OPUS 2 INTERNATIONAL

Grenfell Tower Inquiry

Day 73

November 18, 2020

Opus 2 International - Official Court Reporters

Phone: +44 (0)20 3008 5900

Email: transcripts@opus2.com

Website: https://www.opus2.com

1	Wednesday, 18 November 2020	1	be correct and your recollection is faulty?
2	(10.00 am)	2	(Pause)
3	SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to	3	A. On the basis of what I remember at the time and since,
4	today's hearing. Today we're going to continue hearing	4	I would have to say that that meeting and that
5	evidence from Mr Evans, formerly employed by Celotex.	5	discussion didn't happen.
6	So could we have Mr Evans in, please.	6	Q. Right.
7	MR PAUL EVANS (continued)	7	Now, let's go back to where we were yesterday in the
8	SIR MARTIN MOORE-BICK: Good morning, Mr Evans.	8	chronology, which was the 17-slide slideshow that was
9	THE WITNESS: Good morning.	9	presented to the MAG meeting on 13 and 14 May 2014.
10	SIR MARTIN MOORE-BICK: All right, ready to carry on?	10	Now, can we go, please, to Mr Roper's transcript of
11	THE WITNESS: I am, thank you.	11	his evidence on {Day71/111}. I would like to go with
12	SIR MARTIN MOORE-BICK: Thank you very much.	12	you, please, Mr Evans, in his transcript
13	Yes, Mr Millet.	13	(Pause)
14	Questions from COUNSEL TO THE INQUIRY (continued)	14	I'm not quite sure what is taking the time.
15	MR MILLETT: Good morning, Mr Chairman. Thank you.	15	SIR MARTIN MOORE-BICK: There we are, we have it now.
16	Good morning, Mr Evans.	16	MR MILLETT: We have it, right, thank you.
17	A. Good morning.	17	Can we look at this page, please, page 111, at
18	Q. Can I just revisit the topic we were on yesterday about	18	line 12. Here I'm putting to Jonathan Roper the email
19	the 6-millimetre magnesium oxide board.	19	that he sent you with the presentation. I ask him at
20	Can I ask you, please, to go first to Mr Hayes'	20	line 14:
21	witness statement at {CEL00010154/20}, and let's look	21	"Does that tell us that you didn't discuss these
22	together at paragraph 61.	22	slides with Paul Evans at the meeting on 12 May that's
23	Now, I'll show you this, and take it slowly:	23	referred to in your Outlook diary or at all before you
24	"I therefore went to JR, RW and PE [that's	24	sent them to him?"
25	Jon Roper, Rob Warren and you] with a suggestion that we	25	Just to put this in context for you, Mr Evans, this
	1		3
1	also include an additional board of material behind the	1	amail was of source the anget 10 45 in the marring
2	cladding, just at the point of the fire barriers. This,	2	email was of course the one at 10.45 in the morning A. Yes.
3	in conjunction with the thicker cladding would increase	3	Q of the meeting, when you were going to present at
4	the time it took for any fire to progress through the	4	11.30.
5	cladding and consequently climb the rig.	5	Then he says:
6	"The board I suggested was a 6mm magnesium oxide	6	"I'd have definitely discussed those slides with
7	board placed behind the cladding (the 'Additional	7	him prior to me sending them. I mean, it looks like
8	Material '). This would be used in conjunction with the	8	it's 45 minutes before his time slot of 11.30, so it
9	now 12mm thick layer of the cladding. JR and PE agreed	9	would be very unlikely for me to send a presentation
10	to adopt this approach in principle with PE having the	10	45 minutes before and say, 'Present that '."
11	final sign off."	11	Now, is Mr Roper correct in his recollection that
12	I'm going to pause there and ask you: do you accept	12	you discussed those slides with him before the meeting
13	what Mr Hayes is saying in paragraph 61 and in the part	13	on 14 May?
14	of paragraph 62 I've just put to you?	14	A. My recollection is that Jon Roper came to a MAG meeting
15	A. I don't recall having a discussion with Jamie, Jon and	15	at some point. I can't 100% confirm it was that MAG
16	Rob with regards to additional material for the	16	meeting, but I know that there was a process that had
17	fire barriers.	17	taken place in the business where people from not on
18	Q. No, you don't recall it, but can you deny even though	18	the MAG would be invited to the MAG meeting to present
19	might not recall it, they recall it. Do you deny that	19	on projects . It's something I had seen before with
20	their recollection is correct?	20	other people. And, as I said yesterday, I don't
21	A. As I said, I can't remember having any discussion about	21	believe, with how I conduct myself in terms of my
22	that with those three people.	22	planning, I would have taken the slides 45 minutes
23	Q. No, you said that. What I'm really asking is whether	23	before, during a meeting, that they would have been sent
24	you deny that their recollection is correct, or whether	24	to me. I would have been asking for those slides before
25	you're prepared to concede that their recollection might	25	the meeting, before I was going in. I was presenting at
	Jane Propared to conceas that their reconcetion inight	20	and inceding, before I was going in. I was presenting at

- 1 a MAG meeting, I wouldn't have run the risk of not
- 2 having the slides available to me before I went into the
- 3 meeting. So I don't recall ever presenting slides of
- 4 that level of detail to the MAG.
- 5 Now, it was Mr Roper's recollection that it was you who
- 6 would have presented those slides to the meeting, but
- 7 you're telling us that -- is this right? -- if you were
- 8 going to address those slides at the MAG meeting, then
- 9 you would have wanted to discuss those first with
- 10 Mr Roome, rather than presenting them cold at the
- 11 meeting?
- 12 A. Mr Roome, sorry?
- 13 Q. Mr Roper, I do apologise.
- A. Sorry, could you repeat the question?
- 15 Q. Yes. So if you were going to be presenting these slides
- 16 at the meeting, if it were you --
- 17 A. Yes.
- 18 Q. -- do I take it from your answer that you would have
- 19 wanted to be sure you understood the slides --
- 20 A. I would have wanted to understand the slides and I would
- 21 have wanted to have the slides in my possession.
- 22 Q. Yes, exactly.
- 23 Equally, would you have simply left the preparation
- 24 of these slides to Mr Roper --
- 25 A. I think --

- 1 Q. -- not having seen them before the meeting started, and
- 2 just let him come into the meeting and present them
- 3
- 4 A. If it was myself who was wanting to present the content,
- 5 I would have wanted to know what I was being asked or
- 6 expected to present. If Jon Roper was coming in to
- 7 present the slides, based on the level of detail he had
- 8 about the project, I would have had trust for Jon to
- 9 have come and presented that to the MAG and for him to
- 10 put those together.
- 11 Q. Yes. Now, his recollection was that it was you who
- 12 presented these at the meeting, not him, he wasn't at
- 13 the meeting, and therefore it would follow that, if he
- 14 is right about that, then you would have had
- 15 a discussion with him prior to the meeting about the
- 16 content of these slides?
- 17 A. As I say, my recollection is that Jon came to a MAG
- 18 meeting to present a project, and I don't believe it was
- 19 myself that would have presented at the MAG.
- 20 Q. Right. So are you saying that you were quite prepared
- 21 to go into that meeting to present slides to that
- 22 meeting yourself without seeing them any more than, as
- 23 it turns out, by luck, 45 minutes before you were due to
- 2.4 address the meeting?
- 25 A. I wouldn't have accepted that that was how I would have 6

- 1 gone into the meeting. I would have wanted the slides
- 2 in my possession before the meeting if I was going to be
- 3 going in to present the slides. I wouldn't have
- 4 accepted somebody sending them to me 45 minutes before,
- 5 whilst the meeting is in place.
- 6 Now, if, looking at the other hypothesis, it was going
- 7 to be Mr Roper who was presenting those slides at the
- 8 meeting, surely you, as his boss, would have wanted to
- 9 be well satisfied with the contents of those slides
- 10 before he presented them to the MAG meeting?
- 11 Possibly, but I also had confidence that Jon was close
- 12 to the project and was confident being able to discuss
- 13 the project up until this point.
- 14 And you wanted, surely, to ensure, as his line manager,
- 15 before the meeting started, that you had seen and were
- 16 satisfied with the slides, rather than leaving it to the
- 17 chance of receiving them some 45 minutes before the part
- 18 of the meeting which addressed RS5000 was to begin; no?
- 19 A. I don't believe so. The MAG meeting would have been --
- 20 you know, it wouldn't have -- there would have been
- 21 an opportunity for Jon to have got questions and to talk
- 22 through the slides. So there wouldn't have been
- 23 a definite need for me to have seen the slides, no.
- 24 Was there a prior plan that Mr Roper would be there?
- 25 Yes, he wouldn't have been told on the day or the day
- 1 before, I believe.
- 2 Q. If that's the case, can you explain why his name doesn't
- 3 appear on the agenda or the invitation as the invitee?
- 4 Yeah, quite possibly the agenda just wasn't updated. It A.
- 5 might have been sent out before and Jon was asked to
- 6 come and present that part, and we didn't re-issue
- 7 an agenda. That wouldn't have been uncommon.
- 8 Q. Well, it's possible, but what do you remember?
- 9 A. I don't remember exactly.
- 10 Q. Is there a minute or note of the meeting? We've not
- 11 seen one.
- 12 The only minutes that would come from MAG were generally
- 13 the action points. There wasn't separate minutes kept
- 14 in the business, I believe, I believe for MAG meetings.
- 15 Q. At any rate, as we saw yesterday, these slides made no
- 16 secret, did they, of the addition of the 6-millimetre 17 magnesium oxide at the two levels in the rig, so we can
- 18 assume, can't we, from that, that at least so far as
- 19 Mr Roper was concerned, he wasn't intending to keep that
- 20 fact a secret from you?
- 21 No, he had included that detail in the slides.
- 22 Q. And it follows from that that he wasn't intending to
- 23 keep that fact a secret from the MAG either.
- 24 A.
- 25 Q. Now, can we go to your statement at page 31

7

8

9

10

1 {CEL00010058/31}, please, at paragraph 114.

2 You say there:

3

4

5

6

7

8

10

11

12

13

14

15

"I would like to make it clear that I was not aware of any differences between the system described in the BRE Test Report and the system tested in May 2014 at any time until the possibility of it was drawn to my attention in the course of Celotex's post fire investigation into this issue."

9 Is that really true?

- A. As I said yesterday, in terms of the recollection of the system and how it had changed between test 1 and test 2, the only recollection, until I was provided with copies of documents that I've reviewed to make the statement. is that it was the thickness of the cladding board that was changed.
- 16 Q. Well, do you acknowledge that the slide presentation, 17 which we can have back up on the screen if we need to, 18 acknowledges the presence of the 6 millimetres of 19 magnesium oxide, but the BRE test report does not?
- 20 A. Yes, that's true.
- 21 Q. Therefore, given that you had seen the slide presented 22 to the MAG meeting which referred to the 6 millimetres 23 of magnesium oxide, you did know that that was there, 2.4 but the BRE test did not refer to it. So you were aware 25 of the difference in that respect, weren't you?

1 A. When I would have seen the slide at the MAG, I would

2 have seen the slide, but not made the link, I don't

3

- 4 Q. Right. You say, "I was not aware of any differences", 5 and I have to suggest to you that you were aware of the 6 differences because you'd seen the slide and knew the 7 6 millimetres of magnesium oxide was there in the test, 8 and then later seen the test report and seen that it 9 wasn't in that report, and therefore would have known
- 10 the difference and seen it. 11 A. I don't think I would have been that close to all of 12 that technical detail to have remembered one event and
- 13 then seen how that went into a test report.
- 14 Q. Would you not?
- 15 A. No.
- 16 Q. We'll come on to the BRE test report in due course.

17 Can I take you to Mr Roper's statement. It's 18 $\{CEL00010052/15\}$, please, paragraph 6.4. He there 19 describes a conversation he had with Louise Garlick and 20 he says:

21 "Louise Garlick, the Customer Service Manager, who 22 I believe had apparently been present for at least some 23 of the Board meeting, spoke to me at around this time 2.4 and told me that there had been a heated exchange 2.5 between Rob Warren and Paul as to what to do. The

1 upshot, as I understood it from Ms Garlick, was that 2 a decision had been taken (it was not entirely clear to 3 me when or by whom) that there would be no reference to 4 the first failed test, nor to the magnesium oxide board 5 used in the second test."

> Now, before I ask you a question, let me just show you what Mr Roper said in his evidence, which I think we looked at a little bit before. We've seen it, where he says that he discussed the slides with you before the meeting.

11 One way or the other, whether he did or he didn't, 12 did this heated exchange take place, do you recall?

13 Α. I think it's very strange that I was said to have had 14 a heated exchange with Rob. I don't believe I've ever 15 had a heated exchange with anybody at Celotex, $% \left(x\right) =\left(x\right) +\left(x\right) +\left($ 16 at that MAG meeting. Just -- a heated exchange isn't in 17 my style, so I was surprised when I saw that.

18 Q. All right. Leave aside the "heated". Had there been 19 a disagreement, a discussion, an argument, if you like,

20 between you and Mr Warren about what to do?

21 A. Not that I recall.

22 Q. Right.

23 A. And -- sorry, but looking at the agenda, I also saw that 24 Rob Warren wasn't at the meeting, so that again made me

25 also a little bit confused as to why that had happened.

11

1 Q. Right. So you don't recall that?

2 A. I don't recall that, no, and as I said, a heated

3 exchange wouldn't have happened. It 's not something Rob 4 and I ever had.

5 Q. Did you have any discussion with Rob Warren around the 6

time of this meeting about whether or not the

7 6-millimetre magnesium oxide should be referred to in

8 any of Celotex's documents?

9 A. I don't believe so. no.

10 Q. Was a decision taken at that meeting to conceal the 11 presence of the additional magnesium oxide layer in the

12 test rig?

13 A. I don't believe there was a decision made without --

14 we've obviously seen the slides, but I don't know and

15 I can't remember what the discussions were around the

16 differences in the test and whether a decision was

17 actually sought, or whether it was just explaining what

18 had happened and whether there was any question about

19

20 Q. Can we look at the foot of the previous page of 21 Mr Roper's statement, please, page 14 (CEL00010052/14),

22 and I would like to show you the beginning of

23 paragraph 6.3. We looked at this a little bit

24 yesterday, but let's go back to it. In the third line

25 there, Mr Roper says:

"Following the Board meeting, Paul asked me to create another version of the Board presentation which did not refer to the February test or to the 6mm Magnesium Oxide."

Just pausing there, it's right, isn't it, that
in fact -- and we can look at it if we need to -a shorter version of the slide deck was then produced by
Mr Roper which ran to some 12 pages only, didn't refer

- 9 to the first test, and didn't refer to the 6 millimetres 10 of magnesium oxide in the second test?
- 11 A. Yes.

1

2

3

4

- $12\,$ $\,$ Q. So he's right that such a slide pack was created; his
- evidence, as you can see here, is that he did that on
- your instructions. Is that right?
- 15 A. Not that I can remember, no.
- 16 Q. That being so, can you explain why Mr Roper produced
- $17 \hspace{1cm} a \hspace{1cm} truncated \hspace{1cm} version \hspace{1cm} of \hspace{1cm} the \hspace{1cm} 17\text{-page} \hspace{1cm} slideshow \hspace{1cm} shown \hspace{1cm} to \hspace$
- the MAG meeting if it wasn't at your direction?
- 19 A. I can't, no.
- 20 Q. Might it have been at the direction of the MAG?
- A. Not that I can remember from the meeting and being asked to do that.
- 23 Q. Right. So you can't explain why he produced it unless
- 24 it was at your direction; does that tell us that you
- accept that it was at your direction?

13

- $1\,$ $\,$ A. No, it wasn't at my direction. I don't recall ever
- 2 asking Jon to shorten that presentation down.
- $3\,$ $\,$ Q. So is your evidence to the Inquiry that he did it off
- 4 his own bat?
- A. He wasn't asked by me to do it. Whether he was asked bysomebody else to do it, I don't remember.
- 7 Q. Did you notice when you saw the 12-page slide version
- $8\,$ $\,$ that it was shorter than the version that was presented
- 9 to the meeting?
- 10 A. I don't remember when I would have next seen that11 presentation being presented.
- 12 Q. You do remember seeing one, don't you?
- $13\,$ $\,$ A. Only through my evidence. I don't remember at that time
- in May when that presentation would have been given to
- 15 me again.
- 16 Q. Well, let's look at the shorter presentation,
- 17 {CEL00000961}, see if it triggers a recollection. There
- it is. It's in similar format, except that it's just
- got changes and omissions. As I say, it's now only
- 20 12 pages long and not 17 pages long. Take it from me
- 21 that it doesn't mention the February failed test at all.
- 22 A. Okay.
- Q. If you go to slide 9 (CEL00000961/9), we can see the
- description of the second test build-up, and there we

14

25 can see that it didn't refer to the 6-millimetre

1 magnesium oxide in this slide.

Now, can you think of a reason why Mr Roper would have omitted the reference to the failed February test

4 and deleted the previous reference on this slide to the

- 5 6-millimetre magnesium oxide layer behind the
 - fire barriers, unless he had been asked to do that?
- 7 A. No, I can't think of a reason why he would have done it.
- 8 Q. Wasn't the reason, regardless of who asked him to do
- 9 that, to conceal the fact that Celotex had failed the
- 10 February test?
- 11 A. I don't believe that was a -- I don't know why Jon has
- changed it, and I don't know what his rationale for
- doing it would have been.
- 14 Q. Well, he has given us the rationale in his evidence, and
- that was to prevent the market from knowing that there
- had been a first test which had failed.
- 17 A. I don't think we would have communicated to the market
- part of the development of the product anyway.
- $19\,$ $\,$ Q. $\,$ And that the rationale for removing the reference to the
- 20 6-millimetre magnesium oxide is to create a record which
- 21 would indicate that there was no such layer in the test
- rig, whereas in fact there was.
- 23 A. As I say, I don't know why he's done that.
- $24\,$ $\,$ Q. $\,$ The reality , do you accept, as Mr Roper accepted
- 25 candidly, is that this truncated slideshow or slide set

15

- 1 is thoroughly misleading, because it omits the reference
- 2 to the failed test and omits any reference to the
 - 6 millimetres of magnesium oxide?
- $4\,$ A. Yes, it doesn't represent the system that we -- that was
- 5 designed or that was tested second time round with the
- 6 magnesium oxide.
- 7 Q. And, as such, it is thoroughly misleading; yes?
- 8 A. Yes, it's not representative of what we tested.
- 9 Q. Yes. You said that, and I put to you that it's
- 10 misleading. Do you accept that it was deliberately
- 11 misleading?

12 (Pause)

- 13 A. On the basis that it's come out, then, yes, that was done deliberately.
- 15 Q. Yes.

17

3

- 16 If we go back to Mr Roper's witness statement,
- 15 Q. 165.
- paragraph 6.3, he says in his statement there that you
- asked him to create another version of the board
- 20 presentation which did not refer to the February test or

please, at page 14 (CEL00010052/14), the second part of

- the 6-millimetre magnesium oxide. He confirmed that
- when he gave evidence yesterday. Do you deny it?
- A. Yes, I didn't ask -- I don't recall asking Jon to take out that information and create a second board

16

25 presentation.

- Q. You have got no explanation, as you told us, for him 2 doing it off his own bat, have you?
- 3 A. No.
- 4 So he would have done it on instructions from somebody,
- 5
- 6 A. I don't know.
- 7 Q. Well --
- 8 A. Unless he's done it off of his own back.
- 9 Q. I'm just trying to get you to examine with me the
- 10 rational possibilities, Mr Evans. The rational
- 11 possibilities are either that he did it off his own bat
- 12 or that he was asked to do it.
- 13 Now, do you accept that it's not very likely that he 14
- would have done it off his own bat, that he would have
- 15 decided to truncate, in a thoroughly misleading way,
- 16 a candid statement of the second test?
- 17 A. I don't know.
- 18 Q. You don't know. Well, let's try the second of those: he
- 19 was asked to do it.
- 20 A. He wasn't asked to do it by me, and I don't know whether
- 21 he was asked to do it by anybody else.
- 22 Q. If he wasn't asked to do it by you -- well, you were his
- 23 line manager; weren't you the most likely person to give
- 24 him instructions?
- 25 A. Generally, yes.

- 1 Q. Why would there be an exception in this case?
- 2 A. I don't know, but I don't recall asking Jon to take out
- 3 that information.
- 4 Q. You had worked very closely with Mr Roper on the
- 5 above-18-metre project and, indeed, as we know, it was
- 6 one of the matters throughout 2013 that was on his KPI
- 7 list . You confirmed yesterday that you were closely
- 8 involved in his work. Can you think of a single reason
- 9 why you wouldn't have given him instructions to truncate
- 10 the 17-page slideshow down to a 12-page slideshow on
- 11 this occasion?
- 12 I just don't recall asking Jon to do that, and I don't
- 13 know why I would have asked him to do it.
- 14 Well, I can think of a reason why you would have asked
- 15 him to do it, and it's the reason that Mr Roper gave,
- 16 which was to create deliberately a dishonestly
- 17 misleading set of slides. That's the reason. I'm going
- 18 to suggest to you that you asked him to do it, as he
- 19 said on oath.
- 20 A. I can't say that I asked him to do it, because I don't
- 21 recall asking him to do it, so I can't say that I did.
- 22 Q. You say you can't recall asking him to do it, but I've
- 23 shown you the document. Is it possible that your
- 24 recollection is simply faulty on this, and that in fact,
- 25 as he confirmed, you did ask him to do it?

- A. I don't believe that my recollection on something like
- 2 this would have ... would have been the case, no.
- 3 Q. So when he says that you asked him to create another
- 4 version of the board presentation, you're saying he's
- 5 lying?
- 6 A. I'm saying that that's not what I remember asking Jon to
- 7 do. I don't have any recollection of asking Jon to
- 8 change the slides after the MAG meeting.
- 9 Q. But you can't think of any other candidate for the giver 10 of the instructions to him, can you?
- 11 Α No, I can't think of anybody that would do that, but
- 12 that doesn't mean that someone didn't.
- 13 Q. I accept that it doesn't mean that someone didn't. As 14 a matter of fact, though, who else customarily gave
- 15 Mr Roper his day-to-day instructions apart from you?
- 16 A. I think, on the basis of this project, there was other
- 17 people involved and had knowledge of the project, so
- 18 that's slightly different to the day-to-day instructions
 - because of the other people that were working on the
- 20 project team.

19

- 21 Can you think of a single reason why anybody else on the
- 22 project team would have given Mr Roper these
- 23 instructions to truncate the slideshow without your
- 24 knowledge?
- 25 (Pause)

19

- 1 A. No, I can't.
- 2 O. No.

6

- 3 Now, let's go to the BRE report, and let's, on that
- 4 topic, stick for the moment with Mr Roper's witness
- 5 statement at page 17 {CEL00010052/17}, please. I would
 - like to go on that page with you to paragraph 7.13.
- 7 Now, this is a lengthy section of his statement,
- 8 just to try and put you in the picture of what he's
- 9 talking about, and he's talking here about the
- 10 whiteboard that was created in your office on 19 June
- 11 after the meeting that he'd had with the NHBC.
- 12 A.
- 13 Q. That's what he is talking about, and it comes here in 14 this run of evidence in his statement. He says at
- 15 page 17, paragraph 7.13:
- 16 "There was a short break in the meeting whilst
- 17 I went to print off the draft test report received 18 earlier that morning and brought it back to Paul Evans'
- 19 office ."
- 20 Just pausing there, his evidence was that he'd
- 21 received the first draft of the BRE full test report
- 22 dated 2 June at about 10.30 on the morning of 19 June,
- 23 very shortly before his meeting with the NHBC, and he
- 24 hadn't had time to read it.
- 25 A. Okay.

20

6

14

19

3

11

Q. That was his evidence, and that's the background to that first sentence. He then goes on to say:

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

"Paul Evans, Paul Reid and I looked at it together and noted that it did not refer to the magnesium oxide board in the list of components. My perception was that the Board had a clear view as to how they wanted to market the product even before the test report was available."

Now, can we go over the page, please, and look and see what he says at paragraph 7.14 {CEL00010052/18}. He savs:

"I did not know whether this was normal or not, but was told by Paul Evans that Kingspan were thought to be purposefully omitting information about their BS 8414 test from their sales literature."

Do you remember you telling Jon Roper that?

A. No, and I don't believe I would have had knowledge that Kingspan were purposefully omitting information. The only information about their sales literature when we reviewed it was that it was not overly clear in that particular section what system had been -- you had to kind of look into the detail to see what system had been actually tested. I don't believe I had any knowledge that Kingspan were thought to be purposefully omitting

information. I wouldn't have got that -- I don't know

- 1 where I would have got that information from.
- 2 Q. Then he goes on to say:
- 3 "This was Celotex's intended approach."
- 4 Did you say that to him?
- 5 A. Not that I remember, no.
- 6 Q. Did you say words to the effect that you were going to
- 7 follow the same kind of approach that Kingspan were
- 8 adopting, namely presenting the information about their
- 9 BS 8414 test in a way that wasn't crystal clear to the
- 10 reader, if I can put it that way?
- 11 A. The way we were looking to approach the launch of the
- 12 product and the marketing of the product was to make it
- 13 a lot clearer than what Kingspan were doing as to the 14
- build-up of the system, and as I understood the system
- 15 as it had been tested.
- 16 Q. That may, Mr Evans, have been your original approach
- 17 prior to the failed February test in February 2014, but
- 18 it wasn't now the approach that you were going to take
- 19 after the May test, was it?
- 20 A. I don't believe the approach changed --
- 21
- 22 A. -- between February and May in terms of what we were
- 23 looking to do as a marketing communication.
- 24 Q. Then it goes on to say:
- 25 "Paul Evans and Paul Reid made it clear in this

1 discussion that Celotex would not correct the

2 information in the BRE test report."

3 That's right, isn't it? That's what Mr Roper

recalls. Is that your recollection?

5 No, I don't understand that recollection. I don't know

what that conversation has been based on, other than the

- 7 MAG on 14 May.
- 8 Q. During this conversation, was there no discussion of the
- 9 fact that the BRE test report had made no mention of the
- 10 6-millimetre magnesium oxide, or the fact, indeed, that 11 8 millimetres of Marley Eternit Natura panel had been
- 12 placed over it at two points on the rig?
- 13 A. All I can recall, obviously, the discussion that Jon and
 - I had on the actual whiteboard information, but no,
- 15 I don't believe that was the case.
- 16 Q. You see, this is all in the context of the decision made
- 17 by somebody to remove from the slideshow reference to
- 18 the first test and reference to the 6 millimetres of
 - magnesium oxide.
- 20 Do you accept that the decision to remove that from
- 21 Celotex's own internal documentation, the slideshow, is
- 22 at least consistent with this discussion, namely that
- 23 Celotex wouldn't correct the information in the BRE test
- 24 report so as to make it identify the presence of the
- 25 6-millimetre magnesium oxide?

- 1 A. Based on the fact the presentation was altered, there
- 2 seems to be a link, yes, between that approach and this
 - approach.
- 4 Q. And that was what this discussion was about, according
- 5 to Mr Roper. Do you accept that?
- 6 A. My understanding of the whiteboard discussion, which Jon
- 7 is saying here that Paul Reid was part of, my
- 8 recollection of that was more about the NHBC rather than
- 9 the general testing that had been carried out.
- 10 Q. He goes on:
 - "Paul Reid asked whether anyone was likely to pick
- 12 it up."
- 13 Do you remember that?
- 14 A. I don't -- as part of the whiteboard discussion, I don't 15
- 100% recall Paul Reid being at that discussion. I can't
- 16 say he wasn't, but I don't recall him being there.
- 17 Q. Right.
- 18 Do you remember a discussion involving Mr Roper,
- 19 involving the question whether anyone would pick up the
- 20 incorrect information in the BRE test report, namely the
- 21 absence, as could be seen from the draft -- and we'll
- 22 come to it -- of the 6-millimetre magnesium oxide?
- 23 No, I don't recall any conversation on that.
- 24 Right. Do you deny it --
- 25 SIR MARTIN MOORE-BICK: I'm getting a bit confused about

1 1 Mr Roper's hands only on the morning of 19 June, so it this . 2 2 was the morning of the meeting you had. It's dated What Mr Roper says is there was a break in the 3 3 2 June 2014, and it's issue 1. That's the first page. meeting, and he obtained or printed off a copy of the 4 4 BRE report that he'd recently received, and that he Do you recognise that document? 5 brought it back and discussed it with you. 5 A. I recognise that as a BRE test report, yes. 6 6 Q. Do you recognise that as the thing, the report, that Now, first question: is he right about that? Was 7 7 there some discussion about the BRE report between you Mr Roper brought to the meeting with you in your office 8 8 and Mr Roper, and perhaps Mr Reid as well? on 19 June? 9 9 A. My understanding of the whiteboard discussion -- the A. If he did bring a test report with him, it would have 10 10 discussion we had where I made notes on the whiteboard been that test report, yes. was that was to do with the NHBC, that had been to see 11 11 Q. Right. 12 us on 19 June. 12 Now, let's look at page 35 (CEL00001352/35), please. 13 SIR MARTIN MOORE-BICK: That I understand, but what Mr Roper 13 This is figure 18, and it's a "Photograph showing the 14 14 is saying is that, in the course of that meeting, he condition of the cladding system post-test (Insulation 15 15 obtained a copy of the BRE report, which he discussed layer)", and it's a picture of the rig actually being 16 16 with you -- and he thinks Mr Reid, but let's leave dismantled. 17 Mr Reid out of it for the moment -- and you both 17 Do you remember looking at this picture at that 18 realised that it did not contain any reference to the 18 meeting? 19 19 magnesium oxide board. A. 20 20 Now, is he right about that? It shows, on the right-hand side, a layer of white 21 21 A. I don't remember the conversation being about the test material on top of the insulation just above the level 2 22 22 report or it being printed out. I thought it was more thermocouples, doesn't it? 23 23 of a general conversation about the meeting that they'd A. 24 had with the NHBC and --24 Q. It also shows a white layer of material at the top of 25 25 SIR MARTIN MOORE-BICK: All right. But, again, I just want the rig running on the top and on the return. Do you 27 1 1 to understand this. You do recall, do you, his bringing see that? 2 2 along a copy of the BRE test report? A. Yes. 3 3 Q. If we compare that with figure 16, I think two pages A. I couldn't -- I can't say whether he brought a test 4 before it at page 33 {CEL00001352/33}, we can see there 4 report along or not. 5 SIR MARTIN MOORE-BICK: You can't remember one way or the 5 that in both of those locations the cladding is orange. 6 6 other? Do you see that? 7 7 A. Yes, no, I can't. A. Yes. 8 8 SIR MARTIN MOORE-BICK: Does it follow that you're telling Q. Mr Roper told us that the orange are panels which are 9 9 us you can't remember any discussion about the BRE Marley Eternit Natura 8-millimetre panels, as opposed to 10 report at this time? 10 Marley Eternit Natura 12-millimetre panels, which are 11 11 A. I don't remember the BRE report being part of that the white panels. Do you remember seeing that picture? 12 discussion when I was making notes on the whiteboard. 12 A. 13 SIR MARTIN MOORE-BICK: All right. Well, just to clarify 13 Q. Do you remember seeing this picture at any point and 14 noting that there were two different coloured panels? 14 that one, do you recall having that type of conversation 15 15 A. No. with Mr Roper about the BRE report and it being drawn to 16 16 your attention that it didn't refer to the magnesium O. You really don't? 17 oxide board? 17 A. No. 18 A. No, I don't believe I did. 18 Take it from me, at least on the basis of the evidence 19 19 SIR MARTIN MOORE-BICK: Right, thank you very much. we've seen so far, that the white material is a layer of 20 20 magnesium oxide and that the orange is the 8-millimetre Yes. Mr Millett. 21 MR MILLETT: Well, let's see if we can take that a little 21 Eternit cladding. 22 22 bit further. If we go back to figure 18, two pages on, page 35

ocument came into 25 discussion about t

23

24

Can we go to the draft BRE report. I said to you

{CEL00001352}, and, as I say, this document came into

that it was the draft dated 2 June 2014. It's at

26

23

24

25

{CEL00001352/35}, this is the photograph which Mr Roper

says that you asked him to remove, or there was

28

discussion about the removal of, during that meeting.

1 Is that right?

- 2 A. Yes.
- 3 Q. That is right? So at the meeting on 19 June, you and
- $4 \hspace{1cm} \text{Mr Roper, possibly Mr Reid, discussed the removal of} \\$
- 5 this photograph?
- 6 A. There was a discussion which was on that whiteboard note
- 7 that I took which was one of the things that Jon had
- 8 identified could be a challenge from the NHBC, from
- $9\,$ an NHBC approval, and Jon said an option was to take
- 10 figure 18 out.
- $11\,$ Q. Now, at line 17 of page 27 just this morning
- 12 {Day73/27:17}, not long ago, when I asked you: do you
- 13 remember looking at this picture at that meeting, you
- said no. But in fact it turns out that you did look at
- 15 that picture at that meeting because you discussed its
- 16 removal. Which is right?
- 17 A. I'm not sure I looked at the picture. I think there was
- a verbal conversation that Jon was having with me about
- $19 \hspace{1.5cm} \text{different things.} \hspace{0.2cm} I \hspace{0.2cm} \text{don't recall looking at that as} \\$
- 20 part of the discussion.
- 21 Q. So are you saying that you did have a discussion about
- the removal of the photograph at figure 18 with Mr Roper
- at the meeting, but didn't look at the photograph
- 24 itself?
- 25 A. Yes.

29

- 1 Q. Can you explain how you could possibly have had
- 2 an informed discussion about the potential removal of
- $3 \qquad \quad a \ photograph \ from \ a \ BRE \ test \ report \ without \ looking \ at$
- 4 the photograph? It doesn't follow, does it?
- 5~ A. What I remember from that meeting is that $\,$ Jon $\,$ was having
- $\,$ a discussion with me about the NHBC meeting that had
- 7 happened earlier that day, and I was compiling what he
- $8\,$ was telling $\,$ me and making notes on the whiteboard as per $\,$
- 9 the document. I don't believe we were -- I don't recall
- 10 that we were reviewing this information as Jon was
- 11 telling me that information.
- $12\,$ $\,$ Q. $\,$ Now, while we're on the document, let's go -- well, $\,$ let
- 13 me finish off this point.
- $14\,$ Did you actually tell Mr Roper to ask the BRE to
- remove the photograph?
- 16 A. I think from the conversation we were having, it was
- about if there was challenge from the NHBC. I don't
- 18 know whether I gave him specific instruction to follow.
- The detail, as I understand it, of the whiteboard was
- around possibilities rather than actually saying yes, to
- 21 go and do it.
- $22\,$ $\,$ Q. While we're on this document, you can see at the foot of

30

- figure 18 that there is a sticky note with a 1 next to
- 24 it, can't you?
- 25 A. Yes.

1 Q. If we turn the page to page 36 {CEL00001352/36}, you can see what that represents. Mr Roper told us that it was

3 his sticky note dated 1 July 2014, with a text

4 underneath it:

"Can we change this image to the one I've attached with this email to show a close up of horizontal fire barrier and the insulation below and above the

8 break."

5

6

7

15

16

20

21

22

23

24

25

9 Now, there's an email of 1 July, let me just show 10 you that, {CEL00001350}, and it's an email from 11 Jon Roper to Phil Clark at the BRE, it's at the foot of

the page, and we can see that it's copied to you,

Mr Evans, as well as to Jamie Hayes, subject: "Test

14 Report Comments".

If we go to page 2 {CEL00001350/2}, please, you can see that he says:

"As discussed, please find attached our first draft
 comments for our BR 135 test report. Annotations are
 highlighted throughout the document ..."

And then in the second paragraph:

"As previously discussed, could you also replace figure 18 with the attached photographs as we want to show a close up of the condition of our insulation below and above fire break with the intumescent fired off. If you feel you also have a suitable photograph, then

31

sibly have had 1 please include."

2 So can we take it from that that you were fully 3 au fait with the request to the BRE to remove the

4 photograph at figure 18 and replace it?

A. Based on that email, which I was copied in to, then yes,
but also with the reason for doing that based on the

7 explanation that Jon had given me as to why it needed to

8 be replaced.

9 Q. Well, we'll come to the whiteboard discussion in just
10 a moment. I just want to establish the extent of your
11 knowledge of what was going on.

You accept that you saw this email. I'm assuming that the request to replace figure 18 in this email, and

as noted in the report that I've just shown you, did not come as a surprise, when Mr Roper asked Mr Clark to make

 $16 \hspace{1cm} \text{the replacement on 1 July , because it had been the} \\$

subject of discussion on 19 June; is that right?

- $18\,$ A. It had been discussed on 19 June, yes.
- Q. And this email here, as I've just shown you, reflectsthe instructions that you gave to Jon Roper to ask the
- BRE to remove figure 18.
- 22 A. I don't believe I gave Jon confirmation to go and do it, based on the discussion we had on 19 June.
- Q. Can you think of a reason why Jon Roper would have gone

32

ahead off his own bat and asked the BRE to remove

- a photograph that they had seen fit to include in the
- 2 report, unless that request was being made with your
- 3 approval or under your instruction?
- 4 A. Jon was a lot closer to the project, the test report,
- 5 the rig, et cetera, so there would have been examples
 - where he may have gone and done things without
- 7 instruction.

- 8 Q. Well, this isn't one of them, though, is it?
- $9\,$ A. I don't recall asking Jon to email the BRE and say, "Go
- 10 ahead and remove figure 18". Jon has spoken to me about
- $11 \hspace{1cm} \text{that being something that the NHBC may have a concern} \\$
- with, but I don't recall giving him the go-ahead to go
- and make that decision, to go and do that.
- 14 Q. Can you think of a reason why he would have done it off
- his own bat rather than seeking instructions from you or
- approval from you beforehand?
- 17 A. Only that he felt that that was something that needed to
- be done as part of the project.
- 19 Q. Well, he says it was as a result of the discussion you
- $2\,0\,$ had had with him on 19 June, and that you asked him to
- do that. Is he wrong about that?
- 22 A. I don't remember asking Jon to specifically email the
- BRE and say, "Remove figure 18".
- Q. So are you saying that when you saw this email, as you
- were copied in on it, this request came as a surprise?

33

- 1 A. I don't remember whether I was surprised or not.
- $2\,$ $\,$ Q. There isn't any record we've got in anybody's statements
- 3 of you going back to Jon Roper and asking him why he
- 4 wanted to replace figure 18. We don't have a record of
- 5 that. Doesn't that tell us that in fact you knew, when
- 6 you received this email, what he was going to do, namely
- 7 to ask the BRE to remove the photograph at figure 18 and
- 8 replace it with other photographs? No?
- 9 A. I don't know.
- 10 Q. You don't know.
- I have to suggest to you, although we will look at
- $12 \hspace{1cm} \text{the whiteboard conversation in a moment, that the reason} \\$
- that Jon Roper asked the BRE to remove the photograph at
- figure 18 was because it was the one thing in the BRE
- draft report that identified the presence of magnesium
- arait report that identified the presence of magness
- 16 oxide at those two points on the rig.
- 17 A. Yes, that looks like the reason why it's been done.
- $18\,$ Q. And you accept that that was the reason why it was done,
- 19 do you?
- 20 A. Yes.
- $21\,$ $\,$ Q. $\,$ And you knew at the time that $\,$ that $\,$ was the $\,$ real $\,$ reason
- $22\,$ why Mr Roper wanted to ask the BRE and did ask the BRE
- 23 to remove figure 18?
- 24 A. No. The reason was because of what Jon was telling me,
- 25 because at that point, as I said yesterday and earlier

34

- today, I didn't know that we had done that work around
- 2 the rig at level 2. I hadn't remembered that we'd done
- 3 that work
- 4 Q. You mean the magnesium oxide?
- 5 A. Yes
- 6 Q. But it was in the slide we looked at, which was only
- 7 a month before.
- $8\,$ $\,$ A. $\,$ I $\,$ haven't $\,$ made the link $\,$ between the presentation on the
- 9 14th and what Jon's asking to do here.
- 10 Q. Were you not curious now to make that link, either on
- $11 \hspace{1cm} \hbox{19 June itself or, at latest, on 1 July when Mr Roper}$
- 12 made his request?
- 13 A. No. I don't know why. I know I was only back in the
 - business after a couple of weeks on 19 June, so there
- would have been a lot going on after a two-week absence,
- but I don't know why that's happened.
- 17 Q. Very well.

14

- Let's then go to the meeting itself and look
- $19 \hspace{1cm} \text{a little more closely at what happened, following up on} \\$
- 20 the Chairman's questions.
- 21 Mr Roper says that he'd had a meeting with the NHBC
- on the morning of the 19th.
- 23 A. Yes
- 24 Q. And he describes the NHBC as having been not
- particularly impressed with the test, and also that he

35

- said that Dave White of the NHBC had not been friendly.
- $2 \hspace{1cm} \hbox{Do you recall \ him describing the NHBC's attitude in} \\$
- 3 that way when he came to see you after the meeting?
- $4\,$ $\,$ A. I don't recall him saying that that had happened, but it
- 5 might have done.
- 6 Q. Now, during the meeting on the 19th that you had with
- 7 him, we know that notes were made on a whiteboard,
- 8 weren't they?
- 9 A. Yes.
- 10 Q. And you took a photograph of that whiteboard on your
- 11 telephone?
- 12 A. Yes.
- $13 \quad Q. \quad Let's \ look \ at \ that. \quad It's \ \{CEL00002517\}.$
- Can you tell us why you decided to take a photograph
- of that whiteboard?
- 16 A. Generally, as part of my work, if I was working with
- a member of a team and we were making notes and not in
- notebooks, I would take a photo. It wasn't an uncommon
- thing for me to do. Lots of people at Celotex did the same and took pictures of things on flipcharts in
- 21 meetings.
- 22 Q. If we go to the various columns at the top, we can see
- that this is in your handwriting, isn't it? That's what

- 24 Mr Roper said. Is that right?
- 25 A. All bar the last point, point 6.

- 1 Q. Yes, I'm just looking at the top.
- 2 A. Oh, the top, yes.
- 3 Q. "NHBC concern/challenge", "CX [Celotex's] response",
- 4 "Action required" and "Risk", and I think you just
- 5 confirmed that the entirety of the rest of the writing
- 6 is yours, except against item 6.
- 7 A. Yes.
- 8 Q. Now, let's look at item 6. Under the column "NHBC
- 9 concern/challenge", we can see that Jon Roper has
- 10 written "Calcium silicate at level 2". Now, he wrote
- 11 that, not you.
- 12 A. Yes.
- Q. Does that tell us that he was the one essentially giving the explanation at that stage?
- 15 A. I don't know why the -- why Jon would have started
- 16 writing that and not me, having done the first five
- points.
- $18\,$ Q. In fact, calcium silicate is another way of describing
- magnesium oxide, isn't it?
- $20\,$ $\,$ A. $\,$ I don't know the technical differences between calcium
- $21\,$ silicate $\,$ and magnesium oxide, but I know that they're $\,$
- both that type of product.
- 23 Q. Yes.
- 24 A. Similar products.
- 25 Q. Just enlighten us, they are products or compounds, if

- $1 \hspace{1cm} \hbox{you like , which are not only non-combustible but don't} \\$
- 2 conduct heat?
- 3 A. Yeah, I know they're non-combustible, I know they're
- 4 used as kind of high-impact boards as well, or have been
- 5 used as high-impact boards.
- 6 Q. Under "[Celotex] response", Jon Roper noted, "Confidence
- 7 in fire barriers to expand". So did you understand that
- 8 he was setting out the purported justification that
- 9 would be given to the NHBC had they found out about the
- presence of the 6 millimetres of magnesium oxide?
- 11 A. Jon was telling me that if that was a challenge that
- $12\,$ came from the NHBC, then that would be the response that
- 13 Celotex could give, yes.
- 14 Q. Yes.
- Under "Action required", it says, "Remove last image
- of test report". Now, we've seen the test report, and
- the last image is indeed figure 18, which we've looked at now.
- to at now.
- $19\,$ So that tells us, doesn't it, that there was
- $20 \hspace{1cm} \hbox{discussion at this meeting in your office between you} \\$
- $21\,$ and Jon Roper about the removal of figure 18, doesn't
- 22 it?
- 23 A. Yes.
- 24 Q. Yes.
- 25 Can we look at paragraph 130 of your witness

1 statement. You will find that on page 36

2 {CEL00010058/36}. You say there:

3 "I do not recall this e-mail [which is the email of

4 1 July], nor do I recall any discussion relating to the 5 request in Mr Roper's e-mail to replace Figure 18 in the

draft test report. I relied on Mr Roper in relation to

7 matters such as the detail on finalising the test

8 report."

Having looked at your whiteboard photograph and the
 whiteboard of that meeting, do you accept that in fact

- there was a discussion relating to the request in
- 12 Mr Roper's email to replace figure 18 in the draft test
- report, because we can see it in the third column on the
- 14 whiteboard?
- 15 A. The only time I recall the conversation that happened
- with the NHBC was when I, by chance, found that photo on
- my phone after the fire .
- 18 Q. All right. So you now do recall the discussion? You
- didn't when you did your statement -- is that right? --
- but you did when you --
- 21 A. I recalled the discussion as soon as I found the photo
- 22 on my phone.
- 23 Q. But did you not have the photograph of the whiteboard
- 24 when you did your statement?
- 25 A. Yes.

3

39

- $1\,$ $\,$ Q. $\,$ Did that not prompt a recollection of the discussion
- 2 about the request by Mr Roper to remove figure 18?
 - (Pause)
- $4\,$ $\,$ A. I can't remember exactly the flow of the -- of $\,$ my
- 5 knowledge, sorry.
- 6 Q. Let me put it a different way, see if I can help. You
- 7 say:
- 9 discussion relating to the request in Mr Roper's e-mail
- 10 to replace Figure 18 in the draft test report."
- Are you saying in your statement that even though you have seen the photograph of the whiteboard made on
- 19 June at the meeting in your office, that still
- doesn't trigger any recollection in your mind of the
- discussion on that day?
- 16 A. The only discussion -- as soon as I saw and found the
- photo, and saw what the content of the photo was,
- I recalled that Jon and I had had that meeting, but
- $19 \hspace{1cm} I \hspace{1cm} \text{didn't necessary -- unless} \hspace{1cm} I \hspace{1cm} \text{was looking at that,}$
- $2\,0\,$ $\,$ $\,$ I didn't recall that we'd asked them to replace
- 21 figure 18.
- $22\,$ Q. I'm not sure I understand. Let me try a third time.
- When you saw the photograph of the whiteboard from the 19 June meeting, did it trigger a recollection of
- 25 the discussion about the removal of figure 18 or did it

38

- 1 not?
- 2 A. I think it must have done because I was reading the
- detail that that was an option that was possible.
- 4 I don't know whether I'd remembered that we'd actually
- 5 sent the email.
- 6 Q. Given that you refer to the whiteboard in your
- 7 statement, why do you say, "nor do I recall any
- 8 discussion relating to the request to replace Figure 18
- 9 in the draft test report"? Can you explain?
- 10 (Pause)
- 11 A. No, I can't, sorry.
- 12 Q. Do you accept that in fact, Mr Evans, you and Mr Roper
- $13 \qquad \quad \text{discussed the potential request to the BRE to remove} \\$
- figure 18 from the draft test report at this meeting?
- 15~ A. What I was discussing $\mbox{ -- }$ my understanding of what I was
- discussing with Jon at the time was that the NHBC may
- have some concerns about the system that was tested, and
- Jon was giving me the information that what these
- responses could be if we were challenged on that.
- 20 Q. Yes, and one of the responses would be: take the picture
- 21 out.
- 22 A. Yes.
- 23 Q. And, as we can see from the email of 1 July, and
- Mr Roper's own comment in the draft, going back to the
- 25 BRE, that is precisely what he then proceeded to do,

- didn't he?
- 2 A. Yes, he did, yeah.
- 3 Q. With your knowledge?
- 4 A. Only because I was copied in to the email. I don't
- 5 remember saying to Jon, "We've talked about this, you
- 6 now need to go and do that ".
- 7 Q. No, Mr Evans, with your knowledge and approval, which
- 8 arose at the 19 June meeting.
- 9 A. No.
- $10\,$ $\,$ Q. $\,$ The reason you instructed $\,$ him, as $\,$ I $\,$ would suggest to
- 11 you, based on what Mr Roper told us, to remove
- 12 figure 18, was because it was the only indication in the
- draft test report that showed the presence of the
- magnesium oxide layer in two places in the test rig, and
- that's right, isn't it?
- 16 A. That's not, because I didn't know or recall that we'd
- done what we'd done around the magnesium oxide, then no,
- I wasn't asking Jon to deliberately go and do that.
- I don't recall asking Jon to go and send that email.
- $20\,$ Q. I'm going to suggest to you that you instructed
- 21 Jon Roper to ask the BRE to remove figure 18 for that
- 22 reason, consistently with your instruction to him to

42

- 23 remove the reference to the magnesium oxide in the
- 24 truncated slide pack that we saw earlier?
- 25 A. No, that's not my recollection.

- $1\,$ $\,$ Q. It's certainly his. Do you say his recollection is
- 2 faulty and yours is better?
- $3\,$ $\,$ A. $\,$ I $\,$ just think $\,$ I would have remembered doing things like
- 4 that.

6

14

- 5 Q. Well, he does remember doing things like that, and are
 - you saying his recollection is faulty and yours is
- 7 better?
- 8 A. Based on what I remember and how I've -- all of the
- 9 recollections at the time and since, I don't recall
- asking Jon to -- I don't recall the discussion around
- $11 \hspace{1cm} \text{the magnesium oxide or the -- \ giving \ Jon \ instruction \ to}$
- 12 take those out of the test report.
- 13 Q. Can we go back to the slides (sic), please, at
 - {CEL00002517}. There is one more thing I just want to
- ask you about, and that's the last column, where you can
- see that Jon Roper, under the column headed "Risk",
- wrote "Medium". What was that about?
- 18 (Pause)
- 19 A. I believe the risk was to do with NHBC accepting Celotex
- for use on their projects.
- 21 Q. Well, that's clearly the case very broadly. What was
- the precise risk that you or he, or both of you perhaps,
- were gauging as a medium risk in relation to item 6
- 24 specifically, which is where we see it?
- 25 A. I don't know what we'd have meant by medium risk.

43

- $1\,$ Q. Was it a medium risk that the NHBC would pick up the
- 2 fact that magnesium oxide had been used in the test and
- 3 challenge the test on that basis?
- 4 A. I don't know.

6

- 5 Q. Or was it the risk that the NHBC might somehow discover
 - the fact that the BRE test report without the reference,
- 7 without figure 18 in it, was misleading?
- 8 A. As I say, I don't know.
- 9 Q. I would like to turn, then, to the topic of marketing,
- 10 marketing the RS5000.
- Now, we start, I think, on 1 July 2014 with
- 12 {CEL00001213}. This is Mr Roper's email to you on that
- date, emailing you a marketing action plan:
- "As discussed folder J. Roper under M Drive haseverything to do with RS in.
- 16 "Thanks."
- Rather a pithy and perhaps not particularly
- 18 communicative message, but let's look at the attachment.
 - It's at {CEL00001214}, and this is a document entitled
- 20 "Marketing action plan" which Mr Roper created,
- 21 "Launch date: 5th August", and there are the contents.
- 22 Do you remember seeing this document?
- A. We would have had a marketing action plan for RS5000.
 They were common for all products that we launched.

44

25 Q. Do you remember seeing this document?

- 1 A. Yes.
- 2 Q. If we go to page 2 {CEL00001214/2}, please, it lists $\frac{1}{2}$
- 3 under the third bullet point under "Objectives":
- 4 "Present RS5000 as Celotex's primary rainscreen
 5 application offering to compete directly with Kingspan
- 6 K15 & Rockwool Duo-Slab."
- 7 That was not only one of the motivations for8 developing RS5000 but also one of its selling points,
- 9 wasn't it?
- 10 A. Sorry, in -- selling points in relation to?
- 11 Q. It was a selling point that it was a primary rainscreen
- 12 application which would compete directly with
- 13 Kingspan K15?
- 14 A. Yes, the product was marketed as being specific for
- 15 rainscreen cladding.
- 16 Q. Yes. Indeed, we looked yesterday at the slideshow which
- said, "Give us an alternative to Kingspan K15 and we'll
- buy it ". That's what that links with, is it not?
- 19 A. No, I think what this links with is that Celotex at that
- 20 time, as part of its strategy, was moving to have
- 21 specific applications. A lot of their products could be
- 22 used in multiple applications, definitely the 4000
- $23\,$ $\,$ $\,$ range, and one of the things the company wanted to do as
- $24 \hspace{1cm} \text{we moved into the ownership from Saint-Gobain is} \hspace{0.2cm} \text{start}$
- 25 having more specific products for applications and
 - 45
 - $1 \qquad \text{marketing them that way}.$
 - 2 Q. Under "Concept", it says:
 - 3 "Proposition
 - 4 "The first PIR insulation board tested and approved to BR 135 and therefore acceptable for use in
 - buildings above 18m in height."
 - 7 Do you remember who came up with that wording?
 - 8 A. I think the wording was a combination of two or three different people's attention.
- 10 Q. Mr Roper told us that he had not in fact come up with
- that wording, but had lifted it pretty much verbatim
- from Kingspan's March 2011 Kingspan Kooltherm K15
- datasheet. Did you know that?
- 14 A. No.
- 15 Q. Do you accept that that wording would suggest that
- because RS5000 had been tested and approved to BR 135,
- 17 it was for that reason acceptable for use on all
- 18 buildings over 18 metres?
- $19\,$ $\,$ A. No, that wasn't the discussion that we'd been having
- $20\,$ $\,$ $\,$ previously, but even before July in the business about
- $21 \hspace{1cm} \text{how we would market the product, we weren't saying it} \\$
- $22 \hspace{1cm} \text{could be used in buildings above -- or in all buildings} \\$
- above 18 metres.
- $24\,$ Q. $\,$ I'm asking you about the words. Do you accept that the
- words and therefore acceptable for use in buildings

- above 18m in height" would suggest that because RS5000
- 2 had been tested and approved and met the BR 135
- 3 criteria, it was for that reason acceptable for use on
- 4 all buildings over 18 metres? I'm focusing on the
- 5 language.
- 6 A. Yes, I think at the time that would have been the
- 7 business's understanding of being able to be used on
- 8 buildings above 18 metres, was that you had passed
- $9 \hspace{1cm} \text{a test \ which therefore \ complied with \ the \ requirements \ of} \\$
- 10 BR 135.
- 11 Q. Well, that's correct, isn't it? An accurate statement
- would be that RS5000 could be used on all buildings over
- 13 18 metres, provided it was used in exactly the same
- system, with exactly the same components, and exactly
- $15 \hspace{1cm} \text{the same configurations, as tested.} \hspace{0.2cm} \text{That's right, isn't} \\$
- 16 it?
- $17\,$ $\,$ A. Yes, and that is what we looked to do when we started to
- launch the additional marketing materials that went with
- 19 the product.
- 20 Q. And given that an accurate statement would have been set
- 21 out in that way, the statement "and therefore acceptable
- for use in buildings above 18m in height" was thoroughly
- 23 misleading, wasn't it, if it was used?
- 24 A. At the time we weren't -- we didn't see that as being
- 25 misleading, no.

