

1 Wednesday, 12 December 2018

2 (10.01 am)

3 MR BOULDING: Good morning, Chairman. Good morning,  
4 Professor.

5 Before I call MTR's last witness, Prof Ma, who is  
6 sitting in the witness box now, counsel to the Inquiry  
7 has suggested that it might be a good idea if I update  
8 the Commission on the issue of opening up.

9 CHAIRMAN: Thank you.

10 MR BOULDING: As you will have seen, it has started, but in  
11 view of the tight time schedule of the Commission of  
12 Inquiry, government has requested, and MTR has agreed,  
13 to examine the opening-up work programme to identify  
14 possible acceleration. Government wants to see whether  
15 or not MTR can reduce the scheduled period of 16 weeks  
16 down to 12 weeks.

17 I'm told, and I inform you, that by increasing the  
18 number of concurrent working teams, it may be possible  
19 to accelerate the work and compress the work duration  
20 into 12 weeks.

21 However, and as you will probably realise, there are  
22 major uncertainties and risks in this accelerated  
23 programme, because of course the work has only just  
24 started and the programme includes basic assumptions  
25 which have not yet been verified, including the speed of

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1 the work and the extent of the practical difficulties  
2 that might be encountered.

3 As a result, whilst the MTR cannot commit to the  
4 12-week duration, I am instructed to say that MTR will  
5 use its very best endeavours to accelerate the work and  
6 to update the Commission with all interim results by the  
7 end of January 2019.

8 With this in mind, MTR will prioritise the  
9 opening-up work of the platform on the East West  
10 Corridor, with the intention to complete as much of the  
11 EWL platform work as is reasonably practicable by the  
12 end of January 2019.

13 Obviously, after the opening-up work of the first  
14 few locations has taken place, there will be a better  
15 understanding of the speed of the work and the extent of  
16 the practical difficulties, but of course, as always,  
17 MTR will update the accelerated programme to allow  
18 a better estimate of the work duration and keep you  
19 informed, sir.

20 I hope that's helpful. As always, MTR are here to  
21 provide all assistance it possibly can to the  
22 Commission.

23 CHAIRMAN: Thank you, Mr Boulding. Thank you very much  
24 indeed. That's welcome news. Thank you.

25 MR BOULDING: I thought you might say that.

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1           Against that background, Chairman and Professor, if  
2           I could call MTR's last witness, Prof Ma.

3                       PROF MA SI HANG, FREDERICK (sworn)

4                       Examination-in-chief by MR BOULDING

5       Q.   You've given your full name to the Commission, and we  
6           know that you're the non-executive chairman of MTR. You  
7           have produced one witness statement for the Commission's  
8           assistance, and I hope we will find the first page at  
9           B104.

10                  Professor, do I there see the first page of your  
11           witness statement?

12       A.   Yes.

13       Q.   If we go on to page B114, I hope we will find your  
14           signature. Is that your signature under the date of  
15           13 September, Professor?

16       A.   Yes, Mr Boulding.

17       Q.   Thank you very much.

18                  I understand that you'd like to make a small  
19           correction to that statement. I hope we find the  
20           corrigendum at bundle B, page 114.1. Aha, good. Is  
21           that the correction you would like to make, Professor?

22       A.   Yes, sir.

23       Q.   Subject to that correction, are the contents of that  
24           statement true to the best of your knowledge and belief?

25       A.   Absolutely, sir.

26

1 Q. Excellent. Now, Professor, what's going to happen now  
2 is that you will almost certainly be asked a few  
3 questions by my learned friend Mr Pennicott for the  
4 Commission of Inquiry. There are various lawyers  
5 representing other interested parties in the room, and  
6 they have the option of asking you questions. The  
7 Chairman and the professor can ask you questions at any  
8 time they consider appropriate. And it may be the case  
9 that I ask you a few questions at the end of your  
10 evidence. Do you understand?

11 A. I understand. Thank you.

12 MR BOULDING: Splendid. Please sit there.

13 Examination by MR PENNICOTT

14 MR PENNICOTT: Good morning, Prof Ma.

15 A. Good morning, Mr Pennicott.

16 Q. Can I first of all say thank you very much for coming  
17 along to give evidence to the Commission this morning.

18 A. Thank you.

19 Q. As Mr Boulding has indicated, I get to ask you a few  
20 questions first, and I don't think I'm going to be  
21 terribly long, but I just have a few matters I want to  
22 discuss with you.

23 Prof Ma, I understand that way back in time you  
24 were -- at the start of your career, you were in the  
25 banking and finance industry; is that right?

26

1 A. Indeed.

2 Q. And you worked for Chase Manhattan Bank back in the  
3 1970s, both in Hong Kong and in New York?

4 A. 1973, as a matter of record.

5 Q. You also worked for PCCW for a number of years, as  
6 I understand it?

7 A. Only one year.

8 Q. Against all that financial background, in 2002 to 2007  
9 you were the Secretary for Financial Services and the  
10 Treasury in the Hong Kong government?

11 A. Correct.

12 Q. It was during that period I think you had your first  
13 involvement with the MTR, when you were a non-executive  
14 director whilst you were the Secretary?

15 A. Yes.

16 Q. Then, in 2007-2008, you were the Secretary for Commerce  
17 and Economic Development of the government?

18 A. Indeed.

19 Q. Then a little bit of time out, which we don't need to  
20 consider, but then, as I understand it, in 2013 you  
21 became an independent non-executive director of MTR?

22 A. Correct.

23 Q. As we know, on 1 January 2016, you became the chairman?

24 A. Non-executive chairman.

25 Q. Since 2013, when you were the independent non-executive  
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1 director, up until now, effectively, the MTR has been  
2 involved in a number of substantial projects, including  
3 the XRL, the South Island Line, the West Island Line,  
4 the Kwun Tong Line Extension, perhaps other projects  
5 worldwide, as well as what they're doing in Hong Kong,  
6 and of course the SCL project, with which we are  
7 primarily, indeed exclusively, concerned.

8 A. (Nodded head).

9 Q. Just taking the SCL project itself, Prof Ma, and leaving  
10 aside the last six months or so, what part of your  
11 working week might be devoted to the SCL project?

12 A. Maybe with the permission of the Chairman and the  
13 professor, I need to explain a little bit about our  
14 corporate governance.

15 Being the non-executive chairman, I'm not required,  
16 unlike the chief executive officer, to go to work every  
17 day. That is the beauty of being a non-executive  
18 chairman. However, I have to of course chair the board,  
19 which meets seven times a year. I have to attend  
20 subcommittees of which I'm a member. I'm a member of  
21 the remuneration committee, I'm a member of -- I'm  
22 actually the chairman of the corporate responsibility  
23 committee, and I sit on the nomination committee as  
24 well. So I do attend meetings on a regular basis.

25 I do meet with the CEO on a regular basis. He  
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1 submits reports to the board. But, other than the  
2 submission of reports, I get to meet him every month, at  
3 least. But we regularly, as you can see from my  
4 statement, talk to each other through WhatsApp or phone,  
5 you know, so that we know what is going on in the  
6 company.

7 As you correctly said, we have so many projects  
8 going on, so I obviously keep an eye on what is going  
9 on. Until this SCL Hung Hom case really get reported in  
10 the media, you know, we just get regular reports, and as  
11 if it is one of the projects that has been going well.  
12 All our projects, particularly the one you mention,  
13 Mr Pennicott, have been completed successfully,  
14 including the Express Rail, which was opened in  
15 September. We have successfully completed the  
16 Ho Man Tin Extension and also the South Island Line.  
17 Those three projects were completed during my tenure as  
18 chairman.

19 So SCL, just like any project, gets our attention,  
20 but we have a committee called the CWC, capital works  
21 committee, that overlooks the cost as well as the timing  
22 of the project. This was created following the 2014 IBC  
23 which the Chairman and Professor of aware of and  
24 familiar with. Back in 2014, we created, as a result of  
25 the investigation, CWC, capital works committee, chaired

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1 by Dr Allan Wong, and the formation of a risk committee  
2 as well to overlook all these risks and projects. For  
3 CWC, it is their duty to make sure that projects are  
4 completed on time and within the budget.

5 Q. All right. So can I just summarise, then, Prof Ma, up  
6 until this year, the SCL project was no more prominent  
7 or less prominent than any of the other projects, so far  
8 as you were concerned, from your perspective?

9 A. Absolutely. You know, we pay attention to all projects.

10 Q. Yes.

11 A. But I want the Chairman and Professor to realise, as  
12 non-executive chairman, there are limitations as to what  
13 I can do and I'm told.

14 Q. Yes, indeed.

15 A. I have to rely on my colleagues, to a very, very large  
16 extent --

17 Q. Of course.

18 A. -- about the project itself, and I have to say that I do  
19 carry out site visits with the CEO, I've done it a few  
20 times, and one of them was SCL.

21 Q. We are not just concerned with SCL. We are more  
22 specifically concerned with a contract called  
23 contract 1112.

24 A. Right.

25 Q. I suspect that given your previous answer to me, before  
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1           this year there was no sense in which any issues on  
2           contract 1112 had been brought to your specific  
3           attention?

4       A.   No, not at all.

5       Q.   However, turning to the events of this year, things  
6           changed somewhat.

7       A.   Mmm.

8       Q.   As you mention in paragraph 16 of your witness  
9           statement -- I don't think we need to look at it but you  
10          can if you wish -- the MTR, once certain media interest  
11          was shown in the Hung Hom Station contract 1112 project,  
12          the government asked MTR to carry out a load test, and  
13          I think that came to your attention, Prof Ma?

14      A.   Yes.  As a matter of fact, Mr Pennicott, you can see in  
15          my statement that paragraph 13, Chairman and Professor,  
16          that I was actually alerted to the media report at the  
17          end of May.

18      Q.   Yes.

19      A.   I still remember our corporate affairs director called  
20          me and said that there was a report in the media about  
21          Hung Hom, and the project director, Dr Philco Wong, felt  
22          that it was a totally false allegation, so he was going  
23          to lead some of his colleagues down to the site and  
24          clarify the matter.  I always promote communication and  
25          transparency in the company, so I said, "That's a great  
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1           idea." Of course, I didn't know anything about, you  
2           know, what the details are, but I thought that for  
3           transparency of the company it is a very good idea to  
4           clarify the matter ASAP. So hence Dr Philco Wong and  
5           his colleagues went to the site and showed to the media  
6           what he felt at that time was, you know, the real  
7           situation, not as per the media reports said.

8       Q. You mentioned in that answer the word "perception".

9       A. Mm-hmm.

10      Q. And in paragraph 17 of your witness statement, which  
11      I would like you to look at, please, in the first  
12      sentence, you refer to "At the meeting" -- and I think  
13      that was the special board meeting that you mention in  
14      the previous paragraph. You say:

15            "At the meeting I remarked that a perception about  
16            a lack of transparency in terms of both internal  
17            reporting and external reporting to the government had  
18            become a matter of public concern."

19            Now, just focusing on the first part of that  
20            sentence, "a perception about a lack of transparency in  
21            terms of both internal reporting" -- how had you reached  
22            the view that there was this perception of lack of  
23            transparency so far as internal reporting is concerned,  
24            Prof Ma?

25      A. Well, I think at that time there was a lot of media  
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1 reporting about the case, you know, so I said it was  
2 a perception, it is a perception in the public arena.  
3 I'm not saying that indeed our internal reporting or  
4 external reporting to the government was not good.  
5 I was merely saying that because the media were saying,  
6 "Does the government know about this?", but I know for  
7 a fact, during my 2014 IBC report, that we have a very  
8 structured reporting to the government, including to the  
9 RDO, you know, and they meet regularly on projects.

10 So it was purely a perception.

11 Q. Yes, because that was going to be my next question. It  
12 was a perception, but in your view, as I understand your  
13 last answer, you don't believe it was a true and  
14 accurate perception?

15 A. Absolutely not, because the MTRC work very well with the  
16 government. You know, if I remember correctly, in our  
17 IBC report published in 2014, I remember we studied the  
18 structure of the reporting, of which the Chairman and  
19 the professor know very well, that we have very regular  
20 meeting with the government, reporting to the  
21 government. And I still remember very well, in the  
22 report we submitted to the board and made public, we  
23 actually mention the fact that there are check the  
24 checkers. That really sticks into my mind very much.  
25 Check the checkers. The government has appointed

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1 outside consultant to check our work.

2 Q. Yes.

3 A. So to me, our reporting system, at least at that  
4 juncture, was very, very thorough and shouldn't have any  
5 problem. That was my impression as the non-executive  
6 chairman. I didn't attend, of course, any of these  
7 meetings. I can only go by what the paper told me.

8 Q. So the perception was media-generated, but you don't  
9 believe it was a correct perception?

10 A. No, absolutely.

11 Q. You say in the last sentence of paragraph 17 of your  
12 witness statement:

13 "Through both a stand-up media session and a radio  
14 programme, I also urged LCAL [that's Leighton] to  
15 announce what it knew to the public."

16 A. Yes.

17 Q. When you say "announce what it knew to the public",  
18 I assume you mean go to the media?

19 A. If you recall, Mr Pennicott, during that period, MTR was  
20 under tremendous pressure from the public, but my  
21 understanding is that we are the employer of Leighton.  
22 In other words, Leighton is the guy who did the work,  
23 not MTR. Our job was merely supervising.

24 So, that being the case, you need the party that  
25 does the work to tell the public what exactly happened.

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1           That was my understanding. So, when Leighton chose not  
2           to say anything to the public, the pressure was on MTR.

3       Q. Did it trouble you that Leighton didn't go to the media  
4       or didn't go public?

5       A. I honestly don't think it was a responsible act,  
6       particularly for a public project like this. This is  
7       a major public project in Hong Kong. I felt that, as  
8       a responsible contractor, Leighton should say something,  
9       but I was told by my CEO -- I pressured the CEO to speak  
10      to Leighton, and he assured me that he did, and in his  
11      statement he also mentioned he did. I did not talk to  
12      Leighton myself. It was through the CEO. And I was  
13      frustrated, just like the CEO, about the fact that  
14      Leighton did not say a word in the public arena.

15     Q. Did you draw any conclusions from Leighton's apparent  
16     lack of willingness to go public?

17     A. I was told it's their company policy, but because  
18     I don't know their company policy, I have to respect the  
19     company's policy. Having said that, though, as I said  
20     earlier, I didn't think it was a very responsible act of  
21     a contractor on a major public work project like this,  
22     to keep silent throughout this period, until the  
23     Commission.

24     Q. All right. Now, in your witness statement, you make  
25     reference to the report that was submitted to government

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1 on 15 June this year. You say in paragraph 21 of your  
2 statement:

3 "In the morning of 15 June [this year], I met with  
4 the Honourable Abraham Shek Lai Him, an independent  
5 non-executive director of MTR, in preparation for the  
6 press conference to be held in the afternoon [on that  
7 day]. Among others, Aidan Rooney ... and Lincoln Leong  
8 also participated in the meeting. Specifically, the  
9 Honourable Abraham Shek Lai Him and I [that is you,  
10 Prof Ma] emphasised to Aidan Rooney the report must be  
11 accurate and correct, and I asked him if the projects  
12 team had evidence to support the matters stated in the  
13 report."

14 You go on to say:

15 "I was assured by Aidan Rooney that the matters  
16 stated in the report, including as regards the number of  
17 couplers referred to, were correct and supported by  
18 documentary evidence. I had no reason to doubt what he  
19 told me."

20 Did you specifically mention the couplers yourself,  
21 or was that just part of Mr Rooney's answer to your  
22 general question that you hoped the report was accurate  
23 and it was supported by documents?

24 A. In the report, it mentioned the number 23,500 couplers.  
25 I specifically asked Mr Rooney that number, if that

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1 number is correct, and is it supported by documentary  
2 evidence. I still remember Mr Rooney said, "Yes", and  
3 I said, "Show me the record." He said to me that the  
4 record was kept at the site and there were lots of them,  
5 tonnes of documents. So I said, "I need to see  
6 something." He did produce a spreadsheet. It's a huge  
7 spreadsheet. I was looking for that spreadsheet in the  
8 office yesterday and couldn't find it. But it's a big  
9 spreadsheet, like this size (demonstrating), with lots  
10 of signatures, with the 32 bays on it. I took a look,  
11 obviously, as I said, not being involved in the  
12 day-to-day project management, and I have to have trust  
13 in my colleague. I looked at it, I said, "Fine, but you  
14 ought to produce some document at the media conference  
15 that evening to show to the media that indeed this  
16 number is accurate and indeed that we have documentary  
17 evidence."

18 I remember vividly he mentioned about hold point.  
19 In other words, if everything was checked, that concrete  
20 would be poured. I obviously, as I said, have to trust  
21 what my colleague told me, and that is why subsequently,  
22 when I was told about the fact that the number of  
23 couplers, because of the design change, is different  
24 from what was given to the government, I was -- I think  
25 Dr Philco Wong used the word "surprised" yesterday --

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1 I would even go as far as "shocked", Mr Chairman and  
2 Professor, because I did ask the question which is  
3 actually something that, you know, not even within my  
4 duty, almost -- you can see that I've gone out of my way  
5 to do the due diligence -- because having been  
6 a minister with the government I really think that  
7 accuracy of any report to the government and to the  
8 public must be 100 per cent accurate.

9 Q. Can I just ask you about this spreadsheet. Was it just  
10 one sheet of paper, Prof Ma?

11 A. He showed me one sheet of paper.

12 Q. Was it an A3 sheet?

13 A. It was quite big, I remember. It was quite big.

14 Q. It's not a document that immediately springs to my mind.  
15 Mind you, we've looked at lots of documents over the  
16 last few weeks.

17 A. There were lots of documents. I was looking for the  
18 same document yesterday.

19 Q. Where were you when he showed it to you?

20 A. I was in the function room in the International Finance  
21 Centre, our town office --

22 Q. This was prior to the press conference?

23 A. Prior to the press conference. The press conference was  
24 held in the late afternoon, and we had this preparatory  
25 meeting in the morning. I invited Abraham Shek to join,  
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1           because he is an INED of the company, he is a member of,  
2           I believe, the CWC, and also he has lots of experience  
3           in this sort of exercise, being chairman of the PAC in  
4           LegCo. So that is why, among all the INEDs, he was  
5           invited.

6       Q. Right. The fact that you asked Mr Rooney specifically  
7           about the couplers tells me two things: one, you must  
8           have read the report?

9       A. Yes.

10      Q. Two, that you must have realised that the couplers were  
11           an important issue?

12      A. First of all, to answer your second question first,  
13           couplers was a very important issue because the media  
14           report talked about couplers almost every day, so it  
15           would be, you know, rather naive not to believe that  
16           that is a very important subject.

17           But more importantly, I appreciate that for the  
18           general public, they would not know a lot of the  
19           technical facts in the report, but they could remember  
20           23,500. That was my point, to ask Mr Rooney if that is  
21           correct. I mean, among all -- the report was actually  
22           submitted to the CWC on 14 June for examination prior to  
23           submission to the RDO. On 14 June, although I'm not  
24           a member of the CWC, I did attend the meeting, because  
25           I want to know what's going on, of course, as part of my

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1 duty as chairman.

2 So I showed up at the 14 June meeting, the CWC  
3 meeting held for almost three hours, if I'm not  
4 mistaken, to talk about the report. But it was about  
5 rather general issues but not necessarily specifically  
6 on the number of couplers. But I raised it on 15 June  
7 again, because I felt that the public, in my experience  
8 as a former minister, the public would focus on  
9 something like that, and that is why I specifically  
10 asked that question, and I think Mr Rooney also, in his  
11 statement, confirmed that I did ask that question.

12 Q. He did, he confirmed it in his statement and he  
13 confirmed it when I asked him about it, you will be  
14 pleased to hear. All right. Thank you for that,  
15 Prof Ma.

16 Can I then turn to a point that you mentioned just  
17 a moment ago, that is when you were told that in fact  
18 the number of couplers had been inaccurately calculated.  
19 You deal with that in paragraph 28 of your witness  
20 statement, and you refer to having returned to Hong Kong  
21 on 28 July and then immediately paying a visit to  
22 Dr Wong's office, or the site office, where Dr Wong's  
23 office was located, in the XRL West Kowloon Station.

24 I imagine, Prof Ma, that's the type of visit that  
25 you don't make very often; would that be right?

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1 A. I meet with Dr Philco Wong from time to time. The  
2 reason why -- we were originally going to meet at IFC,  
3 our town office, but he said he -- well, if I may,  
4 I backtrack a little bit what happened, because I think  
5 it's important.

6 On the 25th, as I said in paragraph 27, Mr Lincoln  
7 Leong told me there were some inaccuracies, in  
8 a WhatsApp message, not in an email but in a WhatsApp  
9 message, but he did not go into detail what the  
10 inaccuracies were. Inaccuracy could mean very minor  
11 amendment, could mean some very serious stuff, but he  
12 didn't mention it. But I knew he was going on vacation  
13 for a few days, and I was not in Hong Kong at that time,  
14 I was in North America, so I said -- we agreed that we  
15 would meet the following Monday to discuss about it.

16 Then, when I arrived Hong Kong on 28 July, in the  
17 early morning, because my plane came from North America,  
18 I arrived very early, I got messages from government  
19 officials. As a matter of fact, three government  
20 officials texted me, WhatsApp message, alerting me there  
21 is a serious crisis. So, after I learned from  
22 government officials -- the government officials told  
23 me, "You had a design change, da, da, da", which  
24 Mr Leong, to be fair, also mentioned in his WhatsApp  
25 message, but he did not link the two together.

