

OPUS 2

INTERNATIONAL

Grenfell Tower Inquiry

Day 45

September 30, 2020

Opus 2 International - Official Court Reporters

Phone: +44 (0)20 3008 5900

Email: transcripts@opus2.com

Website: <https://www.opus2.com>

1 Wednesday, 30 September 2020
2 (10.00 am)
3 (Proceedings delayed)
4 (10.10 am)
5 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to
6 today's hearing. Today we're going to hear evidence
7 from one of the Building Control inspectors with the
8 Royal Borough of Kensington and Chelsea who was
9 concerned with the refurbishment of Grenfell Tower.
10 Yes, Mr Millett .
11 MR MILLETT: Good morning, Mr Chairman. I now call
12 Mr John Hoban, please.
13 MR JOHN HOBAN (sworn)
14 SIR MARTIN MOORE-BICK: Thank you very much, Mr Hoban.
15 Would you like to sit down and make yourself
16 comfortable.
17 Now, Mr Hoban, before I invite Mr Millett to put
18 some questions to you, there are just a couple of things
19 I would like to say.
20 The first is: I understand that there are things you
21 would like to say to the people who were affected by the
22 fire . You will be given an opportunity to do that , and
23 I think it would probably be most convenient if you were
24 to do that at the end of your evidence. All right? But
25 we'll make sure you get that chance.

1

1 THE WITNESS: Thank you.
2 SIR MARTIN MOORE-BICK: The other thing is that we have
3 a break during the morning and during the afternoon in
4 any event, but if you feel that you need a break from
5 time to time, would you just indicate that to me, and we
6 can ensure that it happens?
7 THE WITNESS: I will.
8 SIR MARTIN MOORE-BICK: Good. Thank you very much.
9 Yes, Mr Millett .
10 Questions from COUNSEL TO THE INQUIRY
11 MR MILLETT: Mr Chairman, thank you very much.
12 Mr Hoban, good morning.
13 A. Good morning.
14 Q. Can I start by thanking you very much for coming to
15 the Inquiry and assisting us with your evidence in our
16 investigations .
17 If you have any difficulty understanding the
18 questions that I'm asking you, I'm happy to repeat the
19 question or put the question in a different way.
20 Can I also ask you to keep your voice up so that the
21 transcriber , who sits to your right , can get down your
22 evidence on to the transcript , and add that if you nod
23 or shake your head, that doesn't go on to the
24 transcript , so you have to say "yes" or "no" as the case
25 may be.

2

1 If you need a break, as you have heard from
2 the Chairman, at any time other than the scheduled
3 breaks that we plan to take during the morning and the
4 afternoon, please just indicate and we can take a break.
5 Now, you have made two witness statements for
6 the Inquiry, I think. They are in a folder on your
7 desk. You have also made a police statement which I'm
8 going to take you to as well.
9 Can I ask you to go to your first statement, please,
10 that's {RBK00033934}. Is that your first statement,
11 dated 30 November 2018?
12 A. Yes, it is .
13 Q. Can you go to page 12 {RBK00033934/12}, please. Is that
14 your signature?
15 A. It is .
16 Q. You have also provided exhibits JEH/1 to 5 with the
17 statement. Just for the transcript -- no need to turn
18 that up -- those are {RBK00033936} to {RBK00033931}
19 inclusive .
20 Can I ask you: have you read this statement
21 recently, Mr Hoban?
22 A. I have.
23 Q. Can you confirm that the contents are true?
24 A. Yes.
25 Q. Can I now take you to your second statement. This is at

3

1 {RBK00050416}. This is dated 9 July 2019. Is that your
2 second statement?
3 A. It is .
4 Q. Can we please go to page 24 {RBK00050416/24} --
5 A. Yes.
6 Q. -- where you will a signature above the date. Is that
7 your signature?
8 A. Yes, it is .
9 Q. Now, you have also provided exhibits JEH/6 and JEH/7
10 with that statement, and their references are
11 {RBK00050415} and {RBK00050414} respectively. There is
12 no need to look at those, I'm just reading those into
13 the record.
14 Have you read this , your second statement, recently?
15 A. I have.
16 Q. Thank you, and can you confirm that the contents are
17 true?
18 A. Yes. I would say that, at the time of writing this
19 statement, I didn't have access to various documents at
20 the time, so my answers would be more detailed now with
21 some of the information that I've got in my possession
22 now.
23 Q. Very good. Well, we will see how we go with that.
24 Now, the Inquiry also has a copy of the draft
25 statement provided by the Metropolitan Police but not

4

1 signed by you. But as I understand it, there are some
 2 corrections which you have made to it. That should be
 3 in your witness bundle in front of you. It's at
 4 {HOB00000218}.

5 Now, if you would just look at that, we can see from
 6 the front page that it's not been signed. We understand
 7 from your legal representatives that you annotated this
 8 statement and returned it to the Metropolitan Police on
 9 14 February 2018. Is that right?

10 A. Yes.

11 Q. If you go back, please, to be shown {RBK00033934}. This
 12 is your first Inquiry statement. Can I ask you to go to
 13 page 1, paragraph 2.

14 A. Yes.

15 Q. You say there:

16 "As per the Witness Statement Protocol, I confirm
 17 that I have provided a statement to the police regarding
 18 this matter. Although I have yet to formally sign that
 19 statement, I confirm that to the best of my recollection
 20 the matters stated within that statement are true and
 21 accurate. I consent for that statement to be disclosed
 22 to the Public Inquiry."

23 Is the annotated statement that we've just looked
 24 at, or just referred to, {HOB00000219}, the statement
 25 that you're referring to there?

5

1 A. Could you repeat the numbers, please? Sorry.

2 Q. Yes. It's {HOB00000219}, if we could put that up on the
 3 screen in front of you.

4 A. Yes.

5 Q. Yes, thank you.

6 You have made some amendments to it. Can I show you
 7 one of those, and just ask you to confirm something. If
 8 you would be shown page 11 {HOB00000219/11} in this
 9 document, please, you will see that at about a quarter
 10 of the way down there's a paragraph break which starts:

11 "I was aware new windows were being fitted ..."

12 Do you see that? Do you see that?

13 (Pause)

14 About a fifth of the way down, there's a paragraph
 15 indentation, and then a line that starts, "I was
 16 aware ..."

17 A. Oh yes, yes.

18 Q. Thank you.

19 Now, if you go down a little bit, four lines from
 20 that, you say:

21 "As far as I can recall I went up on the hoist on
 22 three occasions."

23 A. That's incorrect.

24 Q. Can you explain what you mean there, or what you would
 25 like that to say?

6

1 A. Six occasions, as far as I can recall.

2 Q. But three occasions with Qas, I think?

3 A. Yes, I believe so.

4 Q. Subject to that correction, and you will see also that
 5 there are some parts -- perhaps you can explain -- of
 6 this statement in red and parts in green, could you just
 7 explain for us what you indicate by the red and the
 8 green?

9 A. I can't exactly remember. One was that I wanted
 10 something taken out.

11 Q. Yes.

12 A. And the other colour was I wanted it included.

13 Q. As we understand it, the green was to go out --

14 A. Yes.

15 Q. -- and the red was to come in. Would that be right?

16 A. Yes.

17 Q. Just for an example of that, while we're on this page,
 18 just to be absolutely accurate, if you look about
 19 two-fifths of the way down this page, you'll see that
 20 the first red addition there, or the first red words,
 21 can be found in the line:

22 "There are no specific guidelines for [and then you
 23 have added in red] this Council's building control
 24 surveyors."

25 A. Correct.

7

1 Q. So that's an addition you would wish to make?

2 A. Yes, yes.

3 Q. So all the reds are additions you would like to make and
 4 the greens are those to go out, thank you very much.

5 Subject to that, Mr Hoban, can you confirm that the
 6 contents of this statement are, with those corrections,
 7 true to the best of your knowledge and belief?

8 A. There's one further amendment at the end.

9 Q. Yes, we can turn to the last page, please
 10 {HOB00000219/13}.

11 A. No, not that -- sorry, not that page. Yes. There's
 12 a comma -- sorry, bear with me ...

13 (Pause)

14 Q. If it's a comma, then we may be able to find it later
 15 rather than interrupt --

16 A. Right. It's in relation to a fire safety regulatory
 17 reform order. What it indicates is -- it should all
 18 read as one paragraph and not just fire safety and then
 19 the regulatory --

20 Q. Very well. Subject to that potential correction, which
 21 we'll find during the break, can you confirm that this
 22 statement is true to the best of your belief and that
 23 you adopt it as your evidence?

24 A. Yes, I do.

25 Q. Thank you very much.

8

1 Finally on this, there are some exhibits with your
 2 police statement. Just for the transcript, these are
 3 {MET00071032} to {MET00071033}, and that's in the record
 4 now.
 5 Final question on this: have you discussed the
 6 evidence that you're going to give today with anybody
 7 before coming here?
 8 A. Just my counsel.
 9 Q. Right. When you say just your counsel, do I take it
 10 that you didn't discuss the substance of the evidence
 11 you're going to give?
 12 A. Oh, no, no.
 13 Q. Thank you.
 14 I'm going to start with some questions about your
 15 qualifications, Mr Hoban, if I may.
 16 Your qualifications and experience are set out,
 17 I think, in your CV, which you exhibited as JEH/6 to
 18 your second witness statement. Can we look at that,
 19 it's {RBK00050415}, please. You won't find that in the
 20 file.
 21 A. I won't?
 22 Q. No, look on the screen.
 23 A. Yes.
 24 Q. Is that your CV?
 25 A. Can we scroll up a bit?

1 Q. That's the first page of it.
 2 A. Right.
 3 Q. We can see from that that you --
 4 A. Yes, I've signed it, yes, that is my CV.
 5 Q. At the bottom right-hand corner, that's your signature?
 6 A. Yes.
 7 Q. We can see that you have a BTEC ordinary certificate in
 8 building studies which you obtained in 1982.
 9 A. Yes.
 10 Q. And a BTEC higher certificate in building studies
 11 obtained in 1985.
 12 A. Yes.
 13 Q. Am I right that your professional experience includes
 14 working as a junior technical officer in the
 15 Building Regulations division and later than that
 16 a technical assistant in the District Surveyor's Service
 17 of the Greater London Council?
 18 A. Yes.
 19 Q. And that was from 1979 to 1986?
 20 A. Yes.
 21 Q. Since 1986, up to the end of March 2017, you worked,
 22 I think, as a senior Building Control surveyor at the
 23 Royal Borough of Kensington and Chelsea.
 24 A. Yes.
 25 Q. You have no other professional qualifications, I think?

1 A. No. I'm an associate member of the Association of
 2 Building Engineers.
 3 Q. Yes, and am I right that you effectively worked your way
 4 up from a junior position?
 5 A. Correct.
 6 Q. And retired on 31 March 2017?
 7 A. I resigned.
 8 Q. Was there any particular reason why you resigned?
 9 A. Yes.
 10 Q. Can you tell us very briefly what those are?
 11 A. I resigned because I had enough. I wasn't able to do
 12 the job that -- how I was trained to do, and it was
 13 affecting my health, and I just decided that I didn't
 14 want to work there anymore.
 15 Q. Right, okay. We may come back to that later on.
 16 On page 2 {RBK00050415/2} of your CV, if we just go
 17 to that while we have it on the screen, you explain your
 18 role at RBKC, and you set it out at some length for much
 19 of that page.
 20 Can I just summarise that for people watching. Is
 21 it right that you dealt with Building Regulation
 22 applications, which included review of documents and
 23 site visits?
 24 A. Correct.
 25 Q. And you gave general and specific advice on

1 Building Regulations matters; yes?
 2 A. Yes.
 3 Q. And advised junior colleagues.
 4 A. Yes.
 5 Q. And you dealt with enquiries from building professionals
 6 and the public.
 7 A. Yes.
 8 Q. And also investigated dangerous structures where you
 9 were asked to do that.
 10 A. Yes.
 11 Q. And liaising with other colleagues and departments and
 12 statutory bodies, such as the LFEPA.
 13 A. Yes.
 14 Q. Now, I'm going to come later on to examine with you your
 15 role within the department, the Building Control
 16 department at RBKC.
 17 Can you just confirm that at the time you were
 18 allocated to the Grenfell Tower project in the latter
 19 part of 2013, and more accurately we'll look at in
 20 a moment, you had about 35 years' experience as
 21 a Building Control surveyor in central London?
 22 A. Yes.
 23 Q. Yes.
 24 Now, you mentioned professional memberships, and you
 25 said you were an associate member of the Association of

1 Building Engineers; is that right?
 2 A. Yes.
 3 Q. And also an associate member of the Chartered
 4 Association of Building Engineers. Are they different
 5 or the same organisation?
 6 A. The association got chartership, so it changed from
 7 being --
 8 Q. I see.
 9 A. -- an association and they got chartered association.
 10 Q. So the ABE became the CABA?
 11 A. Correct.
 12 Q. Right. Did you do anything, like an exam or
 13 an interview, to become an associate member of the
 14 Chartered Association of Building Engineers?
 15 A. I filled in an application form and I sent my CV in, and
 16 that's the level of membership that they gave me at that
 17 time.
 18 Q. Right. And when was that, can you remind me?
 19 A. I think it was ... sorry.
 20 (Pause)
 21 Q. You do say on page 1 January 2013.
 22 A. Yeah, 2013, sorry.
 23 Q. As a member of the CABA, were you required to undertake
 24 CPD, continuing professional development?
 25 A. There was no actual standard set out for my grade of

13

1 officer .
 2 Q. Right.
 3 A. But I did take CPD.
 4 Q. You did. We will come to that.
 5 You say there was no actual standard set out for
 6 your grade of officer . What was your grade of officer ?
 7 A. I was an associate member.
 8 Q. Right.
 9 Did they lay on any seminars or conferences for you
 10 to attend?
 11 A. We had in-house seminars from time to time --
 12 Q. Right.
 13 A. -- in the office , and I did attend other training .
 14 I went on a day course prior to becoming a member for
 15 the Chartered Institute . I also attended a day course
 16 in -- at Wandsworth Town Hall when part M of the
 17 Building Regulations got changed, I went on that.
 18 Q. Those were courses organised by the institute , were
 19 they, or the association?
 20 A. No.
 21 Q. Or were they organised by RBKC?
 22 A. They weren't organised by RBKC. I -- the institute one,
 23 yes, for the membership, that was organised by the
 24 actual institute itself --
 25 Q. Right.

14

1 A. -- which I attended, I think, in 2012. The one relating
 2 to part M, I saw it somewhere and I asked my line
 3 manager if I could attend.
 4 Q. Right.
 5 Based on your professional experience and years of
 6 service, were you eligible for one of the higher grades
 7 of membership of the CABA?
 8 A. I would have to take a professional -- or take
 9 an examination. It could be through interview, and
 10 I would have to put a thesis together.
 11 Q. I see. Why didn't you go through those hoops?
 12 A. At the time, I was looking after my mother.
 13 Q. I see.
 14 A. I was her carer.
 15 Q. I follow.
 16 What prompted you to become an associate member of
 17 the CABA in 2014?
 18 A. I knew they were changing the rules. It was going to
 19 be ... they were setting the bar higher as regards --
 20 for membership. So I was told that, so I applied. It
 21 was my intention to go mature applicant's entrance, but
 22 as I say, because I was looking after or helping looking
 23 after my mother, that took up a considerable amount of
 24 my time, and I never did that.
 25 Q. Yes, I see.

15

1 Can I then turn to CPD and training within RBKC,
 2 which we touched on a moment ago.
 3 In that role at RBKC, were you required to undertake
 4 training?
 5 A. Yes.
 6 Q. Now, RBKC has provided your training records to
 7 the Inquiry. I just want to show you those.
 8 {RBK00050414}, please. Page 1 is the first page of
 9 that, and I want to look at page 2 {RBK00050414/2}.
 10 This is your training record, and at page 2 we can see
 11 that your records go back to January 1999. You can see
 12 at the bottom there:
 13 "NLP diploma workshop - part one. Training centre.
 14 29 January 1999."
 15 So that's when they started.
 16 If we can scroll up to the first page
 17 {RBK00050414/1}, we can see that, according to this
 18 record, they end on 7 November 2016. Do you see that?
 19 A. Yes.
 20 Q. Are you able to tell us whether this record covers all
 21 internal training that you undertook at RBKC during this
 22 period?
 23 A. No, it doesn't.
 24 Q. Right. What does it not cover?
 25 A. As I say, I had attended outside courses. We also had

16

1 in-house seminars from time to time that were organised.
 2 Q. And those aren't on this record?
 3 A. They're not.
 4 Q. Are they on other records?
 5 A. I would have had handwritten records at the time, but
 6 I don't believe they're available now.
 7 Q. Right, so you would have had them. Were they yours or
 8 were they RBKC's?
 9 A. They were mine.
 10 Q. And you don't have them now; can you explain why not?
 11 A. When I left, I no longer kept them.
 12 Q. Right. So you kept them in the office --
 13 A. Yes.
 14 Q. -- and left the office and now don't have access to
 15 them?
 16 A. Correct.
 17 Q. I see.
 18 A. There was other -- as I say, we would -- when regulation
 19 or new approved documents came in, we would have
 20 in-house lunchtime seminars on the changes to the
 21 Building Regulations.
 22 Q. Right. You would have in-house seminars. We will come
 23 back to that in a moment.
 24 Just on this document, your internal records,
 25 I think, indicate that you had training on matters which

17

1 aren't directly relevant to Building Control. So,
 2 for example, if you look halfway down page 1, you get
 3 training on the "Local Government Pension Scheme - 2014
 4 pension changes".
 5 A. Yes.
 6 Q. Is that right? You would have training on all kinds of
 7 things that weren't directly part of your job?
 8 A. Yes.
 9 Q. If you look at the WorkRite training you undertook in
 10 February 2015, you can see that there are a number of
 11 entries there --
 12 A. Yes.
 13 Q. -- for 18 February 2015 --
 14 A. Yeah.
 15 Q. -- including stress awareness, manual handling, mobile
 16 workers, et cetera.
 17 Was that specific to Building Control or was that
 18 just more general training?
 19 A. That was for the council.
 20 Q. When you say, "That was for the council", what does that
 21 mean?
 22 A. It was a requirement that officers did these WorkRite
 23 training courses, and that was automatically registered
 24 on to the system when you completed the actual course.
 25 Q. I see.

18

1 A. That's my understanding.
 2 Q. I follow.
 3 In the last -but-one of those WorkRite entries, we
 4 can see "WorkRite Fire Safety Awareness Training". Was
 5 that to do with the Building Regulations and your role
 6 as a building surveyor --
 7 A. No.
 8 Q. -- and control officer?
 9 A. No, that was general -- or as far as I can recall, that
 10 was to general fire safety awareness in the office.
 11 Q. I see.
 12 Looking a little lower down the same page, we can
 13 see that there is a Complywise fire safety programme on
 14 which you get 100% as an online grade on 1 June 2010.
 15 A. Yes.
 16 Q. Did that relate to your role as a Building Control
 17 surveyor?
 18 A. Not that I'm aware of. I couldn't be certain.
 19 Q. Looking at page 1 as a whole, Mr Hoban, which spans
 20 a period from March 2009 to November 2016, do any of
 21 these courses or meetings or seminars relate to your
 22 role as a Building Control surveyor?
 23 A. Dangerous structure training.
 24 Q. Yes, I see. Anything else?
 25 A. Not there.

19

1 Q. Right.
 2 You mentioned lunchtime seminars provided by RBKC --
 3 A. Yes.
 4 Q. -- specifically on the Building Regulations.
 5 A. Yeah.
 6 Q. Did you have any internal training on approved
 7 documents?
 8 A. Yes, as and when they came out --
 9 Q. Right.
 10 A. -- or there was amendments.
 11 Q. I see. Who delivered that training?
 12 A. It was generally managers in the office.
 13 Q. Right.
 14 Can you remember getting any specific training on
 15 Approved Document B?
 16 A. Yes, it would be some years ago --
 17 Q. Yes.
 18 A. -- when the new document came out. We also had in-house
 19 training when there was changes to the regulations,
 20 I believe in 2010.
 21 Q. Yes, and who delivered those, managers again?
 22 A. Managers again.
 23 Q. Can you give us some names?
 24 A. It would be John Jackson and Mr Gammon, Mr David Gammon,
 25 I believe.

20

1 Q. Who would receive those training courses or seminars?
 2 A. Surveyors.
 3 Q. Right. I see.
 4 Did you get training on any aspect of Approved
 5 Document B in particular, or on Approved Document B
 6 generally?
 7 A. As I say, we would talk about amendments. We would go
 8 through the amendments when they came out and discuss
 9 them. Likewise, when there was -- there was
 10 a communities performance standards, we had -- I can
 11 recall having an afternoon seminar on that.
 12 Q. Did you get any training at any stage on technical
 13 industry guidance, for example the CWC standard?
 14 A. No.
 15 Q. What about the Building Control Alliance technical
 16 notes?
 17 A. No.
 18 Q. Right. We may come back to those shortly.
 19 Can we just look at another record for your personal
 20 development or training: {RBK00048696/6}, please. This
 21 is your personal development plan. We can see that this
 22 is from 2014 through to 2015, July 2014 to
 23 February 2015, and if you look at item 1, it says:
 24 "Keep up to date with changes in the
 25 Building Regulations etc. It is expected that there

21

1 will be a number of changes before May 2015 due to the
 2 findings of the Housing Standards Review.
 3 "Date this will be achieved: Feb 15.
 4 "Progress: Will look through draft proposals for
 5 ADH, ADM, ADQ etc."
 6 Do you know who came up with the goals for your
 7 selected personal development plan in particular?
 8 A. It would be the line manager that did my performance
 9 review.
 10 Q. Was that John Allen at this time?
 11 A. What is the date of this one again, please?
 12 Q. Well, this is a running record.
 13 A. Yeah.
 14 Q. And this covers this period.
 15 A. I think, yes, this would be John Allen.
 16 Q. I see.
 17 Were those goals selected because you were not up to
 18 date with the Building Regulations?
 19 A. No, they were new documents that came in, or were
 20 amendments at that time.
 21 Q. I see. So do we take from that answer that every
 22 surveyor in your position or at your level in RBKC's
 23 Building Control department would have been told as
 24 a development goal to keep up to date with the changes
 25 in the Building Regulations?

22

1 A. I believe so, but I wouldn't have direct knowledge of
 2 what their personal development plan was.
 3 Q. If you look down at item 5, it says:
 4 "Provide training opportunities to support CPD
 5 requirements of professional associations. RBKC
 6 commitment to provide 2 days training per year."
 7 Did RBKC fulfil that commitment?
 8 A. Er ...
 9 (Pause)
 10 There would have been a certain amount of lunchtime
 11 seminars, and so I don't know whether that would have
 12 mounted up to two days, but it was considered acceptable
 13 to read professional magazines and other information on
 14 the regulations. That was considered training as
 15 regards the two days' training.
 16 Q. I think you told us that your associate membership of
 17 the CABE didn't have a CPD requirement. Did that mean
 18 that you didn't take advantage or weren't required to
 19 take advantage of the two days' training per year
 20 offered by RBKC to support membership?
 21 A. No, as I say, I would read documents --
 22 Q. Right.
 23 A. -- and magazines, and ...
 24 Q. Right.
 25 Now, you say in your second statement that you

23

1 attended seminars which you paid for yourself --
 2 A. Yes.
 3 Q. -- and you attended those in your own time. Did you
 4 keep any records of those?
 5 A. Yes.
 6 Q. Where are those records, do you know?
 7 A. I can obtain them for you.
 8 Q. Have you been asked for those documents before?
 9 A. Not that I'm aware of.
 10 Q. Right. Are they in your personal possession?
 11 A. At home. I would check. I would think they -- I can
 12 get copies.
 13 Q. From memory, can you tell us whether any of those
 14 seminars which you paid for yourself covered Approved
 15 Document B?
 16 A. It may have formed part of the day. I can't recall that
 17 far back.
 18 Q. Right.
 19 Did any of those seminars cover things like fire
 20 performance on external wall constructions, or
 21 fire safety classification of materials to be used in
 22 external wall constructions?
 23 A. No, not that I'm aware of.
 24 Q. All right.
 25 Now, if we look at your second witness statement,

24

1 please, {RBK00050416}, I would like you to look at
 2 page 1, paragraph 3. You do identify one of these
 3 seminars as one operated by ABE, and you say that one of
 4 the seminars was on means of escape, BS 9999, and that's
 5 "Fire safety in the design, management and use of
 6 buildings, code of practice".
 7 That relates to non-residential buildings, I think,
 8 doesn't it?
 9 A. Yes. That was after I left Kensington.
 10 Q. Yes, and that's 11 June 2017.
 11 A. Yeah.
 12 Q. Why were you attending a seminar on that matter at that
 13 time?
 14 A. It was my intention to go back into Building Control
 15 once I left the council.
 16 Q. Right, I see. So you were keeping yourself up to date?
 17 A. Correct.
 18 Q. I follow.
 19 Now, if we go back to your appraisal and personal
 20 development plan a little bit later on, this is a
 21 slightly different document, {RBK00048753/3}, this
 22 records -- this is under, "Targets" -- you attend
 23 a seminar by John Allen on 22 September 2015, if you
 24 look under "Mid Year Comments", second item down. Do
 25 you see that?

25

1 A. Yes.
 2 Q. What did that seminar cover?
 3 A. I can't recall.
 4 Q. Right. It says just above that:
 5 "Attended training by LABC on (Date to be supplied
 6 by JEH)."
 7 What did that cover? Well, did it happen, I think
 8 is the first question?
 9 A. Sorry, I can't recall.
 10 Q. Right. Do you remember having any training by the LABC
 11 in your time at RBKC?
 12 A. The only thing that comes to mind is whether this -- in
 13 relation to part M, whether that was -- which I attended
 14 at Wandsworth Town Hall.
 15 Q. Right.
 16 A. That would -- I would think that would reflect that
 17 particular time, because, as I say, they introduced
 18 considerable amendments to the old part M.
 19 Q. Right, and other parts as well, I think?
 20 A. Yes.
 21 Q. But not B?
 22 A. Not B.
 23 Q. Can we look at {RBK00048852}, please. This is your
 24 tri-borough appraisal and personal development plan 2016
 25 to 2017, and if you go to page 2 {RBK00048852/2},

26

1 please, you can see there that under "Targets", it says
 2 that there are normally five targets, and if you look
 3 down there, you can see in the bottom right-hand corner,
 4 under "Success Criteria", there are eight examples to be
 5 provided of professional development, and those are to
 6 be provided by February 2017. You can see that one of
 7 those was Building Control related courses. Do you see
 8 that?
 9 A. Yes.
 10 Q. Did you achieve that?
 11 (Pause)
 12 A. I would have attended some in-house seminars.
 13 Q. I see. But not outside?
 14 A. Not that I'm aware of.
 15 Q. On those Building Control related courses provided
 16 in-house, did any of those specifically at that time
 17 cover Approved Document B or industry guidance?
 18 A. I can't recall.
 19 Q. Right.
 20 Did you attend any technical seminars or CPD
 21 activities in the period 2011 to 2016, in other words
 22 just before and during your involvement with Grenfell?
 23 A. As I say, I would attend in-house seminars, as I say,
 24 read magazines. I mentioned that course that I went on
 25 relating to part M, and we did have a company come in

27

1 and give us a presentation on -- under part P as well.
 2 Q. Right.
 3 Did any of the training that you got here, which is
 4 indicated by this document, cover the requirements of
 5 part B of the Building Regulations or Approved
 6 Document B?
 7 A. I remember when regulation 38 came in we had a -- and
 8 there was other amendments at the time, and we had
 9 a seminar or in-house training at the time. I think
 10 that was about 2010, actually, when that came in. And
 11 we went through generally the changes in the regulations
 12 at that stage.
 13 Q. I see. Did that or any of the seminars cover
 14 overcladding of high-rise residential buildings at all?
 15 A. No.
 16 Q. If we go to your second witness statement, please, at
 17 page 2 {RBK00050416/2}, you also refer to seminars
 18 there. If we look at paragraph 4(iii), right at the top
 19 of the page, you say:
 20 "Attending from time to time seminars provided by
 21 manufacturers and other organisations relating to
 22 Building Regulation matters."
 23 A. Yes.
 24 Q. Have you ever attended seminars by -- and these are
 25 examples -- Celotex?

28

1 A. I may have some years ago, some -- considerably some
2 time ago.
3 Q. Right. Can you just help us a bit with your memory on
4 that: roughly when do you think you attended a seminar
5 given by Celotex?
6 A. It may have been 2005, something like that. It was some
7 time --
8 Q. Right.
9 A. -- previously.
10 Q. Do you remember what the subject of the seminar was or
11 presentation?
12 A. It was mainly to do with thermal conductivity,
13 I believe.
14 Q. Right.
15 What about Kingspan? Did you ever attend a seminar
16 given by Kingspan?
17 A. I can't recall.
18 Q. Right.
19 What about a company called Alcoa, later Arconic?
20 A. No.
21 Q. Siderise?
22 A. No.
23 Q. When Celotex gave the seminar or presentation that
24 you've referred to, did they come direct into
25 the council offices?

29

1 A. They were lunchtime seminars that were set up by one of
2 the managers who was responsible for doing that, and
3 what would happen was they would invite architects and
4 surveyors in, and it would be -- lunch would be given,
5 sandwich sort of buffet, and then it would be
6 a presentation between an hour and an hour and a half
7 just going through generally the product.
8 Q. Was it common for manufacturers of building products to
9 come to RBKC's Building Control department and make
10 seminars or presentations about their product?
11 A. There would be a number of in-house seminars. For
12 further details on that, we had what was known as the
13 RBKC Building Control News, and it would list out -- it
14 was a newsletter, and that would list forthcoming
15 lunchtime seminars.
16 Q. Right.
17 A. I don't know who that was sent to. It was printed out,
18 and I don't know whether it was emailed. Somebody else
19 was responsible for that.
20 Q. Over what years do you remember receiving RBKC News?
21 A. From when it started. I believe it was some years -- it
22 would be about 2000, something like that.
23 Q. Right.
24 A. It was a newsletter, I believe, produced by Paul Hanson,
25 and it would be -- as I say, it would be what was going

30

1 on as regards Building Control. It would sometimes give
2 a profile of a surveyor, it would sometimes give
3 guidance on certain aspects of the Building Regulations
4 for architects and surveyors.
5 Q. How frequently did it come out?
6 A. I'm not certain. As I say, I looked at this information
7 prior to coming here, and there would be -- there was
8 a number of them. It would go generally spring.
9 I don't know whether there was other editions.
10 Q. Right.
11 You say it was produced by Paul Hanson; did
12 RBKC News or the editions that you saw have a particular
13 emphasis on fire safety?
14 A. It would call up fire safety in relation to sometimes
15 domestic properties. I believe there was some advice on
16 fire curtains. It would sometimes give a profile of, as
17 I say, the surveyors, and it would sometimes give a --
18 I'm trying to think of the correct words, sorry. It
19 would give, like, a page case study of a particular
20 project.
21 Q. Looking a little bit further down this page in front of
22 us, (iv) you say:
23 "Reading technical literature and other information
24 relating to products/systems."
25 Did that include Celotex RS5000 insulation board,

31

1 for example?
2 A. Yes. When I was dealing with the project, I looked that
3 information up.
4 Q. Right. Well, we'll come back to that in a little bit
5 more detail later on.
6 Did it include product literature produced by
7 Kingspan in respect of K15 Kooltherm insulation?
8 A. I may have looked at that at another time in relation to
9 U-values.
10 Q. I see. What about TP10?
11 A. Again, it would have been -- if I had -- it wasn't at
12 the time of Grenfell, it would have been prior, if I was
13 looking for a U-value requirement in relation to
14 an extension.
15 Q. What about Reynobond ACM rainscreen panels, particularly
16 PE rainscreen panels produced by Arconic?
17 A. I looked at the BBA certificate for Reynobond at the
18 time of -- I believe I did, at the time of -- when I was
19 dealing with the Grenfell Tower project.
20 Q. You did, did you?
21 A. Yes.
22 Q. Right. Well, we'll certainly come back to that later
23 on.
24 Did you ever read product literature relating to
25 Siderise rainscreen cavity barriers, do you think?

32

1 A. Yes.
 2 Q. Again, was that at the time of the Grenfell project?
 3 A. Yes.
 4 Q. I see.
 5 Now, you say in (vii) on the same page:
 6 "Contacting technical departments of manufacturers
 7 and product providers when I needed advice on such
 8 matters."
 9 Did you do that at any time in respect of any
 10 product used on the Grenfell Tower?
 11 A. Not that I'm aware of.
 12 Q. I see.
 13 Just going back to the practices within RBKC for
 14 a moment, was there any system or practice within RBKC
 15 where if someone else other than you went to a seminar
 16 or a conference, they would share what they learnt with
 17 the rest of the team?
 18 A. Sometimes. It wasn't consistent.
 19 Q. No, I understand. The reason I ask is that José Anon,
 20 if that's how you pronounce his name --
 21 A. Yes.
 22 Q. -- who was the deputy Building Control manager under
 23 John Allen, says at paragraph 13 that that would happen,
 24 but you I think recall that, do you, happening from time
 25 to time?

1 A. I know when I went on the part M one I actually gave
 2 a presentation, I think to the office, on that, to
 3 actually the planners as well.
 4 Q. I follow.
 5 A. We used to have -- every so often, I think it was once
 6 a month, we'd have a Planning/Building Control meeting,
 7 and I actually -- I do recall giving a presentation on
 8 what I'd learnt at that seminar to planners and my
 9 colleagues.
 10 Q. Very well. I just need to read a reference in. The
 11 reference to Mr Anon's statement is {RBK00029897/3}, and
 12 the reference is to paragraph 13.
 13 I don't need to show you that, but building on your
 14 last answer, can I show you a document: {RBK00001221},
 15 please. This is a set of minutes of the London District
 16 Surveyors Association general meeting on
 17 15 October 2015, Mr Hoban, at the time of 10 o'clock.
 18 You can see who was there and the councils they
 19 represented.
 20 A. Yeah.
 21 Q. And you can see that Kensington and Chelsea was
 22 represented by José Anon.
 23 If you go to page 4 {RBK00001221/4}, you can see
 24 that there, at the very end of the large box, just above
 25 paragraph 11, "LABC":

1 "PC has a large office building (nine storeys) that
 2 has PIR cladding as opposed to rockwool insulation over
 3 18 metres high (BCA Technical Guide 18). At the LABC
 4 conference last year there was a presentation on this
 5 subject and the cladding has to be of limited
 6 combustibility, but Kingspan confirmed that their PIR
 7 insulation does burn. PC attended a recent LFB seminar
 8 and advised that their smoke control guide and
 9 suppression system guide are due soon. In addition 9999
 10 and 9991 revisions are due next year."
 11 Now, you weren't there. My question is: did anybody
 12 at RBKC attend the LABC conference in 2014, in other
 13 words the year before this one --
 14 A. No, it would only be managers that would go to those.
 15 Q. Right. Do you remember whether anybody, like a manager,
 16 went to the LABC conference in 2014?
 17 A. I wouldn't know.
 18 Q. Did anybody come back from that conference or was there
 19 any word in the office about what had been learnt at
 20 that conference about the cladding having to be of
 21 limited combustibility?
 22 A. No, I don't recall that.
 23 Q. Did Mr Anon share the information from this 2015 London
 24 District Surveyors general meeting with you?
 25 A. I don't recall ever seeing that.

1 Q. All right.
 2 Can I then turn to a different topic, which is
 3 regulations and guidance.
 4 Now, in general terms, Mr Hoban, would I be right in
 5 thinking that, as a building surveyor with some 35 years
 6 of experience or so, you were familiar with the
 7 requirements of schedule 1, part B to the Building
 8 Regulations 2010?
 9 A. Yes.
 10 Q. Would you also be familiar with the guidance in Approved
 11 Document B?
 12 A. Yes.
 13 Q. Did you deal with part B of the Building Regulations and
 14 Approved Document B regularly as part of your role as
 15 a surveyor within the BCO?
 16 A. Yes.
 17 Q. What about parts B3 and B4 specifically?
 18 A. Yes.
 19 Q. Let's just examine ADB in a little bit more detail, and
 20 I want to focus on external fire spread, if I may.
 21 A. Yeah.
 22 Q. Can I ask you to go to {CLG00000173/95}, please, which
 23 is ADB. 95 is section 12, "Construction of external
 24 walls", and if we look at the bottom right-hand corner,
 25 we can see, "External wall construction", and underneath

1 that, paragraph 12.5.
 2 A. Yes.
 3 Q. Were you familiar with that part of ADB, that section?
 4 A. Yes.
 5 Q. So the rule or the guidance:
 6 "The external envelope of a building should not
 7 provide a medium for fire spread if it is likely to be a
 8 risk to health or safety."
 9 That was something you knew well, did you?
 10 A. Yes.
 11 Q. Then it says in the next paragraph -- well, I should
 12 read it all :
 13 "The use of combustible materials in the cladding
 14 system and extensive cavities may present such a risk in
 15 tall buildings .
 16 "External walls should either meet the guidance
 17 given in paragraphs 12.6 to 12.9 or meet the performance
 18 criteria given in the BRE Report ... (BR 135) for
 19 cladding systems using full scale test data from
 20 BS 8414-1:2002 or BS 8414-2:2005."
 21 Did you understand from this, at the time of the
 22 Grenfell Tower project and your involvement in it, that
 23 ADB contained essentially two potential routes to
 24 compliance with the functional requirement of part B4 of
 25 the Building Regulations?

1 A. It gave you four options, as far -- you could use the
 2 Approved Document B, you could do a desktop study, you
 3 could offer a fire engineering solution, or you could
 4 use BR 135.
 5 Q. Which of those routes to compliance was followed on
 6 Grenfell Tower?
 7 A. At the time, I thought it was AD -- Approved Document B.
 8 Q. What do you mean by that in detail? Could you just
 9 explain?
 10 A. That the actual panels themselves were class 0, that the
 11 insulation was suitable for use on buildings of that
 12 height, and that cavity barriers would be provided in
 13 the appropriate location .
 14 Q. When you say that the insulation was suitable for use on
 15 buildings of that height, what do you mean by that?
 16 A. Well, the information that I looked up on the LABC
 17 website said that the Celotex RS5000 was suitable for
 18 use on buildings of that height.
 19 Q. Was there any suggestion -- we'll come back to that
 20 later on -- that the applicant for Building Control
 21 approval on Grenfell Tower was relying on BR 135 and the
 22 test criteria under 8414 to demonstrate compliance?
 23 A. Not that I recall .
 24 Q. Right. So do I take it from that answer and the
 25 previous answer that, when it came to the insulation,

1 you thought that the materials being used were of
 2 limited combustibility?
 3 A. No. In fairness, I should have asked for a -- I realise
 4 now that I should have asked for a full report. But at
 5 the time, the information that I looked up on -- as
 6 regards the Celotex, it was suitable for use on that --
 7 or for a building of that height.
 8 Q. Right. Well, we'll come back to that, but I just want
 9 to get your answer clear at this stage.
 10 Did you think that the Celotex RS5000 complied
 11 because it was of limited combustibility, or complied
 12 because it had passed an 8414 test in accordance with
 13 BR 135?
 14 A. I considered it okay by reading the information on the
 15 LABC website.
 16 Q. I'm sorry, that's not quite an answer to my question.
 17 A. Yeah.
 18 Q. Did you think that the Celotex complied because it was
 19 a material of limited combustibility --
 20 A. No.
 21 Q. -- or because it had passed a BS 8414 test in accordance
 22 with BR 135?
 23 A. 8414.
 24 Q. Yes. I see. So when you answered my question a moment
 25 ago whether the applicant for Building Control was

1 relying on BR 135 and 8414, I think you said no. Is
 2 that right or is it wrong?
 3 A. Sorry, I'm -- could you repeat that again, please?
 4 Q. Yes. You said, I think, in answer to an earlier
 5 question whether there was a suggestion that the
 6 applicant for Building Control approval on
 7 Grenfell Tower was relying on BR 135 and an 8414 test --
 8 A. Yes.
 9 Q. So what is your evidence?
 10 A. That they were relying on the material as a BS 8414 --
 11 meeting the criteria for that and suitable for use on
 12 buildings over 18 metres.
 13 Q. Right. So that was the route to compliance?
 14 A. Yeah.
 15 Q. Not, as you put it earlier, ADB?
 16 A. Yes, sorry. Yes. The --
 17 Q. I see.
 18 Can we then move on a little bit, staying on this
 19 page, to the question of external surfaces. This is
 20 regulated by section 12.6, and it says:
 21 "The external surfaces of walls should meet the
 22 provisions in Diagram 40."
 23 We don't need the rest of that.
 24 A. Yes. Yeah.
 25 Q. If we go to diagram 40, it's at page 97

1 {CLG00000173/97}, and can we just look together at it
 2 slowly. Here it is. If you look at e -- it's divided
 3 up into five, a, b, c, d and e, and e is in the middle,
 4 and it says "Any building".
 5 A. Yes.
 6 Q. We can see the requirement for a building that is more
 7 than 1 metre from a relevant boundary here, don't we?
 8 A. Yes.
 9 Q. With a part of it which is above 18 metres.
 10 A. Yes.
 11 Q. Did you understand there that the guidance says that,
 12 above 18 metres, the external wall surface
 13 classification should be class 0, national class?
 14 A. Yes.
 15 Q. Or class B-s3, d2 or better, which is the European
 16 standard.
 17 A. Yes.
 18 Q. You understood that?
 19 A. Yes.
 20 Q. Did you know at the time of your involvement in Grenfell
 21 what those classifications meant?
 22 A. Yes.
 23 Q. What did they mean?
 24 A. Well, a class 0 was a combination of two tests: a fire
 25 propagation test and the surface spread of flame test.

41

1 Q. Yes. And to be clear, are you able to give us the
 2 numbers?
 3 A. BS 476-6 and BS 476-7.
 4 Q. Yes.
 5 A. Then from that they would give a standard, whether it
 6 met that.
 7 Q. Right. Those are the tests.
 8 A. Yes.
 9 Q. Were you aware of the different ways in which national
 10 class 0 could be achieved?
 11 A. Only through what I've just said.
 12 Q. Right. The reason I ask is because there is some
 13 further guidance in appendix A, and I just ask you to
 14 look at that. It's page 120 of Approved Document B
 15 {CLG00000173/120}, and I just want to look with you at
 16 appendix A.
 17 A. Ah, yeah.
 18 Q. If you look at paragraph 5, you can see where the
 19 relevant tests are set out, and then the European tests
 20 as well.
 21 A. Mm.
 22 Q. Do you also recall that there is a paragraph in Approved
 23 Document B which deals with linings?
 24 A. Yes, there is.
 25 Q. And were you aware that class 0 could be achieved if the

42

1 material was of limited combustibility throughout?
 2 A. Yeah. Yes, yes.
 3 Q. Right, okay. Perhaps we don't need to find it.
 4 If we go back to paragraph 12.6, this is back to
 5 pages 95 and 96 {CLG00000173/95}, we can see that there
 6 is a reference there to external surfaces of walls. Did
 7 you have a view at the time of what "external surfaces
 8 of walls" meant?
 9 (Pause)
 10 A. The actual surface itself.
 11 Q. And at the time of the Grenfell Tower refurbishment, did
 12 you understand that that requirement under
 13 paragraph 12.6 applied to the rainscreen, the panels?
 14 A. To the external surface.
 15 Q. When you say "the external surface", do you mean to the
 16 panels or to the external surface of the panels?
 17 A. The external surface of the panels.
 18 Q. Thank you.
 19 If we go on, please, to section 12.7 on page 96
 20 {CLG00000173/96}, please, this deals with insulation
 21 materials/products, and it says:
 22 "In a building with a storey 18m or more above
 23 ground level any insulation product, filler material
 24 (not including gaskets, sealants and similar) etc. used
 25 in the external wall construction should be of limited

43

1 combustibility (see Appendix A). This restriction does
 2 not apply to masonry cavity wall construction which
 3 complies with Diagram 34 in Section 9."
 4 At the time of Grenfell Tower and your involvement
 5 in it, what did you understand the phrase "limited
 6 combustibility" to mean?
 7 A. That would be in accordance with the test. I think
 8 it's ... it's either BS 476-4 or BS 476-11. One is for
 9 non-combustibility and the other one is for limited
 10 combustibility.
 11 Q. At the time of your work on Grenfell Tower, how did you
 12 understand that provision, 12.7, to apply to
 13 a rainscreen cladding system?
 14 A. Well, the insulation would ... well, the insulation
 15 should be of limited combustibility. As I referred
 16 previously, I -- it said that it was suitable for use on
 17 buildings over that height because it passed the other
 18 test.
 19 Q. What, the 8414 test?
 20 A. Yes.
 21 Q. As I say, we'll come back to that.
 22 You just mentioned insulation. Can I just ask you
 23 whether you agree that paragraph 12.7 also applies to
 24 products with an insulating core, such as window infill
 25 panels, for example?

44

1 (Pause)
 2 A. Yes.
 3 Q. What about insulating materials which are packed behind
 4 window surrounds, would that be covered by 12.7?
 5 A. Sorry, could you repeat the question?
 6 Q. Yes.
 7 Did you think at the time of your involvement in the
 8 Grenfell Tower project that insulating materials which
 9 are used to pack window surrounds or used behind window
 10 surrounds --
 11 A. Inside or outside?
 12 Q. Well, that's a good question. But window surrounds --
 13 A. Yeah, round the outside.
 14 Q. -- forming part of a rainscreen cladding system.
 15 A. It would have to comply with that.
 16 Q. What about insulating materials packed into cavities
 17 which are created by the overcladding system or scheme?
 18 A. Yes.
 19 Q. At the time of the refurbishment, did you have any views
 20 or thoughts about the relationship between the
 21 requirements of paragraph 12.7 and a composite panel,
 22 an ACM composite panel with a PE core?
 23 A. It's not something I considered at the time.
 24 SIR MARTIN MOORE-BICK: Sorry, it was something you
 25 considered or it was not something you considered?

45

1 A. Not. As I say, I was concerned that it had the surface
 2 spread of flame, the actual -- that it was class 0.
 3 I didn't consider the material inside at the time to be
 4 a filler material. My understanding of filler material
 5 at the time was filler material to make good joints and
 6 to round the -- as I say, to finish off the insulation,
 7 as it were.
 8 SIR MARTIN MOORE-BICK: Thank you.
 9 MR MILLETT: Was it your understanding at the time of your
 10 involvement in the Grenfell Tower refurbishment that,
 11 when a building has a storey with a floor level over
 12 18 metres in height, paragraph 12.7, as we can see here,
 13 applies to the whole of the external wall construction
 14 and not only to those parts above 18 metres?
 15 A. Yes, in that -- in this particular case, yes.
 16 Q. Finally on this topic, I want to look very briefly, if
 17 we can, at what is said in ADB about cavity barriers.
 18 A. Yes.
 19 Q. All right? Can we look at page 96 {CLG00000173/96},
 20 paragraph 12.8, under the heading "Cavity barriers",
 21 just below where we were looking, and it says:
 22 "Cavity barriers should be provided in accordance
 23 with Section 9."
 24 We're going to come on to look at this later on in
 25 your evidence, but at this point I just want to ask you:

46

1 did you understand at the time that cavity barriers were
 2 required in the cladding?
 3 A. Yes.
 4 Q. And just breaking that up a bit, first of all, at the
 5 line of the compartment floors and walls?
 6 A. Yes.
 7 Q. And what about around openings, such as windows?
 8 A. Yes.
 9 Q. What about at the junction of the top of the cladding
 10 and the crown of the building; did you think --
 11 A. I didn't -- at the top, yes. I didn't consider we had
 12 control of the crown, because it wasn't a concealed
 13 space.
 14 Q. You say, "I didn't consider we had control of the
 15 crown ..."
 16 A. Yes.
 17 Q. "... because it wasn't a concealed space."
 18 I'm not sure I follow that. Are you saying the
 19 crown was outside your remit as a Building Control
 20 officer?
 21 A. My understanding of the regulations was that
 22 cavity barriers were for concealed spaces.
 23 Q. Right. That I think I do understand, but I think the
 24 answer to my question is that the crown itself wasn't
 25 outside your remit as a Building Control officer; you

47

1 were still required, were you not, to assess whether or
 2 not --
 3 A. Oh, yes, yes, I did assess it, sorry.
 4 Q. Fine.
 5 SIR MARTIN MOORE-BICK: But I think the point you were
 6 making, if I have understood you correctly, was that
 7 there was no concealed space in the crown that would
 8 require a cavity barrier within the crown; is that the
 9 point?
 10 A. Yes, yes.
 11 SIR MARTIN MOORE-BICK: Thank you.
 12 MR MILLETT: Mr Anon in his statement -- and this is
 13 {RBK00029897/3}, paragraph 12 -- says that RBKC
 14 Building Control was generally informed of any changes
 15 and updates to the Building Regulations and guidance by
 16 the LABC. Is that correct?
 17 A. Yes, as far as I can recall.
 18 Q. Do you recall having access to a provider called IHS?
 19 A. Yes.
 20 Q. Were you aware that technical and other information
 21 concerning the Building Regulations was available online
 22 via IHS?
 23 A. Yes.
 24 Q. Did you access information such as that yourself?
 25 A. From time to time, yes.