- $1\,$ $\,$ Q. Well, Mr Roper did. He told us that. Did you not?
- 2 A. We didn't have a discussion about those words and how --
- 3 that they'd been lifted from Kingspan and whether they
- 4 were misleading in ...
- 5 Q. When you got this document from Mr Roper on 1 July, did
- 6 you read it?
- 7 A. I'm pretty sure I would have read it, yes.
- 8 Q. Did you not then pick up the wording under
- 9 "Proposition"? Did you read that specifically?
- 10 A. No.
- 11 Q. You didn't?
- 12 A. I would have read the whole document, but I wouldn't
- have picked up that there was something wrong with that,
- 14 no
- 15 Q. Right. So do I take it that you would have read the
- language there next to "Proposition", but not thought
- that the words "and therefore accept for use in
- buildings above 18m in height" was thoroughly
- misleading? You didn't see it that way; is that right?
- 20 A. No.
- 21 Q. So did you think that it was right to present RS5000 as
- acceptable for use in buildings above 18 metres in
- height? Take those words on their own. Do you think
- 24 they're accurate?
- $25\,$ $\,$ A. When presented with the additional information that we

46

1 attempted to put in lots of the other marketing 2 2 material, that was a decision that the business was 3 3 aware of how we were going to market the product across 4 4 lots of different parts of Celotex and Saint-Gobain, and 5 they seemed -- they appeared to have been locked down as 5 6 6 the main words. 7 7 Q. Do you accept that it would be thoroughly misleading to 8 8 present RS5000 as acceptable for use in buildings above 9 9 18 metres in height? 10 10 A. If used as a standalone statement without any additional 11 information to be available or in the same statement, 11 A. No. 12 then yes, but that wasn't what we were trying to do. 12 Q. I understand the qualification you want to put on your 13 13 14 14 answer, but I just want to see how far you are prepared 15 15 to accept what Mr Roper was prepared to accept, which is 16 16 that those words in that proposition are thoroughly 17 misleading because they suggest, as they stand, that 17 Q. Ah, all right. 18 because RS5000 had passed the test, it could be used on 18 19 19 buildings above 18 metres in height without 20 20 A. Yes. qualification . 21 21 A. Without qualification, I can see how somebody that 22 22 would -- could see those words as being misleading, but 23 23 that wasn't the intention from the marketing plan. 24 24 Q. Let's then move to the marketing literature . You say it 25 25 wasn't the intention from the marketing plan; let's 49 1 1 explore that in some detail. 2 2 Can we go, please, to your statement at page 39 3 3 {CEL00010058/39}. I want to start off with this because 4 Δ it's what you say is your recollection. 5 At the foot of page 39 you see paragraph 141, and 5 6 6 you say:

> "The marketing proposition for RS5000 was quite simple. We saw K15 as the benchmark and were moving into the rainscreen cladding market for both below and above 18m applications in competition to Kingspan. Importantly and recognising that the testing of RS5000 to BR135 and to BS8414-2 had involved the product being tested as part of an overall system we were keen to make it absolutely clear in the marketing literature that the product approval to the two standards had occurred as part of a system so the product was not approved in isolation for use in any application or system."

Now, that's what you say there.

Let's look at the marketing literature closely. We will start with the compliance guide at {CEL0000012/2},

I'm going to take it that you're familiar with each of these pieces of marketing literature for RS5000 unless you tell me otherwise, Mr Evans.

50

25 A. Okay.

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

2.4

Q. If you go to page 2, it says:

"This document provides guidance on complying with Approved Document B2 (AD B2) for external wall cladding systems fixed to steel frame or masonry constructions. It provides a step by step guide to an alternative route to compliance for AD B2 through meeting the performance criteria set out in BR 135 through testing to

BS 8414-1:2002 or BS 8414-2:2005."

In fact, it's right, isn't it, that actually RS5000 had never been tested under BS 8414-1, had it?

So to the extent that this document suggests that it had, it was misleading; no?

A. I think what's happened here or potentially happened here is the fact that we are marketing the product for above and below rainscreen cladding as well.

SIR MARTIN MOORE-BICK: Well, you are actually showing a picture of a masonry substrate, aren't you?

SIR MARTIN MOORE-BICK: And that hadn't been tested.

A. No, that hadn't been tested, and I think this is where -- why we changed the product from AE to rainscreen. We were looking to get a specific product

for the rainscreen market because K15 could be used

51

below 18 metres and above 18 metres. There was a time delay between the launch of FR5000 and RS5000, and FR5000 was suitable for use below 18 metres, so the longer term plan for the business was to have a solution for both, one product that could be used above and below 18 metres, so that might be why that's happened there.

7 MR MILLETT: Well, just explain how that works.

8 It's right, isn't it, that you wouldn't need to 9 satisfy the criteria in BR 135 through a BS 8414-1 or 2 10 test for any building if you were going to use it below 11 18 metres, would you?

12 A. No, that's true.

13 Q. So what was the purpose of telling readers that this was 14 a step-by-step guide to an alternative route to 15 compliance through meeting the performance criteria set 16 out in BR 135 through testing to BS 8414-1, when it 17 hadn't?

(Pause)

19 I don't know how that's happened.

20 It's misleading, isn't it, in that respect?

21 (Pause)

22 A. It's certainly not showing the test that we did.

23 And to be fair to you, it does come on to that. But 24 just as a standalone statement, first page, first thing 25

that anybody reads, would suggest that RS5000 had been 52

1 tested under both parts of BS 8414; no? 2 A. It could be read that way, yes. 3 Q. Yes. And if it were read that way, it would be 4 thoroughly misleading, wouldn't it? 5 (Pause) 6 A. Yes, it wouldn't cover the only system we'd passed. 7 MR MILLETT: Yes. 8 Mr Chairman, I'm conscious I'm going to take some 9 time on these documents. It may be a convenient moment. 10 SIR MARTIN MOORE-BICK: Yes, all right. 11 Well, we'll have a short break at this point, 12 Mr Evans. We will come back at 11.30, please. 13 While you're out, please don't talk to anyone about 14 your evidence. Thank you very much. 15 (Pause) 16 11.30, then, please. Thank you. 17 (11.16 am) 18 (A short break) 19 (11.30 am) 20 SIR MARTIN MOORE-BICK: Right, Mr Evans, shall we carry on? THE WITNESS: Yes, please. 21 22 SIR MARTIN MOORE-BICK: Yes, Mr Millett. 23 MR MILLETT: Can I ask you to stay in this document, please, 24 which we were on, {CEL00000012/3}. This is entitled 25 "BR 135" in the top left -hand corner, and you can see, 53 1 if you cast your eye across the page to the three little 2 pink triangle bullet points there, there is some text 3 underneath that. 4 Now, before I show you that, can I just ask you 5 a general question about BR 135. 6 I think you had been sent the third edition of 7 BR 135 in May 2013 by Mr Roper; do you remember that? 8 A. Based on, I think, what I saw yesterday, then yes, it 9 was sent to me. 10 Q. If we look at the passage under the three pink bullet 11 points, it says: 12 "The classification applies only to the system as 13 tested and detailed in the classification report. The 14 classification report can only cover the details of the 15 system as tested. It cannot state what is not covered.

check that the classification documents cover the

54

end-use application."

A. No, I don't think I ever read BR 135.

3 be included in the documents. 4 Q. Maybe, but when they made that determination, did it 5 come to you for final approval? 6 A. I'm not sure whether it was final approval, but they 7 would have come to me -- we would have shared the 8 documents and people would have been invited to comment, 9 but I don't think it had final approval from me, 10 certainly on technical content. 11 Q. Did you read it? 12 I believe I read this document, yes. 13 Q. Did you have any doubts about what that passage meant? 14 A. I don't remember specifically thinking anything when 15 I read that particular paragraph. 16 Q. Was it clear to you that the BR 135 criteria and the 17 BS 8414 test was for a full-scale test of a system, not 18 for a product in application? 19 A. My understanding was what we were doing was testing 20 a system and then marketing the product as part of the 21 22 Q. Part of the system? 23 Part of a system. 24 Part of the same system as tested? 25 A. Yes. 55 1 Q. Did you think that there was any wiggle room, any 2 ambiguity for any interpretation of this language which 3 might suggest that a building designer could use RS5000 4 with any component in a system other than that which was 5 tested and still be covered by the classification 6 report? 7 A. No, I think our understanding was that we tested the 8 system and the product -- our product formed part of the 9 overall system, and that if people wanted to change 10 that, they needed to seek separate advice on whether 11 that was permissible. 12 Q. Now, we've seen this statement in all the other 13 marketing literature used by Celotex to market RS5000.

A. I would have read the materials, yes, but would have

relied on others to have determined which text needed to

When specifying or checking a system it is important to Now, that reflected the language in annex B of BR 135 more or less. Do you remember that that was the When you saw this document, did you read that text

14

15

16

17

18

19 different literature. 20 Q. Therefore, did you understand that it was absolutely 21 critical, as a result of this language, for anybody 22 reading this statement to be sure that the details of 23 the system as tested, to use the words there, as tested, 24 were correctly and fully described in the marketing

56

A. Sorry, in terms of this final paragraph?

Q. In terms of this language, yes.

Does your answer there apply to those statements as

A. Yes, I think the language would have been used across

25 literature?

Q. Right.

there?

16

17

18

19

20

21

22

23

24

November 18, 2020 Day 73 Grenfell Tower Inquiry

- 1 A. Yes.
- 2 Q. And indeed in the classification report itself?
- 3 Α.
- 4 Now, if you look at page 4 {CEL00000012/4}, we can see
- 5 the middle column sets out the system that this document
- 6 states was tested. Under "Celotex RS5000", middle
- 7 column, there is a bold heading which says:
- 8 "The system tested was as follows:
- 9 ·" 12mm Fibre Cement Panels
- 10 ·" Supporting aluminium brackets and vertical rails
- 11 •" 100mm Celotex RS5000
- 12 •" 12mm Non-combustible sheathing board
- 13 ·" 100mm SFS System
- 14 •" 2 x 12.5mm plasterboard."
- 15 There's no mention in that list there of the layer
- 16 of 6-millimetre magnesium oxide, is there?
- 17 A. No.
- 18 Q. Nor of the fact that in some places, two places in fact,
- 19 on the test rig the fibre cement panels were not
- 20 12 millimetres but 8 millimetres
- 21 A. No.
- 22 Q. If we look at the diagram below, diagram 4, figure 4,
- 23 you can see that the list is then set out in pictorial
- 24 form, can't you?
- 25 A. Yes.

57

- 1 Q. And similarly there, do you accept that that doesn't
- 2 show the layer of 6-millimetre magnesium oxide at the
- 3 level 2 thermocouples and the top of the rig, or the
- Δ presence of the 8 millimetres of Marley Eternit Natura?
- 5 A. Yes.
- 6 Q. Do you accept that those omissions make the statement
- 7 and the drawing thoroughly misleading?
- 8 A. On the basis of what we tested and what we know now,
- 9 what I know now, versus that, then yes, it's not
- 10 a reflection of what was tested.
- 11 Q. So the answer to my question is: yes, you accept that
- 12 this marketing literature here, when describing the
- 13 test, was thoroughly misleading?
- 14 A. Yes.
- 15 Yes. So any designer looking to follow your words of
- 16 warning that we saw on the previous page, and to try to
- 17 replicate exactly the cladding system that you were
- 18 describing as having passed the test, would in fact be
- 19 designing a cladding system that had not passed the
- 20 test.
- 21 A. Yes.
- 22 Q. Those omissions and misdescriptions were not
- 23 an accident, were they, they were quite deliberate?
- 24 On my part, the system that we put into the marketing
- 25 materials was the system that I at the time believed

- 1 that we had tested. I ...
- 2 Q. Well, do you think they were accidental omissions?
- 3 A. Based on what I knew and what I had recalled and
- 4 their -- my understanding was that what we were doing
- 5 was what we had tested.
- 6 Q. Do you accept that if you had faithfully described the
- 7 test components as actually used, namely including the
- 8 6-millimetre magnesium oxide and the 8-millimetre Marley
- 9 Eternit Natura at those two locations, that would have
- 10 given the game away as to how the test had been passed?
- 11 I don't know whether it was about giving the game away.
- 12 I don't know why or how that's happened.
- 13 Q. You don't know how what's happened?
- 14 A. I don't know how the -- based on my knowledge at the
- 15 time of putting the information into the marketing
- 16 material and the feedback that was in the business and
- 17 what people in the business were doing, my understanding
- 18 was that was what we had tested.
- 19 Q. That's not true, is it?
- 20 A. Not from what I've seen now, no.
- 21 It's not true that your understanding at the time was
- 22 that that was what you had tested. That's not true, is
- 23
- 24 A. Based on materials I had seen but not ... I think being
- 25 unaware of kind of what I was aware of I think is the

59

- 1 problem there.
- 2 Q. I don't understand that answer.
- 3 A. There's materials that were presented and decisions have
- 4 been made, and we've ended up putting a -- marketing
- 5 a system that wasn't as I thought we had tested.
- 6 0. You knew by 19 June that the system as tested included
- 7 a magnesium oxide layer of 6 millimetres, and two orange
- 8 8-millimetre panels of Marley Eternit. You knew that
- 9 because you had seen the report, and you had discussed
- 10 it at the 19 June meeting. Indeed, you had seen the
- 11 previous slideshow in its 17-page form which identified
- 12 the 6 millimetres.
- 13 Those two pieces of information, I would suggest to
- 14 you, led you to know very well that the list of
- 15 components set out in the description of the test we see
- 16 here was materially inaccurate and misleading?
- 17 A. Based on the information that -- and I know I've seen 18
- things and seen documents, but the detail that I was 19
- aware of and what I was being told was okay to go to
- 20 market was what we put in there.
- 21 Can you account for how this, what I would suggest is
- 22 a thoroughly dishonest and misleading document, could go
- 23 out to the market on your watch as head of marketing,
- 24 Mr Evans?
- 25 A. Only by relying on other people to give information, and

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

3

4

5

6

7

1 decisions have been made and things have been moved on 2 which has led to us promoting the system this way. 3 Q. Is it really right that you would have delegated to 4 other people and not checked their work when identifying 5 the build-up of the test, given the very clear warning 6 or disclaimer or caveat we see on the page before? 7 A. Based on what people were giving -- the information 8 people were giving me and what decisions seemed to have 9 been made and things that seemed to have been done, 10 that -- based on what I was launching and how we 11 launched the product, that is what I was led to believe 12 we were marketing. 13 Q. You were led to believe you were marketing? Who led you 14 to believe that? 15 A. That was -- well, the business. There was no one coming 16 to me saying, "This is -- we shouldn't be launching 17 this", et cetera. 18 Q. You are not suggesting, are you, that Mr Roper or 19 anybody else involved in the RS5000 project deliberately 20 kept the presence of the 6 millimetres of magnesium 21 oxide and the 8 millimetres of Marley Eternit from you 22 as a secret, are you? 23 A. No, because it's been shared --24 Q. Yes. 25 A. -- in the business, and --1 Q. Yes. 2 I'm going to suggest to you that this document, in 3 the respects I've identified, is a dishonest and Δ deliberately misleading document, and you knew it was. 5 A. All I can say is when we were launching the product to 6 the sales team and the marketing material was going, 7 there was not anything in me that was thinking that what 8 we were doing was taking that approach. 9 Q. And you had to market it without those references in 10 there because you knew very well at the time, as would 11 have been obvious, not only that the test had included 12 those two features, but telling the market that those 13 two features were there would have meant that you had 14 tested a thoroughly unrepresentative system. 15 A. Yes, there seems to be decisions made to remove the --16 those two aspects. 17 Q. Yes, and that the rationale for removing those two 18 aspects was because, if you had mentioned them, you 19 would have revealed to the market that you had tested 20 a system which was thoroughly unrepresentative of 21 systems being used in the market. 22 A. Yes. 23 Q. Yes, thank you.

On that page, you can see that it says, under the heading "Building above 18 metres" -- I don't think you can quite see the heading there. It's under the "Introduction", in fact, but it says in the fourth paragraph:

"Celotex RS5000 is uniquely positioned to help meet these goals. Celotex RS5000 is a premium performance PIR solution for use in rainscreen cladding applications and suitable for use in building above 18 metres in height."

Again, do you accept that that sentence I've just read to you, particularly with the conclusion at the end of it, "and suitable for use in building above 18 metres in height", is thoroughly misleading, for the reasons we discussed before?

A. This is an example of where we were looking to put the system in as part of the material. So we would have introductory information, but then the document would also take you to the system that had been tested.

Q. If we go to page 5 {CEL00000013/5}, please, it says inthe top left -hand corner:

22 "Celotex RS5000 has been successfully tested to 23 BS 8414-2:2005 ..."

Then under the heading "Building above 18 metres" in bold, it says the same thing. Then it says, six lines

63

down or so, after the reference in brackets to BS 8414-2:2005:

"... meets the criteria set out in BR 135 and is therefore acceptable for use in buildings above 18 metres in height."

Same point again, Mr Evans: thoroughly misleading, for the reasons we discussed before; do you accept that?

8 A. Those words have -- are being replicated in multiple9 documents.

10 Q. Then on the right-hand side, again -- and it's the same 11 point -- it says under the italics , third paragraph 12 down:

"The fire performance and classification report for
Celotex RS5000 only relates to the components detailed
above. Any changes to the components listed will need
to be considered by the building designer."

Again, any ambiguity you see in that? It's pretty clear, isn't it?

 $19\,$ $\,$ A. Yes, that's what we're saying, yes.

 $2\,0\,$ Q. Yes, "only relates to the components detailed above".

Now, we can see the components detailed above if you go to the left -hand column at the bottom:

23 "The system tested to BS 8414-2:2005 was as 24 follows ..."

And there again is the six-item list. Again, it

64

25

62

Can we go to the specification guide,

{CEL00000013/3}. I think I can take this quite quickly.

24

- doesn't include the 6 millimetres of magnesium oxide,
- 2 does it?
- 3 A. No.
- 4 Q. And again, do you accept that, contrary to the
- 5 disclaimer given in this document, the classification
- 6 report didn't in fact cover the system as described
- 7 here?
- 8 A. No, it doesn't.
- 9 Q. Because this was not in fact the tested configuration,
- 10 was it?
- 11 A. No.
- $12\,$ Q. And, again, I would suggest to you that this is
- $13 \qquad \qquad \text{deliberately and dishonestly misleading and you knew it.} \\$
- 14 A. I didn't know -- the information that I had and how I've
- $15 \hspace{1cm} \text{remembered it or recalled } \hspace{0.1cm} \text{it , } \hspace{0.1cm} I \hspace{0.1cm} \text{wouldn't have sent that} \\$
- product to market with -- doing that.
- 17 Q. Well, you would have, I suggest, because you did. You
- don't agree?
- 19 A. I just think the information that I was given has been
- $20\,$ kind of removed from ... I wasn't thinking about those
- when I was looking and signing these documents off.
- 22 Q. Again, no reference here to the 8-millimetre
- 23 Marley Eternit Natura board there, is there?
- 24 A. No.
- 25 Q. So, again, a deliberately dishonest and misleading

- 1 omission from that list?
- $2\,$ $\,$ A. Yes, it's not representing the system that was tested.
- 3 Q. No, and I'm going to be firm here: that was a deliberate
- ${\it 4} \qquad \quad {\it decision \ dishonestly \ to \ make that omission and you knew}$
- 5 it.
- 6 A. There seems to be decisions being made and I'm aware of
- 7 the information, but I haven't put that information
- 8 together when looking at these documents.
- $9\,$ Q. Do you remember I showed you the test report, at least
- 10 in the first draft version, which showed two orange
- 11 layers?
- 12 A. Yes.
- 13 Q. Were you never curious to know what they were?
- 14 A. No, I don't think I was.
- 15 Q. Did you never say to Jon Roper or Jamie Hayes, who was
- at the test, or who knew about the test at any rate,
- "Why are there two different colours on the May rig?"
- 18 A. No.
- 19 Q. You were that incurious; is that right?
- $20\,$ $\,$ A. $\,$ I don't $\,$ really $\,$ remember spending that much time on the
- document or looking at that.
- $22\,$ $\,$ Q. Even though it was the subject of a discussion that led
- 23 to a whiteboard, which we've seen, on 19 June, when
- 24 Jon Roper received that for the first time and brought
- 25 it for discussion with you, you don't remember noticing

- 1 that there were two different colours on the rig?
- 2 A. I don't remember, when we did the whiteboard
- annotations, looking at the test report at the same 4 time.
- 5 Q. Do you remember after 19 June but before 1 July, when
 - Mr Roper went back, to your knowledge, to the BRE,
- 7 looking at the test report?
- 8 A. No.

6

- 9 Q. I'm having trouble understanding that, because this was
- 10 the second attempt at a test for which you had had to
- get a fresh budget in relation to an extremely important
- $12 \hspace{1cm} \text{marketing strategy, breaking into a new market for the} \\$
- first time. Was this test report not of absolutely
- 14 critical importance to you?
- $15\,$ A. Yes, and I was relying on people -- other people in the
- $16 \qquad \qquad \text{business and in the team to support me in that} \, .$
- 17 Q. I'm sure you were, Mr Evans, but you were Mr Roper's
- line manager and you were head of marketing, and
- therefore you were responsible for this sphere of
- 20 activity within Celotex. Here comes a draft report in
- relation to a second test, having failed the first test,
- which I have to suggest to you would have been of
- 23 immense importance to you personally; no?
- $24\,$ A. It was important to me, but I don't -- as I say, I don't
- 25 know why, but I haven't studied that information in more

67

- detail.
- Q. Well, I'm suggesting to you that because of the
- $3 \hspace{10mm} \text{importance of the project, and because of your role, you} \\$
- 4 did study it carefully.
- 5 A. No, I didn't study it carefully.
- 6 Q. Well, that would have been a dereliction of your duties,
- 7 wouldn't it?
- $8\,$ $\,$ A. $\,$ I was relying on people within the project team to
- 9 support me.
- 10 Q. No, but you can't pass the buck to people in the project
- team to support you. Your role was to supervise
- 12 Mr Roper. He was a young graduate, fresh out of
- university in his first job, who you had given a big
- $14\,$ $\,$ $\,$ project, and you were his line manager; it would have
- $15 \qquad \quad \text{been a } \text{dereliction} \,, \,\, \text{an abandonment of your obligations} \,\,$
- 16 to Celotex, not to keep a very close eye on his work,
- but critically, not to read that report very closely.
- Do you not accept that?
- 19 A. No, I think there was other people in the business who
- would have read that report, and also the fact that
- anything that was coming in to me I was also feeding in
- 22 to other departments and in to senior management in

- 23 Celotex
- 24 Q. Why would senior management have had any greater
- interest in reading the test report than you?

- A. I didn't just mean the test report, I meant the project 2 generally.
- 3 Q. I'm talking about the test report specifically,
- 4 Mr Evans. Why would anybody in senior management have
- 5 had a greater interest in understanding every page of
- 6 that test report than you?
- 7 A. Senior management not on the test report, but on the
- 8 project as a whole. But on the test report I was
- 9 relying on other people in the project team to come to
- 10 me with their level of detail and knowledge, which was
- 11 above mine.
- 12 Q. I've got to suggest to you that this is not credible, is
- 13 it, Mr Evans? You were in charge of this project. This
- 14 was a vitally important test report, second time around,
- 15 for a vitally important marketing effort. You read that
- 16 document very thoroughly.
- 17 A. Which document, sorry?
- 18 Q. The test report.
- 19 A. I didn't read the test report thoroughly.
- 20 Q. So was this a one-off lapse from your duties as head of
- 21
- 22 A. No, I wouldn't say it was a lapse of duties. I was --
- 23 there would have been people that I trusted in the team
- 24 to be taking that level of technical detail, which
- 25 I didn't have, and be responsible for that.

- 1 Q. Right.
- 2. Can we look at the datasheet for RS5000,
- 3 {CEL00007961}, please.
- 4 Now, this is the shortest, I think -- is this
- 5 right? -- of the documents comprising the suite of
 - marketing documents, because it only runs to three
- 7 pages.

6

- 8 A. Yes, a product datasheet would have generally been two
- 9 to three pages.
- 10 Q. Yes. On every one of the three pages there is a pink
- 11 banner running across the top, which says in it:
- 12 "Celotex RS5000.
- 13 "Premium Rainscreen Cladding Board.
- 14 "(suitable for buildings above 18 metres in
- 15 height)."
- 16 Just to make that good, that's page 1, let me show 17 you the top of page 2, there it is again, and the top of
- 18 page 3, there it is again. You see that.
- 19 Now, it doesn't matter which we pick, but there is 20
- no qualification, is there, of that three times repeated
- 21 statement; it's just stated baldly "suitable for
- 22 buildings above 18 metres in height".
- 23 Now, that was simply misleading, wasn't it, as
- 2.4 a standalone statement?
- 25 A. It wasn't intended to be used as a standalone statement

- 1 on those documents, because the documents were making 2 reference to the tested system.
- 3 Q. Yes, we will see that, but I am just asking you about 4
- the statement itself, and really what I'm addressing 5 with you is the presentation of this document.
- 6 On each of the three pages, you get a standalone 7 statement "suitable for buildings above 18 metres in
- 8 height". Now, as a statement, that was inaccurate,
- 9 wasn't it?
- 10 A. As a standalone statement, yes, but it's being -- the
- 11 intention there, and what we had discussed as
- 12 a business, was about making sure that that was
- 13 supported by reference to the tested system.
- 14 What was the purpose of putting those words in the
- 15 banner at the top of the page, on every page?
- 16 A. I believe there was a request, and having reviewed again
- 17 my bundle of documents, that there was a request from
- 18 Craig Chambers to have an 18-metre -- to have 18
- 19 a little bit more prominent on things. I'm not saying
- 20 that was the reason for that, but I know there was
- 21 an email that I've seen. So maybe it was to do with
- 22 having "above 18 metres" in a little bit more detail,
- 23 rather than it just being positioned as a rainscreen
- 24 cladding board.
- 25 There isn't even an indication in any of these three

71

- 1 pages that you should look to page 3 and find a caveat
- 2 or disclaimer, is there?
- 3 A. No, there's not.
- 4 Q. And why is that?
- 5 A. Part of the reason for that is that we would have been
- 6 marketing this to people that -- to an audience of
- 7 people that we felt would have read the documents, been
- 8 knowledgeable about this particular application, and
- 9 want to read more information, rather than needing to
- 10 take them there. We deliberately looked to keep the
- 11 amount of information that we had in these documents
- 12 small. We didn't want to create mass pages of
- 13 documents. We wanted to have three or four pages, why 14 the compliance guide was only three or four pages and
- 15 the rainscreen cladding guide and this; it was about
- 16 having a short number of pages.
- 17 Q. Was the real purpose here on each page to draw the eye 18 of the reader to the message you wanted to get across,
- 19 "suitable for buildings above 18 metres in height", but
- 20 not to draw the eye to the disclaimer, the small print,
- 21 if you like?
- 22 No, that was never a discussion.
- 23 Well, then, can you explain why there is a bald
- 24 statement on each of these three pages which is
- 25 inaccurate and which doesn't draw the reader's eye to

70

5

- 1 the disclaimer on page 3?
- $2\,$ $\,$ A. No, I can't explain why we've put it on all three pages
- 3 rather than the first . I can only assume it was because
- 4 there was a discussion around having the 18 metres
- 5 message a little bit more prominent.
- 6 Q. You say a little bit more prominent; it's a lot more prominent, isn't it? It's the message.
- 8 A. I think, again, going back to the market that we were
- 9 launching this into, we wouldn't have seen that at the
- $10 \hspace{1cm} \text{time as being a long document for people to read or to} \\$
- actually understand the system.
- $12\,$ Q. No, indeed. People don't have time, they want a short
- $13 \hspace{1cm} \hbox{document they can understand, and anybody picking this} \\$
 - up would have looked at it and thought: Celotex RS5000
- 15 is suitable for buildings above 18 metres in height.
- 16 A. No, that wasn't the plan, and I know that I made
- $17\,$ a specific -- because, again, I've seen an email, where
- I was making sure that we weren't using "above
- 19 18 metres" as a standalone statement in too many places.
- $20\,$ Q. Well, you say that wasn't the plan; before we get to the
- 21 plan, that was the effect.

14

- 22 A. That wasn't ever our intention. That wasn't
- a discussion that we were going to have, to take people
- $24\,$ $\,$ in that direction . We wanted people to have information
- 25 because we felt that our main competitor in that market

73

- wasn't making this as prominent, and that we could make
- 2 it more prominent across the majority of the information
- 3 that we provided.
- 4 Q. But not all of it, because if we go to page 1 on the
- $\,\,\,$ $\,\,$ introduction section, in the main body of the paragraph
 - there, it says -- and this is now becoming familiar,
- 7 Mr Evans, but I make no apology for it -- in the
- 8 last-but-one line, after the reference to meeting the
- 9 test, it says:

6

- 10 "... and therefore is acceptable for use in
- 11 buildings above 18 metres in height."
- That's repeated in the second bullet point down,
- $13\,$ just a bit lower down the page, if you look at that,
- 14 isn't it?
- Again, do you accept that this wording is
- 16 potentially thoroughly misleading?
- 17 A. What we were trying to do with the marketing materials
- is we were using those words, and it was about making
- sure that we then gave the information on the system or
- $20\,$ where people could go and get information -- more
- 21 information on that.
- 22 Q. Then on page 3 {CEL00007961/3} it sets out the system
- tested, and again it says, as you can see underneath the
- 24 list:
- 25 "The fire performance and classification report

- 1 issued only relates to the components detailed above.
- $2 \hspace{1cm} \hbox{Any changes to the components listed will need to be} \\$
- 3 considered by the building designer."
 - Then above that is the system tested.
 - Why is that on page 3 and not on page 1?
- 6 A. I don't know. I think generally we had a template of application and product datasheet, so maybe it's just
- 8 followed that process and it's just gone into that are
- followed that process and it's just gone into that area.
- 9 I don't think there was a deliberate decision to put it 10 on the last page.
- 11 Q. On the last page we see, just above those words, "The
- system tested was as follows", and again we have the six
- stated ingredients of the system, but again, no mention
- of the 6-millimetre magnesium oxide panels or any
- reference to the 8-millimetre Marley Eternit panels
- either.
- 17 A. No.
- $18\,$ Q. Again, even had the scrupulously careful designer read
- $19 \hspace{1.5cm} \text{the small print here on page 3, the small print itself} \\$
- was misleading because of those omissions, wasn't it?
- $21\,$ $\,$ A. Based on what was tested, then yes.
- $22\,$ $\,$ Q. $\,$ And it was not an accident, quite deliberate, and
- a dishonest document as a result; do you accept that?
- 24~ A. From my side, when I launched -- when we launched the
- 25 product, I wasn't looking at that being dishonest of

75

- 1 how -- what's happened. Between the second test and
- $2\,$ $\,$ this happening, that information has managed to happen,
- 3 and it wasn't my intention to have a misleading
- document, but that's how it's come about.
- $5\,$ $\,$ Q. The only explanation for you allowing what are now three
- 6 misleading documents sent out to the market on your
- 7 watch is that you yourself knew and approved these
- 8 dishonest and misleading statements, Mr Evans; do you
- 9 not accept that?
- 10 A. I would have approved the documents based on the
- $11 \hspace{1cm} knowledge \hspace{0.1cm} that \hspace{0.1cm} I \hspace{0.1cm} had \hspace{0.1cm} when \hspace{0.1cm} I \hspace{0.1cm} was \hspace{0.1cm} doing \hspace{0.1cm} that \hspace{0.1cm} and \hspace{0.1cm}$
- I don't -- that knowledge didn't include -- I hadn't
- $13\,$ gone back to include that knowledge that I had, and that
- wasn't deliberate at all, no.
- 15 Q. Can we go to {CEL00000407}, please. This is a press
- release prepared for the launch of Celotex RS5000 that
- Mr Roper didn't, I think, prepare, but certainly told us he approved.
- Were you involved in preparing this document?
- 20 A. I can't recall whether I was involved or not.
- Q. Did you see this document before RS5000 was launched?
- A. I saw a lot of documents, so I can't say yes, I did, but
 I would imagine I did see this document.
- $24\,$ $\,$ Q. $\,$ Yes. $\,$ As head of marketing, and given that this $\,$ was the
- 25 launch of a new product entering an important market for

- 1 the first time, can we take it that you would have done, 2 even though you can't recall it specifically?
- 3 A. I think you can take it that I would have read it, yes.
- 4 Q. Thank you.

8

9

5 Let's look at the first paragraph. It says in the 6 second line:

"... a new premium performance PIR solution specifically designed for rainscreen cladding applications ."

10 That was untrue, wasn't it, because RS5000 was 11 simply FR5000 re-branded and launched? It wasn't 12 specifically designed at all, was it?

13 A. The products, no, but putting it into the testing 14 process that we put it through would I imagine be the 15 background as to why we used those words.

16 Q. Well, on the face of the document, do you accept -- and 17 you read it -- that in fact it's telling the reader that 18 RS5000 isn't an old product re-branded and relaunched 19 with a test attached to it, but specifically designed for rainscreen cladding applications? That's not true,

20 21

22 A. No, there was no change to the physical product. 23 Q. In the next paragraph it says:

24 "The latest addition to the '5000' series product 25 range ..."

77

1 Again, that suggests that it's a new product being 2 added to your existing range, doesn't it?

3 A. Yes, and from our side, because we were calling it 4 RS5000 and it was -- we were marketing that into 5 a rainscreen cladding market, that's why we would have

6 said that it was a new addition, the latest addition.

7 Q. That's not true though, is it? It was the old FR5000 8 re-branded, wasn't it?

9 A. Yes, from a technical perspective, but from our side we 10 were looking at getting it into a new application, which 11 is why we would have said it was a new product, because

12 it meant that we went from having however many 5000

13 products we had to having one more.

14 Q. Indeed, and you, for marketing reasons, were presenting 15 something as new because that was better from

16 a marketing perspective, whereas in fact it was old.

17 A. Yeah, that wasn't the thinking at the time. The 18 thinking at the time was about broadening the 5000 range

19 in line with the company strategy to have solutions for

20 more applications.

21 Q. Why not simply say, "This is FR5000, which we have had 22 for many years, which has now passed the BR 135 criteria

23 and a BS 8414 test"? Why not say that?

24 We did talk about whether we wanted to do that, and 25 there was some reasons why we didn't. I can't

1 necessarily remember all of them, but I can remember 2 a couple.

3 FR5000 was already in the market, and was already 4 being stocked in distribution, and what we wanted to 5 avoid is people going in to a distribution outlet and 6 ordering FR5000 and putting it into an application which 7 wasn't in line with the way that our system was being 8 marketed.

9 Q. No. I mean, was the thinking that you had to present 10 RS5000 as a new product in order properly to attack

11 Kingspan's K15 market share?

12 No, I don't think so. I think if the plan was to attack 13 Kingspan's market share, we could have done what was 14 suggested there, which is just to say that FR5000 can

15 now be used above 18 metres.

16 It wouldn't have had the same impact, though, would it? 0.

17 A. I can't say whether it would or it wouldn't, but I don't 18 think, from the market that I knew, that that would have

19 been a problem, people knowing that FR5000 could then be

20 used -- FR5000 was multipurpose. It could be used in 21 pitched roofs, in floors.

22 Q. On this point finally, the top of page 2 of this 23 document {CEL00000407/2}, please, again it says:

24 "With the addition of Celotex RS5000 to

25 an unrivalled PIR insulation product range, Celotex

79

1 products achieve better U-values with thinner 2 solutions."

3 Again, that is suggesting -- in fact, it's stating 4 in terms -- that RS5000 is an addition to an existing 5 product range, but it wasn't, was it?

6 A. When comparing the two products, no, but in terms of 7 putting the product into a new application, then that's 8 the thinking behind what we were doing there.

9 Q. Now, if we can go back a page, please, to the second 10 paragraph {CEL00000407/1}, we can see there that it 11 says, in the second part of it, after the reference to 12 BR 135:

13 "... and therefore is acceptable for use in 14 buildings above 18 metres in height."

15 Again, that was misleading as a statement, wasn't 16

17 As a standalone statement, then yes.

18 O. Yes. Well, it is a standalone statement --

19 A.

20 O. -- isn't it, here?

it?

21 Α.

22 Q. And it was misleading, therefore, wasn't it?

23 It's made its way into this press release without the 24 substantiation of the system.

25 Q. Yes, and it makes the press release misleading, doesn't

1 1 it? She was the marketing communications manager at the 2 2 (Pause) time, wasn't she, or one of them? 3 3 A. It's misleading to say that the product could be used in A. Bex was our only marketing communications manager. She 4 4 buildings above 18 metres in height, but again, that left the business in early August, so ... 5 wasn't our intention. It was more about telling the 5 Early August 2014? 6 6 market with a press release what we had and then looking A. 2014. She would have been in her notice period at this 7 7 for people to get more information, go to the website, point, ves. 8 8 et cetera. Q. Now, we see this email to you on 7 July, and she says in 9 9 Q. I suggest to you that, yet again, this is I think big red bold letters: 10 10 perhaps the fifth time we've seen that mantra, it was "This needs to include BS 8414 [and] BR135 can you 11 not only misleading, but deliberately and dishonestly 11 add in to the clause as not sure where it should go. 12 so, and you knew that. 12 "Thanks." 13 13 A. Again, that wasn't what -- that wasn't what I was Then she sets it out: 14 14 "Specification Clause. looking to do when I was launching the material, that 15 15 "Celotex RS5000." wasn't on my mind. 16 16 Q. You were not involved in the drafting here. Were you Can you see that? 17 involved in the drafting of the specification guide and 17 A. Yes. 18 the compliance guide and the datasheet, or any of those, 18 Q. It says what it says there: 19 19 that we have looked at? "The rainscreen cladding insulation shall be 20 20 A. No, generally, that would have been -- the role of that Celotex RS5000 ..." 21 21 would have been product management with technical input If we look halfway through the third line, it's 22 22 a bit difficult to tell, but you can just about see it, as well. 23 23 Q. As head of marketing, you would have hardly let those there's some additional text which says: 24 24 into the marketplace unless you had reviewed them and "RS5000 has been successfully tested to BS 8414-2 25 25 were happy with them, though, would you? and meets the performance criteria of BR 135." 81 83 1 1 A. I would have reviewed them, read them, and based on the If we look at the top of that page, we can see that 2 2 information that I had in my mind at the time, I would you have responded to her on the same day, and put: 3 3 have said they were okay, yes. We did also seek "As below. Again, JR can confirm this is 4 Δ guidance as well from Saint-Gobain. technically accurate. I have taken the wording from the 5 Q. I was going to ask you that. How high up did approval 5 Technical Bulletin that is at draft stage." 6 6 of these documents go within Saint-Gobain? So you had inserted -- is this right? -- the blue 7 7 A. Sorry, I'm ... because of privilege, I'm not sure how to words there; yes? 8 8 answer that. A. There does look to be a difference in colour in that, 9 9 and I have said "As below", so I would imagine I have Q. Well, I'm not interested in asking you anything about 10 legal advice. I just want to know at an executive level 10 copied -- cut my wording into that for Jon to approve. 11 11 who within Saint-Gobain approved the marketing material Q. Well, for Jon to approve, you say that, for Jon to 12 we have been looking at? 12 confirm that it's technically accurate, but you were 13 13 putting the wording in, subject to that; yes? A. The materials, and I don't know how many of them, but 14 they went to the Saint-Gobain legal team. 14 A. 15 15 Q. Did they go to anybody on the executive side of Q. You refer to a technical bulletin that is at draft 16 16 Saint-Gobain's business? stage; what was that document? 17 A. I don't know. 17 A. I don't recall whether -- I don't think we'd launched 18 O. Right. 18 a technical bulletin. 19 19 A. I don't know who -- I know the people who I think looked Q. Right. 20 at the documents or who managed that for us, but I don't 20 A. Technical bulletin sounds like -- we used to do some 21 know what roles they had within Saint-Gobain at board 21 internal documents into -- communications into parts of 22 22 the business, I can't remember if they were called 23 Q. Now, can I go to {CEL00002108}, please, and I would like 23 technical bulletins, but it's not something I remember 24 to go to the bottom of the page, where you can see 24 as being a marketing -- a market-facing document.

82 84

25

Q. I see.

an email from Bex Hartlebury.

1 Can we go to {CEL00009674}, please. This is another 1 2 2 email from Ms Hartlebury to you a few days later at the 3 3 bottom of the page, and the title or subject is "RS5000 Press Lunch". She is looking to book a restaurant in 4 4 5 London called the Duck and Waffle. You can see that. 5 Α. 6 6 You reply on 15 July 2014 at the top of the page, 7 7 and you say in the second paragraph: 8 8 "Craig's view was that the above 18m part was not A. I don't remember it going into that much -- that much 9 9 always prominent enough and we can look at this on the 10 10 spec guide, technical guide and datasheets. We always 11 need to be careful how we validate the +18m message. We 11 12 can't have it in too many places as a stand alone 12 13 13 statement. I'd be concerned we would need to get too 14 14 techy with the press media and end up causing 15 15 confusion." press launch. 16 Now, by "validate" there, did you mean caveat or 16 17 qualify? 17 18 A. Yes, this is the point I was making a few minutes ago, 18 19 19

- where we needed to make sure that we validated/caveated the message.
- 21 Q. Yes. So we can take it from this that, at the time, not 22 only were you involved in the drafting of these 23 documents, but were clearly concerned that you shouldn't 24 have that statement, "above 18 metres", in too many

25 places as a standalone statement; that's what you

85

2 A. Yes. 3 Q. -- communicating to --4 A. Yes. 5 That was because, unless it was qualified, it would have 6 the potential to mislead people into thinking that 7 RS5000 was generally acceptable for use in buildings 8 above 18 metres, as opposed to use only in the system as

10

20

1

9

were --

tested.

11 Q. Why didn't you tell Bex Hartlebury that, as a standalone 12 statement, it shouldn't be anywhere, rather than in "not 13 too many places"?

14 (Pause)

15 A. I think at the time there was materials that would only 16 have -- you know, wouldn't have the ability to have all 17 of that technical information, so that would be why.

18 Q. Was Celotex trying, were you trying, Mr Chambers, from 19 what you could tell, trying to tread the finest of lines 20 between the big sales banner, "suitable for use above

21 18 metres", and the small print?

22 A. No.

23 Q. The qualification.

24 A. No.

25 Q. It looks as if you were, because you were saying, "We can't have it in too many places as a stand alone statement", so that would require a judgement to be made, wouldn't it, about how often you made the

standalone statement and where?

Q. Therefore that judgement was a fine one, wasn't it? It was a matter of gauging it, working out the risk.

level of thought. I think it was just making sure -what I'm trying to do there is communicate a comment that's come to me from Craig, and giving Bex an understanding that we need to be careful about having "above 18 metres" as a general message, which I think is

linked to the email below, which is talking about the

Q. Let's move on in time, then, to January 2015, {CEL00003457}, please. This is an email in which, at the bottom of page 1, we can see, if we go to it, you email Debbie Berger, forwarding her a document, and the document, if you go over the page {CEL00003457/2}, is a request that Jonathan Roome had received in a phone call he had had on 7 January with one of the façade engineers from Buro Happold. He says to Debbie Berger, who was by then the product manager in place of

87

1 "I have just come off the phone with one of the 2 Façade Engineers from Buro Happold.

"She would like us to comment on the suitability of the use of RS5000 in the environment above 18m.

"Please can you consider and get an answer back to me by the end of the week."

If we go up to page 1 {CEL00003457/1}, you ask Ms Berger -- she sends this to you:

"What is your view on this system?"

10 Do you see that?

Jon Roper:

11 A. Yes.

20

21

22

23

24

25

3

4

5

6

7

8

9

14

15

16

17

18

19

20

21

22

23

24

25

12 If we go to the email at the top of the page, her email 13 to you on 13 January:

"Hi Paul

"I spoke briefly to Jonathan about this at Conference. I mentioned the drawing is very different to the build-up of our system test and the design is [as] such unsuitable for RS5000.

"Ultimately we are not in a position to give compliance. All we can do is refer people to the details of our compliance guide and if required our copy of BR135 which details our system.

"They should discuss with Building Control their design before ordering materials or work starts on site.

"Those are my thoughts.

1 "Would you like a set of words that gives that 1 performs to the same level of specification and 2 2 message in a friendly way?" performance as this. Having looked at the datasheet for 3 3 Now, the approach that she's taking in that email this panel the Fire Resistance is quoted as A2-s1,d0 4 4 there is or was clearly correct, wasn't it? when tested in accordance with EN13501-1. Would be 5 A. Yes. 5 worth validating the specification /performance of the 6 6 Q. You didn't go back to her, did you, and tell her that Marley rainscreen panel." 7 7 RS5000 could be used in a much wider range of Now, you must have realised when telling 8 8 applications than the system itself? Richard John that that that wasn't correct. When I say 9 9 A. No. 10 10 Q. And that's because you knew it couldn't be? level of specification and performance. That wasn't 11 A. Unless that decision was made by somebody else who had 11 right, was it? 12 reviewed the system in line with their own building. 12 No, I think what I'm doing there is saying to Jonno that 13 13 Q. There were no tenable arguments you could come up with if he wants to have a conversation with -- you know, in favour of using RS5000 in a wider application than 14 14 this is the information, if he wants to -- if he wants 15 15 the system as tested, particularly where you were SIG or their client to have a conversation, he needs to 16 16 dealing with specialist façade engineers such as be doing that with somebody else, but I'm making him 17 Buro Happold. 17 aware of the performance of the Marley panel. 18 18 Q. Well, what you say in the second sentence there is: A. No. 19 19 If we go to {CEL00003607}. This is an email from you to "... the panel does not need to be specifically 20 20 Richard John on 31 March 2015. You can see that now on 21 the screen. "RS5000" is the subject. "Hi Jonno", is 21 level of specification and performance as this." your greeting. It relates to -- I don't think I need to 22 22 But that's not correct, is it, because that's not 23 23 show you the whole of the email string behind it -what BR 135 says, and indeed it's not what your 24 24 a rainscreen opportunity in Scotland. Do you remember marketing literature says? 25 25 that? No, this is an email I don't recall seeing and is 89 91 1 A. No, I don't remember this email. different to the approach that I've taken with other Q. Let's look at page 2 {CEL00003607/2} and see if we can 2 2. emails that I have seen. 3 3 trigger a recollection of what this was about. 4 Δ Richard John's query? If you look at page 2, you can see that there's 5 an email on 26 March 2015 from Andrew Jennings at SIG to 5 I don't know. 6 6 Richard John, which has a query in red: Q. I want to ask you some questions about the full test 7 7 "When they say it was tested with 12mm Fibre Cement report. 8 8 Panels are they talking about something like an Eternit Can we go to {CEL00003335}, please. This is 9 9 Rainscreen Panel? And is this the only type of panel an email from you to Ian Lathbury on 3 October 2014 in 10 that the board is certified for use with?" 10 relation to a Keepmoat project. You're responding to 11 11 That question gets passed to you by Richard John, as a question that had come up from Luke Cresswell at 12 we can see from the top of page 2. Do you see that? 12 Simco, where I think he had wanted the complete test 13 13 report, and you say to him: A. Yes. 14 Q. "Paul 14 "Hi Ian, 15 15 "Please see below question ..." "As discussed, can you please confirm the exact 16 16 If we go back to page 1 {CEL00003607/1}, you reply information they are after and we can look to assist. 17 to him. 17

"With regard to your question below, the compliance guide we have put together for RS5000 states (page 4)

"Hi Ionno.

question of 27 March on 31 March, and you say:

that the external cladding panel is 12mm Marley Eternit Natura panel. Whilst the panel does not need to be

So that's the context, and you're answering his

specifically a Marley panel, it must be one that

"that", you say it must be one that performs to the same

a Marley panel, it must be one that performs to the same

Q. Well, why did you take that approach when responding to

We are not able to issue the full test report as this is 18 proprietary and confidential information to Celotex and 19 the RS5000 launch."

20 Why were you not prepared to show Mr Cresswell of 21 Simco the full report?

22 A. The approach to test reports in Celotex from the day 23 I joined was always not to issue test reports. So it's 24 a policy that the company had, which is why I've said 25 for this that it's not to be issued.

92

18

19

20

21

22

23

24

- Q. Was this something to do with any reluctance connected 2 to the presence of figure 18 and the fact that magnesium
- 3 oxide could be seen there?
- 4 A. No, I wouldn't have been thinking about that at the 5 time. As I said, this is all about a behaviour that's
- 6 been embedded and regardless of the -- what the test
- 7 report was, Celotex was always reluctant to send out
- 8
- details of test reports to the market.
- 9 Q. What was specifically proprietary and confidential about
- 10 the RS5000 BRE test report?
- 11 A. Again, I don't think I would have been thinking about
- 12 the specific content of the test report; it was just
- a request for the full test report, which would always 13
- 14 be met with a no.
- 15 Q. Did you ask anybody higher up the management chain about
- 16 whether or not on this occasion you might be able to let
- 17 the person asking for the test report see it, perhaps
- 18 under a non-disclosure agreement? Did you pursue it?
- 19 A. I don't remember.
- 20 Q. Was this just a knee-jerk reaction based on habit?
- 21 A. I wouldn't say it was knee jerk, but it was certainly
- 22 based out of a policy that the company had, which I had
- 23 learnt after I joined, which was about test reports
- 24 being sent out to clients.
- 25 Q. Right. So this was, as I say, an automatic reaction,

- 1 a blanket reaction, if you don't like knee-jerk; you
- 2 never send out full test reports as a matter of
- 3 practice?
- 4 A. I wouldn't say we never did, but I don't believe our
- 5 policy was that we would do it.
- 6 Q. If it wasn't a policy with that exception, on what
- 7 occasions would you exceptionally send a test report to
- 8 people who asked for it?
- 9 A. For example, we would have sent them to people when
- 10 there was desktop studies done for RS5000.
- 11 Q. By this time, October 2014, was there a desktop study
- 12 done for RS5000?
- 13 A. I don't know.
- 14 Q. {CEL00003784}, please. This is an email from you to
- 15 Richard John on 15 August 2014, and this is the second
- 16 email down, where you send him, although we can't see it
- 17 from the email, a copy of the full BRE test report. You 18 say:
- 19 "As discussed. Strictly for your eyes only
- 20 please ...!"
- 21 And he responds with an X, which I take it is simply 22 an acknowledgement.
- 23 You say "As discussed"; can you remember what you 2.4 discussed with Mr John?
- 25 A. No, not based on that email or that timing.

- 1 Q. Given that Mr John was part of Celotex, why was it
- 2 strictly for his eyes only?
- 3 A. I don't know. Without knowing the background or the 4 context as to why we sent that out, I don't know.
- 5 Q. Can we look at Knauf and the prospective partnership 6 with them next, please, as a topic.
- 7 {CEL00003360/3}, please. This is an email from
- 8 Paul Reid to Debbie Berger on 24 October 2014. It 's
- 9 quite a long string. I'm going to start with page 3.
- 11 Debbie Berger, 24 October 2014, and we can see you were

This is an email, as I say, from Paul Reid to

- 12 copied in on that.
- 13 Α.

10

19

22

2

6

7

- 14 It related to "Knauf & Celotex - New Products". It was O. 15 about carrying out a BS 8414 test on their own system,
- 16 and she was being asked to advise on the difference
- 17 between that and the tested system and the possibility
- 18 of it passing.
 - Do you remember that background?
- 20 A. I remember Knauf speaking to us about a potential supply
- 21 of our product for them to have a PIR solution in their
 - own above-18-metre system.
- 23 Q. Yes. If you go to the foot of page 2 {CEL00003360/2},
- 24 we will see the email that Debbie Berger sends to you --
- 25 or maybe it's Paul Reid. Perhaps you can tell me.

95

- 1 I think it's Paul Reid, in fact, but she says:
 - "Hi Paul,
- 3 "To confirm the drawing attached is not [too]
- 4 different from the system we tested. Points to discuss 5 would be ..."
 - Then if we go to page 3 {CEL00003360/3}, she sets
 - out her view, and you can see it there.
- 8 Then in the second paragraph, under all the bullet 9
- points, she says: 10 "These are my initial observations if you like. The
- 11 harder question of whether this is suitable to be used 12 above 18m would need to discussed further perhaps with
- 13 Paul Evans."
- 14 Is that because you had been managing Jon Roper 15 through the 8414 test period and had a good
- 16 understanding of the above-18-metre requirements?
- 17 A. I think it's because Jon Roper left the marketing team
- 18 to go and join sales and Debbie joined, and Paul's given
- 19 that to Debbie in her role as taking over above-18-metre 20 market, and Debbie has defaulted to myself to become
- 21
- 22 Q. You respond on the same day. If we go to page 223 {CEL00003360/2}, you say:
- 24 "Debbie,
- 25 "Thanks for coming back quickly on this. My

94

1 understanding is that Knauf will perform their own 1 Q. Right. 2 2 BS8414 test to include RS5000 but it was useful to get Then you respond to her, if we go to the email at 3 sight of their planned system so we can provide guidance 3 the top of page 1 {CEL00003360/1}, please. You say in 4 4 on how this compares to how we tested." the second paragraph there: 5 You see that? 5 "Subject to all of this detail being in the summary 6 6 A. Yes. report we have provided for projects before then we can 7 7 O. Then she responds to you at the bottom of page 1 just wait and follow this detail up with any other 8 8 {CEL00003360/1} and over to page 2 on 25 October 2014. meetings. I have not met with Knauf on this. Just 9 9 We can see the email at the bottom of page 1 timed at Paul R and Jonathan Roome a couple of weeks ago for 10 10 11.13: a kick off meeting." 11 11 You must have realised that the summary report would "I understand Paul's question now. 12 "There are other details which I've not fed back to 12 not have contained any detail about the 6-millimetre 13 13 Paul regarding our Pass for RS5000. I wasn't sure how magnesium oxide or the 8-millimetre Marley Eternit 14 14 much detail to go into but design considerations boards, because it wasn't in the full classification 15 15 included orientation of the board, the base board below report or indeed in the full test report? 16 16 the cladding that separates the fire chamber from the A. Again, that detail isn't in my mind when I'm talking 17 structure and also the thickness of the A2 cladding, we 17 about this to Debbie. 18 used a 12mm board." 18 Q. Can we move on to a different topic: LABC certificates. 19 19 Then she goes on, over the page at page 2 Do you remember that LABC gave a first approval 20 20 {CEL00003360/2}: certificate, a drawing registration document, in 21 "The idea behind these little design tweaks was to 21 August 2014, very shortly after launch? 22 22 delay the fire entering the cavity and contacting RS5000 A. I believe we got an LABC certificate, yes, in or around 23 23 for as along as possible. It's thought the design 24 24 contributed to the flames taking 20mins of the 30 min Q. And Mr Roper was initially leading on that initiative, 25 25 test to enter the cavity and contact Celotex thus wasn't he, I think? 99 1 minimising fire propagation." 1 A. I believe so. 2 2 Q. And you were his line manager and therefore knew all Now, you, of course, I think, were already aware of 3 3 that, weren't you? You were already aware of those 4 Δ A. I knew we were getting an LABC approval; whether I knew little design tweaks that she's referred to. 5 A. Yeah, I don't recall at the time linking what Debbie was 5 all about it, I don't know. 6 6 Q. Right. You were aware of what he was doing, though, in saying to anything pre-launch or during the testing 7 7 process, but that is what she seems to be saying there, relation to obtaining the LABC certificate, I think, 8 8 weren't you? 9 9 Q. Well, the little design tweaks she's identifying, A. I was aware he was getting an LABC, yes. 10 thickening the boards for example, were tweaks that you 10 Q. Let's look at {CEL00001017}. This is an email from 11 11 were aware of Jon Roper, if we look at the foot of the page, dated 12 A. They were tweaks that I had been -- I had seen slides, 12 29 August 2014, to all the sales teams and marketing and 13 13 et cetera, but I wouldn't have been thinking about that tech department: 14 when I was looking at this email. 14 "LABC Registered Detail Approval - Celotex RS5000.

