the dwelling unfit for habitation. He was entitled to ask himself whether the dwelling as a whole was unfit for habitation.

> The judge found that it suffered from a fundamental defect, namely inadequate foundations."

64. Whilst the Court of Appeal did not expressly approve Judge Toulmin's summary of the law, the members of the court did not dissent from it (apart from the observation of Dyson LJ to which I have already referred). However, and importantly, Dyson LJ did say this, at [28]:

> "The obvious purpose of a dwelling is for it to be occupied and inhabited safely and without inconvenience."

And, at paragraph [30]:

> "The fact that the doors to the garage could not be locked was a relevant but not the only consequence of [the defendant's] unprofessional work, which made the house unfit for habitation. Part of living in a house is to be able to maintain the security of the home."

65. In *Harrison v Shepherd Homes Ltd* (see above) Ramsey J said (on page 747 of the report of the case in (2011) 27 Con LJ 709):

> "It was common ground that the question of whether a dwelling is fit for habitation is one of fact and degree. In this case there are defects in the foundations which have caused, as set out below, only cosmetic defects in the properties, that is category 1 defects under the definition in BRE Digest 241. This is not a case where the defects have caused category 4 defects as in *Bole*. It is not a case where significant damage is likely. However, as the claimants submit, the judgment of Dyson LJ at [30] would indicate that security is one of the criteria for fitness for habitation and at [29] there was a reference to inconvenience.
>
> In this case there are essentially two aspects: the defective piles and the damage caused to the properties by the defective piles. Whilst I do not consider that the damage to the properties has rendered them unfit for habitation, on balance, I am persuaded that any significant defects in foundations are properly matters which could be said to give rise to a lack of fitness for habitation. On that basis I would conclude that this is a case where the properties are, to that extent, not fit for habitation."

66. I consider that there can be a breach of section 1 of the Act if, when a building was completed, there were defects that, if left unrepaired, would have the result that the structural integrity of part of the building was subject to a risk of failure at some time during the design life of the building. The decision in *Harrison* shows that it is not necessary to prove that the risk is such that significant damage is likely: in my view, it must follow that it is sufficient that there are significant defects in the building or part of it which present a real risk to the security of the dwelling during its design life.

67. In the case of defects which do manifest themselves, the authorities have not expressly considered the time within which they must become apparent. In my view this is a matter of fact and degree. I discuss this further below.

68. In my judgment, for a dwelling to be fit for habitation within the meaning of the Act, it must, on completion (without any remedial works being carried out):

(a) be capable of occupation for a reasonable time without risk to the health or safety of the occupants: where a dwelling is or is part of a newly constructed building, what is a reasonable time will be a question of fact (it may or may not be as long as the design life of the building); and

(b) be capable of occupation for a reasonable time without undue inconvenience or discomfort to the occupants.

69. I distil principles (a) and (b) above from the authorities and, in particular, the decisions in *Bole v Huntsbuild Ltd* and *Harrison v Shepherd Homes Ltd*. I have added the qualification "undue" to "inconvenience" because I am sure that Dyson LJ would not have intended to include inconvenience that was relatively trivial or which amounted to no more than a minor irritation.

70. It is clear from the authorities that a dwelling may be unfit for habitation even though the defect which makes it so is not evident at the time of completion: for example, defective foundations - as in *Harrison*. As to what is a reasonable time, that will depend on the nature of the defect. Whereas the brick or stone structure constituting the shell of a building may be capable of lasting for a hundred years or more, one would not necessarily expect the same of the roof or the gutters. I consider that the upper limit of the reasonable time is the design life of the building, but for some components (such as a boiler) it may be substantially less. It seems to me that the test is not how long the component actually lasts, but how long it could be expected to last in the actual condition in which it was at completion. For example, in my view a lift that was installed in such a manner that within a year or two of completion it broke down with monotonous regularity could, subject to the degree of inconvenience caused, mean that the dwelling was not fit for habitation at the time when the work was completed.

71. Further, where the defendant has taken on the provision of the means of access to the dwelling or the common parts of the building in which the dwelling is situated, the inability of the occupier of the dwelling to use the means of access or common parts that serve the dwelling in safety and without undue inconvenience or discomfort may make the dwelling unfit for habitation. For example, if the defendant has carried out the work (being part of the work taken on) so that access to the front door is hazardous, that could render the dwelling unfit for habitation because it presents a risk to the health and safety of the occupants.

72. In relation to the means of access to a dwelling, it seems to me that it goes without saying that a dwelling would not be fit for habitation if there was no

means, or no safe means, of access to it, or escape from it in case of emergency. In relation to a building in multiple occupation, the same must apply also to the common parts of that building that serve the dwelling in question.

73. It must also follow, as a matter of principle, that the dwelling should be fit for habitation by all the classes of people who might reasonably be expected to occupy it: this may include, for example, pregnant women, babies and children, and those who suffer from common ailments or allergies, such as asthma or hay fever. (I do not consider here the position of those with particularly severe disabilities, such as the blind or those who are severely physically disabled. Such issues do not arise in this case and so I prefer to say nothing more about them.)

74. If, in spite of the existence of a defect of design or workmanship, the cause of any risk to the health or safety of the occupants is a failure to carry out maintenance or refurbishment work which would rectify that defect - being work of a type that the owner/occupier ought reasonably to foresee to be necessary in the ordinary course of events - the builder is not liable.

75. In the context of refurbishment, it is to be expected that certain elements of the dwelling, for example windows, kitchen or bathroom fittings, floor finishes and so on, may require replacement or refurbishment within the reasonable expected life of the building. Whether or not this is so in respect of any particular element of the dwelling will depend on the facts of each particular case.

76. In deciding whether a dwelling is fit for habitation where there is more than one defect it is not right to consider each of the defects in isolation. It is appropriate to consider whether the dwelling as a whole was unfit for habitation: see *Bole v Huntsbuild Ltd*.

77. Much was made at the trial on behalf of Barr of the fact that many people willingly choose to live in draughty Victorian houses, the construction of which would in some respects not meet the requirements of today's Building Regulations. That of course is so. But in my view the question of fitness for habitation must be judged at the time when the dwelling in question is constructed. For example, if a local authority would not permit a house built with a view to multiple occupation to be inhabited because it did not comply with regulations that concerned the means of escape in case of fire, then in my view it could be fairly said that the house was not fit for habitation when completed.

78. Defects that might be described as merely cosmetic or stylistic, do not in themselves give rise to any liability under section 1. The mischief at which the Act is directed is the construction of dwellings that are not fit for habitation: it was not intended to compensate owners for the loss of a bargain. Accordingly, a claimant is only entitled to recover the foreseeable loss and damage that flows from the fact that the dwelling is unfit for habitation: see *Bole v Huntsbuild Ltd*, at [38].

79. So far as mould and damp is concerned, I have discussed the consequences of this in more detail in Appendix E in the context of the external walls. I have no doubt that the presence of mould and damp in living rooms or bedrooms, if persistent and more than minor, renders an apartment unfit for habitation. Damp living conditions are well known to pose a risk to health, and there is evidence from some witnesses of actual risks to health or concern about the potential risk, either to themselves or children.

80. A further theme that ran through many of Barr's submissions was that many of the apartments have been fairly continuously let, which one would not expect to be the case if they were unfit for habitation. Whilst this point has a superficial attraction, it loses much of its force on analysis. The evidence given by the witnesses on this (see, for example, paragraphs 100-101 below), and which I accept, was largely all one way, and was to the following effect:

(a) Tenants were generally unaware of the true condition of the apartments at the start of their tenancy because the landlords redecorated the apartments between tenants, particularly where there were problems with mould and damp. Often they did not become aware of any problems until they had been in occupation for some months.

(b) The apartments were not attractive to young high flyers, and so the majority of tenants were students who found the location of Concord Street very convenient (because the universities were nearby). They often stayed for one academic year only.

(c) Students, particularly some overseas students, appeared more willing to tolerate poor conditions.

(d) Rents were generally lower than for similar apartments elsewhere in the city.

(e) Void periods between lettings tended to be longer than elsewhere owing to the need to carry out more extensive refurbishment.

81. Apartment No. 156, which is discussed in more detail below, illustrates the point. I did not understand Barr to submit that it was fit for habitation. Plainly, it was not - yet it was occupied by a family who appeared to have been there for at least a year.

Conclusions on the meaning of section 1

82. In the light of my consideration of the authorities, I propose to approach the issues in the case with the following principles in mind:

i) Each individual apartment, together with its balcony, constitutes a separate dwelling within the meaning of the Act.

ii) The common parts and the basement car park do not form part of any particular dwelling.

iii) However, the construction of the common parts and the basement car park constituted work carried out for or in connection with the provision of a dwelling (namely, each apartment) so that the duty imposed by section 1 of the Act applies in respect of it.

iv) When considering whether or not an apartment is fit for habitation, its condition has to be considered at the date when the work was completed (which I consider extends to the end of any relevant defects liability period).[3]

v) The defects in any particular apartment must be considered as a whole when determining whether or not that apartment was fit for habitation on completion.

vi) The apartments must be fit for habitation by all the types of person who might reasonably be expected to occupy them, including babies and those who suffer from common conditions such as asthma or hay fever.

vii) Whether or not an apartment is fit for habitation is to be judged by reference to the standards current at the time when it was built.

viii) If, at the time of completion, the state of an apartment is such that a local authority with knowledge of its condition would not approve it as fit for occupation under the Building Regulations (for example, for lack of suitable means of escape in the case of fire), it is probably unfit for habitation.

ix) The fact that a particular defect which renders an apartment unfit for habitation could be remedied at relatively modest cost, does not of itself mean that there is no breach of duty under section 1. That is relevant only to the measure of damages.

x) A defect may render an apartment unfit for habitation even though both the owner and the builder were unaware of its existence at the time: for example, defective foundations.

xi) A state of affairs that arises only because the owner does not carry out or has not carried out maintenance or refurbishment that a building owner would reasonably be expected to carry out, even if that state of affairs would not have arisen but for the presence of a defect created by poor design or workmanship in breach of section 1, does not mean that the apartment was unfit for habitation when completed. However, if the need to remedy the defect would make normal maintenance a waste of money, or render it abortive or futile, the failure to carry out such maintenance is unlikely to negate the breach of duty.

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[3] This must not be confused with the date on which the cause of action accrues, which may be when the relevant work is actually carried out rather than the date of completion: see *Thompson v Clive Alexander & Partners* (1992) 59 BLR 77.

xii) Serious inconvenience that is not transient may make a dwelling unfit for habitation. For example, a lift in a tower block that was poorly installed so that it frequently broke down could well make apartments on the higher floors unfit for habitation.

xiii) A risk of failure within the design life of the building of a structural element of the dwelling (or of the building of which the dwelling forms part) which exists at the date of completion (whether known about or not) may make the dwelling unfit for habitation.

xiv) Evidence of a need to vacate the dwelling in order to carry out work necessary to remedy work that was done in breach of the standard set by section 1 of the Act, is relevant to the question of fitness for habitation.

83. The application of these criteria will be very fact-specific in any particular case.

Representative proceedings

84. The Claimants claim from Barr the full cost of the remedial works to the common and structural parts and, for this purpose, they claim that cost under CPR 19.6 as representatives of all the owners of apartments in Concord Street who are not party to these proceedings. This claim is made in both the Claim Form and at paragraph 28 of the Amended Particulars of Claim. As I have already mentioned, numerically the apartments owned by the Claimants' represent about 70% of the total number of apartments in the development.

85. CPR 19.6 provides as follows:

> "(1) Where more than one person has the same interest in a claim –
>
> (a) the claim may be begun; or
>
> (b) the court may order that the claim be continued,
>
> by or against one or more of the persons who have the same interest as representatives of any other persons who have that interest.
>
> (2) The court may direct that a person may not act as a representative.
>
> (3) Any party may apply to the court for an order under paragraph (2).
>
> (4) Unless the court otherwise directs any judgment or order given in a claim in which a party is acting as a representative under this rule –
>
> (a) is binding on all persons represented in the claim; but

(b) may only be enforced by or against a person who is not a party to the claim with the permission of the court."

86. No application has ever been made by Barr under CPR 19.6(3). Accordingly, the Claimants submit that the Claim continues as a representative action.

87. The Claimants do not claim to represent the other leaseholders for their losses in respect of internal defects, and so they submit that there is no divergence of interest between the two classes of leaseholder. They share common heads of loss, even if the Claimants seek additional heads of loss. The Claimants submit that it does not adversely affect unrepresented leaseholders that the Claimants make those additional claims.

88. For the reasons that I have already given, it is unquestionably the case that proof of damage, namely unfitness for habitation, is an essential ingredient of the cause of action under the Act. On this point I consider that no two owners have the same interest on the facts of this case. The owner of Apartment No 1 is not concerned with whether or not Apartment No 2 is fit for habitation. His claim may succeed and that of the owner of No 2 may fail, even though both of them have the same complaints to make about the defects in the construction of the common parts.

89. It might be different if the complaint by the leaseholders was, for example, in respect of defects in a central heating system that supplied all the apartments with the result that during cold spells the occupiers found themselves without heating. I can see that in those circumstances, where the effect of the defect was the same on everyone, there might be room for a representative claim. But those are not the facts of this case.

90. In *Emerald Supplies v British Airways* [2011] 2 WLR 203, counsel for the claimants had to argue that damage was not a necessary element of each claimant's cause of action. That was, I think, a correct recognition of the fact that if damage is an ingredient of the cause of action a representative claim could not be maintained. Counsel's submission was that it was sufficient that there was a common interest in achieving an outcome and no conflict between the members of the class in respect of some common ingredients of the claim.

91. The Court of Appeal concluded that the fact that a defence was available to British Airways in relation to the claims by some claimants, but not to others, showed that the claimants did not have a common interest. In this case Barr has a good defence to the claim by any owner who cannot show that his or her apartment is unfit for habitation in spite of the existence of the defects to the common parts.

92. Barr also makes a similar point in relation to the claim by West Register, a subsidiary of the Royal Bank of Scotland, who is the owner of 22 apartments which were never sold. Barr submits that by virtue of an agreement made between it and the Bank it would have a defence against any claim brought in respect of the apartments owned by West Register, since it was agreed that West Register would withdraw its claims in this action and has done so (see

paragraph 237 below). This may not be a very attractive answer to the representative claim so far as the West Register apartments are concerned, but in my judgment it is a good one.

The witnesses - owners/residents

93. The evidence of the owners and occupiers of the apartments is summarised at Appendix A. It was an impressive body of evidence, made even more so by the manner and moderation in which it was given in spite of the unhappy and depressing experience of being an occupier or owner of an apartment at Concord Street to which they had all been subjected. All the witnesses were plainly honest and I have no hesitation in accepting their evidence, subject only to the rare instances when it was retracted in cross examination.

The witnesses - non-owners/residents

Called on behalf of the Claimants

Mr. Paul Atkinson

94. Mr. Atkinson describes himself as the caretaker of Concord Street, although it is clear that he does far more than would usually be expected of a caretaker and that he is suitably rewarded for it. In 2007 Mr. Atkinson was made redundant from his position as a business development manager for a catering company. In January 2008 he accepted employment as a temporary cleaner at Concord Street whilst he looked for other employment. To cut a long story short, within a few months he was offered £3,000 per month to provide cleaning services to the two blocks. On 19 May 2008 he set up a company, PGA Property Solutions Ltd, through which he provided his services, at least initially. As time went on he involved himself increasingly with the problems experienced by the occupiers of the individual apartments and in due course was asked by several of the leasehold owners to take on the management of their apartments.

95. He now manages about 60 apartments, for which he charges a management fee of 7% of the rent. However, he says that in reality he looks after nearly all the apartments in one way or another. In addition, he manages two other small blocks of flats in Leeds and some individual flats in another building. He is clearly hardworking and able and, by his own efforts, has made himself almost indispensable to those responsible for the management of Concord Street. He is not a builder, but he can do basic DIY tasks and often carries out minor repairs to both the common parts and individual apartments. For more challenging work he employs appropriate specialists.

96. He was subjected to sustained cross-examination, much of which was, directly or indirectly, an attack on his credit. Whilst he gave answers on two or three occasions of whose accuracy I was sceptical, I thought that on the whole his evidence was credible and reliable. It was quite clear that he knew a great deal about Concord Street, and he was almost invariably able to identify the owner of any particular apartment. On a day to day basis the development is managed by him and Ms. Lisa Kaye. She deals with the administration and

financial aspects of the management, such as collecting the service charge and paying bills. She used to work for CWC and was subsequently taken on by the management company. She and Mr. Atkinson work closely together and, indeed, subsequently embarked on a relationship in which I understand they still remain. I reject entirely the suggestion that he has neglected the maintenance of Concord Street. Taking the evidence as a whole, I think it is clear that Mr. Atkinson has done the best that he could in very difficult circumstances.

97. Mr. Atkinson explained that he and Ms. Kaye spent the first twelve months or so firefighting. The agents who were originally employed to collect the service charge failed to collect it efficiently and, it seems, then went off with some of the money that they had collected, leaving the management company in a parlous financial situation. However, things have improved somewhat and the management company now has a reasonable sum in reserve to deal with major items of expenditure, although nothing like enough to address the major problems at Concord Street such as, for example, the roof.

98. Some of the more significant problems described by Mr. Atkinson were as follows:

i) The failure of the intercom to work properly. In some apartments it seems that it does work, or at least did work for some of the time, whereas in many apartments it has never worked at all or, at least, not for many years. Mr. Atkinson and others think that the fault lies in poor wiring. It has never been repaired because no contractor would undertake to leave it in working order in the light of the uncertain position about the wiring. He understood that to rewire the system completely would cost of the order of £250,000 and so what has now been done is to replace it by some form of wireless system that connects directly to the mobile phone of a resident. While such a system has its advantages, it also has its disadvantages. Mr. Atkinson explained that it took about 15 minutes to programme the system with a new telephone number for a resident (which he has to do by taking his laptop outside and standing in front of the door). Of course if a resident's mobile has an interruption of signal or a flat battery, then the system will not work.

ii) Excessive damp and mould on the front and rear walls of many apartments, particularly around the glazed doors to the balconies and in some of the bedrooms facing onto the walkways. Mr. Atkinson said that at some point every apartment that he had entered had had a problem with mould and damp. He said that it was not necessarily limited to one part of each apartment. He said that it could be hidden for a limited time with "a lick of paint", and that this would usually enable him to let the apartment.

iii) There has been widespread failure of the shower trays. The problem is that the mastic seal between the wall tiles and the shower tray fails on a regular basis. In many apartments this has resulted in a build-up of water in the void below the shower tray causing the surrounding area to

become fairly damp. Mould then develops on the walls that back onto the shower room and on the mastic and grouting of the shower cubicle itself.

iv) Another internal defect is doors in the apartments not fitting properly into their frame and either becoming difficult to open or no longer able to remain closed (because the keep of the latch has moved with reference to the tongue of the lock). He said that he had been called to go into apartments to help people who had been trapped in the bathroom or lounge.

v) The external walkways are exposed to the weather because the glazed cladding panels are open for the top foot or two with the result that rain and snow can collect on the walkways if they are not properly laid and drained. In fact, the walkways have not been laid to proper falls and there is no adequate drainage to carry away the water: the drain, such as it is, has a lip which is higher than the level of concrete on the walkways. The result is extensive ponding of water after substantial rainfall and, on occasions in winter when it freezes, this turns to ice.

vi) There was a serious problem with leaks from the penthouse balconies into the apartments below. It appeared that the drainage was defective and water was overflowing from the balconies. This caused water ingress and staining above the balcony doors in a number of apartments on the fourth floor. A decision was taken to install aluminium trays on the balconies, and this was then done in the case of 18 apartments at a cost of just under £25,000. Mr. Atkinson says that this was a temporary solution, and whilst the problem was significantly reduced it was not eliminated.

vii) A further problem in relation to water ingress arose in relation to the main roof. The first apartment where this was reported was No. 158, where water appeared to be collecting in the bulkhead above the balcony door. Mr. Atkinson said in his witness statement that he went on to the roof with a builder that he knew, Mr. Harris, and an owner, Mr. Watson. They opened up one of the roof panels immediately above the apartment which revealed that there was little insulation, and that what was in place was totally saturated. In addition, the roof steelwork was wet and covered in rust. A decision was taken, now criticised by Barr, to install a vent into the roof space in order to provide ventilation and reduce the condensation. Similar problems arose subsequently in at least four other apartments.

viii) The render to the external walls is cracked in many places, and at some points it has started to fall off.

ix) The external glazed cladding to the walkway elevations has been fitted back to front. This was intentional and was to avoid difficulties in replacing any broken glass panels, because of problems with access. However, this cladding incorporated an internal drainage system designed to throw the water away from the building. Of course, the

effect of turning it round has been that the surface water is now discharged into the building, and this is particularly bad at lower levels. The consequences of this are aggravated by the absence of any proper drainage system to the walkways.

x) As a result of this defect in the glazing, and some other causes, water leaks into the basement car parks of both blocks. The North Block is particularly bad. There are stalactites on the ceiling which drip lime onto any car parked below and water ponds in the lowest parts.

99. In relation to this last point, I find as a fact that in the North Block the water can be several inches deep after heavy rainfall, so that residents cannot get access to their cars unless they have waterproof footwear. Overall, Mr. Atkinson's evidence on these points was supported by the evidence given by the residents and owners and I accept it.

100. Mr. Atkinson also said in his witness statement that there was an "incredibly high turnover of tenants" and that "up to 80% of tenants will only stay for 6 to 9 months". He put this down to the type of tenant that Concord Street now attracts, namely students and overseas visitors, and to the fact that the mould and damp in the apartments would usually resurface about six months after redecoration between tenants. At paragraph 148 of his witness statement, he summarised the position in this way:

> "On paper the apartments are excellent value for money, which is why in the short term you can easily rent them out. When there is a changeover of tenant I will paint over any problems with damp, re-seal the shower tray and make sure the apartments are presentable for any viewings. So long as it has not been raining then it is not too difficult to rent the apartments out, at least for the short term. It is only once the tenant has been in the apartment for 6 to 9 months the problems start to reappear and I usually then received complaints or the tenants simply move out. I will then simply turn the apartment round ready for the next one. Unfortunately, I do not see this lasting forever as at some point I will be unable to paint over the mould (this is starting to happen now) nor will extra sealant work. The problems are progressive and at the present time we are fighting a losing battle. We are simply holding the Development together with a bit of sealant and paint. I foresee major problems within the next few years when we are unable to paper over the cracks any more."

101. During the course of his cross examination Lord Marks put to Mr. Atkinson an e-mail in which Lisa Kaye had said that the apartments "shoot out of the door", a comment with which he agreed. However, Mr. Atkinson elaborated on his response by saying "… but they soon became vacant again when they realise what they have got inside there" (Day 4/101). Taking the evidence as a whole, I consider that the passage quoted in the paragraph above is probably a realistic assessment of the position, at least so far as one can judge from the apartments that have been the subject of detailed investigation at the trial. I do not consider that it is necessarily true of every single apartment - there are clearly a few exceptions - but in general terms it accords with my own findings.

102. One thing that emerges perfectly clearly from the evidence as a whole is that Mr. Atkinson is essential to the functioning of Concord Street. Those owners and residents who were asked about him had nothing but praise for what he did, and I reject any suggestion that the deterioration of the buildings at Concord Street is the result of any neglect, inattention or poor management on his part. On the contrary, but for his presence I am sure that they would be in a far worse condition than they are.

Mr. Philip Goffin

103. Mr. Goffin was employed as a trainee architect by Browne Smith Baker ("BSB"), who were engaged by the developers, City Wall. He was initially a member of the team working for City Wall, but their services were subsequently "novated" to Barr. Thereafter BSB's client became Barr, and their role, essentially, was to develop Barr's proposals, the coordination of the design development, to obtain approval from Building Control for the design and to secure the approval of the planning department to the changes in the specification that were being sought by Barr in order to meet City Wall's budget. It is apparent that Mr. Goffin had a significant role in relation to the latter function.

104. Although Barr was subsequently engaged on a design and build basis, BSB prepared design drawings on behalf of Barr - but its design role was constrained to working within the framework of Barr's proposals for the development. Mr. Goffin's involvement with the planning department, most of which seems to have involved persuading its officers to agree to Barr's reductions in the quality of the specification in order to achieve the required cost savings, lasted about ten months. Mr. Goffin explained that this was his first involvement in a design and build project and until then his experience had been limited to office based work such as preparing the planning drawings, feasibility studies and so on. He said that he would not have acted as he did on this project if he had had experience that he has now.

105. I consider that Mr. Goffin was a candid and truthful witness, in spite of his slightly exasperating tendency to meet every question with a short speech. In the course of cross examination he admitted - without being prompted - that he was very ashamed of the detail of the steel balcony supports and the method by which they were fixed to the main structural steelwork. He said that on one occasion following a visit to site he was so upset by what he saw in respect of the way that this detail had been constructed that he tendered his resignation when he returned to the office. However, he was urged to reconsider his decision over the weekend and was subsequently talked out of it when he returned to work the following week.

106. He was then challenged by Lord Marks with a letter written by a Mr. Westgate, of City Wall, in which Mr. Westgate reported that during a visit to site on 16 June 2005 to investigate a reported leak with, amongst others, Mr. Goffin and a representative of Barr, he had been told by Mr. Goffin that he was satisfied with the balcony support junction detail. Mr. Goffin accepted that he had said this. He told the court that he did not have the courage to tell

the developer in front of his client, Barr, about his concerns - construction by then being very far advanced. He said this (Day 2/138):

> "A. If I can be so blunt as to say that I don't believe I was under oath then and I'm under oath now, and I'm telling you categorically that I didn't have the courage to say it then and I have to say it now. I feel obliged to say it now and I have said it today.
>
> Q. So being untruthful to your clients was all right?
>
> A. I didn't have the courage to front up against Barr, the site management and everything else that was going on at the time, to say that that detail was not in my opinion appropriate. Despite that, even as the detail was carried out as drawn, so that it would have no imperfections, we can see quite clearly from the building that the detail is not - the workmanship around those brackets is not very good, despite what the detail was drawn or not [sic]. That is a shortfall [sic] from not being able to get close enough to the balcony brackets, the systematic layering of a building, which I now appreciate as a more experienced person."

107. I accept this evidence. It was unprompted and I can see no reason why Mr. Goffin should have lied about it: it was, after all, hardly to his credit. He said also that when the floor slabs were first cast he questioned the state of their alignment, and was firmly told by the Barr team "You mind your business, we will worry about the quality on this site" (Day 3/144). He said that from then on he would confine himself to checking drawings, making sure that dimensions fitted and work of that type. His evidence about this was not challenged and I accept it.

Mr. Mark Goulding

108. Mr. Goulding was called as a member of the management company. He owns two one-bedroom apartments: No. 14, which is on the first floor of the South Block, and No. 78, which is on the fifth floor of the South Block. He bought the two apartments as an investment on the basis of the brochure that was produced by CWC and the promise of a high specification. He did not see the promotional video. He also purchased two parking spaces. As I have mentioned in Appendix A, Mr. Goulding was not only an intelligent and thoughtful witness, but also a scrupulously careful one. I accept his evidence without reservation.

109. Mr. Goulding was asked about the management company's policy in relation to redecoration. It was suggested to him that the reason why no redecoration had been carried out was because the committee was awaiting the outcome of this litigation. Mr. Goulding disagreed with that. He said that decorating was really a cosmetic exercise and that there were serious problems that cropped up from time to time for which the management company needed to keep money by: for example, repairs to the roof, the erection of emergency barriers across areas of defective glazing and so on. Mr. Goulding said that the money

needed to carry out all the necessary repairs was well beyond the scope of anything that could be raised from the leaseholders.

110. It was also suggested to Mr. Goulding that the render had not been painted because it might cover up flaws. Mr. Goulding's response was to say that he was not aware that the render had to be painted: he thought that it kept its colour. He was very surprised at the suggestion that the render would have to be repainted every five years. Mr. Goulding thought that the redecorating obligation in the lease applied to internal walls, woodwork and the like. He said that the management company have now introduced a £25,000 annual maintenance contingency for unexpected major repairs which, if not used up, was added to the reserve fund.

111. When it was put to Mr. Goulding that the deterioration in the condition of the building was the result of a lack of maintenance he said:

> "The deterioration that I'm referring to there is damage caused by water ingress due to defects in the roof, due to defects in the glazed walkways and damage to the render, cracking to the render, blowing of the render joints and so on. That is cosmetically unpleasant and it is deteriorating."

112. He also disagreed strongly with the suggestion that there had been no real change to the building over the last few years. He said that the building was deteriorating rapidly. He thought that what the management company had done went above and beyond what would be expected for a normal city centre development in Leeds.

Mr. Anthony Priceman

113. Mr. Priceman owns and lives in a two bedroom apartment at No. 35, on the third floor of the North Block. The purchase, from the Royal Bank of Scotland, was of a repossessed property and was completed in December 2009.

114. Mr. Priceman is a member of the board of the management company, and the only one who is an owner occupier. He described himself as its "eyes and ears on the ground". He explained that the management company had a contract with a contractor to clean the balcony glazing and the external windows to the atrium. He said that it was done from a lorry with a cherry picker. However, the contractors did not clean the walkway glazing on the other side of the buildings because there was no access for a vehicle.

Mr. Barry Wood

115. Mr. Wood is the owner of a studio apartment, No. 133, which is on the third floor of the North Block. Originally from South Africa, he retired a few years ago from a career in teaching and lecturing in English literature and related subjects, and is now 70. He came to the UK in 1983 together with his wife. They have never lived in the apartment, which has been let since May 2006. For ease of reference, I summarise here those parts of his evidence that related

to the running of the management company (but they will also be found in the summary of his evidence in Appendix A).

116. Mr. Wood is a member of the management company and appears to act as its *de facto* chairman. He explained in cross examination that the managing agents initially appointed, Accent Property Services, were very unsatisfactory and that the management of the properties was then taken over in late 2007 by a Mr. Craker, who was associated with CWC. He was assisted by Lisa Kaye. He said that Mr. Craker appeared to have good intentions but was not in a position to honour some of the promises that he made to the residents. As he put it, by then there was a clear dispute between CWC and Barr and they "limped along". Problems were aggravated by the fact that CWC, which had not sold some 20-odd apartments, was not paying its share of the service charge in respect of the unsold apartments.

117. When it was suggested to Mr. Wood that the management company had put normal planned maintenance on hold pending the outcome of the litigation, Mr. Wood said (Day 9/161):

> "When you have to administer any sort of budget you have to decide what your priorities and how and when you will address your responsibilities. So to the extent - I mean there are some, the thorny issue of redecoration keeps cropping up, but we want to redecorate and we will redecorate, but that has to be at an appropriate moment when we have got to the bottom of the problems and they have been rectified. Then of course we will redecorate."

118. However, Mr. Wood agreed that some maintenance had been put on hold so that the underlying defects could be properly documented by the experts. In relation to the new mobile phone based intercom, Mr. Wood said that he regarded it as the compromise solution but they chose it because it was affordable. So far as the legal costs are concerned, Mr. Wood said that the costs of the litigation were being shared between those who were taking part in it. He explained that the costs initially incurred, which were the costs of initial investigations into the condition of the building, together with the initial legal advice about the merits of the claim, were charged to every leaseholder because each one would have to take a decision as to whether or not to become a claimant. However, once a decision to embark on litigation had been taken and certain owners had decided to become claimants, only those leaseholders bore the costs of the litigation.

119. In his final question to Mr. Wood Lord Marks suggested that from 2010 to 2013, indeed into the current year, the maintenance strategy pursued by the management company had been essentially driven by this litigation. Mr. Wood's reply was as follows (Day 9/192-3):

> "No, I think that distorts it entirely, just as it is a distortion to say just because we don't have a conventional document I mean, it doesn't mean we haven't a strategy or that we aren't responsibly addressing what is possible by way of normal maintenance, and I don't think it is fair to use the word "reactive" in its most pejorative sense to suggest

> that we don't care and that we are being irresponsible and that we improvise as we go along.
>
> Our policy and our practice has to be determined by the condition of the building and our attempts to deal with it as best we can."

I accept this evidence.

Mr. Watson

120. Mr. Nicholas Watson is a director of the Concord Street management company ("the management company"), to which he was appointed on 2 August 2010. He is an architect and was previously employed by BSB, where he knew Mr. Goffin. His role in the project was peripheral in that it was confined to document compliance, rather than to the design or construction of the buildings. He bought three apartments off plan since, as an employee of BSB, he was entitled to a discount. He managed to sell one of these in late 2004 at a profit of about £27,000, but his efforts to sell the other two (Nos. 127 and 163) were unsuccessful and so he still owns them.

121. His evidence in relation to the problems with these two apartments is summarised in Appendix A. In this part of the judgment I will deal only with his evidence insofar as it relates to the management company and only to the extent that I have not summarised it in that part of this judgment which deals with the conduct of the management company.

122. In his witness statement Mr. Watson explained how he decided to buy the apartments on the basis of the promotional brochures and a DVD produced by CWC. He said that prior to construction Concord Street was marketed as a "first class apartment complex for high flyers".

123. During the period shortly after completing the purchase of his apartments in 2006 Mr. Watson said that he became increasingly concerned with the problems that were being identified at Concord Street. He said that the general feeling at the time amongst the residents was that those responsible for the maintenance of the buildings were not keeping up with their job. He said that at the meeting that took place on 28 January 2008 the owners and residents were told that Accent, who had been acting as agents for the management company, had walked away from the contract as a result of the problems that they had experienced with the buildings. A Mr. Richard Craker, of CWC, had taken over the running of the management company and told the residents that CWC had made a claim against Barr in respect of the defects.

124. Mr. Watson said that in spite of these developments, by January 2009 matters had not improved. He said that the management company was not managing to keep on top of even basic cleaning and maintenance, let alone repairs. The upshot of this was that five owners or residents volunteered to become members of the board of the management company, and their names were finally registered at Companies House on 2 August 2010 and their appointments were formally approved by the shareholders as a whole at a meeting on 22 November 2010. At the same time Mr. Atkinson and Ms. Kaye

resigned from the board and started to work under the direction and control of the management company. He explained that Mr. Atkinson supervised the cleaning and undertook minor repair works, as well as doing work to various apartments on the half of their owners.

125. Mr. Watson explained that the policy of the management company was to carry out all routine maintenance that was required together with the remedial works that were necessary and affordable in order to keep the apartments habitable. He said that in many cases this had to be done on a temporary basis pending permanent repairs.

126. He also explained how in February 2010 he took part with Mr. Atkinson and Mr. Harris in an investigation into the condition of the roof following water ingress into No. 158. When the ceiling was opened up it was found that the roof liner sheet was covered in what Mr. Watson described as "running condensation" which was dripping onto the plaster over the balcony door causing rapid deterioration of the plasterwork in that area and water to collect on the floor on the inside of the balcony window. He said that it was his idea to install a vent in the outside wall to provide some ventilation in the space between the liner sheet and the suspended ceiling and thereby minimise condensation. He accepted that this solution substantially reduced the thermal performance of the apartment and led to it being more expensive to heat.

127. In relation to his own financial position, Mr. Watson said that he had had his two apartments on the market for some nine - twelve months but had been unable to sell them. He said that he owned another two-bedroom apartment in the city centre of Leeds for which he obtained £750 per month in rent, compared with £600 per month at Concord Street. He said that in relation to No. 163 it was not possible to avoid having void periods between tenants because it was necessary to remove the water marks in the living room and let the area dry out.

128. Mr. Watson was cross-examined about the policy of the management company in relation to maintenance and remedial works and I have set out some extracts from his evidence in the section of this judgment concerned with the management company.

129. Overall, I consider that Mr. Watson was a reliable and plainly honest witness and I accept his evidence.

Mr. Harris

130. Mr. Harris gave evidence by video link from Florida. He is a builder who inspected the roof following a complaint of moisture ingress into a penthouse apartment (No. 158). He has been a friend of Mr. Atkinson for some years.

131. In his witness statement he said that when he went into that apartment he noticed damp and mould on the walls around the balcony doors and in the middle of the living room ceiling. He said it looked as if there was a significant amount of water in the roof void above the apartment and that this was saturating the plasterboard ceiling.

132. They decided to cut a hole in the ceiling directly above the balcony door. This showed that the roof space was very wet, with mould present in a number of places and condensation on the roof steelwork. They decided next to inspect further from the roof itself. Having lifted one of the roof panels, he described the insulation as virtually non-existent and that where it had been laid it had either been done incorrectly or was not sufficiently thick. In addition, it was saturated. He noticed also that there was no liner sheet on the lower metal tray.

133. It was after that visit that it was decided to install a vent in the wall giving on to the roof space in order to reduce the condensation by providing some ventilation. However, it was accepted at the time that this would turn the roof void into a cold space with the result that this would make the apartment below more difficult and expensive to heat. He said in his witness statement that in all his years of working in the construction industry this was "… without doubt the worst example of a roof I have ever seen". Mr. Harris took a number of photographs which provided confirmation of much of what he had said in his witness statement about the condition of the roof.

134. He described a further occasion when Mr. Atkinson asked him to investigate a further problem with water ingress into some fourth floor apartments. He visited Concord Street when there was a considerable amount of snow on the main roof. They went into apartment No. 63 where they saw water running (in cross examination he described it as "cascading": Day 8/111) down the side of the walls and coming in above the balcony door before pooling on the living room floor: he said that the occupier had put buckets out to catch the water by the time they arrived. They then inspected the balcony above on which there was a considerable amount of standing water. One problem was that the downpipe from the main roof gutter discharged onto one side of the balcony whereas the outlet was at the other end. He said that closer investigation showed that there was no adequate waterproofing system to the balcony so that the water could seep into the building below. This led to the solution of fabricating and installing specially made aluminium trays to hold the water. Mr. Harris said also that these were never intended as a permanent solution, only a temporary one (Day 8/113). He said that in order to achieve a perfect seal the asphalt would have to be dressed up under the cill under the balcony door. In addition, the downpipes from the gutters were re-routed.

135. Mr. Harris said that he recalled that Mr. Atkinson did not have a good head for heights. This confirmed Mr. Atkinson's evidence to the same effect and that he (Mr. Atkinson) only went on to the roof very briefly. This evidence had been challenged (quite properly) in cross examination because in his witness statement Mr. Atkinson had referred to going onto the roof and lifting one of the roof panels. Mr. Atkinson said that this was not correct because he only went on to the roof very briefly and did not assist in the lifting of the panel.

136. I found Mr. Harris to be an honest and impressive witness and I accept his evidence, although I suspect that his remark about the roof being the worst he had ever seen was based in large measure on the fact that he only inspected the edge of the roof, which was undoubtedly where the workmanship was at its worst.

Mr. Ramsden

137. Mr. Ramsden had worked as a general handyman since about 2008, although for 19 years he had worked as a scientific glassblower until the company for whom he worked had closed down that department. He started to work for a company that carried out general maintenance of residential properties at the request of landlords or letting agents. In August 2012 he began to work for himself and has carried out a number of jobs at Concord Street, mainly in connection with the showers.

138. The first apartment that he recalled visiting was No. 142 (not a lead or B2 apartment). He said that there was an overwhelming smell of damp, which appeared to be caused by a leak around the shower area. He said that the plasterboard to which the tiles were fixed was saturated and no longer of any use. He described the problem as being one of "ill fitting shower trays", which led to the failure of the bottom row of tiles creating a significant gap between the shower tray and the tiles.

139. Although he had devised what he described as a temporary fix, involving the fixing of a 4 inch PVC trim and silicone at the joint between the shower tray and the tiles, his preferred solution was to carry out a complete refurbishment of the shower cubicle, including the strengthening of the floor below the shower tray. This involved the occupant of the apartment having to move out whilst the work was being done.

140. In his witness statement Mr. Ramsden said that he had worked in a number of apartment blocks in Leeds, but that it was only at Concord Street where it had been necessary to carry out a total redesign of the shower area in order to remedy the leaks. On this aspect, the evidence was all one way: no-one suggested that the problems with the leaks around the shower trays at Concord Street were remotely typical of the situation at similar developments. That is certainly my conclusion.

141. Mr. Ramsden had also carried out other general work, such as planing down internal doors in order to make them fit and thereafter filling the cracks above the door frames.

Ms. Green

142. Ms Charlotte Green is a maintenance and property manager employed by Hunters Estate Agents ("Hunters") and she works from the York office. She started working for Hunters in 2005 in the Leeds office, during which she visited Concord Street on a number of occasions. She said that she was very familiar with the various properties that Hunters managed in Leeds City Centre. Hunters currently manage 13 apartments at Concord Street, although at various other times in the past they have also managed about 35 others.

143. She said that since Hunters started managing the apartments at Concord Street in 2005 there had been almost constant issues with leaks in the shower rooms. She said that a number of shower rooms had been infested with silverfish. She said that in many apartments which were affected by this there had been a

constant battle to try and prevent the regrowth of mould after resealing and re-grouting in the shower cubicles. She gave an example of one apartment, No. 52, which had been resealed in May 2008, August 2010, September 2011 and May 2012, in spite of which they were still finding that entire shower room walls were covered in black mould. This was one of the apartments that had a problem with infestation by silverfish.

144. Ms. Green said that as part of their efforts to deal with the problems of mould they advised tenants when they moved into the apartments of the importance of doing everything they could to keep the apartment well ventilated. It was Hunters policy to visit apartments under their management on a quarterly basis. She described the extent of the problem with mould at Concord Street as “far from normal” when compared with other developments in Leeds City Centre.

145. Ms. Green explained in her witness statement that when the apartments at Concord Street were first completed many of them were rented by professionals who then stayed for up to two or three years. She said that these tenants left as a result of the problems with the apartments and so the apartments managed by Hunters are now generally let to students, with the result that they can be let much more easily if they become vacant between August and October. She explained in her witness statement that there was a development near Concord Street called Aspect 14, which is recommended to students from Saudi Arabia by their embassy. Those who cannot lease an apartment in Aspect 14 go to Concord Street as a second choice until an apartment at Aspect 14 becomes available. She said that against this background it was fortunate that Concord Street was situated near to the universities in Leeds, because if this had not been the case she did not think that it would be possible to rent out the apartments at all.

146. Ms. Green said in her witness statement that the rents achieved from the apartments had decreased quite significantly since the time when they first came on the market, and even then they were relatively cheap. She said that, in general, for apartments in the city centre it was Hunters policy to try to increase the monthly rental by about £25 every six to twelve months, but that this was simply not possible at Concord Street.

147. In cross-examination Ms. Green was asked about one particular apartment, No. 98. She agreed that no work appeared to have been carried out to that apartment between 2006 and 2009, save for some work in relation to the bathroom in late 2009. In October 2010 new tenants moved in and there was a report that some tiles were loose. These were refitted and a PVC trim was fitted to cover that area. Since then, there appears to be no record of any further work carried out to that apartment.

148. She confirmed also, in relation to apartment No. 52, that there had been a problem with serious mould in 2011 that had not been reported by the tenants (Day 8/24). When it was suggested to her that it was a common problem with tenanted apartments that the less assiduous tenants would let problems develop without reporting them, she said that she thought in the case of that particular

apartment the tenants who were in place at the time were two Chinese students whose expectations might have been different.

149. Ms. Green agreed that the main issue with the apartments (excluding the penthouse apartments), so far as Hunters as agents were concerned, was the problem of leaks from the shower trays and condensation and mould. She said that in her experience the mould was always on the walls around the shower rooms.

150. Ms. Green said that in many apartments in Leeds there was either very limited or no outside space where tenants could dry clothes, so that they did tend to dry them either in a spare bedroom or the living room. In this respect, there was nothing particularly unusual about Concord Street.

151. I found Ms. Green to be a reliable, straightforward and honest witness and I have no hesitation in accepting her evidence.

Miss Warr

152. Miss Diana Warr is the Residential Letting Manager of Sanderson Weatherall's office in Leeds, a position that she has held since 2005. She is responsible for managing a rental portfolio of approximately 250 properties. Sanderson Weatherall currently manages ten apartments at Concord Street and, in the majority of cases, had done so since the apartments were completed.

153. She said in her witness statement that issues arose in relation to several of the apartments very shortly after completion, and as early as September 2005. She says that she remembered being surprised by the nature and extent of the repairs required as in her view they went far beyond the ordinary snagging issues which one might expect with newly built apartments.

154. Her experience in relation to problems with the shower rooms was very similar to that described by Ms. Green. She described how in some apartments remedial work to the shower trays had to be carried out every two years or so and that it was only a matter of time until the sealant round the shower tray failed and had to be replaced. She said that over the years almost all of the apartments had experienced a problem with the shower trays. It seems that Sanderson Weatherall also had a general policy of visiting apartments under their management every quarter. She said that even in rented apartments she would not expect a shower to require resealing more often than once every 3-5 years. She compared Concord Street to another development of similar age in Leeds in which none of the apartments under Sanderson Weatherall's management had required resealing within five years after completion.

155. Miss Warr also described in her witness statement how she had received numerous complaints from tenants about damp and mould in other areas of the apartments remote from the shower rooms. She said that she was really surprised by this. Like Ms. Green, she too had a policy of advising tenants to do everything that they could to try and keep apartments well ventilated.