48

1 Q. When did you do so? What would prompt you to do so?
 2 A. If I wanted to look up a product sometimes --
 3 Q. I see.
 4 A. -- I would do that.
 5 Q. Do you remember whether you did so for the specific
 6 purposes of the Grenfell Tower refurbishment?
 7 A. Not that I can recall .
 8 Q. Did the information which came through the IHS website
 9 include any information on fire safety?
 10 A. We would look -- or I would use it when I was looking up
 11 products or particular information. I don't think we
 12 actually got, as it were, bulletins , for want of
 13 a better word.
 14 Q. Right.
 15 Do you recall using the IHS information source to
 16 look up information on fire safety generally or
 17 specifically in relation to any query you had on the
 18 Grenfell Tower project?
 19 A. Not that I can recall .
 20 MR MILLETT: Right.
 21 Mr Chairman, we're going to move to a slightly
 22 different topic -- not a hugely different topic, but
 23 nonetheless a different one -- which I won't finish
 24 before a natural break. It might be convenient to take
 25 a break now.

49

1 SIR MARTIN MOORE-BICK: Yes. Shall we say 11.35 to give
 2 Mr Hoban time to get back to the room and have a break?
 3 MR MILLETT: Yes.
 4 SIR MARTIN MOORE-BICK: Yes.
 5 Mr Hoban, we're going to take a break at this point.
 6 I hope you have been holding up all right so far .
 7 THE WITNESS: Yes, thank you.
 8 SIR MARTIN MOORE-BICK: We will stop now and come back at
 9 11.35.
 10 Please, while you're out of the room, don't talk to
 11 anyone about your evidence or anything relating to it .
 12 All right?
 13 THE WITNESS: Right.
 14 SIR MARTIN MOORE-BICK: If you go with the usher, she' ll
 15 look after you.
 16 THE WITNESS: Thank you.
 17 SIR MARTIN MOORE-BICK: Thank you very much.
 18 (Pause)
 19 Right, Mr Millett , 11.35.
 20 MR MILLETT: Thank you.
 21 SIR MARTIN MOORE-BICK: Thank you.
 22 (11.17 am)
 23 (A short break)
 24 (11.35 am)
 25 SIR MARTIN MOORE-BICK: Right, Mr Hoban, ready to carry on?

50

1 THE WITNESS: Yes.
 2 SIR MARTIN MOORE-BICK: Good, thank you.
 3 Yes, Mr Millett .
 4 MR MILLETT: Thank you, Mr Chairman.
 5 Mr Hoban, right at the start of your evidence you
 6 referred to your police witness statement and a comma.
 7 A. Yes.
 8 Q. I have been helpfully taken by your legal representative
 9 to this comma at {HOB00000219/12}. I just want to clear
 10 that out of the way before we go back to your
 11 substantive evidence.
 12 If you look at the second paragraph break, you will
 13 see a third paragraph which starts:
 14 "My role did not involve ..."
 15 Do you see that?
 16 A. Yes.
 17 Q. Then there is a second sentence which says:
 18 "In relation to the fire safety, risk assessment and
 19 management of the building, I had no involvement in
 20 that."
 21 Can you help us, which is the comma you --
 22 A. It's the comma an after "safety".
 23 Q. "Fire safety"?
 24 A. Yes.
 25 Q. And do you want the comma there or not there?

51

1 A. Removed, please.
 2 Q. Right. So that should read, "In relation to the
 3 fire safety risk assessment ..."
 4 A. Yes.
 5 Q. "... and management of the building ..."
 6 Is that correct?
 7 A. Correct.
 8 Q. Thank you very much.
 9 Can I then go back to your evidence on technical
 10 matters. I want to turn to the question of what you
 11 knew about industry guidance, please.
 12 Were you familiar with the detail of BR 135 at the
 13 time of your involvement in the Grenfell Tower
 14 refurbishment?
 15 A. I was aware of the document, but I hadn't read it
 16 substantially .
 17 Q. Right. You hadn't read it substantially .
 18 Is BR 135 something that you would normally be
 19 required to refer to regularly as part of your role or
 20 not?
 21 A. No.
 22 Q. Not?
 23 A. That was the first time I'd come across it .
 24 Q. You say that was the first time; when was the first time
 25 you came across it?

52

1 A. Sorry. I was aware of it being in the regulations.
 2 Q. Right. Is that because it's referred to in --
 3 A. In the approved document.
 4 Q. Which we looked at before.
 5 A. Yes.
 6 Q. Yes.
 7 A. What it is, there's -- in various approved documents it
 8 refers to various British Standards in relation to
 9 all -- many aspects of the regulations.
 10 Q. Right. Have you or had you ever read it at all?
 11 A. No.
 12 Q. Right.
 13 A. I was aware of the document, but I hadn't --
 14 Q. Right. Well, let's see how we go with this. Maybe we
 15 can take this a little bit more quickly, then.
 16 Can I show you the document. It is {BRE00005554},
 17 please. This is the second edition, published in 2003.
 18 There was a third edition published in 2013, Mr Hoban.
 19 This is the first page of it. If we can go to page 7
 20 {BRE00005554/7}, please, there is a reference to
 21 a building, Garnock Court, Irvine, under figure 1, and
 22 this publication followed the fire in that building in
 23 the summer of 1999.
 24 Were you aware that there had been a tower block
 25 fire in Scotland in 1999 which had given rise to the

53

1 production of BR 135?
 2 A. I may have --
 3 Q. At least the second edition.
 4 A. Well, I may have seen it in the news on television.
 5 Q. Right. I see.
 6 Can we go to page 9 {BRE00005554/9}, please, where
 7 the document explains the mechanism of rapid fire spread
 8 up a building, and it explains it both in text and with
 9 a picture.
 10 A. Yes.
 11 Q. Were you familiar, perhaps from other reading, with this
 12 picture or diagram and what it's showing?
 13 A. No, not at the time.
 14 Q. Did you understand at the time the general proposition
 15 that cladding systems can create the opportunity for
 16 rapid unseen flame spread, causing an unacceptable risk
 17 to the occupants?
 18 A. I may have been -- or I would have been aware of it, but
 19 not -- it wasn't in the forefront of my thoughts.
 20 Q. Right.
 21 Did you know that there were principles such as
 22 these which warned that external cladding systems offer
 23 a potential route for fire spread through multistorey
 24 buildings, and that close attention should be paid to
 25 the installation cavity barriers, which would inhibit

54

1 the spread of flame?
 2 A. Yes.
 3 Q. And specifically do so in the event of a fire involving
 4 an external cladding system?
 5 A. Yes.
 6 Q. You did.
 7 Were you aware -- and we can take this from page 10
 8 {BRE00005554/10}, paragraph 3, under the heading
 9 "Cavities" -- of the general principle shown by
 10 figure 4, that if flames become confined or restricted
 11 by entering cavities within the external cladding
 12 system, they can become elongated as they seek oxygen
 13 and fuel to support the combustion process?
 14 A. I was -- sorry, could you repeat the question?
 15 Q. Well, I can do it by reference to the text, actually, in
 16 the middle of the page. Under "Cavities", the bullet
 17 point there, which is under the heading "Interaction
 18 with the external envelope", in the third line it says:
 19 "If flames become confined or restricted by entering
 20 cavities within the external cladding system, they will
 21 become elongated as they seek oxygen and fuel to support
 22 the combustion process. This process can lead to flame
 23 extension of five to ten times that of the original
 24 flame lengths [and this is in bold] regardless of the
 25 materials used to line the cavities. This may enable

55

1 fire to spread rapidly, unseen, through the external
 2 cladding system, if appropriate fire barriers have not
 3 been provided."
 4 And there is a reference to figure 4.
 5 A. Yes.
 6 Q. You knew the principle, even if you didn't know the
 7 text?
 8 A. Yes, yes.
 9 Q. You did?
 10 A. Yes.
 11 Q. Right.
 12 Then in the same vein, same page, under paragraph 5,
 13 it refers to the fire service intervention, and it says:
 14 "Where the external cladding system is not
 15 significantly contributing to the spread of fire from
 16 one storey to the (sic), then intervention by emergency
 17 services should prevent continued fire propagation by
 18 way of the building envelope. However, [and this is the
 19 important bit] where the external cladding system is
 20 contributing to the fire propagation rate, the potential
 21 exists for the fire to affect multiple storeys
 22 simultaneously, thus making firefighting more
 23 difficult."
 24 Again, although you didn't read the text of this at
 25 the time, were you aware of that as a general principle?

56

1 A. By seeing fires on the news, yes.
 2 Q. By seeing fires on the news?
 3 A. Yeah.
 4 Q. Can you help me with that, when did you first see fires
 5 on the news that you're --
 6 A. Well, one that comes to mind was the Dubai fire .
 7 Q. You say the Dubai fire ; in fact , there were two fires in
 8 2015. Were you aware of earlier cladding fires on
 9 high-rise buildings?
 10 A. Yes.
 11 Q. There were some in the UAE in 2012 to 2013. Were you
 12 aware of those, do you think, at the time?
 13 A. If they'd been on the news, yes.
 14 Q. They'd been on the news. Did you see those?
 15 A. I couldn't say. I would expect myself to have seen
 16 those in the news.
 17 Q. Okay. We will come back to some specific examples later
 18 on in your evidence, but I'll note the answer for this
 19 purpose.
 20 Can we just move on to page 17 {BRE00005554/17} of
 21 this document, please, and I just want to look with you
 22 at this section which says "System-specific details :
 23 ventilated cavities ". In the third paragraph down there
 24 it says:
 25 "Once the fire is within the cavity, it may

1 propagate unseen through the system if adequate fire
 2 barriers are not employed. This may result in
 3 significant risk of system collapse or fire break out at
 4 significant distances from the fire origin ."
 5 Now, again, were you aware of that as a general
 6 principle, even if not the specifics of --
 7 A. Yes, yes.
 8 Q. Then under the heading, same page, of "Performance of
 9 materials in fire ", "Insulation ", it says:
 10 "The performance of insulating material when
 11 subjected to this type of fire scenario has been
 12 outlined in the previous section. Typically,
 13 non-combustible materials are used in these systems as
 14 it is difficult to prevent fire entering the cavity and
 15 spreading through the insulating material."
 16 Again, same question, Mr Hoban: were you aware of
 17 that as a general principle, if not the text?
 18 A. Yes, yes.
 19 Q. Then at the bottom of page 17, under the heading
 20 "External panel", it says:
 21 "Materials used for external panels used can vary
 22 from non-combustible through to combustible."
 23 Then there is a first bullet point:
 24 "Non-combustible materials and materials of limited
 25 combustibility [and that's a heading] (as defined in

1 Tables A6 and A7 of Approved Document B). Typically
 2 cementitious-based products through to natural products
 3 such as stone veneers and coated metal panels."
 4 Then if you look at the next page {BRE00005554/18}
 5 in the last two sentences, it says:
 6 "Metal panels such as aluminium may fall from the
 7 system if the strength of the fixings is affected by the
 8 local fire source. They may also melt, generating
 9 molten metal debris if exposed directly to the sustained
 10 flame envelope."
 11 Again, were you familiar with that as a principle,
 12 if not the text of this particular guidance document?
 13 A. Not at the time.
 14 Q. Right.
 15 That's the 2003 edition. As I said before, there
 16 was an edition published in 2013, and that's at
 17 {CEL00003364}. I just want to identify one or two
 18 further things in this document, which was a revision.
 19 Just to be clear, I think you've said you didn't
 20 read this document before --
 21 A. Correct.
 22 Q. -- the Grenfell Tower project or at the time.
 23 Can we just jump to page 11 {CEL00003364/11} and
 24 look at paragraph 2.1. In the third paragraph down it
 25 says that there are potentially conflicting

1 requirements. Do you see that?
 2 A. Yes.
 3 Q. It says:
 4 "These potentially conflicting requirements are
 5 highlighted in the area of innovative materials and
 6 designs, which are being driven by the need to construct
 7 more energy-efficient and sustainable buildings. In
 8 order to meet these design challenges, the range of new
 9 and innovative materials and designs of systems being
 10 offered as potential solutions has also increased the
 11 volumes of potentially combustible materials being used
 12 in external cladding applications."
 13 So is that something -- I know you weren't aware of
 14 the text at the time, but is that a principle or view or
 15 understanding that you were aware of?
 16 A. It's not something I considered at the time.
 17 Q. Right.
 18 Then looking at page 13 {CEL00003364/13}, if we can,
 19 this is in the context of external cladding systems
 20 offering a route for fire spread through multistorey
 21 buildings and the need for cavity barriers, similarly to
 22 what we saw in the 2003 edition. At paragraph 3.3.2 on
 23 that page it says this:
 24 "Cavities .
 25 "Cavities may be incorporated within an external

1 cladding system, or may be formed by the delamination or
2 differential movement of the system in a fire . If
3 flames become confined or restricted by entering
4 cavities within the external cladding system, they will
5 become elongated as they seek oxygen and fuel to support
6 the combustion process."

7 Then it says the same thing as the 2003 edition.

8 So, again, were you aware of that principle at this
9 time -- this is 2013 -- still being very much a live
10 principle?

11 A. Could you go through that again, sorry?

12 Q. Yes, of course.

13 A. Right.

14 Q. It's about cavity barriers.

15 A. Yes. I was aware that cavity barriers needed to be
16 provided.

17 Q. Yes, and that the reason they did so is because if
18 flames become confined or restricted by entering into
19 cavities in the external cladding system, they'll become
20 elongated as they seek oxygen and fuel to support the
21 combustion process? That's why they're important.

22 A. Yes, I'm aware of that.

23 Q. Yes.

24 If you go straight on to page 22 {CEL00003364/22},
25 let's look at paragraph 6.4 -- actually, sorry can we

1 just move back, page 19 {CEL00003364/19}, sorry.
2 I skipped over too fast.

3 At page 19 there is a paragraph I just want to look
4 at with you. This is under the heading of "6.3
5 System-specific details: rendered systems", and then on
6 the right-hand side of the page, under 6.3.2,
7 "Fire barriers", it says:

8 "If fire enters a void in the system, whether that
9 void is created by a fire or is part of an existing
10 design, and the insulation is exposed to the fire
11 source, any combustible material present may become
12 involved, and there is potential for the fire to
13 propagate throughout the system if adequate fire
14 barriers are not installed. Since a cavity is likely to
15 be present behind the insulation boards in LFS, it is
16 important that this potential is recognised, and
17 adequate fire-stopping is provided, using fire barriers
18 or fire-stopping details to maintain the system's
19 stability in the case of fire."

20 Is that something that you were aware of?

21 A. As I say, with cavity barriers, yes.

22 Q. Yes, and then if we turn to page 20 {CEL00003364/20} at
23 paragraph 6.3.4 -- I think, in fact, I don't need that.

24 I'll just go straight to page 22 {CEL00003364/22},
25 paragraph 6.4, probably quicker, "Ventilated cavity

1 systems", and in the second paragraph there it says:

2 "If the fire is able to enter the cavity, it may
3 propagate unseen through the system if adequate fire
4 barriers are not employed. This may result in
5 significant risk of system collapse, or in the fire
6 breaking out at significant distances from its origin."

7 Again, was that something you were aware of at the
8 time of --

9 A. As regards cavity barriers breaking up, yes.

10 Q. Yes.

11 It goes on at the bottom of that subparagraph to
12 say:

13 "In order to counter the possibility of rapid fire
14 spread and potential system collapse, the design and
15 selection of materials used to construct these systems
16 should address these issues, including the provision of
17 fire barriers."

18 Again, you took it from that, did you --

19 A. Yes, fire barriers, yes.

20 Q. There are a number of other parts of this which say very
21 much the same thing, but if we can look at 6.4.1,
22 "Performance of materials in fire", "Insulation":

23 "As it can be difficult to prevent fire entering the
24 cavity and spreading in these systems, the selection of
25 the insulation materials used and the design of the fire

1 barriers to close these cavities are particularly
2 important."

3 Same question again, Mr Hoban: even though you
4 didn't read this text at the time, were you aware that
5 that was a generally applicable principle?

6 A. Yeah, yeah. Yes.

7 Q. Then if we look at 6.4.1, lower down, over the column to
8 the last paragraph just above 6.4.2, it says, do you
9 see:

10 "Combustible panels are typically based on vinyl or
11 glass-reinforced plastic, although various new products
12 are being developed in this area, some of which also
13 contain insulation materials. These products generally
14 have good surface spread of flame characteristics to
15 prevent rapid fire spread across the surface of the
16 system, but once the panels become involved in the fire,
17 they have the potential to generate falling debris, add
18 to the overall fire load, and provide a route for fire
19 to propagate up the outside of the building."

20 That's an important paragraph for our purposes.

21 Was that a principle that you understood and were
22 aware of at the time?

23 A. Not at the time.

24 Q. Right.

25 Do you agree that, had you read this document --

1 which, just to be clear, is a 2013 edition -- you would
 2 have understood that cladding systems can create the
 3 opportunity for rapid unseen fire spread, causing an
 4 unacceptable risk of fire to the occupants?
 5 A. Yes.
 6 Q. And that an external cladding system offered a potential
 7 route for fire spread through multistorey buildings, and
 8 that close attention should be paid to the installation
 9 of cavity barriers to inhibit the spread of flame?
 10 A. Yes.
 11 Q. And particularly in the event of a fire involving the
 12 external cladding system itself?
 13 A. Yes.
 14 Q. Yes. That meant that you would have understood that
 15 particular attention should be paid to the selection of
 16 insulation materials?
 17 A. Insulation material -- the actual insulation material
 18 itself, yes.
 19 Q. Yes.
 20 Can I now turn then to a different document or
 21 different subject, which is the BCA guidance.
 22 Are you familiar with the Building Control Alliance
 23 as a body?
 24 A. I was aware of it.
 25 Q. Right.

65

1 Now, were you aware that the Building Control
 2 Alliance, or BCA, issued guidance documents for the
 3 construction industry?
 4 A. No, at the time I wasn't.
 5 Q. You weren't aware?
 6 A. No.
 7 Q. Right. Even though it's an alliance or association
 8 directly designed to assist and support
 9 Building Control?
 10 A. I read about it in relation to -- I mentioned the
 11 performance standards. It brings up a number of bodies
 12 on that. But my principal reference bodies were the
 13 LHBC and the government body.
 14 Q. Now, we've got you down here as saying LHBC. Do you
 15 mean --
 16 A. LABC.
 17 Q. Because there's the NHBC as well, National
 18 House-Building Council, and you're not referring to
 19 that, are you?
 20 A. No, no, no.
 21 Q. So, to be clear, LABC?
 22 A. Yeah, Local Authority Building Control.
 23 Q. Right, okay.
 24 Can we look, then -- and this might not take long if
 25 you're not familiar with it -- at a guidance note

66

1 produced by the BCA, Technical Guidance Note 18. This
 2 is at {CEP00057294}, please. This is, as I say, BCA
 3 Technical Guidance Note 18, and it's issue 0, June 2014,
 4 "Use of Combustible Cladding Materials on Residential
 5 Buildings".
 6 Have you ever seen this document before?
 7 A. I have since the fire.
 8 Q. Right, but not before?
 9 A. Not before the fire.
 10 Q. Right.
 11 Did you know about its existence before the fire --
 12 A. No.
 13 Q. -- even though you -- no?
 14 A. No.
 15 Q. Right.
 16 Did you know at all that the BCA published technical
 17 guidance notes for the benefit of its members in the
 18 construction industry to promote --
 19 A. No.
 20 Q. You did not?
 21 A. Not at the time.
 22 Q. Can I then just take you into the chunk of this first
 23 page which deals with key issues, and I just want to
 24 show you the last paragraph:
 25 "A Surface Spread of Flame Classification does not

67

1 infer any resistance to combustibility, it is solely a
 2 measure of the spread of a flame across the surface."
 3 Did you understand that at the time?
 4 A. What, class 0 was to do -- across the surface? Yes.
 5 Q. Yes.
 6 If you go on to the first bullet point under there,
 7 it says:
 8 "Thermosetting insulants (rigid polyurethane foam
 9 boards) do not meet the limited combustibility
 10 requirements of AD B2 Table A7 and so should not be
 11 accepted as meeting AD B2 paragraph 12.7. However, if
 12 they are included as part of a cladding system being
 13 tested to BR135 & BS8414, the complete assembly may
 14 ultimately prove to be acceptable."
 15 Were you aware of that as a general principle or --
 16 A. No.
 17 Q. -- guidance? You weren't, right.
 18 Were you aware in particular that thermosetting
 19 insulants like PIR don't meet or didn't meet the limited
 20 combustibility requirements of ADB2?
 21 A. At the time, no.
 22 Q. You weren't, right.
 23 Can we go, then, to the June 2015 version of this
 24 document, which is {CEL00002347}. This is issue 1.
 25 Do I take it from your earlier answers that you

68

1 weren't familiar with this document at the time of
 2 Grenfell either?
 3 A. No.
 4 Q. Right.
 5 Can I then turn to CWCT. Have you ever heard of the
 6 Centre for Windows and Cladding Technology, Mr Hoban?
 7 A. Since the fire, yes.
 8 Q. You had never heard of it before the fire?
 9 A. No.
 10 Q. I suppose it would follow that you therefore weren't
 11 aware that the CWCT also produced technical guidance
 12 relevant to the fire performance of curtain walls and
 13 rainscreen systems?
 14 A. No, I wasn't aware.
 15 Q. Right.
 16 Did you ever refer to any CWCT guidance work at all
 17 in your work on Grenfell?
 18 A. No, I never used it at all on any --
 19 Q. Right.
 20 A. -- building.
 21 Q. Were you not aware that the CWCT standard was
 22 specifically provided for in the NBS specification for
 23 Grenfell Tower?
 24 A. I don't believe I actually saw that document.
 25 Q. Really?

1 Can we then turn to your second statement, please.
 2 If you go to that second statement and look at page 19
 3 {RBK00050416/19}, we go to paragraph 48, and this is
 4 under the heading "Inspections". You say there:
 5 "I am not aware of any formal written policy by RBKC
 6 on the subject, however, I am aware that the
 7 Building Control Performance Standards July 2014
 8 produced by the Department for Communities and Local
 9 Government states that 'the scope and frequency of
 10 inspections should be determined, and incorporated in
 11 a formal written plan.'
 12 Just for completeness, you say:
 13 "I decided that I would endeavour to conduct site
 14 visits once a month. I made this decision based on the
 15 scope of the project."
 16 I want to talk a little bit with you about the
 17 standards, if we can.
 18 Those standards, I think, were first published in
 19 2006, weren't they?
 20 A. Yes, yes.
 21 Q. And then they were revised in July 2014; yes?
 22 A. Yes.
 23 Q. When they were revised in July 2014, do you remember
 24 being alerted to that revision?
 25 A. Not from works. I don't believe -- when it first came

1 out, we had a detailed meeting about those standards in
 2 the office, but I don't recall whether we had a detailed
 3 meeting when those -- when the second amendment came
 4 out.
 5 Q. I see. So yes in 2006 when they first came out --
 6 A. Yeah, we had a --
 7 Q. Right.
 8 A. And there was -- Mr Jackson produced a document as a --
 9 subsequently upon those -- that document being produced.
 10 Q. Just so I'm clear, you say Mr Jackson produced
 11 a document?
 12 A. Yes.
 13 Q. That's in 2006, is it --
 14 A. Yeah.
 15 Q. -- when those standards were first promulgated?
 16 A. Yes.
 17 Q. What about in 2014 when they were revised?
 18 A. I don't recall seeing any revised document in the office
 19 at that time.
 20 Q. I see. Did you know that there had been a revision?
 21 A. Yes.
 22 Q. But you didn't look at it?
 23 A. I did look at it, yes.
 24 Q. You did look at it?
 25 A. Yes.

1 Q. In 2014?
 2 A. Yes.
 3 Q. I see.
 4 In carrying out your role as Building Control
 5 officer on the Grenfell Tower project, did you have in
 6 mind the standards set out in the Building Control
 7 Performance Standards as revised in July 2014?
 8 (Pause)
 9 A. I think generally they were the same. As I say, I -- we
 10 had detailed discussions and we had -- as I say, there
 11 was a document. I was aware, as I say, of the 2014
 12 amendment. I can't say how much detail I went into, but
 13 I was aware of the documents.
 14 Q. Yes, I follow.
 15 Well, let's be a little more specific. Can we look
 16 at the 2014 standards themselves now. They are at
 17 {CLG10006814}. That's the first page, and you can see
 18 the date at the bottom, July 2014, published by the
 19 Building Control Performance Standards Advisory Group,
 20 part of the DCLG at the time.
 21 If you go to page 4 {CLG10006814/4}, internal page 2
 22 of this document, you can see the introduction there,
 23 and in the penultimate paragraph on that page it says in
 24 the last sentence:
 25 "The Standards and supporting guidance establish the

1 level of performance considered as a minimum in carrying
 2 out those tasks so that a Building Control Body's duties
 3 and responsibilities under the legislation are
 4 adequately discharged."
 5 So did you understand that this document was
 6 essentially setting out the minimum standard for
 7 Building Control officers to discharge their statutory
 8 functions?
 9 A. It's not something that strikes me immediately, but
 10 obviously it says it there.
 11 Q. Right. Can we go on to page 11 {CLG10006814/11}, then.
 12 This is standard 3, "Consultation", and the standard is
 13 there in the green box:
 14 "Building Control Bodies shall undertake all
 15 statutory consultations in a timely manner and the
 16 observations of consultees should be communicated in
 17 writing to clients. It shall also consider the benefit
 18 of undertaking additional consultation. It shall where
 19 appropriate co-operate in an integrated approach to
 20 consents relevant to development control."
 21 Just breaking that down a bit if we can, statutory
 22 consultation, did that include consultation with,
 23 for example, the fire authority, in this case LFEPA?
 24 A. Correct.
 25 Q. It says "an integrated approach to consents relevant to

1 development control"; would that be planning permission
 2 or the planning department?
 3 A. Sorry ...
 4 Q. It's the last part of the third sentence, I'm so sorry,
 5 in the green box:
 6 "It shall where appropriate co-operate in an
 7 integrated approach to consents relevant to development
 8 control."
 9 Would that be planning permission?
 10 A. Yes, it would --
 11 Q. Right.
 12 A. Although it doesn't say "planning development control".
 13 Q. No, it says "development control".
 14 A. Control.
 15 Q. I know you perhaps weren't familiar with this specific
 16 document in its revised form.
 17 Let me try it this way: in your experience as it
 18 stood in the years from 2013 onwards, would the planning
 19 department provide information to Building Control about
 20 a development?
 21 A. Only if they had a specific question on a matter.
 22 Q. Right. What about in circumstances where an application
 23 was made to the planning department for approval of
 24 a material to be used on the outside of a high-rise
 25 building?

1 A. No.
 2 Q. That wouldn't come to the Building Control department?
 3 A. No, no, it wouldn't.
 4 Q. So does that mean that there wasn't an integrated
 5 approach to consents relevant to development control?
 6 A. Yes.
 7 Q. Right.
 8 To be specific about this, as we know from the
 9 record in relation to the Grenfell Tower refurbishment,
 10 if the planning department at RBKC had been told that
 11 ACM panels were to be used on Grenfell Tower as
 12 a high-rise residential building, would that be the sort
 13 of information that should be shared back with
 14 Building Control by the planning department?
 15 A. I would say that's a matter for the planners to decide,
 16 whether it's their policy to do that.
 17 Q. But in your position as a Building Control officer --
 18 A. Yeah, yeah.
 19 Q. -- in respect of a development or refurbishment over
 20 which you had Building Control responsibility --
 21 A. Yes.
 22 Q. -- would you expect RBKC's planning department to alert
 23 you to any design or planning matters, such as the
 24 application of ACM on the exterior of a high-rise
 25 building, that would be something which would fall

1 within Building Control's remit, so that you could have
 2 an integrated approach?
 3 A. It would, yes, it would.
 4 Q. It would. You would expect it to be shared with you,
 5 would you?
 6 A. Yes.
 7 Q. Can we look on, then, to standard 5, which is on page 13
 8 {CLG10006814/13}. We can see there -- again in the
 9 green box, which is where we see these standards, and
 10 this is under the heading "Assessment of plans". If you
 11 just look at the green box itself --
 12 A. Yes.
 13 Q. -- and just read what's in there. Just take a moment to
 14 do that. I just want to ask you to look at the guidance
 15 underneath it.
 16 If you look at the first paragraph under the
 17 guidance, sitting under the green box, it says:
 18 "The purpose of plan assessment and design appraisal
 19 is to assist the process of achieving compliance of
 20 building work with the Building Regulations.
 21 Accordingly contraventions of Building Regulations
 22 identified in drawings should be communicated in writing
 23 to the designer. A written opinion should be issued on
 24 all proposals submitted for assessment."
 25 A. Yes.

1 Q. Would that be, in your understanding, a formal opinion,
 2 or would advice by email suffice in order to comply with
 3 the standard?
 4 A. Could be either.
 5 Q. Looking down at the fourth paragraph, it says:
 6 "If plans are passed, or approved subject to
 7 conditions, a schedule written in clear and unambiguous
 8 terms outlining the necessary modifications and/or of
 9 the further plans or information required to demonstrate
 10 compliance should be issued to the client."
 11 So does that mean that a record of the conditions
 12 should be made and kept?
 13 A. Yes.
 14 Q. The guidance also says that records of the plan
 15 assessment process should be kept. Is that not just
 16 a record of the formal decision, but a record of the
 17 Building Control officer's review of the plans
 18 themselves?
 19 (Pause)
 20 A. What -- yes, yes, yes.
 21 Q. In terms of record-keeping at RBKC, we know there was
 22 a computer system called Acolaid.
 23 A. Yes.
 24 Q. How in general terms was that used for managing full
 25 plans applications at the time of the Grenfell Tower

77

1 project, and specifically 2012 to 2014 in this case?
 2 A. When an application came in, it was assessed by
 3 a manager, whether it was a valid application or not,
 4 and then it was sent to the business support group to
 5 put on the system, and then a file would be produced and
 6 then it would come to the surveyor, and then
 7 an assessment of the plans would be done. There may be
 8 discussions and meetings in the course of that
 9 particular period.
 10 Q. I see. Would all that be done through the Acolaid
 11 system? So all these communications would be on the
 12 Acolaid system, would they?
 13 A. That I'm not certain of.
 14 Q. Right.
 15 How did you decide or did the Building Control
 16 department decide what went on to Acolaid and what
 17 didn't?
 18 A. As regards what particular things?
 19 Q. Well, as regards specifically managing full plans
 20 applications.
 21 (Pause)
 22 A. Well, I know they would enter the details of the agent.
 23 That would be done by business support when the
 24 application came in. As regards what information came
 25 in, whether that was -- that would be a business support

78

1 matter.
 2 Q. Right. I'm not quite sure that's really answered my
 3 question. Let's try it a different way.
 4 Acolaid is an information system.
 5 A. Yes.
 6 Q. Who decided what should go on to it or what shouldn't go
 7 on to it?
 8 A. That would be a manager -- well, we would, as
 9 a surveyor, put information relating to inspections.
 10 Decision notices would be processed by business support,
 11 and the actual application itself would be put on the
 12 system once it was validated by a manager.
 13 Q. I see.
 14 Now, can we look at your second witness statement,
 15 please, and I want to go to paragraph 18d
 16 {RBK00050416/6}. There we see:
 17 "Did you run a building control tracker for
 18 Grenfell Tower?
 19 "No. I used a plan check record sheet instead."
 20 A. Yes.
 21 Q. What kind of matters would you record on the plan check
 22 record sheet?
 23 A. Sorry, it's been a while since I've done ...
 24 (Pause)
 25 What I looked at ... I haven't got that form in

79

1 front of me anymore, so it was a form that had been
 2 adopted some years previously, so you would be
 3 considering the application under the various approved
 4 documents.
 5 Q. Right.
 6 A. And I don't know whether it would go on about
 7 consultations or not, because, as I say, I don't have
 8 that form to hand. But as regards consultations,
 9 I would send all the proposals to the fire regulation
 10 group, and they would --
 11 Q. Right.
 12 A. -- consider the application.
 13 Q. What did a plan check record sheet look like just in
 14 outline?
 15 A. It was an A4 sheet divided into the various elements.
 16 As I say, (a) structure, (b) fire, (c) damp-proofing and
 17 contamination.
 18 Q. Was it a record of what you looked at or was it a record
 19 of a plan that you had to look at things?
 20 A. It would be of the actual application itself.
 21 Q. Oh, I see.
 22 Where did you keep the plan check record sheet
 23 generally?
 24 A. That would be in the file.
 25 Q. Was it kept on computer or handwritten or hard copy

80

1 files ?
 2 A. Handwritten.
 3 Q. I see.
 4 Now, the Inquiry doesn't have a copy of your plan
 5 check record sheet for the Grenfell Tower refurbishment.
 6 Do you remember whether it was retained on the hard copy
 7 file , or what might have happened to it?
 8 A. I don't know.
 9 Q. Now, you have also referred in your statement to keeping
 10 records in a notebook. Was that your A3 notebook?
 11 A. Yes, I would have a number of these books, I would use
 12 those.
 13 Q. Did you ever transfer the notes in your notebook on to
 14 the Acolaid system?
 15 A. I did, although there are -- from what I've seen,
 16 there's some notes missing, of both myself and
 17 colleagues.
 18 Q. Right. Can you explain why that might be?
 19 A. I can't. As I say, I don't know -- I would generally
 20 put the notes in either on the day or a few days later .
 21 Q. Right.
 22 A. Sometimes notes, if you didn't tick the box and went on
 23 to another job, it may not retain them. But I certainly
 24 know that I did more visits than what was reflected on
 25 Acolaid.

1 Q. Indeed, and we're going to come to that in detail later
 2 in your evidence.
 3 When you say, from what you have seen, there's notes
 4 miss, "both myself and colleagues", does that mean that
 5 you think they're missing from the Acolaid system
 6 because you didn't put them in?
 7 A. At the time, I thought I put all my notes in.
 8 Q. Right.
 9 Did you have a practice of entering your handwritten
 10 notes or the content of those notes into the Acolaid
 11 system?
 12 A. Yes, I would, as I say, do it if I had time on that day,
 13 or sometimes I would come in at weekends to do my notes.
 14 Q. Right. Do you remember any times when you let that
 15 practice lapse and failed to enter your notes on to the
 16 Acolaid system?
 17 A. Not that I'm aware. As I say, there was a lot going on
 18 outside work at the time, so I don't know whether ...
 19 there could have been events where I didn't, but
 20 generally I was very good, because what I would do,
 21 I would get my book and put a line through the notes as
 22 I put them on.
 23 Q. Right.
 24 I think what you are telling us is that it's
 25 possible at this time that some notes on some occasions

1 may not have been transferred to the Acolaid file .
 2 A. Maybe. As I say, it's not consistent with the way that
 3 I would do work.
 4 Q. Very well.
 5 Did you mark up drawings or other documents on the
 6 physical file ?
 7 A. Yes. Well, what I would do, when I was reviewing
 8 a drawing, I would actually initial and date when
 9 I looked at it, and then I would highlight anything that
 10 would concern me.
 11 Q. Right.
 12 Let's just look at what you say in your second
 13 statement about that. It's page 8 {RBK00050416/8},
 14 please, if we can look at paragraph 27. You say there
 15 at the very top of the page -- perhaps we will just look
 16 at the question you're answering at the bottom of the
 17 previous page {RBK00050416/7} first of all. The
 18 question is :
 19 "Did you review the proposed design for the exterior
 20 cladding on the tower? If so, when did you do that and
 21 where is that recorded?"
 22 Then if we go to the top of page 8, you say:
 23 "Yes I did. I would have recorded this either on my
 24 plan check record sheet or my physical diary or other
 25 notes kept on file ."

1 I just want to ask you about the other notes kept on
 2 file . What are those?
 3 A. If I went to -- I remember going to a meeting on -- in
 4 the first initial meeting, and I made certain notes of
 5 that meeting and kept that on file , made my own notes of
 6 things that were discussed.
 7 Q. Right.
 8 A. I have asked for some minutes. Unfortunately, it would
 9 appear that no minutes were done at that meeting.
 10 Q. Why were those not transferred to the Acolaid system?
 11 A. You couldn't -- Acolaid was for site visits , as I say.
 12 It wasn't --
 13 Q. It wasn't for private notes of meetings internally?
 14 A. Yes.
 15 Q. I follow that.
 16 If you also look on in the statement to page 10
 17 {RBK00050416/10}, you can see at paragraph 33(e) there
 18 you refer to your A3 notebook.
 19 A. Yeah.
 20 Q. You say, "RBKC cannot locate my notebook". Was that
 21 a number of notebooks you kept?
 22 A. It was. As I say, it would be, as I filled in one,
 23 I would get another.
 24 Q. Yes. I think you also had a physical diary. Was that
 25 different from your notebook or was that the notebook?

1 A. I had that and I obviously had my Outlook calendar, and
 2 there was a system where we would have to put on our --
 3 all surveyors had to put on their daily visits so that
 4 people were aware where people were.
 5 Q. Yes. So in total, just so that we're all clear about
 6 where you would record things, we've got Acolaid.
 7 A. Yes.
 8 Q. We've got your Outlook diary.
 9 A. Yes.
 10 Q. We've got a physical diary.
 11 A. Yes.
 12 Q. I think we have also got your notebook you've referred
 13 to.
 14 A. Yes.
 15 Q. A plan check record sheet and then the file itself .
 16 Have I missed anything out?
 17 A. Sorry, could you go over those again, please?
 18 Q. Yes, of course. First, there is Acolaid.
 19 A. Yes, that would --
 20 Q. We've got your Outlook diary.
 21 A. Outlook calendar, yes.
 22 Q. Calendar. Then we've got your physical diary, which you
 23 referred to a moment ago.
 24 A. Correct.
 25 Q. Then there is the notebook, the A3 notebooks you have

85

1 referred to.
 2 A. That -- yeah.
 3 Q. There is the plan check record sheet, which we discussed
 4 earlier, for looking at applications, and then finally
 5 the file itself, the physical file .
 6 A. Well, the plan check would be in the file .
 7 Q. I follow.
 8 A. Yeah.
 9 Q. Other than that, were there any other places where you
 10 would record discussions or your findings or
 11 inspections?
 12 A. No, I can't think of any other --
 13 Q. Right.
 14 Can we then go back to the standards we were looking
 15 at earlier on, which we'll find at -- this is the
 16 July 2014 edition -- {CLG10006814/15}, please. This
 17 relates to site visits, "Site inspection", as you can
 18 see, and we're going to be going through your site
 19 inspections on the Grenfell Tower project in due course
 20 in a lot of detail. But just looking at this standard,
 21 you can see that it says that standards need to be
 22 adequate and that sufficient records are kept. Do you
 23 see that?
 24 A. Yeah.
 25 Q. I have summarised it perhaps a little bit quickly, but

86

1 that's the effect of the green box.
 2 If we look at page 16 {CLG10006814/16}, under
 3 "Inspection frequency", you can see the little mini
 4 heading there just below the bullet points, halfway down
 5 the page, it says:
 6 "The scope and frequency of inspection should be
 7 determined, and incorporated in a formal written plan."
 8 Do you see that?
 9 A. Yes.
 10 Q. Do you remember whether that was done as a matter of
 11 course --
 12 A. No.
 13 Q. -- within the Building Control department overall?
 14 A. I don't believe it was.
 15 Q. It wasn't, right. Do you know why it wasn't?
 16 (Pause)
 17 A. It just wasn't done that way.
 18 Q. No, I know, but do you know why?
 19 A. No.
 20 Q. Did you ever raise this issue with John Jackson or
 21 John Allen or anybody else within the RBKC Building
 22 Control department?
 23 A. No, it was just the way it was done in the office .
 24 Q. Right.
 25 So without a formal written plan, how would you go

87

1 about planning the scope and frequency of inspections?
 2 A. Generally, as I say, I decided for that particular job
 3 that I would visit every month.
 4 Q. Right.
 5 A. As regards other jobs, it would depend on what was going
 6 on, the standard of workmanship --
 7 Q. Right.
 8 A. -- and, you know, generally what the standard of the
 9 builder -- or the type of work that was going on at the
 10 time. Because, again, with basements, there would be
 11 a bigger frequency because you were looking at
 12 structural matters.
 13 Q. You decided on once a month at the start of the project;
 14 did you review that constantly? Did you review the
 15 sufficiency of once a month constantly through the life
 16 of the project?
 17 A. I did review it in relation to -- I got an addition --
 18 well, I got additional work when colleagues left, left
 19 the department, I actually got their areas, a couple of
 20 my colleagues. One left in -- or not left; she went to
 21 go and work in the planning department in I think it was
 22 2014, so the number of jobs that I was dealing with
 23 increased, so I was having to look after more jobs, and
 24 it would, as I say, depend on whether there was site
 25 supervision, what the builders were like --

88

1 Q. But --
 2 A. Sorry.
 3 Q. I understand that that might be an exception, but once
 4 you had fixed a frequency of visits for a particular
 5 project, am I right in thinking that, in general, you
 6 didn't go back and review that?
 7 A. Oh, yes.
 8 Q. You did?
 9 A. Yes, I would, depending on what was going on.
 10 Q. Would anybody supervise your initial assessment of the
 11 frequency of visits required for a project?
 12 A. No.
 13 Q. So you were just left to your own devices, were you?
 14 A. Correct.
 15 Q. Right.
 16 I think it would follow, then, from what you have
 17 told us before that the next paragraph down, which says
 18 "All sites should be inspected frequently", and gives
 19 a frequency that's suggested there, that wasn't guidance
 20 adopted generally within RBKC, was it?
 21 A. No, it wasn't.
 22 Q. No.
 23 Can we then turn to a different topic, which is your
 24 knowledge of high-rise buildings and relevant products.
 25 If we look at your first statement, please, which is

1 {RBK00033934/10}, I want to just look at paragraph 99 on
 2 that page. You say there, in the fourth line from the
 3 end:
 4 "At the time of the Grenfell refurbishment I had
 5 approx. 35 years experience and had previously overseen
 6 high rise projects under the London Building Act and
 7 constructional byelaws in force at the time."
 8 In general, do you remember when those projects took
 9 place?
 10 A. From time to time -- sorry. I dealt with sort of flat
 11 refurbishments and refurbishments of hotels from time to
 12 time. I couldn't give you exact dates, because it
 13 would -- as I say, I don't actually recall any
 14 particular time, but when I was working in Chelsea prior
 15 to moving up to the top of the borough in 1998, I do
 16 recall dealing with some refurbishments of some hotel
 17 rooms in a hotel in Sloane Street. I also did -- when
 18 I moved up to the Notting Hill area, I dealt with
 19 a couple of flat refurbishments in -- on a tower block
 20 in Notting Hill.
 21 Q. Right.
 22 A. But, as I say, the dates, I couldn't tell you.
 23 Q. In relation to the high-rise projects that you identify
 24 in this part of your first statement, did any of those
 25 involve the re-cladding or overcladding of a high-rise

1 residential tower?
 2 A. No.
 3 Q. So would it follow from that that the Grenfell Tower
 4 refurbishment was the first time as a Building Control
 5 officer you had come across the overcladding of
 6 an existing and occupied high-rise residential building?
 7 A. Yes.
 8 Q. Right.
 9 Coming back to the topic of previous high-rise
 10 fires, we discussed Garnock Court in Scotland, Irvine,
 11 in 1999. Were you aware of a fire early on in that
 12 decade, in 1991, at Knowsley Heights?
 13 A. Yes, in the news, I remember or --
 14 Q. Right.
 15 A. I ... sorry to hesitate. I believe I would have seen it
 16 in the news at that time.
 17 Q. Right, in the early 1990s?
 18 A. Yes.
 19 Q. What about a fire in a building called the Mermoz Tower
 20 in Roubaix in France in 2012?
 21 A. That I don't recall.
 22 Q. Right. What about the fire in the Wooshin Golden Suites
 23 in Busan, South Korea in 2010?
 24 A. That again doesn't --
 25 Q. Right.

1 We discussed earlier very briefly fires in Dubai.
 2 A. Yes.
 3 Q. Let's take this in stages.
 4 Do you recall a spate of fires in high-rise
 5 buildings in the UAE, the United Arab Emirates, in the
 6 period 2012 to 2013, particularly in Sharjah and in
 7 Dubai at that time?
 8 A. I do recall seeing, as I say, one particular one,
 9 whether, as I say -- were they close together?
 10 Q. In time, yes.
 11 A. Yes.
 12 Q. Geographically, yes. Two were in Dubai.
 13 A. Yeah, but in time.
 14 Q. Yes. They were carried on the BBC News.
 15 A. Yes, as I say --
 16 Q. Some of them were, so you remember those?
 17 A. Yes.
 18 Q. Do you also remember further fires in Dubai in 2015 at
 19 The Address Downtown Hotel and The Torch residential
 20 building?
 21 A. That doesn't come to mind.
 22 Q. Right.
 23 Going back, then, to the fires in the UAE that you
 24 became aware of in 2012 to 2013, did that tell you
 25 anything about the risks of external fire spread on

1 high-rise buildings? You mentioned earlier that it
 2 might have done and I just wanted to --
 3 A. Yes, yes.
 4 Q. What did it tell you, do you think?
 5 A. As I say, as regards that, I was -- the thing that came
 6 to mind was: what were their regulations over there?
 7 Q. Right. That came to mind, did it? Did you investigate
 8 that?
 9 A. No.
 10 Q. Was there any discussion internally at the RBKC
 11 Building Control department about the fires?
 12 A. I don't recall. I don't recall.
 13 Q. Right.
 14 Do you remember seeing any industry or perhaps
 15 internal circulars, or any news or industry gossip,
 16 even, about the impact of those fires and what you
 17 learnt or should learn from them?
 18 A. No, no.
 19 Q. Do you remember a fire in Southwark in 2009 in
 20 a building called Lakanal House?
 21 A. Yes.
 22 Q. Did you know about that fire at the time it happened,
 23 the summer of 2009?
 24 A. Yes.
 25 Q. From that fire, did you gain any understanding of how

93

1 fire can spread up the exterior of a building?
 2 A. I thought -- or, sorry, I saw that it went up the
 3 outside, but I didn't know whether -- or the thing that
 4 comes to mind with that particular fire was the
 5 firestopping there internally.
 6 Q. Right.
 7 Did that cause you, that fire, to look at the
 8 Building Regulations and, in particular, at Approved
 9 Document B?
 10 A. Not at that time. I would look at firestopping as part
 11 of my duties.
 12 Q. Right.
 13 Did the fire itself alert you to the dangers of
 14 rainscreen cladding systems?
 15 A. No.
 16 Q. Can I then turn to a different topic, which is the role
 17 of Building Control generally.
 18 First, do you agree that the role of
 19 a Building Control body is to check for compliance with
 20 the requirements of the Building Act and the
 21 Building Regulations?
 22 A. Yes.
 23 Q. And that's their only requirement, their only role: to
 24 check and ensure for compliance?
 25 A. We did have many other duties.