 $15 \quad \text{Q.} \quad \text{Now, one of those little } \quad \text{tweaks which she doesn't refer}$

to, of course, is the existence of the 6-millimetremagnesium oxide under an 8-millimetre Marley Eternit

magnesium oxide under an 8-millimetre Marley Eternit board, which she doesn't identify .

19 Was that one of the details the

Was that one of the details that she knew about but hadn't fed back to Paul Reid, do you know?

21 A. I don't know.

Q. Did you know that she wasn't aware of that herself, orwhether she was by that time?

A. I don't know whether Debbie would have been aware of the
 testing process that Celotex had been through.

t had been through. 25 valuable to Celotex, and particularly its ability to

15

16

17

18

19

20

21

22

23

24

A. Yes.

Q. You say:

"All,

"Please find attached our LABC registered detail

He sent those around, and then if you look at the

Were you pleased because having LABC approval was

certificates for Celotex RS5000."

"Outstanding. Well done.

"Now just the NHBC please!!"

top of page 1, you can see that you respond.

1		market RS5000?	1		"Celotex RS5000 has successfully tested to BS 8414:2
2	A.	From memory, and from what I understood of the project,	2		2005, meets the criteria set out in BR 135"
3		having an LABC certificate was, yes, important to have	3		Then we see again the now mantric words:
4		with the product.	4		" and therefore is acceptable for use in
5	Q.	If you look at the certificate, we can see what was	5		buildings with storeys above 18m in height (subject to
6		issued. {CEL00000009}, please. This is the LABC	6		the board being fixed to a non-combustible substrate)
7		registered details drawing and document list which was	7		alternative compliance to ADB."
8		issued. Under the first box you can see it says,	8		Now, that sentence there was misleading because it
9		"RS5000 PIR insulation board", and then there is a long $$	9		was suggesting that RS5000 was acceptable for use in
10		list of supporting documentation reference numbers. You	10		buildings with storeys above 18 metres in height with
11		see that? It includes the BRE Global test report number	11		only one qualification , and the qualification related
12		295255, issue 2, dated 11 August 2014, there at the	12		only to the board being fixed to a non-combustible
13		bottom of that box.	13		substrate.
14	A.	Yes.	14	A.	Yes, that's what it says.
15	Q.	Then there is a box which says "Limitations of use", and	15	Q.	Well, it's misleading, isn't it?
16		it says:	16	A.	Yes.
17		"For use in rainscreen wall construction including	17	Q.	And to be clear, it's thoroughly misleading because the
18		above 18 metres height. The required thickness of board	18		qualification was not simply subject to the board being
19		for a particular construction must be established with	19		fixed to a non-combustible substrate, but subject to the
20		the use of the Celotex online calculator."	20		use of RS5000 being in exactly the same system as
21		Now, the limitation on use there is not the	21		tested. That's right, isn't it?
22		limitation on use which bears any resemblance to the	22	A.	Yes.
23		caveats in your marketing literature .	23	Q.	Now, you asked about where this wording comes from.
24	A.	No.	24		Let's see.
25	Q.	The statement "For use in rainscreen wall construction	25		Can we leave that up on the screen, and go, please,
		101			103
		101			103
1		101 including above 18 metres height" was so general as to	1		$$103$$ to another document, {CEL00001995}. We will have two on
1 2			1 2		
	A.	including above 18 metres height" was so general as to			to another document, {CEL00001995}. We will have two on
2	A. Q.	including above 18 metres height" was so general as to be thoroughly misleading itself , wasn't it?	2		to another document, {CEL00001995}. We will have two on the screen at the same time.
2		including above 18 metres height" was so general as to be thoroughly misleading itself , wasn't it? Yes, I don't know who has put that wording in.	2		to another document, {CEL00001995}. We will have two on the screen at the same time. $(Pause) \label{eq:pause}$
2 3 4	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its	2 3 4		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you.
2 3 4 5	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement?	2 3 4 5		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the
2 3 4 5 6	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that	2 3 4 5 6		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014
2 3 4 5 6 7	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information.	2 3 4 5 6 7		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and
2 3 4 5 6 7 8	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes":	2 3 4 5 6 7 8		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on
2 3 4 5 6 7 8 9	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of	2 3 4 5 6 7 8 9		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen.
2 3 4 5 6 7 8 9	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen	2 3 4 5 6 7 8 9		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand
2 3 4 5 6 7 8 9 10	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry."	2 3 4 5 6 7 8 9 10		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side:
2 3 4 5 6 7 8 9 10 11	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel	2 3 4 5 6 7 8 9 10 11		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of
2 3 4 5 6 7 8 9 10 11 12 13	Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be	2 3 4 5 6 7 8 9 10 11 12 13 14		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. A. Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it?	2 3 4 5 6 7 8 9 10 11 12 13 14 15		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry."
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. A. Q. A.	including above 18 metres height" was so general as to be thoroughly misleading itself , wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. A. Q. A. Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. A. Q. A. A.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes? Yes.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same as Mr Roper's first bullet point in his email, can't
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. A. Q. A. Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes? Yes. And the suggestion that it could be used for masonry was	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	A.	to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same as Mr Roper's first bullet point in his email, can't you?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. A. Q. A. A.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes? Yes. And the suggestion that it could be used for masonry was misleading in the sense that it suggested that it had	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same as Mr Roper's first bullet point in his email, can't you? Yes.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. A. Q. A. A.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes? Yes. And the suggestion that it could be used for masonry was misleading in the sense that it suggested that it had passed a specific test for masonry, namely part 1 of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Q.	to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same as Mr Roper's first bullet point in his email, can't you? Yes. If you then go to the third bullet point down, we will
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. A. Q. A. Q. Q.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes? Yes. And the suggestion that it could be used for masonry was misleading in the sense that it suggested that it had passed a specific test for masonry, namely part 1 of BS 8414, when it hadn't.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same as Mr Roper's first bullet point in his email, can't you? Yes. If you then go to the third bullet point down, we will read back the other way. This is the email:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. A. Q. A. A.	including above 18 metres height" was so general as to be thoroughly misleading itself, wasn't it? Yes, I don't know who has put that wording in. Well, we'll come to that, but do you accept, on its face, it is a thoroughly misleading statement? On its own as one sentence, then yes, unless that certificate is supported with other information. Then let's go down to "Advice Notes": "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." Now, first of all, the statement that RS5000 can be used with a variety of cladding systems was manifestly incorrect, wasn't it? It wasn't correct, no. And, again, thoroughly misleading as a result; yes? Yes. And the suggestion that it could be used for masonry was misleading in the sense that it suggested that it had passed a specific test for masonry, namely part 1 of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21		to another document, {CEL00001995}. We will have two on the screen at the same time. (Pause) Yes, thank you. What I want to compare is the advice notes in the LABC certificate with Mr Roper's email of 17 June 2014 to Tim Bartlett at West Suffolk, LABC West Suffolk, and also copied to David Ewing at LABC. That's the email on 17 June on the right-hand side of the screen. If you look at the advice notes on the left-hand side: "Celotex RS5000 can be used with a variety of cladding systems (including masonry or rainscreen systems) and can be fixed back to a structural steel frame with a sheathing board or direct back to masonry." If you cast your eye to the right-hand side of the screen, you can see that that is word for word the same as Mr Roper's first bullet point in his email, can't you? Yes. If you then go to the third bullet point down, we will

- 1 18m in height ([and note the gap before the word
 2 'subject'] subject to the board being fixed to a
 3 non-combustible substrate) alternative compliance to
 4 AD R"
- Now cast your eye to the left and see in the advice notes halfway down the block of text, it says exactly the same thing, including even the gap after the first bracket and before the second bracket around the parentheses "subject to the board being fixed to a non-combustible substrate". Do you see?
- 11 A. Yes.
- $12\,$ Q. Now, Mr Roper told us yesterday that the text that he
- $13\,$ had sent to the LABC on 17 June was, so far as he could
- 14 see, cut and pasted into the certificate there. Do you
- 15 accept that?
- 16 A. It's cut -- yes, it's like-for-like.
- $17\,$ $\,$ Q. Yes, indeed, down to the way in which the lettering $\,$ is
- set out. Therefore, the what you have accepted are
- misleading statements originated with Mr Roper's email.
- 20 (Pause)
- $21\,$ A. I think certainly the third bullet's been copied from
- 22 text we're using in other marketing materials and
- 23 something else has been added about the board being
- fixed to a non-combustible substrate. That's not
- language that I've seen us use or know that we were

- 1 using.
- Q. You, as Mr Roper's line manager, were responsible for
- 3 him sending this email to the LABC, weren't you?
- 4 A. I wasn't responsible for -- I knew we were going for
- 5 LABC approval, but I wasn't aware of what Jon was going
- 6 to say until the certificate has been published.
- $7\,$ $\,$ Q. When you saw the certificate , as we've seen you did when
- 8 Mr Roper sent it to you, and you responded "Well
- 9 done" -- I'm paraphrasing it -- didn't you notice that
- 10 it contained a series of fundamentally misleading
- 11 statements?
- $12\,$ $\,$ A. No, I didn't, on the basis that the LABC had sent it to
- 13 us.
- 14 Q. Did you read it?
- $15\,$ A. I don't recall whether I read it or how much detail
- 16 I read it in.
- 17 Q. Mr Roper's email was deliberately worded the way it was
- in order to mislead any reader of the certificate and -we will have to explore this with the LABC -- the LABC
- 20 cut and pasted his words into their certificate.
- Now, on the face of it, that looks like what's
- 21 Now, on the face of it, that looks like what:
- 22 happened. Do you accept that?
- $23\,$ $\,$ A. Certainly looks like we've asked them to put -- consider
- 24 something in their certificate and they've just accepted

106

25 it, yes.

- $1\,$ $\,$ Q. $\,$ And that the $\,$ certificate $\,$ has come back to you, and did $\,$
- 2 you know that your sales team was sending those
- 3 certificates out to buyers of RS5000?
- $4\,$ $\,$ A. $\,$ I $\,$ knew we had LABC certification. $\,$ I $\,$ don't $\,$ know how many
- 5 times we would have sent it out.
- 6 Q. Did you know that this misleading certificate, the
- 7 wording of which originated with Mr Roper, the man for
- 8 whom you were responsible, was sent to
- 9 Daniel Anketell-Jones at Harley for the Grenfell Tower
- 10 project?
- 11 A. I didn't know that, no.
- $12\,$ Q. Given that this certificate was sent to the marketing
- teams, it's hardly surprising that the marketing teams
- were quick on the uptake to get it out to their
- potential customers for RS5000 as soon as possible.
- 16 A. I don't know how that process of sending it out would
- have worked. I don't know whether it was -- it wouldn't
- have been sent out en masse, I don't think.
- 19 Q. Do you know why Mr Roper sent it to the marketing teams
- Q. Do you know why Mr Roper sent it to the marketing team
- 20 without you checking it first?
- 21 A. No, I don't.
- 22 Q. You were happy that he had done?
- 23 A. Sent it out?
- 24 Q. Well, you can see --
- 25 A. Or issued it, sorry?

107

- $1\,$ $\,$ Q. We can go back to the email if you like . You can see
- 2 that he had sent it out to the marketing teams and also
- 3 to the technical teams, and your response wasn't, "Why
- have you done this without my approval?" Your response
- 5 was, "Outstanding. Well done."
 - Do we take it from that that you hadn't read it
- 7 before it had gone out?
- 8 A. I don't believe I read this before it went out, no.
- 9 Q. Why is that?

6

- 10 A. I don't know, just the -- Jon was working on the LABC
- $11 \hspace{1cm} approval \hspace{0.1cm} and \hspace{0.1cm} he \hspace{0.1cm} was \hspace{0.1cm} given \hspace{0.1cm} -- \hspace{0.1cm} you \hspace{0.1cm} know, \hspace{0.1cm} as \hspace{0.1cm} part \hspace{0.1cm} of \hspace{0.1cm} the \hspace{0.1cm}$
- project, that's something he was doing.
- $13\,$ Q. If you had read it when you received it and seen
- anything you didn't like about it, you would have gone
- $15 \hspace{1cm} \text{back to Mr Roper and said, "Could you please withdraw} \\$
- this document from the marketing teams, it's
- a thoroughly misleading certificate "? You would have
- done that, wouldn't you, if you had --
- 19 A. If I'd -- yeah, if I'd known it was -- if I'd read it
- $20\,$ and seen that it was misleading, I would've asked Jon
- 21 why it was saying what it was saying.
- 22 Q. Well, let's take it in stages. Did you read it?
- I think you said you did.
- 24 A. On the basis that I've replied to his email to say,
- 25 "Well done", then I would have looked at it. Whether

- 1 I've read it in detail, I don't know.
- 2 Q. Well, it's not a very long document, and most of it is
- 3 just technical detail. The only bits that are worth
- 4 reading, really, are "Limitations of use" and "Advice
- 5 Notes". It wouldn't have taken you very long to read
- 6 this document, would it?
- 7 A. No.
- 8 Q. As some of the slides we saw yesterday suggest, launch
- 9 with an LABC certificate would have been much better
- 10 than launch without one; yes?
- 11 A. I think there was a ... I can't think of the word,
- 12 sorry, but there was a focus on getting LABC approval at
- 13 some point. I don't think it would have stopped the
- 14
- 15 Q. You would have, having received this document, wanted
- 16 to, if you were being honest, have read it, studied it,
- 17 understood it and made sure you were happy with it,
- 18 given its importance in the marketing effort. Is that
- 19 wrong?
- 20 A. No, that's not wrong.
- 21 Q. Therefore, if we proceed on the basis that you did read
- 22 it and wanted to approve it, can we take it that you saw
- 23 and realised that the statements that I've pointed out
- 24 to you and you have accepted are misleading, you saw and
- 25 realised were misleading at the time?

- 1 A. I don't believe I would have -- if I'd have thought they
- 2. were misleading at the time, I would have done something
- 3
- 4 Q. Well, you say that now. We know that you didn't go back
- 5 to Mr Roper and say, "This document is thoroughly
- 6 misleading in a number of different respects, please
- 7 withdraw it immediately from the marketing teams", did
- 8 you? On the contrary, you congratulated him.
- 9 A. Yes.
- 10 Q. And that is because, despite the fact that you knew, as
- 11 you must have done because you had read this document,
- 12 I would suggest, that it was thoroughly misleading,
- 13 nonetheless it was of immense assistance in marketing
- 14 RS5000 to as wide a customer base as possible.
- 15 A. I don't know whether that was my thinking at the time.
- 16 I don't know.
- 17 Q. I'm suggesting to you that it was, and I would like your
- 18 comment on it.

21

- 19 A. From getting the LABC registered detail, I don't ever
- 20 remember thinking that this was going to give us lots of
- access to new projects without following what we were 22
- trying to do in our previous marketing efforts, which
- 23 was about the literature and the system.
- 24 Q. Mr Evans, this LABC document was thoroughly misleading.
- 25 You knew it was. You deliberately allowed it to go into

- 1 the marketplace, with the intention of misleading people
- 2 who read it
- 3 A. No. Again, from the time and from what I recall at the
- 4 time, that's not what I was doing.
- 5 And it went to Harley on the Grenfell Tower project.
- 6 You didn't know that?
- 7 A. I didn't know that, no.
- 8 Q. As I put to you before, it's hardly surprising that it
- 9 would have done, given the importance to the marketing
- 10 team of having this document to give to their customers.
- 11 That was the point of it, wasn't it?
- 12 If someone wanted an LABC registered detail, then that
- 13 would have been what we issued, yes.
- 14 Q. Now, it's right to say that there was later in the year
- 15 some discussion about changing the LABC certificate we
- 16 can see here on the screen for a later one.

17 Mr Roper said in his evidence that the LABC were in

18 the process of changing their certificates, and that is 19 indeed what happened. But briefly, there was a process

20 behind that.

25

21 Can we go to {CEL00001017/2}. I'm sorry, that's my 22 fault, we're in the same document, but if we go to

23 page 2, it says at the top:

24 "LABC are currently in the process of changing the

format of their certificates and these are likely to be

111

1 issued to us in the next couple of weeks. In the

2 meantime, please use the existing certificates .

3 I recommend using the LABC Drawing & Document List RD491

4 to issue to customers and specifiers as this contains

5 more detail around the subject matter but both

6 certificates can be issued and will be live on LABC's

7 website within the next two weeks."

8 I just want to be clear with you that it's right 9

that there was a process ongoing of changing the format, 10 but Mr Roper was very keen to get the message across to

11 the marketing department that the document we've been

12 looking at, RD491, should go out to customers and

13 specifiers, and you could see that from the email that

14 you received and on which you congratulated him; yes?

- 15 A. Yes.
- 16 Q. Yes.

17 Now, going to that little bit of later history, and 18 to be fair to you and to the LABC, can we go to

19 {CEL00002021}, please. This is an email string of

20 6 November 2014, and it's an email to Sam Li at LABC

21 from Debbie Berger, copying Jon Roper and you, if we 22 look at the top of the page. The subject is:

23 "Important Changes to Your LABC Registration -24 EW491 ..."

25 That's the topic.

112

1		If $\ \mbox{we go to page 2 } \{\mbox{CEL00002021/2}\} \ \mbox{of that document,}$	1		back to the bottom of page 1, just pick that up.
2		I think it's the best place to find it, this is an email	2		Debbie Berger's email to Sam Li, copied to Jon Roper and
3		from Sam Li on 3 November 2014 to Jon Roper, not copied	3		to you, Mr Evans. You see that. So you could see her
4		to anybody, about the recent improvements LABC has made	4		message to Sam Li.
5		to the registered detail scheme. He says that new	5		Then Sam Li's response at the top of page 1 comes
6		registration certificates have been created, et cetera.	6		back to Debbie Berger and is also copied to you:
7		If we go to the next email up from that, that	7		"Hi Debbie,
8		document is the one that goes from Jon Roper to	8		"Sorry for the delay in getting round to your
9		Debbie Berger on 3 November, foot of page 1	9		emails. No problem at all . I will check with my
10		{CEL00002021/1}, and he says:	10		colleague who deals with the website if we can make your
11		"Debs	11		landing page not visible to members of the public.
12		"For you.	12		"I will check with my Manager to see if we can make
13		"Please go back to LABC and ask to take out any	13		the suggested changes in your attachment on the
14		references that RS5000 is the same product as FR5000."	14		certificates and website."
15		You're not copied in on that, but if we go to the	15		Now, was it your understanding, looking at that
16		top of page 1, as we saw before, you were copied in on	16		email chain at the time, that although new form
17		Debbie Berger's response to Sam Li, and she says:	17		certificates had been issued, they weren't generally
18		"Hi Sam	18		available until the wording was to be sorted out?
19		"Please find attached some paragraphs of text as	19	A.	I don't recall this particular situation, but it would
20		suggestions for use in your LABC certificates and fact	20		suggest that we're asking the LABC not to publish
21		sheets for RS5000	21		something on their website until we're happy with the
22		"1. To replace 'description of product' in both	22		wording.
23		certificates ."	23	Q.	And we know that well, you tell me: were the LABC
24		And then some other changes.	24		certificates that had been issued in August 2014
25		Why did you think Mr Roper asked Debbie Berger to	25		withdrawn at this point?
		113			115
			_		
1		ask Sam Li to remove reference to the fact that RS5000	1		I don't know.
2		ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000?	2		I don't know. If we look at {LABC0000312}, this is the actual
2	A.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than	2		I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the
2 3 4	A.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in	2 3 4		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product":
2 3 4 5	A.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market.	2 3 4 5		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by
2 3 4 5 6	A. Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to	2 3 4 5 6		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen
2 3 4 5 6 7		ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as	2 3 4 5 6 7		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced
2 3 4 5 6 7 8		ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one?	2 3 4 5 6 7 8		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen
2 3 4 5 6 7 8 9		ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as	2 3 4 5 6 7 8 9		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced
2 3 4 5 6 7 8 9	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one?	2 3 4 5 6 7 8 9		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and
2 3 4 5 6 7 8 9 10 11	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make	2 3 4 5 6 7 8 9 10		I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm"
2 3 4 5 6 7 8 9	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding	2 3 4 5 6 7 8 9		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says:
2 3 4 5 6 7 8 9 10 11	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application.	2 3 4 5 6 7 8 9 10		I don't know. If we look at {LABC0000312}, this is the actual certificate, EW491, and we can see that it says in the box on the left, under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process
2 3 4 5 6 7 8 9 10 11 12	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the	2 3 4 5 6 7 8 9 10 11		I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it
2 3 4 5 6 7 8 9 10 11 12 13	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp.	2 3 4 5 6 7 8 9 10 11 12 13		I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with
2 3 4 5 6 7 8 9 10 11 12 13	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go	2 3 4 5 6 7 8 9 10 11 12 13 14		I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the	2 3 4 5 6 7 8 9 10 11 12 13 14 15		I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the same day as the previous message:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q.	I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for more information."
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the same day as the previous message: "Hi Sam	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q.	I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for more information." You see that?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the same day as the previous message: "Hi Sam "I've just noticed the website is live with the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q.	I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for more information." You see that?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the same day as the previous message: "Hi Sam "I've just noticed the website is live with the certificate and fact sheet.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q.	I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for more information." You see that? Yes. If you go to page 2 {LABC0000312/2}, these are the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the same day as the previous message: "Hi Sam "I've just noticed the website is live with the certificate and fact sheet. "Is it possible to limit visibility or better	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q.	I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for more information." You see that? Yes. If you go to page 2 {LABC0000312/2}, these are the conditions of the certificate , and you can see in the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q.	ask Sam Li to remove reference to the fact that RS5000 was the same product as FR5000? I don't know why he would have asked that, other than maybe looking to have RS5000 as our only solution in that market. Yes. Maybe looking to have; you mean maybe looking to present RS5000 as your only solution, in other words as a new product when in fact it was an old one? The product was the same but we were looking to make sure that RS5000 could be the rainscreen cladding product for that particular application. Then if we go to {CEL00008691}, please, we need the bottom of page 1 of that email run for the date stamp. Debbie Berger, 6 November, to Sam Li. Then if we go over the page {CEL00008691/2}, she says this is the same day as the previous message: "Hi Sam "I've just noticed the website is live with the certificate and fact sheet. "Is it possible to limit visibility or better remove these until we have sorted out the wording?"	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q.	I don't know. If we look at {LABC0000312}, this is the actual certificate , EW491, and we can see that it says in the box on the left , under "Description of Product": "This is an assessment of a PIR insulation board by Celotex designed for use within rain screen construction. RS5000 is a textured aluminium foil faced PIR board that comes in thicknesses of between 50mm and 150mm" Then it says: " and goes through the same manufacturing process as the Celotex FR5000 product, the difference being it has been assessed by the BRE and complies with BR135:2013 for use in rain screen applications above 18 metres in height, see conditions of certificate for more information." You see that? Yes. If you go to page 2 {LABC0000312/2}, these are the conditions of the certificate , and you can see in the second paragraph it says:

24

25

Celotex online calculator."

Then it goes on to say:

Now, I should just have picked this up with you,

that her email to Sam Li was copied to you. Just go

24

1 "Celotex RS5000 can be used with a variety of MR MILLETT: We do, and I will go and see him after this and 2 2 cladding systems (including masonry or rainscreen just make him aware of what we're doing. 3 3 SIR MARTIN MOORE-BICK: Well, Mr Evans, we will take a break systems) and can be fixed back to a structural steel 4 4 frame with a sheathing board or direct back to masonry." at this point so we can all get some lunch. We will 5 Again, that was wrong, wasn't it? 5 come back at 2.05 today, please. 6 6 THE WITNESS: Okay. A. If talking about the above 18 metres. What I'm not 7 7 clear on is whether this LABC certificate is also trying SIR MARTIN MOORE-BICK: And please don't talk to anyone 8 8 to cover below 18 metres. about your evidence or anything relating to it. 9 9 Q. Right. It does go on to say in the middle of the THE WITNESS: Thank you. 10 10 SIR MARTIN MOORE-BICK: All right? Thank you very much. paragraph: 11 "For use on buildings with a floor more than 18m 11 (Pause) 12 above ground level, Celotex RS5000 has been successfully 12 Thank you. 2.05, please. Thank you. 13 tested ..." 13 (1.05 pm)14 14 And then it says: (The short adjournment) 15 "This classification is only valid for the system 15 (2.05 pm) 16 specification and detailing outlined in section 2 of the 16 SIR MARTIN MOORE-BICK: Right, Mr Evans, ready to carry on? 17 BRE fire test report 295255 including the associated 17 THE WITNESS: I am, thank you. 18 details found in section 4 test reports as 18 SIR MARTIN MOORE-BICK: Good, thank you. 19 19 an alternative compliance to ADB. A full copy of the Yes, Mr Millett. 20 20 report should be made available by Celotex ..." MR MILLETT: Thank you, Mr Chairman. 21 Now, you were telling us earlier that it was 21 Mr Evans, can I ask you to be shown {CEL00003121}, 22 22 Celotex's rarely departed from practice not to make full please. This is an email on 16 May 2014 from you to 23 23 test reports available. Jon Roper, subject "Above 18m". Just putting it in its 24 24 A. Yes chronological context, this is two days after the second 25 25 So how can you account for the fact that the LABC day of the MAG meeting, all right? You start the email 117 119 1 1 certificate that you're relying on to market this by saying: 2 2 product told buyers or people who studied this "Another one for my 4 and a bit hour journey home 3 certificate properly that they could get a copy of the 3 (if I'm lucky !!!). Absolutely agree with all these 4 4 test report from you, when in fact your practice was points. I will give my view on some of this when we 5 that you would refuse them if they asked? 5 speak." 6 6 A. Only the fact that I didn't know that that was Just so you know, what he was sending to you was 7 7 a condition of the LABC certificate. a long detailed email about the marketing of RS5000. 8 8 Q. Well, I'm asking you because you were in charge of this Then you say: marketing effort, Mr Evans. Can you explain how you 9 9 "Please add the meeting with Jonathan Cheeseman with 10 were, on the one hand, marketing this product on the 10 SG Legal to your list . I think Craig was looking at 11 11 back of this certificate which told potential buyers to Friday 30th (late afternoon) once the bus event is 12 ask you for the test report, but equally pursuing 12 over." 13 13 a policy of refusing requests for a test report when it Pausing there, what's the bus event? Is that the 14 came? How does that work out? 14 business event? 15 A. I think the policy which had been inherited during my 15 No, the bus event is the three-month tour of the UK that 16 16 time didn't consider things -- you know, LABC Celotex undertook between March and May. 17 certification . 17 Oh, I see. So bus means bus? MR MILLETT: Mr Chairman, is that a convenient moment? 18 18 A. Yes, bus means bus. 19 SIR MARTIN MOORE-BICK: Yes, I think it is, thank you very 19 Q. Right: 20 20 "Can you please this afternoon speak with Catherine 21 MR MILLETT: I'm making reasonable progress. I will finish, 21 to ask her to approach Jonathan to arrange the meeting. 22 22 I hope, at some point before the end of the afternoon to Content wise, your MAG presentation can provide all the 23 23 be able to get on to our next witness. background we need to explain our approach. 24 SIR MARTIN MOORE-BICK: Yes, we do have another witness 24 "Please also check with Carol on PR availability to

120

25

waiting.

118

25

visit NHBC with you. Ideally we need all these items

1 completed by month end."

The MAG presentation that you're referring to there, that's clearly a document, isn't it?

4 A. Yes

- Q. What was the MAG presentation? Was it the long 17-page
 one we know he sent you during the meeting on 14 May, or
- 7 was it the shorter version?
- 8 A. I wouldn't recall which one of those two I meant.
- 9 Q. Right.
- Looking at the purpose of your reference to it there, was it the document that you were planning to send to Jonathan Cheeseman at SG Legal?
- A. I don't know whether we were sending the document to
 Jonathan or that was just for the present -- the meeting
 for Jonathan on the 30th.
- Q. Right. Can we take it, though, from this that when you
 said "Content wise, your MAG presentation can provide
 all the background we need to explain our approach", we
- know you saw the 17-page version by this stage, can we
- take it that you had looked at and satisfied yourself
- 21 that the full content of the MAG presentation was
- $22 \hspace{1cm} \text{something which could form the background to what you} \\$
- 23 were going to explain to the legal department?
- A. I believe the MAG presentation, I don't know which one of those two, would have provided the detail that we

121

- 1 wanted to use for that meeting, yes.
- $2\,$ $\,$ Q. And you were sufficiently $\,$ familiar with the contents of
- 3 that presentation to be able to form the opinion that it
- $4 \hspace{1cm} \text{was something which could be used to explain } \hspace{1cm} \text{the} \\$
- 5 background?
- 6 A. On the basis of the date of the email and that it was 7 only just after that MAG meeting, then yes.
- 8 Q. Thank you.
- 9 Now, can I go to the topic of NHBC.
- We've already discussed together the meeting that

 Mr Roper had with you in your office on 19 June about

 NHBC and their potential concerns. I want to look at

the period post-launch.

- Can we go to {CEL00001020}, please. This is
 an email from Jon Roper to you on 5 September 2014, and
 it relates to ongoing problems with the NHBC accepting
 the test. It's a long email, but that's the topic of
- 18 it.
- Do you remember reading this email at the time?
- 20 A. I can't say now whether I recall reading it.
- Q. It's addressed to "All", and he explained that that'sbecause this was a draft email that he wanted to send to
- people. Do you remember that?

122

- 24 A. Not specifically, no.
- 25 Q. He was asking you to sign it off.

1 A. Okay.

16

17

Q. Now, in the fourth paragraph there, he refers tocompetition with Kingspan. He says:

4 "I have also been told of a number of occasions now 5 that Kingspan K15 has successfully tested to 6 BS 8414-2:2005 onto steel frame (Metsec). This has 7 apparently only happened recently and has not been 8 included in their BBA certificate. To support any 9 potential challenges we may face with the NHBC on the 10 way we have tested (i.e thickness and choice of cladding 11 panel, sheathing board etc.), it is imperative we 12 understand how K15 that seemingly is accepted by NHBC 13 has tested to 8414-2:2005. I am told that the system 14 used a cement particle board rather than 15 a non-combustible sheathing board and a combustible

are crucial and would hugely aid our argumentation."

Were Celotex adopting a strategy of seeking to put

pressure on the NHBC into accepting your BR 135

classification by pointing out to them that they'd

accepted Kingspan's?

cladding panel. The details in particular around what

type of panel was used for the exterior of this system

- $2\,3\,$ A. I don't think we were putting pressure on the NHBC.
- $24\,$ $\,$ $\,$ I think there would have been a question asked within
- 25 the business, which is: why is Kingspan K15 able to be

123

1 used on NHBC projects and Celotex's isn't?

- $2\,$ $\,$ Q. Putting the question a slightly $\,$ different way, was the
- $3\,$ strategy to seek to persuade NHBC that because they had
- $4\,$ previously accepted Kingspan's BR 135 and BS 8414 test,
- $5 \hspace{1cm} \hbox{then they should do the same with yours?} \\$
- 6 A. I think we would want to understand if we could and, if not, why we couldn't.
- 8 Q. In the penultimate paragraph you(sic) say:

9 "Having led the way in being transparent of the 10 tested system that complied with BR 135, we hope that 11 contractors will challenge our competitors to provide 12 the same information to have a true understanding of 13 what has been tested."

It's simply not true, is it, that Celotex had been transparent about the system which complied with BR 135, is it?

- A. Based on the information that I now have, then it wasn't -- the system marketed wasn't the same as the system tested.
- Q. Celotex had not been transparent about the system tested, had it?
- 22 A. No, it hadn't.
- 23 Q. No, and you knew that?
- 24 A. Again, when I was launching the product, that
- information that I had been made aware of wasn't in my

1 thinking what we signed the marketing and launch off. 2 Q. We have been through that. 3 Now, can we go to {CEL00001022}, please. This is 4 an email at the bottom of page 1 and on to the top of 5 page 2, if we can just look at that, from NHBC, 6 Jon Behan, of 22 September 2014.

> If we start at the bottom of page 1, we can see that message, and we will come to that in a minute. But just to show you, you saw this, if we scroll up page 1. Jon Roper receives that email from Michael Healey, and then if we scroll up page 1 a little bit more, we get to Jon Roper sending that to you, "FYI". So you saw this email chain, at least according to this email run.

If we go to Jon Behan's email at the bottom of page 1 and on to page 2, what he says there, and let's look at the top of page 2 {CEL00001022/2}, is:

"As stated, NHBC has issues with the test certification recently achieved. Celotex technical department are fully aware of the issues raised."

If you look a little bit lower down the same page, page 2, you can see towards the bottom of page 2 an email from Jon Behan to Michael Healey which says:

"At present Celotex holds no relevant testing certification for the insulation to be used above 18m. This has been discussed between technical departments of

125

1 both NHBC and Celotex."

> When you saw this email run, did you understand that Jon Behan was saying that, as far as NHBC was concerned, it would not accept RS5000 above 18 metres on any project?

6 A. Yes, that's my understanding.

7 Q. Yes.

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

2

3

Δ

5

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Can we go to {CEL00003445}, please. This takes us to January 2015. If we look at the email you get at the top of the page from Nigel Waring, it's sent to Jon Roper, copied you, "For your [information]", and what you get is an email from Nigel Shields of Durkan to Nigel Waring of Celotex, also on 7 January, where Nigel Shields of Durkan says:

"Morning Nigel."

So this is a Nigel to Nigel email:

"Having discussed the use of insulation with the NHBC yesterday and what they are looking for in terms of third part assurance, they are looking for BBA accreditation, they would not accept the fire test certification you have at present as in their words it does not represent [a] true test of the product in all of its applications. They are claiming that it does burn as does the Kingspan K15 product and are very nervous of it being used in high rise buildings, they

126

1 are currently consulting with the Fire brigade on the 2 use of these materials."

3 Did you ever hear anything further about this 4 consultation with the Fire Brigade?

5 Not that I can remember, no.

6 Q. Did the NHBC ever raise these concerns that they 7 expressed in this email to Nigel Waring with you?

8 Α. I don't believe so.

9 Q. When you saw Nigel Shields' message to Nigel Waring 10 which I've just read to you, did that not come as a bit 11 of a shock to you?

12 A. I don't recall how I felt when I saw the email. I think 13 we knew after launch that there would be -- we might not 14 be allowed on NHBC projects, and that we would carry on 15 having a dialogue with the NHBC to understand what we 16 needed to do to be allowed.

17 Q. Did you regard yourself as on notice now that the NHBC 18 regarded your BS 8414 test as unrepresentative, and 19 RS5000 as dangerous, at least if used in applications

20 other than that specifically tested?

21 I understood that NHBC wouldn't accept our product on 22 those projects, then we wouldn't be accepted.

23 It's not just a question of acceptance, is it? It's 24 also the fact that they now regarded the use of your 25 product on or in cladding systems other than exactly

127

1 that which had been tested under your BS 8414 test as 2 dangerous?

3 A. Yes, that's what they're saying.

4

5

10

Q. Yes, and that must have come as something of a shock to you; no? Or was it something you always knew?

6 A. I wouldn't say it was something we always knew, I think 7 we just knew that the NHBC at that point wanted more 8 information from Celotex on the next stage maybe for the 9 product.

Q. We don't see you going to your marketing department or

11 asking either Jon Roper, who I think had left and gone 12 into sales by this point, or Debbie Berger, we don't see 13 you saying to them, "You must tell all the salespeople

14 to reinforce the message that RS5000 can only be used in

15 a system which is exactly the same as that tested ".

16 Now, leave aside the magnesium oxide. We don't see you 17 doing that, do we?

18 A. I think -- and I can't remember the dates, but there's 19 been projects and emails I've seen of projects where 20 I've said that it has to be in line with the system as 21 we tested, so I don't think it changed my approach to 22 what we were saying on projects $\!.\!$

23 But this is the NHBC coming to you and telling you that 24 your certification is unacceptable because the product 25 burns, and that it's not representative of a true test

1 of the product in all of its applications. 1 the bottom of page 5 {CEL00003660/5}, over to page 6, 2 2 My question really is: why didn't that spur you to Jonathan Roome sends this to you on 1 May. So it comes 3 3 reinforce the message that was already in the marketing to your attention, copied to Richard John, and the 4 4 subject is "RE: Celotex RS5000 & the NHBC": literature and get it out there into the market that, 5 actually, in reality, RS5000 shouldn't be used at all 5 "Hi Paul. 6 6 unless it was part of a system exactly as tested? "We are being chased on a response regarding the RS 7 7 A. I don't know why we didn't reinforce the message. claim by the SFS manufacturer to Berkeley 8 8 Q. Can I suggest why: it suited you commercially to keep Group/St Edward. 9 9 selling RS5000 for as long as you could. That's "Please can you let me have an official response to 10 10 the reason, isn't it? the claim." 11 A. I don't believe that was the strategy. I think the 11 So that's how it comes to your attention with 12 12 strategy that we'd had from launch going forward, which a request. 13 13 was: here's the marketing material, here's how we've If we look back, please, to Mr Wakeling's email at 14 14 tested the product, and it was for others to decide page 7 {CEL00003660/7}, I want to ask you about that. 15 15 whether they felt that the product could be used in This is Mr Wakeling of Berkeley Group, 5 March. He 16 16 alternative systems. 17 Q. Is that really a fair summary of the strategy, Mr Evans? 17 "Jonathan, 18 18 From all the documents we've seen, wouldn't a fairer "I have had two recent meetings with two different 19 19 summary of the strategy be: here is the product, here NHBC Special Project Surveyors. Whilst nothing has been 20 20 are some marketing materials which have a big banner officially issued by NHBC both advised NHBC would no 21 telling you that it's usable above 18 metres and some 21 longer approve the use of PIR or Phenolic insulation in 22 22 small print with a qualification, and hope that some buildings taller than 18m. As it stands they will only 23 23 people won't pick up the qualification and buy it for accept the approach outlined by BCA (as attached): 24 24 use in systems other than that which exactly was tested? "1. Material of limited combustibility e.g. Rockwool 25 25 Certainly from my side, by making the system noticeable "2. Evidence based approval from BRE or similar for 129 131 1 1 on the specification literature and other things we put the precise wall construction 2 2 "3. Actual fire test data in place on, like, the U-value calculator as a warning 3 3 box before people selected the RS application, I don't "The above impacts on both our 190 Strand and Ph8a Δ 4 believe that was what I was thinking we should be doing. Stanmore projects. 5 Q. And worse than that, even the most scrupulous of 5 "I am advised a major UK SFS company (I would prefer 6 6 specialists in the market, reading your marketing not to state their name) conducted a fire test with 7 7 literature, would never know that in fact even the RS5000 (Option 3 of BCA Guidance) and they had to 8 8 system as described wasn't in fact as tested. abandon the test as the insulation caught on fire 'very 9 A. No. 9 auickly " 10 Q. And that was also part of your marketing strategy, to 10 Now, when you received this email chain, did you 11 11

get this product away into the market, compete with 12 Kingspan, and make as much money from it as possible in 13 order to satisfy Saint-Gobain's commercial ambitions for

14 it .

15 A. That wasn't part of the marketing strategy that I had 16 discussed at the time, that we had done a system test, 17 and that the system was going to be marketed clearly 18 about it being a system, and marketed to those

19 guidelines

20 Q. Can we look at {CEL00003660/7}, please. This is a very 21 long email chain. What we will find is an email from 22 Mark Wakeling at Berkeley Group on 5 March 2015 at 9.53 23 to Jonathan Roome, copied to Richard John.

24 If we look up the chain in this email chain, we see 25 you're copied in on it. If we scroll up, I think, to

130

read Mr Wakeling's email some way down the chain, towards the foot?

13 A. I don't recall . I think I understand the last paragraph 14 of there, because I recall where we took that 15 conversation. Now, whether that came from that email or 16 a separate follow-up from this email which I didn't 17 read, I don't know.

18 Q. Right.

12

19 The reality is that options 1, 2 and 3 of those 20 three options, you had pursued 2, which was the BS 8414 21 test, hadn't you?

22 A. Yes.

23 Q. And 3, actual fire test data, you didn't have, if that's 24 what is meant by desktop.

132

25 What was your reaction to this email, do you

1 remember?

- 2 A. I don't recall any reaction I had to it. As I said,
- 3 I can remember the work we then did with the major SFS
- 4 company, which I think we -- well, which I think is
- 5 related to that point, but I don't know whether that
- 6 came, as I said, from a different conversation or email
- 7 that came to me.
- 8 Q. Now, Mr Roome had forwarded this email to you asking for
- 9 an official response to the claim. Had he done that
- 10 because, although Mr Roper and Debbie Berger were the
- 11 project managers for RS5000, in reality you were the
- 12 senior person overseeing it and always had been?
- 13 A. I think Jonathan would have sent it to me, yes, because
- 14 of the role I had in the business, and probably knowing
- 15 that there would need to -- some words would need to be
- 16 put together.
- 17 Q. If we scroll up in the email chain, please, to page 4
- 18 $\{CEL00003660/4\}$, we can see that at the bottom of page 4
- 19 and over on to page 5, Richard John comes back to
- 20 Jonathan Roome and to you and says:
- 21 "Both
- 22 "I feel that we need to respond to Mark with a lot
- 23 of thought. As you both know, this has been hanging
- 24 around now for a few months, and we have to make sure
- 25 that our response [alludes] to the fact that we have

133

1 been very active over this time period."

2 Now, that's right, isn't it, this has been hanging

- around for a few months? In other words, the concern
- 3 4 that NHBC had had with Celotex's 8414 test and the
- 5
- question about whether it was properly representative of 6
- systems being commonly used in the market at the time, 7 was one which had been hanging around, in fact, since
- 8 the middle of June 2014?
- 9 A. Yes, certainly from those emails, and after the launch
- 10 we had an email chain from the September.
- 11 Q. And really the time had now come for Celotex to decide
- 12 what its position was and formulate it properly; is that
- 13 right?
- 14 A. Yes, that would be right.
- 15 We can see that your reaction to this is to set up 16 a call. There's talk about a call in Richard John's
- 17 email. In the middle of the page on page 4, you say:
- 18 "Are you both available now? I can send some 19 conference call details and we can get 10mins on this
- 20 now."
- 21 Do you think ten minutes was really going to cover
- 22 it? This was a complex subject on a delicate issue in
- 23 relation to a major new project. Do you think it could
- 24 be just covered in ten minutes, or did it require a lot

134

25 of thought, as Richard John had suggested?

- A. I don't think I'm saying that it's only ten minutes to
- 2 finish -- to start it and finish it. I think that's
 - maybe just an introductory call to kick things off.
- 4 Q. I see.

3

5

6

If we look up to page 3 {CEL00003660/3}, we can see there's some rather standard discussion about arranging

- 7 a call. Richard John says:
- 8 "No, but can do first thing Tuesday morning on
- 9 a CC."
- 10 And you go back:
- 11 "Cool. Will arrange now. Jonathan will call later
- 12 this afternoon to explain my views having gone through
- 13 this again."
- 14 Did you go through that again with Jonathan Roome?
- 15 A. I don't know.
- 16 Q. Or Jonathan Roper, if it's a different Jonathan.
- 17 A. I don't know.
- 18 Q. Did you have a discussion on that day -- it's 1 May --
- 19 with either Jonathan Roome or Jonathan Roper to explain
- 20 your views?
- 21 A. If I said there was going to be a call, I can't see why
- 22 we wouldn't have had that call.
- 23 Right. Do you remember what your views were that you
- 24 explained, if you did have that call?
- 25 I believe my views would have been consistent with what

135

- 1 we were saying at that time, which was around the system
- 2 has been tested, and, until we have other testing or
- 3 desktop studies or other options, then that's what we
- 4 need to carry on with.
- 5 If we look up the chain, I think we might be able to
- 6 time the call more precisely. If we go to page 2
- 7 {CEL00003660/2}, there is an email string which one
- 8 normally sees when people are on the phone or setting up
- 9 a meeting. The long and short of it is that a meeting
- 10 on 5 May was arranged and people were dialling into it,
- 11 if you scroll up page 2 and into page 1 {CEL00003660/1}.
- 12 For example, on page 1 at the foot, you see that
- 13 Jonathan Roome says to you and Richard John, "I'm on
- 14 waiting", and then so is Richard John, if we can see the 15 top email.
- 16 So it looks like there was a call to discuss this
- 17 very topic on 5 May, if not earlier. Do you remember
- 18
- 19 I don't remember the call, but it looks like there was
- 20 a call being made.
- 21 Q. Do you remember what the upshot was?
- 22 A. I don't remember, no.
- 23 Q. So that's 5 May.
- 24 We can turn on to 6 May, next day, {CEL00002037}.

136

25 This is an email from Jonathan Roome forwarding you

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

3

an email chain from Squire and Partners, as we can see from the bottom of page 1 now on the screen, and there's a bit of a history to this from pages 2 and 3, and I'll summarise it for you, I think.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

If we go to page 2 {CEL00002037/2} and over to page 3, we can see that Squire and Partners, who were architects -- at the bottom of page 2 we can see NHBC were communicating with Matthew Colledge, who was at Squire and Partners, an architect, about the use of phenolic insulation in high-rise buildings.

If you go to the top of page 3 {CEL00002037/3}, you can see what the issue is. It says in the second line there:

"The issue remains in that for sites started before end December 2013 Kingspan should have been consulted on buildings over 18m and they should have confirmed that the façade has been assessed by them and is fine for use that particular building. This is as per the requirements of the BBA certification ... The BBA certificate has since been amended to include a wall type which has been tested (terracotta rainscreen) and if the construction is exactly as this BBA cert then that would be acceptable. But this is the only test Kingspan have had approved but are undergoing further tests on differing wall types at the moment to try and

137

demonstrate suitability.

"So, to answer the question, unless the wall make up is exactly as described in the Celotex BBA certificate which I understand used a large Eternit rainscreen board, you will have to demonstrate compliance using the guidance shown in the enclosed BCA document.

"If you decide to revert back to the Kingspan product, then confirmation should be sought from Kingspan that K15 is acceptable for your build up (assuming you haven't already got this)."

Now, you obviously weren't in on this email, and there isn't a BBA certificate for RS5000, as we know, so that I think must be a reference to something else. But that's the background to it.

If we go up, then, please, to page 2 {CEL00002037/2}, we can see the way this comes about. Matthew Colledge writes to Jonathan Roome and says: "Ionathan.

"Please see below, I will call to discuss."

Then Jonathan Roome, bottom of page 1 {CEL0002037/1}, sends this to you:

22

23 "Interesting information from Squire & Partners 24 (Architects) regarding conversations with NHBC. 25

Non-committal and claims that Kingspan have a new BBA

138

encompassing the testing of a terracotta build-up (Although I cannot find any BBA newer than December 2013)."

4 Then you go back to him:

"Jonathan.

"thanks for sending through. Clearly shows the change in NHBC approach from around February on this area. We are aware of Kingspan's testing on Terracotta but as you say yet to see this transfer into a new BBA. However, looking at the BBA website just now the K15 certificate is a more recent version [than] the one you attached. This new Issue 2 is dated December 2013 but looking at the fire section still references Part 1 of BS 8414 and no reference to terracotta cladding as the panel."

Now, in your reference there to "shows the change in NHBC approach from around February on this area", what did you mean by that, looking at the full email chain that we've looked at? What was the change?

A. I think February was around the time where Celotex were made aware of a project on -- I can't remember the exact name of the project, where the contractor had complained to Celotex about RS5000 being used and when we investigated it, and I don't know how long later, it transpired that the NHBC had actually signed off the

139

1 building or were okay for the project to carry on. So 2 I think my comment there is that we were seeing that the

NHBC had signed an NHBC project off with Celotex being

4 used on it.

5 Is that the Octavius Street project, Ardmore?

6 A. Ardmore, that's right.

7 Q. We will come to some more detailed questions on that 8 shortly. But you think that in February NHBC's position 9 changed, did you? Just tell us in a nutshell what the

10 change you detected was.

11 A. That they had said that they had looked to approve or

12 had said -- approved Celotex's product on that

13 particular project.

14 O. Well --

15 A. Which I believe is --

16 Q. That's not a general change in approach. That's maybe 17 a change on a project. It looks from this as if you're 18 saying that this particular exchange "shows the change 19 in NHBC approach from around February on this area". It 20 doesn't look like you mean on this particular project,

21 but on the applicability of BS 8414 system tests to

22 a wider set of applications than the test itself. Is

23 that what you're referring to?

24 A. I think the fact that it's dated February, the evidence 25 that I've seen, that was an example of where we saw

2

March/April 2015, because that's when it was sent into

the product marketing team.

3 3 project. Q. Did Celotex actually ever get a desktop study for RS5000 4 4 Q. Right. So your evidence is that, before February 2015, that would safely show that it could be used on systems 5 you thought that NHBC would allow your BR 135 and 5 other than that which had been tested under the BS 8414 6 6 BS 8414 test results to be used on a wider set of 7 7 systems than that which was tested? A. We certainly sent our test report to a third party and 8 8 A. I think the market intelligence we were getting from the started commissioning desktop studies, yes. launch was that the NHBC were saying you can't use 9 9 Q. Did you ever get any? 10 10 Celotex, and then from this event in the February, they A. I thought we did. 11 had said that it could be used, albeit on one particular 11 When? 0. 12 project. 12 A. They were -- I can't remember the exact date without 13 13 Q. Right. seeing the evidence. 14 14 Now, given those concerns, it's clear, isn't it, Q. Right. Does the gradual arrival of desktop studies 15 15 that the NHBC were not, at least by this time, prepared explain why there was no further BS 8414 test? 16 to approve RS5000 on the basis of only one test? 16 Yes, that would be a -- that would be the main reason. 17 A. That they were? 17 Q. Did the NHBC, looking at it in general terms, come to 18 Q. They were not. 18 accept Celotex's desktop studies when giving approval 19 19 A. Sorry, can you say that again, please? Sorry. for projects which were different from the project which 20 20 Q. It's clear by this time, isn't it, that at this point or had been the subject of the BS 8414 test? 21 by this point, the NHBC were not prepared to approve the 21 I don't know how many of those projects which we got 22 22 use of RS5000 based only on the single test that you had desktop studies for were NHBC projects, so I don't know. 23 23 achieved? Q. Let's look at paragraph 169 of your statement. You say 24 24 A. No, they weren't. there, at page 49 (CEL00010058/49), that you believe you 25 25 Q. Mr Roome in his witness statement says that he raised were not aware of the BCA guidance note, which is 141 143 1 1 the need for further testing a number of times and Technical Guidance Note 18, until around March 2015. 2 2 continued to push Celotex management to commit further You say a little bit lower down the paragraph, four 3 investment in testing or in desktop studies. 3 lines up from the bottom: 4 4 "Had I been aware of it sooner, I believe that the Can you tell us why no further BS 8414 tests were 5 carried out so as to be able to satisfy the NHBC? 5 contents of the Guidance Note would not only have been 6 6 A. I think there was always a plan to do more testing. reflected in the marketing materials but would have 7 7 I think that process took a longer amount of time than focused attention much earlier on the possibility of 8 8 Jonathan Roome wanted it to, but I know that there was desk top studies being a route to achieve a wider field 9 9 then the evolution into desktop studies, and the BCA of application." 10 document which Celotex -- or certainly I don't believe 10 Can we then go to {CEL00001075}. This is an email 11 11 myself and the project team were aware of when we from March 2015 between RMA Architects and Celotex. 12 launched the product then came into the business I think 12 This particular email is an email from Jonathan Roome to 13 around March/April of that year, and therefore there was 13 you, Mr Evans, copied to Debbie Berger, but the context 14 14 a route to compliance through the BCA route. of this is a request for a desktop study. 15 15 Q. You say the BCA route; do you mean desktop studies? Can we go to pages 5 and 6 {CEL00001075/6} where we 16 16 A. I think desktop studies was one option on that document. see that. We have to work up from the bottom, 17

> 142 144

18

19

20

21

22

23

24

25

long email chain.

document existed.

desktop studies?

17

18

19

20

21

22

23

24

25

1

2

something in the NHBC change in February insofar as

allowing a Celotex product to be used on an NHBC

Q. Well, the desktop studies was first mentioned in a BCA

A. As I said, we didn't know that in June 2014, that that

Q. So when did you come to learn about the $\,$ possibility $\,$ of

A. I believe around -- desktop studies in line with the BCA

document, around -- I can't remember exactly when,

document in issue 0 of its Technical Guidance Note 18,

which had been issued in June 2014. Did you know that?

I'm afraid, at page 6, just to trace the context of this

At the bottom of page 5, top of page 6, we can see

this is an email from James Kirkman to Jonathan Roome,

This is 27 February 2015. That's the bottom of page 5.

"I have attached our typical wall build up drawings.

and James Kirkman is an architect at RMA Architects.