156. In her witness statement Miss Warr summarised various other defects which were the subject of frequent reports to her office. These included: door frames dropping, balcony doors not working (coming off their runners) and leaks through the balcony doors causing puddles to develop on the living room floor; underfloor heating not working properly; and the intercom system, which she said had never properly worked in most of the apartments. She said that as tenants were missing deliveries as a result of the lack of a working intercom, a lot of them pinned up scraps of paper by the entrance to the development with a contact number for their apartment, which looked very scruffy.

157. In relation to the common parts Miss Warr said that she had received complaints regarding the pooling of water on the walkways and about the poor finish to the walkway floors.

158. In relation to the type of tenant Miss Warr's written evidence was to similar effect to that of Ms. Green. She said that the professional tenants who had rented some of the apartments at the outset had given way to student tenants from overseas, who were attracted by the fact that the apartments were cheap and close to the universities. She said that in relation to rental income standard two-bedroom apartments were about £100 less per month than similar apartments in other city centre developments. She said that owing to the condition of the apartments it was virtually impossible to obtain increases in rent although rental levels generally in Leeds had been increasing. She said that there was still a high demand in Leeds for apartments to rent, and that this had worked in Concord Street's favour.

159. Miss Warr said that, so far as she was aware, no sales of the apartments in Concord Street had taken place through Sanderson Weatherall in recent years, the last being in September 2007 when a one bedroom apartment (No. 119) was sold for £95,000. She said that when Sanderson Weatherall was approached by owners of apartments in Concord Street wishing to sell them, their standard advice was that the apartments were unsellable as a result of the poor reputation enjoyed by Concord Street, principally as a result of the numerous defects in the buildings.

160. In cross examination Miss Warr was asked about apartment No. 92, in which the tenants had a serious leak of water from the shower room because, according to Miss Warr, the bottom row of tiles was cut too short so that water leaked through into the bedroom, although she accepted that her description of it as "gushing" might have been inappropriate. However, she said that the tenants had to be moved out of the apartment completely whilst the apartment was refurbished. She agreed that the next problem with the shower in that apartment did not occur until May 2011, some five years later. Since then, there appear to have been no further problems.

161. Lord Marks asked Miss Warr if she agreed with Ms. Green that the overwhelming problem with these apartments individually had been the shower trays. Her answer was that it was the shower trays and condensation, but not necessarily linked. This was because Sanderson Weatherall had had several instances of mould on the walkway wall in the bedrooms. In addition,

Miss Warr confirmed Ms. Green's evidence that the behaviour of tenants at Concord Street in relation to the drying of clothes was no different to that of tenants elsewhere in Leeds. In relation to rents in Leeds overall, Miss Warr thought that they had been fairly static until the last quarter of 2013, when they had started to increase.

162. Although Miss Warr was a rather less confident witness than Ms. Green, I found her to be an honest and reliable witness and I accept her evidence also without reservation.

Witnesses called on behalf of Barr

Mr. Barclay Chalmers

163. Mr. Chalmers is a main board director of Barr, and the managing director of Barr Construction, which is an operating division of Barr. As these positions would indicate, Mr. Chalmers is clearly an intelligent and able man. However, he had no direct involvement in the development and so he had little relevant evidence to give in relation to the state of the construction.

164. It is clear from his and other evidence that when Barr asked CWC if it could put in a quotation, which was in October or November 2003, CWC had already prepared the promotional material for the development (the promotional video was last modified in September 2003). Mr. Chalmers said that he was unaware of any steps taken by CWC to correct or amend this promotional material following the acceptance of Barr's quotation and its requirement for significant savings to be made on finishes and the general quality. Mr. Colin Veitch, who was employed as Barr's managing director for the North of England described the changes to the development in the following terms (at paragraph 58 of his witness statement):

> "... whilst City Wall was always going to market the development in the best way it could, the style chosen by City Wall was reminiscent of a council style block of apartments from the mid-20th century. Further, City Wall and Barr agreed to carry out the works to a budget and this contract was subject to extensive savings from the initial Employer's Requirements. These savings inevitably resulted in lower quality which was not going to necessarily attract "*high flyers*". No-one should delude themselves about the style of the apartment; this was a low-budget block of apartments."

165. I put some extracts from this passage to Mr. Chalmers for his comments and I think that it is fair to say that he did not feel able to dissent from Mr. Veitch's observations. He agreed that unless the typical off plan purchaser had had the opportunity to study the construction drawings in detail, he was going to find himself in for a surprise when he completed the purchase of his apartment.

166. There is no evidence that Barr ever expected CWC to modify its promotional material and so it is a fair inference that Barr knew or ought to have known that the apartments were being marketed to prospective purchasers on the basis of information that was clearly misleading. Mr. Chalmers agreed that - to put it at its lowest - CWC did not treat those purchasers who bought their

apartments off plan very well; but he added that they did not treat anybody very well.

167. Whilst Barr itself was not involved in any plan to mislead those purchasers who thinking of buying an apartment off plan, it is reasonably clear from the evidence that the consequences of undertaking to build the development to a significantly inferior specification must have been evident to Barr's senior management at the time, namely that those purchasers who bought the apartments off plan on the faith of the promotional material would find themselves in for a big surprise when they discovered the reality of what they had actually bought. This, of course, is not a ground of the claim against Barr in this litigation, but I consider that it is a factor that the court is entitled to bear in mind when considering general submissions by Barr to the effect that it is not fair that Barr should be made to pay for the same defects twice - as it says would be the case in respect of some of the defects.

168. Mr. Chalmers was asked about the deed of settlement which Barr entered into with CWC's Administrators in July 2012, by which each party withdrew all claims against the other arising out of the building contract. The agreement also contained a provision that Barr would purchase or procure the purchase of the freehold of Concord Street from the Administrators for £450,000. In fact, Barr did not purchase the freehold itself. It was purchased by a company formed in March 2013, Terrapens Limited. The sole director of that company is a Mr. Buchanan, a main board director of McLaughlin & Harvey, who are well-known contractors.

169. It emerged that two of Barr's main board directors are also main board directors of McLaughlin & Harvey. Accordingly, they must be close working colleagues of Mr. Buchanan. In cross examination Mr. Chalmers said at first that he did not know why Barr had arranged to buy or procure the purchase of the freehold of Concord Street: he said he thought that it was just "tidying up". This was clearly no sort of explanation, and when I asked Mr. Chalmers what he meant by this he did not have any ready answer. He agreed that it might have been to close off the prospect of any further claim from the Administrators, a suggestion that I canvassed with him, but, as Mr. Nissen pointed out, such protection was unnecessary having regard to the other terms of the settlement agreement.

170. I find it hard to believe that Mr. Chalmers, as a main board director, did not know the reason why Barr was interested in the acquisition of the freehold of Concord Street. By the time when the agreement was made, this litigation was already well on foot. In my view it is hard to avoid drawing the conclusion that the acquisition of the freehold of Concord Street was a step connected to the existence of this litigation.

171. It was clear from Mr. Nissen's cross-examination of Mr. Chalmers that almost no disclosure had been given of any board minutes or other documents that were relevant to the decision to include the acquisition of the freehold of Concord Street as a term of the settlement agreement. The following morning, Thursday, 30 January 2014, I told Lord Marks that I was troubled by this lack of documentation and the absence of any rational explanation for the inclusion

of the purchase of the freehold of Concord Street as part of the terms of the settlement agreement. I indicated that in those circumstances the court might draw certain inferences adverse to Barr unless material was disclosed that explained the reasons for what had happened. At this late stage of the trial the Claimants did not apply for an order for disclosure of such material and so it was left to Barr to take such steps as it considered appropriate in the light of the indication that I gave.

172. As a result limited further disclosure was given by Barr. I will revert to this issue later in this judgment.

Mr. Alistair Logan

173. Mr. Logan was a Design Coordinator on the Concord Street project. He was not based on site but said that he visited the site about once every one or two weeks. He left the project in about early 2005, by which time the steel frame had been erected, the floor slabs cast and work was beginning on the external envelope of the buildings.

174. He was asked a number of questions arising out of contemporaneous correspondence relating to the design of the work, but his recollection of the detail of these events was understandably very poor. However, I thought that he gave the impression on occasion that he was probably able to remember rather more than he was prepared to admit. Nevertheless, he did not strike me as a witness who was deliberately attempting to mislead the court.

175. In his witness statement he dealt with the site visits that he made in 2009 in relation to the adjudications. He visited about ten apartments and was critical of the extent to which some tenants had looked after the properties. He was also critical of some aspects of the maintenance of the common parts of the buildings. On this aspect I did not find his evidence very persuasive: it was very much a reflection of Barr's party line in this litigation.

176. On the whole, therefore, I derived fairly little assistance from the evidence of Mr. Logan. Where in relation to a particular defect I regard his evidence as relevant, I shall mention it in that context.

Mr. Colin Veitch

177. Mr. Veitch joined Barr in July 2004 as the managing director for the North of England. By then he had nearly 30 years' experience in the construction industry. He said that he was engaged by Barr on account of his extensive experience and his particular knowledge of the residential market in Leeds. Whilst he worked in Leeds he managed the construction of several residential developments involving about 1,500 city centre apartments in all.

178. When Mr. Veitch joined the project in July 2004 the structural steelwork for the North Block had just started to go up. His task was to manage and oversee the construction of the whole development, which he did through to practical completion. He was not on site on a full-time basis since he had a number of projects under his control.

179. His evidence in his witness statement was that when he left the site, about 18 months after the first apartments were handed over to CWC, there were only minor defects in some of the apartments.

180. Mr. Veitch is clearly an able man and I have no doubt that he is very good at his job. However, and perhaps understandably, he was reluctant to give much away in relation to the alleged shortcomings of design and workmanship contended for by the Claimants. But some of his notes made at the time were revealing. In about July or August 2004 he made some comments on certain aspects of the project as he found it. He noted that the 71 week programme was unrealistic and that 90 weeks would be more realistic. He agreed that if his assessment were right, then there would have been massive pressure on Barr to complete within the agreed 71 weeks. Mr. Veitch noted also that the contract conditions were "terrible". His notes included the following observations:

> D. Poor Commercial Staff all changed since the start of project. Lack of experience.
>
> E. No proper lead in time with works commenced on site ahead of design - piling/ground works.
>
> F. Packages incomplete placed without orders (no proper bills).
>
> G. Poor design choices modular walls, interface with steel frame."

181. When it was suggested to Mr. Veitch that it remained true that in respect of the whole of the project the works were getting ahead of the design, he replied as follows (Day 7/45):

> "I think there was a point in time when the design caught up with the progress on site, but that is quite often the case when you start a project with an inadequate lead in time. The concept had been taken up by Barr, that was purely a concept and there had obviously been some substantial changes made by Barr during the negotiations with City Wall in respect of to value engineer the project to achieve the budget for the project to go ahead."

182. That there was significant "value engineering" to this project is not in doubt, although I would question that description when applied to the changes in specification that were in fact made at Concord Street. As I have already mentioned, in his witness statement Mr. Veitch described the development in these terms: "… the style chosen by City Wall was reminiscent of a Council style block of apartments from the mid-20th century" and "… this was a low budget block of apartments".

183. The notes made by Mr. Veitch when he joined the project were, in my opinion, probably an accurate reflection of the position on site at the time. There is no evidence that it ever really got any better. On some of the work

packages the sub-contractors changed more than once. This is reflected in a further note, when Mr. Veitch wrote:

> "Render, Walling, Treatments, Ceiling, partitions, in general procurement is a shambles."

184. Mr. Veitch was not really able to explain precisely what he had in mind when he wrote this. In relation to the procurement being a shambles, he said "I have made that statement in my note" (Day 7/51). This somewhat cagey response was fairly typical of much of Mr. Veitch's evidence. However, in fairness to him, he was being asked about a specific state of affairs at a particular point in time which, at the time of the trial, was some 9½ years ago.

185. In relation to some of the more detailed aspects of the works, Mr. Veitch did give some revealing evidence. For example, he agreed that there was poor detailing around the balcony brackets which, Mr. Veitch said, "sloped backwards into the main columns and it created a problem sealing around the board" (Day 7/53). He explained also that some of the problems with the intercom were caused by Barr's contractors putting screws through conduits and damaging the cables (Day 7/175-6). He agreed that the condition of the walkway floors was dreadful, a problem that was never resolved because no finish was ever applied (Day 7/120). He agreed also that the walkways would become slippery in wet weather and, if it were to freeze, would be a hazard (Day 7/117).

186. It was put to Mr. Veitch that Mr. Goffin was "an honest, thorough and diligent individual", an assessment with which he agreed (Day 7/38).

187. On the whole I consider that Mr. Veitch's inability to answer questions of detail based on the contemporaneous documents was genuine, considering that the events in question occurred eight or nine years ago. Where, perhaps, he was a little less candid was in relation to his own notes about the position as he saw it at the time. However, those largely speak for themselves and I see no reason why they should not be taken at face value.

Mr. Limb

188. Mr. Ian Limb was employed as Barr's commercial director for the North of England between April 2005 and September 2007. He was responsible for putting forward Barr's pricing schedule that was submitted in the second adjudication that was concerned with the defects in Barr's work. He has been a contracting surveyor for some 30 years, although he is not a qualified quantity surveyor. He explained in his witness statement in some detail how he went about pricing the specification of work prepared by Hurd Rolland, the expert architects instructed by Barr in the adjudication.

189. Mr. Limb told the court that shortly before the second adjudication Barr made an open offer to CWC to carry out the remedial works that were described in the Hurd Rolland report. However, it was clear from his evidence that at the time of the second adjudication damp and mould in the apartments did not appear to be widespread.

190. Whilst I have no criticism of Mr. Limb as a witness, I found that his evidence was of little relevance to the issues that I have to decide. Although Barr seeks to rely on the adjudicator's award in the second adjudication (which was not a reasoned award), I consider that its relevance - and hence the evidence of Mr. Limb - is extremely limited.

The experts

Mr. Peter Scott

191. Mr. Scott, the expert building surveyor instructed by the Claimants, has a degree in Building Surveying and is a Chartered Building Surveyor. He has practised as a sole practitioner since 1993, advising clients in relation to commercial and residential property and being involved in the construction and maintenance of both types of property. He also acts as an expert witness. In my view he is appropriately qualified to comment on all matters in dispute concerning defects apart from issues relating to civil or structural engineering.

192. Mr. Scott prepared a very detailed final report running to over 200 pages, plus appendices, in November 2013. I found Mr. Scott's report to be extremely thorough and well supported by reference to the relevant codes, British Standards and the like.

193. Mr. Scott was originally instructed by CWC to advise and prepare a report in relation to the adjudications against Barr, which he did. Mr. Scott said, and I accept, that he took no part in the adjudication process beyond preparing that report. Subsequently, he was instructed by the management company in relation to this claim against Barr, and thereafter he has acted as an expert witness instructed by the Claimants.

194. Barr has attacked the Claimants' presentation of this case, and Mr. Scott's evidence in support of it, on the ground that it blurs the distinction between a claim for damages for breach of contract (as was the claim against Barr by CWC) and a claim for breach of statutory duty under the 1972 Act. I consider that there is some force in this criticism, not only in relation to the claim generally but also in relation to the evidence of Mr. Scott. I do not consider that Mr. Scott acted in any way as a partisan expert, but I do think that at times he had difficulty in keeping in mind that, in the context of this claim, for defects to be relevant they must cause or contribute to a dwelling being unfit for habitation. I consider that his conclusions in relation to the external render, which are considered in Appendix I, provide an example of this.

195. Accordingly, I consider that Mr. Scott's evidence needs to be approached with these points in mind.

Mr. James Tasker

196. Mr. Tasker is a civil and structural engineer. He is now a consultant with Campbell Reith Hill LLP, a practice of which he was formerly a senior partner. He has 30 years experience of the design and monitoring of structural and building development works, including commercial, industrial and

residential buildings. Shortly after graduation in 1972 he joined Campbell Reith Hill, and has remained with that practice throughout his career, becoming a partner in 1983.

197. Mr. Tasker prepared a report on structural movement in February 2012 and a further report in November 2013 on structural matters generally. Although I have not accepted Mr. Tasker's opinion in relation to the ingress of underground water into the basement car parks, I thought that he was a good expert and one on whom, in respect of all other issues, the court could rely. He was clearly very knowledgeable and his views were considered and thoughtful. He was ready to make concessions against the Claimant's interests if they represented his professional view.

198. By the time he came to give evidence Mr. Tasker and Mr. Allen had agreed upon many matters that had been initially in dispute. This was of considerable assistance to the court. In addition, after the conclusion of the evidence Mr. Tasker and Mr. Allen also agreed a package of remedial work to deal with the shower trays.

Mr. Stuart Allen

199. Mr. Stuart Allen is a Chartered Engineer with over 35 years experience in civil and structural engineering. He spent about ten years working for contractors, during which time he undertook a four-year degree course in Civil Engineering. He joined Richard Jackson Partnership in 1985, becoming its Managing Director in 2000. It appears that a major part of his practice for many years has involved acting as an expert witness. I consider that in general terms he is appropriately qualified to be an expert in this type of case. However, in his report he made comments at various points that were more advocacy than expert evidence. For example, his suggestion that if the apartments were unfit for habitation, he would not expect tenants to renew their tenancies (paragraph 4.2 of his report, which was said to have been based on conversations that he had had with about 30 tenants of which he had made no notes); and his comment that the Claimants had not mitigated their loss by carrying out essential maintenance work (paragraph 30.9).

200. His principal report, of November 2013, covered over 30 different aspects of the claims made by the Claimants in relation to defective work at Concord Street and its consequences. I think that it would not be unfair to say that, with the exception of about three or four areas (for example, the junction between the roofing sheets and the patent glazing on the top floors, the construction of the penthouse balconies and some aspects of the external glazing), he concluded that either that no responsibility for the defect rested with Barr or that the defect in question had not rendered any dwelling unfit for habitation. Where he accepted that there were shortcomings in workmanship - such as in the external walls - he said that the level of workmanship was "typical of the industry standard" or that it had not caused the observed mould or condensation. I take the former to be another way of saying that the work was carried out in a workmanlike manner so that it met the standard required by section 1 of the Act.

201. Mr. Allen's overall conclusion, at paragraph 39.44 of his November 2013 report was in the following terms:

> "With the exception of some minor items noted above it is my opinion that the development was constructed in a workmanlike and professional manner with proper materials to the level to be expected of a reasonably competent contractor."

202. Having now seen the building and heard a substantial amount of evidence, I am quite satisfied that Mr. Allen's conclusion is unsupportable. The work carried out by Barr at Concord Street was, as I have said elsewhere, defective in very many respects and it seemed to me that on many aspects of the case Mr. Allen was seeking to defend the indefensible. In so doing, in my view he lost the degree of objectivity that the court expects of an expert witness.

203. I have made particular criticisms of parts of his evidence in some of the appendices to this judgment and I do not propose to repeat them here. In particular, I consider that Mr. Allen's approach to the issues relating to the intercom system, the external glazing and the shower trays was particularly flawed for the reasons that I have given in appendices F, G and M. In addition, I was troubled by Mr. Allen's tendency at many points to find fault with the occupiers of the apartments.

204. Overall, therefore, I have to say that I feel able to place only limited confidence in Mr. Allen's evidence, save where it is in agreement with the views of Mr. Tasker or Mr. Scott. In the former context, I have already mentioned that by the time they came to give evidence Mr. Tasker and Mr. Allen were in agreement on many matters. That is to Mr. Allen's credit.

The valuation experts

205. The expert valuer called on behalf of the Claimants was David Richardson, CBE, FRICS. He has been in practice with Sanderson Weatherall in Leeds for more than 45 years. He is now a consultant. He was President of the British Chamber of Commerce between 1996 and 1998. Mr. Richardson wrote two reports: one dated December 2012 and the other dated 13 December 2013.

206. The expert valuer called on behalf of Barr was Mr. Bruce Collinson, FRICS, a member of Adair Paxton LLP. He has been in practice as a residential surveyor for some 40 years, over 30 of them in the Leeds area. He was instructed by letter dated 2 October 2013. He produced one report dated 13 December 2013.

207. It is clear that both experts are eminently well qualified to give evidence on the question of blight. Mr. Collinson defined blight as the difference between the value of a property which had suffered from defects in respect of which remedial work had been successfully carried out and that of that same property if it had had no defects in the first place. Although Mr. Richardson did not define blight in so many words, it is clear from his first report that he was applying a similar definition.

208. The experts met two or three times and then on 28 November 2013 signed a short statement setting out the points on which they were agreed. One point on which they were agreed was that the apartments had been purchased originally at the top of the market and that the market had, since January 2006, declined by about 30% but that the problems at Concord Street made current values so low that the apartments there could only be sold "at fire-sale prices". Another point was that those apartments could suffer from short to medium term blight after major repairs had been carried out.

209. However, when Mr. Collinson served his report two weeks later he expressed the view that there would be no blight following completion of the remedial work at Concord Street. This was on the assumption that some form of warranty or guarantee would be available from the contractor who carried out the remedial work. If no such warranty were forthcoming and a work programme was carried out with a value of £10.76 million and lasting 60 weeks, there might be limited blight of 10% for a maximum of six months.

210. This was a significant retraction from the position that Mr. Collinson had taken in the experts statement, as he accepted (Day 16/218). When asked why his view had changed he said this (at Day 16/216):

> "Because I was on the back foot. From the point of my instruction I felt that at the time of the experts' meetings with a tight deadline it was acceptable, it was doable. We reached an accommodation, I left the door ajar for the warranties. When I then got into the ribs of it, I looked at it and thought: I do not agree with that any more."

211. Whilst I am prepared to accept Mr. Collinson's explanation, the fact that he was prepared to sign the statement when he was not really in a position to do so does not reflect well on his position as an expert. I was also unimpressed by his assertion in his report that Mr. Atkinson may have had a serious conflict of interest given his role as caretaker and his freelance activity as a letting agent for about a third of the properties. It is quite clear from the evidence of the owners and residents that this is not how they perceived the situation.

212. I will return to the evidence of the expert valuers in more detail in the section dealing with the issue of blight.

The ownership of the freehold

213. As I have already mentioned, by a Settlement Deed dated 20 July 2012 between, on the one hand, The Royal Bank of Scotland ("RBS"), CWC and CWC's administrators, and on the other Barr Limited and Barr Holdings Limited, RBS and CWC entered into a full and final settlement of all claims between each of them and Barr. Barr's liability to RBS arose under a warranty dated 31 March 2004 and RBS subsequently made a substantial claim against Barr under that warranty.

214. It was a term of that settlement that Barr would itself or would procure another entity to purchase the freehold in the Concord Street properties for £450,000. As a result of disclosure given late on during the course of the hearing it emerged that the freehold was purchased by a company called Terrapens Ltd

("Terrapens"). I have already explained that the sole director and shareholder of Terrapens is a Mr. Patrick Buchanan, who is the company secretary of McLaughlin & Harvey, which is a company closely associated with Barr.

215. McLaughlin & Harvey has two directors, William Cheevers and Stephen Hamill who are also directors of Barr. The subsequent disclosure has revealed that Mr. Buchanan holds his shares in Terrapens on trust and as nominee for William Cheevers and two other members of the Cheevers family.

216. In the light of this information the Claimants invite me to draw the following inferences:

i) Terrapens is a "friendly" company to Barr;

ii) Terrapens does not intend to act in the Claimants' best interests;

iii) Terrapens would not seek to help the Claimants in their claim against Barr;

iv) Terrapens could require the management company to carry out appropriate repairs irrespective of the level of recovery by the Claimants in these proceedings; and

v) Terrapens could enforce its entitlement under the Leases in a manner which is perceived to be beneficial to Barr, but not to the Claimants.

217. Given the facts as I have set them out, I do not find it difficult to draw the first of these inferences. The evidence given by Mr. Chalmers about all this smacked of a lack of candour, and it seems to me an inescapable conclusion that Barr has taken these steps with a view to improving its position in relation to this litigation. Whether or not Barr will seek to put pressure on the management company by threatening, through Terrapens, to enforce its rights under the leases can only be a matter of speculation.

218. Accordingly, the Claimants invite the court to be very cautious, and to have these considerations in mind, when considering questions of the appropriate remedial works and damages. Whilst the arrangements which may have been made by Barr cannot affect Barr's liability under the Act, I consider that they can be legitimately taken into account when the court is considering the means by which any awards of damages should be paid or limitations on the extent to which individual awards of damages can be enforced, but of course only in circumstances where there is judicial discretion to do so.

Apartment 156 (4th Floor, South block)

219. This apartment is occupied, but it is not a lead apartment. It was visited during the course of the view on 14 January 2014. It had very extensive mould around the living room window reveals, to the extent that in places the surface of the plaster was black. In the lower section of the ceiling in the living room (ie. under the balcony above) there was damage to the plaster caused by a leak, which had obviously been there for some time. There was a

bucket on the floor below and the occupiers said that water had come through during the previous night when it had rained. Judging by the general state of the external areas, it did not seem that the overnight rain could have been very heavy.

220. There was also extensive mould in a bedroom on the south side of the apartment (overlooking the walkway). I noted that the internal ventilation fan was running.

221. I have not the slightest hesitation in concluding that this apartment was quite unfit for habitation. The extent of the mould in the living room and the bedroom was quite unacceptable by any standards. The presence of the mould was further aggravated by the direct leak through the ceiling in the living room which, according to the occupants, had persisted for about a year. The fact that they were living in it does not affect this conclusion. I did not like to ask about their personal circumstances, but it may well be that they had no alternative.

222. There was not the slightest ground for thinking that this mould was caused by dampness from the shower room. Apart from the fact that the mould was on the walls remote from the shower room, in both the bedroom and the living room, in other apartments where the shower room appears to have been the cause of the damp there were signs of either damp or mould on the outside of the shower room walls at low level, and sometimes signs of damp in the adjacent flooring. The presence of damp in these locations was much more consistent with the shower being the cause of the damp. Such signs were absent in Apartment 156, at least as far as I could tell on that brief inspection.

223. There was no evidence to suggest that the cause of the damp was in any way contributed to by the current occupiers or, indeed their predecessors. The leak through the ceiling was clearly the result of the agreed defects in the construction of the roof above. I find that the mould in the living room was very probably the result of a lack of insulation and the absence of a continuous vapour check layer in the walls in the area of the window reveals. I find that the mould in the bedroom was caused by either or both water penetration from the floor above or the lack of proper insulation and the absence of a continuous vapour check layer in the south facing wall of the apartment.

Heads of claim where a breach of duty is not established

224. There are certain heads of claim in respect of which I have formed a clear view that the Claimants have failed to prove their case. These are the claims in respect of the fire escape stairs, the Man safe system and the insulation of pipework.

225. I deal with these in detail in Appendix P to this judgment.

The measure of damages

226. Barr's case is that in respect of the cost of remedial works necessary to rectify defects to the common parts which make a Claimant's apartment unfit for

habitation, that Claimant may claim no more than his or her share of the cost of the works, such share being the amount he or she will have to pay by way of service charge to the management company to rectify the defects (Closing Submissions, paragraph 57).

227. In paragraph 68 of its Closing Submissions, Barr put it this way:

> "However, in the case of common parts defects within the financial responsibility of the Management Company, the expenditure which any claimant whose dwelling is not fit for habitation as a consequence of the defect(s) in the building which are not within his financial responsibility will incur, is the sum which that individual claimant will have to contribute to the cost of remedying the defect(s). So, the correct assessment of the loss which each Claimant has suffered can only be, in respect of remedial works to any defect in the common parts, that Claimant's share of the service charge related to the repair of that defect. The claimant is not entitled to claim the total cost of the work because that is not expenditure which the claimant will in fact incur."

228. However, at the same time Barr asserts that, for example, in terms of fitness for habitation of a dwelling, the defects to the roofs can only affect the penthouse apartments so that, as I understand the argument, no other Claimant can have a claim in respect of those defects (paragraph 44).

229. So on this basis, according to Barr, the only Claimants who have a claim under the Act in respect of defects in the roof are the owners of the penthouse apartments on the top floors, and then only to the extent of their proportion of the service charge. Thus the consequence of Barr failing to achieve the standards of design or workmanship required by the Act in respect of the roof is that a few leaseholders between them can recover only a fraction of the cost of the necessary repairs to the roof, the balance of which must be paid by the other leaseholders.

230. Barr relied on a decision of the Court of Appeal in *Bayoumi v Protim Services* (1998) 30 HLR 785. In that case the defendant carried out defective tanking work and, with the agreement of the claimant, installed a dehumidifier in order to remove the condensation or, if it could not be wholly removed, to enable the defendant to make a better assessment of the extent of the remedial work necessary. The dehumidifier malfunctioned and caused a flood.

231. The court held that the claimant had to prove that the breach of duty was a material cause of the damage suffered and that the measure of damages included all the losses that were a natural consequence of the breach.

232. I do not see how this case helps Barr. For example, if there is a defect in the roof above a penthouse apartment caused by Barr's poor workmanship so that the apartment is unfit for habitation, the loss sustained by the owner of the apartment is, in my opinion, the the lack of, and need for, a sound roof. Ordinarily, the compensation for that loss would be the sum of money representing the cost of the necessary repairs. If it is the case that the carrying out of those repairs will necessarily benefit other leaseholders who are not

claimants, I do not see how that can affect the particular claimant's right to compensation.

233. I can see no reason why Parliament should have legislated for the unjust result for which Barr contends and I can find nothing in the wording of section 1 of the Act that compels such a conclusion. In my judgment the owner of an apartment which has been rendered unfit for habitation because of a defect in the common parts is entitled to the cost of repairing that defect, or at least to the cost of carrying out those repairs necessary to make his flat fit for habitation.

234. So, staying with my example, the owner of a penthouse apartment on the top floor which was rendered unfit for habitation because of the state of the roof is in my view entitled to recover the cost of the work to the roof that is necessary to render his apartment fit for habitation. Nothing less will restore him to the position that he would have been in if the breach had not occurred. If that owner is awarded only his share of the service charge, he will then be dependent on all the remaining leaseholders agreeing to fund the balance of the cost of repairing the roof. But if they or some of them refuse, then the work may never be done.

235. Barr's argument is that the effect of allowing any one (or more) claimant(s) to recover the full cost of repairs to any defect in the common parts would be to require Barr to compensate the owners of other flats within the development in respect of their contribution to the service charge associated with the repair of that defect, when those individuals have no claim under the Act and Barr is not in breach of any duty to them in respect of that defect (Closing Submissions, paragraph 80). But the converse of this argument, as it seems to me, is that what Barr is effectively asserting is a right of contribution against the other leaseholders in respect of the necessary repairs to, say, the roof. In my judgment that contention cannot be right.

236. In relation to the roofs the position is further complicated by the fact that 12 of the 18 penthouse apartments are owned by West Register. West Register, a subsidiary of the Royal Bank of Scotland, acquired the leaseholds of 22 apartments following the entry of CWC into administration.

237. West Register subsequently discontinued all the claims in respect of apartments of which it was the leaseholder. I am not clear precisely how this came about, but in his closing submissions Lord Marks told me (at Day 17/153), in the context of the Settlement Deed of 20 July 2012, that:

> "... what Barr achieved was full and final settlement of the administrators' - of any liabilities under the development contract and the hope that West Register would discontinue, which they did. It wasn't part of the formal agreement, but it was plainly part of the agreement. It is significant in respect of the discontinuation because of the way that it could be said to affect my other submissions about discontinuation. There are seven owners of six apartments, apart from West Register, who have discontinued entirely independently."

238. If the result of this agreement is that the Claimant leaseholders of the remaining penthouse apartments cannot recover the cost of repairing the roof because it is said that they have an insufficient interest, then that would be deeply unattractive. I am, I regret to say, left with the uncomfortable feeling that Barr might have negotiated the withdrawal of the West Register claims in the hope of improving its position in this litigation as against other Claimants.

239. Fortunately, the outcome of points such as this does not need to be considered further since I have concluded that the partial repair of the roofs proposed by Mr. Allen is not a satisfactory solution. In my judgment there would remain a real risk of failure through corrosion of the structural steelwork in the unrepaired sections of the roof if those sections are just left as they are, which is what Barr proposes.

240. A theoretical objection to awarding one particular claimant the entire cost of repairing the roof (if that is what is required in order to restore him to the position that he would have been in but for the breach) is that several claimants may be in the same position so that each one is entitled to claim the full amount for himself. Thus Barr would end up paying damages in respect of the same defects several times over. Another potential objection is that the Claimant may not spend the money on repairing the roof, but just bank it.

241. However, the machinery of the law is quite capable of disposing of these objections by the simple expedient of awarding the full cost of repairs to the several Claimants entitled to it but on the basis that the relevant judgment sum can only be enforced once against Barr, and then on the condition that the damages will be paid to the Claimant's solicitor who would undertake to hold the money for the benefit of the management company to enable the latter to carry out the repairs.

242. For these reasons I reject Barr's argument to the effect that a leaseholder's loss in respect of a particular defect in the common parts is limited to his proportion of the additional service charge that would have to be imposed in order to cover the cost of the repairing the defect in question.

The conduct of the management company

243. A constant refrain by Barr throughout the trial was that some of the cost of the works now required to remedy defects in the development is attributable to a failure by the Claimants to ensure that their apartments were properly maintained and/or by the management company to ensure that the common parts are properly maintained in accordance with its obligations under the leases.

244. So far as the conduct of the Claimants themselves is concerned, that is dealt with in Appendix D. In that appendix I have concluded that the presence of damp and mould in the apartments has not been caused or contributed to by the occupiers to any material extent.

245. So far as the management company is concerned, one needs to start by looking at the history. As I have already mentioned, in early 2006, after many of the

apartments had become occupied, problems that arose were being dealt with directly between Barr and CWC but often in response to complaints by residents. Typically, a leaseholder would write to CWC about a particular defect and CWC would then take it up with Barr.

246. On 2 April 2007 Mr. Veitch wrote to CWC in response to a complaint about ongoing defects. He denied that the buildings could be described as deteriorating badly. The letter concluded as follows:

> "In conclusion, we would record that Barr have provided throughout the last 15 months a full-time supervisor to deal with any defects notified and have attempted to clear any items as promptly as possible. You are fully aware that proposals were submitted some 10 months ago for the rectification of the building issues and it is only recently that you have been prepared to meet and discuss this issue. Please therefore propose a series of dates and venue where we can meet and take this matter forward."

247. It seems likely that any further discussions between CWC and Barr did not achieve very much because in the summer the matters in dispute between Barr and CWC were referred to adjudication. Barr claimed about £2.1 million which it said that CWC had wrongly withheld and CWC made a cross claim for works not properly executed. The adjudicator's decision was dated 24 August 2007, by which he awarded CWC about £410,000 plus VAT in respect of the defects. This included about £110,000 in respect of repairs to the walkways, about £73,000 for repairs to the basement car parks, about £45,000 for the external glazing and £23,600 in respect of the staircases. It is not clear how much, if anything, of this award CWC actually spent on any remedial works; it appears at the most to have been very little.

248. Barr's case, as it was opened, included an argument that the Claimants, as privies to CWC, were prevented from making a fresh claim for the same defects as those the subject of the claim by CWC in the adjudication. I do not need to say any more about this argument, because by the time the trial had concluded the point was no longer pursued. However, Barr did contend that the adjudicator's Decision was relevant for two reasons:

i) the evidence relating to the defects that were the subject of the adjudication and the proposals for remedial works, as found by the adjudicator, was relevant to the issues concerning the true extent of the remedial works required and their cost; and

ii) it supports Barr's argument that some of the cost of the works now required to remedy defects in the development are attributable to a failure by the Claimants to ensure that their apartments were properly maintained and/or of the management company to ensure that the common parts were properly maintained in accordance with its obligations under the leases.

249. It seems to me that very little weight can be given to an unreasoned decision of an adjudicator given several years ago when the state of knowledge about the development was much more limited than it is today and the evidence

before the court is very different from the material that was put before the adjudicator. This is not intended as a criticism of the adjudicator, it is simply an observation based on the circumstances.

250. It is perfectly true that, as Barr points out, in 2007/2008 the management company was effectively dormant. In late November 2007 it appears to have been struck off the register at Companies House for failure to file returns. I assume that it was subsequently restored to the register because by August 2008 it was corresponding with creditors. In the meantime the collection of the service charge had been left to agents, Accent Property Solutions, who appeared to have been pretty inefficient. Matters were not made any easier by the fact that several apartments remained unsold for some time and CWC did not pay the service charge in respect of those apartments.

251. When it was suggested to Mr. Watson that the management company had an obligation to collect enough money to meet the service charge in order to keep the building in repair, he said yes, "as long as it is financially viable". When he was asked what he meant by that he explained that there were issues with the building that you could not expect a management company to deal with: for example, it would not be expected to have to maintain the insulation in a roof void or turn curtain walling round. He said that the costs of that sort of work would be beyond the means of most owners.

252. Mr. Watson was then asked about the need for a clear written management strategy, to which he said (Day 5/159-160):

> A. On a normal development you would have a maintenance strategy, on this development it is somewhat difficult.
>
> Q. You believe and have believed for a long time that a clear written management strategy is crucial; is it not?
>
> A. On other developments that I'm involved in we have a management strategy that is based on a ten-year or 15 year projection, but it is not possible on this development because some of the issues are so fundamental that you just couldn't deal with them.
>
> Q. But you believe that there ought to be such a management strategy in place in spite of those issues, I suggest?
>
> A. If the fundamental issues with the fabric were resolved, yes."

And a little later (at 164):

> "A. Yes, I think that a document is best practice, it is not to say that we don't have a management strategy, it has probably just not been formalised in such a way, but Concord Street unfortunately has its own issues, such as decorating was touched on this morning. When render is cracking and falling off, to paint it would just seem a ridiculous waste of money."

253. When it was suggested to Mr. Watson that the management company was in default of its obligation to paint every five years those parts that are normally painted, he said (at Day 5/166):

> "A. Not really. If the development was as the other development that we have looked at, then yes. But the development is unique in that we had to spend £25,000 recently on roof repairs that were a defect from the beginning. So you cannot spend - keep spending money as if it is a bottomless pit, so money has to be kept and used to effectively firefight issues as they crop up."

254. It was suggested to Mr. Watson that Mr. Atkinson was extremely heavily involved looking after individual apartments, with which he agreed. However, he then said that without Mr. Atkinson they would all be lost.

255. I consider that the directors of the management company were in a thoroughly invidious position. As the findings in this judgment demonstrate, the two blocks at Concord Street were poorly constructed in almost every respect. There was little point in carrying out repairs until the extent of the problem in any particular area had been determined. As a result of the problems caused by the ingress of water through the external glazing to the walkways the voids above the soffits were full of moisture and the finishes steadily began to deteriorate. There was little point in repairing or decorating the soffits if the damage was just going to re-occur. Similar considerations applied to the walkway soffits on the top floor. Painting the steelwork on the walkways would achieve little until the source of the moisture giving rise to the corrosion was discovered and dealt with. I do not consider that there are any grounds for criticising the Claimants in respect of their conduct of the management company once they were in control of it.

Summary of my conclusions in relation to the scope of remedial works

256. My conclusions on the appropriate remedial work, so far as I can assess it, in respect of each defect are set out in the appendices. In this section I summarise the conclusions.

The balcony doors

257. I find that Barr is not liable to the owners of the lead apartments and to the owners of apartment Nos. 72 and 80 in respect of the gaps above or below the balcony doors. However, this finding is apartment specific and will not therefore necessarily apply to other apartments.

The basement car parks

258. I find that the only defect for which Barr is liable is the cost of remedying the water ingress in the north-west corner of the car park of the North block (in accordance with paragraphs 23-27 of Appendix C). This is because I consider that the risk of further damage by corrosion to the sheet piles in this area, and the risk of ultimate failure, is one that in principle renders all the apartments in the North block unfit for habitation, even though the cost of the relevant

remedial works are likely to be relatively modest. Each claimant leaseholder of the apartments in the North block is entitled to recover a sum representing the costs of this work (but subject to Barr only having to pay an amount representing the cost of repairs once). If the amount cannot be agreed, it will have to be assessed.

The external walls

The balcony elevations

259. I find that the defects in the construction of the walls to the balcony elevations have materially contributed to the presence of damp in the following lead and B2 apartments: Nos. 12, 23, 51, 65, 66, 72, [75][4], 80 and 149. I find that all these apartments were unfit for habitation on completion of the work as a result of the combination of the defects in the construction of the walls and the defective shower units. Accordingly, I find that each of the claimant leaseholders of those apartments is entitled to the cost of the necessary repairs to his or her balcony elevation wall, including any necessary repairs to the paintwork of the balcony supports to his or her balcony (but not the cost of installing a thermal break between the balcony support and the main steelwork).

The walkway elevations

260. I find that the defects in the construction of the walls to the walkway elevations have materially contributed to the presence of damp in the following lead and B2 apartments: Nos. 23, 51, 65, [75] and 80. I find that all these apartments were unfit for habitation on completion of the work as a result of the combination of the defects in the construction of the walls and the defective shower units. Accordingly, I find that each of the claimant leaseholders of those apartments is entitled to the cost of the necessary repairs to the walkway elevation wall of his or her apartment.

The intercom system

261. For the reasons given in Appendix F, I find that each of the claimant owners of the lead and B2 apartments is entitled to the cost of having a system installed to his or her apartment to the original specification (or equivalent). I have not been provided with any figures for the cost of installing an intercom to each of these apartments individually, but I suspect that it may well be cheaper to replace the system in its entirety for the agreed sum of £71,029. In that event, the Claimants who are entitled to the cost of a new intercom system for the individual apartment would be entitled, and possibly bound, to mitigate their loss by arranging for the installation of an entirely new system even though that would benefit many leaseholders who are not claimants and are therefore not entitled to recover any damages.

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[4] No. 75 is not owned by a claimant, but the tenant of that apartment, Mr. Haim, gave evidence.

The Kawneer external glazing

262. Since I have found that the defects in the glazing rendered nearly all apartments in each block unfit for habitation on completion of the work because of the risk of failure of the steelwork in the walkways of that block as a result of prolonged corrosion by water entering the walkways, and particular the voids in the soffits, through the glazing, the Claimants are entitled to the cost of replacing the glazing to each block. I reject the remedial proposals put forward by Barr. I understand that the direct costs of this had been agreed by the expert quantity surveyors as £1,639,250 (excluding preliminaries, professional fees, allowance for inflation and any other indirect costs). That is the sum for which I find Barr is liable, together with the associated indirect costs (which will have to be assessed if not agreed), although the precise form of the award of damages under this head will have to be discussed. In addition, Barr is liable for the necessary work to protect the steelwork that has been corroded as a result of these leaks. In relation to that supporting the walkways, the direct costs of this have been agreed in the sum of £136,400. In relation to other steelwork, the agreed direct costs are £98,300.

The penthouse balconies

263. Although I have concluded that the work to the penthouse balconies was defective and that, where this caused or contributed to the apartment below being unfit for habitation, this would have made Barr liable to the owner of that apartment, I am not aware that any of the lead or B2 apartments is alleged to have suffered damage from this cause. However, if this is wrong I will hear further submissions on this point. In order to decide whether or not other apartments have been rendered unfit for habitation I will have to consider evidence from the relevant owners or occupiers, although the evidence so far suggests that the outcome will be resolved in favour of the Claimants. In any event, in the case of other claimant leaseholders liability and the amount of damages recoverable under this head will have to be determined, if it is not agreed.

The external render

264. Although I have concluded that the workmanship in relation to the application of the render and the boarding which acts as its substrate was poorly carried out and did not meet the standards required by section 1 of the Act, I am not persuaded that this defect made any apartment unfit for habitation when the work was completed. The claims under this head therefore do not succeed. However, where repairs are carried out to either the balcony or walkway walls the render will inevitably have to be replaced as part of the remedial work and that cost will be recoverable.

The roofs

265. For the reasons given in Appendix J, I have concluded that the workmanship in relation to the construction of the roof to each block fell short of the standard required by section 1 of the Act and that, as a result, each of the apartments on the top floor was, on completion of the work, unfit for

habitation because there is a risk of structural failure of the roof if remedial work is not carried out. In addition, in the case of one apartment, in respect of which I heard evidence from the owner, I have found that it was also unfit for habitation because of the extent of mould and damp that appeared as a result of the defects in the construction of the roof (apartment No. 72). This is a conclusion that might also apply to other apartments in respect of which the owner or occupier did not give evidence. I have concluded also that each leaseholder can only be restored to the position that he would have been in if the work had been carried out properly by awarding him or her the cost of replacing the entire roof to the block in question. For the reasons given in Appendix J, I reject Barr's various proposals for remedial works and, in particular, the submission that it would be sufficient just to repair the section of roof immediately above those apartments which are owned by Claimants in the action. Therefore I find that the claimant owners of each of the penthouse apartments are entitled to recover the costs of repairing the roof of the block in which the apartment is situated, in other words the Claimants' Option 1. In addition, I find that the owners of apartment No. 72 are entitled to the same remedy on the ground that their apartment was unfit for habitation by reason of the extent of the mould and damp caused by the defects in the roof. I understand that replacing the roof in its entirety will necessarily embrace the cost of dealing with the defect in relation to the junction between the roof sheets and the glazing above the top floor walkways. The total direct costs of replacing the two roofs has been agreed in the sum of £777,097, plus the relevant indirect costs (as with the external glazing). In relation to the South block, I find that Mr. and Mrs. Haslehurst and the owner of apartment No. 74 are entitled to the costs of repairing the roof of that block, together with the relevant indirect costs (which will have to be assessed if not agreed). As I have already mentioned, appropriate directions will have to be given as to the terms on which these damages are to be received and dealt with. As to the North block, for the same reasons the owners of apartment Nos. 171, 173, 175 and 177 are entitled to damages representing the costs of replacing the roof of that block. In the absence of agreement, the evidence of owners or occupiers of those apartments, and of No. 74 of the South block, will have to be considered to determine whether or not those claimants are entitled to recover a like sum by way of damages on the further ground that their apartments were also unfit for habitation by reason of the presence of mould and damp caused by the defects in the roof.[5]

The walkway surfaces and drainage

266. For the reasons given in Appendix K, I have concluded that the hazardous state of the walkways in wet weather or snow as a result of the inadequate drainage (aggravated by the uneven surface) made all the apartments unfit for habitation, save for those on the top floor of the North block (about which I make no finding given the state of the evidence). I reject the remedial proposals put forward by Barr and so I accept the proposals put forward by the

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[5] This would be necessary only if Barr were to appeal my conclusion that the top floor apartments are unfit for habitation because of the existence of a risk to the structural integrity of the roof over the longer term.