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1           Anyway, I have arrived Hong Kong, so I found out  
2           this. I called Dr Wong and I said, "How could something  
3           like this happen?" His explanation was that the whole  
4           report was prepared in a panic, so mistakes were made.  
5           I said, "Okay, let us meet." So we met up the following  
6           day, in XRL site office, because he was going to have  
7           a site visit, so to make sure that we get to meet, so  
8           I went down to XRL.

9       Q. Right. As you said earlier and as I think you --  
10       I think you used the word "shocked" earlier -- in your  
11       witness statement you use the word "alarmed", and  
12       indeed, as you have just said, the explanation that  
13       Dr Wong gave you, as you put it in your witness  
14       statement, is that the error occurred because the report  
15       was prepared under serious time pressure, and you used  
16       the word "panic" just a moment ago.

17       A. Yes.

18       Q. Before he had told you that on 29 July, were you aware  
19       of the time scale and the pressure that the people  
20       preparing the report were under before the report went  
21       public on 15 June? Were you aware of that time  
22       pressure?

23       A. I obviously am aware that RDO has initially asked for  
24       the report within one week. We asked for an extension.  
25       We asked for a one-week extension. So the report was

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1 submitted on 15 June. That is a two-week time frame.

2 Q. Yes.

3 A. Now, not being involved in the preparation of the  
4 report, not -- Mr Leong chaired a committee meeting that  
5 meets every day during those two weeks, in preparing  
6 this report. So obviously, to MTR, we put a lot of  
7 attention and we really want to make sure that the  
8 report is accurate. That was my sense, as the  
9 non-executive chairman.

10 So I wouldn't know whether two weeks is enough or  
11 two months is more appropriate. I have no idea. But on  
12 15 June, you know, we submitted the report.

13 Q. Right, and nobody ever said to you, either Aidan Rooney  
14 or Philco Wong or anybody else, "Look, Chairman, it's  
15 been a really tough job, we've been put under enormous  
16 pressure, we're really not happy about the situation but  
17 we're going ahead anyway" -- nobody ever sort of  
18 mentioned that to you?

19 A. No.

20 Q. All right.

21 When Dr Wong explained the point about serious time  
22 pressure and that was the reason that he was putting  
23 forward for the error, what was your reaction to that  
24 explanation?

25 A. My reaction was, "Do you think that the Commission or  
26

1 the public would accept that?" That was my response.

2 Q. That was your actual response to Dr Wong, was it?

3 A. (Nodded head).

4 Q. In your witness statement, at paragraph 30, Prof Ma, you  
5 go on to deal with a meeting that you had with the Chief  
6 Executive. You say:

7 "On Sunday 5 August 2018, I received a request to  
8 meet with the Chief Executive Mrs Carrie Lam ... the  
9 following morning."

10 Presumably that was by a telephone call or --

11 A. Yes.

12 Q. You say in paragraph 31:

13 "On 6 August 2018, I met with the Chief Executive as  
14 scheduled. The Secretary for Transport and Housing,  
15 Frank Chan was also present."

16 Was there anybody else present, Prof Ma, other than  
17 yourself, Mr Chan and Mrs Lam?

18 A. The director of the CE's Office was present.

19 Q. The director of the Chief Executive's Office? Yes,  
20 I understand.

21 A. So four of us.

22 Q. Okay. How long did the meeting last?

23 A. Mr Chan was late coming to the meeting, but I think it  
24 lasted roughly maybe 30-45 minutes.

25 Q. Okay. You say in your witness statement that in the  
26

1 meeting the Chief Executive mentioned to you that the  
2 government had lost confidence in the project management  
3 team of the SCL.

4 First of all, did you gather by whom the Chief  
5 Executive had been briefed?

6 A. I assume, having worked in the government for six years,  
7 that she's been well briefed by her colleagues.

8 Q. You say "her colleagues" -- I mean, this is obviously  
9 not something the Chief Executive is going to know about  
10 without being briefed.

11 A. Of course.

12 Q. Of course. I mean, was it Frank Chan?

13 A. I have no idea because I wasn't involved in those  
14 meetings, so I don't know who briefed her.

15 Q. You didn't sort of pick up during the meeting any  
16 intelligence about who may have briefed her?

17 A. I think your assumption is probably correct,  
18 Mr Pennicott.

19 Q. All right. When you say you were informed that the  
20 government had lost confidence, did you ask why the  
21 government had lost confidence? Did you ask for  
22 an explanation as to why the government had lost  
23 confidence?

24 A. Having worked in the government for six years, I think  
25 government can tolerate people who are not capable, but  
26

1 cannot tolerate reports that are inaccurate. So

2 I didn't ask.

3 Q. You didn't ask?

4 A. I knew, I think.

5 Q. So your conclusion was or your deduction was that the  
6 loss of confidence was related to the inaccuracies in  
7 the report?

8 A. I think so.

9 Q. Okay.

10 A. Because -- maybe I could elaborate here -- when the  
11 whole thing happened, the Chief Executive or for that  
12 matter the secretaries have never expressed any views  
13 about our management capability. It was after this  
14 revelation that the government expressed that they have  
15 lost confidence. So, I mean, you know, I don't have to  
16 go into all sorts of questions to know that this is  
17 their thinking.

18 Q. Okay. You go on in your witness statement at  
19 paragraph 31 to say this:

20 "The Chief Executive told me that government took  
21 the view that the senior members of the projects team  
22 responsible for the SCL project, namely Dr Philco Wong,  
23 TM Lee, Aidan Rooney, Jason Wong and also Lincoln Leong  
24 should leave MTRCL."

25 A. Yes.

26



1 Q. As I understand it, I think the way that Mr Lincoln  
2 Leong put it, although of course he wasn't at your  
3 meeting with the Chief Executive -- in fact the message  
4 he got was that not only should they leave, they should  
5 leave with immediate effect. Is that what you were told  
6 at the meeting?

7 A. After my meeting with the Chief Executive, I went to  
8 Mr Frank Chan's office and called Mr Leong to come to  
9 see Mr Chan and myself and relayed the message from the  
10 Chief Executive.

11 But I want to emphasise that while we do hear the  
12 views of the majority shareholder, ie the SAR  
13 government, I as chairman must respect the corporate  
14 governance. This sort of matter is not for the majority  
15 shareholder to decide; okay?

16 Q. My question, Prof Ma, was whether you were told by the  
17 Chief Executive that not only should they leave but they  
18 should leave with immediate effect?

19 A. If I remember correctly, definitely it was not for  
20 a prolonged period, particularly in the case of the four  
21 projects team senior managers. For Mr Leong, there was  
22 a discussion whether, you know, he should stay on just  
23 for handover.

24 Q. I appreciate he was a special case.

25 A. Exactly.

26

1 Q. Yes, understood.

2 A. So my point was that although the Chief Executive  
3 expressed her loss of confidence in the team, the whole  
4 thing has to be put to the board of directors for  
5 decision, as proper corporate governance should call  
6 for. So, as a result, we relayed the message to  
7 Mr Leong what the majority shareholder had said, but  
8 I immediately called for a board meeting the next  
9 morning, okay, for the board to deliberate on this  
10 point.

11 Q. I'm coming to that, Prof Ma, don't worry. Let's just  
12 get back to one more question on the meeting with the  
13 Chief Executive on 6 August.

14 When you were told that the government had lost  
15 confidence and that the senior members should leave MTR,  
16 did you put up any resistance to that suggestion that  
17 the senior team members should leave? Did you seek to  
18 argue their corner? Did you seek to point out to the  
19 Chief Executive that the report had been prepared under  
20 enormous time pressure? I mean, did you try to, as it  
21 were, defend what had been done?

22 A. No, I didn't, because I believe that this is for the  
23 board to decide. I did not express my personal view.

24 Q. Did you have a personal view at the time, Prof Ma?

25 A. As I said, I was shocked, you know, by the inaccuracy of  
26

1 the report, particularly after my question to Mr Rooney  
2 and after Mr Rooney had repeatedly told me that he had  
3 documentary evidence to support. I would be less than  
4 honest if I tell you that I was not disappointed. I was  
5 disappointed.

6 Q. There was -- the indication that you were given related  
7 to the entirety, it seems to me, of the senior members  
8 of the SCL project team. I mean, it was going to be  
9 a wipeout of the senior members of that team. Was there  
10 no consideration given to the individual roles that each  
11 of the gentlemen concerned played in the report and its  
12 preparation?

13 A. It is probably true that Mr Rooney and Mr Wong and in  
14 a way Philco Wong were involved more closely with the  
15 project and with the report preparation compared to  
16 Mr TM Lee --

17 Q. Yes.

18 A. -- you know, because I get to see Mr Rooney and Mr Wong  
19 running around in the office all the time. I seldom see  
20 TM Lee.

21 But having said that, Mr TM Lee is the general  
22 manager of the project; okay?

23 Q. Yes.

24 A. But as I said, it is up to -- if the CEO expressed his  
25 view that certain members should not go because of

26

1 particular reason, I'm sure the board would have  
2 listened.

3 Q. Okay. Anyway, as you rightly say, and you were telling  
4 us just a moment ago, you called -- a board meeting was  
5 called, and the upshot was that the board unanimously  
6 voted for essentially what the government had indicated  
7 should happen; that's right?

8 A. Yes, correct.

9 Q. You describe in paragraph 34 of your witness statement  
10 that the view expressed by government was a "firm view",  
11 and that's right, is it, Prof Ma?

12 A. Yes, I don't detect that their view would be easily  
13 changed.

14 Q. Right.

15 A. That is their view but that is not necessarily the  
16 board's decision. We have to respect the board's  
17 decision.

18 Q. You say at paragraph 36:

19 "I stated to the board my view that the issue had  
20 given rise to a crisis of confidence and asked Frank  
21 Chan for the government's view on the matter."

22 So Frank Chan, in his capacity of a non-executive  
23 director of MTR, was obviously at this board meeting --

24 A. Yes.

25 Q. -- and he had already expressed his views, presumably,  
26

1 at the meeting you'd had with Mrs Lam?

2 A. Yes.

3 Q. So he was basically repeating what you had already  
4 heard?

5 A. Yes.

6 Q. And he told the board that the government had lost  
7 confidence in the project management team of the SCL and  
8 that the MTR should consider whether senior members of  
9 the projects team should leave.

10 Then also the board was informed by Lincoln Leong  
11 that Dr Philco Wong had already tendered his  
12 resignation, and so forth, and so on.

13 Was there much discussion about what should happen  
14 regarding the four people leaving?

15 A. Yes, there was discussion, I recall. It's all in the  
16 minutes, you know. I should say that the MTR board is  
17 not what I call a rubberstamping type of board. It's  
18 a very active board. Board members consist of 14 INEDs,  
19 four government officials, myself as non-executive  
20 chairman, and Lincoln Leong as a board member. We  
21 always have active discussion. And in this incident,  
22 I remember we discussed -- particularly members were  
23 concerned as to why such situation happened, ie how come  
24 the report, after all this intense preparation, turns  
25 out to be incorrect, you know.

26

1           But I think members were -- really understand why  
2           government lost confidence, because by then, you know,  
3           we appreciated that the report was inaccurate and that  
4           we didn't do, you know, what we were telling the  
5           government, what we were telling the public.

6       Q.   Prof Ma, after the government, on 6 August, had  
7           expressed their firm view, the result of the board  
8           meeting was pretty much a foregone conclusion, wasn't  
9           it?

10      A.   Well, the board decided, just like that.

11      Q.   Was it at the meeting with the Chief Executive on  
12           6 August that you offered your own resignation?

13      A.   I offered my resignation twice, as I mentioned in the  
14           statement.

15      Q.   One of them was on 6 August and I wondered whether it  
16           was at that meeting.

17      A.   Which meeting are you referring to?

18      Q.   With the Chief Executive on 6 August.

19      A.   Yes, same meeting, when she mentioned lost confidence,  
20           yes. In the same meeting, I offered, shall I say, my  
21           second resignation, my second attempt to resign.

22      MR PENNICOTT: Thank you very much, Prof Ma. I have no  
23           further questions.

24      WITNESS: Thank you very much.

25                                   Cross-examination by MR TO

26

1 MR TO: Chairman and Commissioner, good morning.

2 I am Christopher To, representing China Technology.

3 I just have a few questions to ask you, if I may.

4 Prof Ma, can I take you to your witness statement,  
5 if I may, on B105.

6 A. Yes.

7 Q. Do you have that; yes?

8 A. Yes.

9 Q. In paragraph 4, can I take you down to line 5. You  
10 mentioned about "promoting a culture of openness", and  
11 can I also take you down to line 8, "good corporate  
12 governance practices and procedures", and also can  
13 I take you to paragraph 5 of your witness statement,  
14 "corporate governance"; can you see those, Prof Ma?

15 A. Yes.

16 Q. In terms of, if you want to call, the troublemaker, the  
17 client, China Technology, the first email basically was  
18 6 January 2017. Did you see that email?

19 A. No.

20 Q. Did you see the email that China Technology sent to the  
21 Transport and Housing Bureau on 15 September?

22 A. No.

23 Q. So you became aware of the incident on roughly 31 May  
24 2018?

25 A. Yes.

26

1 Q. You also sometimes sort of attended the capital works  
2 committee, you just mentioned that earlier on, and they  
3 also gave you quarterly reports?

4 A. I should clarify that the capital works committee would  
5 report to the board, you know, at our regular board  
6 meeting, their proceedings. But I only attend capital  
7 works committee meetings on 14 June and subsequently  
8 later, when we appointed a consultant to look into our  
9 procedures. So I don't normally -- not being a member  
10 of the CWC, I don't normally attend their meetings, but  
11 we do get the minutes of the CWC, and CWC chairman would  
12 also, at the regular board meeting deliver it to the  
13 board what happened at the CWC.

14 Q. Thank you, Prof Ma. I fully appreciate that.

15 Can I take you to your paragraph 11 of your witness  
16 statement. This is not a criticism, I'm just stating  
17 a fact:

18 "... the CWC comprises seven non-executive  
19 directors, six of whom are independent non-executive  
20 directors of MTRCL."

21 Is that correct?

22 A. Yes, I believe it's correct.

23 Q. I don't have to show you this, but in Mr Lincoln Leong's  
24 statement yesterday, he did give, in paragraph 25,  
25 a list of those INEDs, as well as NEDs. Just looking at  
26



1 the list -- if you want to refer to it, it's B121, if  
2 you have a copy of it.

3 A. I'm going to.

4 Okay.

5 Q. Paragraph 25. If you look at the list, except for one  
6 person who is the Permanent Secretary for Development  
7 (Works), basically he's now retired, but the rest tend  
8 to be, for example, part-timers who have full-time jobs?

9 A. Yes. What is the issue?

10 Q. The issue is -- I'm coming to next. The next issue  
11 relates to what Mr Lincoln Leong said yesterday about  
12 the three lines of defence, if I can take you to that.  
13 That's in his paragraph 23 at page 120.

14 A. Mm-hmm.

15 Q. He mentioned three lines of defence, which I asked him  
16 yesterday. The first line concerns the management  
17 control, the second relates to risk management and  
18 compliance oversight, and the last one relates to the  
19 internal audit.

20 Then on top that he mentioned in paragraph 24  
21 basically you have the CWC, which you kindly referred to  
22 earlier on, and also for example at the back, if you  
23 look at in terms of paragraph 28 of his statement, there  
24 is also a risk committee who does -- I also mentioned  
25 this yesterday -- a "deep dive" into reviews of selected  
26

1 risk areas, reviewing the effectiveness of ERM  
2 functions, et cetera, and also, in paragraph 29, the  
3 audit committee.

4 So you can see that there are roughly -- if you look  
5 at it, there are basically six lines of defence in the  
6 MTR; yes? So --

7 A. Depends on what do you mean by "defence".

8 Q. "Defence" means if there are issues, there are six sort  
9 of organisation structures that will look into matters?

10 A. Well, different committees have different mandate.

11 Different committees have their different duties.

12 That's all I can say. I wouldn't say it's "defence", in  
13 your definition.

14 Q. I understand. So my point is, Prof Ma, if you go back  
15 to your statement at paragraph 11 -- this is not  
16 a criticism at all, this is just to help -- you can see  
17 that these seven non-executive directors are all  
18 part-timers. My view is, correct me if I am wrong or  
19 not, should there be some full-timers there or someone  
20 who can actually oversee the whole project from day one?

21 A. The full-timers, in your word, report to the committee.

22 Q. Report to the committee and --

23 A. So whenever they convene a committee meeting, just like  
24 any other committee in MTR, under the board structure,  
25 the full-timers would report to the committee what they

26

1           knew, and the committee has the authority to question  
2           the executives.

3           Q. So the executives are the full-time committee members?

4           A. Of course, yes.

5           Q. I understand.

6           A. They are not members of the committee, but they do  
7           attend the meetings.

8           Q. Thank you very much. Can I move on, for example in  
9           paragraph 13 of your witness statement.

10           In paragraph 13, you mention that you became aware  
11           of the situation at the end of May.

12           In terms of a person who has basically with openness  
13           and integrity, you conducted a special board meeting on  
14           5 June 2018 to discuss these issues; is that correct?

15           A. I believe we convened the board meeting on 2 June.

16           Q. The 2nd, a special board meeting was held, and another  
17           special board meeting was held on June --

18           A. There were two meetings, one on 2 June, one on 5 June,  
19           according to this statement.

20           Q. Thank you for your correction. What I am going to take  
21           you on to now is the MTRC report, if I may. If you look  
22           at the MTRC report, that's in B1. Do you have a copy of  
23           that, Prof Ma?

24           A. I do.

25           Q. Can I take you to B36 of that report. I also asked this  
26

1 question of Mr Lincoln Leong yesterday.

2 A. Yes.

3 Q. If you look in the paragraph that says, "Interview of  
4 sub-contractor (China Technology)":

5 "No information in relation to the interview with  
6 China Technology is included here."

7 First of all, Prof Ma, have you read this report?

8 A. I read the report and, as a matter of fact, I did ask  
9 the question why China Technology interview was not  
10 included.

11 Q. And what was the answer given?

12 A. Because -- the answer given was because there were  
13 allegations in China Technology's report that there were  
14 corruption in the site, and this is a very serious  
15 charge, so executives, not me, decided not to include it  
16 in the report, which makes sense to me; okay? And, as  
17 a matter of fact, I asked the executives if, you know,  
18 given China Technology's charges, did we refer the case  
19 to ICAC? I did ask that question.

20 Q. Okay. Your executive committee, under the leadership of  
21 Gill Meller, quite rightly competently wrote to Leighton  
22 and basically wrote a letter -- it's B4643; you don't  
23 have to refer to it. But there was a response from  
24 Leighton and I'll take you to that response. It's  
25 B3090, if I may.

26

1           Can I show you to the very last paragraph of the  
2           letter, and if you look at here, it says:

3           "In concluding, we make the general observation that  
4           a large number of the matters raised today were not  
5           substantiated by any records or contemporaneous notes.  
6           No doubt MTR will draw its own conclusions about the  
7           weight to be given to such bald assertions. Leighton  
8           and its officers and employees reserve their rights in  
9           respect of these matters."

10           So, Prof Ma, have you seen this letter?

11           A. No.

12           Q. Just by reading this statement, what do you think?

13           A. Very legalistic letter. Not being a lawyer --

14           MR BOULDING: Sir, shouldn't he be shown the whole letter as  
15           opposed to just the last paragraph?

16           CHAIRMAN: Is the question, "What do you make of the last  
17           paragraph?"

18           MR TO: Yes.

19           Prof Ma, what do you make of the last paragraph?

20           A. I can only go by the last paragraph saying that it is  
21           not substantiated.

22           Q. So, being an open person, which you stated earlier on,  
23           do you think this is fair?

24           A. Not knowing the whole situation, it's difficult for me  
25           to make a judgment, to be honest.

26

1 CHAIRMAN: I appreciate the line of questioning. I don't  
2 wish to cut across it. But I think that final paragraph  
3 speaks for itself. Simply, it's a statement by the  
4 author on behalf of those the author represents, saying  
5 that in the view of Leighton, the matters raised, or  
6 a large number of them, were simply not substantiated by  
7 any records or contemporaneous notes. That's just  
8 a statement as an assertion of fact. And the other one  
9 is what I suspect any competent lawyer in today's  
10 society would advise his client: in other words,  
11 publishing in the public domain statements which may be  
12 defamatory may make the publisher liable.

13 MR SHIEH: Mr Chairman, you will no doubt notice who is  
14 seated behind Christopher To today. That could give the  
15 clue as to why this line of questions is being put.

16 Secondly, Prof Ma has said that contemporaneously  
17 with this letter, he had not actually seen it. So the  
18 question could not have had anything to do with what  
19 Prof Ma did or thought at the material time.

20 Therefore, I question what the relevance is to what  
21 Prof Ma now thinks of four lines in a very long letter.

22 I need say no more about it, Mr Chairman.

23 CHAIRMAN: Thank you.

24 Yes, Mr To.

25 MR TO: Mr Chairman and Commissioner, I'll move on.

26

1 CHAIRMAN: Thank you.

2 MR TO: Thank you, Prof Ma, on that point.

3 Now can I refer you to paragraph 18 of your witness  
4 statement, Prof Ma.

5 A. Yes.

6 Q. In line 5 -- can you see that? -- you said:

7 "... I was under the impression ..."

8 Who gave you that impression?

9 A. Throughout the discussion at the CWC, you obviously get  
10 certain impression from my team. That's how I arrived  
11 at the conclusion.

12 Q. Can I take you to B16/14036. If you look down, this  
13 basically is sent on behalf by Mr Allan Wong about the  
14 report, and if you go to the middle paragraph, you will  
15 see, for example, it says, "there are some  
16 contradictions" -- can you see that?