Could you confirm, if we were to replace the current

Top of page 6, second paragraph:

1 1 rigid insulation spec with the Celotex RS5000, if the test data as already supplied for now. 2 2 build-up has been assessed according the assessment 3 criteria in BR125 - Fire Performance of External 3 at this time." 4 4 Insulation for Walls of Multi-storey buildings. If so, 5 could you provide the certification to that effect? 5 6 6 "If not, then are Celotex able to have a desktop 7 7 study report from a suitable independent UKAS accredited 8 8 testing body (BRE, Chiltern Fire or Warrington Fire) 9 9 stating whether, in their opinion, BR135 criteria would 10 10 be met with the proposed system." 11 That's the background. 11 12 If we go up then to page 5 {CEL00001075/5}, we can 12 "Hi Ionathan 13 13 see that Jonathan Roome sends a response to 14 14 James Kirkman and says that Celotex has been 15 15 successfully tested to BS 8414-2 "and so can be 16 16 considered for use in buildings above 18m", so information we will let you know." 17 thoroughly misleading, as we've discussed before; yes? 17 18 A. Yes, without the additional information that should have 18 19 19 been sent with it. 20 20 Q. Yes: 21 21 "Please find attached a copy of our Rainscreen 22 22 Cladding Compliance Guide which gives details of our 23 23 fire test and some background to the building 24 regulations requirements." 24 25 25 So he does provide the cladding compliance guide 145 147 1 which does contain the caveat, as we know, so his 1 2 2 misleading statement has to be qualified by the fact 3 3 that he does send the compliance guide with it, and also 4 4 attaches "a copy of our BRE classification report". desktop studies to be done. 5 Then at the end he says: 5 6 6 "Currently we are not able to provide a desktop may not. 7 7 study." 8 8 Then if you go to page 4 {CEL00001075/4}, the 9 9 architect, we can see, comes back, this is now project, the Limehouse Basin project? 10 Sam Handscombe of RMA, and says: 10 A. I don't believe so, no. 11 11 "I think we are nearly there with NHBC and Ardmore 12 are very tempted to switch from Kingspan to Celotex. 12 the client keep with K15 or did they --13 "Are you able to have a desktop study done by BRE,

So that's his question.

If we go to the bottom of page 3 {CEL00001075/3}, top of page 4, we can see Jonathan Roome's response to Sam Handscombe, which is basically no:

Warrington Fire or Chiltern Fire to confirm in their

opinion, BR135 criteria would be met with our exact

"Hi Sam.

proposed systems."

"Currently we are unable to have a desktop study completed at the moment although we are investigating for the future.

146

"We are only able to provide you with the current

"Apologies for not being able to support you further

Then if we go to the bottom of page 2 {CEL00001075/2} -- and I'm sorry to take so long over this lengthy email string, but it's right that I should put it out there and show it to you -- Jonathan Roome writes to you on 16 March and says:

"Sam thinks that the client may even pay for a desktop study to be completed."

At the top of page 2, bottom of page 1, you say:

"As discussed, we need to fully understand the process and requirements of the desktop study. Debbie is looking at this in more detail. When we have further

Now, what did you need to understand about the processes and requirements of a desktop study?

I don't know, other than understanding who did them, how they worked, what the costs were, just it 's a new way for Celotex products to be used in buildings above 18 metres, and I would have asked Debbie to have done

that to understand in a little bit more detail.

You do go on to say that Debbie is looking at this in detail. What was the upshot of that, do you remember?

A. My understanding of that is that we then moved to some discussions with the NHBC around some build-ups that they suggested to Debbie and we commissioned some

Q. That may explain then the next string of emails, but it

You say you commissioned some desktop studies to be done. Did you commission them specifically for this

Q. So what happened with the Limehouse Basin project? Did

13 A. I don't know.

Q. -- go over to Celotex? You don't know? 14

15 A. I don't know.

16 Q. At this stage, did you wonder how any of these 17 professionals were going to be able to do a desktop 18 study if you only gave them the BRE test report and the 19 classification report?

20 A. No, because if we're talking about the likes of the BRE 21 and Warrington and Chiltern, to go with that we would 22 have sent the full details of the test report.

23 Q. When you say the full details of the test report, would 24 that have included the fact that in the test itself

25 there was the presence of 6 millimetres of magnesium

148

14

15

16

17

18

19

20

21

22

23

24

1 1 oxide at two places on the rig, overtopped with " Design 1: Inside to out." 2 2 8 millimetres of Marley Eternit? And they're all inside to out, I should say. You 3 3 A. No, we wouldn't have sent -- we would have sent the test have: 4 4 report which we were given for the launch of the "2x 12.5mm Plasterboard. 5 product. 5 "100mm SFS 6 6 "12mm Calcium Silicate Board - A1 Q. So is this right: even if you were commissioning 7 7 a desktop study in response to the market's requirement "100mm Celotex RS5000 8 8 for one, the instructions for the desktop study would "Unventilated Cavity 9 9 have been as misleading as the test report and the "103mm Brickwork Façade 10 10 classification report? "Stainless Steel Ties." 11 A. Based on what we've covered since the launch and the 11 That's design 1. documents I've seen, then yes. 12 12 If you look down, the next three designs, designs 2, 13 13 Q. So the product, a desktop study which came out of that 3 and 4, are all the same in that they are all for 14 14 process, would be similarly misleading, wouldn't it? ventilated cavities -- same as each other, different 15 15 A. If the information, which it wasn't, wasn't available to from 1 -- as opposed to unventilated cavities, they've 16 16 the person doing the desktop study, then yes. all got brackets and rails, and the only thing that's 17 Q. Was there ever any intention to come clean with the 17 different between them is the cladding. In design 2 18 likes of BRE, Exova Warrington, whoever it was who would 18 you've got terracotta cladding, design 3 you've got 19 19 have done the desktop studies, and show them exactly cladding laminates, and design 4 you've got aluminium 20 20 what the test build-up really was, as opposed to the way class O. I think I'm right in saying that the rest of 21 21 them are the same as between the three of them, and it had been presented in your marketing literature and 22 22 in the test and classification reports? altogether different, or at least substantially 23 23 A. From my side, again, that information wasn't in my mind different, from design 1. 24 24 when we launched the product. Therefore, there wouldn't Have I summarised it accurately, do you think? 25 25 have been any reason to go back to that because I didn't A. Yes. 149 151 1 know what we had done, I didn't know what we were --1 Q. She goes on to say: 2 2. what we had done was just -- had moved on. So "I think these best represent what's commonly 3 3 I wouldn't have gone back to those pre-launch details 4 4 because I wasn't aware of them and they weren't front of 5

6

7

- 5 mind.
- 6 Q. Let's move on then with the same topic and see where 7 that particular issue comes out.

8 {CEL00003589}, please. This is an email chain --9 and I'm sorry, Mr Evans, that these chains are quite 10 long -- from Debbie Berger to Frans Paap of Exova, 11 copied to you, on 18 March 2015. She sends Frans Paap 12 a copy of the 32-page test report for BS 8414-2 and some 13 examples of four build-ups.

> Now, is this what you meant in your earlier email when you said that Debbie Berger was looking into a desktop study?

17 A. Yes.

14

15

16

24

25

18 Q. Right. Okay.

19 If we look at this page -- and we can see you saw 20 it -- she lists the four systems that she wanted 21 configured

22 Now, let's just look at them a little bit closely.

23 She says:

> "Please find also some examples of 4 build-ups which we commonly see presented to us at design stage:

specified and in particular what NHBC commonly see. The analysis will hopefully help us to better understand the risky parts of cladding systems.

"It will also provide us with some insights on RS5000 fire behaviour and contribution to this risk."

8 Now, first, had you been involved with Debbie Berger 9 about discussions about what system Celotex was going to 10 seek a report for?

11 A. From memory, Debbie had agreed -- had said she was going 12 to speak to the NHBC to get some guidance on the

13 different types of build-ups.

14 O. So you think she got these from the NHBC, do you, not 15 from in-house expertise?

16 A. I don't know, but the fact that she said "and in 17 particular what NHBC commonly see", and I know that she 18 did speak to someone at the NHBC, I saw that in some

19 previous evidence.

20 What was the reason for seeking to obtain this report? 21 Was it because there had been customer pressure such as 22 we've seen before?

23 A. I think there was feedback -- there was feedback from 24 the market about the product being used in different 25 applications, with different cladding systems, sorry,

152

14

15

16

17

18

19

20

21

22

23

24

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 and therefore the BCA guidance which we'd only just been 2 made aware of, gave an option for us to start this 3 desktop study route. 4 Q. She says, as I've shown you, at the bottom of the page: 5 "It will also provide us with some insights on 6 RS5000 fire behaviour and contribution to this risk." 7 Do you agree that that was one of the purposes of 8 seeking a desktop study from Mr Paap, Exova? 9 A. My understanding was that we were looking at different 10 systems and how they could be assessed as a desktop 11 12 Now, we saw I think yesterday that you had known since 13 June 2013 that RS5000 was very unlikely to pass with 14 an aluminium cladding, because we saw that from the 15 notes of the Sotech meeting that Mr Roper had attended 16 in June 2013 and again in October 2013. We saw that. 17 A. Yes. 18 Q. So you already knew, didn't you, that the combination of 19 RS5000 and cladding aluminium class 0, which was 20 design 4, was a risky combination? 21 A. I don't know whether I knew about all of the different 22 types of aluminium cladding to have been able to say yes 23 24 Q. Now, we can see what it is that Debbie Berger sent to 25 Frans Paap, and it's a copy of the full test report, the 153 1 32-page test report, BS 8414-2. She says it's 32 pages. 2 Did you notice that it was not the full 35-page version?

3 A. No. 4 Q. Did you notice that, whatever it was she was sending, 5 she didn't indicate to Frans Paap what was not in the 6 report, namely that the test build-up, the rig build-up 7 as tested, included 6 millimetres of magnesium oxide in 8 two places on the rig and 8 millimetres of 9 Marley Eternit as cladding at those points? 10 A. No. 11 Q. You didn't notice that? 12 A. I don't think I would have looked at the test report. 13 This is the test report we had in the business at that 14 time, and my understanding at the time was that that was 15 the test report that needed to be used. 16 Q. But you knew at the time that the test report omitted 17 those two critical elements of the test rig as 18 described, didn't you? 19 A. Based on what I've seen since, but not at the time,

that's not where my thinking was.

build-up; that's right, isn't it?

Q. As you accept, I think, any desktop study done by

Mr Paap based on that test report would have been

incomplete and misleading and wholly unreliable because

Mr Paap would not have been informed of the true test

A. Based on what I've seen since, yes.

Q. I would suggest to you, given what I've put to you
 earlier, that you did know that and that you
 deliberately and intentionally did not correct Ms Berger
 and ensure that Mr Paap got the full information.

A. No, that's not what -- where I was with my understanding
 and thinking of this launch.

Q. Can we then turn to the Octavius Street project which you referred to just a moment ago in your evidence.

CEL00002193. This is a lengthy letter of complaint from Ardmore Construction Limited to Paul Reid, and it says:

"Dear Paul,

"Please be advised that your Celotex RS 5000 insulation product has been deemed unacceptable for use by the NHBC at our Octavius Street project, a mixed-use development of some 121 apartments and commercial space. The NHBC have stated that your products are flammable and are therefore not to be incorporated into buildings over 18m in height, of which Octavius Street is one such; we enclose here their refusal notice for your comment.

"We are well on with the build process, see attached site pics, and this refusal notice on the part of the NHBC has very serious implications in both cost and

155

programme to the project with of course further consequential costs for the delay incurred directly resultant from the non compliance of your products.

"Your available Product Literature & Data sheets for this product does not state that it is not suitable for use as rainscreen insulant in buildings over 18m, your company has been well aware of this project and full knowledge of the respective detailing. We had been in contact via email & telephone with Jeremy Suttle (Celotex Technical Services Officer).

"Clearly you are an international supplier and manufacturer of some repute and we are amazed that you send products to market that are not suitable for their intended use. You must have test data for these products, which you appear to be reluctant to share with use, is there some technical reason for your reluctance?

"Currently we are faced with total removal of your product and substitution with a compliant material, which is clearly a huge issue in both time and money to us. This action is extreme to say the least and we look to you to immediately provide unequivocal laboratory supported evidence that your products have been fire tested to prove beyond doubt that they meet the requirements of surface spread of flame and general combustibility for buildings over 18m in height. It

154 156

20

21

22

23

24

1 would seem unimaginable that a company with the market 1 Now, Dave White was the self-same Dave White whom 2 2 size of yours and technical expertise cannot provide 3 3 such evidence; we require receipt of same by return. 4 4 "In the unlikely event that you have no such A. 5 evidence then we would suggest you notify all of the 5 Q. So he was known to Celotex. He says: 6 6 national Building Control Warranty bodies together with "Hello Ben, 7 7 the wider construction industry advising that your 8 8 products are not for use over 18m. 9 9 (Celotex RS 5000)." "Furthermore please notify your insurers accordingly 10 of your failure to provide products suitable for their 10 11 intended use; we will be seeking full recompense for all 11 pick out the salient points. 12 of our costs, both direct and indirect incurred as an 12 Under paragraph 1 he is dealing with the masonry 13 13 absolute consequence of your failures . 14 14 "We trust you recognize this lamentable state of 15 15 affairs we have here and treat this matter with the 16 16 upmost attention it deserves from the most senior people fire and will burn in fire." 17 in your business within the shortest possible time 17 18 frame. 18 19 19 "Yours Faithfully building: 20 20 "Richard Hunt 21 21 "Technical Director." 22 22 Now, there is not a lot in that letter which could fire and will burn in fire." 23 23 possibly be misunderstood, is there? 24 24 A. No. says under paragraph 4: 25 25 It doesn't appear to have been copied to you on 157 159 1 23 March 2015, but you became aware of the dispute 1 2 2 a little bit later. 3 3 This was a clear allegation, as I suggest you must 4 4 have realised when you saw this letter, that the Celotex 5 product literature was, to put it at its lowest, 5 6 6 insufficiently clear. You must have realised that was 7 7 at least the point they were making, to put it at its 8 8

9 A. Yes, that's what they were saying, that it was not in 10 line with the literature.

- 11 Q. Yes, and they were calling you out on your refusal to 12 issue full test data.
- 13 A. Yes.
- 14 Q. So that's the letter. Let's look at the correspondence 15

16 If we go to {CEL00002193/3}, please. We need the 17 bottom of page 3, top of page 4. This is what starts it 18 off. Here is Dave White of NHBC writing 19 to Ben Whitaker, copied to various people but including 20 Richard Hunt, the signatory of the letter of 23 March 21 we've just seen, and in fact if you go to the top of 22 page 3, we can see that there is the email of 23 March 23 which sends this on. But I want to focus with you on 24 the email from Dave White to Ben Whitaker into which 25 Mr Hunt had been copied of 11 March.

Mr Roper had met at Hadleigh, Celotex's premises, on 19 June 2014, along with his colleague Mr Perrior.

"Ref. Octavia(sic) Street Ardmore Deptford Project Development - Fire Performance of Phenolic Insulation

I don't want to read it all out to you, but I can

outer leaf façade, and under (d) there, he says:

"The 50mm [thick] Phenolic type rigid insulation board product (Celotex RS5000) is not fully resistant to

Then under paragraph 2 he says under (d), and this is in relation to the terraced balcony areas of the

"The 80mm [thick] Phenolic type rigid insulation board product (Celotex RS5000) is not fully resistant to

Then if we turn the page, please {CEL00002193/4}, he

"Other insulated parts of the building envelope,

e.g. curtain walling panel types on lower level façade zones, are not referred to in the BWC report. Also, in this report the continuous rainscreen facades that extend the full height of the building are not fully assessed in terms of fire performance and level of safety/risk e.g. relating to the mechanism of fire spread within the concealed cavity where combustible insulation is installed behind an aluminium rainscreen façade. To my knowledge this specific type of rainscreen has never been tested by Celotex under the BR135 requirements."

12 And that's correct, isn't it, it hadn't?

13 A. No, it hadn't.

14 O. Paragraph 5:

9

10

11

15

16

17

18

19

20

21

22

23

24

25

"It is apparent from reading your report that access to the full final version of the BRE fire test report 295255 for Celotex RS5000 was, unfortunately, not possible. Therefore, I feel that some of the assumptions made in your report on likely fire performance of this facade in comparison with what actually occurred during the testing are not strictly accurate."

Now, this seems to have been the basis on which Richard Hunt of Ardmore concluded that some of the assumptions that Ardmore had made were not accurate.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 Was this an indication to you when you saw this that 2 the refusal to issue the full test report was leading to 3 difficulties ? 4 A. I can recall from the letter that we received from 5 Ardmore that that was something that I then made sure 6 that we had a discussion on. I remember Craig Chambers, 7 myself and I think Rob and maybe Paul Reid having 8 a discussion in the boardroom at Hadleigh about this, 9 because it was the first time we'd had our product being 10 used and this level of correspondence coming from it. 11 Q. You say this level of correspondence, you mean this 12 level of complaint? 13 A. Yes. 14 Q. {CEL00001080}, please. Here is an email of 15 24 March 2015, so the day after, it appears, 16 Richard Hunt had sent the Ardmore letter in to Celotex. 17 It comes to you, copied to Debbie Berger and 18 Louise Garlick, "Timeline on enquiries from Ardmore to 19 Celotex ": 20 "Paul 21 "Please see attached for the timeline of events as 22 best as we can piece them together (there were a number 23 of CTC people involved and not all interactions would 24

161

telephone conversations we have had with Ardmore.

"It should help to form a response to the letter. "At the moment we have other NHBC project enquiries in the technical inbox and we are holding off responding otherwise we are in danger of ending up in the same boat as the Ardmore enquiry. My view on NHBC projects is that we turn them away and say we are not suitable up front until we have evidence to the contrary."

Why had that not been the position anyway, even before the Ardmore complaint letter?

10 A. I don't know.

25

1

2

3

4

5

6

7

8

9

11 $\ensuremath{\mathsf{Q}}.$ Well, because you were riding your luck is one possible 12

reason; is that wrong?

13 A. I don't think -- certainly didn't ... my understanding 14 is that we weren't riding our luck. There were projects 15 that came back to us from NHBC from the launch, and some 16 of those projects we weren't -- or all of those projects 17 we weren't able to supply our material for, then we

18 accepted that we couldn't supply our material for.

19 Q. Now, Mr Warren attaches a timeline of events, or at 20 least a document which shows the timeline, and it seems 21 to be the document at {CEL00001081}, if we can just have 22 that up, please. It runs over two pages. It looks to

23 be a sort of chronological document and it's not that

24 straightforward, but it seems to start on

25 6 January 2014, which can't be right, so that must be

162

2015, with information about U-values.

One can run down the page. There are different dates, different enquiries and different answers, most of which come from either Jeremy Suttle -- well, all of which come from Jeremy Suttle, actually, the technical officer, and then if you look at the bottom of the page, 11 February 2015, Damien McMahon, who is on Ardmore, who's already made two requests for information in December 2014 and January 2015, as you can see above, and in fact twice in that month, says at the bottom of the page:

"Telephone conversation between Debbie Berger (Product Manager) and Damien explaining that RS5000 is compliant to a specific system as is made clear in our Rainscreen Cladding Guide. If the system proposed is not in line with that guide then an alternative product such as Rockwool should be considered. Also explained that the full fire test is a proprietary document and we would not be able to issue this document."

Now, this advice as encapsulated by that summary of that discussion doesn't seem to tally with the advice that Ardmore felt that they had received as set out in Mr Hunt's letter of 23 March, does it?

24 A. No.

25 Q. Can we look at {CEL00003637}, please. This is an email

163

from you to Rob Warren, also on the Octavius/Celotex non-compliance issues topic, and in the second main paragraph you say:

"My view is that we make the email back to him cover the following points."

And then there is a long list of them, and you can see what they are. The first point is you say:

"We successfully passed BS 8414-Part 2 last year and launched RS5000 in August 2014. Through our literature and technical guidance we have made it clear of the components that make up the system and in the case of Octavia Street gave guidance to Ardmore that if their wall system differed from our tested build up then our advice would be to gain approval from the relevant bodies for this or use an alternative solution."

Now, that's not accurate, is it? When you say there "Through our literature and technical guidance we have made it clear of the components that make up the system", that's just incorrect, isn't it, because we know that the literature and technical guidance made no reference to the true components which were tested?

Yes, but based on, again, what I've said previously, in that that's not in my -- I haven't -- that's not even in my mind when I'm writing this, because of my understanding of what we'd done when we launched the

1 product.

3

4

5

6

7

8

2 Q. So you say, yes, I understand that.

> One way or the other, the concern that Ardmore had expressed didn't prompt you to suggest to your internal team that the product literature should be reviewed to see if it could be made clearer, to see if the caveat in it could be made clearer. We don't see any evidence of that.

- 9 A. No.
- 10 Q. Is that right? So that really prompts the question why 11 this was so complicated. If Ardmore had read and 12 understood the caveat in your RS5000 marketing 13 literature, then, Mr Evans, all you had to do was simply 14 answer his complaint by saying, "Well, we don't know why 15 you're making such a fuss, read our marketing 16 literature, it says quite clearly in there that the 17 BS 8414 test is only for exactly the same system as the
- 18 test ". Why didn't you do that? It would have been
- 19 a very simple answer, rather than all this
- 20 hand-wringing.
- 21 A. I don't know why we didn't do that.
- 22 Q. You don't know. Let me again suggest a reason: because
- 23 at the time you knew very well that the marketing
- 24 literature was, at its most generous, sailing close to
- 25 the wind, where a preference had been made to trumpet

165

- 1 the availability of RS5000 for use on all buildings over
- 2 18 metres and put the caveat in the small print?
- 3 A. No, that wasn't what I was intending to do with the
- 4 launch of the product.
- 5 Q. Did it occur to you at the time that Mr Hunt's complaint
- 6 was a try-on?
- 7 A. Was a ...?
- 8 Q. A try-on. Wasn't really a genuine compliant, but was 9
- just a bit of commercial positioning --
- 10 A. I think it came -- when it came in to us, we -- as 11 I say, Craig, myself, maybe Paul met, and I think our
- 12 approach would have been, well, he clearly hasn't --
- 13 they clearly haven't read the literature. I think there
- 14 was then this BWC desktop study that we weren't aware
- 15 of, which I later saw in the evidence, and then in that
- 16 Ardmore case, I think what made it more confusing for us
- 17 is that we then found out that the complaint almost had
- 18 gone because the NHBC signed off on the use of the
- 19 product.
- 20 Q. Just looking at the complaint, your reaction to it at 21 the time wasn't, "Well, this is a try-on, they've read
- 22 our marketing literature"; you took this complaint
- 23 extremely seriously and you treated it as genuine,

166

- 2.4 didn't you?
- 25 A. Yes, we did.

Q. That's because I'm suggesting to you that it was

- 2 genuine, and the reason it was genuine was because
- 3 Ardmore had failed to grasp the point that you had
- 4 tucked away in the marketing literature, the
- 5 qualification, caveat, that is to be found --
- 6 A. Yeah, maybe they hadn't read the literature or hadn't 7 read the details of the system.
- 8 Q. Did that not concern you, that your marketing literature
- 9 was not sufficiently clear to big market players like
- 10 Ardmore?
- 11 A. I don't believe so at the time. I think they've
- 12 obviously used the product thinking they can use it, and
- 13 then they were turning it back to the manufacturer on
- 14 the basis that we hadn't made it clear, whereas in our
- 15 view we had made it clear.
- 16 Q. Why didn't you go back to them simply with a three-line
- 17 letter saying, "Dear Mr Hunt, I enclose a copy of each
- 18 of the pieces of our marketing literature, you will see
- 19 the caveat on page 3 [or whatever it would be] in each
- 20 of them, I trust this answers your query"? It would
- 21 have been very easy to do that; why didn't you?
- 22 The discussions that I think we had with the other 23 people from the business, we wanted to investigate it
- 24 and then go back with a full answer.
- 25 The reason I suggest that it needed all this internal

167

- 1 investigation and further thought was precisely because
- 2 you knew very well that the marketing literature,
- 3 regardless of whether it accurately identified the true
- 4 build-up of the test, was in and of itself misleading,
- 5 or at least apt to mislead, and on this occasion had
- 6 misled?
- 7 It wasn't -- as I've said, it wasn't my intention with
- 8 the literature to mislead. We had a system that we
- 9 tested, and when we launched it, that was my
- 10 understanding of how we were going to launch the system.
- 11 I would suggest to you that the honest businessman's 0.
- 12 approach to a complaint like that, if you had taken the
- 13 complaint genuinely, which it seems that you did -- and
- 14 I'm not suggesting that it wasn't, so as to be clear --15
- would have been to have started an internal discussion
- 16 about how to improve the literature so as to make it
- 17 absolutely crystal clear to the likes of Ardmore that 18
- RS5000 should not be used above 18 metres in any system 19
- unless it was exactly the same as the system as tested. 20 That would have been the honest thing to do, wouldn't
- 21
- 22 A. Which is my view on what we had done based on what
- 23 I knew at the time of launching the product.
- 25 the product, you launched the product literature on

That can't be right, because at the time of launching

168

1	which Ardmore were	e relying, hence their complaint. So	1	A.	Well, I know we went to meet with the NHBC in May of
2	you can't go back to	the original launch.	2		2015, so this is possibly the letter that instigated
3	I will put the	question one more time: on the basis	3		that, so I believe I would have seen it, yes.
4	that Ardmore's com	plaint was a real and genuine	4	Q.	It's an update to the writer's letter of
5	complaint, wasn't th	ne honest approach to have had an	5		9 February 2015, as you can see from the first line . Do
6	internal discussion	about how to improve the marketing	6		you see that?
7	literature so that p	people like Ardmore didn't make the	7	A.	Yes.
8	same mistake again?		8	Q.	It goes on to say in the "Background" part:
9	A. That is something v	ve could have done, yes.	9		"We are aware that some builders are specifying
10	Q. And you didn't do it	·	10		combustible components within the external wall
11	•	ove the literature in the future off	11		construction of buildings with a floor level 18m or more
12	_	ork that we were doing, but we didn't	12		above ground level ."
13	do it off the back	· ·	13		It goes on to set out, in both summary and detailed
14		you were quite content to keep	14		terms, the Building Regulations requirement.
15		o an unsuspecting market and take the	15		If we go to page 2 {CEL00001088/2}, it says:
16		ple might complain, but others might	16		"What do the NHBC Standards require?
17	not.	,0 - 0	17		"NHBC Standards require compliance with Building
18		now I saw the product being launched.	18		Regulations and also that materials provide satisfactory
19	•	to the topic of further NHBC	19		performance. In addition, paragraph D8(c) of
20	contacts in 2015.	to the topic of further failed	20		Chapter 6.9 'Curtain walling and cladding' of the NHBC
21		is might be an appropriate moment for	21		Standards advises that reference should be made to
22	a break.	is might be an appropriate moment for	22		BR 135."
23		CK: Yes, I was just wondering that. You	23		Did that tell you anything you didn't already know,
24	are going to a new	· ·	24		assuming you saw this letter at the time?
25	MR MILLETT: I am going	•	25	A.	I wasn't as close to the actual NHBC standards as the
2	wik with the real going	g to go to a new topic.	25	л.	1 wash t as close to the actual Milbe standards as the
		169			171
1	SIR MARTIN MOORE-BIO	CK: All right. Well, I think we will	1		technical team, but I don't believe that's anything
2	take a break at this	s stage.	2		different that the business didn't know.
3	We're going to 1	nave a short break again now,	3	Q.	Right.
4	Mr Evans. We will o	come back at 3.35, and see if there	4		Similarly, under "Demonstrating compliance",
5	are some more ques	tions for you then. Well, there will	5		Mr Perrior, who is the writer, sets out guidance on
6	be.		6		three possible methods of demonstrating compliance:
7	THE WITNESS: Thank yo	ou.	7		limited combustibility, BR 135 or desktop study.
8	SIR MARTIN MOORE-BIO	CK: So please don't talk to anyone about	8		Again, did that, by that stage, tell you anything or
9	your evidence while	you're out of the room. Thank you.	9		tell the business anything that it didn't already know?
10		(Pause)	10	A.	By that stage we knew about BCA guidance from a month or
11	Right, 3.35, ple	ease. Thank you.	11		so previous.
12	(3.17 pm)		12	Q.	Can you explain why or how come it was only nine months
13	(1	A short break)	13		or so after the technical guidance note which had been
14	(3.35 pm)		14		published by the BCA in the June of 2014 that you came
15	_	CK: Right, Mr Evans, ready to carry on?	15		to know about it?
16	THE WITNESS: I am.	· · ·	16	A.	No, I can't explain, other than the business and the
17	SIR MARTIN MOORE-BIO	CK: Yes, thank you.	17		team at the time in launching the product, there's other
18	Yes, Mr Millett		18		projects, lots of things, this wasn't the only thing we
19	MR MILLETT: Mr Evans,	some more questions about NHBC.	19		were trying to focus our time on, and it's we didn't
20		se, to {CEL00001088}. This is	20		know about it when we were launching the product.
21		ob Warren of 21 April 2015. Do you	21	Q.	Now, can we go to {CEL00001087}. This is the email to
22		e seen this at the time?	22		you from Rob Warren which sent this letter to you, which
23		is "The use of combustible materials	23		I should have shown you before showing you the letter,
24		wall construction of buildings over	24		but it doesn't matter.
25		that helps your recollection .	25		He says in the second sentence:
	-				179
		170			172

1 "Very interesting as it now states that a desktop 2 study is acceptable as a means of compliance." 3 Does that tell us that it wasn't until then that it 4 was clear to the business that NHBC were prepared to 5 accept a desktop study? 6 A. That's my understanding, yes.

7 O. I see.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1

2

3

4

5

6

7

Your response to this email is at {CEL00003640}, and vou sav:

"Useful to get official confirmation from them though given the intel from Ardmore today it makes it very difficult with the NHBC to be able to say a definitive yes or no given there could be specific detail changes in the design that we are not aware of."

What was that a reference to?

A. My understanding is that the Ardmore project was given the go-ahead because there was something technical around the balconies or terracing on the building, and that's why the NHBC allowed it.

Q. Then you say in the third paragraph:

"Are you ok to suggest some dates to Graham [Perrior, the writer of the letter]. I'd rather have a face to face meeting on this then just respond in a letter. I think they need to be aware of the challenges we as a manufacturer now face on

173

communicating where RS5000 can and can't be used. We need to start working closer with them and can update them on where we are with our overall message on RS as well as progress on desktop studies."

Why would you want to have a face-to-face meeting with them rather than setting out your simple position in a letter?

8 A. I think it was just the style of how Celotex operated. 9 There was always face-to-face meetings, and that was 10 generally the preferred way of working.

11 Q. I see.

12 You say, as I've shown you, that they need to be 13 aware of the challenges that Celotex as a manufacturer 14 now faces. What challenges did you have in mind?

15 A. Linked to paragraph 1 with the Ardmore letter, and then 16 the acceptance of our product being allowed on that 17

Q. Can we go to $\{CEL00003342\}$, please. This is the 2015 18 19 budget, and it seems to have been a presentation for 20 Les Miroirs for 14 October 2014.

21 Just help me, Les Miroirs, was that Saint-Gobain's 22 glass-clad head office in Paris?

174

23 A.

24 Q. Did you go to that meeting?

25 A. I believe so.

Q. The date of 14 October 2014, did you go to that meeting 2 on that date?

3 A. That's the date of the meeting to present the budget for 4

the next year, starting in January 2015. That was the 5 general timeline that you had to present your budget in.

6 Q. Who presented this slideshow at Les Miroirs?

A. I can't remember everybody that would have gone to the budget, but there was a number of people from the

9 Celotex MAG team would have gone, so it was a --

10 multiple people.

11 You went, as you told us. Did you do the presentation? 0.

12 I would have done some of the marketing slides, yes.

13 O. I see.

7

8

14 Can we go to slide 21, please, on page 21 15 {CEL00003342/21}. This is a slide addressing 16 "2015 Actions - New Build Housing", and you can see 17 under" Initiative ", third item down:

18 "NHBC 'buy-in' for above 18m applications."

19 Timing, 2014 Q1. That probably ought to be Q1 2015,

20 shouldn't it?

21 Α. Yes.

22 Q. Budget, £20,000.

23 Now, what does "NHBC buy-in" mean or refer to?

24 A. I think that's a set of words which basically means NHBC 25

approvals for above-18-metre applications.

175

1 Q. And the budget of £20,000, what would that be spent on?

2 A. Based on where we were, I think desktop studies, or

3 additional testing that the NHBC might need us to do.

4 Q. Well, wait a moment. You just told us that it wasn't 5 until March, possibly April 2015 that you were aware 6

that the NHBC would accept desktop studies. Indeed, 7 I think you said earlier that it wasn't until March 2015

8 that you knew that the BCA guidance which had been

9 issued in the June of 2014 contained an option of

10 desktop studies by way of compliance.

11 How could the £20,000 be allocated possibly to 12 desktop studies as early as October 2014, Mr Evans? How 13 does that work?

14 A. It may have been for additional testing. I used desktop 15 studies, but it could have been for additional testing

16 that we might need.

17 Q. Right. I see. So the £20,000, you say, could have been for additional testing. You don't sound terribly sure. 18

19 No, I don't recollect totally why that was in there.

20 Q. Might it be a sum allocable for lobbying or making

21 presentations to the NHBC to obtain what you call their

22 buy-in?

23 A. No.

24 Q. What form would NHBC buy-in take as was contemplated at

25 this time, do you think?

A. I think it was just RS5000 being able to be used on some 1 terms of other development. 2 NHBC projects. 2 Q. Going back to the Ardmore complaint of 23 March 2015, to 3 3 Q. What had led you, mid-October 2014, to think that NHBC give it its date, can we look at {CEL00003595/4}, 4 4 buy-in was required and sufficiently difficult to please. We will come back to page 1 in due course, but 5 warrant a budget of £20,000 being allocated to it? 5 page 4 is an email of 25 March 2015, and it starts at 6 6 A. Based on what I've seen today, I can only look at the the bottom of page 3 {CEL00003595/3}, as is typical. 7 7 feedback that we were getting from the market on NHBC You can see that he is sending you and Rob Warren and 8 8 projects. Louise Garlick some wording, being: 9 Q. So this would be feedback between the beginning of 9 "... a draft position for the specification of 10 10 August 2014, when RS5000 was launched, and the middle of RS5000 and a set of words for both LABC and NHBC 11 October 2014? 11 projects. 12 A. Based on those timings, yes. 12 "Please be aware that we have NHBC project enquiries 13 13 Q. So did you anticipate at this point or by this point where customers are awaiting a response." 14 14 that, even though you had your 8414 test, the NHBC would Then he sets out a set of drafts. 15 15 not simply accept it and give you an endorsement for If we go to page 4 {CEL00003595/4}, we can see the 16 16 RS5000, you had to go further and spend £20,000 on NHBC section of this email, a third of the way down the 17 getting their buy-in? 17 page: 18 18 A. I think we were accepting that we might need to do "Where projects are subject to NHBC requirement we 19 19 additional testing. will identify the given construction and unless it 20 20 Q. Right. So the £20,000 is additional testing in order to exactly matches the specification given in our 21 get buy-in, and you told us earlier there was no 21 literature we will advise that the use of Celotex is not 22 22 additional testing. supported. 23 23 What happened, so far as the NHBC buy-in was "If customers ask for an official position then they 24 24 concerned, between the middle of October 2014, when you can be sent the set of words below." 25 25 were considering spending that money on further testing, That was what Jamie Hayes was proposing. That's 177 179 1 1 and March 2015, when you discovered the existence of the very different, isn't it, from the marketing literature 2 BCA Technical Guidance Note 18 which referred to desktop 2 which had been approved in August 2014 and launched? 3 3 A. Yes, this is different wording. 4 4 A. I don't believe anything in terms of additional testing. Q. This is basically now telling the market that they 5 Q. No. So what was it? It was a limbo period. You didn't 5 shouldn't be using RS5000 unless it exactly matches the 6 6 know about desktop studies, but you weren't doing any specification given in the literature. 7 7 testing. A. Yes. 8 8 A. No. Q. Then the set of words, as you can see below: 9 9 Q. So what was happening? How were you going about getting "Thank you for your enquiry." 10 NHBC buy-in during that period. 10 The second sentence still contains the weasel words: 11 11 A. Well, we're not. We're not being used on those "... and so can be considered for use in buildings 12 12 above 18m." projects. 13 Q. But this is about six months that goes by, isn't it? 13 Then the last paragraph is where one gets the rather 14 Mid-October to mid-March. Maybe five and a half months 14 stiffer caveat: 15 or something like that. Why were you prepared to allow 15 "Where the proposed design differs from the tested 16 16 so long to go by without NHBC buy-in in the absence of system as outlined in our compliance guide we would not 17 further tests or any desktop initiatives? 17 recommend the use of Celotex RS5000." 18 A. I don't know, just timings of other activities possibly. 18 Now, you saw that at the time.

178 180

19

20

21

22

23

24

25

page 1, he says:

"Thanks Rob.

to send these earlier.

Things that are listed on that slide, so --

 $\ensuremath{\mathsf{Q}}.$ Again, were you proposing simply to ride your luck until

A. I don't think we were riding our luck. I think there

the NHBC came clear about what it was they wanted to do?

was lots of other things happening in the business, not

just RS5000, and most of them are on that -- a lot of

them are on that slide there, which are big projects in

19

20

21

22

23

24

25

If we go up the page, then, and look at the bottom

"I have identified some awkward questions that we

could be asked that we need some guidance on. I meant

of page 1 {CEL00003595/1}, and over to page 2, bottom of

3

A. I just think we learnt as -- after the product was

that maybe we didn't know at other times.

launched, there was more information coming in to us

4 4 ·" Where customers have had calculations for Q. It can't have come as a surprise to you, could it, that 5 previous NHBC projects and now find our position has 5 all these players in the market were lining up with 6 6 awkward questions such as those which Mr Hayes has set changed, how do we answer them?" 7 Just going to the first of those points, at the 7 8 8 bottom of page 1, he describes that question as A. I think we always knew there would be questions that 9 came from RS5000 because of the nature and how different 9 an awkward one: 10 10 "How do we handle projects for NHBC where it was as a product launch for us. 11 calculations have already been provided?" 11 Again I make the point: why was any of this awkward? 0. 12 Why were those questions, or why was that an awkward 12 Why couldn't you just point each and every one of these 13 13 question? customers to your marketing literature which had been 14 14 I think from Jamie's perspective, being -- answering generated in the summer of 2014 and say, "Our marketing 15 15 enquiries from clients, customers, the position and the literature is perfectly clear, our caveat is in there if 16 16 wording has changed, therefore that's why he's seeing you read it properly"? That doesn't seem to have been 17 that as a potential awkward question that could come 17 a choice you ever made. Why is that? 18 from previously -- previous enquiries. 18 A. I think we did say that, and I think it's just the fact 19 19 Q. It was awkward, wasn't it, as was obvious, I would that we've learnt more, there's more projects, people 20 20 are coming to us, that we've needed to adjust what we're suggest, because the marketing literature on the basis 21 21 of which RS5000 had been launched had not set out the 22 22 qualification or the caveat, as I would call it, in Q. Well, I would suggest that it was really just that you 23 23 clear terms, and had it done, you wouldn't have had knew very well that the marketing literature was 24 customers lining up to ask these awkward questions? 24 misleading in the way in which we've established and 25 25 A. I just think we've launched a product, and the -- we've wasn't crystal clear about the caveats, and when people 181 183 1 1 learnt as we've launched the product and been given started complaining about it, this was entirely 2 2 feedback from the market based on our launch, and a foreseeable result of that. 3 3 therefore we've needed to come up with additional A. That's not how I thought the market was going to go, but Δ 4 statements such as this to -- for the company. I can see why people would think that. 5 Q. Can you turn the page again, please, to page 2: 5 Can we go, then, to {CEL00003599/3}, please. We can see 6 6 "Where customers have had calculations for previous your response to Mr Hayes' original email about the 7 7 NHBC projects and now find our position has changed, how suggested wording for responses: 8 8 do we answer them?" "Jamie 9 9 Is the change in position that he's referring to "I am ok with these words to be used for projects 10 there the change in position to make it clearer that 10 currently in the Salesforce pipeline where we need to 11 11 RS5000 should not be used above 18 metres unless the get back to people quickly. 12 system in which it was to be used exactly conformed with 12 "Following this, we should be looking to wrap 13 13 a communication around NHBC and RS5000 into a consistent the system as tested? 14 A. Yes, I think it's just the fact that we were saying 14 message that is then communicated into marketing, sales 15 15 something -- we're now saying something new that we and technical as well as the wider market. 16 16 "Please let me know of any other market feedback you hadn't said previously. 17 Q. So market pressure and awkward questions from potential 17 get on RS5000." 18 customers was now driving management into changing the 18 When you say "wrap a communication around NHBC and 19 19 way it presented RS5000; is that a fair summary? RS5000 that is then communicated into marketing", what 20 A. As we learnt more from the market, we had to change some 20 did that mean? 21 21 A. I think summarise, have a -- one communication. of the responses to enquiries, yes. 22 22 Q. Yes. And really this was just the coming home to roost Q. Right.

23

24

25

the time of the launch.

of something that you had already really predicted at

(Pause)

182

23

24

25

1

2

3

" How do we handle projects for NHBC where

calculations have already been provided?"

Then over to page 2 {CEL00003595/2}:

Now, Mr Roper also responded the following day on

26 March, {CEL0003599/1}, if we just look up to that.

You can see his email there. It's a long email, I'm

certainly not going to read it out to you at this hour, but in the third paragraph he says:

"The note below also assumes that LABC and private building inspectors equally do not have the same reservations over AD B compliance as NHBC but the recent publication from the BCA would indicate that it is only a matter of time before they are brought up to speed with the issues surrounding combustible insulation. We could therefore be in a similar position with buildings that are warranted by somebody other than NHBC."

Does this mean that, in other words, Celotex knew that RS5000 was being specified on some projects where NHBC was not involved, but that might change for the worse once the BCA was, to use Mr Roper's words, brought up to speed?

- 16 A. Yes, I think that's what Jon is saying.
- 17 Q. So you were taking advantage for the time being of the 18 BCA not being up to speed and were concerned that that
- 19 advantage might come to an end?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

6

7

8

9

10

11

12

13

14

15

16

17

18

19

- 20 A. I don't recall thinking like that at the time,
- 21 I think -- but I can see why -- that's how that could be 22 interpreted.
- 23 Q. That's because that was what was happening, I would
- 24 suggest. No? You were taking advantage of BCA's
- 25 leaden-footedness for the time being.

185

- 1 A. I think we were only aware of the BCA document at this 2 time, so ...
- 3 {CEL00003600}, please. Email from Jamie Hayes to the 4 various teams, tech department, copied to Louise Garlick 5 and you, Mr Evans, 27 March 2015:

"Good morning!

"With regards to RS5000 enquiries for buildings above 18m, it is important that any changes to our policy in dealing with these enquiries is rolled out in a consistent way to our customers, sales team and to the market in general.

"To that end the advice we give to customers is to be reviewed by Paul Evans and the management team."

If there was a need for consistency, were you not concerned that previous messaging had been inconsistent?

- A. I'm not sure inconsistent, I just think there -- we're just needing to find a different way or different ways of communicating to clients as we have been in the market for longer.
- 20 Q. I'm not sure that's right, is it? He, Mr Hayes, is 21 saying to you that it's important that changes to your 22 policy in dealing with enquiries that were coming in 23 about RS5000 were "rolled out in a consistent way to our 24 customers, sales team and to the market in general", and 25 to the reader, that does raise the question whether or

- 1 not previous messages were inconsistent.
- 2 A. Yes, that could be implied. I would say that might be
- 3 because Jamie's team are on the phone or answering
- 4 emails, and maybe they don't have that consistent set of
- 5 language to all say the same thing.
- 6 Q. What could be inconsistent? Why wouldn't they all have
- 7 the same language to say the same thing?
- 8 A. I don't know. That's --
- 9 Q. Might it be that there was some lack of consistency
- 10 about whether or not they should be pushing the use of
- 11 RS5000 above 18 metres and not pointing up the
- 12 qualification in order to get sales, on the one hand,
- 13 for some people, but other people might be pointing up 14
- the qualification on the other hand and foregoing sales?
- 15 Might that be the inconsistency to which Mr Hayes is
- 16 referring?
- 17 A. Maybe, I don't know.
- 18 Q. Did you not enquire? Did you not investigate what
- 19 messages the marketing team, who were of course under
- 20 your supervision, were giving customers?
- 21 The marketing team were under my supervision. This --
- 22 Q.
- 23 Sorry, I thought this was to do with the technical
- 24 team's message.
- 25 Well, it's changes -- well, it's the advice given to

187

- 1 customers, that's the point that Mr Hayes is dealing 2 with here.
- 3
- 4 Q. And how advice given to customers, whether it's by the
- 5 technical team, sales team or marketing team, it doesn't
- 6 matter, his concern was there was a need for consistency
- 7 in the messaging.
- 8 My question to you is: did his identification of 9 a need for a consistent message not concern you, or not
- 10 alert you to the fact that there were inconsistent
- 11 messages at that point, or up to that point?
- 12 Not that I can remember, and also that I'm working with
- 13 Jamie and Rob to make a set of words that can all be
- 14 used.
- 15 Q. If we go to {CEL00003641/2}, please. This is an email
- 16 of 13 March 2015 at 10.50. A few days on from what
- 17 we've just seen, Jamie Hayes sends an email which is
- 18 a change to a standard wording being added to emails
- 19 where a calculation was requested for buildings. It's
- 20 a long email.
- 21 If we go to the bottom of page 2 and over to page 3, 22 you can see again there's that mantra at the bottom of 23 page 2 that, because of the test, Celotex RS5000 "can be
- 24 considered for use in buildings above 18 metres".
- 25 Again, we have been round that hoop a number of times.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

If we go to the top of page 3, this is the wording 2 that he's now suggesting: 3 "Please find attached a copy of our Rainscreen

Cladding Compliance Guide which gives details of our fire test and some background to the Building Regulations ..."

Then:

1

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

"It will be the responsibility of the building control body to judge compliance on a project by project basis. We would recommend showing them the compliance guide and the details of your proposed system and have a discussion with them as early in the design process as possible.

"Our tested system comprised an external rainscreen façade ..."

And then in the last line:

"It is critical that compliance is agreed before the design is finalised or work commences on site."

19 This is a very different message from the message 20 conveyed in the original marketing literature, isn't it?

21 Α.

22 Q. Does that tell us that these changes were because of 23 a concern in management that that message, the message 24 that is now in that draft, had not been uniformly 25 conveyed until now?

189

- 1 A. Yes, I think there was -- as we've had more feedback 2. from the market, we've needed to have more -- different
- 3 wording, clearer wording.
- 4 Q. It's not really surprising, is it, that you had all 5 these awkward questions leading to this wholesale change 6 in the wording of the literature, given statements in
- 7 the literature such as the pink banner on each of the
- 8 three pages at the top of the datasheet, "suitable for 9 use on buildings above 18 metres"?
- 10 A. It might have been because of those headline messages.
- 11 That was never the intention. 12 Q. No, but didn't you ask yourself why it was that all
- 13 these customers were coming in and asking all these 14 questions?
- 15 A. Not at a time that I can recall, no.
- 16 Q. {CEL00001279}, to finish this line off. It's an email 17 following the adoption of these wordings, and after the 18 Ardmore situation appears to have been resolved, and 19 this is 23 April 2015, an email from you to Rob Warren 20 and Debbie Berger and Craig Chambers. In that email, 21 you go on to say, three paragraphs up from the bottom:

"Given NHBC have now written to us with their position on Above 18m and also the fact that façade systems which we would assume are not compliant are now being accepted due to building design details that we

190

would struggle to be made aware of, we do need to respond to NHBC with our position on what we are telling the market.

"Whilst informing that RS may not be suitable for use on certain projects, I believe we need to revisit our wording here as it could be that specific design details are incorporated into projects that we are not aware of and could be turning down projects by only having limited information."

I show you that, but it's clear that, notwithstanding the difficulties that you had encountered with the NHBC and Ardmore, would you say that you were still concerned with ensuring the maximisation of sales of RS5000?

(Pause)

16 A. There would obviously be a commercial consideration to 17 be had in what we're doing, but my position from the 18 start on this is that we -- if there was projects which 19 we can't be used for compliance reasons, then they're 20 projects that we wouldn't be used on.

21 Was your position that Celotex shouldn't be adopting 22 a line so cautious that it might result in the loss of 23

24 A. I don't ever remember thinking about the sales impact on 25 what we were doing, no.

191

1 Q. I mean, that's certainly the effect or the impression 2 given by the second of the two paragraphs I've read to

3 you from that email, that you needed to revisit the

4 wording because you might be turning down projects 5 because you have got limited information.

6 Yeah, I think that comes down again to this Ardmore

7 situation, where we've not always got all of the

8 information to know whether the project -- we can be

9 used on the project or not.

10 Q. You wouldn't need information, would you? It's not 11 about you needing information at all. You just need to

12 get the message across that whatever the system is that

13 they're going to use the RS5000 in, it has to be the

14 same as the system tested. Why was that a problem?

15 That wasn't a problem, if --

16 Q. Well, it was a problem if you were going to lose sales 17 as a result of it, and that was something that it's

18 quite clear from that paragraph you didn't want.

19 A. I just think it became -- we were getting more 20 information again and there was confusion and -- on

21 certain projects.

22 Q. Now, do you remember a meeting in May 2015 with the 23 NHBC?

24 A.

25 Q. Can we go to {CEL00003682}, please. This is an agenda

192

22

23

24

- 1 for that meeting on 9 May. Do you know who prepared
- 2 this agenda?

- 3 A. I don't recall, no.
 - Q. We can see who was there from the NHBC, Graham Perrior
- 5 and Dave White, and from Celotex, Debbie Berger, you and
- 6 Rob Warren.
- 7 You can see the agenda. After the introductions,
- $\,$ "Review of Celotex RS5000" and then "NHBC Compliance
- 9 Requirements".
- Now, you say in your statement -- we don't need to
- go to it, it's paragraph 180 {CEL00010058/52} -- that
- 12 Mr White was at one point quite rude to you at the
- $13 \qquad \text{meeting, interrupting you while you were speaking and} \\$
- suggesting that some aspect of Celotex's position on
- RS5000 was stupid. That's what you have recorded in
- 16 your statement.
- 17 A. Yes.
- $18\,$ Q. But you don't remember what it was that he was talking
- 19 about.
- $20\,$ Can you recall what Celotex's position on RS5000
- 21 actually was at that meeting?
- 22 A. At that point, it would have followed the position that
- we had in the business around the new wording that Jamie
- 24 had put together and the compliance literature that we
- 25 had.

193

- $1\,$ $\,$ Q. $\,$ Right. So when you say the wording Jamie had put
- 2 together, that's in the last email I showed you?
- $3\,$ $\,$ A. Yes, I think it would have evolved into that wording as
- 4 well.
- 5 Q. I see.
- 6 Then we can look at the May 2015 update,
- 7 {CEL00003710}, please. Was this prepared by you or by
- 8 Mr Warren? I think you say it was Mr Warren who
- 9 prepared that.
- 10 A. Yes.
- 11 Q. Was that prepared for the MAG?
- 12 A. That was prepared for the MAG, yes.
- $13-Q. \quad \mbox{If we go to page 8 {CEL00003710/8}, please, we can see$
- a heading, "Robust Argumentations".
- 15 A. Yes, that would be a section Rob would have --
- 16 Q. Right.
- 17 A. -- populated.
- 18 Q. "Fire.
- 19 "Celotex meeting with NHBC was quite heated (every
- pun intended) with Dave White of NHBC being very vocal
- and in our view unprofessional in the manner in which
- he dealt with the points discussed."
- 23 Is that a reference to the part of your evidence
- $24 \hspace{1cm} \text{where he said that aspects of Celotex's position on} \\$

194

25 RS5000 was stupid?

1 A. Yes.

- 2 Q. Is it a reference to anything else?
- 3 A. The main part of Dave White's behaviour at that meeting
- 4 was around that point I made in my statement. I can't
- 5 quite remember the rest of his demeanour for the
- 6 remainder of the meeting.
- 7 O. Four lines down:
- 8 "The NHBC's issue is that in their view our fire 9 test was not sufficiently representative of a typical
- 10 Rainscreen system."
- Pausing there, that had been the view expressed to
- you by Dave White, perhaps in slightly more polite
- terms, and Graham Perrior at the 19 June 2014 meeting
- almost a year before, isn't it?
- 15 A. Yes.
- $16\,$ $\,$ Q. $\,$ So nothing had changed, had it , then, in NHBC's attitude
- 17 to your fire test?
- 18 A. Generally I don't believe so, no.
- $19\,$ Q. Did it not concern you that the NHBC thought that your
- 20 position was stupid? I know it may be rude and
- 21 unprofessional, but didn't it concern you?
- 22 A. I think it concerned us, but I think there was a focus
- for the business to work with the NHBC to understand
- what we needed to do to be used on certain NHBC
- 25 projects.

2

195

- 1 Q. Then you go on:
 - "At some point we will have to consider another test
- 3 to broaden the scope of RS5000."
- $4 \hspace{1.5cm} \hbox{It looks as if testing had now come back on to the} \\$
- radar. What had happened to desktop studies?A. I don't know, I think testing and desktop studies were
- 7 always two options.
- 8 Q. Well, yes, but we don't see any reference in there to
- 9 doing a desktop study, other than the reference in the
- $10 \hspace{1cm} \text{third line that the NHBC would look at the desktop study} \\$
- $11 \hspace{1cm} \hbox{that you had carried out with Exova.} \hspace{0.2cm} \hbox{So that is there.} \\$
- 12 A. Yes
- $13\,$ Q. But it doesn't seem that the contemplated strategy from
- 14 there on in was to keep doing desktop studies to broaden
- the application; it was another test, wasn't it?
- 16 A. That's what Rob is suggesting there.
- 17 Q. Yes, and then it says:
- "Until that time [that's the time of a new test] we will continue to maximise the potential of RS5000 in
- 20 non-NHBC jobs and the occasional NHBC job where the
- 21 specific design of the building (due to balconies acting
- as fire breaks for example) allows RS5000 to be
- 23 included."
- 24 So, again, given that you were now looking at doing

196

another test, can you explain why one wasn't done?

2

3

4

5

1 A. No, I can't.

- 2 Q. Is it because you knew it would fail?
- 3 A. No, I don't believe that would have been a reason why we
- 4 were thinking we wouldn't test.
- 5 Q. Is it because you knew that, without the 6 millimetres
- 6 of magnesium oxide round the thermocouples in two places
- 7 on the rig, and the 8 millimetres of Marley Eternit that
- 8 had been present on the rig in the May 2014 test, there
- 9 was a very real risk that it would fail?
- 10 A. No, that wasn't in our thinking.
- 11 Q. And with a failed test, you would be absolutely nowhere,
- 12 wouldn't you?
- $13\,$ $\,$ A. Yes, we would be, but that wasn't part of the reason why
- we hadn't tested.
- 15 Q. What was the thinking in not doing another test?
- $16\,$ $\,$ A. As I say, I don't know the specific reason, other than
- other things happening in the department, in the
- business, that maybe just meant that that wasn't able to
- 19 happen, for whatever reason.
- $20\,$ $\,$ Q. But in the meantime, it seems that you were content to
- continue to sell RS5000 into non-NHBC jobs. Did that
- 22 mean that even if the cladding system was different from
- 23 the cladding system tested, if the customer didn't pick
- it up, you would be happy to make a sale?
- 25 A. We would be expecting the client to be aware of our

197

- $1 \qquad \qquad \text{guidance and also their understanding of that market.} \\$
- Q. Yes, so you were prepared to go on marketing with the
- 3 new wording into RS5000, knowing very well not only the
- $4\,$ $\,$ $\,$ fact that the NHBC weren't prepared to endorse it but
- 5 the reasons why?
- 6 A. We would have carried on selling RS5000, yes.
- 7 Q. Indeed.