Claimants. In my judgment each claimant leaseholder is entitled to the cost of the repairs to the walkway or walkways providing access to or exit from his or her apartment. This will include the cost of repairs to those parts of the walkways that constitute the means of escape from the apartment in the case of fire. I anticipate that the damages to which the Claimants collectively will be entitled will cover the cost of repairing all the walkways in both blocks, but I am not in a position to make a finding to that effect at this stage. The direct cost of the remedial work to the defective walkway drainage is £308,013, again excluding preliminaries and other indirect costs. That is a sum for which Barr is liable, but directions will again be required as to the appropriate form of order so far as this head of damages concerned.

Internal doors, gaps under party walls and the flooring

267. For the reasons given in Appendix L, I consider that in lead Apartment Nos. 23, 26, 51, 65, 66, 122 and 149 (all save for No. 12), and Apartment No. 80, the design and workmanship involved in the installation of the internal partitions fell below the standard required by section 1 of the Act and has resulted in a number of these apartments no longer complying with the fire regulations in force at the time when they were built. I have concluded that the risk to the occupants in the event of fire makes each of these apartments unfit for habitation, so I consider that the relevant Claimants are entitled to recover the cost of the appropriate remedial work. Since it seems that the extent of the problems from this cause differ from apartment to apartment, I consider that the extent of the work required will probably have to be assessed on an apartment by apartment basis and will depend upon whether works to the shower tray are also required in that apartment, but I will hear further submissions on this if necessary. Where work to the shower trays is required, as a matter of mitigation of loss that should ordinarily be done at the same time as any work that is required to the partition walls.

The shower trays

268. I have concluded in Appendix M that the shower trays were defectively installed as a result of design and workmanship falling below the standard required by section 1 of the Act, and that this made each lead and B2 apartment, save for Nos. 26 and 72 (which had a bathroom, not a shower cubicle), unfit for habitation, with the result that the leaseholders of those apartments are entitled to the cost of replacing the shower tray so that it is properly supported and the vertical tiled walls of the shower cubicle overhang the horizontal edge of the tray. If that cost has already been incurred, then the relevant Claimant is entitled to recover it. For the reasons given in the previous paragraph, the cost of this work will probably have to be assessed on an apartment by apartment basis. I am not in a position to find as a fact that a particular figure would represent the appropriate measure of damage for every apartment suffering from this defect.

Other matters

269. This litigation unfortunately throws up certain limitations in the procedure adopted in this case of trying the issues by reference to sample apartments.

My findings indicate that dampness appears to be more common in the external walls to the balcony elevations, where about 80% of apartments are affected, than in the walls to the walkway elevations, where the proportion is about 50%. These figures are broadly consistent with those shown on the Claimants' diagrams that were enclosed with their closing submissions, where the respective proportions are about 85% and 42%, respectively (ignoring non-claimant apartments). The Claimants' option 1 scheme includes an estimate for the cost of remedying the defective workmanship in all the external walls. There is, so far as I can tell, no breakdown showing the separate costs for the balcony and the walkway elevations.

270. For the reasons that I have already given, a leaseholder can only recover damages under the Act on proof not only of defective work but also that such work has caused or contributed to his or her apartment being unfit for habitation when the work was completed. In relation to the lead apartments it is clear that, whilst the defects in the construction of the external walls are widespread throughout the blocks, this has not necessarily resulted in every apartment being unfit for habitation. This shows why this action cannot be a representative action.

271. However, since I have found that about 80% of the lead and B2 apartments were unfit for habitation by reason of defects in the balcony elevation walls, the figures set out above suggest that a similar (or slightly higher) proportion of the remaining apartments owned by the leaseholders who are Claimants are similarly affected. However, given the statistically small population of the sample consisting of the lead and B2 apartments, I am not prepared to make a finding that this is, in fact, the case (even if the terms on which the trial was held permits me to do so). This is because one cannot just look at records of damp and mould in isolation: one needs to know in addition what the occupier had to say about the conditions and their impact.

272. I suspect that the only way forward is for the Claimants' experts to prepare a schedule identifying all the remaining apartments owned by the Claimants (including those identified in Appendix E) that have signs of damp or mould on (a) the balcony elevations and (b) the walkway elevations. If this can be the product of a joint exercise, so much the better. If not, Barr will then have to produce a counter schedule identifying any areas of disagreement.

273. With this schedule the court could then consider the contents of the relevant witness statements and decide whether or not each apartment was fit for habitation on completion. If either of the parties is not content for this to be done without further submissions, whether written or oral, then I will have to give further directions as appropriate.

274. It is, I regret to say, only at this stage that it will be possible to identify an appropriate remedial scheme to rectify the defects in the non-lead and B2 apartments for which Barr is liable.

Alternative methods of repair.

275. In Appendix J I have addressed in some detail Mr. Allen's alternative proposals for the repair of the roof of each block, which I have rejected for the reasons given in that appendix. Mr. Allen has also produced alternative proposals in respect of other areas of defective work, some of which only emerged at a fairly late stage. As I have made clear, on many aspects of his evidence I did not find Mr. Allen to be a witness upon whom the court could in general rely and so I am not prepared to accept his alternative proposals in preference to those put forward by the Claimants save where I have expressly made a finding to this effect elsewhere in this judgment or in the appendices.

The issue of residual blight on the value of the properties following remedial work

The absence of a certificate from the Zurich in respect of the common parts

276. A point raised by Barr was that one factor affecting the value of the apartments was the lack of a Zürich certificate/warranty for the common parts. Barr submits, and I did not understand this to be disputed, that it was not a condition of Barr's contract that Zürich issue a certificate for the common parts. Barr submits that Zürich would not issue a common parts certificate until works in accordance with section 278 of the Highways Act 1980 were completed. These were works to the road between the two blocks which did not form part of the scope of Barr's work.

277. When Mr. Veitch was cross-examined by Miss Powell, for the Solicitor Defendants, he agreed that by the end of 2005 the only work that appeared to be outstanding in order for Zürich to issue its certificate for the common parts concerned some of the walkways to the South block (Day 7/18-19).

278. The matter was explored further in cross examination by Mr. Nissen, when Mr. Veitch accepted that the section 278 works were completed on 10 February 2006. He accepted also that notes that he made at the time indicated that the existence of defects in relation to the walkway drainage in the South block, amongst other things, was preventing the issue of the Zürich certificate. However, in a letter dated 16 December 2005 to Burtenshaw Projects, who appeared to be acting as project managers, Mr. Veitch insisted that practical completion had been achieved and was complaining that Burtenshaw had not issued a certificate to that effect. In the letter he said that the only matter outstanding was the section 278 works which did not form part of Barr's contract. The letter contained no reference to any outstanding defects in the common parts.

279. The cross examination then continued as follows (Day 7/164-165):

> Q. The position is that the reason in fact why Zürich never issued certificates in respect of the common parts was outstanding works from Barr. That is the reason, that is right isn't it?

A. Well, once the 278 works were complete then that was no reason for them to withhold the certificate.

Q. The reason they withheld them was Barr's defects?

A. Well, there was [sic] outstanding defects in the common areas.

Q. That applies both to the North Court and south Court?

A. Well, no works has [sic] been carried out to the Courts."

280. There was no evidence from Zürich, although extracts from records of Zürich inspections were available. In relation to the South block, an entry for 16 December 2005 records that "Finish to common walkways incomplete". This is the last date on which there is an entry in the records.

281. In my view the only inference to be drawn from this material, exiguous though it may be, is that by early 2006 two things were preventing the issue of the Zürich certificate for the common parts: the condition of the walkways to the South block (which by then had been otherwise complete for almost six months) and the section 278 works. Whilst the latter were completed in February 2006, there is no evidence that the work identified as being required to the walkways of the South block was carried out. Indeed, the evidence of Mr. Veitch would suggest that it was not.

282. Accordingly, I cannot accept that the absence of a Zürich guarantee for the common parts provides Barr with any assistance or defence in relation to the claim for blight. So far as I can tell, the absence of a Zürich certificate for the common parts appears to have been caused, or at least materially contributed to, by outstanding and unrectified defects to the walkways of the South block. Since the problems with the walkways were common to both blocks, the same obstacle to the issue of the Zürich certificate would have arisen there also. However, as I have already mentioned, there are no records of any Zürich inspections after 16 December 2005. This may be because no further inspections were carried out after that date, but there is no evidence about it.

The evidence of the expert valuers

283. Mr. Collinson said in his report that the apartments were now worth about 40% of their original value for a number of reasons: the general decline in the market, the existence of the defects, a reactive approach by the management company, misuse of the apartments by tenants (in particular, the failure to ventilate them properly), the lack of a common parts warranty from the Zürich and the existence of this litigation. Mr. Richardson, as I understood his evidence, allowed only for the general fall in the market, which was agreed at being 30% since January 2006.

284. In his first report Mr. Richardson gave details of three sales on the open market of Concord Street apartments that had taken place since the disposal of 21 of the apartments to West Register in April 2009. Two of these were in September 2009 at prices of £144 and £190 per square foot, respectively. A

third was sold at auction following a repossession in November 2011 at about £100 per square foot (which was the same rate as the sale of the 21 apartments to West Register). His "equalised" value per square foot in January 2006 was £200.

285. This suggests that prices may well have fallen by 50% since January 2006 if not as much as 60% - as Mr. Collinson says. I consider that there is a small element of double counting in Mr. Collinson's assessment and I find that the prices of apartments at Concord Street have fallen by about 50% since January 2006. Accordingly, the diminution in value consequent upon the defects at Concord Street, and which - as between the Claimants and Barr - I regard as largely the responsibility of Barr (because I have rejected the allegation made against the Claimants in relation to the performance of the management company) have caused a further 20% loss in value.

286. However, although I regard much of this additional diminution in value as being attributable to Barr's poor workmanship, it is reasonably obvious to me that it cannot all be attributable to those elements of the workmanship which have given rise to liability under section 1 of the Act. Some of it must be attributable to the fact that the apartments were not constructed to the specification against which they were marketed. In addition, some of it will be attributable to visible defects for which I have found that Barr is not liable to the Claimants, such as the poor state of the render, which detract from the overall appearance of the buildings and thereby affect the value of the apartments.

287. Doing the best I can I consider that if the defects for which Barr is liable under the Act did not exist, the element of diminution in value attributable to the other matters would probably have been about 10% - in other words 50% of the overall additional diminution in value beyond that attributable to the fall in the market.

288. So, in theory, if the defects for which I find Barr is liable were to be repaired, the apartments concerned would regain only 10% of their current loss in value. However, both experts initially agreed, in my view correctly, that there would be some significant residual blight in spite of the completion of remedial works. I do not accept Mr. Collinson's revised view that, in the absence of any appropriate warranties, there would only be limited blight for no more than six months.

289. It is difficult to derive much further assistance from the evidence of the expert valuers because their views were made on the basis of various assumptions as to the nature and extent of the remedial works required which, through no fault of theirs, do not correspond with the findings that I have made. I must therefore do my best to follow the approach indicated by their evidence.

290. I consider that it is unlikely that satisfactory warranties will be forthcoming following completion of the remedial work, save in respect of the roof. This is because much of the work will consist, in effect, of patchwork repairs for which contractors may be less willing to give guarantees. But even if guarantees could be obtained, I consider that they would probably make little

difference given that there would still be numerous unrectified defects (which I find is likely to be the case given the financial circumstances of many of the leaseholders) and, in any event, if there had been an original guarantee in respect of the common parts it would be due to expire in 2016.

291. In the circumstances I find that there will be some blight on the value of those apartments where remedial works are undertaken. For the reasons I have already given, I consider that the proportion of such blight that is attributable to the matters for which Barr is liable under the Act is about 10% of Mr. Richardson's equalised value for January 2006 (taken from the spreadsheet attached to his final report). I do not think that such blight will be transient: in the light of the views expressed by the experts in their joint statement, I consider that it is likely to last for four to five years following completion of the remedial works.

292. It follows that I regard Mr. Richardson's estimate of 35% as being too high. Although my figure of 10% is in line with one of the figures put forward by Mr. Collinson, I hope that I have made it clear that I have arrived at it by a completely different route and for different reasons. In addition, I reject his evidence that this blight would only be short lived.

293. It is, I think, obvious that blight will gradually diminish with time. I understood from Mr. Richardson's first report that his 35% was, in effect, an average figure over the blight period. In other words, the extent of the blight would be much greater initially and would then diminish during the blight period. My figure of 10% is also an average and so, adopting a straight line approach, it would represent the level of blight at the midpoint of the blight period.

294. A further point raised by Barr is that the Claimants can only recover damages for blight if they can prove that they will sell their apartment within the blight period. In my view, there are two difficulties facing this argument. First, this is a matter which, in practical terms, is almost incapable of proof. A claimant may wish to sell his apartment in principle but only at a reasonable price. The latter will in large measure be dictated by future movements in the market which, of course, cannot be either proved or predicted. Second, even if a claimant were to say "Yes, of course I will sell my apartment at the earliest opportunity", knowing that this might attract an additional component to the damages, this evidence would be open to challenge on the basis that it is bound to be tainted by the exigencies of the litigation so that it is inherently unreliable. I consider that neither of these difficulties can be dismissed as fanciful.

295. It was clear from the evidence that many of the claimant leaseholders would be only too glad to sell their apartment if they could: the Claimants' closing submissions give several examples of this (see paragraph 1035). It is in my view not correct of Barr to say that a leaseholder who retains his property through the blight would suffer no loss. His or her loss is the inability to realise the stigma-free value of the apartment during the blight period should he or she need to do so. That is an actual, not a contingent loss.

296. I see no way in which this can be treated as a loss of a chance because it cannot be assessed arithmetically. If an owner's decision to sell his apartment is dependent on factors such as the current state of the market, his own financial position at the time and so on, there is no way in which one can begin to assess the probability that the relevant circumstances will arise during a particular period (unless, of course, those circumstances have already arisen). The closest analogy of which I am aware is what is known in personal injury cases as a *Smith v Manchester* award, that is a sum by way of general damages that may be awarded to a claimant who has not lost his employment as a result of the injury (or has acquired some other employment) but whose condition is such that, should he lose his job through redundancy or some other reason not related to his injury, he will be under a handicap on the open labour market as a result of his injury. This is not a type of loss that can be evaluated as a loss of a chance because it cannot be assessed arithmetically.

297. It seems to me that a similar approach would be appropriate here. The starting point is to take the 10% diminution in value attributable to blight which I have already concluded is appropriate, and to discount that by a modest proportion to reflect the fact of accelerated receipt (because the Claimant is receiving compensation now and not at the midpoint of the blight period). A further deduction must then be made to reflect the possibility that the particular Claimant will need to put his apartment on the market during the blight period. This is necessarily a rough and ready exercise and I consider that the justice of the case would be met by reducing my 10% starting point by just over half to reflect these two factors.

298. I can take Ms. Lingwood's case as an example. In the case of her apartment the equalised price at January 2006 (taken from the spreadsheet attached to Mr. Richardson's report of 12 December 2013) is £97,600. So in her case I would award general damages for blight in the sum of £4,500. It does not matter that in fact she purchased her apartment for much less than the equalised price, because the price she paid reflected not only the fact that it was a repossession but also the fact that the market had dropped considerably by July 2009. The object of Mr. Richardson's exercise in equalising the prices was to eliminate the factors that were not connected with the market value of the apartment, such as a sale in unusual circumstances or the buyer being in a position to negotiate a special discount. I therefore consider that his equalised value is the correct starting point irrespective of the actual purchase price.

299. Adopting a similar approach in relation to the other owners who gave evidence at the trial, I make the following awards in respect of blight (the sum being per apartment, not per person):

Claimant	Appt No	Damages
Lingwood	12	£4,500
Goulding	14	£4,500
Waller/Taylor	23	£5,750
Sutton	26	£6,250
Priceman	35	£6,250
Wood (Michael)	48	£4,350

Wood (Michael)	64	£4,350
Whaley (Mr. & Mrs)	65	£6,250
Booth (Mr. & Mrs)	66	£5,200
Whaley (Mr. & Mrs)	69	£6,250
Haslehurst (Mr. & Mrs)	72	£6,000
Goulding	78	£4,500
Munoz Lopez	80	£4,500
Priestley	122	£4,350
Watson	127	£6,250
Wood (Barry) (Mr. & Mrs)	133	£4,650
Ridgway	149	£5,750
Watson	163	£6,250

300. I see no reason why a similar approach should not be adopted in respect of all the other apartment owners who did not give evidence. However, it may be that in one or two cases there are circumstances which would call for some adjustment to the general approach that I have outlined above, although I have some difficulty in envisaging what those circumstances may be - unless the apartment in question is currently on the market. I would hope that awards for those Claimants could now be agreed in the light of the principles that I have discussed and applied above. If not, they will have to be determined by the court.

Damages for distress and inconvenience

301. The Claimants who occupy or have occupied their apartments claim damages for distress and inconvenience. Those in this category who gave evidence are as follows: Ms. Lingwood, Mr. Sutton, Mr. Booth (whose wife is also a Claimant), Mr. Munoz Lopez, Mr. Priceman and Miss Priestley.

302. The summary of the evidence of each of these Claimants in Appendix A identifies the problems that each had with his or her apartment. For the most part, that evidence was not challenged and the court was able to form a reasonably clear picture of the distress and inconvenience that those who gave evidence had suffered. It is apparent from Appendix A that not all claimants suffered from all the defects for which I have found Barr to be liable under the Act, or for the same periods. It seems to me self-evident that any award of general damages for distress and inconvenience must reflect the period over which it was suffered. By contrast, I consider that it would be both difficult and invidious to make individual assessments of the level of distress caused by, say, a leaking shower tray according to whether a particular individual was particularly robust or unduly sensitive. I propose therefore to award damages on the basis that each claimant is a reasonably robust individual: indeed, from what I saw of the witnesses that was in fact my general impression. So to that extent, a fairly broad brush approach is called for.

303. The Claimants submit that an appropriate sum under this head would be £2,500 per annum, increasing to £3,000 per annum during the course of any actual remedial works. The appropriate sums for each claimant assessed on this basis are set out in a table in the Claimant's closing submissions

(paragraph 1046). Barr did not dispute the entitlement to general damages as a matter of principle, but submitted that the amount should be very modest. The amount suggested was £200 per annum on the basis of a decision of Ramsey J in *Eiles v The London Borough of Southwark* [2006] EWHC 1411 (TCC), at [152] - [157], and of the Court of Appeal in *Berent v Family Mosaic Housing* [2012] EWCA Civ 961, at [39] - [40]. Both cases concerned cracking caused by tree roots and so the inconvenience and discomfort, except during the period when repairs were carried out, was pretty minimal. This was made clear by Ramsey J. The decision of the Court of Appeal in *Berent* is in my view of limited assistance because the court concluded that there was no reason to make an award that was higher than the claimed figure of £200 per annum. By contrast, in this case the inconvenience caused by the malfunctioning intercom was clearly fairly serious and the inconvenience, discomfort and distress caused by the damp and mould, in particular from the leaking shower trays, was in my judgment very significant.

304. In the recent decision of the Court of Appeal in *West v Ian Finlay & Associates* [2014] BLR 324, the court said that awards of this type should be modest and subject to a maximum of about £3,000 per annum (at current prices). That case involved the failure of damp proofing work and whilst the remedial work was carried out the claimants lived in a nearby rented house. The court considered that £2,000 per annum would have been an appropriate rate for Mrs. West and £1,500 per annum an appropriate rate for Mr. West. The stress and anxiety suffered by Mrs. West was described by the court as "undoubtedly significant", but not at the top of the scale.

305. I consider that the defects that have caused the most distress and inconvenience in this case are the problems with the shower trays (and consequent mould and damp), the presence of mould and damp from other causes and the problems with the intercom system. However, it has to be borne in mind that there are a number of defects for which Barr is not liable under the Act (for example, the cracking of the render) and these have to some extent added to the overall stress suffered by the occupiers. For this reason, I do not consider that an award at the top of the range would be appropriate for any of the Claimants in this case, even though it is clear that many of them have suffered a great deal of stress and anxiety to an extent that would otherwise call for an award at or close to the top of the range.

306. I consider that the distress and inconvenience caused by the damp and mould was very significant and, of course, in some cases and for some periods occupiers had to put up not only with that but also with the inconvenience caused by the malfunctioning intercom. Where that occurred, I consider that the degree of distress and inconvenience was greater than that suffered by Mr. and Mrs. West (even after making due allowance for the matters I have mentioned above).

307. Doing the best I can with all these considerations in mind, I consider that the appropriate levels of award are as follows. For periods when the only real sources of inconvenience or annoyance were the non or malfunctioning intercom and the hazardous walkways, I consider that the appropriate level of award is £750 per annum. Where, at the same time, an occupier also suffered

from damp and mould, I consider that the appropriate figure is £2,250 per annum. Whilst I have found that Barr is liable for the problems with the internal doors, this is principally on the ground that it increased the risk in the event of fire rather than because of the degree of inconvenience to the occupiers. I have therefore not increased the awards to reflect this aspect. In the case of Mr. and Mrs. Booth and Mr. Priceman, they had a child or children in the apartment for some of the period, and I have increased the award slightly to reflect this on the ground that a parent with a child is likely to be much more anxious in circumstances such as these than an adult with no children.

308. Accordingly, my assessment of the entitlement of each of the Claimants named above is as follows:

Claimant	Period	Rate	Amount	Total
Lingwood	7.09 - 10.15	£2,250	£14,060	£14,060
Sutton	9.05 - 10.15	£750	£7,560	£7,560
Booth (Adam)	7.06 - 1.10 2.10 - 10.11	£750 £2,250	£2,625 £3,735	£6,360
Booth (Sofia)	7.06 - 1.10 2.10 - 10.11	£750 £2,500	£2,625 £4,150	£6,775
Munoz Lopez	2.07 - 8.08 9.08 - 10.15	£750 £2,250	£1,125 £15,750	£16,875
Priceman	1.10 - 10.15	£2,500	£12,940	£14,375
Priestley	1.07 - 1.09 2.09 - 8.11	£750 £2,250	£1,500 £5,625	£7,125

309. Where the Claimant still occupies his or her apartment, I have taken the endpoint of the period as October 2015 on the fairly arbitrary assumption that the relevant work will have been carried out by then. In the circumstances of this case, and having regard to the amounts that I have awarded, I do not consider that any further increase in the award is justified to reflect the period when remedial works are actually carried out. This is one of two reasons: either the occupier will be in alternative accommodation (the reasonable cost of which will form a separate and recoverable expense) and not putting up with the defects, or he or she will be putting up with the work but doing so in the comfort of knowing that things are about to improve. In any event, I do not know how long the remedial works will take in the case of any particular apartment.

Additional heads of loss

Expenses already incurred in the rectification of defects for which Barr is liable

310. I have already mentioned that where a Claimant has already spent money in rectifying, or attempting to rectify, a defect for which Barr is liable under the Act, that Claimant is entitled to recover that sum. To take Ms. Lingwood's case again, it was her evidence that she spent £1,600 in rebuilding her shower. In my view she is entitled to recover that sum. In addition, I consider that she is entitled to recover the sum which she had to pay as her proportion of the

cost of the temporary repairs to the penthouse balconies (I understand that figure to be £89.47) and the installation of the temporary intercom system.

311. It was submitted on the Claimants' behalf that they have all spent time and effort in dealing with the defects and that all of them have probably spent small sums here and there of which they have kept no account and that they should be compensated for these losses by a payment of £500 to each Claimant. Whilst I can see the force of this in terms of rough justice, it is in my view too well settled that special damages of this type must be proved.

312. Whilst Barr's description of this proposed payment as a "gratuity" is in my view unnecessarily dismissive, I agree with Barr that I should not award such a sum. However, where a Claimant has identified in his or her witness statement particular expenditure incurred in the rectification of a defect for which I have found Barr to be liable, since I find that each of the Claimants who gave evidence was a truthful witness I consider that he or she is entitled to recover that sum. If, for whatever reason, an item of expenditure of this type is not mentioned in a Claimant's witness statement, but is recorded in tab 3 of the relevant E bundle, then I consider that that also should be treated as having been proved (unless specifically challenged in cross examination).

313. Such items of expenditure are not substantial and I therefore expect the parties to agree a schedule showing the relevant amount of expenditure for each Claimant. If any such items cannot be agreed, then the matter will have to be resolved by the court at a further hearing.

Legal, Planning and Building Regulation fees

314. I see no reason why such fees should not be recoverable in principle if it can be demonstrated that they will be incurred. This is not a matter that I can resolve at this stage and is one which, if it cannot be agreed, will have to be referred to the court for determination at a future hearing.

Other matters raised by the Claimants

315. The Claimants also make claims under further heads of loss. For example, loss of rent whilst remedial works are being carried out, the cost of alternative accommodation and removal and storage costs.

316. I consider that these are in principle recoverable heads of loss, but until the precise extent of the work required to each apartment or to the common parts (such as the roof) has been assessed in the light of this judgment, it is not possible to say which owners or occupiers might have to move out or for how long. For example, I can see that it is very likely that the occupiers of the penthouse apartments will have to move out whilst the roof on their block is replaced, but at this stage I am not in a position to say whether this will or will not be the case.

317. Unfortunately, I see no alternative but to leave these issues to be addressed at a further hearing when the relevant material can be put before the court and the matters can be determined.

Concluding observations

318. I hope that in this judgment and the appendices I have addressed all of the points that call for determination at this stage. However, in case I have not this judgment will not be handed down in final form until any outstanding matters that should have been included have been dealt with.

319. I have, unfortunately, had to leave a number of matters unresolved, but I have attempted in this judgment to provide guidance which ought to enable the parties to resolve those matters by agreement. One important issue is the question of whether each of the other non-lead apartments in which similar external/internal defects have been recorded were unfit for habitation on completion in the light of them. I suspect that the answer in almost every case will be yes, but as I have already explained I do not feel able to make a determination to this effect without considering the evidence (whether written or oral) of the owner or occupier as to the impact of the defects.

320. It may be necessary to have a further hearing to determine the outstanding issues, unless it is agreed that this (or some of them) can be done on paper.

321. Finally, I am grateful to counsel and solicitors on all sides for their assistance. I offer my apologies to the parties for the length of time that it has taken me to finalise this judgment: I have done it as quickly as I could, having regard to the complexity of the issues raised and the relentless demands of other work.

1. In this Appendix I summarise the evidence of the residents in three groups: the owner occupiers, the owner landlords and the tenants. As I have said in the main judgment, I consider that all the witnesses gave straightforward and truthful evidence and, save for the very few instances where I have identified the evidence as being wrong or mistaken, I accept it without reservation.

Owner occupiers - lead apartments

Ms. Natalie Lingwood

2. Ms. Lingwood is the owner occupier of No. 12, a one bedroom apartment on the first floor of the South block, which she bought in July 2009. She struck me as a careful young woman and was a transparently honest witness.

3. Ms. Lingwood purchased her apartment, which she bought at a discount following a repossession, with a loan from her parents on an interest-only basis. She was hoping to save some money in order to enable her to move up the property ladder in due course. However, she said that in the event most of the savings that she had hoped to make went to pay for the repairs of defects. She said that she could not sell her apartment at the moment and that it was not really suitable to be let. As a result she felt trapped in her situation and has had sleepless nights and been tearful at times about her situation.

Damp and mould

4. When Ms. Lingwood first moved into her apartment the sealant around the shower tray was completely black and there was a smell of damp in the shower room. Her mother cleaned it and managed to improve the colour and to get rid of the smell. However, she said that this was for a short period and then "… it was just back with a vengeance" (Day 4/11). She said that the shower used to leak onto the tiled floor of the shower room, which she used to have to mop up. She said that the water appeared to be coming out from the plinth below the shower tray and through the shower door.

5. Ms. Lingwood said that she was given a new radiator for Christmas 2010 which she installed in place of the original radiator in the shower room in order to improve the heating.

6. In the spring of 2011, there was a smell in the hallway coming from the small cupboard next to the shower room. Ms. Lingwood took everything out of the cupboard and found that the back and side walls of the cupboard were covered in mould. She cleaned it off and then went on holiday, but when she came back the mould had reappeared and was, if anything, worse than before. She then called in a plumber who had done other work in apartments in Concord Street.

7. The plumber found that the shower tray was loose and so the panel giving access to the area beneath the shower tray was taken off. Beneath the tray

there was stagnant dirty water. By then there was mould three quarters of the way up the wall. As a result Ms. Lingwood had the walls between the shower room and the hall and her bedroom knocked down and replaced, and a complete new shower unit installed in place of the old one. This work cost her £1,600 - for which her insurers would not pay - and she had to sleep in the living room for about five days whilst the work was being carried out. She went to her gym to have showers.

8. There was also, she said, a separate problem with mould around the balcony doors in the living room. She noticed a small amount of mould growing in the right hand corner when she moved in, but over the years it got worse. She said that she used to clean it off on a regular basis and paint the area with a heavy duty paint, but the mould kept coming back. More recently mould has developed on the left-hand side of the door also. She said that the damp and mould in her apartment had got progressively worse with time. She said that it was sometimes worse than the condition shown in the photographs - it all depended on when she had last cleaned it. The experts noted in the Scott Schedule that although the property had undergone recent redecoration there was mould growth at the base of both reveals.

9. In August 2013 she noticed mould growing at an alarming rate on the one wall of the shower room that had not been replaced in 2011. She tried to wash it off but it came back almost immediately. Then she tried leaving the bathroom fan on all day when she was at work (by wedging the door open). This turned out to have been caused by a problem with the cistern of the WC which had dropped because it had been poorly fixed. The repairs involved demolition of the walls that had not been replaced on the last occasion and the total cost was £2,800.

Doors

10. Ms. Lingwood did not complain of any problems with the doors. In the Scott Schedule the experts noted that there was a change in level over the door to the sitting room of approximately 4 mm, which would indicate that she has not had any problems with the doors.

Intercom

11. Ms. Lingwood said that this had never worked since she bought the apartment. In order to let friends in she either had to throw her keys over the balcony, or go down and let them in herself.

Lifestyle

12. Ms. Lingwood said that she opens her bedroom window and the patio door when she is at home "… to get rid of the stuffy smell that builds up". As I have mentioned, she tried leaving the shower room fan on and wedging the door open whilst she was out at work but this had had no effect.

13. Ms. Lingwood said that she kept the trickle vents open most of the time. The fan in the kitchen was on for much of the time when she was at home, but she did not leave it on when she was out at work.

14. Ms. Lingwood said that she dried her laundry in the apartment but did this only when she could not dry it on the patio. However, she made the point that she was a single woman and did not have very much laundry, and that what she did in Concord Street was exactly what she had done in other flats without any problem.

Common parts

15. In relation to the walkways, Ms. Lingwood said that in freezing weather there was sometimes ice right across a part of the walkway between her apartment and the lift. It was not possible to walk round it.

16. Her evidence was not challenged to any material extent and I accept it. She struck me as a person who looked after her apartment and who had gone to particular lengths to try and eliminate the damp and mould, but she was clearly fighting a losing battle.

17. It is true that the damp problems were aggravated by a further incident when her WC cistern dropped, but Ms. Lingwood said that this incident did not aggravate the mould round the patio doors: as she put it, the increase in mould at the sides of the patio doors was not "in line with" the outbreak of damp in the bathroom when the cistern dropped.

18. It seems to me to be an inescapable conclusion that the ventilation provided to Ms. Lingwood's apartment is insufficient to remove the damp, even without a leaking shower tray. As a result of excessive moisture there is condensation in the area of the reveals to the glazed patio opening which I find is caused by inadequate insulation or gaps in the vapour check layer in the walls, or a combination of both, in those areas.

19. I am completely satisfied that Ms. Lingwood has done absolutely nothing to contribute to the problems that she has had. I reject the suggestion that it is inappropriate to dry clothes in an apartment such as this: apart from anything else she has done this in other flats without it causing any problem. I accept her evidence that she has cleaned off the mould around the patio glazing and on the mastic in the shower tray at regular intervals.

Mr. John Sutton

20. Mr. Sutton owns a two bedroom apartment, No. 26, on the second floor of the South block. He bought his apartment off plan in September 2005. In fact he was not the first purchaser, because his vendors had bought the flat from the developers and sold it on very shortly.

Damp and mould

21. Shortly after he moved in he noticed that his living room smelt of damp. There was damp and mould on the wall in the living area which backed on to the shower room. In fact, this turned out to be the result of a leak from a pipe in the WC. However, this is not a type of defect of which complaint is made in this litigation.

22. According to the Scott Schedule, there is water staining and mould growth around the reveals to the balcony doors, possibly caused or contributed to by gaps at the base of the doors and the fact that the patio door frame has dropped.

23. However whilst Mr. Sutton said that water from outside can get into the apartment through cracks in the render, he did not say that dampness in general was a problem.

24. In the light of Mr. Sutton's evidence as a whole, this is probably the one lead apartment where the presence of damp and mould has not been at a level that rendered it unfit for habitation.

Doors

25. Within a year of moving in he noticed cracks in the living room and kitchen walls, and some remedial work was carried out by Barr. However, since then the cracks have reappeared and the living room door frame has distorted so that the door cannot close properly. This is confirmed by the Scott Schedule, which records also that there is a gap of 10-18 mm at the base of this door (which exceeds the allowable limit for a fire door).

Intercom

26. In his witness statement he said that it had not worked since he moved in. However, in cross-examination he said that the intercom may have worked when he first moved in, but it ceased to work very quickly after that.

The common parts

27. He said that there have been instances when he has not had any water in winter because pipes have frozen.

28. He is concerned at the state of the walkways, which become very slippery when it rains. He said that he had slipped on more than one occasion.

29. He was very concerned at the green mould that appeared on the walls in some places, particularly near the south side bin store. He said that this has been bad ever since he moved in, although it has been getting steadily worse.

30. He said that over the years he had noticed a significant deterioration in the condition of the communal areas in spite of the best efforts of the management company to maintain it. He said that he was concerned about the impact of the

water ingress, and the consequent mould and damp problems going forward and the likely need for heavy service charges in order to deal with this.

31. He said that one day he went and looked at the state of the common parts on the fifth floor and was very surprised about the poor state of the walkway ceilings.

32. Mr. Sutton bought his apartment as an investment intending to sell it after a few years. He has kept an eye on the market through Rightmove, but although there were some sales in 2009 the prices were lower than the price he paid. He cannot afford to sell at a substantial loss. He is also concerned about the lack of a secure income were he to move out and try to let it.

Mr. Adam Booth

33. Mr. Booth and his wife are the owners of No. 66, on the fourth floor of the South Block. They purchased the apartment in March 2006 intending to live in it. Their first child, William, was born in March 2010. They continued to live in the apartment for a further 18 months, but eventually decided that the condition of the apartment presented a potential health risk to their child and so they decided to move out and let the apartment instead.

34. In the course of the next two years they had three sets of tenants.

Damp and mould

35. In February 2010 Mr. Booth and his wife noticed that there was mould around the balcony. They contacted the Zürich, but were unable to make the claim as the cost of repairing the damage fell within the policy excess. The water appeared to be leaking from the balcony above. Mould and severe damp staining on the reveals to the balcony glazing and above the balcony door were noted at the experts' inspection in February 2013. The latter can be seen also in the photographs attached to Mr. Booth's witness statement.

36. Not long after this the Booths started to notice silverfish around the balcony doors and in the area of the shower. They even found silverfish in their son's toys, by which they were very concerned.

37. Mr. Booth said in evidence that their major concern with the shower was to keep it clean, which they did, and they had had it resealed once. At the same time they replaced the shower unit itself. At an inspection by the experts in February 2013 it was noted that there was mould on the ceiling of the shower. There was also severe damp and mould at low level on the wall between the shower room and the living room. The tiling in the shower cubicle does not overhang the shower tray.

Doors

38. At the experts' inspection in February 2013 it was noticed that there was deformation of the frames of the door to the right hand bedroom and the door into the living room. In relation to the latter, there was a change in level over

the head of the door of 9 mm along its length, and the gap under the door was between 5-16 mm.

Gaps under party walls

39. The Booths have also had a recent dispute with the owner of the neighbouring apartment, whose tenant claims that her apartment has been contaminated by bedbugs brought in by the Booths' tenants. It is said that they are able to pass under the party wall between the apartments. The Booths have arranged for a pest control company to treat the apartment, but unfortunately the tenants have not been entirely cooperative and so this has achieved only limited success.

Intercom

40. This never worked properly from the day that they moved in. The Booths complained to Barr in a letter dated 19 July 2006. They said that whilst they could usually see and hear whoever was at the door, they were unable to let them in. They said that this appeared to affect other apartments also, with the result that residents were giving visitors the door code because they could not open the door from their own apartment. Mr. and Mrs. Booth said that this led to security problems, which concerned them.

Lifestyle

41. I have no doubt that whilst the Booths were in occupation of their apartment they did their best to look after it properly. They were clearly concerned about the implications of the damp for their son's health, and I am sure that they did everything they could to improve the situation. It may well be that their tenants have not been particularly good stewards, but if they have brought in bedbugs these should not have been able to escape into the adjoining apartment through gaps under the party wall.

The common parts

42. Mr. Booth described the walkways as a constant problem. Large puddles would form when it rained and the walkways became slippery and he did not think them safe for a small child. In winter the water would freeze, again making the walkways very slippery.

43. Mr. Booth said that in winter when waiting for the lift he noticed signs of damp in the walkway.

Owner occupiers - other apartments

Mr. Mark Goulding

44. Mr. Goulding owns two one bedroom apartments: No. 14, which is on the first floor of the South block, and No. 78, which is on the ground floor of the South block. He bought the two apartments as an investment on the basis of the brochure that was produced by CWC and the promise of a high specification. He did not see the promotional video. He also purchased two parking spaces.

45. Mr. Goulding raised the downgrading of the specification with his solicitor prior to completion, but I assume that he was advised that he had no remedy. In fact, he had hoped to sell the apartments prior to completion.

46. In addition, between July 2011 and April 2012 Mr. Goulding rented No. 68 as he needed temporary accommodation. Whilst Mr. Goulding was living at No. 68 he found that he had very high electricity bills. He had previously been living in a much larger flat in a converted Victorian warehouse where his electricity bills had been much lower. When he made enquiries with the utility company he was told that the system had not been wired so as to enable the night storage heaters to use off-peak power as one would have expected. The property should have been connected to an Economy 7 meter. Since I have not been told otherwise, I assume that this is a problem that affects all the apartments in Concord Street.

47. Since Mr. Goulding is not the owner of a lead apartment, and was not a witness who was designated to give evidence about defects, I propose to take into account only those parts of his evidence on which he was cross examined. By this I mean no disrespect to Mr. Goulding, who in my view was not only an intelligent and thoughtful witness, but also a scrupulously careful one. I accept his evidence without reservation.

Defects (No. 14)

48. Mr. Goulding was asked in cross-examination about the problems with the mould in No. 14. He said that in March 2007 he visited the apartment and saw that there was mould around the window frames, in the cupboard in the hallway and on a wall in the hallway itself, in the bedroom and in the shower room. He had the affected areas redecorated, but by March 2008 mould reappeared in the shower, mainly around the shower area. He had a contractor in to remove the mould infected grout and sealant and to reseal the shower tray. However, the effects were very short lived because the same contractor had to return three months later to re-grout affected areas of grouting and to reseal the shower tray again.

49. This time the work appears to have been more successful and the work did not have to be done again until May 2012. On that occasion the apartment had been checked during a void period between tenants and mould was found by the window in the corner of the bedroom and also in the shower room. The affected areas were sprayed with an appropriate fungicide and then repainted.

Defects (No. 78)

50. Mr. Goulding said that the main problem with this apartment was the shower. In September 2008 the agent notified him that the tenant had reported a leak from the shower. A row of tiles had blown allowing the water to pass behind them. The water then got into the unprotected plasterboard behind. A contractor was called in to carry out appropriate remedial work, which included resealing the shower tray.

51. In May 2009 Mr. Goulding visited the apartment and found that the whole of the bedroom wall was covered in small marks, which he took to be damp or mould. He said that he was surprised because it was not the wall that backed onto the shower room, but the one that backed onto the adjacent apartment. He also saw mould in the living area to the left of the balcony doors. Further remedial work was carried out by the contractor.

52. In April 2011 Mr. Goulding was contacted by the father of his tenants in No. 78, who also was himself the owner of another apartment in Concord Street. He was told that there was damp in the hall cupboard adjacent to the shower. Although Mr. Goulding was told that he ought to replace the plasterboard and flooring which would have been affected by damp, he could not afford to carry out such extensive work at that time and so he had the shower resealed and the apartment redecorated.

Mr. Munoz-Lopez

53. Mr. Munoz-Lopez owns a one bedroom apartment, No. 80, on the ground floor of the South block. He bought it in February 2007. He said that his two viewings of the apartment, in November and December 2006, were after dark and that he did not really notice the state of the communal areas at the time.

54. Mr. Munoz-Lopez was an "additional B2 witness".

Damp and mould

55. He first noticed problems in the late summer of 2008. There was damp and mould in the bedroom, in the corridor adjacent to the bedroom, in the cupboard in the corridor (which backs onto the shower room) and the shower room itself. He said that there was a smell of damp. He then discovered that there appeared to be a leak from the shower, which he thought was the probable source of the damp. He had it re-sealed by a friend, but after about twelve months the sealant started to turn black.

56. During 2009/2010 he noticed damp and mould near the front door (on both sides) and along the party wall with No. 4. He said that he saw water leaking from a pipe in the communal areas between his flat and No. 4. Although he said that Mr. Atkinson repaired the leak, the damp and mould has continued to get worse. He says that there is also a significant presence of mould on the outside wall of the bedroom near the window.

57. At about the same time that he discovered the leak with the shower he noticed mould on both sides of the patio doors. He said that he tried to clean it himself but it just came back. He said that he had not painted over the areas where the mould was growing because, as he put it, he did not want to hide it in the light of the issues in the various apartments that were becoming apparent. He said that he used air fresheners on a regular basis to hide the smell of the damp and that he bought a dehumidifier for his bedroom in an attempt to reduce the condensation. He is slightly concerned that his health is being affected by the damp in the apartment, although he says that his GP has been unable to

confirm that his symptoms are a consequence of the damp, although the damp was probably making them worse.

Doors

58. There are cracks above the front door and above the frame to the living room door. These have not been repaired, and he thinks they have increased slightly over time.

59. The living room door does not shut properly, and he says that the room gets cold as a result. The experts noted that there was a wedged shaped gap at the base of the door varying in depth between 5-18 mm.

60. The bathroom door catches on the floor of the corridor when it is opened. Mr. Munoz-Lopez thinks that this is because the floor has risen, rather than the door having dropped.

Intercom

61. This has not worked properly from day one. Initially, he could hear the buzzer and see the visitor, but he could not let the person in. After a few weeks he could not do even this. Since then it has not worked at all.

Lifestyle

62. Mr. Munoz-Lopez said that he only uses the shower three to four times a week because he goes swimming on a regular basis.

63. He uses the extractor in the kitchen area when cooking, and he also opens the patio doors. He generally kept the trickle vent in the living area open but he said that visitors sometimes closed it. The trickle vent in his bedroom was kept open the whole time.

64. In cross-examination he said that he used the humidifier about two or three times a month, and he usually gets one litre of water. He uses it when he is drying clothes, although he said that he did not do very much laundry. He bought it in about 2009 when the problems started.

The common parts

65. He complained about puddles of water in the corridors and walkways on the ground floor, particularly towards the outside. He said that the floors were uneven (he had occasionally tripped) and that there were cracks in them. He said that the walkways can get very slippery when wet, and are particularly bad in the winter when they are icy.

66. He did not agree that the building was not being properly looked after. He thought that its condition was deteriorating as a result of bad workmanship in the first place.

67. He said that the condition of the common parts has got worse in the last two years.

68. He said in his written statement that he was very concerned about the likely future increases in the service charge, without which it will not be possible to put the defects right.

69. He said that his original intention was to sell the apartment after a few years and buy a larger flat, but that it was now impossible to sell it. He rather graphically described the building as being "… terminally ill with cancer however much chemo you give it".

Mr. Anthony Priceman

70. Mr. Priceman owns and lives in a two bedroom apartment at No. 35, on the third floor of the North block. The purchase, from the Royal Bank of Scotland, was of a repossessed property and was completed in December 2009. When he bought the apartment he noticed evidence of water damage to the floor and to the batten at the bottom of the balcony doors.