94

1 Q. Yes, well, let me be a bit more specific: do you accept
 2 that a Building Control body has no role to play in the
 3 design?
 4 A. Correct.
 5 Q. Right, and its role is to check submitted proposals?
 6 A. Yes.
 7 Q. And to inspect works on site to ensure compliance --
 8 A. Yes.
 9 Q. -- with the statutory requirements and guidance?
 10 A. Yes.
 11 Q. Yes.
 12 Do you also agree that it's ultimately for those
 13 designing and carrying out building works to ensure that
 14 the Building Regulations are complied with?
 15 A. Yes.
 16 Q. And that Building Control approval isn't conclusive
 17 evidence that the Building Regulations have been
 18 complied with?
 19 A. Could you repeat?
 20 Q. Yes.
 21 Was it your understanding that the effect of
 22 Building Control approval being given wasn't, as it
 23 were, conclusive evidence --
 24 A. Yeah, it wasn't.
 25 Q. -- that the Building Regulations had been complied with?

95

1 A. It wasn't conclusive.
 2 Q. I'm going to put a number of propositions to you and
 3 I want to know whether you agree with them.
 4 A Local Authority Building Control surveyor is
 5 required to take such steps as are reasonable to enable
 6 him or her to be satisfied within the limits of
 7 professional skill and care that the applicable aspects
 8 of the Building Regulations are complied with.
 9 A. Yes.
 10 Q. Do you agree that a Building Control body's ability to
 11 do its job properly depends in part on the quality of
 12 the information provided to it?
 13 A. That's one of the -- one of them.
 14 Q. Do you agree that where there are gaps or contradictions
 15 in the information which is submitted to it,
 16 a Building Control body should follow up with questions
 17 and investigations of the applicant?
 18 A. Yes.
 19 Q. Do you also agree that, in exercising reasonable skill
 20 and care, that would include seeking missing or
 21 incomplete information from the applicant?
 22 A. Yes.
 23 Q. Yes. Now --
 24 A. If -- well, I would say that if he didn't know the
 25 information himself from investigation.

96

1 Q. Yes.
 2 Now, I don't know how closely you have been
 3 following the evidence in this part of the Inquiry,
 4 Mr Hoban, but I will see if I can summarise the point
 5 I want to put to you succinctly, but I hope also fairly.
 6 TMO, Studio E, Rydon and Harley witnesses have said,
 7 either orally or in their witness statements or both,
 8 that they relied on Building Control to ensure that the
 9 refurbishment complied with the Building Regulations.
 10 My question is: did you yourself appreciate, at the
 11 time of the Grenfell Tower refurbishment and your role
 12 in it, that those parties involved in the refurbishment
 13 project viewed Building Control in that way?
 14 A. No.
 15 Q. I now want to turn to yet again a different topic, which
 16 is the structure of the RBKC Building Control
 17 department.
 18 Now, your role during the time of the Grenfell Tower
 19 project was, I think, as a senior Building Control
 20 surveyor.
 21 A. Yes.
 22 Q. Yes?
 23 A. Yes.
 24 Q. Is that the same as a principal Building Control
 25 surveyor?

97

1 A. No.
 2 Q. Can you just explain the differences to us, please?
 3 A. Principal -- originally a principal Building Control
 4 surveyor was a manager of a team of surveyors. At the
 5 time of Grenfell, the principal was a deputy. Also, the
 6 principal would deal with more complex projects and
 7 manage staff.
 8 Q. And a senior Building Control surveyor, where would that
 9 fit into the hierarchy?
 10 A. He was generally an area surveyor that would deal with
 11 the area that he was dealing with.
 12 Q. I see.
 13 A. As instructed by managers.
 14 Q. Instructed by managers. How did a senior
 15 Building Control surveyor relate to a principal
 16 Building Control surveyor?
 17 A. They were junior, junior to a principal Building Control
 18 surveyor.
 19 Q. I see. Immediately junior?
 20 A. Yes.
 21 Q. Right.
 22 Just give me a feel for this: how many senior or
 23 principal Building Control surveyors worked in the RBKC
 24 Building Control department at the time of the
 25 Grenfell Tower project?

98

1 A. There was one principal surveyor.
 2 Q. Yes.
 3 A. We had -- well, the numbers changed, because originally
 4 in 2013, after our restructuring, we had ... bear with
 5 me for a moment, please. We had the head of
 6 Building Control, we had his deputy, who was
 7 a principal. There was ...
 8 Q. Yes.
 9 (Pause)
 10 A. There was three senior surveyors, and there was three
 11 Building Control surveyors. I believe that Colin, who
 12 passed away in October 2015, had just been made a senior
 13 prior to him passing away.
 14 Q. Yes, I see.
 15 Now, in 2013, September 2013 specifically, I think
 16 it's right that John Allen was appointed as
 17 Building Control manager, wasn't he?
 18 A. Correct.
 19 Q. Where did he fit into that structure that you've just
 20 explained?
 21 A. He was the top, he was the --
 22 Q. He was the head of BC, was he?
 23 A. Yes.
 24 Q. Right. From that time onwards, is it right that
 25 John Allen was your line manager, or was there

99

1 an intervening principal surveyor?
 2 A. Well, John Allen was my manager, but in his absence José
 3 was --
 4 Q. Right. Was José a principal Building Control surveyor?
 5 A. He was.
 6 Q. Right, I see. So although he was effectively your
 7 senior, nonetheless you reported mostly directly to
 8 John Allen as the head of BC?
 9 A. Correct.
 10 Q. Have I got that right?
 11 A. Yes.
 12 Q. Okay, thank you.
 13 So was John Allen also in control of allocating work
 14 within the department?
 15 A. I think that was done between him and José.
 16 Q. I see.
 17 Work, I think as you say, was usually allocated on
 18 a patch system.
 19 A. Correct.
 20 Q. Does that mean that you covered everything in your
 21 patch, in other words a geographical area?
 22 A. Yes, although saying that, when I got the -- I was given
 23 the responsibility of looking after the academy and the
 24 sports centre. That was in Hilary's patch at the time.
 25 Q. Who is Hilary?

100

1 A. Hilary Wyatt, she was a colleague that transferred to
2 the planning department.
3 Q. Did the allocation of work within your patch take into
4 account current workloads, skill, experience and
5 qualifications?
6 A. I was just given the work.
7 Q. Right.
8 It may be a question for others, but to your
9 knowledge and understanding at the time, did the
10 allocation of work which would ordinarily fall within
11 your patch take account of your workload, for example?
12 A. No. Or ... it was given to me.
13 Q. It was given to you because it was in your patch
14 regardless of your workload?
15 A. Yes.
16 Q. And regardless of your skill and experience?
17 A. Yes.
18 Q. And regardless of your qualifications or absence of
19 them?
20 A. Yes.
21 Q. Now, I think you said before, just earlier on in your
22 evidence, that changes were made to the structure of the
23 Building Control department --
24 A. Yeah.
25 Q. -- in 2013.

101

1 A. Yes.
2 Q. Were you aware at that time that local authority
3 Building Control services, and particularly RBKC, were
4 expected to be cost neutral?
5 A. Yes.
6 Q. What did you understand by that idea?
7 A. That we had to be self-funding, I believe.
8 Q. Self-funding?
9 A. Yes.
10 Q. I see.
11 A. There was obviously austerity measures as well that went
12 on.
13 Q. Yes.
14 Prior to September 2013, I think John Allen was in
15 charge of special projects.
16 A. Yes.
17 Q. Does that tell us that, before September 2013, special
18 projects were dealt with separately from the general run
19 of Building Control applications?
20 A. Yes.
21 Q. And from 2013, special projects were then re-allocated
22 within the department, were they?
23 A. Yes.
24 Q. So did those become part of the patch system?
25 A. Correct.

102

1 Q. So if there was a special project that would normally be
2 dealt with before September 2013 by John Allen as
3 a specialist project, after that date, if it fell in
4 your patch, you would get it?
5 A. Yes.
6 Q. I see.
7 Does that mean -- this may sound obvious -- that
8 after September 2013, you were doing special projects
9 that were not part of your day-to-day role before that
10 date?
11 A. Yes.
12 Q. Before September 2013, did you yourself have any
13 experience of working on special projects?
14 A. Er ... sorry. Initially, before -- when the
15 local authority took over the responsibilities of
16 Building Control, the area surveyor would look after the
17 jobs in his own particular area, but we had a fire
18 regulations group that would deal with the fire
19 regulation matters, and so you would go to them for
20 advice, and they would deal with the aspects of B1 -- or
21 not B1, part B.
22 Q. Right. What would count as a special project?
23 A. I don't know if there was a definition. It was
24 generally a major project.
25 Q. Right. So major and complex project?

103

1 A. Yes.
2 Q. I see.
3 My question again: did you yourself, before
4 September 2013, have any experience of working on
5 special projects?
6 A. No, not as defined -- when the group came into -- when
7 it was set up.
8 Q. Right.
9 I think KALC, the Kensington Academy and Leisure
10 Centre, if I can use that as an abbreviation, which
11 ultimately came to include Grenfell Tower, was a special
12 project, wasn't it?
13 A. It was.
14 Q. Therefore, does it follow that Grenfell Tower was itself
15 considered by RBKC as a special project?
16 A. Yes, I would say so.
17 Q. So does it follow from that that Grenfell Tower was your
18 first special project?
19 A. I dealt with the academy and the leisure centre when
20 I was instructed to do so by John Allen.
21 Q. Right, I see.
22 Now, you, I think, were not John Allen's first
23 choice of Building Control officer for Grenfell Tower,
24 were you?
25 A. I don't know.

104

1 Q. Right. Do you know that he initially offered it to
2 José Anon?
3 A. I wasn't aware of that.
4 Q. Did José Anon have greater experience of working on
5 special projects than you did?
6 A. He may have had, because he was a principal.
7 Q. Yes.
8 A. As I say, he was a principal, so they had greater
9 responsibility. They would deal with the bigger
10 projects.
11 Q. Were you given any other special projects to work on in
12 and after September 2013?
13 A. I was dealing with -- I don't know whether it would be
14 classed as a special project. I was given a -- there
15 was a partnership scheme that I was dealing with that
16 involved a number of townhouses, four townhouses, and
17 a low-rise office building, and a façade retention with,
18 I think, nine flats, and it was all new-build.
19 Q. Right.
20 A. So I was dealing with that as well as the other
21 projects. If that had come along when the special
22 projects group was done, it most probably would have
23 gone to the special project surveyor.
24 Q. I see.
25 Now, taking the period from September 2013 onwards,

1 Mr Hoban, you say in your first statement, paragraph 36
2 {RBK00033934/4} -- I don't think we need to go to it --
3 that you would take decisions on B2, B3 and B4 issues,
4 and that you would consult with Paul Hanson and
5 John Allen where necessary.
6 A. Yeah.
7 Q. On Grenfell, how often did you consult with John Allen?
8 A. Er ...
9 Q. Just in general terms.
10 (Pause)
11 A. Sorry, I'm trying to think here. I know I asked --
12 well, I don't know whether it's consulting. I asked him
13 to do a visit for me because I wasn't available, because
14 I wasn't available one day, and I spoke with him --
15 well, not consult. I spoke with him about my work every
16 month. We would have monthly one-to-ones generally, and
17 he would -- we would talk about my work.
18 Q. Yes, I see.
19 Did you talk about your work on Grenfell Tower
20 specifically, or was it a discussion about your workload
21 and general questions?
22 A. Just generally.
23 Q. Right.
24 I'm going to ask you about Paul Hanson separately
25 later on in our discussions together.

1 Can I then turn just to a question of austerity.
2 Can I show you paragraph 3 of your first statement on
3 page 1 {RBK00033934/1}. You say there:
4 "As a result of restructuring, due to austerity
5 measures, the planning department was restructured with
6 substantial cuts to building control. This led to a
7 substantial reduction in the number of employees in
8 building control. Consequently, the remaining employees
9 had their work load increase commensurately."
10 Can you tell us or give us an idea of the number of
11 employees reduced?
12 A. There was six surveyors that -- well, that were due to
13 retire. One of my colleagues, unfortunately,
14 Michael Wing, passed away just before he was due to
15 retire. So we lost John Jackson, who was the head of
16 Building Control; David Gammon, who was the head of the
17 fire regulations group, who was a principal; we also
18 lost Gary Sharp, who was a principal surveyor; there
19 was, as I say, Mick Wing who passed away;
20 Richard Beddoe, who was a senior surveyor; and
21 Alan De Souza, who was a senior building surveyor.
22 Q. You have mentioned six names.
23 A. Yes.
24 Q. One died, five retired. Did they retire because of
25 austerity or did they retire because they were retiring

1 anyway?
2 A. No, it was to do with the restructuring.
3 Q. I see. So five in total, essentially?
4 A. Yeah.
5 Q. How many did that leave behind? How many
6 Building Control surveyors were left in the
7 Building Control department by the end of 2013?
8 A. We had -- as I said, we had a head, head of
9 Building Control, the fire regulations group was just
10 made up of Paul Hanson at that stage, and José Anon was
11 the principal, and there was myself, Parvinder Virdee
12 and Amir Fardouee, who were senior surveyors, those
13 three, and we had Hilary Wyatt, Colin Ryan and
14 Celia Burt, who was -- they were all ordinary building
15 surveyors.
16 Q. I see.
17 A. We introduced -- I can't remember when. We had
18 an enforcement surveyor. One of my colleagues that
19 worked in the business support team became
20 an enforcement surveyor in I believe it was 2016.
21 Principally he was going out and making discoveries.
22 Q. Okay. So do it take it from that list that all of those
23 people you have mentioned -- so Paul Hanson, José Anon,
24 Parvinder Virdee, Hilary Wyatt and Colin Ryan -- were
25 all there before the restructuring and stayed on?

1 A. Yes.
 2 Q. Although Colin Ryan died and --
 3 A. Hilary left and Celia Burt left .
 4 Q. Right. So you went down from about 12 to about four or
 5 five?
 6 A. Area surveyors. Originally we went down to six --
 7 Q. Yes.
 8 A. -- area surveyors, and then, as I say, Hilary moved to
 9 planning, Celia left and Colin passed away.
 10 The last -- in 2016, we got the graduate who was
 11 taken on as a Building Control surveyor, Waqaas Rashid,
 12 but it was -- he had never worked in a Building Control
 13 office before, so he was starting from scratch, as it
 14 were. He had -- I think he had graduated the summer
 15 before he joined us. He did some work for a housing
 16 association .
 17 Q. Yes.
 18 Did the Building Control department lose staff due
 19 to increased competition from the private sector, by
 20 which I specifically mean approved inspectors?
 21 (Pause)
 22 A. I couldn't answer that -- I wouldn't know. As I say, it
 23 was mainly to do with cuts, austerity cuts, as far as --
 24 Q. Now, you said that -- I'm sorry, I may have cut you off
 25 at the end of that answer. Do you want to finish that

109

1 answer?
 2 SIR MARTIN MOORE-BICK: Had you finished your answer,
 3 Mr Hoban?
 4 A. Well, they just -- Mr Jackson put a proposal forward for
 5 restructuring the department, and that was approved by
 6 the managers and the councillors .
 7 MR MILLETT: I think you have said that there was
 8 an increase in workload resulting from these reductions.
 9 A. Yes.
 10 Q. What impact did that have on your workload in the period
 11 after 2013?
 12 A. It meant that I couldn't visit as frequently as
 13 previously, the jobs that I had been dealing with prior
 14 to that .
 15 Q. Did your patch get bigger?
 16 A. It did.
 17 Q. Right.
 18 When you say the remaining employees had their
 19 workload increased commensurately, did that affect the
 20 efficiency and thoroughness with which you were able to
 21 carry out your role on each project?
 22 A. I tried to work to the efficiency , but as time
 23 progressed, I wasn't able to do -- as I mentioned,
 24 I wasn't able to do the job the way I wanted to do it --
 25 Q. Right.

110

1 A. -- in that I wasn't able to visit jobs as much as
 2 I wanted to. Also, you're making decisions on ...
 3 sometimes writing emails, some jobs you would say --
 4 for example, if an email came through and you phoned
 5 somebody up, and say, "Is this adequate for the purposes
 6 of the response to your email?", and they would -- if
 7 they agreed, then you could, as it were, sign that off .
 8 Sometimes there were jobs where you would know or
 9 consider that there could be issues at a later stage, so
 10 I would make certain that these were followed up with
 11 emails in order that, if there was an issue at a later
 12 stage, you could actually show what had been done
 13 previously .
 14 Q. Now, in his evidence to the Inquiry, Neil Crawford of
 15 Studio E told us -- and this is {Day11/131} -- that you
 16 had told him that you were supposed to oversee hundreds
 17 of projects . Do you remember whether you did say that
 18 to him?
 19 A. No, I don't recall saying that .
 20 Q. Right. Were you overseeing literally hundreds of
 21 projects?
 22 A. No, I would say I was -- about -- it would fluctuate
 23 towards the end, about, I would say -- or in 2016,
 24 between 120/130 projects, plus my other duties .
 25 Q. So although it wasn't hundreds, it was certainly more

111

1 than 100?
 2 A. Yes.
 3 Q. Right.
 4 Can we just go back to your appraisal for 2015 to
 5 2016, which we will find at {RBK00048753/3}. At the
 6 bottom of the page, under "Mid Year Comments", can you
 7 see that it says:
 8 "Covering inspections for surveyors in 2 other
 9 areas ."
 10 And then if you would go over the page to page 7
 11 {RBK00048753/7}, you can see there that on the
 12 right -hand side of the page, under "Manager Mid Year":
 13 "John has already achieved a number of the targets .
 14 Currently has high workload as covering for 2 other
 15 colleagues ."
 16 Do you see that?
 17 A. Yes.
 18 Q. Over what period were you covering for two other
 19 colleagues?
 20 A. Well, Hilary left in 2000 and -- or not left ; she moved
 21 to the planning department sometime in 2014.
 22 Q. Yes.
 23 A. And Celia Burt left the employment of the council at the
 24 end of March 2015.
 25 Q. So it was them?

112

1 A. Then, and then Colin passed away in October 2015 and
 2 I got a percentage of his work.
 3 Q. I see. So in fact it was three colleagues from
 4 September 2015?
 5 A. No, October.
 6 Q. October 2015?
 7 A. Yeah. Yes, it was, yeah.
 8 Q. Yes.
 9 What impact did your covering for those two and then
 10 three other colleagues have on your workload?
 11 A. Well, as I say, I wasn't visiting certain jobs -- I was
 12 making sort of judgements on who to visit, on who to
 13 write to, sort of confirm things.
 14 Q. Right.
 15 A. So you're making judgements on sort of the level of
 16 supervision, the standard of workmanship, whether you
 17 worked with particular people in the past and whether
 18 you considered that they were doing what they needed to
 19 do.
 20 Q. When you were covering for two other colleagues, did
 21 that increase the number of projects?
 22 A. Oh, yes.
 23 Q. Right. And then latterly three, so did the number of
 24 projects double and then triple from your base, as it
 25 were, in September 2013?

113

1 A. Well, as Building Control surveyors, they had slightly
 2 less numbers than myself in their areas. So,
 3 as I say -- although Colin, in fairness, had quite a big
 4 area, and he was dealing with major projects as well, or
 5 one particular major project as well. So Colin was
 6 working far above, in my opinion, what was expected of
 7 a Building Control surveyor.
 8 Q. Right. So you took on two other patches and then
 9 another patch after that?
 10 A. And then, as I say, I would say maybe a third or
 11 slightly more of Colin's area when he passed away.
 12 Q. I see.
 13 Can I show you Mr Allen's statement, that's his
 14 first statement, {RBK00033930/3}, please. I just want
 15 to show you what he says at paragraph 16 and then ask
 16 you a question about it before we break.
 17 It's the first six lines of paragraph 16. He says:
 18 "Typically as the manager I would meet the area
 19 surveyor's monthly, check through their monthly job
 20 sheets and in particular what was actually still current
 21 (live) to confirm that their workload was manageable.
 22 I would always ask if the surveyor needed any help or
 23 assistance but I had great confidence in the team as
 24 I had been out with them all and whilst they all had
 25 different approaches to the work and relationships,

114

1 I found them all to be good and competent."
 2 Then he goes on about the files .
 3 Did Mr Allen meet with you monthly to check through
 4 your job sheets so as to ensure that your workload was
 5 manageable?
 6 A. I would say he did meet with me monthly, but as regards
 7 manageable, that wasn't something that was discussed.
 8 I actually -- I remember in -- I think it was March or
 9 April 2015, when he gave me Hilary's patch, I did ask
 10 for help, and I made a number of suggestions as to how
 11 to deal with Celia's patch when she left, and none of
 12 these were taken up, and I was given Celia's area to
 13 look after .
 14 Q. He says he would always ask if the surveyor needed any
 15 help or assistance. Did he always ask you if you needed
 16 help or assistance?
 17 A. No, I wouldn't say that.
 18 MR MILLETT: Right.
 19 Mr Chairman, I have one very short document just to
 20 show the witness and then I can finish off this line of
 21 questioning, if that's acceptable.
 22 SIR MARTIN MOORE-BICK: All right.
 23 MR MILLETT: {RYD00004218}, please. This is an email of
 24 8 May 2014 from Mr Stephen Blake to Simon Lawrence and
 25 Zak Maynard. This is an internal Rydon document.

115

1 I just want to show you the very last line in the email.
 2 It says there at the bottom of the page:
 3 "Ps Claire mentioned Building Control submission as
 4 the dept is swamped - use someone else?"
 5 My question is: at this time, May 2014, was the RBKC
 6 Building Control department swamped?
 7 A. May 2014?
 8 (Pause)
 9 I would say for me personally, I was having to come
 10 in at weekends in order to deal with the academy and the
 11 leisure centre because it was a new-build and there was
 12 quite a lot to look at. So it was challenging.
 13 You know, I was doing my own area and, as I say, I was
 14 doing those two major projects, and the demands -- or
 15 not the demand -- I don't know whether the word
 16 "demand" ... the contractors were looking for my --
 17 I spent a lot of time looking at those particular
 18 projects.
 19 MR MILLETT: Right. Thank you.
 20 Mr Chairman, is that a convenient moment?
 21 SIR MARTIN MOORE-BICK: I think it is, yes, thank you very
 22 much.
 23 Mr Hoban, we're going to have a break now so
 24 everyone can get some lunch. We will resume at 2.05,
 25 please.

116

1 While you're out of the room, please don't talk to
 2 anyone about your evidence or anything to do with it .
 3 THE WITNESS: No, no.
 4 SIR MARTIN MOORE-BICK: If you go with the usher, she'll
 5 look after you. Thank you very much.
 6 (Pause)
 7 Right, 2.05, please. Thank you.
 8 (1.05 pm)
 9 (The short adjournment)
 10 (2.05 pm)
 11 SIR MARTIN MOORE-BICK: All right, Mr Hoban?
 12 THE WITNESS: Yes, thank you.
 13 SIR MARTIN MOORE-BICK: Ready to carry on?
 14 Yes, Mr Millett .
 15 MR MILLETT: Mr Chairman, thank you.
 16 Mr Hoban, I have just a couple of follow-up
 17 questions arising from this morning's evidence.
 18 The first is you mentioned to us earlier that, after
 19 about September 2013, you had some 120 to 130 projects
 20 to oversee. Can you give us a feel for how many of
 21 those were small, simple, domestic projects as opposed
 22 to larger buildings, more complex projects?
 23 (Pause)
 24 A. It's hard to answer that question, because sometimes the
 25 simple -- what were considered to be the smaller

117

1 projects would be difficult in that there could be
 2 issues regarding the workmanship, or sometimes you had
 3 difficulty getting into properties, or there was things
 4 wrong with the work. So although it could be small in
 5 nature, it could be difficult from other aspects. But
 6 maybe 50%, maybe more. I was dealing with a lot of
 7 basements at the time.
 8 Q. Right.
 9 A. And also I had a number of projects scattered round the
 10 borough on the partnership scheme. I had 18 projects .
 11 So it was quite time-consuming getting from one part of
 12 the borough to the other, because I used public
 13 transport, so I would take up a lot of my day in
 14 travelling arrangements.
 15 Q. Yes, I see.
 16 A. If -- I don't know whether that helps slightly .
 17 Q. Yes, I think that does help, thank you.
 18 Can I also ask you about Lakanal House. You told us
 19 this morning -- and this is {Day45/94:2-11}, this is
 20 today -- that you remember Lakanal for the firestopping .
 21 A. Yeah.
 22 Q. What did you think, before the Grenfell Tower fire
 23 occurred, was the problem with firestopping at
 24 Lakanal House?
 25 A. That it hadn't been provided, or it hadn't been done

118

1 properly.
 2 Q. When you say firestopping, do you mean firestopping in
 3 the technical sense or do you mean cavity barriers?
 4 A. Firestopping. There may have been cavity barrier issues
 5 as well internally .
 6 Q. Right.
 7 A. As I say, I ... how much -- you know, it's a long time
 8 ago, so I can't recall how much detail -- I know
 9 obviously there was recommendations put in by
 10 the Inquiry about --
 11 Q. You mean the inquest?
 12 A. At the inquest, sorry, at the inquest, about certain
 13 regulatory matters.
 14 Q. Did you ever receive any training to learn the lessons
 15 of the Lakanal House fire at all?
 16 A. I think it could have been mentioned in in-house
 17 seminars, but specific training, no.
 18 Q. Right.
 19 A. But, you know, in-house training or seminars, it may
 20 have been mentioned in the actual presentation.
 21 Q. Yes. What about Shirley Towers, does that fire mean
 22 anything to you?
 23 A. Is that the one in Hertfordshire?
 24 Q. Yes.
 25 A. Yes, I remember it being on the news, because a couple

119

1 of -- or three people lost their lives, two of them were
 2 firemen.
 3 Q. Yes, all right. But you don't remember any training in
 4 relation to the Shirley Towers fire?
 5 A. No, no.
 6 Q. Can I then turn to the question of the involvement of
 7 Mr Hanson and the means of escape group.
 8 Now, we know that within RBKC there was something
 9 called a means of escape group that could be consulted
 10 by Building Control officers such as you. Is that
 11 right?
 12 A. Well, we did use their services, but we had --
 13 originally the fire regulations group would have dealt
 14 with all aspects under B, but there was a change in
 15 policy, I can't remember when, it was prior to the
 16 restructuring, where they -- management said that the
 17 surveyors were to deal with B2, 3 and 4 on buildings,
 18 whereas prior to that section 20 buildings -- because
 19 this was what was known as a section 20 building under
 20 the old London Building Acts -- would have been dealt
 21 with by the fire regulation group.
 22 Q. I see. So there was a group called a means of escape
 23 group?
 24 A. Well, I think they were actually called the fire
 25 regulations group.

120

1 Q. Right.

2 A. Although primarily it would be B1.

3 Q. Does the division of responsibilities that you have just

4 described to us, whereby surveyors were to deal with B2,

5 B3 and B4, mean that you, as a surveyor, had not dealt

6 with B2, B3 and B4 specifically on buildings prior to

7 this restructuring?

8 A. No, on smaller jobs, you know, like a house or

9 a low-rise block, yes, we would deal with those. On

10 high-rise buildings such as Grenfell, prior to that

11 instruction, the fire regulations group would have dealt

12 with all aspects.

13 Q. Right, and you were not part of that group?

14 A. No. I stopped -- I became a general assistant in 1985.

15 Q. Yes.

16 At the time of the Grenfell Tower project,

17 Paul Hanson was part of the means of escape group,

18 I think.

19 A. He was the only person.

20 Q. He was the means of escape group, was he?

21 A. He was.

22 Q. Right. He is or was a qualified fire engineer, isn't

23 he?

24 A. Yes.

25 Q. You say in your first statement -- there is no need to

121

1 turn it up, it's paragraph 36 {RYD00033934/4} -- that

2 Paul Hanson would make decisions on B1 and B5 of the

3 Building Regulations.

4 A. Yes.

5 Q. That was so in relation to Grenfell, was it?

6 A. Yes.

7 Q. Is it fair to say that, strictly, he was a consultant

8 who could make observations? That's how he has

9 described his role in his statement at paragraph 31.

10 Would you agree with that?

11 A. No, well, he was the person that did all the consult --

12 or arranged for the consultation with the fire

13 authority. He would do all the paperwork with that.

14 The process was, when we got his observations, I would

15 sit down with him and we'd go through his observations,

16 and I would get his advice from time to time on other

17 matters, because on Grenfell there was a number of

18 emails relating to cavity barriers, I think it was in

19 March 2015, where I sought his advice --

20 Q. Yes.

21 A. -- on that.

22 Q. We'll come to that.

23 A. And when I was dealing with the academy and the leisure

24 centre, he gave -- he was involved with considerations

25 other than B1 in relation to no sprinklers being

122

1 provided to the academy, and there was consideration

2 over the hose reel lengths, I believe.

3 Q. Can I see if I can cut through this a bit.

4 A. Yeah.

5 Q. On Grenfell, who was ultimately responsible for B1 and

6 B5? Was that Paul Hanson?

7 A. I would say yes, because he was the person that I would

8 go to for ... sorry I'm hesitating here. He's the

9 expert, so I would not go against his advice.

10 Q. Yes, but did you divide up responsibility? He would do

11 B1 and B5 and you would do B2, 3 and 4, or were you

12 responsible for all of those parts of the

13 Building Regulations, with him giving specialist advice

14 on B1 and B5?

15 A. Well, ultimately I would say I'm the area surveyor, but

16 he was the expert, and I would -- he would do the

17 negotiations with the Fire Brigade, and if we had

18 meetings, he was the person -- with the architect, he

19 was the person that would lead those meetings.

20 Q. Would you generally defer to Paul Hanson on all

21 fire-related Building Control issues if they arose in

22 a Building Control application?

23 A. Yes.

24 Q. Right.

25 A. If he pointed something out to me, yes, I would seek his

123

1 advice, and obviously when considering an application

2 under B, you have to consider all aspects, in my view.

3 Q. So would you say that you consulted with Paul Hanson on

4 B2 to B4 matters as well as B1 and B5?

5 A. I sought his advice from time to time.

6 Q. Yes. Did Mr Hanson refer matters on B3 and B4 back to

7 you to decide?

8 A. Yes.

9 Q. He did?

10 A. But, again, as I say, if I wanted clarification on B2 --

11 I was aware of the standards, and -- or not aware,

12 I understood the standards, but where there was ... new

13 codes came in, and he would be working with them all the

14 time, he was on various committees, so I would defer to

15 him.

16 Q. Yes.

17 Now, Beryl Menzies, who is one of the Inquiry's

18 experts, considers that it was a failure on the part of

19 RBKC not to have used the resource of a qualified fire

20 engineer for the benefit of the Building Control

21 department as a whole. Do you agree?

22 A. Yes.

23 Q. Do you also agree with her that the working relationship

24 between the means of escape group, in other words

25 Mr Hanson, and the other part of the Building Control

124

1 department was undefined and unclear to those involved?
2 Do you agree with that?

3 (Pause)

4 A. Well, as I say, I would refer to Paul from time to time.
5 It would have been -- it could have been a lot clearer.

6 Q. Do you agree that the working relationship didn't
7 necessarily support project surveyors like you in
8 reaching the best decisions under or for the purposes of
9 compliance with part B --

10 A. Yes.

11 Q. -- of the Building Regulations?

12 A. Yes.

13 Q. You do.

14 Can I just show you a document before we turn to
15 a different topic, {RBK00048682}, please. Again, this
16 is another internal Rydon document, so you won't have
17 seen it, Mr Hoban. It's an email of 5 September 2014.

18 I'm so sorry, it's from you, actually, so you will
19 have seen it. It's from you to Simon Lawrence and
20 Simon O'Connor at Rydon. You say there in the second
21 sentence:

22 "I would confirm that I am the building control
23 surveyor charged with dealing with all building
24 regulations matters for the project. Paul Hanson is the
25 building control surveyor (fire regulations) for the

125

1 scheme and he will provide me with technical advice and
2 observations on the proposals submitted under Parts B1
3 and B5 in Schedule 1 of such regulations, as that is his
4 reference for this project.

5 "Should you have any proposals and/or issues that
6 you desire technical advice on from this office, under
7 Parts B1 and B5 of The Building Regulations, I would be
8 grateful if you would contact myself in the first
9 instance, so that I am aware of these matters, as they
10 may impact on other parts of the building regulations."

11 Do you agree with what you said there about the
12 respective roles of you and Paul Hanson in relation to
13 this project?

14 A. That's what we were instructed to do from -- as
15 I previously mentioned, instruction prior to the
16 restructuring that we were to deal with B2, 3 and 4.

17 Q. Right.

18 The impression given by this email from you is that,
19 in relation to B2, 3 and 4 matters of the
20 Building Regulations, you would be the person to give
21 technical advice, and it was only Mr Hanson who would be
22 giving technical advice on B1 and B5. Is that what you
23 wanted to impart?

24 A. Yes, but, as I say, I would go back to Paul from time to
25 time on -- to get advice on matters.

126

1 Q. I see. So does it come to this: Paul Hanson would be
2 the go-to man for B1 and B5, you would be the go-to man
3 for B2, B3 and B4, but he would be your private in-house
4 resource for any particular technical questions you had
5 on B2, 3 and 4?

6 A. Yes, and he would come out with me on site from time to
7 time.

8 Q. Thank you.

9 Can I then turn to your specific involvement with
10 Grenfell Tower.

11 We know that RBKC is the freehold owner of
12 Grenfell Tower. Would RBKC Building Control treat
13 applications that it received in relation to buildings
14 owned by RBKC in exactly the same way that it would in
15 relation to applications for buildings owned by other
16 people?

17 A. Yes. As regards the regulations, we wouldn't give them
18 any, as it were, favourable consideration. We may ...
19 I know when I was dealing with the academy and the
20 leisure centre, I spent a lot of time on there because
21 I was instructed to do that.

22 Q. Yes, and there is some evidence of that.

23 Now, we know that John Allen had been the primary
24 point of contact with Studio E in 2012, and that will be
25 explored with him perhaps.

127

1 By the time you became involved, RBKC
2 Building Control had already met Studio E and had
3 received some documents, such as the Exova outline fire
4 safety strategy. Can you confirm that?

5 A. Yes.

6 Q. Now, John Allen suggests in his first statement that he
7 allocated the KALC/Grenfell project to you after he was
8 appointed Building Control manager in the September of
9 2013.

10 Now, in your second statement to the Inquiry -- just
11 for reference purposes, this is paragraph 5 on page 2
12 {RBK00050416/2} -- you say you think you were appointed
13 in December 2013.

14 A. Yeah.

15 Q. Were you appointed in September or in December of that
16 year, do you think?

17 A. I believe that John Allen had some dealings with
18 Studio E in the September time. I believe, as I say,
19 from my recollection, that he was -- he had some
20 involvement, and then I was told in the November or the
21 December, when I wrote that statement --

22 Q. Okay.

23 A. -- or that email.

24 Q. Well, let's explore some more detail.

25 Who was the Building Control surveyor in respect of

128

1 the Grenfell Tower project during the period September
2 to December of 2013, do you remember?
3 A. I would say John Allen was, until it was handed to me.
4 Q. Right. This may help you --
5 A. Yeah.
6 Q. -- just to fix it --
7 A. If I may, sorry.
8 Q. Yes, of course.
9 A. I don't know whether I actually attended a meeting with
10 Bruce Sounes prior to that date. That's what I'm not
11 certain of.
12 Q. I understand, thank you for that clarification .
13 {SEA00010232}. I think we may be able to use this
14 document to pin down a time. This is an email of
15 31 December 2013 from you, and you say in the first
16 paragraph:
17 "Thank you for your preliminary submission."
18 It's addressed to Bruce Sounes.
19 "I have now been appointed the surveyor responsible
20 for the part of Borough where your project is situated .
21 "Please find attached marked up plans and
22 observations relating to the fire strategy for the
23 Grenfell Tower project, for your information/records."
24 So that gives a date of 31 December 2013. Do you
25 think you had any involvement with Grenfell before that

129

1 point?
2 A. Not that I'm -- the only question mark is: I had
3 a meeting -- Paul Hanson and myself had a meeting with
4 Bruce Sounes at some stage, but I'm not certain of that
5 date.
6 Q. At this point --
7 A. But I -- sorry.
8 Q. No, I'm so sorry.
9 A. But I believe that it would have been after that, but,
10 as I say, I can't say with absolute certainty .
11 Q. No, I understand.
12 When you did take over, as you say you had on or as
13 at 31 December, what steps did you take to familiarise
14 yourself with the project?
15 A. I looked at the information that was given to me at that
16 stage. I looked at the -- John Allen sent me some
17 emails and a fire strategy, but -- and then, as I say,
18 until an application came -- because I believe there was
19 very little contact until I met with Bruce Sounes,
20 whenever that date may be.
21 Q. Did you have a handover meeting with John Allen about
22 Grenfell Tower?
23 A. No, no, just the email and, as I say, that contents.
24 Q. Right.
25 Do you remember what the documents were more

130

1 specifically ? You say emails and the fire strategy .
2 We'll come to look at that in due course, but do you
3 remember what the emails were about?
4 A. It was mainly to do with smoke venting.
5 Q. Right.
6 At this stage -- this is the pre-application
7 phase -- was there a project file on Acolaid for you to
8 look at?
9 A. No.
10 Q. What about a hard copy file for you to look at?
11 A. I don't recall .
12 Q. Right.
13 Did you discuss the project with Paul Hanson at this
14 stage, late December 2013?
15 A. I would have only discussed it with him when we met with
16 Bruce.
17 Q. Can we go to {RBK00044900}, please. This is a -- and
18 this is all we have of it --
19 A. Ah, right, yes.
20 Q. You say, "Ah, right ". That's helpful; this seems to
21 trigger a recollection . Just to explain what it is, it
22 looks like an Outlook diary entry for 30 December 2013
23 to you and Paul Hanson, subject: "Grenfell Tower". Can
24 you tell us what this is signifying?
25 A. When I was saying "Ah, right ", I remember Neil Crawford

131

1 at some stage mentioning -- when I was dealing with the
2 academy, he spoke briefly to me during a site visit
3 there.
4 Q. Right.
5 A. This -- I can only assume that there was a meeting, but
6 the date is Christmastime, so I don't know whether we
7 would have had anybody in the office for a meeting round
8 that time, because that's the day before New Year's Eve.
9 Q. Indeed, but we've seen that you sent an email on
10 New Year's Eve, the next day, to Bruce Sounes saying
11 that you had been appointed --
12 A. Yeah.
13 Q. -- the BCO for the Grenfell Tower project, so you were
14 in and working at that stage.
15 A. Oh, yes, I would most probably be --
16 Q. Does this Outlook diary entry signify that there was
17 a meeting between you and Paul Hanson on that day,
18 30 December?
19 A. That I couldn't say, and was Paul working that week?
20 Q. Do you remember prior to your appointment at the end of
21 December 2013 whether you had had any discussions at all
22 with either Paul Hanson or John Allen about the cladding
23 and risk of external fire spread?
24 A. No.
25 Q. Can I ask you to go to {SEA00009805}, please. This is

132

1 an email from John Allen to Studio E of
 2 11 November 2013. Now, it's not copied to you, and it
 3 explains that RBKC's view -- and this is about the smoke
 4 extract system, as you can see from the third
 5 paragraph -- was that the information submitted to date
 6 was not adequate to enable effective consultation with
 7 the fire authority.

8 Were you aware of this email or discussions about
 9 that topic at this time?

10 (Pause)

11 A. I'm not certain. I can't give you an answer on that.

12 Q. All right.

13 If we turn to the second page of this email run
 14 {SEA00009805/2}, this is an email from Bruce Sounes to
 15 John Allen, dated 25 October 2013, which attached the
 16 proposed fire strategy for Grenfell, and that included
 17 the fire access and fire strategy drawings and the Exova
 18 issue number 2 of the outline fire safety strategy, as
 19 you can see from the list of documents that are said to
 20 be attached. Do you see that?

21 A. Yes.

22 Q. Now, that document, the OFSS issue 2, was dated
 23 24 October 2013, so a little bit -- the day before,
 24 I think, probably, by the time this email is sent.

25 Do you remember reading the Exova outline fire

133

1 safety strategy issue 2 when you started working on the
 2 project?

3 A. I can't say what issue I looked at. I did look at
 4 a fire strategy.

5 Q. Right.

6 Issue 3 was dated 7 November 2013. Do you think you
 7 might have looked at that?

8 A. I --

9 Q. There is not a great deal of difference between them.

10 A. I really can't say, sorry.

11 Q. Were you told at the time why it was that either
 12 John Allen or Paul Hanson or both of them had reached
 13 the view that the information provided by Studio E,
 14 which included this outline fire safety strategy, about
 15 the smoke extract system was insufficient?

16 A. No.

17 Q. Can we go to {SEA00000154}, please. This is a run of
 18 emails in early December 2013, the top one is dated
 19 3 December 2013, which attaches a "Fire Strategy.pdf".
 20 Do you see that?

21 A. Mm.

22 Q. Do you remember seeing or being aware of these emails at
 23 the time?

24 A. Not at the time, because, as I said, I believe I took
 25 the project over at the end.

134

1 Q. Right. Because you said earlier in your evidence that,
 2 as part of the handover, you were shown some emails.

3 Was this --

4 A. Yeah, I don't --

5 Q. -- one of the emails you were shown, do you think?

6 A. No, I don't believe so.

7 Q. Can we then go to {SEA00010232} again. This is the
 8 31 December 2013 email we looked at five minutes or so
 9 ago, where you tell Bruce Sounes that you have been
 10 appointed as the surveyor responsible for the area where
 11 Grenfell was situated.

12 You refer in the second paragraph down to "marked up
 13 plans and observations relating to the fire strategy for
 14 the Grenfell Tower project, for your information and
 15 records". Do you see that?

16 A. Yes.

17 Q. Just for the transcript, the documents that you returned
 18 to Studio E are {SEA00010369}, {SEA00002629}, and
 19 {SEA00002630}, just so we have those on the transcript.

20 I just want to ask you about the mark-ups and
 21 comments. Were they Paul Hanson's?

22 A. Yes.

23 Q. Did you have any input into those mark-ups and
 24 observations yourself?

25 A. We would have discussed them prior to -- the usual

135

1 practice -- as I say, I don't know when I had that -- we
 2 would usually go into an office and we would look at the
 3 plans, because -- so that I was familiar with what was
 4 going on.

5 Q. Did you discuss with Paul Hanson the marked-up plans and
 6 observations, with him specifically, before sending this
 7 email to Mr Sounes?

8 A. That would have been the practice, common practice.

9 Q. Right.

10 A. I can't say that I did, but generally that's how I would
 11 do it.

12 Q. And might that have been the day before --

13 A. Yeah, it could've been.

14 Q. -- according to the Outlook diary entry?

15 A. Well, maybe. Yes, maybe that is, sorry.

16 Q. Do you remember that? I mean, it's possible, but --

17 A. I can't. Possibly we had a meeting.

18 Q. All right.

19 A. And maybe that was it, that we agreed to sit down and go
 20 through so that I was aware what was going on.

21 Q. Can we go to {SEA00010369}. This is a memo from
 22 Paul Hanson to John Allen dated 6 December 2013, "B1 -
 23 means of escape observations", and in it he gives his
 24 comments about the smoke vent proposals.

25 Do you think this was a document you were shown or

136

1 saw before you took over?

2 A. I don't recall ever --

3 Q. Right.

4 If we look at page 4 {SEA00010369/4}, please, at the

5 very bottom of that page, it says that Paul Hanson had

6 not yet consulted the fire authority.

7 Was it your understanding at this point that

8 Paul Hanson was still not satisfied that

9 Building Control had sufficient information from

10 Studio E to enable him to consult the fire authority, or

11 did you not know anything about this?

12 A. I didn't know anything about this, but reading that,

13 you know, Paul has said that he hasn't enough

14 information.

15 Q. Yes.

16 Just physically in the office at RBKC, did you sit

17 in the same office as John Allen or Paul Hanson or can

18 you overhear each others' work?

19 A. We had a hot-desking system, so you would -- you could

20 sit wherever you wanted. Generally we would sit in the

21 same area, but sometimes if you wanted or if I wanted

22 a quiet time in order to do some particular thing,

23 I might go and sit in corner.

24 Q. Right. Okay.

25 A. Sorry.

137

1 Q. All right.

2 When you did come into the project, as you can see,

3 at the very end of December 2013, were you aware that

4 the Grenfell Tower project involved overcladding the

5 building?

6 A. Yes.

7 Q. You were?

8 A. Yes.

9 Q. Who told you that?

10 A. I could see that on the drawings.

11 Q. Right, could see it on the drawings.

12 Now, then, could we go to {RBK00048649}, please, and

13 look at the second email down on that page, page 1.

14 This is an email from Bruce Sounes to you and

15 Paul Hanson, 6 January 2014, and in it he says:

16 "Your comments [are] split roughly between the smoke

17 vent and fire separation, the former will be covered by

18 the Engineers, the latter mostly by Studio E. The

19 design has been the subject of lengthy deliberation and

20 while I can understand some of the requests for

21 additional separation there are reasons why we hadn't

22 indicated them and we would like to discuss these with

23 you in further detail (access to the risers, refuse

24 chutes etc).

25 "The priority for our client, the TMO is to

138

1 eliminate the risk of significant design changes before

2 appointing a contractor and I believe the consultation

3 with the Fire Authority is key to this. I hope this can

4 be made before we arrange another meeting with you.

5 Will a response to the smoke ventilation be enough for

6 this to happen?"

7 Did you get the impression from this that Studio E

8 was putting you under time pressure to consult the fire

9 authority at this stage?

10 (Pause)

11 A. Yes, but we wouldn't -- until we were happy with it,

12 you know, we wouldn't put an application in.

13 Q. Right.

14 A. But you can see that they're doing that.

15 Q. Go to the top email, then. This is Paul Hanson's

16 suggestion to you internally where he is recommending

17 the following response. He had been copied in on the

18 email and was recommending a response to you. You see

19 that?

20 A. Yes.

21 Q. It's sent to you at about 15.06 on that day. Just look

22 at the text, he says:

23 "I recommend the following response:-

24 "We are happy to pass on the question to the fire

25 authority regarding changes to the smoke vent system as

139

1 a separate exercise to the building control submission."

2 I will not read it all out to you. Clearly that's

3 what he was suggesting you should say to Studio E.

4 If we now go to {RBK0003854}, please, we can see

5 your response to Bruce Sounes sent at 15.20 the same

6 day, so just about 15 minutes later. Do you see that?

7 A. Yes.

8 Q. That looks like a cut and paste from Mr Hanson's

9 suggestion in his email 15 minutes earlier; is that

10 right?

11 A. Yes.

12 Q. I see. So you were simply passing on Paul Hanson's

13 comments that he had suggested to Studio E, effectively?

14 A. Yes.

15 Q. I think, in the event, Studio E didn't provide the

16 further information relating to the smoke vent system

17 that you had asked for, did they?

18 A. That I can't comment on, sorry.

19 Q. Right. And I think it's right that there was no

20 consultation at that stage of the fire authority either.