17 It's line 3, can you see that, line 3, the second  
18 paragraph?

19 A. Yes.

20 Q. "... there are some contradictions and inconsistencies  
21 between the recollections of certain individuals."

22 And after that:

23 "... without making a judgment as to the underlying  
24 facts, particularly in light of the upcoming Commission  
25 of Inquiry."

26

1           Can you see that?

2       A.   Yes.

3       Q.   So, basically, the CWC chairman says, "We should state  
4           the facts", but as I showed you earlier on, in B36,  
5           there was not a single thing about any facts or  
6           whether -- forget about the allegations -- about China  
7           Technology's interview whatsoever, on page B36 in the  
8           report. Forget about the allegations, defamation, but  
9           there's not a single item mentioned about China  
10          Technology being interviewed or even, for example,  
11          stating what certain matters were discussed.

12      A.   I'm sorry, counsel, I don't quite get your point.

13      Q.   But in this email, it says very clearly that you have to  
14          state the facts. The facts are not stated, in B36 of  
15          the report.

16      A.   I'm sorry, can you repeat your point?

17      Q.   Sorry about that, Prof Ma. In the email, it says, from  
18          Allan Wong, Dr Allan Wong -- it mentioned that there are  
19          contradictions, there are some inconsistencies between  
20          what people have said, but he did say, for example,  
21          "state the facts", and if you look at B36 --

22      CHAIRMAN: Sorry, where is the phrase "state the facts"?

23      MR TO: "... state the different recollections, without  
24          making a judgment as to the underlying facts ..."

25      CHAIRMAN: Yes.

26



1 MR TO: So, in this report, there's not a single thing  
2 mentioned about China Technology, except for "No  
3 information in relation to the interview with China  
4 Technology is included here".

5 It's not your fault. I'm just making a statement,  
6 that's all.

7 CHAIRMAN: I think --

8 A. Chairman, I don't know how to comment.

9 CHAIRMAN: That's right. Perhaps if one puts at the end of  
10 that statement "would you agree?"

11 A. It is difficult because, you know, you mention why  
12 certain things were not specified, and as I said I'm not  
13 a member of the CWC, to begin with, I was just  
14 an observer in that particular meeting. You know, at  
15 the committee meeting, all the facts were presented,  
16 including China Technology was discussed, I'm sure, if  
17 you look at the minutes of the meeting.

18 So counsel implies that we just ignored China  
19 Technology; it's not correct. We did discuss it, I'm  
20 sure, although I did not -- I cannot recollect what was  
21 discussed.

22 CHAIRMAN: All right.

23 MR TO: Prof Ma, you did discuss it. I'm just making  
24 a point that it's not stated here.

25 A. I'm sure it was discussed.

26

1 Q. That's not a criticism at all.

2 In terms of -- can I go back to your statement,  
3 B109.

4 A. Yes.

5 Q. In paragraph 23 -- can you see that?

6 A. Yes.

7 Q. There was a press statement made; yes?

8 A. Mm-hmm.

9 Q. If you look at the very last sentence, it says:

10 "In this press release, MTRC also made clear that if  
11 any violation was found, MTRC would take the matter very  
12 seriously and report it to relevant law enforcement  
13 agencies."

14 Can I take you to that press release. I mentioned  
15 Mr Lincoln Leong yesterday. It's B9/7031.

16 Prof Ma, can you see, in this press release, was  
17 there any mention of the words "law enforcement  
18 agencies" anywhere in this press release?

19 A. I don't see those two words that you refer to.

20 Q. But if you look at the first paragraph, it says:

21 "The board takes these matters very seriously."

22 From your understanding, the word "seriously", that  
23 means you would report it to the various relevant  
24 authorities?

25 A. Hong Kong has excellent governance system, including law  
26

1 enforcement agencies. So if someone did something  
2 wrong, legally, of course, you know, we take this  
3 seriously, so by implication we would go to, you know,  
4 all the law enforcement agencies, to report any  
5 irregular or unlawful act on the part of anybody.  
6 That's common sense, isn't it?

7 So the fact I mentioned it -- I still remember at  
8 the stand-up on 22 June, I did mention something like  
9 that. As a matter of fact, I mentioned the fact that we  
10 would report this sort of situation to law enforcement  
11 agency not only one time but a few times, if I remember  
12 correctly. Because we, you know, as MTRC, of course  
13 have to report any offence to law, to any law  
14 enforcement agency, just like when China Technology  
15 alleged we have corruption in the site, we report the  
16 case accordingly. You know, that is very, very logical  
17 and normal.

18 Q. Thank you, Prof Ma, for that point.

19 Can I take you on to maybe my last point. My last  
20 point relates to the inaccuracies of the report. It is  
21 in paragraphs 27 to 29. My learned friend Mr Ian  
22 Pennicott took you to paragraph 28.

23 So, when you looked at this report, you basically  
24 said, in the middle of 28, you can see in line 8 down,  
25 can you see:

26

1 "I was naturally alarmed by [the revelations] ..."

2 Okay? So you can see that. What were you alarmed  
3 about? What went wrong in the report?

4 A. The fact that the report was inaccurate.

5 Q. Inaccurate. So can I take you to what Mr Lincoln Leong  
6 said yesterday. It's in page 161 of the transcript. If  
7 you look at line 20 -- I will just read it very quickly:

8 "... [the] whole issue of the backdating as well as  
9 the retrospective nature of those papers were  
10 highlighted in one of, I believe, the crisis management  
11 meetings in August ..."

12 Prof Ma, are you aware or do you know there's  
13 backdating and retrospective records been made in the  
14 report or other information?

15 A. No.

16 MR TO: You're not? Prof Ma, I don't have any further  
17 questions, and thank you for being honest.

18 WITNESS: Thank you, counsel.

19 MR KHAW: Mr Pennicott has probably stolen our thunder and  
20 I believe most of the questions we had intended to  
21 discuss with Mr Ma have been canvassed. We have no  
22 further questions.

23 CHAIRMAN: Thank you very much.

24 MR CONNOR: No questions for Atkins. Thank you, sir.

25 MR SHIEH: No questions from Leighton.

26

1 CHAIRMAN: Thank you.

2 MR BOULDING: Sir, I have no re-examination for the  
3 professor, so unless you have any questions?

4 Questioning by THE COMMISSIONERS

5 COMMISSIONER HANSFORD: I have one question for Prof Ma.

6 Prof Ma, I'm interested in the capital works  
7 committee. My understanding is the CWC was established  
8 in 2014, following concerns about the XRL project.

9 A. Absolutely.

10 COMMISSIONER HANSFORD: I understand its focus is primarily  
11 on reviewing progress of projects from a programme and  
12 cost perspective; is that correct?

13 A. Correct.

14 COMMISSIONER HANSFORD: In your witness statement, in  
15 paragraph 40(d) of your witness statement, under "Going  
16 forward", you tell us, helpfully:

17 "the terms of reference of the CWC is now being  
18 revised to enhance its oversight of the quality of the  
19 capital works projects."

20 Has it previously had a role in overseeing quality,  
21 or is that a new role for the CWC?

22 A. Professor, Chairman, this is going to be a new role for  
23 the CWC. If you recall, in 2014, when we established  
24 the CWC, it's because XRL was facing cost overrun and  
25 also project delay, and as a result CWC was established.

26

1 COMMISSIONER HANSFORD: Yes.

2 A. We have no doubt that the quality of the management team  
3 in overseeing project management, because even in the  
4 expert report of which, Professor, you were involved --

5 COMMISSIONER HANSFORD: Indeed.

6 A. -- you actually complimented MTR in the PIMS and all  
7 that, if I recall correctly. I don't want to put words  
8 into your mouth, but I recall that you actually  
9 complimented MTR.

10 So given that we internally never were concerned  
11 about the quality of the project as such, because we  
12 believe we have a top-notch professional team to oversee  
13 the quality, so quality never came into the equation  
14 per se, except that this time, you know, even what  
15 happened, CWC is not questioning the quality of the  
16 management team, but just to be sure, it is not a bad  
17 idea to also keep an eye on the quality.

18 COMMISSIONER HANSFORD: So when you refer to "quality" in  
19 paragraph 40(d), are you referring to the quality of the  
20 management team or the quality of the works?

21 A. If I remember correctly, we were referring to the  
22 quality of the work, not the management team. The  
23 management team is selected by the CEO.

24 COMMISSIONER HANSFORD: Indeed.

25 A. Okay? And as such, we believe that our CEO will pick  
26

1 best team to do the job.

2 But moving forward, I think the CWC would like to  
3 know, for example, certain aspects, if quality were not  
4 up to standard, then they would like to know.

5 COMMISSIONER HANSFORD: Quality of the works?

6 A. Yes. You know, if there were any, for example,  
7 non-compliance report, NCR, they would like to know; if  
8 certain project had issued NCR, then they need to know.  
9 In the past, they don't need to know about it. They  
10 assume it would be taken care of by the project team.  
11 But from now on, my understanding is the CWC would like  
12 to know issues of that nature.

13 COMMISSIONER HANSFORD: This will therefore give the board  
14 more visibility on the quality of the works being  
15 carried out; is that the purpose?

16 A. Yes. I should also mention, Chairman and Professor,  
17 that, you know, throughout the 39 years of history of  
18 MTR, we have delivered many, many projects to Hong Kong,  
19 and all these projects are top-notch in quality. Why  
20 this one failed? This is something of course for the  
21 Commission to find out. But I would say that overall  
22 the quality of our work has been top-notch, you know,  
23 recognised by the industry, recognised by the public.  
24 Even the opening of the XRL recently has been well  
25 received.

26

1           So this is just to be safe that we mention about  
2           quality. The fact that CWC would focus on the quality  
3           doesn't mean that we see there is a big issue in the  
4           system; okay? But we want to make absolutely sure that  
5           this sort of issue does not arise in the future.

6   CHAIRMAN: Can you tell me just -- the work of the CWC, has  
7           it been effective, in your mind, and is it important?

8   A. It is a very important committee of the board, and as  
9           you can see, Chairman, in the composition of the CWC, we  
10          have some very experienced engineers on the committee,  
11          including a permanent secretary from the government, who  
12          is an engineer himself. Dr Allan Wong is a very  
13          successful industrialist and engineer by background, and  
14          James Kwan is also a very experienced engineer, having  
15          worked for Towngas for a long time. So we have a group  
16          of very experienced engineers, experienced entrepreneurs  
17          and industrialists on the committee, and they take their  
18          job seriously, and I believe that they are effective,  
19          but given this incident there are always room for  
20          improvement. I am not saying that MTR is flawless in  
21          absolutely everything. Absolutely not. There are room  
22          for improvement, in communication, in project management  
23          and so forth.

24          So that is why we hired this consultant to help CWC  
25          to look into the procedures. We learn from painful  
26



1 lessons like this, to be honest. Even as non-executive  
2 chairman I learn a lot more from this whole episode than  
3 what I would have known if this doesn't happen.

4 But I think, you know, we need to move forward, we  
5 need to learn from our painful lessons, because we are  
6 here to serve Hong Kong for the next 40 years,  
7 400 years, so we need to do better and better for the  
8 community. I truly believe that MTR is a great  
9 organisation, but there are always room for improvement,  
10 sir.

11 CHAIRMAN: Thank you very much.

12 COMMISSIONER HANSFORD: Thank you.

13 MR BOULDING: Thank you very much indeed, Professor.

14 CHAIRMAN: Thank you, Professor, for coming today.

15 WITNESS: Thank you, Chairman. Thank you, Professor. Thank  
16 you for having me.

17 MR BOULDING: Commissioners, that concludes MTR's factual  
18 evidence.

19 CHAIRMAN: Shall we have the morning adjournment,  
20 15 minutes, or do you wish to --

21 MR PENNICOTT: No, I think this is an opportune moment.

22 CHAIRMAN: Good. Thank you.

23 (11.23 am)

24 (A short adjournment)

25 (11.43 am)

26

1 MR CONNOR: Good morning, sir. Good morning, Professor.

2 We have the first witness now on behalf of Atkins  
3 China Ltd, who is Mr John Blackwood, who is sitting in  
4 the witness chair.

5 MR JOHN BLACKWOOD (affirmed)

6 Examination-in-chief by MR CONNOR

7 Q. Thank you very much. Good morning, Mr Blackwood.

8 A. Good morning.

9 Q. Your full name is John Blackwood?

10 A. That's correct.

11 Q. And you are, as far as this Commission of Inquiry is  
12 concerned, giving evidence in terms of your three roles:  
13 you're a director of Atkins China Ltd?

14 A. Yes, that's correct.

15 Q. You're the director of transport for Atkins China Ltd?

16 A. That's also correct.

17 Q. And you are project director in respect of two contracts  
18 with respect to the project under consideration in this  
19 Commission of Inquiry; correct?

20 A. That's correct.

21 Q. One of those is the consultancy agreement, known as  
22 C1106, for detailed design with MTRC?

23 A. Yes.

24 Q. Thank you. The second is the consultancy agreement for  
25 temporary works contract 1112 with Leighton?

26

1 A. That's correct.

2 Q. In those roles, you have prepared one witness statement,  
3 which is in bundle J1/8, which we might have on the  
4 screen in front of us, and that begins at page J56. Do  
5 you see that witness statement, Mr Blackwood?

6 A. That's my witness statement.

7 Q. If you turn to, please, page J77 of that witness  
8 statement, you will see a signature that appears there.  
9 Is that your signature, Mr Blackwood?

10 A. That is my signature.

11 Q. Now, attached to your witness statement, as you may  
12 recall, there were a number of attachments. If I can  
13 just take you to a number of those. I think they were  
14 JB-1 to JB-12 inclusive; do you recall that?

15 A. Yes.

16 Q. If you turn to JB-1, I think you'll see that that  
17 appears at page J80, and that is your CV?

18 A. That is my CV.

19 Q. If you then turn to page J83, this is the beginning of  
20 your attachment JB-2; is that correct?

21 A. Yes.

22 Q. It is here that we see described, amongst other things,  
23 your roles and responsibilities as project director of  
24 team A?

25 A. That's correct.

26

1 Q. And by "team A" we understand the contract with which  
2 Atkins had with MTRC?

3 A. Yes.

4 Q. Thank you. If you turn to page J85, we see there,  
5 again, amongst other things, a description of your roles  
6 and responsibilities as project director of team B?

7 A. Correct.

8 Q. Again, by "team B", we understand the contract which  
9 Atkins China has with Leighton?

10 A. Yes.

11 Q. For the sake of completeness, if you would be good  
12 enough to have before you what is JB-3, which is  
13 page J87. That is an organisation sheet which I think  
14 explains the position of various personnel within Atkins  
15 China, and in particular I think we see you to the  
16 left-hand side of that organisation chart. Just below  
17 Mr Samson Sin as managing director, we see you as  
18 transport director?

19 A. That's correct.

20 COMMISSIONER HANSFORD: Sorry, EDPM -- what is EDPM?

21 A. Engineering design project management. It's a part of  
22 the Atkins Group. I shouldn't say it's part of the  
23 Atkins Group; it's where Atkins sit within the  
24 SNC-Lavalin group of companies. We are under EDPM and  
25 we are part of the whole global EDPM business,

26

1           basically.

2           COMMISSIONER HANSFORD: Thank you.

3           MR CONNOR: Thank you, Professor.

4                     Again, turning to what is JB-4 in your statement at  
5           page J88, we see then the organisation chart for the  
6           transport division within Atkins; is that so?

7           A. Yes.

8           Q. And we see you as director of transport, based in  
9           Hong Kong, and your three colleagues who report to you?

10          A. Correct.

11          Q. Then finally in detail on this sort of matter, you see  
12          at what is JB-5 to your statement, which starts at J89,  
13          the first of three figures, beginning with figure 2,  
14          which is an organisation chart in respect of team A,  
15          working with MTR; is that so?

16          A. Yes.

17          Q. Do we see you at very much the top of that page as  
18          project director?

19          A. That's correct.

20          Q. Thank you. Just for the record, I think that is  
21          an organisation chart dated as at October 2015; is that  
22          so?

23          A. Yes.

24          Q. Thank you. But you are still in that role today?

25          A. Yes.

26

1 Q. Thank you.

2 Then turning to the next figure, which is at J90,  
3 this is an organisation chart in respect of team B; is  
4 that so?

5 A. Correct.

6 Q. This is correct as at November 2014?

7 A. Yes.

8 Q. And that shows you as project director in the top  
9 right-hand corner of the organisation chart?

10 A. Correct.

11 Q. Finally, for completeness, at J91, at figure 4, this is  
12 the same organisation chart for team B, as at October  
13 2015?

14 A. Yes.

15 Q. Again, your position similarly noted in the top  
16 right-hand corner as project director?

17 A. Yes.

18 Q. Thank you. Now, I think as you have said, the evidence  
19 that you have provided in your witness statement has  
20 some 12 attachments to it, which you will be pleased to  
21 hear it's not my attention to take you through entirely,  
22 but I might just take you to one, because it will be of  
23 significance to the Commission as matters progress, and  
24 that is to JB-12 which is at page J3323. I think, for  
25 the record, that's probably bundle J5.

26

1           There we see a copy of a presentation, that is  
2           a PowerPoint presentation, with notes sections  
3           completed, which run from that page, again just for the  
4           purposes of the record, to page J3343; do you see that?

5       A.   I do.

6       Q.   This is a presentation which was made by Atkins to the  
7           Buildings Department on or about 12 July of this year?

8       A.   Correct.

9       Q.   This was a presentation, which I think the notes section  
10          narrates, which was primarily to a Prof Nethercot?

11      A.   Yes.

12      Q.   Can you just inform the Commission as to what the  
13          purpose was of that presentation, as you understand it,  
14          and what your role was in that?

15      A.   I was -- we were requested by MTRC to give  
16          a presentation to Prof Nethercot, who was advising BD,  
17          and to representatives of BD, on the fundamental design  
18          principles and approach adopted for the design of the  
19          underground element of Hung Hom Station, with a focus on  
20          the EWL slab/D-wall connection, which was obviously  
21          a major issue at that time, and still is.

22      MR CONNOR: Thank you. It's possible that others may ask  
23          you about this in the course of the next while, but it's  
24          not, sir and professor, my intention to ask anything  
25          further of this, but I do know that we will come back in

26

1 more detail to this presentation when we come to the  
2 second witness, Mr Wilson Sung, but it's important that  
3 Mr Blackwood introduces it at this stage.

4 CHAIRMAN: Yes, certainly.

5 MR CONNOR: Thank you. I have nothing further to ask you in  
6 relation to that presentation at this stage,  
7 Mr Blackwood.

8 Finally, just in terms of the evidence that you have  
9 presented already to the Commission -- you've told us  
10 about your statement and you've told us about the  
11 12 attachments to it, which run between JB-1 and JB-12,  
12 which for the record are between pages J80 and J3343.

13 I think also, as you know, in the course of the last  
14 few weeks, there have been some questions asked by  
15 Prof McQuillan on behalf of the Commission; is that so?

16 A. There have been, yes.

17 Q. And you have been the organiser of the responses to  
18 those enquiries made by Prof McQuillan?

19 A. The responses have been channelled through me back to  
20 the Commission.

21 Q. Thank you. Again, for the record, but I don't intend to  
22 take you there in any detail at all, those responses  
23 appear in bundle J6.

24 So just a very short but important question,  
25 Mr Blackwood: would you please confirm to the Commission  
26



1           that the evidence that we have seen in your witness  
2           statement, together with the attachments that we've  
3           referred to, consist of your evidence to this  
4           Commission, and that you so present it to the  
5           Commission?

6           A. I do.

7           Q. Thank you. Do you confirm that, to the best of your  
8           knowledge and belief, it's true?

9           A. To the best of my knowledge and belief, it's true.

10          MR CONNOR: Thank you very much. Now, you have been to  
11          earlier days of the Commission so you appreciate the  
12          format and procedure that we have here. Mr Pennicott,  
13          who's directly in front of me, may have some questions  
14          for you. Other counsel in the room may also have some  
15          questions for you. Most importantly, the Chairman and  
16          the professor may have questions for you at any stage in  
17          matters and, if need be, I may have some closing  
18          questions.

19                 With that, thank you, Mr Blackwood. Please remain  
20          there and I'll pass to Mr Pennicott.

21                         Examination by MR PENNICOTT

22          MR PENNICOTT: Good morning, Mr Blackwood.

23          A. Good morning.

24          Q. As I think Mr Connor has indicated, I think you're  
25          familiar with the way it works.

26

1 A. Yes.

2 Q. Can I first of all, however, thank you for coming along  
3 to give evidence to the Commission this morning, and  
4 also thank you for the assistance and cooperation that  
5 you've given in dealing with the queries of the  
6 Commission's expert.

7 A. Okay.

8 Q. Thank you for that.

9 Now, as we've just seen with Mr Connor, you were the  
10 project director of both Atkins team A and team B?

11 A. Yes, and still am.

12 Q. Yes, and still are, yes. I know we'll be hearing from  
13 him on Monday next week, but, as I understand it,  
14 Mr McCrae was, at the times we are concerned with in  
15 this Commission -- 2014, 2015, going into 2016 --  
16 Mr McCrae was the project manager of Atkins team B and  
17 the design team leader of Atkins team A?

18 A. That's correct.

19 Q. So essentially the two most senior positions in those  
20 teams were you and Mr McCrae, and you were in both  
21 teams?

22 A. That's correct.

23 Q. As I understand, Mr McCrae left in April -- well, left  
24 Hong Kong; I think he's still with Atkins in London --

25 A. Yes.

26

1 Q. -- he left in April 2016?

2 A. That's correct.

3 Q. And there were other members of the Atkins team that  
4 were in both team A and team B?

5 A. There were one or two, yes.

6 Q. There's one we've spotted, Edward Tse, T-S-E?

7 A. Yes.

8 Q. He was in both.

9 Could I ask you, please, on this topic, to be shown  
10 a couple of paragraphs from the witness statement of  
11 Mr Buckland of Leighton. First of all, can we look at  
12 bundle C27/20804, and could we look at the footnote at  
13 the bottom, please.