Damp and mould

71. He said that there was excessive damp in the shower room, although he often left the fan on for long periods and the door wedged open (on an uneven part of the floor). He said that in spite of this there is often a damp smell and the mastic around the top of the shower tray quickly becomes discoloured with mould and perishes very quickly. Although he resealed the shower after he moved in, the mould quickly reappears whenever it is cleaned. He said in cross-examination that he had resealed it two or three times since he moved in and that he cleaned the shower once a week or once a fortnight, depending on how much use it had had.

72. The Scott Schedule refers to the presence of water staining and mould growth around the window reveals in the left hand bedroom (but none in the right hand bedroom). At an inspection of the apartment in January 2013 there was mould growth on the wall of the hallway abutting on to the shower room. There are also gaps in the laminate flooring caused by damp.

73. Mr. Priceman said that there was evidence of water damage all around the frame of the balcony doors. The mastic seal on the outside of the frame is beginning to fail. The door frame is a very poor fit in the reveal, and at one point there is a gap of about 22 mm.

74. Mr. Priceman has separated from his wife and so his two children come to stay with him every Wednesday night and every other weekend. They sleep in the small bedroom, but Mr. Priceman says that it is not satisfactory accommodation for children because the room is affected by mould and damp. He said that there is also mould on the window reveals and ceiling of the main bedroom, which is getting worse, although Mr. Priceman said that he had had no particular problem with condensation on the windows. He said in his witness statement that he had tried anti-mould sprays and similar products but to no effect.

Doors

75. There are cracks around the frames of the door to the living room and to the smaller bedroom. The former door no longer fits the frame. In the Scott Schedule it is noted that the door to the living room binds at the top and will not close into the frame. The gap at the bottom varies between 7 and 20 mm.

Intercom

76. Mr. Priceman said that the intercom has never worked and he was asked about the new GSM system which had been installed very shortly before the trial. This is an intercom system that operates through a resident's mobile phone. Mr. Priceman said that it worked perfectly well but that one drawback was that the user could not see the person calling: for example, it would not be possible to check a tradesman's identity card. Although the new system had the added facility of enabling a resident to let someone into the building when he or she was not present in it, Mr. Priceman said that it was not a feature that he would be prepared to use.

Lifestyle

77. In relation to ventilation, Mr. Priceman said that the trickle vents are always left open and in the warmer months he keeps windows open when he is in the apartment and he leaves the balcony door open even when he is out. When he has to dry laundry he either dries it on the balcony if the weather is suitable or on a rack under the ventilation fan in the kitchen. He explained that in his apartment the kitchen ventilation fan has a moisture sensor which turns it on automatically when the air is humid. He said that all these precautions had not prevented the development of mould.

Common Parts

78. In his witness statement, Mr. Priceman said that the water on the walkways sometimes covered most of the walkway and made it slippery. He said that in winter it was a major hazard when it freezes and that one of his children had slipped outside the apartment. Exhibited to his witness statement were some photographs which appeared to show snow or ice on the walkway which, in some places, extended for most of its width.

79. Mr. Priceman said that he did not like living in this apartment, and that he had bought it as an interim measure until he had the funds to buy something larger. He now cannot do this because he is unable to sell his apartment and, as he put it, he feels that he is "… trapped in a nightmare situation with no end in sight".

Tenants - lead apartments

Mr. James Taylor

80. Mr. Taylor lives in a one bedroom apartment, No. 23, on the second floor of the North block. He rented from his father and his partner, Miss Waller, who was also a witness. He moved into the apartment in February 2006. He

initially agreed to pay £400 a month in rent, although this increased between 2008 and 2011 when his girlfriend was living there with him. In that period they paid £550 per month. Currently he pays £400 per month.

81. Mr. Taylor is therefore not an owner landlord, but since his father's partner, Miss Waller, is also a witness (as an owner landlord) it is convenient to take Mr. Taylor out of order.

Damp and mould

82. This is the main problem in the apartment. He said that the first indication of mould was when it appeared above the living room window and around the bedroom window when it rained. At first he did not regard this as much of a problem and he would just wipe it off. However, it has persisted at the same sort of level.

83. There was also mould in the shower room, although he said that he always used the fan (which came on with the light). He said that he used to wipe the mould from the shower room ceiling and clean the tiling on a regular basis.

84. In early 2008, shortly after his girlfriend moved in, the problem with the mould in the shower room became serious. They first discovered the damp in the hallway cupboard, and within a few weeks the walls turned black. They wiped it away but it just returned. At that point they reported the problem to Mr. Atkinson. He said that he had resealed the shower tray three times before it was replaced, and once afterwards.

85. The matter was referred to insurers who decided to carry out major repairs. Mr. Taylor had to move out and wrap up his furniture. He said that an industrial dryer was placed in the apartment for two weeks. The walls in the hallway, shower room and kitchen were removed and replaced, the shower room was retiled and the shower tray refitted.

86. After a few weeks he was able to move back in. Since then he has had no further problems with damp from the shower, although he has had to replace the sealant when mould spots appeared.

87. He said in his witness statement that "… no matter how often I vent the apartment by opening the windows I still suffer from a problem of mould growth around the patio door and bedroom window". When asked in cross-examination about this, he said that it is "… as it always was around the patio door and the bedroom" (Day 6/133, and confirmed at 142). He said that he always removed it when he was cleaning, although the living room had not been redecorated. No mould was noted by the experts following their visit on 9 January 2013, but there is no way of knowing whether this was because the problem had improved or because it had just been cleaned.

Doors

88. The door to the living area did not close properly and appears to have dropped in its frame. He said that it was very hard to open and that on one occasion he broke the handle trying to open it. The door has been planed down.

89. The cracks at the top of the door have steadily opened up.

90. The experts did not notice any problem with the living room door at the time of their inspection although they commented that the doors to the shower room and the hallway cupboard were binding on the floor when opened to about 90°. I see no reason to doubt the accuracy of Mr. Taylor's evidence about the condition of the living room door before it was planed down: a door that is so badly fitted that it jams shut is clearly a hazard.

Intercom

91. This worked for about three months after Mr. Taylor moved in, and then stopped working. For a brief period it started working again and then stopped. It has not worked since.

Lifestyle

92. Mr. Taylor said that he kept the trickle vents open all the time and, of course, since the apartment belongs to his father, who visits regularly, he has a vested interest in looking after it, which I am sure he did.

93. He said that he occasionally dried clothes in the apartment.

The common parts

94. He says that whenever it rains water collects on the walkway floors, to which there does not appear to be any drainage system. The water just stands on the floor until it evaporates.

95. He has seen the build-up of mould and damp patches in the entrance areas, and on at least one occasion he has seen water gushing out of the light fittings on the first floor.

96. From time to time the car park is unusable and some spaces have to be cordoned off, largely because of the lime that drops down from the ceiling. His space is at the top end of the car park so he does not have to walk through standing water to reach his car.

97. When it rains water pours through the balconies above the apartment, as if someone was emptying a lot of water down the side of the building. He said that he could only describe it as a waterfall. Unsurprisingly, he was challenged about this in evidence, but he said that he was not exaggerating - the water just cascaded down the side of the building.

98. Ms. Waller's evidence is set out below.

Miss Laura Wiles

99. Miss Wiles was a tenant of a one bedroom apartment, No. 51, which she shared with her boyfriend. It is on the fourth floor of the North block. She was there from October 2008 until January 2010.

Damp and mould

100. She said that when they first moved in the apartment felt very cold and damp, and she found it very difficult to heat in winter. She used to buy air fresheners to mask the smell of damp.

101. She said that the shower flooded every time it was used, and that the tiling and the sealant were constantly covered in black mould in spite of regular cleaning.

102. She said that there was mould on the walls in the living area, the bedroom and on a number of damp patches in other places on the walls of the apartment. This is confirmed by the Scott Schedule, which refers to extensive mould growth in the walls and ceiling of the hall and mould growth in the bedroom.

103. She said that during autumn and winter the windows in the apartment and the balcony doors were often covered in condensation, and she used to switch on the extractor fan in the kitchen area in an attempt to deal with it. The Scott Schedule refers to mould growth on the reveals to the balcony door on both sides, and extensive mould growth and loss of decorative surface on the underside of the bulkhead over the balcony door.

104. It was noted in the Scott Schedule that the balcony door had dropped about 3 mm in the centre.

Doors

105. Miss Wiles made no complaints in relation to problems with the doors. However, it was noted in the Scott Schedule that there was a change in level across the door to the bedroom of 8 mm, and a gap at the base of the door to the living room of 6-20 mm. The change in level across the door head is at 9 mm. The fire protection offered by the living room door is clearly severely impaired.

Intercom

106. This rang when somebody called but it would not release the lock to the main door so it was not possible to let the person in.

Lifestyle

107. Miss Wiles used to open the trickle vents in the living area and the bedroom. She said that whilst she used to dry her laundry in the apartment on a clothes horse, she had done exactly the same in various other flats without any problems. She was very resentful of the suggestion that tenants had not used the apartments responsibly.

108. Miss Wiles said that she had formerly lived in student accommodation and that this was the first time that she had lived in an apartment that was rented privately, so she had nothing with which to compare it.

The common parts

109. Miss Wiles complained about the puddling on the walkways when it rained. She said that in the cold weather during December 2009 the snow on the walkways very quickly turned to ice, and she saw a number of people slip.

110. Miss Wiles said that they decided to leave the apartment because of the various problems that they had, although she said that she felt very guilty towards her landlady about it.

Tenants - other apartments

Mr. Christopher Haim

111. Mr. Haim was a tenant of No. 75, a two bedroom penthouse apartment on the fifth floor of the North block. He shared it with a friend and they lived there from October 2009 to October 2013. Mr. Haim was attracted by the penthouse flat at Concord Street because it was relatively large and the rent was low by comparison with other flats in Leeds. He was studying for a Master's degree and the apartment was close to the University. For the first two years they occupied the apartment under a twelve month lease, renewing in September 2010 at the same rent having made it clear that they would leave if it was put up, but thereafter they remained on a monthly rolling lease.

Damp and mould

112. Within about nine months of moving in they noticed stains on the ceiling directly above the glazed patio door. Contractors were called in and cut a number of holes in the ceiling, telling Mr. Haim and his friend that they would have to wait until the ceiling dried out before they could do anything else. The holes were eventually made good.

113. However, in February 2011 further water stains appeared at the head of the balcony doors and on the ceiling. Parts of the ceiling were again opened up and it was decided to install vents in the outside wall in order to ventilate the void space above the ceiling. Mr. Haim said that since the installation of these vents, the extent of the damp stains has reduced. Mr. Haim said that they cleaned the area regularly and then repainted it when it was dry, but the mould always came back.

114. In addition to damp stains in the ceiling of the living area, there was damp and mould in both the living room and the main bedroom. In his witness statement Mr. Haim said that the wall between the main bedroom and the ensuite shower was covered in black mould. The gap between the tiles and the shower tray was resealed by a contractor, and Mr. Haim and his friend cleaned the mould on the wall and repainted the affected area.

115. Unfortunately Mr. Haim suffers from asthma and at one stage it flared up whenever he went to bed in the main bedroom. He was advised by his GP that this was probably the result of the presence of mould, and he was advised to sleep somewhere else. So he moved into the living room until the mould was removed. However the mould reappeared on two separate occasions. On each occasion Mr. Haim and his friend removed it and then repainted the area.

116. There were further problems with the mould on the mastic around the shower tray, and it has had to be replaced on two more occasions. At the time when Mr. Haim made his witness statement, the mastic was again in need of replacement, the tiles were coming away and there were signs of mould on the bedroom wall which backs onto the shower room.

117. Mr. Haim said that there were significant gaps around the balcony doors and that he could feel cold air getting in. Mr. Atkinson adjusted the doors to try and eliminate the noise of the draught. However, Mr. Haim said that there were signs of damp to the flooring in front of the balcony (in that large gaps developed) and that it moves a lot when it is walked on.

118. Work had to be done to the balcony because a problem with the balcony tray overflowing and contractors installed a new drainage system for the balcony. Unfortunately, the balcony timbers were not replaced correctly and further work had begun to repair this.

Intercom

119. Mr. Haim said that this had not worked since they moved in. Since they are on the fifth floor this is a major inconvenience. There is no direct staircase from the fifth floor to the ground, so they had to use the staircase in the middle of the block to go down to the first floor and then make their way to the front door. This gave rise to a serious problem when Mr. Haim collapsed in his bedroom and an ambulance had to be called. They could not let the ambulance staff into the building, so Mr. Haim had to be left alone whilst his friend went down to the ground floor to let them in. Mr. Haim understandably asks: what would have happened if he had been on his own?

Lifestyle

120. Mr. Haim and his friend tried to use the heating as little as possible because their electricity bills have been very high. He says that the living area becomes very cold in winter and they used to leave the underfloor heating on all day and night just to make it habitable. However, they could not afford to keep the heating on the whole time and so in winter they did not use the living area in the morning because it was too cold.

121. Mr. Haim said that they bought an electric dehumidifier to deal with the mould in the bedroom, but they also used it to dry their clothes in the apartment.

122. He said that they tended to leave the patio doors open whenever they could, even in winter, in order to get some airflow through the apartment, and they used to leave the bedroom windows slightly ajar using the window lock.

123. Mr. Haim roundly rejected criticisms by Barr about poor housekeeping and lack of maintenance. He said that he and his friend always used the extractor fan in the bathroom and kept the trickle vents open. In fact, they purchased an electric dehumidifier to remove the moisture from the apartment and he said that they also use it when drying clothes indoors. Mr. Haim said that they tried to keep the windows open as much as possible and that they used to leave the bedroom windows slightly ajar using the window lock. Like many others, they sometimes had difficulty opening the door onto the balcony and the door sometimes came off its runners.

124. Mr. Haim said that there were gaps around the glazed door to the balcony and that they could feel cold air getting in. The door to the ensuite bathroom has had to be planed down on two separate occasions in order to make it shut, and the door to the living area was also very difficult to close.

Owners - lead apartments

Miss Jean Waller

125. Miss Waller is the partner of James Taylor's father. She and Mr. Taylor, senior, purchased No. 23 off plan with a 10% staff discount (Miss Waller worked for a company associated with CWC). She now runs a business refurbishing properties. She said that it had not been intended that Mr. Taylor, junior, should live in the apartment indefinitely, they did not feel they could let the apartment with similar problems.

Damp and mould

126. She reported a problem with a leak from the shower by e-mail on 13 June 2009. She said in a witness statement that the shower tray had not been fitted properly and the damp had spread throughout the apartment.

127. She referred also to excessive mould which developed on the bottom of both of the bedroom windows, in addition to the general feeling of damp.

128. She said that she understood that the steel balcony supports had not been weatherproofed and so damp was entering the living room as a result.

129. The work to the shower carried out at the expense of insurers amounted to about £10,500. Mr. Taylor had to move out for five weeks.

130. She says that the laminate floor in the living area, kitchen and hall is coming away from the skirting boards and that this problem has not been resolved. In her view the apartment continues to suffer from damp, mould, condensation and cold spots. There have been silverfish in the shower.

Doors

131. Miss Waller said that there were cracks all over the apartment which were gradually getting larger as time went on.

132. She says that none of the internal doors in the apartment can be closed properly, and that there is visible bowing of the wall between the bathroom and the living area. The living room door does not close.

Intercom

133. This has not worked properly from day one. Initially, Mr. Taylor could hear the buzzer and see the visitor, but he could not let the person in. After a few weeks he could not do even this. Since then it has not worked at all.

Lifestyle

134. Miss Waller described Mr. Taylor, junior, as "fastidious" in his cleaning and that he cleans the shower room at least once a week.

135. She said that whenever she has been in the apartment the trickle vents have always been open.

The common parts

136. Miss Waller said that in her view Mr. Atkinson made every effort to maintain the common parts to the best of his ability, but said that he (like them) was fighting a losing battle.

137. Miss Waller said that she and Mr. Taylor, senior, did try to sell the apartment in 2011, but was told that the apartments at Concord Street were effectively unsaleable.

Mr. Richard Whaley

138. Mr. Whaley owns, jointly with his wife, two apartments in Concord Street, Nos. 65 and 69. Both are two bedroom apartments on the fourth floor of the North block. He also has two parking spaces in the basement of the North block. They bought the apartments off plan in January 2006 as a buy to let investment. Mr. Whaley visits Concord Street about every three months to check on the apartments. Only No. 65 is a lead apartment.

139. Between tenancies he and his wife usually spend between three and five days preparing the apartment for the new tenants and carrying out the necessary work. This included washing some of the walls and treating the mould with fungicide and then repainting.

140. He said that they own similar flats in York, where they typically take only one or two days to prepare the apartments between tenants. At Concord Street they had to reseal the shower trays in each apartment on a regular basis in order to prevent the sealant from cracking.

Damp and mould (No. 65)

141. In January 2009 there was a major problem with mould in the larger bedroom. The tenant reported that the wall in the bedroom that backed on to the shower

room in the next-door apartment was covered in mould. The owner of the next door apartment said that there had been a leak from their shower.

142. In November 2012 their tenant complained that she had seen silverfish coming out of a gap between the floor and the skirting. They went to Concord Street straightaway and sprayed a relevant area. He said that unfortunately they had recently returned.

143. Mr. Whaley said that there was mould on the inside of the exterior walls of both bedrooms, and sometimes there is mould around the balcony doors also. They always ask their tenants to remove mould as soon as they see it.

Damp and mould (No. 69)

144. About six weeks after completion in March 2006 the tenant reported that water was coming up through the tiles in the shower room and the laminate flooring in the hall. They went to the apartment immediately and found that there was a section of waste pipe missing below the shower. The tenant had to move out for about four weeks while the apartment was dried out.

145. As with No. 65 there is also mould in both bedrooms on the inside walls separating the bedrooms from the communal walkways. In addition, No. 69 is an end apartment and there is mould on the inside of the wall which separates the smaller bedroom from the stairwell.

Doors

146. Mr. Whaley explained that he had frequently had to shave down the doors in both apartments so that they closed properly, although sometimes there was too much to be taken off and so he had to get a contractor in to do it. The experts noted that the door to the living room in No. 65 had been adjusted at its head and that there was evidence of earlier binding on the frame. There was a gap at the bottom of the door of 5-16 mm.

147. Mr. Whaley said that sticking doors were one of the matters about which the tenants used to complain on a regular basis. The Scott Schedule records that at the time of the experts' visit there was a change in level across the head of the door to the right hand bedroom of 11 mm.

148. There are cracks in the walls that have to be filled up after every tenancy, particularly over the bedroom door in No. 65.

149. There have also been problems with the balcony doors to No. 65.

Intercom

150. Mr. Whaley explained that from the outset one of the intercom systems did not work properly, in that the buzzer would sound but it was not possible to let anyone in. He said that the intercom in neither apartment is working at the moment and that this was something about which they had had complaints from nearly every tenant.

Lifestyle

151. Mr. Whaley explained that they always visit their tenants in their first week and explain to them the importance of using the fan in the shower room, and they emphasise the importance of keeping the trickle vents open at all times. They used to ask the tenants to wipe down any mould that appears.

152. Accordingly, Mr. Whaley was very resentful of the suggestion that proper efforts had not been made to keep the flats ventilated.

The common parts

153. Mr. Whaley complained of puddling to the walkways following heavy rain, which made them slippery. In winter they often became icy and hazardous.

154. He and his wife had noticed with concern the mould that had developed on some of the internal communal areas, such as stairwells, which made the building unattractive to potential tenants.

155. He said that the water that collected in the lower part of the car park of the North block was often so deep that it came over one's shoes.

156. Mr. Whaley said that they had been able to increase the monthly rent at Concord Street by only £25 over the last seven years, whereas the rent for the flats in York had increased year on year.

Miss Gillian Priestley

157. Miss Priestley owns a one bedroom apartment, No. 122, on the second floor of the South block. She bought her apartment in January 2007, having recently accepted a job in the city. She lived in it from January 2007 until August 2011, since then she has let it.

Damp and mould

158. In 2009 Miss Priestley discovered mould in the hall cupboard and the bedroom. This was caused by a leak from the shower and so she had the shower tray resealed.

159. In 2010 there was a leak in the shower room, but this appeared to have come from the WC cistern. She had repairs carried out, including resealing the shower tray.

Doors

160. The living room door was sticking when she first moved into the apartment, and Barr adjusted it. However, she said that it soon began to stick again and a crack then appeared in the door frame. The experts noted in the Scott Schedule that the change in level across the head of this door was 9 mm, and the gap at the base of the door was 6-14 mm.

Intercom

161. This has not worked properly from day one. Initially, she could hear the buzzer ringing, but could not let the person in.

Lifestyle

162. Miss Priestley said that both she and her tenants always used the fan in the shower room and kept the trickle vents open in the living room. But he said that in spite of these precautions mould developed in the apartment.

The common parts

163. Miss Priestley described puddles on the walkways when it rains making the areas slippery. She said that this was very dangerous in winter when the water freezes.

164. She said that the walls in the communal bin area were covered in mould and it was so unpleasant that she tried to avoid going there.

165. She said that in December 2010 the pipes froze and she had no water. This was in addition to other complaints about the poor water supply.

166. Miss Priestley had also been monitoring house prices on Rightmove, but she thought that the prices for which apartments in Concord Street were selling were low. Her first tenant stayed eleven months and she was a friend of Miss Priestley's daughter. Her second tenant, who took the flat between September 2012 and June 2013, was someone she knew so she let it as a cheap rent. After that she had her first commercial tenant, at £475 a month, who left after six months. The flat is now empty. She is very concerned about the future and the possibility that the situation will just continue to deteriorate.

167. This apartment was visited on the view. The last tenants had vacated it about three weeks earlier, although the refrigerator was still on. It was unfurnished. The living room felt very musty and the humidity level was clearly fairly high. There were signs of mould at low level on the living room wall that abutted the shower room. There was also a whitish stain on the floor in front of the washing machine, suggesting that there might have been a recent leak. There was some mould on the mastic around the shower tray. There were no signs of any mould in the hall cupboard that backed onto the other side of the shower room.

168. Although the position of the trickle vents was not checked at the time of the view, at my request Mr. Atkinson checked them a few days later and he said that they were open. At the time of the view all the windows were, of course, shut. The fans in both the shower room and the kitchen area operated only when the relevant light was switched on and so when the apartment was unoccupied they would remain off. I formed the very clear impression that the ventilation through the trickle vents was wholly inadequate to provide for proper circulation of air when the apartment was unoccupied.

Mrs. Victoria Ridgway

169. Mrs. Ridgway owns a one bedroom apartment, No. 149, on the third floor of the North block. She bought it in January 2006. Mrs. Ridgway used to work for the estate agents, Hunters, and was therefore entitled to a 20% discount off the purchase price. So she decided to purchase the apartment together with her father.

170. Their original intention was to sell the apartment as soon as possible, but by the time it came on the market the poor finishes of the Concord Street development made it an unattractive prospect. Not one person came to view it. So they decided to let it.

Damp and mould

171. At an early stage a damp stain was seen above the balcony in the living area. This was dealt with by Barr.

172. Between 2007 and 2009 the shower was resealed on more than one occasion. There was mould in the hall cupboard, which damaged some luggage belonging to the tenant, and the walls backing on to the shower room. It appeared that the shower continued to leak in spite of the regular resealing.

173. In early 2011 the tenant contacted her and told her that there were pools of water in the living area as a result of a leak in the area of the window. Mrs. Ridgway immediately went to look and saw that the water appeared to be coming from the wall. There was a crack above the window which her father filled with some foam. In the Scott Schedule the experts noted that there was water staining on the reveals and soffit of the balcony door and that the balcony door had dropped by about 2 mm.

174. At about the same time Mrs. Ridgway's father carried out rather more fundamental work to the shower tray, which included inserting blocks of wood under the tray in order to stabilise it. This was because the tray appeared to move when someone was standing on it. These repairs appear to have worked.

Doors

175. When Mrs. Ridgway initially looked round the apartment she noted that the latch on the living room door had been moved, suggesting that the door had had to be dropped in order to fit the frame.

176. There were cracks in the hallway, including a large crack above the front door, which were repaired by Barr.

177. In early 2009 Mrs. Ridgway consulted a surveyor because she was concerned at what she thought was possible subsidence in the apartment. She sent him photographs of numerous cracks which had reopened since they had been sealed. For financial reasons she never followed this up.

178. In the Scott Schedule the experts noted that the change in level over the door to the living room was 18 mm. The head of the door appeared to have been reduced by about 9 mm, but was still binding on the frame. A fillet had been inserted at the base of the door to reduce the gap, but it still remained at 10-24 mm. This is greatly in excess of the 10 mm permitted.

179. The door to the living area had to be attended to at least twice following its first repair by Barr.

Intercom

180. This has never worked.

Lifestyle

181. Mrs. Ridgway said that she had been very lucky with her tenant, who she described as most conscientious and who maintained the apartment meticulously. Prior to that she had had two or three tenants for fairly short periods.

182. Mrs. Ridgway installed a washer/dryer in the apartment in order to reduce the extent to which tenants would have to dry their clothes in the apartment. But she said that this had not reduced the buildup of mould in the hall cupboard and the shower room.

183. Mrs. Ridgway explained that her tenant used the isolator switch that controlled the fan in the kitchen area as an on and off switch for the fan.

The common parts

184. Like many others, Mrs. Ridgway complained of the ponding of the walkways following heavy rain which made them slippery. She said that she thought that the common parts had not been effectively maintained, but she explained that by this she meant that the maintenance had not resolved the issues. She said that the excess of rent over her interest repayments were being put aside into a sinking fund to meet the cost of future repairs.

185. Unfortunately Mrs. Ridgway expects her current tenant, who has occupied the apartment for about five years, to leave very shortly, since she has married and has told Mrs. Ridgway that she does not consider that the apartment is suitable for children. Mrs. Ridgway said that she had kept the rent at £575 per month because she did not feel that she could put it up because of the problems with the apartment.

Owners - other apartments

Mr. Godfrey Haslehurst

186. Mr. Haslehurst, together with his wife, owns a one bedroom penthouse, No. 72, on the fifth floor of the South block. They bought the property off plan in September 2005. They never intended to live in the apartment, they bought it as a buy to let investment.

187. Between 2009 and 2012 there were frequent problems with the hot water, and at first that was their main concern about the property. This apartment had a bathroom (with a bath as opposed to a shower).

Damp and mould

188. In February 2011 he was informed by Ms. Green, of Hunters, of problems with water ingress, damp and mould following the ingress of water above the balcony door.

189. The following month the tenant complained of water ingress above the balcony door, which had damaged the plaster to the extent that it had started to crack and come loose. There was black mould on the internal wall under the ceiling near the balcony and the tenant was complaining of damp and cold spots both on the external and internal walls. Mr. Haslehurst said that the water must have been coming in through the roof.

190. The following winter there were again complaints by the tenant of a leak above the balcony doors. In January 2013 the plaster on the ceiling was starting to collapse and repairs were carried out in March. However, when he visited on 17 May 2013 Mr. Hazlehurst found that there was new plasterwork but he could see evidence of water staining above the balcony doors which required repainting.

191. During this period the tenants were also complaining about high energy bills, which they attributed to the poor insulation of the apartment. It is clear that during the winters 2010/11, 2011/12 and 2012/13 the problem became progressively more severe.

Doors

192. Mr. Haslehurst made no complaint about the internal doors. However, like many others, he has complained about the balcony door coming off its runner when opened. He said that in February 2011 the tenant complained to the agents that wind was whistling through the apartment because the window seals had failed.

Intercom

193. To Mr. Haslehurst's knowledge, this had not worked properly from day one.

Lifestyle

194. Mr. Haslehurst said that their tenant Laura Brothers, was very conscientious and knew the importance of using the trickle vents.

Common parts.

195. Mr. Haslehurst said that he had seen severe flooding in the car park on several visits to Concord Street, and that he had seen water gushing into the car park from pipes in the basement. He and his wife are concerned about this because they own a parking space near the bottom end of the car park.

196. He said that when it was raining the walkways puddled on the floor and they were generally very wet. He said that they were very slippery and he thought that they would be dangerous in cold weather.

197. Mr. Haslehurst said that the service charge was higher than he would have expected during the first few years, whereas the rent had remained at about the same level for seven years. When asked about regular maintenance, he said that at Concord Street discussing maintenance was just skirting the issue.

Mr. Watson

198. Mr. Watson owned two apartments. No. 127, on the second floor of the North block, and No. 163 on the fifth floor of the North block. He is a director of the Concord Street Management Company Ltd ("the management company"), to which he was appointed on 2 August 2010. He is an architect and was previously employed by BSB, where he knew Mr. Goffin. His role in the project was peripheral in that it was confined to document compliance.

199. Since discounts were available to staff at BSB, Mr. Watson decided to buy three apartments off plan with a view to reselling them at a profit. He managed to do this with No. 20, but he did not manage to sell the other two. The purchases of those were completed in January and February 2006 and were financed by mortgages. When he realised the extent of the reductions to the quality of the finishes he took advice with a view to repudiating the contracts, but was told that there was no stipulation in relation to the finishes and so he had no redress against CWC. He understood that the Zürich policy would provide him with protection against defects.

200. The apartment that has given Mr. Watson the greatest problems is No. 163, so I shall deal with it first.

Damp and mould (No. 163)

201. During 2006 there was a problem with water ingress around the patio doors and smells coming from the shower room. In fact, a damp stain about the patio door had appeared prior to completion and remained a constant problem thereafter. Solicitors acting for Mr. Watson's tenant wrote to him on 15 May 2006 threatening that their client would withhold rent if the problem was not resolved immediately. The remedial work carried out was unsuccessful.

202. A CWC worksheet dated 3 July 2006 recorded water leaking above the balcony door, which had been going on since February 2006. The smell from the shower was attributed to the trap. In May 2006 Mr. Watson's tenant complained about water ingress around the balcony doors with consequent damage to the plasterwork. Barr apparently recorded that the cause of this water was the terrace above. This problem continued into 2007 in spite of remedial work that was carried out to the terrace above (as Mr. Veitch acknowledged in his letter to CWC dated to April 2007). In June 2007 Barr reported to Mr. Watson that the joint between the asphalt and the rainwater gully in the balcony above his apartment had broken down, probably

exacerbated by recent heavy rainfall, and that it had effected a temporary repair.

203. Unfortunately the problem persisted and in March 2008 Mr. Watson's tenant said that water was coming in around the balcony doors when it rained and was making a puddle on the floor. On 7 March 2008 Mr. Watson wrote to the management company complaining about its failure to carry out repairs to prevent the water ingress through the external walls of the building.

204. In 2011 the shower sealant was entirely black with mould and it had to be resealed. However Mr. Watson put this down to poor maintenance by the tenant and did not appreciate that there might be a more fundamental problem. The next tenant complained towards the end of 2011 that mould was growing on the outside wall of the shower room in the hallway. Mr. Watson asked Mr. Atkinson to have a look at the shower and he reported that the mastic seal had failed, even though it had been replaced less than a year earlier.

205. In January 2012 Mr. Watson's tenant complained that the leak from the balcony doors was getting worse. The plaster was wet and there was sometimes a puddle on the floor. In an e-mail dated 19 June 2012 a Mr. Connolly, the tenant's father, complained about the "… disgraceful condition the boys are living in" and said that there was an overwhelming smell from the bathroom that had been an unresolved problem during the entire tenancy. He said that there was mould and damp around the shower cubicle. He complained also about the "bodged attempt" to stop the water leakage above the balcony windows, which consisted of the area having been covered with plastic sheeting. He said that the extractor fans fitted in the bathroom and kitchen appeared ineffectual and that windows had to be opened whenever the flat was occupied to ventilate the smells. He demanded a rent reduction on account of his son's living conditions. In August 2012 the tenants declined to renew the tenancy and moved out. The problem of water ingress around the balcony doors still remains unresolved and water staining above the balcony doors, together with water damage to the flooring below, was noticed on the experts' inspection on 30 January 2013.

206. Mr. Watson's response to this complaint was to allege that the problems were caused by the fact that the tenants had turned off the extraction fans at the isolator and a lack of regular and thorough cleaning by the tenants. He said that the shower had been entirely refitted only two months before at significant cost. In evidence Mr. Watson said that he would not have accused the tenants of isolating the fans unless he believed it was true (although in his witness statement he said that he had never visited the apartment during the tenancy), but he said that he did not have any wholehearted belief that the problems with the shower were caused by a lack of maintenance (Day 5/135). Mr. Watson said also that a more powerful fan was subsequently installed in the shower room and was connected so that it could not be isolated.

207. Mr. Watson made one interesting and unguarded remark when he was being asked about his ability to let his apartments. He said that they had to make sure that they redecorated No. 163 before any prospective tenants had looked round it. He said that they had to make sure that incoming tenants did not talk

to the existing tenants, so they used to wait for the apartment to be empty before letting it - rather than trying to relet it while the tenants were still there.

Doors (No. 163)

208. There is cracking around the door frame between the wall and living room. At the January 2013 inspection it was noted that the living room door was difficult to close and that there was a 9 mm change in level over the frame. In the right hand bedroom there was a change in level across the frame of the door such that the door would not close.

Intercom (No. 163)

209. According to an e-mail from Mr. Watson's tenant dated 3 May 2006 the intercom had not worked from day one, causing numerous problems with deliveries.

Lifestyle (No. 163)

210. There is no direct evidence of the lifestyle of the tenants, apart from Mr. Watson's allegation about the isolation of the bathroom fan. It may well be that this (if it was done) aggravated the spread of mould within the shower cubicle itself. However, if the shower tray was leaking so that water was collecting in the void below it, I consider that the shower room fan was unlikely to mitigate the extent of this to any significant degree.

Damp and mould (No. 127)

211. Leaks from the shower have damaged the flooring in the hallway and there are mould stains on the wall of the hall adjacent to the shower.

212. Plastic flashing was installed around the shower tray because the cubicle was too large for the tray. This was done in June 2012, but at the inspection in January 2013 mould growth was noted on the mastic around the shower tray.

213. At the inspection in January 2013 it was noted that there was water staining and mould growth around the window reveals. However the Scott Schedule does not identify to which windows this refers.

Doors (No. 127)

214. At the January 2013 inspection it was noted that the shower room door was binding on the floor when opened to about 70°.

215. The change in level over the door to the living room was approximately 8 mm. The gap under the living room door varied between 3-14 mm.

Lifestyle (No. 127)

216. There is no evidence about this.

Common parts

217. Mr. Watson mentioned the various problems with the common parts in his witness statement, such as the ponding of water on the walkways when it rains, but otherwise his evidence does not add anything to that given by other witnesses.

Mr. Barry Wood

218. Mr. Wood is the owner of a studio apartment, No. 133, which is on the third floor of the North block. Originally from South Africa, he retired a few years ago from a career in teaching and lecturing in English literature and related subjects, and is now 70 years old. He came to the UK in 1983 together with his wife. They bought the apartment off plan, together with a parking space, as an investment having seen CWC's DVD and glossy brochure describing the development as suitable for high flying young professionals.

219. They have never lived in the apartment, which has been let since May 2006.

Damp and mould

220. Mr. Wood says that a recurring problem was water leaking from the shower tray which has required frequent resealing. This was first done in 2008. However, the following year floor tiles near the shower were found to be loose and cracked because water had seeped into the chipboard below causing it to swell and displace the tiles. Further repairs were again required in May 2012, but Mr. and Mrs. Wood were advised to check the floor after the conclusion of the existing tenancy.

221. Mr. Wood explained in his witness statement how one of his tenants, who rented the apartment in 2011/2012, complained about excessive condensation in the shower and the growth of mould in spite of regular cleaning with bleach. The energy bills for the apartment were very high.

Doors

222. No. 133 also suffers from cracking above the living room door as a result of the distortion of the frame with the result that the door can no longer fully engage with the frame.

Intercom

223. The tenant also complained that the intercom did not work.

Common parts

224. This tenant also complained about the puddling in the walkways after rain, and that on one occasion when the walkways were frozen he had slipped and hurt his back. Somewhat surprisingly, given the extent of the complaints about the condition of the walkways, this is the only documented incident of a person slipping on the walkways.

Lifestyle

225. Mr. Wood said that he and his wife visit the apartment every three months and stress the need for ventilation to their tenants. He agreed in cross-examination that some tenants were better than others at dealing with mould, but their policy was to reseal the shower trays at each change of tenants.

The management company

226. Mr. Wood is a member of the management company and appears to act as its *de facto* chairman. He explained in cross-examination that the managing agents initially appointed, Accent Property Services, were very unsatisfactory and that the management of the properties was then taken over in late 2007 by a Mr. Craker, who was associated with CWC. He was assisted by Lisa Kaye. He said that Mr. Craker appeared to have good intentions but was not in a position to honour some of the promises that he made to the residents. As he put it, by then there was a clear dispute between CWC and Barr and they "limped along". Problems were aggravated by the fact that CWC, which had not sold some 20-odd apartments, was not paying its share of the service charge in respect of the unsold apartments.

227. When it was suggested to Mr. Wood that the management company had put normal planned maintenance on hold pending the outcome of the litigation, Mr. Wood said (Day 9/161):

> "When you have to administer any sort of budget you have to decide what your priorities and how and when you will address your responsibilities. So to the extent - I mean there are some, the thorny issue of redecoration keeps cropping up, but we want to redecorate and we will redecorate, but that has to be at an appropriate moment when we have got to the bottom of the problems and they have been rectified. Then of course we will redecorate."

228. However, Mr. Wood agreed that some maintenance had been put on hold so that the underlying defects could be properly documented by the experts. In relation to the new mobile phone based intercom, Mr. Wood said that he regarded it as the compromise solution but they chose it because it was affordable. So far as the legal costs are concerned, Mr. Wood said that the costs of the litigation were being shared between those who were taking part in it. He explained that the costs initially incurred, which were the costs of initial investigations into the condition of the building, together with the initial legal advice about the merits of the claim, were charged to every leaseholder because each one would have to take a decision as to whether or not to become a claimant. However, once a decision had been taken and certain leaseholders had decided to become claimants, only those leaseholders bore the costs of the litigation.

229. In his final question to Mr. Wood Lord Marks suggested that from 2010 to 2013, indeed into the current year, the maintenance strategy pursued by the management company had been essentially driven by this litigation. Mr. Wood's reply was as follows (Day 9/192-3):

> "No, I think that distorts it entirely, just as it is a distortion to say just because we don't have a conventional document I mean, it doesn't mean we haven't a strategy or that we aren't responsibly addressing what is possible by way of normal maintenance, and I don't think it is fair to use the word "reactive" in its most pejorative sense to suggest that we don't care and that we are being irresponsible and that we improvise as we go along.
>
> Our policy and our practice has to be determined by the condition of the building and our attempts to deal with it as best we can."

I accept this evidence.

Mr. Michael Wood

230. Mr. Wood owns two one bedroom apartments, Nos. 48 and 64, on the third and fourth floors, respectively, of the South block. No. 64 is immediately above No. 48. Mr. Wood bought them in August 2005 as an investment. He is a quantity surveyor who has worked in the building industry for many years.

Damp and mould (No. 48)

231. The first tenants left in January 2006, but sent a letter summarising the defects in the apartment. These included a problem with leaks from the shower tray, and they had to put extra sealant around the edge of the shower tray to prevent the leaks. The shower tray appeared to be loose.

232. Leaks from the shower tray continued. The sealant had to be replaced at regular intervals and mould and damp developed in the area surrounding the shower room. In January 2010 a tenant complained that there were marks on the wall in the hall as a result of leaks from the shower and that the floor had begun to lift. Mr. Wood has attempted to reseal the shower tray himself on a number of occasions, but mould continued to appear.

233. In February 2013 Mr. Atkinson went to No. 48 to change a fuse and reported that there was a significant problem with mould and damp throughout the apartment. The bottom row of tiles had worked loose and a gap had opened up which allowed water to escape under the tray. The apartment smelled foul and the tenant had to move out as the apartment was uninhabitable. It has not been occupied since (it has in fact been used by the experts to carry out certain works of opening up for the purposes of this litigation).

Damp and mould (No. 64)

234. In November 2005 the tenants complained of the damp patch in the shower which had mould growing on it. The sealant was replaced in the shower tray, the mould cleaned off and the laminate flooring in the hallway replaced where it had lifted.

235. Further problems with the shower tray occurred in June 2009, when an incoming tenant complained that the sealant had to be removed and replaced. In October 2010 Mr. Wood had to repaint the shower room ceiling because it was covered in mould. It had not been possible to eradicate the mould on the shower room ceiling although it had been painted several times.

236. At the experts inspection in February 2013 mould was seen on the walls and around the window frame in the bedroom and also in the reveals to the patio doors.

Doors (No. 48)

237. Within a few months of occupation cracks appeared above the door into the living area. The first tenants left in January 2006, but sent a letter summarising the defects in the apartment. They said that the internal doors would not shut. The cracks appeared to be getting longer. Although repaired by Barr during the defects liability period the cracks have reopened and are still evident.

Doors (No. 64)

238. There was a large gap underneath the living room door which, together with the shower room door, would not close. These problems were rectified by Barr during the defects liability period. There is an old crack about the living room door and Mr. Wood says that there are still problems with doors not closing properly.

Intercom

239. This has never worked in either apartment.

Lifestyle

240. Mr. Wood says that he has carried out a "deep clean" of both apartments on each change of tenant. He tells all tenants that they have to clean the shower room tiles on a regular basis and that they should use all the ventilation devices in the apartments.

241. For whatever reason the tenant in No. 48 appears to have done nothing about the outbreak of damp and mould in 2012. He said that he had tried to tell Mr. Wood about it but nothing had been done. Mr. Wood says that he has no recollection of being told about the problem. I accept this evidence.

The common parts

242. Like many others, Mr. Wood complained of the ponding of the walkways following heavy rain which made them slippery. He says that the surfaces are uneven and have not been laid to falls. He also complains about the significant amount of damp throughout the common parts, leading to green mould on the walls and causing the paint to discolour. He says it feels like a dilapidated building.

Mr. Wood said that he was unaware of the decision of the adjudicator made on 24 August 2007 (in relation to work not properly executed). He first knew about it when he saw Barr's defence. **The problems with the balcony doors**

243. The principal complaint here is that there are gaps under the patio door frames and/or under the timber battens on which the door frame sets. There is considerable variability in the size of these gaps, which can be anything up to about 20 mm. The gaps have in many places been filled with either expanding building foam or mastic, but in other places it has not been applied (or, if applied initially, it may have fallen out). This allows the outside air to enter the void between the floor and the concrete slab below.

244. In the case of the lead and B2 apartments, there were gaps of no more than about 1-3 mm below the balcony doors of Apartment Nos. 26, 66, 72, 75 and 122. The balcony door frame of Apartment 122 was not seated at the bottom for about 50 mm of its 70 mm thickness. In some cases, such as Apartment 149, the flashings below the balcony screens did not meet so that the timber that should have been protected was exposed.

245. Mr. Scott says that in some cases the gaps under the door frames are causing moisture to get into the apartments which can give rise to the growth of mould.

246. I find that this defect exists in some, perhaps many, apartments, and that it is the result of poor design or workmanship. However, I am not persuaded that, whether taken on its own or considered in conjunction with other defects, it has materially affected the fitness for habitation of any of the lead or B2 apartments. Most of the examples that I saw were the fairly small gaps described above that would permit a draught into the underfloor void, but nothing much worse than that. This could have the effect of making the apartment a little colder but I am not satisfied that such small gaps have made any material difference to the level of condensation in the apartments. Whilst it may be that a substantial gap of the order of 20 mm could have the effect described by Mr. Scott, I am not persuaded that that is the case where the gaps below the doors are between 1 and 2 mm.

247. I consider that the mould that has appeared on the vertical reveals of the balcony screens in some apartments is much more likely to be attributable to the lack of properly installed insulation or vapour check layer, than to the small gaps under the balcony doors.

248. I do not rule out the possibility that in some cases balcony door screens may not be weather tight because the opening may be sufficient to allow driven rain to enter the underfloor void, thereby causing dampness and distortion of the floor structure. It will be recalled that the floor consists of a floorboard finish laminate laid on chipboard. The latter is notoriously susceptible to moisture and would be likely to distort if in contact sufficiently frequently with water. However, I doubt very much whether this is likely in any of the lead or B2 apartments where the gaps are relatively small.

249. A secondary problem identified by Mr. Scott is that in some cases the door frame as a whole has dropped so that the joint between the head of the frame and the reveal has opened up instead. This is likely to be the result of inadequate support to the base of the door frames.

250. Examples of the door dropping are at Apartment Nos. 26 (3 mm), 65 (1-2 mm), 72 (2 mm), 75 (tears in the mastic seal), 122 (1 mm) and 149 (2 mm). Mr. Scott says that gaps such as these increase the risk of both surface and interstitial condensation and mould growth.

251. There is a separate aspect of the problem with the balcony door frames. The deformation of the door frames has caused difficulty in the operation of the sliding door which forms the central part of the glazed screen. Mr. Atkinson's evidence is that he has had to adjust nearly 80% of the balcony doors at Concord Street, usually because they tend to come off their runners and have to be put back on or because there is misalignment that prevents the doors from being locked properly.