21 A. No, no.

22 Q. Okay.

23 Let's move on in time. Please go to {ART00003931}.

24 These are minutes of progress meeting number 10 on site,

25 21 April 2015, so a long way ahead in time. But if we

140

1 look at page 3 {ART00003931/3}, you can see at the
 2 bottom of the page it says there:
 3 "[Simon Lawrence] is meeting with building control
 4 on 17/04 [that must be 2015] to inspect the reinforcing
 5 to the mezzanine prior to the concrete pour."
 6 Do you remember, was it you who was the
 7 Building Control officer attending that meeting?
 8 A. It most probably was, but I can't be absolutely certain.
 9 Q. Right.
 10 Can we go back, then, in time. {RBK00052478}. This
 11 is a record of the RBKC site visits. Now, I just want
 12 to be clear with you what document this is, because it's
 13 a document that we will be going to quite a lot in the
 14 course of your evidence to come, Mr Hoban. It's
 15 a document that was compiled on 14 June 2017, so the
 16 same day as the fire, and it's sent to Claire Williams
 17 of the KCTMO, and it's the records from
 18 Building Control, John Allen, of the site notes for the
 19 application. It's a long document, and it ends on
 20 page 1, so you start at the bottom end of it.
 21 Can we go to page 8 {RBK00052478/8}. This is the
 22 first entry or site visit taking place on
 23 29 August 2014. Now, I should just tell you, this is
 24 the first RBKC record of any site visit we have by
 25 Building Control to the Grenfell Tower refurbishment

141

1 site.
 2 Is that right? Was that your first site visit, do
 3 you think?
 4 A. I believe -- well, from that, yes.
 5 Q. Okay.
 6 Now, if we go to {RBK00003810}, this is an email
 7 from you to Neil Crawford dated 17 July 2014. Do you
 8 see that?
 9 A. Yes.
 10 Q. So this is after the fire.
 11 A. No, this is before.
 12 Q. I'm so sorry, it's 2014, I'm sorry.
 13 A. Yes.
 14 Q. "Neil,
 15 "Please find detailed below the last e-mails that
 16 I have in my possession relating to the Grenfell Tower
 17 Project, for your information."
 18 The email you sent him is 8 January 2014 from
 19 Paul Hanson to you, which is the one at 15.06 that we
 20 saw I think earlier on. That then became the one you
 21 cut and pasted and sent on.
 22 A. Yeah.
 23 Q. This suggests, looking at it, that there had been no
 24 further email contact between you and Studio E between
 25 8 January, in the email we saw before, and mid-July

142

1 2014. Was that correct?
 2 A. Yes, I believe so.
 3 Q. Do you know what prompted you to send this email to
 4 Neil Crawford of 17 July 2014?
 5 A. He asked for information.
 6 Q. He asked for information?
 7 A. I think he ... I believe he became involved. Up until
 8 that time, I'd been dealing with him on the academy
 9 extensively.
 10 Q. Do you remember how he contacted you?
 11 A. Pardon?
 12 Q. Do you remember how he contacted you?
 13 A. Well, there's obviously the email there. I don't know
 14 whether he said in conversation while I was at the --
 15 dealing with the academy, whether he said to me that he
 16 wanted to talk to me about Grenfell, but I'd only be
 17 speculating.
 18 Q. Just so that I'm clear, you take over as Building
 19 Control officer on the Grenfell Tower project at the end
 20 of December 2013?
 21 A. Yeah.
 22 Q. Were you still, after that time, Building Control
 23 officer on the KALC project?
 24 A. Yes.
 25 Q. So you were running both of those?

143

1 A. Yes.
 2 Q. Right, I see.
 3 Do you remember in these initial discussions with
 4 Mr Crawford about Grenfell Tower what it was you
 5 discussed?
 6 A. I think it was, "I'll be dealing with it and I need to
 7 see you".
 8 Q. I see. Did he give you any further information about
 9 the refurbishment at that time?
 10 A. Not at that stage.
 11 Q. Did he mention overcladding the building, do you think?
 12 A. No, I think it was just that he would be dealing with
 13 it.
 14 Q. I think you then made this visit on 29 August 2014,
 15 which is referred to in the document we looked at
 16 a moment ago. Was that before you had seen any drawings
 17 for the building, other than perhaps the marked-up
 18 version that was sent on 31 December --
 19 A. I believe so.
 20 Q. -- 2013? Right.
 21 Can we look at a note of the site visit,
 22 {RBK000052478/8}, which we just looked at a moment ago.
 23 You can see there it says, 29 August 2014.
 24 "Action: Pre-start Visit.
 25 "Result: Satisfactory.

144

1 "Officer : John Hoban.
2 "Notes: visited site met project manager had brief
3 discussion about the project, asked to be contacted when
4 construction works commence on site, gave advice as to
5 what stages of the works we need to [be] contacted to
6 inspect. Workmen still presently carrying out
7 demolition works nothing to check at time of visit .
8 Demolition works to go on for some time. Also informed
9 the project manager that I had yet to receive up to date
10 details of the works."
11 The reference to meeting the project manager, was
12 that Simon O'Connor of Rydon?
13 A. I believe so.
14 Q. Do you think you met Neil Crawford of Studio E on site
15 at that meeting as well?
16 A. No, I don't believe I did.
17 Q. It refers to a brief discussion about the project; do
18 you remember what the content of that discussion was?
19 A. Just generally what the works were to be.
20 Q. Right. Did you look at any drawings at that meeting?
21 A. I may have.
22 Q. You may have?
23 A. Yes.
24 Q. Do you have any specific recollection of it?
25 A. I can't remember that meeting, but -- or I can remember

145

1 having the discussion, but I can't specifically remember
2 saying we got the drawings -- generally, when I go
3 on site, I would look at drawings.
4 Q. Right. Would you look at drawings that you brought with
5 you or would you be provided with the drawings when you
6 got to site?
7 A. They would be the drawings on site. Sometimes I would
8 bring drawings at the end in order that -- in order to
9 check that they corresponded with the fire strategy, but
10 up until that time I would look at the drawings on site,
11 because obviously --
12 Q. Right.
13 A. -- that's what I would be checking against.
14 Q. I understand. So to get to the drawings on site, where
15 would you go?
16 A. The site office .
17 Q. And who was running that?
18 A. At that time it was Simon Lawrence -- no,
19 Simon O'Connor.
20 Q. Simon O'Connor?
21 A. Sorry, Simon O'Connor.
22 Q. So the up-to-date drawings that you would want to see
23 would be held in the site office?
24 A. Yes.
25 Q. I see.

146

1 A. I don't know how much information he would have had at
2 that time.
3 Q. At that meeting, do you remember whether you discussed
4 the overcladding proposals, with Mr O'Connor?
5 A. Not in specific detail, but I would have known that the
6 building is being overclad.
7 Q. Was there any discussion about the materials that were
8 planned for use in the external wall construction?
9 A. No, I don't believe so.
10 Q. Did they tell you that they had an outstanding planning
11 application for approval of the materials on the façade
12 which had not yet been resolved?
13 A. No, I don't believe so.
14 Q. Now, Mr Crawford says in his witness statement -- and
15 this is paragraph 206 (SEA00014275/65) -- that he
16 recalls meeting you on site in the week commencing
17 25 August 2014. Now, he was also asked about that in
18 his oral evidence, {Day11:137/12}, and he said -- and
19 I'll just put to you the gist of his evidence -- that he
20 had with him the basic project drawings, and he says he
21 recalls sitting and discussing the project and that you
22 took drawings away with you.
23 Did you sit and discuss the project with Mr Crawford
24 in late August 2014?
25 A. I don't recall that.

147

1 Q. Did you have any discussion with Mr Crawford in late
2 August 2014 which included the basic project drawings?
3 A. Not that I can recall .
4 Q. Do you remember taking any drawings away with you from
5 any meeting with Mr Crawford in late August 2014?
6 A. No, no, I don't -- as I say, as far as I recall,
7 I didn't.
8 Q. Were you ever given drawings in any face-to-face
9 meetings that you had with Mr Crawford?
10 A. Not that I can recall .
11 Q. What about another member of the Grenfell design team?
12 A. I don't know whether Bruce left any drawings with us
13 when he had the meeting in our office .
14 Q. Which meeting are you referring to?
15 A. Paul and I had a meeting with Bruce Sounes at some
16 stage. I mentioned this previously.
17 Q. Yes. Was this prior to this site visit or afterwards?
18 A. I can't recall . Generally I wouldn't take information
19 away with me, because I'd be out on site all day, and
20 I wouldn't be carrying drawings with me, because, as
21 I say, I would be going in and out of sites .
22 Q. Do you remember telling Mr Crawford at this time that
23 you were primarily concerned with fire - related matters
24 and that those were your priority?
25 A. No, I'd be concerned with all aspects of the Building

148

1 Regulations.
 2 Q. Now, your site visit note here says that you informed
 3 the project manager that you had yet to receive
 4 up-to-date details of the works.
 5 A. Yes.
 6 Q. Was that a matter of concern to you at the time?
 7 A. It was, but it wasn't unusual that we didn't have -- on
 8 lots and lots of jobs it would be chasing people for
 9 drawings and information.
 10 Q. Right.
 11 A. So it wasn't unusual.
 12 Q. Was there any particular aspect of the project that you
 13 had in mind when you asked for up-to-date information on
 14 that occasion?
 15 A. No, it was generally details of the work.
 16 Q. Did you see a mock-up of the cladding on site during
 17 your visit?
 18 A. No.
 19 Q. So we know that there was a mock-up presented in July of
 20 2014, but we're not sure when it was taken down. Did
 21 you see anything on site showing --
 22 A. I don't recall seeing anything on site .
 23 Q. Right.
 24 We know that the full plans application had been
 25 submitted already on 4 August, so much earlier in that

149

1 month. Were you concerned that there were no up-to-date
 2 details , given that the full plans application was
 3 already live ?
 4 A. We got in applications from time to time with no
 5 drawings. It was validated, that's the way the office
 6 worked. So it was a concern, but it wasn't unusual.
 7 Q. Yes, I see.
 8 Was the absence of plans, given that there was at
 9 this stage a live full plans application , something
 10 which drove you to ask for more details?
 11 A. Oh, yes, yes.
 12 Q. Right, okay.
 13 A. Yes.
 14 Q. The note also refers to the stages of works that you
 15 would need to be contacted for, for inspection. Do you
 16 see it says "advice as to what stages of the work we
 17 need to [be] contacted to inspect"? What were those
 18 stages, do you remember?
 19 A. It was mainly the structure , DPCs, drainage, the
 20 notifiable notifications as specified in the
 21 Building Regulations.
 22 Q. For a project involving cladding, overcladding -- and
 23 I know you say you have not done a high-rise before --
 24 did you have any sense of what stages you would expect
 25 to carry out inspections at, from that point on?

150

1 A. I would go along and do interim visits and see what was
 2 going on at the time, and then if anything concerned me
 3 then I would react accordingly.
 4 Q. So you say you would do interim visits , and you told us
 5 this morning that you set these at monthly for yourself .
 6 A. Yeah.
 7 Q. Was that just a diary entry, or were your site visits
 8 related to particular stages the project had reached?
 9 A. No, I think at the start , with Simon O'Connor, after
 10 I finished one visit , I would agree a date for another,
 11 but that didn't continue.
 12 Q. Right.
 13 More specifically , would you expect to inspect
 14 particular elements, like insulation and
 15 cavity barriers , where they had been installed but
 16 hadn't yet been covered up by cladding panels?
 17 A. I did -- well, I did go and see, as works was
 18 progressing, on certain occasions --
 19 Q. Yes, and we'll come to those. Let me put the question
 20 slightly differently , because I'm not sure I've really
 21 got the point across.
 22 When you were saying, as this note says, "gave
 23 advice as to what stages of the works we need to [be]
 24 contacted to inspect", did you have in mind that, even
 25 though you might be doing site visits monthly, you

151

1 needed to inspect each element of the cladding system as
 2 it was installed to make sure that it was installed
 3 correctly and compliantly before it was covered up by
 4 the next element?
 5 A. No, not --
 6 Q. You didn't?
 7 A. No.
 8 Q. Now, we move forward a little bit in time, not much,
 9 {SEA00000189}, 3 September 2014. We see here an email
 10 to you from Simon Lawrence on that day, copied to
 11 Simon O'Connor and Neil Crawford, and he says:
 12 "Morning John,
 13 "We haven't been introduced properly yet, but I am
 14 Rydon's Contracts Manager for the Grenfell Tower
 15 project . I understand that you dropped into our site
 16 office recently and had a brief introduction to the
 17 project and drawings from our Project Manager,
 18 Simon O'Connor."
 19 Do you see that?
 20 A. Yes.
 21 Q. Now, first of all , you hadn't had any contact, I think,
 22 with Simon Lawrence before that point, had you?
 23 A. No, I don't believe so.
 24 Q. Looking at the second sentence of this email, is this
 25 your visit on 29 August, do you think?

152

1 A. Yes, I believe so.
 2 Q. And he says that you had had an introduction to the
 3 project and drawings. It looks very much from this
 4 contemporaneous document that Simon O'Connor did show
 5 you some drawings.
 6 A. Yes, it would appear so.
 7 Q. But I think you can't remember what drawings he showed
 8 you; is that right?
 9 A. Yeah.
 10 Q. Then if we look at the last sentence, he says that he is
 11 going to arrange a meeting with yourself on site shortly
 12 with Studio E. Does that help you remember whether you
 13 had already met Neil Crawford on site in the week of
 14 25 August as he says, or not met him yet?
 15 A. I don't believe I had met -- as I say, that's -- but
 16 I meet so many people, and I was meeting Neil on the
 17 academy.
 18 Q. Yes.
 19 A. So it's ... I can just say that. But I don't believe
 20 I had, or it's my belief that I didn't have a meeting
 21 with --
 22 Q. Yes, I follow.
 23 A. -- him before then.
 24 Q. Right.
 25 Is it possible that you met Neil Crawford on the

153

1 KALC site in the week, the last week of August 2014, and
 2 met Simon O'Connor on the Grenfell site in the same
 3 week?
 4 A. Maybe. I can't say.
 5 Q. You can't remember.
 6 Can we go up a little bit in this email to the long
 7 first paragraph. Halfway through that, Simon Lawrence
 8 says:
 9 "To be honest we would have liked to have got
 10 yourself on board earlier but there has been some Client
 11 design changes which we were hoping to confirm before
 12 our application so as not to confuse issues in the
 13 future."
 14 Would you expect to have had more involvement with
 15 a project of this nature before a full plans application
 16 was formally submitted?
 17 A. Yes.
 18 Q. Would you expect a contractor or an architect to ask for
 19 your input on particularly the overcladding proposals as
 20 part of the pre-application advice or input from you?
 21 A. Yes.
 22 Q. Did you think at this time that the full plans
 23 application was coming rather late in the day?
 24 A. Yes.
 25 Q. Did you get the sense that it would have been better to

154

1 have involved you at a much earlier stage so that you
 2 had had input from a Building Control perspective into
 3 the full plans application before it was submitted?
 4 A. Yes.
 5 Q. Now, were you aware at this point -- so early
 6 September 2014 -- that RBKC's planning department was
 7 considering Rydon's proposal to install ACM
 8 polyethylene-cored panels as the rainscreen instead of
 9 zinc panels with a metal honeycomb core?
 10 A. I wouldn't have been aware of that.
 11 Q. Can you help me: at that time, would you expect the
 12 planning department to flag matters like that to the
 13 Building Control department, as part of its integrated,
 14 co-operative approach?
 15 A. As I said previously, we would have contact with the
 16 planners when they asked for advice on certain matters.
 17 It wasn't -- I'm not aware of any policy. There may
 18 have been a policy but I wasn't actually aware of it.
 19 As I say, with planners, they would come to me
 20 occasionally with plans, for example if they were
 21 altering a listed building and they were concerned about
 22 a particular type of construction. But generally, the
 23 planners didn't consult us on a regular basis.
 24 Q. I mean, would you expect the planning department to come
 25 to you and ask for your view as a Building Control

155

1 officer where something like the panels on the exterior
 2 of an overcladding system were to be changed from zinc
 3 to aluminium?
 4 A. It would have been good if they had.
 5 Q. Well, it would have been good if they had.
 6 A. Yes.
 7 Q. But did you expect them to do so at the time as a matter
 8 of fact?
 9 A. As I say, my contact with planning officers was they
 10 would come to us when they felt it was necessary.
 11 Q. Right.
 12 Was there any communication, to your knowledge,
 13 between the planning department and the Building Control
 14 department within RBKC about Grenfell Tower at around
 15 this time?
 16 A. No, not to my knowledge.
 17 Q. Can we then inch forward in time to {RBK00052478/6},
 18 please. This is another record of a visit,
 19 5 September 2014, and it copies into the document
 20 an email from you, Mr Hoban, to Simon Lawrence and
 21 Simon O'Connor of 5 September, and it's labelled
 22 an interim site visit.
 23 Did an actual site visit take place on that date, do
 24 you think?
 25 A. I would have to see my diaries. That's why I was asking

156

1 for my Outlook calendar to confirm that.
 2 Q. Right.
 3 A. I believe there -- it would have happened that day, but
 4 without access to my Outlook calendar or the other --
 5 I can't confirm that.
 6 Q. I mean, clearly, somebody who had compiled this thought
 7 that your action was an interim visit by reference to
 8 this email.
 9 A. That would've been me.
 10 Q. I'm sorry, could you repeat what you just said?
 11 A. I said that would have been me, I believe I would have
 12 put that. I think I was still waiting for -- well, you
 13 can see it's unsatisfactory. I'm still waiting for
 14 information, I believe.
 15 Q. I follow.
 16 If we can go to page 7 {RBK00052478/7}, we can see
 17 that you're sending, as part of that entry, the email,
 18 or you're recording the email, from Neil Crawford to
 19 Simon Lawrence, copied to Paul Hanson. Do you see that?
 20 A. Yeah.
 21 Q. Which says that Paul Hanson is a fire engineer and best
 22 placed to answer questions regarding the dry riser and
 23 AOVs, and then your email above that that we saw earlier
 24 on.
 25 A. Mm.

157

1 Q. Looking at those two together, are you saying there that
 2 all queries should come to you first?
 3 A. Yes, so that I'm aware what's going on on the project.
 4 Q. Yes, exactly. The question is: did Rydon and Studio E
 5 comply with your request after you had made it clear to
 6 them?
 7 A. I think sometimes there was direct contact with Paul.
 8 Q. I see.
 9 Now, moving on in time to later in September, can we
 10 go, please, to {RYD00018742}. This is an email from
 11 Neil Crawford to you of 24 September 2014, and it
 12 attaches a zip file containing a pack of drawings. It's
 13 also copied to Paul Hanson and Simon Lawrence, as we can
 14 see. Now, this is about seven weeks after the full
 15 plans application had been submitted on 4 August.
 16 Was this the first time that you'd received drawings
 17 relating to the project, other than those that had been
 18 marked up by Mr Hanson at the end of December 2013?
 19 A. Yes.
 20 Q. In the second sentence of the email, he says:
 21 "I believe yourself and Paul Hanson sat down earlier
 22 in the year and did an initial appraisal of the proposed
 23 layout changes to the lower levels with Bruce Sounes
 24 from our office."
 25 Is that correct? Had you done that?

158

1 A. That's the meeting I was referring to earlier.
 2 Q. I see. Do you remember when earlier in the year you had
 3 done that initial appraisal?
 4 A. I can't recall. As I say, there may be records in
 5 Paul Hanson's files --
 6 Q. Right.
 7 A. -- on that.
 8 Q. Do you remember whether that appraisal covered the
 9 design, construction or make-up of the overcladding
 10 system proposed?
 11 A. That I couldn't tell you.
 12 Q. Looking at this pack of drawings that comes in, did you
 13 review this pack when it came in?
 14 A. Yes.
 15 Q. Did you take notes about the drawings or on the
 16 drawings?
 17 A. Yes.
 18 Q. Can you recall in general terms what your impression was
 19 about the quality or the completeness of the drawings
 20 that were submitted?
 21 A. They weren't complete.
 22 Q. Now, these drawings were issued to you clearly outside
 23 the statutory five-week time limit for a decision on the
 24 full plans application. Did that concern you?
 25 A. It did concern me that I wasn't getting information from

159

1 them. In my view, the original application wasn't
 2 a valid application because it wasn't complete, but our
 3 office would accept just a form as a valid submission.
 4 Q. Was there any policy within the Building Control
 5 department concerning compliance by surveyors with the
 6 five-week time limit?
 7 A. I don't know whether there was anything written down.
 8 Generally we would work to those timetables, but as
 9 I say, with this particular project, the drawings
 10 weren't there and, as I say, we were waiting for
 11 information, and I was trying to work with the
 12 contractor and the architects.
 13 Q. Was there any policy within the Building Control
 14 department for enforcing compliance by applicants with
 15 the time limit, so for example rejecting applications
 16 that were out of time?
 17 A. Yeah. Yes.
 18 Q. What was that policy for enforcement?
 19 A. Well, I don't know whether it was written down, but
 20 if ... sometimes if I had an application and there was
 21 no drawings, I would actually write down that,
 22 "Rejection, please submit details A, B, C, D, E, F G".
 23 Q. Do you know why you didn't reject the full plans
 24 application --
 25 A. At this stage --

160

1 Q. -- even though it was out of time?
 2 A. -- because I was trying to work with --
 3 Q. Right.
 4 A. -- the contractor and Studio E.
 5 Q. Now, Ms Menzies says at paragraph 326 of her report --
 6 just for the reference, it's {BMER0000004/101} -- that
 7 you should have rejected the full plans application due
 8 to a lack of supporting documentation to enable the
 9 application to be decided within the statutory time
 10 limit. Do you agree with that?
 11 A. In hindsight, yes, but as I say, at the time I was
 12 trying to work with them.
 13 Q. Yes, I understand. Okay.
 14 Now, before we look at the details of these
 15 drawings, I just want you to look at the last sentence
 16 of Neil Crawford's email. He says:
 17 "I know you like to go through the drawings on an
 18 agreed process of release rather than just being swamped
 19 with everything at once so I am just sending the
 20 following drawings to start with."
 21 Now, if we go to his statement, I do want to show
 22 you this, this is {SEA00014275/17}, please, I would like
 23 to show you paragraph 40 on that page, and he says
 24 there, in the middle of the paragraph:
 25 "Building Control set its own agenda for checking

161

1 off items, and it made it clear to me that I would be
 2 contacted should further information be required."
 3 So that's what he said in his witness statement.
 4 On {Day11/142} he told us that that reference was
 5 a reference to his conversation with you on site in the
 6 week of 25 August 2014.
 7 Do you remember saying something along those lines
 8 to --
 9 A. No --
 10 Q. -- Mr Crawford at that time?
 11 A. No, I don't.
 12 Q. Is it right that you told Neil Crawford that you didn't
 13 want to be swamped with everything at once?
 14 A. We would have it generally in stages, that's how it
 15 would work, but I don't actually recall actually saying
 16 those words. When I was dealing with the academy, as
 17 I said, things came in stages.
 18 Q. Did you tell him that your workload was particularly
 19 heavy at this point and that therefore --
 20 A. I don't believe I did.
 21 Q. Right.
 22 Do you agree that only asking or only getting things
 23 in pieces, tranches, runs the risk that relevant
 24 information might be missed or might not be given to you
 25 because the relevant professionals are waiting for you

162

1 to ask for it, in other words when you were ready you
 2 would take on more?
 3 A. No, as I say, it's their responsibility to provide us
 4 with information, and I was chasing them for
 5 information, and -- I don't -- perhaps "chasing" isn't
 6 the word. I did mention it on numerous occasions. As
 7 I say, it's sort of highlighted with the calculations.
 8 They didn't come in until whatever date. So I was
 9 always after them for information, and I think it was
 10 "Yes, it's coming".
 11 Q. Let's now look at the drawings contained in the zip file
 12 that Mr Crawford attached and sent to you on
 13 24 September 2014. Can we please bring back document
 14 {RYD00018742}.
 15 Now, I just want to start with a general
 16 proposition.
 17 The Inquiry's experts, by whom I mean Ms Menzies,
 18 Dr Lane and Mr Hyett, each of those experts to
 19 the Inquiry have looked at this zip file and come to the
 20 conclusion that the drawings listed in the covering
 21 email don't match the drawings in the zip file.
 22 Did you yourself do any checks of the drawings that
 23 you had in the zip file against the list to see if there
 24 were discrepancies?
 25 A. No, I don't believe I would have. I would have asked

163

1 for somebody to process these drawings, so that I would
 2 have a number -- as I say, I don't know whether
 3 I actually emailed Paul Hanson this or whether
 4 I actually got them printed and filled in a consultation
 5 form, because there's a formal consultation form that
 6 I have to fill in and send to the fire regulations group
 7 when consulting with them.
 8 Q. Right.
 9 Did you note that the drawings named in the list
 10 were missing from the zip file, or some of them were?
 11 A. No, I don't believe I did.
 12 Q. For example, did you note that fire access plan 1279 SEA
 13 (08) 100b, which is listed as the second drawing --
 14 A. I can't recall.
 15 Q. -- was missing? You didn't.
 16 Let's just go to an example of what those drawings
 17 did show. Can we go to {RYD00018750}.
 18 Before you do, this is drawing 1279 (05) 100 Rev 00
 19 south elevation, and that's the sixth drawing down under
 20 "Basic Plans".
 21 Can we just go to that. The email says it's
 22 included, and this is that drawing.
 23 Did you generally check the revision numbers for
 24 drawings to see if they matched the covering email?
 25 A. Sometimes I did, sometimes I didn't.

164

1 Q. Right, okay.
 2 Looking at this drawing, can we just zoom in on the
 3 top left -hand side. This is the south elevation. We're
 4 going to have to do our best, I think, with this, unless
 5 we can make it a little bit clearer, but I want to show
 6 you item 5 in the top right -hand corner. I can read it
 7 to you. Item 5 says -- perhaps we can't zoom in any
 8 further -- "Zinc spandrel panel for cladding to
 9 residential floors", item 7 says, "Zinc crown elements",
 10 and item 9 says, "Zinc column cladding".
 11 Do you remember seeing a drawing like this at that
 12 time telling you that zinc cladding panels were
 13 proposed?
 14 A. Yes.
 15 Q. You do?
 16 A. Yes.
 17 Q. Now, it doesn't say what kind of panel, whether it's
 18 a zinc panel with a metal core or zinc with a composite
 19 core, which did exist. Did you think to yourself at the
 20 time: well, what kind of panel is this?
 21 A. Yes. Yes.
 22 Q. You did think it, did you?
 23 A. I believe so.
 24 Q. Did you ask anyone at the time: what kind of panel is
 25 this?

165

1 A. I can't recall.
 2 Q. Right.
 3 Were you aware that there were available in the
 4 market two kinds of zinc panels, at least two kinds, one
 5 with a honeycomb core, in other words a metal inert
 6 core, and one with a composite core?
 7 A. No.
 8 Q. There is also no mention here of any type of insulation
 9 that would be installed behind the panel. Did you spot
 10 that?
 11 A. Yes.
 12 Q. Did you take that up with anybody?
 13 A. I did. I was waiting for details.
 14 Q. Did you say to anyone at the time, "Well, this drawing
 15 is incomplete because it doesn't tell me what the
 16 insulation is"?
 17 A. As I say, I was waiting for further details on --
 18 Q. Yes, that wasn't quite my question.
 19 Did you actually say to anyone, "What's the
 20 insulation? I don't see it on the drawing"?
 21 A. I can't recall.
 22 Q. Right.
 23 How would you be able to assess if the cladding was
 24 likely to comply with B4 of the Building Regulations if
 25 you didn't know the type of zinc rainscreen panel or the

166

1 insulation being proposed?
 2 A. I think the contractor told me what they were using at
 3 some stage, and obviously on site I could see that they
 4 were using Celotex when it arrived on site, whatever
 5 date that was.
 6 Q. Well, that is looking forward in time, and we'll come to
 7 that. But at this stage, you're given these drawings
 8 and you can see what you can see and you can see what
 9 you can't see.
 10 A. Yes.
 11 Q. My question is: did you take up at that stage with
 12 either the architect or Rydon the fact that you did not
 13 see what kind of, for example, insulation was being --
 14 A. I asked for more details.
 15 Q. On the insulation specifically?
 16 A. On the job.
 17 Q. Right.
 18 A. On the job.
 19 Q. Let's move on. {SEA00000231}, please. This is a few
 20 days later, 29 September 2013. This is an email from
 21 Neil Crawford to you in which, if we go to page 3
 22 {SEA00000231/3} of that document, we can see that there
 23 is an email to you:
 24 "John,
 25 "Please see attached the current Exova Study which

167

1 was written prior to the Fire Strategy Rev B changes and
 2 also attached the correspondence with Exova relating to
 3 the Rev B changes which we will modify accordingly."
 4 When that came to you, did you read the Exova
 5 outline fire safety strategy version 3?
 6 A. I would assume so, I can't -- as I say, I can't -- it
 7 doesn't stand out.
 8 Q. Right.
 9 Do you think you made a record of your thoughts or
 10 comments about it anywhere?
 11 A. I may have highlighted something on it. I would have
 12 sent this on to Paul as well at that time.
 13 Q. Right.
 14 Let's just look at the document he sent you. We
 15 can't see from the face of the email what it is he's
 16 sending you, but from another document we can, and it is
 17 {CST00000702}, please. This is the Grenfell Tower
 18 outline fire safety strategy, issue number 3,
 19 7 November 2013.
 20 Just looking at its first page, does it trigger
 21 a recollection that this is a document you've seen
 22 before?
 23 A. As I say, I can't remember, unfortunately.
 24 Q. You can't remember?
 25 A. No.

168

1 Q. Right.
 2 Let's look at page 9 {CST00000702/9} and see if this
 3 triggers a recollection. I would like you to look,
 4 please, at paragraph 3.1.4 under "Compliance with B4
 5 (external fire spread)". Now, this was your domain.
 6 A. Yes.
 7 Q. "It is considered that the proposed changes will have no
 8 adverse effect on the building in relation to external
 9 fire spread but this will be confirmed by an analysis in
 10 a future issue of this report."
 11 When you received this document on
 12 29 September 2014, did you notice that? Did you notice
 13 that paragraph?
 14 A. I was aware of that, that statement, but whether it was
 15 at that particular time, because I'd seen it in the
 16 initial fire strategy.
 17 Q. The initial fire strategy for --
 18 A. Or some -- sorry, using my hands there.
 19 Q. Let me see if I can help. You had received issue 2,
 20 which had been dated 24 October 2013, or rather it had
 21 been received by Building Control; do you think you had
 22 seen that?
 23 A. I had seen that.
 24 Q. Right.
 25 A. As I say, this one, I feel I would have read it, but

169

1 I can't say that I read it on a particular day.
 2 Q. Did you come to any conclusion about whether this
 3 document, so far as you can recall it at all, was
 4 sufficient for the purposes of the full plans
 5 application?
 6 A. No, it would be ... sorry, could you repeat the
 7 question, please?
 8 Q. Yes.
 9 When Mr Crawford sent you this document, and I know
 10 you say you can't remember reading it, did you have any
 11 thoughts at the time about whether it was sufficient for
 12 the purposes of the full plans application?
 13 A. It was part of it.
 14 Q. Right.
 15 We know that no future analysis on B4 was ever
 16 carried out after November 2013.
 17 A. Yeah.
 18 Q. Did you note the fact that it had been promised?
 19 A. I may have. What I would say is when I was issuing the
 20 certificate at the end, I may not have gone back to the
 21 file and done things as I should have done.
 22 Q. I think it would follow from that answer that you never
 23 as a matter of fact went back to Rydon or Studio E and
 24 asked for this report to be updated with a future
 25 analysis?

170

1 A. No, I don't think I did.
 2 Q. Do you know why that is?
 3 A. As I say, at the end there was a lot of outside
 4 influences going on, and I was having difficulty in
 5 dealing with things generally, due to family matters
 6 that were going on at that time. And, as I say ...
 7 MR MILLET: Mr Chairman, I'm in the middle of a line of
 8 questions, but I think it's probably the right time for
 9 a break.
 10 SIR MARTIN MOORE-BICK: Yes.
 11 We will have a bit of a break now, Mr Hoban.
 12 THE WITNESS: All right.
 13 SIR MARTIN MOORE-BICK: We will come back at 3.40, please,
 14 and again, please don't talk to anyone about your
 15 evidence while you're away. Thank you.
 16 (Pause)
 17 3.40, then, please.
 18 (3.25 pm)
 19 (A short break)
 20 (3.40 pm)
 21 SIR MARTIN MOORE-BICK: Right, Mr Hoban, ready to carry on?
 22 THE WITNESS: Yes, I am.
 23 SIR MARTIN MOORE-BICK: Thank you.
 24 THE WITNESS: I don't know ...
 25 SIR MARTIN MOORE-BICK: Yes.

171

1 (Pause)
 2 Right, just take your time. Would you like to go
 3 out for a moment?
 4 THE WITNESS: No, I'll be ...
 5 (Pause)
 6 SIR MARTIN MOORE-BICK: Shall we have a couple of minutes
 7 out?
 8 THE WITNESS: No, I'll be okay.
 9 SIR MARTIN MOORE-BICK: Sure?
 10 THE WITNESS: Yes.
 11 SIR MARTIN MOORE-BICK: There's no rush.
 12 THE WITNESS: In relation to my last answer about not asking
 13 for the fire strategy, I don't know whether it would be
 14 appropriate for me to tell you what was going on in my
 15 personal life at that particular time.
 16 SIR MARTIN MOORE-BICK: Well, can I suggest we just pass
 17 over that for the moment.
 18 THE WITNESS: All right, thank you.
 19 SIR MARTIN MOORE-BICK: I think we all understand that you
 20 were going through a very difficult time, and we don't
 21 want to pry into your private life at all.
 22 THE WITNESS: All right, thank you.
 23 SIR MARTIN MOORE-BICK: So just take a moment to compose
 24 yourself.
 25 THE WITNESS: Right, sorry.

172

1 SIR MARTIN MOORE-BICK: Thank you.
 2 Right, yes, Mr Millett .
 3 THE WITNESS: Right, sorry.
 4 MR MILLETT: Mr Hoban, it's quite all right .
 5 Just coming back to where we were before the break,
 6 and just focusing on the question of the cladding
 7 package, is it right that no comprehensive cladding
 8 package was ever provided to you?
 9 A. Not full comprehensive cladding package.
 10 Q. And I think it 's right that you didn't request one
 11 either?
 12 A. I did ask for information.
 13 Q. Yes.
 14 A. I did -- as I say, I repeatedly asked for information.
 15 I found out certain information myself through talking
 16 with the contractor and actually seeing what was done
 17 on site .
 18 Q. Can we look at a document, {RBK00048693}, please. Now,
 19 just to put it in its precise time context, this is
 20 an email from you, Mr Hoban, of 29 September 2014 to
 21 Mr Hanson, and you forward to him on that day the email
 22 that you had had from Neil Crawford on 24 September.
 23 You can see that. You ask him, you say:
 24 "Please may I have your observations under Part B of
 25 The Building Regulations, for the attached proposals for

173

1 the Grenfell Tower Redevelopment."
 2 Now, this is, looking at the timing, quite curious,
 3 because you can see that you get the Exova OFSS that we
 4 saw before on 29 September, as we saw before, and this
 5 is an email you're sending to Mr Hanson ten minutes
 6 before you got that. So it looks on the emails that you
 7 were asking him for his observations only a few minutes
 8 before you actually then receive the outline fire safety
 9 strategy .
 10 My question is: did you intend Mr Hanson to comment
 11 on B3 and B4, or the whole of B?
 12 A. Well, the whole ... well, it was B1 and B5 but when
 13 you're considering B1 and B5, you also look at other
 14 aspects .
 15 Q. Now, as I say, just to be clear, we saw earlier that you
 16 had received on the same day, 29 September, the email
 17 from Neil Crawford at 16.37. That was {SEA00000231},
 18 where he sent you the Exova OFSS, the outline fire
 19 safety strategy version 3. Here we see you ten minutes
 20 before that, at 16.27, asking Mr Hanson for a view.
 21 Did you send the outline fire safety strategy that
 22 you then got ten minutes later to Mr Hanson?
 23 A. That I don't know.
 24 Q. Right. It looks as if you could have done, but we don't
 25 see any record of you doing so. Can you help us with

174

1 why you didn't do so on the face of it?
 2 A. I'm fairly certain that I would have sent it, because in
 3 order for him to consider it, it would have, you know,
 4 been part of that.
 5 Q. How would you have sent it to him if not by email?
 6 Would you printed it off and put it on his desk?
 7 A. I may have.
 8 Q. Right.
 9 A. Generally what happened, as I say, there was a special
 10 form to be filled in as well that we had. It was
 11 a standard form that we would have to fill in, which
 12 I would generally hand write, and that was part of the
 13 process we had, together with drawings.
 14 Q. Now, we can see you sending this request on
 15 29 September. It appears that Paul Hanson didn't reply
 16 to this request for comments until 10 November 2014.
 17 I'll show you a document in a moment to show you that.
 18 Does that correspond with your recollection, that long
 19 gap?
 20 A. Yes, yeah, from what I've read through, the information
 21 that I've received.
 22 Q. Let's have up {RBK00033895/2}, please, this is his
 23 response on 10 November 2014. This is over a month
 24 after you had asked him to give comments. Do you know
 25 the reason for the delay?

175

1 A. That would have been ... I can only surmise it was his
 2 workload at the time.
 3 Q. Right.
 4 It deals with "B1 - means of escape observations".
 5 There is nothing in here about B3, and critically
 6 nothing about B4, "External fire spread", and about the
 7 cladding. Do you know why that is?
 8 A. That's a standard form that he uses, and, as I say,
 9 I was responsible for B2, B3 and B4, but as I mentioned
 10 to you, when considering B1, you have to look at other
 11 aspects of the scheme as well, and it -- as a whole.
 12 Q. Yes. But you told us earlier that you hadn't limited,
 13 as indeed we see from the email --
 14 A. Yeah.
 15 Q. -- Paul Hanson to comments on B1; you had said part B,
 16 you made it very clear, but here you're only getting
 17 comments on B1.
 18 Given that he was your go-to man for fire issues on
 19 B4, why did you not go back to him and say, "Well, Paul,
 20 this is fine for B1, but can I please have your comments
 21 on B4"? Why didn't you do that?
 22 A. I can't --
 23 Q. You don't know?
 24 A. I can't answer that question.
 25 Q. Let's look at page 3 {RBK00033895/3} of that document.

176

1 About halfway down page 3, under the heading "New
 2 non residential access to residential stairway", he
 3 makes a comment about the boxing club, connected to
 4 a single stairway, and then a comment about the fire
 5 consultants providing 0.4 square metre natural
 6 ventilated lobby connections. He then says:
 7 "Therefore RBKC are not in a position to approve the
 8 proposals at this stage due to the need for the design
 9 team to establish an acceptable extract rate for the
 10 powered lobby ventilation system and the provision of
 11 ventilated lobby protection to all stairway connections
 12 to residential and other uses."
 13 Now, can we take it from that statement that
 14 Paul Hanson's view, limited though it was to B1, was
 15 that the full plans application could not be approved at
 16 that stage?
 17 A. Yes, or he couldn't send it to the LFEPA for
 18 consultation.
 19 Q. If it couldn't be approved at that stage or even be
 20 submitted to the LFEPA for consultation, it couldn't be
 21 approved at all?
 22 A. Yeah.
 23 Q. Is that right?
 24 A. Yes.
 25 Q. You also went to site on 29 September 2014, and we can

177

1 see that from your note, {RBK00052478/6}, please.
 2 Halfway down that page, we can see this date entry, and
 3 the action is described as a "Pre-start visit", and you
 4 say:
 5 "Visited site met project manager had brief
 6 discussion about the project. Workmen still presently
 7 carrying out demolition works nothing to check at time
 8 of visit. Demolition works to go on for at least
 9 another month. Also informed the project manager that I
 10 had just received up to date details of the works."
 11 Was the reference to receiving up-to-date details of
 12 the works a reference to Neil Crawford's email of
 13 24 September 2014 in which he sent you that zip file
 14 full of drawings?
 15 A. Yes, yes.
 16 Q. Do you remember whether you looked at those drawings
 17 before going to site?
 18 A. No, I don't recall.
 19 Q. Okay.
 20 What did this second "brief conversation about the
 21 project" involve, do you remember?
 22 A. I can't recall it --
 23 Q. Right.
 24 A. -- now. As I say --
 25 Q. We then go on in time to the full plans decision, which

178

1 is a different topic. You say in your second
 2 statement -- and just for reference purposes, to save
 3 time, this is paragraph 11 on page 4 of your second
 4 statement {RBK00050416/4} -- you say that the RBKC
 5 document P6 sets out the formal process used by the
 6 Building Control department for the full plans
 7 application. That's right, is it?
 8 A. Yes, that's --
 9 Q. If you go to the P6, this is {RBK00052486}, please, it
 10 looks as if this is a P6.
 11 A. Yes.
 12 Q. This one is dated 10 August, issue 3, prepared by
 13 John Allen. Is this a standard form?
 14 A. It's a form that he -- the P6 is a document that was
 15 produced by John Allen.
 16 Q. I see.
 17 If we look at the fourth box down, in the last
 18 sentence, it says:
 19 "For FPA [full plans application] meaningful
 20 response made to applicant within 10 days from receipt
 21 of application and noted on Acolaid."
 22 Do you see that?
 23 Do you agree that that did not happen with the
 24 Grenfell Tower full plans application?
 25 A. Correct.

179

1 Q. Why is that? Why didn't it happen?
 2 A. I was waiting for observations from Paul.
 3 Q. Right. From Paul Hanson?
 4 A. Yeah.
 5 Q. Which you then didn't get until --
 6 A. Yeah.
 7 Q. -- mid-November, or 10 November?
 8 A. No.
 9 Q. And that was only on B1.
 10 A. Yeah.
 11 Q. And even then it wasn't enough to pass the application.
 12 A. As I say, "meaningful response" was -- could mean
 13 a meeting or a request for details. That's how
 14 generally it was in our office.
 15 Q. Right. You say, "That's how generally it was in our
 16 office". I wonder if that is quite right.
 17 Can we look at what John Allen says. Can we go to
 18 his first statement which is {RBK00033930/3}, please.
 19 On page 3, we go to paragraph 15, and he says:
 20 "As a surveyor the typical process of checking a
 21 Building Regulation application would be to sort out the
 22 drawings you need to look at, look at each drawing, make
 23 a list as you go along, thinking through the building
 24 regulations and then usually write a letter suggesting
 25 amendments with a commentary which includes reference to

180

1 the building regulations. For example, one might tell
 2 the applicant that they have not provided structural
 3 calculations."

4 Do you agree with that summary?

5 A. No, that wasn't the case in our office.

6 Q. At all?

7 A. I believe -- that's my view.

8 Q. So let's just go through this in bits, if we can.

9 Would you say that it wasn't a typical process
 10 within the RBKC department that you would sort out the
 11 drawings you needed to look at?

12 A. Well, you would do that, but it wasn't -- yes, you would
 13 do that, but that -- there was requesting information as
 14 well, or having a meeting would be classed -- to discuss
 15 proposals, that would be classed as a meaningful
 16 response.

17 Q. I'm getting the sense from your answers that that was
 18 an iterative process a little bit?

19 A. Sorry?

20 Q. You wouldn't do it in one go; you might do it in stages.

21 A. Yeah.

22 Q. Is that right?

23 A. Yes.

24 SIR MARTIN MOORE-BICK: Mr Hoban, would it be fair to
 25 understand that Mr Allen here is assuming that you have

181

1 got a full plans application in front of you with all
 2 the plans?

3 A. Yeah, yeah.

4 SIR MARTIN MOORE-BICK: And then he is describing how
 5 typically you would go about processing it?

6 A. Yes. Yes. Yes.

7 SIR MARTIN MOORE-BICK: If you did have all the plans, would
 8 you do it in this way?

9 A. Yes.

10 SIR MARTIN MOORE-BICK: Or would it typically be done in
 11 this way?

12 A. Yes. As I say, that wasn't always the case.

13 SIR MARTIN MOORE-BICK: Ah, well, I understand.

14 A. That's --

15 MR MILLET: So just following up on that, when he says "the
 16 typical process" is a process typical when applied to
 17 the full plans application. How typical was it that you
 18 would have a full plans application to which this
 19 process could be applied?

20 (Pause)

21 A. In most cases it would. It would depend on the size of
 22 the project, obviously.

23 Q. Yes. "In most cases it would", I think is your answer.

24 A. Yes.

25 Q. So does that tell us that Grenfell Tower was

182

1 an exception to the norm?

2 A. No. As I say, there were cases where you got little
 3 information.

4 Q. Was it your experience that you wouldn't have a fully
 5 compliant or a full full plans application, capable of
 6 being submitted to this typical process that's described
 7 where it was a design and build contract, in your
 8 experience?

9 A. Well, the only one I can relate to is the academy and
 10 the leisure centre, and I took those over at -- when
 11 they were coming out of the ground, and I did a schedule
 12 for both when they were coming out of the ground.
 13 Schedules hadn't been done prior to them starting.

14 Q. Right. I don't think I've quite got a feeling for where
 15 that answer takes me.

16 A. As I say, the full plans applications for those went in
 17 and there weren't schedules. I was asked to -- not
 18 asked; I was instructed to deal with them and then had
 19 a meeting and the process started.

20 Q. So that was a design and build contract, as we know.

21 A. Yes.

22 Q. So your experience of design and build contracts, it
 23 seems, certainly on KALC --

24 A. Is very limited to those particular projects.

25 Q. I see. All right.

183

1 Do you agree that a part B review of a full plans
 2 application for Grenfell should have comprised
 3 a detailed scrutiny of the fire safety proposals set out
 4 in the plans and documents provided by the applicant?

5 A. Yes.

6 Q. And an assessment by you, as the Building Control
 7 officer, as to whether there was adequate detail to
 8 allow an assessment to be made?

9 A. Yeah.

10 Q. And a record of the review noting any variations from
 11 recognised guidance?

12 A. Well -- yes. As I say, they had certain information on
 13 the plans, but, as I say, as we know, they changed.

14 Q. Should it have comprised also an assessment of whether
 15 the proposal was generally compliant as regards B1 to
 16 B5, so as to allow the fire authority to have a proper
 17 consultation?

18 A. Yeah, as far as I can recall, there was two
 19 consultations with the Brigade.

20 Q. My question is a more general one: should the full plans
 21 application have given you enough information to allow
 22 consultation with the fire authority in relation to
 23 compliance with B1 and B5?

24 A. Yes.

25 Q. And should it have comprised enough information so as to

184

1 allow the issue of a decision notice as a record of the
 2 approved or rejected works?
 3 A. Yeah.
 4 Q. Yes, thank you.
 5 When you carried out your review, did you use
 6 a checklist?
 7 A. Yes, as I mentioned, that -- sorry, that document that
 8 I mentioned checked --
 9 Q. The plans checker?
 10 A. Yeah.
 11 Q. I see.
 12 Did you record your review anywhere, whether on that
 13 plan or in your notebooks or ...?
 14 A. As I say, it would have been on the sheet.
 15 Q. Right.
 16 A. And then there would be a list of information.
 17 Q. Now, we've seen the memorandum prepared by Paul Hanson
 18 in response to your question, limited though it was to
 19 B1. Did you prepare a similar memorandum in respect of
 20 B2, 3 and 4?
 21 A. Yes.
 22 Q. You did?
 23 A. Yes.
 24 Q. In a formal way, in the way we've seen it with him?
 25 A. No, it would be -- well, cutting and pasting clauses.

185

1 Q. Right. But did you prepare a formal standalone paper
 2 report?
 3 A. As far as I'm aware, yes.
 4 Q. Do you remember when you did that?
 5 A. When that application came in, in the -- was it the
 6 September/November time.
 7 Q. Well, it came in on 4 August 2014.
 8 A. Oh, sorry, did it? Sorry.
 9 Q. Yes.
 10 In your second statement, if we can have
 11 paragraph 12 at page 4 {RBK00050416/4}, please, the
 12 question is:
 13 "Following receipt of the application form for the
 14 refurbishment works to Grenfell Tower from Studio E
 15 dated 5 August 2014 [that should be 4 August], was
 16 a decision notice ever issued? If not, why not?"
 17 Your answer is:
 18 "I do not know if a decision notice was ever issued.
 19 "If it was not then I do not know why not.
 20 I completed the standard form (Form 60) and a schedule
 21 of conditions and informatives in order for the decision
 22 notice to be processed by the Building Control Business
 23 Support Team."
 24 Now, we know that this was around 18 November 2014
 25 because I think you emailed Studio E to say a decision

186

1 notice would be forwarded shortly. We have that at
 2 {SEA00014276/25}. There is no need to bring it up.
 3 Can we take it that you had concluded, based on the
 4 information provided to you with the full plans
 5 application, that the project was likely to comply with
 6 the Building Regulations?
 7 A. No, well, there would be conditions, it would be,
 8 I don't know, for example --
 9 Q. Right.
 10 A. -- the fire time on the building was two hours, linings
 11 shall be in accordance with such and such of the
 12 Building Regulations, cavity barriers shall be provided
 13 in accordance with section 9, is it? It would be
 14 conditions.
 15 Q. Do you remember where you put those conditions, was that
 16 into the standard form P60?
 17 A. It would be attached to that.
 18 Q. Yes, I see.
 19 Now, we've just looked at Paul Hanson's view on the
 20 B1 proposals, and that was that RBKC couldn't approve
 21 them for the reasons he sets out.
 22 Can you explain how it was that you were able to
 23 pass the full plans application, although with
 24 conditions attached?
 25 A. It would be subject to conditions.