8

14

- Just before I leave this document, I'll just pick up with you the point I've mentioned. In the second and
- 9 with you the point I've mentioned. In the second and 10 third lines you can see it says:
- "On the positive side, the NHBC will look at thedesk top study work that we have carried out with Exova
- 13 to see if they accept the findings."
 - So that, to be fair to you, was the position in
- 15 May 2015.
- We can see how that turned out. {CEL00002241/2}, please. We can see that on 8 June 2015, Graham Perrior
- please. We can see that on 8 June 2015, Graham Perriorof NHBC writes to you, Mr Evans, as well as Dave White
- within NHBC, and he is coming back with his initialviews about the Exova report, the desktop.
- 21 If you cast your eye down to the fifth paragraph
- down -- one can read the detail, if you want to, of the

198

- 23 first three paragraphs, I'm not going to read them
- aloud, but there are certainly questions that are
- studied throughout those paragraphs -- he says:

Is it safe to say that, when you saw that, you
realised that the NHBC were not persuaded that the Exova
desktop study done thus far could be relied on?

A. We took those comments from the NHBC and relayed them to

9 A. We took those comments from the NHBC and relayed them to

"Therefore it appears that the basis for Exova's

analysis does not reflect either a true model of

a ventilated rainscreen façade or take fully into

account the fact that a large part of the Marley

- 10 Exova for their response.
- 11 Q. And how did that end up?
- $12\,$ $\,$ A. $\,$ I $\,$ believe there was a -- responses between Debbie and
- Frans, and he assessed those and came up with answers.
- 14 Q. Did you go back to NHBC with those answers?
- 15 A. I thought we did, from evidence --

'rainscreen' caught fire ."

- 16 Q. What was the NHBC's judgment on that?
- 17 A. I can't recall.
- 18 Q. Did you ever get the NHBC's sign-off on a desktop study?
- 19 A. I can't say for sure, but I don't think so.
- 20 O. No.
- We can see that they were extremely sceptical about the desktop study for the reasons they have set out, and that is even without knowing of the presence of the
- 6-millimetre magnesium oxide in two places on the rig
- and the 8-millimetre Marley rainscreen at those points,

199

- 1 isn't it?
 - 2 A. Yes.
 - $3\,$ $\,$ Q. Would it be fair to say that, had the NHBC known about
- 4 those aspects of the test, they would have been even
- 5 less impressed with Exova's work?
- 6 A. Yes, I think that's fair to say.
- Q. Can I just ask you one or two questions about the NHBC2016 guidance.
- 9 At {CEL00003783} is a note. It's dated
- 10 18 August 2015, and it's drafted by Tom Elwell of
 - Celotex.
- 12 A. Yes

11

- 13 Q. Which department was he in?
- 14 A. He worked in the Celotex technical centre.
- $15\,$ Q. It's entitled "NHBC & RS5000". Three options, and we
- can see them there, and then:
- 17 "NHBC continue to offer resistance to using RS500018 in rainscreen cladding applications. Why? Do they
- insure fire damage? Would they be liable for deaths?
- 20 Part of the issue seems to be that they have allowed
- 21 Kingspan to 'get away with it' for a number of years and
- they [now] feel that they have to tighten up."
- Was that your impression?
- 24 A. I think during this time, it was difficult for our
- 25 business to understand why Kingspan were being allowed

- 1 to do what we were being told they were to do, and other
- 2 manufacturers --
- 3 Q. Right.
- 4 A. -- weren't.
- $5\,$ Q. Now, it's right, isn't it, that less than a year after
- 6 this the NHBC published guidance entitled "Acceptability
- 7 of common wall constructions"? Do you know that?
- 8 A. I know that now.
- 9 Q. Let's see. It was June 2016. Let's look at it:
- 10 {CEL00001169}. I think you had left Celotex by this
- 11 time.
- 12 A. No, I was still at Celotex.
- 13 Q. Did you look at this document at the time? It's dated
- $14\,$ actually July 2016, if one looks at the very bottom of
- 15 the page, July 2016.
- 16 A. I can't 100% recall, but it's something that -- if it'd
- 17 come into the business then it would have been something
- that would have been circulated, so ...
- 19 Q. Yes. Can you look at the bottom right-hand corner,
- 20 "Common wall and facade types accepted by NHBC":
- ${\tt 21} \qquad {\tt "The following \ common \ wall \ and \ facade \ constructions}$
- are acceptable to NHBC without the need to provide an
- Option 3 assessment providing that the design
- $24 \hspace{1.5cm} \text{specification and installation meets the minimum} \\$
- specifications set in the following appendices."

- Appendix 3, you can see, aluminium composite panels.
- 2 A. Yes.
- 3~ Q. In your statement at paragraph 201 {CEL00010058/59} you $\,$
- 4 say that you regarded this guidance as:
- 5 "... a positive development for Celotex, albeit not 6 that surprising, given that RS5000 was being used in the
- market, and to Celotex's knowledge being approved via
- 8 desktop studies for use in a variety of build-ups."
- 9 Were you not surprised by this apparent volte face,
- this change of position, about-face, from the NHBC
- 11 within less than a year?
- 12 A. It did seem surprising at the time, yes.
- 13 Q. Was that change as a result of the lobbying of the NHBC
- by players in the market -- I'm not necessarily
- including Celotex in that -- to achieve NHBC buy-in?
- 16 A. I don't know what other organisations or companies were
- 17 doing. All I know is that we had met with the NHBC on
- a few occasions to talk about specific matters.
- $19\,$ $\,$ Q. $\,$ Do you know how this change in position within a year of
- 20 the position as seen before came to happen?
- 21 A. No.
- 22 Q. Had this guidance, when it came out, taken you by
- 23 surprise?
- 24~ A. I can't remember exactly how -- what I remember at the
- 25 time, but it does -- it did seem strange that we'd been

- from where we were to where we are now with being
- 2 instantly approved.
- 3 Q. What was your reaction when you saw it, do you remember?
- 4 A. I can't remember, no.
- 5 Q. Just briefly, do you remember that in 2017, before the
- 6 fire at Grenfell Tower, Celotex decided to test RS5000
- 7 to BS 476?
- 8 A. Yes.
- 9 Q. Why was that?
- 10 A. We were being asked for copies of the class 0 report for
- FR5000, and Rob and I made a decision that we felt it
- would be better to re-test the product as RS5000 so that
- we could send a test report out that stated RS5000, not
- 14 FR5000.
- 15 Q. Can we go to {CEL00000543}, please. This is an email
- from Dr Dane, Sarah Dane, to you, bottom of page 1,
- "Dear Paul". Do you see that?
- "Please see the results below from the Class 0
- testing, sent out in April. It shows a failure to
- achieve Class 0 on all of the products tested; the FR
- results are from trial formulations. I will go through
- 22 the results today to see if I can determine at what
- point in time the test failed."
- 24 A. Yes.
- 25 Q. That's August 2017, so that's after the fire --

203

1 A. Yes.

6

- 2 Q. -- at Grenfell Tower.
- 3 Then at the top of the page, Dr Dane goes to
- 4 Joe Mahoney and you and says:
- 5 "Dear Paul, Joe,
 - "Please find attached the I values for the tests.
- 7 "Everything failed in the first 3 minutes of
- 8 testing. The 100 and 160 products also failed during
- 9 4-10 minutes."
- That must have come as something of a shock?
- 11 A. It did, yes.
- 12 Q. Do you know why they failed?
- 13 A. No, I don't.
- $14\,$ Q. I think you forwarded those results to Dean O'Sullivan,
- 15 didn't you?
- 16 A. Yes, this was a -- I remember this day, because I was at
- a colleague's wedding as well as Joe Mahoney.
- $18\,$ $\,$ Q. $\,$ Do you remember what you discussed with Mr O'Sullivan
- about these results?
- $2\,0\,$ A. I called Dean once I had sent those results to him and
- 21 asked whether I needed to do anything that morning, and
- 22 he said no, and it was picked up as part of the --
- picked up within the business that day and goingforward.
- 25 Q. It's also right, isn't it, that in November 2017,

202

- 1 further testing was carried out? Were you aware of
- 2

11

- 3 A. I know that there was some work done on -- there was
- 4 work being done on class 0 investigations during that
- 5 period between August and November. I don't know too
 - much of the detail.
- 7 Q. Right. Can we look at {CEL00009429}, please. We can 8 see here that this is a letter from Exova from a T Mort
- 9 to Joe Mahoney, and in the fourth paragraph it says:
- 10 "The tests were deemed invalid, as specified in
- Clause 9.2 of the Standard, due to deformation of the 12 specimens blocking the burner ports of the gas burner of
- 13 the test apparatus, such that the required gas input
- 14 could not be maintained."
- 15 Did you discover that the November test had failed
- 16 in that way? Did Mr Mahoney discuss these with you?
- 17 A. I can't remember.
- 18 Q. Right. Were you aware that the subsequent tests in 2018
- 19 had passed?
- 20 A. No.
- 21 Q. You didn't know anything about that, right.
- 22 I think it's right that, shortly after these tests,
- 23 you were then subject to disciplinary procedures,
- 2.4 weren't you?
- 25 A. Yes.

205

- 1 Q. They were in relation to your involvement in Celotex's
- 2 practice around calculating its declared lambda.
- 3
- 4 Q. And then you resigned as a result, I think, in
- 5 December 2017.
- 6 A. I did.
- 7 Q. Can I just ask you one question. If you go to your
- 8 second witness statement where you deal with your
- 9 disciplinary procedures, {CEL00012233/7}, paragraph 31.
- 10 You say in paragraph 31 on page 7:
- 11 "It is for others to assess whether the disciplinary
- 12 processes were also orchestrated to remove senior
- 13 members of the business out of Celotex before the
- 14 Grenfell Inquiry commenced."
- 15 What do you mean by that?
- 16 A. I mean that I feel there was an opportunity for Celotex,
- 17 having understood how lambda was being calculated in the 18
- business, and had been as a process, something that was
- 19 done for a long time, I think they -- with a lot of
- 20 people from the previous ownership, and as well as many
- 21 members of the first Saint-Gobain MAG moving on, I think
- 22 it only left two or three people that would have been
- 23 aware of the lambda regime, purely because we had been
- 2.4 in the business a long time, and my view is that Celotex
- 25 used that as an opportunity to remove those people from

- 1 the business --
- 2 Q. Are you saying that the lambda fiasco was being used as
- 3 an excuse to conduct a purge?
- 4 I think Celotex, in my opinion, had a strategy, yes.
- 5 Q. Well, are you saying that Celotex had decided to use the 6 lambda affair as an opportunity to purge some of the
- 7 older members of management?
- 8 A. Yes.
- 9 Q. Are you saying that that was unjustified?
- 10 A. I feel that it was based on that process for lambda,
- 11 which was a decision made many years before and by
- 12 statutory directors of the company, and how that just
- 13 became integrated as part of an ongoing process in our
- 14 business, I felt that was -- yes, I felt that was
- 15 unfair.
- 16 MR MILLETT: Mr Evans, I have no further questions for you,
- 17 thank you very much. There may be some questions which
- 18 come from somewhere else, but, Mr Chairman, I note the
- 19 time. It's 4.30.
- 20 SIR MARTIN MOORE-BICK: We had better deal with them now.
- 21

2

22

25

- 22 MR MILLETT: We had better deal with them now. We ought to
- 23 take the usual break just to make sure that I have no
- 24 further questions as well.
- 25 SIR MARTIN MOORE-BICK: Yes.

207

questions that he thinks he needs to ask, we always have

- 1 Mr Evans, although Mr Millett's finished the
- 3 a short break at this point to give counsel time to
- 4 check there is nothing he has overlooked, and also to
- 5 take into account questions that may have been submitted
- 6 by people who are not in the room but following the
- 7 proceedings quite closely.
- 8 So we will take a break now.
- 9 Ten minutes enough, Mr Millett?
- 10 MR MILLETT: Should be, Mr Chairman, yes.
- 11 SIR MARTIN MOORE-BICK: I will say ten minutes, which means
- 12 we'll be back here at 4.40. Sometimes it takes a little
- 13 longer, and if so, I'm afraid we will all be held up.
- 14 THE WITNESS: That's fine, I understand.
- 15 SIR MARTIN MOORE-BICK: But we'll try and get back at 4.40,
- 16 and as before, please don't discuss your evidence or
- 17 anything to do with it with anyone else while you're out 18 of the room.
- 19 THE WITNESS: Thank you.
- 20 SIR MARTIN MOORE-BICK: Thank you very much. Would you like
- 21 to go with the usher, please.
 - (Pause)
- 23 Right, Mr Millett, we will say 4.40, but of course,
- 24 as usual, if further time is actually required, then you
 - can let us know.

1	MF	R MILLETT: That would be helpful. Thank you, Mr Chairman.	1		no, or?
2	(4.	31 pm)	2	A.	I can't remember telling him no.
3		(A short break)	3	Q.	What was the reason why it was never taken forward, do
4	(4.	40 pm)	4		you know?
5	SIR	R MARTIN MOORE-BICK: Right, Mr Evans, we will see if	5	A.	No, I don't know.
6		Mr Millett has found some more questions for you.	6	Q.	It would have been sensible, wouldn't it, looking back
7	TH	E WITNESS: Okay.	7		on it?
8	SIR	R MARTIN MOORE-BICK: Have you found some more questions,	8	A.	On reflection, yes.
9		Mr Millett?	9	Q.	That takes me to the last question, Mr Evans.
10	MR	RMILLETT: I have one or two, Mr Chairman, but really one	10		We have been through a lot of evidence over the last
11		or two.	11		day and a half or so, and given your position within
12		Mr Evans, can I ask you please to go to	12		Celotex at the time, looking back on that evidence and
13		{CEL00001042}. This is an email from Jonathan Roome on	13		looking back on the experiences up to and including the
14		28 November 2014, second email down on the page, to you	14		day of the fire, is there anything that you, looking
15		and to Debbie Berger, subject: "celotex RS5000 - BRE	15		back on it, would have done differently?
16		Testing - 190 Strand":	16	A.	I think everything I've seen, and during the evidence
17		"Hi Paul/Debbie,	17		I've given and preparing for it, is that it was
18		"I have spoken to Total Façade Solutions about	18		a totally different type of project for our business,
19		potentially giving us guidance as how to move forward	19		for the size of business and for the experience that the
20		with RS5000 (Testing etc.)	20		people in the business had, and it needed a lot more
21		"We would need to employ them directly.	21		attention, focus, investment, time, not all of the other
22		"Andy Jones is one of the most knowledgeable people	22		things that were part of working for Celotex, and
23		in the façade industry and advises the likes of the	23		I believe if we'd have had some of those or all of that
24		Berkeley Group as to what products comply.	24		in place, and the business had have understood that
25		"Please let me know if you would be willing to	25		more, different decisions would have been made and
		209			211
		209			211
1		employ them as a consultant, even if it is only for	1		ultimately we wouldn't have launched the product.
2		one day."	2	MR	MILLETT: Thank you very much, Mr Evans.
3		You went back to him on 1 December and said:	3		It only remains for me to thank you very much for
4		"Let's discuss as part of our plans for 2015 when we	4		coming here and assisting us with your evidence. We are
5		meet on the 19th."	5		extremely grateful . Thank you very much.
6		Which I think would have been 19 December.	6	TH	E WITNESS: Thank you.
7		Did you discuss Mr Roome's proposal to engage	7	SIR	MARTIN MOORE-BICK: Mr Evans, I would like to thank you
8		Andy Jones when you met him?	8		on behalf of the panel for coming to give your evidence.
9	A.	I don't believe so. I don't think there was any	9		It has taken a lot of your time, I understand that, but
10		follow-up on that point, or we discussed it in that	10		your evidence has been very useful to us, and we are
11		meeting.	11		very grateful to you for coming to give it.
12	Q.	No. Indeed, Mr Roome confirmed in his evidence that	12	TH	E WITNESS: Thank you.
13		Celotex never did engage Total Façade Solutions, and his	13	SIR	MARTIN MOORE-BICK: Thank you very much.
14		evidence was and this is {Day69/149:5} to	14		Now you are free to go. So if you would like to go
15		{Day69/150:5} he said:	15		with the usher, she will look after you.
16		" it must be that I was told no, that option	16	TH	E WITNESS: Thank you.
17		wasn't available or wasn't going to be considered."	17		(The witness withdrew)
18		Do you remember telling Mr Roome that you weren't	18	SIR	MARTIN MOORE-BICK: Thank you, Mr Millett. That must be
19		going to take his proposal forward?	19		it for the day.
20	A.	I don't remember that, no.	20	MR	MILLETT: It is it for the day, I'm glad to say.
21	Q.	Can you explain otherwise why that proposal was not	21		Mr Chairman, I'm grateful for your sitting late, the
22		taken forward?	22		entire panel.
23	A.	No, I can't explain why we didn't take it forward,	23		Tomorrow we have Mr Jamie Hayes, who is going to
24		either, just	24		come to give evidence. He will last most, if not all,
<u> </u>					J,,

```
1
         an amendment to the scheduled programme, which is that
 2
         Debbie Berger now won't be coming to give evidence
 3
         tomorrow, but we are making arrangements with her to
 4
         come during the course of next week, late next week, and
 5
         we will be updating all core participants and members of
 6
         the public accordingly as soon as we can.
 7
     SIR MARTIN MOORE-BICK: Thank you very much.
 8
             Good. Well, then, we will finish there for the day
 9
         and resume tomorrow at 10 o'clock, please.
10
     MR MILLETT: Thank you.
11
     (4.50 pm)
12
                  (The hearing adjourned until 10 am
13
                   on Thursday, 19 November 2020)
14
15
16
17
18
19
20
21
22
23
24
25
                              213
 1
                               INDEX
 2
                                                      PAGE
 3
     MR PAUL EVANS (continued)
 4
 5
            Questions from COUNSEL TO THE INQUIRY .......1
 6
            (continued)
 7
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

A
a1 (1) 151:6
a2 (1) 97:17
a2s1d0 (1) 91:3 abandon (1) 132:8
abandonment (1) 68:15
ability (2) 86:16 100:25
able (21) 7:12 47:7
92:17 93:16 118:23 122:3 123:25 136:5
142:5 145:6
146:6,13,25 147:2
148:17 153:22 162:17
163:19 173:12 177:1 197:18
aboutface (1) 202:10
above (73) 27:21
31:7,24 46:6,22,23
47:1,8,22 48:18,22 49:8,19 50:10 51:16
52:1,5 63:2,9,13,24
64:4,15,20,21 69:11
70:14,22 71:7,22
72:19 73:15,18 74:11 75:1,4,11 79:15 80:14
81:4 85:8,24 86:8,20
87:13 88:4 96:12
101:18 102:1 103:5,10 104:25 116:14
117:6,12 119:23
125:24 126:4 129:21
132:3 145:16 147:21
163:9 168:18 171:12 175:18 180:12 182:11
186:8 187:11 188:24
190:9,23
above18metre (5) 18:5
95:22 96:16,19 175:25 absence (3) 24:21 35:15
178:16
absolute (1) 157:13
absolutely (6) 50:14 56:20 67:13 120:3
168:17 197:11
accept (43) 2:12 13:25
15:24 16:10 17:13
19:13 23:20 24:5 32:12 34:18 39:10
41:12 46:15,24 48:17
49:7,15,15 58:1,6,11
59:6 63:11 64:7 65:4
68:18 74:15 75:23
76:9 77:16 102:4 105:15 106:22
126:4,20 127:21
131:23 143:18 154:21
173:5 176:6 177:15
198:13 acceptability (1) 201:6
acceptable (18)
46:5,17,25 47:3,21
48:22 49:8 64:4 74:10
80:13 86:7 103:4,9 104:25 137:23 138:9
173:2 201:22
acceptance (2) 127:23
174:16
accepted (13) 6:25 7:4 15:24 105:18 106:24
109:24 123:12,22
124:4 127:22 162:18
190:25 201:20

```
adopting (3) 22:8
 122:16 123:20 177:18
                             123:19 191:21
                            adoption (1) 190:17
                           advantage (3)
                             185:17.19.24
                            advice (13) 56:10 82:10
                             102:8 104:5,10 105:5
                             109:4 163:20.21
                             164:14 186:12 187:25
                             188:4
                           advise (2) 95:16 179:21
                           advised (3) 131:20
                             132:5 155:14
                           advises (2) 171:21
                           advising (1) 157:7
                            ae (1) 51:23
                           affair (1) 207:6
                           affairs (1) 157:15
                           afraid (2) 144:17 208:13
                           after (29) 19:8 20:11
                             22:19 35:14.15 36:3
                             39:17 64:1 67:5 74:8
                             80:11 92:16 93:23
                             99-21 105-7 119-1 24
                             122:7 127:13 134:9
                             161:15 172:13 183:1
                             190:17 193:7 201:5
                             203:25 205:22 212:15
                           afternoon (4) 118:22
                             120:11.20 135:12
                           again (58) 11:24 14:15
                             25:25 63:11
                             64:6.10.17.25.25
                             65:4,12,22,25
                             70:17.18 71:16
                             73:8,17 74:15,23
                             75:12,13,18 78:1
                             79:23 80:3.15
                             81:4,9,13 84:3 93:11
                             99:16 102:17.23 103:3
                             111:3 117:5 124:24
                             135:13,14 141:19
                             149:23 153:16 164:22
 21:23 27:15 30:14.20
                             165:22 169:8.18 170:3
                             172:8 178:20 182:5
                             183:11 188:22.25
                             192:6,20 196:24
 193:21 201:14 208:24
                            against (1) 37:6
                           agenda (7) 8:3,4,7
                             11:23 192:25 193:2,7
                           ago (4) 29:12 85:18
                             99:9 155:9
                           agree (3) 65:18 120:3
                             153:7
addition (7) 8:16 77:24
                           agreed (3) 2:9 152:11
                             189:17
                           agreement (1) 93:18
                           ah (1) 51:17
additional (18) 2:1,7,16
                           ahead (2) 32:25 33:10
                           aid (1) 123:18
                            albeit (2) 141:11 202:5
                           alert (1) 188:10
                           allegation (1) 158:3
                           allocable (1) 176:20
                           allocated (2) 176:11
                             177:5
                            allow (2) 141:5 178:15
                           allowed (7) 110:25
                             127:14.16 173:19
                             174:16 200:20,25
adjournment (1) 119:14
                           allowing (2) 76:5 141:2
                           allows (1) 196:22
```

accepting (4) 43:19

access (2) 110:21

accident (2) 58:23

accidental (1) 59:2

accordance (1) 91:4

according (3) 24:4

125:13 145:2 accordingly (2) 157:9

account (4) 60:21

accreditation (1)

48:24 84:4.12

126:20

168:3

141:23

94:22

117:25 199:4 208:5

accredited (1) 145:7

160:22.25 164:16

accurately (2) 151:24

achieve (4) 80:1 144:8

202:15 203:20

achieved (2) 125:18

acknowledge (1) 9:16

acknowledgement (1)

acknowledges (1) 9:18

across (8) 49:3 54:1

56:18 70:11 72:18

74:2 112:10 192:12

acting (1) 196:21

active (1) 134:1

activity (1) 67:20

activities (1) 178:18

actual (5) 23:14 116:2

132:2,23 171:25

actually (18) 12:17

41:4 51:9,18 59:7

73:11 129:5 139:25

143:3 160:21 163:5

ad (5) 51:3,6 105:4

add (2) 83:11 120:9

added (3) 78:2 105:23

78:6,6 79:24 80:4

12:11 47:18 48:25

49:10 83:23 145:18

177:19.20.22 178:4

address (2) 5:8 6:24

addressed (2) 7:18

addressing (2) 71:4

adjourned (1) 213:12

adjust (1) 183:20

adopt (1) 2:10

176:3,14,15,18

117:19 185:5

adb (1) 103:7

188:18

171:19

182:3

122:21

175:15

156:20 actions (1) 175:16

action (7) 8:13 37:4

38:15 44:13.20.23

accurate (8) 47:11,20

160:15

75:22

alludes (1) 133:25 almost (2) 166:17 195:14 alone (2) 85:12 87:1 along (4) 26:2,4 97:23 159:3 aloud (1) 198:24 already (15) 79:3,3 98:2,3 122:10 129:3 138:10 147:1 153:18 163.8 171.23 172.9 181:2,11 182:23 also (41) 2:1 7:11 11:23,25 27:24 31:21,25 32:6 35:25 45:8 63:19 68:20.21 82:3 97:17 104:8 108:2 115:6 117:7 120:24 123:4 126:13 127:24 130:10 146:3 150:24 152:6 153:5 160:2 163:17 164:1 171:18 184:23 185:3 188:12 190:23 198:1 204:8.25 206:12 208:4 altered (1) 24:1 alternative (9) 45:17 51:5 52:14 103:7 105:3 117:19 129:16 163:16 164:15 although (7) 34:11 94:16 115:16 133:10 139:2 146:23 208:1 altogether (1) 151:22 aluminium (8) 57:10 116:7 151:19 153:14,19,22 160:8 202:1 always (14) 85:9,10 92:23 93:7,13 128:5,6 133:12 142:6 174:9 183:8 192:7 196:7 208:2 amazed (1) 156:12 **ambiguity (2)** 56:2 64:17 ambitions (1) 130:13 amended (1) 137:20 amendment (1) 213:1 amount (2) 72:11 142:7 analysis (2) 152:4 199:2 andrew (1) 90:5 andy (2) 209:22 210:8 anketelljones (1) 107:9 annex (1) 54:19 annotations (2) 31:18 67:3 another (12) 13:2 16:19 19:3 37:18 85:1 104:1 118:24 120:2 196:2.15.25 197:15 answer (13) 5:18 49:14 56:14 58:11 60:2 82:8 88:5 138:2 165:14,19 167:24 181:6 182:8 answering (3) 90:18 181:14 187:3 answers (4) 163:3 167:20 199:13,14 anticipate (1) 177:13 anybody (12) 11:15 17:21 19:11,21 52:25

56:21 61:19 69:4

73:13 82:15 93:15 113:4 anybodys (1) 34:2 anyone (6) 24:11,19 53:13 119:7 170:8 208:17 anything (18) 55:14 62:7 68:21 82:9 98:6 108:14 119:8 127:3 171:23 172:1,8,9 178-4 195-2 204-21 205:21 208:17 211:14 anyway (2) 15:18 162:8 anywhere (1) 86:12 apart (1) 19:15 apartments (1) 155:17 apologies (1) 147:2 apologise (1) 5:13 apology (1) 74:7 apparatus (1) 205:13 apparent (2) 160:15 202:9 apparently (2) 10:22 123:7 appear (3) 8:3 156:15 157:25 appeared (1) 49:5 appears (3) 161:15 190:18 199:1 appendices (1) 201:25 appendix (1) 202:1 applicability (1) 140:21 application (15) 45:5,12 50:17 54:18 55:18 72:8 75:7 78:10 79:6 80:7 89:14 114:11 130:3 144:9 196:15 applications (18) 45:21,22,25 50:10 63:8 77:9,20 78:20 89:8 116:14 126:23 127:19 129:1 140:22 152:25 175:18,25 200:18 applies (1) 54:12 apply (1) 56:14 approach (26) 2:10 22:3,7,11,16,18,20 24:2.3 62:8 89:3 92:1.3.22 120:21.23 121:18 128:21 131:23 139:7,17 140:16,19 166:12 168:12 169:5 appropriate (1) 169:21 approval (20) 29:9 33.3 16 42.7 50.15 55:5,6,9 82:5 99:19 100:4,14,24 106:5 108:4.11 109:12 131:25 143:18 164:14 approvals (1) 175:25 approve (7) 84:10,11 109:22 131:21 140:11 141:16,21 approved (14) 46:5,16 47:2 50:16 51:3 76:7.10.18 82:11 137:24 140:12 180:2 202:7 203:2 april (4) 170:21 176:5 190:19 203:19 apt (1) 168:5 architect (3) 137:9

144:21 146:9 architects (4) 137:7 138:24 144:11,21 ardmore (31) 140:5,6 146:11 155:11 159:7 160:24,25 161:5,16,18,25 162:5,9 163:7,22 164:12 165:3,11 166:16 167:3,10 168-17 169-1 7 173:11,16 174:15 179:2 190:18 191:12 192:6 ardmores (1) 169:4 area (4) 75:8 139:8.17 140:19 areas (1) 159:18 arent (1) 51:19 argument (1) 11:19 argumentation (1) 123:18 argumentations (1) 194:14 arguments (1) 89:13 arose (1) 42:8 around (34) 10:23 12:5,15 30:20 35:1 42:17 43:10 69:14 73:4 99:22 100:18 105:8 112:5 123:16 133:24 134:3.7 136:1 139:7.17.20 140:19 142:13.24.25 144:1 148:2 158:15 173:18 184:13.18 193:23 195:4 206:2 arrange (2) 120:21 135:11 arranged (1) 136:10 arrangements (1) 213:3 arranging (1) 135:6 arrival (1) 143:14 aside (2) 11:18 128:16 ask (32) 1:20 2:12 3:19 11:6 16:23 18:25 30:14 32:20 34:7,22,22 42:21 43:15 53:23 54:4 82:5 88:7 92:6 93:15 113:13 114:1 118:12 119:21 120:21 131:14 179:23 181:24 190:12 200:7 206:7 208:2 209:12 asked (40) 6.5 8.5 13:1,21 14:5,5 15:6,8 16:19 17:12.19.20.21.22 18:13,14,18,20 19:3 24:11 28:24 29:12 32:15,25 33:20 34:13 40:20 94:8 95:16 103:23 106:23 108:20 113:25 114:3 118:5 123:24 147:22 180:24 203:10 204:21 asking (27) 2:23 4:24 14:2 16:23 18.2 12 21 22 19.6 7 33:9,22 34:3 35:9

115:20 118:8 122:25 128:11 133:8 190:13 aspect (1) 193:14 aspects (4) 62:16,18 194:24 200:4 assess (1) 206:11 assessed (6) 116:13 137:17 145:2 153:10 160:5 199:13 assessment (3) 116:5 145.2 201.23 assist (1) 92:16 assistance (1) 110:13 assisting (1) 212:4 associated (1) 117:17 assume (3) 8:18 73:3 190:24 assumes (1) 185:3 assuming (3) 32:12 138:10 171:24 assumptions (2) 160:19.25 assurance (1) 126:19 attached (15) 31:5.17.22 77:19 96:3 100:16 113:19 131:23 139:12 144:24 145:21 155:23 161:21 189:3 204:6 attaches (2) 146:4 162:19 attachment (2) 44:18 115:13 attack (2) 79:10,12 attempt (1) 67:10 attempted (1) 49:1 attended (1) 153:15 attention (8) 9:7 26:16 46:9 131:3,11 144:7 157:16 211:21 attitude (2) 36:2 195:16 au (1) 32:3 audience (1) 72:6 august (14) 44:21 83:4,5 94:15 99:21 100:12 101:12 115:24 164:9 177:10 180:2 200:10 203:25 205:5 automatic (1) 93:25 availability (2) 120:24 166:1 available (10) 5:2 21:8 49:11 115:18 117:20,23 134:18 149:15 156:4 210:17 avoid (1) 79:5 awaiting (1) 179:13 aware (43) 9:3,24 10:4.5 49:3 59:25 60:19 66:6 91:17 98:2.3.11.22.24 100:6.9 106:5 119:2 124:25 125:19 139:8,21 142:11 143:25 144:4 150:4 153:2 156:7 158:1 166:14 171:9 173:14,24 174:13 176:5 179:12 186:1 191.1 8 197.25 205:1,18 206:23 away (6) 59:10,11

130:11 162:6 167:4

42:18.19 43:10 46:24

71:3 82:9 93:17

awkward (10) 180:23 181:9,12,17,19,24 182:17 183:6.11 190:5

В

b (4) 54:19 105:4 117:19 185:5 **b2 (3)** 51:3,3,6 back (70) 3:7 9:17 12:24 16:16 17:8 20:18 25:5 28:22 34:3 35:13 41:24 43:13 53:12 67:6 73:8 76:13 80:9 88:5 89:6 90:16 96:25 97:12 98:20 102:11 12 104:14,15,22 107:1 108:1,15 110:4 113:13 114:22 115:1,6 117:3,4 118:11 119:5 131:13 133:19 135:10 138:7 139:4 146:9 149:25 150:3 162:15 164:4 167:13.16.24 169:2,12,13 170:4 179:2,4 184:11 196:4 198:19 199:14 208:12,15 210:3 211:6,12,13,15 background (13) 21:1 77:15 95:3,19 120:23 121:18,22 122:5 138:14 145:11,23 171:8 189:5 balconies (2) 173:18

196:21 balcony (1) 159:18 bald (1) 72:23 baldly (1) 70:21 banner (5) 70:11 71:15 86:20 129:20 190:7 bar (1) 36:25 barrier (1) 31:7 barriers (4) 2:2,17 15:6 38:7

based (35) 6:7 23:6 24:1 32:5,6,23 42:11 43:8 54:8 59:3.14.24 60:17 61:7,10 75:21 76:10 82:1 93:20.22 94:25 124:17 131:25 141:22 149:11

bartlett (1) 104:7

base (2) 97:15 110:14

154:19.22 155:1 164:22 168:22 176:2 177:6,12 182:2 207:10

basically (3) 146:20 175:24 180:4 basin (2) 148:9,11 basis (17) 3:3 16:13

19:16 28:18 44:3 58:8 106:12 108:24 109:21 122:6 141:16 160:23 167:14 169:3 181:20 189:10 199:1

bat (6) 14:4 17:2,11,14 32:25 33:15

bba (11) 123:8 126:19 137:19,19,22 138:3.12.25 139:2.9.10

bca (18) 131:23 132:7 138:6

142:9,14,15,17,24 143:25 153:1 172:10.14 176:8 178:2 185:6,14,18 186:1 bcas (1) 185:24

bears (1) 101:22 became (3) 158:1 192:19 207:13 become (1) 96:20

becoming (1) 74:6 before (58) 3:23 4:8,10,12,19,23,24,25

5:2 6:1,23 7:2.4.10.15.17 8:1.5 11:6,8,9 20:23 21:7 28:4 35:7 46:20 54:4 61:6 63:15 64:7 67:5 73:20 76:21 88:24 99:6 105:1,8 108:7,8 111:8 113:16 118:22 130:3 137:14 141:4 145:17 152:22 162:9 172:23 185:7 189:17 195:14 198:8 202:20 203:5 206:13 207:11

208:16 beforehand (1) 33:16 begin (1) 7:18 beginning (2) 12:22

177:9 behalf (1) 212:8 behan (3) 125:6,22 126:3

behans (1) 125:14 behaviour (4) 93:5 152:7 153:6 195:3

behind (8) 2:1,7 15:5 80:8 89:23 97:21 111:20 160:8 being (79) 6:5 7:12

13:16,21 14:11 24:15,16 25:21,22 26:11.15 27:15 33:2,11 45:14 47:7,24 49:22 50:12 59:24

60:19 62:21 64:8 66:6 71:10.23 73:10 75:25 78:1 79:4.7 84:24 93:24 95:16 99:5 103:6,12,18,20 105:2.9.23 109:16 116:12 124:9 126:25 130:18 131:6 134:6 136:20 139:23 140:3

144:8 147:2 152:24 161:9 169:18 174:16 177:1,5 178:11 179:8 181:14 185:12.17.18.25 188:18 190:25 194:20 200:25 201:1 202:6.7

203:1,10 205:4 206:17 207:2 believe (52) 4:21 6:18

7:19 8:1,14,14 10:22 11:14 12:9,13 15:11 19:1 21:17,23 22:20 23:15 26:18 30:9 32:22 43:19 55:12 61:11,13,14 71:16 94:4 99:22 100:1

108:8 110:1 121:24 127:8 129:11 130:4 135:25 140:15 142:10.24 143:24 144:4 148:10 167:11 171:3 172:1 174:25 178:4 191:5 195:18 197:3 199:12 210:9

211:23 believed (1) 58:25 below (21) 31:7,23 50:9 51:16 52:1,3,5,10 57:22 84:3.9 87:14 90:15,21 97:15 117:8 138:19 179:24 180:8 185:3 203:18 ben (3) 158:19,24 159:6

benchmark (1) 50:8 berger (25) 87:19,23 88:8 95:8.11.24 112:21 113:9,25 114:14 115:6 128:12 133:10 144:13 150:10,15 152:8 153:24 155:4 161:17 163:12 190:20 193:5

209:15 213:2 bergers (2) 113:17 115:2

berkeley (4) 130:22 131:7,15 209:24 best (3) 113:2 152:2 161:22

better (10) 43:2,7 78:15 80:1 109:9 114:20 152:4 203:12 207:20,22

between (25) 9:4,11 10:25 11:20 22:22 24:2 25:7 35:8 37:20 38:20 52:2 76:1 86:20 95:17 116:8 120:16 125:25 144:11 151:17,21 163:12

177:9,24 199:12 205:5 bex (4) 82:25 83:3 86:11 87:11 beyond (1) 156:23

big (6) 68:13 83:9 86:20 129:20 167:9 178:25 bit (22) 11:8,25 12:23 24:25 26:22 71:19,22 73:5.6 74:13 83:22 112:17 120:2

125:11,20 127:10 137.3 144.2 147.23 150:22 158:2 166:9 bits (1) 109:3 blanket (1) 94:1

block (1) 105:6 blocking (1) 205:12 blue (1) 84:6 board (48) 1:19 2:1,6,7 9:14 10:23 11:4 13:1,2

16:19,24 19:4 21:5,6 25:19 26:17 46:4 57:12 65:23 70:13 71:24 82:21 90:10 97:15,15,18 98:18 101.9 18 102.12 103:6,12,18 104:15

105:2,9,23 116:5,8,22

117:4 123:11,14,15

138:5 151:6 159:15,21 boardroom (1) 161:8 boards (4) 38:4,5 98:10 99:14 boat (1) 162:4

bodies (2) 157:6 164:15 body (3) 74:5 145:8 189:9 bold (3) 57:7 63:25 83:9

book (1) 85:4 boss (1) 7:8 both (20) 25:17 28:5

37:22 43:22 50:9 52:5 53:1 112:5 113:22 126:1 131:20 132:3 133:21.23 134:18 155:25 156:19 157:12

171:13 179:10 bottom (39) 64:22 82:24 85:3 87:18 97:7,9 101:13 114:13 115:1 125:4.7.14.21

131:1 133:18 137:2,7 138:20 144:3,16,19,22 146:18 147:4.11 153:4 158:17 163:6,10 179:6

180:19.20 181:8 188:21,22 190:21 201:14,19 203:16

box (5) 101:8,13,15 116:4 130:3 br (28) 31:18 46:5,16

47:2.10 51:7 52:9.16 53:25 54:5.7.20.22 55:16 64:3 78:22 80:12 83:25 91:23

103:2 104:24 123:20 124:4,10,15 141:5 171:22 172:7

br125 (1) 145:3 br135 (6) 50:12 83:10 88:22 145:9 146:15

br1352013 (1) 116:14 bracket (2) 105:8,8 brackets (3) 57:10 64:1 151:16

bre (51) 9:5,19,24 10:16 20:3,21 23:2,9,23 24:20 25:4.7.15 26:2,9,11,15,23 27:5 30:3,14 31:11

32:3.21.25 33:9.23 34:7,13,14,22,22 41:13,25 42:21 44:6 67:6 93:10 94:17

101:11 116:13 117:17 131:25 145:8 146:4,13 148:18.20 149:18

160:16 209:15 break (15) 20:16 25:2 31:8,24 53:11,18 119:3 169:22 170:2,3,13 207:23

208:3,8 209:3 breaking (1) 67:12 breaks (1) 196:22 brickwork (1) 151:9

briefly (3) 88:15 111:19 203.5 brigade (2) 127:1,4 bring (1) 27:9 bringing (1) 26:1

broaden (2) 196:3,14 broadening (1) 78:18 broadly (1) 43:21 brought (7) 20:18 25:5

26:3 27:7 66:24 185:7,14 bs (37) 21:14 22:9

51:8,8,10 52:9,16 53:1 55:17 63:23 64:2,23 78:23 83:10,24 95:15 102:22 103:1 104:23 123:6 124:4 127:18

128:1 132:20 139:14 140:21 141:6 142:4 143:5,15,20 145:15 150:12 154:1 164:8 165:17 203:7

bs8414 (1) 97:2 bs84142 (1) 50:12 buck (1) 68:10

budget (8) 67:11 174:19 175:3.5.8.22 176:1 177:5 build (5) 138:9 144:24 155:23 164:13 175:16

builders (1) 171:9 building (25) 52:10 56:3 63:2,9,13,24 64:16 75:3 88:23 89:12

137:18 140:1 145:23 157:6 159:19.25 160:4 171:14,17 173:18

185:4 189:6,8 190:25 196:21 buildings (46)

46:6.18.22.22.25 47:4,8,12,22 48:18,22 49:8,19 64:4 70:14,22 71:7 72:19 73:15 74:11 80:14 81:4 86:7 103:5.10 104:25

117:11 126:25 131:22 137:10,16 145:4,16 147:21 155:19 156:6,25 166:1 170:24 171:11 180:11 185:9

186:7 188:19.24 190:9 buildup (11) 14:24 22:14 61:5 88:17 139:1 145:2 149:20

154:6,6,25 168:4 buildups (5) 148:2 150:13,24 152:13 202:8

bullet (7) 45:3 54:2,10 74-12 96-8 104-18 21

bulletin (4) 84:5,15,18,20 bulletins (1) 84:23 bullets (1) 105:21 bundle (1) 71:17 burn (3) 126:24 159:16.22

burner (2) 205:12,12 burns (1) 128:25 buro (3) 87:23 88:2 89:17 bus (7)

120:11,13,15,17,17,18,18 business (43) 4:17 8:14 35:14 46:20 49:2 52:4 59:16,17 61:15,25 67:16 68:19 71:12

82:16 83:4 84:22 120:14 123:25 133:14 142:12 154:13 157:17 167:23 172:2.9.16 173:4 178:23 193:23 195:23 197:18 200:25 201:17 204:23 206:13,18,24 207:1,14 211:18,19,20,24

businessmans (1) 168:11 businesss (1) 47:7 buy (2) 45:18 129:23 buyers (3) 107:3

118:2,11 buyin (11) 175:18,23 176:22,24 177:4.17.21.23 178:10.16 202:15

bwc (2) 160:2 166:14

calcium (4) 37:10,18,20 calculated (1) 206:17 calculating (1) 206:2 calculation (1) 188:19 calculations (4) 181:2,4,11 182:6 calculator (3) 101:20 116:24 130:2 call (17) 87:22 134:16.16.19 135:3,7,11,21,22,24 136:6,16,19,20 138:19 176:21 181:22 called (3) 84:22 85:5

204:20 calling (2) 78:3 158:11 came (22) 4:14 6:17 26:25 33:25 36:3 38:12 46:7 118:14 132:15 133:6,7 142:12 149:13 162:15 166:10 10 172:14 178:21 183:9 199:13 202:20.22

candid (1) 17:16 candidate (1) 19:9 candidly (1) 15:25 cannot (3) 54:15 139:2 157:2

cant (60) 2:21 4:15 8:18 12:15 13:19.23 15:7 18:20,21,22 19:9.11 20:1 24:15 26:3,5,7,9 30:24 40:4 41:11 57:24 68:10 73:2 76:20.22 77:2 78:25 79:17 84:22 85:12 87:1 94:16 104:18 109:11 122:20 128:18 135:21 139:21 141:9 142:25 143:12 162:25 168:24 169:2 172:16 174:1 175:7 183:4 191:19 195:4 197:1 199:17,19 201:16 202:24 203:4 205:17 210:23 211:2

careful (3) 75:18 85:11

carefully (2) 68:4,5

87:12

catherine (1) 120:20 caught (2) 132:8 199:5 causing (1) 85:14 cautious (1) 191:22 caveat (12) 61:6 72:1 85:16 146:1 165:6,12 166:2 167:5.19 180:14 181:22 183:15 caveats (2) 101:23 183:25

carol (1) 120:24

carried (6) 24:9 142:5

carry (7) 1:10 53:20

140:1 170:15

carrying (1) 95:15

105:5 198:21

cast (4) 54:1 104:16

196:11 198:6,12 205:1

119:16 127:14 136:4

cavities (2) 151:14,15 cavity (4) 97:22,25 151:8 160:7

cc (1) 135:9 cel00000009 (1) 101:6 cel000000123 (1) 53:24 cel000000124 (1) 57:4 cel000000133 (1) 62:25 cel000000135 (1) 63:20 cel00000122 (1) 50:20 cel00000407 (1) 76:15

cel000004071 (1) 80:10 cel000004072 (1) 79:23 cel00000543 (1) 203:15 cel00000961 (1) 14:17 cel000009619 (1) 14:23

cel00001017 (1) 100:10 cel000010172 (1) 111:21 cel00001020 (1) 122:14

cel00001022 (1) 125:3 cel000010222 (1) 125:16

cel00001042 (1) 209:13 cel00001075 (1) 144:10 cel000010752 (1) 147:5 cel000010753 (1)

146:18 cel000010754 (1) 146:8 cel000010755 (1)

145:12 cel000010756 (1) 144:15

cel000010882 (1)

cel00001080 (1) 161:14 cel00001081 (1) 162:21 cel00001087 (1) 172:21 cel00001088 (1) 170:20

171:15 cel00001169 (1) 201:10 cel00001213 (1) 44:12 cel00001214 (1) 44:19 cel000012142 (1) 45:2

cel00001279 (1) 190:16 cel00001350 (1) 31:10 cel000013502 (1) 31:15 cel00001352 (1) 26:25 cel0000135233 (1) 28:4 cel0000135235 (2) 27:12 28:23

cel0000135236 (1) 31:1 cel00001995 (1) 104:1 cel00002021 (1) 112:19 cel000020211 (1)

113:10
cel000020212 (1) 113:1 cel00002037 (1) 136:24
cel000020372 (2) 137:5
138:16
cel000020373 (1)
137:11 cel00002108 (1) 82:23
cel00002193 (1) 155:10
cel000021933 (1)
158:16
cel000021934 (1) 159:23
cel000022412 (1)
198:16
cel00002517 (2) 36:13 43:14
cel00003121 (1) 119:21
cel00003335 (1) 92:8
cel00003342 (1) 174:18
cel0000334221 (1)
175:15 cel000033601 (2) 97:8
99:3
cel000033602 (3) 95:23
96:23 97:20
cel000033603 (2) 95:7 96:6
cel00003445 (1) 126:8
cel00003457 (1) 87:17
cel000034571 (1) 88:7
cel000034572 (1) 87:20
cel00003589 (1) 150:8 cel000035951 (1)
180:20
cel000035952 (1) 181:3
cel000035953 (1) 179:6
cel000035954 (2)
179:3,15 cel000035993 (1) 184:5
cel00003600 (1) 186:3
cel00003607 (1) 89:19
cel000036071 (1) 90:16
cel000036072 (1) 90:2 cel00003637 (1) 163:25
cel00003640 (1) 173:8
cel000036412 (1)
188:15
cel000036601 (1)
136:11 cel000036602 (1) 136:7
cel000036603 (1) 135:5
cel000036604 (1)
133:18
cel000036605 (1) 131:1 cel000036607 (2)
130:20 131:14
cel00003682 (1) 192:25
cel00003710 (1) 194:7
cel000037108 (1)
194:13 cel00003783 (1) 200:9
cel00003784 (1) 94:14
cel00007961 (1) 70:3
cel000079613 (1) 74:22
cel00008691 (1) 114:12
cel000086911 (1) 114:22
cel000086912 (1)
114:15
cel00009429 (1) 205:7
COLONO067/1 (1) OE:1
cel00009674 (1) 85:1 cel0001005214 (2)

137:20 138:3,12 cel0001005215 (1) 139:11 certificates (13) 99:18 cel0001005217 (1) 20:5 100:17 107:3 cel0001005218 (1) 111:18.25 112:2.6 113:6,20,23 cel0001005831 (1) 9:1 115:14,17,24 cel0001005836 (1) 39:2 certification (8) 107:4 cel0001005839 (1) 50:3 118:17 125:18,24 cel0001005849 (1) 126:21 128:24 137:19 145.5 cel0001005852 (1) certified (1) 90:10 cetera (5) 33:5 61:17 cel0001005859 (1) 81:8 98:13 113:6 chain (15) 93:15 115:16 cel0001015420 (1) 1:21 125:13 130:21.24.24 cel000122337 (1) 206:9 132:10,11 133:17 cel00020371 (1) 138:21 134:10 136:5 137:1 cel00035991 (1) 184:24 139:18 144:18 150:8 celotex (117) 1:5 11:15 chains (1) 150:9 15:9 23:1,23 36:19 chairman (10) 1:15 38:6.13 43:19 45:19 53:8 118:18 119:20 169:21 207:18 208:10 49:4 56:13 57:6,11 63:6,7,22 64:14 67:20 209:1,10 212:21 68:16.23 70:12 73:14 chairmans (1) 35:20 76:16 79:24,25 **challenge (5)** 29:8 83:15.20 86:18 30:17 38:11 44:3 92:18,22 93:7 95:1,14 124:11 **challenged (1)** 41:19 100:14,17,25 101:20 challenges (4) 123:9 102:9 103:1 104:12.23 173:25 174:13.14 chamber (1) 97:16 117:1.12.20 120:16 chambers (4) 71:18 123:19 124:14.20 86:18 161:6 190:20 125:18,23 126:1,13 chance (2) 7:17 39:16 128:8 131:4 134:11 change (21) 19:8 31:5 138:3 139:20,23 140:3 56:9 77:22 141:2,10 142:2,10 139:7,16,19 140:10,16,17,18 141:1 145:1,6,14 146:12 182:9,10,20 185:13 147:21 148:14 151:7 188:18 190:5 152:9 155:14 156:10 202:10.13.19 158:4 159:5,9,15,21 changed (11) 9:11,15 160:10,17 161:16,19 15:12 22:20 51:23 174:8,13 175:9 179:21 128:21 140:9 181:6,16 180:17 185:11 188:23 182:7 195:16 191:21 193:5.8 194:19 changes (11) 14:19 200:11,14 201:10,12 64:15 75:2 112:23 113:24 115:13 173:14 202:5,15 203:6 206:13.16.24 207:4.5 186:8.21 187:25 209:15 210:13 189:22 changing (5) celotexs (17) 9:7 12:8 111:15,18,24 112:9 22:3 23:21 37:3 45:4 182:18 117:22 124:1 134:4 chapter (1) 171:20 140-12 143-18 159-2 charge (2) 69:13 118:8 193:14,20 194:24 chased (1) 131:6 check (5) 54:17 cement (4) 57:9,19 115:9,12 120:24 208:4 checked (1) 61:4 centre (1) 200:14 checking (2) 54:16 107:20 certain (3) 191:5 cheeseman (2) 120:9 121:12 192:21 195:24 chiltern (3) 145:8 99:20,22 100:7 146:14 148:21 101:3,5 102:7 104:6 choice (2) 123:10 183:17 106:6,7,18,20,24 chronological (2)

12:21 16:17

10:18

143.24

193:11

202:3

97:25 98:25

116:6.12.24

143:3 144:11

211:12.22

202:7 206:1

90:7 123:14

cert (1) 137:22

certificate (33)

107:1.6.12 108:17

116:3,15,20 117:7

118:1,3,7,11 123:8

109:9 111:15 114:19

119-24 162-23

chronology (1) 3:8

cladding (52)

circulated (1) 201:18

105:14

2:2,3,5,7,9 9:14 27:14 28:5.21 45:15 50:9 51:3,16 58:17,19 63:8 70:13 71:24 72:15 77:8.20 78:5 83:19 90:23 97:16,17 102:10,14 104:13 114:10 117:2 123:10,16 127:25 139:14 145:22,25 151:17.18.19 152:5.25 153:14,19,22 154:9 163:15 171:20 189:4 197:22,23 200:18 claiming (1) 126:23 claims (1) 138:25 clarify (1) 26:13 clark (2) 31:11 32:15 class (6) 151:20 153:19 203:10,18,20 205:4 classification (16) 54:12.13.14.17 56:5 57:2 64:13 65:5 74:25 99:14 117:15 123:21 146-4 148-19 149:10,22 clause (3) 83:11.14 205:11 clean (1) 149:17 clear (32) 9:3 11:2 21:6,20 22:9,25 50:14 55:16 61:5 64:18 103:17 112:8 117:7 141:14.20 158:3.6 163:14 164:10,18 167:9.14.15 168:14.17 173:4 178:21 181:23 183:15,25 191:10 192:18 clearer (5) 22:13 165:6.7 182:10 190:3 clearly (11) 43:21 85:23 89:4 121:3 130:17 139:6 156:11,19 165:16 166:12,13 client (4) 91:15 147:9 148:12 197:25 clients (3) 93:24 181:15 186:18 climb (1) 2:5 close (7) 7:11 10:11 31:6,23 68:16 165:24 171:25 closely (7) 18:4,7 35:19 50:19 68:17 150:22 208.7 closer (2) 33:4 174:2 cold (2) 5:10 6:3 colleague (2) 115:10 159:3 colleagues (1) 204:17 colledge (2) 137:8 colour (1) 84:8 coloured (1) 28:14 colours (2) 66:17 67:1 column (7) 37:8 39:13 43:15,16 57:5,7 64:22 columns (1) 36:22 combination (3) 46:8 153:18,20 combustibility (3)

131:24 156:25 172:7

combustible (5) 123:15 160:7 170:23 171:10 185:8 come (47) 6:2,9 8:6,12 10:16 16:13 24:22 32:9,15 46:10 52:23 53:12 55:5,7 69:9 76:4 87:11 88:1 89:13 92:11 102:4,23 107:1 119:5 125:8 127:10 128-4 134-11 140-7 142:22 143:17 149:17 163:4.5 170:4 172:12 179:4 181:17 182:3 183:4 185:19 196:4 201:17 204:10 207:18 212:24 213:4 comes (13) 20:13 67:20 103:23 115:5 116:8 131:2.11 133:19 138:16 146:9 150:7 161:17 192:6 coming (16) 6:6 61:15 68:21 96:25 128:23 161:10 182:22 183:2,20 186:22 190:13 198:19 212:4,8,11 213:2 commenced (1) 206:14 commences (1) 189:18 comment (7) 41:24 55:8 87:10 88:3 110:18 140:2 155:22 comments (3) 31:14,18 199:9 commercial (4) 130:13 155:17 166:9 191:16 commercially (1) 129:8 commission (1) 148:8 commissioned (2) 148:3.7 commissioning (2) 143:8 149:6 commit (1) 142:2 common (4) 44:24 201:7,20,21 commonly (5) 134:6 150:25 152:2,3,17 communicate (1) 87:10 communicated (3) 15:17 184:14,19 communicating (4) 86:3 137:8 174:1 186:18 communication (4) 22:23 184:13,18,21 communications (3) 83:1,3 84:21 communicative (1) 44.18 companies (1) 202:16 company (10) 45:23 78:19 92:24 93:22 132:5 133:4 156:7 157:1 182:4 207:12 compare (2) 28:3 104:5 compares (1) 97:4 **comparing (1)** 80:6 comparison (1) 160:20 compete (3) 45:5,12 130.11 competition (2) 50:10 123:3 competitor (1) 73:25

competitors (1) 124:11 compiling (1) 30:7 complain (1) 169:16 complained (1) 139:22 complaining (1) 184:1 complaint (14) 155:10 161:12 162:9 165:14 166:5.17.20.22 168:12,13 169:1,4,5 179:2 complete (1) 92:12 completed (3) 121:1 146:23 147:10 complex (1) 134:22 compliance (31) 50:20 51:6 52:15 72:14 81:18 88:20,21 90:21 103:7 105:3 117:19 138:5 142:14 145:22.25 146:3 156:3 171:17 172:4,6 173:2 176:10 180:16 185:5 189:4,9,10,17 191:19 193:8,24 compliant (4) 156:18 163:14 166:8 190:24 complicated (1) 165:11 complied (3) 47:9 124:10,15 complies (1) 116:13 comply (1) 209:24 complying (1) 51:2 component (1) 56:4 components (14) 21:5 47:14 59:7 60:15 64:14.15.20.21 75:1.2 164:11,18,21 171:10 composite (1) 202:1 compounds (1) 37:25 comprised (1) 189:14 comprising (1) 70:5 conceal (2) 12:10 15:9 concealed (1) 160:7 concede (1) 2:25 concept (1) 46:2 concern (9) 33:11 134:3 165:3 167:8 188:6.9 189:23 195:19,21 concernchallenge (2) 37:3.9 concerned (9) 8:19 85:13,23 126:3 177:24 185:18 186:15 191:13 195:22 concerns (4) 41:17 122.12 127.6 141.14 concluded (1) 160:24 conclusion (1) 63:12 condition (3) 27:14 31:23 118:7 conditions (2) 116:15,20 conduct (3) 4:21 38:2 207:3 conducted (1) 132:6 conference (2) 88:16 134:19 confidence (2) 7:11 38:6 confident (1) 7:12 confidential (2) 92:18

configurations (1) 47:15 configured (1) 150:21 confirm (7) 4:15 84:3.12 92:15 96:3 144:25 146:14 confirmation (3) 32:22 138:8 173:10 confirmed (6) 16:21 18:7,25 37:5 137:16 210:12 conformed (1) 182:12 confused (2) 11:25 24:25 confusing (1) 166:16 confusion (2) 85:15 192:20 congratulated (2) 110:8 112:14 conjunction (2) 2:3,8 connected (1) 93:1 conscious (1) 53:8 consequence (1) 157:13 consequential (1) 156:2 consequently (1) 2:5 consider (4) 88:5 106:23 118:16 196:2 consideration (1) 191:16 considerations (1) 97:14 considered (7) 64:16 75:3 145:16 163:17 180:11 188:24 210:17 considering (1) 177:25 consistency (3) 186:14 187:9 188:6 consistent (7) 23:22 135:25 184:13 186:10,23 187:4 188:9 consistently (1) 42:22 construction (12) 101:17,19,25 116:7,23 132:1 137:22 155:11 157:7 170:24 171:11 179-19 constructions (3) 51:4 201:7.21 consultant (1) 210:1 consultation (1) 127:4 consulted (1) 137:15 consulting (1) 127:1 contact (2) 97:25 156:9 contacting (1) 97:22 contacts (1) 169:20 contain (2) 25:18 146:1 contained (3) 99:12 106:10 176:9 contains (2) 112:4 180:10 contemplated (2) 176:24 196:13 content (10) 6:4,16 40:17 55:10 93:12 120:22 121:17,21 169:14 197:20 contents (4) 7:9 44:21 122:2 144:5 context (7) 3:25 23:16 90:18 95:4 119:24 144.13 17 continue (4) 1:4 196:19

197:21 200:17

continued (5) 1:7,14

93:9

configuration (1) 65:9

142:2 214:3,6 continuous (1) 160:3 contractor (1) 139:22 contractors (1) 124:11 contrary (3) 65:4 110:8 162:7 contributed (1) 97:24 contribution (2) 152:7 153:6 control (3) 88:23 157:6 189-9 convenient (2) 53:9 118:18 conversation (16) 10:19 23:6,8 24:23 25:21,23 26:14 29:18 30:16 34:12 39:15 91:13,15 132:15 133:6 163:12 conversations (2) 138-24 161-25 conveyed (2) 189:20,25 cool (1) 135:11 copied (25) 31:12 32:5 33:25 42:4 84:10 95:12 104:8 105:21 113:3,15,16 114:25 115:2.6 126:11 130:23.25 131:3 144:13 150:11 157:25 158:19,25 161:17 186-4 copies (2) 9:12 203:10 copy (13) 25:3,15 26:2 88:21 94:17 117:19 118:3 145:21 146:4 150:12 153:25 167:17 189:3 copying (1) 112:21 core (1) 213:5 corner (3) 53:25 63:21 201:19 correct (13) 2:20,24 3:1 4:11 23:1,23 47:11 89:4 91:8,22 102:16 155:4 160:12 correctly (1) 56:24 correspondence (3) 158:14 161:10,11 cost (1) 155:25 costs (3) 147:20 156:2 157:12 couldnt (5) 26:3 89:10 124:7 162:18 183:12 counsel (3) 1:14 208:3 214:5 couple (4) 35:14 79:2 99:9 112:1 course (11) 4:1 9:7 10:16 25:14 98:2,16 156:1 179:4 187:19 208:23 213:4 cover (7) 53:6 54:14,17 65:6 117:8 134:21 164:4 covered (4) 54:15 56:5 134:24 149:11 craig (6) 71:18 87:11 120:10 161:6 166:11 190:20 craigs (1) 85:8 create (7) 13:2 15:20 16:19,24 18:16 19:3 72:12

created (4) 13:12 20:10 44:20 113:6 credible (1) 69:12 cresswell (2) 92:11,20 criteria (13) 47:3 51:7 52:9,15 55:16 64:3 78:22 83:25 103:2 104:24 145:3,9 146:15 critical (4) 56:21 67:14 154:17 189:17 critically (1) 68:17 crucial (1) 123:18 crystal (3) 22:9 168:17 183:25 ctc (1) 161:23 curious (2) 35:10 66:13 current (2) 144:25 146:25 currently (6) 111:24 127:1 146:6,22 156:17 184:10 curtain (2) 160:1 171:20 customarily (1) 19:14 customer (4) 10:21 110:14 152:21 197:23 customers (19) 107:15 111:10 112:4,12 179:13,23 181:4,15,24 182:6,18 183:13 186:10.12.24 187:20 188:1,4 190:13 cut (4) 84:10 105:14,16 106:20 cx (1) 37:3 D

134:11 138:7 decided (4) 17:15 36:14 203:6 207:5 d (2) 159:13.17 d8c (1) 171:19 damage (1) 200:19 damien (2) 163:7,13 dane (3) 203:16,16 danger (1) 162:4 dangerous (2) 127:19

daniel (1) 107:9 data (6) 132:2,23 147:1 156:4,14 158:12 datasheet (7) 46:13 70:2,8 75:7 81:18 91:2 190:8 datasheets (1) 85:10

204:3

128:2

date (9) 44:13,21 114:13 122:6 143:12 175:1,2,3 179:3 dated (10) 20:22 26:24 27:2 31:3 100:11 101:12 139:12 140:24 200:9 201:13 dates (3) 128:18 163:3

173:21 dave (10) 36:1 158:18,24 159:1,1 193:5 194:20 195:3,12 198:18 david (1) 104:8

day (22) 7:25,25 30:7 40:15 84:2 92:22 96:22 114:16 119:25 135:18 136:24 161:15 184:23 204:16.23

210:2 211:11,14 212:19.20.25 213:8 day691495 (1) 210:14 day691505 (1) 210:15 day71111 (1) 3:11 day732717 (1) 29:12 days (3) 85:2 119:24 188:16 daytoday (2) 19:15,18 deal (3) 206:8 207:20.22 dealing (5) 89:16 159:12 186:9.22 188:1 deals (1) 115:10 dealt (1) 194:22 dean (2) 204:14.20 dear (4) 155:13 167:17 203:17 204:5 deaths (1) 200:19 debbie (39) 87:19,23 95:8,11,24 96:18.19.20.24 98:5,24 99:17 112:21 113:9,17,25 114:14 115:2.6.7 128:12 133:10 144:13 147:14.22.24 148:3 150:10,15 152:8,11 153:24 161:17 163:12 190:20 193:5 199:12 209:15 213:2 debs (1) 113:11 december (7) 137:15 139:3.12 163:9 206:5 210:3,6 decide (3) 129:14

decision (13) 11:2 12:10.13.16 23:16.20 33:13 49:2 66:4 75:9 89:11 203:11 207:11 decisions (6) 60:3 61:1,8 62:15 66:6 deck (1) 13:7 declared (1) 206:2 deemed (2) 155:15 205:10 defaulted (1) 96:20 definite (1) 7:23 definitely (2) 4:6 45:22 definitive (1) 173:13 deformation (1) 205:11 delay (4) 52:2 97:22 115:8 156:2 delegated (1) 61:3 deleted (1) 15:4 deliberate (5) 58:23 66:3 75:9.22 76:14 deliberately (13) 16:10.14 18:16 42:18 61:19 62:4 65:13,25 72:10 81:11 106:17 110:25 155:4 delicate (1) 134:22 demeanour (1) 195:5 demonstrate (2) 138-15 demonstrating (2)

172:4,6

deny (5) 2:18,19,24

16:22 24:24 departed (1) 117:22 department (8) 100:13 112:11 121:23 125:19 128:10 186:4 197:17 200:13 departments (2) 68:22 125:25 deptford (1) 159:7 dereliction (2) 68:6,15 described (7) 9:4 56:24 59:6 65:6 130:8 138:3 154:18 describes (3) 10:19 35:24 181:8 describing (4) 36:2 37:18 58:12,18 description (4) 14:24 60:15 113:22 116:4 deserves (1) 157:16 design (23) 88:17,24

97:14.21.23 98:4.9 150:25 151:1,11,17,18,19,23 153-20 173-14 180-15 189:12,18 190:25 191:6 196:21 201:23 designed (5) 16:5 77:8,12,19 116:6 designer (5) 56:3 58:15 64:16 75:3.18 designing (1) 58:19

designs (2) 151:12,12 desk (2) 144:8 198:12 desktop (60) 94:10,11 132:24 136:3 142:3,9,15,16,17,23,24 143:3,8,14,18,22 144:14 145:6 146:6,13,22 147:10.14.18 148:4,7,17 149:7,8,13,16,19 150:16 153:3,8,10 154:21 166:14 172:7 173:1,5 174:4 176:2.6.10.12.14 178:2,6,17 196:5,6,9,10,14 198:20 199:8.18.22 202:8

despite (1) 110:10 detail (35) 5:4 6:7 8:21 10:12 21:22 30:19 39:7 41:3 50:1 60:18 68:1 69:10 24 71:22 97:14 99:5,7,12,16 100:14,16 106:15 109:1.3 110:19 111:12

112:5 113:5 121:25 147:15.23.25 173:14 198:22 205:6 detailed (8) 54:13 64:14,20,21 75:1 120:7 140:7 171:13 detailing (2) 117:16

156:8 details (20) 54:14 56:22 88:21,22 93:8 97:12 98:19 101:7 117:18 123:16 134:19 145:22 148:22,23 150:3 167:7 189:4,11 190:25 191:7

detected (1) 140:10 determination (1) 55:4 determine (1) 203:22 determined (1) 55:2 developing (1) 45:8 development (5) 15:18 155:17 159:8 179:1 202:5 diagram (2) 57:22,22 dialling (1) 136:10 dialogue (1) 127:15 diary (1) 3:23 didnt (78) 3:5.21 8:6 11:11 13:8,9 14:25 16:23 19:12,13 26:16

29:23 35:1 39:19 40:19,20 42:1,16 47:24 48:2.11.19 65:6.14 68:5 69:1.19.25 72:12 76:12,17 78:25 86:11 89:6 106:9.12 107:11 108:14 110:4 111:6,7 118:6,16 129:2,7 132:16.23 142:20 149:25 150:1 153:18 154:5.11.18 162:13 165:4,18,21 166:24

167:16,21 169:7,10,12 171:23 172:2,9,19 178:5 183:3 190:12 192:18 195:21 197:23 204:15 205:21 210:23.25 differed (1) 164:13

difference (5) 9:25 10:10 84:8 95:16 116:12 differences (5) 9:4 10:4,6 12:16 37:20 different (42) 19:18

28:14 29:19 40:6 46:9 49:4 56:19 66:17 67:1 88:16 92:1 96:4 99:18 110:6 124:2 131:18 133:6 135:16 143:19 151:14.17.22.23 152:13,24,25 153:9,21 163:2,3,3 172:2 180:1.3 183:9 186:17,17 189:19 190:2 197:22 211:18.25 differently (1) 211:15 differing (1) 137:25 differs (1) 180:15

173:12 177:4 200:24 difficulties (2) 161:3 191:11 direct (4) 102:12 104:15 117:4 157:12 direction (6) 13:18,20,24,25 14:1 73:24 directly (4) 45:5,12

difficult (4) 83:22

156:2 209:21 director (1) 157:21 directors (1) 207:12 disagreement (1) 11:19 disciplinary (3) 205:23 206:9,11 disclaimer (5) 61:6 65:5

72:2,20 73:1 discover (2) 44:5 205:15 discovered (1) 178:1 discuss (11) 3:21 5:9 7:12 88:23 96:4

136:16 138:19 205:16 208:16 210:4,7 discussed (30) 4:6,12 11:9 25:5,15 29:4,15 31:17,21 32:18 41:13 44.14 60.9 63.15 64.7 71:11 92:15 94:19.23.24 96:12 122:10 125:25 126:17

130:16 145:17 147:13 194:22 204:18 210:10 discussing (2) 41:15,16 discussion (58) 2:15,21 3:5 6:15 11:19 12:5 23:1.8.13.22 24:4,6,14,15,18 25:7.9.10 26:9.12 28:25 29:6,20,21 30:2,6 32:9,17,23 33:19 38:20 39:4,11,18,21 40:1.9.15.16.25 41:8

163:21 168:15 169:6 189:12 discussions (4) 12:15 148:2 152:9 167:22 dishonest (6) 60:22 62:3 65:25 75:23,25

76:8

43:10 46:19 48:2

66:22,25 72:22

73:4,23 111:15

135:6.18 161:6.8

dishonestly (4) 18:16 65:13 66:4 81:11 dismantled (1) 27:16 dispute (1) 158:1 distribution (2) 79:4,5 document (74) 18:23 26:25 27:4 30:9.12.22 31:19 44:19,22,25 48:5.12 51:2.3.12 53:23 54:24 55:12 57:5 60:22 62:2.4 63:18 65:5 66:21 69:16,17 71:5 73:10.13 75:23 76:4.19.21.23 77:16 79:23 84:16,24 87:19,20 99:20 101:7 104.1 108.16 109:2,6,15 110:5,11,24 111:10,22

201:13 documentation (2) 23:21 101:10 documents (27) 9:13 12:8 53:9 54:17 55:3,8 60:18 64:9 65:21 66:8 70.5 6 71.1 1 17 72:7,11,13 76:6,10,22 82:6,20 84:21 85:23 129:18 149:12

112:3,11 113:1,8

121:3,11,13 138:6

142:10.16.18.21.25

163:18.19 186:1 198:8

162:20.21.23

does (32) 3:21 9:19 13:24 26:8 30:4 37:13 43:5 52:23 56:14 65:2 84:8 90:24 91:19 117:9 118:14 126:22,23,24 143:14 145:25 146:1,3 156:5 163:23 173:3 175:23 176:13 185:11 186:25 189:22 199:2 202:25 doesnt (27) 8:2 14:21 16:4 19:12,13 27:22 30:4 34:5 38:19.21 40:14 58:1 65:1,8 70:19 72:25 78:2 80:25 98:15.18 140:20 157:25 163:21 172:24 183:16 188:5 196:13 doing (31) 15:13 17:2 22:13 32:6 43:3.5 55:19 59:4,17 62:8

65:16 76:11 80:8

91:12,16 100:6 108:12

111:4 119:2 128:17

130-4 149-16 169-12

178:6 191:17,25

196:9.14.24 197:15 202:17 done (54) 15:7,23 16:14 17:4,8,14 33:6,14,18 34:17.18 35:1.2 36:5 37:16 41:2 42:17.17 61:9 77:1 79:13 94:10.12 100:22 106:9 107:22 108:4,5,18,25 110:2.11 111:9 130:16 133:9 146:13 147:22 148:4,8 149:19 150:1,2 154:21 164:25 168:22 169:9 175:12 181:23 196:25 199:8

205:3.4 206:19 211:15 dont (214) 2:15,18 4:20 5:3 6:18 7:19 8:9 10:2.11 11:14 12:1,2,9,13,14 14:1.6.10.12.13 15:11,11,12,17,23 16:23 17:6,17,18,20 18:2.2.12.12.20 19:1.7 21:17,23,25 22:20 23:5.5.15 24:14.14.16.23 25:21 26:11,18 28:16 29:19 30:9,9,17 32:22 33.9 12 22 34.1 4 9 10 35:13,16 36:4 37:15,20 38:1 41:4 42:4.19 43:9.10.25

44:4,8 52:19 53:13 54:22 55:9.14 59:11,12,13,14 60:2 63:2 65:18 66:14,20,25 67:2,24,24 73:12 75:6,9 76:12 79:12,17 82:13.17.19.20 84:17,17 87:8 89:22 90:1 91:25 92:5 93.11 19 94.1 4 13 95:3,4 98:5,21,24 100:5 102:3,23 106:15 107:4,16,17,18,21

14:1 54:22 73:22

110:19 127:3.6

108:8,10 109:1,13
110:1,15,16,19 114:3
115:19 116:1 119:7
121:13,24 123:23
127:8,12
128:10,12,16,21
129:7,11 130:3
132:13,17 133:2,5
135:1,15,17 136:19,22
139:24 142:10
143:21,22 147:19
148:10,13,14,15
152:16 153:21 154:12
159:10 162:10,13
165:7,14,21,22 167:11
170:8 172:1 176:18,19
178:4,18,22 185:20
187:4,8,17 191:24
193:3,10,18 195:18
196:6,8 197:3,16
199:19 202:16 204:13
205:5 208:16
210:9,9,20 211:5
doubt (1) 156:23
doubts (1) 55:13
down (26) 14:2 18:10
49:5 64:1,12 74:12,13
94:16 102:8 104:21
105:6,17 125:20
132:11 144:2 151:12
163:2 175:17 179:16
191:8 192:4,6 195:7
198:21,22 209:14
dr (2) 203:16 204:3
draft (21) 20:17,21
24:21 26:23,24 31:17
34:15 39:6,12 40:10
41:9,14,24 42:13
66:10 67:20 84:5,15
122:22 179:9 189:24
drafted (1) 200:10
drafting (3) 81:16,17
85:22
drafts (1) 179:14
draw (3) 72:17,20,25
drawing (6) 58:7 88:16
96:3 99:20 101:7
112:3
drawings (1) 144:24
drawn (2) 9:6 26:15
drive (1) 44:14
driving (1) 182:18
duck (1) 85:5
due (6) 6:23 10:16
179:4 190:25 196:21
205:11
duoslab (1) 45:6
during (14) 4:23 23:8
28:25 36:6 98:6
118:15 121:6 160:21
178:10 200:24 204:8
205:4 211:16 213:4
durkan (2) 126:12,14
duties (3) 68:6 69:20,22
E

earlier (12) 20:18 30:7 34:25 42:24 117:21 136:17 144:7 150:14 155:3 176:7 177:21 180:25 early (4) 83:4,5 176:12 189:12