14 What Mr Buckland says, in footnote 3 there -- he  
15 says:

16 "Typically, the same group of people at Atkins acted  
17 as MTRCL's DDC and also for Leighton."

18 Then could we also look at C32/24023, at  
19 paragraph 14. This is also Mr Buckland's further  
20 statement. He says:

21 "While MTRC may have initially intended there to be  
22 some separation between the two Atkins' teams, MTRC knew  
23 that there was no real separation and accepted this  
24 position. Indeed, MTR actively encouraged the same  
25 people at Atkins to [complete] the work for MTR's DDC  
26

1 and Leighton. It follows ..."

2 Let's pause there.

3 Do you agree with what Mr Buckland says in that  
4 footnote and that paragraph that I've just shown you,  
5 Mr Blackwood?

6 A. No, I don't agree with that. I think it's a bit of  
7 a generalisation that it was the same people in the same  
8 teams. I highlight in particular Mr David Wilson, who  
9 was the structural team leader and the design  
10 coordinator for team B, who was totally dedicated to  
11 team B and the primary point of contact with team B.

12 Q. Right.

13 A. I think there was an understanding the teams would  
14 communicate and that was encouraged, but that was where  
15 basically the intent was.

16 Q. So your intent and objective was to try to keep them as  
17 separate as you could, given the situation?

18 A. Given -- there were a lot of pressures came on, it did  
19 get a bit blurred at certain times, but that's where the  
20 process that I've highlighted in my statement was  
21 important, that we stuck to the process, basically.

22 Q. Right. Did you ever, during the course of carrying out  
23 the works on behalf of MTR on the one hand and Leighton  
24 on the other -- did you ever receive any complaints or  
25 observations about the lack of separation between the

26

1 teams?

2 A. I think certainly there were -- nothing really from  
3 Leighton, to be honest, I don't think. I don't think  
4 I can recall anything in that regard. I think the  
5 design management team from MTRC were aware of trying to  
6 make sure that the teams stay separate as far as  
7 possible and they were very strict in keeping control of  
8 the working drawings and particular changes to the  
9 working drawings which were the main way of controlling  
10 the information that was built.

11 Q. Was there any specific complaint, I think that's really  
12 what I'm driving at?

13 A. I honestly can't recall anything specifically on that  
14 issue.

15 Q. Okay. I think one of the reasons, one of the  
16 explanations that both you and Mr McCrae have explained,  
17 perhaps the necessity for close -- closer, perhaps,  
18 closer cooperation than was anticipated at the outset  
19 was the substantial expansion of team B's work; would  
20 that be right?

21 A. Both the expansion and also the nature of the work they  
22 were required to carry out changed.

23 Q. In what way was the nature of the work changed?  
24 I understand the scope.

25 A. I think when we started out, primarily it was temporary  
26

1 works design, but I think as the project evolved, then  
2 it became a little bit more complex. There was probably  
3 a greater interface on the permanent works or impact on  
4 the permanent works and therefore a greater involvement  
5 of team A in supporting.

6 Q. Yes. Of course, part of the original intent, as  
7 I understand it, was that, in relation to certain works,  
8 team B's work would be reviewed and perhaps commented  
9 upon by team A; is that right?

10 A. They would, yes.

11 Q. Did that really happen? I mean, was the separation  
12 significant enough to allow that to happen?

13 A. I think, yes, there were certainly occasions where  
14 team A were not necessarily approving what team B may  
15 have put forward.

16 Q. So you take the view, do you, that there was, as it  
17 were, sufficient separation and independence between the  
18 two teams to allow team A to take a sufficiently  
19 independent view about what team B were doing?

20 A. They could -- there were obviously discussions in  
21 principle, et cetera, between team A and team B. The  
22 idea was to try to get the submissions prepared as  
23 efficiently as possible and as quickly as possible. So  
24 team A would be consulted on the principle, so it would  
25 be hoped that the general principles would be -- so when  
26

1 the submissions came in they would still have to be  
2 reviewed to make sure they were satisfactory, and that  
3 their guidance or whatever had been given had been  
4 interpreted correctly.

5 Q. In the witness statement of Andy Leung from the MTR, he  
6 said that he insisted upon separation all along, from  
7 the outset of when Atkins team A and team B were, as it  
8 were, engaged. We've seen what Mr Buckland says, and  
9 perhaps the truth, the reality, lies somewhere in  
10 between?

11 A. Clearly, the way it was set up, the project team should  
12 have some visibility in who was talking to who, who was  
13 communicating with who in terms of the email exchanges  
14 and the like. So I think it would be a bit of a stretch  
15 to say there was no -- a complete separation and no  
16 discussion. I think it was actively encouraged by MTRC  
17 because it gave a benefit of hindsight -- not hindsight,  
18 the knowledge that team A had, to try to improve the  
19 efficiency of how team B worked, and we got submissions  
20 submitted on time.

21 Q. Had Atkins and you personally been involved in any sort  
22 of similar situation before, Mr Blackwood?

23 A. To be honest, I can't recollect myself. It's not  
24 an atypical -- it's not a normal situation. And  
25 generally you would try to stay clear of that, if you

26

1 can. But in this particular case it was a request that  
2 Leighton wanted to employ us because of our specific  
3 knowledge, and I believe that MTRC understood why they  
4 were employing team B because of that knowledge, so  
5 therefore there was an element of that prior knowledge  
6 being built into what Leighton were doing through  
7 team B.

8 Q. Just so far as you personally are concerned, you've got  
9 team A engaged by MTRC.

10 A. Yes.

11 Q. And then, when team B were taken on by Leighton in  
12 2013 -- I mean, was it your mindset, your thought  
13 process, that "I must try, as the project director, to  
14 keep these two teams as separate as possible"? At the  
15 outset, I mean -- I know things moved on -- but at the  
16 outset was that the objective?

17 A. I think there was an understanding that we should keep  
18 the teams as separate as we could do, yes, and we still  
19 do. It's not something we started and then stopped.

20 Q. As I say, it seems, from what I've understood, that  
21 because of what -- the matter we've just mentioned, the  
22 expansion and the nature of the work, there seems to  
23 have been, as it were, perhaps less separation than what  
24 was anticipated at the outset?

25 A. I would agree with that.

26



1       COMMISSIONER HANSFORD: Mr Blackwood, I'm struggling with  
2       this a little bit, because I hear your explanations and  
3       I can see all the sense in what you're saying, but then  
4       if you go to paragraph 16 of your witness statement and  
5       the first sentence, I can't reconcile it with what  
6       you've just said to us. My reading of -- well, I think  
7       everybody's reading of the first sentence is -- "there  
8       was a need throughout to keep both team A and team B  
9       independent with no conflicts of interest". How do you  
10      reconcile that with what you've just told us? I don't  
11      understand.

12     A. I think, as I said, that was the intent when we started,  
13     Professor, but I think as I go on to explain in the  
14     following -- subsequent part of my submission, I think  
15     it was paragraph 26, that the circumstances placed  
16     increased pressure on trying to maintain that  
17     separation. I think people tried to do it but we also  
18     tried to ensure that the decisions we made were the  
19     right decisions for the project, and we tried to avoid  
20     conflicts where we could, and still do. If we find  
21     something where we see a genuine conflict of interest  
22     between what Leighton may be wanting, then we will not  
23     do it.

24     COMMISSIONER HANSFORD: Thank you. So the sentence is  
25     really related to avoiding conflicts of interest rather  
26

1           than keeping the teams independent, because -- it's the  
2           word "throughout" that I'm struggling with. If it said  
3           there was a need at the outset to keep them independent,  
4           I think I'd understand it, but you say there was a need  
5           throughout to keep them --

6       A. It's maybe just the way I've explained it. There was  
7           certainly a need or a desire to maintain the separation  
8           throughout. What I'm trying to explain is that there  
9           was still an intent to avoid conflicts, to make  
10          decisions for the benefit of the project, so if there  
11          was a decision to be made it was made based on quality,  
12          safety and the like.

13                 The reason that there might have been greater  
14                 overlap that we might have hoped for or anticipated at  
15                 the start of the project was really more for efficiency,  
16                 to try to get submissions prepared and submitted as  
17                 quickly as possible, but again without compromising the  
18                 quality or the safety of what we were producing.

19       COMMISSIONER HANSFORD: I don't really want to labour the  
20                 point, but then I read that Robert McCrae was design  
21                 team leader for team A and project manager for team B.  
22                 I will take your answer and probably stop at that point,  
23                 but it just seemed slightly odd to me.

24       A. I understand.

25       MR PENNICOTT: Looking back on it, Mr Blackwood -- I know  
26

1 the work is still going on -- but do you regard it as  
2 an entirely satisfactory position? Could things have  
3 been set up somewhat better?

4 A. I still don't have a huge problem with myself being  
5 project director on both, or even necessarily Mr McCrae  
6 being project manager and design team leader, because of  
7 who we -- I certainly know Rob McCrae and how he would  
8 behave. He would behave in the right manner,  
9 essentially. So I trust his judgment on these issues.  
10 We have technical people who are producing technical  
11 solutions and we try to maintain that as separate as we  
12 could, so essentially the technical product was produced  
13 by independent teams as far as possible.

14 COMMISSIONER HANSFORD: I'm not questioning whether there  
15 was actually any conflict of interest, but in my  
16 experience, it's the perception of conflict of interest  
17 which is the biggest issue. I've been in the situation  
18 you're talking about and I know how important it is to  
19 not only have no conflict of interest but actually  
20 ensure there's no perception of conflict of interest.  
21 That doesn't appear to be the case here, but that's just  
22 observation.

23 A. I would say that given that we're having this  
24 conversation, clearly there was a perception that it  
25 might cause a problem, and therefore, in retrospect, it

26

1           probably would have been better to have totally separate  
2           people.

3           COMMISSIONER HANSFORD: Right. I'll leave it there. Thank  
4           you.

5           MR PENNICOTT: But having said that -- slightly in your  
6           defensive, if I may say so, Mr Blackwood -- you had  
7           a situation where MTRC have taken you on first, Leighton  
8           wished to engage you, which they did, and MTRC didn't  
9           put up a fight about that. The only imposition by MTR  
10          was to try to keep the teams separate.

11          A. Correct.

12          Q. All right. Could we turn to the changes, we've known  
13          the first and the second change.

14          A. Yes.

15          Q. I appreciate that you say you didn't have day-to-day  
16          direct involvement in the project.

17          A. That's correct.

18          Q. And so far as the second change is concerned, that is  
19          the change to the detail of the top of the east  
20          diaphragm wall, did you have, yourself personally,  
21          contemporaneous knowledge of that change, when it  
22          happened?

23          A. No.

24          Q. We know that various reports were prepared by Leighton,  
25          both team A -- sorry, team B and team A, and submitted  
26

1 to Leighton from time to time. What, if anything, was  
2 your involvement in those reports?

3 A. At the time, I wasn't involved in those reports, or  
4 producing or reviewing them.

5 Q. Okay. We know that allied to those reports are quite  
6 a lot of emails by way of explanation and how the  
7 reports were to be prepared, what should be put in and  
8 what should be left out, and so forth. Again, did you  
9 have any involvement in those email exchanges?

10 A. No, I wasn't copied in on those emails.

11 Q. Would it be right -- I'm not trying to in any sense  
12 diminish your role, Mr Blackwood -- but would it be  
13 right that it's really Mr McCrae that I should be  
14 discussing the detail of the reports, which I will get  
15 the opportunity to do next week?

16 A. Yes. Well, Rob would be more familiar with the detail  
17 in the reports, because he would be signing them off for  
18 issue. I have read them, obviously, read parts of them,  
19 but relevant to the change, in the preparation of this  
20 witness statement.

21 Q. Yes. The thing is I don't want to, as it were, waste  
22 everybody's time by going through it all with you and  
23 then going through it with Mr McCrae. If Mr McCrae, as  
24 I understand it, looking at the emails, looking at -- as  
25 you quite rightly say, his name appears on the front  
26

1 sheet as the approver of the reports, although I have  
2 noted what he said in a corrigendum to his statement  
3 recently --

4 A. Yes.

5 Q. -- if he's the better person to look at the detail with  
6 then that's what I'll do. Is that what you think the  
7 position is, that he's the man who's likely to know the  
8 detail?

9 A. It depends on the nature of the questions that you're  
10 asking. I produced the witness statement that I had  
11 that was reflecting the Atkins position, based on  
12 discussions with various people and review of the  
13 reports, but it's entirely your decision as  
14 the Commission to whom you ask questions.

15 Q. Let me just pose an example to you. We know that there  
16 was a report, 4B2 and 4B3.

17 A. Yes.

18 Q. Temporary works design reports. And we know that in the  
19 second of those reports, the famous figure 1.4 and the  
20 famous paragraph 1.35 --

21 A. Yes.

22 Q. -- were omitted from the second report, having appeared  
23 in the first report. Would you know why they were  
24 omitted or would somebody else -- would Mr McCrae know?

25 A. I'm not sure even Rob would know the details, other than  
26

1           what's recorded in the email exchanges of that time, in  
2           late May, when a decision was made to actually not  
3           include them in 4B2 and not formally submit 4B2.

4       Q.   But you don't know why there were changes?

5       A.   I don't know why.  And I can't add anything more than  
6           what's in the email exchanges.

7       Q.   Okay.  Good.  So that's that one out of the way.

8           There were, in those reports and in the emails, as  
9           we know, we've seen, mention of how the concrete at the  
10          top of the east diaphragm wall, following the change of  
11          detail, should be poured, and we've got "at the same  
12          time", "concurrently", "monolithically".  Again, is that  
13          something you were involved with at the time or is that  
14          something you've only reviewed for the purposes of  
15          giving evidence to the Commission?

16       A.   I've only reviewed it for the purposes of giving  
17           evidence.

18       Q.   So again it's more likely that Mr McCrae, involved with  
19          the reports at the time and the emails at the time, may  
20          be able to shed some light on that for us rather than  
21          yourself?

22       A.   Without discussing it with him, I can't really answer  
23          for him in that regard, but it's probably more likely.

24       Q.   And also we know that Mr WC Lee wrote one of the key  
25          emails --

26

1 A. Yes.

2 Q. -- and we'll obviously get the opportunity to discuss  
3 that email with him at some point.

4 Good. All right. In the light of that, can I just  
5 have one moment to see where we might get to.

6 Mr Blackwood, have you had any reason to consider in  
7 detail PNAP 68?

8 A. No.

9 Q. Mr Blackwood, I think I'm right in suggesting that when  
10 DAmS, as we know it, DAmS 310 was issued in August  
11 2015 -- again, no contemporary knowledge of that issue  
12 either?

13 A. I wasn't involved in that.

14 Q. You weren't involved in that either? All right.

15 Can I then just ask you a few questions about the  
16 updating of working drawings and as-built drawings. In  
17 terms of producing working drawings, that would be the  
18 responsibility of Atkins team B -- team A?

19 A. Team A.

20 Q. And would Atkins team B have any involvement in the  
21 production of working drawings?

22 A. They shouldn't have an involvement in the production of  
23 them. They may have helped produce drawings for  
24 Leighton to submit to reflect what they wanted to have  
25 as a change incorporated into the permanent design, and

26



1           once that was accepted by MTRC and necessarily approved  
2           by BD, it would go on the working drawings would be my  
3           understanding.

4       Q.   That's the general position.  In terms of more specific,  
5           again, with regard to the second change, which I'm not  
6           looking at --

7       A.   Yes.

8       Q.   -- with you in detail, that was essentially  
9           a contractor's generated design detail change.  Who  
10          would bear responsibility for producing the working  
11          drawings in that situation?

12      A.   For the second one, I question whether anybody generated  
13          that one, to be honest.  I don't think either team B or  
14          team A generated that.

15      Q.   Well, no.  What happened was -- let's just assume, let's  
16          make a couple of assumptions.

17      A.   Okay.

18      Q.   We've heard from the MTRC and Leighton witnesses that  
19          that change was brought about by discussions by the  
20          construction management team on behalf of MTR and the  
21          construction management team of Leighton.

22      A.   Yes.

23      Q.   And so let's assume that that's how it came about.

24      A.   Okay.  Yes.

25      Q.   What role, if any, do you believe Atkins should then  
26

1           have played in producing some form of design, working  
2           drawings or otherwise, given that situation?

3           A.   What I would have expected in that situation, if the two  
4           construction teams had agreed they were going to make  
5           a change -- it would be really in Leighton's court to  
6           actually initiate that process.  They would have to  
7           either submit a TQ, probably a TQ to team B, "We want to  
8           change to this arrangement; can you give us supporting  
9           information necessary to submit it to MTRC formally to  
10          get agreement to that change?"  That TQ, probably under  
11          a CSF, would go to MTRC construction team, who in turn,  
12          if they were happy with it, would submit it to the  
13          design management team, who again, if they were in line  
14          and happy with it, would engage team A to review and be  
15          satisfied that it was okay.

16                 If that change, if it was a minor thing, then maybe  
17                 it would just be issued as a DAmS and picked up in the  
18                 next issue of the working drawings that would go out.  
19                 If it was deemed to be a little bit more significant  
20                 than that, then there may be discussions with BD to  
21                 understand how it should be addressed, whether there  
22                 should be a BD amendment submission -- submission to BD  
23                 to get the amendment agreed.  But whatever happens, if  
24                 it's accepted by MTRC, there should be at least a DAmS  
25                 issued, as I think you mentioned 310 before, would be  
26

1 issued saying, "This is what you should be building  
2 on site."

3 I think the key thing is when they are working  
4 on site, they should have a record of what they're  
5 actually building, and have drawings showing what they  
6 should be building too. And we would have -- team A  
7 might have a role in that DAmS issue and the  
8 amendment -- any changes to the working drawings in that  
9 process. But as I say, my understanding, that's  
10 hypothetical just now.

11 Q. Okay. But assuming this consensus/agreement between MTR  
12 and Leighton to have this change of detail at the top of  
13 the east diaphragm wall, for Atkins --

14 A. Can I just understand, that's a consensus between the  
15 construction teams?

16 Q. That's my understanding.

17 A. But you're not saying it's a consensus between the  
18 design team --

19 Q. I'm not.

20 A. -- and everybody? Because I think you've got to be  
21 quite distinct on that.

22 Q. And I thought I was.

23 A. Okay. I was just trying to clarify it.

24 Q. Absolutely. The construction teams, both MTR and  
25 Leighton, which I think was the premise upon which I put  
26

1 the situation, now, let's assume that that's the case.

2 A. Yes.

3 Q. As I understand it, you would say Atkins team B might be  
4 involved in producing working drawings, but only in the  
5 circumstances where Leighton had asked them to do so; is  
6 that right?

7 A. Yes.

8 Q. Have I got this right: so far as the personnel in Atkins  
9 team B are concerned, they wouldn't be based on site?

10 A. No. They would have to be advised that there was  
11 a change that the contractor wanted to make. The  
12 contractor has to indicate he wants to make that change,  
13 because he has a responsibility to do that. Because the  
14 contractor -- theoretically it might have been agreed --  
15 in my understanding, it might have been agreed with the  
16 construction team, but it would still be an issue that  
17 would have to be started by the contractor to follow the  
18 process, we said: Leighton team B, Leighton construction  
19 management team; design management team, team A, and  
20 then a decision made and what you do after that, whether  
21 it's accepted or not.

22 Q. Right.

23 A. So that's why the process is so important. Everybody  
24 gets to see what's going on, everybody gets on to the  
25 same page, and there's nobody left out of the loop,

26

1           basically.

2           Q.   What perhaps appears to have happened -- obviously we've  
3           not quite got to the end of all the evidence yet -- but  
4           what appears to have happened is nobody got that ball  
5           rolling, nobody kicked it towards Atkins team B, and  
6           therefore the process didn't seen start.

7           A.   Again, based on the evidence I have seen and read,  
8           that's my understanding of the situation, or my  
9           interpretation, I should say, of the situation, that the  
10          ball never got rolling and it was never picked up  
11          on site, "Why is that not happening?"

12          Q.   Yes.

13          A.   There's a check and a balance.   You need Leighton to  
14          start it but you're also still building it, so you need  
15          something that says, "What am I building to?"

16          Q.   Yes.   And even more so, I would imagine, you would  
17          agree, Mr Blackwood, in circumstances where, as we know  
18          now, the change is not uniform, that we've got certain  
19          details in certain areas and other details in other  
20          areas -- even more so that one is keeping tabs on what  
21          is actually being constructed?

22          A.   It certainly makes the as-built drawing production  
23          easier if you've got a set of working drawings that are  
24          up to date and record most of the changes you have.  
25          It's a good foundation for the start.

26

1 Q. As I understand, it is really only earlier this year  
2 that Atkins team B have been asked to participate in the  
3 putting together of the as-built drawings?

4 A. We received an instruction basically from Leighton,  
5 I think it was 12 June, to assist them with the  
6 preparation of the as-built -- amendment drawings, as it  
7 is at this stage.

8 Q. Finally from me, can I ask you to go to paragraph 99 of  
9 your witness statement, please. We are in that part of  
10 the statement, Mr Blackwood, where you are dealing with  
11 the second change.

12 A. Yes.

13 Q. I just want to understand paragraph 99. You say:

14 "Typically, the process on site to address such  
15 changed details would be dealt with by TQ or CSF."