187

1 Q. I see.
 2 Now, we've seen some of the information provided
 3 with respect to the façade, and we noted zinc for
 4 elements of the exterior, but also the absence of any
 5 mention even of insulation on the south elevation
 6 drawing I showed you.
 7 Given that that drawing that you had on
 8 24 September 2014 didn't contain sufficient detail about
 9 the type of cladding panel or insulation to be used, how
 10 could you conclude that the full plans application
 11 should pass, albeit with conditions?
 12 A. We would do that as a general standard. For example, if
 13 structural details hadn't been submitted, we would make
 14 that a condition.
 15 Q. Right. Do you remember whether you did make the
 16 provision of details of the insulation a condition?
 17 A. I can't recall. I would have said that the insulation
 18 would be in accordance with -- have you got -- could you
 19 call up the Building Regulations for me, please?
 20 Q. Right.
 21 A. Is that possible?
 22 Q. Yes, it's CLG -- well, which part do you want to see?
 23 A. Maybe section 12.
 24 Q. Section 12. I think that's {CLG00000224/95}, from
 25 memory. I think I showed you {CLG00000173}. There it

188

1 is. That's one of them.
 2 A. Insulation and cladding systems shall be in accord --
 3 I can't actually remember the words, but, as I say, as
 4 a general it would be, you know, "The cladding system
 5 shall be in compliance with section 12, please provide
 6 further information". I can't actually, as I say,
 7 recall what was --
 8 Q. No. I mean, cutting to the point, do you agree that you
 9 should either have requested further details of the
 10 façade works, including the specifications for the
 11 insulation itself, or else rejected the full plans
 12 application because the applicant had not demonstrated
 13 that the works complied with B4?
 14 A. That's how it was done in -- at that time. I understand
 15 what you're saying, but --
 16 Q. Do you agree with me?
 17 (Pause)
 18 A. In hindsight, yes, but, as I say, we would issue
 19 conditional approval with conditions.
 20 Q. Well, let's just go back to --
 21 SIR MARTIN MOORE-BICK: Can I just interrupt you for
 22 a moment, Mr Millett?
 23 MR MILLETT: Yes.
 24 SIR MARTIN MOORE-BICK: I understand what you are saying
 25 about a conditional approval and so on. What steps

189

1 would you take to make sure that the condition was
 2 properly satisfied?
 3 A. By site inspection and further information coming in.
 4 SIR MARTIN MOORE-BICK: Would you expect the designer to
 5 submit drawings or a specification identifying, for the
 6 sake of argument, the insulation?
 7 A. Yes, I did ask for that, but, as I say, I found out what
 8 they were using on site.
 9 SIR MARTIN MOORE-BICK: Ideally you would want to know what
 10 it was before they started using it.
 11 A. Well, ideally, yes.
 12 SIR MARTIN MOORE-BICK: I'm wondering whether you acquired
 13 a specification of the relevant material before --
 14 A. I don't recall receiving a specification.
 15 SIR MARTIN MOORE-BICK: So the condition wasn't really
 16 a condition of satisfying you that the material was
 17 appropriate; it was a condition of using the appropriate
 18 material.
 19 A. Yeah, yes.
 20 SIR MARTIN MOORE-BICK: With the risk, of course, that they
 21 might not.
 22 A. Well, as I say, I was looking at what was on site and
 23 then I checked against the BBA certificate.
 24 SIR MARTIN MOORE-BICK: Yes. Right, thank you, that's
 25 helpful.

190

1 Thank you very much.
 2 MR MILLETT: Mr Chairman, I'm just going to follow that up
 3 a little more, if I can, with questions I've already got
 4 on this point.
 5 Can we go to the email to Mr Crawford,
 6 10 November 2014, which is {RBK00033895/2}, I think
 7 we've looked at that before. I just want to show it to
 8 you again. This is what was sent to Neil Crawford, and
 9 we've seen that this doesn't mention any lack of
 10 detailed information on B4. We can take that as read
 11 because it only deals with B1 and, I suppose, B5 as
 12 well.
 13 Do you know why, at this stage, Neil Crawford was
 14 not told to provide detailed information which would
 15 help you decide whether the design was compliant with
 16 B4?
 17 A. It would have come out in the decision notice.
 18 Q. Right. Let's move on to the decision notice.
 19 A. Sorry, I haven't got the ... my email to Neil Crawford
 20 up. I've got the memorandum form 53. As I say, it says
 21 "This scheme has been sent for consultation".
 22 Q. Yes. Well, in relation to the decision notice itself,
 23 that would be done on a form 60 or from a form 60,
 24 wouldn't it?
 25 A. Yes.

191

1 Q. As I think you have said.
 2 Can we just have a look a blank form 60,
 3 a pro forma, which is {RBK00052487}. I think this is no
 4 more than what it says there; it's a full plans decision
 5 tick sheet.
 6 A. Yes.
 7 Q. Do you see that? There doesn't appear to be any room on
 8 there for identifying what the conditions are.
 9 A. It would be a schedule attached.
 10 Q. Oh, I see, right. We can't locate, or rather RBKC
 11 I think are themselves unable to locate, the actual
 12 form 60 for Grenfell Tower.
 13 Do you remember whether you did attach a schedule of
 14 conditions to the form 60 that you filled out?
 15 A. As far as I'm -- as far as I can --
 16 Q. Did any of those conditions relate to the façade, do you
 17 think?
 18 A. Yes.
 19 Q. Do you remember what they were?
 20 A. As I say, I can't now, as I say.
 21 Q. Right. Did you record those conditions anywhere other
 22 than on the form 60 itself?
 23 A. The schedule.
 24 Q. Right.
 25 A. In the schedule.

192

1 Q. We've seen no record at all of any conditions in any
2 documents, either in correspondence or in any documents
3 or in any emails, and we certainly haven't seen any
4 emails from you to Neil Crawford showing that conditions
5 were attached, certainly which related to the façade.
6 Are you quite sure that you did impose conditions?
7 A. I'm as certain as I can be.
8 Q. Right. With that certainty, can you help us with what
9 the conditions were --
10 A. I can't.
11 Q. -- doing the best you can with your recollection?
12 A. I can't, to be -- sorry, I would be only guessing.
13 Q. Was it not important to record the conditions elsewhere,
14 other than on the P60, so as to make sure that you could
15 check that they were complied with as the project
16 progressed?
17 A. It would have been important, yes.
18 Q. Did you do that?
19 A. I don't know.
20 Q. Right.
21 Once you had filled out the P60 form, what did you
22 do with it, do you remember?
23 A. It would go into a basket.
24 Q. A basket?
25 A. Yes, or a tray --

193

1 Q. Right.
2 A. -- for the business support group to process.
3 Q. I see. Did you check if it had been issued after you
4 put it in this basket?
5 A. I can't recall.
6 Q. Would you normally follow up to check whether
7 a conditional P60 pass of a full plans application had
8 been issued formally?
9 A. Not all the time.
10 Q. Given that you were responsible for this project, do you
11 accept that you should have checked whether the decision
12 notice had actually been issued?
13 A. Yes.
14 Q. Yes.
15 SIR MARTIN MOORE-BICK: Would a decision notice normally be
16 signed or stamped or authenticated?
17 A. No, I think it was -- just had a normal -- I believe it
18 had a facsimile of a signature, as far as I can recall.
19 MR MILLETT: Mr Chairman, I'm going to turn to a totally
20 different topic -- well, it's a topic which emerges from
21 the last one, I think. I certainly won't finish it
22 tonight, but I can certainly make some headway with it
23 in the next 15 or 20 minutes or so, if we may.
24 SIR MARTIN MOORE-BICK: Let's see how far we can get.
25 MR MILLETT: May we? Thank you. That'd be very good.

194

1 I want to examine with you, Mr Hoban, the façade,
2 and in particular the cladding, by which I mean the
3 external rainscreen panels, and the insulation, the two
4 major elements of the exterior wall system.
5 We have already looked at the initial information
6 provided with the full plans application. I'm going to
7 start now, then, with the NBS specification.
8 You told us this morning, almost in passing, that
9 you had never seen a copy of the NBS specification for
10 this project. Is that correct?
11 A. I hadn't -- I don't believe it was sent to me. I may
12 have seen some of it on site when I was visiting, but
13 I can't be absolutely certain.
14 Q. Right. So you may have done. Right.
15 Now, the drawings, do you remember, refer to
16 sections of the NBS specification?
17 A. What drawings are these, please?
18 Q. Well, the drawings that you were sent on 24 September.
19 A. Does it actually say that on the drawings, or --
20 Q. Well, we can --
21 A. Sorry.
22 Q. Let's see how we go with this.
23 Let me try it this way: do you remember seeing
24 drawings which referred to, for example, H92 in a little
25 ring?

195

1 A. Yeah.
2 Q. You do? All right.
3 Now, let's then start with the rainscreen cladding
4 panels.
5 We know from other documents that formal planning
6 permission was granted eventually, I think, on
7 30 September 2014 to change the panels from zinc to
8 aluminium composite material or ACM. We know that from
9 the records.
10 At the time, did anybody within RBKC alert you to
11 that development?
12 A. Not to my knowledge.
13 Q. Right.
14 Now, in your second statement at paragraph 25 --
15 and, for the transcript, this is {RBK00050416/7} -- you
16 said that you had access to the planning section of
17 Acolaid, but that you can't recall if that access was
18 restricted.
19 Did you ever check Acolaid to see what materials had
20 been approved for use on the façade?
21 A. No.
22 Q. Why is that?
23 A. I generally wouldn't --
24 Q. Right.
25 A. I would only go to planning drawings if I was aware of

196

1 a contravention and get planning enforcement involved.
 2 Q. Did anyone from the project -- when I say from the
 3 project, I mean the professionals involved on it such as
 4 Studio E or Rydon -- tell you that the rainscreen
 5 panels, the materials or product, had changed from zinc
 6 to aluminium composite?
 7 A. That I can't recall, but obviously I found that out at
 8 some stage. I don't know whether I was ... I know I met
 9 Ben Bailey, because he's the young person that
 10 I described in my note. Whether he told me it was ACM
 11 or somebody else, I can't recall.
 12 Q. Right. Well, Ben Bailey, as we know, came into the
 13 project as Harley's project manager from early
 14 February 2015.
 15 A. Right.
 16 Q. The change to aluminium composite panels, ACM, was
 17 essentially approved at the end of July 2014 and
 18 formally approved by planning at the end of
 19 September 2014, so five months before that.
 20 My question is: did anyone from Studio E or Rydon
 21 tell you in 2014, either in July or in September or
 22 early October maybe, that the rainscreen had changed
 23 from zinc to ACM?
 24 A. I can't recall.
 25 Q. Would you expect a contractor or a designer to update

197

1 you about changes to the materials to be used --
 2 A. Yes.
 3 Q. -- in the façade?
 4 A. Yes, I would.
 5 Q. If they hadn't done so, would you keep tabs on the
 6 project to make sure that you at least could satisfy
 7 yourself that no changes had been made, or would you
 8 just rely on them to tell you, and if they didn't tell
 9 you, you would assume that it was as per the
 10 application?
 11 A. Well, no, I could clearly see when the works was being
 12 done that it wasn't zinc, it was ACM.
 13 Q. Indeed, and we'll come to that, but I'm just interested
 14 to know whether anybody actually just told you at the
 15 time that the material had changed.
 16 A. As I said, I don't recall.
 17 Q. Right.
 18 A. But obviously the original drawings had zinc on there
 19 and I could tell that it wasn't zinc.
 20 Q. Right. You could tell that it wasn't zinc, yes.
 21 Did you ever see any drawings that said ACM?
 22 A. That I can't recall.
 23 Q. In your second statement, page 13 [RBK00050416/13], can
 24 we just go to that, I want to show you paragraph 38a and
 25 ask you a question about it. You say there, at the top

198

1 of the page:
 2 "... from reports shown on television and given in
 3 the press, evidence given to the PI [that's the
 4 public inquiry, I think] by expert witnesses on the
 5 subject my belief is that the Celotex insulation
 6 boarding and filler material used on the project was not
 7 of limited combustibility as per Appendix A paragraph 9
 8 of Approved document B."
 9 What do you mean there by the term " filler
 10 material"?
 11 A. Making-good filler material.
 12 Q. Right. So you don't mean -- just to be very clear about
 13 this -- do you, the core of the ACM panel?
 14 A. No, I don't.
 15 Q. Right.
 16 Was it your view at the time of your work on the
 17 Grenfell Tower project that filler material was
 18 making-good material as opposed to the core of a panel?
 19 A. Correct.
 20 Q. Right.
 21 Now, you go on in that paragraph to say:
 22 "The external surfaces of the ACM cladding
 23 used/used did not meet with the provisions set out in
 24 12.5-12.6 B4 Approved Document B."
 25 When you say the external surface of the ACM

199

1 cladding did not meet with those provisions, what do you
 2 mean by that?
 3 A. That it wasn't class 0. It was my understanding, and
 4 from the information I had at the time, that the ACM was
 5 class 0. In the news they said it wasn't class 0, so
 6 I'm reporting on what was said in the press and on
 7 television.
 8 Q. I follow.
 9 In your first statement, if we can just go back
 10 that, [RBK00033934/6], please, I would like us to look
 11 together at paragraph 57, and you say there, in answer
 12 to the question:
 13 "Was the exterior of the building (including the
 14 cladding, insulation, fixings and windows) compliant
 15 with relevant building regulations, fire regulations,
 16 other legislation, British Standards (including testing
 17 requirements), guidance and industry practice?"
 18 You say:
 19 "Based on the information I had at the time it was
 20 my understanding that it was compliant. However, the
 21 cladding has now been shown not to be compliant as
 22 a result of the cladding that was specified would be
 23 used was not in fact used."
 24 Is it your evidence that you were never told that
 25 the panels had been changed from zinc to ACM?

200

1 A. As I say -- well, I go back to what I said before. I'm
2 not certain of that, but I actually -- I could see that
3 they weren't zinc. As I say, I saw that on site.
4 Whether I was ever told or -- I don't recall receiving
5 an email saying that it had been changed.
6 Q. Right.
7 A. But it became aware -- I became aware through my
8 inspections. Whether I, as I say, was told at the time,
9 I can't recall.
10 Q. Did it not surprise you, when you did first see
11 Reynobond ACM panels on the building, that you hadn't
12 been told at any earlier stage that those panels were
13 going to be on the building, whether by Studio E or by
14 Rydon and whether in a document or plan or drawing?
15 A. At the time it didn't surprise me, because things
16 change.
17 Q. Things change, though, in accordance with the process,
18 and my question is: you hadn't seen anything in the
19 documents to alert you to this change; when you did see
20 it on the building eventually in 2015, did it not
21 surprise you that the external surface had changed from
22 zinc as per the drawings to aluminium as per what was on
23 the building?
24 A. As I say, it's not something that comes to mind.
25 Q. Right.

201

1 A. So ... as I say, things ... I'll give you an example, if
2 I may, with regards the sports centre. They were going
3 to use a particular type of staircase, and then all of
4 a sudden they got a different staircase in.
5 Q. Right.
6 Let me put it this way: given that you had seen that
7 ACM was on the building, having been told in the
8 drawings -- and we saw the south elevation -- in the
9 September of 2014 that it was going to be zinc, did it
10 not make you wonder what else Studio E or Rydon hadn't
11 told you about the external façade and its make-up?
12 A. At the time it didn't register.
13 Q. Right. Should it have done?
14 A. In hindsight, yes. What I would say, I'd worked with
15 a lot of the professionals on this project on the other
16 schemes, and I had a confidence in them, you know, the
17 architects and the various other professionals and
18 Exova.
19 Q. Yes.
20 A. So I had ... you know, I'd dealt with them and
21 I considered that they knew what they were doing.
22 Q. Right.
23 Do we take from that answer that, because of your
24 experiences with Studio E and Exova on the KALC project,
25 you had perhaps a closer working relationship than

202

1 otherwise you might have done?
2 A. Yes.
3 Q. And did that lead you to trust them?
4 A. Yes.
5 Q. Did you know that Studio E had never done an external
6 overclad of a high-rise building?
7 A. No, I didn't. And in evidence that had come out since,
8 it was always my understanding that Exova were fully
9 involved in the project. There's a number of emails
10 that show Mr Ashton copied in. Nobody ever came back to
11 me and said, "Well, we're not using Exova". It was
12 always my understanding that there was a team there
13 dealing with the project.
14 Q. Did you take comfort from the fact that Mr Ashton was
15 involved in --
16 A. Yes, yes.
17 Q. -- some way?
18 On Studio E, were you a little bit softer on them
19 than you otherwise might have been because of your
20 relationship?
21 A. No, no, but, as I say, I'd worked with them for quite
22 a considerable time on the academy, and I considered
23 that architects would -- it was reasonable to expect
24 that they would know and understand
25 Building Regulations.

203

1 Q. Was it not your job to hold them to the highest
2 standards of compliance with the Building Regulations,
3 completely independently and ruthlessly?
4 A. In hindsight, yes, but I'd worked with them on the other
5 project and, as I say, working with them there,
6 you know, I spent a lot more time because of the --
7 dealing with it because I was only dealing with one
8 area. In this particular instance, I'd worked with them
9 over a period of time and it was my understanding that
10 they knew what they were doing.
11 Q. Now, just before we finish for the day, Mr Hoban, you
12 mentioned a number of times in your evidence that you
13 saw the BBA certificate --
14 A. Yeah.
15 Q. -- for these panels, in other words the Arconic --
16 A. Yeah.
17 Q. -- manufactured Reynobond PE 55 --
18 A. Yeah.
19 Q. -- ACM panels. We're going to come to it in due course,
20 I think tomorrow now.
21 Do you remember the circumstances in which you saw
22 that document?
23 A. I would have looked it up at some stage.
24 Q. Were you ever given it by anybody on the project?
25 A. I don't recall.

204

1 Q. Do you know what prompted you to look it up on the 1
 2 project? 2
 3 A. To check that -- to see if it was class 0. 3
 4 Q. Do you know at what stage you did that, do you remember? 4
 5 A. No, I can't -- 5
 6 Q. Presumably it was after having seen it on the building? 6
 7 A. Yes. 7
 8 MR MILLETT: Yes. 8
 9 Mr Chairman, as I say, we are mid-topic, but 9
 10 I think, given it's been a long day -- 10
 11 SIR MARTIN MOORE-BICK: It sounds as though it might be 11
 12 a good point to break. 12
 13 MR MILLETT: Given that it's 4.30, I think it probably is. 13
 14 SIR MARTIN MOORE-BICK: Yes. 14
 15 Well, Mr Hoban, we're going to break there for the 15
 16 day. I'm afraid I'm going to have to ask you to come 16
 17 back tomorrow for some more questions, but I think you 17
 18 were probably expecting that. 18
 19 THE WITNESS: Yes, I was. 19
 20 SIR MARTIN MOORE-BICK: After you leave the room, please 20
 21 remember not to talk to anyone about your evidence or 21
 22 anything to do with it over the break. 22
 23 THE WITNESS: Yes. 23
 24 SIR MARTIN MOORE-BICK: We will resume at 10 o'clock 24
 25 tomorrow morning, please. 25

205

207

1 Thank you very much, would you like to go with the 208
 2 usher, please.

(Pause)

4 Thank you, 10 o'clock tomorrow.

5 MR MILLETT: Thank you.

6 (4.30 pm)

7 (The hearing adjourned until 10 am
 8 on Thursday, 1 October 2020)

9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25

206

A	43:10 46:2 65:17 79:11 80:20 119:20 156:23 192:11 actually (32) 28:10 34:1,3,7 49:12 55:15 61:25 69:24 83:8 88:19 90:13 111:12 114:20 115:8 120:24 125:18 129:9 155:18 160:21 162:15,15 164:3,4 166:19 173:16 174:8 189:3,6 194:12 195:19 198:14 201:2	146:13 163:23 190:23 agenda (1) 161:25 agent (1) 78:22 ago (10) 16:2 20:16 29:1,2 39:25 85:23 119:8 135:9 144:16,22 agree (22) 44:23 64:25 94:18 95:12 96:3,10,14,19 122:10 124:21,23 125:2,6 126:11 151:10 161:10 162:22 179:23 181:4 184:1 189:8,16 agreed (3) 111:7 136:19 161:18 ah (5) 42:17 131:19,20,25 182:13 ahead (1) 140:25 alan (1) 107:21 albeit (1) 188:11 alcoa (1) 29:19 alert (4) 75:22 94:13 196:10 201:19 alerted (1) 70:24 alive (1) 62:20 allen (33) 22:10,15 25:23 33:23 87:21 99:16,25 100:2,8,13 102:14 103:2 104:20 106:5,7 115:3 127:23 128:6,17 129:3 130:16,21 132:22 133:1,15 134:12 136:22 137:17 141:18 179:13,15 180:17 181:25 allens (2) 104:22 114:13 alliance (4) 21:15 65:22 66:2,7 allocated (3) 12:18 100:17 128:7 allocating (1) 100:13 allocation (2) 101:3,10 allow (4) 184:8,16,21 185:1 almost (1) 195:8 along (4) 105:21 151:1 162:7 180:23 already (7) 112:13 128:2 149:25 150:3 153:13 191:3 195:5 also (48) 2:20 3:7,16 4:9,24 7:4 12:8 13:3 14:15 16:25 20:18 28:17 36:10 40:22 44:23 59:8 60:10 64:12 69:11 73:17 77:14 81:9 84:16,24 85:12 90:17 92:18 95:12 96:19 97:5 98:5 100:13 107:17 111:2 118:9,18 124:23 145:8 147:17 150:14 158:13 166:8 168:2 174:13 177:25 178:9 184:14 188:4 altering (1) 155:21 although (13) 5:18 56:24 64:11 74:12 81:15 100:6,22 109:2 111:25 114:3 118:4 121:2 187:23 aluminium (6) 59:6	156:3 196:8 197:6,16 201:22 always (7) 114:22 115:14,15 163:9 182:12 203:8,12 amendment (3) 8:8 71:3 72:12 amendments (8) 6:6 20:10 21:7,8 22:20 26:18 28:8 180:25 amir (1) 108:12 amount (2) 15:23 23:10 analysis (3) 169:9 170:15,25 andor (2) 77:8 126:5 annotated (2) 5:7,23 anon (8) 33:19 34:22 35:23 48:12 105:2,4 108:10,23 anons (1) 34:11 another (12) 21:19 32:8 81:23 84:23 114:9 125:16 139:4 148:11 151:10 156:18 168:16 178:9 answer (24) 22:21 34:14 38:24,25 39:9,16 40:4 47:24 57:18 109:22,25 110:1,2 117:24 133:11 157:22 170:22 172:12 176:24 182:23 183:15 186:17 200:11 202:23 answered (2) 39:24 79:2 answering (1) 83:16 answers (3) 4:20 68:25 181:17 anybody (11) 9:6 35:11,15,18 87:21 89:10 132:7 166:12 196:10 198:14 204:24 anymore (2) 11:14 80:1 anyone (9) 50:11 117:2 165:24 166:14,19 171:14 197:2,20 205:21 anything (16) 13:12 19:24 50:11 83:9 85:16 92:25 117:2 119:22 137:11,12 149:21,22 151:2 160:7 201:18 205:22 anyway (1) 108:1 anywhere (3) 168:10 185:12 192:21 aovs (1) 157:23 appear (3) 84:9 153:6 192:7 appears (1) 175:15 appendix (4) 42:13,16 44:1 199:7 applicable (2) 64:5 96:7 applicant (9) 38:20 39:25 40:6 96:17,21 179:20 181:2 184:4 189:12 applicants (2) 15:21 160:14 application (55) 13:15 74:22 75:24 78:2,3,24 79:11 80:3,12,20 123:22 124:1 130:18 139:12 141:19 147:11 149:24 150:2,9	154:12,15,23 155:3 158:15 159:24 160:1,2,20,24 161:7,9 170:5,12 177:15 179:7,19,21,24 180:11,21 182:1,17,18 183:5 184:2,21 186:5,13 187:5,23 188:10 189:12 194:7 195:6 198:10 applications (11) 11:22 60:12 77:25 78:20 86:4 102:19 127:13,15 150:4 160:15 183:16 applied (4) 15:20 43:13 182:16,19 applies (2) 44:23 46:13 apply (2) 44:2,12 appointed (7) 99:16 128:8,12,15 129:19 132:11 135:10 appointing (1) 139:2 appointment (1) 132:20 appraisal (7) 25:19 26:24 76:18 112:4 158:22 159:3,8 appreciate (1) 97:10 approach (6) 73:19,25 74:7 75:5 76:2 155:14 approaches (1) 114:25 appropriate (7) 38:13 56:2 73:19 74:6 172:14 190:17,17 approval (8) 38:21 40:6 74:23 95:16,22 147:11 189:19,25 approve (2) 177:7 187:20 approved (31) 17:19 20:6,15 21:4,5 24:14 27:17 28:5 36:10,14 38:2,7 42:14,22 53:3,7 59:1 77:6 80:3 94:8 109:20 110:5 177:15,19,21 185:2 196:20 197:17,18 199:8,24 approx (1) 90:5 april (2) 115:9 140:25 arab (1) 92:5 architect (3) 123:18 154:18 167:12 architects (5) 30:3 31:4 160:12 202:17 203:23 arconic (3) 29:19 32:16 204:15 area (19) 60:5 64:12 90:18 98:10,11 100:21 103:16,17 109:6,8 114:4,11,18 115:12 116:13 123:15 135:10 137:21 204:8 areas (3) 88:19 112:9 114:2 arent (2) 17:2 18:1 argument (1) 190:6 arising (1) 117:17 arose (1) 123:21 around (3) 47:7 156:14 186:24 arrange (2) 139:4 153:11 arranged (1) 122:12	arrangements (1) 118:14 arrived (1) 167:4 art00003931 (1) 140:23 art000039313 (1) 141:1 ashton (2) 203:10,14 ask (32) 2:20 3:9,20 5:12 6:7 33:19 36:22 42:12,13 44:22 46:25 76:14 84:1 106:24 114:15,22 115:9,14,15 118:18 132:25 135:20 150:10 154:18 155:25 163:1 165:24 173:12,23 190:7 198:25 205:16 asked (22) 12:9 15:2 24:8 39:3,4 84:8 106:11,12 140:17 143:5,6 145:3 147:17 149:13 155:16 163:25 167:14 170:24 173:14 175:24 183:17,18 asking (6) 2:18 156:25 162:22 172:12 174:7,20 aspect (2) 21:4 149:12 aspects (11) 31:3 53:9 96:7 103:20 118:5 120:14 121:12 124:2 148:25 174:14 176:11 assembly (1) 68:13 assess (3) 48:1,3 166:23 assessed (1) 78:2 assessment (11) 51:18 52:3 76:10,18,24 77:15 78:7 89:10 184:6,8,14 assist (2) 66:8 76:19 assistance (3) 114:23 115:15,16 assistant (2) 10:16 121:14 assisting (1) 2:15 associate (7) 11:1 12:25 13:3,13 14:7 15:16 23:16 association (11) 11:1 12:25 13:4,6,9,9,14 14:19 34:16 66:7 103:21 120:14 124:2 125:9 160:22 168:1,3 173:24 174:11 176:15 184:1 199:8,24 b1 (28) 103:20,21 121:2 122:2,25 123:5,11,14 124:4 126:2,7,22 127:2 136:22 174:12,13 176:4,10,15,17,20 177:14 180:9 184:15,23 185:19 187:20 191:11 b2 (15) 68:10,11 106:3 120:17 121:4,6 123:11 124:4,10 126:16,19 127:3,5 176:9 185:20 b3 (9) 36:17 106:3 121:5,6 124:6 127:3 174:11 176:5,9 b4 (20) 36:17 37:24 106:3 121:5,6 124:4,6 127:3 166:24 169:4 170:15 174:11	august (17) 141:23 144:14,23 147:17,24 148:2,5 149:25 152:25 153:14 154:1 158:15 162:6 179:12 186:7,15,15 austerity (5) 102:11 107:1,4,25 109:23 authenticated (1) 194:16 authority (15) 66:22 73:23 96:4 102:2 103:15 122:13 133:7 137:6,10 139:3,9,25 140:20 184:16,22 automatically (1) 18:23 available (5) 17:6 48:21 106:13,14 166:3 aware (65) 6:11,16 19:18 24:9,23 27:14 33:11 42:9,25 48:20 52:15 53:1,13,24 54:18 55:7 56:25 57:8,12 58:5,16 60:13,15 61:8,15,22 63:7 64:4,22 65:24 66:1,5 68:15,18 69:11,14,21 70:5,6 72:11,13 82:17 85:4 91:11 92:24 102:2 105:3 124:11,11 126:9 133:8 134:22 136:20 138:3 155:5,10,17,18 158:3 166:3 169:14 186:3 196:25 201:7,7 awareness (3) 18:15 19:4,10 away (11) 99:12,13 107:14,19 109:9 113:1 114:11 147:22 148:4,19 171:15	B	b (34) 20:15 21:5,5 24:15 26:21,22 27:17 28:5,6 36:7,11,13,14 38:2,7 41:3 42:14,23 59:1 80:16 94:9 103:21 120:14 124:2 125:9 160:22 168:1,3 173:24 174:11 176:15 184:1 199:8,24 b1 (28) 103:20,21 121:2 122:2,25 123:5,11,14 124:4 126:2,7,22 127:2 136:22 174:12,13 176:4,10,15,17,20 177:14 180:9 184:15,23 185:19 187:20 191:11 b2 (15) 68:10,11 106:3 120:17 121:4,6 123:11 124:4,10 126:16,19 127:3,5 176:9 185:20 b3 (9) 36:17 106:3 121:5,6 124:6 127:3 174:11 176:5,9 b4 (20) 36:17 37:24 106:3 121:5,6 124:4,6 127:3 166:24 169:4 170:15 174:11
----------	--	---	--	---	---	--	----------	--

176:6,9,19,21 189:13
191:10,16 199:24
b5 (14) 122:2
123:6,11,14 124:4
126:3,7,22 127:2
174:12,13 184:16,23
191:11
back (43) 5:11 11:15
16:11 17:23 21:18
24:17 25:14,19
32:4,22 33:13 35:18
38:19 39:8 43:4,4
44:21 50:2,8 51:10
52:9 57:17 62:1 75:13
86:14 89:6 91:9 92:23
112:4 124:6 126:24
141:10 163:13
170:20,23 171:13
173:5 176:19 189:20
200:9 201:1 203:10
205:17
bailey (2) 197:9,12
bar (1) 15:19
barrier (2) 48:8 119:4
barriers (27) 32:25
38:12 46:17,20,22
47:1,22 54:25 56:2
58:2 60:21 61:14,15
62:7,14,17,21
63:4,9,17,19 64:1 65:9
119:3 122:18 151:15
187:12
base (1) 113:24
based (5) 15:5 64:10
70:14 187:3 200:19
basements (2) 88:10
118:7
basic (3) 147:20 148:2
164:20
basis (1) 155:23
basket (3) 193:23,24
194:4
bba (3) 32:17 190:23
204:13
bbc (1) 92:14
bc (2) 99:22 100:8
bca (6) 35:3 65:21 66:2
67:1,2,16
bco (2) 36:15 132:13
bear (2) 8:12 99:4
became (9) 13:10 92:24
108:19 121:14 128:1
142:20 143:7 201:7,7
become (13) 13:13
15:16 55:10,12,19,21
61:3,5,18,19 62:11
64:16 102:24
becoming (1) 14:14
beddoe (1) 107:20
before (65) 1:17 9:7
22:1 24:8 27:22 35:13
49:24 51:10 53:4
59:15,20 67:6,8,9,11
69:8 89:17 101:21
102:17 103:2,9,12,14
104:3 107:14 108:25
109:13,15 114:16
118:22 125:14 129:25
132:8 133:23 136:6,12
137:1 139:1,4
142:11,25 144:16
150:23 152:3,22
153:23 154:11,15

155:3 161:14 164:18
168:22 173:5
174:4,4,6,8,20 178:17
190:10,13 191:7
197:19 201:1 204:11
behind (5) 45:3,9 62:15
108:5 166:9
being (22) 6:11 13:7
39:1 53:1 60:6,9,11
61:9 64:12 68:12
70:24 71:9 95:22
119:25 122:25 134:22
147:6 161:18 167:1,13
183:6 198:11
belief (4) 8:7,22 153:20
199:5
believe (48) 7:3 17:6
20:20,25 23:1 29:13
30:21,24 31:15 32:18
69:24 70:25 87:14
91:15 99:11 102:7
108:20 123:2
128:17,18 130:9,18
134:24 135:6 139:2
142:4 143:2,7 144:19
145:13,16 147:9,13
152:23 153:1,15,19
157:3,11,14 158:21
162:20 163:25 164:11
165:23 181:7 194:17
195:11
below (3) 46:21 87:4
142:15
ben (2) 197:9,12
benefit (3) 67:17 73:17
124:20
beryl (1) 124:17
best (7) 5:19 8:7,22
125:8 157:21 165:4
193:11
better (3) 41:15 49:13
154:25
between (11) 30:6
45:20 100:15 111:24
124:24 132:17 134:9
138:16 142:24,24
156:13
big (1) 114:3
bigger (3) 88:11 105:9
110:15
bit (23) 6:19 9:25 25:20
29:3 31:21 32:4 36:19
40:18 47:4 53:15
56:19 70:16 73:21
86:25 95:1 123:3
133:23 152:8 154:6
165:5 171:11 181:18
203:18
bits (1) 181:8
blake (1) 115:24
blank (1) 192:2
block (3) 53:24 90:19
121:9
bmer0000004101 (1)
161:6
board (2) 31:25 154:10
boarding (1) 199:6
boards (2) 62:15 68:9
bodies (4) 12:12
66:11,12 73:14
body (5) 65:23 66:13
94:19 95:2 96:16
bodys (2) 73:2 96:10

bold (1) 55:24
book (1) 82:21
books (1) 81:11
borough (6) 1:8 10:23
90:15 118:10,12
129:20
both (7) 54:8 81:16
82:4 97:7 134:12
143:25 183:12
bottom (13) 10:5 16:12
27:3 36:24 58:19
63:11 72:18 83:16
112:6 116:2 137:5
141:2,20
boundary (1) 41:7
box (9) 34:24 73:13
74:5 76:9,11,17 81:22
87:1 179:17
boxing (1) 177:3
br (10) 37:18 38:4,21
39:13,22 40:1,7
52:12,18 54:1
br135 (1) 68:13
bre (1) 37:18
bre00005554 (1) 53:16
bre0000555410 (1) 55:8
bre0000555417 (1)
57:20
bre0000555418 (1) 59:4
bre000055547 (1) 53:20
bre000055549 (1) 54:6
break (22) 2:3,4 3:1,4
6:10 8:21 49:24,25
50:2,5,23 51:12 58:3
114:16 116:23
171:9,11,19 173:5
205:12,15,22
breaking (4) 47:4 63:6,9
73:21
breaks (1) 3:3
brief (5) 145:2,17
152:16 178:5,20
briefly (4) 11:10 46:16
92:1 132:2
brigade (2) 123:17
184:19
bring (3) 146:8 163:13
187:2
brings (1) 66:11
british (2) 53:8 200:16
brought (1) 146:4
bruce (13) 129:10,18
130:4,19 131:16
132:10 133:14 135:9
138:14 140:5
148:12,15 158:23
bs (9) 25:4 37:20,20
39:21 40:10 42:3,3
44:8,8
bs3 (1) 41:15
bs8414 (1) 68:13
btec (2) 10:7,10
buffet (1) 30:5
build (3) 183:7,20,22
builder (1) 88:9
builders (1) 88:25
building (226) 1:7 7:23
10:8,10,15,22 11:2,21
12:1,5,15,21 13:1,4,14
14:17 17:21 18:1,17
19:5,6,16,22 20:4
21:15,25 22:18,23,25
25:14 27:7,15 28:5,22

30:8,9,13 31:1,3 33:22
34:13 35:1 36:5,7,13
37:6,25 38:20 39:7,25
40:6 41:4,6 43:22
46:11 47:10,19,25
48:14,15,21 51:19
52:5 53:21,22 54:8
56:18 64:19 65:22
66:1,9,22 69:20 70:7
72:4,6,19 73:2,7,14
74:19,25
75:2,12,14,17,20,25
76:1,20,20,21 77:17
78:15 79:17 87:13,21
90:6 91:4,6,19 92:20
93:11,20
94:1,8,17,19,20,21
95:2,13,14,16,17,22,25
96:4,8,10,16
97:8,9,13,16,19,24
98:3,8,15,16,17,23,24
99:6,11,17 100:4
101:23 102:3,19
103:16 104:23 105:17
107:6,8,16,21
108:6,7,9,14
109:11,12,18 114:1,7
116:3,6 120:10,19,20
122:3 123:13,21,22
124:20,25
125:11,22,23,25
126:7,10,20 127:12
128:2,8,25 137:9
138:5 140:1
141:3,7,18,25
143:18,22 144:11,17
147:6 148:25 150:21
155:2,13,21,25 156:13
160:4,13 161:25
166:24 169:8,21
173:25 179:6
180:21,23 181:1 184:6
186:22 187:6,10,12
188:19 200:13,15
201:11,13,20,23 202:7
203:6,25 204:2 205:6
buildings (25) 25:6,7
28:14 37:15
38:11,15,18 40:12
44:17 54:24 57:9
60:7,21 65:7 67:5
89:24 92:5 93:1
117:22 120:17,18
121:6,10 127:13,15
bullet (4) 55:16 58:23
68:6 87:4
bulletins (1) 49:12
bundle (1) 5:3
burn (1) 35:7
burt (3) 108:14 109:3
112:23
busan (1) 91:23
business (7) 78:4,23,25
79:10 108:19 186:22
194:2
byelaws (1) 90:7

C

c (3) 41:3 80:16 160:22
cabe (5) 13:10,23
15:7,17 23:17
calculations (2) 163:7
181:3

calendar (5) 85:1,21,22
157:1,4
call (3) 1:11 31:14
188:19
called (8) 29:19 48:18
77:22 91:19 93:20
120:9,22,24
came (31) 17:19
20:8,18 21:8 22:6,19
28:7,10 38:25 49:8
52:25 70:25 71:3,5
78:2,24,24 93:5,7
104:6,11 111:4 124:13
130:18 159:13 162:17
168:4 186:5,7 197:12
203:10
cannot (1) 84:20
cant (59) 7:9 24:16
26:3,9 27:18 29:17
72:12 81:19 86:12
108:17 119:8 120:15
130:10 133:11
134:3,10 136:10,17
140:18 141:8 145:25
146:1 148:18 153:7
154:4,5 157:5 159:4
164:14 165:7 166:1,21
167:9
168:6,6,15,23,24
170:1,10 176:22,24
178:22 188:17 189:3,6
192:10,20 193:10,12
194:5 195:13 196:17
197:7,11,24 198:22
201:9 205:5
capable (1) 183:5
care (2) 96:7,20
carer (1) 15:14
carried (3) 92:14 170:16
185:5
carry (5) 50:25 110:21
117:13 150:25 171:21
carrying (6) 72:4 73:1
95:13 145:6 148:20
178:7
cases (3) 182:21,23
183:2
cause (1) 94:7
causing (2) 54:16 65:3
cavities (13) 37:14
45:16
55:9,11,16,20,25
57:23 60:24,25
61:4,19 64:1
cavity (27) 32:25 38:12
44:2 46:17,20,22
47:1,22 48:8 54:25
57:25 58:14 60:21
61:14,15 62:14,21,25
63:2,9,24 65:9 119:3,4
122:18 151:15 187:12
cel00002347 (1) 68:24
cel00003364 (1) 59:17
cel0000336411 (1)
59:23
cel0000336413 (1)
60:18
cel0000336419 (1) 62:1
cel0000336420 (1)
62:22
cel0000336422 (2)
61:24 62:24
celia (4) 108:14 109:3,9

112:23
celias (2) 115:11,12
celotex (10) 28:25
29:5,23 31:25 38:17
39:6,10,18 167:4
199:5
cementitiousbased (1)
59:2
central (1) 12:21
centre (10) 16:13 69:6
100:24 104:10,19
116:11 122:24 127:20
183:10 202:2
cep00057294 (1) 67:2
certain (21) 19:18 23:10
31:3,6 78:13 84:4
111:10 113:11 119:12
129:11 130:4 133:11
141:8 151:18 155:16
173:15 175:2 184:12
193:7 195:13 201:2
certainty (2) 130:10
193:8
certificate (6) 10:7,10
32:17 170:20 190:23
204:13
cetera (1) 18:16
chairman (12) 1:11 2:11
3:2 49:21 51:4 115:19
116:20 117:15 171:7
191:2 194:19 205:9
challenges (1) 60:8
challenging (1) 116:12
chance (1) 1:25
change (6) 120:14
196:7 197:16
201:16,17,19
changed (11) 13:6
14:17 99:3 156:2
184:13 197:5,22
198:15 200:25
201:5,21
changes (18) 17:20
18:4 20:19 21:24
22:1,24 28:11 48:14
101:22 139:1,25
154:11 158:23 168:1,3
169:7 198:1,7
changing (1) 15:18
characteristics (1)
64:14
charge (1) 102:15
charged (1) 125:23
chartered (4) 13:3,9,14
14:15
chartership (1) 13:6
chasing (3) 149:8
163:4,5
check (24) 24:11
79:19,21 80:13,22
81:5 83:24 85:15
86:3,6 94:19,24 95:5
114:19 115:3 145:7
146:9 164:23 178:7
193:15 194:3,6 196:19
205:3
checked (3) 185:8
190:23 194:11
checker (1) 185:9
checking (3) 146:13
161:25 180:20
checklist (1) 185:6
checks (1) 163:22

chelsea (4) 1:8 10:23
34:21 90:14
choice (1) 104:23
christmastime (1) 132:6
chunk (1) 67:22
chutes (1) 138:24
circulars (1) 93:15
circumstances (2) 74:22
204:21
cladding (54) 35:2,5,20
37:13,19 44:13 45:14
47:2,9 54:15,22
55:4,11,20 56:2,14,19
57:8 60:12,19
61:1,4,19 65:2,6,12
67:4 68:12 69:6 83:20
94:14 132:22 149:16
150:22 151:16 152:1
165:8,10,12 166:23
173:6,7,9 176:7 188:9
189:2,4 195:2 196:3
199:22 200:1,14,21,22
claire (2) 116:3 141:16
clarification (2) 124:10
129:12
class (13) 38:10
41:13,13,15,24
42:10,25 46:2 68:4
200:3,5,5 205:3
classed (3) 105:14
181:14,15
classification (3) 24:21
41:13 67:25
classifications (1) 41:21
clauses (1) 185:25
clear (16) 39:9 42:1
51:9 59:19 65:1 66:21
71:10 77:7 85:5
141:12 143:18 158:5
162:1 174:15 176:16
199:12
clearer (2) 125:5 165:5
clearly (4) 140:2 157:6
159:22 198:11
clg (1) 188:22
clg00000173 (1) 188:25
clg00000173120 (1)
42:15
clg0000017395 (2)
36:22 43:5
clg0000017396 (2)
43:20 46:19
clg0000017397 (1) 41:1
clg0000022495 (1)
188:24
clg10006814 (1) 72:17
clg1000681411 (1)
73:11
clg1000681413 (1) 76:8
clg1000681415 (1)
86:16
clg1000681416 (1) 87:2
clg100068144 (1) 72:21
client (3) 77:10 138:25
154:10
clients (1) 73:17
close (4) 54:24 64:1
65:8 92:9
closely (1) 97:2
closer (1) 202:25
club (1) 177:3
coated (1) 59:3
code (1) 25:6

codes (1) 124:13
colin (8) 99:11
108:13,24 109:2,9
113:1 114:3,5
colins (1) 114:11
collapse (3) 58:3
63:5,14
colleague (1) 101:1
colleagues (14) 12:3,11
34:9 81:17 82:4
43:1 44:1,6,10,15
88:18,20 107:13
108:18 112:15,19
113:3,10,20
colour (1) 7:12
column (2) 64:7 165:10
combination (1) 41:24
combustibility (15)
35:6,21 39:2,11,19
43:1 44:1,6,10,15
58:25 68:1,9,20 199:7
combustible (6) 37:13
58:22 60:11 62:11
64:10 67:4
combustion (4)
55:13,22 61:6,21
come (49) 7:15 11:15
12:14 14:4 17:22
21:18 27:25 29:24
30:9 31:5 32:4,22
35:18 38:19 39:8
44:21 46:24 50:8
52:23 57:17 75:2 78:6
82:1,13 91:5 92:21
105:21 116:9 122:22
127:1,6 131:2 138:2
141:14 151:19
155:19,24 156:10
158:2 163:8,19 167:6
170:2 171:13 191:17
198:13 203:7 204:19
205:16
comes (5) 26:12 57:6
94:4 159:12 201:24
comfort (1) 203:14
comfortable (1) 1:16
coming (10) 2:14 9:7
31:7 91:9 154:23
163:10 173:5
183:11,12 190:3
comma (7) 8:12,14
51:6,9,21,22,25
commence (1) 145:4
commencing (1) 147:16
commensurately (2)
107:9 110:19
comment (4) 140:18
174:10 177:3,4
commentary (1) 180:25
comments (12) 25:24
112:6 135:21 136:24
138:16 140:13 168:10
175:16,24
176:15,17,20
commitment (2) 23:6,7
committees (1) 124:14
common (2) 30:8 136:8
communicated (2)
73:16 76:22
communication (1)
156:12
communications (1)
78:11
communities (2) 21:10