252. So far as the lead and B2 apartments are concerned, complaints about the balcony doors have been made in three cases. In the case of apartment No. 65 the tenants complained that the door was not opening and closing properly and it was realigned at a cost of £100. Since then tenants have been warned to handle it carefully. In relation to apartment No. 75, Mr. Haim said that the door "often comes off its runners" and that Mr. Atkinson had been asked to fix it on a couple of occasions (but this apartment is not owned by a claimant). In relation to apartment No. 80, the door has come off its runners once and tenants are warned to be careful.

253. In the remaining lead and B2 apartments there has been no mention of problems with the balcony doors, save in the case of apartment No. 23: Mr. Taylor said in his witness statement that the glass moves within its frame and a new lock has been fitted on one occasion. It is not clear whether the need for the new lock had anything to do with the poor fit between the door frame and the opening. I do not regard the movement of the glass as affecting the fitness for habitation of the apartment.

254. Taking this evidence as a whole, I am not satisfied that the deformation of the balcony door frames has been the cause of any significant inconvenience to any of the occupiers of the lead and B2 apartments, at least not to an extent that could fairly be said to have made the apartment unfit for habitation (whether taken by itself or in conjunction with other defects). It has undoubtedly been an irritant, but I do not consider that to be enough to support a claim under section 1 of the Act.

255. I find that in none of the lead or B2 apartments have the consequences of the defective installation of the balcony screens and doors been sufficiently serious so as materially to affect the fitness for habitation of the apartment. Accordingly the claim under section 1 of the Act under this head must fail so far as all the lead and B2 apartments are concerned. However, as I have said, there may be non-lead apartments where the problem is sufficiently severe to

make a difference, but that is outside the scope of the issues that I have considered in this trial.

256. If there are cases where those advising the Claimants consider that the consequences of the defects relating to the balcony doors have been sufficiently serious to support a conclusion that a non-lead or B2 apartment was unfit for habitation on that ground, then I will hear submissions and, if necessary, consider the evidence in relation to those apartments. However, I would hope that this can be resolved by agreement.

The problems with the balcony doors

1. The principal complaint here is that there are gaps under the patio door frames and/or under the timber battens on which the door frame sets. There is considerable variability in the size of these gaps, which can be anything up to about 20 mm. The gaps have in many places been filled with either expanding building foam or mastic, but in other places it has not been applied (or, if applied initially, it may have fallen out). This allows the outside air to enter the void between the floor and the concrete slab below.

2. In the case of the lead and B2 apartments, there were gaps of no more than about 1-3 mm below the balcony doors of Apartment Nos. 26, 66, 72, 75 and 122. The balcony door frame of Apartment 122 was not seated at the bottom for about 50 mm of its 70 mm thickness. In some cases, such as Apartment 149, the flashings below the balcony screens did not meet so that the timber that should have been protected was exposed.

3. Mr. Scott says that in some cases the gaps under the door frames are causing moisture to get into the apartments which can give rise to the growth of mould.

4. I find that this defect exists in some, perhaps many, apartments, and that it is the result of poor design or workmanship. However, I am not persuaded that, whether taken on its own or considered in conjunction with other defects, it has materially affected the fitness for habitation of any of the lead or B2 apartments. Most of the examples that I saw were the fairly small gaps described above that would permit a draught into the underfloor void, but nothing much worse than that. This could have the effect of making the apartment a little colder but I am not satisfied that such small gaps have made any material difference to the level of condensation in the apartments. Whilst it may be that a substantial gap of the order of 20 mm could have the effect described by Mr. Scott, I am not persuaded that that is the case where the gaps below the doors are between 1 and 2 mm.

5. I consider that the mould that has appeared on the vertical reveals of the balcony screens in some apartments is much more likely to be attributable to the lack of properly installed insulation or vapour check layer, than to the small gaps under the balcony doors.

6. I do not rule out the possibility that in some cases balcony door screens may not be weather tight because the opening may be sufficient to allow driven rain to enter the underfloor void, thereby causing dampness and distortion of the floor structure. It will be recalled that the floor consists of a floorboard finish laminate laid on chipboard. The latter is notoriously susceptible to moisture and would be likely to distort if in contact sufficiently frequently with water. However, I doubt very much whether this is likely in any of the lead or B2 apartments where the gaps are relatively small.

7. A secondary problem identified by Mr. Scott is that in some cases the door frame as a whole has dropped so that the joint between the head of the frame and the reveal has opened up instead. This is likely to be the result of inadequate support to the base of the door frames.

8. Examples of the door dropping are at Apartment Nos. 26 (3 mm), 65 (1-2 mm), 72 (2 mm), 75 (tears in the mastic seal), 122 (1 mm) and 149 (2 mm). Mr. Scott says that gaps such as these increase the risk of both surface and interstitial condensation and mould growth.

9. There is a separate aspect of the problem with the balcony door frames. The deformation of the door frames has caused difficulty in the operation of the sliding door which forms the central part of the glazed screen. Mr. Atkinson's evidence is that he has had to adjust nearly 80% of the balcony doors at Concord Street, usually because they tend to come off their runners and have to be put back on or because there is misalignment that prevents the doors from being locked properly.

10. So far as the lead and B2 apartments are concerned, complaints about the balcony doors have been made in three cases. In the case of apartment No. 65 the tenants complained that the door was not opening and closing properly and it was realigned at a cost of £100. Since then tenants have been warned to handle it carefully. In relation to apartment No. 75, Mr. Haim said that the door "often comes off its runners" and that Mr. Atkinson had been asked to fix it on a couple of occasions (but this apartment is not owned by a claimant). In relation to apartment No. 80, the door has come off its runners once and tenants are warned to be careful.

11. In the remaining lead and B2 apartments there has been no mention of problems with the balcony doors, save in the case of apartment No. 23: Mr. Taylor said in his witness statement that the glass moves within its frame and a new lock has been fitted on one occasion. It is not clear whether the need for the new lock had anything to do with the poor fit between the door frame and the opening. I do not regard the movement of the glass as affecting the fitness for habitation of the apartment.

12. Taking this evidence as a whole, I am not satisfied that the deformation of the balcony door frames has been the cause of any significant inconvenience to any of the occupiers of the lead and B2 apartments, at least not to an extent that could fairly be said to have made the apartment unfit for habitation (whether taken by itself or in conjunction with other defects). It has undoubtedly been an irritant, but I do not consider that to be enough to support a claim under section 1 of the Act.

13. I find that in none of the lead or B2 apartments have the consequences of the defective installation of the balcony screens and doors been sufficiently serious so as materially to affect the fitness for habitation of the apartment. Accordingly the claim under section 1 of the Act under this head must fail so far as all the lead and B2 apartments are concerned. However, as I have said, there may be non-lead apartments where the problem is sufficiently severe to make a difference, but that is outside the scope of the issues that I have considered in this trial.

14. If there are cases where those advising the Claimants consider that the consequences of the defects relating to the balcony doors have been sufficiently serious to support a conclusion that a non-lead or B2 apartment was unfit for habitation on that ground, then I will hear submissions and, if necessary, consider the evidence in relation to those apartments. However, I would hope that this can be resolved by agreement.

The nature of the construction of the basement steelwork and its condition

1. Along the sides of the basement car parks the soil is retained by a steel sheet piled retaining wall. The presence of water in the basement means that the sheet piles have corroded at floor level, particularly in the North block.

2. The buildings have a steel frame and the bases of many of the columns have become corroded. There are also steel cross braces which in cross section are rather like a flat plate. The bases of several of these braces are in standing water and have become fairly severely corroded. Mr. Tasker's evidence is that if this rate of corrosion continues they will probably be excessively weakened within about five years. He estimates that the corrosion probably started within about five years of practical completion. I accept this evidence.

3. There are two principal potential sources of the water that has entered and is entering the basement of the North block. The first is rainwater flowing down or through the external glazing and being discharged into the basement. The second is rising groundwater. The issues in relation to the external glazing are dealt with elsewhere in this judgment. In this section I propose to deal only with the rising groundwater.

4. This is an issue on which Mr. Tasker's opinion changed between the first experts' joint statement and his subsequent report. In the latter he said that it was possible that in unusual rain conditions the ground water level rises above the floor level in the North block so that water is entering the car park by this route as well as by means of the external glazing. A borehole sunk by WSP in February 2003 struck groundwater at 7.5 m below ground level, which then rose in the next 20 minutes to about 30.6 m Above Ordnance Datum. That is about 2.5 m below the lowest point in the North block car park.

5. In February 2013 a core was drilled in the floor of the North block car park at about its lowest point which was then covered with a plastic plug. Since that core was drilled there is no evidence that water has ever been seen to come up through it, although Mr. Tasker would expect it to be doing so. In cross-examination he suggested that a reason for this could be that the clay below the borehole might have formed a plug so as to prevent water coming up through the hole. In the end, Mr. Tasker could only say that there was a clear possibility of water ingress from below between the sheet piles and the concrete slab (Day 13/105).

6. I am not persuaded by this evidence that any significant source of the water in the North block is groundwater rising from below. I accept that it is possible, but I do not find that it is established on the balance of probability. Further, to the extent that it was a problem that should have been foreseen by Barr, it seems that they took steps to deal with it (as I discuss below). I therefore do not find that there was any breach by Barr of the duty imposed by section 1 of the Act in relation to the waterproofing of the joint between the sheet piles and the concrete slab of the basement car park.

The cross braces

7. The purpose of the diagonal cross bracing is to transmit horizontal wind loads to the foundations and thence to the ground. Therefore they are components of the structure

that are integral to the structural integrity of the building. A risk of potential failure is unacceptable.

8. In the ordinary course of events the corrosion of these steel cross braces could be controlled by regular and planned maintenance, as both Mr. Allen and Mr. Tasker have agreed. By this, they mean painting every five years, although I did not understand Mr. Tasker to accept that steelwork would ordinarily have to be painted every five years.

9. The problem is that many of the lower sections of the braces are very close to a blockwork wall with the result that it is very difficult to gain access to the face of the steel immediately facing the wall. Mr. Tasker thought it would be possible to paint it with a radiator brush, but on any view the access is difficult. The result of this, in my view, is likely to be that the painting of the inner faces of the bases of the cross braces - even if possible - is unlikely to be done properly.

10. The solution that has been proposed, which is relatively inexpensive, is to encase the base of the braces in concrete. Not only will this give them protection against corrosion (and from fire as well), but also it means that the bases of the braces will not have to be cleaned and painted in the future.

11. As I have concluded in the main section of this judgment, the fact that a defect in the construction of a dwelling, or in work connected with the provision of a dwelling, can be remedied, even at modest cost, is not a defence to a claim under the Act, unless that remedial work forms part of what would usually be done in the course of ordinary maintenance.

12. In the case of the cross braces I accept Mr. Tasker's evidence that encasing their bases in concrete is not something that, all other things being equal, would ordinarily be done in the course of routine maintenance. However, the fact that the feet of some of these braces are very difficult to paint (because they are so close to the blockwork walls) might well cause any reasonable building owner to adopt the alternative course of encasing them in concrete in any event with a view to avoiding the need to carry out difficult maintenance. I am not aware of any suggestion that constructing the braces so close to the blockwork walls was, in itself, a breach of any duty owed under the Act.

13. Accordingly, in the rather unusual circumstances of this case I consider that the proposed course of encasing the bases of the steel cross bracing in concrete is not a form of remedial work that should be treated as different in kind from the routine maintenance that would otherwise be required. It can be viewed as a cost effective way of eliminating the need to carry out a time consuming element of maintenance at regular intervals in the future, which ought to have been carried out in any event.

14. I therefore reject any assertion that the condition of the cross bracing constituted a defect that rendered any apartment unfit for habitation at the time of completion.

The sheet piles

15. The sheet piles are unpainted and measurements have been taken of the loss of thickness to the piles where delamination has occurred. It was found that about 0.35

mm of steel had been lost, which compares to a predicted theoretical loss for unpainted sheet piling of about 0.4 mm over an eight year period. However, if this rate of loss were to continue for 50-60 years, the sheet piles would become unacceptably weakened (having been reduced in thickness by about 3 mm).

16. In December 2005 Barr was in communication with a specialist waterproofing and tanking contractor about water seepage between the concrete slab and the sheet piles. The contractor, BOSA, said that the area most at risk was the lower area of the car park, but when persistent rain fell and the water table was high there was a possibility of water migrating upwards between the sheet piles and the concrete over most of the area of the car park. They noted that the existing detail designed to prevent water migrating upwards was not working.

17. On 25 July 2006 Barr instructed a company called CWG UK (Cetco) to return to site to carry out further waterproofing works. Barr said that its site operatives would mark out the areas where they believed the water was coming in. This appears to have related to the perceived problem of water migration between the sheet piles and the concrete. So far as one can tell from these documents, Barr appears to have sought specialist advice about the problem of water migration between the sheet piles and the concrete and to have acted upon it. Upon the basis of this material, slender though it is, I am not prepared to find that Barr did not deal with this perceived problem of water migration in a proper professional and workmanlike manner.

18. In his report dated November 2013 Mr. Tasker said that if the leakage of water into the North block car park persisted it would continue to cause corrosion to the steelwork within the car park and could lead to failure of that steelwork within the service life of the building (paragraph 3.9.14). He said that one way of avoiding this was for the sheet piles to have been painted or to be painted now. If this was not done, then he thought that there was likely to be a breach of the Building Regulations during the service life of the building. I accept this evidence.

19. However, for the reasons that I have already given, I am not persuaded that the sheet piling is exposed to moisture from rising groundwater, at least certainly not on any regular basis. I find that the reason for most of the corrosion to date is the water that has entered the basement as a result of the problems with the external glazing. This, therefore, is the real cause of the risk presented by corrosion of the sheet piles - and it is only the North block car park that is affected by this. Mr. Tasker accepted in cross examination that the sheet piling in the South block is not affected by water running down the external glazing (Day 13/93)[1].

20. Since I consider that Barr did not discharge the duty under section 1 of the Act in relation to the design and workmanship of the external glazing, it is liable if a consequence of the condition of the external glazing was such that on completion a dwelling in the building was unfit for habitation. In my view, at the time of completion the external glazing was in a condition such that water could and would

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[1] There is an area of dampness in the walls of the South block basement between gridlines 40 and 43, which is a section that lies beneath the external glazing. However, I infer from Mr. Tasker's answers in cross examination that the water ingress here does not affect the sheet piling.

enter the basement car park of the North block in such quantities that over time, but within the design life of the building, there was a risk that some of the sheet piles in the North block car park would fail. On the basis of the reasoning of Ramsey J in *Harrison v Shepherd Homes* (see the main judgment), I find that every apartment in the North block was in a building that carried a risk of structural failure if steps were not taken either to protect the sheet piles in the basement in order to prevent further ingress of water from the external glazing. Accordingly, I find that every apartment in the North block was unfit for habitation on this ground.

21. However, since I consider that the risk to the sheet piles arises as a result of the ingress of water through the external glazing, if that source of water were to be prevented by appropriate remedial work to the external glazing, then I find that - given the limited extent of the corrosion to date - the sheet piles will no longer present any long term risk. In those circumstances, the remedial work agreed by Mr. Tasker and Mr. Allen, whilst desirable, would not be essential to prevent failure within the service life of the building.

22. It follows that if further ingress of water through the external glazing is prevented, there will be no need for any further remedial work to the sheet piles in order to make the building safe for the remainder of its design life. However, this is not a conclusion that a prudent building owner would not be expected to carry out painting or similar protective work to the sheet piles from time to time as a matter of ordinary maintenance.

The blockwork walls - North block car park, NW corner

23. There is a specific and separate complaint about water ingress to the north-west corner of the car park of the North block. Water is penetrating through the blockwork wall in that area.

24. The Claimants' case on this is that, since they have a right to use the car park (even if only to store bicycles), it forms part of that dwelling and the damp blockwork renders that part of the dwelling unfit for habitation. I have rejected this submission for the reasons given in the main part of the judgment.

25. However, I accept the Claimants' case to this extent: this section of block work wall is a source of water ingress. If that is not prevented, I consider that it does present a risk to the sheet piles in the immediate vicinity with the consequences that I have already mentioned. This is what Mr. Tasker said in the Joint Agreed Statement of the Engineering Experts following a site meeting on 6 February 2012 (at paragraph 6) and I accept this. I am satisfied that if the block work wall had been designed and constructed in a professional and workmanlike manner it would not have been a source of water ingress. Accordingly, I find that Barr is liable for this and that the Claimants are therefore entitled to the cost of the necessary remedial work to this section of block work wall.

26. However, there was a difference of opinion between the experts, Mr. Tasker and Mr. Allen, as to the length of the blockwork wall that was affected by this. Both experts were agreed that the appropriate remedial work is to excavate the soil on the exterior of the wall and backfill it with gravel. Mr. Allen said that this needed to be done over a length of 3 m only, whereas Mr. Tasker thought that it should be

substantially longer - 16 m. Mr. Tasker was cross examined about this and candidly accepted that his estimate was made on the basis that he did not know exactly where the water was coming from, and so he had erred on the side of caution in order to ensure that the excavation carried out would cover the source of the water. He said that it was a reasonable possibility that the source could be anywhere along the 16 m section.

27. I am not really in a position to resolve this dispute with any degree of precision. I accept Mr. Tasker's point that the area of visible dampness on the inside of the wall is not always a reliable pointer to the source of the water. On the other hand, I consider that his length of 16 m may be over conservative. I therefore assess the appropriate remedial work on the basis that 10 m of excavation and backfilling is required. I would hope that the parties can agree the appropriate costs but, if not, it will have to be determined by the court.

The basement plant rooms

28. There is also a complaint about water ingress to the plant rooms. This is said to be dangerous, particularly to electricians who may have to go into them to fix faults. There is a claim for the cost of the appropriate remedial work.

29. I can well understand the risk, and I have little doubt that something ought to be done about it. However, I am unable to see how the risk to an electrician (however real) who has to enter a plant room in the basement can make any apartment unfit for habitation. In my view this is not a head of claim for which Barr can be liable under the Act.

The extent to which the use of the apartments contributed to the dampness

1. The evidence of the witnesses about the use of the apartments was generally all one way. It is clear that everyone who gave evidence was concerned about the living conditions at Concord Street and did their best to ameliorate them. I accept that there have probably been a few tenants over the years who have not looked after the apartments properly, but it is quite clear that those owners and managing agents who gave evidence keep a fairly close eye on what tenants are doing and do their best to ensure that the tenants act sensibly.

2. I regard Barr's complaint about the drying of clothes in the apartments as verging on the absurd. With perhaps one or two exceptions there is no evidence that any tenant at Concord Street has done or is doing anything that tenants do not usually do. I see nothing wrong in someone expecting to be able to dry his or her clothes on an airer in his/her apartment if they have been through the drying cycle of a normal washing machine. The apartments were provided with washing machines but not tumble dryers, so I cannot see what else Barr could have expected the occupiers to do. If anything, I would stand Barr's allegation on its head and say that if it is not possible to dry clothes in an apartment on an occasional basis without causing excessive humidity, it may provide ground for questioning whether the apartment is reasonably fit for habitation.

3. The difficulty of ventilating the apartments was a constant theme of the evidence. When I went into apartment No. 122 during the view I was struck by the musty smell in the living room, the door of which was closed. The apartment had been empty for about three weeks and the trickle vents had been left open. I regard the suggestion that trickle vents or extractor fans were not used properly as unfounded. There is evidence, albeit not very cogent, that the extractor fans in the shower rooms may have lacked the capacity to remove all the moisture. Whatever may be the position under normal conditions, I am quite certain that those fans are not capable of removing the excess moisture produced by a leaking shower tray. There is little evidence that the fans in the kitchen area were not used when cooking was taking place, and I see nothing unreasonable about the occupants turning off the fan when the kitchen was not in use in order to avoid the irritation of the noise.

4. I reject Mr. Allen's evidence that the problems with the shower trays were caused by a lack of maintenance. I have concluded that the problem was caused primarily by differential movement between the shower tray and one or more of the adjacent partition walls, which no amount of maintenance would have resolved. The only effective means of repair was to take the entire installation apart and rebuild it. This conclusion should come as no surprise: there is nothing to suggest that the population of occupants at Concord Street is any different from the population at large, and the incidence of failures of the shower units at Concord Street is way above anything that could normally be expected. This points strongly to the cause of the problem being something to do with the construction of the shower cubicles, rather than with the behaviour of the occupants of the apartments. In my view, for the reasons that I explain in more detail in Appendix M to this judgment, that is exactly what it was.

5. At paragraph 9.6 of his November 2013 Report, Mr. Allen said that during his survey of the apartments during July 2012 and the experts' joint inspection in early 2013 he noted that the majority of trickle vents were closed and the electrical isolator switches

for the extract fans were in the off position. However, so far as I am aware Mr. Allen did not keep any record of what was found in this respect during his July 2012 survey.

6. As an aside I should mention that in several places in his November 2013 Report Mr. Allen stated that in the case of "many" or "numerous" or "most" of the apartments he saw or learned that the tenants did or did not do something or other (for example, paragraphs 9.20 - 11.1, 20.2-3 and 25.6). Since Mr. Allen appears to have kept a note of precisely where damp was or was not found (see, for example, paragraphs 8.9 and 8.17), I find it surprising that he did not make a note of which apartments were the source of the information to which he refers. I regard evidence of this sort coming from an expert as unpersuasive as it is unprofessional.

7. Another criticism made by Mr. Allen is that the occupants did not open the bedroom windows giving onto the walkways, which he says can be partially opened and locked so that they are secure and cannot be used to gain access to the apartments (November 2013 Report, paragraph 9.16). However, it was the evidence of Mr. Atkinson that many residents did not have confidence in these window locks and were reluctant to go out to work leaving the bedroom windows open. It is certainly the case that the residents do not leave these windows open during the day, at least not in winter: during the view on 14 January 2014 I made a point of looking to see whether any windows were open on the walkway elevations, and I think that I noticed only one. These windows are readily accessible so I can well understand that people would be reluctant to leave them open whilst they were out, unless they were completely confident that they were secure. I see no reason to doubt Mr. Atkinson's evidence on this point and I accept it.

8. In the light of the evidence as a whole I unhesitatingly reject the suggestions made by Barr that the problems of mould and dampness in the apartments were to any material extent caused or contributed to by any unreasonable behaviour on the part of the occupiers. I find that the root cause of the problem lay in the manner in which the apartments (and, in some cases, the roof of each block) had been built.

The source of the mould and damp

9. In relation to the argument that the principal source of the mould and damp in the apartments was the leaking shower tray, the Claimants made the following points:

    i) There are many apartments which have damp or mould on the walls of one elevation but not on both elevations. The Claimants submit that there is no apparent reason why the water or moisture from the shower rooms should prefer one elevation to the other: if the damp or mould on the elevations was caused by the defectively installed shower trays, one would expect there to be damp and mould on both elevations.

    ii) The substantial remedial works to the bathroom in Apartment 23 (Mr. Taylor's and Ms Waller's apartment) did not make any difference to the extent of the mould around the patio doors and bedrooms in that apartment (although it evidently did make a difference to the mould in the bathroom): this was Mr. Taylor's evidence on Day 6/133, 142. The reliance on Mr. Taylor's evidence as indicating the contrary in paragraph 41 of the Solicitor Defendants' Closing Note is in my view mistaken.

iii) The substantial repairs to the bathroom in Apartment 12 (Miss Lingwood's apartment) which took place in around August 2011 have not prevented the mould which appears around Miss Lingwood's patio doors. In fact, Miss Lingwood said that the occurrence of the mould around the patio window reveals was not "in-line" with the outbreaks of mould that resulted when the shower was leaking.

iv) Mr. Haslehurst's penthouse apartment (No. 72) does not have a shower tray because it has a bath, but was still found by the experts to suffer from mould and damp in the areas around the balcony doors. This is a clear case, therefore, where a shower tray cannot have been the sole (or any) cause of the mould and damp.

v) Mr. Mike Wood's evidence was that condensation in the bedroom to Apartment 48 had been an ongoing problem before the leak in his shower materialised in February 2013 (Day 6/12-14). It is therefore most unlikely that the damp and mould in the bedroom to the apartment was caused by the defectively installed shower tray.

10. In my view, these are all good points. In addition, in the context of the defects in the construction of the roof, I have noted in Appendix J to this judgment that Mr. Scott found mould or dampness on the ceilings or external walls of 14 of the 16 top floor apartments which he attributed to the moisture in the roof. This is a conclusion that I have accepted.

11. In addition, I consider that the thermal imaging evidence shows that there are cold spots on the internal faces of the walls and ceilings in many of the apartments and that condensation on these cold spots is a more likely explanation for the presence of the mould in the apartments in areas remote from the showers than moisture produced by leaks from the shower trays (see Appendix O, paragraph 16).

12. Whilst I have no doubt that the extensive leaks from some of the shower trays made matters worse in some apartments, I am quite satisfied that the leaks from the shower trays were not the only source of dampness and mould in any of the apartments. My conclusions on this are entirely consistent with what I saw in Apartment No. 156 during the view.

13. Since I consider that the living habits of the occupiers did not contribute to any material extent to the mould and damp problems in the apartments, I find that the major cause of the damp and mould to the external walls of the bedrooms and living rooms was and is the poor construction of the walls and, in the case of the apartments on the upper floors, mould and damp was also caused by defects in the penthouse balconies or the roof. However, I accept that in some apartments the extent of that mould and damp was probably aggravated by the leaks from the shower trays.

The condition of the external walls (other than the render)

The walkway elevations

1. On 17 October 2013 the experts, Mr. Scott and Mr. Allen, opened up the walkway elevations in four places. These were between Apartments 10 and 12, Apartments 88 and 90, Apartments 145 and 147 and the corner adjacent to Apartment 23. A detailed summary of what was seen on that occasion is set out in Appendix N to this judgment. However, in summary the following defects were revealed in the areas inspected:

    i) lack of continuity of the vapour check layers ("VCL") across the vertical steel extensions, including a gap in the VCL in the area of the steel itself.

    ii) Insulation quilt poorly installed.

    iii) The rigid Kingspan insulation was not carried across the steel.

    iv) In places there was no line of insulation between the plasterboard forming the inner face of the apartment wall and the rendered board on the external elevation.

    v) There was condensation on the face of the steel sections.

2. The experts are agreed that what was seen on this inspection is probably typical of the installation at similar places throughout the development (Mr. Allen expressly conceded this in evidence). I accept this evidence. It is Mr. Scott's view that the workmanship was defective, not in compliance with the relevant guidance and broadly reflects the as-built condition (in places the quilt may have slumped since it was installed).

3. Mr. Allen says that the only effect of the missing or incomplete insulation and VCLs is that there will be a slight increase in the cost of heating the apartments. His view is that the workmanship revealed by the opening up "is typical of the industry-standard".

4. Mr. Goffin, who saw the work as it was being carried out, said in his witness statement that the level of workmanship in the external walls was of low quality. He is, of course, an architect.

5. In general terms Barr accepted in its Closing Submissions that legitimate criticisms can be made of the workmanship in the external walls in respect of the following: gaps between the Kingspan insulation boards; poor installation of the Rockwool insulation and "imperfect" installation of the VCLs (see paragraph 194). It accepted also that there was evidence of poor workmanship in respect of the boards to which the external render was applied, although Barr contends that there is little evidence of poor application of the render itself (paragraph 191).

6. However, Barr's real answer to all this is that there is no evidence of any correlation between the defects in the construction of the external walls and signs of damp or mould within the apartments.

7. Taking the evidence as a whole, including my own impressions formed on the view, I am satisfied that the standard of workmanship revealed on the opening up, and

therefore of the walkway elevations as a whole (as both experts accept), is well below the standard set by section 1 of the Act. To the extent that Mr. Allen's evidence as to the quality of the workmanship is not undermined by the concessions made by Barr to which I have already referred, I reject it. If Mr. Allen is really correct, namely that the standard of workmanship seen at Concord Street is typical of that produced by the industry, then my answer would be that the industry as a whole is not achieving a reasonable standard of workmanship. But I doubt whether this is the case.

8. The difficulty on the evidence is the question of how this state of affairs has affected conditions within individual apartments. There was a somewhat sterile debate in the course of the evidence about "U-values" - effectively a measure of the insulating properties of a wall - which was inconclusive. There is no evidence as to what calculations, if any, were done by Barr or by the local authority in relation to the U-values of the walls forming the walkway elevations. I have derived no assistance from this avenue of enquiry.

9. Similarly, I found the thermal imaging evidence to be confused and somewhat inconclusive, although I find that it did support, albeit in the most general terms, the proposition that there is variability from place to place in the insulating properties of the walls to the apartments. However, I do not feel able to place much reliance on it. This is discussed in more detail in Appendix O to this judgment.

10. In the end it seems to me that it is necessary to decide whether the damp or mould found in any of the apartments can almost wholly be attributed to an increase in humidity caused by the leaks from the shower cubicles, as Barr contends, or whether it must have some other cause.

11. The only two alternative causes contended for were poor insulation of the external walls or a widespread failure by the occupants of the apartments to take reasonable steps to keep the apartments sufficiently ventilated, a problem said to have been aggravated in some cases by residents drying laundry within their apartments. The Claimants argued for the former and Barr argued for the latter. I have dealt with the issue as to the cause of the damp in Appendix D to this judgment and resolved it in favour of the Claimants.

12. Accordingly, the issue that remains is the extent to which the dampness and mould found in the lead and B2 apartments has been caused or contributed to by the defects that I have found to exist in the walkway elevation walls. If there is no evidence that this has occurred, then the owner of that particular apartment cannot recover any damages in respect of remedial work to the external wall of his or her apartment on the walkway elevation. I deal with this question in more detail below.

The balcony elevations

13. A large part of the balcony elevations consists of the balcony (or patio) windows in the living room which give on to the balconies.

14. Each balcony is supported on two steel brackets that are bolted on to the vertical steel stanchions forming the steel frame of the building. There is no insulation between the two sections of steelwork, so the balcony supports effectively provide a cold bridge between the outside atmosphere and the interior of the wall. Whilst it is accepted that

it would have been desirable to have insulation between the end of flange of the support bracket and the steel stanchion, there was no evidence that this was a widely accepted practice at the time. Mr. Tasker said in evidence that it was the practice of his firm prior to 2006 to specify insulating gaskets at the joint between the bracket and the steel frame of the building (Day 13/19-20), and that if he was involved in a construction project such as this he would have advised the architect that specifying the installation of such an insulating gasket would be "… something he should consider, at least".

15. Mr. Allen's evidence was that there was a sea change in design approach following the introduction of new regulations or guidance in 2006. He said that before then the adoption of thermal insulation in joints such as these was not common practice, although the concept had been known about for many years (Day 16/49).

16. In substance I did not detect any significant difference between the evidence of Mr. Tasker and that of Mr. Allen. It seems that prior to 2006 Mr. Tasker's firm adopted the practice of specifying insulation between such brackets and the main steelwork, but I understood the general tenor of his evidence to be to the effect that this was not a practice that was thought to be necessary by all reasonably competent engineers.

17. In my judgment the evidence as a whole falls short of that required to support an allegation that the failure of the designer of the steelwork at Concord Street to specify the provision of insulating gaskets between the balcony support brackets and the stanchions was a negligent failure. In my view, the absence of provision for a thermal break at these points does not amount to a breach of the standard required by section 1 of the Act.

18. However, in its Closing Submissions Barr conceded that in the case of some apartments "the junction between the balcony support brackets" was badly executed. Having regard to the evidence as a whole, this was a realistic concession. The projection of the balcony supports through the external skin of the building was always going to present difficulties. Mr. Goffin said that the detail at the junction was not best practice. He said also that the holes in the external boarding through which the brackets projected were left open and unsealed for about a year with the result that water was able to penetrate into the fabric of the building which should have been dry. He said that, with hindsight, he was very embarrassed to have been an architect who was involved in this aspect of the design. He said that it was difficult to apply the sealant effectively around the balcony supports because the boards had not been sufficiently carefully cut around them (see Day 3/130-132, and 138-139).

19. Mr. Goffin's evidence was supported by that of Mr. Veitch, who accepted that the design detail around the brackets was very poor and that there was a problem in sealing around the openings (Day 7/53).

20. Leaving aside the omission of a thermal break between the balcony supports and the vertical stanchions, I have no hesitation in finding that the detailing and execution of the junction between the external skin of the building and the balcony supports was very poor. I have no doubt that water or moisture was able to penetrate through to the cavity between the inner and outer skins of the external wall, causing elevated levels of humidity. Whether any water actually penetrated the inner skin of plasterboard (as

opposed to making it damp) is difficult to say. I have seen no evidence that it did, either during construction or subsequently. There is a subsidiary issue as to whether rainwater could run along the balcony support and into the building, because the surface of the bracket falls slightly downwards towards the building. Barr said that this would be largely prevented by the horizontal steels that rested on the balcony supports (at right angles to the line of the bracket) which in turn supported the timbers forming the floor of the balcony. I consider that whilst this might have acted as a barrier to much of the water that fell on the supports, it was not always a complete barrier and in any event it was still possible for driven rain to get in behind the cross steels to the point where the bracket was bolted onto the vertical stanchion.

21. Another issue was whether or not there was corrosion of the balcony support steels within the internal fabric of the building. This is an area that cannot readily be seen, but in his quantum report Mr. Tasker thought there was a "high probability" of corrosion extending immediately behind the facade. Barr does not agree. On this I prefer Mr. Tasker's view, primarily in the light of the findings that I have made above in relation to moisture penetration through to the inner cavity of the wall.

22. When the external wall to the balcony elevation was opened up in Apartments 48 and 121 the following features were identified:

i) The Rockwool insulation in the wall was incomplete, with a section missing in the area of the main stanchion and the balcony support.

ii) The joints between the Kingspan outer layer of insulation were open, and there was a gap of about 10-15 mm between the rigid insulation and the balcony support where it passed through the wall.

iii) The vapour control barrier was incomplete with sections of the material used to form the barrier missing. Although different sections of the barrier were overlapped, they were in general not jointed. Where sections of vapour barrier were jointed using a double sided adhesive tape, the joints had not been fully sealed or had become debonded in places.

iv) In addition, the edges of the vapour barrier had not been taken to the external skin of the wall in the area of the reveals, but had instead been finished on the line of the internal wall finish.

v) There was corrosion on the surfaces of the main stanchions and the primary cross steels above the balcony doors.

vi) In Apartment 48, the vapour barrier had been cut following initial installation so that it was incomplete. No attempt had been made to seal it to adjacent materials and it was left so that it fell back into the building. In this area it had been torn and fixed with screws but with no attempt to seal it to adjacent sections of the barrier.

vii) The foam filled joint at the head and sides of the balcony door sat directly onto the secondary steel structure.

viii) There were gaps around the balcony door where the foam filler was incomplete so that air could pass from the exterior into the body of the wall.

ix) In places, the patio doors had dropped leaving gaps between the foam filler and the plastic frame of the doors. In other places, there were just gaps in the foam filler.

23. I find that defects of this sort are likely to be present throughout the balcony elevations. In addition, I conclude again that it reflects a standard of design or workmanship that fell below that required by section 1 of the Act.

24. Mr. Scott makes a further point in relation to the cavity between the external rendered boarding and the breather layer within (often incomplete). He refers to Mr. Allen's description of it as "vented cavity", but says that this is inaccurate. Mr. Scott says that because the cavity as constructed is formed by single battens - that is to say, battens in one direction only - and there is no provision for the installation of any vents, there is no facility for air to move through the cavity. It is, in effect, trapped in the space between adjacent battens. It is Mr. Scott's view that in order to comply with BS 5250:2002 "The Code of Practice for Control of Condensation in Buildings" provision has to be made for venting the cavities between the battens. One way of doing this would be to introduce a second layer of battens fixed at right angles to the first layer. The boarding is then fixed to the outer layer of battens leaving room for air to move right through the entire cavity between the two layers of boarding. It may be that Mr. Allen appears to accept this in principle, as I mention in the next paragraph.

25. As a general point in relation to the lead apartments, Mr. Scott says that there is no provision for movement between the rendered boards owing to the lack of movement joints. He says that this is likely to result in the opening up of the joints with the passage of time. Mr. Allen considers that, save in the case of Apartments 23 and 122, in order to prevent water staining and further deterioration of the render, vents should be added to allow trapped moisture to escape from the wall cavity. However, Mr. Allen makes the point, which I accept, that there are no signs of compression failure which is typical of the lack of proper provision for movement.

26. In addition to the defects identified in Appendix B in relation to the balcony doors, the following specific defects have been reported in the external faces of the walls on the balcony elevations.

Apartment 12

27. There are two patches of staining where horizontal soffit boards meet the vertical boards, suggesting that water is leaking <u>out</u> in this area. Near the left-hand balcony support the joint between the boards has opened and displaced in a vertical line. The frame of the balcony doors does not sit accurately within the opening in the external wall. At the base of the doors there are gaps between the bottom rail and the plastic cill below.

Apartment 23

28. No relevant defects noted.

Apartment 26

29. There is a gap below the cill of the balcony doors and the timber below of approximately 3 mm. There is a crack in the render over the right-hand balcony support.

Apartment 51

30. There is water staining down the face of the elevation from the edge of the penthouse balcony above. There is one crack on the balcony wall. Render is missing over the upper left-hand balcony support.

Apartment 65

31. There is a hairline crack beneath one of the upper balcony supports. About the same support the boarding projects outwards.

Apartment 66

32. At the junction of the balcony supports with the elevation an extra piece of boarding has been fixed over the surface of the rendered elevation. The joint with the rendered section is not sealed and there are gaps around the board. The mastic placed around the board has de bonded from the render so the area is at risk of water penetration.

Apartment 122

33. No cracking evident.

Apartment 149

34. There are three vertical hairline cracks over the balcony.

35. On the view I noticed that the external render was in places beginning to become loose immediately above the balcony windows. This was very localised, but it looked as if it might be the start of a developing problem.

36. Mr. Scott's opinion is that the damp or mould seen on the inside face of the walls in the balcony window reveals or soffits has been caused by the lack of or poor installation of insulation and that this may have been exacerbated by the ingress of water through the unsealed, or poorly sealed, junction between the support brackets and the rendered boarding forming the outer skin of the wall. Mr. Scott relies on Approved Document to Part C of the Building Regulations 1991 which provides, at paragraph 5.1, that the cladding of the building should "… resist the penetration of rain and snow to the inside of the building". Paragraph 5.8 refers to the fact that insulation can be affected by condensation and cold bridges.

37. Mr. Scott concludes that the joint between the balcony support and the external boarding was neither designed nor constructed so as to comply with either the Building Regulations or BS 6093:1993 "Code of Practice full design of Joints and Jointing in Building Construction". The latter makes recommendations in relation to the use of sealants that in Mr. Scott's view were not complied with during construction.

38. Mr. Allen says that the opening up around the balcony has not shown any correlation between areas of damp or mould and the absence of insulation and tears or gaps in the vapour barrier.

39. Again, taking the evidence as a whole, including my own impressions formed on the view, I am satisfied that the standard of workmanship revealed on the opening up, and therefore of the balcony elevations as a whole - both as to the balcony support detail and the installation of the internal insulation and VCLs - is well below the standard set by section 1 of the Act. I accept the views of Mr. Scott on this.

40. A separate issue arose in relation to the condition of the paintwork on the balcony supports. It was missing in a number of places on many of the supports and these had corroded to an extent that was greater than the experts would have expected. Barr's position, through Mr. Allen, was that the extent of the rust on the balcony supports was the result of inadequate maintenance. Mr. Tasker's view was that painting of this type of steelwork would not usually be done more frequently than about 20-year intervals (Day 13/8). Mr. Allen contended for intervals of about eight years. Subject to any more stringent obligation which may be imposed by the lease, I prefer Mr. Tasker's evidence which seems to me to be more in line with what a reasonable building owner would expect to have to do.

The provision in the leases in relation to painting

41. A typical wording of the clause in the Sixth Schedule of the lease in relation to painting the external parts of the building was as follows:

> "Painting the external parts of the Building usually painted at least once every five years."

42. I consider that this clause requires the leaseholder to paint, every five years, those external parts of the building that are usually painted (that is to say, painted by a building owner). The steel balcony supports were, according to the evidence, supplied pre-painted and then painted again following installation. Once the balcony supports had been installed the boarding comprising the external skin of the building should have been sealed at the point where the skin was broken by the balcony support. In the case of Concord Street, not only were the holes not sealed for some time, so that rain water could penetrate into the inner part of the external wall, but also when they were sealed I find that the work was very badly done.

43. Once the balcony supports and the external boarding had been installed it is quite unrealistic to think that any part of the balcony supports that was inside the external skin of the building would ever be painted again. The original paintwork on the supports had been damaged, as Mr. Tasker pointed out in evidence (Day 13/7), during the course of movement and storage and so there was a potential for corrosion if the parts of the support within the envelope of the building were exposed to rain or moisture. That was one of the purposes of ensuring that there was a proper seal around the support that the point where it broke the skin of the building. Accordingly, I find that any corrosion to the steelwork of the balcony supports that was within the external skin of the building had nothing whatever to do with any potential failure to comply with the terms of the lease.

44. But even if I were wrong about this, I do not see how Barr's breach of section 1 of the Act is negated simply because the Claimants do not comply with an onerous maintenance obligation in the lease. It is sufficient if Barr's breach of duty makes a material contribution to the relevant loss. It is no answer for Barr to assert that there was another cause that also made a material contribution to the loss (unless, in circumstances which do not apply in this case, there is room for an allegation of contributory negligence). At its highest, any non compliance with maintenance obligations in the lease may fall to be taken into account when considering matters of quantum.

The effect of the defects in the construction of the external walls

45. For the reasons given in Appendix D to this judgment (on the cause of the mould and damp), I have no hesitation in concluding that the mould and damp that has appeared on the external walls of the bedrooms and living rooms of many apartments has been caused substantially by the defects in the construction of those walls.

46. I accept that in those apartments where there were significant leaks from shower trays those leaks may have aggravated the extent of that mould and damp on the external walls, but I find that they were not the principal cause.

47. Barr accepts that bad damp may render an apartment unfit for habitation, but submits that not every case of damp will do so. It suggests that the test is that the damp has to be sufficiently serious to interfere substantially with the enjoyment or use which the inhabitants of an apartment may derive from living there (Closing Submissions, paragraph 30). As a proposition, I am not sure that this was really in dispute save as to what is meant by "substantially". The Claimants suggest that any interference with the enjoyment of the occupation of an apartment that is more than minor can be regarded as rendering the apartment unfit for habitation: they submit that what renders the dwelling unfit for habitation is the character of the defect, rather than its magnitude or extent (see paragraph 96 of the Claimants Opening Submissions).

48. It seems to me that Barr's test is appropriate, provided that one interprets "substantially" as meaning something that is more than trivial or minor. For example, one small and isolated outbreak of damp and mould on a window reveal following a period of exceptionally heavy rain, would not in my view render an apartment unfit for habitation. However, if damp and mould repeatedly appeared on a window reveal in spite of attempts to remove it, that would be a different matter.

49. I have no doubt that the presence of mould and damp in living rooms or bedrooms, if persistent and more than very minor, renders an apartment unfit for habitation. Damp living conditions are well known to pose a risk to health, and there is evidence from at least five witnesses that actual (in particular, Mr. Haim) or potential risk to health, or the health of small children, was a reason for moving out (for example, the Booths, who decided to move out because of the risk to the health of their young child). There is no bright line test for this: it is always a matter of fact and degree.

50. I have carefully considered the evidence given by the witnesses, the contents of the individual Scott schedules and the photographs of the interior of each apartment. I have also taken into account my own observations during the view. In the light of these I have concluded that:

i) The defects in the construction of the walls to the walkway elevations have materially contributed to the presence of damp in the following lead and B2 apartments: Nos. 23, 51, 65, [75][2] and 80. I find that these apartments were unfit for habitation on completion of the work as a result of the combination of the defects in the construction of the walkway elevation external walls and the defective shower units. Accordingly, in respect of these apartments I find that, where owned by Claimants, the claimant leaseholders are entitled to the cost of the necessary repairs to the walkway elevation walls to their apartments, together with the cost of making good internal damage caused by the defects in the external walls.

ii) The defects in the construction of the walls to the balcony elevations have materially contributed to the presence of damp in the following lead and B2 apartments: Nos. 12, 23, 51, 65, 66, 72, [75] 80 and 149. I find that all these apartments were unfit for habitation on completion of the work as a result of the combination of the defects in the construction of the walls and the defective shower units (save in the case of No. 72, where there was no shower unit - in that case, the problem is attributable to the defects in the walls alone). Accordingly, I find that the claimant leaseholders are entitled to the cost of the necessary repairs to the balcony elevation walls, including the balcony supports, together with the cost of making good internal damage caused by the defects in the external walls.

51. Since the standard of workmanship in the external walls to both elevations was clearly poor throughout the two blocks, by extension Barr will be liable under section 1 of the Act to the claimant owners of those apartments where more than minimal damp and mould has appeared on the interior faces of the external walls or external door or window reveals. However, as I have mentioned in the main judgment, I do not feel that I can find as a fact that a particular apartment was unfit for habitation without considering evidence from the relevant owner or occupier.