```
easy (1) 167:21
edition (1) 54:6
edward (1) 131:8
effect (4) 22:6 73:21
 145:5 192:1
effort (3) 69:15 109:18
 118:9
efforts (1) 110:22
eg (3) 131:24 160:1,6
either (9) 8:23 17:11
 35:10 75:16 128:11
  135:19 163:4 199:2
 210:24
elements (1) 154:17
else (12) 14:6 17:21
 19:14.21 61:19 89:11
 91:16 105:23 138:13
 195:2 207:18 208:17
elwell (1) 200:10
email (143) 3:18 4:1
 31:6,9,10
 32:5.12.13.19
 33:9,22,24 34:6
 39:3,3,5,12 40:8,9
 41:5.23 42:4.19 44:12
 71:21 73:17 82:25
 83:8 85:2 87:14.17.19
 88:12,12 89:3,19,23
  90:1,5 91:25 92:9
 94:14,16,17,25
 95:7.10.24 97:9 98:14
 99:2 100:10
 104:6.8.18.22 105:19
 106:3.17 108:1.24
 112:13,19,20 113:2,7
 114:13.25 115:2.16
 119:22,25 120:7
 122:6,15,17,19,22
 125:4,10,13,13,14,22
  126:2,9,12,16
 127:7.12 130:21.21.24
 131:13
  132:10,11,15,16,25
 133:6,8,17 134:10,17
 136:7,15,25 137:1
 138:11 139:18
 144:10.12.12.18.20
 147:6 150:8,14 156:9
 158:22,24 161:14
 163:25 164:4 172:21
 173:8 179:5,16
 184:6.25.25 186:3
 188:15.17.20
 190:16,19,20 192:3
 194:2 203:15
 209:13 14
emailing (1) 44:13
emails (7) 92:2 115:9
 128:19 134:9 148:5
 187:4 188:18
embedded (1) 93:6
employ (2) 209:21
 210:1
employed (1) 1:5
en (1) 107:18
en135011 (1) 91:4
encapsulated (1) 163:20
enclose (2) 155:21
 167:17
enclosed (1) 138:6
encompassing (1) 139:1
encountered (1) 191:12
                           events (2) 161:21
```

88:6 118:22 121:1 137:15 146:5 185:19 186:12 199:11 ended (1) 60:4 ending (1) 162:4 endorse (1) 198:4 endorsement (1) 177:15 enduse (1) 54:18 engage (2) 210:7,13 engineers (3) 87:23 88.2 89.16 enlighten (1) 37:25 enough (2) 85:9 208:9 enquire (1) 187:18 enquiries (10) 161:18 162:2 163:3 179:12 181:15,18 182:21 186:7.9.22 enquiry (2) 162:5 180:9 ensure (2) 7:14 155:5 ensuring (1) 191:13 enter (1) 97:25 entering (2) 76:25 97:22 entire (1) 212:22 entirely (2) 11:2 184:1 entirety (1) 37:5 entitled (4) 44:19 53:24 200:15 201:6 envelope (1) 159:25 environment (1) 88:4 equally (3) 5:23 118:12 185:4 essentially (1) 37:13 establish (1) 32:10 established (3) 101:19 116:23 183:24 et (5) 33:5 61:17 81:8 98:13 113:6 etc (2) 123:11 209:20 eternit (18) 23:11 28:9,10,21 58:4 59:9 60:8 61:21 65:23 75:15 90:8,23 98:17 99:13 138:4 149:2 154:9 197:7 evans (53) 1:5.6.7.8.16 3:12,22,25 17:10 20:18 21:3.13 22:16.25 31:13 41:12 42:7 50:24 53:12,20 60:24 64:6 67:17 69:4.13 74:7 76:8 96:13 110:24 115:3 118:9 119:3,16,21 129.17 144.13 150.9 165:13 170:4,15,19 176:12 186:5,13 198:18 207:16 208:1 209:5,12 211:9 212:2.7 214:3 even (20) 2:18 21:7 40:11 46:20 66:22 71:25 75:18 77:2 105:7 130:5.7 147:9 149:6 162:8 164:23 177:14 197:22 199:23 200:4 210:1 event (7) 10:12 120:11.13.14.15 141:10 157:4

143:3.9 149:17 183:17 191:24 199:18 every (5) 69:5 70:10 71:15 183:12 194:19 everybody (1) 175:7 everyone (1) 1:3 everything (3) 44:15 204.7 211.16 evidence (41) 1:5 3:11 11:7 13:13 14:3.13 15:14 16:22 20:14,20 21:1 28:18 53:14 111:17 119:8 131:25 140:24 141:4 143:13 152:19 155:9 156:22 157:3.5 162:7 165:7 166:15 170:9 194:23 199:15 208:16 210:12.14 211:10,12,16 212:4,8,10,24 213:2 evolution (1) 142:9 evolved (1) 194:3 ew491 (2) 112:24 116:3 ewing (1) 104:8 exact (4) 92:15 139:21 143:12 146:15 exactly (23) 5:22 8:9 40:4 47:13.14.14 58:17 103:20 105:6 127-25 128-15 129:6,24 137:22 138:3 142:25 149:19 165:17 168:19 179:20 180:5 182:12 202:24 examine (1) 17:9 example (6) 63:16 94:9 98:10 136:12 140:25 196:22 examples (3) 33:5 150:13,24 except (2) 14:18 37:6 exception (2) 18:1 94:6 exceptionally (1) 94:7 exchange (7) 10:24 11:12,14,15,16 12:3 140:18 excuse (1) 207:3 executive (2) 82:10,15 existed (1) 142:21 existence (2) 98:16 178:1 existing (3) 78:2 80:4 112:2 exova (9) 149:18 150:10 153:8 196:11 198:12,20 199:7,10 205:8 exovas (2) 199:1 200:5 expand (1) 38:7 expected (1) 6:6 expecting (1) 197:25 experience (1) 211:19 experiences (1) 211:13 expertise (2) 152:15 157:2 explain (22) 8:2 13:16,23 30:1 41:9 52:7 72:23 73:2 118:9

120:23 121:18,23

140:8.19.24

122:4 135:12,19 ever (15) 5:3 11:14 12:4 143:15 148:5 172:12,16 196:25 210:21.23 explained (3) 122:21 135:24 163:17 explaining (2) 12:17 163:13 explanation (4) 17:1 32:7 37:14 76:5 explore (2) 50:1 106:19 expressed (3) 127:7 165:4 195:11 extend (1) 160:4 extent (2) 32:10 51:12 exterior (1) 123:17 external (6) 51:3 90:23 145:3 170:24 171:10 189:14 extreme (1) 156:20 extremely (4) 67:11 166:23 199:21 212:5 eye (8) 54:1 68:16 72:17,20,25 104:16 105.5 198.21 eyes (2) 94:19 95:2 faade (14) 87:22 88:2 89:16 137:17 151:9 190:23 199:3 209:18,23 210:13 facade (3) 160:20 201:20,21 facades (1) 160:3 face (8) 77:16 102:5 106:21 123:9 173:23.23.25 202:9 faced (2) 116:7 156:17 faces (1) 174:14 facetoface (2) 174:5,9 fail (2) 197:2,9 failed (15) 11:4 14:21 15.3 9 16 16.2 22.17 67:21 167:3 197:11 203:23 204:7.8.12 205:15 failure (2) 157:10 203:19 failures (1) 157:13 fair (7) 52:23 112:18 200:3.6 fairer (1) 129:18 fait (1) 32:3 faithfully (2) 59:6 157:19

28:3.22 29:10.22 30:23 31:22 32:4,13,21 33:10,23 34:4.7.14.23 38:17.21 39:5,12 40:2,10,21,25 41:8.14 42:12.21 44:7 57:22 93:2 final (6) 2:11 55:5,6,9 56:16 160:16 finalised (1) 189:18 159:13 160:1.9 189:15 finalising (1) 39:7 finally (1) 79:22 find (15) 31:17 39:1 72:1 100:16 113:2,19 130:21 139:2 145:21 150:24 181:5 182:7 186:17 189:3 204:6 findings (1) 198:13 fine (3) 87:6 137:17 208:14 finest (1) 86:19 finish (6) 30:13 118:21 135:2,2 190:16 213:8 finished (1) 208:1 fire (53) 2:2,4,17 9:7 15:6 31:7.24 38:7 39:17 64:13 74:25 91:3 97:16.22 98:1 117:17 126:20 127:1.4 132:2,6,8,23 139:13 145:3.8.8.23 146:14.14 152:7 153:6 129:17 182:19 198:14 156:22 159:8,16,16,22,22 160-5 6 16 19 163-18 189:5 194:18 195:8,17 196:22 199:5 200:19 203:6.25 211:14 familiar (3) 50:22 74:6 fired (1) 31:24 122:2 firm (1) 66:3 far (7) 8:18 28:19 49:14 first (39) 1:20 5:9 11:4 105:13 126:3 177:23 13:9 15:16 20:21 21:2 23:18 25:6 27:3 31:17 fault (1) 111:22 37:16 46:4 52:24.24 faulty (4) 3:1 18:24 66:10.24 67:13.21 43:2,6 68:13 73:3 77:1.5 favour (1) 89:14 99:19 101:8 102:13 features (2) 62:12,13 104:18 105:7 107:20 february (20) 13:3 135.8 142.17 152.8 14:21 15:3.10 16:20 161:9 164:7 171:5 22:17,17,22 181:7 198:23 204:7 139:7,17,20 206:21

141:1,4,10 144:22

fed (2) 97:12 98:20

feedback (8) 59:16

feeding (1) 68:21

felt (9) 33:17 72:7

163:22 203:11

207:14.14

fiasco (1) 207:2

field (1) 144:8

207:10

152:23.23 177:7.9

182:2 184:16 190:1

feel (6) 31:25 133:22

160:18 200:22 206:16

73:25 127:12 129:15

few (6) 85:2,18 133:24

134:3 188:16 202:18

fibre (3) 57:9,19 90:7

fifth (2) 81:10 198:21

figure (31) 27:13

163:7 171:5

fit (1) 33:1 five (2) 37:16 178:14 fixed (10) 51:4 102:11 103:6.12.19 104:14 105:2.9.24 117:3 flame (1) 156:24 flames (1) 97:24 flammable (1) 155:18 flipcharts (1) 36:20 floor (2) 117:11 171:11 floors (1) 79:21 flow (1) 40:4 focus (5) 109:12 158:23 172:19 195:22 211:21 focused (1) 144:7 focusing (1) 47:4 foil (1) 116:7 folder (1) 44:14 follow (7) 6:13 22:7 26:8 30:4,18 58:15 99:7 followed (2) 75:8 193:22 following (10) 13:1 35:19 110:21 164:5 184:12,23 190:17 201:21.25 208:6 follows (4) 8:22 57:8 64:24 75:12 followup (2) 132:16 210.10 foot (9) 12:20 30:22 31:11 50:5 95:23 100:11 113:9 132:12 136:12 foregoing (1) 187:14 foreseeable (1) 184:2 form (7) 57:24 60:11 115:16 121:22 122:3 162:1 176:24 format (3) 14:18 111:25 112:9 formed (1) 56:8 formerly (1) 1:5 formulate (1) 134:12 formulations (1) 203:21 forward (7) 129:12 204:24 209:19 210:19,22,23 211:3 forwarded (2) 133:8 204:14 forwarding (2) 87:19 136:25 found (9) 38:9 39:16,21 40:16 117:18 166:17 167-5 209-6 8 four (6) 72:13,14 144:2 150:13,20 195:7 fourth (3) 63:4 123:2 205:9 fr (1) 203:20 fr5000 (15) 52:2,3 77:11 78:7.21 79:3,6,14,19,20 113:14 114:2 116:12 203:11.14 frame (6) 51:4 102:12 104:15 117:4 123:6 157:18 frans (5) 150:10,11

end (10) 63:12 85:14

162:19

153:25 154:5 199:13

fresh (2) 67:11 68:12

free (1) 212:14

39:9 45:25 46:19

58:18 67:9.21

171:12

131:15 209:24

97:3 132:7 138:6

152:12 153:1

209:19

164:10,12,17,20

172:5.10.13 176:8

178:2 180:24 198:1

200:8 201:6 202:4.22

142:18 143:25 144:1,5

friday (1) 120:11 friendly (2) 36:1 89:2 front (2) 150:4 162:7 full (26) 20:21 92:6.17.21 93:13 94:2,17 99:14,15 117:19,22 121:21 139:18 148:22,23 153:25 154:2 155:5 156:7 157:11 158:12 160:4 16 161:2 163:18 fullscale (1) 55:17 fully (8) 32:2 56:24 125:19 147:13 159:15.21 160:4 199:3 fundamentally (1) further (20) 26:22 96:12 127:3 137:24 142:1,2,4 143:15 147:2.15 156:1 168:1 169:19 177:16,25 178:17 205:1 207:16.24 208:24 furthermore (1) 157:9 fuss (1) 165:15 future (2) 146:24 169:11 fyi (1) 125:12

G

gain (1) 164:14 game (2) 59:10,11 gap (2) 105:1,7 garlick (6) 10:19,21 11:1 161:18 179:8 186:4 gas (2) 205:12,13 gauging (2) 43:23 87:7 gave (11) 16:22 18:15 19:14 30:18 32:20,22 74:19 99:19 148:18 153.2 164.12 general (11) 24:9 25:23 54:5 87:13 102:1 140:16 143:17 156:24 175:5 186:11,24 generally (11) 8:12 17:25 36:16 69:2 70:8 75:6 81:20 86:7 115:17 174:10 195:18 generated (1) 183:14 generous (1) 165:24 genuine (5) 166:8,23 167:2,2 169:4 genuinely (1) 168:13 get (34) 17:9 51:24 67:11 71:6 72:18 73:20 74:20 81:7 85:13 88:5 97:2 107:14 112:10 118:3,23 119:4 125:11 126:9.12 129:4 130:11 134:19 143:3,9 152:12 173:10 177:21 184:11,17 187:12 192:12 199:18 200:21 208:15 gets (2) 90:11 180:13 getting (12) 24:25

110:19 115:8 141:8 ground (2) 117:12 177:7.17 178:9 192:19 give (16) 17:23 38:13 group (3) 130:22 45:17 60:25 88:19 110:20 111:10 120:4 groupst (1) 131:8 177:15 179:3 186:12 guidance (27) 51:2 82:4 208:3 212:8,11,24 213:2 given (40) 9:21 14:14 15:14 18:9 19:22 32:7 38.9 41.6 47.20 59.10 61:5 65:5,19 68:13 76:24 95:1 96:18 107:12 108:11 109:18 111:9 141:14 149:4 155:2 173:11.13.16 179:19,20 180:6 182:1 187:25 188:4 190:6.22 192:2 196:24 202:6 211:11.17 giver (1) 19:9 gives (3) 89:1 145:22 189:4 giving (11) 33:12 37:13 41:18 43:11 59:11 61:7,8 87:11 143:18 187:20 209:19 glad (1) 212:20 glassclad (1) 174:22 global (1) 101:11 goahead (2) 33:12 goals (1) 63:7 goes (14) 21:2 22:2,24 24:10 97:19 102:25 113:8 116:11.25 152:1 171:8,13 178:13 204:3 going (60) 1:4 2:12 4:3,25 5:8,15 7:2,3,6 18:17 22:6,18 32:11 34:3.6 35:15 41:24 42:20 49:3 50:22 52:10 53:8 62:2,6 66:3 73:8,23 79:5 82:5 87:8 95:9 106:4,5 110:20 112:17 121:23 128:10 129:12 130:17 134:21 135:21 148:17 152:9,11 168:10 169:24.25 170:3 178:9 179:2 181:7 184:3 185:1 192:13.16 198:23 204:23 210:17,19 212:23 gone (13) 7:1 32:24 33.6 75.8 76.13 108:7,14 128:11 135:12 150:3 166:18 175:7.9 good (11) 1:3.8.9.15.16.17 70:16

96:15 119:18 186:6

gradual (1) 143:14

graduate (1) 68:12

graham (4) 173:21

grasp (1) 167:3

193:4 195:13 198:17

grateful (3) 212:5,11,21

greater (2) 68:24 69:5

grenfell (5) 107:9 111:5

203:6 204:2 206:14

greeting (1) 89:22

guide (20) 50:20 51:5 52:14 62:24 72:14.15 81:17,18 85:10,10 88:21 90:22 145:22.25 146:3 163:15.16 180:16 189:4.11 guidelines (1) 130:19 н habit (1) 93:20 hadleigh (2) 159:2 161:8 hadnt (19) 20:24 35:2 51:21,22 52:17 76:12 98:20 102:22 108:6 124:22 132:21 160:12.13 167:6.6.14 182:16 197:14 207:21 half (2) 178:14 211:11 halfway (2) 83:21 105:6 hand (3) 118:10 187:12.14 handle (2) 181:1,10 hands (1) 27:1 handscombe (2) 146:10.20 handwringing (1) 165:20 handwriting (1) 36:23 hanging (3) 133:23 134.2 7 happen (4) 3:5 76:2 197:19 202:20 happened (21) 11:25 12:3,18 30:7 35:16,19 36:4 39:15 51:14,14 52:6.19 59:12.13 76:1 106:22 111:19 123:7 148:11 177:23 196:5 happening (5) 76:2 178:9,23 185:23 197:17 happold (3) 87:23 88:2 89:17 happy (5) 81:25 107:22 109:17 115:21 197:24 harder (1) 96:11 hardly (3) 81:23 107:13 harley (2) 107:9 111:5 hartlebury (3) 82:25 hasnt (1) 166:12 havent (6) 35:8 66:7 67:25 138:10 164:23 166:13

having (36) 2:10,15,21

5:2 6:1 26:14 29:18

30:5,16 35:24 37:16

212:23 head (6) 60:23 67:18 69:20 76:24 81:23 174:22 headed (1) 43:16 heading (5) 57:7 63:2.3.24 194:14 headline (1) 190:10 healey (2) 125:10,22 hear (1) 127:3 hearing (3) 1:4,4 213:12 heat (1) 38:2 heated (8) 10:24 11:12,14,15,16,18 12:2 194:19 hed (4) 20:11,20 25:4 35:21 height (28) 46:6 47:1.22 48:18.23 49:9.19 63:10.14 64:5 70:15.22 71:8 72:19 73:15 74:11 80:14 81:4 101:18 102:1 103:5.10 105:1 116:15 155:20 156:25 160:4 170:25 held (1) 208:13 hello (1) 159:6 help (5) 40:6 63:6 152:4 162:1 174:21 helpful (1) 209:1 helps (1) 170:25 hence (1) 169:1 here (31) 3:18 13:13 20:9.13 24:7 32:19 35:9 51:14,15 58:12 60:16 65:7.22 66:3 67:20 72:17 75:19 80:20 81:16 111:16 129:19,19 155:21 157:15 158:18 161:14 188:2 191:6 205:8 208:12 212:4 heres (2) 129:13.13 herself (1) 98:22 hes (10) 13:12 15:23 17:8 19:4 20:8.9 181:16 182:9 189:2 210:25 hi (12) 88:14 89:21 90:20 92:14 96:2 113:18 114:17 115:7 131:5 146:21 147:12 209:17 high (2) 82:5 126:25 higher (1) 93:15 highimpact (2) 38:4,5 highlighted (1) 31:19 highrise (1) 137:10 history (2) 112:17 137:3 holding (1) 162:3

71:16,22 72:16 73:4 honest (4) 109:16 78:12.13 87:12 91:2 168:11.20 169:5 100:24 101:3 109:15 hoop (1) 188:25 111:10 124:9 126:17 hope (3) 118:22 124:10 127:15 135:12 161:7 129:22 191:9 206:17 hopefully (1) 152:4 hayes (13) 1:20 2:13 horizontal (1) 31:6 hour (2) 120:2 185:1 31:13 66:15 179:25 183.6 184.6 186.3 20 housing (1) 175:16 187:15 188:1,17 however (2) 78:12 139:10 huge (1) 156:19 hugely (1) 123:18 hunt (6) 157:20 158:20,25 160:24 161:16 167:17 hunts (2) 163:23 166:5 hypothesis (1) 7:6 ian (2) 92:9.14 id (8) 4:6 41:4 85:13 108:19,19,19 110:1 173:22 idea (1) 97:21 ideally (1) 120:25 identification (1) 188:8 identified (6) 29:8 34:15 60:11 62:3 168:3 180:23 identify (3) 23:24 98:18 179:19 identifying (2) 61:4 98:9 ie (1) 123:10 ill (3) 1:23 137:3 198:8 im (62) 2:12,23 3:14,18 17:9 18:17 19:6 24:25 29:17 32:12 37:1 40:22 42:20 46:24 47:4 48:7 50:22 53:8.8 55.6 62.2 66.3 6 67:9,17 68:2 69:3 71:4.19 82:7.7.9 87:10 91:12,16 95:9 99:16 106:9 110:17 111:21 117:6 118:8,21 120:3 135:1 136:13 144:17 147:5 150:9 151:20 164:24 167:1 168:14 184:25 186:16.20 188:12 198:23 202:14 208:13 212:20.21 image (3) 31:5 38:15,17 imagine (3) 76:23 77:14 84:9 immediately (2) 110:7 156:21 immense (2) 67:23

110:13

impacts (1) 132:3

implied (1) 187:2

67:14.23 68:3 109:18

important (10) 54:16

67:11,24 69:14,15

inherited (1) 118:15

initial (2) 96:10 198:19

inhouse (1) 152:15

importance (5)

111:9

holds (1) 125:23

home (2) 120:2 182:22

200:5 impact (2) 79:16 191:24 imperative (1) 123:11 implications (1) 155:25 ingredients (1) 75:13

76:25 101:3 112:23 186:8.21 importantly (1) 50:11 impressed (2) 35:25 impression (2) 192:1 200:23 improve (3) 168:16 169:6,11 improvements (1) 113:4 inaccurate (3) 60:16 71:8 72:25 inbox (1) 162:3 include (9) 2:1 32:1 33:1 65:1 76:12,13 83:10 97:2 137:20 included (9) 8:21 55:3 60:6 62:11 97:15 123:8 148:24 154:7 196.23 includes (2) 101:11 161:24 including (11) 59:7 101:17 102:1,10 104.13 105.7 117.2 17 158:19 202:15 211:13 incomplete (1) 154:23 inconsistency (1) 187:15 inconsistent (5) 186:15,16 187:1,6 incorporated (2) 155:19 191:7 incorrect (3) 24:20 102:15 164:19 increase (1) 2:3 incurious (1) 66:19 incurred (2) 156:2 157:12 independent (1) 145:7 index (1) 214:1 indicate (3) 15:21 154:5 185:6 indication (3) 42:12 71:25 161:1 indirect (1) 157:12 industry (2) 157:7 209:23 information (64) 16:24 18:3 21:14,18,19,25 22:1.8 23:2.14.23 24:20 30:10.11 41:18 48:25 49:11 59:15 60:13,17,25 61:7 63:18 65:14 19 66:7 7 67:25 72:9,11 73:24 74:2,19,20,21 76:2 81:7 82:2 86:17 91:14 92:16,18 102:7 116:16 124:12.17.25 126:11 128:8 138:23 145:18 147:16 149:15.23 155:5 163:1,8 183:2 191:9 192:5,8,10,11,20 informed (2) 30:2 154:24 informing (1) 191:4

initially (1) 99:24 initiative (2) 99:24 175:17 initiatives (1) 178:17 input (2) 81:21 205:13 inquiry (4) 1:14 14:3 206:14 214:5 inserted (1) 84:6 inside (2) 151:1,2 insights (2) 152:6 153:5 insofar (1) 141:1 inspectors (1) 185:4 installation (1) 201:24 installed (1) 160:8 instantly (1) 203:2 instigated (1) 171:2 instructed (2) 42:10,20 instruction (5) 30:18 33:3.7 42:22 43:11 instructions (11) 13:14 17:4,24 18:9 19:10.15.18.23 32:20 33:15 149:8 insufficiently (1) 158:6 insulant (1) 156:6 insulated (1) 159:25 insulation (22) 27:14.21 31:7,23 46:4 79:25 83:19 101:9 116:5 125:24 126:17 131:21 132:8 137:10 145:1.4 155:15 159:8.14.20 160:8 185:8 insure (1) 200:19 insurers (1) 157:9 integrated (1) 207:13 intel (1) 173:11 intelligence (1) 141:8 intended (5) 22:3 70:25 156:14 157:11 194:20 intending (3) 8:19,22 166:3 intention (10) 49:23,25 71:11 73:22 76:3 81:5 111:1 149:17 168:7 intentionally (1) 155:4 interactions (1) 161:23 interest (2) 68:25 69:5 interested (1) 82:9 interesting (2) 138:23 173:1 internal (6) 23:21 84:21 165:4 167:25 168:15 169:6 international (1) 156:11 interpretation (1) 56:2 interpreted (1) 185:22 interrupting (1) 193:13 into (56) 5:2 6:2,21 7:1 9:8 10:13 21:22 26:25 45:24 50:9 58:24 59:15 67:12 73:9 75:8 77:13 78:4,10 79:6 80:7.23 81:24 84:10,21,21 86:6 87:8 97:14 105:14 106:20 110:25 123:20 128:12 129:4 130:11 136-10 11 139-9 142:9,12 143:1 150:15 155:19 158:24 169:15 182:18 184:13,14,19

78:10 100:4,9 109:12

191:7 194:3 197:21 198:3 199:3 201:17 208:5 introduction (2) 63:4 74:5 introductions (1) 193:7 introductory (2) 63:18 135:3 intumescent (1) 31:24 invalid (1) 205:10 investigate (2) 167:23 investigated (1) 139:24 investigating (1) 146:23 investigation (2) 9:8 168:1 investigations (1) 205:4 investment (2) 142:3 211:21 invitation (1) 8:3 invited (2) 4:18 55:8 invitee (1) 8:3 involved (13) 18:8 19:17 50:12 61:19 76:19 20 81:16 17 85:22 96:21 152:8 161:23 185:13 involvement (1) 206:1 involving (2) 24:18,19 isnt (39) 11:16 13:5 23:3 33:8 34:2 36:23 37:19 42:15 47:11.15 51:9 52:8.20 64:18 71:25 73:7 74:14 77:18 80:20 99:16 103:15.21 121:3 124:1 129:10 134:2 138:12 141:14,20 154:25 160:12 164:19 178:13 180:1 189:20 195:14 200:1 201:5 204:25 isolation (1) 50:17 issued (13) 75:1 92:25 101:6,8 107:25 111:13 112:1,6 115:17,24 131:20 142:19 176:9 issues (4) 125:17.19 164:2 185:8 italics (1) 64:11 itd (1) 201:16 item (4) 37:6,8 43:23 175:17 items (1) 120:25 its (137) 4:8,19 8:8 10:17 11:13 12:3 13:5 14-18 18 19 16-8 9 13 17:13 18:15 26:24 27:2,3,13,15 29:15 31:10,11,12 34:17 36:13 43:1 44:19 45:8.20 50:4 51:9 52:8,20,22 58:9 59:21 60:11 61:23 63:3 64:10,17 66:2 70:21 71:10 73:6,7 75:7,8 76:4 77:17 78:1 80:3,23,23 81:3 83:21 84:12,23 91:23 92:23,25 95:8,25 96:1 17 97:23 100:25 102:4,6 103:15,17 105:16,16 107:13 108:16 109:2,18

111:8,14 112:8,20 113:2 119:23 122:17,21 124:14 126:10.23 127:23.23 128:25 129:1.21 134:12 135:1,16,18 140:24 141:14,20 142:18 147:6,20 153:25 154:1 158:5,7 162:23 165:24 171:4 172-19 179-3 182-14 183:18 184:25 186:21 187:25.25 188:4.19 190:4,16 191:10 192:10,17 193:11 200:9.10.15 201:5,13,16 204:25 205:22 206:2 207:19 itself (11) 29:24 35:11,18 57:2 71:4 75:19 89:8 102:2 140:22 148:24 168:4 ive (41) 2:14 9:13 11:14 18:22 31:5 32:14,19 43:8 59:20 60:17 62:3 63:11 65:14 69:12 71:21 73:17 92:1.24 97:12 105:25 108:24 109:1,23 114:18 127:10 128:19,20 140:25 149:12 153:4 154:19 155:1,2 164:22 168:7 174:12 177:6 192:2 198:9 211:16.17

james (3) 144:20,21 145:14 jamie (11) 2:15 31:13 66:15 179:25 184:8 186:3 188:13,17 193:23 194:1 212:23 jamies (2) 181:14 187:3 january (8) 87:16,22 88:13 126:9.13 162:25 163:9 175:4 iennings (1) 90:5 jeremy (3) 156:9 163:4,5

jerk (1) 93:21 job (2) 68:13 196:20 jobs (2) 196:20 197:21 ioe (4) 204:4,5,17 205:9 john (14) 89:20 90:6,11 91:8 94:15,24 95:1 130:23 131:3 133:19 134:25 135:7 136:13.14 johns (2) 92:4 134:16 join (1) 96:18 joined (3) 92:23 93:23 96:18 jon (78) 1:25 2:15 4:14 6:6,8,17 7:11,21 8:5 14:2 15:11 16:23

18:2,12 19:6,7 21:16 23:13 24:6 29:7.9.18 30:5,10 31:11 32:7.20.22.24 33:4.9.10.22 34:3,13,24 37:9,15 kingspans (6) 46:12 38:6,11,21 40:18 79:11,13 123:22 124:4 41:16,18 139:8

42:5,18,19,21 43:10.11.16 66:15.24 84:10,11,11 87:25 96:14.17 100:11 106:5 108:10.20 112:21 113:3,8 115:2 119:23 122:15 125:6,10,12,14,22 126:3,11 128:11 185:16 jonathan (34) 3:18 87:21 88:15 99:9 120:9.21 121:12.14.15 130:23 131:2,17 133:13,20 135:11.14.16.16.19.19 136:13,25 138:17,18,20 139:5 142:8 144:12.20 145:13 146:19 147:7,12 209:13

iones (2) 209:22 210:8

jonno (3) 89:21 90:20

91:12

jons (1) 35:9

journey (1) 120:2 ir (3) 1:24 2:9 84:3 iroper (1) 44:14 judge (1) 189:9 judgement (2) 87:2,6 judgment (1) 199:16 july (14) 31:3,9 32:16 35:11 39:4 41:23 44:11 46:20 48:5 67:5 83:8 85:6 201:14,15 june (37) 20:10,22,22 25:12 26:24 27:1,3,8 29:3 32:17.18.23 33:20 35:11.14 40:13,24 42:8 60:6,10 66:23 67:5 104:6.9 105:13 122:11 134:8 142:19,20 153:13,16 159:3 172:14 176:9

195:13 198:17 201:9 justification (1) 38:8

k15 (14) 45:6,13,17

46:12 50:8 51:25 79:11 123:5,12,25 126:24 138:9 139:10 148:12 keen (2) 50:13 112:10 keep (8) 8:19,23 68:16 72:10 129:8 148:12 169:14 196:14 keepmoat (1) 92:10 kept (2) 8:13 61:20 kick (2) 99:10 135:3 kind (5) 21:22 22:7 38:4 59:25 65:20 kingspan (24) 21:13,18,24 22:7,13 45:5,13,17 46:12 48:3 50:10 123:3.5.25 126:24 130:12 137:15.24 138:7.9.25 146:12 200:21.25

kirkman (3) 144:20,21 145:14 knauf (5) 95:5,14,20 97:1 99:8 knee (1) 93:21 kneejerk (2) 93:20 94:1 knew (41) 10:6 34:5,21 59:3 60:6,8 62:4,10 65:13 66:4,16 76:7 79:18 81:12 89:10 98:19 100:2.4.4 106:4 107:4 110:10,25 124:23 127:13 128:5,6,7 153:18,21 154:16 165:23 168:2.23 172:10 176:8 183:8,23 185:11 197:2.5 know (159) 4:16 6:5 7:20 9:23 10:3 12:14 15:11,12,23 17:6.17.18.20 18:2,5,13 21:12,25 23:5 30:18 34:9,10 35:1.13.13.16 36:7 37:15,20,21 38:3,3

41:4 42:16 43:25 44:4,8 46:13 52:19 58:8,9 59:11,12,13,14 60:14,17 65:14 66:13 67:25 71:20 73:16 75:6 82:10.13.17.19.19.21 86:16 91:13 92:5 94:13 95:3,4 98:20.21.22.24 100:5 102:3,23 105:25 107:2,4,6,11,16,17,19 108:10,11 109:1 110:4,15,16 111:6,7 114:3 115:23 116:1 118:6,16 120:6 121:6,13,19,24 129:7 130:7 132:17 133:5,23 135:15,17 138:12 139:24 142:8,19,20 143:21.22 146:1 147:16,19 148:13,14,15 150:1,1 152:16.17 153:21 155:3 162:10 164:20 172:2.9.15.20

165:14,21,22 171:1,23 178:6,18 183:3 184:16 187:8,17 192:8 193:1 195-20 196-6 197-16 201:7,8 202:16,17,19 204:12 205:3,5,21 208:25 209:25 211:4,5 knowing (6) 15:15 79:19 95:3 133:14 198:3 199:23 knowledge (17) 19:17,24 21:17,23 32:11 40:5 42:3,7 59:14 67:6 69:10 76:11,12,13 156:8 160:9 202:7 knowledgeable (2) 72:8 209-22 known (5) 10:9 108:19

153:12 159:5 200:3

kooltherm (1) 46:12

58:2 60:7

185:25

layers (1) 66:11

leadenfootedness (1)

kpi (1) 18:6

labc (46) 99:18.19.22 100:4,7,9,14,16,24 101:3,6 104:6,7,8 105:13 106:3.5.12.19.19 107:4 108:10 109:9,12 110:19,24 111-12 15 17 24 112:3,18,20,23 113:4,13,20 114:23 115:20.23 117:7.25 118:7,16 179:10 185:3 labc0000312 (1) 116:2 labc00003122 (1) 116:19 labcs (1) 112:6 laboratory (1) 156:21 lack (1) 187:9 lambda (6) 206:2.17.23 207:2,6,10 lamentable (1) 157:14 laminates (1) 151:19 landing (1) 115:11 language (10) 47:5 48:16 54:19 56:2,17,18,21 105:25 187:5,7 lapse (2) 69:20,22 large (2) 138:4 199:4 last (14) 36:25 38:15.17 43:15 75:10,11 132:13 164:8 180:13 189:16 194:2 211:9.10 212:24 lastbutone (1) 74:8 late (3) 120:11 212:21 213:4 later (9) 10:8 85:2 111:14,16 112:17 135:11 139:24 158:2 166:15 latest (3) 35:11 77:24 78.6 lathbury (1) 92:9 launch (28) 22:11 44:21 47:18 52:2 76:16,25 87:15 92:19 99:21,23 109:8,10,14 125:1 127:13 129:12 134:9 141:9 149:4,11 155:7 162:15 166:4 168:10 169:2 182:2,24 183:10 launched (21) 44:24 61:11 75:24.24 76:21 77:11 84:17 142:12 149:24 164:9,25 168:9.25 169:18 177:10 180:2 181:21,25 182:1 183:2 212:1 launching (10) 61:10,16 62:5 73:9 81:14 124:24 168:23.24 172:17,20 laver (12) 2:9 12:11 15:5,21 27:15,20,24 28:19 42:14 57:15

leading (3) 99:24 161:2 190:5 leaf (1) 159:13 learn (1) 142:22 learnt (5) 93:23 182:1,20 183:1,19 least (13) 8:18 10:22 23:22 28:18 66:9 125:13 127:19 141:15 151:22 156:20 158:7 162:20 168:5 leave (5) 11:18 25:16 103:25 128:16 198:8 leaving (1) 7:16 led (8) 60:14 61:2.11.13.13 66:22 124:9 177:3 left (8) 5:23 83:4 96:17 105:5 116:4 128:11 201:10 206:22 lefthand (4) 53:25 63:21 64:22 104:10 legal (5) 82:10,14 120:10 121:12,23 lengthy (3) 20:7 147:6 155:10 les (3) 174:20.21 175:6 less (4) 54:20 200:5 201:5 202:11 let (15) 6:2 11:6 30:12 31:9 40:6.22 70:16 81:23 93:16 131:9 147:16 165:22 184:16 208:25 209:25 lets (34) 1:21 3:7 12:24 14:16 17:18 20:3.3 25:16 26:21 27:12 30:12 35:18 36:13 37:8 44:18 49:24.25 50:19 77:5 87:16 90:2 100:10 102:8 103:24 108:22 125:15 143:23 150:6,22 158:14 169:19 201:9,9 210:4 letter (22) 155:10 157:22 158:4,14,20 161:4.16 162:1.9 163:23 167:17 170:21 171:2,4,24 172:22,23 173:22.24 174:7.15 205:8 lettering (1) 105:17 letters (1) 83:9 level (22) 5:4 6:7 27:21 35:2 37:10 58:3 69:10 24 82:10 22 87:9 91:1,10,21 117:12 160:1,5 161:10,11,12 171:11,12 levels (1) 8:17 li (8) 112:20 113:3,17 114:1.14.25 115:2.4 liable (1) 200:19 lifted (2) 46:11 48:3 like (37) 3:11 4:7 9:3 11:19 12:22 19:1 20:6 34:17 38:1 43:3,5 44:9 72:21 82:23 84:20 88-3 89-1 90-8 94-1

96:10 106:21,23

136:16,19 140:20

108:1,14 110:17 130:2

167:9 168:12 169:7 178:15 185:20 208:20 212:7,14 likeforlike (1) 105:16 likely (5) 17:13,23 24:11 111:25 160:19 likes (4) 148:20 149:18 168:17 209:23 limbo (1) 178:5 limehouse (2) 148:9,11 limit (1) 114:20 limitation (2) 101:21,22 limitations (2) 101:15 109:4 limited (5) 131:24 155:11 172:7 191:9 192:5 line (26) 3:18,20 7:14 12:24 17:23 29:11 67:18 68:14 74:8 77:6 78:19 79:7 83:21 89:12 100:2 106:2 128:20 137:12 142:24 158:10 163:16 171:5 189:16 190:16 191:22 196:10 lines (5) 63:25 86:19 144:3 195:7 198:10 lining (2) 181:24 183:5 link (4) 10:2 24:2 35:8.10 linked (2) 87:14 174:15 linking (1) 98:5 links (2) 45:18,19 lis (1) 115:5 list (13) 18:7 21:5 57:15,23 60:14 64:25 66:1 74:24 101:7,10 112:3 120:10 164:6 listed (3) 64:15 75:2 178:19 lists (2) 45:2 150:20 literature (50) 21:15,19 49:24 50:14,19,23 56:13.19.25 58:12 91:24 101:23 110:23 129:4 130:1.7 149:21 156:4 158:5,10 164:9,17,20 165:5.13.16.24 166:13,22 167:4,6,8,18 168:2.8.16.25 169:7,11 179:21 180:1,6 181:20 183-13 15 23 189-20 190:6,7 193:24 little (22) 11:8,25 12:23 26:21 35:19 54:1 71:19,22 73:5,6 97:21 98:4.9.15 112:17 125:11,20 144:2 147:23 150:22 158:2 208:12 live (2) 112:6 114:18 lobbying (2) 176:20 202:13

locations (2) 28:5 59:9

locked (1) 49:5

london (1) 85:5

long (24) 14:20,20

29:12 73:10 95:9

101:9 109:2,5 120:7

121:5 122:17 129:9 130:21 136:9 139:24 144:18 147:5 150:10 164:6 178:16 184:25 188:20 206:19.24 longer (5) 52:4 131:21 142:7 186:19 208:13 look (71) 1:21 3:17 12:20 13:6 14:16 21:9,22 27:12 29.14 23 34.11 35.18 36:13 37:8 38:25 44:18 50:19 54:10 57:4,22 70:2 72:1 74:13 77:5 83:21 84:1.8 85:9 90:2.4 92:16 95:5 100:10.11.18 101:5 104:10 112:22 116:2 122:12 125:5.16.20 126:9 130:20,24 131:13 135:5 136:5 140:20 143:23 150:19,22 151:12 156:20 158:14 163:6,25 169:11 177:6 179:3 180:19 184:24 194:6 196:10 198:11 201:9,13,19 205:7 212:15 looked (19) 11:8 12:23 21:3 29:17 35:6 38:17 39:9 45:16 47:17 72:10 73:14 81:19 82:19 91:2 108:25 121:20 139:19 140:11 154:12 looking (50) 7:6 11:23 22:11,23 27:17 29:13,19 30:3 37:1 40:19 51:24 58:15 63:16 65:21 66:8.21 67:3,7 75:25 78:10 81:6,14 82:12 85:4 98:14 112:12 114:4,6,6,9 115:15 120:10 121:10 126:18,19 139:10,13,18 143:17 147:15.24 150:15 153:9 166:20 184:12 196:24 211:6,12,13,14 looks (11) 4:7 34:17 86:25 106:21,23 136:16,19 140:17 162-22 196-4 201-14 lose (1) 192:16 loss (1) 191:22 lot (14) 22:13 33:4 35:15 45:21 73:6 76:22 133:22 134:24 157:22 178:24 206:19 211:10.20 212:9 lots (6) 36:19 49:1,4 110:20 172:18 178:23 louise (5) 10:19,21 161:18 179:8 186:4 lower (4) 74:13 125:20 144:2 160:1 lowest (2) 158:5,8 luck (5) 6:23 162:11,14 178:20,22 lucky (1) 120:3

luke (1) 92:11 lunch (2) 85:4 119:4 lying (1) 19:5

207:11

М

121:2,5,17,21,24

21:4 23:10.19.25

37:19,21 38:10

197:6 199:24

205.9 16

195:3

134:23

213.3

163:13

mantra (2) 81:10

mantric (1) 103:3

manufacturers (1)

manufacturing (1)

many (12) 73:19

78:12,22 82:13

85:12,24 86:13 87:1

119:3,7,10,16,18

188:22

174:13

201:2

116:11

man (1) 107:7

management (11)

majority (1) 74:2

206:21

m (1) 44:14

mag (35) 3:9

90:5,19,19 120:16 130:22 131:15 163:23 176:5,7 178:1 4:14.15.18.18 5:1.4.8 179:2,5 184:24 186:5 6:9,17,19 7:10,19 188:16 8:12,14,23 9:22 10:1 marchapril (2) 142:13 11.16 13.18 20 19.8 23:7 119:25 120:22 mark (2) 130:22 133:22 market (58) 15:15,17 122:7 175:9 194:11,12 21:7 46:21 49:3 50:9 51:25 56:13 60:20.23 magnesium (50) 1:19 62:9,12,19,21 65:16 2.6 8.17 9.19 23 10.7 67:12 73:8.25 76:6.25 11:4 12:7,11 13:4,10 78:5 79:3.11.13.18 15:1,5,20 16:3,6,21 114:5 118:1 129:4 24:22 25:19 26:16 130:6.11 134:6 141:8 28:20 34:15 35:4 152:24 156:13 157:1 167:9 169:15 177:7 42:14.17.23 43:11 180:4 182:2.17.20 44:2 57:16 58:2 59:8 183:5 184:3,15,16 60:7 61:20 65:1 75:14 186:11.19.24 190:2 93:2 98:17 99:13 191:3 198:1 202:7,14 128:16 148:25 154:7 marketed (5) 45:14 mahoney (4) 204:4,17 marketfacing (1) 84:24 marketing (97) main (6) 49:6 73:25 22:12.23 74:5 143:16 164:2 44:9,10,13,20,23 46:1 47:18 49:1,23,24,25 maintained (1) 205:14 50:7.14.19.23 51:15 major (3) 132:5 133:3 55:20 56:13,24 58:12.24 59:15 makes (2) 80:25 173:11 67:12,18 69:15,21 making (17) 26:12 30:8 36:17 71:1,12 73:18 78:4,14,16 81:23 74:1.18 85:18 87:9 82:11 83:1,3 84:24 91:16 118:21 129:25 91:24 96:17 100:12 158:7 165:15 176:20 101:23 105:22 109:18 110:7.13.22 managed (2) 76:2 82:20 120:7 125:1 128:10 68:22,24 69:4,7 81:21 129:3.13.20 93:15 142:2 182:18 130:6,10,15 143:2 186:13 189:23 207:7 144:6 149:21 manager (12) 7:14 165:12.15.23 166:22 10:21 17:23 67:18 167:4,8,18 168:2 68:14 83:1.3 87:24 169:6 175:12 180:1 100:2 106:2 115:12 181-20 183-13 14 23 184:14,19 187:19,21 managers (1) 133:11 188:5 189:20 198:2 managing (1) 96:14 marketplace (2) 81:24 manifestly (1) 102:14 111:1 manner (1) 194:21 markets (1) 149:7 marley (21) 23:11 61:21 65:23 75:15 manufacturer (5) 131:7 90:23.25 91:6.17.20 156:12 167:13 173:25 98:17 99:13 149:2

107:4 143:21 206:20 march (26) 46:12 89:20 144:1,11 147:8 150:11 158:1,20,22,25 161:15 159:12 180.5 81:6 93:8 96:20 101:1 171:18 188:6 79:8 124:18 130:17,18 202:18 138:17 191:14 60:4,23 61:12,13 62:6 70:6 72:6 74:17 76:24 197:18 107:12,13,19 108:2,16 111:9 112:11 118:9,10 212:25 197:20 44:1 28:9.10 58:4 59:8 60:8 154:9 197:7 199:4,25 martin (40) 1:3,8,10,12 3:15 24:25 25:13,25 26:5.8.13.19 51:18.21 53:10,20,22 118:19,24 169:23 170:1,8,15,17 25:3,14,23 27:2,7,18

207:20,25 208:11.15.20 209:5.8 212:7,13,18 213:7 masonry (11) 51:4,19 102:10.12.19.21 104:13,15 117:2,4 mass (1) 72:12 masse (1) 107:18 matches (2) 179:20 material (17) 2:1,8,16 27:21.24 28:19 49:2 210:11 59:16 62:6 63:17 81:14 82:11 129:13 131:24 156:18 162:17,18 materially (1) 60:16 materials (15) 47:18 55:1 58:25 59:24 60:3 74:17 82:13 86:15 88:24 105:22 127:2 152:11 129:20 144:6 170:23 matter (9) 19:14 70:19 87:7 94:2 112:5 157:15 172:24 185:7 matters (3) 18:6 39:7 matthew (2) 137:8 maximisation (1) 192-12 maximise (1) 196:19 maybe (18) 55:4 71:21 75:7 95:25 114:4,6,6 128:8 135:3 140:16 161:7 166:11 167:6 178:14 183:3 187:4,17 mcmahon (1) 163:7 mean (19) 4:7 19:12,13 35:4 69:1 79:9 85:16 114:6 139:18 140:20 142:15 161:11 175:23 184:20 185:11 192:1 197:22 206:15,16 means (6) 120:17,18 173:2 175:24 208:11 meant (10) 43:25 55:13 62:13 69:1 78:12 121:8 132:24 150:14 180:24 197:18 meantime (2) 112:2 mechanism (1) 160:6 media (1) 85:14 medium (4) 43:17,23,25 meet (4) 63:6 156:23 178:14 171:1 210:5 meeting (103) 3:4,9,22 4:3,12,14,16,18,23,25 5:1,3,6,8,11,16 6:1,2,12,13,15,18,21,22,24 7:1,2,5,8,10,15,18,19 8:10 9:22 10:23 11:10.16.24 12:6.10 13:1,18,21 14:9 19:8 20:11,16,23