16 As you've just mentioned.

17 "This could then have been reviewed and assessed and  
18 a decision taken on whether it was minor and form part  
19 of the final amendment submission or a separate  
20 submission had to be made to BD. In either case a DAmS  
21 or revised working drawing can be issued."

22 A point you've also made. Then you say this:

23 "The issue in this case is further complicated by  
24 the change to the D-wall which would require  
25 an amendment submission."

26

1           When you say a "change to the D-wall", are you  
2           referring down to the trimming down of the concrete by  
3           450 millimetres or so?

4       A.   That's my understanding.

5       Q.   With your experience in Hong Kong, is that something  
6           that you take the view that an amendment submission  
7           ought to have been made before it was instigated or  
8           implemented?

9       A.   Let me preface my response by saying I'm not  
10          a structural engineer and I'm not particularly  
11          experienced in the ways of the Buildings Department.  
12          But, with my limited the knowledge, looking at it, it  
13          seems a fairly minor change to the D-wall and I don't  
14          think it really affected its structural ability to  
15          perform its ultimate function.

16          But I believe, because of the nature of the work, as  
17          I understand it from colleagues, you would need  
18          an amendment submission. The question is whether you  
19          need to do it before or you can do it in parallel, but  
20          it was not raised or discussed at that time.

21       Q.   Okay. And it's not something you feel comfortable about  
22           taking a view on?

23       A.   I'm not an expert in that area and it would be wrong to  
24           give a view on it because it would be misleading, or  
25           could be misleading.

26

1 Q. Understood. Right.

2 Thank you very much, Mr Blackwood. That's all

3 I have for you.

4 A. Thank you.

5 MR SO: No questions from China Technology.

6 Cross-examination by MR CHOW

7 MR CHOW: Mr Chairman, there are some questions from the

8 government.

9 Good afternoon, Mr Blackwood.

10 A. Good afternoon.

11 Q. My name is Anthony Chow and I represent the government.

12 Originally, I only had one or two questions for you

13 in relation to one specific issue, and that is whether

14 prior consultation with the Buildings Department is

15 required to effect the second change. Mr Pennicott has

16 covered one of my questions already, so I will just

17 concentrate on the next one. The relevant part of your

18 evidence is in paragraph 98.

19 Mr Pennicott has taken you to paragraph 99, but

20 before that, in paragraph 98, you also express a view on

21 whether the change was a substantial change.

22 The way I see how you arrange the contents into two

23 separate paragraphs, am I right to say that in

24 paragraph 98, when you talk about "not a substantial

25 change", you were only talking about the fact of

26



1 replacing the couplers with straight bars; right?

2 A. I think I was really referring to, essentially, the  
3 change from the coupler arrangement to the straight  
4 through-bars, and the consequences of that. It  
5 performed a similar design intent, and on its own was  
6 not, I believe, a significant change.

7 Q. I see. So paragraph 98 only refers to part of the  
8 second change which involved replacement of couplers  
9 with through-bars.

10 Now, subparagraph 98.4, when you say, "It need not  
11 necessarily be submitted to BD, but this would be  
12 a decision for the competent person ('CP') to make" --  
13 now, this is the part I am not entirely clear as to what  
14 you mean. Do you mean that for changes like replacing  
15 the couplers with straight bars, because the nature is  
16 not substantial, then the BD would give the final say to  
17 the competent person as to whether prior consultation  
18 would be required? Is that what you are trying to say?

19 A. Sorry, I'm not too clear on your question there.

20 I think what I was trying to suggest there was that,  
21 in its own way, it's not a major change. It's a fairly  
22 minor change; the design intent is not changed. The  
23 scale might be quite significant, because of the extent  
24 on the project, but it's the sort of thing, if it was  
25 raised, then you would review the proposal and you would

26

1 obviously have a discussion between MTRC design  
2 management and, if necessary, consult the competent  
3 person to find out whether that should be made as  
4 a submission to BD.

5 Does that answer your question? I'm not sure if  
6 I interpreted it correctly.

7 Q. Right. So, in other words, for changes of this nature,  
8 you express no view as to whether such change would  
9 require prior consultation or acceptance by BD before  
10 effecting the change; is that --

11 A. I think -- to follow on from the response I gave earlier  
12 on the process, hypothetically, if it had come through  
13 the process, I think it would have gone to design  
14 management team, it would have gone to team A, and there  
15 would have been some discussion, "What do we do with it?  
16 Is it a significant enough change that we need to  
17 consult with BD? Do we have to make a submission to  
18 BD?"

19 I think you should recognise that in parallel with  
20 what was actually happening on site, we had gone  
21 a different way. We were making submissions to BD based  
22 on a different detail, and clearly that's not a nice  
23 position to be in. So I don't know -- I would have  
24 thought that if we had that information at that time, we  
25 would have been consulting and speaking to BD about it

26

1 and gone forward with the revised detail.

2 Q. Okay. Thank you very much, Mr Blackwood.

3 A. We seemed to depart at some point.

4 MR CHOW: I have no more questions for you.

5 Mr Chairman, I have no more questions.

6 CHAIRMAN: Thank you.

7 MR BOULDING: Nothing from MTR.

8 CHAIRMAN: Thank you.

9 MR SHIEH: Nothing from Leighton.

10 CHAIRMAN: Thank you.

11 Re-examination by MR CONNOR

12 MR CONNOR: Just very briefly then, if there are no other  
13 questions for Mr Blackwood.

14 Mr Blackwood, thank you very much. Particularly  
15 returning to the questions from the professor and in the  
16 light of all of the review of documents that you've  
17 carried out for the purposes of your statement to the  
18 Commission and in preparation for today, I think you've  
19 said quite fairly that the intent at the outset in  
20 relation to complete separation of team A and team B did  
21 become, as you put it, a little bit blurred because of  
22 the circumstances which Mr Pennicott described to you.

23 A. Yes, that's correct.

24 Q. But I think from your evidence you distinguish that from  
25 the idea of conflict of interest, which, I think your  
26

1 evidence is, did not become blurred?

2 A. No, I don't believe that happened.

3 Q. Prior to the question being raised of you in relation to  
4 the Commission of Inquiry, has it ever been suggested to  
5 you that such a conflict of interest existed?

6 A. I'm not aware of any suggestion there.

7 Q. And as far as the process is concerned that you  
8 described to the Commissioners, that is really  
9 a safeguard for the purposes of ensuring that conflict  
10 is avoided?

11 A. It's one of the safeguards or the safety nets that you  
12 have, that team B reported to the design management team  
13 in Leighton and team A reported to the design management  
14 team in MTRC. They are both experienced and well aware  
15 of what we were doing, basically, and therefore could  
16 take a view if they saw anything that they thought was  
17 unfair or was in conflict with their interests. As  
18 I say, I don't think that was an issue.

19 Q. And having reviewed all of the papers that you have done  
20 for the purposes of the Commission of Inquiry, are you  
21 satisfied, largely, that the process intent has been  
22 met?

23 A. I think in the main it has, and I think if you listen to  
24 the evidence that's been given by other witnesses, they  
25 seem to support that view as well, Mr Buckland in

26

1 particular, and also I think -- I seem to remember  
2 Mr Chan did a similar thing.

3 I would also add that I don't think it was a factor  
4 in the issues before the Commission just now, in terms  
5 of the cutting of the rebar or the change that has been  
6 made. It was not whether we were on team B and also  
7 team A; I think that wasn't a factor.

8 MR CONNOR: Thank you very much. Unless the Chairman or the  
9 professor has anything further.

10 Questioning by THE COMMISSIONERS

11 COMMISSIONER HANSFORD: Yes, I do. There's one area I'd  
12 like to get your input on, you can help me with,  
13 Mr Blackwood. This is about designers having site  
14 presence or not.

15 A. Yes.

16 COMMISSIONER HANSFORD: In your paragraph 14, 14.1 and 14.2,  
17 of your witness statement -- perhaps we can put it on  
18 the screen, J59 -- you tell us in both of those that  
19 team A was not required to supervise any of the site  
20 works and only relied on information from MTR, and  
21 team B did not have any on-site presence and relied only  
22 upon information provided by Leighton?

23 Why was that?

24 A. It's a good question.

25 COMMISSIONER HANSFORD: Thank you!

26

1 A. It seems to be the process followed on MTRC projects.  
2 It's slightly -- if I can digress a little bit -- when  
3 we actually do the detailed design, we sit in the design  
4 office with MTRC's design management team, with the  
5 construction team, with members of their operations  
6 team, to try to get an integrated design, but as soon as  
7 construction starts, we have a design liaison  
8 representative on site who is almost like a postbox back  
9 to the design team in head office. I think it's a good  
10 question, particularly for jobs as complicated as this  
11 one, where you are likely to get change once you get  
12 on site. I think in a simple job it probably works  
13 quite well, but I think in projects where maybe there's  
14 a degree of complexity or issues that may arise on site,  
15 having some design support closer to site might be  
16 something that could be considered in the future.

17 COMMISSIONER HANSFORD: That's helpful, because we're  
18 certainly looking at what perhaps ought to be done in  
19 the future.

20 A. Yes.

21 COMMISSIONER HANSFORD: But I'm still puzzled by how can the  
22 designer be sure that his design intent is implemented  
23 in the works if the designer has no visibility of what's  
24 happening in the works?

25 A. I think you're totally reliant then on the drawings  
26

1           being up to date and the construction being built  
2           according to those drawings, and also that the quality  
3           is there in terms of what's built. So you are dependent  
4           on the supervision on site, both the contractor and also  
5           the construction team on site supervising it.

6   COMMISSIONER HANSFORD: So, a little bit of a hypothetical  
7           question, so forgive me --

8   CHAIRMAN: Sorry, I do apologise, I'm interrupting you --  
9           I didn't quite get the answer there. Sorry, Peter.

10   COMMISSIONER HANSFORD: No, no.

11   A. In terms of ...?

12   CHAIRMAN: Well, how does the design team know that what in  
13           fact is being constructed on site, especially in  
14           a complex, hard-pressed construction -- how does that  
15           design team know that it's being built according to the  
16           design absolutely?

17   A. You don't know. You're reliant on the efforts of  
18           others, basically. You are reliant on the site team  
19           supervising it to ensure that it's constructed according  
20           to your drawings, and obviously the contractor  
21           constructing it to the quality that's specified and  
22           shown on the drawings. But you don't have any visible  
23           way of checking. There's not even an audit or  
24           a monitoring thing where you go out and do -- I'll do  
25           a quarterly or a monthly audit to see what you might do.

26

1           There's no requirement for that.

2           CHAIRMAN: No audit process at all?

3           A. No audit process, no.

4           COMMISSIONER HANSFORD: My hypothetical question to you was  
5           going to be that if you were asked in future to carry  
6           out this type of work and told -- and you will not have  
7           a site presence, is that something you feel you could  
8           comfortably do?

9           A. To be honest, I think we exercised the responsibilities  
10          we had under our contract. What I'm saying -- whether  
11          it's me or is it the right thing to do, could we improve  
12          how we actually oversee and deliver those projects?  
13          There are different ways you can actually do it, but  
14          certainly that would be a good starting point, whether  
15          it be people sitting on site or a design team sitting  
16          on site so they can actually go and liaise more closely  
17          with the construction and design management teams to  
18          make sure you don't have a situation where something's  
19          been built that you don't know about, it's easy for  
20          people to go and say, "I want to do this, is that okay?"  
21          That might be one thing, that is one option. The other  
22          is you do routine audits. You go and you have  
23          a specific requirement, "You must visit the site",  
24          whatever you decide, it's once every week, once every  
25          two weeks, once a month or whatever it is, and do

26



1 specific audits just to check on what's been built.

2 But the industry as a whole should be trying to be  
3 better than that and that people work together and do  
4 the job that they're supposed to be doing, basically.

5 COMMISSIONER HANSFORD: Yes. I'm interested in moving the  
6 whole industry.

7 A. I think -- and to be fair, in this particular project,  
8 I think MTRC were trying to move the industry forward.  
9 They adopted a target cost contract, which -- they  
10 recognised the risk and the complexity on the project,  
11 particularly working within the operating railway  
12 environment and the challenges that that might pose as  
13 we moved into the construction phase. So they engaged  
14 at an early stage with the contractors to try to find  
15 the best way they would want to construct it so we would  
16 try to minimise change once we got on site, which is  
17 obviously a key challenge, or a key objective. I just  
18 think that we need to be better at it. You know,  
19 there's checks and balances and you put in more layers  
20 of oversight but that just makes it less efficient.  
21 It's just having -- doing what you're supposed to be  
22 doing. And processes are important and you follow the  
23 process, and I think maybe on one or two occasions here  
24 we didn't follow the process.

25 COMMISSIONER HANSFORD: But nevertheless, on this project,

26

1           you were not required to have an on-site presence at  
2           all; correct?

3       A.   Not to supervise the works but we had design liaison  
4           representatives on site who would be a vehicle for  
5           liaising with the design teams back in the head office,  
6           but not to supervise the works.

7   COMMISSIONER HANSFORD:   Were you prevented from access to  
8           the site?

9       A.   No.   I don't believe we were prevented.   But it wasn't  
10          a requirement to do it is what I'm saying.

11   COMMISSIONER HANSFORD:   Okay.

12       A.   And, you know, you've got to remember it's only one or  
13          two people.   They have a pretty heavy workload.   So they  
14          are not going out, swanning around, looking at what's  
15          going on elsewhere.   They're pretty demanding task.

16   COMMISSIONER HANSFORD:   Thank you.   That helps me.

17   CHAIRMAN:   Good.   Thank you very much indeed.   You have been  
18          of great assistance.   Thank you.   Your evidence is now  
19          completed.

20   WITNESS:   Thank you very much.

21   CHAIRMAN:   Thank you for coming out.

22                               (The witness was released)

23   MR CONNOR:   Thank you very much, Mr Blackwood.

24                   Subject to Mr Pennicott, the next witness is  
25           Mr Wilson Sung who is not due to appear, by arrangement,

26

1           until after lunch, and I think there's also a little bit  
2           of set-up that the solicitors for the Commission team  
3           need to get underway for the PowerPoint presentation  
4           that I mentioned earlier on.

5           So, subject to any views from Mr Pennicott or my  
6           friends or yourselves, sirs, I would have thought it  
7           might be a good time to rise and we might start with  
8           Mr Sung as and when we are ready.

9           MR PENNICOTT: Sir, I thoroughly agree with that.

10           Sir, can I just mention so that everybody is aware:  
11           Mr Sung was involved with Mr Blackwood in the  
12           presentation to Prof Nethercot back in July. Whilst we  
13           have not troubled Mr Blackwood with his part of the  
14           PowerPoint presentation, we are going to trouble  
15           Mr Sung. Indeed, whilst it might appear a bit lazy, for  
16           which we apologise, we are actually going to ask Mr Sung  
17           to, as it were, talk us through and give us  
18           a presentation of the last five or six slides, I think  
19           it's slides 13 to 18, which we understand will take  
20           about 15 to 20 minutes. So that's our proposal.

21           He has no contemporary knowledge of matters in any  
22           event. He wasn't engaged, I think, until sometime  
23           earlier this year. However, he does have knowledge  
24           about the design of the works itself and he can give  
25           a good explanation by reference to the PowerPoint  
26

1 slides.

2 I'm told one of the reasons we're doing this is  
3 because the Commission's expert, Prof McQuillan, thinks  
4 it would be good to have an explanation of those slides,  
5 it would assist him and it perhaps would assist other  
6 experts as well if that presentation is given.

7 So with that introduction, that's what's going to  
8 happen after lunch.

9 CHAIRMAN: It's these documents here? (Indicating).

10 MR PENNICOTT: That's right, sir, yes.

11 CHAIRMAN: There's a fascinating one about three-quarters of  
12 the way through:

13 "Step 2: Plaxis analysis".

14 Quite what "Plaxis" is, I don't know.

15 COMMISSIONER HANSFORD: I'm very much looking forward to  
16 that part.

17 MR PENNICOTT: You're probably the only one who's going to  
18 understand it.

19 CHAIRMAN: It looks very complex.

20 MR PENNICOTT: We are all going to have to be wide awake  
21 this afternoon.

22 CHAIRMAN: Good. So we will break for lunch and return at  
23 2.15.

24 MR PENNICOTT: Yes, sir. Thank you very much.

25 CHAIRMAN: Thank you.

26

1 (12.50 pm)

2 (The luncheon adjournment)

3 (2.19 pm)

4 MR CONNOR: Good afternoon, sir. Good afternoon, Professor.

5 The second witness for Atkins is Mr Wilson Sung. He is

6 Mr Chi Man Sung, and he will be giving -- Mr Wilson

7 Sung, good afternoon.

8 WITNESS: Good afternoon.

9 MR CONNOR: Would you please just confirm that you are

10 Mr Chi Man Sung?

11 WITNESS: Yes.

12 MR CONNOR: Also known as Wilson Sung?

13 WITNESS: Yes.

14 MR CONNOR: I think you are going to give your evidence in

15 Cantonese?

16 WITNESS: Yes.

17 MR SUNG CHI MAN, WILSON (affirmed in Puntì)

18 Examination-in-chief by MR CONNOR

19 MR CONNOR: Mr Sung, I think as we have seen from your

20 statement, you joined Atkins China in about July 2017?

21 A. Yes.

22 Q. You are the head of structures for Asia Pacific at

23 Atkins China Ltd?

24 A. Yes.

25 Q. Would you please have on the screen before you your

26 witness statement which you have prepared for the

1 purposes of this Commission, which is at J6/23. That  
2 is, for the record, at page J4535.

3 You see that's the first page of your statement,  
4 Mr Sung. Do you recognise that?

5 A. Yes.

6 Q. If you would be taken, please, to page J4541 of the same  
7 bundle. That is page 7 of your witness statement, and  
8 we see a signature there. Is that your signature?

9 A. Yes.

10 Q. Just for completeness, I think there's one attachment to  
11 your witness statement, which appears at J4542. Thank  
12 you. And if you move to page J4543, I think that is  
13 your CV?

14 A. Yes.

15 Q. Would you please, just to complete the formality,  
16 confirm that that witness statement, with its  
17 attachment, represents your evidence to this Commission?

18 A. Yes, I confirm.

19 Q. Would you please confirm that what you say in your  
20 statement is true to the best of your knowledge and  
21 belief?

22 A. Yes, confirm.

23 Q. Just while we have your statement to hand, if we might  
24 go back to it, please, at J4535. Thank you. I think  
25 you confirmed -- if you would go to paragraph 3 of that  
26 statement, which is on the same page at 4535, that you

1           became involved in the Hung Hom Station Extension under  
2           the Shatin to Central Link Project in June 2018.

3           A.   Yes.

4           Q.   So your involvement is in very recent times?

5           A.   Yes.

6           Q.   And your role is to assist the contractor, Leighton, as  
7           team B, in providing structural design support as  
8           required?

9           A.   Yes.

10          Q.   If you move on, please, through your witness statement,  
11          I think that what we find later on in your statement, at  
12          page J4540, is some involvement that you had as covered  
13          in paragraphs 36 to 39 in a presentation to Prof David A  
14          Nethercot?

15          A.   Yes.

16          Q.   It is right, I think, that this is a presentation which  
17          you gave obviously after June 2018?

18          A.   Yes.

19          Q.   And you gave that in your capacity as head of structures  
20          in Atkins?

21          A.   Yes.

22          Q.   It was a presentation in which you co-presented with  
23          Mr John Blackwood?

24          A.   Yes.

25          Q.   For the assistance of the Commission, if you might have  
26          before you bundle J4 at page J3323, we see

1 a presentation set out there in PowerPoint form; is that  
2 so?

3 A. Yes.

4 Q. Is this the PowerPoint presentation with notes which  
5 form the presentation which you and Mr Blackwood gave to  
6 BD?

7 A. Yes.

8 Q. Thank you. In particular, if you turn to page J3335,  
9 you will see at that slide there is an opening title  
10 slide headed "Modelling approach"; do you see that?

11 A. Yes.

12 Q. Is this the beginning of the section of presentation  
13 that you gave?

14 A. Yes.

15 Q. Did that part of the presentation that you gave run up  
16 to and include page J3340?

17 A. Yes.

18 Q. Thank you very much for that, Mr Sung. The reason for  
19 taking you to that particular section is that when my  
20 learned friend Mr Cheuk asks you some questions in just  
21 a moment, I think he will want to ask you a bit more of  
22 that, but I think you have now identified to the  
23 Chairman and to Prof Hansford that part of the  
24 presentation in which you were involved.

25 A. Okay.

26 Q. So thank you very much. I have no further questions for



1 you at this stage. But would you please stay where you  
2 are. In a moment, my friend Mr Cheuk will ask you some  
3 questions. Then he may well be followed by some other  
4 of my fellow counsel in this room with some questions.  
5 The Chairman and the professor may have some questions  
6 for you during that section, or indeed at the end, or at  
7 any time, and I'm sure you will do your best to assist.

8 A. Okay.

9 MR CONNOR: Thank you. Please stay where you are.

10 Examination by MR CHEUK

11 MR CHEUK: Good afternoon, Mr Sung. My name is Calvin  
12 Cheuk, I'm one of the counsel for the Commission.  
13 I will have some questions for you.

14 Is it correct that on 12 July 2018, you with  
15 Mr Blackwood and Mr Wu went to the BD to do  
16 a presentation to BD's then adviser, Prof Nethercot?

17 A. Yes.

18 Q. And probably Mr Connor has explained to you one of the  
19 reasons why we would like you to be here today is really  
20 to explain a bit more your presentation that you did on  
21 that particular day.

22 A. Okay.

23 Q. We glimpsed through the slides, and one of the reasons  
24 we ask you to be here is that the Commission's expert,  
25 Prof McQuillan, would like you to explain a bit more in  
26 detail so that it can be captured in the transcript

1           which he will be able to read in preparing his expert  
2           report.