The scope of the remedial works

52. Mr. Allen suggested in his report that the problem of the incomplete vapour control layer could be remedied by painting the internal plasterwork in the relevant areas with a vapour barrier coating. Mr. Allen initially suggested a product called “Prep and Prime Vapour Barrier” manufactured by ICI, a product not available in the UK. In cross examination Mr. Allen advocated what he said was a similar product manufactured by Antel. There was also a reference to a product manufactured by Zinsser, but Mr. Allen accepted that this had not been tested by its manufacturers as a vapour membrane. Mr. Allen suggested that the vapour barrier coating could then be painted over with a suitable interior paint to match the existing declaration. However, in cross examination it was put to Mr. Allen that it was not possible to paint over the Antel product with ordinary interior paint. The fact that the Antel product came in a variety of colours in a matt finish tends to suggest that it was not intended to have another product on top of it.

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[2] Although evidence was given about this apartment, the owner of No. 75 is not a claimant in the action.

53. I did not find this evidence convincing. It seems to me probable that if the application of a vapour barrier coating was capable of being effective, it would very likely result in an unattractive blemish on the interior decoration of the apartment concerned. In any event, it would mean that the final barrier to the ingress of moisture was on the internal face of the plasterwork which would not prevent the plasterwork itself from getting damp and subsequently "blowing" or deforming in some other way.

54. I do not consider that the Claimants should be required to accept what might well be a cosmetically unattractive solution in order to reduce Barr's liability. I consider that unless there is some alternative solution which is clearly acceptable, tried and suitably durable, the Claimants are entitled to have the original work redone in a proper manner. No such solution has been put forward.

55. Since not every leaseholder is a claimant and since, in addition, not every apartment appears to have been affected to the same extent by the defects in the construction of the external walls, there is no warrant for an award of damages which represents the costs of carrying out repairs to every single apartment irrespective of whether that apartment was unfit for habitation or its owner a claimant in the action. I see no alternative but to award each Claimant whose apartment has been rendered unfit for habitation by the poor construction of the external walls the cost of having the relevant walls to his or her apartment rebuilt to the original specification or something similar (I am not aware that the Claimants' experts have made any criticism of the design of the external walls in addition to the criticisms of the workmanship).

56. Since the Claimants have put forward remedial proposals which involve the remediation of the external walls to the whole of the building, I cannot derive a figure which represents the costs of carrying out the necessary remedial work to any particular apartment. However, subject to two points raised by Barr, I accept that the nature of the remedial work proposed by the Claimants is in principle appropriate. What must therefore be done, by the court if the figures cannot be agreed by the parties, is to assess on an apartment by apartment basis the cost of carrying out that work to the relevant wall or walls, including the additional costs of protecting adjacent apartments, together with the associated access costs (scaffolding and the like). It may be that in some cases several nearby apartments can be repaired using one scaffold, thereby saving the costs of having several separate scaffolds.

57. The two reservations that I have with the Claimants proposals for remedial works are:

   i) I do not consider that it is necessary for the VCL to be taken round steel uprights if it can be sealed to the steelwork itself. This may have to be done in any event if the steel upright in question is in effect shared with a neighbouring apartment to which remedial work is not being carried out.

   ii) I have some misgivings about Mr. Scott's suggestion that the frame to the balcony door/window should be fixed to structural members through a layer of Kingspan (or other) insulation. However, I do not consider that it is necessary to decide this: it is a matter that can almost certainly be worked out on site and I doubt whether the precise method of fixing chosen will make any significant difference to the cost of the remedial works.

58. If the cost of the remedial works on an apartment by apartment basis cannot be agreed in the light of the estimates that have currently been prepared on behalf of the Claimants, then any points of disagreement will have to be resolved by the court. I hope very much that this will not be necessary.

59. In relation to the lead and B2 apartments, I have already identified at paragraph 40 above those apartments whose owners (if claimants) are entitled to the cost of remedial works to both the balcony and walkway elevations and those to which the entitlement is in respect of the balcony elevations only.

60. Evidence was given about damp and mould in four other apartments: Nos. 14 (Goulding), 35 (Priceman), 48 and 64 (Michael Wood) which was the subject of cross examination by Lord Marks. In the case of Nos. 14, 35 and 64, there was evidence of damp and mould on the internal walls to both the balcony and the walkway elevations. I find that this was not caused by leaks from the shower trays, but by the defects in the construction of the external walls to both elevations.

61. In relation to No. 48, an apartment of which the balcony wall had been opened up, there was clear evidence of poor construction as I have already described. However, in this apartment there was no evidence of any damp or mould on the internal faces of the walls on the walkway elevation.

62. Evidence was given also, but only by means of his witness statement, by Mr. Whaley in relation to Apartment No. 69, but this was not the subject of any cross examination by Lord Marks. It would therefore not be appropriate for me to make any findings in relation to that apartment.

The gable end elevations

63. Of the apartments considered in detail at the hearing only No. 149 (Ridgway) has a gable end wall. There were signs of damp around the window on this elevation, but on the basis of this evidence alone I am unable to say whether the condition of the gable end wall is such that damp resulting from it has caused or contributed to this or any other apartment being unfit for habitation when the work was completed. This issue will (if the Claimants wish to pursue it) have to be determined following the consideration of further evidence.

The history of the events relating to the door entry system

1. On 20 February 2006, less than three weeks after practical completion of the North block, Barr sent a fax to Advance Integrated Systems Ltd ("AIS") reporting complaints from owners or occupiers of ten apartments that the door entry phone was not working properly. AIS was asked to investigate.

2. By a further fax from Barr to AIS dated 12 April 2006 Barr reported that the total number of apartments having problems with the door entry phones had risen to 57. It said that CWC was "… eager to have these problems resolved".

3. On 22 June 2006 CWC wrote to Barr saying that AIS had been on site "… resolving a number of problems" but had reported that there were certain problems that they could not resolve owing to the manner in which the wiring had been carried out. CWC recorded that the problems with the door entry system were "… causing a great deal of inconvenience".

4. Mr. Veitch replied on behalf of Barr on 29 June 2006 saying that the problem was that the residents were complaining about the door to which their door entry phone was connected but, because no particular entrance door was specified for any particular apartment, Barr did not propose to take any further action "at present".

5. CWC replied on 30 June 2006 pointing out that the door entry system did not tie up with the postal numbering provided by Barr. It said that this would present problems, not just for residents, but for visitors, postal deliveries and the emergency services. Barr was instructed to remedy the defective work.

6. On 3 August 2006 Optica Security Systems ("Optica") wrote to Airedale Maintenance Services ("Airedale"), with reference to an instruction to carry out remedial works to the door entry system, saying that:

> "Further to your instruction to carry out the remedial works on the entrance system at the above site we feel the system has been installed to such a poor standard that we would advise going back to the original installation company to undertake a complete overhaul of the system and re-commission.
>
> We can undertake a repair and re-commission of the system but based upon the fact we are required to work on another parties (sic) equipment and previous installation we would require full payment in advance."

7. On 29 September 2006 a fax from Monks Security Systems ("Monks") to Airedale reported that they had changed the power supplies but "… the intercoms have only worked intermittently". They said that the only way to sort this out was to strip the connections back and re-terminate throughout. Mr. Veitch's internal response the few days later was: "Get Monks to get the full system operational".

8. On 2 October 2006 CWC notified Mr. Veitch that it currently had complaints from 14 residents and that Mr. Westgate of CWC had spoken to tenants who said that the system had never worked since they moved in. Mr. Veitch replied saying that AIS

had refused to return to site to sort out the problems "… and the matter has had to take its contractual course".

9. On 21 February 2007 Barr sent an e-mail to AIS saying:

> "The [door entry] system you installed in these apartments doesn't work.
>
> It is up to your engineer to inspect the site to determine the precise cause of the fault & rectify it.
>
> We are currently holding 3% retention on your account until these defects are cleared."

10. In evidence Mr. Veitch said that the problems with the door entry system were in some cases due to handsets not being switched on and that in others it was because screws had been put through conduits by Barrr's subcontractors and this had damaged the cables. When confronted with Barr's e-mail of 21 February 2007 saying that the system "doesn't work", Mr. Veitch said that he had to agree: "Yes, there were lots of defects, yes" (Day 7/179).

11. Witness statements have been served from the owners or occupiers of about 75 apartments. Of these, either the statements themselves or the con-temporaneous documents show that in almost 80% of cases the door entry system had either never worked at all (apart, possibly, from a week or two at the beginning) or had only worked intermittently or partially (for example, some witnesses said that whilst they could see the person at the door they could not let him or her in). In some witnesses' statements the door entry system is not mentioned at all, usually in statements by leaseholders who had never lived in the property. In about half of these the contemporaneous documents record that there were problems with the door entry system to the apartments belonging to those witnesses, which suggests that the tenants had not reported them. In relation to the remaining apartments there is no evidence at all that the door entry phone did not work satisfactorily. But, as I have already mentioned, overall the proportion of apartments belonging to those witnesses where it appears that the door entry system did not work properly is almost 80%, and possibly more.

12. In his report Mr. Allen said, at paragraphs 25.2 to 25.7:

> "25.2 I can confirm that some of the apartments door entry phones do not work. However, in discussion with the occupants, who have been in residence for a number of years, it is clear that the entry phone system did work for a considerable time after the apartments were complete. Some apartments still have operational door entry phones (e.g. apartment 134).
>
> 25.3 The tenant of apartment 145 advised that when she occupied the apartment three years ago the entry phone system functioned for about one month, however, it then ceased to function and has not been repaired. On querying this issue she has been advised remedial works to this item are not included in the current repair project.

25.4 The occupant of apartment 86 reported the door entry system was fully operational when he occupied the property in September 2009 but failed soon after and is now not working. A similar failure was reported by the occupier of apartment 167.

25.5 The occupant of the apartment 26 reported the entry-phone system was working when he originally occupied the apartment, but after some maintenance work was undertaken the video occasionally works but the entry-phone button does not work.

25.6 Most apartments shown evidence of alteration to the wiring system since the apartments were constructed. Examples of order requiring can be seen in the IASS ….

25.7 Based on my discussions with the apartment occupiers, the evidence of alterations to the wiring within the apartments since construction and the lack of maintenance to the door entry phone system reported by the apartment occupants, it is my opinion that the door entry phone system is defective due to lack of maintenance and alterations carried out since the construction was complete. It is my opinion that this defect is not the responsibility of [Barr] but shows a failing with the buildings maintenance management. It is my opinion that the failure of a door entry system cannot result in an apartment being unfit for habitation."

13. Mr. Sutton was the owner of No. 26, and what he said in evidence was this:

"Q. … When you saw Mr. Allen, the expert in this case for the defendants, you reported that the entry phone system was working when you originally occupied the flat, but after some maintenance work was undertaken the video occasionally works but the entry phone button does not work?

A. Yes, what happened with that I think on the very first days that I lived there, the entry system did work, but as I said at the time it was still a sort of building site where other apartments were being finished off. Very quickly the video didn't appear when people buzzed the button downstairs and over a period of time, probably within six months, the button didn't work to release the door.

Again this was reported to Martin Westgate and I think on two occasions the contractors came round to allegedly fix the problem, but nothing was ever satisfactorily resolved.

MR. JUSTICE EDWARDS-STUART: The button that you would otherwise have pressed in your apartment that would release the main door didn't work?

A. **There is a white handset with a video screen and three or four buttons on the side, when someone calls it makes a noise, you pick it up - pick the handset up. You should be able to see them on the picture, and then there is a button that you press which puts a red light up to say that it has been sort of accepted and opens the door, but that failed.**

LORD MARKS: I think the position was that at one stage you thought it was the maintenance work that had been done that had caused the problem.

A. **Well, my belief was that as other apartments were being finished off that some of the wiring had gone astray. Again, the contractors did come in within the first year as part of the snagging to rectify the problem, but they never could actually fix the problem after it initially went wrong."**

14. It is quite clear from this evidence that the attempts to rectify the door entry system were carried out on behalf of Barr, and were not arranged by the Claimants. It is also quite clear that they were unsuccessful.

15. In his witness statement Mr. Barry Wood, owner of No. 133, a studio apartment on the third floor of the North block, and the effective chairman of the Management Committee since about August 2010, said this in relation to the door entry system:

"42 As regards the intercom over time this has proved more and more ineffective and is a constant source of irritation to owners and tenants alike. The CSMCL board called for three quotations to repair it (see for example the quotations from Garndene dated 12 October 2010 and Experience Living Ltd dated 16 October 2010). On the basis that the cost of repair was about £25,000 plus VAT this was still being considered in July 2011 (see e-mail of 18 July 2011 from Ms Kaye to some of the board members). The board had received authorisation at the second AGM on 2 February 2012 (as confirmed in the minutes) from the owners/shareholders to spend around £25,000 to repair it. However, none of the contractors were prepared to guarantee the repairs as they were concerned that there may be issues with the wiring to individual apartments. As reported at the board meeting of 3 April 2012 a definitive quotation was needed. When the CSMCL board asked for a quote to include rewiring throughout the buildings the cost went up to £250,000 (as referred to in Ms Kaye's e-mail of 30 November 2012), which was not an affordable or realistic option. I summarise the position in my e-mail of 10 May 2013.

43 In June 2013 the board of CSMCL discovered that there is new technology available for wireless systems, which we are currently getting quotations for. Indications show that this is likely to be an affordable compromise figure in the

> region of £8000 - £10,000. However, this compromise will mean that there will be no video link, which is an important feature of the system for many people. I refer to my e-mail of 12 June 2013."

16. I accept this evidence, together with the evidence given by Mr. Sutton to which I have just referred. In my judgment, the position in relation to the door entry system is quite clear. For whatever reasons, the system was not properly installed and has never worked properly for the great majority of apartments. Mr. Allen's reference to No. 134 as an apartment with a working door entry phone is the only example referred to expressly in the evidence of a door entry phone that works, although I would accept that there are likely to be some others. However, from my review of the documents I am satisfied that about 80% of the apartments belonging to those Claimants who have made a witness statement had a door entry system that was said not to work or was reported as not working, and on this basis it is likely that the system would need to be replaced or overhauled in its entirety in order to ensure that all the apartments that currently do not have a properly working system will have one that does work.

17. Putting it another way, of the 120 or so apartments owned by the present Claimants, the documents suggest that the best part of 100 have a door entry system that either does not work at all or does not function properly and reliably. Further, if this is the case then I am satisfied that it is the result of defects in the original work (or attempts by Barr to have it rectified) or damage by other sub-contractors and not because of any unsuccessful attempts by the Claimants to rectify the problems subsequently.

18. Mr. Allen's suggestion that the present state of the door entry system is the result of alterations to the wiring since its installation (impliedly, by or on behalf of the residents) and/or lack of maintenance since the completion of construction is in my view manifestly unsupportable. The contemporaneous documents clearly record the fact that many apartments had problems with the door entry system fairly shortly after they became occupied, if not from the outset. Further, there is no evidence whatever that the Management Company or anyone on its behalf carried out any work to any part of the door entry system. By contrast, there is evidence that during 2006 various engineers either looked at or carried out work on the system at the request of Barr.

19. I find that the Management Company did not carry out any work on the door entry system for the reasons given by Mr. Wood in the passage from his witness statement that I have set out above. In my view, this was entirely reasonable. It seems to me that there was little purpose in paying £25,000 or more for a company to carry out work that it was not in a position to guarantee. In addition, I consider that the temporary wireless arrangement that is now in place was a reasonable response by the Management Company to the predicament in which it found itself. I accept that it is a temporary arrangement and must be viewed as such: it is not as good as the system that the Claimants would have had if the original system had been properly designed and installed.

20. In the light of the evidence about the door entry system, both in the witness statements and the contemporaneous documents, not to mention the admissions made by Mr. Veitch in evidence, I find it astonishing that Barr has persisted in defending the indefensible to the bitter end. It is, I regret to say, merely one example of Barr's

intransigent attitude towards many of its responsibilities in respect of this development.

21. Whether or not the door entry system serving any particular apartment might have worked for a short period after the apartment was first occupied, it is clear that when the work to the North block was practically complete in January 2006, the door entry system was already demonstrating that it was not fit for its purpose. The only plausible reason for this is that it was not designed or installed in a professional or workmanlike manner. Accordingly, I find that the Claimants have proved that the required standards of design and workmanship were not met in relation to the design and installation of the intercom system. I set out below the apartments in respect of which I find that the door entry system was not designed or installed in a professional and workmanlike manner:

Apartment	Owner or witness
12	Lingwood
14	Goulding
23	Taylor
26	Sutton
35	Priceman
48	Wood, M
51	Wiles
64	Wood, M
65	Whaley
66	Booth
69	Whaley
72	Haslehurst
75	Haim
78	Goulding
80	Munoz-Lopez
122	Priestley
127	Watson
133	Wood, B
149	Ridgway
163	Watson

22. As the list demonstrates, the evidence in relation to every apartment in respect of which an owner or occupier gave evidence at the trial was to the effect that it had a defective door entry system. So in relation not only to the lead and B2 apartments but also the additional apartments listed above I find that in every case there was a breach of the standards of design and workmanship required by section 1 of the Act.

Fitness for habitation

23. Mr. Scott said that there is no statutory regulation requiring the inclusion of an intercom or entry phone system in a building, whether in multiple occupation or not. However, he referred to several publications, for example the Guidance given by the Housing Health and Safety Review Scheme, which referred to the importance of entry phone controls in multi-occupied buildings in relation to the reduction in crime or fear of crime.

24. The Zurich Building Guarantee Technical Manual contains a specific requirement in relation to apartment blocks. Under the heading "Security", at page 291, it states:

> "Where there are more than four flats or maisonettes in a building, the main entrance door should be provided with an intercom and an electronic lock release facility which can be operated from within each flat or maisonette."

25. Whilst this document is not a code of practice, in my view it can be considered and taken into account when considering the importance of an intercom in apartment blocks such as those at Concord Street.

26. It is a fairly basic feature of any dwelling that its occupier should have a satisfactory means of controlling who enters it. In the case of a house in single occupation this does not need an intercom system. An occupier concerned about not admitting unwanted visitors can take the precaution of fitting either a door viewer within the door or a device that permits the door to be opened sufficiently to see who is outside and check any identification without permitting the visitor to force his way into the building. But this is a highly inconvenient solution in the case of a building in multiple occupation where there are, say, 50 or 60 apartments.

27. In addition to the particular incident mentioned by Mr. Haim when he had an asthmatic attack and could not open the door to admit the ambulance crew from his apartment, various witnesses gave evidence about the problems presented by the non-functioning of the intercom.

    i) Mr. Taylor (No. 23) said that the non-functioning of the intercom was:

    > "… a real inconvenience to me as I have to throw the keys down to let anyone in or they have to call it in advance and I will go and meet them at the door. I cannot have parcels delivered and have to go to the post office in town. There is an issue with security as people often leave the doors open or on occasion have forced them open to get in."

    ii) Mr. Sutton (No. 26) said:

    > "… if I have any visitors or deliveries I have to go down to the front entrance in order to let them in. This is a real inconvenience."

    iii) Ms. Wiles (No. 51) said that because the intercom in her apartment would not release the main door she had to go down to the main entrance to let in any visitors. In addition, she said that sometimes she could not carry her shopping up to her apartment in one trip and so she had to leave some of the items near the main entrance and just hope that no-one would steal them. She said also:

    > "I would receive a large number of leaflets and takeaway menus under the apartment door. I always wondered how those people had managed to get into the development, and this did give me concerns about the security of the building. I have not experienced this in any other apartment I have lived in."

    iv) Mr. Whaley (No. 65) said:

> "This has been a huge inconvenience for all of our tenants and we have had a complaint from nearly every tenant about this."

v) Mr. Haslehurst (No. 72) said:

> "I find the length of time that this system has been out of operation to be completely unacceptable, as I do the impact this has had upon our tenants, in terms of their personal security and the general inconvenience …. A good, reliable intercom system is a very basic requirement in any such development."

vi) Mr. Munoz-Lopez (No. 80) said:

> "This is very inconvenient for me I have to go to the main entrance door to let in visitors. I have reported this to the management company. I would also say that people have to put their mobile phone numbers notices clear the door which is unsightly and a security issue."

vii) Mrs. Ridgway (No. 149) said that the state of the system was, in her view:

> "… a security issue and puts our tenant at risk."

28. In my view these are all reasonable and valid points and show that the inconvenience caused to occupiers by the absence of any working intercom system was not just trivial, but was significant. Further, it was not transient. In many apartments the intercom system did not work at all, and in others it was unreliable. This is not a case where the system only failed on a few occasions in several years.

29. For a building that was designed and built in the present century I consider that the extent of the inconvenience posed by the absence of a working intercom was such as to make the apartments where it did not work properly unfit for habitation.

30. Barr's only answer to this was to say that many houses and blocks of flats do not have a door entry system and that this does not make them unfit for habitation. So far as houses in single occupation are concerned, I agree with this for the reasons I have already given. But that is irrelevant. Barr has adduced no evidence that apartment blocks similar to those at Concord Street were being built at the same time without any form of door entry system and, in the light of the considerations about security that I have already mentioned, I consider it very unlikely that this happened. The concluding sentence of paragraph 25.7 of Mr. Allen's report that I have quoted above is no more than a bare assertion unsupported by any reasons and I disagree with it.

31. I find, therefore, that every one of the apartments listed at paragraph 21 above was rendered unfit for habitation by Barr's failure to provide a reliable intercom system when building the two blocks at Concord Street. For the reasons that I have already given, the fact that in very many cases the intercom system either did not work at all from the outset or ceased to work properly within a few months of completion demonstrates in my view either that it cannot have been properly installed or, if it was properly installed, that it was damaged by other work carried out by Barr as Mr. Veitch suggested. Indeed, it may have been a combination of both.

The measure of damage

32. In September 2013 the Management Company resolved to install a GSM system as a "temporary fix" in order to provide some form of working door entry system. This cost about £8,000. It was an audio system only and so there was no video facility that enabled an occupier to see the person at the main door. It works through the occupier's mobile phone so if, for any reason, that has no signal, is not at hand, not working or has a flat battery, the system will not work. Another difficulty is that it takes Mr. Atkinson about ten or 15 minutes to re-programme the system (which he has to do physically by plugging his laptop into the fascia outside the main door) every time there is a change of occupier or phone number.

33. Mr. Priceman, who was I think the only resident to give evidence who had experience of the new system, said that it was satisfactory but he had only used it on about three occasions during the four weeks since it had been installed.

34. I do not consider that a system which has no video facility is a reasonable substitute for the system that was or should have been installed initially. In addition, it seems to me that there are weaknesses in a system which relies on the occupier having a working mobile phone with him or her at all times. It was suggested that the current system had an advantage over the original system because the occupier of an apartment could let the person in the main door when he or she was not in the apartment. However, as Mr. Atkinson pointed out, this would be of limited use if the caller did not also have a key to the relevant apartment. I do not find this to be a material advantage.

35. In my judgment the loss sustained by the leaseholder of each of these apartments is the cost of reinstalling a door entry system with a video facility similar to the original installation. That is the only relief that will put these leaseholders in the position that they would have been in if the breaches of duty had not taken place.

36. So far as I am aware, no figure has been agreed in respect of the cost of reinstalling a door entry system to the original specification to each individual apartment. I have a recollection that a figure of £1,500 was mentioned, but that may simply have been the result of dividing a price of £250,000 by about 170.

37. But in any event, for the reasons that I have given, I find that the owner of each of the lead and B2 apartments is entitled to the cost of having a system installed to his or her apartment to the original specification (or equivalent).

38. It is a matter for Barr whether or not to dispute such a conclusion in relation to each apartment in respect of which the intercom is said not to be working and where the owner or occupier did not give evidence at the trial. In the table below is a list of all apartments in which there is evidence in either the witness statements or the contemporaneous documents to the effect that the door entry system for that apartment did not work properly. If that is disputed in respect of those apartments owned by Claimants which were not the subject of evidence of the trial on this aspect, then there will have to be a separate hearing in order to resolve the issue. I would hope that Barr may conclude that this would not be a proportionate or profitable course, but that is not a matter for the court.

39. However, if it were to be accepted that the Claimants in respect of, say, 50 or so apartments are entitled to damages because their apartments were unfit for habitation by reason, wholly or in part, of the defects in the design and workmanship of the door entry system, the measure of damages will be the cost of reinstalling a new door entry system for each apartment individually.

40. The cost of replacing or repairing the entire system has been agreed in the sum of £71,029. It therefore looks as if the cost of replacing the entire system may be less than the aggregate of the costs of reinstalling about 50 odd door entry systems on an apartment by apartment basis. If that is the case, then Barr should not have to satisfy that part of each Claimant's award of damages in full, but only to the extent of the lower cost of replacing the entire system. This can be achieved by an order directing that the relevant part of each individual award of damages is not to be enforced to the extent that the aggregate sum paid by Barr would exceed the cost of overhauling the complete door entry system - that is to say the agreed sum of £71,029 (or the cost of the same work at the time when it is reasonable to carry it out).

Apartments which are alleged not to have (or which have been recorded as not having) a properly working intercom system

41. Where the name of the owner is left blank, this may be because the owner is not a claimant in the action. Where the name is in square brackets, he/she is or was a tenant.

Apartment	Owner
2A	Austin
4	
7	Armitage
10	Littlewood
12	Lingwood
14	Goulding
20	
22	Baker
23	Taylor/Waller
25	Tunnicliffe
26	Sutton
27	
30	Grant

34	
35	Priceman
38	Lambourne
47	Ham
48	Wood, M
49	Baker
50	
51	[Wiles]
54	Lawrence
55	Procter
60	Skilbeck
61	Armitage
63	McConnell
64	Wood, M
65	Whaley
66	Booth
69	Whaley
70	Swindells
72	Haslehurst
74	
75 (not owned by a claimant)	[Haim]
78	Goulding
80	Munoz-Lopez
82	Garcia
86	Hebdon /Hoghton-Carter
90	Hebdon

92	Wells
94	
96	Anand
98	
100	Wells
102	Halliwell
103	Bowes
110	Austin
111	Austin
112	
115	Pearson
117	Cohen
122	Priestley
124	
127	Watson
133	Wood, B
136	
138	Lewis
146	
147	McLaughlin
148	Papadopoulos
149	Ridgway
157	Tunnicliffe
161	Austin
163	Watson
165	Bean

169	Tonnesen
181	Gundeboina

The construction of the external screen and the existence of leaks

1. The walkway elevations are cladded with a Kawneer glazing system. This is designed so as to be waterproof on the outside but not on the inside. However, with the agreement of CWC and, seemingly, to the knowledge of the City Council's planning department, Barr decided to reverse this glazing since they anticipated serious maintenance problems if glazed panels had to be replaced because there was no suitable access to those elevations of the buildings. The result is that the non-waterproof face now forms the exterior of the screen. There is no evidence to suggest that Kawneer was consulted about this proposal. Indeed, at paragraph 30.6 of his report Mr. Allen said:

> "… in reversing the glazing framework the cladding designer failed to adequately consider the drainage of the glazing which as a result of being reversed allows some rainwater to be discharged into the building rather than being discharged externally. This is particularly relevant at basement level."

2. Incorporated within the Kawneer system is a series of integral drains within the mullions and transoms which are designed to transport any water that penetrates into the cladding - perhaps through a defective seal - to the exterior of the building at ground level. However, in order to create fixings to tie the reversed Kawneer system to the building the mullions have been cut at each floor level.

3. The Claimants allege that the result of this arrangement is that any water that penetrates the outer (non water resistant) face of the glazing is not taken down to the bottom of the building as it should be, but some of it is instead discharged at the level of each of the walkway soffits. The water runs or condenses onto the cold metal surfaces of both the steel frame for the building and the steelwork within the walkway soffits. The rest of the water emerges from the base of the Kawneer system and is discharged straight into the basement car park.

4. Barr does not accept this. It says that the system's internal drainage system is, in effect, redundant since the mullions have been capped at the top and are now on the inside of the building. It contends that any water that penetrates the system does so in miniscule quantities and will be discharged to the exterior of the building via a chute (which is a little above ground level) which has been or can be installed at the bottom of each mullion. This is strongly disputed by the Claimants.

5. Mr. Scott says that photographs show evidence of water penetration to the walkway soffits and resultant condensation. A photograph at page 87 of his November 2013 report is said to show "dirt washed away by water leaking" from the glazing. Barr, by contrast, says that Mr. Allen is adamant that he has seen no such escape of water into the voids above the walkways.

6. Mr. Atkinson has referred to problems caused by water penetration into the walkway soffits and, in particular, its effect on the lights which are set into the soffits. Mr. Scott has noted that the transformers that serve the lights are open to water penetration and that the wiring connections are exposed. This is plainly correct. However, what is in dispute is whether or not either the transformers or the lights have been adversely affected by water penetration through the external glazing.

7. In a letter dated 21 October 2005, which followed a meeting four days earlier, Barr wrote to Pendant Aluminium, who installed the glazing, enclosing photographs taken on 18 October 2005 which was said to "clarify the situation regarding water ingress through the mullions were the mullions are acting as rain water pipes". The letter recorded that it had been agreed at the meeting that Pendant would appraise the design at eaves level above the curtain walling with a view to providing a solution to the water ingress problem. Unfortunately, the photographs that have survived are not clear but the terms of the letter tend to suggest that the problem was not confined to leaks at basement level.

8. On 14 November 2005 Barr wrote again to Pendant drawing their attention to the fact that on both the North and South blocks "significant amounts of water are penetrating the curtain walling system" that Pendant had supplied. A note of a meeting with Pendant four days later, on 18 November 2005 and attended by Mr. Veitch, which recorded that "water ingress from the mullions must be channelled out of the building to avoid the ingress into the ceiling voids and basement area", makes it reasonably clear that water penetration was not confined to the basement.

9. In December 2005 Barr received a method statement for "minimising the water penetrating" the curtain walling system. The document, prepared by a Mr. England, who had formerly worked for Kawneer, made it clear that it would not be possible to provide a fully waterproof system. The first objective was to minimise the amount of water entering the main structural box area of the curtain walling mullions and to drain out any water that did get into the system. There were a number of other objectives also. Although I understand that some form of trial was conducted, the work described in the method statement was never carried out. The position was that no-one could come up with a satisfactory solution to make the system watertight.

10. In short, Mr. Scott said that the documentation that he had reviewed confirmed his observations on site that water was leaking from cuts in the mullions at a wide range of positions.[3] At paragraph 8.07.01 of his report Mr. Scott recorded that Mr. Allen did not disagree that water penetration occurred through the glazing system.

11. However, what Mr. Allen said in evidence was quite different. For example, at Day 16/76:

> "Well, Mr. Scott has repeatedly told me that there is water coming out of that slot, but even with his latest Sparge test has not managed to provide a photograph to me showing it, and I didn't have the advantage of visiting site to see it, so I do not believe water does come out of there, no."

12. This appeared to be in stark contrast to what was recorded in the experts' joint statement prepared by Mr. Scott and Mr. Allen. At paragraph 11.04 that said this:

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3 The documentation reviewed by Mr. Scott included a report by Bickerdike Allen Partners dated 25 August 2009 in which they reported that "water was bypassing the curtain wall and entering the building in an uncontrolled manner in addition to the high-level walkway openings". This was part of a passage in the report that was put to Mr. Logan in cross examination and with which he agreed (Day 10/101).

"The Experts agreed that this leads to:

11.04.01 Water exiting the system at cut positions and entering into the void between the structural floor and soffit over the walkways;"

13. It seemed to me that when Mr. Allen was giving his evidence he had completely forgotten what he had said in this agreed statement (and what he had said in paragraph 30.6 of his report, which I have quoted above). At the conclusion of his evidence I asked him about it. I said (Day 16/130):

"MR. JUSTICE EDWARDS-STUART. I thought at one point the position was that water could exit that glazing system at the cut positions and go into the void between the floor and the soffit over the walkways.

A. I think that's the claimants' case. I have only seen water coming out of the Goffin drain, for want of a better expression."

14. I then referred Mr. Allen to the joint statement and asked him if it was correct. He said:

"A. It is, that's right, and that's the - I think what we are referring to differently here is, does that cut extend of [to] the slot behind? Which I am not sure it does."

15. What Barr said about it in its closing submissions (at page 86) was this:

"While it is accepted that his evidence now does indeed represent a departure from the joint statement, that was made before the precise way in which the drainage of the system was working and the redundancy of the drainage slots were fully understood by either expert."

16. In addition to what was said in the experts joint statement, item 11 of the Common Parts Scott Schedule recorded this:

"Where these cuts have been made, water is also leaking from the integral drainage system. It is not possible to see all of the intermediate fixing locations and therefore to resolve a definitive percentage which leak."

17. I have to say that I found this change of position by Mr. Allen extremely unsatisfactory. I am quite satisfied that water is entering the void above the soffits over the walkways and that the most likely cause of this is the reversal of the glazing system, as the experts originally agreed.

18. The so called Goffin drains have no outlet, as Barr accepts (see paragraph 212 of its closing submissions), so they will simply back up when they are full of water. Barr asserts that the moisture entering into the voids comes from the Goffin drains, on the basis that they have joints at each of the vertical structural steels. I am not aware of any evidence that points to these as a source of the leaks into the voids above the walkways. Mr. Allen's position seems to be based on the assumption, which as far as

I can tell he is unable to justify, that the cuts in the mullions did not penetrate as far as the central channel in the mullion box behind. This conclusion was based, at least in part, on his examination of the Kawneer drawings. However, the Claimant's response is that these drawings showed double glazed units whereas the curtain walling at Concord Street is single glazed and so no conclusions can safely be drawn from those drawings about the dimensions of the system actually installed.

19. I agree with the Claimants on this. In my judgment any conclusion about the depth of the cuts based on these drawings is open to question and cannot be relied on. There is evidence that water leaks from the holes in the walkways soffits where the lights are fitted and I have already concluded that the probable source of this water is leakage through the external glazing. I find that the modifications that were made to the glazing system in order to install it back to front have created a path for external water to enter the building from the mullions in the glazing screen. I find that most of that water collects in the voids above the walkways soffits, although I accept that from time to time there are leaks from the soffits onto the walkways below. However, I find that such leaking makes a material, but a relatively small contribution to the ponding of water on the walkways.

The remedial proposals

20. Mr. Allen's current refusal to accept that any water leaks from the mullions into the voids above the walkways soffits means that the remedial proposals that he had put forward to deal with leaks from the Kawneer glazing were confined initially to dealing with the problem of water being discharged at the foot of the glazing screen. This is water that at present goes straight into the basement car parks, particularly on the north block.

21. In these circumstances I find it unnecessary to explore the merits of Mr. Allen's proposal for dealing with the discharge of water at the foot of the glazing screen in any great detail. Mr. Allen's proposal involves the introduction of a metal flashing and chute arrangement between the foot of the screen and the wall on which it is supported. He proposes the detail that was devised by Hurd Rolland (at the time of the second adjudication) to accommodate the mullions which rest directly on the wall below. These proposals are wholly untried and are very dependent on the precise gap between the wall and the base of the screen at any particular point into which the flashing has to be fitted. Mr. Allen's scheme appears to depend on the as built dimensions being exactly as they are shown on the as built drawings. Mr. Scott's evidence was that in places the relevant dimension is substantially less. In his letter dated 5 February 2014 Mr. Allen accepted that the relevant dimension would have to be confirmed on site before any fabrication could begin.

22. This being the position on the evidence, I am not prepared to say that Mr. Allen's scheme would not work; but on the other hand, in the absence of some practical demonstration or cogent evidence that it could be accommodated satisfactorily within the relevant space, I am not prepared to find on the balance of probability that it would work.

23. In a letter dated 5 February 2014 Mr. Allen provided a proposal for draining the glazing system at each level. This involved sealing the existing redundant drainage slots and fixing a new drainage channel to the horizontal transom member above each

floor level. I have to confess that I am not entirely clear how this works and, so far as I am aware, it has not been the subject of any discussion between the experts. In these circumstances, I am not prepared to accept this as a viable scheme. Coming in, as it did, during the course of his cross-examination, which was after the evidence of Mr. Scott, it was not the subject of any cross examination or of any evidence from Mr. Scott. I decided to admit the contents of Mr. Allen's letter, on a *de bene esse* basis, and said that I would give such weight to it as I thought fit having regard not only to its contents but also to its timing.

24. In the circumstances I do not feel that it would be either fair or appropriate to attach very much weight to this latest proposal from Mr. Allen, which the Claimants have not had the opportunity to subject to any proper scrutiny. I have very much in mind the fact that experts in this type of glazing have tried hard to find a solution and have not come up with any scheme that held out a promise of being watertight. It would be surprising if an afterthought by Mr. Allen could succeed where others had failed.

25. The Claimant's position is that there is no alternative but to replace the external glazed screen in its entirety. They submit, and I accept, that no-one has produced a viable scheme for making it waterproof - at least in the sense of modifying it so that water cannot get into the voids above the walkways soffits (of course, nothing can be done about the open gap at the top of the screen on each floor). As I have explained, even if Mr. Allen's proposals for dealing with the discharge of water at the foot of the screen could be implemented successfully, that does not address the problem of the leaks into the soffit voids at higher levels.

26. I therefore conclude, in the light of the evidence as a whole, that if the Claimants are entitled under the Act to have the leaks through the external glazing put right because they can show it has adversely affected the fitness for habitation of the apartments, the only solution is to replace the screens.

The effect of the leaks on the walkway steelwork and lights within the voids above the walkways soffits

27. I have already found that water enters these voids and either runs or condenses onto the steelwork within the voids. Mr. Allen accepted that this had led to deterioration of the steelwork supporting the walkway, the service lights in the walkway voids and the soffits to those voids. In the experts' joint statement of August 2013, at paragraph 11.11, Mr. Allen noted that this defect was identified at the time when construction was completed and that a remedial system was put forward in the second adjudication. He says that a sum of £104,824.80 was "allocated for correction of this defect". He then said this:

> "The remedial scheme has not been undertaken and this has caused deterioration of the building fabric near to the walkway glazing including the steelwork supporting the walkway, the services (lights) in the walkway voids, the soffits to the walkway ceiling voids, the capping beams to the sheet piling at basement level, the sheet piles at basement level, the cross bracing at basement level, the blockwork walls at basement level and the fixings for the walkway glazing."

28. A defence that was at one stage put forward by Barr was that the Claimants should be treated as if they had had the benefit of sums awarded by the adjudicator and

apparently paid to CWC in respect of this defect (but which had not been spent on repairs) on the ground that the Claimants were to be regarded as "privies" of CWC. The result of this, contended Barr, was that the Claimants could not recover for the same loss twice over. However, during the hearing this point was not pursued - quite rightly, in my view.

29. It may be that Barr may find itself having to pay some sums twice over, but that is a consequence of CWC's failure to apply the money for the purpose for which it was awarded and its subsequent liquidation. In any event, Barr has since chosen to settle its disputes with CWC (as mentioned in the main judgment). In my view, it cannot affect the amount of the damages to which the Claimants are entitled.

30. In his report Mr. Tasker said, in my view correctly, that the corrosion of the walkway steelwork was not covered in the Hurd Rolland report and was therefore not considered in the second adjudication. It is agreed between the experts (Mr. Tasker and Mr. Allen) that leakage has caused some corrosion to the walkway steelwork. Mr. Tasker said that the current extent of the corrosion is not sufficient to cause a significant overstress or weakening of the steelwork so that adequate protection against further corrosion would be sufficient by way of remedial work. Calculations prepared by Mr. Tasker (at paragraph 3.1.1 of his report), which applied to both of the corrosion of the steelwork below the roof and at the walkway steelwork, led him to conclude that the corrosion of the walkways support beams and columns could lead to them becoming excessively weakened within the service life of the building (paragraph 3.3.12), which would render the walkway dangerous. Mr. Tasker's conclusion, which I accept, is that unless the exposure of the steelwork to moisture is eliminated or significantly reduced, this steelwork must be protected with a suitable corrosion resistant paint.

31. I find, therefore, that one of the effects of the defects in the external glazing was that, if nothing is done, there is a significant risk that during the design life of the building the walkway steelwork would corrode to an extent that would make the structure potentially dangerous. For the reasons given by Ramsey J in *Harrison v Shepherd Homes Ltd* (which are set out in the main judgment), I consider that this danger to the structural integrity of the building renders every apartment unfit for habitation.

32. In addition, I consider that the presence of water within the voids does present a risk to the lights and transformers which are not designed to be moisture resistant. However, the evidence does not permit me to conclude that hitherto any light or transformer has failed because of moisture ingress. Mr. Atkinson said that he thought they had, but there is no documentary evidence to support it. He may be right, but I do not feel able to form a view about it. What I am prepared to find is that there is a clear risk that if the present situation goes unremedied there could be a failure of the lighting system in the walkway soffits in the future.

33. So, whilst I consider that the damaged soffit boards will have to be replaced, I am not persuaded that there is any need to replace the light fittings with new ones at this stage - assuming that the existing light fittings can be removed without damaging them. If repairs are to be carried out so that future leaks will be prevented, then there should be no need for moisture resistant light fittings. I therefore see no reason why the existing fittings cannot be removed whilst the works are carried out and then put back. I would therefore disallow the cost of replacing all the light fittings, whilst allowing a

contingency to provide for the replacement of some that are already unserviceable or which are broken during the works.

Barr's liability under the Act

34. It is common ground that Pendant was the designer and installer of the system at Concord Street, and Mr. Allen agreed in evidence that it did not consider all the implications of reversing the glazing, particularly with regard to drainage (Day 15/99-100). He agreed also that Pendant took on design responsibilities in relation to the glazing as a sub-contract package (Day 15/100). As far as he was aware, no-one appeared to have asked Kawneer for their advice (Day 15/102). I find as a fact that Kawneer was never consulted about the proposal to reverse the external glazing.

35. It is Mr. Scott's opinion that the design and construction of the external glazing screen is defective and that the work carried out by Barr in respect of it was not carried out in a workmanlike and professional manner. Since Mr. Allen has also accepted that it was a defect (see the reference to paragraph 11.11 of the experts' joint statement mentioned above), it seems that he does not disagree. I accept Mr. Scott's view.

36. Accordingly, I find that the design and workmanship in relation to the installation of the external glazing was below the standard required by section 1 of the Act and that, when the work was completed, the likely potential future corrosion of the walkway steelwork created a risk of structural failure during the design life of the building. I find that Barr is liable under section 1 of the Act. Barr is therefore liable for the cost of replacing the external glazing and the appropriate protection of the walkway steelwork.

37. In addition, I consider that there is a real risk that continued ingress of water into the walkway soffit voids would, if left unremedied, at some stage cause a failure of the walkway lights. There is no emergency lighting in the walkways, so this could prove dangerous to occupiers coming and going from the apartments after dark before the lighting could be repaired or if, during this period, the apartments had to be evacuated at night in an emergency. This could prove dangerous because it is likely that the weather conditions that would bring about the failure of the lights, in particular heavy rain, would also mean that there would likely to be water on the walkways. On its own, I would not regard this risk as sufficient to render the apartments unfit for habitation, but when taken together with the risk to the steelwork, I consider that it does.

38. I should add, for completeness, that one of the effects of the design of the external glazing is that the walkways are exposed to rainwater because the screen is open at high level.[4] However, this would have been the case if the screen had been fixed the right way round, so the consequences of that cannot be visited on any defect in the external glazing.

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[4] The original design proposal incorporated glass louvres to the top section of the glazed screen at each walkway level, but these were subsequently omitted.

The defects in the construction of the balconies

1. The complaint is that there was, and for some time continued to be, a problem with water penetration into the fourth floor apartments from the balconies of the penthouse apartments above. Put very shortly, the problem was that the balconies had not been properly waterproofed and there was an inadequate and poorly designed drainage system.

2. In more detail, the defects identified by the Claimants in the penthouse balconies consisted of the absence of any proper falls so that water could drain away properly, the failure to continue the asphalt to the edge of the concrete surface so that the deck was properly waterproofed and the poor detail at the junction of the asphalt and the wall of the penthouse apartment. Barr did not challenge the evidence about the first of these (Mr. Allen said that falls were necessary: Day 16/89), formally admitted the second, and I did not understand it to challenge the third (Mr. Allen admitted in evidence that flashing was required at this junction: Day 16/86).

3. Mr. Atkinson said in his witness statement that the first serious manifestation of the problem was following a period of heavy snow in January 2010 when there were reports of a number of leaks into the apartments on the fourth floor in both blocks. The tenant in No. 163 said that water was pouring into the living area of his apartment above the balcony door and through the middle of the ceiling. This was at a time when Mr. Harris was in England and so Mr. Atkinson asked him for his help.

4. Mr. Harris recorded in his witness statement that he and Mr. Atkinson went up to the fifth floor and into apartment No. 75. He found that water from the downpipe from the main roof was discharged straight onto the balcony, but the outlet from the balcony was at the opposite end. There was no fall to take the water from the point where it was discharged from the downpipe to the outlet at the other end. The result was that water was left standing on the balcony, which had not been properly waterproofed, and from there it penetrated into the apartments below.

5. Since the cost of carrying out proper repairs was thought to be prohibitive, it is said by the Claimants that a temporary repair was carried out which involved re-routing the downpipe so that it drained straight into the outlet and putting in a purpose-built aluminium tray, with a fall, so that water falling directly onto the balcony would be channelled towards the outlet. This work cost about £25,000.

6. It is, unsurprisingly, agreed by the experts that the waterproofing to the balconies is defective. Leaving aside the unsatisfactory arrangement by which rainwater from the roof was allowed to run across the balcony in order to be discharged at the other end, the asphalt covering had not been fully dressed up to the walls and around the perimeter or the drains. The real dispute, as I understand it, is as to the scope of the appropriate remedial works.