28:25 29:3,13,15,23 30:5.6 35:18.21 36:3.6 38:20 39:10 40:13.18.24 41:14 42:8 51:6 52:15 60:10 74:8 99:10 119:25 120:9,21 121:6,14 122:1,7,10 136:9,9 153:15 173:23 174:5,24 175:1,3 192-22 193-1 13 21 194:19 195:3,6,13 meetings (5) 8:14 36:21 99:8 131:18 174:9 meets (5) 64:3 83:25 103:2 104:24 201:24 member (1) 36:17 members (5) 115:11 206:13.21 207:7 213:5 memory (2) 101:2 mention (4) 14:21 23:9 57:15 75:13 mentioned (4) 62:18 88:16 142:17 198:9 message (25) 44:18 72:18 73:5,7 85:11,20 87:13 89:2 112:10 114:16 115:4 125:8 127:9 128:14 129:3.7 174:3 184:14 187:24 188:9 189:19.19.23.23 messages (4) 187:1,19 188:11 190:10 messaging (2) 186:15 met (9) 47:2 93:14 99:8 145:10 146:15 159:2 166:11 202:17 210:8 methods (1) 172:6 metres (49) 46:18,23 47:4,8,13 48:22 49:9,19 52:1,1,3,6,11 63:2,9,13,24 64:5 70:14.22 71:7.22 72:19 73:4,15,19 74:11 79:15 80:14 81:4 85:24 86:8.21 87:13 101:18 102:1 103:10 116:15 117:6.8 126:4 129:21 147:22 166:2 168:18 182:11 187:11 188:24 190:9 metsec (1) 123:6 michael (2) 125:10,22 middle (7) 57:5,6 117:9 134:8,17 177:10,24 midmarch (1) 178:14 midoctober (2) 177:3 might (28) 2:19.25 8:5 13:20 36:5 44:5 52:6 56:3 93:16 127:13 136:5 169:16,16,21 170:22 176:3.16.20 177:18 185:13,19 187:2,9,13,15 190:10 191-22 192-4 millet (1) 1:13 millett (30) 1:15 3:16 26:20,21 52:7

208:9.10.23 209:1.6.9.10 212:2,18,20 213:10 milletts (1) 208:1 millimetres (22) 9:18,22 10:7 13:9 16:3 23:11,18 38:10 57:20 20 58:4 60:7 12 61:20,21 65:1 148:25 149:2 154:7.8 197:5.7 min (1) 97:24 mind (8) 40:14 81:15 82:2 99:16 149:23 150:5 164:24 174:14 mine (1) 69:11 minimising (1) 98:1 minimum (1) 201:24 minute (2) 8:10 125:8 minutes (16) 4:8.10.22 6:23 7:4,17 8:12,13 85:18 134:21,24 135:1 204.7 9 208.9 11 miroirs (3) 174:20,21 175:6 misdescriptions (1) 58:22 mislead (4) 86:6 106:18 168:5.8 misleading (63) 16:1.7.10.11 17:15 18:17 44:7 47:23.25 48:4,19 49:7,17,22 51:13 52:20 53:4 58:7,13 60:16,22 62:4 63:14 64:6 65:13,25 70:23 74:16 75:20 76:3,6,8 80:15,22,25 81:3.11 102:2.5.17.20 103:8.15.17 105:19 106:10 107:6 108:17,20 109:24,25 110:2,6,12,24 111:1 145:17 146:2 149:9,14 154:23 168:4 183:24 misled (1) 168:6 mistake (1) 169:8 misunderstood (1) 157:23 mixeduse (1) 155:16 model (1) 199:2 moment (12) 20:4 25:17 32:10 34:12 53.9 118.18 137.25 146:23 155:9 162:2 169:21 176:4 money (3) 130:12 156:19 177:25 month (4) 35:7 121:1 163:10 172:10 months (5) 133:24 134:3 172:12 178:13,14 moorebick (40) 1:3,8,10,12 3:15 24:25 25:13,25 26:5,8,13,19 51:18,21 53:10,20,22 118:19 24 119:3,7,10,16,18 169:23 170:1,8,15,17 207:20,25

208:11,15,20 209:5,8 212:7.13.18 213:7 more (48) 6:22 24:8 25:22 35:19 43:14 45:25 54:20 67:25 71:19,22 72:9 73:5,6,6 74:2,20 78:13,20 81:5,7 112:5 116:16 117:11 125:11 128:7 136:6 139:11 140:7 142.6 147.15 23 166:16 169:3 170:5,19 171:11 182:20 183:2,19,19 190:1,2 192:19 195:12 209:6,8 211:20.25 morning (17) 1:3,8,9,15,16,17 4:1 20:18.22 27:1.2 29:11 35:22 126:15 135:8 186:6 204:21 mort (1) 205:8 most (9) 17:23 109:2 130:5 157:16 163:3 165:24 178:24 209:22 212:24 motivations (1) 45:7 move (5) 49:24 87:16 99:18 150:6 209:19 moved (4) 45:24 61:1 148:1 150:2 moving (3) 45:20 50:8 206:21 ms (4) 11:1 85:2 88:8 155:4 much (23) 1:12 26:19 46:11 53:14 66:20 87:8,8 89:7 97:14 106:15 109:9 118:20 119:10 130:12 144:7

53:7,22,23 118:18,21

119:1.19.20 169:19.25

170:18,19 207:16,22

N

205:6 207:17 208:20

212:2.3.5.13 213:7

multiple (3) 45:22 64:8

multipurpose (1) 79:20

multistorey (1) 145:4

must (19) 41:2 90:25

101:19 110:11 116:23

156:14 158:3,6 162:25

204:10 210:16 212:18

myself (7) 4:21 6:4,19

96:20 142:11 161:7

166:11

91:7,9,20 99:11

128:4.13 138:13

175:10

name (3) 8:2 132:6 139:22 namely (7) 22:8 23:22 24:20 34:6 59:7 102:21 154:6 national (1) 157:6 natura (7) 23:11 28:9,10 58:4 59:9 65:23 90:24 nature (1) 183:9 nearly (1) 146:11 necessarily (2) 79:1 202:14 necessary (1) 40:19 need (44) 7:23 9:17 13:6 42:6 52:8 64:15 obviously (5) 12:14

occasion (3) 18:11

occasions (3) 94:7

occurred (2) 50:15

oclock (1) 213:9

octavia (1) 164:12

octaviasic (1) 159:7

octavius (4) 140:5

octaviuscelotex (1)

october (11) 92:9 94:11

95:8.11 97:8 153:16

174:20 175:1 176:12

office (7) 20:10.19 27:7

38:20 40:13 122:11

officer (2) 156:10 163:6

official (4) 131:9 133:9

173:10 179:23

often (1) 87:3

officially (1) 131:20

oh (2) 37:2 120:17

ok (2) 173:21 184:9

okay (10) 14:22 20:25

50:25 60:19 82:3

119:6 123:1 140:1

old (4) 77:18 78:7,16

omission (2) 66:1,4

omissions (5) 14:19

omits (2) 16:1,2

omitting (3)

204:20

116:24

21:14,18,24

oneoff (1) 69:20

ongoing (3) 112:9

122:16 207:13

online (2) 101:20

onto (1) 123:6

operated (1) 174:8

146:15 207:4

opinion (4) 122:3 145:9

58:6,22 59:2 75:20

omitted (2) 15:3 154:16

once (3) 120:11 185:14

150:18 209:7

older (1) 207:7

155:8.16.20

177:11.24

offer (1) 200:17

offering (1) 45:5

174.22

164:1

123:4 202:18

occur (1) 166:5

160.21

occasional (1) 196:20

93:16 168:5

191:16

23:13 138:11 167:12

75:2 85:11,13 87:12
89:22 90:24 91:19 96:12 114:12
120:23,25 121:18
133:15,15,22 136:4 142:1 147:13,17
158:16 173:24
174:2,12 176:3,16
177:18 180:24 184:10 186:14 188:6,9
191:1,5 192:10,11
193:10 201:22 209:21 needed (15) 32:7 33:17
55:2 56:10 85:19
127:16 154:15 167:25
182:3 183:20 190:2 192:3 195:24 204:21
211:20
needing (3) 72:9 186:17 192:11
needs (3) 83:10 91:15
208:2
nervous (1) 126:25 never (11) 51:10
66:13,15 72:22 94:2,4
130:7 160:10 190:11 210:13 211:3
newer (1) 139:2
next (16) 14:10 30:23
48:16 77:23 95:6 112:1,7 113:7 118:23
128:8 136:24 148:5
151:12 175:4 213:4,4 nhbc (152) 20:11,23
24:8 25:11,24 29:8,9
30:6,17 33:11
35:21,24 36:1 37:3,8 38:9,12 39:16 41:16
43:19 44:1,5 100:23
120:25 122:9,12,16 123:9,12,20,23
124:1,3 125:5,17
126:1,3,18 127:6,14,15,17,21
128:7,23
131:4,19,20,20 134:4
137:7 138:24 139:7,17,25
140:3,3,19
141:1,2,5,9,15,21 142:5 143:17,22
142:5 143:17,22
152:3,12,14,17,18
155:16,18,25 158:18 162:2,5,15 166:18
169:19 170:19,21
171:1,16,17,20,25
173:4,12,19 175:18,23,24
176:3,6,21,24
177:2,3,7,14,23 178:10,16,21
179:10,12,16,18
181:1,5,10 182:7 184:13,18 185:5,10,13
190:22 191:2,12
192:23 193:4,8
194:19,20 195:19,23,24
196:10,20
198:4,11,18,19 199:7,9,14
200:3,7,15,17

201:6,20,22 202:10.13.15.17 nhbcs (6) 36:2 140:8 195:8,16 199:16,18 nigel (10) 126:10,12,13,14,15,16,16 127:7,9,9 nine (1) 172:12 non (1) 156:3 noncombustible (10) 38:1.3 57:12 103:6,12,19 105:3,10,24 123:15 noncommittal (1) 138:25 noncompliance (1) 164:2 nondisclosure (1) 93:18 nonetheless (1) 110:13 nonnhbc (2) 196:20 nor (5) 11:4 39:4 40:8 41:7 57:18 normal (1) 21:12 normally (1) 136:8 note (14) 8:10 29:6 30:23 31:3 105:1 142:18 143:25 144:1,5 172:13 178:2 185:3 200:9 207:18 notebooks (1) 36:18 noted (3) 21:4 32:14 38:6 notes (11) 25:10 26:12 30:8 36:7,17 102:8 104:5.10 105:6 109:5 153:15 nothing (3) 131:19 195:16 208:4 notice (9) 14:7 83:6 106:9 127:17 154:2,4,11 155:21,24 noticeable (1) 129:25 noticed (1) 114:18 noticing (1) 66:25 notify (2) 157:5,9 noting (1) 28:14 notwithstanding (1) 191:11 november (10) 1:1 112:20 113:3,9 114:14 204:25 205:5.15 209:14 213:13 nowhere (1) 197:11 number (9) 72:16 101.11 110.6 123.4 142:1 161:22 175:8 188:25 200:21 numbers (1) 101:10 nutshell (1) 140:9 oath (1) 18:19 objectives (1) 45:3

opportunity (5) 7:21 89:24 206:16.25 207:6 opposed (4) 28:9 86:8 149:20 151:15 option (8) 29:9 41:3 132:7 142:16 153:2 176:9 201:23 210:16 obligations (1) 68:15 options (5) 132:19,20 observations (1) 96:10 136:3 196:7 200:15 obtain (2) 152:20 orange (5) 28:5,8,20 60.7 66.10 obtained (2) 25:3.15 orchestrated (1) 206:12 obtaining (1) 100:7 order (5) 79:10 106:18 obvious (2) 62:11 130:13 177:20 187:12

ordering (2) 79:6 88:24 organisations (1) 202:16 orientation (1) 97:15 original (4) 22:16 169:2 184:6 189:20 originated (2) 105:19 107:7 osullivan (2) 204:14,18 others (4) 55:2 129:14 169:16 206:11 otherwise (3) 50:24 162:4 210:21 ought (2) 175:19 207:22 outer (1) 159:13 outlet (1) 79:5 outlined (3) 117:16 131:23 180:16 outlook (1) 3:23 outstanding (2) 100:22 108:5 over (30) 21:9 23:12 46:18 47:4,12 87:20 96:19 97:8,19 114:15 120-12 131-1 133-19 134:1 137:5,16 147:5 148:14 155:20 156:6.25 157:8 162:22 166:1 170:24 180:20 181:3 185:5 188:21 211.10 overall (3) 50:13 56:9 174:3 overlooked (1) 208:4 overly (1) 21:20 overseeing (1) 133:12 overtopped (1) 149:1 own (15) 14:4 17:2,8,11,14 23:21 32:25 33:15 41:24 48:23 89:12 95:15,22 97:1 102:6 ownership (2) 45:24 206:20 oxide (50) 1:19 2:6 8:17 9:19,23 10:7 11:4 12:7.11 13:4.10 15:1,5,20 16:3,6,21 21:4 23:10.19.25 24:22 25:19 26:17 28:20 34:16 35:4 37:19,21 38:10 42:14.17.23 43:11 44:2 57:16 58:2 59:8 60:7 61:21 65:1 75:14 93.3 98.17 99.13 128:16 149:1 154:7 197:6 199:24

P
paap (8) 150:10,11
153:8,25 154:5,22,24
155:5
pack (2) 13:12 42:24
pages (21) 13:8
14:20,20 28:3,22
70:7,9,10 71:6
72:1,12,13,14,16,24
73:2 137:3 144:15
154:1 162:22 190:8
panel (19) 23:11
90:9,9,23,24,24,25

91:3,6,17,19,20

123:11,16,17 139:15 160:1 212:8.22 panels (12) 28:8,9,10,11,14 57:9.19 60:8 75:14.15 90:8 202:1 paragraph (49) 1:22 2:13,14 9:1 10:18 12:23 16:18 20:6,15 21:10 31:20 38:25 50.5 55.15 56.16 63.5 64:11 74:5 77:5,23 80:10 85:7 96:8 99:4 116:21 117:10 123:2 124:8 132:13 143:23 144:2.23 159:12.17.24 160:14 164:3 171:19 173:20 174:15 180:13 185:2 192:18 193:11 198:21 202:3 205:9 206:9,10 paragraphs (5) 113:19 190:21 192:2 198:23,25 paraphrasing (1) 106:9 parentheses (1) 105:9 paris (1) 174:22 part (43) 2:13 7:17 8:6 15:18 16:17 24:7,14 26:11 29:20 33:18 36:16 45:20 50:13.16 55:20,22,23,24 56:8 58:24 63:17 72:5 80:11 85:8 95:1 102:21 108:11 126:19 129:6 130:10.15 139:13 155:24 171:8 194:23 195:3 197:13 199:4 200:20 204:22 207:13 210:4 211:22 participants (1) 213:5 particle (1) 123:14 particular (17) 21:21 55:15 72:8 101:19 114:11 115:19 116:22 123:16 137:18 140:13.18.20 141:11 144:12 150:7 152:3,17 particularly (5) 35:25 44:17 63:12 89:15 100:25 partners (4) 137:1,6,9 138:23 partnership (1) 95:5 parts (5) 49:4 53:1 84-21 152-5 159-25 party (1) 143:7 pass (3) 68:10 97:13 153:13 passage (2) 54:10 55:13 passed (11) 47:8 49:18 53:6 58:18.19 59:10 78:22 90:11 102:21 164:8 205:19 passing (1) 95:18 pasted (2) 105:14 106:20 paul (35) 1:7 3:22 10:25 13:1 20:18 21:3,3,13

131:5 138:22 155:11.13 161:7.20 166:11 186:13 203:17 204:5 214:3 pauldebbie (1) 209:17 pauls (2) 96:18 97:11 pause (21) 2:12 3:2,13 16:12 19:25 40:3 41:10 43:18 52:18,21 53:5,15 81:2 86:14 104.3 105.20 119.11 170:10 182:25 191:15 208:22 pausing (4) 13:5 20:20 120:13 195:11 pay (1) 147:9 pe (3) 1:24 2:9,10 peddling (1) 169:15 penultimate (1) 124:8 people (62) 2:22 4:17,20 19:17,19 36:19 55:8 56:9 59:17 60:25 61:4,7,8 67:15,15 68:8,10,19 69:9.23 72:6.7 73:10,12,23,24 74:20 79:5.19 81:7 82:19 86:6 88:20 94:8.9 111:1 118:2 122:23 129:23 130:3 136:8,10 157:16 158:19 161:23 167:23 169:7.16 175:8.10 183:19.25 184:4.11 187:13.13 206:20,22,25 208:6 209:22 211:20 peoples (1) 46:9 per (2) 30:8 137:18 perception (1) 21:5 perfectly (1) 183:15 perform (1) 97:1 performance (16) 51:6 52:15 63:7 64:13 74:25 77:7 83:25 91:2,10,17,21 145:3 159:8 160:5,20 171:19 performs (3) 91:1.9.20 perhaps (8) 25:8 43:22 44:17 81:10 93:17 95:25 96:12 195:12 period (7) 83:6 96:15 122:13 134:1 178:5,10 205:5 permissible (1) 56:11 perrior (6) 159:3 172:5 173-22 193-4 195-13 198:17 person (4) 17:23 93:17 133:12 149:16 personally (1) 67:23 perspective (3) 78:9,16 181:14 persuade (1) 124:3 persuaded (1) 199:7

ph8a (1) 132:3

phil (1) 31:11

187:3

22:25 25 24:7 11 15

95:8,10,25 96:1,2,13

97:13 98:20 99:9

88:14 90:14

phenolic (5) 131:21

phone (6) 39:17,22

photo (5) 36:18

87:21 88:1 136:8

39:16,21 40:17,17

137:10 159:8,14,20

photograph (19) 27:13 28:23 29:5.22.23 30:3,4,15 31:25 32:4 33:1 34:7.13 36:10.14 39:9.23 40:12.23 photographs (2) 31:22 34:8 physical (1) 77:22 pick (10) 24:11,19 44:1 48:8 70:19 115:1 129-23 159-11 197-23 picked (4) 48:13 114:24 204:22,23 picking (1) 73:13 pics (1) 155:24 pictorial (1) 57:23 picture (10) 20:8 27:15.17 28:11.13 29:13.15.17 41:20 51:19 pictures (1) 36:20 piece (1) 161:22 pieces (3) 50:23 60:13 167:18 pink (4) 54:2,10 70:10 190:7 pipeline (1) 184:10 pir (9) 46:4 63:8 77:7 79:25 95:21 101:9 116:5.8 131:21 pitched (1) 79:21 pithy (1) 44:17 place (7) 4:17 7:5 11:12 87:24 113:2 130:2 211:24 placed (2) 2:7 23:12 places (12) 42:14 57:18,18 73:19 85:12,25 86:13 87:1 149:1 154:8 197:6 199:24 plan (12) 7:24 44:13,20,23 49:23,25 52:4 73:16.20.21 79:12 142:6 planned (1) 97:3 planning (2) 4:22 121:11 plans (1) 210:4 plasterboard (2) 57:14 151:4 players (3) 167:9 183:5 202:14 please (106) 1:6,20 3.10 12 17 9.1 10.18 12:21 16:17 20:5 21:9 27:12 31:15,17 32:1 43:13 45:2 50:2.21 53:12,13,16,21,23 63:20 70:3 76:15 79:23 80:9 82:23 85:1 87:17 88:5 90:15 92:8,15 94:14,20 95:6.7 99:3 100:16.23 101:6 103:25 108:15 110:6 112:2.19 113:13,19 114:12 119:5,7,12,22 120.9 20 24 122.14 125:3 126:8 130:20 131:9,13 133:17 138:15,19 141:19

181:19

145:21 150:8,24
155:14 157:9 158:16
159:23 161:14,21
162:22 163:25 170:8,11,20 174:18
175:14 179:4,12 182:5
184:5,16 186:3 188:15
189:3 192:25 194:7,13
198:17 203:15,18 204:6 205:7 208:16,21
209:12,25 213:9
pleased (1) 100:24
pm (7) 119:13,15
170:12,14 209:2,4 213:11
pointed (1) 109:23
pointing (3) 123:21
187:11,13
points (17) 8:13 23:12 34:16 37:17 45:8,10
54:2,11 96:4,9 120:4
154:9 159:11 164:5
181:7 194:22 199:25
policy (8) 92:24 93:22 94:5,6 118:13,15
186:9,22
polite (1) 195:12
populated (1) 194:17
ports (1) 205:12
position (27) 88:19 134:12 140:8 162:8
174:6 179:9,23
181:5,15 182:7,9,10
185:9 190:23
191:2,17,21 193:14,20,22 194:24
195:20 198:14
202:10,19,20 211:11
positioned (2) 63:6 71:23
positioning (1) 166:9
positive (2) 198:11
202:5
possession (2) 5:21 7:2 possibilities (3)
17:10,11 30:20
possibility (4) 9:6 95:17
142:22 144:7
possible (13) 8:8 18:23 41:3 97:23 107:15
110:14 114:20 130:12
157:17 160:18 162:11
172:6 189:13
possibly (9) 7:11 8:4 29:4 30:1 157:23
171:2 176:5,11 178:18
post (1) 9:7
postlaunch (1) 122:13
posttest (1) 27:14 potential (11) 30:2
41:13 86:6 95:20
107:15 118:11 122:12
123:9 181:17 182:17
196:19 potentially (3) 51:14
74:16 209:19
pr (1) 120:24
practice (4) 94:3 117:22
118:4 206:2 precise (2) 43:22 132:1
precisely (3) 41:25
136:6 168:1
predicted (1) 182:23

115:9 192:14,15,16 preference (1) 165:25 problems (1) 122:16 preferred (1) 174:10 procedures (2) 205:23 206:9 proceed (1) 109:21 proceeded (1) 41:25 premium (3) 63:7 70:13 proceedings (1) 208:7 process (19) 4:16 75:8 preparation (1) 5:23 77:14 98:7,25 107:16 111:18,19,24 112:9 prepared (17) 2:25 6:20 116.11 142.7 147.14 49:14,15 76:16 92:20 149:14 155:23 189:12 206:18 207:10,13 processes (2) 147:18 194:7,9,11,12 198:2,4 206:12 produced (3) 13:7.16.23 preparing (2) 76:19 product (100) 15:18 21:7 22:12.12 37:22 12:11 23:24 34:15 45:14 46:21 47:19 49:3 50:12.15.16 61:20 93:2 148:25 51:15,23,24 52:5 55:18.20 56:8.8 61:11 present (23) 4:3,10,18 62:5 65:16 70:8 6:2,4,6,7,18,21 7:3 8:6 75:7,25 76:25 10:22 45:4 48:21 49:8 77:18.22.24 78:1.11 79:9 114:7 121:14 79:10,25 80:5,7 125:23 126:21 175:3.5 81:3.21 87:24 95:21 101:4 113:14,22 presentation (23) 3:19 114:2,8,9,11 116:4,12 118:2,10 124:24 126:22.24 127:21.25 16:20.25 19:4 24:1 128:9.24 129:1.14.15.19 130:11 138:8 140:12 141:2 122:3 174:19 175:11 142:12 143:2 149:5.13.24 152:24 155:15 156:4,5,18 presented (15) 3:9 5:6 158:5 159:15,21 161:9 6:9,12,19 7:10 9:21 163:13,16 165:1,5 14:8,11 48:25 60:3 166:4,19 167:12 149:21 150:25 175:6 168:23.25.25 169:18 172:17,20 174:16 presenting (7) 4:25 181:25 182:1 183:1,10 5:3,10,15 7:7 22:8 203:12 212:1 products (21) 37:24,25 press (7) 76:15 80:23,25 44:24 45:21,25 77:13 78:13 80:1.6 95:14 81:6 85:4.14 87:15 pressure (4) 123:20,23 147:21 155:18 156:3,13,15,22 pretty (3) 46:11 48:7 157:8.10 203:20 204:8 209:24 professionals (1) 148:17 previous (14) 12:20 programme (2) 156:1 213:1 110:22 114:16 152:19 progress (3) 2:4 118:21 172-11 181-5 18 182-6 174.4 project (57) 6:8,18 186:15 187:1 206:20 previously (6) 31:21 7:12,13 18:5 46:20 124:4 164:22 19:16.17.20.22 33:4,18 61:19 primary (2) 45:4,11 68:3.8.10.14 69:1,8,9,13 92:10 print (7) 20:17 72:20 101:2 107:10 108:12 75:19,19 86:21 129:22 111:5 126:5 131:19 133:11 134:23 139:21.22 prior (4) 4:7 6:15 7:24 140:1,3,5,13,17,20 141:3,12 142:11 143:19 148:9,9,11

prefer (1) 132:5

prelaunch (2) 98:6

premises (1) 159:2

prepare (1) 76:17

141:15.21 173:4

presence (11) 9:18

38:10 42:13 58:4

178:15 193:1

211:17

199:23

197:8

4:9 9:16 13:2

14:2.11.14.16

35:8 71:5 120:22

121:2.5.17.21.24

presentations (1)

176:21

182:19

78.14

64:17

152:21 182:17

prevent (1) 15:15

15:4 58:16 60:11

181:18 182:16

principle (1) 2:10

166:2 printed (2) 25:3,22

22:17

175:19

private (1) 185:3

privilege (1) 82:7

probably (2) 133:14

problem (6) 60:1 79:19

155.8 16 156.1 7

179:12 189:9,9

192:8,9 211:18

159:7 162:2 173:16

150:3

77:7

projects (40) 4:19 43:20 99:6 110:21 124:1 127:14.22 128:19.19.22 132:4 143:19.21.22 162:5,14,16,16 172:18 177:2,8 178:12,25 179:11,18 181:1,5,10 182:7 183:19 184:9 185:12 191:5.7.8.18.20 192:4,21 195:25 prominent (7) 71:19 73:5,6,7 74:1,2 85:9 promoting (1) 61:2 prompt (2) 40:1 165:4 prompts (1) 165:10 propagation (1) 98:1 properly (5) 79:10 118:3 134:5,12 183:16 proposal (3) 210:7.19.21 proposed (5) 145:10 146:16 163:15 180:15 189-11 proposing (2) 178:20 179-25 proposition (5) 46:3 48:9,16 49:16 50:7 proprietary (3) 92:18 93:9 163:18 prospective (1) 95:5 prove (1) 156:23 provide (15) 97:3 120:22 121:17 124:11 145:5.25 146:6.25 152:6 153:5 156:21 157:2.10 171:18 201:22 provided (7) 9:12 47:13 74:3 99:6 121:25 181:2.11 provides (2) 51:2,5 providing (1) 201:23 public (2) 115:11 213:6 publication (1) 185:6 publish (1) 115:20 published (3) 106:6 172:14 201:6 pun (1) 194:20 purely (1) 206:23 purge (2) 207:3,6 purported (1) 38:8 purpose (4) 52:13 71:14 72:17 121:10 purposefully (3) 21:14,18,24 purposes (1) 153:7 pursue (1) 93:18 pursued (1) 132:20 pursuing (1) 118:12 push (1) 142:2 pushing (1) 187:10 putting (11) 3:18 59:15 60:4 71:14 77:13 79:6 80:7 84:13 119:23 123:23 124:2 Q

q (607) 1:18 2:18,23 3:6

4:3 5:5,13,15,18,22

6:1,11,20 7:6,14,24

8:2,8,10,15,22,25

9:16,21 10:4,14,16 11:18.22 12:1.5.10.20 13:12,16,20,23 14:3.7.12.16.23 15:8.14.19.24 16:7,9,15 17:1,4,7,9,18,22 18:1,4,14,22 19:3,9,13,21 20:2,13 21:1 22:2,6,16,21,24 23:8.16 24:4.10.17.24 27:6,11,20,24 28:3.8.13.16.18 29:3,11,21 30:1,12,22 31:1 32:9,19,24 33:8.14.19.24 34:2,10,18,21 35:4.6.10.17.24 36:6.10.13.22 37:1,3,8,13,18,23,25 38:6,14,24 39:18,23 40:1.6.22 41:6,12,20,23 42:3,7,10,20 43.1 5 13 21 44:1,5,9,25 45:2,11,16 46:2.10.15.24 47:11.20 48:1,5,8,11,15,21 49:7,13,24 51:1,12,17 52:13.20.23 53:3 54:10.23 55:4.11.13.16.22.24 56:1.12.17.20 57:2,4,18,22 58:1.6.11.15.22 59:2,6,13,19,21 60:2,6,21 61:3,13,18,24 62:1,9,17,23 63:20 64:10.20 65:4.9.12.17.22.25 66:3,9,13,15,19,22 67:5,9,17 68:2,6,10,24 69:3,12,18,20 70:1,10 71:3,14,25 72:4,17,23 73:6.12.20 74:4.22 75:11,18,22 76:5,15,21,24 77:4.16.23 78:7.14.21 79:9,16,22 80:9.18.20.22.25 81:9.16.23 82:5,9,15,18,23 83:5,8,18 84-11 15 19 25 85-21 86:3,5,11,18,23,25 87:6,16 88:12 89:6.10.13.19 90:2.14 91:18 92:3,6 93:1.9.15.20.25 94:6.11.14 95:1.5.14.23 96:22 97:7 98:9,15,22 99:1.18.24 100:2,6,10,21 101:5.15.25 102:4,8,17,19,25 103:15,17,23 104:21 105:12 17 106:2,7,14,17 107:1,6,12,19,22,24 108:1,9,13,22

122:2,8,21,25 123:2 124:2,8,20,23 125:2 126:7 127:6,9,17,23 128:4.10.23 129:8.17 130:5,10,20 132:18,23 133:8.17 134:11.15 135:4,16,18,23 136:5,21,23 140:5.7.14.16 141:4,13,18,20,25 142:15.17.22 143:3.9.11.14.17.23 145:20 147:24 148:5,11,14,16,23 149:6.13.17 150:6.18 152:1,14,20 153:4,12,18,24 154-4 11 16 21 155:2,8 157:25 158:11.14 159:5 160:14 161:11.14 162:11,19 163:25 165:2,10,22 166:5.8.20 167:1.8.16.25 168:11.24 169:10.14 171:4.8 172:3.12.21 173:7,20 174:11,18,24 175:1.6.11.13.22 176:1,4,17,20,24 177:3,9,13,20 178:5,9,13,20 179:2 180:4,8 181:19 182:5.17.22 183:4.11.22 184:5.22 185:17,23 186:3,20 187:6,9,18,22,25 188:4,15 189:22 190:4,12,16 191:21 192:1.10.16.22.25 193:4,18 194:1,5,11,13,16,18 195:2.7.16.19 196:1,8,13,17 197:2.5.11.15.20 198:2.7 199:11,14,16,18,20 200:3,7,13,15 201:3 5 9 13 19 202:3,13,19,22 203:3,5,9,15,25 204:2,12,14,18,25 205:7,18,21 206:1,4,7 207:2.5.9 210:12,21,25 211:3.6.9 q1 (2) 175:19,19 qualification (14) 49:13,20,21 70:20 86:23 103:11.11.18 129:22,23 167:5 181:22 187:12,14 qualified (2) 86:5 146:2 qualify (1) 85:17 query (3) 90:6 92:4 167:20

109:2,8,15,21

110:4.10.17.24

111:5,8,14 112:16

116:2.19 117:9.25

114:6.12 115:23

118:8 120:17,19

121:5,9,16

question (30) 5:14 11:6 12:18 24:19 25:6 54:5 58:11 90:11,15,19,21 92:11 96:11 97:11 123:24 124:2 127:23 129:2 134:5 138:2 146:17 165:10 169:3 181:8,13,17 186:25 188:8 206:7 211:9 questions (25) 1:14 7.21 35.20 92.6 140.7 170:5,19 180:23 181:12,24 182:17 183:6,8 190:5,14 198:24 200:7 207:16.17.24 208:2.5 209:6,8 214:5 quick (1) 107:14 quickly (4) 62:25 96:25 132:9 184:11 quite (17) 3:14 6:20 8:4 50:7 58:23 62:25 63:3 75:22 95:9 150:9 165:16 169:14 192:18 193:12 194:19 195:5 208:7 quoted (1) 91:3 r (1) 99:9

radar (1) 196:5 rails (2) 57:10 151:16 rain (2) 116:6.14 rainscreen (39) 45:4,11,15 50:9 51:16.24.25 63:8 70:13 71:23 72:15 77:8.20 78:5 83:19 89:24 90:9 91:6 101:17.25 102:10 104:13 114:10 117:2 137:21 138:4 145:21 156:6 160:3,8,10 163:15 189:3.14 195:10 199:3.5.25 200:18 raise (2) 127:6 186:25 raised (2) 125:19 141:25 ran (1) 13:8 range (7) 45:23 77:25 78:2,18 79:25 80:5 89:7 rarely (1) 117:22 rate (2) 8:15 66:16 rather (16) 5:10 7:16 24:8 30:20 33:15 44:17 71:23 72:9 73:3 86:12 123:14 135:6 165:19 173:22 174:6 180:13

rational (2) 17:10,10

15:12,14,19 62:17

reaction (8) 93:20.25

94:1 132:25 133:2

read (56) 20:24

54:22,24

134:15 166:20 203:3

48:6,7,9,12,15 53:2,3

55:1,11,12,15 63:12

rd491 (2) 112:3,12 re (1) 131:4

rationale (4)

68:17,20 69:15,19
72:7,9 73:10 75:18
77:3,17 82:1 104:22
106:14,15,16
108:6,8,13,19,22
109:1,5,16,21 110:11
111:2 127:10
132:11,17 159:10 165:11,15 166:13,21
167:6,7 183:16 185:1
192:2 198:22,23
reader (5) 22:10 72:18
77:17 106:18 186:25
readers (2) 52:13 72:25
reading (8) 41:2 56:22
68:25 109:4 122:19,20
130:6 160:15
reads (1) 52:25 ready (3) 1:10 119:16
170:15
real (4) 34:21 72:17
169:4 197:9
realised (8) 25:18 91:7
99:11 109:23,25
158:4,6 199:7
reality (4) 15:24 129:5
132:19 133:11 really (19) 2:23 9:9
28:16 61:3 66:20 71:4
109:4 129:2,17
134:11,21 149:20
165:10 166:8
182:22,23 183:22
190:4 209:10 reason (36) 15:2,7,8
18:8,14,15,17 19:21
32:6,24 33:14
34:12,17,18,21,24
42:10,22 46:17 47:3
71:20 72:5 129:10
143:16 149:25 152:20
156:16 162:12 165:22 167:2,25
197:3,13,16,19 211:3
reasonable (1) 118:21
reasons (7) 63:14 64:7
78:14,25 191:19 198:5
199:22
rebranded (3) 77:11,18 78:8
recall (60)
2:15,18,19,19 5:3
11:12,21 12:1,2 14:1
16:23 18:2,12,21,22
23:13 24:15,16,23
26:1,14 29:19 30:9
33:9,12 36:2,4 39:3,4,15,18 40:8,8,20
41:7 42:16,19 43:9,10
76:20 77:2 84:17
91:25 98:5 106:15
111:3 115:19 121:8
122:20 127:12
132:13,14 133:2 161:4 185:20 190:15
185:20 190:15 193:3,20 199:17
201:16
recalled (4) 39:21 40:18
59:3 65:15
recalls (1) 23:4
receipt (1) 157:3
received (12) 20:17,21 25:4 34:6 66:24 87:21
23.1 34.0 00.24 07.21

108:13 109:15 112:14 112:23 113:6 regulations (4) 145:24 171:14,18 189:6 reid (16) 21:3 22:25 recent (4) 113:4 131:18 24:7.11.15 25:8.16.17 29:4 95:8,10,25 96:1 recently (3) 25:4 123:7 98:20 155:11 161:7 reinforce (3) 128:14 129:3,7 reissue (1) 8:6 related (3) 95:14 103:11 133:5 relates (5) 64:14.20 2:20,24,25 3:1 4:11,14 75:1 89:22 122:16 relating (6) 39:4,11 40:9 41:8 119:8 160:6 23:4,5 24:8 40:1,14,24 relation (10) 39:6 43:23 42:25 43:1.6 50:4 90:3 45:10 67:11.21 92:10 100:7 134:23 159:18 206:1 relaunched (1) 77:18 relayed (1) 199:9 recompense (1) 157:11 release (4) 76:16 record (3) 15:20 34:2,4 80:23,25 81:6 relevant (2) 125:23 164:14 relied (3) 39:6 55:2 199:8 refer (13) 9:24 13:3,8,9 reluctance (2) 93:1 156:16 reluctant (2) 93:7 156:15 relying (6) 60:25 67:15 68:8 69:9 118:1 169:1 23:17,18 25:18 42:23 remainder (1) 195:6 remains (2) 137:14 212:3 remember (88) 2:21 3:3 8:8.9 12:15 13:15.21 14:6,10,12,13 19:6 21:16 22:5 24:13.18 171:21 173:15 194:23 25:21 26:5.9.11 27:17 28:11,13 29:13 30:5 33:22 34:1 40:4 42:5 43:5,8 44:22,25 46:7 12:7 98:4 155:9 160:2 54:7,20 55:14 66:9.20.25 67:2.5 79:1,1 84:22,23 87:8 89:24 90:1 93:19 94:23 95:19.20 99:19 110:20 122:19,23 127:5 128:18 133:1,3 135:23 136:17,19,21,22 139:21 142:25 143:12 147.25 161.6 175.7 188:12 191:24 192:22 193:18 195:5 202:24.24 203:3.4.5 204:16,18 205:17 regard (2) 90:21 127:17 210:18.20 211:2 regarded (3) 127:18,24 remembered (5) 10:12 35:2 41:4 43:3 65:15 removal (8) 28:25 29:4,16,22 30:2 38:21 regardless (3) 15:8 93:6 40:25 156:17 remove (23) 23:17,20 28:24 30:15 32:3,21,25 33:10,23

132:10 161:4 163:22

receives (1) 125:10

receiving (1) 7:17

139:11 185:5

recognise (3) 27:4,5,6

recognising (1) 50:11

recognize (1) 157:14

5:5 6:11,17 9:10,12

14:17 18:24 19:1.7

recollections (1) 43:9

recommend (3) 112:3 180:17 189:10

recorded (2) 161:24

red (2) 83:9 90:6

14:25 16:20 21:4

26:16 41:6 84:15

reference (31) 11:3

15:3.4.19 16:1.2

44:6 64:1 65:22

121:10 138:13

195:2 196:8,9

113:14 139:13

178:2

144:6

211:8

202:4

168:3

113:5

references (3) 62:9

referring (4) 121:2

refers (1) 123:2

reflect (1) 199:2

reflected (2) 54:19

reflection (2) 58:10

reflects (1) 32:19

158:11 161:2

refuse (1) 118:5

refusing (1) 118:13

regarding (3) 97:13

regards (2) 2:16 186:7

registered (6) 100:14,16

101:7 110:19 111:12

registration (3) 99:20

34.7 13 23 38.15 40.2

147:14,18 156:24

41:13 42:11,21,23

62:15 114:1,21

206:12,25

regime (1) 206:23

131:6 138:24

refusal (4) 155:21,24

140:23 182:9 187:16

referred (7) 3:23 9:22

139:14,16 164:21

71:2,13 74:8 75:15

80:11 101:10 114:1

88:20 98:15 175:23

recollect (1) 176:19

recollection (27)

170:25

193:15

ref (1) 159:7

125:18

removed (1) 65:20 removing (2) 15:19 62:17 repeat (1) 5:14 repeated (2) 70:20 74:12 replace (12) 31:21 32:4,13 34:4,8 39:5,12 40:10,20 41:8 113:22 144:25 replaced (1) 32:8 replacement (1) 32:16 replicate (1) 58:17 replicated (1) 64:8 replied (1) 108:24 reply (2) 85:6 90:16 report (121) 9:5,19 10:8.9.13.16 20:3.17.21 21:7 23:2,9,24 24:20 25:4,7,15,22 26:2.4.10.11.15.23 27:5,6,9,10 30:3 31:14,18 32:14 33:2,4 34:15 38:16.16 39:6,8,13 40:10 41:9,14 42:13 43:12 44:6 54:13,14 56:6 57:2 60:9 64:13 65:6 66:9 67:3,7,13,20 68:17.20.25 69:1,3,6,7,8,14,18,19 74:25 92:7.13.17.21 93:7.10.12.13.17 94:7,17 99:6,11,15,15 101:11 117:17.20 118:4,12,13 143:7 145:7 146:4 148:18,19,22,23 149:4,9,10 150:12 152:10.20 153:25 154:1,6,12,13,15,16,22 160:2,3,15,16,19 161:2 198:20 203:10.13 reports (8) 92:22,23 93:8.23 94:2 117:18,23 149:22 represent (3) 16:4 126:22 152:2 representative (4) 16:8 128:25 134:5 195:9 representing (1) 66:2 represents (1) 31:2 repute (1) 156:12 request (17) 32:3.13 33:2,25 35:12 39:5,11 40:2,9 41:8,13 71:16.17 87:21 93:13 131:12 144:14 requested (1) 188:19 requests (2) 118:13 163:8 require (5) 87:2 134:24 157:3 171:16,17 required (8) 37:4 38:15 88:21 101:18 116:22 177:4 205:13 208:24 requirement (3) 149:7 171.14 179.18 requirements (9) 47:9 96:16 137:19 145:24

160:11 193:9 resemblance (1) 101:22 reservations (1) 185:5 resigned (1) 206:4 resistance (2) 91:3 200:17 resistant (2) 159:15,21 resolved (1) 190:18 respect (2) 9:25 52:20 respective (1) 156:8 respects (2) 62:3 110:6 respond (6) 96:22 99:2 100:19 133:22 173:23 191:2 responded (3) 84:2 106:8 184:23 responding (3) 92:3,10 162:3 responds (2) 94:21 97:7 response (20) 37:3 38:6,12 108:3,4 113:17 114:23 115:5 131:6,9 133:9,25 145:13 146:19 149:7 162:1 173:8 179:13 184:6 199:10 responses (5) 41:19.20 182:21 184:7 199:12 responsibility (1) 189:8 responsible (5) 67:19 69:25 106:2.4 107:8 rest (3) 37:5 151:20 195:5 restaurant (1) 85:4 result (9) 33:19 56:21 75:23 102:17 184:2 191:22 192:17 202:13 resultant (1) 156:3 results (7) 141:6 203:18.21.22 204:14.19.20 resume (1) 213:9 retest (1) 203:12 return (2) 27:25 157:3 revealed (1) 62:19 revert (1) 138:7 review (1) 193:8 reviewed (8) 9:13 21:20 71:16 81:24 82:1 89:12 165:5 186:13 reviewing (1) 30:10 revisit (3) 1:18 191:5 192:3 richard (18) 89:20 90.6 11 91.8 92.4 94:15 130:23 131:3 133:19 134:16,25 135:7 136:13.14 157:20 158:20 160:24 161:16 ride (1) 178:20 riding (3) 162:11,14 178:22 rig (22) 2:5 8:17 12:12 15:22 23:12 27:15,25 33:5 34:16 35:2 42:14 57:19 58:3 66:17 67:1 149:1 154:6,8,17 197.7 8 199.24 righthand (5) 27:20

64:10 104:9,16 201:19

rigid (3) 145:1

142:14,14,15 144:8

153:3

rise (1) 126:25 risk (14) 5:1 37:4 43:16,19,22,23,25 44:1.5 87:7 152:7 153:6 169:16 197:9 risky (2) 152:5 153:20 rma (3) 144:11,21 146:10 rob (19) 1:25 2:16 10:25 11:14.24 12:3.5 161:7 164:1 170:21 172:22 179:7 180:22 188:13 190:19 193:6 194:15 196:16 203:11 robust (1) 194:14 rockwool (3) 45:6 131:24 163:17 role (5) 68:3.11 81:20 96:19 133:14 roles (1) 82:21 rolled (2) 186:9,23 roofs (1) 79:21 room (4) 56:1 170:9 208.6 18 roome (23) 5:10,12 87:21 99:9 130:23 131:2 133:8,20 135:14,19 136:13,25 138:17,20 141:25 142:8 144:12.20 145:13 147:7 209:13 210:12.18 roomes (2) 146:19 210:7 roost (1) 182:22 roper (97) 1:25 3:18 4:11,14 5:13,24 6:6 7:7,24 8:19 11:7 12:25 13:8,16 15:2,24 18:4.15 19:15.22 21:16 23:3 24:5.18 25:2,8,13 26:15 27:7 28:8,23 29:4,22 30:14 31:2,11 32:15,20,24 34:3,13,22 35:11,21 36:24 37:9 38:6.21 39:6 40:2 41:12 42:11,21 43:16 44:20 46:10 48:1.5 49:15 54:7 61:18 66:15,24 67:6 68:12 76:17 87:25 96:14.17 99:24 100:11 105:12 106:8 107:7,19 108:15 110:5 111.17 112.10 21 113:3,8,25 115:2 119:23 122:11,15 125:10.12 126:11 128:11 133:10 135:16.19 153:15 159:2 184:23 ropers (19) 3:10 5:5 10:17 12:21 16:16 20:4 27:1 39:5,12 40:9 41:24 44:12 67:17 104:6,18 105:19 106:2,17 185:14 round (4) 16:5 115:8 188:25 197:6 route (7) 51:5 52:14

159:14,20

rs (7) 44:15 130:3 131:6 155:14 159:9 174:3 191:4 rs5000 (147) 7:18 44:10.23 45:4.8 46:16 47:1,12 48:21 49:8,18 50:7,11,23 51:9 52:2,25 56:3,13 57:6,11 61:19 63:6,7,22 64:14 70.2 12 73.14 76:16,21 77:10,18 78:4 79:10.24 80:4 83:15,20,24 85:3 86:7 88:4,18 89:7,14,21 90:22 92:19 93:10 94:10,12 97:2,13,22 100:14.17 101:1.9 102:9.13 103:1.9.20 104:12,23 107:3,15 110:14 113:14,21 114:1.4.7.10 116:7 117:1,12 120:7 126:4 127:19 128:14 129:5,9 131-4 132-7 133-11 138:12 139:23 141:16.22 143:3 145:1 151:7 152:7 153:6,13,19 159:15,21 160:17 163:13 164:9 165:12 166:1 168:18 169:15 174:1 177:1.10.16 178:24 179:10 180:5.17 181:21 182:11,19 183:9 184:13.17.19 185:12 186:7,23 187:11 188:23 191:14 192:13 193:8,15,20 194:25 196:3,19,22 197:21 198:3.6 200:15.17 202:6 203:6,12,13 209:15,20 rude (2) 193:12 195:20 run (6) 5:1 20:14 114:13 125:13 126:2 163:2 running (2) 27:25 70:11 runs (2) 70:6 162:22 rw (1) 1:24 safe (1) 199:6 safely (1) 143:4

safetyrisk (1) 160:6 sailing (1) 165:24 saintgobain (8) 45:24 49:4 82:4,6,11,14,21

206:21

saintgobains (3) 82:16 130:13 174:21 sale (1) 197:24 sales (18) 21:15,19 62:6 86:20 96:18 100:12 107:2 128:12 184:14 186:10.24 187:12.14

188:5 191:14,23,24 192:16 salesforce (2) 161:24 184:10

salespeople (1) 128:13

salient (1) 159:11

Opus 2 International Official Court Reporters

sam (15) 112:20	172:2
113:3,17,18 114:1,14,17,25	198:9 secret (
115:2,4,5	61:22
146:10,20,21 147:9	section
same (46) 22:7 36:20	74:5
47:13,14,15 49:11	179:1
55:24 63:25 64:6,10 67:3 79:16 84:2	see (16 14:17
91:1,9,20 96:22	23:16
103:20 104:2,17 105:7	28:1,4
111:22 113:14	31:2,1
114:2,9,16 116:11 124:5,12,18 125:20	37:9 3 43:16
128:15 150:6	49:14
151:13,14,21 157:3	53:25
162:4 165:17 168:19	61:6
169:8 185:4 187:5,7,7	70:18
192:14 sarah (1) 203:16	75:11 82:24
satisfactory (1) 171:18	84:1,2
satisfied (3) 7:9,16	88:10
121:20	90:2,4
satisfy (3) 52:9 130:13 142:5	94:16 97:5,9
saw (40) 8:15 11:17,23	101:5
14:7 32:12 33:24	104:1
40:16,17,23 42:24	107:2
50:8 54:8,24 58:16	112:1
76:22 106:7 109:8,22,24 113:16	115:3 116:3
121:19 125:9,12 126:2	120:1
127:9,12 140:25	128:1
150:19 152:18	133:1
153:12,14,16 158:4	135:4
161:1 166:15 169:18 171:24 180:18 199:6	137:1 138:1
203:3	144:1
saying (45) 2:13 6:20	146:9
19:4,6 24:7 25:14	152:3
29:21 30:20 33:24 36:4 40:11 42:5 43:6	155:2 163:9
46:21 61:16 64:19	167:1
71:19 86:25 91:12	173:7
98:6,7 108:21,21	175:1
120:1 126:3	179:7 184:4
128:3,13,22 135:1 136:1 140:18 141:9	188:2