70:8
company (2) 27:25
29:19
compartment (1) 47:5
competent (1) 115:1
competition (1) 109:19
compiled (2) 141:15
157:6
complaint (1) 200:21
complete (3) 68:13
159:21 160:2
completed (2) 18:24
186:20
completely (1) 204:3
completeness (2) 70:12
159:19
complex (3) 98:6
103:25 117:22
compliance (16) 37:24
38:5,22 40:13 76:19
77:10 94:19,24 95:7
125:9 160:5,14 169:4
184:23 189:5 204:2
compliant (5) 183:5
184:15 191:15
200:14,20
compliantly (1) 152:3
complied (10)
39:10,11,18
95:14,18,25 96:8 97:9
189:13 193:15
complies (1) 44:3
comply (5) 45:15 77:2
158:5 166:24 187:5
complywise (1) 19:13
compose (1) 172:23
composite (7) 45:21,22
165:18 166:6 196:8
197:6,16
comprehensive (2)
173:7,9
comprised (3)
184:2,14,25
computer (2) 77:22
80:25
concealed (4)
47:12,17,22 48:7
concern (5) 83:10 149:6
150:6 159:24,25
concerned (7) 1:9 46:1
148:23,25 150:1 151:2
155:21
concerning (2) 48:21
160:5
conclude (1) 188:10
concluded (1) 187:3
conclusion (2) 163:20
170:2
conclusive (3) 95:16,23
96:1
concrete (1) 141:5
condition (6) 188:14,16
190:1,15,16,17
conditional (3)
189:19,25 194:7
conditions (19) 77:7,11
186:21
187:7,14,15,24,25
188:11 189:19
192:8,14,16,21
193:1,4,6,9,13
conduct (1) 70:13
conductivity (1) 29:12

conference (6) 33:16
35:4,12,16,18,20
conferences (1) 14:9
confidence (2) 114:23
202:16
confined (4) 55:10,19
61:3,18
confirm (15) 3:23 4:16
5:16,19 6:7 8:5,21
12:17 113:13 114:21
125:22 128:4 154:11
157:1,5
confirmed (2) 35:6
169:9
conflicting (2) 59:25
60:4
confuse (1) 154:12
connected (1) 177:3
connections (2)
177:6,11
consent (1) 5:21
consents (4) 73:20,25
74:7 75:5
consequently (1) 107:8
consider (8) 46:3
47:11,14 73:17 80:12
111:9 124:2 175:3
considerable (3) 15:23
26:18 203:22
considerably (1) 29:1
consideration (2) 123:1
127:18
considerations (1)
122:24
considered (14)
23:12,14 39:14
45:23,25,25 60:16
73:1 104:15 113:18
117:25 169:7 202:21
203:22
considering (5) 80:3
124:1 155:7 174:13
176:10
considers (1) 124:18
consistent (2) 33:18
83:2
constantly (2) 88:14,15
construct (2) 60:6
63:15
construction (11)
36:23,25 43:25 44:2
46:13 66:3 67:18
145:4 147:8 155:22
159:9
constructional (1) 90:7
constructions (2)
24:20,22
consult (7) 106:4,7,15
122:11 137:10 139:8
155:23
consultant (1) 122:7
consultants (1) 177:5
consultation (15)
73:12,18,22,22 122:12
133:6 139:2 140:20
164:4,5 177:18,20
184:17,22 191:21
consultations (4) 73:15
80:7,8 184:19
consulted (3) 120:9
124:3 137:6
consultees (1) 73:16
consulting (2) 106:12

164:7
contact (8) 126:8
127:24 130:19 142:24
152:21 155:15 156:9
158:7
contacted (8) 143:10,12
145:3,5 150:15,17
151:24 162:2
contacting (1) 33:6
contain (2) 64:13 188:8
contained (2) 37:23
163:11
containing (1) 158:12
contamination (1)
80:17
contemporaneous (1)
153:4
content (2) 82:10
145:18
contents (4) 3:23 4:16
8:6 130:23
context (2) 60:19
173:19
continue (1) 151:11
continued (1) 56:17
continuing (1) 13:24
contract (2) 183:7,20
contractor (7) 139:2
154:18 160:12 161:4
167:2 173:16 197:25
contractors (1) 116:16
contracts (2) 152:14
183:22
contradictions (1) 96:14
contravention (1) 197:1
contraventions (1)
76:21
contributing (2)
56:15,20
control (132) 1:7 7:23
10:22 12:15,21
18:1,17 19:8,16,22
21:15 22:23 25:14
27:7,15 30:9,13 31:1
33:22 34:6 35:8 38:20
39:25 40:6
47:12,14,19,25 48:14
65:22 66:1,9,22 70:7
72:4,6,19 73:2,7,14,20
74:1,8,12,13,14,19
75:2,5,14,17,20 77:17
78:15 79:17 87:13,22
91:4 93:11 94:17,19
95:2,16,22 96:4,10,16
97:8,13,16,19,24
98:3,8,15,16,17,23,24
99:6,11,17 100:4,13
101:23 102:3,19
103:16 104:23
107:6,8,16 108:6,7,9
109:11,12,18 114:1,7
116:3,6 120:10
123:21,22 124:20,25
125:22,25 127:12
128:2,8,25 137:9
140:1 141:3,7,18,25
143:19,22 155:2,13,25
156:13 160:4,13
161:25 169:21 179:6
184:6 186:22
controls (1) 76:1
convenient (3) 1:23
49:24 116:20

conversation (3) 143:14
162:5 178:20
cooperate (2) 73:19
74:6
cooperative (1) 155:14
copied (6) 133:2 139:17
152:10 157:19 158:13
203:10
copies (2) 24:12 156:19
copy (6) 4:24 80:25
81:4,6 131:10 195:9
core (10) 44:24 45:22
155:9 165:18,19
166:5,6,6 199:13,18
corner (5) 10:5 27:3
36:24 137:23 165:6
correct (24) 7:25
11:5,24 13:11 17:16
25:17 31:18 48:16
52:6,7 59:21 73:24
85:24 89:14 95:4
99:18 100:9,19 102:25
143:1 158:25 179:25
195:10 199:19
correction (2) 7:4 8:20
corrections (2) 5:2 8:6
correctly (2) 48:6 152:3
correspond (1) 175:18
corresponded (1) 146:9
correspondence (2)
168:2 193:2
cost (1) 102:4
couldnt (13) 19:18
57:15 84:11 90:12,22
109:22 110:12 132:19
159:11 177:17,19,20
187:20
couldve (1) 136:13
council (7) 10:17
18:19,20 25:15 29:25
66:18 112:23
councillors (1) 110:6
councils (2) 7:23 34:18
counsel (4) 2:10 9:8,9
207:4
count (1) 103:22
counter (1) 63:13
couple (6) 1:18 88:19
90:19 117:16 119:25
172:6
course (14) 14:14,15
18:24 27:24 61:12
78:8 85:18 86:19
87:11 129:8 131:2
141:14 190:20 204:19
courses (7) 14:18 16:25
18:23 19:21 21:1
27:7,15
cover (7) 16:24 24:19
26:2,7 27:17 28:4,13
covered (7) 24:14 45:4
100:20 138:17 151:16
152:3 159:8
covering (7)
112:8,14,18 113:9,20
163:20 164:24
covers (2) 16:20 22:14
cpd (6) 13:24 14:3 16:1
23:4,17 27:20
crawford (29) 111:14
131:25 142:7 143:4
144:4 145:14
147:14,23

148:1,5,9,22 152:11
153:13,25 157:18
158:11 162:10,12
163:12 167:21 170:9
173:22 174:17
191:5,8,13,19 193:4
crawfords (2) 161:16
178:12
create (2) 54:15 65:2
created (2) 45:17 62:9
criteria (4) 27:4 37:18
38:22 40:11
critically (1) 176:5
crown (8)
47:10,12,15,19,24
48:7,8 165:9
cst00000702 (1) 168:17
cst000007029 (1) 169:2
curious (1) 174:2
current (3) 101:4
114:20 167:25
currently (1) 112:14
curtain (1) 69:12
curtains (1) 31:16
cut (4) 109:24 123:3
140:8 142:21
cuts (3) 107:6
109:23,23
cutting (2) 185:25
189:8
cv (5) 9:17,24 10:4
11:16 13:15
cwc (1) 21:13
cwtc (4) 69:5,11,16,21

D

d (2) 41:3 160:22
d2 (1) 41:15
daily (1) 85:3
dampproofing (1) 80:16
dangerous (2) 12:8
19:23
dangers (1) 94:13
data (1) 37:19
date (25) 4:6 21:24
22:3,11,18,24 25:16
26:5 72:18 83:8
103:3,10 129:10,24
130:5,20 132:6 133:5
145:9 151:10 156:23
163:8 167:5 178:2,10
dated (11) 3:11 4:1
133:15,22 134:6,18
136:22 142:7 169:20
179:12 186:15
dates (2) 90:12,22
david (2) 20:24 107:16
day (25) 14:14,15 24:16
81:20 82:12 106:14
118:13 132:8,10,17
133:23 136:12 139:21
140:6 141:16 148:19
152:10 154:23 157:3
170:1 173:21 174:16
204:11 205:10,16
day11131 (1) 111:15
day1113712 (1) 147:18
day11142 (1) 162:4
day4594211 (1) 118:19
days (7) 23:6,12,15,19
81:20 167:20 179:20
daytoday (1) 103:9
dclg (1) 72:20

de (1) 107:21
deal (14) 36:13 98:6,10
103:18,20 105:9
115:11 116:10 120:17
121:4,9 126:16 134:9
183:18
dealing (24) 32:2,19
88:22 90:16 98:11
105:13,15,20 110:13
114:4 118:6 122:23
125:23 127:19 132:1
143:8,15 144:6,12
162:16 171:5 203:13
204:7,7
dealings (1) 128:17
deals (5) 42:23 43:20
67:23 176:4 191:11
dealt (12) 11:21 12:5
90:10,18 102:18 103:2
104:19 120:13,20
121:5,11 202:20
debris (2) 59:9 64:17
decade (1) 91:12
december (19)
128:13,15,21
129:2,15,24 130:13
131:14,22 132:18,21
134:18,19 135:8
136:22 138:3 143:20
144:18 158:18
decide (5) 75:15
78:15,16 124:7 191:15
decided (6) 11:13 70:13
79:6 88:2,13 161:9
decision (16) 70:14
77:16 79:10 159:23
178:25 185:1
186:16,18,21,25
191:17,18,22 192:4
194:11,15
decisions (4) 106:3
111:2 122:2 125:8
defer (2) 123:20 124:14
defined (2) 58:25 104:6
definition (1) 103:23
delamination (1) 61:1
delay (1) 175:25
delayed (1) 1:3
deliberation (1) 138:19
delivered (2) 20:11,21
demand (2) 116:15,16
demands (1) 116:14
demolition (4) 145:7,8
178:7,8
demonstrate (2) 38:22
77:9
demonstrated (1)
189:12
department (42)
12:15,16 22:23 30:9
70:8 74:2,19,23
75:2,10,14,22 78:16
87:13,22 88:19,21
93:11 97:17 98:24
100:14 101:2,23
102:22 107:5 108:7
109:18 110:5 112:21
116:6 124:21 125:1
155:6,12,13,24
156:13,14 160:5,14
179:6 181:10
departments (2) 12:11
33:6

depend (3) 88:5,24 182:21	differences (1) 98:2	128:3 130:25 133:19	draft (2) 4:24 22:4	97:7 132:22 134:11	enquiries (1) 12:5	164:12,16 167:13
depending (1) 89:9	different (20) 2:19 13:4 25:21 36:2 42:9	135:17 184:4 193:2,2 196:5 201:19	drainage (1) 150:19	140:20 167:12 173:11	ensure (6) 2:6 94:24 95:7,13 97:8 115:4	181:1 187:8 188:12 195:24 202:1
depends (1) 96:11	49:22,22,23 65:20,21	does (23) 16:24 18:20 35:7 44:1 67:25 75:4	drawing (13) 83:8 164:13,18,19,22 165:2,11 166:14,20	189:9 193:2 197:21	enter (3) 63:2 78:22 82:15	examples (3) 27:4 28:25 57:17
dept (1) 116:4	79:3 84:25 89:23	77:11 82:4 100:20	elements (5) 80:15 151:14 165:9 188:4 195:4	element (2) 152:1,4	entering (7) 55:11,19 58:14 61:3,18 63:23 82:9	exception (2) 89:3 183:1
deputy (3) 33:22 98:5 99:6	125:15 179:1 194:20 202:4	104:14,17 118:17	drawings (66) 76:22 83:5 133:17 138:10,11 144:16 145:20	elevation (4) 164:19 165:3 188:5 202:8	enters (1) 62:8	exercising (1) 140:1
described (5) 121:4 122:9 178:3 183:6 197:10	differential (1) 61:2	119:21 121:3 127:1	146:2,3,4,5,7,8,10,14,22	eligible (1) 15:6	entrance (1) 15:21	exercising (1) 96:19
describing (1) 182:4	difficult (6) 56:23 58:14 63:23 118:1,5 172:20	132:16 153:12 168:20	147:20,22	eliminate (1) 139:1	entries (2) 18:11 19:3	exhibited (1) 9:17
design (19) 25:5 60:8 62:10 63:14,25 75:23 76:18 83:19 95:3	difficulty (3) 2:17 118:3 171:4	175:18 182:25 195:19	148:2,4,8,12,20 149:9	elongated (4) 55:12,21 61:5,20	entry (7) 131:22 132:16 136:14 141:22 151:7 157:17 178:2	exhibits (3) 3:16 4:9 9:1
138:19 139:1 148:11	diploma (1) 16:13	25:8 74:12 81:4 91:24	150:5 152:17	else (8) 19:24 30:18 33:15 87:21 116:4 189:11 197:11 202:10	er (3) 23:8 103:14 106:8	exist (1) 165:19
154:11 159:9 177:8 183:7,20,22 191:15	direct (3) 23:1 29:24 158:7	92:21 165:17 166:15	153:3,5,7 158:12,16 159:12,15,16,19,22	elsewhere (1) 193:13	escape (9) 25:4 120:7,9,22 121:17,20 124:24 136:23 176:4	existence (1) 67:11
designed (1) 66:8	directly (5) 18:1,7 59:9 66:8 100:7	168:7 191:9 192:7	160:9,21 161:15,17,20	email (56) 77:2 111:4,6 115:23 116:1 125:17 126:18 128:23 129:14 130:23 132:9	establish (2) 72:25 177:9	existing (2) 62:9 91:6
designer (3) 76:23 190:4 197:25	discharge (1) 73:7	doing (11) 30:2 103:8 113:18 116:13,14 139:14 151:25 174:25 193:11 202:21 204:10	163:11,20,21,22	133:1,8,13,14,24	et (1) 18:16	exists (1) 56:21
designing (1) 95:13	discharged (1) 73:4	113:18 116:13,14	164:1,9,16,24 167:7	135:8 136:7 138:13,14 139:15,18 140:9	etc (4) 21:25 22:5 43:24 138:24	exova (12) 128:3 133:17,25 167:25 168:2,4 174:3,18 202:18,24 203:8,11
designs (2) 60:6,9	disclosed (1) 5:21	195:15,17,18,19,24	175:13 178:14,16	196:25 198:18,21	et al (3) 23:8 103:14 106:8	expect (13) 57:15 75:22 76:4 150:24 151:13 154:14,18 155:11,24
desire (1) 126:6	discoveries (1) 108:21	199:25 198:18,21	180:22 181:11 190:5	201:22 202:8	evening (2) 72:25 177:9	156:7 190:4 197:25 203:23
desk (2) 3:7 175:6	discrepancies (1) 163:24	201:22 202:8	195:15,17,18,19,24	driven (1) 60:6	event (4) 2:4 55:3 65:11 140:15	expected (3) 21:25 102:4 114:6
desktop (1) 38:2	discuss (7) 9:10 21:8 131:13 136:5 138:22 147:23 181:14	dropped (1) 152:15	196:25 198:18,21	drove (1) 150:10	eventually (2) 196:6 201:20	expecting (1) 205:18
detail (13) 32:5 36:19 38:8 52:12 72:12 82:1 86:20 119:8 128:24 138:23 147:5 184:7 188:8	discussed (10) 9:5 84:6 86:3 91:10 92:1 115:7 131:15 135:25 144:5 147:3	dry (1) 157:22	202:12 202:8	dubai (6) 57:6,7 92:1,7,12,18	events (1) 82:19	experience (15) 9:16 10:13 12:20 15:5 36:6 74:17 90:5 101:4,16 103:13 104:4 105:4 183:4,8,22
detailed (8) 4:20 71:1,2 72:10 142:15 184:3 191:10,14	discussing (1) 147:21	due (13) 22:1 35:9,10 86:19 107:4,12,14 109:18 131:2 161:7 171:5 177:8 204:19	202:12 202:8	92:1,7,12,18	event (4) 2:4 55:3 65:11 140:15	experiences (1) 202:24
details (21) 30:12 57:22 62:5,18 78:22 145:10 149:4,15 150:2,10 160:22 161:14 166:13,17 167:14 178:10,11 180:13 188:13,16 189:9	discussion (9) 93:10 106:20 145:3,17,18 146:1 147:7 148:1 178:6	during (10) 2:3,3 3:3 8:21 16:21 27:22 97:18 129:1 132:2 149:16	dont (92) 17:6,10,14 23:11 30:17,18 31:9 34:13 35:22,25 40:23 41:7 43:3 49:11 50:10 62:23 68:19 69:24 70:25 71:2,18 80:6,7 81:8,19 82:18 87:14 90:13 91:21 93:12,12 97:2 103:23 104:25 105:13 106:2,12 111:19 116:15 117:1 118:16 120:3 129:9 131:11 132:6 135:4,6 136:1 137:2 143:13 145:16 147:1,9,13,25 148:6,12 149:22 152:23 153:15,19 160:7,19 162:11,15,20 163:5,21,25 164:2,11 166:20 171:1,14,24 172:13,20 174:23,24 176:23 178:18 183:14 187:8 190:14 193:19 195:11 197:8 198:16 199:12,14 201:4 204:25	157:8,17,18,23 158:10,20 161:16 163:21 164:21,24 167:20,23 168:15 173:20,21 174:5,16 175:5 176:13 178:12 191:5,19 201:5	even (11) 56:6 58:6 64:3 66:7 67:13 93:16 151:24 161:1 177:19 180:11 188:5	expert (3) 123:9,16 199:4
determined (2) 70:10 87:7	distances (2) 58:4 63:6	earlier (23) 40:4,15 57:8 68:25 86:4,15 92:1 93:1 101:21 117:18 135:1 140:9 142:20 149:25 154:10 155:1 157:23 158:21 159:1,2 174:15 176:12 201:12	done (30) 78:7,10,23 79:23 84:9 87:10,17,23 93:2 100:15 105:22 111:12 118:25 150:23 158:25 159:3 170:21,21 173:16 174:24 182:10 183:13 189:14 191:23 195:14 198:5,12 202:13 203:1,5	167:20,23 168:15 173:20,21 174:5,16 175:5 176:13 178:12 191:5,19 201:5	ever (22) 28:24 29:15 32:24 35:25 53:10 67:6 69:5,16 81:13 87:20 119:14 137:2 148:8 170:15 173:8 186:16,18 196:19 198:21 201:4 203:10 204:24	explains (3) 124:18 163:17,18
developed (1) 64:12	district (3) 10:16 34:15 35:24	early (6) 91:11,17 134:18 155:5 197:13,22	domain (1) 169:5	emailed (3) 30:18 164:3 186:25	every (4) 22:21 34:5 88:3 106:15	explained (1) 99:20
development (18) 13:24 21:20,21 22:7,24 23:2 25:20 26:24 27:5 73:20 74:1,7,12,13,20 75:5,19 196:11	divide (1) 123:10	earliest (2) 31:9,12,22	domestic (2) 31:15 117:21	emails (15) 111:3,11 122:18 130:17 131:1,3 134:18,22 135:2,5 142:15 174:6 193:3,4 203:9	everyone (2) 1:5 116:24 everything (3) 100:20 161:19 162:13	explains (3) 54:7,8 133:3
devices (1) 89:13	division (2) 41:2 80:15	edition (9) 53:17,18 54:3 59:15,16 60:22 61:7 65:1 86:16	done (30) 78:7,10,23 79:23 84:9 87:10,17,23 93:2 100:15 105:22 111:12 118:25 150:23 158:25 159:3 170:21,21 173:16 174:24 182:10 183:13 189:14 191:23 195:14 198:5,12 202:13 203:1,5	emerges (1) 194:20	everybody (3) 100:20 161:19 162:13	explore (1) 128:24
diagram (4) 40:22,25 44:3 54:12	document (75) 6:9 17:24 20:15,18 21:5,5 24:15 25:21 27:17 28:4,6 34:14 36:11,14 38:2,7 42:14,23 52:15 53:3,13,16 54:7 57:21 59:1,12,18,20 64:25 65:20 67:6 68:24 69:1,24 71:8,9,11,18 72:11,22 73:5 74:16 94:9 115:19,25 125:14,16 129:14 133:22 136:25 141:12,13,15,19 144:15 153:4 156:19 163:13 167:22 168:14,16,21 169:11 170:3,9 173:18 175:17 176:25 179:5,14 185:7 199:8,24 201:14 204:22	edition (9) 53:17,18 54:3 59:15,16 60:22 61:7 65:1 86:16	documents (21) 4:19 11:22 17:19 20:7 22:19 23:21 24:8 53:7 66:2 72:13 80:4 83:5	emergence (1) 56:16	every (4) 22:21 34:5 88:3 106:15	explored (1) 127:25
diaries (1) 156:25	documentation (1) 161:8	editors (2) 31:9,12	down (36) 1:15 2:21 6:10,14,19 7:19 18:2 19:12 23:3 25:24 27:3 31:21 57:23 59:24 64:7 66:14 73:21 77:5 87:4 89:17 109:4,6 122:15 129:14 135:12 136:19 138:13 149:20 158:21 160:7,19,21 164:19 177:1 178:2 179:17	emirates (1) 92:5	every (4) 22:21 34:5 88:3 106:15	external (47) 24:20,22 36:20,23,25 37:6,16 40:19,21 41:12 43:6,7,14,15,16,17,25 46:13 54:22 55:4,11,18,20 56:1,14,19 58:20,21 60:12,19,25 61:4,19 65:6,12 92:25 132:23 147:8 169:5,8 176:6 195:3 199:22,25 201:21 202:11 203:5
diary (10) 83:24 84:24 85:8,10,20,22 131:22 132:16 136:14 151:7	documentation (1) 161:8	edition (9) 53:17,18 54:3 59:15,16 60:22 61:7 65:1 86:16	dps (1) 150:19	emphasis (1) 31:13	every (4) 22:21 34:5 88:3 106:15	extract (3) 133:4 134:15 177:9
didn't (49) 4:19 9:10 11:13 15:11 23:17,18 46:3 47:11,11,14 56:6,24 59:19 64:4 68:19 71:22 78:17 81:22 82:6,19 89:6 94:3 96:24 125:6 137:12 140:15 148:7 149:7 151:11 152:6 153:20 155:23 160:23 162:12 163:8 164:15,25 166:25 173:10 175:1,15 176:21 180:1,5 188:8 198:8 201:15 202:12 203:7	documentation (1) 161:8	edition (9) 53:17,18 54:3 59:15,16 60:22 61:7 65:1 86:16	dr (1) 163:18	employment (1) 112:23	every (4) 22:21 34:5 88:3 106:15	f (1) 160:22
died (2) 107:24 109:2	documentation (1) 161:8	edition (9) 53:17,18 54:3 59:15,16 60:22 61:7 65:1 86:16		enable (5) 55:25 96:5 133:6 137:10 161:8	every (4) 22:21 34:5 88:3 106:15	faade (10) 105:17 147:11 188:3 189:10
difference (1) 134:9	documentation (1) 161:8	edition (9) 53:17,18 54:3 59:15,16 60:22 61:7 65:1 86:16		end (21) 1:24 8:8 10:21 16:18 34:24 90:3 108:7 109:25 111:23 112:24 132:20 134:25 138:3 141:20 143:19 146:8 158:18 170:20 171:3 197:17,18	every (4) 22:21 34:5 88:3 106:15	

192:16 193:5 195:1	53:22,25 54:7,23 55:3	61:3,18	183:5,5,16 184:1,20	given (32) 1:22 29:5,16	135:11,14 138:4	happy (3) 2:18
196:20 198:3 202:11	56:1,2,13,15,17,20,21	flat (2) 90:10,19	187:4,23 188:10	30:4 37:17,18 53:25	141:25 142:16	139:11,24
face (2) 168:15 175:1	57:6,7,25	flats (1) 105:18	189:11 192:4 194:7	95:22 100:22	143:16,19 144:4	hard (4) 80:25 81:6
facetoface (1) 148:8	58:1,3,4,9,11,14 59:8	floor (1) 46:11	195:6	101:6,12,13 105:11,14	148:11 152:14 154:2	117:24 131:10
facsimile (1) 194:18	60:20 61:2	floors (2) 47:5 165:9	fully (2) 183:4 203:8	115:12 126:18 130:15	156:14 168:17 174:1	harley (1) 97:6
failed (1) 82:15	62:7,8,9,10,12,13,17,19	fluctuate (1) 111:22	functional (1) 37:24	148:8 150:2,8 162:24	179:24 182:25 184:2	harleys (1) 197:13
failure (1) 124:18	63:2,3,5,13,17,19,22,23,25	foam (1) 68:8	functions (1) 73:8	167:7 176:18 184:21	186:14 192:12 199:17	hasnt (1) 137:13
fair (2) 122:7 181:24	64:15,16,18,18	focus (1) 36:20	further (17) 8:8 30:12	188:7 194:10 199:2,3	ground (3) 43:23	havent (4) 79:25 152:13
fairly (2) 97:5 175:2	65:3,4,7,11 67:7,9,11	focusing (1) 173:6	31:21 42:13 59:18	202:6 204:24	183:11,12	191:19 193:3
fairness (2) 39:3 114:3	69:7,8,12 73:23	folder (1) 3:6	77:9 92:18 138:23	205:10,13	group (22) 72:19 78:4	having (11) 21:11 26:10
fall (3) 59:6 75:25	80:9,16 91:11,19,22	follow (20) 15:15 19:2	140:16 142:24 144:8	gives (3) 89:18 129:24	80:10 103:18 104:6	35:20 48:18 88:23
101:10	92:25 93:19,22,25	25:18 34:4 47:18	162:2 165:8 166:17	136:23	105:22 107:17 108:9	116:9 146:1 171:4
falling (1) 64:17	94:1,4,7,13 103:17,18	69:10 72:14 84:15	189:6,9 190:3	giving (3) 34:7 123:13	120:7,9,13,21,22,23,25	181:14 202:7 205:6
familiar (11) 36:6,10	107:17 108:9 118:22	86:7 89:16 91:3 96:16	future (4) 154:13	126:22	121:11,13,17,20	head (8) 2:23 99:5,22
37:3 52:12 54:11	119:15,21	104:14,17 153:22	169:10 170:15,24	glassreinforced (1)	124:24 164:6 194:2	100:8 107:15,16
59:11 65:22 66:25	120:4,13,21,24	157:15 170:22 191:2		64:11	guessing (1) 193:12	108:8,8
69:1 74:15 136:3	121:11,22 122:12	194:6 200:8		goal (1) 22:24	guidance (29) 21:13	heading (11) 46:20
familiarise (1) 130:13	123:17 124:19 125:25	followed (3) 38:5 53:22	G	goals (2) 22:6,17	27:17 31:3 36:3,10	55:8,17 58:8,19,25
family (1) 171:5	128:3 129:22 130:17	111:10		goes (2) 63:11 115:2	37:5,16 41:11 42:13	62:4 70:4 76:10 87:4
far (17) 6:21 7:1 19:9	131:1 132:23	following (6) 97:3	g (1) 160:22	going (48) 1:6 3:8	48:15 52:11 59:12	177:1
24:17 38:1 48:17 50:6	133:7,16,17,17,18,25	139:17,23 161:20	gain (1) 93:25	9:6,11,14 12:14 15:18	65:21 66:2,25	headway (1) 194:22
109:23 114:6 148:6	134:4,14,19 135:13	182:15 186:13	gammon (3) 20:24,24	30:7,25 33:13 46:24	67:1,3,17 68:17	health (2) 11:13 37:8
170:3 184:18 186:3	137:6,10 138:17	followup (1) 117:16	107:16	49:21 50:5 82:1,17	69:11,16 72:25	hear (1) 1:6
192:15,15 194:18,24	139:3,8,24 140:20	force (1) 90:7	gap (1) 175:19	84:3 86:18,18 88:5,9	76:14,17 77:14 89:19	heard (3) 3:1 69:5,8
farouee (1) 108:12	141:16 142:10 146:9	forefront (1) 54:19	gaps (1) 96:14	89:9 92:23 96:2	95:9 184:11 200:17	hearing (2) 1:6 206:7
fast (1) 62:2	157:21 164:6,12	form (24) 13:15 74:16	garnock (2) 53:21 91:10	106:24 108:21 116:23	guide (3) 35:3,8,9	heavy (1) 162:19
favourable (1) 127:18	168:1,5,18	79:25 80:1,8 160:3	gary (1) 107:18	136:4,20 141:13	guidelines (1) 7:22	height (6) 38:12,15,18
feb (1) 22:3	169:5,9,16,17 172:13	164:5,5 175:10,11	gaskets (1) 43:24	148:21 151:2 153:11		39:7 44:17 46:12
february (6) 5:9	174:8,18,21 176:6,18	176:8 179:13,14	gave (9) 11:25 13:16	158:3 165:4 171:4,6	H	heights (1) 91:12
18:10,13 21:23 27:6	177:4 184:3,16,22	186:13,20 187:16	29:23 34:1 38:1 115:9	172:14,20 178:17		held (1) 146:23
197:14	187:10 200:15	191:20,23,23	122:24 145:4 151:22	191:2 194:19 195:6	h92 (1) 195:24	help (15) 29:3 51:21
feel (4) 2:4 98:22	firefighting (1) 56:22	192:2,12,14,22 193:21	general (25) 11:25	201:13 202:2,9 204:19	hadnt (16) 52:15,17	57:4 114:22
117:20 169:25	firemen (1) 120:2	forma (1) 192:3	18:18 19:9,10 34:16	205:15,16	53:13 118:25,25	115:10,15,16 118:17
feeling (1) 183:14	firerelated (2) 123:21	formal (11) 70:5,11	35:24 36:4 54:14 55:9	golden (1) 91:22	138:21 151:16 152:21	129:4 153:12 155:11
fell (1) 103:3	148:23	77:1,16 87:7,25 164:5	56:25 58:5,17 68:15	gone (2) 105:23 170:20	176:12 183:13 188:13	169:19 174:25 191:15
felt (1) 156:10	fires (12) 57:1,2,4,7,8	179:5 185:24 186:1	77:24 89:5 90:8	good (16) 1:5,11	195:11 198:5	193:8
few (3) 81:20 167:19	91:10 92:1,4,18,23	196:5	102:18 106:9,21	2:8,12,13 4:23 45:12	201:11,18 202:10	helpful (2) 131:20
174:7	93:11,16	formally (4) 5:18	121:14 159:18 163:15	46:5 51:2 64:14 82:20	half (1) 30:6	190:25
fifth (1) 6:14	firestopping (9)	154:16 194:8 197:18	184:20 188:12 189:4	115:1 156:4,5 194:25	halfway (5) 18:2 87:4	helpfully (1) 51:8
figure (3) 53:21 55:10	62:17,18 94:5,10	formed (2) 24:16 61:1	generally (39) 20:12	205:12	154:7 177:1 178:2	helping (1) 15:22
56:4	118:20,23 119:2,2,4	former (1) 138:17	21:6 28:11 30:7 31:8	gossip (1) 93:15	hall (2) 14:16 26:14	helps (1) 118:16
file (23) 9:20 78:5 80:24	first (54) 1:20 3:9,10	forming (1) 45:14	48:14 49:16 64:5,13	goto (3) 127:2,2 176:18	hand (2) 80:8 175:12	here (16) 9:7 28:3 31:7
81:7 83:1,6,25 84:2,5	5:12 7:20,20 10:1	forthcoming (1) 30:14	72:9 80:23 81:19	government (3) 18:3	handed (1) 129:3	41:2,7 46:12 66:14
85:15 86:5,5,6	16:8,16 26:8 47:4	forward (5) 110:4 152:8	82:20 88:2,8 89:20	66:13 70:9	handling (1) 18:15	106:11 123:8 149:2
131:7,10 158:12	52:23,24,24 53:19	156:17 167:6 173:21	94:17 98:10 103:24	grade (4) 13:25 14:6,6	handover (2) 130:21	152:9 166:8 174:19
163:11,19,21,23	57:4 58:23 67:22 68:6	forwarded (1) 187:1	106:16,22 123:20	19:14	135:2	176:5,16 181:25
164:10 170:21 178:13	70:18,25 71:5,15	found (5) 7:21 115:1	136:10 137:20 145:19	grades (1) 15:6	hands (1) 169:18	herfordshire (1) 119:23
files (3) 81:1 115:2	72:17 76:16 83:17	173:15 190:7 197:7	146:2 148:18 149:15	graduate (1) 109:10	handwritten (4) 17:5	hes (3) 123:8 168:15
159:5	84:4 85:18 89:25	four (4) 6:19 38:1	155:22 160:8 162:14	graduated (1) 109:14	80:25 81:2 82:9	197:9
fill (2) 164:6 175:11	90:24 91:4 94:18	105:16 109:4	164:23 171:5 175:9,12	granted (1) 196:6	hanson (47) 30:24	hesitate (1) 91:15
filled (6) 13:15 84:22	104:18,22 106:1 107:2	fourth (3) 77:5 90:2	180:14,15 184:15	grateful (1) 126:8	31:11 106:4,24	hesitating (1) 123:8
164:4 175:10 192:14	114:14,17 117:18	179:17	196:23	great (2) 114:23 134:9	108:10,23 120:7	hierarchy (1) 98:9
193:21	121:25 126:8 128:6	fpa (1) 179:19	generate (1) 64:17	greater (3) 10:17	121:17 122:2 123:6,20	high (3) 35:3 90:6
filler (8) 43:23 46:4,4,5	129:15 141:22,24	france (1) 91:20	generating (1) 59:8	105:4,8	124:3,6,25 125:24	112:14
199:6,9,11,17	142:2 152:21 154:7	freehold (1) 127:11	geographical (1) 100:21	green (9) 7:6,8,13 73:13	126:12,21 127:1 130:3	higher (3) 10:10 15:6,19
final (1) 9:5	158:2,16 168:20	frequency (8) 70:9	geographically (1)	74:5 76:9,11,17 87:1	131:13,23 132:17,22	highest (1) 204:1
finally (3) 9:1 46:16	180:18 200:9 201:10	87:3,6 88:1,11	get (23) 1:25 2:21 18:2	greens (1) 8:4	134:12 136:5,22	highlight (1) 83:9
86:4	fit (2) 98:9 99:19	89:4,11,19	19:14 21:4,12 24:12	grenfell (78) 1:9 12:18	137:5,8,17 138:15	highlighted (3) 60:5
find (8) 8:14,21 9:19	fitted (1) 6:11	frequently (3) 31:5	39:9 50:2 82:21 84:23	27:22 32:12,19	140:8 142:19	163:7 168:11
43:3 86:15 112:5	five (8) 27:2 41:3 55:23	89:18 110:12	103:4 110:15 116:24	33:2,10 37:22 38:6,21	157:19,21	highrise (15) 28:14 57:9
129:21 142:15	107:24 108:3 109:5	front (6) 5:3,6 6:3	122:16 126:25 139:7	40:7 41:20 43:11	158:13,18,21 164:3	74:24 75:12,24 89:24
findings (2) 22:2 86:10	135:8 197:19	31:21 80:1 182:1	146:14 154:25 174:3	44:4,11 45:8 46:10	173:21 174:5,10,20,22	90:23,25 91:6,9 92:4
fine (2) 48:4 176:20	fiweek (2) 159:23	fuel (4) 55:13,21	180:5 194:24 197:1	49:6,18 52:13 59:22	175:15 176:15 180:3	93:1 121:10 150:23
finish (6) 46:6 49:23	160:6	61:5,20	fulfil (1) 23:7	69:2,17,23 72:5	185:17	203:6
109:25 115:20 194:21	fix (1) 129:6	full (38) 37:19 39:4	getting (7) 20:14	75:9,11 77:25 79:18	hansons (6) 135:21	hiliary (7) 100:25 101:1
204:11	fixed (1) 89:4	77:24 78:19 149:24	118:3,11 159:25	81:5 86:19 90:4 91:3	139:15 140:12 159:5	108:13,24 109:3,8
finished (2) 110:2	fixings (2) 59:7 200:14	150:2,9 154:15,22	162:22 176:16 181:17	97:11,18 98:5,25	177:14 187:19	112:20
151:10	flag (1) 155:12	155:3 158:14 159:24	gist (1) 147:19	104:11,14,17,23	happen (6) 26:7 30:3	hilarys (2) 100:24 115:9
fire (154) 1:22 8:16,18	flame (11) 41:25 46:2	160:23 161:7 170:4,12	give (22) 9:6,11 20:23	106:7,19 118:22	33:23 139:6 179:23	hill (2) 90:18,20
19:4,10,13 24:19,21	54:16 55:1,22,24	173:9 177:15	28:1 31:1,2,16,17,19	121:10,16 122:5,17	180:1	himself (1) 96:25
25:5 31:13,14,16	59:10 64:14 65:9	178:14,25 179:6,19,24	42:1,5 50:1 90:12	123:5 127:10,12	happened (4) 81:7	hindsight (4) 161:11
36:20 37:7 38:3 41:24	67:25 68:2	182:1,17,18	98:22 107:10 117:20	129:1,23,25 130:22	93:22 157:3 175:9	189:18 202:14 204:4
49:9,16 51:18,23 52:3	flames (4) 55:10,19		126:20 127:17 133:11	131:23 132:13 133:16	happening (1) 33:24	hob00000218 (1) 5:4
			144:8 175:24 202:1		happens (1) 2:6	

hob00000219 (2) 5:24
6:2
hob0000021911 (1) 6:8
hob0000021912 (1)
51:9
hob0000021913 (1)
8:10
hoban (38)
1:12,13,14,17 2:12
3:21 8:5 9:15 19:19
34:17 36:4 50:2,5,25
51:5 53:18 58:16 64:3
69:6 97:4 106:1 110:3
116:23 117:11,16
125:17 141:14 145:1
156:20 171:11,21
173:4,20 181:24 195:1
204:11 205:15 207:3
hoist (1) 6:21
hold (1) 204:1
holding (1) 50:6
home (1) 24:11
honest (1) 154:9
honeycomb (2) 155:9
166:5
hoops (1) 15:11
hope (3) 50:6 97:5
139:3
hoping (1) 154:11
hose (1) 123:2
hotdesking (1) 137:19
hotel (3) 90:16,17 92:19
hotels (1) 90:11
hour (2) 30:6,6
hours (1) 187:10
house (5) 93:20
118:18,24 119:15
121:8
housebuilding (1) 66:18
housing (2) 22:2 109:15
however (4) 56:18
68:11 70:6 200:20
hugely (1) 49:22
hundreds (3)
111:16,20,25
hyett (1) 163:18

I

id (12) 34:8 52:23
143:8,16 148:19,25
169:15 202:14,20
203:21 204:4,8
idea (2) 102:6 107:10
ideally (2) 190:9,11
identified (1) 76:22
identify (3) 25:2 59:17
90:23
identifying (2) 190:5
192:8
ihs (4) 48:18,22 49:8,15
ill (8) 57:18 62:24 144:6
147:19 172:4,8 175:17
202:1
im (58) 2:18,18 3:7 4:12
9:14 11:1 12:14 19:18
24:9,23 27:14 31:6,18
33:11 39:16 40:3
47:18 61:22 71:10
74:4 78:13 79:2 82:17
96:2 106:11,24 109:24
123:8,15 125:18
129:10 130:2,4,8
133:11 142:12,12

143:18 151:20 155:17
157:10,13 158:3 171:7
175:2 181:17 186:3
190:12 191:2 192:15
193:7 194:19 195:6
198:13 200:6 201:1
205:16,16
immediately (2) 73:9
98:19
impact (4) 93:16
110:10 113:9 126:10
impart (1) 126:23
important (7) 56:19
61:21 62:16 64:2,20
193:13,17
impose (1) 193:6
impression (3) 126:18
139:7 159:18
inch (1) 156:17
include (6) 31:25 32:6
49:9 73:22 96:20
104:11
included (7) 7:12 11:22
68:12 133:16 134:14
148:2 164:22
includes (2) 10:13
180:25
including (6) 18:15
43:24 63:16 189:10
200:13,16
inclusive (1) 3:19
incomplete (2) 96:21
166:15
incorporated (3) 60:25
70:10 87:7
incorrect (1) 6:23
increase (3) 107:9
110:8 113:21
increased (4) 60:10
88:23 109:19 110:19
indentation (1) 6:15
independently (1) 204:3
index (1) 207:2
indicate (4) 2:5 3:4 7:7
17:25
indicated (2) 28:4
138:22
indicates (1) 8:17
industry (8) 21:13
27:17 52:11 66:3
67:18 93:14,15 200:17
inert (1) 166:5
infer (1) 68:1
infill (1) 44:24
influences (1) 171:4
information (68) 4:21
23:13 31:6,23 32:3
35:23 38:16 39:5,14
48:20,24
49:8,9,11,15,16 74:19
75:13 77:9 78:24
79:4,9 96:12,15,21,25
130:15 133:5 134:13
135:14 137:9,14
140:16 142:17 143:5,6
144:8 147:1 148:18
149:9,13 157:14
159:25 160:11
162:2,24 163:4,5,9
173:12,14,15 175:20
181:13 183:3
184:12,21,25 185:16
187:4 188:2 189:6

190:3 191:10,14 195:5
200:4,19
informationrecords (1)
129:23
informatives (1) 186:21
informed (4) 48:14
145:8 149:2 178:9
inhibit (2) 54:25 65:9
inhouse (13) 14:11
17:1,20,22 20:18
27:12,16,23 28:9
30:11 119:16,19 127:3
initial (9) 83:8 84:4
89:10 144:3 158:22
159:3 169:16,17 195:5
initially (2) 103:14
105:1
innovative (2) 60:5,9
input (4) 135:23
154:19,20 155:2
inquest (3)
119:11,12,12
inquiry (15) 2:10,15 3:6
4:24 5:12,22 16:7 81:4
97:3 111:14 119:10
128:10 163:19 199:4
207:4
inquirys (2) 124:17
163:17
inside (2) 45:11 46:3
inspect (7) 95:7 141:4
145:6 150:17
151:13,24 152:1
inspected (1) 89:18
inspection (5) 86:17
87:3,6 150:15 190:3
inspections (9) 70:4,10
79:9 86:11,19 88:1
112:8 150:25 201:8
inspectors (2) 1:7
109:20
install (1) 155:7
installation (2) 54:25
65:8
installed (5) 62:14
151:15 152:2,2 166:9
instance (2) 126:9
204:8
instead (2) 79:19 155:8
institute (4)
14:15,18,22,24
instructed (6) 98:13,14
104:20 126:14 127:21
183:18
instruction (2) 121:11
126:15
insufficient (1) 134:15
insulants (2) 68:8,19
insulating (6) 44:24
45:3,8,16 58:10,15
insulation (39) 31:25
32:7 35:2,7
38:11,14,25 43:20,23
44:14,14,22 46:6 58:9
62:10,15 63:22,25
64:13 65:16,17,17
151:14 166:8,16,20
167:1,13,15
188:5,9,16,17
189:2,11 190:6 195:3
199:5 200:14
integrated (6) 73:19,25
74:7 75:4 76:2 155:13

intend (1) 174:10
intention (2) 15:21
25:14
interaction (1) 55:17
interested (1) 198:13
interim (4) 151:1,4
156:22 157:7
internal (7) 16:21 17:24
20:6 72:21 93:15
115:25 125:16
internally (5) 84:13
93:10 94:5 119:5
139:16
interrupt (2) 8:15
189:21
intervening (1) 100:1
intervention (2)
56:13,16
interview (2) 13:13 15:9
into (25) 4:12 25:14
29:24 41:3 45:16
61:18 67:22 72:12
80:15 82:10 98:9
99:19 101:3 104:6
118:3 135:23 136:2
138:2 152:15 155:2
156:19 172:21 187:16
193:23 197:12
introduced (3) 26:17
108:17 152:13
introduction (3) 72:22
152:16 153:2
investigate (1) 93:7
investigated (1) 12:8
investigation (1) 96:25
investigations (2) 2:16
96:17
invite (2) 1:17 30:3
involve (3) 51:14 90:25
178:21
involved (14) 62:12
64:16 97:12 105:16
122:24 125:1 128:1
138:4 143:7 155:1
197:1,3 203:9,15
involvement (13) 27:22
37:22 41:20 44:4 45:7
46:10 51:19 52:13
120:6 127:9 128:20
129:25 154:14
involving (3) 55:3 65:11
150:22
irvine (2) 53:21 91:10
isnt (3) 95:16 121:22
163:5
issued (9) 66:2 76:23
77:10 159:22
186:16,18 194:3,8,12
issues (10) 63:16 67:23
106:3 111:9 118:2
119:4 123:21 126:5
154:12 176:18
issuing (1) 170:19
item (7) 21:23 23:3
25:24 165:6,7,9,10
items (1) 162:1
iterative (1) 181:18
its (79) 5:3,6 6:2
8:14,16 9:19 40:25
41:2 42:14 44:8,8
45:23 51:22 53:2
54:12 60:16 61:14
63:6 66:7 67:3,11,17

73:9 74:4,16 75:16
79:23 82:24 83:2,13
95:5,12 96:11 99:16
106:12 114:17 117:24
119:7 122:1
125:17,18,19 129:18
133:2 136:16 139:21
140:19
141:12,14,16,17,19
142:12 153:19,20
155:13 156:21 157:13
158:12 161:6,25
163:3,7,10 164:21
165:17 168:20 171:8
173:4,10,19 179:14
188:22 192:4 194:20
201:24 202:11
205:10,13
itself (15) 14:24 43:10
47:24 65:12,18 76:11
79:11 80:20 85:15
86:5 94:13 104:14
189:11 191:22 192:22
iv (1) 31:22
ive (11) 4:21 10:4 42:11
79:23 81:15 151:20
175:20,21 183:14
191:3,20

J

jackson (6) 20:24
71:8,10 87:20 107:15
110:4
january (6) 13:21
16:11,14 138:15
142:18,25
jeh (1) 26:6
jeh1 (1) 3:16
jeh6 (2) 4:9 9:17
jeh7 (1) 4:9
job (11) 11:12 18:7
81:23 88:2 96:11
110:24 114:19 115:4
167:16,18 204:1
jobs (11) 88:5,22,23
103:17 110:13
111:1,3,8 113:11
121:8 149:8
john (42) 1:12,13 20:24
22:10,15 25:23 33:23
87:20,21 99:16,25
100:2,8,13 102:14
103:2 104:20,22
106:5,7 107:15 112:13
127:23 128:6,17 129:3
130:16,21 132:22
133:1,15 134:12
136:22 137:17 141:18
145:1 152:12 167:24
179:13,15 180:17
207:3
joined (1) 109:15
joins (1) 46:5
jos (9) 33:19 34:22
100:2,4,15 105:2,4
108:10,23
judgements (2)
113:12,15
july (13) 4:1 21:22
70:7,21,23 72:7,18
86:16 142:7 143:4
149:19 197:17,21
jump (1) 59:23

junction (1) 47:9
june (5) 19:14 25:10
67:3 68:23 141:15
junior (6) 10:14 11:4
12:3 98:17,17,19

K

k15 (1) 32:7
kalc (5) 104:9 143:23
154:1 183:23 202:24
kalgrenfell (1) 128:7
kctmo (1) 141:17
keep (6) 2:20 21:24
22:24 24:4 80:22
198:5
keeping (2) 25:16 81:9
kensington (5) 1:8
10:23 25:9 34:21
104:9
kept (10) 17:11,12
77:12,15 80:25 83:25
84:1,5,21 86:22
key (2) 67:23 139:3
kind (5) 79:21
165:17,20,24 167:13
kinds (3) 18:6 166:4,4
kingspan (4) 29:15,16
32:7 35:6
knew (6) 15:18 37:9
52:11 56:6 202:21
204:10
know (105) 22:6 23:11
24:6 30:17,18 31:9
34:1 35:17 41:20
54:21 56:6 60:13
67:11,16 71:20 74:15
75:8 77:21 78:22 80:6
81:8,19,24 82:18
87:15,18,18 88:8
93:22 94:3 96:3,24
97:2 103:23 104:25
105:1,13 106:11,12
109:22 111:8
116:13,15 118:16
119:7,8,19 120:8
121:8 127:11,19,23
129:9 132:6 136:1
137:11,12,13 139:12
143:3,13 147:1 148:12
149:19,24 150:23
160:7,19,23 161:17
164:2 166:25 170:9,15
171:2,24 172:13
174:23 175:3,24
176:7,23 183:20
184:13 186:18,19,24
187:8 189:4 190:9
191:13 193:19 196:5,8
197:8,8,12 198:14
202:16,20 203:5,24
204:6 205:1,4
knowledge (7) 8:7 23:1
89:24 101:9 156:12,16
196:12
known (3) 30:12 120:19
147:5
knowsley (1) 91:12
kooltherm (1) 32:7
korea (1) 91:23