7. Mr. Harris said in evidence that the installation of the trays, which were installed on the balconies of, I think, 22 apartments, was never intended to be a permanent solution. He said that a permanent solution would involve the complete re-asphalting of all of the affected balconies. Barr challenged this and submitted that the contemporaneous correspondence showed that this was meant to be a permanent solution.

8. In fact, as Barr points out, the installation of the trays was not a complete success because three of them had to be repaired (apartment Nos. 177, 179 and later 75), but otherwise this work appears to have proved satisfactory so far.

9. I have to confess that I am unable to see why it matters whether the works originally carried out were intended to be permanent or temporary. It was not suggested, and in my view could not have been realistically suggested, that it was negligent of the management company to implement the proposal of moving the downpipes and installing aluminium trays. If by acting reasonably the management company in fact increased the overall cost of the remedial work (in other words, it aggravated instead of mitigated the loss), that does not reduce Barr's liability. I consider that the management company did act reasonably in adopting the aluminium tray solution, even if it was only intended to be a temporary solution.

10. Perhaps the more fundamental point taken by Barr is that the existence of this defect did not make any of the apartments below the balconies on the floor below unfit for habitation. I find this a startling proposition. It seems to me that an essential element of fitness for habitation of a modern dwelling is that it is weathertight. If part of the living room ceiling in an apartment gets damp or admits water every time it rains heavily, then I would not regard the apartment as fit for habitation. The fact that it is occupied throughout the period when leaks occurred is largely irrelevant: neither the owner nor the tenant would have expected the apartment to leak when he or she bought or leased it and, once installed, would probably have had little choice but to stay there. In addition, the occupants would reasonably expect repairs to be carried out promptly.

11. In so far as Barr's submission about fitness for habitation relates to the penthouse apartment the balcony of which was defectively constructed, I would accept it. The problem occurs when it rains, causing amongst other things water to pond on the balconies. I would not ordinarily expect people to use their balconies when it is raining or even shortly after the rain stops. In general, balconies will be used in fine weather when these problems will not occur. So I do not consider that these defects constitute an interference with the amenity of the balcony that would be capable of making the relevant penthouse apartment itself unfit for habitation.

12. However, in my view, the apartments below into which water leaked from the balconies above were unfit for habitation at the time when the work was completed. Since I find that the design and workmanship involved in the penthouse balconies was defective, Barr is in principle liable to those leaseholders into whose apartments water has leaked from the penthouse balconies above.

13. I am not aware that any of the lead or B2 apartments have suffered from any such leakage. However, there was evidence before the court that other apartments have suffered from serious leakage from the penthouse balconies above, in particular apartment No. 163 belonging to Mr. Watson.

14. The persistent problems with No. 163 suggest that carrying out patch repairs, such as improving the upstand detail (which I understand to be the type of remedial work proposed by Mr. Allen) cannot be safely relied on to produce a permanent solution. Indeed, as I have already mentioned, even the tray solution did not prove to be wholly reliable. Although, in the absence of an affected lead or B2 apartment or an agreed

figure, I cannot make a finding as to the cost of the required remedial work, I am strongly of the view that the Claimant's Option 1 scheme is probably the only safe solution.

15. If, in the light of my conclusions in this Appendix the cost and scope of the required remedial works cannot be agreed, it will have to be assessed.

The render to the external walls (walkways and balcony elevations)

1. The boarding to the external walls and the subsequent application of the render had a chequered history. In March 2005 Alsecco, the manufacturers of the render, visited site, together with the then chosen installer of the render, Harrison Render Systems ("Harrisons"), in order to assess the quality of the boarding that was to form the substrate for the render. In a letter dated 14 March 2005 Alsecco made a number of comments on the state of the boarding that had by then been installed. They pointed out, amongst other things, that the boards had to be fitted so as to achieve a certain width of joint, that there had to be a strict fixing pattern and that all boards had to be the same type. In relation to the last point it was noted that there appeared to be two types of board, one of which had the appearance of a "chip-board" type product, instead of a cementitious board.

2. On 23 March 2005 Harrisons wrote to Barr raising various concerns about the boarding. First, they said that Alsecco had concerns (about which they would write to Barr) over the existing cement particle board that had been used. Second, they identified various deviations in the board joints that would require special caulking (at additional cost) prior to application of the render. Third, they referred to the misalignment of boards, pointing out that where the misalignment was less than 10 mm it could be rectified by dubbing out using a special product, but where it was greater than 10 mm the boards would have to be removed and replaced on packers.

3. On 14 July 2005 Barr wrote to Horbury Building Systems ("Horbury") having carried out a "cursory inspection" of the work that had been carried out by Horbury before its labour was withdrawn from the site on 4 July 2005. Numerous criticisms were made of the boarding installed by Horbury on the walkway elevations. These included the facts that the boarding had been installed short of the walkway concrete, leaving a gap which, amongst other things, potentially compromised the fire integrity of the partition wall; there were areas where the boarding had not been installed right up to the soffit; there were areas of boarding where there were no fixings or an inadequate number of fixings; and there were areas where there were no battens behind the boards. The letter required Horbury to return to site and rectify the defects.

4. In its letter in reply of 20 July 2005 Horbury rejected Barr's complaints. It said that it had had had to withdraw its labour again because of the persistent problem with the supplier of materials. In relation to Barr's complaints about the fire integrity of the panels, Horbury said that the gap at the walkway floors was caused by poor setting out by Barr and that any shortage of fixings was the result of clashes with the scaffolding. Horbury made it clear that it could not send its fixers back to site since they were now working on another contract. Barr had to instruct other subcontractors.

5. On 3 August 2005 Alsecco wrote to Barr about cracking that had appeared in "isolated areas". In relation to cracks from the corners of the doors, Alsecco attributed this to the fact that there were vertical board joints in line with the jambs of the doors, whereas the boards should have been cut in an L shape so that the board joint was midway above the door. In addition, Alsecco pointed out that there had been a loss of moisture in and around the boards and the cavities. They expressed the opinion that moisture movement in both the battens and the boards was a major contributing factor to the movement that had caused the problems being experienced. There is no doubt that the boards were exposed to moisture during construction

because there are photographs of the walkway boarding on which there are dark patches at the bottom of some boards indicating the absorption of moisture. It seems that Harrisons may not have carried out any of the rendering, as Mr. Veitch thought, because the subsequent correspondence is with Lord and Downing. On 9 August 2005 Barr issued an instruction to Lord and Downing to proceed with the filling of excessively wide joints in the cementitious boarding. As Mr. Veitch confirmed, this instruction would not have been necessary if the sub-contractor who installed the boards, Horbury, had done its job properly.

6. On 1 September 2005 Barr issued a report stating that the finished render did not comply with the specification because stress cracks had started to appear at numerous door and window openings. There were also isolated vertical cracks from floor to ceiling. Barr said that it had no proposed solution for overcoming this cracking. On 22 September 2005 Alsecco wrote to Barr to express concern about various aspects relating to the render. First, that the moisture/water problem behind the sheathing layer did not appear to have been rectified, which might lead to further movement, cracking and staining to the render finish. It said that the workmanship in the application of the sheathing layer (the fibreglass mesh that forms part of the render system) was poor. In addition, Alsecco said that the joints between the boards were of irregular size, boards were not fixed at critical points, were out of line and had been patched using a variety of materials. Alsecco concluded by saying that these matters would have to be attended to in order that both the quality and durability of the finish would be maintained. The poor workmanship in fitting the boards is shown very clearly in some of the contemporaneous photographs: the boards were not fixed so that they formed a flat surface and the width of the joints between the boards was erratic. Mr. Veitch conceded that the workmanship - as shown in the photographs - was not good. I find that it was very poor throughout.

7. In a fax dated 27 September 2005 Barr pointed out that after heavy rain, water entered the building above the ceiling bulkhead below the patent glazing and saturated the dry lining works. On 18 October 2005 CWC wrote to Barr listing a number of defects, the first of which was cracking in the rendering, particularly above front doors, and that all walls were badly marked. It was suggested to Mr. Logan that Alsecco had agreed that its render could be applied to the timber particle boards installed on the walkway elevations but that timber particle boards could not be used on the balcony elevations. Mr. Logan agreed with this and said that this is what happened (Day 10/46 and 122).

8. The use of timber particle boards on the walkway elevations would explain the photographs that show moisture staining to some boards at low level: one would not expect to see this if cementitious boards had been used throughout the walkways. I consider that with the passage of time the boards to which the render is applied will degrade at the points where moisture is likely to penetrate, which is at the junction with the walkway and larger cracks - particularly if they are low level.

9. It appears that little, if any, remedial work was carried out. On 10 February 2006 solicitors instructed by Barr responded to a claim for payment by Lord and Downing by asserting that their work was "patently defective" and that substantial work needed to be carried out to the render. About two weeks later, on 20 February 2006, CWC sent an e-mail to Mr. Veitch saying that it had received a lot of complaints from residents regarding the condition of the common parts. One of the complaints was

about the state of the render. There was also a complaint about water ingress into the apartments through the external walls.

10. A few days before the e-mail of 20 February 2006 Alsecco had carried out a site inspection, the results of which were summarised in a letter dated 23 February 2006. They pointed out that there were obvious signs of staining to the render in several areas beneath the balconies, including under the support brackets, and elsewhere throughout the development. Alsecco thought that the staining was the result of moisture leaching through the render from the boards beneath. By letter dated 11 April 2006 Barr gave Lord and Downing notice of its intention to employ alternative contractors to rectify the defective render. Mr. Veitch said that he did not remember any such remedial work being carried out (Day 7/158).

11. In addition to the defects mentioned in the correspondence, Mr. Scott has noted that to some of the walls of the South block on the fifth floor only a single coat of render has been applied, where there should have been two coats as the Alsecco system requires. More generally, there are areas where the topcoat of the render is missing, particularly on the reveals to the entrance to the North block. Some cores that were taken from the Concord Street elevations by Ceram in 2013 showed that the render coats were in some places thinner than they should have been. The requirement was for a base coat of 3-4 mm, onto which a mesh is floated. That is then left to set for 2 to 3 days before a topcoat is applied. The topcoat should be 1.5 mm thick.

12. A further defect identified by Mr. Scott is that the Betopan boards which appear to have been used on the Concord Street elevations should have been, but were not, painted with a silicone-based, alkaline-resistant paint. This is to minimise movement and swelling of the boards. The Alsecco render is not considered (by Alsecco) to create a waterproof finish. Accordingly, the internal faces of the Betopan boards are potentially exposed to moisture from inside the building and the external faces are at risk of damage by water penetrating through the render and, more particularly, cracks in the render.

13. On the view I noticed that the external render was in places beginning to become loose immediately above the patio windows. This was very localised, but it looked as if it might have been the start of a developing problem.

14. In relation to cracking generally, Mr. Scott lists 118 apartments where there is cracking to the external render. Of these, 44 apartments also have render that is damaged or missing. This is also the case in a further two apartments (Nos. 93 and 140). In the case of 21 of those apartments Mr. Scott reports water seepage from behind the render/wall boards.

15. So far as the render is concerned, Mr. Scott's conclusion is that the external walls have not been properly constructed. Mr. Allen disagrees, but he did accept that most of the base coats of the render in the samples taken by Ceram in 2013 were too thin and that in the case of the topcoat, half were too thin (Day 15/89).

16. Barr submits that there is no evidence that the dubbing out of render to give an acceptable surface is either an unacceptable practice or was ineffective in dealing with the fact that the boards were poorly cut, mismatched or uneven (paragraph 179). It goes on to say that the "the evidence is" that defects in the sub-surface were dealt with

by dubbing out as necessary. I am unable to determine the evidence to which this passage refers: in my view, the extensive hairline cracking to the render that is visible on the walkway elevations indicates the contrary. The Alsecco data sheet for the render system used at Concord Street described it as "anti-crack" and "flexible and anti-cracking". In my view, this must be taken to mean what it says. The cracks that have appeared on the walkway elevations to my mind indicate either that the product does not perform as the brochure described, or that it was applied to an unsuitable substrate: in my judgment the latter is the correct explanation. This view is confirmed to some extent by a comment made by Lord and Downing, one of Barr's sub-contractors, who said, after completion, that "Many of the items on the reports highlight problems with the particle board used as the base for our render systems". Coming, as it did, from a sub-contractor whose work was being criticised, this observation must be treated with some caution, but nevertheless I consider that there is some truth in it.

17. I do not find it necessary to examine the allegations in relation to the render in much greater detail because I am satisfied that overall the boarding and the render were poorly installed or applied[5]. One result, if the defects in the render stood alone, will be that the owners of the apartments will face a heavier maintenance obligation than would otherwise have been the case. For this state of affairs Barr may be responsible, but it does not, without more, impose any liability under the Act.

18. The question that is more difficult is whether or not the defects in the render have made some or all of the apartments unfit for habitation. It was tersely submitted on behalf of the Claimants that "… it is obvious that the defective render and boarding is a substantial defect which renders the dwelling unfit for habitation" (Closing Submissions, paragraph 440). Mr. Scott says in his report that the likely deterioration of the boarding will lead to increased and premature maintenance being required, in the absence of which the external skin of the wall will be at risk (paragraph 12.14.02). His opinion is that "… the deterioration has not stopped and the impact of the defects has not reached their maximum extent" (paragraph 12.14.03).

19. Mr. Scott then concludes that: "I consider that the defects fall within the scope of the DPA" (paragraph 12.14.04).

20. In the generic entry in relation to the render on the walkway elevations in the Scott Schedules for the individual apartments, Mr. Scott had written this:

> "The cracking through the render will lead to premature deterioration in the bond between the render and the boarding beneath, as can be seen in several areas. This will lead to repairs being required to the render earlier than anticipated in the buildings life.
>
> As the render is pre-coloured, it is also likely that matching the colour will not be possible and therefore the render will need to be

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[5] I have not overlooked the dispute about precisely where the cores were taken that formed the subject of the Ceram report or what type of board was concerned, but in the light of my overall conclusion about the render, it is not necessary to resolve it.

> decorated which would not have been anticipated during the life of the render."

And, in relation to the external walls:

> "There is no provision for movement within the balcony walls due to the lack of movement joints.
>
> This has contributed to the opening up of board joints and cracks through render. Water penetration at and around the cracks will lead to de-bonding of the render and possible deterioration of the boarding beneath. This will lead to premature failure of the render and boards which will limit the life of the boarding itself."

21. Barr's case is that there is no defect in the exterior walls that has affected the habitability of any apartment (Closing Submissions, paragraph 199).

22. Taking all this material together, I am not satisfied that the defects in the render and the boarding underneath, of which I am satisfied there are many, have of themselves rendered any apartment unfit for habitation. In addition, I am not satisfied that the condition of the render is likely to deteriorate to a state that will, of itself, make any of the apartments unfit for habitation within the foreseeable future. In reaching this conclusion I am assuming that some maintenance to the exterior of the building will be carried out within the next ten years, which is a period within which I would expect the exterior render to require redecoration and some re-patching in any event.

23. Having regard to these considerations, I do not consider that this defect falls into the category of those that might present a real risk of failure of the building or significant damage to a particular dwelling within it of the type discussed in the main judgment in the context of the decision of Ramsey J in *Harrison v Shepherd Homes Ltd* (see paragraphs 62 - 67 of the main judgment). For all these reasons, therefore, I consider that this is a defect for which Barr is not liable under section 1 of the Act, even though there would have been the clearest possible claim for breach of contract had the Claimants been a party to the building contract.

The roof construction

1. The main roof of each block is a site-assembled built-up roof consisted of a lower metal liner sheet as its base and a profiled metal capping sheet as the external skin. Between the external skin and the metal liner sheet there is insulation. At Concord Street the insulation was a type of soft blanket. The external sheets are supported on rails to which they are bolted, which in turn are supported by spacers or supports that are screwed into the metal liner. It is a standard form of construction.

2. An essential feature of this type of roof is a vapour control layer which prevents the migration of moisture from below into the dry area occupied by the insulation. The vapour control layer may be formed by the metal liner sheets themselves, provided that the joints between them and at their ends are properly sealed. Alternatively, a vapour control membrane can be laid over the liner. But whichever solution is adopted the vapour control layer must be such as to ensure that all condensate is discharged to the exterior of the building: see paragraph 8.4.4.2(a) of BS 5250:2002.

3. At the fifth floor, over the walkways, the metal roof is continued beyond the line of the outside wall of the apartments where it overlaps glass patent glazing that provides light to the walkways whilst at the same time providing protection from the elements.

4. It is agreed that, when first constructed, the joint between the roof and the patent glazing was defectively designed or constructed so that water could penetrate into the soffit above the walkway below. Barr accept also that this has caused water damage to the soffits below the junction which is very unsightly. It is common ground that water from this source does not penetrate into the apartments, although there is a dispute as to whether water leaks onto the walkway floors. Barr's defence to this head of claim is that it is not a defect that falls within the Act and so there is no liability. If that is wrong, the remedial work necessary is broadly agreed. If it is found that the entire roof has to be replaced, this work would be subsumed within that.

5. Mr. Allen accepted in his report (at paragraph 26.32) that, on the balcony elevations in both the North and the South blocks, the lower metal liner stops short of (and below the level of) the wall at the edge of the roof so that there is a gap of about 25 mm between the wall and the ends of the liner sheets. This allows water vapour from below to pass through the gap and into the insulation above where it will condense. Mr. Scott's evidence was that the vapour control layer on the liner sheets should have been linked to the vertical vapour control layer within the walls as well as continuing more or less horizontally so as to discharge any condensate to the exterior of the building (see Day 14/10-12). I accept this evidence which, by the conclusion of the trial, I did not understand to be challenged.

6. In the South block there is a further problem because, unlike the North block, the joints between the adjacent liner sheets have not been sealed. This provides a further route by which moisture can get into the space between the upper and lower roof sheets in the South block.

7. In addition, in both blocks there is no vapour control layer passing over the central ridge and forming a link with the metal liner sheets on each side of the roof.

8. Many of these defects will have come as no surprise to Barr. By a fax dated 24 March 2006 Barr recorded that a roofing subcontractor, Ashford, needed to remove and replace the ridge profile on the south court and to install a vented roof profile filler in order to deal with the "current problem with condensation". No similar problems had been noted with the North block.

9. Five days later, on 29 March 2006, a further fax from Barr noted that a visit by Ashford had been abortive because further latent problems had been uncovered. Ashford was to provide a further detailed quotation for additional works "… to bring South Court roof up to specification". In a fax dated 31 March 2006 Ashford noted that defects had been uncovered during their work and that there was a need to remove every top sheet to ensure that all existing metal liner sheets had been taped, were fully fixed and that fillers were in place. They considered that the insulation had to be replaced. The necessary work would require some form of scaffold on each side of the roof to provide edge protection. On 3 April 2006 there was a Barr internal fax in which authority was requested to carry out the work described in Ashford's quote. It was not disputed by Barr that this work was never carried out (Day 7/133-138).

10. Mr. Goffin said in his witness statement that he was concerned about what he saw on site when the roof was being constructed and so he raised the matter with his senior partner. He said they arranged a meeting on site with Barr and the roofing subcontractor. They explained the importance of sealing the joints between the lower sheets, but he said that effectively they were told to mind their own business. His account derives some support from an e-mail from Mr. Danny Matheson, of Barr, dated 4 November 2004 to a Mr. Adam Simeon, which said:

> "BSB have concerns regarding to issues relating [to] the above, namely:
>
> (1) Vapour barrier - the liner tray joints must now be sealed. (The alternative would have been for Parkland to provide a liner membrane between the tray and the installation but obviously it is too late to do this now).
>
> (2) Thermal conductivity characteristics and thickness for both types of installation that is being used must be verified.
>
> I sent a letter to Parkland last night regarding these issues but it would be worth speaking to Bob ASAP about them."

11. The letter to Parkland to which he referred asked them to confirm that all liner tray joints had been sealed in order to provide a vapour barrier "… in accordance with the Architect's requirements" and noted that they appeared to be installing different types of insulation material within the roof section. They were asked to confirm also that the thickness and thermal conductivity characteristics of the insulation were compliant with the roofing system. But, as the subsequent correspondence between Barr and Ashford shows, the joints between the metal liner sheets on the South block were never sealed.

12. Somewhat surprisingly, Mr. Allen said in his report that he had been informed by Barr that the joints in the metal liner sheets had been taped in the roof of the South block. However, by the time he came to give evidence he agreed that these joints had not

been taped. It was not clear how it came about that Mr. Allen was given this misleading information. He said that he thought it came from Mr. Chalmers.

13. In February 2010 a builder, Mr. Harris, was asked by Mr. Atkinson to visit Apartment 158, which is a penthouse apartment on the fifth floor of the South block. When he went to the apartment he noticed damp and mould on the walls around the patio doors and in the middle of the living room ceiling. A hole was cut in the ceiling and it was found that the boards were saturated, with mould present in a number of places. There was condensation on the underside of the main roof and on the steel frame of the roof. That steelwork was neither insulated nor painted.

14. Mr. Harris and Mr. Atkinson went up to the roof and a few of the top sheets were lifted up. In his witness statement Mr. Harris described the top sheet as thin and the insulation below as "virtually non-existent". There was significant condensation within the roof, as the photographs taken by Mr. Harris very clearly record. It was his view that short of replacing the whole roof, there was little to be done apart from installing vents above the patio doors in order to provide ventilation into the roof space immediately above the ceiling of the apartment. However, as he acknowledged, this would have the effect of turning what was designed as a warm space into a cold one and consequently making the apartment below more difficult and expensive to heat.

15. Mr. Harris described this roof as the worst example of roof construction that he had ever seen. I have no reason to doubt it (although, as I have noted elsewhere, his inspection appears to have been limited to the section nearest the eaves where the workmanship was probably at its worst). It is, regrettably, consistent with the quality of much of the work elsewhere at Concord Street. There is no doubt that the quality of the insulation in the area over the eaves is very poor: Lord Marks accepted that it was "rubbishy", which I thought was a fair description. Further, thermal images show that there is a significant lack of insulation round the perimeter of the roofs and along the line of the central ridge. There are one or two other places where the insulation is patchy, but generally the images suggest that the bulk of each roof is effectively insulated.

16. There is no doubt in my mind that the major problem with the roofs of both blocks is the absence of a proper vapour control layer, with the result that there is no continuity of moisture barrier from the metal liner sheets to the outside of the building under the eaves or between the ends of the liner sheets and the central ridge. As I have already mentioned, the problem is aggravated in the South block because the joints between adjacent metal liner sheets are not sealed in any way.

17. In his report Mr. Scott noted that he had inspected 16 top floor apartments and found mould or dampness in 14 of them, which he attributed to the defects in the construction of the roof (see paragraphs 4.02.05 and 4.08.15 of his report). I accept this conclusion. However, I have not found there to be any case where water has actually penetrated the ceilings of the penthouse apartments from above (as opposed to making them so damp that they collapsed or were on the point of collapse).

The appropriate remedial scheme

18. The Claimants' case is that the only satisfactory way of dealing with the defects in the roof of each block is to replace it. Barr now proposes that the roof should be repaired only above those apartments whose owners are claimants. Its initial repair proposals were described by Mr. Allen in outline at paragraph 26.42 of his report in the following terms:

> "… the upper coated profiled steel sheets could be lifted, a vapour barrier joined between the external wall vapour barrier and the edge of the lower profiled steel sheet liner tray (setback balcony detail only), the joint in the lower profiled steel sheet liner tray at the ridge sealed, the joints in the lower profiled steel sheet liner tray taped (South Block only) and insulation added adjacent to the edges (150 mm width) before refitting the roof sheets."

19. In Appendix L to Mr. Allen's report two options were put forward as to how this work might be carried out, but by the end of the trial only Option b) survived. That was in the following terms:

> "External repair (Undertaken using 'Man-Safe' system).
>
> Lift up roof sheet (progressively - single sheet front to rear at a time) and place adjacent for re-fixing. Remove insulation and place adjacent for reuse. Provide 5% additional insulation to allow for loss or gaps in the insulation (see 17(1)(c)).
>
> Provide 500g polyethylene layer above lower roof sheet taped to external wall and adjacent polyethylene sheets, relay insulation and roofing sheet. Redecorate boxing at Balcony doors."

20. This option was said to be based upon the Claimants' case as to the defects and represented the remedial works which Barr contended would be required to put the defects right. It is to be noted that in Appendix L of Mr. Allen's report, no difference was drawn between the work required to the roof of the South block and that required to the roof of the North block. It was subsequently accepted that the work should be done with an edge protection scaffold, rather than using the Mansafe system.

21. In a report dated 19 January 2014, prepared in response to the remedial proposals put forward by Barr, Mr. Scott said (at paragraph 3.02.26) that it was not practicable to install a vapour control membrane owing to the presence of the separating brackets between the capping and the lining sheets of the roof and the support runners to the capping sheets. This was because those brackets created a vertical obstruction to the placing of the vapour control layer across the existing lower metal liner sheet of the roof. Mr. Scott said that he understood that it was proposed that the vapour control layer should be taken up and over the capping sheet supports, which was how the work was initially priced (see paragraph 21 of Appendix B to the Quantum Experts Joint Statement No. 2 of 10 January 2014). He then gave various reasons as to why he thought that this was an unsatisfactory proposal.

22. It is apparent that Mr. Scott's understanding of Barr's proposal must have been based on something more than the simple descriptions of the work that were given by

Mr. Allen in his report. Mr. Allen accepted in cross examination that his original proposal, as described in paragraph 26.42 of his report, did not comply with the British Standard because it did not involve carrying the vapour control layer over the external wall of the building so as to discharge any condensate to the exterior. Indeed, his proposal seems to me to have involved discharging any condensate into the external wall itself.

23. In the case of both blocks it seemed at the trial that the scheme that was being put forward by Barr involved carrying the vapour check membrane across the whole surface of the lower metal liner sheets (as suggested in Mr. Allen's Appendix L) from ridge to eaves. The proposal that was put to Mr. Scott, seemingly for the first time, in cross-examination was that it would be possible to lay the vapour control membrane so that it had a joint along the line of the supports to the spacer rails and the polyethylene membrane could then be cut out around the supports and suitably taped. Ms. Sinclair introduced a variant of this during her cross-examination of Mr. Scott which involved unscrewing the supports altogether, laying the vapour control membrane, and then screwing the supports back into the lower metal liner sheets.

24. Mr. Scott said that he thought that each of these solutions was a possibility in principle, although he emphasised that he was being asked to consider each one for the first time whilst giving evidence. I do not recall Mr. Allen giving any written evidence about either of these suggestions. Indeed, he gave no oral evidence on either variant, save during a brief exchange with Ms. Sinclair, when Mr. Allen agreed with her that her suggested method would work. However, in a letter dated 14 February 2014 (after the conclusion of the evidence) Mr. Allen explained that his preferred solution was to tape the lower metal liner sheets on the South block, rather than lay a continuous vapour control membrane over the whole of the lower sheeting. He also proposed sausage type barriers between apartments, instead of a single sheet of polyethylene which was the proposal that was put to Mr. Tasker during his cross-examination.

25. I have to say that I regard this as a profoundly unsatisfactory means of adducing expert evidence. Having proposals put by counsel to the opposing expert in cross examination is not how expert evidence should be presented in this sort of case, not least because it will not have formed part of a report supported by the appropriate expert's declaration. It was clear that the modified and new proposals that were put to Mr. Scott by both Lord Marks and Ms. Sinclair in cross examination had not been the subject of any prior discussion between the experts. However, the fact that these alternative proposals were put in this way is an indication that Barr did not have much confidence in the scheme that was first discussed by Mr. Allen with Mr. Scott.

26. It seems to me that the two methods of laying the vapour control membrane that were put forward as I have described would rely heavily on the quality of the workmanship of the contractors involved. I am not satisfied that any expert had considered these proposals properly: they are just the sort of matters that should have been considered and discussed by experts at meetings prior to the trial. In any event, it now seems that Mr. Scott's post-trial position was that neither of these two methods represented his preferred solution.

27. My second concern is how any of the remedial schemes put forward by Barr would cope satisfactorily with the fact that on the balcony elevations the bottom edge of the

lower metal liner sheets is below the level of the top of the external wall and the gutter. Mr. Allen suggested that this could be circumvented by inserting a wedge shaped piece of rigid Kingspan insulation along the line of the wall, so as to provide a support for the membrane between the liner sheets and the edge of the building. Again, I think this was a suggestion that emerged for the first time very shortly before the trial, or perhaps even during the evidence. At any rate, it had all the hallmarks of a solution that had been conceived on the hoof when Mr. Allen realised that his detail as originally proposed did not comply with the British Standard. In a post-trial e-mail dated 7 February 2014 Mr. Scott suggested that this proposal would involve raising the level of the eaves by approximately 65-70 mm, with the result that the sheets forming the external skin would no longer sit flat on the roof surface but would "kick up" prior to the bottom fixing. Mr. Scott thought that, assuming that these sheets (which are ribbed) could accommodate this movement, it would place a stress on the lower fixings.

28. These concerns of Mr. Scott show just how important it is that any alternative proposals for remedial work should be put forward well before the hearing so that they can be discussed by the experts. I do not know whether or not Mr. Scott's concerns are well founded because there has been no opportunity for them to be explored or tested in evidence. Since it is Barr who is putting forward these alternative proposals, I consider that the onus is on it to demonstrate that they would be satisfactory and this involves giving the other side a proper opportunity to consider them. This has not happened.

29. The proposal in Mr. Allen's Appendix L provided for only 5% by way of additional insulation to make up for any shortage. He appears to have made no allowance for the replacement of insulation that had become damp or mouldy, which Mr. Scott found it to be (as did Mr. Harris at the time of his earlier investigation). The figure strikes me as quite unrealistically low, particularly since Ashford recommended in 2006 that the insulation should be replaced. Although the Claimants asserted that the entirety of the insulation should be replaced because it was not or, so far as it was visible, did not appear to be a type of insulation which was suitable for installation in a pitched roof since it was not rigid. There was no evidence that the insulation had in fact slumped as a result of this which, given that the slope of the roof was only 10%, does not surprise me. I reject the suggestion that all the insulation has to be replaced on this ground, although I accept that it is likely that a proportion much greater than 5% will have to be replaced because of the presence of damp or mould.

30. A further feature of Barr's proposals as finally presented was that they involved carrying out remedial works to parts of the roof only and leaving substantial parts unrepaired. The parts to be repaired were those over apartments owned by claimants in the action. The parts over those apartments not owned by claimants were to be left as they are. The proposals therefore involved the installation of some form of barrier along the lines of the party walls between the flats to isolate those parts of the roof which had been repaired from those parts which had not. As I have mentioned, what Mr. Allen subsequently proposed was to make large sausage shaped barriers of insulation wrapped in polyethylene and to place these above the party walls. The metal sheets would then be laid on top of them pressing them down - presumably in the expectation that this will achieve an airtight fit. In cross-examination Mr. Tasker was presented with a rather different proposal, which was to run the vapour control

membrane up the party wall to the level of the roof (by which Lord Marks meant up to the impermeable liner sheets). Mr. Tasker was reluctant to endorse this approach on the ground that the building was never designed with such a form of installation in mind (Day 12/161). Mr. Allen's "sausage" proposal was not put to him. I am not persuaded that either of these arrangements would be wholly moisture proof; again, it seems to me that each solution would depend heavily on the quality of the workmanship of those installing it. In addition, in his e-mail of 7 February 2014 Mr. Scott pointed out that there was no vapour control layer in the existing party wall between apartments and therefore the barrier in the roof space would be bypassed by air diffusion through the plasterboard. He therefore concluded that it was unclear how the insulation in the roof space would work having regard to the uninsulated wall beneath. But, as I have said, none of this was properly explored in evidence.

31. One drawback of the approach of repairing the roof above certain apartments only is that the unpainted steelwork in the unrepaired parts would continue to be exposed to moisture and would continue to corrode as a result. This would not present any risk of failure in the short term, but Mr. Tasker was not prepared to dismiss the risk of failure altogether in the context of a building with a 50-60 year design life. He said that as a designer he would not be prepared to proceed on the basis that such a risk could be ignored (Day 12/153-4). Mr. Harris said that when he looked into the roof space in 2010 the steelwork had already started to delaminate. In its Supplementary Closing Submissions Barr submitted that all the relevant steelwork is in the ceiling void, not the roof void, and hence is safe from corrosion (paragraph 24). However, this assertion is in flat contradiction to the evidence, which I accept, that significant corrosion had already taken place by 2010 (and when the void was a warm space).

32. It seems to me that there are clearly risks with a proposal that involves the repair of parts only of a roofing system that was designed as a composite whole in circumstances where the unrepaired parts would be left in their original defective condition. There is, it seems to me, a real risk, if no other work is carried out over the next 30 years or so to the internal parts of the unrepaired parts of the roof,[6] of a serious failure of the unprotected steelwork in the unrepaired areas. The design of the roof was such that the structural integrity of each part depended on the integrity of the adjacent parts.

33. Low though this risk may be, if it is one that a prudent and conscientious designer would not take then I do not consider that the court should regard as reasonable a solution to the problems presented by the defects in the roofs of the North and South blocks at Concord Street that involves such a risk. Putting the matter another way, the structural integrity of the roof of a building, just like the structural integrity of its foundations, is in my view an essential ingredient of the building being fit for habitation. More precisely, on the facts of this case, it is an essential ingredient of each apartment on the top floor, and probably some of those below also, being fit for habitation.

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[6] And such work would not have been within the scope of any maintenance that a building owner might be expected to carry out in the ordinary course of events: this was Mr. Scott's view (see paragraph 4.12.01), which accords entirely with what I would expect, and I accept it.

34. For ease of reference, I will set out again the observations of Ramsey J in *Harrison v Shepherd Homes Ltd* on page 747 of the report of the case in (2011) 27 Con LJ 709):

> "It was common ground that the question of whether a dwelling is fit for habitation is one of fact and degree. In this case there are defects in the foundations which have caused, as set out below, only cosmetic defects in the properties, that is category 1 defects under the definition in BRE Digest 241. This is not a case where the defects have caused category 4 defects as in *Bole*. It is not a case where significant damage is likely. However, as the claimants submit, the judgment of Dyson LJ at [30] would indicate that security is one of the criteria for fitness for habitation and at [29] there was a reference to inconvenience.
>
> In this case there are essentially two aspects: the defective piles and the damage caused to the properties by the defective piles. Whilst I do not consider that the damage to the properties has rendered them unfit for habitation, on balance, I am persuaded that any significant defects in foundations are properly matters which could be said to give rise to a lack of fitness for habitation. On that basis I would conclude that this is a case where the properties are, to that extent, not fit for habitation."

35. Those observations seem to me to be directly applicable to the circumstances of the present case. In fact, this case is stronger because I am satisfied that at least in one case (and there may be others) the defects in the roof have led to the apartments below being unfit for habitation as a result of mould and damp, which I find was caused or materially contributed to by the condensation in the roof space.

36. But quite apart from that, I consider that when the building was completed the defects in the roof were such that, if left unrepaired, the structural integrity of the roof was subject to a risk of failure at some time during the design life of the building. Like *Harrison*, this is not a case where it can be said that the risk is such that significant damage is likely, but I find that there are significant defects in the roof which present a real risk to the security of the structure.

37. Barr submits that a claimant cannot rely on a latent defect of which he or she knows and leaves unrepaired over the lifetime of the building so that at some future time it makes the apartment in question unfit for habitation. The short answer to this submission is that fitness for habitation is to be assessed at the time of completion of the relevant work. If there is a latent defect which presents a risk to the structural integrity of the building, and the remedial work is going to involve work that, in the ordinary course of maintenance a prudent building owner would not expect to carry out (such as replacing or protecting steelwork in the roof), then the claimant is entitled to recover the costs of the work for the reasons given above. It may be that a claimant might act unreasonably in not doing something about it, but that goes to mitigation of loss not to the question of whether or not there is a cause of action.

38. For these reasons I reject the remedial proposals put forward by Barr on the ground that they have not been shown satisfactorily to be suitable or are ones that the Claimants or any of them should be required to accept. I find that the appropriate remedial work is the replacement of each roof as proposed by the Claimants. For the

reasons given in the main judgment, I consider that the claimant owner of each apartment on the top floor of each block is in principle entitled to the entire costs of having the roof to his or her block repaired (subject to the safeguards that I have mentioned).

39. Turning now to the impact of the mould and damp recorded by Mr. Scott, of the penthouse apartments owned by Claimants, only No. 72 (Haslehurst) was the subject of evidence by the owner or occupier. It is clear from the evidence of Mr. Haslehurst that the problems of damp and mould which he described, and which I find were the result of the poor construction of the roof, that the problem could not be described as either transient or trivial. I am quite satisfied that the extent of damp and mould caused by the defects in the construction of the roof rendered the apartment unfit for habitation from the time when construction was completed. It is irrelevant that the problem did not manifest itself immediately, but took a few years to do so, because there has been no suggestion that this was damage of a type that routine maintenance might have prevented.

40. I therefore find that on this ground also Mr. and Mrs. Haslehurst are entitled to recover the costs of having the roof of the South block repaired. In principle, the same conclusion may well apply to apartment No. 74 (also in the South block), but since I have not heard evidence from either the owner or the occupier of that apartment I cannot conclude at this stage that the mould and damp reported by Mr. Scott was sufficient in extent to render that apartment unfit for habitation. However, if the problems experienced by the occupiers of that apartment were similar to those described by Mr. Haslehurst, then the owner of No. 74 will be entitled to the same relief as the Haslehursts on that ground also.

41. In relation to the North block, apartments Nos. 171, 173, 175 and 177, all of which are owned by Claimants, were also found to have damp and/or mould which Mr. Scott concluded was caused by the defects in the construction of the roof (see paragraph 4.02.05 of his report). On this I accept the evidence of Mr. Scott and so, in principle, I make the same comments in relation to these apartments as I have already made in relation to No. 74. However, once again at this stage I do not feel that I can reach a conclusion that these apartments were unfit for habitation on completion by reason only of the mould and damp (but this does not affect my conclusions at paragraphs 33-37 above).

42. Accordingly, in relation to all these apartments (Nos. 74, 171, 173, 175 and 177), if the position on this aspect cannot be agreed I will have to consider evidence from the owners or occupiers if it is necessary for me to do so. However, in the light of the findings that I have already made at paragraphs 33-37 above, this may well be unnecessary.

The defects in the construction of the walkways

1. The principal complaints in relation to the walkways are the following:

   i) The defective drainage means that rainwater entering through the open parts of the external glazing tends to pond and, in places, this makes the walkways slippery and therefore dangerous. The problem is even worse in winter when temperatures are below freezing.

   ii) The walkways themselves are badly constructed: there are cracks and the finish is poor.

   iii) On the top floors only, the recesses for the timber decking are not drained and the slightly raised decking presents a tripping hazard.

The drainage and the walkway surfaces

2. The Claimants allege that the drainage on the walkways is defective in three respects: first, the channel detail which was intended to drain the water from the outer edge of the walkway had a lip which prevented the water from getting over it until it had reached a particular depth (and in any event the drain seems to have had no outlet); second, the circular drain outlets placed at intervals along the walkway were set into places where the level was too high; third, the walkway surfaces are irregular and therefore even more prone to ponding.

3. In my view there is really no room for dispute about the first two complaints. Barr's only defence, as I understood it, was that there could be no liability under the Act because the defects complained of did not make any apartment unfit for habitation.

4. In my view, the third complaint is no more than a fairly minor matter which just happens to aggravate the effect of the first two. I have not seen any evidence to suggest that if the third existed on its own, there would be any serious problem.

5. In my view, therefore, the only issues are: (a) whether the extent of the ponding of water (or ice in winter) is such as to make the walkways unsafe; and (b) whether that makes any apartment unfit for habitation.

6. So far as safety is concerned, Barr's principal point appeared to be that the extent of the ponding, even at its worst, was not as extensive as the Claimants alleged so that it was always possible to walk round the puddles in safety. The experts (Mr. Scott and Mr. Allen) recorded their agreement that the water or ice did not extend more than two thirds of the way across the walkway at any point, suggesting that by going carefully residents could avoid it. I accept that this is what they observed, but to the extent that it does not accord with the evidence of the residents, who are there the whole time, I prefer the residents' evidence on this point.

7. Taking the evidence as a whole, I find that there were times when, following heavy rain, the extent of the ponding across the walkways was in places such as to be difficult to avoid. Almost every witness from whom I heard who had lived in Concord Street gave evidence about problems he or she had experienced:

i) Ms Lingwood (No. 12) said that in freezing weather there was sometimes ice right across a part of the walkway between her apartment and the lift, and that it was not possible to walk round it.

ii) Mr. John Sutton (No. 26) said that the walkways became slippery when it rained and that he had slipped on more than one occasion.

iii) Mr. Booth (No. 66) described the walkways as a constant problem. Large puddles would form when it rained and the walkways became slippery. He did not think that they were safe for a small child. He said they were particularly dangerous in winter on occasions when the water froze.

iv) Mr. Munoz-Lopez (No. 80) said that the walkways could get very slippery when wet, and were particularly bad in the winter when they were icy.

v) Mr. Priceman (No. 35) said that the water on the walkways sometimes covered most of its width and made it slippery. He said that was a major hazard in winter when it froze and that one of his children had slipped outside his apartment. He exhibited to his witness statement some photographs which appeared to show ice or snow on the walkway which, in some places, extended for most of its width.

vi) Mr. James Taylor (No. 23) commented on the fact that whenever it rained water collected on the walkway floors, but he did not mention it being a hazard.

vii) Ms. Wiles (No. 51) said that in the cold weather during December 2009 the snow on the walkways turned to ice and that she saw a number of people slip.

viii) Miss Priestley (No. 122) said that the puddles on the walkways when it rained made the areas slippery. She said that this was very dangerous in winter when the water froze.

8. Some of those witnesses who owned apartments in Concord Street but had never lived there also gave evidence about problems with the walkways. Mr. Whaley (Nos. 65 & 69) said that puddling on the walkways following heavy rain made them slippery, and that in winter they became icy and hazardous. Mr. Watson (Nos. 127 & 163) complained of ponding on the walkways. Mrs. Ridgway (No. 149) said that the walkways became slippery following heavy rain. Mr. Haslehurst (No. 72) said that the walkways became very slippery when it rained and he thought that they would be dangerous in cold weather. Mr. Barry Wood (No. 133) said that one of his tenants had slipped on the walkways when it was frozen and had hurt his back. Mr. Michael Wood (Nos. 48 & 64) said that the ponding of the walkways following heavy rain made them slippery.

9. Between them these witnesses have apartments on all levels of the North and South block save for the top and bottom floors on the North block. Only one witness made no mention of problems with the walkways - in either his oral evidence or in his witness statement - and that was Mr. Haim, who lived on the top floor of the North block. Mr. Atkinson, when giving evidence, said that after heavy downpours the

walkways would be "pooled and flooded" and that in places the water would cover two thirds of the width of the walkways (Day 4/62).

The consequences in terms of fitness for habitation

10. This seems to me to be a pretty cogent body of evidence and, as I have already said, I did not find any of those Claimants who gave evidence to have any tendency to exaggerate the problems that they had encountered at Concord Street. I find that the extent of the ponding of water and icy patches in winter made the walkways hazardous, and therefore unsafe at times, and that this was a problem throughout the two buildings at all levels. Although Mr. Haim made no mention of a problem about the walkways, I can see no reason why the walkways on the top floor of the North block should have been any different from the other walkways.

11. Since the walkways were the only means of access to the apartments and since I consider that the extent of the hazard presented by water and ice on the walkways cannot be dismissed as either transient or trivial, I consider that this problem of itself made the apartments unfit for habitation. In addition, the walkways also constitute the principal means of escape from each apartment in case of fire and so the extent of the problem is not simply confined to those parts of the walkways which constitute the usual means of access to each apartment but to the escape routes also.

12. Alternatively, I find that it amounted to a substantial and persistent inconvenience which, when combined with the defects in the intercom system, was in my view sufficient to make the apartments served by those walkways unfit for habitation. The reason why the inconvenience caused by the state of the walkways has been aggravated by the problems with the intercom system (which I discuss in Appendix F) is because the failure of the intercom system to work properly means that in many cases occupiers of apartments have had to go downstairs to answer the main door when a visitor rings thereby increasing the number of times they have to use the walkways.

The recesses for the timber decking on the top floors

13. Immediately alongside the external walls to the apartments on the top floors there is a recess in the floor of the walkway which accommodates timber decking. This does not reduce the width of the walkway because the line of the apartment walls on the top floors is set back from the line on the floors below. It is not clear to me what purpose the timber decking serves, it may have been a decorative feature, but in any event it does not really form part of the walkway itself.

14. I accept that the fact that the timber decking is slightly raised above the surface level of the walkway means that it can present a tripping hazard. However, I would only expect this to be a problem at each front door because the occupier would have to cross the decking when returning to his or her apartment: in the ordinary course of events I would not expect occupiers to walk on the timber decking in other places.

15. In my view this is a hazard that falls far short of being capable of rendering any apartment on the top floor unfit for habitation. Occupiers of apartments would be well aware of it and I am not aware of any evidence that anyone actually has tripped over the timber decking when visiting or returning to an apartment.