3       A.   Okay.

4       Q.   That's the background that the Commission will require  
5           your assistance.

6       A.   Okay.

7       Q.   Being not any sort of engineer at all, when I went  
8           through the slides, I can see a lot of things I don't  
9           really understand, so please -- what I propose to do is  
10          that I will let you run your own course, but I might  
11          interject if I understand I have questions for you,  
12          I might ask you to stop for a while and have one or two  
13          questions. I don't anticipate it to be a lot.

14      A.   Okay.

15      Q.   Then, after your presentation, I might have some other  
16          questions in relation to the preparation of as-built  
17          records. That will be the overall structure of my  
18          questions. Is that okay?

19      A.   Okay.

20      Q.   So I understand you have already given the PowerPoint  
21          slides to the Commission, so there will be a lady  
22          sitting over there who will be in control of the  
23          PowerPoint slides. You can have your own course but you  
24          might need to give the express direction to the operator  
25          of the slides so that she can follow your instruction.

26           One last point I might -- if I may ask you to bear

1 in mind is that I can see a lot of technical language in  
2 the slides.

3 A. Yes.

4 Q. So please, you can assume we don't understand those  
5 technical language, and if you may, you might try to  
6 assume that we don't know about it and try to take it  
7 slowly.

8 A. Okay.

9 Q. If I may ask you to take that in mind.

10 A. Okay.

11 Q. I understand Mr Connor asked me to refer you to J3340.  
12 That is the last page of your presentation.

13 A. Mm-hmm.

14 Q. I'm told it might be a good starting point for your  
15 explanation. So feel free to start with that slide and  
16 then you can change your course of presentation as you  
17 wish to do so.

18 A. Okay, 我哋可以睇J3335, okay, 我嗰日就去到BD做presentation嘅時  
19 間就會由呢張slide開始講起嘅。Okay, 其實喺我哋做工程入面, 其實...

20 Q. Wait. You can look at -- the screen in front of you,  
21 that will be the screen that everybody in this room will  
22 be following. So, while you have a hard copy next to  
23 you, can you also bear in mind that we are looking at  
24 the screen so if you can look at the screen and pause  
25 there until the screen shows the right page, that would  
26 be very helpful.

1 A. Okay, 好。我哋個presentation開始就係第一個到我講嘅時間就係講緊一  
2 個我哋做一個structure modelling嘅approach。喺我哋做工程入面其  
3 實有唔同嘅structure modelling嘅software, 喺呢個project入面,  
4 我哋有利用到幾個software去做呢個structure嘅一啲simulation嘅。

5 我哋可以go to next page。首先其實喺EWL slab, 即係東西走廊  
6 嗰塊樓板, 其實喺入面就有好多嘅opening。我哋睇番張圖, 我哋見到紅色  
7 嘅位置其實就係嗰個樓板嘅表面嚟嘅, 呢個係一個平面圖嚟嘅。另外喺白色  
8 嘅地方, 其實大家會見到其實係會有一啲叫做opening嘅, 因為喺EWL slab  
9 會有唔同嘅結構會喺呢塊樓板度開窿, 包括可能有啲輦、escalator或者樓  
10 梯。

11 因為喺個樓板度開咗窿之後, 就會對嗰個結構, 呢塊樓板嗰個stiffness  
12 有影響嘅, 會減低咗個stiffness, 所以我哋要做一啲simulation去model  
13 番呢個咁嘅effect, 所以我哋就利用咗一個叫做SAP2000嘅model, 係喺BD  
14 亦都係一個approved嘅model嚟嘅。

15 喺呢個model入面, 我哋會先擺咗一啲loading落去, 擺咗一啲--上  
16 面一行loading, 同埋擺咗一個--喺個bar--喺上面同下面都會放咗一個  
17 support嘅。放咗之後, 我哋亦都會apply番一個我哋叫做unit moment  
18 嘅reaction force落去。其實呢個reaction force其實--同埋一個  
19 axial force落去, 有兩個axial--一個unit axial force, 一個unit  
20 嘅moment force, 會擺番落呢個modelling入邊。

21 個用途其實就係想睇下喺under呢個咁嘅情--即係開咗窿嘅情況下之後,  
22 呢塊樓板有咩嘢structural behaviour, 從而去搵番個stiffness出嚟。  
23 呢個model主要就係做呢一件事嘅。

1            喺我哋area B同C入面，其實我哋斬開咗有五個model，因為根據個  
2            chainage，就去睇番究竟唔同chainage嗰個時候，個樓板越開得窿多嘅  
3            時間對個stiffness嘅影響就會越大嘅。

4            Q. You may carry on.

5            MR SHIEH: I'm sorry to interject but I heard what Mr Cheuk  
6            said to the witness. Maybe others understand. I have  
7            A Level physics but I had difficulty. As I said to  
8            Leighton's own witness, perhaps I can say, "Imagine  
9            explaining it to a five-year-old child", because  
10           otherwise -- for example, those who have to physics  
11           wouldn't know what "moment" means. I know but I don't  
12           know whether others do.

13           CHAIRMAN: I would like to know.

14           COMMISSIONER HANSFORD: Sorry, while we're on this subject,  
15           I have some questions on this slide. Is the intent that  
16           we wait until the end of the whole presentation and go  
17           back to our questions, or is the intent that we take  
18           questions slide by slide? I'm asking you but maybe  
19           I should be asking Mr Cheuk: which do you prefer?

20           MR CHEUK: I think it would be better if, Professor, you  
21           have any questions just ask at the moment rather than  
22           wait until at the end, because it might be difficult for  
23           us to trace all the slides after we finish the whole  
24           thing.

25           COMMISSIONER HANSFORD: Okay. That's fine. Perhaps we will  
26           start with the Chairman and Mr Shieh's questions about

1           what a "moment" is.

2           MR CHEUK: Let me try to explain a little bit to this  
3           witness first.

4           Mr Sung, thank you. Although I also have an A Level  
5           in physics but I do also have difficulty understanding  
6           everything. Can I ask you two points. First of all,  
7           actually, what you say will be captured in the  
8           microphone and then translated. There will be some  
9           delay in translation. So if I may first ask you to slow  
10          down.

11          A. Okay.

12          Q. Because I can see there's difficulty in translating  
13          everything, in particular given the technical language  
14          here. That's point number one, if I may ask you to bear  
15          that in mind.

16          Point number two is that, again, as Mr Shieh has  
17          indicated, if you can try to use even more simple  
18          language to explain, and I might also interject to  
19          explain my understanding to you, to see whether that can  
20          help everybody.

21          A. Okay.

22          Q. I hope that might help everyone to understand what this  
23          presentation really means.

24          A. Okay.

25          Q. Let's start from this first slide. As I understand it,  
26          the red -- what we are looking at is a piece of EWL

1 slab?

2 A. Yes.

3 CHAIRMAN: From the top or the side?

4 MR CHEUK: From the top. From the top; is that correct?

5 A. Yes, correct.

6 COMMISSIONER HANSFORD: It's a plan view?

7 MR CHEUK: It's a plan view, yes. The red part is showing

8 the actual slab, and there's something empty, white

9 part, in the middle, which is an opening?

10 A. Yes.

11 Q. What you are telling us is that the slab contains

12 various openings at various locations, and these

13 openings will reduce the stiffness of the slab. What

14 this slide shows is using a computer software or

15 programme, SAP2000, to test or to try to simulate --

16 A. Simulate.

17 Q. -- the actual performance of the slab or its stiffness,

18 given there are some openings in the middle.

19 COMMISSIONER HANSFORD: Just on that point, when you were

20 talking about the openings, Mr Sung, you said they were

21 drilled. Were they drilled? I thought they were cast

22 in place. I thought the openings were made as part of

23 the original casting of the concrete rather than

24 drilled.

25 A. No.

26 COMMISSIONER HANSFORD: They are drilled, are they?

1 A. I think maybe a translation problem.

2 MR CHEUK: I think, Professor, your understanding is

3 correct, they were it is cast in place.

4 COMMISSIONER HANSFORD: That would make more sense to me.

5 A. Yes.

6 CHAIRMAN: And what's the blue line?

7 MR CHEUK: That I don't understand, frankly.

8 CHAIRMAN: And what's the little mauve line with a white

9 opening at the top?

10 A. 首先，個藍色個個其實係一個寫法，其實因為佢會--喺個model入面，佢哋  
11 會set一啲--我哋叫做set一啲--我哋叫--我哋術語叫做呢啲“strip  
12 width”嘅，其實會係定番每個strip width個個size。呢個藍色呢  
13 個就係講緊個--其實都係同一塊EWL slab嚟嘅其實，就唔係話有咩  
14 嘢特別，只不過嗰陣時我哋做presentation畀professor  
15 Nethercot嘅時間就highlight番畀佢聽我哋會有鏢strip呢個咁嘅  
16 approach，咁解。另外講到喺上面--sorry。

17 MR CHEUK: Sorry, can I stop you. What you are telling us  
18 is the blue part is part of the slab?

19 A. 係。

20 Q. And you highlight that blue part was for the reference  
21 of Prof Nethercot, but for what purpose?

22 COMMISSIONER HANSFORD: Yes, because the label says less  
23 than 3 metres thick. It suggests to us that the red is  
24 3 metres thick and the blue is less than 3 metres thick.



1 But is that correct?

2 A. 應該咁講，喺呢個樓板入面其實有部分嘅位置係唔--即係唔係全部都係3米  
3 厚嘅，3 metre，3 metre deep嘅，如果呢個睇落去，喺呢度，我哋亦  
4 都highlight咗...

5 COMMISSIONER HANSFORD: 3 metres thick, not wide; do you  
6 mean "thick"?

7 A. Yes, the thickness.

8 COMMISSIONER HANSFORD: Sorry, it must be the translation  
9 again. Okay.

10 MR CHEUK: Let me try to summarise your evidence.

11 A. Okay.

12 Q. Basically, the blue part is the location where the slab  
13 thickness is less than 3 metres?

14 A. Yes.

15 Q. Otherwise, in general, the thickness should be 3 metres?

16 A. Yes.

17 Q. That's the distinction.

18 COMMISSIONER HANSFORD: And are there actually any areas  
19 that are less than 3 metres? Is this just  
20 representative in the model of some areas that may be  
21 thinner than 3 metres? Is that the purpose of it?

22 A. 係，因為係頭先我哋有提過，其實喺成個area B同C，我哋會鏢開咗五部分，  
23 亦都by chainage去鏢開，鏢開之後，就每一個都會去做一個assessment，  
24 睇下究竟有opening嘅時間，同埋有啲地方係local係薄咗--塊slab係薄咗  
25 嘅時間究竟對嗰個slab個structural behaviour有咩影響。

1 COMMISSIONER HANSFORD: Yes, I understand about the  
2 openings, Mr Sung. I don't yet understand about the  
3 sections that are less than 3 metres thick.

4 A. 因為有啲部分係佢結構上佢造唔到3米厚嘅，可能佢嗰嗰有個escalator上  
5 緊嚟嘅時間，就個local會有啲chamber位，所以就會有啲位置就會唔夠  
6 3米厚嘅。

7 COMMISSIONER HANSFORD: Okay. I understand. Thank you.

8 MR CHEUK: Okay, I think you can proceed with your  
9 presentation. I think we've got a fairly good idea  
10 about what the first slide means here.

11 COMMISSIONER HANSFORD: I think we've got a good idea about  
12 the red and the blue and the white. I'm not sure people  
13 in the room have a good idea about unit axial modes and  
14 unit rotation yet.

15 MR CHEUK: Yes. I wonder, Mr Sung, if you could also  
16 explain a little what does that mean as asked by the  
17 professor.

18 A. Okay, 冇問題。我哋解釋下點解會有unit axial或者unit rotation先，  
19 其實呢個--首先解釋番呢一個structural modelling其實個作用，我哋係  
20 想搵番究竟呢塊slab嘅--應該咁講，我哋喺個support嘅位置個個  
21 stiffness factor，我哋想知道究竟呢塊slab under呢個opening同埋  
22 一啲loading嘅時間有啲咩stiffness factor會出現㗎，所以我哋其實  
23 係需要apply--所以點解會apply一個unit axial，其實只不過想搵番個  
24 spring，We need to find the spring, the rotational  
25 spring and also the actual spring for the slab at the

1 support.

2 COMMISSIONER HANSFORD: I fear that I understand it but I  
3 suspect others don't yet, what is meant by unit axial  
4 and what is meant by unit rotational. That would be  
5 my -- I can't speak for people in this room, but looking  
6 at some nodding heads, I think that's the case.

7 MR CHEUK: Professor, frankly, I think it's difficult for  
8 everybody in the room not in the engineering training to  
9 understand all the details.

10 COMMISSIONER HANSFORD: So perhaps they don't need to is  
11 what you're saying?

12 MR CHEUK: Yes. The original purpose of this presentation  
13 is not really to do the usual cross-examination,  
14 understanding all the details here.

15 COMMISSIONER HANSFORD: Okay.

16 MR CHEUK: The original purpose of this presentation is  
17 really arising from Prof McQuillan's need to understand  
18 these slides and what was the presentation done to  
19 Prof Nethercot at that point of time.

20 That's why, originally, we didn't expect all the  
21 laypersons, so to speak, to understand all the  
22 intricacies, this thinking here.

23 COMMISSIONER HANSFORD: So, Mr Cheuk, shall we assume that  
24 Mr Sung's audience have engineering degrees?

25 MR CHEUK: I would have thought many parties here have  
26 already instructed experts. The purpose of this

1 presentation is to really give something for our  
2 Commission's expert and their experts to consider. It  
3 seems to me it's not the original purpose really to have  
4 a lecture on civil engineering.

5 COMMISSIONER HANSFORD: No.

6 MR CHEUK: No. So what I propose -- of course I'm not going  
7 to prevent any questions, if any party is interested in  
8 all the engineering details. That's why we have him  
9 here. If any party wishes to ask questions, they can.  
10 But it's not the purpose to go through all the sort of  
11 details so that it can be understood by all the  
12 laypersons here. That would not be the original  
13 purpose, and that would not be the purpose of this part  
14 of cross-examination.

15 As I originally indicated, apart from a few  
16 questions, I did not intend to have many questions on  
17 Mr Sung.

18 COMMISSIONER HANSFORD: That's fine.

19 CHAIRMAN: All right. Can I ask you a question: what do you  
20 mean by "stiffness"? I understand you've got a test.  
21 I know what "stiffness" means. It either means a form  
22 of rigidity or it means I can't move my muscles because  
23 I got kicked in the leg; okay? I take it it's not the  
24 latter. I take it it's the first one. Are you talking  
25 about rigidity?

26 A. 其實rigidity同stiffness會係有相關嘅，其實stiffness就係其實係一

1 個數值，其實去justify嗰個--去或者quantify嗰個rigidity嘅。

2 CHAIRMAN: Ah, okay. That's interesting. Thank you.

3 MR CHEUK: Yes, Mr Sung, you may carry on.

4 A. Okay, 我哋去J3337, okay。頭先我哋step 1做咗一個modelling, 跟  
5 住其實呢個就係一個step 2嘅modelling, 呢個會係一個我哋叫做Plaxis  
6 嘅structural modelling software。

7 喺入面其實大家會睇到, 喺呢度就會--我哋會做一個simulation, 就  
8 係東邊嘅diaphragm wall、西邊嘅diaphragm wall、EWL slab同埋NSL  
9 slab都會擺咗喺入面嘅。呢一個modelling其實就喺坊間亦都會--我哋亦都  
10 會愛嚟做埋個construction sequence, 去睇下究竟--因為呢個係一個--  
11 紅磡站呢個project係一個我哋叫做top-down嘅construction method,  
12 就先會做咗兩邊嘅diaphragm wall。

13 Q. Yes, can I pause you there. Can you explain in simple  
14 terms, this Plaxis analysis, what is its purpose? Is it  
15 also again to assess the rigidity or stiffness?

16 A. 呢個modelling主要就係話我哋要將--因為呢個--因為我哋呢個會係牽涉  
17 一個excavation, 牽涉一個開挖, 所以喺呢個modelling入面我哋會有一  
18 個--會入咗嗰個soil load, 即係個泥嘅力, 水...

19 Q. Soil load?

20 A. 係喇, soil load, 係喇, water load, 水嘅力, okay。咁under--喺  
21 呢--有呢幾個嘅--有兩個嘅loading嘅時候, 喺一路做一個開挖嘅時間究竟  
22 對呢個diaphragm wall究竟個behaviour做一個assessment。

23 Q. I try to summarise, if I can. Basically, this is again  
24 a sort of computer modelling used to test the function

1 of diaphragm wall. So you put in the value of soil  
2 load, water load, to simulate the actual soil situation,  
3 and to see whether the diaphragm wall works as it was  
4 designed. If it passed the software analysis, it means  
5 that the design was probably good. That's the purpose  
6 of this Plaxis analysis; is that a good summary?

7 A. 係，係，同埋如果okay咗，亦都會個diaphragm wall我哋都會做一個  
8 reinforcement嘅checking。

9 Q. Also we see there are different colours of layers of  
10 soil here. As I understand, it represents different  
11 kinds of soil underground. For example, at the very  
12 below, we see something pink. That might be some -- the  
13 deepest layer of the ground.

14 A. The bedrock.

15 Q. Where the diaphragm wall sits on.

16 A. 係。

17 Q. You might need to speak up so your voice can be  
18 captured.

19 A. Okay.

20 Q. After that you have the purple part of the soil. What  
21 is that part of the soil?

22 A. 如果我有記錯，呢個位應該我哋叫做CDG，completely decomposed  
23 granite。

24 Q. Decomposed?

25 A. “Decomposed”，yes，“decomposed”。

1 Q. Completely decomposed granite, yes. I don't think  
2 I need to trouble you to identify each layer but my  
3 understanding is that at the top those particles will be  
4 most refined, and at the bottom those soil particles  
5 will be most solidified. Is that a fair  
6 representation --

7 A. 係。

8 Q. -- in general terms?

9 A. General terms。

10 Q. Please carry on.

11 A. 喺呢個model, 我哋做完呢個analysis之後, 我哋會--因為其實喺個  
12 diaphragm wall東西牆嘅, 同埋EWL同埋NSL slab嘅個connection,  
13 其實我哋係design咗一個fixed joint嘅, 所以喺呢個model考慮咗soil  
14 load同埋water load之後, 我哋要將番呢一個fixed end moment, 喺個  
15 connection嗰個moment就抽番出嚟, 就要for第三個step, 我哋做個slab  
16 assessment嘅時候愛嚟用嘅。

17 Q. Yes. And --

18 COMMISSIONER HANSFORD: It might be helpful -- although we  
19 don't need a full explanation, it might be just helpful  
20 to understand what "moment" means. I know what it means  
21 but I think it's probably an important term for others  
22 to understand.

23 A. 或者我簡單啲講, 當我哋有一個物件會郁嘅時間, 其實佢哋就會--我哋會  
24 bend嘅, 會bend咗一件物件嘅時間, 就有一個力嘅度嘅, 我哋如果係

1 engineering term, 呢個力我哋就解釋為bending moment。

2 COMMISSIONER HANSFORD: Thank you.

3 MR CHEUK: Please -- so again, as I understand your  
4 evidence, because the EWL connection with the diaphragm  
5 wall was a fixed joint --

6 A. Yes.

7 Q. -- so there is a need to understand the turning/bending  
8 force of that joint, whether it can resist the loading  
9 or the bending force. So this is also part of the  
10 purpose of this Plaxis analysis; is that correct?

11 A. Yes, yes.

12 Q. Please carry on.

13 A. Okay, 我哋可以去到J3338, 呢個就會係一個--又係一個plan嚟嘅, 一個  
14 平面圖嚟嘅, 呢個就會係喺EWL slab一個平面圖, 其實同頭先你見到一樣,  
15 白色嘅地方就係呢個EWL樓板上面一啲嘅opening, 頭先我哋喺Plaxis出  
16 咗嚟嘅, 頭先講嗰個bending force其實都會喺--你見到喺頂同埋喺底,  
17 我哋就會apply番個頭先喺Plaxis出嚟嘅bending force就會擺番上去呢  
18 個safe model。

19 咁點解會做呢個safe model呢? 因為呢個先會係將所有喺呢個EWL  
20 slab上面嘅loading就按usage擺番上去, 另外就要按番頭先喺Plaxis  
21 出嚟嘅個bending force擺番上去, 就做呢塊EWL slab樓板嘅analysis。

22 Q. Again, I will try to summarise your evidence. First of  
23 all, before I summarise, is it correct that we see the  
24 gridline 26 to 33, that corresponds to gridlines --

25 A. Yes.



1 Q. -- of the project? Secondly, what we are looking at  
2 here is again the EWL slab --

3 A. Yes.

4 Q. -- with some other openings, and we see some black-line  
5 arrows here. These black-line arrows are the moment  
6 force that you talked about; is that right?

7 A. From Plaxis.

8 Q. From Plaxis analysis. You obtained those moment force  
9 values from the Plaxis analysis and then apply it to  
10 another computer model called SAFE, to this particular  
11 piece of slab, to see again the performance of that  
12 particular slab was corresponding with the design or  
13 not. Again, if it passes, it means that the design was  
14 okay?

15 A. Yes.

16 COMMISSIONER HANSFORD: And can I ask, was this particular  
17 location, gridlines 26 to 33 -- was this selected  
18 because it's a worst-case, because it's got so many  
19 large openings; is that the reason?