L

labc (11) 26:5,10 34:25
35:3,12,16 38:16
39:15 48:16 66:16,21
labelled (1) 156:21
lack (2) 161:8 191:9
lakanal (5) 93:20
118:18,20,24 119:15
lane (1) 163:18
lapse (1) 82:15
large (2) 34:24 35:1
larger (1) 117:22
last (17) 8:9 34:14 35:4
59:5 64:8 67:24 72:24
74:4 109:10 116:1
142:15 153:10 154:1
161:15 172:12 179:17
194:21
lastbutone (1) 19:3
late (5) 131:14 147:24
148:1,5 154:23
later (20) 8:14 10:15
11:15 12:14 25:20
29:19 32:5,22 38:20
46:24 57:17 81:20
82:1 106:25 111:9,11
140:6 158:9 167:20
174:22
latter (2) 12:18 138:18
latterly (1) 113:23
lawrence (10) 115:24
125:19 141:3 146:18
152:10,22 154:7
156:20 157:19 158:13
lay (1) 14:9
layout (1) 158:23
lead (3) 55:22 123:19
203:3
learn (2) 93:17 119:14
learnt (4) 33:16 34:8
35:19 93:17
least (4) 54:3 166:4
178:8 198:6
leave (2) 108:5 205:20
led (1) 107:6
left (18) 17:11,14
25:9,15
88:18,18,20 89:13
108:6 109:3,3,9
112:20,20,23 115:11
148:12
lefthand (1) 165:3
legal (2) 5:7 51:8
legislation (2) 73:3
200:16
leisure (6) 104:9,19
116:11 122:23 127:20
183:10
length (1) 11:18
lengths (2) 55:24 123:2
lengthy (1) 138:19
less (1) 114:2
lessons (1) 119:14
let (7) 74:17 82:14 95:1
151:19 169:19 195:23
202:6
lets (22) 36:19 53:14
61:25 72:15 79:3
83:12 92:3 128:24
140:23 163:11 164:16
167:19 168:14 169:2
175:22 176:25 181:8
189:20 191:18 194:24
195:22 196:3

letter (1) 180:24	175:18 205:10	makes (1) 177:3	64:13 65:16 67:4	memory (3) 24:13 29:3	modifications (1) 77:8	126:8 130:3 173:15
level (6) 13:16 22:22	longer (1) 17:11	makeup (2) 159:9	147:7,11 196:19 197:5	188:25	modify (1) 168:3	
43:23 46:11 73:1	look (100) 4:12 5:5	202:11	198:1	mention (5) 144:11	molten (1) 59:9	N
113:15	7:18 9:18,22 12:19	making (6) 48:6 56:22	materialsproducts (1)	163:6 166:8 188:5	moment (16) 12:20	name (1) 33:20
levels (1) 158:23	16:9 18:2,9 21:19,23	108:21 111:2	43:21	191:9	16:2 17:23 33:14	named (1) 164:9
lfb (1) 35:7	22:4 23:3 24:25	113:12,15	matter (9) 5:18 25:12	mentioned (19) 12:24	39:24 76:13 85:23	names (2) 20:23 107:22
lfepa (4) 12:12 73:23	25:1,24 26:23 27:2	makinggood (2)	74:21 75:15 79:1	20:2 27:24 44:22	99:5 116:20 144:16,22	national (3) 41:13 42:9
177:17,20	28:18 36:24 41:1,2	199:11,18	87:10 149:6 156:7	66:10 93:1 107:22	172:3,17,23 175:17	66:17
lfs (1) 62:15	42:14,15,18	man (3) 127:2,2 176:18	170:23	108:23 110:23 116:3	189:22	natural (3) 49:24 59:2
lhbc (2) 66:13,14	46:16,19,24	manage (1) 98:7	matters (2) 5:20 12:1	117:18 119:16,20	month (9) 34:6 70:14	177:5
liaising (1) 12:11	49:2,10,16 50:15	manageable (3) 114:21	17:25 28:22 33:8	126:15 148:16 176:9	88:3,13,15 106:16	nature (2) 118:5 154:15
life (3) 88:15 172:15,21	51:12 57:21 59:4,24	115:5,7	52:10 75:23 79:21	185:7,8 204:12	150:1 175:23 178:9	nbs (4) 69:22
like (30) 1:15,19,21	61:25 62:3 63:21 64:7	management (4) 25:5	88:12 103:19 119:13	mentioning (1) 132:1	monthly (7) 106:16	195:7,9,16
6:25 8:3 13:12 24:19	66:24 70:2	51:19 52:5 120:16	122:17 124:4,6 125:24	menzies (3) 124:17	114:19,19 115:3,6	necessarily (1) 125:7
25:1 29:6 30:22 31:19	71:22,23,24 72:15	manager (23) 15:3 22:8	126:9,19,25 148:23	161:5 163:17	151:5,25	necessary (3) 77:8
35:15 68:19 80:13	76:7,11,14,16 79:14	33:22 35:15 78:3	155:12,16 171:5	mermoz (1) 91:19	months (1) 197:19	106:5 156:10
88:25 121:8 125:7	80:13,19 83:12,14,15	79:8,12 98:4 99:17,25	mature (1) 15:21	met (13) 42:6 128:2	moorebick (53) 1:5,14	need (22) 2:4 3:1,17
131:22 138:22 140:8	84:16 87:2 88:23	100:2 112:12 114:18	maybe (11) 53:14 83:2	130:19 131:15	2:2,8 45:24 46:8	4:12 34:10,13 40:23
151:14 155:12 156:1	89:25 90:1 94:7,10	128:8 145:2,9,11	114:10 118:6,6	145:2,14	50:1,4,8,14,17,21,25	43:3 60:6,21 62:23
161:17,22 165:11	103:16 115:13 116:12	149:3 152:14,17	136:15,15,19 154:4	153:13,14,15,25 154:2	51:2 110:2 115:22	86:21 106:2 121:25
169:3 172:2 200:10	117:5 131:2,8,10	178:5,9 197:13	188:23 197:22	178:5 197:8	116:21 117:4,11,13	144:6 145:5 150:15,17
206:1	134:3 136:2 137:4	managers (8)	maynard (1) 115:25	met00071032 (1) 9:3	171:10,13,21,23,25	151:23 177:8 180:22
liked (1) 154:9	138:13 139:21 141:1	20:12,21,22 30:2	mean (31) 6:24 18:21	met00071033 (1) 9:3	172:6,9,11,16,19,23	187:2
likely (4) 37:7 62:14	144:21 145:20	35:14 98:13,14 110:6	23:17 38:8,15 41:23	metal (6) 59:3,6,9	173:1 181:24	needed (8) 33:7 61:15
166:24 187:5	146:3,4,10 153:10	managing (2) 77:24	43:15 44:6 66:15 75:4	155:9 165:18 166:5	182:4,7,10,13	113:18 114:22
likewise (1) 21:9	161:14,15 163:11	78:19	77:11 82:4 100:20	metre (2) 41:7 177:5	189:21,24	115:14,15 152:1
limit (4) 159:23	168:14 169:2,3 173:18	manner (1) 73:15	103:7 109:20	metres (6) 35:3 40:12	190:4,9,12,15,20,24	181:11
160:6,15 161:10	174:13 176:10,25	manual (1) 18:15	119:2,3,11,21 121:5	41:9,12 46:12,14	194:15,24	negotiations (1) 123:17
limited (18) 35:5,21	179:17 180:17,22,22	manufactured (1)	136:16 155:24 157:6	metropolitan (2) 4:25	205:11,14,20,24	neil (22) 111:14 131:25
39:2,11,19 43:1,25	181:11 192:2 200:10	204:17	163:17 180:12 189:8	5:8	more (31) 4:20 12:19	142:7,14 143:4 145:14
44:5,9,15 58:24	205:1	manufacturers (3)	195:2 197:3 199:9,12	mezzanine (1) 141:5	18:18 32:5 36:19 41:6	152:11 153:13,16,25
68:9,19 176:12 177:14	looked (24) 5:23 31:6	28:21 30:8 33:6	200:2	michael (1) 107:14	43:22 53:15 56:22	157:18 158:11 161:16
183:24 185:18 199:7	32:2,8,17 38:16 39:5	many (7) 53:9 94:25	meaningful (3) 179:19	mick (1) 107:19	60:7 72:15 81:24	162:12 167:21 173:22
limits (1) 96:6	53:4 79:25 80:18 83:9	98:22 108:5,5 117:20	180:12 181:15	mid (3) 25:24 112:6,12	88:23 95:1 98:6	174:17 178:12
line (13) 6:15 7:21 15:2	130:15,16 134:3,7	153:16	means (9) 25:4	middle (4) 41:3 55:16	111:25 114:11 117:22	191:8,13,19 193:4
22:8 47:5 55:18,25	135:8 144:15,22	march (6) 10:21 11:6	120:7,9,22 121:17,20	161:24 171:7	118:6 128:24 130:25	neutral (1) 102:4
82:21 90:2 99:25	163:19 178:16 187:19	19:20 112:24 115:8	124:24 136:23 176:4	midjuly (1) 142:25	150:10 151:13 154:14	never (8) 15:24 69:8,18
115:20 116:1 171:7	191:7 195:5 204:23	122:19	meant (4) 41:21 43:8	midnovember (1) 180:7	163:2 167:14 184:20	109:12 170:22 195:9
lines (3) 6:19 114:17	looking (27)	mark (2) 83:5 130:2	65:14 110:12	midtopic (1) 205:9	191:3 192:4 204:6	200:24 203:5
162:7	15:12,22,22 19:12,19	marked (3) 129:21	measure (1) 68:2	might (18) 49:24 66:24	205:17	newbuild (2) 105:18
linings (2) 42:23 187:10	31:21 32:13 46:21	135:12 158:18	measures (2) 102:11	81:7,18 89:3 93:2	morning (11) 1:5,11	116:11
list (8) 30:13,14 108:22	49:10 60:18 77:5	markedup (2) 136:5	107:5	134:7 136:12 137:23	2:3,12,13 3:3 118:19	news (16) 30:13,20
133:19 163:23 164:9	86:4,14,20 88:11	144:17	mechanism (1) 54:7	151:25 162:24,24	151:5 152:12 195:8	31:12 54:4
180:23 185:16	100:23 116:16,17	market (1) 166:4	medium (1) 37:7	181:1,20 190:21	205:25	57:1,2,5,13,14,16
listed (3) 155:21 163:20	142:23 152:24 158:1	markups (2) 135:20,23	meet (13) 37:16,17	203:1,19 205:11	mornings (1) 117:17	91:13,16 92:14 93:15
164:13	159:12 165:2 167:6	martin (53) 1:5,14 2:2,8	40:21 60:8 68:9,19,19	millett (31) 1:10,11,17	most (6) 1:23 105:22	119:25 200:5
literally (1) 111:20	168:20 174:2 190:22	45:24 46:8 48:5,11	114:18 115:3,6 153:16	2:9,11 46:9 48:12	132:15 141:8	newsletter (2) 30:14,24
literature (3) 31:23	looks (6) 131:22 140:8	50:1,4,8,14,17,21,25	199:23 200:1	49:20 50:3,19,20	182:21,23	next (7) 35:10 37:11
32:6,24	153:3 174:6,24 179:10	51:2 110:2 115:22	meeting (40) 34:6,16	51:3,4 110:7	mostly (2) 100:7 138:18	59:4 89:17 132:10
little (22) 6:19 19:12	lose (1) 109:18	116:21 117:4,11,13	35:24 40:11 68:11	115:18,23 116:19	mother (2) 15:12,23	152:4 194:23
25:20 31:21 32:4	lost (3) 107:15,18 120:1	171:10,13,21,23,25	71:1,3 84:3,4,5,9	171:14,15 171:7	mounted (1) 23:12	nhbc (1) 66:17
36:19 40:18 53:15	lot (12) 82:17 86:20	172:6,9,11,16,19,23	129:9 130:3,3,21	173:2,4 182:15	move (8) 40:18 49:21	nine (2) 35:1 105:18
70:16 72:15 86:25	116:12,17 118:6,13	173:1 181:24	132:5,7,17 136:17	189:22,23 191:2	57:20 62:1 140:23	nlp (1) 16:13
87:3 130:19 133:23	125:5 127:20 141:13	182:4,7,10,13	139:4 140:24 141:3,7	194:19,25 205:8,13	152:8 167:19 191:18	nobody (1) 203:10
152:8 154:6 165:5	171:3 202:15 204:6	189:21,24	145:11,15,20,25	206:5	moved (3) 90:18 109:8	nod (1) 2:22
181:18 183:2 191:3	lots (2) 149:8,8	190:4,9,12,15,20,24	147:3,16	mind (10) 26:12 57:6	112:20	non (1) 177:2
195:24 203:18	lower (3) 19:12 64:7	194:15,24	148:5,13,14,15	72:6 92:21 93:6,7 94:4	movement (1) 61:2	noncombustibility (1)
live (4) 61:9 114:21	158:23	205:11,14,20,24	153:11,16,20 159:1	149:13 151:24 201:24	moving (2) 90:15 158:9	44:9
150:3,9	lowrise (2) 105:17 121:9	masonry (1) 44:2	180:13 181:14 183:19	mine (1) 17:9	ms (2) 161:5 163:17	noncombustible (3)
lives (1) 120:1	lunch (2) 30:4 116:24	match (1) 163:21	meetings (6) 19:21 78:8	mini (1) 87:3	much (24) 1:14	58:13,22,24
load (2) 64:18 107:9	lunchtime (5) 17:20	matched (1) 164:24	84:13 123:18,19 148:9	minimum (2) 73:1,6	2:8,11,14 8:4,25 11:18	none (1) 115:11
lobby (3) 177:6,10,11	20:2 23:10 30:1,15	material (24) 39:19	melt (1) 59:8	minutes (13) 34:15	50:17 52:8 61:9 63:21	nonetheless (2) 49:23
local (7) 18:3 59:8		40:10 43:1,23	member (9) 11:1 12:25	84:8,9 135:8	72:12 111:1 116:22	100:7
66:22 70:8 96:4 102:2	M	46:3,4,4,5 58:10,15	13:3,13,23 14:7,14	140:6,9,24 172:6	117:5 119:7,8 147:1	nonresidential (1) 25:7
103:15		62:11 65:17,17 74:24	15:16 148:11	174:5,7,19,22 194:23	149:25 152:8 153:3	norm (1) 183:1
locate (3) 84:20	m (6) 14:16 15:2	190:13,16,18 196:8	members (1) 67:17	miss (1) 82:4	155:1 191:1 206:1	normal (1) 194:17
192:10,11	26:13,18 27:25 34:1	198:15	membership (6) 13:16	missed (2) 85:16 162:24	multiple (1) 56:21	normally (5) 27:2 52:18
location (1) 38:13	magazines (3) 23:13,23	199:6,10,11,17,18	14:23 15:7,20	missing (5) 81:16 82:5	multistorey (3) 54:23	103:1 194:6,15
london (6) 10:17 12:21	27:24	materials (26) 24:21	23:16,20	96:20 164:10,15	60:20 65:7	note (13) 57:18 66:25
34:15 35:23 90:6	mainly (4) 29:12 109:23	37:13 39:1 45:3,8,16	memberships (1) 12:24	mm (3) 42:21 134:21	must (1) 141:4	67:1,3 144:21 149:2
120:20	131:4 150:19	55:25	memo (1) 136:21	157:25	myself (8) 57:15 81:16	150:14 151:22
long (7) 66:24 119:7	maintain (1) 62:18	58:9,13,21,24,24	memorandum (3)	mobile (1) 18:15	82:4 108:11 114:2	164:9,12 170:18 178:1
140:25 141:19 154:6	major (6) 103:24,25	60:5,9,11 63:15,22,25	185:17,19 191:20	mockup (2) 149:16,19		197:10

notebook (9)
81:10,10,13
84:18,20,25,25
85:12,25
notebooks (3) 84:21
85:25 185:13
noted (2) 179:21 188:3
notes (22) 21:16 67:17
81:13,16,20,22
82:3,7,10,10,13,15,21,25
83:25 84:1,4,5,13
141:18 145:2 159:15
nothing (4) 145:7
176:5,6 178:7
notice (12) 169:12,12
185:1 186:16,18,22
187:1 191:17,18,22
194:12,15
notices (1) 79:10
notifiable (1) 150:20
notifications (1) 150:20
noting (1) 184:10
notting (2) 90:18,20
november (13) 3:11
16:18 19:20 128:20
133:2 134:6 168:19
170:16 175:16,23
180:7 186:24 191:6
number (25) 18:10 22:1
30:11 31:8 63:20
66:11 81:11 84:21
88:22 96:2 105:16
107:7,10 112:13
113:21,23 115:10
118:9 122:17 133:18
140:24 164:2 168:18
203:9 204:12
numbers (5) 6:1 42:2
99:3 114:2 164:23
numerous (1) 163:6

O

observations (14) 73:16
122:8,14,15 126:2
129:22 135:13,24
136:6,23 173:24 174:7
176:4 180:2
obtain (1) 24:7
obtained (2) 10:8,11
obvious (1) 103:7
obviously (11) 73:10
85:1 102:11 119:9
124:1 143:13 146:11
167:3 182:22 197:7
198:18
occasion (1) 149:14
occasionally (1) 155:20
occasions (6) 6:22 7:1,2
82:25 151:18 163:6
occupants (2) 54:17
65:4
occupied (1) 91:6
occurred (1) 118:23
oclock (3) 34:17 205:24
206:4
oconnor (12) 125:20
145:12 146:19,20,21
147:4 151:9 152:11,18
153:4 154:2 156:21
october (10) 34:17
99:12 113:1,5,6
133:15,23 169:20
197:22 206:8

offer (2) 38:3 54:22
offered (4) 23:20 60:10
65:6 105:1
offering (1) 60:20
office (28) 14:13
17:12,14 19:10 20:12
34:2 35:1,19 71:2,18
87:23 105:17 109:13
126:6 132:7 136:2
137:16,17 146:16,23
148:13 150:5 152:16
158:24 160:3
180:14,16 181:5
officer (17) 10:14
14:1,6,6 19:8 47:20,25
72:5 75:17 91:5
104:23 141:7
143:19,23 145:1 156:1
184:7
officers (5) 18:22 73:7
77:17 120:10 156:9
offices (1) 29:25
offss (3) 133:22 174:3,18
often (2) 34:5 106:7
oh (10) 6:17 9:12 48:3
80:21 89:7 113:22
132:15 150:11 186:8
192:10
okay (16) 11:15 39:14
43:3 57:17 66:23
100:12 108:22 128:22
137:24 140:22 142:5
150:12 161:13 165:1
172:8 178:19
old (2) 26:18 120:20
once (12) 25:15 34:5
57:25 64:16 70:14
79:12 88:13,15 89:3
161:19 162:13 193:21
onetoones (1) 106:16
online (2) 19:14 48:21
onwards (3) 74:18
99:24 105:25
openings (1) 47:7
operated (1) 25:3
opinion (3) 76:23 77:1
114:6
opportunities (1) 23:4
opportunity (3) 1:22
54:15 65:3
opposed (3) 35:2
117:21 199:18
options (1) 38:1
oral (1) 147:18
orally (1) 97:7
order (11) 8:17 60:8
63:13 77:2 111:11
116:10 137:22 146:8,8
175:3 186:21
ordinarily (1) 101:10
ordinary (2) 10:7 108:14
organisation (1) 13:5
organisations (1) 28:21
organised (5)
14:18,21,22,23 17:1
origin (2) 58:4 63:6
original (3) 55:23 160:1
198:18
originally (4) 98:3 99:3
109:6 120:13
others (2) 101:8 137:18
otherwise (2) 203:1,19
outline (10) 80:14 128:3

133:18,25 134:14
168:5,18 174:8,18,21
outlined (1) 58:12
outlining (1) 77:8
outlook (9)
85:1,8,20,21 131:22
132:16 136:14 157:1,4
outside (12) 16:25
27:13 45:11,13
47:19,25 64:19 74:24
82:18 94:3 159:22
171:3
outstanding (1) 147:10
over (23) 30:20 35:2
40:12 44:17 46:11
62:2 64:7 75:19 85:17
93:6 103:15 112:10,18
123:2 130:12 134:25
137:1 143:18 172:17
175:23 183:10 204:9
205:22
overall (2) 64:18 87:13
overclad (2) 147:6
203:6
overcladding (11) 28:14
45:17 90:25 91:5
138:4 144:11 147:4
150:22 154:19 156:2
159:9
overhear (1) 137:18
oversee (2) 111:16
117:20
overseeing (1) 111:20
overseen (1) 90:5
own (6) 24:3 84:5 89:13
103:17 116:13 161:25
owned (2) 127:14,15
owner (1) 127:11
oxygen (4) 55:12,21
61:5,20

P

p (1) 28:1
p6 (4) 179:5,9,10,14
p60 (4) 187:16
193:14,21 194:7
pack (4) 45:9 158:12
159:12,13
package (3) 173:7,8,9
packed (2) 45:3,16
pages (1) 43:5
paid (5) 24:1,14 54:24
65:8,15
panel (13) 45:21,22
58:20
165:8,17,18,20,24
166:9,25 188:9
199:13,18
panels (30) 32:15,16
38:10 43:13,16,16,17
44:25 58:21 59:3,6
64:10,16 75:11 151:16
155:8,9 156:1 165:12
166:4 195:3 196:4,7
197:5,16 200:25
201:11,12 204:15,19
paper (1) 186:1
paperwork (1) 122:13
paragraph (71) 5:13
6:10,14 8:18 25:2
28:18 33:23 34:12,25
37:1,11 42:18,22
43:4,13 44:23 45:21

46:12,20 48:13
51:12,13 55:8 56:12
57:23 59:24,24 60:22
61:25 62:3,23,25 63:1
64:8,20 67:24 68:11
70:3 72:23 76:16 77:5
79:15 83:14 84:17
89:17 90:1 106:1
107:2 114:15,17
122:1,9 128:11 129:16
133:5 135:12 147:15
154:7 161:5,23,24
169:4,13 179:3 180:19
186:11 196:14 198:24
199:7,21 200:11
paragraphs (1) 37:17
pardon (1) 143:11
part (49) 12:19 14:16
15:2 16:13 18:7 24:16
26:13,18 27:25 28:1,5
34:1 36:7,13,14
37:3,24 41:9 45:14
52:19 62:9 68:12
72:20 74:4 90:24
94:10 96:11 97:3
102:24 103:9,21
118:11 121:13,17
124:18,25 125:9
129:20 135:2 154:20
155:13 157:17 170:13
173:24 175:4,12
176:15 184:1 188:22
particular (38) 11:8
21:5 22:7 26:17
31:12,19 46:15 49:11
59:12 65:15 68:18
78:9,18 88:2 89:4
90:14 92:8 94:4,8
103:17 113:17
114:5,20 116:17 127:4
137:22 149:12
151:8,14 155:22 160:9
169:15 170:1 172:15
183:24 195:2 202:3
204:8
particularly (7) 32:15
64:1 65:11 92:6 102:3
154:19 162:18
parties (1) 97:12
partnership (2) 105:15
118:10
parts (10) 7:5,6 26:19
36:17 46:14 63:20
123:12 126:2,7,10
parvinder (2) 108:11,24
pass (6) 139:24 172:16
180:11 187:23 188:11
194:7
passed (10) 39:12,21
44:17 77:6 99:12
107:14,19 109:9 113:1
114:11
passing (3) 99:13
140:12 195:8
past (1) 113:17
paste (1) 140:8
pasted (1) 142:21
pasting (1) 185:25
patch (12) 100:18,21,24
101:3,11,13 102:24
103:4 110:15 114:9
115:9,11
patches (1) 114:8

paul (51) 30:24 31:11
106:4,24 108:10,23
121:17 122:2 123:6,20
124:3 125:4,24
126:12,24 127:1 130:3
131:13,23
132:17,19,22 134:12
135:21 136:5,22
137:5,8,13,17 138:15
139:15 140:12 142:19
148:15 157:19,21
158:7,13,21 159:5
164:3 168:12 175:15
176:15,19 177:14
180:2,3 185:17 187:19
pause (28) 6:13 8:13
13:20 23:9 27:11 43:9
45:1 50:18 72:8 77:19
78:21 79:24 87:16
99:9 106:10 109:21
116:8 117:6,23 125:3
133:10 139:10 171:16
172:1,5 182:20 189:17
206:3
pc (2) 35:1,7
pe (3) 32:16 45:22
204:17
pension (2) 18:3,4
penultimate (1) 72:23
people (10) 1:21 11:20
85:4,4 108:23 113:17
120:1 127:16 149:8
153:16
per (7) 5:16 23:6,19
198:9 199:7 201:22,22
percentage (1) 113:2
performance (13) 21:10
22:8 24:20 37:17
58:8,10 63:22 66:11
69:12 70:7 72:7,19
73:1
perhaps (12) 7:5 43:3
54:11 74:15 83:15
86:25 93:14 127:25
144:17 163:5 165:7
202:25
period (11) 16:22 19:20
22:14 27:21 78:9 92:6
105:25 110:10 112:18
129:1 204:9
permission (3) 74:1,9
196:6
person (7) 121:19
122:11 123:7,18,19
126:20 197:9
personal (8) 21:19,21
22:7 23:2 24:10 25:19
26:24 172:15
personally (1) 116:9
perspective (1) 155:2
phase (1) 131:7
phoned (1) 111:4
phrase (1) 44:5
physical (6) 83:6,24
84:24 85:10,22 86:5
physically (1) 137:16
pi (1) 199:3
picture (2) 54:9,12
pieces (1) 162:23
pin (1) 129:14
pir (3) 35:2,6 68:19
place (3) 90:9 141:22
156:23

placed (1) 157:22
places (1) 86:9
plan (24) 3:3 21:21 22:7
23:2 25:20 26:24
70:11 76:18 77:14
79:19,21 80:13,19,22
81:4 83:24 85:15
86:3,6 87:7,25 164:12
185:13 201:14
planned (1) 147:8
planners (6) 34:3,8
75:15 155:16,19,23
planning (27)
74:1,2,9,12,18,23
75:10,14,22,23
88:1,21 101:2 107:5
109:9 112:21 147:10
155:6,12,24 156:9,13
196:5,16,25 197:1,18
planningbuilding (1)
34:6
plans (50) 76:10
77:6,9,17,25 78:7,19
129:21 135:13 136:3,5
149:24 150:2,8,9
154:15,22 155:3,20
158:15 159:24 160:23
161:7 164:20 170:4,12
177:15 178:25
179:6,19,24
182:1,2,7,17,18
183:5,16
184:1,4,13,20 185:9
187:4,23 188:10
189:11 192:4 194:7
195:6
plastic (1) 64:11
play (1) 95:2
please (81) 1:12
3:4,9,13 4:4 5:11 6:1,9
8:9 9:19 16:8 21:20
22:11 25:1 26:23 27:1
28:16 34:15 36:22
40:3 43:19,20 50:10
52:1,11 53:17,20 54:6
57:21 67:2 70:1 79:15
83:14 85:17 86:16
89:25 98:2 99:5
114:14 115:23 116:25
117:1,7 125:15 129:21
131:17 132:25 134:17
137:4 138:12 140:4,23
142:15 156:18 158:10
160:22 161:22 163:13
167:19,25 168:17
169:4 170:7
171:13,14,17
173:18,24 175:22
176:20 178:1 179:9
180:18 186:11 188:19
189:5 195:17 200:10
205:20,25 206:2
plus (1) 111:24
pm (5) 117:8,10
171:18,20 206:6
pointed (1) 123:25
points (1) 87:4
police (6) 3:7 4:25
5:8,17 9:2 51:6
policy (8) 70:5 75:16
120:15 155:17,18
160:4,13,18
polyethylenecored (1)

155:8
polyurethane (1) 68:8
position (4) 11:4 22:22
75:17 177:7
possession (3) 4:21
24:10 142:16
possibility (1) 63:13
possible (4) 82:25
136:16 153:25 188:21
possibly (1) 136:17
potential (10) 8:20
37:23 54:23 56:20
60:10 62:12,16 63:14
64:17 65:6
potentially (3) 59:25
60:4,11
pour (1) 141:5
powered (1) 177:10
practice (8) 25:6 33:14
82:9,15 136:1,8,8
200:17
practices (1) 33:13
preapplication (2) 131:6
154:20
precise (1) 173:19
preliminary (1) 129:17
prepare (2) 185:19
186:1
prepared (2) 179:12
185:17
present (3) 37:14
62:11,15
presentation (8) 28:1
29:11,23 30:6 34:2,7
35:4 119:20
presentations (1) 30:10
presented (1) 149:19
presently (2) 145:6
178:6
press (2) 199:3 200:6
pressure (1) 139:8
prestart (2) 144:24
178:3
presumably (1) 205:6
prevent (4) 56:17 58:14
63:23 64:15
previous (4) 38:25
58:12 83:17 91:9
previously (9) 29:9
44:16 80:2 90:5
110:13 111:13 126:15
148:16 155:15
primarily (2) 121:2
148:23
primary (1) 127:23
principal (18) 66:12
97:24
98:3,3,5,6,15,17,23
99:1,7 100:1,4 105:6,8
107:17,18 108:11
principally (1) 108:21
principle (12) 55:9
56:6,25 58:6,17 59:11
60:14 61:8,10 64:5,21
68:15
principles (1) 54:21
printed (3) 30:17 164:4
175:6
prior (19) 14:14 31:7
32:12 90:14 99:13
102:14 110:13
120:15,18 121:6,10
126:15 129:10 132:20

135:25 141:5 148:17	195:10 197:2,3,13,13	purpose (2) 57:19 76:18	75:2,4,7,17,19,22	153:2,7,10,18,22,24	questions (13) 1:18	rbk00050416 (2) 4:1
168:1 183:13	198:6 199:6,17	purposes (8) 49:6 64:20	76:4,7,13	154:5,18,22,25	2:10,18 9:14 96:16	25:1
priority (2) 138:25	202:15,24 203:9,13	111:5 125:8 128:11	77:1,5,14,21,24	155:5,11,24	106:21 117:17 127:4	rbk0005041610 (1)
148:24	204:5,24 205:2	170:4,12 179:2	78:10,14,19	156:5,7,11,17	157:22 171:8 191:3	84:17
private (4) 84:13	projects (30) 90:6,8,23	putting (1) 139:8	79:2,6,13,21	157:2,6,10,15,21	205:17 207:4	rbk0005041613 (1)
109:19 127:3 172:21	98:6 102:15,18,21		80:5,11,13,18,21,25	158:1,4,8,20	quicker (1) 62:25	198:23
pro (1) 192:3	103:8,13 104:5	Q	81:3,9,13,18,21	159:2,6,8,12,15,18,22	quickly (2) 53:15 86:25	rbk0005041619 (1)
probably (9) 1:23 62:25	105:5,10,11,21,22		82:1,8,14,23 83:4,11	160:4,13,18,23	quiet (1) 137:22	70:3
105:22 132:15 133:24	111:17,21,24	q (916) 2:14	84:7,10,13,15,20,24	161:1,3,5,13	quite (13) 39:16 79:2	rbk000504162 (2)
141:8 171:8 205:13,18	113:21,24 114:4	3:13,16,23,25	85:5,8,10,12,15,18,20,22,25	162:10,12,18,21	114:3 116:12 118:11	28:17 128:12
problem (1) 118:23	116:14,18	4:4,6,9,16,23 5:11,15	86:3,7,9,13,25	163:11 164:8,12,15	141:13 166:18 173:4	rbk0005041624 (1) 4:4
proceedings (1) 1:3	117:19,21,22	6:2,5,18,24	87:10,13,15,18,20,24	165:1,15,17,22,24	174:2 180:16 183:14	rbk000504164 (2)
process (22)	118:1,9,10 183:24	7:2,4,11,13,15,17	88:4,7,13	166:2,8,12,14,18,22	193:6 203:21	179:4 186:11
55:13,22,22 61:6,21	promised (1) 170:18	8:1,3,9,14,20,25	89:1,3,8,10,13,15,22	167:6,11,15,17,19		rbk000504166 (1) 79:16
76:19 77:15 122:14	promote (1) 67:18	9:9,13,22,24	90:21,23	168:8,13,24	R	rbk000504167 (2)
161:18 164:1 175:13	prompt (1) 49:1	10:1,3,5,7,10,13,19,21,25	91:3,8,14,17,19,22,25	169:1,7,17,19,24	rainscreen (14)	83:17 196:15
179:5 180:20 181:9,18	prompted (3) 15:16	11:3,6,8,10,15,25	92:3,10,12,14,16,18,22	170:2,8,14,18,22	32:15,16,25 43:13	rbk000504168 (1) 83:13
182:16,16,19 183:6,19	143:3 205:1	12:3,5,8,11,14,23	93:4,7,10,13,19,22,25	171:2 173:10,13,18	44:13 45:14 69:13	rbk00052478 (1) 141:10
194:2 201:17	promulgated (1) 71:15	13:3,8,10,12,18,21,23	94:6,12,16,23	174:15,24	94:14 155:8 166:25	rbk000524786 (2)
processed (2) 79:10	pronounce (1) 33:20	14:2,4,8,12,18,21,25	95:1,5,7,9,11,16,20,25	175:5,8,14,22	195:3 196:3 197:4,22	156:17 178:1
186:22	propagate (4) 58:1	15:4,11,13,15,25	96:2,10,14,19,23	176:3,12,15,23,25	raise (1) 87:20	rbk000524787 (1)
processing (1) 182:5	62:13 63:3 64:19	16:6,20,24	97:1,15,22,24	177:19,23,25	range (1) 60:8	157:16
produced (12) 30:24	propagation (3) 41:25	17:2,4,7,10,12,14,17,22	98:2,8,12,14,19,21	178:16,19,23,25	rapid (5) 54:7,16 63:13	rbk000524788 (1)
31:11 32:6,16 67:1	56:17,20	18:6,9,13,15,20,25	99:2,8,14,19,22,24	179:9,12,16	64:15 65:3	141:21
69:11 70:8 71:8,9,10	proper (1) 184:16	19:2,8,11,16,19,24	100:4,6,10,12,16,20,25	180:1,3,5,7,9,11,15	rapidly (1) 56:1	rbk00052486 (1) 179:9
78:5 179:15	properly (4) 96:11	20:1,4,6,9,11,13,17,21,23	101:3,7,13,16,18,21,25	181:6,8,17,20,22	rashid (1) 109:11	rbk00052487 (1) 192:3
product (9) 30:7,10	119:1 152:13 190:2	21:1,3,12,15,18	102:2,6,8,10,13,17,21,24	182:23,25	rate (2) 56:20 177:9	rbkc (48) 11:18 12:16
32:6,24 33:7,10 43:23	properties (2) 31:15	22:10,12,14,16,21	103:1,6,12,22,25	183:4,14,20,22,25	14:21,22 16:1,3,6,21	20:2 23:5,7,20 26:11
49:2 197:5	118:3	23:3,16,22,24	104:2,8,14,17,21	184:6,10,14,20,25	rather (5) 8:15 154:23	30:13,20 31:12
production (1) 54:1	proposal (3) 110:4	24:3,6,8,10,13,18,24	105:1,4,7,11,19,24	185:4,9,11,15,17,22,24	161:18 169:20 192:10	33:13,14 35:12 48:13
products (8) 30:8 44:24	155:7 184:15	25:10,12,16,18	106:7,9,18,23	186:1,4,7,9	rbk00001221 (1) 34:14	70:5 75:10 77:21
49:11 59:2,2 64:11,13	proposals (14) 22:4	26:2,4,10,15,19,21,23	107:22,24	187:9,15,18	rbk000012214 (1) 34:23	84:20 87:21 89:20
89:24	76:24 80:9 95:5	27:10,13,15,19	108:3,5,16,22	188:1,15,20,22,24	rbk00003810 (1) 142:6	93:10 97:16 98:23
productsystems (1)	126:2,5 136:24 147:4	28:2,13,16,24	109:2,4,7,17,24	189:8,16,20 191:18,22	rbk00003854 (1) 140:4	102:3 104:15 116:5
31:24	154:19 173:25 177:8	29:3,8,10,14,18,21,23	110:10,15,17,25	192:1,7,10,16,19,21,24	rbk0000524788 (1)	120:8 124:19
professional (10)	181:15 184:3 187:20	30:8,16,20,23	111:14,20,25	193:1,8,11,13,18,20,24	144:22	127:11,12,14 128:1
10:13,25 12:24 13:24	proposed (7) 83:19	31:5,10,21	112:3,18,22,25	194:1,3,6,10,14	rbk000298973 (2)	137:16 141:11,24
15:5,8 23:5,13 27:5	133:16 158:22 159:10	32:4,10,15,20,22	113:3,6,8,14,20,23	195:14,18,20,22	34:11 48:13	156:14 177:7 179:4
96:7	165:13 167:1 169:7	33:2,4,12,19,22	114:8,12 115:14	196:2,13,22,24	rbk000338952 (2)	181:10 187:20 192:10
professionals (5) 12:5	proposition (2) 54:14	34:4,10,21	118:8,15,17,22	197:2,12,16,25	175:22 191:6	196:10
162:25 197:3	163:16	35:15,18,23	119:2,6,11,14,18,21,24	198:3,5,13,17,20,23	rbk000338953 (1)	170:1 175:20 191:10
202:15,17	propositions (1) 96:2	36:1,10,13,17,19,22	120:3,6,22	199:12,15,20 200:8	176:25	rbkes (6) 17:8 22:22
profile (2) 31:2,16	protection (1) 177:11	37:3,5,11	121:1,3,13,15,20,22,25	201:6,10,17,25	rbk000339303 (2)	30:9 75:22 133:3
programme (1) 19:13	protocol (1) 5:16	38:5,8,14,19,24	122:5,7,20,22	202:5,13,19,22	114:14 180:18	155:6
progress (2) 22:4	prove (1) 68:14	39:8,16,18,21,24	123:3,5,10,20,24	203:3,5,14,17	rbk00033931 (1) 3:18	reached (2) 134:12
140:24	provide (10) 23:4,6 37:7	40:4,9,13,15,17,25	124:3,6,9,16,23	204:1,11,15,17,19,24	rbk00033934 (2) 3:10	151:8
progressed (2) 110:23	64:18 74:19 126:1	41:6,9,11,15,18,20,23	125:6,11,13 126:17	205:1,4,6	5:11	reaching (1) 125:8
193:16	140:15 163:3 189:5	42:1,4,7,9,12,18,22,25	127:1,8,22	qas (1) 7:2	rbk000339341 (1) 107:3	react (1) 151:3
progressing (1) 151:18	191:14	43:3,11,15,18	128:6,15,22,24	qualifications (5)	rbk0003393410 (1)	read (26) 3:20 4:14
project (97) 12:18	provided (28) 3:16	44:11,19,21	129:4,6,8,12	9:15,16 10:25	90:1	8:18 23:13,21 27:24
31:20 32:2,19 33:2	4:9,25 5:17 16:6 20:2	45:3,6,12,14,16,19	130:6,8,11,21,24	10:5,18	rbk0003393412 (1)	32:24 34:10 37:12
37:22 45:8 49:18	27:5,6,15 28:20 38:12	46:16,19	131:5,10,12,17,20	qualified (2) 121:22	3:13	52:2,15,17 53:10
59:22 70:15 72:5 78:1	46:22 56:3 61:16	47:4,7,9,14,17,23	132:4,9,13,16,20,25	124:19	rbk000339344 (1) 106:2	56:24 59:20 64:4,25
86:19 88:13,16	62:17 69:22 96:12	48:4,18,20,24	133:12,22	quality (2) 96:11 159:19	rbk000339346 (1)	66:10 76:13 140:2
89:5,11 97:13,19	118:25 123:1 134:13	49:1,3,5,8,14	134:5,9,11,17,22	quarter (1) 6:9	200:10	165:6 168:4 169:25
98:25	146:5 173:8 181:2	51:8,17,23,25	135:1,5,7,17,23	queries (1) 158:2	rbk00033936 (1) 3:18	170:1 175:20 191:10
103:1,3,22,24,25	184:4 187:4,12 188:2	52:2,5,8,17,22,24	136:5,9,12,14,16,18,21	query (1) 49:17	rbk00044900 (1) 131:17	reading (7) 4:12 31:23
104:12,15,18	195:6	53:2,4,6,10,12,14	137:3,15,24	question (45) 2:19,19	rbk00048649 (1) 138:12	39:14 54:11 133:25
105:14,23 110:21	provider (1) 48:18	54:3,5,11,14,20	138:1,7,9,11	9:5 26:8 35:11	rbk00048682 (1) 125:15	137:12 170:10
114:5 121:16 125:7,24	providers (1) 33:7	55:3,6,15 56:6,9,11	139:13,15,21	39:16,24 40:5,19	rbk00048693 (1) 173:18	ready (4) 50:25 117:13
126:4,13 128:7	providing (1) 177:5	57:2,4,7,11,14,17	140:8,12,15,19,22	45:5,12 47:24 52:10	rbk00048696 (1) 21:20	163:1 171:21
129:1,20,23 130:14	provision (4) 44:12	58:8,19 59:14,22	141:9	55:14 58:16 64:3	rbk000487533 (2)	realise (1) 39:3
131:7,13 132:13	63:16 177:10 188:16	60:3,17	142:5,10,12,14,23	74:21 79:3 83:16,18	25:21 112:5	reallocated (1) 102:21
134:2,25 135:14	provisions (3) 40:22	61:12,14,17,23 62:22	143:3,6,10,12,18,22,25	97:10 101:8 104:3	rbk000487537 (1)	really (5) 69:25 79:2
138:2,4 142:17	199:23 200:1	63:10,20 64:7,24	144:2,8,11,14,20	107:1 114:16 116:5	112:11	134:10 151:20 190:15
143:19,23	pry (1) 172:21	65:6,11,14,19,25	145:14,17,20,22,24	117:24 120:6 130:2	rbk00048852 (1) 26:23	reason (5) 11:8 33:19
145:2,3,9,11,17	ps (1) 116:3	66:5,7,14,17,21,23	146:4,12,14,17,20,22,25	139:24 151:19 158:4	rbk00048852 (1) 26:25	42:12 61:17 175:25
147:20,21,23 148:2	public (4) 5:22 12:6	67:8,10,13,15,20,22	147:3,7,10,14	166:18 167:11 170:7	rbk00050414 (2) 4:11	reasonable (3) 96:5,19
149:3,12 150:22 151:8	118:12 199:4	68:5,17,22	148:1,4,8,11,14,17,22	173:6 174:10 176:24	16:8	203:23
152:15,17,17 153:3	publication (1) 53:22	69:4,8,10,15,19,21,25	149:2,6,10,12,16,19,23	184:20 185:18 186:12	rbk000504141 (1) 16:17	reasons (2) 138:21
154:15 158:3,17 160:9	published (6) 53:17,18	70:21,23	150:7,12,14,22	197:20 198:25 200:12	rbk000504142 (1) 16:9	187:21
178:5,6,9,21 182:22	59:16 67:16 70:18	71:5,7,10,13,15,17,20,22,24	151:4,7,12,19	201:18	rbk00050415 (2) 4:11	recall (63) 6:21 7:1 19:9
187:5 193:15 194:10	72:18	72:1,3,14 73:11,25	152:6,8,21,24	questioning (1) 115:21	9:19	21:11 24:16 26:3,9
		74:4,11,13,15,22			rbk000504152 (1) 11:16	