151:20 158:9 165:14	194:5
167:17 182:14,15	198:1
183:21 185:16 186:21	199:2
207:2,5,9 210:25 sceptical (1) 199:21	202:1 205:8
scheduled (1) 213:1	seeing (
scheme (2) 113:5	28:11
174:17	91:25
scope (1) 196:3	181:1
scotland (1) 89:24 screen (10) 9:17 89:21	seek (4 124:3
103:25 104:2,9,17	seeking
111:16 116:6,14 137:2	123:1
scroll (5) 125:9,11	157:1
130:25 133:17 136:11 scrupulous (1) 130:5	seem (6 183:1
scrupulous (1) 130:5 scrupulously (1) 75:18	202:1
second (34) 11:5 13:10	seemed
14:24 16:5,17,24	seeming
17:16,18 31:20	seems (
67:10,21 69:14 74:12 76:1 77:6 80:9,11 85:7	66:6 9 162:2
91:18 94:15 96:8 99:4	174:1
105:8 116:21 119:24	seen (5
137:12 144:23 164:2	7:15,2
	l

5 180:10 192:2 10:1,2,6,8,8,10,13 206:8 209:14 11:8 12:14 14:10 (4) 8:16,20,23 24:21 28:19 33:1 38:16 40:12 56:12 (8) 20:7 21:21 59:20.24 117:16,18 139:13 60:9,10,17,18 66:23 6 194:15 71:21 73:9,17 81:10 6) 13:13 92:2 93:3 98:12 ,23,25 21:10,22 105:25 106:7 25:11 26:21 108:13,20 128:19 4 6 30.22 129.18 140.25 149.12 12,16 36:3,22 152:22 154:19 155:1 39:13 40:6 41:23 158:21 170:22 171:3 ,24 47:24 48:19 177:6 188:17 202:20 ,21,22 50:5 211:16 sees (1) 136:8 57:4.23 60:15 63:1,3 64:17,21 selected (1) 130:3 71:3 74:23 selfsame (1) 159:1 76:21.23 80:10 sell (1) 197:21 83:8.16.22 selling (5) 45:8,10,11 25 85:5 87:18 129:9 198:6 89:20 send (13) 4:9 42:19 4,12,12,15 93:17 93:7 94:2,7,16 121:12 95:11,24 96:7 122:22 134:18 146:3 9 100:19 156:13 180:25 203:13 ,8,11 103:3,24 sending (11) 4:7 7:4 7 105:5.10.14 106:3 107:2.16 120:6 24 108:1 111:16 121:13 125:12 139:6 3 114:22 154:4 179:7 sends (8) 88:8 95:24 ,3,12 .15.17.20 119:1 131:2 138:21 145:13 7 125:7.21 150:11 158:23 188:17 0.12.16 130:24 senior (7) 68:22,24 8 134:15 69:4.7 133:12 157:16 1,5,21 136:12,14 206:12 .6.7.12 sense (1) 102:20 6,19 139:9 sensible (1) 211:6 6,19 145:13 sent (38) 3:19,24 4:23 ,19 150:6,19.25 8:5 41:5 54:6,9 65:15 ,17 153:24 76:6 93:24 94:9 95:4 23 158:22 161:21 100:18 105:13 164:7 165:6.6.7 106:8.12 8 170:4 171:5,6 107:5,8,12,18,19,23 174:11 108:2 121:6 126:10 3.16 176:17 133:13 143:1,7 145:19 ,15 180:8 148:22 149:3,3 153:24 1.5.25 185:21 161:16 172:22 179:24 22 193:4,7 203:19 204:20 .13 196:8 sentence (7) 21:2 63:11 0.13.16.17 91:18 102:6 103:8 1 200:16 201:9 172:25 180:10 203:17,18,22 separate (3) 8:13 56:10 209:5 132:16 (10) 6:22 14:12 separates (1) 97:16 ,13 44:22,25 september (3) 122:15 140.2 143.13 125.6 134.10 series (2) 77:24 106:10 1) 56:10 82:3 serious (1) 155:25 152:10 seriously (1) 166:23 (5) 33:15 service (1) 10:21 9 152:20 153:8 services (1) 156:10 set (28) 15:25 18:17 6) 157:1 163:21 47:20 51:7 52:15 6 196:13 57:23 60:15 64:3 89:1 2.25 103:2 104:24 105:18 (3) 49:5 61:8,9 134:15 140:22 141:6 gly (1) 123:12 163:22 171:13 175:24 (11) 24:2 62:15 179:10,14,24 180:8 98:7 160:23 181:21 183:6 187:4 0 24 168-13 188:13 199:22 201:25 9 197:20 200:20 sets (6) 57:5 74:22 83:13 96:6 172:5 4:19 6:1 23 8:11 9:21 179:14

setting (3) 38:8 136:8 174:6 sfs (5) 57:13 131:7 132:5 133:3 151:5 sg (2) 120:10 121:12 shall (2) 53:20 83:19 share (3) 79:11,13 156:15 shared (2) 55:7 61:23 sheathing (6) 57:12 102:12 104:15 117:4 123:11,15 sheet (1) 114:19 sheets (2) 113:21 156:4 shes (3) 89:3 98:4,9 shields (3) 126:12,14 127:9 shock (3) 127:11 128:4 204:10 short (11) 20:16 53:11,18 72:16 73:12 119:14 136:9 170:3.13 208:3 209:3 shorten (1) 14:2 shorter (4) 13:7 14:8,16 121:7 shortest (2) 70:4 157:17 shortly (4) 20:23 99:21 140:8 205:22 should (25) 12:7 72:1 83:11 88:23 112:12 114:24 117:20 124:5 130:4 137:15.16 138:8 145:18 147:6 151:2 162:1 163:17 165:5 168:18 171:21 172:23 182:11 184:12 187:10 208:10 shouldnt (7) 61:16 85:23 86:12 129:5 175:20 180:5 191:21 show (16) 1:23 11:6 12:22 31:6,9,23 54:4 58:2 70:16 89:23 92:20 125:9 143:4 147:7 149:19 191:10 showed (4) 42:13 66:9,10 194:2 showing (5) 27:13 51:18 52:22 172:23 189:10 shown (9) 13:17 18:23 32:14,19 119:21 138:6 153:4 172:23 174:12 shows (7) 27:20,24 139:6,16 140:18 162:20 203:19 side (12) 27:20 64:10 75:24 78:3,9 82:15 104:9.11.16 129:25 149:23 198:11 sig (2) 90:5 91:15 sight (1) 97:3 sign (2) 2:11 122:25 signatory (1) 158:20 signed (4) 125:1 139:25 140:3 166:18 signing (1) 65:21 signoff (1) 199:18 silicate (4) 37:10,18,21 151.6 simco (2) 92:12,21 similar (4) 14:18 37:24 131:25 185:9

similarly (3) 58:1 149:14 172:4 simple (3) 50:8 165:19 174:6 since (8) 3:3 43:9 134:7 137:20 149:11 153:12 154:19 155:1 single (3) 18:8 19:21 141:22 sir (40) 1:3,8,10,12 3:15 24:25 25:13.25 26:5,8,13,19 51:18,21 53:10.20.22 118:19.24 119:3,7,10,16,18 169:23 170:1,8,15,17 207:20.25 208:11,15,20 209:5,8 212:7,13,18 213:7 site (3) 88:24 155:24 189:18 sites (1) 137:14 sitting (1) 212:21 situation (3) 115:19 190:18 192:7 six (3) 63:25 75:12 178:13 sixitem (1) 64:25 size (2) 157:2 211:19 slide (18) 9:16,21 10:1,2,6 13:7,12 14:7.23 15:1.4.25 35:6 42:24 175:14.15 178:19.25 slides (33) 3:22 4:6,12,22,24 5:2.3.6.8.15.19.20.21.24 6:7,16,21 7:1,3,7,9,16,22,23 8:15.21 11:9 12:14 18:17 19:8 98:12 109:8 175:12 slideshow (11) 3:8 13:17 15:25 18:10,10 19:23 23:17,21 45:16 60:11 175:6 slidessic (1) 43:13 slightly (3) 19:18 124:2 195:12 slot (1) 4:8 slowly (1) 1:23 small (7) 72:12,20 75:19,19 86:21 129:22 166:2 solution (7) 52:4 63:8 77:7 95:21 114:4,7 164-15 solutions (4) 78:19 80:2 209:18 210:13 somebody (8) 7:4 14:6 17:4 23:17 49:21 89:11 91:16 185:10 somehow (1) 44:5 someone (4) 19:12,13 111:12 152:18 something (34) 4:19 12:3 19:1 33:11,17 48:13 78:15 84:23 90:8 93:1 105:23 106:24 108:12 110:2 115.21 121.22 122.4 128:4,5,6 138:13 141:1 161:5 169:9 173:17 178:15

182:15,15,23 192:17 201:16.17 204:10 206:18 sometimes (1) 208:12 somewhere (1) 207:18 soon (4) 39:21 40:16 107:15 213:6 sooner (1) 144:4 sort (1) 162:23 sorted (2) 114:21 115.18 sotech (1) 153:15 sought (2) 12:17 138:8 sound (1) 176:18 sounds (1) 84:20 space (1) 155:17 speak (4) 120:5,20 152:12.18 speaking (2) 95:20 193-13 spec (2) 85:10 145:1 special (1) 131:19 specialist (1) 89:16 specialists (1) 130:6 specific (15) 30:18 45:14,21,25 51:24 73:17 93:12 102:21 160:9 163:14 173:13 191:6 196:21 197:16 202:18 specifically (15) 33:22 43:24 48:9 55:14 69:3 77:2.8.12.19 90:25 91-19 93-9 122-24 127:20 148:8 specification (12) 62:24 81:17 83:14 91:1,10,21 117:16 130:1 179:9,20 180:6 201:24 specificationperformance (1) 91:5 specifications (1) 201:25 specified (3) 152:3 185:12 205:10 specifiers (2) 112:4.13 specifying (2) 54:16 171:9 specimens (1) 205:12 speed (3) 185:7,15,18 spend (1) 177:16 spending (2) 66:20 177:25 spent (1) 176:1 sphere (1) 67:19 spoke (2) 10:23 88:15 spoken (2) 33:10 209:18 spread (2) 156:24 160:7 spur (1) 129:2 squire (4) 137:1,6,9 138:23 stage (10) 37:14 84:5,16 121:19 128:8 148:16 150:25 170:2 172:8.10 stages (1) 108:22 stainless (1) 151:10 stamp (1) 114:13 stand (3) 49:17 85:12 standalone (12) 49:10 52:24 70:24,25

71:6,10 73:19 80:17.18 85:25 86:11 87:4 standard (3) 135:6 188:18 205:11 standards (5) 50:15 171:16,17,21,25 stands (1) 131:22 stanmore (1) 132:4 start (12) 44:11 45:24 50:3.20 95:9 119:25 125:7 135:2 153:2 162:24 174:2 191:18 started (8) 6:1 7:15 37:15 47:17 137:14 143:8 168:15 184:1 starting (1) 175:4 starts (3) 88:24 158:17 179:5 stated (5) 70:21 75:13 125:17 155:18 203:13 statement (55) 1:21 8:25 9:13 10:17 12:21 16:16,18 17:16 20:5.7.14 39:1.19.24 40:11 41:7 47:11.20.21 49:10.11 50:2 52:24 56:12,22 58:6 70:21,24,25 71:4,7,8,10 72:24 73:19 80:15.17.18 85:13.24.25 86:12 87:2.4 101:25 102:5.13 141:25 143:23 146:2 193:10.16 195:4 202:3 206:8 statements (8) 34:2 56:14 76:8 105:19 106:11 109:23 182:4 190:6 states (3) 57:6 90:22 173:1 stating (2) 80:3 145:9 **statutory (1)** 207:12 stay (1) 53:23 steel (6) 51:4 102:11 104:14 117:3 123:6 151:10 step (2) 51:5,5 stepbystep (1) 52:14 stick (1) 20:4 sticky (2) 30:23 31:3 stiffer (1) 180:14 still (6) 40:13 56:5 139-13 180-10 191-13 201:12 stocked (1) 79:4 stopped (1) 109:13 storeys (3) 103:5,10 104:25 straightforward (1) 162:24 strand (2) 132:3 209:16 strange (2) 11:13 202:25 strategy (13) 45:20 67:12 78:19 123:19 124:3 129:11,12,17,19 130:10 15 196:13 207:4 street (6) 140:5

155:8,16,20 159:7

164:12
strictly (3) 94:19 95:2
160:21
string (6) 89:23 95:9 112:19 136:7 147:6
148:5
structural (3) 102:11
104:14 117:3
structure (1) 97:17
struggle (1) 191:1 studied (4) 67:25
109:16 118:2 198:25
studies (29) 94:10 136:3
142:3,9,15,16,17,23,24
143:8,14,18,22 144:8
148:4,7 149:19 174:4
176:2,6,10,12,15 178:3,6 196:5,6,14
202:8
study (32) 68:4,5 94:11
143:3 144:14 145:7
146:7,13,22
147:10,14,18 148:18
149:7,8,13,16 150:16
153:3,8,11 154:21 166:14 172:7 173:2,5
196:9,10 198:12
199:8,18,22
stupid (3) 193:15
194:25 195:20
style (2) 11:17 174:8
subject (22) 31:13 32:17 66:22 84:13
85:3 89:21 99:5
103:5,18,19 105:2,2,9
112:5,22 119:23 131:4
134:22 143:20 179:18
205:23 209:15
205:23 209:15 submitted (1) 208:5
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18
205:23 209:15 submitted (1) 208:5
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7 suggesting (10) 61:18
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7 suggesting (10) 61:18 68:2 80:3 103:9
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7 suggesting (10) 61:18 68:2 80:3 103:9 110:17 167:1 168:14 189:2 193:14 196:16 suggestion (2) 1:25
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7 suggesting (10) 61:18 68:2 80:3 103:9 110:17 167:1 168:14 189:2 193:14 196:16 suggestion (2) 1:25 102:19
205:23 209:15 submitted (1) 208:5 subsequent (1) 205:18 substantially (1) 151:22 substantiation (1) 80:24 substitution (1) 156:18 substrate (7) 51:19 103:6,13,19 105:3,10,24 successfully (8) 63:22 83:24 103:1 104:23 117:12 123:5 145:15 164:8 sufficiently (4) 122:2 167:9 177:4 195:9 suffolk (2) 104:7,7 suggest (33) 10:5 18:18 34:11 42:10,20 46:15 47:1 49:17 52:25 56:3 60:13,21 62:2 65:12,17 67:22 69:12 81:9 109:8 110:12 115:20 129:8 155:2 157:5 158:3 165:4,22 167:25 168:11 173:21 181:20 183:22 185:24 suggested (7) 2:6 79:14 102:20 115:13 134:25 148:3 184:7 suggesting (10) 61:18 68:2 80:3 103:9 110:17 167:1 168:14 189:2 193:14 196:16 suggestion (2) 1:25

140:21 145:10 152:9 suggests (2) 51:12 78:1 suitability (2) 88:3 163:14.15 138:1 164:11,13,19 165:17 suitable (18) 31:25 52:3 167:7 168:8.10.18.19 63:9.13 70:14.21 71:7 180:16 182:12.13 72:19 73:15 86:20 189:11,14 192:12,14 96:11 145:7 156:5,13 195:10 197:22,23 157:10 162:6 190:8 systems (21) 51:4 62:21 191:4 102:10,11,14 suite (1) 70:5 104:13,14 117:2,3 suited (1) 129:8 127:25 129:16.24 sum (1) 176:20 134:6 141:7 143:4 146:16 150:20 summarise (2) 137:4 184:21 152:5,25 153:10 summarised (1) 151:24 190:24 summary (7) 99:5,11 129:17,19 163:20 171:13 182:19 summer (1) 183:14 supervise (1) 68:11 supervision (2) 187:20.21 supplied (1) 147:1 supplier (1) 156:11 supply (3) 95:20 162:17,18 support (5) 67:16 68:9,11 123:8 147:2 supported (4) 71:13 102:7 156:22 179:22 supporting (2) 57:10 101:10 sure (25) 3:14 5:19 29:17 40:22 48:7 55:6 56:22 67:17 71:12 73:18 74:19 82:7 83:11 85:19 87:9 97:13 109:17 114:10 133:24 161:5 176:18 186:16,20 199:19 207:23 surely (2) 7:8,14 surface (1) 156:24

surprise (4) 32:15 33:25

surprised (3) 11:17 34:1

surprising (5) 107:13

surrounding (1) 185:8

suttle (3) 156:9 163:4,5

system (110) 9:4,5,11

22.14 14 27.14 41.17

55:17,20,21,22,23,24

56:4,8,9,23 57:5,8,13

58:17.19.24.25 60:5.6

63:17.19 64:23 65:6

66:2 71:2,13 73:11 74:19,22 75:4,12,13

88:9.17.22 89:8.12.15

95:15,17,22 96:4 97:3

103:20 110:23 117:15

124:10,15,18,19,20

128:15,20 129:6,25

130:8,16,17,18 136:1

79:7 80:24 86:8

123.13 17

47:14 50:13,16,17

53:6 54:12,15,16

61:2 62:14.20

surveyors (1) 131:19

switch (1) 146:12

16:4 21:21,22

111:8 190:4 202:6,12

183:4 202:23

202:9

T t (1) 205:8 taken (12) 4:17,22 11:2 12:10 84:4 92:1 109:5 168:12 202:22 210:22 211:3 212:9 takes (3) 126:8 208:12 taking (8) 3:14 62:8 69:24 89:3 96:19 97:24 185:17,24 talk (7) 7:21 53:13 78:24 119:7 134:16 170:8 202:18 talked (1) 42:5 talking (10) 20:9,9,13 69:3 87:14 90:8 99:16 117:6 148:20 193:18 taller (1) 131:22 tally (1) 163:21 team (28) 19:20,22 36:17 62:6 67:16 68:8.11 69:9.23 82:14 96:17 107:2 111:10 142:11 143:2 165:5 172:1.17 175:9 186:10,13,24 187:3,19,21 188:5,5,5 teams (10) 100:12 107:13,13,19 108:2.3.16 110:7 186:4 187:24 tech (2) 100:13 186:4 technical (36) 10:12 37:20 55:10 69:24 78:9 81:21 84:5.15.18.20.23 85:10 86:17 108:3 109:3 125:18,25 142:18 144:1 156:10,16 157:2,21 162:3 163:5 164:10.17.20 172:1.13 173:17 178:2 184:15 187:23 188:5 200:14 technically (2) 84:4,12 techy (1) 85:14 telephone (4) 36:11 156:9 161:25 163:12 telling (19) 5:7 21:16 26:8 30:8.11 34:24 38:11 52:13 62:12 77:17 81:5 91:7 117:21 128:23 129:21 180:4 191:2 210:18 211:2 tells (1) 38:19

template (1) 75:6 tempted (1) 146:12 63:19.22 64:23 65:9 ten (5) 134:21,24 135:1 66:2 71:2,13 74:23 208:9.11 75:4.12.21 83:24 86:9 tenable (1) 89:13 89:15 90:7 91:4 95:17 96:4 97:4 103:1,21 term (1) 52:4 terms (15) 4:21 9:10 104:23 117:13 22:22 56:16,17 80:4,6 123:5,10,13 126:18 143:17 160:5 124:10,13,19,21 171:14 178:4 179:1 127:20 128:1,15,21 181-23 195-13 129:6.14.24 130:8 terraced (1) 159:18 136:2 137:21 141:7 terracing (1) 173:18 143:5 145:15 154:7 terracotta (5) 137:21 156:23 160:10 139:1,8,14 151:18 164:13,21 168:9,19 terribly (1) 176:18 180:15 182:13 189:14 test (200) 192:14 197:14,23 9:5,11,11,19,24 testing (34) 24:9 50:11 10:7.8.13.16 11:4.5 12:12.16 13:3.9.10 51:7 52:16 55:19 14:21,24 77:13 98:6,25 125:23 15:3.10.16.21 16:2.20 136:2 139:1.8 17:16 20:17,21 142:1,3,6 145:8 21:7,15 22:9,17,19 160:21 176:3,14,15,18 23:2.9.18.23 24:20 177:19.20.22.25 25:21 26:2,3 27:5,9,10 178:4,7 196:4,6 203:19 204:8 205:1 30:3 31:13.18 33:4 35:25 38:16.16 209:16.20 39:6,7,12 40:10 tests (8) 137:25 140:21 41:9,14 42:13,14 142:4 178:17 204:6 43:12 44:2.3.6 47:9 205:10.18.22 49:18 52:10.22 text (9) 31:3 54:2,24 55:17.17 57:19 55:2 83:23 58:13,18,20 59:7,10 105:6.12.22 113:19 60:15 61:5 62:11 textured (1) 116:7 66:9.16.16 thank (39) 1:11.12.15 67:3,7,10,13,21,21 3:16 26:19 53:14,16 68:25 62:23 77:4 104:4 69:1,3,6,7,8,14,18,19 118:19 74:9 76:1 77:19 78:23 88:17 122:8 170:7.9.11.17 92:6.12.17.22.23 180:9 207:17 93:6,8,10,12,13,17,23 208:19,20 209:1 94:2,7,17 95:15 96:15 97:2.25 99:15 101:11 213:7.10 102:21 117:17,18,23 thanks (5) 44:16 83:12 118:4.12.13 122:17 96:25 139:6 180:22 124:4 125:17 thats (110) 1:24 3:22 126:20,22 127:18 8:2 9:20 18:17 19:6,18 128:1.25 130:16 20:13 21:1 23:3.3 27:3 132:2,6,8,21,23 134:4 35:16 36:23 137:23 140:22 42:15,16,25 43:15,21 141:6.16.22 45:18 47:11,15 50:18 143:6,7,15,20 145:23 52:6,12,19 147:1 148:18,22,23,24 59:12,19,22 64:19 149-3 9 20 22 150-12 70.16 74.12 76.4 77:20 78:5,7 80:7 153:25 154:1,6,12,13,15,16,17,22,2485:25 87:11 89:10 156:14 158:12 160:16 90:18 91:22.22 93:5 161:2 163:18 103:14,21 104:8 165:17.18 168:4 105:24 108:12 109:20 177:14 188:23 189:5 111:4,21 112:25 121:3 195:9.17 122:17.21 126:6 128:3 196:2,15,18,25 129:9 131:11 132:23 197:4,8,11,15 200:4 134:2 135:2 136:3,23 203:6,13,23 205:13,15 138:14 140:6,16,16 tested (91) 9:5 16:5,8 143:1 144:22 145:11 21:23 22:15 41:17 146:17 151:11,16 46:4,16 47:2,15 50:13 154:20,25 155:6 51.10 21 22 53.1 158.9 14 160.12

54:13,15 55:24

56:5,7,23,23 57:6,8

58:8,10 59:1,5,18,22

175:3,24 179:25

60:5,6 62:14,19 119:9,10,12,12,17,18,20 212:2,3,5,6,7,12,13,16,18 164:16,19,23,23 167:1 169:14 172:1 173:6,19 25:22 48:16 60:5

181:16 184:3 185:16.21.23 186:20 187:8 188:1 192:1 193:15 194:2 196:16.18 200:6 203:25,25 208:14 therefore (30) 1:24 6:13 9:21 10:9 46:5,25 47:9,21 48:17 56:20 64:4 67:19 74:10 80:13.22 87:6 100:2 103:4 104:24 105:18 109:21 142:13 149:24 153:1 155:19 160:18 181:16 182:3 185:9 199:1 theres (13) 31:9 57:15 60:3 72:3 83:23 90:4 128:18 134:16 135:6 137:2 172:17 183:19 188:22 thermocouples (3) 27:22 58:3 197:6 theyd (3) 25:23 48:3 123.21 theyre (8) 37:21 38:3,3 48:24 128:3 151:2 191:19 192:13 theyve (4) 106:24 151:15 166:21 167:11 thick (3) 2:9 159:14,20 thickening (1) 98:10 thicker (1) 2:3 thickness (5) 9:14 97:17 101:18 116:22 123:10 thicknesses (1) 116:8 thing (13) 27:6 34:14 36:19 43:14 52:24 63:25 105:7 135:8 151:16 168:20 172:18 187:5.7 thinking (23) 55:14 62:7 65:20 78:17,18 79:9 80:8 86:6 93:4,11 98:13 110:15,20 125:1 130:4 154:20 155:7 167:12 185:20 191:24 197:4,10,15 thinks (3) 25:16 147:9 208:2 thinner (1) 80:1 third (17) 12:24 39:13 40:22 45:3 54:6 64:11 83:21 104:21 105:21 126:19 143:7 173:20 175.17 179.16 185.2 196:10 198:10 thoroughly (27) 16:1,7 17:15 47:22 48:18 49:7,16 53:4 58:7,13 60:22 62:14.20 63:14 64:6 69:16,19 74:16 102:2.5.17 103:17 108:17 110:5,12,24 145:17 though (13) 2:18 19:14 33:8 40:11 66:22 77:2 78:7 79:16 81:25 100:6 121:16 173:11 177.14 thought (18) 21:13,24

110:1 133:23 134:25 141:5 143:10 168:1 184:3 187:23 195:19 199:15 thoughts (1) 88:25 three (24) 2:22 46:8 54:1,10 70:6,9,10,20 71:6,25 72:13,14,24 73:2 76:5 132:20 151:12,21 172:6 190.8 21 198.23 200:15 206:22 threeline (1) 167:16 threemonth (1) 120:15 through (22) 2:4 7:22 14:13 51:6.7 52:9,15,16 77:14 83:21 96:15 98:25 116:11 125:2 135:12.14 139:6 142:14 164:9,17 203:21 211:10 throughout (3) 18:6 31:19 198:25 thursday (1) 213:13 thus (2) 97:25 199:8 ties (1) 151:10 tighten (1) 200:22 tim (1) 104:7 time (108) 2:4 3:3,14 4:8 9:6 10:23 12:6 14:13 16:5 20:24 26:10 34:21 39:15 40:22 41:16 43:9 45:20 47:6,24 52:1 53:9 58:25 59:15.21 62:10 66:20,24 67:4,13 69:14 73:10,12 77:1 78:17,18 81:10 82:2 83:2 85:21 86:15 87:16 93:5 94:11 98:5,23 104:2 109:25 110:2,15 111:3,4 115:16 118:16 122:19 130:16 134:1,6,11 136:1.6 139:20 141:15,20 142:7 147:3 154:14,14,16,19 156:19 157:17 161:9 165:23 166:5,21 167:11 168:23.24 169:3 170:22 171:24 172:17,19 176:25 180:18 182:24 185.7 17 20 25 186.2 190:15 196:18,18 200:24 201:11,13 202:12.25 203:23 206:19,24 207:19 208:3.24 211:12.21 212:9 timed (1) 97:9 timeline (5) 161:18,21 162:19.20 175:5 times (5) 70:20 107:5 142:1 183:3 188:25 timing (2) 94:25 175:19 timings (2) 177:12 178.18 title (2) 85:3 170:23 today (6) 1:4 35:1 119:5

173:11 177:6 203:22

73:14 87:9 97:23

todays (1) 1:4 together (11) 1:22 6:10 21:3 66:8 90:22 122:10 133:16 157:6 161:22 193:24 194:2 told (21) 7:25 10:24 17:1 21:13 28:8 31:2 42:11 46:10 48:1 60:19 76:17 105:12 118:2,11 123:4,13 175.11 176.4 177.21 201:1 210:16 tom (1) 200:10 tomorrow (3) 212:23 213:3,9 too (8) 73:19 85:12,13,24 86:13 87:1 96:3 205:5 took (8) 2:4 29:7 36:10.20 132:14 142:7 166:22 199:9 topic (14) 1:18 20:4 44:9 95:6 99:18 112:25 122:9,17 136:17 150:6 164:2 169:19,24,25 total (3) 156:17 209:18 210:13 totally (2) 176:19 211:18 tour (1) 120:15 towards (2) 125:21 132:12 tower (4) 107:9 111:5 203:6 204:2 trace (1) 144:17 transcript (2) 3:10,12 transfer (1) 139:9 transparent (3) 124:9,15,20 transpired (1) 139:25 tread (1) 86:19 treat (1) 157:15 treated (1) 166:23 trial (1) 203:21 triangle (1) 54:2 trigger (3) 40:14,24 90:3 triggers (1) 14:17 trouble (1) 67:9 true (16) 9:9,20 52:12 59:19,21,22 77:20 78:7 124:12.14 126:22 128:25 154:24 164:21 168:3 199:2 trumpet (1) 165:25 truncate (3) 17:15 18:9 19:23 truncated (3) 13:17 15:25 42:24 trust (3) 6:8 157:14 167:20 trusted (1) 69:23 try (6) 17:18 20:8 40:22 58:16 137:25 208:15 trying (10) 17:9 49:12 74:17 86:18,18,19 87:10 110:22 117:7 172:19 tryon (3) 166:6,8,21 tucked (1) 167:4 tuesday (1) 135:8 turn (8) 31:1 44:9

136:24 155:8 159:23 162:6 169:19 182:5 turned (1) 198:16 turning (3) 167:13 191:8 192:4 turns (2) 6:23 29:14 tweaks (6) 97:21 98:4,9,10,12,15 twice (1) 163:10 twoweek (1) 35:15 type (9) 26:14 37:22 90:9 123:17 137:21 159:14,20 160:9 211:18 types (5) 137:25 152:13 153:22 160:1 201:20 typical (3) 144:24 179:6 195:9

unprofessional (2)

194:21 195:21

unreliable (1) 154:23

unrepresentative (3)

62:14.20 127:18

unrivalled (1) 79:25

unsuitable (1) 88:18

until (17) 7:13 9:6,12

115:18,21 136:2 144:1

162:7 173:3 176:5.7

178:20 189:25 196:18

unsuspecting (1)

106:6 114:21

untrue (1) 77:10

unventilated (2)

151:8.15

169:15

update (3) 171:4 174:2 U 194:6 updated (1) 8:4 uk (2) 120:15 132:5 updating (1) 213:5 ukas (1) 145:7 upmost (1) 157:16 ultimately (2) 88:19 upshot (3) 11:1 136:21 147.25 unable (1) 146:22 uptake (1) 107:14 unacceptable (2) usable (1) 129:21 128:24 155:15 used (73) 2:8 11:5 unaware (1) 59:25 38:4,5 44:2 45:22 uncommon (2) 8:7 46:22 47:7,12,13,23 36:18 49:10.18 51:25 52:5 undergoing (1) 137:24 56:13,18 59:7 62:21 underneath (3) 31:4 70:25 77:15 54:3 74:23 79:15.20.20 81:3 understand (28) 5:20 84:20 89:7 96:11 23:5 25:13 26:1 30:19 97:18 102:9.14.19 38:7 40:22 49:13 104:12 117:1 122:4 56:20 60:2 73:11,13 123:14,17 124:1 97:11 123:12 124:6 125:24 126:25 127:19 126:2 127:15 132:13 128:14 129:5,15 134:6 138:4 147:13.17.23 138:4 139:23 140:4 152:4 165:2 195:23 141:2,6,11 143:4 200:25 208:14 212:9 147:21 152:24 154:15 understanding (28) 161:10 167:12 168:18 24:6 25:9 41:15 47:7 174:1 176:14 177:1 55:19 56:7 59:4 17 21 178:11 182:11,12 67:9 69:5 87:12 96:16 184:9 188:14 97:1 115:15 124:12 191:19,20 192:9 126:6 147:19 148:1 195:24 202:6 206:25 153:9 154:14 155:6 207:2 162:13 164:25 168:10 useful (3) 97:2 173:10

173:6.16 198:1

understood (9) 5:19

11:1 22:14 101:2

undertook (1) 120:16

unequivocal (1) 156:21

206:17 211:24

unfair (1) 207:15

unfortunately (2)

160:17 212:25

uniquely (1) 63:6

university (1) 68:13

unjustified (1) 207:9

81:24 86:5 89:11

102:6 129:6 138:2

182:11

157:4

168:19 179:19 180:5

unlikely (3) 4:9 153:13

unless (16) 13:23 15:6

17:8 33:2 40:19 50:24

uniformly (1) 189:24

unimaginable (1) 157:1

109:17 127:21 165:12

valid (1) 117:15
validate (2) 85:11,16
validatedcaveated (1) 85:19
validating (1) 91:5
valuable (1) 100:25
values (1) 204:6
variety (5) 102:9,14
104:12 117:1 202:8
various (3) 36:22
158:19 186:4

212:10

200:17

usher (2) 208:21 212:15

using (9) 73:18 74:18

89:14 105:22 106:1

usual (2) 207:23 208:24

uvalues (2) 80:1 163:1

uvalue (1) 130:2

112:3 138:5 180:5

ventilated (2) 151:14 199:3 verbal (1) 29:18 verbatim (1) 46:11 version (13) 13:2,7,17 14:7,8 16:19 19:4 66:10 121:7,19 139:11 154:2 160:16 versus (1) 58:9 vertical (1) 57:10 via (2) 156:9 202:7 views (5) 135:12,20,23,25 198:20 visibility (1) 114:20 visible (1) 115:11 visit (1) 120:25 vitally (2) 69:14,15 vocal (1) 194:20 volte (1) 202:9

W waffle (1) 85:5 wait (2) 99:7 176:4 waiting (2) 118:25 136:14 wakeling (2) 130:22 131:15 wakelings (2) 131:13 132:11 wall (14) 51:3 101:17,25 132:1 137:20,25 138:2 144:24 164:13 170:24 171:10 201:7,20,21 walling (2) 160:1 171:20 walls (1) 145:4 wanting (1) 6:4 wants (3) 91:13,14,14 waring (4) 126:10,13 127:7.9 warning (3) 58:16 61:5 130:2 warrant (1) 177:5 warranted (1) 185:10 warranty (1) 157:6 warren (14) 1:25 10:25 11:20.24 12:5 162:19 164:1 170:21 172:22 179:7 190:19 193:6 194:8,8 warrington (4) 145:8 146:14 148:21 149:18 wasnt (100) 6:12 8:4.13.19.22 10:9 11:24 13:18 14:1,5 15:8 17:20.22 22:9.18 24:16 36:18 42:18 45:9 46:19 47:23 49:12.23.25 60:5 65:20 70:23,25 71:9 73:16,20,22,22 74:1 75:20,25 76:3,14 77:10,11 78:8,17 79:7 80:5,15,22 81:5.13.13.15 83:2 87:6 89:4 91:8,10 94:6 97:13 98:22 99:14.25 102:2,15,16 106:4,5 108:3 111:11 117:5 124:18.18.25 130:8.15

149:15,15,23 150:4

169:5.18 171:25

166:3,8,21 168:7,7,14

172:18 173:3 176:4,7 181:19 183:25 192:15 196:15,25 197:10.13.18 210:17.17 watch (2) 60:23 76:7 way (38) 11:11 17:15 22:9,10,11 26:5 36:3 37:18 40:6 46:1 47:21 48:19 53:2,3 61:2 79:7 80.23 89.2 104.22 105:17 106:17 123:10 124:2.9 132:11 138:16 147:20 149:20 165:3 174:10 176:10 179:16 182:19 183:24 186:10,17,23 205:16 ways (1) 186:17 weasel (1) 180:10 website (7) 81:7 112:7 114:18 115:10,14,21 139:10 wed (15) 35:2 40:20 41:4 42:16,17 43:25 46.19 53.6 84.17 129:12 153:1 161:9 164:25 202:25 211:23 wedding (1) 204:17 wednesday (1) 1:1week (3) 88:6 213:4,4 weeks (4) 35:14 99:9 112:1.7 welcome (1) 1:3 went (13) 1:24 5:2 10:13 20:17 47:18 67:6 78:12 82:14 108:8 111:5 171:1 175:11 210:3 werent (22) 9:25 17:23 36:8 46:21 47:24 73:18 98:3 100:8 106:3 115:17 138:11 141:24 150:4 162:14,16,17 166:14 178:6 198:4 201:4 205:24 210:18 west (2) 104:7.7 weve (35) 8:10 11:8 12:14 28:19 34:2 38:16.17 42:5 56:12 60:4 66:23 73:2 81:10 106:7.23 112:11 122:10 129:13.18 139:19 145:17 149:11 152:22 158:21 181-25 25 182-1 3 183:19,20,24 188:17 190:1,2 192:7 whatever (4) 154:4 167:19 192:12 197:19 whats (6) 51:14 59:13 76:1 106:21 120:13 152:2 whereas (3) 15:22 78:16 167:14 whilst (5) 7:5 20:16 90:24 131:19 191:4 whitaker (2) 158:19,24 white (14) 27:20,24

28.11 19 36.1

158:18,24 159:1,1

193:5,12 194:20

195:12 198:18

whiteboard (24) 20:10 23:14 24:6.14 25:9.10 26:12 29:6 30:8,19 32:9 34:12 36:7.10.15 39:9.10.14.23 40:12,23 41:6 66:23 67:2 whites (1) 195:3 whoever (1) 149:18 whole (3) 48:12 69:8 89.23 wholesale (1) 190:5 wholly (1) 154:23 whom (3) 11:3 107:8 159:1 whos (1) 163:8 wide (1) 110:14 wider (7) 89:7,14 140:22 141:6 144:8 157:7 184:15 wiggle (1) 56:1 willing (1) 209:25 wind (1) 165:25 wise (2) 120:22 121:17 withdraw (2) 108:15 110:7 withdrawn (1) 115:25 withdrew (1) 212:17 witness (23) 1:9,11,21 16:16 20:4 38:25 53:21 118:23.24 119:6,9,17 141:25 170:7.16 206:8 208:14.19 209:7 212:6,12,16,17 wonder (1) 148:16 wondering (1) 169:23 wont (2) 129:23 213:2 worded (1) 106:17 wording (30) 46:7.8.11.15 48:8 74:15 84:4,10,13 102:3 103:23 107:7 114:21 115:18,22 179:8 180:3 181:16 184:7 188:18 189:1 190:3.3.6 191:6 192:4 193:23 194:1,3 198:3 wordings (1) 190:17 work (18) 18:8 35:1.3 36:16 61:4 68:16 88:24 118:14 133:3 144:16 169:12 176:13 189:18 195:23 198:12 200:5 205:3,4 worked (4) 18:4 107:17 147:20 200:14 working (8) 19:19 36:16 87:7 108:10 174:2,10 188:12 211:22 works (1) 52:7 worse (2) 130:5 185:14 worth (2) 91:5 109:3 wouldnt (50) 5:1 6:25 7:3,20,22,25 8:7 12:3 17:5 18:9 21:25 23:23 48:12 52:8 53:4.6 65:15 68:7 69:22 73:9 79:16,17 86:16 87:3 93.4 21 94.4 98.13 107:17 108:18 109:5 121:8 127:21.22 128:6 129:18 135:22

149:3,14,24 150:3 168:20 181:23 187:6 191:20 192:10 197:4.12 211:6 212:1 wouldve (1) 108:20 wrap (2) 184:12,18 writer (2) 172:5 173:22 writers (1) 171:4 writes (3) 138:17 147:8 198:18 writing (4) 37:5,16 158:18 164:24 written (2) 37:10 190:22 wrong (7) 33:21 48:13 109:19.20 117:5 162:12 210:25 wrote (2) 37:10 43:17 x (2) 57:14 94:21 yeah (8) 8:4 38:3 42:2 78:17 98:5 108:19 167:6 192:6 year (8) 111:14 142:13 164:8 175:4 195:14 201:5 202:11.19 years (3) 78:22 200:21 207:11 yesterday (15) 1:18 3:7 4:20 8:15 9:10 12:24 16:22 18:7 34:25 45:16 54:8 105:12 109:8 126:18 153:12 yet (2) 81:9 139:9 youd (1) 10:6 young (1) 68:12 youre (17) 2:25 5:7 19:4 26:8 50:22 53:13 90:18 92:10 113:15 118:1 121:2 130:25 140:17,23 165:15 170:9 208:17 yours (6) 37:6 43:2,6 124:5 157:2.19 yourself (5) 6:22 76:7 121:20 127:17 190:12 yousic (1) 124:8 youve (3) 151:18,18,19

zones (1) 160:2

0 (7) 142:18 151:20 153:19 203:10,18,20 205:4

1 (59) 9:11 27:3 30:23 31:3,9 32:16 35:11 39:4 41:23 44:11 48:5 67:5 70:16 74:4 75:5 87:18 88:7 90:16 97:7,9 99:3 100:19 102:21 113:9,16,22 114:13,22 115:1,5

125:4,7,9,11,15 131:2.24 132:19 135:18 136:11,12 137:2 138:20 139:13 147:11 151:1.11.15.23 159:12 174:15 179:4 180:20,21 181:8 203:16 210:3 214:3,5 10 (2) 213:9,12 100 (4) 4:15 24:15 201:16 204:8 1000 (1) 1:2 100mm (4) 57:11.13 151:5,7 **1030 (1)** 20:22 103mm (1) 151:9 1045 (1) 4:1 **105 (1)** 119:13 1050 (1) 188:16 10mins (1) 134:19 **11 (3)** 101:12 158:25 163:7 111 (1) 3:17 1113 (1) 97:10 1116 (1) 53:17 **1130 (5)** 4:4,8 53:12.16.19 114 (1) 9:1 **12 (5)** 3:18,22 13:8 14:20 57:20 121 (1) 155:17 125mm (2) 57:14 151:4 12millimetre (1) 28:10 12mm (7) 2:9 57:9,12 90:7,23 97:18 151:6 12page (2) 14:7 18:10 **13 (3)** 3:9 88:13 188:16 **130 (1)** 38:25 135 (28) 31:18 46:5,16 47:2,10 51:7 52:9,16 53:25 54:5.7.20.22 55:16 64:3 78:22 80:12 83:25 91:23 103:2 104:24 123:20 124:4,10,15 141:5 171:22 172:7 14 (9) 3:9.20 4:13 12:21 16:17 23:7 121:6 174:20 175:1 141 (1) 50:5 14th (1) 35:9 **15 (2)** 85:6 94:15 150mm (1) 116:9 16 (3) 28:3 119:22 147:8 160 (1) 204:8 169 (1) 143:23 17 (7) 14:20 20:5,15 29:11 104:6,9 105:13 17page (5) 13:17 18:10 60:11 121:5.19 17slide (1) 3:8 18 (85) 1:1 27:13 28:22 29:10,22 30:23 31:22 32:4,13,21 33:10,23 34:4,7,14,23 38:17,21 39:5,12 40:2,10,21,25 41:8,14 42:12,21 44:7 46:18,23 47:4,8,13 48:22 49:9 19 52:1,1,3,6,11 63:2,9,13,24 64:5 70:14,22 71:7,18,22

72:19 73:4,15,19 74:11 79:15 80:14 81:4 85:24 86:8,21 87:13 93:2 101:18 102:1 103:10 116:15 117:6,8 126:4 129:21 142:18 144:1 147:22 150:11 166:2 168:18 178:2 182:11 187:11 188:24 190:9 200:10 180 (1) 193:11 18m (27) 46:6 47:1,22 48:18 50:10 85:8.11 88:4 96:12 103:5 105:1 117:11 119:23 125:24 131:22 137:16 145:16 155:20 156:6,25 157:8 170:25 171:11 175:18 180:12 186:8 190:23 18metre (1) 71:18 19 (24) 20:10,22 25:12 27:1,8 29:3 32:17,18,23 33:20 35:11.14 40:13.24 42:8 60:6,10 66:23 67:5 122:11 159:3 195:13 210:6 213:13 190 (2) 132:3 209:16 19th (3) 35:22 36:6 210:5

2 (54) 9:11 20:22 26:24 27:3,21 31:15 35:2 37:10 45:2 51:1 52:9 57:14 58:3 70:17 79:22 90:2,4,12 95:23 96:22 97:8.19 101:12 111:23 113:1 116:19 117:16 125:5,15,16,21,21 131:25 132:19.20 136:6,11 137:3,5,7 138:15 139:12 147-4 11 151-12 17 159:17 164:8 171:15 180:20 181:3 182:5 188:21,23 20000 (7) 175:22 176:1,11,17 177:5,16,20 2005 (2) 103:2 104:24 201 (1) 202:3 2011 (1) 46:12

2013 (8) 18:6 54:7 137:15 139:3.12 153:13,16,16 2014 (48) 3:9 9:5 22:17 26:24 27:3 31:3 44:11 83:5,6 85:6 92:9 94:11,15 95:8,11 97:8 99:21 100:12 101:12 104:6 112:20 113:3 115:24 119:22 122:15 125:6 134:8 142:19.20 159:3 162:25 163:9 164:9 172:14 174:20 175:1,19 176:9,12 177:3.10.11.24 180:2 183:14 195:13 197:8 209:14 2015 (38) 87:16 89:20

90:5 126:9 130:22

141:4 143:1 144:1.11.22 150:11 158:1 161:15 163:1,7,9 169:20 170:21 171:2.5 174:18 175:4,16,19 176:5,7 178:1 179:2,5 186:5 188:16 190:19 192:22 194:6 198:15,17 200:10 210:4 2016 (4) 200:8 201:9,14,15 2017 (4) 203:5.25 204:25 206:5 **2018 (1)** 205:18 2020 (2) 1:1 213:13 205 (3) 119:5,12,15 20mins (1) 97:24 21 (3) 170:21 175:14,14 **22 (1)** 125:6 23 (6) 158:1,20,22 163:23 179:2 190:19 24 (3) 95:8,11 161:15 25 (2) 97:8 179:5 26 (2) 90:5 184:24 27 (4) 29:11 90:19 144:22 186:5 28 (1) 209:14 29 (1) 100:12 **295255 (3)** 101:12 117:17 160:17 2x (1) 151:4

3 (31) 70:18 72:1 73:1 74:22 75:5,19 92:9 95:9 96:6 113:3,9 132:2.7.19.23 135:5 137:3,6,11 146:18 151:13.18 158:17.22 167:19 179:6 188:21 189:1 201:23 202:1 204:7 30 (1) 97:24 30th (2) 120:11 121:15 31 (5) 8:25 89:20 90:19 206:9 10 **317 (1)** 170:12 **32 (1)** 154:1 **32page (2)** 150:12 33 (1) 28:4 335 (3) 170:4,11,14 **35 (2)** 27:12 28:22 35page (1) 154:2

4 (19) 57:4,22,22 90:22 117:18 120:2 133:17,18 134:17 146:8,19 150:24 151:13,19 153:20 158:17 159:24 179:5.15 4000 (1) 45:22 **410 (1)** 204:9 430 (1) 207:19 **431 (1)** 209:2 440 (4) 208:12,15,23

209:4

36 (2) 31:1 39:1

39 (2) 50:2,5

45 (6) 4:8,10,22 6:23 7:4.17 **450 (1)** 213:11 **476 (1)** 203:7 49 (1) 143:24

5 (14) 63:20 122:15 130:22 131:1.15 133:19 136:10,17,23 144:15.19.22 145:12 160:14 **5000 (5)** 77:24 78:12,18 155:14 159:9 50mm (2) 116:8 159:14 5th (1) 44:21

6 (27) 9:18,22 10:7 13:9 16:3 23:18 36:25 37:6.8 38:10 43:23 60:7,12 61:20 65:1 112:20 114:14 131:1 136:24 144:15,17,19,23 148:25 154:7 162:25 197.5 **61 (2)** 1:22 2:13 62 (1) 2:14 63 (2) 12:23 16:18 **64 (1)** 10:18 69 (1) 171:20 6millimetre (17) 1:19

8:16 12:7 14:25 15:5.20 16:21 23:10.25 24:22 57:16 58:2 59:8 75:14 98:16 99:12 199:24 6mm (2) 2:6 13:3

7 (5) 83:8 87:22 126:13 131:14 206:10 713 (2) 20:6,15 **714 (1)** 21:10

61:21 149:2 154:8 194:13 197:7 198:17 53:1 55:17 78:23 83:10 95:15 96:15 102:22 124:4 127:18 128:1 132:20 134:4 139:14 140:21 141:6 142:4 143:5,15,20 165:17 177:14 84141 (3) 51:10 52:9,16 104:23 145:15 150:12 154:1 63:23 64:2,23 123:6.13

8 (9) 23:11 57:20 58:4 80mm (1) 159:20 8414 (23) 21:14 22:9 841412002 (1) 51:8 84142 (6) 83:24 103:1 841422005 (6) 51:8 8414part (1) 164:8 8millimetre (9) 28:9,20 59:8 60:8 65:22 75:15 98:17 99:13 199:25 **9 (3)** 14:23 171:5 193:1 92 (1) 205:11 953 (1) 130:22