20 A. No. Actually, for area B and C, the whole station has  
21 model.

22 COMMISSIONER HANSFORD: This is just sample?

23 A. Extract some area for presentation only.

24 COMMISSIONER HANSFORD: Right. So this process was applied  
25 to the whole slab?

26 A. Yes.

1 COMMISSIONER HANSFORD: But in the presentation to David  
2 Nethercot you just presented this part?

3 A. Yes. Extract some area for presentation only.

4 COMMISSIONER HANSFORD: By way of example. The reason you  
5 presented this was an example of what you'd done  
6 elsewhere; is that correct?

7 A. Yes. Yes.

8 COMMISSIONER HANSFORD: Thank you.

9 MR CHEUK: But not the worst-case scenario?

10 A. I'm not sure but I don't think so. Just an example.

11 Q. Please carry on.

12 A. Okay, 可以去J3339, 呢個係一個--其實係一個summary table嚟嘅,  
13 呢個summary table入面其實就係解釋咗喺紅磡站呢個project入面我  
14 哋所有嘅load case, 我哋行內叫“load case”, 即係究竟有啲咩嘢  
15 loading會喺呢個站入面發生, 其實分別就會dead load、live load、  
16 seismic load、uplift、soil load、water load, 其實好多嘅  
17 loading都會喺入面出現到嘅。

18 後面見到其實就會見到一路會有啲1.4、1.6或者1.76其他factor,  
19 呢啲我哋行內就叫做“load factor”。Load factor其實就要同個  
20 load case做一個叫做load combination, 做完呢個load  
21 combination之後, 先會做我哋一個叫做“ultimate limit stay  
22 design”嘅。

23 Q. Again I try to summarise your evidence. Basically this  
24 is a table which summarises the load to be applicable to

1 the slab and the diaphragm wall.

2 A. Yes.

3 Q. We probably don't need to go into the details of each  
4 loading information. Please carry on.

5 COMMISSIONER HANSFORD: Actually, I'm happy for Mr Sung to  
6 carry on, but I think we ought to just briefly  
7 understand load factors and load cases.

8 MR CHEUK: Yes.

9 A. Okay, 好, load case其實就係我哋叫做--可以咁講, 我哋可以叫做  
10 working load, 即係actual load, 究竟喺Code of Practice或者  
11 喺Buildings Ordinance我哋需要用啲乜嘢嘅loading, okay。

12 Load factor其實係亦都會係under Code of Practice我哋需  
13 要喺on top of load case之後去apply一個load factor for唔同  
14 嘅load case, 例如我哋for dead load, 我哋就會用1.4嘅load  
15 factor, live load就會用1.6。亦都喺Code of Practice亦都定義  
16 咗究竟個load combination係需要點樣去做一個combination。

17 COMMISSIONER HANSFORD: So these are directly from the Code  
18 of Practice?

19 A. 係, yes。

20 COMMISSIONER HANSFORD: Thank you.

21 CHAIRMAN: And when you say 1.4 or 1.6, what measurement are  
22 you using?

23 A. This factor is also come from the Code of Practice.  
24 Actually, in different countries have different load  
25 factors.

1 CHAIRMAN: I appreciate that. I'm just thinking 1.4 ounces?

2 1.4 mega pressures sideways? I just don't know the --

3 COMMISSIONER HANSFORD: 1.4 times.

4 MR CHEUK: It's a safety factor, as I understand.

5 CHAIRMAN: 1.4 times what?

6 A. Times個load case, times個load case。

7 COMMISSIONER HANSFORD: Let me check I've got this right.

8 So the load case is stated in terms of units of load,

9 and the load factor is a multiplication?

10 MR PENNICOTT: It's a multiplier.

11 CHAIRMAN: Okay, it's a multiplier for units of load.

12 A. Yes. Load factor is the multiplier.

13 CHAIRMAN: Thank you.

14 MR CHEUK: Can we go to the left. Can we take one example

15 so that everybody can have some idea.

16 For example, "SDL" at the top left-hand corner,

17 "SDL1", what does that mean?

18 A. SDL, 我哋行內叫做superimposed dead load。

19 Q. Superimposed dead load. What "dead load" usually refers

20 to, for example, is the concrete structure --

21 A. Self weight, maybe.

22 Q. -- itself, the dead load. Self weight.

23 For example, the fourth column, "COLDL", what does

24 that stand for?

25 A. 因為呢塊EWL slab其實上面仲有一啲column喺上--support某一啲

1 column嘅，呢啲column嘅loading就係油咗呢個“COLDL”，即係column  
2 嘅dead load。

3 Q. Ah, column dead load.

4 A. 或者喺後面有column live load咁樣，去反映番。

5 Q. The next column we can see, it says "COL", which means  
6 column, and "LL" means live load?

7 A. Yes.

8 Q. For example, in terms of first row, "U1", what does that  
9 stand for?

10 A. 呢個係一個我哋assign咗一個load combination嘅名畀佢，頭先我哋講  
11 我哋會做一炸嘅load combination，其實每一個我哋喺個modelling入  
12 面會assign咗一個名稱畀佢。

13 Q. Basically it's a label for some combination of loading  
14 that you or Atkins adopted to test the structure?

15 A. Yes.

16 Q. And there are various combinations of such loading and  
17 each one, you would give it a label?

18 A. Yes.

19 Q. For example, U1, U2, U3, U4?

20 A. Yes.

21 Q. That's all the combinations of loading?

22 COMMISSIONER HANSFORD: Sorry, when you say to test the  
23 structure, you mean to model?

24 A. Yes, to model the structure.

25 MR CHEUK: To model the structure.

1 For example, we see the first top left-hand corner,

2 1.4, is that --

3 A. Load factor.

4 Q. -- the load factor you mention?

5 A. Yes.

6 Q. Thank you. Okay.

7 Shall we move on?

8 A. Okay, 我哋可以去J3340, 喺呢張slide, 其實就我哋睇到有幾個部分, 綠  
9 色嘅部分就係我哋而家講緊東西邊嘅東同埋西邊嘅diaphragm wall, 喺呢  
10 兩個綠色嘅diaphragm wall嘅中間, 我哋會見到有兩個, 一個EWL slab,  
11 下低亦都會見到有NSL slab嘅, okay。

12 灰色嘅部分其實就係--例如我哋睇番喺3米嗰個字嘅左手邊, 其實見到  
13 亦都會有啲existing嘅structure, 呢個灰色嘅就係existing structure  
14 嚟嘅其實, 綠色就係新造嘅, 新建嘅。

15 呢一個亦都你見到左手邊同右手邊有啲打橫嘅箭咀, 其實亦都係講緊一  
16 啲我哋會apply嘅loading嘅方向, 即係呢邊橫--lateral load就會係一  
17 啲soil load同埋water load。

18 Q. So we see on the right -- I'll try to summarise it --  
19 this is entitled "Critical load case".

20 A. Yes.

21 Q. Basically, in this slide, it's considering some more  
22 important loading situation?

23 A. Yes.

24 Q. On the right-hand side, we have 1.4 and then "(soil plus  
25 water load)". The 1.4 is a load factor that you

1 previously mentioned.

2 A. Yes.

3 Q. And soil load and water load, ie those forces exerted by  
4 soil and water on the structure?

5 A. Yes.

6 Q. Then plus 1.4 DL, that's dead load?

7 A. Yes.

8 Q. Then plus 1.6 LL, that is the live load?

9 A. Yes.

10 Q. It's the critical load combination at the support. So  
11 basically you say the force calculated here is use 1.4  
12 times a soil load and water load, plus 1.4 times the  
13 dead load, plus 1.6 times the live load?

14 A. Yes.

15 Q. Then you apply all this combination of forces to the  
16 structure and to see how it performs?

17 A. 應該咁講，我哋其實--頭先load combination，其實應該係頭先嗰  
18 張slide我哋有好多個load combination，只不過係from我哋做完  
19 assessment之後我哋見到個critical load case就應該係有1.4  
20 soil加water load加1.4 dead load加1.6 live load。

21 COMMISSIONER HANSFORD: So what I'm taking from this --  
22 please tell me if I've got it right -- is you've  
23 modelled various combinations and from that modelling  
24 you've identified that this is the worst-case?

25 A. Yes.

1 COMMISSIONER HANSFORD: You call it critical load case, but  
2 in layman's language this is the worst-case?

3 A. Yes.

4 COMMISSIONER HANSFORD: Consequently, if it works for the  
5 worst-case, it must work for everything else; is that  
6 the theory?

7 A. Yes.

8 MR CHEUK: Can you also explain the second bullet point on  
9 the right-hand side -- it says:

10 "Soil water load and dead load dominate the bending  
11 moment, which contribute more than 90 per cent in area B  
12 and area C."

13 A. Okay, 呢度其實就係話例如--我舉個例, 如果我哋出咗嚟個bending  
14 moment, 最大個bending moment, let' s say 1,000嘅, 其實due  
15 to soil、water load同埋dead load, 就係喺呢1,000入面已經佔咗  
16 900, 剩番10%先係由live load contribute嘅。

17 Q. I see. I will try to summarise again. What your  
18 analysis results is that in areas B and C, over  
19 90 per cent of the loading comprises soil/water load and  
20 the dead load. The remaining 10 per cent is what we  
21 call live load.

22 A. Yes.

23 Q. And what live load usually comprises is, for example,  
24 the weight of passengers?

25 A. Yes.



1 Q. And the weight of the train; does that include the live  
2 load?

3 A. Yes.

4 Q. So what this shows is that the critical loads are not  
5 the live load, but the soil, water and dead load?

6 A. Yes.

7 Q. Thank you. Can you move on, if you have --

8 A. 呢度應該係最後一張slide，我當日做presentation講嘅。

9 Q. I also understand that -- there's one question I would  
10 like to ask you is that you probably have knowledge that  
11 the 3 metre slab consists of the top mat and the bottom  
12 mat of rebars?

13 A. Yes.

14 Q. One suggestion that came out in the documents I read is  
15 that the bottom mat was the compression zone, ie the  
16 expected force in that part of the slab was compression  
17 rather than tension?

18 A. Yes.

19 Q. Is that correct?

20 A. Yes.

21 Q. In other words, those rebars at the bottom mat in that  
22 zone actually do not take any loading, because rebars  
23 only take tension but not compression; is that your  
24 understanding?

25 A. 如果喺compression zone--可以咁講，喺compression zone，主要嘅  
26 compression都會係靠concrete去contribute，應該全部都係靠

1 concrete去contribute嘅，但係因為喺code requirement入面，其實  
2 喺你--就算你唔需要配一個compression rebar，但係你都需要喺--要配  
3 番50% of你嘅tension reinforcement。其實個背後嘅含意，其實呢個  
4 喺個code入面，我哋喺叫做一個叫ductility section入面有講嘅，其實  
5 嗰個含意其實我哋嘅understanding，就係因為due to呢個seismic嘅考  
6 慮，所以其實就唔可以話個compression rebar唔需要，即係...

7 Q. I see. So, if I try to understand your evidence, it's  
8 that the rebars at the bottom mat was there for the  
9 purpose of taking seismic load, rather than the normal  
10 tension?

11 A. 應該咁講，應該係一個我哋叫做detailing requirement。

12 Q. As required in the code?

13 A. 係，yes。

14 Q. That I understand, as required in the code. I think  
15 everybody accepted that. But I was wondering the  
16 rationale behind this code, as you understand it. As  
17 I understand your evidence, the rationale of this code  
18 is really for seismic loading, rather than the normal  
19 tension and compression in ordinary cases. Is that  
20 correct?

21 A. 但係如果呢一個其實就係喺code入面嘅ductility嘅section已經有提及  
22 過嘅，其實我哋自己understanding，我哋就會覺得係--因為我哋自己有  
23 時會做一啲國內嘅project，會有啲seismic嘅地方嘅project，其實都  
24 有類似嘅requirement嘅。呢個requirement其實就係--我哋認為就係

1           一個seismic嘅時間，你會有啲reverse bending需要配一個--但係當然  
2           呢個會係一個detailing requirement rather than去計數出嚟要幾多  
3           鐵，係喇。

4           Q. As I understand from your answers, you are agreeing with  
5           my proposition, right; the bottom mat's purpose, as you  
6           understand, was really to take the seismic load? Or you  
7           are not sure?

8           COMMISSIONER HANSFORD: Mr Cheuk, I think what Mr Sung is  
9           telling us is the bottom reinforcement is to comply with  
10          the code.

11          MR CHEUK: Yes.

12          COMMISSIONER HANSFORD: And the code may be required for  
13          seismic loading but it may be required for other things  
14          as well.

15          MR CHEUK: Yes.

16          COMMISSIONER HANSFORD: I'm not quite sure that's a question  
17          for this witness.

18          MR CHEUK: Yes. That's why I understand he might not be  
19          completely can tell us the purpose of that code  
20          requirement.

21          COMMISSIONER HANSFORD: Maybe that's a question for the  
22          experts when we get there.

23          MR CHEUK: Yes, certainly.

24                 If I can go to -- this is the PowerPoint slide  
25                 number 9. I understand there's an animation originally  
26                 prepared at the time of presentation.

1 A. Yes.

2 Q. Can we show the PowerPoint slide number 9.

3 Look at the screen. Actually, it shows the  
4 construction sequence.

5 A. Yes.

6 Q. Can we go through that so that it might help everybody  
7 to understand the construction sequence in this case.

8 A. Okay.

9 Q. This is, I suppose, step 1 --

10 A. Yes.

11 Q. -- originally, before -- the grey part was the existing  
12 structures.

13 A. Yes.

14 COMMISSIONER HANSFORD: And the green part?

15 MR CHEUK: There's already some green part. What are those  
16 green parts?

17 A. 其實係一啲drafting嘅--因為我哋用番一張係已經有permanent  
18 structure綠色嘅地方去做，所以其實就變咗好似有啲綠色嘅窿，應該喺呢  
19 一個stage嘅情況係應該所有嘢都係existing嘅。

20 COMMISSIONER HANSFORD: So why is it in green? It's just  
21 a colour code; it's not significant? Everything on this  
22 slide is existing?

23 A. Yes.

24 COMMISSIONER HANSFORD: Okay. Thank you.

25 MR CHEUK: Can we move to the next -- yes.

1 A. Okay, 呢個step就係其實見到就左手邊--即係東牆--東邊嘅diaphragm  
2 wall同右手--同western嘅diaphragm wall都做咗, 亦都中間--我哋亦  
3 都會有一啲叫做barrette嘅foundation亦都會做咗先嘅。

4 Q. Pausing here, can you tell us which part is the  
5 barrette?

6 A. 中間嗰個--Next to grid N, on the left-hand side of  
7 grid N.

8 Q. Can you tell that colour by reference to gridline?

9 A. Gridline N, the left-hand side.

10 Q. The left-hand side of gridline N, that's the barrette?

11 A. Yes.

12 Q. And how about the three other green structures?

13 A. 喺左手邊最遠嗰個其實係一啲--我哋叫做一啲socket H嘅春嚟嘅。跟住然後  
14 喺K1線...

15 Q. Socket H-pile?

16 A. Socket H steel pile。喺K1線嗰個就係diaphragm wall。

17 Q. And how about -- okay.

18 COMMISSIONER HANSFORD: Just so that I can understand it --  
19 forgive me asking so many questions -- so what we're  
20 seeing here is the two diaphragm walls, the eastern one  
21 and the western one, a barrette in the middle --

22 A. Yes.

23 COMMISSIONER HANSFORD: -- and a socket H-pile, which is  
24 a steel pile --

25 A. Yes.

1 COMMISSIONER HANSFORD: -- on the left-hand side of the  
2 western diaphragm wall; is that --

3 A. Yes.

4 COMMISSIONER HANSFORD: So those are the four elements we  
5 see here?

6 A. Four vertical elements.

7 COMMISSIONER HANSFORD: The four vertical elements that have  
8 been constructed at this stage?

9 A. Yes.

10 MR CHEUK: Next.

11 A. Okay, 呢個因為係一個top-down嘅method, 我哋其實就會做完diaphragm  
12 wall之後, 其實就會先做咗個--先挖--我哋會excavate到去EWL slab個底,  
13 個soffit, 跟住就會做咗一個EWL slab。

14 Q. In documents we came across the level minus 0.5mPD.  
15 That is the level that the soil should be excavated to,  
16 in order to construct this EWL slab.

17 A. Yes.

18 Q. That will be slightly below the soffit of the EWL  
19 slab --

20 A. Yes.

21 Q. -- in order to provide space --

22 A. Working space.

23 Q. -- for workers, for the construction?

24 A. Yes.

25 Q. Also, as I understand from the documents, the method of  
26 excavation at this stage is what we call open-cut, ie,

1 basically, you are just digging out the soil from above;  
2 there's no need to dig out any tunnels or anything in  
3 assistance of the excavation.

4 A. 唔需要，因為其實本身個diaphragm wall已經好stiff，其實開始你先掘  
5 咗去個EWL嘅soffit，即係當然挖多些少就for working space，其實都  
6 係喺個modelling嘅時間，我哋analysis嘅時間都睇到係okay嘅，所以先  
7 會掘到落去。

8 Q. Okay. Next, please.

9 COMMISSIONER HANSFORD: So, at this stage, everything below  
10 the --

11 A. EWL slab.

12 COMMISSIONER HANSFORD: -- EWL slab is unexcavated soil?

13 A. Yes.

14 COMMISSIONER HANSFORD: Thank you, yes.

15 MR CHEUK: That's why it's called the top-down approach?

16 A. Yes.

17 Q. Okay.

18 A. 跟住個sequencing就係挖到--做完EWL slab，其實呢個EWL slab其實就  
19 會--其實一個function，喺呢個top-down個operation入面就會係一個  
20 propping嚟嘅，我哋叫一個propping system。跟住就會再掘落去。其實  
21 呢張slid其實我哋--其實中間仲有個intermediate stage嘅，但係呢度  
22 就有show，因為我哋純粹想show個sequence。就會一路會掘掘，一路會  
23 excavate down to去番NSL個soffit level，跟手就會做埋NSL嘅  
24 casting, concrete casting。咁--sorry，咁其實中...

1 Q. Pause there first. Can I ask this question: after you  
2 finish the NSL slab, we can see the slab would join  
3 together the east diaphragm wall and the west diaphragm  
4 wall, so this EWL slab will form a strut?

5 A. Yes.

6 Q. This strut is a necessary component or element to  
7 facilitate the further excavation down into the soil, in  
8 order to construct the NSL slab?

9 A. Yes.

10 Q. So, after the completion of this EWL slab, what the  
11 workers need to do is to further excavate the soil all  
12 the way down to the soffit of NSL slab?

13 A. Yes.

14 Q. And again, slightly below that soffit, in order to  
15 provide working space; is that correct?

16 A. 呢個case應該就可以--正常呀，正常我哋應該就可以cast against個soil  
17 去做嘅，唔需要特登，就有working space。

18 Q. So the working space will be none or very limited?

19 A. Very limited.

20 Q. Then, after the excavation down to NSL soffit, workers  
21 can start to construct the NSL slab?

22 A. Yes.

23 Q. Just like the situation of the EWL slab?

24 A. Yes.

25 Q. Then you can see, after this process, what we can see is  
26 on the screen. We have the two diaphragm walls, and in



1           between we have -- on top we have the EWL slab and then  
2           you have the NSL slab.

3   COMMISSIONER HANSFORD:   Sorry, the slide keeps flicking.

4           Can we stop at that point?   That's it.

5           Sorry, so again, just to make sure that I'm clear  
6           and everyone's clear.   At this point, after the NSL slab  
7           is cast, then beneath the NSL slab is unexcavated soil?

8   A.   Yes.

9   COMMISSIONER HANSFORD:   And between the NSL slab and the EWL  
10          slab is an open box?

11   A.   Yes.

12   COMMISSIONER HANSFORD:   Right.   Okay.

13   MR CHEUK:   Please carry on.

14   A.   Next stage。Please, okay, 呢一張, 去到呢個stage, 其實就係講緊--  
15          頭先講過, 灰色其實係existing的column、structure嚟嘅, 其實因為--  
16          你見到其實我哋會用番EWL slab, 會做一個轉換, 做一個transfer, 就去  
17          support番啲灰色呢個existing structure嘅columns。

18          Support咗之後, 我哋就會將原先喺EWL同埋NSL嘅空間入面嘅原先個  
19          支--嗰個structure就會demolish佢嘅。

20   Q.   Okay.

21   COMMISSIONER HANSFORD:   So, at this point, the load from  
22          above, the existing load from above, goes down into the  
23          EWL slab and gets transferred across --

24   A.   Yes.

25   COMMISSIONER HANSFORD:   -- and then down into the diaphragm

1 walls?

2 A. Yes. Yes.

3 MR CHEUK: And at this point the EWL slab's function is  
4 similar to a transfer plate?

5 A. Yes.

6 Q. Okay. Next.

7 A. 跟住就係會做埋其他嘅結構。

8 Q. That will be the easy part.

9 A. Yes. Yes.

10 MR CHEUK: I think that's the end of the construction  
11 sequence. Thank you for your explanation.

12 COMMISSIONER HANSFORD: Sorry, can we just go back one  
13 stage, one more -- right, okay. Now take us on a stage,  
14 one more stage, go forward a stage -- that's it -- and  
15 now one more. No, no, no, forward. The next one.  
16 Right.

17 This is the OHE slab, is it?

18 MR CHEUK: OTE, over track exhaust.

19 COMMISSIONER HANSFORD: The OTE that we see being created.

20 So that's created at that stage, and then we've got this  
21 discussion regarding monolithic detail, but perhaps  
22 we will come to that later.

23 MR CHEUK: I should clarify, that was the original design  
24 intent.

25 A. Yes.

26 MR CHEUK: But not the actual happened on the site.

1 COMMISSIONER HANSFORD: Okay.

2 MR CHEUK: I think that's all I need you to --

3 COMMISSIONER HANSFORD: Actually, sorry -- forgive me, I've  
4 got all the questions -- what is the purpose of the  
5 H-pile to the left? What is its purpose?