27:18 29:17 33:24	34:10,11,12 43:6	98:15 183:9 192:16	34:19,22	revised (6) 70:21,23	sake (1) 190:6	53:17 54:3 63:1 70:1,2
34:7 35:22,25 38:23	53:20 55:15 56:4	related (4) 27:7,15	request (5) 158:5	71:17,18 72:7 74:16	same (19) 13:5 19:12	71:3 79:14 83:12
42:22 48:17,18	66:12 126:4 128:11	151:8 193:5	173:10 175:14,16	revision (4) 59:18 70:24	33:5 56:12,12 58:8,16	125:20 128:10 133:13
49:7,15,19 71:2,18	145:11 157:7 161:6	relates (2) 25:7 86:17	180:13	71:20 164:23	61:7 63:21 64:3 72:9	135:12 138:13 152:24
90:13,16 91:21 92:4,8	162:4,5 178:11,12	relating (14) 15:1 27:25	requested (1) 189:9	revisions (1) 35:10	97:24 127:14	158:20 164:13 178:20
93:12,12 111:19 119:8	179:2 180:25	28:21 31:24 32:24	requesting (1) 181:13	reynobond (4) 32:15,17	137:17,21 140:5	179:1,3 186:10 196:14
131:11 137:2 147:25	references (1) 4:10	50:11 79:9 122:18	requests (1) 138:20	201:11 204:17	141:16 154:2 174:16	198:23
148:3,6,10,18 149:22	referred (11) 5:24 29:24	129:22 135:13 140:16	require (1) 48:8	richard (1) 107:20	sandwich (1) 30:5	section (15) 36:23 37:3
159:4,18 162:15	44:15 51:6 53:2 81:9	142:16 158:17 168:2	required (10) 13:23	righthand (6) 10:5 27:3	sat (1) 158:21	40:20 43:19 44:3
164:14 166:1,21 170:3	85:12,23 86:1 144:15	31:14 32:8,13 49:17	16:3 23:18 47:2 48:1	36:24 62:6 112:12	satisfactory (1) 144:25	46:23 57:22 58:12
178:18,22 184:18	195:24	51:18 52:2 53:8 66:10	52:19 77:9 89:11 96:5	165:6	satisfied (3) 96:6 137:8	120:18,19 187:13
188:17 189:7 190:14	referring (4) 5:25 66:18	75:9 88:17 90:23	162:2	rigid (1) 68:8	190:2	188:23,24 189:5
194:5,18 196:17	148:14 159:1	120:4 122:5,25	request (7) 18:22	ring (1) 195:25	satisfy (1) 198:6	196:16
197:7,11,24 198:16,22	refers (4) 53:8 56:13	126:12,19 127:13,15	23:17 32:13 37:24	rise (2) 53:25 90:6	satisfying (1) 190:16	sections (1) 195:16
201:4,9 204:25	145:17 150:14	169:8 172:12 184:22	41:6 43:12 94:23	riser (1) 157:22	save (1) 179:2	sector (1) 109:19
recalls (2) 147:16,21	reflect (1) 26:16	191:22	requirements (11) 23:5	risers (1) 138:23	saw (16) 15:2 31:12	see (178) 4:23 5:5
receipt (2) 179:20	reflected (1) 81:24	relationship (5) 45:20	28:4 36:7 45:21 60:1,4	risk (12) 37:8,14 51:18	60:22 69:24 94:2	6:9,12,12 7:4,19
186:13	reform (1) 8:17	124:23 125:6 202:25	68:10,20 94:20 95:9	52:3 54:16 58:3 63:5	137:1 142:20,25	10:3,7 13:8
receive (5) 21:1 119:14	refurbishment (17) 1:9	203:20	200:17	65:4 132:23 139:1	157:23 174:4,4,15	15:11,13,25
145:9 149:3 174:8	43:11 45:19 46:10	relationships (1) 114:25	residential (10) 28:14	162:23 190:20	201:3 202:8 204:13,21	16:10,11,17,18 17:17
received (9) 127:13	49:6 52:14 75:9,19	release (1) 161:18	67:4 75:12 91:1,6	risks (1) 92:25	saying (14) 47:18 66:14	18:10,25
128:3 158:16	81:5 90:4 91:4	relevant (13) 18:1 41:7	92:19 165:9	rockwood (1) 35:2	100:22 111:19 131:25	19:4,11,13,24 20:11
169:11,19,21 174:16	97:9,11,12 141:25	42:19 69:12 73:20,25	177:2,2,12	role (20) 11:18 12:15	132:10 146:2 151:22	21:3,21 22:16,21
175:21 178:10	144:9 186:14	74:7 75:5 89:24	resigned (3) 11:7,8,11	16:3 19:5,16,22 36:14	158:1 162:7,15	25:16,25 27:1,3,6,7,13
receiving (4) 30:20	refurbishments (4)	162:23,25 190:13	resistance (1) 68:1	51:14 52:19 72:4	189:15,24 201:5	28:13 32:10 33:4,12
178:11 190:14 201:4	90:11,11,16,19	200:15	resolved (1) 147:12	94:16,18,23 95:2,5	scale (1) 37:19	34:18,21,23 36:25
recent (1) 35:7	refuse (1) 138:23	relied (1) 97:8	resource (2) 124:19	97:11,18 103:9 110:21	scattered (1) 118:9	39:24 40:17 41:6
recently (3) 3:21 4:14	regarding (4) 5:17	rely (1) 198:8	127:4	122:9	scenario (1) 58:11	42:18 43:5 44:1 46:12
152:16	118:2 139:25 157:22	relying (4) 38:21	respect (6) 32:7 33:9	roles (1) 126:12	schedule (9) 36:7 77:7	49:3 51:13,15 53:14
recladding (1) 90:25	regardless (4) 55:24	40:1,7,10	75:19 128:25 185:19	room (5) 50:2,10 117:1	126:3 183:11 186:20	54:5 57:4,14 60:1 64:9
recognised (2) 62:16	101:14,16,18	remaining (2) 107:8	188:3	192:7 205:20	192:9,13,23,25	71:5,20 72:3,17,22
184:11	regards (15) 15:19	110:18	respect (1) 126:12	rooms (1) 90:17	scheduled (1) 3:2	76:8,9 78:10 79:13,16
recollection (8) 5:19	23:15 31:1 39:6 63:9	remember (70) 7:9	respectively (1) 4:11	roobaix (1) 91:20	schedules (2) 183:13,17	80:21 81:3 84:17
128:19 131:21 145:24	78:18,19,24 80:8 88:5	20:14 26:10 28:7	response (11) 111:6	roughly (2) 29:4 138:16	scheme (7) 18:3 45:17	86:18,21,23 87:3,8
168:21 169:3 175:18	93:5 115:6 127:17	29:10 30:20 35:15	139:5,17,18,23 140:5	round (4) 45:13 46:6	105:15 118:10 126:1	97:4 98:12,19 99:14
193:11	184:15 202:2	49:5 70:23 81:6 82:14	175:23 179:20 180:12	118:9 132:7	176:11 191:21	100:6,16 102:10 103:6
recommend (1) 139:23	register (1) 202:12	84:3 87:10 90:8 91:13	181:16 185:18	route (5) 40:13 54:23	schemes (1) 202:16	104:2,21 105:24
recommendations (1)	registered (1) 18:23	92:16,18 93:14,19	responsibilities (3) 73:3	60:20 64:18 65:7	scope (4) 70:9,15 87:6	106:18 108:3,16
119:9	regular (1) 155:23	108:17 111:17 115:8	103:15 121:3	routes (2) 37:23 38:5	88:1	112:7,11,16 113:3
recommending (2)	regularly (2) 36:14	118:20 119:25	responsibility (5) 75:20	royal (2) 1:8 10:23	scotland (2) 53:25	114:12 118:15 120:22
139:16,18	52:19	120:3,15 129:2 130:25	100:23 105:9 123:10	rs5000 (3) 31:25 38:17	91:10	123:3 127:1
record (36) 4:13 9:3	regulated (1) 40:20	131:3,25 132:20	163:3	39:10	scratch (1) 109:13	133:4,19,20 134:20
16:10,18,20 17:2	regulation (8) 11:21	133:25 134:22 136:16	responsible (8) 30:2,19	rules (1) 15:18	screen (3) 6:3 9:22	135:15 138:2,10,11
21:19 22:12 75:9	17:18 28:7,22 80:9	141:6 143:10,12 144:3	123:5,12 129:19	run (4) 79:17 102:18	11:17	139:14,18 140:4,6,12
77:11,16,16	103:19 120:21 180:21	145:18,25,25 146:1	135:10 176:9 194:10	133:13 134:17	scroll (2) 9:25 16:16	141:1 142:8
79:19,21,22	regulations (63) 10:15	147:3 148:4,22 150:18	rest (2) 33:17 40:23	running (3) 22:12	scrutiny (1) 184:3	144:2,7,8,23
80:13,18,18,22 81:5	12:1 14:17 17:21 19:5	153:7,12 154:5	restricted (5) 55:10,19	143:25 146:17	sea (1) 164:12	146:22,25 149:16,21
83:24 85:6,15 86:3,10	20:4,19 21:25	159:2,8 162:7 165:11	61:3,18 196:18	runs (1) 162:23	sea00000154 (1) 134:17	150:7,16 151:1,17
141:11,24 156:18	22:18,25 23:14	168:23,24 170:10	restriction (1) 44:1	rush (1) 172:11	sea00000189 (1) 152:9	152:9,19 156:25
168:9 174:25 184:10	28:5,11 31:3 36:3,8,13	178:16,21 186:4	restructured (1) 107:5	ruthlessly (1) 204:3	sea00000231 (2)	157:13,16,19 158:8,14
185:1,12 192:21	37:25 47:21 48:15,21	187:15 188:15 189:3	178:16,21 186:4	ryan (3) 108:13,24	167:19 174:17	159:2 163:23 164:24
193:1,13	53:1,9 76:20,21 93:6	192:13,19 193:22	187:15 188:15 189:3	109:2	sea000002313 (1)	166:20
recorded (2) 83:21,23	94:8,21 95:14,17,25	195:15,23 204:21	192:13,19 193:22	ryd00004218 (1) 115:23	167:22	167:3,8,8,8,9,13,22,25
recording (1) 157:18	96:8 97:9 103:18	205:4,21	195:15,23 204:21	ryd00018742 (2) 158:10	sea00002629 (1) 135:18	168:15 169:2,19
recordkeeping (1) 77:21	107:17 108:9	remind (1) 13:18	205:4,21	163:14	sea00002630 (1) 135:19	173:23 174:3,19,25
records (15) 16:6,11	120:13,25 121:11	remit (3) 47:19,25 76:1	reminding (1) 110:8	ryd00018750 (1) 164:17	sea00009805 (1) 132:25	175:14 176:13 178:1,2
17:4,5,24 24:4,6 25:22	122:3 123:13	removed (1) 52:1	resume (2) 116:24	ryd000339344 (1) 122:1	sea000098052 (1)	179:16,22 183:25
77:14 81:10 86:22	125:11,24,25	rendered (1) 62:5	205:24	rydon (12) 97:6 115:25	133:14	185:11 187:18
135:15 141:17 159:4	126:3,7,10,20 127:17	repeat (8) 2:18 6:1 40:3	retain (1) 81:23	125:16,20 145:12	sea00010232 (2)	188:1,22 192:7,10
196:9	149:1 150:21 164:6	45:5 55:14 95:19	retained (1) 81:6	158:4 167:12 170:23	129:13 135:7	194:3,24 195:22
red (6)	166:24 173:25 180:24	157:10 170:6	retention (1) 105:17	197:4,20 201:14	sea00010369 (2)	196:19 198:11,21
7:6,7,15,20,20,23	181:1 187:6,12 188:19	repeatedly (1) 173:14	retire (4)	202:10	135:18 136:21	201:2,10,19 205:3
redevelopment (1)	200:15,15 203:25	reply (1) 175:15	107:13,15,24,25	rydons (2) 152:14 155:7	sea000103694 (1) 137:4	seeing (11) 35:25
174:1	204:2	report (6) 37:18 39:4	retired (2) 11:6 107:24		sea0001427517 (1)	57:1,2 71:18 92:8
reds (1) 8:3	regulatory (3) 8:16,19	161:5 169:10 170:24	retiring (1) 107:25	S	161:22	93:14 134:22 149:22
reduced (1) 107:11	119:13	186:2	returned (2) 5:8 135:17	s (1) 140:8	sea0001427565 (1)	165:11 173:16 195:23
reduction (1) 107:7	reinforcing (1) 141:4	reported (1) 100:7	rev (3) 164:18 168:1,3	safety (26) 8:16,18	147:15	seek (5) 55:12,21
reductions (1) 110:8	reject (1) 160:23	reporting (1) 200:6	review (14) 11:22	19:4,10,13 24:21 25:5	sea0001427625 (1)	61:5,20 123:25
reel (1) 123:2	rejected (3) 161:7	reports (1) 199:2	22:2,9 77:17 83:19	31:13,14 37:8 49:9,16	187:2	seeking (1) 96:20
refer (8) 28:17 52:19	185:2 189:11	representative (1) 51:8	88:14,14,17 89:6	51:18,22,23 52:3	sealants (1) 43:24	seems (2) 131:20
69:16 84:18 124:6	rejecting (1) 160:15	representatives (1) 5:7	159:13 184:1,10	128:4 133:18 134:1,14	second (32) 3:25 4:2,14	183:23
125:4 135:12 195:15	rejection (1) 160:22	represented (2)	185:5,12	168:5,18 174:8,19,21	9:18 23:25 24:25	seen (25) 54:4 57:15
reference (19)	relate (5) 19:16,21		184:3	184:3	25:24 28:16 51:12,17	67:6 81:15 82:3 91:15

125:17,19 132:9	199:23	146:18,19,20,21 151:9	197:11	spoke (3) 106:14,15	169:14 177:13 179:2,4	substantive (1) 51:11
144:16 168:21	sets (2) 179:5 187:21	152:10,11,18,22 153:4	someone (2) 33:15	132:2	180:18 186:10 196:14	success (1) 27:4
169:15,22,23	setting (2) 15:19 73:6	154:2,7 156:20,21	116:4	sports (2) 100:24 202:2	198:23 200:9	succinctly (1) 97:5
185:17,24 188:2 191:9	seven (1) 158:14	157:19 158:13	something (23) 6:7	spot (1) 166:9	statements (2) 3:5 97:7	sudden (1) 202:4
193:1,3 195:9,12	shake (1) 2:23	simple (2) 117:21,25	7:10 29:6 30:22 37:9	spread (25) 36:20 37:7	states (1) 70:9	suffice (1) 77:2
201:18 202:6 205:6	shall (10) 50:1	simultaneously (1)	45:23,24,25 52:18	41:25 46:2 54:7,16,23	statutory (7) 12:12	sufficiency (1) 88:15
selected (2) 22:7,17	73:14,17,18 74:6	56:22	60:13,16 62:20 63:7	55:1 56:1,15 60:20	73:7,15,21 95:9	sufficient (5) 86:22
selection (3) 63:15,24	172:6 187:11,12	since (6) 10:21 62:14	73:9 75:25 115:7	63:14 64:14,15	159:23 161:9	137:9 170:4,11 188:8
65:15	189:2,5	67:7 69:7 79:23 203:7	120:8 123:25 150:9	65:3,7,9 67:25 68:2	stayed (1) 108:25	suggest (1) 172:16
selffunding (2) 102:7,8	share (2) 33:16 35:23	single (1) 177:4	156:1 162:7 168:11	92:25 94:1 132:23	staying (1) 40:18	suggested (2) 89:19
seminar (12) 21:11	shared (2) 75:13 76:4	sir (53) 1:5,14 2:2,8	201:24	169:5,9 176:6	stephen (1) 115:24	140:13
25:12,23 26:2 28:9	sharjah (1) 92:6	45:24 46:8 48:5,11	sometime (1) 112:21	spreading (2) 58:15	steps (3) 96:5 130:13	suggesting (2) 140:3
29:4,10,15,23 33:15	sharp (1) 107:18	50:1,4,8,14,17,21,25	sometimes (19)	63:24	189:25	180:24
34:8 35:7	sheet (11) 79:19,22	51:2 110:2 115:22	31:1,2,14,16,17 33:18	sring (1) 31:8	still (9) 48:1 61:9	suggestion (4) 38:19
seminars (27) 14:9,11	80:13,15,22 81:5	116:21 117:4,11,13	49:2 81:22 82:13	sprinklers (1) 122:25	114:20 137:8 143:22	40:5 139:16 140:9
17:1,20,22 19:21 20:2	83:24 85:15 86:3	171:10,13,21,23,25	111:3,8 117:24 118:2	square (1) 177:5	145:6 157:12,13 178:6	suggestions (1) 115:10
21:1 23:11 24:1,14,19	185:14 192:5	172:6,9,11,16,19,23	137:21 146:7 158:7	stability (1) 62:19	stone (1) 59:3	suggests (2) 128:6
25:3,4 27:12,20,23	sheets (2) 114:20 115:4	173:1 181:24	160:20 164:25,25	staff (2) 98:7 109:18	stood (1) 74:18	142:23
28:13,17,20,24	shell (2) 50:14 117:4	182:4,7,10,13	somewhere (1) 15:2	stage (30) 21:12 28:12	stop (1) 50:8	suitable (6) 38:11,14,17
30:1,10,11,15	shirley (2) 119:21 120:4	189:21,24	soon (1) 35:9	39:9 108:10 111:9,12	stopped (1) 121:14	39:6 40:11 44:16
119:17,19	short (4) 50:23 115:19	190:4,9,12,15,20,24	sort (9) 30:5 75:12	130:4,16 131:6,14	storey (3) 43:22 46:11	suites (1) 91:22
send (5) 80:9 143:3	117:9 171:19	194:15,24	90:10 113:12,13,15	132:1,14 139:9 140:20	56:16	summarise (2) 11:20
164:6 174:21 177:17	shortly (3) 21:18 153:11	205:11,14,20,24	163:7 180:21 181:10	144:10 148:16 150:9	stores (2) 35:1 56:21	97:4
sending (6) 136:6	187:1	142:1,2 144:21	sought (2) 122:19 124:5	155:1 160:25	straight (2) 61:24 62:24	summarised (1) 86:25
157:17 161:19 168:16	should (48) 5:2 8:17	145:2,4,14	sound (1) 103:7	167:3,7,11	strategy (21) 128:4	summary (1) 181:4
174:5 175:14	37:6,11,16 39:3,4	137:16,20,20,23	sounds (1) 205:11	177:8,16,19 191:13	129:22 130:17 131:1	summer (3) 53:23 93:23
senior (11) 10:22 97:19	40:21 41:13 43:25	147:23	sounes (12) 129:10,18	197:8 201:12 204:23	133:16,17,18	109:14
98:8,14,22 99:10,12	44:15 46:22 52:2	site (56) 11:23 70:13	130:4,19 132:10	205:4	134:1,4,14 135:13	supervise (1) 89:10
100:7 107:20,21	54:24 56:17 63:16	84:11 86:17,17,18	133:14 135:9 136:7	stages (11) 92:3 145:5	146:9 168:1,5,18	supervision (2) 88:25
108:12	65:8,15 68:10 70:10	88:24 95:7 127:6	138:14 140:5 148:15	150:14,16,18,24	169:16,17 172:13	113:16
sense (4) 119:3 150:24	73:16 75:13 76:22,23	132:2 140:24	158:23	151:8,23 162:14,17	174:9,19,21	supplied (1) 26:5
154:25 181:17	77:10,12,15 79:6 87:6	141:11,18,22,24	source (3) 49:15 59:8	181:20	strategypdf (1) 134:19	support (15) 23:4,20
sent (24) 13:15 30:17	89:18 93:17 96:16	142:1,2 144:21	62:11	staircase (2) 202:3,4	street (1) 90:17	55:13,21 61:5,20 66:8
78:4 130:16 132:9	126:5 140:3 141:23	145:2,4,14	south (5) 91:23 164:19	stairway (3) 177:2,4,11	strength (1) 59:7	78:4,23,25 79:10
133:24 139:21 140:5	158:2 161:7 162:2	146:3,6,7,10,14,16,23	165:3 188:5 202:8	stamped (1) 194:16	stress (1) 18:15	108:19 125:7 186:23
141:16 142:18,21	170:21 184:2,14,20,25	147:16 148:17,19	southwark (1) 93:19	stand (1) 168:7	strictly (1) 122:7	194:2
144:18 163:12	186:15 188:11 189:9	149:2,16,21,22	soza (1) 107:21	standalone (1) 186:1	strikes (1) 73:9	supporting (2) 72:25
168:12,14 170:9	194:11 202:13	151:7,25 152:15	space (3) 47:13,17 48:7	standard (21) 13:25	structural (3) 88:12	161:8
174:18 175:2,5 178:13	shouldnt (1) 79:6	153:11,13 154:1,2	spaces (1) 47:22	14:5 21:13 41:16 42:5	181:2 188:13	suppose (2) 69:10
191:8,21 195:11,18	show (23) 6:6 16:7	156:22,23 162:5	spandrel (1) 165:8	69:21 73:6,12,12 76:7	structure (6) 19:23	191:11
sentence (9) 51:17	34:13,14 53:16 67:24	167:3,4 173:17 177:25	spans (1) 19:19	77:3 86:20 88:6,8	80:16 97:16 99:19	supposed (1) 111:16
72:24 74:4 125:21	107:2 111:12	178:5,17 190:3,8,22	spate (1) 92:4	113:16 175:11 176:8	101:22 150:19	suppression (1) 35:9
152:24 153:10 158:20	114:13,15 115:20	195:12 201:3	special (17)	179:13 186:20 187:16	structures (1) 12:8	sure (11) 1:25 47:18
161:15 179:18	116:1 125:14 153:4	sites (2) 89:18 148:21	102:15,17,21	188:12	studies (2) 10:8,10	79:2 149:20 151:20
sentences (1) 59:5	161:21,23 164:17	sits (1) 2:21	103:1,8,13,22	standards (21) 21:10	studio (29) 97:6 111:15	152:2 172:9 190:1
separate (1) 140:1	165:5 175:17,17 191:7	sitting (2) 76:17 147:21	104:5,11,15,18	22:2 53:8 66:11	127:24 128:2,18 133:1	193:6,14 198:6
separately (2) 102:18	198:24 203:10	situated (2) 129:20	105:5,11,14,21,23	70:7,17,18 71:1,15	134:13 135:18 137:10	surface (15) 41:12,25
106:24	showed (3) 153:7	135:11	175:9	72:6,7,16,19,25 76:9	138:18 139:7	43:10,14,15,16,17
separation (2)	188:6,25	six (5) 7:1 107:12,22	specialist (2) 103:3	86:14,21 124:11,12	140:3,13,15 142:24	46:1 64:14,15 67:25
138:17,21	showing (3) 54:12	109:6 114:17	123:13	200:16 204:2	145:14 153:12 158:4	68:2,4 199:25 201:21
september (41) 1:1	149:21 193:4	sixth (1) 164:19	specific (15) 7:22 11:25	start (10) 2:14 9:14	161:4 170:23	surfaces (5) 40:19,21
25:23 99:15 102:14,17	shown (8) 5:11 6:8 55:9	size (1) 182:21	18:17 20:14 49:5	51:5 88:13 141:20	186:14,25 197:4,20	43:6,7 199:22
103:2,8,12 104:4	135:2,5 136:25 199:2	skill (4) 96:7,19	57:17 72:15 74:15,21	151:9 161:20 163:15	201:13 202:10,24	surmise (1) 176:1
105:12,25 113:4,25	200:21	101:4,16	75:8 95:1 119:17	195:7 196:3	203:5,18	surprise (3)
117:19 125:17	sic (1) 56:16	skipped (1) 62:2	127:9 145:24 147:5	started (5) 16:15 30:21	study (3) 31:19 38:2	201:10,15,21
128:8,15,18 129:1	side (3) 62:6 112:12	slightly (6) 25:21 49:21	specifically (17) 20:4	134:1 183:19 190:10	167:25	surrounds (4)
152:9 155:6 156:19,21	165:3	114:1,11 118:16	27:16 36:17 49:17	starting (2) 109:13	subject (12) 7:4 8:5,20	45:4,9,10,12
158:9,11 163:13	sidetise (2) 29:21 32:25	151:20	55:3 69:22 78:1,19	183:13	29:10 35:5 65:21 70:6	surveyor (42) 10:22
167:20 169:12	sign (2) 5:18 111:7	sloane (1) 90:17	99:15 106:20 109:20	starts (3) 6:10,15 51:13	77:6 131:23 138:19	12:21 19:6,17,22
173:20,22 174:4,16	signature (5) 3:14 4:6,7	slowly (1) 41:2	121:6 131:1 136:6	stated (1) 5:20	187:25 199:5	22:22 31:2 36:5,15
175:15 177:25 178:13	10:5 194:18	small (2) 117:21 118:4	146:1 151:13 167:15	statement (60)	subjected (1) 58:11	78:6 79:9 96:4
188:8 195:18 196:7	signed (4) 5:1,6 10:4	smaller (2) 117:25	specification (7) 69:22	3:7,9,10,17,20,25	submit (2) 160:22 190:5	97:20,25
197:19,21 202:9	194:16	121:8	190:5,13,14	4:2,10,14,19,25	submitted (13) 76:24	98:4,8,10,15,16,18
septembervenember (1) 186:6	significant (5) 58:3,4	smoke (9) 35:8 131:4	195:7,9,16	5:8,12,16,17,19,20,21,23,24	95:5 96:15 126:2	99:1 100:1,4 103:16
service (3) 10:16 15:6	63:5,6 139:1	133:3 134:15 136:24	specifications (1)	7:6 8:6,22 9:2,18	133:5 149:25 154:16	105:23 107:18,20,21
56:13	significantly (1) 56:15	138:16 139:5,25	189:10	23:25 24:25 28:16	155:3 158:15 159:20	108:18,20 109:11
services (3) 56:17 102:3	signify (1) 132:16	140:16	specifics (1) 58:6	34:11 48:12 51:6	177:20 183:6 188:13	114:7,22 115:14 121:5
120:12	signifying (1) 131:24	softer (1) 203:18	specified (2) 150:20	70:1,2 79:14 81:9	subparagraph (1) 63:11	123:15 125:23,25
set (13) 9:16 11:18	similar (2) 43:24 185:19	solely (1) 68:1	200:22	83:13 84:16 89:25	subsequently (1) 71:9	128:25 129:19 135:10
13:25 14:5 30:1 34:15	similarly (1) 60:21	solution (1) 38:3	speculating (1) 143:17	90:24 106:1 107:2	substance (1) 9:10	180:20
42:19 72:6 104:7	simon (21) 115:24	solutions (1) 60:10	spent (3) 116:17 127:20	114:13,14 121:25	substantial (2) 107:6,7	surveyors (26) 7:24
151:5 161:25 184:3	125:19,20 141:3	somebody (5) 30:18	204:6	122:9 128:6,10,21	substantially (2)	10:16 21:2 30:4
	145:12	111:5 157:6 164:1	split (1) 138:16	147:14 161:21 162:3	52:16,17	31:4,17 34:16 35:24

85:3 98:4,23 99:10,11
107:12 108:6,12,15
109:6,8 112:8
114:1,19 120:17 121:4
125:7 160:5
sustainable (1) 60:7
sustained (1) 59:9
swamped (4) 116:4,6
161:18 162:13
sworn (2) 1:13 207:3
system (54) 18:24 33:14
35:9 37:14 44:13
45:14,17 55:4,12,20
56:2,14,19 58:1,3 59:7
61:1,2,4,19 62:8,13
63:3,5,14 64:16
65:6,12 68:12 77:22
78:5,11,12 79:4,12
81:14 82:5,11,16
84:10 85:2 100:18
102:24 133:4 134:15
137:19 139:25 140:16
152:1 156:2 159:10
177:10 189:4 195:4
systems (15) 37:19
54:15,22 58:13
60:9,19 62:5,18
63:1,15,24 65:2 69:13
94:14 189:2
systemspecific (2)
57:22 62:5

T

table (1) 68:10
tables (1) 59:1
tabs (1) 198:5
taken (5) 7:10 51:8
109:11 115:12 149:20
takes (1) 183:15
taking (3) 105:25
141:22 148:4
talk (9) 21:7 50:10
70:16 106:17,19 117:1
143:16 171:14 205:21
talking (1) 173:15
tall (1) 37:15
targets (4) 25:22 27:1,2
112:13
tasks (1) 73:2
team (8) 33:17 98:4
108:19 114:23 148:11
177:9 186:23 203:12
technical (20) 10:14,16
21:12,15 27:20 31:23
33:6 35:3 48:20 52:9
67:1,3,16 69:11 119:3
126:1,6,21,22 127:4
technology (1) 69:6
television (3) 54:4
199:2 200:7
telling (3) 82:24 148:22
165:12
ten (4) 55:23
174:5,19,22
term (1) 199:9
terms (6) 36:4
77:8,21,24 106:9
159:18
test (10) 37:19 38:22
39:12,21 40:7
41:25,25 44:7,18,19
tested (1) 68:13
testing (1) 200:16

tests (4) 41:24
42:7,19,19
text (9) 54:8 55:15
56:7,24 58:17 59:12
60:14 64:4 139:22
thank (44) 1:14
2:1,8,11 4:16 6:5,18
8:4,25 9:13 43:18 46:8
48:11
50:7,16,17,20,21
51:2,4 52:8 100:12
116:19,21
117:5,7,12,15 118:17
127:8 129:12,17
171:15,23 172:18,22
173:1 185:4 190:24
191:1 194:25
206:1,4,5
thanking (1) 2:14
thatd (1) 194:25
thats (57) 3:10 6:23 8:1
9:3 10:1,5 13:16 16:15
19:1 25:4,10 33:20
39:16 45:12 58:25
59:15,16 61:21 64:20
71:13 72:17 75:15
79:2 87:1 89:19 94:23
96:13 114:13 115:21
122:8 126:14 129:10
131:20 132:8 136:10
140:2 146:13 150:5
153:15 156:25 159:1
162:3,14 164:19 176:8
179:7,8 180:13,15
181:7 182:14 183:6
188:24 189:1,14
190:24 199:3
themselves (4) 38:10
72:16 77:18 192:11
therefore (4) 69:10
104:14 162:19 177:7
theres (12) 6:10,14
8:8,11 53:7 66:17
81:16 82:3 143:13
164:5 172:11 203:9
thermal (1) 29:12
thermosetting (2)
68:8,18
thesis (1) 15:10
theyd (2) 57:13,14
theyll (1) 61:19
theyre (5) 17:3,6 61:21
82:5 139:14
thing (7) 2:2 26:12 61:7
63:21 93:5 94:3
137:22
thinking (3) 36:5 89:5
180:23
third (8) 51:13 53:18
55:18 57:23 59:24
74:4 114:10 133:4
thoroughness (1)
110:20
though (9) 64:3 66:7
67:13 151:25 161:1
177:14 185:18 201:17
205:11
thought (5) 38:7 39:1
82:7 94:2 157:6
thoughts (4) 45:20
54:19 168:9 170:11
three (9) 6:22 7:2
99:10,10 108:13

113:3,10,23 120:1
through (37) 15:9,11
21:8,22 22:4 28:11
30:7 42:11 49:8 54:23
56:1 58:1,15,22 59:2
60:20 61:11 63:3 65:7
78:10 82:21 86:18
88:15 111:4 114:19
115:3 122:15 123:3
136:20 154:7 161:17
172:20 173:15 175:20
180:23 181:8 201:7
throughout (2) 43:1
62:13
thursday (1) 206:8
thus (1) 56:22
tick (2) 81:22 192:5
time (200) 2:5,5 3:2
4:18,20 12:17 13:17
14:11,11 15:12,24
17:1,1,5 22:10,20 24:3
25:13 26:11,17 27:16
28:8,9,20,20 29:2,7
32:8,12,18,18
33:2,9,24,25 34:17
37:21 38:7 39:5 41:20
43:7,11 44:4,11
45:7,19,23 46:3,5,9
47:1 48:25,25 50:2
52:13,23,24,24
54:13,14 56:25 57:12
59:13,22 60:14,16
61:9 63:8 64:4,22,23
66:4 67:21 68:3,21
69:1 71:19 72:20
77:25 82:7,12,18,25
88:10
90:4,7,10,10,11,12,14
91:4,16 92:7,10,13
93:22 94:10 97:11,18
98:5,24 99:24 100:24
101:9 102:2 110:22
116:5,17 118:7 119:7
121:16 122:16,16
124:5,5,14 125:4,4
126:24,25 127:6,7,20
128:1,18 129:14 132:8
133:9,24 134:11,23,24
137:22 139:8
140:23,25 141:10
143:8,22 144:9
145:7,8 146:10,18
147:2 148:22 149:6
150:4,4 151:2 152:8
154:22 155:11
156:7,15,17 158:9,16
159:23 160:6,15,16
161:1,9,11 162:10
165:12,20,24 166:14
167:6 168:12 169:15
170:11 171:6,8
172:2,15,20 173:19
176:2 178:7,25 179:3
186:6 187:10 189:14
194:9 196:10 198:15
199:16 200:4,19
201:8,15 202:12
203:22 204:6,9
timeconsuming (1)
118:11
timely (1) 73:15
times (3) 55:23 82:14
204:12

timetables (1) 160:8
timing (1) 174:2
tmo (2) 97:6 138:25
today (3) 1:6 9:6 118:20
today's (1) 1:6
together (7) 15:10 41:1
92:9 106:25 158:1
175:13 200:11
told (26) 15:20 22:23
23:16 75:10 89:17
111:15,16 118:18
128:20 134:11 138:9
151:4 162:4,12 167:2
176:12 191:14 195:8
197:10 198:14 200:24
201:4,8,12 202:7,11
tomorrow (4) 204:20
205:17,25 206:4
tonight (1) 194:22
too (1) 62:2
took (9) 15:23 63:18
90:8 103:15 114:8
134:24 137:1 147:22
183:10
topic (13) 36:2 46:16
49:22,22 89:23 91:9
94:16 97:15 125:15
133:9 179:1 194:20,20
torch (1) 92:19
total (2) 85:5 108:3
totally (1) 194:19
touched (1) 16:2
towards (1) 111:23
tower (63) 1:9 12:18
32:19 33:10 37:22
38:6,21 40:7 43:11
44:4,11 45:8 46:10
49:6,18 52:13 53:24
59:22 69:23 72:5
75:9,11 77:25 79:18
81:5 83:20 86:19
90:19 91:1,3,19
97:11,18 98:25
104:11,14,17,23
106:19 118:22 121:16
127:10,12 129:1,23
130:22 131:23 132:13
135:14 138:4 141:25
142:16 143:19 144:4
152:14 156:14 168:17
174:1 179:24 182:25
186:14 192:12 199:17
towers (2) 119:21 120:4
town (2) 14:16 26:14
townhouses (2)
105:16,16
tp10 (1) 32:10
tracker (1) 79:17
trained (1) 11:12
training (36) 14:13
16:1,4,6,10,13,21
17:25 18:3,6,9,18,23
19:4,23 20:6,11,14,19
21:1,4,12,20
23:4,6,14,15,19
26:5,10 28:3,9
119:14,17,19 120:3
tranches (1) 162:23
transcriber (1) 2:21
transcript (7) 2:22,24
3:17 9:2 135:17,19
196:15
transfer (1) 81:13

transferred (3) 83:1
84:10 101:1
transport (1) 118:13
travelling (1) 118:14
tray (1) 193:25
treat (1) 127:12
triborough (1) 26:24
tried (1) 110:22
trigger (2) 131:21
168:20
triggers (1) 169:3
triple (1) 113:24
true (5) 3:23 4:17 5:20
8:7,22
trust (1) 203:3
try (3) 74:17 79:3
195:23
trying (5) 31:18 106:11
160:11 161:2,12
turn (19) 3:17 8:9 16:1
36:2 52:10 62:22
65:20 69:5 70:1 89:23
94:16 97:15 107:1
120:6 122:1 125:14
127:9 133:13 194:19
twofifths (1) 7:19
type (7) 58:11 88:9
155:22 166:8,25 188:9
202:3
typical (6) 180:20 181:9
182:16,16,17 183:6
typically (6) 58:12 59:1
64:10 114:18 182:5,10

U

uae (3) 57:11 92:5,23
ultimately (5) 68:14
95:12 104:11 123:5,15
unable (1) 192:11
unacceptable (2) 54:16
65:4
unambiguous (1) 77:7
unclear (1) 125:1
undefined (1) 125:1
underneath (2) 36:25
76:15
understand (29) 1:20
5:1,6 7:13 33:19 37:21
41:11 43:12 44:5,12
47:1,23 54:14 68:3
73:5 89:3 102:6
129:12 130:11 138:20
146:14 152:15 161:13
172:19 181:25 182:13
189:14,24 203:24
understanding (16)
2:17 19:1 46:4,9 47:21
60:15 77:1 93:25
95:21 101:9 137:7
200:3,20 203:8,12
204:9
understood (6) 41:18
48:6 64:21 65:2,14
124:12
undertake (3) 13:23
16:3 73:14
undertaking (1) 73:18
undertook (2) 16:21
18:9
unfortunately (3) 84:8
107:13 168:23
united (1) 92:5
unless (1) 165:4

unsatisfactory (1)
157:13
unseen (5) 54:16 56:1
58:1 63:3 65:3
until (10) 129:3
130:18,19 139:11
143:7 146:10 163:8
175:16 180:5 206:7
unusual (3) 149:7,11
150:6
update (1) 197:25
updated (1) 170:24
updates (1) 48:15
upon (1) 71:9
uptodate (5) 146:22
149:4,13 150:1 178:11
used (27) 24:21 33:10
34:5 39:1 43:24 45:9,9
55:25 58:13,21,21
60:11 63:15,25 69:18
74:24 75:11 77:24
79:19 118:12 124:19
179:5 188:9 198:1
199:6 200:23,23
usedfixed (1) 199:23
uses (2) 176:8 177:12
usher (3) 50:14 117:4
206:2
using (10) 37:19 49:15
62:17 167:2,4 169:18
190:8,10,17 203:11
usual (1) 135:25
usually (3) 100:17 136:2
180:24
uvalue (1) 32:13
uvalues (1) 32:9

V

valid (3) 78:3 160:2,3
validated (2) 79:12
150:5
variations (1) 184:10
various (8) 4:19 53:7,8
64:11 80:3,15 124:14
202:17
vary (1) 58:21
vein (1) 56:12
veneers (1) 59:3
vent (4) 136:24 138:17
139:25 140:16
ventilated (4) 57:23
62:25 177:6,11
ventilation (2) 139:5
177:10
venting (1) 131:4
version (4) 68:23
144:18 168:5 174:19
via (1) 48:22
viewed (1) 97:13
views (1) 45:19
vii (1) 33:5
vinyl (1) 64:10
virdee (2) 108:11,24
visit (24) 88:3 106:13
110:12 111:1 113:12
132:2 141:22,24 142:2
144:14,21,24 145:7
148:17 149:2,17
151:10 152:25
156:18,22,23 157:7
178:3,8
visited (2) 145:2 178:5

visiting (2) 113:11
195:12
visits (13) 11:23 70:14
81:24 84:11 85:3
86:17 89:4,11 141:11
151:1,4,7,25
voice (1) 2:20
void (2) 62:8,9
volumes (1) 60:11

W

waiting (7) 157:12,13
160:10 162:25
166:13,17 180:2
wall (9) 24:20,22 36:25
41:12 43:25 44:2
46:13 147:8 195:4
walls (7) 36:24 37:16
40:21 43:6,8 47:5
69:12
wandsworth (2) 14:16
26:14
waqaas (1) 109:11
warned (1) 54:22
wasnt (51) 11:11 32:11
33:18 47:12,17,24
54:19 66:4 69:14 75:4
84:12,13 87:15,15,17
89:19,21 95:22,24
96:1 99:17 104:12
105:3 106:13,14
110:23,24 111:1,25
113:11 115:7 149:7,11
150:6 155:17,18
159:25 160:1,2 166:18
180:11 181:5,9,12
182:12 190:15
198:12,19,20 200:3,5
watching (1) 11:20
way (24) 2:19 6:10,14
7:19 11:3 51:10 56:18
74:17 79:3 83:2
87:17,23 90:13 110:24
127:14 140:25 150:5
182:8,11 185:24,24
195:23 202:6 203:17
ways (1) 42:9
website (3) 38:17 39:15
49:8
wed (2) 34:6 122:15
wednesday (1) 1:1
week (7) 132:19 147:16
153:13 154:1,1,3
162:6
weekends (2) 82:13
116:10
weeks (1) 158:14
welcome (1) 1:5
went (20) 6:21 14:14,17
27:24 28:11 33:15
34:1 35:16 72:12
78:16 81:22 84:3
88:20 94:2 102:11
109:4,6 170:23 177:25
183:16
werent (16) 14:22 18:7
23:18 35:11 60:13
66:5 68:17,22 69:1,10
70:19 74:15 159:21
160:10 183:17 201:3
weve (15) 5:23 66:14
85:6,8,10,20,22 132:9

185:17,24 187:19
 188:2 191:7,9 193:1
whatever (2) 163:8
 167:4
whats (3) 76:13 158:3
 166:19
whenever (1) 130:20
whereas (1) 120:18
whereby (1) 121:4
wherever (1) 137:20
whilst (1) 114:24
whole (6) 19:19 46:13
 124:21 174:11,12
 176:11
whom (1) 163:17
williams (1) 141:16
window (5) 44:24
 45:4,9,9,12
windows (4) 6:11 47:7
 69:6 200:14
wing (2) 107:14,19
wish (1) 8:1
witness (33) 2:1,7 3:5
 5:3,16 9:18 24:25
 28:16 50:7,13,16
 51:1,6 79:14 97:7
 115:20 117:3,12
 147:14 162:3
 171:12,22,24
 172:4,8,10,12,18,22,25
 173:3 205:19,23
witnesses (2) 97:6
 199:4
wonder (2) 180:16
 202:10
wondering (1) 190:12
wont (5) 9:19,21 49:23
 125:16 194:21
wooshin (1) 91:22
work (34) 11:14 44:11
 69:16,17 76:20 82:18
 83:3 88:9,18,21
 100:13,17 101:3,6,10
 105:11 106:15,17,19
 107:9 109:15 110:22
 113:2 114:25 118:4
 137:18 149:15 150:16
 160:8,11 161:2,12
 162:15 199:16
worked (11) 10:21 11:3
 98:23 108:19 109:12
 113:17 150:6 202:14
 203:21 204:4,8
workers (1) 18:16
working (14) 10:14
 90:14 103:13 104:4
 105:4 114:6 124:13,23
 125:6 132:14,19 134:1
 202:25 204:5
workload (12)
 101:11,14 106:20
 110:8,10,19 112:14
 113:10 114:21 115:4
 162:18 176:2
workloads (1) 101:4
workmanship (3) 88:6
 113:16 118:2
workmen (2) 145:6
 178:6
workrite (4) 18:9,22
 19:3,4
works (22) 70:25
 95:7,13

145:4,5,7,8,10,19
 149:4 150:14
 151:17,23
 178:7,8,10,12 185:2
 186:14 189:10,13
 198:11
workshop (1) 16:13
wouldnt (16) 23:1
 35:17 75:2,3 109:22
 115:17 127:17
 139:11,12 148:18,20
 155:10 181:20 183:4
 191:24 196:23
wouldve (1) 157:9
write (4) 113:13 160:21
 175:12 180:24
writing (4) 4:18 73:17
 76:22 111:3
written (9) 70:5,11
 76:23 77:7 87:7,25
 160:7,19 168:1
wrong (2) 40:2 118:4
wrote (1) 128:21
wyatt (3) 101:1
 108:13,24

Y

yeah (64) 13:22 18:14
 20:5 22:13 25:11
 34:20 36:21 39:17
 40:14,24 42:17 43:2
 45:13 57:3 64:6,6
 66:22 71:6,14
 75:18,18 84:19
 86:2,8,24 92:13 95:24
 101:24 106:6 108:4
 113:7,7 118:21 123:4
 128:14 129:5 132:12
 135:4 136:13 142:22
 143:21 151:6 153:9
 157:20 160:17 170:17
 175:20 176:14 177:22
 180:4,6,10 181:21
 182:3,3 184:9,18
 185:3,10 190:19 196:1
 204:14,16,18
year (11) 23:6,19 25:24
 35:4,10,13 112:6,12
 128:16 158:22 159:2
years (12) 12:20 15:5
 20:16 29:1 30:20,21
 36:5 74:18 80:2 90:5
 132:8,10
yet (9) 5:18 97:15 137:6
 145:9 147:12 149:3
 151:16 152:13 153:14
you'd (1) 158:16
you'll (1) 7:19
young (1) 197:9
youre (19) 5:25 9:6,11
 50:10 57:5 66:18,25
 83:16 111:2 113:15
 117:1 157:17,18 167:7
 171:15 174:5,13
 176:16 189:15
yours (1) 17:7
yourself (18) 1:15
 24:1,14 25:16 48:24
 97:10 103:12 104:3
 130:14 135:24 151:5
 153:11 154:10 158:21
 163:22 165:19 172:24
 198:7

youve (5) 29:24 59:19
 85:12 99:19 168:21

Z

zak (1) 115:25
zinc (22) 155:9 156:2
 165:8,9,10,12,18,18
 166:4,25 188:3 196:7
 197:5,23
 198:12,18,19,20
 200:25 201:3,22 202:9
zip (7) 158:12
 163:11,19,21,23
 164:10 178:13
zoom (2) 165:2,7

0

0 (12) 38:10 41:13,24
 42:10,25 46:2 67:3
 68:4 200:3,5,5 205:3
00 (1) 164:18
04 (1) 177:5
05 (1) 164:18
08 (1) 164:13

1

1 (18) 5:13 13:21 16:8
 18:2 19:14,19 21:23
 25:2 36:7 41:7 53:21
 68:24 107:3 126:3
 138:13 141:20 206:8
 207:3
10 (13) 34:17 55:7
 84:16 140:24
 175:16,23 179:12,20
 180:7 191:6 205:24
 206:4,7
100 (3) 19:14 112:1
 164:18
1000 (1) 1:2
100b (1) 164:13
1010 (1) 1:4
105 (1) 117:8
11 (7) 6:8 25:10 34:25
 59:23 73:11 133:2
 179:3
1117 (1) 50:22
1135 (4) 50:1,9,19,24
12 (8) 3:13 36:23 48:13
 109:4 186:11
 188:23,24 189:5
120 (2) 42:14 117:19
120130 (1) 111:24
125 (1) 37:1
125126 (1) 199:24
126 (4) 37:17 40:20
 43:4,13
127 (7) 43:19 44:12,23
 45:4,21 46:12 68:11
1279 (2) 164:12,18
128 (1) 46:20
129 (1) 37:17
13 (5) 33:23 34:12
 60:18 76:7 198:23
130 (1) 117:19
135 (10) 37:18 38:4,21
 39:13,22 40:1,7
 52:12,18 54:1
14 (2) 5:9 141:15
15 (6) 22:3 34:17
 140:6,9 180:19 194:23

1506 (2) 139:21 142:19
1520 (1) 140:5
16 (3) 87:2 114:15,17
1627 (1) 174:20
1637 (1) 174:17
17 (4) 57:20 58:19
 142:7 143:4
1704 (1) 141:4
18 (12) 18:13 35:3,3
 40:12 41:9,12
 46:12,14 67:1,3
 118:10 186:24
18d (1) 79:15
18m (1) 43:22
19 (3) 62:1,3 70:2
1979 (1) 10:19
1982 (1) 10:8
1985 (2) 10:11 121:14
1986 (2) 10:19,21
1990s (1) 91:17
1991 (1) 91:12
1998 (1) 90:15
1999 (5) 16:11,14
 53:23,25 91:11

2

2 (16) 5:13 11:16
 16:9,10 23:6 26:25
 28:17 72:21 112:8,14
 128:11 133:18,22
 134:1 169:19 207:4
20 (4) 62:22 120:18,19
 194:23
2000 (2) 30:22 112:20
2003 (4) 53:17 59:15
 60:22 61:7
2005 (1) 29:6
2006 (3) 70:19 71:5,13
2009 (3) 19:20 93:19,23
2010 (5) 19:14 20:20
 28:10 36:8 91:23
2011 (1) 27:21
2012 (7) 15:1 57:11
 78:1 91:20 92:6,24
 127:24
2013 (52) 12:19
 13:21,22 53:18 57:11
 59:16 61:9 65:1 74:18
 92:6,24 99:4,15,15
 101:25 102:14,17,21
 103:2,8,12 104:4
 105:12,25 108:7
 110:11 113:25 117:19
 128:9,13 129:2,15,24
 131:14,22 132:21
 133:2,15,23
 134:6,18,19 135:8
 136:22 138:3 143:20
 144:20 158:18 167:20
 168:19 169:20 170:16
2014 (61) 15:17 18:3
 21:22,22 35:12,16
 67:3 70:7,21,23 71:17
 72:1,7,11,16,18 78:1
 86:16 88:22 112:21
 115:24 116:5,7 125:17
 138:15 141:23
 142:7,12,18 143:1,4
 144:14,23 147:17,24
 148:2,5 149:20 152:9
 154:1 155:6 156:19
 158:11 162:6 163:13
 169:12 173:20

175:16,23 177:25
 178:13 186:7,15,24
 188:8 191:6 196:7
 197:17,19,21 202:9
2015 (23) 18:10,13
 21:22,23 22:1 25:23
 34:17 35:23 57:8
 68:23 92:18 99:12
 112:4,24 113:1,4,6
 115:9 122:19 140:25
 141:4 197:14 201:20
2016 (8) 16:18 19:20
 26:24 27:21 108:20
 109:10 111:23 112:5
2017 (6) 10:21 11:6
 25:10 26:25 27:6
 141:15
2018 (2) 3:11 5:9
2019 (1) 4:1
2020 (2) 1:1 206:8
205 (3) 116:24 117:7,10
206 (1) 147:15
21 (2) 59:24 140:25
22 (3) 25:23 61:24
 62:24
24 (9) 4:4 133:23
 158:11 163:13 169:20
 173:22 178:13 188:8
 195:18
25 (5) 133:15 147:17
 153:14 162:6 196:14
27 (1) 83:14
29 (12) 16:14 141:23
 144:14,23 152:25
 167:20 169:12 173:20
 174:4,16 175:15
 177:25

3

3 (22) 25:2 55:8 73:12
 107:2 120:17 123:11
 126:16,19 127:5
 134:6,19 141:1 152:9
 167:21 168:5,18
 174:19 176:25 177:1
 179:12 180:19 185:20
30 (5) 1:1 3:11 131:22
 132:18 196:7
31 (7) 11:6 122:9
 129:15,24 130:13
 135:8 144:18
314 (1) 169:4
325 (1) 171:18
326 (1) 161:5
332 (1) 60:22
33e (1) 84:17
34 (1) 44:3
340 (3) 171:13,17,20
35 (3) 12:20 36:5 90:5
36 (2) 106:1 122:1
38 (1) 28:7
38a (1) 198:24

4

4 (17) 34:23 55:10 56:4
 72:21 120:17 123:11
 126:16,19 127:5 137:4
 149:25 158:15 179:3
 185:20 186:7,11,15
40 (3) 40:22,25 161:23
430 (2) 205:13 206:6
47611 (1) 44:8

4764 (1) 44:8
4766 (1) 42:3
4767 (1) 42:3
48 (1) 70:3
4iii (1) 28:18

5

5 (12) 3:16 23:3 42:18
 56:12 76:7 125:17
 128:11 156:19,21
 165:6,7 186:15
50 (1) 118:6
53 (1) 191:20
55 (1) 204:17
57 (1) 200:11

6

6 (2) 136:22 138:15
60 (7) 186:20 191:23,23
 192:2,12,14,22
63 (1) 62:4
632 (1) 62:6
634 (1) 62:23
64 (2) 61:25 62:25
641 (2) 63:21 64:7
642 (1) 64:8

7

7 (7) 16:18 53:19
 112:10 134:6 157:16
 165:9 168:19

8

8 (6) 83:13,22 115:24
 141:21 142:18,25
8414 (8) 38:22
 39:12,21,23 40:1,7,10
 44:19
841412002 (1) 37:20
841422005 (1) 37:20

9

9 (8) 4:1 44:3 46:23
 54:6 165:10 169:2
 187:13 199:7
95 (2) 36:23 43:5
96 (3) 43:5,19 46:19
97 (1) 40:25
99 (1) 90:1
9991 (1) 35:10
9999 (2) 25:4 35:9