16. I accept also that the drainage arrangements for the recess are thoroughly unsatisfactory so that there will be times when parts of the timber decking are effectively sitting in a puddle. The Claimants assert that the presence of water in the recesses will have a cooling effect on the ceiling of the apartments below, which are in any event poorly insulated.

17. This may be true, but there is no evidence about the extent of such cooling and, in any event, since the recess is only about 1 m wide it seems unlikely that the effect on the apartment below could be very great. In my view the Claimants have failed to show that this represents a state of affairs that would make these apartments unfit for habitation.

18. The other consequence alleged, namely that the timber decking will deteriorate more rapidly as a result of frequent immersion in water, has nothing to do with the fitness the habitation of any apartment.

The internal doors, gaps under party walls and the flooring

1. I am taking these items together, because they are connected. In lead apartment Nos. 23, 26, 51, 65, 66, 122 and 149 (that is all save for No. 12), and in B2 apartment No. 80, there was clear evidence that one or more door frames had distorted causing the door to stick, usually by the top of the door remote from the hinge jamming against the underside of the frame. In nearly all cases this had been rectified by planing down the top of the door.

2. However, this distortion resulted in excessive gaps at various points between the door and the frame. As I shall explain in more detail below, the maximum width of gap permitted for these doors at the time of installation was 4 mm at the sides and 8 mm at the bottom. There were certain doors in each of the apartments listed above where these dimensions were exceeded. I recall seeing one case on the view (I did not make a note of which apartment it was) where the gap between the outer edge of the door and the frame exceeded 5 mm for almost the full height of the door. The result was such that the door would not latch because the gap was so large that the tongue of the latch did not engage with the keep in the frame.

3. In that particular case, I strongly suspect that the frame of the door was too large when it was built because the fact that the gap at the leading edge of the door was of the same width for almost the full height of the door (except for about 20-25 mm at the top) suggests that not all of the gap could be accounted for by distortion of frame alone. But, whatever the reason, the gap between door and frame was too large.

4. In nearly all cases where there was distortion of the frame it was accompanied by cracking of the plaster above the corner of the door frame.

5. The reason for the distortion of some of the internal walls is straightforward. It is because the internal walls were and are inadequately supported and have dropped at mid-span. The structural element of the floors and ceilings of most of the flats are cast in situ concrete slabs. These generally deflected slightly during curing, and have probably deflected further when loaded. The flooring in each apartment consists of a simulated wood floor which is made of tongue and groove MDF strips covered with a finish that has the appearance of floorboards. The MDF strips are in turn laid on chipboard sheets supported on wooden battens (about 30 mm square) laid at about 600 mm centres.

6. The battens are supported on what are known as Proctor supports. These consist of a plastic frame, into which the batten sits, with a 10 mm layer of fairly rigid foam fixed to its base. The purpose is to prevent the transmission of sound and vibration through the floors. The effect is that the floor moves slightly when it is walked on because the Proctor supports give about 1-1.5 mm under a person's weight. However Proctor recommends, and it is obviously good practice, that there should be two battens laid side by side where the battens are supporting point loads, which is effectively the case where they support the internal partitions. Such an arrangement would roughly halve the load on individual Proctor supports below the battens, and thereby reduce the deflection caused by the weight of the partitions and any adjacent furniture (or by an occupier passing close to the partition wall, as might happen in the smaller bedrooms).

7. This was not done at Concord Street. In all locations inspected by the experts only one batten supports the internal partitions in the apartments. I find that this is a significant cause of the deflection of the internal partitions, and hence the door frames which are set into the partitions, in the apartments at Concord Street.

8. This was either a failure to construct the floors and partition walls in a workmanlike manner or a negligent failure to specify that the partitions should be supported by two battens in the way that I have described, or a combination of both.

9. Barr's duty under section 1 of the Act was owed in relation to both design and workmanship - since it was a design and build contractor - so it does not matter whether the lack of proper care was in relation to the design or the workmanship, although I suspect it was the latter.

10. In some apartments there are gaps between the party walls separating one apartment from its neighbour. Mr. Tasker described them as being "often up to 2-3 mm wide" (November 2013 Report, page 8). The party walls are a lightweight construction of plasterboard supported by a steel frame. They tend to act as a rigid beam. However, when the steel frame supporting the floor slabs was subsequently loaded by the installation of the floors, internal walls, kitchen units and so on in the apartment it deflected slightly. This produced a gap at the mid-point of the relatively rigid party wall and the floor slab below it. This was Mr. Tasker's explanation and I accept it.

11. The Building Regulations 2000 require that every imperfection of fit in a party wall should be adequately protected by sealing or fire-stopping so that its fire resistance is not impaired. Accordingly, Mr. Tasker considers that any gaps between the bottom of the party walls and the floor slab must be sealed so that they comply with the Regulations. This will require lifting of the floor on either side of the party wall in order to insert the required seal.

12. In addition, there should also have been a foam flanking strip inserted at the edges of the raised floor to prevent the transmission of sound. This has been found to be missing in many places. It is not clear from the evidence whether or not this has actually produced a state of affairs that contravenes the relevant regulations relating to the transmission of noise, but in Mr. Tasker's view it is a matter that ought to be rectified.

13. But in relation to the defects in the flooring, and possibly the gaps below the party walls also, Barr takes the preliminary point that since the floor structure forms part of the "Structural Parts" as defined in the leases it is excluded from the demise of the apartment. Therefore it is not part of the dwelling.

14. I fail to understand this point. If the construction of the floor was not work carried out for the provision of a dwelling, which I would have thought it was, it is plain that it was work carried out in connection with the provision of a dwelling. Either way the work falls within the scope of the duty under section 1 of the Act so that, if the effect of a breach of the duty is to render the apartment unfit for habitation, Barr is liable under the Act.

The consequences of these defects in terms of fitness for habitation

The gaps under the party walls

15. In the light of the evidence given by Mr. Tasker, I find as a fact that the gaps below the party walls, where they exist, must have existed by the time the apartments were completed. There was therefore a breach of the Building Regulations in relation to fire precautions and I do not doubt for one moment that any local authority Building Regulation department would have refused its approval of the construction of the party walls in that state. In that situation the apartments could not have been inhabited until the defect had been rectified.

16. In the circumstances, if one asks whether or not an apartment with a significant gap under its party wall is fit for habitation, it seems to me that there can be only one answer: it is not. It seems to me that its unfitness for habitation is reflected by the fact that one would not expect a local authority to allow it to be inhabited if there was a breach of the Building Regulations that affected its safety, particularly in relation to fire.

17. There was also evidence from Mr. Booth that silverfish got into his apartment, No. 66, from the next door apartment. This could only have happened if there was a gap under the party wall because the silverfish were found crawling all over his son's toys which were in a place close to the wall. If the silverfish came from the next door apartment, as I find they probably did, I cannot envisage any other means by which they could have entered Mr. Booth's apartment. When combined with the increased fire risk presented by the gap under the party wall, I find that Mr. Booth's apartment was unfit for habitation on account of this defect alone.

18. I would reach the same conclusion in respect of any apartment in which there is a significant gap, by which I mean a gap of 2-3 mm or more, under the party wall between it and the adjacent apartment.

The deformation of the door frames

19. The Building Regulations 2000 provide, by Requirement B1, that a building must have appropriate means of escape in case of fire that are capable of being safely and effectively used at all material times.

20. The Regulations provide guidance which, if followed, will satisfy the Secretary of State that Requirement B1 has been met. In the case of flats, the guidance in Section 3 provides that where a flat has a central corridor leading to the front door, which is the only means of escape, the doors giving onto that corridor must be fire doors. Mr. Allen accepts this. The requirements for fire doors are contained in BS 8214:1990 "Code of Practice for Fire Door Assemblies with Non-Metal Leaves". This provides, at paragraph 19.2, that fire doors:

> "… should be hung to give an equal gap across the head and down both jambs. The size should not exceed 4 mm."

21. Paragraph 19.7 provides that the gap at the base of the door above the threshold should not exceed 8 mm. However, it states also that where a threshold seal is not fitted and effective fire sealing is required, the threshold gap should not exceed 3 mm

at any point. Mr. Allen says that the doors are FDA 20 fire rated doors which mean that this last requirement does not apply. The experts have therefore proceeded on the basis that the maximum permitted gap at the base of a door is 8 mm.

22. It follows therefore that a door in an apartment that is required to be a fire door, such as the doors in the apartments between the main corridor and the bedrooms or living room, would not comply with the Building Regulations if the gaps exceeded those given in the British Standard.

23. For the reasons that I have already given, it seems to me that a newly constructed apartment that did not meet a requirement of the Building Regulations that concerned health or safety, particularly in relation to the risk or means of escape in case of fire, would not be regarded as fit for habitation by reference to current standards.

24. Mr. Allen has said that in "many" apartments the doors have been used for purposes outside the designers' intention. For example, he says that in "numerous" apartments occupants placed over door hangers on the tops of the doors thereby causing additional strain on the hinges. Again, he says that "many" examples of this were noted. It is an unsatisfactory feature of Mr. Allen's evidence on this aspect that he gives no indication of the apartments in which this has happened, apart from the occasional photograph (for example, those taken in Apartments 108 and 129). However, Mr. Allen points out that in some apartments the door between the hall and the living room is approximately at mid span of the partition wall and he is able to identify the 16 apartments where this is the case. He then goes on to say that in "most" of these apartments the door head is nominally level.

25. Mr. Allen agrees that the deformation of the door frames is the result of the applied loads and that, in the two apartments investigated, the spacing of the battens under the partitions was not in accordance with the manufacturer's recommendations. It is Mr. Allen's opinion that it is very unlikely that when the apartments were completed the doors did not correctly fit the door frames and so the doors would have complied with the Building Regulations at the time of handover. However Mr. Allen agrees that live load deflection will cause slight distortions of the door frames which can sometimes cause doors to jam requiring maintenance and adjustment. In effect, Mr. Allen says the problems are either the result of misuse by occupants or deflection under load which should be regarded as a maintenance item.

26. I reject this view. Apart from the fact that Mr. Allen's assertions about misuse by occupants appear to be overstated, his report entirely overlooks the fact - which I find is the case - that the problem has been caused by the failure to support the partition walls properly. There is no doubt in my mind that the deformation of the door frames is a direct and expected consequence of the manner in which the work was carried out, namely the failure to install sufficient battens under the partition walls. I find that this work was not carried out in a workmanlike or professional manner so that it constituted a breach of the standard set by section 1 of the Act. Where the relevant door frames have distorted to an extent such that the gaps exceed those prescribed by the British Standard, or where a door cannot be shut or, if closed, cannot remain firmly closed because the latch is ineffective, the requirements of the guidance provided by the Building Regulations have not been met. I find that if this state of affairs had existed at the time when the work was completed there was or would have been a breach of the Building Regulations.

27. But for the purposes of the Act, it should make no difference whether the defect was actually evident on completion of the work or whether the situation was such that, the defective work having already been done, the process giving rise to the defect was taking place at the date of completion although it had not progressed sufficiently far to reach the state of affairs that would constitute a breach of the Building Regulations. In *Harrison*, a case about defective foundations, Ramsey J said this, at page 745:

> "In this case there are essentially two aspects: the defective piles and the damage caused to the properties by the defective piles. Whilst I do not consider that the damage to the properties has rendered them unfit for habitation, on balance, I am persuaded that any significant defects in the foundations are properly matters which could be said to give rise to a lack of fitness for habitation. On that basis I would conclude that this is a case where the properties are, to that extent, not fit for habitation."

28. The position in this case appears to me to be stronger. It is as if the position in *Harrison* had been that, whilst no damage rendering the properties unfit for habitation had occurred by the time of completion of the work, such damage was inevitable and had indeed occurred by the time of trial. Had those been the facts of that case, the conclusion of Ramsey J would have been no different. On the contrary, I am sure that he would have reached it with less hesitation then he did.

29. Assuming, for present purposes, that none of the doors in any of the apartments had distorted to an extent that exceeded the requirements of the British Standard by the date of completion of the work, I do not consider that it should make any difference to the test for fitness for habitation. If the building was constructed in a manner such that within a few months or years of completion it had deteriorated to an extent that no longer met the requirements of the Building Regulations in relation to fire safety, and such deterioration was a direct result of the manner of its construction, I would hold that it was constructed in a manner such that it would not be fit for habitation when completed. If the state of affairs inevitably brought about by the manner of construction is one that, if evident at the time of completion, would have led to the dwelling being condemned as unfit for habitation, I cannot see why that state of affairs should permit the dwelling to be regarded as fit for habitation simply because it did not manifest itself until a year or two after completion.

30. The Claimants contended that the presence of cracks around the door frames also make the apartments unfit for habitation. I wholly disagree. Taken by themselves these are nothing more than cosmetic defects. The Claimants rely on an observation of Mr. Justice Ramsey in *Harrison* (at paragraph 163 - just before the passage quoted above), but in my view this reliance is completely misconceived. Ramsey J made it clear in that passage that the defects in the foundations had caused only cosmetic defects in the properties. It was the defective foundations themselves that in his view made the properties unfit for habitation. This, I am afraid, is an example of counsel for the Claimants simply pitching their case too high.

31. I would add only this. My first impressions of the distortion of the door frames was that it was a defect that was irritating and, perhaps, mildly inconvenient. But on reflection I consider that if it really presents a risk to the occupants of the apartment in the event of a fire (as I am now persuaded it does - albeit a fairly remote one), being a

risk that was entirely avoidable, that makes it much more serious because of the gravity of the potential consequences if the risk occurs. It is different from a defect such as a leak through a ceiling into a bucket below, which may be far more unpleasant to live with on a day to day basis but in itself may well present no risk to health. In the case of the leak, the question is likely to be whether its severity and extent is such that its presence alone makes an apartment unfit for habitation. It has little to do with risk.

The absence of the flanking strip

32. I accept that in many apartments some of the flanking strip is missing. Whilst this is clearly a defect in the construction of the floors, I am not satisfied on the evidence that it has made any apartment unfit for habitation. The evidence on this is somewhat meagre and falls far short of what would be required to establish liability under the Act.

The nature of the problem with the shower trays

1. As the evidence of the owners and occupiers and the reports of the experts make clear, there is a widespread problem with leakage from the shower trays. It is accepted on all sides that this is because water leaks through the mastic joint between the base of the tiling to the shower cubicle and the edge of the shower tray.

2. This produces unsightly mould on the joint and elsewhere within the shower rooms. More significantly, water accumulates on the concrete slab below the shower room and possibly beyond (largely depending on the profile of the slab in the apartment in question). The humidity that results from this accumulation of water sometimes causes distortion of the flooring in the rooms or corridor adjacent to the shower room and leads to the presence of mould on the outer faces of the partition walls surrounding it. Mould has been seen, for example, at the base of the wall separating the living room from the shower room, at the base of the wall in the hall and in the hall cupboard, and at the base of the bedroom wall that backs onto the shower room.

3. Barr denies liability for the leaks from the shower trays. Its case is that the trays were installed in compliance with permissible tolerances and that the problem is entirely attributable to poor maintenance by the occupiers, aggravated by their failure to ventilate their apartments properly. Indeed, it goes further and says that much, if not all, of the mould seen in other parts of the apartments is attributable to the moisture coming from the shower. Barr therefore denies responsibility for all the extensive mould found in some of the apartments, which it says has been caused by the leaks from the shower cubicles.

4. The Claimants, by contrast, submit that the leaks from the shower cubicles are the result of poor design and/or workmanship by Barr and that it is only the mould on the walls enclosing the shower rooms that is caused by the leaks from the showers. Whilst everyone accepts that the mastic joints in the shower rooms will need replacement from time to time, this is not a task that anyone suggests should be required as often as every one or two years, and certainly not at intervals measured in months. Indeed, Mr. Allen said that the sealant between the tiles and the shower tray would be expected to have a lifespan of at least five years if kept clean (November 2013 Report, paragraph 8.17). This is what I would expect.

5. I am completely satisfied, on the evidence as a whole, that there is a serious problem with many of the shower rooms in the Concord Street apartments and that the severity of the problems described by many of the witnesses[7] renders their apartments unfit for habitation.

6. The two principal issues arising out of the shower leaks are: first, is it a defect for which Barr is liable under the Act? Second, if so, is the mould or dampness on the walls remote from the shower rooms attributable to the leaks from the showers, either wholly or in part?

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[7] The relevant apartments are listed at the end of this Appendix.

The liability of Barr

7. The Claimant's case, as initially presented through its expert building surveyor, Mr. Scott, is that the leaks have been caused principally by the failure of Barr to install the shower trays so that the vertical tiling to the cubicle walls overhangs the edge of the shower tray. Mr. Scott has relied on manufacturers' literature which recommends that this should be done. However, this guidance is confined to showers being installed in the corner of a room, where it is possible to ensure that the two internal sides of the shower tray can be butted up closely to the walls.

8. The situation at Concord Street is that the shower trays are installed in a three sided alcove, with the result that unless the tray is a perfect fit there will always be a gap between the tray and one or other of the opposite side walls. This problem is aggravated slightly by manufacturing irregularities in the shower trays, the edges of which are not always perfectly straight.

9. Mr. Stuart Allen, Barr's expert engineer, relies on BS 6954, Part 3, 1988 "Tolerances for Building - Part 3: Recommendations for selecting target size and predicting fit". Mr. Allen says that a typical drawing for a shower cubicle shows that the "space target size" for the shower tray as 1210 mm: this is the distance between the two opposite side walls of the alcove (before the tiles are fixed).

10. Basing himself next on BS 5606 1990: "Guide to Accuracy in Building", Mr. Allen states that the smallest achievable tolerance for a shower cubicle is +/- 10 mm. On this basis the shower trays would have to be less than 1200 mm in width. The experts agree that the shower trays measured on site are 1196 mm wide (although, as I have already said, the edges are not always perfectly straight).

11. However, the shower trays actually installed, said to have been of East European manufacture, do not have vertical sides - they slope outwards slightly from their top towards the base. In addition, there is a rounded corner between the horizontal surface of the rim of the shower tray and the (near vertical) side. The effect of this rounded corner is that the edge to edge dimension of the horizontal surface of the rim of the shower tray is about 10 mm less than the distance between the outer edges of the space occupied by the tray. Accordingly, the surface of the tiles on the two opposite sides of the alcove would have to be less than 1,186 mm apart if the surface of the tiles is to meet or overhang the horizontal section of the rim of the shower tray.

12. Taking a tolerance of +/- 10 mm and allowing for the thickness of the tiles and tile adhesive (18 mm all told), the maximum design distance between the two opposite tiled surfaces is 1202 mm.[8] The minimum design distance is 20 mm less, namely 1,182 mm. This is only marginally less than the edge to edge dimension of the horizontal section of the rim of the shower tray.

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[8] 1,210 mm (shown on the drawing) + 10 mm - 18 mm = 1,202 mm.

13. In short, the effect of Mr. Allen's evidence is that the result of these dimensions and tolerances is that in many if not the majority of cases the tiles could not be expected to overhang the horizontal surface of the rim of the shower tray.

14. Measurements taken by the experts show that the largest distance between the tiled surfaces of the opposite walls of a shower cubicle as built was 1,199 mm - some 3 mm less than the maximum permitted by the tolerances.

15. Mr. Allen relies also on sealant manufacturers' data sheets for mastics suitable for use with showers which state that such mastics can accommodate a joint width of up to 30 mm. Mr. Allen says that in fact he did not see any shower tray that was not positioned reasonably centrally within the cubicle alcove, although he accepts that they were not always perfectly central or exactly square with the walls, with the result that the actual joint width of the mastic was always significantly less than 30 mm. However, his opinion is that this is within the standard of workmanship to be expected of a reasonably competent contractor.

16. As figures, Mr. Allen's observations in relation to dimensions and tolerances were not really in dispute, although Mr. Scott did not consider that Mr. Allen's application of the British Standards was appropriate. Mr. Scott's position is that to have a gap (in a vertical plane) between the tiled surface of the cubicle walls and the horizontal section of the rim of the shower tray is bad practice. Mr. Scott says that it has led "to a mastic-filled joint that is weak and fails repeatedly" (Main Report, paragraph 14.01.03).

17. Mr. Scott has obtained examples of guidance issued by manufacturers of shower trays (for example, Ideal Standard/Armitage Shanks) which makes it clear that a line projected downwards from the vertical face of the tiles should strike the horizontal surface of the rim of the shower tray. Mr. Scott says that this is not the case with many of the installations at Concord Street.

18. Mr. Allen's response to this is that the manufacturers' literature is addressing a situation where the shower tray is being installed in a corner, so that it only has to accommodate two walls. He said that he had seen no guidance that addresses the situation where the shower tray was to be installed in an alcove.

19. Mr. Scott referred also to BS 5385 - 4:1992 "Wall and Floor Tiling". This advises that where there is intermittent exposure to water and the installation has the opportunity to dry out between periods of use, sheets and boards should not be used unless they are dimensionally stable in changing moisture conditions. Mr. Scott said that the manufacturers of the plasterboard that was used in the shower rooms at Concord Street had confirmed that the board was not water resistant and would weaken and degrade if it got wet. I did not understand this to be disputed.

20. At this point I should draw together the threads so far. These amount to the conclusion that there are at least three problems with the installation of the showers at Concord Street. First, the profile of the rim and outer edge of the shower trays. The rounded edge to the rim and the fact that the downstand forming the outer edge of the shower tray is inclined slightly outwards meant that it was more difficult to achieve a situation where the plane of the surface of the tiles overlapped the horizontal surface of the rim of the shower tray. Since it was Barr or its subcontractors who chose the

shower trays, the Claimants submit that it is Barr that must accept responsibility for any difficulties presented by the shape of the trays.

21. Second, the plasterboard used was not water resistant so that any exposure to water might cause it to degrade and distort (as the manufacturer, Siniat Ltd, confirmed in a letter dated 26 September 2013), thereby causing the tiles to move creating further stresses in the mastic joint.

22. Third, the dimensional tolerances - which I am prepared to accept were probably inevitable - meant that in many cases the gap between the opposite walls of the shower cubicle would be too large to enable the tiles to overlap the horizontal section of the rim of the shower tray. However, there was a ready solution to this - albeit one that would probably have come at a modest cost - and that was to install an additional layer of plasterboard on one or more of the walls of the alcove. Given the very tight budget that Barr had taken on, I strongly suspect that this solution was not adopted because it would have been more expensive. Alternatively, it may be that it did not occur to anyone to do it or, perhaps, it was not thought to be necessary. However, whichever of these alternatives is correct, the responsibility rests with Barr.

23. It seems to me to be self-evident that it is desirable for the plane of the surface of the wall tiles to overlap the horizontal section of the rim of the shower tray. Not only would this mean that most of the water would be deflected into the basin of the shower tray, but also - as Mr. Allen accepted in evidence - water from a shower will less readily penetrate a fissure that is in a horizontal plane than a fissure that is in a vertical plane. In the case of the latter, gravity will assist the passage of water through the fissure and, in addition, since for most of the time the water from the shower will be travelling more or less vertically its own kinetic energy would tend to force it more readily into a vertical fissure then into a horizontal fissure.[9] It is for these reasons, I have little doubt, that manufacturers of shower trays recommend that the wall tiles should overhang the edge of the shower tray. However, there may also be other good reasons for this guidance that are less obvious. In any event, I consider that the guidance provided by the shower manufacturers in this respect represents good practice and that, whether one regards it as a matter of specification or of workmanship, the plane of the surface of the wall tiles in a shower cubicle should overhang the rim of the shower tray (and, in the case of trays with rounded edges such as have been installed at Concord Street, it should overhang the horizontal section of the rim).

24. For these reasons I consider that the manufacturers' guidance relied on by Mr. Scott is of general application, although I accept (for the reasons already discussed) that achieving the desired result is more difficult where the shower tray is being installed in an alcove as opposed to a corner.

25. These considerations, taken on their own, could provide a fairly convincing explanation for the problems experienced with the shower trays at Concord Street. However, they cannot be taken on their own because an exercise carried out by Barr

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[9] This assumes a fairly wide fissure. If it is very narrow, then the migration of water through it will be governed by capillary action rather than gravity.

has shown that there appears to be no correlation between the incidence or seriousness of leaks from shower trays and the width of the alcove. This strongly suggests that the dominant cause of the problem lies elsewhere.

26. Mr. James Tasker, the structural engineer instructed by the Claimants, considers that the problem with the shower trays is attributable, at least in part, to inadequate support from the flooring system leading to differential movement between the shower tray and the partition walls around it. In this connection it is relevant to note that in a few cases where remedial works have involved providing a completely new foundation for the shower tray, it appears that the problems with leaks have been resolved.

27. This explanation of differential movement, which was also adopted by Mr. Scott, was not pleaded in the Re-Re-Re-Amended Particulars of Claim. However, it was considered in the experts Joint Statement made in August 2013 and so I consider that Barr has had sufficient opportunity to deal with it. Indeed, Mr. Allen accepted in evidence that he had always understood the question of differential movement to be part of the case (Day 15/14).

28. Mr. Allen's initial response to this explanation (as set out in the Joint Statement) was that, since the shower trays and partition walls were supported on the same system of battens, they would move as a unit so that differential movement between the shower tray and the petition walls would be unlikely. However, after Mr. Allen had heard the evidence of Mr. Tasker he reconsidered his view and said that he thought that where the shower tray abutted a long wall that extended well beyond the length of the tray, there could be some differential movement between the tray and the wall. He accepted that in many apartments the wall between the shower room and the adjacent bedroom was such a wall (Day 15/13). This was a very proper concession.

29. Taking the evidence so whole, I am in no doubt that differential movement between the shower tray and one or more of the adjacent partition walls has been the cause of stresses on the mastic seal between the tiles and the shower tray that it could not accommodate. I find also that this problem was aggravated if the differential movement was taking place at a wall where the tiles did not overlap the tray. A further problem has been the use of a type of board that was not moisture resistant and was liable to distort when it became wet. This can loosen or displace the bottom row of tiles, thereby creating additional stresses on the mastic.

30. I find therefore that all three of these causes have contributed to the occurrence of leaks from the shower trays, although I regard differential movement between the shower tray and the partition walls as the dominant cause.

The necessary remedial work

31. During the course of the evidence it was realistically suggested that Mr. Allen and Mr. Tasker should have further discussions about the appropriate solution to the problem of support for the shower trays. I therefore directed, in order to ensure that Barr had a proper opportunity to contribute to any debate about the scope and extent of the remedial work required, that there should be discussions outside court between Mr. Tasker and Mr. Allen. Such discussions duly took place and, in addition, there was a further discussion between Mr. Allen and Mr. Scott.

32. Following a long telephone call between Mr. Tasker and Mr. Allen on 20 March 2014, and a further telephone call between Mr. Allen and Mr. Scott on 2 April 2014, the experts have produced a constructive joint statement dealing with the scope of the repairs required to prevent leaks from the showers. It was agreed between Mr. Tasker and Mr. Allen that if differential movement between the shower tray and the adjacent partition walls was to be eliminated, the support for the shower tray and the partition walls should be combined. They have agreed that the best solution is to install the concrete battens directly onto the concrete slab without using the Proctor supports. This involves removing the existing shower tray and the chipboard flooring beneath it. New timber battens are then laid directly on the concrete floor, using shims to adjust their height and level. Additional battens are then laid underneath the adjacent partitions and, with the use of wedges, made to form a tight fit below the partitions. A sheet of waterproof ply is then screwed onto the battens to form a basis for the shower tray.

33. I agree that this work is necessary in any case where there has been a leak from a shower tray. However, there has been a further dispute between Mr. Allen and Mr. Scott about when and how to carry out the dehumidification of the shower area. Mr. Allen considers that it should be carried out for two weeks prior to any stripping out taking place and then for a further week after the work starts. Mr. Scott considers that it should be carried out after the shower tray and its chipboard base have been removed and that the shower tray should not be reinstated until the area is quite dry.

34. The advantage of Mr. Allen's approach is that it reduces the period of disruption caused by the works by up to two weeks. However, an obvious drawback is that it involves removing the moisture from a piece of damp chipboard, which would be unnecessary if the chipboard had already been removed before dehumidification starts. A further advantage of Mr. Scott's approach is that it would enable an inspection to be carried out before the area had dried out. This should enable a more accurate assessment of the extent to which moisture might have penetrated into the underlying plasterboard.

35. On balance, I consider that the method suggested by Mr. Scott is to be preferred. There is also a further significant difference of opinion between Mr. Allen and Mr. Scott, which is about the need to create an overhang of the tiled surface above the horizontal section of the rim of the shower tray. A related question is whether the existing plasterboard and, possibly, the quilt that provides sound insulation within the wall, needs to be replaced.

36. For the reasons that I have already given, I consider that good building practice requires the wall tiles to overhang the shower tray, so that water running down the tiles sits on the rim of the shower rather than partly on the rim and partly on a mastic seal. Accordingly, I agree with Mr. Scott that where it is necessary to create an overhang of the tiled surface above the horizontal section of the rim of the shower tray this should be done. The obvious method is simply to double board one or more of the walls of the shower cubicle. The extent to which this may require the removal of tiles other than those on the wall that is to be double boarded will depend on the extent to which those tiles have either become loosened or displaced as a result of underlying moisture penetration into the plasterboard below or have been unavoidably damaged by the remedial work.

37. In addition, I consider that the existing plasterboard should be replaced if there is any evidence of damage to it by moisture penetration. In my view, it is not satisfactory to leave damaged board in situ. However, if the nature and extent of any leakage from the shower has been such that the existing plasterboard has not sustained any water damage, then I can see no justification for its removal even though it may not be a suitable material for use in a domestic shower installation. The insulating quilt in the partition walls needs to be removed and replaced only if it is damaged to an extent that may have materially affected its effectiveness as a sound insulator.

38. For these reasons I consider that the proposals put forward by Mr. Tasker and Mr. Scott properly reflect the scope of the remedial works that are required, subject only to the qualification that undamaged plasterboard should not be removed unless it is on a wall that requires double boarding in order to achieve the required overhang of the shower tray. If this is the case, then I consider that, since the tiles have to be removed in any event, any non-moisture resistant boarding that is in situ should be replaced whether it is damaged or not.

Liability in relation to the lead and B2 apartments

39. All the lead apartments, save for No. 26 (Sutton), and the B2 apartment No. 72 (Haslehurst) were, I find, unfit for habitation on completion of the work because of the defective installation of the showers.

40. Barr is therefore liable to those leaseholders for cost of the remedial work described above.

41. Other apartments in which evidence was given about defects in the shower trays, which I accept, are:

Apartment	Claimant/Witness
14	Goulding
23	Waller/Taylor
35	Priceman
48	Wood (Michael)
51	Wiles
64	Wood (Michael)
65	Whaley (Mr. & Mrs)
66	Booth (Mr. & Mrs)
69	Whaley (Mr. & Mrs)
78	Goulding

122	Priestley
127	Watson
133	Wood (Barry) (Mr. & Mrs)
149	Ridgway
163	Watson

The opening up on the walkway elevations attended by Messrs Scott and Allen 17 October 2013

Between Apartments 10 and 12

1. The section of rendered board which was removed to gain access had black mould on the back of it.

2. The Kingspan rigid insulation had not been continued across the line of the steel stanchion.

3. The quilt insulation, approximately 100 mm thick (but with some variability), did not continue for the full height of the stanchion position and was in places broken and torn.

4. When the insulation was removed, the following was revealed:

   i) There was corrosion on the surface of the steel stanchion.

   ii) The vapour control layer (VCL) was missing across the steel stanchion and across the visible area of the back side of the plasterboard forming the interior wall of the apartment.

   iii) There was evidence of water staining and white corrosion on the sections of the galvanised steel.

   iv) Where the VCL was visible on the right-hand side of the area opened up, it was not sealed and there were air gaps around it.

Between Apartments 88 and 90

5. The section of rendered board which was removed to gain access had black mould on the back of it.

6. The breather membrane was only present to half the opening.

7. The Kingspan insulation continued from the left hand side of the opening to approximately its midpoint. Rockwool or similar insulation had been inserted into the void on the right-hand side, but with gaps and areas of missing insulation.

8. Rockwool was present behind the Kingspan insulation.

9. There was no VCL on the right-hand side of the opening.

Between Apartments 145 and 147

10. The breather membrane was in place and behind it there was a layer of Rockwool insulation between the membrane and the steel stanchion. The Rockwool was not cut from a continuous roll but appeared to consist of offcuts, resulting in large gaps between different sections of the insulation and variability of its thickness.

11. The insulation was incomplete and did not fill the entire cavity.

12. The insulation did not run to the full height of the steel stanchion.

13. When the insulation was removed, the following was revealed:

    i) There was no continuity of vapour barrier.

    ii) There was nothing between the back face of the plasterboard forming the internal wall of the apartment. There was surface corrosion of the main steel, with corrosion product at the base of the steel.

    iii) There was water staining on the lightweight galvanised steel which formed the carcassing off the wall.

    iv) There was no insulation at the lower floor level.

    v) The section of rendered board that had been removed had a horizontal joint filled with render: its width was 7 mm.

The corner position adjacent to Apartment 23

14. The board forming the wall on to the stairwell was a plaster-based board.

15. A section of rendered board facing onto the walkways was removed to reveal the corner post to the West side of Apartment 23. When the breather membrane was pulled back, this revealed:

    i) There was no insulation to the left hand side of the fire break boarding.

    ii) The rigid Kingspan insulation had not been continued across the steel.

    iii) The fibreglass insulation to the right-hand side of the fire break section was incomplete.

    iv) There was corrosion on the surface of the main steel.

    v) The vapour barriers were incomplete.

    vi) There was nothing between the steelwork and the back face of the plasterboard forming the internal wall of the apartment.

16. There appeared to be no further insulated lining between the steelwork and the interior of the apartment.

The inside of Apartment 121

17. A section of the internal wall at a column position was opened up to establish if there was a further line of insulation between the plasterboard forming the internal face of the wall and the steelwork. The experts concluded that there was not.

Introduction

1. The court heard evidence from two experts in thermal imaging: Mr. Colin Pearson of BSRIA, and Mr. Nicolas Selves, a director of RSK Environment Ltd, Building Sciences Division. Mr. Pearson has spent 19 years with BSRIA, and is a Category 3 thermographer (the highest level of qualification). Mr. Selves has a degree in Special Physics and is a member of the Institute of Materials and Institute of Roofing. His experience is principally of inspection and reporting on the condition of roofing and cladding and giving technical advice on the use of different types of cladding. He has a practical experience of thermographic surveys. Unlike Mr. Pearson, Mr. Selves is an experienced expert witness.

2. Thermal imaging involves infrared photography of particular locations on the exterior or interior of a building where there are thought to be thermal anomalies, that is to say particular locations where the surface temperature is appreciably different from the temperature of the surrounding surface as a whole. The camera can measure the temperature of the object at which it is pointed. The camera can also measure the relevant ambient temperature. For an interior, this will be the air temperature in the vicinity of the object or area being examined, which can sometimes be derived by taking the temperature of an object in the relevant part of the room, such as a lampshade, which is likely to be at the same temperature as the air.

3. For external images, the estimation of the ambient external temperature is more complicated. For a part of a building at low level facing other buildings, the ambient air temperature may be the relevant external air temperature. But if the object is at high level on a wall or roof that effectively faces the open sky, an apparent temperature (in effect, a composite temperature) is taken to reflect the mean temperature of the sky that the object is facing. This will probably be much lower than the ambient air temperature in the vicinity of the camera because, as Mr. Pearson explained, a night sky can be as cold as -43°C so that an ambient temperature of, say, -15°C is not implausible for some images.

4. The ambient temperature must be taken by the thermographer at the time when any image is taken, but it does not have to be entered into the camera at that time. It can be recorded and the images taken using whatever temperature setting happens to be in the camera. That default setting can then be adjusted subsequently to the recorded temperature for each image in the comfort of the office. That, it seems, was what was or should have been done by Mr. Pearson's team when it took the images at Concord Street.

5. However, this evidence got off to an unhappy start. First, the wrong version of the appendix giving the details of all the measurements taken was attached to Mr. Pearson's first report. The appendix attached contained the default setting for all the ambient temperatures (in this case -15°C), instead of the temperatures which had or should have been subsequently inserted by the thermographers. Although the corrected values had been used when the BSRIA report was written, the uncorrected appendix was attached to the report in error when it was served. Unfortunately, it was some weeks before this was spotted and the correct version was not served until 10 January 2014.

6. On Barr's side, Mr. Selves was not instructed until 6 December 2013, only two working days before he was due to meet Mr. Pearson the following week. He therefore had very little time in which to read into the case. Unfortunately, he did not notice that an uncorrected appendix had been served with Mr. Pearson's report, so when the correct appendix was served on the Friday before the start of the trial he had very little time in which to respond to it. It seems that Mr. Selves was a last-minute substitute for the expert whom Barr had originally nominated.

7. But matters did not end there. During the cross-examination of Mr. Pearson it emerged that the external ambient temperatures entered on the current appendix always matched the average temperature of the reference point on the building (referred to as "AR02") that was used for comparison with the identified anomaly. It appeared that if ambient temperatures had been recorded by the thermographers on the ground, those temperatures had not been put into the camera before Mr. Pearson analysed the data. As Mr. Pearson conceded, it appeared that his recollection of how the appendix had been produced was wrong (Day 11/47).

8. This state of affairs seriously undermined the reliability of Mr. Pearson's assessment of the thermal index of the external images because he accepted that the accuracy of the thermal index depended on the accuracy of the measurement of the outside temperature (Day 11/68).

9. Mr. Selves did not take any images himself. His role was confined to preparing a critique of Mr. Pearson's evidence. It was therefore doubly unfortunate that he began his task working with the wrong material.

10. There was a dispute between the experts as to the extent to which the thermal index calculated from the thermal images could be taken as a proxy for the U value of a particular wall. The U value is the measurement of heat lost through a unit area (1 m^2) of a wall when the temperature difference between its two sides is 1°K. The thermal index is the difference between the temperature of the anomaly and the outside temperature divided by the difference between the ambient inside temperature and the outside temperature. It is a means of assessing the temperature of the inside surface of the wall in question. It was Mr. Pearson's position that a thermal index of 0.75 represented the acceptable lower bound for the degree of insulation of a wall. He considered that there was an approximate equivalence between the thermal index and the U value, although he accepted that it had its limitations. He thought that there was an accuracy of +/-25% when extrapolating from the one to the other.

11. Mr. Selves did not agree that a thermal index of below 0.75 could be used as an indicator of the likelihood of condensation (Day 12/82). He also made the point that unless temperatures had been stable for 2-3 hours before any images were taken, the results would be unreliable because the interior components of walls took some time to adjust to the prevailing ambient temperature.

12. In spite of the unexplained errors in his data for the external images, I thought that Mr. Pearson was clearly a knowledgeable expert who knew what he was talking about. He was subjected to a sustained and penetrating cross examination by Lord Marks, in the face of which he largely held his ground and was able to justify his conclusions.

13. On the basis of the evidence before the court I do not find it either possible or necessary to resolve the issue about the equivalence between thermal index and U value. So far as the external images are concerned, I am not satisfied that any of the thermal indices calculated for the external images can be relied on in absolute terms because of the uncertainty about the reliability of the values for the external ambient temperatures. So far as the internal images are concerned, since Mr. Pearson's own claimed degree of accuracy is +/-25%, the assessments of the thermal index from the internal images are of fairly limited value.

14. What seems to me to be of much greater assistance is that the thermal images show that there are many parts of the building where there are warm or cold spots. This points to the likelihood of inconsistencies in the quality of the construction of the fabric of the external walls or roofs. For example, it is clear that the temperature of those points on the external walls where balcony supports pass through the external skin of the building are appreciably higher than the surrounding areas of wall. Internally, there are often cold spots in the areas of the steel columns and the window reveals.

15. Mr. Selves accepted that there was not a level of mould growth which an occupier should be expected to tolerate and that any mould growth was unacceptable (Day 12/97). He also accepted that the thermal images had identified a number of thermal anomalies (Day 12/101). He appeared to accept that these would have justified opening up about 10% of the area of the walls in order to check the detail and quality of their construction.

16. The conclusion that I draw from the thermal imaging evidence as a whole is that the shortcomings of workmanship that have been revealed by the opening up have had an adverse effect on the temperatures of parts of the internal faces of the walls and ceilings in many of the apartments. Further, I find that condensation on these cold spots is the more likely explanation for the presence of mould in the apartments in areas remote from the shower trays, such as on parts of the ceilings, external walls and areas around window reveals, than moisture produced as a result of leaks from the shower trays.

The fire escape stairs

1. The complaint is that the risers on the stairs are unevenly spaced and that the handrails are insecure, with the result that the staircases are unsafe for use as a means of escape in the case of fire.

2. I need no persuasion that these staircases have been very poorly constructed: everywhere one looks there are signs of bad workmanship. The concrete screeds on the landings look as if the floor layer left before he had finished - they are uneven and show the trowel marks. The landing handrails were not designed to accommodate the profile of the landings (or, possibly, the levels of the landings were incorrect, as Barr's subcontractors contended) and so the handrails have been levelled using unsightly packs of shims. In fact so much so that in a few places the bolt set into the floor of the landing is too short to have a nut fixed to it. As a result, the handrail is not properly secured to the floor. Whilst Mr. Tasker accepted that the use of the shims had not, in itself, excessively reduced the load capacity of the handrails, his evidence was that where the handrails were not properly bolted to the floor they did not "appear to comply" with horizontal load capacity required by British Standard BS 6399-1:1996 table 4.

3. Whilst I readily accept that the failure in some cases to secure the handrails properly to the floor might have amounted to a breach of the British Standard, there is no evidence of their actual horizontal load capacity and, since they are not self evidently unsafe, I am not satisfied on the evidence that any of the inadequately secured handrails do in fact present a real risk to anyone using the stairs in an emergency.

4. The risers on the stairs are uneven as the Claimants contend. However, try as I might, when I visited the buildings in January I could not detect any feeling of insecurity when ascending or descending these stairs. I therefore do not find that the construction of these stairs presents any significant safety risk.

5. Similarly, the finish to the landings, whilst reflecting an abysmal standard of workmanship, was not in my view so bad as to constitute a danger to the user.

6. If Barr were being sued for breach of contract in relation to these defects of design and workmanship, I do not suppose for one moment that any construction lawyer would advise it to defend the claim. But it is not. The Claimants have to show that the apartments are not fit for habitation because of the condition of these staircases. It will be apparent from what I have already said that there is no reason in principle why such a claim could not be advanced. The difficulty facing the Claimants here arises because I do not find the case to have been made out on the facts.

7. Accordingly, in my judgment, these stairs, whilst badly built, are adequate for their purpose. At least, I reject the suggestion that they present any real risk to anyone's safety. Accordingly, this head of claim fails.

The Mansafe system

8. The Mansafe system is essentially a rail running parallel and near to the ridge of the roof of each block to which a safety lanyard can be attached when working on the roof. The complaint is that the rail cannot be reached from the access point to the

roof. The roof is reached by a ladder which is fixed at its top, but not at the bottom. A person wanting to go onto the roof has to step off the ladder onto the roofing sheets and make his way towards the Mansafe rail, to which he can then attach his safety lanyard. The distance is about three or four metres.

9. From a purely practical point of view it is possible to attach a safety lanyard to the top of the ladder and this probably provides a satisfactory anchor until the operator reaches the Mansafe rail. What is required is a suitable anchor in the area of the top of the ladder. It is not quite clear why this inexpensive precaution has not been taken, but I suspect the reason is that no-one has considered it to be necessary.

10. But leaving those points aside, the real flaw in this head of claim is that it does not affect the safety of any occupant of the building: no-one expects any resident to go up onto the roof. Only trained workmen are likely to have to do so. Accordingly, in my view this defect has nothing whatever to do with the fitness the habitation of any particular apartment.

Insulation of pipework

11. This allegation relates to pipework in the walkway voids. The experts have agreed that, in general, it has been adequately insulated. However, the Claimants contend that about 5%-10% of the pipework is not lagged. This is particularly the case around brackets, bends and similar obstructions. At those points there are simply gaps in the insulation. Mr. Scott considers that this is a defect. In addition, the sections of insulation are not properly butted up to each other and they often stop short at the points where pipes leave the voids to enter the apartments.

12. However, there is very little evidence that the occupier of any apartment has been deprived of water as a result of the pipes in the walkway voids freezing. Mr. John Sutton said that there had been instances when he has not had any water in winter as a result of frozen pipes, but he did not give any particular examples. There are reports of three instances over the winter of 2008/09 when the water supply to an apartment was interrupted (there are also two other cases, but these occurred during the summer months). However, there is no documentary evidence that any of these instances where the result of a burst pipe (Day 14/124), although that possibility obviously cannot be dismissed. Still less is there any evidence that any freezing of pipes occurred at a point where the insulation was missing, although one would expect that to have been the case.

13. Mr. Allen mentioned a report of an occupier who said that sometimes in very cold weather the water supply to his apartment was significantly reduced, but if a tap was left running the supply gradually came back to full flow.

14. This evidence, even taken at its highest, falls far short of persuading me that the poor insulation of the pipework in the walkway voids - which clearly there was - has adversely affected the fitness for habitation of any apartment. The documents show that some residents at Concord Street have made complaints of interruptions to their water supply, but so far as I can tell (apart from the cases that I have mentioned) these have not been connected with possible freezing of pipework.

15. Accordingly, in my view there is no substance in this head of claim, which therefore fails.