6 A. 呢邊--其實左手邊其實佢仲有其他新建嘅結構需要做嘅，所以就要做一啲新  
7 嘅piling，新嘅foundation，其實同--就有同紅磡站有一個關係嘅其實，  
8 即係冇同EWL--即係diaphragm wall嗰邊有任何connection，其實。  
9 The left-hand side piling is only for some new structure.

10 COMMISSIONER HANSFORD: So adjacent to the Hung Hom Station  
11 there's other works going on?

12 A. Yes.

13 COMMISSIONER HANSFORD: And the purpose of the H-pile is to  
14 support that?

15 A. Yes.

16 COMMISSIONER HANSFORD: Okay.

17 MR CHEUK: Thank you for your presentation. I will now just  
18 go very briefly to a separate topic.

19 In your witness statement, J6/4540, you deal with  
20 the as-built construction details here, from  
21 paragraphs 31 to 35.

22 A. Yes.

23 Q. Can I first ask you -- you mentioned about the joint  
24 statement by Leighton and MTRC produced on around  
25 16 November 2018.

26 A. Yes.

1 Q. Were you involved in that exercise?

2 A. 可唔可以問清楚嗰個問題?

3 Q. Yes. Were you involved in the exercise of producing the  
4 joint statement by Leighton and MTRC and the drawings  
5 attached to that statement?

6 A. 個drawing嘅preparation就會由我哋負責，但係個joint statement，  
7 我哋就有同禮頓或者MTRC有任何溝通、參與嘅。

8 Q. And were you personally involved in those drawings, in  
9 preparation of those drawings?

10 A. 有。

11 Q. Now, those drawings were prepared on the instruction of  
12 Leighton; correct?

13 A. Yes.

14 Q. And given to team B?

15 A. Yes.

16 Q. If we can turn up those drawings: B19/25515.

17 A. Okay.

18 Q. Were you involved in the preparation of this drawing?

19 A. Yes.

20 Q. Again, the next page, 25516, were you also involved?

21 A. Yes.

22 Q. If we look at 25515, we see it sets out four types of  
23 construction joint details.

24 A. Yes.

25 Q. For example, if we look at type 1, basically it says

1 "Existing couplers and rebars to be removed". We see  
2 the annotations there; can you see that, at the very  
3 top?

4 A. Yes.

5 Q. Then we see also another annotation, "Concrete to be  
6 hacked off and recast with slab"?

7 A. Yes.

8 Q. Okay. This was the change that you might have  
9 understood by now, what we call the second change.

10 A. Yes.

11 Q. But what I don't see here is -- it talks about the  
12 process, including hacking off concrete, but what it  
13 doesn't show is the result or product of this process;  
14 for example, at the end, how many layers of rebar are  
15 there at the top of this diaphragm wall.

16 A. 因為呢四個係一啲typical sections嚟嘅，如果要睇番究竟有幾多rebar  
17 喺個top reinforcement嘅話，應該就要refer番一啲叫做slab  
18 reinforcement drawing。

19 Q. I see. That will be included in the subsequent pages;  
20 do I understand correctly?

21 A. Yes.

22 Q. That will show all the construction details which was  
23 the product of all the changes can be located in those  
24 subsequent pages?

25 A. Yes.

26 COMMISSIONER HANSFORD: Do we have them here? Are they in

1           this bundle? Can we just see one typical one?

2       MR CHEUK: Can we see -- Mr Sung, I wonder if you can help  
3           us --

4       A. Okay.

5       Q. -- on this. Do you have a hard copy in front of you?

6       A. Yes.

7       Q. For example, if you want to see how many layers  
8           eventually were constructed in relation to type 1, where  
9           can we find it?

10      A. Please go to 25552. 首先，我哋要睇咗呢個我哋叫做coupler  
11         schedule嘅drawing，呢個coupler schedule drawing就會specify  
12         咗究竟每一塊panel用緊邊一隻cup嘅connection detail。

13      Q. Yes. Can you help us a little bit more? It's not  
14         absolutely clear, as we can see on the screen.

15             For example, there are some drawings on the  
16         right-hand side -- would that help you?

17      A. You can refer to the table, the right column, the  
18         right-most column on the table.

19      COMMISSIONER HANSFORD: The left-hand side.

20      MR CHEUK: Yes.

21      A. 左手--右手邊--左手邊。我哋講第一個column--第一個table，其實你見  
22         到去到最耐個column係有“type”嘅，呢個type就要refer番前面個  
23         typical section嘅，係喇。

24      Q. So if we look, for example, at the first table, on the  
25         left-hand side, and the last column, it is the type --

1 A. Yes.

2 Q. -- that we have seen, which includes type 1, type 2,  
3 type 3, type 4?

4 A. Yes.

5 Q. And these types are referable to the two sheets that we  
6 have seen?

7 A. Yes.

8 Q. Then, if we want to know, for example, type 1, how many  
9 layers of rebars were there, we can check against this  
10 table, and that will be shown -- for example, next to  
11 the type we see "Bottom", and then next to the bottom we  
12 see "Top"?

13 A. Yes.

14 Q. Those number of layers will be recorded?

15 A. 呢個table只會show到個coupler嘅數目。如果頭先好似你睇番第一行，第  
16 一行你見到“Top”，其實應該係冇咗嘅，“N/A”，N/A 嘅話，即係代表佢  
17 冇--即係將所有coupler都remove咗，變咗straight bar，係喇。你見到  
18 “Bottom”，其實係應該冇郁過嘅就，係喇。

19 Q. We see it's empty.

20 CHAIRMAN: Sorry, the little cloud, like from a kids' book,  
21 what does that stand for? That stands for "not  
22 applicable"?

23 A. No, no, no. The cloud just shows the change compared to  
24 the previous drawings.

25 MR CHEUK: It shows no couplers, through-bar?

1 COMMISSIONER HANSFORD: No, no.

2 A. No, I think the cloud in engineering is that we show  
3 the change between this version and the previous version.

4 CHAIRMAN: That shows the change.

5 COMMISSIONER HANSFORD: So what you are telling us, Mr Sung,  
6 is the cloud is a form of highlighting?

7 A. Yes. Highlight the change.

8 CHAIRMAN: And the little triangular sign which looks like  
9 something you put down if your car breaks down?

10 A. This is the revision number. For every drawing, when  
11 we update the drawing, we need to update the revision.

12 COMMISSIONER HANSFORD: So the cloud is highlighting the  
13 change and the triangle is identifying the revision  
14 number --

15 A. Yes.

16 COMMISSIONER HANSFORD: -- where that change has been made?

17 A. Yes.

18 COMMISSIONER HANSFORD: Okay.

19 MR CHEUK: So that's the way we can locate and identify the  
20 final as-built construction details, as from this set of  
21 drawings --

22 A. Yes.

23 Q. -- Atkins helped to prepare on the instruction of  
24 Leighton recently, in recent months?

25 A. Yes.

26 Q. The last question I have for you is, according to your



1 experience, is this a normal way to prepare as-built  
2 drawings?

3 A. 應該咁講，有某啲嘅activity係需要冇as-built drawing嘅，即係例如  
4 我哋做foundation，foundation我哋如果做完之後，我哋都需要入番一  
5 個as-built嘅record畀番屋宇署嘅。

6 Q. It's my fault. We are at cross-purposes. As  
7 I understand from your witness statement, during the  
8 course of preparation of these as-built drawings, you  
9 relied on some site photos and some other  
10 drawings/sketches provided by Leighton; correct?

11 A. Yes.

12 Q. I am wondering, is this normal practice to rely on these  
13 materials instead of, you know, having contemporaneous  
14 updated drawings to start with?

15 A. 應該咁講，正常係應該唔會係呢--即係咁--即係唔會係咁樣做番轉頭，應該  
16 係一個continuous process去update番一啲我哋喺地盤遇到一啲可能--  
17 會可能有啲改動，應該係一個continuous process嚟嘅，係喇。

18 Q. And the normal process, as I understand your evidence,  
19 is that it should start contemporaneously, at the time  
20 of the changes?

21 A. Yes.

22 Q. Then you continue to update those changes as time goes  
23 along?

24 A. Yes.

25 Q. And at the final stage, you don't need to go

1           retrospectively to check all the photos and other  
2           records in order to reconstruct everything?

3       A.   Yes.

4       Q.   That should be only some miscellaneous updating by the  
5           time of the final stage?

6       A.   Yes.

7       MR CHEUK: I have no further questions.

8       CHAIRMAN: Does anybody have any questions?

9       MR CHOW: Mr Chairman, I have a few questions for Mr Sung,  
10           but I promise I won't ask anything about the SAP2000 or  
11           Plaxis analysis or any of the load cases. I'm sure all  
12           my learned friends in this room won't need any further  
13           education on these topics.

14                           Cross-examination by MR CHOW

15       Q.   Good afternoon, Mr Sung. I have just one or two  
16           questions. What I'm interested in is -- one of the  
17           issues that interests the government is on the question  
18           of whether the changes made to the top of the east  
19           diaphragm wall require prior consultation of BD before  
20           the execution of the works.

21           Now, I see that in paragraph 26 you apparently  
22           provide some expert opinion on this matter. So can  
23           I just quickly take you to that particular paragraph.

24       A.   Okay.

25       Q.   Bundle J, page 4539, please. We've got it.

26           Here you say, on the basis of the two sketches that

1           you have been provided by Lo & Lo -- perhaps it is  
2           useful for us to quickly go to have a look on the two  
3           sketches. Bundle J1, page 8.

4           The first sketch shows the original design --

5       A. Yes.

6       Q. -- where we see some couplers and some horizontal  
7           reinforcement on top of the east diaphragm wall, and the  
8           EWL slab and the OTE slab on each side of the wall were  
9           to be connected through the couplers; right?

10      A. Yes.

11      Q. Then turn over the page, page 9. This is a different  
12           arrangement which involved replacing the couplers with  
13           straight bars and also trimming down part of the  
14           diaphragm wall; right?

15      A. Yes.

16      Q. So this is the deviation that you are talking about in  
17           this paragraph.

18           Then you go on to say:

19           "In my experience, the design principles do not  
20           change as it is a substitution of couplers for straight  
21           through reinforcement bars which would not change the  
22           behaviour of the joint connection between diaphragm wall  
23           and slab. However, I understand there was also a change  
24           to the as-built diaphragm wall ..."

25           Pausing here, the change to the as-built diaphragm  
26           wall that you refer to is the trimming down of part of

1 the completed diaphragm wall; is that right?

2 A. No, 呢個係我哋講--我嘅witness statement其實係想講話如果你哋打  
3 低咗D-wall, 就會對個diaphragm wall有改動, 對一個as-built嘅  
4 diaphragm wall有改動。

5 Q. Okay. So that is basically when I meant earlier.

6 Then you said:

7 "... and this would normally be a minor amendment  
8 which for a non-instrument of exemption project should  
9 normally be submitted to BD for approval and consent."

10 Now, here, when you refer to "non-instrument of  
11 exemption", am I right to take it that you refer to the  
12 usual private building projects governed by the  
13 Buildings Ordinance?

14 A. Yes.

15 Q. So, for those projects, this sort of changes or works to  
16 be carried out to a built diaphragm wall, although you  
17 consider as a minor amendment, but you would still need  
18 to make submission to the Buildings Department and  
19 obtain consent?

20 A. Yes.

21 Q. And before the execution of the work; am I correct?

22 A. Yes.

23 Q. Okay. What I'm interested to further explore with you  
24 is the next sentence. You go on to say:

25 "However, as the project had an IoE, provided that  
26 the structural stability was not affected ..."

1           Now, here you mention about structural stability not  
2           being affected. Is it because of what is provided for  
3           in the practice note for the authorised person ADM-19?

4           A. ADM-19? No. 唔係。

5           Q. Perhaps to help you -- it's worthwhile to go to have  
6           a look at the PNAP ADM-19, bundle H20, page 40065.

7           The reason why I refer you to this practice note is  
8           because Leighton's witnesses referred to this practice  
9           note as the basis for saying that the changes that we  
10          are now talking about do not go to impact on the  
11          stability of the structure, and for this reason, because  
12          of a procedure implemented by the Buildings Department,  
13          that sort of change does not require prior approval and  
14          consent of the Buildings Department.

15          A. Foundation係冇呢個ADM-19嘅，即係foundation嘅改動係唔納入呢個  
16          ADM-19。

17          Q. Right. I'm glad that you agree with me. So do you  
18          agree with me that the changes now -- the changes that  
19          have been made to the top of the east diaphragm wall  
20          would be, as far as you are concerned, considered as  
21          a change made to the foundation?

22          A. Yes.

23          Q. And because of that, any leeway allowed for by the  
24          Buildings Department under this practice note would not  
25          apply?

1 A. 當然。

2 Q. Thank you. Then can you explain what you were trying to  
3 say at the last part of paragraph 26, where you say:

4 "... contest would not be required and it would be  
5 normal to consult with BD as to the change and it would  
6 be at the discretion of the CP when this amendment  
7 submission would be submitted."

8 A. Okay, 我最後呢句嘅意思其實就係我understanding, 喺一個  
9 consultation project, 就唔需要擺consent嘅, 只要acceptance,  
10 即係BD accept咗你個drawing, 你就可以開工做嘢嘅。所以如果呢個case  
11 如果in case有一個咁嘅改動, 其實亦都係一個好normal嘅channel, 就  
12 會同番個BD嘅officer去討論番究竟呢一個改動需唔需要做一個formal嘅--  
13 即係究竟我哋意思做amendment究竟你做一個diaphragm wall嘅minor  
14 amendment㗎, 定係需要做一個A&A work嘅submission。即係因為如果  
15 normal project如果under Buildings Ordinance, 如果我哋如果有  
16 啲類似嘅情況, 其實呢啲case 我哋需要做番一個A&A嘅submission嘅,  
17 rather than一個diaphragm wall嘅amendment。

18 Q. And for this we would expect the consultation would be  
19 carried out before the execution of this amendment, is  
20 that right, or the execution of the alteration work?

21 A. Before or after?

22 Q. Before.

23 A. 如果呢個case, 我會覺得呢個case係應該同番BD consult咗, okay咗之  
24 後, 即係入番先做嘅。

1 CHAIRMAN: Sorry, what's "A&A"?

2 A. Addition and alteration work.

3 MR CHOW: Thank you very much, Mr Sung, I have no more  
4 questions for you.

5 MR SHIEH: Consequential upon questions made by Mr Chow,  
6 I may have a question or two for Mr Sung.

7 CHAIRMAN: Yes.

8 MR SHIEH: I must preface my question by this observation.  
9 Mr Sung is a witness from Atkins, as a concerned party,  
10 Mr Sung is not here as an independent expert. Mr Chow  
11 skilfully slipped in the words "expert opinion" into his  
12 characterisation of Mr Sung's evidence.

13 Now, I wish to preface my question by saying that  
14 what I now question this witness on could well  
15 ultimately be a matter for expert witnesses, but  
16 consequential upon Mr Chow's question I must lay down  
17 a marker by putting our position. The rest is a matter  
18 of submissions at the end of the day.

19 CHAIRMAN: Yes. I think I should say I certainly haven't  
20 accepted the evidence of this witness as being expert  
21 evidence. He's obviously a knowledgeable person, but  
22 a great many witnesses are knowledgeable without being  
23 experts, and the way I have read it is that he's here to  
24 explain these diagrams, which may be of use to the  
25 experts who will perhaps later be called. I hope  
26 that --

1 MR SHIEH: Yes, that is extremely helpful, but as I said,  
2 consequential upon the way in which the government has  
3 sought to spin the questions --

4 CHAIRMAN: Yes, of course.

5 MR SHIEH: -- I promise to be extremely short, and by way of  
6 laying down a marker only.

7 CHAIRMAN: Good.

8 Cross-examination by MR SHIEH

9 MR SHIEH: Mr Sung, you talked about works being done to  
10 foundation.

11 A. Yes.

12 Q. Can I ask you to look at bundle C35, page 26577. That  
13 is a Code of Practice for Foundations issued by the  
14 Buildings Department; do you see that?

15 A. Yes.

16 Q. Are you familiar with this document?

17 A. Yes.

18 Q. Can I ask you to look at 26585. There we see the  
19 definition of "Foundation":

20 "That part of a building, building works, structure  
21 or street in direct contact with and transmitting loads  
22 to the ground."

23 Do you see that?

24 A. Yes.

25 Q. Can I ask you then to turn to one of the slides that we  
26 have been looking at, in bundle J4, maybe 3340.



1           You see the two green vertical structures with  
2           circles; do you see those?

3       A.   Yes.

4       Q.   Those are the diaphragm walls; correct?

5       A.   Correct.

6       Q.   They go all the way down to the bottom, where they touch  
7           soil?

8       A.   或者bedrock。

9       Q.   Or bedrock.

10      A.   Yes.

11      Q.   Yes.  And somewhere along the way there is the NSL slab;  
12           do you see that?

13      A.   Yes.

14      Q.   And above that we have the EWL slab; correct?

15      A.   Correct.

16      Q.   Where the trimming down or hacking off took place was  
17           really within the circles, correct, or near the top of  
18           the circles; correct?

19      A.   Yes.

20      Q.   I would suggest to you that that part of the diaphragm  
21           wall where the hacking took place was not part of the  
22           foundation; do you accept that?

23      A.   唔同意，因為其實喺你做一個approval嘅時間或者acceptance嘅時間，  
24           喺BD出嗰封acceptance嘅信入面其實已經identify咗呢個係乜嘢種類嘅--  
25           係foundation㗎，定係superstructure嘅。我哋睇番其實喺呢個case，

1            喺diaphragm wall嚟講，其實喺BD批--即係我哋叫批則信，或者咁簡單，  
2            個批則approval letter入面其實已經寫咗呢個係一個foundation嘅  
3            element嚟嘅。

4            Q. That is your answer; right?

5            A. Yes.

6            MR SHIEH: Chairman and Professor, as I said, my question  
7            arose simply because of the way Mr Chow put a question.

8            CHAIRMAN: Yes.

9            MR SHIEH: I'm not yet fully prepped by way of testing the  
10           evidence by way of expert testimonies so I hope I have  
11           laid down an adequate marker so it can't be said that we  
12           haven't actually picked up that point, but I've got the  
13           answer, I've put it, the rest could well be a matter for  
14           when the real experts come into the picture.

15           CHAIRMAN: Of course. Thank you.

16           MR BOULDING: Sir, we have no questions for this witness.

17           CHAIRMAN: Yes.

18                      Anything further?

19           MR CONNOR: Thank you very much, sir. I have no further  
20           questions by way of re-examination of Mr Sung, subject  
21           to any final questions that you, Mr Chairman, or you,  
22           Professor, might have.

23           COMMISSIONER HANSFORD: I've asked all my questions, thank  
24           you.

25           MR CONNOR: Thank you very much.

26           CHAIRMAN: Thank you very much, Mr Sung.

1           One thing I should mention to you, and I'm sure you  
2           know this, but to be an expert witness you have to meet  
3           certain criteria and be there for a certain purpose.  
4           It's no denigration of your very admirable  
5           qualifications, all right, that you are not qualified as  
6           an expert in this particular set of proceedings.

7           WITNESS: Okay. I understand.

8           CHAIRMAN: Thank you.

9                                 (The witness was released)

10          MR CONNOR: Thank you, Mr Sung.

11          MR PENNICOTT: Sir, that's it for today, as far as I'm  
12          aware.

13          CHAIRMAN: Yes.

14          MR PENNICOTT: So far as tomorrow is concerned, there are,  
15          I believe, three witnesses: Mr Lee from Atkins, WC Lee;  
16          and then programmed in are the two witnesses from Pypun,  
17          Mr Mak and Mr Yueng. So those are the three witnesses  
18          that we have tomorrow, and I'm reasonably confident that  
19          we will accomplish those three witnesses tomorrow as  
20          well.

21          CHAIRMAN: Good. Thank you.

22                         I would mention -- I hope that counsel has already  
23                         advised you -- but I will have to leave a little earlier  
24                         tomorrow.

25          MR PENNICOTT: Yes, I have mentioned it to some people but  
26          not others, sir, sorry.

1 CHAIRMAN: I have at 5.30, tomorrow -- Mr Jat, are you --

2 MR JAT: Yes.

3 MR SHIEH: Me too.

4 CHAIRMAN: So I can join him in my excuse.

5 COMMISSIONER HANSFORD: Is this a Christmas party?

6 CHAIRMAN: There's a pre-trial review for a Securities and  
7 Futures matter in Central, and that was set down some  
8 time ago and we haven't been able to move it. It's at  
9 5.30, but obviously one needs to be there before 5.30,  
10 if possible, so working on the basis that it takes about  
11 35 to 40 minutes to properly get there and then to have  
12 a good look at the papers, I would look to adjourning at  
13 4.30 tomorrow, if that's satisfactory.

14 MR PENNICOTT: Yes, sir. Thank you very much.

15 CHAIRMAN: My apologies again, but this was something  
16 already marked in the diary a good time ago.

17 MR JAT: I'm sure Mr Chairman will find that the costs for  
18 Mr Benjamin Yu to wait for us is going to be more  
19 expensive than all of us here.

20 MR SHIEH: Mr Yu can't defend himself here, that's the real  
21 joy of it.

22 MR JAT: That's why I said it!

23 CHAIRMAN: Thank you very much indeed. 10 o'clock tomorrow  
24 morning. Thank you.

25 (3.52 pm)

26 (The hearing adjourned until 10.00 am the following day)

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